SHARP SERVICE MANUAL

LASER PRINTER

MX-B557P
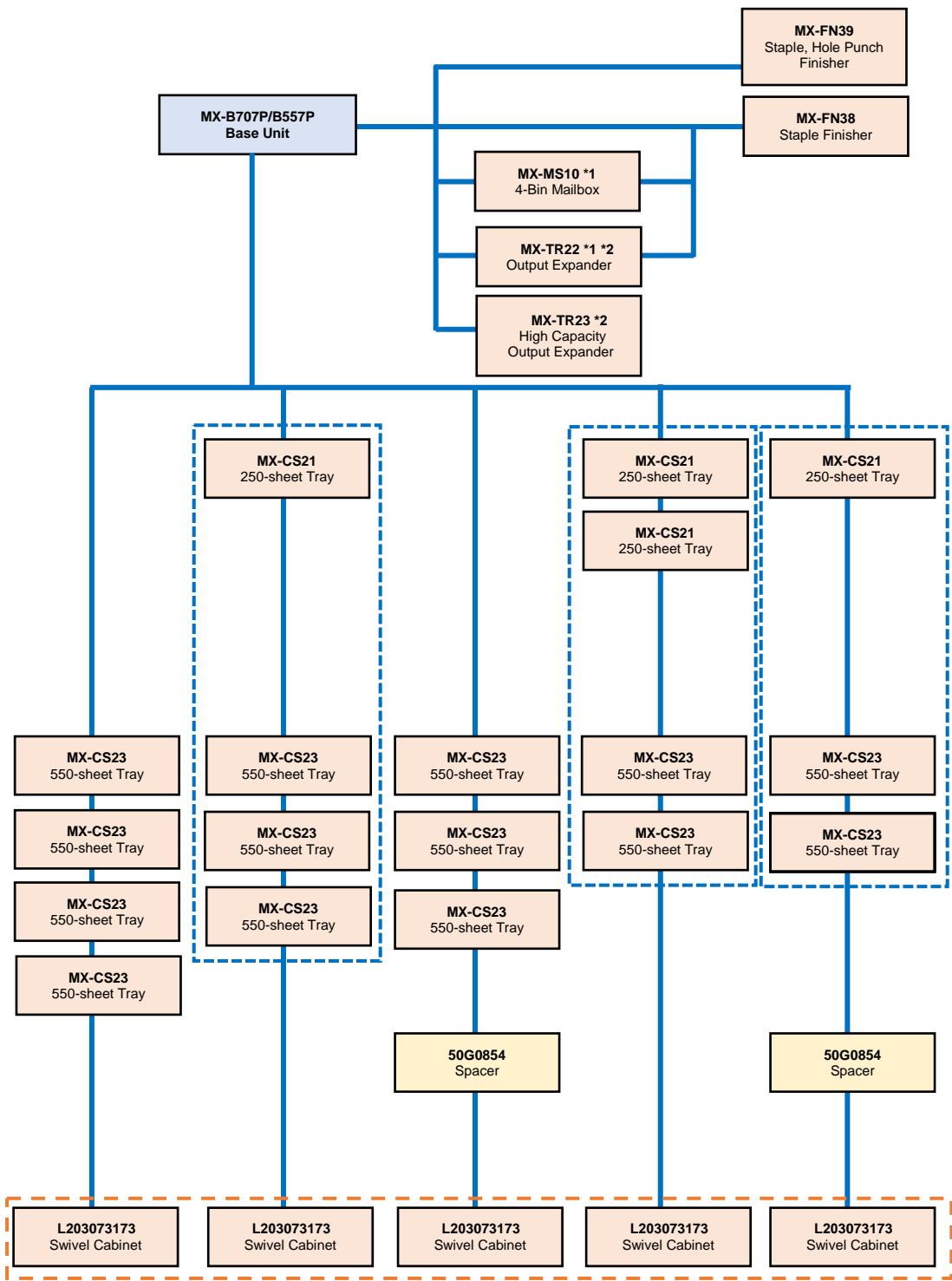## MODEL MX-B707P

CONTENTS

Parts marked with "⚠" are important for maintaining the safety of the set. Be sure to replace these parts with specified ones for maintaining the safety and performance of the set.

SHARP CORPORATION

[1] PRODUCT OUTLINE (OPTION)

(For Europe)

<desktop   1/7>

Standard
Option
Local Option

```
                                                          ┌─────────────────────┐
                                                          │      MX-FN39        │
                                                          │  Staple, Hole Punch │
                                                          │     Finisher        │
                                                          └─────────────────────┘
   ┌──────────────────────┐                               ┌─────────────────────┐
   │   MX-B707P/B557P     │                               │      MX-FN38        │
   │      Base Unit       │                               │   Staple Finisher   │
   └──────────────────────┘                               └─────────────────────┘
              ┌────────────────────────┐
              │    MX-MS10 *1          │
              │    4-Bin Mailbox       │
              └────────────────────────┘
              ┌────────────────────────┐
              │   MX-TR22 *1 *2        │
              │   Output Expander      │
              └────────────────────────┘
              ┌────────────────────────┐
              │     MX-TR23 *2         │
              │   High Capacity        │
              │   Output Expander      │
              └────────────────────────┘
```

| MX-CS21 250-sheet Tray | | MX-CS21 250-sheet Tray | MX-CS21 250-sheet Tray |
| | | MX-CS21 250-sheet Tray | |

MX-CS23 550-sheet Tray	MX-CS23 550-sheet Tray	MX-CS23 550-sheet Tray	MX-CS23 550-sheet Tray	MX-CS23 550-sheet Tray
MX-CS23 550-sheet Tray	MX-CS23 550-sheet Tray	MX-CS23 550-sheet Tray	MX-CS23 550-sheet Tray	MX-CS23 550-sheet Tray
MX-CS23 550-sheet Tray	MX-CS23 550-sheet Tray	MX-CS23 550-sheet Tray		
MX-CS23 550-sheet Tray				

| 50G0854 Spacer | | 50G0854 Spacer |

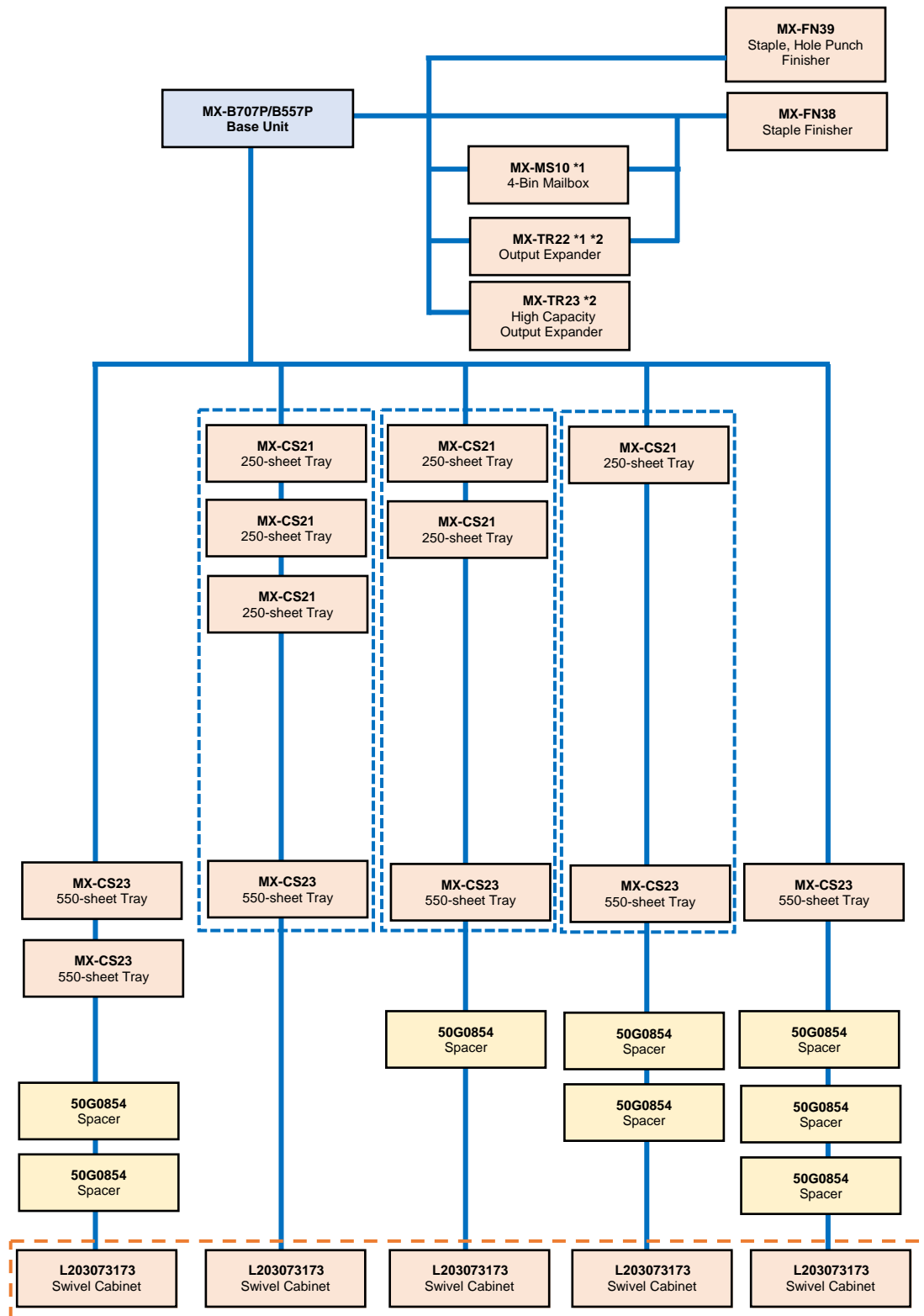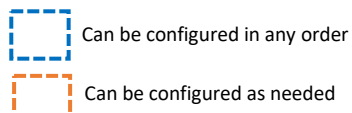| L203073173 Swivel Cabinet | L203073173 Swivel Cabinet | L203073173 Swivel Cabinet | L203073173 Swivel Cabinet | L203073173 Swivel Cabinet |

*1: Without Finisher, 4-Bin Mailbox MX-MS10 and Output Expander MX-TR22 can be installed up to 3 pcs in total.

*2: A single output expander MX-TR22 is the only option that can be placed on top of the high capacity output expander MX-TR23.
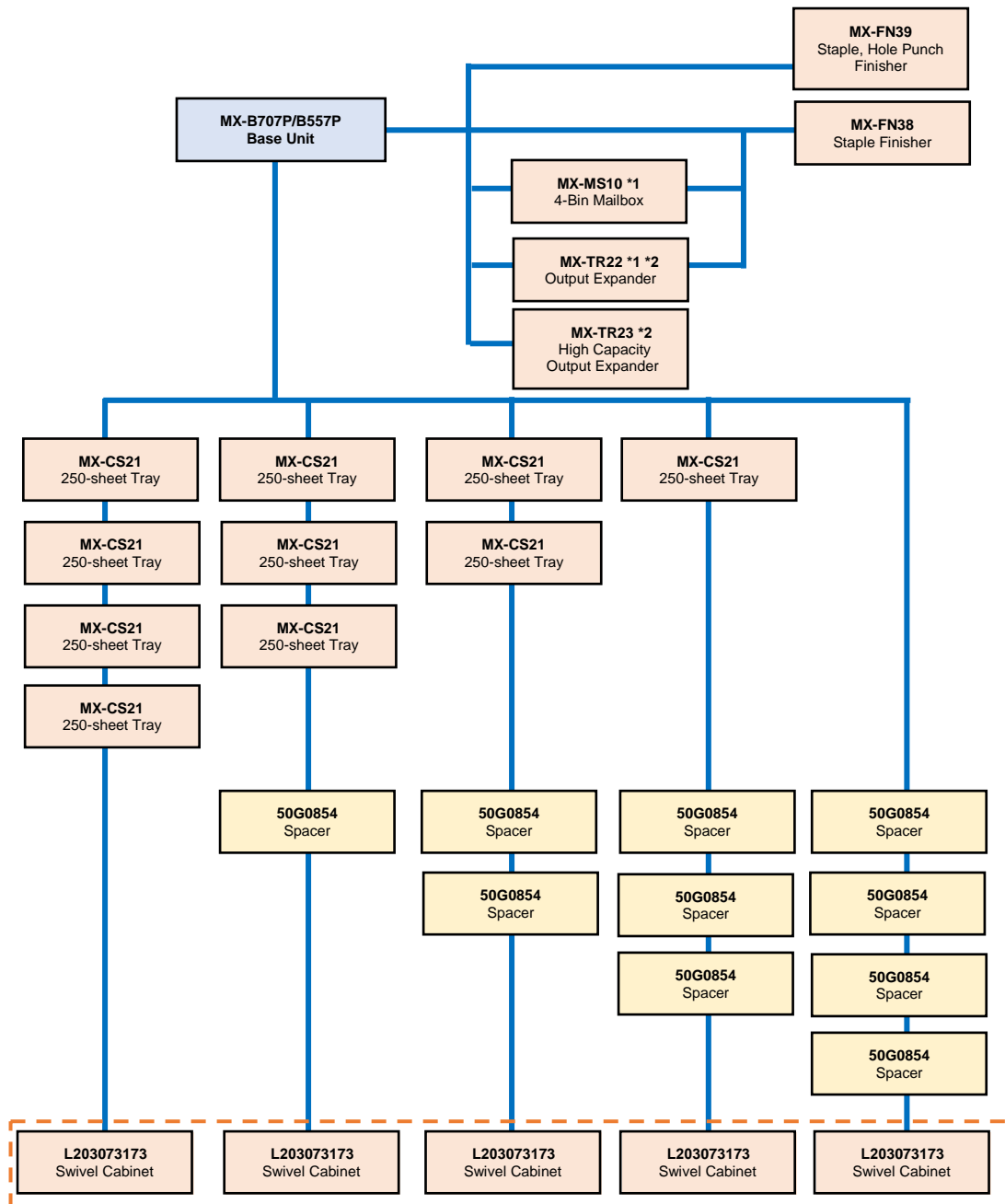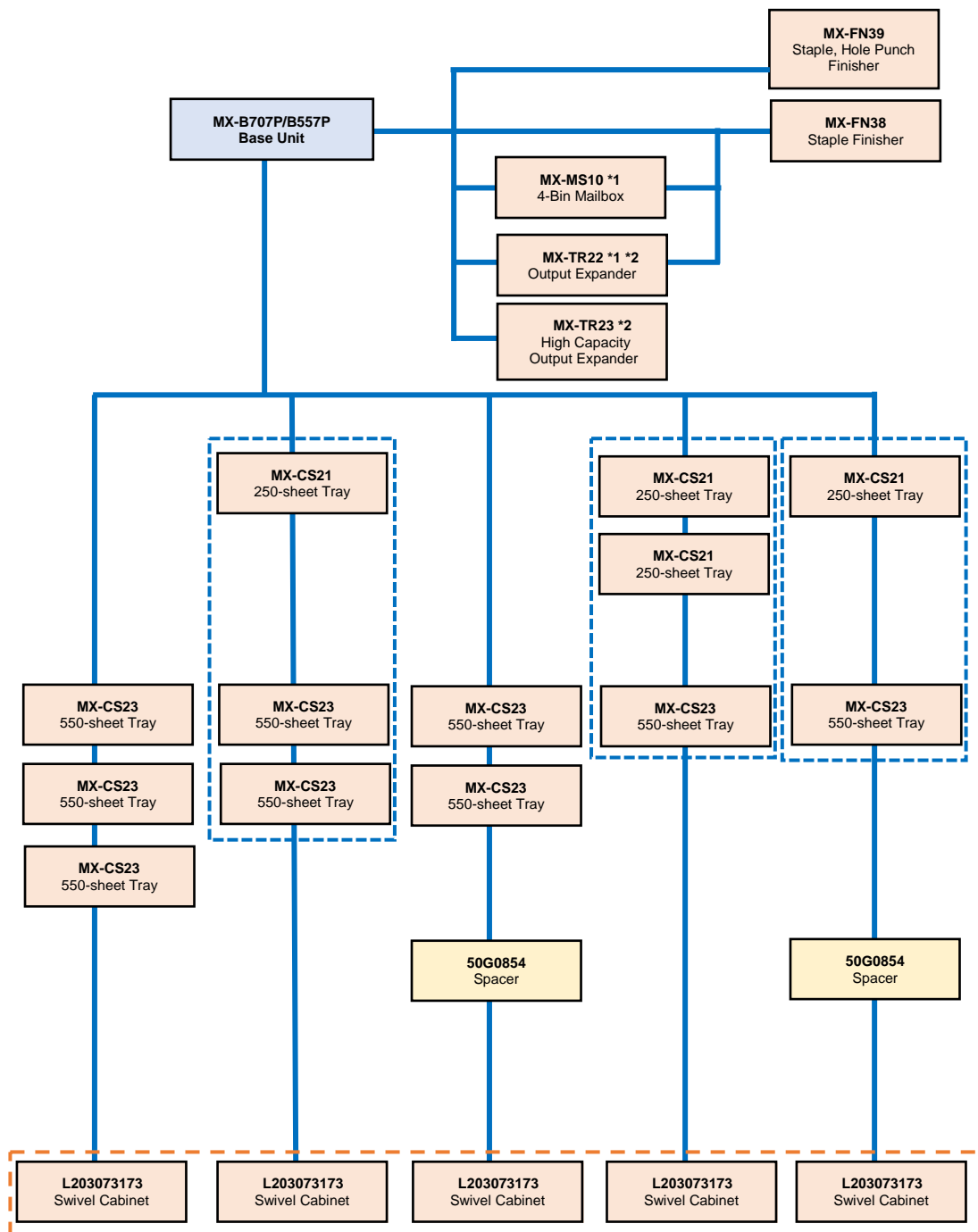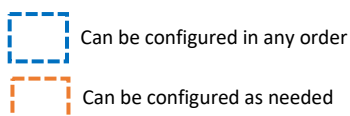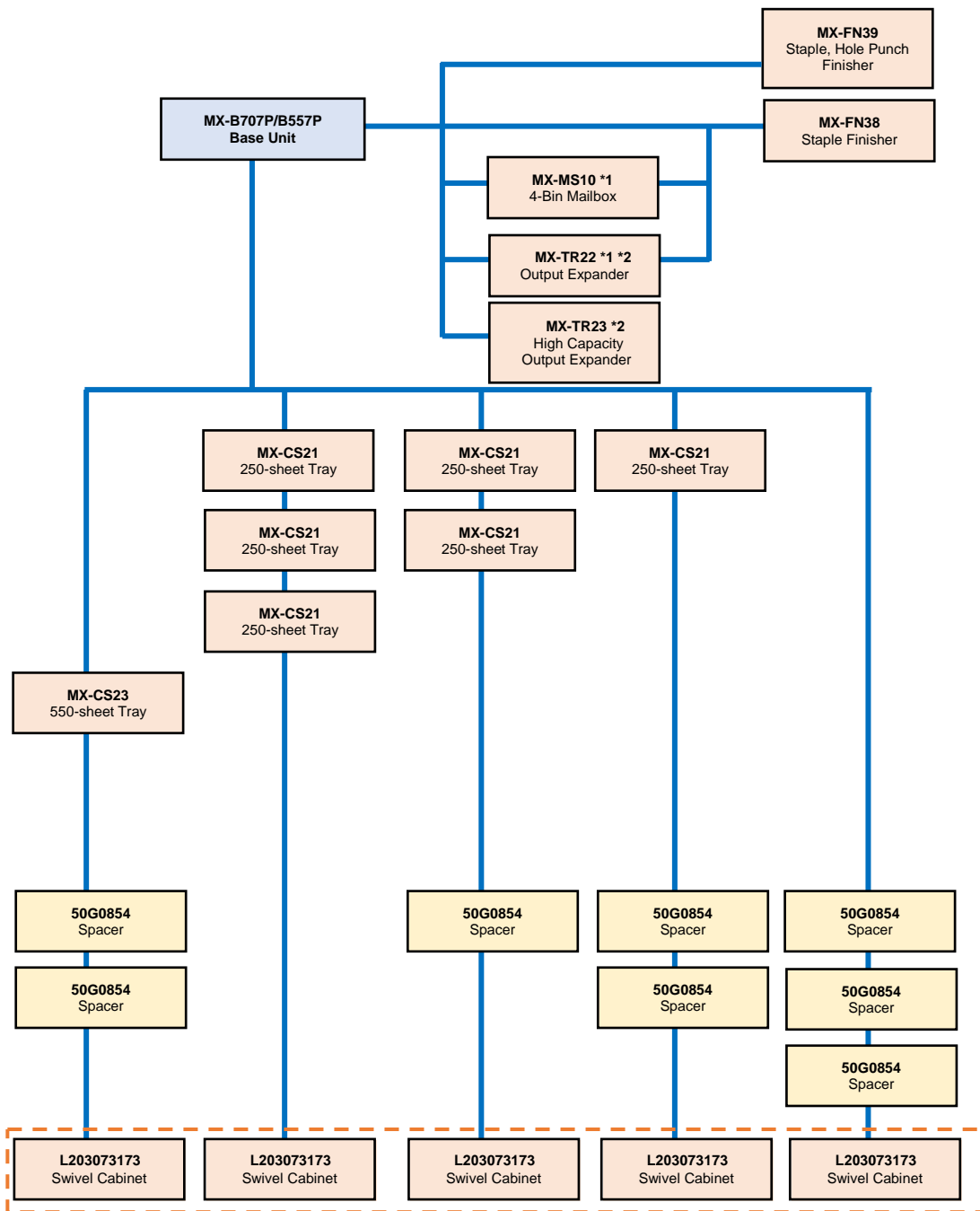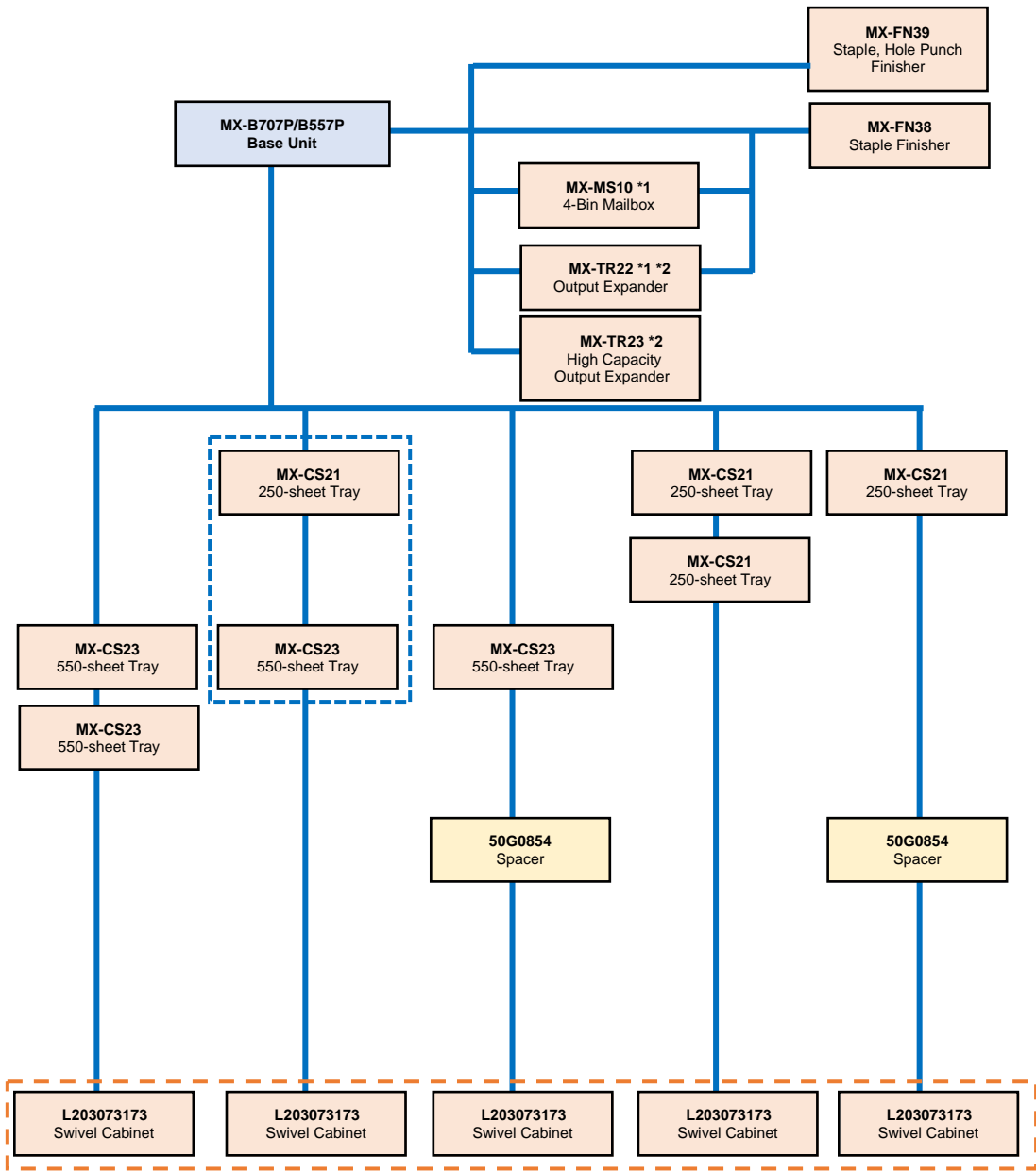
- - - Can be configured in any order

- - - Can be configured as needed

Standard
Option
Local Option

MX-FN39
Staple, Hole Punch
Finisher

MX-FN38
Staple Finisher

MX-B707P/B557P
Base Unit

MX-MS10 *1
4-Bin Mailbox

MX-TR22 *1 *2
Output Expander

MX-TR23 *2
High Capacity
Output Expander

MX-CS21
250-sheet Tray

MX-CS21
250-sheet Tray

MX-CS21
250-sheet Tray

MX-CS21
250-sheet Tray

MX-CS21
250-sheet Tray

MX-CS21
250-sheet Tray

MX-CS23
550-sheet Tray

MX-CS23
550-sheet Tray

MX-CS23
550-sheet Tray

MX-CS23
550-sheet Tray

MX-CS23
550-sheet Tray

MX-CS23
550-sheet Tray

50G0854
Spacer

50G0854
Spacer

50G0854
Spacer

50G0854
Spacer

50G0854
Spacer

50G0854
Spacer

50G0854
Spacer

50G0854
Spacer

L203073173
Swivel Cabinet

L203073173
Swivel Cabinet

L203073173
Swivel Cabinet

L203073173
Swivel Cabinet

L203073173
Swivel Cabinet

*1: Without Finisher, 4-Bin Mailbox MX-MS10 and Output Expander MX-TR22 can be installed up to 3 pcs in total.
*2: A single output expander MX-TR22 is the only option that can be placed on top of the high capacity output expander MX-TR23.
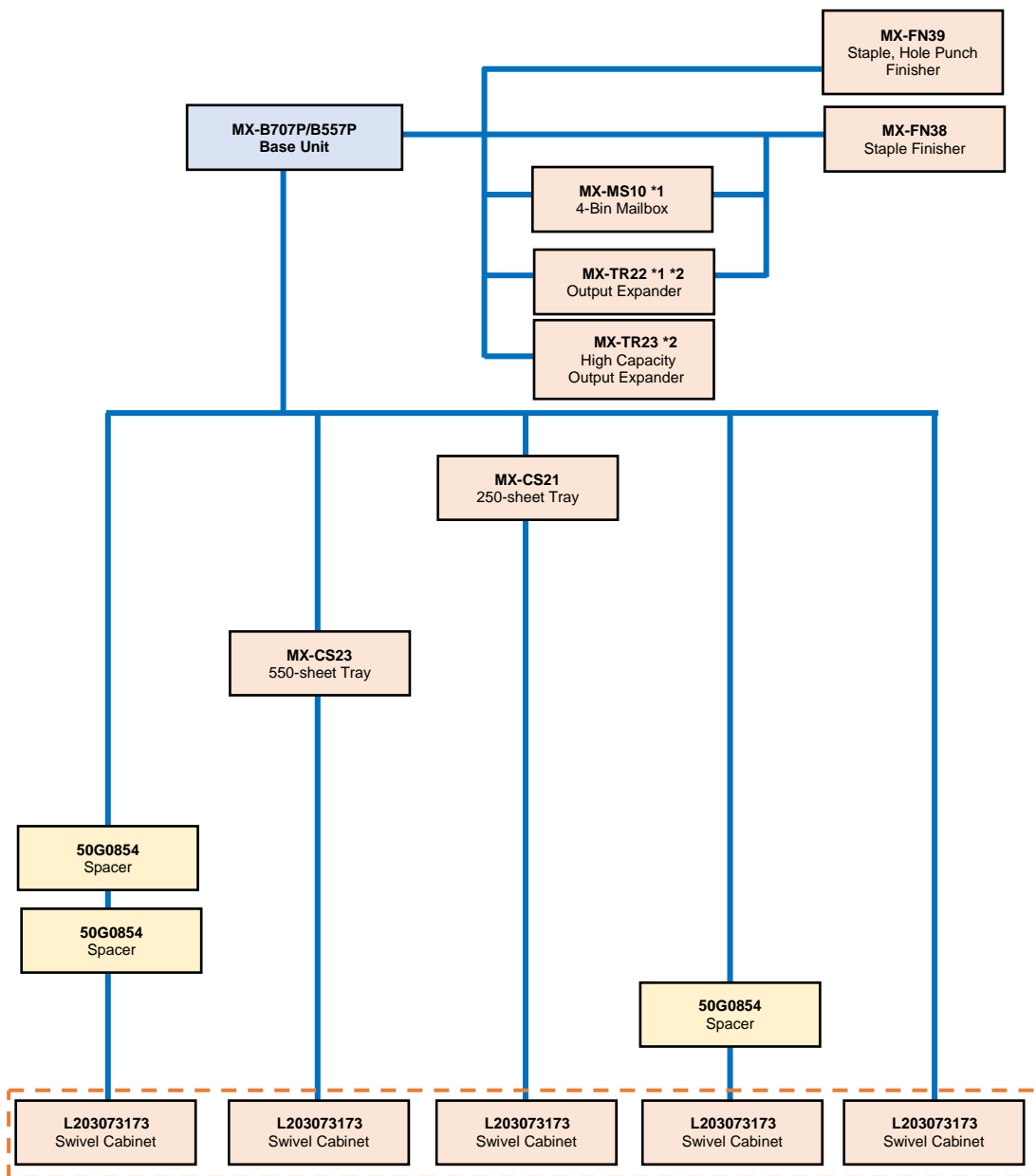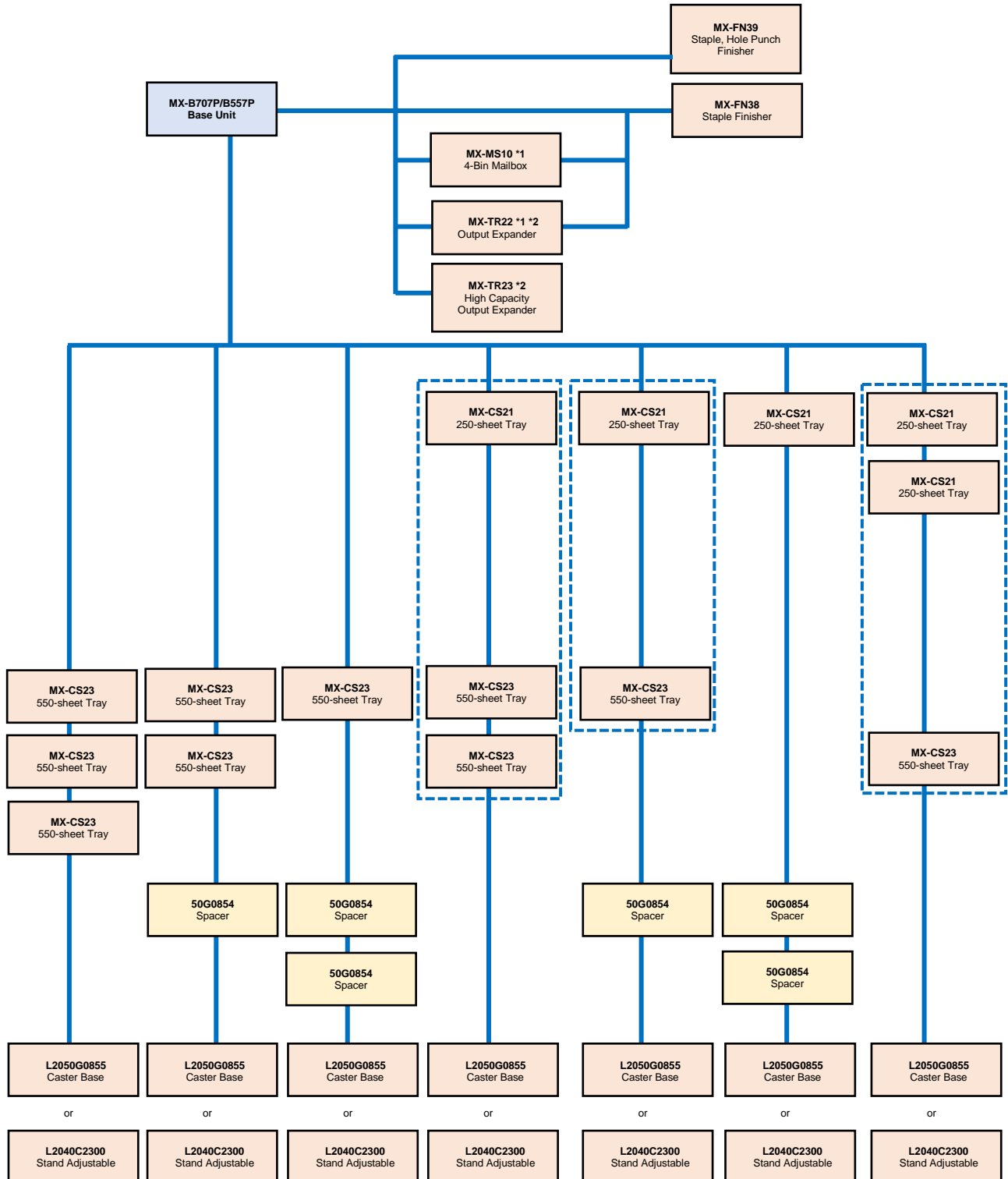
Can be configured in any order

Can be configured as needed

Standard
Option
Local Option

MX-FN39
Staple, Hole Punch Finisher

MX-FN38
Staple Finisher

MX-B707P/B557P
Base Unit

MX-MS10 *1
4-Bin Mailbox

MX-TR22 *1 *2
Output Expander

MX-TR23 *2
High Capacity
Output Expander

MX-CS21
250-sheet Tray

MX-CS21
250-sheet Tray

MX-CS21
250-sheet Tray

MX-CS21
250-sheet Tray

MX-CS21
250-sheet Tray

MX-CS21
250-sheet Tray

MX-CS21
250-sheet Tray

MX-CS21
250-sheet Tray

MX-CS21
250-sheet Tray

MX-CS21
250-sheet Tray

50G0854
Spacer

50G0854
Spacer

50G0854
Spacer

50G0854
Spacer

50G0854
Spacer

50G0854
Spacer

50G0854
Spacer

50G0854
Spacer

50G0854
Spacer

50G0854
Spacer

L203073173
Swivel Cabinet

L203073173
Swivel Cabinet

L203073173
Swivel Cabinet

L203073173
Swivel Cabinet

L203073173
Swivel Cabinet

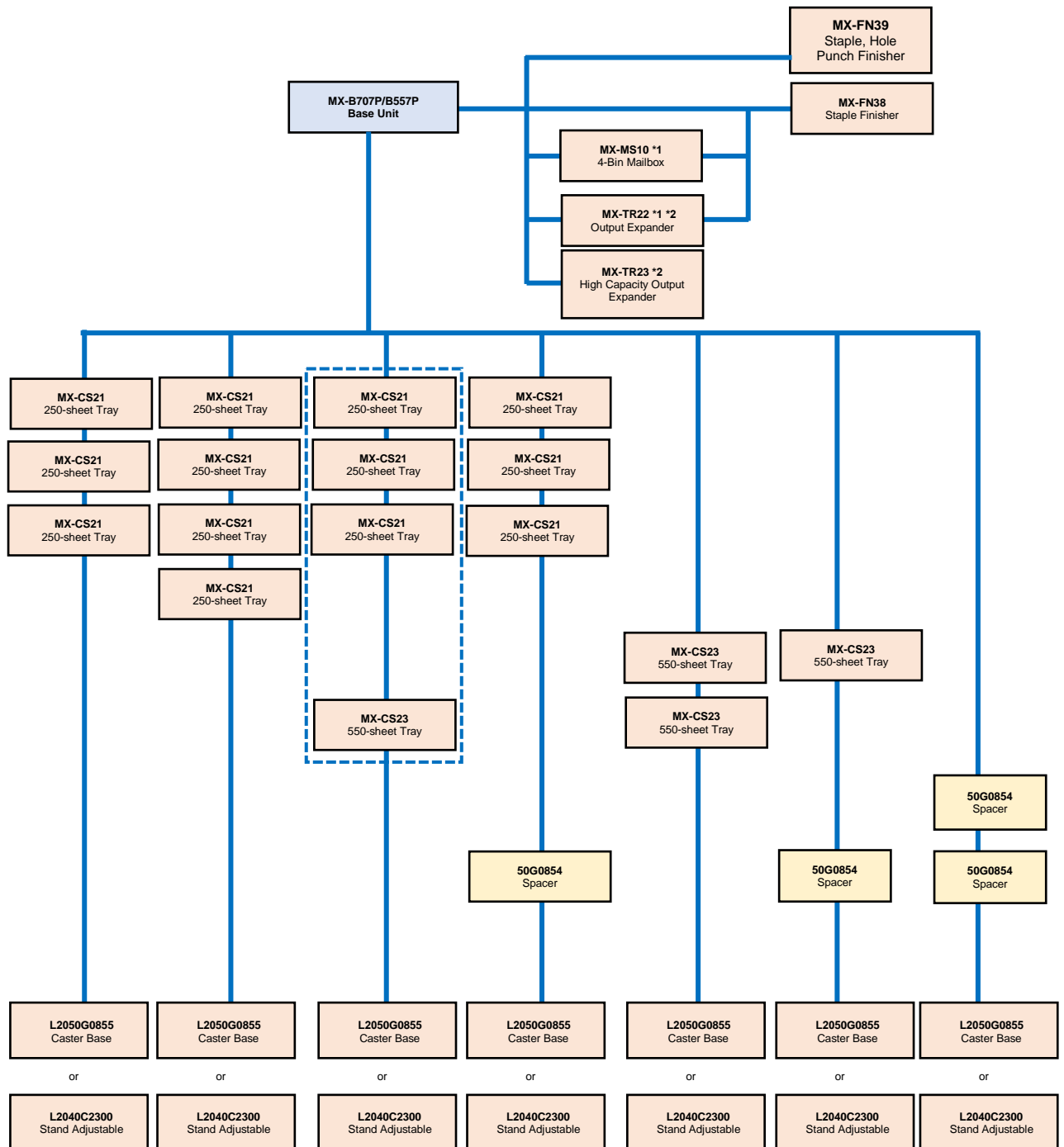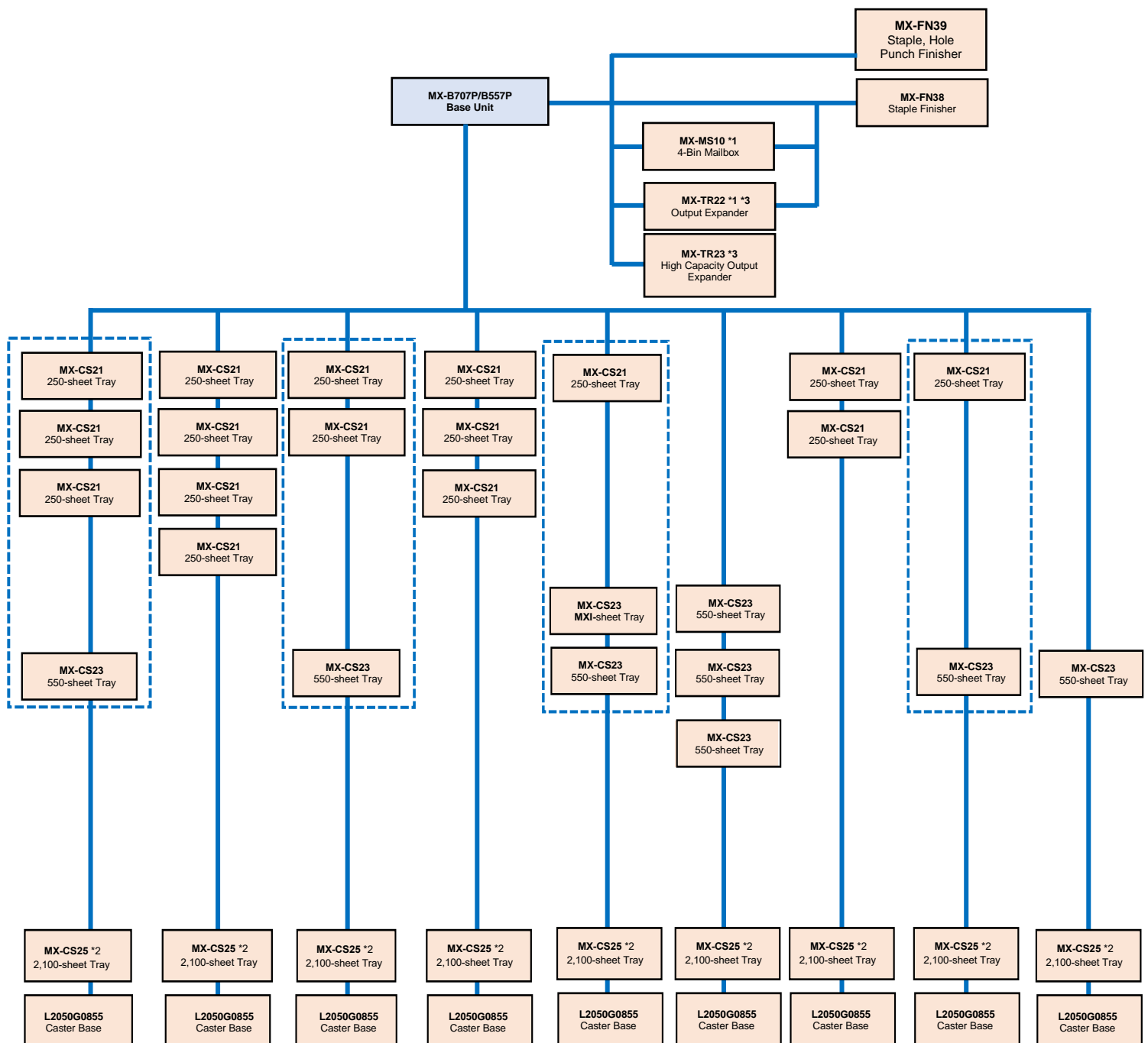*1: Without Finisher, 4-Bin Mailbox MX-MS10 and Output Expander MX-TR22 can be installed up to 3 pcs in total.
*2: A single output expander MX-TR22 is the only option that can be placed on top of the high capacity output expander MX-TR23.

Can be configured as needed

Standard
Option
Local Option

MX-FN39
Staple, Hole Punch Finisher

MX-B707P/B557P
Base Unit

MX-FN38
Staple Finisher

MX-MS10 *1
4-Bin Mailbox

MX-TR22 *1 *2
Output Expander

MX-TR23 *2
High Capacity Output Expander

MX-CS21
250-sheet Tray

MX-CS21
250-sheet Tray

MX-CS21
250-sheet Tray

MX-CS21
250-sheet Tray

MX-CS23
550-sheet Tray

MX-CS23
550-sheet Tray

MX-CS23
550-sheet Tray

MX-CS23
550-sheet Tray

MX-CS23
550-sheet Tray

MX-CS23
550-sheet Tray

MX-CS23
550-sheet Tray

MX-CS23
550-sheet Tray

MX-CS23
550-sheet Tray

MX-CS23
550-sheet Tray

50G0854
Spacer

50G0854
Spacer

L203073173
Swivel Cabinet

L203073173
Swivel Cabinet

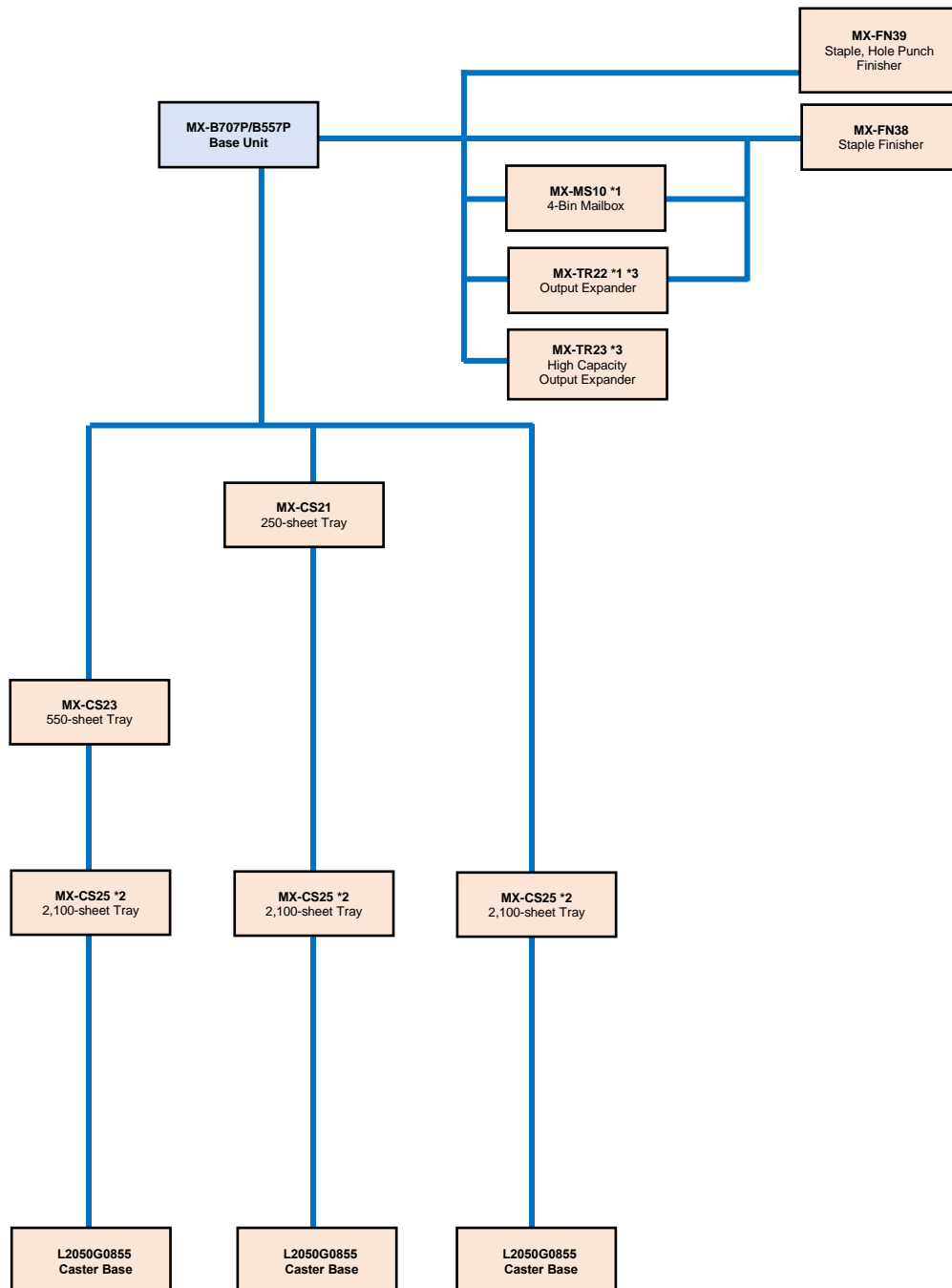**L203073173**
Swivel Cabinet

L203073173
Swivel Cabinet

L203073173
Swivel Cabinet

*1: Without Finisher, 4-Bin Mailbox MX-MS10 and Output Expander MX-TR22 can be installed up to 3 pcs in total.
*2: A single output expander MX-TR22 is the only option that can be placed on top of the high capacity output expander MX-TR23.
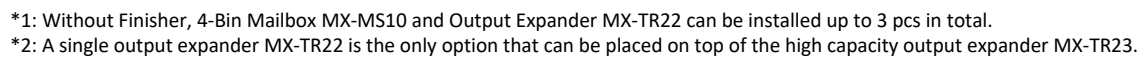
Can be configured in any order

Can be configured as needed

Standard

Option

Local Option

MX-FN39
Staple, Hole Punch
Finisher

MX-B707P/B557P
Base Unit

MX-FN38
Staple Finisher

MX-MS10 *1
4-Bin Mailbox

MX-TR22 *1 *2
Output Expander

MX-TR23 *2
High Capacity
Output Expander

MX-CS21
250-sheet Tray

MX-CS21
250-sheet Tray

MX-CS21
250-sheet Tray

MX-CS21
250-sheet Tray

MX-CS21
250-sheet Tray

MX-CS21
250-sheet Tray

MX-CS23
550-sheet Tray

50G0854
Spacer

50G0854
Spacer

50G0854
Spacer

50G0854
Spacer

50G0854
Spacer

50G0854
Spacer

50G0854
Spacer

50G0854
Spacer

L203073173
Swivel Cabinet

L203073173
Swivel Cabinet

L203073173
Swivel Cabinet

L203073173
Swivel Cabinet

L203073173
Swivel Cabinet

*1: Without Finisher, 4-Bin Mailbox MX-MS10 and Output Expander MX-TR22 can be installed up to 3 pcs in total.
*2: A single output expander MX-TR22 is the only option that can be placed on top of the high capacity output expander MX-TR23.

Can be configured as needed
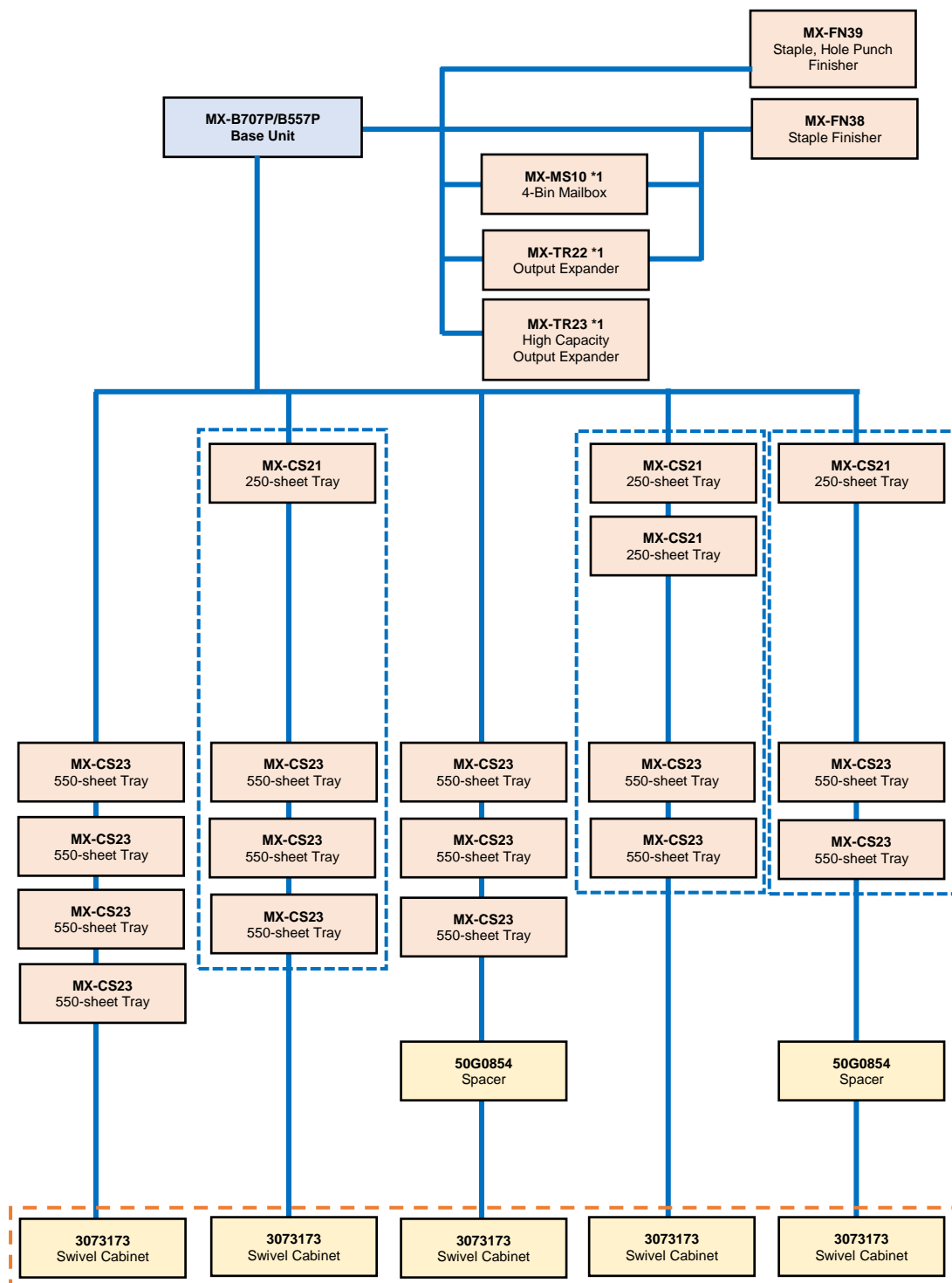
Standard

Option

Local Option

```
                                                    ┌──────────────────────┐
                                                    │      MX-FN39         │
                                                    │  Staple, Hole Punch  │
                                                    │      Finisher        │
                                                    └──────────────────────┘
┌──────────────────┐                                ┌──────────────────────┐
│  MX-B707P/B557P  │                                │      MX-FN38         │
│    Base Unit     │                                │   Staple Finisher    │
└──────────────────┘                                └──────────────────────┘
                          ┌──────────────────┐
                          │   MX-MS10 *1     │
                          │   4-Bin Mailbox  │
                          └──────────────────┘
                          ┌──────────────────┐
                          │  MX-TR22 *1 *2   │
                          │  Output Expander │
                          └──────────────────┘
                          ┌──────────────────┐
                          │   MX-TR23 *2     │
                          │  High Capacity   │
                          │ Output Expander  │
                          └──────────────────┘
```

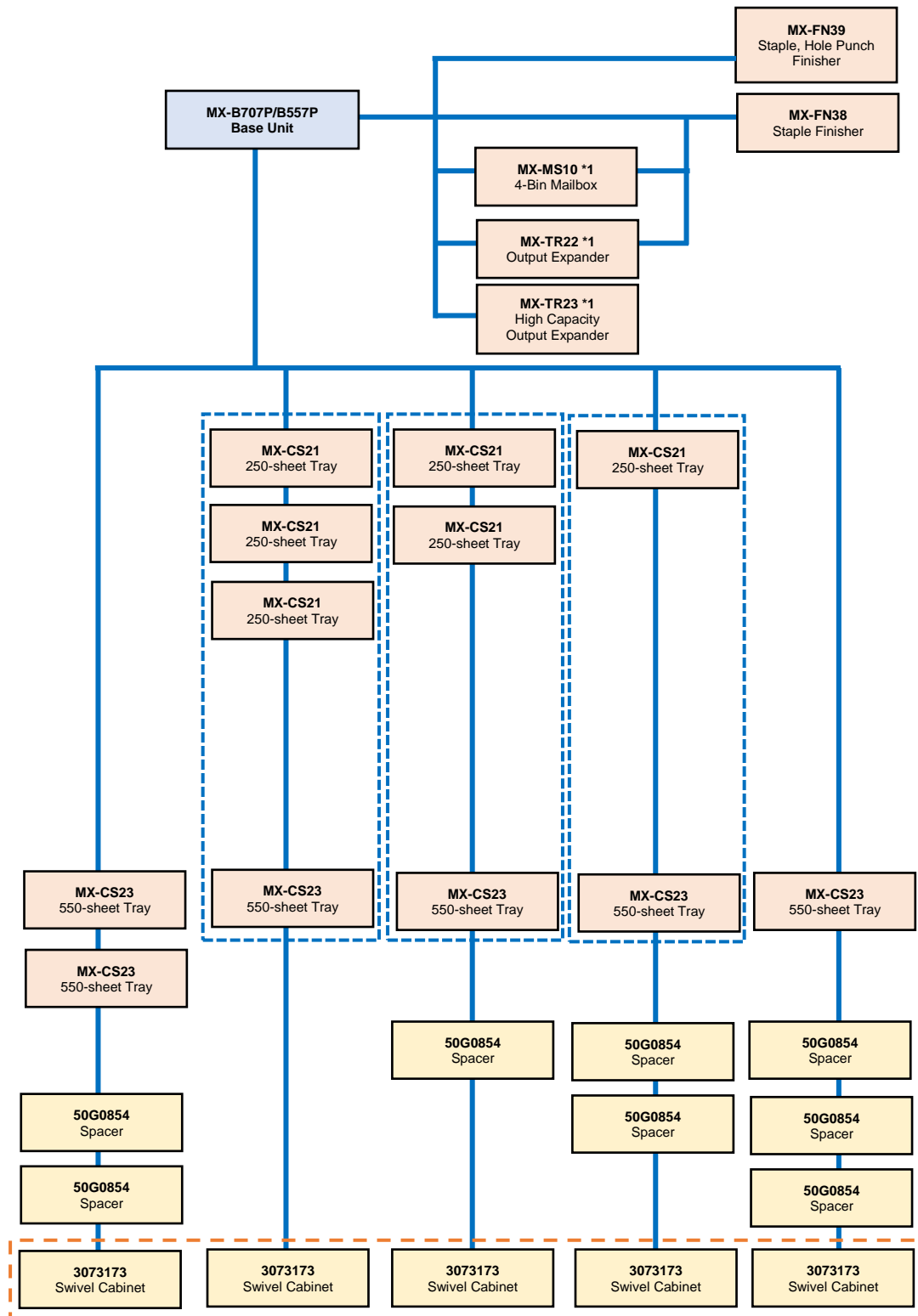| | MX-CS21 250-sheet Tray | | MX-CS21 250-sheet Tray | MX-CS21 250-sheet Tray |
			MX-CS21 250-sheet Tray	
MX-CS23 550-sheet Tray	MX-CS23 550-sheet Tray	MX-CS23 550-sheet Tray		
MX-CS23 550-sheet Tray				
		50G0854 Spacer		50G0854 Spacer
L203073173 Swivel Cabinet	L203073173 Swivel Cabinet	L203073173 Swivel Cabinet	L203073173 Swivel Cabinet	L203073173 Swivel Cabinet

*1: Without Finisher, 4-Bin Mailbox MX-MS10 and Output Expander MX-TR22 can be installed up to 3 pcs in total.

*2: A single output expander MX-TR22 is the only option that can be placed on top of the high capacity output expander MX-TR23.

Can be configured as needed

Can be configured in any order

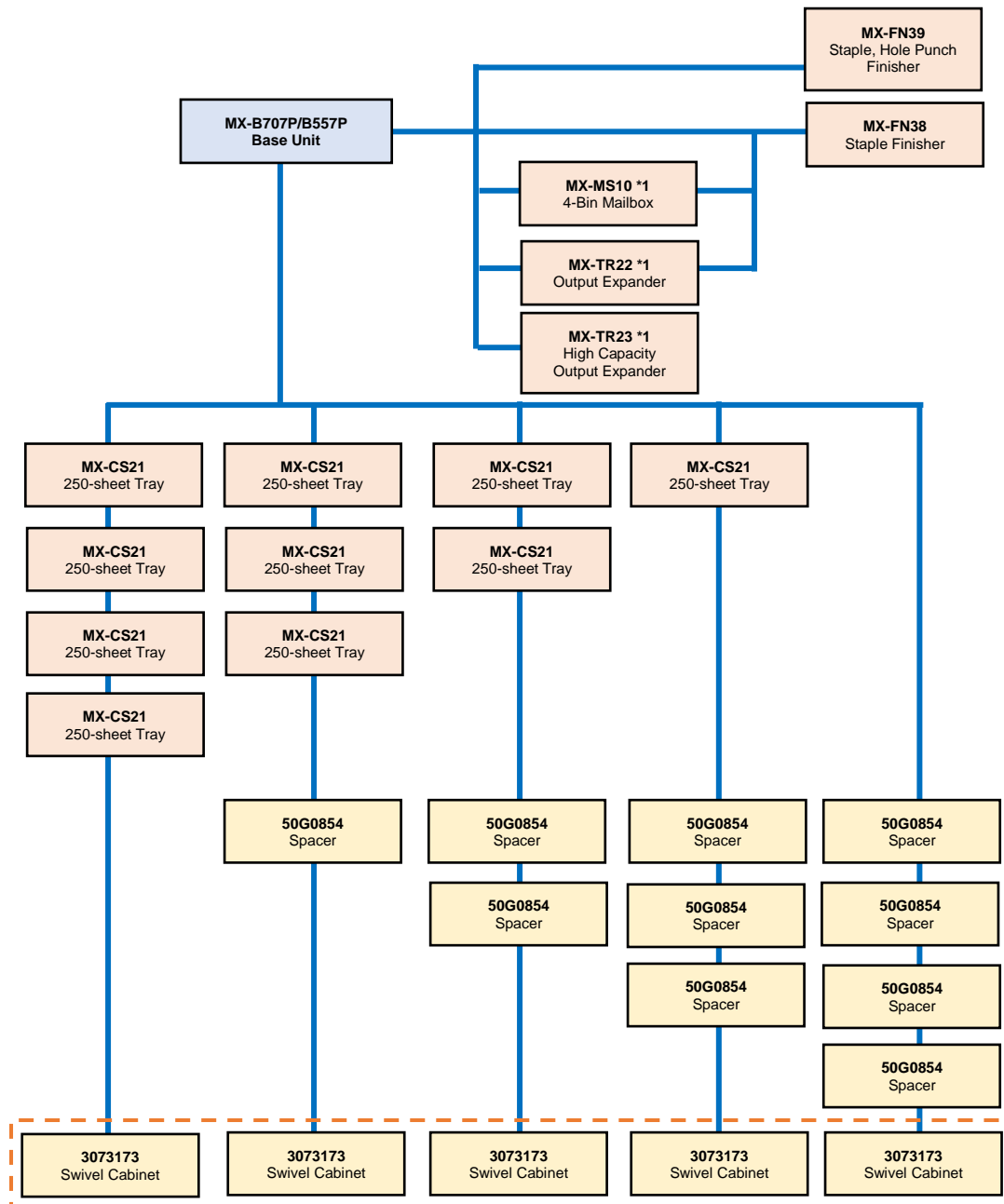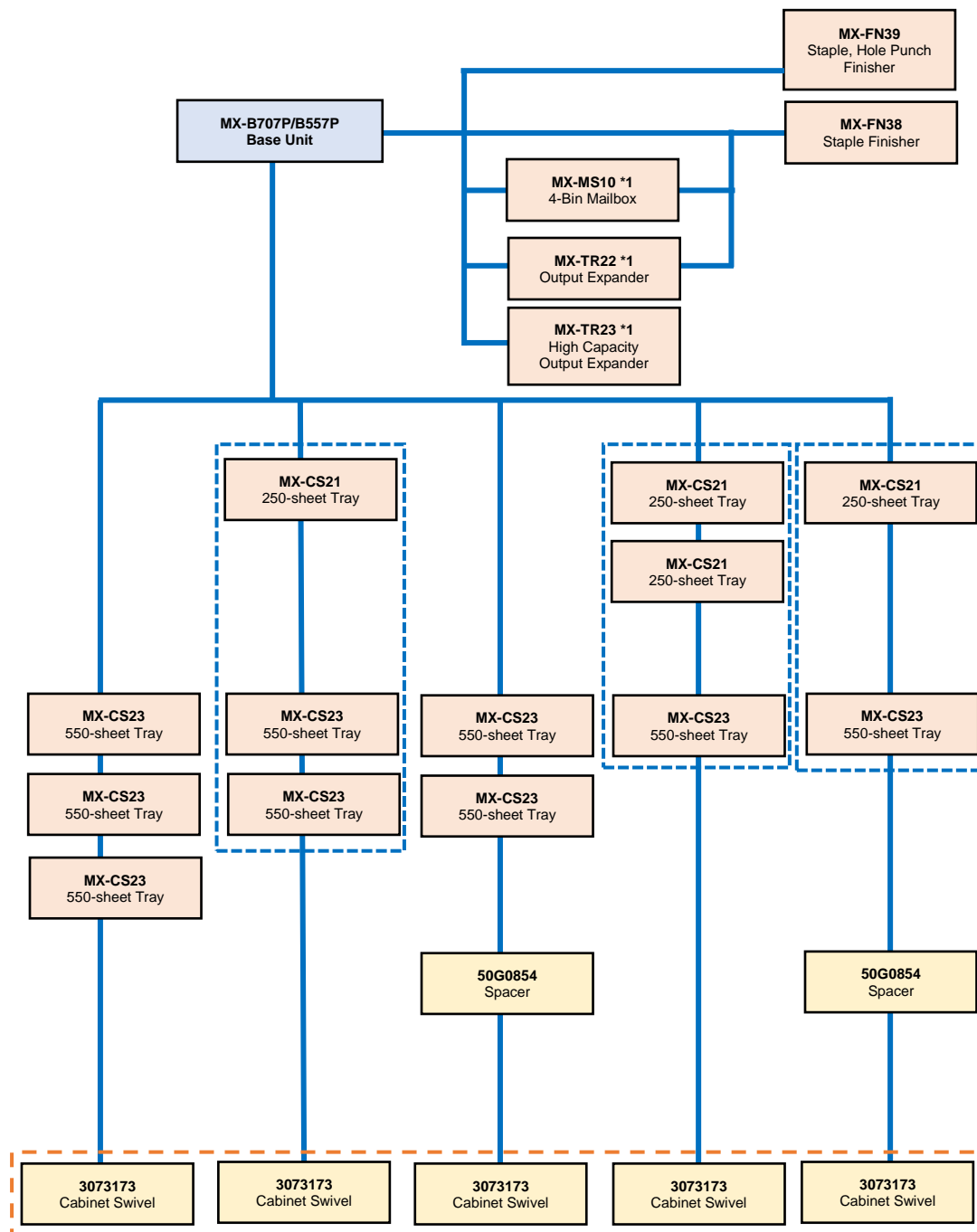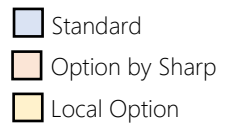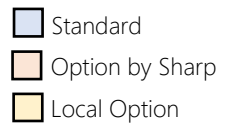Standard
Option
Local Option

MX-B707P/B557P Base Unit (Standard)

MX-FN39 Staple, Hole Punch Finisher

MX-FN38 Staple Finisher

MX-MS10 *1 4-Bin Mailbox

MX-TR22 *1 *2 Output Expander

MX-TR23 *2 High Capacity Output Expander

MX-CS21 250-sheet Tray

MX-CS23 550-sheet Tray

50G0854 Spacer

50G0854 Spacer

50G0854 Spacer

L203073173 Swivel Cabinet

L203073173 Swivel Cabinet

L203073173 Swivel Cabinet

L203073173 Swivel Cabinet

L203073173 Swivel Cabinet

*1: Without Finisher, 4-Bin Mailbox MX-MS10 and Output Expander MX-TR22 can be installed up to 3 pcs in total.
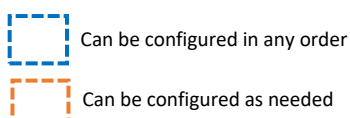*2: A single output expander MX-TR22 is the only option that can be placed on top of the high capacity output expander MX-TR23.
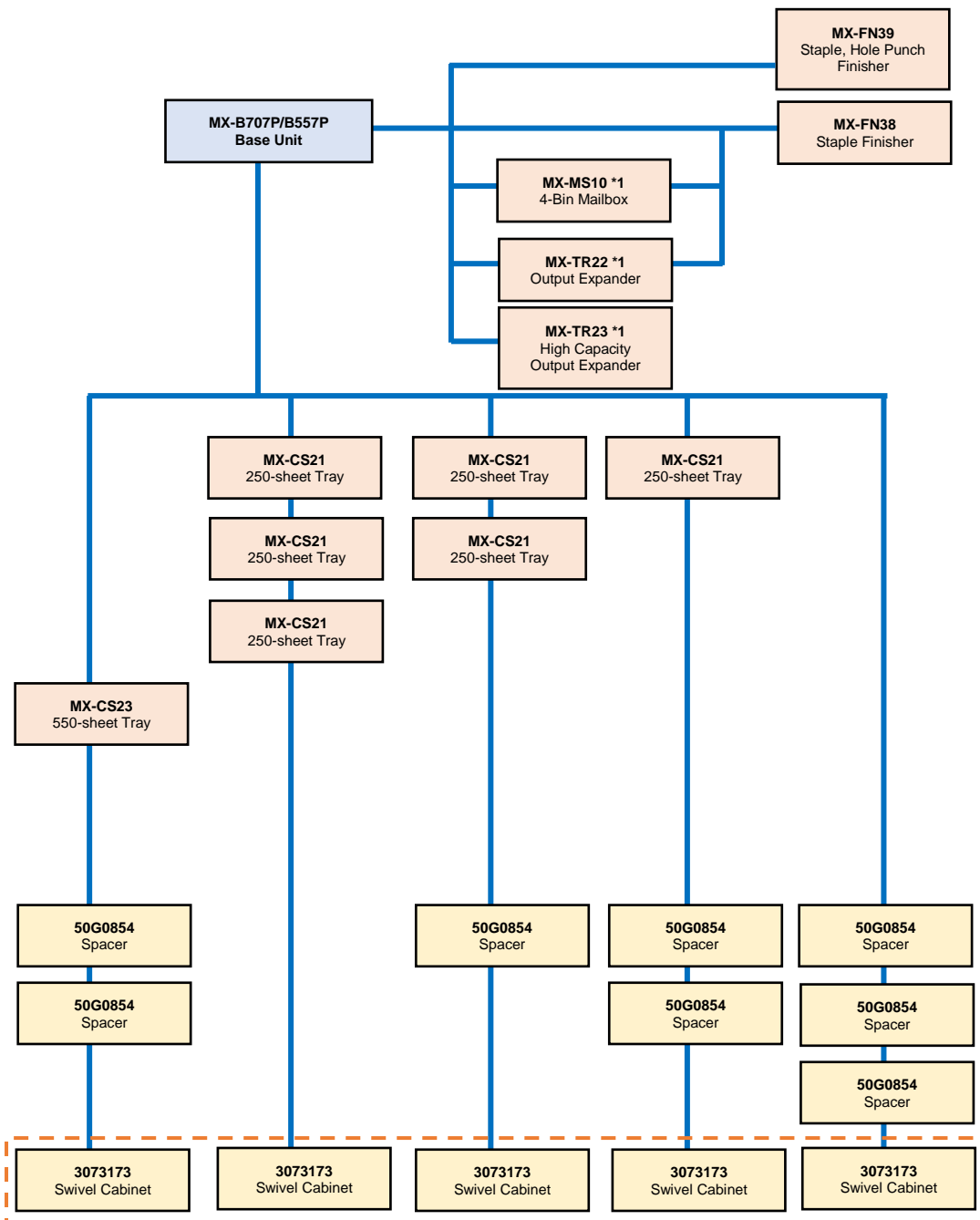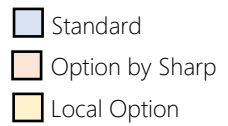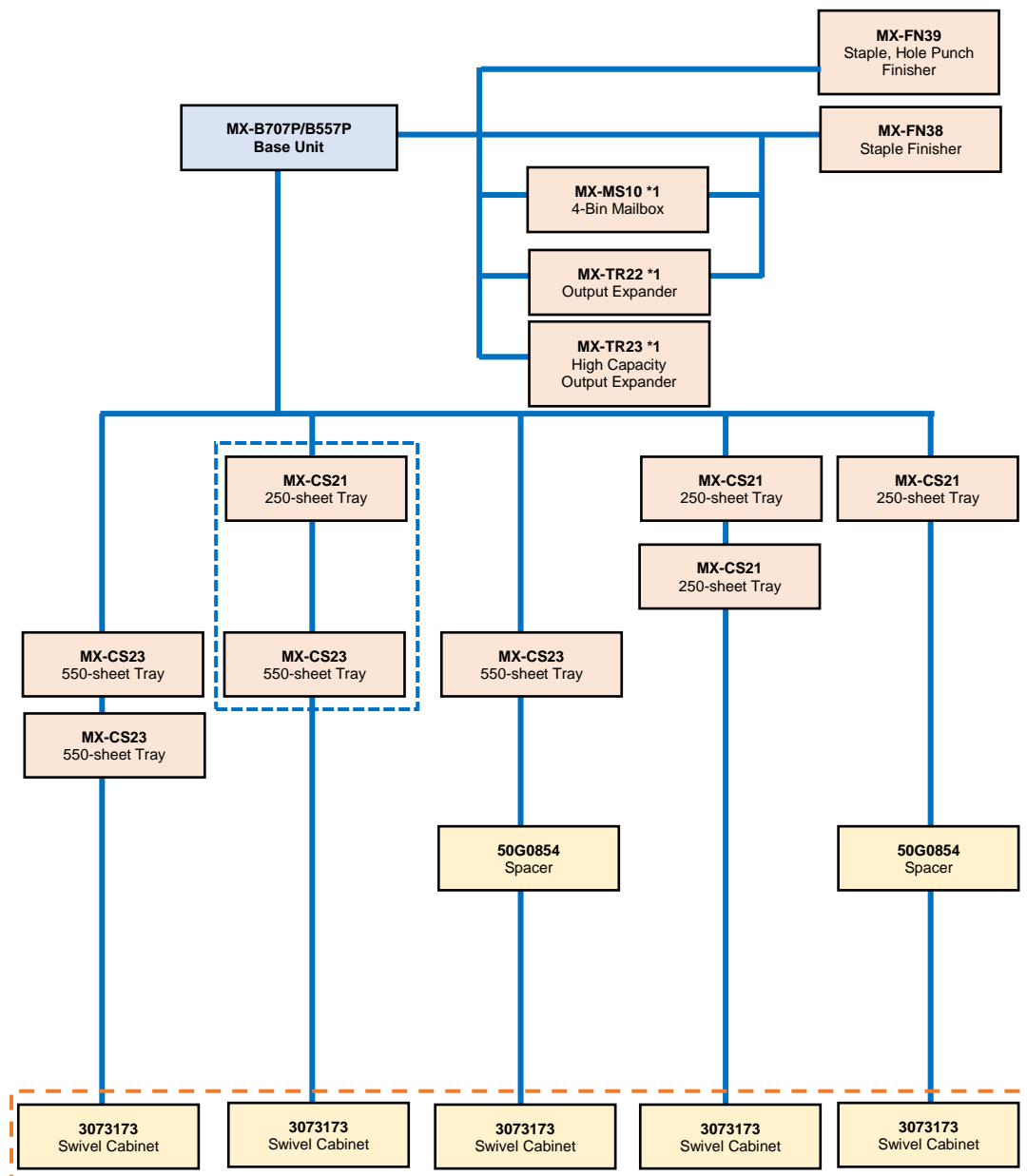
Can be configured as needed

Note: all the configurations on this page require optional Caster Base or Adjustable Printer Stand.

■ Standard
■ Option
■ Local Option

MX-FN39
Staple, Hole Punch
Finisher

MX-B707P/B557P
Base Unit

MX-FN38
Staple Finisher

MX-MS10 *1
4-Bin Mailbox

MX-TR22 *1 *2
Output Expander

MX-TR23 *2
High Capacity
Output Expander

MX-CS21
250-sheet Tray

MX-CS21
250-sheet Tray

MX-CS21
250-sheet Tray

MX-CS21
250-sheet Tray

MX-CS21
250-sheet Tray

MX-CS23
550-sheet Tray

MX-CS23
550-sheet Tray

MX-CS23
550-sheet Tray

MX-CS23
550-sheet Tray

MX-CS23
550-sheet Tray

MX-CS23
550-sheet Tray

MX-CS23
550-sheet Tray

MX-CS23
550-sheet Tray

MX-CS23
550-sheet Tray

MX-CS23
550-sheet Tray

50G0854
Spacer

50G0854
Spacer

50G0854
Spacer

50G0854
Spacer

50G0854
Spacer

50G0854
Spacer

L2050G0855
Caster Base

L2050G0855
Caster Base

L2050G0855
Caster Base

L2050G0855
Caster Base

L2050G0855
Caster Base

L2050G0855
Caster Base

L2050G0855
Caster Base

or

L2040C2300
Stand Adjustable

L2040C2300
Stand Adjustable

L2040C2300
Stand Adjustable

L2040C2300
Stand Adjustable

L2040C2300
Stand Adjustable

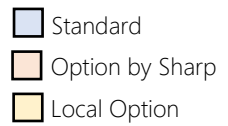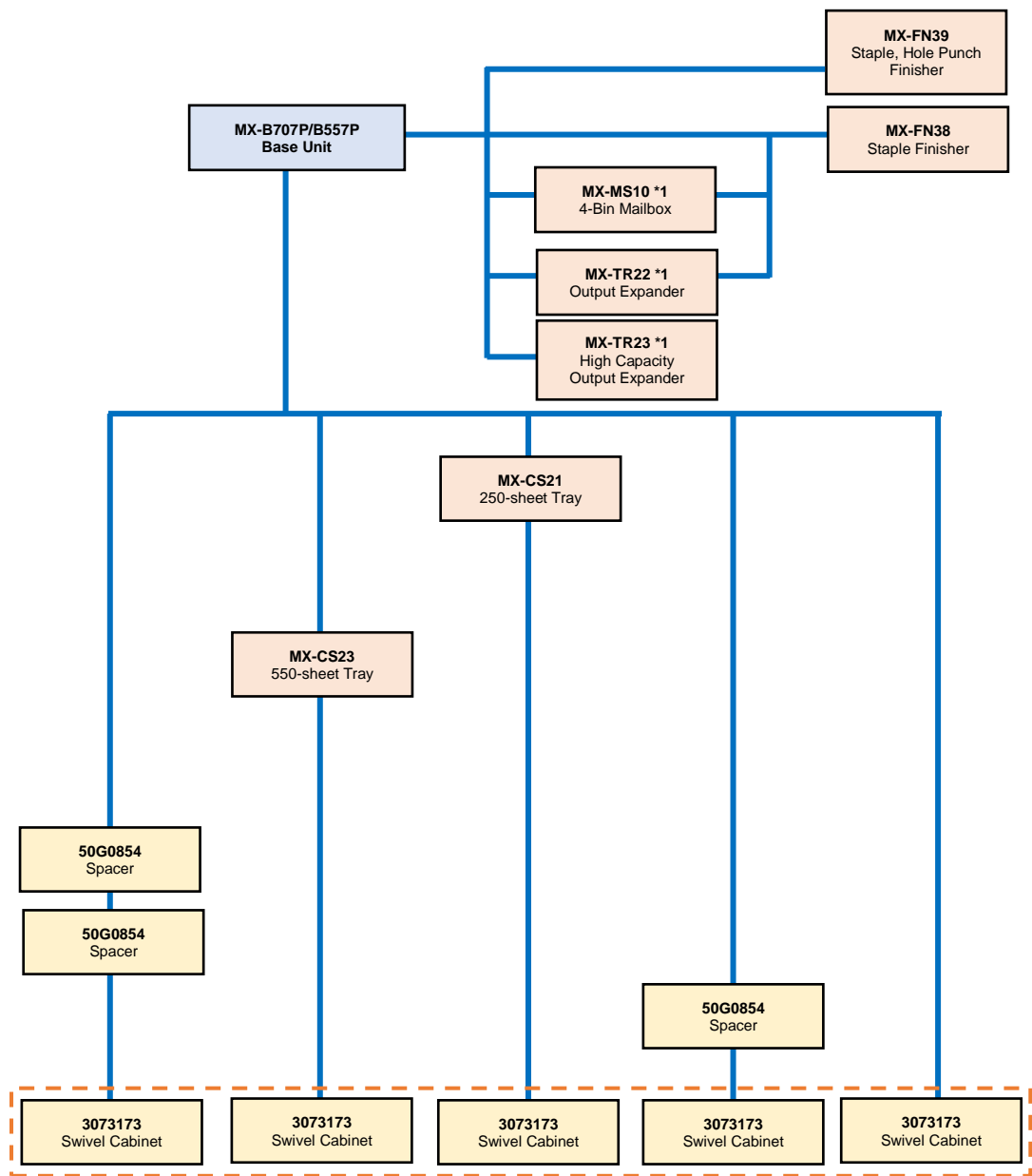L2040C2300
Stand Adjustable

L2040C2300
Stand Adjustable

*1: Without Finisher, 4-Bin Mailbox MX-MS10 and Output Expander MX-TR22 can be installed up to 3 pcs in total.
*2: A single output expander MX-TR22 is the only option that can be placed on top of the high capacity output expander MX-TR23.

⌐ ⌐ Can be configured in any order

<Floor 2/5>

Note: all the configurations on this page require optional Caster Base or Adjustable Printer Stand.

Standard

Option

Local Option

MX-FN39
Staple, Hole Punch Finisher

MX-B707P/B557P
Base Unit

MX-FN38
Staple Finisher

MX-MS10 *1
4-Bin Mailbox

MX-TR22 *1 *2
Output Expander

MX-TR23 *2
High Capacity Output Expander

MX-CS21
250-sheet Tray

MX-CS21
250-sheet Tray

MX-CS21
250-sheet Tray

MX-CS21
250-sheet Tray

MX-CS21
250-sheet Tray

MX-CS21
250-sheet Tray

MX-CS21
250-sheet Tray

MX-CS21
250-sheet Tray

MX-CS21
250-sheet Tray

MX-CS21
250-sheet Tray

MX-CS21
250-sheet Tray

MX-CS21
250-sheet Tray

MX-CS21
250-sheet Tray

MX-CS23
550-sheet Tray

MX-CS23
550-sheet Tray

MX-CS23
550-sheet Tray

MX-CS23
550-sheet Tray

MX-CS23
550-sheet Tray

50G0854
Spacer

50G0854
Spacer

50G0854
Spacer

50G0854
Spacer

L2050G0855
Caster Base

L2050G0855
Caster Base

L2050G0855
Caster Base

L2050G0855
Caster Base

L2050G0855
Caster Base

L2050G0855
Caster Base

L2050G0855
Caster Base

or

or

or

or

or

or

or

L2040C2300
Stand Adjustable

L2040C2300
Stand Adjustable

L2040C2300
Stand Adjustable

L2040C2300
Stand Adjustable

L2040C2300
Stand Adjustable

L2040C2300
Stand Adjustable

L2040C2300
Stand Adjustable

*1: Without Finisher, 4-Bin Mailbox MX-MS10 and Output Expander MX-TR22 can be installed up to 3 pcs in total.
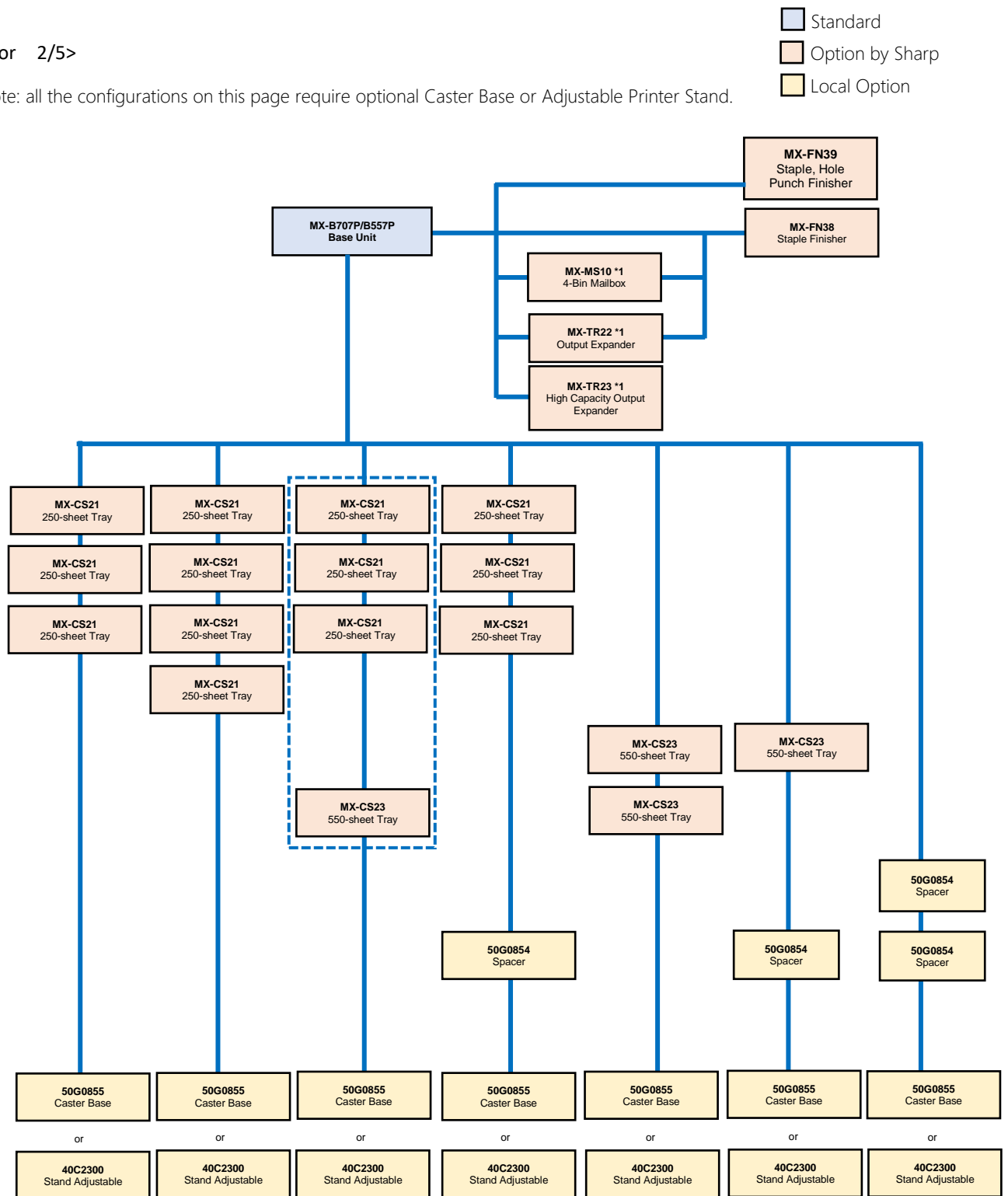*2: A single output expander MX-TR22 is the only option that can be placed on top of the high capacity output expander MX-TR23.
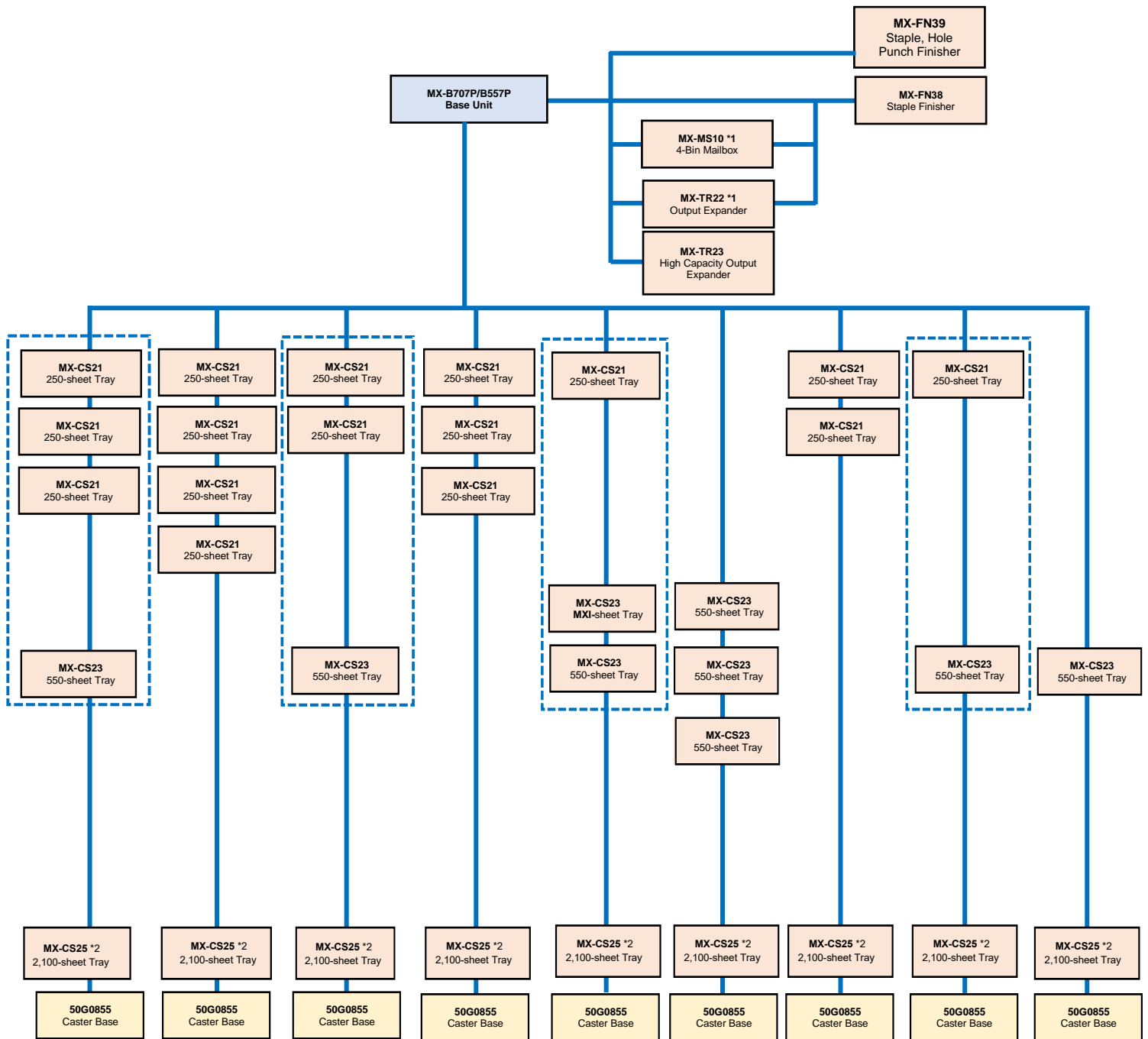
Can be configured in any order

<Floor 3/5>

Note: all the configurations on this page require optional Caster Base or Adjustable Printer Stand.

Standard
Option
Local Option

MX-FN39
Staple, Hole
Punch Finisher

MX-B707P/B557P
Base Unit

MX-FN38
Staple Finisher

MX-MS10 *1
4-Bin Mailbox

MX-TR22 *1 *3
Output Expander

MX-TR23 *3
High Capacity Output
Expander

MX-CS21
250-sheet Tray

MX-CS21
250-sheet Tray

MX-CS21
250-sheet Tray

MX-CS21
250-sheet Tray

MX-CS21
250-sheet Tray

MX-CS21
250-sheet Tray

MX-CS21
250-sheet Tray

MX-CS21
250-sheet Tray

MX-CS21
250-sheet Tray

MX-CS21
250-sheet Tray

MX-CS21
250-sheet Tray

MX-CS21
250-sheet Tray

MX-CS21
250-sheet Tray

MX-CS21
250-sheet Tray

MX-CS23
MXI-sheet Tray

MX-CS23
550-sheet Tray

MX-CS23
550-sheet Tray

MX-CS23
550-sheet Tray

MX-CS23
550-sheet Tray

MX-CS23
550-sheet Tray

MX-CS23
550-sheet Tray

MX-CS23
550-sheet Tray

MX-CS23
550-sheet Tray

MX-CS25 *2
2,100-sheet Tray

MX-CS25 *2
2,100-sheet Tray

MX-CS25 *2
2,100-sheet Tray

MX-CS25 *2
2,100-sheet Tray

MX-CS25 *2
2,100-sheet Tray

MX-CS25 *2
2,100-sheet Tray

MX-CS25 *2
2,100-sheet Tray

MX-CS25 *2
2,100-sheet Tray

MX-CS25 *2
2,100-sheet Tray

L2050G0855
Caster Base

L2050G0855
Caster Base

L2050G0855
Caster Base

L2050G0855
Caster Base

L2050G0855
Caster Base

L2050G0855
Caster Base

L2050G0855
Caster Base
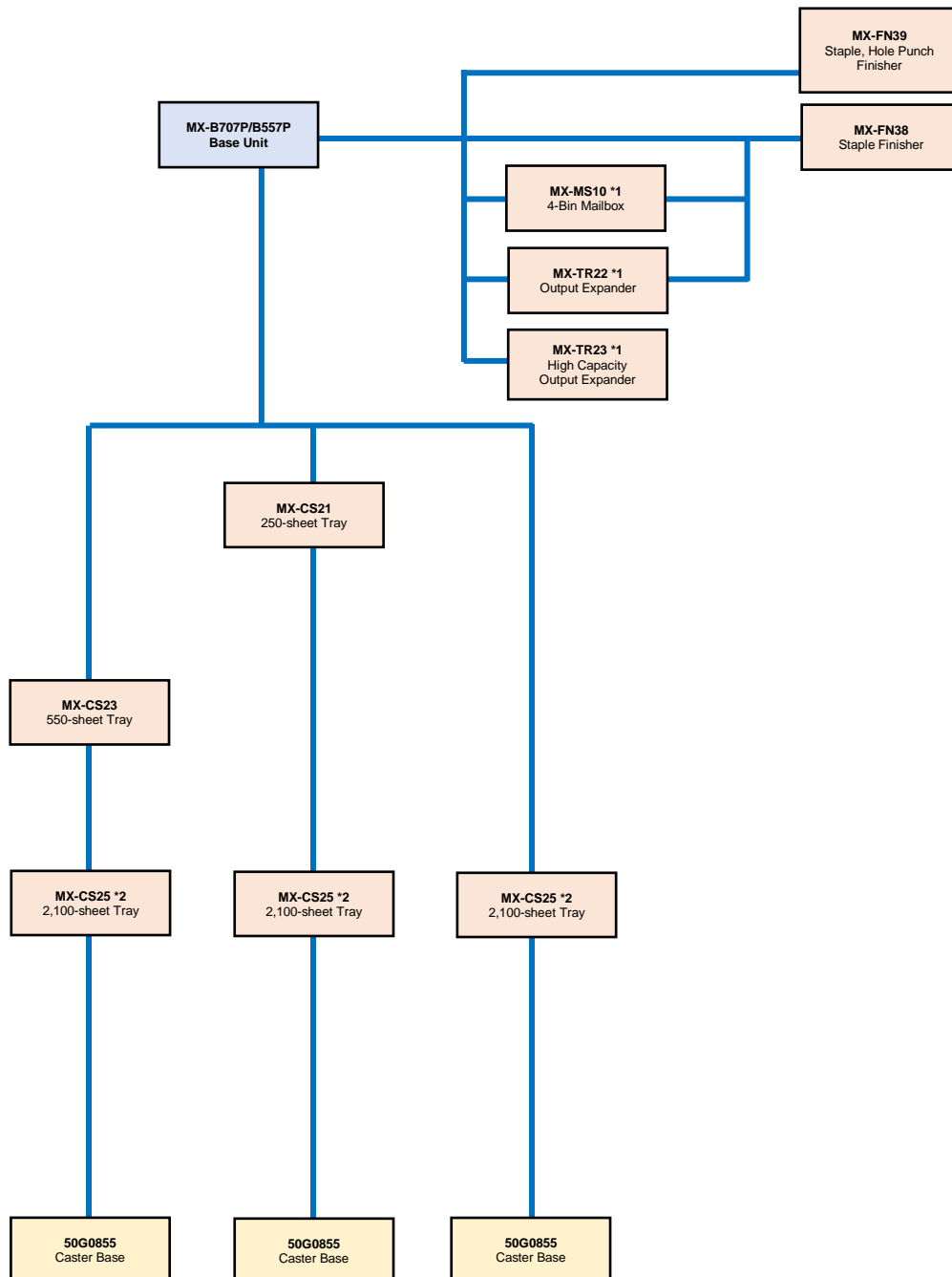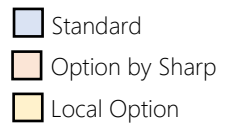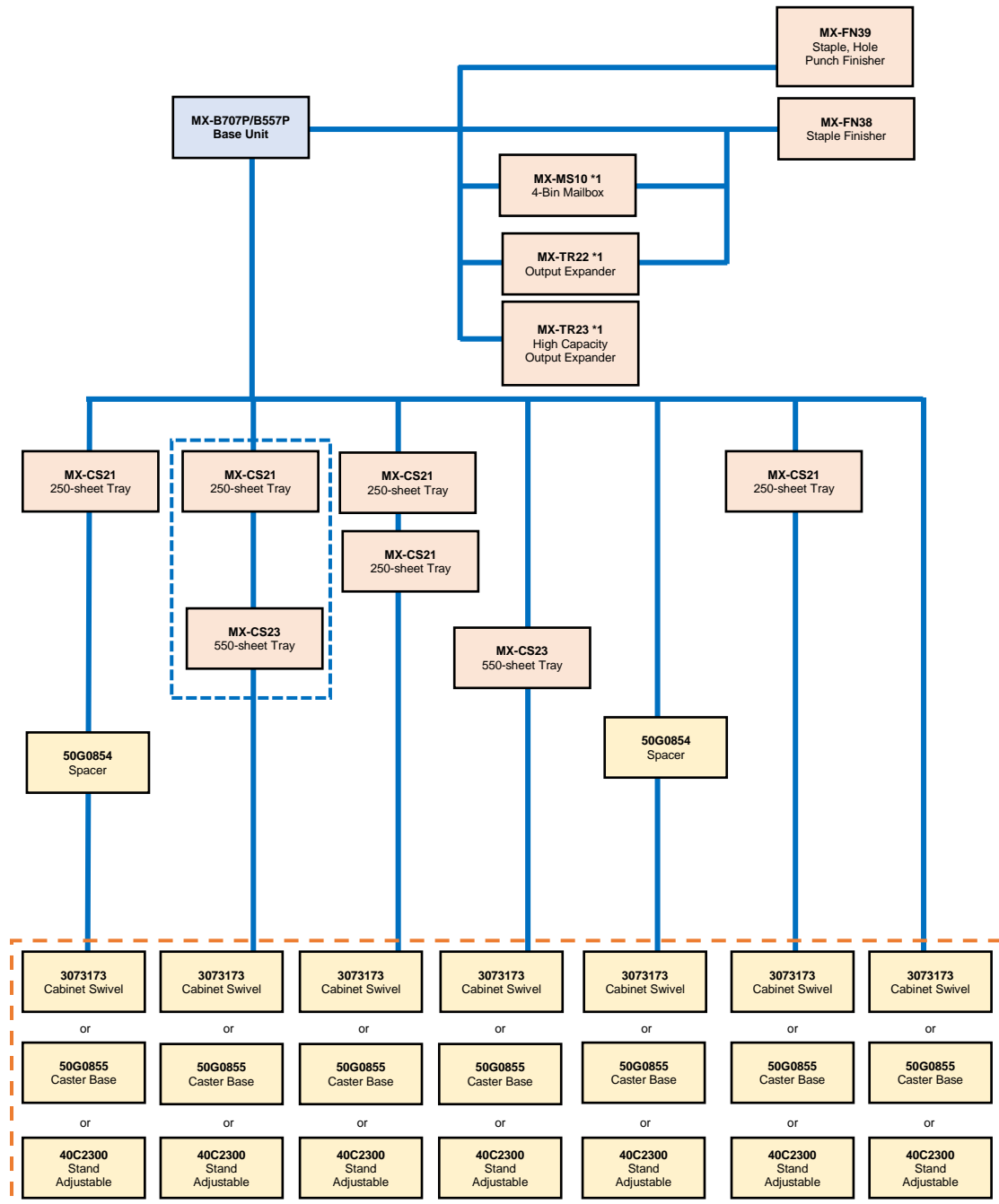
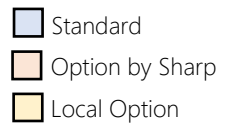**L2050G0855**
Caster Base

L2050G0855
Caster Base

*1: Without Finisher, 4-Bin Mailbox MX-MS10 and Output Expander MX-TR22 can be installed up to 3 pcs in total.

*2: Optional 2,100-sheet Input Tray MX-CS25 requires optional Caster Base.

*3: A single output expander MX-TR22 is the only option that can be placed on top of the high capacity output expander MX-TR23.

Can be configured in any order

<Floor 4/5>

Standard
Option
Local Option

```
                                                              ┌──────────────────┐
                                                              │     MX-FN39      │
                                                              │ Staple, Hole Punch│
                                                              │     Finisher     │
                                                              └──────────────────┘
┌──────────────────┐                                          ┌──────────────────┐
│  MX-B707P/B557P  │                                          │     MX-FN38      │
│    Base Unit     │──────────────────────────────────────────│  Staple Finisher │
└──────────────────┘                                          └──────────────────┘
                                   ┌──────────────────┐
                                   │   MX-MS10 *1     │
                                   │  4-Bin Mailbox   │
                                   └──────────────────┘
                                   ┌──────────────────┐
                                   │  MX-TR22 *1 *3   │
                                   │ Output Expander  │
                                   └──────────────────┘
                                   ┌──────────────────┐
                                   │   MX-TR23 *3     │
                                   │  High Capacity   │
                                   │ Output Expander  │
                                   └──────────────────┘
```

MX-CS21
250-sheet Tray

MX-CS23
550-sheet Tray

MX-CS25 *2
2,100-sheet Tray

MX-CS25 *2
2,100-sheet Tray

MX-CS25 *2
2,100-sheet Tray

L2050G0855
Caster Base

L2050G0855
Caster Base

L2050G0855
Caster Base

*1: Without Finisher, 4-Bin Mailbox MX-MS10 and Output Expander MX-TR22 can be installed up to 3 pcs in total.

*2: Optional 2,100-sheet Input Tray MX-CS25 requires optional Caster Base.

*3: A single output expander MX-TR22 is the only option that can be placed on top of the high capacity output expander MX-TR23.

<Floor 5/5>

Standard
Option
Local Option

MX-FN39
Staple, Hole
Punch Finisher

MX-B707P/B557P
Base Unit

MX-FN38
Staple Finisher

MX-MS10 *1
4-Bin Mailbox

MX-TR22 *1 *2
Output Expander

MX-TR23 *2
High Capacity
Output Expander

MX-CS21
250-sheet Tray

MX-CS21
250-sheet Tray

MX-CS21
250-sheet Tray

MX-CS21
250-sheet Tray

MX-CS21
250-sheet Tray

MX-CS23
550-sheet Tray

MX-CS23
550-sheet Tray

50G0854
Spacer

50G0854
Spacer

L203073173 Cabinet Swivel	**L203073173** Cabinet Swivel	**L203073173** Cabinet Swivel	**L203073173** Cabinet Swivel	**L203073173** Cabinet Swivel	**L203073173** Cabinet Swivel	**L203073173** Cabinet Swivel
or	or	or	or	or	or	or
L2050G0855 Caster Base	**L2050G0855** Caster Base	**L2050G0855** Caster Base	**L2050G0855** Caster Base	**L2050G0855** Caster Base	**L2050G0855** Caster Base	**L2050G0855** Caster Base
or	or	or	or	or	or	or
L2040C2300 Stand Adjustable	**L2040C2300** Stand Adjustable	**L2040C2300** Stand Adjustable	**L2040C2300** Stand Adjustable	**L2040C2300** Stand Adjustable	**L2040C2300** Stand Adjustable	**L2040C2300** Stand Adjustable

*1: Without Finisher, 4-Bin Mailbox MX-MS10 and Output Expander MX-TR22 can be installed up to 3 pcs in total.
*2: A single output expander MX-TR22 is the only option that can be placed on top of the high capacity output expander MX-TR23.

Can be configured in any order

Can be configured as needed

Product Name	Description	MX-B707P/MX-B557P
MX-CS21	250 Sheet Tray	●
MX-CS23	550 Sheet Tray	●
MX-CS25	2100 Sheet Tray	●
MX-FN38	Staple Finisher	●
MX-FN39	Staple, Hole Punch Finisher	●
L2025A0013	Staple Cartridge 3-pack (15K)	●
MX-MS10	4-Bin Mailbox	●
MX-TR22	Output expander	●
MX-TR23	High Capacity Output expander	●
L203073173	Cabinet swivel	●
L2040C2300	Stand adjustable	●
L2050G0855	Caster base	●
50G0854	Spacer	● (Local Option)
27X0142	Print server fiber Ethernet N8230	● (Local Option)
L2027X6410	Print server 802.11b/g/n/ac N8372 (front)	●
L2027X6510	N8370 802.11 a/b/g/n/ac Wireless Print Server	●
1021231	Cable Parallel	● (Local Option)
1021294	Cable USB	● (Local Option)
14F0000	Interface Parallel Card	● (Local Option)
14F0100	Interface Serial Card	● (Local Option)
57X9801	256-MB flash memory	● (Local Option)
57X0204	4-GB memory	● (Local Option)
L2027X0500	500-GB HDD	●
40C9200	Forms and barcode	● (Local Option)
40C9201	IPDS	● (Local Option)
40C9202	PRESCRIBE	● (Local Option)
L2057X0185	Security Module	●
57X0300	Contact authentication device	● (Local Option)
57X0301	Contactless authentication device	● (Local Option)

(Except Europe)

Standard

Option by Sharp

Local Option

MX-B707P/B557P
Base Unit

MX-FN39
Staple, Hole Punch
Finisher

MX-FN38
Staple Finisher

MX-MS10 *1
4-Bin Mailbox

MX-TR22 *1
Output Expander

MX-TR23 *1
High Capacity
Output Expander

MX-CS21
250-sheet Tray

MX-CS21
250-sheet Tray

MX-CS21
250-sheet Tray

MX-CS21
250-sheet Tray

MX-CS23
550-sheet Tray

MX-CS23
550-sheet Tray

MX-CS23
550-sheet Tray

MX-CS23
550-sheet Tray

MX-CS23
550-sheet Tray

MX-CS23
550-sheet Tray

MX-CS23
550-sheet Tray

MX-CS23
550-sheet Tray

MX-CS23
550-sheet Tray

MX-CS23
550-sheet Tray

MX-CS23
550-sheet Tray

MX-CS23
550-sheet Tray

MX-CS23
550-sheet Tray

MX-CS23
550-sheet Tray

50G0854
Spacer

50G0854
Spacer

3073173
Swivel Cabinet

3073173
Swivel Cabinet

3073173
Swivel Cabinet

3073173
Swivel Cabinet

3073173
Swivel Cabinet

*1: Without Finisher, 4-Bin Mailbox MX-MS10 and Output Expander MX-TR22 can be installed up to 3 pcs in total.

*2: A single output expander MX-TR22 is the only option that can be placed on top of the high capacity output expander MX-TR23.

Can be configured in any order

Can be configured as needed

Standard

Option by Sharp

Local Option

```
                                                                    ┌──────────────────┐
                                                                    │     MX-FN39      │
                                                                    │ Staple, Hole Punch│
                                                                    │     Finisher     │
                                                                    └──────────────────┘

┌──────────────────┐                                                ┌──────────────────┐
│  MX-B707P/B557P  │                                                │     MX-FN38      │
│    Base Unit     │                                                │  Staple Finisher │
└──────────────────┘                                                └──────────────────┘

                          ┌──────────────────┐
                          │   MX-MS10 *1     │
                          │   4-Bin Mailbox  │
                          └──────────────────┘

                          ┌──────────────────┐
                          │   MX-TR22 *1     │
                          │ Output Expander  │
                          └──────────────────┘

                          ┌──────────────────┐
                          │   MX-TR23 *1     │
                          │  High Capacity   │
                          │ Output Expander  │
                          └──────────────────┘
```

MX-CS21 250-sheet Tray	MX-CS21 250-sheet Tray	MX-CS21 250-sheet Tray
MX-CS21 250-sheet Tray	MX-CS21 250-sheet Tray	
MX-CS21 250-sheet Tray		

| MX-CS23 550-sheet Tray | MX-CS23 550-sheet Tray | MX-CS23 550-sheet Tray | MX-CS23 550-sheet Tray | MX-CS23 550-sheet Tray |

MX-CS23 550-sheet Tray

| | | 50G0854 Spacer | 50G0854 Spacer | 50G0854 Spacer |

50G0854 Spacer

| | | | 50G0854 Spacer | 50G0854 Spacer |

50G0854 Spacer

| 3073173 Swivel Cabinet | 3073173 Swivel Cabinet | 3073173 Swivel Cabinet | 3073173 Swivel Cabinet | 3073173 Swivel Cabinet |

*1: Without Finisher, 4-Bin Mailbox MX-MS10 and Output Expander MX-TR22 can be installed up to 3 pcs in total.
*2: A single output expander MX-TR22 is the only option that can be placed on top of the high capacity output expander MX-TR23.

Can be configured in any order

Can be configured as needed

Standard

Option by Sharp

Local Option

MX-FN39
Staple, Hole Punch
Finisher

MX-FN38
Staple Finisher

MX-B707P/B557P
Base Unit

MX-MS10 *1
4-Bin Mailbox

MX-TR22 *1
Output Expander

MX-TR23 *1
High Capacity
Output Expander

MX-CS21
250-sheet Tray

MX-CS21
250-sheet Tray

MX-CS21
250-sheet Tray

MX-CS21
250-sheet Tray

MX-CS21
250-sheet Tray

MX-CS21
250-sheet Tray

MX-CS21
250-sheet Tray

MX-CS21
250-sheet Tray

MX-CS21
250-sheet Tray

MX-CS21
250-sheet Tray

50G0854
Spacer

50G0854
Spacer

50G0854
Spacer

50G0854
Spacer

50G0854
Spacer

50G0854
Spacer

50G0854
Spacer

50G0854
Spacer

50G0854
Spacer

50G0854
Spacer

3073173
Swivel Cabinet

3073173
Swivel Cabinet

3073173
Swivel Cabinet

3073173
Swivel Cabinet

3073173
Swivel Cabinet

*1: Without Finisher, 4-Bin Mailbox MX-MS10 and Output Expander MX-TR22 can be installed up to 3 pcs in total.
*2: A single output expander MX-TR22 is the only option that can be placed on top of the high capacity output expander MX-TR23.

Can be configured as needed

Standard

Option by Sharp

Local Option

MX-FN39
Staple, Hole Punch
Finisher

MX-FN38
Staple Finisher

MX-B707P/B557P
Base Unit

MX-MS10 *1
4-Bin Mailbox

MX-TR22 *1
Output Expander

MX-TR23 *1
High Capacity
Output Expander

MX-CS21
250-sheet Tray

MX-CS21
250-sheet Tray

MX-CS21
250-sheet Tray

MX-CS21
250-sheet Tray

MX-CS23
550-sheet Tray

MX-CS23
550-sheet Tray

MX-CS23
550-sheet Tray

MX-CS23
550-sheet Tray

MX-CS23
550-sheet Tray

MX-CS23
550-sheet Tray

MX-CS23
550-sheet Tray

MX-CS23
550-sheet Tray

MX-CS23
550-sheet Tray

50G0854
Spacer

50G0854
Spacer

3073173
Cabinet Swivel

3073173
Cabinet Swivel

3073173
Cabinet Swivel

3073173
Cabinet Swivel

3073173
Cabinet Swivel

*1: Without Finisher, 4-Bin Mailbox MX-MS10 and Output Expander MX-TR22 can be installed up to 3 pcs in total.
*2: A single output expander MX-TR22 is the only option that can be placed on top of the high capacity output expander MX-TR23.

Can be configured in any order

Can be configured as needed

Standard
Option by Sharp
Local Option

MX-FN39
Staple, Hole Punch
Finisher

MX-FN38
Staple Finisher

MX-B707P/B557P
Base Unit

MX-MS10 *1
4-Bin Mailbox

MX-TR22 *1
Output Expander

MX-TR23 *1
High Capacity
Output Expander

MX-CS21
250-sheet Tray

MX-CS21
250-sheet Tray

MX-CS21
250-sheet Tray

MX-CS21
250-sheet Tray

MX-CS21
250-sheet Tray

MX-CS21
250-sheet Tray

MX-CS23
550-sheet Tray

50G0854
Spacer

50G0854
Spacer

50G0854
Spacer

50G0854
Spacer

50G0854
Spacer

50G0854
Spacer

50G0854
Spacer

50G0854
Spacer

3073173
Swivel Cabinet

3073173
Swivel Cabinet

3073173
Swivel Cabinet

3073173
Swivel Cabinet

3073173
Swivel Cabinet

*1: Without Finisher, 4-Bin Mailbox MX-MS10 and Output Expander MX-TR22 can be installed up to 3 pcs in total.
*2: A single output expander MX-TR22 is the only option that can be placed on top of the high capacity output expander MX-TR23.

Can be configured as needed

Standard

Option by Sharp

Local Option

MX-B707P/B557P
Base Unit

MX-FN39
Staple, Hole Punch
Finisher

MX-FN38
Staple Finisher

MX-MS10 *1
4-Bin Mailbox

MX-TR22 *1
Output Expander

MX-TR23 *1
High Capacity
Output Expander

MX-CS21
250-sheet Tray

MX-CS21
250-sheet Tray

MX-CS21
250-sheet Tray

MX-CS21
250-sheet Tray

MX-CS23
550-sheet Tray

MX-CS23
550-sheet Tray

MX-CS23
550-sheet Tray

MX-CS23
550-sheet Tray

50G0854
Spacer

50G0854
Spacer

3073173
Swivel Cabinet

3073173
Swivel Cabinet

3073173
Swivel Cabinet

3073173
Swivel Cabinet

3073173
Swivel Cabinet

*1: Without Finisher, 4-Bin Mailbox MX-MS10 and Output Expander MX-TR22 can be installed up to 3 pcs in total.
*2: A single output expander MX-TR22 is the only option that can be placed on top of the high capacity output expander MX-TR23.

Can be configured as needed

Can be configured in any order

Standard
Option by Sharp
Local Option

MX-FN39
Staple, Hole Punch
Finisher

MX-B707P/B557P
Base Unit

MX-FN38
Staple Finisher

MX-MS10 *1
4-Bin Mailbox

MX-TR22 *1
Output Expander

MX-TR23 *1
High Capacity
Output Expander

MX-CS21
250-sheet Tray

MX-CS23
550-sheet Tray

50G0854
Spacer

50G0854
Spacer

50G0854
Spacer

3073173
Swivel Cabinet

3073173
Swivel Cabinet

3073173
Swivel Cabinet

3073173
Swivel Cabinet

3073173
Swivel Cabinet

*1: Without Finisher, 4-Bin Mailbox MX-MS10 and Output Expander MX-TR22 can be installed up to 3 pcs in total.
*2: A single output expander MX-TR22 is the only option that can be placed on top of the high capacity output expander MX-TR23.

Can be configured as needed

<Floor 1/5>

Standard

Option by Sharp

Local Option

Note: all the configurations on this page require optional Caster Base or Adjustable Printer Stand.

MX-FN39
Staple, Hole Punch Finisher

MX-FN38
Staple Finisher

MX-B707P/B557P
Base Unit

MX-MS10 *1
4-Bin Mailbox

MX-TR22 *1
Output Expander

MX-TR23 *1
High Capacity
Output Expander

MX-CS21
250-sheet Tray

MX-CS21
250-sheet Tray

MX-CS21
250-sheet Tray

MX-CS21
250-sheet Tray

MX-CS21
250-sheet Tray

MX-CS23
550-sheet Tray

MX-CS23
550-sheet Tray

MX-CS23
550-sheet Tray

MX-CS23
550-sheet Tray

MX-CS23
550-sheet Tray

MX-CS23
550-sheet Tray

MX-CS23
550-sheet Tray

MX-CS23
550-sheet Tray

MX-CS23
550-sheet Tray

50G0854
Spacer

50G0854
Spacer

50G0854
Spacer

50G0854
Spacer

50G0854
Spacer

50G0854
Spacer

50G0855
Caster Base

50G0855
Caster Base

50G0855
Caster Base

50G0855
Caster Base

50G0855
Caster Base

50G0855
Caster Base

50G0855
Caster Base

or

or

or

or

or

or

or

40C2300
Stand Adjustable

40C2300
Stand Adjustable

40C2300
Stand Adjustable

40C2300
Stand Adjustable

40C2300
Stand Adjustable

40C2300
Stand Adjustable

40C2300
Stand Adjustable

*1: Without Finisher, 4-Bin Mailbox MX-MS10 and Output Expander MX-TR22 can be installed up to 3 pcs in total.
*2: A single output expander MX-TR22 is the only option that can be placed on top of the high capacity output expander MX-TR23.

Can be configured in any order

<Floor 2/5>

Note: all the configurations on this page require optional Caster Base or Adjustable Printer Stand.

Legend:
- Standard
- Option by Sharp
- Local Option

MX-B707P/B557P Base Unit

- MX-FN39 — Staple, Hole Punch Finisher
- MX-FN38 — Staple Finisher
- MX-MS10 *1 — 4-Bin Mailbox
- MX-TR22 *1 — Output Expander
- MX-TR23 *1 — High Capacity Output Expander

Column 1:
- MX-CS21 250-sheet Tray
- MX-CS21 250-sheet Tray
- MX-CS21 250-sheet Tray
- 50G0855 Caster Base
- or
- 40C2300 Stand Adjustable

Column 2:
- MX-CS21 250-sheet Tray
- MX-CS21 250-sheet Tray
- MX-CS21 250-sheet Tray
- MX-CS21 250-sheet Tray
- 50G0855 Caster Base
- or
- 40C2300 Stand Adjustable

Column 3 (Can be configured in any order):
- MX-CS21 250-sheet Tray
- MX-CS21 250-sheet Tray
- MX-CS21 250-sheet Tray
- MX-CS23 550-sheet Tray
- 50G0855 Caster Base
- or
- 40C2300 Stand Adjustable

Column 4:
- MX-CS21 250-sheet Tray
- MX-CS21 250-sheet Tray
- MX-CS21 250-sheet Tray
- 50G0854 Spacer
- 50G0855 Caster Base
- or
- 40C2300 Stand Adjustable

Column 5:
- MX-CS23 550-sheet Tray
- MX-CS23 550-sheet Tray
- 50G0855 Caster Base
- or
- 40C2300 Stand Adjustable

Column 6:
- MX-CS23 550-sheet Tray
- 50G0854 Spacer
- 50G0855 Caster Base
- or
- 40C2300 Stand Adjustable

Column 7:
- 50G0854 Spacer
- 50G0854 Spacer
- 50G0855 Caster Base
- or
- 40C2300 Stand Adjustable

*1: Without Finisher, 4-Bin Mailbox MX-MS10 and Output Expander MX-TR22 can be installed up to 3 pcs in total.

*2: A single output expander MX-TR22 is the only option that can be placed on top of the high capacity output expander MX-TR23.

Can be configured in any order

<Floor 3/5>

Note: all the configurations on this page require optional Caster Base or Adjustable Printer Stand.

Standard
Option
Local Option

MX-B707P/B557P
Base Unit

MX-FN39
Staple, Hole
Punch Finisher

MX-FN38
Staple Finisher

MX-MS10 *1
4-Bin Mailbox

MX-TR22 *1
Output Expander

MX-TR23
High Capacity Output
Expander

MX-CS21
250-sheet Tray

MX-CS21
250-sheet Tray

MX-CS21
250-sheet Tray

MX-CS21
250-sheet Tray

MX-CS21
250-sheet Tray

MX-CS21
250-sheet Tray

MX-CS21
250-sheet Tray

MX-CS21
250-sheet Tray

MX-CS21
250-sheet Tray

MX-CS21
250-sheet Tray

MX-CS21
250-sheet Tray

MX-CS21
250-sheet Tray

MX-CS21
250-sheet Tray

MX-CS21
250-sheet Tray

MX-CS23
550-sheet Tray

MX-CS23
550-sheet Tray

MX-CS23
MXI-sheet Tray

MX-CS23
550-sheet Tray

MX-CS23
550-sheet Tray

MX-CS23
550-sheet Tray

MX-CS23
550-sheet Tray

MX-CS23
550-sheet Tray

MX-CS23
550-sheet Tray

MX-CS23
550-sheet Tray

MX-CS25 *2
2,100-sheet Tray

MX-CS25 *2
2,100-sheet Tray

MX-CS25 *2
2,100-sheet Tray

MX-CS25 *2
2,100-sheet Tray

MX-CS25 *2
2,100-sheet Tray

MX-CS25 *2
2,100-sheet Tray

MX-CS25 *2
2,100-sheet Tray

MX-CS25 *2
2,100-sheet Tray

MX-CS25 *2
2,100-sheet Tray

50G0855
Caster Base

50G0855
Caster Base

50G0855
Caster Base

50G0855
Caster Base

50G0855
Caster Base

50G0855
Caster Base

50G0855
Caster Base

50G0855
Caster Base

50G0855
Caster Base

*1: Without Finisher, 4-Bin Mailbox MX-MS10 and Output Expander MX-TR22 can be installed up to 3 pcs in total.

*2: Optional 2,100-sheet Input Tray MX-CS25 requires optional Caster Base.

*3: A single output expander MX-TR22 is the only option that can be placed on top of the high capacity output expander MX-TR23.

- - - Can be configured in any order

<Floor 4/5>

Standard
Option by Sharp
Local Option

MX-B707P/B557P
Base Unit

MX-FN39
Staple, Hole Punch
Finisher

MX-FN38
Staple Finisher

MX-MS10 *1
4-Bin Mailbox

MX-TR22 *1
Output Expander

MX-TR23 *1
High Capacity
Output Expander

MX-CS21
250-sheet Tray

MX-CS23
550-sheet Tray

MX-CS25 *2
2,100-sheet Tray

MX-CS25 *2
2,100-sheet Tray

MX-CS25 *2
2,100-sheet Tray

50G0855
Caster Base

50G0855
Caster Base

50G0855
Caster Base

*1: Without Finisher, 4-Bin Mailbox MX-MS10 and Output Expander MX-TR22 can be installed up to 3 pcs in total.

*2: Optional 2,100-sheet Input Tray MX-CS25 requires optional Caster Base.

*3: A single output expander MX-TR22 is the only option that can be placed on top of the high capacity output expander MX-TR23.

<Floor 5/5>

Standard

Option by Sharp

Local Option

```
                                                            ┌──────────────────┐
                                                            │ MX-FN39          │
                                                            │ Staple, Hole     │
                                                            │ Punch Finisher   │
                                                            └──────────────────┘
┌──────────────────┐                                        ┌──────────────────┐
│ MX-B707P/B557P   │                                        │ MX-FN38          │
│ Base Unit        │                                        │ Staple Finisher  │
└──────────────────┘                                        └──────────────────┘
                            ┌──────────────────┐
                            │ MX-MS10 *1       │
                            │ 4-Bin Mailbox    │
                            └──────────────────┘
                            ┌──────────────────┐
                            │ MX-TR22 *1       │
                            │ Output Expander  │
                            └──────────────────┘
                            ┌──────────────────┐
                            │ MX-TR23 *1       │
                            │ High Capacity    │
                            │ Output Expander  │
                            └──────────────────┘
```

| MX-CS21 250-sheet Tray | MX-CS21 250-sheet Tray | MX-CS21 250-sheet Tray | | MX-CS21 250-sheet Tray |

MX-CS21 250-sheet Tray

MX-CS23 550-sheet Tray

MX-CS23 550-sheet Tray

50G0854 Spacer

50G0854 Spacer

3073173 Cabinet Swivel	3073173 Cabinet Swivel	3073173 Cabinet Swivel	3073173 Cabinet Swivel	3073173 Cabinet Swivel	3073173 Cabinet Swivel	3073173 Cabinet Swivel
or	or	or	or	or	or	or
50G0855 Caster Base	50G0855 Caster Base	50G0855 Caster Base	50G0855 Caster Base	50G0855 Caster Base	50G0855 Caster Base	50G0855 Caster Base
or	or	or	or	or	or	or
40C2300 Stand Adjustable	40C2300 Stand Adjustable	40C2300 Stand Adjustable	40C2300 Stand Adjustable	40C2300 Stand Adjustable	40C2300 Stand Adjustable	40C2300 Stand Adjustable

*1: Without Finisher, 4-Bin Mailbox MX-MS10 and Output Expander MX-TR22 can be installed up to 3 pcs in total.

*2: A single output expander MX-TR22 is the only option that can be placed on top of the high capacity output expander MX-TR23.

Can be configured in any order

Can be configured as needed

Product Name	Description	MX-B707P/MX-B557P
MX-CS21	250 Sheet Tray	●
MX-CS21S	250 Sheet Tray Insert	●
MX-CS23	550 Sheet Tray	●
MX-CS23S	550 Sheet Tray Insert	●
MX-CS25	2100 Sheet Tray	●
MX-FN38	Staple Finisher	●
MX-FN39	Staple, Hole Punch Finisher	●
25A0013	Staple Cartridge 3-pack (15K)	● (Local Option
MX-MS10	4-Bin Mailbox	●
MX-TR22	Output expander	●
MX-TR23	High Capacity Output expander	●
3073173	Cabinet swivel	● (Local Option)
40C2300	Stand adjustable	● (Local Option)
50G0855	Caster base	● (Local Option)
50G0854	Spacer	● (Local Option)
27X0142	Print server fiber Ethernet N8230	● (Local Option)
27X6410	Print server 802.11b/g/n/ac N8372 (front)	● (Local Option)
27X6510	N8370 802.11 a/b/g/n/ac Wireless Print Server	● (Local Option)
1021231	Cable Parallel	● (Local Option)
1021294	Cable USB	● (Local Option)
14F0000	Interface Parallel Card	● (Local Option)
14F0100	Interface Serial Card	● (Local Option)
57X9801	256-MB flash memory	● (Local Option)
57X0204	4-GB memory	● (Local Option)
27X0500	500-GB HDD	● (Local Option)
40C9200	Forms and barcode	● (Local Option)
40C9201	IPDS	● (Local Option)
40C9202	PRESCRIBE	● (Local Option)
57X0185	Security Module	● (Local Option)
57X0300	Contact authentication device	● (Local Option)
57X0301	Contactless authentication device	● (Local Option)

[2] CONSUMABLE PARTS

MX-B707P, MX-B557P

1, Consumable system table

North America, Canada, Mexico/Europe/Middle East, India

Machine model	Content	Return/Regular	Model name
MX-B707P MX-B557P	Toner Cartridge (Black)	Return	MX-B70T
		Regular	MX-B70T-S *
	Imaging Unit	Return	MX-B70DU
		Regular	MX-B70DU-S *

*Not available in Europe.

2, Maintenance parts list

North America, Canada, Mexico

Item	Model name	Content	Number	Life
225K maintenance kit (115V)	MX-B70KA1	Fuser	1	225K
		Pick rollers	3	
		Tray separators	3	
		Transfer roller	1	
225K maintenance kit (115V NRP*)	MX-B70KB1	Fuser	1	225K
		Pick rollers	3	
		Tray separators	3	
		Transfer roller	1	
400K maintenance kit (115V)	MX-B70KE1	Fuser	1	400K
		Pick rollers	3	
		Tray separators	3	
		Transfer roller	1	
400K maintenance kit (Printer rollers)	MX-B70KD	Pick rollers	3	400K
		Tray separators	3	
		Transfer roller	1	

*NRP: Non Return Program

Europe, Middle East, India

Item	Model name	Content	Number	Life
225K maintenance kit (230V)	MX-B70KA	Fuser	1	225K
		Pick rollers	3	
		Tray separators	3	
		Transfer roller	1	

400K maintenance kit (230V)	MX-B70KE	Fuser	1	400K
		Pick rollers	3	
		Tray separators	3	
		Transfer roller	1	
400K maintenance kit (Printer rollers)	MX-B70KD	Pick rollers	3	400K
		Tray separators	3	
		Transfer roller	1	

[3] Upgrading and migrating

Hardware

Available internal options

- Flash memory

- Font cards

- Firmware cards

  - Forms and Bar Code

  - PRESCRIBE

  - IPDS

- Printer hard disk

- Internal solutions port

  - Parallel 1284-B Interface Card

  - RS-232C Serial Interface Card

  - Fiber Interface Card

  - N8370 (802.11a/b/g/n/ac Wireless Print Server)

Accessing the controller board

⚠ **CAUTION—SHOCK HAZARD:** To avoid the risk of electrical shock, if you are accessing the controller board or installing optional hardware or memory devices sometime after setting up the printer, then turn the printer off, and unplug the power cord from the electrical outlet before continuing. If you have any other devices attached to the printer, then turn them off as well, and unplug any cables going into the printer.

1. Turn off the printer.

2. Unplug the power cord from the electrical outlet, and then from the printer.

3. Using a flat-head screwdriver, open the controller board access cover.

   Warning—Potential Damage: Controller board electronic components are easily damaged by static electricity. Touch a metal surface on the printer before touching any controller board components or connectors.

4. Install any supported internal options. For more information, see the documentation that came with the option.

5. Close the access cover.

6. Connect the power cord to the printer, and then to the electrical outlet.

   ⚠ **CAUTION—POTENTIAL INJURY:** To avoid the risk of fire or electrical shock, connect the power cord to

   an appropriately rated and properly grounded electrical outlet that is near the product and easily accessible.

7. Turn on the printer.

Installing a memory card

⚠ **CAUTION—SHOCK HAZARD:** To avoid the risk of electrical shock, if you are accessing the controller board

or installing optional hardware or memory devices sometime after setting up the printer, then turn the printer off,

and unplug the power cord from the electrical outlet before continuing. If you have any other devices attached to

the printer, then turn them off as well, and unplug any cables going into the printer.

1. Turn off the printer.

2. Unplug the power cord from the electrical outlet, and then from the printer.

3. Using a flat-head screwdriver, open the controller board access cover.

   Warning—Potential Damage: Controller board electronic components are easily damaged by static

   electricity. Touch a metal surface on the printer before touching any controller board components or

   connectors.

4. Unpack the memory card.

   Warning—Potential Damage: Do not touch the connection points along the edge of the card.

5. Insert the memory card until it *clicks* into place.
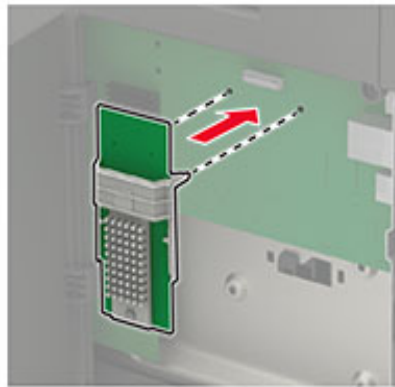
6. Close the access cover.

7. Connect the power cord to the printer, and then to the electrical outlet.

   ⚠ **CAUTION—POTENTIAL INJURY:** To avoid the risk of fire or electrical shock, connect the power cord to

   an appropriately rated and properly grounded electrical outlet that is near the product and easily accessible.

8. Turn on the printer.

Installing an optional card

⚠️ **CAUTION—SHOCK HAZARD:** To avoid the risk of electrical shock, if you are accessing the controller board or installing optional hardware or memory devices sometime after setting up the printer, then turn the printer off, and unplug the power cord from the electrical outlet before continuing. If you have any other devices attached to the printer, then turn them off as well, and unplug any cables going into the printer.

1. Turn off the printer.

2. Unplug the power cord from the electrical outlet, and then from the printer.

3. Using a flat-head screwdriver, open the controller board access cover.

   Warning—Potential Damage: Controller board electronic components are easily damaged by static electricity. Touch a metal surface on the printer before touching any components or connectors.
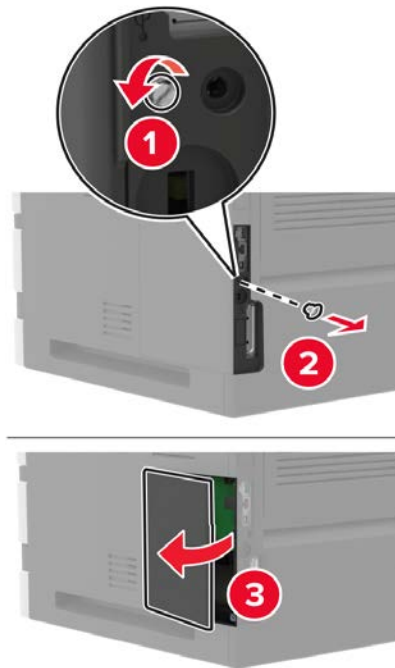
4. Unpack the optional card.

   Warning—Potential Damage: Do not touch the connection points along the edge of the card.

5. Push the card firmly into place.
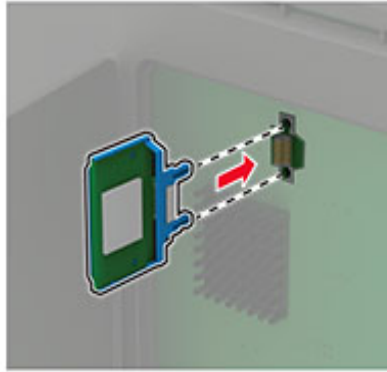
Note: The entire length of the connector on the card must touch and be flush against the controller board.

Warning—Potential Damage: Improper installation of the card may cause damage to the card and the controller board.

6. Close the access cover.

7. Connect the power cord to the printer, and then to the electrical outlet.

⚠ **CAUTION—POTENTIAL INJURY:** To avoid the risk of fire or electrical shock, connect the power cord to an appropriately rated and properly grounded electrical outlet that is near the product and easily accessible.

8. Turn on the printer.

Installing a printer hard disk

⚠ **CAUTION—SHOCK HAZARD:** To avoid the risk of electrical shock, if you are accessing the controller board or installing optional hardware or memory devices sometime after setting up the printer, then turn the printer off, and unplug the power cord from the electrical outlet before continuing. If you have any other devices attached to the printer, then turn them off as well, and unplug any cables going into the printer.

1. Turn off the printer.

2. Unplug the power cord from the electrical outlet, and then from the printer.

3. Using a flat-head screwdriver, open the controller board access cover.

Warning—Potential Damage: Controller board electronic components are easily damaged by static electricity. Touch a metal surface on the printer before touching any controller board components or connectors.

4. Unpack the printer hard disk.

5. Attach the hard disk, and then connect the hard disk interface cable to the controller board.

   Warning—Potential Damage: Do not touch or press the center of the hard disk.
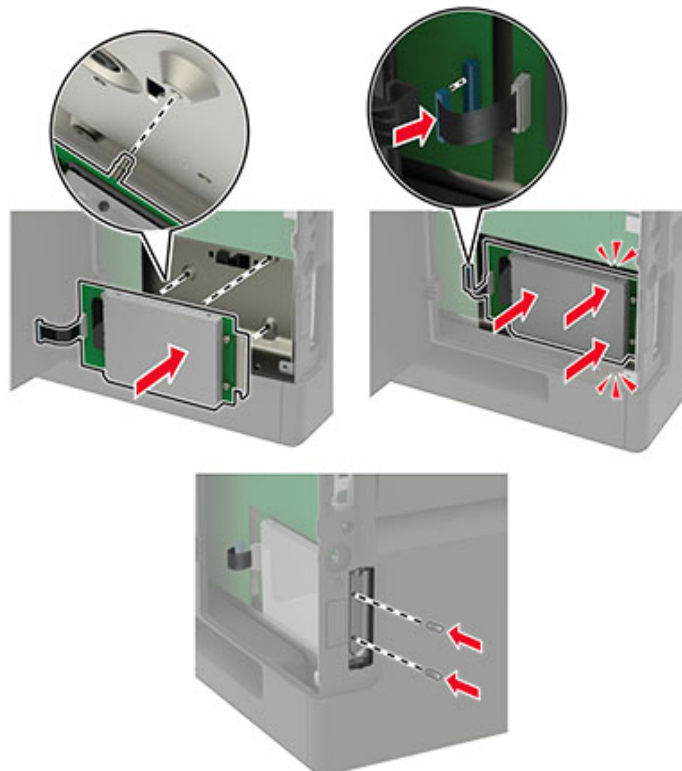
6. Close the access cover.

7. Connect the power cord to the printer, and then to the electrical outlet.

⚠️ **CAUTION—POTENTIAL INJURY:** To avoid the risk of fire or electrical shock, connect the power cord to an appropriately rated and properly grounded electrical outlet that is near the product and easily accessible.

8. Turn on the printer.

Installing an internal solutions port

⚡ **CAUTION—SHOCK HAZARD:** To avoid the risk of electrical shock, if you are accessing the controller board or installing optional hardware or memory devices sometime after setting up the printer, then turn the printer off, and unplug the power cord from the electrical outlet before continuing. If you have any other devices attached to the printer, then turn them off as well, and unplug any cables going into the printer.

1. Turn off the printer, and then unplug the power cord from the electrical outlet.

2. Using a flat-head screwdriver, open the controller board access cover.

   Warning—Potential Damage: Controller board electronic components are easily damaged by static electricity. Touch a metal surface on the printer before touching any controller board components or connectors.
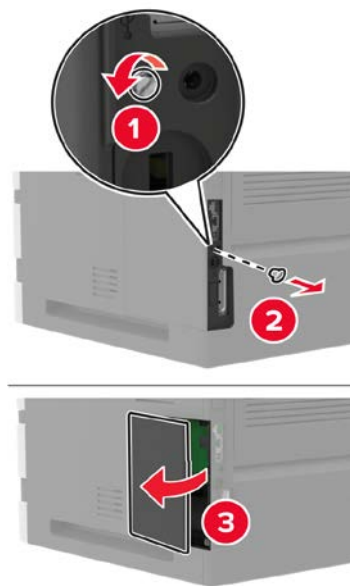
3. Unpack the internal solutions port (ISP) kit.
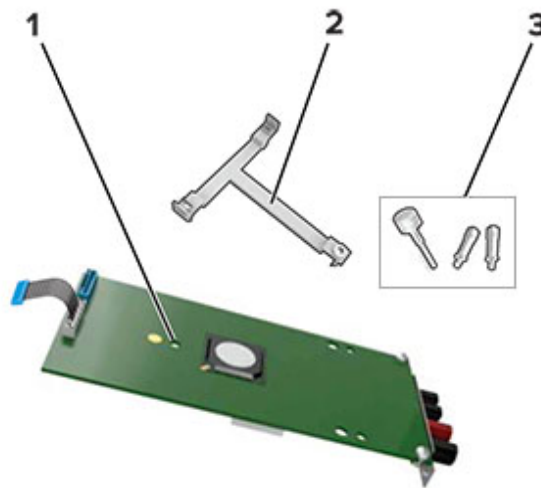
1	ISP
2	Mounting bracket
3	Thumbscrews

4. If necessary, remove the printer hard disk.

5. Insert the bracket into the board until it *clicks* into place.
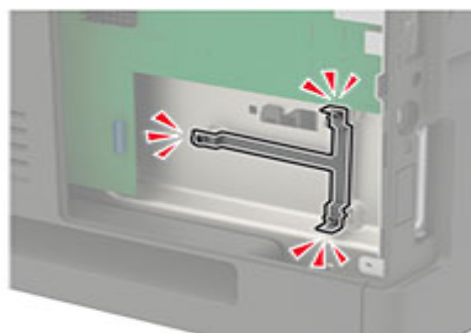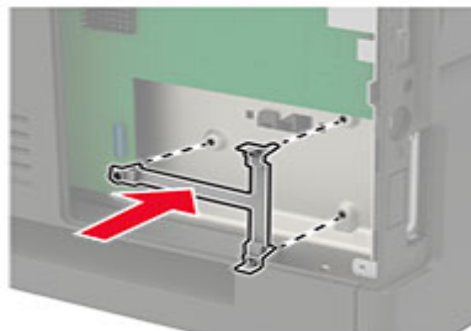
6. Attach the ISP to the bracket.
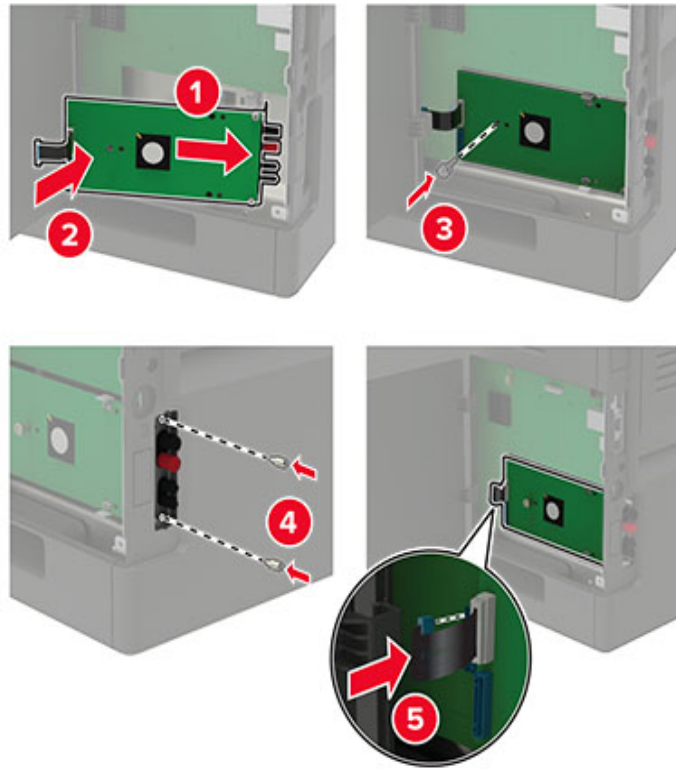
7. If necessary, attach the hard disk to the ISP.

    a. Remove the hard disk bracket.
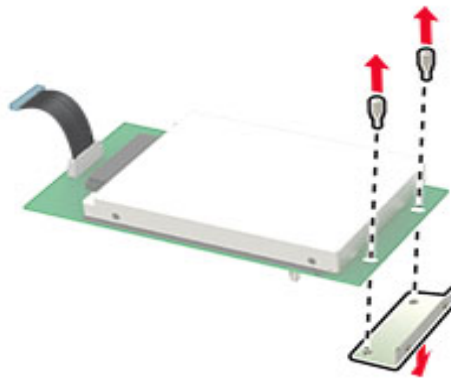
    b. Connect the hard disk to the ISP.

        Warning—Potential Damage: Do not touch or press the center of the hard disk.
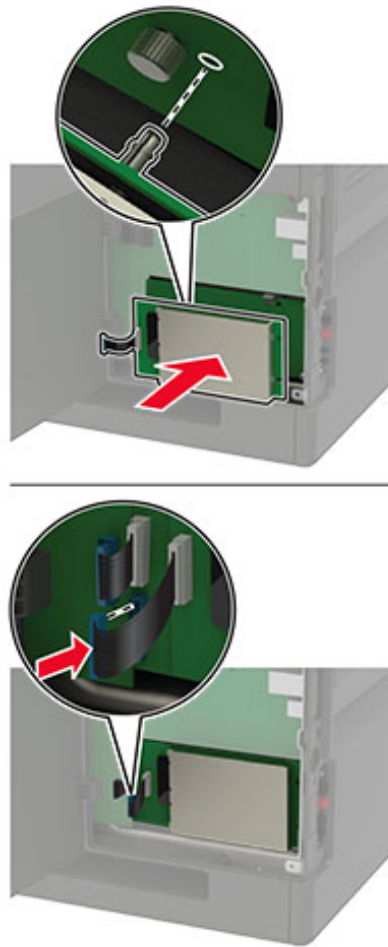
8. Close the access cover.

9. Connect the power cord to the electrical outlet, and then turn on the printer.

   ⚠ **CAUTION—POTENTIAL INJURY:** To avoid the risk of fire or electrical shock, connect the power cord to an appropriately rated and properly grounded electrical outlet that is near the product and easily accessible.

Installing the 250- or 550-sheet tray

⚠ **CAUTION—SHOCK HAZARD:** To avoid the risk of electrical shock, if you are accessing the controller board or installing optional hardware or memory devices sometime after setting up the printer, then turn the printer off, and unplug the power cord from the electrical outlet before continuing. If you have any other devices attached to the printer, then turn them off as well, and unplug any cables going into the printer.

⚠ **CAUTION—TIPPING HAZARD:** Installing one or more options on your printer or MFP may require a caster base, furniture, or other feature to prevent instability causing possible injury. For more information on supported configurations, contact the place where you purchased the printer.

1. Turn off the printer.

2. Unplug the power cord from the electrical outlet, and then from the printer.

3. Unpack the optional tray, and then remove all packing material.

   Note: If optional trays are already installed, then unlock them from the printer before lifting the printer. Do not try to lift the printer and trays at the same time.

4. Align the printer with the optional tray, and then lower the printer until it *clicks* into place.

   ⚠️ **CAUTION—POTENTIAL INJURY:** If the printer weight is greater than 18 kg (40 lb), then it requires two or more trained personnel to lift it safely.

5. Connect the power cord to the printer, and then to the electrical outlet.

   ⚠️ **CAUTION—POTENTIAL INJURY:** To avoid the risk of fire or electrical shock, connect the power cord to an appropriately rated and properly grounded electrical outlet that is near the product and easily accessible.

6. Turn on the printer.

Add the tray in the print driver to make it available for print jobs. For more information, see Adding available options in the print driver.

Installing the 2100-sheet tray

⚠️ **CAUTION—SHOCK HAZARD:** To avoid the risk of electrical shock, if you are accessing the controller board or installing optional hardware or memory devices sometime after setting up the printer, then turn the printer off, and unplug the power cord from the electrical outlet before continuing. If you have any other devices attached to the printer, then turn them off as well, and unplug any cables going into the printer.

⚠️ **CAUTION—TIPPING HAZARD:** Installing one or more options on your printer or MFP may require a caster base, furniture, or other feature to prevent instability causing possible injury. For more information on supported configurations, contact the place where you purchased the printer.

1. Turn off the printer.

2. Unplug the power cord from the electrical outlet, and then from the printer.

3. Unpack the tray, and then remove all packing material.

   Note: If optional trays are already installed, then unlock them from the printer before lifting the printer. Do not try to lift the printer and trays at the same time.

4. Install the tray on the caster base.

   Note: Make sure that the caster base wheels are locked.

   ⚠️ **CAUTION—POTENTIAL INJURY:** If the tray weight is greater than 18 kg (40 lb), then it requires two or more trained personnel to lift it safely.
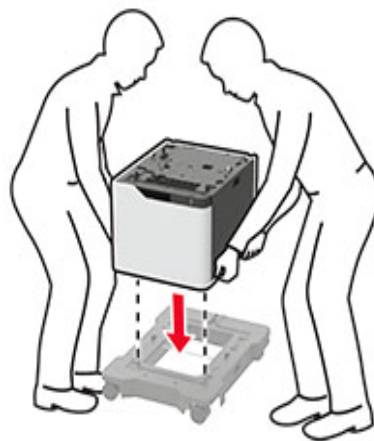
5. Align the printer with the tray, and then lower the printer until it *clicks* into place.

   ⚠️ **CAUTION—POTENTIAL INJURY:** If the printer weight is greater than 18 kg (40 lb), then it requires two or more trained personnel to lift it safely.

6. Connect the power cord to the printer, and then to the electrical outlet.

   ⚠️ **CAUTION—POTENTIAL INJURY:** To avoid the risk of fire or electrical shock, connect the power cord to

   an appropriately rated and properly grounded electrical outlet that is near the product and easily accessible.

7. Turn on the printer.

Add the tray in the print driver to make it available for print jobs. For more information, see Adding available options in the print driver.

Installing the 4-bin mailbox

⚠️ **CAUTION—TIPPING HAZARD:** Installing one or more options on your printer or MFP may require a caster

base, furniture, or other feature to prevent instability causing possible injury. For more information on supported configurations, contact the place where you purchased the printer.

1. Turn off the printer.

2. Unplug the power cord from the electrical outlet, and then from the printer.

3. Unpack the mailbox.

   Note: You may need to install the guide bar before installing the mailbox. For more information, see the installation sheet that came with the guide bar.

4. Remove the printer top cover.

5. Install the mailbox on the printer.
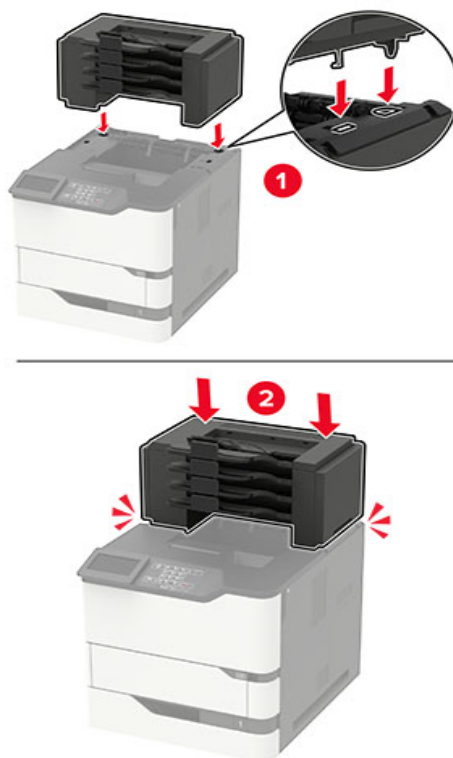
- A maximum of three mailboxes may be configured with the printer.

- If configured with the output expander, then the mailbox and output expander may be installed in any order.

6. Connect the power cord to the printer, and then to the electrical outlet.

⚠ **CAUTION—POTENTIAL INJURY:** To avoid the risk of fire or electrical shock, connect the power cord to an appropriately rated and properly grounded electrical outlet that is near the product and easily accessible.

7. Turn on the printer.

Add the mailbox in the print driver to make it available for print jobs. For more information, see Adding available options in the print driver.

Installing the output expander or high-capacity output expander

⚠️ **CAUTION—TIPPING HAZARD:** Installing one or more options on your printer or MFP may require a caster base, furniture, or other feature to prevent instability causing possible injury. For more information on supported configurations, contact the place where you purchased the printer.

1. Turn off the printer.

2. Unplug the power cord from the electrical outlet, and then from the printer.

3. Unpack the output expander or high-capacity output expander.

   Note: You may need to install the guide bar before installing either of the options. For more information, see the installation sheet that came with the guide bar.

4. Remove the printer top cover.

5. Install the option on the printer.
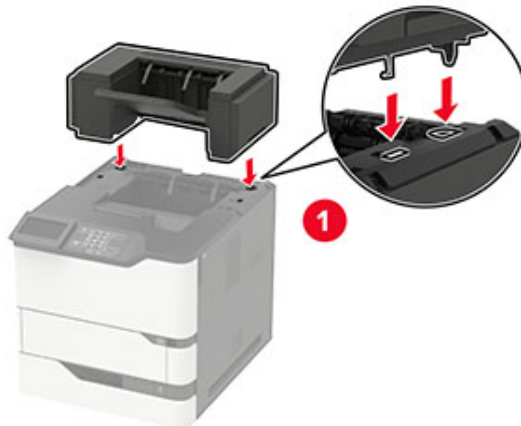
In configuration with two or more hardware options:

- The output expander is the only option that can be placed on top of the high-capacity output expander.

- The high-capacity output expander must always be at the bottom.

6. Connect the power cord to the printer, and then to the electrical outlet.

⚠ **CAUTION—POTENTIAL INJURY:** To avoid the risk of fire or electrical shock, connect the power cord to an appropriately rated and properly grounded electrical outlet that is near the product and easily accessible.

7. Turn on the printer.

Add the option in the print driver to make it available for print jobs. For more information, see Adding available options in the print driver.

Installing the staple finisher

⚠ **CAUTION—TIPPING HAZARD:** Installing one or more options on your printer or MFP may require a caster base, furniture, or other feature to prevent instability causing possible injury. For more information on supported configurations, contact the place where you purchased the printer.

1. Turn off the printer.

2. Unplug the power cord from the electrical outlet, and then from the printer.

3. Unpack the staple finisher.

   Note: You may need to install the guide bar before installing the finisher. For more information, see the installation sheet that came with the guide bar.

4. Remove the printer top cover.

5. Install the staple finisher on the printer.
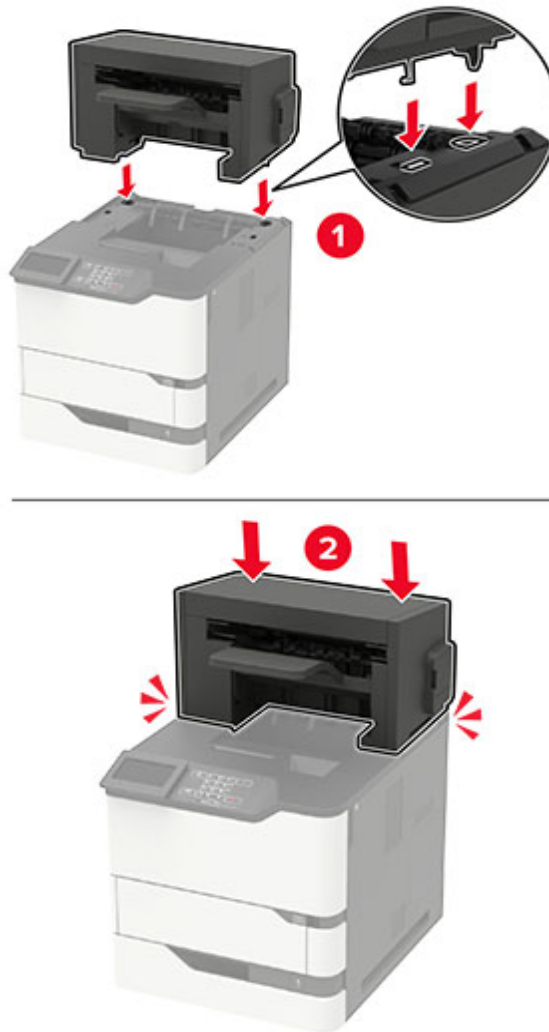
If configured with two or more optional hardware options, then the staple finisher must always be on top.

6. Connect the power cord to the printer, and then to the electrical outlet.

⚠️ **CAUTION—POTENTIAL INJURY:** To avoid the risk of fire or electrical shock, connect the power cord to an appropriately rated and properly grounded electrical outlet that is near the product and easily accessible.

7. Turn on the printer.

Add the staple finisher in the print driver to make it available for print jobs. For more information, see Adding available options in the print driver.

Installing the staple, hole punch finisher

⚠️ **CAUTION—TIPPING HAZARD:** Installing one or more options on your printer or MFP may require a caster base, furniture, or other feature to prevent instability causing possible injury. For more information on supported configurations, contact the place where you purchased the printer.

1. Turn off the printer.

2. Unplug the power cord from the electrical outlet, and then from the printer.

3. Unpack the staple, hole punch finisher.

    Note: You may need to install the guide bar before installing the finisher. For more information, see the installation sheet that came with the guide bar.

4. Remove the printer top cover.

5. Install the finisher on the printer.

The finisher must not be combined with any other output options.

6. Connect the power cord to the printer, and then to the electrical outlet.

    ⚠ **CAUTION—POTENTIAL INJURY:** To avoid the risk of fire or electrical shock, connect the power cord to

    an appropriately rated and properly grounded electrical outlet that is near the product and easily accessible.

7. Turn on the printer.

    Add the finisher in the print driver to make it available for print jobs. For more information, see Adding available options in the print driver.

Software

Installing the printer software

1. Obtain a copy of the software installer package.

   - From the software CD that came with your printer.

   - From Sharp website.

2. Run the installer, and then follow the instructions on the computer screen.

3. For Macintosh users, add the printer.

   Note: Obtain the printer IP address from the TCP/IP section in the Network/Ports menu.

Adding available options in the print driver

For Windows users

1. Open the printers folder.

2. Select the printer you want to update, and then do either of the following:

   - For Windows 7 or later, select **Printer properties**.

3. Navigate to the Configuration tab, and then select **Update Now - Ask Printer**.

4. Apply the changes.

For Macintosh users

1. From System Preferences in the Apple menu, navigate to your printer, and then select **Options & Supplies**.

2. Navigate to the list of hardware options, and then add any installed options.

3. Apply the changes.

Firmware

Exporting or importing a configuration file

You can export the configuration settings of your printer into a text file, and then import the file to apply the settings to other printers.

1. Open a web browser, and then type the printer IP address in the address field.

   Notes:

   - View the printer IP address on the printer home screen. The IP address appears as four sets of numbers separated by periods, such as 123.123.123.123.

   - If you are using a proxy server, then temporarily disable it to load the web page correctly.

2. Export or import a configuration file for one or multiple applications.

   For one application

   a. From the Embedded Web Server, click **Apps** > the application that you want >**Configure**.

   b. Click **Export** or **Import**.

   For multiple applications

   a. From the Embedded Web Server, click **Export Configuration** or **Import Configuration**.

   b. Follow the instructions on the screen.

Updating firmware

Some applications require a minimum device firmware level to operate correctly.

For more information on updating the device firmware, contact your sales representative.

1. From the Embedded Web Server, click **Settings** >**Device** >**Update Firmware**.

2. Browse to locate the required flash file.

3. Apply the changes.

[4] Replacing parts and supplies

Replacing the imaging unit

1. Open door A.

   Warning—Potential Damage: To prevent damage from electrostatic discharge, touch any exposed metal frame of the printer before accessing or touching interior areas of the printer.

2. Remove the toner cartridge.

3. Remove the used imaging unit.
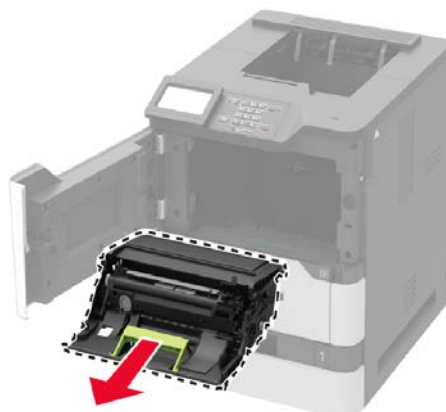
4. Unpack the new imaging unit, and then shake it to redistribute the toner.
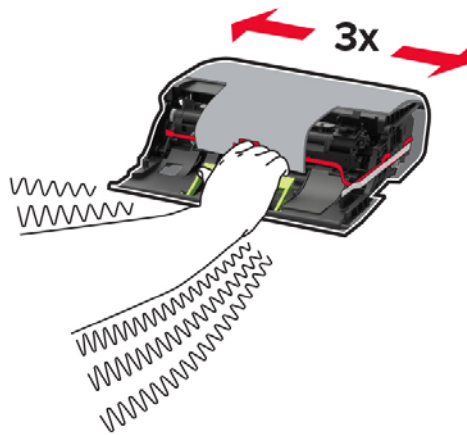
Warning—Potential Damage: Do not expose the imaging unit to direct light for more than 10 minutes. Extended exposure to light may cause print quality problems.

Warning—Potential Damage: Do not touch the photoconductor drum. Doing so may affect the quality of future print jobs.

5. Remove the packing material.

6. Insert the new imaging unit.
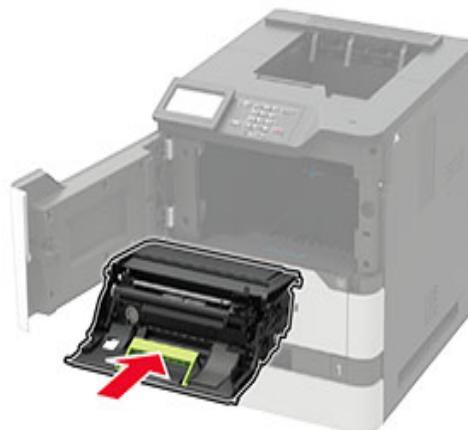
7. Insert the toner cartridge.

8. Close the door.

Replacing the fuser

1. Open door C.

⚠ **CAUTION—HOT SURFACE:** The inside of the printer might be hot. To reduce the risk of injury from a hot component, allow the surface to cool before touching it.

Warning—Potential Damage: To prevent damage from electrostatic discharge, touch any exposed metal frame of the printer before accessing or touching interior areas of the printer.

2. Unlock the fuser.
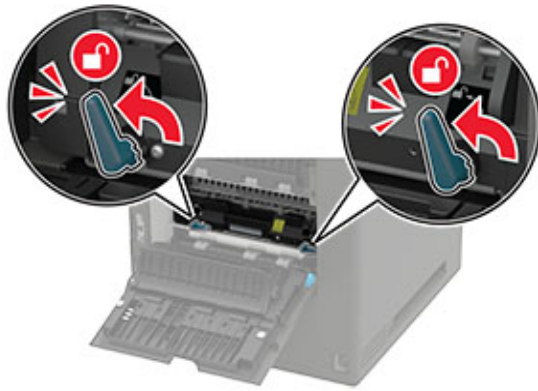
3. Remove the used fuser.
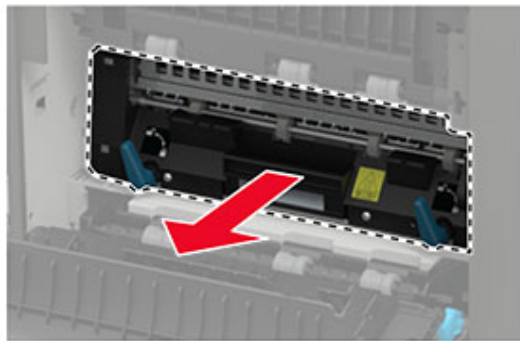
4. Unpack the new fuser.

5. Insert the new fuser until it *clicks* into place.
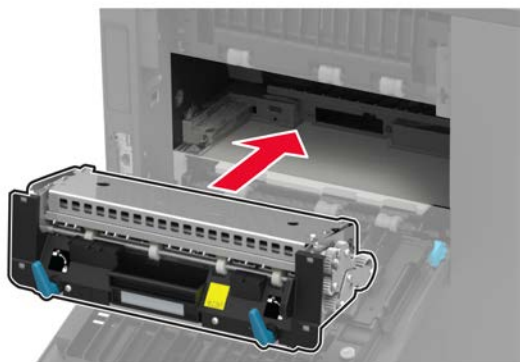
6. Lock the fuser.
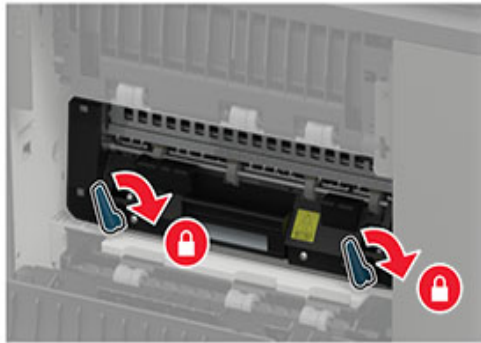
7. Close the door.

Replacing the hot roll fuser

1. Remove the standard bin cover.

2. Open door C.

⚠️ **CAUTION—HOT SURFACE:** The inside of the printer might be hot. To reduce the risk of injury from a hot component, allow the surface to cool before touching it.

Warning—Potential Damage: To prevent damage from electrostatic discharge, touch any exposed metal frame of the printer before accessing or touching interior areas of the printer.

3. Unlock the hot roll fuser.
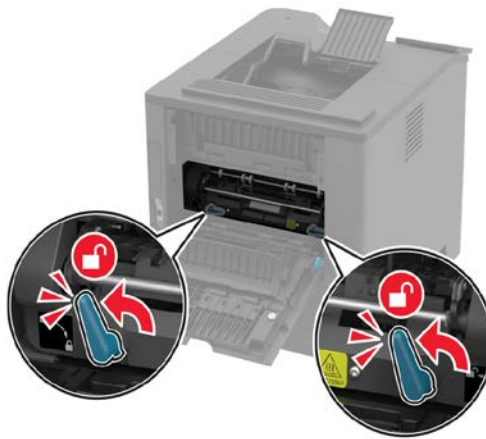
4. Remove the used hot roll fuser.
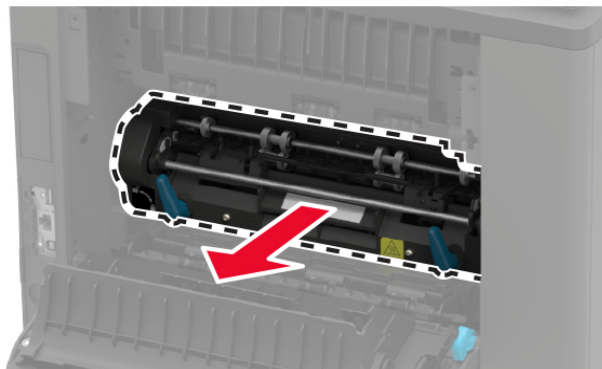
5. Unpack the new hot roll fuser.

6. Insert the new hot roll fuser until it *clicks* into place.
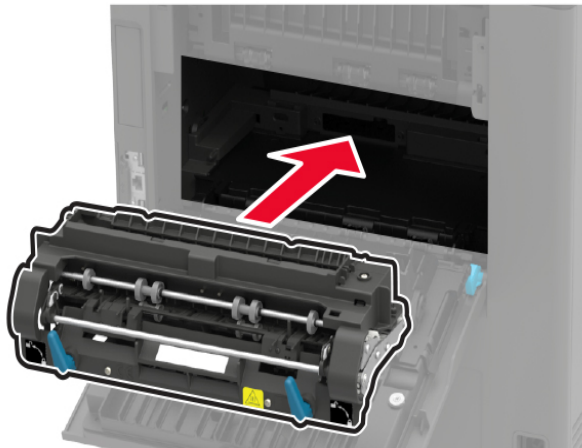
7. Lock the hot roll fuser.
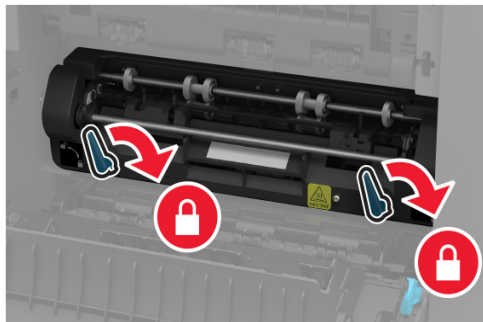
8. Close the door.

9. Install the standard bin cover.

Replacing the transfer roller

1. Open door A.

   Warning—Potential Damage: To prevent damage from electrostatic discharge, touch any exposed metal frame of the printer before accessing or touching interior areas of the printer.

2. Remove the toner cartridge.

3. Remove the imaging unit.
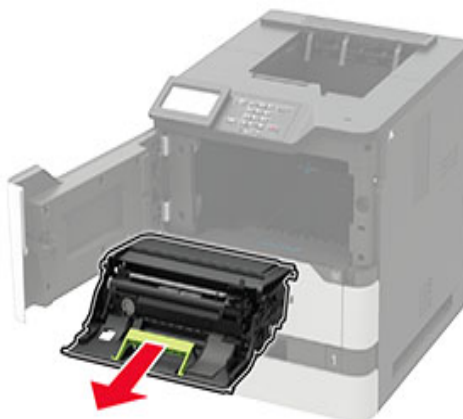
4. Remove the used transfer roller.

   ⚠️ **CAUTION—HOT SURFACE:** The inside of the printer might be hot. To reduce the risk of injury from a

   hot component, allow the surface to cool before touching it.
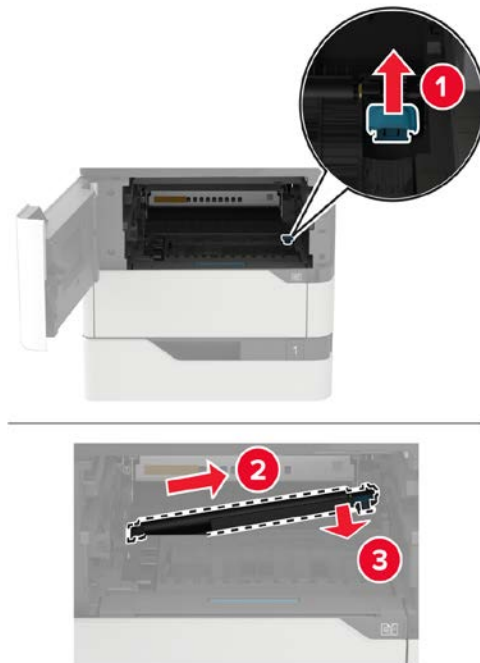
5. Unpack the new transfer roller.

6. Insert the new transfer roller until it *clicks* into place.
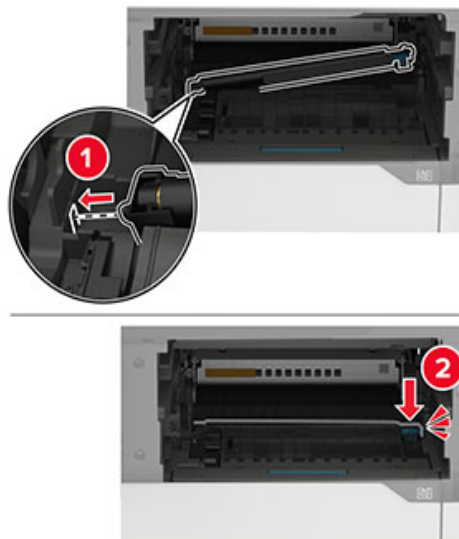
7. Insert the imaging unit.
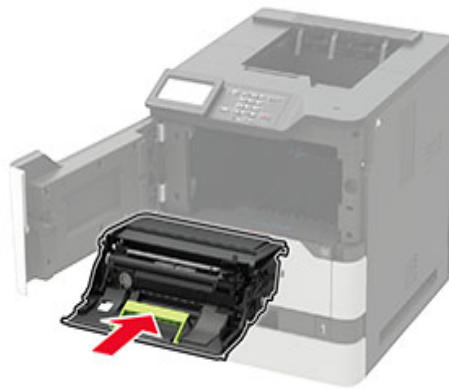
8. Insert the toner cartridge.

9. Close the door.

Replacing the pick roller

1. Remove the tray.

   Warning—Potential Damage: To prevent damage from electrostatic discharge, touch any exposed metal frame of the printer before accessing or touching interior areas of the printer.

2. Remove the used pick roller.
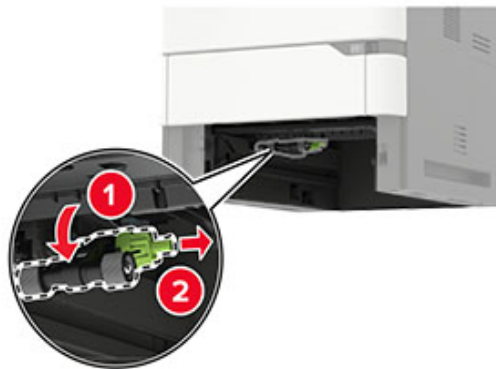
3. Unpack the new pick roller.

4. Install the new pick roller.
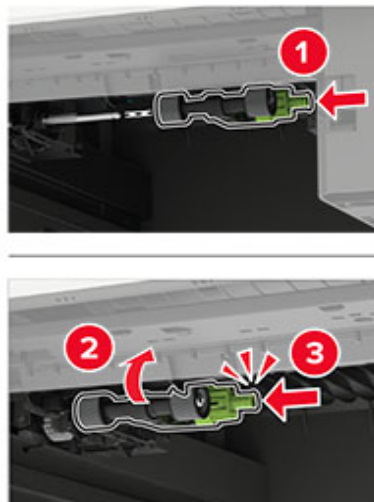
5. Insert the tray.

Replacing the pick roller in the multipurpose feeder

1. Open the multipurpose feeder.

   Warning—Potential Damage: To prevent damage from electrostatic discharge, touch any exposed metal frame of the printer before accessing or touching interior areas of the printer.

2. Remove the used pick roller.

3. Unpack the new pick roller.

4. Install the new pick roller.
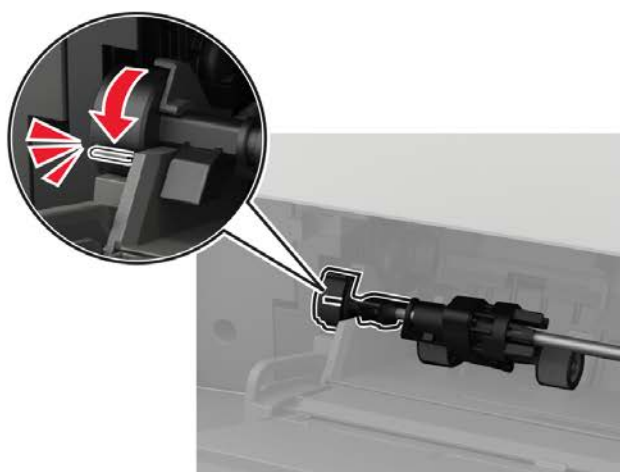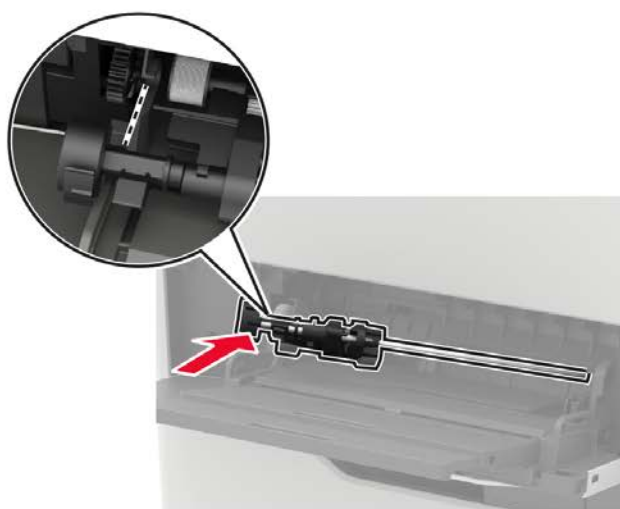
5. Close the multipurpose feeder.

[5] PARTS LIST (MX-B707P_MX-B557P)

No.	Section	Name	Asm-index	Sharp parts number	Manufacture parts number	Description	Note
1	Assembly 1	Covers	1	0SP41X1054///	41X1054	Top cover with static brush	
2	Assembly 1	Covers	2	0SP41X1055///	41X1055	Paper stacking bail	
3	Assembly 1	Covers	3	0SP41X1114///	41X1114	Printhead access cover	
4	Assembly 1	Covers	4	0SP41X1632///	41X1632	Bin cover	
5	Assembly 1	Covers	5	0SP41X1146///	41X1146	Bin extender	
6	Assembly 1	Covers	6	0SP41X1059///	41X1059	Trim cover	
7	Assembly 1	Covers	7	0SP41X1126///	41X1126	Rear door	
8	Assembly 1	Covers	8	0SP41X1065///	41X1065	Rear cover	
9	Assembly 1	Covers	9	0SP41X1066///	41X1066	Right cover	
10	Assembly 1	Covers	10	0SP41X1128///	41X1128	Controller board access door	
11	Assembly 1	Covers	11	0SP41X1064///	41X1064	Inner right cover	
12	Assembly 1	Covers	12	0SP50X0591///	50X0591	Front door:MX-B707P	
12	Assembly 1	Covers	12	0SP50X0592///	50X0592	Front door:MX-B557P	
13	Assembly 1	Covers	13	0SP41X1154///	41X1154	Front door pins	
14	Assembly 1	Covers	14	0SP41X1069///	41X1069	Front door bracket	
15	Assembly 1	Covers	15	0SP41X1068///	41X1068	Inner left cover	
16	Assembly 1	Covers	16	0SP41X1067///	41X1067	Left cover	
17	Assembly 1	Covers	17	0SP41X1063///	41X1063	Printhead access cover (hot roller)	
18	Assembly 2	Fuser	1	-			
19	Assembly 2	Fuser	1	-			
20	Assembly 2	Fuser	1	-			
21	Assembly 2	Fuser	1	-			
22	Assembly 2	Fuser	2	0SP41X1115///	41X1115	**Factory default unit** Belt SY fuser, 115V LTR LRP TYPE 00 / Maintenance interval:225K	SY fuser：For Standard yield LRP：For return program
23	Assembly 2	Fuser	2	0SP41X1116///	41X1116	**Factory default unit** Belt SY fuser, 230V A4 LRP TYPE 01 / Maintenance interval:225K	SY fuser：For Standard yield LRP：For return program
24	Assembly 2	Fuser	2	-			
25	Assembly 2	Fuser	2	-			
26	Assembly 2	Fuser	2	-			
27	Assembly 2	Fuser	2	0SP41X2143///	41X2143	Belt SY fuser, 115V LTR NLRP TYPE 05 / Maintenance interval:225K	SY fuser：For Standard yield LRP：For no return program
28	Assembly 2	Fuser	2	-			
29	Assembly 2	Fuser	2	-			
30	Assembly 2	Fuser	2	-			
31	Assembly 2	Fuser	2	0SP41X2155///	41X2155	Belt HY fuser, 115V LTR LRP TYPE 32 / Maintenance interval:400K	HY fuser：For High yield LRP：For return program
32	Assembly 2	Fuser	2	0SP41X2156///	41X2156	Belt HY fuser, 230V A4 LRP TYPE 33 / Maintenance interval:400K	HY fuser：For High yield LRP：For return program
33	Assembly 2	Fuser	2	-			
34	Assembly 2	Fuser	2	-			
35	Assembly 2	Fuser	3	0SP41X1075///	41X1075	Fuser attach bracket	
36	Assembly 2	Fuser	4	-			
37	Assembly 2	Fuser	4	-			
38	Assembly 3	Electronics 1	1	0SP41X1106///	41X1106	Printhead	
39	Assembly 3	Electronics 1	2	0SP41X1111///	41X1111	Printhead video cable	
40	Assembly 3	Electronics 1	3	0SP40X9079///	40X9079	Speaker	
41	Assembly 3	Electronics 1	4	0SP41X1177///	41X1177	Fan, 80 mm	
42	Assembly 3	Electronics 1	5	-			
43	Assembly 3	Electronics 1	5	0SP41X1127///	41X1127	Controller board (MS822, M5255, MS826, and M5270)	
44	Assembly 3	Electronics 1	6	0SP41X1052///	41X1052	Controller board housing	
45	Assembly 3	Electronics 1	7	0SP41X1053///	41X1053	Controller board shield	
46	Assembly 3	Electronics 1	8	0SP41X1622///	41X1622	HVPS shield	
47	Assembly 3	Electronics 1	9	0SP41X2320///	41X2320	LVPS cable	
48	Assembly 3	Electronics 1	10	0SP41X1099///	41X1099	HVPS	
49	Assembly 3	Electronics 1	11	0SP41X1087///	41X1087	High voltage contacts guide	
50	Assembly 3	Electronics 1	12	0SP41X1088///	41X1088	Toner cartridge bias roller	
51	Assembly 3	Electronics 1	13	0SP41X2610///	41X2610	Guide roller	
52	Assembly 3	Electronics 1	14	0SP41X2137///	41X2137	Printhead shield (Hot Roller)	
53	Assembly 4	Electronics 2	1	0SP41X1076///	41X1076	Transfer roller	
54	Assembly 4	Electronics 2	2	0SP41X1077///	41X1077	Sensor (toner density)	
55	Assembly 4	Electronics 2	3	0SP41X1095///	41X1095	Sensor (input)	
56	Assembly 4	Electronics 2	4	0SP41X1093///	41X1093	Sensor (tray 1 pick)	
57	Assembly 4	Electronics 2	5	0SP41X1094///	41X1094	Sensor (pass-through)	
58	Assembly 4	Electronics 2	6	0SP41X1086///	41X1086	Optional tray interface cable	
59	Assembly 4	Electronics 2	7	0SP41X1097///	41X1097	AC power socket	
60	Assembly 4	Electronics 2	8	0SP41X1177///	41X1177	Fan, 80 mm	
61	Assembly 4	Electronics 2	9	0SP41X1112///	41X1112	LVPS	
62	Assembly 4	Electronics 2	10	0SP41X2356///	41X2356	USB host cable	
63	Assembly 4	Electronics 2	11	0SP41X2673///	41X2673	Transfer roller contact	
64	Assembly 5	Motors	1	0SP41X1079///	41X1079	Aligner	
65	Assembly 5	Motors	2	0SP41X2135///	41X2135	Aligner spring	
66	Assembly 5	Motors	3	0SP41X1081///	41X1081	Aligner screw	
67	Assembly 5	Motors	4	0SP41X2123///	41X2123	Gear cover	
68	Assembly 5	Motors	5	0SP41X1615///	41X1615	Optional tray drive gear	
69	Assembly 5	Motors	6	0SP41X1105///	41X1105	Motor (MPF)	
70	Assembly 5	Motors	7	0SP41X1102///	41X1102	Main motor drive	
71	Assembly 5	Motors	8	0SP41X1104///	41X1104	Fuser drive gears	
72	Assembly 5	Motors	9	0SP41X1103///	41X1103	Toner cartridge drive	
73	Assembly 5	Motors	10	0SP41X2610///	41X2610	Guide roller	
74	Assembly 5	Motors	11	0SP41X2355///	41X2355	Toner cartridge motor cable	

No.	Section	Name	Asm-index	Sharp parts number	Manufacture parts number	Description	Note
75	Assembly 5	Motors	12	0SP41X1096///	41X1096	Motor (redrive)	
76	Assembly 5	Motors	13	0SP41X1109///	41X1109	Upper redrive	
77	Assembly 6	Sensors 1	1	0SP41X1083///	41X1083	Sensor (front door interlock)	
78	Assembly 6	Sensors 1	2	0SP41X1083///	41X1083	Sensor (toner cartridge shutter)	
79	Assembly 6	Sensors 1	3	0SP41X1089///	41X1089	Toner cartridge shutter actuator	
80	Assembly 6	Sensors 1	4	0SP41X1083///	41X1083	Sensor (duplex interlock)	
81	Assembly 6	Sensors 1	5	0SP41X1083///	41X1083	Sensor (MPF paper present)	
82	Assembly 6	Sensors 1	6	0SP41X1084///	41X1084	Sensor (toner smart chip)	
83	Assembly 6	Sensors 1	7	0SP41X2124///	41X2124	Toner smart chip spring	
84	Assembly 6	Sensors 1	8	0SP41X1072///	41X1072	Sensor (toner low)	
85	Assembly 6	Sensors 1	9	0SP41X2353///	41X2353	Toner low sensor cable	
86	Assembly 7	Sensors 2	1	0SP41X1056///	41X1056	Bin full sensor cover	
87	Assembly 7	Sensors 2	2	0SP41X1110///	41X1110	Sensor (standard bin full) with actuator	
88	Assembly 7	Sensors 2	3	0SP41X1083///	41X1083	Sensor (standard bin full)	
89	Assembly 7	Sensors 2	4	0SP41X1083///	41X1083	Sensor (rear door interlock)	
90	Assembly 7	Sensors 2	5	0SP41X2354///	41X2354	Paper size sensor cable	
91	Assembly 7	Sensors 2	6	0SP40X7911///	40X7911	Sensor (paper size)	
92	Assembly 7	Sensors 2	7	0SP41X1085///	41X1085	Paper size sensor cover	
93	Assembly 8	Duplex	1	0SP41X1122///	41X1122	Duplex/MPF tray	
94	Assembly 8	Duplex	1	-			
95	Assembly 8	Duplex	2	0SP41X1123///	41X1123	MPF pick roller	
96	Assembly 8	Duplex	3	0SP41X1638///	41X1638	MPF tray separator pad	
97	Assembly 8	Duplex	4	0SP41X1635///	41X1635	MPF tray drive/support	
98	Assembly 8	Duplex	5	0SP41X1636///	41X1636	MPF front door	
99	Assembly 8	Duplex	6	0SP41X1124///	41X1124	MPF tray extension	
100	Assembly 8	Duplex	7	0SP41X1631///	41X1631	Duplex pinch roller	
101	Assembly 8	Duplex	8	0SP41X1078///	41X1078	Sensor (duplex path) with cover	
102	Assembly 8	Duplex	9	0SP41X1083///	41X1083	Sensor (duplex path)	
103	Assembly 8	Duplex	10	0SP41X1050///	41X1050	Motor (duplex)	
104	Assembly 8	Duplex	11	0SP41X2318///	41X2318	Sensor/redrive motor cable	
105	Assembly 9	Frames	1	0SP41X1073///	41X1073	Imaging unit clamp	
106	Assembly 9	Frames	2	0SP41X1092///	41X1092	Rear door right pivot	
107	Assembly 9	Frames	3	0SP41X1080///	41X1080	Inner guide deflector	
108	Assembly 9	Frames	4	0SP41X1618///	41X1618	Imaging unit side bias roller	
109	Assembly 9	Frames	5	0SP41X1091///	41X1091	Tray bias roller, front	
110	Assembly 9	Frames	5	0SP41X1091///	41X1091	Tray bias roller, top	
111	Assembly 9	Frames	5	0SP41X1091///	41X1091	Tray bias roller, rear	
112	Assembly 10						
113	Assembly 10						
114	Assembly 10						
115	Assembly 10				Not applicable for MX-B707P/B557P		
116	Assembly 10						
117	Assembly 10						
118	Assembly 10						
119	Assembly 10						
120	Assembly 11	Control panel (4.3-inch display)	1	0SP41X1060///	41X1060	Control panel (4.3-inch display) cover	
121	Assembly 11	Control panel (4.3-inch display)	2	-			
122	Assembly 11	Control panel (4.3-inch display)	2	0SP41X2715///	41X2715	Bezel (MX-B707P/B557P)	
123	Assembly 11	Control panel (4.3-inch display)	2	-			
124	Assembly 11	Control panel (4.3-inch display)	2	-			
125	Assembly 11	Control panel (4.3-inch display)	2	-			
126	Assembly 11	Control panel (4.3-inch display)	3	0SP41X1062///	41X1062	Control panel (4.3-inch display)	
127	Assembly 11	Control panel (4.3-inch display)	4	0SP41X1057///	41X1057	Control panel button kit	
128	Assembly 11	Control panel (4.3-inch display)	5	0SP41X2139///	41X2139	Control panel display (4.3-inch)	
129	Assembly 11	Control panel (4.3-inch display)	6	0SP41X1058///	41X1058	Control panel (4.3-inch) board	
130	Assembly 11	Control panel (4.3-inch display)	7	0SP41X2321///	41X2321	Control panel cable	
131	Assembly 12	Tray/feed	1	0SP41X1119///	41X1119	Separator pad	
132	Assembly 12	Tray/feed	2	0SP41X1118///	41X1118	Tray insert	
133	Assembly 12	Tray/feed	3	0SP41X1120///	41X1120	Paper size sensor actuator	
134	Assembly 12	Tray/feed	4	0SP41X2317///	41X2317	Feeder/paper path cable	
135	Assembly 12	Tray/feed	5	0SP41X1108///	41X1108	Tray 1 pick roller	
136	Assembly 12	Tray/feed	6	0SP41X1107///	41X1107	Paper feeder	
137	Assembly 12	Tray/feed	7	0SP41X2319///	41X2319	Feeder/paper path cable	
138	Assembly 13						
139	Assembly 13						
140	Assembly 13						
141	Assembly 13						
142	Assembly 13						
143	Assembly 13						
144	Assembly 13						
145	Assembly 13						
146	Assembly 13						
147	Assembly 13						
148	Assembly 13						
149	Assembly 13						
150	Assembly 13				Not applicable for MX-B707P/B557P		
151	Assembly 13						
152	Assembly 13						
153	Assembly 13						
154	Assembly 13						
155	Assembly 13						
156	Assembly 13						
157	Assembly 13						
158	Assembly 13						
159	Assembly 13						
160	Assembly 13						
161	Assembly 13						
162	Assembly 13						

No.	Section	Name	Asm-index	Sharp parts number	Manufacture parts number	Description	Note
163	Assembly 13						
164	Assembly 13						
165	Assembly 13						
166	Assembly 13						
167	Assembly 13						
168	Assembly 13						
169	Assembly 13						
170	Assembly 13						
171	Assembly 13						
172	Assembly 13						
173	Assembly 13						
174	Assembly 13						
175	Assembly 13						
176	Assembly 13						
177	Assembly 13						
178	Assembly 13						
179	Assembly 14						
180	Assembly 14						
181	Assembly 14						
182	Assembly 14						
183	Assembly 14				Not applicable for MX-B707P/B557P		
184	Assembly 14						
185	Assembly 14						
186	Assembly 14						
187	Assembly 14						
188	Assembly 14						
189	Assembly 14						
190	Assembly 14						
191	Assembly 14						
192	Assembly 14						
193	Assembly 14						
194	Assembly 14						
195	Assembly 14						
196	Assembly 14						
197	Assembly 15	250- and 550-sheet tray options 1	1	-	41X1649	Optional 250-sheet tray	
198	Assembly 15	250- and 550-sheet tray options 1	1	-	41X1658	Optional 550-sheet tray	
199	Assembly 15	250- and 550-sheet tray options 1	1	-	41X2177	Optional 250-sheet tray, lockable	
200	Assembly 15	250- and 550-sheet tray options 1	1	-	41X2179	Optional 550-sheet tray, lockable	
201	Assembly 15	250- and 550-sheet tray options 1	2	0SP41X1650///	41X1650	250-sheet tray insert	
202	Assembly 15	250- and 550-sheet tray options 1	2	0SP41X1118///	41X1118	550-sheet tray insert	
203	Assembly 15	250- and 550-sheet tray options 1	3	0SP41X1119///	41X1119	Separator pad	
204	Assembly 15	250- and 550-sheet tray options 1	NS	0SP41X2208///	41X2208	Tray level indicator	
205	Assembly 16	250- and 550-sheet tray options 2	1	0SP41X1655///	41X1655	Interface cable	
206	Assembly 16	250- and 550-sheet tray options 2	2	0SP41X1093///	41X1093	Sensor (pick)	
207	Assembly 16	250- and 550-sheet tray options 2	3	0SP41X1094///	41X1094	Sensor (pass-through)	
208	Assembly 16	250- and 550-sheet tray options 2	4	0SP41X1653///	41X1653	Right cover (optional 250-sheet tray)	
209	Assembly 16	250- and 550-sheet tray options 2	4	0SP41X1661///	41X1661	Right cover (optional 550-sheet tray)	
210	Assembly 16	250- and 550-sheet tray options 2	5	0SP41X1120///	41X1120	Paper size sensor actuator	
211	Assembly 16	250- and 550-sheet tray options 2	6	0SP41X1108///	41X1108	Pick roller	
212	Assembly 16	250- and 550-sheet tray options 2	7	0SP41X1651///	41X1651	Front cover (250-sheet tray insert)	
213	Assembly 16	250- and 550-sheet tray options 2	7	0SP41X2304///	41X2304	Front cover (550-sheet tray insert)	
214	Assembly 16	250- and 550-sheet tray options 2	8	0SP40X7911///	40X7911	Sensor (paper size)	
215	Assembly 16	250- and 550-sheet tray options 2	9	0SP41X1656///	41X1656	Motor (transport)	
216	Assembly 16	250- and 550-sheet tray options 2	10	0SP41X1657///	41X1657	Controller board (optional 250-sheet tray)	
217	Assembly 16	250- and 550-sheet tray options 2	10	0SP41X2194///	41X2194	Controller board (optional 550-sheet tray)	
218	Assembly 16	250- and 550-sheet tray options 2	11	0SP41X1652///	41X1652	Left cover (optional 250-sheet tray)	
219	Assembly 16	250- and 550-sheet tray options 2	11	0SP41X1660///	41X1660	Left cover (optional 550-sheet tray)	
220	Assembly 16	250- and 550-sheet tray options 2	12	0SP41X1107///	41X1107	Paper feeder	
221	Assembly 16	250- and 550-sheet tray options 2	13	0SP41X1083///	41X1083	Sensor (paper present)	
222	Assembly 16	250- and 550-sheet tray options 2	14	0SP41X1083///	41X1083	Sensor (pick roller index)	
223	Assembly 16	250- and 550-sheet tray options 2	15	0SP41X1654///	41X1654	Rear cover (optional 250-sheet tray)	
224	Assembly 16	250- and 550-sheet tray options 2	15	0SP41X1662///	41X1662	Rear cover (optional 550-sheet tray)	
225	Assembly 17	2100-sheet tray option 1	1	-	41X1669	Optional 2100-sheet tray	
226	Assembly 17	2100-sheet tray option 1	2	0SP41X1673///	41X1673	2100-sheet tray base	
227	Assembly 17	2100-sheet tray option 1	3	0SP41X1670///	41X1670	2100-sheet tray insert	

No.	Section	Name	Asm-index	Sharp parts number	Manufacture parts number	Description	Note
228	Assembly 17	2100-sheet tray option 1	4	0SP41X1119///	41X1119	Separator pad	
229	Assembly 17	2100-sheet tray option 1	5	0SP40X8176///	40X8176	A5 length guide	
230	Assembly 17	2100-sheet tray option 1	6	0SP41X1675///	41X1675	2100-sheet tray front cover	
231	Assembly 17	2100-sheet tray option 1	NS	0SP41X2208///	41X2208	Tray level indicator	
232	Assembly 18	2100-sheet tray option 2	1	0SP41X1677///	41X1677	2100-sheet tray right cover	
233	Assembly 18	2100-sheet tray option 2	2	0SP41X1687///	41X1687	2100-sheet tray elevator drive	
234	Assembly 18	2100-sheet tray option 2	3	0SP40X4593///	40X4593	Tray rails	
235	Assembly 18	2100-sheet tray option 2	4	0SP41X1676///	41X1676	2100-sheet tray left cover	
236	Assembly 18	2100-sheet tray option 2	5	0SP41X1686///	41X1686	Motor (2100-sheet tray transport)	
237	Assembly 18	2100-sheet tray option 2	6	0SP41X1684///	41X1684	2100-sheet tray controller board	
238	Assembly 18	2100-sheet tray option 2	7	0SP41X1685///	41X1685	2100-sheet tray interface cable	
239	Assembly 19	2100-sheet tray option 3	8	0SP41X1678///	41X1678	2100-sheet tray rear cover	
240	Assembly 19	2100-sheet tray option 3	1	0SP41X1083///	41X1083	Sensor (2100-sheet tray near empty)	
241	Assembly 19	2100-sheet tray option 3	2	0SP41X1083///	41X1083	Sensor (2100-sheet tray A5 length guide)	
242	Assembly 19	2100-sheet tray option 3	3	0SP40X8177///	40X8177	2100-sheet tray elevator sensor actuator	
243	Assembly 19	2100-sheet tray option 3	4	0SP40X7911///	40X7911	Sensor (2100-sheet tray paper size)	
244	Assembly 19	2100-sheet tray option 3	5	0SP40X4585///	40X4585	2100-sheet tray bellcrank	
245	Assembly 19	2100-sheet tray option 3	6	0SP41X1108///	41X1108	2100-sheet tray pick roller	
246	Assembly 19	2100-sheet tray option 3	7	0SP41X1094///	41X1094	Sensor (2100-sheet tray pick)	
247	Assembly 19	2100-sheet tray option 3	8	0SP41X1683///	41X1683	2100-sheet tray paper feeder	
248	Assembly 19	2100-sheet tray option 3	9	0SP41X1083///	41X1083	Sensor (2100-sheet tray pick roller index)	
249	Assembly 19	2100-sheet tray option 3	10	0SP41X1083///	41X1083	Sensor (2100-sheet tray paper present)	
250	Assembly 20						
251	Assembly 20						
252	Assembly 20				Not applicable for MX-B707P/B557P		
253	Assembly 20						
254	Assembly 20						
255	Assembly 21	Output expander 1	1	0SP40X8190///	40X8190	Output expander left cover	
256	Assembly 21	Output expander 1	2	0SP40X8206///	40X8206	Output expander upper interface cable	
257	Assembly 21	Output expander 1	3	0SP40X8205///	40X8205	Output expander lower interface cable	
258	Assembly 21	Output expander 1	4	0SP40X8256///	40X8256	Motor (OE diverter)	
259	Assembly 21	Output expander 1	5	0SP40X8721///	40X8721	Output expander latch	
260	Assembly 21	Output expander 1	6	0SP40X8714///	40X8714	Motor (OE transport)	
261	Assembly 21	Output expander 1	7	0SP40X8199///	40X8199	Output expander controller board	
262	Assembly 21	Output expander 1	8	0SP40X7592///	40X7592	Sensor (OE rear door interlock)	
263	Assembly 21	Output expander 1	9	0SP40X8726///	40X8726	Output expander drive gear	
264	Assembly 21	Output expander 1	10	0SP40X8722///	40X8722	Output expander diverter plunger assembly	
265	Assembly 21	Output expander 1	11	0SP40X7592///	40X7592	Sensor (OE diverter plunger)	
266	Assembly 22	Output expander 2	1	0SP40X8187///	40X8187	Output expander right cover	
267	Assembly 22	Output expander 2	2	0SP40X8721///	40X8721	Output expander latch	
268	Assembly 22	Output expander 2	3	0SP41X2193///	41X2193	Output expander spring with string	
269	Assembly 22	Output expander 2	4	0SP40X8732///	40X8732	Output expander drive belt	
270	Assembly 22	Output expander 2	5	0SP40X8718///	40X8718	Output expander belt tensioner	
271	Assembly 23	Output expander 3	1	0SP40X8196///	40X8196	Output expander top cover	
272	Assembly 23	Output expander 3	2	0SP40X8715///	40X8715	Output expander sensor cover	
273	Assembly 23	Output expander 3	3	0SP40X8712///	40X8712	Output expander bin full flag	
274	Assembly 23	Output expander 3	4	0SP40X8191///	40X8191	Sensor (OE bin full) with flag	
275	Assembly 24	Output expander 4	1	0SP40X8717///	40X8717	Output expander bin	
276	Assembly 24	Output expander 4	2	0SP40X8729///	40X8729	Sensor (OE pass-through)	
277	Assembly 24	Output expander 4	3	0SP40X8713///	40X8713	Output expander diverter	
278	Assembly 24	Output expander 4	4	0SP41X1868///	41X1868	Output expander rear door	
279	Assembly 25	High capacity output expander 1	1	0SP40X8202///	40X8202	HCOE left cover	
280	Assembly 25	High capacity output expander 1	2	0SP40X8730///	40X8730	Motor (HCOE transport)	
281	Assembly 25	High capacity output expander 1	3	0SP40X8206///	40X8206	HCOE upper interface cable	
282	Assembly 25	High capacity output expander 1	4	0SP40X8199///	40X8199	HCOE controller board	
283	Assembly 25	High capacity output expander 1	5	0SP40X8205///	40X8205	HCOE lower interface cable	
284	Assembly 25	High capacity output expander 1	6	0SP40X8721///	40X8721	HCOE latch	
285	Assembly 25	High capacity output expander 1	7	0SP40X8256///	40X8256	Motor (HCOE diverter)	
286	Assembly 25	High capacity output expander 1	8	0SP40X8731///	40X8731	HCOE bin pinion	
287	Assembly 25	High capacity output expander 1	9	0SP40X8733///	40X8733	HCOE bin spring	
288	Assembly 25	High capacity output expander 1	10	0SP40X7592///	40X7592	Sensor (HCOE rear door interlock)	
289	Assembly 25	High capacity output expander 1	11	0SP40X8728///	40X8728	Sensor (HCOE bin)	
290	Assembly 25	High capacity output expander 1	12	0SP40X8726///	40X8726	HCOE drive gear assembly	
291	Assembly 25	High capacity output expander 1	13	0SP40X8722///	40X8722	HCOE diverter plunger assembly	
292	Assembly 25	High capacity output expander 1	14	0SP40X7592///	40X7592	Sensor (HCOE diverter)	
293	Assembly 26	High capacity output expander 2	1	0SP40X8727///	40X8727	HCOE bin	
294	Assembly 26	High capacity output expander 2	2	0SP40X8729///	40X8729	Sensor (HCOE pass-through)	
295	Assembly 26	High capacity output expander 2	3	0SP40X8713///	40X8713	HCOE top diverter	
296	Assembly 26	High capacity output expander 2	4	0SP41X1896///	41X1896	HCOE rear door	
297	Assembly 27	High capacity output expander 3	1	0SP40X8198///	40X8198	HCOE right cover	
298	Assembly 27	High capacity output expander 3	2	0SP40X8192///	40X8192	HCOE spring with string	
299	Assembly 27	High capacity output expander 3	3	0SP40X8733///	40X8733	HCOE bin spring	
300	Assembly 27	High capacity output expander 3	4	0SP40X8721///	40X8721	HCOE latch	
301	Assembly 27	High capacity output expander 3	5	0SP40X8732///	40X8732	HCOE drive belt	
302	Assembly 27	High capacity output expander 3	6	0SP40X8731///	40X8731	HCOE bin pinion	
303	Assembly 27	High capacity output expander 3	7	0SP40X8718///	40X8718	HCOE belt tensioner	
304	Assembly 28	High capacity output expander 4	1	0SP40X8196///	40X8196	HCOE top cover	
305	Assembly 28	High capacity output expander 4	2	0SP40X8715///	40X8715	HCOE sensor cover	
306	Assembly 28	High capacity output expander 4	3	0SP40X8712///	40X8712	HCOE bin full flag	
307	Assembly 28	High capacity output expander 4	4	0SP40X8191///	40X8191	Sensor (HCOE bin full) with flag	
308	Assembly 29	Staple finisher 1	1	0SP40X8222///	40X8222	Staple finisher top cover	
309	Assembly 29	Staple finisher 1	2	0SP41X2169///	41X2169	Staple finisher rear door	
310	Assembly 29	Staple finisher 1	3	0SP41X1698///	41X1698	Staple finisher right cover	
311	Assembly 29	Staple finisher 1	4	0SP41X1701///	41X1701	Staple cartridge access door	
312	Assembly 29	Staple finisher 1	5	0SP40X7466///	40X7466	Staple cartridge holder	
313	Assembly 29	Staple finisher 1	6	0SP41X1704///	41X1704	Standard bin LED	
314	Assembly 29	Staple finisher 1	7	0SP41X1238///	41X1238	Sensor (finisher bin paper present)	
315	Assembly 29	Staple finisher 1	8	0SP41X1715///	41X1715	Staple finisher left cover	
316	Assembly 30	Staple finisher 2	1	0SP41X2175///	41X2175	Staple finisher drive gear assembly	

No.	Section	Name	Asm-index	Sharp parts number	Manufacture parts number	Description	Note
317	Assembly 30	Staple finisher 2	2	0SP41X0529///	41X0529	Motor (staple finisher transport)	
318	Assembly 30	Staple finisher 2	3	0SP41X0802///	41X0802	Sensor (staple finisher bin full)	
319	Assembly 30	Staple finisher 2	4	0SP40X8213///	40X8213	Motor (staple finisher paddle)	
320	Assembly 30	Staple finisher 2	5	0SP41X2187///	41X2187	Staple finisher stack height assembly	
321	Assembly 30	Staple finisher 2	6	0SP41X0798///	41X0798	Sensor (staple finisher stack height)	
322	Assembly 30	Staple finisher 2	7	0SP41X1238///	41X1238	Sensor (staple finisher rear door interlock)	
323	Assembly 30	Staple finisher 2	8	0SP41X1238///	41X1238	Sensor (staple finisher paddle)	
324	Assembly 30	Staple finisher 2	9	0SP41X2192///	41X2192	Paddle spring	
325	Assembly 30	Staple finisher 2	10	0SP40X8742///	40X8742	Staple finisher bin spring	
326	Assembly 30	Staple finisher 2	11	0SP40X8744///	40X8744	Staple finisher bin link assembly	
327	Assembly 30	Staple finisher 2	12	0SP40X8721///	40X8721	Staple finisher latch	
328	Assembly 30	Staple finisher 2	13	0SP40X8224///	40X8224	Staple finisher interface cable	
329	Assembly 30	Staple finisher 2	14	0SP41X0798///	41X0798	Sensor (staple finisher diverter plunger)	
330	Assembly 30	Staple finisher 2	15	0SP40X8256///	40X8256	Motor (staple finisher diverter)	
331	Assembly 30	Staple finisher 2	16	0SP41X2279///	41X2279	Staple finisher controller board	
332	Assembly 30	Staple finisher 2	17	0SP40X8722///	40X8722	Staple finisher diverter plunger assembly	
333	Assembly 31	Staple finisher 3	1	0SP40X8745///	40X8745	Sensor (staple throat paper present)	
334	Assembly 31	Staple finisher 3	2	0SP40X8742///	40X8742	Staple finisher bin spring	
335	Assembly 31	Staple finisher 3	3	0SP40X8744///	40X8744	Staple finisher bin link assembly	
336	Assembly 31	Staple finisher 3	4	0SP40X8721///	40X8721	Staple finisher latch	
337	Assembly 31	Staple finisher 3	5	0SP41X0802///	41X0802	Sensor (staple finisher bin full send)	
338	Assembly 31	Staple finisher 3	6	0SP40X8226///	40X8226	Staple finisher spring with string	
339	Assembly 31	Staple finisher 3	7	0SP41X0654///	41X0654	Staple unit	
340	Assembly 31	Staple finisher 3	8	0SP41X2198///	41X2198	Staple cartridge door close limit switch	
341	Assembly 32	Staple finisher 4	1	0SP40X8212///	40X8212	Tamper drive belt	
342	Assembly 32	Staple finisher 4	2	0SP41X1705///	41X1705	Tamper spring	
343	Assembly 32	Staple finisher 4	3	0SP40X8211///	40X8211	Motor (staple finisher right tamper)	
344	Assembly 32	Staple finisher 4	4	0SP40X8211///	40X8211	Motor (staple finisher left tamper)	
345	Assembly 32	Staple finisher 4	5	0SP41X1704///	41X1704	Staple finisher bin LED	
346	Assembly 32	Staple finisher 4	6	0SP41X0664///	41X0664	Tamper gear	
347	Assembly 32	Staple finisher 4	7	0SP41X2196///	41X2196	Tamper bracket	
348	Assembly 32	Staple finisher 4	8	0SP41X1238///	41X1238	Sensor (staple finisher left tamper)	
349	Assembly 32	Staple finisher 4	9	0SP41X2160///	41X2160	Tamper aligner	
350	Assembly 32	Staple finisher 4	10	0SP41X1238///	41X1238	Sensor (staple finisher right tamper)	
351	Assembly 33	Staple finisher 5	1	0SP41X2199///	41X2199	Staple finisher paper stack flap (right)	
352	Assembly 33	Staple finisher 5	2	0SP40X8210///	40X8210	Staple finisher paper stack flap (left)	
353	Assembly 33	Staple finisher 5	3	0SP41X2167///	41X2167	Staple finisher ejector assembly	
354	Assembly 33	Staple finisher 5	4	0SP40X8745///	40X8745	Sensor (staple finisher ejector)	
355	Assembly 33	Staple finisher 5	5	0SP40X8134///	40X8134	Sensor (staple finisher pass-through)	
356	Assembly 34	Mailbox 1	1	0SP40X8246///	40X8246	Mailbox left cover	
357	Assembly 34	Mailbox 1	2	0SP40X8254///	40X8254	Mailbox upper interface cable	
358	Assembly 34	Mailbox 1	3	0SP40X8253///	40X8253	Mailbox lower interface cable	
359	Assembly 34	Mailbox 1	4	0SP40X8244///	40X8244	Mailbox controller board	
360	Assembly 34	Mailbox 1	5	0SP40X8256///	40X8256	Motor (mailbox diverter)	
361	Assembly 34	Mailbox 1	6	0SP41X0529///	41X0529	Motor (mailbox transport)	
362	Assembly 34	Mailbox 1	7	0SP40X7592///	40X7592	Sensor (mailbox rear door interlock)	
363	Assembly 34	Mailbox 1	8	0SP40X7592///	40X7592	Sensor (mailbox diverter plunger)	
364	Assembly 34	Mailbox 1	9	0SP40X8721///	40X8721	Mailbox latch	
365	Assembly 34	Mailbox 1	10	0SP40X8726///	40X8726	Mailbox transport drive gear	
366	Assembly 34	Mailbox 1	11	0SP40X8722///	40X8722	Mailbox diverter plunger assembly	
367	Assembly 34	Mailbox 1	12	0SP41X0701///	41X0701	Sensor (mailbox bin full)	
368	Assembly 34	Mailbox 1	13	0SP40X8247///	40X8247	Mailbox bin full flag	
369	Assembly 34	Mailbox 1	NS	0SP40X8500///	40X8500	Optional bin guide bar	
370	Assembly 35	Mailbox 2	1	0SP40X8250///	40X8250	Mailbox bin LED assembly	
371	Assembly 35	Mailbox 2	2	0SP40X8249///	40X8249	Mailbox belt	
372	Assembly 35	Mailbox 2	3	0SP40X8252///	40X8252	Mailbox spring with string	
373	Assembly 35	Mailbox 2	4	0SP40X8721///	40X8721	Mailbox latch	
374	Assembly 35	Mailbox 2	5	0SP40X8251///	40X8251	Mailbox solenoid	
375	Assembly 35	Mailbox 2	6	0SP40X8243///	40X8243	Mailbox right cover	
376	Assembly 36	Mailbox 3	1	0SP40X8196///	40X8196	Mailbox top cover	
377	Assembly 36	Mailbox 3	2	0SP40X8720///	40X8720	Mailbox top bin cover with bail	
378	Assembly 36	Mailbox 3	3	0SP40X8719///	40X8719	Sensor (mailbox pass-through)	
379	Assembly 36	Mailbox 3	4	0SP40X8725///	40X8725	Mailbox top diverter spring	
380	Assembly 36	Mailbox 3	5	0SP40X8723///	40X8723	Mailbox top diverter	
381	Assembly 36	Mailbox 3	6	0SP40X8724///	40X8724	Mailbox middle diverter	
382	Assembly 36	Mailbox 3	7	0SP41X1870///	41X1870	Mailbox rear door	
383	Assembly 37	Staple, hole punch finisher 1	1	0SP40X8547///	40X8547	Staple, hole punch finisher top cover	
384	Assembly 37	Staple, hole punch finisher 1	2	0SP41X1719///	41X1719	Staple, hole punch finisher right cover	
385	Assembly 37	Staple, hole punch finisher 1	3	0SP41X1701///	41X1701	Staple cartridge access door	
386	Assembly 37	Staple, hole punch finisher 1	4	0SP41X2202///	41X2202	Hole punch box	
387	Assembly 37	Staple, hole punch finisher 1	5	0SP40X7466///	40X7466	Staple cartridge holder	
388	Assembly 37	Staple, hole punch finisher 1	6	0SP41X1704///	41X1704	Standard bin LED	
389	Assembly 37	Staple, hole punch finisher 1	7	0SP41X0724///	41X0724	Sensor (SHPF bin paper present)	
390	Assembly 37	Staple, hole punch finisher 1	8	0SP41X1718///	41X1718	Staple, hole punch finisher left cover	
391	Assembly 37	Staple, hole punch finisher 1	9	0SP41X2166///	41X2166	Left staple cartridge access door	
392	Assembly 38	Staple, hole punch finisher 2	1	0SP40X8212///	40X8212	Tamper drive belt	
393	Assembly 38	Staple, hole punch finisher 2	2	0SP41X1705///	41X1705	Tamper spring	
394	Assembly 38	Staple, hole punch finisher 2	3	0SP40X8211///	40X8211	Motor (SHPF right tamper)	
395	Assembly 38	Staple, hole punch finisher 2	4	0SP40X8211///	40X8211	Motor (SHPF left tamper)	
396	Assembly 38	Staple, hole punch finisher 2	5	0SP41X1704///	41X1704	Staple, hole punch finisher bin LED	
397	Assembly 38	Staple, hole punch finisher 2	6	0SP41X0664///	41X0664	Tamper gear	
398	Assembly 38	Staple, hole punch finisher 2	7	0SP41X2196///	41X2196	Tamper bracket	
399	Assembly 38	Staple, hole punch finisher 2	8	0SP41X1238///	41X1238	Sensor (SHPF left tamper)	
400	Assembly 38	Staple, hole punch finisher 2	9	0SP41X2160///	41X2160	Tamper aligner	
401	Assembly 38	Staple, hole punch finisher 2	10	0SP41X1238///	41X1238	Sensor (SHPF right tamper)	
402	Assembly 39	Staple, hole punch finisher 3	1	0SP41X2175///	41X2175	SHPF drive gear assembly	
403	Assembly 39	Staple, hole punch finisher 3	2	0SP41X0529///	41X0529	Motor (SHPF transport)	
404	Assembly 39	Staple, hole punch finisher 3	3	0SP41X0802///	41X0802	Sensor (SHPF bin full)	
405	Assembly 39	Staple, hole punch finisher 3	4	0SP40X8213///	40X8213	Motor (SHPF paddle)	

No.	Section	Name	Asm-index	Sharp parts number	Manufacture parts number	Description	Note
406	Assembly 39	Staple, hole punch finisher 3	5	0SP41X2187///	41X2187	SHPF stack height assembly	
407	Assembly 39	Staple, hole punch finisher 3	6	0SP41X0798///	41X0798	Sensor (SHPF stack height)	
408	Assembly 39	Staple, hole punch finisher 3	7	0SP41X1238///	41X1238	Sensor (SHPF rear door interlock)	
409	Assembly 39	Staple, hole punch finisher 3	8	0SP41X1238///	41X1238	Sensor (SHPF paddle)	
410	Assembly 39	Staple, hole punch finisher 3	9	0SP41X2192///	41X2192	Paddle spring	
411	Assembly 39	Staple, hole punch finisher 3	10	0SP41X1710///	41X1710	SHPF bin link tension spring	
412	Assembly 39	Staple, hole punch finisher 3	11	0SP40X8744///	40X8744	SHPF bin link assembly	
413	Assembly 39	Staple, hole punch finisher 3	12	0SP40X8721///	40X8721	Staple, hole punch finisher latch	
414	Assembly 39	Staple, hole punch finisher 3	13	0SP40X8224///	40X8224	Staple, hole punch finisher interface cable	
415	Assembly 39	Staple, hole punch finisher 3	14	0SP41X0798///	41X0798	Sensor (SHPF diverter plunger)	
416	Assembly 39	Staple, hole punch finisher 3	15	0SP40X8256///	40x8256	Motor (SHPF diverter plunger)	
417	Assembly 39	Staple, hole punch finisher 3	16	0SP41X1708///	41X1708	Staple, hole punch finisher controller board	
418	Assembly 39	Staple, hole punch finisher 3	17	0SP40X8722///	40X8722	SHPF diverter plunger assembly	
419	Assembly 40	Staple, hole punch finisher 4	1	0SP41X0654///	41X0654	Left staple unit	
420	Assembly 40	Staple, hole punch finisher 4	2	0SP40X8745///	40X8745	Sensor (SHPF staple throat paper present)	
421	Assembly 40	Staple, hole punch finisher 4	3	0SP41X2175///	41X2175	SHPF drive gear assembly	
422	Assembly 40	Staple, hole punch finisher 4	4	0SP41X1709///	41X1709	Staple, hole punch finisher elevator drive	
423	Assembly 40	Staple, hole punch finisher 4	5	0SP41X0709///	41X0709	Sensor (SHPF elevator, top)	
424	Assembly 40	Staple, hole punch finisher 4	6	0SP41X0709///	41X0709	Sensor (SHPF elevator, bottom)	
425	Assembly 41	Staple, hole punch finisher 5	1	0SP41X1702///	41X1702	SHPF staple cartridge door close limit switch	
426	Assembly 41	Staple, hole punch finisher 5	2	0SP41X0654///	41X0654	Right staple unit	
427	Assembly 41	Staple, hole punch finisher 5	3	0SP40X8745///	40X8745	Sensor (SHPF staple throat paper present)	
428	Assembly 41	Staple, hole punch finisher 5	4	0SP40X8742///	40X8742	SHPF bin link tension spring	
429	Assembly 41	Staple, hole punch finisher 5	5	0SP40X8744///	40X8744	SHPF bin link assembly	
430	Assembly 41	Staple, hole punch finisher 5	6	0SP41X0802///	41X0802	Sensor (bin full)	
431	Assembly 41	Staple, hole punch finisher 5	7	0SP41X1238///	41X1238	Sensor (hole punch box present)	
432	Assembly 41	Staple, hole punch finisher 5	8	0SP41X2178///	41X2178	Motor (HPU carriage)	
433	Assembly 41	Staple, hole punch finisher 5	9	0SP40X8721///	40X8721	Staple, hole punch finisher latch	

Service Manual Part 2

- **Start diagnostics**

- **Maintenance**

- **Safety and notices**

- **Trademarks**

- **Index**

Table of contents

Table of contents

Table of contents

Table of contents

Table of contents

Table of contents

Table of contents

Table of contents

Table of contents

Table of contents

Table of contents

Notices, conventions, and safety information

Laser notice

The printer is certified in the U.S. to conform to the requirements of DHHS 21 CFR, Chapter I, Subchapter J for Class I (1) laser products, and elsewhere is certified as a Class I laser product conforming to the requirements of IEC 60825-1: 2014.

Class I laser products are not considered to be hazardous. The printer contains a Class IIIb (3b) AlGaAs laser that is nominally 25 milliwatts operating in the wavelength region of 755–800 nanometers and enclosed in a non-serviceable printhead assembly. The laser system and printer are designed so there is never any human access to laser radiation above a Class I level during normal operation, user maintenance, or prescribed service conditions.

Avis relatif à l'utilisation du laser

Cette imprimante est certifiée conforme aux exigences de la réglementation des Etats-Unis relative aux produits laser de classe I (1) (DHHS 21 CFR, Chapitre I, Sous-chapitre J). Pour les autres pays, elle est certifiée conforme aux exigences des normes CEI 60825-1: 2014 relatives aux produits laser de classe I.

Les produits laser de classe I ne sont pas considérés comme dangereux. L'imprimante contient un dispositif laser AlGaAs (arséniure de gallium-aluminium) de classe IIIb (3b) d'une puissance nominale de 25 milliwatts fonctionnant dans la plage de longueurs d'onde allant de 755 à 800 nanomètres et scellé dans un compartiment de têtes d'impression non réparable. Le système laser ainsi que l'imprimante ont été conçus de manière à ce que personne ne soit jamais exposé à des radiations laser dépassant le niveau de classe I dans le cadre d'un fonctionnement normal, de l'entretien par l'utilisateur ou de la maintenance.

Notificació del làser

La impressora està certificada als EUA per complir els requeriments de DHHS 21 CFR, capítol I, subcapítol J per a productes de làser Classe I (1), i a la resta del món s'ha certificat com productes de làser Classe I segons els requeriments de la norma IEC 60825-1: 2014.

Els productes de làser Classe I no es consideren perillosos. La impressora conté un làser intern Classe IIIb (3b) AlGaAs que normalment és de 25 miliwatts, que funciona a la regió de longitud d'ona de 755 a 800 nanòmetres i es troba dins d'una unitat de capçals d'impressió no substituïbles. El sistema làser i la impressora estan dissenyats de manera que les persones no estiguin exposades a una radiació del làser superior al nivell de Classe I durant el funcionament normal, el manteniment de l'usuari o les condicions de servei prescrites.

Aviso de láser

Esta impresora se ha certificado en EE.UU. cumpliendo con los requisitos de DHHS 21 CFR, capítulo I, subcapítulo J para los productos láser de Clase I (1) y en otros países está certificada como un producto láser de Clase I de acuerdo con los requisitos de IEC 60825-1: 2014.

Los productos láser de Clase I no se consideran peligrosos. Este producto contiene un láser interno de Clase IIIb (3b) AlGaAs que opera nominalmente a 25 milivatios en una longitud de onda de 755–800 nanómetros, cerrado en un conjunto de cabezal de impresión que no se puede reparar. El sistema láser y la impresora se han diseñado para que el ser humano no acceda nunca a las radiaciones láser por encima del nivel de Clase I durante su uso normal, ni en tareas de mantenimiento o intervenciones de servicio técnico prescritas.

Aviso sobre laser

Esta impressora foi certificada nos EUA por estar em conformidade com os requisitos do DHHS 21 CFR capítulo I, subcapítulo J, para produtos a laser de Classe I (1) e, nos demais países, foi certificada como um produto a laser de Classe I em conformidade com os requisitos da IEC 60825-1: 2014.

Os produtos a laser de Classe I não são considerados prejudiciais. A impressora contém, internamente, um laser de Classe IIIb (3b) AlGaAs que funciona nominalmente a 25 miliwatts no comprimento de onda de 755-800 nanômetros, incluso em um conjunto do cabeçote de impressão sem possibilidade de manutenção. O sistema do laser e a impressora foram projetados para que jamais haja acesso humano à radiação do laser acima do nível da Classe I durante a operação normal ou a manutenção pelo usuário ou sob as condições de manutenção prescritas.

Avvertenze sui prodotti laser

La stampante è certificata negli Stati Uniti come prodotto conforme ai requisiti DHHS 21 CFR Capitolo I, Sottocapitolo J per i prodotti laser di Classe I (1), mentre in altri paesi è certificata come prodotto laser di Classe I conforme ai requisiti IEC 60825-1: 2014.

I prodotti laser di Classe I non sono considerati pericolosi. La stampante contiene internamente un laser AlGaAs di Classe IIIb (3b) con valore nominale di 25 milliwatt, funzionante nella regione della lunghezza d'onda dei 755-800 nanometri e contenuto in un gruppo testina di stampa non riparabile. Il sistema laser e la stampante sono stati progettati in modo da impedire l'esposizione a radiazioni laser superiori al livello previsto dalla Classe I durante le normali operazioni di stampa, manutenzione o assistenza.

Laserinformatie

De printer is in de Verenigde Staten gecertificeerd als een product dat voldoet aan de vereisten van DHHS 21 CFR hoofdstuk 1, paragraaf J voor laserproducten van klasse I (1). Elders is de printer gecertificeerd als een laserproduct van klasse I dat voldoet aan de vereisten van IEC 60825-1: 2014.

Laserproducten van klasse I worden geacht geen gevaar op te leveren. De printer bevat intern een laser van klasse IIIb (3b) AlGaAs met een nominaal vermogen van 25 milliwatt in een golflengtebereik van 755–800 nanometer in een niet-bruikbare printkopeenheid. Het lasersysteem en de printer zijn zodanig ontworpen dat gebruikers nooit blootstaan aan laserstraling die hoger is dan het toegestane niveau voor klasse I-apparaten, tijdens normaal gebruik, onderhoudswerkzaamheden door de gebruiker of voorgeschreven servicewerkzaamheden.

Lasererklæring

Printeren er certificeret i USA i henhold til kravene i DHHS 21 CFR kapitel I, underafsnit J for klasse I (1) laserprodukter og er andre steder certificeret som et klasse I-laserprodukt i henhold til kravene i IEC 60825-1: 2014.

Klasse I-laserprodukter anses ikke som farlige. Printeren indeholder internt en Klasse IIIb (3b) AlGaAslaser, der nominelt er en 25 milliwatt laser, som fungerer i bølgelængdeområdet 755–800 nanometer og indbygget i en printhovedenhed, der ikke kan serviceres. Lasersystemet og printeren er designet på en sådan måde, at der ikke er en direkte laserstråling, der overskrider Klasse I-niveauet under normal brug, brugers vedligeholdelse eller de foreskrevne servicebetingelser.

Laser-Hinweis

Der Drucker wurde in den USA zertifiziert und entspricht den Anforderungen der Vorschriften DHHS 21 CFR Kapitel I für Laserprodukte der Klasse I (1), andernorts ist er als Laserprodukt der Klasse I zertifiziert, das den Anforderungen von DIN EN 60825-1:2014 entspricht.

Laserprodukte der Klasse I werden nicht als gefährlich betrachtet. Der Drucker enthält im Inneren einen Laser der Klasse IIIb (3b) AlGaAs mit 25 Milliwatt, der im Wellenlängenbereich von 755–800 Nanometern arbeitet. Dieser befindet sich in einer Druckkopfeinheit, die nicht gewartet werden kann. Das Lasersystem und der Drucker sind so konstruiert, dass unter normalen Betriebsbedingungen, bei der Wartung durch den Benutzer oder bei den vorgeschriebenen Wartungsbedingungen Menschen keiner Laserstrahlung ausgesetzt sind, die die Werte für Klasse I überschreitet.

Laserilmoitus

Tämä tulostin on sertifioitu Yhdysvalloissa DHHS 21 CFR, Chapter I, Subchapter J -standardin mukaiseksi luokan I (1) -lasertuotteeksi ja muualla IEC 60825-1:2014 -standardin mukaiseksi luokan I lasertuotteeksi.

Luokan I lasertuotteita ei pidetä haitallisina. Tulostimen sisällä on luokan IIIb (3b) AlGaAs -laser, jonka nimellisteho on 25 mW, joka toimii 755–800 nanometrin aallonpituuksilla ja joka on suljettu tulostuspäähän, jota käyttäjä ei voi huoltaa. Laserjärjestelmä ja tulostin ovat rakenteeltaan sellaisia, että käyttäjä ei joudu alttiiksi luokkaa 1 suuremmalle säteilylle normaalin käytön, ylläpidon tai huollon aikana.

Lasermerknad

Skriveren er sertifisert i USA for samsvar med kravene i DHHS 21 CFR, kapittel I, underkapittel J for laserprodukter av klasse I (1) og er andre steder sertifisert som et laserprodukt av klasse I som samsvarer med kravene i IEC 60825-1: 2014.

Laserprodukter av klasse I anses ikke som helseskadelige. Skriveren inneholder en intern AlGaAs-laser av klasse IIIb (3b) på nominelt 25 milliwatt, som opererer i bølgelengder på 755–800 nanometer, inni en skrivehodeenhet som ikke kan vedlikeholdes. Lasersystemet og skriveren er utformet slik at mennesker ikke utsettes for laserstråling utover nivået i klasse I under normal drift, vedlikehold eller foreskrevet service.

Meddelande om laser

Skrivaren är certifierad i USA i enlighet med kraven i DHHS 21 CFR kapitel I, underkapitel J för klass I (1)-laserprodukter, och på andra platser certifierad som en klass I-laserprodukt i enlighet med kraven i IEC 60825-1: 2014.

Laserprodukter av klass I anses inte vara skadliga. Skrivaren innehåller en klass IIIb (3b) AlGaAs-laser på nominellt 25 mW som arbetar inom en våglängd på 755–800 nm och är innesluten i en icke-servicebar skrivhuvudenhet. Lasersystemet och skrivaren är utformade så att människor aldrig utsätts för laserstrålning över klass I-nivå under normala förhållanden vid användning, underhåll eller service.

レーザーについて

本機は、米国において クラス Ⅰ（1）レーザー製品に対する DHHS 21 CFR、Chapter I、Subchapter J の要件に準拠し、その他の国では IEC 60825-1: 2014 の要件に準拠するクラス Ⅰ レーザー製品として認可されています。

クラス Ⅰ レーザー製品は、危険性がないとみなされています。本機には、クラス IIIb（3b）AlGaAs レーザーが内蔵されています。これは、755 ～ 800 ナノメートルの波長で、定格 25 ミリワットで動作するレーザーであり、整備不可のプリントヘッドアセンブリに収容されています。レーザーシステムとプリンタは、通常

の操作、ユーザーによるメンテナンス、または所定のサービス条件の下で、ユーザーがクラス I レベルを超えるレーザー放射に絶対にさらされないように設計されています。

레이저 고지사항

프린터는 미국에서 레이저 제품용 DHHS 21 CFR Chapter I, Subchapter J의 요구 사항을 준수하며 이외 지역에서 IEC 60825-1:2014의 요구 사항을 준수하는 클래스 I(1) 레이저 제품으로 승인되었습니다.

Class I 레이저 제품은 위험한 제품으로 간주되지 않습니다. 프린터에는 755~800 나노미터 범위의 파장 영역에서 공칭 작동하는 25밀리와트 AlGaAs 레이저인 클래스 IIIb(3b) 레이저가 서비스 불가 프린트 헤드 어셈블리에 내장되어 있습니다. 레이저 시스템과 프린터는 정상적인 작동, 사용자 유지 관리 또는 사전 설명된 서비스 조건에는 사람에게 클래스 I 수준 이상의 레이저 방사가 노출되지 않도록 설계되었습니다.

激光注意事**项**

本打印机在美国认证合乎 DHHS 21 CFR，Chapter I，Subchapter J 对分类 I (1) 激光产品的标准，而在其他地区则被认证是合乎 IEC 60825-1: 2014 的分类 I 激光产品。

一般认为分类 I 激光产品不具有危险性。本打印机内部含有分类 IIIb (3b) 的砷化铝镓激光，标称值为 25 毫瓦，其工作波长范围在 755-800nm 之间，并被封闭在不可维修的打印头配件中。本激光系统及打印机的设计，在一般操作、使用者维护或规定内的维修情况下，不会使人体接触分类 I 以上等级的辐射。

雷射聲明

本印表機係經過美國核可，符合 DHHS 21 CFR，Chapter I，Subchapter J 規定的 I (1) 級雷射產品；在美國以外的地區，為符合 IEC 60825-1：2014 規定的 I 級雷射產品.

