Product	Title	Part Number
Xerox Wide Format 721P	**Service Manual**	**701P41481**

Status:	Date
Reissue **(Replaces 701P40387)**	**June 2004**

Change bars indicate what has changed in this reissue:

Major changes are as follows:

Section 1:

- Item added to Other Faults (Page 1-4)
- Item was added to the Xerographic Subsystem Check (Page 1-14)
- Item was added to the Cutter Subsystem Check (Page 1-15)
- Updated life expectancy of components (Page 1-14, 1-15)

Section 2:

- Items were added to the Add Paper Lamp On RAP (Page 2-10)
- Correction was made to OF 1.1 (Page 2-11)
- Corrections were made to the OF 2.3 through OF 2.6 (Page 2-14 – 2-17).
- Item was added to OF 3.1 (Page 2-19)

Section 3:

- Cut accuracy specification changed (Page 3-6)
- Items added to Damaged Media RAP (Page 3-7)
- Items added to PQ 1 (Page 3-11)
- Items added to PQ 2 and PQ3 (Page 3-12)
- Items added to PQ 5 (Page 3-13)
- Items added to PQ 6 (Page 3-14)
- Items added to PQ 14 (Page 3-21)
- Items added to PQ 15 (Page 3-22)
- Items added to PQ 17 (Page 3-23)
- Items added to PQ 19 (Page 3-24)
- Items added to PQ 21 (Page 3-25)
- Items added to PQ 24 (Page 3-27)
- Items added to PQ 25 (Page 3-28)

Section 4:

- Added REP 4.2.3 Clean/Lubricate Cutter procedure (Page 4-30)
- Added notes to REP 7.4.1 and REP 7.4.2 (Page 4-62)
- Made correction to ADJ 1.3.1 (Page 4-67)
- Added step to ADJ 1.3.2 (Page 4-68)
- Added notes to ADJ 1.3.8 (Page 4-72)
- Made correction to ADJ 1.3.4 (Page 4-70)
- Added Tag 7 information to ADJ 1.3.7 (Page 4-71).

Section 4 Continued:

- Added ADJ 1.3.9 Drum Separation Finger Height (Page 4-74)
- Added step to ADJ 5.1.1 (Page 4-77)
- ADJ 5.1.2 Image Placement Series has been rewritten (Page 4-78 to 4-82)

Section 5:

- Updated entire Parts List

Section 6:

- Changed some NVM default values and names (Pages 6-12 through 6-16)
- Corrected code 4-1b (Page 6-22)
- Changed some NVM default values and names (Pages 6-42 through 6-45)
- Changed an NVM default value (Page 6-76)
- Revised entire Removal Procedure (Page 6-112)
- Revised Tag information (Pages 6-119 to 6-121)

Section 7:

- Some Missing PL references were added and some PL references were corrected
- PJ order corected in Paper Tray BSD's (BSD 7.1 through 7.5)

THE DOCUMENT COMPANY

XEROX

Xerox Wide Format 721P

Service Manual

CAUTION

Certain components in the Xerox Wide Format 721P are susceptible to damage from electrostatic discharge. Observe all ESD procedures in order to avoid component damage

701P41481
June 2004

Notice

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FCC Statement (U.S.A)

The United States Federal Communications Commission (47 CFR 15.105 and 15.27) has specified that the following notice be brought to the attention of the users of the Xerox Wide Format 721P.

Federal Communications Commission radio frequency interference statement.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

User Instructions:

If the equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Changes or modifications not expressly approved by Xerox Corporation could void the user's authority to operate the equipment.

Title ..... Page

About this Manual

This manual is part of a documentation system that includes the training.

This manual contains Repair Analysis Procedures (RAPs), Repair Procedures, Adjustment Procedures, Parts List, Diagnostic Procedures, Installation Procedures, Wiring Data and BSDs.

This manual will enable the Service Representative to repair the Xerox Wide Format 721P.

Organization

This manual is divided into seven sections. The title and description of each section is listed below.

Section 1 Service Call Procedures

This section contains the following:

- Call Flow Diagram
- Initial Actions/ System Checks
- Printer Maintenance
- Status Code Entry Chart
- System Checkout/ Final Action

Call Flow Diagram

The Call Flow Diagram is a map of activities to be performed on each service call.

Initial Actions/ System Checks

This diagram identifies how to collect the data necessary to decide how to proceed with the service call. It classifies the problem and refers you to the appropriate RAP.

Status Code Entry Chart

This chart provides a list of status codes, the possible cause, whether there is a RAP in Section 2, component control code, and a BSD reference.

Printer Maintenance

The Maintenance Activities procedures identify functional checks and cleaning operations that must be performed on every Normal Call. It also identifies those activities that can be performed as needed or as scheduled.

Subsystem Checks

The Subsystem Checks consist of checks and activities that must be performed when a subsystem is repaired during a Callback or when directed to them during Normal Call.

System Checkout

The System Checkout procedure is used to verify that the printer is operating correctly after a repair has been made.

Final Action

The Final Action procedure identifies the steps that must be performed before closing out the service call.

Section 2. - Repair Analysis Procedures (RAPs)

This section contains the Repair Analysis Procedures (RAPs) necessary to repair the faults. When using a RAP, always exit the procedure when the fault is fixed. Do not perform the remaining steps.

Section 3. - Image Quality Repair Analysis Procedures (RAPs)

This section contains the Repair Analysis Procedures (RAPs) necessary to repair the image quality faults. Refer to "How to Use the Image Defect Definitions" to compare the image defect to the definitions. Once you have determined the definition that best describes the defect, go to the section contents page to find the appropriate RAP. When using a RAP, always exit the procedure when the fault is fixed. Do not perform the remaining steps.

Section 4. - Repair / Adjustment

This section contains the repair and adjustment procedures for the Xerox Wide Format 721P.

Section 5. - Parts List

This section contains the detailed Parts List for the Xerox Wide Format 721P.

Section 6. - General Procedures

This section contains Diagnostic Procedures, Installation Procedures, and General Information, which includes Product Specifications for the Xerox Wide Format 721P.

Section 7. - Wiring Data

This section contains Plug/ Jack Location Index, Plug/ Jack Location Drawings, and the BSDs.

Section 8. - Accessories

This section contains the complete service documentation for the scanners and stacker.

How to Use This Manual

The Service Call Procedures will direct you to the appropriate Section of the Service Manual.

You should begin the service call with the Initial Actions/ System Checks Procedure. From there, you will be referred to Section 2, Status Indicator RAPs, Section 3, Image Quality RAPs or Section 7 BSDs.

If you are sent to Section 3, compare the image defect to the print quality definitions. Once you have determined the definition that best describes the copy defect, go to the section contents. The section contents will direct you to an image quality RAP. The RAP has a list of probable causes and corrective actions. From these RAPs you may be referred to other sections of the manual to make checks, adjustments, or to replace the parts.

When you have made a repair, always go to the Call Flow Diagram to finish the call.

Reference Symbology

The following symbols are used in this document:

NOTE

This symbol is used to refer to Notes, usually on the same page.

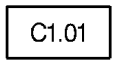
Adjustment

This symbol is used to show that an Adjustment is required on the indicated component, and there is also a reference to the location of the Adjustment Procedure.

Voltage Source

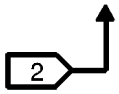
This is an indication of the Source Voltage that is used for operation of a component. This voltage is distributed in the PWB and comes from the LVPS.

Status Code



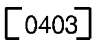
The Status Code is represented by a box in the control logic section of the circuit diagram.

Flags



This symbol is used on the circuit diagrams and is pointing to a wirenet that has to be examined for a short circuit to the frame or an open circuit.

Component Control



The code [0403] is an example of an output diagnostic test.

Parts List

Reference to Exploded Drawing

The spared component is found in this drawing in the Parts List.

Repair Procedure Reference

This symbol indicates that the part has a repair procedure listed in the Repair / Adjustment section of this manual.

Adjustment Procedure Reference

This symbol indicates that the part has an adjustment procedure listed in the Repair / Adjustment section of this manual.

Adjustment and Repair Procedure Reference

This symbol indicates that the part has an Adjustment Procedure and a Repair Procedure listed in the Repair Adjustment section of this manual.

Switches and Relay Contacts

Safety interlock switch that is open.

Safety interlock switch that is closed.

Switch or relay contacts with momentary contacts shown normally open.

Switch or relay contacts with momentary contacts shown normally closed.

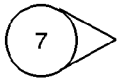
WARNING

A Warning is used to alert the personnel to an operating or maintenance procedure, practice, or condition that, if not strictly observed, could result in injury or loss of life.

CAUTION

A Caution is used to alert the personnel to an operating or maintenance procedure, practice, or condition that, if not strictly observed, could result in damage to, or destruction of equipment.

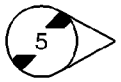
Tag / MOD Information



This symbol identifies the component or configuration of components in a circuit diagram that are part of a change identified with this Tag / MOD number.

This symbol identifies an entire circuit diagram that has been changed by this Tag / MOD number.

Tag / MOD Information

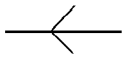


This symbol identifies the component or configuration of components in a circuit diagram that are not part of a change identified with this Tag / MOD number.

This symbol identifies an entire circuit diagram that has not been changed by this Tag / MOD number.

The Signal Flow

This symbol is used on circuit diagrams to indicate an interrupted signal in the horizontal direction.

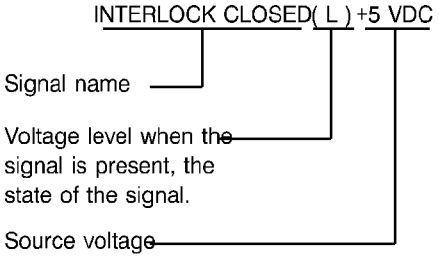


This symbol is used on circuit diagrams to indicate a recirculating signal.

This symbol is used on circuit diagrams to indicate a feedback signal.

Signal Name

The signal line is given a name that indicates the condition of the signal when the signal is present.



AC Voltage Specifications

ACH = 120 VAC (USO)

ACH = 220 / 240 VAC (EO)

DC Voltage Specifications

Table 1 shows the allowable range for the DC voltages.

Table 1. DC Voltage Specifications

Voltage	Specification
+5 VDC	+4.75 to +5.25 VDC
-5 VDC	-4.75 to -5.25 VDC
+12 VDC	
DC COM	0.0 to +0.8 VDC
(L)	0.0 to +0.8 VDC

Notes:

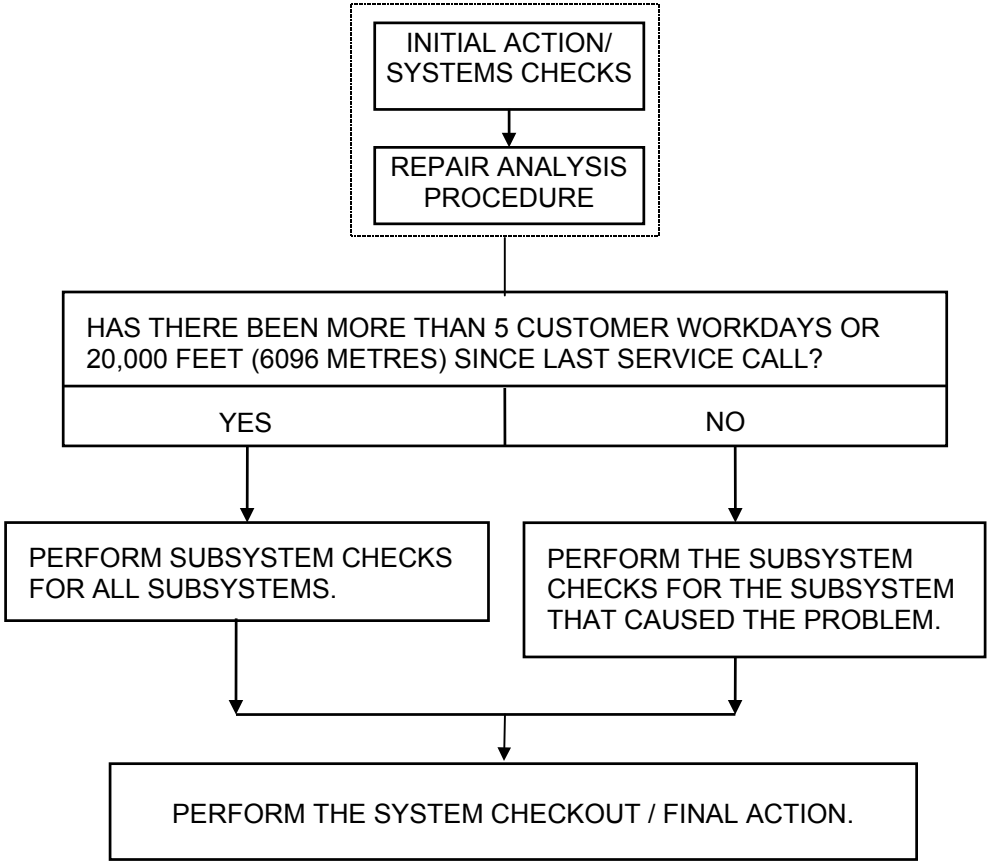
Section Contents

Introduction

Use the Service Call Procedure as a maintenance guide when performing the service on the Xerox Wide Format 721P. The procedure has been designed for use with the Xerox Wide Format 721P Service Manual.

- Initial Actions / System Checks - This diagram is designed to identify and classify the printer problem and to refer you to the appropriate RAP in order to repair the problem. When the problem has been repaired, perform the System Checkout / Final Action.
- Subsystem Checks - When the printer is being serviced, the maintenance/cleaning should be performed.
- System Checkout / Final Action - This procedure should be completed at the end of every service call to ensure that the print is transported correctly and to ensure that image quality is within specification.

Call Flow Diagram



Initial Actions / System Checks

1. Ask the operator to describe the problem.
2. Ask the operator to stop their controller.
3. Record the readings from Meter A and Meter B.
4. Check the logbook.
5. Ensure that the power cord is connected.
6. Ensure that the customer's circuit breaker is not tripped.
7. Try to duplicate the problem.
8. Disconnect the Controller Communication Cable.