根據 I 級雷射產品的規定，這類產品不會對人體造成傷害。 本印表機所採用之 IIIb (3b) 級 AlGaAs 雷射在 755 至 800 奈米 (nanometer) 波長範圍內運作時通常為 25 毫瓦特 (milliwatt)，且含括在不可修復列印頭組件中。 使用者只要以正確的方法操作及維護保養，並依照先前所述之維修方式進行修護，此印表機與其雷射系統絕不會產生 I 級以上的放射線，而對人體造成傷害。

Conventions

Note: A *note* identifies information that could help you.

Warning: A *warning* identifies something that could damage the product hardware or software.

CAUTION: A *caution* indicates a potentially hazardous situation that could injure you.

Different types of caution statements include:

⚠️ **CAUTION—POTENTIAL INJURY:** Indicates a risk of injury.

⚡ **CAUTION—SHOCK HAZARD:** Indicates a risk of electrical shock.

♨️ **CAUTION—HOT SURFACE:** Indicates a risk of burn if touched.

⚠️ **CAUTION—TIPPING HAZARD:** Indicates a crush hazard.

⚠️ **CAUTION—PINCH HAZARD:** Indicates a risk of being caught between moving parts.

⚠️ **CAUTION—ROTATING FAN BLADES:** Indicates a risk of laceration from moving fan blades.

Safety information

- The safety of this product is based on testing and approvals of the original design and specific components. The manufacturer is not responsible for safety in the event of use of unauthorized replacement parts.

- The maintenance information for this product has been prepared for use by a professional service person and is not intended to be used by others.

- There may be an increased risk of electrical shock and personal injury during disassembly and servicing of this product. Professional service personnel should understand this risk and take necessary precautions.

  CAUTION—SHOCK HAZARD: When you see this symbol, there is a danger from hazardous voltage in the area of the product where you are working. Unplug the product before you begin, or use caution if the product must receive power in order to perform the task.

  CAUTION—POTENTIAL INJURY: The lithium battery in this product is not intended to be replaced. There is a danger of explosion if a lithium battery is incorrectly replaced. Do not recharge, disassemble, or incinerate a lithium battery. Discard used lithium batteries according to the manufacturer's instructions and local regulations.

Consignes de sécurité

- La sécurité de ce produit est basée sur des tests et certifications de sa conception d'origine et de ses composants spécifiques. Le fabricant décline toute responsabilité en cas d'utilisation de pièces de rechange non autorisées.

- Les informations de maintenance de ce produit sont destinées à des professionnels qualifiés et ne sont pas conçues pour être utilisées par d'autres personnes.

- Il existe un risque potentiel de choc électrique et de blessures lors du démontage et de la maintenance de ce produit. Le personnel professionnel de maintenance doit comprendre les risques et prendre les précautions nécessaires.

  ATTENTION—RISQUE D'ELECTROCUTION : Ce symbole indique un danger lié à des niveaux de tension dangereux dans la zone du produit à manipuler. Débranchez le produit avant de commencer, ou agissez avec prudence si le produit doit être alimenté pour effectuer l'opération.

  ATTENTION—RISQUE DE BLESSURE : La batterie lithium de ce produit n'est pas destinée à être remplacée. Si vous ne respectez pas les instructions de remplacement de la batterie, vous risquez de provoquer une explosion. Ne rechargez pas, ne désassemblez pas et ne brûlez pas la batterie au lithium. Mettez les batteries lithium usagées au rebut selon les instructions du fabricant et les réglementations locales.

Informació de seguretat

- La seguretat d'aquest producte es basa en les proves i les homologacions del disseny original i dels components específics. El fabricant no és responsable de la seguretat en el cas d'ús de peces de recanvi no autoritzades.

- La informació de manteniment d'aquest producte s'ha preparat per a l'ús d'un professional tècnic i no per a l'ús d'altres persones.

- És possible que el risc de descàrrega elèctrica i lesions personals augmenti durant el desmuntatge i les tasques de manteniment d'aquest producte. El professional tècnic ha de comprendre aquest risc i prendre les precaucions necessàries.

  PRECAUCIÓ. PERILL DE DESCÀRREGA ELÈCTRICA: Quan vegeu aquest símbol, indica que hi ha un perill de voltatge elevat en l'àrea del producte on esteu treballant. Desconnecteu el producte abans de començar o tingueu precaució si el producte ha de rebre alimentació per realitzar la tasca.

Notices, conventions, and safety information

⚠️ **PRECAUCIÓ. POSSIBLES DANYS:** La bateria de liti d'aquest producte no ha estat dissenyada perquè se substitueixi. Hi ha perill d'explosió si no es substitueix correctament la bateria de liti. No recarregueu, desmunteu o incinereu una bateria de liti. Desfeu-vos de les bateries de liti usades d'acord amb les instruccions del fabricant i les regulacions locals.

Información de seguridad

- La seguridad de este producto se basa en las pruebas y comprobaciones del diseño original y los componentes específicos. El fabricante no se hace responsable de la seguridad en caso de uso de piezas de repuesto no autorizadas.

- La información de mantenimiento de este producto se ha preparado para su uso por parte de un profesional de asistencia técnica y no está diseñada para su uso por parte de otros usuarios.

- Es posible que haya un mayor riesgo de descarga eléctrica y daños personales durante el desmontaje y el mantenimiento de este producto. El personal de asistencia profesional debe conocer este riesgo y tomar las precauciones necesarias.

  ⚠️ **PRECAUCIÓN: PELIGRO DE DESCARGAS ELÉCTRICAS:** Cuando vea este símbolo, existe peligro   de tensiones peligrosas en el área del producto en la que está trabajando. Desconecte el producto antes de empezar o tenga cuidado si el producto debe recibir alimentación a fin de realizar la tarea.

  ⚠️ **PRECAUCIÓN: POSIBLES DAÑOS PERSONALES:** La batería de litio de este producto no debe reemplazarse. Existe riesgo de explosión si se sustituye incorrectamente una batería de litio. No recargue, desmonte ni incinere una batería de litio. Deseche las baterías de litio usadas según las instrucciones del fabricante y las normativas locales.

Informações sobre segurança

- A segurança deste produto é baseada em testes e aprovações do design original e de componentes específicos. O fabricante não é responsável por segurança em caso de uso não autorizado de peças de substituição.

- As informações sobre manutenção deste produto foram preparadas para utilização por um técnico profissional experiente e não se destinam ao uso por outros.

- Pode haver maior risco de choque elétrico e danos pessoais durante a desmontagem e manutenção deste produto. Os técnicos profissionais experientes devem entender esses riscos e tomar as precauções necessárias.

  ⚠️ **ATENÇÃO—RISCO DE CHOQUE:** Se você vir este símbolo, existe perigo de tensão elétrica na área do produto onde está trabalhando. Desligue o produto antes de começar ou tenha cuidado se o produto precisar receber energia para executar a tarefa.

  ⚠️ **ATENÇÃO—RISCO DE FERIMENTO:** A bateria de lítio neste produto não deve ser substituída. Existe o risco de explosão se uma bateria de lítio for substituída incorretamente. Não recarregue, desmonte nem incinere uma bateria de lítio. Descarte as baterias de lítio usadas de acordo com as instruções do fabricante e regulamentos locais.

Informazioni sulla sicurezza

- La sicurezza di questo prodotto è basata sui test e sulle approvazioni del design originale e dei componenti specifici. Il produttore non è responsabile della sicurezza in caso di utilizzo di parti di ricambio non autorizzate.

- Le informazioni di manutenzione per questo prodotto sono state predisposte per essere utilizzate da un tecnico dell'assistenza professionale e non sono state previste per l'uso da parte di altre persone.

Notices, conventions, and safety information

- È possibile che vi sia un maggior rischio di scosse elettriche e lesioni personali durante lo smontaggio e la manutenzione di questo prodotto. Il personale dell'assistenza deve comprendere questo rischio e prendere le precauzioni necessarie.

⚠ **ATTENZIONE - PERICOLO DI SCOSSE ELETTRICHE:** Questo simbolo indica la presenza di un rischio per tensioni pericolose nell'area del prodotto in cui si lavora. Scollegare l'alimentazione prima di iniziare, o prestare la massima attenzione se per effettuare l'operazione il prodotto deve ricevere l'alimentazione.

⚠ **ATTENZIONE - PERICOLO DI LESIONI:** La batteria al litio contenuto nel prodotto non deve essere sostituita: in caso di sostituzione errata della batteria al litio, potrebbe verificarsi un'esplosione. Non ricaricare, smontare o bruciare batterie al litio. Smaltire le batterie al litio usate seguendo le istruzioni del produttore e le norme locali.

Informatie over veiligheid

- De veiligheid van dit product is gebaseerd op testen en goedkeuringen van het oorspronkelijke ontwerp en specifieke onderdelen. De fabrikant is niet verantwoordelijk voor de veiligheid bij gebruik van ongeautoriseerde vervangende onderdelen.
- De informatie over het onderhoud van dit product is opgesteld voor gebruik door een professionele onderhoudsmonteur en is niet bedoeld voor gebruik door anderen.
- Tijdens demontage en onderhoud van dit product bestaat mogelijk een hoger risico op elektrische schokken en lichamelijk letsel. Professionele onderhoudsmonteurs dienen op de hoogte te zijn van dit risico en de noodzakelijke voorzorgsmaatregelen te nemen.

⚠ **LET OP: GEVAAR VOOR ELEKTRISCHE SCHOKKEN:** Wanneer u dit symbool ziet, bestaat er een gevaar voor gevaarlijke spanning in het gebied van het product waaraan u werkt. Haal de stekker van het product uit het stopcontact voordat u begint, of let extra goed op als het product stroom nodig heeft om een taak te kunnen uitvoeren.

⚠ **LET OP: RISICO OP LETSEL:** De lithiumbatterij in dit product moet niet worden vervangen. Wanneer de lithiumbatterij niet juist wordt vervangen, bestaat er explosiegevaar. Probeer nooit lithiumbatterijen op te laden, open te maken of te verbranden. Gooi gebruikte lithiumbatterijen weg volgens de aanwijzingen van de fabrikant en houd hierbij de plaatselijke regelgeving in acht.

Sikkerhedsoplysninger

- Sikkerheden for dette produkt er baseret på afprøvning og godkendelser af det oprindelige design og specifikke komponenter. Producenten er ikke ansvarlig for sikkerhed i tilfælde af brug af uautoriserede dele til udskiftning.
- Vedligeholdelsesoplysninger om dette produkt er udarbejdet til brug af en kvalificeret servicetekniker og er ikke beregnet til at blive brugt af andre.
- Der kan være en forøget risiko for elektrisk stød eller personskade ved afmontering og service af dette produkt. Professionelt servicepersonale bør forstå denne risiko og tage nødvendige forholdsregler.

⚠ **FORSIGTIG - ELEKTRISK STØD:** Når du ser dette symbol, er der risiko for elektrisk spænding i nærheden af produktet, hvor du arbejder. Tag strømstikket ud inden du begynder, eller udvis forsigtighed, hvis produktet skal modtage strøm for at udføre opgaven.

⚠ **FORSIGTIG - RISIKO FOR SKADE:** Litium-batteriet i dette produkt er ikke beregnet til at blive udskiftet. Der er fare for eksplosion, hvis et litium-batteri udskiftes forkert. Du må ikke genoplade, demontere eller afbrænde et litium-batteri. Brugte litium-batterier skal bortskaffes i overensstemmelse med producentens instruktioner og lokale retningslinjer.

Sicherheitshinweise

- Die Sicherheit dieses Produkts basiert auf Tests und Zulassungen des Originaldesigns und der spezifischen Komponenten. Sofern nicht autorisierte Ersatzteile eingesetzt werden, übernimmt der Hersteller keinerlei Verantwortung in Bezug auf die Sicherheit dieses Produkts.

- Die Wartungsinformationen für dieses Produkt wurden für ausgebildete Servicemitarbeiter zusammengestellt und dürfen nicht von anderen verwendet werden.

- Möglicherweise besteht bei der Demontage und Wartung dieses Produkts eine erhöhte Stromschlag- und Verletzungsgefahr. Ausgebildete Servicemitarbeiter sollten sich dieser Gefahr bewusst sein und die notwendigen Vorsichtsmaßnahmen ergreifen.

  VORSICHT – STROMSCHLAGGEFAHR: Wenn Sie dieses Symbol sehen, besteht eine Gefahr durch gefährliche Spannungen in dem Produktbereich, in dem Sie arbeiten. Trennen Sie das Produkt von seiner Stromverbindung, bevor Sie beginnen, oder gehen Sie vorsichtig vor, wenn das Produkt für die Durchführung der Aufgabe mit Strom versorgt werden muss.

  VORSICHT – MÖGLICHE VERLETZUNGSGEFAHR Die Lithiumbatterie in diesem Produkt darf nicht ausgetauscht werden. Wird eine Lithiumbatterie nicht ordnungsgemäß ausgetauscht, besteht Explosionsgefahr. Lithiumbatterien dürfen auf keinen Fall wieder aufgeladen, auseinander genommen oder verbrannt werden. Befolgen Sie zum Entsorgen verbrauchter Lithiumbatterien die Anweisungen des Herstellers und die örtlichen Bestimmungen.

Turvallisuusohjeet

- Tämän laitteen turvallisuus perustuu alkuperäisen rakenteen ja tiettyjen osien testaukseen ja hyväksymiseen. Valmistaja ei vastaa turvallisuudessa, jos laitteessa on käytetty luvattomia vaihto-osia.

- Tämän tuotteen huoltoa koskevat tiedot on tarkoitettu vain ammattitaitoisen huoltohenkilön käyttöön.

- Tämän tuotteen purkamiseen ja huoltoon voi liittyä kasvanut sähköiskun tai henkilövahingon vaara. Ammattitaitoisen huoltohenkilön on ymmärrettävä tämä vaara ja toimittava sen edellyttämällä tavalla.

  HUOMIO – SÄHKÖISKUN VAARA: Tämä symboli ilmaisee, että tuotteen työskentelyalueella on olemassa vaarallinen jännite. Irrota laite verkkovirrasta ennen kuin aloitat tai toimi erittäin varovasti, jos laitteessa on oltava virta työn aikana.

  HUOMIO – TAPATURMAN MAHDOLLISUUS: Tuotteessa olevaa litiumakkua ei ole tarkoitettu vaihdettavaksi. Litiumakun poistaminen väärin aiheuttaa räjähdysvaaran. Älä lataa, pura tai polta litiumakkua. Hävitä käytetyt litiumakut valmistajan ohjeiden ja paikallisten säädösten mukaisesti.

Sikkerhetsinformasjon

- Sikkerheten til dette produktet er basert på testing og godkjenning av originaldesignet og bestemte komponenter. Produsenten er ikke ansvarlig for sikkerheten ved bruk av uautoriserte reservedeler.

- Vedlikeholdsinformasjonen for dette produktet er tilrettelagt for bruk av profesjonelt servicepersonale, og er ikke ment for bruk av andre.

- Det kan være en økt risiko for elektrisk støt og personskade under demontering og vedlikehold av produktet. Profesjonelt servicepersonell må være innforstått med denne risikoen og ta nødvendige forholdsregler.

  FORSIKTIG – FARE FOR STØT: Dette symbolet betyr at det er fare for farlig spenning i det området av produktet der du arbeider. Koble fra produktet før du begynner, eller vær forsiktig hvis produktet må ha strøm for å kunne utføre oppgaven.

⚠️ **FORSIKTIG – POTENSIELLE SKADER:** Litiumbatteriet i dette produktet er ikke beregnet for å byttes. Det er fare for eksplosjon hvis litiumbatteriet skiftes ut på feil måte. Ikke lad opp, demonter eller destruer et litiumbatteri. Kast brukte litiumbatterier i henhold til produsentens instruksjoner og lokale regelverk.

Säkerhetsinformation

- Säkerheten för denna produkt baseras på tester och godkännanden av ursprungsdesignen och av specifika komponenter. Tillverkaren har inget ansvar vid användning av oauktoriserade reservdelar.

- Underhållsinformationen för produkten är avsedd att användas av utbildade servicetekniker och inte avsedd att användas av andra.

- Risken för elektriska stötar och personskador kan vara förhöjd vid isärtagning och service av produkten. Professionell servicepersonal bör vara medvetna om denna risk och vidta nödvändiga försiktighetsåtgärder.

⚠️ **VAR FÖRSIKTIG– RISK FÖR ELEKTRISK STÖT:** När du ser denna symbol är det risk att det finns farlig spänning i den del av produkten du arbetar med. Koppla från strömmen innan du börjar, eller var försiktig om produkten måste vara strömförsörjd för att uppgiften ska kunna utföras.

⚠️ **VAR FÖRSIKTIG – RISK FÖR SKADA:** Litiumbatteriet i produkten är inte utbytbart. Om ett litiumbatteri byts ut på fel sätt finns det risk att det exploderar. Du får inte ladda om, ta isär eller elda upp ett litiumbatteri. Gör dig av med använda litiumbatterier enligt tillverkarens instruktioner och lokala föreskrifter.

安全情報

- 本製品の安全性は、本来の設計、特定コンポーネントの試験、承認に基づいています。承認されていない交換部品をお客様が使用した場合、メーカーは安全性に対して責任を負いません。

- 本製品のメンテナンス情報は、専門のサービス担当者による利用を目的としており、その他の人を対象としていません。

- 本製品の分解や保守サービスを行う場合は、感電や傷害の危険性があります。専門のサービス担当者はこの危険性を理解し、十分な対策を講じる必要があります。

⚠️ **注意—感電危険**：この表記がある場合、対象製品の作業領域には、高電圧による危険性が生じています。作業を始める前に、製品から電源コードを取り外してください。また作業時に、製品に給電する必要がある場合は、十分に注意するようにしてください。

⚠️ **注意—傷害の恐れあり**：この製品に使用されているリチウム電池は、交換を前提としていません。リチウム電池の交換を誤ると破裂する危険性があります。リチウム電池の充電、解体、焼却はしないでください。使用済みのリチウム電池を廃棄する際は、製造元の指示およびお使いの地域の法律に従ってください。

안전 정보

- 이 제품의 안전은 기본 디자인 및 특정 구성품의 승인 및 테스팅을 기반으로 합니다. 제조업체는 권한 없는 교체 부품 사용 시 안전에 대해 책임을 지지 않습니다.

- 이 제품의 유지관리 정보는 전문 서비스 요원을 대상으로 하며 다른 사람은 사용할 수 없습니다.

- 제품 분해 및 서비스 중에는 감전 및 상해 위험이 증가할 수 있습니다. 전문 서비스 요원은 이와 같은 위험을 이해하고 필요한 예방 조치를 취해야 합니다.

⚠️ **주의—감전 위험:** 이 기호가 표시된 경우 작업 중인 제품 주변에서 위험 전압 위험이 있습니다. 사용 전/후에 전원 코드를 뽑아 두시고 제품에서 작업을 수행하는 데 반드시 전원이 필요한 경우에는 주의하여 사용하십시오.

⚠️ **주의—상해 위험:** 이 제품에 들어 있는 리튬 배터리는 교체할 수 없습니다. 리튬 배터리를 잘못 교체하면 폭발할 위험이 있습니다. 리튬 배터리를 충전, 분해하거나 불에 태우지 마십시오. 제조업체의 지침과 지역 규정에 따라 다 쓴 리튬 배터리를 폐기하십시오.

安全信息

- 本产品的安全性以原始设计和特定组件的测试和审批为基础。如果使用未经授权的替换部件，制造商不对安全性负责。
- 本产品的维护信息仅供专业服务人员使用，并不打算由其他人使用。
- 本产品在拆卸和维修时，遭受电击和人员受伤的危险性会增高。专业服务人员对这点必须有所了解，并采取必要的预防措施。

⚠️ **小心—电击危险：** 当您看到此符号时，在您工作的产品区域内存在危险电压的威胁。在您开始操作之前请拔掉产品电源，如果产品必须接收功率才能执行任务，请务必谨慎操作。

⚠️ **小心—可能的伤害：** 本产品中的锂电池不可更换。如果不正确更换锂电池，可能会有爆炸危险。不要再充电、拆解或焚烧锂电池。丢弃旧的锂电池时应按照制造商的指导及当地法规进行处理。

安全資訊

- 本產品安全性係以原始設計及特定元件之測試與核准為依據。如有使用未獲授權替換組件之情形者，製造商對安全性概不負責。
- 本產品之維護資訊僅供專業維修人員使用，而非預定由他人使用。
- 拆裝及維修本產品時，有可能造成電擊與人員損傷之危險。專業維修人員應瞭解前項危險並採取必要措施。

⚠️ **請當心—觸電危險：** 當您看到此符號時，表示您所在產品工作區有危險電壓。開始工作之前，請先拔掉產品電源線，若產品必須接上電源方能執行作業，用電時請務必小心。

⚠️ **請當心—潛在受傷危險性：** 本產品中的鋰電池原本並不需要予以更換。若未正確更換鋰電池，可能會有爆炸的危險。請勿將鋰電池充電、拆裝或焚燒。請遵照製造商的指示及當地法規，丟棄用過的電池。

General caution statements

⚠️ **CAUTION—POTENTIAL INJURY:** To avoid the risk of fire or electrical shock, connect the power cord to an appropriately rated and properly grounded electrical outlet that is near the product and easily accessible.

⚠️ **CAUTION—POTENTIAL INJURY:** To avoid the risk of fire or electrical shock, use only the power cord provided with this product or the manufacturer's authorized replacement.

⚠️ **CAUTION—POTENTIAL INJURY:** Do not use this product with extension cords, multioutlet power strips, multioutlet extenders, or UPS devices. The power capacity of these types of accessories can be easily overloaded by a laser printer and may result in a risk of fire, property damage, or poor printer performance.

⚠️ **CAUTION—POTENTIAL INJURY:** Only a Lexmark Inline Surge Protector that is properly connected between the printer and the power cord provided with the printer may be used with this product. The use of non-Lexmark surge protection devices may result in a risk of fire, property damage, or poor printer performance.

Descriptions in page 31 to 34 are not applicable to this model.
Therefore it was deleted.

General information

Printer model configurations

The Sharp MX-B557P and MX-B707P are network-capable, laser printers. All information in this service manual pertains to all models unless explicitly noted.

The printer is available in the following models:

Model name	Configuration / description	
MX-B557P	Network, duplex, 4.3-inch e-Task touch screen	
MX-B707P	Network, duplex, 4.3-inch e-Task touch screen	

Paper support

The following tables provide information on standard and optional paper sources and the sizes, types, and weights of paper they support.

Note: For an unlisted paper size, select the closest *larger* listed size.

Supported paper sizes

Paper sizes supported by the printer

Paper size	Standard 550-sheet tray, optional 250- or 550-sheet tray	Optional 2100-sheet tray	Multipurpose feeder	Two-sided printing
A4 210 x 297 mm (8.3 x 11.7 in.)	✓	✓	✓	✓
A5 LEF[1] 210 x 148 mm (8.3 x 5.8 in.)	✓	✓	✓	✓
A5 SEF[1] 148 x 210 mm (5.8 x 8.3 in.)	✓	X	✓	X
A6 105 x 148 mm (4.1 x 5.8 in.)	✓	X	✓	✓
JIS B5 182 x 257 mm (7.2 x 10.1 in.)	✓	X	✓	✓
Oficio (Mexico) 216 x 340 mm (8.5 x 13.4 in.)	✓	✓	✓	✓
Statement 140 x 216 mm (5.5 x 8.5 in.)	✓	X	✓	✓
Executive 184 x 267 mm (7.3 x 10.5 in.)	✓	X	✓	✓
Letter 216 x 279 mm (8.5 x 11 in.)	✓	✓	✓	✓
Legal 216 x 356 mm (8.5 x 14 in.)	✓	✓	✓	✓
Folio 216 x 330 mm (8.5 x 13 in.)	✓	✓	✓	✓
[1] A5 long edge feed (LEF) is recommended over A5 short edge feed (SEF).				
[2] Envelopes wider than 101.6 mm (4.5 in.) may crease. This paper type must be tested for acceptability.				

Paper size	Standard 550-sheet tray, optional 250- or 550-sheet tray	Optional 2100-sheet tray	Multipurpose feeder	Two-sided printing
Universal 105 x 148 mm (4.1 x 5.8 in.) to 216 x 356 mm (8.5 x 14 in.)	✓	X	✓	✓
7 3/4 Envelope (Monarch) 98 x 191 mm (3.9 x 7.5 in.)	✓	X	✓	X
9 Envelope 98 x 225 mm (3.9 x 8.9 in.)	✓	X	✓	X
10 Envelope[2] 105 x 241 mm (4.1 x 9.5 in.)	✓	X	✓	X
DL Envelope[2] 110 x 220 mm (4.3 x 8.7 in.)	✓	X	✓	X
C5 Envelope[2] 162 x 229 mm (6.4 x 9 in.)	✓	X	✓	X
B5 Envelope[2] 176 x 250 mm (6.9 x 9.8 in.)	✓	X	✓	X
Other Envelope[2] 98.4 x 162 mm (3.9 x 6.4 in.) to 176 x 250 mm (6.9 x 9.8 in.)	✓	X	✓	X

[1] A5 long edge feed (LEF) is recommended over A5 short edge feed (SEF).

[2] Envelopes wider than 101.6 mm (4.5 in.) may crease. This paper type must be tested for acceptability.

Paper sizes supported by the output options or finishers

Paper size	Output expander or high-capacity output expander	4-bin mailbox	Staple finisher		Staple, hole punch finisher		
			Stack	Staple	Stack	Staple	Hole punch
A4 210 x 297 mm (8.3 x 11.7 in.)	✓	✓	✓	✓	✓	✓	✓
A5 LEF 210 x 148 mm (8.3 x 5.8 in.)	✓	✓	✓	✓	✓	✓	X
A5 SEF 148 x 210 mm (5.8 x 8.3 in.)	✓	✓	✓	X	✓	X	X

Paper size	Output expander or high-capacity output expander	4-bin mailbox	Staple finisher		Staple, hole punch finisher		
			Stack	Staple	Stack	Staple	Hole punch
A6 105 x 148 mm (4.1 x 5.8 in.)	✓	✓	X	X	X	X	X
JIS B5 182 x 257 mm (7.2 x 10.1 in.)	✓	✓	✓	X	✓	X	X
Oficio (Mexico) 216 x 340 mm (8.5 x 13.4 in.)	✓	✓	✓	✓	✓	✓	✓
Statement 140 x 216 mm (5.5 x 8.5 in.)	✓	✓	✓	X	✓	X	X
Executive 184 x 267 mm (7.3 x 10.5 in.)	✓	✓	✓	X	✓	X	X
Letter 216 x 279 mm (8.5 x 11 in.)	✓	✓	✓	✓	✓	✓	✓
Legal 216 x 356 mm (8.5 x 14 in.)	✓	✓	✓	✓	✓	✓	X
Folio 216 x 330 mm (8.5 x 13 in.)	✓	✓	✓	✓	✓	✓	✓
Universal 105 x 148 mm (4.1 x 5.8 in.) to 216 x 356 mm (8.5 x 14 in.)	✓	✓	X	X	X	X	X
7 3/4 Envelope (Monarch) 98 x 191 mm (3.9 x 7.5 in.)	✓	X	X	X	X	X	X
9 Envelope 98 x 225 mm (3.9 x 8.9 in.)	✓	X	X	X	X	X	X
10 Envelope 105 x 241 mm (4.1 x 9.5 in.)	✓	X	X	X	X	X	X

Paper size	Output expander or high-capacity output expander	4-bin mailbox	Staple finisher		Staple, hole punch finisher		
			Stack	Staple	Stack	Staple	Hole punch
DL Envelope 110 x 220 mm (4.3 x 8.7 in.)	✓	X	X	X	X	X	X
C5 Envelope 162 x 229 mm (6.4 x 9 in.)	✓	X	X	X	X	X	X
B5 Envelope 176 x 250 mm (6.9 x 9.8 in.)	✓	X	X	X	X	X	X
Other Envelopes 98.4 x 162 mm (3.9 x 6.4 in.) to 176 x 250 mm (6.9 x 9.8 in.)	✓	X	X	X	X	X	X

Supported paper types

Paper types supported by the printer

Paper type	Standard 550-sheet tray, optional 250- or 550-sheet tray	Optional 2100-sheet tray	Multipurpose feeder	Two-sided printing
Plain paper	✓	✓	✓	✓
Card stock	✓	X	✓	✓
Transparency[1]	✓	X	✓	X
Labels	✓	X	✓	X
Vinyl Labels	✓	X	✓	X
Bond	✓	✓	✓	✓
Envelope	✓	X	✓	X
Rough Envelope	✓	X	✓	X

[1] To prevent transparencies from sticking together, print up to 20 pages only. Print the succeeding pages after three minutes.

Paper type	Standard 550-sheet tray, optional 250- or 550-sheet tray	Optional 2100-sheet tray	Multipurpose feeder	Two-sided printing
Letterhead	✓	✓	✓	✓
Preprinted	✓	✓	✓	✓
Colored Paper	✓	X	✓	✓
Light	✓	X	✓	✓
Heavy	✓	X	✓	✓
Rough/Cotton	✓	X	✓	✓
Custom Type [x]	✓	X	✓	✓
[1] To prevent transparencies from sticking together, print up to 20 pages only. Print the succeeding pages after three minutes.				

Paper types supported by the output options or finishers

Paper type	Output expander or high-capacity output expander	4-bin mailbox	Staple finisher		Staple, hole punch finisher		
			Stack	Staple	Stack	Staple	Hole punch
Plain paper	✓	✓	✓	✓	✓	✓	✓
Card stock	✓	X	X	X	X	X	X
Transparencies	✓	X	✓	X	✓	X	X
Labels	✓	X	X	X	X	X	X
Vinyl Labels	✓	X	X	X	X	X	X
Bond	✓	✓	✓	✓	✓	✓	✓
Envelope	✓	X	X	X	X	X	X
Rough Envelope	✓	X	X	X	X	X	X
Letterhead	✓	✓	✓	✓	✓	✓	✓
Preprinted	✓	✓	✓	✓	✓	✓	✓

Paper type	Output expander or high-capacity output expander	4-bin mailbox	Staple finisher		Staple, hole punch finisher		
			Stack	Staple	Stack	Staple	Hole punch
Colored Paper	√	X	X	X	X	X	X
Light	√	X	X	X	X	X	X
Heavy	√	X	X	X	X	X	X
Rough/Cotton	√	X	X	X	X	X	X
Custom Type [x]	√	X	X	X	X	X	X

Supported paper weights

Paper weights supported by the printer

Paper type and weight	Standard 550-sheet tray, optional 250- or 550-sheet tray	Optional 2100-sheet tray	Multipurpose feeder	Two-sided printing
Plain paper or Bond[1] 60–176 g/m² grain long (16–47-lb bond)	√	√	√	√
Card stock 203 g/m² grain long (125-lb bond)	√	X	√	√
Card stock 199 g/m² grain long (110-lb bond)	√	X	√	√
Card stock 176 g/m² grain long (65-lb bond)	√	X	√	√
Transparency 138–146 g/m² grain long (37–39-lb bond)	√	X	√	X
Paper labels 180 g/m² (48-lb bond)	√	X	√	√
[1] Grain short is preferred for paper over 176 g/m² (47 lb).			
[2] Pressure-sensitive area must enter the printer first.			
[3] 28-lb bond envelopes are limited to 25% cotton content.			

Paper type and weight	Standard 550-sheet tray, optional 250- or 550-sheet tray	Optional 2100-sheet tray	Multipurpose feeder	Two-sided printing
Integrated forms[2] 140–175 g/m² (37–47-lb bond)	√	X	√	√
Integrated forms 75–135 g/m² (20–36-lb bond)	√	X	√	√
Envelopes[3] 60–105 g/m² (16–28-lb bond)	√	X	√	√

[1] Grain short is preferred for paper over 176 g/m² (47 lb).

[2] Pressure-sensitive area must enter the printer first.

[3] 28-lb bond envelopes are limited to 25% cotton content.

Paper weights supported by the output options or finishers

Paper type and weight	Output expander or high-capacity output expander	4-bin mailbox	Staple finisher		Staple, hole punch finisher		
			Stack	Staple	Stack	Staple	Hole punch
Plain paper or Bond 60–176 g/m² grain long (16–47-lb bond)	√	X	√	X	√	X	X
Plain paper or Bond 60–90 g/m² grain long (16–24-lb bond)	√	√	√	√	√	√	√
Card stock 203 g/m² grain long (125-lb bond)	√	X	√	X	√	X	X
Card stock 199 g/m² grain long (110-lb bond)	√	X	√	X	√	X	X

Paper type and weight	Output expander or high-capacity output expander	4-bin mailbox	Staple finisher		Staple, hole punch finisher		
			Stack	Staple	Stack	Staple	Hole punch
Card stock 176 g/m² grain long (65-lb bond)	✓	X	X	X	X	X	X
Card stock 163 g/m² grain long (90-lb bond)	✓	X	✓	X	✓	X	X
Transparency 138–146 g/m² grain long (37–39-lb bond)	✓	X	✓	X	✓	X	X
Paper labels 180 g/m² (48-lb bond)	✓	X	X	X	X	X	X
Integrated forms 140–175 g/m² (37–47-lb bond)	✓	X	X	X	X	X	X
Integrated forms 75–135 g/m² (20–36-lb bond)	✓	X	X	X	X	X	X
Envelopes 60–105 g/m² (16–28-lb bond)	✓	X	X	X	X	X	X

Tools required for service

- Flat-blade screwdrivers, various sizes

- #1 Phillips screwdriver, magnetic

- #2 Phillips screwdriver, magnetic

- #2 Phillips screwdriver, magnetic short-blade

- 7/32-inch (5.5-mm) open-end wrench

- 7.0-mm nut driver

- Needle-nose pliers

- Diagonal side cutters

General information

- Spring hook

- Feeler gauges

- Analog or digital multimeter

- Parallel wrap plug 1319128

- Twinax/serial debug cable 1381963

- Coax/serial debug cable 1381964

- Flashlight (optional)

- 3-mm hex wrench

- 5.5-mm hex wrench

Diagnostics and troubleshooting

⚠ **CAUTION—SHOCK HAZARD:** This product uses a soft power switch. It does not physically disconnect the input AC voltage. To avoid the risk of electrical shock, always remove the power cord from the printer when removal of the input AC voltage is required.

⚠ **CAUTION—SHOCK HAZARD:** To avoid the risk of electrical shock and to prevent damage to the printer, remove the power cord from the electrical outlet and disconnect all connections to any external devices before you connect or disconnect any cable, electronic board, or assembly.

⚠ **CAUTION—HOT SURFACE:** The inside of the printer might be hot. To reduce the risk of injury from a hot component, allow the surface to cool before touching it.

⚠ **CAUTION—PINCH HAZARD:** To avoid the risk of a pinch injury, use caution in areas marked with this label. Pinch injuries may occur around moving parts, such as gears, doors, trays, and covers.

Troubleshooting overview

Performing the initial troubleshooting check

Before you start the troubleshooting procedures, perform the following checks:

- Use genuine Sharp supplies and parts for the best results. Third-party supplies or parts may affect the performance, reliability, or life of the printer and its imaging components.
- With the power cord unplugged from the electrical outlet, check that the cord is free from the breakage, short circuits, disconnected wires, or incorrect connections.
- Make sure the printer is properly grounded. Check the power cord ground terminal.
- Make sure the power supply line voltage is within 10% of the rated line voltage.
- Make sure the machine is securely installed on a level surface in a well-ventilated area.
- Make sure the room temperature is between 16 and 32°C (60 and 90°F) and that the relative humidity is between 20 and 80%.
- Avoid sites generating ammonia gas, high temperature, high humidity (near water faucets, kettles, humidifiers), cold spaces, near open flames, and dusty areas.
- Avoid sites exposed to direct sunlight.
- Make sure the paper is the recommended paper for this printer.
- Make a trial print with paper from a newly opened package, and check the result.

Using Safe Mode

Safe Mode lets the printer continue to operate in a special limited mode in which it attempts to continue offering as much functionality as possible despite known issues. See **"Safe Mode print behavior" on page 46**.

Warning—Potential Damage: Safe Mode is intended as a short-term workaround and should be used only in the case of a non-critical error when a print job must be completed before service can be arranged to repair the printer. The printer must be returned to standard operating mode before diagnostics can be run or full-function printing can continue.

You can enter Safe Mode in one of the following ways:

- Enter Safe Mode from the Configuration menu, and then POR the printer. See **"Config Menu" on page 402**.

- For 2.4" display models, press the **Stop** and **Back** keys, and then POR the printer.

- For 4.3" and 7" display touch-screen models, press the **6** and **7** keys, and then POR the printer.

- For LED models, contact the next level of technical support for assistance.

Return the printer to standard operating mode to service the printer and return to full-function printing.

Safe Mode print behavior

The following table outlines the behavior for this printer model while in Safe Mode:

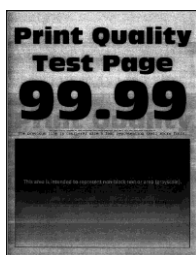| Safe Mode engine features	Engine behavior	Control panel behavior
Simplex printing only	Reports that duplex printing is disabled.	Duplex print option is not selectable.
Ignore duplex sensor		
Ignore standard bin full sensor	Standard bin full messages are not reported.	Standard bin full messages will not occur.
Print at narrow media operating point	Pages are printed slower.	N/A
Ignore all input options	Reports that only Tray 1 is installed.	Only Tray 1 and the MPF are selectable.
Ignore all output options	Does not report any installed finishing options.	No finishing options are selectable.
Ignore rear door sensor	Rear door open messages are not reported.	Rear door open messages do not occur.
Reduce print speed	Pages are printed slower.	N/A
Reduce time to first print	Slower time to first print.	N/A

Fixing print quality issues

Initial print quality check

Before troubleshooting print problems, perform the following:

- Make sure that the printer is located in an area that follows the recommended operating environment and power requirement specifications.
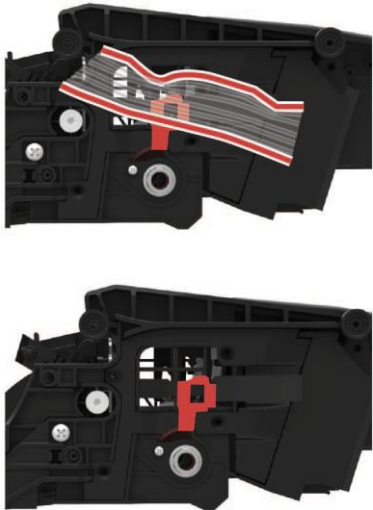
- Check the status of supplies. Replace supplies that are low or empty.

- Load 20-lb (75-80 g/m^2) plain letter or A4 paper. Make sure that the paper guides are properly set and locked. From the control panel, set the paper size and type to match the paper loaded in the tray.

- From the control panel, navigate to **Settings** > **Troubleshooting** > **Print Quality Test Pages**.

- Print and keep the Menu Settings Page. The original page is used to restore the custom settings if necessary. From the control panel, navigate to **Settings** > **Reports** > **Menu Settings Page**, and then press **OK**.

- On the Menu Settings page, check if the print resolution is set to 600 dpi and the toner darkness is set to Normal.

- Check the toner cartridges for damage, and replace if necessary.

- Make sure that the correct print driver is used to prevent print problems. If the wrong print driver is installed, then incorrect characters could print and the copy may not fit the page correctly.
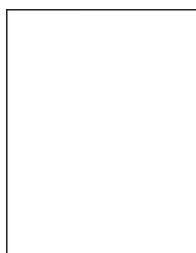
Gray background on prints check

Note: Before performing this print quality check, go to the control panel home screen and navigate to **Settings** > **Troubleshooting** > **Print Quality Test Pages**, and then perform the initial print quality check. See **"Initial print quality check" on page 46**.

Actions	Yes	No

Step 1
a Turn off the printer, wait for 10 seconds, and then turn on the printer.
b From the printer control panel:
  1 Increase the toner darkness in the Quality menu.
    Note: 8 is the factory default setting.
  2 Set the paper type, texture, and weight in the Paper menu to match the paper loaded.
 	
Does the problem remain?
	Go to step 2.	The problem is solved.

Actions	Yes	No
Step 2 Check if the printer is using a genuine and supported Sharp toner cartridge. **Note:** If the printer is using a third-party cartridge, then refer the users to their cartridge supplier. Is the printer using a genuine and supported toner cartridge?	Go to step 4.	Go to step 3.
Step 3 Install a genuine and supported toner cartridge. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Remove any packing material left on the imaging unit, including pieces of tape on the side of the unit and the red separator plastic. **Note:** You may need a pair of pliers to remove a piece of broken plastic inside the imaging unit. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Replace the imaging unit. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 **a** Remove the right cover. See **"Right cover removal" on page 434**. **b** Make sure that connection J15 on the controller board and the connections on the HVPS are properly connected. Are the connections properly connected?	Go to step 8.	Go to step 7.

Diagnostics and troubleshooting

Actions	Yes	No
Step 7 Reseat the connections. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Check all connections in the HVPS for proper connection. Is the HVPS properly connected?	Go to step 10.	Go to step 9.
Step 9 Replace the connections. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Replace the HVPS. See **"HVPS removal" on page 435**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Printer is printing blank pages check

Note: Before performing this print quality check, go to the control panel home screen and navigate to **Settings** > **Troubleshooting** > **Print Quality Test Pages**, and then perform the initial print quality check. See **"Initial print quality check" on page 46**.

Actions	Yes	No
Step 1 Check if the printer is using a genuine and supported Sharp toner cartridge. **Note:** If the printer is using a third-party cartridge, then refer the users to their cartridge supplier. Is the printer using a genuine and supported toner cartridge?	Go to step 3.	Go to step 2.
Step 2 Install a genuine and supported toner cartridge. Does the problem remain?	Go to step 3.	The problem is solved.

Actions	Yes	No
Step 3 **a** Check and remove any packing material left on the imaging unit. **b** Firmly shake the imaging unit to redistribute the toner, and then reinstall it. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Check the imaging unit for damage and proper installation, and replace if necessary. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Check the transfer roller for proper installation. Is the transfer roller properly installed?	Go to step 7.	Go to step 6.
Step 6 Reinstall the transfer roller. See **"Transfer roller removal" on page 460**. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Check the transfer roller for surface contamination and damage. Is the transfer roller free of contamination and damage?	Go to step 8.	Go to step 14.
Step 8 **a** Remove the right cover. See **"Right cover removal" on page 434**. **b** Check all the connections on the HVPS for proper connection. Is the HVPS properly connected?	Go to step 10.	Go to step 9.
Step 9 Replace the connections. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Reseat connection J15 on the controller board. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Replace the connection. Does the problem remain?	Go to step 12.	The problem is solved.

Actions	Yes	No

Step 12
a Check the coupler for signs of damage. The coupler is located on the main motor drive of the printer.
    • Good condition
 	
    • Bad condition
 	
b If the coupler is damaged, then replace the main motor drive. See **"Main motor drive removal" on page 424**.
 	
Does the problem remain?
	Go to step 13.	The problem is solved.

Step 13 Reseat the cable J71 on the controller board. Does the problem remain?	Go to step 14.	The problem is solved.
Step 14 Replace the transfer roller. See **"Transfer roller removal" on page 460**. Does the problem remain?	Go to step 15.	The problem is solved.

Actions	Yes	No
Step 15 Replace the laser printhead. See **"Printhead removal" on page 468**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Print is too dark check

Note: Before performing this print quality check, go to the control panel home screen and navigate to **Settings** > **Troubleshooting** > **Print Quality Test Pages**, and then perform the initial print quality check. See **"Initial print quality check" on page 46**.

Actions	Yes	No
Step 1 Check if the printer is using a genuine and supported Sharp toner cartridge. **Note:** If the printer is using a third-party cartridge, then refer the users to their cartridge supplier. Is the printer using a genuine and supported toner cartridge?	Go to step 3.	Go to step 2.
Step 2 Install a genuine and supported toner cartridge. Does the problem remain?	Go to step 3.	The problem is solved.

Step 3
a Turn off the printer, wait for 10 seconds, and then turn on the printer.
b Reduce the toner darkness.
   From the control panel, navigate to:
   Settings > **Print Settings** > **Quality menu**
   Note: 8 is the factory default setting.
 	
Does the problem remain?
	Go to step 4.	The problem is solved.

Actions	Yes	No
Step 4 From the control panel, set the paper type, texture, and weight in the Paper menu to match the paper loaded. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Depending on the operating system, specify the paper type, texture, and weight from Printing Preferences or Print dialog. Does the problem remain?	Go to step 6.	The problem is solved.

Step 6
  a Check if the paper loaded has texture or rough finishes.
  b From the control panel, set the paper texture in the Paper menu to match the texture of the paper loaded.
 	
Does the problem remain?
	Go to step 7.	The problem is solved.

Step 7 Make sure that the paper loaded is from a fresh package. **Note:** Paper absorbs moisture due to high humidity. Store paper in its original wrapper until you use it. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Replace the imaging unit. Does the problem remain?	Go to step 9.	The problem is solved.

Step 9
  a Remove the right cover. See **"Right cover removal" on page 434**.
  b Check all the connections on the HVPS for proper connection.
 	
Is the HVPS properly connected?
	Contact the next level of support.	Go to step 10.

Step 10 Replace the connections. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Replace the HVPS. See **"HVPS removal" on page 435**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Print is too light check

Note: Before performing this print quality check, go to the control panel home screen and navigate to **Settings** > **Troubleshooting** > **Print Quality Test Pages**, and then perform the initial print quality check. See **"Initial print quality check" on page 46**.

Actions	Yes	No
Step 1 Check if the printer is using a genuine and supported Sharp toner cartridge. **Note:** If the printer is using a third-party cartridge, then refer the users to their cartridge supplier. Is the printer using a genuine and supported toner cartridge?	Go to step 3.	Go to step 2.
Step 2 Install a genuine and supported toner cartridge. Does the problem remain?	Go to step 3.	The problem is solved.

Step 3
a Turn off the printer, wait for 10 seconds, and then turn on the printer.
b From the control panel:
  1 Increase the toner darkness in the Quality menu.
    Note: 8 is the factory default setting.
  2 Set the paper type, texture, and weight in the Paper menu to match the paper loaded.
 	
Does the problem remain?
	Go to step 4.	The problem is solved.

Actions	Yes	No
Step 4 **a** Remove the toner cartridge and imaging unit. **b** Push either side of the transfer roller, located below the imaging unit, to check if it depresses and bounces back into place. **c** If the transfer roller does not depress and bounce back into place, then reinstall it by pulling up the blue gear and pulling it out from the right side to the left. **d** Firmly shake the imaging unit to redistribute the toner, and then reinstall it. **e** Reinstall the toner cartridge. **f** Turn off the printer, wait for 10 seconds, and then turn on the printer. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** If the issue happens after installing a new maintenance kit, then check whether the transfer roller included with the kit is installed in the printer. **b** If necessary, replace the transfer roller. See **"Transfer roller removal" on page 460**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Check the shutter on the imaging unit for signs of damage. **Note:** The shutter opens to receive toner from the toner cartridge. Is the shutter on the imaging unit working properly?	Go to step 7.	Go to step 8.

Step 7
a Check the status of the imaging unit.
   1 From the home screen, select **Status/supplies**.
   2 Select **Supplies**.
b Check the condition of the imaging unit.
 	
Is the imaging unit near end of life and/or showing signs of toner leakage?
	Go to step 8.	Go to step 9.

Step 8 Replace the imaging unit. Does the problem remain?	Go to step 9.	The problem is solved.

Actions	Yes	No
Step 9 **a** Remove the HVPS shield. See **"HVPS removal" on page 435**. **b** Verify if all the cables on the HVPS are properly installed. If necessary, reinstall the cables. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Replace the transfer roller. See **"Transfer roller removal" on page 460**. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Replace the HVPS. See **"HVPS removal" on page 435**. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 Check connection J71 on the controller board and the connection on the toner add motor for proper connection. Are the connections properly connected?	Go to step 14.	Go to step 13.
Step 13 Replace the connections. Does the problem remain?	Go to step 14.	The problem is solved.
Step 14 Replace the controller board. See **"Controller board removal" on page 439**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Paper curl check

Note: Before performing this print quality check, go to the control panel home screen and navigate to **Settings** > **Troubleshooting** > **Print Quality Test Pages**, and then perform the initial print quality check. See **"Initial print quality check" on page 46**.

Actions	57	Yes	No
Step 1 Check if the printer is using a genuine and supported Sharp toner cartridge. **Note:** If the printer is using a third-party cartridge, then refer the users to their cartridge supplier. Is the printer using a genuine and supported toner cartridge?		Go to step 3.	Go to step 2.
Step 2 Install a genuine and supported toner cartridge. Does the problem remain?		Go to step 3.	The problem is solved.
Step 3 Adjust the guides in the tray to the correct position for the paper loaded. Does the problem remain?		Go to step 4.	The problem is solved.
Step 4 From the control panel, set the paper size, type, and weight in the Paper menu to match the paper loaded. Does the problem remain?		Go to step 5.	The problem is solved.
Step 5 Depending on the operating system, specify the paper size from Printing Preferences or Print dialog. Does the problem remain?		Go to step 6.	The problem is solved.
Step 6 Remove paper from the tray, and then turn it over. Does the problem remain?		Go to step 7.	The problem is solved.
Step 7 Make sure that the paper loaded is from a fresh package. **Note:** Paper absorbs moisture due to high humidity. Store paper in its original wrapper until you use it. Does the problem remain?		Go to step 8.	The problem is solved.
Step 8 Make sure that the printer supports the paper loaded. Is the paper supported?		Contact the next level of support.	Go to step 9.

Actions	Yes	No
Step 9 Load a supported paper. Does the problem remain?	Contact the next level of support.	The problem is solved.

Folded or wrinkled paper check

Note: Before performing this print quality check, go to the control panel home screen and navigate to **Settings** > **Troubleshooting** > **Print Quality Test Pages**, and then perform the initial print quality check. See **"Initial print quality check" on page 46**.

Note: Do not replace the fuser due to a wrinkled backup roller (A).
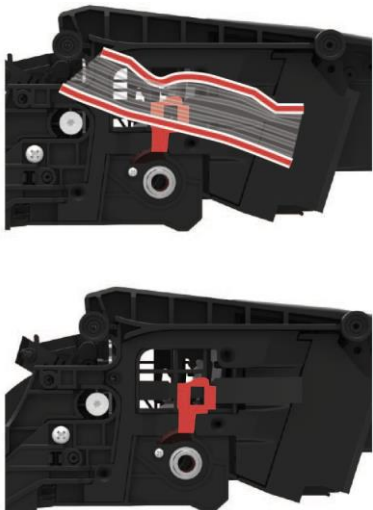
Actions	Yes	No
Step 1 **a** Check if the printer is using a non-Sharp toner cartridge. **Note:** If the printer is using a third-party cartridge, then do not replace the imaging unit. Refer the users to their cartridge supplier. **b** Make sure that the toner cartridge is compatible with the imaging unit. Does the problem remain?	Go to step 2.	The problem is solved.

Actions	Yes	No
Step 2 **a** Check if the paper loaded is from a fresh package. **Note:** The amount of moisture in paper affects both print quality and printer ability to feed paper correctly. **b** Make sure that the printer supports the paper loaded. For a complete list of supported paper, see the printer *User's Guide*. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Make sure that the fuser entry guide is free of waste toner and dust. **Warning—Potential Damage:** Clean the fuser entry guide with a toner vacuum and cloth. Do not use compressed air. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 If the fuser has reached end of life, then replace the maintenance kit. Does the problem remain?	Contact the next level of support.	The problem is solved.

Printer is printing solid black pages check

Note: Before performing this print quality check, go to the control panel home screen and navigate to **Settings** > **Troubleshooting** > **Print Quality Test Pages**, and then perform the initial print quality check. See **"Initial print quality check" on page 46**.

Actions	Yes	No
Step 1 Check if the printer is using a genuine and supported Sharp toner cartridge. **Note:** If the printer is using a third-party cartridge, then refer the users to their cartridge supplier. Is the printer using a genuine and supported toner cartridge?	Go to step 3.	Go to step 2.
Step 2 Install a genuine and supported toner cartridge. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Remove any packing material left on the imaging unit, including pieces of tape on the side of the unit and the red separator plastic. **Note:** You may need a pair of pliers to remove a piece of broken plastic inside the imaging unit. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Replace the imaging unit. Does the problem remain?	Go to step 5.	The problem is solved.

Actions	Yes	No
Step 5 **a** Remove the right cover. See **"Right cover removal" on page 434**. **b** Check the cable connections between the HVPS and J15 on the controller board. If necessary, reseat the cables. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Replace the HVPS. See **"HVPS removal" on page 435**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Repeating defects appear on prints check

Note: Before performing this print quality check, go to the control panel home screen and navigate to **Settings** > **Troubleshooting** > **Print Quality Test Pages**, and then perform the initial print quality check. See **"Initial print quality check" on page 46**.

Actions	Yes	No

Step 1
a From the control panel, navigate to:
Menu > **Help** > **Print Defects Guide**
b Using the Print Defects Guide, check if the distance between defects is equal to any of the following:
  • 96 mm (3.78 in.)
  • 49 mm (1.93 in.)
  • 47.5 mm (1.87 in.)
  • 30.2 mm (1.18 in.)
Note: Make sure to measure the defect interval accurately.
 	
Does the distance measured match any of the items listed?
	Go to step 2.	Go to step 3.

Step 2 Replace the imaging unit. Does the problem remain?	Go to step 3.	The problem is solved.

Actions	Yes	No
Step 3 Measure the distance between repeating defects, and then check if it matches any of the following: • 3.71 in. (94.25 mm) • 3.75 in. (95.2 mm) Does the distance measured match any of the items listed?	Go to step 4.	Contact the next level of support.
Step 4 Replace the fuser. See **"Fuser removal" on page 465**. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Replace the transfer roller. See **"Transfer roller removal" on page 460**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Skewed print check

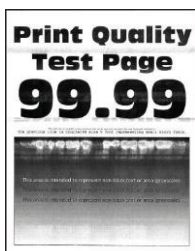**Print Quality Test Page 99.99**

Note: Before performing this print quality check, go to the control panel home screen and navigate to **Settings** > **Troubleshooting** > **Print Quality Test Pages**, and then perform the initial print quality check. See **"Initial print quality check" on page 46**.

Actions	Yes	No
Step 1 Check the guides in the tray where the skewed prints are sourced from. **Note:** If paper is sourced from the MPF, then proceed to step 9. Does the position of the guides match the paper loaded?	Go to step 3.	Go to step 2.
Step 2 Adjust the guides to match the paper loaded. Does the problem remain?	Go to step 3.	The problem is solved.

Actions	Yes	No
Step 3 Check if the printer supports the paper loaded. **Note:** For a complete list of supported paper, see the printer *User's Guide*. Is the paper supported?	Go to step 5.	Go to step 4.
Step 4 Remove the paper, and then load a supported one. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Check the tray pick roller for excess wear and contamination. Is the pick roller free from excess wear and contamination?	Go to step 7.	Go to step 6.
Step 6 Replace the pick roller. See **"Pick roller removal" on page 478**. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Perform a print test. Enter the Diagnostics menu, and then navigate to: **Input tray quick print** > **Tray [x]** > **Single** **Note:** [x] refers to the tray where the skewed prints are sourced from. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 **a** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics and adjustments** > **Registration adjust** **b** Adjust the margins. Does the problem remain?	Go to step 15.	The problem is solved.
Step 9 Check the guides in the MPF tray. Does the position of the guides match the paper loaded?	Go to step 11.	Go to step 10.
Step 10 Adjust the guides to match the paper loaded. Does the problem remain?	Go to step 11.	The problem is solved.

Actions	Yes	No
Step 11 Check if the printer supports the paper loaded. **Note:** For a complete list of supported paper, see the printer *User's Guide*. Is the paper supported?	Go to step 13.	Go to step 12.
Step 12 Remove the paper, and then load a supported one. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 Check the MPF pick roller for excess wear and contamination. Is the MPF pick roller free from excess wear and contamination?	Go to step 15.	Go to step 14.
Step 14 Replace the MPF pick roller. See **"MPF pick roller removal" on page 457**. Does the problem remain?	Go to step 15.	The problem is solved.
Step 15 Perform the paper skew adjustment. See **"Adjustments" on page 415**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Streaked vertical lines appear on prints check

Note: Before performing this print quality check, go to the control panel home screen and navigate to **Settings** > **Troubleshooting** > **Print Quality Test Pages**, and then perform the initial print quality check. See **"Initial print quality check" on page 46**.

Note: This check applies only to printer models with a hot roll fuser.

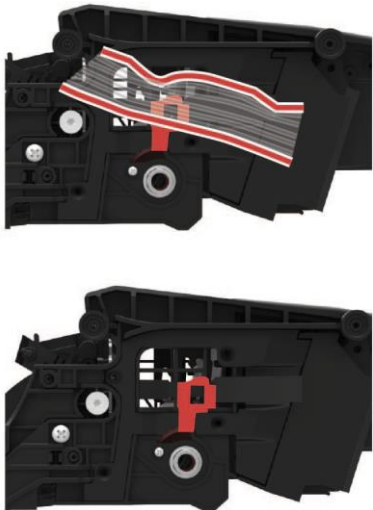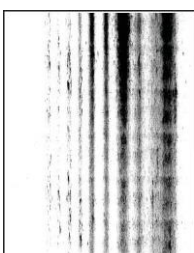| Actions	Yes	No
Step 1 Check if the printer is using a genuine and supported Sharp toner cartridge. **Note:** If the printer is using a third-party cartridge, then refer the users to their cartridge supplier. Is the printer using a genuine and supported toner cartridge?	Go to step 3.	Go to step 2.
Step 2 Install a genuine and supported toner cartridge. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Remove, and then reinstall the imaging unit. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Replace the imaging unit. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Remove the hot roll fuser, and then check for scratches and other damage. Is the fuser free of scratches and other damage?	Contact the next level of support.	Go to step 6.
Step 6 Replace the hot roll fuser. See **"Fuser removal" on page 465**. Does the problem remain?	Contact the next level of support.	The problem is solved.
Step 7 Remove the fuser, and then check the rollers and belts for damage or debris. Are the rollers and belts free of damage or debris?	Contact the next level of support.	Go to step 8.
Step 8 Replace the fuser. See **"Fuser removal" on page 465**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Horizontal light bands check

Note: Before performing this print quality check, go to the control panel home screen and navigate to **Settings** > **Troubleshooting** > **Print Quality Test Pages**, and then perform the initial print quality check. See **"Initial print quality check" on page 46**.
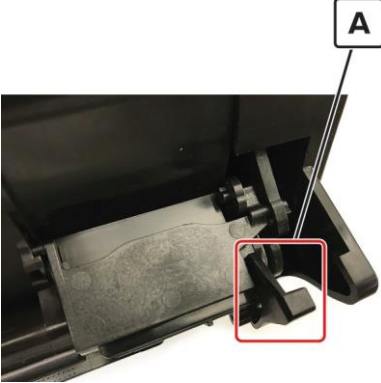
Actions	Yes	No
Step 1 Remove, and then clean the imaging unit contacts. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Check if the printer is using a genuine and supported Sharp imaging unit. Is the printer using a genuine and supported imaging unit?	Go to step 4.	Go to step 3.
Step 3 Install a genuine and supported imaging unit. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Turn off the printer, wait for 10 seconds, and then turn on the printer. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 a Remove the HVPS. See **"HVPS removal" on page 435**. b Check if the HVPS wire connectors are pinched or damaged. Are the wire connectors pinched or damaged?	Go to step 6.	Go to step 7.
Step 6 Repair or replace the wire connectors. Does the problem remain?	Go to step 7.	The problem is solved.

Actions	Yes	No
Step 7 **a** Remove the right cover. See **"Right cover removal" on page 434**. **b** Check connection J15 from the controller board to the HVPS, and then check all other connections on the HVPS. Are the connections properly connected?	Go to step 9.	Go to step 8.
Step 8 Replace the connections. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Replace the HVPS. See **"HVPS removal" on page 435**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Vertical light bandscheck

Note: Before performing this print quality check, go to the control panel home screen and navigate to **Settings** > **Troubleshooting** > **Print Quality Test Pages**, and then perform the initial print quality check. See **"Initial print quality check" on page 46**.

Actions	Yes	No
Step 1 Check if the printer is using a genuine and supported Sharp toner cartridge. **Note:** If the printer is using a third-party cartridge, refer the users to their cartridge supplier. Is the printer using a genuine and supported toner cartridge?	Go to step 3.	Go to step 2.
Step 2 Install a genuine and supported toner cartridge. Does the problem remain?	Go to step 3.	The problem is solved.

Actions	Yes	No
Step 3 Clean the printhead glass. See **"Cleaning the printhead glass" on page 778**. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Replace the printhead. See **"Printhead removal" on page 468**. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Replace the imaging unit. Does the problem remain?	Contact the next level of support.	The problem is solved.

Vertical dark bands check

Note: Before performing this print quality check, go to the control panel home screen and navigate to **Settings** > **Troubleshooting** > **Print Quality Test Pages**, and then perform the initial print quality check. See **"Initial print quality check" on page 46**.

Actions	Yes	No
Step 1 Check if the printer is using a genuine and supported Sharp toner cartridge. **Note:** If the printer is using a third-party cartridge, then refer the users to their cartridge supplier. Is the printer using a genuine and supported toner cartridge?	Go to step 3.	Go to step 2.
Step 2 Install a genuine and supported toner cartridge. Does the problem remain?	Go to step 3.	The problem is solved.

Actions	Yes	No
Step 3 Remove any packing material left on the imaging unit, including pieces of tape on the side of the unit and the red separator plastic. **Note:** You may need a pair of pliers to remove a piece of broken plastic inside the imaging unit. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Replace the imaging unit. Does the problem remain?	Contact the next level of support.	The problem is solved.

Vertical dark streaks with print missing check

Note: Before performing this print quality check, go to the control panel home screen and navigate to **Settings** > **Troubleshooting** > **Print Quality Test Pages**, and then perform the initial print quality check. See **"Initial print quality check" on page 46**.

Actions	Yes	No
Step 1 Check if the printer is using a genuine and supported Sharp toner cartridge. **Note:** If the printer is using a third-party cartridge, then refer the users to their cartridge supplier. Is the printer using a genuine and supported toner cartridge?	Go to step 3.	Go to step 2.
Step 2 Install a genuine and supported toner cartridge. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Replace the imaging unit. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 **a** Remove the right cover. See **"Right cover removal" on page 434**. **b** Check connection J15 from the controller board to the HVPS, and then check all other connections on the HVPS. Are the connections properly connected?	Go to step 6.	Go to step 5.
Step 5 Reconnect the cables. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Replace the HVPS. See **"HVPS removal" on page 435**. Does the problem remain?	Contact the next level of support.	The problem is solved.

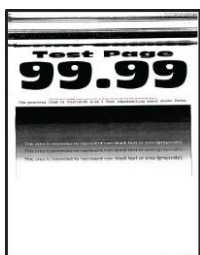## White streaks and voided areas check

Note: Before performing this print quality check, go to the control panel home screen and navigate to **Settings** > **Troubleshooting** > **Print Quality Test Pages**, and then perform the initial print quality check. See **"Initial print quality check" on page 46**.
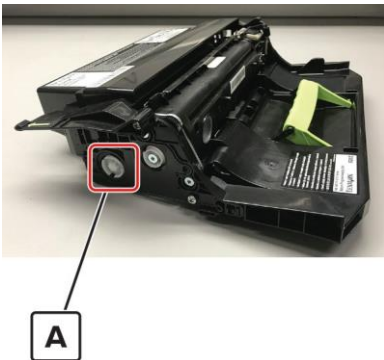
Actions	Yes	No
Step 1 Check if the printer is using a genuine and supported Sharp toner cartridge. **Note:** If the printer is using a third-party cartridge, do not replace the imaging unit. Refer the users to their cartridge supplier. Is the printer using a genuine and supported toner cartridge?	Go to step 3.	Go to step 2.
Step 2 Install a genuine and supported toner cartridge. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Set the paper type and weight settings in the Paper menu to match the paper loaded. **Note:** Make sure that the printer supports the paper loaded. For a complete list of supported paper, see the printer *User's Guide*. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 **a** Update the firmware to the latest version available. **b** Enter the Diagnostics menu, and then change the EngSetting 14 value to 48. **Note:** You can also change the setting through a bundle file or NPA command. **c** Set Quite mode to Off. **d** Review the Event Log Summary sheets and check if either error code 31.46 or 31.66 events occurred for the imaging unit. If they did, check if they are occurring with the current toner cartridge. Do the errors occur with the current toner cartridge?	Go to step 6.	Go to step 5.

Actions	Yes	No
Step 5 Check the shutter tab (A) on the toner cartridge for signs of damage. Is the shutter tab damaged?	Go to step 6.	Go to step 7.
Step 6 Replace the imaging unit and the toner cartridge. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Check the printhead glass for contamination. Is the printhead glass free from dust and debris?	Go to step 8.	Go to step 9.
Step 8 Clean the printhead glass. See **"Cleaning the printhead glass" on page 778**. **Warning—Potential Damage:** When cleaning the printhead glass, do not use compressed air. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 **a** Remove the right cover. See **"Right cover removal" on page 434**. **b** Check connection J15 from the controller board to the HVPS, and then check all other connections on the HVPS. Are the connections properly connected?	Go to step 11.	Go to step 10.
Step 10 Replace the connections. Does the problem remain?	Go to step 11.	The problem is solved.

Actions	Yes	No
Step 11 Replace the HVPS. See **"HVPS removal" on page 435**. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 Replace the laser printhead. See **"Printhead removal" on page 468**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Fine lines are not printed correctly check

Note: This issue mostly occurs on fonts or characters with fine lines (especially on Chinese characters). Small texts and details may also not be printed correctly.

Note: Before performing this print quality check, go to the control panel home screen and navigate to **Settings** > **Troubleshooting** > **Print Quality Test Pages**, and then perform the initial print quality check. See **"Initial print quality check" on page 46**.
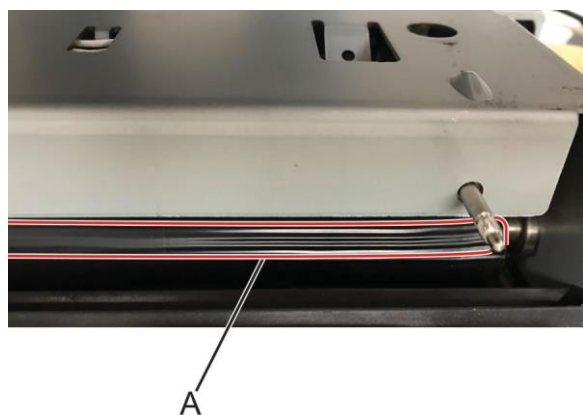
Actions	Yes	No
Step 1 Check if the printer is using a genuine and supported Sharp toner cartridge. **Note:** If the printer is using a third-party cartridge, then refer the users to their cartridge supplier. Is the printer using a genuine and supported toner cartridge?	Go to step 3.	Go to step 2.
Step 2 Install a genuine and supported toner cartridge. Does the problem remain?	Go to step 3.	The problem is solved.

Actions	Yes	No
Step 3 **a** From the control panel, navigate to: **Print** > **Quality** > **Pixel Boost** > **Fonts** **b** From the Quality menu, select **Toner Darkness**, and then adjust the setting to 7. **c** Submit the changes. **Note:** Adjusting the Toner Darkness setting to 7 results in a slightly lighter print. You may leave the Toner Darkness value at 8 in order to maintain the darkness that you have grown accustomed to, but this will result in reduced toner yield. Does the problem remain?	Contact the next level of support.	The problem is solved.

Clipped pages or images check

Note: Before performing this print quality check, go to the control panel home screen and navigate to **Settings** > **Troubleshooting** > **Print Quality Test Pages**, and then perform the initial print quality check. See **"Initial print quality check" on page 46**.

Actions	Yes	No
Step 1 Check if the printer is using a genuine and supported Sharp toner cartridge. **Note:** If the printer is using a third-party cartridge, then refer the users to their cartridge supplier. Is the printer using a genuine and supported toner cartridge?	Go to step 3.	Go to step 2.
Step 2 Install a genuine and supported toner cartridge. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Remove, and then reinstall the imaging unit. Does the problem remain?	Go to step 4.	The problem is solved.

Actions	Yes	No
Step 4 Replace the imaging unit. Does the problem remain?	Contact the next level of support.	The problem is solved.

Compressed images appear on prints check

Note: Before performing this print quality check, go to the control panel home screen and navigate to **Settings** > **Troubleshooting** > **Print Quality Test Pages**, and then perform the initial print quality check. See **"Initial print quality check" on page 46**.

Actions	Yes	No
Step 1 Remove the imaging unit, and then inspect the white photoconductor coupler (A). The coupler should be firmly connected to the imaging unit and should not freely rotate. Does the coupler move freely or appear damaged?	Go to step 2.	Go to step 3.
Step 2 Replace the imaging unit. Does the problem remain?	Go to step 3.	The problem is solved.

Actions	Yes	No
Step 3 Replace the motor (main). See **"Main motor drive removal" on page 424**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Incorrect margins on prints check

Note: Before performing this print quality check, go to the control panel home screen and navigate to **Settings** > **Troubleshooting** > **Print Quality Test Pages**, and then perform the initial print quality check. See **"Initial print quality check" on page 46**.

Actions	Yes	No
Step 1 Adjust the guides in the tray according to the size of the paper loaded. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Do one of the following: • From the printer control panel, set the paper size in the Paper menu to match the paper loaded in the tray. • Change the paper loaded in the tray to match the paper size specified in the tray settings. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Depending on the operating system used, specify the paper size from Printing Preferences or from the Print dialog. Does the problem remain?	Go to step 4 or contact the next level of support.	The problem is solved.
Step 4 **a** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics and adjustments** > **Registration adjust** **b** Adjust the margins. Does the problem remain?	Contact the next level of support.	The problem is solved.

Toner rubs off check

Note: Before performing this print quality check, go to the control panel home screen and navigate to **Settings** > **Troubleshooting** > **Print Quality Test Pages**, and then perform the initial print quality check. See **"Initial print quality check" on page 46**.

Note: Do not replace a fuser due to a wrinkled backup roller (A).

Actions	Yes	No
Step 1 Check if the printer is using a genuine and supported Sharp toner cartridge. **Note:** If the printer is using a third-party cartridge, then refer the users to their cartridge supplier. Is the printer using a genuine and supported toner cartridge?	Go to step 3.	Go to step 2.
Step 2 Install a genuine and supported toner cartridge. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 From the control panel, set the paper type, texture, and weight in the Paper menu to match the paper loaded. Does the problem remain?	Go to step 4.	The problem is solved.

Actions	Yes	No
Step 4 Remove, and then reinstall the fuser. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Replace the fuser. See **"Fuser removal" on page 465**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 **a** Remove the right cover. See **"Right cover removal" on page 434**. **b** Reseat the connections on the LVPS. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Replace the LVPS. See **"LVPS removal" on page 428**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Toner specks appear on prints check

Note: Before performing this print quality check, go to the control panel home screen and navigate to **Settings** > **Troubleshooting** > **Print Quality Test Pages**, and then perform the initial print quality check. See **"Initial print quality check" on page 46**.

Actions	Yes	No
Step 1 Check if the printer is using a genuine and supported Sharp toner cartridge. **Note:** If the printer is using a third-party cartridge, then refer the users to their cartridge supplier. Is the printer using a genuine and supported toner cartridge?	Go to step 3.	Go to step 2.
Step 2 Install a genuine and supported toner cartridge. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Check if toner specks appear only on the edges or back side of the pages. Do toner specks appear only on the edges or back side of the pages?	Go to step 4.	Go to step 5.
Step 4 Replace the transfer roller. See **"Transfer roller removal" on page 460**. Does the problem remain?	Go to step 5.	The problem is solved.

Step 5
a Check the status of the imaging unit.
    1 From the home screen, select **Status/supplies**.
    2 Select **Supplies** .
b Check the condition of the imaging unit.
 	
Is the imaging unit near end of life and/or showing signs of toner leakage?
	Go to step 6.	Go to step 7.

Step 6 Replace the imaging unit. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Check the printer for stray toner contamination. Is the printer contaminated with stray toner?	Go to step 8.	Contact the next level of support.
Step 8 Using an approved toner vaccum cleaner, completely clean the printer, toner cartridge, and imaging unit of toner contamination. Does the problem remain?	Contact the next level of support.	The problem is solved.

Paper jams

Avoiding jams

Load paper properly

- Make sure paper lies flat in the tray.

Correct loading of paper	Incorrect loading of paper
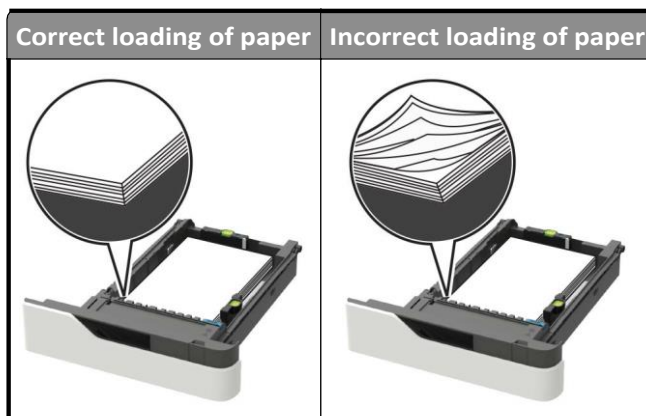
- Do not remove a tray while the printer is printing.
- Do not load a tray while the printer is printing. Load it before printing, or wait for a prompt to load it.
- Do not load too much paper. Make sure the stack height is below the maximum paper fill indicator.
- Do not slide the paper into the tray. Load paper as shown in the illustration.
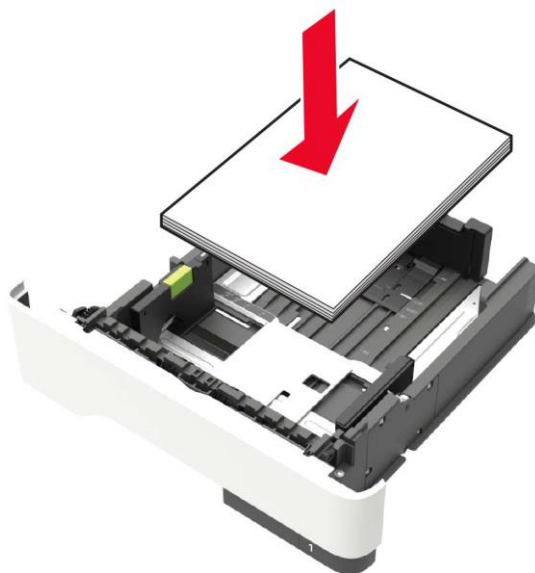
- Make sure the guides in the tray or the multipurpose feeder are properly positioned and are not pressing tightly against the paper or envelopes.
- Push the tray firmly into the printer after loading paper.
- If you are loading prepunched paper for use with the staple finisher, then make sure the holes on the long edge of the paper are on the right side of the tray. For more information, see the "Loading paper and specialty media" section of the *User's Guide*.

Allow the paper to enter the optional mailbox bins properly

- Make sure to adjust the bin extender so that the paper size indicators match the size of the paper used.
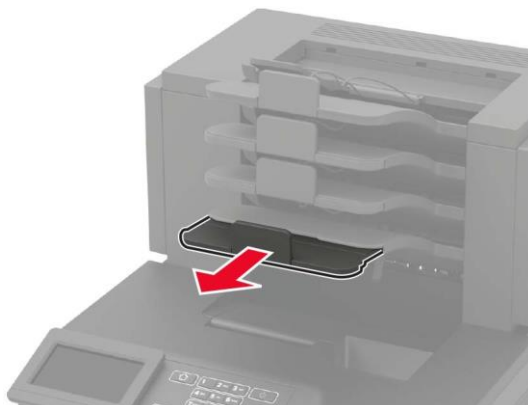
Notes:

- If the bin extender is shorter than the size of the paper you are printing on, then the paper causes a jam in the mailbox bin. For example, if you are printing on a legal-size paper and the bin extender is set to letter-size, then a jam occurs.
- If the bin extender is longer than the size of the paper you are printing on, then the edges become uneven and the paper is not stacked properly. For example, if you are printing on a letter-size paper and the bin extender is set to legal-size, then the paper does not stack properly.
- If paper needs to be returned to the mailbox bin, then insert the paper under the bin arm, and then push the paper all the way back.
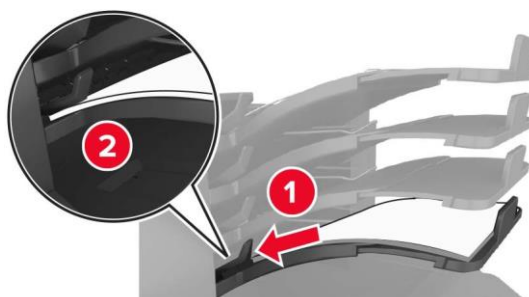
Note: If the paper is not under the bin arm, then a jam occurs due to an overfilled bin.

Use recommended paper

- Use only recommended paper or specialty media.
- Do not load wrinkled, creased, damp, bent, or curled paper.

Diagnostics and troubleshooting

- Flex, fan, and straighten paper or specialty media before loading it.
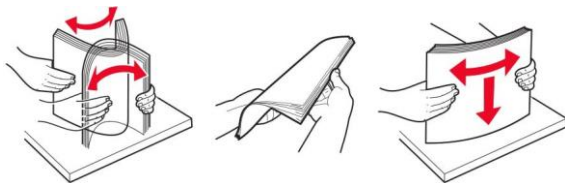
- Do not use paper that has been cut or trimmed by hand.
- Do not mix paper sizes, weights, or types in the same tray.
- Make sure the paper size and type are set correctly on the computer or printer control panel.
- Store paper per manufacturer recommendations.

Identifying jam locations

Notes:

- When Jam Assist is set to On, the printer flushes blank pages or pages with partial prints after a jammed page has been cleared. Check your printed output for blank pages.
- When Jam Recovery is set to On or Auto, the printer reprints jammed pages.
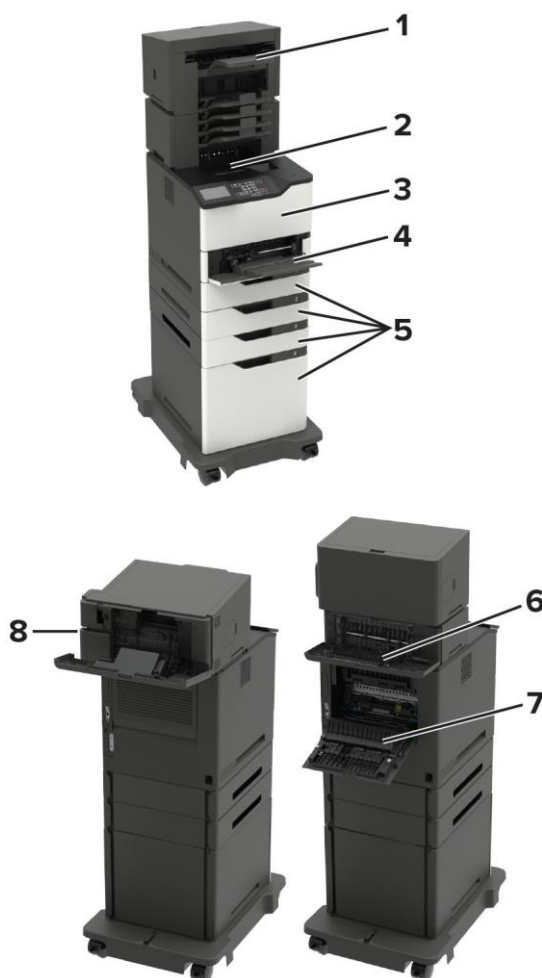
Diagnostics and troubleshooting

	Jam locations
1	Finisher or output option bin
2	Standard bin
3	Door A
4	Multipurpose feeder
5	Trays
6	Finisher or output option rear door • Door H • Door K • Door L • Door N • Door P
7	Door C
8	Stapler door • Door F • Door G

Paper jam in trays

1 Remove the tray.

Warning—Potential Damage: A sensor inside the optional tray is easily damaged by static electricity. Touch a metal surface before removing the jammed paper in the tray.

2 Remove the jammed paper.

Note: Make sure that all paper fragments are removed.

Diagnostics and troubleshooting

3 Insert the tray.

Paper jam in door A

1 Open door A.

Warning—Potential Damage: To prevent damage from electrostatic discharge, touch any exposed metal frame of the printer before accessing or touching interior areas of the printer.

2 Remove the toner cartridge.

3 Remove the imaging unit.

Warning—Potential Damage: Do not expose the imaging unit to direct light for more than 10 minutes. Extended exposure to light may cause print quality problems.

Warning—Potential Damage: Do not touch the photoconductor drum. Doing so may affect the quality of future print jobs.

4 Pull out the duplex unit.

5 Remove the jammed paper.

Note: Make sure that all paper fragments are removed.

6 Insert the duplex unit.

7 Insert the imaging unit.

8 Insert the toner cartridge.

9 Close the door.

Paper jam in door C

1 Open door C.

> ⚠ **CAUTION—HOT SURFACE:** The inside of the printer might be hot. To reduce the risk of injury from a hot component, allow the surface to cool before touching it.
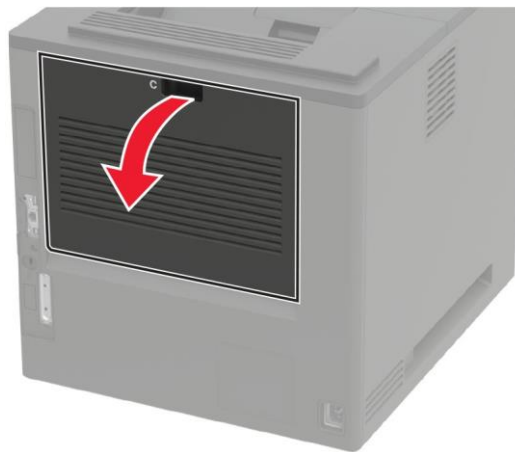
2 Remove the jammed paper from any of the following areas:

Note: Make sure that all paper fragments are removed.

- Fuser area

- Below the fuser area
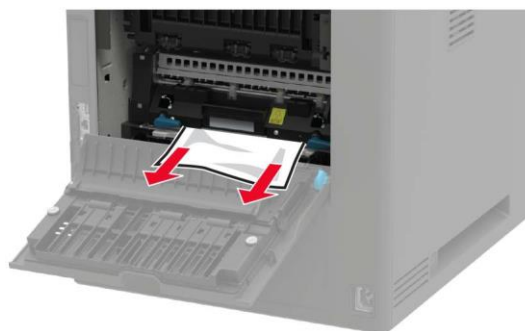
- Duplex area

3 Close the door.

Paper jam in the standard bin

Remove the jammed paper.

**Note:** Make sure that all paper fragments are removed.

Paper jam in the multipurpose feeder

1 Remove paper from the multipurpose feeder.

2 Remove the jammed paper.

   Note: Make sure that all paper fragments are removed.

3 Flex, fan, and align the paper edges before loading.
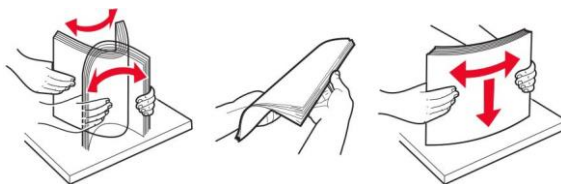
4 Reload paper.

Paper jam in the output expander

1 Open door K.
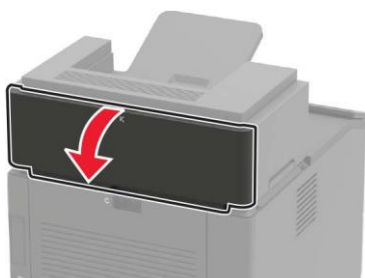
2 Remove the jammed paper.

   Note: Make sure that all paper fragments are removed.

3 Close the door.

Paper jam in the high-capacity output expander

1 Open door L.
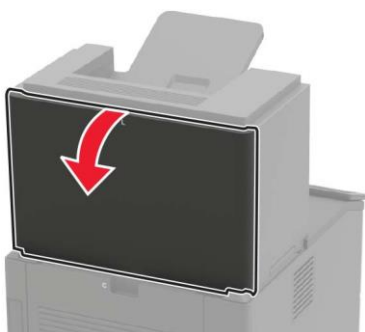
2 Remove the jammed paper.

> **Note:** Make sure that all paper fragments are removed.

3 Close the door.

Paper jam in the 4-bin mailbox

Paper jam in door N

1 Open door N.
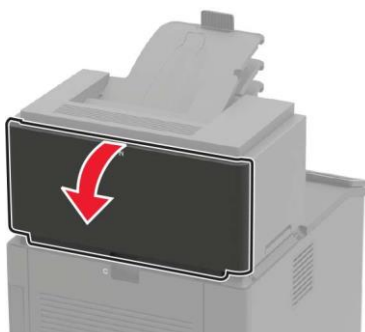
2 Remove the jammed paper.

   Note: Make sure that all paper fragments are removed.
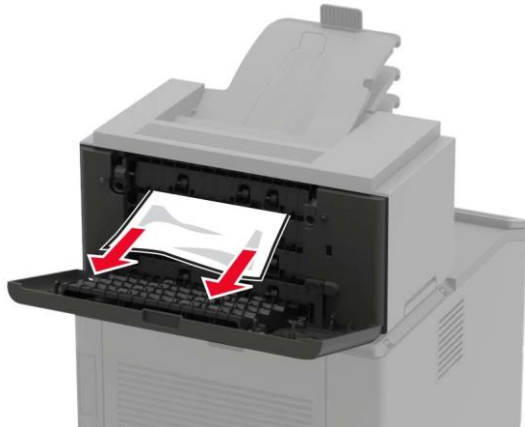
3 Close the door.

Paper jam in the mailbox bin

Remove the jammed paper.

Note: Make sure that all paper fragments are removed.
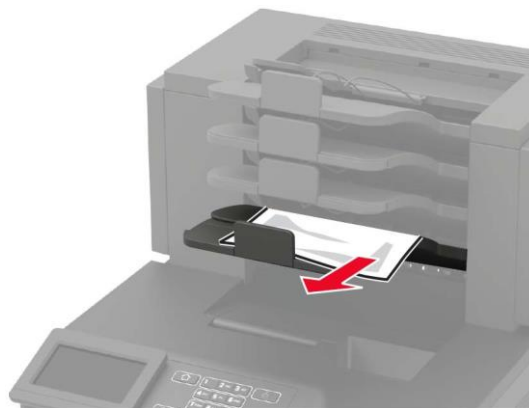
Paper jam in the staple finisher

Paper jam in door H

1 Open door H.
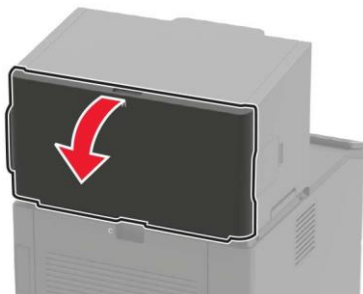
2 Remove the jammed paper.

Note: Make sure that all paper fragments are removed.

3 Close the door.

Paper jam in the staple finisher bin

Remove the jammed paper.

Note: Make sure that all paper fragments are removed.

Diagnostics and troubleshooting

Paper jam in the staple, hole punch finisher

Paper jam in door P

1 Open door P.
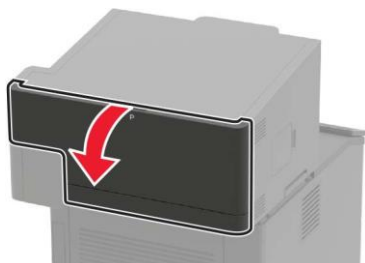
2 Remove the jammed paper.

Note: Make sure that all paper fragments are removed.

3 Close the door.

Paper jam in the staple, hole punch finisher bin

Remove the jammed paper.

Note: Make sure that all paper fragments are removed.

Staple jam in the staple finisher

1 Open door F.
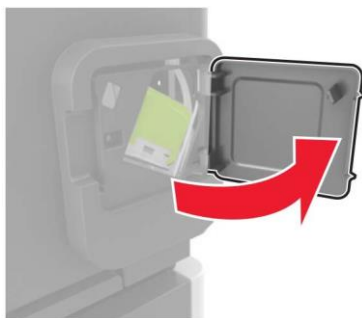
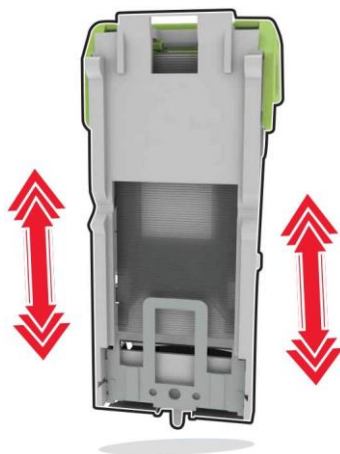**2** Remove the staple cartridge holder.
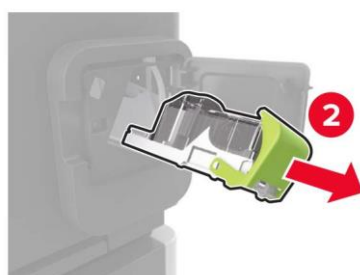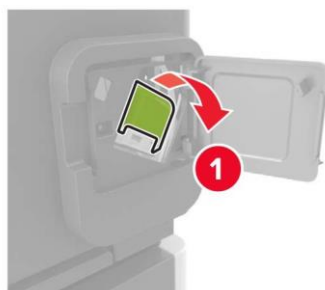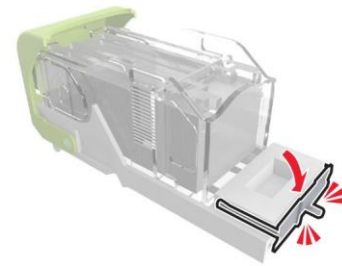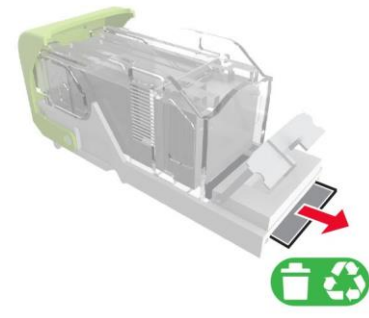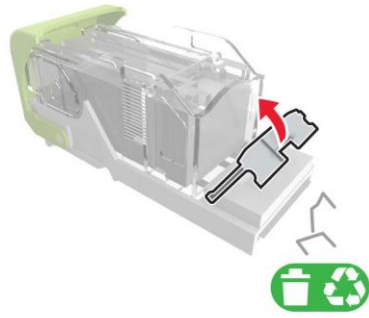
3 Remove the loose staples.

4 Press the staples against the metal bracket.

Note: If the staples are at the rear of the cartridge, then shake the cartridge downward to bring the staples near the metal bracket.
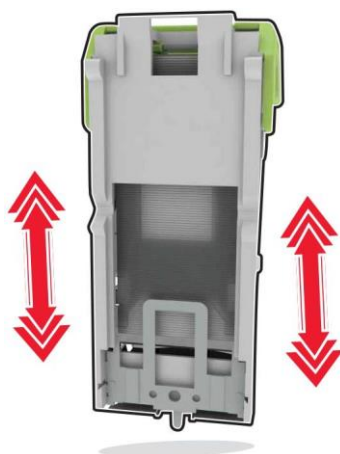
5 Insert the staple cartridge holder until it *clicks* into place.
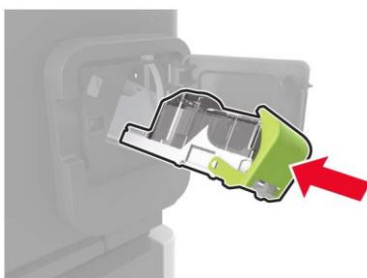
6 Close the door.

Staple jam in the staple, hole punch finisher

1 Depending on the staple jam location, open either door F or door G.
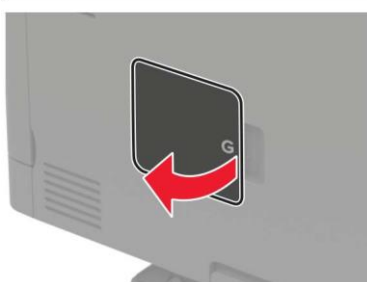
2 Remove the staple cartridge holder.
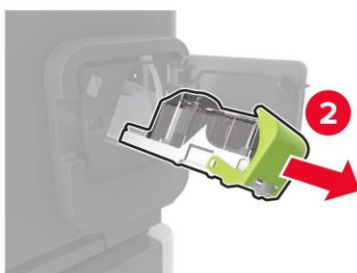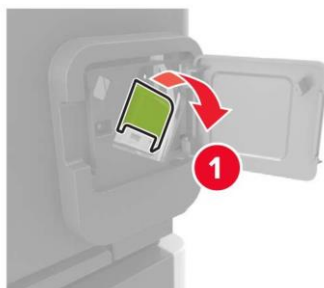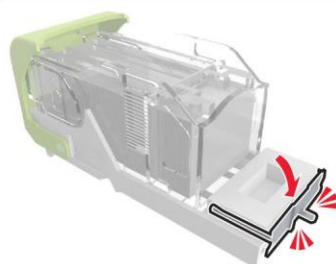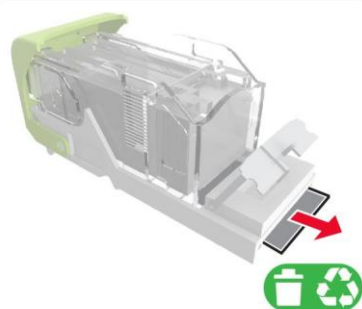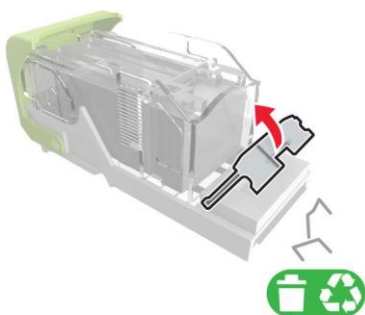
3 Remove the loose staples.

4 Press the staples against the metal bracket.

Note: If the staples are at the rear of the cartridge, then shake the cartridge downward to bring the staples near the metal bracket.

5 Insert the staple cartridge holder until it *clicks* into place.

6 Close the door.

Diagnostics and troubleshooting
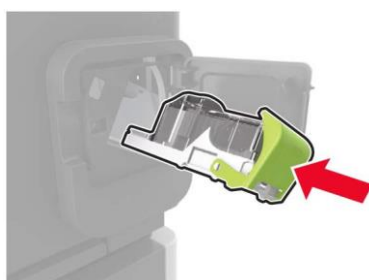
200 paper jams

200 paper jam messages

Error code	Description	Action
200.02	Paper fed from the MPF was detected earlier than expected at the sensor (input).	See **"Sensor (input) early-arriving jam service check" on page 100**.
200.03	Paper fed from the MPF was detected later than expected or was never detected at the sensor (input).	See **"Sensor (input) never- or late-arriving jam service check" on page 102**.
200.04	Paper fed from the MPF cleared the sensor (input) earlier than expected.	See **"Sensor (input) early-leaving jam service check" on page 108**.
200.05	Paper fed from the MPF never cleared the sensor (input).	See **"Sensor (input) late-leaving or did-not-clear jam service check" on page 104**.
200.12	Paper fed from tray 1 was detected earlier than expected at the sensor (input).	See **"Sensor (input) early-arriving jam service check" on page 100**.
200.13	Paper fed from tray 1 was detected later than expected or was never detected at the sensor (input).	See **"Sensor (input) never- or late-arriving jam service check" on page 102**.
200.14	Paper fed from tray 1 cleared the sensor (input) earlier than expected.	See **"Sensor (input) early-leaving jam service check" on page 108**.
200.15	Paper fed from tray 1 never cleared the sensor (input).	See **"Sensor (input) late-leaving or did-not-clear jam service check" on page 104**.
200.22	Paper fed from tray 2 was detected earlier than expected at the sensor (input).	See **"Sensor (input) early-arriving jam service check" on page 100**.
200.23	Paper fed from tray 2 was detected later than expected or was never detected at the sensor (input).	See **"Sensor (input) never- or late-arriving jam service check" on page 102**.
200.24	Paper fed from tray 2 cleared the sensor (input) earlier than expected.	See **"Sensor (input) early-leaving jam service check" on page 108**.
200.25	Paper fed from tray 2 never cleared the sensor (input).	See **"Sensor (input) late-leaving or did-not-clear jam service check" on page 104**.
200.32	Paper fed from tray 3 was detected earlier than expected at the sensor (input).	See **"Sensor (input) early-arriving jam service check" on page 100**.
200.33	Paper fed from tray 3 was detected later than expected or was never detected at the sensor (input).	See **"Sensor (input) never- or late-arriving jam service check" on page 102**.
200.34	Paper fed from tray 3 cleared the sensor (input) earlier than expected.	See **"Sensor (input) early-leaving jam service check" on page 108**.
200.35	Paper fed from tray 3 never cleared the sensor (input).	See **"Sensor (input) late-leaving or did-not-clear jam service check" on page 104**.
200.36	Paper fed from tray 3 was picked but it never reached the sensor (input).	See **"Sensor (input) never- or late-arriving jam service check" on page 102**.

Error code	Description	Action
200.42	Paper fed from tray 4 was detected earlier than expected at the sensor (input).	See **"Sensor (input) early-arriving jam service check" on page 100**.
200.43	Paper fed from tray 4 was detected later than expected or was never detected at the sensor (input).	See **"Sensor (input) never- or late-arriving jam service check" on page 102**.
200.44	Paper fed from tray 4 cleared the sensor (input) earlier than expected.	See **"Sensor (input) early-leaving jam service check" on page 108**.
200.45	Paper fed from tray 4 never cleared the sensor (input).	See **"Sensor (input) late-leaving or did-not-clear jam service check" on page 104**.
200.52	Paper fed from tray 5 was detected earlier than expected at the sensor (input).	See **"Sensor (input) early-arriving jam service check" on page 100**.
200.53	Paper fed from tray 5 was detected later than expected or was never detected at the sensor (input).	See **"Sensor (input) never- or late-arriving jam service check" on page 102**.
200.54	Paper fed from tray 5 cleared the sensor (input) earlier than expected.	See **"Sensor (input) early-leaving jam service check" on page 108**.
200.55	Paper fed from tray 5 never cleared the sensor (input).	See **"Sensor (input) late-leaving or did-not-clear jam service check" on page 104**.
200.91	Paper remains detected at the sensor (input) after the printer is turned on.	See **"Sensor (input) static jam service check" on page 107**.

Sensor (input) early-arriving jam service check

Action	Yes	No
Step 1 Identify the source tray. Is the MPF the source tray?	Go to step 2.	Go to step 7.
Step 2 Check the MPF pick roller for excess wear and contamination. Is the pick roller free of excess wear and contamination?	Go to step 4.	Go to step 3.
Step 3 Clean or replace the MPF pick roller. See **"MPF pick roller removal" on page 457**. Does the problem remain?	Go to step 4.	The problem is solved.

Action	Yes	No
Step 4 **a** Remove the left cover. See **"Left cover removal" on page 423**. **b** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics and adjustments** > **Motor tests** **c** Select the motor (MPF pick), and then touch **Start**. Does the motor run?	Go to step 6.	Go to step 5.
Step 5 **a** Remove the right cover. See **"Right cover removal" on page 434**. **b** Reseat the motor cable J71 on the controller board. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Replace the motor. See **"Motor (MPF) removal" on page 427**. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Check if paper is properly loaded in each tray. Is paper properly loaded in each tray?	Go to step 9.	Go to step 8.
Step 8 Remove the paper, and then properly load it to the tray. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Check each tray for paper fragments and partially fed paper. Are the trays free of paper fragments and partially fed paper?	Go to step 11.	Go to step 10.
Step 10 Remove all paper fragments and partially fed paper. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 **a** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics and adjustments** > **Sensor tests** **b** Find the sensor (Input). Does the sensor status change while toggling the sensor?	Go to step 15.	Go to step 12.

Action	Yes	No
Step 12 **a** Remove the right cover. See **"Right cover removal" on page 434**. **b** Check the sensor cable J27 on the controller board for proper connection. Is the cable properly connected?	Go to step 14.	Go to step 13.
Step 13 Reseat the cable. Does the problem remain?	Go to step 14.	The problem is solved.
Step 14 Replace the sensor. See **"Sensor (input) removal" on page 455**. Does the problem remain?	Go to step 15.	The problem is solved.
Step 15 Perform a print test. Does the problem remain?	Contact the next level of support.	The problem is solved.

Sensor (input) never- or late-arriving jam service check

Action	Yes	No
Step 1 Check if blank pages were fed out before the error occurred. Were there blank pages fed out prior to the error?	Go to step 10.	Go to step 2.
Step 2 Pull out all the source trays, and then check if the paper size matches the size set on the tray guides. Does the paper size match the size set on the tray?	Go to step 4.	Go to step 3.
Step 3 Change the paper size or adjust the size setting in the tray. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Check if the tray is overfilled. Is the tray overfilled?	Go to step 5.	Go to step 6.

Action	Yes	No
Step 5 Remove the excess paper from the tray. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Check the tray for crumpled, damaged, or deformed paper. Are the sheets of paper on the tray still in good condition?	Go to step 8.	Go to step 7.
Step 7 Replace the affected sheets. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Check the aligner rollers for obstructions. Are the aligner rollers free of obstructions?	Go to step 10.	Go to step 9.
Step 9 Remove the obstructions. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 **a** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics and adjustments** > **Sensor tests** **b** Find the sensor (Input). Does the sensor status change while toggling the sensor?	Go to step 14.	Go to step 11.
Step 11 **a** Remove the right cover. See **"Right cover removal" on page 434**. **b** Check the sensor cable J27 on the controller board for proper connection. Is the cable properly connected?	Go to step 13.	Go to step 12.
Step 12 Reseat the cable. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 Replace the sensor. See **"Sensor (input) removal" on page 455**. Does the problem remain?	Go to step 14.	The problem is solved.

Action	Yes	No
Step 14 **a** Remove the left cover. See **"Left cover removal" on page 423**. **b** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics and adjustments** > **Motor tests** **c** Select the motor (Imaging unit), and then touch **Start**. Does the motor run?	Go to step 17.	Go to step 15.
Step 15 **a** Remove the right cover. See **"Right cover removal" on page 434**. **b** Reseat the motor cable J71 on the controller board. Does the problem remain?	Go to step 16.	The problem is solved.
Step 16 Replace the motor. See **"Main motor drive removal" on page 424**. Does the problem remain?	Go to step 17.	The problem is solved.
Step 17 Perform a print test. Does the problem remain?	Contact the next level of support.	The problem is solved.

Sensor (input) late-leaving or did-not-clear jam service check

Action	Yes	No
Step 1 Pull out all the source trays, and then check if the paper size matches the size set on the tray guides. Does the paper size match the size set on the tray?	Go to step 3.	Go to step 2.
Step 2 Change the paper size or adjust the size setting in the tray. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Check if the tray is overfilled. Is the tray overfilled?	Go to step 4.	Go to step 5.

Action	Yes	No
Step 4 Remove the excess paper from the tray. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Check the tray for crumpled, damaged, or deformed paper. Are the sheets of paper on the tray still in good condition?	Go to step 7.	Go to step 6.
Step 6 Replace the affected sheets. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Identify the source tray. Is the MPF the source tray?	Go to step 8.	Go to step 13.
Step 8 Check the MPF pick roller for excess wear and contamination. Is the pick roller free of excess wear and contamination?	Go to step 10.	Go to step 9.
Step 9 Clean or replace the MPF pick roller. See **"MPF pick roller removal" on page 457**. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 **a** Remove the left cover. See **"Left cover removal" on page 423**. **b** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics and adjustments** > **Motor tests** **c** Select the motor (MPF pick), and then touch **Start**. Does the motor run?	Go to step 13.	Go to step 11.
Step 11 **a** Remove the right cover. See **"Right cover removal" on page 434**. **b** Reseat the motor cable J71 on the controller board. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 Replace the motor. See **"Motor (MPF) removal" on page 427**. Does the problem remain?	Go to step 13.	The problem is solved.

Action	Yes	No
Step 13 Check the pick roller of the source tray for dirt, excess wear, and contamination. **Note:** Check also the gears for debris and toner. Are the pick roller components free of dirt, excess wear, and contamination?	Go to step 15.	Go to step 14.
Step 14 Clean or replace the pick roller. Does the problem remain?	Go to step 15.	The problem is solved.
Step 15 Check the aligner rollers for obstructions. Are the aligner rollers free of obstructions?	Go to step 17.	Go to step 16.
Step 16 Remove the obstructions. Does the problem remain?	Go to step 17.	The problem is solved.
Step 17 **a** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics and adjustments** > **Sensor tests** **b** Find the sensor (Input). Does the sensor status change while toggling the sensor?	Go to step 21.	Go to step 18.
Step 18 **a** Remove the right cover. See **"Right cover removal" on page 434**. **b** Check the sensor cable J27 on the controller board for proper connection. Is the cable properly connected?	Go to step 20.	Go to step 19.
Step 19 Reseat the cable. Does the problem remain?	Go to step 20.	The problem is solved.
Step 20 Replace the sensor. See **"Sensor (input) removal" on page 455**. Does the problem remain?	Go to step 21.	The problem is solved.

Action	Yes	No
Step 21 Perform a print test on each tray, and then check if the paper is properly picked and transported out of the source tray by the paper feeder. Was the paper properly transported by the paper feeder?	Go to step 23.	Go to step 22.
Step 22 Replace the affected paper feeder. Does the problem remain?	Go to step 23.	The problem is solved.
Step 23 Perform a print test, and then check if the paper is properly transported by the main motor drive to the sensor (input). Was the paper properly transported by the main motor drive?	Go to step 25.	Go to step 24.
Step 24 Replace the main motor drive. See **"Main motor drive removal" on page 424**. Does the problem remain?	Go to step 25.	The problem is solved.
Step 25 Perform a print test. Does the problem remain?	Contact the next level of support.	The problem is solved.

Sensor (input) static jam service check

Action	Yes	No
Step 1 Check the paper path for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 3.	Go to step 2.
Step 2 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 **a** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics and adjustments** > **Sensor tests** **b** Find the sensor (Input). Does the sensor status change while toggling the sensor?	Go to step 7.	Go to step 4.

Action	Yes	No
Step 4 **a** Remove the right cover. See **"Right cover removal" on page 434**. **b** Check the sensor cable J27 on the controller board for proper connection. Is the cable properly connected?	Go to step 6.	Go to step 5.
Step 5 Reseat the cable. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Replace the sensor. See **"Sensor (input) removal" on page 455**. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Perform a print test. Does the problem remain?	Contact the next level of support.	The problem is solved.

Sensor (input) early-leaving jam service check

Action	Yes	No
Step 1 Check the paper path for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 3.	Go to step 2.
Step 2 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Check if paper is properly loaded in each tray. Is paper properly loaded in each tray?	Go to step 5.	Go to step 4.
Step 4 Remove the paper, and then properly load it to the tray. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Perform a print test. Does the problem remain?	Contact the next level of support.	The problem is solved.

202 paper jams

202 paper jam messages

Error code	Description	Action
202.02	Paper fed from the MPF was detected earlier than expected at the sensor (fuser exit).	See **"Sensor (fuser exit) early-arriving jam service check" on page 110**.
202.03	Paper fed from the MPF never reached the sensor (fuser exit).	See **"Sensor (fuser exit) late-arriving jam service check" on page 111**.
202.04	Paper fed from the MPF cleared the sensor (fuser exit) earlier than expected.	See **"Sensor (fuser exit) early-leaving jam service check" on page 115**.
202.05	Paper fed from the MPF never cleared the sensor (fuser exit).	See **"Sensor (fuser exit) late-leaving jam service check" on page 116**.
202.12	Paper fed from tray 1 was detected earlier than expected at the sensor (fuser exit).	See **"Sensor (fuser exit) early-arriving jam service check" on page 110**.
202.13	Paper fed from tray 1 never reached the sensor (fuser exit).	See **"Sensor (fuser exit) late-arriving jam service check" on page 111**.
202.14	Paper fed from tray 1 cleared the sensor (fuser exit) earlier than expected.	See **"Sensor (fuser exit) early-leaving jam service check" on page 115**.
202.15	Paper fed from tray 1 never cleared the sensor (fuser exit).	See **"Sensor (fuser exit) late-leaving jam service check" on page 116**.
202.22	Paper fed from tray 2 was detected earlier than expected at the sensor (fuser exit).	See **"Sensor (fuser exit) early-arriving jam service check" on page 110**.
202.23	Paper fed from tray 2 never reached the sensor (fuser exit).	See **"Sensor (fuser exit) late-arriving jam service check" on page 111**.
202.24	Paper fed from tray 2 cleared the sensor (fuser exit) earlier than expected.	See **"Sensor (fuser exit) early-leaving jam service check" on page 115**.
202.25	Paper fed from tray 2 never cleared the sensor (fuser exit).	See **"Sensor (fuser exit) late-leaving jam service check" on page 116**.
202.32	Paper fed from tray 3 was detected earlier than expected at the sensor (fuser exit).	See **"Sensor (fuser exit) early-arriving jam service check" on page 110**.
202.33	Paper fed from tray 3 never reached the sensor (fuser exit).	See **"Sensor (fuser exit) late-arriving jam service check" on page 111**.
202.34	Paper fed from tray 3 cleared the sensor (fuser exit) earlier than expected.	See **"Sensor (fuser exit) early-leaving jam service check" on page 115**.
202.35	Paper fed from tray 3 never cleared the sensor (fuser exit).	See **"Sensor (fuser exit) late-leaving jam service check" on page 116**.
202.42	Paper fed from tray 4 was detected earlier than expected at the sensor (fuser exit).	See **"Sensor (fuser exit) early-arriving jam service check" on page 110**.
202.43	Paper fed from tray 4 never reached the sensor (fuser exit).	See **"Sensor (fuser exit) late-arriving jam service check" on page 111**.
202.44	Paper fed from tray 4 cleared the sensor (fuser exit) earlier than expected.	See **"Sensor (fuser exit) early-leaving jam service check" on page 115**.

Error code	Description	Action
202.45	Paper fed from tray 4 never cleared the sensor (fuser exit).	See **"Sensor (fuser exit) late-leaving jam service check" on page 116**.
202.52	Paper fed from tray 5 was detected earlier than expected at the sensor (fuser exit).	See **"Sensor (fuser exit) early-arriving jam service check" on page 110**.
202.53	Paper fed from tray 5 never reached the sensor (fuser exit).	See **"Sensor (fuser exit) late-arriving jam service check" on page 111**.
202.54	Paper fed from tray 5 cleared the sensor (fuser exit) earlier than expected.	See **"Sensor (fuser exit) early-leaving jam service check" on page 115**.
202.55	Paper fed from tray 5 never cleared the sensor (fuser exit).	See **"Sensor (fuser exit) late-leaving jam service check" on page 116**.
202.91	Paper remains detected at the sensor (fuser exit) after the printer is turned on.	See **"Sensor (fuser exit) static jam service check" on page 118**.
202.93	The sensor (fuser exit) detected a jam during or after a flush action.	See **"Sensor (fuser exit) late-arriving jam service check" on page 111**.

Sensor (fuser exit) early-arriving jam service check

Action	Yes	No
Step 1 Check if paper is properly loaded in each tray. Is paper properly loaded in each tray?	Go to step 3.	Go to step 2.
Step 2 Remove the paper, and then properly load it to the tray. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Check the paper path and trays for paper fragments and partially fed paper. Are the paper path and trays free of paper fragments and partially fed paper?	Go to step 5.	Go to step 4.
Step 4 Remove all paper fragments and partially fed paper. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics and adjustments** > **Sensor tests** **b** Find the sensor (Fuser exit). Does the sensor status change while toggling the sensor?	Go to step 8.	Go to step 6.

Action	Yes	No
Step 6 **a** Remove the right cover. See **"Right cover removal" on page 434**. **b** Check the cable J60 on the controller board for proper connection. Is the cable properly connected?	Go to step 8.	Go to step 7.
Step 7 Reseat the cable, and then perform a print test. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Replace the fuser. See **"Fuser removal" on page 465**. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Perform a print test. Does the problem remain?	Contact the next level of support.	The problem is solved.

Sensor (fuser exit) late-arriving jam service check

Notes:

- Make sure to install a genuine and supported toner cartridge.
- Do not replace a fuser due to a wrinkled backup roller (A).

Action	Yes	No
Step 1 **a** Remove the toner cartridge. **b** Inside the printer on the left side, check if the roller (A) is missing. **Note:** A dislodged or missing roller may cause a grinding noise when the printer is operating. Is the roller missing?	Go to step 2.	Go to step 3.

Step 2
a Find the missing roller at the following locations:
    • Check inside the printer.
    • Remove, and then check the toner cartridge drive.
b Reinstall the roller (if found) or replace the toner cartridge drive.
 	
Does the problem remain?
	Go to step 3.	The problem is solved.

Step 3 Check the fuser for damage and life expiration. Is the fuser damaged or has it reached end of life?	Go to step 4.	Go to step 5.
Step 4 Replace the fuser. See **"Fuser removal" on page 465**. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Remove obstructions from the fuser. Does the problem remain?	Go to step 6.	The problem is solved.

Action	Yes	No
Step 6 **a** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics and adjustments** > **Sensor tests** **b** Find the sensor (Fuser exit). Does the sensor status change while toggling the sensor?	Go to step 10.	Go to step 7.
Step 7 **a** Remove the right cover. See **"Right cover removal" on page 434**. **b** Check the cable J60 on the controller board for proper connection. Is the cable properly connected?	Go to step 10.	Go to step 8.
Step 8 Reseat the cable, and then perform a print test. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Replace the fuser. See **"Fuser removal" on page 465**. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Check the transfer roller for damage. Is the transfer roller free of damage?	Go to step 12.	Go to step 11.
Step 11 Replace the transfer roller. See **"Transfer roller removal" on page 460**. Does the problem remain?	Go to step 12.	The problem is solved.

Action	Yes	No
Step 12 **a** Remove the fuser. See **"Fuser removal" on page 465**. **b** Manually rotate the fuser drive gear (A). **Note:** The gear should turn smoothly, but with some resistance. Does the gear rotate properly?	Go to step 14.	Go to step 13.
Step 13 Replace the fuser drive gear. See **"Fuser drive gears removal" on page 426**. Does the problem remain?	Go to step 14.	The problem is solved.
Step 14 Check the aligner rollers for obstructions and damage. Are the aligner rollers free of obstructions and damage?	Go to step 16.	Go to step 15.
Step 15 Remove the obstructions or replace the aligner rollers. See **"Aligner removal" on page 454**. Does the problem remain?	Go to step 16.	The problem is solved.

Action	Yes	No
Step 16 Perform a print test, and then check if the paper is properly transported by the fuser drive motor assembly to the sensor (fuser exit). Was the paper properly transported by the fuser drive motor assembly?	Go to step 19.	Go to step 17.
Step 17 Reseat the cable J71 on the controller board. Does the problem remain?	Go to step 18.	The problem is solved.
Step 18 Replace the motor (fuser). See **"Main motor drive removal" on page 424**. Does the problem remain?	Go to step 19.	The problem is solved.
Step 19 Perform a print test. Does the problem remain?	Contact the next level of support.	The problem is solved.

Sensor (fuser exit) early-leaving jam service check

Action	Yes	No
Step 1 Check the paper path and trays for paper fragments and partially fed paper. Are the paper path and trays free of paper fragments and partially fed paper?	Go to step 3.	Go to step 2.
Step 2 Remove all paper fragments and partially fed paper. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Perform a print test. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Replace the fuser. See **"Fuser removal" on page 465**. Does the problem remain?	Go to step 5.	The problem is solved.

Action	Yes	No
Step 5 Perform a print test. Does the problem remain?	Contact the next level of support.	The problem is solved.

Sensor (fuser exit) late-leaving jam service check

Action	Yes	No
Step 1 Check the rear door for damage. Make sure that the rear door properly closes. Is the rear door functional and free of damage?	Go to step 3.	Go to step 2.
Step 2 Replace the rear door. See **"Rear door removal" on page 462**. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Check the fuser for damage and life expiration. Is the fuser damaged or has it reached end of life?	Go to step 4.	Go to step 5.
Step 4 Replace the fuser. See **"Fuser removal" on page 465**. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics and adjustments** > **Sensor tests** **b** Find the sensor (Fuser exit). Does the sensor status change while toggling the sensor?	Go to step 9.	Go to step 6.
Step 6 **a** Remove the right cover. See **"Right cover removal" on page 434**. **b** Check the cable J60 on the controller board for proper connection. Is the cable properly connected?	Go to step 8.	Go to step 7.
Step 7 Reseat the cable, and then perform a print test. Does the problem remain?	Go to step 8.	The problem is solved.

Action	Yes	No
Step 8 Replace the fuser. See **"Fuser removal" on page 465**. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Check the upper redrive for damage. Is the upper redrive free of damage?	Go to step 11.	Go to step 10.
Step 10 Replace the upper redrive. See **"Upper redrive removal" on page 466**. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 **a** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics and adjustments** > **Motor tests** **b** Select the motor (redrive), and then touch **Start**. Does the motor run?	Go to step 14.	Go to step 12.
Step 12 Reseat the cable J66 on the controller board. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 Replace the motor (redrive). See **"Motor (redrive) removal" on page 431**. Does the problem remain?	Go to step 14.	The problem is solved.
Step 14 Perform a print test. Does the problem remain?	Contact the next level of support.	The problem is solved.

Sensor (fuser exit) static jam service check

Action	Yes	No
Step 1 Check the paper path and the trays for paper fragments and partially fed paper. Are the paper path and trays free of paper fragments and partially fed paper?	Go to step 3.	Go to step 2.
Step 2 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 **a** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics and adjustments** > **Sensor tests** **b** Find the sensor (Fuser exit). Does the sensor status change while toggling the sensor?	Go to step 6.	Go to step 4.
Step 4 **a** Remove the right cover. See **"Right cover removal" on page 434**. **b** Check the cable J60 on the controller board for proper connection. Is the cable properly connected?	Go to step 6.	Go to step 5.
Step 5 Reseat the cable, and then perform a print test. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Replace the fuser. See **"Fuser removal" on page 465**. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Perform a print test. Does the problem remain?	Contact the next level of support.	The problem is solved.

221 paper jams

221 paper jam messages

Error code	Description	Action
221.91	Paper remains detected at the sensor (narrow media) after the printer is turned on.	See **"Sensor (narrow media) static jam service check" on page 119**.
221.93	Paper never arrived at the sensor (narrow media). Paper source is undetermined.	See **"Sensor (narrow media) late-arriving jam service check" on page 120**.

Sensor (narrow media) static jam service check

Action	Yes	No
Step 1 Check the paper path and trays for paper fragments and partially fed paper. Are the paper path and trays free of paper fragments and partially fed paper?	Go to step 3.	Go to step 2.
Step 2 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 **a** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics and adjustments** > **Sensor tests** **b** Find the sensor (Narrow media). Does the sensor status change while toggling the sensor?	Go to step 6.	Go to step 4.
Step 4 **a** Remove the right cover. See **"Right cover removal" on page 434**. **b** Check the cable J60 on the controller board for proper connection. Is the cable properly connected?	Go to step 6.	Go to step 5.
Step 5 Reseat the cable, and then perform a print test. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Replace the fuser. See **"Fuser removal" on page 465**. Does the problem remain?	Go to step 7.	The problem is solved.

Action	Yes	No
Step 7 Perform a print test. Does the problem remain?	Contact the next level of support.	The problem is solved.

Sensor (narrow media) late-arriving jam service check

Action	Yes	No
Step 1 Check the fuser for damage and life expiration. Is the fuser damaged or has it reached end of life?	Go to step 2.	Go to step 3.
Step 2 Replace the fuser. See **"Fuser removal" on page 465**. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Remove obstructions from the fuser. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 **a** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics and adjustments** > **Sensor tests** **b** Find the sensor (Narrow media). Does the sensor status change while toggling the sensor?	Go to step 8.	Go to step 5.
Step 5 **a** Remove the right cover. See **"Right cover removal" on page 434**. **b** Check the cable J60 on the controller board for proper connection. Is the cable properly connected?	Go to step 8.	Go to step 6.
Step 6 Reseat the cable, and then perform a print test. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Replace the fuser. See **"Fuser removal" on page 465**. Does the problem remain?	Go to step 8.	The problem is solved.

Action	Yes	No
Step 8 Perform a print test. Does the problem remain?	Contact the next level of support.	The problem is solved.

230 paper jams

230 paper jam messages

Error code	Description	Action
230.03	Paper fed from the MPF never reached the sensor (duplex path).	See **"Sensor (duplex path) late-arriving jam service check" on page 123**.
230.05	Paper fed from the MPF never cleared the sensor (duplex path).	See **"Sensor (duplex path) late-leaving jam service check" on page 125**.
230.12	Paper fed from tray 1 was detected earlier than expected at the sensor (duplex path).	See **"Sensor (duplex path) early-arriving jam service check" on page 122**.
230.13	Paper fed from tray 1 never reached the sensor (duplex path).	See **"Sensor (duplex path) late-arriving jam service check" on page 123**.
230.14	Paper fed from tray 1 cleared the sensor (duplex path) earlier than expected.	See **"Sensor (duplex path) early-leaving jam service check" on page 125**.
230.15	Paper fed from tray 1 never cleared the sensor (duplex path).	See **"Sensor (duplex path) late-leaving jam service check" on page 125**.
230.22	Paper fed from tray 2 was detected earlier than expected at the sensor (duplex path).	See **"Sensor (duplex path) early-arriving jam service check" on page 122**.
230.23	Paper fed from tray 2 never reached the sensor (duplex path).	See **"Sensor (duplex path) late-arriving jam service check" on page 123**.
230.24	Paper fed from tray 2 cleared the sensor (duplex path) earlier than expected.	See **"Sensor (duplex path) early-leaving jam service check" on page 125**.
230.25	Paper fed from tray 2 never cleared the sensor (duplex path).	See **"Sensor (duplex path) late-leaving jam service check" on page 125**.
230.32	Paper fed from tray 3 was detected earlier than expected at the sensor (duplex path).	See **"Sensor (duplex path) early-arriving jam service check" on page 122**.
230.33	Paper fed from tray 3 never reached the sensor (duplex path).	See **"Sensor (duplex path) late-arriving jam service check" on page 123**.
230.34	Paper fed from tray 3 cleared the sensor (duplex path) earlier than expected.	See **"Sensor (duplex path) early-leaving jam service check" on page 125**.
230.35	Paper fed from tray 3 never cleared the sensor (duplex path).	See **"Sensor (duplex path) late-leaving jam service check" on page 125**.
230.42	Paper fed from tray 4 was detected earlier than expected at the sensor (duplex path).	See **"Sensor (duplex path) early-arriving jam service check" on page 122**.
230.43	Paper fed from tray 4 never reached the sensor (duplex path).	See **"Sensor (duplex path) late-arriving jam service check" on page 123**.

Error code	Description	Action
230.44	Paper fed from tray 4 cleared the sensor (duplex path) earlier than expected.	See **"Sensor (duplex path) early-leaving jam service check" on page 125**.
230.45	Paper fed from tray 4 never cleared the sensor (duplex path).	See **"Sensor (duplex path) late-leaving jam service check" on page 125**.
230.52	Paper fed from tray 5 was detected earlier than expected at the sensor (duplex path).	See **"Sensor (duplex path) early-arriving jam service check" on page 122**.
230.53	Paper fed from tray 5 never reached the sensor (duplex path).	See **"Sensor (duplex path) late-arriving jam service check" on page 123**.
230.54	Paper fed from tray 5 cleared the sensor (duplex path) earlier than expected.	See **"Sensor (duplex path) early-leaving jam service check" on page 125**.
230.55	Paper fed from tray 5 never cleared the sensor (duplex path).	See **"Sensor (duplex path) late-leaving jam service check" on page 125**.
230.91	Paper remains detected at the sensor (duplex path) after the printer is turned on.	See **"Sensor (duplex path) static jam service check" on page 127**.

Sensor (duplex path) early-arriving jam service check

Action	Yes	No
Step 1 Check the duplex paper path for jammed paper and obstructions. **Note:** Make sure that all paper fragments are removed. Is the duplex paper path free of jammed paper and obstructions?	Go to step 3.	Go to step 2.
Step 2 Remove the jammed paper and obstructions. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 **a** Remove the duplex/MPF tray. See **"Duplex/MPF tray removal" on page 449**. **b** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics and adjustments** > **Sensor tests** **c** Find the sensor (Duplex path). Does the sensor status change while toggling the sensor?	Go to step 6.	Go to step 4.
Step 4 **a** Remove the right cover. See **"Right cover removal" on page 434**. **b** Check the sensor cable J27 on the controller board for proper connection. Is the cable properly connected?	Go to step 6.	Go to step 5.

Action	Yes	No
Step 5 Reseat the cable. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Replace the sensor. See **"Sensor (duplex path) with cover removal" on page 479**. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Perform a print test. Does the problem remain?	Contact the next level of support.	The problem is solved.

Sensor (duplex path) late-arriving jam service check

Action	Yes	No
Step 1 Check the fuser access area on the rear door for jammed paper and obstructions. **Note:** Make sure that all paper fragments are removed. Is the fuser access area free of jammed paper and obstructions?	Go to step 3.	Go to step 2.
Step 2 Remove the jammed paper and obstructions. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Check the duplex path area for jammed paper and obstructions. **Note:** Make sure that all paper fragments are removed. Is the duplex path area free of jammed paper and obstructions?	Go to step 5.	Go to step 4.
Step 4 Remove the jammed paper and obstructions. Does the problem remain?	Go to step 5.	The problem is solved.

Action	Yes	No
Step 5 **a** Remove the duplex/MPF tray. See **"Duplex/MPF tray removal" on page 449**. **b** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics and adjustments** > **Sensor tests** **c** Find the sensor (Duplex path). Does the sensor status change while toggling the sensor?	Go to step 9.	Go to step 6.
Step 6 **a** Remove the right cover. See **"Right cover removal" on page 434**. **b** Check the sensor cable J27 on the controller board for proper connection. Is the cable properly connected?	Go to step 8.	Go to step 7.
Step 7 Reseat the cable. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Replace the sensor. See **"Sensor (duplex path) with cover removal" on page 479**. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 **a** Remove the rear door. See **"Rear door removal" on page 462**. **b** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics and adjustments** > **Motor tests** **c** Select the motor (Duplex), and then touch **Start**. Does the motor run?	Go to step 12.	Go to step 10.
Step 10 Reseat the motor cable J27 on the controller board. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Replace the motor. See **"Motor (duplex) removal" on page 463**. Does the problem remain?	Go to step 12.	The problem is solved.

Action	Yes	No
Step 12 Perform a print test. Does the problem remain?	Contact the next level of support.	The problem is solved.

Sensor (duplex path) early-leaving jam service check

Action	Yes	No
Step 1 Check the paper path for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 3.	Go to step 2.
Step 2 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Check if paper is properly loaded in each tray. Is paper properly loaded in each tray?	Go to step 5.	Go to step 4.
Step 4 Remove the paper, and then properly load it to the tray. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Perform a print test. Does the problem remain?	Contact the next level of support.	The problem is solved.

Sensor (duplex path) late-leaving jam service check

Action	Yes	No
Step 1 Check the duplex path area for jammed paper and obstructions. **Note:** Make sure that all paper fragments are removed. Is the duplex path area free of jammed paper and obstructions?	Go to step 3.	Go to step 2.
Step 2 Remove the jammed paper and obstructions. Does the problem remain?	Go to step 3.	The problem is solved.

Action	Yes	No
Step 3 **a** Remove the duplex/MPF tray. See **"Duplex/MPF tray removal" on page 449**. **b** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics and adjustments** > **Sensor tests** **c** Find the sensor (Duplex path). Does the sensor status change while toggling the sensor?	Go to step 7.	Go to step 4.
Step 4 **a** Remove the right cover. See **"Right cover removal" on page 434**. **b** Check the sensor cable J27 on the controller board for proper connection. Is the cable properly connected?	Go to step 6.	Go to step 5.
Step 5 Reseat the cable. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Replace the sensor. See **"Sensor (duplex path) with cover removal" on page 479**. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Check the upper redrive for damage. Is the upper redrive free of damage?	Go to step 9.	Go to step 8.
Step 8 Replace the upper redrive. See **"Upper redrive removal" on page 466**. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 **a** Remove the rear door. See **"Rear door removal" on page 462**. **b** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics and adjustments** > **Motor tests** **c** Select the motor (Duplex), and then touch **Start**. Does the motor run?	Go to step 12.	Go to step 10.

Action	Yes	No
Step 10 Reseat the motor cable J27 on the controller board. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Replace the motor. See **"Motor (duplex) removal" on page 463**. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 Perform a print test. Does the problem remain?	Contact the next level of support.	The problem is solved.

Sensor (duplex path) static jam service check

Action	Yes	No
Step 1 Check the duplex path area for jammed paper and obstructions. **Note:** Make sure that all paper fragments are removed. Is the duplex path area free of jammed paper and obstructions?	Go to step 3.	Go to step 2.
Step 2 Remove the jammed paper and obstructions. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 **a** Remove the duplex/MPF tray. See **"Duplex/MPF tray removal" on page 449**. **b** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics and adjustments** > **Sensor tests** **c** Find the sensor (Duplex path). Does the sensor status change while toggling the sensor?	Go to step 7.	Go to step 4.
Step 4 **a** Remove the right cover. See **"Right cover removal" on page 434**. **b** Check the sensor cable J27 on the controller board for proper connection. Is the cable properly connected?	Go to step 6.	Go to step 5.

Action	Yes	No
Step 5 Reseat the cable. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Replace the sensor. See **"Sensor (duplex path) with cover removal" on page 479**. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Perform a print test. Does the problem remain?	Contact the next level of support.	The problem is solved.

232 paper jams

232 paper jam messages

Error code	Description	Action
232.03	During a duplex print job, paper fed from the MPF never reached the sensor (input).	See **"Sensor (input) late-arriving jam (during duplex print) service check" on page 129**.
232.04	During a duplex print job, paper fed from the MPF cleared the sensor (input) earlier than expected.	See **"Sensor (input) early-leaving jam (during duplex print) service check" on page 130**.
232.05	During a duplex print job, paper fed from the MPF never cleared the sensor (input).	See **"Sensor (input) late-leaving jam (during duplex print) service check" on page 131**.
232.13	During a duplex print job, paper fed from tray 1 never reached the sensor (input).	See **"Sensor (input) late-arriving jam (during duplex print) service check" on page 129**.
232.14	During a duplex print job, paper fed from tray 1 cleared the sensor (input) earlier than expected.	See **"Sensor (input) early-leaving jam (during duplex print) service check" on page 130**.
232.15	During a duplex print job, paper fed from tray 1 never cleared the sensor (input).	See **"Sensor (input) late-leaving jam (during duplex print) service check" on page 131**.
232.23	During a duplex print job, paper fed from tray 2 never reached the sensor (input).	See **"Sensor (input) late-arriving jam (during duplex print) service check" on page 129**.
232.24	During a duplex print job, paper fed from tray 2 cleared the sensor (input) earlier than expected.	See **"Sensor (input) early-leaving jam (during duplex print) service check" on page 130**.
232.25	During a duplex print job, paper fed from tray 2 never cleared the sensor (input).	See **"Sensor (input) late-leaving jam (during duplex print) service check" on page 131**.
232.33	During a duplex print job, paper fed from tray 3 never reached the sensor (input).	See **"Sensor (input) late-arriving jam (during duplex print) service check" on page 129**.
232.34	During a duplex print job, paper fed from tray 3 cleared the sensor (input) earlier than expected.	See **"Sensor (input) early-leaving jam (during duplex print) service check" on page 130**.

Error code	Description	Action
232.35	During a duplex print job, paper fed from tray 3 never cleared the sensor (input).	See **"Sensor (input) late-leaving jam (during duplex print) service check" on page 131**.
232.43	During a duplex print job, paper fed from tray 4 never reached the sensor (input).	See **"Sensor (input) late-arriving jam (during duplex print) service check" on page 129**.
232.44	During a duplex print job, paper fed from tray 4 cleared the sensor (input) earlier than expected.	See **"Sensor (input) early-leaving jam (during duplex print) service check" on page 130**.
232.45	During a duplex print job, paper fed from tray 4 never cleared the sensor (input).	See **"Sensor (input) late-leaving jam (during duplex print) service check" on page 131**.
232.53	During a duplex print job, paper fed from tray 1 never reached the sensor (input).	See **"Sensor (input) late-arriving jam (during duplex print) service check" on page 129**.
232.54	During a duplex print job, paper fed from tray 1 cleared the sensor (input) earlier than expected.	See **"Sensor (input) early-leaving jam (during duplex print) service check" on page 130**.
232.55	During a duplex print job, paper fed from tray 1 never cleared the sensor (input).	See **"Sensor (input) late-leaving jam (during duplex print) service check" on page 131**.

Sensor (input) late-arriving jam (during duplex print) service check

Action	Yes	No
Step 1 Check the duplex path area for jammed paper and obstructions. **Note:** Make sure that all paper fragments are removed. Is the duplex path area free of jammed paper and obstructions?	Go to step 3.	Go to step 2.
Step 2 Remove the jammed paper and obstructions. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 a Enter the Diagnostics menu, and then navigate to: **Printer diagnostics and adjustments** > **Sensor tests** b Find the sensor (Input). Does the sensor status change while toggling the sensor?	Go to step 7.	Go to step 4.
Step 4 a Remove the right cover. See **"Right cover removal" on page 434**. b Check the sensor cable J27 on the controller board for proper connection. Is the cable properly connected?	Go to step 6.	Go to step 5.

Action	Yes	No
Step 5 Reseat the cable. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Replace the sensor. See **"Sensor (input) removal" on page 455**. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 **a** Remove the rear door. See **"Rear door removal" on page 462**. **b** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics and adjustments** > **Motor tests** **c** Select the motor (Duplex), and then touch **Start**. Does the motor run?	Go to step 10.	Go to step 8.
Step 8 **a** Remove the right cover. See **"Right cover removal" on page 434**. **b** Reseat the motor cable J27 on the controller board. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Replace the motor. See **"Motor (duplex) removal" on page 463**. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Perform a print test. Does the problem remain?	Contact the next level of support.	The problem is solved.

Sensor (input) early-leaving jam (during duplex print) service check

Action	Yes	No
Step 1 Check the duplex path area for jammed paper and obstructions. **Note:** Make sure that all paper fragments are removed. Is the duplex path area free of jammed paper and obstructions?	Go to step 3.	Go to step 2.
Step 2 Remove the jammed paper and obstructions. Does the problem remain?	Go to step 3.	The problem is solved.

Action	Yes	No
Step 3 Check the sensor (input) area for paper fragments and partially fed paper. Is the area free of paper fragments and partially fed paper?	Go to step 5.	Go to step 4.
Step 4 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Perform a print test. Does the problem remain?	Contact the next level of support.	The problem is solved.

Sensor (input) late-leaving jam (during duplex print) service check

Action	Yes	No
Step 1 Check the duplex path area for jammed paper and obstructions. **Note:** Make sure that all paper fragments are removed. Is the duplex path area free of jammed paper and obstructions?	Go to step 3.	Go to step 2.
Step 2 Remove the jammed paper and obstructions. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Check the sensor (input) area for paper fragments and partially fed paper. Is the area free of paper fragments and partially fed paper?	Go to step 5.	Go to step 4.
Step 4 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Remove the left cover. See **"Left cover removal" on page 423**. **b** Enter the Diagnostics menu, and then navigate to: 　**Printer diagnostics and adjustments** > **Motor tests** **c** Select the motor (Imaging unit), and then touch **Start**. Does the motor run?	Go to step 8.	Go to step 6.

Action	Yes	No
Step 6 **a** Remove the right cover. See **"Right cover removal" on page 434**. **b** Reseat the motor cable J71 on the controller board. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Replace the motor. See **"Main motor drive removal" on page 424**. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Perform a print test. Does the problem remain?	Contact the next level of support.	The problem is solved.

240 paper jams

240 paper jam messages

Error code	Description	Action
240.06	Paper fed from the MPF was picked but it never reached the sensor (input).	See **"MPF pick jam service check" on page 132**.
240.82	The motor (MPF) has stalled.	See **"MPF drive control failure service check" on page 135**.
240.84	The motor (MPF) has stalled.	

MPF pick jam service check

Action	Yes	No
Step 1 Check if the printer supports the paper loaded. **Note:** For a complete list of supported paper, see the printer *User's Guide*. Is the paper supported?	Go to step 3.	Go to step 2.
Step 2 Remove the paper, and then load a supported one. Does the problem remain?	Go to step 3.	The problem is solved.

Action	Yes	No
Step 3 Check if the paper size matches the size set on the MPF tray guides. Does the paper size match the size set on the tray?	Go to step 7.	Go to step 4.
Step 4 Change the paper size or adjust the size setting in the tray. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Check if the MPF tray is overfilled. Is the tray overfilled?	Go to step 6.	Go to step 5.
Step 6 Remove the excess paper from the tray. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Check the MPF tray for crumpled, damaged, or deformed paper. Are the sheets of paper on the tray still in good condition?	Go to step 9.	Go to step 8.
Step 8 Replace the affected sheets. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Check the MPF tray pick roller for proper installation. Is the pick roller properly installed?	Go to step 11.	Go to step 10.
Step 10 Reinstall the pick roller. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Check the MPF pick roller for excess wear, damage, and contamination. Is the pick roller free of excess wear, damage, and contamination?	Go to step 13.	Go to step 12.
Step 12 Replace the pick roller. See **"MPF pick roller removal" on page 457**. Does the problem remain?	Go to step 13.	The problem is solved.

Action	Yes	No
Step 13 **a** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics and adjustments** > **Sensor tests** **b** Find the sensor (MPF media present). Does the sensor status change while toggling the sensor?	Go to step 18.	Go to step 14.
Step 14 **a** Remove the right cover. See **"Right cover removal" on page 434**. **b** Check the sensor cable J73 on the controller board for proper connection. Is the cable properly connected?	Go to step 16.	Go to step 15.
Step 15 Reseat the cable. Does the problem remain?	Go to step 16.	The problem is solved.
Step 16 Replace the duplex/MPF tray. See **"Duplex/MPF tray removal" on page 449**. Does the problem remain?	Go to step 17.	The problem is solved.
Step 17 Replace the sensor (MPF paper present). Does the problem remain?	Go to step 18.	The problem is solved.
Step 18 **a** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics and adjustments** > **Sensor tests** **b** Find the sensor (Input). Does the sensor status change while toggling the sensor?	Go to step 22.	Go to step 19.
Step 19 **a** Remove the right cover. See **"Right cover removal" on page 434**. **b** Check the sensor cable J27 on the controller board for proper connection. Is the cable properly connected?	Go to step 21.	Go to step 20.
Step 20 Reseat the cable. Does the problem remain?	Go to step 21.	The problem is solved.

Action	Yes	No
Step 21 Replace the sensor. See **"Sensor (input) removal" on page 455**. Does the problem remain?	Go to step 22.	The problem is solved.
Step 22 **a** Remove the left cover. See **"Left cover removal" on page 423**. **b** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics and adjustments** > **Motor tests** **c** Select the motor (MPF pick), and then touch **Start**. Does the motor run?	Go to step 25.	Go to step 23.
Step 23 **a** Remove the right cover. See **"Right cover removal" on page 434**. **b** Reseat the motor cable J71 on the controller board. Does the problem remain?	Go to step 24.	The problem is solved.
Step 24 Replace the motor. See **"Motor (MPF) removal" on page 427**. Does the problem remain?	Go to step 25.	The problem is solved.
Step 25 Perform a print test. Does the problem remain?	Contact the next level of support.	The problem is solved.

MPF drive control failure service check

Action	Yes	No
Step 1 Check if the paper size matches the size set on the MPF tray guides. Does the paper size match the size set on the tray?	Go to step 3.	Go to step 2.
Step 2 Change the paper size or adjust the size setting in the tray. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Check if the MPF tray is overfilled. Is the tray overfilled?	Go to step 5.	Go to step 4.

Action	Yes	No
Step 4 Remove the excess paper from the tray. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Check the MPF tray for crumpled, damaged, or deformed paper. Are the sheets of paper on the tray still in good condition?	Go to step 7.	Go to step 6.
Step 6 Replace the affected sheets. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 **a** Remove the left cover. See **"Left cover removal" on page 423**. **b** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics and adjustments** > **Motor tests** **c** Select the motor (MPF pick/aligner), and then touch **Start**. Does the motor run?	Go to step 10.	Go to step 8.
Step 8 **a** Remove the right cover. See **"Right cover removal" on page 434**. **b** Reseat the motor cable J71 on the controller board. **c** Reseat the motor cable. **d** Restart the printer. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Replace the motor (MPF). See **"Motor (MPF) removal" on page 427**. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Restart the printer. Does the problem remain?	Contact the next level of support.	The problem is solved.

241 paper jams

241 paper jam messages

Error code	Description	Action
241.16	Paper fed from tray 1 was picked but it never reached the sensor (input).	See **"Tray 1 pick jam service check" on page 137**.
241.23	Paper fed from tray 2 never reached the sensor (tray 1 pass-through).	See **"Sensor (tray 1 pass-through) late-arriving jam service check" on page 142**.
241.25	Paper fed from tray 2 cleared the sensor (tray 1 pass-through) later than expected.	
241.33	Paper fed from tray 3 never reached the sensor (tray 1 pass-through).	
241.35	Paper fed from tray 3 cleared the sensor (tray 1 pass-through) later than expected.	See **"Sensor (tray 1 pass-through) late-leaving or did-not-clear jam service check" on page 146**.
241.43	Paper fed from tray 4 never reached the sensor (tray 1 pass-through).	See **"Sensor (tray 1 pass-through) late-arriving jam service check" on page 142**.
241.45	Paper fed from tray 4 cleared the sensor (tray 1 pass-through) later than expected.	See **"Sensor (tray 1 pass-through) late-leaving or did-not-clear jam service check" on page 146**.
241.53	Paper fed from tray 5 never reached the sensor (tray 1 pass-through).	See **"Sensor (tray 1 pass-through) late-arriving jam service check" on page 142**.
241.55	Paper fed from tray 5 cleared the sensor (tray 1 pass-through) later than expected.	See **"Sensor (tray 1 pass-through) late-leaving or did-not-clear jam service check" on page 146**.
241.82	The motor (tray 1 pick) has stalled.	See **"Tray 1 paper feeder control failure service check" on page 140**.
241.84	The motor (tray 1 pick) has stalled.	
241.91	Paper remains detected at the sensor (tray 1 pass-through) after the printer is turned on.	See **"Sensor (tray 1 pass-through) static jam service check" on page 141**.

Tray 1 pick jam service check

Action	Yes	No
Step 1 Pull out tray 1, and then check if the paper size matches the size set on the tray guides. Does the paper size match the size set on the tray?	Go to step 3.	Go to step 2.
Step 2 Change the paper size or adjust the size setting in the tray. Does the problem remain?	Go to step 3.	The problem is solved.

Action	Yes	No
Step 3 Check if tray 1 is overfilled. Is the tray overfilled?	Go to step 4.	Go to step 5.
Step 4 Remove the excess paper from the tray. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Check tray 1 for crumpled, damaged, or deformed paper. Are the sheets of paper on the tray still in good condition?	Go to step 7.	Go to step 6.
Step 6 Replace the affected sheets. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Check the tray 1 pick roller for proper installation. **Note:** Make sure that the pick roller is fully pressed to its feeder shaft. A click will be heard indicating a proper engagement between the latches and the shaft. Is the pick roller properly installed?	Go to step 9.	Go to step 8.
Step 8 Reinstall the pick roller. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Check the tray 1 pick roller and separator pad for excess wear, damage, and contamination. Is the pick roller and separator pad free of excess wear, damage, and contamination?	Go to step 11.	Go to step 10.
Step 10 Replace the affected pick roller or separator pad. See **"Pick roller removal" on page 478**. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Check the tray 1 tray insert for damage. Is the tray insert free of damage?	Go to step 13.	Go to step 12.

Action	Yes	No
Step 12 Replace the tray insert. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 Check the aligner for obstructions. Is the aligner free of obstructions?	Go to step 15.	Go to step 14.
Step 14 Remove the obstructions. Does the problem remain?	Go to step 15.	The problem is solved.
Step 15 **a** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics and adjustments > Sensor tests** **b** Find the sensor (Input). Does the sensor status change while toggling the sensor?	Go to step 19.	Go to step 16.
Step 16 **a** Remove the right cover. See **"Right cover removal" on page 434**. **b** Check the sensor cable J27 on the controller board for proper connection. Is the cable properly connected?	Go to step 18.	Go to step 17.
Step 17 Reseat the cable. Does the problem remain?	Go to step 18.	The problem is solved.
Step 18 Replace the sensor. See **"Sensor (input) removal" on page 455**. Does the problem remain?	Go to step 19.	The problem is solved.
Step 19 **a** Remove the left cover. See **"Left cover removal" on page 423**. **b** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics and adjustments > Motor tests** **c** Select the motor (Pick (tray 1)), and then touch **Start**. Does the motor run?	Go to step 22.	Go to step 20.

Action	Yes	No
Step 20 **a** Remove the right cover. See **"Right cover removal" on page 434**. **b** Reseat the motor cable J73 on the controller board. **c** Reseat the paper feeder cable. Does the problem remain?	Go to step 21.	The problem is solved.
Step 21 Replace the paper feeder. See **"Paper feeder removal" on page 431**. Does the problem remain?	Go to step 22.	The problem is solved.
Step 22 Perform a print test. Does the problem remain?	Contact the next level of support.	The problem is solved.

Tray 1 paper feeder control failure service check

Action	Yes	No
Step 1 Pull out tray 1, and then check if the paper size matches the size set on the tray guides. Does the paper size match the size set on the tray?	Go to step 3.	Go to step 2.
Step 2 Change the paper size or adjust the size setting in the tray. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Check if tray 1 is overfilled. Is the tray overfilled?	Go to step 4.	Go to step 5.
Step 4 Remove the excess paper from the tray. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Check tray 1 for crumpled, damaged, or deformed paper. Are the sheets of paper on the tray still in good condition?	Go to step 7.	Go to step 6.

Action	Yes	No
Step 6 Replace the affected sheets. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 **a** Remove the left cover. See **"Left cover removal" on page 423**. **b** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics and adjustments** > **Motor tests** **c** Select the motor (Pick (tray 1)), and then touch **Start**. Does the motor run?	Go to step 10.	Go to step 8.
Step 8 **a** Remove the right cover. See **"Right cover removal" on page 434**. **b** Reseat the motor cable J73 on the controller board. **c** Reseat the paper feeder cable. **d** Restart the printer. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Replace the paper feeder. See **"Paper feeder removal" on page 431**. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Restart the printer. Does the problem remain?	Contact the next level of support.	The problem is solved.

Sensor (tray 1 pass-through) static jam service check

Action	Yes	No
Step 1 Check the paper path for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 3.	Go to step 2.
Step 2 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 3.	The problem is solved.

Action	Yes	No
Step 3 **a** Remove the duplex/MPF tray. See **"Duplex/MPF tray removal" on page 449**. **b** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics and adjustments** > **Sensor tests** **c** Find the sensor (Tray 1 pass-through). Does the sensor status change while toggling the sensor?	Go to step 7.	Go to step 4.
Step 4 **a** Remove the right cover. See **"Right cover removal" on page 434**. **b** Check the sensor cable J73 on the controller board for proper connection. Is the cable properly connected?	Go to step 6.	Go to step 5.
Step 5 Reseat the cable. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Replace the sensor. See **"Sensor (tray 1 pass-through) removal" on page 481**. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Perform a print test. Does the problem remain?	Contact the next level of support.	The problem is solved.

Sensor (tray 1 pass-through) late-arriving jam service check

Action	Yes	No
Step 1 Check the paper path and trays for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 3.	Go to step 2.
Step 2 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 3.	The problem is solved.

Action	Yes	No
Step 3 Make sure that all the trays and tray inserts are properly installed. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Enter the Diagnostics menu, and then navigate to: **Input tray quick print** >select source tray > **Single** Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Remove the duplex/MPF tray. See **"Duplex/MPF tray removal" on page 449**. **b** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics and adjustments** > **Sensor tests** **c** Find the sensor (Tray 1 pass-through). Does the sensor status change while toggling the sensor?	Go to step 9.	Go to step 6.
Step 6 **a** Remove the right cover. See **"Right cover removal" on page 434**. **b** Check the sensor cable J73 on the controller board for proper connection. Is the cable properly connected?	Go to step 8.	Go to step 7.
Step 7 Reseat the cable. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Replace the sensor. See **"Sensor (tray 1 pass-through) removal" on page 481**. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Check the source tray pick roller for improper installation, contamination, and damage. **Note:** Make sure that the pick roller is fully pressed to its feeder shaft. A click will be heard indicating a proper engagement between the latches and the shaft. Is the pick roller properly installed and free of contamination and damage?	Go to step 11.	Go to step 10.

Action	Yes	No
Step 10 Reinstall, clean, or replace the pick roller. See **"Pick roller removal" on page 516**. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Remove the source tray insert, and then check if the following components are functional and free of damage: • Paper guides • Lift plate **Note:** Move the components or turn gears to check for proper mechanisms. Are the tray insert and its components functional and free of damage?	Go to step 13.	Go to step 12.
Step 12 Replace the tray insert. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 Check the separator pad for improper installation, contamination, wear, and damage. Is the separator pad properly installed and free of contamination, wear, and damage?	Go to step 15.	Go to step 14.
Step 14 Reinstall, clean, or replace the separator pad. See **"Separator pad removal" on page 477**. Does the problem remain?	Go to step 15.	The problem is solved.
Step 15 **a** Remove the left cover. See **"Left cover removal" on page 423**. **b** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics and adjustments** > **Motor tests** **c** Select the motor (MPF pick/aligner), and then touch **Start**. Does the motor run?	Go to step 18.	Go to step 16.
Step 16 **a** Remove the right cover. See **"Right cover removal" on page 434**. **b** Reseat the motor cable J71 on the controller board. Does the problem remain?	Go to step 17.	The problem is solved.

Action	Yes	No
Step 17 Replace the motor. See **"Motor (MPF) removal" on page 427**. Does the problem remain?	Go to step 18.	The problem is solved.
Step 18 **a** Remove the left cover from the optional tray whose motor will be tested. See **"250- and 550-sheet tray left cover removal" on page 509**. **b** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Motor tests** **c** Select the motor (Pick (tray x)), and then touch **Start**. **Note:** For tray x, choose the tray number of the affected source tray. Does the motor run?	Go to step 21.	Go to step 19.
Step 19 Reseat the cable on the motor and on the optional tray controller board. Does the problem remain?	Go to step 20.	The problem is solved.
Step 20 Replace the source tray paper feeder. See **"250- and 550-sheet tray paper feeder removal" on page 517**. Does the problem remain?	Go to step 21.	The problem is solved.
Step 21 Make sure that the source tray controller board is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 22.	The problem is solved.
Step 22 Check the source tray controller board and its connector pins for damage. Are the tray controller board and its connectors free of damage?	Contact the next level of support.	Go to step 23.
Step 23 Replace the controller board. See **"250- and 550-sheet tray controller board removal" on page 519**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Sensor (tray 1 pass-through) late-leaving or did-not-clear jam service check

Action	Yes	No
Step 1 Pull out all the source trays, and then check if the paper size matches the size set on the tray guides. Does the paper size match the size set on the tray?	Go to step 3.	Go to step 2.
Step 2 Change the paper size or adjust the size setting in the tray. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Check if the tray is overfilled. Is the tray overfilled?	Go to step 4.	Go to step 5.
Step 4 Remove the excess paper from the tray. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Check the tray for crumpled, damaged, or deformed paper. Are the sheets of paper on the tray still in good condition?	Go to step 7.	Go to step 6.
Step 6 Replace the affected sheets. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Check the pick roller of the source tray for dirt, excess wear, and contamination. **Note:** Check also the gears for debris and toner. Are the pick roller components free of dirt, excess wear, and contamination?	Go to step 9.	Go to step 8.
Step 8 Clean or replace the pick roller. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Check the aligner rollers for obstructions. Are the aligner rollers free of obstructions?	Go to step 11.	Go to step 10.

Action	Yes	No
Step 10 Remove the obstructions. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 **a** Remove the duplex/MPF tray. See **"Duplex/MPF tray removal" on page 449**. **b** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics and adjustments > Sensor tests** **c** Find the sensor (Tray 1 pass-through). Does the sensor status change while toggling the sensor?	Go to step 15.	Go to step 12.
Step 12 **a** Remove the right cover. See **"Right cover removal" on page 434**. **b** Check the sensor cable J73 on the controller board for proper connection. Is the cable properly connected?	Go to step 14.	Go to step 13.
Step 13 Reseat the cable. Does the problem remain?	Go to step 14.	The problem is solved.
Step 14 Replace the sensor. See **"Sensor (tray 1 pass-through) removal" on page 481**. Does the problem remain?	Go to step 15.	The problem is solved.
Step 15 Perform a print test on each tray, and then check if the paper is properly picked and transported out of the source tray by the paper feeder. Was the paper properly transported by the paper feeder?	Go to step 17.	Go to step 16.
Step 16 Replace the affected paper feeder. Does the problem remain?	Go to step 17.	The problem is solved.
Step 17 Perform a print test, and then check if the paper is properly transported by the MPF motor drive to the sensor (tray 1 pass-through). Was the paper properly transported by the MPF motor drive?	Go to step 19.	Go to step 18.

Action	Yes	No
Step 18 Replace the motor (MPF). See **"Motor (MPF) removal" on page 427**. Does the problem remain?	Go to step 19.	The problem is solved.
Step 19 Perform a print test. Does the problem remain?	Contact the next level of support.	The problem is solved.

242 paper jams

242 paper jam messages

Error code	Description	Action
242.26	Paper fed from tray 2 was picked but it never reached the sensor (tray 1 pass-through).	See **"Tray 2 pick jam service check" on page 152**.
242.31	Paper remains detected at the sensor (tray 2 pass-through) although the printer is idle. Tray 3 is the paper source.	See **"Sensor (tray 2 pass-through) static jam service check" on page 150**.
242.33	Paper fed from tray 3 never reached the sensor (tray 2 pass-through).	See **"Sensor (tray 2 pass-through) late-arriving or late-leaving jam service check" on page 156**.
242.35	Paper fed from tray 3 cleared the sensor (tray 2 pass-through) later than expected.	
242.37	Paper fed from tray 3 never cleared the sensor (tray 2 pass-through).	
242.41	Paper remains detected at the sensor (tray 2 pass-through) although the printer is idle. Tray 4 is the paper source.	See **"Sensor (tray 2 pass-through) static jam service check" on page 150**.
242.43	Paper fed from tray 4 never reached the sensor (tray 2 pass-through).	See **"Sensor (tray 2 pass-through) late-arriving or late-leaving jam service check" on page 156**.
242.45	Paper fed from tray 4 cleared the sensor (tray 2 pass-through) later than expected.	
242.47	Paper fed from tray 4 never cleared the sensor (tray 2 pass-through).	
242.51	Paper remains detected at the sensor (tray 2 pass-through) although the printer is idle. Tray 5 is the paper source.	See **"Sensor (tray 2 pass-through) static jam service check" on page 150**.

Error code	Description	Action
242.53	Paper fed from tray 5 never reached the sensor (tray 2 pass-through).	See **"Sensor (tray 2 pass-through) late-arriving or late-leaving jam service check" on page 156**.
242.55	Paper fed from tray 5 cleared the sensor (tray 2 pass-through) later than expected.	
242.57	Paper fed from tray 5 never cleared the sensor (tray 2 pass-through).	
242.70	Motor (250-sheet tray 2 transport) or Motor (550-sheet tray 2 transport) does not turn on.	See **"250- and 550-sheet tray transport drive jam service check" on page 167**.
242.70	Motor (2100-sheet tray 2 elevator) does not turn on.	See **"2100-sheet tray elevator drive jam service check" on page 169**.
242.71	Motor (250-sheet tray 2 transport) or Motor (550-sheet tray 2 transport) does not turn off.	See **"250- and 550-sheet tray transport drive jam service check" on page 167**.
242.71	Motor (2100-sheet tray 2 elevator) does not turn off.	See **"2100-sheet tray elevator drive jam service check" on page 169**.
242.72	Motor (250-sheet tray 2 transport) or Motor (550-sheet tray 2 transport) speed did not ramp up to the required level.	See **"250- and 550-sheet tray transport drive jam service check" on page 167**.
242.72	Motor (2100-sheet tray 2 elevator) speed did not ramp up to the required level.	See **"2100-sheet tray elevator drive jam service check" on page 169**.
242.73	Motor (250-sheet tray 2 transport) or Motor (550-sheet tray 2 transport) stalled.	See **"250- and 550-sheet tray transport drive jam service check" on page 167**.
242.73	Motor (2100-sheet tray 2 elevator) stalled.	See **"2100-sheet tray elevator drive jam service check" on page 169**.
242.74	Motor (250-sheet tray 2 transport) or Motor (550-sheet tray 2 transport) ran too slow.	See **"250- and 550-sheet tray transport drive jam service check" on page 167**.
242.74	Motor (2100-sheet tray 2 elevator) ran too slow.	See **"2100-sheet tray elevator drive jam service check" on page 169**.
242.75	Motor (250-sheet tray 2 transport) or Motor (550-sheet tray 2 transport) ran too fast.	See **"250- and 550-sheet tray transport drive jam service check" on page 167**.
242.75	Motor (2100-sheet tray 2 elevator) ran too fast.	See **"2100-sheet tray elevator drive jam service check" on page 169**.
242.76	Motor (250-sheet tray 2 transport) or Motor (550-sheet tray 2 transport) ran too long.	See **"250- and 550-sheet tray transport drive jam service check" on page 167**.
242.76	Motor (2100-sheet tray 2 elevator) ran too long.	See **"2100-sheet tray elevator drive jam service check" on page 169**.

Error code	Description	Action
242.80	Motor (tray 2 pick/lift) does not turn on.	See **"Optional tray pick drive failure service check" on page 341**.
242.81	Motor (tray 2 pick/lift) does not turn off.	
242.82	Motor (tray 2 pick/lift) speed did not ramp up to the required level.	
242.83	Motor (tray 2 pick/lift) stalled.	
242.84	Motor (tray 2 pick/lift) ran too slow.	
242.85	Motor (tray 2 pick/lift) ran too fast.	
242.86	Motor (tray 2 pick/lift) ran too long.	
242.91	Paper remains detected at the sensor (tray 2 pass-through) after the printer is turned on.	See **"Sensor (tray 2 pass-through) static jam service check" on page 150**.
242.93	Paper never arrived at the sensor (tray 2 pass-through). Paper source is undetermined.	See **"Sensor (tray 2 pass-through) unknown source late-arriving or late-leaving jam service check" on page 164**.
242.95	Paper cleared the sensor (tray 2 pass-through) later than expected. Paper source is undetermined.	
242.96	Paper was picked but it never reached the sensor (tray 2 pass-through). Paper source is undetermined.	See **"Sensor (tray 2 pass-through) unknown source pick jam service check" on page 159**.
242.97	Paper never cleared the sensor (tray 2 pass-through). Paper source is undetermined.	See **"Sensor (tray 2 pass-through) unknown source late-arriving or late-leaving jam service check" on page 164**.

Sensor (tray 2 pass-through) static jam service check

Action	Yes	No
Step 1 Check the paper path and trays for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 3.	Go to step 2.
Step 2 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Make sure that all the trays and tray inserts are properly installed. Does the problem remain?	Go to step 4.	The problem is solved.

Action	Yes	No
Step 4 **a** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Sensor tests** **b** Find the sensor (Pass-through (tray 2)). Does the sensor status change while toggling the sensor?	Go to step 9.	Go to step 5.
Step 5 **a** Remove the tray 2 left cover. See **"250- and 550-sheet tray left cover removal" on page 509**. **b** Check the sensor cable on the optional tray controller board for proper connection. Is the cable properly connected?	Go to step 7.	Go to step 6.
Step 6 Reseat the cable. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Replace the sensor. See **"Sensor (250- and 550-sheet tray pass-through) removal" on page 520**. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 **a** Remove the source tray left cover. See **"250- and 550-sheet tray left cover removal" on page 509**. **b** Make sure that the source tray controller board is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Check the source tray controller board and its connector pins for damage. Are the tray controller board and its connectors free of damage?	Contact the next level of support.	Go to step 10.
Step 10 Replace the source tray controller board. See **"250- and 550-sheet tray controller board removal" on page 519**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Tray 2 pick jam service check

Action	Yes	No
Step 1 Check the paper path and trays for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 3.	Go to step 2.
Step 2 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Make sure that all the trays and tray inserts are properly installed. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Enter the Diagnostics menu, and then navigate to: **Input tray quick print** > **Tray 2** > **Single** Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Check the source tray separator pad for improper installation, contamination, wear, and damage. Is the separator pad properly installed and free of contamination, wear, and damage?	Go to step 7.	Go to step 6.
Step 6 Reinstall, clean, or replace the separator pad. See **"Separator pad removal" on page 477**. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Check the source tray pick roller for improper installation, contamination, and damage. **Note:** Make sure that the pick roller is fully pressed to its feeder shaft. A click will be heard indicating a proper engagement between the latches and the shaft. Is the pick roller properly installed and free of contamination and damage?	Go to step 9.	Go to step 8.
Step 8 Reinstall, clean, or replace the pick roller. See **"Pick roller removal" on page 516**. Does the problem remain?	Go to step 9.	The problem is solved.

Action	Yes	No
Step 9 Remove the source tray insert, and then check if the following components are functional and free of damage: • Paper guides • Lift plate **Note:** Move the components or turn gears to check for proper mechanisms. Are the tray insert and its components functional and free of damage?	Go to step 11.	Go to step 10.
Step 10 Replace the tray insert. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 **a** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics and adjustments** > **Sensor tests** **b** Find the sensor (Tray 1 pass-through). Does the sensor status change while toggling the sensor?	Go to step 15.	Go to step 12.
Step 12 **a** Remove the right cover. See **"Right cover removal" on page 434**. **b** Check the sensor cable J73 on the controller board for proper connection. Is the cable properly connected?	Go to step 14.	Go to step 13.
Step 13 Reseat the cable. Does the problem remain?	Go to step 14.	The problem is solved.
Step 14 Replace the sensor. See **"Sensor (tray 1 pass-through) removal" on page 481**. Does the problem remain?	Go to step 15.	The problem is solved.
Step 15 **a** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Sensor tests** **b** Find the sensor (Pick (tray 2)). Does the sensor status change while toggling the sensor?	Go to step 19.	Go to step 16.

Action	Yes	No
Step 16 **a** Remove the optional tray left cover. See **"250- and 550-sheet tray left cover removal" on page 509**. **b** Check the sensor cable on the optional tray controller board for proper connection. Is the cable properly connected?	Go to step 18.	Go to step 17.
Step 17 Reseat the cable. Does the problem remain?	Go to step 18.	The problem is solved.
Step 18 Replace the sensor. See **"Sensor (250- and 550-sheet tray pick) removal" on page 520**. Does the problem remain?	Go to step 19.	The problem is solved.
Step 19 **a** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Sensor tests** **b** Find the sensor (Media out (tray 2)). Does the sensor status change while toggling the sensor?	Go to step 23.	Go to step 20.
Step 20 **a** Remove the optional tray left cover. See **"250- and 550-sheet tray left cover removal" on page 509**. **b** Check the sensor cable on the optional tray controller board for proper connection. Is the cable properly connected?	Go to step 22.	Go to step 21.
Step 21 Reseat the cable. Does the problem remain?	Go to step 22.	The problem is solved.
Step 22 Replace the sensor. See **"Sensor (250- and 550-sheet tray paper present) removal" on page 522**. Does the problem remain?	Go to step 23.	The problem is solved.

Action	Yes	No
Step 23 **a** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Sensor tests** **b** Find the sensor (Pick roller index (tray 2)). Does the sensor status change while toggling the sensor?	Go to step 27.	Go to step 24.
Step 24 **a** Remove the optional tray left cover. See **"250- and 550-sheet tray left cover removal" on page 509**. **b** Check the sensor cable on the optional tray controller board for proper connection. Is the cable properly connected?	Go to step 26.	Go to step 25.
Step 25 Reseat the cable. Does the problem remain?	Go to step 26.	The problem is solved.
Step 26 Replace the sensor. See **"Sensor (250- and 550-sheet tray pick roller index) removal" on page 521**. Does the problem remain?	Go to step 27.	The problem is solved.
Step 27 Check if the source tray paper feeder and its actuators are functional, properly installed, and free of damage. Are the paper feeder and its components functional, properly installed, and free of damage?	Go to step 29.	Go to step 28.
Step 28 Reinstall or replace the paper feeder. See **"250- and 550-sheet tray paper feeder removal" on page 517**. Does the problem remain?	Go to step 29.	The problem is solved.
Step 29 **a** Remove the source tray left cover. See **"250- and 550-sheet tray left cover removal" on page 509**. **b** Make sure that the source tray controller board is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 30.	The problem is solved.

Action	Yes	No
Step 30 Check the source tray controller board and its connector pins for damage. Are the tray controller board and its connectors free of damage?	Contact the next level of support.	Go to step 31.
Step 31 Replace the source tray controller board. See **"250- and 550-sheet tray controller board removal" on page 519**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Sensor (tray 2 pass-through) late-arriving or late-leaving jam service check

Action	Yes	No
Step 1 Check the paper path and trays for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 3.	Go to step 2.
Step 2 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Make sure that all the trays and tray inserts are properly installed. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Enter the Diagnostics menu, and then navigate to: **Input tray quick print** >select source tray > **Single** Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Sensor tests** **b** Find the sensor (Pass-through (tray 2)). Does the sensor status change while toggling the sensor?	Go to step 9.	Go to step 6.

Action	Yes	No
Step 6 **a** Remove the optional tray left cover. See **"250- and 550-sheet tray left cover removal" on page 509**. **b** Check the sensor cable on the optional tray controller board for proper connection. Is the cable properly connected?	Go to step 8.	Go to step 7.
Step 7 Reseat the cable. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Replace the sensor. See **"Sensor (250- and 550-sheet tray pass-through) removal" on page 520**. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Check the source tray pick roller for improper installation, contamination, and damage. **Note:** Make sure that the pick roller is fully pressed to its feeder shaft. A click will be heard indicating a proper engagement between the latches and the shaft. Is the pick roller properly installed and free of contamination and damage?	Go to step 11.	Go to step 10.
Step 10 Reinstall, clean, or replace the pick roller. See **"Pick roller removal" on page 516**. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Remove the source tray insert, and then check if the following components are functional and free of damage: • Paper guides • Lift plate **Note:** Move the components or turn gears to check for proper mechanisms. Are the tray insert and its components functional and free of damage?	Go to step 13.	Go to step 12.
Step 12 Replace the tray insert. Does the problem remain?	Go to step 13.	The problem is solved.

Action	Yes	No
Step 13 Check the separator pad for improper installation, contamination, wear, and damage. Is the separator pad properly installed and free of contamination, wear, and damage?	Go to step 15.	Go to step 14.
Step 14 Reinstall, clean, or replace the separator pad. See **"Separator pad removal" on page 477**. Does the problem remain?	Go to step 15.	The problem is solved.
Step 15 **a** Remove the left cover from the optional tray whose motor will be tested. See **"250- and 550-sheet tray left cover removal" on page 509**. **b** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Motor tests** **c** Select the motor (Pass-through (tray 2)), and then touch **Start**. Does the motor run?	Go to step 18.	Go to step 16.
Step 16 Reseat the cable on the motor and on the optional tray controller board. Does the problem remain?	Go to step 17.	The problem is solved.
Step 17 Replace the motor (tray 2 transport). See **"Motor (250- and 550-sheet tray transport) removal" on page 517**. Does the problem remain?	Go to step 18.	The problem is solved.
Step 18 **a** Remove the left cover from the optional tray whose motor will be tested. See **"250- and 550-sheet tray left cover removal" on page 509**. **b** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Motor tests** **c** Select the motor (Pick (tray x)), and then touch **Start**. **Note:** For tray x, choose the tray number of the affected source tray. Does the motor run?	Go to step 21.	Go to step 19.

Action	Yes	No
Step 19 Reseat the cable on the motor and on the optional tray controller board. Does the problem remain?	Go to step 20.	The problem is solved.
Step 20 Replace the source tray paper feeder. See **"250- and 550-sheet tray paper feeder removal" on page 517**. Does the problem remain?	Go to step 21.	The problem is solved.
Step 21 Make sure that the source tray controller board is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 22.	The problem is solved.
Step 22 Check the source tray controller board and its connector pins for damage. Are the tray controller board and its connectors free of damage?	Contact the next level of support.	The problem is solved.
Step 23 Replace the source tray controller board. See **"250- and 550-sheet tray controller board removal" on page 519**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Sensor (tray 2 pass-through) unknown source pick jam service check

Action	Yes	No
Step 1 Check the paper path and trays for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 3.	Go to step 2.
Step 2 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Make sure that all the trays and tray inserts are properly installed. Does the problem remain?	Go to step 4.	The problem is solved.

Action	Yes	No
Step 4 **a** Enter the Diagnostics menu, and then navigate to: **Input tray quick print** **b** Do feed tests from trays 2 to 5. Check if the same error occurs. Does the same problem remain?	Go to step 5.	Perform the appropriate service check for the specific error.
Step 5 Check the affected source tray separator pad for improper installation, contamination, wear, and damage. Is the separator pad properly installed and free of contamination, wear, and damage?	Go to step 7.	Go to step 6.
Step 6 Reinstall, clean, or replace the separator pad. See **"Separator pad removal" on page 477**. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Check the affected source tray pick roller for improper installation, contamination, and damage. **Note:** Make sure that the pick roller is fully pressed to its feeder shaft. A click will be heard indicating a proper engagement between the latches and the shaft. Is the pick roller properly installed and free of contamination and damage?	Go to step 9.	Go to step 8.
Step 8 Reinstall, clean, or replace the pick roller. See **"Pick roller removal" on page 516**. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Remove the affected source tray insert, and then check if the following components are functional and free of damage: • Paper guides • Lift plate **Note:** Move the components or turn gears to check for proper mechanisms. Are the tray insert and its components functional and free of damage?	Go to step 11.	Go to step 10.

Action	Yes	No
Step 10 Replace the tray insert. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 **a** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Sensor tests** **b** Find the sensor (Pass-through (tray 2)). Does the sensor status change while toggling the sensor?	Go to step 15.	Go to step 12.
Step 12 **a** Remove the optional tray left cover. See **"250- and 550-sheet tray left cover removal" on page 509**. **b** Check the sensor cable on the optional tray controller board for proper connection. Is the cable properly connected?	Go to step 14.	Go to step 13.
Step 13 Reseat the cable. Does the problem remain?	Go to step 14.	The problem is solved.
Step 14 Replace the sensor. See **"Sensor (tray 1 pass-through) removal" on page 481**. Does the problem remain?	Go to step 15.	The problem is solved.
Step 15 **a** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Sensor tests** **b** Find the sensor (Pick (tray x)). **Note:** For tray x, choose the tray number of the affected source tray. Does the sensor status change while toggling the sensor?	Go to step 19.	Go to step 16.
Step 16 **a** Remove the optional tray left cover. See **"250- and 550-sheet tray left cover removal" on page 509**. **b** Check the sensor cable on the optional tray controller board for proper connection. Is the cable properly connected?	Go to step 18.	Go to step 17.

Action	Yes	No
Step 17 Reseat the cable. Does the problem remain?	Go to step 18.	The problem is solved.
Step 18 Replace the sensor. See **"Sensor (250- and 550-sheet tray pick) removal" on page 520**. Does the problem remain?	Go to step 19.	The problem is solved.
Step 19 **a** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics > Sensor tests** **b** Find the sensor (Media out (tray x)). **Note:** For tray x, choose the tray number of the affected source tray. Does the sensor status change while toggling the sensor?	Go to step 23.	Go to step 20.
Step 20 **a** Remove the optional tray left cover. See **"250- and 550-sheet tray left cover removal" on page 509**. **b** Check the sensor cable on the optional tray controller board for proper connection. Is the cable properly connected?	Go to step 22.	Go to step 21.
Step 21 Reseat the cable. Does the problem remain?	Go to step 22.	The problem is solved.
Step 22 Replace the sensor. See **"Sensor (250-and 550-sheet tray paper present) removal" on page 522**. Does the problem remain?	Go to step 23.	The problem is solved.
Step 23 **a** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics > Sensor tests** **b** Find the sensor (Pick roller index (tray x)). **Note:** For tray x, choose the tray number of the affected source tray. Does the sensor status change while toggling the sensor?	Go to step 27.	Go to step 24.

Action	Yes	No
Step 24 **a** Remove the optional tray left cover. See **"250- and 550-sheet tray left cover removal" on page 509**. **b** Check the sensor cable on the optional tray controller board for proper connection. Is the cable properly connected?	Go to step 26.	Go to step 25.
Step 25 Reseat the cable. Does the problem remain?	Go to step 26.	The problem is solved.
Step 26 Replace the sensor. See **"Sensor (250- and 550-sheet tray pick roller index) removal" on page 521**. Does the problem remain?	Go to step 27.	The problem is solved.
Step 27 **a** Remove the optional tray left cover. See **"250- and 550-sheet tray left cover removal" on page 509**. **b** Check if the affected source tray paper feeder and its actuators are functional, properly installed, and free of damage. Are the paper feeder and its components functional, properly installed, and free of damage?	Go to step 29.	Go to step 28.
Step 28 Reinstall or replace the paper feeder. See **"250- and 550-sheet tray paper feeder removal" on page 517**. Does the problem remain?	Go to step 29.	The problem is solved.
Step 29 Make sure that the affected source tray controller board is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 30.	The problem is solved.
Step 30 Check the source tray controller board and its connector pins for damage. Are the tray controller board and its connectors free of damage?	Contact the next level of support.	Go to step 31.
Step 31 Replace the source tray controller board. See **"250- and 550-sheet tray controller board removal" on page 519**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Sensor (tray 2 pass-through) unknown source late-arriving or late-leaving jam service check

Action	Yes	No
Step 1 Check the paper path and trays for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 3.	Go to step 2.
Step 2 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Make sure that all the trays and tray inserts are properly installed. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 **a** Enter the Diagnostics menu, and then navigate to: **Input tray quick print** **b** Do feed tests from trays 2 to 5. Check if the same error occurs. Does the same problem remain?	Go to step 5.	Perform the appropriate service check for the specific error.
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Sensor tests** **b** Find the sensor (Pass-through (tray 2)). Does the sensor status change while toggling the sensor?	Go to step 9.	Go to step 6.
Step 6 **a** Remove the optional tray left cover. See **"250- and 550-sheet tray left cover removal" on page 509**. **b** Check the sensor cable on the optional tray controller board for proper connection. Is the cable properly connected?	Go to step 8.	Go to step 7.
Step 7 Reseat the cable. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Replace the sensor. See **"Sensor (250- and 550-sheet tray pass-through) removal" on page 520**. Does the problem remain?	Go to step 9.	The problem is solved.

Diagnostics and troubleshooting

Action	Yes	No
Step 9 Check the affected source tray pick roller for improper installation, contamination, and damage. **Note:** Make sure that the pick roller is fully pressed to its feeder shaft. A click will be heard indicating a proper engagement between the latches and the shaft. Is the pick roller properly installed and free of contamination and damage?	Go to step 11.	Go to step 10.
Step 10 Reinstall, clean, or replace the pick roller. See **"Pick roller removal" on page 516**. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Remove the affected source tray insert, and then check if the following components are functional and free of damage: • Paper guides • Lift plate **Note:** Move the components or turn gears to check for proper mechanisms. Are the tray insert and its components functional and free of damage?	Go to step 13.	Go to step 12.
Step 12 Replace the tray insert. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 Check the separator pad for improper installation, contamination, wear, and damage. Is the separator pad properly installed and free of contamination, wear, and damage?	Go to step 15.	Go to step 14.
Step 14 Reinstall, clean, or replace the separator pad. See **"Separator pad removal" on page 477**. Does the problem remain?	Go to step 15.	The problem is solved.

Action	Yes	No
Step 15 **a** Remove the left cover from the optional tray whose motor will be tested. See **"250- and 550-sheet tray left cover removal" on page 509**. **b** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Motor tests** **c** Select the motor (Pass-through (tray 2)), and then touch **Start**. Does the motor run?	Go to step 18.	Go to step 16.
Step 16 Reseat the cable on the motor and on the optional tray controller board. Does the problem remain?	Go to step 17.	The problem is solved.
Step 17 Replace the motor (tray 2 transport). See **"Motor (250- and 550-sheet tray transport) removal" on page 517**. Does the problem remain?	Go to step 18.	The problem is solved.
Step 18 **a** Remove the left cover from the optional tray whose motor will be tested. See **"250- and 550-sheet tray left cover removal" on page 509**. **b** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Motor tests** **c** Select the motor (Pick (tray x)), and then touch **Start**. **Note:** For tray x, choose the tray number of the affected source tray. Does the motor run?	Go to step 21.	Go to step 19.
Step 19 Reseat the cable on the motor and on the optional tray controller board. Does the problem remain?	Go to step 20.	The problem is solved.
Step 20 Replace the source tray paper feeder. See **"250- and 550-sheet tray paper feeder removal" on page 517**. Does the problem remain?	Go to step 21.	The problem is solved.

Action	Yes	No
Step 21 Make sure that the affected source tray controller board is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 22.	The problem is solved.
Step 22 Check the source tray controller board and its connector pins for damage. Are the tray controller board and its connectors free of damage?	Contact the next level of support.	The problem is solved.
Step 23 Replace the source tray controller board. See **"250- and 550-sheet tray controller board removal" on page 519**. Does the problem remain?	Contact the next level of support.	The problem is solved.

250- and 550-sheet tray transport drive jam service check

Action	Yes	No
Step 1 Check the paper path and trays for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 3.	Go to step 2.
Step 2 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Make sure that all the trays and tray inserts are properly installed. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Enter the Diagnostics menu, and then navigate to: **Input tray quick print** >select source tray > **Single** Does the problem remain?	Go to step 5.	The problem is solved.

Action	Yes	No
Step 5 **a** Remove the left cover from the optional tray whose motor will be tested. See **"250- and 550-sheet tray left cover removal" on page 509**. **b** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Motor tests** **c** Select the motor (Pass-through (tray x)), and then touch **Start**. **Note:** For tray x, choose the tray number of the affected tray. Does the motor run?	Go to step 8.	Go to step 6.
Step 6 Reseat the cable on the motor and on the optional tray controller board. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Replace the motor. See **"Motor (250- and 550-sheet tray transport) removal" on page 517**. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Remove the source tray insert, and then check if the following components are functional and free of damage: • Paper guides • Lift plate **Note:** Move the components or turn gears to check for proper mechanisms. Are the tray insert and its components functional and free of damage?	Go to step 10.	Go to step 9.
Step 9 Replace the tray insert. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Make sure that the controller board of the affected tray is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Check the affected tray controller board and its connector pins for damage. Are the tray controller board and its connectors free of damage?	Contact the next level of support.	The problem is solved.

Action	Yes	No
Step 12 Replace the affected tray controller board. See **"250- and 550-sheet tray controller board removal" on page 519**. Does the problem remain?	Contact the next level of support.	The problem is solved.

2100-sheet tray elevator drive jam service check

Action	Yes	No
Step 1 Check the paper path and trays for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 3.	Go to step 2.
Step 2 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Make sure that all the trays and tray inserts are properly installed. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Enter the Diagnostics menu, and then navigate to: **Input tray quick print** >select source tray > **Single** Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Check the source tray pick roller for improper installation, contamination, and damage. **Note:** Make sure that the pick roller is fully pressed to its feeder shaft. A click will be heard indicating a proper engagement between the latches and the shaft. Is the pick roller properly installed and free of contamination and damage?	Go to step 7.	Go to step 6.
Step 6 Reinstall, clean, or replace the pick roller. Does the problem remain?	Go to step 7.	The problem is solved.

Action	Yes	No
Step 7 **a** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Sensor tests** **b** Find the sensor (PIck roller index (tray x)). **Note:** For tray x, choose the tray number of the affected source tray. Does the sensor status change while toggling the sensor?	Go to step 11.	Go to step 8.
Step 8 **a** Remove the optional tray left cover. See **"2100-sheet tray left cover removal" on page 486**. **b** Check the sensor cable on the optional tray controller board for proper connection. Is the cable properly connected?	Go to step 10.	Go to step 9.
Step 9 Reseat the cable. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Replace the sensor. See **"Sensor (2100-sheet tray pick roller index) removal" on page 504**. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 **a** Remove the left cover from the optional tray whose motor will be tested. See **"2100-sheet tray left cover removal" on page 486**. **b** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Motor tests** **c** Select the motor (High capacity tray lift), and then touch **Start**. Does the motor run?	Go to step 14.	Go to step 12.
Step 12 Reseat the cable on the motor and on the optional tray controller board. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 Replace the motor drive. See **"2100-sheet tray elevator drive removal" on page 497**. Does the problem remain?	Go to step 14.	The problem is solved.

Action	Yes	No
Step 14 Perform a print test again, and then observe if the motor (2100-sheet tray transport) is running. Does the motor run?	Go step 17.	Go to step 15.
Step 15 Reseat the cable on the motor and on the optional tray controller board. Does the problem remain?	Go to step 16.	The problem is solved.
Step 16 Replace the motor. See **"Motor (2100-sheet tray transport) removal" on page 491**. Does the problem remain?	Go to step 17.	The problem is solved.
Step 17 Check the optional tray controller board and its connector pins for damage. Are the tray controller board and its connectors free of damage?	Contact the next level of support.	The problem is solved.
Step 18 Replace the optional tray controller board. See **"2100-sheet tray controller board removal" on page 496**. Does the problem remain?	Contact the next level of support.	The problem is solved.

243 paper jams

243 paper jam messages

Error code	Description	Action
243.36	Paper fed from tray 3 was picked but it never reached the sensor (tray 2 pass-through).	See **"Tray 3 pick jam service check" on page 175**.
243.41	Paper remains detected at the sensor (tray 3 pass-through) although the printer is idle. Tray 4 is the paper source.	See **"Sensor (tray 3 pass-through) static jam service check" on page 173**.
243.43	Paper fed from tray 4 never reached the sensor (tray 3 pass-through).	See **"Sensor (tray 3 pass-through) late-arriving or late-leaving jam service check" on page 178**.
243.45	Paper fed from tray 4 cleared the sensor (tray 3 pass-through) later than expected.	
243.47	Paper fed from tray 4 never cleared the sensor (tray 3 pass-through).	

Error code	Description	Action
243.51	Paper remains detected at the sensor (tray 3 pass-through) although the printer is idle. Tray 5 is the paper source.	See **"Sensor (tray 3 pass-through) static jam service check" on page 173**.
243.53	Paper fed from tray 5 never reached the sensor (tray 3 pass-through).	See **"Sensor (tray 3 pass-through) late-arriving or late-leaving jam service check" on page 178**.
243.55	Paper fed from tray 5 cleared the sensor (tray 3 pass-through) later than expected.	
243.57	Paper fed from tray 5 never cleared the sensor (tray 3 pass-through).	
243.70	Motor (250-sheet tray 3 transport) or Motor (550-sheet tray 3 transport) does not turn on.	See **"250- and 550-sheet tray transport drive jam service check" on page 167**.
243.70	Motor (2100-sheet tray 3 elevator) does not turn on.	See **"2100-sheet tray elevator drive jam service check" on page 169**.
243.71	Motor (250-sheet tray 3 transport) or Motor (550-sheet tray 3 transport) does not turn off.	See **"250- and 550-sheet tray transport drive jam service check" on page 167**.
243.71	Motor (2100-sheet tray 3 elevator) does not turn off.	See **"2100-sheet tray elevator drive jam service check" on page 169**.
243.72	Motor (250-sheet tray 3 transport) or Motor (550-sheet tray 3 transport) speed did not ramp up to the required level.	See **"250- and 550-sheet tray transport drive jam service check" on page 167**.
243.72	Motor (2100-sheet tray 3 elevator) speed did not ramp up to the required level.	See **"2100-sheet tray elevator drive jam service check" on page 169**.
243.73	Motor (250-sheet tray 3 transport) or Motor (550-sheet tray 3 transport) stalled.	See **"250- and 550-sheet tray transport drive jam service check" on page 167**.
243.73	Motor (2100-sheet tray 3 elevator) stalled.	See **"2100-sheet tray elevator drive jam service check" on page 169**.
243.74	Motor (250-sheet tray 3 transport) or Motor (550-sheet tray 3 transport) ran too slow.	See **"250- and 550-sheet tray transport drive jam service check" on page 167**.
243.74	Motor (2100-sheet tray 3 elevator) ran too slow.	See **"2100-sheet tray elevator drive jam service check" on page 169**.
243.75	Motor (250-sheet tray 3 transport) or Motor (550-sheet tray 3 transport) ran too fast.	See **"250- and 550-sheet tray transport drive jam service check" on page 167**.
243.75	Motor (2100-sheet tray 3 elevator) ran too fast.	See **"2100-sheet tray elevator drive jam service check" on page 169**.
243.76	Motor (250-sheet tray 3 transport) or Motor (550-sheet tray 3 transport) ran too long.	See **"250- and 550-sheet tray transport drive jam service check" on page 167**.
243.76	Motor (2100-sheet tray 3 elevator) ran too long.	See **"2100-sheet tray elevator drive jam service check" on page 169**.

Error code	Description	Action
243.80	Motor (tray 3 pick/lift) does not turn on.	See **"Optional tray pick drive failure service check" on page 341**.
243.81	Motor (tray 3 pick/lift) does not turn off.	
243.82	Motor (tray 3 pick/lift) speed did not ramp up to the required level.	
243.83	Motor (tray 3 pick/lift) stalled.	
243.84	Motor (tray 3 pick/lift) ran too slow.	
243.85	Motor (tray 3 pick/lift) ran too fast.	
243.86	Motor (tray 3 pick/lift) ran too long.	
243.91	Paper remains detected at the sensor (tray 3 pass-through) after the printer is turned on.	See **"Sensor (tray 3 pass-through) static jam service check" on page 173**.
243.92	Paper was detected earlier than expected at the sensor (tray 3 pass-through). Paper source is undetermined.	See **"Sensor (tray 3 pass-through) unknown source late-arriving or late-leaving jam service check" on page 181**.
243.93	Paper never arrived at the sensor (tray 3 pass-through). Paper source is undetermined.	
243.95	Paper cleared the sensor (tray 3 pass-through) later than expected. Paper source is undetermined.	
243.96	Paper was picked but it never reached the sensor (tray 3 pass-through). Paper source is undetermined.	See **"Sensor (tray 3 pass-through) unknown source pick jam service check" on page 185**.
243.97	Paper never cleared the sensor (tray 3 pass-through). Paper source is undetermined.	See **"Sensor (tray 3 pass-through) unknown source late-arriving or late-leaving jam service check" on page 181**.

Sensor (tray 3 pass-through) static jam service check

Action	Yes	No
Step 1 Check the paper path and trays for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 3.	Go to step 2.
Step 2 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Make sure that all the trays and tray inserts are properly installed. Does the problem remain?	Go to step 4.	The problem is solved.

Action	Yes	No
Step 4 **a** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Sensor tests** **b** Find the sensor (Pass-through (tray 3)). Does the sensor status change while toggling the sensor?	Go to step 8.	Go to step 5.
Step 5 **a** Remove the optional tray left cover. See **"250- and 550-sheet tray left cover removal" on page 509**. **b** Check the sensor cable on the optional tray controller board for proper connection. Is the cable properly connected?	Go to step 7.	Go to step 6.
Step 6 Reseat the cable. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Replace the sensor. See **"Sensor (250- and 550-sheet tray pass-through) removal" on page 520**. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 **a** Remove the source tray left cover. See **"250- and 550-sheet tray left cover removal" on page 509**. **b** Make sure that the source tray controller board is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Check the source tray controller board and its connector pins for damage. Are the tray controller board and its connectors free of damage?	Contact the next level of support.	Go to step 10.
Step 10 Replace the source tray controller board. See **"250- and 550-sheet tray controller board removal" on page 519**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Tray 3 pick jam service check

Action	Yes	No
Step 1 Check the paper path and trays for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 3.	Go to step 2.
Step 2 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Make sure that all the trays and tray inserts are properly installed. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Enter the Diagnostics menu, and then navigate to: **Input tray quick print** > **Tray 3** > **Single** Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Check the source tray pick roller for improper installation, contamination, and damage. **Note:** Make sure that the pick roller is fully pressed to its feeder shaft. A click will be heard indicating a proper engagement between the latches and the shaft. Is the pick roller properly installed and free of contamination and damage?	Go to step 7.	Go to step 6.
Step 6 Reinstall, clean, or replace the pick roller. See **"Pick roller removal" on page 516**. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 **a** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Sensor tests** **b** Find the sensor (Pass-through (tray 2)). Does the sensor status change while toggling the sensor?	Go to step 11.	Go to step 8.

Action	Yes	No
Step 8 **a** Remove the optional tray left cover. See **"250- and 550-sheet tray left cover removal" on page 509**. **b** Check the sensor cable on the optional tray controller board for proper connection. Is the cable properly connected?	Go to step 10.	Go to step 9.
Step 9 Reseat the cable. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Replace the sensor. See **"Sensor (250- and 550-sheet tray pass-through) removal" on page 520**. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Remove the source tray insert, and then check if the following components are functional and free of damage: • Paper guides • Lift plate **Note:** Move the components or turn gears to check for proper mechanisms. Are the tray insert and its components functional and free of damage?	Go to step 13.	Go to step 12.
Step 12 Replace the tray insert. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 Check the source tray separator pad for improper installation, contamination, wear, and damage. Is the separator pad properly installed and free of contamination, wear, and damage?	Go to step 15.	Go to step 14.
Step 14 Reinstall, clean, or replace the separator pad. See **"Separator pad removal" on page 477**. Does the problem remain?	Go to step 15.	The problem is solved.

Action	Yes	No
Step 15 **a** Remove the left cover from the optional tray whose motor will be tested. See **"250- and 550-sheet tray left cover removal" on page 509**. **b** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Motor tests** **c** Select the motor (Pass-through (tray 2)), and then touch **Start**. Does the motor run?	Go to step 18.	Go to step 16.
Step 16 Reseat the cable on the motor and on the optional tray controller board. Does the problem remain?	Go to step 17.	The problem is solved.
Step 17 Replace the motor (tray 2 transport). See **"Motor (250- and 550-sheet tray transport) removal" on page 517**. Does the problem remain?	Go to step 18.	The problem is solved.
Step 18 **a** Remove the left cover from the optional tray whose motor will be tested. See **"250- and 550-sheet tray left cover removal" on page 509**. **b** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Motor tests** **c** Select the motor (Pick (tray 3)), and then touch **Start**. Does the motor run?	Go to step 20.	Go to step 19.
Step 19 Reseat the cable on the motor and on the optional tray controller board. Does the problem remain?	Go to step 20.	The problem is solved.
Step 20 Check if the source tray paper feeder and its actuators are functional, properly installed, and free of damage. Are the paper feeder and its components functional, properly installed, and free of damage?	Go to step 22.	Go to step 21.
Step 21 Reinstall or replace the paper feeder. See **"250- and 550-sheet tray paper feeder removal" on page 517**. Does the problem remain?	Go to step 22.	The problem is solved.

Action	Yes	No
Step 22 Make sure that the source tray controller board is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 23.	The problem is solved.
Step 23 Check the source tray controller board and its connector pins for damage. Are the tray controller board and its connectors free of damage?	Contact the next level of support.	Go to step 24.
Step 24 Replace the source tray controller board. See **"250- and 550-sheet tray controller board removal" on page 519**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Sensor (tray 3 pass-through) late-arriving or late-leaving jam service check

Action	Yes	No
Step 1 Check the paper path and trays for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 3.	Go to step 2.
Step 2 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Make sure that all the trays and tray inserts are properly installed. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Enter the Diagnostics menu, and then navigate to: **Input tray quick print** >select source tray > **Single** Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 a Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Sensor tests** b Find the sensor (Pass-through (tray 3)). Does the sensor status change while toggling the sensor?	Go to step 9.	Go to step 6.

Action	Yes	No
Step 6 **a** Remove the optional tray left cover. See **"250- and 550-sheet tray left cover removal" on page 509**. **b** Check the sensor cable on the optional tray controller board for proper connection. Is the cable properly connected?	Go to step 8.	Go to step 7.
Step 7 Reseat the cable. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Replace the sensor. See **"Sensor (250- and 550-sheet tray pass-through) removal" on page 520**. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Check the source tray pick roller for improper installation, contamination, and damage. **Note:** Make sure that the pick roller is fully pressed to its feeder shaft. A click will be heard indicating a proper engagement between the latches and the shaft. Is the pick roller properly installed and free of contamination and damage?	Go to step 11.	Go to step 10.
Step 10 Reinstall, clean, or replace the pick roller. See **"Pick roller removal" on page 516**. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Remove the source tray insert, and then check if the following components are functional and free of damage: • Paper guides • Lift plate **Note:** Move the components or turn gears to check for proper mechanisms. Are the tray insert and its components functional and free of damage?	Go to step 13.	Go to step 12.
Step 12 Replace the tray insert. Does the problem remain?	Go to step 13.	The problem is solved.

Action	Yes	No
Step 13 Check the separator pad for improper installation, contamination, wear, and damage. Is the separator pad properly installed and free of contamination, wear, and damage?	Go to step 15.	Go to step 14.
Step 14 Reinstall, clean, or replace the separator pad. See **"Separator pad removal" on page 477**. Does the problem remain?	Go to step 15.	The problem is solved.
Step 15 **a** Remove the left cover from the optional tray whose motor will be tested. See **"250- and 550-sheet tray left cover removal" on page 509**. **b** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Motor tests** **c** Select the motor (Pass-through (tray 3)), and then touch **Start**. Does the motor run?	Go to step 18.	Go to step 16.
Step 16 Reseat the cable on the motor and on the optional tray controller board. Does the problem remain?	Go to step 17.	The problem is solved.
Step 17 Replace the motor (tray 3 transport). See **"Motor (250- and 550-sheet tray transport) removal" on page 517**. Does the problem remain?	Go to step 18.	The problem is solved.
Step 18 **a** Remove the left cover from the optional tray whose motor will be tested. See **"250- and 550-sheet tray left cover removal" on page 509**. **b** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Motor tests** **c** Select the motor (Pick (tray x)), and then touch **Start**. **Note:** For tray x, choose the tray number of the affected source tray. Does the motor run?	Go to step 21.	Go to step 19.

Action	Yes	No
Step 19 Reseat the cable on the motor and on the optional tray controller board. Does the problem remain?	Go to step 20.	The problem is solved.
Step 20 Replace the source tray paper feeder. See **"250- and 550-sheet tray paper feeder removal" on page 517**. Does the problem remain?	Go to step 21.	The problem is solved.
Step 21 Make sure that the source tray controller board is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 22.	The problem is solved.
Step 22 Check the source tray controller board and its connector pins for damage. Are the tray controller board and its connectors free of damage?	Contact the next level of support.	The problem is solved.
Step 23 Replace the source tray controller board. See **"250- and 550-sheet tray controller board removal" on page 519**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Sensor (tray 3 pass-through) unknown source late-arriving or late-leaving jam service check

Action	Yes	No
Step 1 Check the paper path and trays for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 3.	Go to step 2.
Step 2 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Make sure that all the trays and tray inserts are properly installed. Does the problem remain?	Go to step 4.	The problem is solved.

Action	Yes	No
Step 4 **a** Enter the Diagnostics menu, and then navigate to: **Input tray quick print** **b** Do feed tests from trays 3 to 5. Check if the same error occurs. Does the same problem remain?	Go to step 5.	Perform the appropriate service check for the specific error.
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics > Sensor tests** **b** Find the sensor (Pass-through (tray 3)). Does the sensor status change while toggling the sensor?	Go to step 9.	Go to step 6.
Step 6 **a** Remove the optional tray left cover. See **"250- and 550-sheet tray left cover removal" on page 509**. **b** Check the sensor cable on the optional tray controller board for proper connection. Is the cable properly connected?	Go to step 8.	Go to step 7.
Step 7 Reseat the cable. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Replace the sensor. See **"Sensor (250- and 550-sheet tray pass-through) removal" on page 520**. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Check the affected source tray pick roller for improper installation, contamination, and damage. **Note:** Make sure that the pick roller is fully pressed to its feeder shaft. A click will be heard indicating a proper engagement between the latches and the shaft. Is the pick roller properly installed and free of contamination and damage?	Go to step 11.	Go to step 10.
Step 10 Reinstall, clean, or replace the pick roller. See **"Pick roller removal" on page 516**. Does the problem remain?	Go to step 11.	The problem is solved.

Action	Yes	No
Step 11 Remove the affected source tray insert, and then check if the following components are functional and free of damage: • Paper guides • Lift plate **Note:** Move the components or turn gears to check for proper mechanisms. Are the tray insert and its components functional and free of damage?	Go to step 13.	Go to step 12.
Step 12 Replace the tray insert. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 Check the separator pad for improper installation, contamination, wear, and damage. Is the separator pad properly installed and free of contamination, wear, and damage?	Go to step 15.	Go to step 14.
Step 14 Reinstall, clean, or replace the separator pad. See **"Separator pad removal" on page 477**. Does the problem remain?	Go to step 15.	The problem is solved.
Step 15 **a** Remove the left cover from the optional tray whose motor will be tested. See **"250- and 550-sheet tray left cover removal" on page 509**. **b** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Motor tests** **c** Select the motor (Pass-through (tray 3)), and then touch **Start**. Does the motor run?	Go to step 18.	Go to step 16.
Step 16 Reseat the cable on the motor and on the optional tray controller board. Does the problem remain?	Go to step 17.	The problem is solved.
Step 17 Replace the motor (tray 3 transport). See **"Motor (250- and 550-sheet tray transport) removal" on page 517**. Does the problem remain?	Go to step 18.	The problem is solved.

Action	Yes	No
Step 18 **a** Remove the left cover from the optional tray whose motor will be tested. See **"250- and 550-sheet tray left cover removal" on page 509**. **b** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Motor tests** **c** Select the motor (Pick (tray x)), and then touch **Start**. **Note:** For tray x, choose the tray number of the affected source tray. Does the motor run?	Go to step 21.	Go to step 19.
Step 19 Reseat the cable on the motor and on the optional tray controller board. Does the problem remain?	Go to step 20.	The problem is solved.
Step 20 Replace the source tray paper feeder. See **"250- and 550-sheet tray paper feeder removal" on page 517**. Does the problem remain?	Go to step 21.	The problem is solved.
Step 21 Make sure that the affected source tray controller board is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 22.	The problem is solved.
Step 22 Check the source tray controller board and its connector pins for damage. Are the tray controller board and its connectors free of damage?	Contact the next level of support.	The problem is solved.
Step 23 Replace the source tray controller board. See **"250- and 550-sheet tray controller board removal" on page 519**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Sensor (tray 3 pass-through) unknown source pick jam service check

Action	Yes	No
Step 1 Check the paper path and trays for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 3.	Go to step 2.
Step 2 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Make sure that all the trays and tray inserts are properly installed. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 **a** Enter the Diagnostics menu, and then navigate to: **Input tray quick print** **b** Do feed tests from trays 3 to 5. Check if the same error occurs. Does the same problem remain?	Go to step 5.	Perform the appropriate service check for the specific error.
Step 5 Check the affected source tray pick roller for improper installation, contamination, and damage. **Note:** Make sure that the pick roller is fully pressed to its feeder shaft. A click will be heard indicating a proper engagement between the latches and the shaft. Is the pick roller properly installed and free of contamination and damage?	Go to step 7.	Go to step 6.
Step 6 Reinstall, clean, or replace the pick roller. See **"Pick roller removal" on page 516**. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 **a** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Sensor tests** **b** Find the sensor (Pass-through (tray 3)). Does the sensor status change while toggling the sensor?	Go to step 11.	Go to step 8.

Action	Yes	No
Step 8 **a** Remove the optional tray left cover. See **"250- and 550-sheet tray left cover removal" on page 509**. **b** Check the sensor cable on the optional tray controller board for proper connection. Is the cable properly connected?	Go to step 10.	Go to step 9.
Step 9 Reseat the cable. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Replace the sensor. See **"Sensor (250- and 550-sheet tray pass-through) removal" on page 520**. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Remove the affected source tray insert, and then check if the following components are functional and free of damage: • Paper guides • Lift plate **Note:** Move the components or turn gears to check for proper mechanisms. Are the tray insert and its components functional and free of damage?	Go to step 13.	Go to step 12.
Step 12 Replace the tray insert. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 Check the separator pad for improper installation, contamination, wear, and damage. Is the separator pad properly installed and free of contamination, wear, and damage?	Go to step 15.	Go to step 14.
Step 14 Reinstall, clean, or replace the separator pad. See **"Separator pad removal" on page 477**. Does the problem remain?	Go to step 15.	The problem is solved.

Action	Yes	No
Step 15 **a** Remove the left cover from the optional tray whose motor will be tested. See **"250- and 550-sheet tray left cover removal" on page 509**. **b** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Motor tests** **c** Select the motor (Pass-through (tray 3)), and then touch **Start**. Does the motor run?	Go to step 18.	Go to step 16.
Step 16 Reseat the cable on the motor and on the optional tray controller board. Does the problem remain?	Go to step 17.	The problem is solved.
Step 17 Replace the motor (tray 3 transport). See **"Motor (250- and 550-sheet tray transport) removal" on page 517**. Does the problem remain?	Go to step 18.	The problem is solved.
Step 18 **a** Remove the left cover from the optional tray whose motor will be tested. See **"250- and 550-sheet tray left cover removal" on page 509**. **b** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Motor tests** **c** Select the motor (Pick (tray x)), and then touch **Start**. **Note:** For tray x, choose the tray number of the affected source tray. Does the motor run?	Go to step 20.	Go to step 19.
Step 19 Reseat the cable on the motor and on the optional tray controller board. Does the problem remain?	Go to step 20.	The problem is solved.
Step 20 Check if the affected source tray paper feeder and its actuators are functional, properly installed, and free of damage. Are the paper feeder and its components functional, properly installed, and free of damage?	Go to step 22.	Go to step 21.

Action	Yes	No
Step 21 Reinstall or replace the paper feeder. See **"250- and 550-sheet tray paper feeder removal" on page 517**. Does the problem remain?	Go to step 22.	The problem is solved.
Step 22 Make sure that the affected source tray controller board is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 23.	The problem is solved.
Step 23 Check the source tray controller board and its connector pins for damage. Are the tray controller board and its connectors free of damage?	Contact the next level of support.	Go to step 24.
Step 24 Replace the source tray controller board. See **"250- and 550-sheet tray controller board removal" on page 519**. Does the problem remain?	Contact the next level of support.	The problem is solved.

244 paper jams

244 paper jam messages

Error code	Description	Action
244.46	Paper fed from tray 4 was picked but it never reached the sensor (tray 3 pass-through).	See **"Tray 4 pick jam service check" on page 191**.
244.51	Paper remains detected at the sensor (tray 4 pass-through) although the printer is idle. Tray 5 is the paper source.	See **"Sensor (tray 4 pass-through) static jam service check" on page 190**.
244.53	Paper fed from tray 5 never reached the sensor (tray 4 pass-through).	See **"Sensor (tray 4 pass-through) late-arriving or late-leaving jam service check" on page 194**.
244.55	Paper fed from tray 5 cleared the sensor (tray 4 pass-through) later than expected.	
244.57	Paper fed from tray 5 never cleared the sensor (tray 4 pass-through).	

Error code	Description	Action
244.70	Motor (2100-sheet tray 4 elevator) does not turn on.	See **"2100-sheet tray elevator drive jam service check" on page 169**.
244.71	Motor (2100-sheet tray 4 elevator) does not turn off.	
244.72	Motor (2100-sheet tray 4 elevator) speed did not ramp up to the required level.	
244.73	Motor (2100-sheet tray 4 elevator) stalled.	
244.74	Motor (2100-sheet tray 4 elevator) ran too slow.	
244.75	Motor (2100-sheet tray 4 elevator) ran too fast.	
244.76	Motor (2100-sheet tray 4 elevator) ran too long.	
244.80	Motor (tray 4 pick/lift) does not turn on.	See **"Optional tray pick drive failure service check" on page 341**.
244.81	Motor (tray 4 pick/lift) does not turn off.	
244.82	Motor (tray 4 pick/lift) speed did not ramp up to the required level.	
244.83	Motor (tray 4 pick/lift) stalled.	
244.84	Motor (tray 4 pick/lift) ran too slow.	
244.85	Motor (tray 4 pick/lift) ran too fast.	
244.86	Motor (tray 4 pick/lift) moved too long.	
244.91	Paper remains detected at the sensor (tray 4 pass-through) after the printer is turned on.	See **"Sensor (tray 4 pass-through) static jam service check" on page 190**.
244.93	Paper never arrived at the sensor (tray 4 pass-through). Paper source is undetermined.	See **"Sensor (tray 4 pass-through) late-arriving or late-leaving jam service check" on page 194**.
244.95	Paper cleared the sensor (tray 4 pass-through) later than expected. Paper source is undetermined.	
244.96	Paper was picked but it never reached the sensor (tray 4 pass-through). Paper source is undetermined.	See **"Tray 5 pick jam service check" on page 200**.
244.97	Paper never cleared the sensor (tray 4 pass-through). Paper source is undetermined.	See **"Sensor (tray 4 pass-through) late-arriving or late-leaving jam service check" on page 194**.

Sensor (tray 4 pass-through) static jam service check

Action	Yes	No
Step 1 Check the paper path and trays for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 3.	Go to step 2.
Step 2 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Make sure that all the trays and tray inserts are properly installed. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 **a** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Sensor tests** **b** Find the sensor (Pass-through (tray 4)). Does the sensor status change while toggling the sensor?	Go to step 9.	Go to step 5.
Step 5 **a** Remove the optional tray left cover. See **"250- and 550-sheet tray left cover removal" on page 509**. **b** Check the sensor cable on the optional tray controller board for proper connection. Is the cable properly connected?	Go to step 7.	Go to step 6.
Step 6 Reseat the cable. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Replace the sensor. See **"Sensor (250- and 550-sheet tray pass-through) removal" on page 520**. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 **a** Remove the source tray left cover. See **"250- and 550-sheet tray left cover removal" on page 509**. **b** Make sure that the source tray controller board is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 9.	The problem is solved.

Action	Yes	No
Step 9 Check the source tray controller board and its connector pins for damage. Are the tray controller board and its connectors free of damage?	Contact the next level of support.	Go to step 10.
Step 10 Replace the source tray controller board. See **"250- and 550-sheet tray controller board removal" on page 519**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Tray 4 pick jam service check

Action	Yes	No
Step 1 Check the paper path and trays for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 3.	Go to step 2.
Step 2 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Make sure that all the trays and tray inserts are properly installed. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Enter the Diagnostics menu, and then navigate to: **Input tray quick print** > **Tray 4** > **Single** Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Check the source tray pick roller for improper installation, contamination, and damage. **Note:** Make sure that the pick roller is fully pressed to its feeder shaft. A click will be heard indicating a proper engagement between the latches and the shaft. Is the pick roller properly installed and free of contamination and damage?	Go to step 7.	Go to step 6.

Action	Yes	No
Step 6 Reinstall, clean, or replace the pick roller. See **"Pick roller removal" on page 516**. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 **a** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics > Sensor tests** **b** Find the sensor (Pass-through (tray 3)). Does the sensor status change while toggling the sensor?	Go to step 11.	Go to step 8.
Step 8 **a** Remove the optional tray left cover. See **"250- and 550-sheet tray left cover removal" on page 509**. **b** Check the sensor cable on the optional tray controller board for proper connection. Is the cable properly connected?	Go to step 10.	Go to step 9.
Step 9 Reseat the cable. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Replace the sensor. See **"Sensor (250- and 550-sheet tray pass-through) removal" on page 520**. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Remove the source tray insert, and then check if the following components are functional and free of damage: • Paper guides • Lift plate **Note:** Move the components or turn gears to check for proper mechanisms. Are the tray insert and its components functional and free of damage?	Go to step 13.	Go to step 12.
Step 12 Replace the tray insert. Does the problem remain?	Go to step 13.	The problem is solved.

Action	Yes	No
Step 13 Check the source tray separator pad for improper installation, contamination, wear, and damage. Is the separator pad properly installed and free of contamination, wear, and damage?	Go to step 15.	Go to step 14.
Step 14 Reinstall, clean, or replace the separator pad. See **"Separator pad removal" on page 477**. Does the problem remain?	Go to step 15.	The problem is solved.
Step 15 **a** Remove the left cover from the optional tray whose motor will be tested. See **"250- and 550-sheet tray left cover removal" on page 509**. **b** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Motor tests** **c** Select the motor (Pass-through (tray 3)), and then touch **Start**. Does the motor run?	Go to step 18.	Go to step 16.
Step 16 Reseat the cable on the motor and on the optional tray controller board. Does the problem remain?	Go to step 17.	The problem is solved.
Step 17 Replace the motor. See **"Motor (250- and 550-sheet tray transport) removal" on page 517**. Does the problem remain?	Go to step 18.	The problem is solved.
Step 18 **a** Remove the left cover from the optional tray whose motor will be tested. See **"250- and 550-sheet tray left cover removal" on page 509**. **b** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Motor tests** **c** Select the motor (Pick (tray 4)), and then touch **Start**. Does the motor run?	Go to step 20.	Go to step 19.
Step 19 Reseat the cable on the motor and on the optional tray controller board. Does the problem remain?	Go to step 20.	The problem is solved.

Action	Yes	No
Step 20 Check if the source tray paper feeder and its actuators are functional, properly installed, and free of damage. Are the paper feeder and its components functional, properly installed, and free of damage?	Go to step 22.	Go to step 21.
Step 21 Reinstall or replace the paper feeder. See **"250- and 550-sheet tray paper feeder removal" on page 517**. Does the problem remain?	Go to step 22.	The problem is solved.
Step 22 Make sure that the source tray controller board is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 23.	The problem is solved.
Step 23 Check the source tray controller board and its connector pins for damage. Are the tray controller board and its connectors free of damage?	Contact the next level of support.	Go to step 24.
Step 24 Replace the source tray controller board. See **"250- and 550-sheet tray controller board removal" on page 519**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Sensor (tray 4 pass-through) late-arriving or late-leaving jam service check

Action	Yes	No
Step 1 Check the paper path and trays for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 3.	Go to step 2.
Step 2 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Make sure that all the trays and tray inserts are properly installed. Does the problem remain?	Go to step 4.	The problem is solved.

Action	Yes	No
Step 4 Enter the Diagnostics menu, and then navigate to: **Input tray quick print** > **Tray 5** > **Single** Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Sensor tests** **b** Find the sensor (Pass-through (tray 4)). Does the sensor status change while toggling the sensor?	Go to step 9.	Go to step 6.
Step 6 **a** Remove the optional tray left cover. See **"250- and 550-sheet tray left cover removal" on page 509**. **b** Check the sensor cable on the optional tray controller board for proper connection. Is the cable properly connected?	Go to step 8.	Go to step 7.
Step 7 Reseat the cable. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Replace the sensor. See **"Sensor (250- and 550-sheet tray pass-through) removal" on page 520**. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Check the tray 5 pick roller for improper installation, contamination, and damage. **Note:** Make sure that the pick roller is fully pressed to its feeder shaft. A click will be heard indicating a proper engagement between the latches and the shaft. Is the pick roller properly installed and free of contamination and damage?	Go to step 11.	Go to step 10.
Step 10 Reinstall, clean, or replace the pick roller. Does the problem remain?	Go to step 11.	The problem is solved.

Action	Yes	No
Step 11 Remove the source tray insert, and then check if the following components are functional and free of damage: • Paper guides • Lift plate **Note:** Move the components or turn gears to check for proper mechanisms. Are the tray insert and its components functional and free of damage?	Go to step 13.	Go to step 12.
Step 12 Replace the tray insert. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 Check the separator pad for improper installation, contamination, wear, and damage. Is the separator pad properly installed and free of contamination, wear, and damage?	Go to step 15.	Go to step 14.
Step 14 Reinstall, clean, or replace the separator pad. Does the problem remain?	Go to step 15.	The problem is solved.
Step 15 **a** Remove the left cover from the optional tray whose motor will be tested. See **"250- and 550-sheet tray left cover removal" on page 509**. **b** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Motor tests** **c** Select the motor (Pass-through (tray 4)), and then touch **Start**. Does the motor run?	Go to step 18.	Go to step 16.
Step 16 Reseat the cable on the motor and on the optional tray controller board. Does the problem remain?	Go to step 17.	The problem is solved.
Step 17 Replace the motor (tray 4 transport). See **"Motor (250- and 550-sheet tray transport) removal" on page 517**. Does the problem remain?	Go to step 18.	The problem is solved.

Action	Yes	No
Step 18 **a** Remove the left cover from the optional tray whose motor will be tested. See **"250- and 550-sheet tray left cover removal" on page 509**. **b** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Motor tests** **c** Select the motor (Pick (tray 5)), and then touch **Start**. Does the motor run?	Go to step 21.	Go to step 19.
Step 19 Reseat the cable on the motor and on the optional tray controller board. Does the problem remain?	Go to step 20.	The problem is solved.
Step 20 Replace the tray 5 paper feeder. See **"250- and 550-sheet tray paper feeder removal" on page 517**. Does the problem remain?	Go to step 21.	The problem is solved.
Step 21 Make sure that the source tray controller board is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 22.	The problem is solved.
Step 22 Check the source tray controller board and its connector pins for damage. Are the tray controller board and its connectors free of damage?	Contact the next level of support.	The problem is solved.
Step 23 Replace the source tray controller board. See **"250- and 550-sheet tray controller board removal" on page 519**. Does the problem remain?	Contact the next level of support.	The problem is solved.

245 paper jams

245 paper jam messages

Error code	Description	Action
245.56	Paper fed from tray 5 was picked but it never reached the sensor (tray 4 pass-through).	See **"Tray 5 pick jam service check" on page 200**.
245.70	Motor (2100-sheet tray 5 elevator) does not turn on.	See **"2100-sheet tray elevator drive jam service check" on page 169**.
245.71	Motor (2100-sheet tray 5 elevator) does not turn off.	
245.72	Motor (2100-sheet tray 5 elevator) speed did not ramp up to the required level.	
245.73	Motor (2100-sheet tray 5 elevator) stalled.	
245.74	Motor (2100-sheet tray 5 elevator) ran too slow.	
245.75	Motor (2100-sheet tray 5 elevator) ran too fast.	
245.76	Motor (2100-sheet tray 5 elevator) ran too long.	
245.80	Motor (tray 5 pick/lift) does not turn on.	See **"Optional tray pick drive failure service check" on page 341**.
245.81	Motor (tray 5 pick/lift) does not turn off.	
245.82	Motor (tray 5 pick/lift) speed did not ramp up to the required level.	
245.83	Motor (tray 5 pick/lift) stalled.	
245.84	Motor (tray 5 pick/lift) ran too slow.	
245.85	Motor (tray 5 pick/lift) ran too fast.	
245.86	Motor (tray 5 pick/lift) moved too long.	
245.91	Paper remains detected at the sensor (tray 5 pass-through) after the printer is turned on.	See **"Sensor (tray 5 pass-through) static jam service check" on page 198**.

Sensor (tray 5 pass-through) static jam service check

Action	Yes	No
Step 1 Check the paper path and trays for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 3.	Go to step 2.
Step 2 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 3.	The problem is solved.

Action	Yes	No
Step 3 Make sure that all the trays and tray inserts are properly installed. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 **a** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Sensor tests** **b** Find the sensor (Pass-through (tray 5)). Does the sensor status change while toggling the sensor?	Go to step 9.	Go to step 5.
Step 5 **a** Remove the optional tray left cover. See **"250- and 550-sheet tray left cover removal" on page 509**. **b** Check the sensor cable on the optional tray controller board for proper connection. Is the cable properly connected?	Go to step 7.	Go to step 6.
Step 6 Reseat the cable. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Replace the sensor. See **"Sensor (250- and 550-sheet tray pass-through) removal" on page 520**. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 **a** Remove the optional tray left cover. See **"250- and 550-sheet tray left cover removal" on page 509**. **b** Make sure that the optional tray controller board is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Check the source tray controller board and its connector pins for damage. Are the tray controller board and its connectors free of damage?	Contact the next level of support.	Go to step 10.
Step 10 Replace the source tray controller board. See **"250- and 550-sheet tray controller board removal" on page 519**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Tray 5 pick jam service check

Action	Yes	No
Step 1 Check the paper path and trays for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 3.	Go to step 2.
Step 2 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Make sure that all the trays and tray inserts are properly installed. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Enter the Diagnostics menu, and then navigate to: **Input tray quick print** > **Tray 5** > **Single** Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Check the tray 5 pick roller for improper installation, contamination, and damage. **Note:** Make sure that the pick roller is fully pressed to its feeder shaft. A click will be heard indicating a proper engagement between the latches and the shaft. Is the pick roller properly installed and free of contamination and damage?	Go to step 7.	Go to step 6.
Step 6 Reinstall, clean, or replace the pick roller. See **"Pick roller removal" on page 516**. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 **a** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Sensor tests** **b** Find the sensor (Pass-through (tray 4)). Does the sensor status change while toggling the sensor?	Go to step 11.	Go to step 8.

Action	Yes	No
Step 8 **a** Remove the optional tray left cover. See **"250- and 550-sheet tray left cover removal" on page 509**. **b** Check the sensor cable on the optional tray controller board for proper connection. Is the cable properly connected?	Go to step 10.	Go to step 9.
Step 9 Reseat the cable. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Replace the sensor. See **"Sensor (250- and 550-sheet tray pass-through) removal" on page 520**. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Remove the tray 5 tray insert, and then check if the following components are functional and free of damage: • Paper guides • Lift plate **Note:** Move the components or turn gears to check for proper mechanisms. Are the tray insert and its components functional and free of damage?	Go to step 13.	Go to step 12.
Step 12 Replace the tray insert. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 Check the tray 5 separator pad for improper installation, contamination, wear, and damage. Is the separator pad properly installed and free of contamination, wear, and damage?	Go to step 15.	Go to step 14.
Step 14 Reinstall, clean, or replace the separator pad. See **"Separator pad removal" on page 477**. Does the problem remain?	Go to step 15.	The problem is solved.

Action	Yes	No
Step 15 **a** Remove the left cover from the optional tray whose motor will be tested. See **"250- and 550-sheet tray left cover removal" on page 509**. **b** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Motor tests** **c** Select the motor (Pass-through (tray 4)), and then touch **Start**. Does the motor run?	Go to step 18.	Go to step 16.
Step 16 Reseat the cable on the motor and on the optional tray controller board. Does the problem remain?	Go to step 17.	The problem is solved.
Step 17 Replace the motor. See **"Motor (250- and 550-sheet tray transport) removal" on page 517**. Does the problem remain?	Go to step 18.	The problem is solved.
Step 18 **a** Remove the left cover from the optional tray whose motor will be tested. See **"250- and 550-sheet tray left cover removal" on page 509**. **b** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Motor tests** **c** Select the motor (Pick (tray 5)), and then touch **Start**. Does the motor run?	Go to step 20.	Go to step 19.
Step 19 Reseat the cable on the motor and on the optional tray controller board. Does the problem remain?	Go to step 20.	The problem is solved.
Step 20 Check if the tray 5 paper feeder and its actuators are functional, properly installed, and free of damage. Are the paper feeder and its components functional, properly installed, and free of damage?	Go to step 22.	Go to step 21.
Step 21 Reinstall or replace the paper feeder. See **"250- and 550-sheet tray paper feeder removal" on page 517**. Does the problem remain?	Go to step 22.	The problem is solved.

Action	Yes	No
Step 22 Make sure that the tray 5 controller board is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 23.	The problem is solved.
Step 23 Check the source tray controller board and its connector pins for damage. Are the tray controller board and its connectors free of damage?	Contact the next level of support.	Go to step 24.
Step 24 Replace the source tray controller board. See **"250- and 550-sheet tray controller board removal" on page 519**. Does the problem remain?	Contact the next level of support.	The problem is solved.

40y paper jams

405–407 paper jam messages

Error code	Description	Action
405.13	The bin 1 diverter plunger did not reach the sensor (OE diverter plunger) on time.	See **"Output expander diverter drive jam service check" on page 204**.
405.15	The bin 1 diverter plunger did not clear the sensor (OE diverter plunger) on time.	
405.23	The bin 2 diverter plunger did not reach the sensor (OE diverter plunger) on time.	
405.25	The bin 2 diverter plunger did not clear the sensor (OE diverter plunger) on time.	
405.33	The bin 3 diverter plunger did not reach the sensor (OE diverter plunger) on time.	
405.35	The bin 3 diverter plunger did not clear the sensor (OE diverter plunger) on time.	
405.43	The bin 4 diverter plunger did not reach the sensor (OE diverter plunger) on time.	
405.45	The bin 4 diverter plunger did not clear the sensor (OE diverter plunger) on time.	
407.13	Paper going to bin 1 did not reach the sensor (OE pass-through) on time.	See **"Sensor (OE pass-through) late-arriving jam service check" on page 206**.
407.15	Paper going to bin 1 did not clear the sensor (OE pass-through) on time.	See **"Sensor (OE pass-through) late-leaving jam service check" on page 208**.

Error code	Description	Action
407.23	Paper going to bin 2 did not reach the sensor (OE pass-through) on time.	See **"Sensor (OE pass-through) late-arriving jam service check" on page 206**.
407.25	Paper going to bin 2 did not clear the sensor (OE pass-through) on time.	See **"Sensor (OE pass-through) late-leaving jam service check" on page 208**.
407.33	Paper going to bin 3 did not reach the sensor (OE pass-through) on time.	See **"Sensor (OE pass-through) late-arriving jam service check" on page 206**.
407.35	Paper going to bin 3 did not clear the sensor (OE pass-through) on time.	See **"Sensor (OE pass-through) late-leaving jam service check" on page 208**.
407.43	Paper going to bin 4 did not reach the sensor (OE pass-through) on time.	See **"Sensor (OE pass-through) late-arriving jam service check" on page 206**.
407.45	Paper going to bin 4 did not clear the sensor (OE pass-through) on time.	See **"Sensor (OE pass-through) late-leaving jam service check" on page 208**.

Output expander diverter drive jam service check

Action	Yes	No
Step 1 Make sure that all the optional bins are properly installed. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Open all optional bin doors, and then check the paper path and bins for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 4.	Go to step 3.
Step 3 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Clear the optional bin paper path rollers of any dirt and contamination. Does the problem remain?	Go to step 5.	The problem is solved.

Step 5
  a Enter the Diagnostics menu, and then navigate to:
    Output bin quick feed > **Feed to all bins**
  b Touch **Single** or **Continuous**.
 	
Does the problem remain?
	Go to step 6.	The problem is solved.

Action	Yes	No
Step 6 **a** Remove the output expander left cover. See **"Output expander left cover removal" on page 535**. **b** Reseat the cable on the motor (OE diverter) and on the output expander controller board. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Check the motor (OE diverter) for improper installation and damage. Is the motor properly installed and free of damage?	Go to step 9.	Go to step 8.
Step 8 Reinstall or replace the motor. See **"Motor (OE diverter) removal" on page 542**. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Reseat the cable on the sensor (OE diverter plunger) and on the output expander controller board. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Check the sensor for improper installation, contamination, and damage. Is the sensor properly installed and free of contamination and damage?	Go to step 12.	Go to step 11.
Step 11 Reinstall or replace the sensor. See **"Sensor (OE diverter plunger) removal" on page 549**. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 Check the output expander diverter plunger for improper installation and damage. Is the diverter plunger properly installed and free of damage?	Go to step 14.	Go to step 13.
Step 13 Reinstall or replace the diverter plunger. See **"Output expander diverter plunger assembly removal" on page 542**. Does the problem remain?	Go to step 14.	The problem is solved.

Action	Yes	No
Step 14 Make sure that the controller board of the affected optional bin is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 15.	The problem is solved.
Step 15 Check the affected controller board and its connector pins for damage. Are the bin controller board and its connectors free of damage?	Contact the next level of support.	Go to step 16.
Step 16 Replace the bin controller board. See **"Output expander controller board removal" on page 537**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Sensor (OE pass-through) late-arriving jam service check

Action	Yes	No
Step 1 Make sure that all the optional bins are properly installed. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Open all optional bin doors, and then check the paper path and bins for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 4.	Go to step 3.
Step 3 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Clear the optional bin paper path rollers of any dirt and contamination. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Output bin quick feed** > **Feed to all bins** **b** Touch **Single** or **Continuous**. Does the problem remain?	Go to step 6.	The problem is solved.

Action	Yes	No
Step 6 **a** Enter the Diagnostics menu, and then navigate to: **Output device adjustments/tests** > **Output device sensor tests** > **Output expander [x]** **Note:** [x] is the number of the affected bin. **b** Find the sensor (Pass-through). Does the sensor status change while toggling the sensor?	Go to step 10.	Go to step 7.
Step 7 **a** Remove the output expander left cover. See **"Output expander left cover removal" on page 535**. **b** Reseat the sensor cable on the output expander controller board. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Check the sensor for improper installation, contamination, and damage. Is the sensor properly installed and free of contamination and damage?	Go to step 10.	Go to step 9.
Step 9 Reinstall or replace the sensor. See **"Sensor (OE pass-through) removal" on page 555**. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Enter the Diagnostics menu, and then navigate to: **Output bin quick feed** Perform the feed test on each optional bin. Does the error occur in any of the optional bins?	Go to step 12.	Go to step 11.
Step 11 **a** Remove the optional bins. **b** Reinstall the optional bins one at a time, and then identify which bin is causing the error. Does the error occur in any of the optional bins?	Go to step 12.	Contact the next level of support.

Action	Yes	No
Step 12 **a** Remove the output expander left cover. See **"Output expander left cover removal" on page 535**. **b** Make sure that the controller board of the affected optional bin is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 Check the affected controller board and its connector pins for damage. Are the bin controller board and its connectors free of damage?	Contact the next level of support.	Go to step 14.
Step 14 Replace the bin controller board. See **"Output expander controller board removal" on page 537**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Sensor (OE pass-through) late-leaving jam service check

Action	Yes	No
Step 1 Make sure that all the optional bins are properly installed. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Open all optional bin doors, and then check the paper path and bins for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 4.	Go to step 3.
Step 3 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Clear the optional bin paper path rollers of any dirt and contamination. Does the problem remain?	Go to step 5.	The problem is solved.

Action	Yes	No
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Output bin quick feed** > **Feed to all bins** **b** Touch **Single** or **Continuous**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 **a** Enter the Diagnostics menu, and then navigate to: **Output device adjustments/tests** > **Output device sensor tests** > **Output expander [x]** **Note:** [x] is the number of the affected bin. **b** Find the sensor (Pass-through). Does the sensor status change while toggling the sensor?	Go to step 10.	Go to step 7.
Step 7 **a** Remove the output expander left cover. See **"Output expander left cover removal" on page 535**. **b** Reseat the sensor cable on the output expander controller board. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Check the sensor for improper installation, contamination, and damage. Is the sensor properly installed and free of contamination and damage?	Go to step 10.	Go to step 9.
Step 9 Reinstall or replace the sensor. See **"Sensor (OE pass-through) removal" on page 555**. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 **a** Remove the output expander left cover. See **"Output expander left cover removal" on page 535**. **b** Reseat the cable on the motor (OE transport) and on the output expander controller board. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Check the motor (OE transport) for improper installation and damage. Is the motor properly installed and free of damage?	Go to step 13.	Go to step 12.