The fault is still present when an internal test print is made.

YES | **NO**

STATUS INDICATOR

- **Xerox Wide Format 721P Status Codes**
  Go to Status Code Entry Chart in this section.
- **Add Paper Lamp On**
  Go to Add Paper Lamp On RAP in Section 2.
- **Add Toner Lamp On**
  Go to Add Toner Lamp On RAP in Section 2.
- **Scanner Status Code**
  Go to Status Code Entry Chart in section 1 of the scanner service documentation.

PRINT QUALITY

Go to the Print Quality Initialization Procedure in Section 3 of this manual.

OTHER FAULTS

- **Indicator Is Blank**
  Go to OF 1.1 Blank Indicator RAP in Section 2.
- **Selection/ Indication Problems**
  Go to OF 2.1 Selection/ Indication RAP in Section 2.
  Go to OF 2.2 Media Selection RAP
- **Manual Feed Problems**
  OF 7.1 Manual Tray RAP
- **Stacker Problem**
  Go to the stacker documentation in Section 8B of this manual.
- **HFT Controller Problems**
  OF 3.1 HFT Controller RAP

The fault is still present when using the scanner.

YES | **NO**

Suggest to the customer that the problem could be caused by the host computer or the print parameters that the customer is using.

Go to Initial Actions / System Checks in Section 1 of the scanner service documentation.

Error Code Chart

***Note**: If the DC Controller PWB, Developer Bias PWB, LVPS 1, or LVPS 2 is replaced, be sure to confirm the value of Output 2. It should be -250V +/-3V. If not, you should readjust the value using service mode 4-19. (Refer to ADJ 1.3.8)*

Status Code	Description	Components	RAP	Comp Code	BSD Ref	PL Ref
E-01	**Fuser temperature rising error.**		YES			
		Center heat rod (HTR 1)		3bE	10.4	4.3
	The fuser temperature does not reach 50° C within 6 minutes after switching on the machine.	Center SSR (SSR 1)			10.4	9.5
		Center fuser relay (K 2)			1.1	9.6
	The fuser temperature does not reach 120° C centigrade within 6 minutes since it reached 50° C.	Noise filter PWB			1.1	10.1
		Side heat rod (HTR 2)		3bF	10.3	4.3
	The fuser temperature does not reach the set temperature within 6 minutes since it reached to 120° C.	Side SSR (SSR 2)			10.3	9.5
		Side fuser relay (K 3)			10.3	9.6
	Fuser temperature becomes colder than 120° C since the machine has been ready.	Thermistor (RT 1)			10.4	4.4
		Overheat Protection PWB			10.5	10.1
		DC controller PWB			3.3	10.1
E-02	**Fuser over-temperature.**		YES			
		SSR 1			10.3,	9.5
	The fuser temperature exceeded 200° C.	SSR 2			10.4	9.5
		DC controller PWB				10.1
		DC Driver PWB				10.1
		Anti Flicker PWB				10.1
E-05	**Drum motor error.**	Drum motor (Mot 1)	NO	3-85	9.1	8.4
		Drum motor controller PWB			9.1	10.1
	Drum motor running signal remained high for 1 second after the drum motor was switched on.	DC Driver PWB			9.1	10.1
		LVPS 3 (+36V)			1.2	10.1
	Drum motor running signal remained low for 1 second after the drum motor was switched off.					

Error Code Chart (cont.)

Status Code	Description	Components	RAP	Comp Code	BSD Ref	PL Ref
E-06	**Billing Meter A (Upper) / Service Meter B (Lower) error.** The count copies signal remained low for 0.1 second after the counter was energized.	Billing Meter A (M 1) Service Meter B (M 2) DC controller PWB DC Power Relay K5 LVPS1 (+24 VDC)	NO	3-76 3-77	3.2 3.2 3.2 1.5 1.5	9.4 9.4 10.1 4.5 10.1
E-07	**Cutter motor error.** 1. The cutter blade did not leave the home position within 0.3 seconds after the cutter motor was switched on. 2. The cutter blade did not reach the home position within 1 second after the cutter motor was switched on. **3.** The cutter blade did not reach the home position within 1.9 seconds after the cutter cleaning operation has started.	Cutter home position sensor (Q 22) LVPS 4 (36V) on LED Indicator PWB Cutter motor (Mot 3) DC Driver PWB Cutter motor controller PWB DC controller PWB	NO	1-43 3-69	7.16 1.2 7.16 7.16 7.16 3.3	10.1 10.1 8.2 10.1 10.1 10.1
E-13	**Paper Feed motor error.** 1. The paper feed motor running signal remained high for 2 seconds after the feed motor was switched on. **2.** The paper feed motor running signal remained low for 2 seconds after the feed motor was switched off.	Paper feed motor (Mot 2) Paper feed motor controller PWB DC Driver PWB DC relay (K 6) LVPS 4 (36V) DC controller PWB	YES	3-84 3-60	7.6 7.6 7.6 1.2 1.2 3.3	8.1 10.1 10.1 9.7 10.1 10.1

Error Code Chart (cont.)

Status Code	Description	Components	RAP	Comp Code	BSD Ref	PL Ref
E-14	**Fuser motor error.** 1. The fuser motor running signal remained high for 2 seconds after the fuser motor was switched on. 2. The Fuser motor running signal remained low for 2 seconds while the fuser motor was switched off.	Fuser motor (Mot 5) Fuser motor controller PWB DC Driver PWB DC controller PWB LVPS 4 (36V) on LED Indicator PWB	NO	3-87	10.6 10.6 10.6 3.3 1.2	8.3 10.1 10.1 10.1 10.1
E-16	**Wire cleaning motor error.** Over current signal is not detected within 90 seconds after the wire cleaning motor was switched on.	Wire cleaning motor (Mot 9) Eraser Lamp PWB DC controller PWB DC Driver PWB	NO	3-6C. 3-6E 3-78	9.11 9.11 3.3 3.3	1.6 6.4 10.1 10.1
E-21	**Fuser thermostat error.** Fuser thermostat is opened.	Thermostat (TS1) DC controller PWB DC Driver PWB AC Terminal Board	YES	1-40	1.3 1.3 1.3 1.3	4.4 10.1 10.1 10.1
E-23	**LED Head cleaning motor error.** Over current signal is not detected within 90 seconds after the LED Head cleaning motor was switched on.	LED Head cleaning motor (Mot 8) DC Driver PWB DC controller PWB	NO	3-81, 3-83	6.2 6.2 3.3	1.7 10.1 10.1
E-49	**Developer Position Motor error.** Home position signal is not detected within 60 seconds after the Developer Position Motor was switched on.	Developer Position Sensor (Q25) Developer Position Motor (Mot 4) Fuse F552 Erase Lamp 2 PWB DC Driver PWB DC controller PWB	NO	1-2b 3-68	9.3 9.3 9.3 9.3 9.3 3.3	1.2 8.2 6.4 10.1 10.1
E-Fb	**Flash ROM error** It failed to write a data into flash ROM.	Flash ROM. DC controller PWB (PW7720)	NO		3.1	10.1

Jam Code Chart

Status Code	Description	Components	RAP	Comp Code	BSD Ref	PL Ref
J-01	**Paper jam in feeder 1** Paper remained at the Roll Paper Set Sensor 1 for longer than 4.5 sec after the Roll 1 was rewound.	Paper set sensor (Q 1) Matrix PWB DC controller PWB	NO	1-04	7.9 7.9 7.9	7.6 10.1 7.6
J-02	**Paper jam in feeder 2** Paper remained at the Roll Paper Set Sensor 2 for longer than 3.8 sec after the Roll 2 was rewound.	Paper set sensor (Q 2) Matrix PWB DC controller PWB Registration Clutch CL5	NO	1-05	7.10 7.10 7.10 8.1	7.9 10.1 7.9 6.5
J-03	**Paper jam in feeder 3** Paper remained at the Roll Paper Set Sensor 3 for longer than 5.5 sec after the Roll 3 was rewound.	Paper set sensor (Q 3) Matrix PWB DC controller PWB	NO	1-06	7.11 7.11 7.11	7.14 7.12 10.1
J-04	**Paper jam in feeder 4** Paper remained at the Roll Paper Set Sensor 4 for longer than 5.7 sec after the Roll 4 was rewound.	Paper set sensor (Q 4) Matrix PWB DC controller PWB	NO	1-07	7.12 7.12 7.12	7.14 7.12 7.14
J-05	**Manual paper jam** Manual Start Sensor does not change to L within 3.0 sec since the cut sheet is fed from the Manual table.	Manual Start sensor (Q20) DC controller PWB Retard Solenoid SOL4 Pickup Solenoid SOL3 Manual Tray Motor MOT10	YES	1-03	7.13 7.13 7.14 7.14 7.8	7.6 7.6 9.2 6.6 9.7

Jam Code Chart (cont.)

Status Code	Description	Components	RAP	Comp Code	BSD Ref	PL Ref
J-11	Internal transportation jam Paper is at the Registration Sensor when main power is switched on.	DC controller PWB (PW7720)	YES		7.9	7.9
	When manual paper is used, paper does not reach Registration Sensor within 2.2 sec since Manual Paper Set Sensor detected the paper.	Registration Sensor (Q 12)		1-EE	8.1	6.5
		Registration Clutch CL5		3-90	8.1	6.5
		Manual Drive Clutch CL7			7.13	7.4
		Manual Start Sensor Q20			7.13	7.6
	When Roll Deck 1 is used, paper does not reach Registration Sensor within 2.3 sec since the Roll 1/Manual Feed Clutch (CL 1) was energized.	Roll 1/Manual Feed Clutch (CL 1)		3-92	7.7	8.2
		Roll 1 Clutch (CL 8)		3-9C	7.9	7.4
	When Roll Deck 2 is used, paper does not reach Registration Sensor within 1.7 sec since the Paper Feed Clutch (CL 2) was energized.	Roll 2 Feed Clutch (CL 2)		3-93	7.10	8.2
	When Roll Deck 3 is used, paper does not reach Registration Sensor within 2.3 sec since the Paper Feed Clutch (CL 3) was energized.	Roll 3 Feed Clutch (CL 3)		3-94	7.11	8.1
	When Roll Deck 4 is used, paper does not reach Registration Sensor within 2.6 sec since the Paper Feed Clutch (CL 4) was energized.	Roll 4 Feed Clutch (CL 4)		3-95	7.12	8.1
	When the multi copy is done, paper does not reach Registration Sensor within 1.0 sec since the cutter is energized.					

Status Code	Description	Components	RAP	Comp Code	BSD Ref	PL Ref
J-12	**Separation jam** Paper is at the Separation Sensor when main power is switched on. Paper did not reach Separation Sensor within 0.9 sec after the registration clutch was energized.	Separation sensor (Q 18) Separation lamp DC Driver PWB DC controller PWB LVPS 1 (+24V) Vacuum Transport Blower (BL1) T/DT Corotron dirty or defective Wire heights incorrect Transfer Current High Separation Blower (BL12, 13, 14, 15, 16)	YES	1-2E 3-7b 3-7d 3-99	10.2 9.7 9.7 10.2 1.4 10.1 9.6 9.7	6.4 6.4 10.1 10.1 10.1 9.6 1.1 1.2
J-13	**Exit jam (delay)** Paper did not reach Exit Sensor within 2.2 sec after the registration clutch was energized.	Fuser Exit Switch (LS 2) DC controller PWB Other problems such as: • Obstruction in the inner transport or fuser (broken belt or fuser gear). • Detack/transfer corona wires (clean/replace/adjust) • Detack offset voltage and HVPS • Ensure Separator/Detack nails are adjusted properly. Use the Transfer Guide adjustment tool and use the shorter arm of the tool. • If extremely dry operating environment, set 4BF NVM to 1 to enable outer separator blowers for paper (This does increase contamination inside the machine so should be used only when all other components have been checked) • Transfer lace and Guide plate adjustments	NO	1-2F	10.7	4.3 4.3

J-14	**Exit jam (stay)** Paper is at the Exit Sensor when main power is switched on.	Fuser Exit Switch (LS 2) DC controller PWB Mechanical problem preventing the paper from exiting the fuser such as the stacker or folder not running.	NO	1-2F	10.7	4.3 4.3
J-22	**Stacker Jam** (in case Stacker is connected) Stacker Sensor does not detect the leading edge of the paper within 1.4 sec after the Exit Sensor detected the leading edge of the paper. Stacker Sensor does not detect the trailing edge of the paper within 1.4 sec after the Exit Sensor detected the trailing edge of the paper.	Check power to Stacker Fuser exit switch (LS 2) DC controller PWB Transmission PWB Receiving PWB	NO	1-2F	10.7 3.3	4.3 4.3 10.1 10.1

Door Open Chart

***Note**: When the Power Switch is turned on, Developer Pressing Motor rotates a half, and the Developer Unit is pressed to the Drum. And when the Power Switch is turned off, charged electric power in the Capacitors of DC Driver Board (PW7755) allows Developer Pressing Motor rotates another half in order to release the pressure from the Drum.*

If the Interlock switch is opened, the Developer Pressing Motor does not rotate, therefore, the Developer Unit remains pressed to the Drum.

Status Code	Description	Components	RAP	Comp Code	BSD Ref	PL Ref
U-01	**Roll feeder 1 open** Roll feeder 1 is opened.	Upper Drawer Interlock Switch (DS1) DC controller PWB	NO	1-25	7.20 7.20	9.7 10.1
U-02	**Roll feeder 2 open** Roll feeder 2 is opened.	Middle Drawer Interlock Switch (DS2) DC controller PWB	NO	1-26	7.20 7.20	9.7 10.1
U-03	**Roll feeder 3 open** Roll feeder 3 is opened.	Lower Drawer Interlock Switch (DS3) DC controller PWB	NO	1-27	7.20 7.20	9.6 10.1
U-04	**Internal transportation unit open** Inner transport is not set.	Inner Transport Set Sensor (Q24) DC controller PWB	NO	1-2C	10.2 10.2	8.2 10.1
U-06	**Left Door open** Left Door is opened.	Left Door Interlock Switch DS 8 DC controller PWB	NO	1-02	9.9A 9.9A	9.7 10.1
U-10	**Interlock Open** One of Manual Bypass Shelf, Right Hand Door, Top Rear Cover or Exit Cover is opened.	Exit Cover Interlock DS5 Upper Cover Interlock DS6 Right Door Interlock DS7 Manual Bypass Table Jumper AC Terminal Board	NO	1-F1 1-00 1-01	1.3 1.3 1.3 1.3 1.7	4.5 9.1 9.7 9.2 10.1
U-11	**Manual Feed Table open** Manual Feed Table is opened.	Manual Feed Table switch DC controller PWB	NO			
U-12	**Right Door open** Right Door is opened.	Right door switch (DS 7) DC controller PWB	NO	1-01	1.3 1.3	9.7 10.1
U-13	**Upper Cover open** Upper Cover is opened.	Upper Cover Interlock Switch (DS 6) DC controller PWB	NO	1-00	1.3 1.3	9.1 10.1

Status Code	Description	Components	RAP	Comp Code	BSD Ref	PL Ref
U-14	**Exit Cover open** Exit Cover is opened.	Exit Cover switch (DS 5) DC controller PWB	NO	1-F1	1.3 1.3	4.5 10.1

Subsystem Checks

***Note**: Whenever performing subsystem checks (5 customer workdays or 20,000 feet {6096 metres}), clean all surfaces (paper guides, vacuum transport components, fuser components, rollers, etc.) that come into contact with the paper. This will help prevent image quality problems.*

Optics

CHECK = Check, and if required, clean, replace, or adjust. **CLEAN** = Must clean **REPLACE** = Must replace

No.	Component	PL Ref	Expected Life	Every Call	Cautions	Descriptions	Problem Indicators
1	Selfoc Lens (LED Head)	1.7		Clean		Clean the Selfoc Lens with a lint free cloth and Lens/ Mirror Cleaner (43H12).	Low image density bands in media feed direction.
2	Pad	1.7		Check		LED Print Head Cleaning Pad	Low image density bands in media feed direction.

Xerographics

CHECK = Check, and if required, clean, replace, or adjust. **CLEAN** = Must clean **REPLACE** = Must replace

No.	Component	PL Ref	Expected Life	Every Call	Cautions	Descriptions	Problem Indicators
1	Corotron wire: charge, transfer, detack	1.1	328K feet (100K meters)	Clean		Scrub the wire with a lint free cloth and water. Check the wire heights (ADJ 1.1.1 and ADJ 1.1.2).	
2	Grid plate	1.1	656K feet (200K meters)	Clean		Clean the Grid plate with water.	
3	Developer Spacing Rollers	3.2 3.3		Clean		Inspect and replace if necessary.	
4	Drum	1.3	656K feet (200K meters)	Check		Inspect and replace if necessary.	
5	Drum Stripper Fingers	1.2		Check		Inspect and replace if necessary.	
6	Developer Unit	3.1	656K feet (200K meters)	Check		Replace	
7	Drum Drive Gears	1.3, 8.4		Clean		Lubricate with Molybdenum Grease (70P87)	
8	Cleaning Roller	1.2	656K feet (200K meters)	Check			

***Note**: Whenever performing subsystem checks (5 customer workdays or 20,000 feet {6096 metres}), clean all surfaces (paper guides, vacuum transport components, fuser components, rollers, etc.) that come into contact with the paper. This will help prevent image quality problems.*

Fuser **CHECK** = Check, and if required, clean, replace, or adjust. **CLEAN** = Must clean **REPLACE** = Must replace

No.	Component	PL Ref	Expected Life	Every Call	Cautions	Descriptions	Problem Indicators
1	Heat Roll	4.2	656K feet (200K meters)	Check		Inspect and replace if necessary	
2	Ozone Filter (7)	9.6	656K feet (200K meters) or 1 year	Check		Replace (2 locations)	
3	Fuser Stripper Fingers	4.4, 4.6	656K feet (200K meters)	Check	Shift the Upper Stripper Finger Unit left or right every 70000 to 100000 feet (21,000 to 31,500 meters).	Inspect and shift or replace if necessary.	
4	Thermistors	4.4		Check		Inspect, clean and replace if necessary	
5	Pressure Roll	4.2	656K feet (200K meters)	Check		Inspect and replace if necessary	
6	Heater Rods	4.3	328K feet (100K metres)	Check		Inspect and replace if necessary.	

Cutter **CHECK** = Check, and if required, clean, replace, or adjust. **CLEAN** = Must clean **REPLACE** = Must replace

No.	Component	PL Ref	Expected Life	Every Call	Cautions	Descriptions	Problem Indicators
1	Cutter Oil Pad.	5.2	500K feet (152K Metres)	Check		Apply a bead of oil to entire length of Oil Pad (REP 4.2.2) (Turbine #32 oil 70P82)	
2	Cutter	5.2		Check	Clean/Lubricate every 164,000 feet (50K meters) or 3 months	REP 4.2.3 Clean/Lubricate Cutter	

Media Feed **CHECK** = Check, and if required, clean, replace, or adjust. **CLEAN** = Must clean **REPLACE** = Must replace

No.	Component	PL Ref	Expected Life	Every Call	Cautions	Descriptions	Problem Indicators
1	Feed Rolls	7.5 7.10 7.11		Clean		Clean with Film Remover	
2	Registration Rollers	8.4		Clean		Clean with Film Remover	
3	Main Drive Chain	8.2		Check tension	Re-tension every 500K feet or 152K Meters		

System Checkout / Final Action

Enter diagnostic program 8 and make several prints of internal test pattern 1.

Prints are delivered to the exit.

Y N

Refer to Initial Action / System Checks to begin your repair.

Evaluate the copies using print defect definitions in Section 3.

Image quality is acceptable.

Y N

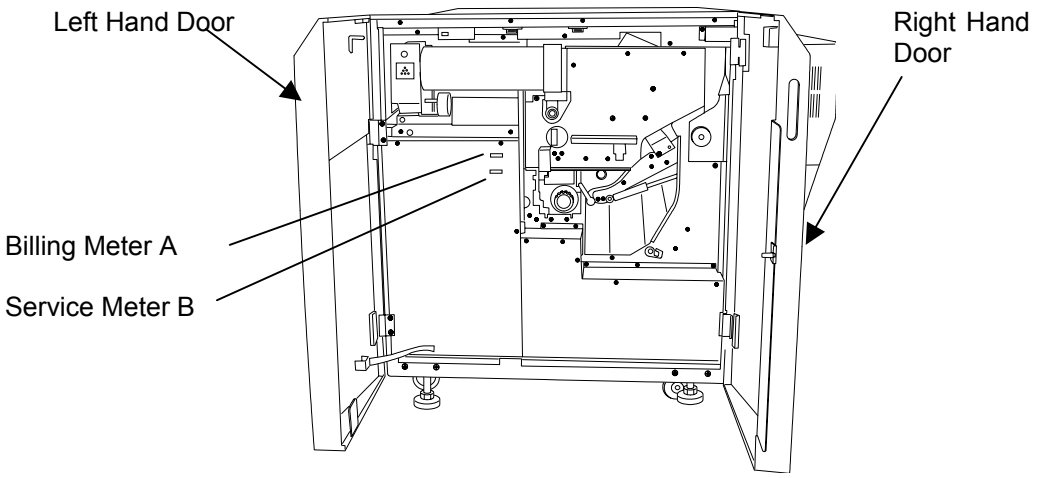
Refer to the print defect definitions in Section 3 and go to the appropriate image quality RAP.

Clean the exterior of the printer, verify operation of the Billing Meters, and provide print samples to the customer. Reconnect the Controller Communication Cable. Run test prints from the controller.

NOTE: Billing Meter A is reported under Meter A on the XSCR form. Billing Meter A reports square feet / metres.

Service Meter B is reported under Total on the XSCR form. Service Meter B reports linear feet / metres.

Top counter is the Meter A, while the bottom counter is the Meter B.



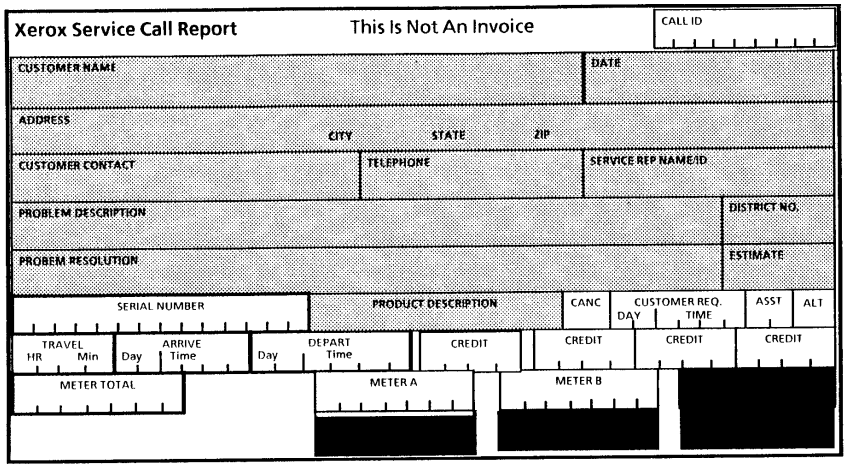


Figure 2. Xerox Service Call Report

Section Contents

TITLE **PAGE**

STATUS INDICATORS

OTHER FAULTS

E-01 Fuser Under-Temperature

This code is displayed if the fuser does not reach the correct operating temperature.

Initial Actions

Remove the left side cover.

Procedure

WARNING

Switch the printer off and allow the fuser to cool before performing any service in the fuser area.

Switch the printer on. Observe both heat rods.

One or both of the Heat Rods is on.

Y N

Go to OF 10.1 Overheat Protection RAP.

Switch the printer off. Disconnect connector J2 (white connector) of center heat rod (HTR 1) (BSD 10.4). Switch the printer on. Observe the side heat rod (HTR 2) (BSD 10.3).

The side heat rod is on.

Y N

Switch the printer off, reconnect J2, and disconnect the main power cord.

There is less than 5 ohms between J1 pins 4 and 6.

Y N

Check the wiring to heat rod (HTR 2) for an open circuit. If the problem still exists, replace the heat rod (HTR 2) (BSD 10.3).

Connect the main power cord and switch the printer on.

There is 200 TO 240 VAC between K3 terminals 4 and 8.

Y N

A B C

A B C

There is 200 TO 240 VAC between pins 2 and 6 of the side fuser relay (K 3) (BSD 10.3).

Y N

Check the AC wiring to side fuser relay (K 3) for an open circuit (BSD 10.3).

There is +24VDC between pins 1 and 0 of the side fuser relay (K 3).

Y N

Check the wiring to side fuser relay (K 3) for an open circuit. If the wiring is okay replace the DC driver PWB (BSD 10.3).

Replace the fuser relay (K 3) (BSD 10.3).

There is +24VDC between pins 3 and 4 of the side SSR (SSR 2) (BSD 10.3).

Y N

Check the wiring to side SSR (SSR 2) for an open or short circuit. If the wiring is okay replace the DC driver PWB (BSD 10.2).

Connect the meter between J554-1 (+) and ground (-) on the DC Driver PWB.

Enter diagnostic code 3-bF.

The meter switches between +5 VDC and +0.5 VDC or between +0.5 VDC and +5 VDC when Enter is pressed.

Y N

- If the meter stays at +5 VDC, replace the DC Driver PWB.
- If the meter stays at +0.5 VDC, check for an open wire between J554-1 and J253-2 (BSD 10.3). If OK, replace the Anti-Flicker PWB.

A D

A D

Replace the side SSR (SSR 2) (BSD 10.3) before replacing the Anti-Flicker PWB.

Switch the printer off. Reconnect J2 and disconnect J3 (red connector). Switch the printer on. Observe the center heat rod (HTR 1) (BSD 10.4).

The center heat rod is on.

Y N

Switch the printer off, reconnect J3, and disconnect the main power cord.

There is less than 5 ohms between J1 pins 1 and 3.

Y N

Check the wiring to heat rod (HTR 1) for an open circuit. If the problem still exists, replace the heat rod (HTR 1) (BSD 10.4).

Connect the main power cord and switch the printer on.

There is 200 TO 240 VAC between K2 pins 4 and 8 (BSD 1.1).

Y N

There is 200 TO 240 VAC between pins 2 and 6 of the center fuser relay (K2) (BSD 1.1).

Y N

Check the AC wiring to center fuser relay (K2) for an open circuit (BSD 1.1).

E F G

E F G

There is +24VDC between pins 1 and 0 of the side fuser relay (K 2).

Y N

Check the wiring to Center Fuser Relay (K 2) for an open circuit. If the wiring is okay replace the DC driver PWB (BSD 1.1).

Replace the Center Fuser Relay (K 2) (BSD 1.1).

There is +24VDC between pins 3 and 4 of the center SSR (SSR 1) (BSD 10.4).

Y N

Check the wiring for an open or short circuit. If the wiring is okay replace the DC driver (BSD 10.4).

Connect the meter between J554-5 (+) and ground (-) on the DC Driver PWB.
Enter diagnostic code 3-bE.

The meter switches between +5 VDC and +0.5 VDC or between +0.5 VDC and +5 VDC when Enter is pressed.

Y N

- If the meter stays at +5 VDC, replace the DC Driver PWB.
- If the meter stays at +0.5 VDC, check for an open wire between J554-5 and J253-1 (BSD 10.4). If OK, replace the Anti-Flicker PWB.

Replace the center SSR (SSR 1) (BSD 10.4).

Check Thermistor (RT 1) (BSD 10.4) for being contaminated or the Thermistor wiring for an open circuit. Replace the Thermistor, or replace the DC controller PWB as necessary (BSD 10.4).