Action	Yes	No
Step 12 Reinstall or replace the motor. See **"Motor (OE transport) removal" on page 545**. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 Check the output expander drive gear for damage. Is the drive gear free of damage?	Go to step 15.	Go to step 14.
Step 14 Replace the gear. See **"Output expander drive gear removal" on page 544**. Does the problem remain?	Go to step 15.	The problem is solved.
Step 15 **a** Remove the output expander right cover. See **"Output expander right cover removal" on page 533**. **b** Check the output expander drive belt for improper installation, wear, and damage. Is the drive belt properly installed and free of wear and damage?	Go to step 17.	Go to step 16.
Step 16 Reinstall or replace the drive belt. See **"Output expander drive belt removal" on page 553**. Does the problem remain?	Go to step 17.	The problem is solved.
Step 17 Enter the Diagnostics menu, and then navigate to: **Output bin quick feed** Perform the feed test on each optional bin. Does the error occur in any of the optional bins?	Go to step 19.	Go to step 18.
Step 18 **a** Remove the optional bins. **b** Reinstall the optional bins one at a time, and then identify which bin is causing the error. Does the error occur in any of the optional bins?	Go to step 19.	Contact the next level of support.
Step 19 Make sure that the controller board of the affected optional bin is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 20.	The problem is solved.

Action	Yes	No
Step 20 Check the affected controller board and its connector pins for damage. Are the bin controller board and its connectors free of damage?	Contact the next level of support.	Go to step 21.
Step 21 Replace the bin controller board. See **"Output expander controller board removal" on page 537**. Does the problem remain?	Contact the next level of support.	The problem is solved.

410–412 paper jams

410–412 paper jam messages

Error code	Description	Action
410.13	The bin 1 diverter did not reach the sensor (HCOE diverter) on time.	See **"HCOE diverter drive jam service check" on page 212**.
410.15	The bin 1 diverter did not clear the sensor (HCOE diverter) on time.	
411.50	Motor (HCOE transport) does not turn on.	See **"HCOE transport drive jam service check" on page 214**.
411.51	Motor (HCOE transport) does not turn off.	
411.52	Motor (HCOE transport) did not ramp up to the required level.	
411.53	Motor (HCOE transport) stalled.	
411.54	Motor (HCOE transport) ran too slow.	
411.55	Motor (HCOE transport) ran too fast.	
412.11	Paper remains detected at the sensor (HCOE pass-through) after the printer is turned on.	See **"Sensor (HCOE pass-through) static jam service check" on page 216**.
412.13	Paper going to bin 1 did not reach the sensor (HCOE pass-through) on time.	See **"Sensor (HCOE pass-through) late-arriving or late-leaving jam service check" on page 217**.
412.15	Paper going to bin 1 did not clear the sensor (HCOE pass-through) on time.	

HCOE diverter drive jam service check

Action	Yes	No
Step 1 Make sure that all the optional bins are properly installed. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Open all optional bin doors, and then check the paper path and bins for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 4.	Go to step 3.
Step 3 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Clear the optional bin paper path rollers of any dirt and contamination. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Output bin quick feed** > **Feed to all bins** **b** Touch **Single** or **Continuous**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 **a** Remove the HCOE left cover. See **"HCOE left cover removal" on page 563**. **b** Reseat the cable on the motor (HCOE diverter) and on the HCOE controller board. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Check the motor (HCOE diverter) for improper installation and damage. Is the motor properly installed and free of damage?	Go to step 9.	Go to step 8.
Step 8 Reinstall or replace the motor. See **"Motor (HCOE diverter) removal" on page 569**. Does the problem remain?	Go to step 9.	The problem is solved.

Action	Yes	No
Step 9 Reseat the cable on the sensor (HCOE diverter) and on the HCOE controller board. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Check the sensor (HCOE diverter) for improper installation, contamination, and damage. Is the sensor properly installed and free of contamination and damage?	Go to step 12.	Go to step 11.
Step 11 Reinstall or replace the sensor. See **"Sensor (HCOE diverter) removal" on page 583**. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 Check the HCOE diverter plunger for improper installation and damage. Is the diverter plunger properly installed and free of damage?	Go to step 14.	Go to step 13.
Step 13 Reinstall or replace the diverter plunger. See **"HCOE diverter plunger assembly removal" on page 577**. Does the problem remain?	Go to step 14.	The problem is solved.
Step 14 Make sure that the controller board of the affected optional bin is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 15.	The problem is solved.
Step 15 Check the affected controller board and its connector pins for damage. Are the bin controller board and its connectors free of damage?	Contact the next level of support.	Go to step 16.
Step 16 Replace the bin controller board. See **"HCOE controller board removal" on page 565**. Does the problem remain?	Contact the next level of support.	The problem is solved.

HCOE transport drive jam service check

Action	Yes	No
Step 1 Make sure that all the optional bins are properly installed. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Open all optional bin doors, and then check the paper path and bins for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 4.	Go to step 3.
Step 3 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Clear the optional bin paper path rollers of any dirt and contamination. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Output bin quick feed** > **Feed to all bins** **b** Touch **Single** or **Continuous**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 **a** Remove the HCOE left cover. See **"HCOE left cover removal" on page 563**. **b** Reseat the cable on the motor (HCOE transport) and on the HCOE controller board. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Check the motor (HCOE transport) for improper installation and damage. Is the motor properly installed and free of damage?	Go to step 9.	Go to step 8.
Step 8 Reinstall or replace the motor. See **"Motor (HCOE transport) removal" on page 581**. Does the problem remain?	Go to step 9.	The problem is solved.

Action	Yes	No
Step 9 Check the HCOE drive gear for damage. Is the drive gear free of damage?	Go to step 11.	Go to step 10.
Step 10 Replace the gear. See **"HCOE drive gear assembly removal" on page 579**. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Check the HCOE drive belt for improper installation, wear, and damage. Is the drive belt properly installed and free of wear and damage?	Go to step 13.	Go to step 12.
Step 12 Reinstall or replace the drive belt. See **"HCOE drive belt removal" on page 574**. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 Check the HCOE belt tensioner for improper installation and damage. Is the belt tensioner properly installed and free of damage?	Go to step 15.	Go to step 14.
Step 14 Reinstall or replace the belt tensioner. See **"HCOE belt tensioner removal" on page 576**. Does the problem remain?	Go to step 15.	The problem is solved.
Step 15 Make sure that the controller board of the affected optional bin is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 16.	The problem is solved.
Step 16 Check the affected controller board and its connector pins for damage. Are the bin controller board and its connectors free of damage?	Contact the next level of support.	Go to step 17.
Step 17 Replace the bin controller board. See **"HCOE controller board removal" on page 565**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Diagnostics and troubleshooting

Sensor (HCOE pass-through) static jam service check

Action	Yes	No
Step 1 Make sure that all the optional bins are properly installed. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Open all optional bin doors, and then check the paper path and bins for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 4.	Go to step 3.
Step 3 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Clear the optional bin paper path rollers of any dirt and contamination. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Output bin quick feed** > **Feed to all bins** **b** Touch **Single** or **Continuous**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 **a** Enter the Diagnostics menu, and then navigate to: **Output device adjustments/tests** > **Output device sensor tests** > **High capacity output expander** **b** Find the sensor (Pass-through). Does the sensor status change while toggling the sensor?	Go to step 10.	Go to step 7.
Step 7 **a** Remove the HCOE left cover. See **"HCOE left cover removal" on page 563**. **b** Reseat the sensor cable on the HCOE controller board. Does the problem remain?	Go to step 8.	The problem is solved.

Action	Yes	No
Step 8 Check the sensor for improper installation, contamination, and damage. Is the sensor properly installed and free of contamination and damage?	Go to step 10.	Go to step 9.
Step 9 Reinstall or replace the sensor. See **"Sensor (HCOE pass‑through) removal" on page 591**. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 a Remove the HCOE left cover. See **"HCOE left cover removal" on page 563**. b Make sure that the controller board of the affected optional bin is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Check the affected controller board and its connector pins for damage. Are the bin controller board and its connectors free of damage?	Contact the next level of support.	Go to step 12.
Step 12 Replace the bin controller board. See **"HCOE controller board removal" on page 565**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Sensor (HCOE pass-through) late-arriving or late-leaving jam service check

Action	Yes	No
Step 1 Make sure that all the optional bins are properly installed. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Open all optional bin doors, and then check the paper path and bins for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 4.	Go to step 3.

Action	Yes	No
Step 3 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Clear the optional bin paper path rollers of any dirt and contamination. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Output bin quick feed** > **Feed to all bins** **b** Touch **Single** or **Continuous**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 **a** Enter the Diagnostics menu, and then navigate to: **Output device adjustments/tests** > **Output device sensor tests** > **High capacity output expander** **b** Find the sensor (Pass-through). Does the sensor status change while toggling the sensor?	Go to step 10.	Go to step 7.
Step 7 **a** Remove the HCOE left cover. See **"HCOE left cover removal" on page 563**. **b** Reseat the sensor cable on the HCOE controller board. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Check the sensor for improper installation, contamination, and damage. Is the sensor properly installed and free of contamination and damage?	Go to step 10.	Go to step 9.
Step 9 Reinstall or replace the sensor. See **"Sensor (HCOE pass-through) removal" on page 591**. Does the problem remain?	Go to step 10.	The problem is solved.

Action	Yes	No
Step 10 **a** Remove the HCOE left cover. See **"HCOE left cover removal" on page 563**. **b** Reseat the cable on the motor (HCOE diverter) and on the HCOE controller board. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Check the motor (HCOE diverter) for improper installation and damage. Is the motor properly installed and free of damage?	Go to step 13.	Go to step 12.
Step 12 Reinstall or replace the motor. See **"Motor (HCOE diverter) removal" on page 569**. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 Check the HCOE diverter plunger for improper installation and damage. Is the diverter plunger properly installed and free of damage?	Go to step 15.	Go to step 14.
Step 14 Reinstall or replace the diverter plunger. See **"HCOE diverter plunger assembly removal" on page 577**. Does the problem remain?	Go to step 15.	The problem is solved.
Step 15 Reseat the cable on the motor (HCOE transport) and on the HCOE controller board. Does the problem remain?	Go to step 16.	The problem is solved.
Step 16 Check the motor (HCOE transport) for improper installation and damage. Is the motor properly installed and free of damage?	Go to step 18.	Go to step 17.
Step 17 Reinstall or replace the motor. See **"Motor (HCOE transport) removal" on page 581**. Does the problem remain?	Go to step 18.	The problem is solved.

Action	Yes	No
Step 18 Check the HCOE drive gear for damage. Is the drive gear free of damage?	Go to step 20.	Go to step 19.
Step 19 Replace the gear. See **"HCOE drive gear assembly removal" on page 579**. Does the problem remain?	Go to step 20.	The problem is solved.
Step 20 Check the HCOE drive belt for improper installation, wear, and damage. Is the drive belt properly installed and free of wear and damage?	Go to step 22.	Go to step 21.
Step 21 Reinstall or replace the drive belt. See **"HCOE drive belt removal" on page 574**. Does the problem remain?	Go to step 22.	The problem is solved.
Step 22 Make sure that the controller board of the affected optional bin is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 23.	The problem is solved.
Step 23 Check the affected controller board and its connector pins for damage. Are the bin controller board and its connectors free of damage?	Contact the next level of support.	Go to step 24.
Step 24 Replace the bin controller board. See **"HCOE controller board removal" on page 565**. Does the problem remain?	Contact the next level of support.	The problem is solved.

415–418 paper jams

415–418 paper jam messages

Error code	Description	Action
415.13	The bin 1 diverter plunger did not reach the sensor (OE diverter plunger) on time.	See **"Mailbox diverter drive jam service check" on page 223**.
415.15	The bin 1 diverter plunger did not clear the sensor (OE diverter plunger) on time.	
415.23	The bin 2 diverter plunger did not reach the sensor (OE diverter plunger) on time.	
415.25	The bin 2 diverter plunger did not clear the sensor (OE diverter plunger) on time.	
415.33	The bin 3 diverter plunger did not reach the sensor (OE diverter plunger) on time.	
415.35	The bin 3 diverter plunger did not clear the sensor (OE diverter plunger) on time.	
416.52	The bin 1 motor (mailbox transport) did not ramp up to the required level.	See **"Mailbox transport drive jam service check" on page 225**.
416.53	The bin 1 motor (mailbox transport) stalled.	
416.54	The bin 1 motor (mailbox transport) ran too slow.	
416.55	The bin 1 motor (mailbox transport) ran too fast.	
416.62	The bin 2 motor (mailbox transport) did not ramp up to the required level.	
416.63	The bin 2 motor (mailbox transport) stalled.	
416.64	The bin 2 motor (mailbox transport) ran too slow.	
416.65	The bin 2 motor (mailbox transport) ran too fast.	
416.72	The bin 3 motor (mailbox transport) did not ramp up to the required level.	See **"Mailbox transport drive jam service check" on page 225**.
416.73	The bin 3 motor (mailbox transport) stalled.	
416.74	The bin 3 motor (mailbox transport) ran too slow.	
416.75	The bin 3 motor (mailbox transport) ran too fast.	

Error code	Description	Action
417.11	Paper remains detected at the bin 1 sensor (mailbox pass-through 1) after the printer is turned on.	See **"Sensor (mailbox pass-through 1) static jam service check" on page 226**.
417.13	Paper did not reach the bin 1 sensor (mailbox pass-through 1) on time.	See **"Sensor (mailbox pass-through 1) late-arriving or late-leaving jam service check" on page 228**.
417.15	Paper did not clear the bin 1 sensor (mailbox pass-through 1) on time.	
417.21	Paper remains detected at the bin 2 sensor (mailbox pass-through 1) after the printer is turned on.	See **"Sensor (mailbox pass-through 1) static jam service check" on page 226**.
417.23	Paper did not reach the bin 2 sensor (mailbox pass-through 1) on time.	See **"Sensor (mailbox pass-through 1) late-arriving or late-leaving jam service check" on page 228**.
417.25	Paper did not clear the bin 2 sensor (mailbox pass-through 1) on time.	
417.31	Paper remains detected at the bin 3 sensor (mailbox pass-through 1) after the printer is turned on.	See **"Sensor (mailbox pass-through 1) static jam service check" on page 226**.
417.33	Paper did not reach the bin 3 sensor (mailbox pass-through 1) on time.	See **"Sensor (mailbox pass-through 1) late-arriving or late-leaving jam service check" on page 228**.
417.35	Paper did not clear the bin 3 sensor (mailbox pass-through 1) on time.	
418.11	Paper remains detected at the bin 1 sensor (mailbox pass-through 2) after the printer is turned on.	See **"Sensor (mailbox pass-through 2) static jam service check" on page 231**.
418.13	Paper did not reach the bin 1 sensor (mailbox pass-through 2) on time.	See **"Sensor (mailbox pass-through 2) late-arriving or late-leaving jam service check" on page 232**.
418.15	Paper did not clear the bin 1 sensor (mailbox pass-through 2) on time.	
418.21	Paper remains detected at the bin 2 sensor (mailbox pass-through 2) after the printer is turned on.	See **"Sensor (mailbox pass-through 2) static jam service check" on page 231**.
418.23	Paper did not reach the bin 2 sensor (mailbox pass-through 2) on time.	See **"Sensor (mailbox pass-through 2) late-arriving or late-leaving jam service check" on page 232**.
418.25	Paper did not clear the bin 2 sensor (mailbox pass-through 2) on time.	
418.31	Paper remains detected at the bin 3 sensor (mailbox pass-through 2) after the printer is turned on.	See **"Sensor (mailbox pass-through 2) static jam service check" on page 231**.
418.33	Paper did not reach the bin 3 sensor (mailbox pass-through 2) on time.	See **"Sensor (mailbox pass-through 2) late-arriving or late-leaving jam service check" on page 232**.
418.35	Paper did not clear the bin 3 sensor (mailbox pass-through 2) on time.	

Mailbox diverter drive jam service check

Action	Yes	No
Step 1 Make sure that all the optional bins are properly installed. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Open all optional bin doors, and then check the paper path and bins for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 4.	Go to step 3.
Step 3 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Clear the optional bin paper path rollers of any dirt and contamination. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Output bin quick feed** > **Feed to all bins** **b** Touch **Single** or **Continuous**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 **a** Remove the mailbox left cover. See **"Mailbox left cover removal" on page 667**. **b** Reseat the cable on the motor (mailbox diverter) and on the mailbox controller board. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Check the motor (mailbox diverter) for improper installation and damage. Is the motor properly installed and free of damage?	Go to step 9.	Go to step 8.
Step 8 Reinstall or replace the motor. See **"Motor (mailbox diverter) removal" on page 685**. Does the problem remain?	Go to step 9.	The problem is solved.

Action	Yes	No
Step 9 Reseat the cable on the sensor (mailbox diverter plunger) and on the mailbox controller board. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Check the sensor for improper installation, contamination, and damage. Is the sensor properly installed and free of contamination and damage?	Go to step 12.	Go to step 11.
Step 11 Reinstall or replace the sensor. See **"Sensor (mailbox diverter plunger) removal" on page 681**. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 Check the mailbox diverter plunger for improper installation and damage. Is the diverter plunger properly installed and free of damage?	Go to step 14.	Go to step 13.
Step 13 Reinstall or replace the diverter plunger. See **"Mailbox diverter plunger assembly removal" on page 671**. Does the problem remain?	Go to step 14.	The problem is solved.
Step 14 Make sure that the controller board of the affected optional bin is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 15.	The problem is solved.
Step 15 Check the affected controller board and its connector pins for damage. Are the bin controller board and its connectors free of damage?	Contact the next level of support.	Go to step 16.
Step 16 Replace the bin controller board. See **"Mailbox controller board removal" on page 680**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Mailbox transport drive jam service check

Action	Yes	No
Step 1 Make sure that all the optional bins are properly installed. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Open all optional bin doors, and then check the paper path and bins for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 4.	Go to step 3.
Step 3 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Clear the optional bin paper path rollers of any dirt and contamination. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Output bin quick feed** > **Feed to all bins** **b** Touch **Single** or **Continuous**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 **a** Remove the mailbox left cover. See **"Mailbox left cover removal" on page 667**. **b** Reseat the cable on the motor (mailbox transport) and on the mailbox controller board. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Check the motor (mailbox transport) for improper installation and damage. Is the motor properly installed and free of damage?	Go to step 9.	Go to step 8.
Step 8 Reinstall or replace the motor. See **"Motor (mailbox transport) removal" on page 679**. Does the problem remain?	Go to step 9.	The problem is solved.

Action	Yes	No
Step 9 Check the mailbox transport drive gear for damage. Is the drive gear free of damage?	Go to step 11.	Go to step 10.
Step 10 Replace the gear. See **"Mailbox transport drive gear removal" on page 676**. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Make sure that the controller board of the affected optional bin is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 Check the affected controller board and its connector pins for damage. Are the bin controller board and its connectors free of damage?	Contact the next level of support.	Go to step 13.
Step 13 Replace the bin controller board. See **"Mailbox controller board removal" on page 680**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Sensor (mailbox pass-through 1) static jam service check

Action	Yes	No
Step 1 Make sure that all the optional bins are properly installed. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Open all optional bin doors, and then check the paper path and bins for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 4.	Go to step 3.
Step 3 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 4.	The problem is solved.

Action	Yes	No
Step 4 Clear the optional bin paper path rollers of any dirt and contamination. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Output bin quick feed** > **Feed to all bins** **b** Touch **Single** or **Continuous**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 **a** Remove the mailbox left cover. See **"Mailbox left cover removal" on page 667**. **b** Reseat the cable of the sensor (mailbox pass-through 1) on the mailbox controller board. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Check the sensor (mailbox pass-through 1) for improper installation, contamination, and damage. Is the sensor properly installed and free of contamination and damage?	Go to step 9.	Go to step 8.
Step 8 Reinstall or replace the sensor. See **"Sensor (mailbox pass-through) removal" on page 706**. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Make sure that the controller board of the affected optional bin is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Check the affected controller board and its connector pins for damage. Are the bin controller board and its connectors free of damage?	Contact the next level of support.	Go to step 11.
Step 11 Replace the bin controller board. See **"Mailbox controller board removal" on page 680**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Sensor (mailbox pass-through 1) late-arriving or late-leaving jam service check

Action	Yes	No
Step 1 Make sure that all the optional bins are properly installed. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Open all optional bin doors, and then check the paper path and bins for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 4.	Go to step 3.
Step 3 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Clear the optional bin paper path rollers of any dirt and contamination. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Output bin quick feed** > **Feed to all bins** **b** Touch **Single** or **Continuous**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 **a** Remove the mailbox left cover. See **"Mailbox left cover removal" on page 667**. **b** Reseat the cable of the sensor (mailbox pass-through 1) on the mailbox controller board. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Check the sensor (mailbox pass-through 1) for improper installation, contamination, and damage. Is the sensor properly installed and free of contamination and damage?	Go to step 9.	Go to step 8.
Step 8 Reinstall or replace the sensor. See **"Sensor (mailbox pass-through) removal" on page 706**. Does the problem remain?	Go to step 9.	The problem is solved.

Action	Yes	No
Step 9 Check the mailbox rear door for improper installation and damage. Is the door properly installed and free of damage?	Go to step 11.	Go to step 10.
Step 10 Reinstall or replace the door. See **"Mailbox rear door removal" on page 662**. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Check the mailbox middle diverter for improper installation and damage. Is the diverter properly installed and free of damage?	Go to step 13.	Go to step 12.
Step 12 Reinstall or replace the diverter. See **"Mailbox middle diverter removal" on page 701**. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 Check the mailbox top diverter for improper installation and damage. Is the diverter properly installed and free of damage?	Go to step 15.	Go to step 14.
Step 14 Reinstall or replace the diverter. See **"Mailbox top diverter removal" on page 696**. Does the problem remain?	Go to step 15.	The problem is solved.
Step 15 Reseat the cable on the motor (mailbox transport) and on the mailbox controller board. Does the problem remain?	Go to step 16.	The problem is solved.
Step 16 Check the motor (mailbox transport) for improper installation and damage. Is the motor properly installed and free of damage?	Go to step 18.	Go to step 17.
Step 17 Reinstall or replace the motor. See **"Motor (mailbox transport) removal" on page 679**. Does the problem remain?	Go to step 18.	The problem is solved.

Action	Yes	No
Step 18 Check the mailbox belts for improper installation, wear, and damage. Are the belts properly installed and free of wear and damage?	Go to step 20.	Go to step 19.
Step 19 Reinstall or replace the affected belt. See **"Mailbox belt removal" on page 691**. Does the problem remain?	Go to step 20.	The problem is solved.
Step 20 Enter the Diagnostics menu, and then navigate to: **Output bin quick feed** Perform the feed test on each optional bin. Does the error occur in any of the optional bins?	Go to step 22.	Go to step 21.
Step 21 **a** Remove the optional bins. **b** Reinstall the optional bins one at a time, and then identify which bin is causing the error. Does the error occur in any of the optional bins?	Go to step 22.	Contact the next level of support.
Step 22 Make sure that the controller board of the affected optional bin is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 23.	The problem is solved.
Step 23 Check the affected controller board and its connector pins for damage. Are the bin controller board and its connectors free of damage?	Contact the next level of support.	Go to step 24.
Step 24 Replace the bin controller board. See **"Mailbox controller board removal" on page 680**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Sensor (mailbox pass-through 2) static jam service check

Action	Yes	No
Step 1 Make sure that all the optional bins are properly installed. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Open all optional bin doors, and then check the paper path and bins for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 4.	Go to step 3.
Step 3 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Clear the optional bin paper path rollers of any dirt and contamination. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Output bin quick feed** > **Feed to all bins** **b** Touch **Single** or **Continuous**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 **a** Enter the Diagnostics menu, and then navigate to: **Output device adjustments/tests** > **Output device sensor tests** > **Mailbox [x]** **Note:** [x] is the number of the affected bin. **b** Find the sensor (Pass-through). Does the sensor status change while toggling the sensor?	Go to step 10.	Go to step 7.
Step 7 **a** Remove the mailbox left cover. See **"Mailbox left cover removal" on page 667**. **b** Reseat the cable of the sensor (mailbox pass-through 2) on the mailbox controller board. Does the problem remain?	Go to step 8.	The problem is solved.

Action	Yes	No
Step 8 Check the sensor (mailbox pass-through 2) for improper installation, contamination, and damage. Is the sensor properly installed and free of contamination and damage?	Go to step 10.	Go to step 9.
Step 9 Reinstall or replace the sensor. See **"Sensor (mailbox pass-through) removal" on page 706**. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 **a** Remove the mailbox left cover. See **"Mailbox left cover removal" on page 667**. **b** Make sure that the controller board of the affected optional bin is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Check the affected controller board and its connector pins for damage. Are the bin controller board and its connectors free of damage?	Contact the next level of support.	Go to step 12.
Step 12 Replace the bin controller board. See **"Mailbox controller board removal" on page 680**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Sensor (mailbox pass-through 2) late-arriving or late-leaving jam service check

Action	Yes	No
Step 1 Make sure that all the optional bins are properly installed. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Open all optional bin doors, and then check the paper path and bins for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 4.	Go to step 3.

Action	Yes	No
Step 3 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Clear the optional bin paper path rollers of any dirt and contamination. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Output bin quick feed** > **Feed to all bins** **b** Touch **Single** or **Continuous**. Does the problem remain?	Go to step 6.	The problem is solved.

Step 6
a Enter the Diagnostics menu, and then navigate to:
  Output device adjustments/tests > **Output device sensor tests** > **Mailbox [x]**
  Note: [x] is the number of the affected bin.
b Find the sensor (Pass-through).
 	
Does the sensor status change while toggling the sensor?
	Go to step 10.	Go to step 7.

Step 7 **a** Remove the mailbox left cover. See **"Mailbox left cover removal" on page 667**. **b** Reseat the cable of the sensor (mailbox pass-through 2) on the mailbox controller board. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Check the sensor (mailbox pass-through 2) for improper installation, contamination, and damage. Is the sensor properly installed and free of contamination and damage?	Go to step 10.	Go to step 9.
Step 9 Reinstall or replace the sensor. See **"Sensor (mailbox pass-through) removal" on page 706**. Does the problem remain?	Go to step 10.	The problem is solved.

Action	Yes	No
Step 10 Check the mailbox rear door for improper installation and damage. Is the door properly installed and free of damage?	Go to step 12.	Go to step 11.
Step 11 Reinstall or replace the door. See **"Mailbox rear door removal" on page 662**. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 Check the mailbox middle diverter for improper installation and damage. Is the diverter properly installed and free of damage?	Go to step 14.	Go to step 13.
Step 13 Reinstall or replace the diverter. See **"Mailbox middle diverter removal" on page 701**. Does the problem remain?	Go to step 14.	The problem is solved.
Step 14 Check the mailbox top diverter for improper installation and damage. Is the diverter properly installed and free of damage?	Go to step 16.	Go to step 15.
Step 15 Reinstall or replace the diverter. See **"Mailbox top diverter removal" on page 696**. Does the problem remain?	Go to step 16.	The problem is solved.
Step 16 **a** Remove the mailbox left cover. See **"Mailbox left cover removal" on page 667**. **b** Reseat the cable on the motor (mailbox transport) and on the mailbox controller board. Does the problem remain?	Go to step 17.	The problem is solved.
Step 17 Check the motor (mailbox transport) for improper installation and damage. Is the motor properly installed and free of damage?	Go to step 19.	Go to step 18.

Action	Yes	No
Step 18 Reinstall or replace the motor. See **"Motor (mailbox transport) removal" on page 679**. Does the problem remain?	Go to step 19.	The problem is solved.
Step 19 Check the mailbox belts for improper installation, wear, and damage. Are the belts properly installed and free of wear and damage?	Go to step 21.	Go to step 20.
Step 20 Reinstall or replace the affected belt. See **"Mailbox belt removal" on page 691**. Does the problem remain?	Go to step 21.	The problem is solved.
Step 21 Enter the Diagnostics menu, and then navigate to: **Output bin quick feed** Perform the feed test on each optional bin. Does the error occur in any of the optional bins?	Go to step 23.	Go to step 22.
Step 22 **a** Remove the optional bins. **b** Reinstall the optional bins one at a time, and then identify which bin is causing the error. Does the error occur in any of the optional bins?	Go to step 23.	Contact the next level of support.
Step 23 Make sure that the controller board of the affected optional bin is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 24.	The problem is solved.
Step 24 Check the affected controller board and its connector pins for damage. Are the bin controller board and its connectors free of damage?	Contact the next level of support.	Go to step 25.
Step 25 Replace the bin controller board. See **"Mailbox controller board removal" on page 680**. Does the problem remain?	Contact the next level of support.	The problem is solved.

420 paper jams

420 paper jam messages

Error code	Description	Action
420.11	Paper remains detected at the bin 1 sensor (staple finisher pass-through) after the printer is turned on.	See **"Sensor (staple finisher pass-through) static jam service check" on page 237**.
420.11	Paper remains detected at the bin 1 sensor (HPU leading edge) after the printer is turned on.	See **"Sensor (HPU leading edge) jam service check" on page 246**.
420.12	Paper going to bin 1 was detected earlier than expected at the sensor (staple finisher pass-through).	See **"Sensor (staple finisher pass-through) early- or late-arriving jam service check" on page 239**.
420.12	Paper going to bin 1 was detected earlier than expected at the sensor (HPU leading edge).	See **"Sensor (HPU leading edge) jam service check" on page 246**.
420.13	Paper going to bin 1 did not reach the sensor (staple finisher pass-through) on time.	See **"Sensor (staple finisher pass-through) early- or late-arriving jam service check" on page 239**.
420.13	Paper going to bin 1 did not reach the sensor (HPU leading edge) on time.	See **"Sensor (HPU leading edge) jam service check" on page 246**.
420.15	Paper going to bin 1 did not clear the sensor (staple finisher pass-through) on time.	See **"Sensor (staple finisher pass-through) late leaving jam service check" on page 243**.
420.15	Paper going to bin 1 did not clear the sensor (HPU leading edge) on time.	See **"Sensor (HPU leading edge) jam service check" on page 246**.
420.21	Paper remains detected at the bin 2 sensor (staple finisher pass-through) after the printer is turned on.	See **"Sensor (staple finisher pass-through) static jam service check" on page 237**.
420.21	Paper remains detected at the bin 2 sensor (HPU leading edge) after the printer is turned on.	See **"Sensor (HPU leading edge) jam service check" on page 246**.
420.22	Paper going to bin 2 was detected earlier than expected at the sensor (staple finisher pass-through).	See **"Sensor (staple finisher pass-through) early- or late-arriving jam service check" on page 239**.
420.22	Paper going to bin 2 was detected earlier than expected at the sensor (HPU leading edge).	See **"Sensor (HPU leading edge) jam service check" on page 246**.
420.23	Paper going to bin 2 did not reach the sensor (staple finisher pass-through) on time.	See **"Sensor (staple finisher pass-through) early- or late-arriving jam service check" on page 239**.
420.23	Paper going to bin 2 did not reach the sensor (HPU leading edge) on time.	See **"Sensor (HPU leading edge) jam service check" on page 246**.

Error code	Description	Action
420.25	Paper going to bin 2 did not clear the sensor (staple finisher pass-through) on time.	See **"Sensor (staple finisher pass-through) late leaving jam service check" on page 243**.
420.25	Paper going to bin 2 did not clear the sensor (HPU leading edge) on time.	See **"Sensor (HPU leading edge) jam service check" on page 246**.
420.54	The bin 1 motor (staple finisher transport) ran too slow.	See **"Staple finisher transport drive failure service check" on page 383**.
420.54	The bin 1 motor (SHPF transport) ran too slow.	See **"SHPF transport drive jam service check" on page 247**.
420.55	The bin 1 motor (staple finisher transport) ran too fast.	See **"Staple finisher transport drive failure service check" on page 383**.
420.55	The bin 1 motor (SHPF transport) ran too fast.	See **"SHPF transport drive jam service check" on page 247**.
420.64	The bin 2 motor (staple finisher transport) ran too slow.	See **"Staple finisher transport drive failure service check" on page 383**.
420.64	The bin 2 motor (SHPF transport) ran too slow.	See **"SHPF transport drive jam service check" on page 247**.
420.65	The bin 2 motor (staple finisher transport) ran too fast.	See **"Staple finisher transport drive failure service check" on page 383**.
420.65	The bin 2 motor (SHPF transport) ran too fast.	See **"SHPF transport drive jam service check" on page 247**.

Sensor (staple finisher pass-through) static jam service check

Action	Yes	No
Step 1 Make sure that all the optional bins are properly installed. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Open all optional bin doors, and then check the paper path and bins for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 4.	Go to step 3.
Step 3 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 4.	The problem is solved.

Action	Yes	No
Step 4 Clear the optional bin paper path rollers of any dirt and contamination. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Output bin quick feed** > **Feed to all bins** **b** Touch **Single** or **Continuous**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 **a** Enter the Diagnostics menu, and then navigate to: **Output device adjustments/tests** > **Output device sensor tests** > **Stapler** **b** Find the sensor (Pass-through). Does the sensor status change while toggling the sensor?	Go to step 10.	Go to step 7.
Step 7 **a** Remove the staple finisher left cover. See **"Staple finisher left cover removal" on page 597**. **b** Reseat the cable of the sensor (staple finisher pass-through) on the staple finisher controller board. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Check the sensor for improper installation, contamination, and damage. Is the sensor properly installed and free of contamination and damage?	Go to step 10.	Go to step 9.
Step 9 Reinstall or replace the sensor. See **"Sensor (staple finisher pass-through) removal" on page 656**. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Check the staple finisher rear door for improper installation and damage. Is the door properly installed and free of damage?	Go to step 12.	Go to step 11.

Action	Yes	No
Step 11 Reinstall or replace the door. See **"Staple finisher rear door removal" on page 595**. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 Make sure that the controller board of the affected optional bin is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 Check the affected controller board and its connector pins for damage. Are the bin controller board and its connectors free of damage?	Contact the next level of support.	Go to step 14.
Step 14 Replace the bin controller board. See **"Staple finisher controller board removal" on page 603**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Sensor (staple finisher pass-through) early- or late-arriving jam service check

Action	Yes	No
Step 1 Make sure that all the optional bins are properly installed. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Open all optional bin doors, and then check the paper path and bins for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 4.	Go to step 3.
Step 3 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Clear the optional bin paper path rollers of any dirt and contamination. Does the problem remain?	Go to step 5.	The problem is solved.

Action	Yes	No
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Output bin quick feed** > **Feed to all bins** **b** Touch **Single** or **Continuous**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 **a** Enter the Diagnostics menu, and then navigate to: **Output device adjustments/tests** > **Output device sensor tests** > **Stapler** **b** Find the sensor (Pass-through). Does the sensor status change while toggling the sensor?	Go to step 10.	Go to step 7.
Step 7 **a** Remove the staple finisher left cover. See **"Staple finisher left cover removal" on page 597**. **b** Reseat the cable of the sensor (staple finisher pass-through) on the staple finisher controller board. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Check the sensor for improper installation, contamination, and damage. Is the sensor properly installed and free of contamination and damage?	Go to step 10.	Go to step 9.
Step 9 Reinstall or replace the sensor. See **"Sensor (staple finisher pass-through) removal" on page 656**. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Check the staple finisher rear door for improper installation and damage. Is the door properly installed and free of damage?	Go to step 12.	Go to step 11.
Step 11 Reinstall or replace the door. See **"Staple finisher rear door removal" on page 595**. Does the problem remain?	Go to step 12.	The problem is solved.

Action	Yes	No
Step 12 **a** Remove the staple finisher left cover. See **"Staple finisher left cover removal" on page 597**. **b** Reseat the cable on the sensor (staple finisher diverter plunger) and on the staple finisher controller board. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 Check the sensor for improper installation, contamination, and damage. Is the sensor properly installed and free of contamination and damage?	Go to step 15.	Go to step 14.
Step 14 Reinstall or replace the sensor. See **"Sensor (staple finisher diverter plunger) removal" on page 612**. Does the problem remain?	Go to step 15.	The problem is solved.
Step 15 Reseat the cable on the motor (staple finisher diverter) and on the staple finisher controller board. Does the problem remain?	Go to step 16.	The problem is solved.
Step 16 Check the motor (staple finisher diverter) for improper installation and damage. Is the motor properly installed and free of damage?	Go to step 18.	Go to step 17.
Step 17 Reinstall or replace the motor. See **"Motor (staple finisher diverter) removal" on page 611**. Does the problem remain?	Go to step 18.	The problem is solved.
Step 18 Check the staple finisher diverter plunger for improper installation and damage. Is the diverter plunger properly installed and free of damage?	Go to step 20.	Go to step 19.
Step 19 Reinstall or replace the diverter plunger. See **"Staple finisher diverter plunger assembly removal" on page 617**. Does the problem remain?	Go to step 20.	The problem is solved.

Action	Yes	No
Step 20 Reseat the cable on the motor (staple finisher transport) and on the staple finisher controller board. Does the problem remain?	Go to step 21.	The problem is solved.
Step 21 Check the motor (staple finisher transport) for improper installation and damage. Is the motor properly installed and free of damage?	Go to step 23.	Go to step 22.
Step 22 Reinstall or replace the motor. See **"Motor (staple finisher transport) removal" on page 612**. Does the problem remain?	Go to step 23.	The problem is solved.
Step 23 Check the staple finisher drive gear for improper installation and damage. Is the drive gear properly installed and free of damage?	Go to step 25.	Go to step 24.
Step 24 Reinstall or replace the gear. See **"Staple finisher drive gear assembly removal" on page 617**. Does the problem remain?	Go to step 25.	The problem is solved.
Step 25 Enter the Diagnostics menu, and then navigate to: **Output bin quick feed** Perform the feed test on each optional bin. Does the error occur in any of the optional bins?	Go to step 27.	Go to step 26.
Step 26 a Remove the optional bins. b Reinstall the optional bins one at a time, and then identify which bin is causing the error. Does the error occur in any of the optional bins?	Go to step 27.	Contact the next level of support.
Step 27 Make sure that the controller board of the affected optional bin is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 28.	The problem is solved.

Action	Yes	No
Step 28 Check the affected controller board and its connector pins for damage. Are the bin controller board and its connectors free of damage?	Contact the next level of support.	Go to step 29.
Step 29 Replace the bin controller board. See **"Staple finisher controller board removal" on page 603**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Sensor (staple finisher pass-through) late leaving jam service check

Action	Yes	No
Step 1 Make sure that all the optional bins are properly installed. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Open all optional bin doors, and then check the paper path and bins for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 4.	Go to step 3.
Step 3 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Clear the optional bin paper path rollers of any dirt and contamination. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 a Enter the Diagnostics menu, and then navigate to: **Output bin quick feed** > **Feed to all bins** b Touch **Single** or **Continuous**. Does the problem remain?	Go to step 6.	The problem is solved.

Action	Yes	No
Step 6 **a** Enter the Diagnostics menu, and then navigate to: **Output device adjustments/tests** > **Output device sensor tests** > **Stapler** **b** Find the sensor (Pass-through). Does the sensor status change while toggling the sensor?	Go to step 10.	Go to step 7.
Step 7 **a** Remove the staple finisher left cover. See **"Staple finisher left cover removal" on page 597**. **b** Reseat the cable of the sensor (staple finisher pass-through) on the staple finisher controller board. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Check the sensor for improper installation, contamination, and damage. Is the sensor properly installed and free of contamination and damage?	Go to step 10.	Go to step 9.
Step 9 Reinstall or replace the sensor. See **"Sensor (staple finisher pass-through) removal" on page 656**. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Check the staple finisher rear door for improper installation and damage. Is the door properly installed and free of damage?	Go to step 12.	Go to step 11.
Step 11 Reinstall or replace the door. See **"Staple finisher rear door removal" on page 595**. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 Check the tamper aligners for improper installation and damage. Are the tamper aligners properly installed and free of damage?	Go to step 14.	Go to step 13.
Step 13 Reinstall or replace the tamper aligner. See **"Tamper aligner removal" on page 640**. Does the problem remain?	Go to step 14.	The problem is solved.

Action	Yes	No
Step 14 Check the staple finisher drive gear for improper installation and damage. Is the drive gear properly installed and free of damage?	Go to step 16.	Go to step 15.
Step 15 Reinstall or replace the gear. See **"Staple finisher drive gear assembly removal" on page 617**. Does the problem remain?	Go to step 16.	The problem is solved.
Step 16 Enter the Diagnostics menu, and then navigate to: **Output bin quick feed** Perform the feed test on each optional bin. Does the error occur in any of the optional bins?	Go to step 18.	Go to step 17.
Step 17 **a** Remove the optional bins. **b** Reinstall the optional bins one at a time, and then identify which bin is causing the error. Does the error occur in any of the optional bins?	Go to step 18.	Contact the next level of support.
Step 18 Make sure that the controller board of the affected optional bin is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 19.	The problem is solved.
Step 19 Check the affected controller board and its connector pins for damage. Are the bin controller board and its connectors free of damage?	Contact the next level of support.	Go to step 20.
Step 20 Replace the bin controller board. See **"Staple finisher controller board removal" on page 603**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Sensor (HPU leading edge) jam service check

Action	Yes	No
Step 1 Make sure that all the optional bins are properly installed. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Clean all the optional bin doors, and then check the paper path and bins for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 4.	Go to step 3.
Step 3 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Clear the optional bin paper path rollers of any dirt and contamination. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Output bin quick feed** > **Feed to all bins** **b** Touch **Single** or **Continuous**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 **a** Enter the Diagnostics menu, and then navigate to: **Output device adjustments/tests** > **Output device sensor tests** > **Staple, hole punch finisher** **b** Find the sensor (Pass-through). Does the sensor status change while toggling the sensor?	Go to step 8.	Go to step 7.
Step 7 **a** Remove the SHPF left cover. See **"Staple, hole punch finisher left cover removal" on page 712**. **b** Reseat the cable of the sensor (HPU leading edge) on the HPU controller board. Does the problem remain?	Go to step 8.	The problem is solved.

Action	Yes	No
Step 8 Make sure that the HPU controller board is properly installed. Reseat the cables on the HPU controller board. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Check the HPU controller board and its connector pins for damage. Are the HPU controller board and its connectors free of damage?	Go to step 10.	Contact the next level of support.
Step 10 Make sure that the controller board of the affected optional bin is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Check the affected controller board and its connector pins for damage. Are the bin controller board and its connectors free of damage?	Contact the next level of support.	Go to step 12.
Step 12 Replace the bin controller board. See **"Staple, hole punch finisher controller board removal" on page 718**. Does the problem remain?	Contact the next level of support.	The problem is solved.

SHPF transport drive jam service check

Action	Yes	No
Step 1 Make sure that all the optional bins are properly installed. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Clean all the optional bin doors, and then check the paper path and bins for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 4.	Go to step 3.
Step 3 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 4.	The problem is solved.

Action	Yes	No
Step 4 Clear the optional bin paper path rollers of any dirt and contamination. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Output bin quick feed** > **Feed to all bins** **b** Touch **Single** or **Continuous**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 **a** Remove the SHPF left cover. See **"Staple, hole punch finisher left cover removal" on page 712**. **b** Reseat the cable on the motor (SHPF transport) and on the SHPF controller board. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Check the motor (SHPF transport) for improper installation and damage. Is the motor properly installed and free of damage?	Go to step 9.	Go to step 8.
Step 8 Reinstall or replace the motor. See **"Motor (SHPF transport) removal" on page 726**. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Check the SHPF drive gear for improper installation and damage. Is the drive gear properly installed and free of damage?	Go to step 11.	Go to step 10.
Step 10 Reinstall or replace the gear. See **"SHPF drive gear assembly removal" on page 729**. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Make sure that the controller board of the affected optional bin is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 12.	The problem is solved.

Action	Yes	No
Step 12 Check the affected controller board and its connector pins for damage. Are the bin controller board and its connectors free of damage?	Contact the next level of support.	Go to step 13.
Step 13 Replace the bin controller board. See **"Staple, hole punch finisher controller board removal" on page 718**. Does the problem remain?	Contact the next level of support.	The problem is solved.

421–429 paper jams

421–429 paper jam messages

Error code	Description	Action
421.13	The bin 1 left tamper did not reach the sensor (staple finisher left tamper) on time.	See **"Left tamper jam service check" on page 254**.
421.13	The bin 1 left tamper did not reach the sensor (SHPF left tamper) on time.	See **"SHPF left tamper jam service check" on page 267**.
421.15	The bin 1 left tamper did not clear the sensor (staple finisher left tamper) on time.	See **"Left tamper jam service check" on page 254**.
421.15	The bin 1 left tamper did not clear the sensor (SHPF left tamper) on time.	See **"SHPF left tamper jam service check" on page 267**.
421.23	The bin 2 left tamper did not reach the sensor (staple finisher left tamper) on time.	See **"Left tamper jam service check" on page 254**.
421.23	The bin 2 left tamper did not reach the sensor (SHPF left tamper) on time.	See **"SHPF left tamper jam service check" on page 267**.
421.25	The bin 2 left tamper did not clear the sensor (staple finisher left tamper) on time.	See **"Left tamper jam service check" on page 254**.
421.25	The bin 2 left tamper did not clear the sensor (SHPF left tamper) on time.	See **"SHPF left tamper jam service check" on page 267**.
422.13	The bin 1 right tamper did not reach the sensor (staple finisher right tamper) on time.	See **"Right tamper jam service check" on page 256**.
422.13	The bin 1 right tamper did not reach the sensor (SHPF right tamper) on time.	See **"SHPF right tamper jam service check" on page 270**.

Error code	Description	Action
422.15	The bin 1 right tamper did not clear the sensor (staple finisher right tamper) on time.	See **"Right tamper jam service check" on page 256**.
422.15	The bin 1 right tamper did not clear the sensor (SHPF right tamper) on time.	See **"SHPF right tamper jam service check" on page 270**.
422.23	The bin 2 right tamper did not reach the sensor (staple finisher right tamper) on time.	See **"Right tamper jam service check" on page 256**.
422.23	The bin 2 right tamper did not reach the sensor (SHPF right tamper) on time.	See **"SHPF right tamper jam service check" on page 270**.
422.25	The bin 2 right tamper did not clear the sensor (staple finisher right tamper) on time.	See **"Right tamper jam service check" on page 256**.
422.25	The bin 2 right tamper did not clear the sensor (SHPF right tamper) on time.	See **"SHPF right tamper jam service check" on page 270**.
423.13	The bin 1 ejector belt did not reach the sensor (staple finisher ejector) on time.	See **"Staple finisher ejector drive failure service check" on page 385**.
423.13	The bin 1 ejector belt did not reach the sensor (SHPF ejector) on time.	See **"SHPF ejector jam service check" on page 273**.
423.15	The bin 1 ejector belt did not clear the sensor (staple finisher ejector) on time.	See **"Staple finisher ejector drive failure service check" on page 385**.
423.15	The bin 1 ejector belt did not clear the sensor (SHPF ejector) on time.	See **"SHPF ejector jam service check" on page 273**.
423.23	The bin 1 ejector belt did not reach the sensor (staple finisher ejector) on time.	See **"Staple finisher ejector drive failure service check" on page 385**.
423.23	The bin 1 ejector belt did not reach the sensor (SHPF ejector) on time.	See **"SHPF ejector jam service check" on page 273**.
423.25	The bin 1 ejector belt did not clear the sensor (staple finisher ejector) on time.	See **"Staple finisher ejector drive failure service check" on page 385**.
423.25	The bin 1 ejector belt did not clear the sensor (SHPF ejector) on time.	See **"SHPF ejector jam service check" on page 273**.
423.51	The bin 1 motor (staple finisher ejector) did not turn off.	See **"Staple finisher ejector drive failure service check" on page 385**.
423.51	The bin 1 motor (SHPF ejector) did not turn off.	See **"SHPF ejector jam service check" on page 273**.
423.54	The bin 1 motor (staple finisher ejector) did not reach the required speed.	See **"Staple finisher ejector drive failure service check" on page 385**.
423.54	The bin 1 motor (SHPF ejector) did not reach the required speed.	See **"SHPF ejector jam service check" on page 273**.
423.55	The bin 1 motor (staple finisher ejector) went over the required speed.	See **"Staple finisher ejector drive failure service check" on page 385**.

Error code	Description	Action
423.55	The bin 1 motor (SHPF ejector) went over the required speed.	See **"SHPF ejector jam service check" on page 273**.
423.61	The bin 2 motor (staple finisher ejector) did not turn off.	See **"Staple finisher ejector drive failure service check" on page 385**.
423.61	The bin 2 motor (SHPF ejector) did not turn off.	See **"SHPF ejector jam service check" on page 273**.
423.64	The bin 2 motor (staple finisher ejector) did not reach the required speed.	See **"Staple finisher ejector drive failure service check" on page 385**.
423.64	The bin 2 motor (SHPF ejector) did not reach the required speed.	See **"SHPF ejector jam service check" on page 273**.
423.65	The bin 2 motor (staple finisher ejector) went over the required speed.	See **"Staple finisher ejector drive failure service check" on page 385**.
423.65	The bin 2 motor (SHPF ejector) went over the required speed.	See **"SHPF ejector jam service check" on page 273**.
424.13	The bin 1 paddle did not reach the sensor (staple finisher paddle) on time.	See **"Staple finisher paddle jam service check" on page 259**.
424.13	The bin 1 paddle did not reach the sensor (SHPF paddle) on time.	See **"SHPF paddle jam service check" on page 274**.
424.15	The bin 1 paddle did not clear the sensor (staple finisher paddle) on time.	See **"Staple finisher paddle jam service check" on page 259**.
424.15	The bin 1 paddle did not clear the sensor (SHPF paddle) on time.	See **"SHPF paddle jam service check" on page 274**.
424.23	The bin 2 paddle did not reach the sensor (staple finisher paddle) on time.	See **"Staple finisher paddle jam service check" on page 259**.
424.23	The bin 2 paddle did not reach the sensor (SHPF paddle) on time.	See **"SHPF paddle jam service check" on page 274**.
424.25	The bin 2 paddle did not clear the sensor (staple finisher paddle) on time.	See **"Staple finisher paddle jam service check" on page 259**.
424.25	The bin 2 paddle did not clear the sensor (SHPF paddle) on time.	See **"SHPF paddle jam service check" on page 274**.
425.13	The bin 1 bin clamp did not reach the sensor (staple finisher bin clamp) on time.	See **"Staple finisher ejector drive failure service check" on page 385**.
425.13	The bin 1 bin clamp did not reach the sensor (SHPF bin clamp) on time.	See **"SHPF ejector jam service check" on page 273**.
425.15	The bin 1 bin clamp did not clear the sensor (staple finisher bin clamp) on time.	See **"Staple finisher ejector drive failure service check" on page 385**.
425.15	The bin 1 bin clamp did not clear the sensor (SHPF bin clamp) on time.	See **"SHPF ejector jam service check" on page 273**.
425.23	The bin 2 bin clamp did not reach the sensor (staple finisher bin clamp) on time.	See **"Staple finisher ejector drive failure service check" on page 385**.

Diagnostics and troubleshooting

Error code	Description	Action
425.23	The bin 2 bin clamp did not reach the sensor (SHPF bin clamp) on time.	See **"SHPF ejector jam service check" on page 273**.
425.25	The bin 2 bin clamp did not clear the sensor (staple finisher bin clamp) on time.	See **"Staple finisher ejector drive failure service check" on page 385**.
425.25	The bin 2 bin clamp did not clear the sensor (SHPF bin clamp) on time.	See **"SHPF ejector jam service check" on page 273**.
427.13	The bin 1 diverter plunger did not reach the sensor (staple finisher diverter plunger) on time.	See **"Staple finisher diverter jam service check" on page 261**.
427.13	The bin 1 diverter plunger did not reach the sensor (SHPF diverter plunger) on time.	See **"SHPF diverter jam service check" on page 275**.
427.15	The bin 1 diverter plunger did not clear the sensor (staple finisher diverter plunger) on time.	See **"Staple finisher diverter jam service check" on page 261**.
427.15	The bin 1 diverter plunger did not clear the sensor (SHPF diverter plunger) on time.	See **"SHPF diverter jam service check" on page 275**.
427.23	The bin 2 diverter plunger did not reach the sensor (staple finisher diverter plunger) on time.	See **"Staple finisher diverter jam service check" on page 261**.
427.23	The bin 2 diverter plunger did not reach the sensor (SHPF diverter plunger) on time.	See **"SHPF diverter jam service check" on page 275**.
427.25	The bin 2 diverter plunger did not clear the sensor (staple finisher diverter plunger) on time.	See **"Staple finisher diverter jam service check" on page 261**.
427.25	The bin 2 diverter plunger did not clear the sensor (SHPF diverter plunger) on time.	See **"SHPF diverter jam service check" on page 275**.
428.13	The bin 1 stapler head did not reach its home position.	See **"Staple jam service check" on page 263** or **"SHPF staple jam service check" on page 277**.
428.15	The bin 1 stapler head did not clear its home position.	
428.23	The bin 2 stapler head did not reach its home position.	
428.25	The bin 2 stapler head did not clear its home position.	
429.11	Paper remains detected at the bin 1 sensor (staple throat paper present) after the printer is turned on.	See **"Sensor (staple throat paper present) jam service check" on page 265**.
429.11	Paper remains detected at the bin 1 sensor (SHPF staple throat paper present) after the printer is turned on.	See **"SHPF staple throat jam service check" on page 280**.

Error code	Description	Action
429.13	Paper going to bin 1 did not reach the sensor (staple throat paper present) on time.	See **"Sensor (staple throat paper present) jam service check" on page 265**.
429.13	Paper going to bin 1 did not reach the sensor (SHPF staple throat paper present) on time.	See **"SHPF staple throat jam service check" on page 280**.
429.14	Paper going to bin 1 cleared the sensor (staple throat paper present) earlier than expected.	See **"Sensor (staple throat paper present) jam service check" on page 265**.
429.14	Paper going to bin 1 cleared the sensor (SHPF staple throat paper present) earlier than expected.	See **"SHPF staple throat jam service check" on page 280**.
429.15	Paper going to bin 1 did not clear the sensor (staple throat paper present) on time.	See **"Sensor (staple throat paper present) jam service check" on page 265**.
429.15	Paper going to bin 1 did not clear the sensor (SHPF staple throat paper present) on time.	See **"SHPF staple throat jam service check" on page 280**.
429.21	Paper remains detected at the bin 2 sensor (staple throat paper present) after the printer is turned on.	See **"Sensor (staple throat paper present) jam service check" on page 265**.
429.21	Paper remains detected at the bin 2 sensor (SHPF staple throat paper present) after the printer is turned on.	See **"SHPF staple throat jam service check" on page 280**.
429.23	Paper going to bin 2 did not reach the sensor (staple throat paper present) on time.	See **"Sensor (staple throat paper present) jam service check" on page 265**.
429.23	Paper going to bin 2 did not reach the sensor (SHPF staple throat paper present) on time.	See **"SHPF staple throat jam service check" on page 280**.
429.24	Paper going to bin 2 cleared the sensor (staple throat paper present) earlier than expected.	See **"Sensor (staple throat paper present) jam service check" on page 265**.
429.24	Paper going to bin 2 cleared the sensor (SHPF staple throat paper present) earlier than expected.	See **"SHPF staple throat jam service check" on page 280**.
429.25	Paper going to bin 2 did not clear the sensor (staple throat paper present) on time.	See **"Sensor (staple throat paper present) jam service check" on page 265**.
429.25	Paper going to bin 2 did not clear the sensor (SHPF staple throat paper present) on time.	See **"SHPF staple throat jam service check" on page 280**.

Left tamper jam service check

Action	Yes	No
Step 1 Make sure that all the optional bins are properly installed. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Open all optional bin doors, and then check the paper path and bins for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 4.	Go to step 3.
Step 3 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Clear the optional bin paper path rollers of any dirt and contamination. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Output bin quick feed** > **Feed to all bins** **b** Touch **Single** or **Continuous**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 **a** Enter the Diagnostics menu, and then navigate to: **Output device adjustments/tests** > **Output device sensor tests** > **Stapler** **b** Find the sensor (Tamper, left). Does the sensor status change while toggling the sensor?	Go to step 10.	Go to step 7.
Step 7 **a** Remove the staple finisher top cover. See **"Staple finisher top cover removal" on page 601**. **b** Remove the staple finisher left cover. See **"Staple finisher left cover removal" on page 597**. **c** Reseat the cable on the sensor (staple finisher left tamper) and on the staple finisher controller board. Does the problem remain?	Go to step 8.	The problem is solved.

Action	Yes	No
Step 8 Check the sensor for improper installation, contamination, and damage. Is the sensor properly installed and free of contamination and damage?	Go to step 10.	Go to step 9.
Step 9 Reinstall or replace the sensor. See **"Sensor (staple finisher left tamper) removal" on page 636**. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 **a** Remove the staple finisher top cover. See **"Staple finisher top cover removal" on page 601**. **b** Remove the staple finisher left cover. See **"Staple finisher left cover removal" on page 597**. **c** Reseat the cable on the motor (staple finisher left tamper) and on the staple finisher controller board. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Check the motor (staple finisher left tamper) for improper installation and damage. Is the motor properly installed and free of damage?	Go to step 13.	Go to step 12.
Step 12 Reinstall or replace the motor. See **"Motor (staple finisher left tamper) removal" on page 632**. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 Check the tamper drive belt for improper installation, wear, and damage. Is the drive belt properly installed and free of wear and damage?	Go to step 15.	Go to step 14.
Step 14 Reinstall or replace the drive belt. See **"Tamper drive belt removal" on page 633**. Does the problem remain?	Go to step 15.	The problem is solved.
Step 15 Check the tamper aligner for improper installation and damage. Is the tamper aligner properly installed and free of damage?	Go to step 17.	Go to step 16.

Action	Yes	No
Step 16 Reinstall or replace the tamper aligner. See **"Tamper aligner removal" on page 640**. Does the problem remain?	Go to step 17.	The problem is solved.
Step 17 Check the tamper gear for improper installation and damage. Is the gear properly installed and free of damage?	Go to step 19.	Go to step 18.
Step 18 Reinstall or replace the gear. See **"Tamper drive belt removal" on page 633**. Does the problem remain?	Go to step 19.	The problem is solved.
Step 19 Make sure that the controller board of the affected optional bin is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 20.	The problem is solved.
Step 20 Check the affected controller board and its connector pins for damage. Are the bin controller board and its connectors free of damage?	Contact the next level of support.	Go to step 21.
Step 21 Replace the bin controller board. See **"Staple finisher controller board removal" on page 603**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Right tamper jam service check

Action	Yes	No
Step 1 Make sure that all the optional bins are properly installed. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Open all optional bin doors, and then check the paper path and bins for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 4.	Go to step 3.

Action	Yes	No
Step 3 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Clear the optional bin paper path rollers of any dirt and contamination. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Output bin quick feed** > **Feed to all bins** **b** Touch **Single** or **Continuous**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 **a** Enter the Diagnostics menu, and then navigate to: **Output device adjustments/tests** > **Output device sensor tests** > **Stapler** **b** Find the sensor (Tamper, right). Does the sensor status change while toggling the sensor?	Go to step 10.	Go to step 7.
Step 7 **a** Remove the staple finisher top cover. See **"Staple finisher top cover removal" on page 601**. **b** Remove the staple finisher left cover. See **"Staple finisher left cover removal" on page 597**. **c** Reseat the cable on the sensor (staple finisher right tamper) and on the staple finisher controller board. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Check the sensor for improper installation, contamination, and damage. Is the sensor properly installed and free of contamination and damage?	Go to step 10.	Go to step 9.
Step 9 Reinstall or replace the sensor. See **"Sensor (staple finisher right tamper) removal" on page 634**. Does the problem remain?	Go to step 10.	The problem is solved.

Action	Yes	No
Step 10 **a** Remove the staple finisher top cover. See **"Staple finisher top cover removal" on page 601**. **b** Remove the staple finisher left cover. See **"Staple finisher left cover removal" on page 597**. **c** Reseat the cable on the motor (staple finisher right tamper) and on the staple finisher controller board. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Check the motor (staple finisher right tamper) for improper installation and damage. Is the motor properly installed and free of damage?	Go to step 13.	Go to step 12.
Step 12 Reinstall or replace the motor. See **"Motor (staple finisher left tamper) removal" on page 632**. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 Check the tamper drive belt for improper installation, wear, and damage. Is the drive belt properly installed and free of wear and damage?	Go to step 15.	Go to step 14.
Step 14 Reinstall or replace the drive belt. See **"Tamper drive belt removal" on page 633**. Does the problem remain?	Go to step 15.	The problem is solved.
Step 15 Check the tamper aligner for improper installation and damage. Is the tamper aligner properly installed and free of damage?	Go to step 17.	Go to step 16.
Step 16 Reinstall or replace the tamper aligner. See **"Tamper aligner removal" on page 640**. Does the problem remain?	Go to step 17.	The problem is solved.
Step 17 Check the tamper gear for improper installation and damage. Is the gear properly installed and free of damage?	Go to step 19.	Go to step 18.

Action	Yes	No
Step 18 Reinstall or replace the gear. See **"Tamper drive belt removal" on page 633**. Does the problem remain?	Go to step 19.	The problem is solved.
Step 19 Make sure that the controller board of the affected optional bin is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 20.	The problem is solved.
Step 20 Check the affected controller board and its connector pins for damage. Are the bin controller board and its connectors free of damage?	Contact the next level of support.	Go to step 21.
Step 21 Replace the bin controller board. See **"Staple finisher controller board removal" on page 603**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Staple finisher paddle jam service check

Action	Yes	No
Step 1 Make sure that all the optional bins are properly installed. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Open all optional bin doors, and then check the paper path and bins for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 4.	Go to step 3.
Step 3 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Clear the optional bin paper path rollers of any dirt and contamination. Does the problem remain?	Go to step 5.	The problem is solved.

Action	Yes	No
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Output bin quick feed** > **Feed to all bins** **b** Touch **Single** or **Continuous**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 **a** Enter the Diagnostics menu, and then navigate to: **Output device adjustments/tests** > **Output device sensor tests** > **Stapler** **b** Find the sensor (Paddle). Does the sensor status change while toggling the sensor?	Go to step 10.	Go to step 7.
Step 7 **a** Remove the staple finisher top cover. See **"Staple finisher top cover removal" on page 601**. **b** Reseat the cable on the sensor (staple finisher paddle) and on the staple finisher controller board. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Check the sensor for improper installation, contamination, and damage. Is the sensor properly installed and free of contamination and damage?	Go to step 10.	Go to step 9.
Step 9 Reinstall or replace the sensor. See **"Sensor (staple finisher paddle) removal" on page 631**. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 **a** Remove the staple finisher left cover. See **"Staple finisher left cover removal" on page 597**. **b** Reseat the cable on the motor (staple finisher paddle) and on the staple finisher controller board. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Check the motor (staple finisher paddle) for improper installation and damage. Is the motor properly installed and free of damage?	Go to step 13.	Go to step 12.

Action	Yes	No
Step 12 Reinstall or replace the motor. See **"Motor (staple finisher paddle) removal" on page 605**. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 Make sure that the controller board of the affected optional bin is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 14.	The problem is solved.
Step 14 Check the affected controller board and its connector pins for damage. Are the bin controller board and its connectors free of damage?	Contact the next level of support.	Go to step 15.
Step 15 Replace the bin controller board. See **"Staple finisher controller board removal" on page 603**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Staple finisher diverter jam service check

Action	Yes	No
Step 1 Make sure that all the optional bins are properly installed. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Open all optional bin doors, and then check the paper path and bins for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 4.	Go to step 3.
Step 3 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Clear the optional bin paper path rollers of any dirt and contamination. Does the problem remain?	Go to step 5.	The problem is solved.

Action	Yes	No
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Output bin quick feed** > **Feed to all bins** **b** Touch **Single** or **Continuous**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 **a** Remove the staple finisher left cover. See **"Staple finisher left cover removal" on page 597**. **b** Reseat the cable on the sensor (staple finisher diverter plunger) and on the staple finisher controller board. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Check the sensor for improper installation, contamination, and damage. Is the sensor properly installed and free of contamination and damage?	Go to step 9.	Go to step 8.
Step 8 Reinstall or replace the sensor. See **"Sensor (staple finisher diverter plunger) removal" on page 612**. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Reseat the cable on the motor (staple finisher diverter) and on the staple finisher controller board. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Check the motor (staple finisher diverter) for improper installation and damage. Is the motor properly installed and free of damage?	Go to step 12.	Go to step 11.
Step 11 Reinstall or replace the motor. See **"Motor (staple finisher diverter) removal" on page 611**. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 Check the staple finisher diverter plunger for improper installation and damage. Is the diverter plunger properly installed and free of damage?	Go to step 14.	Go to step 13.

Action	Yes	No
Step 13 Reinstall or replace the diverter plunger. See **"Staple finisher diverter plunger assembly removal" on page 617**. Does the problem remain?	Go to step 14.	The problem is solved.
Step 14 Make sure that the controller board of the affected optional bin is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 15.	The problem is solved.
Step 15 Check the affected controller board and its connector pins for damage. Are the bin controller board and its connectors free of damage?	Contact the next level of support.	Go to step 16.
Step 16 Replace the bin controller board. See **"Staple finisher controller board removal" on page 603**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Staple jam service check

Action	Yes	No
Step 1 Make sure that all the optional bins are properly installed. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Open all optional bin doors, and then check the paper path and bins for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 4.	Go to step 3.
Step 3 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Clear the optional bin paper path rollers of any dirt and contamination. Does the problem remain?	Go to step 5.	The problem is solved.

Action	Yes	No
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Output bin quick feed** > **Feed to all bins** **b** Touch **Single** or **Continuous**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 **a** Enter the Diagnostics menu, and then navigate to: **Output device adjustments/tests** > **Staple test** **b** Select a staple job. Does the finisher staple?	Go to step 12.	Go to step 7.
Step 7 **a** Remove the staple finisher right cover. See **"Staple finisher right cover removal" on page 599**. **b** Make sure that the staple cartridge is properly installed. **c** Clear the staple unit of any obstructions. **d** Reseat the staple unit cables. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Check the staple unit for damage. Is the staple unit free of damage?	Go to step 10.	Go to step 9.
Step 9 Replace the staple unit. See **"Staple unit removal" on page 605**. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 **a** Clear the staple cartridge holder of any obstructions. **b** Check the staple cartridge holder for improper installation and damage. Is the cartridge holder properly installed and free of damage?	Go to step 12.	Go to step 11.
Step 11 Reinstall or replace the staple cartridge holder. See **"Staple cartridge holder removal" on page 717**. Does the problem remain?	Go to step 12.	The problem is solved.

Action	Yes	No
Step 12 Make sure that the controller board of the affected optional bin is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 Check the affected controller board and its connector pins for damage. Are the bin controller board and its connectors free of damage?	Contact the next level of support.	Go to step 14.
Step 14 Replace the bin controller board. See **"Staple finisher controller board removal" on page 603**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Sensor (staple throat paper present) jam service check

Action	Yes	No
Step 1 Make sure that all the optional bins are properly installed. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Open all optional bin doors, and then check the paper path and bins for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 4.	Go to step 3.
Step 3 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Clear the optional bin paper path rollers of any dirt and contamination. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Output bin quick feed** > **Feed to all bins** **b** Touch **Single** or **Continuous**. Does the problem remain?	Go to step 6.	The problem is solved.

Action	Yes	No
Step 6 **a** Enter the Diagnostics menu, and then navigate to: **Output device adjustments/tests** > **Output device sensor tests** > **Stapler** **b** Find the sensor (Stapler throat, right). Does the sensor status change while toggling the sensor?	Go to step 10.	Go to step 7.
Step 7 **a** Remove the staple unit. See **"Staple unit removal" on page 605**. **b** Reseat the cable on the sensor (staple throat paper present) and on the staple finisher controller board. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Check the sensor for improper installation, contamination, and damage. Is the sensor properly installed and free of contamination and damage?	Go to step 10.	Go to step 9.
Step 9 Reinstall or replace the sensor. See **"Sensor (staple throat paper present) removal" on page 657**. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 **a** Remove the staple finisher left cover. See **"Staple finisher left cover removal" on page 597**. **b** Reseat the staple finisher ejector assembly cable on the staple finisher controller board. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 **a** Enter the Diagnostics menu, and then navigate to: **Output bin quick feed** > **Feed to all bins** **b** Touch **Single** or **Continuous**. Does the staple finisher ejector assembly operate properly?	Go to step 14.	Go to step 12.
Step 12 Check the ejector assembly for damage. Is the ejector assembly free of damage?	Go to step 14.	Go to step 13.

Action	Yes	No
Step 13 Replace the staple finisher ejector assembly. See **"Staple finisher ejector assembly removal" on page 650**. Does the problem remain?	Go to step 14.	The problem is solved.
Step 14 Make sure that the controller board of the affected optional bin is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 15.	The problem is solved.
Step 15 Check the affected controller board and its connector pins for damage. Are the bin controller board and its connectors free of damage?	Contact the next level of support.	Go to step 16.
Step 16 Replace the bin controller board. See **"Staple finisher controller board removal" on page 603**. Does the problem remain?	Contact the next level of support.	The problem is solved.

SHPF left tamper jam service check

Action	Yes	No
Step 1 Make sure that all the optional bins are properly installed. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Clean all the optional bin doors, and then check the paper path and bins for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 4.	Go to step 3.
Step 3 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Clear the optional bin paper path rollers of any dirt and contamination. Does the problem remain?	Go to step 5.	The problem is solved.

Action	Yes	No
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Output bin quick feed** > **Feed to all bins** **b** Touch **Single** or **Continuous**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 **a** Enter the Diagnostics menu, and then navigate to: **Output device adjustments/tests** > **Output device sensor tests** > **Staple, hole punch finisher** **b** Find the sensor (Tamper, left). Does the sensor status change while toggling the sensor?	Go to step 10.	Go to step 7.
Step 7 **a** Remove the SHPF top cover. See **"Staple, hole punch finisher top cover removal" on page 716**. **b** Remove the SHPF left cover. See **"Staple, hole punch finisher left cover removal" on page 712**. **c** Reseat the cable on the sensor (SHPF left tamper) and on the SHPF controller board. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Check the sensor for improper installation, contamination, and damage. Is the sensor properly installed and free of contamination and damage?	Go to step 10.	Go to step 9.
Step 9 Reinstall or replace the sensor. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 **a** Remove the SHPF top cover. See **"Staple, hole punch finisher top cover removal" on page 716**. **b** Remove the SHPF left cover. See **"Staple, hole punch finisher left cover removal" on page 712**. **c** Reseat the cable on the motor (SHPF left tamper) and on the SHPF controller board. Does the problem remain?	Go to step 11.	The problem is solved.

Action	Yes	No
Step 11 Check the motor (SHPF left tamper) for improper installation and damage. Is the motor properly installed and free of damage?	Go to step 13.	Go to step 12.
Step 12 Reinstall or replace the motor. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 Check the tamper drive belt for improper installation, wear, and damage. Is the drive belt properly installed and free of wear and damage?	Go to step 15.	Go to step 14.
Step 14 Reinstall or replace the drive belt. Does the problem remain?	Go to step 15.	The problem is solved.
Step 15 Check the tamper aligner for improper installation and damage. Is the tamper aligner properly installed and free of damage?	Go to step 17.	Go to step 16.
Step 16 Reinstall or replace the tamper aligner. Does the problem remain?	Go to step 17.	The problem is solved.
Step 17 Check the tamper gear for improper installation and damage. Is the gear properly installed and free of damage?	Go to step 19.	Go to step 18.
Step 18 Reinstall or replace the gear. Does the problem remain?	Go to step 19.	The problem is solved.
Step 19 Make sure that the controller board of the affected optional bin is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 20.	The problem is solved.

Action	Yes	No
Step 20 Check the affected controller board and its connector pins for damage. Are the bin controller board and its connectors free of damage?	Contact the next level of support.	Go to step 21.
Step 21 Replace the bin controller board. See **"Staple, hole punch finisher controller board removal" on page 718**. Does the problem remain?	Contact the next level of support.	The problem is solved.

SHPF right tamper jam service check

Action	Yes	No
Step 1 Make sure that all the optional bins are properly installed. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Clean all the optional bin doors, and then check the paper path and bins for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 4.	Go to step 3.
Step 3 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Clear the optional bin paper path rollers of any dirt and contamination. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Enter the Diagnostics menu, and then navigate to: 　**Output bin quick feed** > **Feed to all bins** **b** Touch **Single** or **Continuous**. Does the problem remain?	Go to step 6.	The problem is solved.

Action	Yes	No
Step 6 **a** Enter the Diagnostics menu, and then navigate to: **Output device adjustments/tests** > **Output device sensor tests** > **Staple, hole punch finisher** **b** Find the sensor (Tamper, left). Does the sensor status change while toggling the sensor?	Go to step 10.	Go to step 7.
Step 7 **a** Remove the SHPF top cover. See **"Staple, hole punch finisher top cover removal" on page 716**. **b** Remove the SHPF left cover. See **"Staple, hole punch finisher left cover removal" on page 712**. **c** Reseat the cable on the sensor (SHPF left tamper) and on the SHPF controller board. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Check the sensor for improper installation, contamination, and damage. Is the sensor properly installed and free of contamination and damage?	Go to step 10.	Go to step 9.
Step 9 Reinstall or replace the sensor. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 **a** Remove the SHPF top cover. See **"Staple, hole punch finisher top cover removal" on page 716**. **b** Remove the SHPF left cover. See **"Staple, hole punch finisher left cover removal" on page 712**. **c** Reseat the cable on the motor (SHPF left tamper) and on the SHPF controller board. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Check the motor (SHPF left tamper) for improper installation and damage. Is the motor properly installed and free of damage?	Go to step 13.	Go to step 12.
Step 12 Reinstall or replace the motor. Does the problem remain?	Go to step 13.	The problem is solved.

Action	Yes	No
Step 13 Check the tamper drive belt for improper installation, wear, and damage. Is the drive belt properly installed and free of wear and damage?	Go to step 15.	Go to step 14.
Step 14 Reinstall or replace the drive belt. Does the problem remain?	Go to step 15.	The problem is solved.
Step 15 Check the tamper aligner for improper installation and damage. Is the tamper aligner properly installed and free of damage?	Go to step 17.	Go to step 16.
Step 16 Reinstall or replace the tamper aligner. Does the problem remain?	Go to step 17.	The problem is solved.
Step 17 Check the tamper gear for improper installation and damage. Is the gear properly installed and free of damage?	Go to step 19.	Go to step 18.
Step 18 Reinstall or replace the gear. Does the problem remain?	Go to step 19.	The problem is solved.
Step 19 Make sure that the controller board of the affected optional bin is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 20.	The problem is solved.
Step 20 Check the affected controller board and its connector pins for damage. Are the bin controller board and its connectors free of damage?	Contact the next level of support.	Go to step 21.
Step 21 Replace the bin controller board. See **"Staple, hole punch finisher controller board removal" on page 718**. Does the problem remain?	Contact the next level of support.	The problem is solved.

SHPF ejector jam service check

Action	Yes	No
Step 1 Make sure that all the optional bins are properly installed. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Clean all the optional bin doors, and then check the paper path and bins for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 4.	Go to step 3.
Step 3 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Clear the optional bin paper path rollers of any dirt and contamination. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Output bin quick feed** > **Feed to all bins** **b** Touch **Single** or **Continuous**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 **a** Remove the SHPF left cover. See **"Staple, hole punch finisher left cover removal" on page 712**. **b** Make sure that the controller board of the affected optional bin is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Check the affected controller board and its connector pins for damage. Are the bin controller board and its connectors free of damage?	Contact the next level of support.	Go to step 8.
Step 8 Replace the bin controller board. See **"Staple, hole punch finisher controller board removal" on page 718**. Does the problem remain?	Contact the next level of support.	The problem is solved.

SHPF paddle jam service check

Action	Yes	No
Step 1 Make sure that all the optional bins are properly installed. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Clean all the optional bin doors, and then check the paper path and bins for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 4.	Go to step 3.
Step 3 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Clear the optional bin paper path rollers of any dirt and contamination. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Output bin quick feed** > **Feed to all bins** **b** Touch **Single** or **Continuous**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 **a** Enter the Diagnostics menu, and then navigate to: **Output device adjustments/tests** > **Output device sensor tests** > **Staple, hole punch finisher** **b** Find the sensor (Paddle). Does the sensor status change while toggling the sensor?	Go to step 10.	Go to step 7.
Step 7 **a** Remove the SHPF top cover. See **"Staple, hole punch finisher top cover removal" on page 716**. **b** Reseat the cable on the sensor (SHPF paddle) and on the SHPF controller board. Does the problem remain?	Go to step 8.	The problem is solved.

Action	Yes	No
Step 8 Check the sensor for improper installation, contamination, and damage. Is the sensor properly installed and free of contamination and damage?	Go to step 10.	Go to step 9.
Step 9 Reinstall or replace the sensor. See **"Sensor (SHPF paddle) removal" on page 750**. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 **a** Remove the SHPF left cover. See **"Staple, hole punch finisher left cover removal" on page 712**. **b** Reseat the cable on the motor (SHPF paddle) and on the SHPF controller board. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Check the motor (SHPF paddle) for improper installation and damage. Is the motor properly installed and free of damage?	Contact the next level of support.	Go to step 12.
Step 12 Reinstall or replace the motor. See **"Motor (SHPF paddle) removal" on page 719**. Does the problem remain?	Contact the next level of support.	The problem is solved.

SHPF diverter jam service check

Action	Yes	No
Step 1 Make sure that all the optional bins are properly installed. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Clean all the optional bin doors, and then check the paper path and bins for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 4.	Go to step 3.

Action	Yes	No
Step 3 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Clear the optional bin paper path rollers of any dirt and contamination. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Output bin quick feed** > **Feed to all bins** **b** Touch **Single** or **Continuous**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 **a** Remove the SHPF left cover. See **"Staple, hole punch finisher left cover removal" on page 712**. **b** Reseat the cable on the motor (SHPF diverter plunger) and on the SHPF controller board. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Check the motor (SHPF diverter plunger) for improper installation and damage. Is the motor properly installed and free of damage?	Go to step 9.	Go to step 8.
Step 8 Reinstall or replace the motor. See **"Motor (SHPF diverter plunger) removal" on page 725**. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Reseat the cable on the sensor (SHPF diverter plunger) and on the SHPF controller board. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Check the sensor for improper installation, contamination, and damage. Is the sensor properly installed and free of contamination and damage?	Go to step 12.	Go to step 11.

Action	Yes	No
Step 11 Reinstall or replace the sensor. See **"Sensor (staple finisher diverter plunger) removal" on page 612**. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 Check the SHPF diverter plunger for improper installation and damage. Is the diverter plunger properly installed and free of damage?	Go to step 14.	Go to step 13.
Step 13 Reinstall or replace the diverter plunger. See **"SHPF diverter plunger assembly removal" on page 728**. Does the problem remain?	Go to step 14.	The problem is solved.
Step 14 Make sure that the controller board of the affected optional bin is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 15.	The problem is solved.
Step 15 Check the affected controller board and its connector pins for damage. Are the bin controller board and its connectors free of damage?	Contact the next level of support.	Go to step 16.
Step 16 Replace the bin controller board. See **"Staple, hole punch finisher controller board removal" on page 718**. Does the problem remain?	Contact the next level of support.	The problem is solved.

SHPF staple jam service check

Action	Yes	No
Step 1 Make sure that all the optional bins are properly installed. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Clean all the optional bin doors, and then check the paper path and bins for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 4.	Go to step 3.

Action	Yes	No
Step 3 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Clear the optional bin paper path rollers of any dirt and contamination. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Output bin quick feed** > **Feed to all bins** **b** Touch **Single** or **Continuous**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 **a** Enter the Diagnostics menu, and then navigate to: **Output device adjustments** > **Staple test** **b** Select the staple job for the right staple unit. Does the finisher staple?	Go to step 13.	Go to step 7.
Step 7 **a** Remove the SHPF left cover. See **"Staple, hole punch finisher left cover removal" on page 712**. **b** Make sure that the SHPF staple cartridge door close limit switch is properly installed. Reseat the cable on the SHPF controller board. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Check the limit switch and its connector pins for damage. Are the limit switch and its connectors free of damage?	Go to step 10.	Go to step 9.
Step 9 Replace the limit switch. See **"SHPF staple cartridge door close limit switch removal" on page 719**. Does the problem remain?	Go to step 10.	The problem is solved.

Action	Yes	No
Step 10 **a** Remove the SHPF right cover. See **"Staple, hole punch finisher right cover removal" on page 714**. **b** Make sure that the staple cartridge is properly installed. **c** Clear the staple unit of any obstructions. **d** Reseat the staple unit cables. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Check the staple unit for damage. Is the staple unit free of damage?	Go to step 13.	Go to step 12.
Step 12 Replace the staple unit. See **"Right staple unit removal" on page 739**. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 Make sure that the controller board of the affected optional bin is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 14.	The problem is solved.
Step 14 Check the affected controller board and its connector pins for damage. Are the bin controller board and its connectors free of damage?	Contact the next level of support.	Go to step 15.
Step 15 Replace the bin controller board. See **"Staple, hole punch finisher controller board removal" on page 718**. Does the problem remain?	Contact the next level of support.	The problem is solved.

SHPF staple throat jam service check

Action	Yes	No
Step 1 Make sure that all the optional bins are properly installed. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Clean all the optional bin doors, and then check the paper path and bins for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 4.	Go to step 3.
Step 3 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Clear the optional bin paper path rollers of any dirt and contamination. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Output bin quick feed** > **Feed to all bins** **b** Touch **Single** or **Continuous**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 **a** Enter the Diagnostics menu, and then navigate to: **Output device adjustments/tests** > **Output device sensor tests** > **Staple, hole punch finisher** **b** Find the sensor (Stapler throat, right). Does the sensor status change while toggling the sensor?	Go to step 10.	Go to step 7.
Step 7 **a** Remove the SHPF left cover. See **"Staple, hole punch finisher left cover removal" on page 712**. **b** Remove the right staple unit. See **"Right staple unit removal" on page 739**. **c** Reseat the cable on the sensor (SHPF staple throat paper present) and on the SHPF controller board. Does the problem remain?	Go to step 8.	The problem is solved.

Action	Yes	No
Step 8 Check the sensor for improper installation, contamination, and damage. Is the sensor properly installed and free of contamination and damage?	Go to step 10.	Go to step 9.
Step 9 Reinstall or replace the sensor. See **"Sensor (SHPF staple throat paper present) removal" on page 742**. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Make sure that the controller board of the affected optional bin is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Check the affected controller board and its connector pins for damage. Are the bin controller board and its connectors free of damage?	Contact the next level of support.	Go to step 12.
Step 12 Replace the bin controller board. See **"Staple, hole punch finisher controller board removal" on page 718**. Does the problem remain?	Contact the next level of support.	The problem is solved.

430–434 paper jams

430–434 paper jam messages

Error code	Description	Action
430.19	The bin 1 right stapler head failed to prime.	See **"Staple jam service check" on page 263** or **"SHPF stapler head prime failure service check" on page 283**.
430.29	The bin 2 right stapler head failed to prime.	

Error code	Description	Action
431.13	The bin 1 elevator bin did not reach the sensor (SHPF elevator, top) on time.	See **"SHPF elevator top jam service check" on page 285**.
431.15	The bin 1 elevator bin did not clear the sensor (SHPF elevator, top) on time.	
431.23	The bin 2 elevator bin did not reach the sensor (SHPF elevator, top) on time.	
431.25	The bin 2 elevator bin did not clear the sensor (SHPF elevator, top) on time.	
431.54	The bin 1 motor (SHPF elevator) did not reach the required speed.	
431.55	The bin 1 motor (SHPF elevator) went over the required speed.	
431.64	The bin 2 motor (SHPF elevator) did not reach the required speed.	
431.65	The bin 2 motor (SHPF elevator) went over the required speed.	
432.13	The bin 1 left stapler head did not reach its home position.	See **"SHPF left staple jam service check" on page 287**.
432.15	The bin 1 left stapler head did not clear its home position.	
432.23	The bin 2 left stapler head did not reach its home position.	
432.25	The bin 2 left stapler head did not clear its home position.	
433.13	Paper going to bin 1 did not reach the left sensor (SHPF staple throat paper present) on time.	See **"SHPF left staple throat jam service check" on page 289**.
433.14	Paper going to bin 1 cleared the left sensor (SHPF staple throat paper present) earlier than expected.	
433.15	Paper going to bin 1 did not clear the left sensor (SHPF staple throat paper present) on time.	
433.23	Paper going to bin 2 did not reach the left sensor (SHPF staple throat paper present) on time.	
433.24	Paper going to bin 2 cleared the left sensor (SHPF staple throat paper present) earlier than expected.	
433.25	Paper going to bin 2 did not clear the left sensor (SHPF staple throat paper present) on time.	

Diagnostics and troubleshooting

Error code	Description	Action
434.19	The bin 1 left stapler head failed to prime.	See **"SHPF left staple jam service check" on page 287**.
434.29	The bin 2 left stapler head failed to prime.	

SHPF stapler head prime failure service check

Action	Yes	No
Step 1 Make sure that all the optional bins are properly installed. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Clean all the optional bin doors, and then check the paper path and bins for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 4.	Go to step 3.
Step 3 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Clear the optional bin paper path rollers of any dirt and contamination. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Output bin quick feed** > **Feed to all bins** **b** Touch **Single** or **Continuous**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 **a** Enter the Diagnostics menu, and then navigate to: **Output device adjustments** > **Staple test** **b** Select the staple job for the right staple unit. Does the finisher staple?	Go to step 10.	Go to step 7.

Action	Yes	No
Step 7 **a** Remove the SHPF right cover. See **"Staple, hole punch finisher right cover removal" on page 714**. **b** Make sure that the staple cartridge is properly installed. **c** Clear the staple unit of any obstructions. **d** Reseat the staple unit cables. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Check the staple unit for damage. Is the staple unit free of damage?	Go to step 10.	Go to step 9.
Step 9 Replace the staple unit. See **"Right staple unit removal" on page 739**. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 **a** Remove the SHPF left cover. See **"Staple, hole punch finisher left cover removal" on page 712**. **b** Make sure that the controller board of the affected optional bin is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Check the affected controller board and its connector pins for damage. Are the bin controller board and its connectors free of damage?	Contact the next level of support.	Go to step 12.
Step 12 Replace the bin controller board. See **"Staple, hole punch finisher controller board removal" on page 718**. Does the problem remain?	Contact the next level of support.	The problem is solved.

SHPF elevator top jam service check

Action	Yes	No
Step 1 Make sure that all the optional bins are properly installed. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Clean all the optional bin doors, and then check the paper path and bins for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 4.	Go to step 3.
Step 3 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Clear the optional bin paper path rollers of any dirt and contamination. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Output bin quick feed** > **Feed to all bins** **b** Touch **Single** or **Continuous**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 **a** Enter the Diagnostics menu, and then navigate to: **Output device adjustments/tests** > **Output device sensor tests** > **Staple, hole punch finisher** **b** Find the sensor (Bin elevator top). Does the sensor status change while toggling the sensor?	Go to step 10.	Go to step 7.
Step 7 **a** Remove the SHPF left cover. See **"Staple, hole punch finisher left cover removal" on page 712**. **b** Reseat the cable of the sensor (SHPF elevator, top) on the SHPF controller board. Does the problem remain?	Go to step 8.	The problem is solved.

Action	Yes	No
Step 8 Check the sensor for improper installation, contamination, and damage. Is the sensor properly installed and free of contamination and damage?	Go to step 10.	Go to step 9.
Step 9 Reinstall or replace the sensor. See **"Staple, hole punch finisher elevator drive removal" on page 735**. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Reseat the cable on the motor (SHPF elevator). Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Check the SHPF elevator drive for improper installation and damage. Is the elevator drive properly installed and free of damage?	Go to step 13.	Go to step 12.
Step 12 Reinstall or replace the elevator drive. See **"Staple, hole punch finisher elevator drive removal" on page 735**. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 **a** Remove the SHPF left cover. See **"Staple, hole punch finisher left cover removal" on page 712**. **b** Make sure that the controller board of the affected optional bin is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 14.	The problem is solved.
Step 14 Check the affected controller board and its connector pins for damage. Are the bin controller board and its connectors free of damage?	Contact the next level of support.	Go to step 15.
Step 15 Replace the bin controller board. See **"Staple, hole punch finisher controller board removal" on page 718**. Does the problem remain?	Contact the next level of support.	The problem is solved.

SHPF left staple jam service check

Action	Yes	No
Step 1 Make sure that all the optional bins are properly installed. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Clean all the optional bin doors, and then check the paper path and bins for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 4.	Go to step 3.
Step 3 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Clear the optional bin paper path rollers of any dirt and contamination. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Output bin quick feed** > **Feed to all bins** **b** Touch **Single** or **Continuous**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 **a** Enter the Diagnostics menu, and then navigate to: **Output device adjustments** > **Staple test** **b** Select the staple job for the left staple unit. Does the finisher staple?	Go to step 13.	Go to step 7.
Step 7 **a** Remove the SHPF left cover. See **"Staple, hole punch finisher left cover removal" on page 712**. **b** Make sure that the SHPF staple cartridge door close limit switch is properly installed. Reseat the cable on the SHPF controller board. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Check the limit switch and its connector pins for damage. Are the limit switch and its connectors free of damage?	Go to step 10.	Go to step 9.

Action	Yes	No
Step 9 Replace the limit switch. See **"SHPF staple cartridge door close limit switch removal" on page 719**. Does the problem remain?	Go to step 10.	The problem is solved.

Step 10
  a Make sure that the staple cartridge is properly installed.
  b Clear the staple unit of any obstructions.
  c Reseat the staple unit cables.
 	
Does the problem remain?
	Go to step 11.	The problem is solved.

Step 11 Check the staple unit for damage. Is the staple unit free of damage?	Go to step 13.	Go to step 12.
Step 12 Replace the staple unit. See **"Left staple unit removal" on page 722**. Does the problem remain?	Go to step 13.	The problem is solved.

Step 13
  a Remove the SHPF left cover. See **"Staple, hole punch finisher left cover removal" on page 712**.
  b Make sure that the controller board of the affected optional bin is properly installed. Reseat all the cables on the controller board.
 	
Does the problem remain?
	Go to step 14.	The problem is solved.

Step 14 Check the affected controller board and its connector pins for damage. Are the bin controller board and its connectors free of damage?	Contact the next level of support.	Go to step 15.
Step 15 Replace the bin controller board. See **"Staple, hole punch finisher controller board removal" on page 718**. Does the problem remain?	Contact the next level of support.	The problem is solved.

SHPF left staple throat jam service check

Action	Yes	No
Step 1 Make sure that all the optional bins are properly installed. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Clean all the optional bin doors, and then check the paper path and bins for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 4.	Go to step 3.
Step 3 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Clear the optional bin paper path rollers of any dirt and contamination. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Output bin quick feed** > **Feed to all bins** **b** Touch **Single** or **Continuous**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 **a** Enter the Diagnostics menu, and then navigate to: **Output device adjustments/tests** > **Output device sensor tests** > **Staple, hole punch finisher** **b** Find the sensor (Stapler throat, left). Does the sensor status change while toggling the sensor?	Go to step 10.	Go to step 7.
Step 7 **a** Remove the left staple unit. See **"Left staple unit removal" on page 722**. **b** Reseat the cable on the sensor (SHPF staple throat paper present) and on the SHPF controller board. Does the problem remain?	Go to step 8.	The problem is solved.

Action	Yes	No
Step 8 Check the sensor for improper installation, contamination, and damage. Is the sensor properly installed and free of contamination and damage?	Go to step 10.	Go to step 9.
Step 9 Reinstall or replace the sensor. See **"Left staple unit removal" on page 722**. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 a Remove the left staple unit. See **"Left staple unit removal" on page 722**. b Make sure that the controller board of the affected optional bin is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Check the affected controller board and its connector pins for damage. Are the bin controller board and its connectors free of damage?	Contact the next level of support.	Go to step 12.
Step 12 Replace the bin controller board. See **"Staple, hole punch finisher controller board removal" on page 718**. Does the problem remain?	Contact the next level of support.	The problem is solved.

435–438 paper jams

435–438 paper jam messages

Error code	Description	Action
435.13	The bin 1 stack height actuator did not reach the sensor (staple finisher stack height) on time.	See **"Staple finisher stack jam service check" on page 291**.
435.13	The bin 1 stack height actuator did not reach the sensor (SHPF stack height) on time.	See **"SHPF stack jam service check" on page 295**.

Error code	Description	Action
435.15	The bin 1 stack height actuator did not clear the sensor (staple finisher stack height) on time.	See **"Staple finisher stack jam service check" on page 291**.
435.15	The bin 1 stack height actuator did not clear the sensor (SHPF stack height) on time.	See **"SHPF stack jam service check" on page 295**.
435.23	The bin 2 stack height actuator did not reach the sensor (staple finisher stack height) on time.	See **"Staple finisher stack jam service check" on page 291**.
435.23	The bin 2 stack height actuator did not reach the sensor (SHPF stack height) on time.	See **"SHPF stack jam service check" on page 295**.
435.25	The bin 2 stack height actuator did not clear the sensor (staple finisher stack height) on time.	See **"Staple finisher stack jam service check" on page 291**.
435.25	The bin 2 stack height actuator did not clear the sensor (SHPF stack height) on time.	See **"SHPF stack jam service check" on page 295**.
438.xx	A mechanical reset timeout occurred at the staple finisher or SHPF.	See **"Staple finisher timeout error service check" on page 293** or **"SHPF timeout error service check" on page 297**.

Staple finisher stack jam service check

Action	Yes	No
Step 1 Make sure that all the optional bins are properly installed. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Open all optional bin doors, and then check the paper path and bins for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 4.	Go to step 3.
Step 3 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Clear the optional bin paper path rollers of any dirt and contamination. Does the problem remain?	Go to step 5.	The problem is solved.

Action	Yes	No
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Output bin quick feed** > **Feed to all bins** **b** Touch **Single** or **Continuous**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 **a** Remove the staple finisher left cover. See **"Staple finisher left cover removal" on page 597**. **b** Reseat the cable on the motor (staple finisher stack height) and on the staple finisher controller board. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Check the staple finisher stack height assembly and its motor for improper installation and damage. Is the stack height assembly properly installed and free of damage?	Go to step 9.	Go to step 8.
Step 8 Reinstall or replace the stack height assembly. See **"Staple finisher stack height assembly removal" on page 642**. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Reseat the cable on the sensor (staple finisher stack height) and on the staple finisher controller board. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Check the sensor for improper installation, contamination, and damage. Is the sensor properly installed and free of contamination and damage?	Go to step 12.	Go to step 11.
Step 11 Reinstall or replace the sensor. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 Make sure that the controller board of the affected optional bin is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 13.	The problem is solved.

Action	Yes	No
Step 13 Check the affected controller board and its connector pins for damage. Are the bin controller board and its connectors free of damage?	Contact the next level of support.	Go to step 14.
Step 14 Replace the bin controller board. See **"Staple finisher controller board removal" on page 603**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Staple finisher timeout error service check

Action	Yes	No
Step 1 Make sure that all the optional bins are properly installed. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Open all optional bin doors, and then check the paper path and bins for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 4.	Go to step 3.
Step 3 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Clear the optional bin paper path rollers of any dirt and contamination. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 a Enter the Diagnostics menu, and then navigate to: **Output bin quick feed** > **Feed to all bins** b Touch **Single** or **Continuous**. Does the problem remain?	Go to step 6.	The problem is solved.

Action	Yes	No
Step 6 **a** Remove the staple finisher left cover. See **"Staple finisher left cover removal" on page 597**. **b** Reseat the staple finisher interface cable on the controller board. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 **a** Remove the staple finisher. See **"Optional staple finisher removal" on page 594**. **b** Check the connector and pins of the staple finisher interface cable for damage. **c** Check the staple finisher interface cable for improper installation. Is the interface cable properly installed and free of damage?	Go to step 9.	Go to step 8.
Step 8 Reinstall or replace the interface cable. See **"Staple finisher interface cable removal" on page 608**. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Make sure that the controller board of the affected optional bin is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Check the affected controller board and its connector pins for damage. Are the bin controller board and its connectors free of damage?	Contact the next level of support.	Go to step 11.
Step 11 Replace the bin controller board. See **"Staple finisher controller board removal" on page 603**. Does the problem remain?	Contact the next level of support.	The problem is solved.

SHPF stack jam service check

Action	Yes	No
Step 1 Make sure that all the optional bins are properly installed. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Clean all the optional bin doors, and then check the paper path and bins for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 4.	Go to step 3.
Step 3 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Clear the optional bin paper path rollers of any dirt and contamination. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Output bin quick feed** > **Feed to all bins** **b** Touch **Single** or **Continuous**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 **a** Enter the Diagnostics menu, and then navigate to: **Output device adjustments/tests** > **Output device sensor tests** > **Staple, hole punch finisher** **b** Find the sensor (Compiler stack height). Does the sensor status change while toggling the sensor?	Go to step 10.	Go to step 7.
Step 7 **a** Remove the SHPF left cover. See **"Staple, hole punch finisher left cover removal" on page 712**. **b** Reseat the cable on the sensor (SHPF stack height) and on the SHPF controller board. Does the problem remain?	Go to step 8.	The problem is solved.

Action	Yes	No
Step 8 Check the sensor for improper installation, contamination, and damage. Is the sensor properly installed and free of contamination and damage?	Go to step 10.	Go to step 9.
Step 9 Reinstall or replace the sensor. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 **a** Remove the SHPF left cover. See **"Staple, hole punch finisher left cover removal" on page 712**. **b** Reseat the cable on the motor (SHPF stack height) and on the SHPF controller board. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Check the SHPF stack height assembly and its motor for improper installation and damage. Is the stack height assembly properly installed and free of damage?	Go to step 13.	Go to step 12.
Step 12 Reinstall or replace the stack height assembly. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 Make sure that the controller board of the affected optional bin is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 14.	The problem is solved.
Step 14 Check the affected controller board and its connector pins for damage. Are the bin controller board and its connectors free of damage?	Contact the next level of support.	Go to step 15.
Step 15 Replace the bin controller board. See **"Staple, hole punch finisher controller board removal" on page 718**. Does the problem remain?	Contact the next level of support.	The problem is solved.

SHPF timeout error service check

Action	Yes	No
Step 1 Make sure that all the optional bins are properly installed. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Clean all the optional bin doors, and then check the paper path and bins for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 4.	Go to step 3.
Step 3 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Clear the optional bin paper path rollers of any dirt and contamination. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Output bin quick feed** > **Feed to all bins** **b** Touch **Single** or **Continuous**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 **a** Remove the SHPF left cover. See **"Staple, hole punch finisher left cover removal" on page 712**. **b** Reseat the staple, hole punch finisher interface cable on the SHPF controller board. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 **a** Remove the staple, hole punch finisher. See **"Optional staple, hole punch finisher removal" on page 711**. **b** Check the connector and pins of the staple, hole punch finisher interface cable for damage. **c** Check the staple, hole punch finisher interface cable for improper installation. Is the interface cable properly installed and free of damage?	Go to step 9.	Go to step 8.

Action	Yes	No
Step 8 Reinstall or replace the interface cable. See **"Staple, hole punch finisher interface cable removal" on page 724**. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Make sure that the HPU controller board is properly installed. Reseat the cables on the HPU controller board. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Check the HPU controller board and its connector pins for damage. Are the HPU controller board and its connectors free of damage?	Go to step 11.	Contact the next level of support.
Step 11 Make sure that the controller board of the affected optional bin is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 Check the affected controller board and its connector pins for damage. Are the bin controller board and its connectors free of damage?	Contact the next level of support.	Go to step 13.
Step 13 Replace the bin controller board. See **"Staple, hole punch finisher controller board removal" on page 718**. Does the problem remain?	Contact the next level of support.	The problem is solved.

44y paper jams

440–444 paper jam messages

Error code	Description	Action
440.11	Paper remains detected at the bin 1 sensor (HPU leading edge) after the printer is turned on.	See **"Sensor (HPU leading edge) hole punch jam service check" on page 300**.
440.13	During a hole punch job, paper did not reach the bin 1 sensor (HPU leading edge) on time.	
440.15	During a hole punch job, paper did not clear the bin 1 sensor (HPU leading edge) on time.	
440.19	During a hole punch job, too many sheets were detected at bin 1.	
440.21	Paper remains detected at the bin 2 sensor (HPU leading edge) after the printer is turned on.	
440.23	During a hole punch job, paper did not reach the bin 2 sensor (HPU leading edge) on time.	
440.25	During a hole punch job, paper did not clear the bin 2 sensor (HPU leading edge) on time.	
440.29	During a hole punch job, too many sheets were detected at bin 2.	
441.11	Paper remains detected at the bin 1 sensor (HPU trailing edge) after the printer is turned on.	See **"Sensor (HPU trailing edge) jam service check" on page 302**.
441.13	Paper did not reach the bin 1 sensor (HPU trailing edge) on time.	
441.15	Paper did not clear the bin 1 sensor (HPU trailing edge) on time.	
441.21	Paper remains detected at the bin 2 sensor (HPU trailing edge) after the printer is turned on.	
441.23	Paper did not reach the bin 2 sensor (HPU trailing edge) on time.	
441.25	Paper did not clear the bin 2 sensor (HPU trailing edge) on time.	

Error code	Description	Action
442.13	Paper did not reach the bin 1 sensor (SHPF light array) on time.	See **"Sensor (SHPF light array) jam service check" on page 304**.
442.15	Paper did not clear the bin 1 sensor (SHPF light array) on time.	
442.19	A bin 1 sensor (SHPF light array) error occurred.	
442.23	Paper did not reach the bin 2 sensor (SHPF light array) on time.	
442.25	Paper did not clear the bin 2 sensor (SHPF light array) on time.	
442.29	A bin 2 sensor (SHPF light array) error occurred.	
444.13	The bin 1 hole punch did not reach its home position on time.	See **"SHPF hole punch drive failure service check" on page 305**.
444.15	The bin 1 hole punch did not clear its home position on time.	
444.19	A bin 1 hole punch homing error occurred.	
444.23	The bin 2 hole punch did not reach its home position on time.	
444.25	The bin 2 hole punch did not clear its home position on time.	
444.29	A bin 2 hole punch homing error occurred.	

Sensor (HPU leading edge) hole punch jam service check

Action	Yes	No
Step 1 Make sure that all the optional bins are properly installed. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Clean all the optional bin doors, and then check the paper path and bins for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 4.	Go to step 3.
Step 3 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 4.	The problem is solved.

Action	Yes	No
Step 4 Clear the optional bin paper path rollers of any dirt and contamination. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Output bin quick feed** > **Feed to all bins** **b** Touch **Single** or **Continuous**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 **a** Remove the SHPF left cover. See **"Staple, hole punch finisher left cover removal" on page 712**. **b** Make sure that the HPU controller board is properly installed. Reseat the cables on the HPU controller board. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Check the HPU controller board and its connector pins for damage. Are the HPU controller board and its connectors free of damage?	Go to step 8.	Contact the next level of support.
Step 8 Make sure that the controller board of the affected optional bin is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Check the affected controller board and its connector pins for damage. Are the bin controller board and its connectors free of damage?	Contact the next level of support.	Go to step 10.
Step 10 Replace the bin controller board. See **"Staple, hole punch finisher controller board removal" on page 718**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Sensor (HPU trailing edge) jam service check

Action	Yes	No
Step 1 Make sure that all the optional bins are properly installed. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Clean all the optional bin doors, and then check the paper path and bins for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 4.	Go to step 3.
Step 3 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Clear the optional bin paper path rollers of any dirt and contamination. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Output bin quick feed** > **Feed to all bins** **b** Touch **Single** or **Continuous**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 **a** Remove the SHPF left cover. See **"Staple, hole punch finisher left cover removal" on page 712**. **b** Reseat the staple, hole punch finisher interface cable on the SHPF controller board. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 **a** Remove the staple, hole punch finisher. See **"Optional staple, hole punch finisher removal" on page 711**. **b** Check the connector and pins of the staple, hole punch finisher interface cable for damage. **c** Check the staple, hole punch finisher interface cable for improper installation. Is the interface cable properly installed and free of damage?	Go to step 9.	Go to step 8.

Action	Yes	No
Step 8 Reinstall or replace the interface cable. See **"Staple, hole punch finisher interface cable removal" on page 724**. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Make sure that the cable J13 from the SHPF controller board is properly connected with the cable J14 on the HPU controller board. **Warning—Potential Damage:** Cable J14 and cable J16 on the HPU controller board are not interchangeable. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Make sure that the HPU controller board is properly installed. Reseat the cables on the HPU controller board. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Check the HPU controller board and its connector pins for damage. Are the HPU controller board and its connectors free of damage?	Go to step 12.	Contact the next level of support.
Step 12 Make sure that the controller board of the affected optional bin is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 Check the affected controller board and its connector pins for damage. Are the bin controller board and its connectors free of damage?	Contact the next level of support.	Go to step 14.
Step 14 Replace the bin controller board. See **"Staple, hole punch finisher controller board removal" on page 718**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Sensor (SHPF light array) jam service check

Action	Yes	No
Step 1 Make sure that all the optional bins are properly installed. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Clean all the optional bin doors, and then check the paper path and bins for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 4.	Go to step 3.
Step 3 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Clear the optional bin paper path rollers of any dirt and contamination. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 a Enter the Diagnostics menu, and then navigate to: **Output bin quick feed** > **Feed to all bins** b Touch **Single** or **Continuous**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 a Remove the SHPF left cover. See **"Staple, hole punch finisher left cover removal" on page 712**. b Reseat the staple, hole punch finisher interface cable on the SHPF controller board. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 a Remove the staple, hole punch finisher. See **"Optional staple, hole punch finisher removal" on page 711**. b Check the connector and pins of the staple, hole punch finisher interface cable for damage. c Check the staple, hole punch finisher interface cable for improper installation. Is the interface cable properly installed and free of damage?	Go to step 9.	Go to step 8.

Action	Yes	No
Step 8 Reinstall or replace the interface cable. See **"Staple, hole punch finisher interface cable removal" on page 724**. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Make sure that the HPU controller board is properly installed. Reseat the cables on the HPU controller board. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Check the HPU controller board and its connector pins for damage. Are the HPU controller board and its connectors free of damage?	Go to step 11.	Contact the next level of support.
Step 11 Make sure that the controller board of the affected optional bin is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 Check the affected controller board and its connector pins for damage. Are the bin controller board and its connectors free of damage?	Contact the next level of support.	Go to step 13.
Step 13 Replace the bin controller board. See **"Staple, hole punch finisher controller board removal" on page 718**. Does the problem remain?	Contact the next level of support.	The problem is solved.

SHPF hole punch drive failure service check

Action	Yes	No
Step 1 Make sure that all the optional bins are properly installed. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Clean all the optional bin doors, and then check the paper path and bins for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 4.	Go to step 3.

Action	Yes	No
Step 3 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Clear the optional bin paper path rollers of any dirt and contamination. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Output bin quick feed** > **Feed to all bins** **b** Touch **Single** or **Continuous**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 **a** Remove the SHPF left cover. See **"Staple, hole punch finisher left cover removal" on page 712**. **b** Reseat the staple, hole punch finisher interface cable on the SHPF controller board. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 **a** Remove the staple, hole punch finisher. See **"Optional staple, hole punch finisher removal" on page 711**. **b** Check the connector and pins of the staple, hole punch finisher interface cable for damage. **c** Check the staple, hole punch finisher interface cable for improper installation. Is the interface cable properly installed and free of damage?	Go to step 9.	Go to step 8.
Step 8 Reinstall or replace the interface cable. See **"Staple, hole punch finisher interface cable removal" on page 724**. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Reseat the cable on the motor (hole punch). Does the problem remain?	Go to step 10.	The problem is solved.

Action	Yes	No
Step 10 Make sure that the HPU controller board is properly installed. Reseat the cables on the HPU controller board. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Check the HPU controller board and its connector pins for damage. Are the HPU controller board and its connectors free of damage?	Go to step 12.	Contact the next level of support.
Step 12 Make sure that the controller board of the affected optional bin is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 Check the affected controller board and its connector pins for damage. Are the bin controller board and its connectors free of damage?	Contact the next level of support.	Go to step 14.
Step 14 Replace the bin controller board. See **"Staple, hole punch finisher controller board removal" on page 718**. Does the problem remain?	Contact the next level of support.	The problem is solved.

User attendance messages

10–32 user attendance errors

10–32 user attendance messages

Error code	Description	Action
10.01	Too many vinyl labels printed successively.	Reduce the vinyl labels printed. Print less than 50 vinyl labels in a row, or print at least one vinyl label per six plain paper pages.
10.02	Too many vinyl labels printed successively.	
31.40	A toner cartridge smart chip or sensor communication problem was detected.	See **"Toner cartridge smart chip error service check" on page 308**.
31.60	An imaging unit smart chip or sensor communication problem was detected.	See **"Imaging unit smart chip error service check" on page 310**.
31.80	A fuser smart chip or sensor communication problem was detected.	See **"Fuser smart chip error service check" on page 311**.

Error code	Description	Action
32.40A 32.40B 32.40C 32.40E 32.40F	The toner cartridge is unsupported. Letter code descriptions: • A—Unsupported memory map version in the smart chip • B—Failed capacity class/model compatibility check • C—Failed OEM check • E—The supply is on the revoked list • F—The toner cartridge is MICR, and the firmware release does not support MICR	See **"Unsupported third party supply service check" on page 312**.
32.40D	The toner cartridge is incorrect or unsupported. Letter code description: • D—Failed SWE marriage check	See **"Unsupported toner cartridge service check" on page 313**.
32.40Z	The toner cartridge is incorrect or unsupported. Letter code description: • Z—Failed barrel shutter sensor	See **"Toner cartridge shutter error service check" on page 315**.
32.60	The imaging unit is unsupported.	See **"Unsupported third party supply service check" on page 312**.
32.80	The fuser is unsupported.	

Toner cartridge smart chip error service check

Action	Yes	No
Step 1 Check if the printer is using a genuine and supported Sharp toner cartridge. **Note:** If the printer is using a third-party cartridge, then refer the users to their cartridge supplier. Is the printer using a genuine and supported toner cartridge?	Go to step 3.	Go to step 2.
Step 2 Install a genuine Sharp toner cartridge. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Make sure that the toner cartridge is properly installed. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Remove the toner cartridge, and then install a different unit. Does the problem remain?	Go to step 5.	The problem is solved.

Action	Yes	No
Step 5 **a** Remove the left cover. See **"Left cover removal" on page 423**. **b** Remove the right cover. See **"Right cover removal" on page 434**. **c** Reseat the cable at the sensor (toner smart chip) and the cable J66 on the controller board. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Check the sensor (toner smart chip) and its contact for damage. Is the sensor and its contact free of damage?	Go to step 8.	Go to step 7.
Step 7 Replace the sensor (toner smart chip). See **"Sensor (toner smart chip) removal" on page 432**. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Check the RIP firmware version. Does the RIP firmware have the latest version?	Go to step 10.	Go to step 9.
Step 9 Update the RIP firmware. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Restart the printer. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Check the printer firmware version. Does the printer firmware have the latest version?	Contact the next level of support.	Go to step 12.
Step 12 Update the printer firmware. Does the problem remain?	Contact the next level of support.	The problem is solved.

Imaging unit smart chip error service check

Action	Yes	No
Step 1 Check if the printer is using a genuine and supported Sharp imaging unit. Is the printer using a genuine and supported imaging unit?	Go to step 3.	Go to step 2.
Step 2 Install a genuine and supported imaging unit. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Make sure that the imaging unit is properly installed. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Remove the imaging unit, and then install a different unit. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Remove the right cover. See **"Right cover removal" on page 434**. **b** Reseat the cables of the high voltage contacts guide on the HVPS and the controller board. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Check the high voltage contacts and its cables for damage. Are the contacts and its cables free of damage?	Go to step 8.	Go to step 7.
Step 7 Replace the high voltage contacts guide. See **"High voltage contacts guide removal" on page 442**. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Check the RIP firmware version. Does the RIP firmware have the latest version?	Go to step 10.	Go to step 9.
Step 9 Update the RIP firmware. Does the problem remain?	Go to step 10.	The problem is solved.

Action	Yes	No
Step 10 Restart the printer. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Check the printer firmware version. Does the printer firmware have the latest version?	Contact the next level of support.	Go to step 12.
Step 12 Update the printer firmware. Does the problem remain?	Contact the next level of support.	The problem is solved.

Fuser smart chip error service check

Action	Yes	No
Step 1 Check if the printer is using a genuine and supported Sharp fuser. Is the printer using a genuine and supported fuser?	Go to step 3.	Go to step 2.
Step 2 Install a genuine and supported fuser. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Make sure that the fuser is properly installed. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 **a** Remove the right cover. See **"Right cover removal" on page 434**. **b** Check the cable J60 on the controller board for proper connection. Is the cable properly connected?	Go to step 6.	Go to step 5.
Step 5 Reseat the cable. Does the problem remain?	Go to step 6.	The problem is solved.

Action	Yes	No
Step 6 Replace the fuser. See **"Fuser removal" on page 465**. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Check the RIP firmware version. Does the RIP firmware have the latest version?	Go to step 9.	Go to step 8.
Step 8 Update the RIP firmware. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Restart the printer. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Check the printer firmware version. Does the printer firmware have the latest version?	Contact the next level of support.	Go to step 11.
Step 11 Update the printer firmware. Does the problem remain?	Contact the next level of support.	The problem is solved.

Unsupported third party supply service check

Action	Yes	No
Step 1 Check whether third party supplies are used. • toner cartridge • imaging unit • fuser Are third party supplies used?	Go to step 2.	Contact the next level of support.
Step 2 Replace the third party supply (toner cartridge, imaging unit, or fuser) with a genuine Sharp part. Does the problem remain?	Contact the next level of support.	The problem is solved.

Unsupported toner cartridge service check

Action	Yes	No
Step 1 Check whether the correct toner cartridge is used. **Notes:** • The original or first toner cartridge used is called an SWE toner cartridge. SWE stands for *shipped with equipment*. The SWE toner cartridge cannot be installed to another printer. • If the SWE toner cartridge is used by another printer, then a 32.40D error occurs. Is the printer using the incorrect toner cartridge?	Go to step 2.	Contact the next level of support.
Step 2 Do either of the following: • Find the SWE toner cartridge, and then reinstall it. • Replace the cartridge with the correct and genuine Sharp part. Does the problem remain?	Contact the next level of support.	The problem is solved.

4y user attendance errors

41–44 user attendance messages

Error code	Description	Action
41.60	The toner cartridge and imaging unit are mismatched.	See **"Incompatible Sharp supply service check" on page 314**.
42.xy	The toner cartridge and printer regions are mismatched.	See **"Region mismatch service check" on page 314**.
43.40	A toner cartridge shutter error was detected.	See **"Toner cartridge shutter error service check" on page 315**.
44.40	The toner cartridge and printer are mismatched.	See **"Incompatible Sharp supply service check" on page 314**.
44.60	The imaging unit and printer are mismatched.	

Incompatible Sharp supply service check

Action	Yes	No
Step 1 Check whether the Sharp supplies used are genuine and compatible with the printer model. • toner cartridge • imaging unit • fuser Are the Sharp supplies used genuine and compatible?	Contact the next level of support.	Go to step 2.
Step 2 Replace the incorrect Sharp supply (toner cartridge, imaging unit, or fuser). Does the problem remain?	Contact the next level of support.	The problem is solved.

Region mismatch service check

Action	Yes	No
Step 1 Check if the toner cartridge has the correct region that matches the printer region. The *.xy* error code value represents the required region number, where *x* indicates the printer's region number and *y* for the cartridge's region number. • 0—Worldwide or Undefined region • 1—North America (United States, Canada) • 2—European Economic Area, Western Europe, Nordic countries, Switzerland • 3—Asia Pacific • 4—Latin America • 5—Rest of Europe, Middle East, Africa • 6—Australia, New Zealand • 9—Invalid region **Note:** To find the region settings of the printer and toner cartridge, print the print quality test pages. From the control panel, navigate to: **Settings** > **Troubleshooting** > **Print Quality Test Pages**. Do the regions match?	Contact the next level of support.	Go to step 2.
Step 2 Replace the mismatched toner cartridge with the correct supply. A toner cartridge with a worldwide region may also be used. Does the problem remain?	Contact the next level of support.	The problem is solved.

Toner cartridge shutter error service check

Action	Yes	No
Step 1 Check if the printer is using a genuine and supported Sharp toner cartridge. **Note:** If the printer is using a third-party cartridge, then refer the users to their cartridge supplier. Is the printer using a genuine and supported toner cartridge?	Go to step 3.	Go to step 2.
Step 2 Install a genuine Sharp toner cartridge. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 **a** Remove the toner cartridge. **b** Check the toner cartridge actuator (A) for damage. Is the actuator free of damage?	Go to step 5.	Go to step 4.
Step 4 Replace the toner cartridge. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Remove the toner cartridge shutter actuator. See **"Toner cartridge shutter actuator removal" on page 445**. **b** Check the toner cartridge shutter actuator for damage. Is the actuator free of damage?	Go to step 7.	Go to step 6.

Action	Yes	No
Step 6 Replace the toner cartridge shutter actuator. See **"Toner cartridge shutter actuator removal" on page 445**. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Check the sensor (toner cartridge shutter) for improper installation and damage. Is the sensor properly installed and free of damage?	Go to step 9.	Go to step 8.
Step 8 Reinstall or replace the sensor. See **"Sensor (toner cartridge shutter) removal" on page 445**. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 **a** Remove the right cover. See **"Right cover removal" on page 434**. **b** Check the sensor cable and the cable J8 on the controller board for proper connection. Is the cable properly connected?	Contact the next level of support.	Go to step 10.
Step 10 Reseat the cable. Does the problem remain?	Contact the next level of support.	The problem is solved.

5y user attendance errors

58–59 user attendance messages

Error code	Description	Action
58	The optional trays or optional bins installed are too many.	See **"Excess optional trays or optional bins service check" on page 317**.
59	The optional tray or optional bin is incompatible with the printer.	See **"Incompatible optional trays or optional bins service check" on page 317**.

Excess optional trays or optional bins service check

Action	Yes	No
a Turn off the printer, and then unplug it. **b** Remove the excess optional trays or optional bins. For more information, see **"Printer configurations" on page 753**. **c** Plug the printer, and then turn it on. Does the problem remain?	Contact the next level of support.	The problem is solved.

Incompatible optional trays or optional bins service check

Action	Yes	No
a Turn off the printer, and then unplug it. **b** Remove the incompatible optional trays or optional bins. For more information, see **"Printer configurations" on page 753**. **c** Plug the printer, and then turn it on. Does the problem remain?	Contact the next level of support.	The problem is solved.

8y user attendance errors

80–88 user attendance messages

Error code	Description	Action
80.01	The remaining life of the maintenance kit is nearly low.	Replace the maintenance kit.
80.03	The remaining life of the maintenance kit is nearly low.	
80.09	The remaining life of the maintenance kit is nearly low.	
80.11	The remaining life of the maintenance kit is low.	
80.13	The remaining life of the maintenance kit is low.	
80.19	The remaining life of the maintenance kit is low.	
80.21	The remaining life of the maintenance kit is very low.	
80.23	The remaining life of the maintenance kit is very low.	
80.29	The remaining life of the maintenance kit is very low.	

Error code	Description	Action
80.31	The maintenance kit life has ended.	Replace the maintenance kit.
80.33	The maintenance kit life has ended.	
80.36	The maintenance kit life has ended.	
80.39	The maintenance kit life has ended.	
80.41	The maintenance kit life has ended. The printer forces a hard stop on the fuser.	
80.43	The maintenance kit life has ended. The printer forces a hard stop on the fuser.	
80.48	The maintenance kit life has ended. The printer forces a hard stop on the fuser.	
84.00	The remaining life of the imaging unit is nearly low.	Replace the imaging unit.
84.01	The remaining life of the imaging unit is nearly low.	
84.02	The remaining life of the imaging unit is nearly low.	
84.09	The remaining life of the imaging unit is nearly low.	
84.11	The remaining life of the imaging unit is low.	
84.12	The remaining life of the imaging unit is low.	
84.13	The remaining life of the imaging unit is low.	
84.19	The remaining life of the imaging unit is low.	
84.21	The remaining life of the imaging unit is very low.	Replace the imaging unit.
84.22	The remaining life of the imaging unit is very low.	
84.23	The remaining life of the imaging unit is very low.	
84.29	The remaining life of the imaging unit is very low.	
84.31	The imaging unit life has ended.	
84.32	The imaging unit life has ended.	
84.33	The imaging unit life has ended.	
84.38	The imaging unit life has ended.	
84.41	The imaging unit life has ended.	Replace the imaging unit.
84.42	The imaging unit life has ended.	
84.43	The imaging unit life has ended.	
84.48	The imaging unit life has ended.	

Error code	Description	Action
88.00	The remaining life of the toner cartridge is nearly low.	Replace the toner cartridge.
88.09	The remaining life of the toner cartridge is nearly low.	
88.10	The remaining life of the toner cartridge is low.	
88.19	The remaining life of the toner cartridge is low.	
88.20	The remaining life of the toner cartridge is very low.	
88.29	The remaining life of the toner cartridge is very low.	
88.30	The toner cartridge life has ended.	
88.40	The toner cartridge life has ended. The printer forces a hard stop on the toner cartridge.	
88.48	The toner cartridge life has ended. The printer forces a hard stop on the toner cartridge.	

Printer hardware errors

111 errors

111 error messages

Error code	Description	Action
111.20	Printhead error (mirror motor lock) was detected before the motor was turned on.	See **"Printhead error service check" on page 320**.
111.21	No printhead power (+5V) when the laser servo started.	
111.30	The printhead failed during power on tests.	See **"Printhead error service check" on page 320**.
111.31	Printhead error (no first HSYNC) was detected.	
111.32	Printhead error (lost HSYNC) was detected.	
111.33	Printhead error (lost HSYNC) was detected during servo.	
111.34	Printhead error (mirror motor lost lock) was detected.	
111.35	Printhead error (mirror motor never got first lock) was detected.	
111.36	Printhead error (mirror motor lock never stabilized) was detected.	

Error code	Description	Action
111.40	The wrong printhead is installed.	See **"Printhead error service check" on page 320**.
111.41	Printhead NVRAM read failure occurred.	

Printhead error service check

Action	Yes	No
Step 1 Restart the printer. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Check if the cables J6 and J19 on the controller board are properly connected and free of damage. Are the cables properly connected and free of damage?	Go to step 4.	Go to step 3.
Step 3 Reseat the cables or replace the printhead. See **"Printhead removal" on page 468**. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Restart the printer. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Replace the controller board. See **"Controller board removal" on page 439**. Does the problem remain?	Contact the next level of support.	The problem is solved.

12y errors

120 error messages

Error code	Description	Action
120.80	Motor (fuser) does not turn on.	See **"Fuser drive failure service check" on page 323**.
120.81	Motor (fuser) does not turn off.	
120.82	Motor (fuser) speed did not ramp up to the required level.	
120.83	Motor (fuser) stalled.	
120.84	Motor (fuser) ran too slow.	
120.85	Motor (fuser) ran too fast.	
120.86	Motor (fuser) moved too long.	

121 error messages

Error code	Description	Action
121.00	Fuser did not reach the required temperature.	See **"Fuser temperature error service check" on page 324**.
121.01	During an attempt to heat up, the fuser was not detected.	
121.02	Fuser went over the required temperature (during EWC/line voltage detection).	
121.03	Fuser hardware and driver are mismatched.	
121.04	During an attempt to heat up, the fuser relay was open and the microcontroller was not reporting an error.	
121.05	During an attempt to heat up, the fuser relay was open and the microcontroller was reporting an error.	
121.09	Fuser fell below the required temperature for motors. **Note:** Error is not applicable to standby mode.	

Error code	Description	Action
121.10	Fuser did not reach the required temperature (during start of EWC/line voltage detection).	See **"Fuser temperature error service check" on page 324**.
121.11	Fuser reached the required temperature (during final EWC/line voltage detection) too late.	
121.12	Fuser did not reach the required temperature (during final EWC/line voltage detection).	
121.13	Fuser reached the required temperature (during final EWC/line voltage detection) too fast.	
121.19	Fuser high power trace reached the required temperature (during final EWC/line voltage detection) too fast.	
121.20	Fuser high power trace heating rate went over the limit.	See **"Fuser temperature error service check" on page 324**.
121.21	Fuser low power trace heating rate (from 165°C to 180°C) went over the limit.	
121.22	Open fuser relay was detected.	
121.28	Fuser did not reach the required temperature (during EP warm-up).	
121.30	Fuser did not reach the required temperature even if it has been on for a long time.	See **"Fuser temperature error service check" on page 324**.
121.32	Fuser did not reach the required temperature (on 100% power).	
121.33	Fuser did not reach the required temperature (while page is in the fuser).	
121.34	Fuser did not reach the required temperature (during steady state control).	
121.36	Open fuser relay was detected with very cold or unknown ambient temperature.	
121.50	Fuser went over the required temperature (during global overtemp check).	See **"Fuser temperature error service check" on page 324**.
121.51	Fuser went over the required temperature (at the secondary heater).	
121.52	Main thermistor temperature is out of range.	
121.53	Main thermistor temperature change rate is out of range.	
121.58	Edge thermistor temperature is out of range.	
121.59	Edge thermistor temperature change rate is out of range.	

Error code	Description	Action
121.60	Belt contact thermistor temperature is out of range.	See **"Fuser temperature error service check" on page 324**.
121.61	Belt contact thermistor temperature change rate is out of range.	
121.66	Narrow media thermistor temperature is out of range.	
121.67	Narrow media thermistor temperature change rate is out of range.	
121.71	Open fuser main heater thermistor was detected.	See **"Fuser temperature error service check" on page 324**.
121.74	Open fuser edge thermistor was detected.	
121.76	Open belt contact thermistor was detected.	
121.81	Open fuser backup roll thermistor was detected.	See **"Fuser temperature error service check" on page 324**.
121.82	Open fuser second backup roll thermistor was detected.	
121.83	Open fuser narrow media backup roll thermistor was detected.	

126 error messages

Error code	Description	Action
126.01	Line frequency has gone outside the operating range.	See **"LVPS failure service check" on page 326**.
126.05	The LVPS power dropped but the printer was not in sleep mode.	
126.06	LVPS 25V line error was detected.	
126.07	LVPS 5V rail was down during power-on.	
126.10	No line frequency was detected.	
126.11	Line frequency has gone outside the operating range.	

Fuser drive failure service check

Action	Yes	No
Step 1 Check if the following cables are properly connected and free of damage: • cable J71 on the controller board • fuser motor cable Are the cables properly connected and free of damage?	Go to step 3.	Go to step 2.

Action	Yes	No
Step 2 Reseat or replace the cables. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Restart the printer. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Replace the motor (main). See **"Main motor drive removal" on page 424**. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Restart the printer. Does the problem remain?	Contact the next level of support.	The problem is solved.

Fuser temperature error service check

Action	Yes	No
Step 1 Check the fuser for proper installation. Is the fuser properly installed?	Go to step 3.	Go to step 2.
Step 2 Reinstall the fuser. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Check if the fuser is a genuine and supported Sharp unit. Is the fuser a genuine and supported Sharp unit?	Go to step 4.	Go to step 6.
Step 4 Check if the fuser type is compatible with the specific model of the printer. Are the fuser and printer compatible?	Go to step 5.	Go to step 6.
Step 5 Check the fuser life. Is the fuser still within its rated or recommended life?	Go to step 7.	Go to step 6.

Action	Yes	No
Step 6 Replace the fuser. See **"Fuser removal" on page 465**. **Note:** Make sure that the new fuser is supported by the specific model of the printer. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Make sure that the voltage output of the electrical outlet matches the voltage rating of the printer. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Check the cable J66 on the controller board for proper connection. Is the cable properly connected?	Go to step 10.	Go to step 9.
Step 9 Reseat the cables. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Check the cables on the LVPS for proper connection. Are the cables properly connected?	Go to step 12.	Go to step 11.
Step 11 Reseat the cables. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 Make sure that the LVPS voltage selection switch is set to match with the voltage rating of the electrical outlet. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 Restart the printer. Does the problem remain?	Go to step 14.	The problem is solved.
Step 14 Replace the LVPS. See **"LVPS removal" on page 428**. Does the problem remain?	Go to step 15.	The problem is solved.

Action	Yes	No
Step 15 Restart the printer. Does the problem remain?	Contact the next level of support.	The problem is solved.

LVPS failure service check

Action	Yes	No
Step 1 Check if the printer is plugged to a power strip or UPS. Make sure that the printer is directly plugged to the electrical outlet. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Make sure that the voltage output of the electrical outlet matches the voltage rating of the printer. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Check the J62 cable on the controller board for proper connection. Is the cable properly connected?	Go to step 5.	Go to step 4.
Step 4 Reseat the cable. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Check the cables on the LVPS for proper connection. Are the cables properly connected?	Go to step 7.	Go to step 6.
Step 6 Reseat the cables. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Make sure that the LVPS voltage selection switch is set to match with the voltage rating of the electrical outlet. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Restart the printer. Does the problem remain?	Go to step 9.	The problem is solved.

Action	Yes	No
Step 9 Replace the LVPS. See **"LVPS removal" on page 428**. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Restart the printer. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Replace the controller board. See **"Controller board removal" on page 439**. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 Restart the printer. Does the problem remain?	Contact the next level of support.	The problem is solved.

133 errors

133 error messages

Error code	Description	Action
133.04	CTLS timeout was detected at the imaging unit.	See **"Imaging unit CTLS failure service check" on page 327**.
133.05	CTLS reading at the imaging unit is above the maximum expected value.	
133.06	CTLS reading at the imaging unit is below the minimum expected value.	
133.08	Excessive CTLS noise was detected at the imaging unit.	

Imaging unit CTLS failure service check

Action	Yes	No
Step 1 Check the imaging unit for proper installation. Is the imaging unit properly installed?	Go to step 3.	Go to step 2.
Step 2 Reinstall the imaging unit. Does the problem remain?	Go to step 3.	The problem is solved.

Action	Yes	No
Step 3 Replace the imaging unit. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Check if the cables J88 and JCTLS1 on the controller board are properly connected and free of damage. Are the cables properly connected and free of damage?	Go to step 6.	Go to step 5.
Step 5 Reseat or replace the cables. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Check the imaging unit high voltage contacts for damage. Are the high voltage contacts free of damage?	Go to step 8.	Go to step 7.
Step 7 Replace the imaging unit contact guide. See **"High voltage contacts guide removal" on page 442**. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Restart the printer. Does the problem remain?	Contact the next level of support.	The problem is solved.

14y errors

140 error messages

Error code	Description	Action
140.80	Motor (main) does not turn on.	See **"Main drive failure service check" on page 329**.
140.81	Motor (main) does not turn off.	
140.82	Motor (main) speed did not ramp up to the required level.	
140.83	Motor (main) stalled.	
140.84	Motor (main) ran too slow.	
140.85	Motor (main) ran too fast.	
140.86	Motor (main) moved too long.	
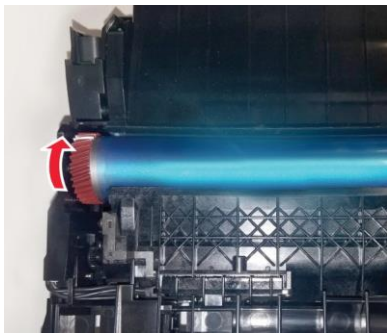
147 error messages

Error code	Description	Action
147.80	Motor (MPF) does not turn on.	See **"MPF drive failure service check" on page 335**.
147.81	Motor (MPF) does not turn off.	
147.82	Motor (MPF) speed did not ramp up to the required level.	
147.83	Motor (MPF) stalled.	
147.84	Motor (MPF) ran too slow.	
147.85	Motor (MPF) ran too fast.	
147.86	Motor (MPF) moved too long.	

149 error messages

Error code	Description	Action
149.80	Motor (redrive) does not turn on.	See **"Redrive drive failure service check" on page 330**.
149.81	Motor (redrive) does not turn off.	
149.82	Motor (redrive) speed did not ramp up to the required level.	
149.83	Motor (redrive) stalled.	
149.84	Motor (redrive) ran too slow.	
149.85	Motor (redrive) ran too fast.	
149.86	Motor (redrive) moved too long.	

Main drive failure service check

Action	Yes	No
Step 1 **a** Remove the imaging unit. **b** To check for cleaning blade failure, manually turn the photoconductor gear. Does the photoconductor drum rotate?	Go to step 3.	Go to step 2.

Action	Yes	No
Step 2 Replace the imaging unit. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Check if the following cables are properly connected and free of damage: • cable J71 on the controller board • main motor cable Are the cables properly connected and free of damage?	Go to step 5.	Go to step 4.
Step 4 Reseat or replace the cables. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Restart the printer. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Replace the motor (main). See **"Main motor drive removal" on page 424**. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Restart the printer. Does the problem remain?	Contact the next level of support.	The problem is solved.

Redrive drive failure service check

Action	Yes	No
Step 1 Check if the following cables are properly connected and free of damage: • cable J66 on the controller board • redrive motor cable Are the cables properly connected and free of damage?	Go to step 3.	Go to step 2.
Step 2 Reseat or replace the cables. Does the problem remain?	Go to step 3.	The problem is solved.

Action	Yes	No
Step 3 Restart the printer. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Replace the motor (redrive). See **"Motor (redrive) removal" on page 431**. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Restart the printer. Does the problem remain?	Contact the next level of support.	The problem is solved.

15y errors

150 error messages

Error code	Description	Action
150.80	Motor (duplex) does not turn on.	See **"Duplex drive failure service check" on page 332**.
150.81	Motor (duplex) does not turn off.	
150.82	Motor (duplex) speed did not ramp up to the required level.	
150.83	Motor (duplex) stalled.	
150.84	Motor (duplex) ran too slow.	
150.85	Motor (duplex) ran too fast.	
150.86	Motor (duplex) moved too long.	
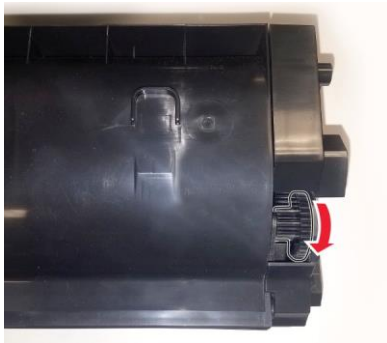
155 error messages

Error code	Description	Action
155.80	Motor (toner cartridge) does not turn on.	See **"Toner cartridge drive failure service check" on page 333**.
155.81	Motor (toner cartridge) does not turn off.	
155.82	Motor (toner cartridge) speed did not ramp up to the required level.	
155.83	Motor (toner cartridge) stalled.	
155.84	Motor (toner cartridge) ran too slow.	
155.85	Motor (toner cartridge) ran too fast.	
155.86	Motor (toner cartridge) moved too long.	

Duplex drive failure service check

Action	Yes	No
Step 1 Check if the following cables are properly connected and free of damage: • cable J27 on the controller board • duplex motor cable Are the cables properly connected and free of damage?	Go to step 3.	Go to step 2.
Step 2 Reseat or replace the cables. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Restart the printer. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Replace the motor (duplex). See **"Motor (duplex) removal" on page 463**. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Restart the printer. Does the problem remain?	Contact the next level of support.	The problem is solved.

Toner cartridge drive failure service check

Action	Yes	No
Step 1 **a** Remove the toner cartridge, and then check it for damage. **b** Manually turn the toner cartridge gear, and then check if it is stuck. Is the toner cartridge functional and free of damage?	Go to step 3.	Go to step 2.
Step 2 Replace the toner cartridge. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Check if the following cables are properly connected and free of damage: • cable J71 on the controller board • toner cartridge motor cable Are the cables properly connected and free of damage?	Go to step 5.	Go to step 4.
Step 4 Reseat or replace the cables. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Restart the printer. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Replace the toner cartridge drive. Does the problem remain?	Go to step 7.	The problem is solved.

Action	Yes	No
Step 7 Restart the printer. Does the problem remain?	Contact the next level of support.	The problem is solved.

160–161 errors

160 error messages

Error code	Description	Action
160.80	Motor (MPF) does not turn on.	See **"MPF drive failure service check" on page 335**.
160.81	Motor (MPF) does not turn off.	
160.82	Motor (MPF) speed did not ramp up to the required level.	
160.83	Motor (MPF) stalled.	
160.84	Motor (MPF) ran too slow.	
160.85	Motor (MPF) ran too fast.	
160.86	Motor (MPF) moved too long.	

161 error messages

Error code	Description	Action
161.80	Motor (tray 1 pick/lift) does not turn on.	See **"Tray 1 pick drive failure service check" on page 335**.
161.81	Motor (tray 1 pick/lift) does not turn off.	
161.82	Motor (tray 1 pick/lift) speed did not ramp up to the required level.	
161.83	Motor (tray 1 pick/lift) stalled.	
161.84	Motor (tray 1 pick/lift) ran too slow.	
161.85	Motor (tray 1 pick/lift) ran too fast.	
161.86	Motor (tray 1 pick/lift) moved too long.	

MPF drive failure service check

Action	Yes	No
Step 1 Check if the following cables are properly connected and free of damage: • cable J71 on the controller board • MPF motor cable Are the cables properly connected and free of damage?	Go to step 3.	Go to step 2.
Step 2 Reseat or replace the cables. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Restart the printer. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Replace the motor (MPF). See **"Motor (MPF) removal" on page 427**. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Replace the controller board. See **"Controller board removal" on page 439**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Restart the printer. Does the problem remain?	Contact the next level of support.	The problem is solved.

Tray 1 pick drive failure service check

Action	Yes	No
Step 1 Check if the following cables are properly connected and free of damage: • cable J73 on the controller board • tray 1 pick motor cable Are the cables properly connected and free of damage?	Go to step 3.	Go to step 2.

Action	Yes	No
Step 2 Reseat or replace the cables. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Restart the printer. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Replace the tray 1 paper feeder. See **"Paper feeder removal" on page 431**. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Restart the printer. Does the problem remain?	Contact the next level of support.	The problem is solved.

162–169 errors

162 error messages

Error code	Description	Action
162.80	Motor (tray 2 pick/lift) does not turn on.	See **"Optional tray pick drive failure service check" on page 341**.
162.81	Motor (tray 2 pick/lift) does not turn off.	
162.82	Motor (tray 2 pick/lift) speed did not ramp up to the required level.	
162.83	Motor (tray 2 pick/lift) stalled.	
162.84	Motor (tray 2 pick/lift) ran too slow.	
162.85	Motor (tray 2 pick/lift) ran too fast.	
162.86	Motor (tray 2 pick/lift) moved too long.	

163 error messages

Error code	Description	Action
163.80	Motor (tray 3 pick/lift) does not turn on.	See **"Optional tray pick drive failure service check" on page 341**.
163.81	Motor (tray 3 pick/lift) does not turn off.	
163.82	Motor (tray 3 pick/lift) speed did not ramp up to the required level.	
163.83	Motor (tray 3 pick/lift) stalled.	
163.84	Motor (tray 3 pick/lift) ran too slow.	
163.85	Motor (tray 3 pick/lift) ran too fast.	
163.86	Motor (tray 3 pick/lift) moved too long.	

164 error messages

Error code	Description	Action
164.80	Motor (tray 4 pick/lift) does not turn on.	See **"Optional tray pick drive failure service check" on page 341**.
164.81	Motor (tray 4 pick/lift) does not turn off.	
164.82	Motor (tray 4 pick/lift) speed did not ramp up to the required level.	
164.83	Motor (tray 4 pick/lift) stalled.	
164.84	Motor (tray 4 pick/lift) ran too slow.	
164.85	Motor (tray 4 pick/lift) ran too fast.	
164.86	Motor (tray 4 pick/lift) moved too long.	

165 error messages

Error code	Description	Action
165.80	Motor (tray 5 pick/lift) does not turn on.	See **"Optional tray pick drive failure service check" on page 341**.
165.81	Motor (tray 5 pick/lift) does not turn off.	
165.82	Motor (tray 5 pick/lift) speed did not ramp up to the required level.	
165.83	Motor (tray 5 pick/lift) stalled.	
165.84	Motor (tray 5 pick/lift) ran too slow.	
165.85	Motor (tray 5 pick/lift) ran too fast.	
165.86	Motor (tray 5 pick/lift) moved too long.	

166 error messages

Error code	Description	Action
166.70	The motor (2100-sheet tray 2 transport) or motor (2100-sheet tray 2 elevator) does not turn on.	See **"2100-sheet tray transport and elevator drive failure service check" on page 354**.
166.71	The motor (2100-sheet tray 2 transport) or motor (2100-sheet tray 2 elevator) does not turn off.	
166.72	The motor (2100-sheet tray 2 transport) or motor (2100-sheet tray 2 elevator) speed did not ramp up to the required level.	
166.73	The motor (2100-sheet tray 2 transport) or motor (2100-sheet tray 2 elevator) stalled.	
166.74	The motor (2100-sheet tray 2 transport) or motor (2100-sheet tray 2 elevator) ran too slow.	
166.75	The motor (2100-sheet tray 2 transport) or motor (2100-sheet tray 2 elevator) ran too fast.	
166.76	The motor (2100-sheet tray 2 transport) or motor (2100-sheet tray 2 elevator) ran too long.	
166.80	Motor (tray 2 transport) does not turn on.	See **"Tray 2 transport motor failure service check" on page 343**.
166.81	Motor (tray 2 transport) does not turn off.	
166.82	Motor (tray 2 transport) speed did not ramp up to the required level.	See **"Tray 2 transport drive failure service check" on page 344**.
166.83	Motor (tray 2 transport) stalled.	
166.84	Motor (tray 2 transport) ran too slow.	
166.85	Motor (tray 2 transport) ran too fast.	
166.86	Motor (tray 2 transport) ran too long.	

167 error messages

Error code	Description	Action
167.70	The motor (2100-sheet tray 3 transport) or motor (2100-sheet tray 3 elevator) does not turn on.	See **"2100-sheet tray transport and elevator drive failure service check" on page 354**.
167.71	The motor (2100-sheet tray 3 transport) or motor (2100-sheet tray 3 elevator) does not turn off.	
167.72	The motor (2100-sheet tray 3 transport) or motor (2100-sheet tray 3 elevator) speed did not ramp up to the required level.	
167.73	The motor (2100-sheet tray 3 transport) or motor (2100-sheet tray 3 elevator) stalled.	
167.74	The motor (2100-sheet tray 3 transport) or motor (2100-sheet tray 3 elevator) ran too slow.	
167.75	The motor (2100-sheet tray 3 transport) or motor (2100-sheet tray 3 elevator) ran too fast.	
167.76	The motor (2100-sheet tray 3 transport) or motor (2100-sheet tray 3 elevator) ran too long.	
167.80	Motor (tray 3 transport) does not turn on.	See **"Tray 3 transport motor failure service check" on page 346**.
167.81	Motor (tray 3 transport) does not turn off.	
167.82	Motor (tray 3 transport) speed did not ramp up to the required level.	See **"Tray 3 transport drive failure service check" on page 347**.
167.83	Motor (tray 3 transport) stalled.	
167.84	Motor (tray 3 transport) ran too slow.	
167.85	Motor (tray 3 transport) ran too fast.	
167.86	Motor (tray 3 transport) ran too long.	

168 error messages

Error code	Description	Action
168.70	The motor (2100-sheet tray 4 transport) or motor (2100-sheet tray 4 elevator) does not turn on.	See **"2100-sheet tray transport and elevator drive failure service check" on page 354**.
168.71	The motor (2100-sheet tray 4 transport) or motor (2100-sheet tray 4 elevator) does not turn off.	
168.72	The motor (2100-sheet tray 4 transport) or motor (2100-sheet tray 4 elevator) speed did not ramp up to the required level.	
168.73	The motor (2100-sheet tray 4 transport) or motor (2100-sheet tray 4 elevator) stalled.	
168.74	The motor (2100-sheet tray 4 transport) or motor (2100-sheet tray 4 elevator) ran too slow.	
168.75	The motor (2100-sheet tray 4 transport) or motor (2100-sheet tray 4 elevator) ran too fast.	
168.76	The motor (2100-sheet tray 4 transport) or motor (2100-sheet tray 4 elevator) ran too long.	
168.80	Motor (tray 4 transport) does not turn on.	See **"Tray 4 transport motor failure service check" on page 349**.
168.81	Motor (tray 4 transport) does not turn off.	
168.82	Motor (tray 4 transport) speed did not ramp up to the required level.	See **"Tray 4 transport drive failure service check" on page 350**.
168.83	Motor (tray 4 transport) stalled.	
168.84	Motor (tray 4 transport) ran too slow.	
168.85	Motor (tray 4 transport) ran too fast.	
168.86	Motor (tray 4 transport) ran too long.	

169 error messages

Error code	Description	Action
169.70	The motor (2100-sheet tray 5 transport) or motor (2100-sheet tray 5 elevator) does not turn on.	See **"2100-sheet tray transport and elevator drive failure service check" on page 354**.
169.71	The motor (2100-sheet tray 5 transport) or motor (2100-sheet tray 5 elevator) does not turn off.	
169.72	The motor (2100-sheet tray 5 transport) or motor (2100-sheet tray 5 elevator) speed did not ramp up to the required level.	
169.73	The motor (2100-sheet tray 5 transport) or motor (2100-sheet tray 5 elevator) stalled.	
169.74	The motor (2100-sheet tray 5 transport) or motor (2100-sheet tray 5 elevator) ran too slow.	
169.75	The motor (2100-sheet tray 5 transport) or motor (2100-sheet tray 5 elevator) ran too fast.	
169.76	The motor (2100-sheet tray 5 transport) or motor (2100-sheet tray 5 elevator) ran too long.	
169.80	Motor (tray 5 transport) does not turn on.	See **"Tray 5 transport motor failure service check" on page 352**.
169.81	Motor (tray 5 transport) does not turn off.	
169.82	Motor (tray 5 transport) speed did not ramp up to the required level.	See **"Tray 5 transport drive failure service check" on page 353**.
169.83	Motor (tray 5 transport) stalled.	
169.84	Motor (tray 5 transport) ran too slow.	
169.85	Motor (tray 5 transport) ran too fast.	
169.86	Motor (tray 5 transport) ran too long.	

Optional tray pick drive failure service check

Action	Yes	No
Step 1 Check the paper path and trays for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 3.	Go to step 2.
Step 2 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Make sure that all the trays and tray inserts are properly installed. Does the problem remain?	Go to step 4.	The problem is solved.

Action	Yes	No
Step 4 Enter the Diagnostics menu, and then navigate to: **Input tray quick print** >select source tray > **Single** Does the problem remain?	Go to step 5.	The problem is solved.

Step 5
  a Enter the Diagnostics menu, and then navigate to:
    Additional input tray diagnostics > **Motor tests**
  b Select the motor (Pick (tray x)), and then touch **Start**.
    Note: For tray x, choose the tray number of the affected source tray.
 	
Does the motor run?
	Go to step 8.	Go to step 6.

Step 6 Reseat the cable on the motor and on the optional tray controller board. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Replace the source tray paper feeder. See **"250- and 550-sheet tray paper feeder removal" on page 517**. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Check the source tray controller board and its connector pins for damage. Are the tray controller board and its connectors free of damage?	Contact the next level of support.	The problem is solved.
Step 9 Replace the source tray controller board. See **"250- and 550-sheet tray controller board removal" on page 519**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Tray 2 transport motor failure service check

Action	Yes	No
Step 1 Check the paper path and trays for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 3.	Go to step 2.
Step 2 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Make sure that all the trays and tray inserts are properly installed. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Enter the Diagnostics menu, and then navigate to: **Input tray quick print** > **Tray 3** > **Single** Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 a Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Motor tests** b Select the motor (Pass-through (tray 2)), and then touch **Start**. Does the motor run?	Go to step 8.	Go to step 6.
Step 6 Reseat the cable on the motor and on the optional tray controller board. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Replace the motor (tray 2 transport). See **"Motor (250- and 550-sheet tray transport) removal" on page 517**. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Make sure that the tray 2 interface cable is properly installed. Reseat the interface cable on the optional tray controller board. Does the problem remain?	Go to step 9.	The problem is solved.

Action	Yes	No
Step 9 Check the interface cable and its connector pins for damage. Is the interface cable free of damage?	Go to step 11.	Go to step 10.
Step 10 Replace the optional tray interface cable. See **"250- and 550-sheet tray interface cable removal" on page 523**. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Make sure that the optional tray controller board is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 Check the optional tray controller board and its connector pins for damage. Are the tray controller board and its connectors free of damage?	Contact the next level of support.	The problem is solved.
Step 13 Replace the optional tray controller board. See **"250- and 550-sheet tray controller board removal" on page 519**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Tray 2 transport drive failure service check

Action	Yes	No
Step 1 Check the paper path and trays for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 3.	Go to step 2.
Step 2 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Make sure that all the trays and tray inserts are properly installed. Does the problem remain?	Go to step 4.	The problem is solved.

Action	Yes	No
Step 4 Enter the Diagnostics menu, and then navigate to: **Input tray quick print** > **Tray 3** > **Single** Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Motor tests** **b** Select the motor (Pass-through (tray 2)), and then touch **Start**. Does the motor run?	Go to step 8.	Go to step 6.
Step 6 Reseat the cable on the motor and on the optional tray controller board. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Replace the motor (tray 2 transport). See **"Motor (250- and 550-sheet tray transport) removal" on page 517**. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Remove the optional tray insert, and then check if its transport rollers are functional and free of damage. **Note:** Turn the transport roller gear to check for proper mechanism. Are the tray insert and its rollers functional and free of damage?	Go to step 10.	Go to step 9.
Step 9 Replace the tray insert. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Check the optional tray controller board and its connector pins for damage. Are the tray controller board and its connectors free of damage?	Contact the next level of support.	The problem is solved.
Step 11 Replace the optional tray controller board. See **"250- and 550-sheet tray controller board removal" on page 519**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Tray 3 transport motor failure service check

Action	Yes	No
Step 1 Check the paper path and trays for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 3.	Go to step 2.
Step 2 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Make sure that all the trays and tray inserts are properly installed. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Enter the Diagnostics menu, and then navigate to: **Input tray quick print** > **Tray 4** > **Single** Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Motor tests** **b** Select the motor (Pass-through (tray 3)), and then touch **Start**. Does the motor run?	Go to step 8.	Go to step 6.
Step 6 Reseat the cable on the motor and on the optional tray controller board. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Replace the motor (tray 3 transport). See **"Motor (250- and 550-sheet tray transport) removal" on page 517**. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Make sure that the tray 3 interface cable is properly installed. Reseat the interface cable on the optional tray controller board. Does the problem remain?	Go to step 9.	The problem is solved.

Action	Yes	No
Step 9 Check the interface cable and its connector pins for damage. Is the interface cable free of damage?	Go to step 11.	Go to step 10.
Step 10 Replace the optional tray interface cable. See **"250- and 550-sheet tray interface cable removal" on page 523**. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Make sure that the optional tray controller board is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 Check the opitonal tray controller board and its connector pins for damage. Are the tray controller board and its connectors free of damage?	Contact the next level of support.	The problem is solved.
Step 13 Replace the optional tray controller board. See **"250- and 550-sheet tray controller board removal" on page 519**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Tray 3 transport drive failure service check

Action	Yes	No
Step 1 Check the paper path and trays for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 3.	Go to step 2.
Step 2 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Make sure that all the trays and tray inserts are properly installed. Does the problem remain?	Go to step 4.	The problem is solved.

Action	Yes	No
Step 4 Enter the Diagnostics menu, and then navigate to: **Input tray quick print** > **Tray 4** > **Single** Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Motor tests** **b** Select the motor (Pass-through (tray 3)), and then touch **Start**. Does the motor run?	Go to step 8.	Go to step 6.
Step 6 Reseat the cable on the motor and on the optional tray controller board. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Replace the motor (tray 3 transport). See **"Motor (250- and 550-sheet tray transport) removal" on page 517**. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Remove the optional tray insert, and then check if its transport rollers are functional and free of damage. **Note:** Turn the transport roller gear to check for proper mechanism. Are the tray insert and its rollers functional and free of damage?	Go to step 10.	Go to step 9.
Step 9 Replace the tray insert. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Check the optional tray controller board and its connector pins for damage. Are the tray controller board and its connectors free of damage?	Contact the next level of support.	The problem is solved.
Step 11 Replace the optional tray controller board. See **"250- and 550-sheet tray controller board removal" on page 519**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Tray 4 transport motor failure service check

Action	Yes	No
Step 1 Check the paper path and trays for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 3.	Go to step 2.
Step 2 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Make sure that all the trays and tray inserts are properly installed. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Enter the Diagnostics menu, and then navigate to: **Input tray quick print** > **Tray 5** > **Single** Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Motor tests** **b** Select the motor (Pass-through (tray 4)), and then touch **Start**. Does the motor run?	Go to step 8.	Go to step 6.
Step 6 Reseat the cable on the motor and on the optional tray controller board. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Replace the motor (tray 4 transport). See **"Motor (250- and 550-sheet tray transport) removal" on page 517**. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Make sure that the tray 4 interface cable is properly installed. Reseat the interface cable on the optional tray controller board. Does the problem remain?	Go to step 9.	The problem is solved.

Action	Yes	No
Step 9 Check the interface cable and its connector pins for damage. Is the interface cable free of damage?	Go to step 11.	Go to step 10.
Step 10 Replace the optional tray interface cable. See **"250- and 550-sheet tray interface cable removal" on page 523**. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Make sure that the optional tray controller board is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 Check the optional tray controller board and its connector pins for damage. Are the tray controller board and its connectors free of damage?	Contact the next level of support.	The problem is solved.
Step 13 Replace the optional tray controller board. See **"250- and 550-sheet tray controller board removal" on page 519**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Tray 4 transport drive failure service check

Action	Yes	No
Step 1 Check the paper path and trays for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 3.	Go to step 2.
Step 2 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Make sure that all the trays and tray inserts are properly installed. Does the problem remain?	Go to step 4.	The problem is solved.

Action	Yes	No
Step 4 Enter the Diagnostics menu, and then navigate to: **Input tray quick print** > **Tray 5** > **Single** Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Motor tests** **b** Select the motor (Pass-through (tray 4)), and then touch **Start**. Does the motor run?	Go to step 8.	Go to step 6.
Step 6 Reseat the cable on the motor and on the optional tray controller board. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Replace the motor (tray 4 transport). See **"Motor (250- and 550-sheet tray transport) removal" on page 517**. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Remove the optional tray insert, and then check if its transport rollers are functional and free of damage. **Note:** Turn the transport roller gear to check for proper mechanism. Are the tray insert and its rollers functional and free of damage?	Go to step 10.	Go to step 9.
Step 9 Replace the tray insert. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Check the optional tray controller board and its connector pins for damage. Are the tray controller board and its connectors free of damage?	Contact the next level of support.	The problem is solved.
Step 11 Replace the optional tray controller board. See **"250- and 550-sheet tray controller board removal" on page 519**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Tray 5 transport motor failure service check

Action	Yes	No
Step 1 Check the paper path and trays for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 3.	Go to step 2.
Step 2 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Make sure that all the trays and tray inserts are properly installed. Does the problem remain?	Go to step 4.	The problem is solved.

Step 4
  a Enter the Diagnostics menu, and then navigate to:
    Additional input tray diagnostics > **Motor tests**
  b Select the motor (Pass-through (tray 5)), and then touch **Start**.
 	
Does the motor run?
	Go to step 7.	Go to step 5.

Step 5 Reseat the cable on the motor and on the optional tray controller board. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Replace the motor (tray 5 transport). See **"Motor (250- and 550-sheet tray transport) removal" on page 517**. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Make sure that the tray 5 interface cable is properly installed. Reseat the interface cable on the optional tray controller board. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Check the interface cable and its connector pins for damage. Is the interface cable free of damage?	Go to step 10.	Go to step 9.

Action	Yes	No
Step 9 Replace the optional tray interface cable. See **"250- and 550-sheet tray interface cable removal" on page 523**. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Make sure that the optional tray controller board is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Check the optional tray controller board and its connector pins for damage. Are the tray controller board and its connectors free of damage?	Contact the next level of support.	The problem is solved.
Step 12 Replace the optional tray controller board. See **"250- and 550-sheet tray controller board removal" on page 519**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Tray 5 transport drive failure service check

Action	Yes	No
Step 1 Check the paper path and trays for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 3.	Go to step 2.
Step 2 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Make sure that all the trays and tray inserts are properly installed. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 **a** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Motor tests** **b** Select the motor (Pass-through (tray 5)), and then touch **Start**. Does the motor run?	Go to step 7.	Go to step 5.

Action	Yes	No
Step 5 Reseat the cable on the motor and on the optional tray controller board. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Replace the motor (tray 5 transport). See **"Motor (250- and 550-sheet tray transport) removal" on page 517**. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Remove the optional tray insert, and then check if its transport rollers are functional and free of damage. **Note:** Turn the transport roller gear to check for proper mechanism. Are the tray insert and its rollers functional and free of damage?	Go to step 9.	Go to step 8.
Step 8 Replace the tray insert. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Check the optional tray controller board and its connector pins for damage. Are the tray controller board and its connectors free of damage?	Contact the next level of support.	The problem is solved.
Step 10 Replace the optional tray controller board. See **"250- and 550-sheet tray controller board removal" on page 519**. Does the problem remain?	Contact the next level of support.	The problem is solved.

2100-sheet tray transport and elevator drive failure service check

Action	Yes	No
Step 1 Check the paper path and trays for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 3.	Go to step 2.
Step 2 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 3.	The problem is solved.

Action	Yes	No
Step 3 Make sure that all the trays and tray inserts are properly installed. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Enter the Diagnostics menu, and then navigate to: **Input tray quick print** >select source tray > **Single** Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Perform a print test again, and then observe if the motor (2100-sheet tray transport) is running. Does the motor run?	Go to step 8.	Go to step 6.
Step 6 Reseat the cable on the motor and on the optional tray controller board. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Replace the motor. See **"Motor (2100-sheet tray transport) removal" on page 491**. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 **a** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Motor tests** **b** Select the motor (High capacity tray lift), and then touch **Start**. Does the motor run?	Go to step 11.	Go to step 9.
Step 9 Reseat the cable on the motor and on the optional tray controller board. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Replace the motor drive. See **"2100-sheet tray elevator drive removal" on page 497**. Does the problem remain?	Go to step 11.	The problem is solved.

Action	Yes	No
Step 11 Check the optional tray controller board and its connector pins for damage. Are the tray controller board and its connectors free of damage?	Contact the next level of support.	The problem is solved.
Step 12 Replace the optional tray controller board. See **"2100-sheet tray controller board removal" on page 496**. Does the problem remain?	Contact the next level of support.	The problem is solved.

17y errors

171 error messages

Error code	Description	Action
171.82	Main fan speed did not ramp up to the required level.	See **"Main fan failure service check" on page 356**.
171.83	Main fan stalled.	
171.84	Main fan ran too slow.	
171.85	Main fan ran too fast.	

173 error messages

Error code	Description	Action
173.82	Cartridge fan speed did not ramp up to the required level.	See **"Cartridge fan failure service check" on page 357**.
173.83	Cartridge fan stalled.	
173.84	Cartridge fan ran too slow.	
173.85	Cartridge fan ran too fast.	

Main fan failure service check

Action	Yes	No
Step 1 Check if the following cables are properly connected: • cable J71 on the controller board • main fan cable Are the cables properly connected?	Go to step 3.	Go to step 2.

Action	Yes	No
Step 2 Reseat the cable. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Restart the printer. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Replace the main fan. See **"Main fan removal" on page 426**. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Restart the printer. Does the problem remain?	Contact the next level of support.	The problem is solved.

Cartridge fan failure service check

Action	Yes	No
Step 1 Check if the following cables are properly connected: • cable J15 on the controller board • cartridge fan cable Are the cables properly connected?	Go to step 3.	Go to step 2.
Step 2 Reseat the cable. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Restart the printer. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Replace the cartridge fan. See **"Cartridge fan removal" on page 437**. Does the problem remain?	Go to step 5.	The problem is solved.

Action	Yes	No
Step 5 Restart the printer. Does the problem remain?	Contact the next level of support.	The problem is solved.

6yy errors

6yy error messages

Error code	Description	Action
600.01	Toner tally from the RIP was not received.	Restart the print job. If the error persists, then contact the next level of support.
600.02	Video did not start.	
600.03	Transfer servo did not start.	
600.04	Duplex page was not picked.	
600.07	Page is at image point before EP is ready.	
600.09	EP update error was detected.	
600.10	EP late run-in error was detected.	
600.95	RIP intentionally declared a jam error, usually to prevent a kiosk user from printing free pages.	
602.19	Tray 1 was unable to be ready for picking.	Restart the print job. If the error persists, then contact the next level of support.
602.29	Tray 2 was unable to be ready for picking.	
602.39	Tray 3 was unable to be ready for picking.	
602.49	Tray 4 was unable to be ready for picking.	
602.59	Tray 5 was unable to be ready for picking.	
611.02	An Input ISR error occurred and the printhead was not ready.	
611.32	Lost HSYNC errors were detected. Laser safety interlock system may be the cause.	
611.33	Lost HSYNC error occurred during servo.	
611.34	A mirror motor lock error was detected.	
621.01	The fuser heater was not hot enough when the paper entered the fuser nip.	Restart the print job. If the error persists, then contact the next level of support.
647.xx	The motor (main) stalled.	
649.xx	The motor (redrive) stalled.	
650.xx	The motor (duplex) stalled.	
655.xx	The motor (toner cartridge) stalled.	
661.13	The tray 1 lift plate failed to lift.	See **"Tray 1 paper feeder control failure service check" on page 140**.
661.8x	Motor (tray 1 pick/lift) error was detected.	

Error code	Description	Action
662.23	The tray 2 lift plate failed to lift.	See **"Optional tray lift jam service check" on page 359**.
662.8x	Motor (tray 2 pick/lift) error was detected.	See **"Optional tray pick/lift drive failure service check" on page 362**.
663.33	The tray 3 lift plate failed to lift.	See **"Optional tray lift jam service check" on page 359**.
663.8x	Motor (tray 3 pick/lift) error was detected.	See **"Optional tray pick/lift drive failure service check" on page 362**.
664.43	The tray 4 lift plate failed to lift.	See **"Optional tray lift jam service check" on page 359**.
664.8x	Motor (tray 4 pick/lift) error was detected.	See **"Optional tray pick/lift drive failure service check" on page 362**.
665.53	The tray 5 lift plate failed to lift.	See **"Optional tray lift jam service check" on page 359**.
665.8x	Motor (tray 5 pick/lift) error was detected.	See **"Optional tray pick/lift drive failure service check" on page 362**.
666.8x	Motor (tray 2 transport) error was detected.	See **"Optional tray transport drive failure service check" on page 363**.
667.8x	Motor (tray 3 transport) error was detected.	
668.8x	Motor (tray 4 transport) error was detected.	
669.8x	Motor (tray 5 transport) error was detected.	

Optional tray lift jam service check

Action	Yes	No
Step 1 Check the paper path and trays for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 3.	Go to step 2.
Step 2 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Make sure that all the trays and tray inserts are properly installed. Does the problem remain?	Go to step 4.	The problem is solved.

Action	Yes	No
Step 4 Enter the Diagnostics menu, and then navigate to: **Input tray quick print** >select source tray > **Single** Does the problem remain?	Go to step 5.	The problem is solved.

Step 5
a Enter the Diagnostics menu, and then navigate to:
  Additional input tray diagnostics > **Sensor tests**
b Find the sensor (Pick roller index (tray x)).
  Note: For tray x, choose the tray number of the affected source tray.
 	
Does the sensor status change while toggling the sensor?
	Go to step 9.	Go to step 6.

Step 6 Check the sensor cable on the optional tray controller board for proper connection. Is the cable properly connected?	Go to step 8.	Go to step 7.
Step 7 Reseat the cable. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Replace the sensor. See **"Sensor (250- and 550-sheet tray pick roller index) removal" on page 521**. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Remove the source tray insert, and then check if the following components are functional and free of damage: • Paper guides • Lift plate **Note:** Move the components or turn gears to check for proper mechanisms. Are the tray insert and its components functional and free of damage?	Go to step 11.	Go to step 10.
Step 10 Replace the tray insert. Does the problem remain?	Go to step 11.	The problem is solved.

Action	Yes	No
Step 11 Check if the source tray paper feeder and its actuators are functional, properly installed, and free of damage. Are the paper feeder and its components functional, properly installed, and free of damage?	Go to step 13.	Go to step 12.
Step 12 Reinstall or replace the paper feeder. See **"250- and 550-sheet tray paper feeder removal" on page 517**. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 Make sure that the interface cable of the affected tray is properly installed. Does the problem remain?	Go to step 14.	The problem is solved.
Step 14 Check the interface cable and its connector pins for damage. Is the interface cable free of damage?	Go to step 16.	Go to step 15.
Step 15 Replace the optional tray interface cable. See **"250- and 550-sheet tray interface cable removal" on page 523**. Does the problem remain?	Go to step 16.	The problem is solved.
Step 16 Check the source tray controller board and its connector pins for damage. Are the tray controller board and its connectors free of damage?	Contact the next level of support.	Go to step 17.
Step 17 Replace the source tray controller board. See **"250- and 550-sheet tray controller board removal" on page 519**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Optional tray pick/lift drive failure service check

Action	Yes	No
Step 1 Check the paper path and trays for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 3.	Go to step 2.
Step 2 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Make sure that all the trays and tray inserts are properly installed. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Enter the Diagnostics menu, and then navigate to: **Input tray quick print** >select source tray > **Single** Does the problem remain?	Go to step 5.	The problem is solved.

Step 5
a Enter the Diagnostics menu, and then navigate to:
    Additional input tray diagnostics > **Motor tests**
b Select the motor (Pick (tray x)), and then touch **Start**.
    Note: For tray x, choose the tray number of the affected source tray.
 	
Does the motor run?
	Go to step 9.	Go to step 6.

Step 6 Reseat the cable on the motor and on the optional tray controller board. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Check if the source tray paper feeder and its actuators are functional, properly installed, and free of damage. Are the paper feeder and its components functional, properly installed, and free of damage?	Go to step 9.	Go to step 8.
Step 8 Reinstall or replace the paper feeder. See **"250- and 550-sheet tray paper feeder removal" on page 517**. Does the problem remain?	Go to step 9.	The problem is solved.

Action	Yes	No
Step 9 Make sure that the source tray controller board is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Check the source tray controller board and its connector pins for damage. Are the tray controller board and its connectors free of damage?	Contact the next level of support.	Go to step 11.
Step 11 Replace the source tray controller board. See **"250- and 550-sheet tray controller board removal" on page 519**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Optional tray transport drive failure service check

Action	Yes	No
Step 1 Check the paper path and trays for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 3.	Go to step 2.
Step 2 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Make sure that all the trays and tray inserts are properly installed. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Enter the Diagnostics menu, and then navigate to: **Input tray quick print** >select source tray > **Single** Does the problem remain?	Go to step 5.	The problem is solved.

Action	Yes	No
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Motor tests** **b** Select the motor (Pass-through (tray x)), and then touch **Start**. **Note:** For tray x, choose the tray number of the affected optional tray. Does the motor run?	Go to step 8.	Go to step 6.
Step 6 Reseat the cable on the motor and on the optional tray controller board. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Replace the motor (transport) of the affected optional tray. See **"Motor (250- and 550-sheet tray transport) removal" on page 517**. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Make sure that the interface cable of the affected tray is properly installed. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Check the interface cable and its connector pins for damage. Is the interface cable free of damage?	Go to step 11.	Go to step 10.
Step 10 Replace the optional tray interface cable. See **"250- and 550-sheet tray interface cable removal" on page 523**. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Make sure that the source tray controller board is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 Check the source tray controller board and its connector pins for damage. Are the tray controller board and its connectors free of damage?	Contact the next level of support.	Go to step 13.

Action	Yes	No
Step 13 Replace the source tray controller board. See **"250- and 550-sheet tray controller board removal" on page 519**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Procedure before starting the 9yy service checks

You will need to retrieve certain information. This information aids your next level of support in diagnosing the problem before replacing the controller board.

Warning—Potential Damage: Do not replace the controller board unless directed by your next level of support.

1 Collect the history information and firmware logs (Fwdebug and logs.tar.gz) from the SE menu.

2 Collect the settings from the menu settings page.

3 Collect information from the user.

> **Note:** Not all of the items are retrievable from the printer you are working on.

A. Collecting the history information from the SE menu

Note: Make sure that your printer is connected to a network or to a print server.

1 Open a web browser, type **http://printer_IP_address/se**, and then press **Enter**.

> **Notes:**
>
> - **printer_IP_address** is the TCP/IP address of the printer.
> - **se** is required to access the printer diagnostic information.

2 Click **History Information**, copy all information, and then save it as a text file.

3 E-mail the text file to your next level of support.

B. Collecting the firmware logs (Fwdebug and logs.tar.gz) from the SE menu

Notes:

- Make sure that your printer is connected to a network or to a print server.
- Some printers are designed to restart automatically after a 9yy error. On these printers, you can retrieve the secondary crash code information using the SE menu.

1 Open a Web browser, type **http://printer_IP_address/se**, and then press **Enter**.

2 Click **Logs Gzip Compressed**.

> **Note:** A logs.tar.gz file is saved to the Downloads folder. The file may take several minutes to save. You may rename the file if a logs.tar.gz already exists in the Downloads folder.

3 E-mail the logs to your next level of support.

C. Collecting the settings from the menu settings page

Note: The menu settings page is different for each printer. For more information, see the *User's Guide*. Your next level of support will tell you which page they want to see.

Copying the menu settings page from the Embedded Web Server (EWS)

Note: Make sure that your printer is connected to a network or to a print server.

1 Open a Web browser, type `http://printer_IP_address`, and then press **Enter**.

2 Click Settings, and then select one of the settings pages from the links shown on the page.

3 Copy all the information, and then save it as a text file.

4 E-mail the text file to your next level of support.

Printing the menu settings page

1 From the home screen, navigate to:

 Reports > **Menu Settings Page**

2 Print the menu settings page, and then use Scan to E-mail to send it to your next level of support.

D. Collecting information from the user

Ask the user for information about the following:

- Print job being run
- Operating system being used
- Print driver being used
- Other information on what was happening when the 9yy error occurred

900 errors

900-909 error messages

Error code	Description	Action
900-909.xx	RIP firmware errors	See **"System software error service check" on page 366**.

System software error service check

Different types of 90y.xx errors can occur. There may be a communication problem (bad cable, network connection, and software issues), or a hardware problem with the controller board or ISP (internal solutions port). Check the communication and software problems first. Determine if the problem is constant or intermittent. Use the following troubleshooting procedure to isolate the issue. Take notes as instructed. You will need that information in the event that you need to contact your next level of support.

Before troubleshooting, do the following:

1 Perform the **"Procedure before starting the 9yes service checks" on page 365**.

2 Determine the operating system used when the error occurred. If possible, determine whether a PostScript™ or PCL™ file was sent to the printer when the error occurred. Ask the customer which Solutions applications are installed on the printer.

Action	Yes	No
Step 1 Perform a POR. Does the error remain?	Go to step 2.	The problem is solved.
Step 2 **a** Write down the exact 900.xx error code that appears on the display. **b** Turn off the printer. **c** Clear the print queues. **d** Disconnect all communication cables, and then remove all memory options. **e** Remove any installed ISP. **f** Reset the printer into the Diagnostics menu. Does the problem remain?	Go to step 3.	Go to step 6.
Step 3 Check all the cables on the controller board for proper connection. Are the cables properly connected?	Go to step 5.	Go to step 4.
Step 4 **a** Reconnect the cables. **b** Reset the printer into the Diagnostics menu. Does the problem remain?	Go to step 5.	Go to step 6.
Step 5 **a** Replace the controller board. See **"Controller board removal" on page 439**. **b** Reset the printer. **Note:** If a different error code displays, then go to the service check for that error code. Does the problem remain?	Go to step 31.	The problem is solved.

Action	Yes	No
Step 6 Print the following: • Error Log • Menu Settings Page • Network Settings Page Does the problem remain while printing these pages?	Go to step 31.	Go to step 7.
Step 7 **Note:** Before performing this step, write down the following information about the file being sent to the printer: • Application used • Operating system • Driver type • File type (PCL, PostScript, XPS, etc.) **a** Reattach the communications cable. **b** Reset the printer. **c** Perform a print job. Does the problem remain?	Go to step 8.	Go to step 10.
Step 8 **a** Reset the printer. **b** Perform a different print job. Does the problem remain?	Go to step 9.	Go to step 10.
Step 9 **a** Upgrade the firmware. **Note:** Contact your next level of support for the correct firmware level to use. **b** Reset the printer. **c** Perform a print job. Does the problem remain?	Go to step 31.	Go to step 10.
Step 10 Verify if the printer is an MFP. Is the printer an MFP?	Go to step 11.	Go to step 13.
Step 11 Perform a copy job. Does the problem remain?	Go to step 31.	Go to step 12.

Action	Yes	No
Step 12 Scan a document to the computer. Does the problem remain?	Go to step 31.	Go to step 13.
Step 13 Verify if an optional memory is installed. Is there an optional memory installed?	Go to step 14.	Go to step 16.
Step 14 **a** Reinstall the memory. **b** Perform a print job. Does the problem remain?	Go to step 15.	Go to step 16.
Step 15 **a** Install a Sharp-recommended memory option. **b** Perform a print job. Does the problem remain?	Go to step 31.	The problem is solved.
Step 16 Verify if a modem is installed. Is a modem installed?	Go to step 17.	Go to step 21.
Step 17 **a** Reinstall the modem. **b** Reset the printer. Does the problem remain?	Go to step 18.	Go to step 20.
Step 18 **a** Upgrade the firmware if it was not upgraded in a previous step. **Note:** Contact your next level of support for the correct firmware level to use. **b** Reset the printer. **c** Perform a print job. Does the problem remain?	Go to step 19.	The problem is solved.
Step 19 **a** Replace the modem. **b** Reset the printer. Does the problem remain?	Go to step 31.	The problem is solved.

Action	Yes	No
Step 20 Perform a fax job. Does the problem remain?	Go to step 31.	Go to step 21.
Step 21 Verify if an ISP option is installed. Is an ISP option installed?	Go to step 22.	The problem is solved.
Step 22 **a** Reinstall the first ISP option. **b** Reset the printer. Does the problem remain?	Go to step 24.	Go to step 23.
Step 23 Perform a job to test the option. Does the problem remain?	Go to step 24.	Go to step 26.
Step 24 **a** Upgrade the firmware if it was not upgraded in a previous step. **Note:** Contact your next level of support for the correct firmware level to use. **b** Reset the printer. **c** Perform a print job. Does the problem remain?	Go to step 25.	The problem is solved.
Step 25 **a** Replace the faulty ISP option. **b** Reset the printer. Does the problem remain?	Go to step 31.	Go to step 26.
Step 26 Verify if there are more ISP options to install. Are there more ISP options to install?	Go to step 27.	The problem is solved.
Step 27 **a** Install the next ISP option. **b** Reset the printer. Does the problem remain?	Go to step 29.	Go to step 28.

Action	Yes	No
Step 28 Perform a job to test the option. Does the problem remain?	Go to step 29.	Go to step 26.
Step 29 **a** Upgrade the firmware if it was not upgraded in a previous step. 　**Note:** Contact your next level of support for the correct firmware level to use. **b** Reset the printer. **c** Send a print job. Does the problem remain?	Go to step 30.	Go to step 26.
Step 30 **a** Replace the faulty ISP option. **b** Reset the printer. Does the problem remain?	Go to step 31.	Go to step 26.
Step 31 Contact your next level of support. Provide the following information: • Exact 90y.xx error digits and complete error message • Printed Menu Settings Page • Printed Network Settings Page • Device error log • A sample print file if the error appears isolated to a single file • File/Application used if the error is related to specific print file • Device operating system • Driver used (PCL/PS) • Frequency of the occurrence of the error		

9yy errors

912–992 error messages

Error code	Description	Action
912.01	An engine error occurred.	Restart the print job. If the error persists, then contact the next level of support.
912.02	An engine error occurred.	
912.04	An engine error occurred.	
912.05	An engine error occurred.	
912.06	An engine error occurred.	

Error code	Description	Action
912.07	An engine error occurred.	See **"Optional tray communication error service check" on page 374**.
912.08	An engine error occurred.	Restart the print job. If the error persists, then contact the next level of support.
912.09	An engine error occurred.	
912.10	An engine error occurred.	Restart the print job. If the error persists, then contact the next level of support.
912.11	An engine error occurred.	
912.12	An engine error occurred.	
912.13	An engine error occurred.	
912.14	An engine error occurred.	
912.15	An engine error occurred.	
912.16	An engine error occurred.	
912.17	An engine error occurred.	
912.18	An engine error occurred.	
912.19	An engine error occurred.	
912.20	An engine error occurred.	Restart the print job. If the error persists, then contact the next level of support.
912.21	An engine error occurred.	
912.22	An engine error occurred.	
912.28	An engine error occurred.	See **"System software error service check" on page 366**.
912.36	An engine error occurred.	
912.38	An engine error occurred.	See **"Optional tray communication error service check" on page 374**.
912.39	An engine error occurred.	See **"System software error service check" on page 366**.
912.49	An engine error occurred.	
912.52	An engine error occurred.	
912.59	An engine error occurred.	
912.60	An engine error occurred.	
912.75	An engine error occurred.	
912.78	An engine error occurred.	
912.82	An engine error occurred.	
938.04	Supplies security is not enabled.	Restart the print job. If the error persists, then contact the next level of support.
938.05	Controller board failure due to a bad capacitor.	See **"System software error service check" on page 366**.

Error code	Description	Action
980.01	A validation failure was detected by the Paperport communication device.	See **"Optional tray communication error service check" on page 374**.
980.02	A framing error or receive buffer overflow was detected by the Paperport communication device.	
980.03	A timeout error was detected by the Paperport communication device.	
980.04	An option failed to echo the last sent communication byte on time.	
980.05	An option declared a link reset.	
980.06	A Paperport prioritizer error was detected. Message from the option device was not read by the prioritizer.	
980.11	A Paperport command response was detected. Response was too large for the communications buffer.	
980.13	An optional device hot plug was detected by the printer. Low-level error occurred at the Paperport.	
980.14	An engine timeout error occurred while waiting for the following: • a mechanical reset • an intervention required (IR) to clear after inserting a tray	
980.15	An engine timeout error occurred while waiting for an option to become idle.	
981.91	An Invalid Paperport protocol error occurred.	See **"Optional tray communication error service check" on page 374**.
982.92	A Paperport framing error occurred.	
982.93	A Paperport overrun error occurred.	
982.94	A Paperport parity error occurred.	
982.95	An Other Paperport error occurred.	
982.96	The Paperport encountered multiple communication errors.	
982.97	An invalid Paperport Echo occurred.	
983.98	An unsupported Paperport command error occurred.	
984.99	An invalid Paperport parameter error occurred.	
992.xx	An option device software error occurred.	

Optional tray communication error service check

Action	Yes	No
Step 1 Check the paper path and trays for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 3.	Go to step 2.
Step 2 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Make sure that all the trays and tray inserts are properly installed. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Enter the Diagnostics menu, and then navigate to: **Input tray quick print** Perform the print test on each optional tray. Does the error occur in any of the optional trays?	Go to step 6.	Go to step 5.
Step 5 **a** Remove the optional trays. **b** Reinstall the optional trays one at a time, and then identify which tray is causing the error. Does the error occur in any of the optional trays?	Go to step 6.	Contact the next level of support.
Step 6 Make sure that the interface cable of the affected tray is properly installed. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Check the interface cable and its connector pins for damage. Is the interface cable free of damage?	Go to step 9.	Go to step 8.
Step 8 Replace the optional tray interface cable. See **"250- and 550-sheet tray interface cable removal" on page 523**. Does the problem remain?	Go to step 9.	The problem is solved.

Action	Yes	No
Step 9 Make sure that the source tray controller board is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Check the source tray controller board and its connector pins for damage. Are the tray controller board and its connectors free of damage?	Contact the next level of support.	The problem is solved.
Step 11 Replace the source tray controller board. See **"250- and 550-sheet tray controller board removal" on page 519**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Optional bin hardware errors

306 errors

306 error messages

Error code	Description	Action
306.50	The bin 1 motor (OE transport) did not turn on.	See **"Output expander transport drive failure service check" on page 376**.
306.51	The bin 1 motor (OE transport) did not turn off.	
306.60	The bin 2 motor (OE transport) did not turn on.	
306.61	The bin 2 motor (OE transport) did not turn off.	
306.70	The bin 3 motor (OE transport) did not turn on.	
306.71	The bin 3 motor (OE transport) did not turn off.	

Output expander transport drive failure service check

Action	Yes	No
Step 1 Make sure that all the optional bins are properly installed. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Open all optional bin doors, and then check the paper path and bins for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 4.	Go to step 3.
Step 3 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Clear the optional bin paper path rollers of any dirt and contamination. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 a Enter the Diagnostics menu, and then navigate to: **Output bin quick feed** > **Feed to all bins** b Touch **Single** or **Continuous**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Enter the Diagnostics menu, and then navigate to: **Output bin quick feed** Perform the feed test on each optional bin. Does the error occur in any of the optional bins?	Go to step 8.	Go to step 7.
Step 7 a Remove the optional bins. b Reinstall the optional bins one at a time, and then identify which bin is causing the error. Does the error occur in any of the optional bins?	Go to step 8.	Contact the next level of support.

Action	Yes	No
Step 8 **a** Remove the output expander left cover. See **"Output expander left cover removal" on page 535**. **b** Reseat the cable on the motor (OE transport) and on the output expander controller board. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Check the motor (OE transport) for improper installation and damage. Is the motor properly installed and free of damage?	Go to step 11.	Go to step 10.
Step 10 Reinstall or replace the motor. See **"Motor (OE transport) removal" on page 545**. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Check the output expander drive gear for damage. Is the drive gear free of damage?	Go to step 13.	Go to step 12.
Step 12 Replace the gear. See **"Output expander drive gear removal" on page 544**. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 Make sure that the controller board of the affected optional bin is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 14.	The problem is solved.
Step 14 Check the affected controller board and its connector pins for damage. Are the bin controller board and its connectors free of damage?	Contact the next level of support.	Go to step 15.
Step 15 Replace the bin controller board. See **"Output expander controller board removal" on page 537**. Does the problem remain?	Contact the next level of support.	The problem is solved.

311 errors

311 error messages

Error code	Description	Action
311.50	The bin 1 motor (HCOE transport) did not turn on.	See **"HCOE transport drive failure service check" on page 378**.
311.51	The bin 1 motor (HCOE transport) did not turn off.	

HCOE transport drive failure service check

Action	Yes	No
Step 1 Make sure that all the optional bins are properly installed. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Open all optional bin doors, and then check the paper path and bins for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 4.	Go to step 3.
Step 3 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Clear the optional bin paper path rollers of any dirt and contamination. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Output bin quick feed** > **Feed to all bins** **b** Touch **Single** or **Continuous**. Does the problem remain?	Go to step 6.	The problem is solved.

Action	Yes	No
Step 6 **a** Remove the HCOE left cover. See **"HCOE left cover removal" on page 563**. **b** Reseat the cable on the motor (HCOE transport) and on the HCOE controller board. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Check the motor (HCOE transport) for improper installation and damage. Is the motor properly installed and free of damage?	Go to step 9.	Go to step 8.
Step 8 Reinstall or replace the motor. See **"Motor (HCOE transport) removal" on page 581**. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Make sure that the controller board of the affected optional bin is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Check the affected controller board and its connector pins for damage. Are the bin controller board and its connectors free of damage?	Contact the next level of support.	Go to step 11.
Step 11 Replace the bin controller board. See **"HCOE controller board removal" on page 565**. Does the problem remain?	Contact the next level of support.	The problem is solved.

316 errors

316 error messages

Error code	Description	Action
316.50	The bin 1 motor (mailbox transport) did not turn on.	See **"Mailbox transport drive failure service check" on page 380**.
316.51	The bin 1 motor (mailbox transport) did not turn off.	
316.60	The bin 2 motor (mailbox transport) did not turn on.	
316.61	The bin 2 motor (mailbox transport) did not turn off.	
316.70	The bin 3 motor (mailbox transport) did not turn on.	
316.71	The bin 3 motor (mailbox transport) did not turn off.	

Mailbox transport drive failure service check

Action	Yes	No
Step 1 Make sure that all the optional bins are properly installed. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Open all optional bin doors, and then check the paper path and bins for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 4.	Go to step 3.
Step 3 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Clear the optional bin paper path rollers of any dirt and contamination. Does the problem remain?	Go to step 5.	The problem is solved.

Action	Yes	No
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Output bin quick feed** > **Feed to all bins** **b** Touch **Single** or **Continuous**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Enter the Diagnostics menu, and then navigate to: **Output bin quick feed** Perform the feed test on each optional bin. Does the error occur in any of the optional bins?	Go to step 8.	Go to step 7.
Step 7 **a** Remove the optional bins. **b** Reinstall the optional bins one at a time, and then identify which bin is causing the error. Does the error occur in any of the optional bins?	Go to step 8.	Contact the next level of support.
Step 8 **a** Remove the mailbox left cover. See **"Mailbox left cover removal" on page 667**. **b** Reseat the cable on the motor (mailbox transport) and on the mailbox controller board. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Check the motor (mailbox transport) for improper installation and damage. Is the motor properly installed and free of damage?	Go to step 11.	Go to step 10.
Step 10 Reinstall or replace the motor. See **"Motor (mailbox transport) removal" on page 679**. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Make sure that the controller board of the affected optional bin is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 12.	The problem is solved.

Action	Yes	No
Step 12 Check the affected controller board and its connector pins for damage. Are the bin controller board and its connectors free of damage?	Contact the next level of support.	Go to step 13.
Step 13 Replace the bin controller board. See **"Mailbox controller board removal" on page 680**. Does the problem remain?	Contact the next level of support.	The problem is solved.

32y errors

320–323 error messages

Error code	Description	Action
320.50	The bin 1 motor (staple finisher transport) did not turn on.	See **"Staple finisher transport drive failure service check" on page 383**.
320.50	The bin 1 motor (SHPF transport) did not turn on.	See **"SHPF transport drive jam service check" on page 247**.
320.51	The bin 1 motor (staple finisher transport) did not turn off.	See **"Staple finisher transport drive failure service check" on page 383**.
320.51	The bin 1 motor (SHPF transport) did not turn off.	See **"SHPF transport drive jam service check" on page 247**.
320.60	The bin 2 motor (staple finisher transport) did not turn on.	See **"Staple finisher transport drive failure service check" on page 383**.
320.60	The bin 2 motor (SHPF transport) did not turn on.	See **"SHPF transport drive jam service check" on page 247**.
320.61	The bin 2 motor (staple finisher transport) did not turn off.	See **"Staple finisher transport drive failure service check" on page 383**.
320.61	The bin 2 motor (SHPF transport) did not turn off.	See **"SHPF transport drive jam service check" on page 247**.
323.50	The bin 1 motor (staple finisher ejector) did not turn on.	See **"Staple finisher ejector drive failure service check" on page 385**.
323.50	The bin 1 motor (SHPF ejector) did not turn on.	See **"SHPF ejector jam service check" on page 273**.
323.51	The bin 1 motor (staple finisher ejector) did not turn off.	See **"Staple finisher ejector drive failure service check" on page 385**.
323.51	The bin 1 motor (SHPF ejector) did not turn off.	See **"SHPF ejector jam service check" on page 273**.

Error code	Description	Action
323.60	The bin 2 motor (staple finisher ejector) did not turn on.	See **"Staple finisher ejector drive failure service check" on page 385**.
323.60	The bin 2 motor (SHPF ejector) did not turn on.	See **"SHPF ejector jam service check" on page 273**.
323.61	The bin 2 motor (staple finisher ejector) did not turn off.	See **"Staple finisher ejector drive failure service check" on page 385**.
323.61	The bin 2 motor (SHPF ejector) did not turn off.	See **"SHPF ejector jam service check" on page 273**.

Staple finisher transport drive failure service check

Action	Yes	No
Step 1 Make sure that all the optional bins are properly installed. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Open all optional bin doors, and then check the paper path and bins for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 4.	Go to step 3.
Step 3 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Clear the optional bin paper path rollers of any dirt and contamination. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Output bin quick feed** > **Feed to all bins** **b** Touch **Single** or **Continuous**. Does the problem remain?	Go to step 6.	The problem is solved.

Action	Yes	No
Step 6 **a** Remove the staple finisher left cover. See **"Staple finisher left cover removal" on page 597**. **b** Reseat the cable on the motor (staple finisher transport) and on the staple finisher controller board. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Check the motor (staple finisher transport) for improper installation and damage. Is the motor properly installed and free of damage?	Go to step 9.	Go to step 8.
Step 8 Reinstall or replace the motor. See **"Motor (staple finisher transport) removal" on page 612**. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Check the staple finisher drive gear for improper installation and damage. Is the drive gear properly installed and free of damage?	Go to step 11.	Go to step 10.
Step 10 Reinstall or replace the gear. See **"Staple finisher drive gear assembly removal" on page 617**. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Make sure that the controller board of the affected optional bin is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 Check the affected controller board and its connector pins for damage. Are the bin controller board and its connectors free of damage?	Contact the next level of support.	Go to step 13.
Step 13 Replace the bin controller board. See **"Staple finisher controller board removal" on page 603**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Staple finisher ejector drive failure service check

Action	Yes	No
Step 1 Make sure that all the optional bins are properly installed. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Open all optional bin doors, and then check the paper path and bins for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 4.	Go to step 3.
Step 3 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Clear the optional bin paper path rollers of any dirt and contamination. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Output bin quick feed** > **Feed to all bins** **b** Touch **Single** or **Continuous**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 **a** Remove the staple finisher left cover. See **"Staple finisher left cover removal" on page 597**. **b** Reseat the staple finisher ejector assembly cable on the staple finisher controller board. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Reseat the cable of the sensor (staple finisher ejector) on the staple finisher controller board. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Check the sensor (staple finisher ejector) for improper installation, contamination, and damage. Is the sensor properly installed and free of contamination and damage?	Go to step 10.	Go to step 9.

Action	Yes	No
Step 9 Reinstall or replace the sensor. See **"Sensor (staple finisher ejector) removal" on page 653**. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 **a** Enter the Diagnostics menu, and then navigate to: **Output bin quick feed** > **Feed to all bins** **b** Touch **Single** or **Continuous**. Does the staple finisher ejector assembly operate properly?	Go to step 13.	Go to step 11.
Step 11 Check the ejector assembly for damage. Is the ejector assembly free of damage?	Go to step 13.	Go to step 12.
Step 12 Replace the staple finisher ejector assembly. See **"Staple finisher ejector assembly removal" on page 650**. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 Make sure that the controller board of the affected optional bin is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 14.	The problem is solved.
Step 14 Check the affected controller board and its connector pins for damage. Are the bin controller board and its connectors free of damage?	Contact the next level of support.	Go to step 15.
Step 15 Replace the bin controller board. See **"Staple finisher controller board removal" on page 603**. Does the problem remain?	Contact the next level of support.	The problem is solved.

331 errors

331 error messages

Error code	Description	Action
331.50	The bin 1 motor (SHPF elevator) did not turn on.	See **"SHPF elevator drive failure service check" on page 387**.
331.51	The bin 1 motor (SHPF elevator) did not turn off.	
331.60	The bin 2 motor (SHPF elevator) did not turn on.	
331.61	The bin 2 motor (SHPF elevator) did not turn off.	

SHPF elevator drive failure service check

Action	Yes	No
Step 1 Make sure that all the optional bins are properly installed. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Clean all the optional bin doors, and then check the paper path and bins for paper fragments and partially fed paper. Is the paper path free of paper fragments and partially fed paper?	Go to step 4.	Go to step 3.
Step 3 Remove the paper fragments and partially fed paper. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Clear the optional bin paper path rollers of any dirt and contamination. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 a Enter the Diagnostics menu, and then navigate to: **Output bin quick feed** > **Feed to all bins** b Touch **Single** or **Continuous**. Does the problem remain?	Go to step 6.	The problem is solved.

Action	Yes	No
Step 6 **a** Remove the SHPF left cover. See **"Staple, hole punch finisher left cover removal" on page 712**. **b** Reseat the cable on the motor (SHPF elevator). Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Check the SHPF elevator drive for improper installation and damage. Is the elevator drive properly installed and free of damage?	Go to step 9.	Go to step 8.
Step 8 Reinstall or replace the elevator drive. See **"Staple, hole punch finisher elevator drive removal" on page 735**. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Make sure that the controller board of the affected optional bin is properly installed. Reseat all the cables on the controller board. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Check the affected controller board and its connector pins for damage. Are the bin controller board and its connectors free of damage?	Contact the next level of support.	Go to step 11.
Step 11 Replace the bin controller board. See **"Staple, hole punch finisher controller board removal" on page 718**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Other symptoms

Base printer symptoms

Base printer symptoms

Symptom	Action
The printer is not communicating with the network host.	See **"Network service check" on page 389**.

Network service check

Action	Yes	No
Step 1 Check if the printer is using an Ethernet network. Is the printer using an Ethernet network?	Go to step 2.	Go to step 3.
Step 2 Make sure that the Ethernet cable is properly connected at both ends. Does the problem remain?	Go to step 4.	The problem is solved.
Step 3 **a** Make sure that the printer is not physically connected to a wired LAN. **b** If the printer is connected using an Ethernet connection, then unplug the cable from the printer, and then perform a POR to connect the printer to a wireless network. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 **a** From the home screen, navigate to **Settings** > **Network/Ports** > **Active Adapters**. **b** Check if the adapter that appears matches the adapter used in the printer. Do the adapters match?	Go to step 6.	Go to step 5.
Step 5 Change the active adapter setting to match the adapter used in the printer. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 **a** Check the online status of the printer under Printers and Faxes on the host computer. **b** Delete all print jobs in the print queue. Is the printer online and in the Ready state?	Go to step 8.	Go to step 7.
Step 7 Change the printer status to Online. Does the problem remain?	Go to step 8.	The problem is solved.

Action	Yes	No
Step 8 Check the printer IP address on the Network Settings Page. Does it match the IP address in the port of the drivers using the printer?	Go to step 13.	Go to step 9.
Step 9 Check if the printer uses a static IP address on a network. Is the printer using a DHCP IP address?	Go to step 10.	Go to step 12.
Step 10 Check the first two segments of the IP address. Does the IP address start with 169.254?	Go to step 11.	Go to step 12.
Step 11 Perform a POR. Does the problem remain?	Go to step 13.	The problem is solved.
Step 12 Reset the IP address on the printer to match the IP address on the driver. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 Check if the printer and computer IP addresses have the same subnet address. Does the printer and computer IP addresses have the same subnet address?	Go to step 15.	Go to step 14
Step 14 Using the subnet address supplied by the network administrator, assign a unique IP address to the printer. **Note:** The printer IP address should match the IP address on the print driver. Does the problem remain?	Go to step 15.	The problem is solved.
Step 15 Check if the printer is physically connected to the network. Is the printer physically connected to the network?	Go to step 16.	Go to step 23.
Step 16 Use a different Ethernet cable. Does the problem remain?	Go to step 17.	The problem is solved.

Action	Yes	No
Step 17 Have the network administrator check the network drop for activity. Is the network drop functioning properly?	Go to step 19.	Go to step 18.
Step 18 Try a known and functioning network drop. Does the problem remain?	Go to step 19.	The problem is solved.
Step 19 Check if the bulit-in Ethernet port on the controller board is used to connect to the network. Is the built-in Ethernet port on the controller board used to connect to the network?	Go to step 22.	Go to step 20.
Step 20 Make sure that the option Ethernet card is properly installed, and reseat if necessary Does the problem remain?	Go to step 21.	The problem is solved.
Step 21 Replace the option Ethernet card. Does the problem remain?	Go to step 22.	The problem is solved.
Step 22 Replace the controller board. See **"Controller board removal" on page 439**. Does the problem remain?	Contact the next level of support.	The problem is solved.
Step 23 Check if the printer is on the same wireless network as the other devices. Is the printer on the same wireless network as the other devices?	Go to step 25.	Go to step 24.
Step 24 Assign the correct wireless network to the printer. Does the problem remain?	Go to step 25.	The problem is solved.
Step 25 Check if the other devices on the wireless network are properly communicating. Are the other devices on the wireless network properly communicating?	Go to step 26.	Contact the network administrator.

Action	Yes	No
Step 26 Make sure that the wireless card on the printer is properly installed. Does the problem remain?	Go to step 27.	The problem is solved.
Step 27 Check if an antenna is attached to the wireless card. Is an antenna attached to the wireless card?	Go to step 28.	Go to step 29.
Step 28 Check the antenna for proper installation and damage, and replace if necessary. Does the problem remain?	Go to step 29.	The problem is solved.
Step 29 Replace the wireless card. Does the problem remain?	Go to step 30.	The problem is solved.
Step 30 Replace the controller board. See **"Controller board removal" on page 439**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Service menus

Understanding the printer control panel
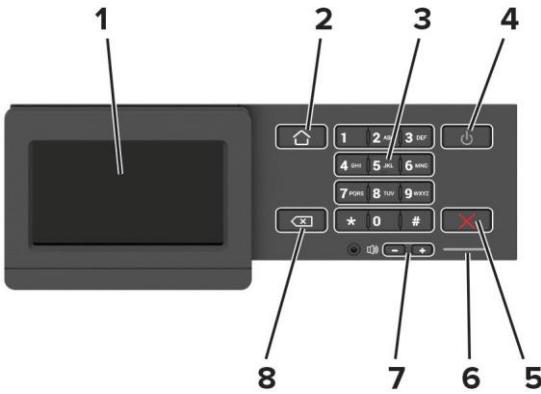
	Use the	To
1	Display	• View printer messages and supply status. • Set up and operate the printer.
2	Home button	Go to the home screen.
3	Numeric keypad	Enter numbers or symbols in an input field.
4	Power button	Turn on or turn off the printer. **Note:** To turn off the printer, press and hold the power button for five seconds.
5	Stop or Cancel button	Stop the current printer task.
6	Indicator light	Check the printer status.
7	Volume buttons	Adjust the speaker volume.
8	Headset or speaker port	Attach a headset or speaker. **Note:** This feature is available only in some printer units.
9	Back button	Return to the previous screen.

Understanding the status of the power button and indicator light

Indicator light	Printer status
Off	The printer is off or in Hibernate mode.
Blue	The printer is ready or processing data.
Red	The printer requires user intervention.

Power button light	Printer status
Off	The printer is off, ready, or processing data.
Solid amber	The printer is in Sleep mode.
Blinking amber	The printer is in Hibernate mode.

Diagnostics menu

Entering the Diagnostics menu

The Diagnostics menu contains tests that are used to help isolate issues with the printer. To access some of these tests, avoid POST tests that run at POR. Some POST tests can generate errors that prevent a diagnostic test from running.

Do either of the following:

- To access the Diagnostics menu from the home screen, press *** * 3 6** on the control panel. This method is preferable.
- To access the Diagnostics menu without running the POST tests:
    1 Press and hold the **3** and **6** buttons while turning on the printer.
    2 Release the buttons when the splash screen appears.

Reports

Device Settings

This report lists all the current printer settings.

Enter the Diagnostics menu, and then navigate to:

Reports > **Device** > **Device Settings**

For non‑touch‑screen printer models, press `OK` to navigate through the settings.

Installed Licenses

This setting lists all the installed licenses and their feature data.

Enter the Diagnostics menu, and then navigate to:

Reports > **Licenses** > **Installed Licenses**

For non‑touch‑screen printer models, press `OK` to navigate through the settings.

Advanced Print Quality Samples

This setting prints a list of the printer settings and sample pages to check print quality.

Enter the Diagnostics menu, and then navigate to:

Advanced Print Quality Samples

For non‑touch‑screen printer models, press `OK` to navigate through the settings.

Event Log

Display Log

This setting displays the panel text that appears when the event occurs.

Enter the Diagnostics menu, and then navigate to:

Event Log > **Display Log**

For non-touch-screen printer models, press [OK] to navigate through the settings.

Print Log

This setting lists an extended version of the various printer events.

1 Enter the Diagnostics menu, and then navigate to:

Event Log > **Print Log**

For non-touch-screen printer models, press [OK] to navigate through the settings.

2 Press [OK] or touch **Start**.

Note: The events that appear in the report vary depending on the operational history of the printer.

Print Log Summary

This setting lists a brief summary of the various printer events.

1 Enter the Diagnostics menu, and then navigate to:

Event Log > **Print Log Summary**

For non-touch-screen printer models, press [OK] to navigate through the settings.

2 Press [OK] or touch **Start**.

Note: The events that appear in the report vary depending on the operational history of the printer.

Mark Log

This setting allows you to create a service, maintenance, or custom log entry. Each log entry is added in the printer event log.

1 Enter the Diagnostics menu, and then navigate to:

Event Log > **Mark Log**

For non-touch-screen printer models, press [OK] to navigate through the settings.

2 Select a log that you want to create, and then press [OK] or touch **Start**.

Input tray quick print

This setting lets you print a single or continuous Quick Test page in either duplex or simplex mode.

1 Enter the Diagnostics menu, and then select **Input tray quick print**.

2 Select where you want to print the pages from.

3 Select whether to print a single or continuous test page, and then select **Start**.

Output bin quick feed

This setting allows you to send a single or continuous test page to a bin.

For non-touch-screen printer models, press ⟦OK⟧ to navigate through the settings.

1 Enter the Diagnostics menu, and then touch **Output bin quick feed**.

2 Select where you want to send the test page.

3 Select whether to send a single or continuous test page, and then touch **Start**.

Printer Setup

Printed page count (mono)

This setting displays the amount of pages printed in mono.

1 Enter the Diagnostics menu, and then select **Printer Setup**.

2 View the printed page count for mono.

Permanent page count

This setting displays the total number of pages printed in mono and color. After all the print tests are completed, this value resets to zero.

1 Enter the Diagnostics menu, and then select **Printer Setup**.

2 View the permanent page count.

Enable edge-to-edge (printing)

This setting shifts all four margins to the physical edges of the page.

1 Enter the Diagnostics menu, and then navigate to:

Printer Setup > **Enable edge-to-edge (printing)**

For non-touch-screen printer models, press ⟦OK⟧ to navigate through the settings.

2 Select a setting to adjust.

Note: This feature does not work in PPDS emulation.

Processor ID

This setting indicates the ID of the processor on the controller board.

1 Enter the Diagnostics menu, and then select **Printer Setup**.

2 View the processor ID.

Serial number

This setting displays a read-only value of the serial number.

1 Enter the Diagnostics menu, and then select **Printer Setup**.

2 View the serial number.

Model name

This setting displays the model name of the printer.

1 Enter the Diagnostics menu, and then select **Printer Setup**.

2 View the model name.

Engine setting [x]

Warning—Potential Damage: Do not change this setting without specific instructions from the next level of support.

This setting allows you to select a printer engine setting. Possible values are 0–255. 0 is the default.

For non-touch-screen printer models, press OK to navigate through the settings.

1 Enter the Diagnostics menu, and then navigate to:

Printer Setup > **Engine setting [x]**

2 Select a setting, enter a value, and then press OK or touch **OK**.

EP setup

Warning—Potential Damage: Do not change this setting without specific instructions from the next level of support.

This setting allows you to adjust the EP setup of the printer.

For non-touch-screen printer models, press OK to navigate through the settings.

1 Enter the Diagnostics menu, and then navigate to:

Printer Setup > **EP setup**

2 Select a setting.

Printer diagnostics and adjustments

Sensor tests

For non-touch-screen printer models, press OK to navigate through the settings.

1 Enter the Diagnostics menu, and then touch **Printer diagnostics & adjustments**.

2 From the Sensor tests section, touch **Start**.

A dialog listing the sensor tests appears.

3 Find, and then manually toggle the sensor.

> **Notes:**
>
> • The sensor status on the screen toggles between **1** and **0** when the sensor is properly working.
> • If a sensor test fails, the test failure may not indicate a failed sensor. Further troubleshooting may be required. Check the boards and cables for possible issues.
> • For the fuser exit sensor actuator, toggle it toward the rear door.

List of sensor tests

MPF media present
Media out (tray 1)
Pick roller index (tray 1)
Pick (tray 1)
Tray 1 pass-through
Input
Narrow media
Fuser exit
Duplex path
Duplex interlock
Output bin full
Front door interlock
Rear door interlock
Media size (tray [x]) switch [x]

Motor tests

For non-touch-screen printer models, press OK to navigate through the settings.

1 Enter the Diagnostics menu, and then navigate to:

Printer diagnostics & adjustments > **Motor tests**

2 Select a motor, and then touch **Start**.

Notes:

- If the motor is activated, then it is properly working.
- Some motors require automatic deactivation to avoid secondary issues such as possible damage and contamination.
- Some tests require a special action to activate a motor such as removing a major component.
- If the motor fails, the test failure may not indicate a failed motor. Further troubleshooting may be required. Check the boards and cables for possible issues.
- To stop a running motor in non-touch-screen printer models, press `OK`.

List of motor tests

MPF pick
Pick (tray 1) picking
Pick (tray 1) lifting
Fuser (fusing)
Fuser (retracting)
Duplex
Redrive (forward)
Redrive (reverse)
Imaging unit
K toner add
Fan (main)
Fan (cartridge)

Registration adjust

This setting lets you adjust the skew, margins, or perform a Quick Test.

For non-touch-screen printer models, press `OK` to navigate through the settings.

1 Enter the Diagnostics menu, and then navigate to:

Printer diagnostics & adjustments > **Registration adjust**

2 Select a setting to adjust.

Add-on cards tests

This setting allows you to test the add-on cards installed on the printer.

For non-touch-screen printer models, press `OK` to navigate through the settings.

1 Enter the Diagnostics menu, and then navigate to:

Printer diagnostics & adjustments > **Add-on cards tests**

2 Select a card.

Service menus

Margin Offset

This setting allows you to adjust the margin offset and to print or reset the default settings.

For non-touch-screen printer models, press OK to navigate through the settings.

1 Enter the Diagnostics menu, and then navigate to:

Printer diagnostics & adjustments > **Margin Offset**

2 Select a setting.

Universal Override

This setting allows the user to feed custom media sizes to a Custom Media Tray.

For non-touch-screen printer models, press OK to navigate through the settings.

1 Enter the Diagnostics menu, and then navigate to:

Printer diagnostics & adjustments > **Universal Override**

2 Select a setting to adjust.

Additional input tray diagnostics

Sensor tests

For non-touch-screen printer models, press OK to navigate through the settings.

1 Enter the Diagnostics menu, and then touch **Additional input tray diagnostics**.

2 From the Sensor tests section, touch **Start**.

A dialog listing the sensor tests appears.

3 Find, and then manually toggle the sensor.

Notes:

- The sensor status on the screen toggles between **1** and **0** when the sensor is properly working.
- If a sensor test fails, the test failure may not indicate a failed sensor. Further troubleshooting may be required. Check the boards and cables for possible issues.

List of sensor tests

Pick roller index (tray [x])
Media out (tray [x])
Pass-through (tray [x])
Media size (tray [x]) switch [x]
Pick (tray [x])

Motor tests

For non-touch-screen printer models, press `OK` to navigate through the settings.

1 Enter the Diagnostics menu, and then navigate to:

   Additional input tray diagnostics > **Motor tests**

2 Select a motor, and then press `OK` or touch **Start**.

   Notes:

   - If the motor is activated, then it is properly working.
   - Some motors require automatic deactivation in order to avoid secondary issues such as possible damage and contamination.
   - Some tests require a special action to activate a motor such as removing a major component.
   - If the motor fails, the test failure may not indicate a failed motor. Further troubleshooting may be required. Check the boards and cables for possible issues.

Output device diagnostics

Sensor tests

For non-touch-screen printer models, press `OK` to navigate through the settings.

1 Enter the Diagnostics menu, and then navigate to:

   Output device diagnostics > **Sensor tests**

2 Select the output device where the sensor is located.

3 Find, and then manually toggle the sensor.

   Notes:

   - The sensor status on the screen toggles between **1** and **0** when the sensor is properly working.
   - If a sensor test fails, the test failure may not indicate a failed sensor. Further troubleshooting may be required. Check the boards and cables for possible issues.

Config Menu

Menu item	Description

USB Configuration
  USB PnP
    1*
    2
	Change the USB driver mode of the printer to improve its compatibility with a personal computer.

Note: An asterisk (*) next to a value indicates the factory default setting.	

Menu item	Description

USB Configuration
USB Speed
    Full
    Auto*
	Set the USB port to run at full speed and disable its high-speed capabilities.

Tray Configuration
Tray Linking
    Automatic*
    Off
	Set the printer to link the trays that have the same paper type and paper size settings.

Tray Configuration
Show Tray Insert Message
    Off
    Only for unknown sizes*
    Always
	Set the printer to show the `Tray Insert` message.

Tray Configuration
A5 Loading
    Short Edge*
    Long Edge
	Specify the page orientation when loading for A5 paper size.

Tray Configuration
Paper Prompts
    Auto*
    Multipurpose Feeder
    Manual Paper
Envelope Prompts
    Auto*
    Multipurpose Feeder
    Manual Envelope
	Set the paper source that the user will fill when a prompt to load paper or envelope appears.
	
	Note: For Multipurpose Feeder to appear, set Configure MP to Cassette from the Paper menu.

Tray Configuration
Action for Prompts
    Prompt user*
    Continue
    Use current
	Set the printer to resolve paper- or envelope-related change prompts.

Reports Menu Settings Page Event Log Event Log Summary HealthCheck Statistics	Print reports about printer menu settings, printer events, and event logs.
Supply Usage And Counters Clear Supply Usage History Reset Black Cartridge Counter Reset Black Imaging Unit Counter Reset Black Developer Unit Counter Reset Maintenance Counter	Reset the supply page counter or view the total printed pages.
Note: An asterisk (*) next to a value indicates the factory default setting.	

Menu item	Description

Printer Emulations
PPDS Emulation
   Off*
   On
	Set the printer to recognize and use the PPDS data stream.

Print Configuration Font Sharpening 0– 150 (24*)	Set a text point-size value below which the high-frequency screens are used when printing font data. For example, if the value is 24, then all fonts sized 24 points or less use the high-frequency screens.
Print Configuration Print Density 1–5 (3*)	Adjust the toner density when printing or copying documents.

Device Operations
Quiet Mode
   Off*
   On
	Set the amount of noise that the printer produces.
	Note: Enabling this setting slows the printer performance.

Device Operations
Safe Mode
   Off*
   On
	Set the printer to operate in a special mode, in which it attempts to continue offering as much functionality as possible, despite known issues.
	For example, when set to On, and the duplex motor is nonfunctional, the printer performs one-sided printing of the documents even if the job is two-sided printing.

Device Operations
Clear Custom Status
   Off
   On*
	Erase user-defined strings for the Default or Alternate custom messages.

Device Operations Clear all remotely-installed messages	Erase messages that were remotely installed.

Device Operations
Automatically Display Error Screens
   On*
   Off
	Show existing error messages on the display after the printer remains inactive on the home screen for a length of time equal to the Screen Timeout setting.

Device Operations
Custom Supply Levels
   Off*
   On
	Let *printservice* read and edit values from the Embedded Web Server.

Note: An asterisk (*) next to a value indicates the factory default setting.	

Entering invalid engine mode

This mode is used if the machine has invalid code and needs the correct code loaded. After entering this mode, the firmware code can be updated.

1 Turn off the printer.

2 Press and hold the **3**, **4**, and **6** buttons simultaneously.

3 Turn on the printer.

4 Release the buttons after 10 seconds.

Entering recovery mode

This mode will allow the printer to boot from a secondary set of instructions to allow a code flash to the printer. Code can be flashed from a PC by USB.

1 Turn off the printer.

2 Press and hold the **7**, **2**, and **8** buttons simultaneously.

3 Turn on the printer.

4 Release the buttons after 10 seconds.

Accessing the Network SE menu

This menu contains settings for fine-tuning the communication settings for the network interfaces and protocols.

1 Navigate to:

Networks/Ports > **Standard Network** > **Std Network Setup**

2 Press and hold the **6**, **7**, and **9** buttons simultaneously.

Service Engineer menu

Accessing the service engineer (SE) menu

From a Web browser on a host PC, add **/se** to the printer IP address.

Service engineer (SE) menu

This menu should be used as directed by the next level of support.

Top-level menu	Intermediate menu
Print SE Menus	
General	Copyright — Displays copyright information

Top-level menu	Intermediate menu
Code	• Network code level — Displays network code level • Network Compile Info — Displays network compile information • Printer Code Level — Displays printer code information • Printer Compile Info — Displays compile information
History	• Print History • Mark History • History Mode
MAC	• Set Card Speed • Set LAA • Keep Alive
NVRAM	• Dump NVRAM • Reinit NVRAM
NPAP	Print Alerts
TCP/IP	• netstat-r • arp-a • Allow SNMP Set • MTU • Meditech Mode • RAW LPR Mode • Gather Debug • Enable Debug

Parts removal

Removal precautions

⚠ **CAUTION—SHOCK HAZARD:** This product uses a soft power switch. It does not physically disconnect the input AC voltage. To avoid the risk of electrical shock, always remove the power cord from the printer when removal of the input AC voltage is required.

⚠ **CAUTION—SHOCK HAZARD:** To avoid the risk of electrical shock and to prevent damage to the printer, remove the power cord from the electrical outlet and disconnect all connections to any external devices before you connect or disconnect any cable, electronic board, or assembly.

⚠ **CAUTION—HOT SURFACE:** The inside of the printer might be hot. To reduce the risk of injury from a hot component, allow the surface to cool before touching it.

⚠ **CAUTION—PINCH HAZARD:** To avoid the risk of a pinch injury, use caution in areas marked with this label. Pinch injuries may occur around moving parts, such as gears, doors, trays, and covers.

Data security notice

Identifying printer memory

- **Volatile memory**—The printer uses standard random access memory (RAM) to buffer user data temporarily during simple print and copy jobs.
- **Nonvolatile memory**—The printer may use two forms of nonvolatile memory: EEPROM and NAND (flash memory). Both types are used to store the operating system, printer settings, network information, scanner and bookmark settings, and embedded solutions.
- **Hard disk memory**—Some printers have a hard disk drive installed. The hard disk is designed for printer-specific functionality and cannot be used for long-term storage of data that is not print-related. The hard disk does not let users extract information, create folders, create disk or network file shares, or transfer FTP information directly from a client device. The hard disk can retain buffered user data from complex print jobs, form data, and font data.

The following parts can store memory:

- Printer control panel
- User interface controller card (UICC)
- Controller board
- Optional hard disks

Note: The printer control panel and controller board contain NVRAM.

Erasing printer memory

To erase volatile memory, turn off the printer.

To erase nonvolatile memory, do the following:

1 From the control panel, navigate to **Settings** > **Device** > **Maintenance** > **Out of Service Erase** > **Sanitize all information on nonvolatile memory**.

2 Select **Sanitize all information on nonvolatile memory**, and then select **ERASE**.

3 Follow the instructions on the screen.

To erase hard disk memory, do the following:

1 From the control panel, navigate to **Settings** > **Device** > **Maintenance** > **Out of Service Erase** > **Sanitize all information on hard disk**.

2 Select **Sanitize all information on hard disk**, and then select **ERASE**.

3 Follow the instructions on the screen.

Note: This process can take from several minutes to more than an hour, making the printer unavailable for other tasks.

If a hard disk is replaced, then do the following:

1. After removing the faulty hard disk on the customer premises, please hand the disk to the customer. You must obtain and save the customer's signature on a document that states that you have handed the faulty hard disk to the customer.
2. If the customer prefers not to take it hard disk, return it back to your team leader/manager for physical destruction. You must obtain and save the customer's signature on a document that states that customer agreed physical destruction to faulty hard disk by your company in line with the customer service agreement.

Handling ESD-sensitive parts

Many electronic products use parts that are known to be sensitive to electrostatic discharge (ESD). To prevent damage to ESD-sensitive parts, do the following:

- Turn off the printer before removing logic boards.
- Keep the parts in their original packing material until you are ready to install them into the printer.
- Make the least possible movements with your body to prevent an increase of static electricity from clothing fibers, carpets, and furniture.
- Put the ESD wrist strap on your wrist. Connect the wrist band to the system ground point. This action discharges any static electricity in your body to the printer.
- Hold the parts by their edge connector shroud. Do not touch its pins. If you are removing a pluggable module, then use the correct tool.
- If possible, keep all parts in a grounded metal cabinet.
- Do not place the parts on the printer cover or on a metal table. If you need to put down the parts, then put them into their packing material.
- Prevent parts from being accidentally touched by other personnel. Cover the printer when you are not working on it.
- Be careful while working with the parts when cold-weather heating is used. Low humidity increases static electricity.

Critical information for controller board or control panel replacement

⚠ **CAUTION—POTENTIAL INJURY:** The lithium battery in this product is not intended to be replaced. There is a danger of explosion if a lithium battery is incorrectly replaced. Do not recharge, disassemble, or incinerate a lithium battery. Discard used lithium batteries according to the manufacturer's instructions and local regulations.

Parts removal

⚠ **ATTENTION—RISQUE DE BLESSURE :** La batterie lithium de ce produit n'est pas destinée à être remplacée. Il existe un risque d'explosion si une batterie lithium est placée de façon incorrecte. Ne rechargez pas, ne démontez pas et n'incinérez pas une batterie lithium. Mettez les batteries lithium usagées au rebut selon les instructions du fabricant et les réglementations locales.

⚠ **PRECAUCIÓN: POSIBLES DAÑOS PERSONALES:** La batería de litio de este producto no debe reemplazarse. Existe riesgo de explosión si se sustituye incorrectamente una batería de litio. No recargue, desmonte ni incinere una batería de litio. Deseche las baterías de litio según las instrucciones del fabricante y las normativas locales.

⚠ **VORSICHT – MÖGLICHE VERLETZUNGSGEFAHR** Die Lithiumbatterie in diesem Produkt darf nicht ausgetauscht werden. Wird eine Lithiumbatterie nicht ordnungsgemäß ausgetauscht, besteht Explosionsgefahr. Lithiumbatterien dürfen auf keinen Fall wieder aufgeladen, auseinander genommen oder verbrannt werden. Befolgen Sie zum Entsorgen verbrauchter Lithiumbatterien die Anweisungen des Herstellers und die örtlichen Bestimmungen.

Warning—Potential Damage: Replace only one of the following components at a time:

- Control panel
- Controller board

To replace a component and to test whether the problem is resolved:

1 Replace the affected component.

   Warning—Potential Damage: Do not perform a Power-On Reset (POR) until the problem is resolved. If a POR is performed at this point, then the replacement part can no longer be used in another printer and must be returned to the manufacturer.

2 Enter the Diagnostics Menu. The Diagnostics Menu allows you to temporarily use the replacement part.

   Warning—Potential Damage: Some printers will perform automatically a POR if the Diagnostics Menu is not opened within five seconds. If a POR is performed at this point, then the replacement part can no longer be used in another printer and must be returned to the manufacturer.

3 Use the Diagnostics Menu to test the replacement part. Do a feed test to check if the problem is resolved.
   - If the problem is not resolved—Turn off the printer, and then reinstall the old part.
   - If the problem is resolved—Perform a POR.

Descriptions in page 410 to 412 are not applicable to this model. Therefore it was deleted.

Updating the printer firmware

Warning—Potential Damage: Before updating the printer firmware, ask the next level of support for the correct code. Using an incorrect code level may damage the printer.

The printer must be in ready state in order to update the firmware.

Using a flash drive

This option is available only in printer models with front USB port.

Make sure to enable the Enable Drive and Update Code settings. You can find the settings in the Flash drive menu under the Settings menu.

1 Insert the flash drive into the USB port.

2 From the control panel, navigate to **USB Menu: Print from USB** > **Accept** or **OK**.

3 Select the file that you need to flash.

Note: Do not turn off the printer while the update is going on.

Using a network computer

Using the File Transfer Protocol (FTP)

Make sure that the printer is in ready state before flashing the printer.

1 Turn on the printer.

2 Obtain the IP address:
   - From the home screen
   - From the TCP/IP section of the Network/Ports menu

3 From the command prompt of a network computer, open an FTP session to the printer IP address.

4 Use a PUT command to place the firmware file on the printer.

   The printer performs a POR sequence and terminates the FTP session.

5 Repeat step 2 through step 4 for the other files.

Using the Embedded Web Server

Make sure that the printer is in ready state before flashing the printer.

1 Open a web browser, and then type the printer IP address.

2 From the home page, navigate to **Configuration** > **Update Firmware**.

3 Select the file to use.

   The printer performs a POR sequence and terminates the FTP session.

4 Repeat step 2 through step 4 for the other files.

Backing up eSF solutions and settings

Note: Export the eSF solutions and settings from the printer before replacing the controller board.

Exporting eSF solutions and settings file

1 Reset the printer into Invalid engine mode. See **"Entering invalid engine mode" on page 405**.

2 Open a web browser, and then type the printer IP address.

   Note: If the web page cannot be accessed or an error occurs when starting the printer into Invalid engine mode, then data backup is not an option. Inform the customer that the data cannot be saved.

3 Navigate to **Settings** > **Solutions** > **Embedded Solutions**.

4 From the Embedded Solutions page, select the applications that you want to export.

5 Click **Export**.

   Note: The size limit of the export file is 128 KB.

Importing eSF solutions and settings file

After replacing the controller board, import back to the printer the eSF solutions and settings that were exported.

1 Reset the printer into Invalid engine mode. See **"Entering invalid engine mode" on page 405**.

2 Open a web browser, and then type the printer IP address.

 Note: If the web page cannot be accessed or an error occurs when starting the printer into Invalid engine mode, then data backup is not an option. Inform the customer that the data cannot be saved.

3 Navigate to **Settings** > **Solutions** > **Embedded Solutions**.

4 From the Embedded Solutions page, select the applications that you want to import.

5 Click **Import**.

Disconnecting ribbon cables

Warning—Potential Damage: The ribbon cable and its socket may get damaged if it is not properly disconnected. When disconnecting the cable, hold its connector and press its tab before unplugging it.
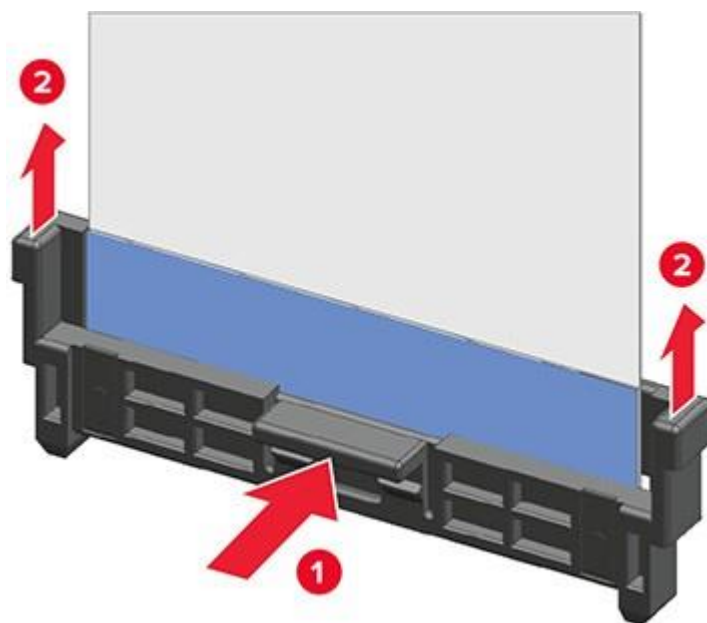
Adjustments

Registration adjustment

The allowable image skew on the test page is one dot (0.5 mm) or less delta measured between the left and right alignment indicators for the top and bottom margins.

Note: The following sample test page shows the alignment indicators at the bottom margin.

Alignment
indicator
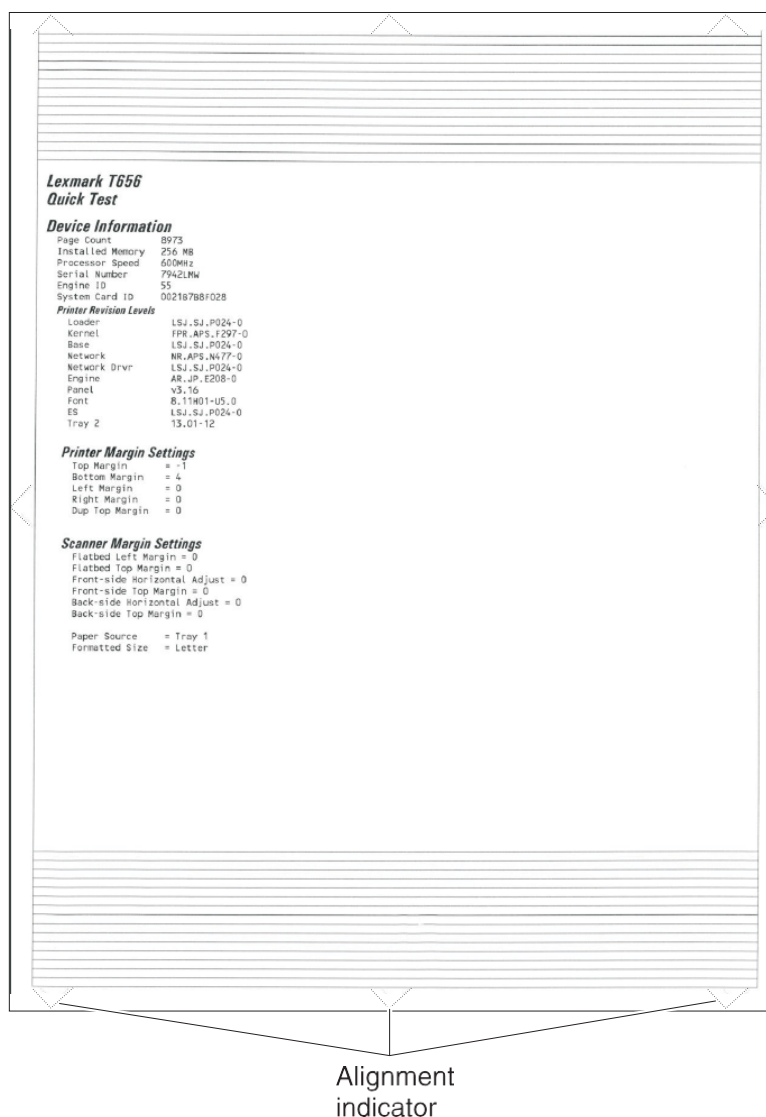
The amount of skew may vary from sheet to sheet, so multiple test pages may need to be printed.

Generating a test page for margin alignment

Note: Before printing a test page, make sure that the paper guides on the source tray are positioned correctly. The test page should be printed only on Letter or A4 paper from tray 1.

1 From the home screen, press ****36** to enter the Diagnostics menu.

2 Navigate to:

Printer diagnostics & adjustments > **Registration adjust** > **Quick test**

A test page showing the margins is generated.

3 Review the test page to check for skews at the alignment indicators.

- The alignment indicator arrows must be completely visible along the edge.
- The tip of the arrows must point to the edge.

If the top margin is skewed (or if the aligner rollers have been replaced), then see **"Aligner roller adjustment" on page 417**.

If both the top and bottom margins are skewed (or mostly the bottom margin), then do the following:

- Adjust the aligner roller to make the leading edge parallel with the trailing edge. See **"Aligner roller adjustment" on page 417**.
- Adjust the printhead to align both margins. See **"Polygon printhead mechanical registration adjustment" on page 419**.
- The aligner roller may need adjustment again after the bottom skew is aligned.

Aligner roller adjustment

Perform the aligner roller adjustment after replacing the aligner roller. Always print a copy of the Quick Test Page before making any adjustments to the aligner roller.

Note: When replacing the aligner roller, unscrew the reference adjustment screw just far enough to remove the old aligner roller and install the new one. It is not necessary to completely remove the screw.

- If you have just replaced the aligner roller, see Step A.
- If you are only correcting the top margin skew, see Step B.
- If you are correcting the bottom margin skew or both top and bottom margin skews, see Step C.