E-02 Fuser Overtemperature

This code is displayed if the fuser temperature is too high.

Initial Actions

Remove the left side cover.

Procedure

WARNING

Switch the printer off and allow the fuser to cool before performing any service in the fuser area.

***Note**: When the fuser is at operating temperature, the resistance of Thermistor RT 1 is approximately 5.8K ohms. At room temperature the resistance is approximately 28.6K ohms.*

There is approximately 28.5K ohms between J95 pin 1 and 2 of thermistor (RT 1) (BSD 10.4).

Y N

Check the wiring at thermistor (RT 1) for an open or short circuit. Replace the thermistor or the DC driver PWB as required (BSD 10.4).

Short J95 pins 1 and 2 (RT1 connector, BSD 10.4) to ensure an E-02 code is present.
Observe both heat rods.
Switch on the Printer.
The Side Heat Rod (lower) is on.

Y N

The Center Heat Rod (upper) is on.

Y N

Check Thermistor RT1 for contamination or a loose connection. Clean or repair RT1 as necessary. If problem still exists, replace the DC Controller PWB.

A B

A B

Set the meter to measure +5 VDC.
Connect the meter between J554-3 (+) on the DC Driver PWB and ground (-).
There is +5 VDC present.

Y N

Go to BSD 10.4 and check for a short circuit between J554-3 on the DC Driver PWB and J253-3 on the Anti-Flicker PWB. Replace the DC Driver PWB or Anti-Flicker PWB as necessary.

Set the meter to measure +24 VDC.
Connect the meter between J253-4 (+) on the Anti-Flicker PWB and ground (-).
There is +24 VDC present.

Y N

Replace the Anti-Flicker PWB. If problem still exists, replace SSR2.

Replace SSR 1 (BSD 10.4) as necessary.

Set the meter to measure +5 VDC.
Connect the meter between J554-1 (+) on the DC Driver PWB and ground (-).
There is +5 VDC present.

Y N

Go to BSD 10.3 and check for a short circuit between J554-1 on the DC Driver PWB and J253-2 on the Anti-Flicker PWB. Replace the DC Driver PWB or Anti-Flicker PWB as necessary.

Set the meter to measure +24 VDC.
Connect the meter between J253-4 (+) on the Anti-Flicker PWB and ground (-).
There is +24 VDC present.

Y N

Replace the Anti-Flicker PWB. If problem still exists, replace SSR2.

Replace SSR 2 (BSD 10.3) as necessary.

E-13 Paper Feed Motor Error

This code is displayed if the Paper Feed Motor MOT2 does not switch off or on at the proper time.

(Figure 1) Open the left hand door and remove the LVPS Monitoring access cover (1 screw).
(Figure 2) Observe the LED Indicator PWB.
All LED's are lit.
Y N
DCP 3 & DCP4 are off.
Y N
If DCP 4 is off, go to BSD 1.2 and check LVPS 4 (+36 VDC).

Switch off the power.
Set the meter to measure +24 VDC.
Connect the meter between J555-23 (+) on the DC Driver PWB and ground (-).
Switch on the power while observing the meter.
There is +24 VDC present momentarily, then the voltage switches to approximately 0 VDC.
Y N
There is a steady +24 VDC present.
Y N
Go to BSD 1.2 and check the + 24 VDC to DC Power Relay K6.

Go to BSD 3.3 and check for a good connection between J208 on the DC Controller PWB and J557 on the DC Driver PWB.

Go to BSD 1.2 and check and DC Power Relay K6 for an open circuit. If OK,

Enter diagnostic code 3-84 to test the Paper Feed Motor MOT2.
The Paper feed Motor runs.
Y N
A B

A B
Exit diagnostics.
Connect the meter between J555-6 (+) on the DC Driver PWB and ground (-).
There is approximately +4.5 VDC present.
Y N
Go to BSD 7.6 and check for an open circuit between J556-6 on the DC Driver PWB and CN1-3 on the Paper Feed Motor Control PWB.

Enter diagnostic code 3-84 to test the Paper Feed Motor.
The voltage decreased to approximately 0 VDC.
Y N
Replace the DC Driver PWB.

Check F1 on the Paper Feed Motor Controller PWB. Replace as necessary. If OK, replace the Paper Feed Motor Controller PWB before replacing the Paper Feed Motor MOT 2.

Exit diagnostics.
Connect the meter between J556-2 (+) on the DC Driver PWB and ground (-).
There is +5 VDC present.
Y N
Replace DC Driver PWB

Enter diagnostic code 3-84
The voltage decreased to approximately 0 VDC.
Y N
Go to BSD 7.6 and check for an open circuit between J556-2 on the DC Driver PWB and CN1-6 on the Paper Feed Motor Control PWB. If OK, replace the Paper Feed Motor.

Replace the DC Driver PWB

Figure 1 Access Cover

Figure 2 LED Indicator PWB

E-21 Fuser Thermostat Error

This code is displayed if the Fuser Thermostat TS1 is open.

(Figure 1) Open the left hand door and remove the LVPS Monitoring access cover (1 screw).
(Figure 2) Observe the LED Indicator PWB.
All LED's are lit.
Y N

DCP 1 is lit
Y N

Go to BSD 1.4 and check the LVPS 1 (+24 VDC) wiring for an open circuit before replacing LVPS 1.

DCP 3 & DCP4 are off.
Switch off the power and disconnect the power cord.
There is approximately 0 ohms across the terminals of thermostat (TS 1) (BSD 1.3).
Y N

An overheat probably occurred.

- After replacing TS 1, go to E-02 Over-temperature RAP to solve the problem.
- Go to OF 10.1 Overheat Protection RAP to ensure that the overheat protection circuit is operating properly.

Reconnect the power cord and Switch on the power.
Set the meter to measure +24 VDC.
Connect the meter between J107-1 (+) on the AC Terminal PWB and ground (-).
There is +24 VDC present.
Y N
A B C

A B C

Go to BSD 1.3 and check for an open between TS 1 and the AC Terminal PWB. If OK, go to BSD 1.4 and check U1-OUT pin 6 on LVPS 1 (+24 VDC) for an open circuit.

Replace the AC Terminal PWB.

Go to BSD 1.3 and check for an open circuit between J106-7 of the AC Terminal PWB and J555-15 Of the DC Driver PWB.

Figure 1 Access Cover

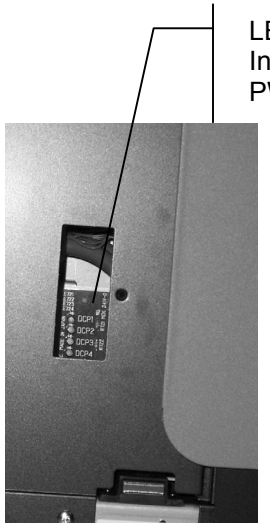


Figure 2 LED Indicator PWB

J-05 Manual Feed Jam

Initial Actions

Clear any paper from the manual tray area.

Procedure

Enter diagnostic code 3-3C to test the Manual Tray Motor MOT10.

The motor operates and the feed roll turns.

Y N

Exit diagnostics.

Connect the meter between J556-37 (+) on the DC Driver PWB and ground (-).

There is +24 VDC present.

Y N

Go to BSD 7.8 and check the Manual Tray Motor MOT10 for an open circuit.

Enter diagnostic code 3-3C to test the Manual Tray Motor MOT10.

The voltage decreased to approximately 0 VDC.

Y N

Replace the DC Driver PWB.

Check for a mechanical problem preventing the Manual Tray Motor MOT10 from operating.

Enter diagnostic code 3-3A to test the Pick-Up Solenoid SOL3.

The Pick-Up Roller drops down.

Y N

Exit diagnostics.

Connect the meter between J556-35 (+) on the DC Driver PWB and ground (-).

There is +24 VDC present.

Y N

Go to BSD 7.14 and check the Pick-Up Solenoid SOL3 for an open circuit.

A B

A B

Enter diagnostic code 3-3A to test the Pick-Up Solenoid SOL3.

The voltage decreased to approximately 0 VDC.

Y N

Replace the DC Driver PWB.

Check for a mechanical problem preventing the Pick-Up Solenoid SOL3 from operating.

Enter diagnostic code 3-3B to test the Retard Solenoid SOL4.

The Retard Solenoid operates.

Y N

Exit diagnostics.

Connect the meter between J556-14 (+) on the DC Driver PWB and ground (-).

There is +24 VDC present.

Y N

Go to BSD 7.14 and check the Retard Solenoid SOL4 for an open circuit.

Enter diagnostic code 3-3B to test the Retard Solenoid SOL4.

The voltage decreased to approximately 0 VDC.

Y N

Replace the DC Driver PWB.

Check for a mechanical problem preventing the Retard Solenoid SOL4 from operating.

A

A

Enter diagnostic code [1-03] to check the Manual Feed Sensor (Q 20). Actuate the sensor using a sheet of paper (BSD 7.13).

The display toggles from "H" to "L".

Y N

Check the wiring for an open circuit to the Manual Feed Sensor (Q 20). If the wiring is OK, replace the sensor or the DC controller PWB as required (BSD 7.13).

Check for a mechanical problem in the manual feed tray preventing the paper from reaching the Manual Start Sensor Q20.

J-11 Internal Transportation Jam

This code is displayed if paper does not arrive at the Registration Sensor Q12 at the proper time.

Initial Actions

Switch off the power and clear any paper jam.

Procedure

Switch on the power.

The status code appears before the printer is warmed up.

Y N

The Status Code appears when using all sources (Rolls and Manual Tray).

Y N

The status code appears when using the Manual Tray only.

Y N

Go to the appropriate BSD (7.7, 7.9, 7.10, 7.11, and 7.12) and check for a mechanical problem with Roll 1, Roll 2, Roll 3, or Roll 4 Feed Clutches. If OK, check for obstructions in the paper path causing J-11 jams.

Enter diagnostic code 3-9b to test the Manual Drive Clutch CL7.

The clutch operates properly.

Y N

Go to BSD 7.13 and check the Manual Feed Clutch CL7 circuit.

Go to BSD 7.13 and check the Manual Start Sensor Q20 for a short circuit.

A B

A B

Enter diagnostic code 3-90 to test the Registration Clutch CL5.

The clutch operates properly.

Y N

Go to BSD 8.1 and check the Registration Clutch CL5 for an open circuit.

Go to BSD 8.1 and check the Registration Sensor Q12 for an open circuit. If OK, check for a mechanical problem in the registration area causing a J-11 jam.

Go to BSD 8.1 and check the Registration Sensor Q12 for a short circuit.

J-12 Separator Jam

This code is displayed if paper is not correctly separated from the drum.

Initial Actions

Open the Right door. Open the inner transport and check the paper path at the separation sensor (Q 18) for an obstruction (BSD 10.2).

***Note**: If the jammed media has "dog ears", see Damaged Media RAP, Dog Ears in Section 3*

Procedure

Switch on the power.

The status code appears before the printer is warmed up.

Y N

Enter diagnostic code [1-2E] to check the separation sensor (Q 18). Actuate the sensor using a sheet of paper. (BSD 10.2).

The display toggles from "H" to "L".

Y N

Check the wiring for an open circuit to the separation sensor (Q 18) If the wiring is OK, replace the separation sensor or the DC controller PWB as required (BSD 10.1).

Set the meter to measure +24 VDC.

Connect the meter between J554-21 (+) on the DC Driver PWB and ground (-).

There is +24 VDC present.

Y N

A B C

A B C

Connect the meter between CN301-3 (+) on the HVPS4 and ground (-).

There is +24 VDC present.

Y N

Go to BSD 9.6 and check for an open circuit between CN301-3 and the +24 VDC.

Replace HVPS4.

Perform the following:

- Clean the transfer (ED 2) and detack (ED 3) corotrons (BSD 9.4).
- Clean and inspect the separation blower (BSD 10.1).
- Clean and inspect the separation lamp (BSD 9.5).

Enter diagnostic code [1-2E] to check the separation sensor (Q 18). Actuate the sensor using a sheet of paper. (BSD 10.2).

The display toggles from "H" to "L".

Y N

Check the wiring for a short circuit to the separation sensor (Q 18) If the wiring is OK, replace the separation sensor or the DC controller PWB as required (BSD 10.1).

Replace the DC Controller PWB.

Add Paper Lamp On RAP

Initial Actions

Ensure that paper is loaded in all the drawers.

Procedure

Observe the Paper Size Indicators.

All Paper Size Indicators are blank.

Y N

Only Roll 1 Paper Size Indicator is blank.

Y N

- Install a new media roll in the drawer where the paper size indicator is blank. If problem still exists, check that the spool holder is holding the media firmly. Replace spool holder if necessary
- Go to BSD 7.15 and check the Mid-Transport Feed Clutch CL6 for operating properly or for an open circuit.

- Install a new media roll. If problem still exists, check that the spool holder is holding the media firmly. Replace spool holder if necessary
  - Go to BSD 7.9 and check the Roll 1 Feed Clock Sensor Q13 for an open or short circuit.
  - Go to BSD 7.9 and check the Roll 1 Feed Clutch CL8 for an open circuit.
  - Go to BSD 7.7 and check Roll 1/Manual Feed Clutch CL1 for an open circuit.

A

A

Pull out the drawers and observe the paper.

The paper has rewound off the feed rolls.

Y N

Go to BSD 1.5 and check the +24 VDC Interlock at K2-5 and the +24 VDC Interlock distribution at JC10 and JC11.

The paper is wrinkled.

Y N

Go to BSD 7.6 and check for an open circuit between J556-33 on the DC Driver PWB and CN1-4 on the Paper Feed Motor Controller PWB.

Go to BSD 7.15 and check the Mid-Transport Feed Clutch CL6 for being defective or the circuit for being open.

Add Toner Lamp On RAP

Initial Actions

Ensure that there is toner in the cartridge.

Procedure

The Add Toner lamp is on steady.

Y N

The Add Toner Lamp is blinking.
Go to BSD 9.9 and check the Toner Dispense Motor MOT7 and Toner Dispense Clutch CL11 for operating properly. If OK, replace the Toner Hopper Sensor TSL1 (BSD 9.9).

- If there is toner in the hopper, go to BSD 9.9 and check the Toner Hopper Motor MOT6 for correct operation. If OK, check for any obstructions preventing the toner from entering the sump. If the problem still exists, replace the Toner Sump Sensor TSL2 (BSD 9.9).
- If there is no toner in the hopper, go to BSD 9.9 and check the Toner Dispense Motor MOT7 and Toner Dispense Clutch CL11 for operating properly.

OF 1.1 Blank Indicator RAP

Initial Actions

- Disconnect the main power cord.
- Ensure that the customer's circuit breaker is not open.
- Remove the left cover to observe the circuit breaker CB 1. Ensure that CB 1 is switched on (BSD 1.1).
- Ensure that all interlocks are closed.

Procedure

WARNING

This procedure requires testing of AC voltages; use caution.

Reconnect the main power cord. Switch the printer on.
The circuit breaker (CB 1) on the printer remained closed.
Y N

Disconnect the main power cord. Check for a short circuit an the wiring to the following components:

- AC terminal PWB (BSD 1.1).
- Noise filters (NF 1) and (NF 2) (BSD 1.1).
- Center Fuser Relay K2 (BSD 1.1).
- DC Power Relay K6 (BSD 1.2)
- LVPS2, LVPS3, LVPS4 (BSD 1.2)
- LVPS 1 (BSD 1.4).
- Auxiliary PWB (BSD 1.4).
- Side Fuser Relay K3 (BSD 10.3).

(Figure 1) Open the left hand door and remove the LVPS Monitoring access cover (1 screw).
(Figure 2) Observe the LED Indicator PWB.
All LED's are blank (unlit).
Y N
A B

A B

All LEDs are lit.
Y N

Only DCP1 is lit.
Go to OF 1.2 LVPS2 (+5 VDC) RAP.

Go to BSD 2.1 and check the cable between J214 on the DC Controller PWB and J710 on the UI Indicator PWB. If OK, replace the UI Indicator PWB before replacing the DC Controller PWB.

Set the meter to measure 200 TO 240 VAC.
There is 200 TO 240 VAC between J 102 pins 1 and 2 of AC Terminal PWB (BSD 1.2).
Y N

There is 200 TO 240 VAC between K1-4 and K1-8 on the AC Interlock Relay K1 (BSD 1.1).
Y N

Check the AC wiring for an open circuit between the main power switch (S1), AC interlock relay (K1). Replace the AC interlock relay (K1) as required (BSD 1.1).

Check the wiring for an open circuit between the AC interlock relay (K1) and the Noise Filter NF1. Replace the Noise Filter NF1 (BSD 1.1) if necessary.

Replace the AC Terminal PWB (BSD 1.2).

Figure 1 Access Cover

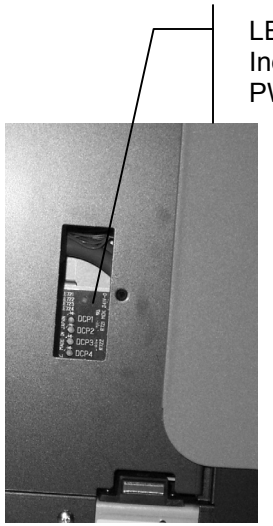


Figure 2 LED Indicator PWB

OF 1.2 LVPS2 (+5 VDC) RAP

Set the meter to measure 200 TO 240 VAC.

There is 200 TO 240 VAC between CN1C pins 1 and 3 of LVPS2 (BSD 1.2).

Y N

Check the wiring for an open circuit between the AC Terminal PWB and LVPS2 (BSD 1.2). If OK, go to OF 1.1 Blank Indicator RAP.

Connect the meter to CN2C pin 5 on LVPS2.

There is + 5 VDC present.

Y N

Switch off the power.

Disconnect CN2C from LVPS2.

Connect the meter to CN2C pin 6 on LVPS2 and switch on the power.

There is + 5 VDC present.

Y N

Replace LVPS2 (BSD 1.2).

- Check the LED Print Head circuit (BSD 6.1) for shorting LVPS2 (BSD 1.2).
- Go to BSD 1.6 and check for a short in the +5 VDC distribution.

Go to BSD 1.2 and check Fuse F2 for being open. If OK, check for an open wire from CN2C-5.

OF 2.1 Selection / Indication RAP

Initial Actions

Ensure that connectors J214 on the DC controller PWB and J710 on the UI Indicator PWB are seated correctly (BSD 2.1).

Procedure

All display indicators turn on momentarily at power up.

Y N

Disconnect J214 at the DC controller PWB and check the wiring for an open circuit. Replace the UI Indicator PWB or DC controller PWB as required (BSD 2.1).

- For Control Console switch problems, replace the UI Indicator PWB.
- For Toner Level indication problems, go to BSD 9.10 and check the Toner Supply Status circuit.
- For Paper Size Indication problems, go to OF 2.2 Media Selection RAP.

OF 2.2 Media Selection RAP

Initial Actions

Ensure that connectors J207 on the DC controller PWB and J710 on the Media Status Indicator PWB are seated correctly (BSD 2.1).

Procedure

One or more of the Paper Size displays on the Media Status Indicator PWB is blank.

Y N

One of the Paper Size displays indicates the wrong paper size.

Y N

All of the Paper Size displays indicate the wrong paper size.
Replace the Diode PWB before replacing the DC Controller PWB.

- For Roll 1 paper size problems, go to OF 2.3.
- For Roll 2 paper size problems, go to OF 2.4.
- For Roll 3 paper size problems, go to OF 2.5.
- For Roll 4 paper size problems, OF 2.6.
- For Manual Tray paper size problems, go to OF 2.7.

All Paper Size displays are blank.

Y N

Roll 1 is blank.

Y N

Roll 2 is blank.

Y N

Roll 3 is blank.

Y N

A B C D E

Roll 4 is blank. Pull out Drawer 3/4 and check the position of the paper.

The paper has fed beyond the nip of the feed rolls into the machine.

Y N

Go to BSD 7.12 and check the Roll 4 Feed Clock Sensor Q16 for an open or short circuit. If OK, check the Roll 4 Feed Clutch CL4 for an open circuit.

Go to BSD 7.12 and check the Roll 4 Paper Set Sensor Q4 for an open circuit.

Pull out Drawer 3/4 and check the position of the paper.

The paper has fed beyond the nip of the feed rolls into the machine.

Y N

Go to BSD 7.11 and check the Roll 3 Feed Clock Sensor Q15 for an open or short circuit. If OK, check the Roll 3 Feed Clutch CL3 for an open circuit.

Go to BSD 7.11 and check the Roll 3 Paper Set Sensor Q3 for an open circuit.

Pull out Drawer 2 and check the position of the paper.

The paper has fed beyond the nip of the feed rolls into the machine.

Y N

A B F G

Go to BSD 7.10 and check the Roll 4 Feed Clock Sensor Q14 for an open or short circuit. If OK, check the Roll 2 Feed Clutch CL2 for an open circuit.

Go to BSD 7.10 and check the Roll 2 Paper Set Sensor Q2 for an open circuit.

Pull out Drawer 1 and check the position of the paper.

The paper has fed beyond the nip of the feed rolls into the machine.

Y N

- Go to BSD 7.9 and check the Roll 1 Feed Clock Sensor Q13 for an open or short circuit.
- Go to BSD 7.9 and check the Roll 1 Feed Clutch CL8 for an open circuit.
- Go to BSD 7.7 and check Roll 1/Manual Feed Clutch CL1 for an open circuit.

Go to BSD 7.9 and check the Roll 1 Paper Set Sensor Q1 for an open circuit.

Go to Add Paper Lamp On RAP.

OF 2.3 Roll 1 Incorrect Paper Size Indication RAP

Install 36” paper in Roll 1.
Enter diagnostic code 2-01 (Roll 1 paper size input).
The display reads 7F Hex.
Y N

Go to the hex code in Table 1 to determine which sensor circuit is defective. Then go to BSD 7.1 to repair the circuit or replace the sensor (REP 6.6.1).

Set the Test Pattern Mode to roll 1 (8-3) and to 48” paper cut length (8-4).
Run a Test Print (8-0).
Enter diagnostic code 2-01 during print.
The display reads 00 Hex during print.
Y N

Go to the hex code in Table 2 to determine which sensor circuit is defective. Then go to BSD 7.1 to repair the circuit or replace the sensor (REP 6.6.1).

The paper size sensors are good.
Check the following:

- Ensure that Metric or Inch diagnostic code (4-00) is set correctly.
- Also ensure that Special Paper Size Code (4-04) is set correctly.
- Ensure that the Roll 1 Engineering/ Architecture switch is set correctly (BSD 7.18).
- Ensure that the latest firmware is installed.
- Replace the Diode PWB before replacing the DC Controller PWB.

Hex	Defective Sensor	BSD
7F	OK	N/A
7E	Q5	7.1
7D	Q6	7.1
7B	Q7	7.1
77	Q8	7.1
6F	Q9	7.1
5F	Q10	7.1
3F	Q11	7.1

Table 1

Note: *If more than one sensor is defective, the code displayed could be a combination of the codes for each individual sensor. For example, if Q6, Q7, and Q8 are defective, the code displayed would be 0E (00001110).*

Hex	Defective Sensor	BSD
00 (00000000)	OK	N/A
01 (00000001)	Q5	7.1
02 (00000010)	Q6	7.1
04 (00000100)	Q7	7.1
08 (00001000)	Q8	7.1
10 (00010000)	Q9	7.1
20 (00100000)	Q10	7.1
40 (01000000)	Q11	7.1

Table 2

OF 2.4 Roll 2 Incorrect Paper Size Indication RAP

Install 36” paper in Roll 2.
Enter diagnostic code 2-02 (Roll 2 paper size input).
The display reads 7F Hex.
Y N

Go to the hex code in Table 3 to determine which sensor circuit is defective. Then go to BSD 7.2 to repair the circuit or replace the sensor (REP 6.6.2).

Set the Test Pattern Mode to roll 2 (8-3) and to 48” paper cut length (8-4).
Run a Test Print (8-0).
Enter diagnostic code 2-02 during print.
The display reads 00 Hex during print.
Y N

Go to the hex code in Table 4 to determine which sensor circuit is defective. Then go to BSD 7.2 to repair the circuit or replace the sensor (REP 6.6.2).

The paper size sensors are good.
Check the following:

- Ensure that Metric or Inch diagnostic code (4-00) is set correctly.
- Ensure that the Roll 2 Engineering/ Architecture switch is set correctly (BSD 7.18).
- Ensure that the latest firmware is installed.
- Replace the Diode PWB before replacing the DC Controller PWB.

Hex	Defective Sensor	BSD
7F	OK	N/A
7E	Q5	7.2
7D	Q6	7.2
7B	Q7	7.2
77	Q8	7.2
6F	Q9	7.2
5F	Q10	7.2
3F	Q11	7.2

Table 3

Note: *If more than one sensor is defective, the code displayed could be a combination of the codes for each individual sensor. For example, if Q6, Q7, and Q8 are defective, the code displayed would be 0E (00001110).*

Hex	Defective Sensor	BSD
00 (00000000)	OK	N/A
01 (00000001)	Q5	7.2
02 (00000010)	Q6	7.2
04 (00000100)	Q7	7.2
08 (00001000)	Q8	7.2
10 (00010000)	Q9	7.2
20 (00100000)	Q10	7.2
40 (01000000)	Q11	7.2

Table 4-

OF 2.5 Roll 3 Incorrect Paper Size Indication RAP

Install 36” paper in Roll 3.
Enter diagnostic code 2-03 (Roll 3 paper size input).
The display reads 7F Hex.
Y N

Go to the hex code in Table 5 to determine which sensor circuit is defective. Then go to BSD 7.3 to repair the circuit or replace the sensor (REP 6.6.3).

Set the Test Pattern Mode to roll 3 (8-3) and to 48” paper cut length (8-4).
Run a Test Print (8-0).
Enter diagnostic code 2-03 during print.
The display reads 00 Hex during print.
Y N

Go to the hex code in Table 6 to determine which sensor circuit is defective. Then go to BSD 7.3 to repair the circuit or replace the sensor (REP 6.6.3).

The paper size sensors are good.
Check the following:

- Ensure that Metric or Inch diagnostic code (4-00) is set correctly.
- Ensure that the Roll 3 Engineering/ Architecture switch is set correctly (BSD 7.18).
- Ensure that the latest firmware is installed.
- Replace the Diode PWB before replacing the DC Controller PWB.

Hex	Defective Sensor	BSD
7F	OK	N/A
7E	Q5	7.3
7D	Q6	7.3
7B	Q7	7.3
77	Q8	7.3
6F	Q9	7.3
5F	Q10	7.3
3F	Q11	7.3

Table 5

Note: If more than one sensor is defective, the code displayed could be a combination of the codes for each individual sensor. For example, if Q6, Q7, and Q8 are defective, the code displayed would be 0E (00001110).

Hex	Defective Sensor	BSD
00 (00000000)	OK	N/A
01 (00000001)	Q5	7.3
02 (00000010)	Q6	7.3
04 (00000100)	Q7	7.3
08 (00001000)	Q8	7.3
10 (00010000)	Q9	7.3
20 (00100000)	Q10	7.3
40 (01000000)	Q11	7.3

Table 6

OF 2.6 Roll 4 Incorrect Paper Size Indication RAP

Install 36” paper in Roll 4.
Enter diagnostic code 2-04 (Roll 4 paper size input).
The display reads 7F Hex.
Y N

Go to the hex code in Table 7 to determine which sensor circuit is defective. Then go to BSD 7.4 to repair the circuit or replace the sensor (REP 6.6.4).