Step A

Set the initial position of the aligner roller plate using a 3-mm hex wrench at the aligner roller reference adjustment screw (A).
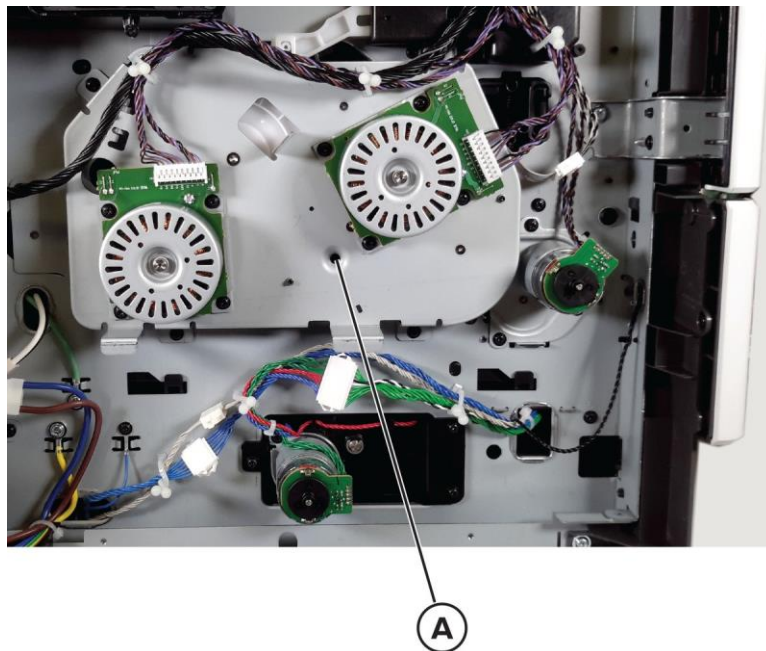
Adjust the screw until the aligner roller plate is offset by 31 mm as shown in the following image. This setting is the nominal point to minimize the amount of adjustment needed.
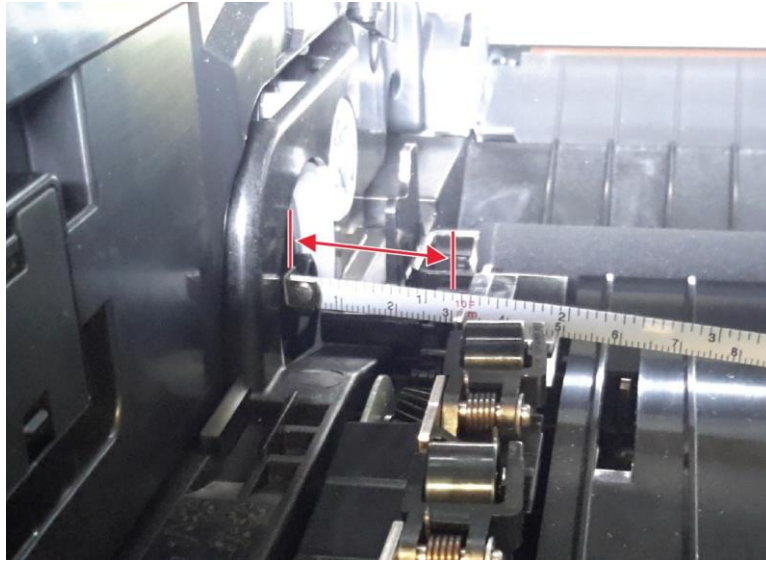
Continue to Step B.

Step B

Print a Quick Test Page, and then check the top alignment indicators on the test page. The difference in the print location to the top edge of the paper between the left and right alignment indicators should be 0.5 mm (one dot) or less. Depending on the skew, turn the screw either clockwise or counterclockwise using a 3-mm hex wrench, and print a copy of the Quick Test Page to check the arrow indicators on the top and bottom margins. Continue adjusting the screw as you check the results of each adjustment on a new test page until the top image skew is below 0.5 mm. One full 360-degree turn of the aligner screw changes the top edge skew by roughly 1 mm (2 alignment indicator dots).

Adjustment is typically 0–2 rotations. More than 3–4 turns, in either direction from the 31 mm nominal spot, is not necessary and may indicate other issues with the tray (such as problems with the tray paper guides, pick rollers, or transfer roller). If the top and bottom skew are below 0.5 mm, then the alignment process is complete.
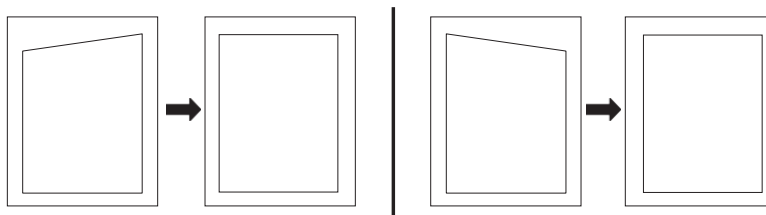
Step C

Print a Quick Test Page, and then check the top and bottom alignment indicators on the test page. The goal is to make the skew at the top and bottom of the page parallel. Depending on the skew, turn the screw either clockwise or counterclockwise using a 3-mm hex wrench, and print a Quick Test Page to check the arrow indicators on the top and bottom margins. Continue adjusting the screw as you check the results of each adjustment on a new test page until you obtain the results you want. One full 360-degree turn of the aligner adjustment screw changes the leading edge skew by roughly 1 mm (2 alignment indicator dots).
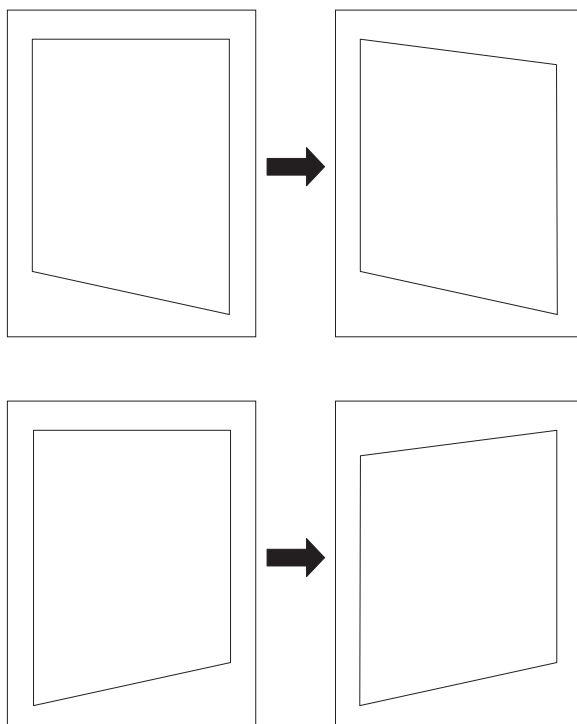
After the aligner roller adjustment is done, perform the polygon printhead mechanical registration adjustment. See **"Polygon printhead mechanical registration adjustment" on page 419**.

Polygon printhead mechanical registration adjustment

Perform the printhead mechanical registration adjustment procedure after you remove or replace the printhead, or loosen the mounting screws.

Install the new printhead with the mounting screws lightly tightened before printing the Quick Test Page to see if adjustment is needed.

To perform the printhead mechanical registration adjustment:

1 Print a Quick Test Page.

From the Diagnostics menu, navigate to:

Printer diagnostics & adjustments > **Registration adjust** > **Quick test**

If the skew between the bottom left and bottom right alignment indicators is greater than 0.5 mm (1 dot), then proceed with adjustment. Otherwise, printhead adjustment is not needed.

2 Remove the screw (A) under the bin extender, and then remove the cover.
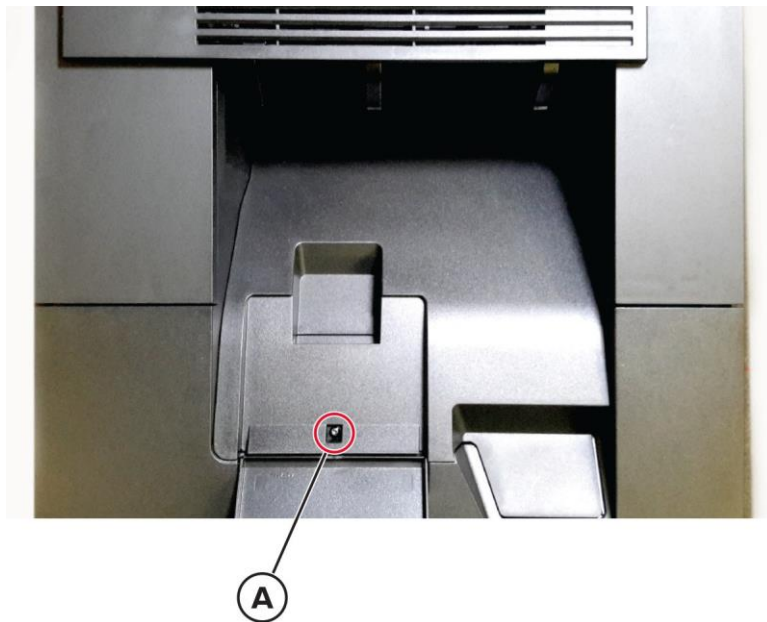
3 Loosen, by a half turn, each of the three printhead mounting screws (B) securing the printhead to the printer frame. Use a 5.5-mm hex-socket screwdriver.

4 Loosen the printhead alignment lock screw (C). With the printhead unlocked, its alignment can now be adjusted by the printhead adjustment wheel (D).
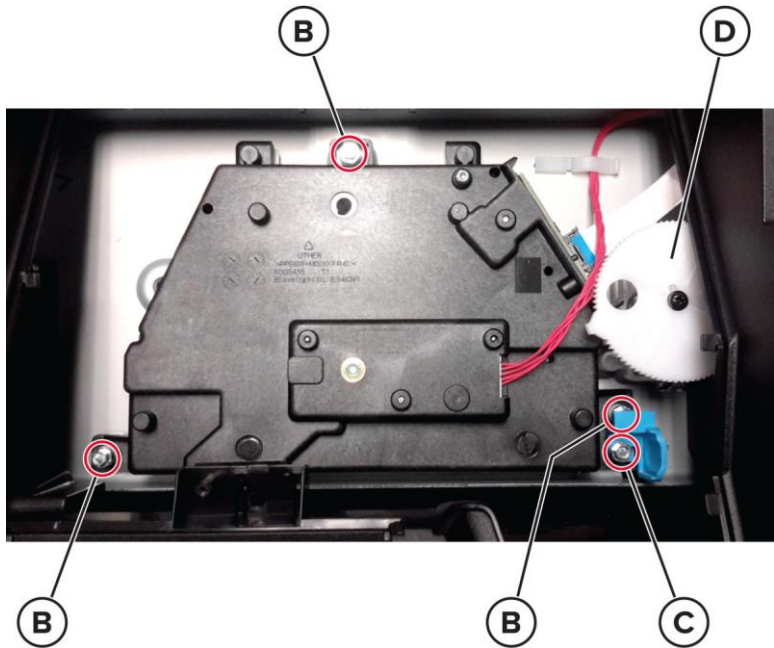
5 Check the Quick Test Page for any sign of misalignment by checking the alignment indicators at the bottom left and bottom right of the test page for equal distance from the bottom of the page. If necessary, rotate the printhead adjustment wheel either clockwise (to rotate the image clockwise) or counterclockwise (to rotate the image counterclockwise), and then print another Quick Test Page. You may need to repeat this step two times or more before you get satisfactory bottom skew results.

Paper feed skew
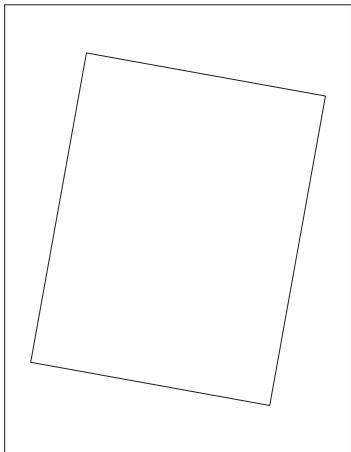
Printhead misalignment
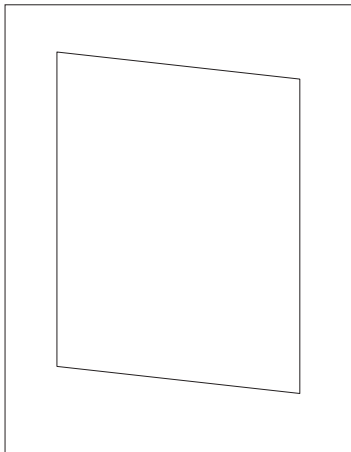
1	To correct, turn the printhead adjustment wheel clockwise to rotate both edges clockwise.
2	To correct, turn the printhead adjustment wheel counterclockwise to rotate both edges counterclockwise.

Warning—Potential Damage: Do not rotate the printhead adjustment wheel at a full clockwise or counterclockwise turn.

Warning—Potential Damage: In some cases the adjustment process may take several cycles of tightening and loosening of the printhead mounting screws. Care should be taken to avoid stripping the mounting screw bosses. Use only a manual hex head screwdriver to avoid damage.

6 When you have the correct alignment, ensure that the printhead alignment screw is properly tightened, and then print a final Quick Test Page for verification.

7 Check the top edge skew and perform the aligner roller adjustment if required. See **"Aligner roller adjustment" on page 417**.

Removal procedures

Keep the following tips in mind as you replace parts:

- Some removal procedures require removing cable ties. You must replace cable ties during reassembly to avoid pinching wires, obstructing the paper path, or restricting mechanical movement.
- Remove the toner cartridges, imaging kit, and trays before removing other printer parts. The imaging kit must be carefully set on a clean, smooth, and flat surface. It must also be protected from light while out of the printer.
- Disconnect all external cables from the printer to prevent possible damage during service.
- Unless otherwise stated, reinstall the parts in reverse order of removal.
- When reinstalling a part held with several screws, start all screws before the final tightening.
- For printers that have a soft power switch, make sure to unplug the power cord after powering off.

Left side removals

Left cover removal

1 Remove the top cover. See **"Top cover removal" on page 468**.

2 Open the MPF door, and then remove the screw (A).
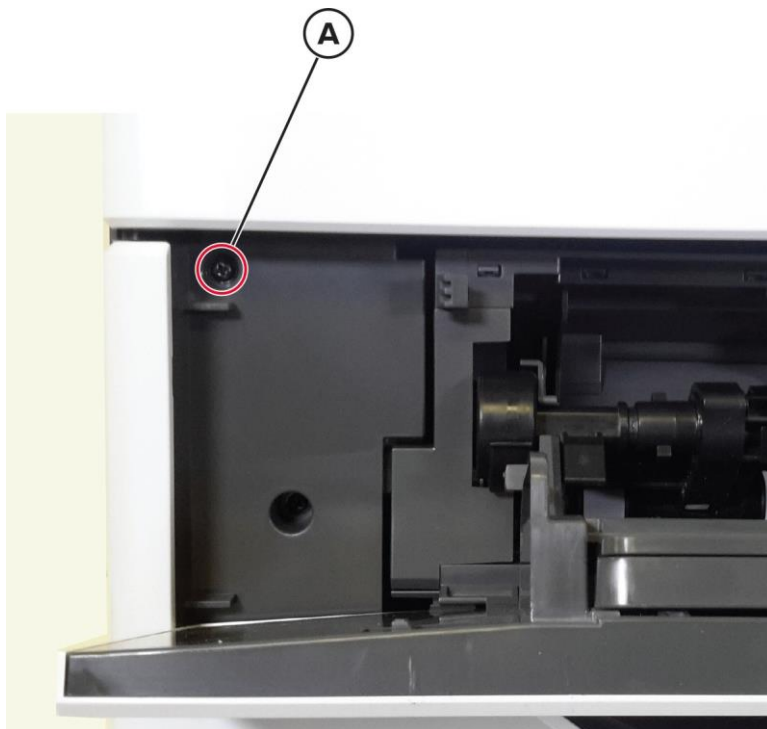
3 Remove the two upper screws (B).

4 Remove the two lower screws (C).
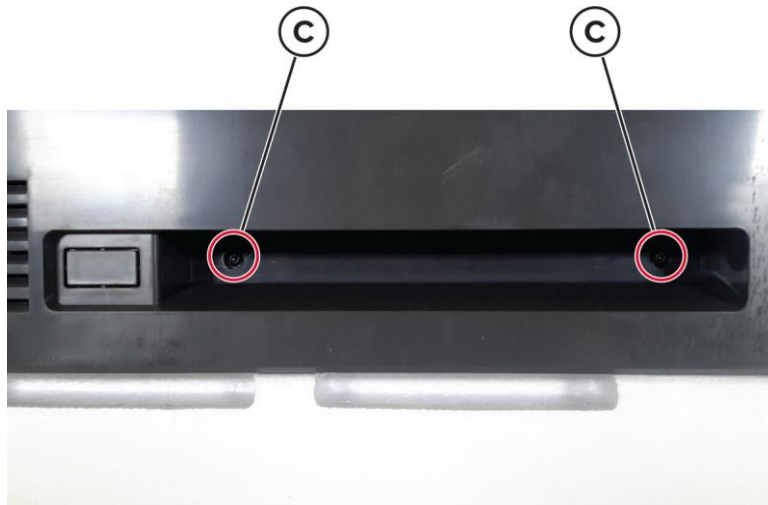
5 Remove the cover.

AC power socket removal

1 Remove the top cover. See **"Top cover removal" on page 468**.

2 Remove the left cover. See **"Left cover removal" on page 423**.

3 Remove the ground screw (A), release the latch (B), and then move the power connector to the front.

4 Disconnect the cable (C), and then remove the power socket.
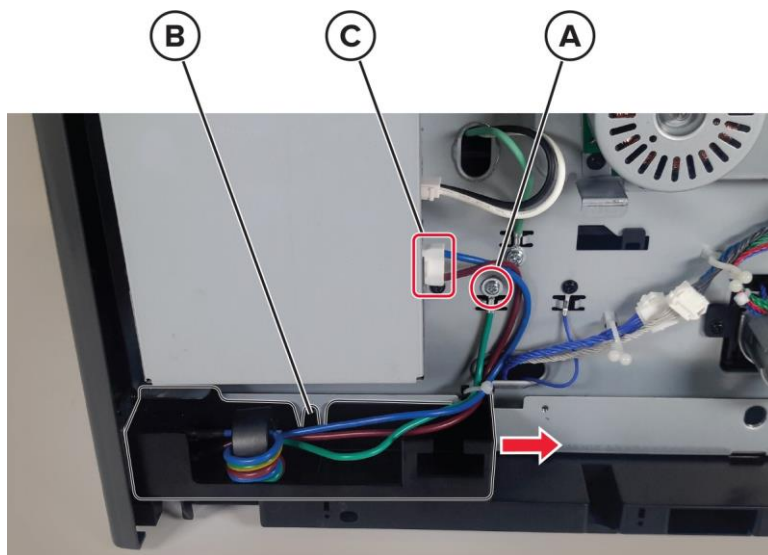
Main motor drive removal

1 Open the front door, and then remove the toner cartridge and imaging unit.

2 Remove the top cover. See **"Top cover removal" on page 468**.

3 Remove the left cover. See **"Left cover removal" on page 423**.

4 Release the cables from the cable holders (A), and then disconnect the two cables (B).

5 Remove the four screws (C), and then remove the motor drive.
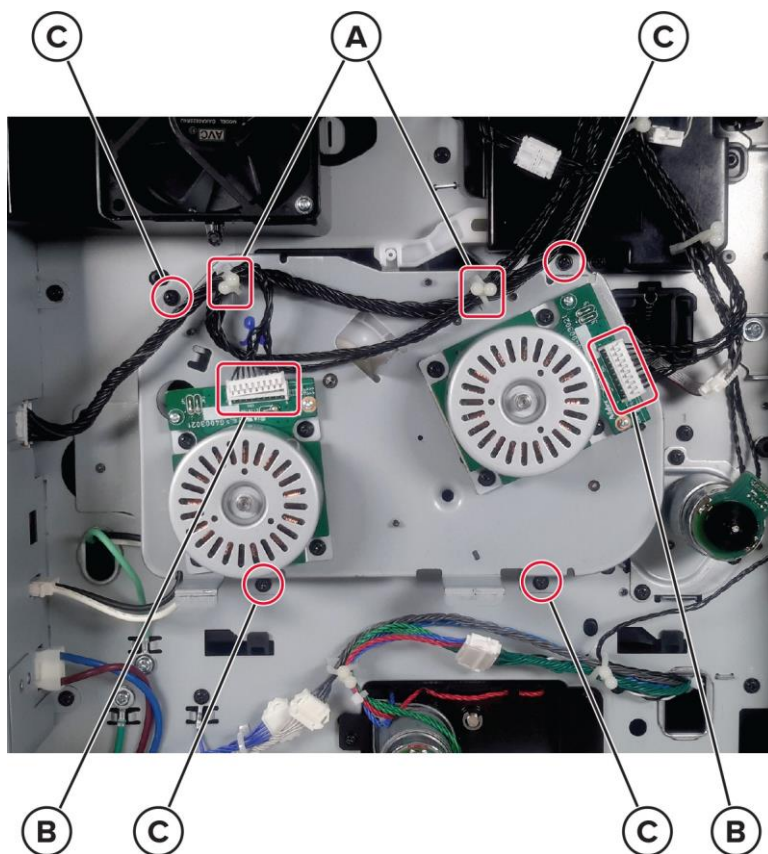
Installation warning: Make sure that the imaging unit is not reinstalled before the motor drive.

Installation warning: Make sure that the motor actuator and lever are properly engaged.
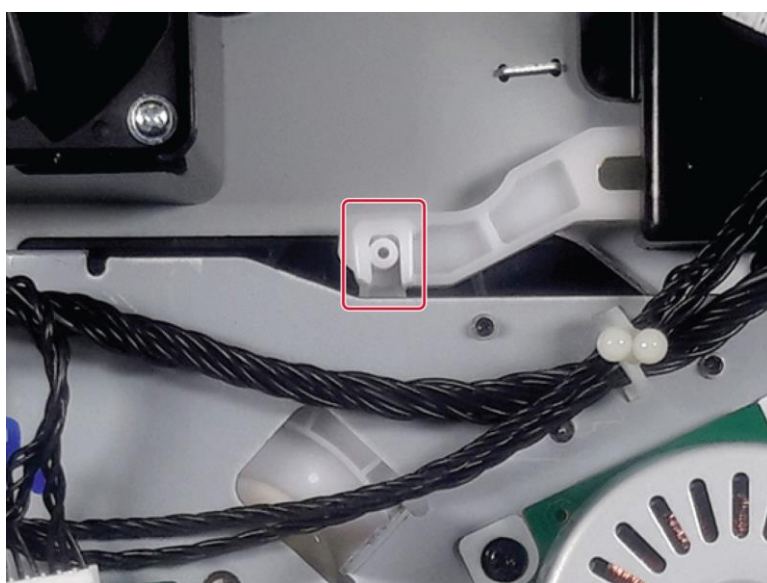
Parts removal

Fuser drive gears removal

1 Remove the fuser. See **"Fuser removal" on page 465**.

2 Remove the top cover. See **"Top cover removal" on page 468**.

3 Remove the left cover. See **"Left cover removal" on page 423**.

4 Remove the main motor drive. See **"Main motor drive removal" on page 424**.

5 Remove the three screws (A), and then remove the drive gears.
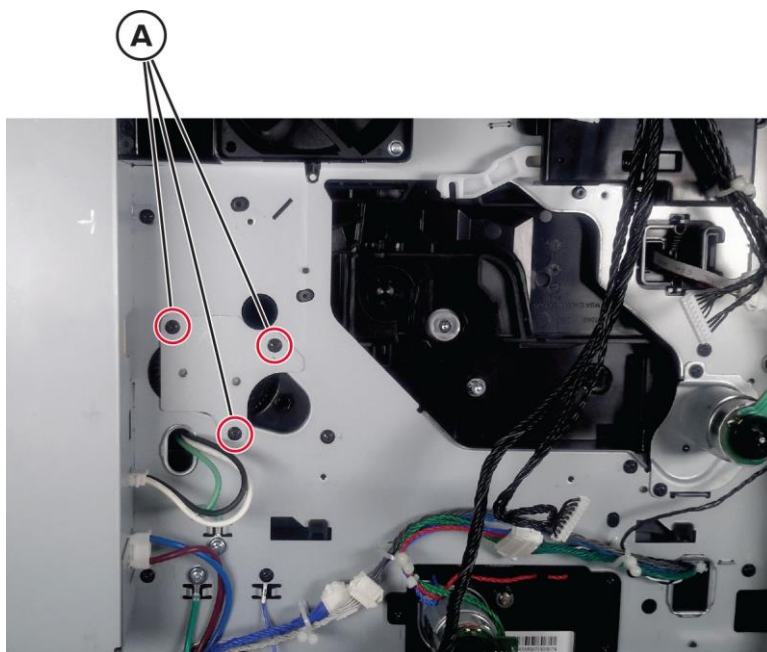
Main fan removal

1 Remove the top cover. See **"Top cover removal" on page 468**.

2 Remove the left cover. See **"Left cover removal" on page 423**.

3 Disconnect the cable (A), and then release it from its holder (B).

4 Remove the two screws (C), and then remove the fan.

Motor (MPF) removal

1 Remove the top cover. See **"Top cover removal" on page 468**.

2 Remove the left cover. See **"Left cover removal" on page 423**.

3 Disconnect the cable (A), and then remove the three screws (B).
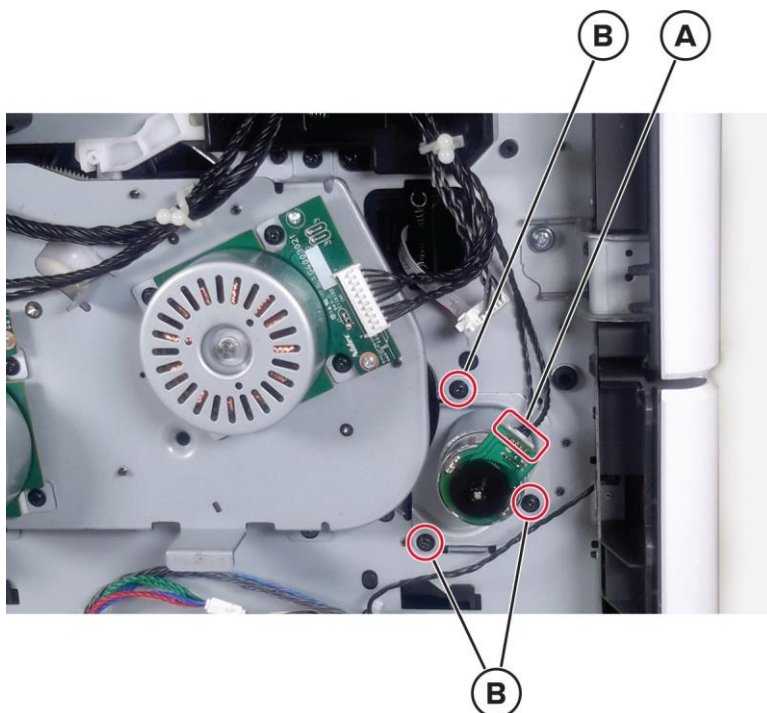
4 Remove the motor.

LVPS removal

1 Turn off the printer, and then unplug the power cord from the electrical outlet.

2 Remove the top cover. See **"Top cover removal" on page 468**.

3 Remove the left cover. See **"Left cover removal" on page 423**.

4 Disconnect the three cables (A), and then remove the two screws (B).

5 Release the cables from their holder (C), and then remove the LVPS.

⚠ **CAUTION—SHOCK HAZARD:** The low-voltage power supply (LVPS) may have residual voltage present. To avoid the risk of electrical shock, do not touch its circuit components. Only handle it by its metal housing or outer edges.
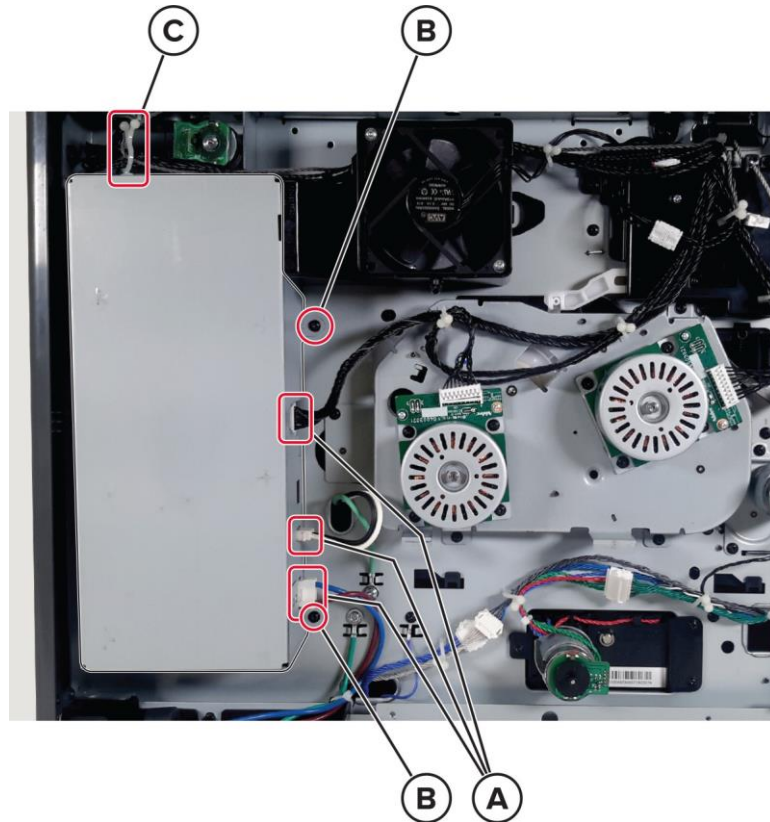
Installation note: Make sure that LVPS tabs are properly engaged with their appropriate slots (A) on the printer frame.
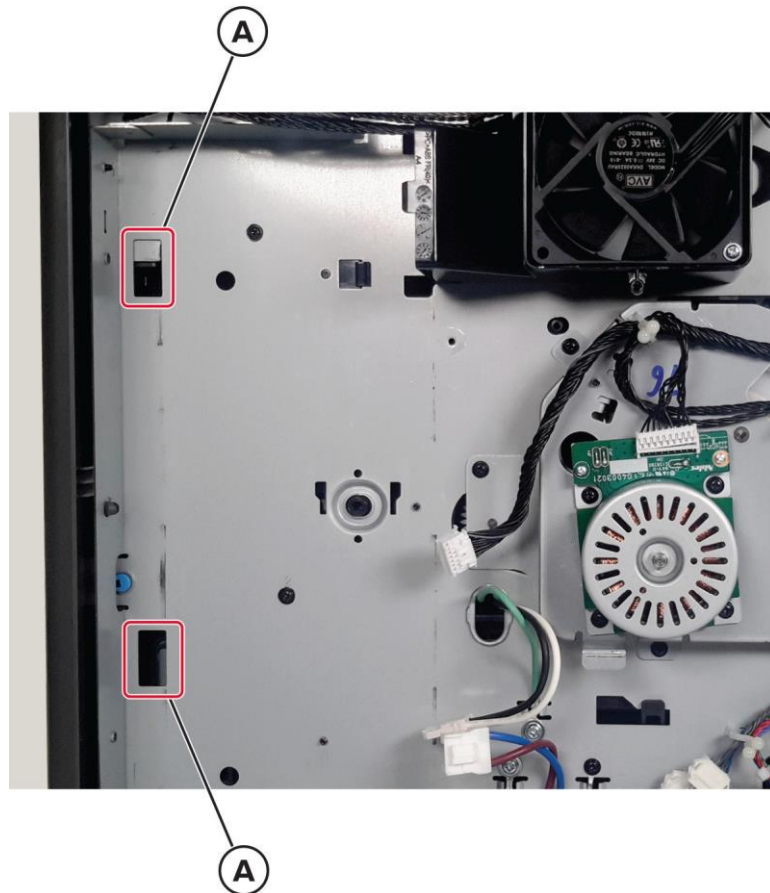
Installation note: Make sure that the voltage selector switch (B) is set to the proper voltage.
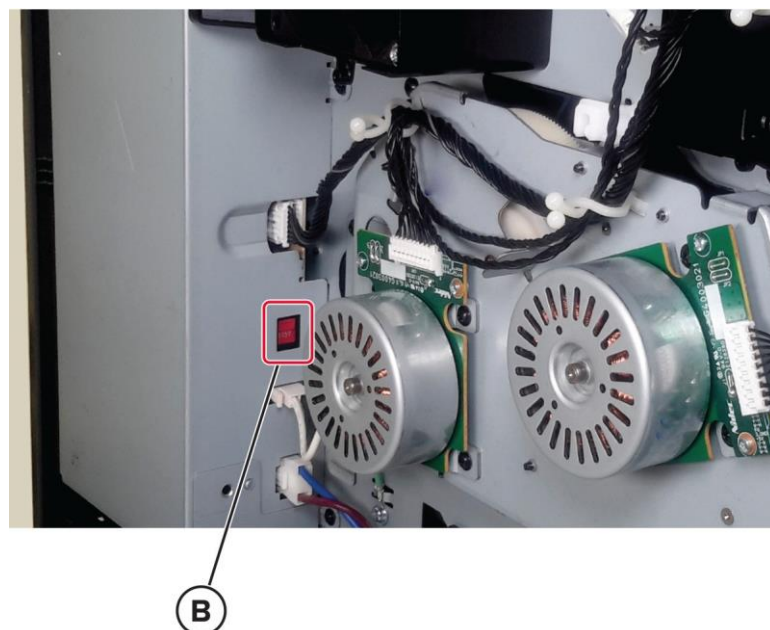
Paper feeder removal

1 Remove tray 1, and then remove the pick roller. See **"Pick roller removal" on page 478**.

2 Remove the top cover. See **"Top cover removal" on page 468**.

3 Remove the left cover. See **"Left cover removal" on page 423**.

4 Release the cable holder (A), and then disconnect the cable (B).

5 Remove the three screws (C), and then remove the paper feeder.
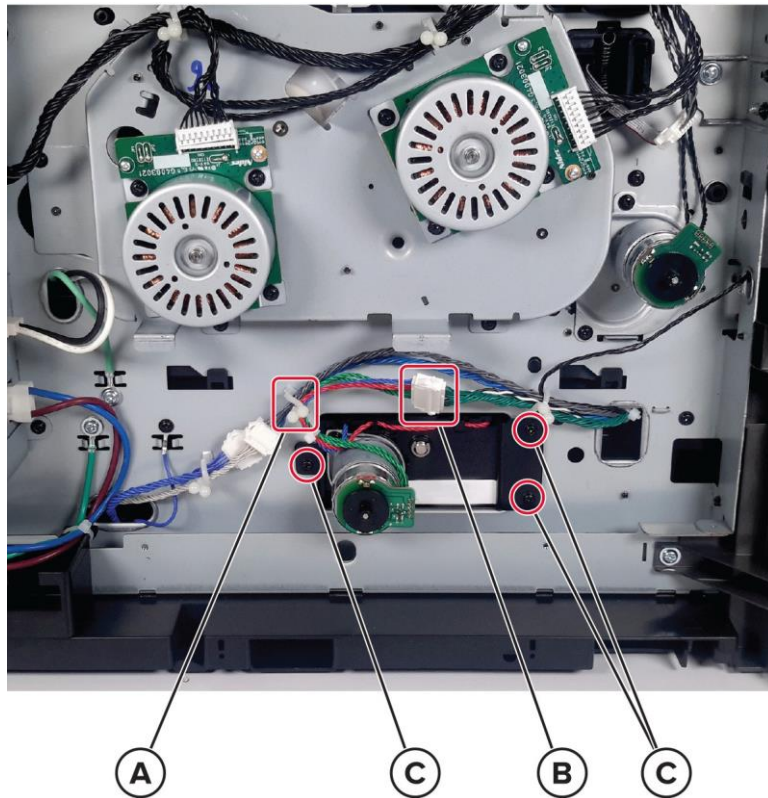
Motor (redrive) removal

1 Remove the top cover. See **"Top cover removal" on page 468**.

2 Remove the left cover. See **"Left cover removal" on page 423**.

3 Remove the two screws (A), and then release the motor.

Note: If the top cover is not removed yet, then the motor cannot be released.
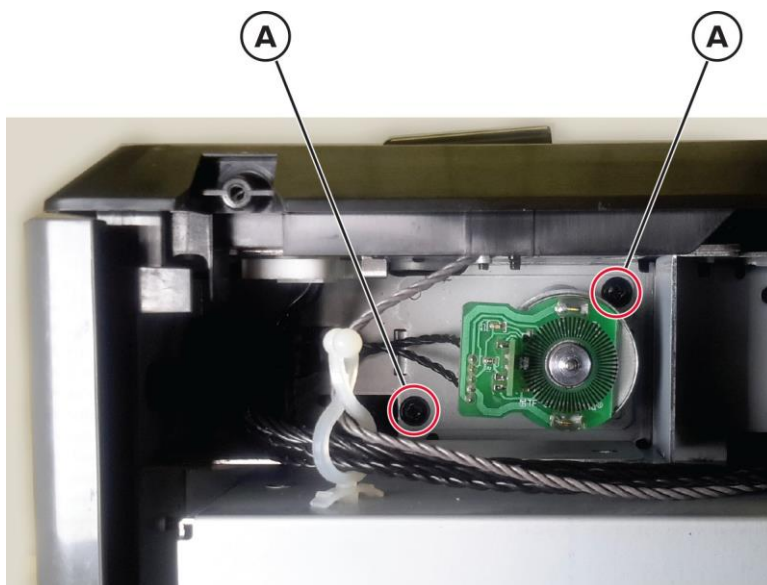
4 Swing the motor to the right, and then disconnect the cable (B).
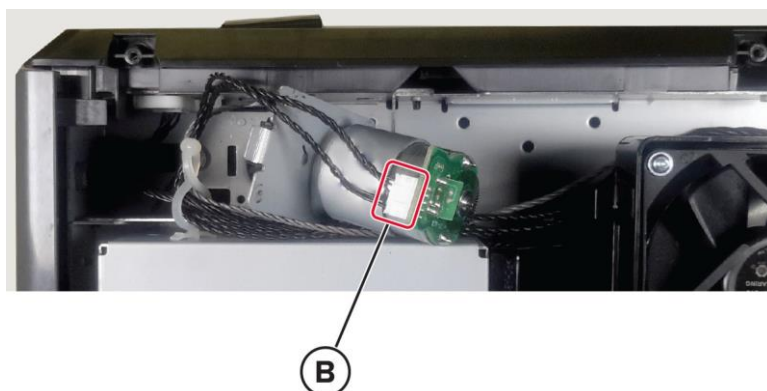
5 Remove the motor.

Sensor (toner smart chip) removal

1 Open the front door, and then remove the toner cartridge and imaging unit.

2 Remove the top cover. See **"Top cover removal" on page 468**.

3 Remove the left cover. See **"Left cover removal" on page 423**.

4 Unhook the toner smart chip spring (A), and then disconnect the sensor cable (B).
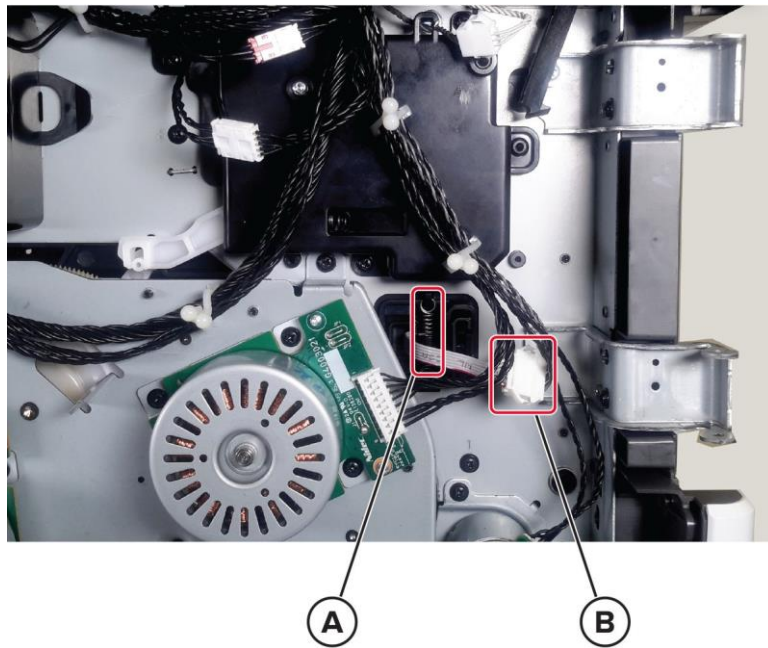
5 Remove the sensor.

Right side removals

Right cover removal

1 Remove the top cover. See **"Top cover removal" on page 468**.

2 Remove the five screws (A).
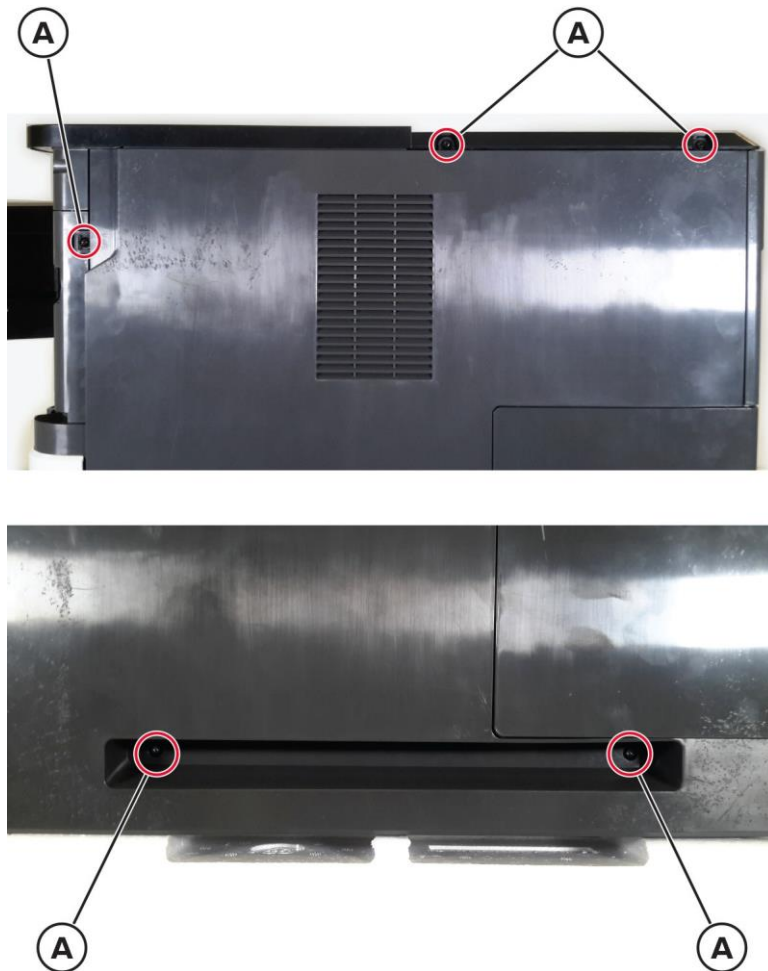
3 From the rear side, remove the screw (B).
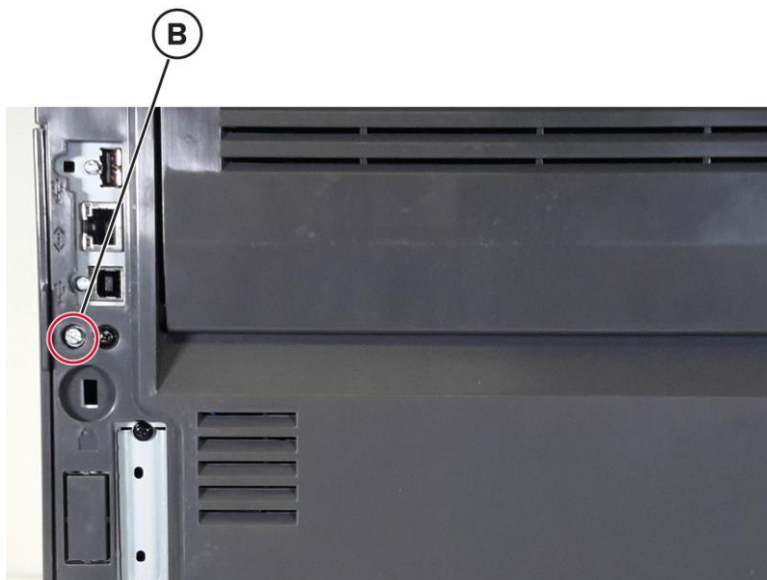
4 Open the controller board access door, and then remove the screw (C).

5 Remove the right cover.

HVPS removal

1 Turn off the printer, and then unplug the power cord from the electrical outlet.

2 Remove the top cover. See <u>**"Top cover removal" on page 468**</u>.

3 Remove the right cover. See <u>**"Right cover removal" on page 434**</u>.

4 Remove the screw (A), and then remove the HVPS shield.
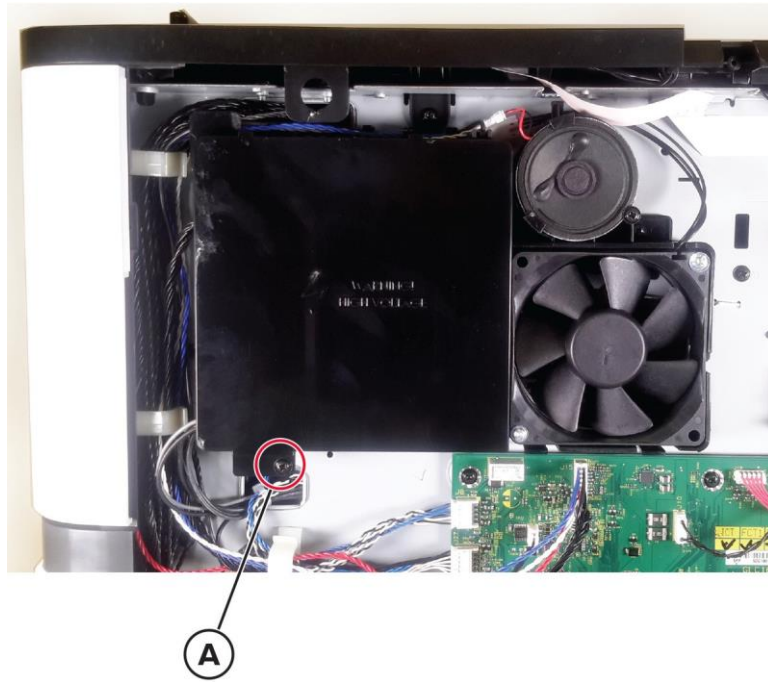
5 Disconnect the three cables (B), and then remove the four screws (C).
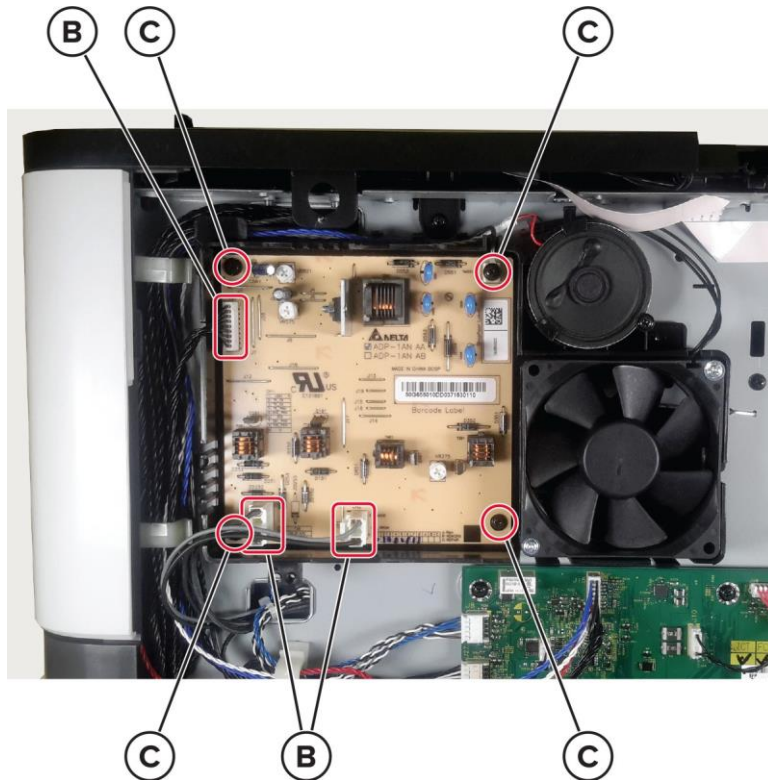
6 Remove the HVPS.

⚠ **CAUTION—SHOCK HAZARD:** The high-voltage power supply (HVPS) may have residual voltage present. To avoid the risk of electrical shock, do not touch its circuit components. Only handle it by its outer edges.

Cartridge fan removal

1 Remove the top cover. See .

2 Remove the right cover. See .

3 Remove the two screws (A), and then disconnect the cable (B).
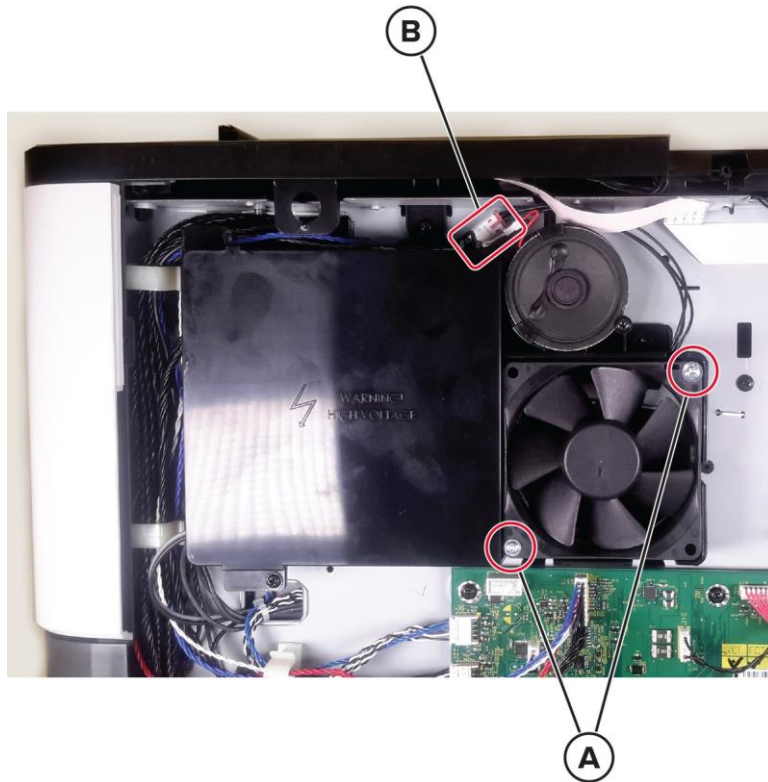
4 Remove the fan.

Controller board access door removal

1 Remove the top cover. See **"Top cover removal" on page 468**.

2 Remove the right cover. See **"Right cover removal" on page 434**.

3 Release the hinge pivot (A), and then remove the door.
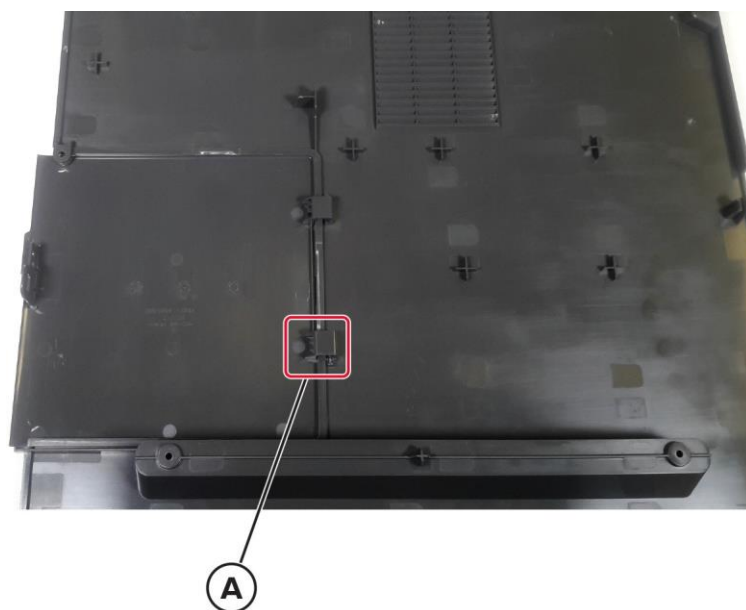
Controller board removal

Critical information for controller board or control panel replacement

Warning—Potential Damage: Replace only one of the following components at a time:

- Control panel
- Controller board

To replace a component, and to test whether the problem is resolved:

1 Replace the affected component.

Warning—Potential Damage: Do not perform a POR (Power-On Reset) until the problem is resolved. If a POR is performed at this point, the replacement part can no longer be used in another printer and must be returned to the manufacturer.

2 Enter the Diagnostics Menu. The Diagnostics Menu allows you to temporarily use the replacement part.

Warning—Potential Damage: Some printers will automatically perform a POR if the Diagnostics Menu is not opened within five seconds. If a POR is performed at this point, the replacement part can no longer be used in another printer and must be returned to the manufacturer.

3 Use the Diagnostics Menu to test the replacement part. Do a feed test to check if the problem is resolved.
- If the problem is not resolved—Turn off the printer, and then reinstall the old part.
- If the problem is resolved—Perform a POR.

Removal procedure

1 Remove the top cover. See .

2 Remove the right cover. See .

3 Disconnect all the cables from the controller board, and then remove the seven screws (A).

4 Remove the board.

Installation note: Make sure that all the cables are connected and properly routed.

Installation for printers with 4.3-inch displays

- Install the appropriate controller board (PN 0SP41X1127///).
- Connect the control panel cable to socket J18 (labeled with *4.3"*) on the controller board.
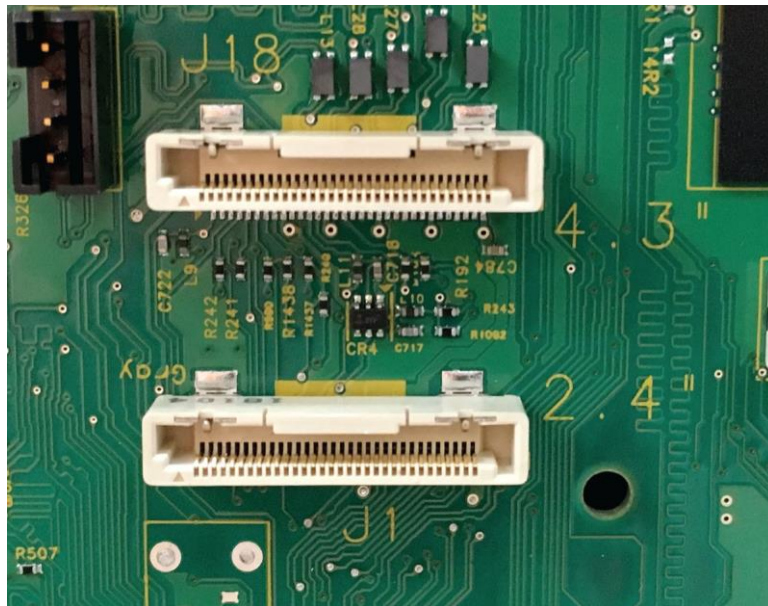
Speaker removal

1 Remove the top cover. See **"Top cover removal" on page 468**.

2 Remove the right cover. See **"Right cover removal" on page 434**.

3 Disconnect the cable (A), and then remove the screw (B).
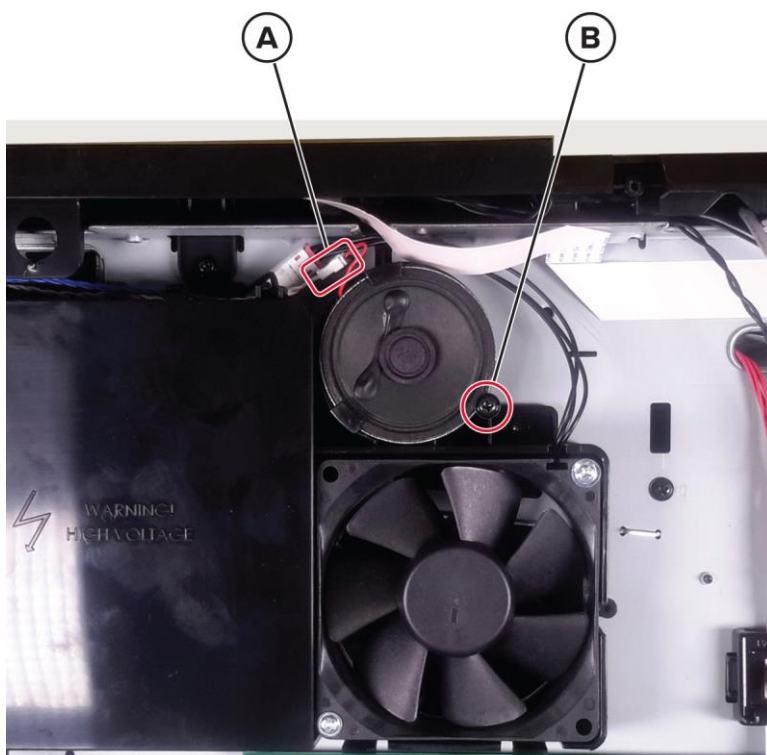
4 Remove the speaker.

High voltage contacts guide removal

1 Open the front door, and then remove the toner cartridge and imaging unit.

2 Remove the top cover. See **"Top cover removal" on page 468**.

3 Remove the right cover. See **"Right cover removal" on page 434**.

4 Remove the four screws (A).
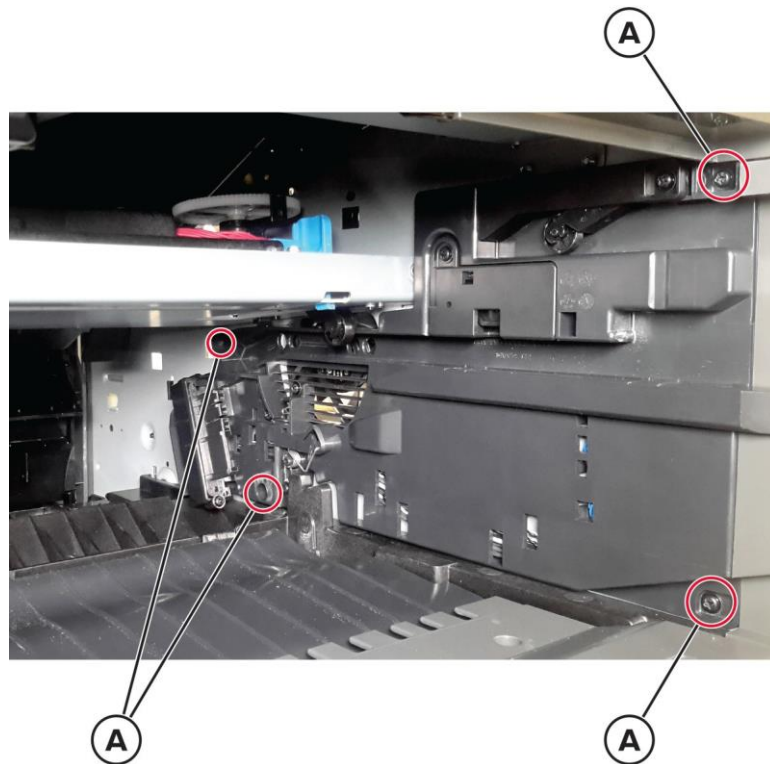
5 Remove the screw (B), and then remove the HVPS shield.
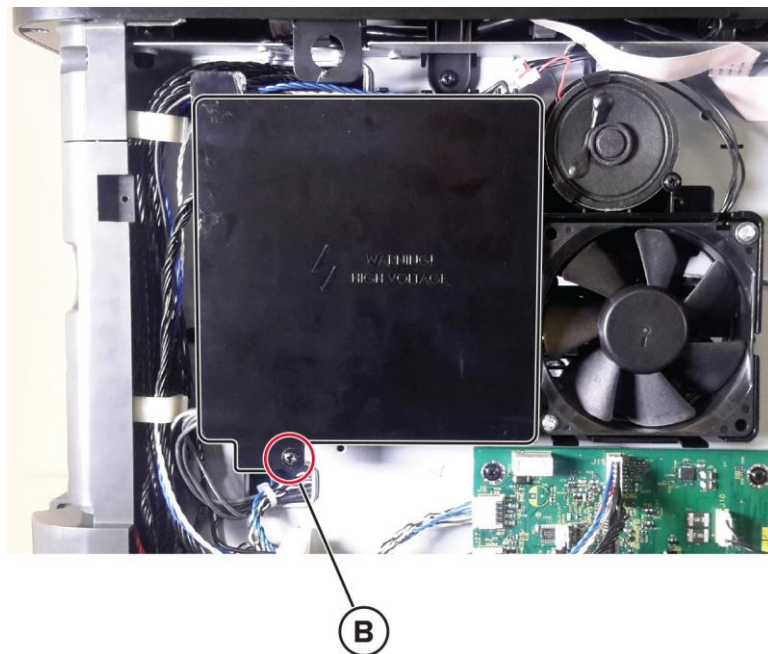
6 Disconnect the four cables (C), and then remove the high voltage contacts guide.
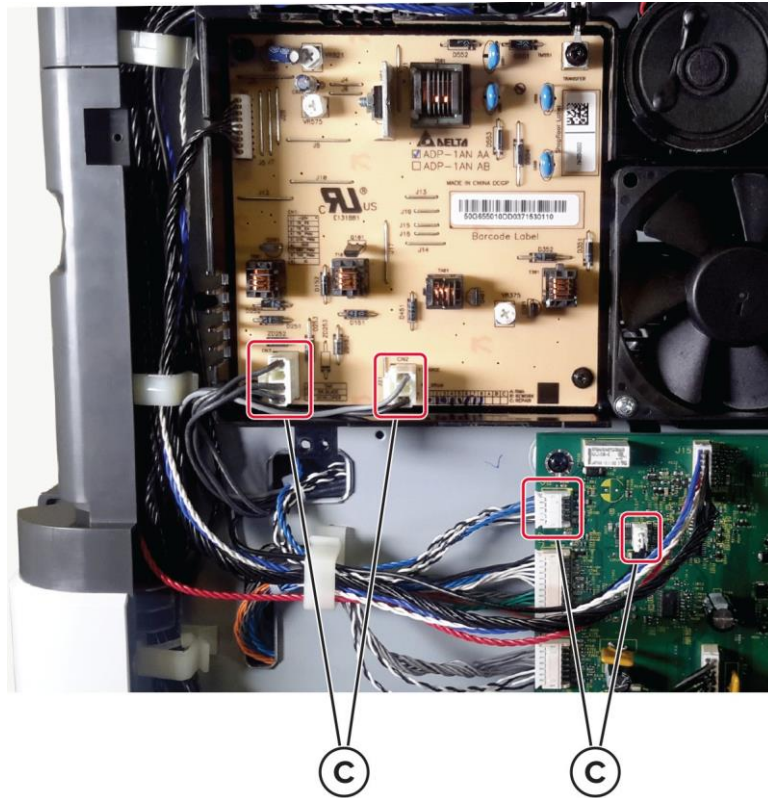
Toner cartridge shutter actuator removal

1 Open the front door, and then remove the toner cartridge and imaging unit.

2 Remove the screw (A), and then remove the actuator.
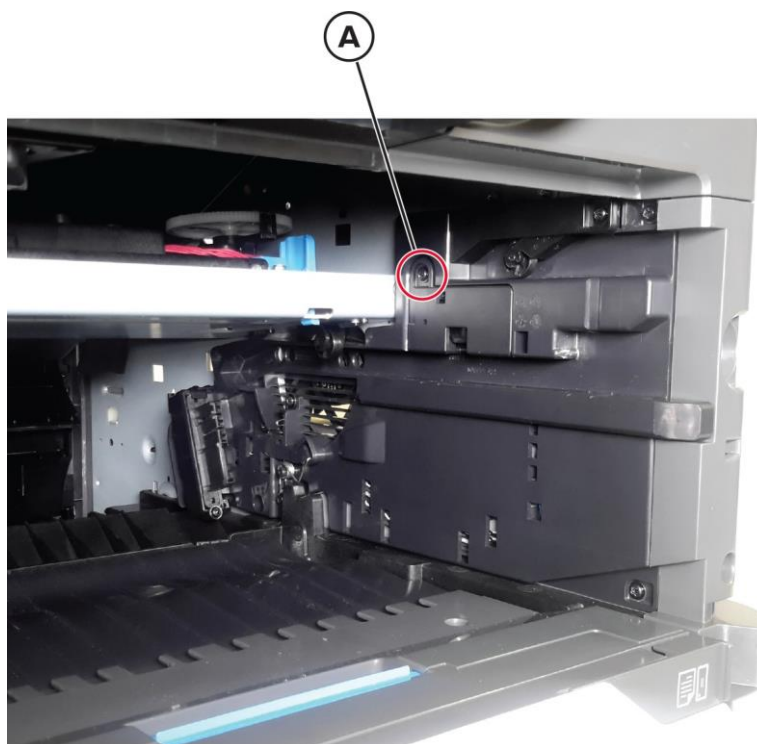
Sensor (toner cartridge shutter) removal

1 Open the front door, and then remove the toner cartridge and imaging unit.

2 Remove the toner cartridge shutter actuator. See **"Toner cartridge shutter actuator removal" on page 445**.

3 Release the sensor (A) from the inner side, and then disconnect its cable.
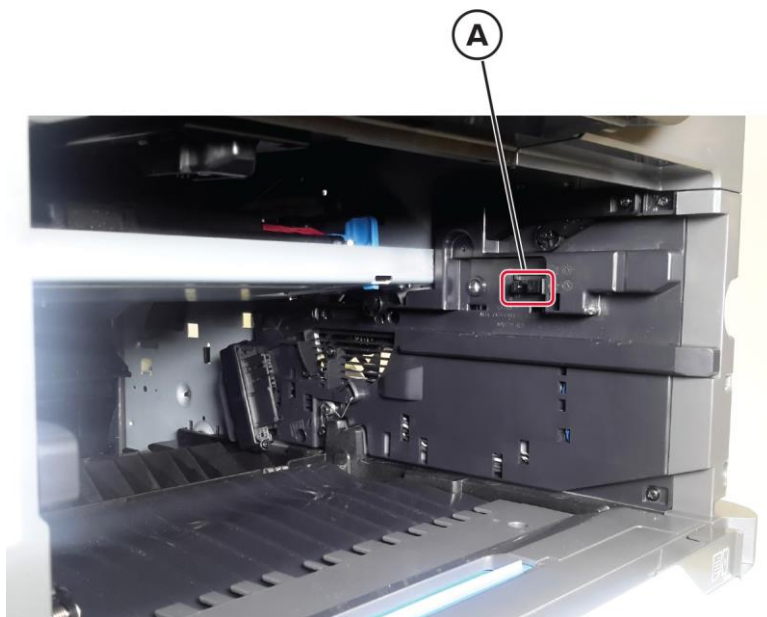
4 Remove the sensor.

Front side removals

Front door bracket removal

1 Remove the top cover. See **"Top cover removal" on page 468**.

2 Remove the left cover. See **"Left cover removal" on page 423**.

3 Loosen the two screws (A), and then remove the two screws (B).
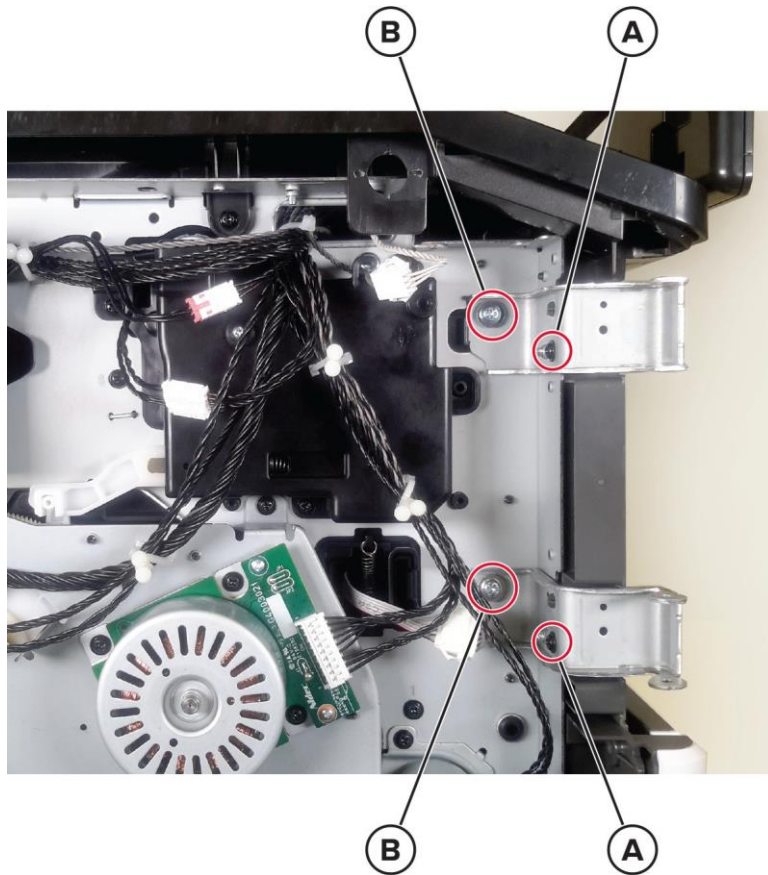
4 Remove the two screws (C).
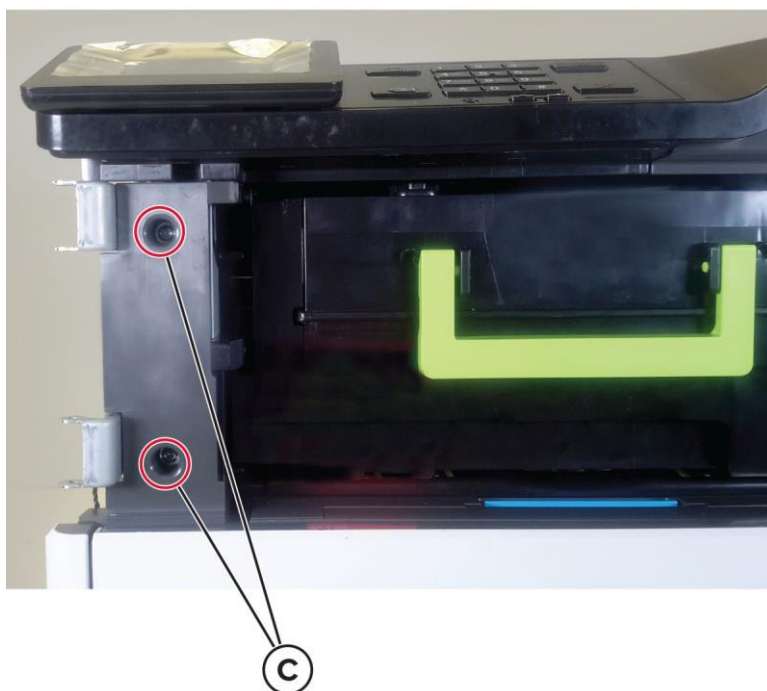
5 Remove the bracket.

Installation warning: Make sure that the screws are not overtightened.

Front door removal

1 Open the front door.

2 Swing the front door pins (A) inward to release, and then remove them.
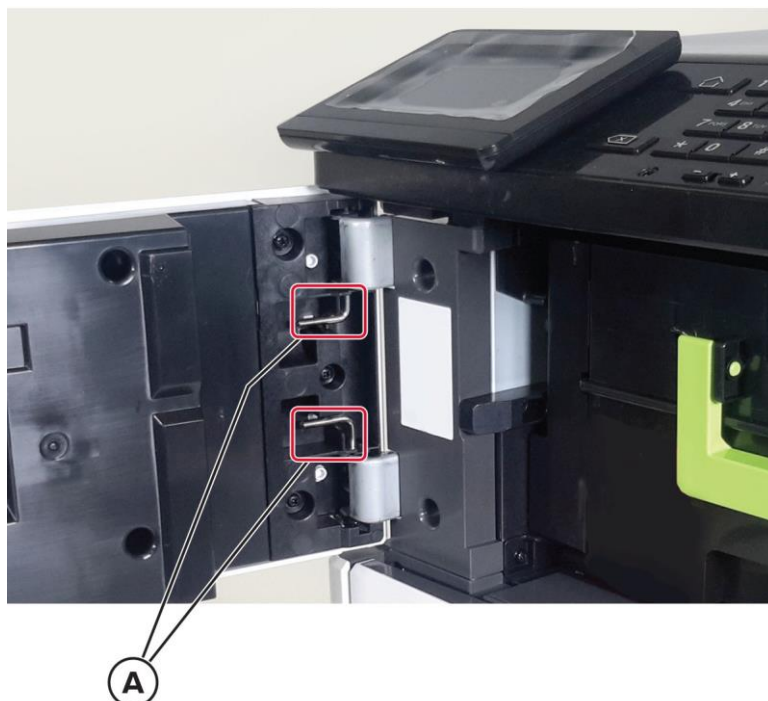
3 Remove the door.

Duplex/MPF tray removal

1 Open the front door.

2 Press the handle, and then pull out the duplex/MPF tray.
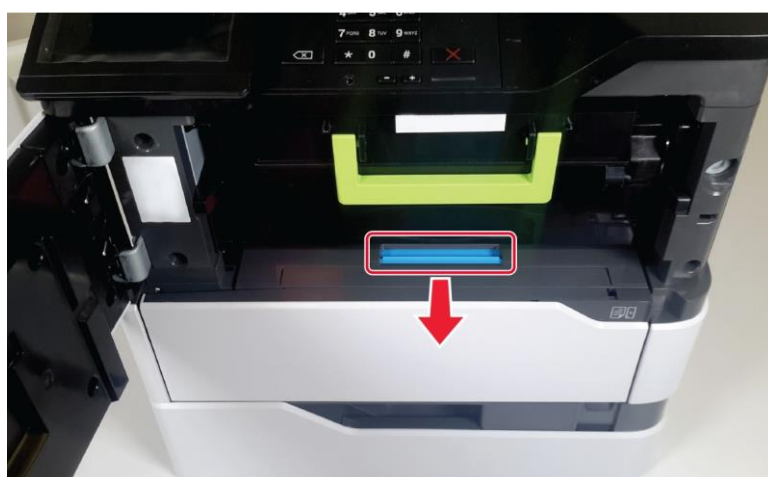
Inner left cover removal

1 Remove tray 1.

2 Remove the duplex/MPF tray. See **"Duplex/MPF tray removal" on page 449**.

3 Remove the top cover. See **"Top cover removal" on page 468**.

4 Remove the left cover. See **"Left cover removal" on page 423**.

5 Remove the screw (A).
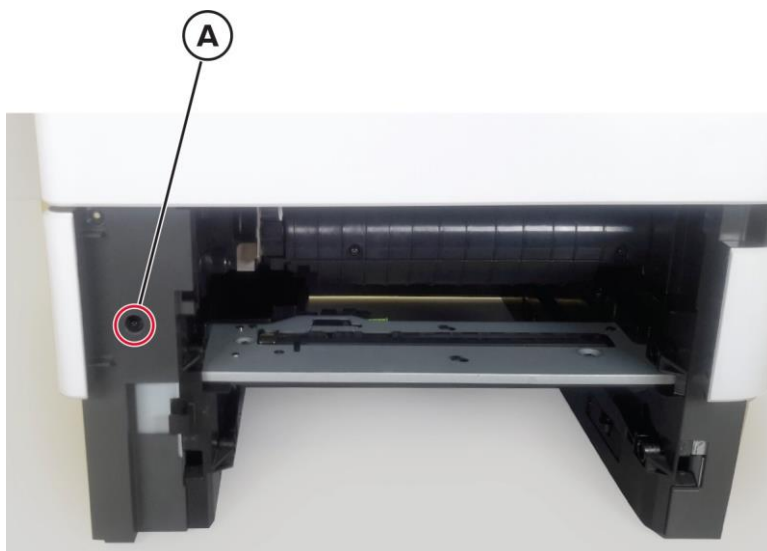
6 Remove the screw (B) from the left side, and then remove the cover.
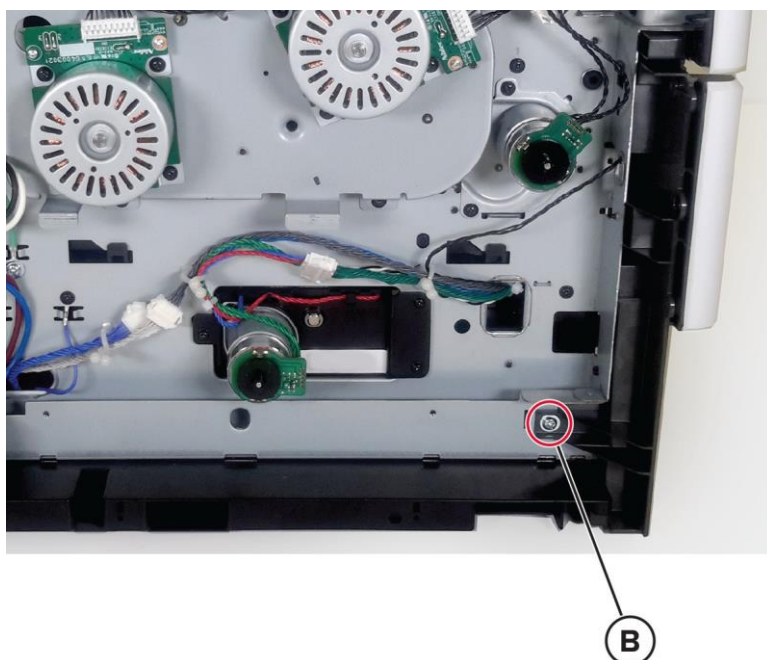
Inner right cover removal

1 Remove tray 1.

2 Remove the top cover. See **"Top cover removal" on page 468**.

3 Remove the right cover. See **"Right cover removal" on page 434**.
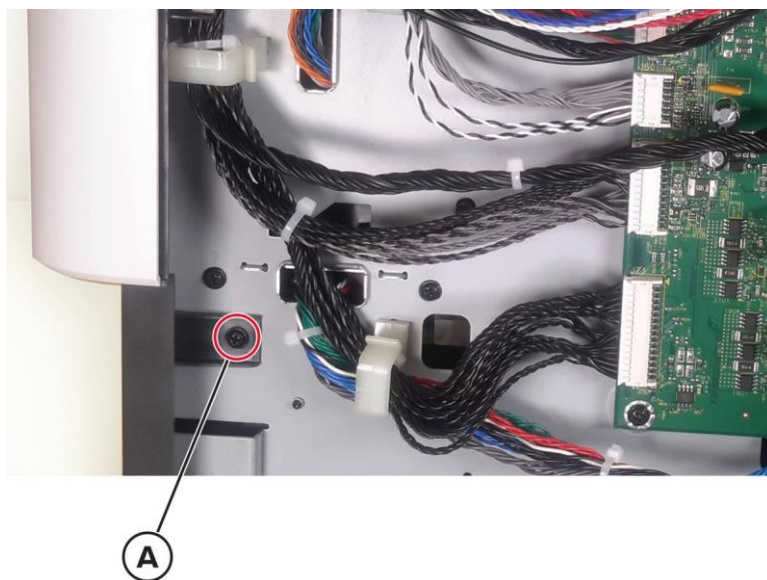
4 Remove the screw (A).

5 From the front side, remove the two screws (B).
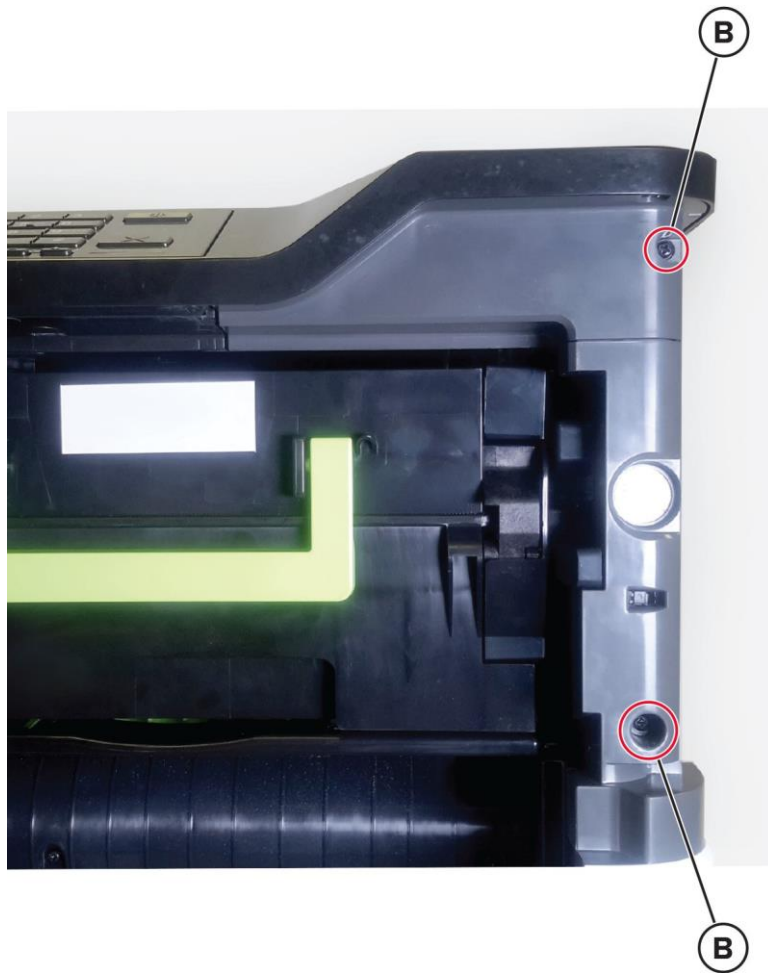
6 Slightly lift the top cover to release, and then remove the inner right cover.
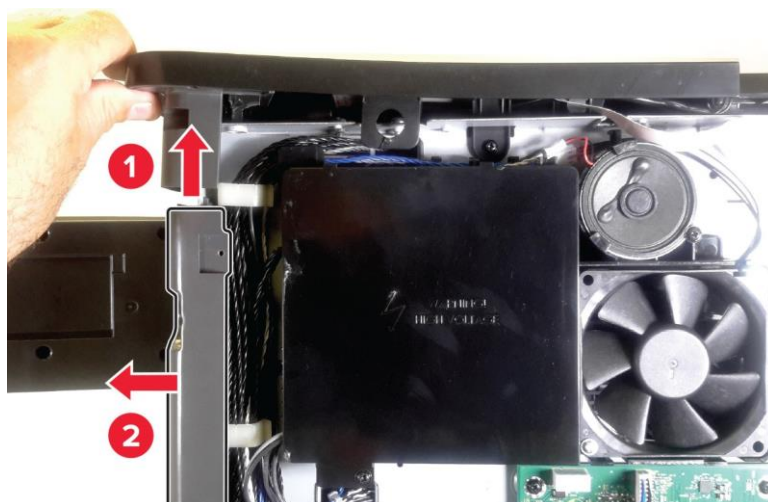
Inner guide deflector removal

1 Open the front door, and then remove the toner cartridge and imaging unit.

2 Remove the duplex/MPF tray. See **"Duplex/MPF tray removal" on page 449**.

3 Remove the two screws (A), and then remove the deflector.
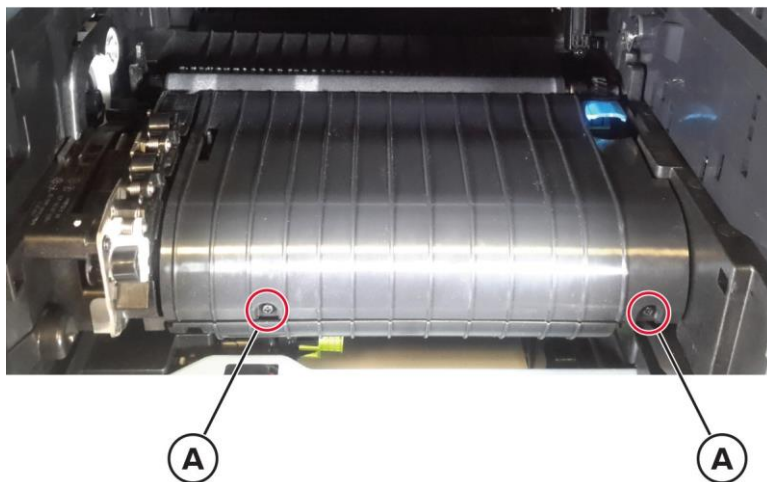
Sensor (duplex interlock) removal

1 Open the front door, and then remove the toner cartridge and imaging unit.

2 Remove the duplex/MPF tray. See **"Duplex/MPF tray removal" on page 449**.

3 Remove the inner guide deflector. See **"Inner guide deflector removal" on page 453**.

4 Remove the screw (A), and then disconnect the sensor cable (B).
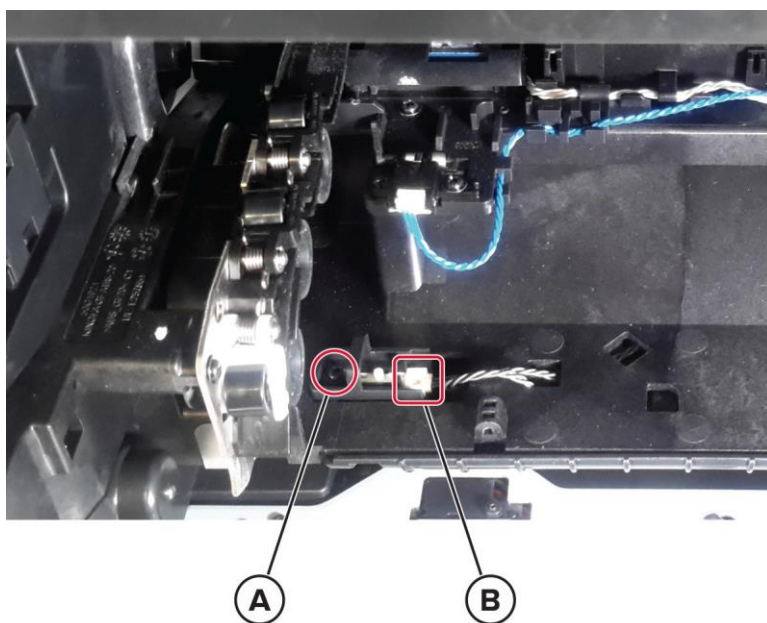
5 Remove the sensor.

Aligner removal

1 Open the front door, and then remove the toner cartridge and imaging unit.

2 Remove tray 1.

3 Remove the top cover. See **"Top cover removal" on page 468**.

4 Remove the left cover. See **"Left cover removal" on page 423**.

5 Remove the duplex/MPF tray. See **"Duplex/MPF tray removal" on page 449**.

6 Remove the inner guide deflector. See **"Inner guide deflector removal" on page 453**.

7 Remove the two screws (A).
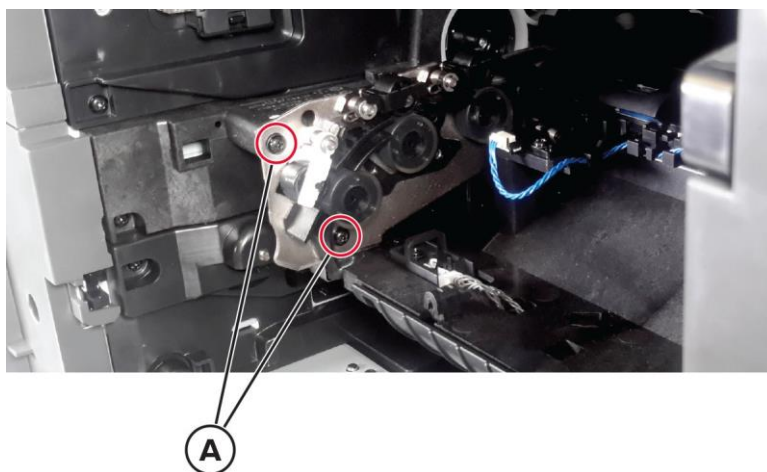
8 Remove the aligner screw (B).
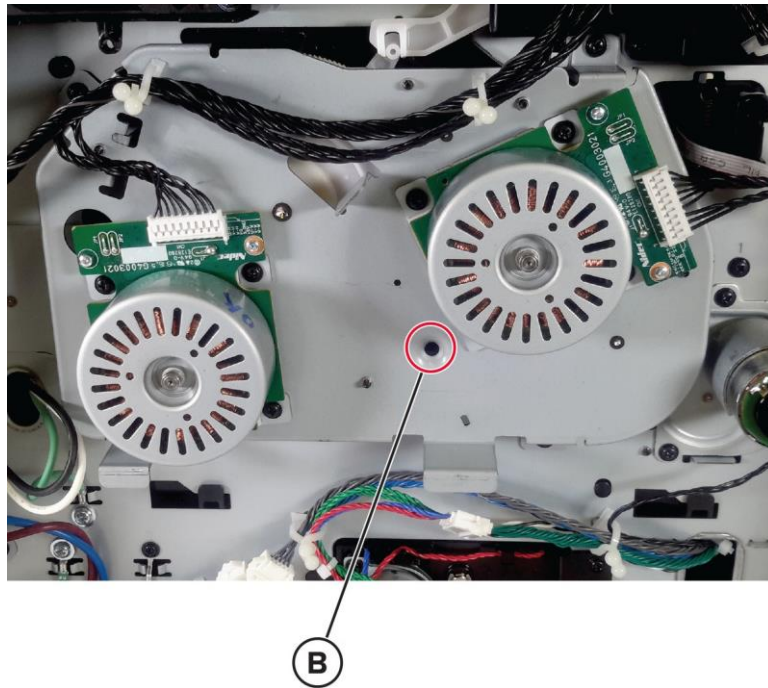
9 Remove the aligner.

> **Installation note:** Make sure that the aligner roller adjustment is performed to avoid paper skews. See **"Aligner roller adjustment" on page 417**.

Sensor (input) removal

1 Open the front door, and then remove the toner cartridge and imaging unit.

2 Remove the duplex/MPF tray. See **"Duplex/MPF tray removal" on page 449**.

3 Remove the inner guide deflector. See **"Inner guide deflector removal" on page 453**.

4 Remove the screw (A), and then disconnect the sensor cable (B).
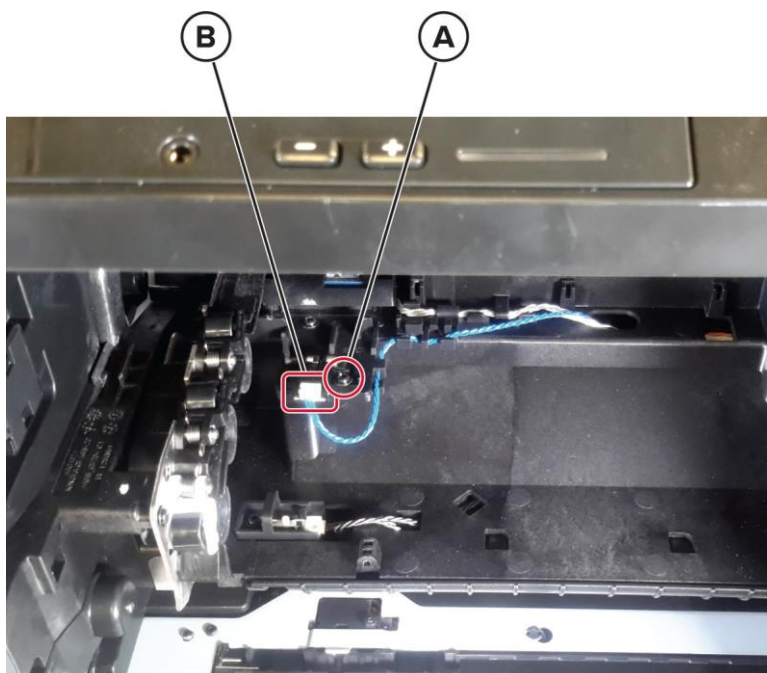
5 Remove the sensor.

MPF pick roller removal

1 Open the MPF door.

2 Press the latch to release, and then remove the pick roller.

Control panel (4.3-inch display) removal

Critical information for controller board or control panel replacement

Warning—Potential Damage: Replace only one of the following components at a time:

- Control panel
- Controller board

To replace a component, and to test whether the problem is resolved:

1 Replace the affected component.

> **Warning—Potential Damage:** Do not perform a POR (Power-On Reset) until the problem is resolved. If a POR is performed at this point, the replacement part can no longer be used in another printer and must be returned to the manufacturer.

2 Enter the Diagnostics Menu. The Diagnostics Menu allows you to temporarily use the replacement part.

> **Warning—Potential Damage:** Some printers will automatically perform a POR if the Diagnostics Menu is not opened within five seconds. If a POR is performed at this point, the replacement part can no longer be used in another printer and must be returned to the manufacturer.

3 Use the Diagnostics Menu to test the replacement part. Do a feed test to check if the problem is resolved.
- If the problem is not resolved—Turn off the printer, and then reinstall the old part.
- If the problem is resolved—Perform a POR.

Removal procedure

1 Swing the control panel away from the printer.

2 Release the control panel (4.3-inch display) cover using a flat screwdriver, and then remove it.

3 Remove the six screws (A), and then lift the control panel.
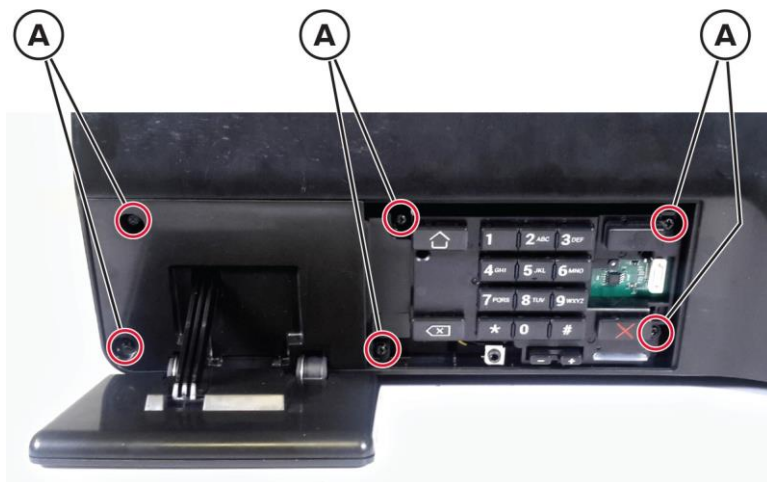
4 Disconnect the two cables (B), and then remove the control panel.
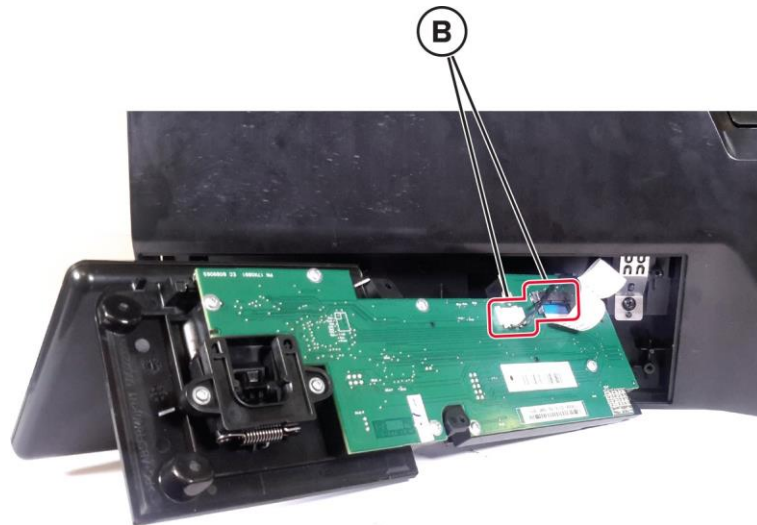
Sensor (toner low) removal

1 Open the front door, and then remove the toner cartridge and imaging unit.

2 Remove the top cover. See **"Top cover removal" on page 468**.

3 Remove the left cover. See **"Left cover removal" on page 423**.

4 Disconnect the sensor cable (A).
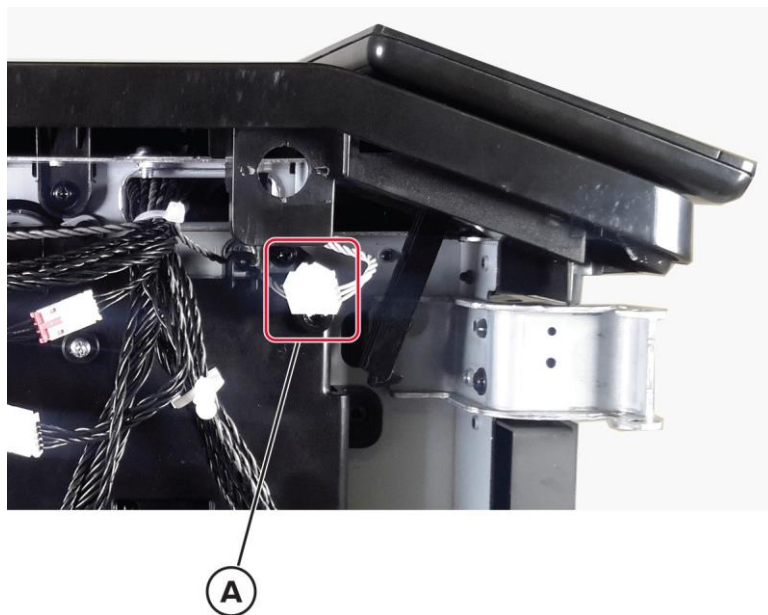
5 Inside the printer from the front side, remove the screw (B).
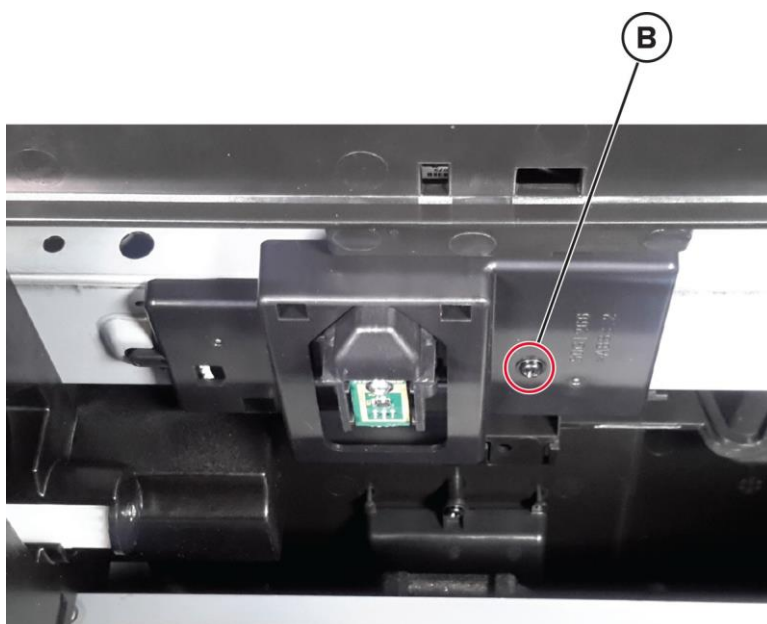
6 Remove the sensor.

Transfer roller removal

1 Open the front door, and then remove the toner cartridge and imaging unit.

2 Release the latch, and then remove the transfer roller.
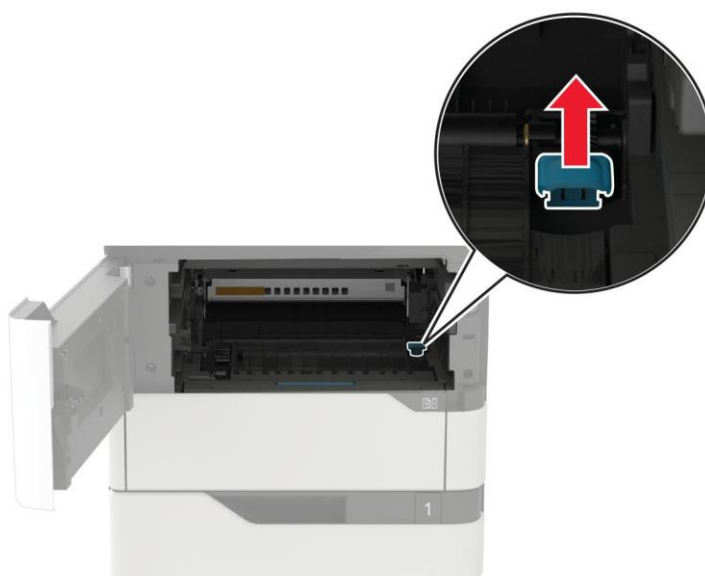
Sensor (toner density) removal

1 Open the front door, and then remove the toner cartridge and imaging unit.

2 Remove the duplex/MPF tray. See **"Duplex/MPF tray removal" on page 449**.

3 Remove the inner guide deflector. See **"Inner guide deflector removal" on page 453**.

4 Loosen the two aligner screws (A) to allow space for the sensor removal.
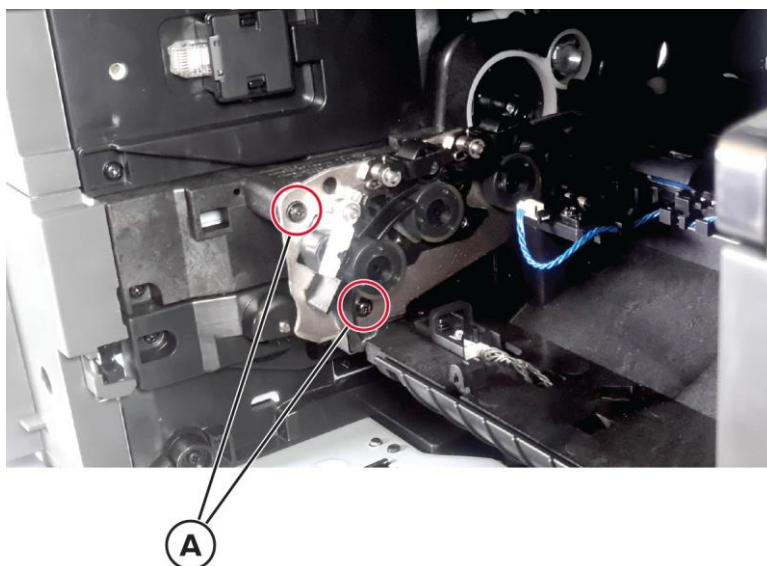
5 Remove the screw (B), and then disconnect the sensor cable (C).
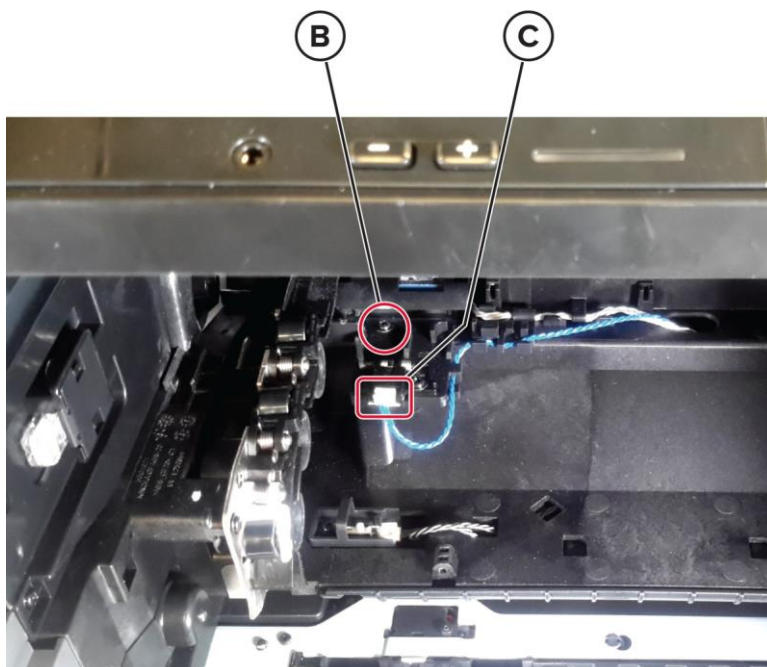
6 Remove the sensor.

　　Installation note: Make sure that the aligner screws are properly screwed back.

Rear side removals

Rear door removal

1 Open the rear door.

2 Press the latch (A) to release the hinge, and then remove the door.
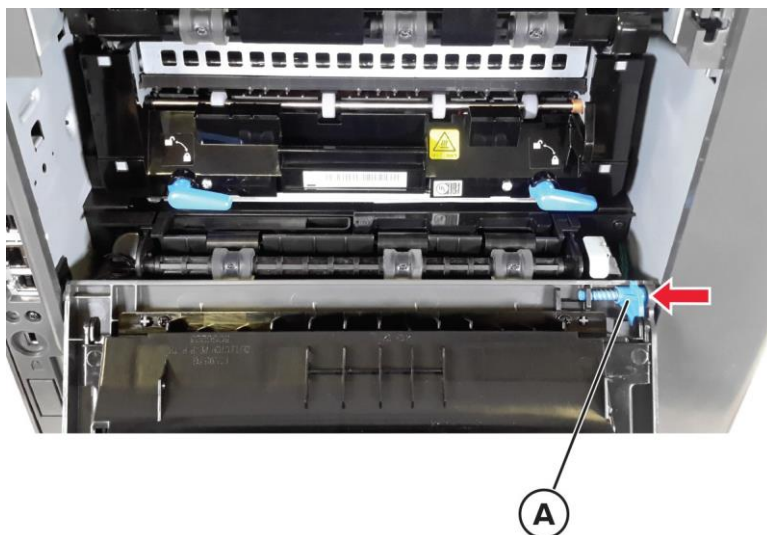
Rear cover removal

1 Remove the rear door. See **"Rear door removal" on page 462**.

2 Remove the four screws (A).
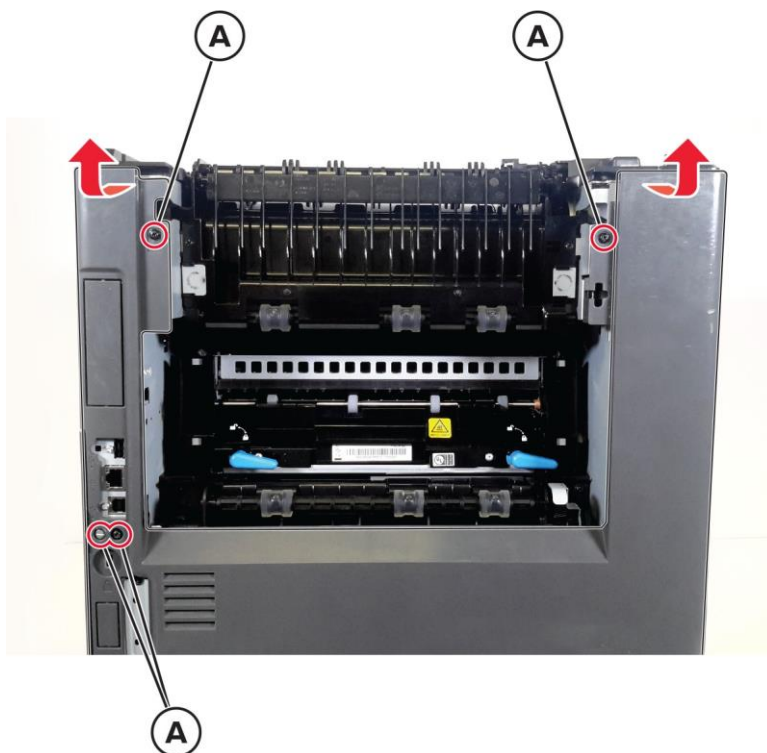
3 Gently pull the top and middle section of the cover to release, and then remove the cover.

Motor (duplex) removal

1 Remove the rear door. See **"Rear door removal" on page 462**.

2 Remove the rear cover. See **"Rear cover removal" on page 463**.

3 Disconnect the cable (A), and then release it from its holder (B).

4 Remove the two screws (C).
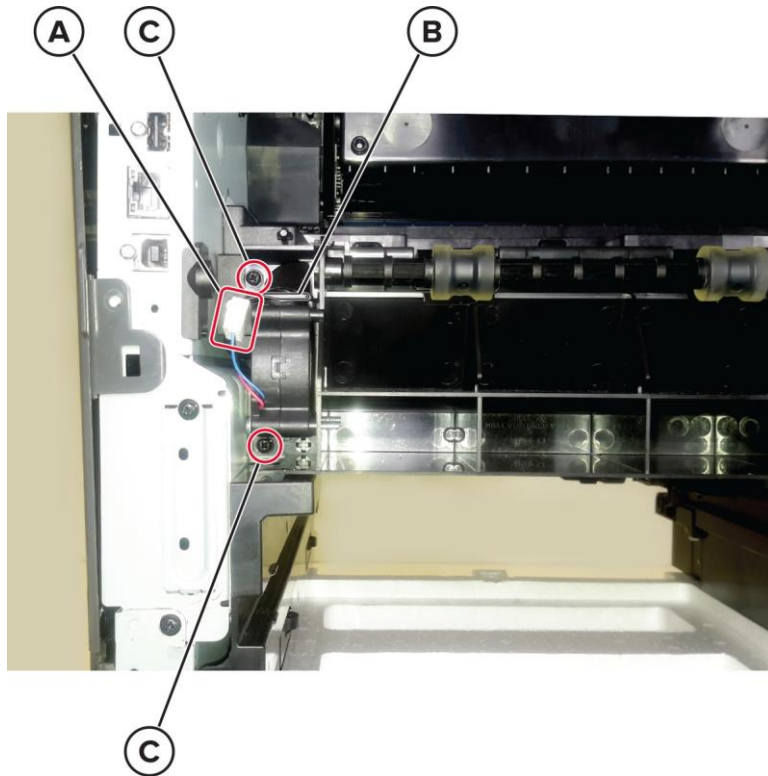
5 Disconnect the cable (D), and then release it from its guide (E).

6 Remove the two screws (F), and then remove the motor.

Warning—Potential Damage: Make sure that the motor cables are disconnected before removing the motor.
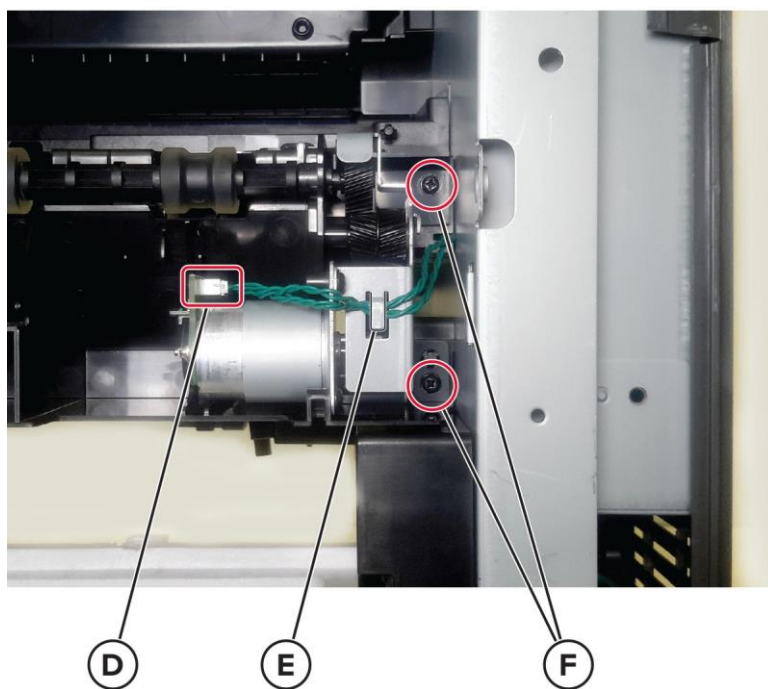
Parts removal

Fuser removal

1 For models using a hot roll type of fuser, remove the printhead access cover. See **"Printhead removal" on page 468**.

2 Open the rear door.

3 Rotate the latches to release, and then remove the fuser.
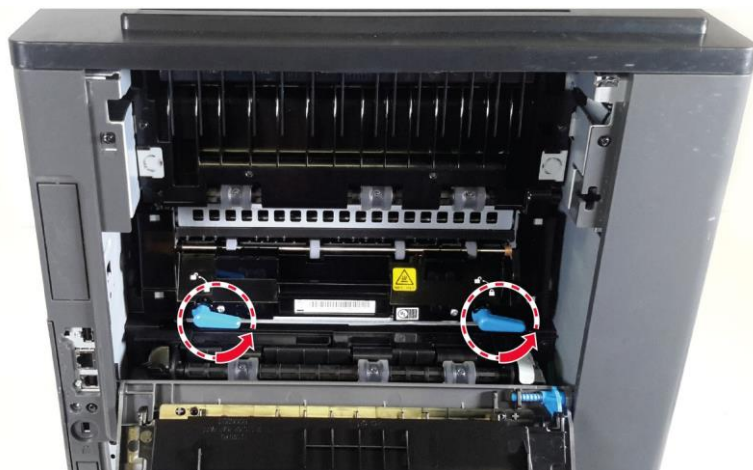
Sensor (rear door interlock) removal

1 Remove the rear door. See **"Rear door removal" on page 462**.

2 Remove the rear cover. See **"Rear cover removal" on page 463**.

3 Remove the screw, and then disconnect the sensor cable (B).
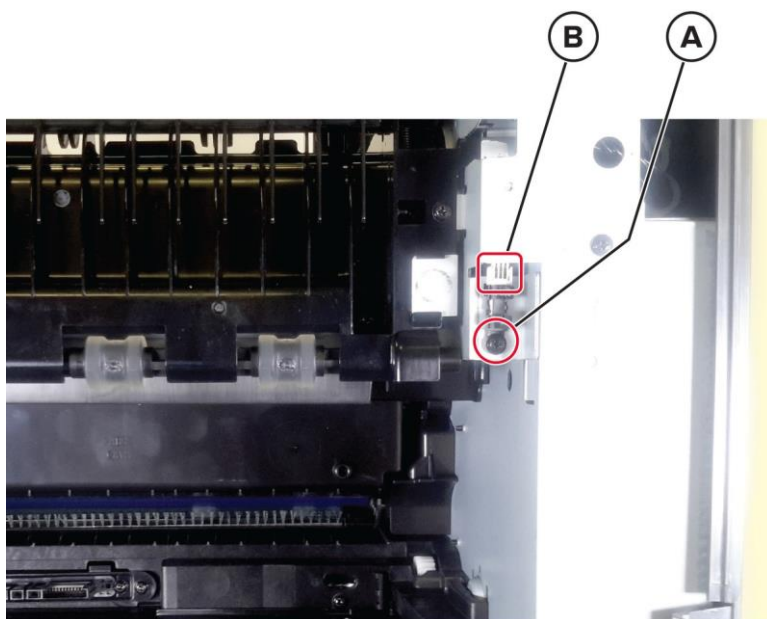
4 Remove the sensor.

Upper redrive removal

1 Remove the top cover. See **"Top cover removal" on page 468**.

2 Open the rear door.

3 Remove the three screws (A), and then remove the upper redrive.
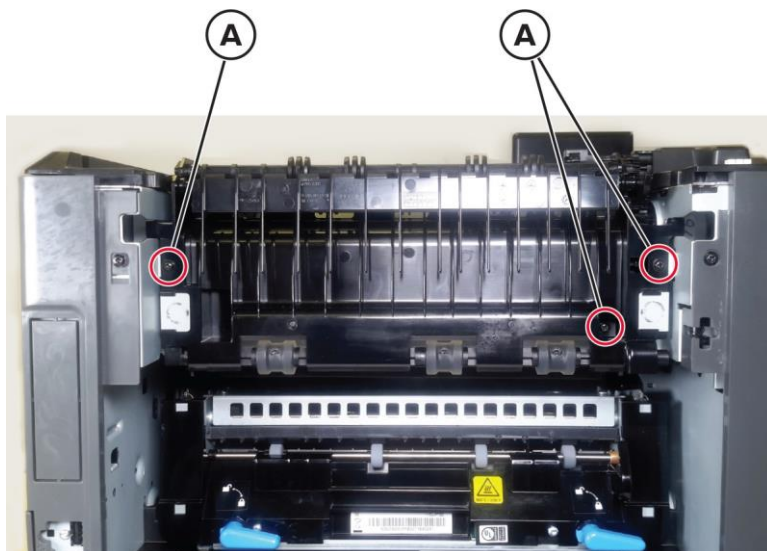
Transfer roller contact removal

1 Open the front door, and then remove the toner cartridge and imaging unit.

2 Remove the transfer roller. See **"Transfer roller removal" on page 460**.

3 Remove the top cover. See **"Top cover removal" on page 468**.

4 Remove the right cover. See **"Right cover removal" on page 434**.

5 Remove the fuser. See **"Fuser removal" on page 465**.

6 Remove the high voltage contacts guide. See **"High voltage contacts guide removal" on page 442**.

7 Remove the controller board. See **"Controller board removal" on page 439**.

8 Remove screw 5 (A) from the right side frame.
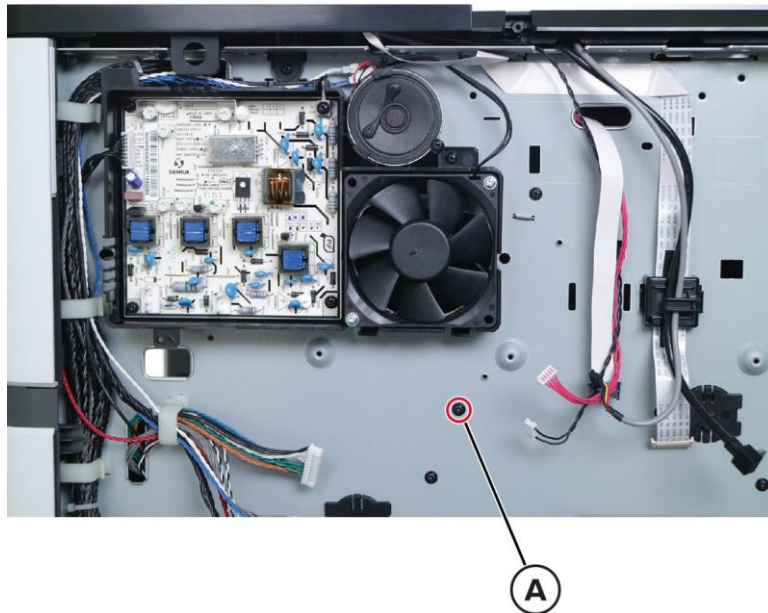
9 Inside the printer, release the contact from its posts (B) using a prying tool.
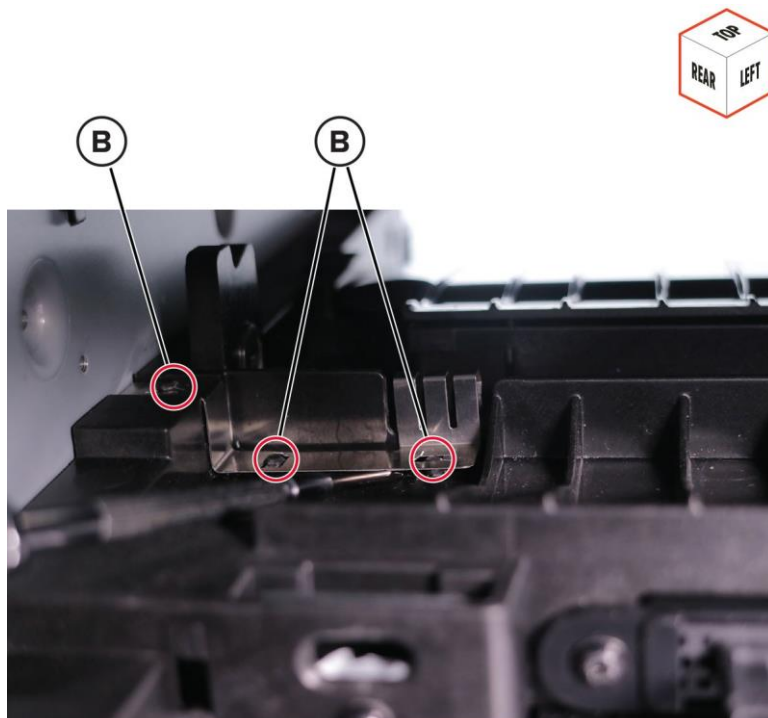
Note: If necessary, push the frame to loosen the contact.
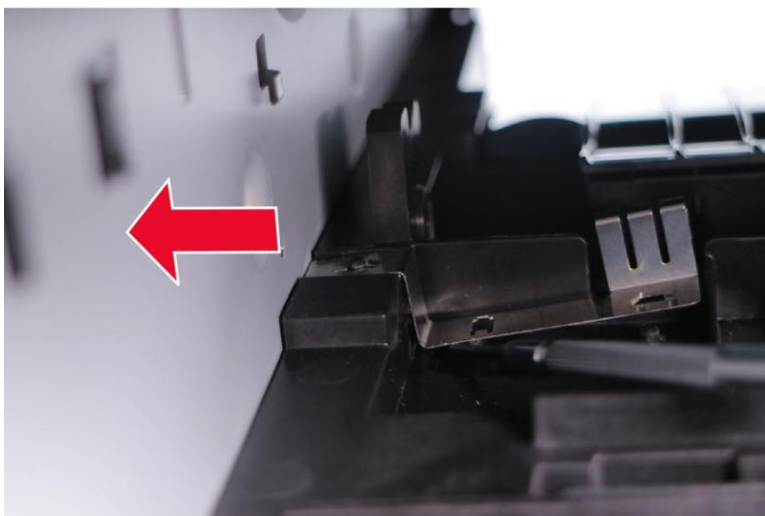
Installation note: Make sure the contact is properly engaged with its posts.

Top side removals

Top cover removal

1 Lift the cover to release.

2 Remove the cover.

Printhead removal

1 Remove the top cover. See **"Top cover removal" on page 468**.

2 Remove the right cover. See **"Right cover removal" on page 434**.

3 Remove the screw (A) under the bin extender, and then remove the printhead access cover.
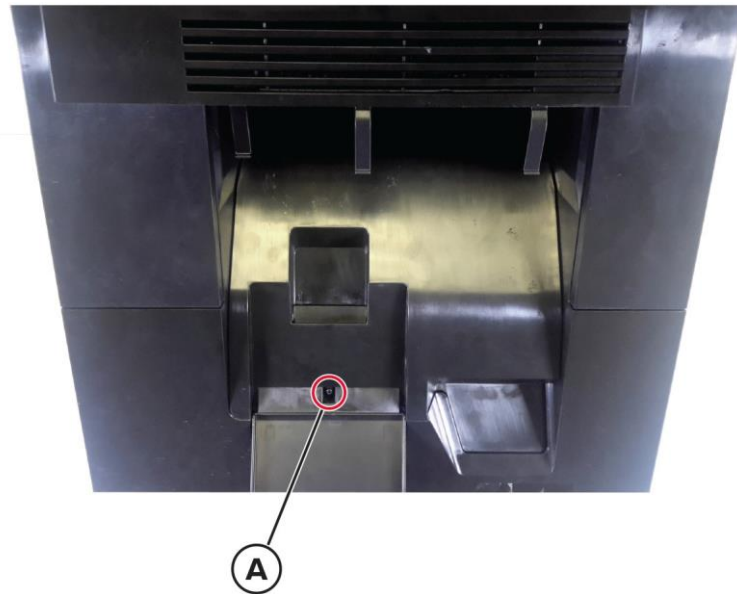
Note: For models using a hot roll type of fuser, remove the printhead access cover as shown.
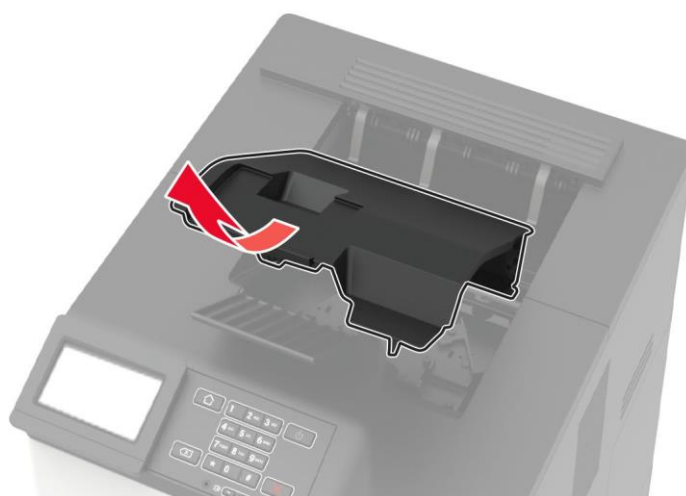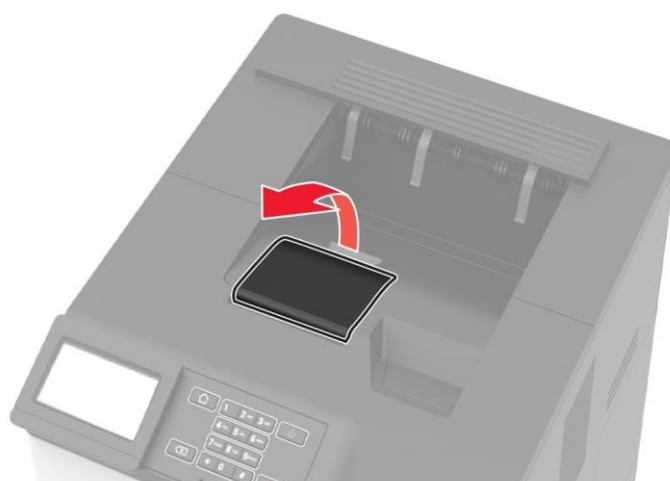
4 Remove the four screws (B), and then disconnect the two cables (C).
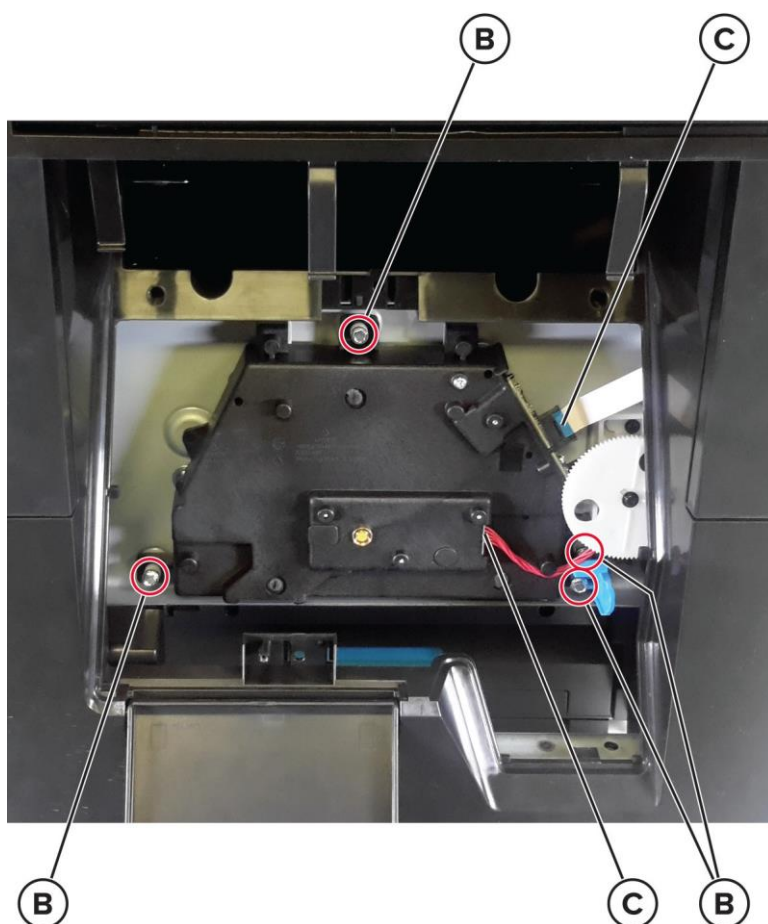
5 Disconnect the two cables (D) from the controller board.
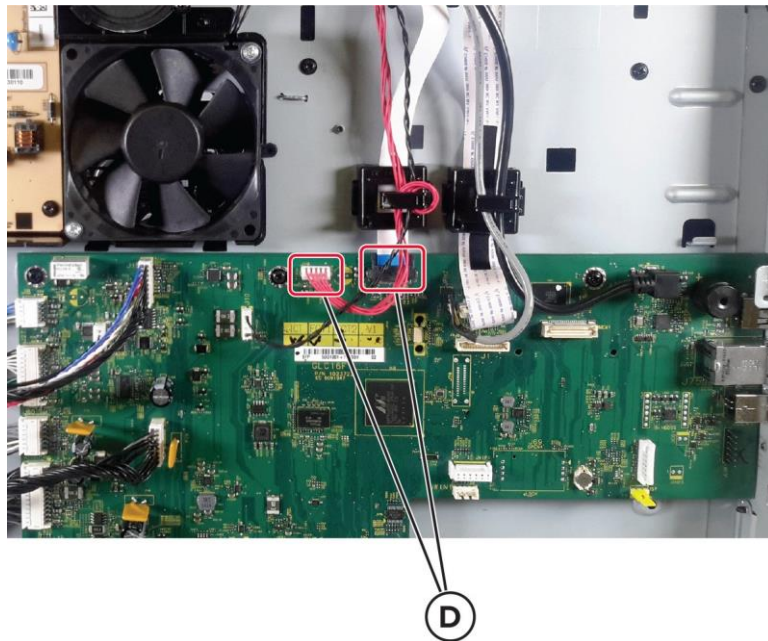
6 Remove the printhead.

Installation note: Make sure that the printhead is aligned first before tightening the screws. See **"Polygon printhead mechanical registration adjustment" on page 419**.

Bin full sensor cover removal

1 Remove the top cover. See **"Top cover removal" on page 468**.

2 Remove the screw (A), and then remove the cover.
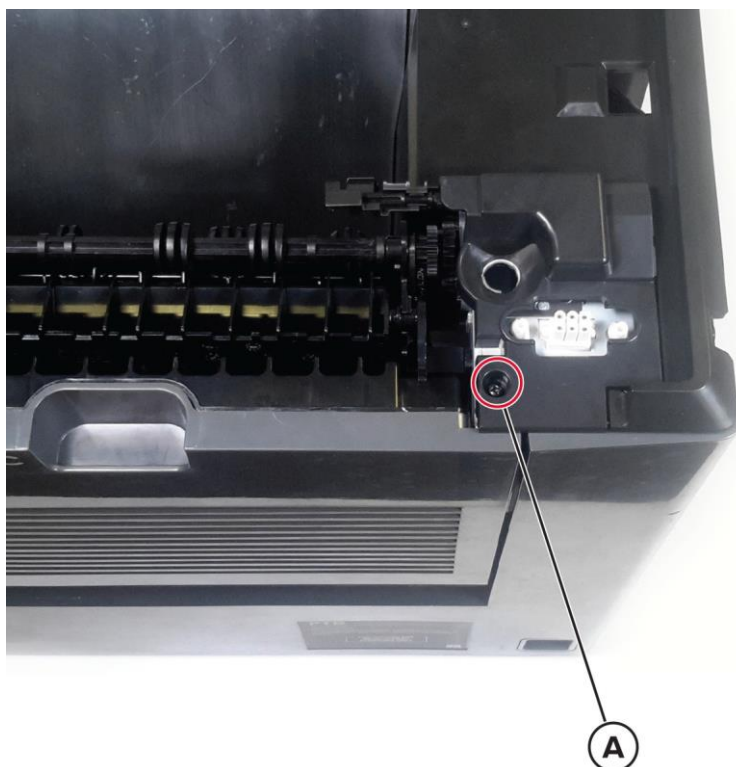
Sensor (standard bin full) removal

1 Remove the top cover. See **"Top cover removal" on page 468**.

2 Remove the bin full sensor cover. See **"Bin full sensor cover removal" on page 473**.

3 Remove the screw (A), and then disconnect the sensor cable (B).
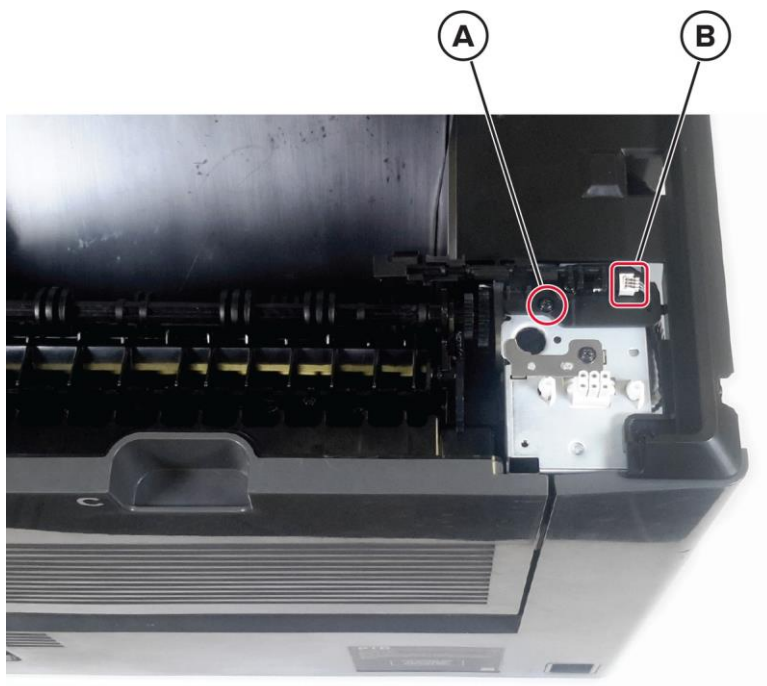
4 Remove the sensor.

Bin cover removal

1 Remove the control panel (4.3-inch display). See **"Control panel (4.3-inch display) removal" on page 457**.

2 Remove the top cover. See **"Top cover removal" on page 468**.

3 Remove the left cover. See **"Left cover removal" on page 423**.

4 Remove the right cover. See **"Right cover removal" on page 434**.

5 Remove the rear door. See **"Rear door removal" on page 462**.

6 Remove the redrive. See **"Upper redrive removal" on page 466**.

7 Remove the bin full sensor cover. See **"Bin full sensor cover removal" on page 473**.

8 Remove the sensor (standard bin full). See **"Sensor (standard bin full) removal" on page 473**.

9 Remove the two screws (A).
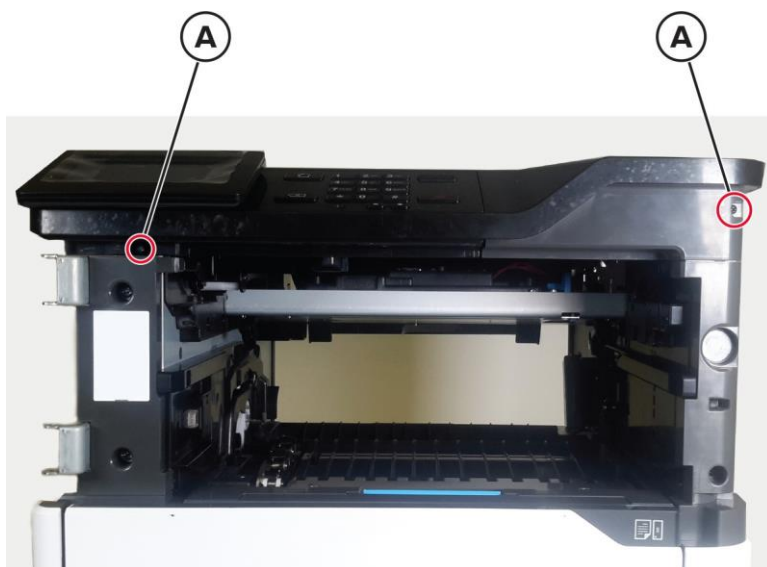
10 From the left side, remove the screw (B).
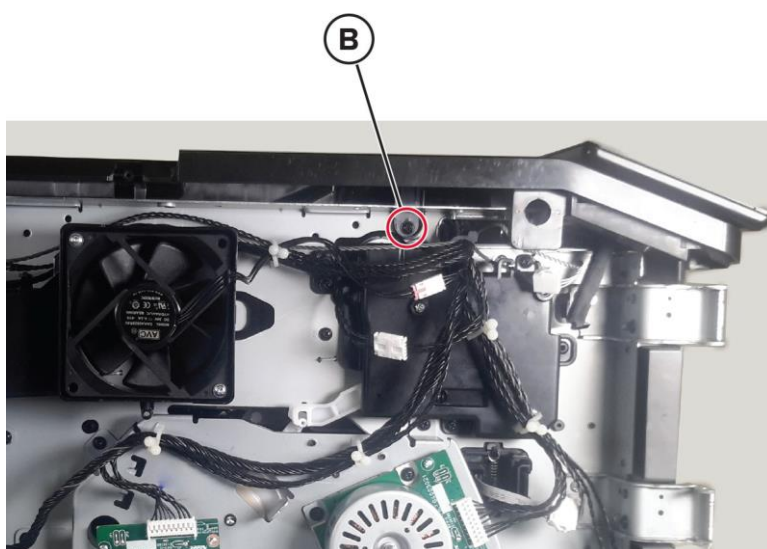
11 From the top side, remove the two screws (C).
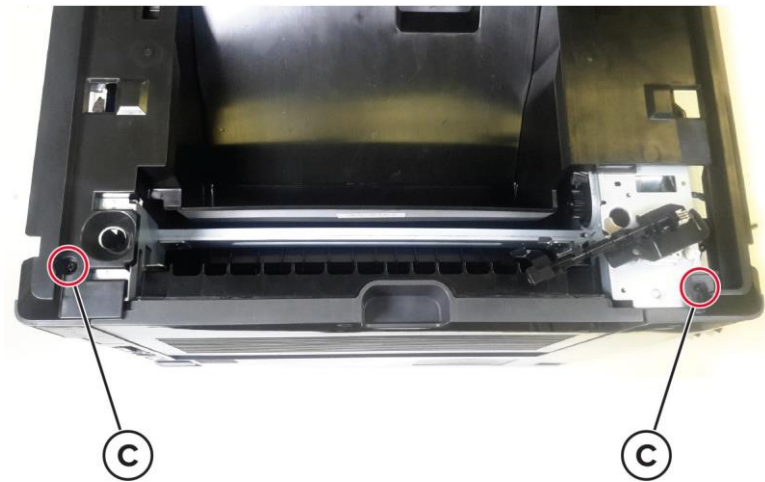
12 From the right side, remove the screw (D).

13 Disconnect the four cables (E), and then release them from their guides (F).
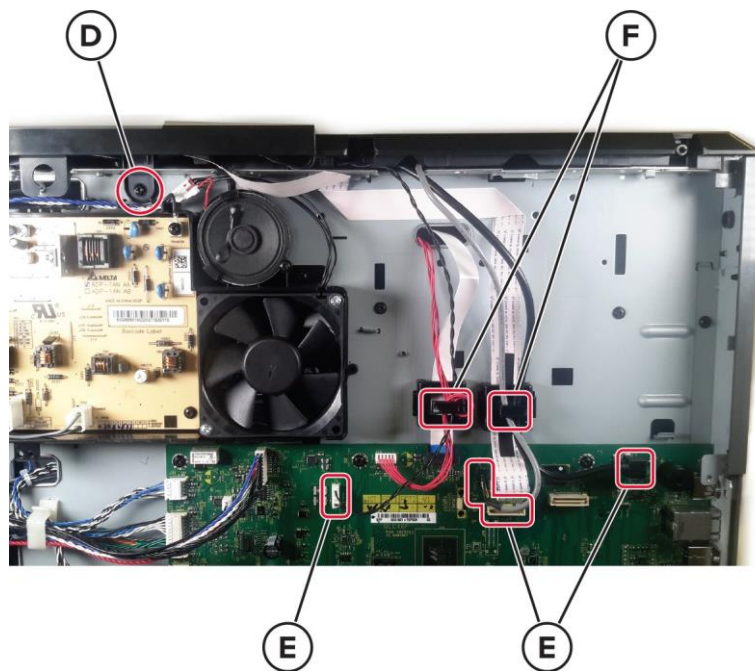
14 Remove the cover.

Warning—Potential Damage: Be careful not to damage the cables.

Bottom side removals

Tray insert removal

Pull out, and then remove the tray.

Separator pad removal

1 Remove the tray insert. See .

2 Release, and then remove the separator pad.
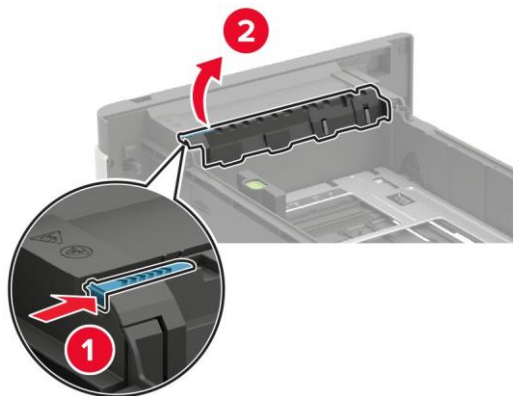
Pick roller removal

1 Remove tray 1.

2 Remove the pick roller.
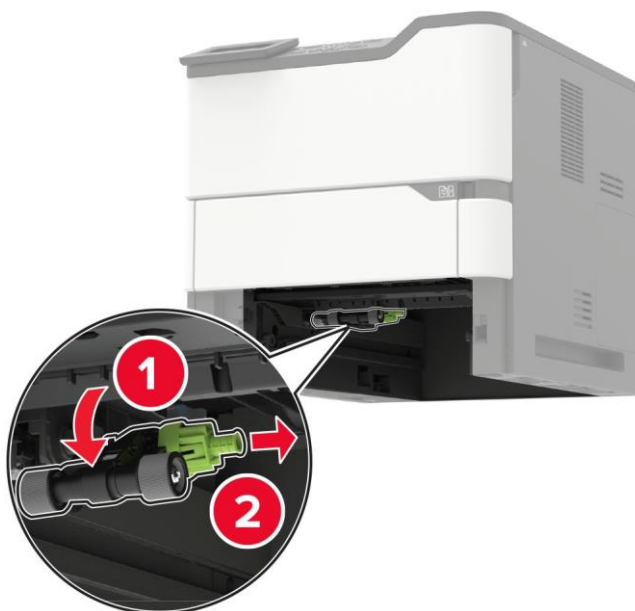
Optional tray drive gear removal

1 Remove tray 1.

2 Remove the screw (A), and then remove the drive gear and cover.
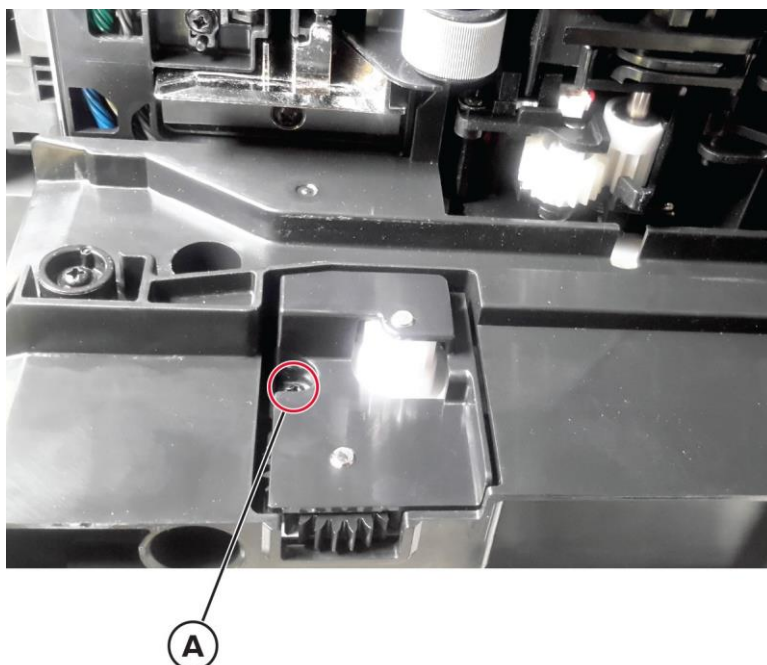
3 Remove the gears from the gear cover.

Sensor (duplex path) with cover removal

1 Remove all optional trays from the printer.

2 Remove tray 1.

3 Remove the duplex/MPF tray. See **"Duplex/MPF tray removal" on page 449**.

4 To access the bottom, lay the printer on its back on a sturdy surface.

5 Remove the screw (A), and then disconnect the sensor cable.
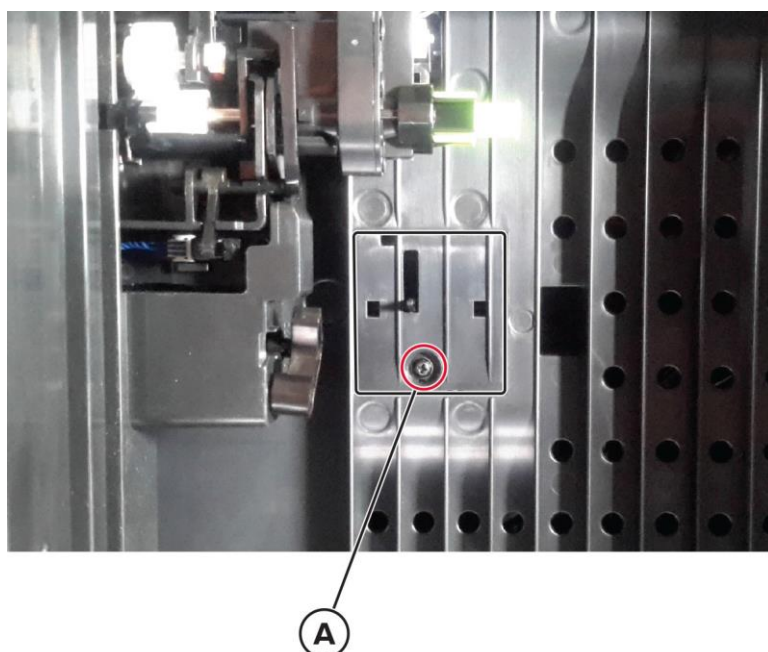
6 Remove the sensor and cover.

Sensor (paper size) removal

1 Remove all optional trays from the printer.

2 Remove tray 1.

3 To access the bottom, lay the printer on its back on a sturdy surface.

4 Release the paper size sensor cover using a flat screwdriver, and then remove it.

5 Release the sensor latch (A), and then release the sensor from the frame.
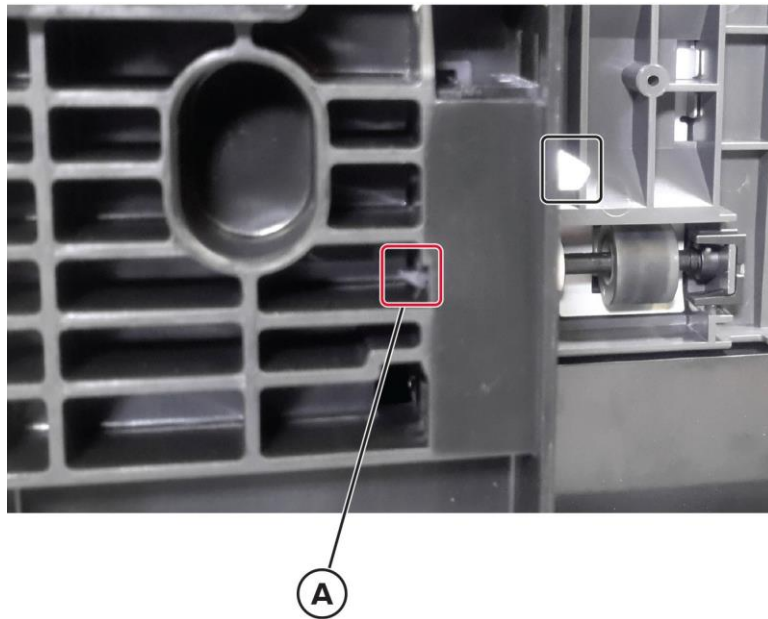
6 Disconnect the sensor cable, and then remove the sensor.

Sensor (tray 1 pass-through) removal

1 Remove all optional trays from the printer.

2 Remove tray 1.

3 To access the bottom, lay the printer on its back on a sturdy surface.

4 Remove the screw (A), and then disconnect the sensor cable (B).
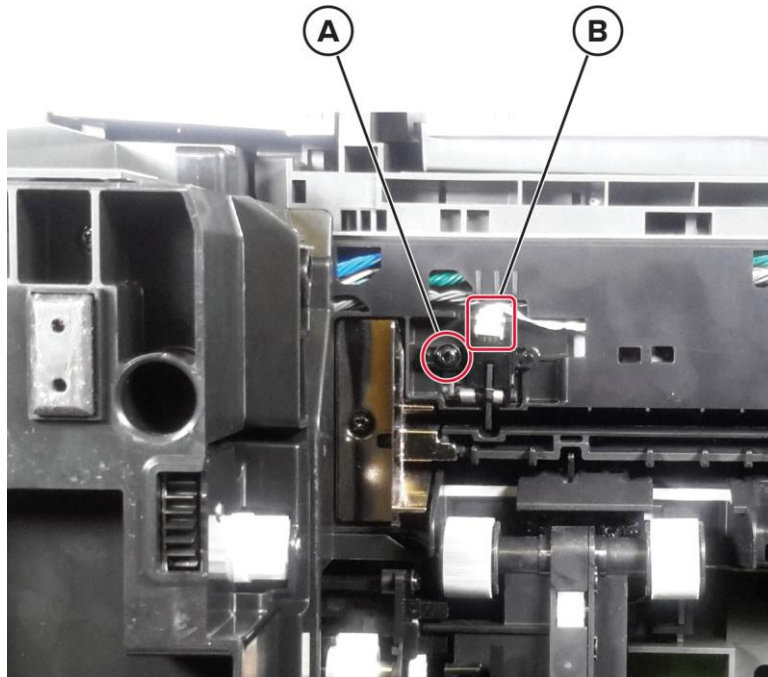
5 Remove the sensor.

Sensor (tray 1 pick) removal

1 Remove all optional trays from the printer.

2 Remove tray 1.

3 To access the bottom, lay the printer on its back on a sturdy surface.

4 Remove the screw (A), and then disconnect the sensor cable (B).
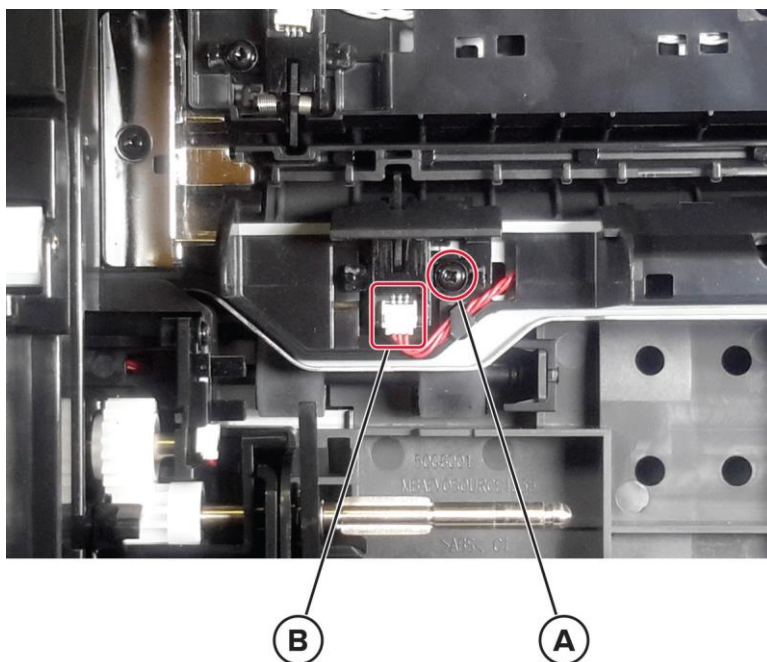
5 Remove the sensor.

Optional 2100-sheet tray removals

Optional 2100-sheet tray removal

1 Press the latch to unlock.

2 Lift the printer or optional tray above the 2100-sheet tray, and then separate the 2100-sheet tray.
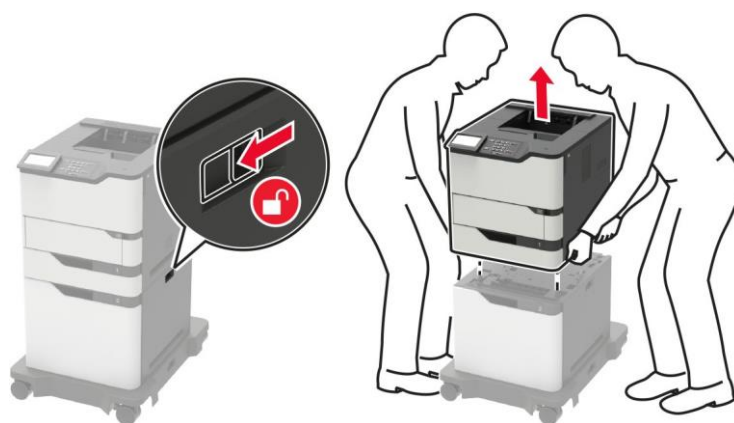
A5 length guide removal

1 Pull the guide out of the tray.

2 Remove the guide.
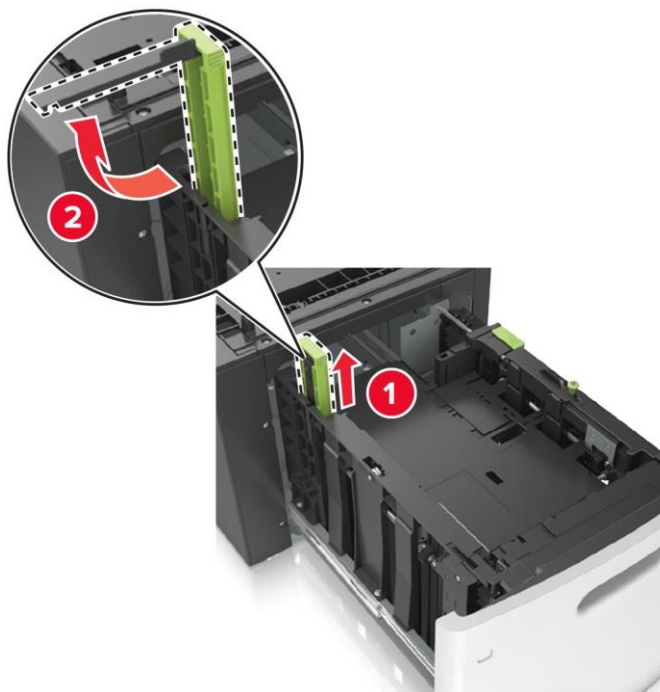
2100-sheet tray insert removal

1 Fully extend the tray, and then press the left and right latches to release it.
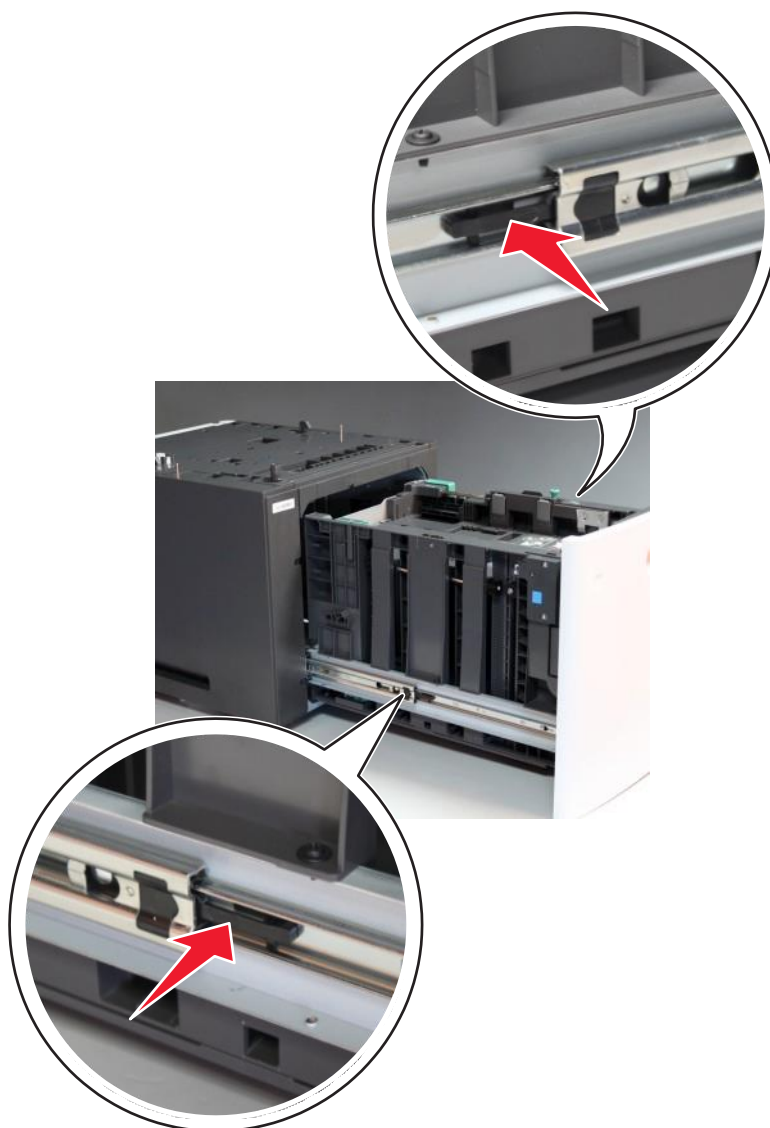
2 Remove the tray insert.

2100-sheet tray rear cover removal

1 Remove the four screws (A).
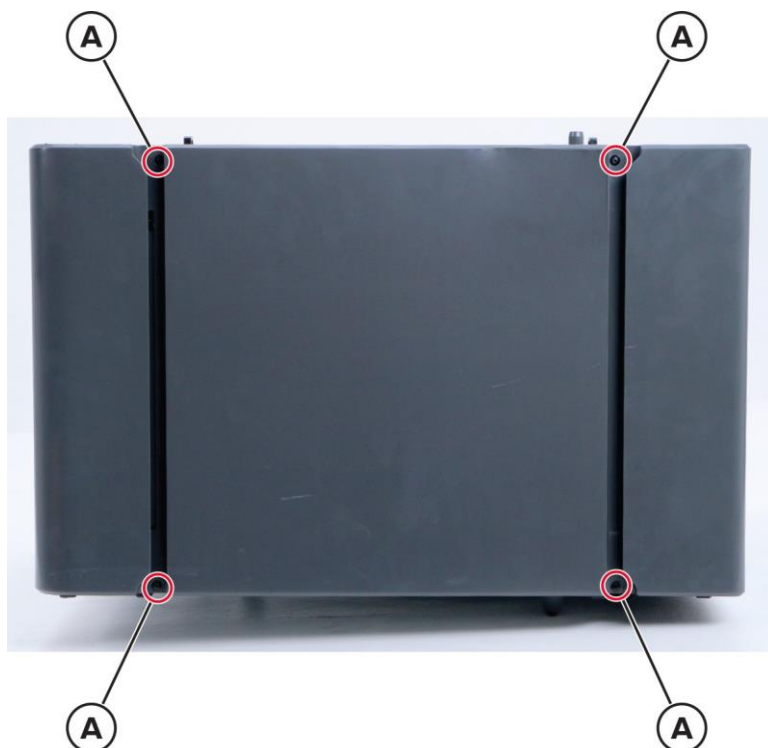
2 Remove the cover.

2100-sheet tray left cover removal

1 Remove the 2100-sheet tray insert. See **"2100-sheet tray insert removal" on page 485**.

2 Remove the 2100-sheet tray rear cover. See **"2100-sheet tray rear cover removal" on page 486**.

3 From the rear side, remove the two screws (A).

4 From the top side, remove the two screws (B).

5 From the front side, remove the two screws (C).

6 Remove the cover.

2100-sheet tray right cover removal

1 Remove the 2100-sheet tray insert. See **"2100-sheet tray insert removal" on page 485**.

2 Remove the 2100-sheet tray rear cover. See **"2100-sheet tray rear cover removal" on page 486**.

3 From the rear side, remove the two screws (A).
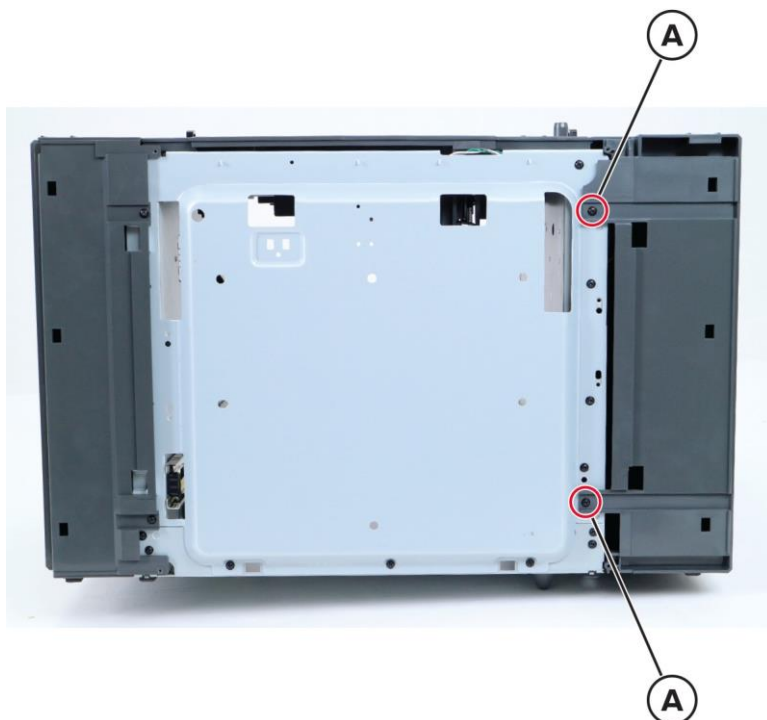
4 From the top side, remove the two screws (B).

Parts removal

5 From the front side, remove the two screws (C).
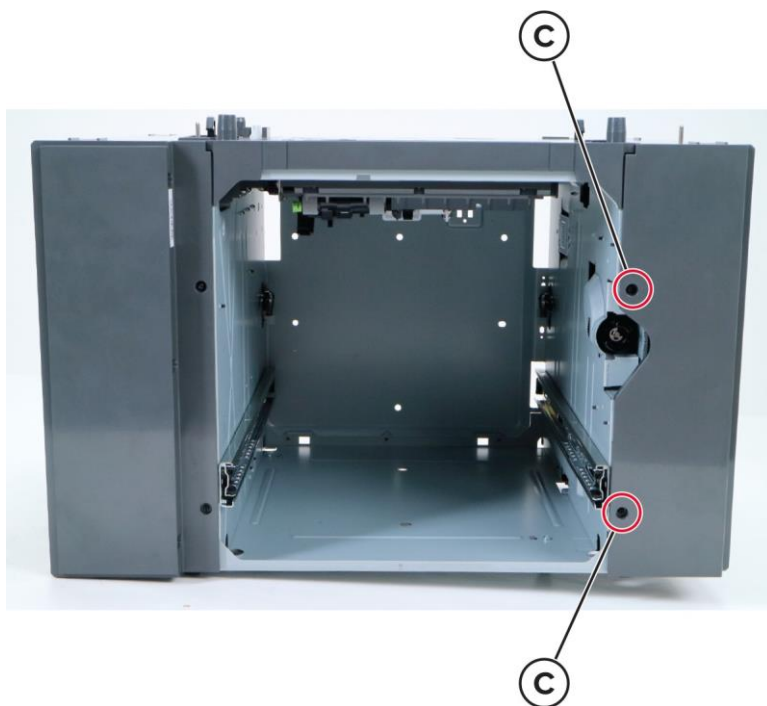
6 Remove the cover.

Installation note: When installing the right cover, make sure that the latch is positioned as shown.

Motor (2100-sheet tray transport) removal

1 Remove the 2100-sheet tray insert. See **"2100-sheet tray insert removal" on page 485**.

2 Remove the 2100-sheet tray rear cover. See **"2100-sheet tray rear cover removal" on page 486**.

3 Remove the 2100-sheet tray left cover. See **"2100-sheet tray left cover removal" on page 486**.

4 Disconnect the cable (A), and then remove the two screws (B).
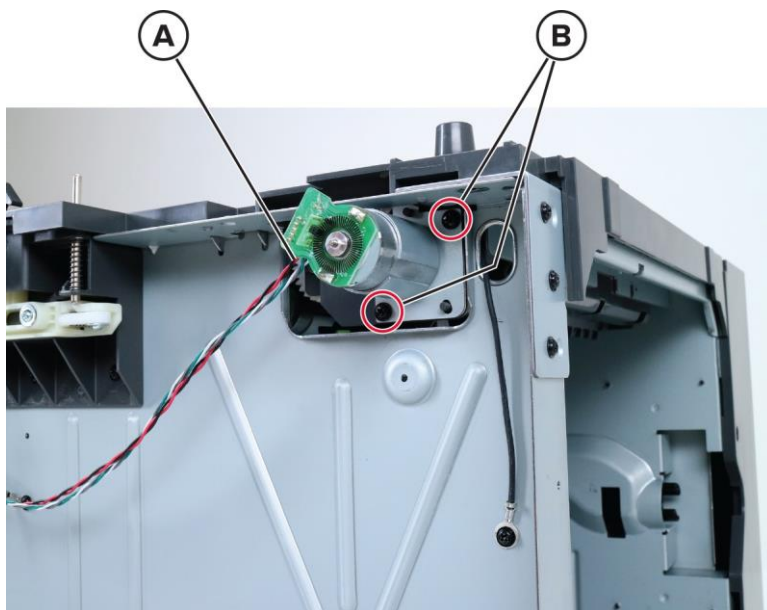
5 Remove the motor.

2100-sheet tray top cover removal

1 Remove the 2100-sheet tray insert. See **"2100-sheet tray insert removal" on page 485**.

2 Remove the 2100-sheet tray rear cover. See **"2100-sheet tray rear cover removal" on page 486**.

3 Remove the 2100-sheet tray left cover. See **"2100-sheet tray left cover removal" on page 486**.

4 Remove the 2100-sheet tray right cover. See **"2100-sheet tray right cover removal" on page 489**.

5 Remove the motor (2100-sheet tray transport). See **"Motor (2100-sheet tray transport) removal" on page 491**.

6 Remove the 12 screws (A).
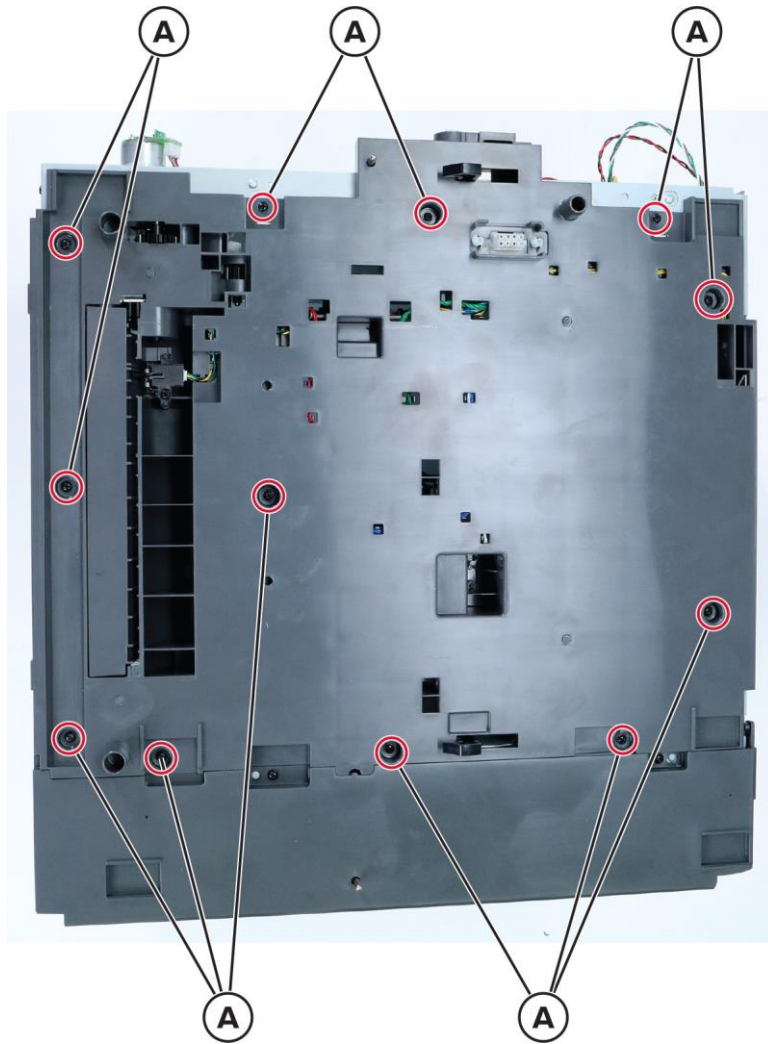
7 Cut the cable tie, and then disconnect the motor cables from the controller board.
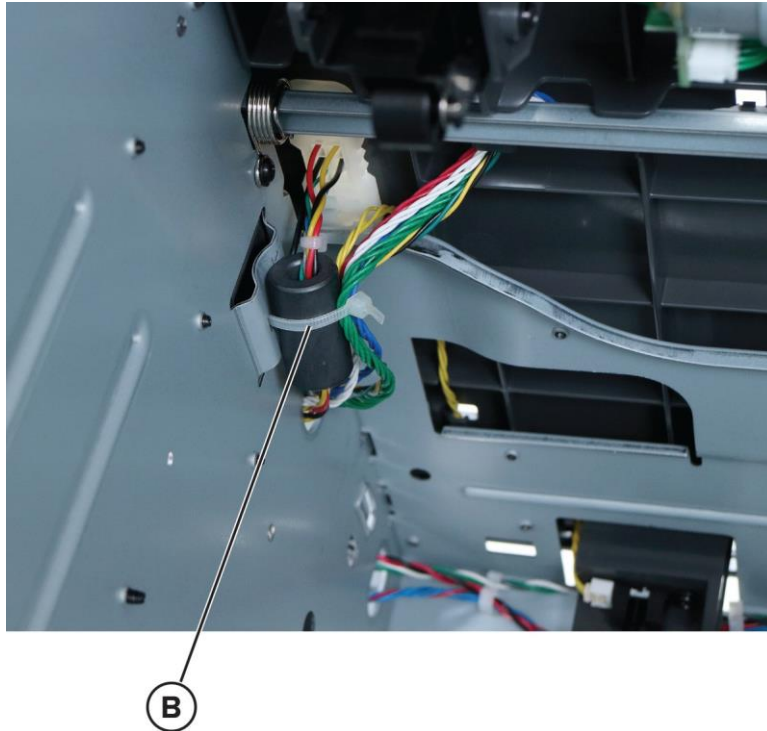
8 Remove the two screws (C) from the ground cables.
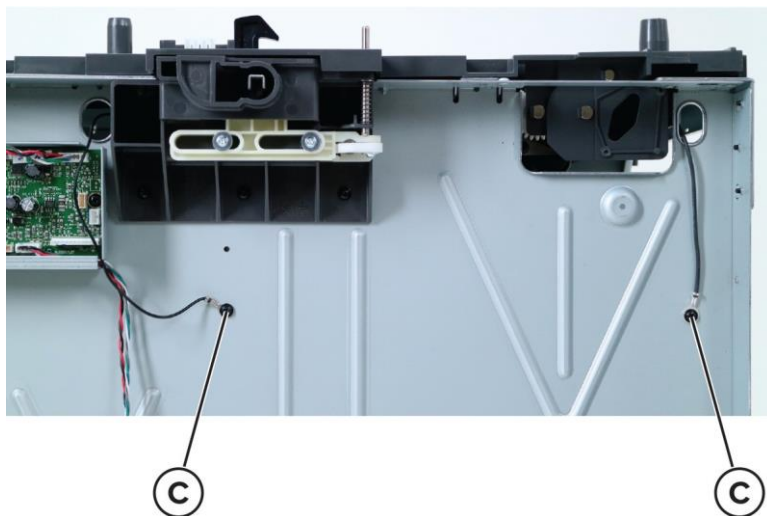
9 Remove the cover.

2100-sheet tray front cover removal

1 Remove the 2100-sheet tray insert. See **"2100-sheet tray insert removal" on page 485**.

2 Behind the front cover, remove the 12 screws (A).
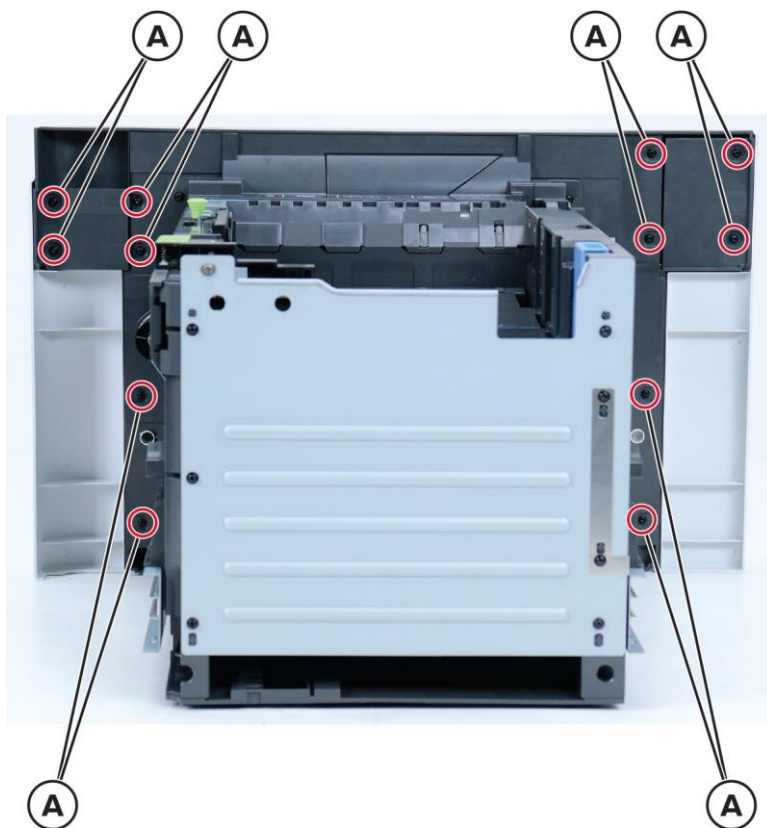
3 Remove the cover.

Sensor (2100-sheet tray pick) removal

1 Remove the screw (A), and then disconnect the cable (B).
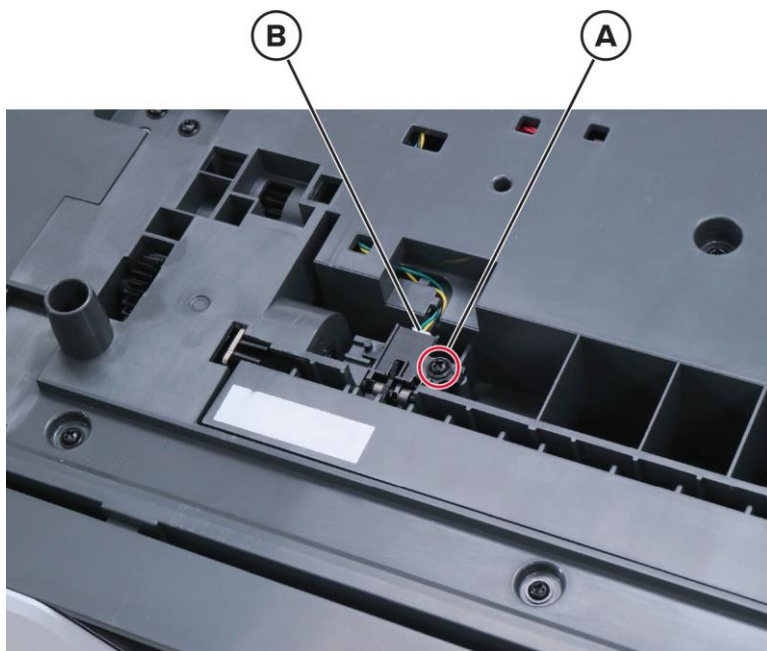
2 Remove the sensor.

2100-sheet tray controller board removal

1 Remove the 2100-sheet tray insert. See **"2100-sheet tray insert removal" on page 485**.

2 Remove the 2100-sheet tray rear cover. See **"2100-sheet tray rear cover removal" on page 486**.

3 Remove the 2100-sheet tray left cover. See **"2100-sheet tray left cover removal" on page 486**.

4 Disconnect all the board cables, and then remove the two screws (A).
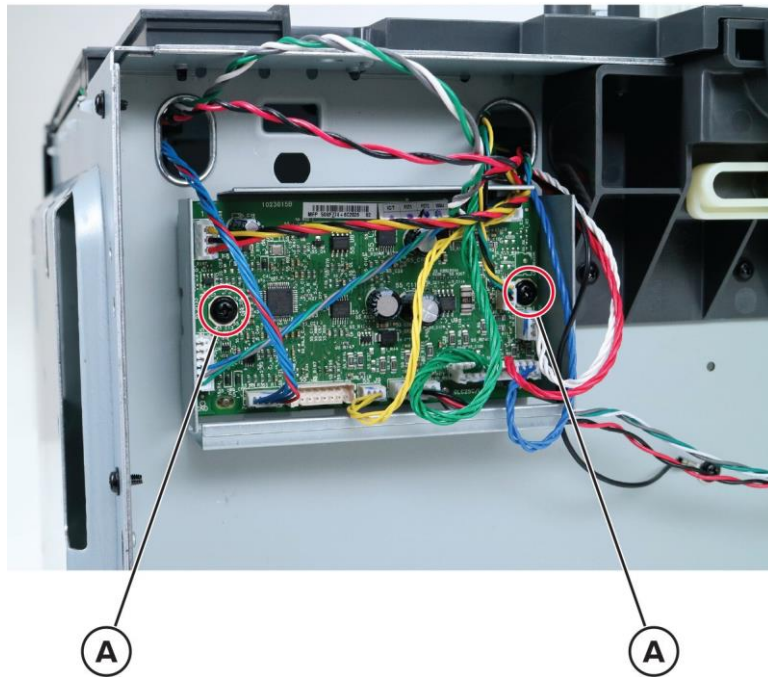
5 Remove the board.

2100-sheet tray elevator drive removal

1 Remove the 2100-sheet tray insert. See **"2100-sheet tray insert removal" on page 485**.

2 Remove the 2100-sheet tray rear cover. See **"2100-sheet tray rear cover removal" on page 486**.

3 Remove the 2100-sheet tray right cover. See **"2100-sheet tray right cover removal" on page 489**.

4 Disconnect the cable (A), and then remove the four screws (B).
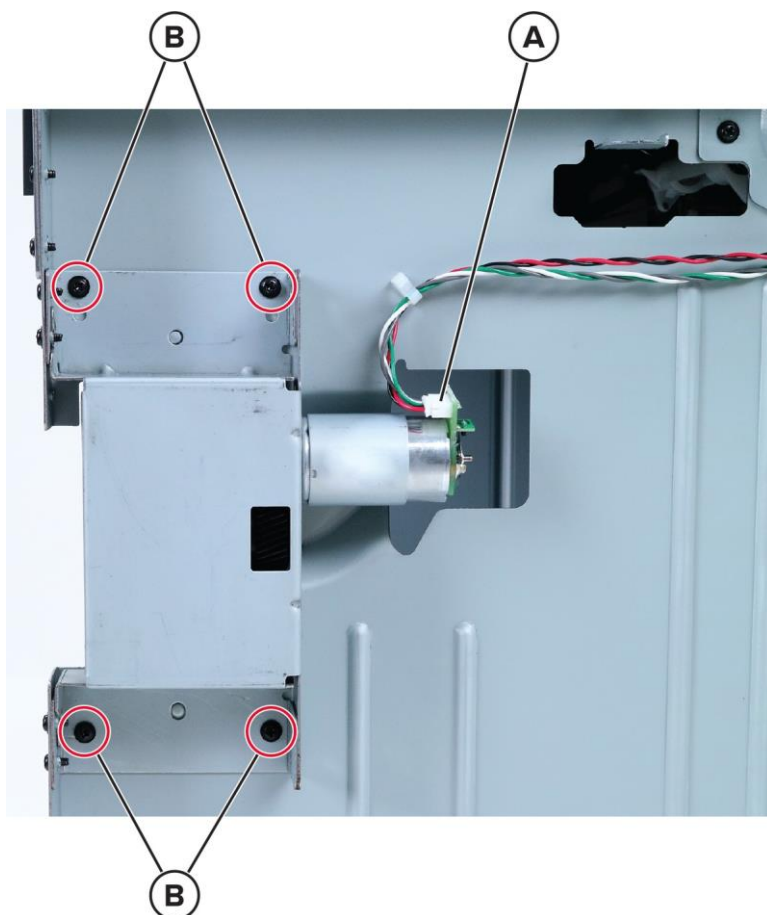
5 Remove the elevator drive.

Sensor (2100-sheet tray paper size) removal

1 Remove the 2100-sheet tray insert. See **"2100-sheet tray insert removal" on page 485**.

2 Remove the 2100-sheet tray rear cover. See **"2100-sheet tray rear cover removal" on page 486**.

3 Remove the 2100-sheet tray right cover. See **"2100-sheet tray right cover removal" on page 489**.

4 Remove the screw (A), and then remove the cover (B).
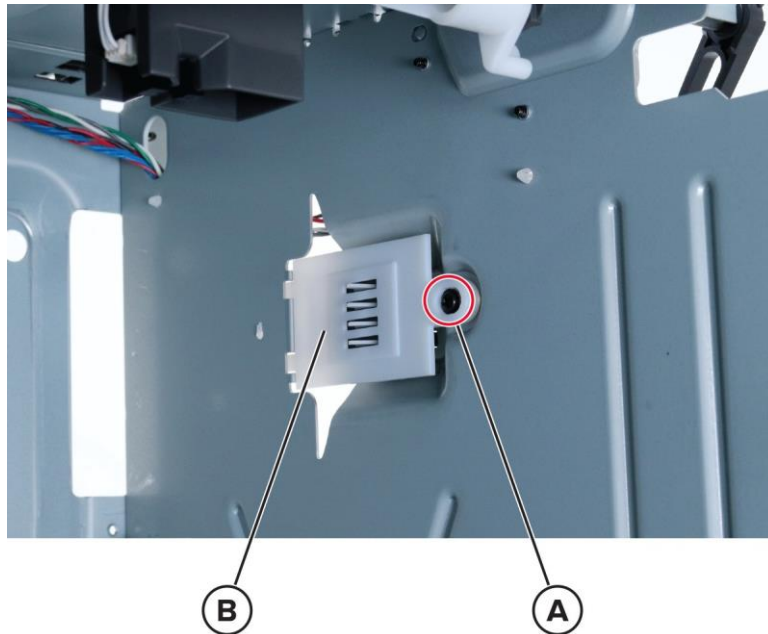
5 Disconnect the sensor cable (C), and then remove the sensor.
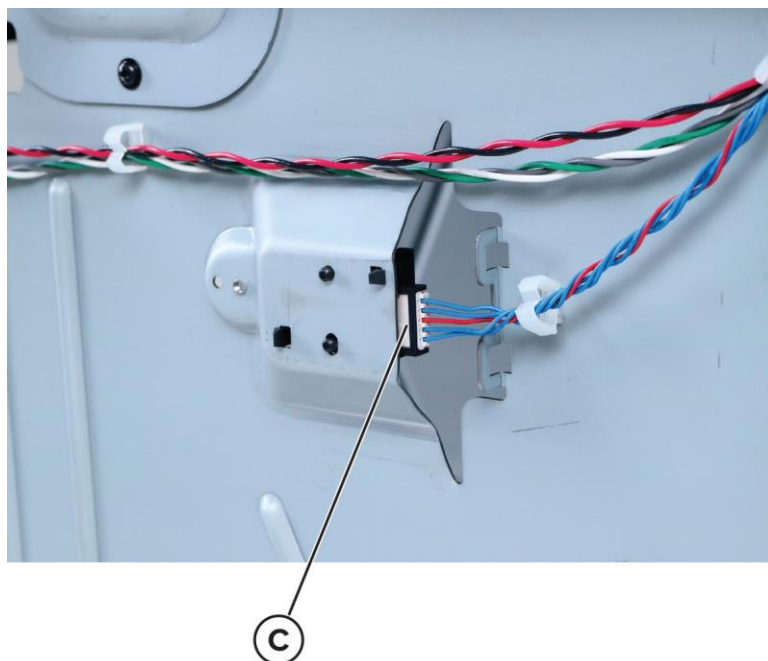
2100-sheet tray interface cable removal

1 Remove the 2100-sheet tray insert. See **"2100-sheet tray insert removal" on page 485**.

2 Remove the 2100-sheet tray rear cover. See **"2100-sheet tray rear cover removal" on page 486**.

3 Remove the 2100-sheet tray left cover. See **"2100-sheet tray left cover removal" on page 486**.

4 Cut the cable tie, and then disconnect the interface cable from the controller board.
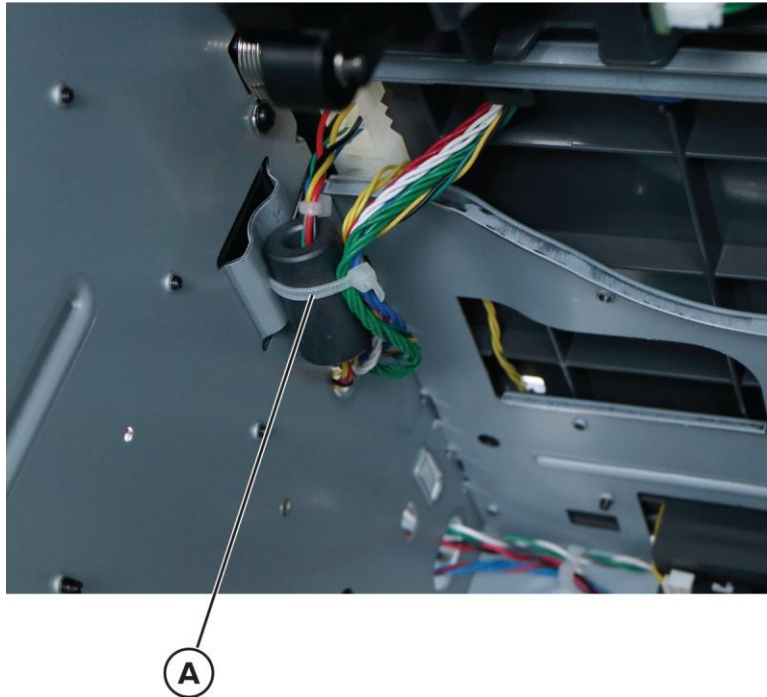
5 Release, and then dislodge the connector from the cover.
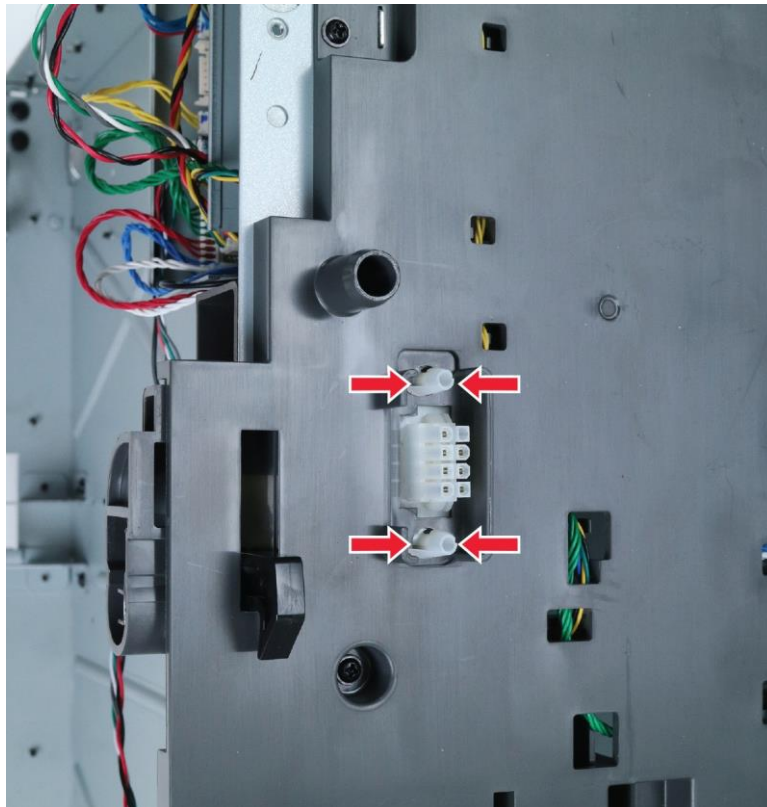
6 Remove the cable.

2100-sheet tray bellcrank removal

1 Remove the 2100-sheet tray insert. See **"2100-sheet tray insert removal" on page 485**.

2 Remove the spring (A), and then remove the E-clip (B).
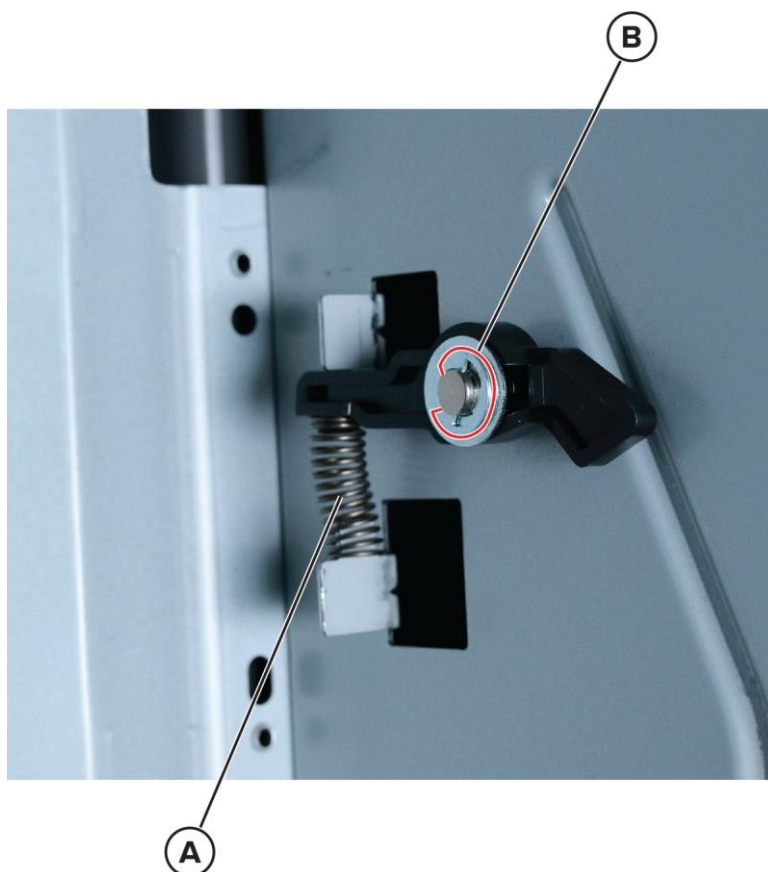
3 Remove the bellcrank.

2100-sheet tray rails removal

1 Remove the 2100-sheet tray insert. See **"2100-sheet tray insert removal" on page 485**.

2 Remove the three screws (A) from the inner right side of the tray.
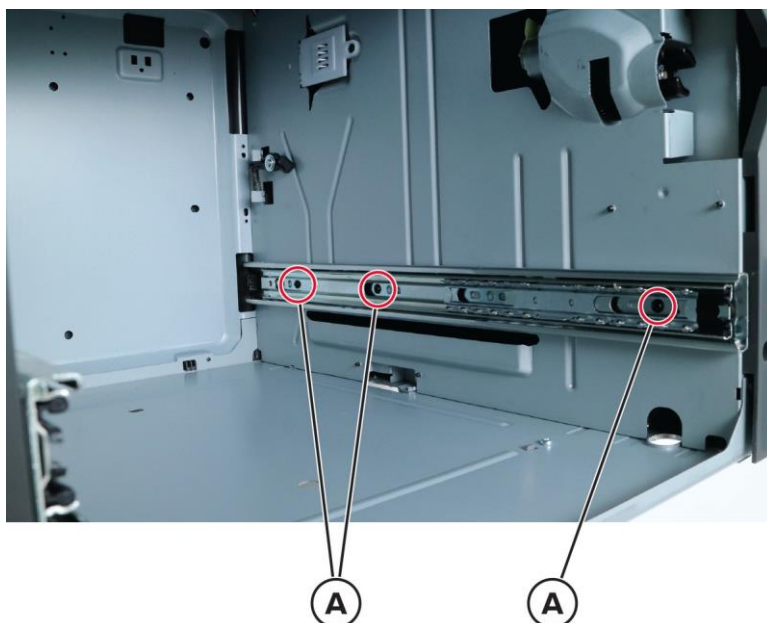
3 Remove the three screws (B) from the inner left side of the tray.
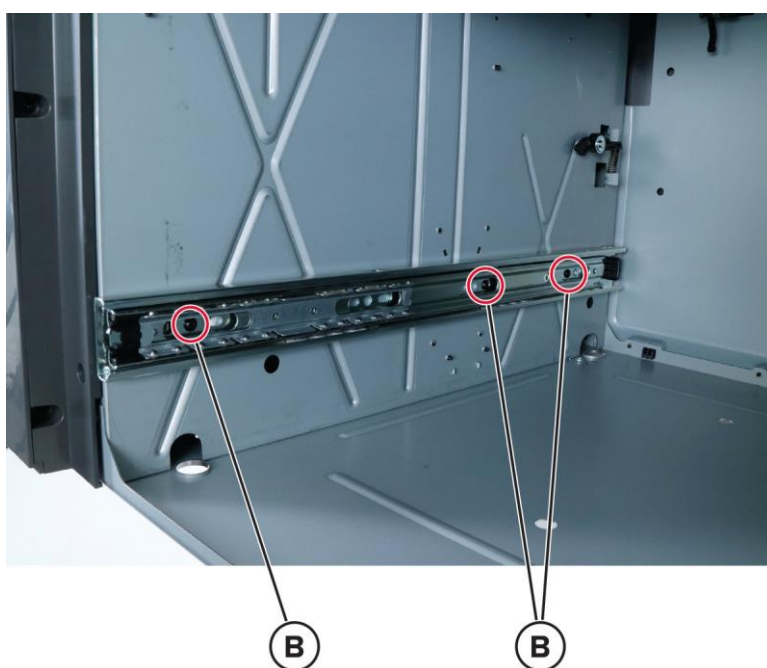
4 Remove the rails.

Sensor (2100-sheet tray near empty) removal

1 Remove the 2100-sheet tray insert. See **"2100-sheet tray insert removal" on page 485**.

2 Remove the screw (A), and then disconnect the sensor cable (B).
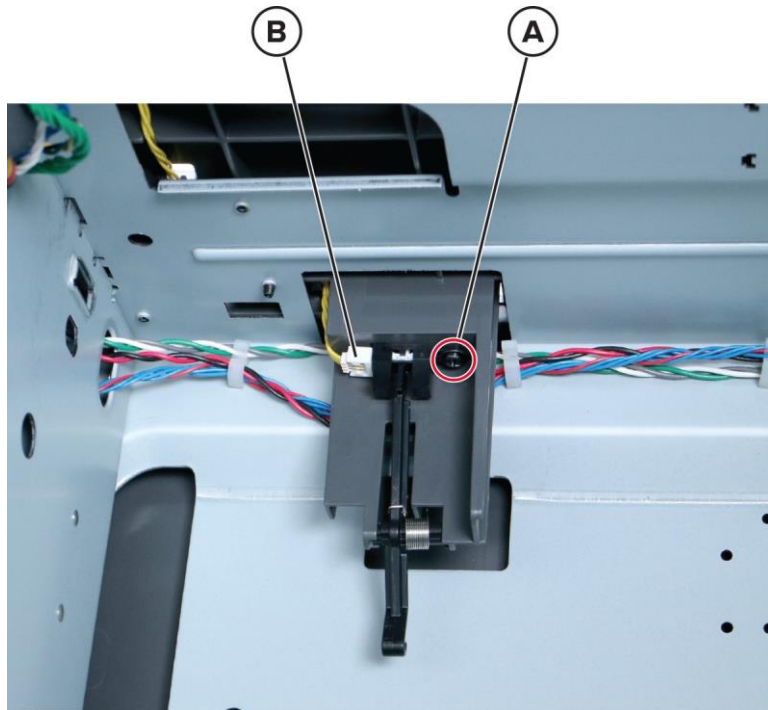
3 Remove the sensor.

Sensor (2100-sheet tray A5 length guide) removal

1 Remove the 2100-sheet tray insert. See **"2100-sheet tray insert removal" on page 485**.

2 Remove the screw (A), and then disconnect the sensor cable (B).
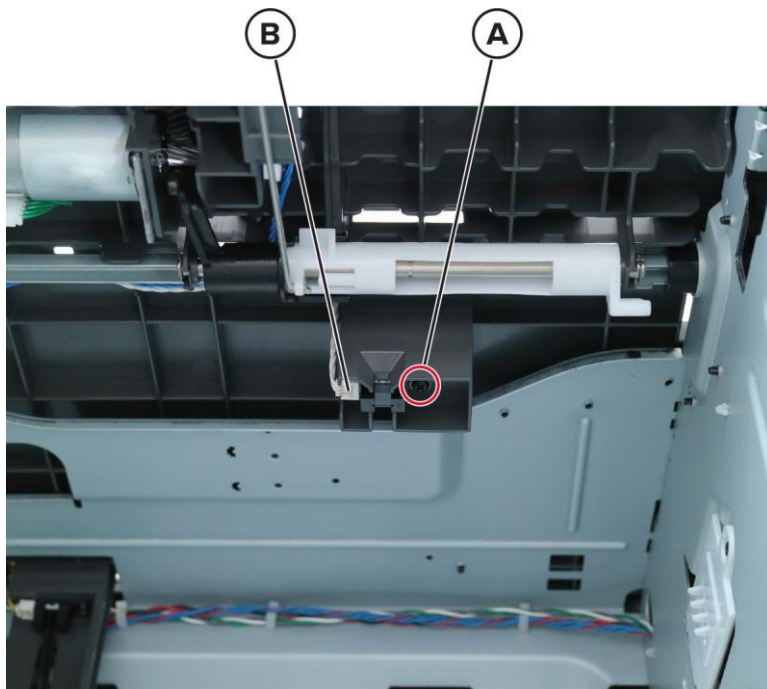
3 Remove the sensor.

Sensor (2100-sheet tray pick roller index) removal

1 Remove the 2100-sheet tray insert. See **"2100-sheet tray insert removal" on page 485**.

2 Remove the 2100-sheet tray pick roller.

3 Remove the screw (A), and then disconnect the sensor cable (B).
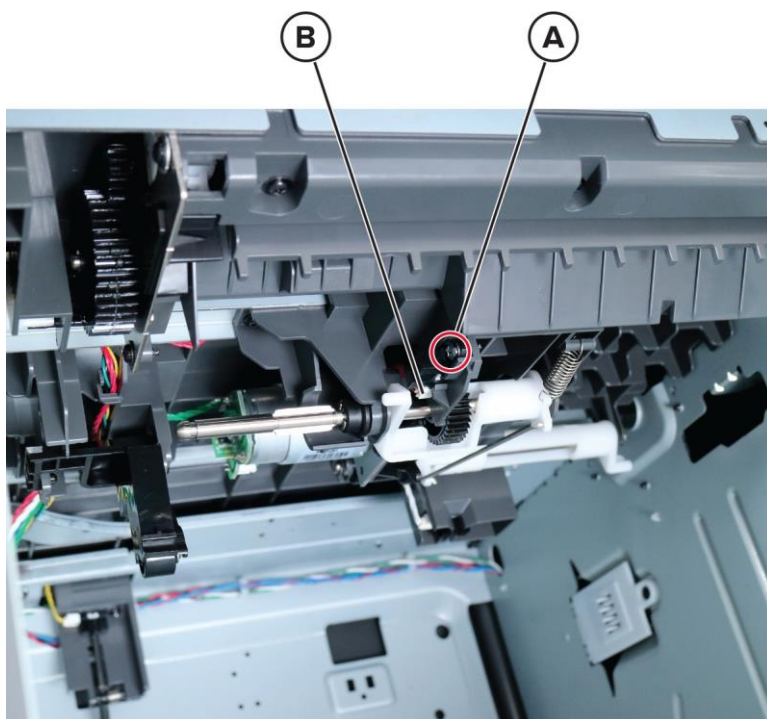
4 Remove the sensor.

Sensor (2100-sheet tray paper present) removal

1 Remove the top cover. See **"2100-sheet tray top cover removal" on page 492**.

2 Disconnect the sensor cable (A), and then remove the screw (B).
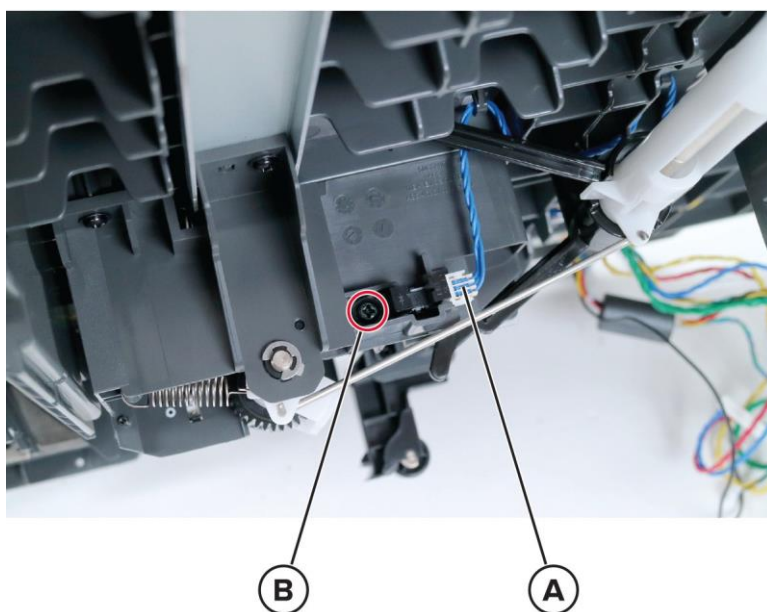
3 Remove the sensor.

2100-sheet tray paper feeder removal

1 Remove the 2100-sheet tray top cover. See **"2100-sheet tray top cover removal" on page 492**.

2 Remove the 2100-sheet tray pick roller.

3 Disconnect the cables (A), and then remove the six screws (B).
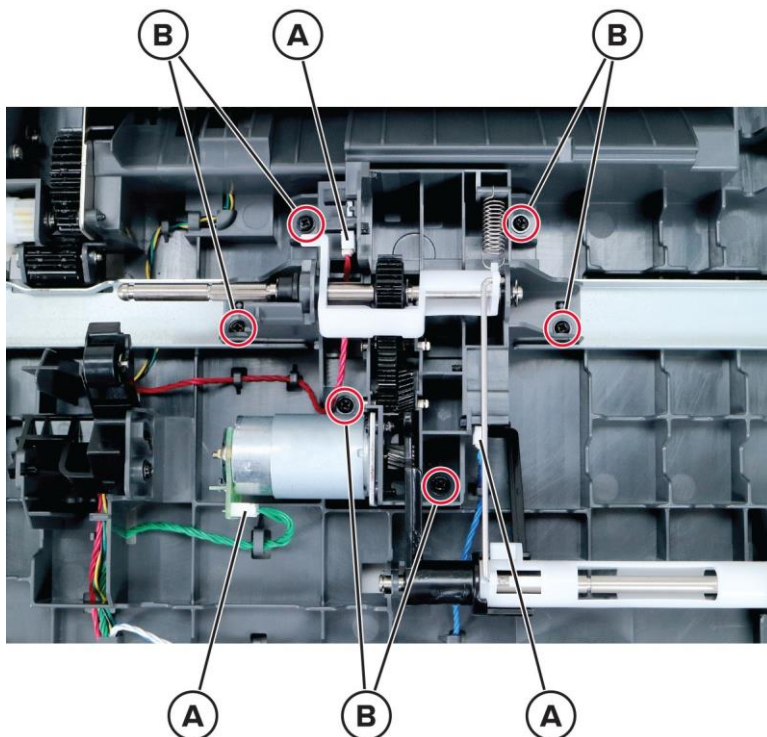
4 Release the rod.
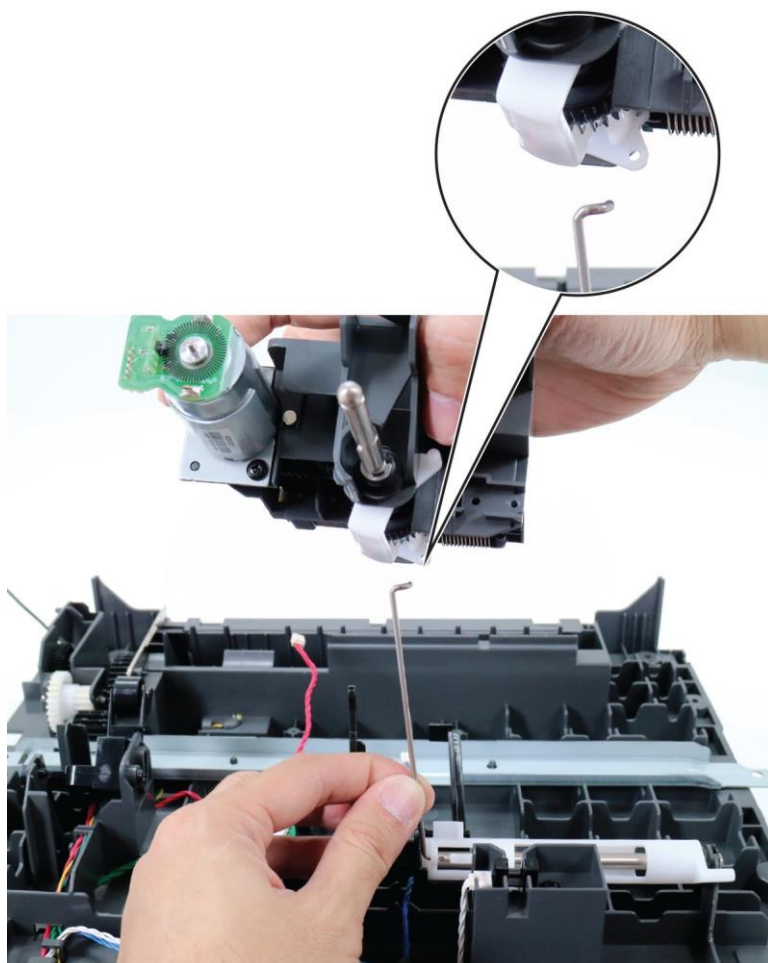
5 Remove the paper feeder.

Optional 250- and 550-sheet tray removals

Optional 250- and 550-sheet tray removal

1 Press the latch to unlock.

2 Lift the printer or optional tray above the 250- or 550-sheet tray, and then separate the 250- or 550-sheet tray.
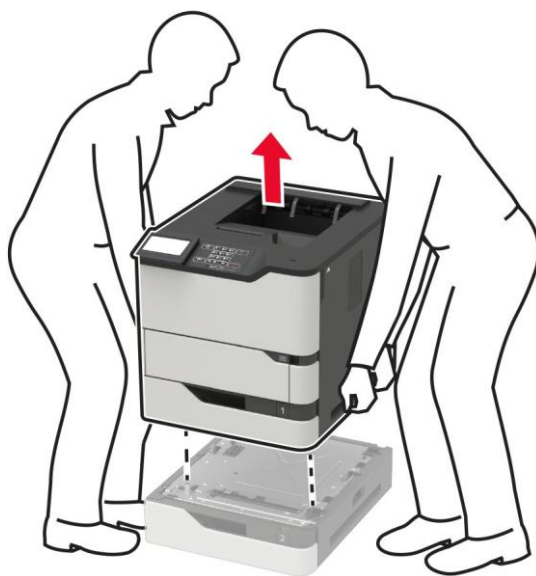
250- and 550-sheet tray left cover removal

1 Remove the tray insert.

2 From the top side, remove the three screws (A).

3 From the front side, remove the two screws (B).

4 From the bottom side, remove the three screws (C).

5 Slightly pull the rear cover to release, and then remove the left cover.

250- and 550-sheet tray right cover removal

1 Remove the tray insert.

2 From the top side, remove the three screws (A).
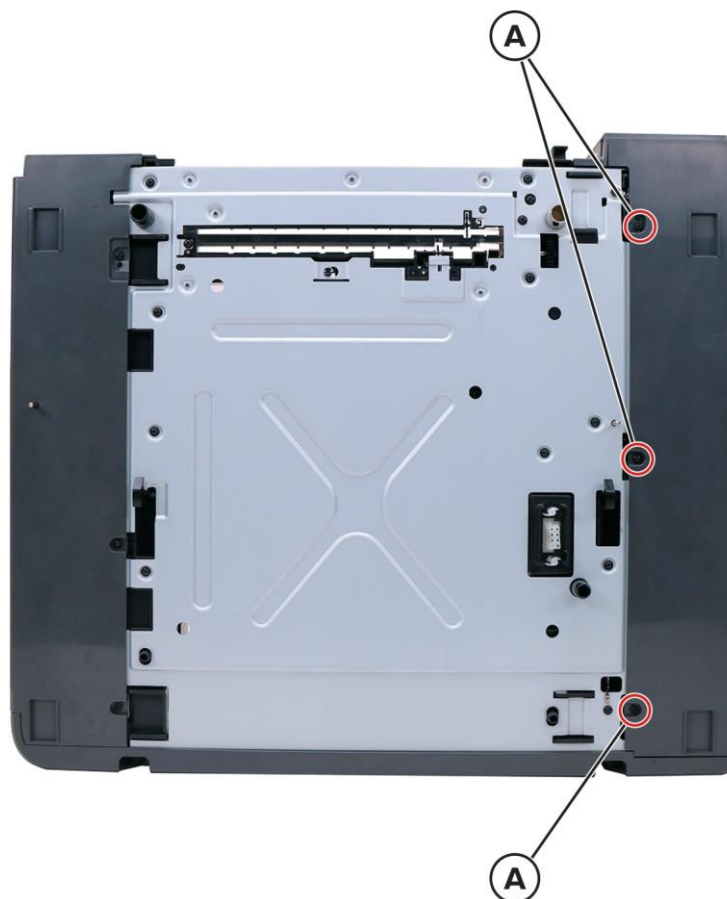
3 From the front side, remove the two screws (B).
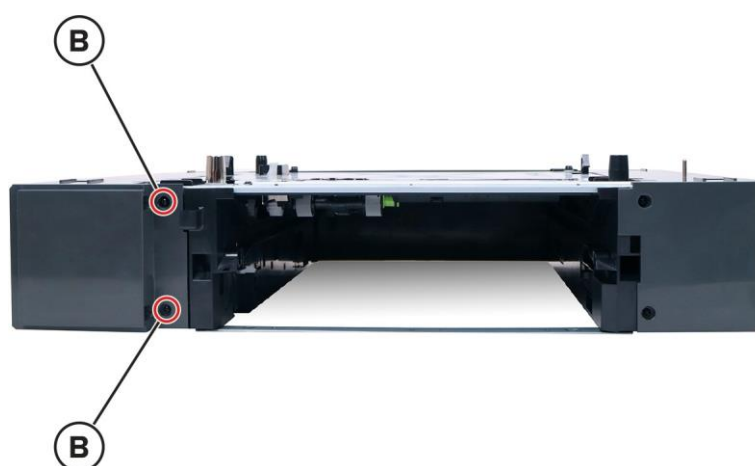
Parts removal

4 From the bottom side, remove the three screws (C).
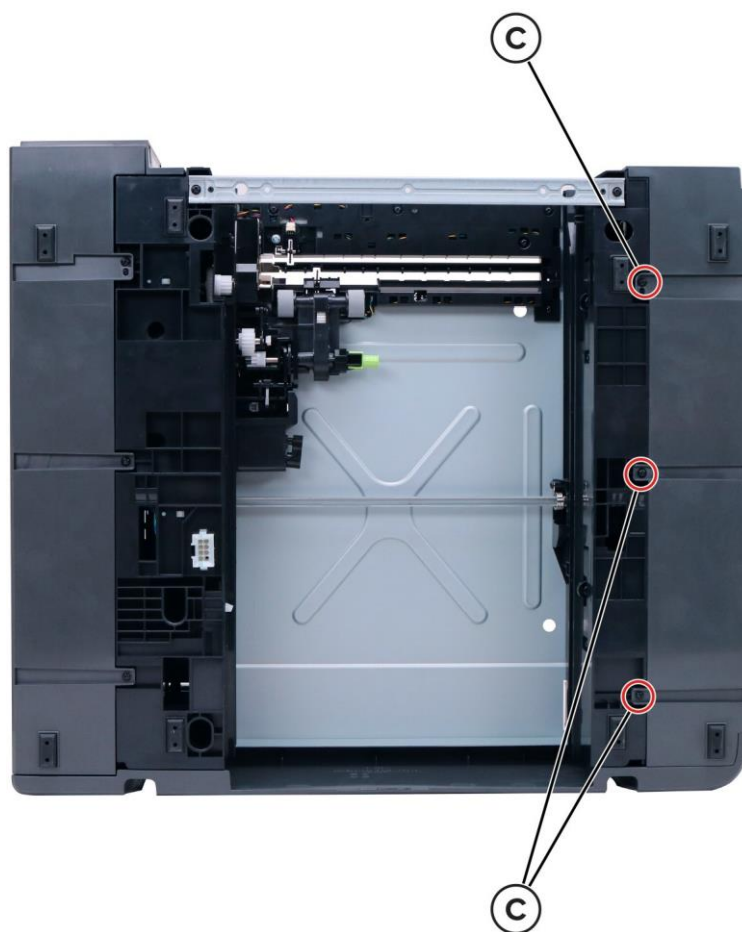
5 From the rear side, remove the two screws (D).
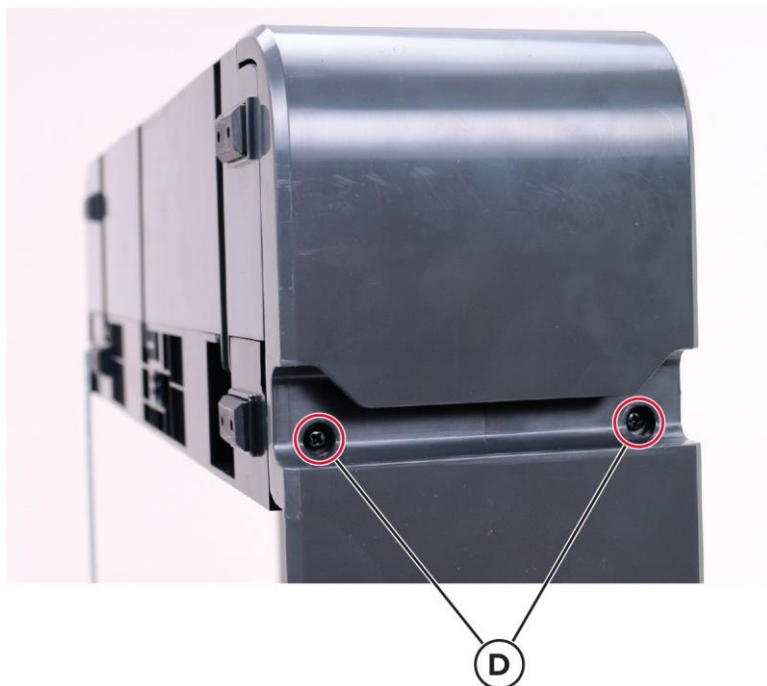
6 Pry the top and bottom tabs to release the cover.

7 Slightly pull the rear cover to release, and then remove the right cover.

Installation note: When installing the right cover, make sure that the latch is positioned as shown. After installation, make sure that the latch is working.

250- and 550-sheet tray rear cover removal

1 Remove the tray insert.

2 Remove the four screws (A), and then remove the cover.

Parts removal

250- and 550-sheet tray insert front cover removal

1 Remove the tray insert.

2 Behind the cover, remove the eight screws (A).
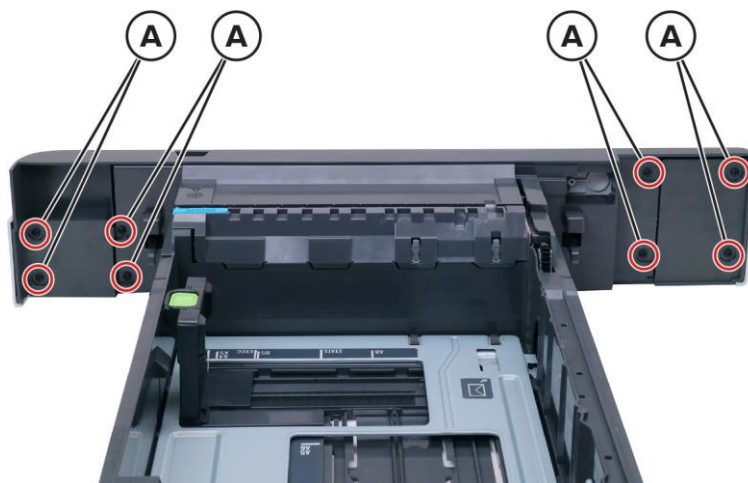
3 Remove the cover.

Tray level indicator removal

1 Pull out the tray.

2 Remove the indicator.
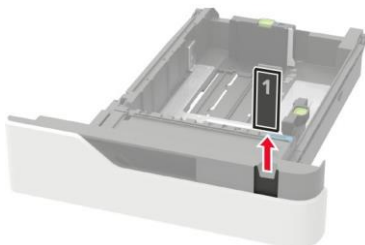
Pick roller removal
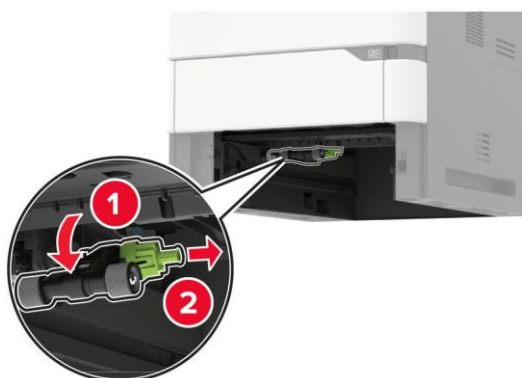
1 Remove the tray insert.

2 Remove the pick roller.

Motor (250- and 550-sheet tray transport) removal

1 Remove the 250- and 550-sheet tray left cover. See **"250- and 550-sheet tray left cover removal" on page 509**.

2 Disconnect the cable (A), and then remove the two screws (B).
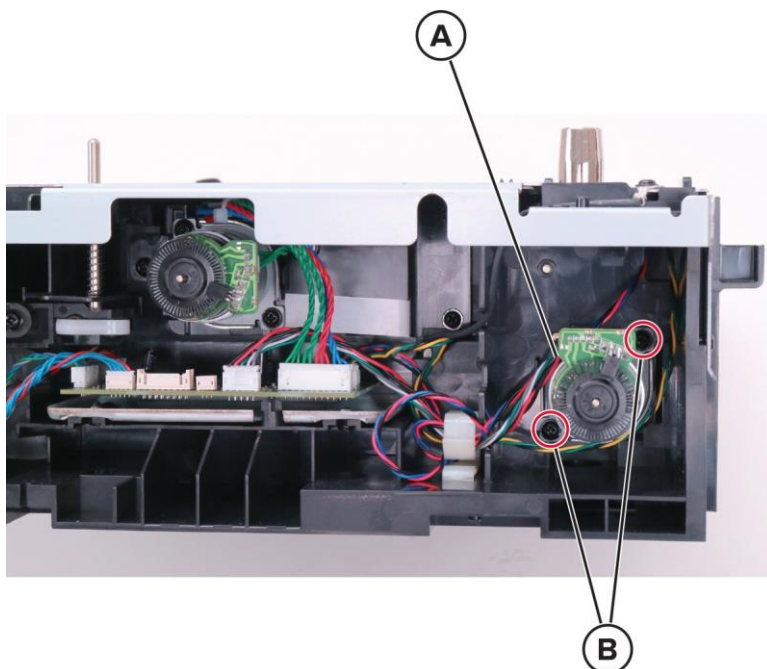
3 Remove the motor.

250- and 550-sheet tray paper feeder removal

1 Remove the 250- and 550-sheet tray left cover. See **"250- and 550-sheet tray left cover removal" on page 509**.

2 Remove the pick roller. See **"Pick roller removal" on page 516**.

3 Disconnect the cable (A), and then remove the three screws (B).
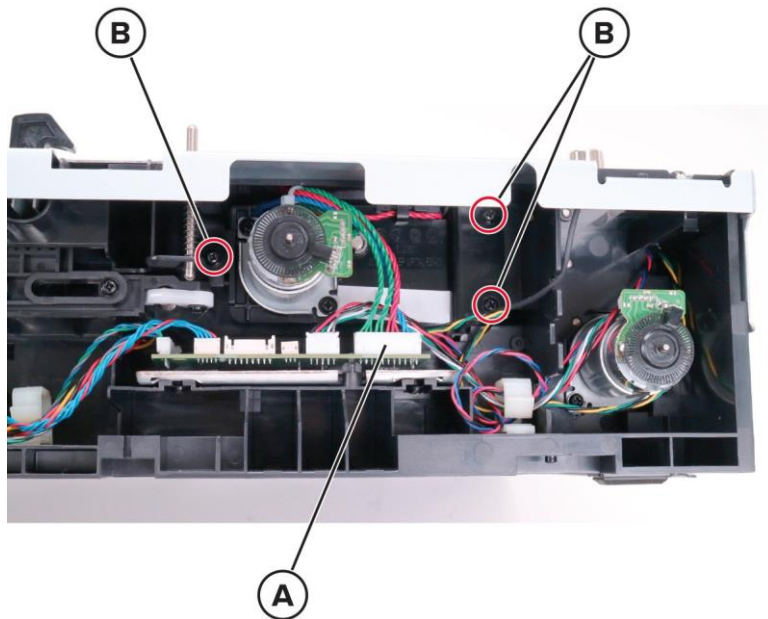
4 Slightly pull the flag to release, and then remove the paper feeder.
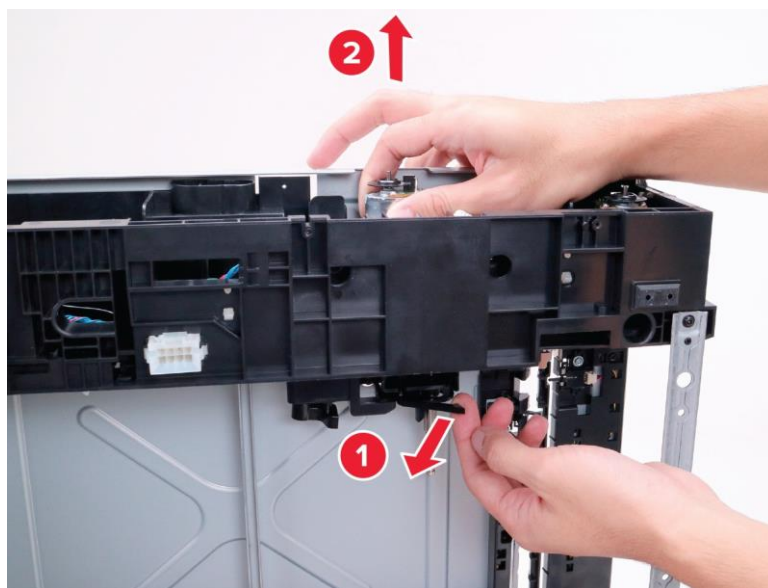
250- and 550-sheet tray controller board removal

1 Remove the 250- and 550-sheet tray left cover. See **"250- and 550-sheet tray left cover removal" on page 509**.

2 Remove the two screws (A), and then release the controller board bracket.
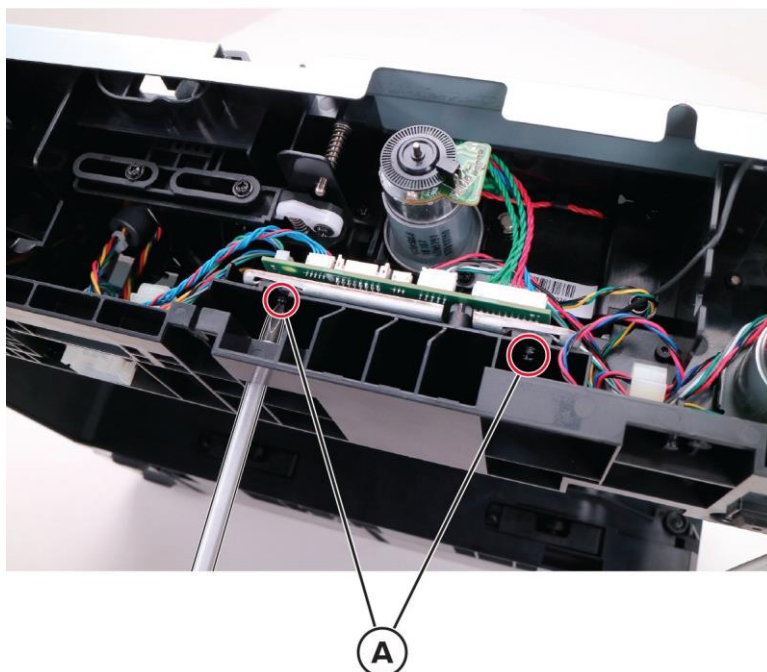
3 Disconnect all the cables from the controller board.
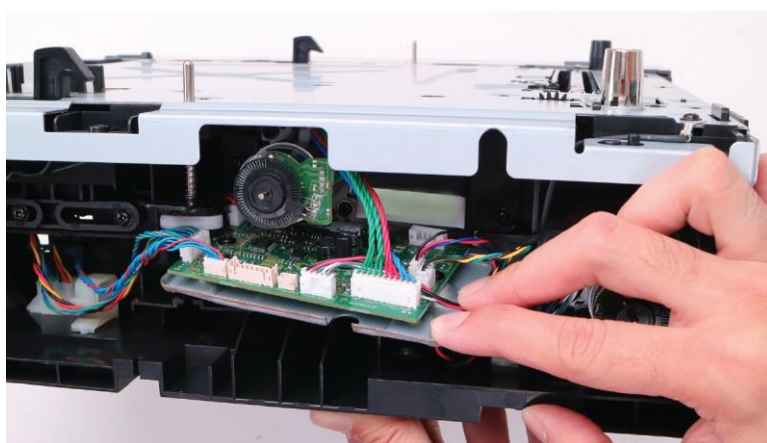
4 Remove the two screws (B), and then remove the controller board.

Sensor (250- and 550-sheet tray pass-through) removal

1 Remove the tray insert.

2 Remove the screw (A), and then disconnect the sensor cable (B).
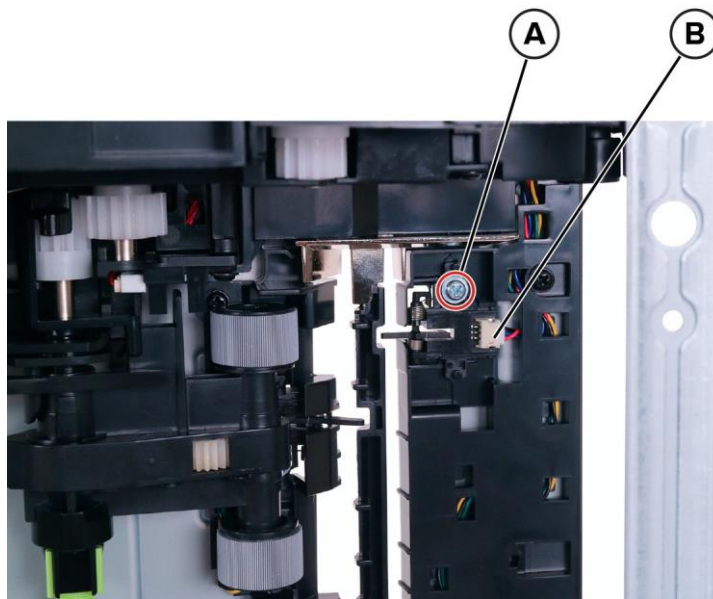
3 Remove the sensor.