Set the Test Pattern Mode to roll 4 (8-3) and to 48” paper cut length (8-4).
Run a Test Print (8-0).
Enter diagnostic code 2-04 during print.
The display reads 00 Hex during print.
Y N

Go to the hex code in Table 8 to determine which sensor circuit is defective. Then go to BSD 7.4 to repair the circuit or replace the sensor (REP 6.6.4).

The paper size sensors are good.
Check the following:

- Ensure that Metric or Inch diagnostic code (4-00) is set correctly.
- Ensure that the Roll 4 Engineering/ Architecture switch is set correctly (BSD 7.18).
- Ensure that the latest firmware is installed.
- Replace the Diode PWB before replacing the DC Controller PWB.

Hex	Defective Sensor	BSD
7F	OK	N/A
7E	Q5	7.4
7D	Q6	7.4
7B	Q7	7.4
77	Q8	7.4
6F	Q9	7.4
5F	Q10	7.4
3F	Q11	7.4

Table 7

Note: *If more than one sensor is defective, the code displayed could be a combination of the codes for each individual sensor. For example, if Q6, Q7, and Q8 are defective, the code displayed would be 0E (00001110).*

Hex	Defective Sensor	BSD
00 (00000000)	OK	N/A
01 (00000001)	Q5	7.4
02 (00000010)	Q6	7.4
04 (00000100)	Q7	7.4
08 (00001000)	Q8	7.4
10 (00010000)	Q9	7.4
20 (00100000)	Q10	7.4
40 (01000000)	Q11	7.4

Table 8

OF 2.7 Manual Tray Incorrect Paper Size Indication RAP

Insert 36” paper in the manual tray.
Enter diagnostic code 2-05 (Manual Tray paper size input).
The display reads FF Hex.
Y N

Go to the hex code in Table 9 to determine which sensor circuit is defective. Then go to BSD 7.5 to repair the circuit or replace the sensor.

Set the Test Pattern Mode to Manual Tray (8-3) and to 48” paper cut length (8-4).
Run a Test Print (8-0).
Enter diagnostic code 2-05 during print.
The display reads 80 Hex during print.
Y N

Go to the hex code in Table 10 to determine which sensor circuit is defective. Then go to BSD 7.5 to repair the circuit or replace the sensor.

The paper size sensors are good.
Check the following:

- Ensure that Metric or Inch diagnostic code (4-00) is set correctly.
- Ensure that the latest firmware is installed.
- Replace the Diode PWB before replacing the DC Controller PWB.

Hex	Defective Sensor	BSD
FF	OK	N/A
FE	Q31	7.5
FD	Q32	7.5
FB	Q33	7.5
F7	Q34	7.5
EF	Q35	7.5
DF	Q36	7.5
BF	Q37	7.5

Table 9

Note: If more than one sensor is defective, the code displayed could be a combination of the codes for each individual sensor. For example, if Q32, Q33, and Q34 are defective, the code displayed would be 8E (10001110).

Hex	Defective Sensor	BSD
80 (10000000)	OK	N/A
81 (10000001)	Q31	7.5
82 (10000010)	Q32	7.5
84 (10000100)	Q33	7.5
88 (10001000)	Q34	7.5
90 (10010000)	Q35	7.5
A0 (10100000)	Q36	7.5
C0 (11000000)	Q37	7.5

Table 10

OF 3.1 HFT Controller RAP

Initial Action:
Ensure the HFT Controller has the correct software and Interface Card for the 721P Printer. The 721P Interface Card has a label on the faceplate of the card that states "**721P**".

The Controller has a communication problem with the printer.

Y N

For other HFT Controller problems, go to the HFT Controller Service Manual.

Switch the HFT Controller input to the 721P from Channel A to Channel B.

- Check/Replace printer interface cable connections.
- Check/Replace Interface VIII port ribbon cable connections at the DC Controller PWB.
- Switch off the power and switch the interface cable from Channel A to Channel B on the 721P.
- Switch the power on. Enter diagnostic code 4-01 and change the value from 1 to 2.
- If the defect is fixed, replace the DC Controller PWB or leave the interface cable connected to Channel B.
- Check/replace 721p Interface Card in the HFT controller. If the defect is not fixed, go to the HFT Controller Service Manual.

OF 7.1 Manual Tray RAP

Initial Actions

- If a J-05 Status code is present, go to the J-05 Manual Feed RAP.
- Clear any paper from the manual tray area.

Procedure

Enter diagnostic code 3-3C to test the Manual Tray Motor MOT10.

The motor operates and the feed roll turns.

Y N

Exit diagnostics.

Connect the meter between J556-37 (+) on the DC Driver PWB and ground (-).

There is +24 VDC present.

Y N

Go to BSD 7.8 and check the Manual Tray Motor MOT10 for an open circuit.

Enter diagnostic code 3-3C to test the Manual Tray Motor MOT10.

The voltage decreased to approximately 0 VDC.

Y N

Replace the DC Driver PWB.

Check for a mechanical problem preventing the Manual Tray Motor MOT10 from operating.

Enter diagnostic code 3-3A to test the Pick-Up Solenoid SOL3.

The Pick-Up Roller drops down.

Y N

A B

A B

Exit diagnostics.

Connect the meter between J556-35 (+) on the DC Driver PWB and ground (-).

There is +24 VDC present.

Y N

Go to BSD 7.14 and check the Pick-Up Solenoid SOL3 for an open circuit.

Enter diagnostic code 3-3A to test the Pick-Up Solenoid SOL3.

The voltage decreased to approximately 0 VDC.

Y N

Replace the DC Driver PWB.

Check for a mechanical problem preventing the Pick-Up Solenoid SOL3 from operating.

Enter diagnostic code 3-3B to test the Retard Solenoid SOL4.

The Retard Solenoid operates.

Y N

Exit diagnostics.

Connect the meter between J556-14 (+) on the DC Driver PWB and ground (-).

There is +24 VDC present.

Y N

Go to BSD 7.14 and check the Retard Solenoid SOL4 for an open circuit.

Enter diagnostic code 3-3B to test the Retard Solenoid SOL4.

The voltage decreased to approximately 0 VDC.

Y N

Replace the DC Driver PWB.

A B

A B

Check for a mechanical problem preventing the Retard Solenoid SOL4 from operating.

Insert a 36” (A0) sheet into the Manual Tray.

The Pick-up Solenoid drops down and the sheet pre-feeds.

Y N

Enter diagnostic code 1-2A.

The display indicates “L”.

Y N

Go to BSD 7.5 and check the 36 Inch Sensor Q 37for an open circuit.

Go to BSD 7.5 and check Q31 through Q36 for an open circuit. If OK, replace the Manual Sheet Size PWB.

Go to BSD 7.5 and check Q31 through Q37 for a short circuit. If OK, replace the Manual Sheet Size PWB.

OF 10.1 Overheat Protection RAP

Initial Actions

Enter this RAP only from the E-01 RAP.

Procedure

Set the meter to measure +24 VDC.
Connect the meter between J401-3 (+) on the Overheat Protection PWB and ground (-).
There is +24 VDC present.
Y N

Go to BSD 10.5 and check for an open circuit between J401-3 on the Overheat Protection PWB and K3 (BSD 10.3) and K2 (BSD 1.1).

Switch the power off.
Set the meter to measure +5 VDC.
Connect the meter between J554-18 (+) and ground (-) on the DC Driver PWB.
Switch the power on while observing the meter.
The signal switches from +5 VDC to approximately +0.5 VDC at power up.
Y N

The voltage measures a constant +5 VDC.
Y N

Go to BSD 10.5 and check for an open circuit between J554-18 on the DC Driver PWB and J401-4 on the Overheat Protection PWB.

Replace the DC Driver PWB.

A

A
There is approximately 28.5K ohms between J21 pins 1 and 2 of thermistor (RT 2) (BSD 10.5).
Y N

Check the wiring at thermistor (RT 3) for an open or short circuit. Replace the thermistor or the Overheat Protection PWB as required (BSD 10.5).

Replace the Overheat Protection PWB.

Notes:

Section Contents

Print Quality Initialization Procedure

Introduction
Perform this procedure on every service call.

Procedure
Prior to any print quality troubleshooting, ensure that the following are clean and within specification:

Drum life (Refer to Section 1)

Grid Bias (ADJ 1.3.7)

Charge Scorotron (ADJ 1.3.1)

Pre-Transfer Lamp (NVM Code 4-15)

Transfer Corotron (ADJ 1.3.4)

Detack Corotron (ADJ 1.3.5)

Transfer/ Detack wire (ADJ 1.3.3)

LED Print Head Strobe time
(NVM Code 4-13, 4-14; set to default)

Developer Bias (ADJ 1.3.8)

Adjustment of the Guide Plate (ADJ 5.1.1)

Clean the Erase Lamp

Image Defects

Image quality refers to the entire print. Defects can occur anywhere on the print. These defects could be damaged media or image quality defects.

Always eliminate problems that cause the damaged media before attempting to fix image quality problems. Some damaged media problems could cause image quality problems.

Compare the image defect to the definitions on this page and the next page. After you have determined the definition that best describes the image defect, go to the Section Contents page. The Section Contents page will direct you to an Image Quality RAP. The RAP lists the probable causes and corrective actions.

The PROBABLE CAUSES are arranged in order of most probable cause to least probable cause or the ease of the check. CORRECTIVE ACTIONS are given for each cause. Read all of the probable causes before taking any corrective action.

a. Start with the first PROBABLE CAUSE and continue through the list until you come to the cause that best applies to the image defect.

b. Perform the CORRECTIVE ACTION.

c. If the defect has been corrected, go to the Maintenance Activities in the Service Call Procedures in Section 1. If the defect is still present, continue with the other PROBABLE CAUSES.

Image Quality Definitions

The following terms are some of the most commonly used terms that describe image quality problems.

Background
Background occurs as darkness or dirtiness on the non-image areas of the print.

Black Print
This is a print that is entirely black except for the lead edge, trail edge and possibly the left and right edges.

Blank Print
This is a print entirely without an image.

Crystallization
This is a change in the surface characteristics of the drum usually caused by exposure to heat or chemicals. When this occurs, the Drum will not be charged evenly across the entire surface. Dark streaks will appear on the drum where the surface characteristics are different. These black streaks will be deposited on the print.

Deletions
An area of the image where information has been lost. The areas of deletions could be localized or bands from top to bottom or side to side.

Density
The relative blackness between the image and non-image areas.

Fuser Fix
This is a measure of how the toner particles adhere to the media as a result of the fusing process.

Image Displacement
Part of the image information is being placed elsewhere on the print or it is completely missing. The area of the missing information is sharply defined. This is unlike deletions where the image is not sharply defined or clear.

Image Distortion or Skew
The image is skewed on the media. The image from side to side or lead edge to trail edge is not parallel to the edges of the print. There is also distortion of the image from one side of the copy to the other. These defects are a result of a mis-adjustment of the media transportation system components.

Light Image
These are prints where the density is lighter than the specified density for the printer.

Line Darkness
This is the darkness and uniformity for a line.

Misregistration
This is when the distance from the lead edge of the image to the lead edge of the media is not within specification.

Offsetting
This is the transfer of toner from the print to the heat roller. Sometimes the toner is transferred back to the print or consecutive prints.

Media Damage
This is any physical distortion to the media that is used in making a print. This distortion may include folds, wrinkles, etc.

Media Handling
This is the process of transporting the media from the supply area through the xerographic and the fusing subsystems.

Resolution
The uniformity or clarity of fine line detail.

Residual Image
This is an image that is repeated onto the same print or consecutive prints. The image can either be a ghosting of the original image or a toner image. The repeated image is usually spaced 22.3 inches (565 mm) from the original image. This problem can be caused by poor detacking from the drum or a drum that is worn.

Smear
This is any image defect that occurs in the direction that is perpendicular to media feed.

Spots
These are defects that are 0.2 inches (5 mm) or smaller in diameter.

Streak
This is any image defect that occurs in the direction of media feed.

Unfused Print
This is a print where the image can easily be wiped off the media. The image has not adhered to the media.

Image Quality General Diagnostics

It is important to understand the orientation of prints in order to troubleshoot image quality problems. The following terms will be used when referring to prints made on the Xerox Wide Format 721P.

a. Process direction is in the media feed direction.
b. Cross-process direction is in the side-to-side direction.

Determining the distance between defects could help isolate problems to a specific component. Defects that are 22.3 inches (565 mm) apart (lead edge of defect to lead edge of next defect) in the process direction could be caused by the drum. The circumference of the Drum is 22.3 inches (565 mm).

Defects that are 6.8 inches (173 mm) apart (lead edge of defect to lead edge of next defect) in the process direction could be caused by the Developer Roll in the developer assembly.

Defects that are 7.9 inches (201 mm) apart (lead edge of defect to lead edge of next defect) in the process direction could be caused by the Fuser Roll.

Image Quality Specifications

Test Patterns

There are eight internal test patterns that can be run from diagnostic mode 7 (refer to Section 6).

Pattern 1 is the default test pattern with black dots on a grid of thin horizontal and vertical lines. It is used while adjusting lead edge registration. It is also used when checking side edge registration, vertical and horizontal magnification, fusing and density.

Pattern 2 is used to produce horizontal black and white bands that are 5 inches (127 mm) high.

Pattern 3 is used to produce horizontal black bands approximately 7.68 inches (195 mm) high.

Pattern 4 is used to produce a solid blank print.

Pattern 5 is used to produce thin horizontal, vertical and slant lines.

Pattern 6 is used to produce a slant fine-pitched crosshatched print.

Pattern 7 is used to produce fine-pitched horizontal lines.

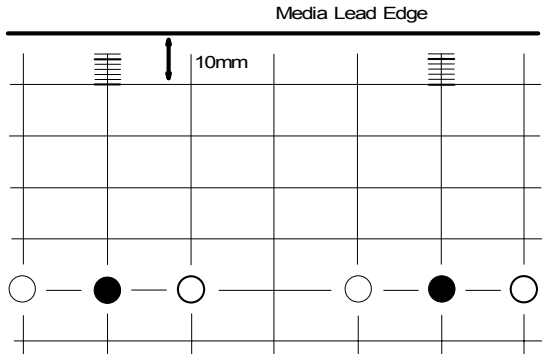
Pattern 8 is used to produce a solid blank print.

Lead Edge Registration

This is the degree to which the lead edge of a print image is within a specified distance from the lead edge of the media.

SPECIFICATION:
± 3mm

Measure the arrow shown distance on test pattern 1.
It should be measured as 10mm ± 3mm.



Test Pattern 1

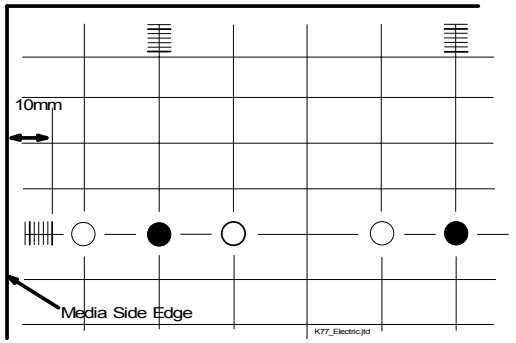
Note: To adjust lead edge registration use Diagnostic Program 4 (NVM), location [4-20 to 4-37].

Side Edge Registration

This is the degree to which the image shifts in the direction perpendicular to the media feeding direction.

SPECIFICATION:
± 2mm

Make a 36 inch wide test pattern 1. The second thick line from the left should be 10 mm ± 2mm:

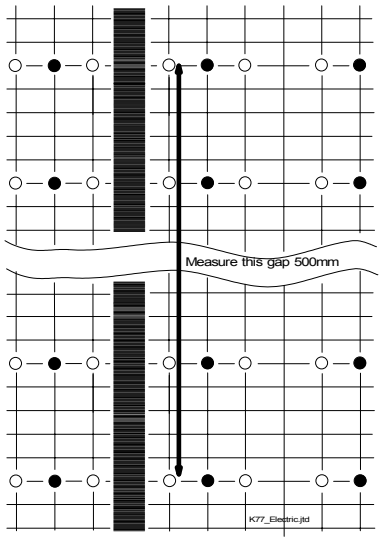


Test Pattern 1

Vertical Magnification
This is the degree of magnification accuracy of the reproduced print in the vertical (process) direction.

Check the dimension between any 50 squares on test pattern 1.The dimension should equal 500 mm (1 square = 10mm):

SPECIFICATION:
± 1.5 mm

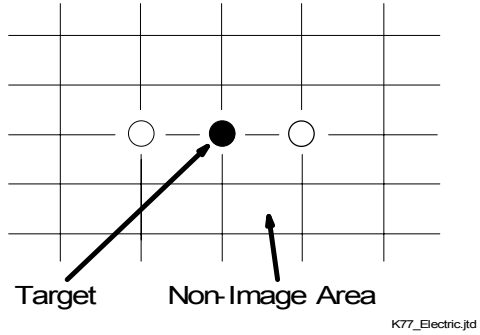


Test Pattern 1

Fusing
Check that the target is not rubbed away when rubbed with a tissue paper and moderate pressure. (Refer to density target on test pattern 1).

Density
This is the relative blackness between the image and non-image areas.

Check that the targets on Test Pattern 1 are equal to or darker than 1.20 density as measured using the 82P520 S.I.R. test pattern:



Test Pattern 1 (Density Target)

Background
This is the degree of darkness or dirtiness on the non-image areas of the print.

Check that the background areas measured in the target boxes (refer to density target on test pattern 1) do not exceed 5 on the background scale on the S. I. R. Document - 82P284.

Cut Accuracy
This is the dimension of variance from a true, horizontal cut.

SPECIFICATION:
+/- 2 mm

Trail Edge Margin

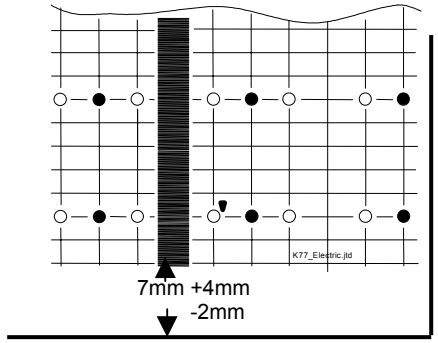


Image Quality RAPs

Damaged Media RAP

DEFECT	PROBABLE CAUSE	CORRECTIVE ACTION
Crease Marks A thin irregular line on the media caused by stressing the media.	1. Incorrect handling and storage of the media can cause this defect.	1. Ensure that the media is stored correctly and is not damaged when inserted in the printer.
Dog Ears This is a corner of the lead edge of the print that has been bent back.	2. Curled media (Detack corotron)	2. Perform the following: a. Try using a new roll of media. b. Check for an obstruction caused by the Detack corotron.
	3. 36” wide media not installed properly on spindle.	3. Reinstall on spindle.
	4. Detack Offset Voltage not adjusted properly	4. Perform adjustment (ADJ 1.3.5).
	5. Detack and Transfer Lace or Fingers not adjusted properly	5. Perform adjustment (ADJ 1.3.2).
	6. Cutter entrance is obstructed with paper or other foreign material	6. Clean and check for obstructions.
	7. Fuser Pressure Blowers (BL 4, 5, 6, and 7) not working	7. Check and replace (BSD 10.1).
	8. Baffle plate near Drawer #2 exit and before cutter is bent and not aligned with cutter entrance.	8. Check and replace.
	9. The humidity is to low in the customer account causing the outer corners of the paper lead edge to be caught on the Drum Separator Nails and fold over.	9. Switch on the Sub Separator Blowers (BL12 - BL16) by changing NVM 4bF from 0 to 1. ***Note**: This can increase Transfer/Detack wire contamination and should not be used unless necessary.*
Frayed Side Edge This is damage to the sides of the print.	10. Incorrect media side to side registration	10. Ensure that the media is loaded correctly. a. Check the media path for an obstruction.

Damaged Media RAP (Continued)

DEFECT	PROBABLE CAUSE	CORRECTIVE ACTION
Wrinkle This is damage that is probably caused by the Fuser and/or the Paper Heater subsystem. This is a severe case of creases that runs in the direction of media travel. Also reference PQ21	11. Damage or obstruction in the handling system for the media. a. Damp media. Fuser temperature out of specification b. Fuser Motor Speed out of specification c. Incorrect fuser pressure d. Paper Heater not working e. Fuser Entrance Solenoid (ADJ 3.4.3) f. Cooling Fans are not working g. Heat roller is damaged or contaminated. h. Pressure roller is damaged or contaminated.	11. Check the media path for an obstruction or damage Ensure that the Customer is storing the media correctly. a. Perform the Fuser Temp adjustments ADJ 3.4.3 for all media types (bond, vellum/tracing, film) . b. Perform the Fuser Motor Clock adjustments for all media sizes and types in Section 6, Program 4 NVM Setup Mode. c. Perform Pressure Roller adjustment (ADJ 3.4.1). d. Check that the Paper Heater is on, reference De-humid Heater Control (4-07), Section 6, Program 4 NVM Setup Mode e. Repair/Replace the Fuser Entrance Solenoid f. Repair/Replace the Cooling Fans g. Replace the heat roller (REP 3.3.1) h. Replace the pressure roller (REP 3.4.1)
Other Damage		12. If there are other defects that are on the print, go to the Media Handling Problems on the following pages.

Media Handling Problems

DEFECT	CHECK	CORRECTIVE ACTION
Experience has shown that many media transportation problems have more than one cause and must be handled using a systematic approach.	1. Check the type of media: a. Bond media under 20 lb may perform with less reliability than Xerox 20 lb. b. Other brands of media may have different design specifications than Xerox media and may not give acceptable performance in the Xerox Wide Format 721P.	1. Checking the type of media: a. Use the Xerox-qualified media. b. After all media checks, test with fresh Xerox media.
Media transportation problems show up as one of the following symptoms: Pre-fuser jams Print quality defects Physical distortion of media	2. Check the storage of media: a. Media that is exposed to the environment may have damp areas. b. Media may have curled ends because of incorrect storage.	2. Checking the storage of media: a. Suggest keeping the media in the package in which the Xerox media is shipped until the media is to be used. b. Suggest that the media should be stored correctly.
When these symptoms occur, perform the following checks of the media and printer and perform the corrective actions.	3. Contaminated or damaged transfer/ detack corotron. 4. An incorrect electrostatic value can cause jams or deletions.	3. Clean or replace if necessary (PL 1.1). 4. Check the following: a. Clean or replace the corotron as required (PL 1.1). b. Enter diagnostic mode 4 and check the settings for the corotrons. c. Perform the adjustments as required (ADJ 1.3.2, ADJ 1.3.3, ADJ 1.3.4, and ADJ 1.3.5).

Media Handling Problems (Continued)

DEFECT	CHECK	CORRECTIVE ACTION
When these symptoms occur, perform the following checks of the media and printer and perform the corrective actions (continued).	5. Check, clean, or replace the following components: a. heat roller b. fuser stripper fingers c. drum stripper fingers 6. After completing the previous checks, run several prints with dry Xerox media to verify that the problem is fixed or still exists. If the problem is fixed, perform the Final Actions.	5. Check, clean, or replace the following components: a. Replace the heat roller (REP 3.3.1) if it is glazed or contaminated. b. Ensure that the fuser stripper fingers (PL 4.6, PL 4.4) are not damaged. c. Ensure that the drum stripper fingers (PL 1.2) are not damaged. 6. If the problem still exists, look for an obstruction in the media path.

PQ 1 Background

Symptom / check	Probable Cause	Corrective Action
Contamination of the blank area by toner particles on the print	1. Contaminated charge scorotron	1. Clean or replace if necessary (PL 1.1).
	2. Surface Potential (SPS)	2. Enter diagnostic code 2-0C to check the drum surface potential (SPS). a. If the SPS does not read 850 ± 50 VDC, perform the Charge Scorotron Adjustment (ADJ 1.3.1) and the Grid Bias adjustment (ADJ 1.3.7). b. If SPS is still incorrect, replace HVPS 1. c. If the Charge Scorotron cannot be adjusted, replace HVPS 1. d. If Grid Bias cannot be adjusted, refer to BSD 9.2 and check HVPS 6. Ensure that all connectors on HVPS 6 are seated correctly. Replace HVPS 6 as required.
	3. Low Toner	3. Replace the toner cartridge.
	4. Contaminated or defective drum	4. Replace the drum (REP 1.4.1).
	5. An incorrect electrostatic value	5. Check the following: a. Clean or replace the corotron as required (PL 1.1). b. Enter diagnostic mode 4 and check the settings for the corotrons. c. Perform the adjustments as required (ADJ 1.3.1, ADJ 1.3.2, ADJ 1.3.3 and 1.3.4).
	6. Developer Module life exceeded	6. Replace the developer module.
	7. Developer Bias	7. Perform ADJ 1.3.8
	8. LED Strobe Time	8. Ensure the following: a. With AccXes 9.2 or higher Code 4-13 is set to 25. AccXES 9.1 Default value for NVM Code 4-13 = 28. b. AccXES 9.2 or higher default value for NVM Code 4-14 = 0. AccXES 9.1 Default value for NVM Code 4-14 = 22.

PQ 2 Bands (Feed Direction)

Symptom/ checks	Probable Cause	Corrective Action
Bands are 1 mm or wider and are in the media feed direction. (Run Test Pattern 6)	1. Contaminated charge Scorotron & Grid Plate	1. Clean / replace corona wire & Grid Plate (REP 1.1.1).
	2. Contaminated Transfer / Detack corotron	2. Clean / replace corona wire (REP 1.3.1).
	3. Defective erase lamp	3. Refer to BSD 9.8 to check the erase lamp. Replace the lamp if necessary (PL 1.2).
	4. Contaminated or defective drum.	4. Replace the drum (REP 1.4.1).
	5. Contaminated Development roll	5. Check for foreign objects on the Development roll.
	6. LED Print Head	6. Clean / replace as necessary (REP 2.5.1).
Vertical lines in halftones that are repeated every 10 mm.	7. Check Detack/Transfer Corotron assembly for paper fragments or heavy dust.	7. Clean / replace as necessary
	8. Transfer/Detack high voltage wires of HVPS 3 and HVPS 4 are arching.	8. Ensure Tag 2 is installed.

PQ 3 Bands (Perpendicular to Feed)

Symptom/ checks	Probable Cause	Corrective Action
Bands are 1 mm or wider and are perpendicular to the media feed direction.	1. Developer Bias Temperature Compensation (NVM Location 4-CA) is set to 0.	1. Set the value of location 4-CA from 0 to 1 using NVM Setup Mode 0 (Program 4), (See Section 6.)
	2. Developer Bias set incorrectly	2. Perform ADJ 1.3.8 Developer Bias
	3. Defective charge scorotron/grid	3. Clean / replace corona wire (REP 1.1.1).
	4. Defective or contaminated drum	4. Replace the drum (REP 1.4.1).
	5. Charge Scorotron adjustment	5. Perform the charge scorotron adjustment (ADJ 1.3.1) as required.

PQ 4 Black Lines

Symptom/ check	Probable Cause	Corrective Action
Black lines appear at regular intervals in the direction of media feed.	1. The drum surface is contaminated or damaged. 2. The surface of the heat roller is damaged. 3. Contaminated or damaged Development roll 4. Defective Developer Cleaning Blade	1. Determine and fix the cause of the damage to the drum. Replace the Drum (REP 1.4.1). 2. Determine and fix the cause of the damage to the heat roller. Replace the heat roller (REP 3.3.1). 3. Check for foreign objects on the Development roll. 4. Replace Developer Housing.