Sensor (250- and 550-sheet tray pick) removal

1 Remove the tray insert.

2 Remove the pick roller. See **"Pick roller removal" on page 516**.

3 Remove the screw (A), and then disconnect the sensor cable (B).

4 Remove the sensor.

Sensor (250- and 550-sheet tray pick roller index) removal

1 Remove the tray insert.

2 Remove the 250- and 550-sheet tray left cover. See **"250- and 550-sheet tray left cover removal" on page 509**.

3 Remove the pick roller. See **"Pick roller removal" on page 516**.

4 Remove the 250- and 550-sheet tray paper feeder. See **"250- and 550-sheet tray paper feeder removal" on page 517**.

5 Remove the screw (A), and then disconnect the sensor cable (B).

6 Remove the sensor.

Sensor (250- and 550-sheet tray paper present) removal

1 Remove the tray insert.

2 Remove the 250- and 550-sheet tray left cover. See **"250- and 550-sheet tray left cover removal" on page 509**.

3 Remove the pick roller. See **"Pick roller removal" on page 516**.

4 Remove the 250- and 550-sheet tray paper feeder. See **"250- and 550-sheet tray paper feeder removal" on page 517**.

5 Remove the screw (A), and then disconnect the sensor cable (B).

6 Remove the sensor.

250- and 550-sheet tray interface cable removal

1 Remove the 250- and 550-sheet tray left cover. See **"250- and 550-sheet tray left cover removal" on page 509**.

2 Release the controller board bracket. See **"250- and 550-sheet tray controller board removal" on page 519**.

3 Press the latches to release, and then dislodge the connector from the bottom side.
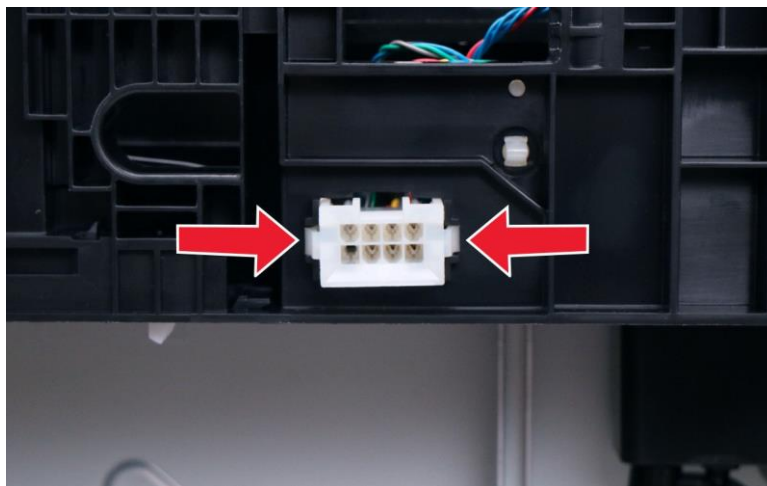
Parts removal

4 Pinch the latches to release, and then dislodge the connector from the top side.

5 Disconnect the cable (A), and then remove it.
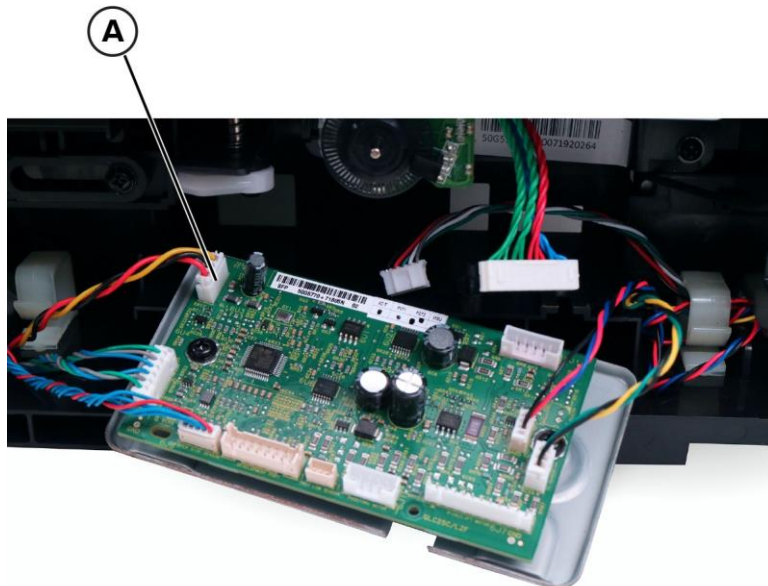
Sensor (250- and 550-sheet tray paper size) removal

1 Remove the 250- and 550-sheet tray left cover. See **"250- and 550-sheet tray left cover removal" on page 509**.

2 From the left side, pry the latch to release the sensor cover.
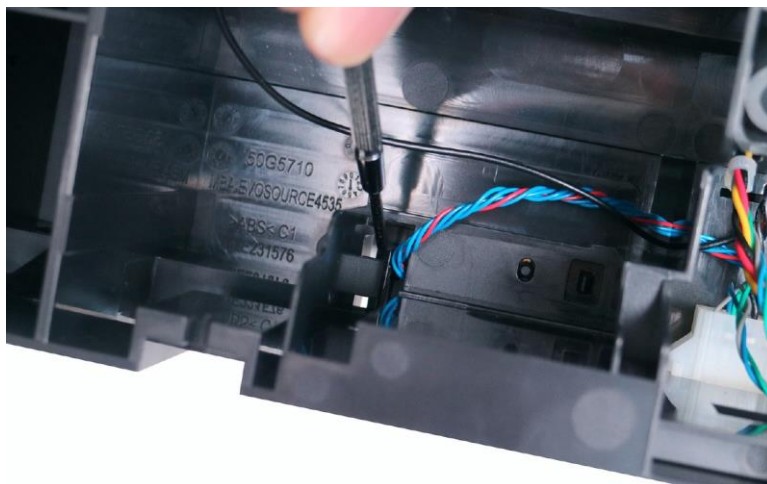
3 From the bottom side, press the latch to release the sensor.
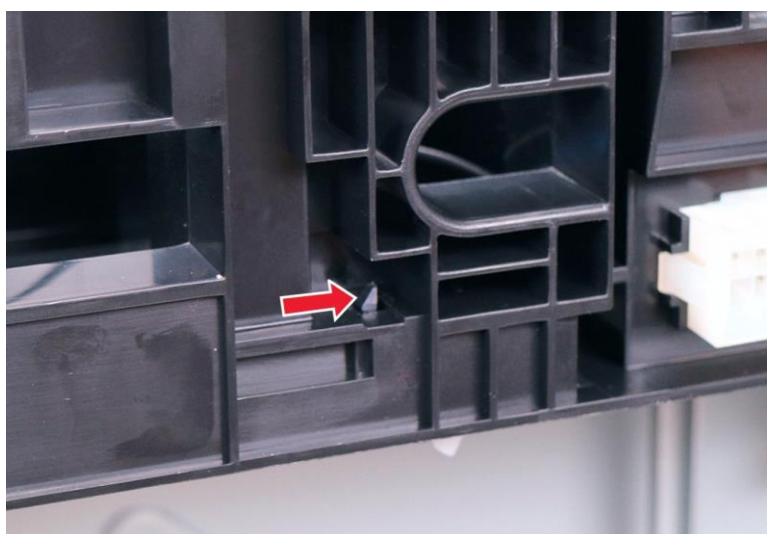
4 Disconnect the cable, and then remove the sensor.
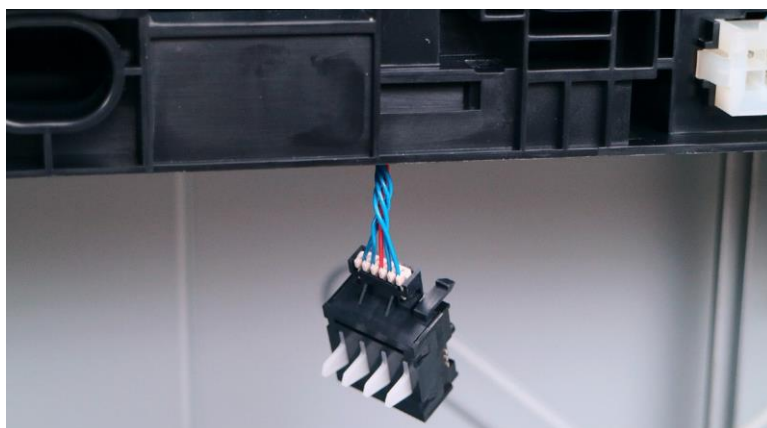
250- and 550-sheet tray paper size sensor actuator removal

1 Remove the tray insert.

2 On the tray insert, move the paper guide to the front side.

3 Under the tray insert, position the racks and pinions as shown.

Remove the two screws (A), and then remove the two pinions (B).
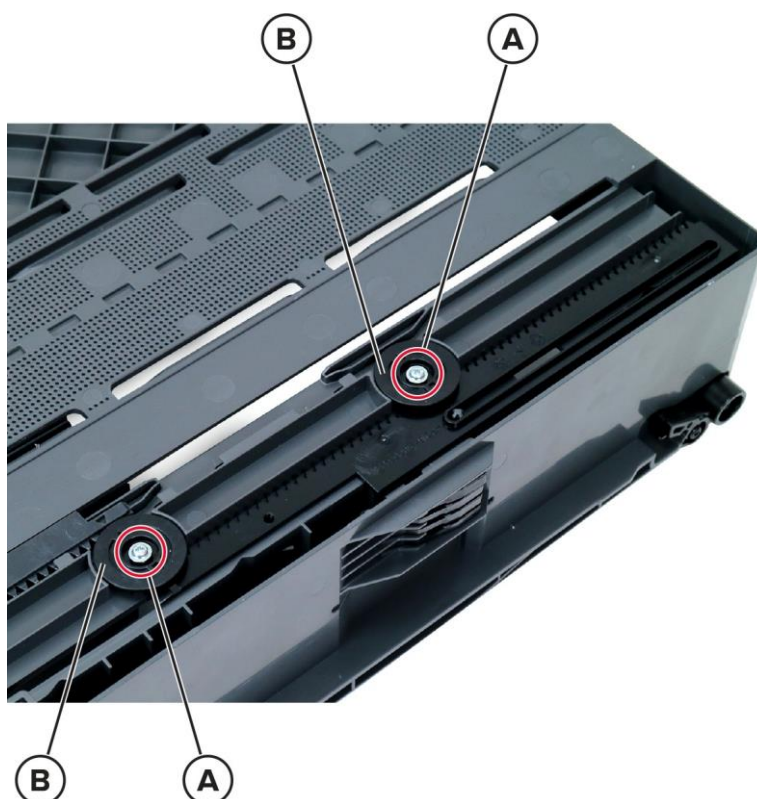
4 Slightly pull the left cover to release, and then pry the rack to release.

5 Remove the rack.

Installation notes:

a Make sure that the white indicator on the paper guide is aligned with the A5 and A6 label.
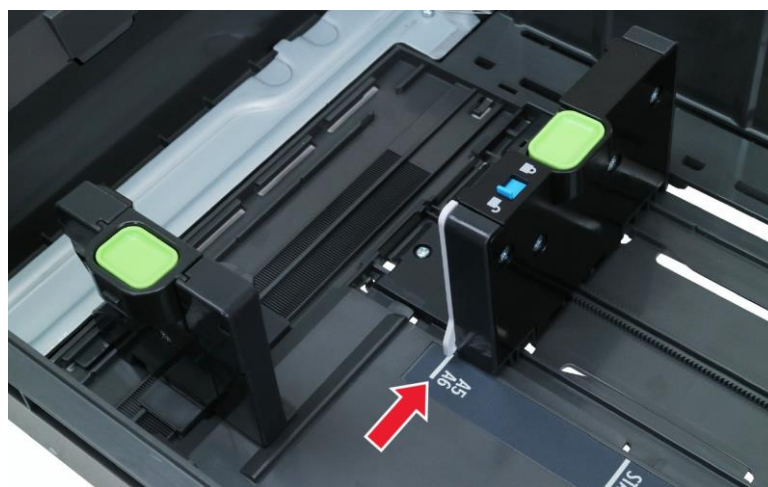
b Move the paper guide all the way to the front side of the tray to match the positions of the racks and pinions shown. Align the triangle and square icons on the pinions to the corresponding triangle and square icons on the racks.

c Make sure that the screws are not too tight so that the gears can still move.

6 Release the latch, and then remove the actuator.

Parts removal

Optional output expander removals

Optional output expander removal

1 Press the latches to release.

2 Lift the expander off the printer.

Output expander top cover removal

Lift the top cover off the expander, and remove.

Output expander rear door removal

1 Open the rear door, and detach the string (A) from the door.
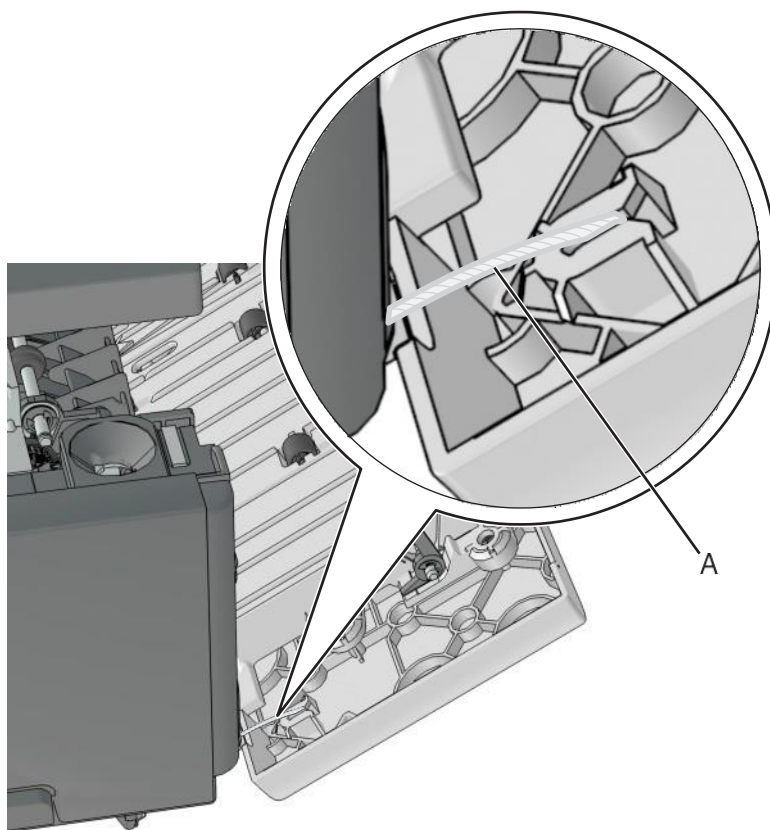
Note: Fasten the string to the rear side to prevent it from recoiling into the interior of the expander.
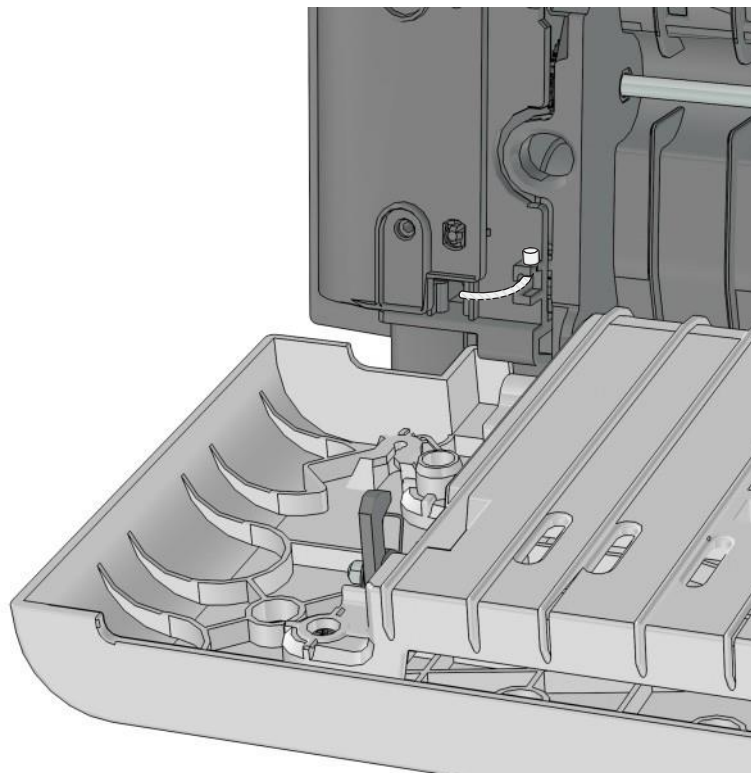
2 Position the door at an angle approximately 90 degrees from the expander, then remove.

Output expander sensor cover removal

1 Remove the output expander top cover. See **"Output expander top cover removal" on page 529**.

2 Push the latches (A) to release, then remove the sensor cover.
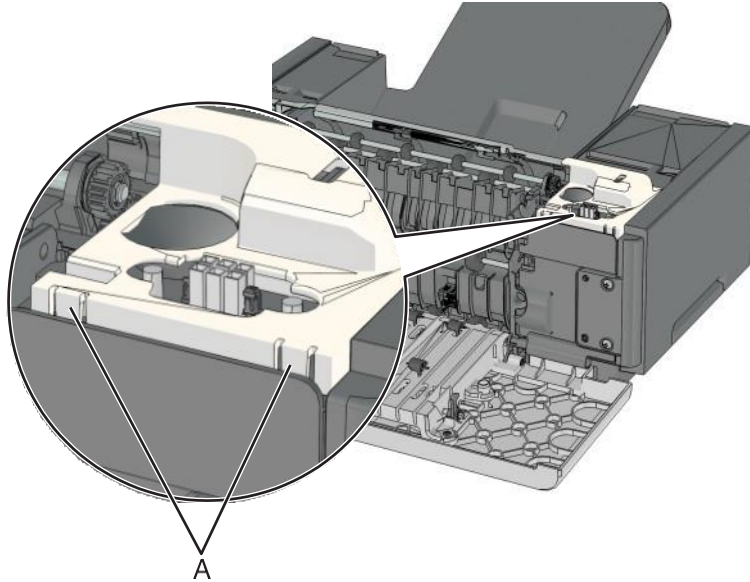
Output expander bin full flag removal

1 Remove the output expander top cover. See **"Output expander top cover removal" on page 529**.

2 Remove the output expander sensor cover. See **"Output expander sensor cover removal" on page 532**.

3 Remove the two screws (A), and then remove the bin full flag.
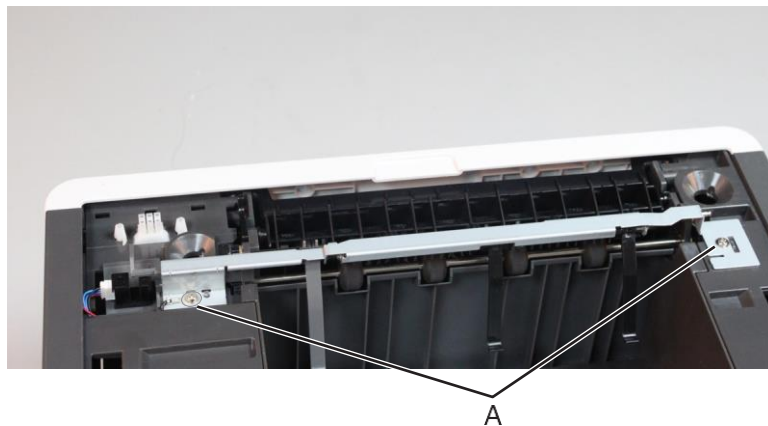
Sensor (OE bin full) with flag removal

1 Remove the output expander top cover. See **"Output expander top cover removal" on page 529**.

2 Remove the output expander sensor cover. See **"Output expander sensor cover removal" on page 532**.

3 Remove the two screws (A), and then remove the bracket.

4 Disconnect the sensor cable (B), and then remove the sensor.
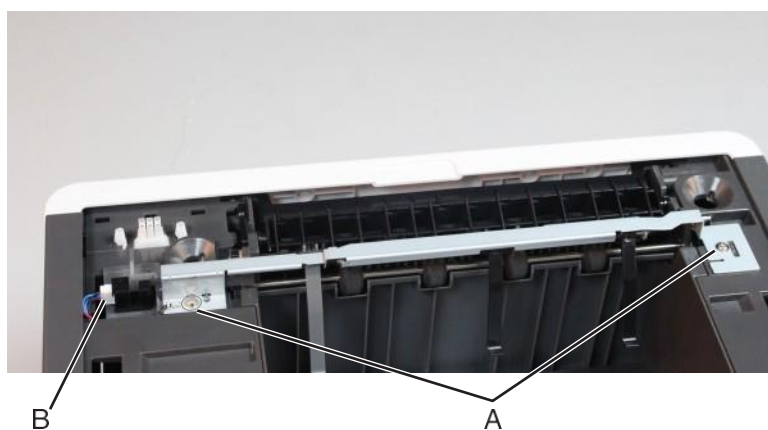
Output expander right cover removal

1 Open the rear door, then detach the string (A) from the rear door.
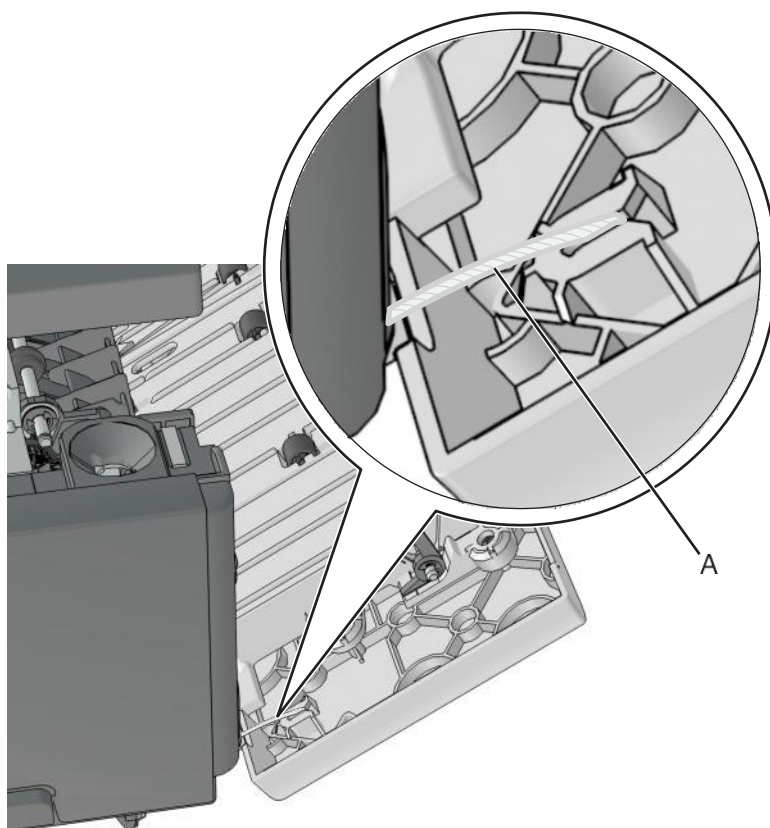
Note: Fasten the string to the rear side to prevent it from recoiling into the interior of the expander.
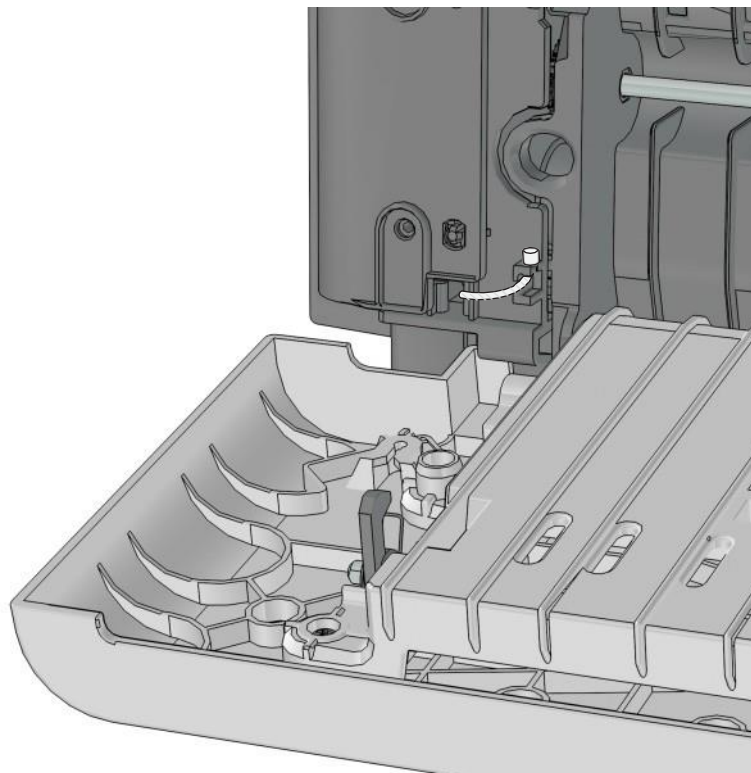
2 Remove the two screws (B), then remove the right cover.
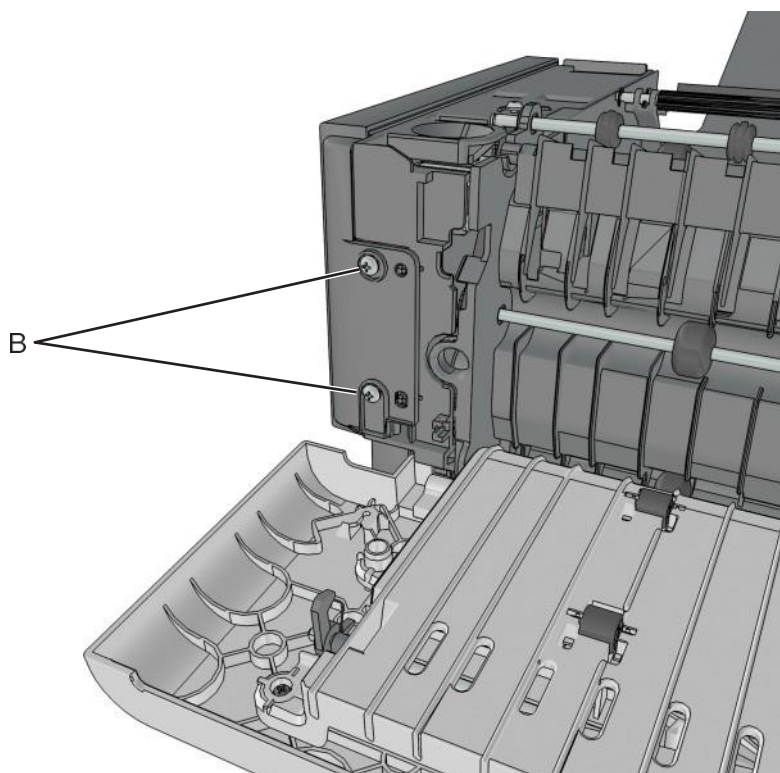
Parts removal

Output expander left cover removal

1 Open the rear door, then detach the string (A) from the rear door.

Note: Fasten the string to the rear side to prevent it from recoiling into the interior of the expander.

2 Remove the two screws (B), then remove the left cover.

Output expander controller board removal

1 Remove the output expander left cover. See **"Output expander left cover removal" on page 535**.

2 Disconnect all the cables from the controller board.
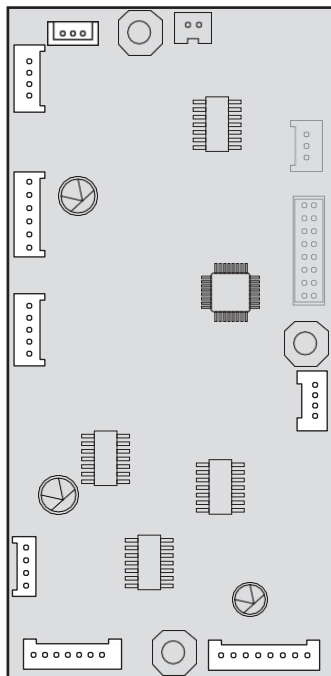
3 Remove the three screws (A), and then remove the controller board.
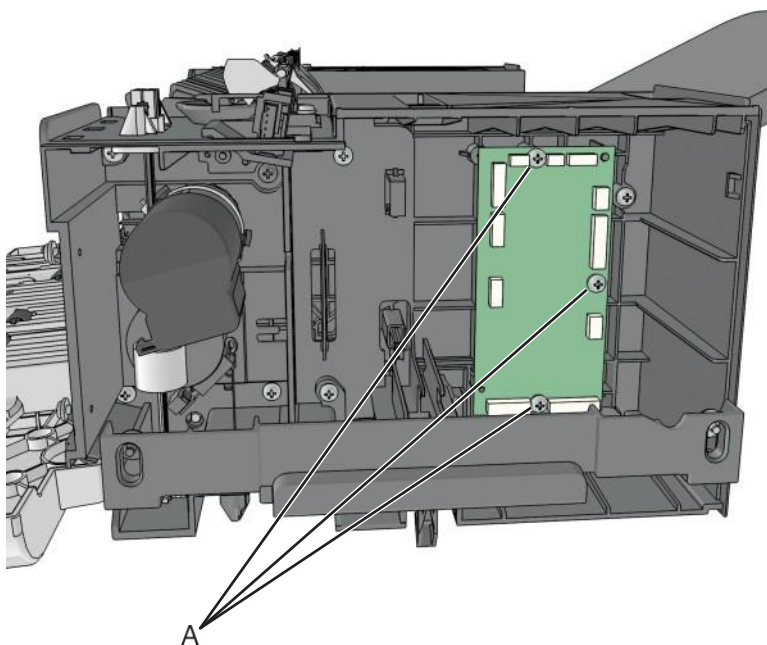
Output expander lower interface cable removal

1 Remove the output expander left cover. See **"Output expander left cover removal" on page 535**.

2 Disconnect the cable J1 from the controller board.
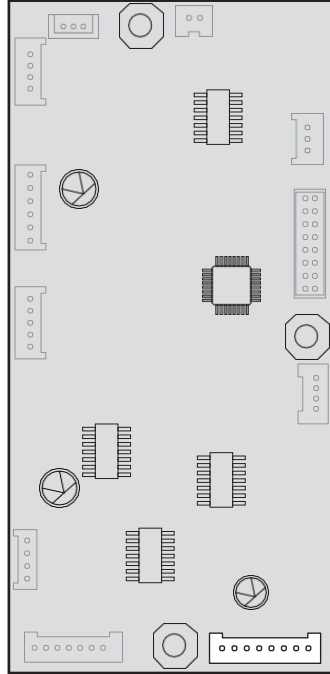
3 Push the latches to release, and then remove the cable.
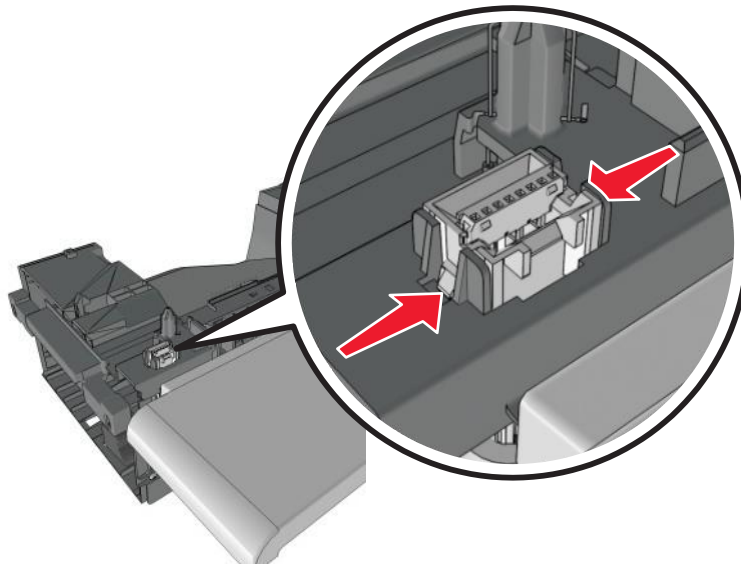
Output expander upper interface cable removal

1 Remove the output expander sensor cover. See **"Output expander sensor cover removal" on page 532**.

2 Remove the output expander left cover. See **"Output expander left cover removal" on page 535**.

3 Disconnect the cable J2 from the controller board.
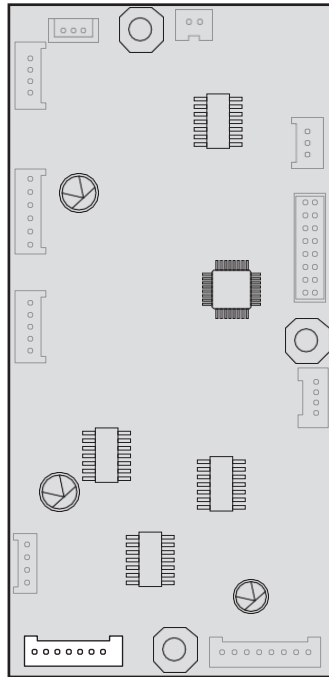
4 Release, and then dislodge the connector from its slot.

Note: Use a pliers to fit the pins to the holes.

5 Remove the cable.

Output expander spring with string removal

1 Open the rear door, and detach the string (A).

2 Remove the output expander right cover. See **"Output expander right cover removal" on page 533**.

3 Remove the spring with string.

Note: Pay attention to the original position of the string. The string on the pulley is wound clockwise.
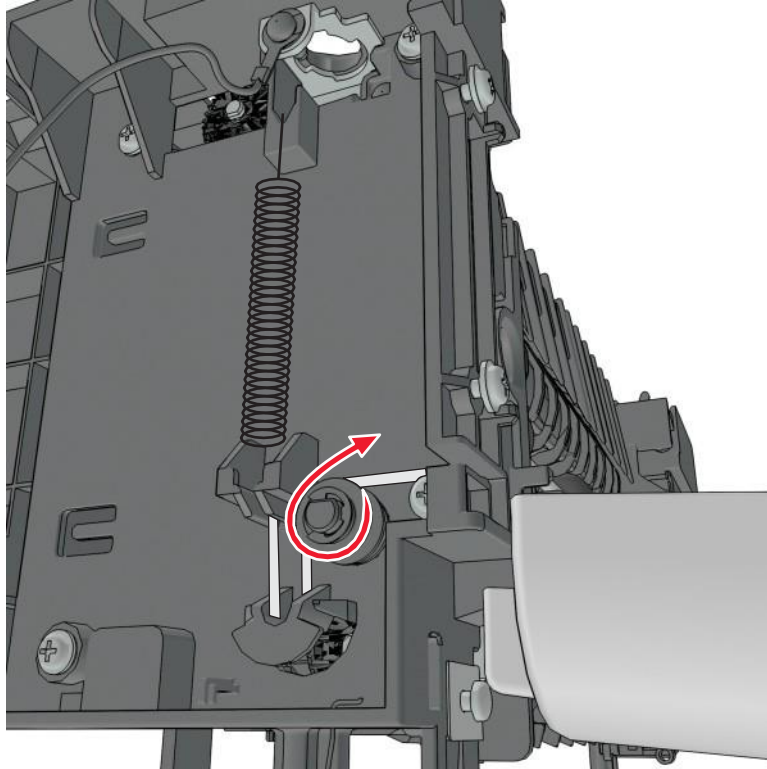
Output expander latch removal

1 Remove the output expander left cover or output expander right cover.

   See **"Output expander left cover removal" on page 535** or **"Output expander right cover removal" on page 533**.

2 Pull the latch off the expander.
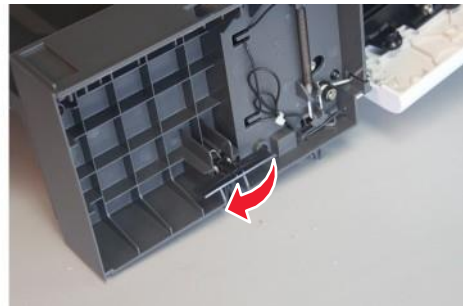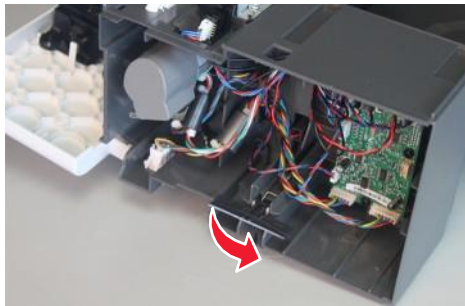
Motor (OE diverter) removal

1 Remove the output expander left cover. See **"Output expander left cover removal" on page 535**.

2 Disconnect the motor cable, and then remove the two screws (A).

A
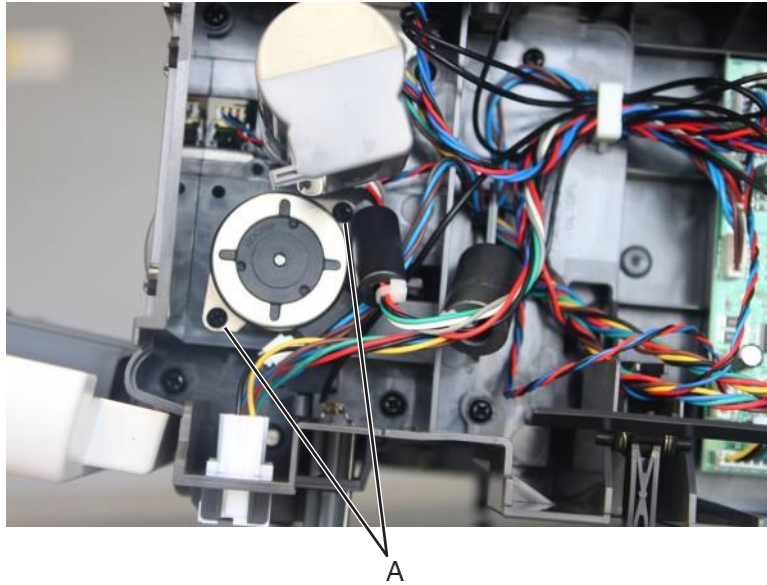
3 Remove the motor.

Output expander diverter plunger assembly removal

Diverter plunger removal

1 Remove the output expander left cover. See **"Output expander left cover removal" on page 535**.

2 Remove the seven screws (A) from the frame.

A
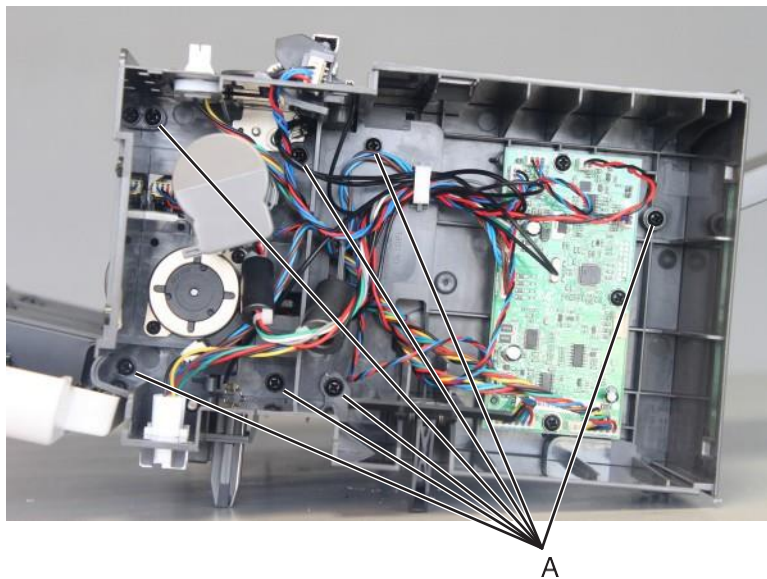
Parts removal

3 Pull away the frame to access the parts underneath. Remove the two screws (B), and then remove the plunger.
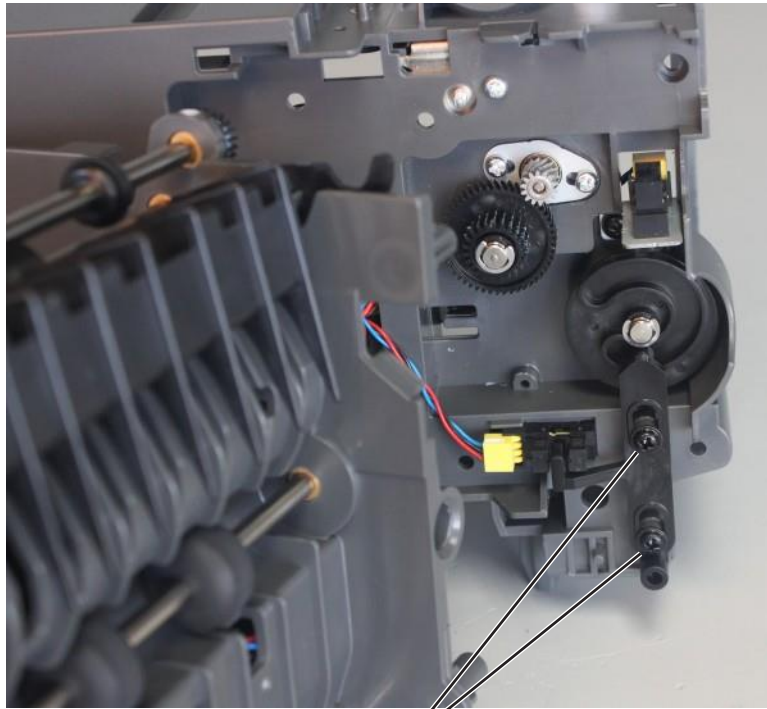
B

Diverter cam removal

1 Remove the output expander left cover. See **"Output expander left cover removal" on page 535**.

2 Remove the output expander diverter plunger. See preceding removal.

3 Remove the E-clip (A), and then remove the cam.
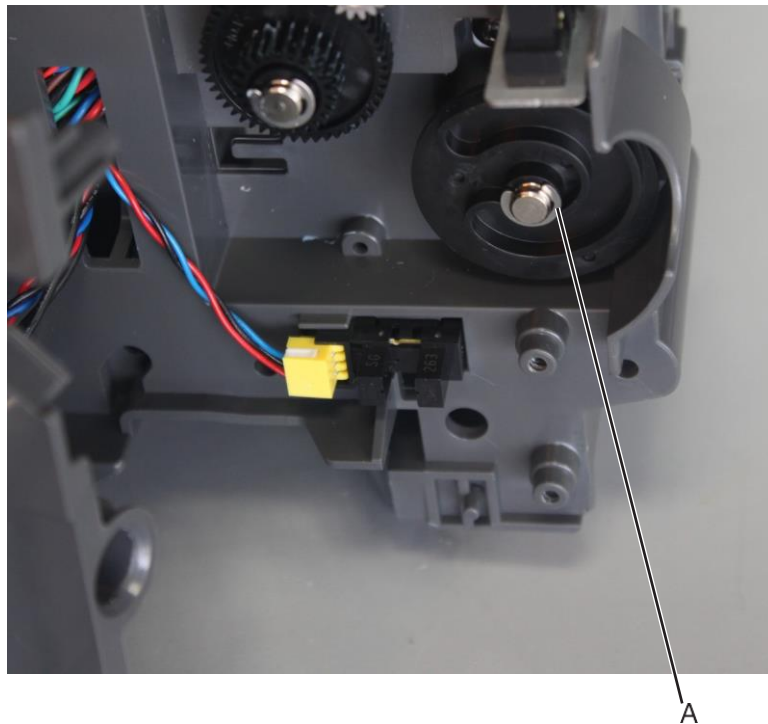
A

Output expander drive gear removal

1 Remove the output expander left cover. See .

2 Remove the seven screws (A) from the frame.

A
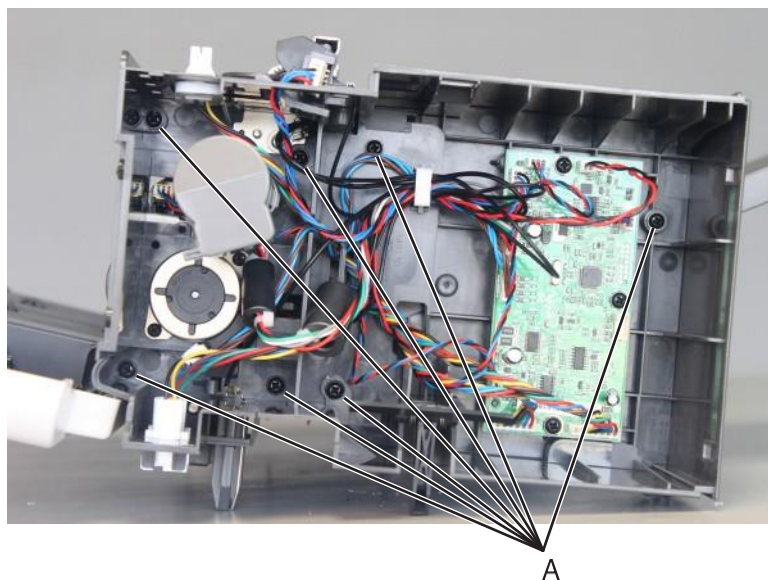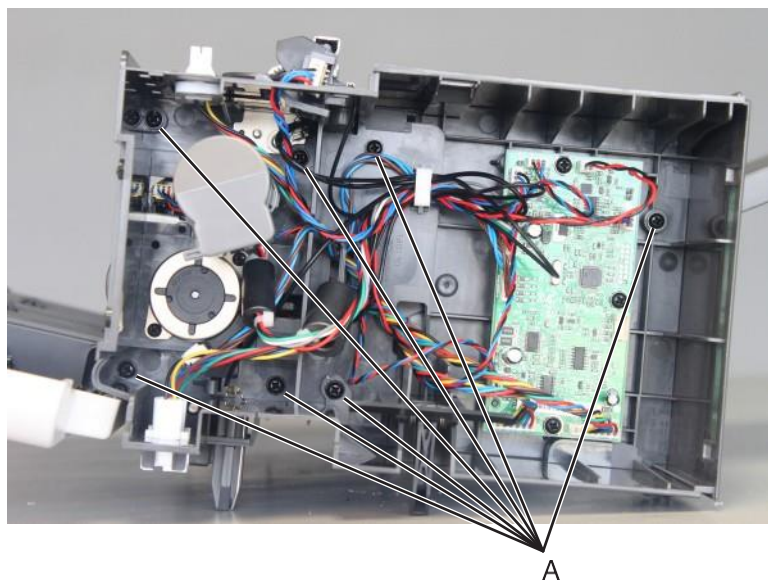
3 Pull away the frame to access the parts underneath. Remove the E-clip (B), and pull the gear off its shaft.
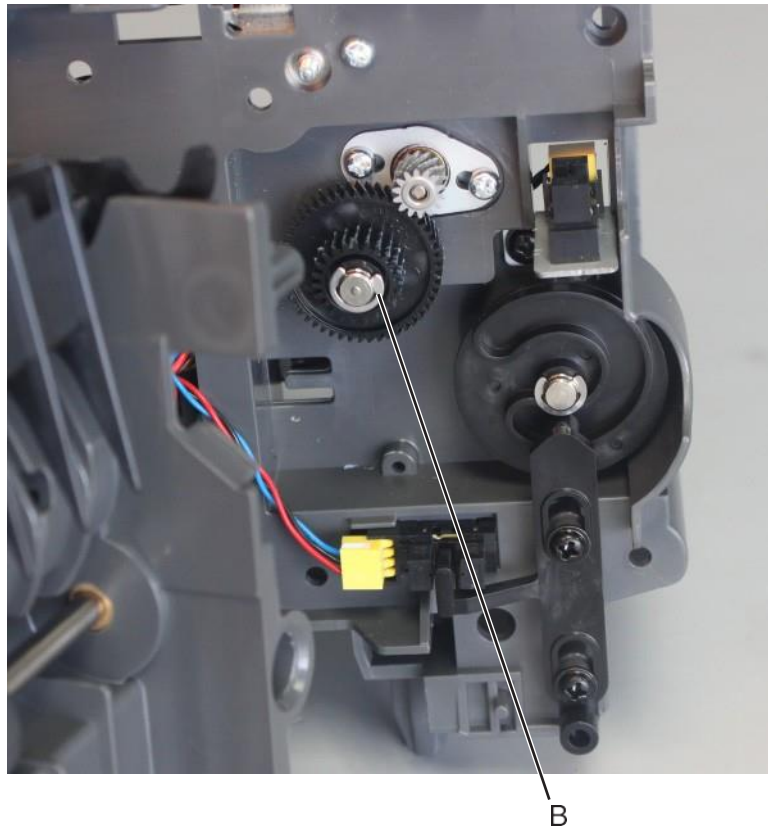
B

Motor (OE transport) removal

1 Remove the output expander left cover. See .

2 Remove the seven screws (A).

A

Parts removal

3 Slightly pull the frame to access the parts underneath it. Remove the E-clip (B), and then remove the gear.
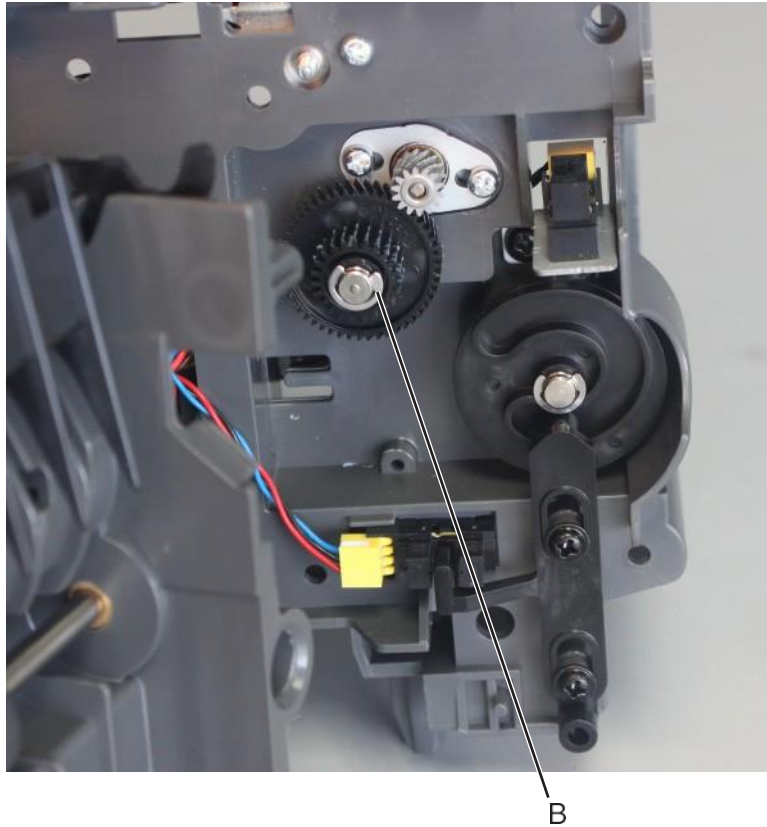
B

4 Remove the two screws (C), and then remove the motor.

C

Sensor (OE rear door interlock) removal

1 Remove the output expander left cover. See **"Output expander left cover removal" on page 535**.

2 Remove the seven screws (A).

A

Parts removal

3 Slightly pull the frame to access the parts underneath it. Remove the screw (B), and then release the sensor bracket.

B
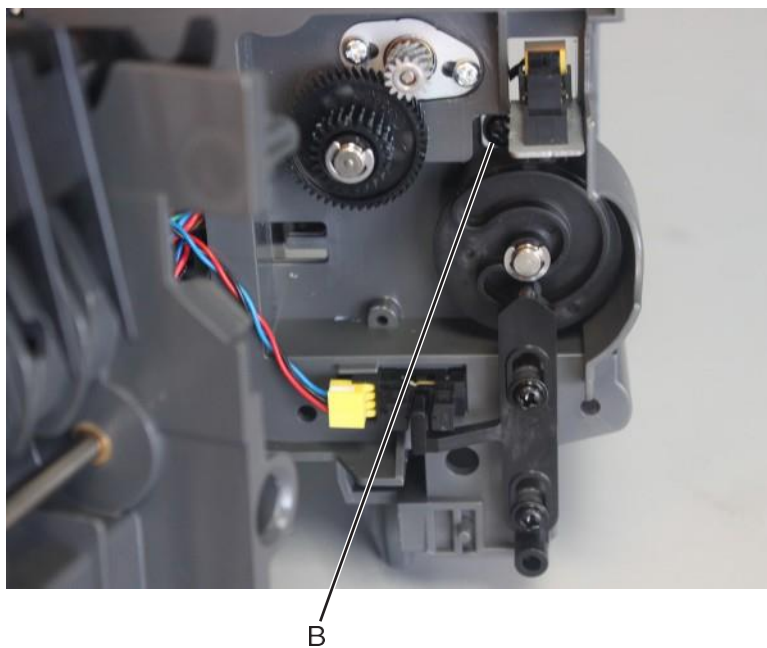
4 Remove the sensor retainer (C), disconnect the cable (D), and then remove the sensor.
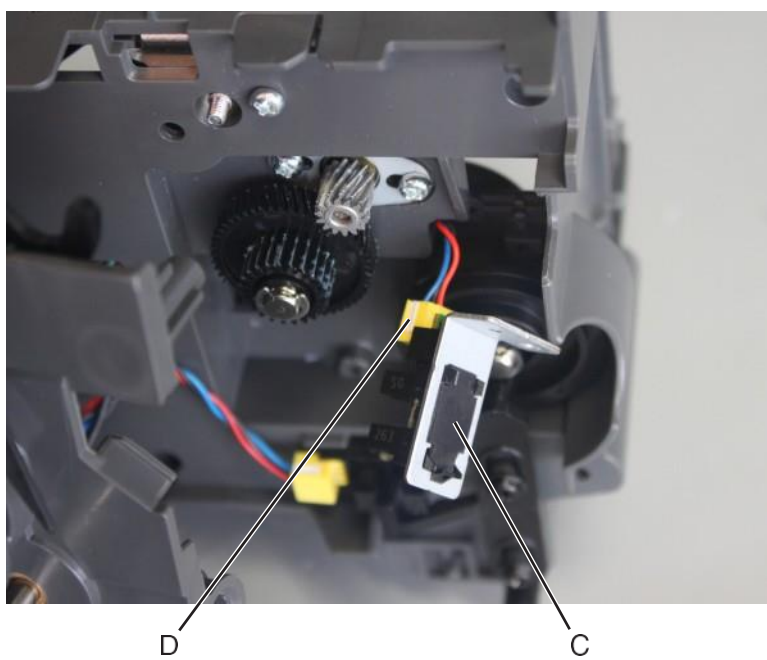
D   C

Sensor (OE diverter plunger) removal

1 Remove the output expander left cover. See **"Output expander left cover removal" on page 535**.

2 Remove the seven screws (A).

A
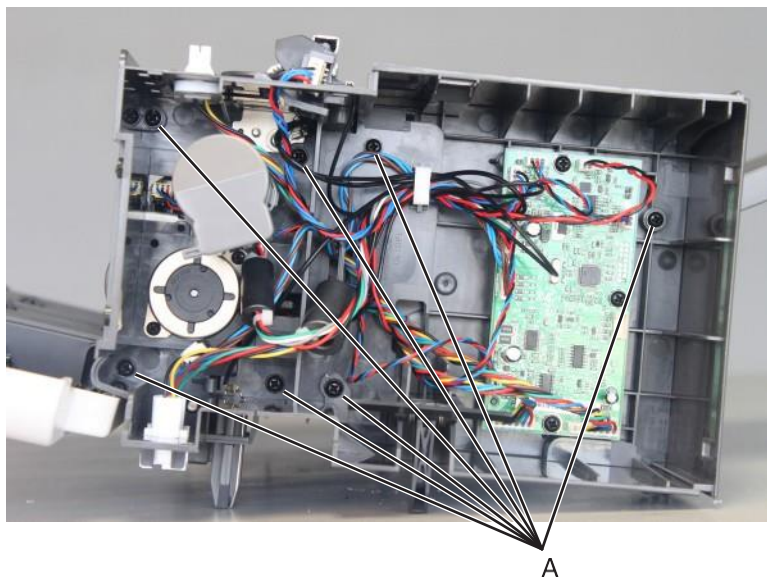
3 Slightly pull the frame to access the parts underneath it. Disconnect the cable (B).

B
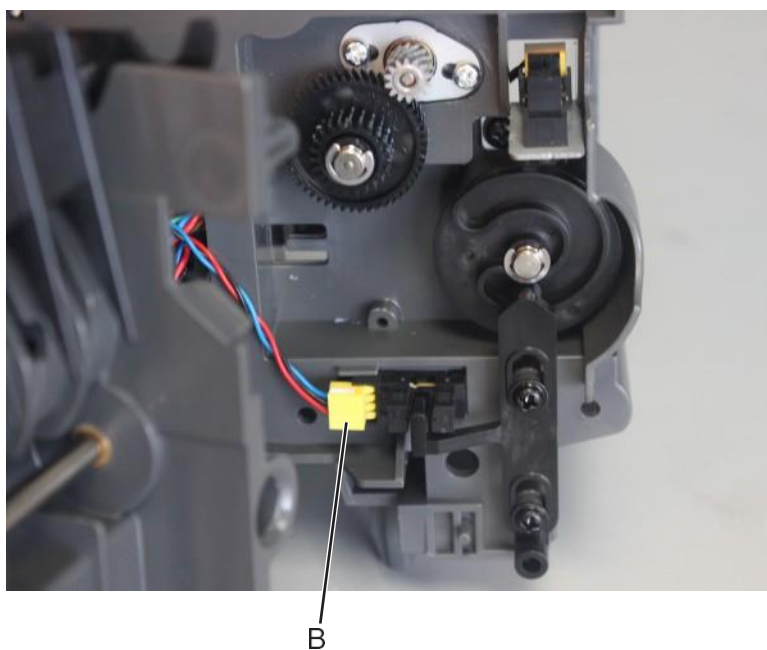
4 Pry the latches (C) to release, and then remove the sensor.

C
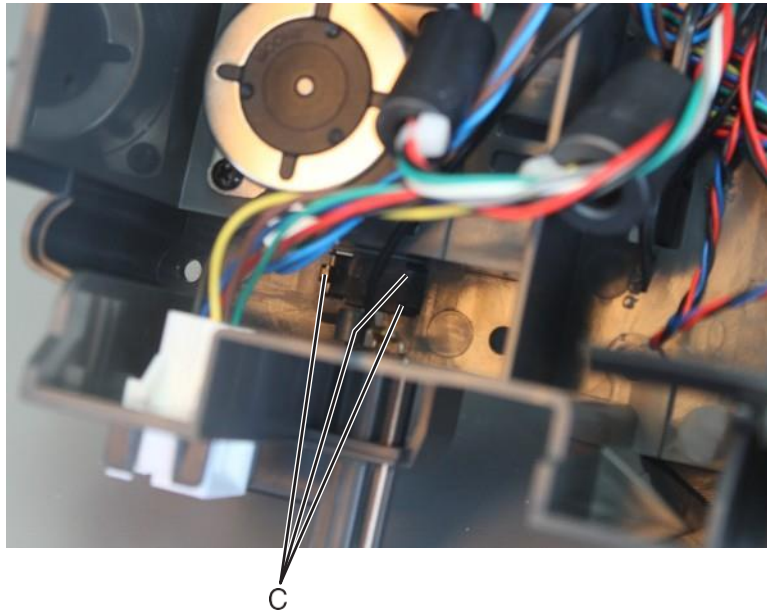
Output expander diverter spring removal

1 Remove the output expander left cover. See **"Output expander left cover removal" on page 535**.

2 Remove the seven screws (A) from the frame.

A

3 Pull away the frame to access the parts underneath. Release the hook (B), and then remove the spring.
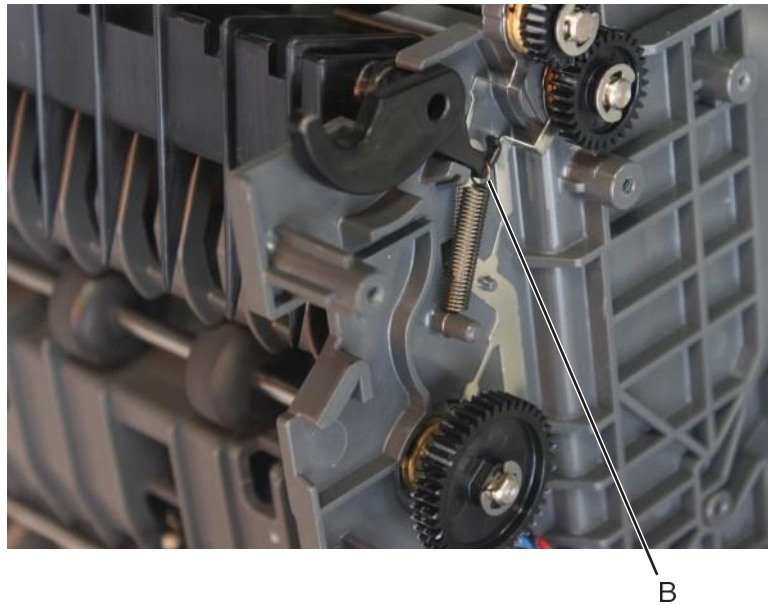
B

Output expander diverter removal

1 Remove the output expander left cover. See **"Output expander left cover removal" on page 535**.

2 Remove the seven screws (A) from the frame.

A
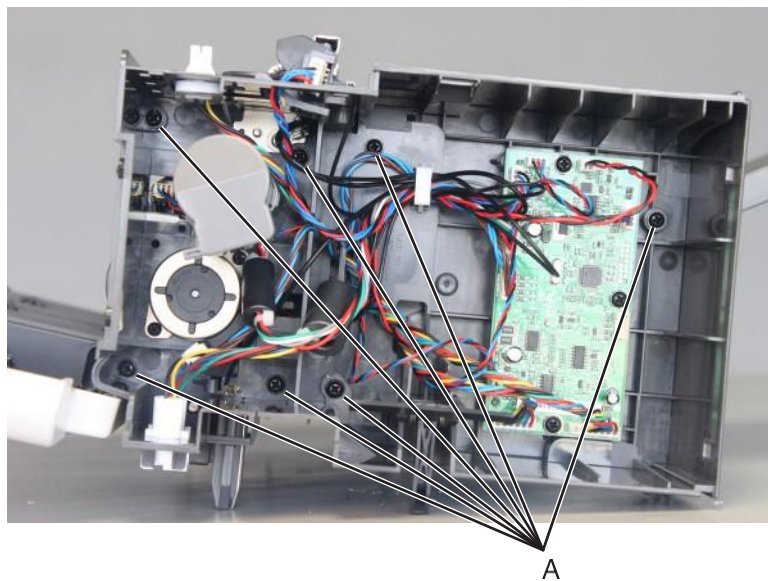
3 Pull away the frame to access the parts underneath. Release the hook (B) from the diverter.

B
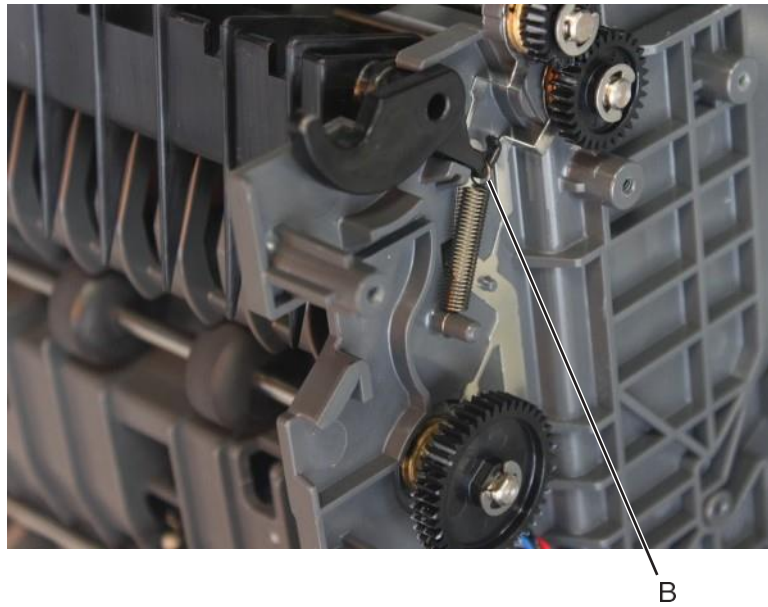
4 Pry the diverter to release, and then remove.
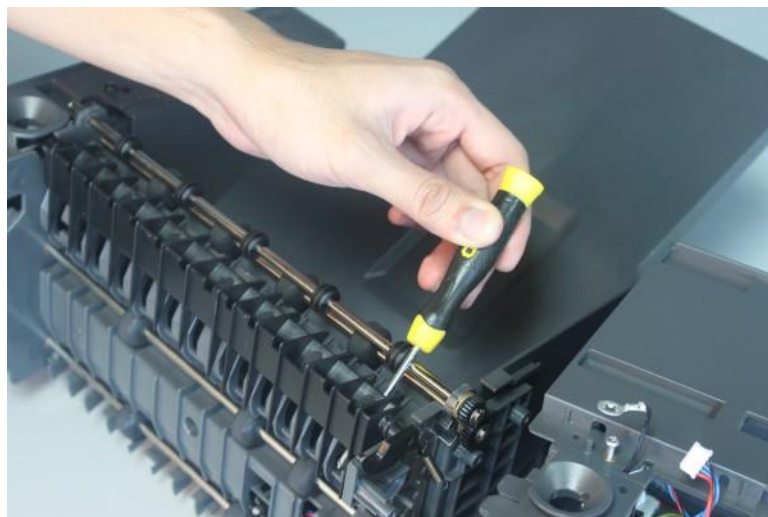
Output expander drive belt removal

1 Remove the output expander right cover. See **"Output expander right cover removal" on page 533**.

2 Remove the six screws (A) securing the frame. Pull away the frame, and remove.

A
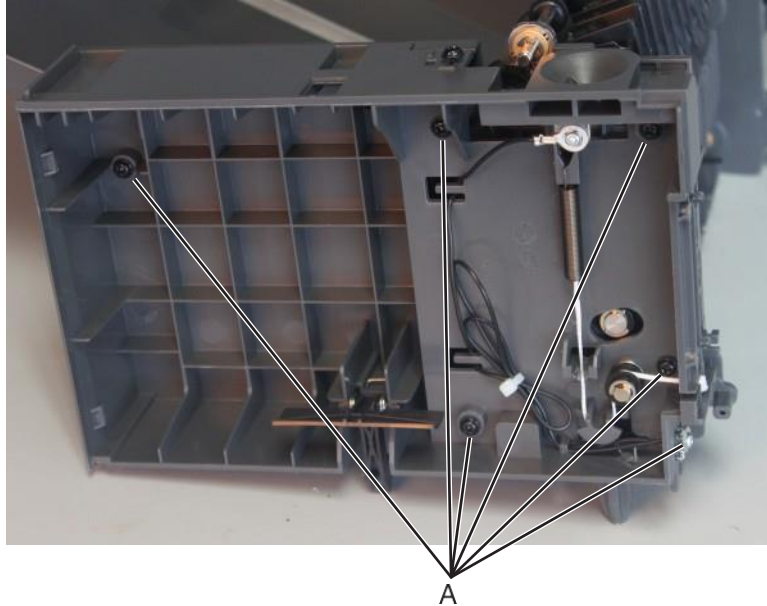
3 Loosen the screw (B) to unlock and allow more slack on the mechanism, and then remove the belt.
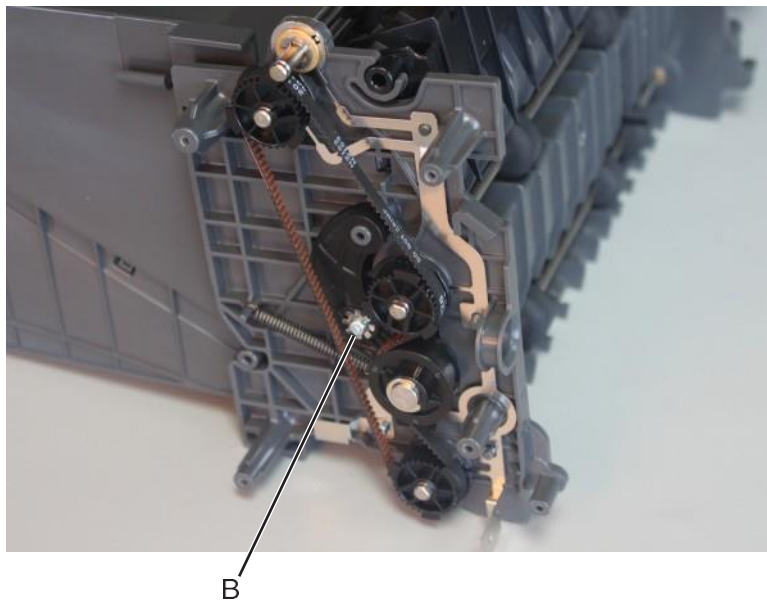
B

Output expander belt tensioner removal

1 Remove the output expander right cover. See **"Output expander right cover removal" on page 533**.

2 Remove the output expander drive belt. See **"Output expander drive belt removal" on page 553**.

3 Remove the screw (A) from the tensioner.

4 Unhook the spring (B) from the frame, and then remove the tensioner from the frame.

B   A
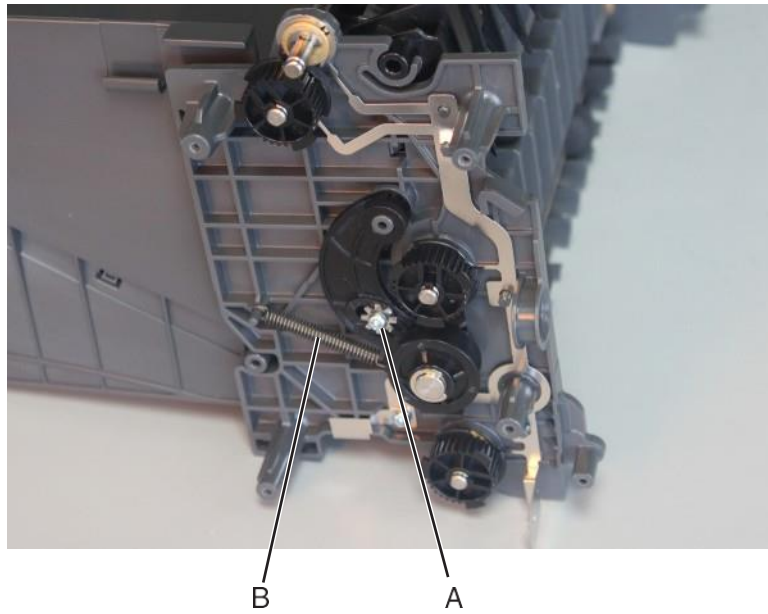
Output expander bin removal

1 Remove the output expander left cover. See **"Output expander left cover removal" on page 535**.

2 Remove the output expander right cover. See **"Output expander right cover removal" on page 533**.

3 Disconnect the cable J10 from the controller board.

4 Remove the seven screws (A), to release the left inner frame.

A
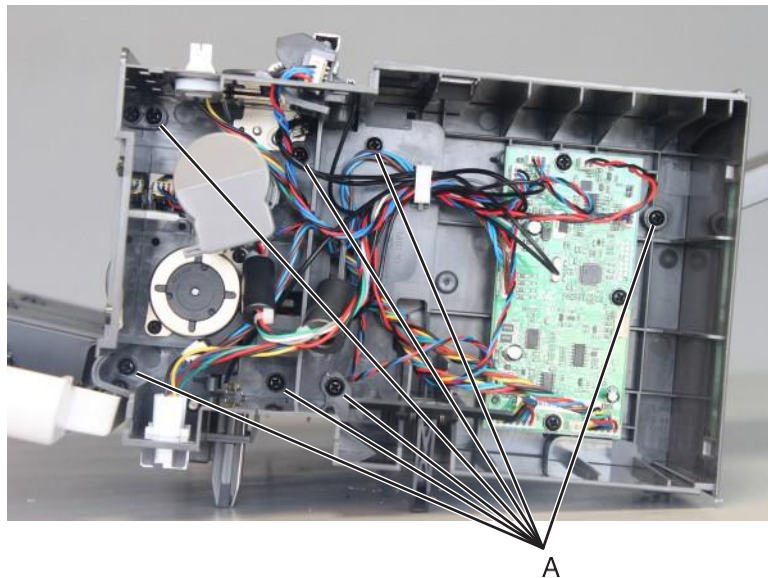
5 Remove the six screws (B), to release the right inner frame.

B
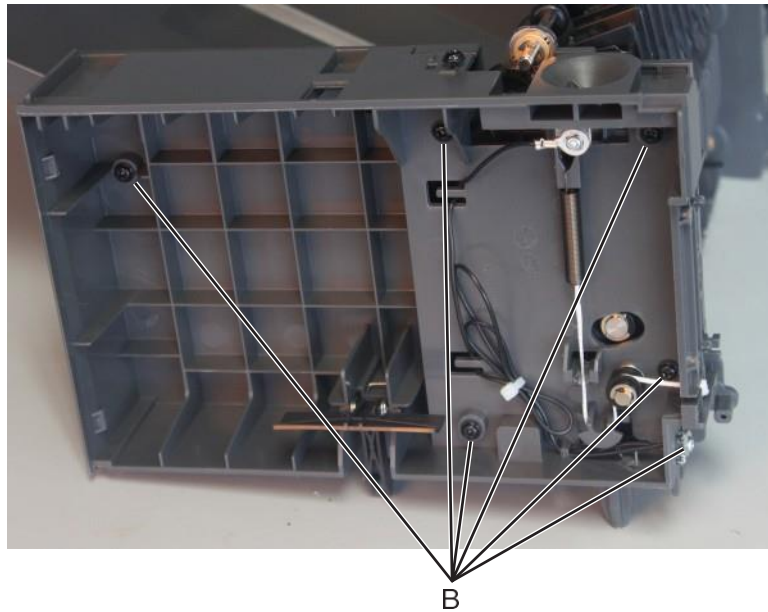
6 Move away the left and right inner frames, and then pull away the bin.
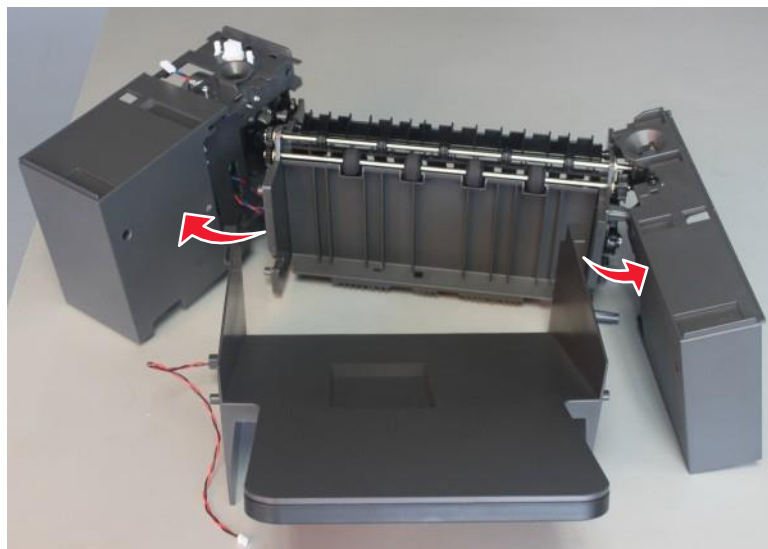
Sensor (OE pass‑through) removal

1 Remove the output expander left cover. See **"Output expander left cover removal" on page 535**.

2 Remove the output expander right cover. See **"Output expander right cover removal" on page 533**.

3 Remove the output expander bin. See **"Output expander bin removal" on page 554**.

4 Disconnect the sensor cable J3 from the controller board.

5 Release the latches holding the sensor (A) to the rear side, and then remove the screw (B).

B   A
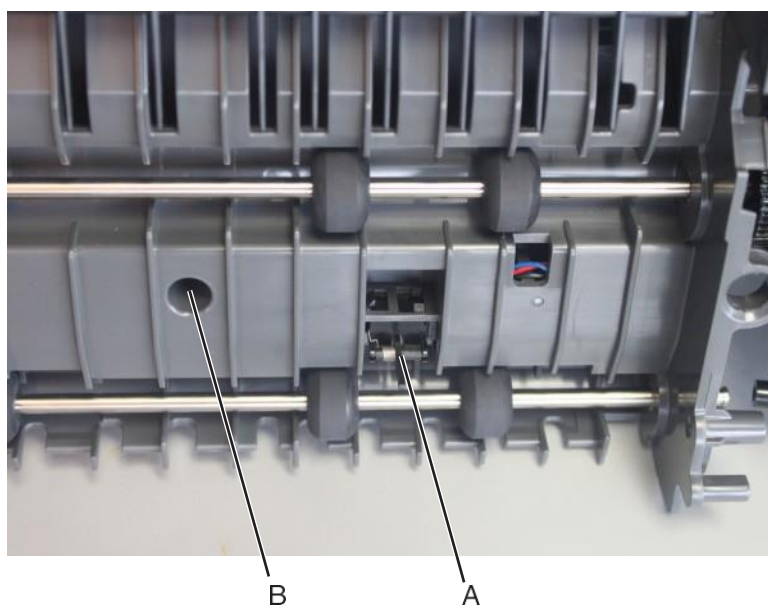
6 Remove the screw (C) to release the ground plate.

C
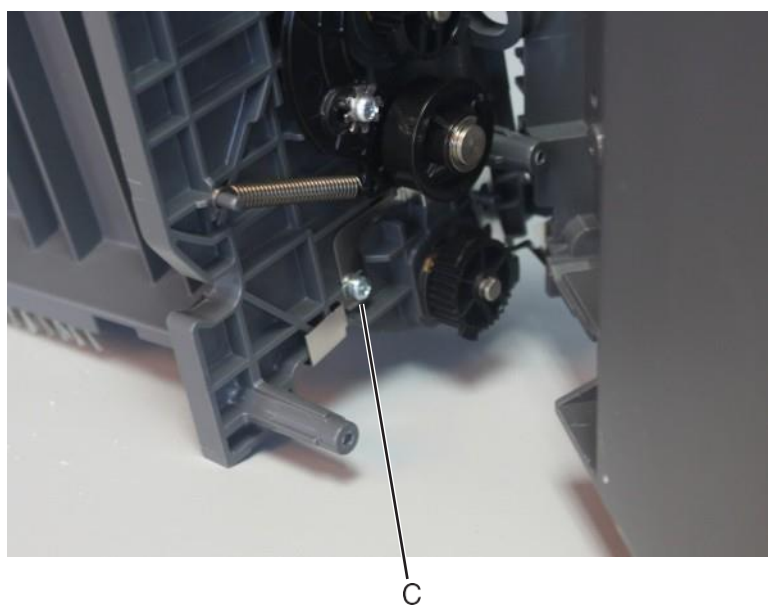
7 Pull the cover to access the sensor underneath it.
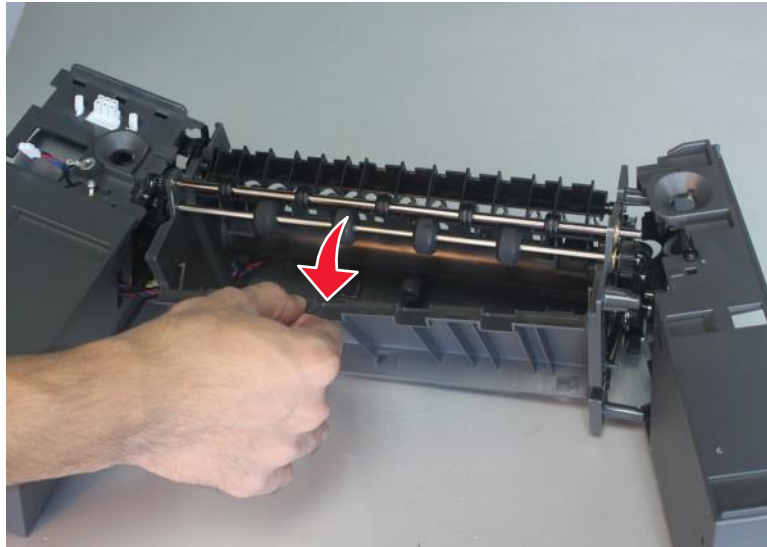
8 Release the cables from their guides, and then carefully remove the sensor with cable off the expander.

Note: Pay attention to the original route of the cables.

Parts removal
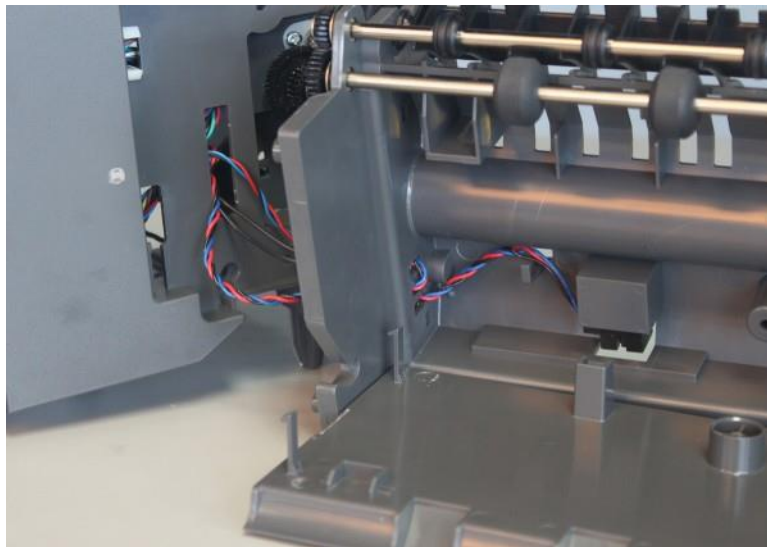
Optional high capacity output expander removals

Optional high capacity output expander removal

1 Press the latches to release.

2 Lift the expander off the printer.

HCOE top cover removal

Lift the top cover off the expander, and remove.

HCOE rear door removal

1 Open the rear door, and disconnect the string (A) from the door.
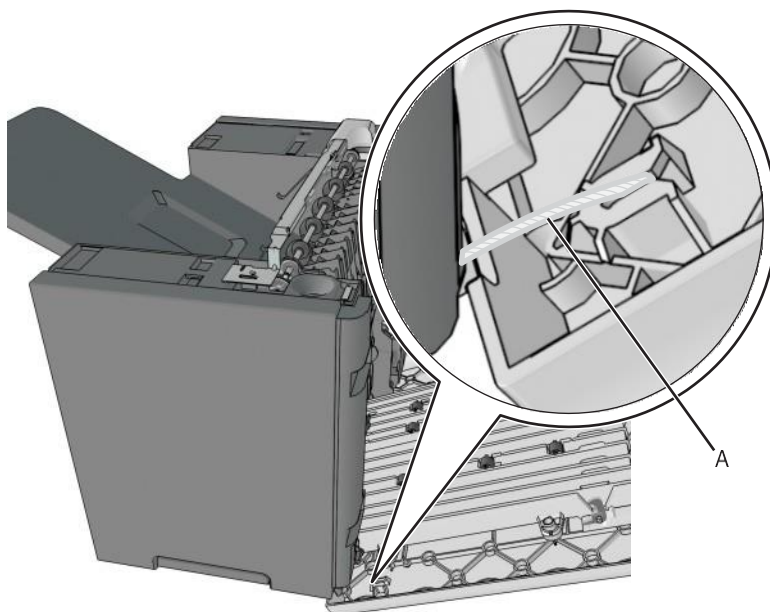
Note: Fasten the string to the rear side to prevent it from recoiling into the interior of the HCOE.
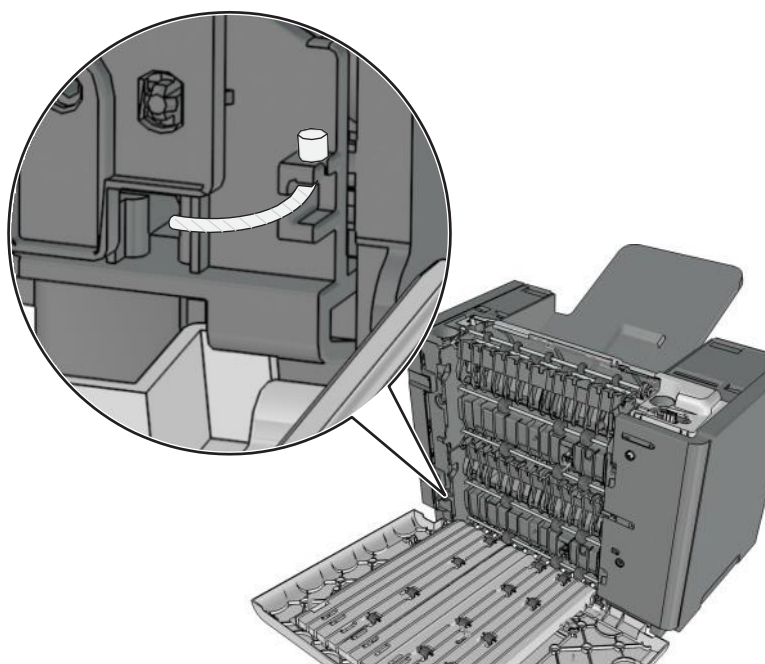
2 Position the door as shown, and then remove it.
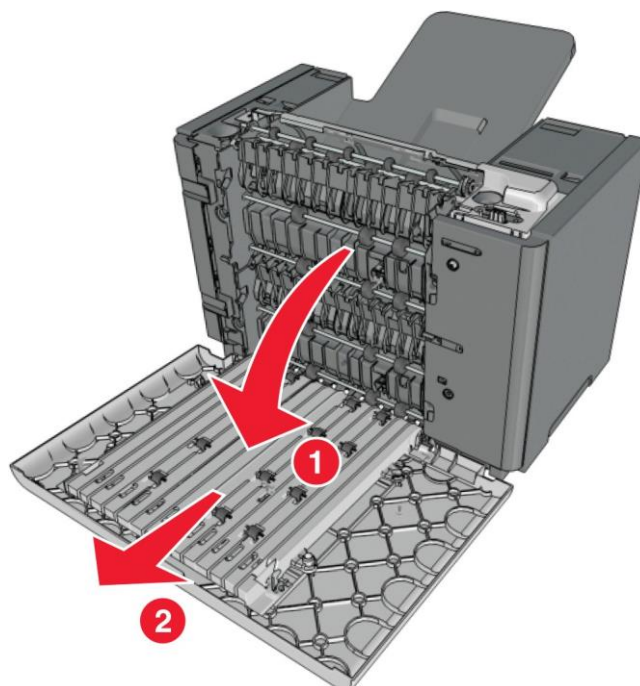
HCOE sensor cover removal

1 Press the latches (A) to release.
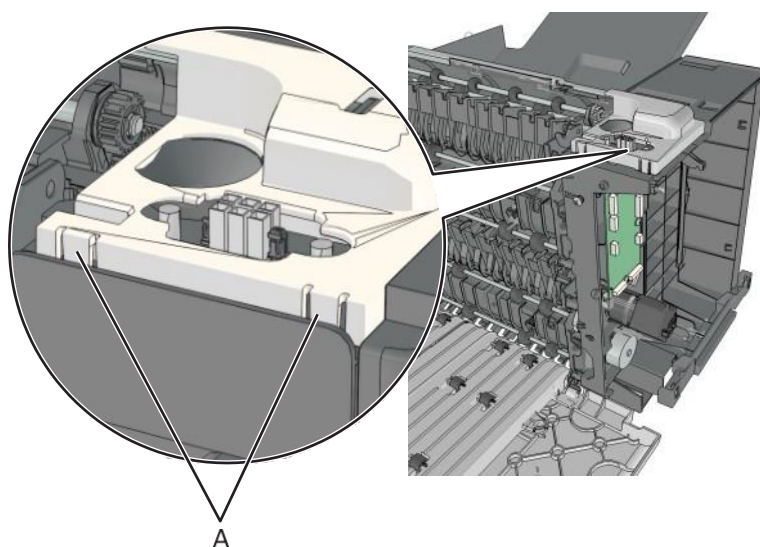
2 Remove the sensor cover.

HCOE bin full flag removal

1 Remove the HCOE top cover. See **"HCOE top cover removal" on page 558**.

2 Remove the HCOE sensor cover. See **"HCOE sensor cover removal" on page 560**.

3 Remove the two screws (A), and then remove the bin full flag.
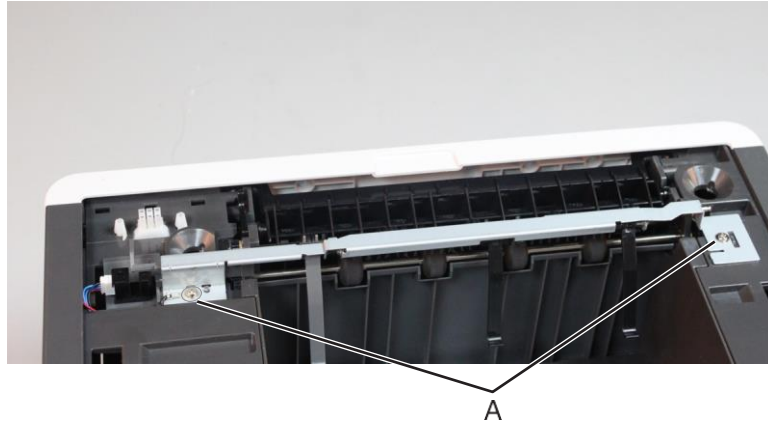
Sensor (HCOE bin full) with flag removal

1 Remove the HCOE sensor cover. See **"HCOE sensor cover removal" on page 560**.

2 Remove the two screws (A), and then release the bracket.

3 Disconnect the cable (B), and remove the sensor with flag.

HCOE right cover removal

1 Open the rear door, then detach the string (A) from the rear door.

Note: Fasten the string to the rear side to prevent it from recoiling into the interior of the HCOE.

2 Remove the two screws (B), then remove the right cover.

B

HCOE left cover removal

1 Open the rear door, then detach the string (A) from the rear door.

A
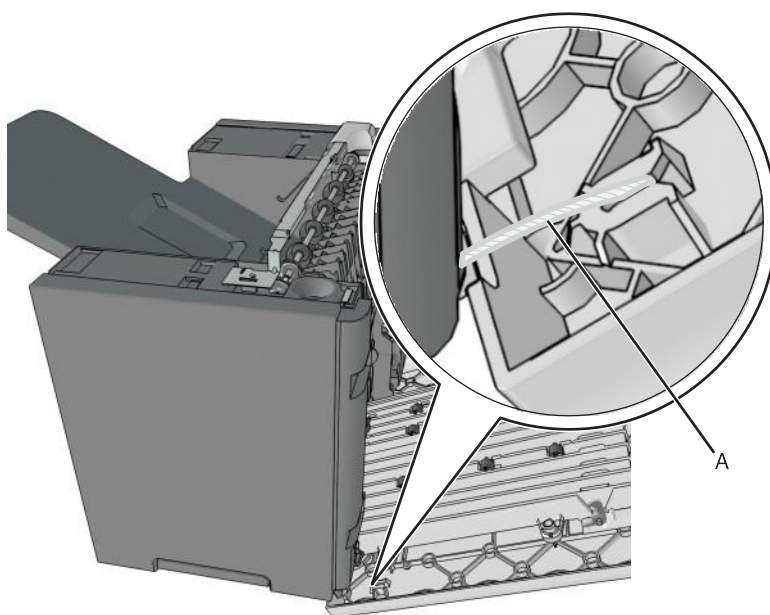
Note: Fasten the string to the rear side to prevent it from recoiling into the interior of the HCOE.

2 Remove the two screws (B), then remove the left cover.

HCOE controller board removal

1 Remove the HCOE left cover. See **"HCOE left cover removal" on page 563**.

2 Disconnect all the cables from the controller board, and then remove the three screws (A).

A

3 Remove the controller board.

HCOE lower interface cable removal

1 Remove the HCOE left cover. See **"HCOE left cover removal" on page 563**.

2 Disconnect the lower interface cable J1 from the controller board.
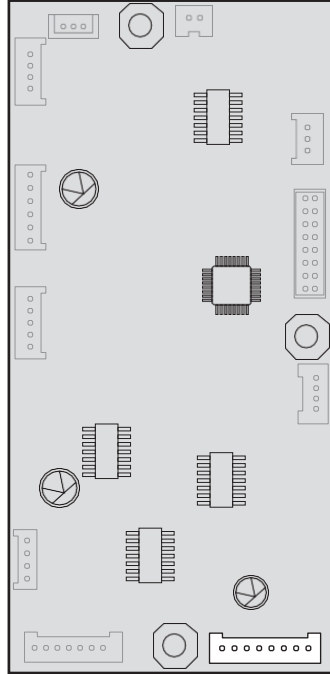
3 Push inward to release the latches, then push the connector out of its slot.
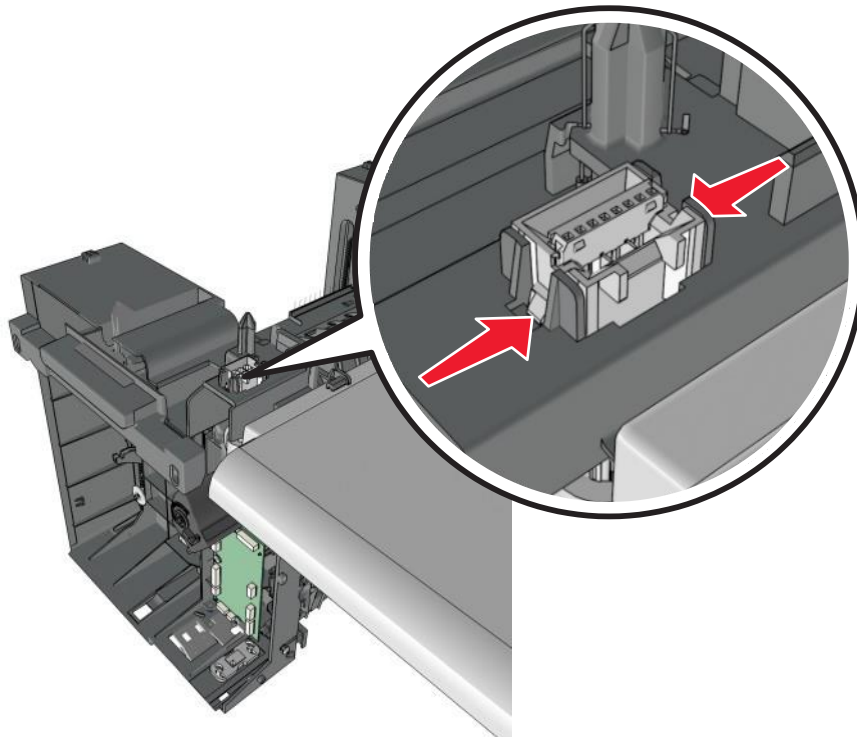
4 Remove the lower interface cable.

HCOE upper interface cable removal

1 Remove the HCOE sensor cover. See **"HCOE sensor cover removal" on page 560**.

2 Remove the HCOE left cover. See **"HCOE left cover removal" on page 563**.

3 Disconnect the upper interface cable from the controller board.

4 Crimp both connector pins using pliers to make them fit through the pin holes. Push the connector out of its slot.
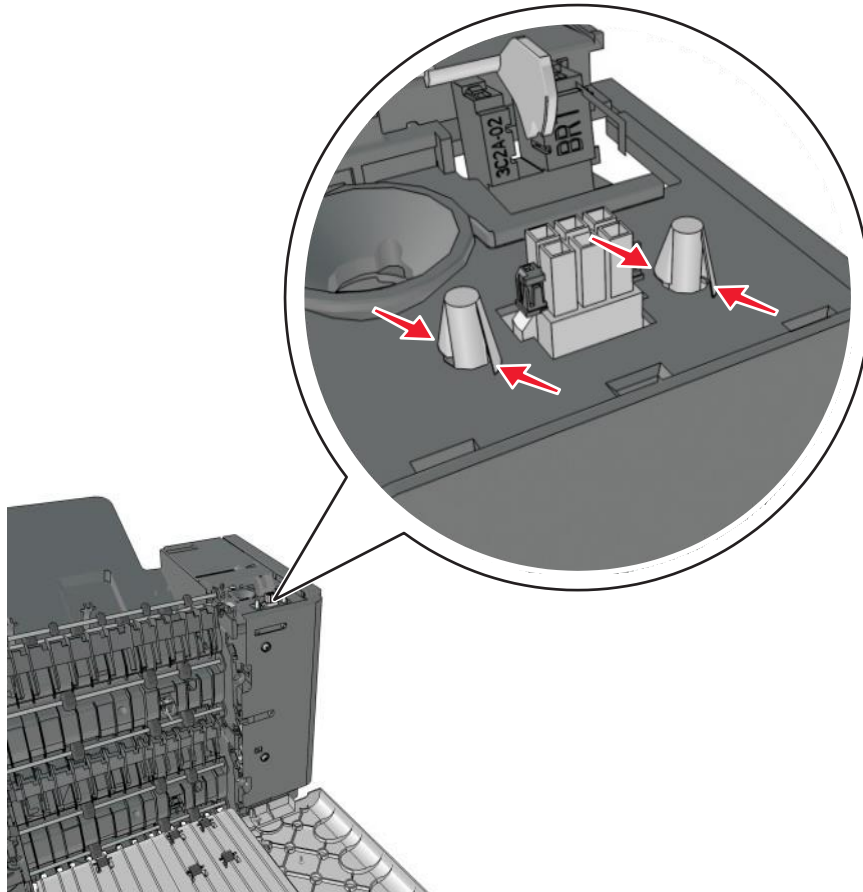
5 Remove the upper interface cable.

HCOE latch removal

1 Remove the HCOE left cover or HCOE right cover. See **"HCOE left cover removal" on page 563** or **"HCOE right cover removal" on page 562**.

2 Pull the latches off the expander, and then remove.

   Note: The latch on the opposite side can be removed using the same method shown.
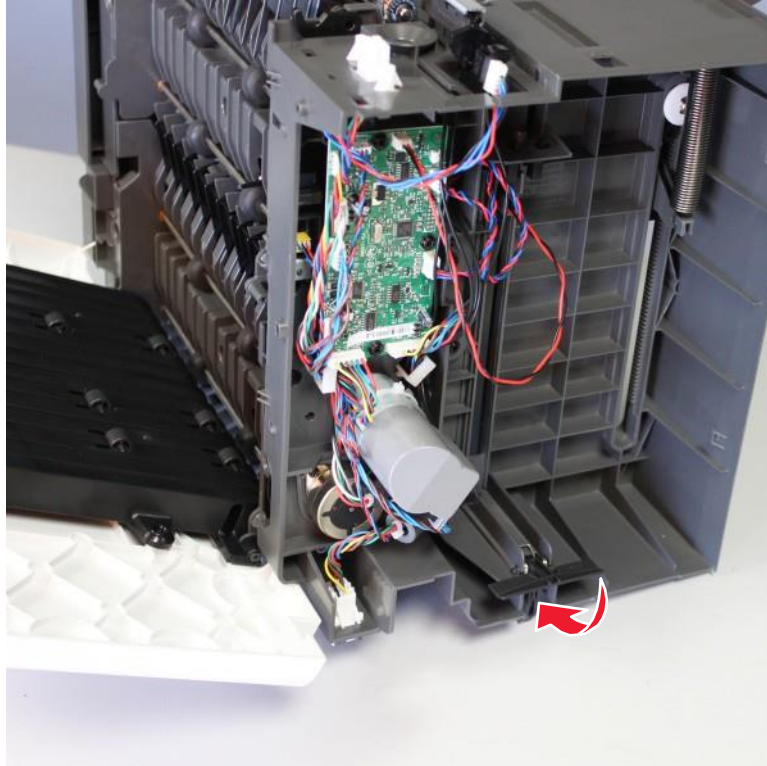
Motor (HCOE diverter) removal

1 Remove the HCOE left cover. See **"HCOE left cover removal" on page 563**.

2 Disconnect the cable (A), and then remove the two screws (B).

B   A
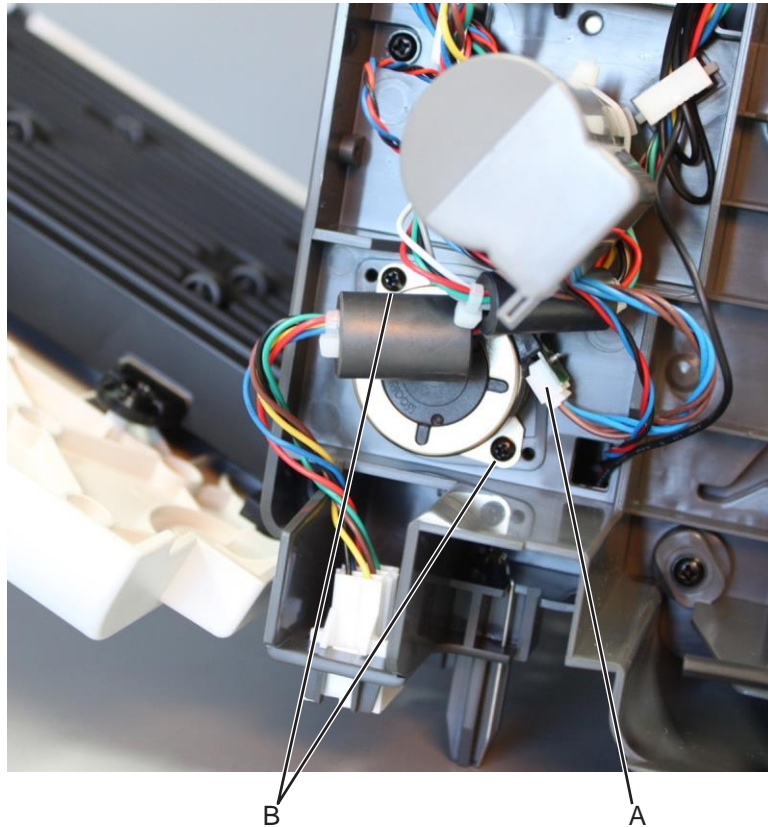
3 Remove the motor.

Sensor (HCOE bin) removal

1 Remove the HCOE left cover. See **"HCOE left cover removal" on page 563**.

2 Release the latches (A), and then release the sensor.

3 Disconnect the cable (B), and then remove the sensor.
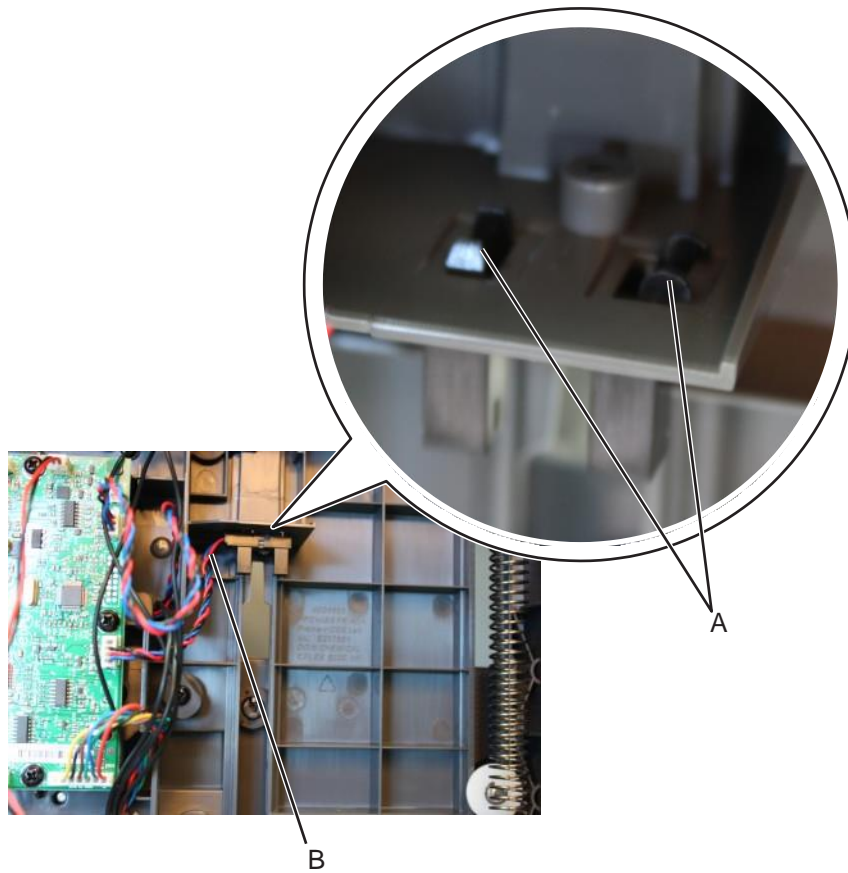
HCOE bin spring removal

1 Remove the HCOE left cover. See **"HCOE left cover removal" on page 563**.

2 Unhook the spring (A), and then remove.

Note: The spring on the opposite side can be removed using the same method shown.

A
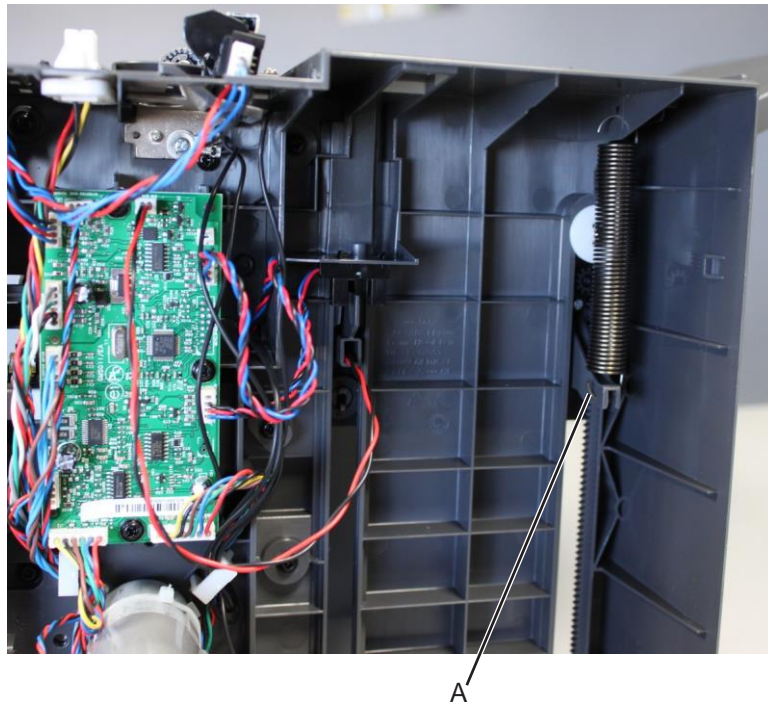
HCOE bin pinion removal

1 Remove the HCOE left cover. See **"HCOE left cover removal" on page 563**.

2 Unhook the spring (A) to release the HCOE bin.

A
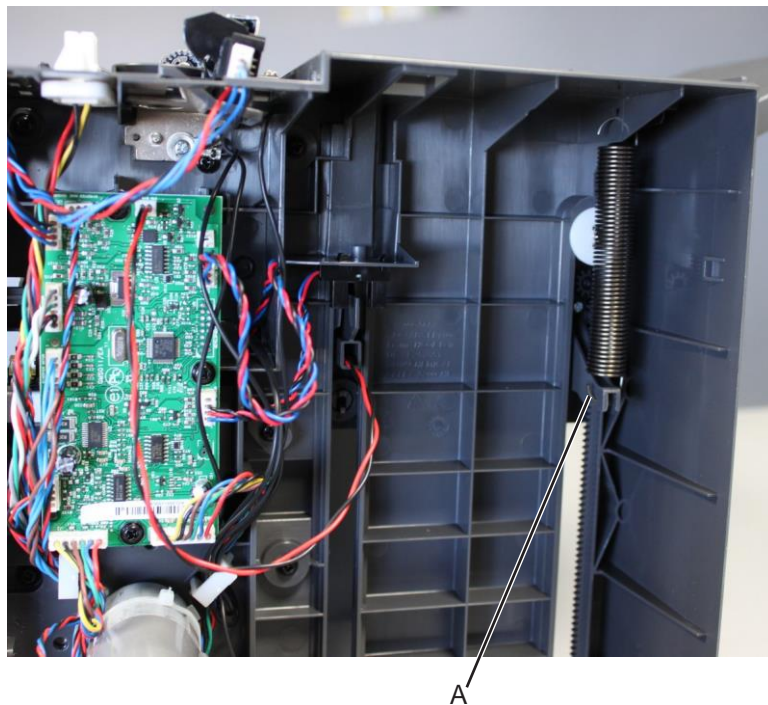
3 Dislodge the E-clip (B), and then remove the pinion.

   Note: The pinion on the opposite side can be removed using the same method shown.
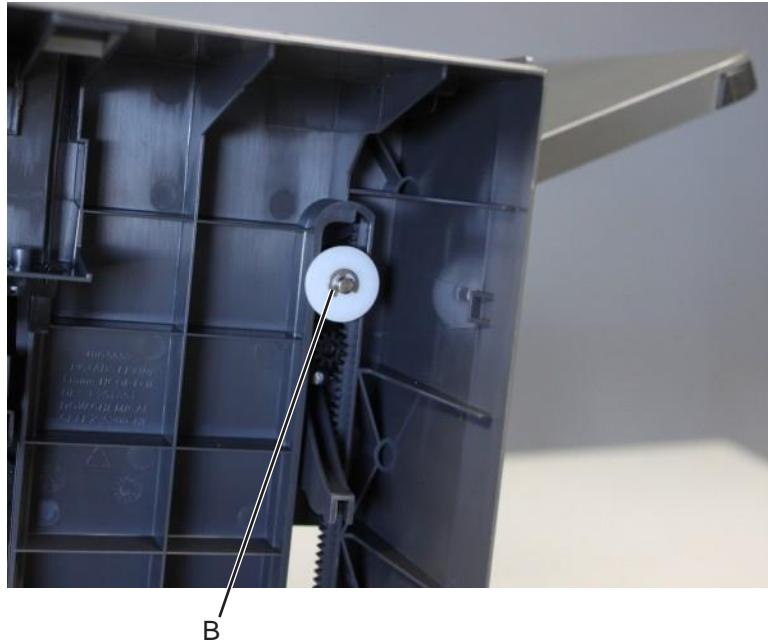
B

Sensor (HCOE rear door interlock) removal

1 Remove the HCOE left cover. See **"HCOE left cover removal" on page 563**.

2 Remove the three screws (A).

A
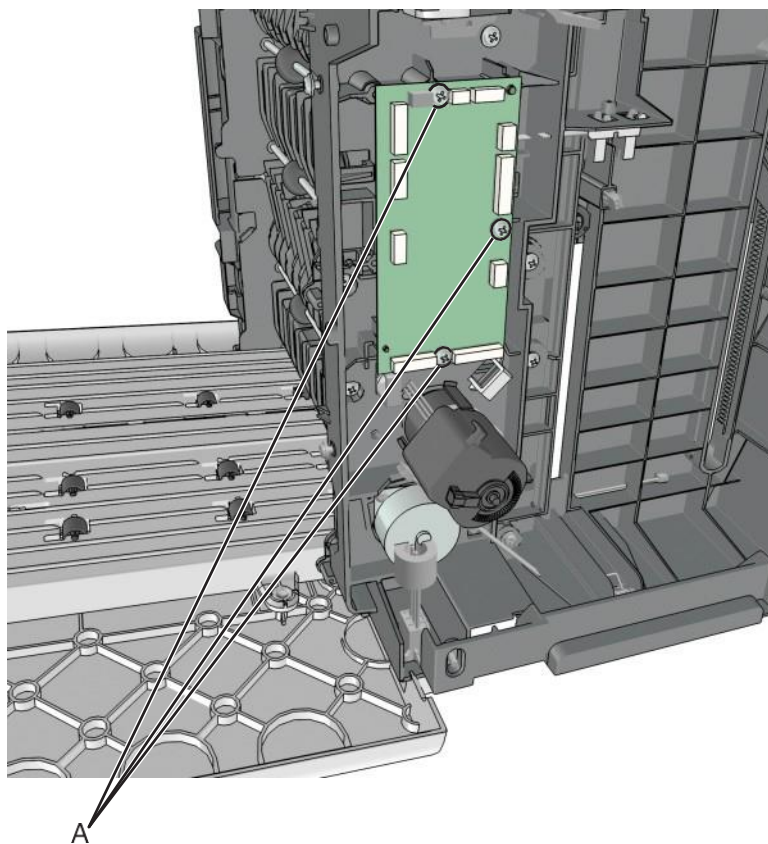
Parts removal

3 Slightly move the board to access and remove the screw (B).

B
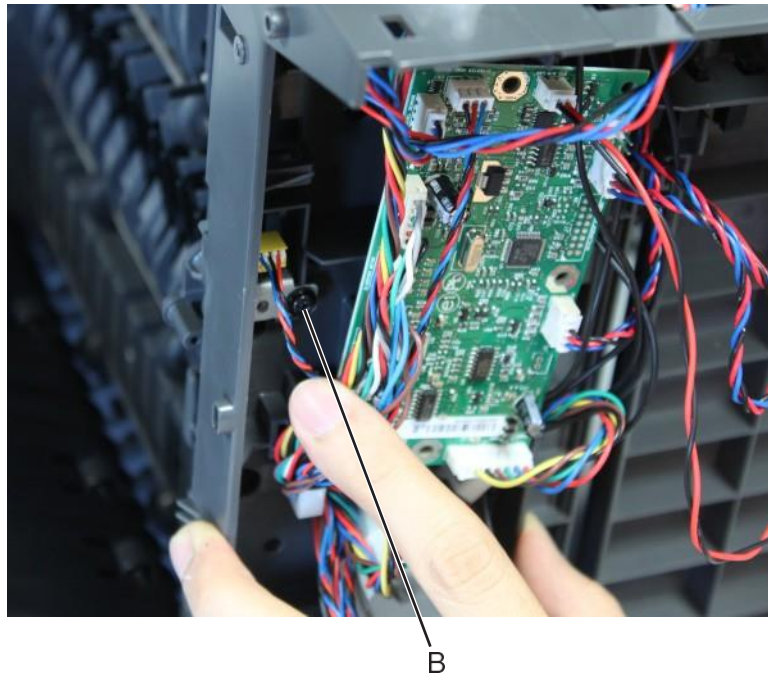
4 Release the sensor bracket.
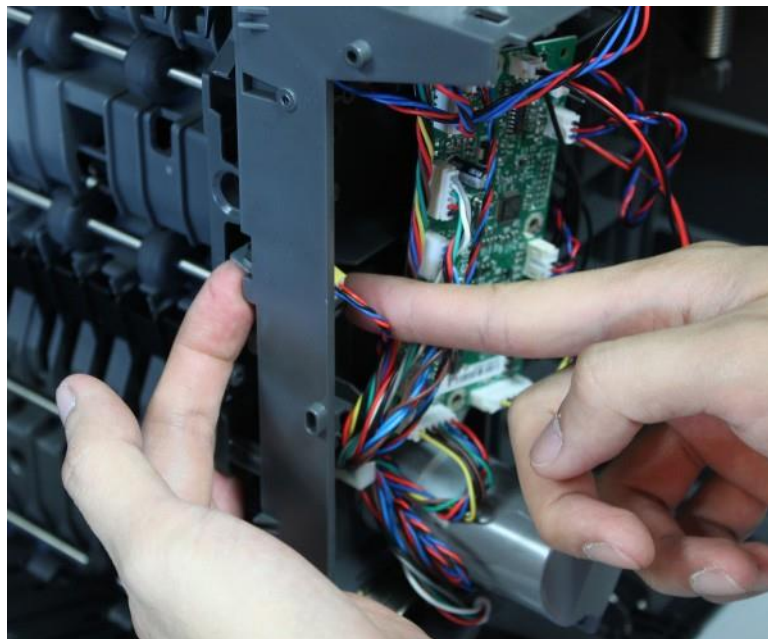
5 Disconnect the sensor cable, and then remove the sensor retainer (C).

C
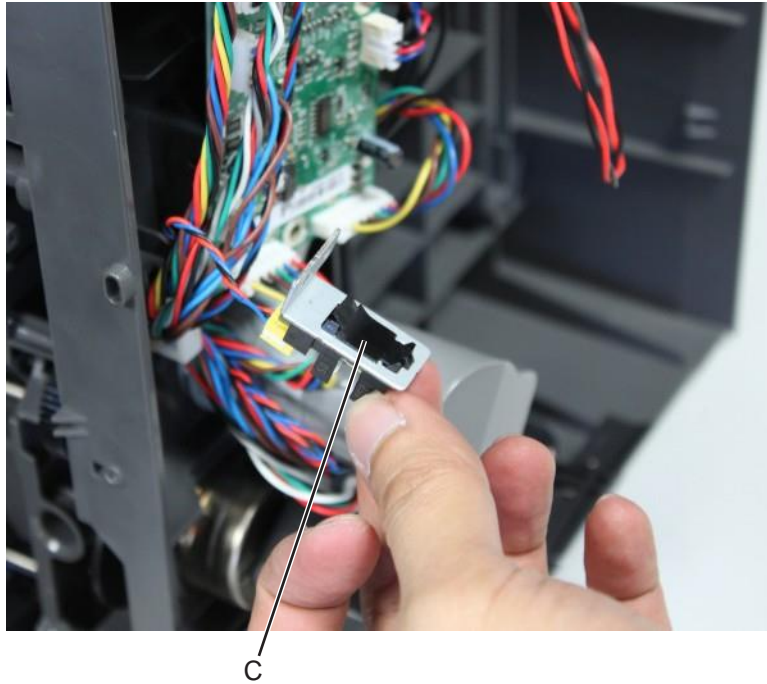
6 Remove the sensor.

HCOE drive belt removal

1 Remove the HCOE right cover. See **"HCOE right cover removal" on page 562**.

2 Remove the HCOE latch. See **"HCOE latch removal" on page 567**.

3 Remove the HCOE bin pinion. See **"HCOE bin pinion removal" on page 571**.

4 Remove the eight screws (A) from the right frame.
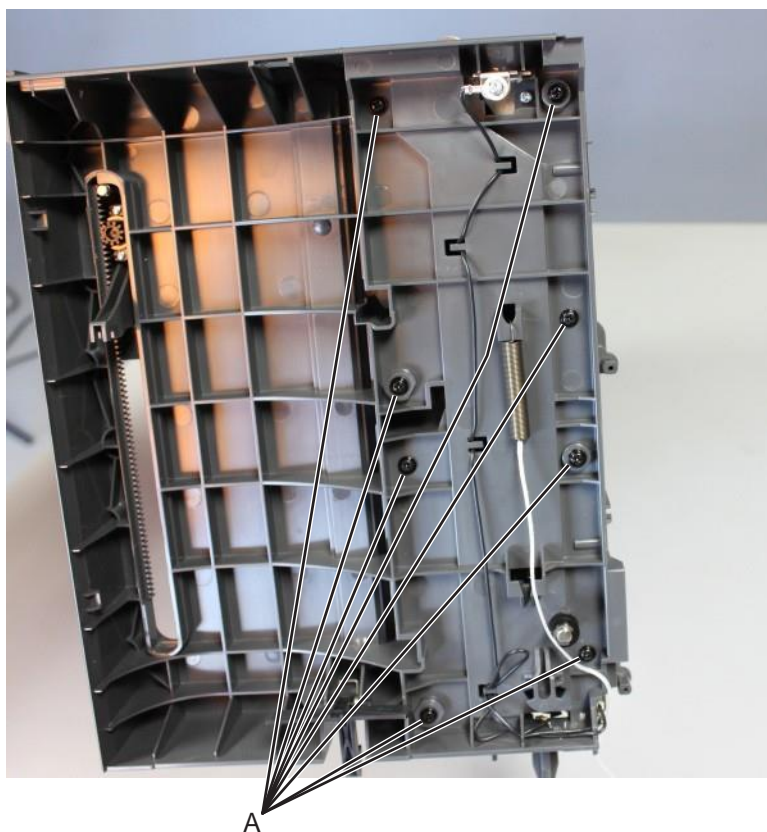
5 Remove the screw (B) from the rear side.
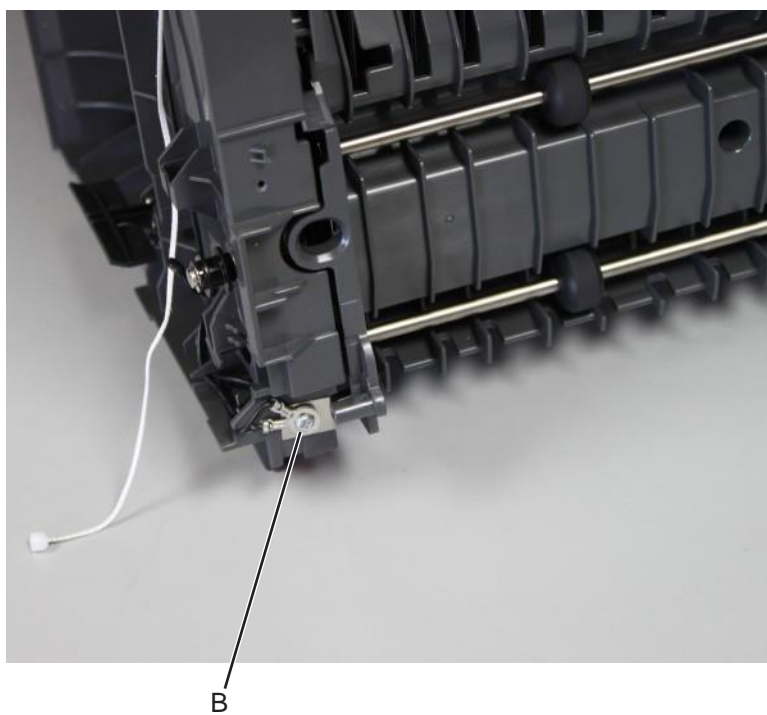
6 Remove the belts from the gear assembly.

Note: Pay attention to the original position of the belts.

Warning—Potential Damage: Do not lose any dislodged washers.

HCOE belt tensioner removal

1 Remove the HCOE right cover. See **"HCOE right cover removal" on page 562**.

2 Remove the HCOE latch. See **"HCOE latch removal" on page 567**.

3 Remove the HCOE bin pinion. See **"HCOE bin pinion removal" on page 571**.

4 Remove the HCOE drive belt. See **"HCOE drive belt removal" on page 574**.

5 Remove the screw (A), and then unhook the spring (B).

B   A

6 Remove the belt tensioner.

HCOE diverter plunger assembly removal

1 Remove the HCOE rear door. See **"HCOE rear door removal" on page 559**.

2 Remove the HCOE left cover. See **"HCOE left cover removal" on page 563**.

3 Remove the 10 screws (A) from the inner left frame.
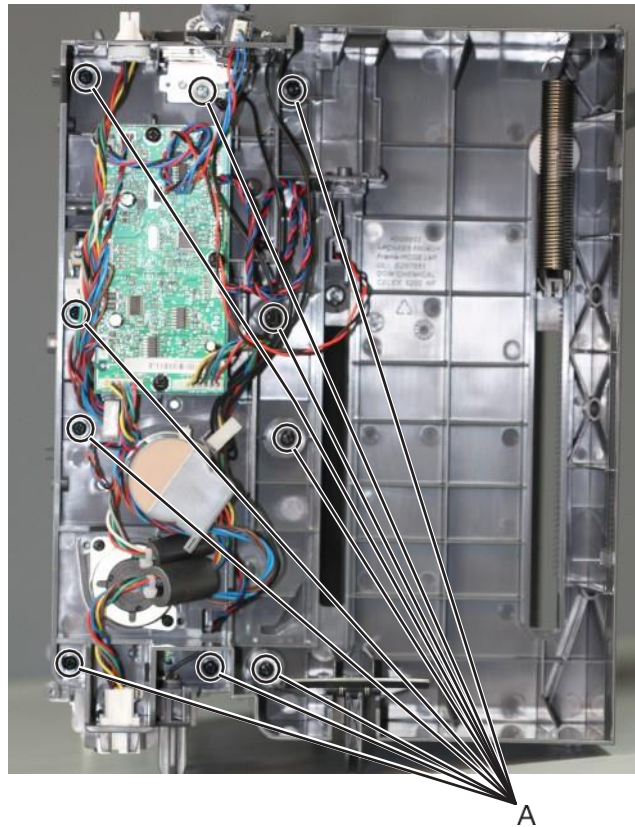
4 Slightly pull away the frame to access the gear assembly underneath it.

5 Remove the two screws (B), and then remove the plunger.

6 Remove the E-clip (C), and then remove the diverter cam.
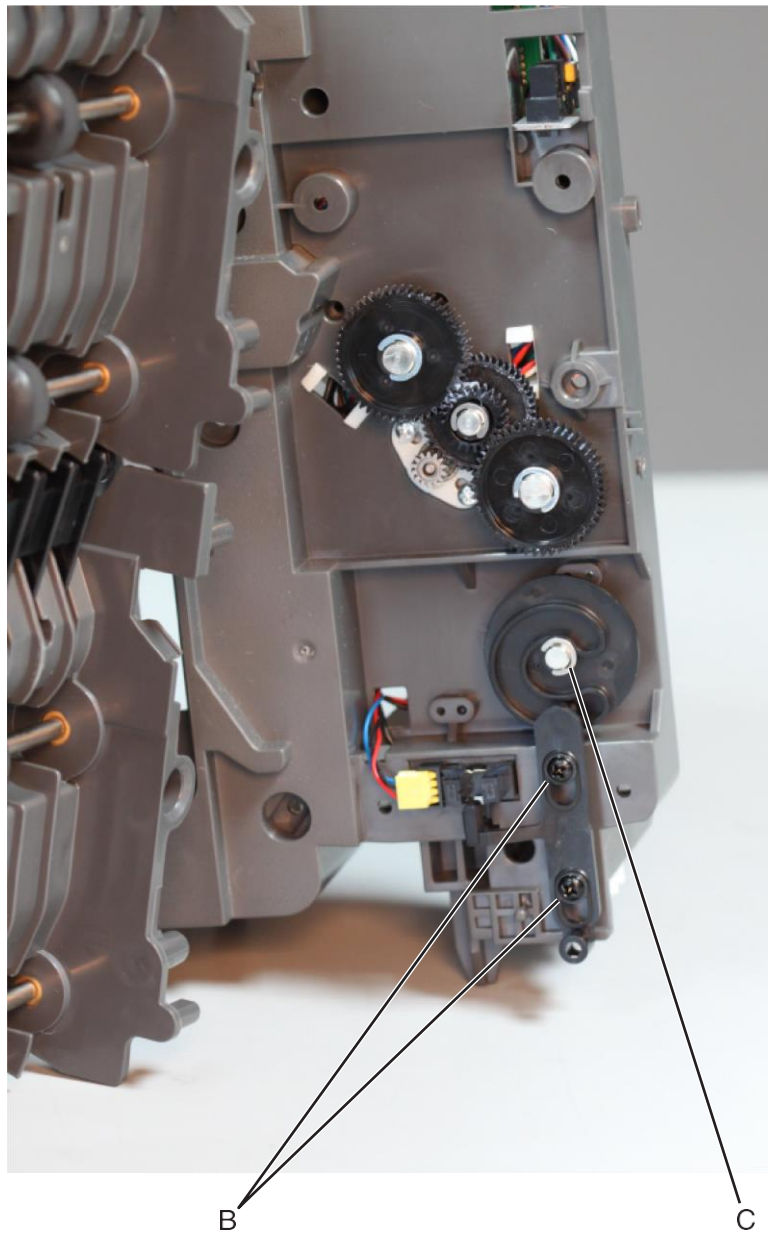
B   C

HCOE drive gear assembly removal

1 Remove the HCOE rear door. See **"HCOE rear door removal" on page 559**.

2 Remove the HCOE left cover. See **"HCOE left cover removal" on page 563**.

3 Remove the 10 screws (A) from the inner left frame.

A
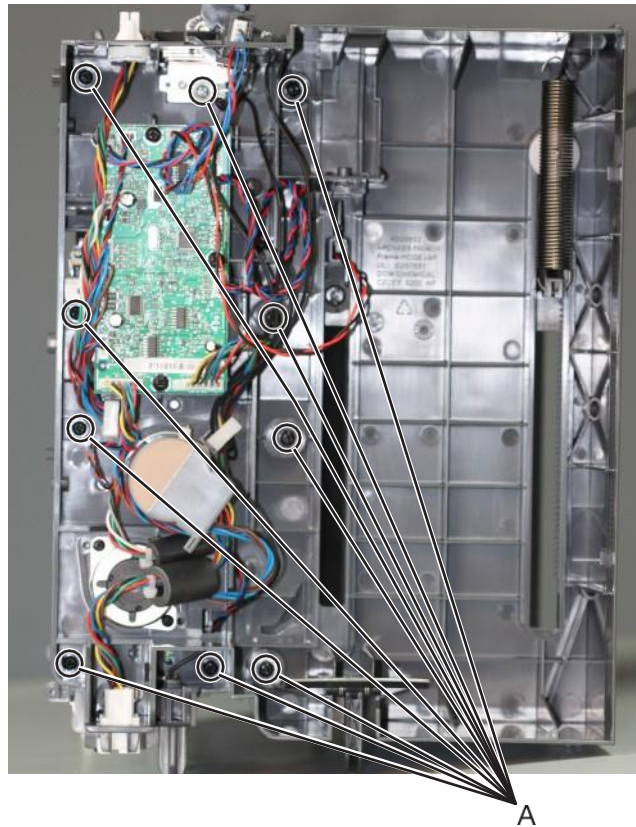
4 Slightly pull away the frame to access the gear assembly underneath it.

5 Remove the three E-clips, and then remove the gears (B).
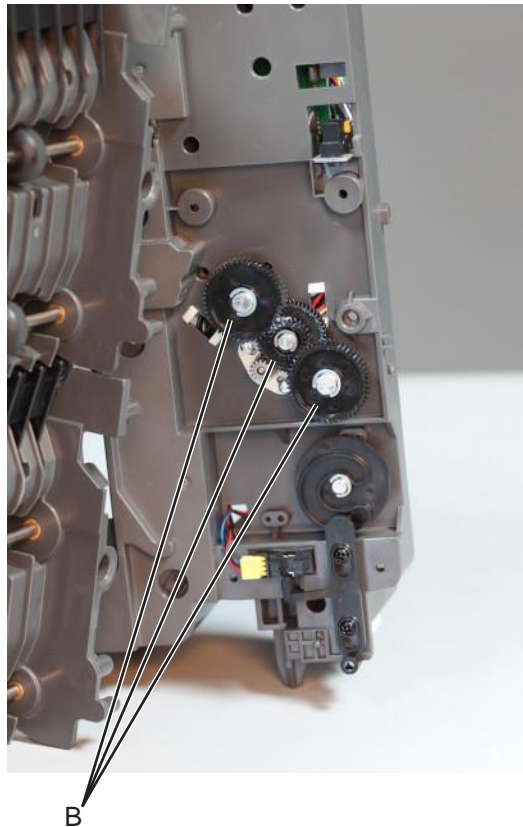
B

Motor (HCOE transport) removal

1 Remove the HCOE rear door. See **"HCOE rear door removal" on page 559**.

2 Remove the HCOE left cover. See **"HCOE left cover removal" on page 563**.

3 Disconnect the motor cable from the controller board.

4 Remove the 10 screws (A) from the inner left frame.
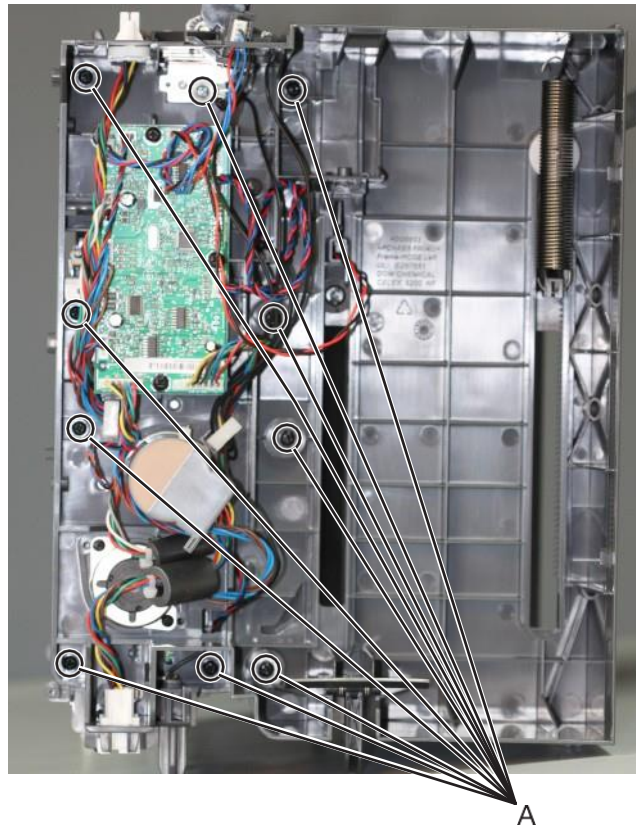
5 Slightly pull away the frame to access the parts underneath it.

6 Remove the three E-clips (B), and then remove the gears.

7 Remove the two screws (C), and then remove the motor.
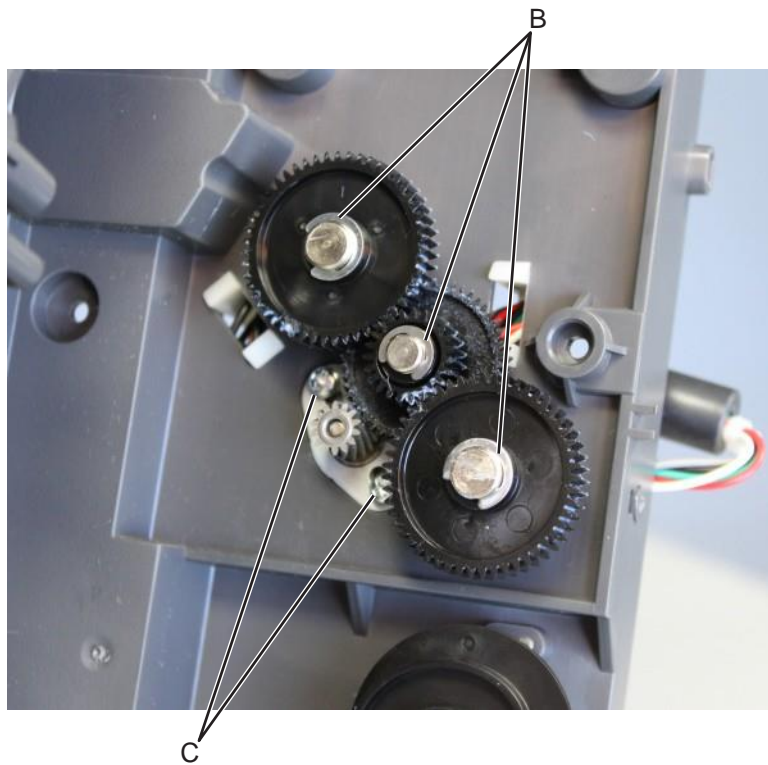
Sensor (HCOE diverter) removal

1 Remove the HCOE rear door. See **"HCOE rear door removal" on page 559**.

2 Remove the HCOE left cover. See **"HCOE left cover removal" on page 563**.

3 Remove the 10 screws (A) from the inner left frame.
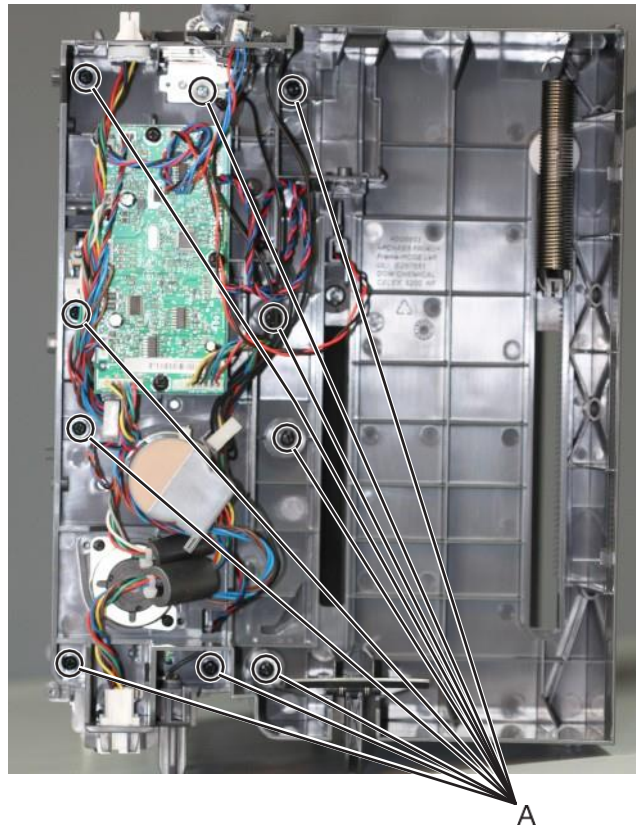
4 Slightly pull away the frame to access the parts underneath it.

5 Disconnect the cable (B), and then remove the sensor.
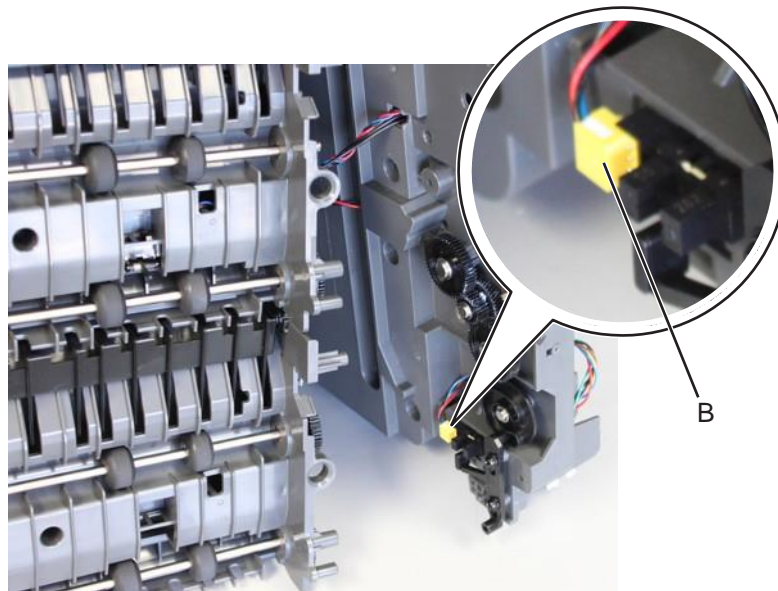
Parts removal

HCOE top diverter spring removal

1 Remove the HCOE rear door. See **"HCOE rear door removal" on page 559**.

2 Remove the HCOE left cover. See **"HCOE left cover removal" on page 563**.

3 Remove the 10 screws (A) from the inner left frame.
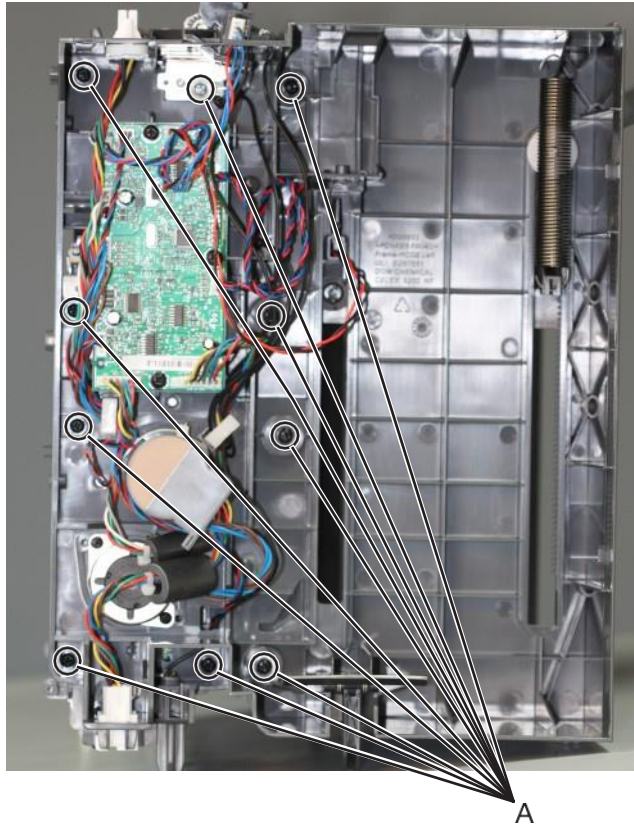
4 Slightly pull away the frame to access the parts underneath it.

5 Unhook the lower end (B) to release, and then remove the spring.
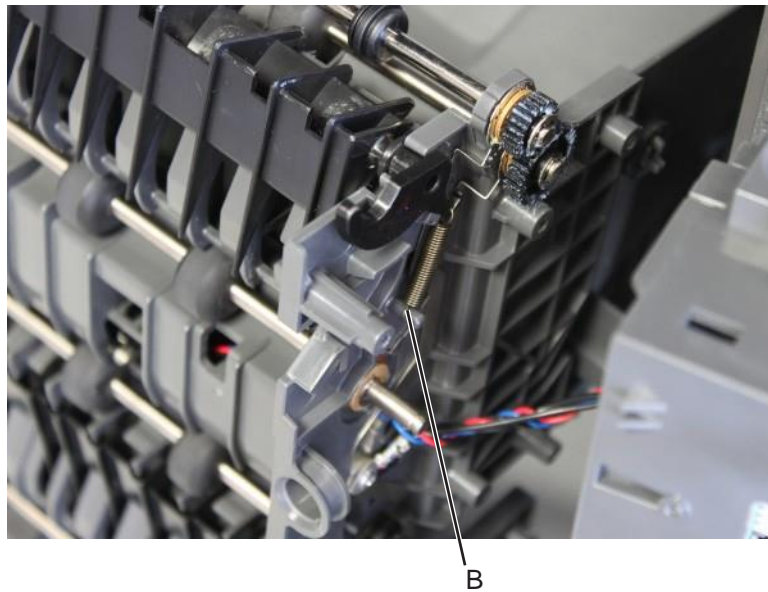
B

HCOE top diverter removal

1 Remove the HCOE rear door. See **"HCOE rear door removal" on page 559**.

2 Remove the HCOE left cover. See **"HCOE left cover removal" on page 563**.

3 Remove the 10 screws (A) from the inner left frame.

A
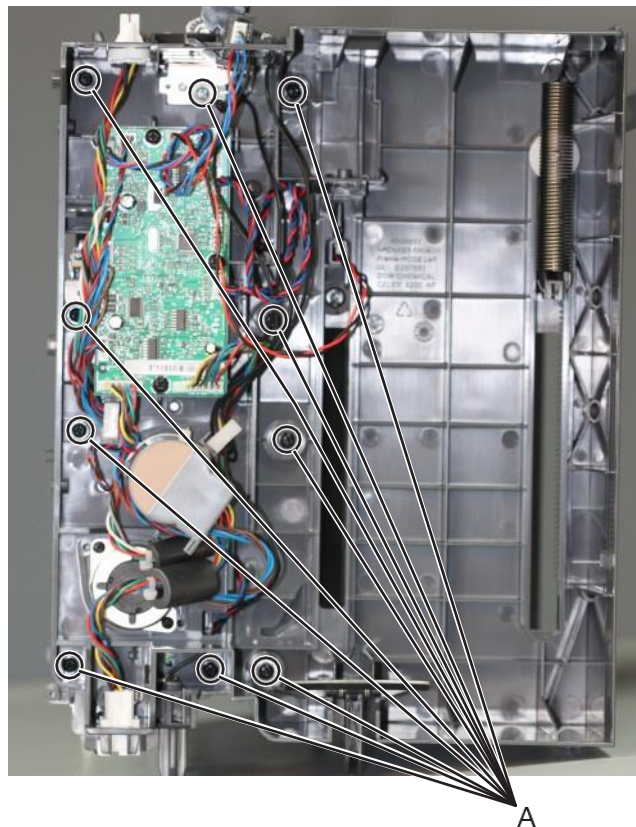
Parts removal

4 Slightly pull away the frame to access the parts underneath it.

5 Unhook the lower end (B) of the spring.

B
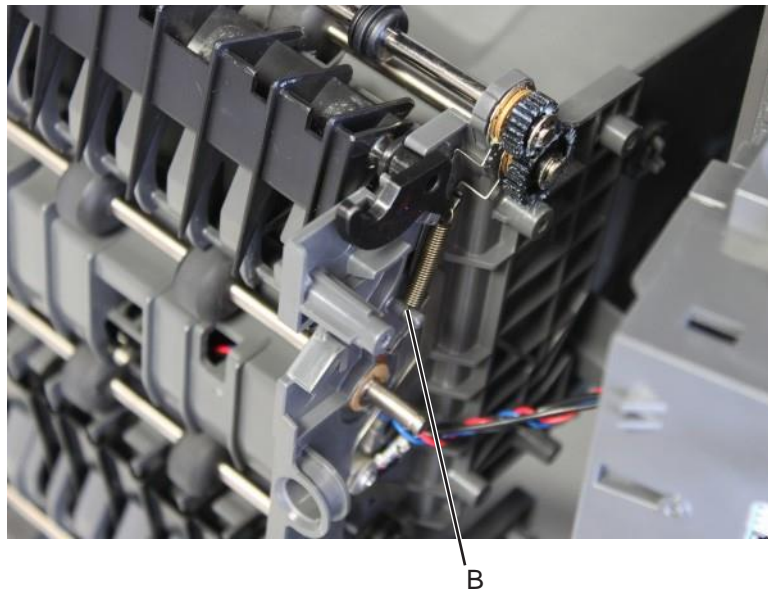
6 Pry the right side of the diverter to release, and then remove the diverter.
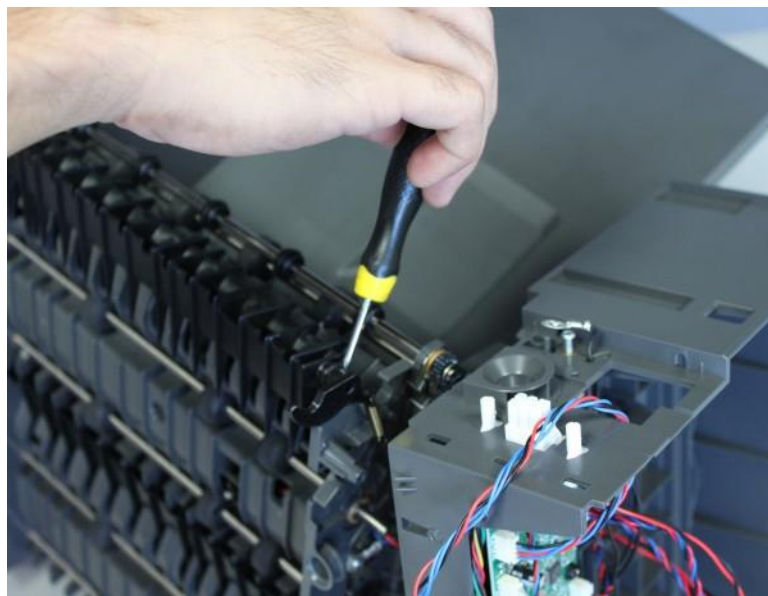
HCOE bin shaft removal

Note: This part is not a FRU.

 1 Remove the HCOE left cover. See **"HCOE rear door removal" on page 559**.

 2 Remove the HCOE right cover. See **"HCOE left cover removal" on page 563**.

 3 Remove the HCOE bin pinion. See **"HCOE bin pinion removal" on page 571**.

Parts removal

4 Pull the shaft off the bin, and remove.

HCOE bin removal

1 Remove the HCOE left cover. See **"HCOE left cover removal" on page 563**.

2 Remove the HCOE right cover. See **"HCOE right cover removal" on page 562**.

3 Remove the HCOE bin pinion. See **"HCOE bin pinion removal" on page 571**.

4 Remove the HCOE bin shaft. See **"HCOE bin shaft removal" on page 587**.

5 Disconnect the cable J10 from the controller board.

6 Remove the 10 screws (A), and then remove the inner left frame.
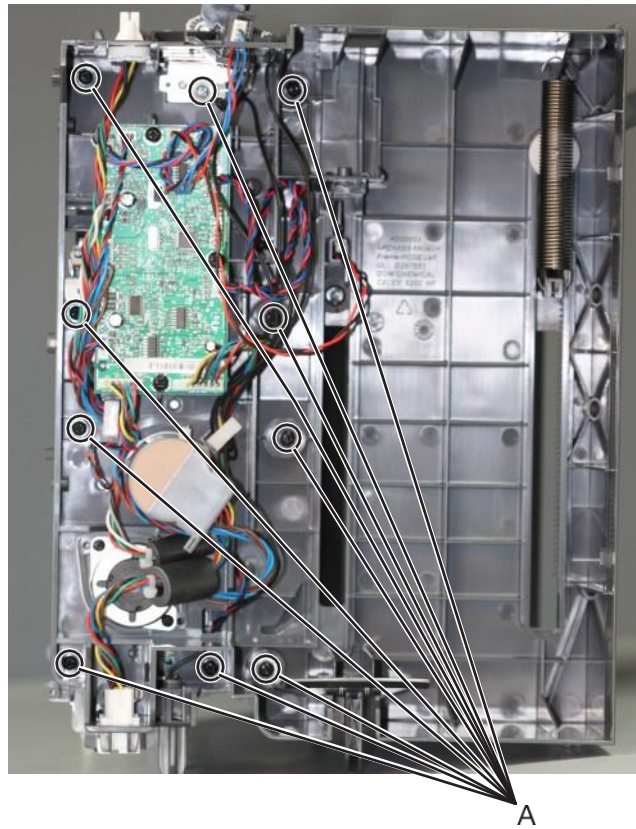
7 Remove the eight screws (B) from the right frame.

B
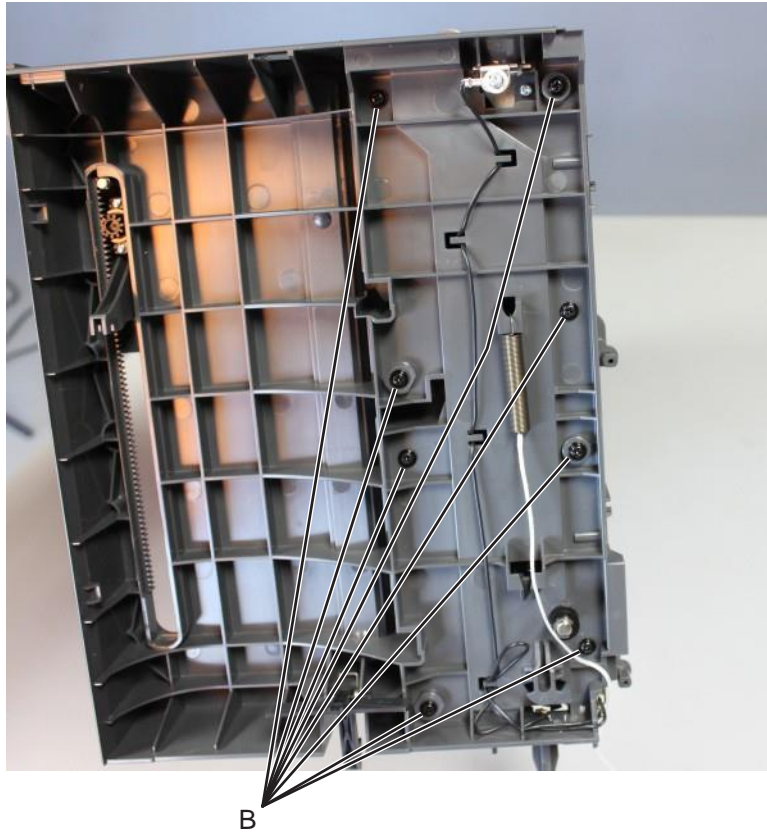
8 Remove the screw (C) from the rear side, and then remove the frame.

C
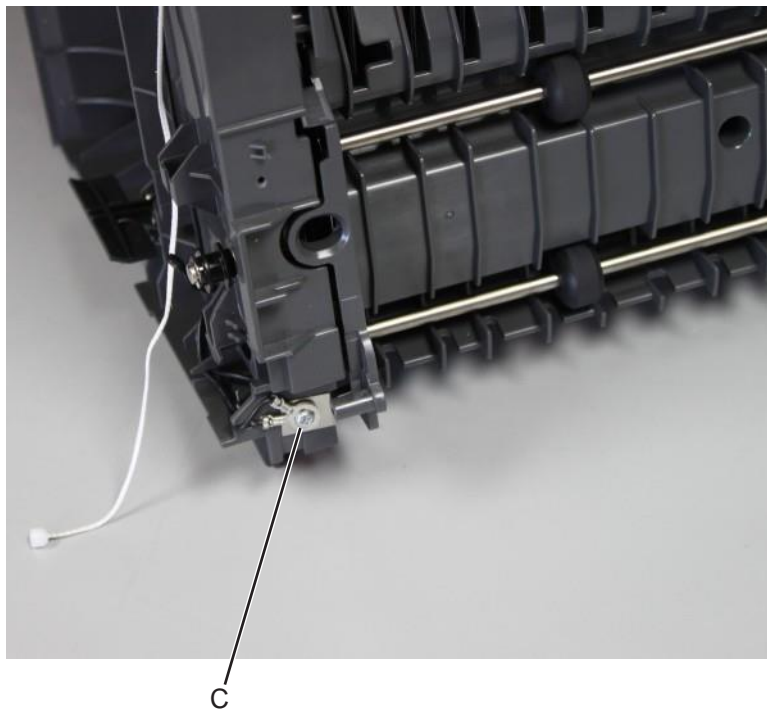
Parts removal

9 Release the bin from the right and left frames, and then remove it.
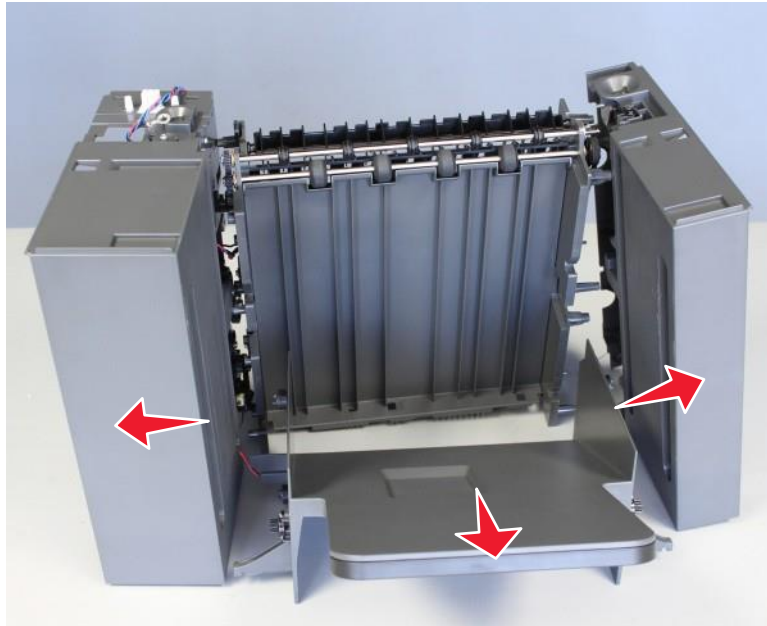
Sensor (HCOE pass-through) removal

1 Remove the HCOE left cover. See **"HCOE left cover removal" on page 563**.

2 Remove the HCOE right cover. See **"HCOE right cover removal" on page 562**.

3 Remove the HCOE bin pinion. See **"HCOE bin pinion removal" on page 571**.

4 Remove the HCOE bin shaft. See **"HCOE bin shaft removal" on page 587**.

5 Remove the HCOE bin. See **"HCOE bin removal" on page 588**.

6 Disconnect the sensor cable J3 from the controller board.

7 From the rear side, remove the two screws (A).
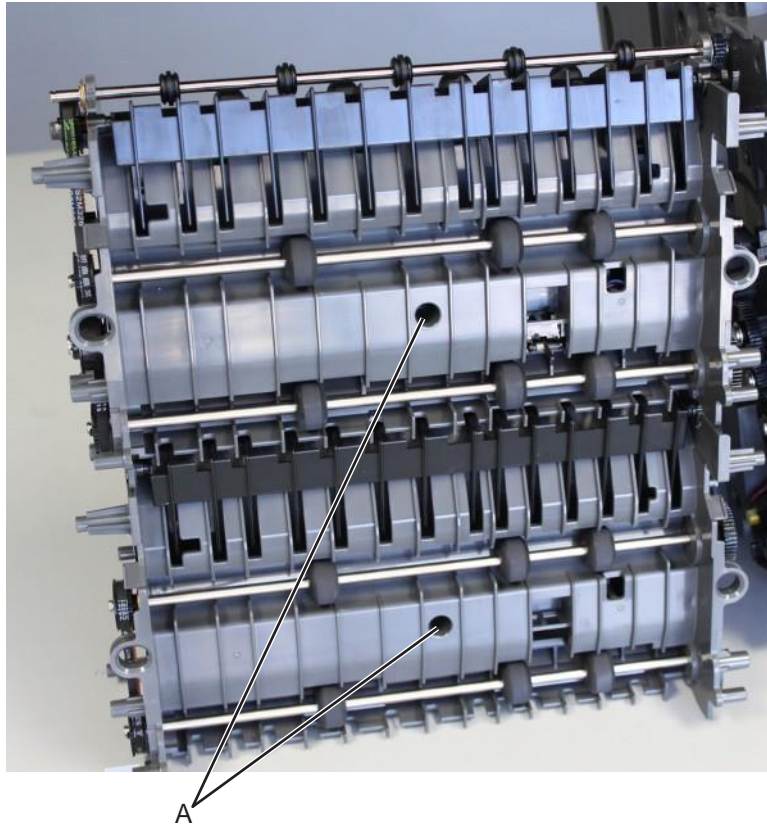
8 Release the latches (B), and then release the sensor.
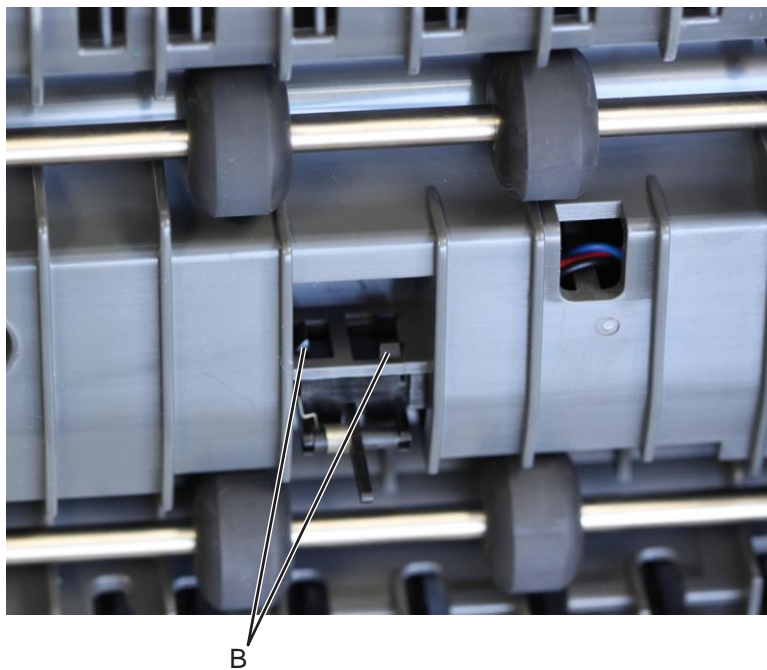
9 Open the cover on the other side to access the sensor underneath it.
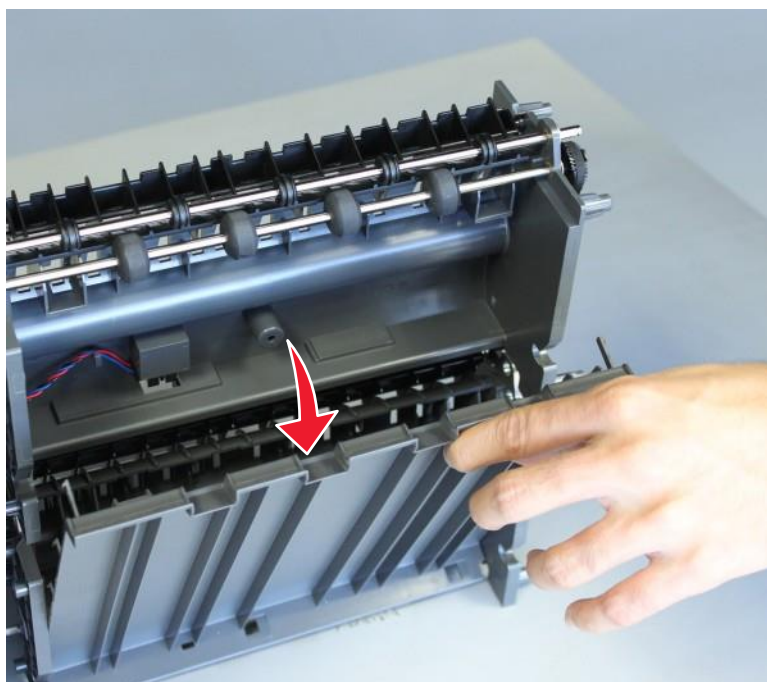
10 Release the cables from the holes and cable guides, and then remove the sensor.

Note: Pay attention to the original route of the cable.
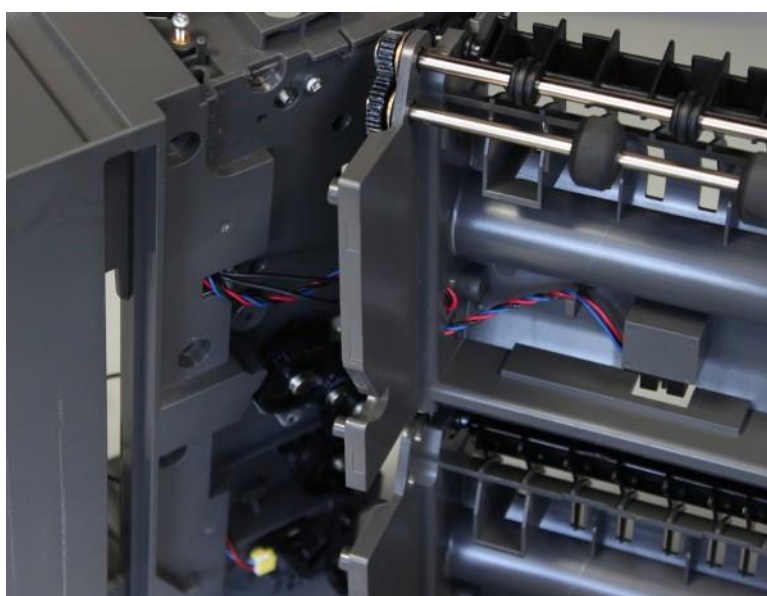
Optional staple finisher removals

Optional staple finisher removal

Press the latches to release, and then lift the optional bin off the printer.

Staple finisher rear door removal

1 Open the rear door, and detach the string (A) from the door.

A

Note: Fasten the string end (B) to the rear side to prevent it from recoiling into the interior of the staple finisher.

B
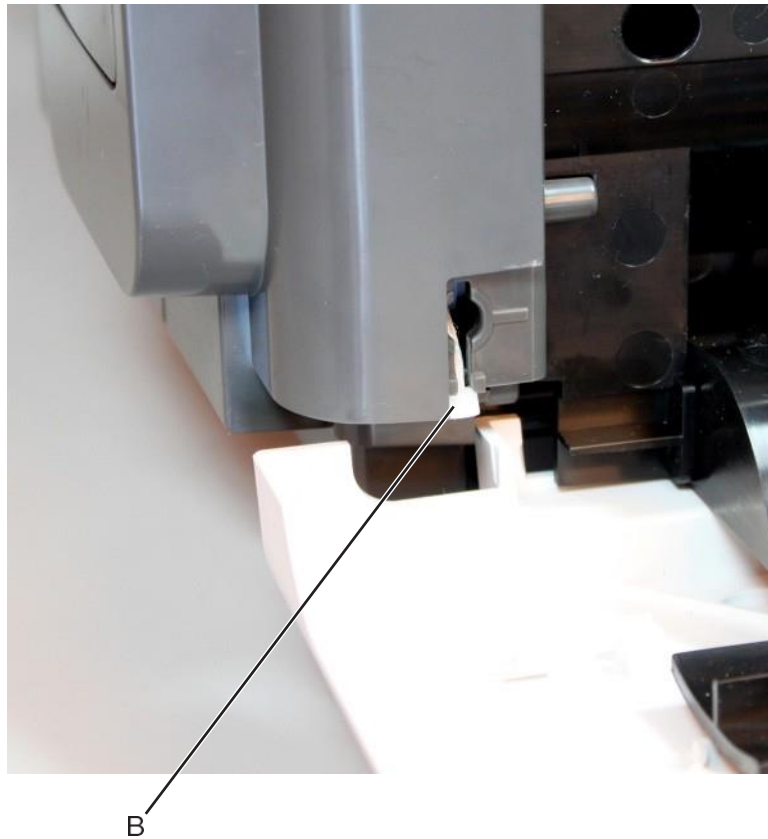
2 Position the door at an angle approximately 90 degrees from the staple finisher. Release the right hinge of the door first (1), then move the door to the right (2) to release the left hinge.

Parts removal

3 Remove the rear door assembly.

Staple finisher left cover removal

Note: This part is not a FRU.

1 Open the rear door, and then detach the string (A) from the rear door.

A

Note: Fasten the string end (B) to the rear side to prevent it from recoiling into the interior of the staple finisher.

B

2 Remove the two screws (C), and then remove the cover.
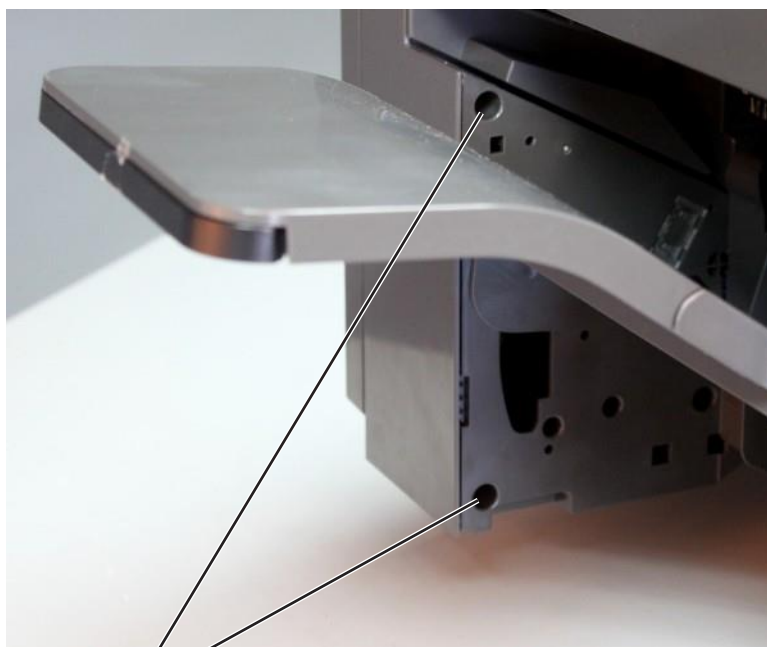
C

Parts removal

Staple finisher right cover removal

1 Open the rear door, and then detach the string (A) from the rear door.

A

Note: Fasten the string end (B) to the rear side to prevent it from recoiling into the interior of the finisher.

B

2 Remove the two screws (C), and then remove the cover.

C

Parts removal

Staple finisher top cover removal

1 Remove the staple finisher left cover. See **"Staple finisher left cover removal" on page 597**.

2 Remove the staple finisher right cover. See **"Staple finisher right cover removal" on page 599**.

3 Remove the two screws (A).
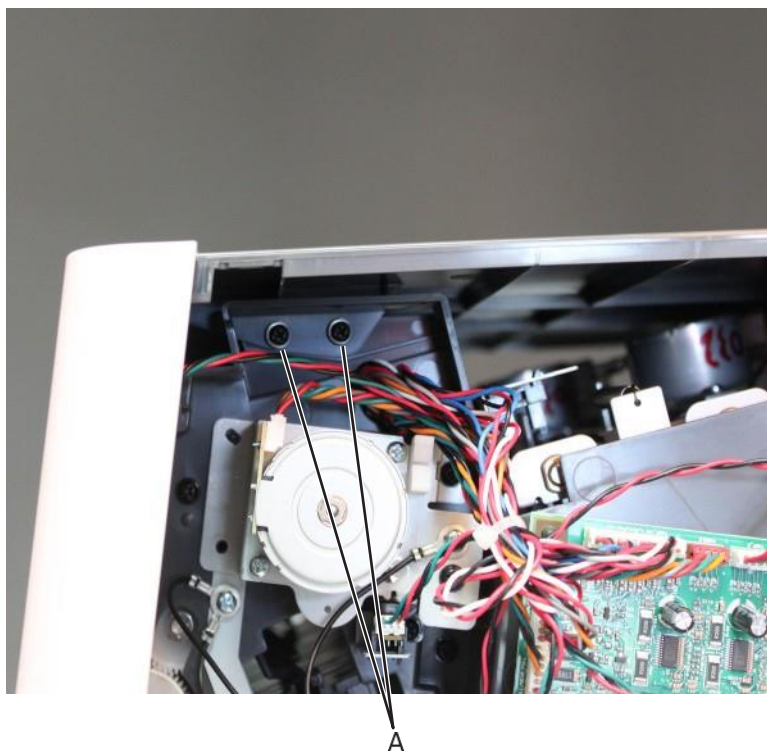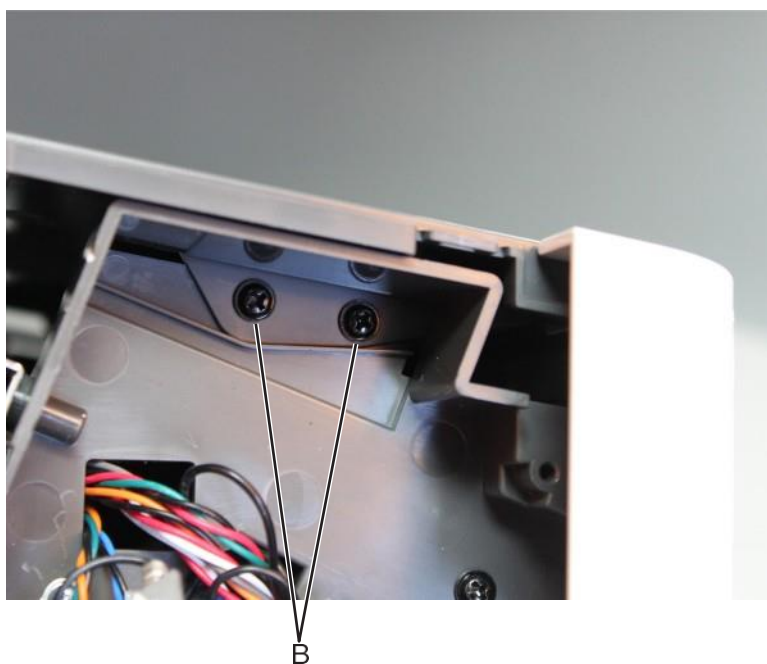
Parts removal

601

4 Remove the two screws (B).

B

5 Remove the cover.

Staple finisher controller board removal

1 Remove the staple finisher left cover. See **"Staple finisher left cover removal" on page 597**.

2 Disconnect all the cables from the controller board, and then remove the three screws (A).

3 Remove the board.

Sensor (staple finisher door) removal

1 Remove the staple finisher left cover. See **"Staple finisher left cover removal" on page 597**.

2 Remove the sensor retainer (A), and then disconnect the cable (B).
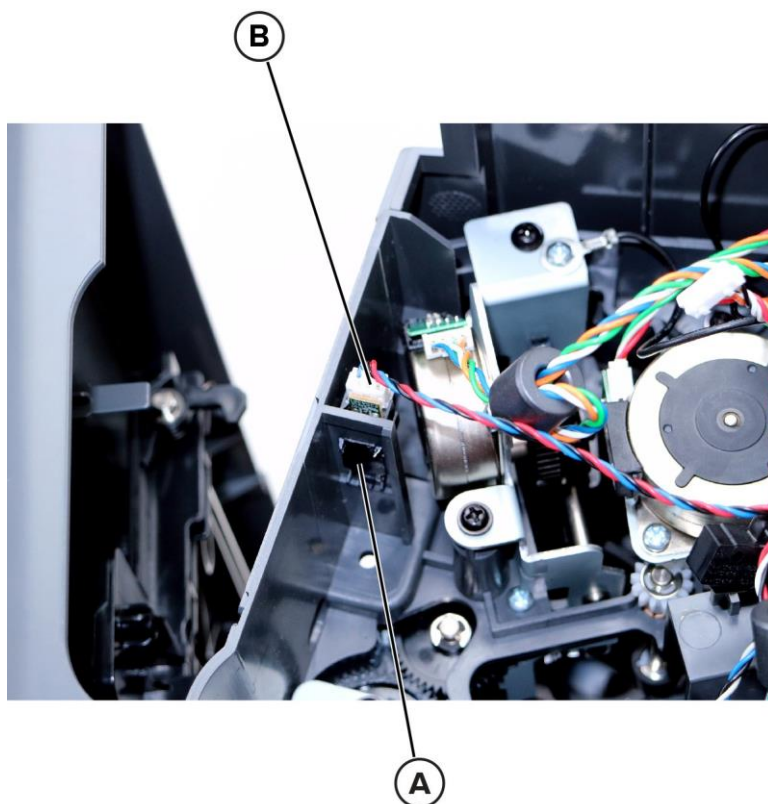
3 Remove the sensor.

Motor (staple finisher paddle) removal

1 Remove the staple finisher left cover. See **"Staple finisher left cover removal" on page 597**.

2 Remove the two screws (A), and then disconnect the cable (B).
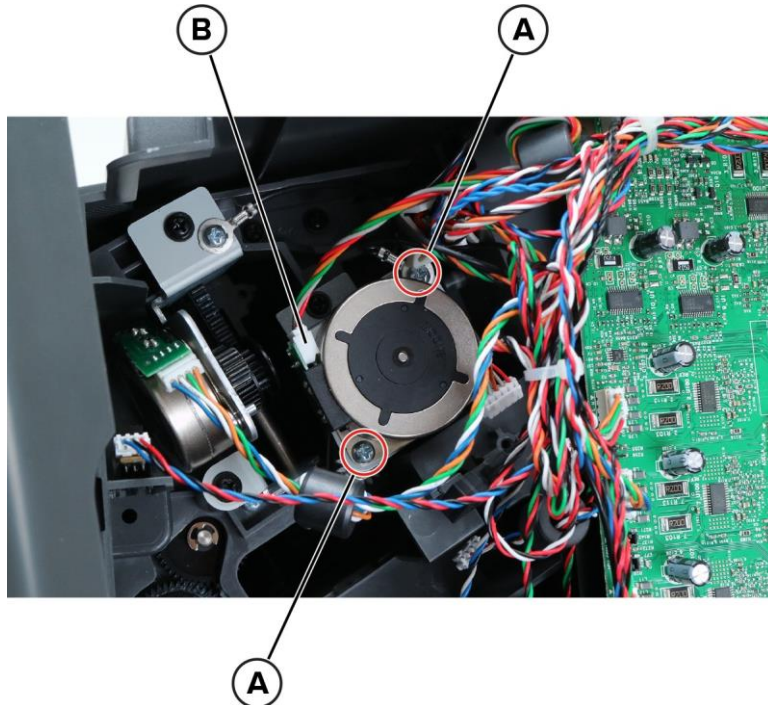
Installation note: Make sure that the two ground cables are reinstalled.

3 Remove the motor.

Staple unit removal

1 Remove the staple finisher right cover. See **"Staple finisher right cover removal" on page 599**.

2 Remove the staple finisher top cover. See **"Staple finisher top cover removal" on page 601**.

3 Remove the four screws (A), and then disconnect the two cables (B).
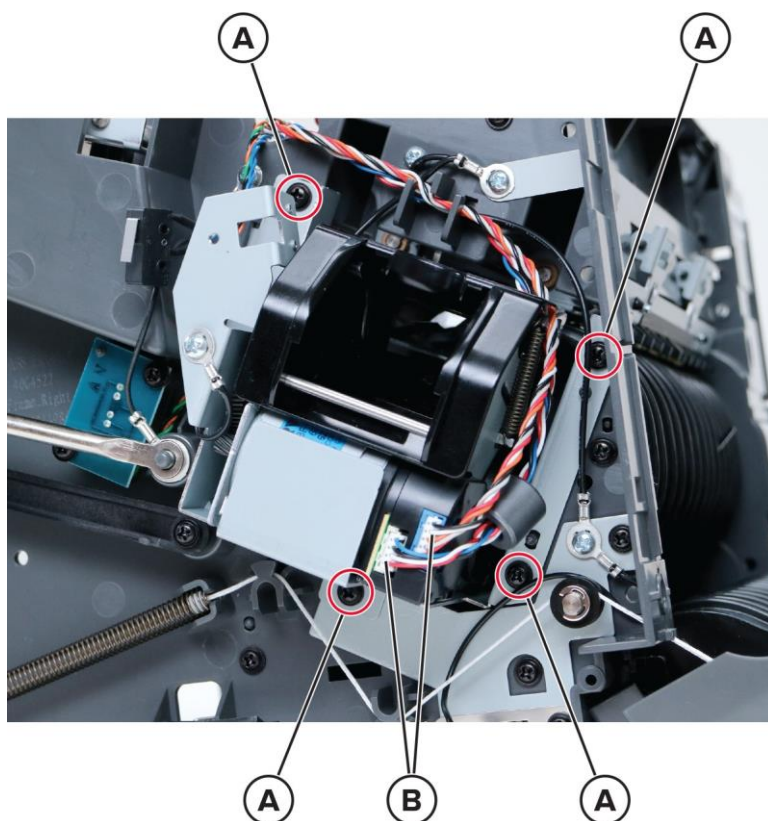
4 Remove the two screws (C), and then release the switch.
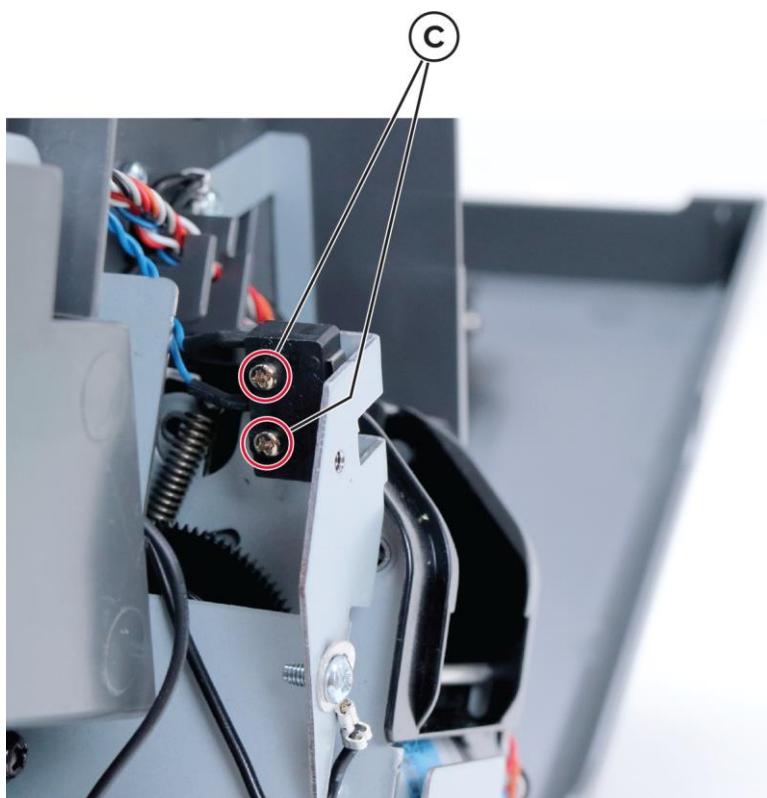
5 Remove the staple unit carriage, and then remove the two screws (D).
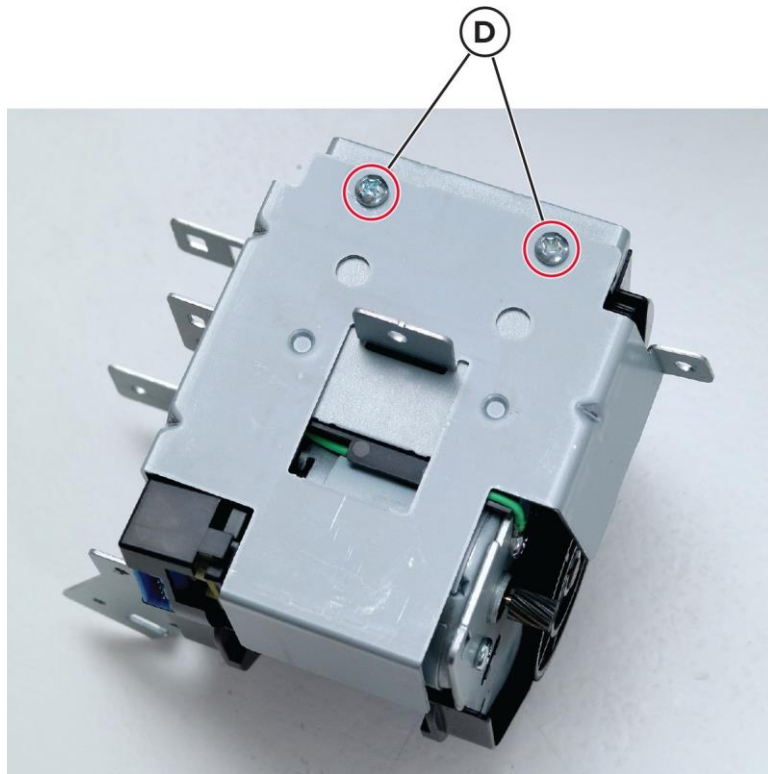
6 Remove the staple unit.

Staple finisher interface cable removal

1 Remove the staple finisher left cover. See **"Staple finisher left cover removal" on page 597**.

2 Remove the staple unit. See **"Staple unit removal" on page 605**.

3 Remove the two screws (A), and then release the connector bracket.
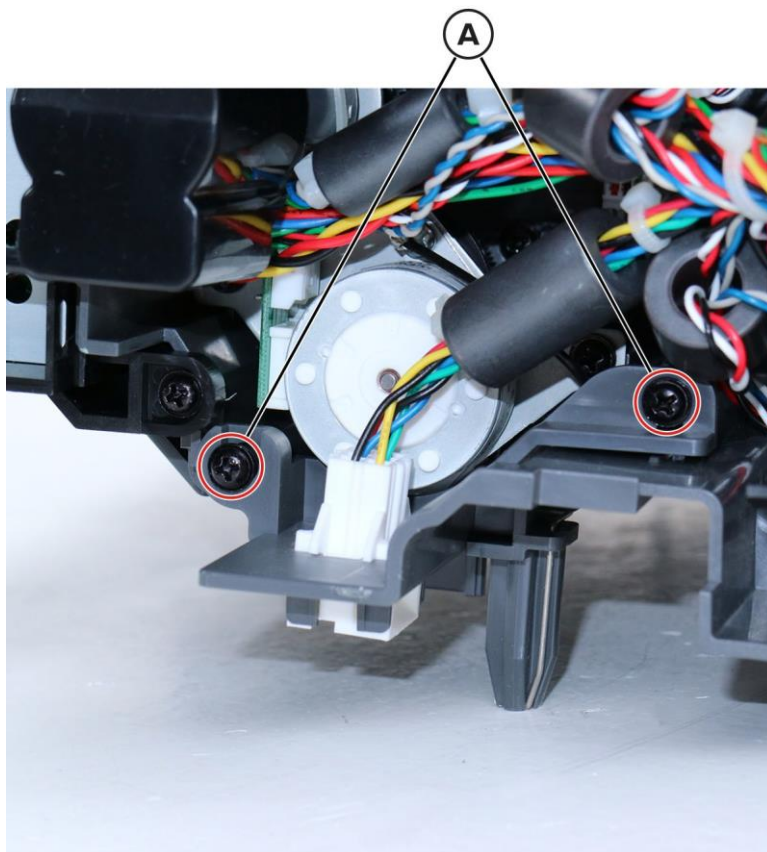
4 Press the latches to release, and then dislodge the connector.
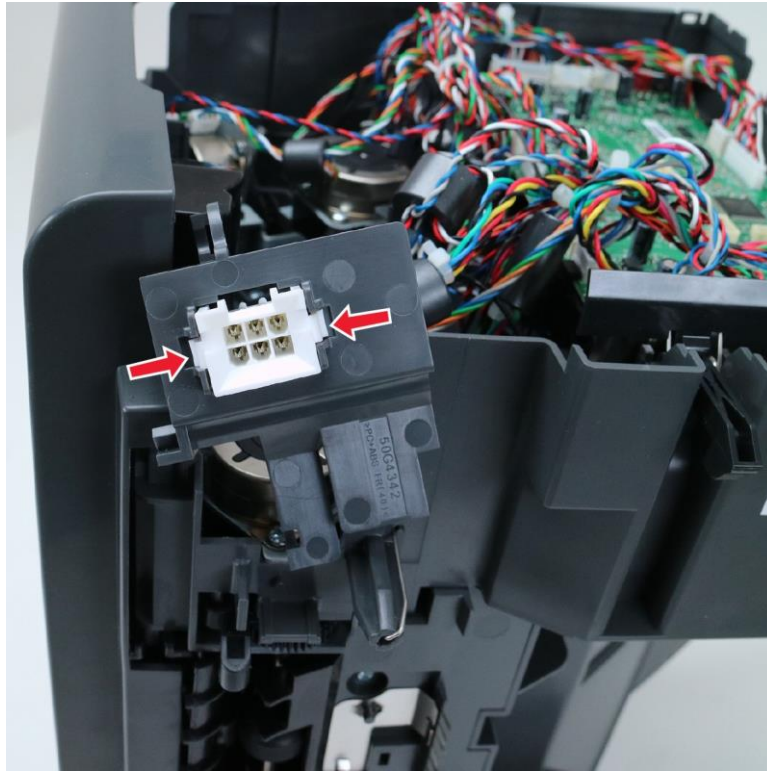
5 Disconnect the interface cable from the controller board, and then remove it.

Motor (staple finisher diverter) removal

1 Remove the staple finisher left cover. See **"Staple finisher left cover removal" on page 597**.

2 Remove the two screws (A), and then disconnect the cable (B).
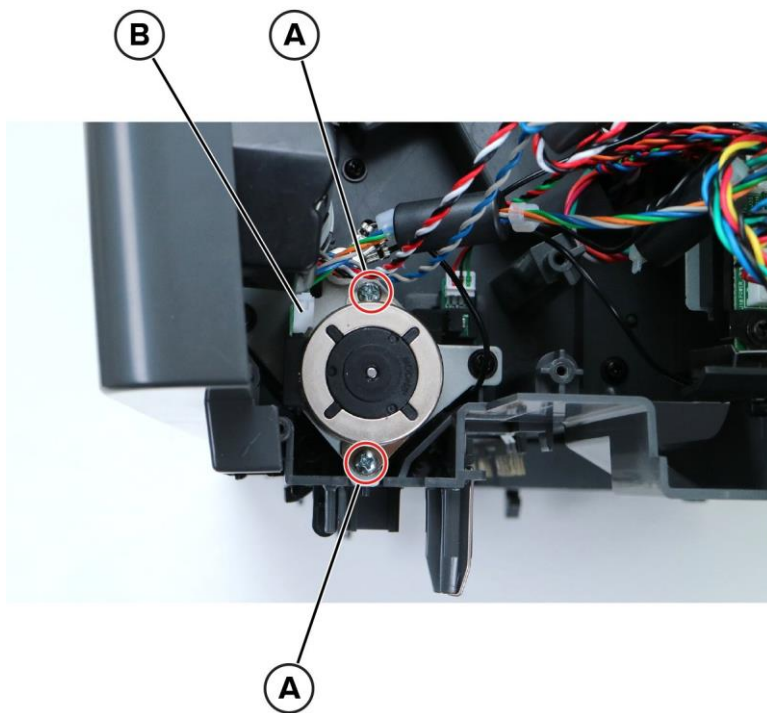
3 Remove the motor.

Sensor (staple finisher diverter plunger) removal

1 Remove the staple finisher left cover. See **"Staple finisher left cover removal" on page 597**.

2 Remove the screw (A), and then disconnect the cable (B).
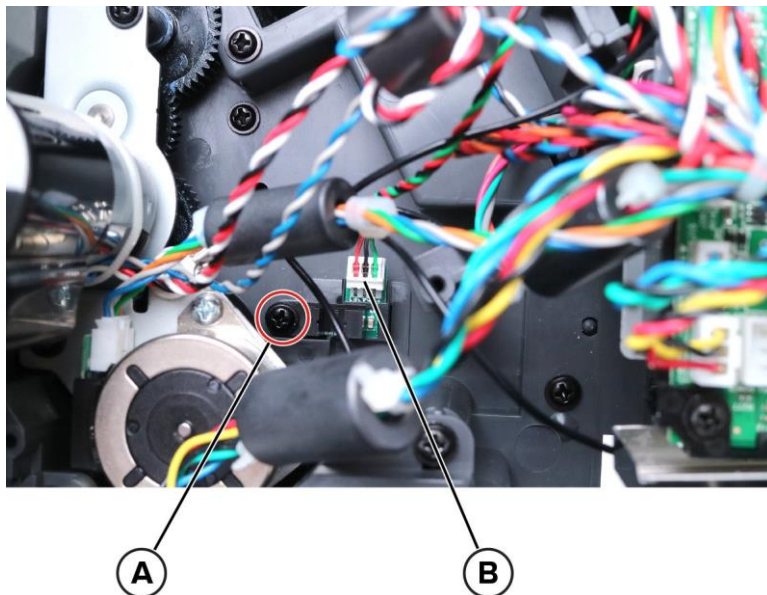
3 Remove the sensor.

Motor (staple finisher transport) removal

1 Remove the staple finisher left cover. See **"Staple finisher left cover removal" on page 597**.

2 Remove the staple finisher interface cable. See **"Staple finisher interface cable removal" on page 608**.

3 Remove the four screws (A), and then disconnect the cable (B) and the three ground cables (C).
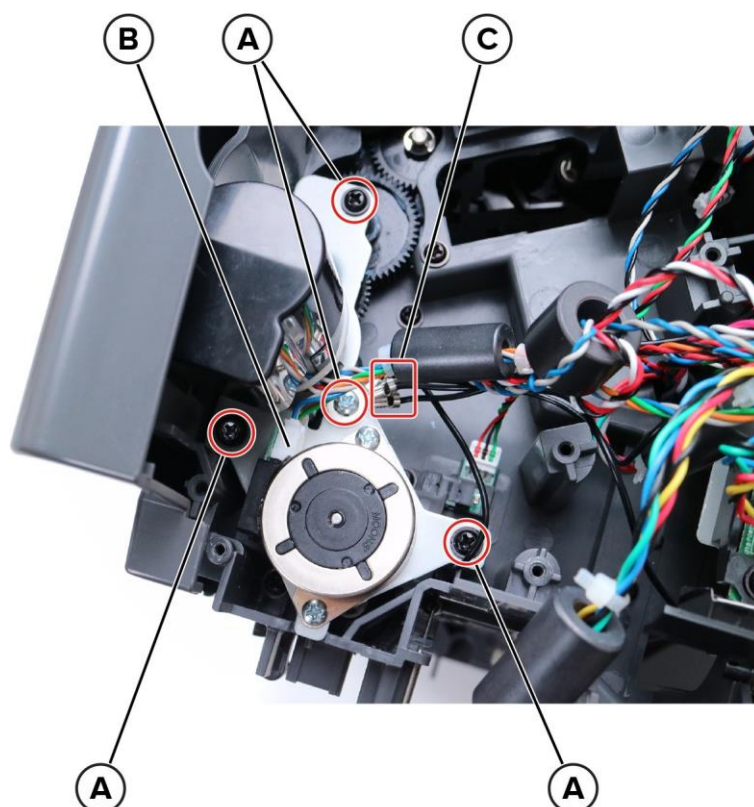
4 Release the motor bracket, and then remove the two screws (D).
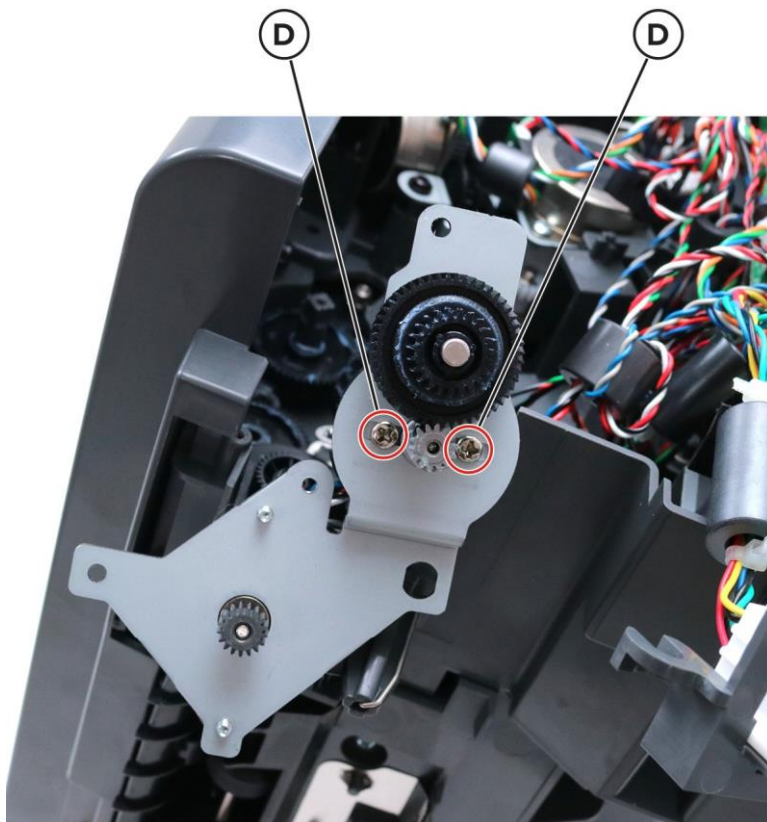
5 Remove the motor.

Standard bin LED removal

1 With a prying tool, open the LED cover.
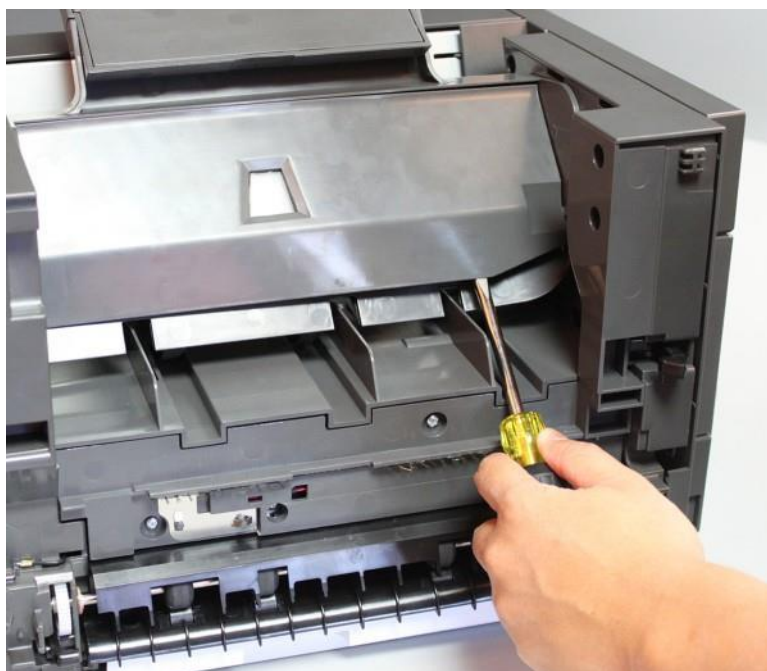
2 Release the latches (A), and then remove the LED lens. Disconnect the cable (B), and then remove the LED.
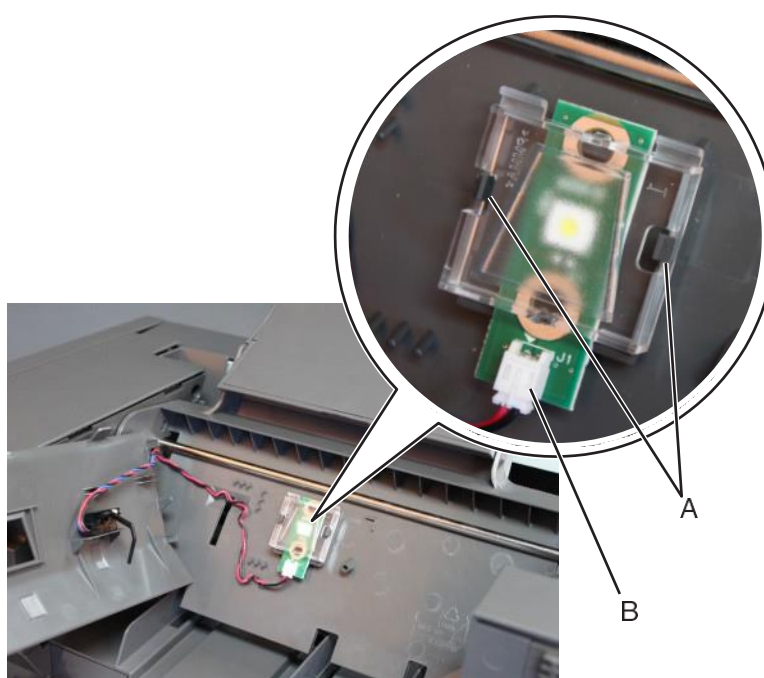
Sensor (staple finisher bin paper present) removal

1 Remove the staple finisher left cover. See **"Staple finisher left cover removal" on page 597**.

2 With a prying tool, open the LED cover.
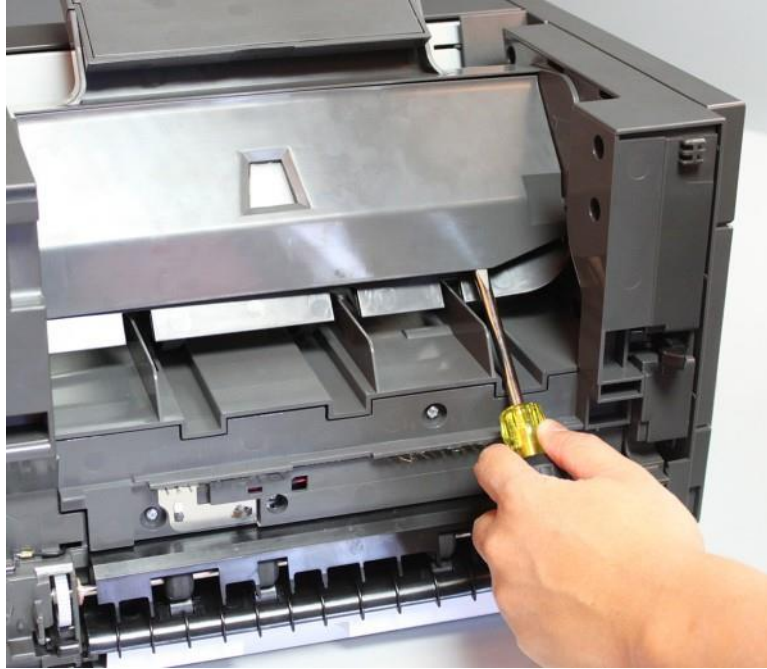
3 Release the sensor (B) from the cover.
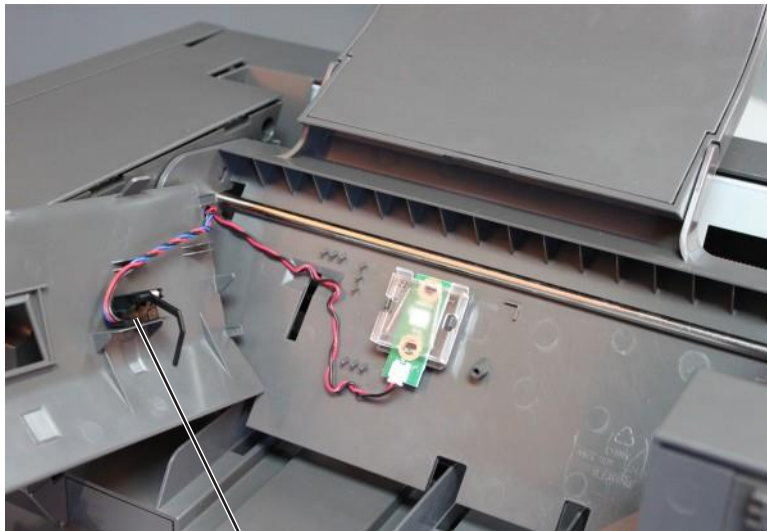
B

4 Disconnect the sensor cable from the controller board, and then remove the sensor.

Staple finisher diverter plunger assembly removal

1 Remove the staple finisher left cover. See **"Staple finisher left cover removal" on page 597**.

2 Remove the staple finisher interface cable. See **"Staple finisher interface cable removal" on page 608**.

3 Release the motor bracket. See **"Motor (staple finisher transport) removal" on page 612**.

4 Remove the two screws (A).
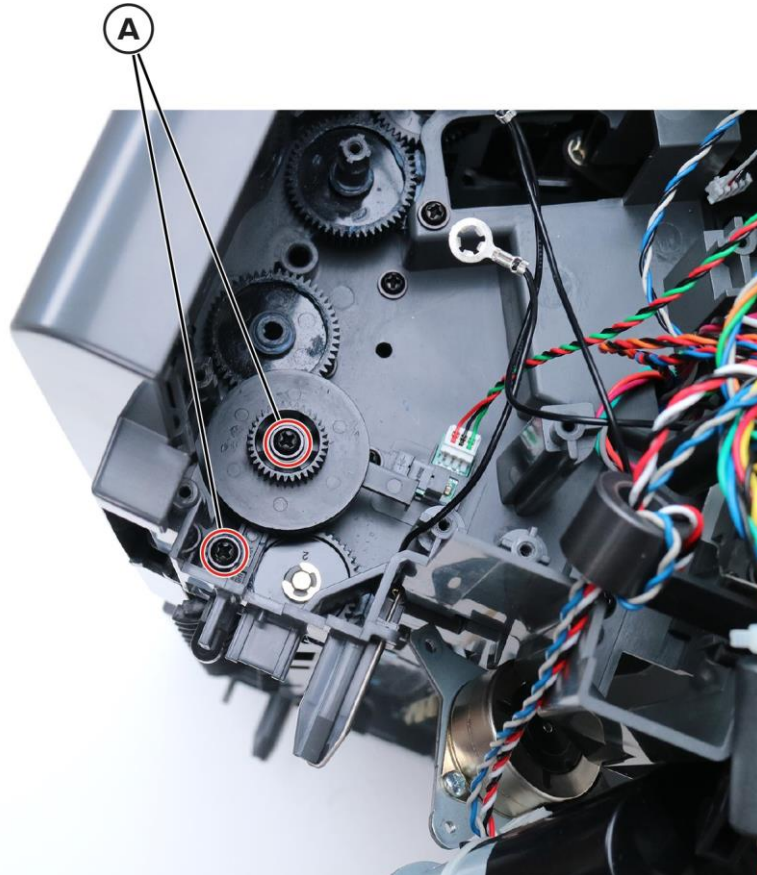
5 Remove the plunger.

Staple finisher drive gear assembly removal

1 Remove the staple finisher left cover. See **"Staple finisher left cover removal" on page 597**.

2 Remove the staple finisher interface cable. See **"Staple finisher interface cable removal" on page 608**.

3 Release the motor bracket. See **"Motor (staple finisher transport) removal" on page 612**.

4 Remove the staple finisher diverter plunger assembly. See **"Staple finisher diverter plunger assembly removal" on page 617**.

5 Remove the three gears (A).
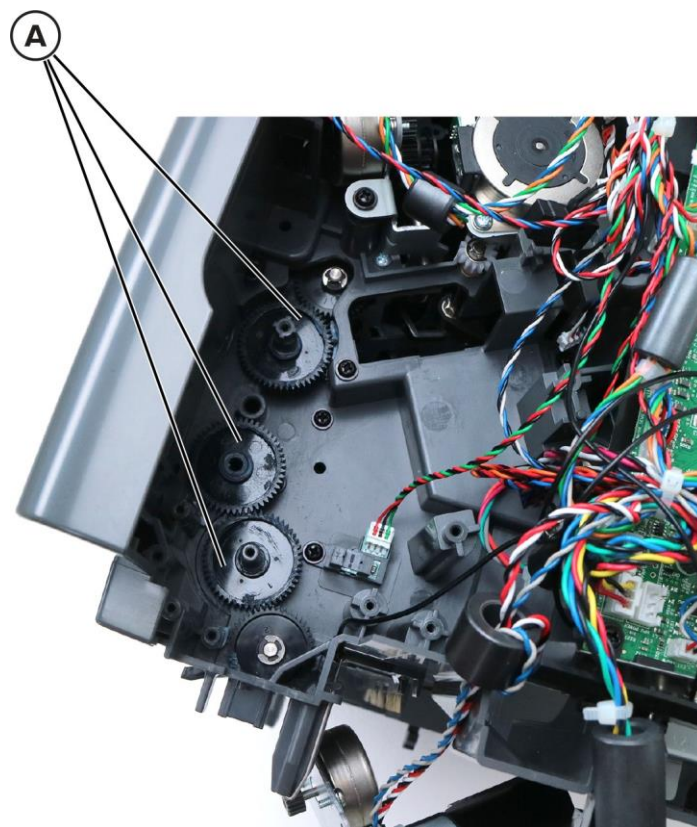
6 Remove the gear behind the motor bracket.
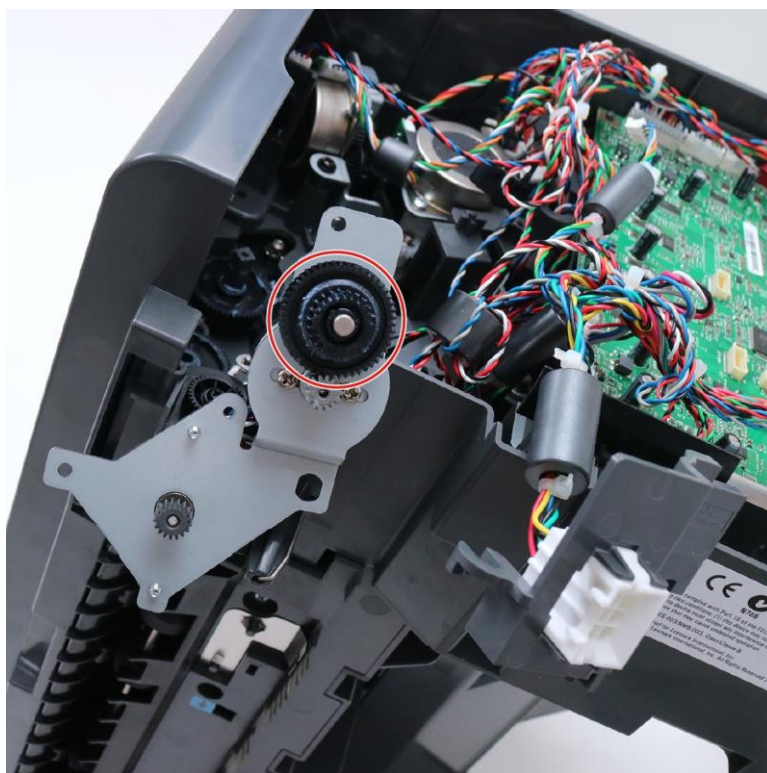
Parts removal

7 Remove the E-clip (C).
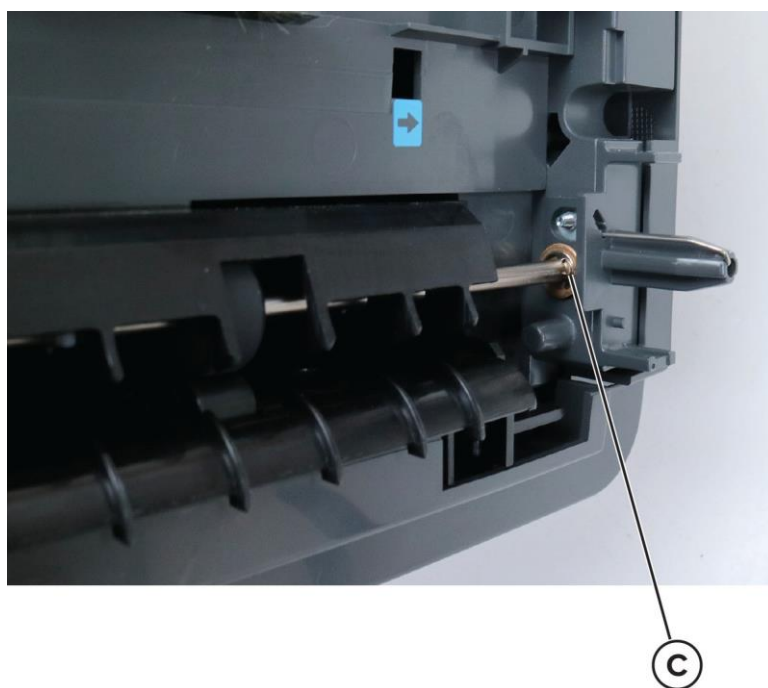
8 Remove the E-clip (D).
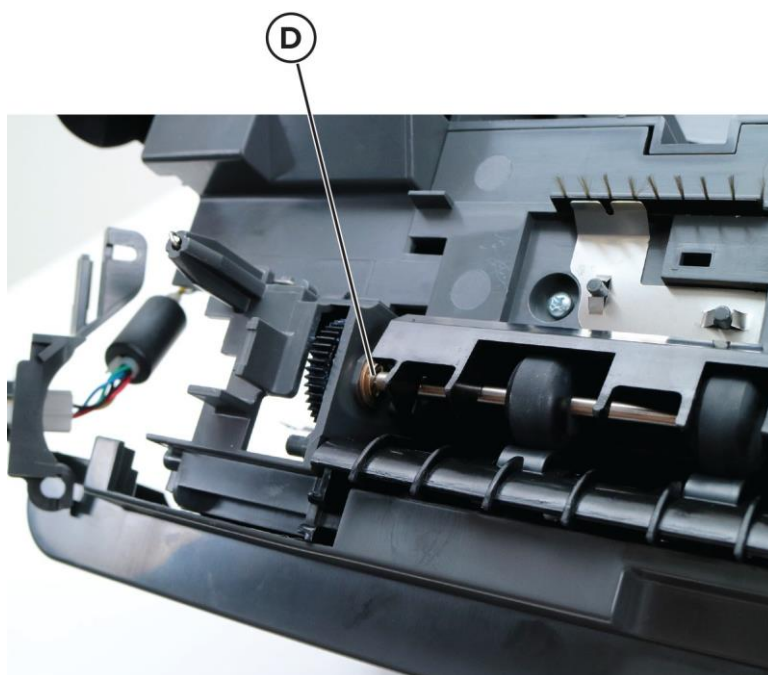
9 Remove the two screws (E), and then remove the plate.
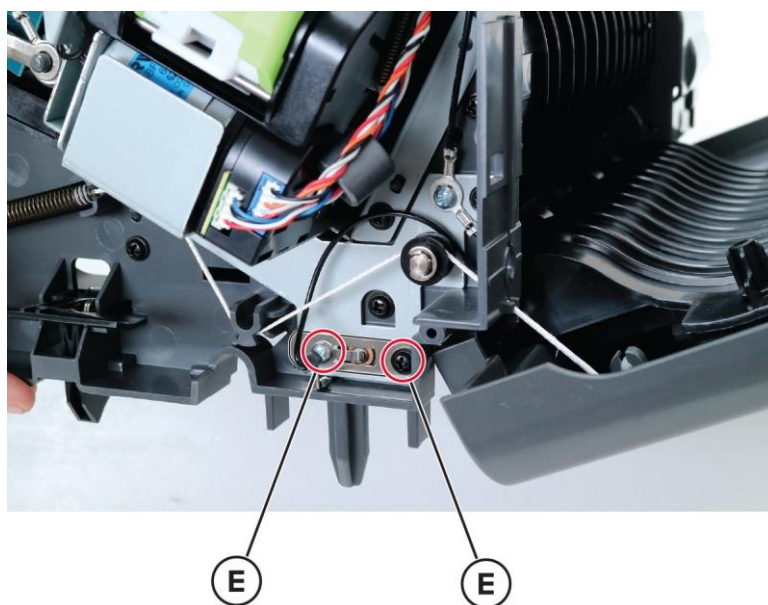
10 Remove the E-clip (F), and then remove the gear (G).
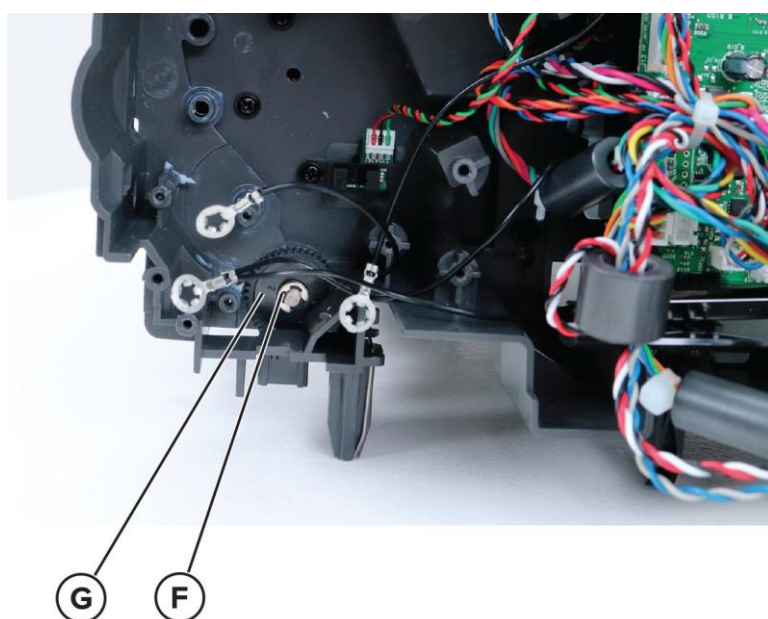
Sensor (staple finisher bin full send) removal

1 Remove the staple finisher right cover. See **"Staple finisher right cover removal" on page 599**.

2 Remove the two screws (A), and then release the sensor.
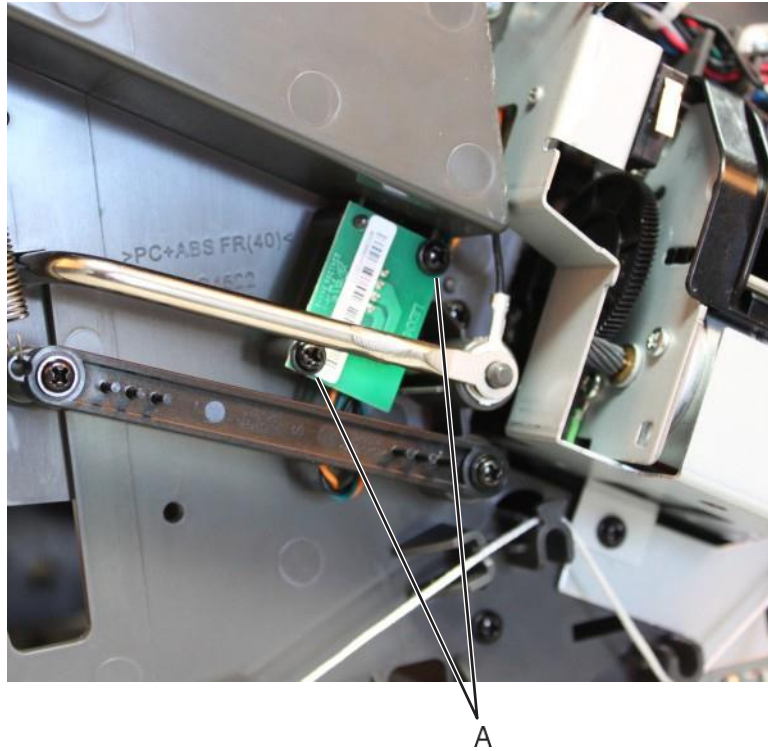
3 Disconnect the cable (B), and then remove the sensor.

B
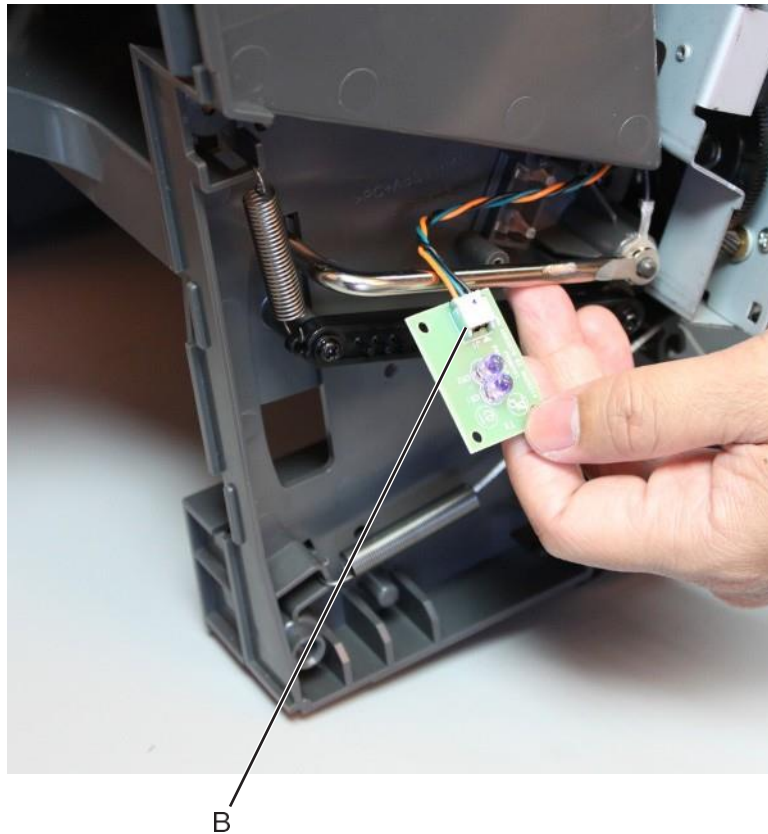
Sensor (staple finisher bin full receive) removal

1 Remove the staple finisher left cover. See **"Staple finisher left cover removal" on page 597**.

2 Remove the staple finisher controller board. See **"Staple finisher controller board removal" on page 603**.

3 Remove the two screws (A), and then release the sensor.

A

4 Disconnect the cable (B), and then remove the sensor.

B
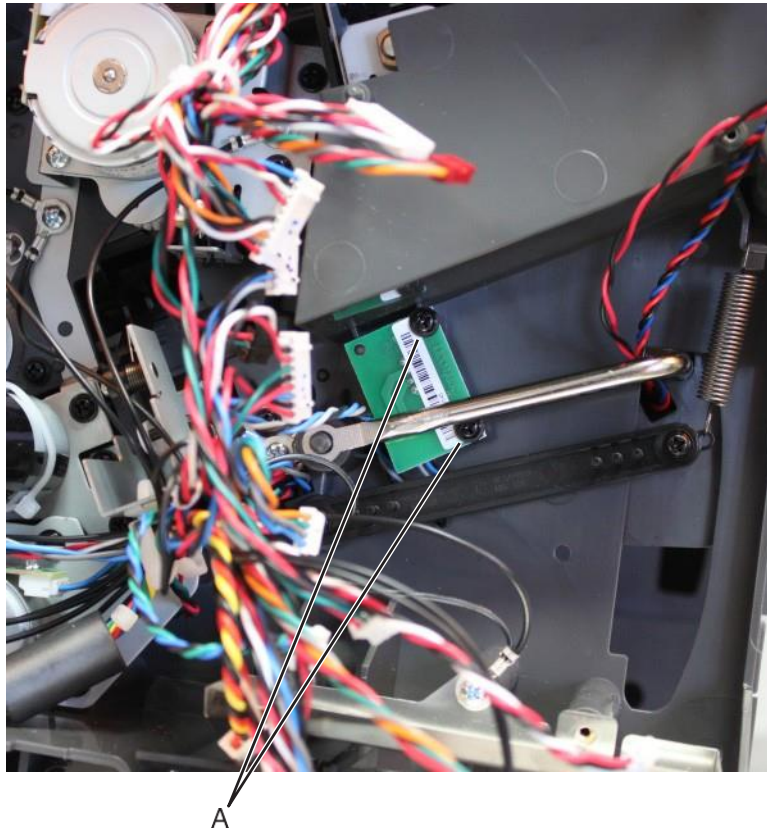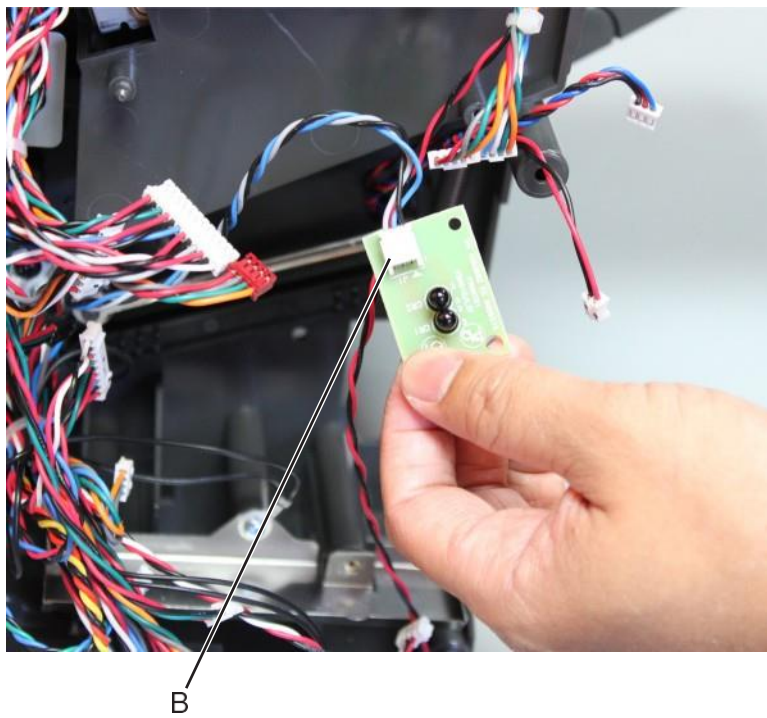
Parts removal

Staple finisher paddle gear removal

1 Remove the staple finisher left cover. See **"Staple finisher left cover removal" on page 597**.

2 Remove the staple finisher interface cable. See **"Staple finisher interface cable removal" on page 608**.

3 Remove the two screws (A), disconnect the cable (B), and then release the motor bracket.
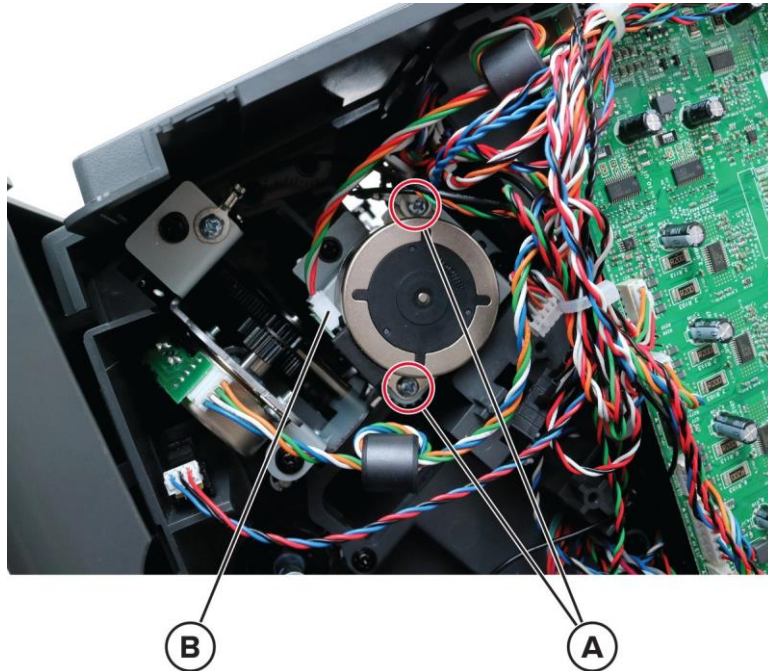
4 Behind the motor bracket, remove the gear (C).
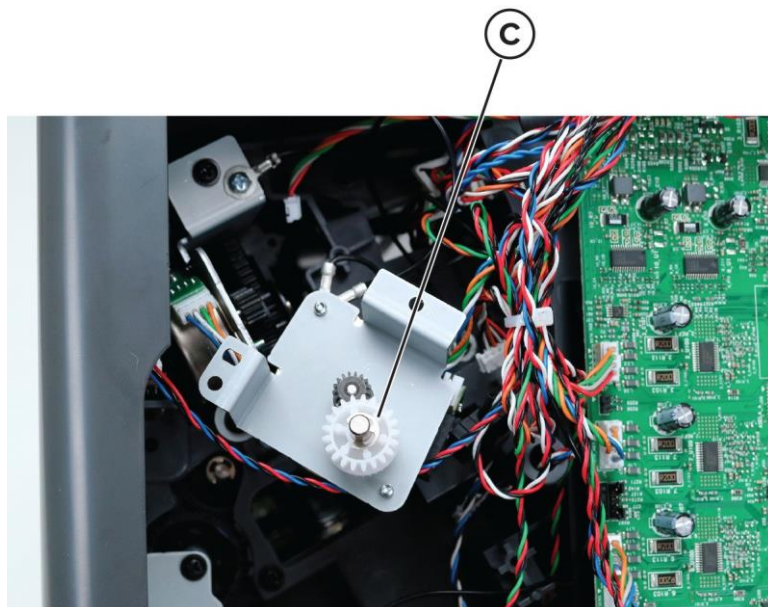
5 Remove the gear (D).
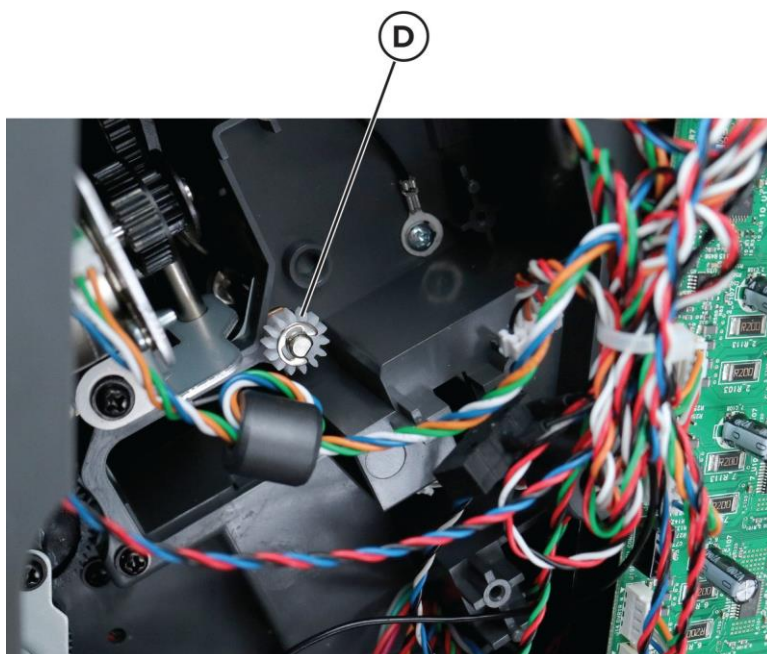
Sensor (staple finisher rear door interlock) removal

1 Remove the staple finisher left cover. See **"Staple finisher left cover removal" on page 597**.

2 Disconnect the sensor cable (A).
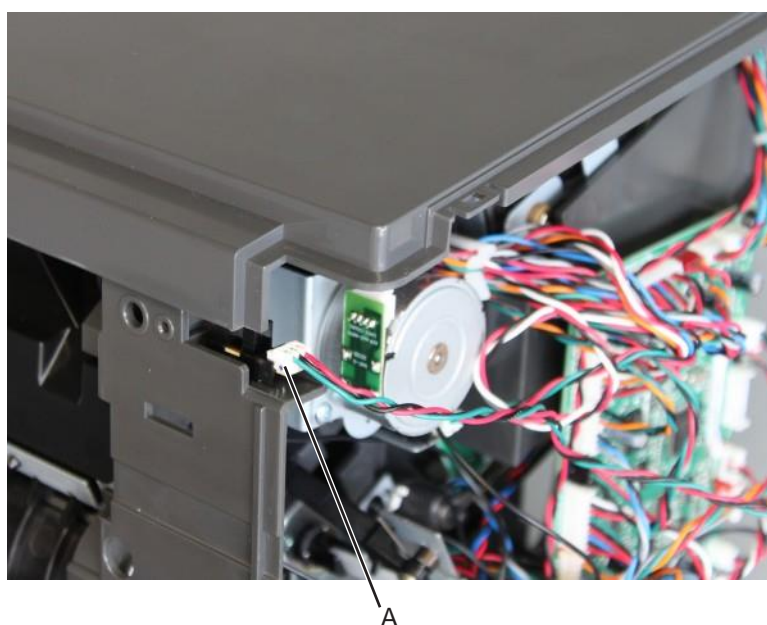
3 Release the sensor latches, and then remove the sensor.

Staple finisher bin spring removal

1 Remove the staple finisher left cover. See **"Staple finisher left cover removal" on page 597**.

2 Remove the staple finisher right cover. See **"Staple finisher right cover removal" on page 599**.

3 Unhook the spring (A), and then remove it.

A

A

Parts removal
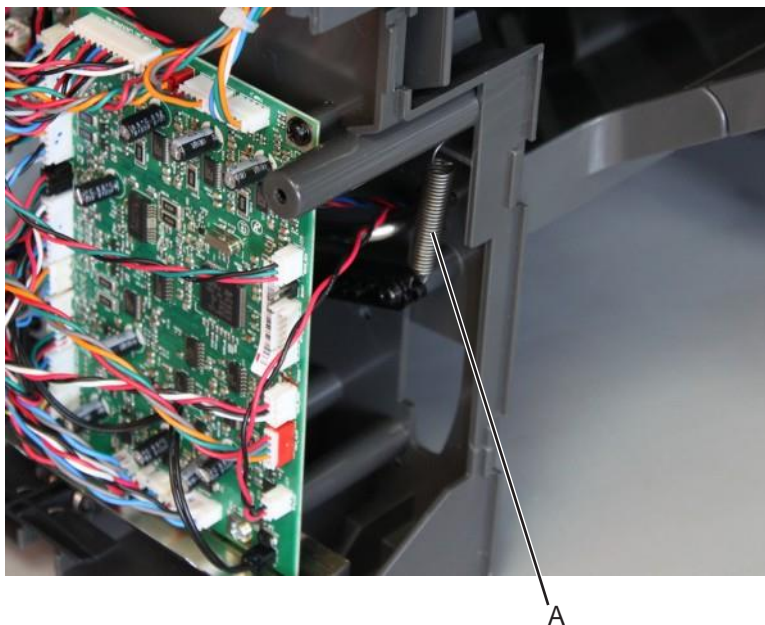
Staple finisher bin link assembly removal

Left link removal

1 Remove the staple finisher left cover. See **"Staple finisher left cover removal" on page 597**.

2 Unhook the spring (A), and then release the link.

A
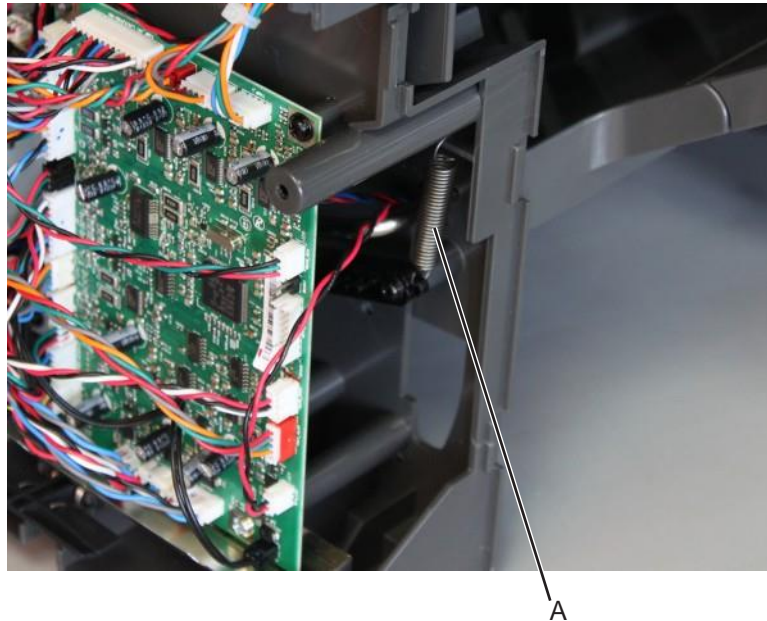
3 Remove the three screws (B), and then release the controller board. Move the board to access the link behind it.

B

4 Remove the two screws (C), and then remove the link.

C
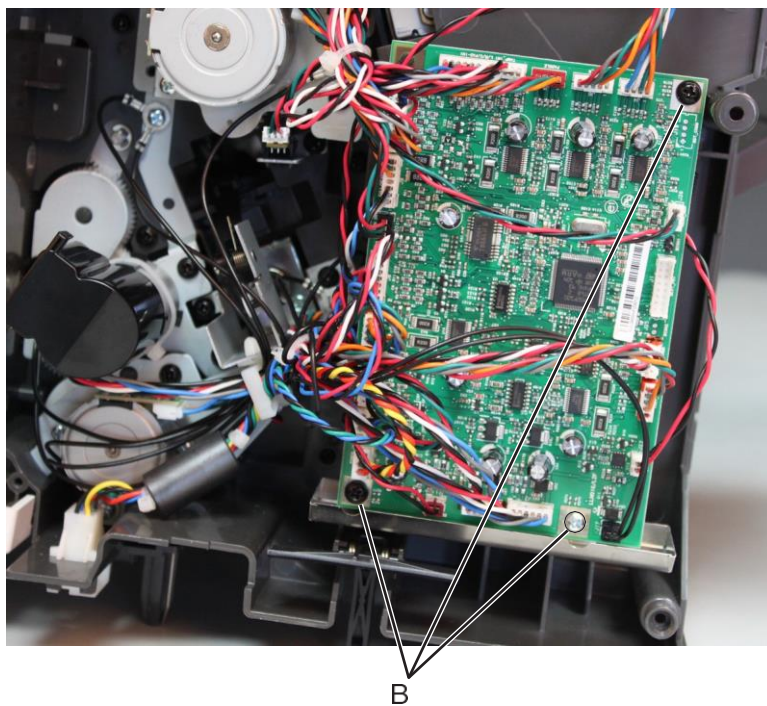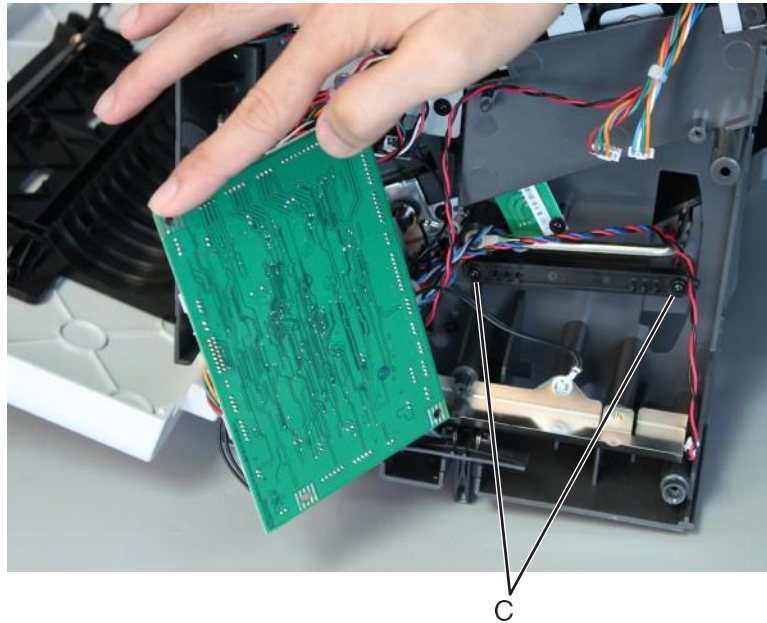
Right link removal

1 Remove the staple finisher right cover. See **"Staple finisher right cover removal" on page 599**.

2 Unhook the spring (A), and then release the link.

A

3 Remove the two screws (B), and then remove the link.

B
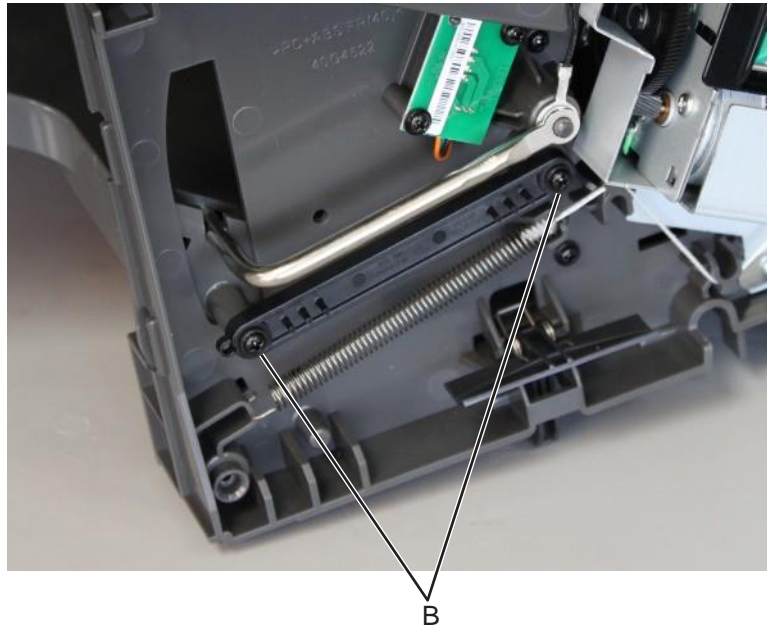
Staple finisher latch removal

1 Remove the staple finisher left cover or right cover. See .

2 Pull the latch off the bin.
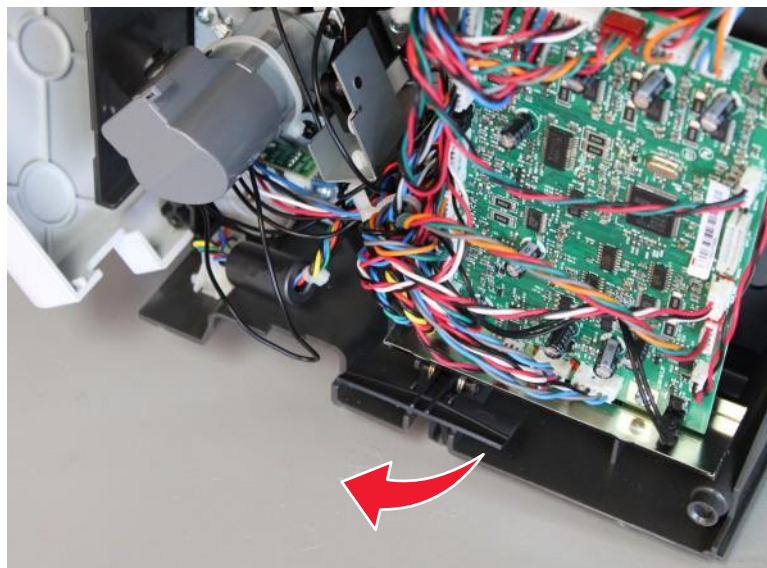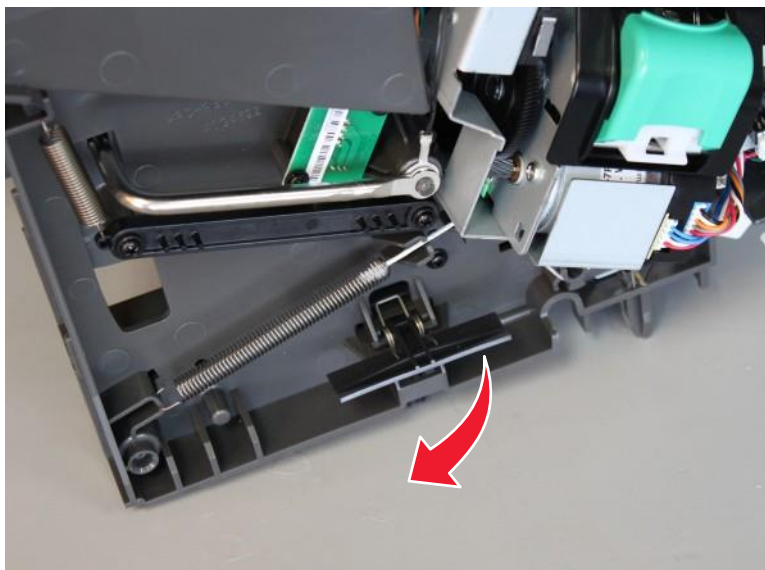
Staple finisher spring with string removal

1 Open the rear door, and detach the string (A).

A

2 Remove the staple finisher right cover. See **"Staple finisher right cover removal" on page 599**.

3 Remove the spring (B) with string.

Installation note: Pay attention to the original position of the string. The string on the pulley is wound clockwise.

B
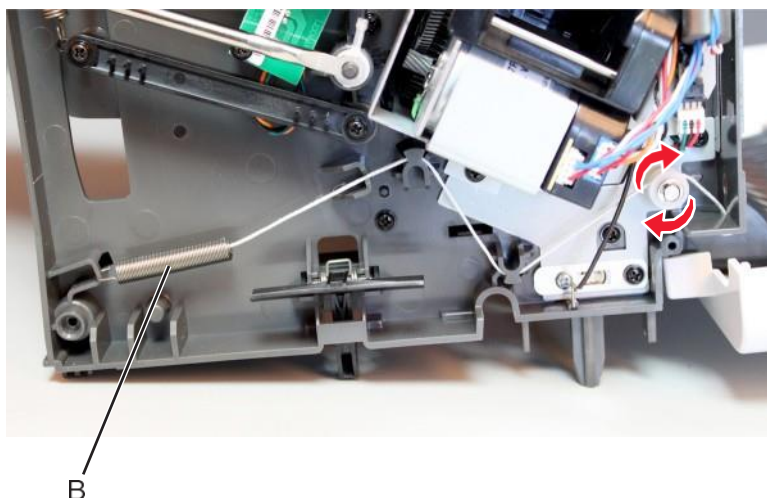
Sensor (staple finisher paddle) removal

1 Remove the staple finisher left cover. See **"Staple finisher left cover removal" on page 597**.

2 Remove the staple finisher right cover. See **"Staple finisher right cover removal" on page 599**.

3 Remove the staple finisher top cover. See **"Staple finisher top cover removal" on page 601**.

4 Remove the sensor retainer (A), and then disconnect the cable (B).
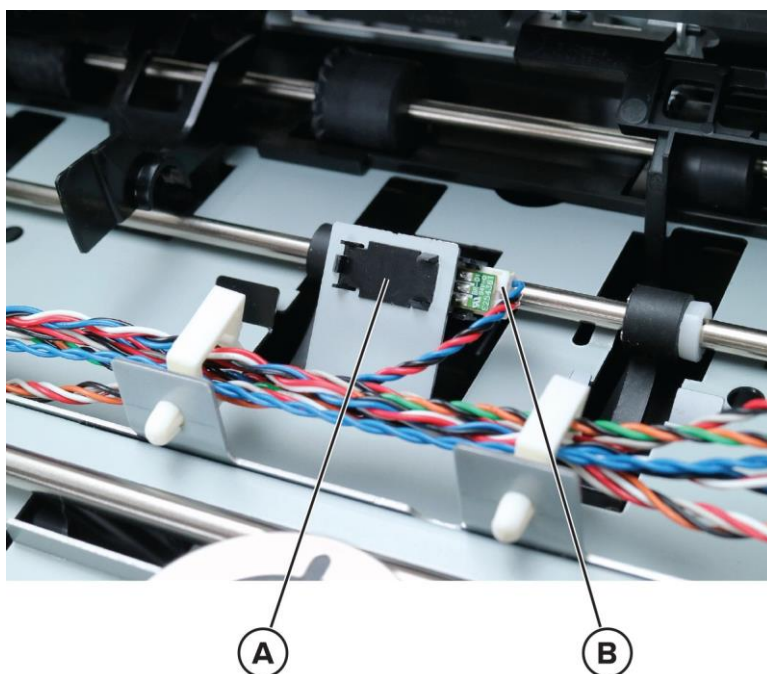
A   B

5 Remove the sensor.

Parts removal

Motor (staple finisher right tamper) removal

1 Remove the staple finisher left cover. See **"Staple finisher left cover removal" on page 597**.

2 Remove the staple finisher right cover. See **"Staple finisher right cover removal" on page 599**.

3 Remove the staple finisher top cover. See **"Staple finisher top cover removal" on page 601**.

4 Disconnect the cable (A), and then remove the two screws (B).
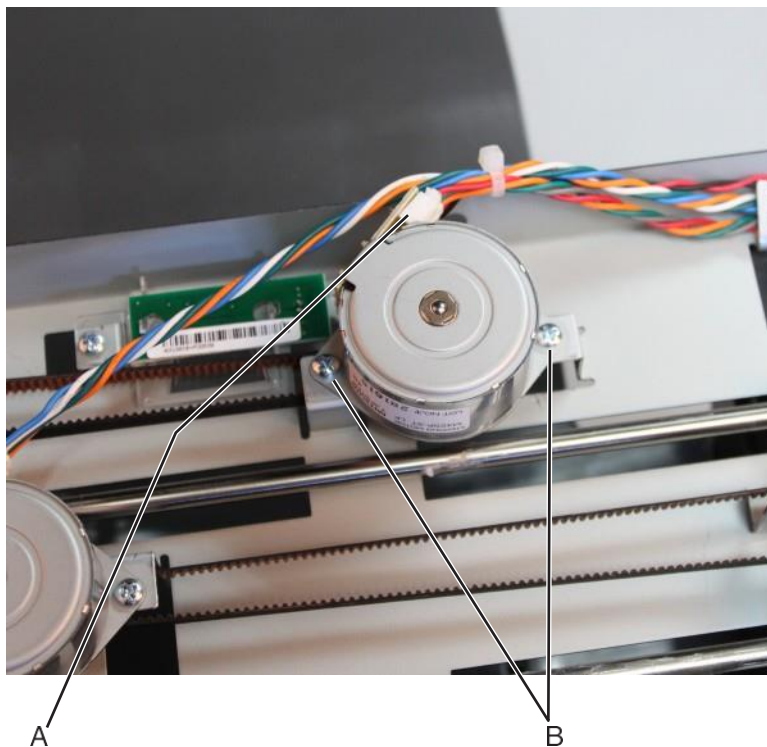
5 Remove the motor.

Motor (staple finisher left tamper) removal

1 Remove the staple finisher left cover. See **"Staple finisher left cover removal" on page 597**.

2 Remove the staple finisher right cover. See **"Staple finisher right cover removal" on page 599**.

3 Remove the staple finisher top cover. See **"Staple finisher top cover removal" on page 601**.

4 Disconnect the cable (A), and then remove the two screws (B).
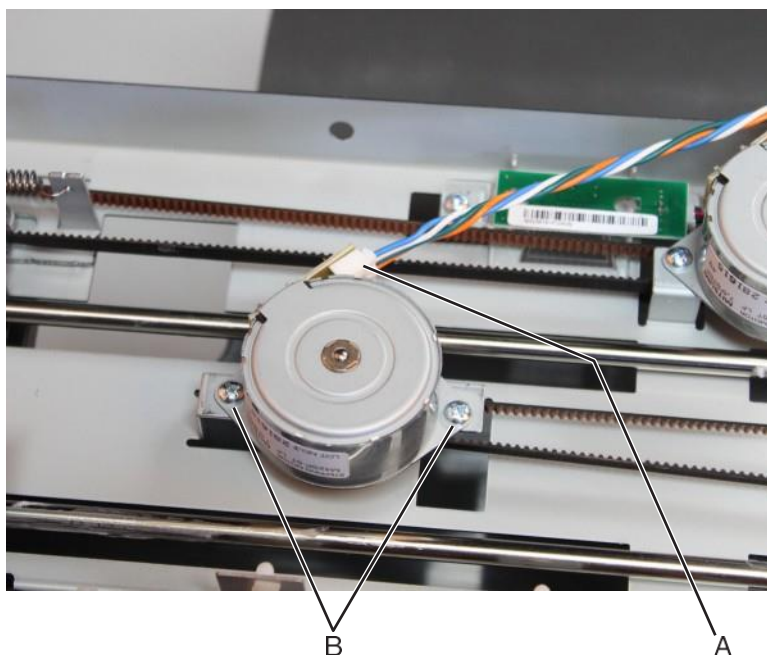
5 Remove the motor.

Tamper drive belt removal

1 Remove the staple finisher left cover. See **"Staple finisher left cover removal" on page 597**.

2 Remove the staple finisher right cover. See **"Staple finisher right cover removal" on page 599**.

3 Remove the staple finisher top cover. See **"Staple finisher top cover removal" on page 601**.

4 Release the motor engaged to the belt. See **"Motor (staple finisher right tamper) removal" on page 632** or **"Motor (staple finisher left tamper) removal" on page 632**.

5 Unhook the tamper spring (A), and then release the belt from the tamper gear.

A
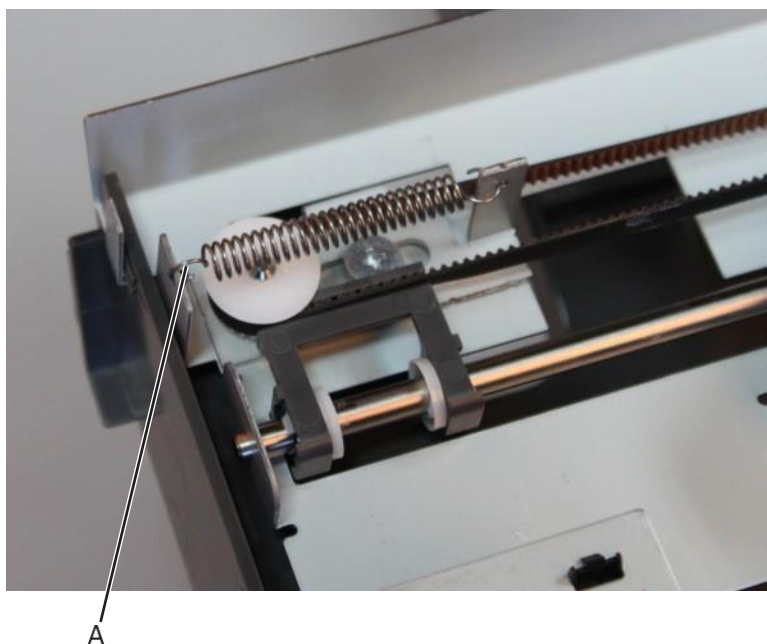
6 Remove the belt.

Sensor (staple finisher right tamper) removal

1 Remove the staple finisher left cover. See **"Staple finisher left cover removal" on page 597**.

2 Remove the staple finisher right cover. See **"Staple finisher right cover removal" on page 599**.

3 Remove the staple finisher top cover. See **"Staple finisher top cover removal" on page 601**.

4 Slightly move the right tamper to clear the sensor flag (A) from the sensor.
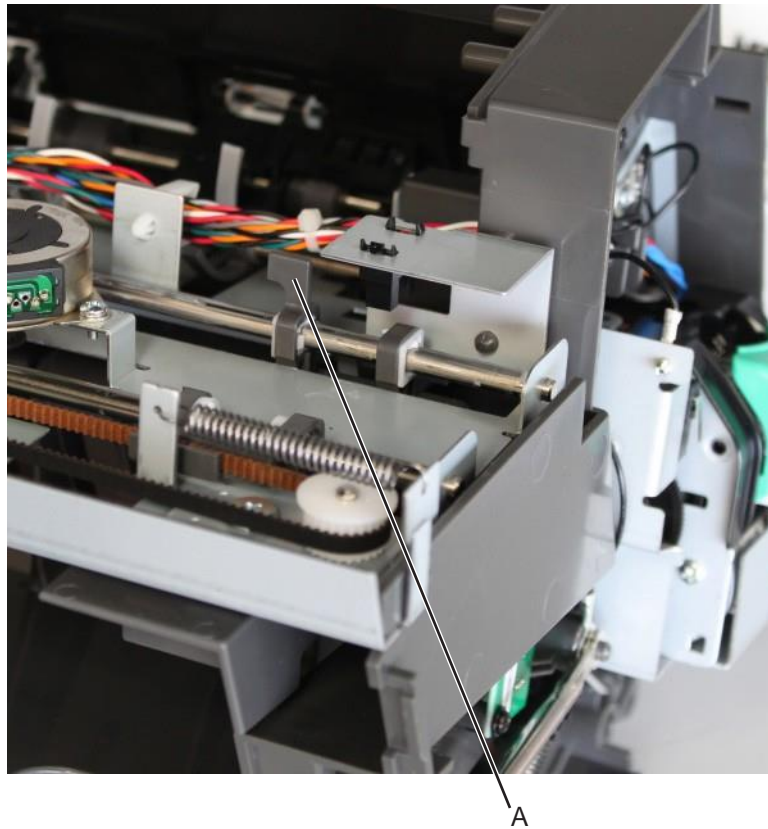
A

5 Disconnect the sensor cable (B), and then remove the sensor.

B
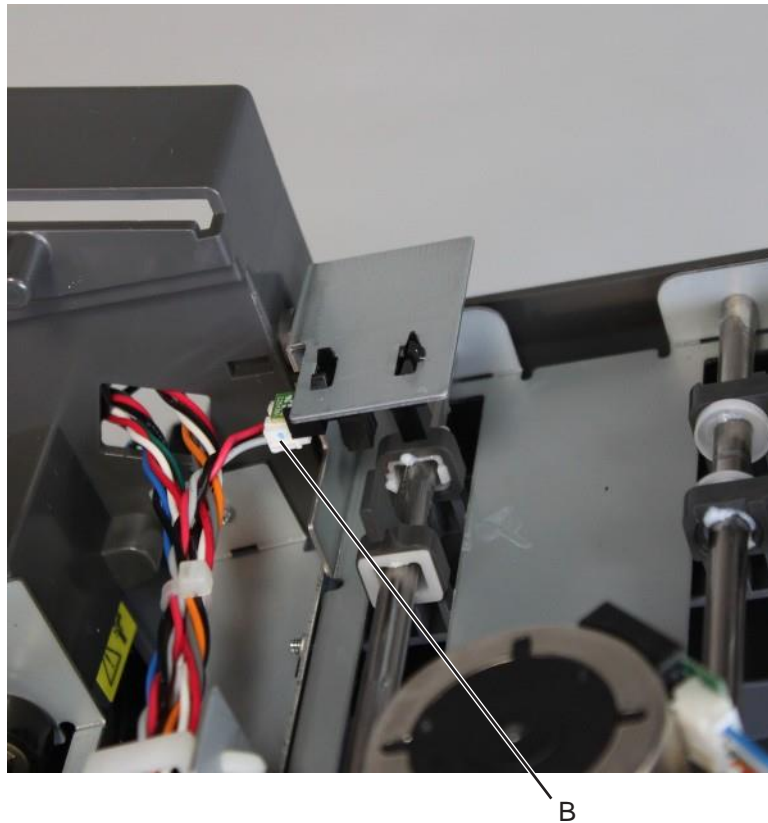
Sensor (staple finisher left tamper) removal

1 Remove the staple finisher left cover. See **"Staple finisher left cover removal" on page 597**.

2 Remove the staple finisher right cover. See **"Staple finisher right cover removal" on page 599**.

3 Remove the staple finisher top cover. See **"Staple finisher top cover removal" on page 601**.

4 Move the left tamper to clear the sensor flag (A) from the sensor.
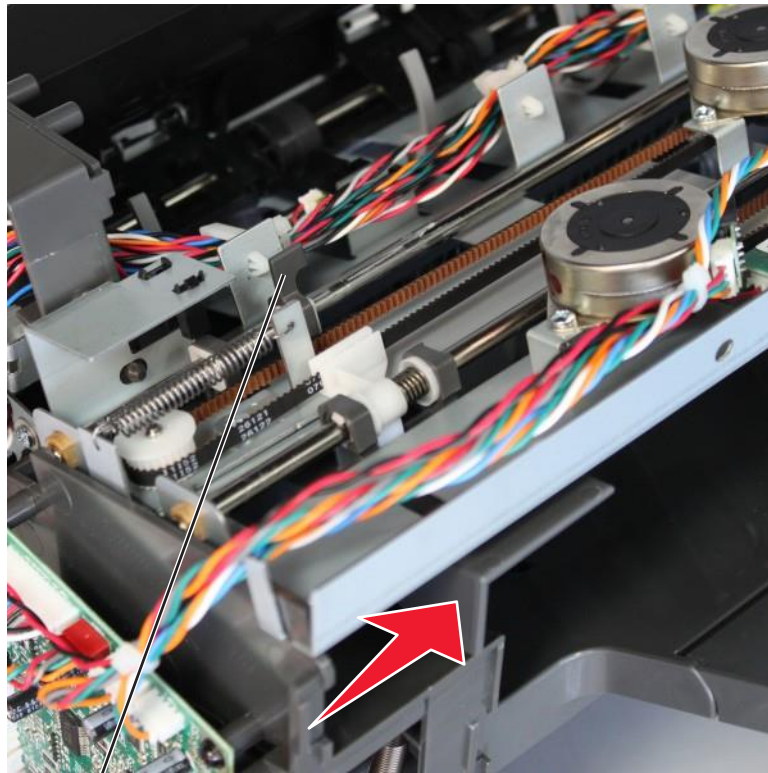
5 Disconnect the sensor cable (B), and then remove the sensor.

B
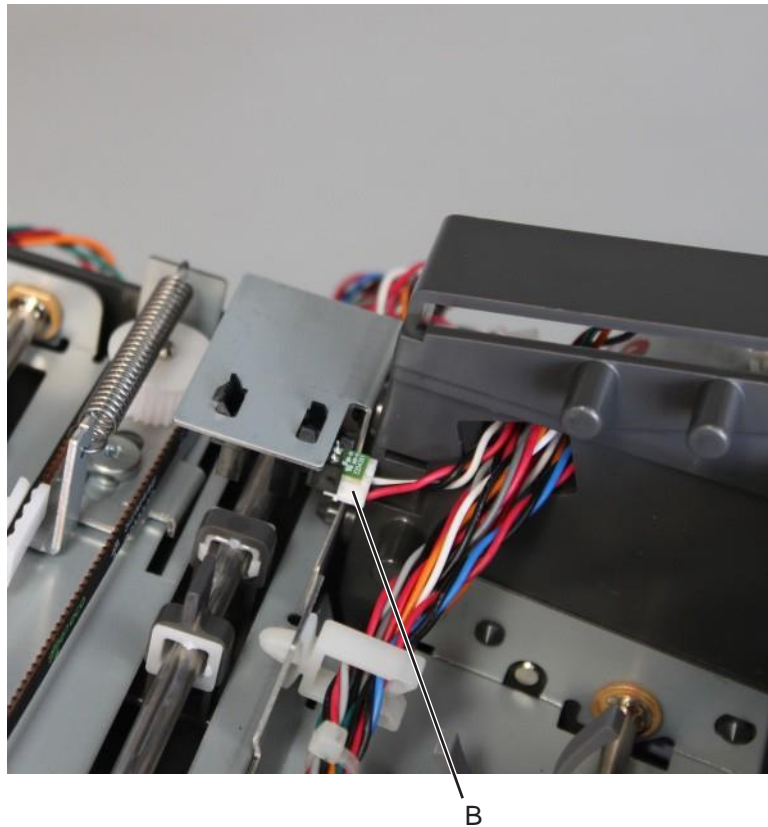
Staple finisher bin LED removal

1 Remove the staple finisher left cover. See **"Staple finisher left cover removal" on page 597**.

2 Remove the staple finisher right cover. See **"Staple finisher right cover removal" on page 599**.

3 Remove the staple finisher top cover. See **"Staple finisher top cover removal" on page 601**.

4 Release the latches (A), and then release the LED.
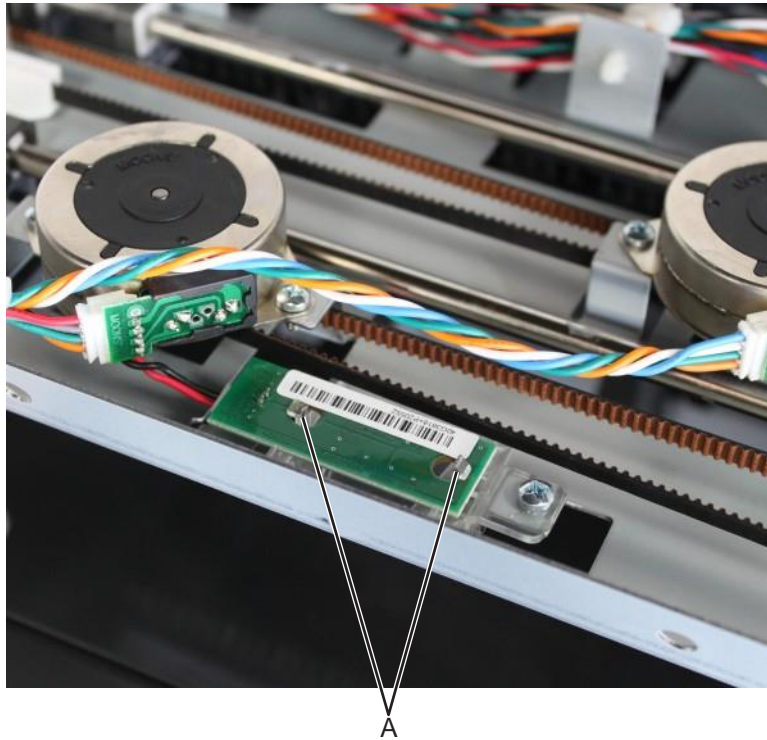
5 Disconnect the cable (B), and then remove the LED.
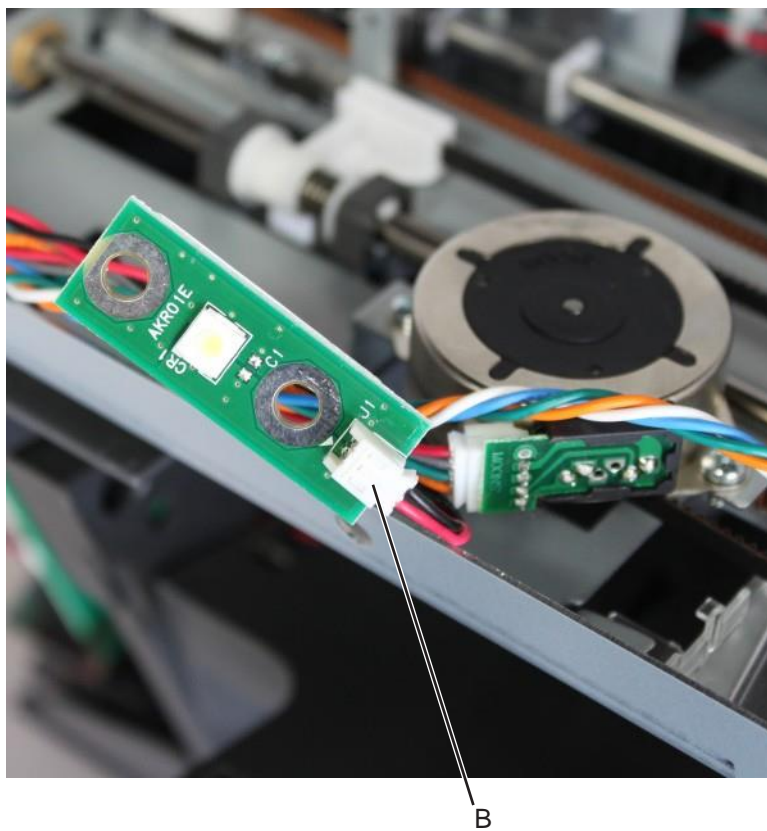
Parts removal

Tamper aligner removal

1 Remove the staple finisher left cover. See **"Staple finisher left cover removal" on page 597**.

2 Remove the staple finisher right cover. See **"Staple finisher right cover removal" on page 599**.

3 Remove the staple finisher top cover. See **"Staple finisher top cover removal" on page 601**.

4 Disconnect the tamper cables J2, J4, and J6 from the finisher controller board.

5 Release the latches (A), and then release the sensors.
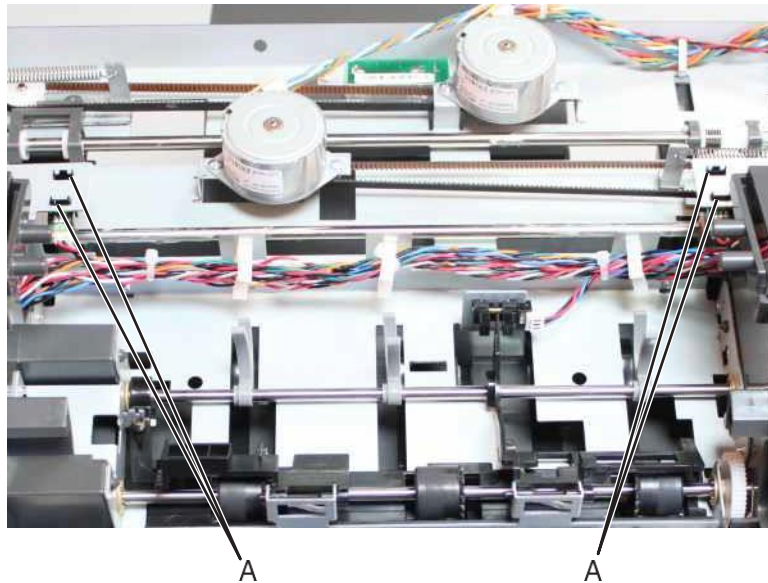
6 Remove the staple finisher bin LED. See **"Staple finisher bin LED removal" on page 638**.

7 Remove the left and right tamper motors. See **"Motor (staple finisher left tamper) removal" on page 632** and **"Motor (staple finisher right tamper) removal" on page 632**.

8 Remove the tamper drive belts. See **"Tamper drive belt removal" on page 633**.

9 Remove the four screws (B), and then remove the tamper assembly.

B
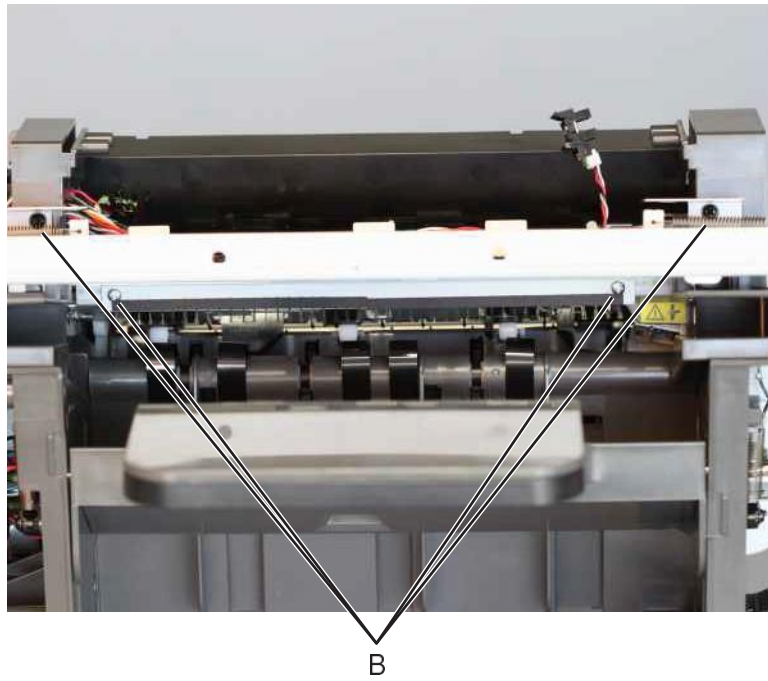
Installation note: Make sure that the tab (C) is correctly inserted into its designated slot.

C
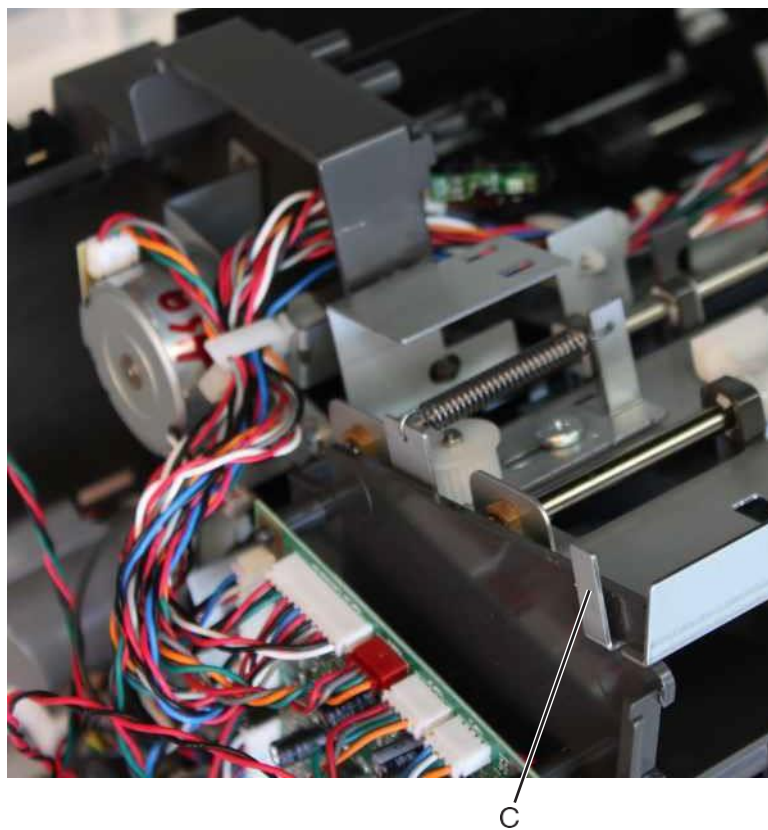
10 Release the tamper belts, remove the two E-clips (A), and then release the shafts.
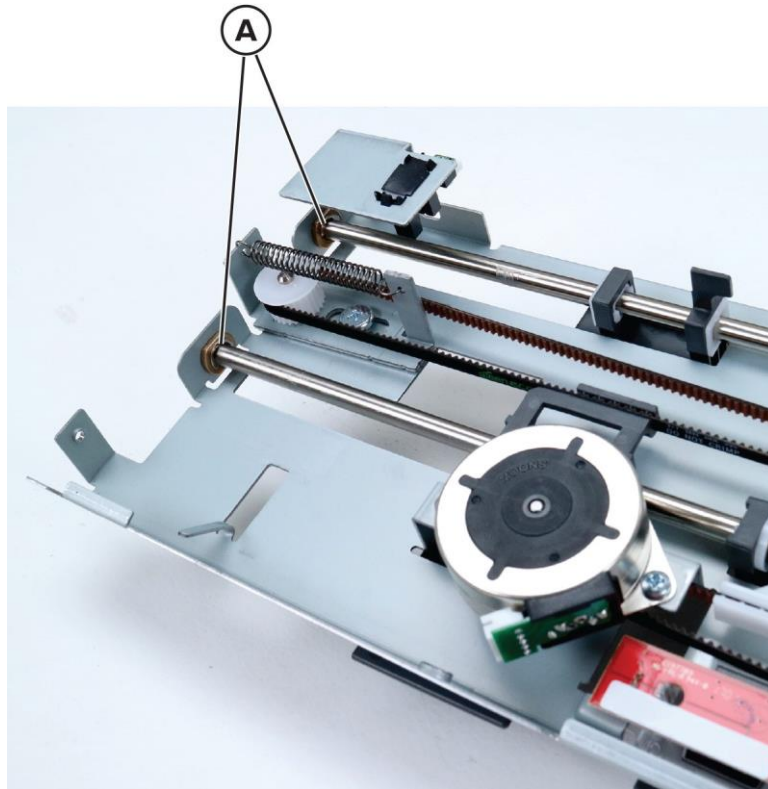
11 Slide the tamper aligner off its shaft.

Staple finisher stack height assembly removal

1 Remove the staple finisher left cover. See **"Staple finisher left cover removal" on page 597**.

2 Remove the staple finisher right cover. See **"Staple finisher right cover removal" on page 599**.

3 Remove the staple finisher top cover. See **"Staple finisher top cover removal" on page 601**.

4 Release the motor bracket. See **"Staple finisher paddle gear removal" on page 624**.

5 Remove the two screws (A), disconnect the cable (B), and then release the assembly bracket.
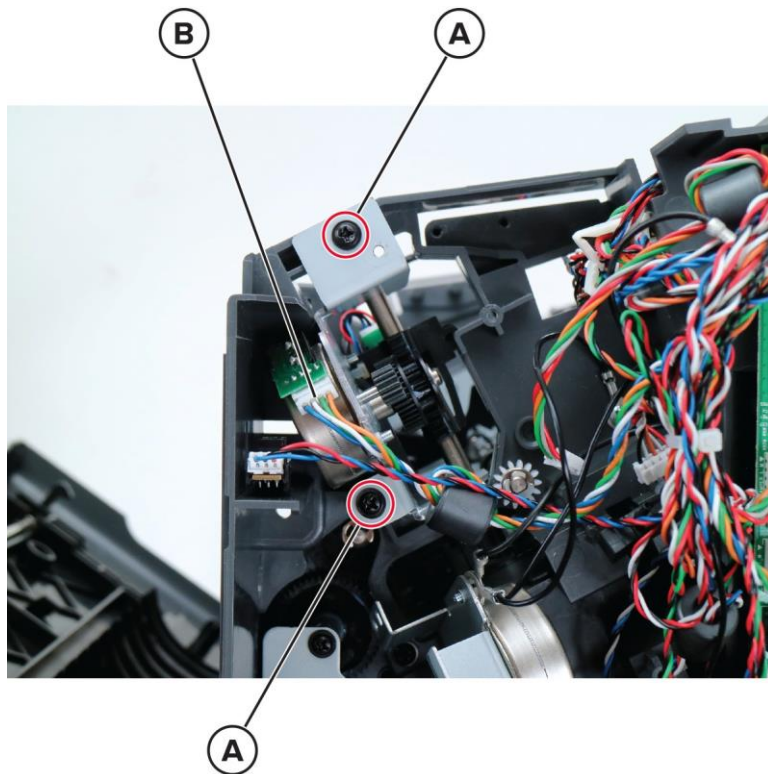
6 Disconnect the cable (C), and then cut the cable tie (D).
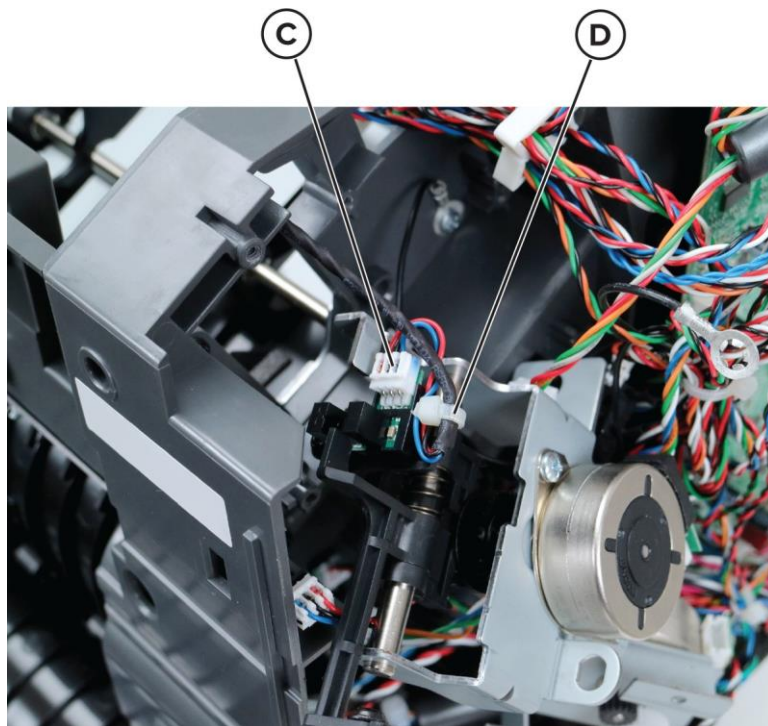
7 Remove the stack height assembly.

Installation note: Make sure that the stack height actuator is inserted properly.
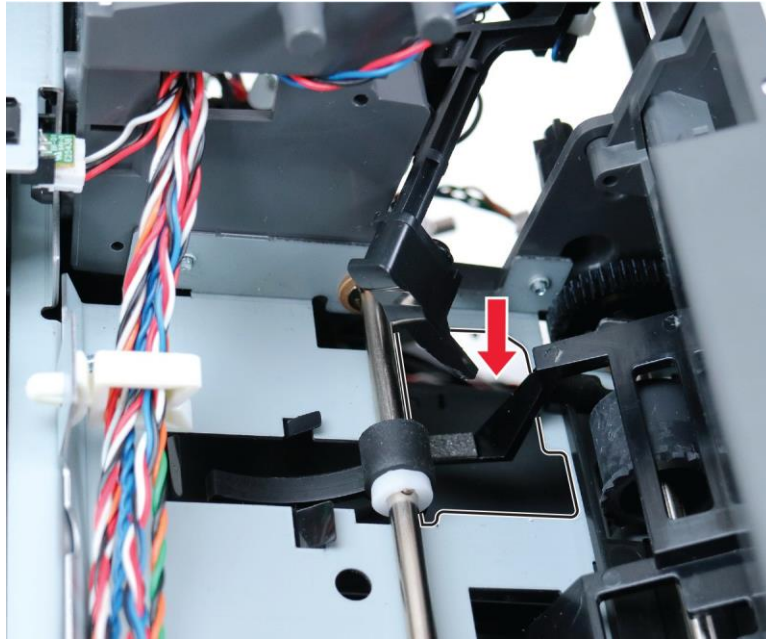
Staple finisher paper stack flap removal

1 Remove the staple finisher left cover. See **"Staple finisher left cover removal" on page 597**.

2 Remove the staple finisher right cover. See **"Staple finisher right cover removal" on page 599**.

3 Remove the staple finisher top cover. See **"Staple finisher top cover removal" on page 601**.

4 Press the two locks to release the flap hinges.
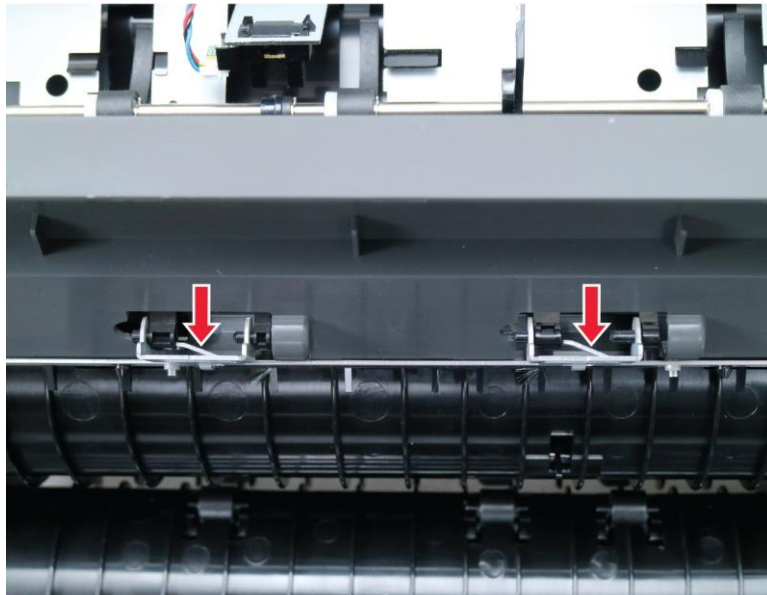
5 Remove the flap.

Staple finisher entrance roller removal

Note: This part is not a FRU.

1 Remove the staple finisher left cover. See **"Staple finisher left cover removal" on page 597**.

2 Remove the staple finisher right cover. See **"Staple finisher right cover removal" on page 599**.

3 Remove the staple finisher diverter plunger assembly. See **"Staple finisher diverter plunger assembly removal" on page 617**.

4 Remove the staple finisher drive gear assembly. See **"Staple finisher drive gear assembly removal" on page 617**.

5 Remove the two E-clips (A).

A
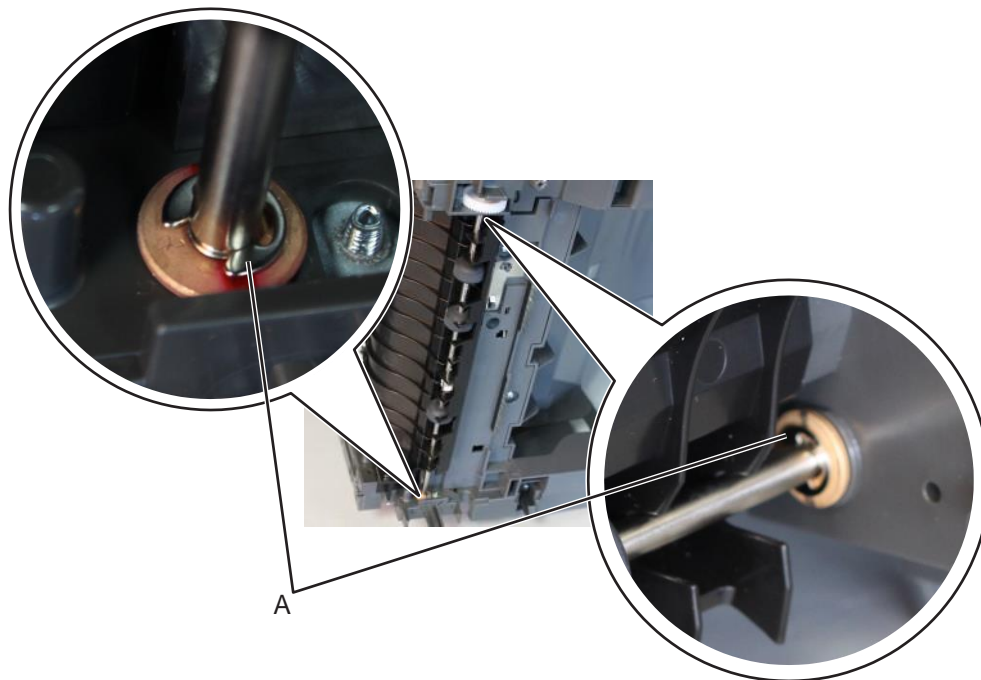
Warning—Potential Damage: Be careful not to lose the E-clips and spacers.

6 Remove the two screws (B), and then remove the grounding plate.

B
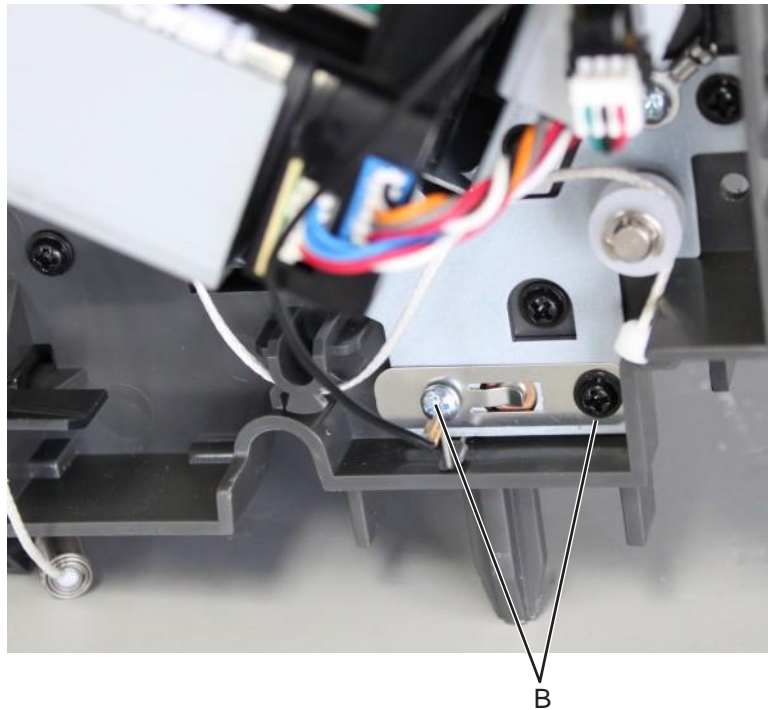
7 Slightly move the shaft to release, and then remove it.
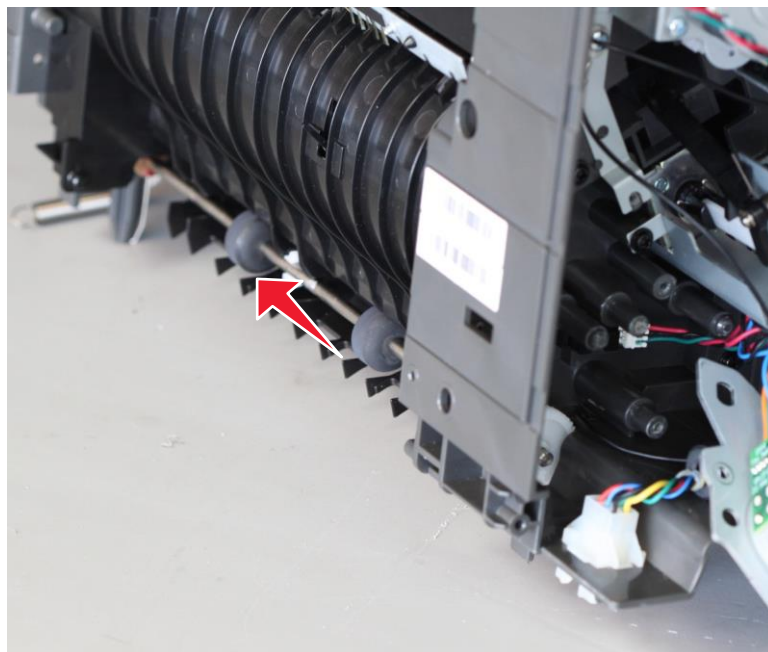
Warning—Potential Damage: Be careful not to lose the bushing and spacers that hold the shaft.

Installation note: To make it less difficult to reinstall the E-clip, use a pair of long-nose pliers to position it onto the shaft, and then lock it in place.
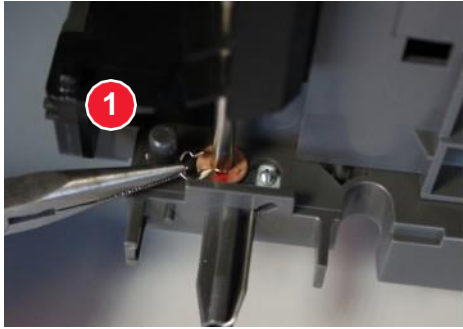
Staple finisher chute assembly removal

Note: This part is not a FRU.

1 Remove the staple finisher left cover. See **"Staple finisher left cover removal" on page 597**.

2 Remove the staple finisher right cover. See **"Staple finisher right cover removal" on page 599**.

3 Remove the staple finisher diverter plunger assembly. See **"Staple finisher diverter plunger assembly removal" on page 617**.

4 Remove the staple finisher drive gear assembly. See **"Staple finisher drive gear assembly removal" on page 617**.

5 Remove the staple finisher entrance roller. See **"Staple finisher entrance roller removal" on page 645**.

6 From the left side, remove the two screws (A).
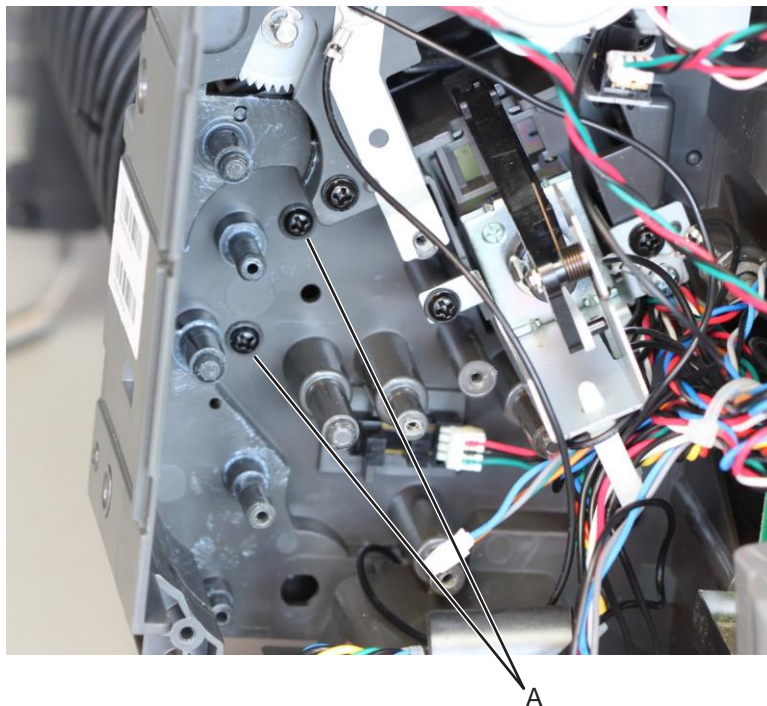
Parts removal

7 From the right side, remove the two screws (B).
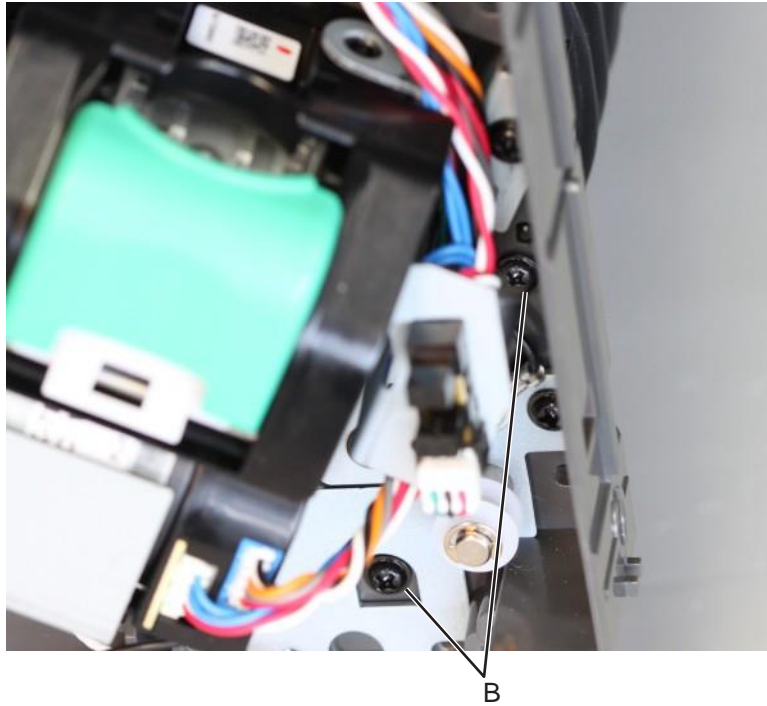
8 Slightly push away the right frame to release the left part of the chute, while lifting the chute to dislodge it from its frame.
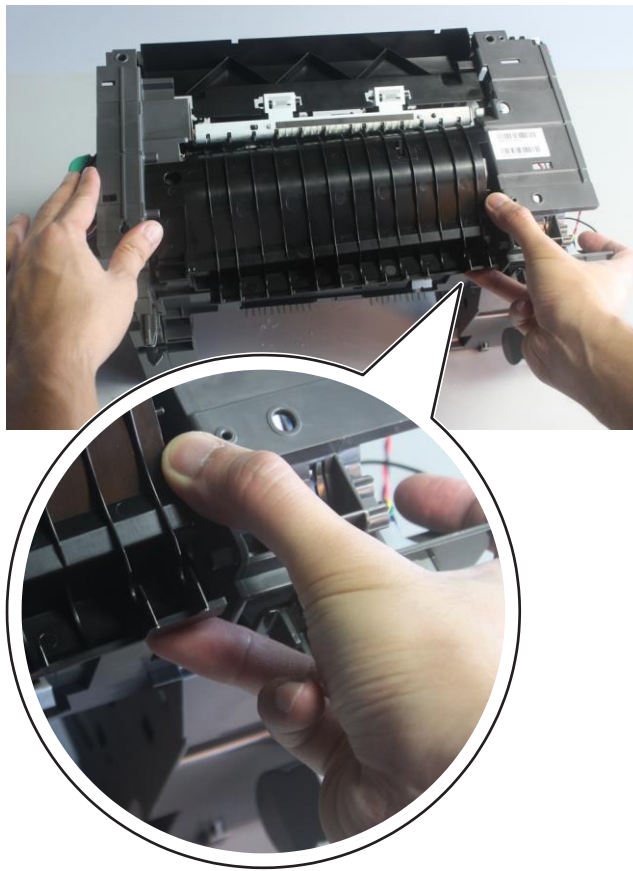
Parts removal

9 Obstacles (C) may cause difficulty in removing the chute. Ease the chute out of obstacles (C), and release it from the bin.

C
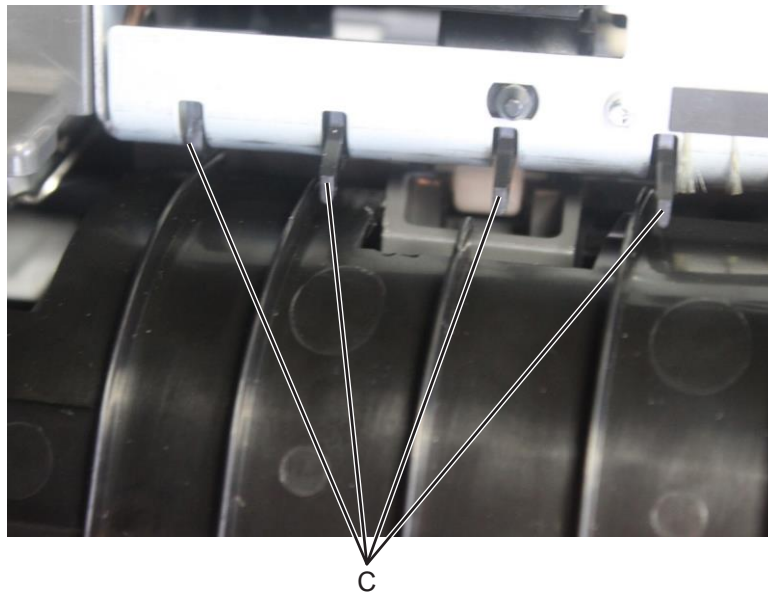
Installation note: Insert the tabs to their corresponding slots.
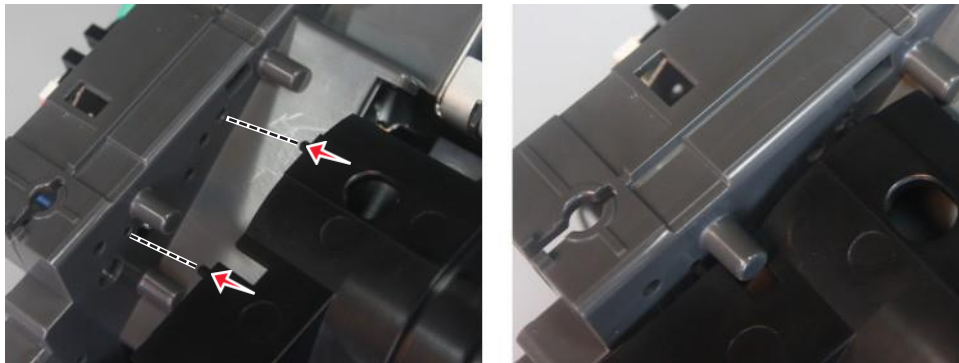
10 Disconnect the cable (D), and remove the chute assembly.

D

Staple finisher ejector assembly removal

1 Remove the staple finisher left cover. See **"Staple finisher left cover removal" on page 597**.

2 Remove the staple finisher right cover. See **"Staple finisher right cover removal" on page 599**.

3 Remove the staple finisher diverter plunger assembly. See **"Staple finisher diverter plunger assembly removal" on page 617**.

4 Remove the staple finisher drive gear assembly. See **"Staple finisher drive gear assembly removal" on page 617**.

5 Remove the staple finisher feed roll. See **"Staple finisher entrance roller removal" on page 645**.

6 Remove the staple finisher chute assembly. See **"Staple finisher chute assembly removal" on page 647**.

7 Release the cable holder (A) from the frame, and then remove it.

A

8 Remove the four screws (B).

B

9 From the bottom side, remove the three screws (C).

C

10 Release the cables from their guides.

Note: Pay attention to the original route of the cables.

11 Pull the ejector assembly away from the bin.

12 Remove the screw (D), and then release the sensor bracket from the assembly.

D
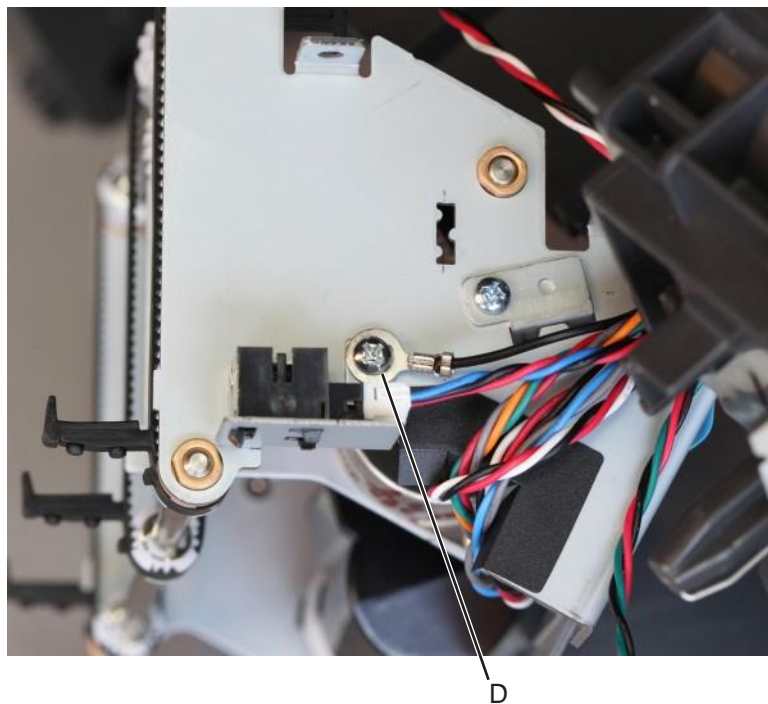
Installation note: Make sure that the paddles (E) align and fit properly.

Parts removal

E
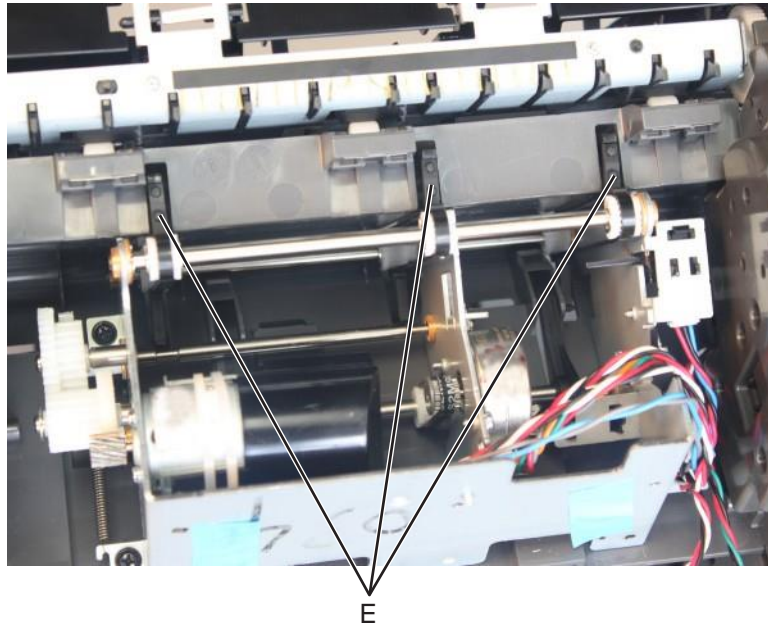
Installation note: Make sure that the cables do not get in the way of moving parts.

Sensor (staple finisher ejector) removal

1 Remove the staple finisher left cover. See **"Staple finisher left cover removal" on page 597**.

2 Remove the staple finisher right cover. See **"Staple finisher right cover removal" on page 599**.

3 Remove the staple finisher diverter plunger assembly. See **"Staple finisher diverter plunger assembly removal" on page 617**.

4 Remove the staple finisher drive gear assembly. See **"Staple finisher drive gear assembly removal" on page 617**.

5 Remove the staple finisher entrance roller. See **"Staple finisher entrance roller removal" on page 645**.

6 Remove the staple finisher chute assembly. See **"Staple finisher chute assembly removal" on page 647**.

7 Release the cable holder (A) from the frame, and then remove it.

A

8 Remove the four screws (B).

B

9 From the bottom side, remove the three screws (C).

10 Release the cables from their guides.

Note: Pay attention to the original route of the cables.

11 Pull the ejector assembly away from the bin.

12 Disconnect the sensor cable (D), and then remove the sensor.

Sensor (staple finisher pass-through) removal

1 Remove the staple finisher left cover. See **"Staple finisher left cover removal" on page 597**.

2 Remove the staple finisher right cover. See **"Staple finisher right cover removal" on page 599**.

3 Remove the staple finisher diverter plunger assembly. See **"Staple finisher diverter plunger assembly removal" on page 617**.

4 Remove the staple finisher drive gear assembly. See **"Staple finisher drive gear assembly removal" on page 617**.

5 Remove the staple finisher feed roll. See **"Staple finisher entrance roller removal" on page 645**.

6 Remove the staple finisher chute assembly. See **"Staple finisher chute assembly removal" on page 647**.

7 Disconnect the cable (A), remove the screw (B), and then remove the sensor bracket.

B   A
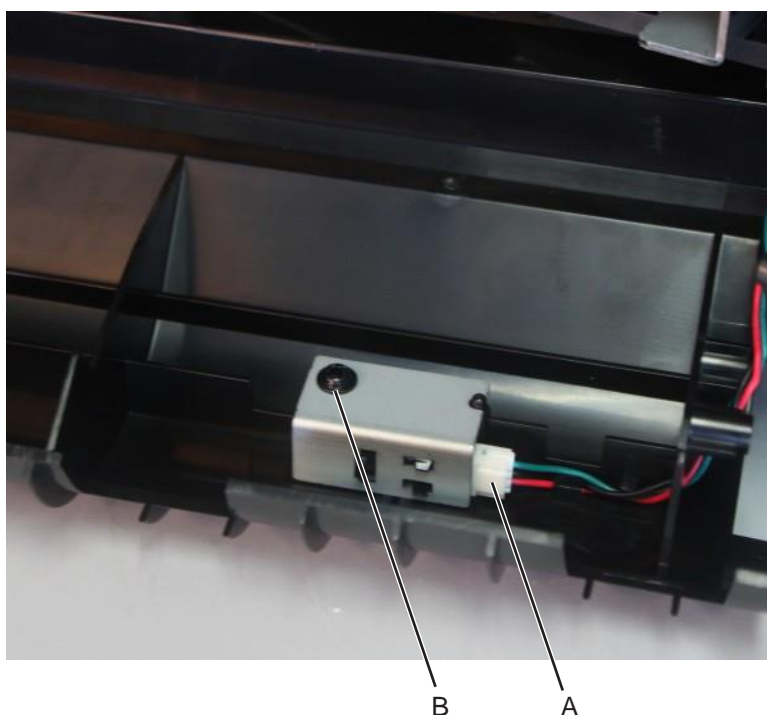
8 Remove the sensor from the bracket.

Staple cartridge access door removal
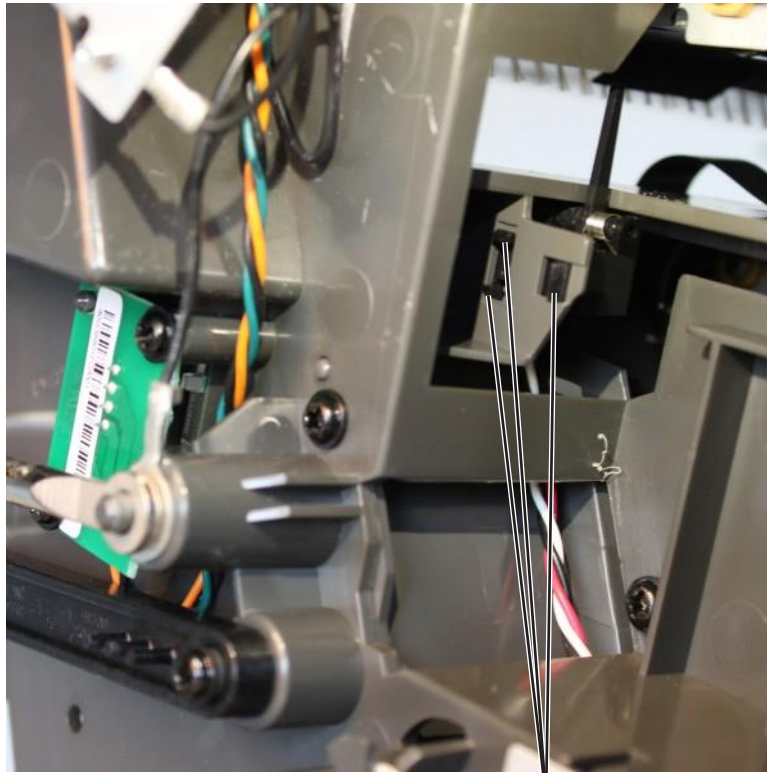
Open the access door (A), and then pull it off the cover.
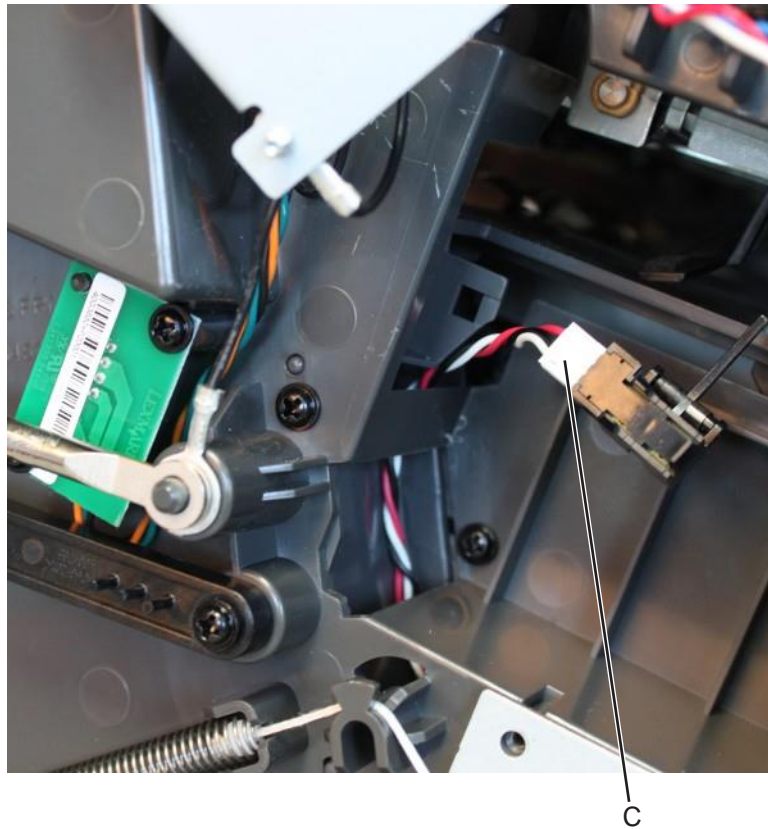
A

Sensor (staple throat paper present) removal

1 Remove the staple finisher right cover. See .

2 Remove the staple finisher top cover. See .

3 Remove the staple unit carriage. See .

4 Release the latches (B), and then release the sensor from its bracket.
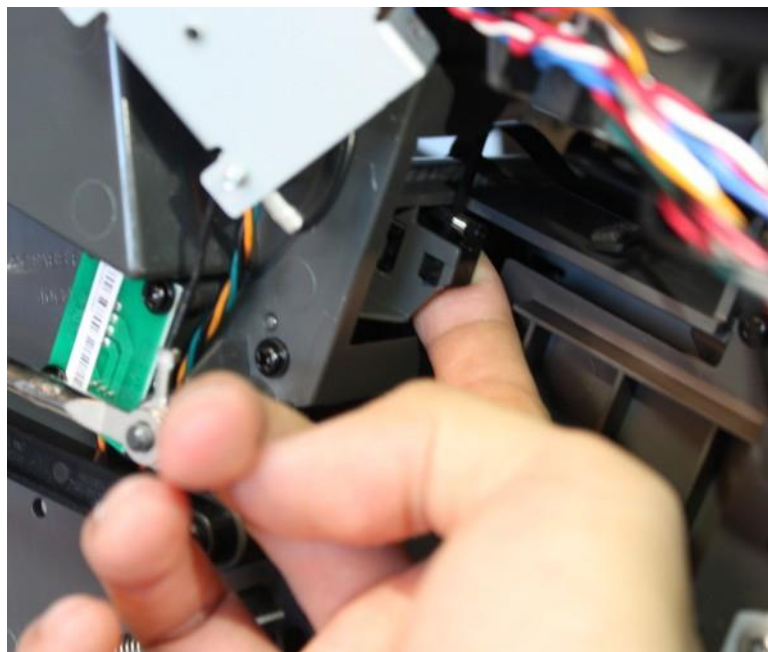
B

5 Disconnect the cable (C), and then remove the sensor.

C

Installation note: Make sure that the sensor is properly installed. Push the sensor to its bracket until it is securely latched onto the frame.

Staple cartridge door close limit switch removal

1 Remove the staple finisher right cover. See **"Staple finisher right cover removal" on page 599**.

2 Remove the staple finisher top cover. See **"Staple finisher top cover removal" on page 601**.

3 Disconnect the two cables (A).
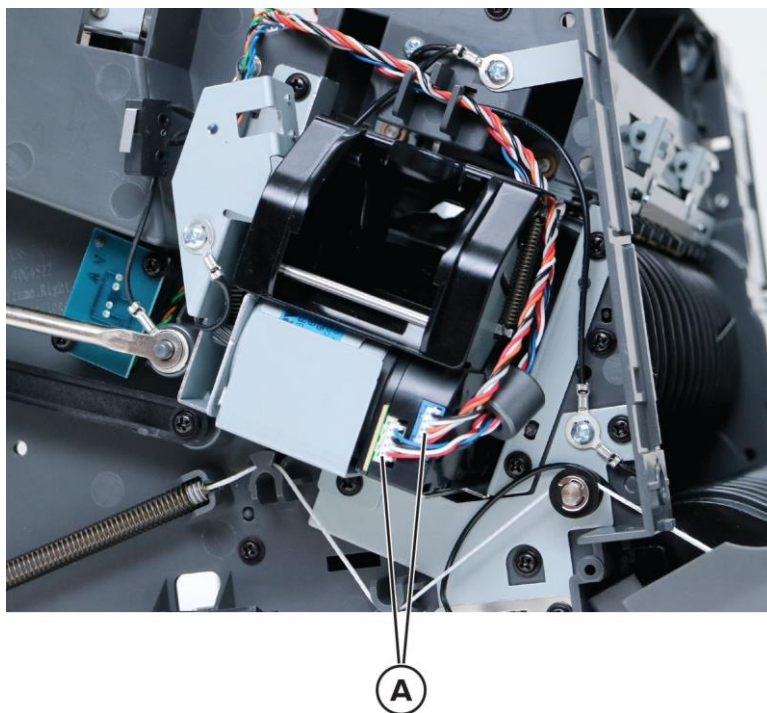
4 Remove the two screws (B), and then release the limit switch.
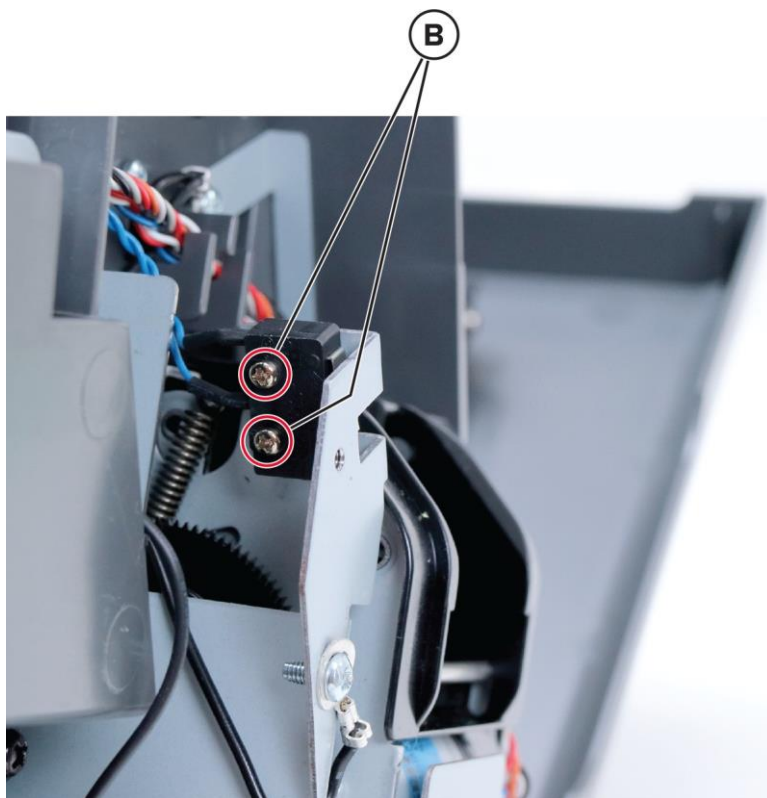
5 Disconnect the limit switch cable from the controller board.

6 Release, and then remove the limit switch.

> **Note:** Pay attention to the original route of the cables.

Optional 4-bin mailbox removals

Optional 4-bin mailbox removal

1 Press the latches to release.

2 Lift the mailbox off the printer.

Mailbox top cover removal

1 Lift the top cover.

2 Remove the top cover from the mailbox.

Mailbox rear door removal

1 Open the rear door, and detach the string (A) from the door.

A

Note: Fasten the string end (B) to the rear side to prevent it from recoiling into the interior of the mailbox.

B

2 Position the rear door at the angle shown, and pull the door off the mailbox.

Parts removal

Mailbox right cover removal

1 Open the rear door, and then detach the string (A) from the door.

A

Note: Fasten the string to the rear side to prevent it from recoiling into the interior of the mailbox.

2 Remove the mailbox top cover. See **"Mailbox top cover removal" on page 661**.

3 Remove the two screws (B) from the mailbox, and then remove the cover.

B
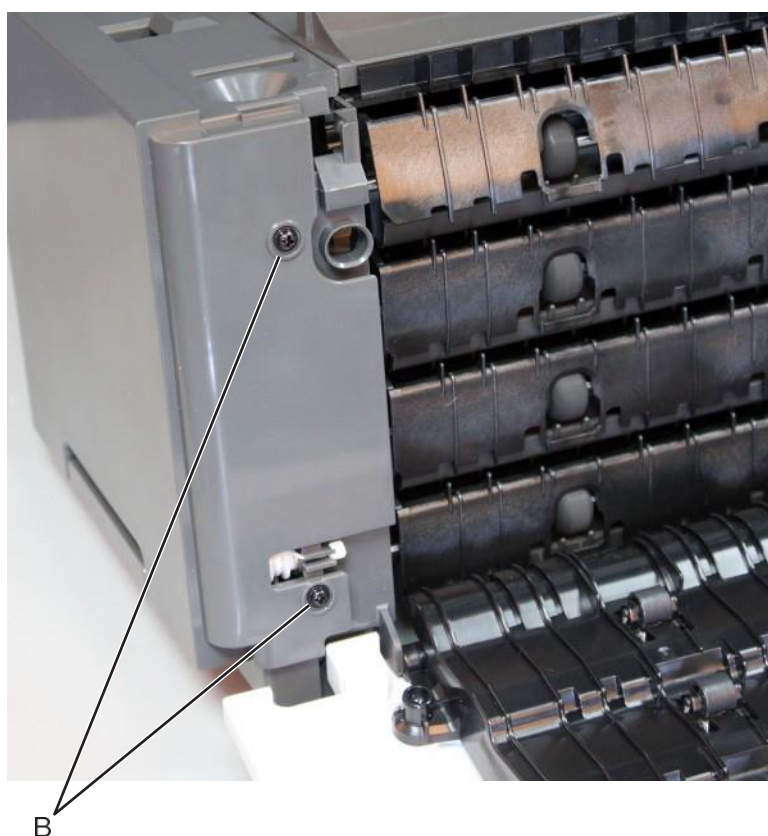
Mailbox top bin cover with bail removal

1 Slightly push the inner frame of the mailbox to the left to release the bin cover, and then lift the bin cover.
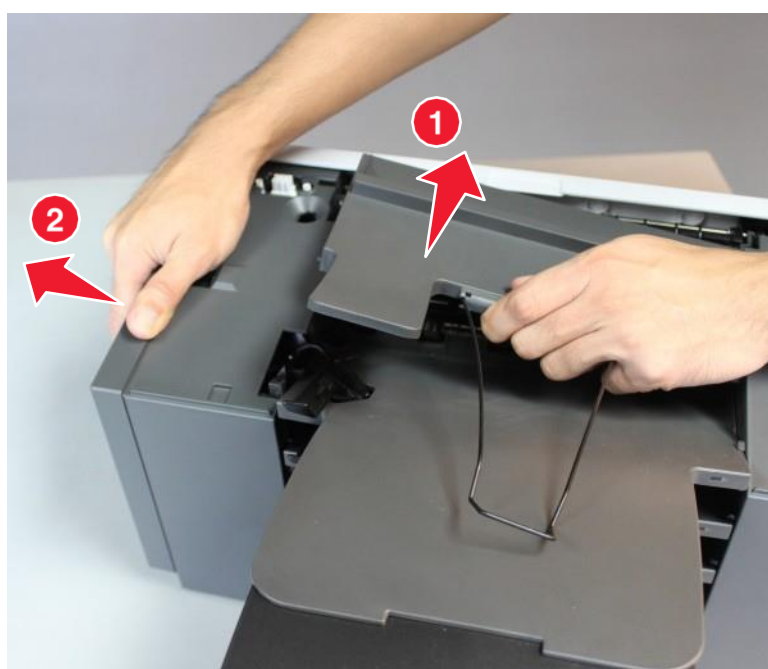
Parts removal

2 Release the mud bail flap from the bin cover, and then remove.

Mailbox spring with string removal

1 Remove the mailbox top cover. See **"Mailbox top cover removal" on page 661**.

2 Remove the mailbox right cover. See **"Mailbox right cover removal" on page 664**.

3 Remove the spring (A) with string.

   Note: Pay attention to the original position of the string. The string on the pulley is wound clockwise.

A
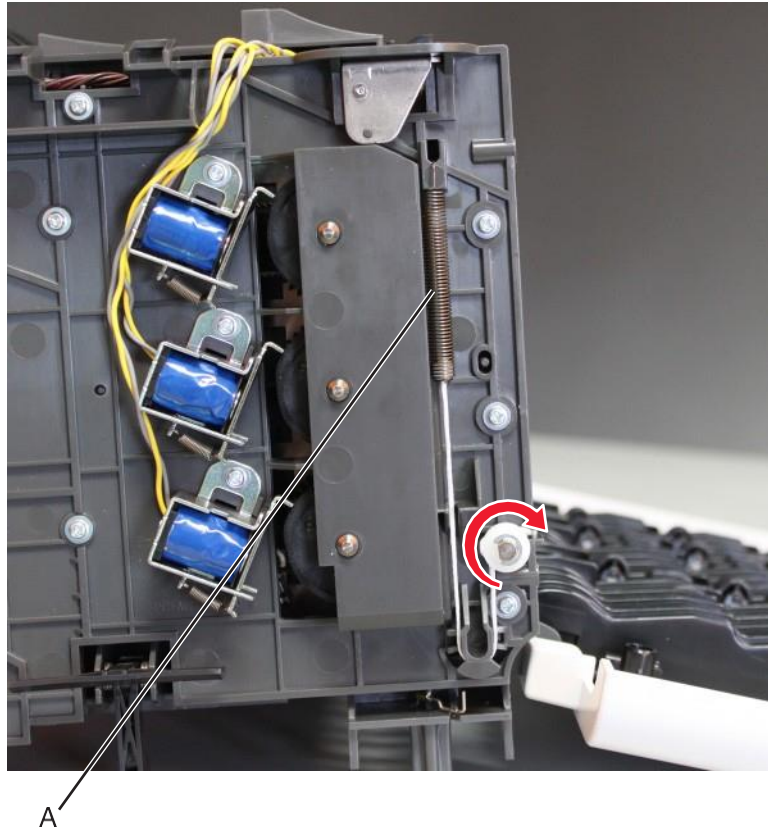
Mailbox left cover removal

1 Open the rear door.

2 Remove the mailbox top cover. See **"Mailbox top cover removal" on page 661**.

3 Remove the screw from the mailbox (A), then remove the left cover.

A
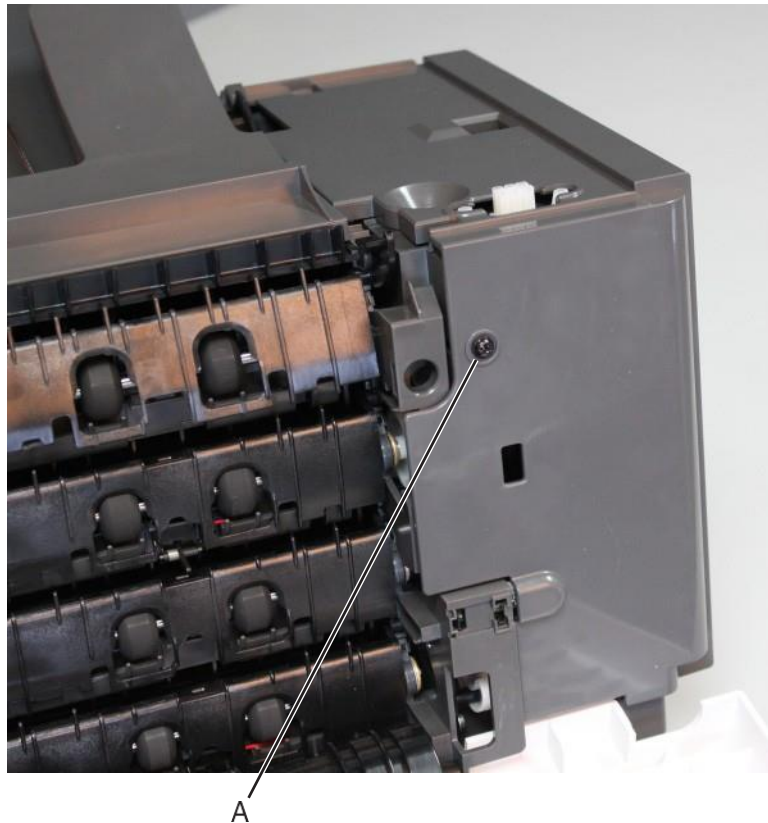
Mailbox solenoid removal

1 Remove the mailbox top cover. See .

2 Remove the mailbox right cover. See .

3 Remove the mailbox left cover. See .

4 Lift the middle portion of the cover to release the tabs (A), then remove the cover.

A
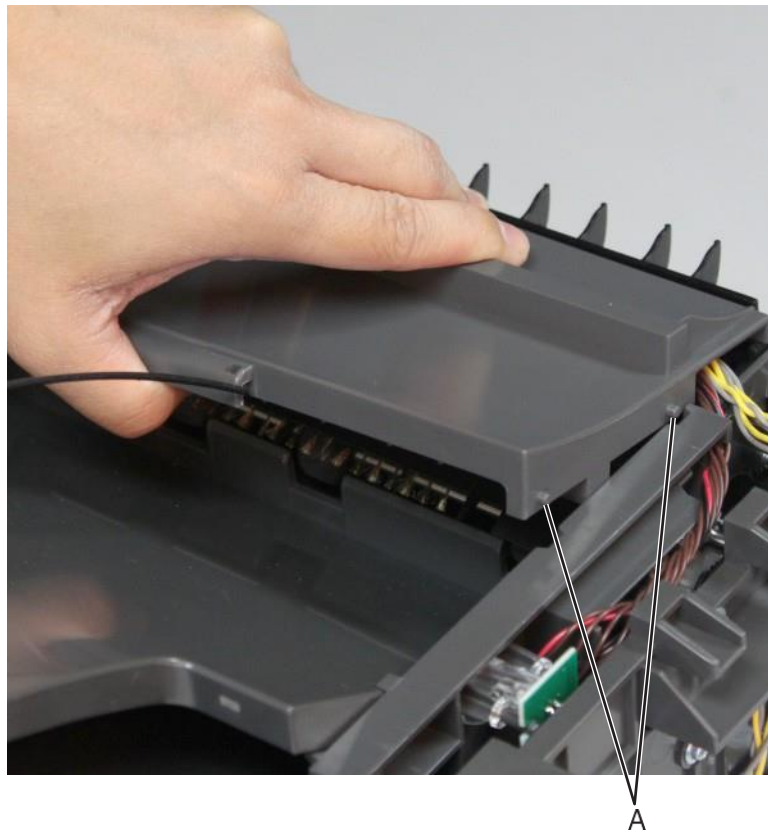
5 Disconnect the solenoid cable (J2A, J2B, or J2C) from the controller board.

Bin 3 solenoid

Bin 2 solenoid

Bin 1 solenoid

Bin 1 solenoid

Bin 2 solenoid

Bin 3 solenoid
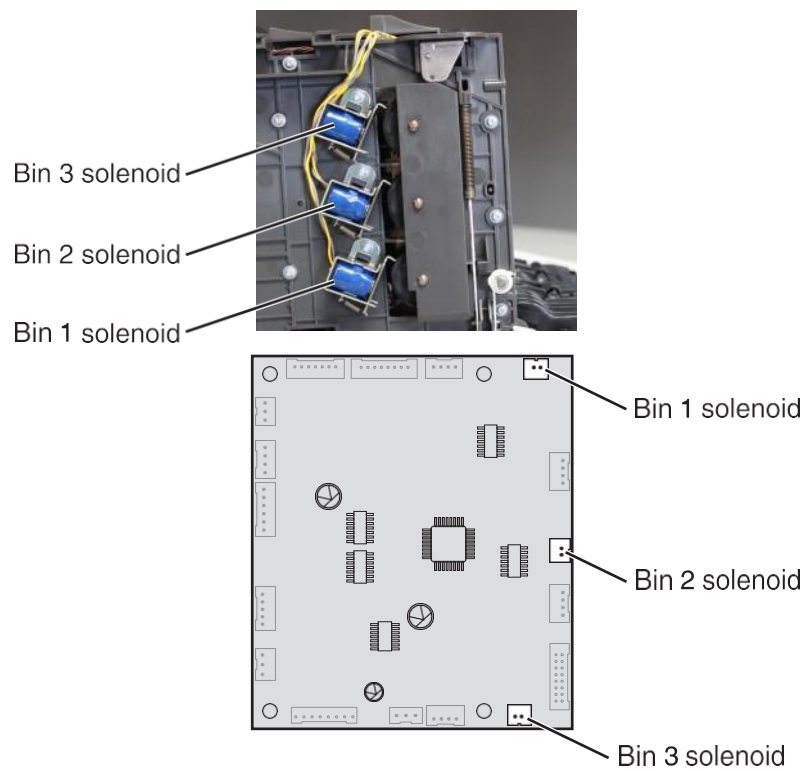
Parts removal

6 Remove the screw (B) securing the solenoid.

B
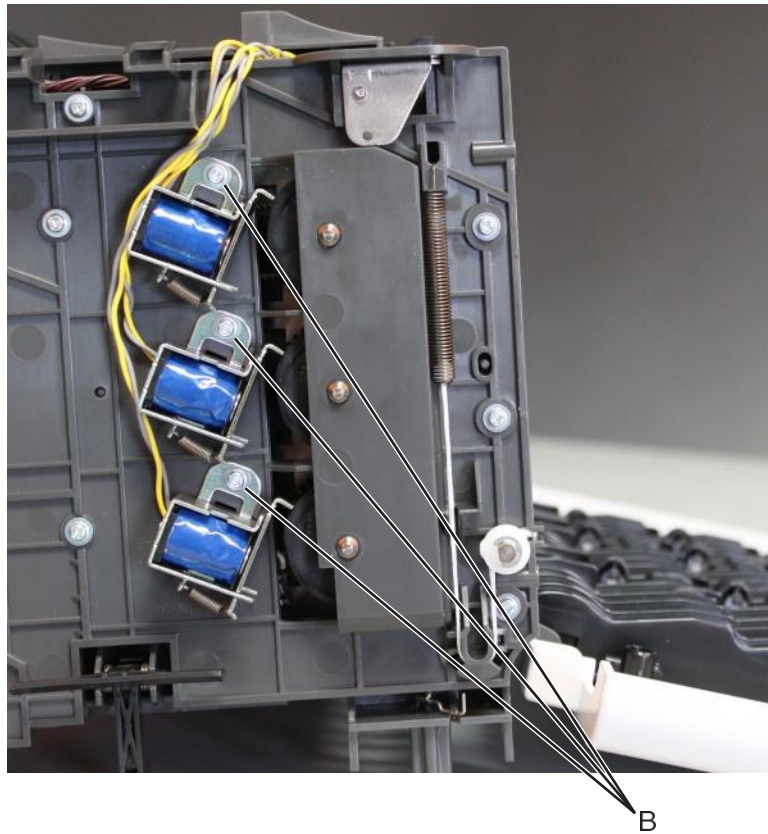
7 Route the cable off the mailbox, then remove the solenoid.

Mailbox latch removal

1 Remove the mailbox left cover or right cover. See **"Mailbox left cover removal" on page 667** or **"Mailbox right cover removal" on page 664**.

2 Pull the latches off the mailbox, and then remove.
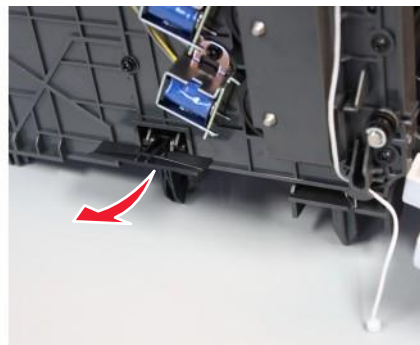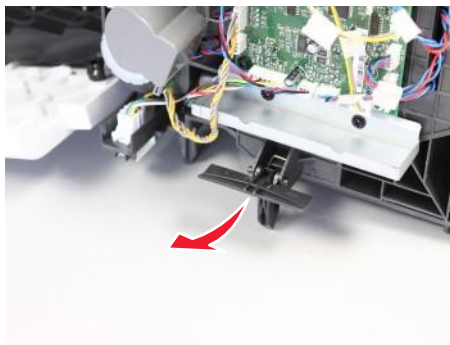
Sensor (mailbox rear door interlock) removal

1 Remove the mailbox left cover. See **"Mailbox left cover removal" on page 667**.

2 Pry the mylar cover off the sensor latches.

3 Disconnect the cable (A), and then release the latches to remove the sensor.

A

Mailbox diverter plunger assembly removal

1 Remove the mailbox left cover. See **"Mailbox left cover removal" on page 667**.

2 Remove the mailbox rear door. See **"Mailbox rear door removal" on page 662**.

3 Remove the two screws (A), and then remove the shield.

A

4 Remove the seven screws (B) from the inner left frame.

B

Note: Pay attention to the original position of the grounding plate (C).

C

5 Move away the left inner frame to access the parts underneath.

6 Remove the two screws (D), and then remove the diverter plunger.

D
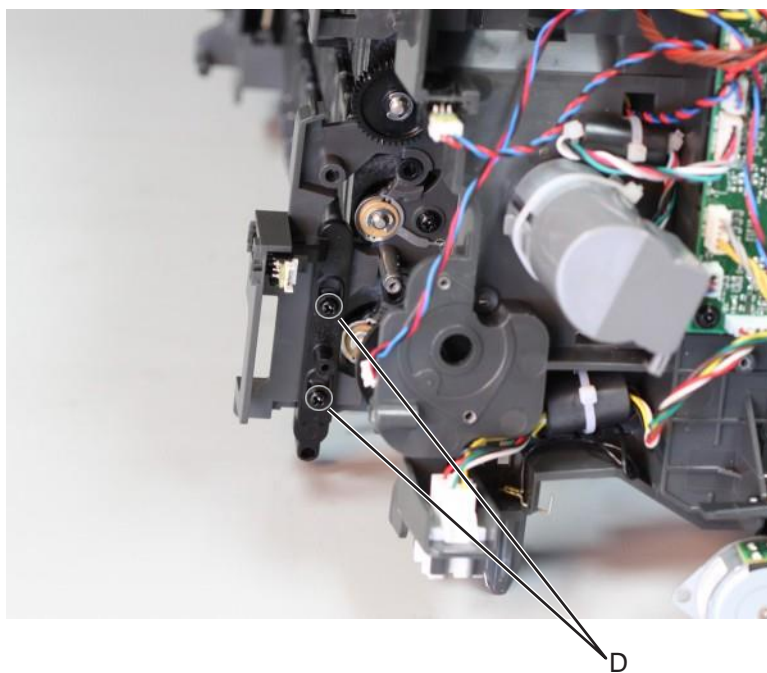
7 Remove the E-clip (E) to release the cam, and then remove the diverter cam.

E

Parts removal

Mailbox transport drive gear removal

1 Remove the mailbox left cover. See **"Mailbox left cover removal" on page 667**.

2 Remove the mailbox rear door. See **"Mailbox rear door removal" on page 662**.

3 Remove the two screws (A), and then remove the shield.

A

4 Remove the seven screws (B) from the inner left frame.

B

Note: Pay attention to the original position of the grounding plate (C).

C

5 Move away the left inner frame to access the parts underneath it.

6 Remove the E-clip (D), and then remove the gear.
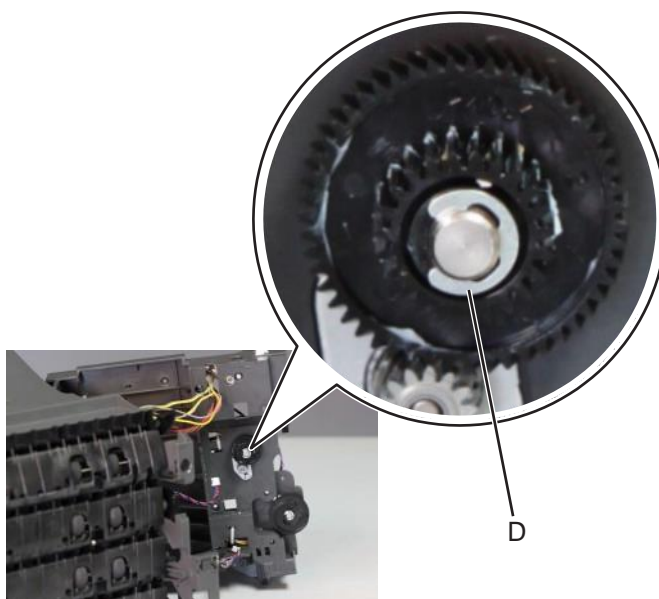
Motor (mailbox transport) removal

1 Remove the mailbox left cover. See **"Mailbox left cover removal" on page 667**.

2 Remove the mailbox rear door. See **"Mailbox rear door removal" on page 662**.

3 Remove the mailbox main drive gear. See **"Mailbox transport drive gear removal" on page 676**.

4 Remove the two screws (A) behind the left frame, and then remove the motor.
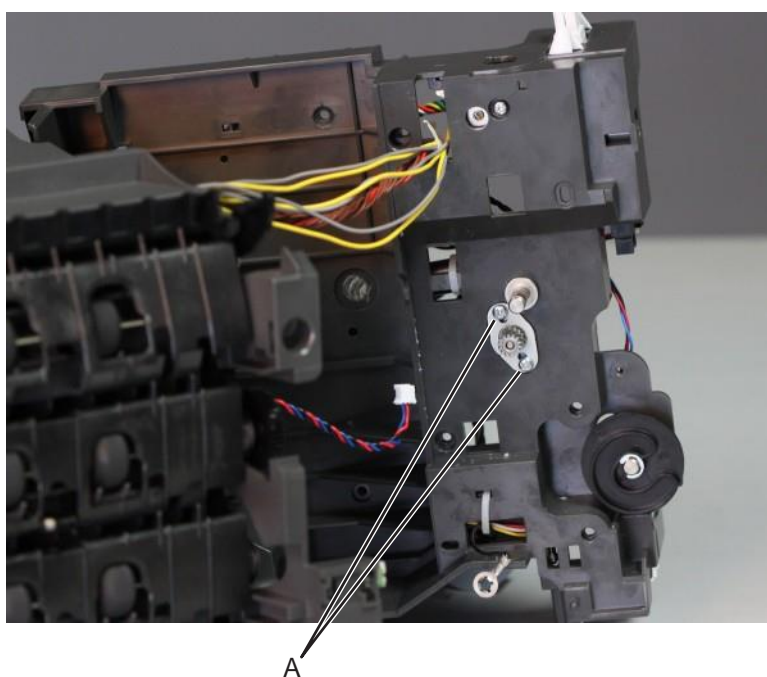
Parts removal

Mailbox controller board removal

1 Remove the mailbox top cover. See **"Mailbox top cover removal" on page 661**.

2 Remove the mailbox left cover. See **"Mailbox left cover removal" on page 667**.

3 Disconnect all cables (J1B, J5, J4D, J2A, J4C, J2B, J4B, J2C, J4A, J8, J1A, J3B, J7, J6, J12, and J3T), and then remove the two screws (A) from the controller board.
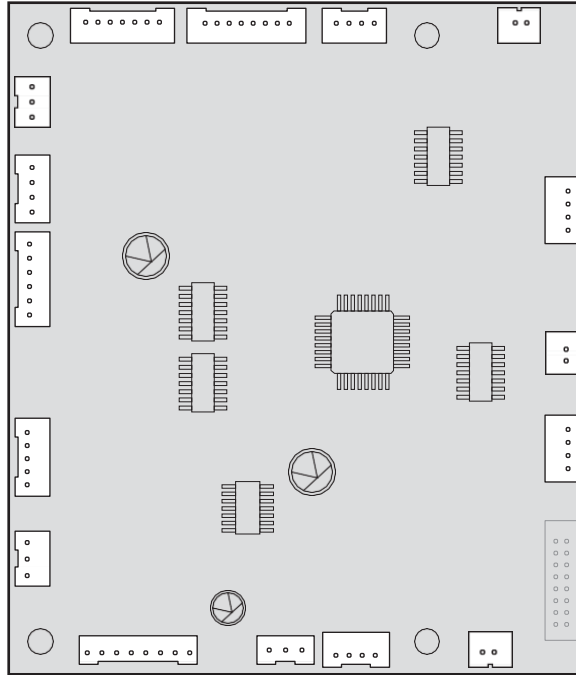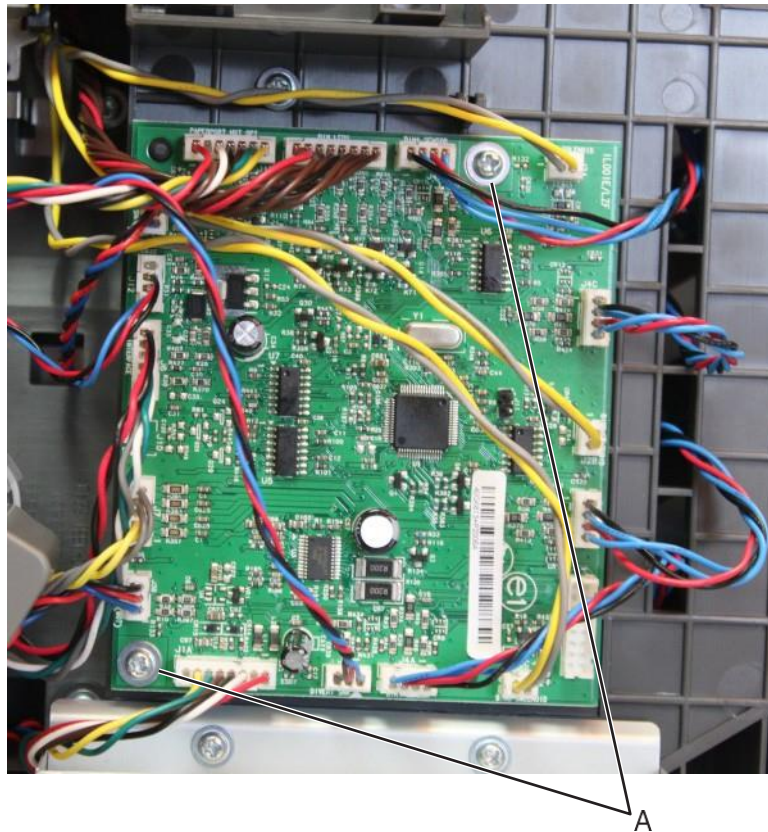
4 Remove the controller board.

Sensor (mailbox diverter plunger) removal

1 Remove the mailbox top cover. See .

2 Remove the mailbox left cover. See .

3 Rotate the cam to clear the sensor.
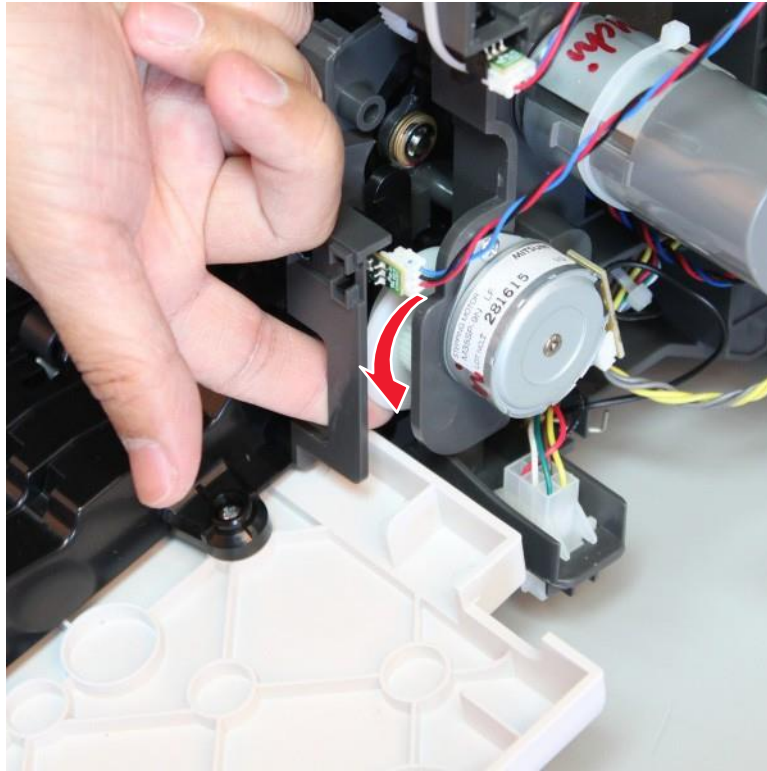
4 Disconnect the cable (A), and then release the sensor latches (B).
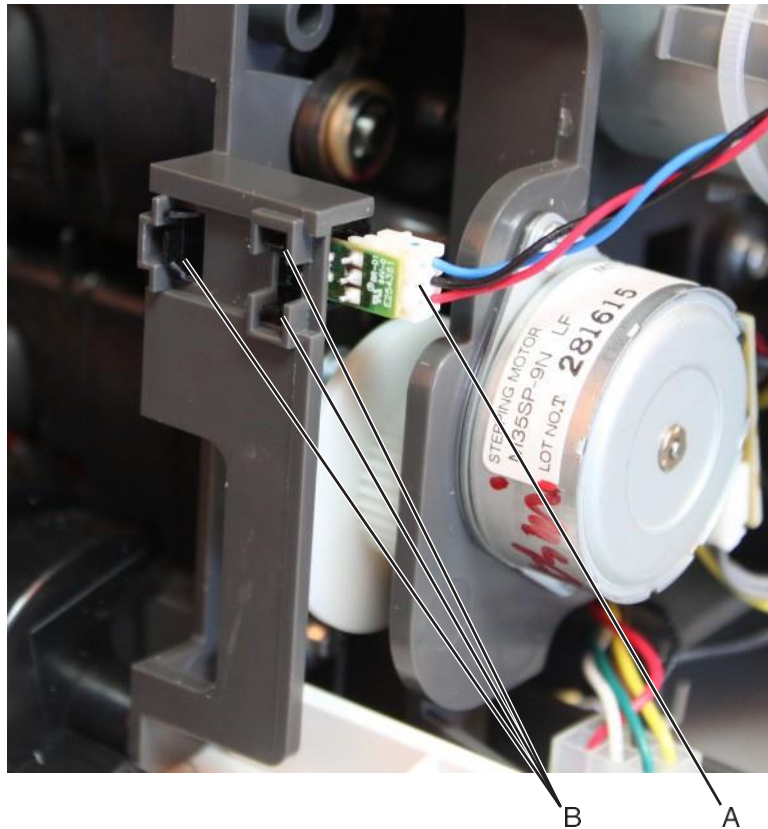
5 Remove the sensor.

Mailbox lower interface cable removal

1 Remove the mailbox top cover. See **"Mailbox top cover removal" on page 661**.

2 Remove the mailbox left cover. See **"Mailbox left cover removal" on page 667**.

3 Disconnect the lower interface cable J1A from the controller board.
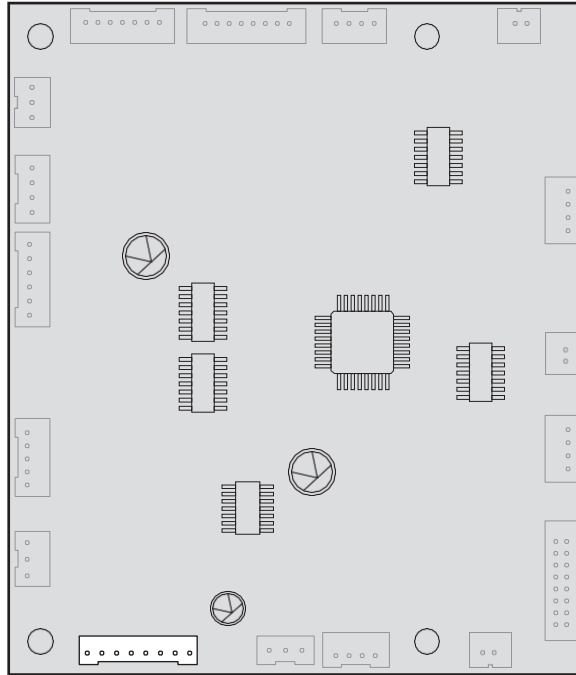
4 Cut the cable tie holding the lower interface cable.

Installation note: Make sure the cables don't get in the way of moving parts.

5 Push inward to release the latches (A), then push the connector off its slot.
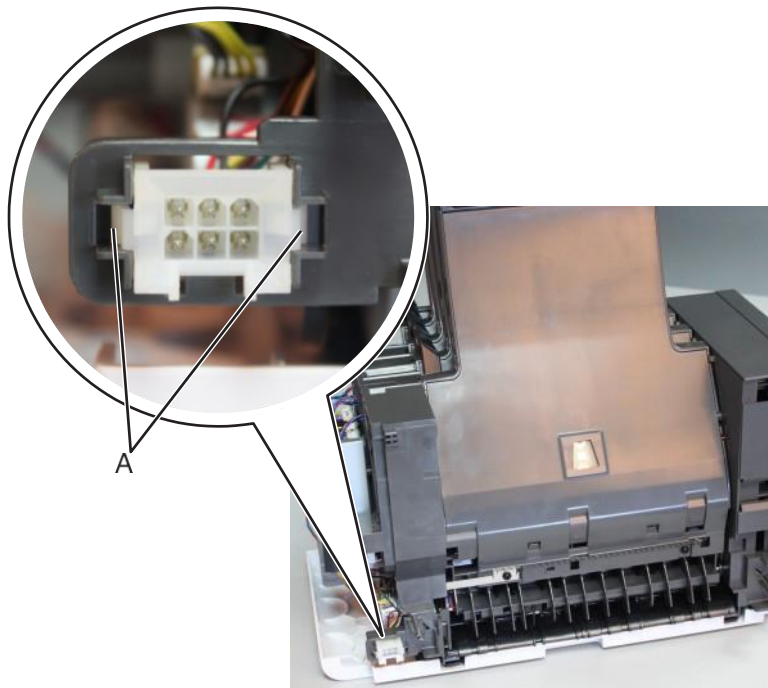
6 Remove the lower interface cable.

Mailbox upper interface cable removal

1 Remove the mailbox top cover. See **"Mailbox top cover removal" on page 661**,

2 Remove the mailbox left cover. See **"Mailbox left cover removal" on page 667**.

3 Disconnect the upper interface cable J1B from the controller board.
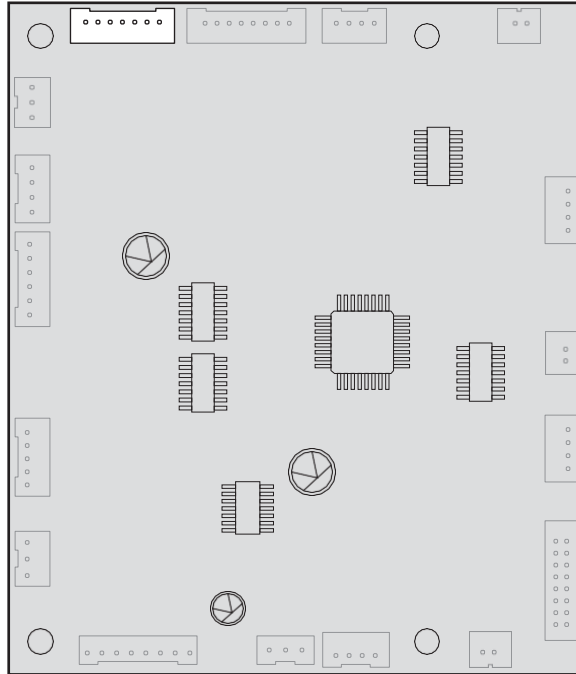
4 Crimp both connector pins, using pliers to make them fit the pin holes. Push the connector off its slot.

5 Remove the upper interface cable.

Motor (mailbox diverter) removal

1 Remove the mailbox top cover. See **"Mailbox top cover removal" on page 661**.

2 Remove the mailbox left cover. See **"Mailbox left cover removal" on page 667**.

3 Disconnect the cable (A), and then remove the two screws (B) using a #1 Phillips screwdriver.
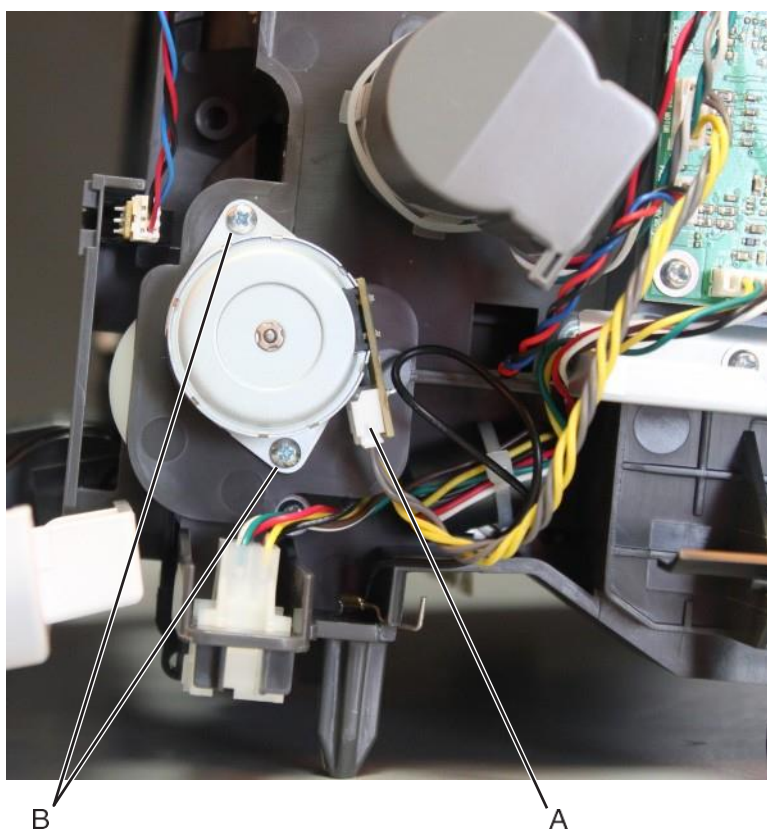
4 Remove the motor.

Mailbox bin full flag removal

1 Pull the flag to release the flag hinge.

2 Release the flag from the mailbox, and then remove it.

Installation note: Make sure that the flag hinge pins are inserted into their corresponding slots.

Sensor (mailbox bin full) removal
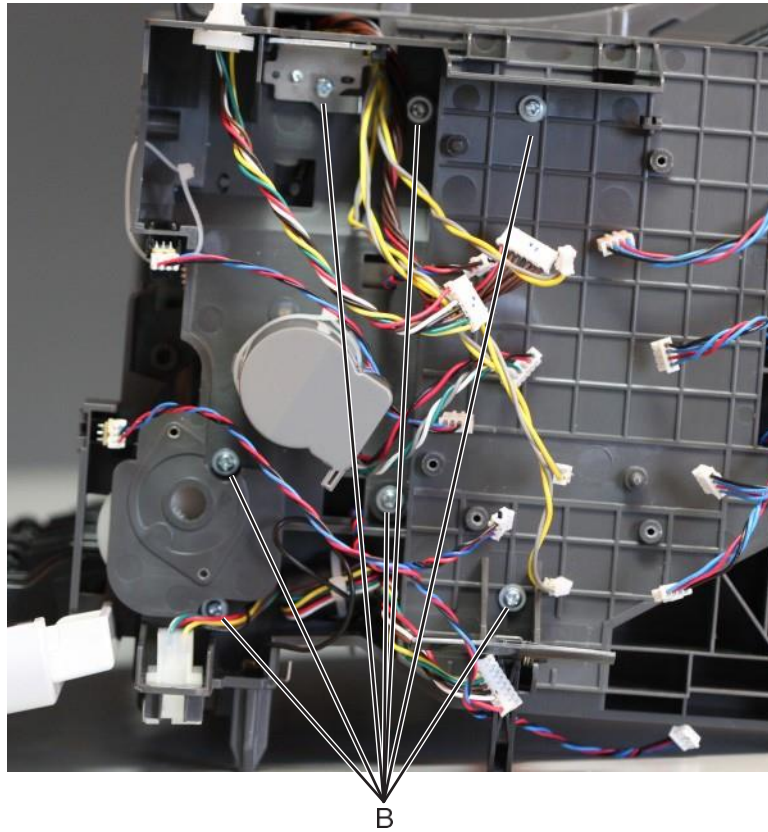
1 Remove the mailbox top cover. See **"Mailbox top cover removal" on page 661**.

2 Remove the mailbox left cover. See **"Mailbox left cover removal" on page 667**.

3 Remove the motor (mailbox diverter). See **"Motor (mailbox diverter) removal" on page 685**.

4 Remove the mailbox controller board. See **"Mailbox controller board removal" on page 680**.

5 Remove the two screws (A), and then remove the shield.

A
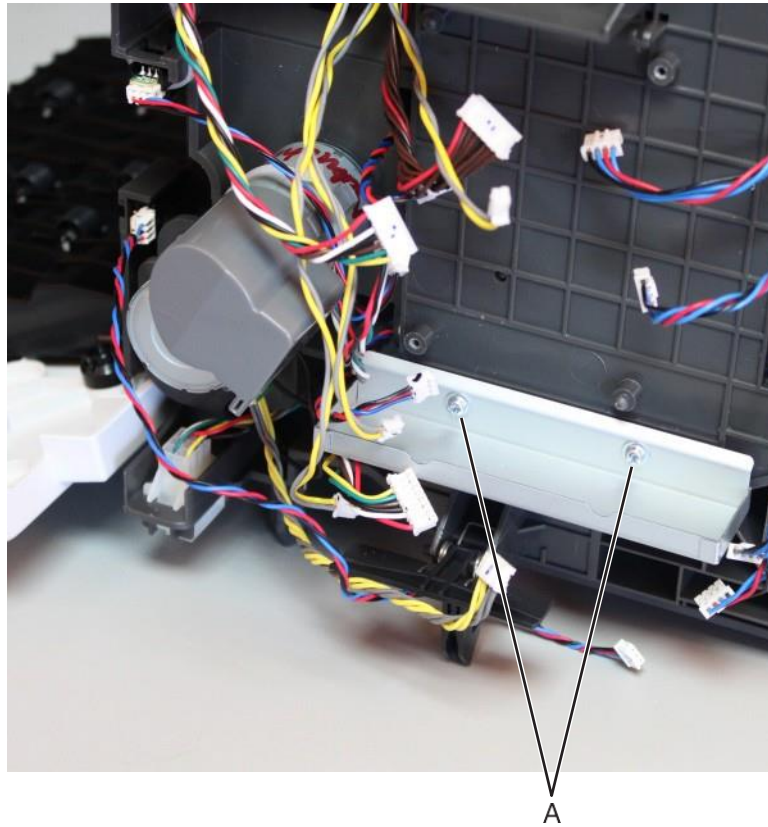
6 Remove the seven screws (B), and then release the left frame.

B

Installation note: Pay attention to the original position of the grounding plate (C).

C
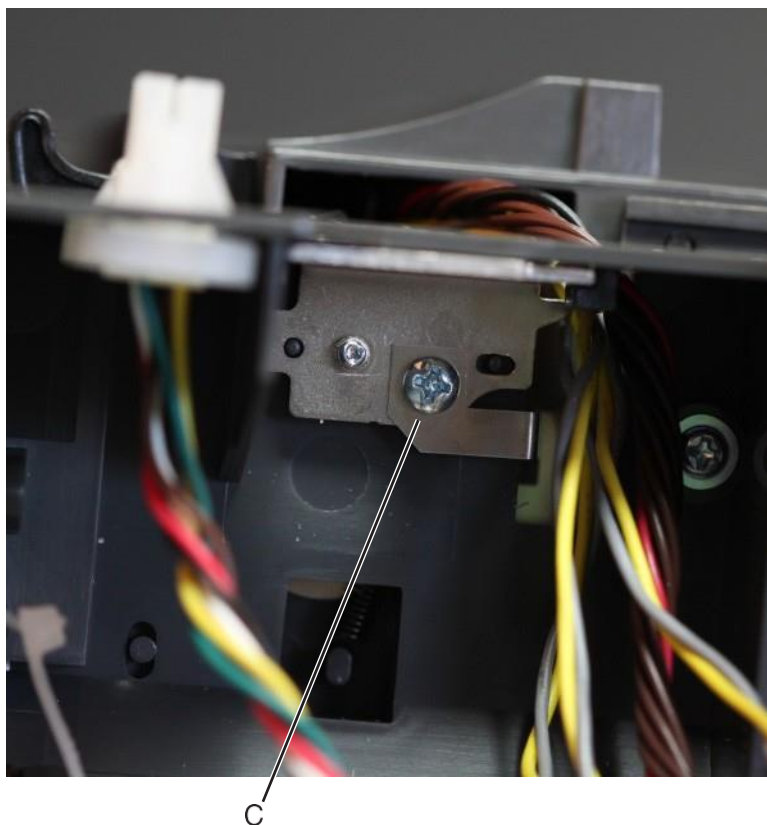
7 Slightly pull the left frame to access the sensors behind it.

8 Disconnect the sensor cable (D), and then remove the sensor.

D
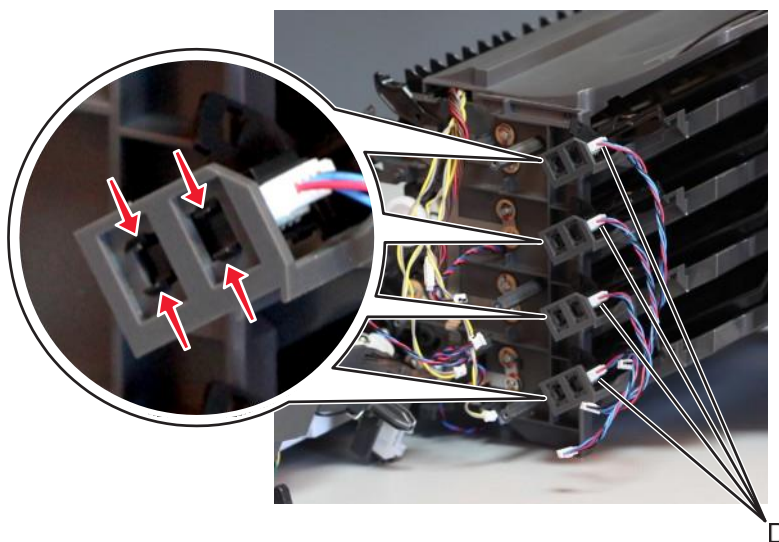
Mailbox belt removal

1 Remove the mailbox top cover. See **"Mailbox top cover removal" on page 661**.

2 Remove the mailbox right cover. See **"Mailbox right cover removal" on page 664**.

3 Remove the nine screws (A) from the inner right frame.

A
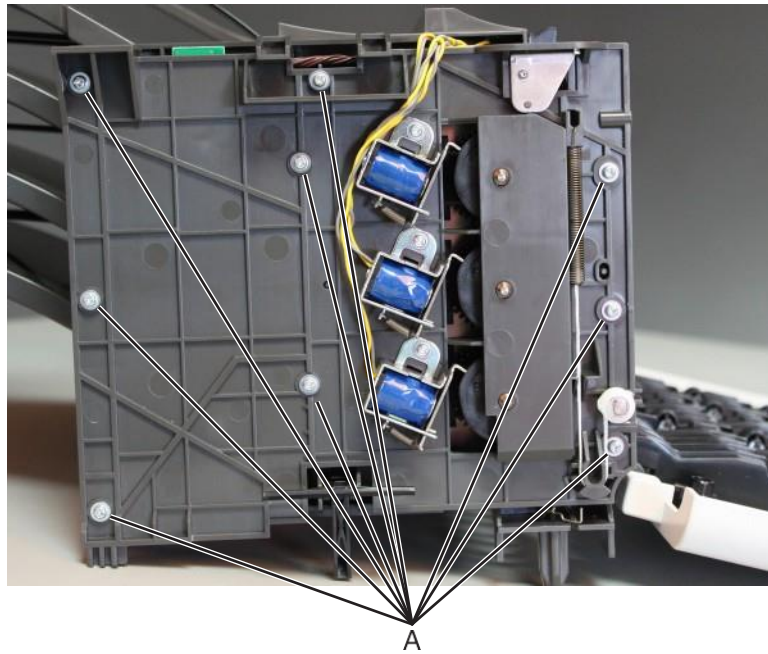
4 Pull the latch to release, then remove.
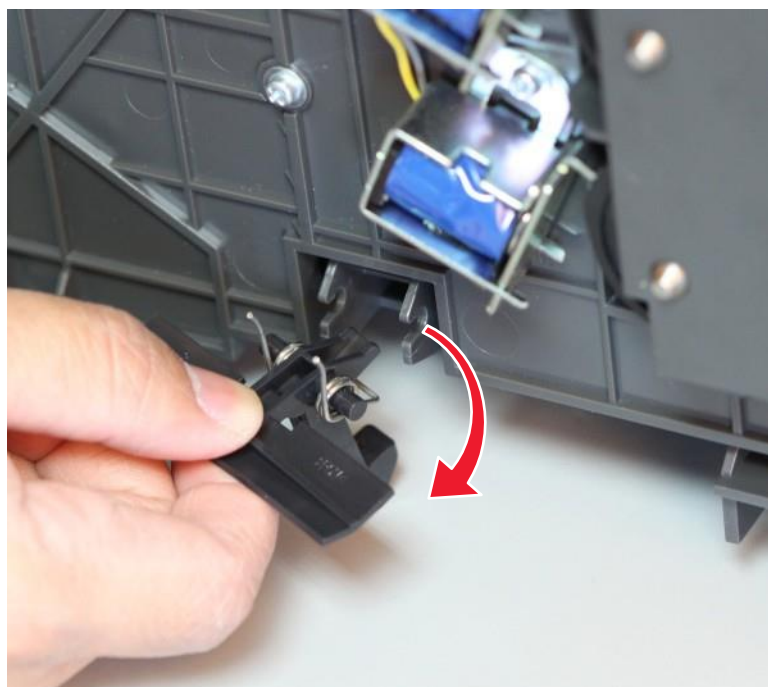
5 Carefully lift the inner right frame, then remove the ground screw (B).

B
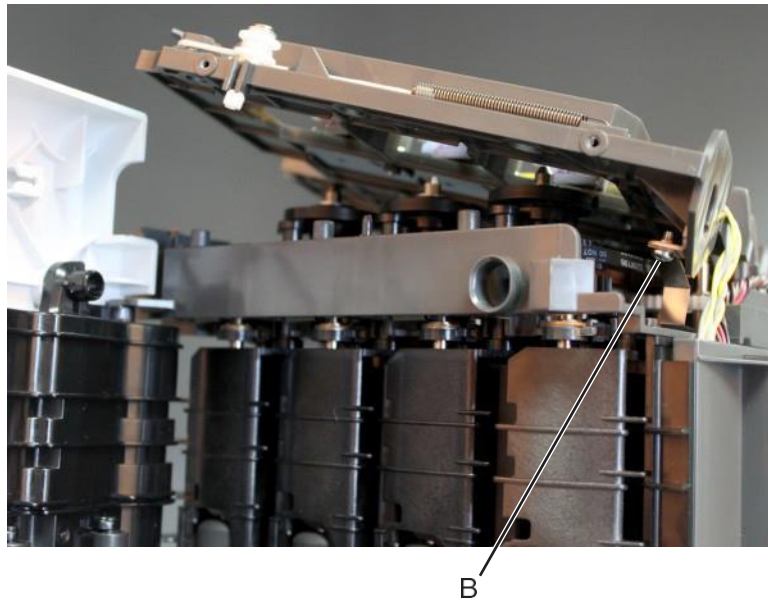
6 Swing away the inner right frame to access the belt (C).

C
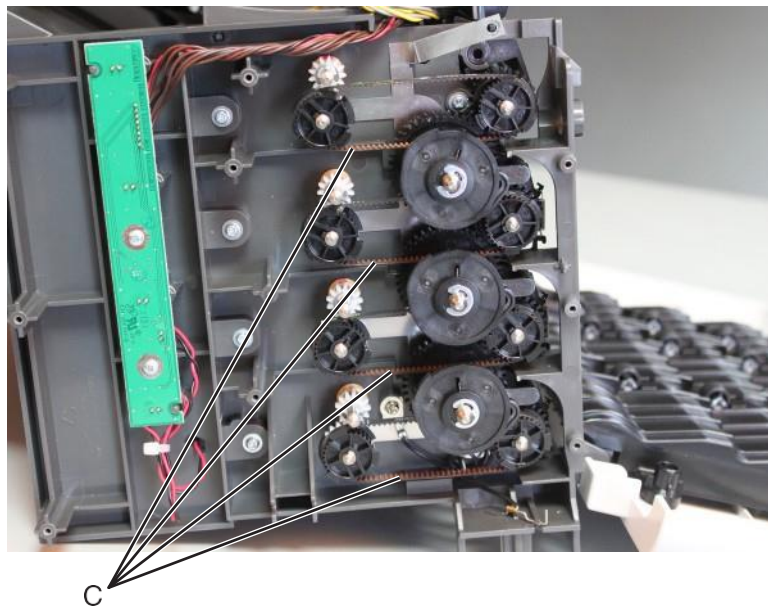
7 Remove the belt.

Mailbox bin LED assembly removal

1 Remove the mailbox top cover. See **"Mailbox top cover removal" on page 661**.

2 Remove the mailbox right cover. See **"Mailbox right cover removal" on page 664**.

3 Remove the nine screws (A).
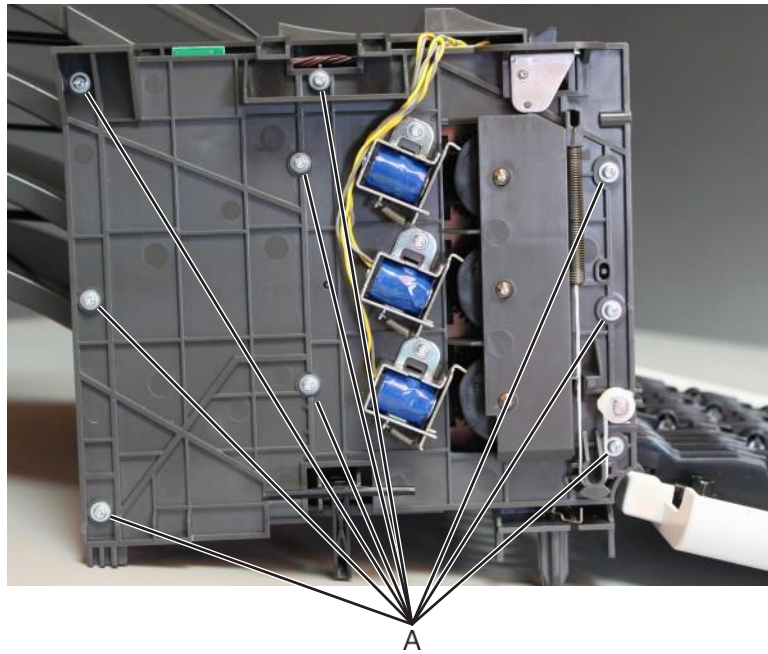
4 Pull the latch to release, and then remove it.
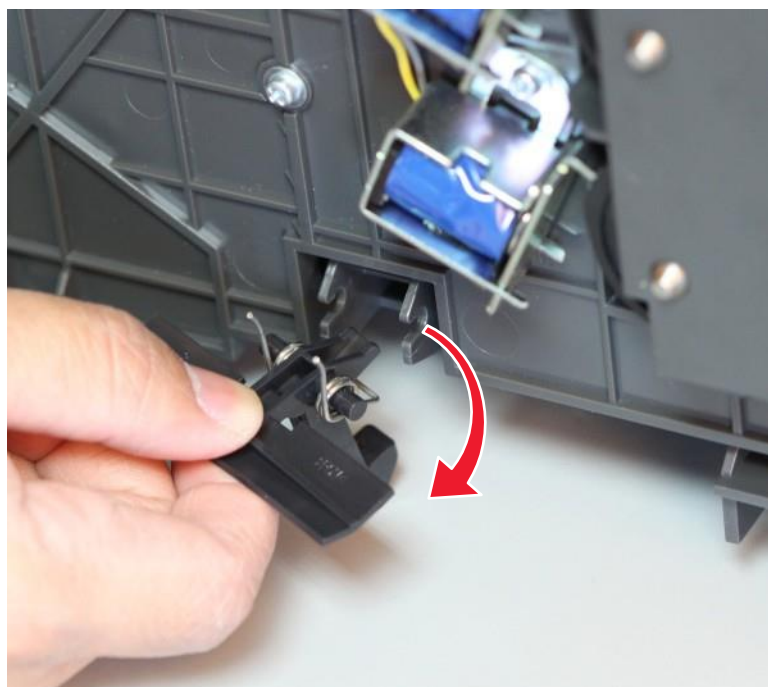
5 Carefully pull the inner right frame, and then remove the ground screw (B).

B
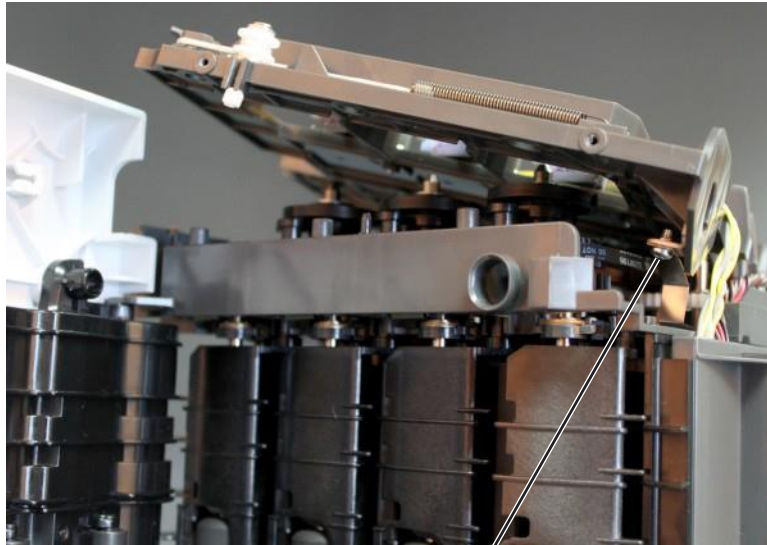
6 Move away the inner right frame to access the LED assembly behind it.

7 Remove the two screws (C) Using a #1 Phillips screwdriver, and then release the LED assembly.

C
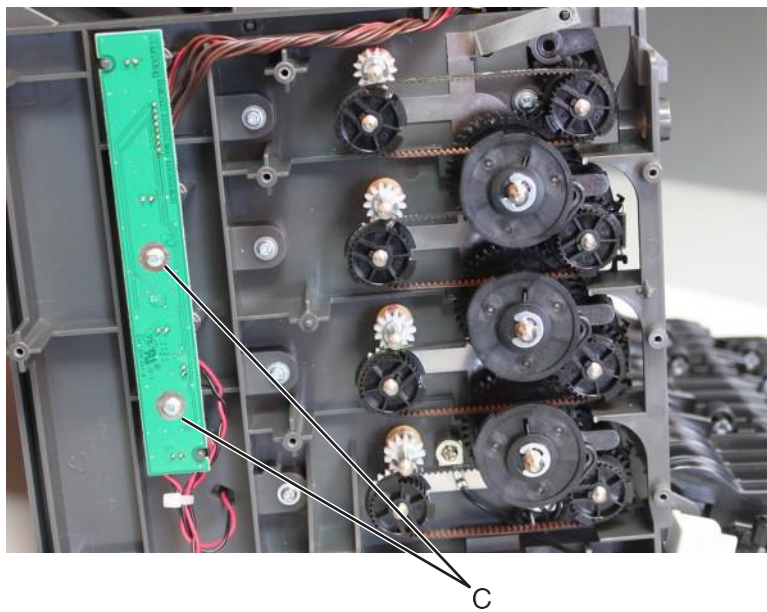
8 Disconnect the two cables (D), and then remove the bin LED assembly.
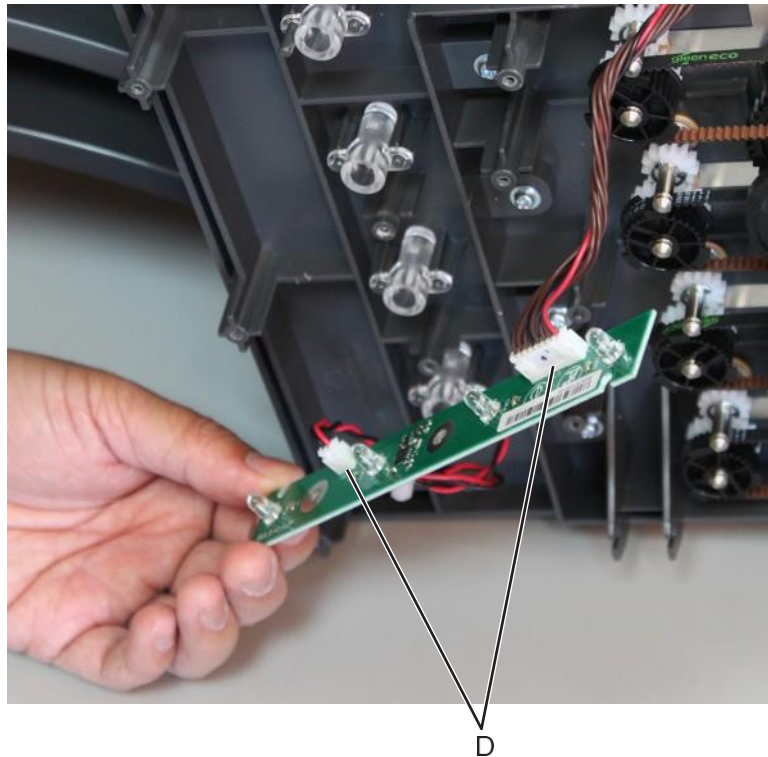
D

Mailbox top diverter removal

1 Remove the mailbox left cover. See **"Mailbox left cover removal" on page 667**.

2 Remove the mailbox rear door. See **"Mailbox rear door removal" on page 662**.

3 Remove the mailbox controller board. See **"Mailbox controller board removal" on page 680**.

4 Remove the two screws (A), and then remove the shield.

A

5 Remove the seven screws (B), and then release the inner left frame.

B

Note: Pay attention to the original position of the grounding plate (C).

C
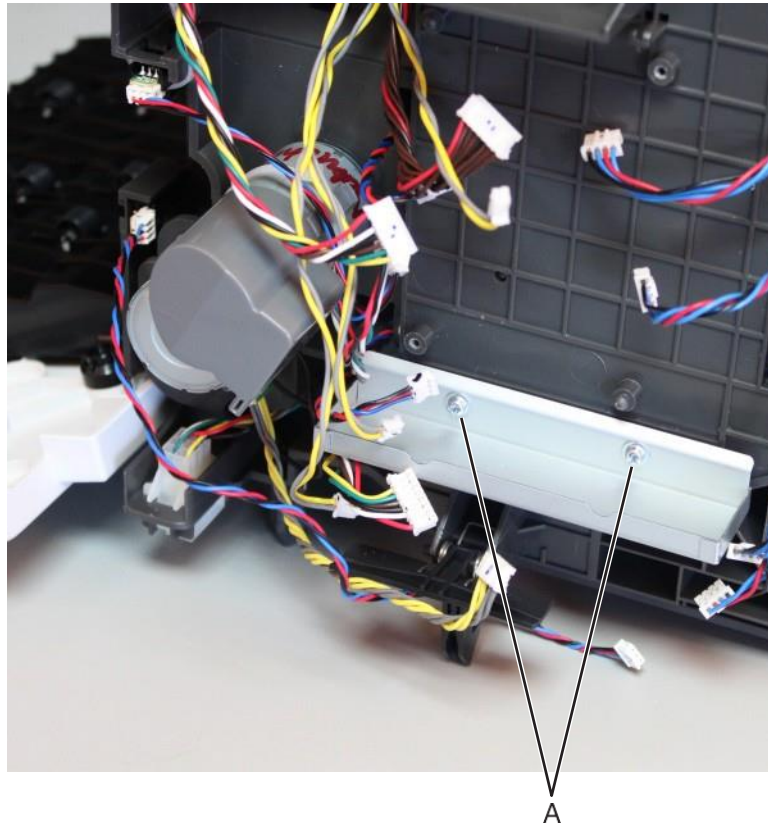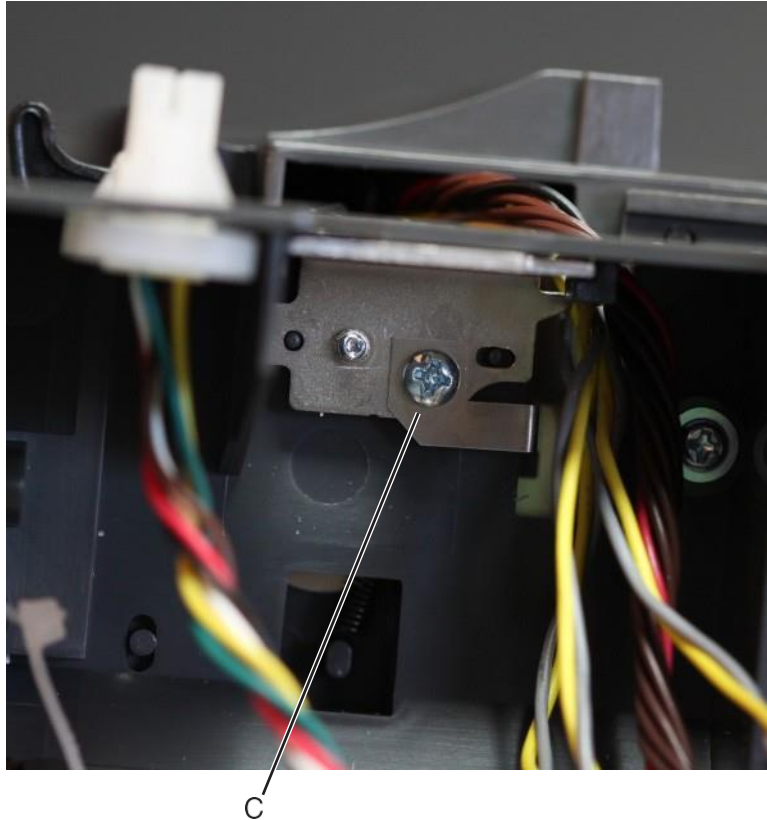
6 Move away the left inner frame to access the parts underneath it.
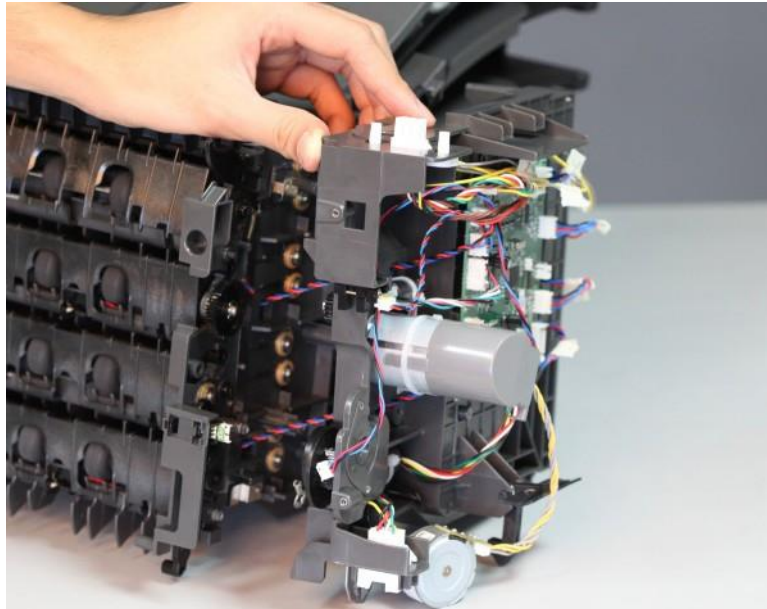
7 Unhook the diverter spring (D) to release the diverter.

Note: Be careful not to lose the diverter spring.

D
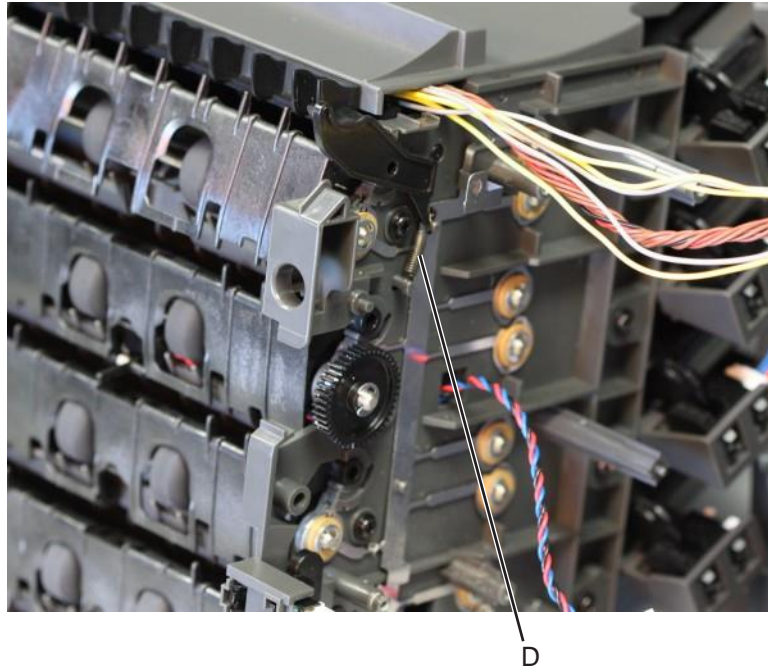
8 Pry the diverter off its hinge. Dislodge also the other end of the diverter, and then remove the diverter.
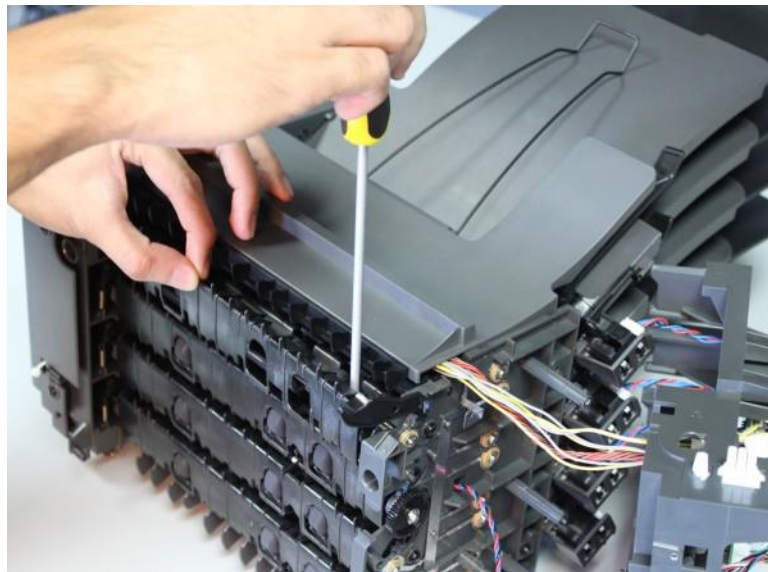
Mailbox middle diverter removal

1 Remove the mailbox rear door. See **"Mailbox rear door removal" on page 662**.

2 Release the spring (A) from the diverter.

A
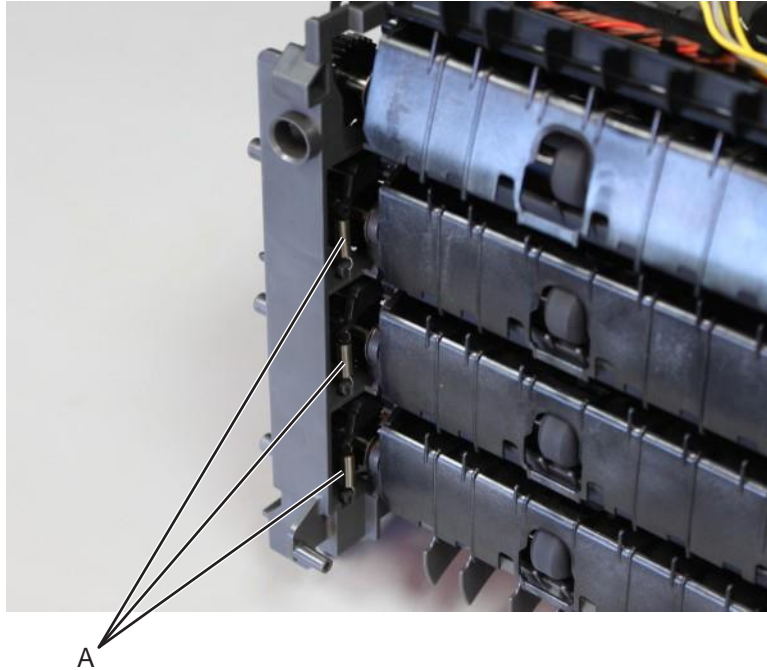
3 Pry the right end of the diverter until it is released.
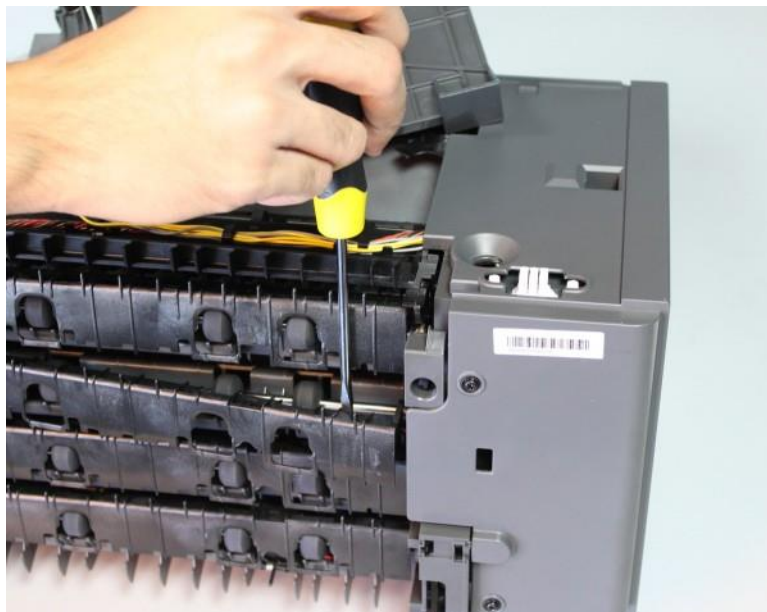
4 Carefully twist until the left end is also released.

5 Remove the diverter.

Installation note: Use a flat-head screwdriver to push the left and right ends of the diverter in place.
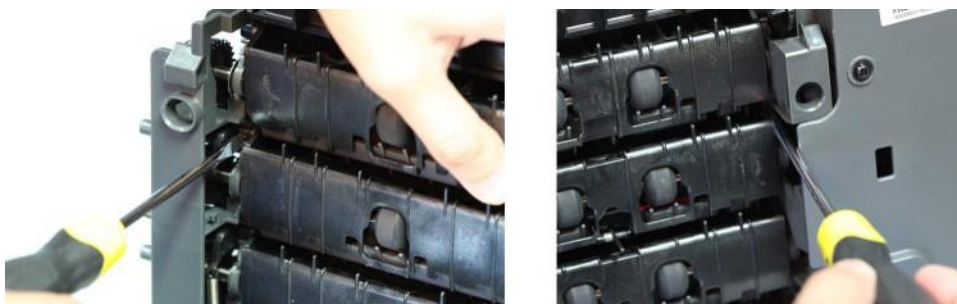
Mailbox top diverter spring removal
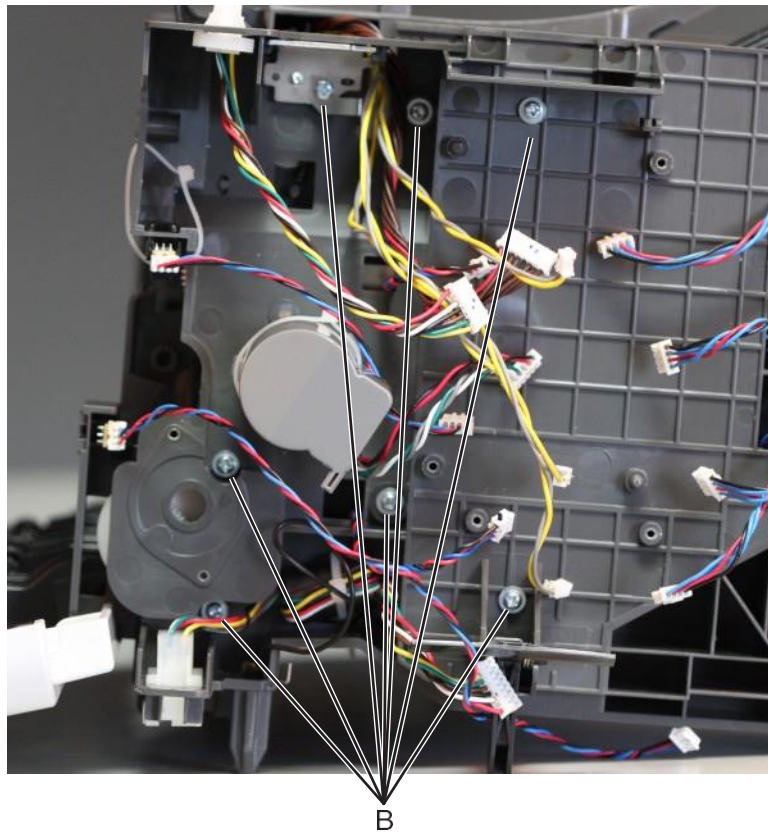
1 Remove the mailbox left cover. See **"Mailbox left cover removal" on page 667**.

2 Remove the mailbox rear door. See **"Mailbox rear door removal" on page 662**.

3 Remove the mailbox controller board. See **"Mailbox controller board removal" on page 680**.

4 Remove the two screws (A), and then remove the shield.

A

5 Remove the seven screws (B), and then release the inner left frame.

B

Note: Pay attention to the original position of the grounding plate (C).

C
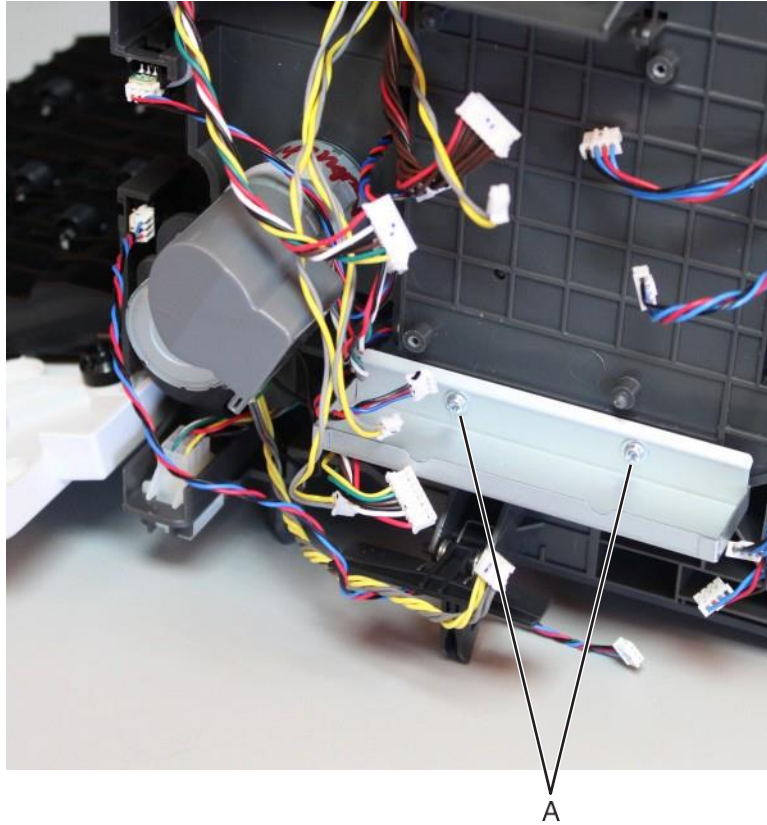
6 Move away the left inner frame to access the parts underneath it.

7 Unhook, and then remove the diverter spring (D).
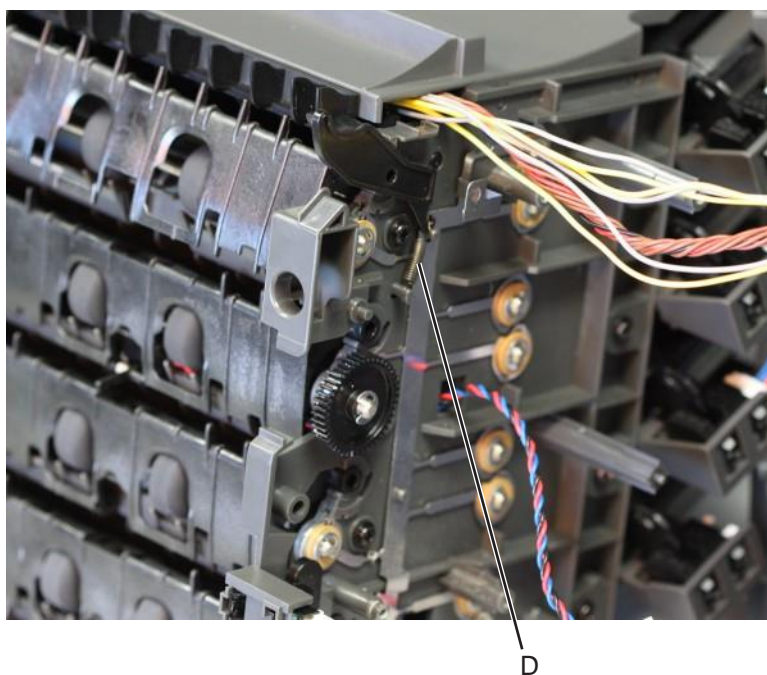
D

Sensor (mailbox pass-through) removal

1 Remove the mailbox left cover. See **"Mailbox left cover removal" on page 667**.

2 Remove the mailbox rear door. See **"Mailbox rear door removal" on page 662**.

3 Remove the mailbox controller board. See **"Mailbox controller board removal" on page 680**.

4 Remove the two screws (A), and then remove the shield.

A

5 Remove the seven screws (B), and then release the inner left frame.

B

Note: Pay attention to the original position of the grounding plate (C).

C
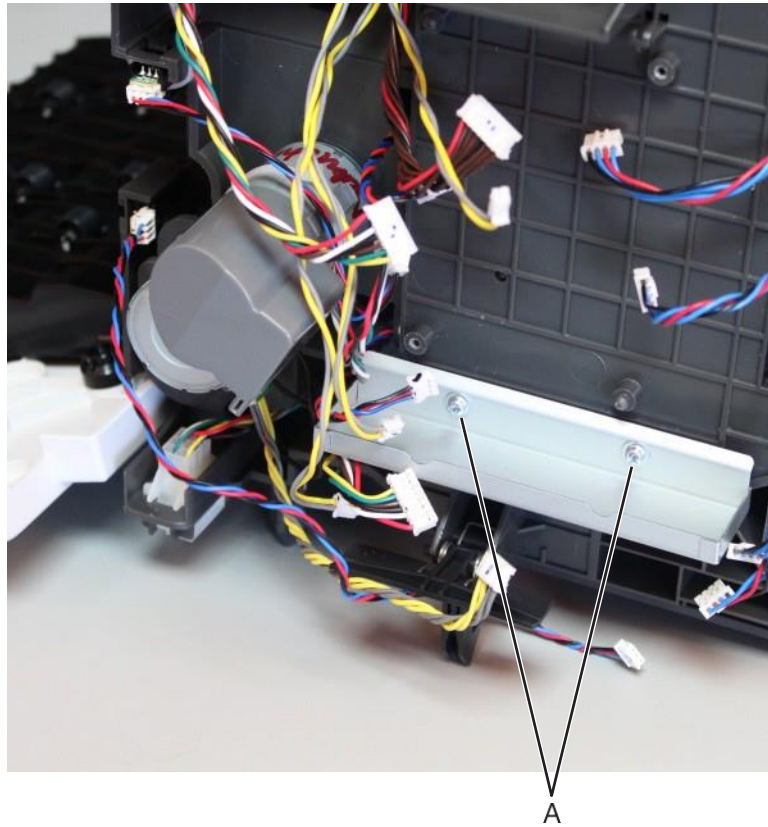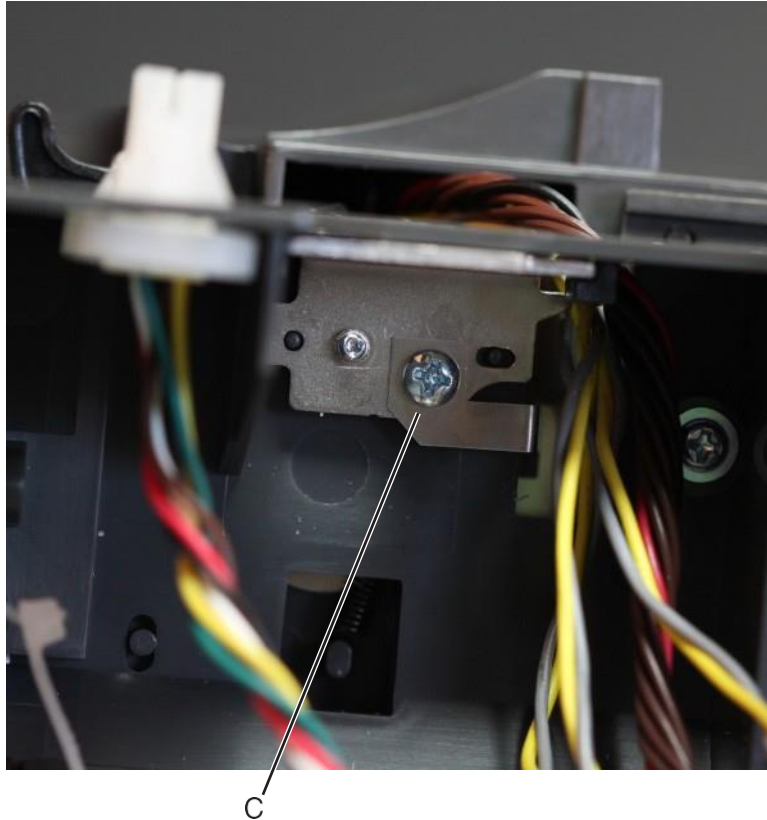
6 Move away the inner left frame to access the parts underneath it.

7 Pull the sensor off its slot, and then carefully release the cable from its cable guides.
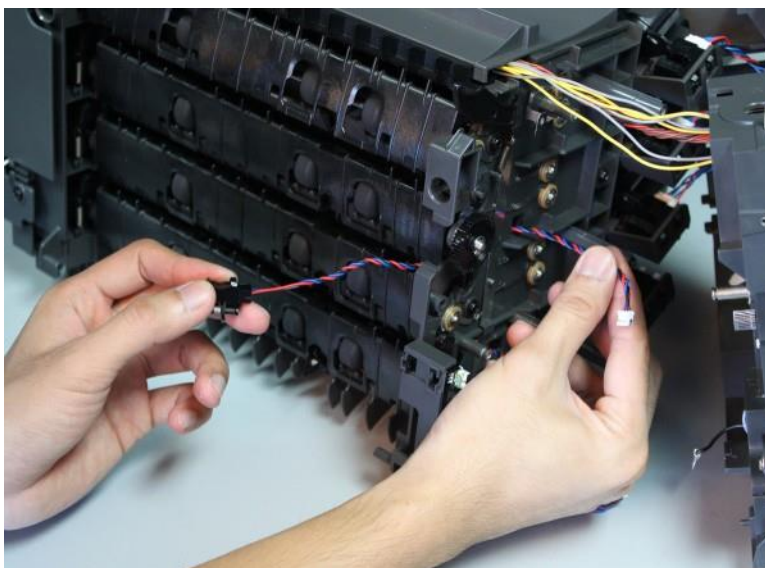
8 Thread the sensor cable through the hole until it is removed.

Note: Pay attention to the original route of the sensor cable.

Installation note: There will be some difficulty inserting the connector through the hole. Use a spring hook to thread the connector through the hole.
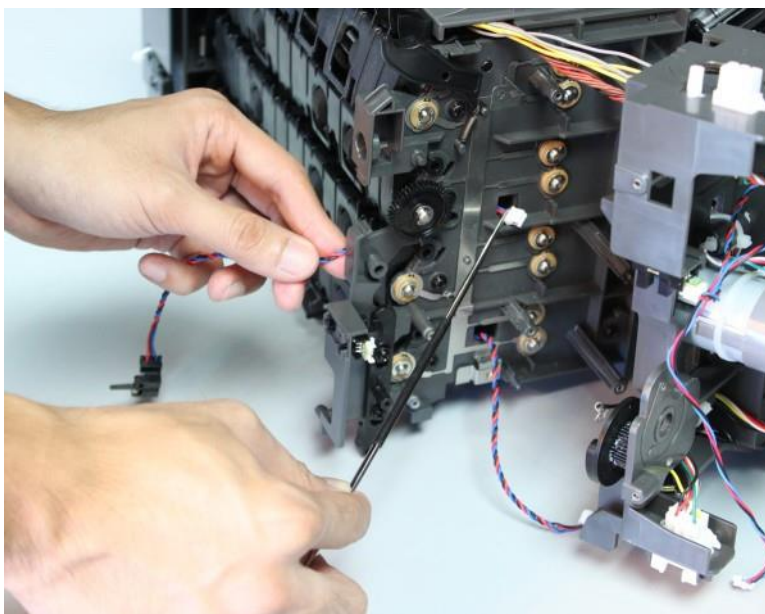
Optional staple, hole punch finisher removals

Optional staple, hole punch finisher removal

1 Press the latches to unlock the finisher.

2 Remove the finisher.

Parts removal

Left staple cartridge access door removal

1 Open the access door.

2 Pull, and then remove the door.

Staple, hole punch finisher left cover removal

1 Remove the left staple cartridge access door. See **"Left staple cartridge access door removal" on page 712**.

2 Remove the screw (A).
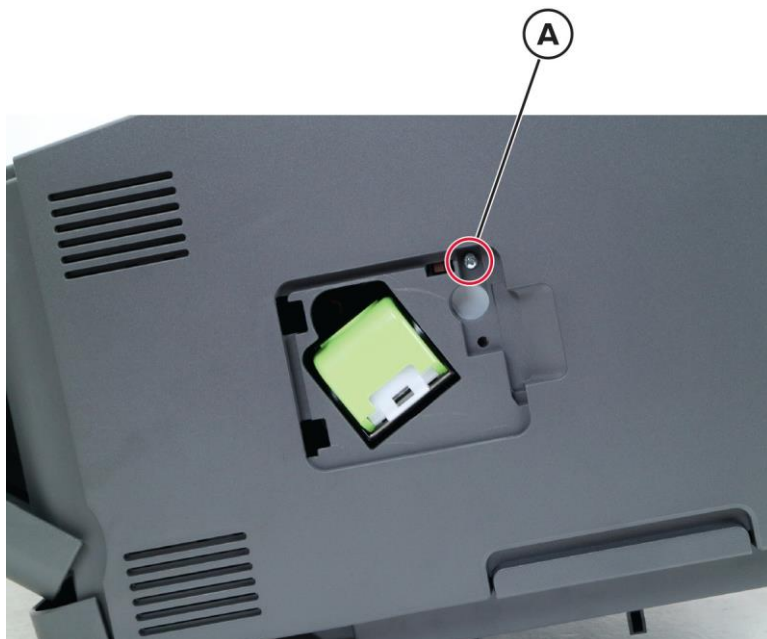
3 Open the rear door, and then remove the two screws (B).
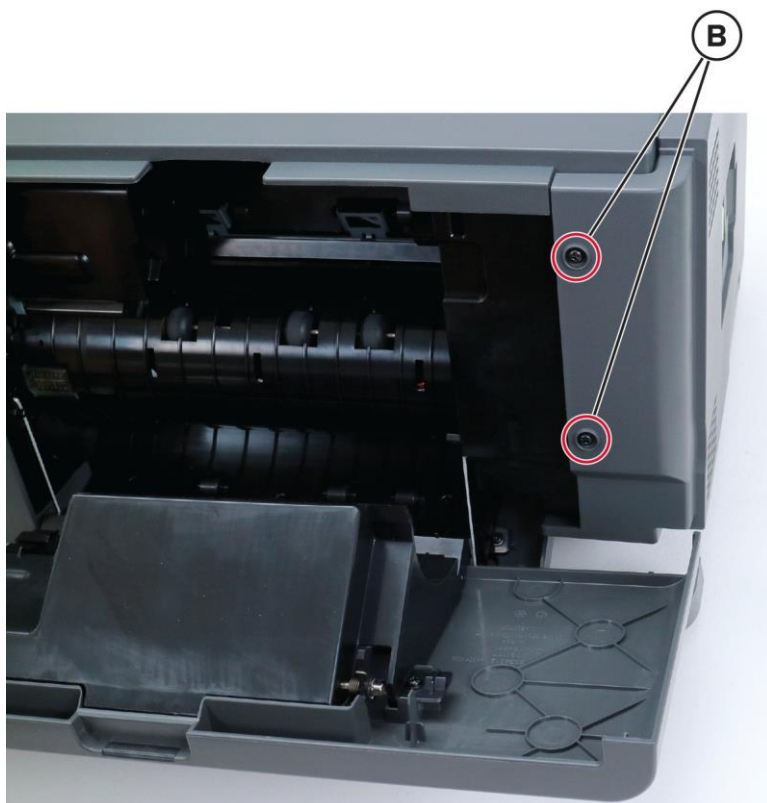
4 From the front, remove the two screws (C).
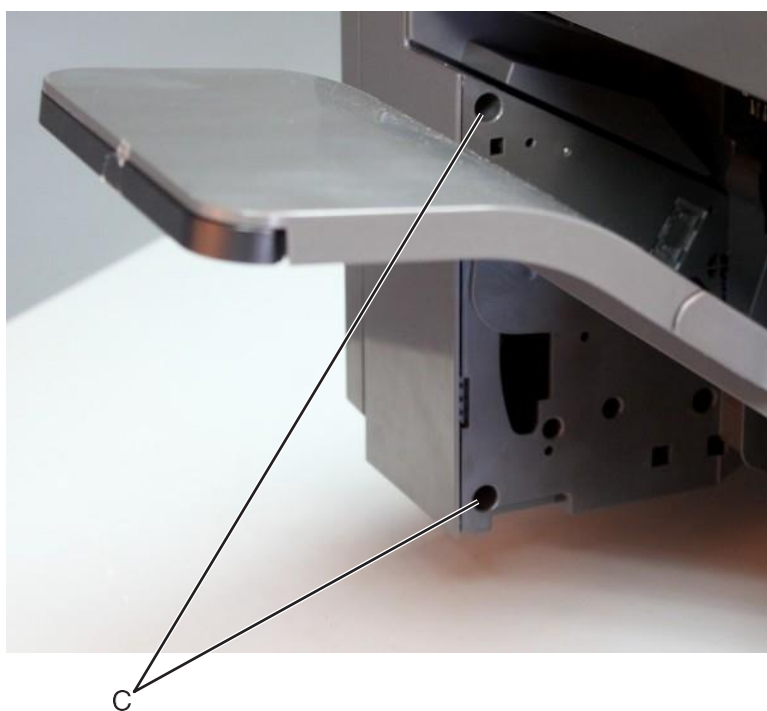
5 Remove the cover.

Staple, hole punch finisher right cover removal

1 Open the rear door, and then remove the screw (A).
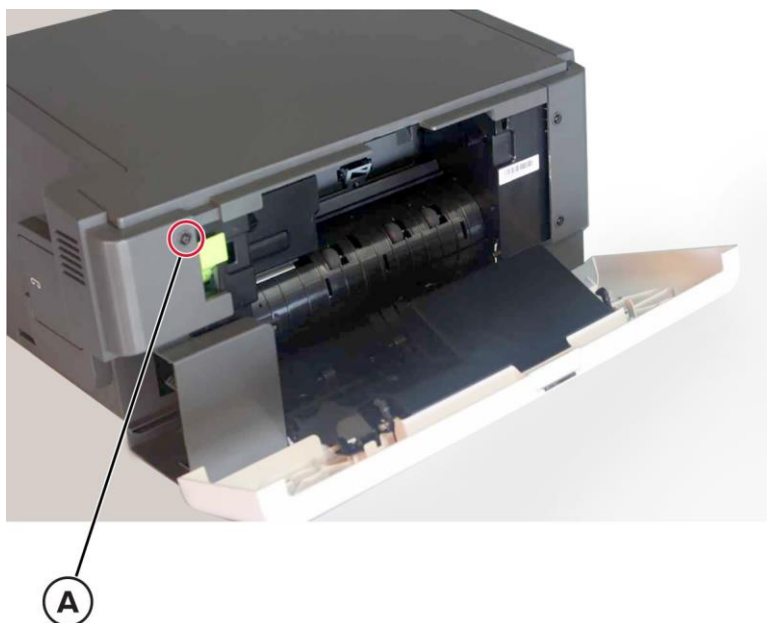
2 From the front, remove the two screws (B).
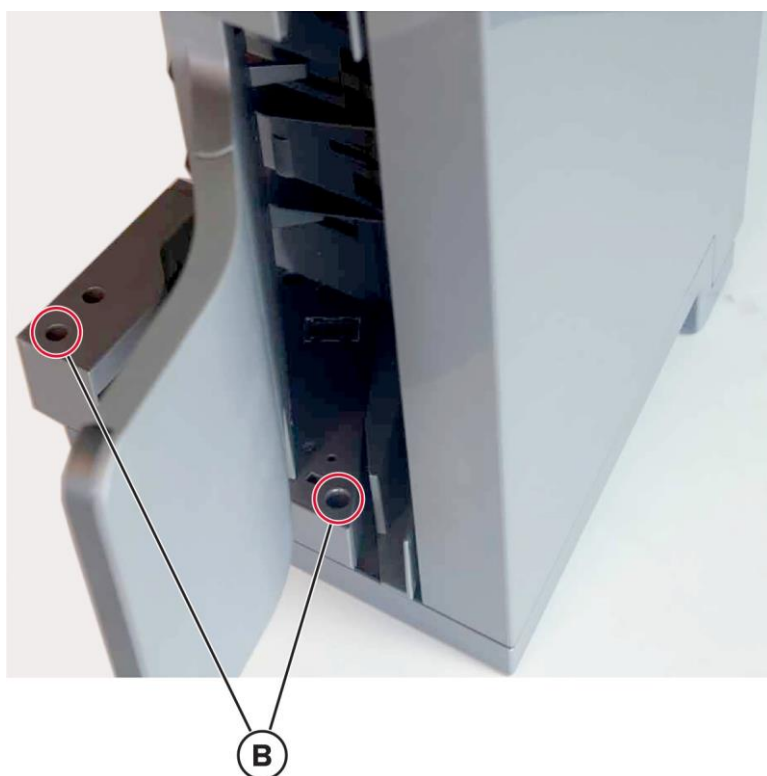
3 Remove the hole punch box, and then remove the screw (C).
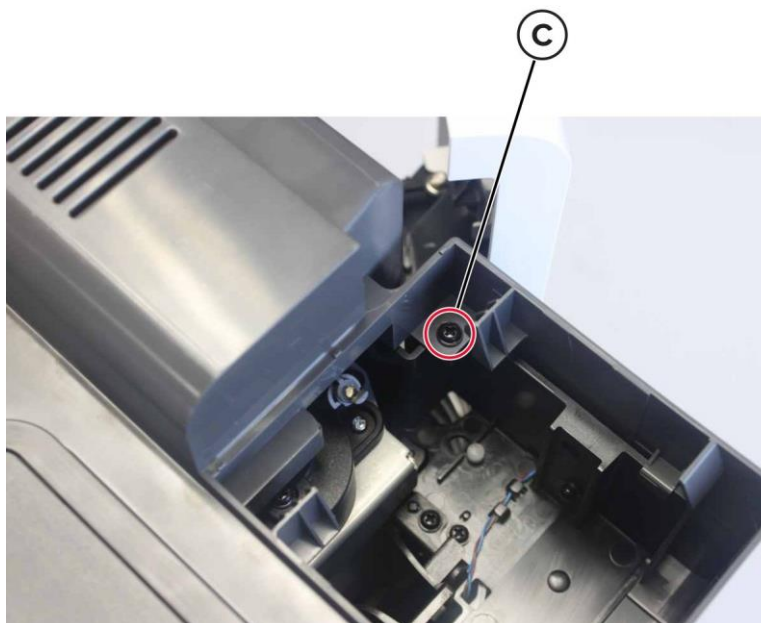
4 Open door F, and then remove the screw (D).
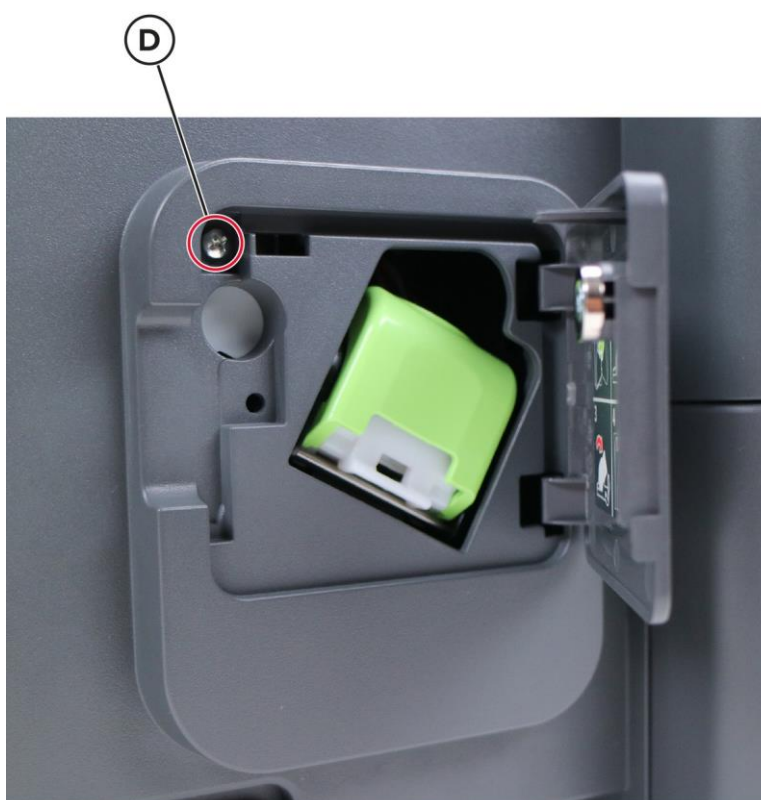
5 Remove the cover.

Staple, hole punch finisher top cover removal

1 Remove the staple, hole punch finisher left cover. See **"Staple, hole punch finisher left cover removal" on page 712**.

2 Remove the staple, hole punch finisher right cover. See **"Staple, hole punch finisher right cover removal" on page 714**.

3 From the right side, remove the two screws (A).
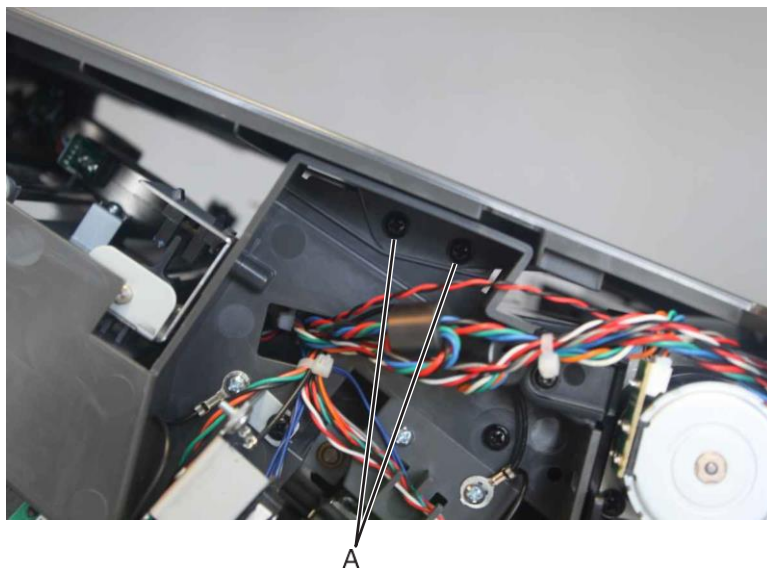
4 From the left side, remove the two screws (B).
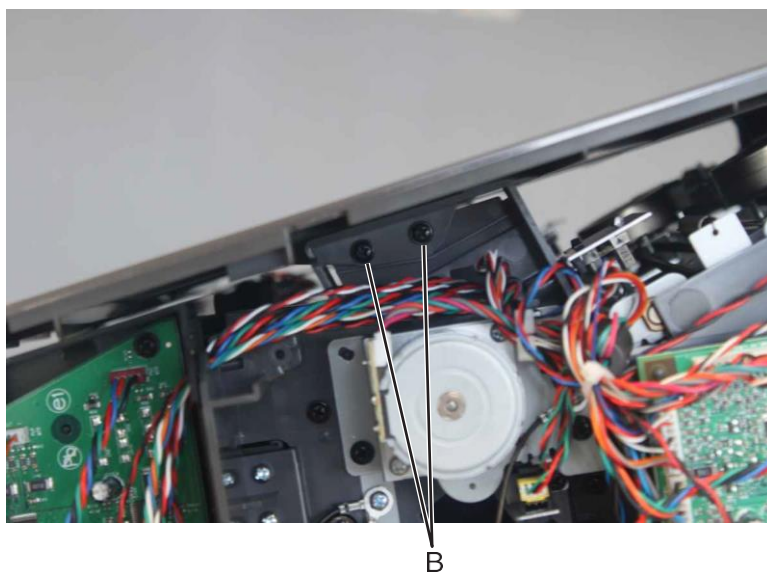
5 Remove the cover.

Staple cartridge holder removal

1 Open the staple cartridge access door.

2 Remove the cartridge holder.
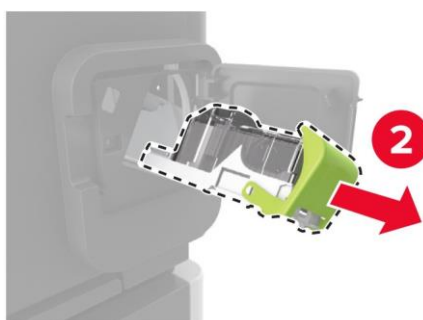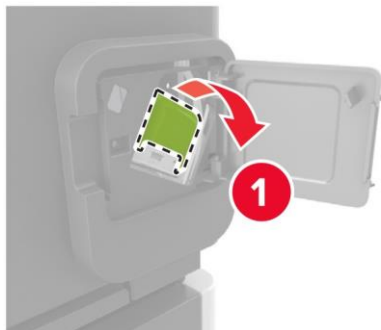
Staple, hole punch finisher controller board removal

1 Remove the staple, hole punch finisher left cover. See **"Staple, hole punch finisher left cover removal" on page 712**.

2 Disconnect all the cables from the controller board, and then remove the three screws (A).
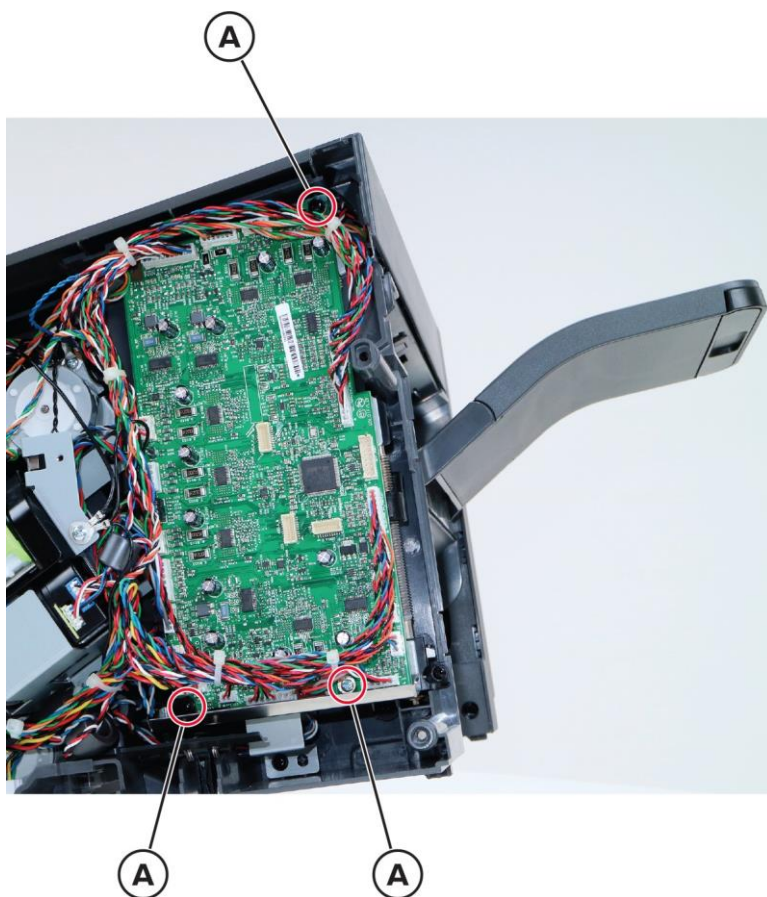
3 Remove the board.

Motor (SHPF paddle) removal

1 Remove the staple, hole punch finisher left cover. See **"Staple, hole punch finisher left cover removal" on page 712**.

2 Disconnect the cable (A), and then remove the two screws (B).
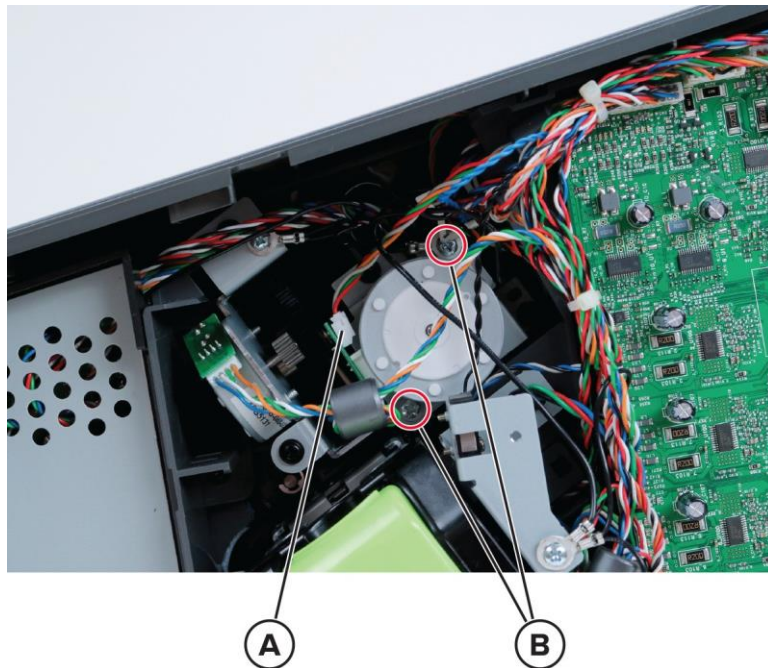
3 Remove the motor.

SHPF staple cartridge door close limit switch removal

1 Remove the staple, hole punch finisher left cover. See **"Staple, hole punch finisher left cover removal" on page 712**.

2 Remove the staple, hole punch finisher right cover. See **"Staple, hole punch finisher right cover removal" on page 714**.

3 From the right side, disconnect the two cables (A).
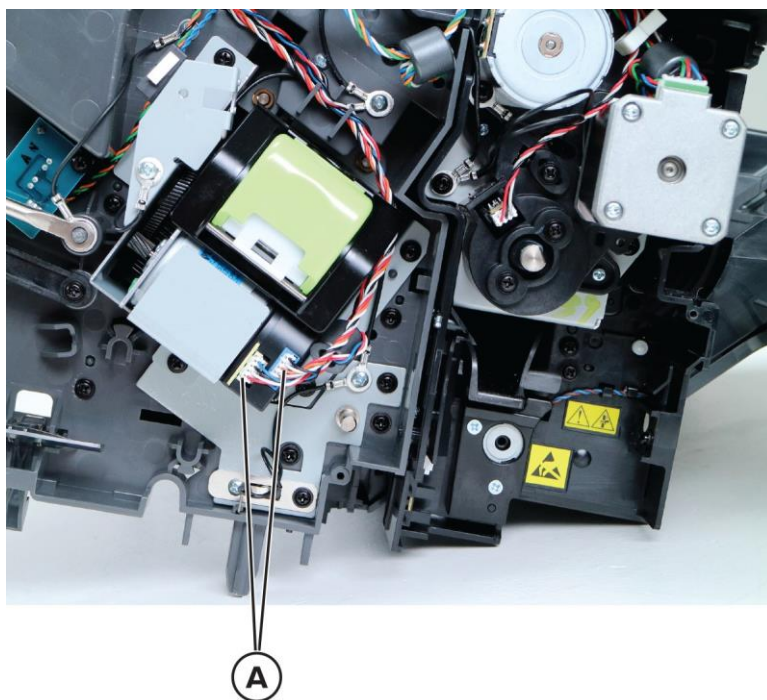
4 Remove the screws (B), and then release the right limit switch.
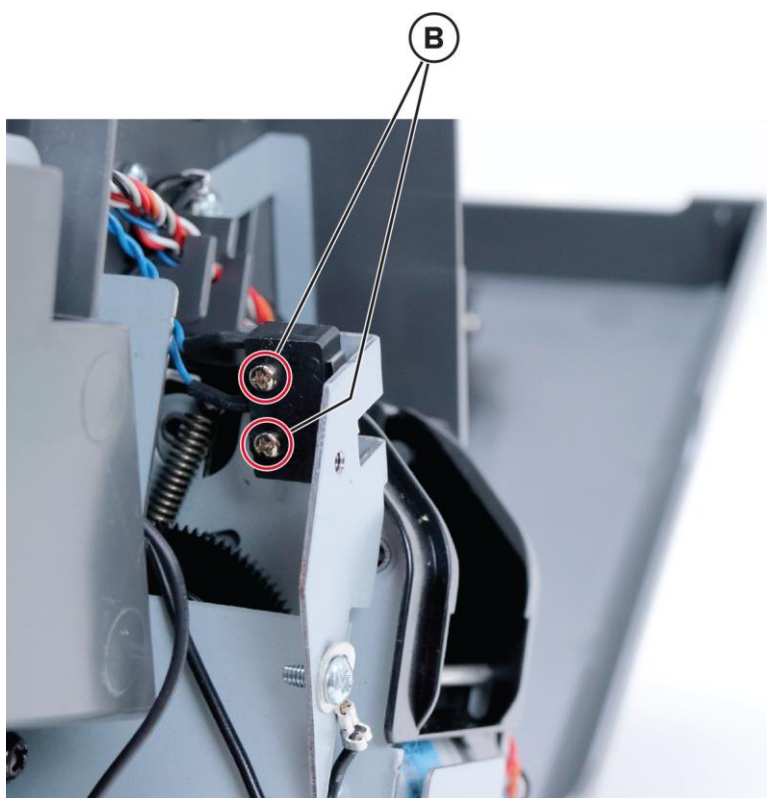
Parts removal

5 From the left side, disconnect the two cables (C)
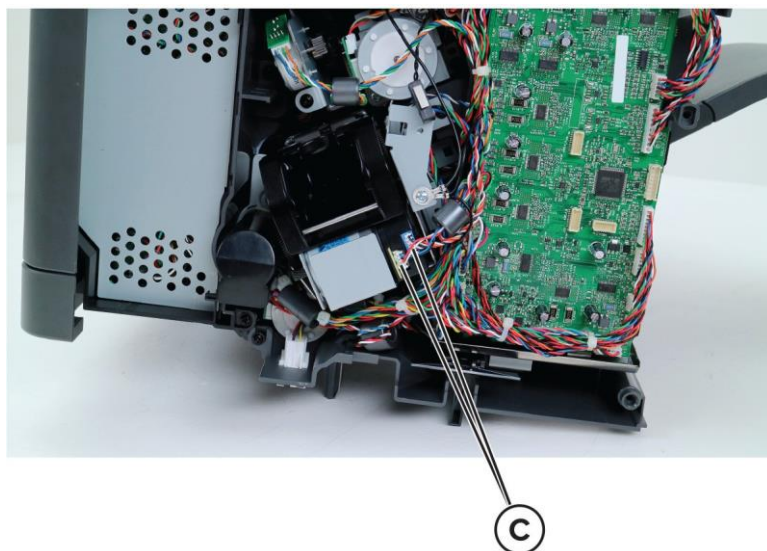
6 Remove the two screws (D), and then release the left limit switch.
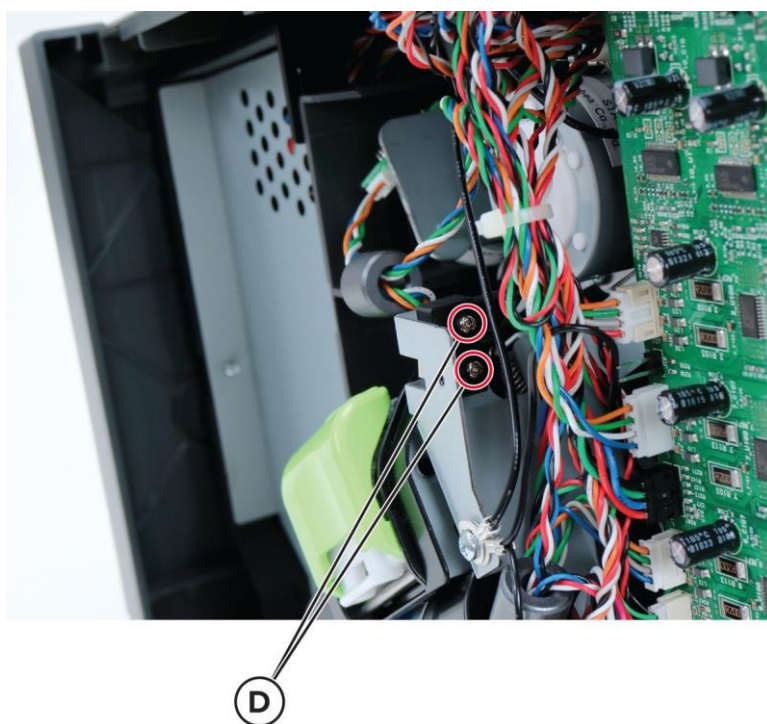
7 Disconnect the limit switch cable from the controller board.

8 Release, and then remove the limit switch.

Note: Pay attention to the original route of the cables.

Left staple unit removal

1 Remove the staple, hole punch finisher left cover. See **"Staple, hole punch finisher left cover removal" on page 712**.

2 Disconnect the cables (A) and the two ground cables (B).
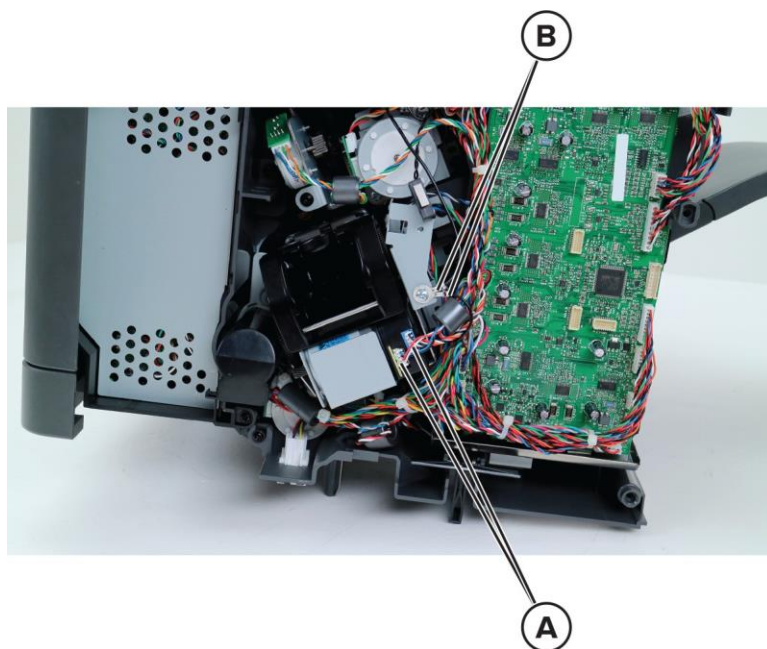
3 Remove the four screws (C), and then release the bracket.
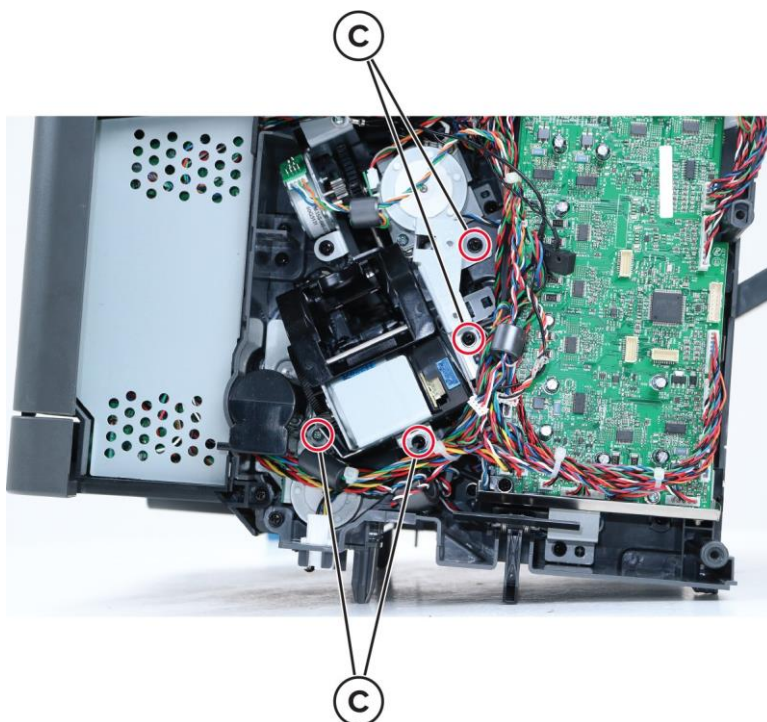
Parts removal

4 Disconnect the cable connector (D), and then remove the sensor (SHPF staple throat paper present) (E).
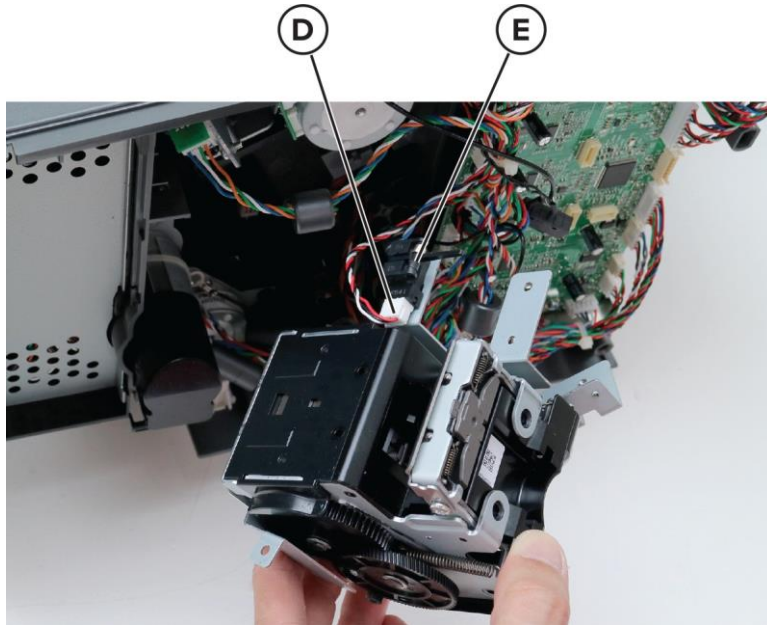
5 Remove the two screws (F).
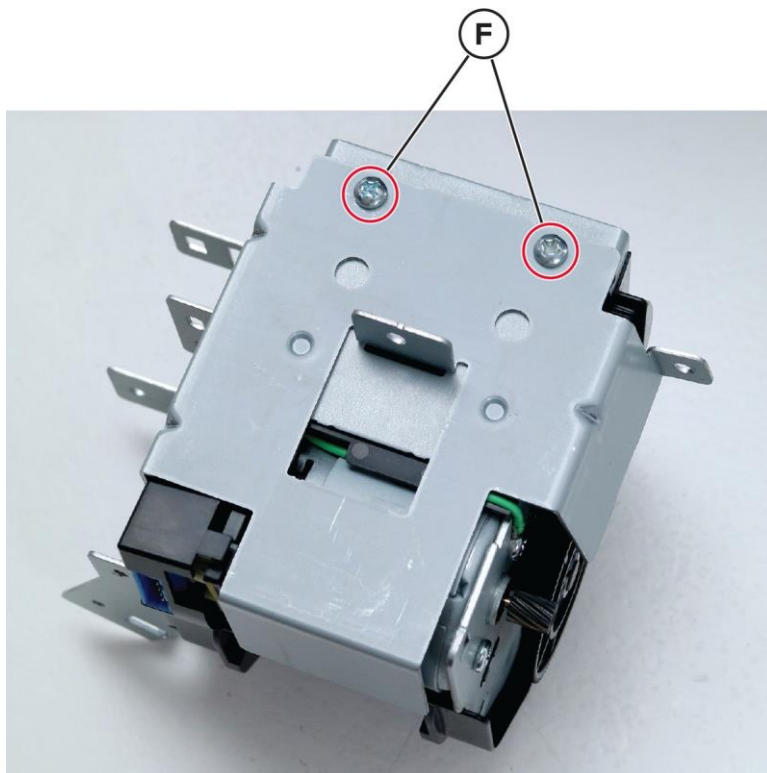
6 Remove the staple unit from the bracket.

Sensor (SHPF diverter plunger) removal

1 Remove the staple, hole punch finisher left cover. See **"Staple, hole punch finisher left cover removal" on page 712**.

2 Remove the left staple unit. See **"Left staple unit removal" on page 722**.

3 Disconnect the cable (A), and then remove the screw (B).
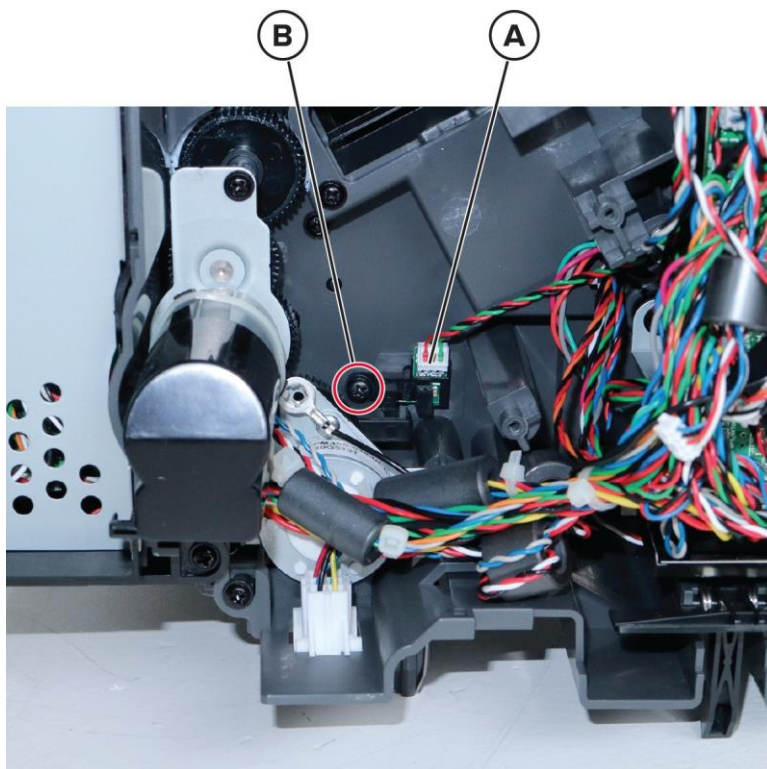
4 Remove the sensor.

Staple, hole punch finisher interface cable removal

1 Remove the staple, hole punch finisher left cover. See **"Staple, hole punch finisher left cover removal" on page 712**.

2 Remove the left staple unit. See **"Left staple unit removal" on page 722**.

3 Remove the two screws (A), and then release the connector bracket.
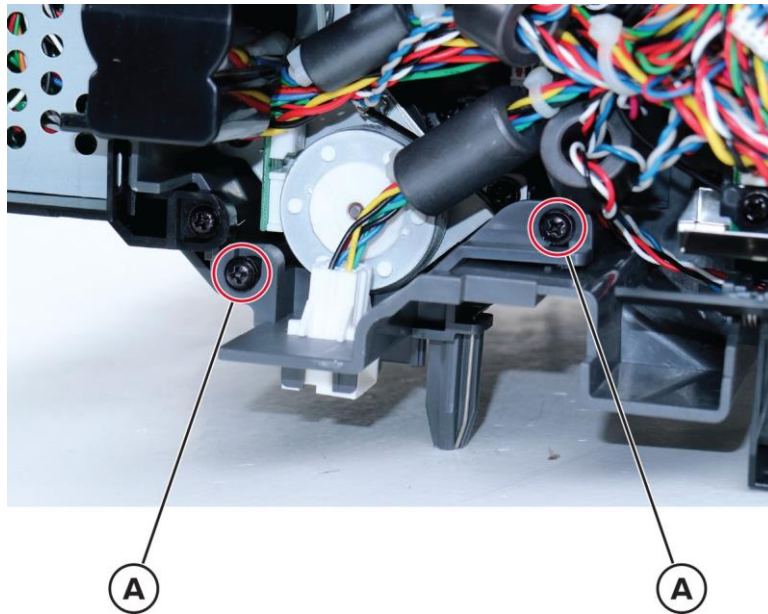
4 Press the latches to release, and then dislodge the connector.
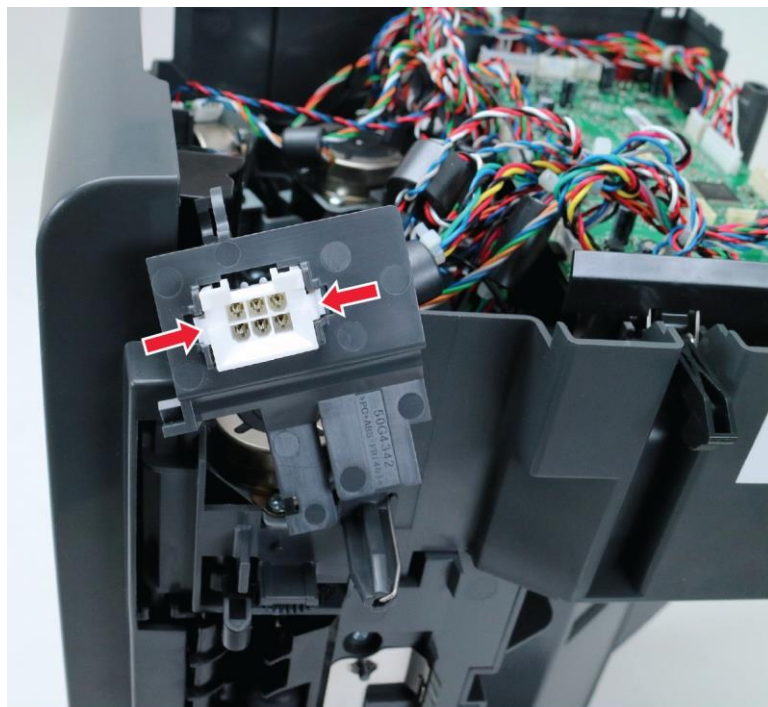
5 Disconnect the interface cable from the controller board, and then remove it.

Motor (SHPF diverter plunger) removal

1 Remove the staple, hole punch finisher left cover. See **"Staple, hole punch finisher left cover removal" on page 712**.

2 Remove the left staple unit. See **"Left staple unit removal" on page 722**.

3 Remove the two screws (A), and then disconnect the cable (B).
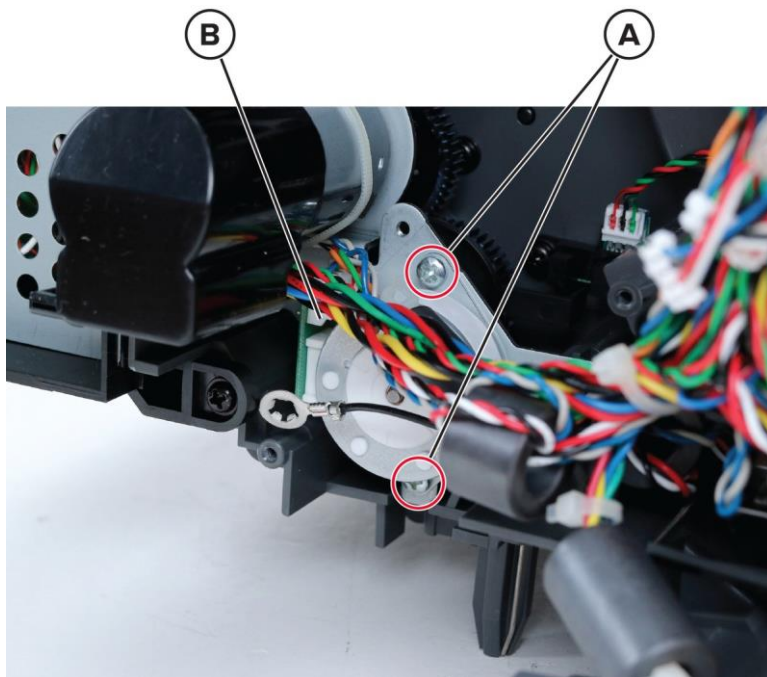
4 Remove the motor.

Motor (SHPF transport) removal

1 Remove the staple, hole punch finisher left cover. See **"Staple, hole punch finisher left cover removal" on page 712**.

2 Remove the left staple unit. See **"Left staple unit removal" on page 722**.

3 Remove the three screws (A), and then disconnect all the cables from the motor bracket.
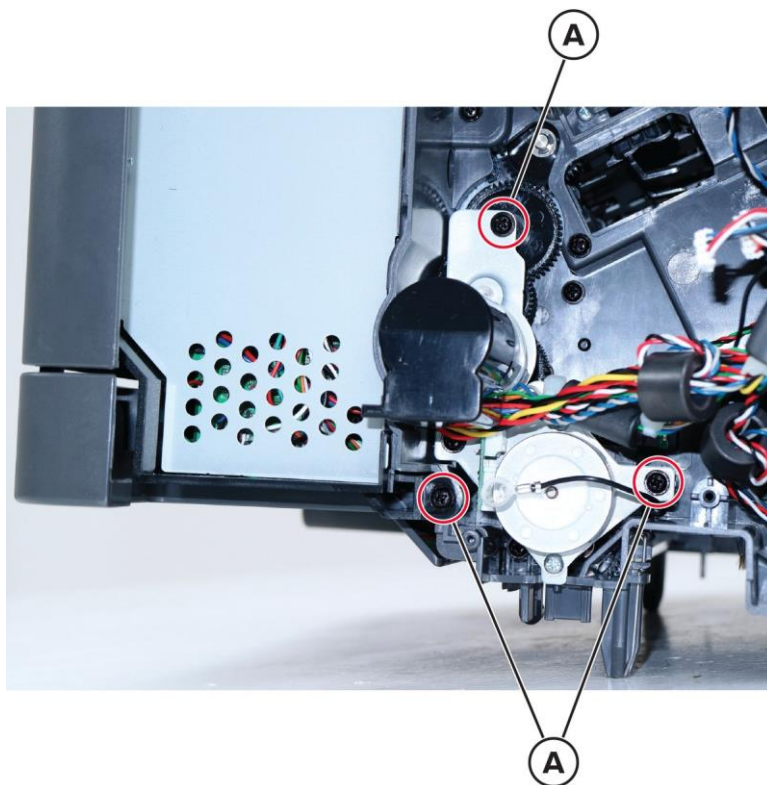
4 Behind the motor bracket, remove the two screws (B).
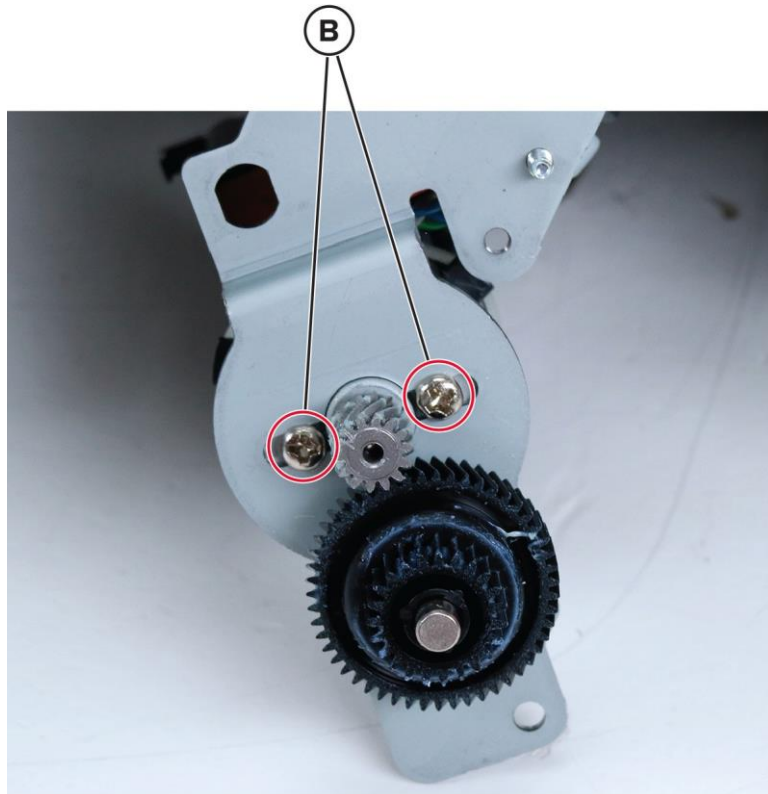
5 Remove the motor.

SHPF diverter plunger assembly removal

1 Remove the staple, hole punch finisher left cover. See **"Staple, hole punch finisher left cover removal" on page 712**.

2 Remove the staple, hole punch finisher interface cable. See **"Staple, hole punch finisher interface cable removal" on page 724**.

3 Release the motor bracket. See **"Motor (SHPF transport) removal" on page 726**.

4 Remove the two screws (A).
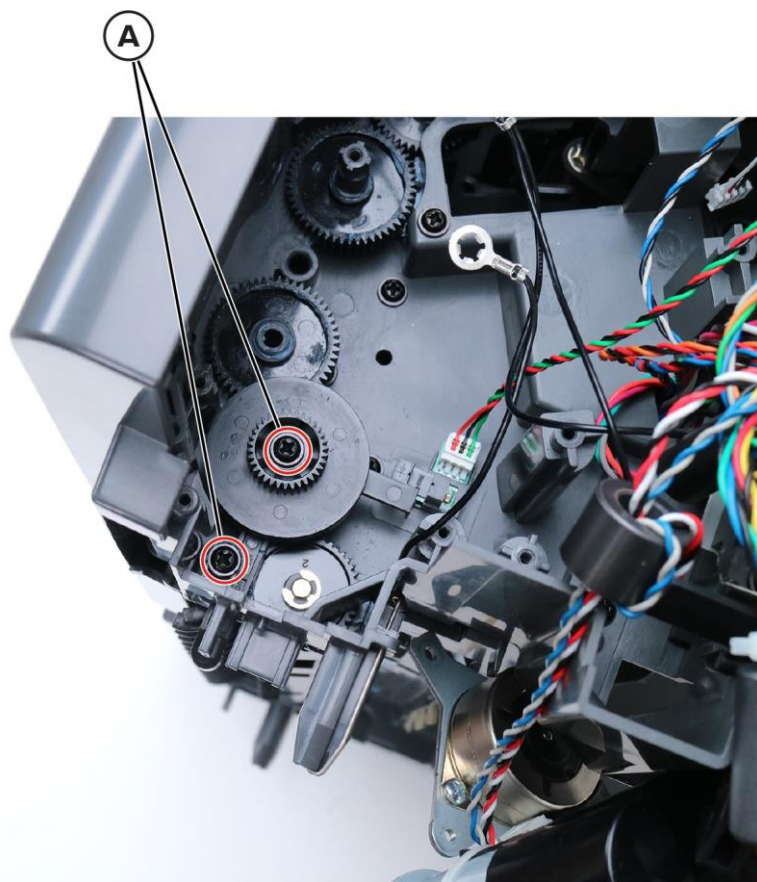
5 Remove the diverter plunger assembly.

SHPF drive gear assembly removal

1 Remove the staple, hole punch finisher left cover. See **"Staple, hole punch finisher left cover removal" on page 712**.

2 Remove the staple, hole punch finisher interface cable. See **"Staple, hole punch finisher interface cable removal" on page 724**.

3 Release the motor bracket. See **"Motor (SHPF transport) removal" on page 726**.

4 Remove the staple, hole punch finisher diverter plunger assembly. See **"SHPF diverter plunger assembly removal" on page 728**.

5 Remove the three gears (A).
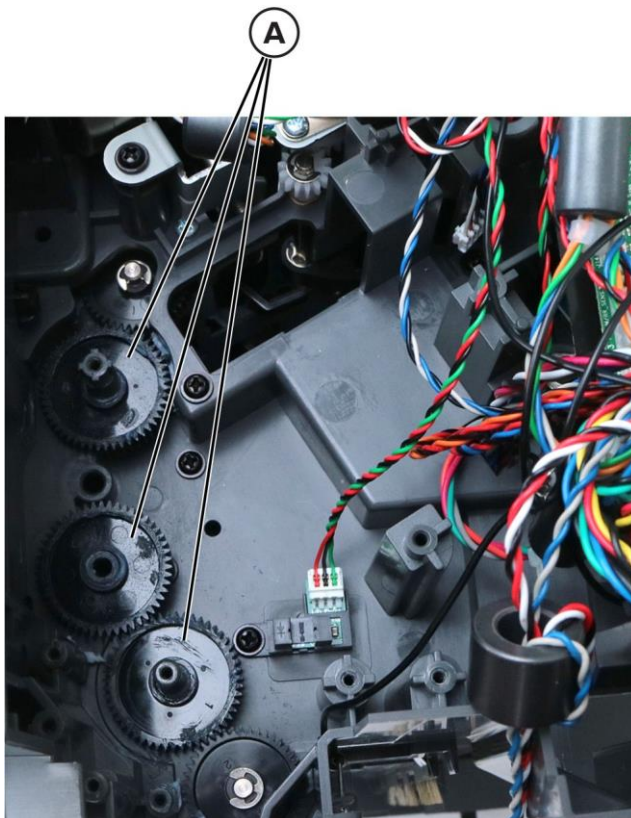
6 Remove the gear behind the motor bracket.
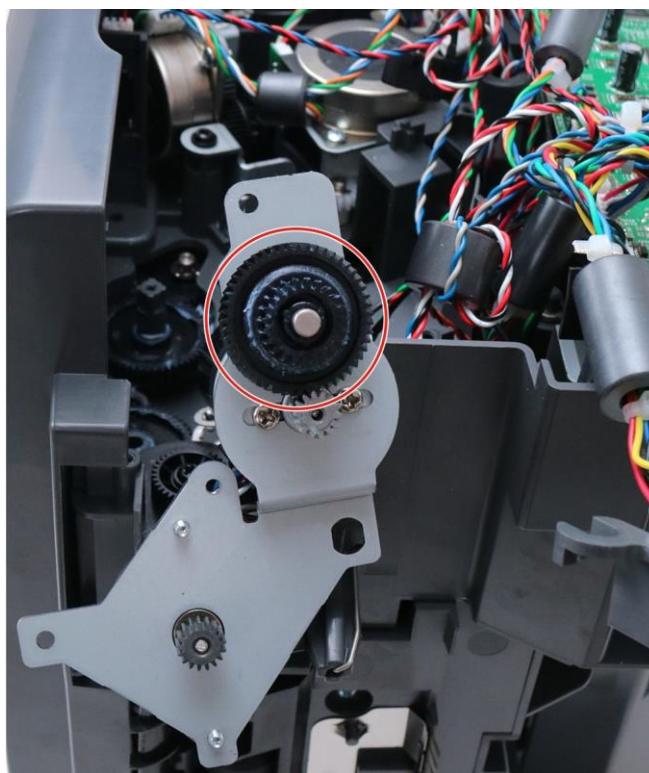
Parts removal

Sensor (SHPF rear door interlock) removal

1 Remove the staple, hole punch finisher left cover. See **"Staple, hole punch finisher left cover removal" on page 712**.

2 Open the rear door.

3 Remove the screw (A), and then remove the plate.
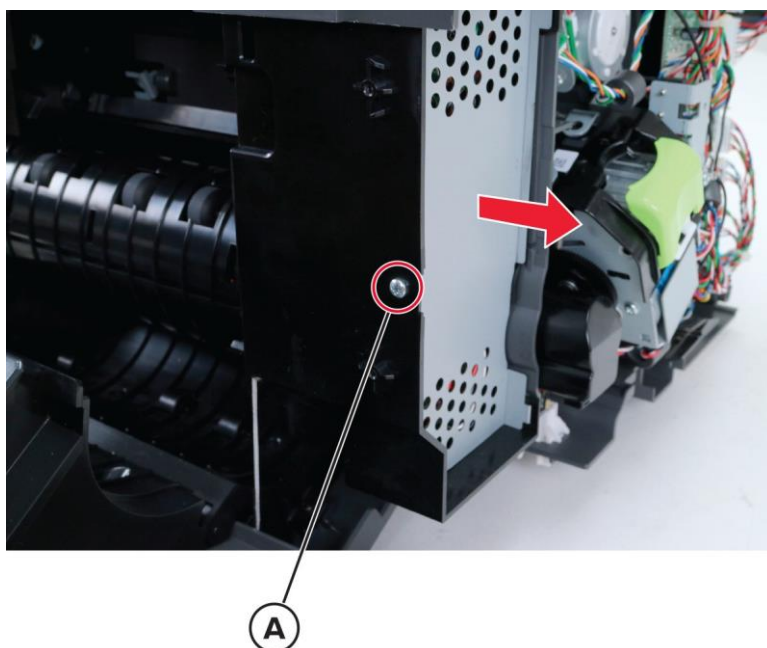
4 Disconnect all the HPU controller board cables, remove the four screws (B), and then remove the board.

5 Disconnect the sensor cable (C).

Parts removal
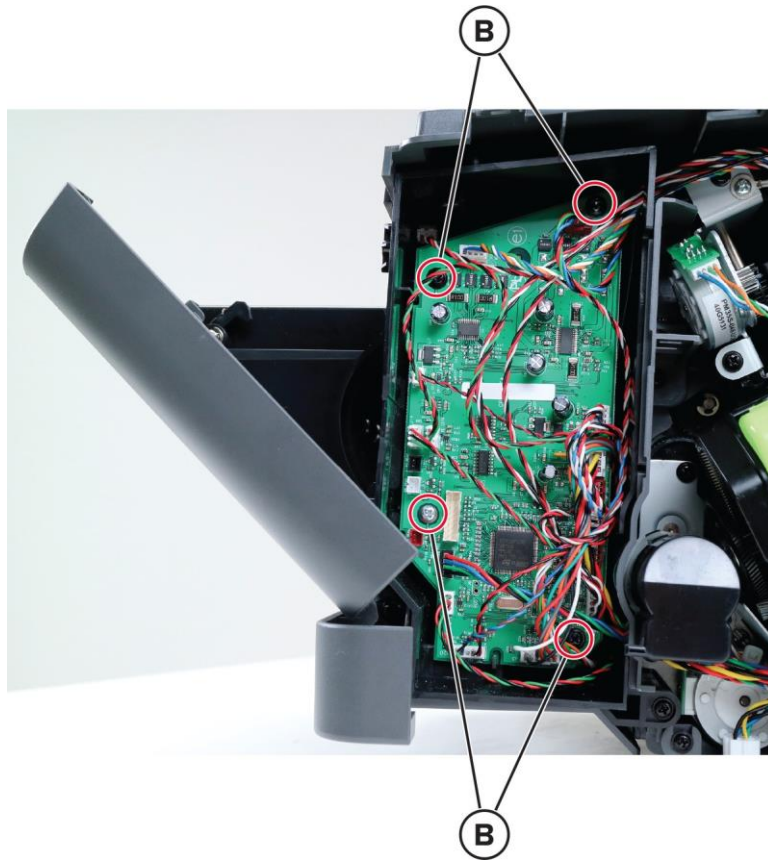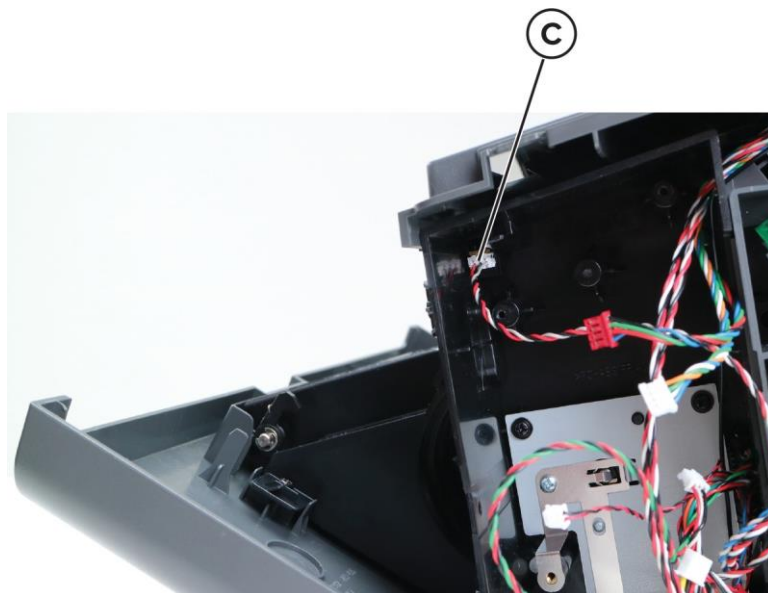
6 Slightly lift the top cover, and then remove the sensor retainer (D).
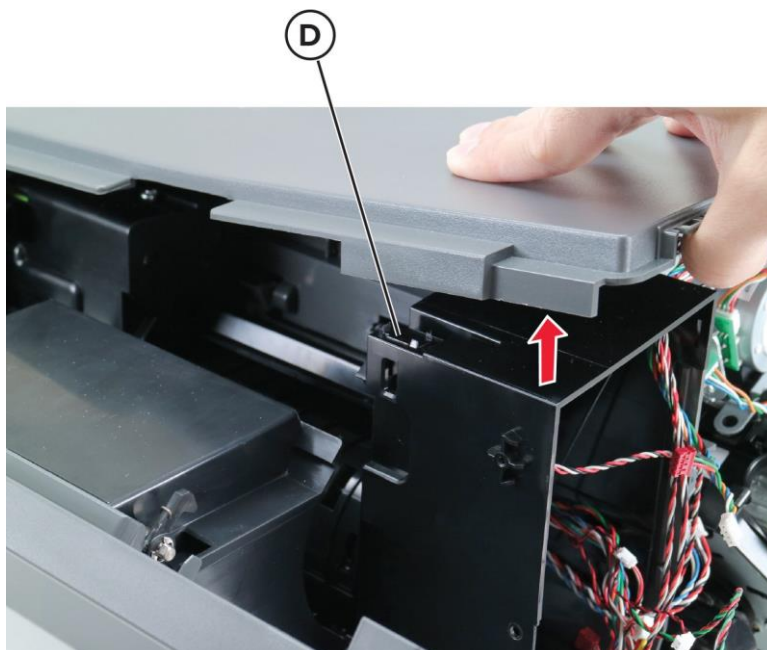
7 Remove the sensor.

Punch drive gears removal

1 Remove the staple, hole punch finisher left cover. See **"Staple, hole punch finisher left cover removal" on page 712**.

2 Remove the HPU controller board. See **"Sensor (SHPF rear door interlock) removal" on page 731**.

3 Remove the three screws (A), and then remove the plate.
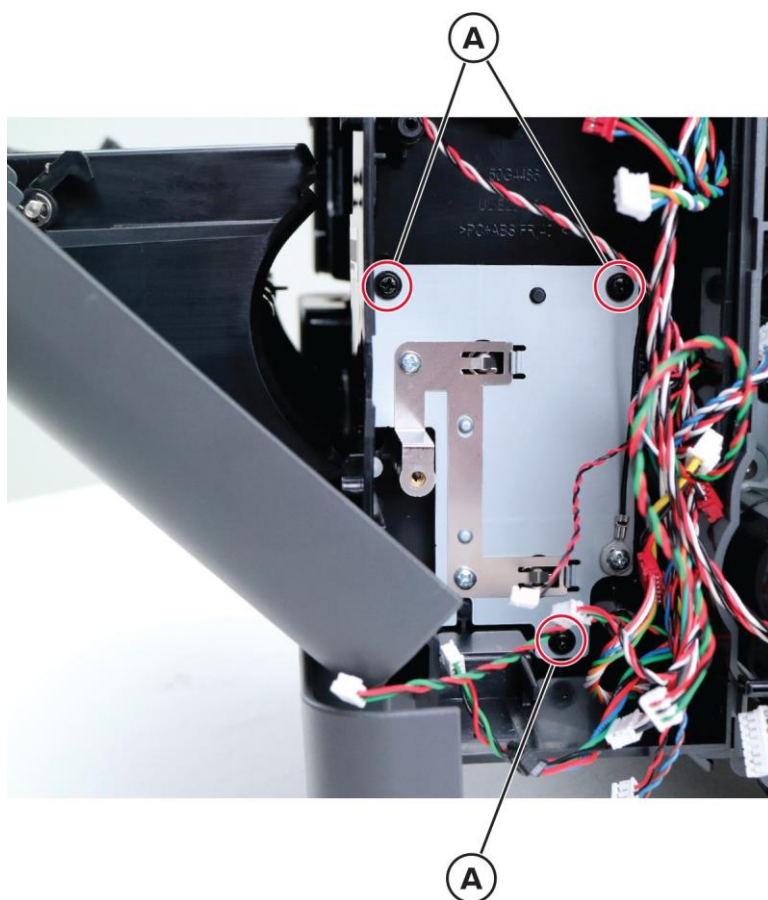
4 Remove the two E-clips (B), and then remove the gears.
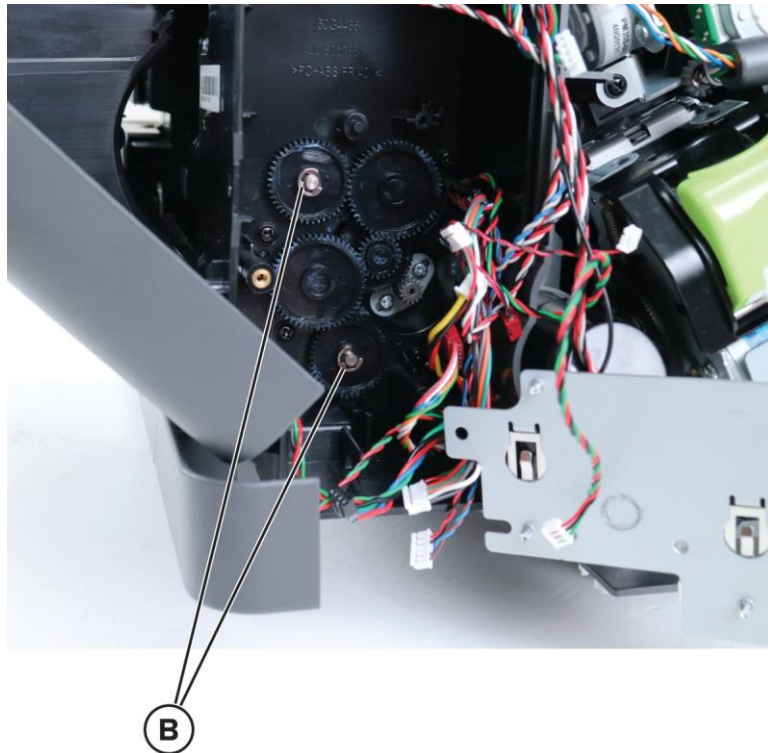
Staple, hole punch finisher elevator drive removal

1 Remove the staple, hole punch finisher left cover. See **"Staple, hole punch finisher left cover removal" on page 712**.

2 Remove the controller board. See **"Staple, hole punch finisher controller board removal" on page 718**.

3 Disconnect the two cables (A), and then remove the five screws (B).
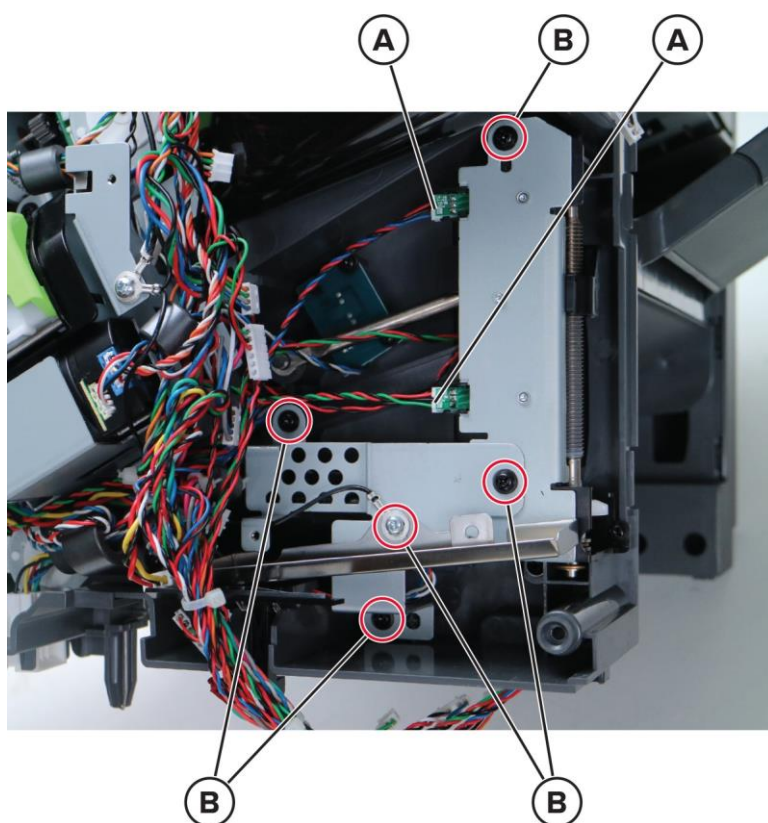
4 Remove the two screws (C).
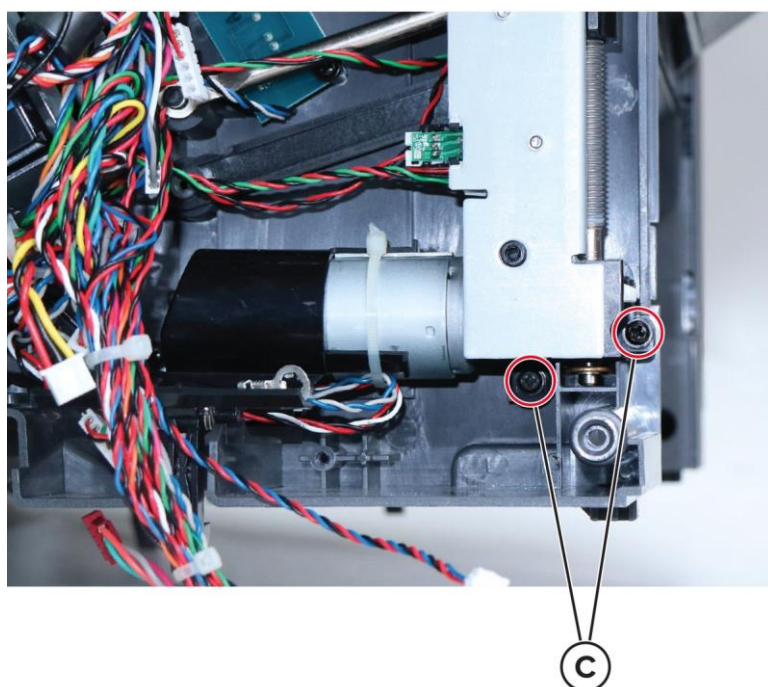
5 Release the spring (D), and then remove the elevator drive.
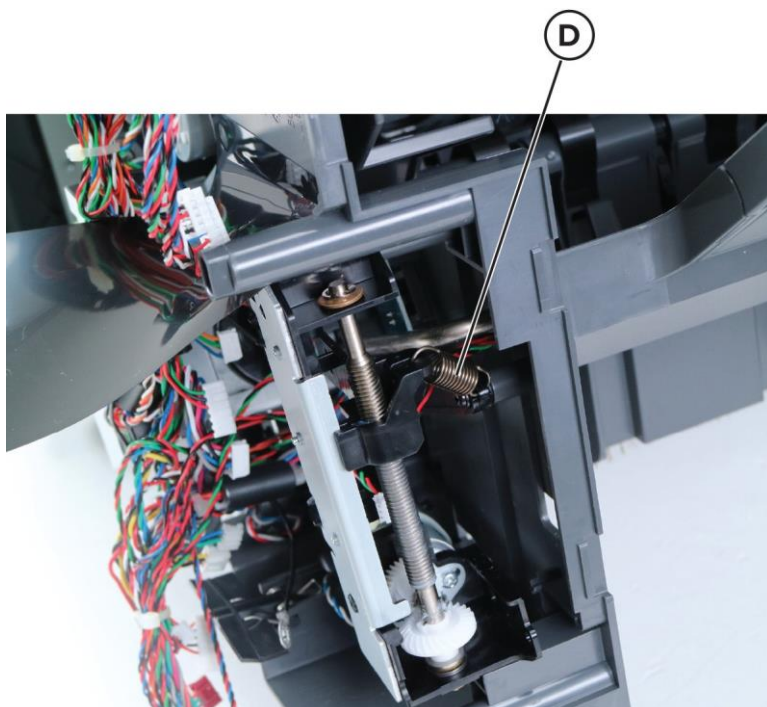
6 Remove the two screws (E), and then remove the two sensors from the elevator drive.
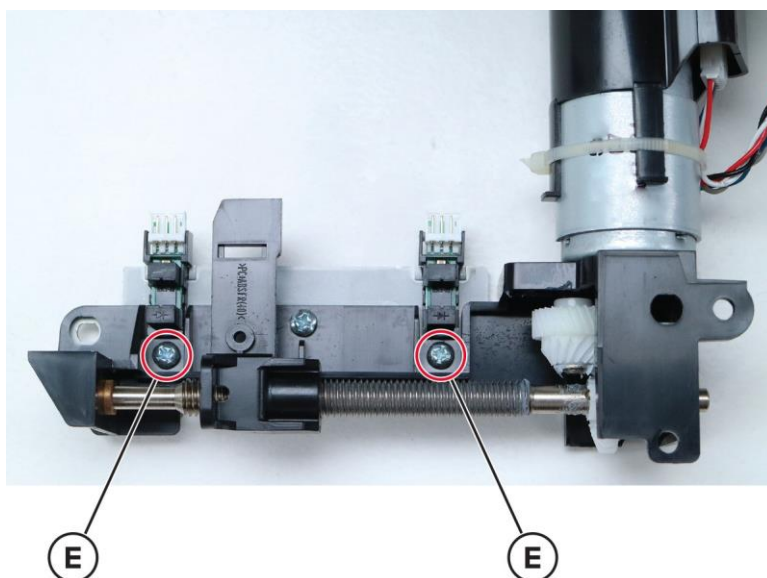
Sensor (hole punch) removal

1 Remove the staple, hole punch finisher right cover. See **"Staple, hole punch finisher controller board removal" on page 718**.

2 Disconnect the cable (A), and then remove the sensor retainer (B).
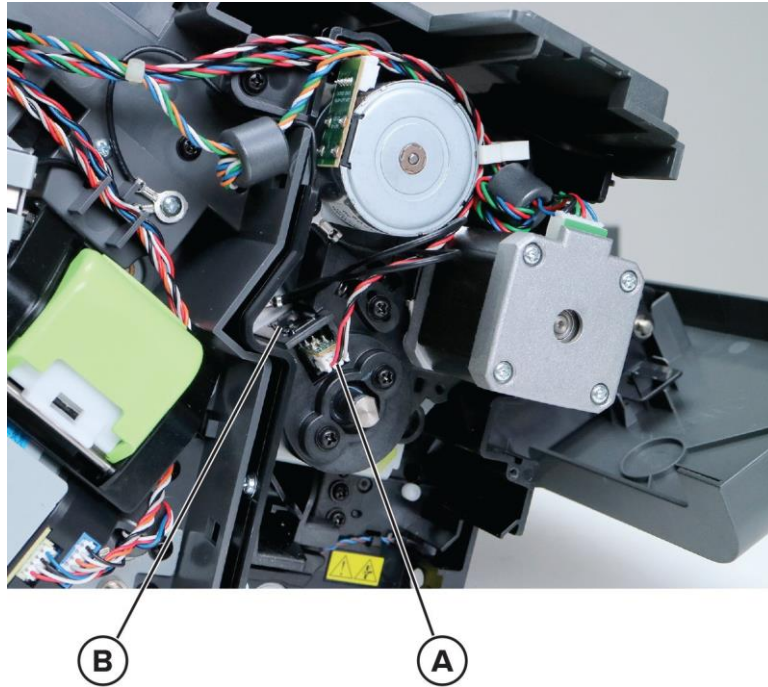
3 Remove the sensor.

Motor (HPU carriage) removal

1 Remove the staple, hole punch finisher right cover. See **"Staple, hole punch finisher right cover removal" on page 714**.

2 Disconnect the cable (A), and then remove the two screws (B).
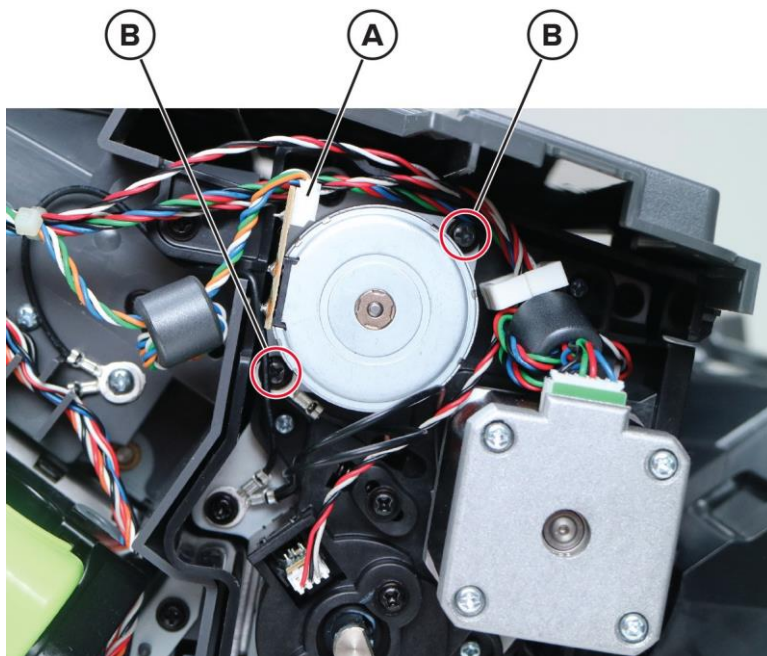
3 Remove the motor.

Right staple unit removal

1 Remove the staple, hole punch finisher right cover. See **"Staple, hole punch finisher right cover removal" on page 714**.

2 Release the right stapler door close limit switch. See **"SHPF staple cartridge door close limit switch removal" on page 719**.

3 Disconnect the two cables (A), remove the four screws (B), and then remove the bracket.
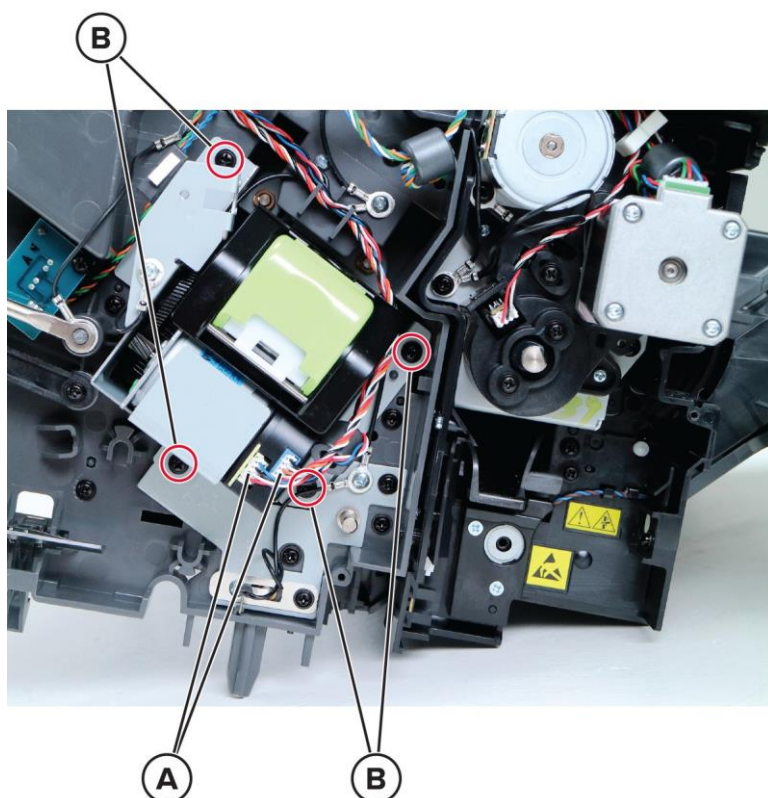
4 Remove the two screws (C), and then remove the staple unit.
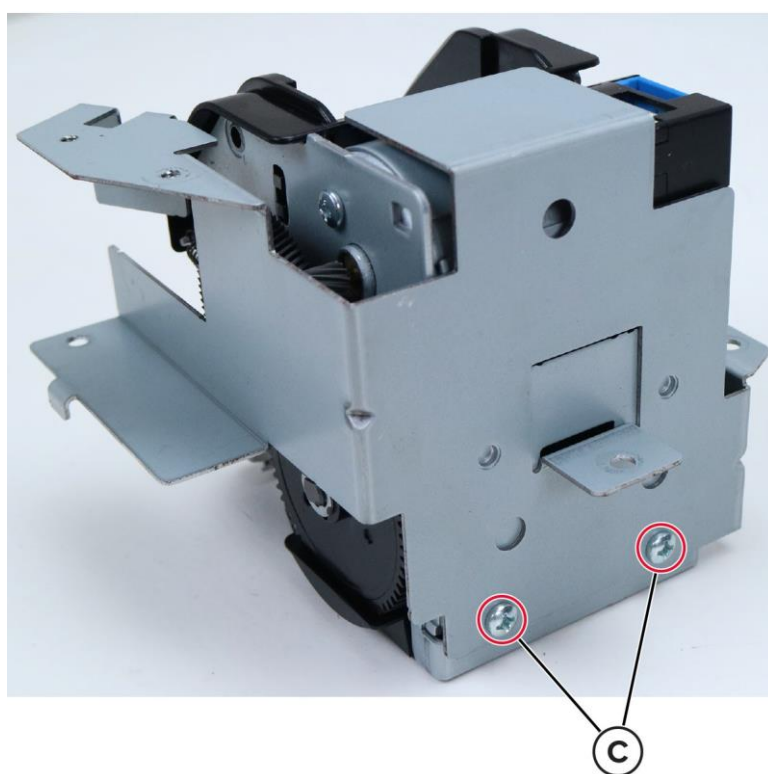
Parts removal

Sensor (hole punch box present) removal

1 Remove the staple, hole punch finisher right cover. See **"Staple, hole punch finisher right cover removal" on page 714**.

2 Disconnect the sensor cable (A), and then remove the sensor.
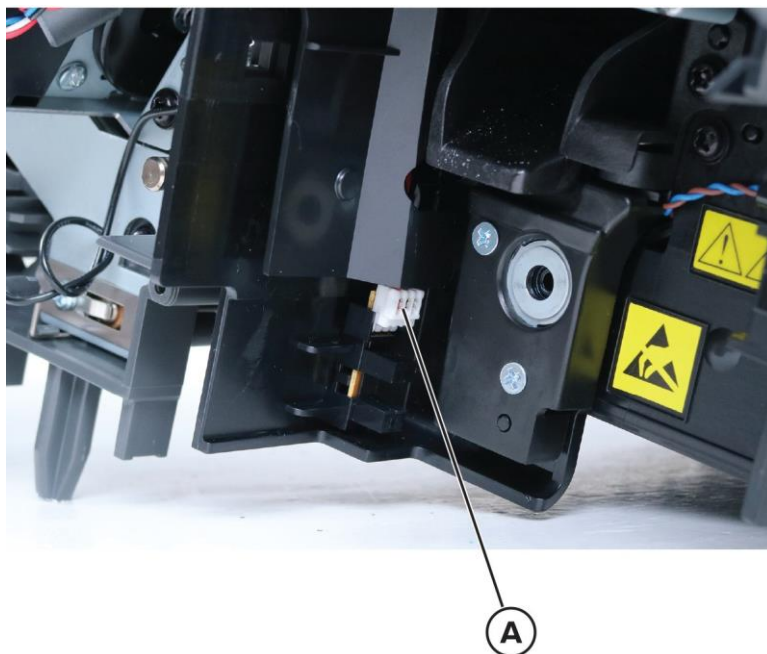
Sensor (SHPF staple throat paper present) removal

1 Remove the staple, hole punch finisher right cover. See **"Staple, hole punch finisher right cover removal" on page 714**.

2 Remove the four screws (A), and then release the bracket.
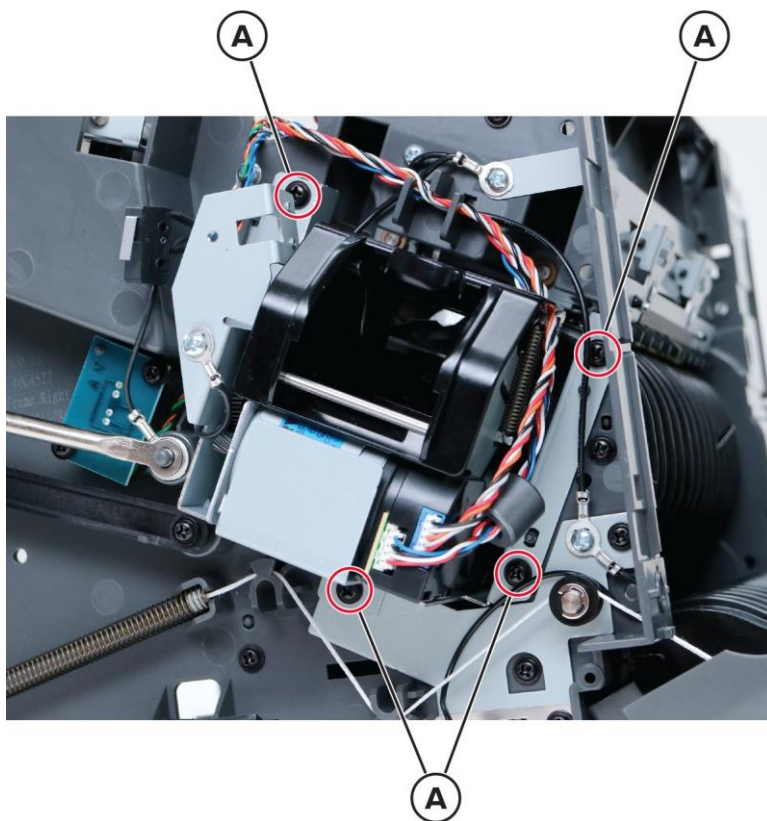
3 Release the sensor latches (B), and then release the sensor from its bracket.

B

4 Disconnect the cable (C), and then remove the sensor.

C

Installation note: Make sure that the sensor is properly installed. Push the sensor to its bracket until it is securely latched onto the frame.

SHPF bin link tension spring removal

1 Remove the staple, hole punch finisher left cover. See **"Staple, hole punch finisher left cover removal" on page 712**.

2 Remove the staple, hole punch finisher right cover. See **"Staple, hole punch finisher right cover removal" on page 714**.

3 Unhook the tension spring (A) from the left side, and then remove it.
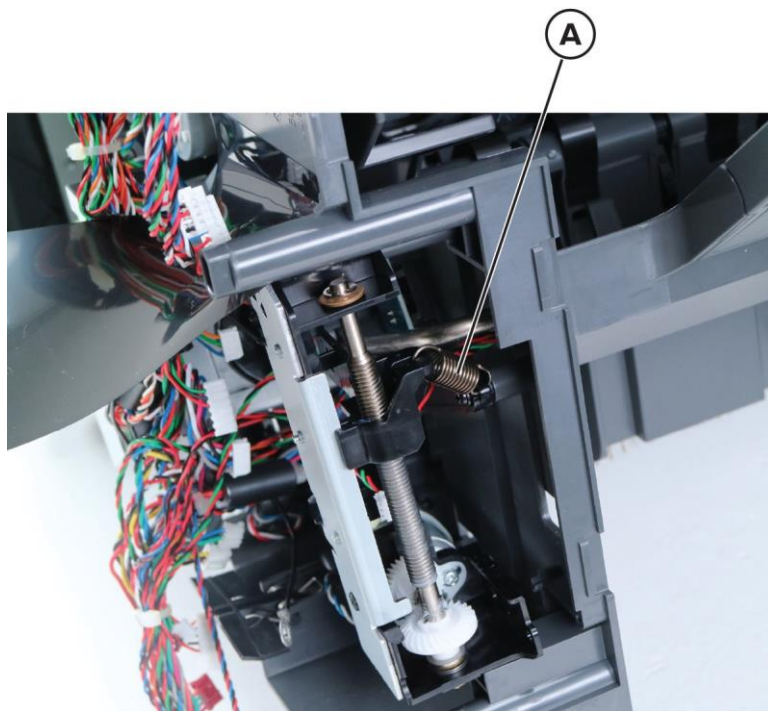
4 Unhook the tension spring (B) from the right side, and then remove it.
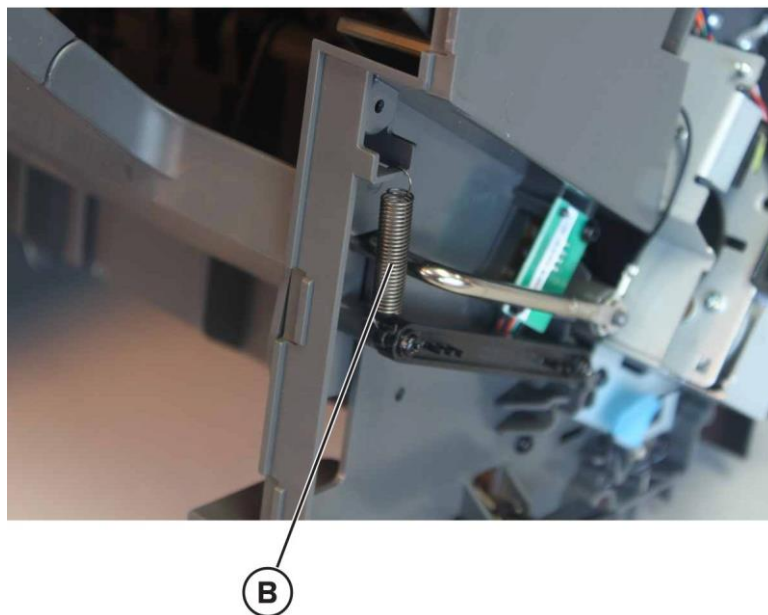
Parts removal

SHPF bin link assembly removal

1 Remove the staple, hole punch finisher left cover. See **"Staple, hole punch finisher left cover removal" on page 712**.

2 Remove the staple, hole punch finisher right cover. See **"Staple, hole punch finisher right cover removal" on page 714**.

3 Remove the staple, hole punch finisher controller board. See **"Staple, hole punch finisher controller board removal" on page 718**.

4 Remove the staple, hole punch finisher elevator drive. See **"Staple, hole punch finisher elevator drive removal" on page 735**.

5 Remove the screw (A), and then remove the left tray link.
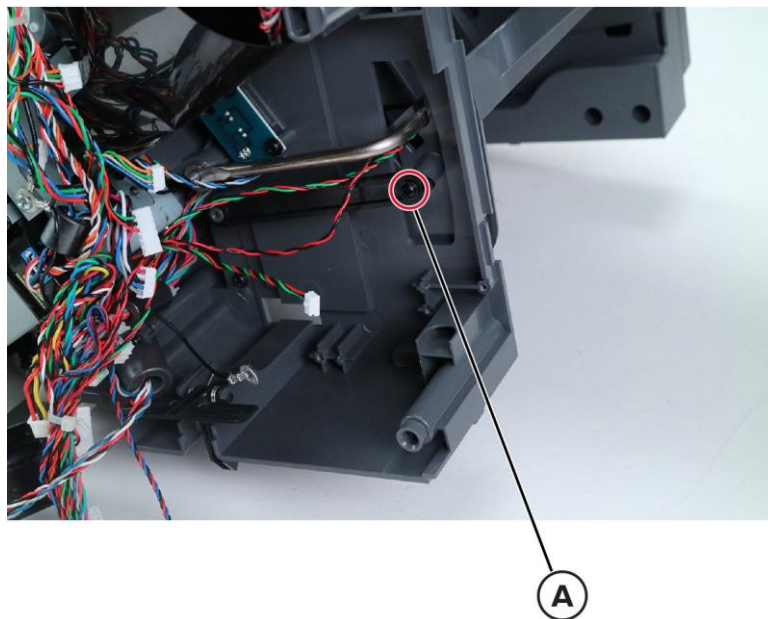
6 Remove the two screws (B), and then remove the right tray link.
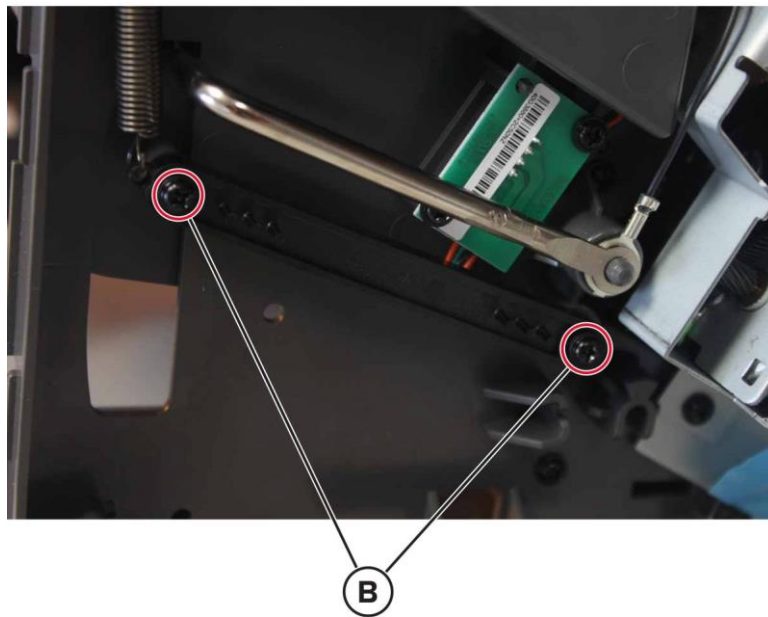
Sensor (SHPF bin full send) removal

1 Remove the staple, hole punch finisher right cover. See **"Staple, hole punch finisher right cover removal" on page 714**.

2 Remove the two screws (A), and then release the sensor.
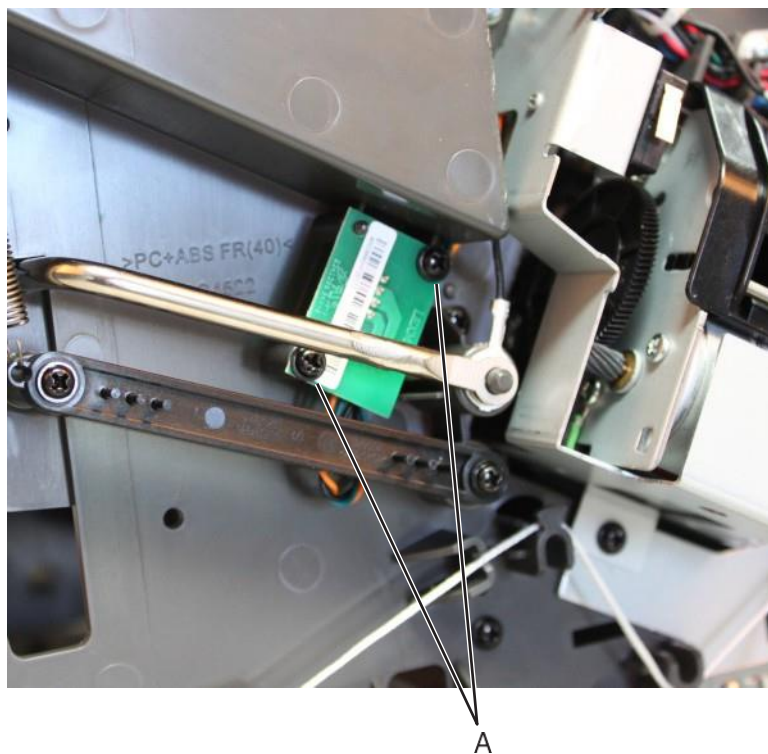
Parts removal

3 Disconnect the cable (B), and remove the sensor.
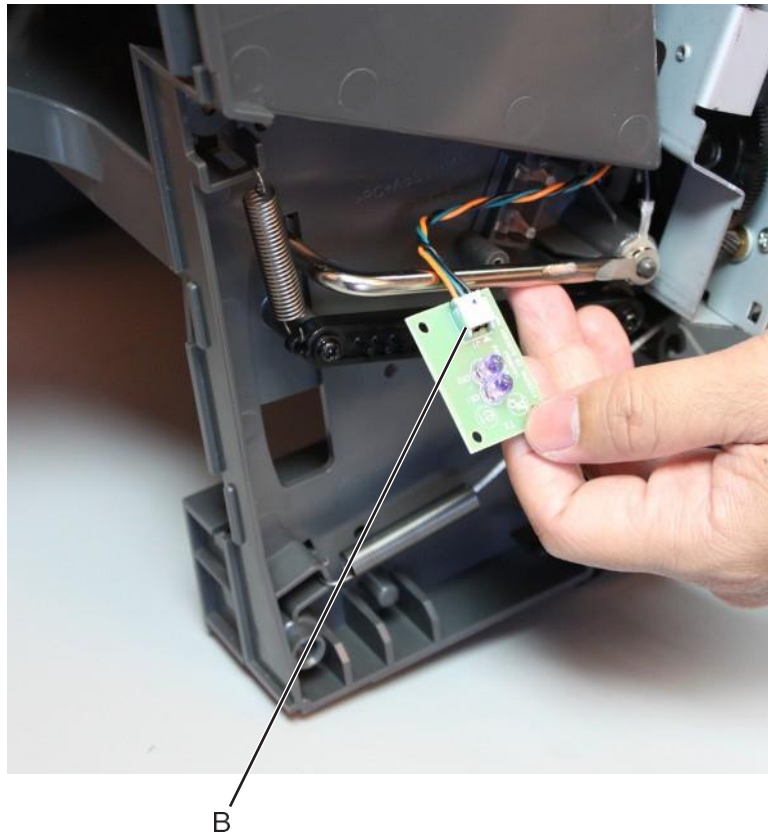
B

Sensor (SHPF bin full receive) removal

1 Remove the staple, hole punch finisher left cover. See **"Staple, hole punch finisher left cover removal" on page 712**.

2 Remove the staple, hole punch finisher controller board. See **"Staple, hole punch finisher controller board removal" on page 718**.

3 Remove the two screws (A), and then release the sensor.

A

4 Disconnect the cable (B), and then remove the sensor.

B
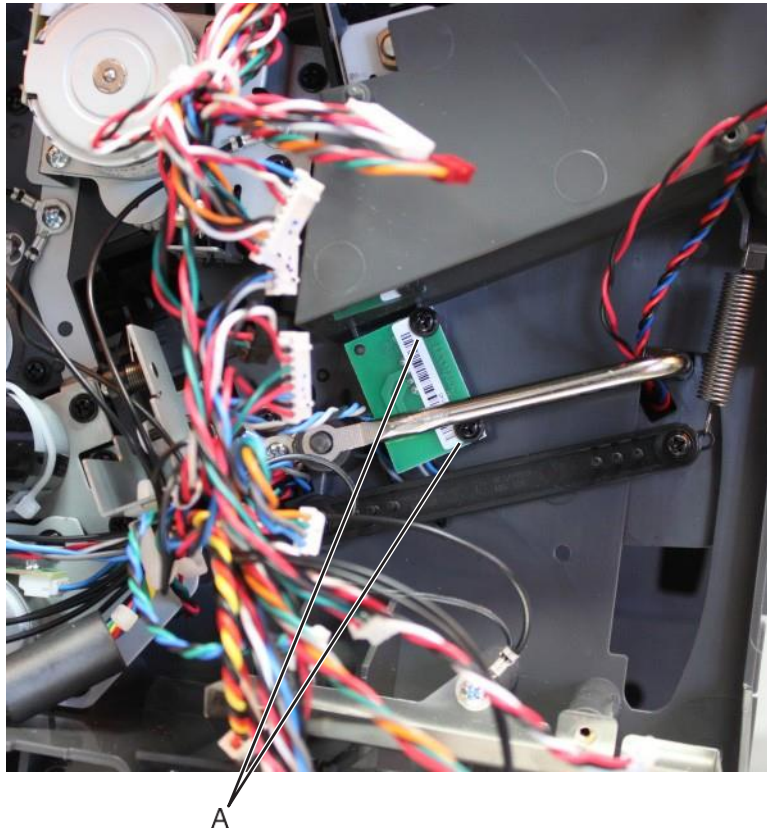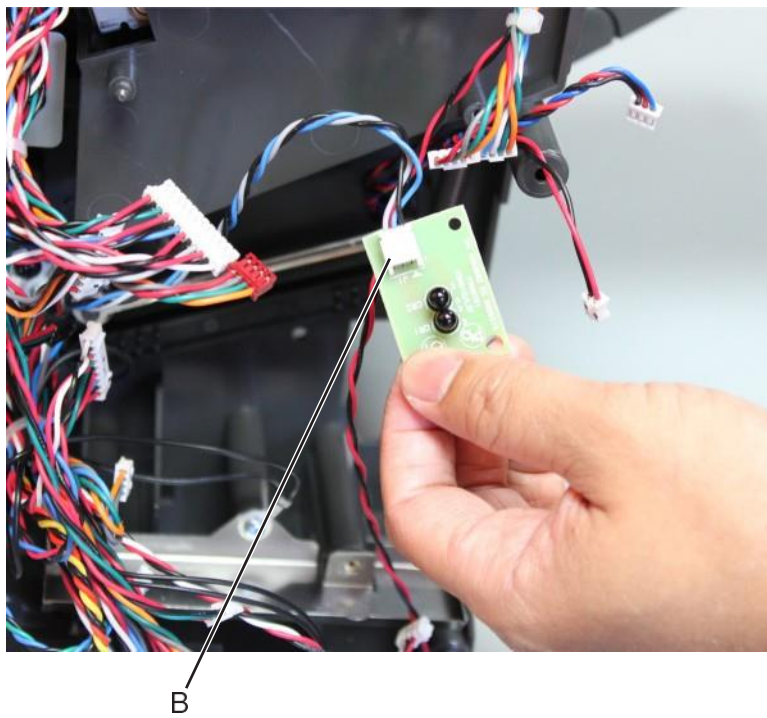
Parts removal

Staple, hole punch finisher latch removal

1 Remove the staple, hole punch finisher left cover or right cover. See **"Staple, hole punch finisher left cover removal" on page 712** or **"Staple, hole punch finisher right cover removal" on page 714**.

2 Pull the latch off the finisher.

Note: The latch on the right side can be removed using the same method shown.
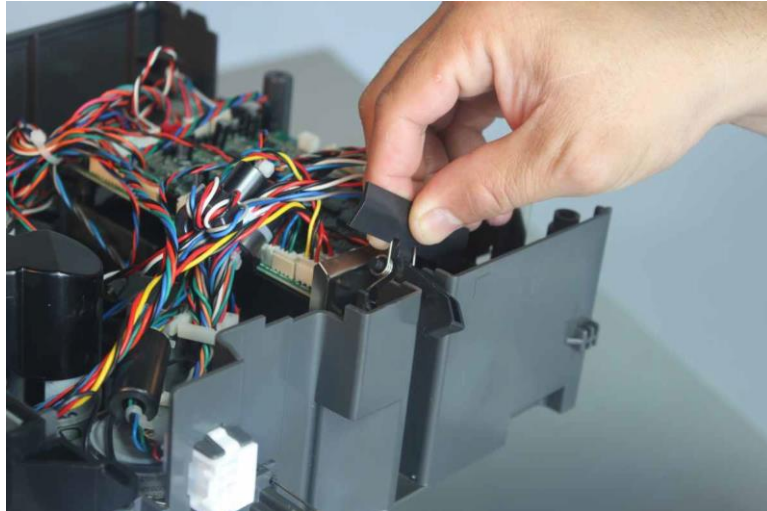
Sensor (SHPF paddle) removal

1 Remove the staple, hole punch finisher left cover. See **"Staple, hole punch finisher left cover removal" on page 712**.

2 Remove the staple, hole punch finisher right cover. See **"Staple, hole punch finisher right cover removal" on page 714**.

3 Remove the staple, hole punch finisher top cover. See **"Staple, hole punch finisher top cover removal" on page 716**.

4 Remove the sensor retainer (A), and then disconnect the cable (B).
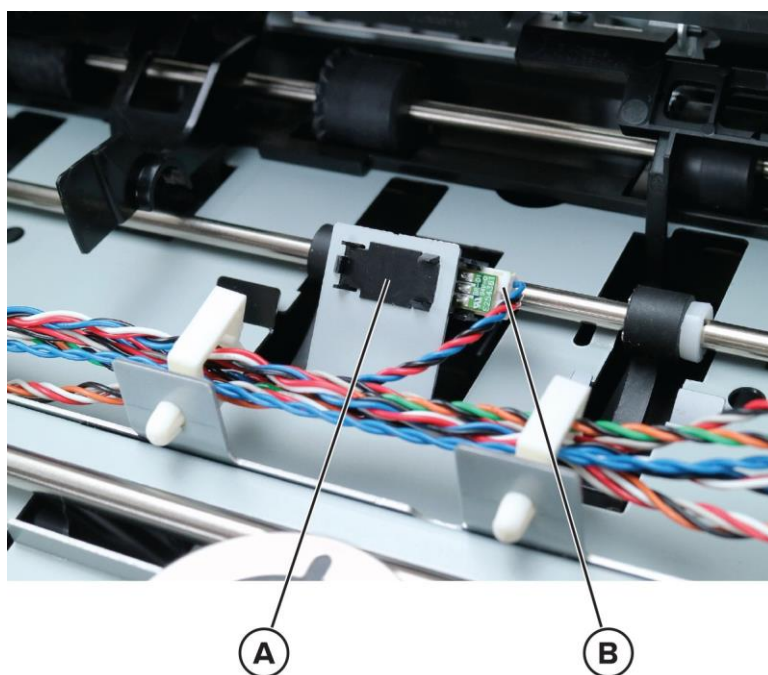
5 Remove the sensor.

Component locations

Printer configurations

⚠ **CAUTION—TIPPING HAZARD:** Installing one or more options on your printer or MFP may require a caster base, furniture, or other feature to prevent instability causing possible injury.

⚠ **CAUTION—TIPPING HAZARD:** To reduce the risk of equipment instability, load each tray separately. Keep all other trays closed until needed.

You can configure your printer by adding optional 250-, 550-, or 2100-sheet trays.

Basic model

1	Standard 550-sheet tray
2	Multipurpose feeder
3	Control panel **Note:** The appearance may vary depending on your printer model.
4	Standard bin

Fully-configured model

	Hardware option	Alternative hardware option
1	4-bin mailbox	• Output expander • High-capacity output • Staple finisher • Staple, hole punch finisher
2	Optional 2100-sheet tray	None
3	Caster base	None
4	Optional 550-sheet tray	Optional 250-sheet tray
5	Staple, hole punch finisher	• Output expander • High-capacity output • 4-bin mailbox • Staple finisher

The staple, hole punch finisher must not be combined with any other output options.

In a configuration with two or more optional finishers:

- The staple finisher must always be on top.
- The high-capacity output expander must always be at the bottom.
- The output expander is the only option that can be placed on top of the high-capacity output expander.
- The output expander and mailbox may be installed in any order.

When using optional trays:

- Always use a caster base when the printer is configured with a 2100-sheet tray.
- The 2100-sheet tray must always be at the bottom of a configuration.
- A maximum of four optional trays may be configured with the printer.
- The optional 250- and 550-sheet trays may be installed in any order.

Attaching cables

⚠ **CAUTION—SHOCK HAZARD:** To avoid the risk of electrical shock, do not set up this product or make any electrical or cabling connections, such as the power cord, fax feature, or telephone, during a lightning storm.

⚠ **CAUTION—POTENTIAL INJURY:** To avoid the risk of fire or electrical shock, connect the power cord to an appropriately rated and properly grounded electrical outlet that is near the product and easily accessible.

⚠ **CAUTION—POTENTIAL INJURY:** To avoid the risk of fire or electrical shock, use only the power cord provided with this product or the manufacturer's authorized replacement.

Warning—Potential Damage: To avoid loss of data or printer malfunction, do not touch the USB cable, any wireless network adapter, or the printer in the areas shown while actively printing.
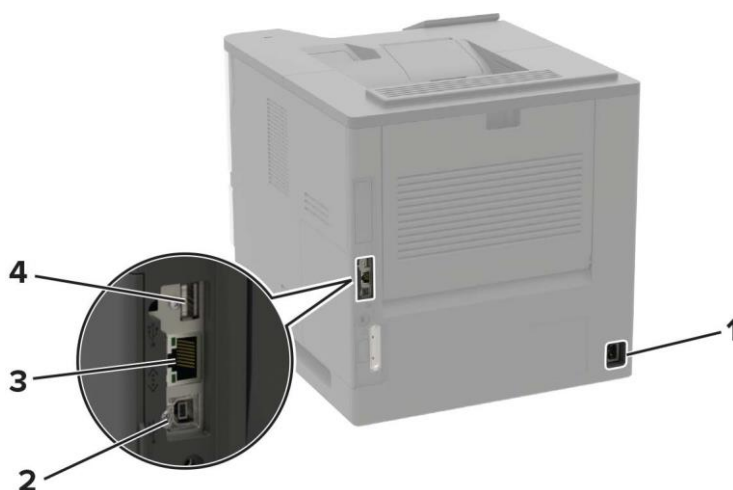
	Use the	To
1	Power cord socket	Connect the printer to an electrical outlet.
2	USB printer port	Connect the printer to a computer.
3	Ethernet port	Connect the printer to a network.
4	USB port	Attach a keyboard or any compatible option.

Component locations

Printer roller locations
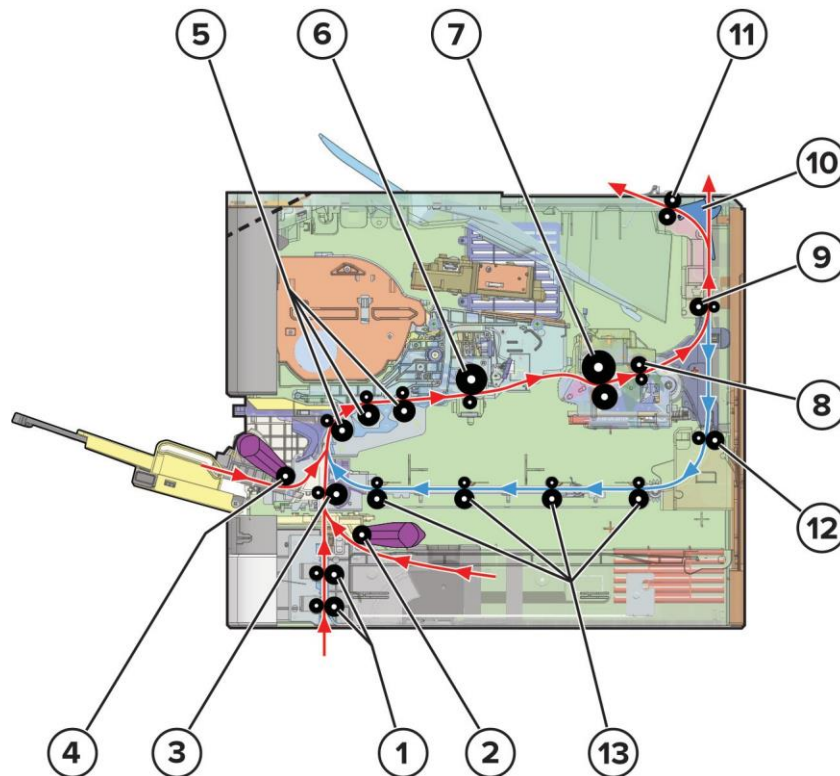
1	Transport rollers
2	Tray 1 pick roller
3	Lower aligner roller
4	MPF pick roller
5	Upper aligner rollers
6	Photoconductor drum
7	Fuser roller/belt
8	Fuser exit roller
9	Lower redrive roller
10	Diverter
11	Upper redrive roller
12	Duplex entry roller
13	Duplex aligner rollers

Printer sensor locations
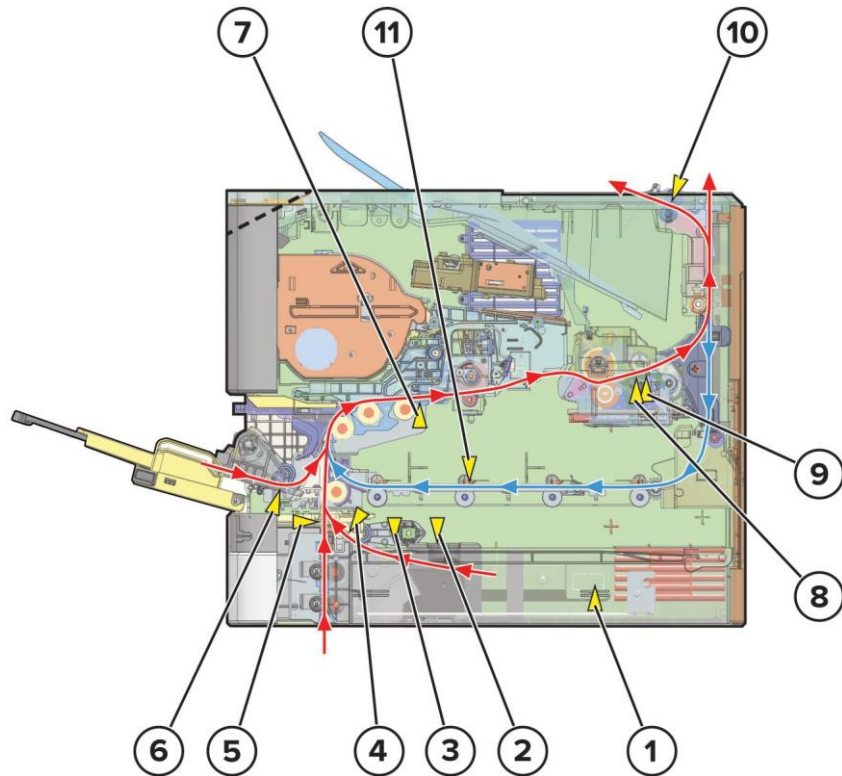
1	Sensor (paper size)
2	Sensor (tray 1 paper present)
3	Sensor (pick position)
4	Sensor (pick)
5	Sensor (tray 1 pass-through)
6	Sensor (MPF paper present)
7	Sensor (input)
8	Sensor (fuser exit)
9	Sensor (narrow media) **Note:** This part is found in hot roll fusers only.
10	Sensor (exit)
11	Sensor (duplex path)

Output expander locations
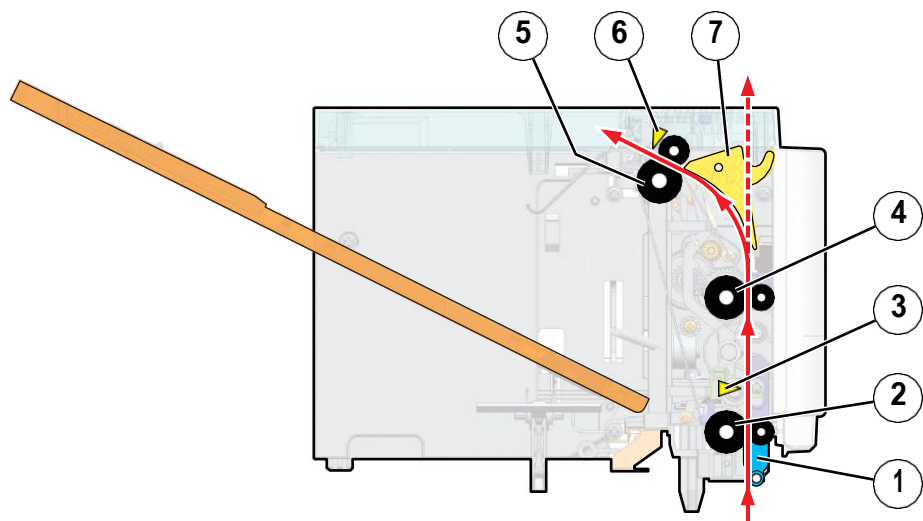
1	Diverter plunger
2	Transport roller 1
3	Sensor (OE pass-through)
4	Transport roller 2
5	Exit roller
6	Sensor (OE bin full)
7	Diverter

High capacity output expander locations
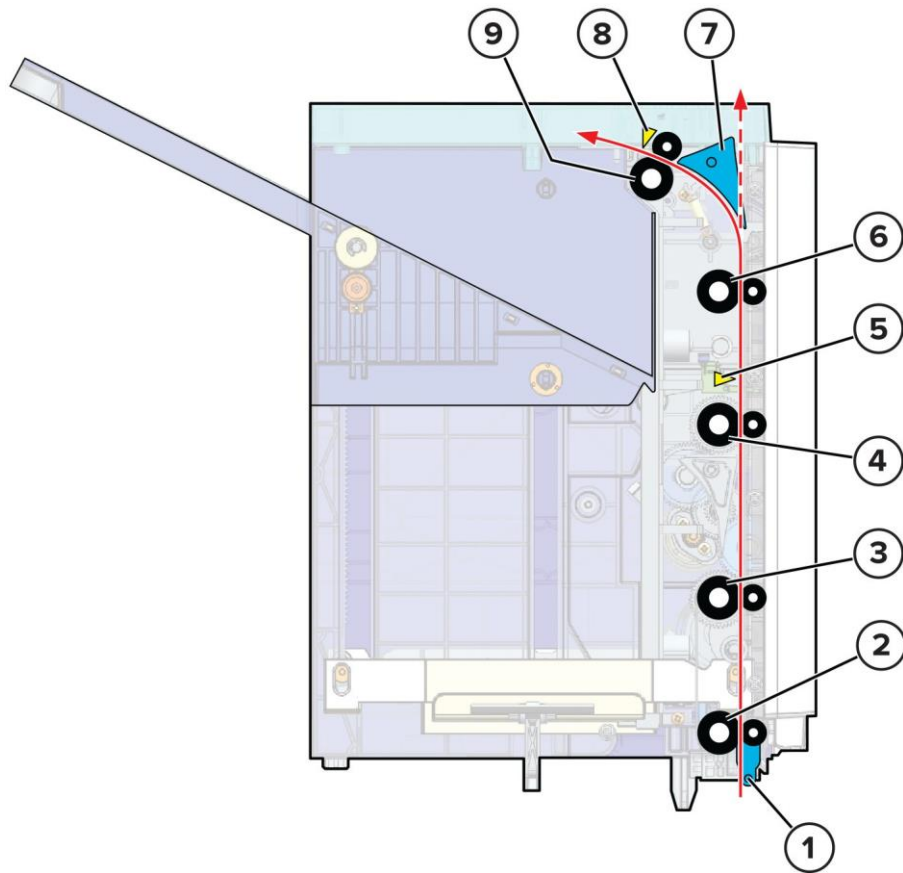
1	Diverter plunger
2	HCOE entrance roller
3	HCOE transport roller 1
4	HCOE transport roller 2
5	Sensor (HCOE pass-through)
6	HCOE transport roller 3
7	Diverter
8	Sensor (HCOE bin full)
9	HCOE exit roller

Component locations

Mailbox locations

Mailbox rollers
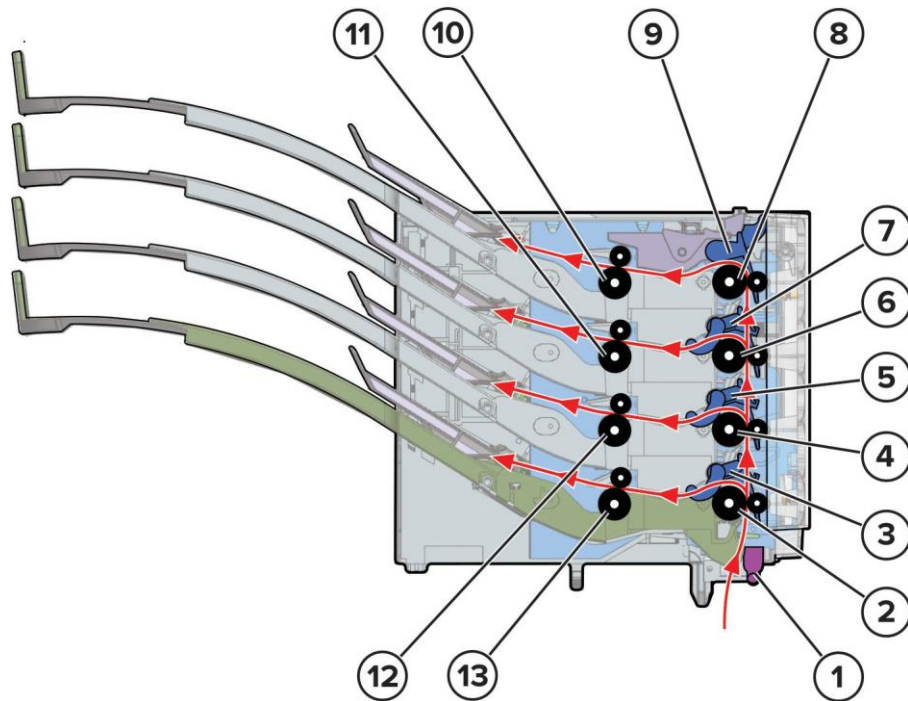
1	Diverter plunger
2	Mailbox transport roller 1
3	Diverter 1
4	Mailbox transport roller 2
5	Diverter 2
6	Mailbox transport roller 3
7	Diverter 3
8	Mailbox transport roller 4
9	Diverter 4
10	Exit roller 4
11	Exit roller 3
12	Exit roller 2
13	Exit roller 1

Component locations

Mailbox sensors
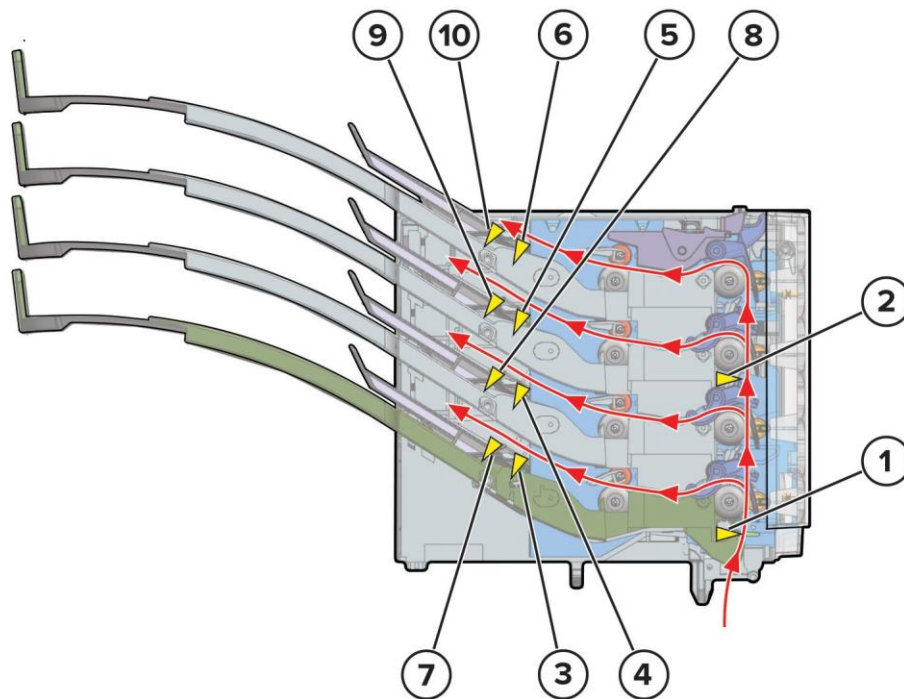
1	Sensor (mailbox pass-through 1)
2	Sensor (mailbox pass-through 2)
3	Sensor (mailbox bin 1 paper present)
4	Sensor (mailbox bin 2 paper present)
5	Sensor (mailbox bin 3 paper present)
6	Sensor (mailbox bin 4 paper present)
7	Sensor (mailbox bin 1 full)
8	Sensor (mailbox bin 2 full)
9	Sensor (mailbox bin 3 full)
10	Sensor (mailbox bin 4 full)

Staple, hole punch finisher locations

SHPF rollers
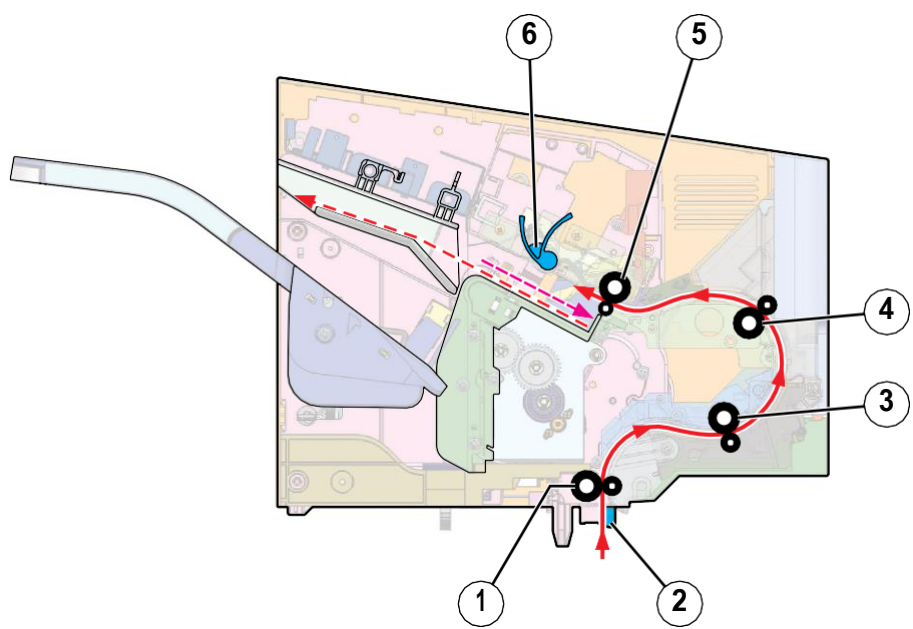
1	SHPF entrance roller
2	Diverter plunger
3	SHPF transport roller 1
4	SHPF transport roller 2
5	SHPF exit roller
6	SHPF paddle roller

SHPF sensors
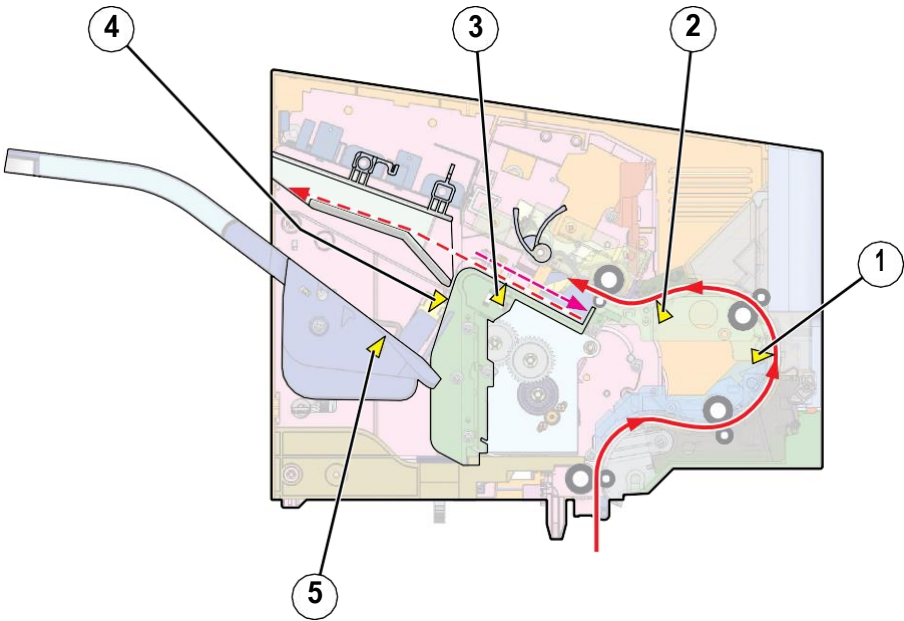
1	Sensor (SHPF transport 1)
2	Sensor (SHPF transport 2)
3	Sensor (SHPF tamper paper present)
4	Sensor (SHPF bin full)
5	Sensor (SHPF bin paper present)

Printer controller board connectors

Connector	Connects to	Pin no.	Signal
J8	Imaging unit, CTLS, Sensor (toner cartridge shutter)	1	Toner Port Signal
		2	Smart Chip Data
		3	GND
		4	+3.3V Supply Voltage
		5	Toner Port LED
		6	Smart Chip Clock
		7	not used
		8	GND
		9	25V Interlock to IU
		10	25V Interlock - RETURN

Connector	Connects to	Pin no.	Signal
JCTLS1	CTLS, Imaging unit	1	CTLS_Signal
		2	Signal Guard
		3	not used
J27	Duplex fan, Sensor (toner density), Sensor (input), Motor (duplex), Sensor (duplex interlock), Sensor (duplex path)	1	not used
		2	Duplex fan—Fan Encoder Feedback
		3	Sensor (toner density)—Ambient Temp Signal
		4	Duplex fan—GND
		5	Sensor (toner density)—TDS PWM Signal
		6	Duplex fan—Fan Supply Voltage
		7	Sensor (toner density)—TDS Feedback Signal
		8	Sensor (input)—Sensor Feedback Signal
		9	Sensor (toner density)—GND
		10	Sensor (input)—GND
J27	Duplex fan, Sensor (toner density), Sensor (input), Motor (duplex), Sensor (duplex path)	11	Sensor (toner density)—TDS 5V Supply
		12	Sensor (input)—Sensor Supply Voltage
		13	Motor (duplex)—Motor Encoder LED supply V
		14	Sensor (duplex interlock)—Sensor Feedback Signal
		15	Motor (duplex)—Motor Encoder Signal Feedback
		16	Sensor (duplex interlock)—GND
		17	Motor (duplex)—GND
		18	Sensor (duplex interlock)—Sensor Supply Voltage
		19	Motor (duplex)—Motor -V supply
		20	Sensor (duplex path)—Sensor Feedback Signal
		21	Motor (duplex)—Motor +V supply
		22	Sensor (duplex path)—GND
		23	not used
		24	Sensor (duplex path)—Sensor Supply Voltage

Component locations

Connector	Connects to	Pin no.	Signal
J60	Fuser, Sensor (fuser exit), Sensor (narrow media)	1	Paper Sensor - Narrow Media
		2	GND
		3	Main Thermistor Signal
		4	Belt Fuser ID Signal
		5	Edge Thermistor Signal
		6	+5V Supply Voltage
		7	Back-up Roll Thermistor Signal
		8	Paper Sensor - Fuser Exit
		9	+3.3V Supply Voltage
		10	Smart Chip Clock Signal
		11	Smart Chip Data
		12	Fuser Present Signal
		13	GND
		14	not used
J66	Optional bin, Sensor (toner smart chip), Sensor (toner low), Motor (redrive), Sensor (rear door interlock), Sensor (standard bin full)	1	Motor (redrive)—Motor Encoder LED supply V
		2	Optional bin—+25V Supply Voltage
		3	Motor (redrive)—Motor Encoder Signal Feedback
		4	Optional bin—GND
		5	Motor (redrive)—GND
		6	Optional bin—
		7	Motor (redrive)—Motor -V supply
		8	Optional bin—Option Comm. Receive Signal
		9	Motor (redrive)—Motor +V supply
		10	Optional bin—Option Comm. Transmit Signal

Component locations

Connector	Connects to	Pin no.	Signal
J66	Optional bin, Sensor (toner smart chip), Sensor (toner low), Motor (redrive), Sensor (rear door interlock), Sensor (standard bin full)	11	Sensor (rear door interlock)—Sensor Feedback Signal
		12	Optional bin—+5V Supply Voltage
		13	Sensor (rear door interlock)—GND
		14	Sensor (standard bin full)—Sensor Feedback Signal
		15	Sensor (rear door interlock)—Sensor Supply Voltage
		16	Sensor (standard bin full)—GND
		17	Sensor (toner smart chip)—Smart Chip Data
		18	Sensor (standard bin full)—Sensor Supply Voltage
		19	Sensor (toner smart chip)—+3.3V Supply Voltage
		20	Sensor (toner low)—Sensor Assembly Feedback
		21	Sensor (toner smart chip)—Smart Chip Clock Signal
		22	Sensor (toner low)—GND
		23	Sensor (toner smart chip)—GND
		24	Sensor (toner low)—+5V Supply Voltage
		25	Sensor (toner smart chip)—+25V Interlock "Return"
		26	--
J71	Motor (fuser), Motor (toner cartridge), Motor (main), Motor (MPF), Main fan	1	Motor (fuser)—V Winding Hall Feedback
		2	Motor (fuser)—U Winding Hall Feedback
		3	Motor (fuser)—FG Signal Feedback
		4	Motor (fuser)—W Winding Hall Feedback
		5	Motor (fuser)—+5V Supply Voltage
		6	Motor (fuser)—GND
		7	Motor (fuser)—U Winding Power
		8	Motor (toner cartridge)—Motor Encoder LED supply V
		9	Motor (fuser)—V Winding Power
		10	Motor (toner cartridge)—Motor Encoder Signal Feedback

Component locations

Connector	Connects to	Pin no.	Signal
J71	Motor (fuser), Motor (toner cartridge), Motor (main), Motor (MPF), Main fan	11	Motor (fuser)—W Winding Power
		12	Motor (toner cartridge)—GND
		13	not used
		14	Motor (toner cartridge)—Motor -V supply
		15	Motor (toner cartridge)—U Winding Hall Feedback
		16	Motor (toner cartridge)—Motor +V supply
		17	Motor (toner cartridge)—V Winding Hall Feedback
		18	Motor (MPF)—Motor Encoder LED supply V
		19	Motor (toner cartridge)—W Winding Hall Feedback
		20	Motor (MPF)—Motor Encoder Signal Feedback
J71	Motor (fuser), Motor (toner cartridge), Motor (main), Motor (MPF), Main fan	21	Motor (toner cartridge)—FG Signal Feedback
		22	Motor (MPF)—GND
		23	Motor (toner cartridge)—GND
		24	Motor (MPF)—Motor -V supply
		25	Motor (toner cartridge)—+5V Supply Voltage
		26	Motor (MPF)—Motor +V supply
		27	Motor (toner cartridge)—U Winding Power
		28	Main fan—Fan Supply Voltage
		29	Motor (toner cartridge)—V Winding Power
		30	Main fan—GND
		31	Motor (toner cartridge)—W Winding Power
		32	Main fan—Fan Encoder Feedback

Component locations

Connector	Connects to	Pin no.	Signal
J15	HVPS, Right frame fan, Sensor (front door interlock), Speaker	1	Supply Voltage (+25V)
		2	Supply Voltage
		3	HVPS_SRVO
		4	GND
		5	Transfer Enable
		6	Encoder Feedback Signal
		7	Transfer PWM
		8	Signal Feedback
		9	Charge Roll PWM
		10	GND
		11	GND
		12	LED Supply Voltage
		13	Developer PWM
		14	Speaker +
		15	Toner Adder Roll PWM
		16	Speaker -
		17	HVPS Vendor ID
		18	not used
J62	LVPS	1	+25V Enable Signal
		2	Heat "ON" Signal
		3	Zero Crossing Signal
		4	Relay "ON" signal
		5	GND
		6	+25V Supply
		7	GND
		8	+25V Supply
		9	GND
		10	+25V Supply
		11	GND
		12	+6.5V Supply
		13	GND
		14	+6.5V Supply
		15	GND
		16	+6.5V Supply

Component locations

Connector	Connects to	Pin no.	Signal
J73	Motor (pick), Sensor (paper present), Sensor (pick position), Sensor (pick), Sensor (tray 1 pass-through), Sensor (MPF paper present), Optional tray, Sensor (paper size)	1	Optional tray—+25V Supply Voltage
		2	Motor (pick)—Motor Encoder LED supply V
		3	Optional tray—GND
		4	Motor (pick)—Motor Encoder Signal Feedback
		5	Optional tray—Option Comm. Receive Signal
		6	Motor (pick)—GND
		7	Optional tray—GND
		8	Motor (pick)—Motor -V supply
		9	Optional tray—Option Comm. Transmit Signal
		10	Motor (pick)—Motor +V supply
J73	Motor (pick), Sensor (paper present), Sensor (pick position), Sensor (pick), Sensor (tray 1 pass-through), Sensor (MPF paper present), Optional tray, Sensor (paper size)	11	Optional tray—+5V Supply Voltage
		12	Sensor (pick position)—Sensor Feedback Signal
		13	Sensor (paper size)—Sensor Feedback Signal - 0
		14	Sensor (pick position)—GND
		15	Sensor (paper size)—GND
		16	Sensor (pick position)—Sensor Supply Voltage
		17	Sensor (paper size)—Sensor Feedback Signal - 1
		18	Sensor (paper present)—Sensor Feedback Signal
		19	Sensor (paper size)—Sensor Feedback Signal - 2
		20	Sensor (paper present)—GND

Component locations

Connector	Connects to	Pin no.	Signal
J73	Motor (pick), Sensor (paper present), Sensor (pick position), Sensor (pick), Sensor (tray 1 pass-through), Sensor (MPF paper present), Optional tray, Sensor (paper size)	21	Sensor (paper size)—Sensor Feedback Signal - 3
		22	Sensor (paper present)—Sensor Supply Voltage
		23	Sensor (pick)—Sensor Feedback Signal
		24	Sensor (MPF paper present)—Sensor Feedback Signal
		25	Sensor (pick)—GND
		26	Sensor (MPF paper present)—GND
		27	Sensor (pick)—Sensor Supply Voltage
		28	Sensor (MPF paper present)—Sensor Supply Voltage
		29	Sensor (tray 1 pass-through)—Sensor Feedback Signal
		30	not used
		31	Sensor (tray 1 pass-through)—GND
		32	not used
		33	Sensor (tray 1 pass-through)—Sensor Supply Voltage
		34	not used
J19	Printhead	1	Mirror Motor Clock
		2	Mirror Motor LOCK Signal
		3	Mirror Motor START Signal
		4	GND
		5	+25V Supply Voltage
J6	Printhead FFC	--	not measurable
JISP1	ISP cable	--	not measurable
J18	4.3-inch Control panel FFC	--	not measurable
J1	2.4-inch Control panel FFC	--	not measurable

Maintenance

Inspection guide

The purpose of this inspection guide is to aid you in identifying the intervals, based on page count, at which parts must be inspected (for visible physical damage), cleaned, or replaced.

If any unsafe conditions exist, find out how serious the hazard could be and if you can continue before you correct the hazard.

As you service the machine, check for the following:

- Damaged, missing, or altered parts, especially in the area of the On/Off switch and the power supply
- Damaged, missing, or altered covers, especially in the area of the top cover and the power supply cover
- Possible safety exposure from any non-Sharp attachments
- Printer and options are sitting flat (for example, not sitting on cables or hanging over a ledge)
- Printer is properly set on any options

Use the following table to determine when specified parts should be inspected:

Inspection guide table

PART/ITEM	EVERY SERVICE CALL	EVERY 225K	NOTES
Tray insert • Width paper guide • Length paper guide	Inspect	Replace	Check for correct positioning.
Separator pad	Inspect, clean if needed	Replace	Clean with a damp cloth.
Tray pick roller	Inspect, clean	Replace	Clean with a damp cloth.
MPF pick roller	Inspect, clean	Inspect, clean	Clean with a damp cloth.
Rear door	Inspect	Inspect	Ensure correct operation and closure.
Duplex paper path	Inspect	Inspect	Check for paper fragments and obstructions.
Toner spillage	Clean	Clean	Remove all toner spillage from the printer.
Pick tires	Inspect, clean if needed	Inspect, clean if needed	Check for toner contamination.

Scheduled maintenance

Fuser maintenance kits

The printer may stop printing when the fuser rated life is reached. At rated fuser life, a Fuser maintenance kit is required. The correct Fuser maintenance kit must be installed for the type of fuser that is installed in the printer. See **"Identifying the type of fuser used in the printer" on page 776**.

There are multiple warnings to indicate that the fuser is nearing end of life and that a maintenance kit is required.

Maintenance

Maintenance kit nearly low [80.0x]

1 Replace the maintenance kit. For more information, see the instruction sheet that came with the replacement parts.

2 From the printer control panel, select **Continue** to clear the message and continue printing. For

non-touch-screen printer models, press OK to confirm.

3 If you do not have a maintenance kit, then see **"Maintenance kits" on page 774**, or see the *Ordering a maintenance kit* section of the *User's Guide*.

Maintenance kit low [80.1x]

1 Replace the maintenance kit. For more information, see the instruction sheet that came with the replacement parts.

2 From the printer control panel, select **Continue** to clear the message and continue printing. For

non-touch-screen printer models, press OK to confirm.

3 If you do not have a maintenance kit, then see **"Maintenance kits" on page 774**, or see the *Ordering a maintenance kit* section of the *User's Guide*.

Maintenance kit very low, 2000 estimated pages remain [80.2x]

1 Replace the maintenance kit. For more information, see the instruction sheet that came with the replacement parts.

2 From the printer control panel, select **Continue** to clear the message and continue printing. For

non-touch-screen printer models, press OK to confirm.

3 If you do not have a maintenance kit, then see **"Maintenance kits" on page 774**, or see the *Ordering a maintenance kit* section of the *User's Guide*.

Maintenance kit low, 0 estimated pages remain [80.3x]

1 Replace the maintenance kit. For more information, see the instruction sheet that came with the replacement parts.

2 If you do not have a maintenance kit, then see **"Maintenance kits" on page 774**, or see the *Ordering a maintenance kit* section of the *User's Guide*.

Maintenance kit very low, 0 estimated pages remain [80.4x]

1 Replace the maintenance kit. For more information, see the instruction sheet that came with the replacement parts.

2 If you do not have a maintenance kit, then see **"Maintenance kits" on page 774**, or see the *Ordering a maintenance kit* section of the *User's Guide*.

Note: The printer is not intended to continue past this point [80.4x]. There are no additional procedures that will allow the printer to print without installing a maintenance kit.

Maintenance

Maintenance kits

The control panel displays an 80.xy error at required maintenance intervals. It is necessary to install the appropriate maintenance kit to maintain the print quality and reliability of the printer. The following maintenance kits are available:

North America, Canada, Mexico

Item	Model name	Content	Number	Life
225K maintenance kit (115V) *Factory default unit	MX-B70KA1	Fuser	1	225K
		Pick rollers	3	
		Tray separators	3	
		Transfer roller	1	
225K maintenance kit (115V NRP*)	MX-B70KB1	Fuser	1	225K
		Pick rollers	3	
		Tray separators	3	
		Transfer roller	1	
400K maintenance kit (115V)	MX-B70KE1	Fuser	1	400K
		Pick rollers	3	
		Tray separators	3	
		Transfer roller	1	
400K maintenance kit (Printer rollers)	MX-B70KD	Pick rollers	3	400K
		Tray separators	3	
		Transfer roller	1	

 *NRP: Non Return Program

Europe, Middle East, India

Item	Model name	Content	Number	Life
225K maintenance kit (230V) *Factory default unit	MX-B70KA	Fuser	1	225K
		Pick rollers	3	
		Tray separators	3	
		Transfer roller	1	
400K maintenance kit (230V)	MX-B70KE	Fuser	1	400K
		Pick rollers	3	
		Tray separators	3	
		Transfer roller	1	
400K maintenance kit (Printer rollers)	MX-B70KD	Pick rollers	3	400K
		Tray separators	3	
		Transfer roller	1	

Maintenance

After replacing the maintenance kit, the maintenance count will automatically be reset to zero to clear the 80.xy message.

After replacing the maintenance kit, the maintenance count will automatically be reset to zero to clear the 80.xy message.

Identifying the type of fuser used in the printer

From the front of the printer:

1 Open the front door, and then remove the toner cartridge and imaging unit.

2 Find the two-digit number to identify the fuser type.
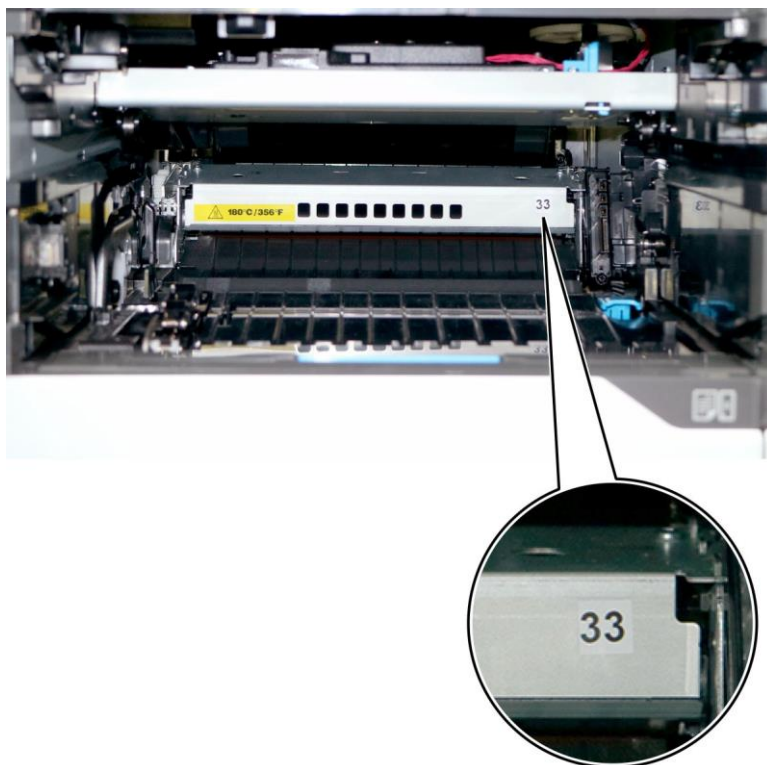
From the rear of the printer:

1 Open the rear door.

2 Find the barcode sticker on the fuser.

The two-digit number for identifying the fuser type can be found on the sticker.

Resetting the Roller Kit counter

After replacing a roller kit, the roller kit counter must be reset to zero to clear the "81 Replace Roller kit" message.

To reset the maintenance count:

1 Turn off the printer.

2 Enter the Configuration Menu.

   a Press and hold the **2** and **6** buttons simultaneously.

   b Turn on the printer.

c Release the buttons after 10 seconds. The Configuration Menu appears on the LCD.

3 Touch **Reset Roller Kit Counter** from the Configuration Menu.

4 From the options displayed, select the roller kit to reset.

5 Touch **Yes** to reset the roller kit counter value. Touch **No** or **Back** to return to the previous menu.

The roller kit count resets to zero, and the LCD returns to the Configuration Menu.

Preventive maintenance

Between scheduled maintenance intervals, paper feed, paper transport, and image quality problems can occur. Some preventive maintenance procedures can help prevent issues like these.

Device-specific preventive maintenance

To clean the display and keypad, use the LCD cleaning cloth. A single two-step LCD cleaning cloth is stored in the compartment beneath the exit tray. Additional cleaning cloths are available.

The following table lists the part needed to perform preventive maintenance:

Part number	Description	Maintenance interval
0SP40X0392///	LCD cleaning kit	As needed

Lubrication specification

There are no lubrication requirements for this printer.

Cleaning the printer

Cleaning the printer

⚠ **CAUTION—SHOCK HAZARD:** To avoid the risk of electrical shock when cleaning the exterior of the printer, unplug the power cord from the electrical outlet and disconnect all cables from the printer before proceeding.

Notes:

- Perform this task after every few months.
- Damage to the printer caused by improper handling is not covered by the printer warranty.

1 Turn off the printer, and then unplug the power cord from the electrical outlet.

2 Remove paper from the standard bin and multipurpose feeder.

3 Remove any dust, lint, and pieces of paper around the printer using a soft brush or vacuum.

4 Wipe the outside of the printer with a damp, soft, lint-free cloth.

Notes:

- Do not use household cleaners or detergents, as they may damage the finish of the printer.
- Make sure that all areas of the printer are dry after cleaning.

5 Connect the power cord to the electrical outlet, and then turn on the printer.

Cleaning the printhead glass

1 Remove the toner cartridge and imaging unit.

2 Locate the exit glass under the printhead.
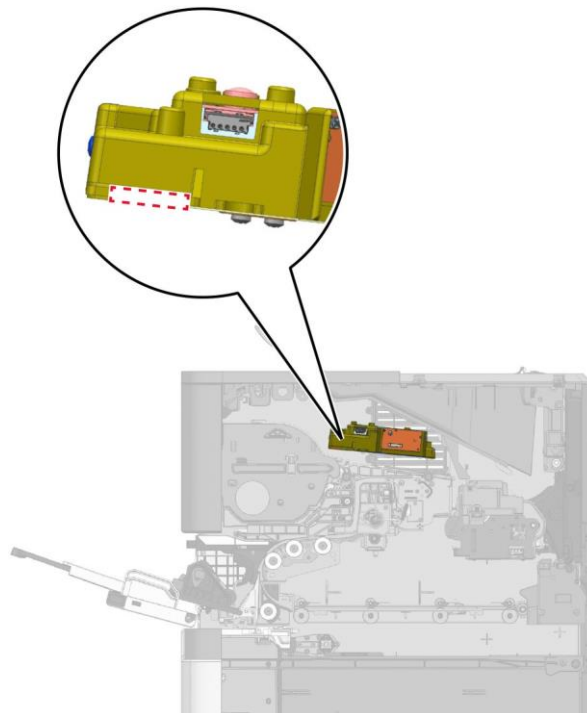
3 Wipe the exit glass using a lint-free cloth.
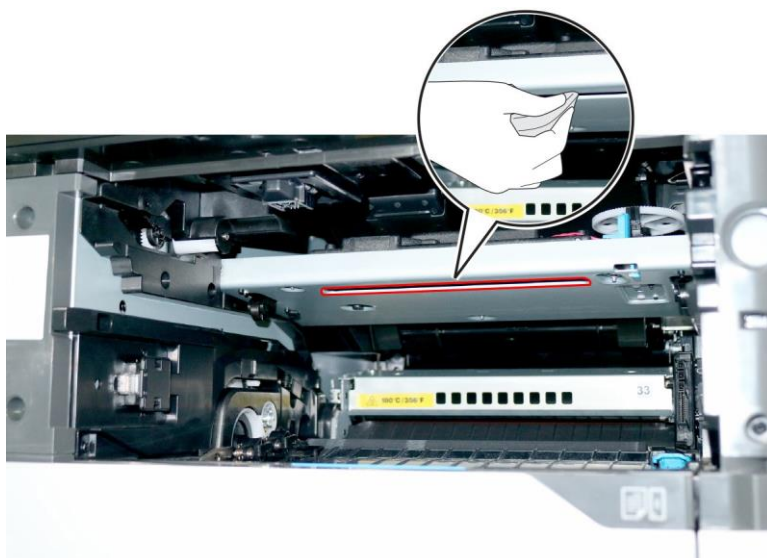
Emptying the hole punch box

1 Pull out the hole punch box.
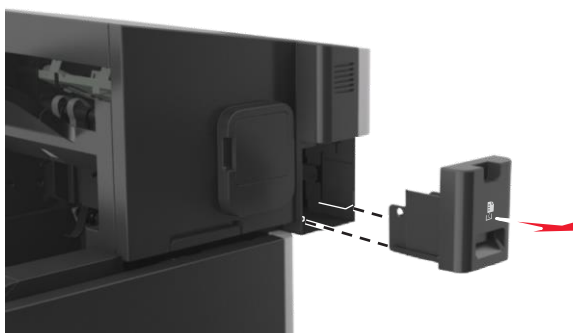
2 Empty the container.

3 Insert the emptied hole punch box back into the finisher until it *clicks* into place.

Parts catalog

Legend

The following column headings are used in the parts catalog:

- **Asm-index**—Identifies the item in the illustration

- **P/N**—Identifies the part number of a FRU

- **Units/mach**—Refers to the number of units in a printer

- **Units/opt**—Refers to the number of units in an option

- **Units/FRU**—Refers to the number of units in a FRU

- **Description**—A brief description of the part

The following abbreviations are used in the parts catalog:

- **NS** (not shown) in the Asm-index column indicates that the part is procurable but is not shown in the illustration.
- **PP** (parts packet) in the Description column indicates that the part is contained in a parts packet.

Assembly 1: Covers
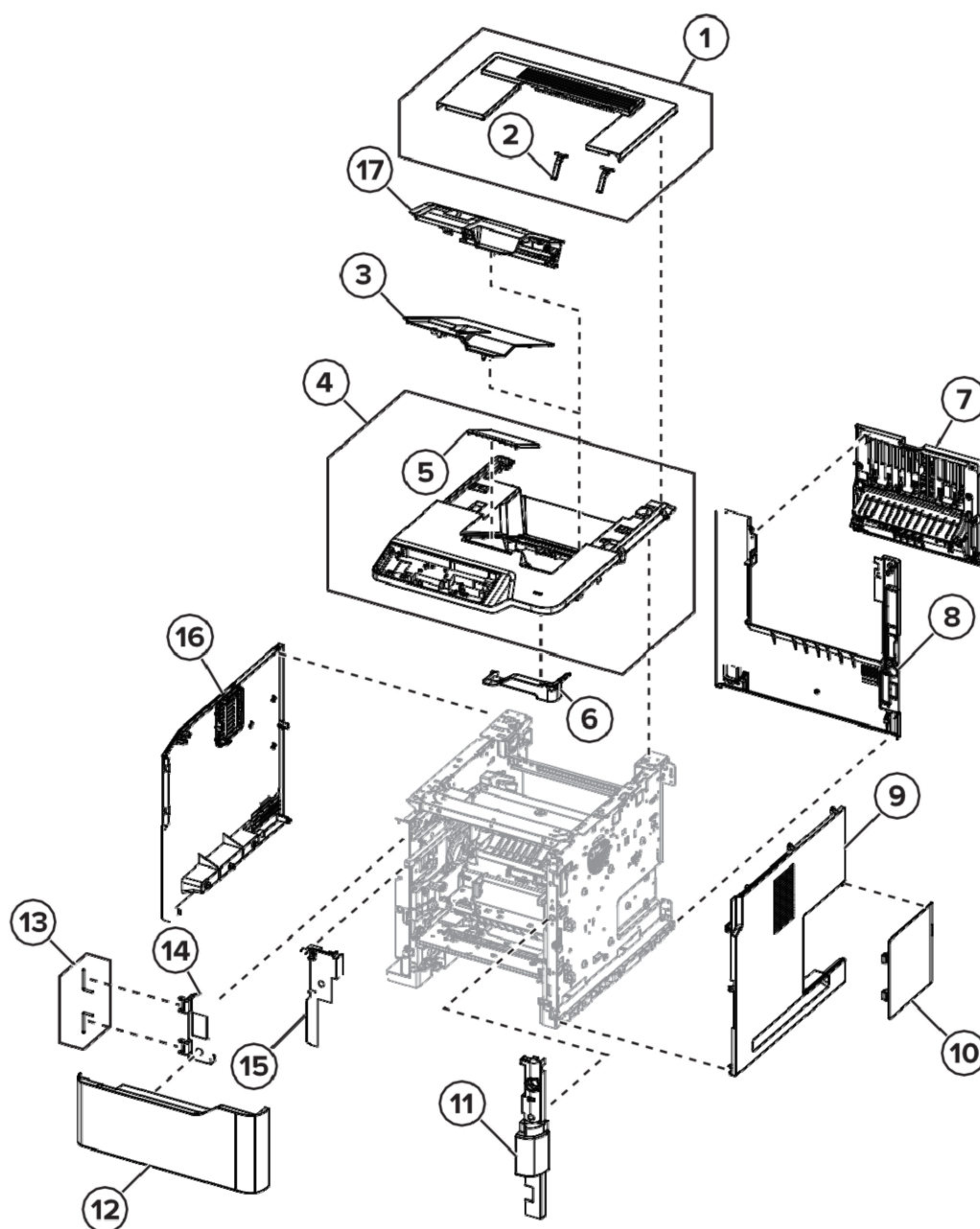
Assembly 1: Covers

Asm-index	Manufacture P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X1054	2	1	Top cover with static brush	**"Top cover removal" on page 468**
2	41X1055	2	1	Paper stacking bail	--
3	41X1114	1	1	Printhead access cover	**"Printhead removal" on page 468**
4	41X1632	1	1	Bin cover	**"Bin cover removal" on page 474**
5	41X1146	1	1	Bin extender	--
6	41X1059	1	1	Trim cover	--
7	41X1126	1	1	Rear door	**"Rear door removal" on page 462**
8	41X1065	1	1	Rear cover	**"Rear cover removal" on page 463**
9	41X1066	1	1	Right cover	**"Right cover removal" on page 434**
10	41X1128	1	1	Controller board access door	**"Controller board access door removal" on page 438**
11	41X1064	1	1	Inner right cover	**"Inner right cover removal" on page 451**
12	41X1070	1	1	Front door	**"Front door removal" on page 449**
13	41X1154	2	2	Front door pins	**"Front door removal" on page 449**
14	41X1069	1	1	Front door bracket	**"Front door bracket removal" on page 446**
15	41X1068	1	1	Inner left cover	**"Inner left cover removal" on page 450**
16	41X1067	1	1	Left cover	**"Left cover removal" on page 423**
17	41X1063	1	1	Printhead access cover (hot roller)	**"Printhead removal" on page 468**

Assembly 2: Fuser
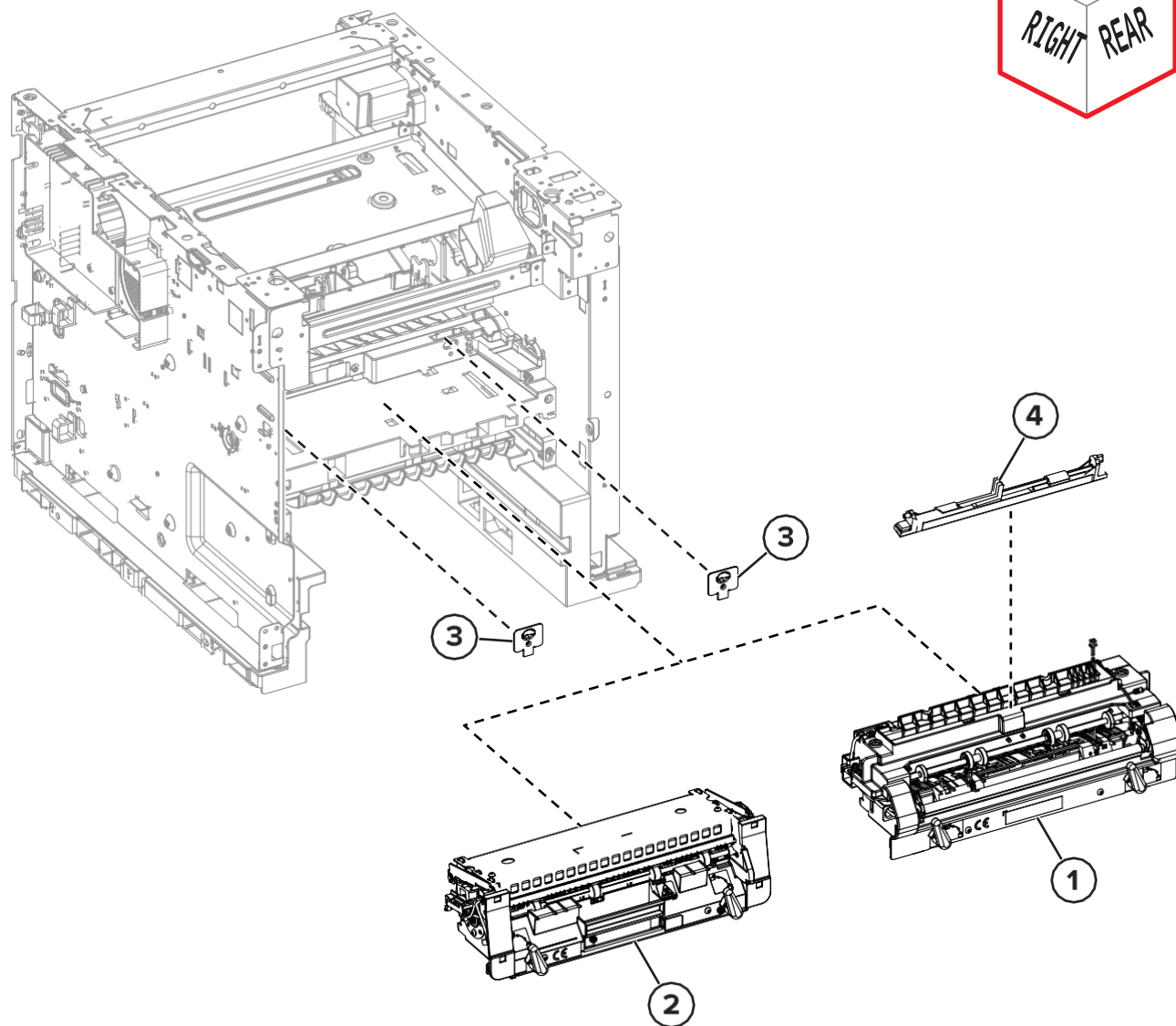
Assembly 2: Fuser

Asm-index	Manufacture P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X2147	1	1	HR fuser, 115V Contact Detack LRP TYPE 11	**"Fuser removal" on page 465**
1	41X2149	1	1	HR fuser, 115V Contact Detack NLRP TYPE 17	**"Fuser removal" on page 465**
2	41X1115	1	1	Belt SY fuser, 115V LTR LRP TYPE 00	**"Fuser removal" on page 465**
2	41X1116	1	1	Belt SY fuser, 230V A4 LRP TYPE 01 **Note:** For 225K : Factory default unit	**"Fuser removal" on page 465**
2	41X1117	1	1	Belt SY fuser, 100V A4 LRP TYPE 02	**"Fuser removal" on page 465**
2	41X2141	1	1	Belt SY fuser, 115V A4 LRP TYPE 03	**"Fuser removal" on page 465**

Asm-index	Manufacture P/N	Units/mach	Units/FRU	Description	Removal procedure
2	41X2143	1	1	Belt SY fuser, 115V LTR NLRP TYPE 05	**"Fuser removal" on page 465**
2	41X2145	1	1	Belt SY fuser, 100V A4 NLRP TYPE 07	**"Fuser removal" on page 465**
2	41X2146	1	1	Belt SY fuser, 115V A4 NLRP TYPE 08	**"Fuser removal" on page 465**
2	41X2155	1	1	Belt HY fuser, 115V LTR LRP TYPE 32	**"Fuser removal" on page 465**
2	41X2156	1	1	Belt HY fuser, 230V A4 LRP TYPE 33 **Note:** For 400K	**"Fuser removal" on page 465**
2	41X2157	1	1	Belt HY fuser, 115V A4 LRP TYPE 35	**"Fuser removal" on page 465**
3	41X1075	2	1	Fuser attach bracket	--
4	40X8581	1	1	Wax wiper (hot roller)	--
4	40X8579	1	1	Oil wiper (hot roller)	--

Assembly 3: Electronics 1
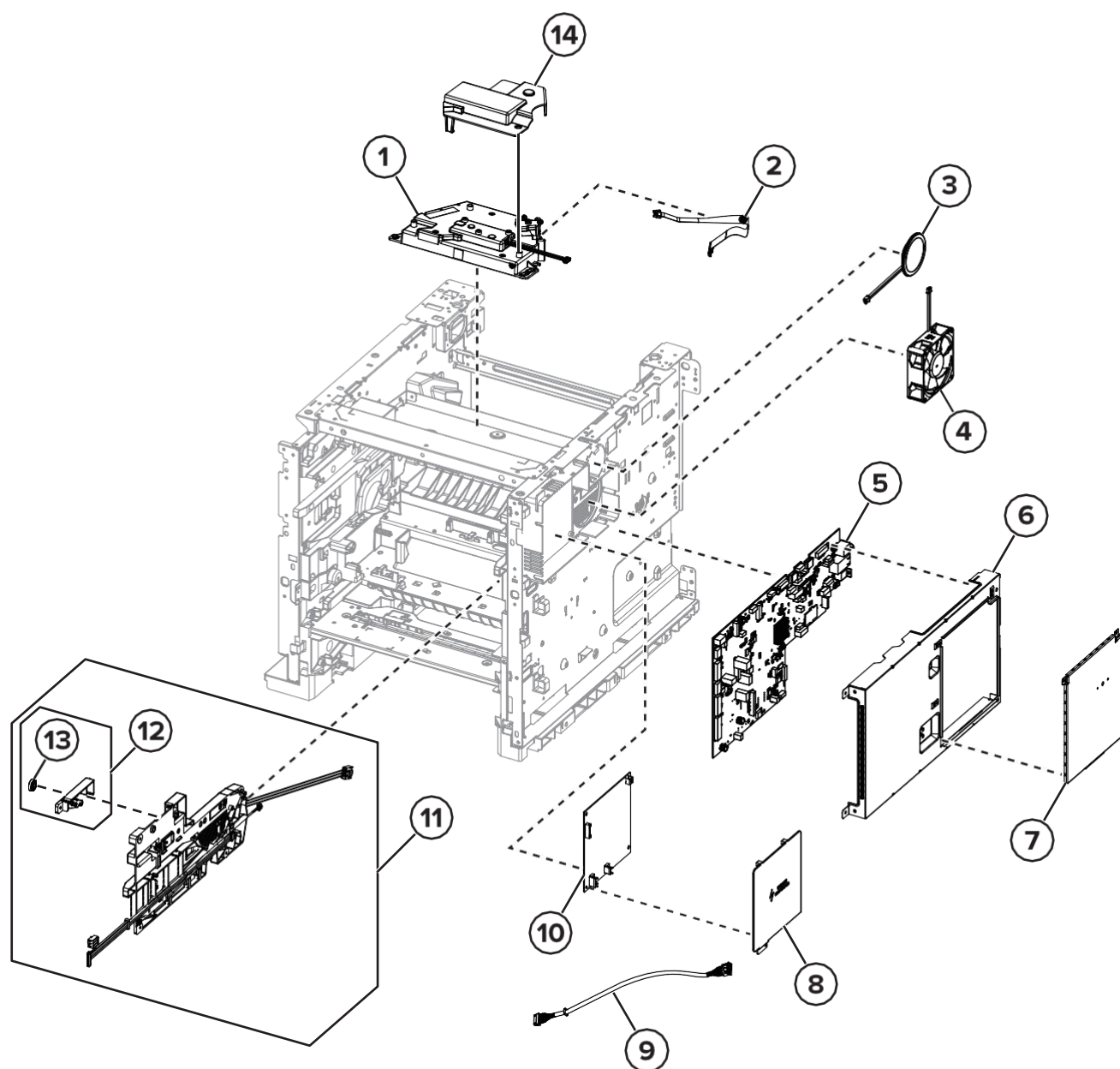
Assembly 3: Electronics 1

Asm-index	Manufacture P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X1106	1	1	Printhead	**"Printhead removal" on page 468**
2	41X1111	1	1	Printhead video cable	--
3	40X9079	1	1	Speaker	**"Speaker removal" on page 442**
4	41X1177	1	1	Fan, 80 mm	**"Cartridge fan removal" on page 437**
5	41X1127	1	1	Controller board	**"Controller board removal" on page 439**
6	41X1052	1	1	Controller board housing	--
7	41X1053	1	1	Controller board shield	--
8	41X1622	1	1	HVPS shield	**"High voltage contacts guide removal" on page 442**
9	41X2320	1	1	LVPS cable	--
10	41X1099	1	1	HVPS	**"HVPS removal" on page 435**
11	41X1087	1	1	High voltage contacts guide	**"High voltage contacts guide removal" on page 442**
12	41X1088	1	1	Toner cartridge bias roller	--
13	41X2610	1	4	Guide roller	--
14	41X2137	1	1	Printhead shield (Hot Roller)	--

Assembly 4: Electronics 2
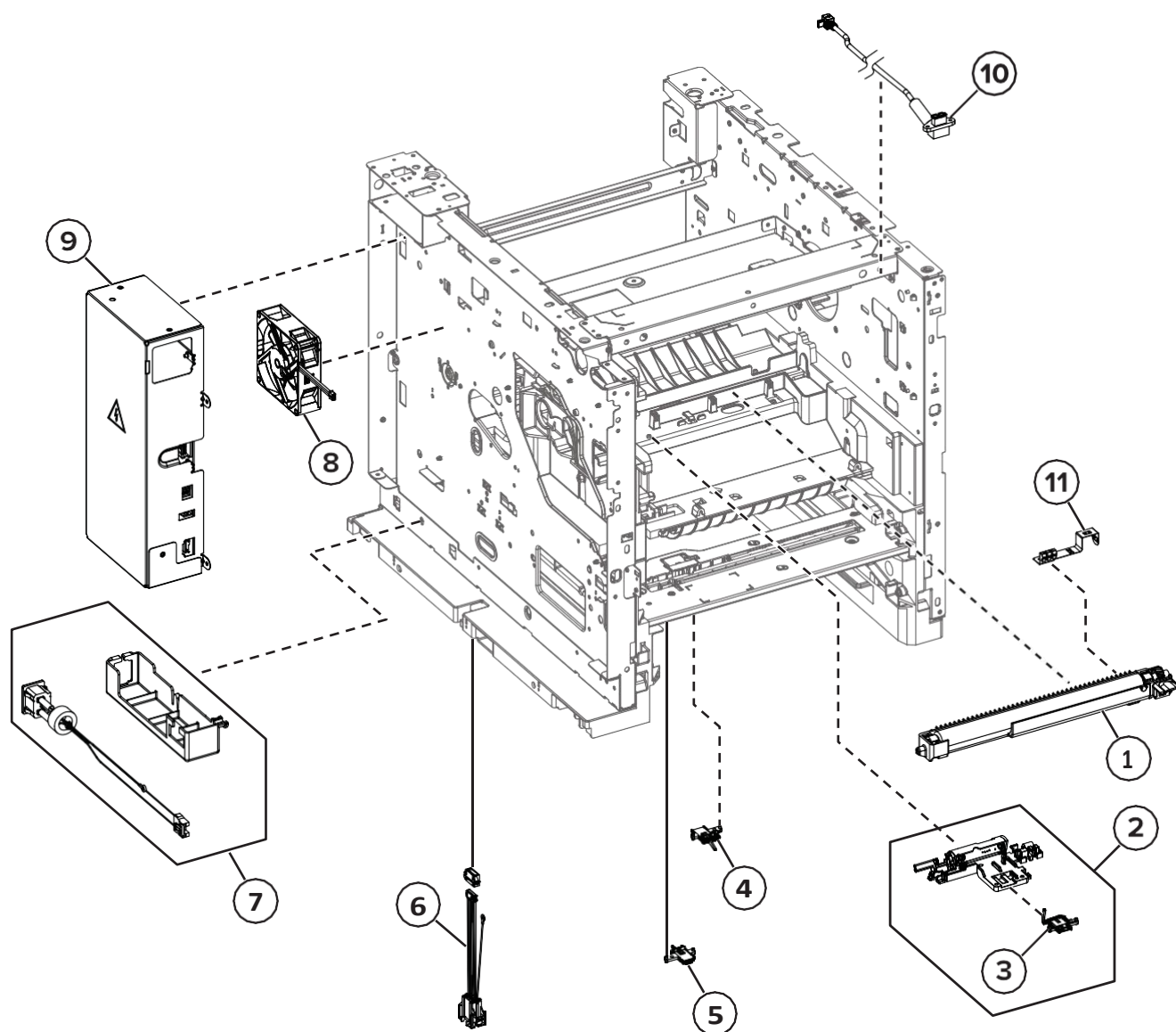
Assembly 4: Electronics 2

Asm-index	Manufacture P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X1076	1	1	Transfer roller	**"Transfer roller removal" on page 460**
2	41X1077	1	1	Sensor (toner density)	**"Sensor (toner density) removal" on page 461**
3	41X1095	1	1	Sensor (input)	**"Sensor (input) removal" on page 455**
4	41X1093	1	1	Sensor (tray 1 pick)	**"Sensor (tray 1 pass-through) removal" on page 481**
5	41X1094	1	1	Sensor (pass-through)	**"Sensor (tray 1 pick) removal" on page 482**
6	41X1086	1	1	Optional tray interface cable	--
7	41X1097	1	1	AC power socket	**"AC power socket removal" on page 424**
8	41X1177	1	1	Fan, 80 mm	**"Main fan removal" on page 426**
9	41X1112	1	1	LVPS	**"LVPS removal" on page 428**
10	41X2356	1	1	USB host cable	--
11	41X2673	1	1	Transfer roller contact	**"Transfer roller contact removal" on page 466**

Assembly 5: Motors
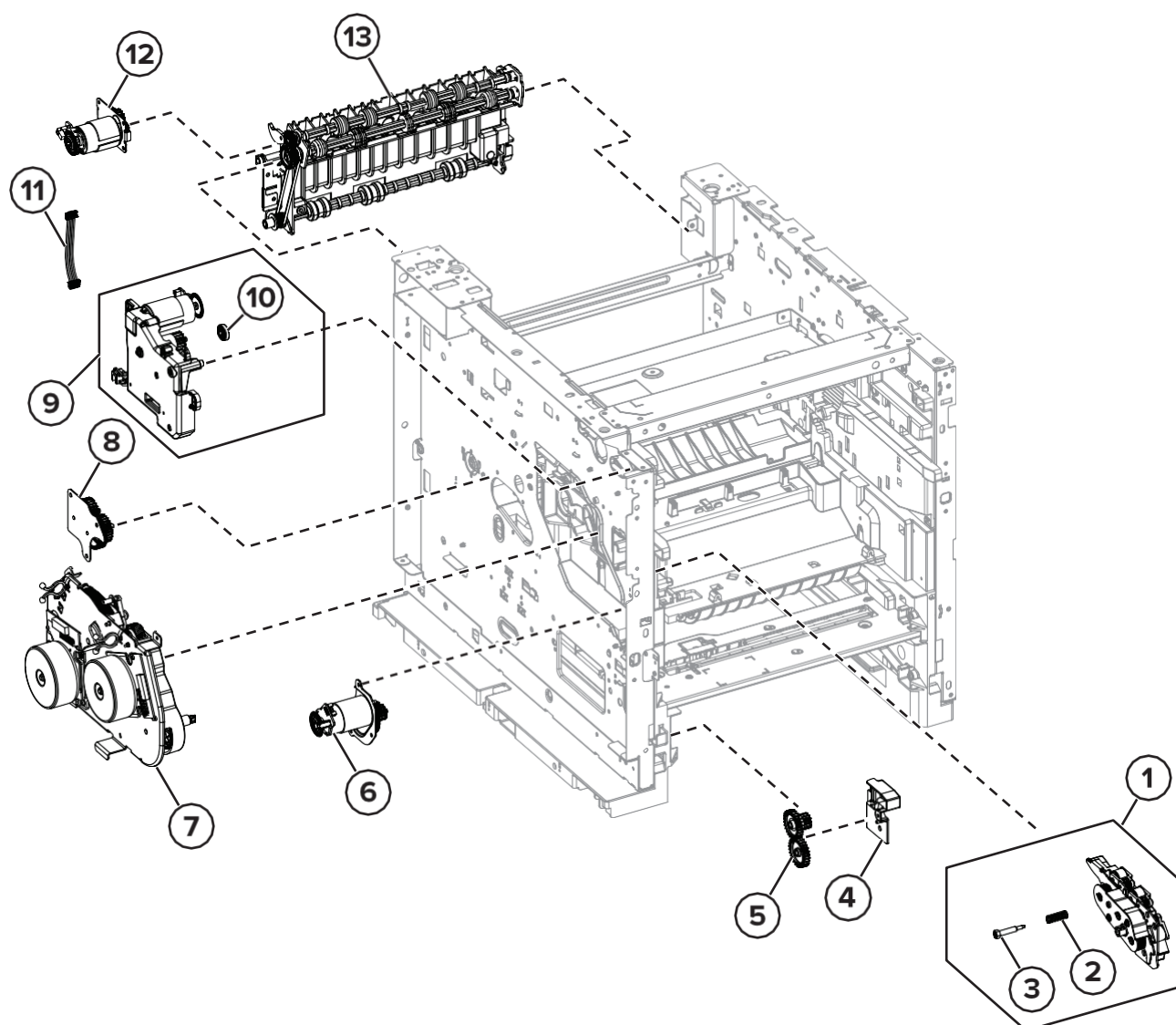
Assembly 5: Motors

Asm-index	Manufacture P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X1079	1	1	Aligner	**"Aligner removal" on page 454**
2	41X2135	1	1	Aligner spring	--
3	41X1081	1	1	Aligner screw	--
4	41X2123	1	1	Gear cover	**"Optional tray drive gear removal" on page 479**
5	41X1615	1	1	Optional tray drive gear	**"Optional tray drive gear removal" on page 479**
6	41X1105	1	1	Motor (MPF)	**"Motor (MPF) removal" on page 427**
7	41X1102	1	1	Main motor drive	**"Main motor drive removal" on page 424**
8	41X1104	1	1	Fuser drive gears	**"Fuser drive gears removal" on page 426**
9	41X1103	1	1	Toner cartridge drive	--
10	41X2610	1	4	Guide roller	--
11	41X2355	1	1	Toner cartridge motor cable	--
12	41X1096	1	1	Motor (redrive)	**"Motor (redrive) removal" on page 431**
13	41X1109	1	1	Upper redrive	**"Upper redrive removal" on page 466**

Assembly 6: Sensors 1
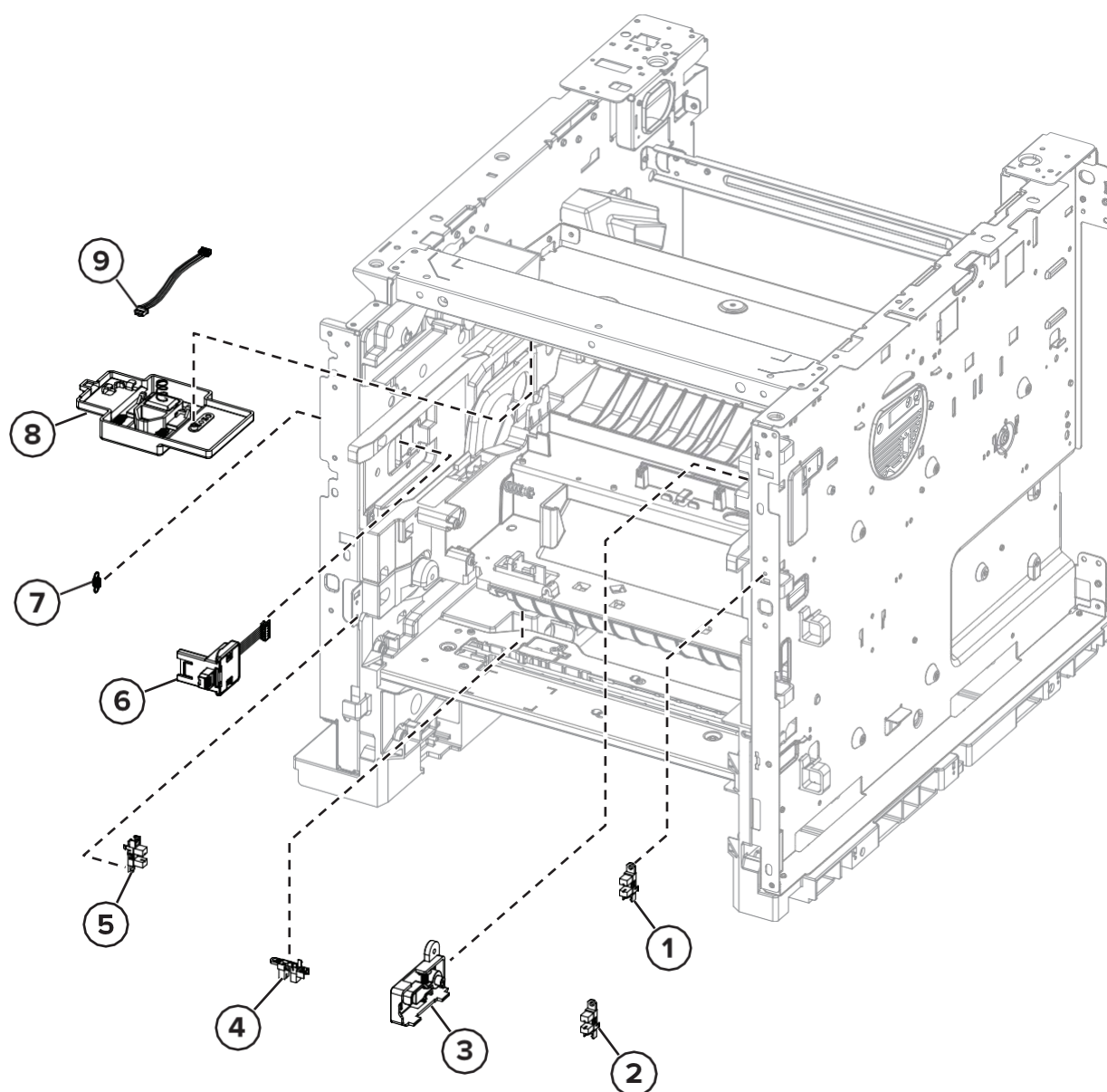
Assembly 6: Sensors 1

Asm-index	Manufacture P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X1083	1	1	Sensor (front door interlock)	--
2	41X1083	1	1	Sensor (toner cartridge shutter)	**"Sensor (toner cartridge shutter) removal" on page 445**
3	41X1089	1	1	Toner cartridge shutter actuator	**"Toner cartridge shutter actuator removal" on page 445**
4	41X1083	1	1	Sensor (duplex interlock)	**"Sensor (duplex interlock) removal" on page 453**
5	41X1083	1	1	Sensor (MPF paper present)	--
6	41X1084	1	1	Sensor (toner smart chip)	**"Sensor (toner smart chip) removal" on page 432**
7	41X2124	1	1	Toner smart chip spring	**"Sensor (toner smart chip) removal" on page 432**
8	41X1072	1	1	Sensor (toner low)	**"Sensor (toner low) removal" on page 459**
9	41X2353	1	1	Toner low sensor cable	--

Assembly 7: Sensors 2
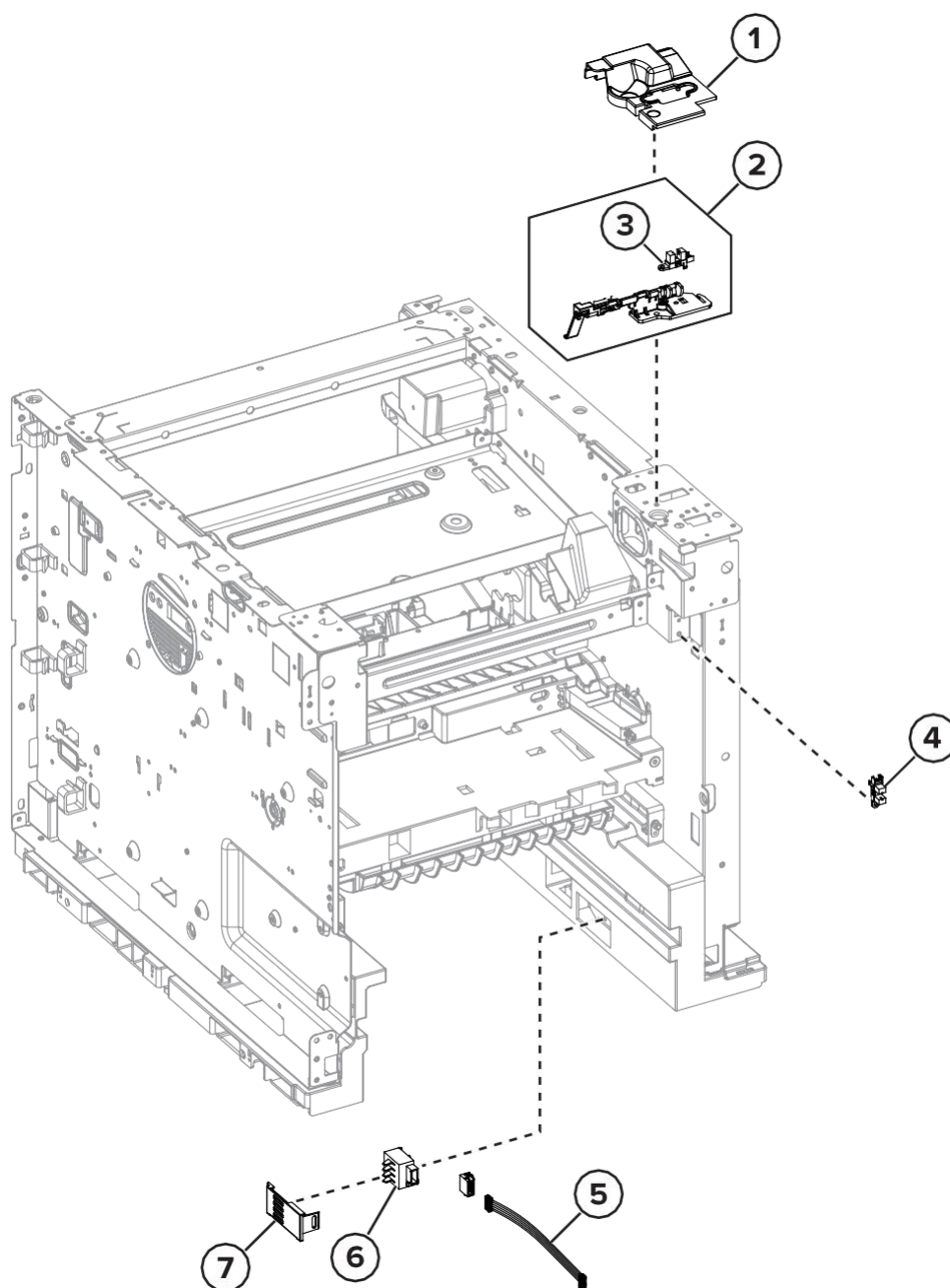
Assembly 7: Sensors 2

Asm-index	Manufacture P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X1056	1	1	Bin full sensor cover	**"Bin full sensor cover removal" on page 473**
2	41X1110	1	1	Sensor (standard bin full) with actuator	--
3	41X1083	1	1	Sensor (standard bin full)	**"Sensor (standard bin full) removal" on page 473**
4	41X1083	1	1	Sensor (rear door interlock)	**"Sensor (rear door interlock) removal" on page 465**
5	41X2354	1	1	Paper size sensor cable	--
6	40X7911	1	1	Sensor (paper size)	**"Sensor (paper size) removal" on page 480**
7	41X1085	1	1	Paper size sensor cover	**"Sensor (paper size) removal" on page 480**

Assembly 8: Duplex
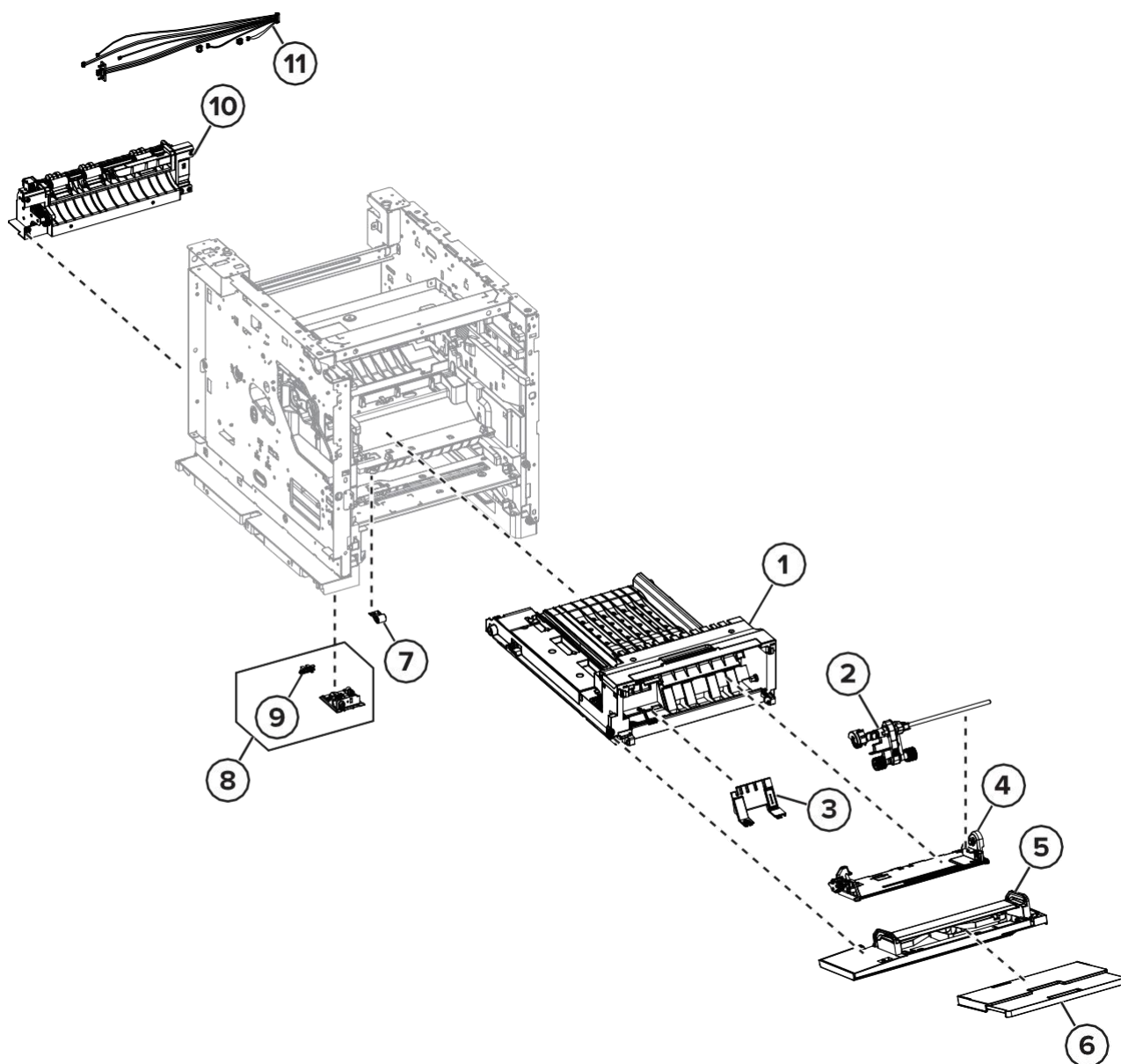
Assembly 8: Duplex

Asm-index	Manufacture P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X1122	1	1	Duplex/MPF tray	**"Duplex/MPF tray removal" on page 449**
2	41X1123	1	1	MPF pick roller	**"MPF pick roller removal" on page 457**
3	41X1638	1	1	MPF tray separator pad	--
4	41X1635	1	1	MPF tray drive/support	--
5	41X1636	1	1	MPF front door	--
6	41X1124	1	1	MPF tray extension	--
7	41X1631	1	1	Duplex pinch roller	--
8	41X1078	1	1	Sensor (duplex path) with cover	**"Sensor (duplex path) with cover removal" on page 479**
9	41X1083	1	1	Sensor (duplex path)	**"Sensor (duplex path) with cover removal" on page 479**
10	41X1050	1	1	Motor (duplex)	**"Motor (duplex) removal" on page 463**
11	41X2318	1	1	Sensor/redrive motor cable	--

Assembly 9: Frames
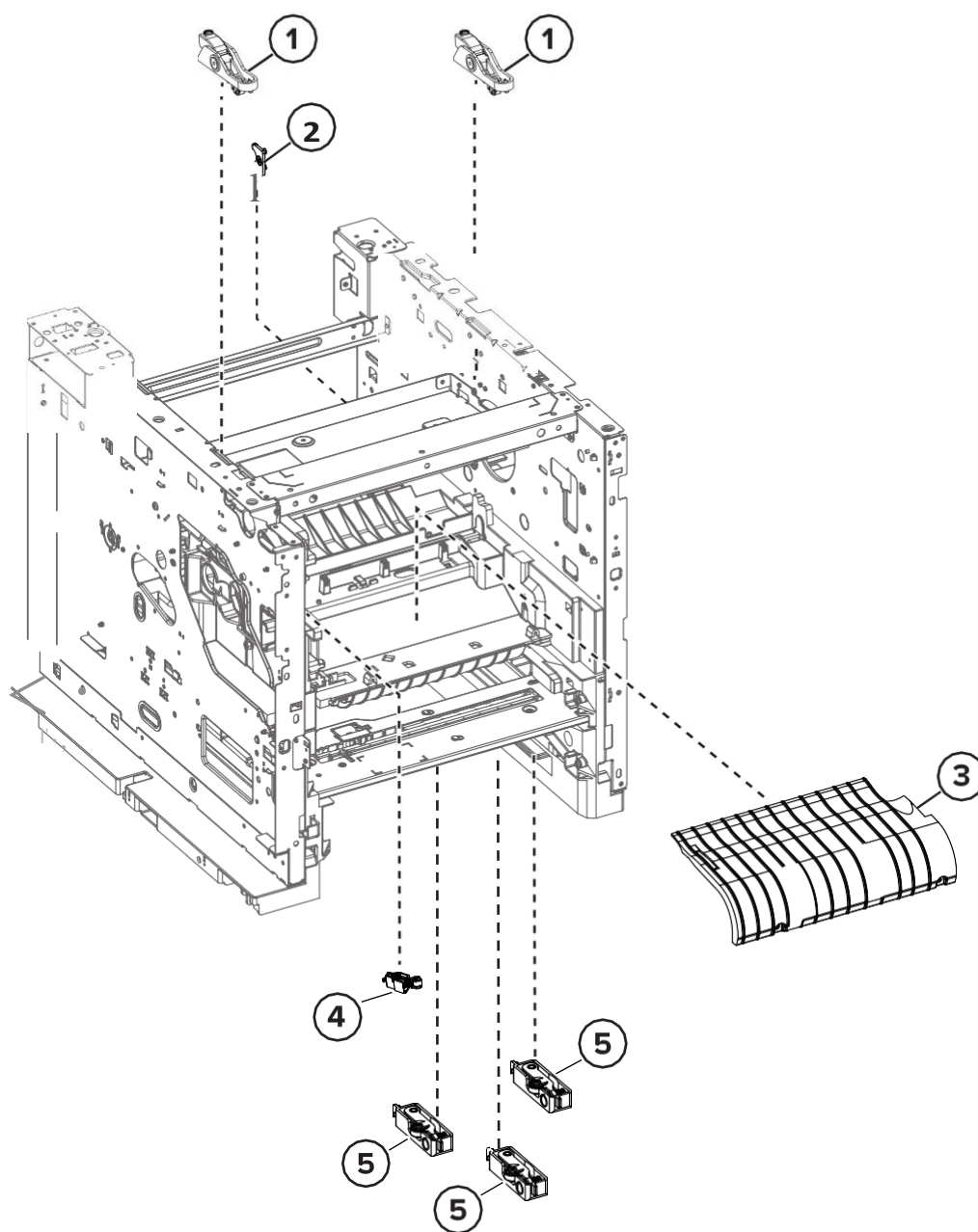
Assembly 9: Frames

Asm-index	Manufacture P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X1073	2	1	Imaging unit clamp	--
2	41X1092	1	1	Rear door right pivot	--
3	41X1080	1	1	Inner guide deflector	**"Inner guide deflector removal" on page 453**
4	41X1618	1	1	Imaging unit side bias roller	--
5	41X1091	3	1	Tray bias roller, front	--
5	41X1091	3	1	Tray bias roller, top	--
5	41X1091	3	1	Tray bias roller, rear	--

Assembly 10:

Descriptions in page 803 to 804 are not applicable to this model. Therefore it was deleted.

Assembly 11: Control panel (4.3-inch display)
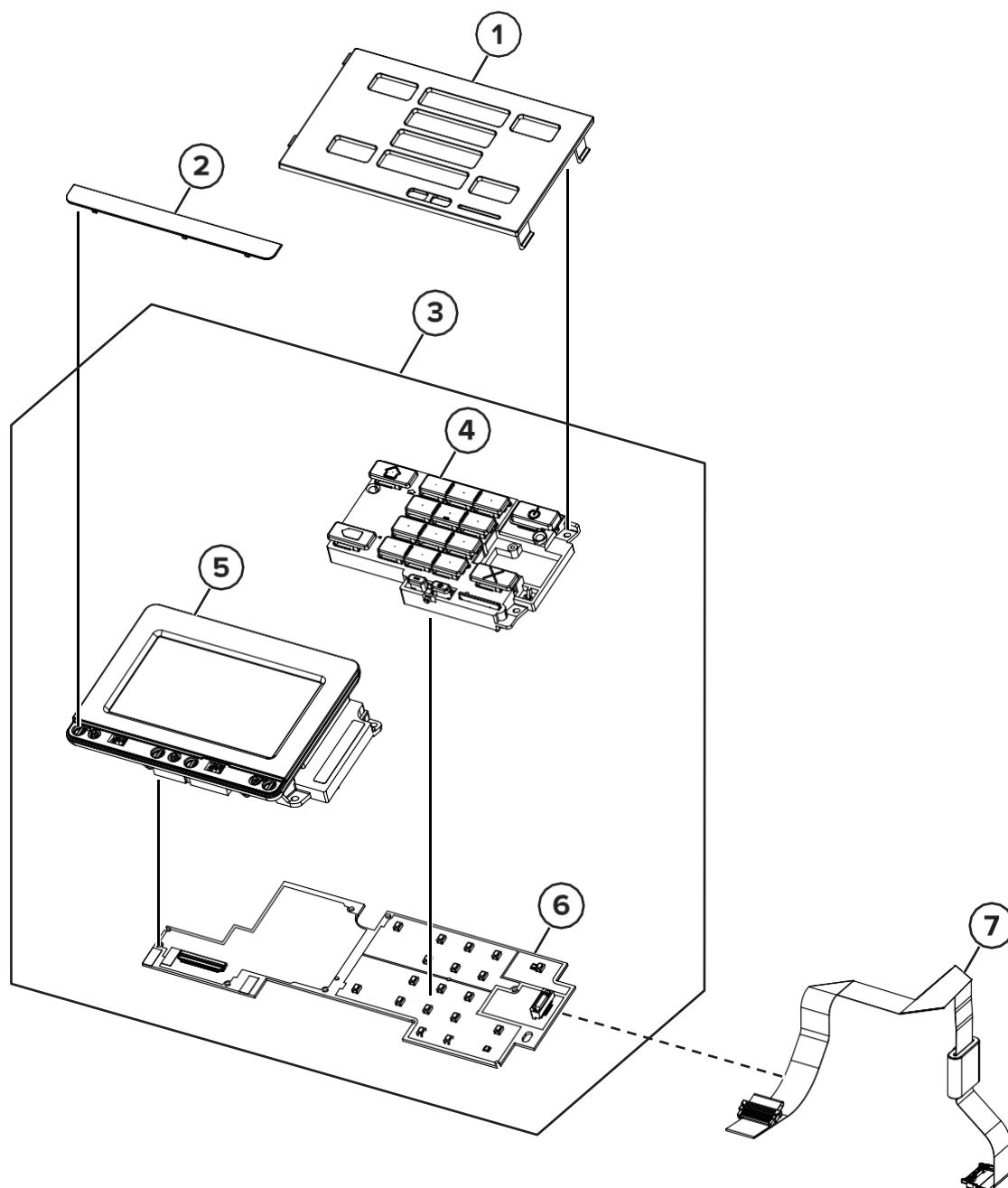
Assembly 11: Control panel (4.3-inch display)

Asm-index	Manufacture P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X1060	1	1	Control panel (4.3-inch display) cover	**"Control panel (4.3-inch display) removal" on page 457**
2	41X2715	1	1	Bezel (MX-B557P/B707P)	--
3	41X1062	1	1	Control panel (4.3-inch display)	**"Control panel (4.3-inch display) removal" on page 457**
4	41X1057	1	1	Control panel button kit	--
5	41X2139	1	1	Control panel display (4.3-inch)	--
6	41X1058	1	1	Control panel (4.3-inch) board	--
7	41X2321	1	1	Control panel cable	--

Assembly 12: Tray/feed
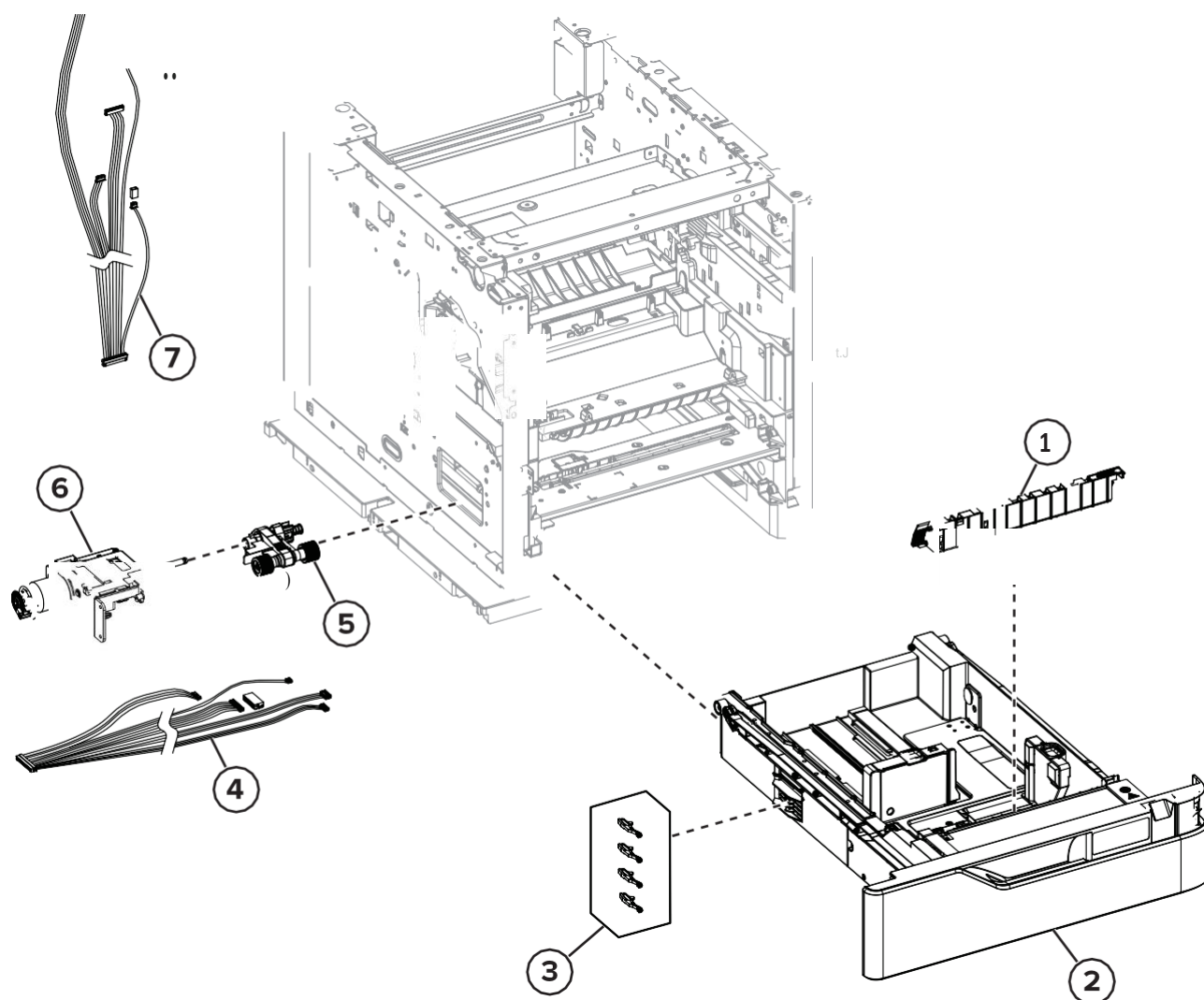
Assembly 12: Tray/feed

Asm-index	Manufacture P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X1119	1	1	Separator pad	**"Separator pad removal" on page 477**
2	41X1118	1	1	Tray insert	**"Tray insert removal" on page 477**
3	41X1120	1	4	Paper size sensor actuator	--
4	41X2317	1	1	Feeder/paper path cable	--
5	41X1108	1	1	Tray 1 pick roller	**"Pick roller removal" on page 478**
6	41X1107	1	1	Paper feeder	**"Paper feeder removal" on page 431**
7	41X2319	1	1	Feeder/paper path cable	--

Assembly 13: Miscellaneous

Asm-index	Manufacture P/N	Units/mach	Units/FRU	Description	Removal procedure
NS	40X8671	1	1	Cover, Removable HDD kit	--
NS	40X9934	1	1	Hard disk drive, SATA	--
NS	41X1026	1	1	Hard disk drive, USB	--
NS	41X1373	1	1	Hard disk drive, SATA with FIPS	--
NS	41X2033	1	1	RAM card, PCIe 8GB x32 DDP	--
NS	41X1010	1	1	User flash memory, 256MB	--
NS	41X1372	1	1	Wireless network card, N8370 with cable	--
NS	41X1374	1	1	Fax card, 1 port right angle	--
NS	40X4819	1	1	RS-232C serial interface card	--
NS	40X4826	1	1	N8120 GigaBit Ethernet	--
NS	40X4823	1	1	Parallel 1284-B interface card	--
NS	40X9652	1	1	Adapter, Fiber gigabit ISP	--
NS	41X1011	1	1	Font card, Hebrew	--
NS	41X1012	1	1	Font card, Arabic	--
NS	41X1013	1	1	Font card, Simplified Chinese	--
NS	41X1014	1	1	Font card, Traditional Chinese	--
NS	41X1015	1	1	Font card, Korean	--
NS	41X1016	1	1	Font card, Japanese	--
NS	41X1002	1	1	Forms and bar code card	--
NS	41X1006	1	1	PRESCRIBE card	--
NS	41X1004	1	1	IPDS card	--
NS	41X2055	1	1	Smart card	--
NS	40X8737	1	1	Authentication device, RFID	--
NS	41X0997	1	1	Authentication device, Contact front	--
NS	41X0998	1	1	Authentication device, Contactless front	--
NS	41X0040	1	1	Keyboard kit, English	--
NS	41X0041	1	1	Keyboard kit, French	--
NS	41X0043	1	1	Keyboard kit, German	--
NS	41X0044	1	1	Keyboard kit, Spanish	--
NS	41X0045	1	1	Keyboard, English	--

Asm-index	Manufacture P/N	Units/mach	Units/FRU	Description	Removal procedure
NS	41X0046	1	1	Keyboard, French	--
NS	41X0048	1	1	Keyboard, German	--
NS	41X0049	1	1	Keyboard, Spanish	--
NS	41X2302	1	1	Braille label kit	--
NS	41X0357	1	1	Surge protective device, 110–120V	--
NS	41X0370	1	1	Surge protective device, 220–240V	--
NS	41X2181	1	1	Spacer	--
NS	41X2180	1	1	Caster base	--
NS	41X2345	1	1	Caster wheel	--

Parts catalog

Assembly 14:

Descriptions in page 811 to 814 are not applicable to this model. Therefore it was deleted.

Assembly 15: 250- and 550-sheet tray options 1
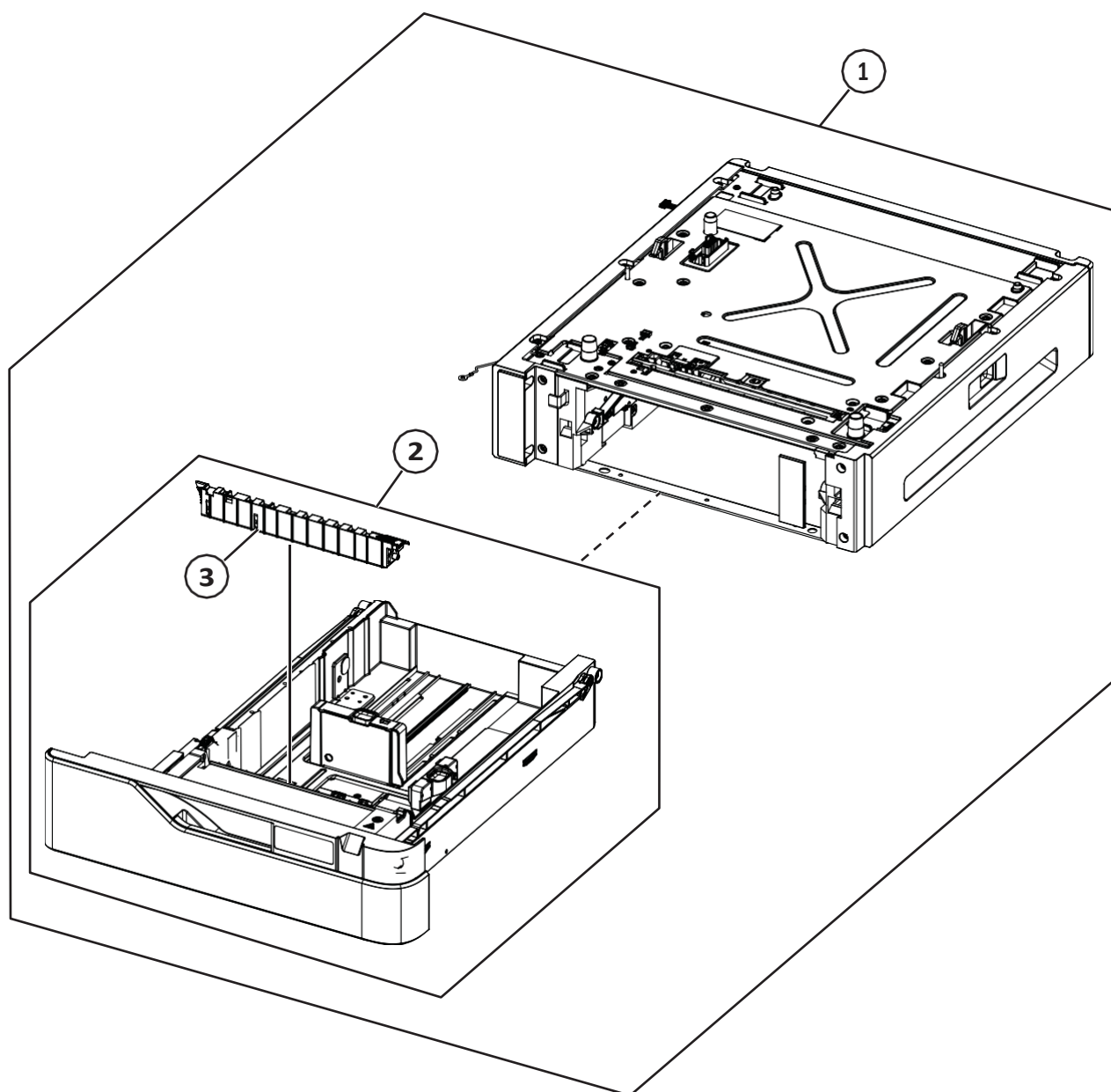
Assembly 15: 250- and 550-sheet tray options 1

Asm-index	Manufacture P/N	Units/mach	Units/FRU	Description	Removal procedure
1		1	1	Optional 250-sheet tray	**"Optional 250- and 550-sheet tray removal" on page 508**
1		1	1	Optional 550-sheet tray	**"Optional 250- and 550-sheet tray removal" on page 508**
1		1	1	Optional 250-sheet tray, lockable	**"Optional 250- and 550-sheet tray removal" on page 508**
1		1	1	Optional 550-sheet tray, lockable	**"Optional 250- and 550-sheet tray removal" on page 508**
2	41X1650	1	1	250-sheet tray insert	**"Tray insert removal" on page 477**
2	41X1118	1	1	550-sheet tray insert	**"Tray insert removal" on page 477**
3	41X1119	1	1	Separator pad	**"Separator pad removal" on page 477**
NS	41X2208	1	1	Tray level indicator	**"Tray level indicator removal" on page 516**

Assembly 16: 250- and 550-sheet tray options 2
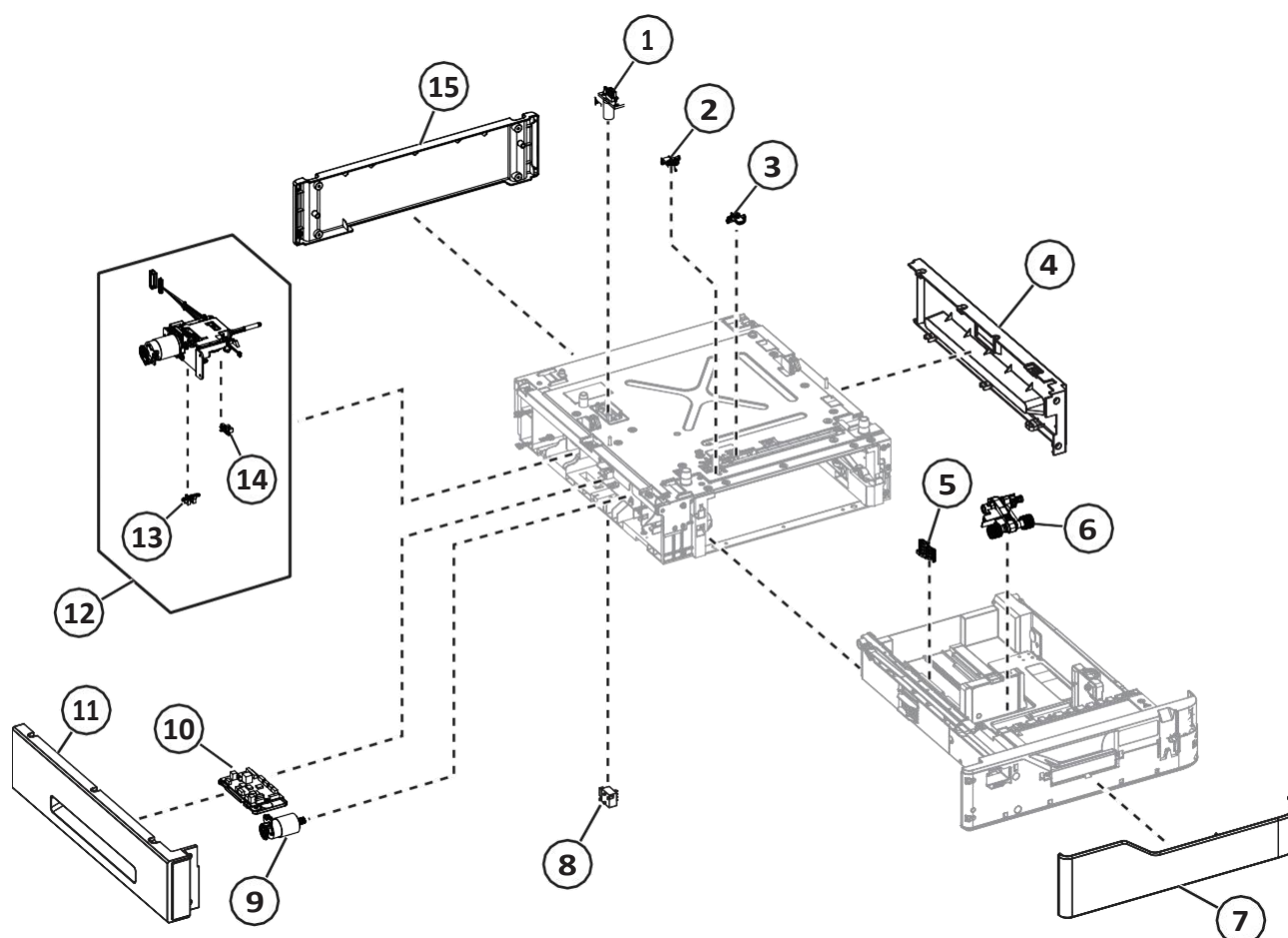
Assembly 16: 250- and 550-sheet tray options 2

Asm-index	Manufacture P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X1655	1	1	Interface cable	**"250- and 550-sheet tray interface cable removal" on page 523**
2	41X1093	1	1	Sensor (pick)	**"Sensor (250- and 550-sheet tray pick) removal" on page 520**
3	41X1094	1	1	Sensor (pass-through)	**"Sensor (250- and 550-sheet tray pass-through) removal" on page 520**
4	41X1653	1	1	Right cover (optional 250-sheet tray)	**"250- and 550-sheet tray right cover removal" on page 511**
4	41X1661	1	1	Right cover (optional 550-sheet tray)	**"250- and 550-sheet tray right cover removal" on page 511**
5	41X1120	1	1	Paper size sensor actuator	**"250- and 550-sheet tray paper size sensor actuator removal" on page 526**
6	41X1108	1	1	Pick roller	**"Pick roller removal" on page 516**
7	41X1651	1	1	Front cover (250-sheet tray insert)	**"250- and 550-sheet tray insert front cover removal" on page 515**
7	41X2304	1	1	Front cover (550-sheet tray insert)	**"250- and 550-sheet tray insert front cover removal" on page 515**
8	40X7911	1	1	Sensor (paper size)	**"Sensor (250- and 550-sheet tray paper size) removal" on page 525**
9	41X1656	1	1	Motor (transport)	**"Motor (250- and 550-sheet tray transport) removal" on page 517**
10	41X1657	1	1	Controller board (optional 250-sheet tray)	**"250- and 550-sheet tray controller board removal" on page 519**
10	41X2194	1	1	Controller board (optional 550-sheet tray)	**"250- and 550-sheet tray controller board removal" on page 519**
11	41X1652	1	1	Left cover (optional 250-sheet tray)	**"250- and 550-sheet tray left cover removal" on page 509**
11	41X1660	1	1	Left cover (optional 550-sheet tray)	**"250- and 550-sheet tray left cover removal" on page 509**
12	41X1107	1	1	Paper feeder	**"250- and 550-sheet tray paper feeder removal" on page 517**
13	41X1083	1	1	Sensor (paper present)	**"Sensor (250- and 550-sheet tray paper present) removal" on page 522**
14	41X1083	1	1	Sensor (pick roller index)	**"Sensor (250- and 550-sheet tray pick roller index) removal" on page 521**
15	41X1654	1	1	Rear cover (optional 250-sheet tray)	**"250- and 550-sheet tray rear cover removal" on page 514**

Asm-index	Manufacture P/N	Units/mach	Units/FRU	Description	Removal procedure
15	41X1662	1	1	Rear cover (optional 550-sheet tray)	**"250- and 550-sheet tray rear cover removal" on page 514**

Parts catalog

820

Assembly 17: 2100-sheet tray option 1
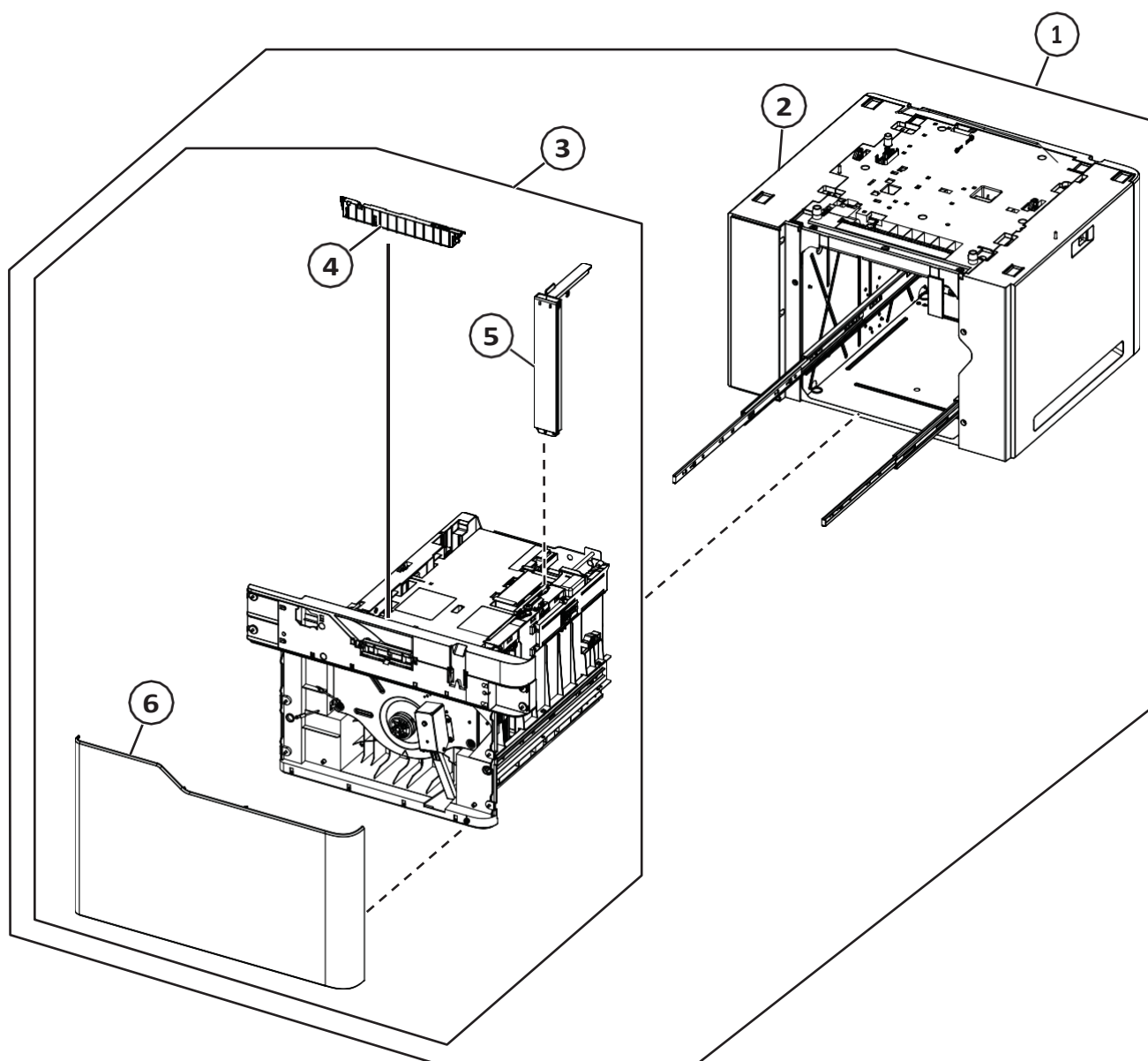
Assembly 17: 2100-sheet tray option 1

Asm-index	Manufacture P/N	Units/mach	Units/FRU	Description	Removal procedure
1		1	1	Optional 2100-sheet tray	**"Optional 2100-sheet tray removal" on page 483**
2	41X1673	1	1	2100-sheet tray base	**"2100-sheet tray insert removal" on page 485**
3	41X1670	1	1	2100-sheet tray insert	**"2100-sheet tray insert removal" on page 485**
4	41X1119	1	1	Separator pad	**"Separator pad removal" on page 477**
5	40X8176	1	1	A5 length guide	--
6	41X1675	1	1	2100-sheet tray front cover	**"2100-sheet tray front cover removal" on page 495**
NS	41X2208	1	1	Tray level indicator	--

Assembly 18: 2100-sheet tray option 2
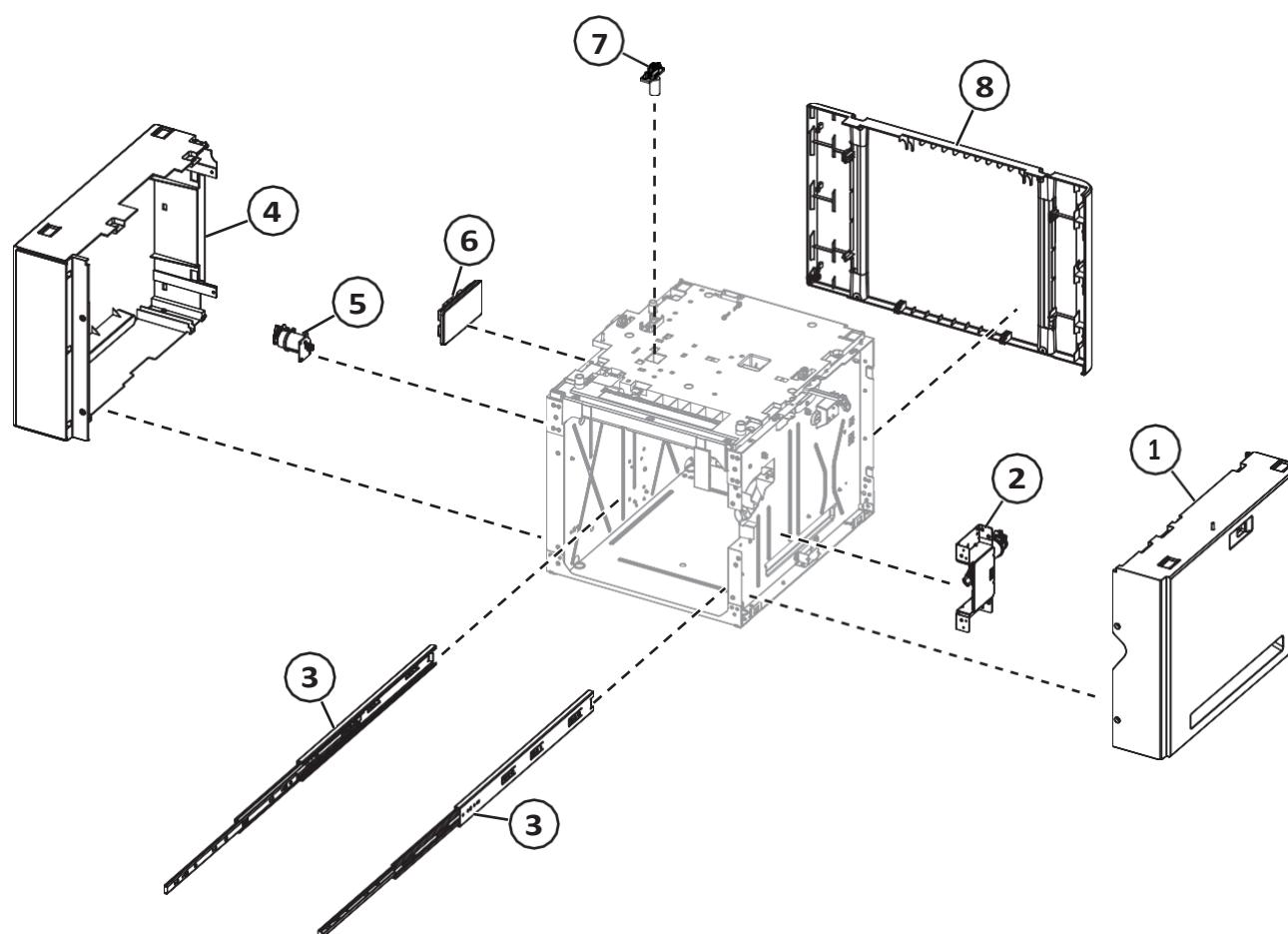
Assembly 18: 2100-sheet tray option 2

Asm-index	Manufacture P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X1677	1	1	2100-sheet tray right cover	**"2100-sheet tray right cover removal" on page 489**
2	41X1687	1	1	2100-sheet tray elevator drive	**"2100-sheet tray elevator drive removal" on page 497**
3	40X4593	2	1	Tray rails	**"2100-sheet tray rails removal" on page 502**
4	41X1676	1	1	2100-sheet tray left cover	**"2100-sheet tray left cover removal" on page 486**
5	41X1686	1	1	Motor (2100-sheet tray transport)	**"Motor (2100-sheet tray transport) removal" on page 491**
6	41X1684	1	1	2100-sheet tray controller board	**"2100-sheet tray controller board removal" on page 496**
7	41X1685	1	1	2100-sheet tray interface cable	**"2100-sheet tray interface cable removal" on page 499**
8	41X1678	1	1	2100-sheet tray rear cover	**"2100-sheet tray rear cover removal" on page 486**

Assembly 19: 2100-sheet tray option 3
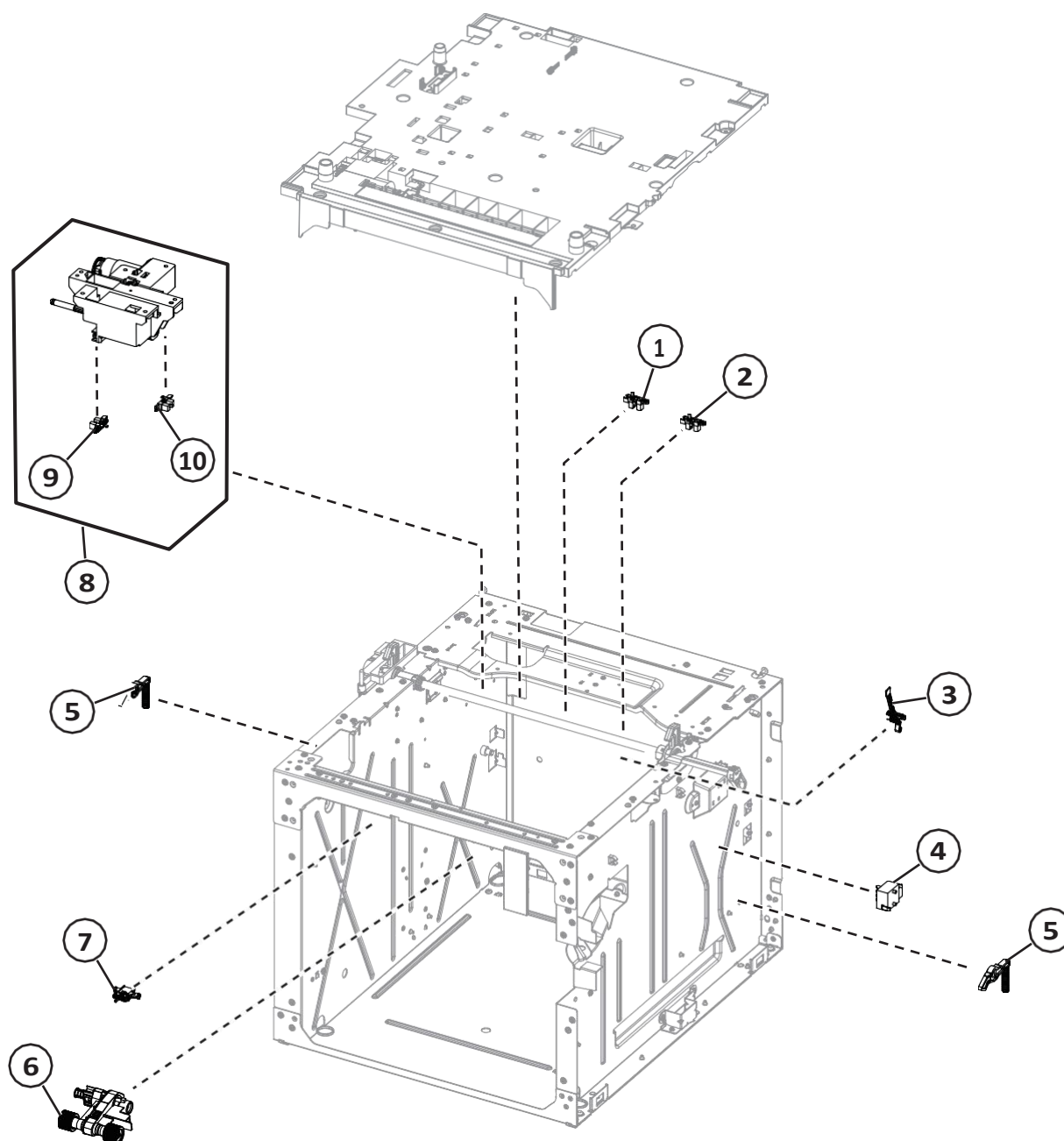
Assembly 19: 2100-sheet tray option 3

Asm-index	Manufacture P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X1083	1	1	Sensor (2100-sheet tray near empty)	**"Sensor (2100-sheet tray near empty) removal" on page 503**
2	41X1083	1	1	Sensor (2100-sheet tray A5 length guide)	**"Sensor (2100-sheet tray A5 length guide) removal" on page 504**
3	40X8177	1	1	2100-sheet tray elevator sensor actuator	--
4	40X7911	1	1	Sensor (2100-sheet tray paper size)	**"Sensor (2100-sheet tray paper size) removal" on page 498**
5	40X4585	2	1	2100-sheet tray bellcrank	**"2100-sheet tray bellcrank removal" on page 501**
6	41X1108	1	1	2100-sheet tray pick roller	--
7	41X1094	1	1	Sensor (2100-sheet tray pick)	**"Sensor (2100-sheet tray pick) removal" on page 496**
8	41X1683	1	1	2100-sheet tray paper feeder	**"2100-sheet tray paper feeder removal" on page 506**
9	41X1083	1	1	Sensor (2100-sheet tray pick roller index)	**"Sensor (2100-sheet tray pick roller index) removal" on page 504**
10	41X1083	1	1	Sensor (2100-sheet tray paper present)	**"Sensor (2100-sheet tray paper present) removal" on page 505**

Assembly 20: Optional bins
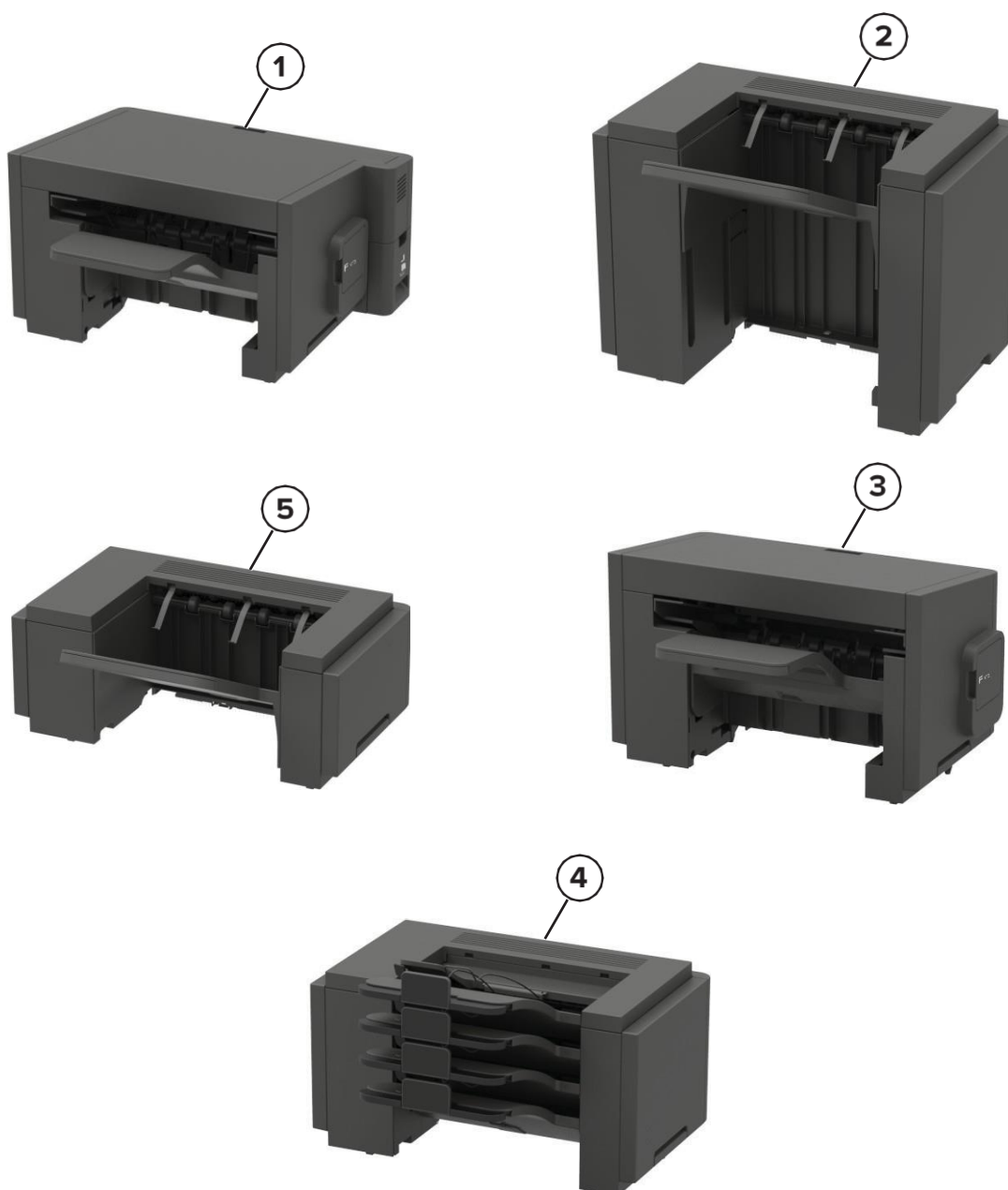
Assembly 20: Optional bins

Asm-index	Manufacture P/N	Units/mach	Units/FRU	Description	Removal procedure
1		1	1	Optional staple, hole punch finisher	**"Optional staple, hole punch finisher removal" on page 711**
2		1	1	Optional high capacity output expander	**"Optional high capacity output expander removal" on page 558**
3		1	1	Optional staple finisher	**"Optional staple finisher removal" on page 594**
4		1	1	Optional 4-bin mailbox	**"Optional 4-bin mailbox removal" on page 661**
5		1	1	Optional output expander	**"Optional output expander removal" on page 529**

Assembly 21: Output expander 1
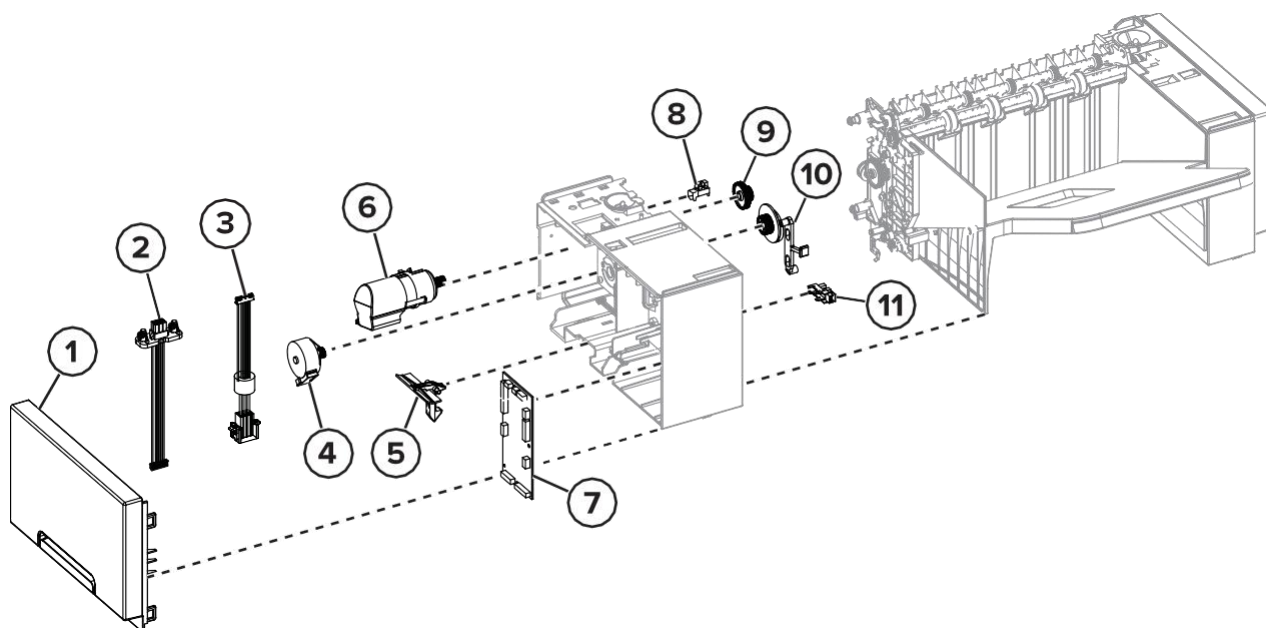
Assembly 21: Output expander 1

Asm-index	Manufacture P/N	Units/mach	Units/FRU	Description	Removal procedure
1	40X8190	1	1	Output expander left cover	**"Output expander left cover removal" on page 535**
2	40X8206	1	1	Output expander upper interface cable	**"Output expander upper interface cable removal" on page 538**
3	40X8205	1	1	Output expander lower interface cable	**"Output expander lower interface cable removal" on page 538**
4	40X8256	1	1	Motor (OE diverter)	**"Motor (OE diverter) removal" on page 542**
5	40X8721	2	1	Output expander latch	**"Output expander latch removal" on page 541**
6	40X8714	1	1	Motor (OE transport)	**"Motor (OE transport) removal" on page 545**
7	40X8199	1	1	Output expander controller board	**"Output expander controller board removal" on page 537**
8	40X7592	1	1	Sensor (OE rear door interlock)	**"Sensor (OE rear door interlock) removal" on page 547**
9	40X8726	1	1	Output expander drive gear	**"Output expander drive gear removal" on page 544**
10	40X8722	1	1	Output expander diverter plunger assembly	**"Output expander diverter plunger assembly removal" on page 542**
11	40X7592	1	1	Sensor (OE diverter plunger)	**"Sensor (OE diverter plunger) removal" on page 549**

Assembly 22: Output expander 2
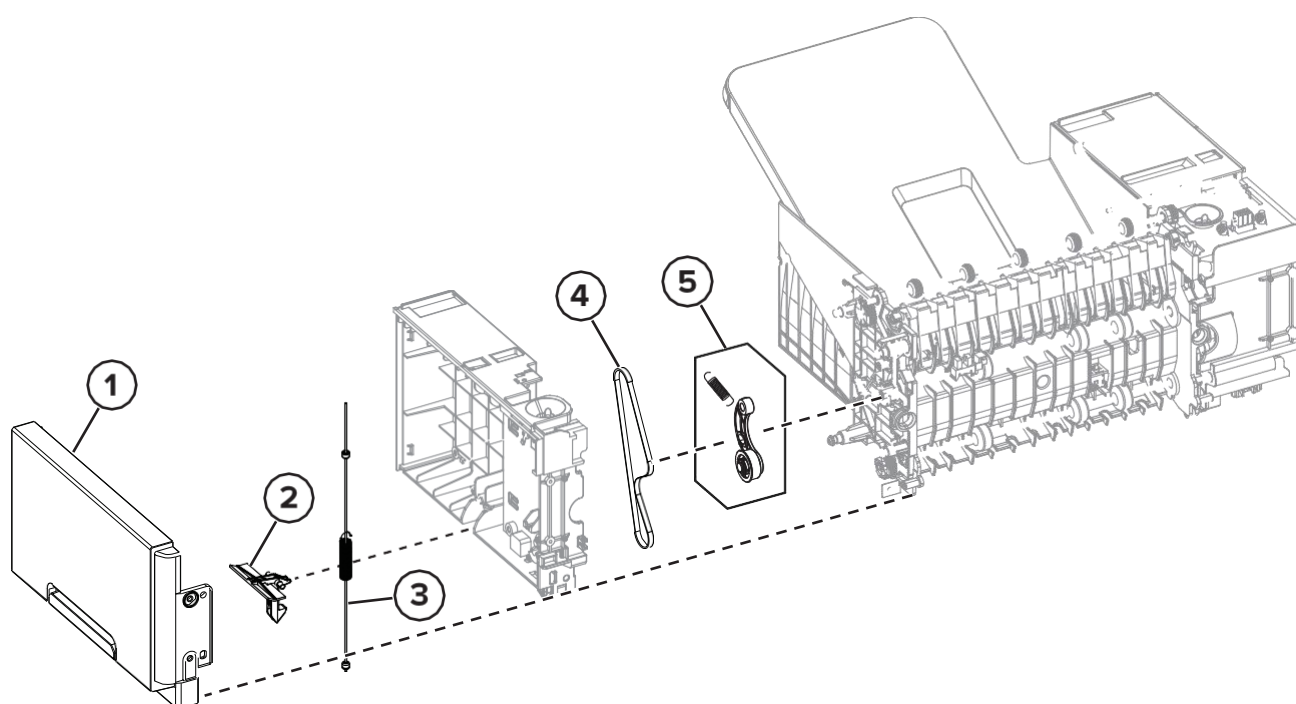
Assembly 22: Output expander 2

Asm-index	Manufacture P/N	Units/mach	Units/FRU	Description	Removal procedure
1	40X8187	1	1	Output expander right cover	**"Output expander right cover removal" on page 533**
2	40X8721	2	1	Output expander latch	**"Output expander latch removal" on page 541**
3	41X2193	1	1	Output expander spring with string	**"Output expander spring with string removal" on page 540**
4	40X8732	1	1	Output expander drive belt	**"Output expander drive belt removal" on page 553**
5	40X8718	1	1	Output expander belt tensioner	**"Output expander belt tensioner removal" on page 553**

Assembly 23: Output expander 3
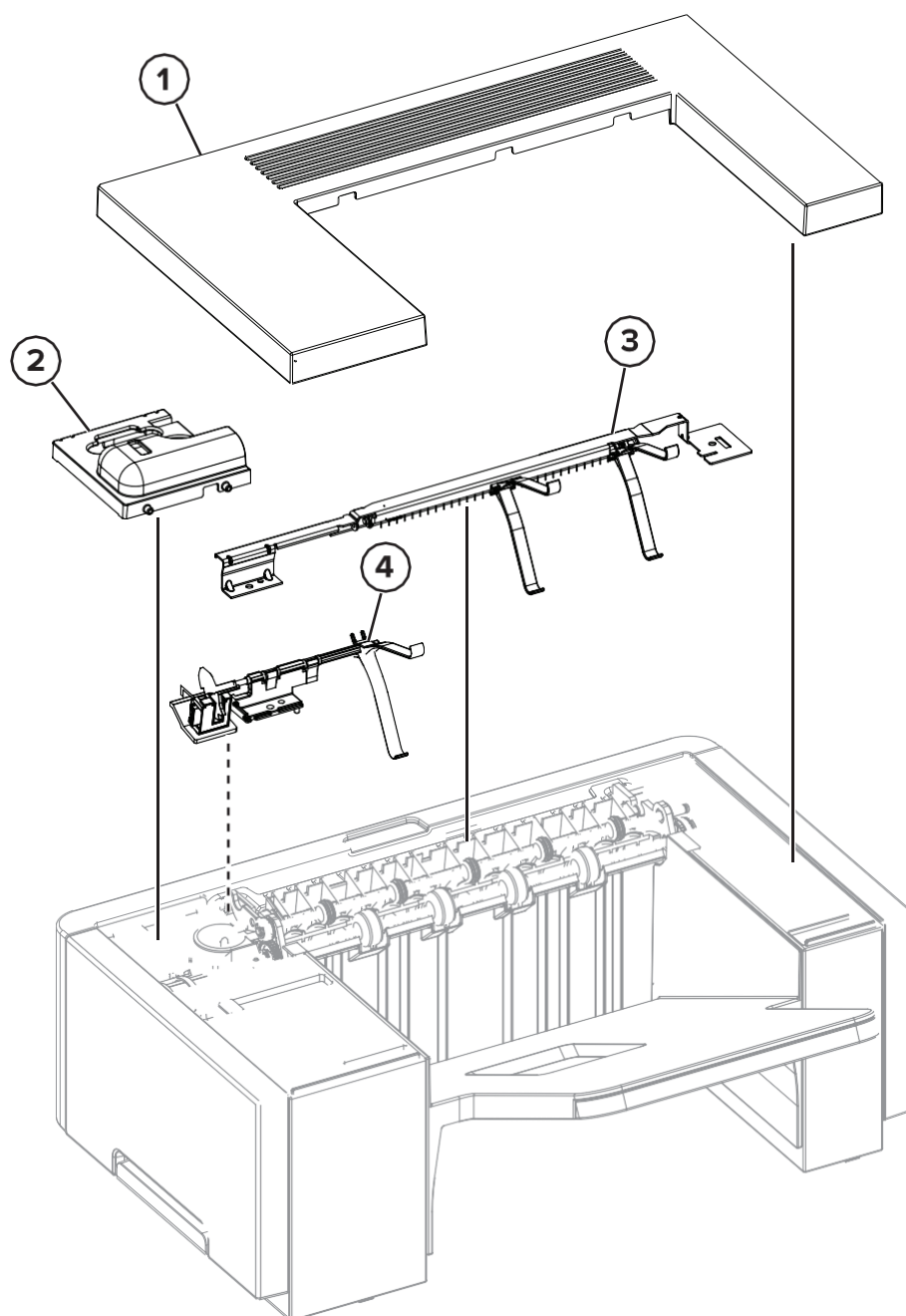
Assembly 23: Output expander 3

Asm-index	Manufacture P/N	Units/mach	Units/FRU	Description	Removal procedure
1	40X8196	1	1	Output expander top cover	**"Output expander top cover removal" on page 529**
2	40X8715	1	1	Output expander sensor cover	**"Output expander sensor cover removal" on page 532**
3	40X8712	1	1	Output expander bin full flag	**"Output expander bin full flag removal" on page 532**
4	40X8191	1	1	Sensor (OE bin full) with flag	**"Sensor (OE bin full) with flag removal" on page 532**

Assembly 24: Output expander 4
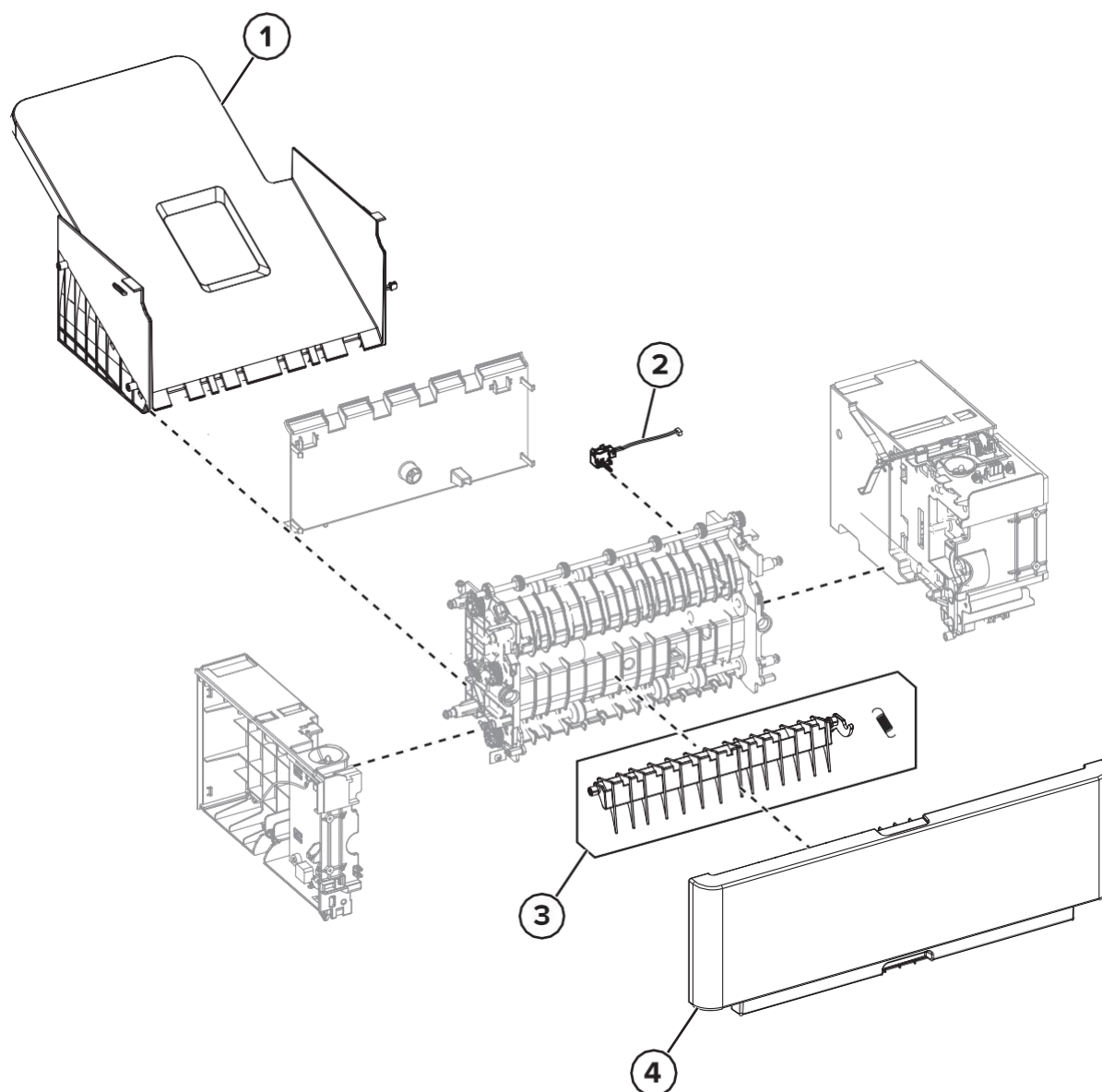
Assembly 24: Output expander 4

Asm-index	Manufacture P/N	Units/mach	Units/FRU	Description	Removal procedure
1	40X8717	1	1	Output expander bin	**"Output expander bin removal" on page 554**
2	40X8729	1	1	Sensor (OE pass-through)	**"Sensor (OE pass-through) removal" on page 555**
3	40X8713	1	1	Output expander diverter	**"Output expander diverter removal" on page 551**
4	41X1868	1	1	Output expander rear door	**"Output expander rear door removal" on page 530**

Assembly 25: High capacity output expander 1
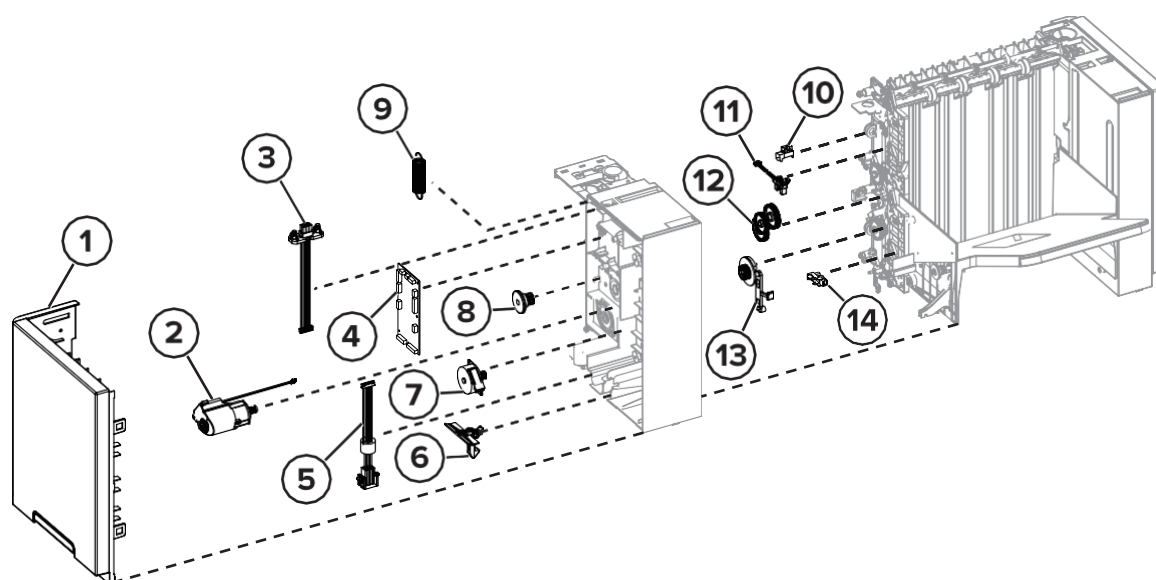
Assembly 25: High capacity output expander 1

Asm-index	Manufacture P/N	Units/mach	Units/FRU	Description	Removal procedure
1	40X8202	1	1	HCOE left cover	**"HCOE left cover removal" on page 563**
2	40X8730	1	1	Motor (HCOE transport)	**"Motor (HCOE transport) removal" on page 581**
3	40X8206	1	1	HCOE upper interface cable	**"HCOE upper interface cable removal" on page 567**
4	40X8199	1	1	HCOE controller board	**"HCOE controller board removal" on page 565**
5	40X8205	1	1	HCOE lower interface cable	**"HCOE lower interface cable removal" on page 566**
6	40X8721	2	1	HCOE latch	**"HCOE latch removal" on page 567**
7	40X8256	1	1	Motor (HCOE diverter)	**"Motor (HCOE diverter) removal" on page 569**
8	40X8731	2	1	HCOE bin pinion	**"HCOE bin pinion removal" on page 571**
9	40X8733	2	1	HCOE bin spring	**"HCOE bin spring removal" on page 570**
10	40X7592	1	1	Sensor (HCOE rear door interlock)	**"Sensor (HCOE rear door interlock) removal" on page 572**
11	40X8728	1	1	Sensor (HCOE bin)	**"Sensor (HCOE bin) removal" on page 569**
12	40X8726	1	1	HCOE drive gear assembly	**"HCOE drive gear assembly removal" on page 579**
13	40X8722	1	1	HCOE diverter plunger assembly	**"HCOE diverter plunger assembly removal" on page 577**
14	40X7592	1	1	Sensor (HCOE diverter)	**"Sensor (HCOE diverter) removal" on page 583**

Assembly 26: High capacity output expander 2
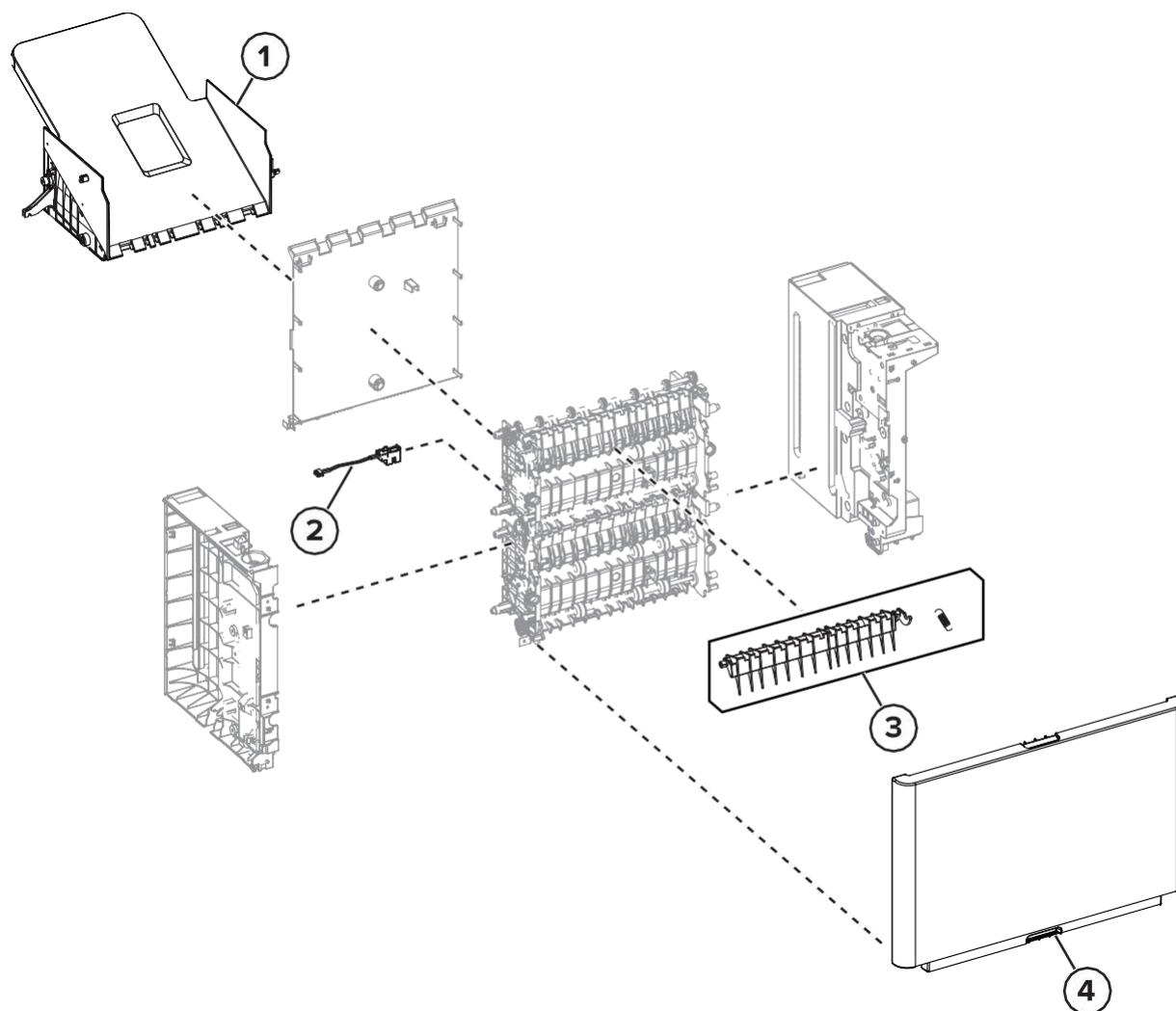
Assembly 26: High capacity output expander 2

Asm-index	Manufacture P/N	Units/mach	Units/FRU	Description	Removal procedure
1	40X8727	1	1	HCOE bin	**"HCOE bin removal" on page 588**
2	40X8729	1	1	Sensor (HCOE pass-through)	**"Sensor (HCOE pass-through) removal" on page 591**
3	40X8713	1	1	HCOE top diverter	**"HCOE top diverter removal" on page 586**
4	41X1896	1	1	HCOE rear door	**"HCOE rear door removal" on page 559**

Assembly 27: High capacity output expander 3
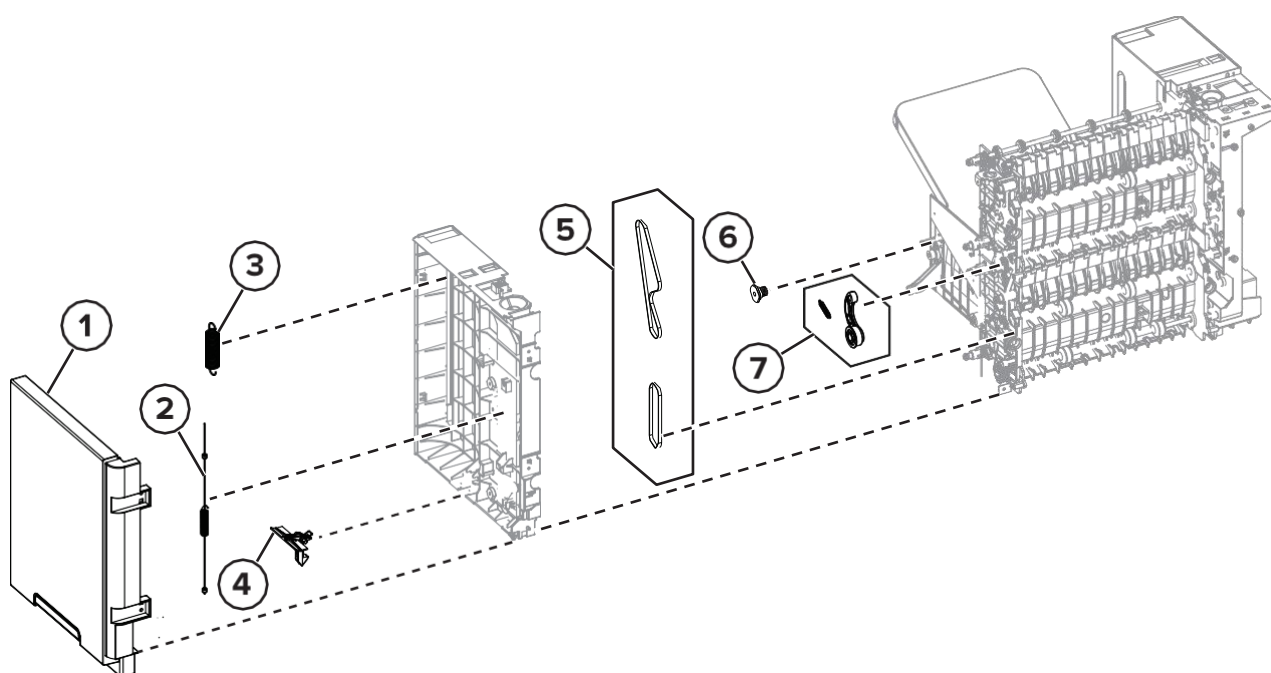
Assembly 27: High capacity output expander 3

Asm-index	Manufacture P/N	Units/mach	Units/FRU	Description	Removal procedure
1	40X8198	1	1	HCOE right cover	**"HCOE right cover removal" on page 562**
2	40X8192	1	1	HCOE spring with string	--
3	40X8733	2	1	HCOE bin spring	**"HCOE bin spring removal" on page 570**
4	40X8721	2	1	HCOE latch	**"HCOE latch removal" on page 567**
5	40X8732	1	1	HCOE drive belt	**"HCOE drive belt removal" on page 574**
6	40X8731	2	1	HCOE bin pinion	**"HCOE bin pinion removal" on page 571**
7	40X8718	1	1	HCOE belt tensioner	**"HCOE belt tensioner removal" on page 576**

Assembly 28: High capacity output expander 4
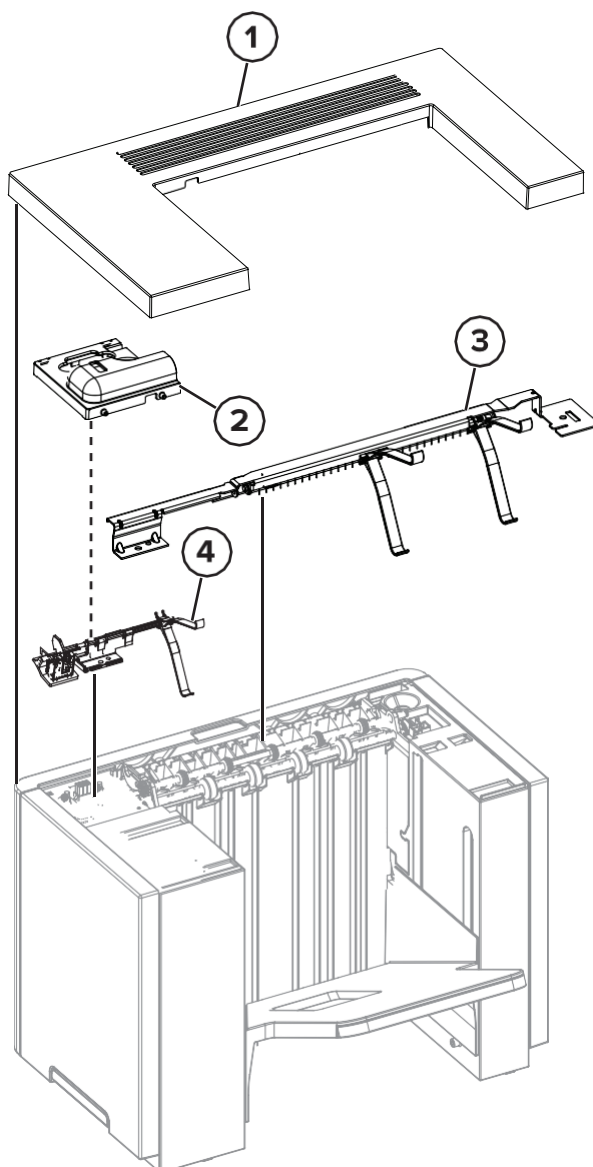
Assembly 28: High capacity output expander 4

Asm-index	Manufacture P/N	Units/mach	Units/FRU	Description	Removal procedure
1	40X8196	1	1	HCOE top cover	**"HCOE top cover removal" on page 558**
2	40X8715	1	1	HCOE sensor cover	**"HCOE sensor cover removal" on page 560**
3	40X8712	1	1	HCOE bin full flag	**"HCOE bin full flag removal" on page 561**
4	40X8191	1	1	Sensor (HCOE bin full) with flag	**"Sensor (HCOE bin full) with flag removal" on page 561**

Assembly 29: Staple finisher 1
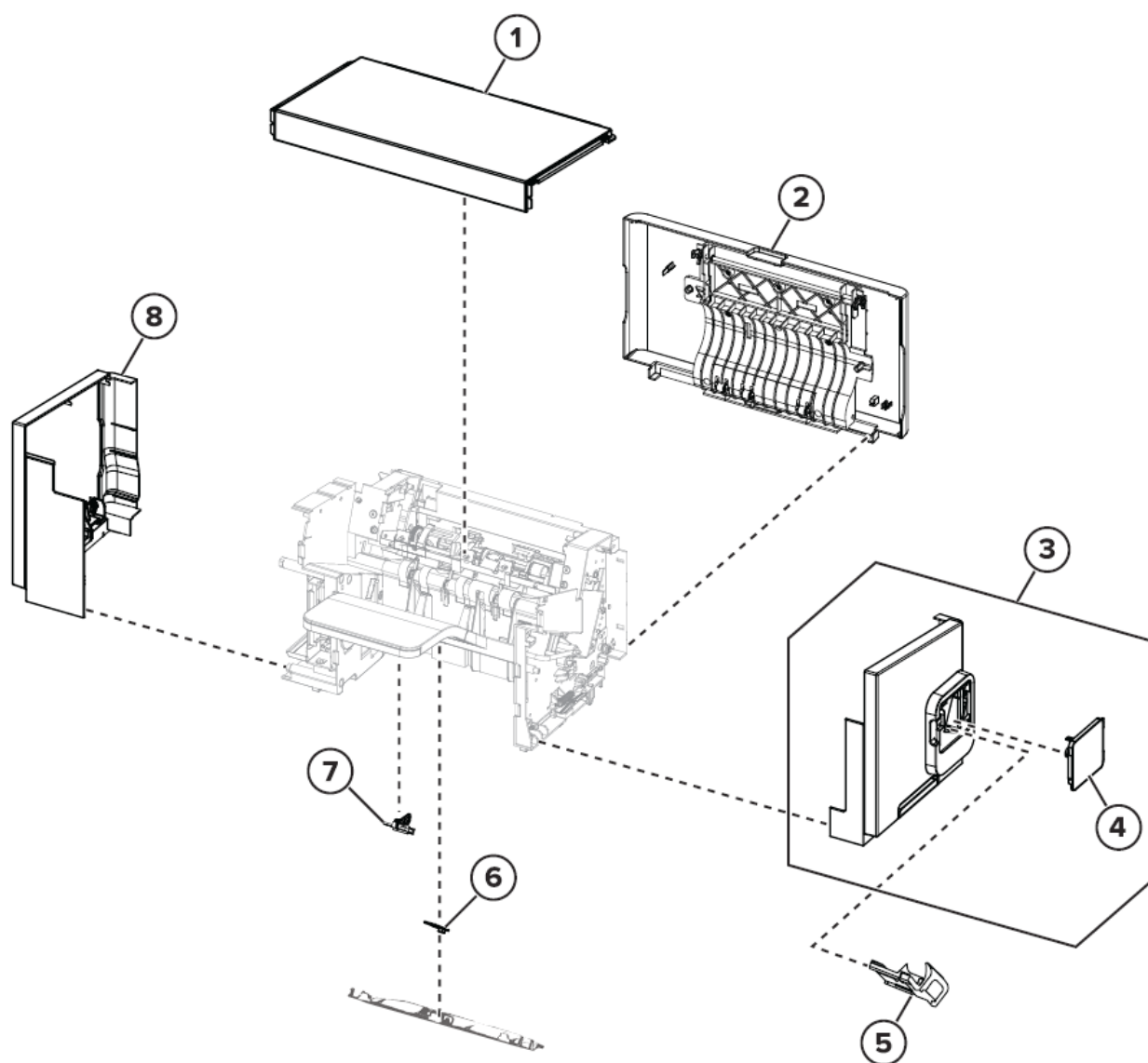
Assembly 29: Staple finisher 1

Asm-index	Manufacture P/N	Units/mach	Units/FRU	Description	Removal procedure
1	40X8222	1	1	Staple finisher top cover	**"Staple finisher top cover removal" on page 601**
2	41X2169	1	1	Staple finisher rear door	**"Staple finisher rear door removal" on page 595**
3	41X1698	1	1	Staple finisher right cover	**"Staple finisher right cover removal" on page 599**
4	41X1701	1	1	Staple cartridge access door	**"Staple cartridge access door removal" on page 657**
5	40X7466	1	1	Staple cartridge holder	**"Staple cartridge holder removal" on page 717**
6	41X1704	1	1	Standard bin LED	**"Standard bin LED removal" on page 615**
7	41X1238	1	1	Sensor (finisher bin paper present)	**"Sensor (staple finisher bin paper present) removal" on page 616**
8	41X1715	1	1	Staple finisher left cover	**"Staple finisher left cover removal" on page 597**

Assembly 30: Staple finisher 2
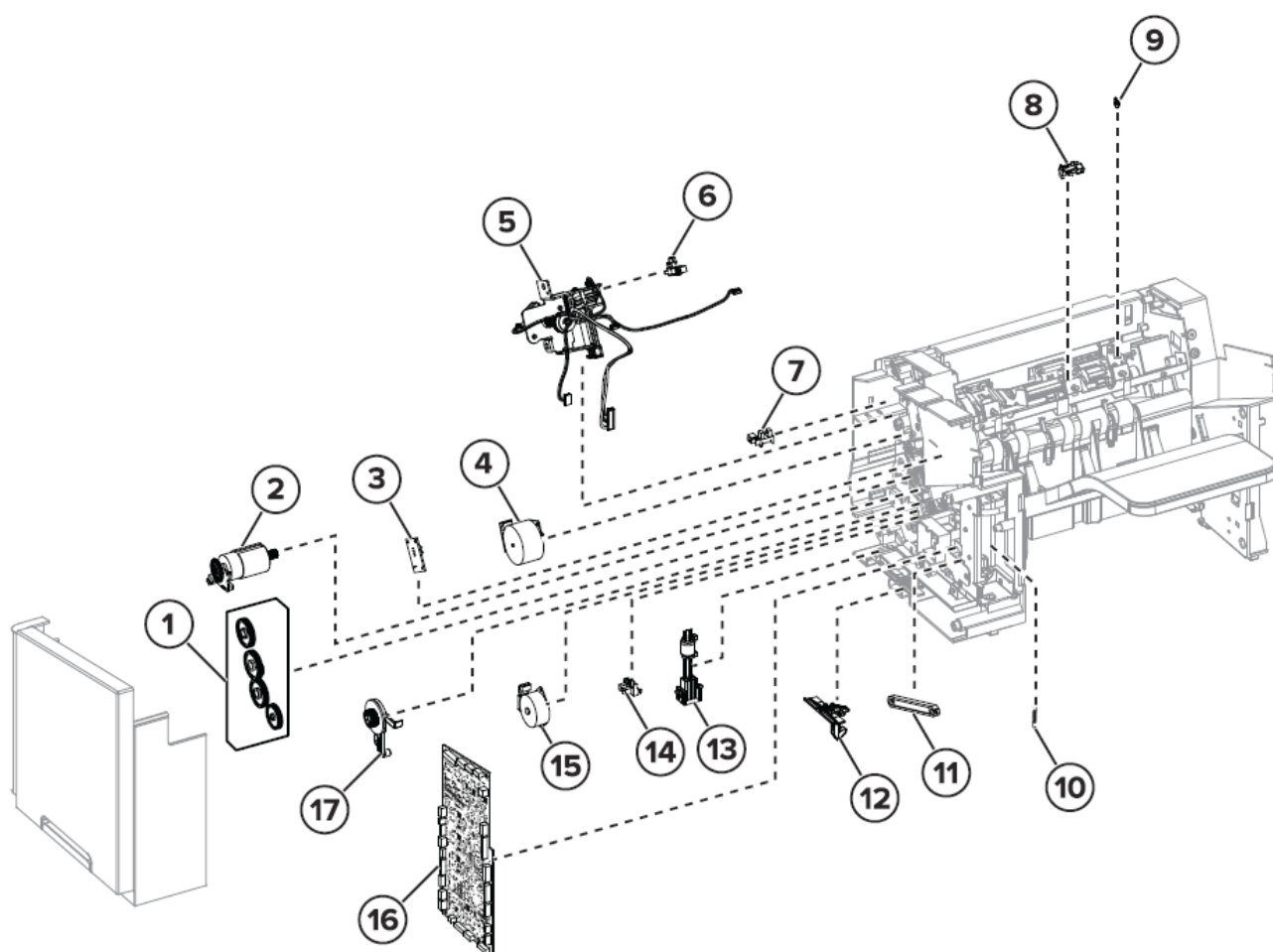
Assembly 30: Staple finisher 2

Asm-index	Manufacture P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X2175	1	1	Staple finisher drive gear assembly	**"Staple finisher drive gear assembly removal" on page 617**
2	41X0529	1	1	Motor (staple finisher transport)	**"Motor (staple finisher transport) removal" on page 612**
3	41X0802	1	1	Sensor (staple finisher bin full)	**"Sensor (staple finisher bin full send) removal" on page 621** and **"Sensor (staple finisher bin full receive) removal" on page 622**
4	40X8213	1	1	Motor (staple finisher paddle)	**"Motor (staple finisher paddle) removal" on page 605**
5	41X2187	1	1	Staple finisher stack height assembly	**"Staple finisher stack height assembly removal" on page 642**
6	41X0798	1	1	Sensor (staple finisher stack height)	--
7	41X1238	1	1	Sensor (staple finisher rear door interlock)	**"Sensor (staple finisher rear door interlock) removal" on page 625**
8	41X1238	1	1	Sensor (staple finisher paddle)	**"Sensor (staple finisher paddle) removal" on page 631**
9	41X2192	1	1	Paddle spring	--
10	40X8742	2	1	Staple finisher bin spring	**"Staple finisher bin spring removal" on page 626**
11	40X8744	2	1	Staple finisher bin link assembly	**"Staple finisher bin link assembly removal" on page 627**
12	40X8721	2	1	Staple finisher latch	**"Staple finisher latch removal" on page 629**
13	40X8224	1	1	Staple finisher interface cable	**"Staple finisher interface cable removal" on page 608**
14	41X0798	1	1	Sensor (staple finisher diverter plunger)	**"Sensor (staple finisher diverter plunger) removal" on page 612**
15	40X8256	1	1	Motor (staple finisher diverter)	**"Motor (staple finisher diverter) removal" on page 611**
16	41X2279	1	1	Staple finisher controller board	**"Staple finisher controller board removal" on page 603**
17	40X8722	1	1	Staple finisher diverter plunger assembly	**"Staple finisher diverter plunger assembly removal" on page 617**

Assembly 31: Staple finisher 3
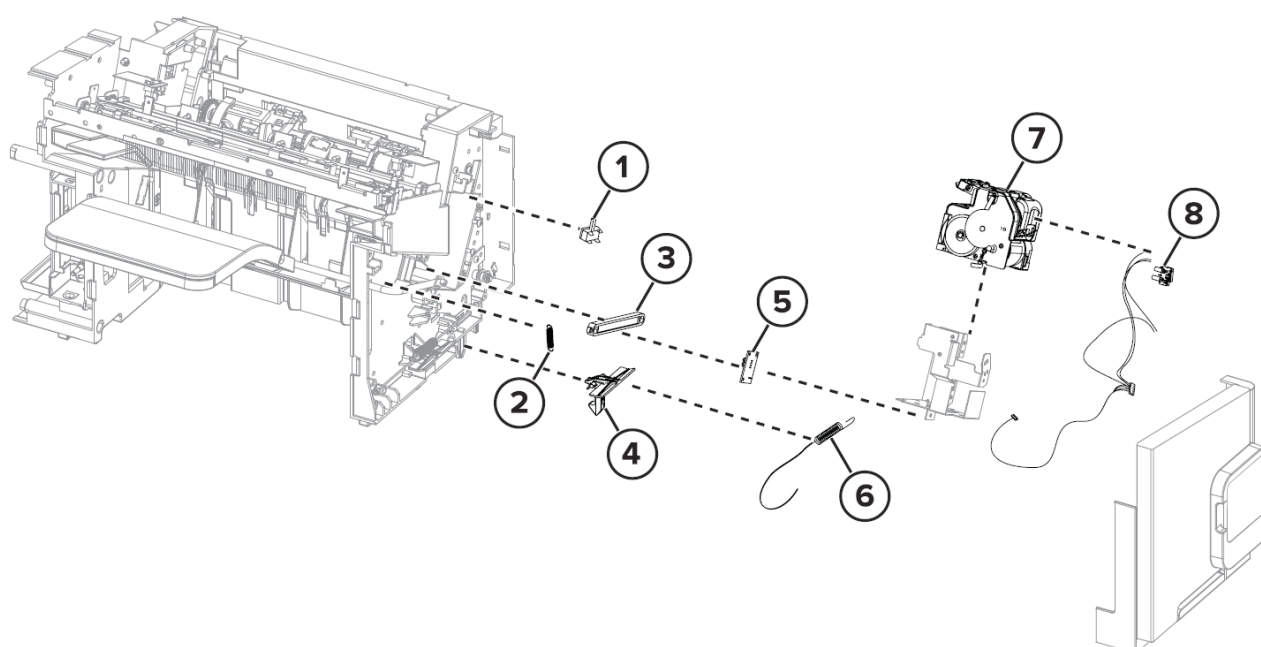
Assembly 31: Staple finisher 3

Asm-index	Manufacture P/N	Units/mach	Units/FRU	Description	Removal procedure
1	40X8745	1	1	Sensor (staple throat paper present)	**"Sensor (staple throat paper present) removal" on page 657**
2	40X8742	2	1	Staple finisher bin spring	**"Staple finisher bin spring removal" on page 626**
3	40X8744	2	1	Staple finisher bin link assembly	**"Staple finisher bin link assembly removal" on page 627**
4	40X8721	2	1	Staple finisher latch	**"Staple finisher latch removal" on page 629**
5	41X0802	1	1	Sensor (staple finisher bin full send)	**"Sensor (staple finisher bin full send) removal" on page 621**
6	40X8226	1	1	Staple finisher spring with string	**"Staple finisher spring with string removal" on page 630**
7	41X0654	1	1	Staple unit	**"Staple unit removal" on page 605**
8	41X2198	1	1	Staple cartridge door close limit switch	**"Staple cartridge door close limit switch removal" on page 660**

Assembly 32: Staple finisher 4
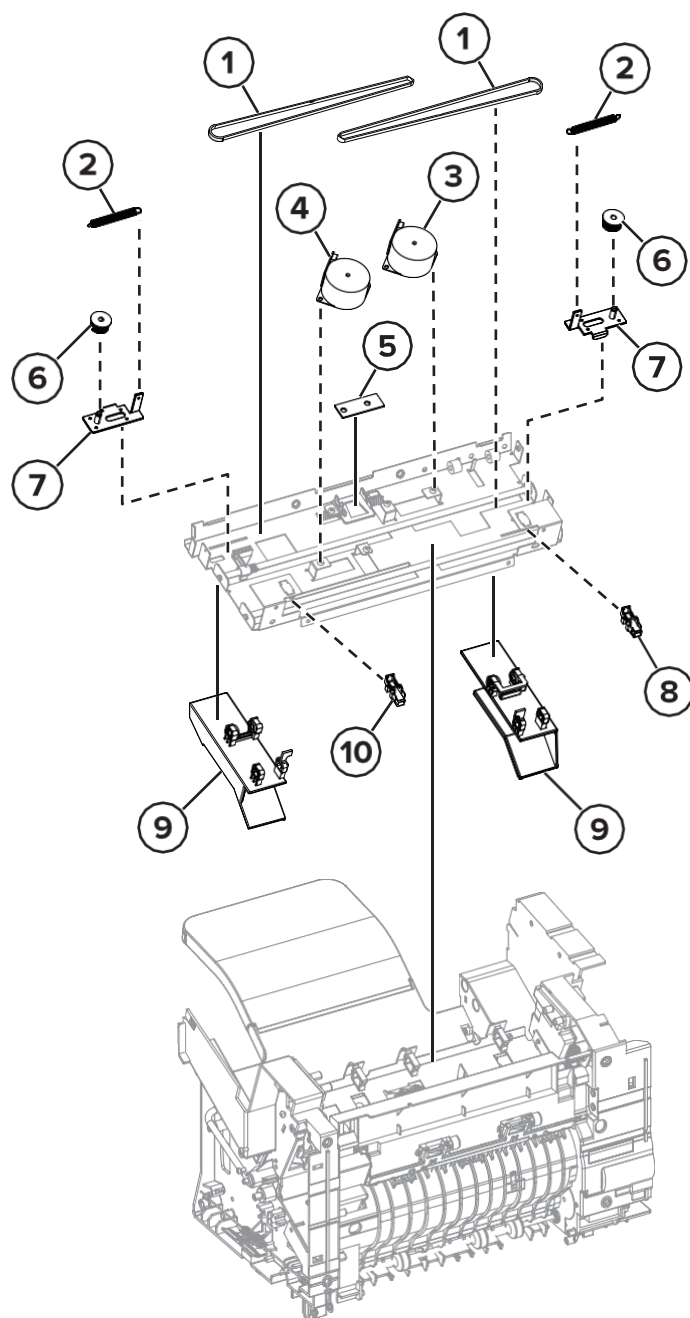
Assembly 32: Staple finisher 4

Asm-index	Manufacture P/N	Units/mach	Units/FRU	Description	Removal procedure
1	40X8212	2	1	Tamper drive belt	**"Tamper drive belt removal" on page 633**
2	41X1705	2	1	Tamper spring	**"Tamper drive belt removal" on page 633**
3	40X8211	1	1	Motor (staple finisher right tamper)	**"Motor (staple finisher right tamper) removal" on page 632**
4	40X8211	1	1	Motor (staple finisher left tamper)	**"Motor (staple finisher left tamper) removal" on page 632**
5	41X1704	1	1	Staple finisher bin LED	**"Staple finisher bin LED removal" on page 638**
6	41X0664	2	1	Tamper gear	**"Tamper drive belt removal" on page 633**
7	41X2196	2	1	Tamper bracket	--
8	41X1238	1	1	Sensor (staple finisher left tamper)	**"Sensor (staple finisher left tamper) removal" on page 636**
9	41X2160	1	1	Tamper aligner	**"Tamper aligner removal" on page 640**
10	41X1238	1	1	Sensor (staple finisher right tamper)	**"Sensor (staple finisher right tamper) removal" on page 634**

Assembly 33: Staple finisher 5
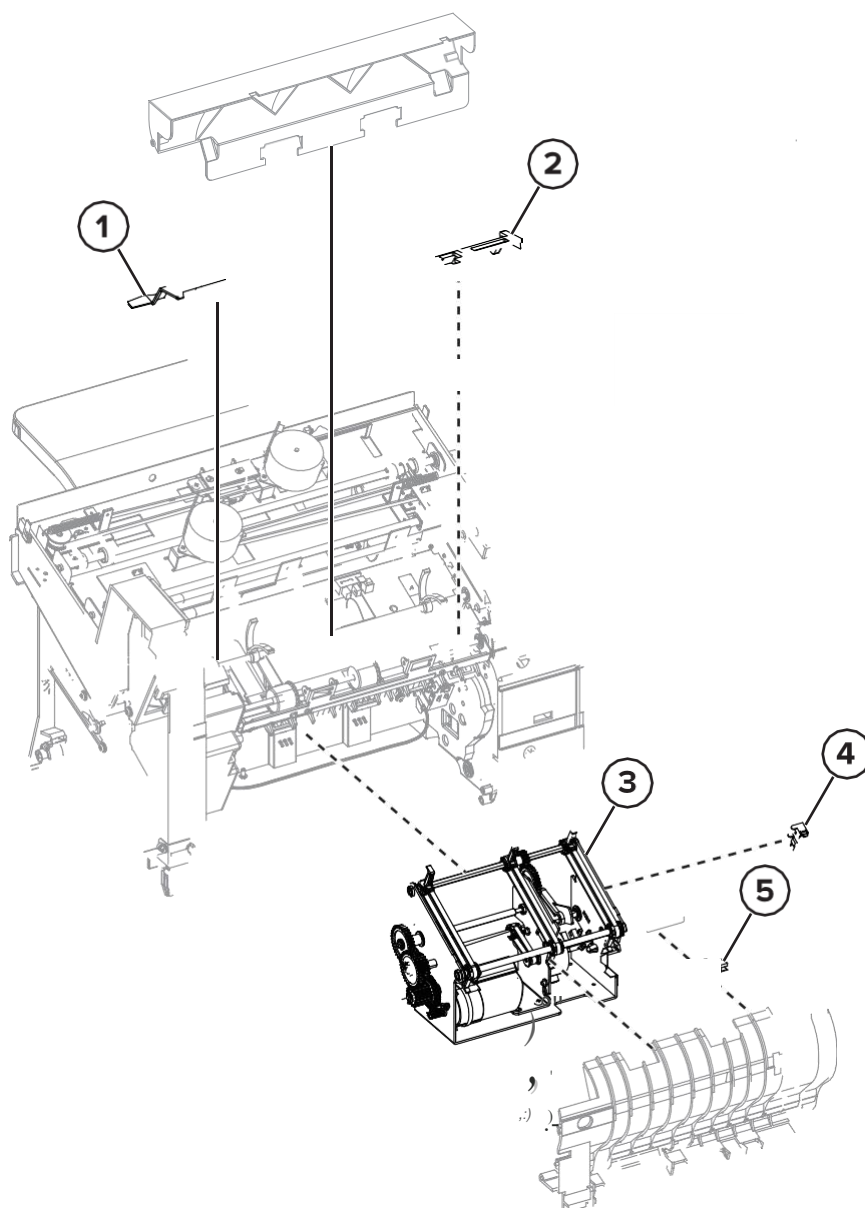
Assembly 33: Staple finisher 5

Asm-index	Manufacture P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X2199	1	1	Staple finisher paper stack flap (right)	**"Staple finisher paper stack flap removal" on page 644**
2	40X8210	1	1	Staple finisher paper stack flap (left)	**"Staple finisher paper stack flap removal" on page 644**
3	41X2167	1	1	Staple finisher ejector assembly	**"Staple finisher ejector assembly removal" on page 650**
4	40X8745	1	1	Sensor (staple finisher ejector)	**"Sensor (staple finisher ejector) removal" on page 653**
5	40X8134	1	1	Sensor (staple finisher pass-through)	**"Sensor (staple finisher pass-through) removal" on page 656**

Assembly 34: Mailbox 1
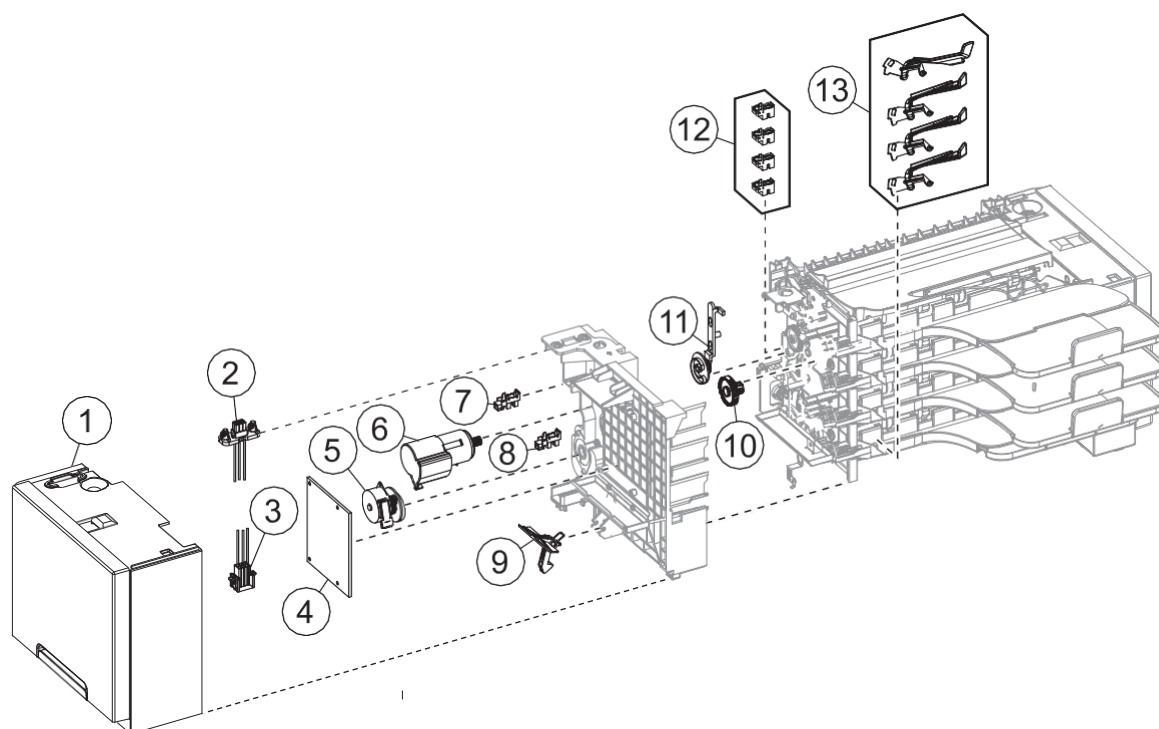
Assembly 34: Mailbox 1

Asm-index	Manufacture P/N	Units/mach	Units/FRU	Description	Removal procedure
1	40X8246	1	1	Mailbox left cover	**"Mailbox left cover removal" on page 667**
2	40X8254	1	1	Mailbox upper interface cable	**"Mailbox upper interface cable removal" on page 685**
3	40X8253	1	1	Mailbox lower interface cable	**"Mailbox lower interface cable removal" on page 683**
4	40X8244	1	1	Mailbox controller board	**"Mailbox controller board removal" on page 680**
5	40X8256	1	1	Motor (mailbox diverter)	**"Motor (mailbox diverter) removal" on page 685**
6	41X0529	1	1	Motor (mailbox transport)	**"Motor (mailbox transport) removal" on page 679**
7	40X7592	1	1	Sensor (mailbox rear door interlock)	**"Sensor (mailbox rear door interlock) removal" on page 671**
8	40X7592	1	1	Sensor (mailbox diverter plunger)	**"Sensor (mailbox diverter plunger) removal" on page 681**
9	40X8721	2	1	Mailbox latch	**"Mailbox latch removal" on page 670**
10	40X8726	1	1	Mailbox transport drive gear	**"Mailbox transport drive gear removal" on page 676**
11	40X8722	1	1	Mailbox diverter plunger assembly	**"Mailbox diverter plunger assembly removal" on page 671**
12	41X0701	4	1	Sensor (mailbox bin full)	**"Sensor (mailbox bin full) removal" on page 688**
13	40X8247	4	1	Mailbox bin full flag	**"Mailbox bin full flag removal" on page 687**
NS	40X8500	1	1	Optional bin guide bar	--

Assembly 35: Mailbox 2
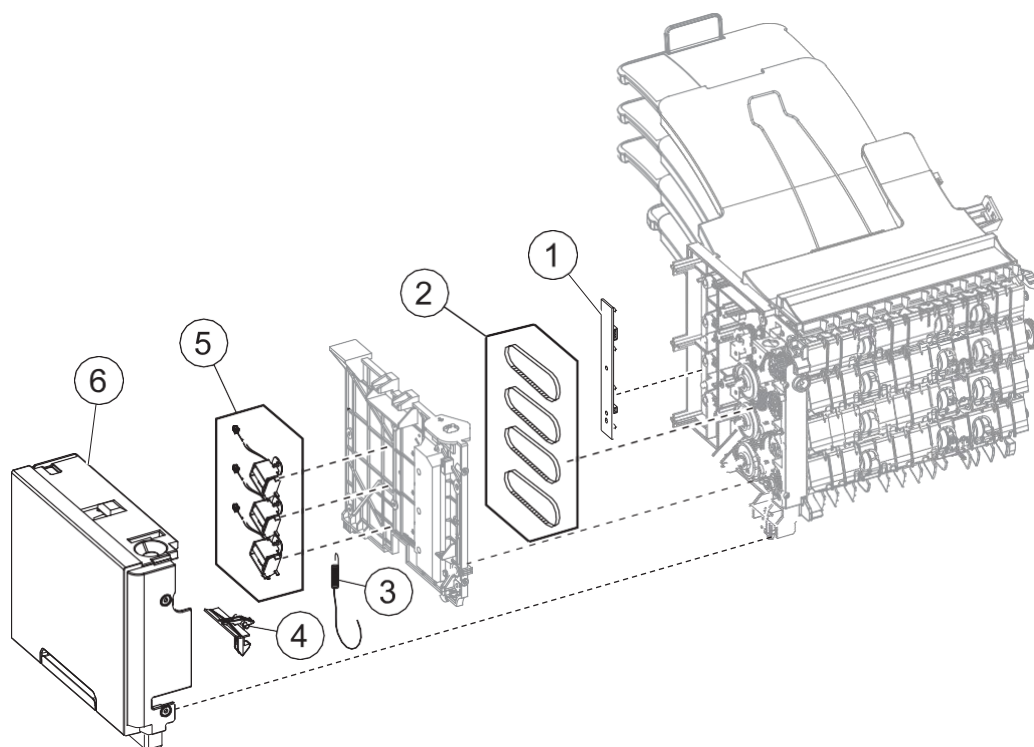
Assembly 35: Mailbox 2

Asm-index	Manufacture P/N	Units/mach	Units/FRU	Description	Removal procedure
1	40X8250	1	1	Mailbox bin LED assembly	**"Mailbox bin LED assembly removal" on page 693**
2	40X8249	4	1	Mailbox belt	**"Mailbox belt removal" on page 691**
3	40X8252	1	1	Mailbox spring with string	**"Mailbox spring with string removal" on page 666**
4	40X8721	2	1	Mailbox latch	**"Mailbox latch removal" on page 670**
5	40X8251	3	1	Mailbox solenoid	**"Mailbox solenoid removal" on page 668**
6	40X8243	1	1	Mailbox right cover	**"Mailbox right cover removal" on page 664**

Assembly 36: Mailbox 3
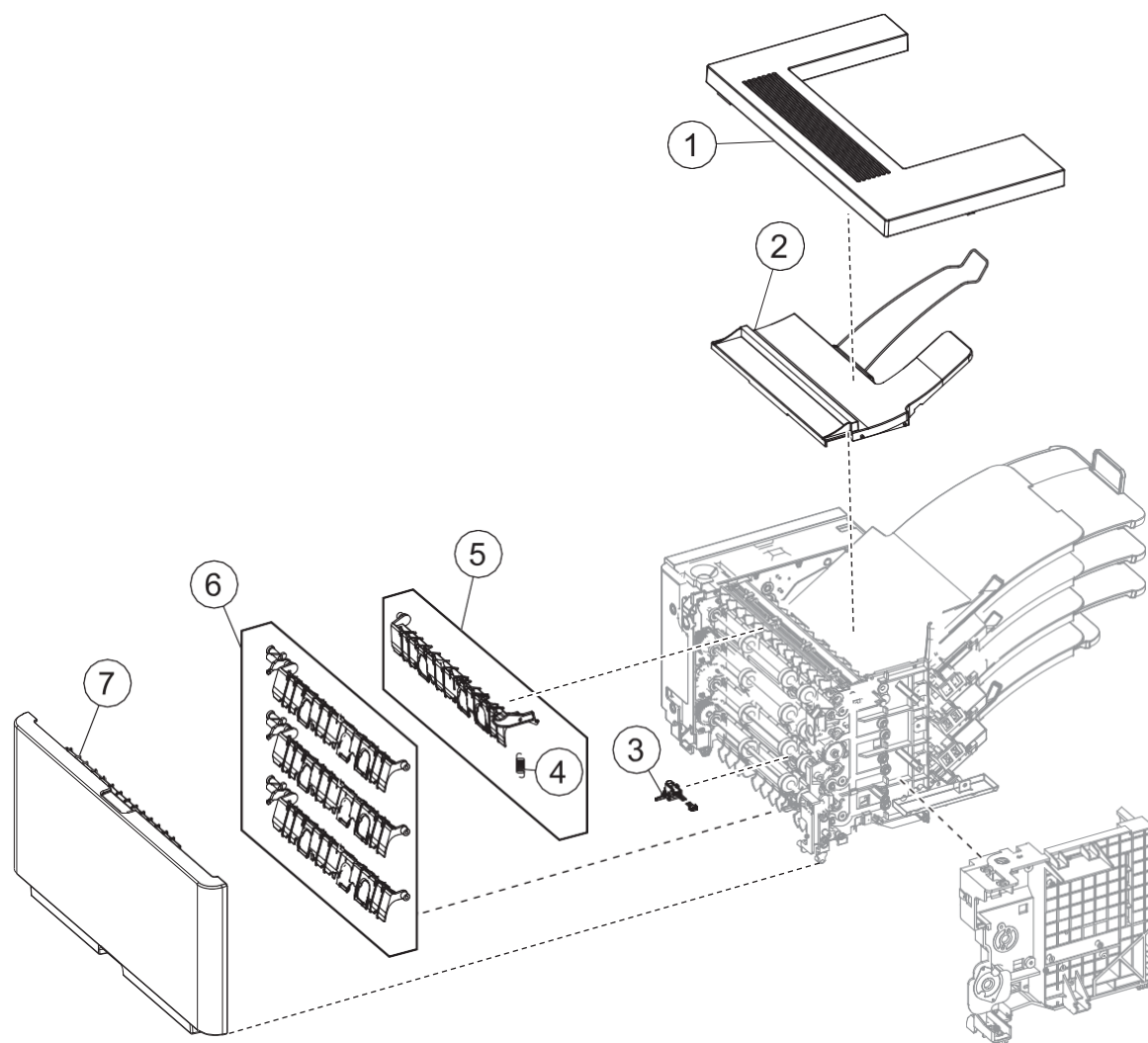
Assembly 36: Mailbox 3

Asm-index	Manufacture P/N	Units/mach	Units/FRU	Description	Removal procedure
1	40X8196	1	1	Mailbox top cover	**"Mailbox top cover removal" on page 661**
2	40X8720	1	1	Mailbox top bin cover with bail	**"Mailbox top bin cover with bail removal" on page 665**
3	40X8719	1	1	Sensor (mailbox pass-through)	**"Sensor (mailbox pass-through) removal" on page 706**
4	40X8725	1	1	Mailbox top diverter spring	**"Mailbox top diverter spring removal" on page 702**
5	40X8723	1	1	Mailbox top diverter	**"Mailbox top diverter removal" on page 696**
6	40X8724	3	1	Mailbox middle diverter	**"Mailbox middle diverter removal" on page 701**
7	41X1870	1	1	Mailbox rear door	**"Mailbox rear door removal" on page 662**

Assembly 37: Staple, hole punch finisher 1
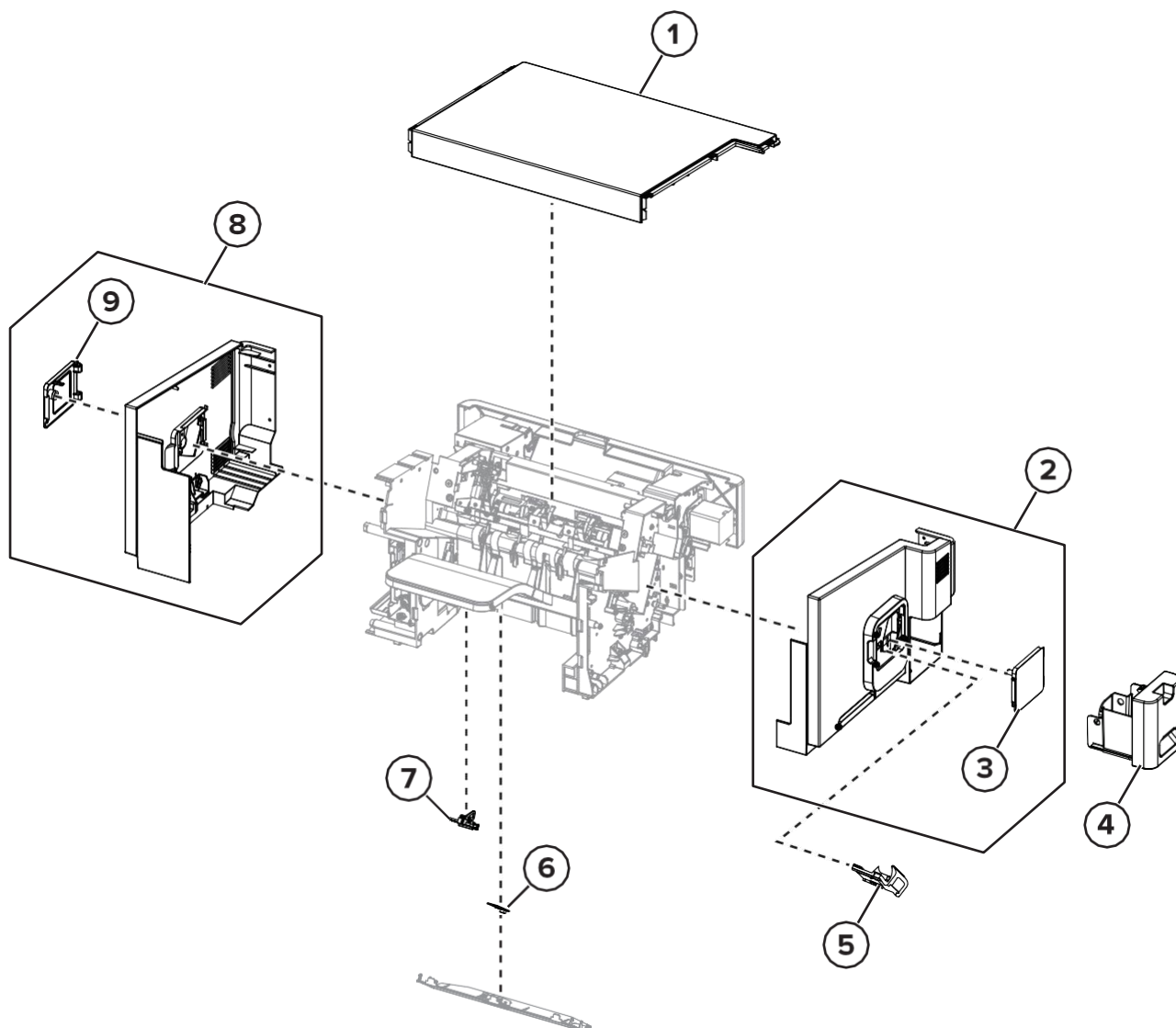
Assembly 37: Staple, hole punch finisher 1

Asm-index	Manufacture P/N	Units/mach	Units/FRU	Description	Removal procedure
1	40X8547	1	1	Staple, hole punch finisher top cover	**"Staple, hole punch finisher top cover removal" on page 716**
2	41X1719	1	1	Staple, hole punch finisher right cover	**"Staple, hole punch finisher right cover removal" on page 714**
3	41X1701	1	1	Staple cartridge access door	**"Staple cartridge access door removal" on page 657**
4	41X2202	1	1	Hole punch box	--
5	40X7466	1	1	Staple cartridge holder	**"Staple cartridge holder removal" on page 717**
6	41X1704	1	1	Standard bin LED	--
7	41X0724	1	1	Sensor (SHPF bin paper present)	--
8	41X1718	1	1	Staple, hole punch finisher left cover	**"Staple, hole punch finisher left cover removal" on page 712**
9	41X2166	1	1	Left staple cartridge access door	**"Left staple cartridge access door removal" on page 712**

Assembly 38: Staple, hole punch finisher 2
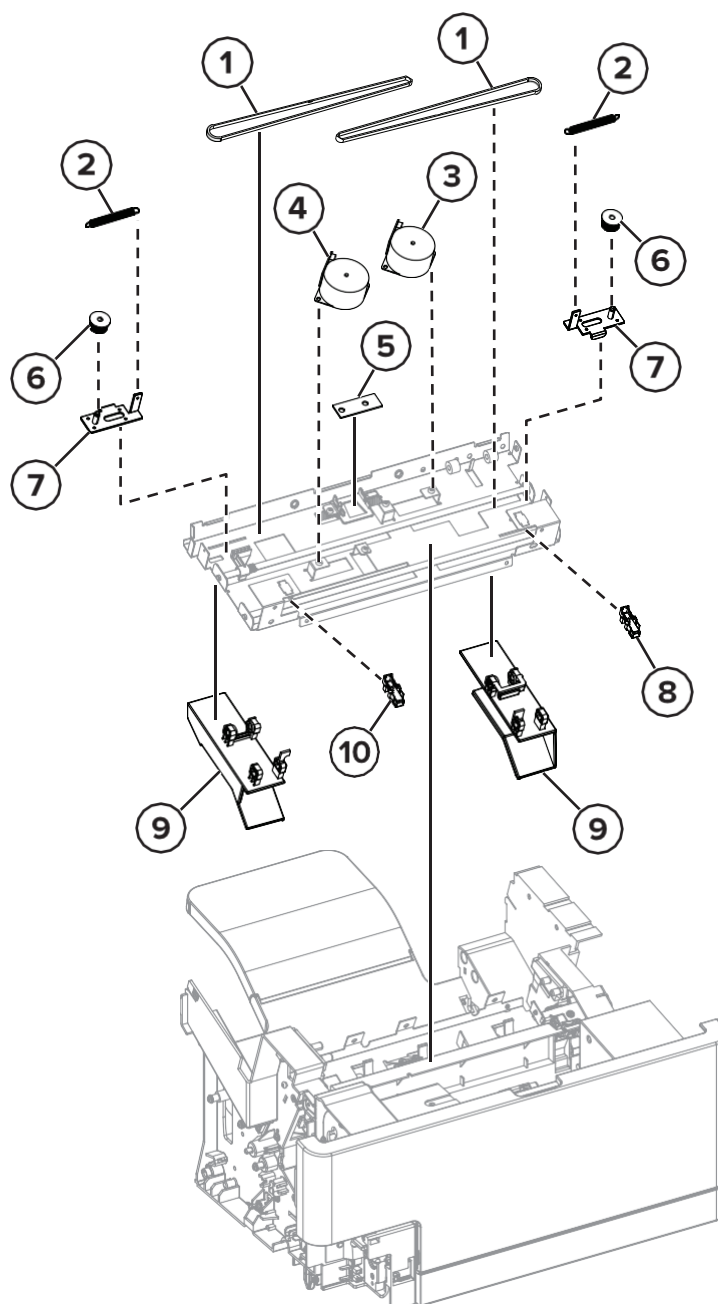
Assembly 38: Staple, hole punch finisher 2

Asm-index	Manufacture P/N	Units/mach	Units/FRU	Description	Removal procedure
1	40X8212	2	1	Tamper drive belt	--
2	41X1705	2	1	Tamper spring	--
3	40X8211	1	1	Motor (SHPF right tamper)	--
4	40X8211	1	1	Motor (SHPF left tamper)	--
5	41X1704	1	1	Staple, hole punch finisher bin LED	--
6	41X0664	2	1	Tamper gear	--
7	41X2196	2	1	Tamper bracket	--
8	41X1238	1	1	Sensor (SHPF left tamper)	--
9	41X2160	1	1	Tamper aligner	--
10	41X1238	1	1	Sensor (SHPF right tamper)	--

Assembly 39: Staple, hole punch finisher 3
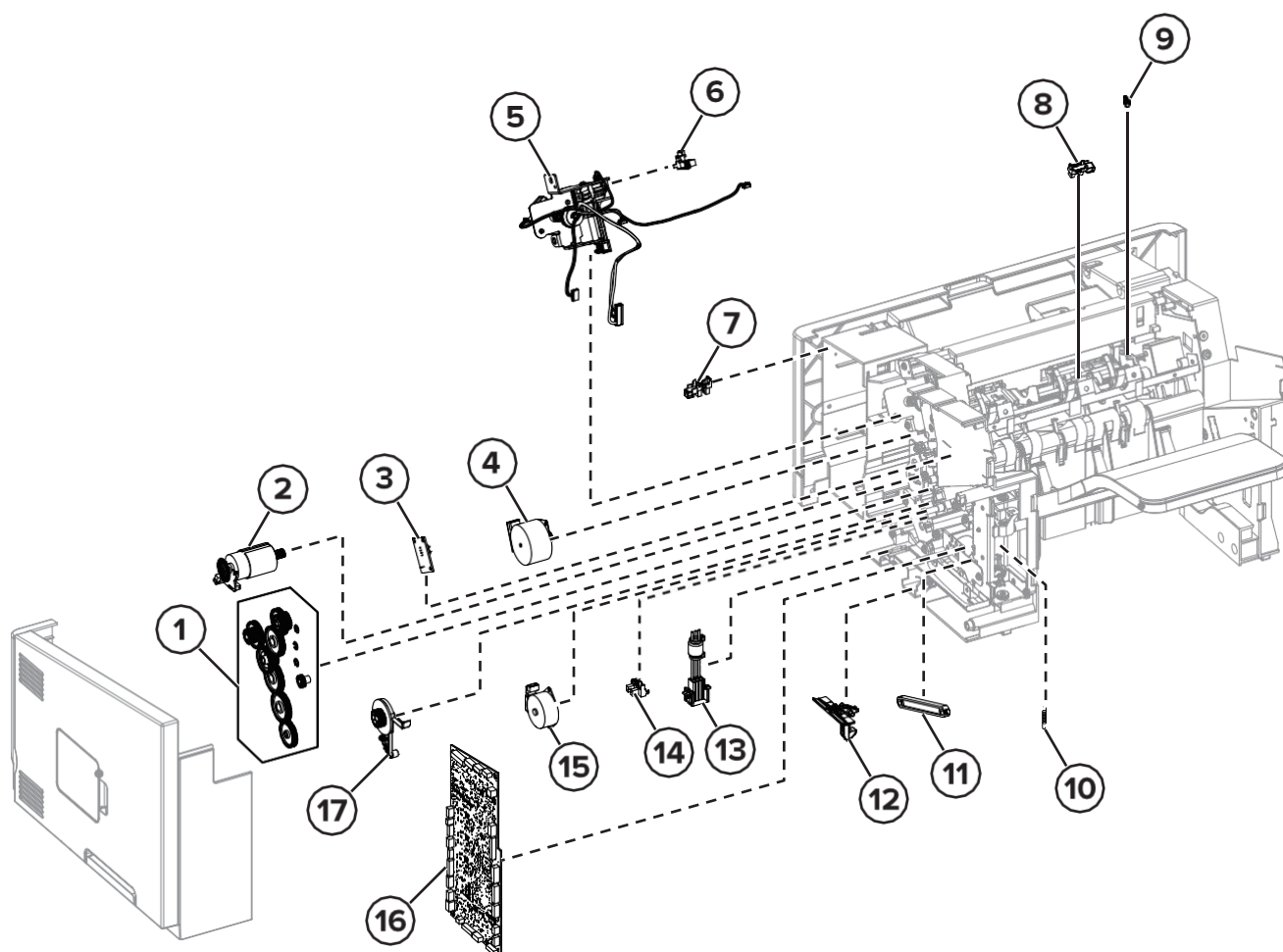
Assembly 39: Staple, hole punch finisher 3

Asm-index	Manufacture P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X2175	1	1	SHPF drive gear assembly	**"SHPF drive gear assembly removal" on page 729**
2	41X0529	1	1	Motor (SHPF transport)	**"Motor (SHPF transport) removal" on page 726**
3	41X0802	1	1	Sensor (SHPF bin full)	**"Sensor (SHPF bin full send) removal" on page 747** and **"Sensor (SHPF bin full receive) removal" on page 748**
4	40X8213	1	1	Motor (SHPF paddle)	**"Motor (SHPF paddle) removal" on page 719**
5	41X2187	1	1	SHPF stack height assembly	--
6	41X0798	1	1	Sensor (SHPF stack height)	--
7	41X1238	1	1	Sensor (SHPF rear door interlock)	**"Sensor (SHPF rear door interlock) removal" on page 731**
8	41X1238	1	1	Sensor (SHPF paddle)	**"Sensor (SHPF paddle) removal" on page 750**
9	41X2192	1	1	Paddle spring	--
10	41X1710	2	1	SHPF bin link tension spring	**"SHPF bin link tension spring removal" on page 745**
11	40X8744	2	1	SHPF bin link assembly	**"SHPF bin link assembly removal" on page 746**
12	40X8721	2	1	Staple, hole punch finisher latch	**"Staple, hole punch finisher latch removal" on page 750**
13	40X8224	1	1	Staple, hole punch finisher interface cable	**"Staple, hole punch finisher interface cable removal" on page 724**
14	41X0798	1	1	Sensor (SHPF diverter plunger)	--
15	40x8256	1	1	Motor (SHPF diverter plunger)	**"Motor (SHPF diverter plunger) removal" on page 725**
16	41X1708	1	1	Staple, hole punch finisher controller board	**"Staple, hole punch finisher controller board removal" on page 718**
17	40X8722	1	1	SHPF diverter plunger assembly	**"SHPF diverter plunger assembly removal" on page 728**

Assembly 40: Staple, hole punch finisher 4
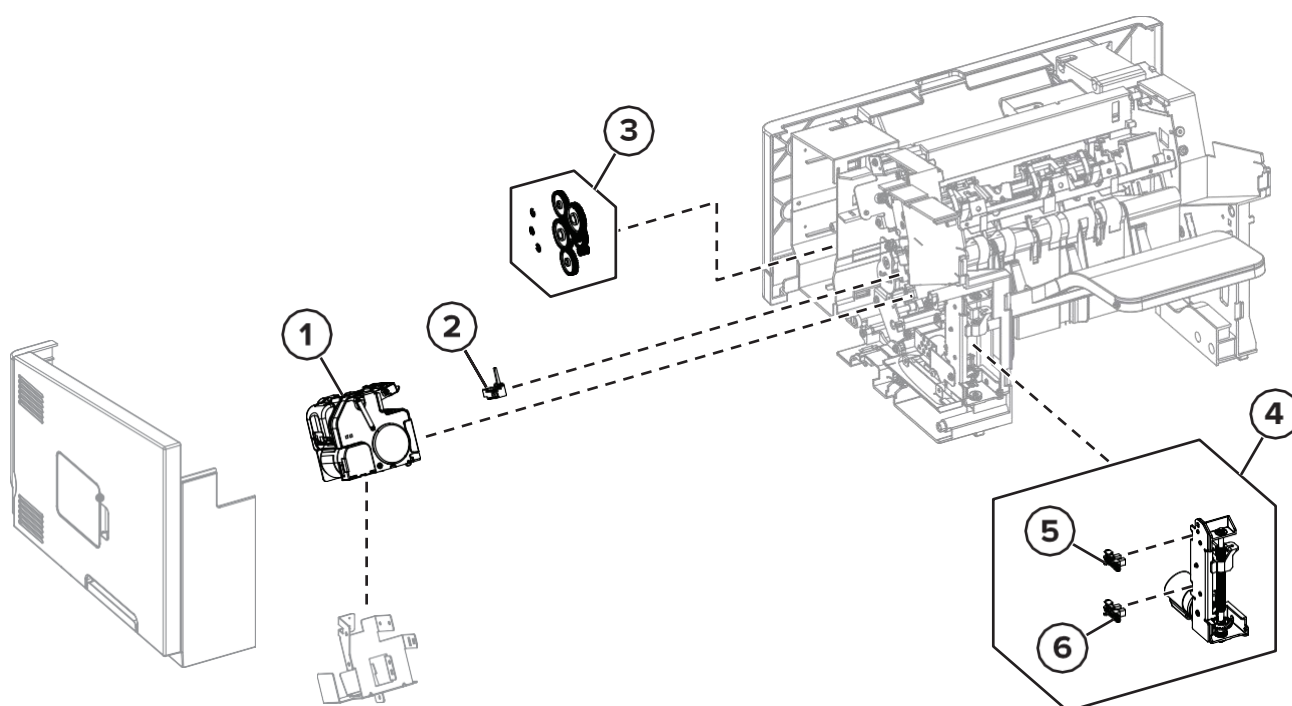
Assembly 40: Staple, hole punch finisher 4

Asm-index	Manufacture P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X0654	1	1	Left staple unit	**"Left staple unit removal" on page 722**
2	40X8745	2	1	Sensor (SHPF staple throat paper present)	**"Left staple unit removal" on page 722**
3	41X2175	1	1	SHPF drive gear assembly	**"Punch drive gears removal" on page 733**
4	41X1709	1	1	Staple, hole punch finisher elevator drive	**"Staple, hole punch finisher elevator drive removal" on page 735**
5	41X0709	1	1	Sensor (SHPF elevator, top)	**"Staple, hole punch finisher elevator drive removal" on page 735**
6	41X0709	1	1	Sensor (SHPF elevator, bottom)	**"Staple, hole punch finisher elevator drive removal" on page 735**

Assembly 41: Staple, hole punch finisher 5
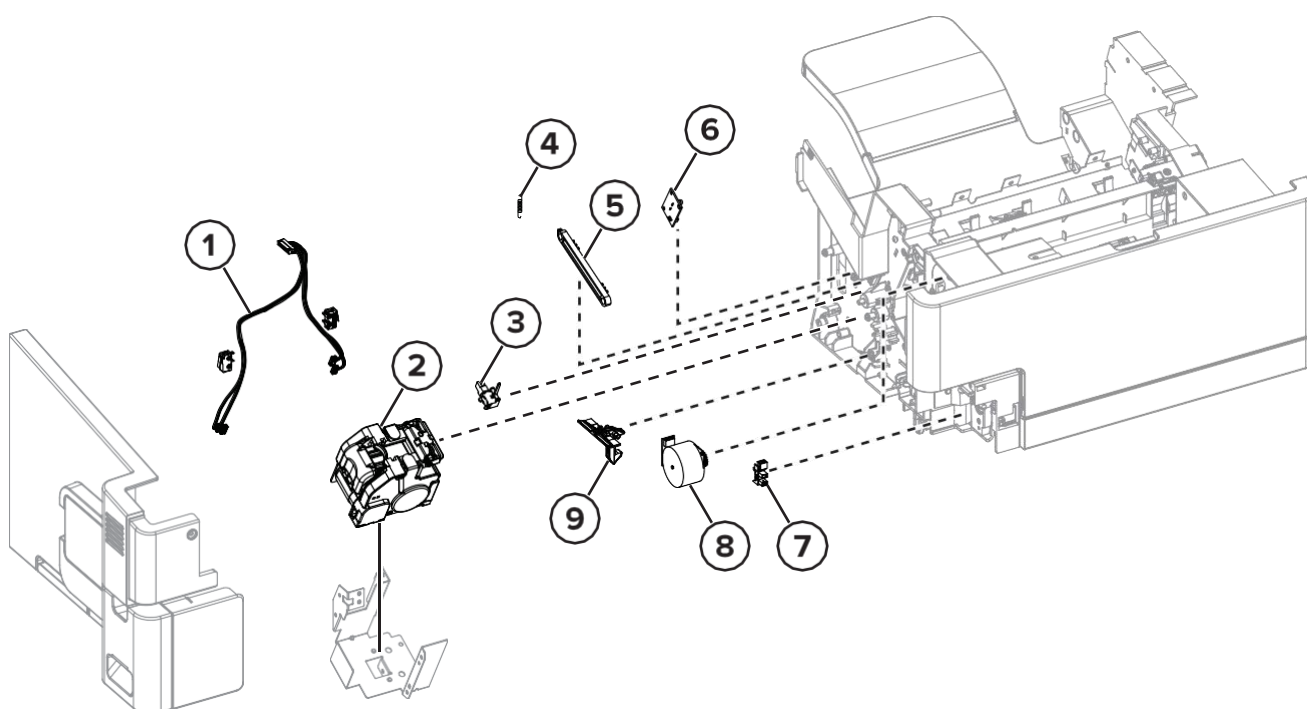
Assembly 41: Staple, hole punch finisher 5

Asm-index	Manufacture P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X1702	1	1	SHPF staple cartridge door close limit switch	**"SHPF staple cartridge door close limit switch removal" on page 719**
2	41X0654	1	1	Right staple unit	**"Right staple unit removal" on page 739**
3	40X8745	2	1	Sensor (SHPF staple throat paper present)	**"Sensor (SHPF staple throat paper present) removal" on page 742**
4	40X8742	2	1	SHPF bin link tension spring	**"SHPF bin link tension spring removal" on page 745**
5	40X8744	2	1	SHPF bin link assembly	**"SHPF bin link assembly removal" on page 746**
6	41X0802	1	1	Sensor (bin full)	**"Sensor (SHPF bin full send) removal" on page 747** and **"Sensor (SHPF bin full receive) removal" on page 748**
7	41X1238	1	1	Sensor (hole punch box present)	**"Sensor (hole punch box present) removal" on page 741**
8	41X2178	1	1	Motor (HPU carriage)	**"Motor (HPU carriage) removal" on page 739**
9	40X8721	2	1	Staple, hole punch finisher latch	**"Staple, hole punch finisher latch removal" on page 750**

Printer specifications

Power consumption

Product power consumption

The following table documents the power consumption characteristics of the product.

Note: Some modes may not apply to your product.

Mode	Description	Power consumption (Watts)
Printing	The product is generating hard-copy output from electronic inputs.	670 (MX-B557P) 830 (MX-B707P)
Copy	The product is generating hard-copy output from hard-copy original documents.	N/A
Scan	The product is scanning hard-copy documents.	N/A
Ready	The product is waiting for a print job.	High power usage: 39 (MX-B557P) 38.5 (MX-B707P) Low power usage: 21.5 (MX-B557P) 21 (MX-B707P)
Sleep Mode	The product is in a high-level energy-saving mode.	1.4 (MX-B557P MX-B707P)
Hibernate	The product is in a low-level energy-saving mode.	0.2
Off	The product is plugged into an electrical outlet, but the power switch is turned off.	0.2

The power consumption levels listed in the previous table represent time-averaged measurements. Instantaneous power draws may be substantially higher than the average.

Values are subject to change without notice.

Sleep Mode

This product is designed with an energy-saving mode called *Sleep Mode*. The Sleep Mode saves energy by lowering power consumption during extended periods of inactivity. The Sleep Mode is automatically engaged after this product is not used for a specified period of time, called the *Sleep Mode Timeout*.

Factory default Sleep Mode Timeout for this product (in minutes):	15

By using the configuration menus, the Sleep Mode Timeout can be modified between 1 minute and 120 minutes. Setting the Sleep Mode Timeout to a low value reduces energy consumption, but may increase the response time of the product. Setting the Sleep Mode Timeout to a high value maintains a fast response, but uses more energy.

Hibernate Mode

This product is designed with an ultra-low power operating mode called *Hibernate mode*. When operating in Hibernate Mode, all other systems and devices are powered down safely.

The Hibernate mode can be entered in any of the following methods:

- Using the Hibernate Timeout
- Using the Schedule Power modes

Factory default Hibernate Timeout for this product in all countries or regions	3 days

The amount of time the printer waits after a job is printed before it enters Hibernate mode can be modified between one hour and one month.

Off mode

If this product has an off mode which still consumes a small amount of power, then to completely stop product power consumption, disconnect the power supply cord from the electrical outlet.

Total energy usage

It is sometimes helpful to calculate the total product energy usage. Since power consumption claims are provided in power units of Watts, the power consumption should be multiplied by the time the product spends in each mode in order to calculate energy usage. The total product energy usage is the sum of each mode's energy usage.

Selecting a location for the printer

When selecting a location for the printer, leave enough room to open trays, covers, and doors and to install hardware options.

- Set up the printer near an electrical outlet.

  ⚠ CAUTION—POTENTIAL INJURY: To avoid the risk of fire or electrical shock, connect the power cord to an appropriately rated and properly grounded electrical outlet that is near the product and easily accessible.

  ⚠ CAUTION—SHOCK HAZARD: To avoid the risk of electrical shock, do not place or use this product near water or wet locations.

- Make sure that airflow in the room meets the latest revision of the ASHRAE 62 standard or the CEN Technical Committee 156 standard.
- Provide a flat, sturdy, and stable surface.
- Keep the printer:
  - Clean, dry, and free of dust.
  - Away from stray staples and paper clips.

- – Away from the direct airflow of air conditioners, heaters, or ventilators.
- – Free from direct sunlight and humidity extremes.
- • Observe the recommended temperatures and avoid fluctuations:

Ambient temperature	10 to 32.2°C (50 to 90°F)
Storage temperature	0 to 40°C (32 to 104°F)

- • Allow the following recommended amount of space around the printer for proper ventilation:

1	Top	152 mm (6 in.)
2	Right side	152 mm (6 in.)
3	Front	406 mm (16 in.) **Note:** The minimum space needed in front of the printer is 76 mm (3 in.).
4	Left side	152 mm (6 in.)
5	Rear	152 mm (6 in.)

Noise emission levels

The following measurements were made in accordance with ISO 7779 and reported in conformance with ISO 9296.

Note: Some modes may not apply to your product.

1-meter average sound pressure, dBA	
Printing	57 (MX-B557P); 58 (MX-B707P)
Ready	14 (MX-B557P, MX-B707P)

Printer specifications

Values are subject to change without notice.

Temperature information

Operating temperature and relative humidity	15.3 to 32.2°C (60 to 90°F) and 8 to 80% RH
Printer / cartridge / imaging unit long-term storage[1]	1.1 to 35°C (34 to 95°F) and 8 to 80% RH Maximum wet-bulb temperature[2]: 22.8°C (73°F) Non-condensing environment
Printer / cartridge / imaging unit short-term shipping	-40 to 43.3°C (-40 to 110°F)
[1] Supplies shelf life is approximately 2 years. This is based on storage in a standard office environment at 22°C (72°F) and 45% humidity.	
[2] Wet-bulb temperature is determined by the air temperature and the relative humidity.	

Enabling the security reset jumper

The security reset jumper can reset a printer that is locked due to a forgotten password or lost network connectivity.

Notes:

- Resetting the printer deletes all security settings.
- Before changing the security settings, ask for permission from your administrator.

1 Turn off the printer.

2 Access the controller board.

3 Move the jumper to cover the middle and exposed prongs.

   Note: The small yellow jumper is located beside a lock icon on the controller board.

4 Turn on the printer.

Invalidating the effects of a jumper reset

1 From the Embedded Web Server, click **Settings** > **Security** > **Miscellaneous Security Settings**.

2 From the Security Reset Jumper menu, select **No Effect**.

   Warning: This setting disables access to the security menus of a locked printer. To regain access to the menus, replace the controller board.

3 Click **Submit**.

Notes:

- Use a cable lock to secure the controller board and prevent a malicious reset.
- For multifunction products, when the controller board is replaced, the security settings are lost and the LDAP configuration and Copy function are no longer protected.

Options and features

Available internal options

- Flash memory
- Font cards
- Firmware cards
  - Forms and Bar Code
  - PRESCRIBE
  - IPDS
- Printer hard disk
- Internal solutions port

  - Parallel 1284-B Interface Card
  - RS-232C Serial Interface Card
  - Fiber Interface Card
  - N8370 802.11b/g/n Wireless Print Server Interface Card

Optional trays supported

- 550-sheet tray
- 550-sheet lockable tray
- 250-sheet tray
- 250-sheet lockable tray
- 2100-sheet tray

Optional bins supported

- Output expander
- High capacity output expander
- 4-bin mailbox
- Staple finisher
- Staple, hole punch finisher

876

Theory of operation

Print cycle operation

Flowchart
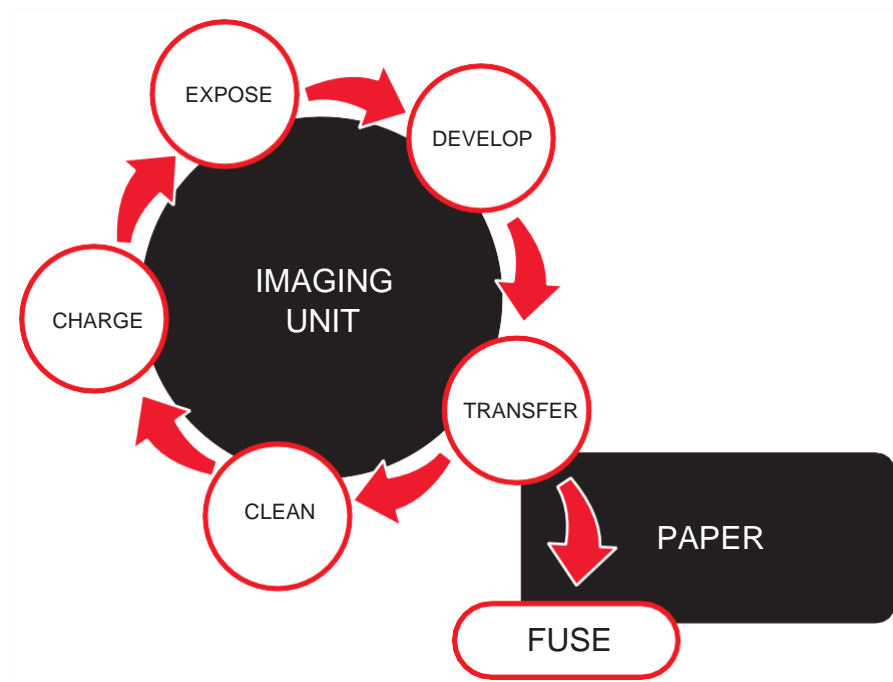
Electrophotographic (EP) process

Charge
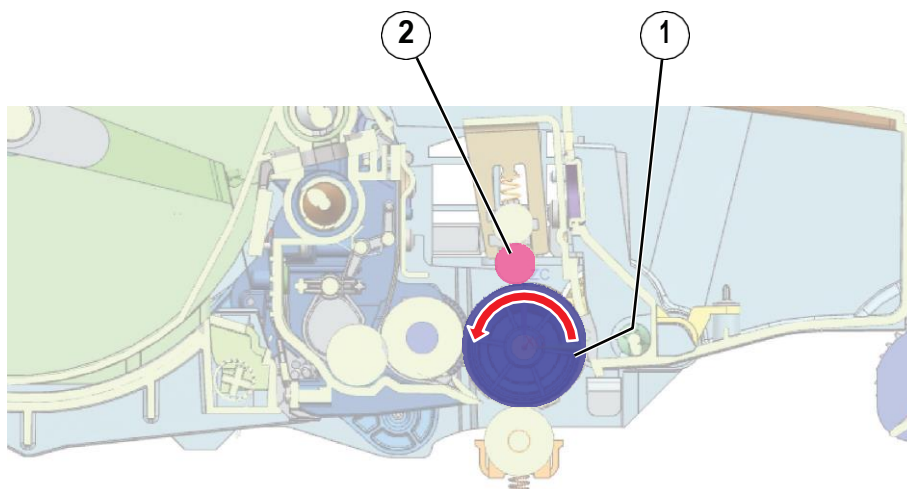
Theory of operation

| 1 | Photoconductor drum |
| 2 | Charge roller |

A uniform negative electrical charge is applied by the charge roller to the surface of the photoconductor drum. The photoconductive properties of the surface material allow it to hold the charge as long as it is not exposed to light.

Expose
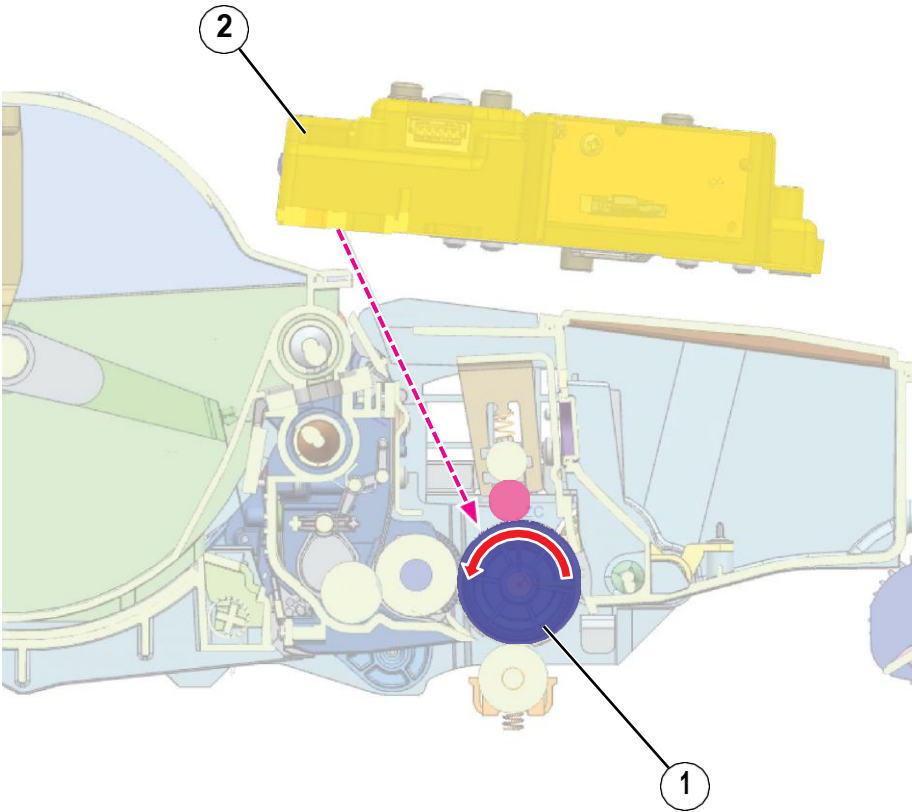
| 1 | Photoconductor drum |
| 2 | Printhead |

The printhead emits the light that contacts the surface of the photoconductor drum. The light turns on or off coinciding with the digital latent image. The light causes areas of the photoconductor drum surface to lose charge, resulting in a relative opposite polarity.

Develop
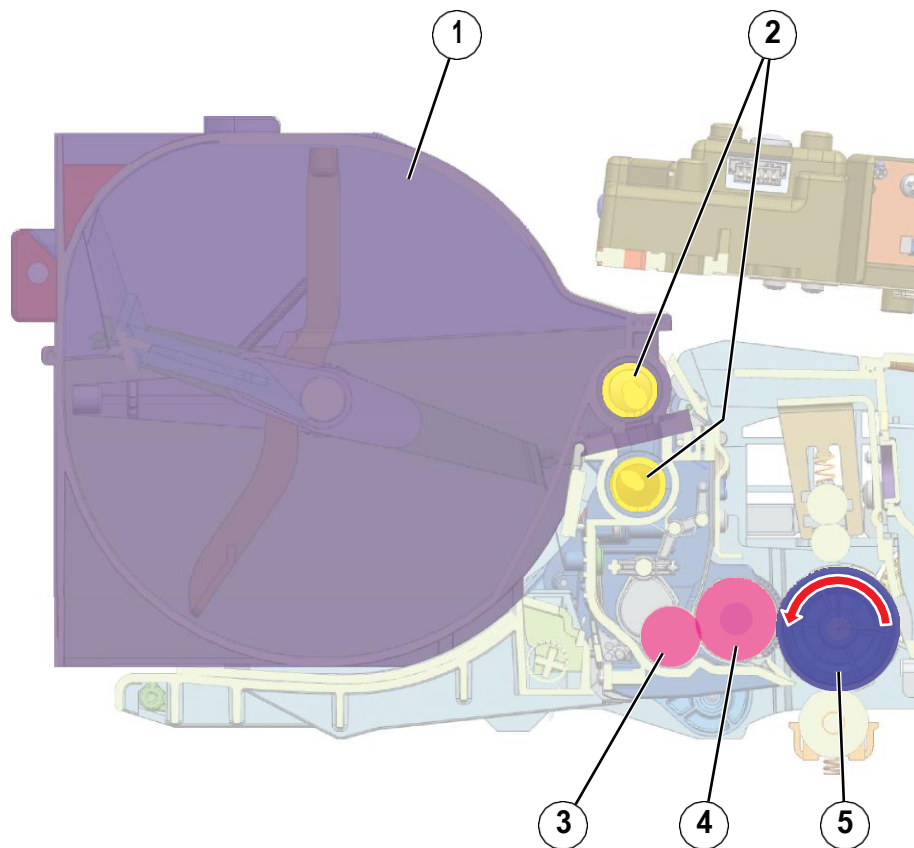
1	Toner cartridge
2	Augers
3	Toner add roller
4	Developer roller
5	Photoconductor drum

The developer roller applies the toner from the toner cartridge to the photoconductor drum. The difference in charge cause the toner particles to attract to the photoconductor drum areas which were exposed to light.

Transfer

1	Photoconductor drum
2	Transfer roller
3	Paper
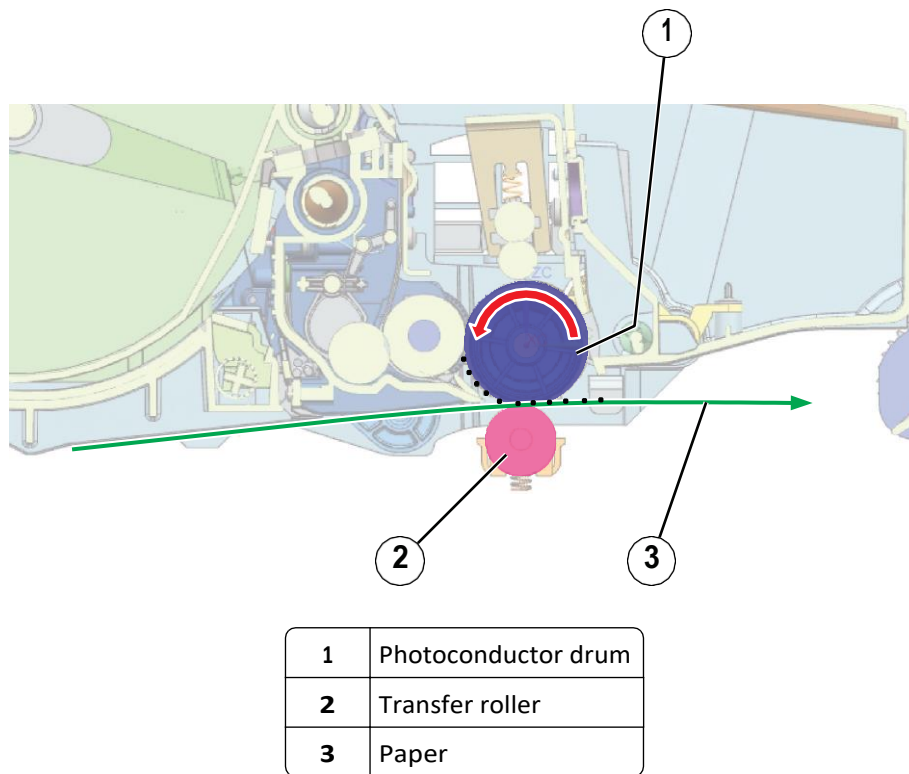
The developed image transfers from the photoconductor drum to the paper. The polarity of the transfer roller attracts the toner to the paper surface.

Clean
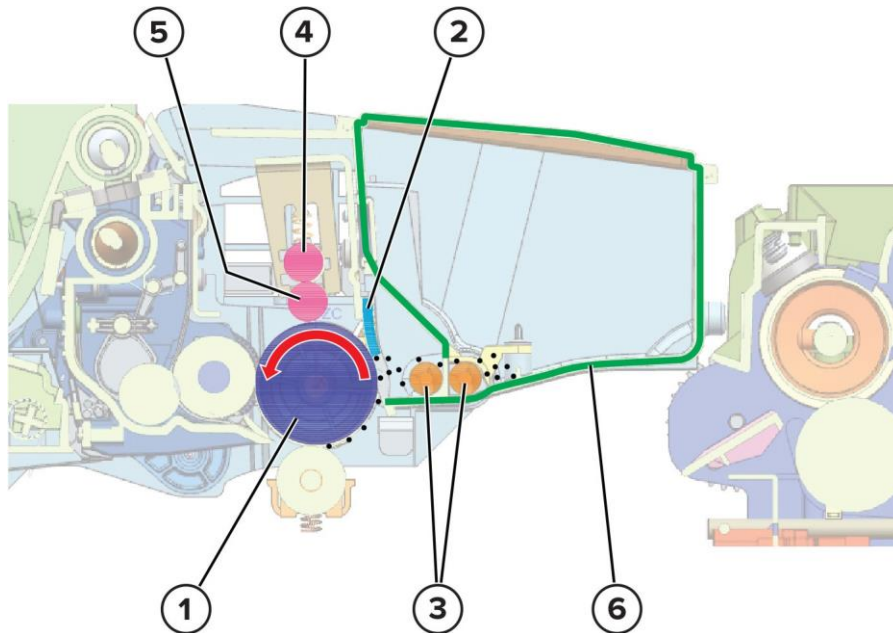
1	Photoconductor drum
2	Cleaning blade
3	Augers
4	Cleaning roller
5	Charge roller
6	Waste toner chamber

The cleaning blade removes the toner residue from the photoconductor drum. The cleaning roller removes the toner residue from the charge roller. The cycle (charge, expose, develop, transfer, clean) repeats until the whole image is transferred to the paper.

Fuse
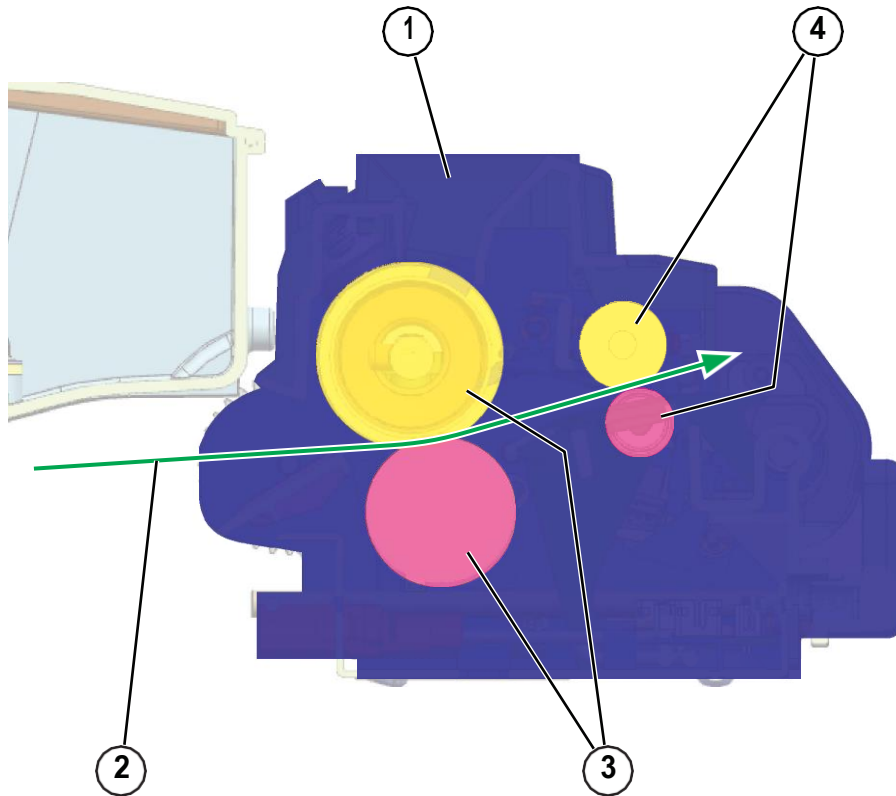
1	Fuser unit
2	Paper
3	Fuser rollers
4	Fuser exit rollers

Even if the toner image is already on the paper, the toner particles are not yet permanently bonded to the surface. For the final part of printing, the paper is transported to the fuser where heat and pressure are applied to it. As a result, the toner particles melt and permanently fuse with the paper, completing the print process. The cycle repeats for the succeeding pages.

Fresh toner delivery drive
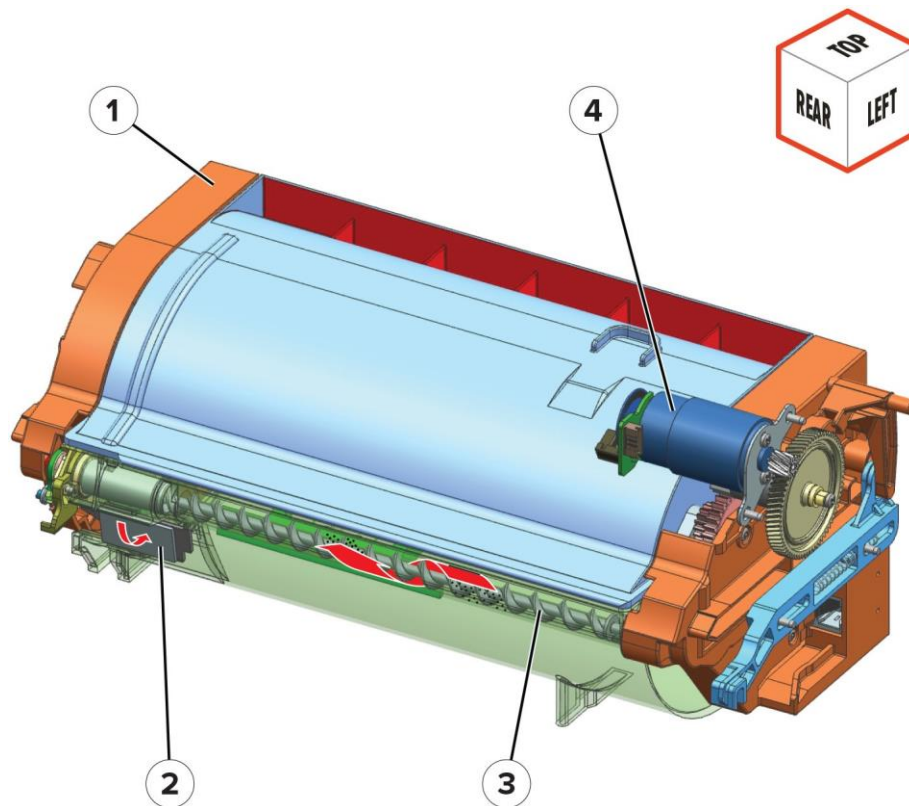
1	Toner cartridge
2	Shutter
3	Auger
4	Motor (toner cartridge)

The toner cartridge supplies fresh toner to the imaging unit. When the cartridge is installed, the shutter opens to enable toner delivery. Inside the cartridge, paddles agitate the toner to ensure proper circulation. The auger directs the toner particles toward the toner outlet. The paddles and auger are driven by the motor (toner cartridge).

Main drive
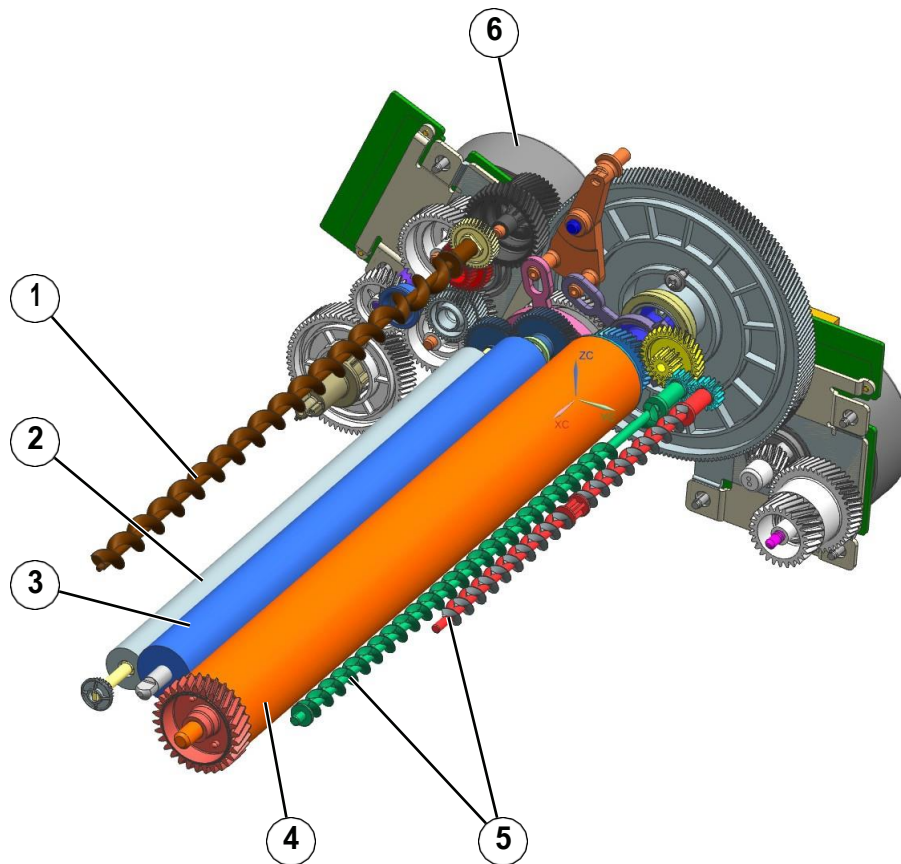
1	Developer auger
2	Toner add roller
3	Developer roller
4	Photoconductor drum
5	Waste toner augers
6	Motor (main)

Inside the imaging unit, the developer roller applies the toner to the photoconductor drum surface. The developer auger and toner add roller ensure that the proper amount of toner is supplied. Inside the waste toner chamber, waste toner augers collect the waste toner. These augers also maximize the waste toner container capacity. The augers, rollers, and photoconductor drum are driven by the motor (main).

Theory of operation

Printer operation

Printer sections
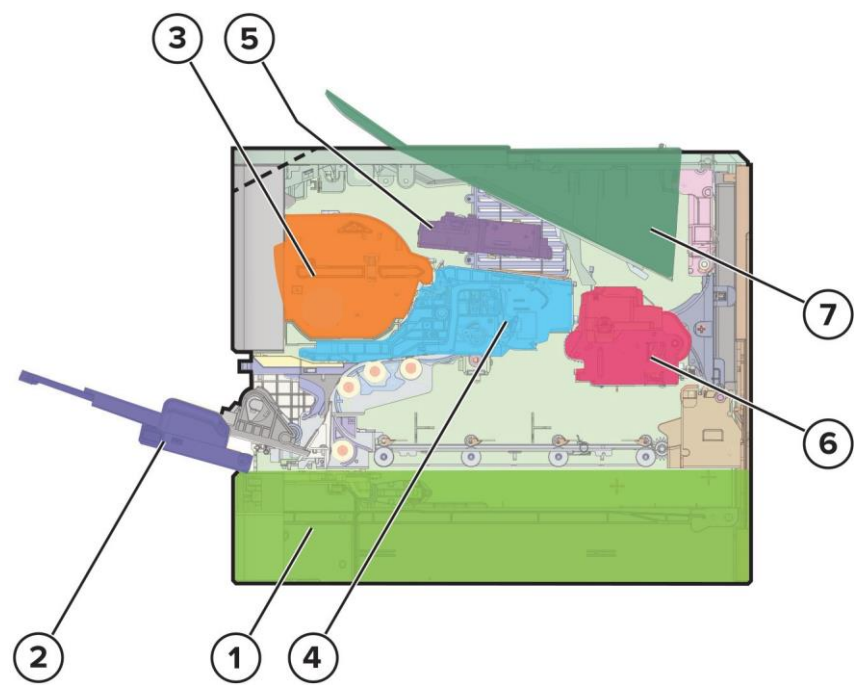
1	Tray 1
2	MPF
3	Toner cartridge
4	Imaging unit
5	Printhead
6	Fuser
7	Bin

Printer paper path rollers
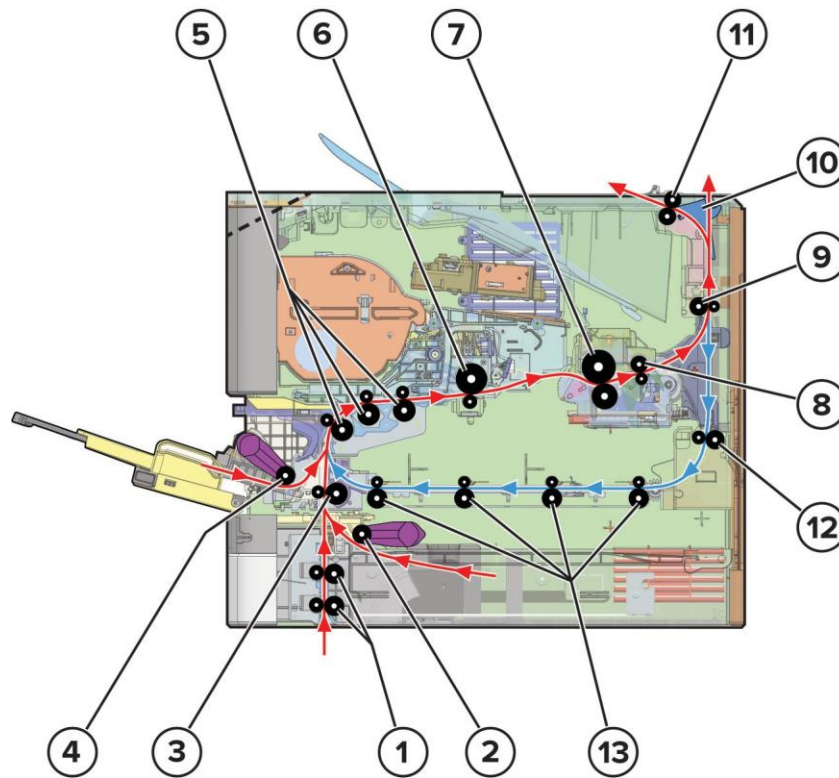
1	Transport rollers
2	Tray 1 pick roller
3	Lower aligner roller
4	MPF pick roller
5	Upper aligner rollers
6	Photoconductor drum
7	Fuser roller/belt
8	Fuser exit roller
9	Lower redrive roller
10	Diverter
11	Upper redrive roller
12	Duplex entry roller
13	Duplex aligner rollers

Paper is fed from tray 1, MPF, or optional trays.

By default, paper will travel along the standard paper path (in red). For print jobs on the opposite page of the paper, paper will reenter the printer following the duplex paper path (in blue).

When the print job is done, paper exits the printer into the bin or goes up to the next optional bin.

Printer paper path sensors
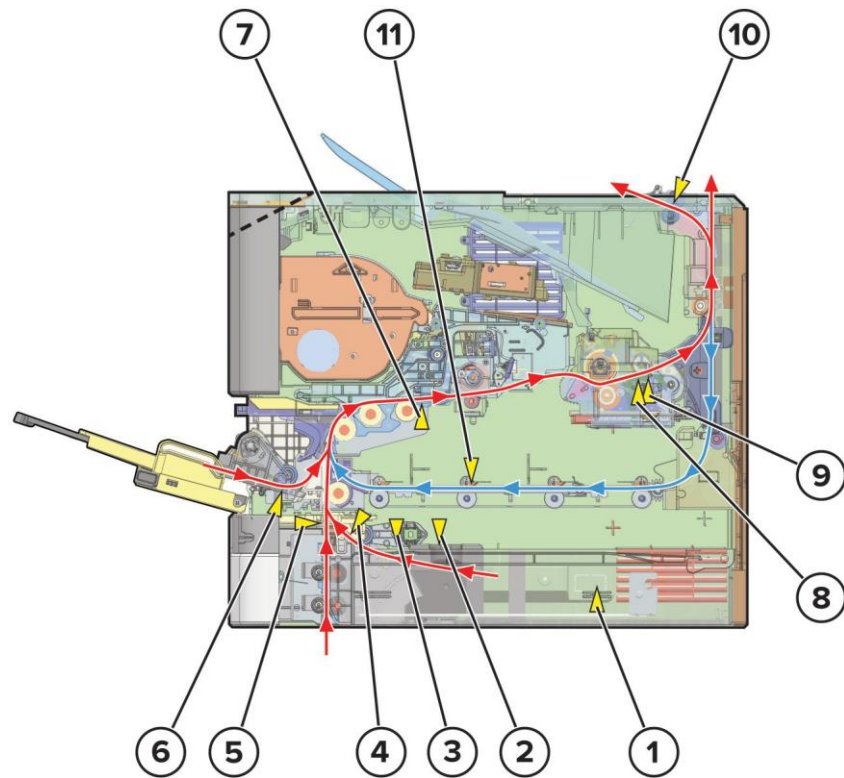
#	Sensor	Functions
1	Sensor (paper size)	Detects the position of paper guides for determining size.
2	Sensor (tray 1 paper present)	Detects the presence or absence of paper on the tray.
3	Sensor (pick position)	Detects if the pick roller is in position to pick.
4	Sensor (pick)	Detects the paper as it is picked and fed to the printer.
5	Sensor (tray 1 pass-through)	Detects the paper fed from optional trays as it enters the printer.
6	Sensor (MPF paper present)	Detects the presence or absence of paper on the MPF tray.
7	Sensor (input)	Detects the paper as it passes the transfer roller.
8	Sensor (fuser exit)	Detects the paper as it passes the fuser.
9	Sensor (narrow media) **Note:** This part is found in hot roll fusers only.	Detects if the paper width is narrow.
10	Sensor (exit)	Detects the paper as it exits onto the bin.
11	Sensor (duplex path)	Detects the paper as it travels the duplex paper path.

Tray pick and lift drive
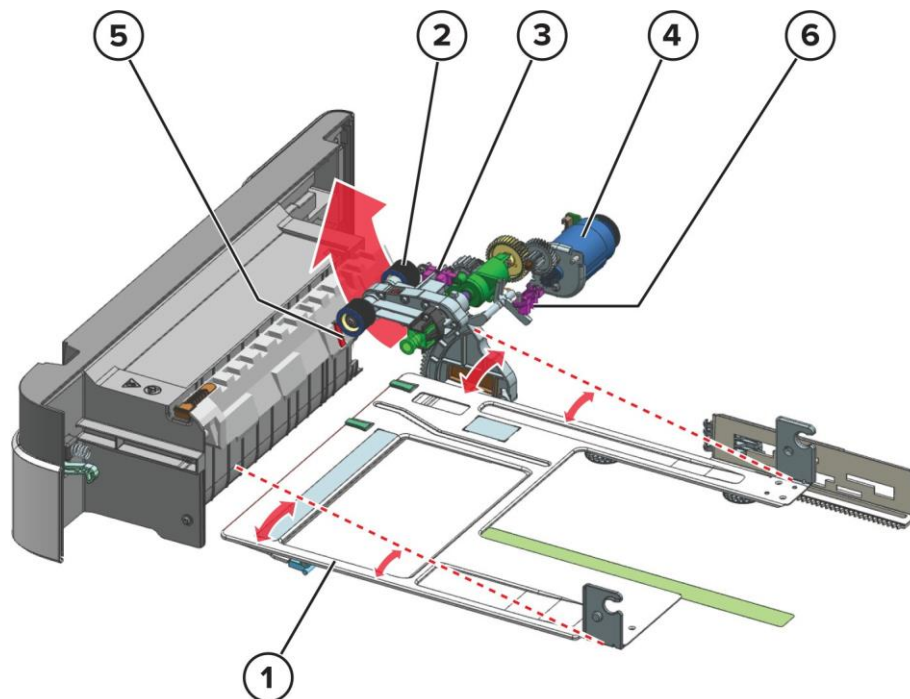
1	Lift plate
2	Pick roller
3	Sensor (pick position)
4	Motor (pick/lift)
5	Separator pad
6	Sensor (paper present)

Paper is lifted by the lift plate until the sensor (pick position) is triggered. The motor (pick/lift) starts, and then enables the pick roller to feed the paper into the printer.

Note: The motor (pick/lift) also drives the lift plate when rotating in reverse.

To avoid multi-sheet picking, the friction from the separator pad prevents the extra paper from entering the printer.

The sensor (paper present) detects if the tray is empty.

Theory of operation
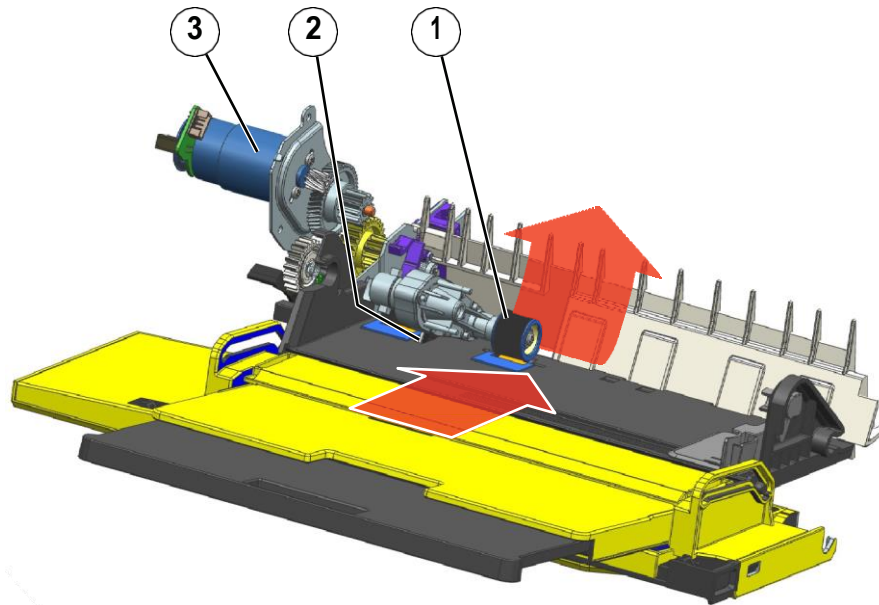
MPF pick drive

1	Pick roller
2	Sensor (MPF paper present)
3	Motor (MPF)

The MPF pick roller feeds the paper into the printer.

The motor (MPF) controls the pick roller. The sensor (MPF paper present) detects if the MPF tray is empty.

Lower transport drive
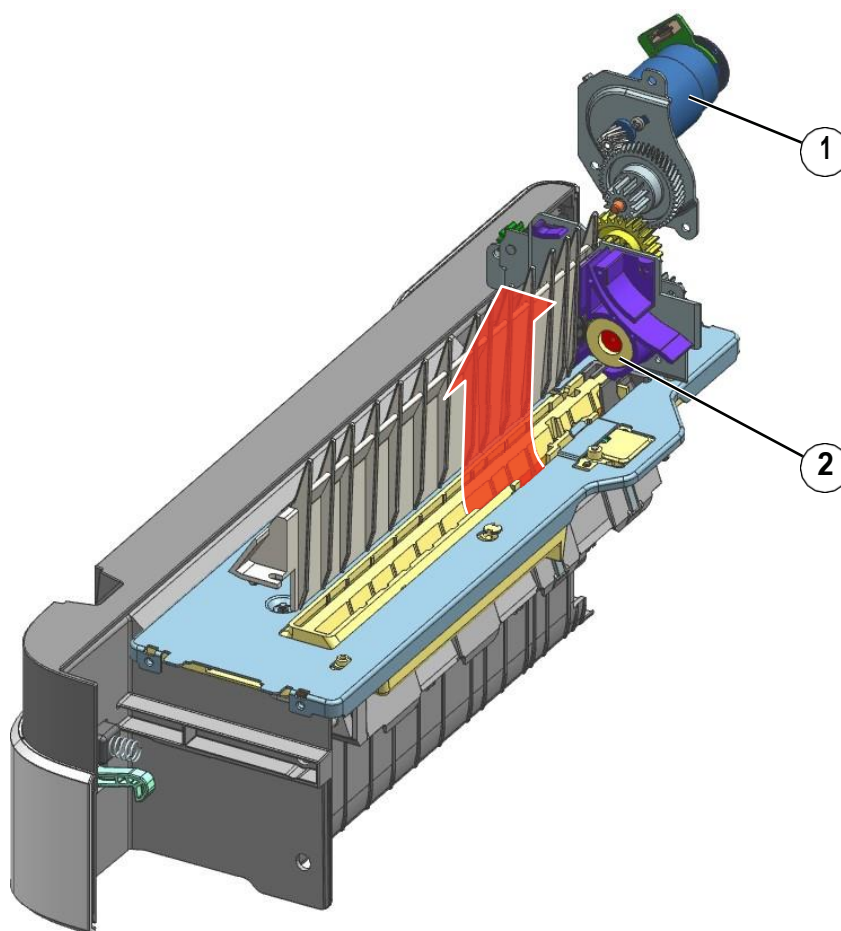
1	Motor (MPF)
2	Lower aligner roller

The motor (MPF) also drives the lower aligner roller.

The roller receives the paper fed from the standard tray or the optional trays.

Main drive
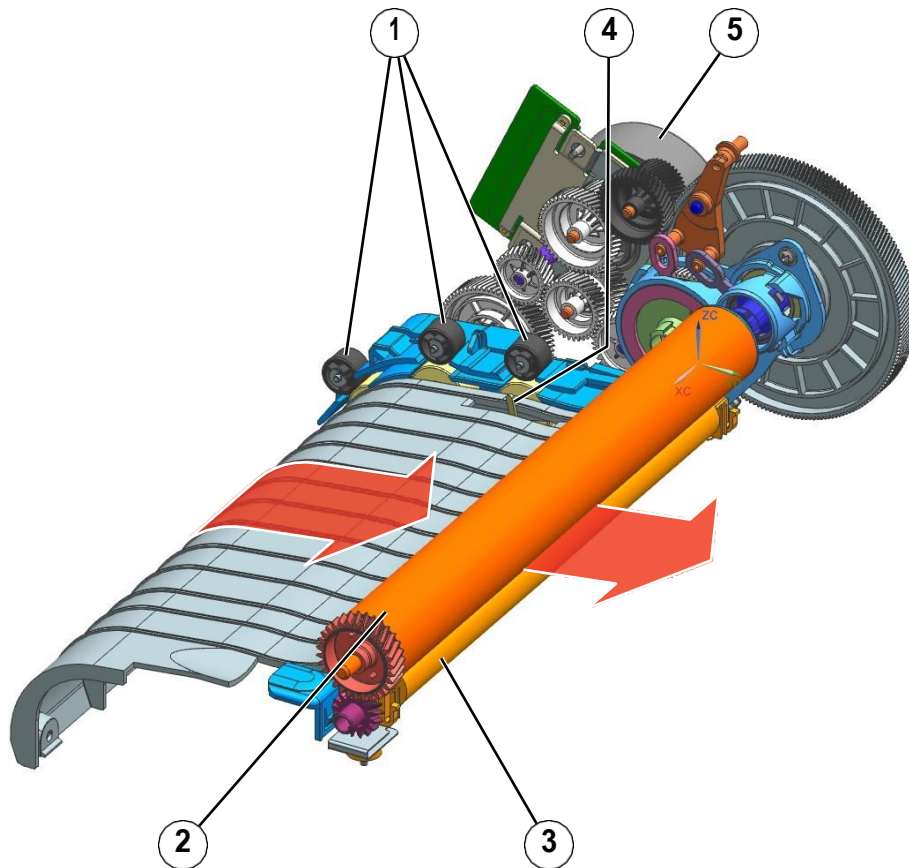
1	Upper aligner rollers
2	Photoconductor drum
3	Transfer roller
4	Sensor (input)
5	Motor (main)

The paper is aligned to its reference edge by the aligner rollers. As the paper is transported by the aligner rollers to the transfer roller, it is detected by the sensor (input).

The upper aligner roller, photoconductor drum, and transfer roller are driven by the motor (main).

Theory of operation

Fuser drive
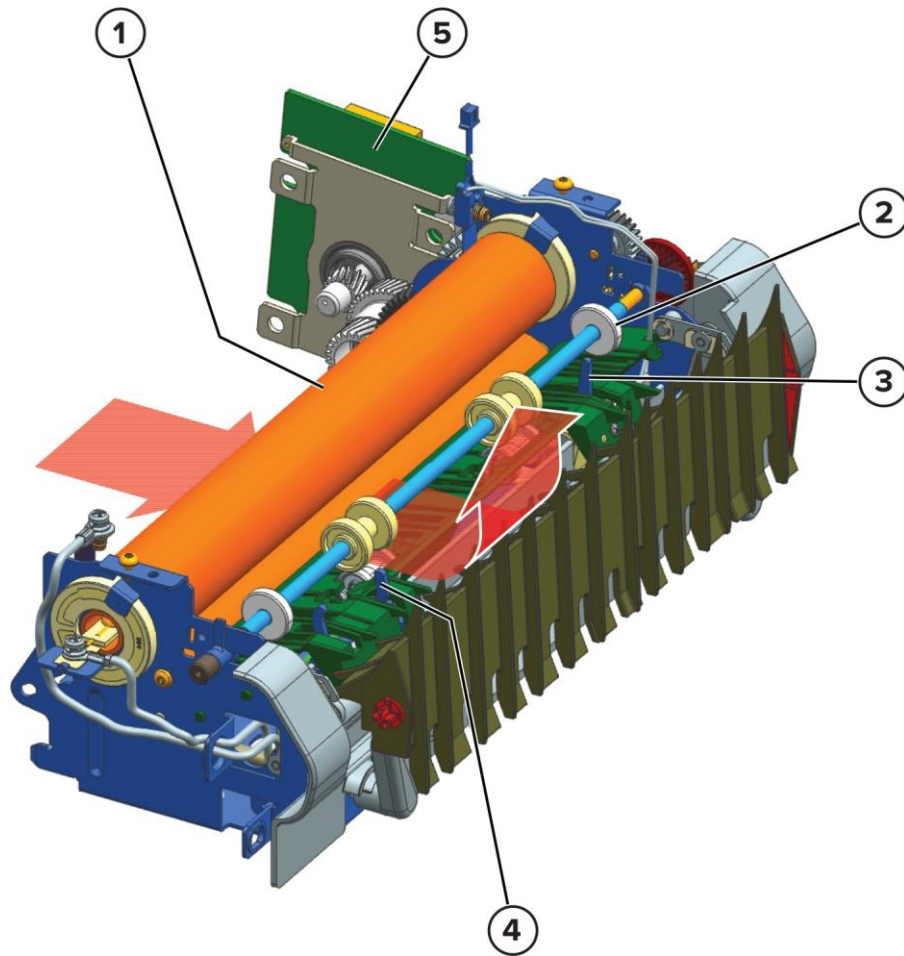
1	Fuser roller/belt
2	Fuser exit roller
3	Sensor (fuser exit)
4	Sensor (narrow media)
	Note: This parts is found in hot roll fusers only.
5	Motor (fuser)

As the paper passes the fuser roller, heat and pressure are applied to permanently bond the toner to the paper.

The fuser exit roller transports the paper to the exit path. The sensor (fuser exit) detects the paper. The sensor (narrow media) is triggered if the paper is narrow.

The motor (fuser) drives the fuser roller and fuser exit roller.

Fuser components
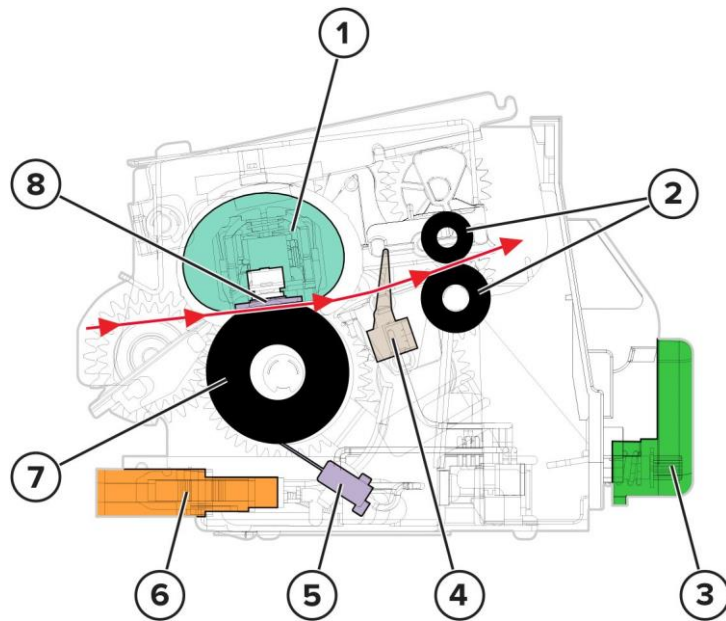
Belt fuser components

#	Part	Function
1	Hot belt	Applies heat to the paper.
2	Fuser exit rollers	Transports the paper out of the fuser.
3	Knob	Locks or unlocks the fuser.
4	Sensor (fuser exit)	Detects the paper passing the fuser.
5	Thermistor	Detects the temperature of the fuser.
6	Connector	Automatically connects the fuser to the printer when inserting the fuser.
7	Pressure roller	Applies pressure to the paper.
8	Heater bar	Supplies heat to the fusing process.

Theory of operation
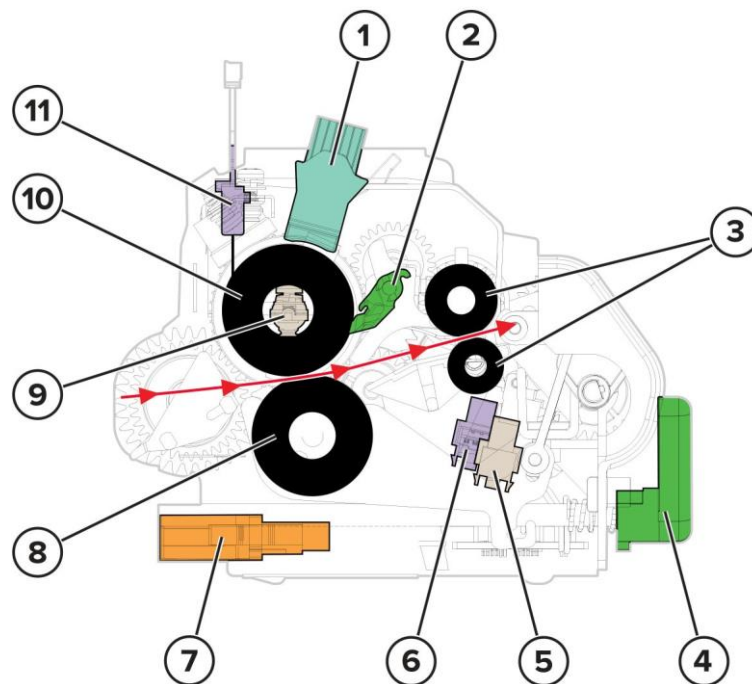
Hot roll fuser components

#	Part	Function
1	Fuser wiper	Cleans the roller.
2	Detack finger	Separates the paper from the roller.
3	Fuser exit rollers	Transports the paper out of the fuser.
4	Knob	Locks or unlocks the fuser.
5	Sensor (narrow media)	Detects paper with narrow width.
6	Sensor (fuser exit)	Detects the paper passing the fuser.
7	Connector	Automatically connects the fuser to the printer after inserting the fuser.
8	Pressure roller	Applies pressure to the paper.
9	Heater lamp	Supplies heat to the fusing process.
10	Hot roller	Applies heat to the paper.
11	Thermistor	Detects the temperature of the fuser.

Upper redrive drive

Exit path
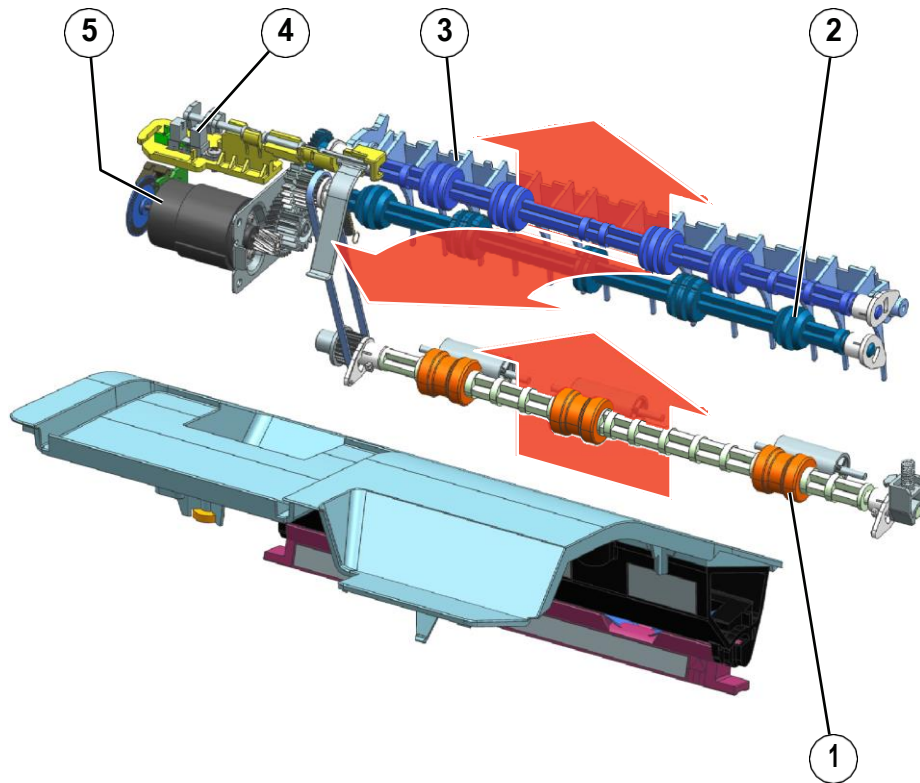
1	Lower redrive roller
2	Upper redrive roller
3	Diverter
4	Sensor (bin full)
5	Motor (redrive)

Paper is ejected by the upper redrive rollers to the bin. By default, the diverter will direct the paper toward the bin. If a plunger changes the position of the diverter, then the paper will move upwards to the optional bin.

The redrive rollers are controlled by the motor (redrive). The sensor (bin full) senses if the bin is already full.

Theory of operation

Duplex path
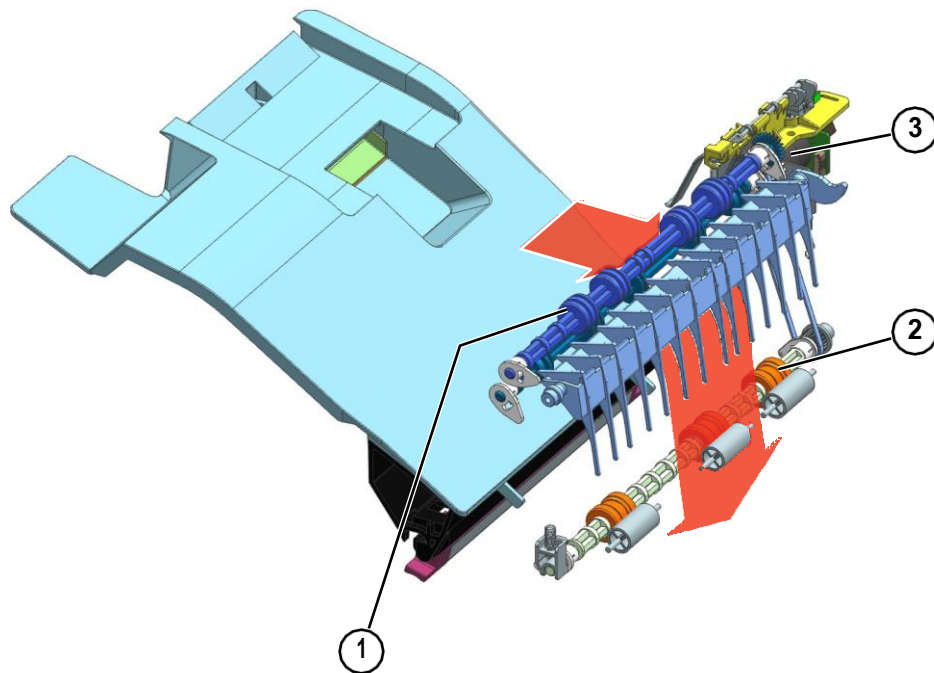
1	Upper redrive roller
2	Lower redrive roller
3	Motor (redrive)

For duplex print jobs, the redrive rollers reverse their rotations to feed the paper back to the printer following the duplex paper path.

The motor (redrive) controls the redrive rollers.

Theory of operation

Duplex transport drive
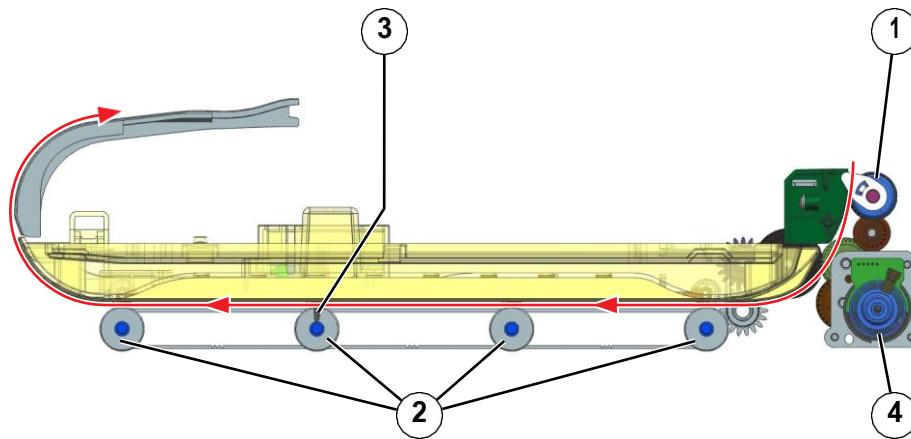
1	Duplex entry roller
2	Duplex aligner rollers
3	Sensor (duplex path)
4	Motor (duplex)

For duplex print jobs, paper from the redrive rollers enters the duplex entry roller. Aligner rollers along the duplex paper path feed the paper back to the standard paper path (see **"Main drive" on page 891**). The aligner rollers also align the paper along the reference edge.

The sensor (duplex path) detects the paper as it travels along the duplex path. The motor (duplex) drives the duplex rollers.

Optional 250- and 550-sheet tray operation

250- and 550-sheet tray paper path rollers
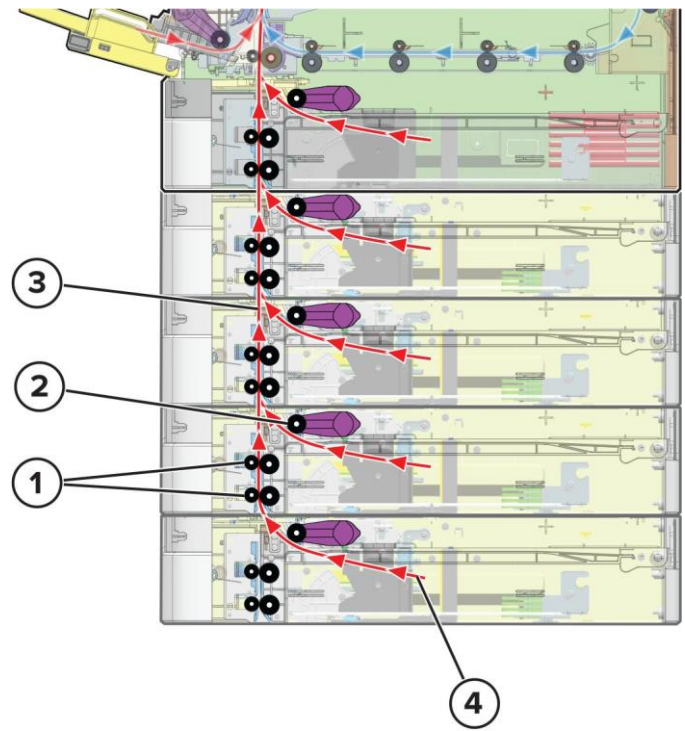
1	Transport rollers
2	Pick roller
3	Pass-through path
4	Feed path

Paper from the optional trays is fed into the printer through the pick rollers.

Multiple optional trays use the transport rollers to receive paper from the lower trays.

250- and 550-sheet tray paper path sensors
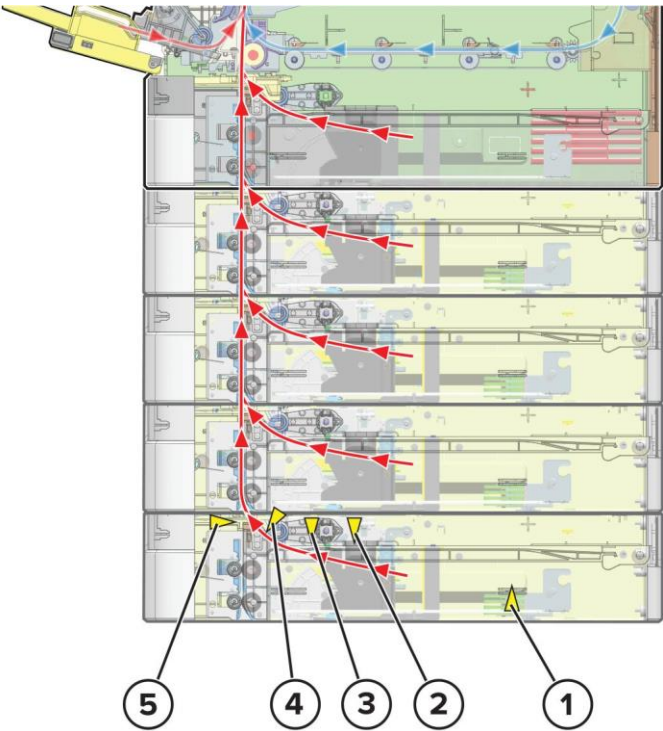
#	Sensor	Functions
1	Sensor (paper size)	Detects the position of the paper guides
2	Sensor (paper present)	Detects paper presence in the tray
3	Sensor (pick roller index)	Detects the position of the pick roller
4	Sensor (pick)	Detects paper as it is picked and fed to the printer
5	Sensor (pass-through)	Detects paper that is fed from the lower trays as it enters the printer

Paper presence and size detection
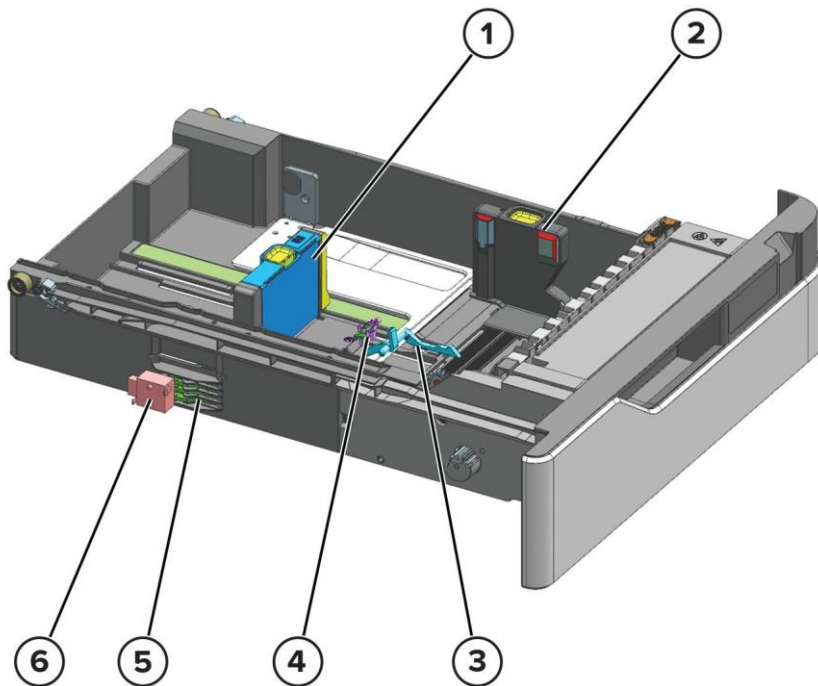
1	Paper length guide
2	Paper width guide
3	Paper presence sensor actuator
4	Sensor (paper present)
5	Paper size sensor actuator
6	Sensor (paper size)

The paper size is detected based on the length guide position. The width guide prevents deskewing.

The fingers of the paper size sensor actuator move according to the position of the paper length guide. The sensor (paper size) detects the formation of the actuator and determines the dimensions of the paper.

When the tray is empty, the paper presence sensor actuator triggers the sensor (paper present).

Tray pick and lift drive
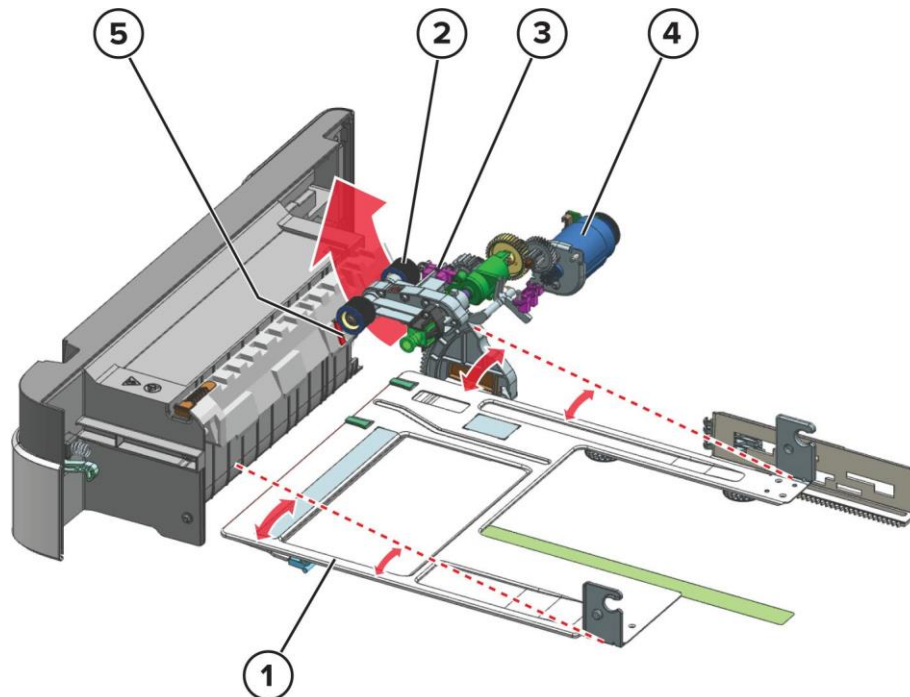
1	Lift plate
2	Pick roller
3	Sensor (pick roller index)
4	Motor (pick/lift)
5	Separator pad

The lift plate lifts the paper until the sensor (pick roller index) is triggered. The motor (pick/lift) starts, and then enables the pick roller to feed the paper into the printer or upper trays.

Note: The motor (pick/lift) also drives the lift plate when rotating in reverse.

To avoid multiple-sheet picking, the friction from the separator pad prevents the extra paper from entering the printer.

Transport drive
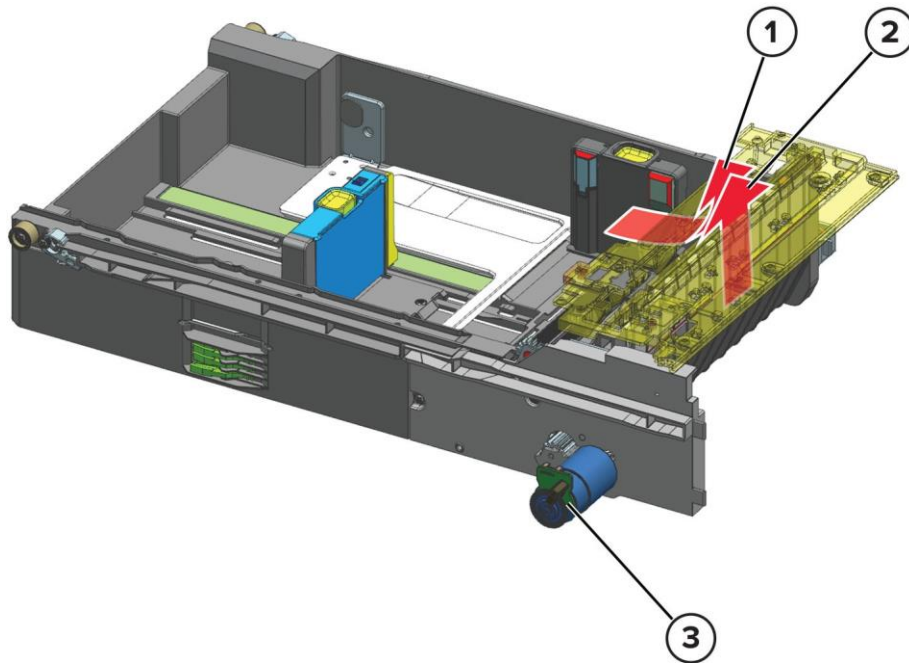
1	Feed path
2	Pass-through path
3	Motor (transport)

The pass-through path is where paper that is fed from lower trays passes over to the upper trays and into the printer. The motor (transport) drives the transport rollers that move the papers in this path.

The feed path is where paper from the source tray passes over to the pass-through path of the upper tray.
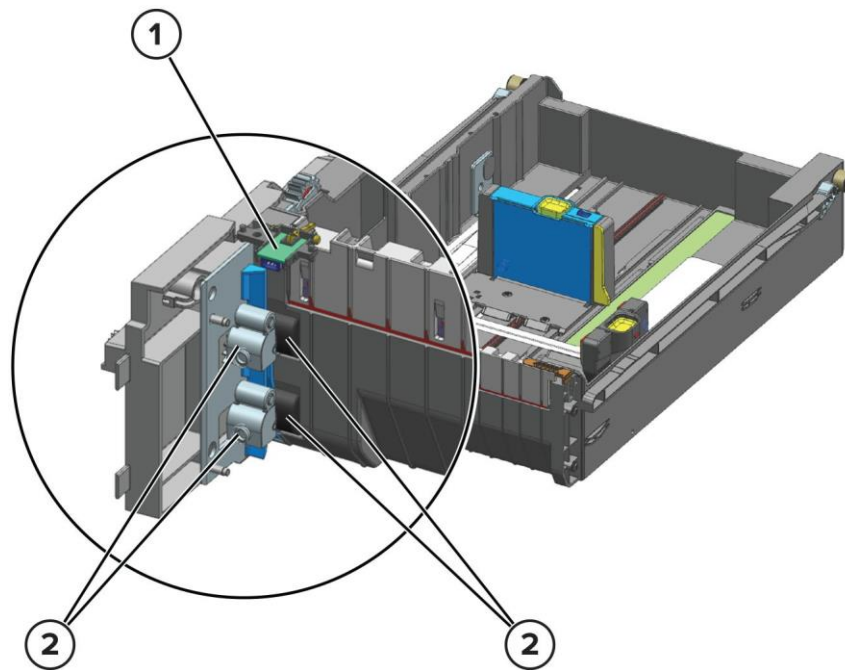
1	Sensor (pass-through)
2	Transport rollers

Paper from the lower trays continue on the pass-through path using the transport rollers of the source tray.

The sensor (pass-through) detects if paper is transported from the lower trays.

Optional 2100-sheet tray operation

2100-sheet tray elevator drive
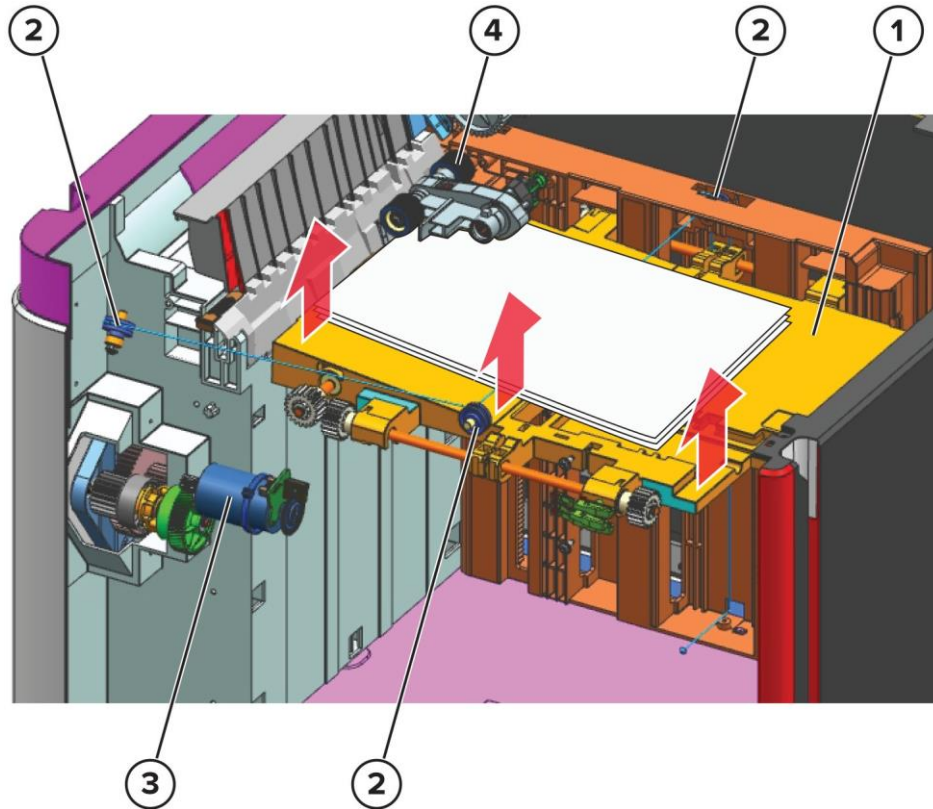
1	Elevator plate
2	Cable pulleys
3	Motor (elevator)
4	Pick roller

In preparation for picking, the elevator plate raises to push the paper against the pick roller.

The motor (elevator) drives a network of cables and pulleys to control the movement of the elevator plate.

2100-sheet tray pick drive
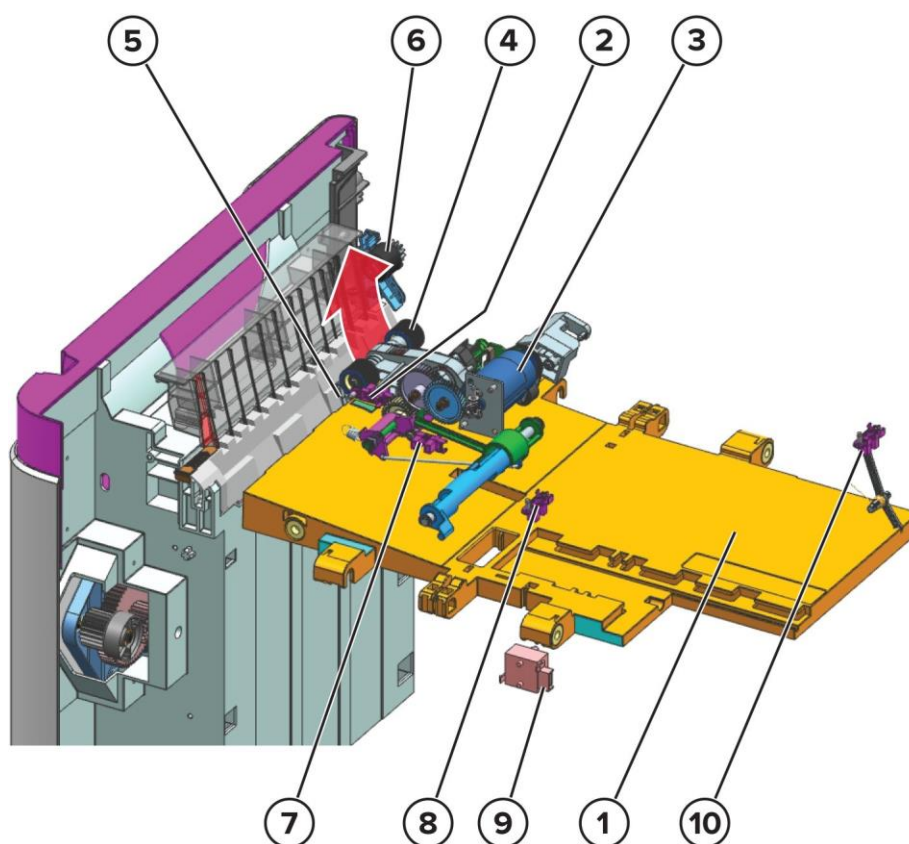
1	Elevator plate
2	Sensor (pick roller index)
3	Motor (pick)
4	Pick roller
5	Separator pad
6	Aligner roller
7	Sensor (paper present)
8	Sensor (A5 length guide)
9	Sensor (paper size)
10	Sensor (tray near empty)

The pick roller is lifted by the elevator plate until it triggers the sensor (pick roller index). At the pick position, the pick roller rotates to pick the topmost paper. The motor (pick) drives the pick roller.

To avoid multi-sheet picking, the friction from the separator pad prevents the extra paper from entering the printer.

The sensor (paper present) detects if the tray is empty. Paper guide positions are also detected by sensors to determine paper size.

Theory of operation

2100-sheet tray transport drive
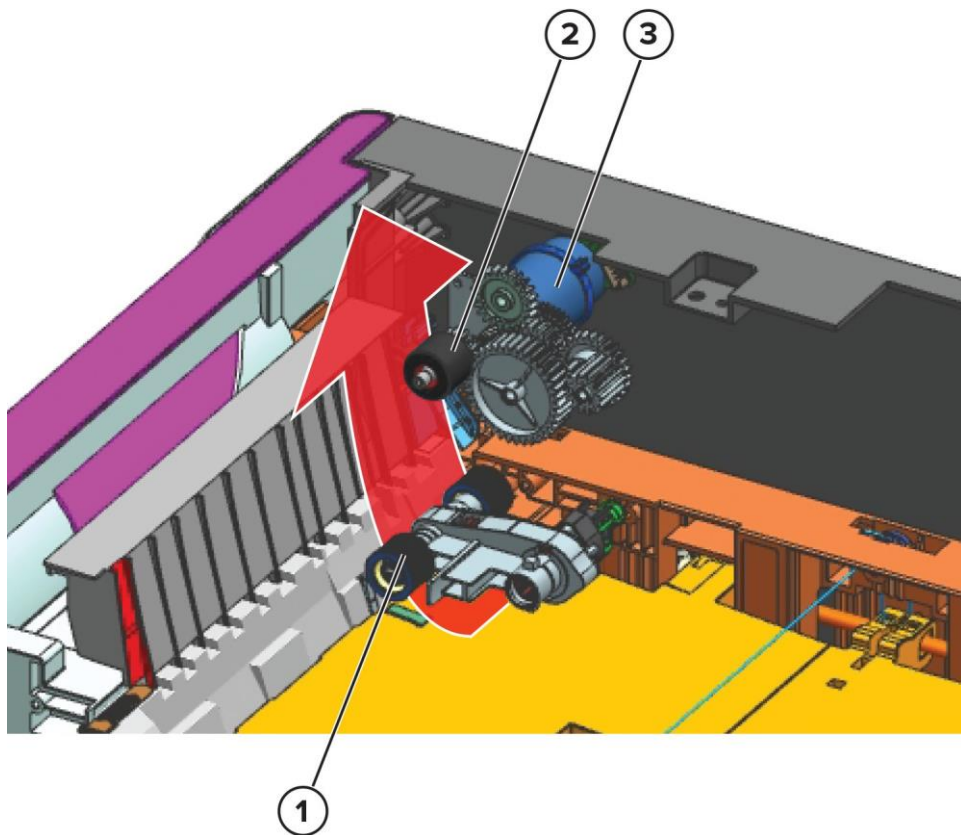
1	Pick roller
2	Aligner roller
3	Motor (transport)

Paper that is picked is received by the aligner roller, and then passed on to the transport roller of the standard tray or optional tray (see **"Lower transport drive" on page 890**). The motor (transport) drives the aligner roller.

Optional output expander operation

Output expander paper path
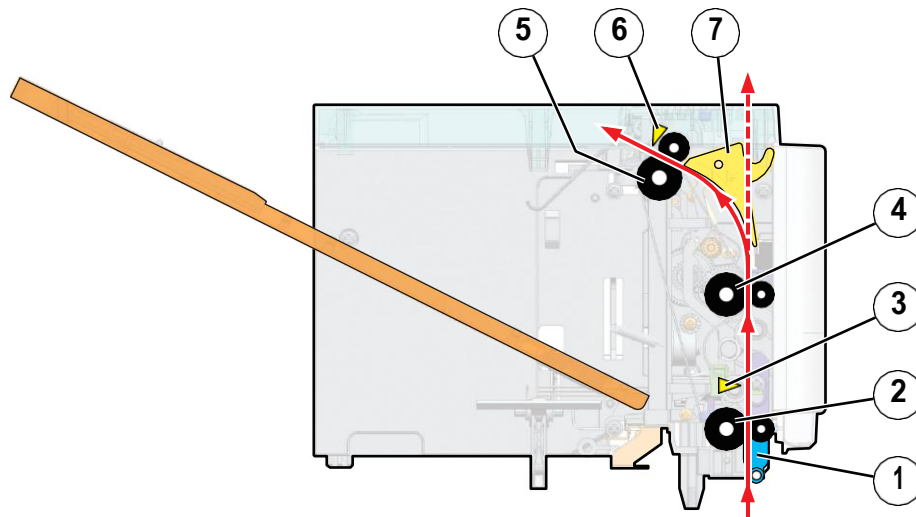
1	Diverter plunger
2	Transport roller 1
3	Sensor (pass-through)
4	Transport roller 2
5	Exit roller
6	Sensor (bin full)
7	Diverter

The output expander increases the output capacity of the printer. Rollers along the paper path control the movement of the paper depending on the destination bin.

Output expander diverter drive
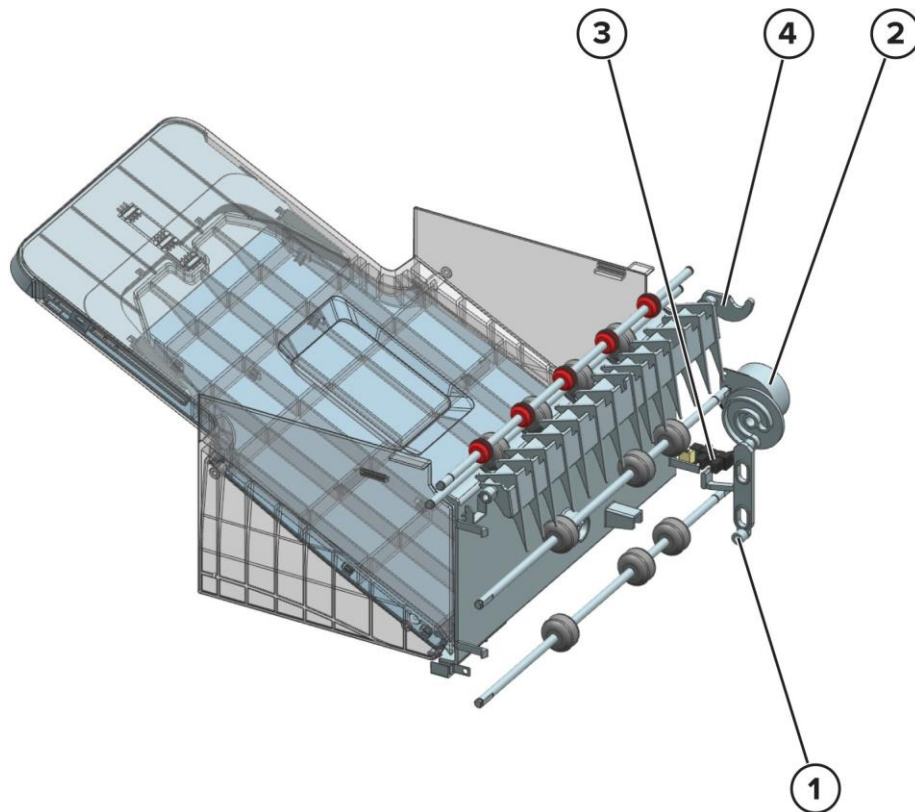
1	Diverter plunger
2	Motor (diverter)
3	Sensor (diverter plunger)
4	Diverter

The diverter (from the printer or optional bin) under the expander switches to open up the paper path of the expander. The diverter plunger controls the position of the diverter below it. The motor (diverter) drives the movement of the plunger. The sensor (diverter plunger) detects the position of the plunger.

By default, the diverter redirects the paper to the expander bin. Paper will only go straight up if an optional bin on top of the expander is the destination bin of the print job.

Output expander transport drive
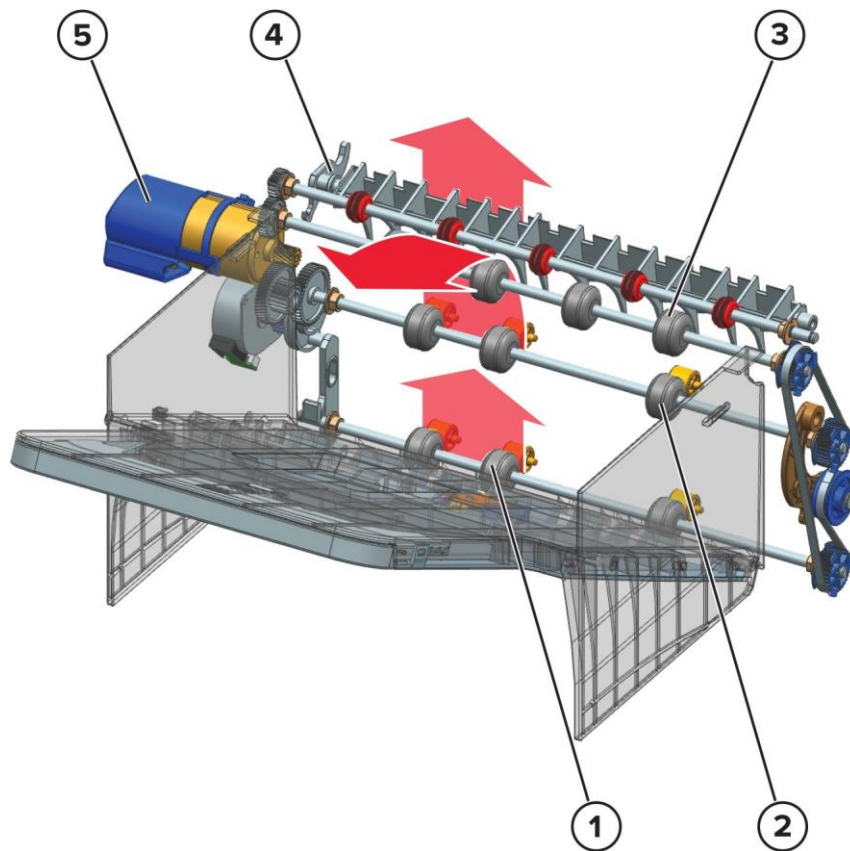
1	Transport roller 1
2	Transport roller 2
3	Exit roller
4	Diverter
5	Motor (transport)

The transport rollers and exit roller along the paper path move the paper depending on the destination bin assigned for the print job.

The motor (transport) drives both the transport and exit rollers.

Theory of operation

Optional high capacity output expander operation

High capacity output expander paper path
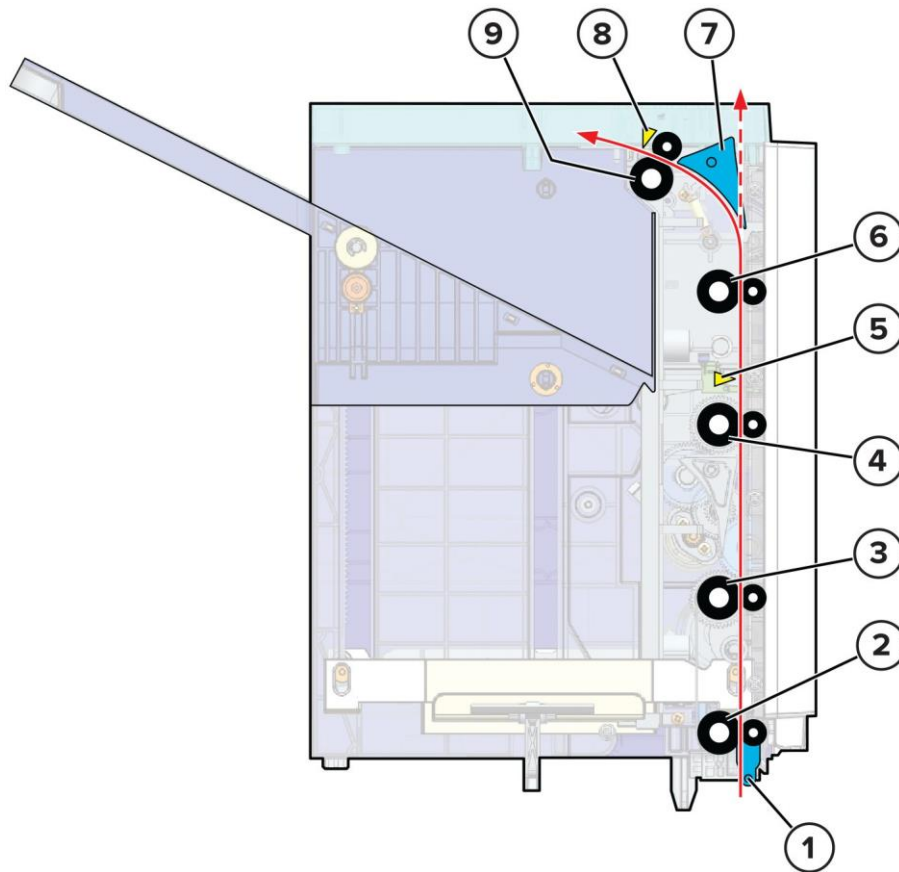
1	Diverter plunger
2	HCOE transport roller 1
3	HCOE transport roller 2
4	HCOE transport roller 3
5	Sensor (HCOE pass-through)
6	HCOE transport roller 4
7	Diverter
8	Sensor (HCOE bin full)
9	HCOE exit roller

The high capacity output expander increases the output capacity of the printer. Rollers along the paper path control the movement of the paper depending on the destination bin.

HCOE diverter and transport drive
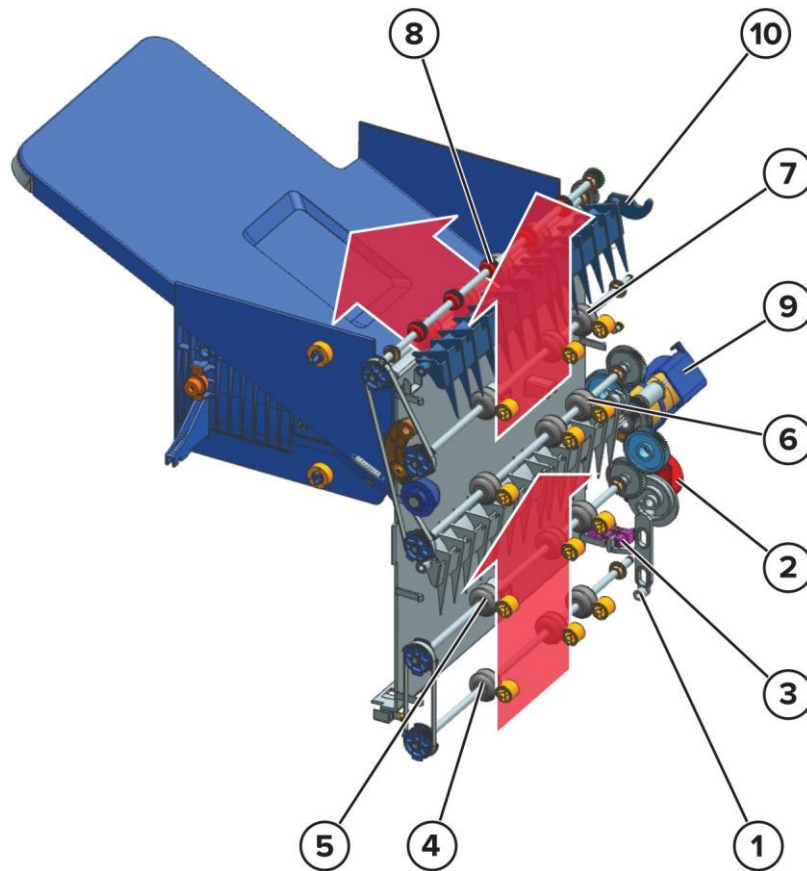
1	Diverter plunger
2	Motor (diverter)
3	Sensor (diverter plunger)
4	Transport roller 1
5	Transport roller 2
6	Transport roller 3
7	Transport roller 4
8	Exit roller
9	Motor (transport)
10	Diverter

The diverter (from the printer or optional bin) under the HCOE switches to open up the paper path of the expander. The diverter plunger controls the position of the diverter below it. The motor (diverter) drives the movement of the plunger. The sensor (diverter plunger) detects the position of the plunger.

By default, the diverter redirects the paper to the expander bin. Paper will only go straight up if an optional bin on top of the expander is the destination bin of the print job.

Theory of operation

The transport rollers and exit roller along the paper path move the paper depending on the destination bin assigned for the print job. The motor (transport) drives both the transport and exit rollers.

Optional mailbox operation

Mailbox paper path rollers
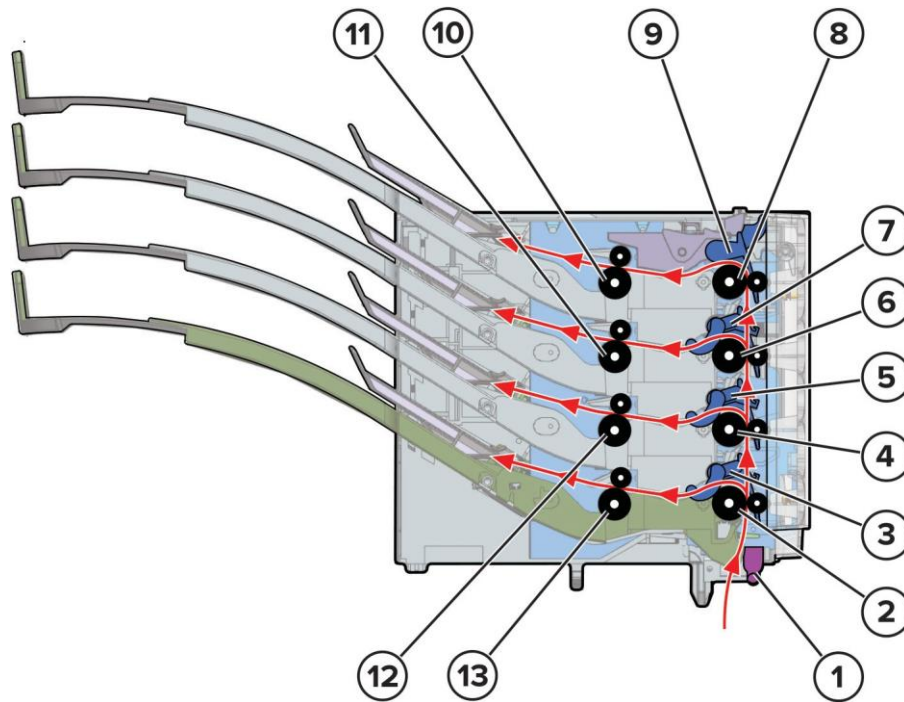
1	Diverter plunger
2	Mailbox transport roller 1
3	Diverter 1
4	Mailbox transport roller 2
5	Diverter 2
6	Mailbox transport roller 3
7	Diverter 3
8	Mailbox transport roller 4
9	Diverter 4
10	Exit roller 4
11	Exit roller 3
12	Exit roller 2
13	Exit roller 1

Theory of operation

The mailbox delivers print jobs to multiple bin destinations and allows the user to segregate the printed output to an assigned bin. Rollers along the paper path control the movement of the paper depending on the destination bin.

Mailbox paper path sensors
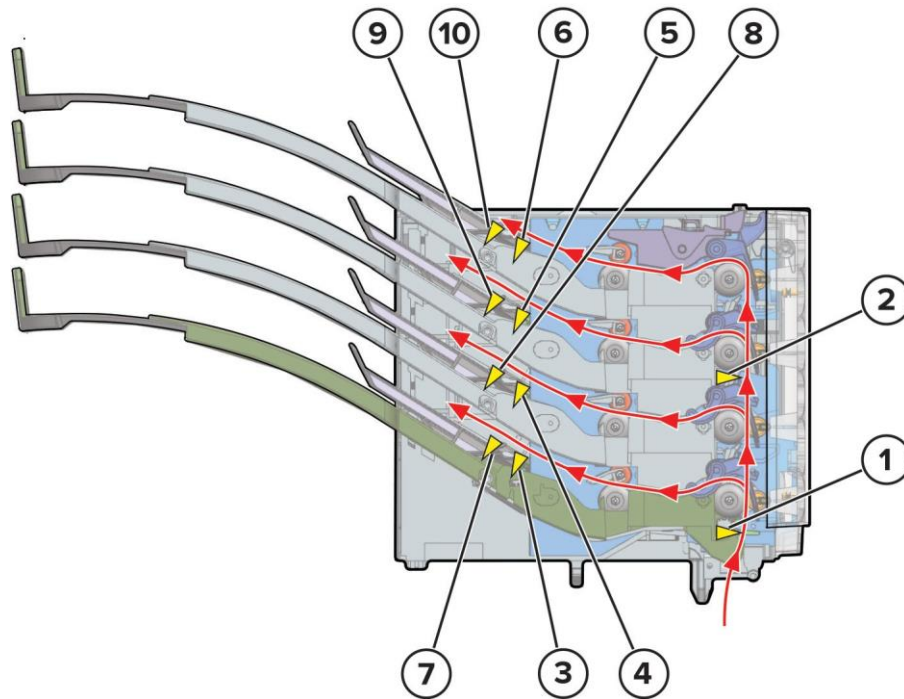
#	Sensor	Function
1	Sensor (mailbox pass-through 1)	Detects the paper position along the mailbox entrance.
2	Sensor (mailbox pass-through 2)	Detects the paper position along the middle rear door area.
3	Sensor (mailbox bin 1 paper present)	Detects if paper is on bin 1.
4	Sensor (mailbox bin 2 paper present)	Detects if paper is on bin 2.
5	Sensor (mailbox bin 3 paper present)	Detects if paper is on bin 3.
6	Sensor (mailbox bin 4 paper present)	Detects if paper is on bin 4.
7	Sensor (mailbox bin 1 full)	Detects if bin 1 is full.
8	Sensor (mailbox bin 2 full)	Detects if bin 2 is full.
9	Sensor (mailbox bin 3 full)	Detects if bin 3 is full.
10	Sensor (mailbox bin 4 full)	Detects if bin 4 is full.

Mailbox diverter drive
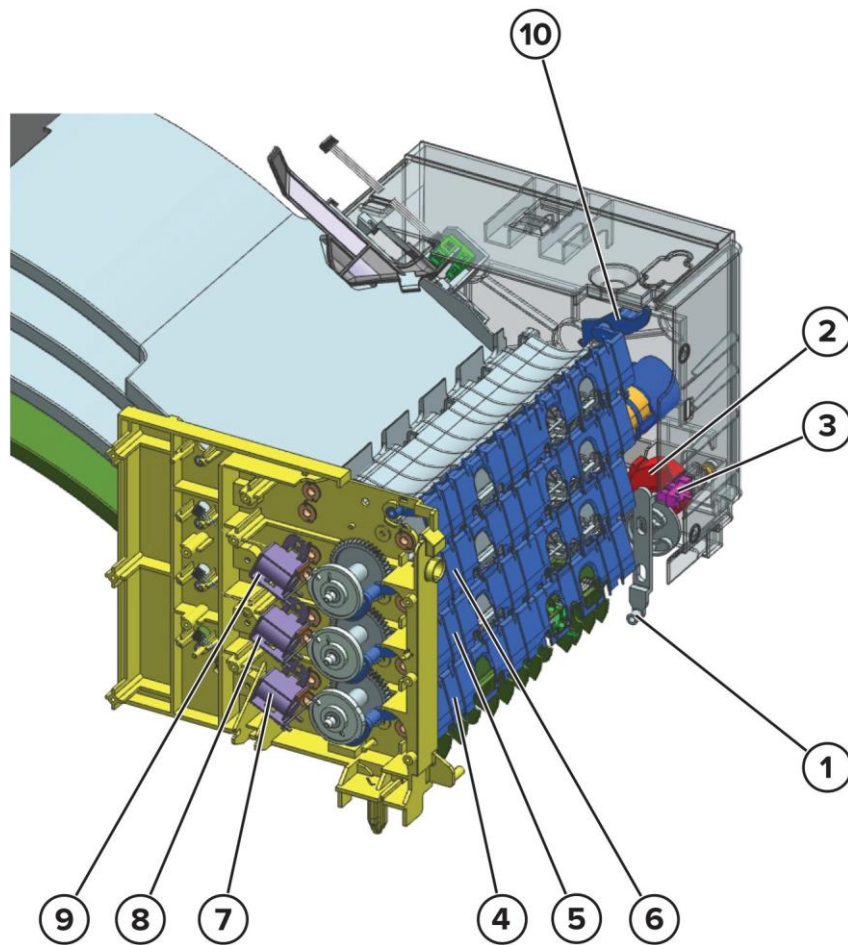
1	Diverter plunger
2	Motor (diverter)
3	Sensor (diverter plunger)
4	Diverter 1
5	Diverter 2
6	Diverter 3
7	Diverter 1 solenoid
8	Diverter 2 solenoid
9	Diverter 3 solenoid
10	Mailbox top diverter

The diverter (from the printer or optional bin) under the mailbox switches to open up the paper path of the mailbox. The diverter plunger controls the position of the diverter below it. The motor (diverter) drives the movement of the plunger. The sensor (diverter plunger) detects the position of the plunger.

Theory of operation

By default, diverters 1 to 3 are positioned so that the paper goes straight up. Depending on the destination bin, diverters along the paper path may redirect the paper to the assigned bin. Solenoids control diverters 1 to 3.

On the other hand, the mailbox top diverter is positioned so that the paper exits by default to bin 4. Paper will only go straight up if an optional bin on top of the mailbox is the destination bin of the print job.

Mailbox transport and exit drive
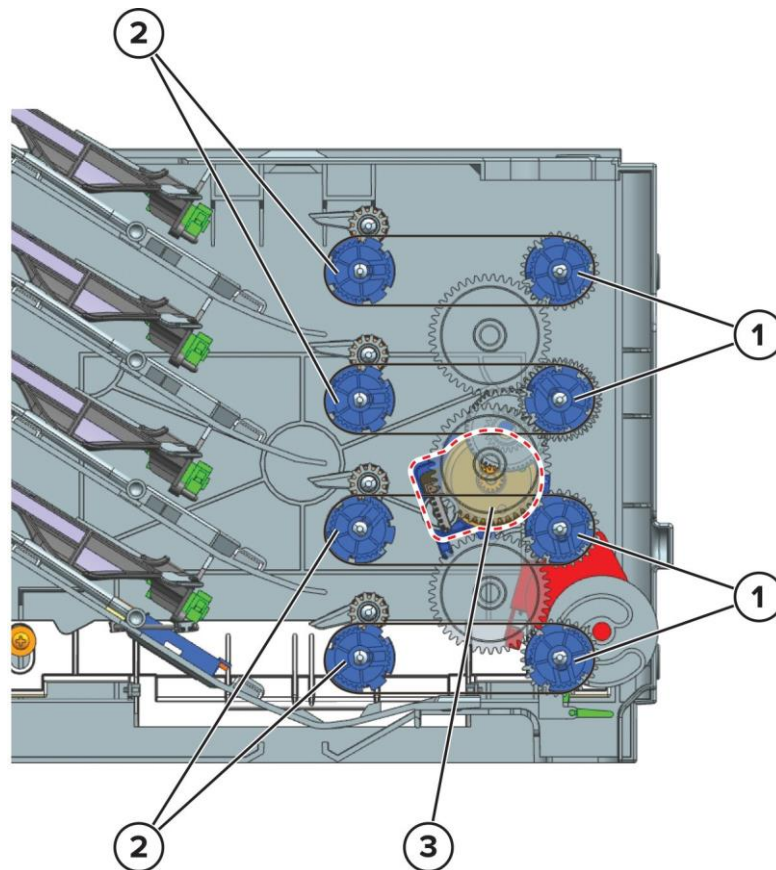
1	Transport rollers
2	Exit rollers
3	Motor (transport)

Transport rollers and exit rollers along the paper path move the paper to the destination bin assigned for the print job.

The motor (transport) drives both the transport and exit rollers.

Theory of operation

Optional staple, hole punch finisher operation

Staple, hole punch finisher (SHPF) layout
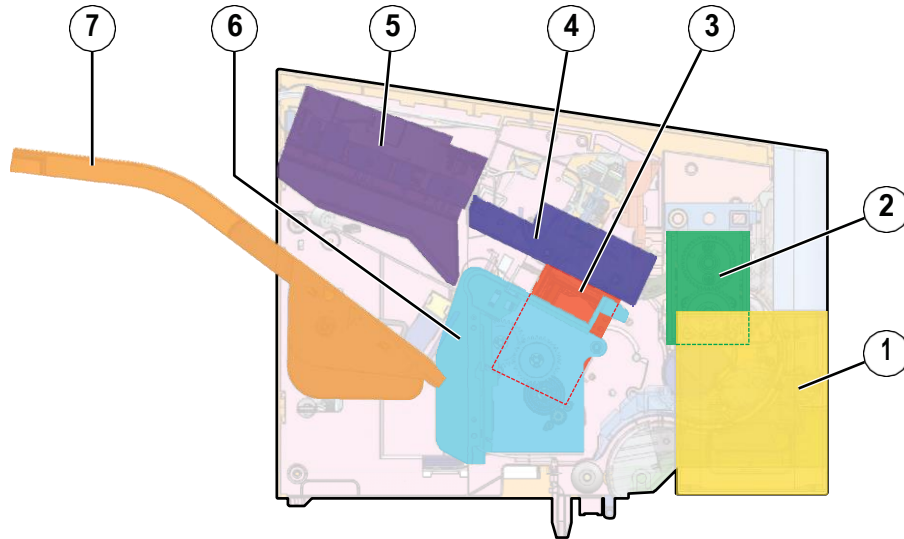
1	Hole punch box
2	Hole punch unit
3	Staple unit
4	Paddle and exit
5	Tamper
6	Ejector
7	Bin

SHPF paper pathrollers
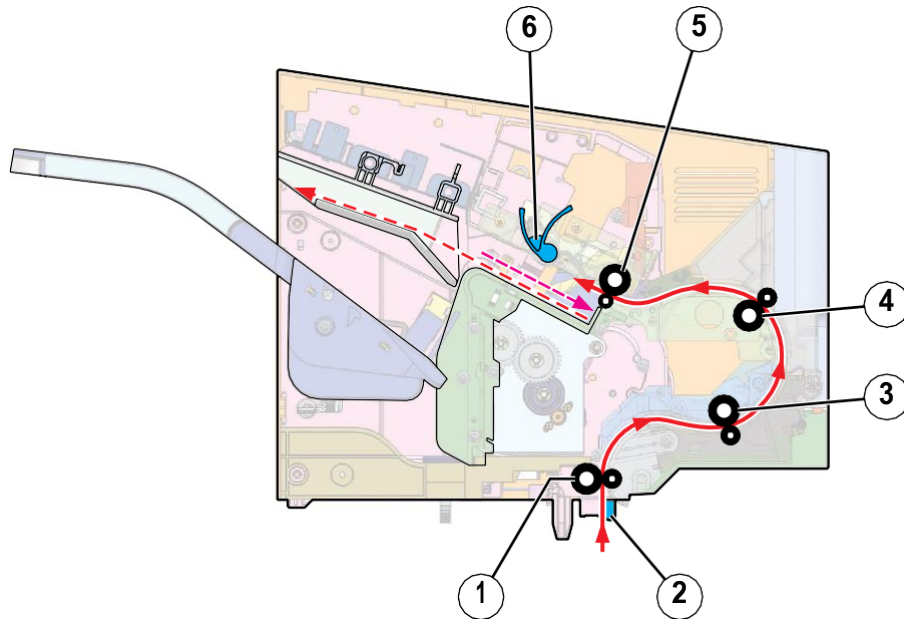
1	SHPF entrance roller
2	Diverter plunger
3	SHPF transport roller 1
4	SHPF transport roller 2
5	SHPF exit roller
6	SHPF paddle roller

For staple or hole punch jobs, the paper path is redirected to the finisher.

Rollers along the paper path control the movement of the paper depending on the type of staple or hole punch job. Before stapling occurs, paper will be stacked on top of each other and aligned along its edges.

When the staple or hole punch job is done, the paper is ejected to the bin.

SHPF paper path sensors
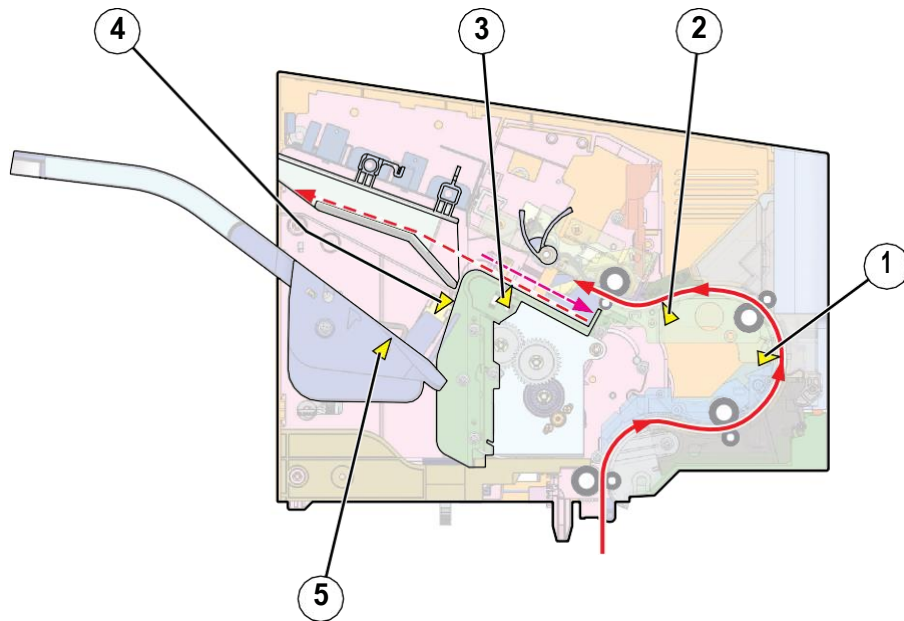
#	Sensor	Function
1	Sensor (HPU leading edge)	Detects the paper position along the rear door path.
2	Sensor (HPU trailing edge)	Detects the paper position along the hole punch area.
3	Sensor (SHPF staple throat paper present)	Detects if paper is in the staple unit area.
4	Sensor (SHPF bin full)	Detects if the bin is already full.
5	Sensor (SHPF bin paper present)	Detects if paper is in the bin.

SHPF entrance drive
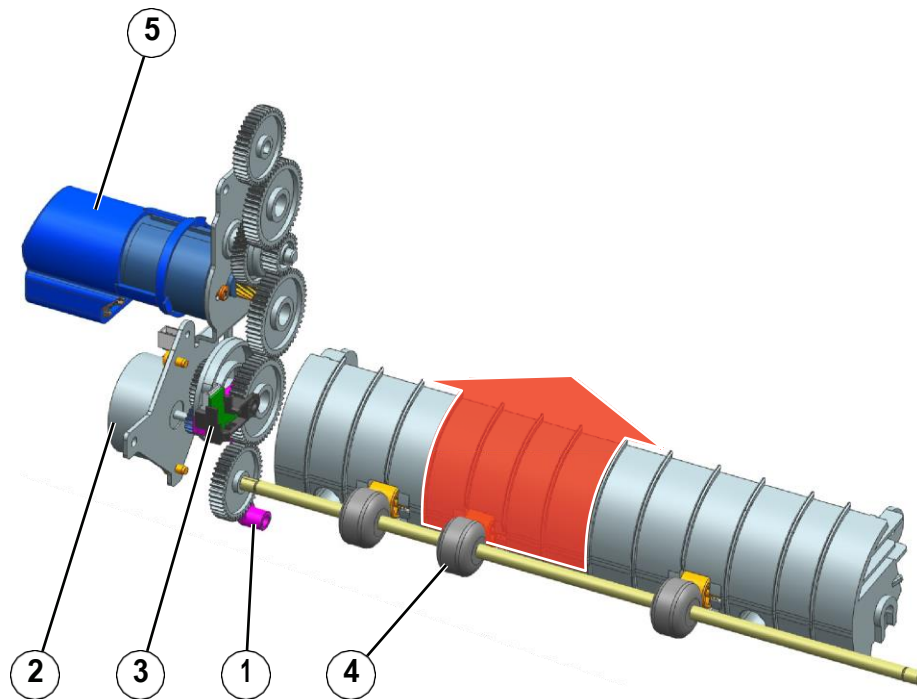
1	Diverter plunger
2	Motor (diverter)
3	Sensor (diverter plunger)
4	Entrance roller
5	Motor (SHPF transport)

For staple or hole punch jobs, the diverter (from the printer or optional bin) under the finisher switches to open up the paper path of the finisher. The diverter plunger controls the position of the diverter below it. The motor (diverter) drives the movement of the plunger. The sensor (diverter plunger) detects the position of the plunger.

Paper enters the finisher through the entrance roller. The motor (SHPF transport) drives the entrance roller.

SHPF HPU transport drive
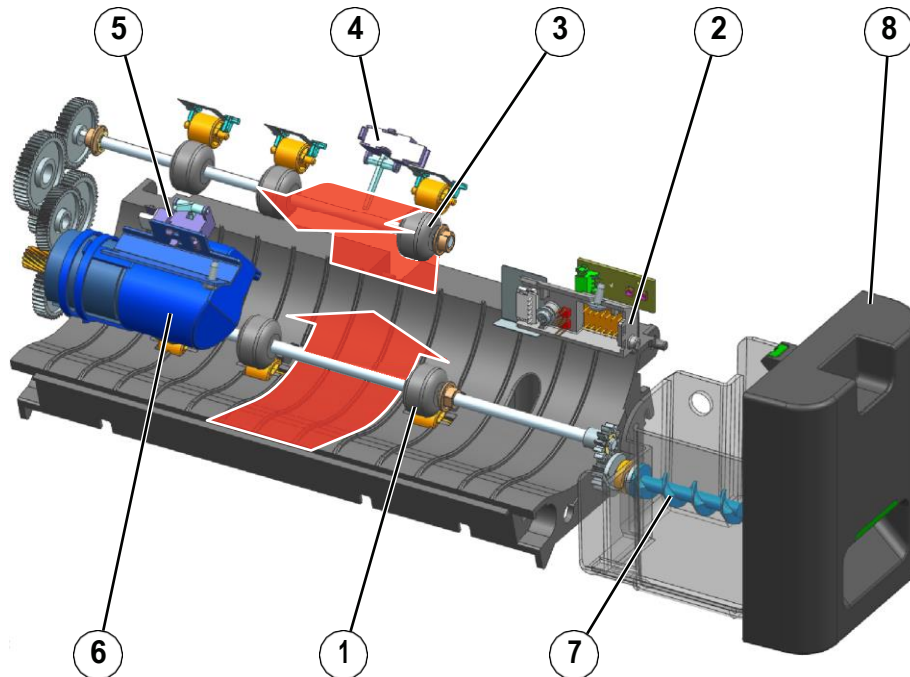
1	Transport roller 1
2	Sensor (light array)
3	Transport roller 2
4	Sensor (HPU leading edge)
5	Sensor (HPU trailing edge)
6	Motor (HPU transport)
7	Hole punch box auger

Transport rollers receive the paper entering the finisher, and then move the paper in the positions where hole punching may be required. The paper is detected by the sensor (HPU leading edge) as it passes between the two transport rollers. Before the paper is fed out by the exit rollers, it is detected by the sensor (HPU trailing edge). The sensor (light array) also detects the paper to ensure proper hole punching.

The motor (HPU transport) not only drives the transport rollers, but the auger in the hole punch box as well. When the hole punch box auger rotates, the chad inside the box is more evenly distributed to maximize the container capacity.

Theory of operation

SHPF hole punch drive
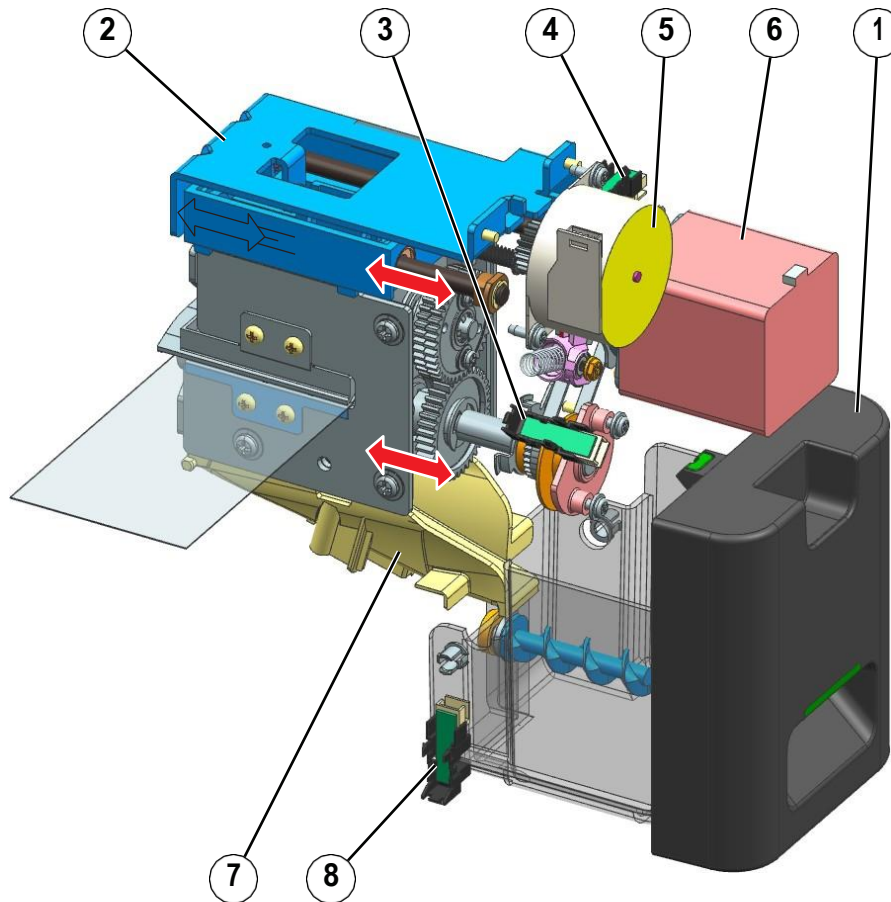
1	Hole punch box
2	HPU carriage
3	Sensor (hole punch)
4	Sensor (HPU carriage position)
5	Motor (HPU carriage)
6	Motor (hole punch)
7	Hopper
8	Sensor (hole punch box present)

During a hole punch job, the HPU carriage position may move to ensure that holes are properly punched at the appropriate positions. The motor (HPU carriage) controls the movement of the carriage. The sensor (HPU carriage position) detects the HPU carriage position.

The blade that punches the paper to create the holes is controlled by the motor (hole punch). The position of the blade is determined by the sensor (hole punch).

After hole punching, the paper chad is collected by a vibrating hopper and poured to the hole punch box.

Theory of operation

SHPF exit drive
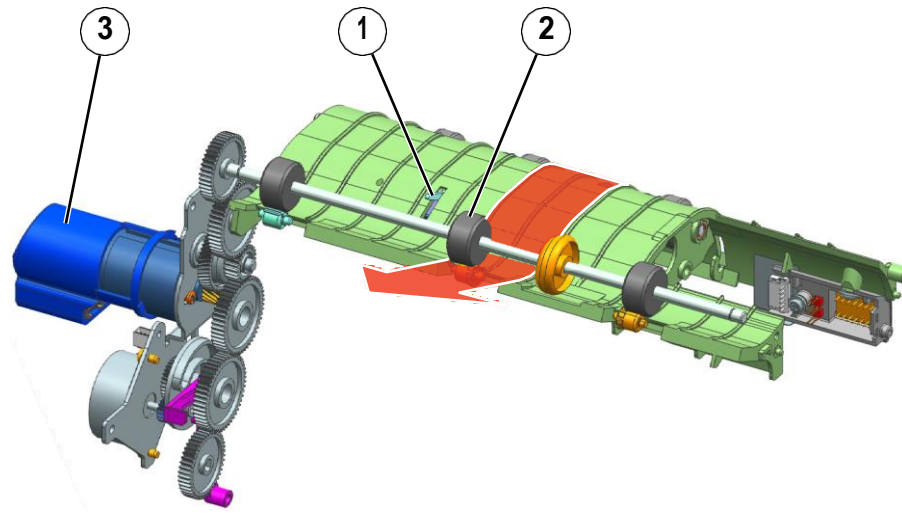
1	Sensor (HPU trailing edge)
2	Exit roller
3	Motor (SHPF transport)

The exit roller receives the paper from the transport rollers, and then ejects the paper to the tamper tray. Paper is stacked on the tamper tray in preparation for stapling.

The motor (SHPF transport) drives both the exit and entrance rollers (see).

Paper stack edge alignment drives

Short edge alignment
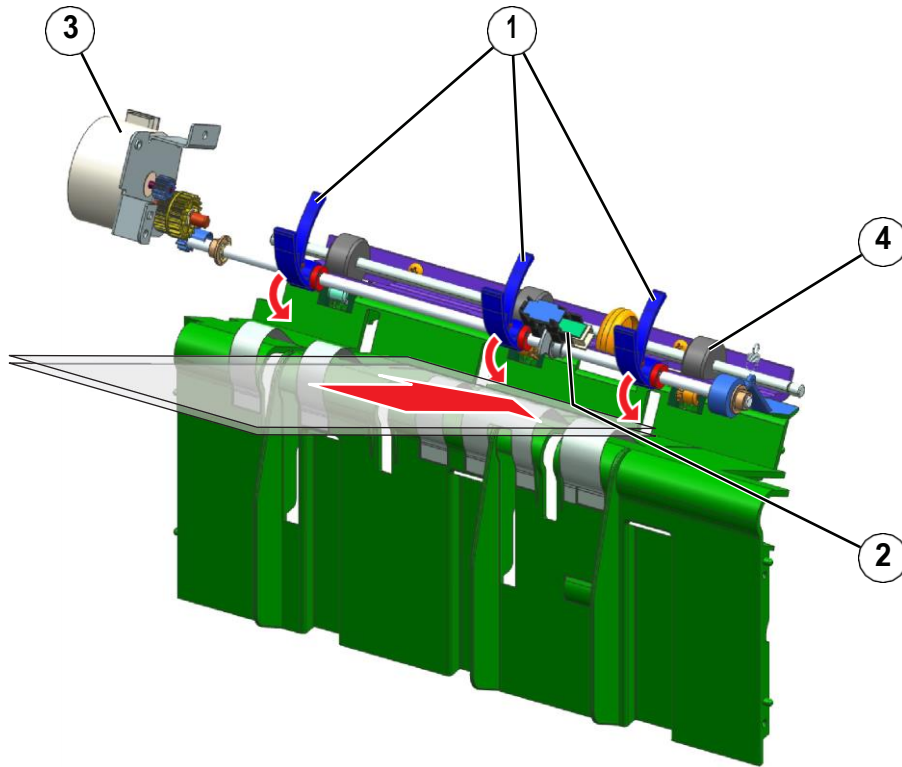
1	Paddles
2	Sensor (paddle)
3	Motor (paddle)
4	Exit roller

Each sheet that is added to the paper stack is aligned along its short edges. The paddles push the paper against a wall to align the trailing edge.

The motor (paddle) drives the paddles. The sensor (paddle) detects the position of the paddle.

Theory of operation

Long edge alignments
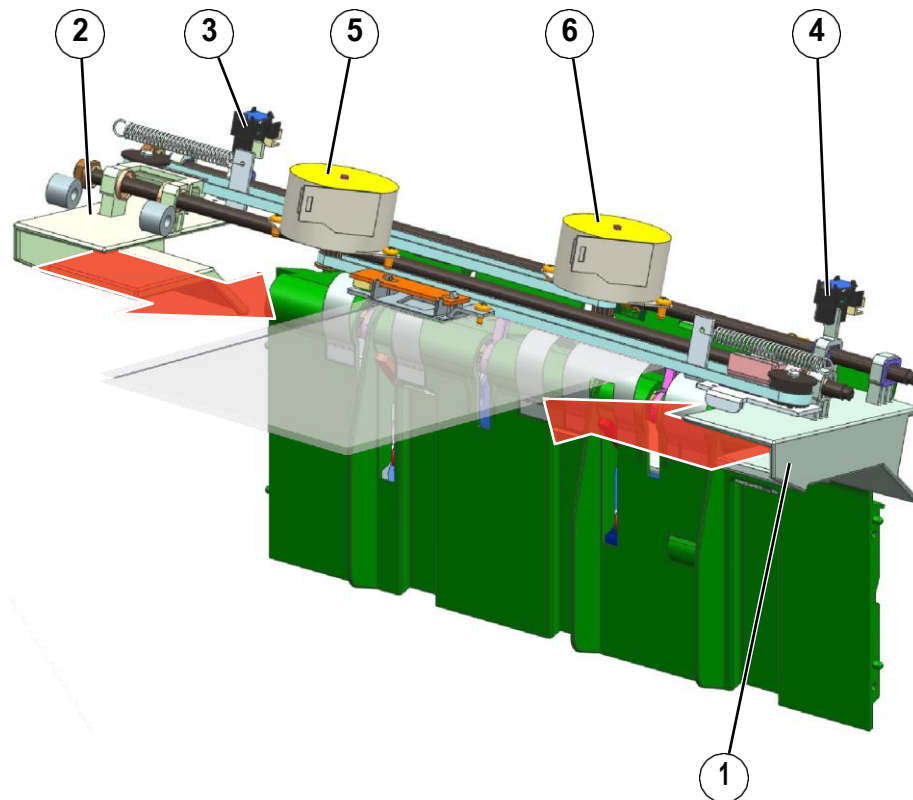
1	Right tamper
2	Left tamper
3	Sensor (left tamper)
4	Sensor (right tamper)
5	Motor (right tamper)
6	Motor (left tamper)

On the tamper tray, each sheet that is added to the paper stack is aligned by tampers. The tampers push inward to align the long edges of the paper stack. Two motors control the position and movement of the tampers. Each tamper is detected by its sensor at its home position.

Paper stack height detection
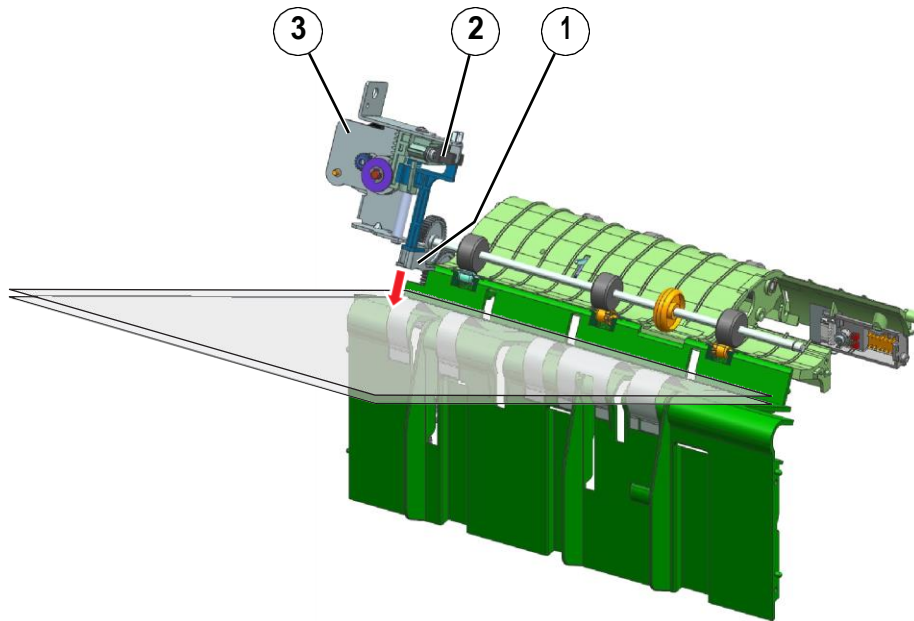
1	Stack height actuator
2	Sensor (stack height)
3	Motor (stack height)

Stack height detection is done each time a sheet is added to the paper stack.

The stack height actuator presses on top of the paper stack. The sensor (stack height) detects if the stack thickness has reached the limit. Limiting the thickness of the stack prevents damage to the staple unit.

The motor (stack height) drives the actuator.

Theory of operation

SHPF ejector drive
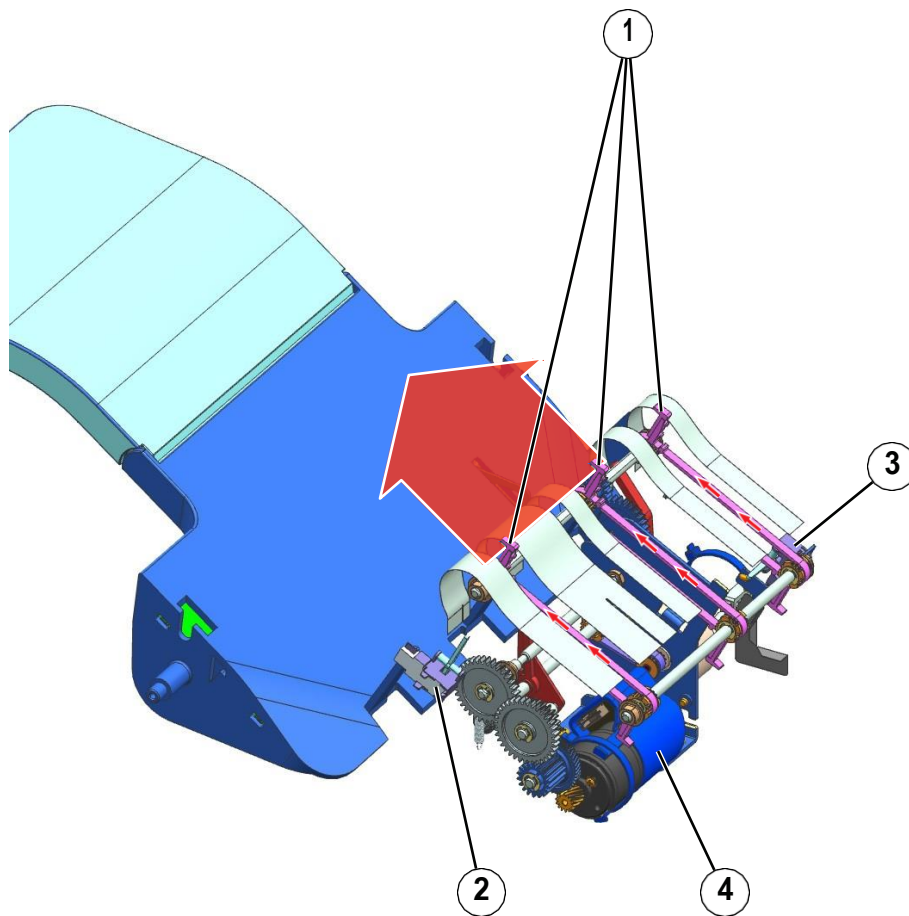
1	Ejector paddles
2	Sensor (staple throat paper present)
3	Sensor (ejector)
4	Motor (ejector)

After the paper stack is stapled, the ejector paddles connected to a belt push the stack toward the bin.

The motor (ejector) drives the ejector belt. The ejector belt is detected at its home position by the sensor (ejector).

SHPF elevator drive
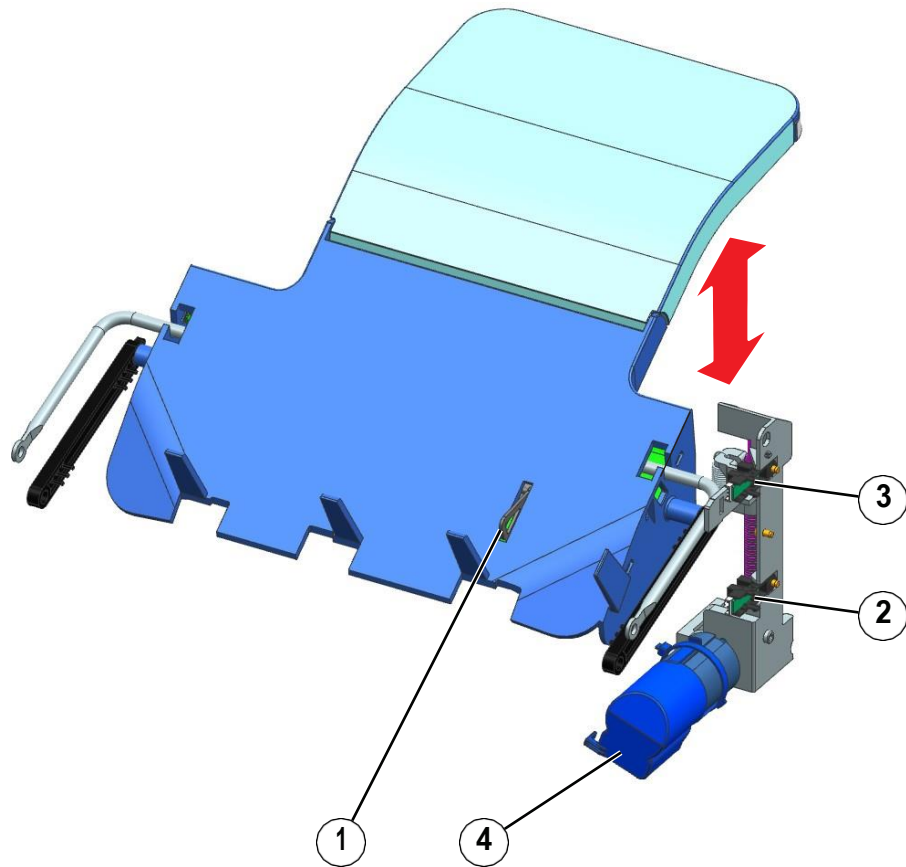
1	Sensor (bin paper present)
2	Sensor (elevator, bottom)
3	Sensor (elevator, top)
4	Motor (elevator)

For each sheet that is ejected, the elevator bin lowers as the height of the bin stack increases. The movement of the bin is controlled by the motor (elevator). The bin is detected at its upper and lower positions by sensors.

SHPF bin clamp drive
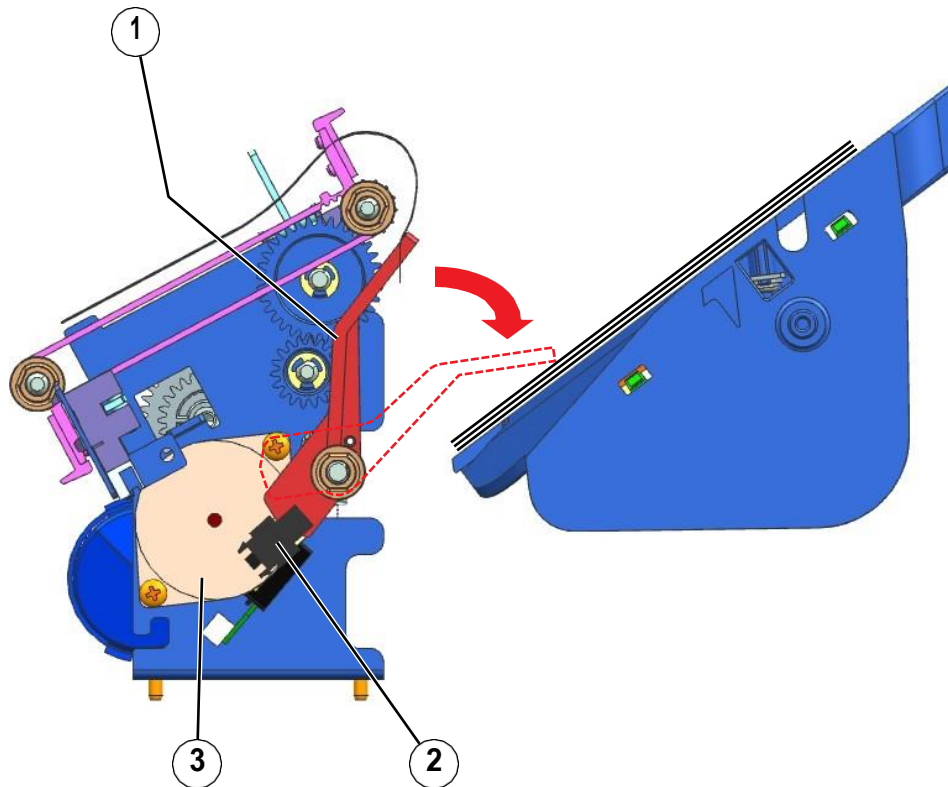
1	Bin clamp
2	Sensor (bin clamp)
3	Motor (bin clamp)

For each sheet that is ejected to the bin, the bin clamp lowers and holds the paper stack. If the level of the paper stack on the bin reaches the sensor (bin full), then the elevator bin will lower to accommodate more sheets.

The motor (bin clamp) controls the bin clamp. The clamp is detected at its home position by the sensor (bin clamp).

Optional staple finisher operation

Staple finisher (SF) layout
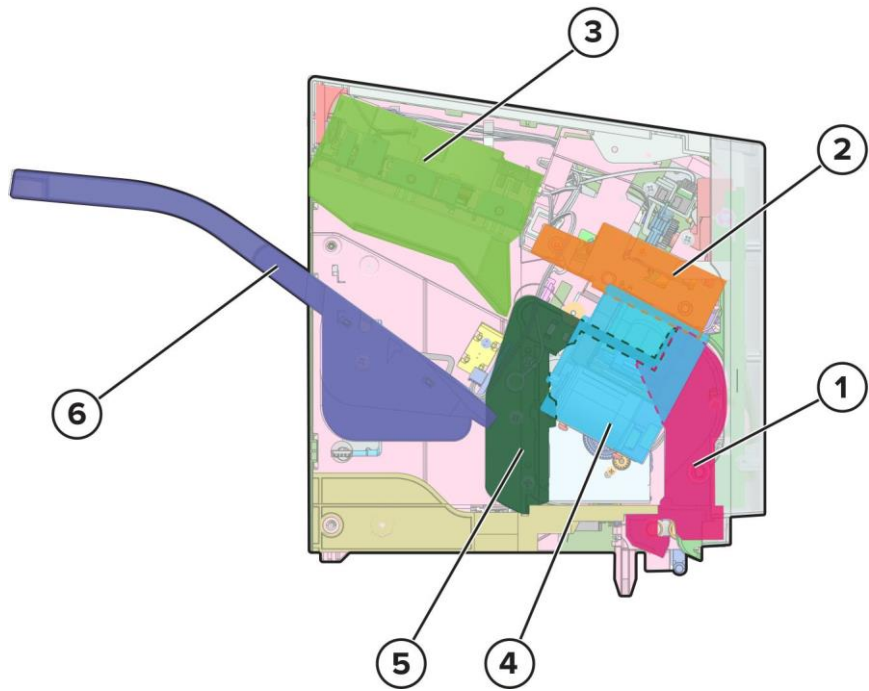
1	Feed section
2	Exit section
3	Tamper
4	Staple unit
5	Ejector
6	Bin

SF paper path rollers
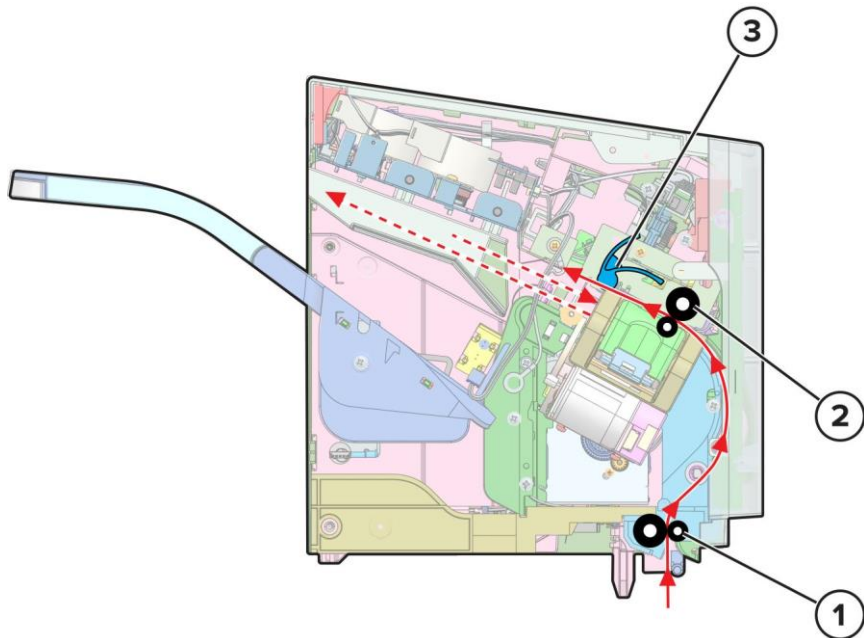
1	Staple finisher entrance rollers
2	Staple finisher exit rollers
3	Staple finisher paddle rollers

For staple jobs, the paper path is redirected to the finisher.

Before stapling occurs, paper is stacked on top of each other and aligned along its edges.

When the staple job is done, the paper is ejected to the bin.

SF paper path sensors
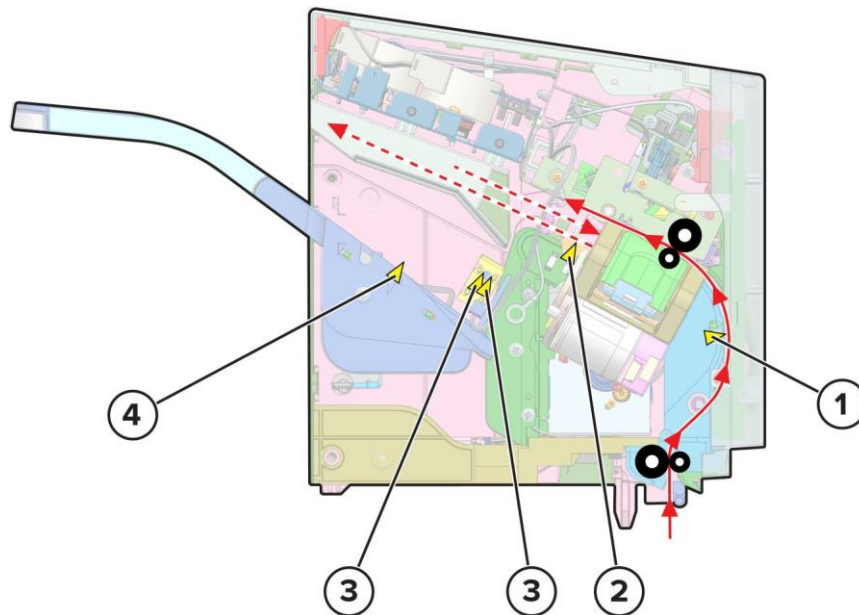
#	Sensor	Function
1	Sensor (staple finisher pass-through)	Detects paper position along the rear door path
2	Sensor (staple throat paper present)	Detects paper presence in the staple unit area
3	Sensors (staple finisher bin full)	Detects the bin status
4	Sensor (finisher bin paper present)	Detects paper presence in the bin

SF feed section
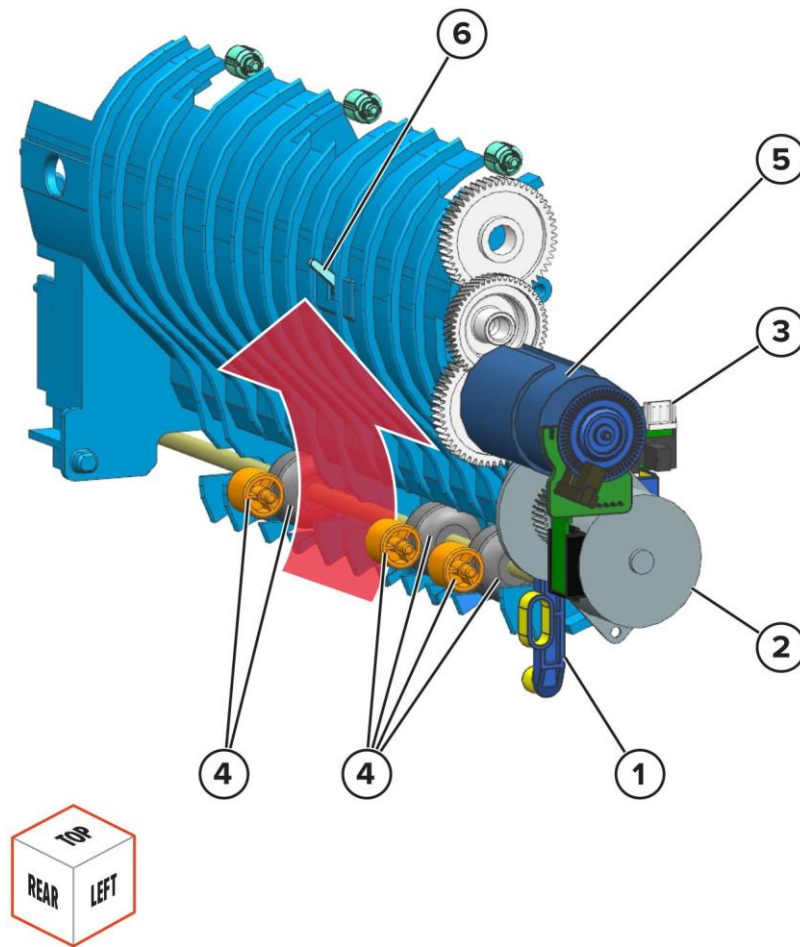
1	Diverter plunger
2	Motor (staple finisher diverter)
3	Sensor (staple finisher diverter plunger)
4	Entrance rollers
5	Motor (staple finisher transport)
6	Sensor (staple finisher pass-through)

The feed section receives paper from the printer. The diverter plunger controls the movement of the diverter. The diverter under the finisher switches to open up the paper path of the finisher. The motor (SF diverter) drives the movement of the plunger. The sensor (SF diverter plunger) detects the position of the plunger.

The entrance rollers transport paper to the compiler section. The motor (SF transport) drives the entrance rollers. The sensor (SF pass-through) detects paper position along the rear door path.

SF exit section
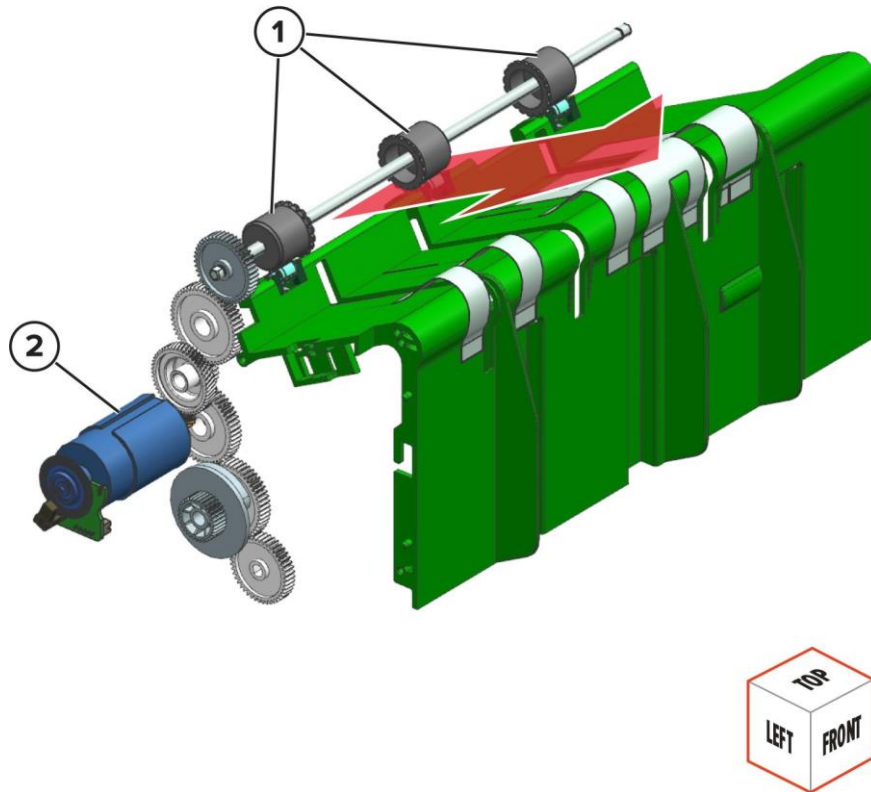
1	Exit rollers
2	Motor (staple finisher transport)

The exit rollers receive the paper from the entrance rollers, and then eject the paper to the compiler section. Paper is stacked on the tamper tray in preparation for stapling.

The motor (SF transport) drives both exit and entrance rollers. See .

Theory of operation

SF paper stack edge alignment drives

Short edge alignment
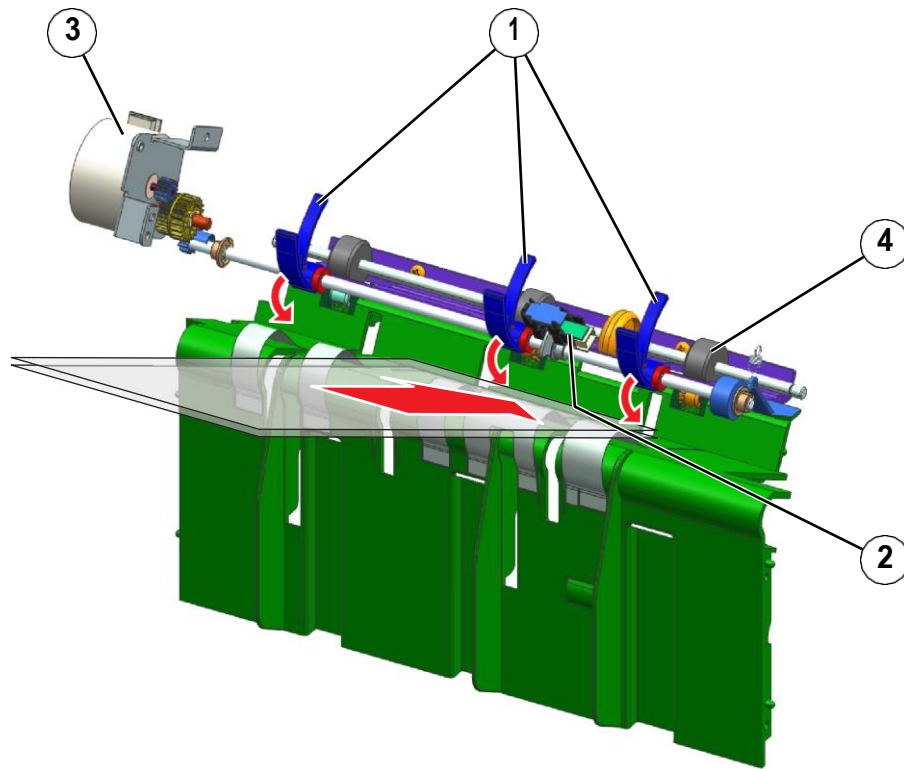
1	Paddles
2	Sensor (staple finisher paddle)
3	Motor (staple finisher paddle)
4	Exit roller

Each sheet that is added to the paper stack is aligned along its short edges. The paddles push the paper against a wall to align the trailing edge.

The motor (SF paddle) drives the paddles. The sensor (SF paddle) detects the position of the paddle.

Long edge alignments
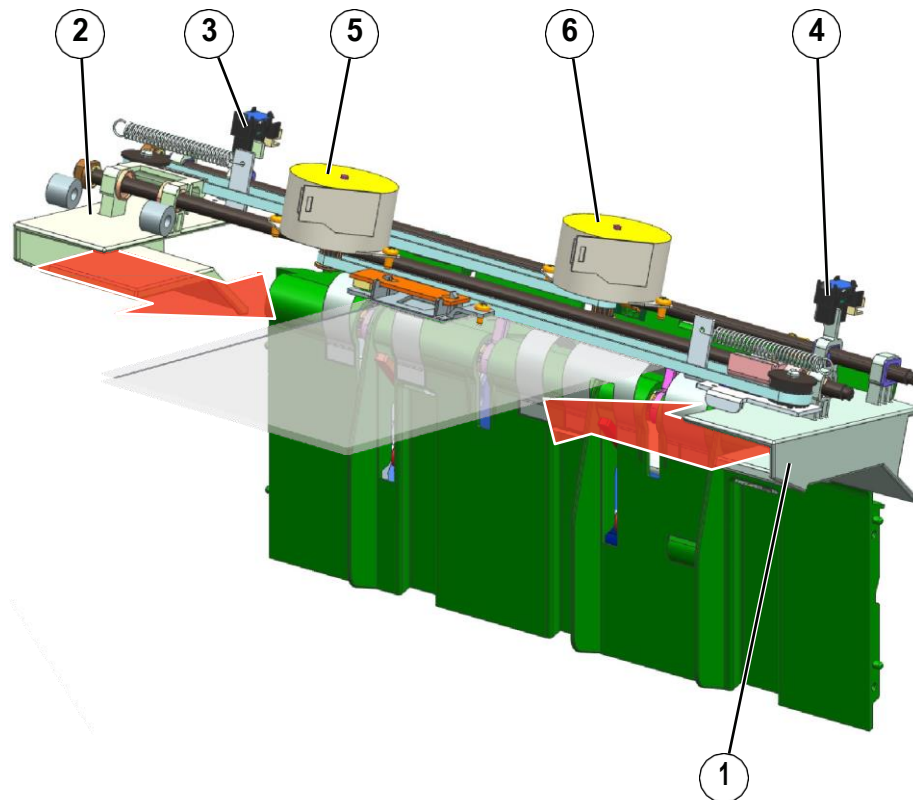
1	Right tamper
2	Left tamper
3	Sensor (staple finisher left tamper)
4	Sensor (staple finisher right tamper)
5	Motor (staple finisher right tamper)
6	Motor (staple finisher left tamper)

On the tamper tray, each sheet that is added to the paper stack is aligned by the tampers. The tampers push inward to align the long edges of the paper stack. Two motors control the position and movement of the tampers. The sensors detect each tamper at its home position.

Theory of operation

SF paper stack height detection
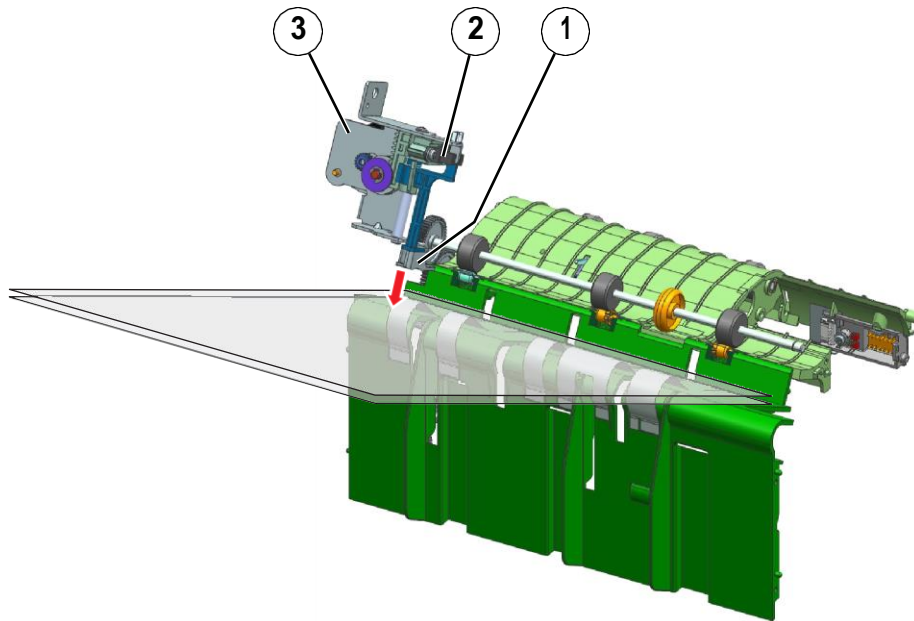
1	Stack height actuator
2	Sensor (staple finisher stack height)
3	Motor (staple finisher stack height)

Stack height detection is done each time a sheet is added to the paper stack.

The stack height actuator presses on top of the paper stack. The sensor (SF stack height) detects if the stack thickness has reached the limit. Limiting the thickness of the stack prevents damage to the staple unit.

The motor (SF stack height) drives the actuator.

Theory of operation

SF staple operation
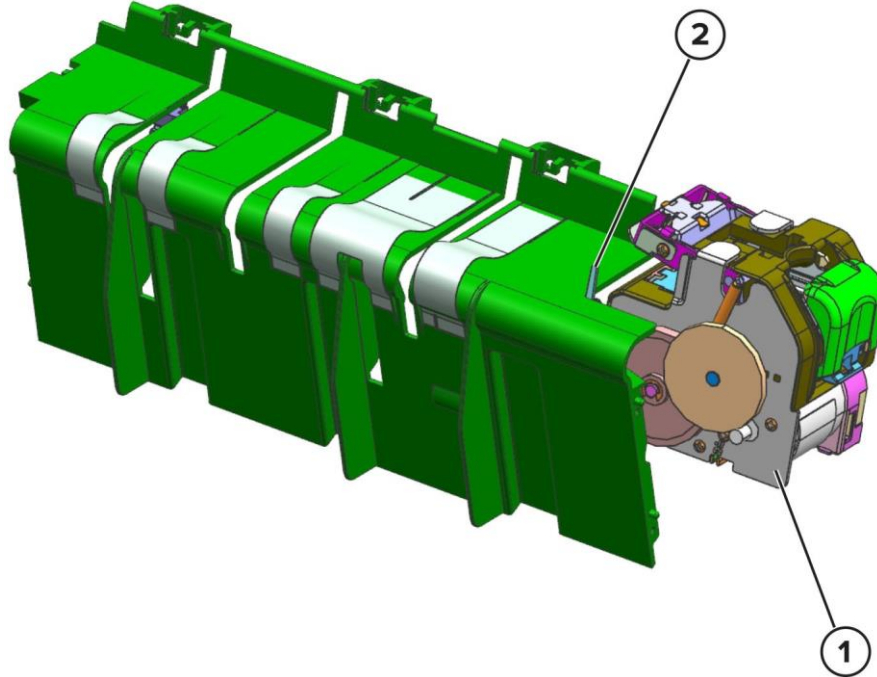
1	Staple unit
2	Sensor (staple throat paper present)

For staple jobs, the paddles push the paper stack to the rear of the finisher.

The sensor (staple throat paper present) detects the paper stack. The staple unit holds down and staples the paper stack.

SF bin section

Ejector drive
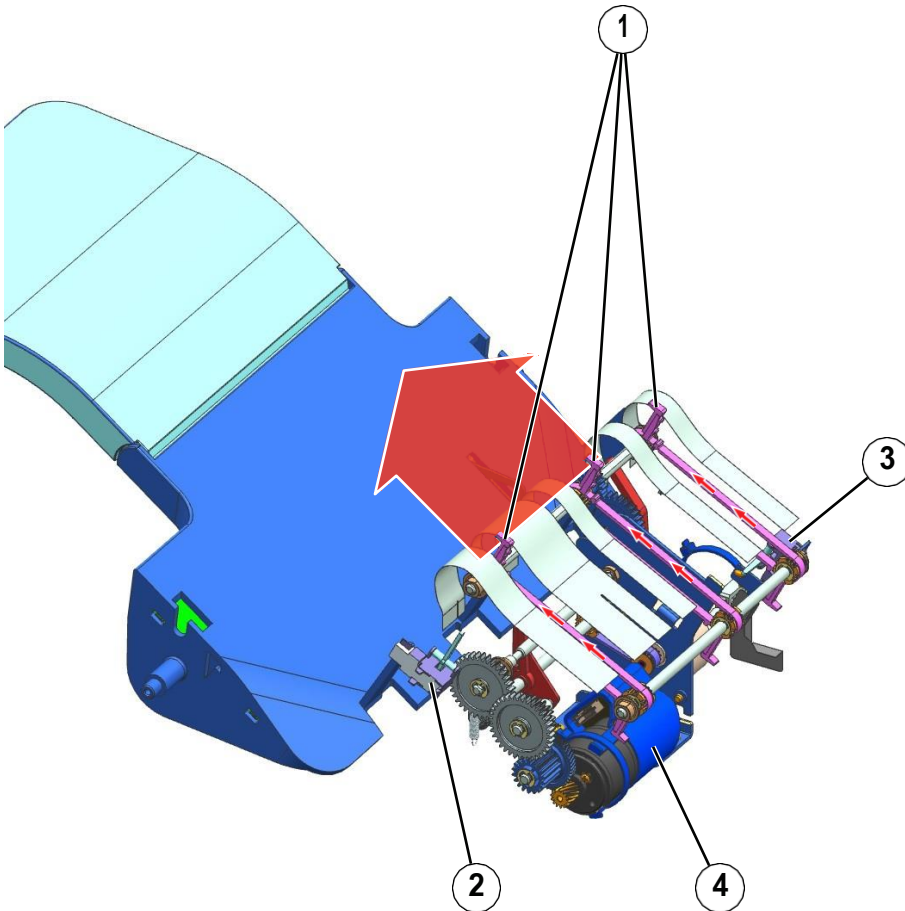
1	Ejector paddles
2	Sensor (staple throat paper present)
3	Sensor (staple finisher ejector)
4	Motor (staple finisher ejector)

After the paper stack is stapled, the ejector paddles that are connected to a belt push the stack toward the bin.

The motor (SF ejector) drives the ejector belt. The sensor (SF ejector) detects the ejector belt at its home position.

Elevator drive
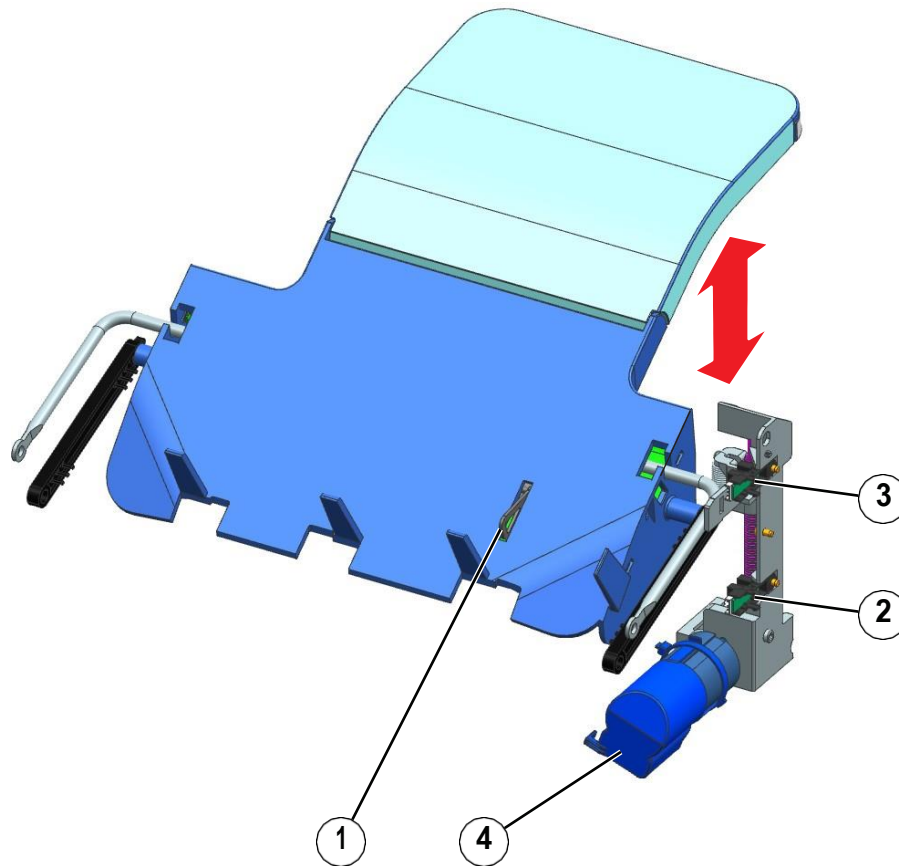
1	Sensor (bin paper present)
2	Sensor (elevator, bottom)
3	Sensor (elevator, top)
4	Motor (elevator)

For each sheet that is ejected, the elevator bin lowers as the height of the bin stack increases. The motor (elevator) controls the movement of the bin. The sensors (elevator) detects the bin at its upper and lower positions.

Clamp drive
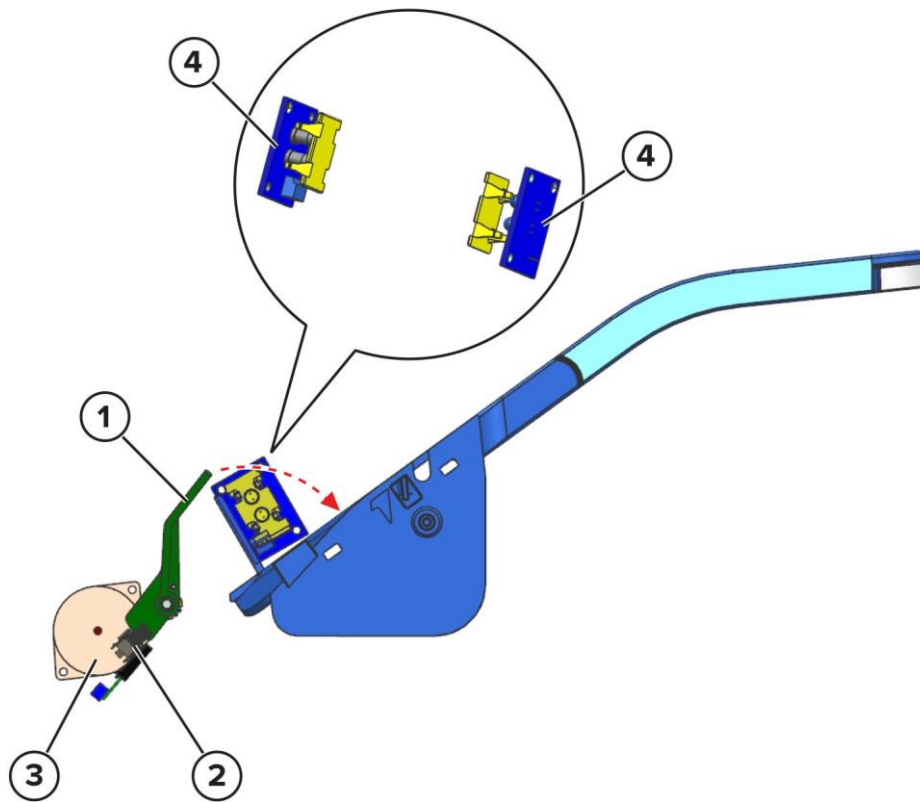
1	Bin clamps
2	Sensor (bin clamp)
3	Motor (bin clamp)
4	Sensors (bin full)

For each sheet that is ejected to the bin, the bin clamps lower and hold the paper stack. If the level of the paper stack on the bin reaches the sensors (bin full), then the elevator bin lowers to accommodate more sheets.

If the level of the paper stack exceeds the sensors (bin full), then the bin reaches full capacity.

The motor (bin clamp) controls the movement of the bin clamp. The sensor (bin clamp) detects the clamps at their home position.

Acronyms

Acronyms

ASIC	Application-Specific Integrated Circuit
BLDC	Brushless DC Motor
BOR	Black Only Retract
C	Cyan
CCD	Charge Coupled Device
CCP	Carbonless Copy Paper
CRC	Cyclic Redundancy Check
CSU	Customer Setup
CTLS	Capacitance Toner Level Sensing
DIMM	Dual Inline Memory Module
DRAM	Dynamic Random Access Memory
EDO	Enhanced Data Out
EP	Electrophotographic Process
EPROM	Erasable Programmable Read-Only Memory
ESD	Electrostatic Discharge
FRU	Field Replaceable Unit
GB	Gigabyte
HCF	High-Capacity Feeder
HCIT	High-Capacity Input Tray
HCOF	High-Capacity Output Finisher
HVPS	High Voltage Power Supply
ITU	Image Transfer Unit
K	Black
LCD	Liquid Crystal Display
LDAP	Lightweight Directory Access Protocol
LED	Light-Emitting Diode
LVPS	Low Voltage Power Supply
M	Magenta
MB	Megabyte
MFP	Multifunction Printer
MPF	Multipurpose Feeder
MROM	Masked Read Only Memory

MS	Microswitch
NVM	Non-volatile Memory
NVRAM	Non-volatile Random Access Memory
OEM	Original Equipment Manufacturer
OPT	Optical Sensor
PC	Photoconductor
pel, pixel	Picture element
POR	Power-On Reset
POST	Power-On Self Test
PSD	Position Sensing Device
PWM	Pulse Width Modulation
RIP	Raster Imaging Processor
ROM	Read Only Memory
SDRAM	Synchronous Dual Random Access Memory
SIMM	Single Inline Memory Module
SRAM	Static Random Access Memory
TPS	Toner Patch Sensing
UPR	Used Parts Return
V ac	Volts alternating current
V dc	Volts direct current
VTB	Vacuum Transport Belt
Y	Yellow

Index

F

H

I

Index

Index

Index

V

W

MX-B557P, MX-B707P

WIRING DIAGRAM

HVPS

FAN
(CARTRIDGE FAN)

SENSOR
(FRONT DOOR INTERLOCK)

SPEAKER

SENSOR
(TONER SHUTTER)

SENSOR
(TONER SHUTTER)

FAN
(DUPLEX)

MOTOR
(DUPLEX)

SENSOR
(TONER DENSITY)

SENSOR
(INPUT)

SENSOR
(DUPLEX PRESENT)

SENSOR
(DUPLEX PATH)

FUSER
ASSEMBLY

SENSOR
(FUSER EXIT)

FUSER
SMARTCHIP

SENSOR
(NARROW MEDIA)

CARTRIDGE
SECTION

MOTOR
(REDRIVE)

SENSOR
(TONER LOW)

SENSOR
(REAR DOOR INTERLOCK)

SENSOR
(MEDIA BIN FULL)

MOTOR
(FUSER)

MOTOR
(TONER ADD)

MOTOR
(MAIN)

MOTOR
(MPF)

FAN
(MAIN)

LVPS

MOTOR
(MEDIA PICK)

SENSOR
(MEDIA INDEX)

SENSOR
(PICK)

SENSOR
(PASS THROUGH)

SENSOR
(MPF MEDIA PRESENT)

SENSOR
(BOTTOM OPTION)

SENSOR
(MEDIA SIZE)

J8

JCTLS1

J15

J19

J6

J18

J1

J27

J60

J62

J66

J73

J71

JISP1

ISP

PRINTHEAD POWER

PRINTHEAD VIDEO

CONTROL PANEL
4.3"

CONTROL PANEL
2.4"

J75

USB TYPE A

ETHERNET

JDEV1

250/550-SHEET TRAY
WIRING DIAGRAM

PRINTER

J1

INTERFACE CABLE

J6

J3

J2

J10

J11

J7

J8

SENSOR
(PASS-THROUGH)

SENSOR
(PICK)

PAPER FEEDER

MOTOR
(PICK/LIFT)

SENSOR
(PICK ROLLER INDEX)

SENSOR
(PAPER PRESENT)

SENSOR
(PAPER SIZE)

MOTOR
(TRANSPORT)

2100-SHEET TRAY
WIRING DIAGRAM

POWER IN

J1

2100-SHEET TRAY
INTERFACE CABLE

J6

J3

J2

J9

J10

J11

J5

MOTOR
(2100-SHEET TRAY
ELEVATOR)

SENSOR
(2100-SHEET TRAY
PICK)

J7

J8

SENSOR
(2100-SHEET A5
LENGTH GUIDE)

2100-SHEET PAPER
FEEDER

MOTOR
(2100-SHEET TRAY
PICK)

SENSOR
(2100-SHEET TRAY
PICK ROLLER INDEX)

SENSOR
(2100-SHEET TRAY
PAPER PRESENT)

MOTOR
(2100-SHEET TRAY
TRANSPORT)

SENSOR
(2100-SHEET TRAY
PAPER SIZE)

SENSOR
(2100-SHEET TRAY
NEAR EMPTY)

OUTPUT EXPANDER CONTROLLER BOARD

SENSOR
(OE DIVERTER
PLUNGER)

BIN LED

J7

J10

SENSOR
(OE BIN FULL)

J5

J6

SENSOR
(OE PASS-THROUGH)

MOTOR
(OE TRANSPORT)

J4

MOTOR
(OE DIVERTER)

J6

SENSOR
(OE REAR DOOR
INTERLOCK)

J14

J2

J1

OUTPUT EXPANDER
UPPER INTERFACE CABLE

OUTPUT EXPANDER
LOWER INTERFACE CABLE

MAILBOX CONTROLLER BOARD

MAILBOX BIN LED ASSEMBLY

MAILBOX UPPER INTERFACE CABLE

SENSOR (MAILBOX BIN FULL), BIN 4

MAILBOX SOLENOID 1

J1B

J5

J4D

J2A

SENSOR (MAILBOX PASS-THROUGH) 2

J3T

SENSOR (MAILBOX REAR DOOR INTERLOCK)

J12

SENSOR (MAILBOX BIN FULL), BIN 3

J4C

MOTOR (MAILBOX TRANSPORT)

J6

MAILBOX SOLENOID 2

J2B

MOTOR (MAILBOX DIVERTER)

J7

SENSOR (MAILBOX BIN FULL), BIN 2

J4B

SENSOR (MAILBOX PASS-THROUGH)

J3B

J1A

J8

J4A

J2C

MAILBOX SOLENOID 3

MAILBOX LOWER INTERFACE CABLE

SENSOR (MAILBOX DIVERTER PLUNGER)

SENSOR (MAILBOX BIN FULL), BIN 1

MOTOR
(STAPLE FINISHER
RIGHT TAMPER)

SENSOR
(STAPLE FINISHER
BIN FULL)

STAPLE UNIT

STAPLE CARTRIDE
DOOR CLOSE LIMIT
SWITCH

MOTOR
(STAPLE FINISHER
LEFT TAMPER)

MOTOR
(STAPLE FINISHER
STACK HEIGHT)

MOTOR
(STAPLE FINISHER
DIVERTER)

SENSOR
(STAPLE FINISHER
PASS-THROUGH)

SENSOR
(STAPLE FINISHER
REAR DOOR
INTERLOCK)

MOTOR
(EJECTOR)

STAPLE FINISHER
INTERFACE CABLE

POWER IN

STAPLE FINISHER
BIN LED

SENSOR
(STAPLE FINISHER
BIN PAPER
PRESENT)

STANDARD BIN LED

MOTOR
(STAPLE FINISHER
PADDLE)

J27   J9   J6   J5

STAPLE FINISHER
CONTROLLER BOARD

J33

J4

J19

J14

J13

J35

J15

J18   J21   CARD POWER

J23   J22   J31

J24

J11

J1

J8

J3

J17

J2

SENSOR
(STAPLE FINISHER
PADDLE)

SENSOR
(STAPLE FINISHER
DIVERTER PLUNGER)

SENSOR
(STAPLE FINISHER
LEFT TAMPER)

SENSOR
(STAPLE FINISHER
RIGHT TAMPER)

SENSOR
(STAPLE FINISHER
STACK HEIGHT)

STAPLE FINISHER
EJECTOR ASSEMBLY
SENSOR
(STAPLE FINISHER
BIN CLAMP)

SENSOR
(STAPLE FINISHER
EJECTOR)

SENSOR
(STAPLE THROAT
PAPER PRESENT)

MOTOR
(STAPLE FINISHER
TRANSPORT)

EJECTOR ASSEMBLY

MOTOR
(STAPLE FINISHER
BIN CLAMP)

STAPLE, HOLE PUNCH FINISHER CONTROLLER BOARD

MOTOR (SHPF RIGHT TAMPER)

SENSOR (SHPF BIN FULL)

RIGHT STAPLE UNIT

SHPF STAPLE CARTRIDGE DOOR CLOSE LIMIT SWITCH, RIGHT

LEFT STAPLE UNIT

SHPF STAPLE CARTRIDGE DOOR CLOSE LIMIT SWITCH, LEFT

MOTOR (SHPF LEFT TAMPER)

MOTOR (SHPF STACK HEIGHT)

HPU CONTROLLER BOARD

MOTOR (SHPF DIVERTER)

SENSOR (HPU TRAILING EDGE)

MOTOR (EJECTOR)

STAPLE, HOLE PUNCH FINISHER INTERFACE CABLE

HPU BOARD POWER

POWER IN

STAPLE, HOLE PUNCH FINISHER BIN LED

SENSOR (SHPF BIN PAPER PRESENT)

STANDARD BIN LED

MOTOR (SHPF PADDLE)

J5

J9

J6

J27

J33

J4

J19

J14

J13

J35

J15

J18

CARD POWER

J21

J23

J22

J31

J24

J11

J1

J8

J3

J17

J2

SENSOR (SHPF PADDLE)

SENSOR (SHPF DIVERTER PLUNGER)

SENSOR (SHPF LEFT TAMPER)

SENSOR (SHPF RIGHT TAMPER)

SENSOR (SHPF STACK HEIGHT)

EJECTOR ASSEMBLY

SENSOR (SHPF BIN CLAMP)

SENSOR (SHPF EJECTOR)

SENSOR (SHPF STAPLE THROAT PAPER PRESENT)

MOTOR (SHPF TRANSPORT)

SENSOR (SHPF ELEVATOR, BOTTOM)

SENSOR (SHPF ELEVATOR, TOP)

MOTOR (SHPF ELEVATOR)

EJECTOR ASSEMBLY

MOTOR (SHPF BIN CLAMP)

HPU CONTROLLER BOARD

MOTOR
(HPU CARRIAGE)

J19

MOTOR
(HOLE PUNCH)

J23

MOTOR
(CHAD HOPPER)

J6

STAPLE, HOLE PUNCH
FINISHER CONTROLLER
BOARD

SENSOR
(HPU TRAILING EDGE)

J14

J16

MOTOR
(HPU TRANSPORT)

J22

POWER IN

J21

SENSOR
(HOLE PUNCH BOX
PRESENT)

J1

SENSOR
(SHPF REAR DOOR
INTERLOCK)

J4

SENSOR
(LIGHT ARRAY)

J 8

STAPLE, HOLE PUNCH
FINISHER CONTROLLER
BOARD

J10

SENSOR
(HPU LEADING
EDGE)

J15

SENSOR
(HOLE PUNCH)

SENSOR
(HPU CARRIAGE
POSITION)

J17

J20

J3

SENSOR
(HOLE PUNCH
BOX FULL)

SENSOR
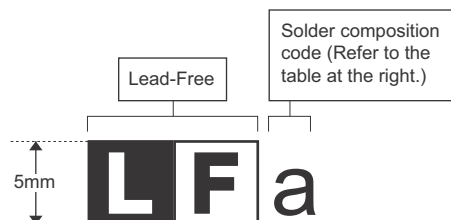(LIGHT ARRAY)

LEAD-FREE SOLDER

The PWB's of this model employs lead-free solder. The "LF" marks indicated on the PWB's and the Service Manual mean "Lead-Free" solder. The alphabet following the LF mark shows the kind of lead-free solder.

Example:

Lead-Free

Solder composition code (Refer to the table at the right.)

5mm

LFa

\<Solder composition code of lead-free solder\>

Solder composition	Solder composition code
Sn-Ag-Cu	a
Sn-Ag-Bi Sn-Ag-Bi-Cu	b
Sn-Zn-Bi	z
Sn-In-Ag-Bi	i
Sn-Cu-Ni	n
Sn-Ag-Sb	s
Bi-Sn-Ag-P Bi-Sn-Ag	p

(1) NOTE FOR THE USE OF LEAD-FREE SOLDER THREAD

When repairing a lead-free solder PWB, use lead-free solder thread.

Never use conventional lead solder thread, which may cause a breakdown or an accident.

Since the melting-point of lead-free solder thread is about 40°C higher than that of conventional lead solder thread, the use of the exclusive-use soldering iron is recommended.

(2) NOTE FOR SOLDERING WORK

Since the melting-point of lead-free solder is about 220°C, which is about 40°C higher than that of conventional lead solder, and its soldering capacity is inferior to conventional one, it is apt to keep the soldering iron in contact with the PWB for longer time. This may cause land separation or may exceed the heat-resistive temperature of components. Use enough care to separate the soldering iron from the PWB when completion of soldering is confirmed.

Since lead-free solder includes a greater quantity of tin, the iron tip may corrode easily. Turn ON/OFF the soldering iron power frequently.

If different-kind solder remains on the soldering iron tip, it is melted together with lead-free solder. To avoid this, clean the soldering iron tip after completion of soldering work.

If the soldering iron tip is discolored black during soldering work, clean and file the tip with steel wool or a fine filer.

CAUTION FOR BATTERY REPLACEMENT

(Danish)   ADVARSEL !
Lithiumbatteri – Eksplosionsfare ved fejlagtig håndtering.
Udskiftning må kun ske med batteri
af samme fabrikat og type.
Levér det brugte batteri tilbage til leverandoren.

(English)   Caution !
Danger of explosion if battery is incorrectly replaced.
Replace only with the same or equivalent type
recommended by the manufacturer.
Dispose of used batteries according to manufacturer's instructions.

(Finnish)   VAROITUS
Paristo voi räjähtää, jos se on virheellisesti asennettu.
Vaihda paristo ainoastaan laitevalmistajan suosittelemaan
tyyppiin. Hävitä käytetty paristo valmistajan ohjeiden
mukaisesti.

(French)   ATTENTION
Il y a danger d'explosion s' il y a remplacement incorrect
de la batterie. Remplacer uniquement avec une batterie du
même type ou d'un type équivalent recommandé par
le constructeur.
Mettre au rebut les batteries usagées conformément aux
instructions du fabricant.

(Swedish)   VARNING
Explosionsfara vid felaktigt batteribyte.
Använd samma batterityp eller en ekvivalent
typ som rekommenderas av apparattillverkaren.
Kassera använt batteri enligt fabrikantens
instruktion.

(German)   Achtung
Explosionsgefahr bei Verwendung inkorrekter Batterien.
Als Ersatzbatterien dürfen nur Batterien vom gleichen Typ oder
vom Hersteller empfohlene Batterien verwendet werden.
Entsorgung der gebrauchten Batterien nur nach den vom
Hersteller angegebenen Anweisungen.

CAUTION FOR BATTERY DISPOSAL

(For USA, CANADA)
"BATTERY DISPOSAL"
THIS PRODUCT CONTAINS A LITHIUM PRIMARY
(MANGANESS DIOXIDE) MEMORY BACK-UP BATTERY
THAT MUST BE DISPOSED OF PROPERLY. REMOVE THE
BATTERY FROM THE PRODUCT AND CONTACT YOUR
LOCAL ENVIRONMENTAL AGENCIES FOR INFORMATION
ON RECYCLING AND DISPOSAL OPTIONS.

"TRAITEMENT DES PILES USAGÉES"
CE PRODUIT CONTIENT UNE PILE DE SAUVEGARDE DE
MÉMOIRE LITHIUM PRIMAIRE (DIOXYDE DE MANGANÈSE)
QUI DOIT ÊTRE TRAITÉE CORRECTEMENT. ENLEVEZ LA
PILE DU PRODUIT ET PRENEZ CONTACT AVEC VOTRE
AGENCE ENVIRONNEMENTALE LOCALE POUR DES
INFORMATIONS SUR LES MÉTHODES DE RECYCLAGE ET
DE TRAITEMENT.

SHARP

Trademark acknowledgements

- Microsoft®, Windows®, Windows® 8, Windows® 8.1, Windows® 10, Windows® Server 2012, Windows® Server 2012 R2, Windows® Server 2016, Windows® Server 2019, Internet Explorer®, and Microsoft Edge® are registered trademarks or trademarks of Microsoft Corporation in the U.S.A. and other countries.

- PostScript is a registered trademark of Adobe Systems Incorporated.

- Macintosh, Mac OS, AppleTalk, EtherTalk, Laser Writer, and Safari are registered trademarks or trademarks of Apple Inc.

- IBM, PC/AT, and Power PC are trademarks of International Business Machines Corporation.

- Acrobat® Reader Copyright® Adobe Systems Incorporated. All rights reserved. Adobe, the Adobe logo, Acrobat, and the Acrobat logo are trademarks of Adobe Systems Incorporated.

- PCL is a registered trademark of the Hewlett-Packard Company.

- Sharpdesk is a trademark of Sharp Corporation.

- All other trademarks and copyrights are the property of their respective owners.