PQ 5 Black Prints

Symptom/ check	Probable Cause	Corrective Action
The print is totally black with no image.	1. Paper jammed between charge scorotron and drum. 2. Broken Charge Scorotron wire 3. Defective HVPS1 4. Defective charge scorotron assembly 5. Drum Motor Direction	1. Clear any paper that is jammed between the charge scorotron and drum. 2. Clean or replace the charge scorotron wire (REP 1.1.1). 3. Enter diagnostic code 2-0C to check the drum surface potential (SPS). a. If the SPS does <u>not</u> read 850 ± 50 VDC, perform the Charge Scorotron Adjustment (ADJ 1.3.1) and the Grid Bias adjustment (ADJ 1.3.7). b. If SPS is still incorrect, check the Charge Grid HVPS contact pin (spring loaded) making contact with scorotron assembly. Before replacing the HVPS 1. c. If the Charge Scorotron cannot be adjusted, replace HVPS 1. d. If Grid Bias cannot be adjusted, refer to BSD 9.2 and check HVPS 6. Ensure that all connectors on HVPS 6 are seated correctly. Replace HVPS 6 as required. 4. Ensure grid is not curved or distorted in scorotron assembly. Adjust if necessary 5. Go to BSD 9.1 and check the Drum Motor Direction signal.

PQ 6 Blank Prints

Symptom/ check	Probable Cause	Corrective Action
No image is produced when making a print.	1. NVM location 4-13, LED Strobe Time is set to less than 6.	1. Change NVM location to the value recorded from the last backup.
	2. Transfer corotron is out of adjustment.	2. Check the following: a. Clean or replace as required (PL 1.1). b. Perform ADJ 1.3.4 Transfer Corotron (HVPS 3).
	3. +24 VDC	3. Check the following: a. Go to BSD 9.4 and check for +24 VDC to the Developer Bias Power Supply (CN401-1). b. Go to BSD 9.6 and check for +24 VDC to HVPS 3 (CN1B-1). c. Go to BSD 1.4 and check DC Power Relay K4 and associated wiring.
	4. Developer Bias	4. Refer to BSD 9.4 and check the Developer Bias Power Supply. Ensure that all connectors on Developer Bias Power Supply are seated correctly. Replace the Developer Bias Power Supply as required.
	5. Defective HVPS 3	5. Refer to BSD 9.6 and check HVPS 3. Ensure that all connectors on HVPS 3 are seated correctly. Replace HVPS 3 as required.
	6. LED head	6. Refer to BSD 6.1 and ensure that all connectors are seated and voltages are correct.

PQ 7 Blurred Image

Symptom/ check	Probable Cause	Corrective Action
The image is not clear or sharp.	1. Incorrect Fuser Motor Speed.	1. Ensure Fuser Motor Speed NVM locations 4-33 through 4-BA are set between- 0.15 and – 0.30 (- 0.20 Nominal).
	2. Transfer/ Detack Corotron	2. Check the following: a. Clean or replace Transfer/ Detack Corotrons as required (PL 1.1). b. Perform ADJ 1.3.2, ADJ 1.3.3, ADJ 1.3.4, ADJ 5.1.1 c. Warped transfer guide bracket (metal L-shaped piece that holds Transfer fingers)
	3. Defective Separation Blowers	3. Check the following: a. Refer to BSD 9.7 and ensure that the blowers are operational. Replace the blowers as required (PL 1.2). b. Switch on the Sub Separator Blowers (BL12 - BL16) by changing NVM 4bF from 0 to 1. ***Note**: This can increase Transfer/Detack wire contamination and should not be used unless necessary.* c. Check for a dirty ozone filter.
	4. Defective drive gear	4. Check the following drive gears for damage: a. drum drive gear b. developer drive gear

PQ 8 Deletions (bands in feed direction)

Symptom/ check	Probable Cause	Corrective Action
Deletion bands or very low image density in the print feed direction.	1. Damp media	1. Perform the following: a. Check/replace the media b. Ensure media is stored in a bag c. Enable media heaters.
	2. Media Heater Switch set to 1 for on during low humidity conditions.	2. Enter diagnostic Mode 4 and adjust Media Heater Switch (4-07) as required. Under cold weather conditions, the switch should be set to 0 for off.
	3. Grid Bias	3. Perform the Grid Bias adjustment (ADJ 1.3.7)
	4. A corotron is out of adjustment.	4. Check the following: a. Clean or replace the corotron as required (PL 1.1). b. Perform the adjustments as required (ADJ 1.3.1, ADJ 1.3.2, ADJ 1.3.3, ADJ 1.3.4, ADJ 1.3.5).
	5. Defective HVPS	5. Refer to BSD 9.2 and BSD 9.6 and ensure that all connectors on the HVPS 1, HVPS 6, and HVPS 3 are seated correctly. Replace any HVPS as required.
	6. Defective Development roll/Low Toner	6. Check the following: a. Development roll for foreign material or contamination. Ensure that there is an even coating of Toner on the Development roll. b. Remove the Toner Hopper and check the toner level in the Developer Housing. (Low toner level can cause light streaks in the print feed direction.
	7. Defective drum	7. Replace the drum (REP 1.4.1).

PQ 9 Deletions (bands perpendicular to feed)

Symptom/ check	Probable Cause	Corrective Action
Deletion bands or very low image density perpendicular to the print feed direction.	1. Damp media	1. Ensure that the Customer is storing the media correctly.
	2. A corotron is out of adjustment.	2. Check the following: a. Clean or replace the corotron as required (PL 1.1). b. Enter diagnostic mode 4 and check the settings for the corotrons. c. Perform the adjustments as required (ADJ 1.3.2, ADJ 1.3.3, ADJ 1.3.4, ADJ 1.3.5).
	3. Defective drum	3. Replace the drum (REP 1.4.1).
	4. Development roll	4. Check the Development roll for damage or binding.

PQ 10 Deletions (in solid/ halftone areas)

Symptom/ check	Probable Cause	Corrective Action
Bands of deletion in the solid or halftone areas in the print feed direction. ***NOTE**: The Paper Heater may be set incorrectly for low humidity conditions. Check the Dehumid Heater Control, Section 6, Program 4 NVM Setup Mode.*	1. A corotron is out of adjustment.	1. Check the following: a. Clean or replace the corotron as required (PL 1.1). b. Enter diagnostic mode 4 and check the settings for the corotrons. c. Perform the adjustments as required (ADJ 1.3.2, ADJ 1.3.3, ADJ 1.3.4, ADJ 1.3.5).
	2. Defective drum	2. Replace the drum (REP 1.4.1).
	3. Development roll	3. Check the Development roll for damage or binding.
	4. The surface of the heat roller is damaged.	4. Determine and fix the cause of the damage to the heat roller. Replace the heat roller (REP 3.3.1).

PQ 11 Deletions (spots)

Symptom/ check	Probable Cause	Corrective Action
Bands of deletion in the solid or halftone areas in the print feed direction.	1. Damp media	1. Ensure that the Customer is storing the media correctly.
	2. Detack Corotron	2. Clean or replace the corotron wire (REP 1.3.1).
	3. Defective drum	3. Replace the drum (REP 1.4.1).
	4. Development roll	4. Check the Development roll for damage or binding.
	5. Insufficient toner	5. Enter diagnostic mode 4 and increase the toner dispense rate.
	6. The surface of the heat roller is damaged.	6. Determine and fix the cause of the damage to the heat roller. Replace the heat roller (REP 3.3.1).
	7. Media Guide Plate gap is to large	7. Perform the Adjustment of the Guide Plate (ADJ 5.1.1)

PQ 12 Finger Marks

Symptom/ check	Probable Cause	Corrective Action
Toner marks on the lead edge or trail edge of the print.	1. Defective or dirty detack corotron	1. Clean or replace the corotron wire (REP 1.3.1). Perform ADJ 1.3.5.
	2. Defective or dirty transfer corotron	2. Clean or replace the corotron wire (REP 1.3.1). Perform the Transfer Corotron adjustment (ADJ 1.3.4)
	3. Contaminated drum stripper fingers	3. Clean the drum stripper finger (PL 1.2).
	4. Contaminated Heat Roller Stripper fingers	4. Clean the Heat Roller Stripper fingers (PL 4.6, PL 4.4)
	5. Stripper Finger Height and wear	5. Perform adjustments ADJ 1.3.9 and ADJ 3.4.2
	6. Paper Pressure Blowers BL4-BL7 (Top sliding cover) not operating.	6. Enter Diagnostic code 3-6d (high speed) and 3-6f (Low speed) to test the Paper Pressure Blowers BL4 – BL7 for proper operation.

PQ 13 Light Image

Symptom/ check	Probable Cause	Corrective Action
Image area of a print has low density.	1. Surface Potential (SPS)	1. Enter diagnostic code 2-0C to check the drum surface potential (SPS). a. If the SPS does not read 850 ± 50 VDC, perform the Charge Scorotron Adjustment (ADJ 1.3.1) and the Grid Bias adjustment (ADJ 1.3.7). b. If SPS is still incorrect, replace HVPS 1. c. If the Charge Scorotron cannot be adjusted, replace HVPS 1. d. If Grid Bias cannot be adjusted, refer to BSD 9.2 and check HVPS 6. Ensure that all connectors on HVPS 6 are seated correctly. Replace HVPS 6 as required.
	2. Damp media	2. Perform the following. a. Check/replace the media b. Ensure media is stored in a bag c. Enable media heaters.
	3. Incorrect LED Head Strobe time	3. Enter diagnostic Program 4, Mode 0 and check the LED Head Strobe (4-13).
	4. A corotron is out of adjustment.	4. Check the following: a. Clean or replace the corotrons as required (PL 1.1). b. Perform the adjustments as required (ADJ 1.3.2, ADJ 1.3.3, ADJ 1.3.4, ADJ 1.3.5).
	5. Incorrect voltage on Scorotron grid	5. Perform ADJ 1.3.1 Charge Scorotron.
	6. Defective drum	6. Replace the drum (REP 1.4.1).
	7. Developer Bias	7. Perform the following: a. ADJ 1.3.8 Developer Bias b. Refer to BSD 9.4 and check the Developer Bias Power Supply. Ensure that all connectors on Developer Bias Power Supply are seated correctly. Replace the Developer Bias Power Supply as required.

Symptom/ check	Probable Cause	Corrective Action
Image area of a print has low density (continued).	8. Defective HVPS 3	8. Refer to BSD 9.6 and check HVPS 3. Ensure that all connectors on HVPS 3 are seated correctly. Replace HVPS 3 as required.
	9. Defective dispenser roll motor or clutch.	9. Refer to BSD 9.9 to check the operation of the toner dispenser motor MOT7 and the Toner Dispense Clutch CL11.
	10. Toner dispenser is empty	10. Check the following: a. Toner cartridge empty b. Toner cartridge is blocked. c. Toner sensors (BSD 9.9)
	11. +24 VDC	11. Check the following: a. Go to BSD 9.4 and check for +24 VDC to the Developer Bias Power Supply (CN401-1). b. Go to BSD 9.6 and check for +24 VDC to HVPS 3 (CN301-1). c. Go to BSD 1.4 and check DC Power Relay K4 and associated wiring.
Lighter halftones and fine lines (velum, film)	1. Erase Lamp	1. Go to BSD 9.8 and check that the Erase Lamp circuit is operating. Repair or replace as necessary.
	2. Pre-transfer Lamp	2. Go to BSD 9.5 and check that the Pre-Transfer Lamp circuit is operating. Repair or replace as necessary.

PQ 14 Misregistration

Symptom/ check	Probable Cause	Corrective Action
The registration of the prints is uneven from top to bottom or side to side.	1. Incorrect registration adjustment	1. Refer to diagnostic mode 5 and check the Lead Edge Registration Adjustments (5000 to 503B).
	2. Damaged or worn components in the media feeding area	2. Check the components for damage or wear.
	3. Registration clutch CL5	3. Check the following: a. If the lead edge registration varies from print to print, ensure the gap between the brake and the Armature Assembly of the Registration Clutch (CL5) is set to 0.2 mm (See REP 7.2.1, “Replacement”). b. Refer to BSD 8.1 and check the operation of the registration clutch. Replace the clutch if required (REP 7.2.1).
	4. Defective registration brake clutch	4. Refer to BSD 8.1 and check the operation of the registration brake. Replace the brake if required (REP 7.4.2).
	5. Incorrect registration roller nip	5. Clean or replace the registration roll (REP 5.8.1) and the registration pinch rollers (REP 5.5.1).
	6. Incorrectly loaded media	6. Instruct the operator on loading the media correctly.

PQ 15 Residual Image

Symptom/ check	Probable Cause	Corrective Action
This is an image that is repeated on the same print or consecutive prints. The image can either be a ghosting of the original image or a toner image. The repeated image is usually spaced 22.3 inches (565 mm) from the original image.	1. Tag 1 not installed (LML printers only) 2. Cut lengths and trail edge margins set incorrectly 3. Incorrect Clean voltage 4. Cleaning roller not contacting copper tab on outboard end of Xerographic Module. 5. HVPS 5 not working properly	1. Install Tag 1 (HVPS 5). 2. Ensure ADJ 5.1.2 is set correctly. 3. Check ADJ 1.3.8 4. Ensure cleaning roller is contacting copper tab on outboard end of Xerographic Module. 5. Check / replace as necessary.
The repeated image is usually spaced 7.9 inches (201 mm) from the original image.	6. Contaminated heat roller 7. Incorrect fuser temperature	6. Clean or replace the heat roller (REP 3.3.1). 7. Enter diagnostic mode 4 and check the setting for the fuser temperature.
All other Residual Image problems.	8. Defective erase lamp 9. Contaminated drum 10. Cleaning Roller	8. Refer to BSD 9.8 and check the erase lamp. Replace the lamp if necessary (PL 1.2). 9. Replace the drum (REP 1.4.1). 10. Check if Cleaning Roller exists in the proper location.

PQ 16 Skewed Image

Symptom/ check	Probable Cause	Corrective Action
The image is skewed to one side on the print because the media is skewed.	1. Media is not loaded correctly. 2. Defective or contaminated rollers in the media feed area 3. Incorrect registration roller nip 4. Roll 4 skew only	1. Load the media correctly and instruct the operator on loading the media correctly. 2. Check the rollers and other components in the media feed area. 3. Clean or replace the registration roll (REP 5.8.1). 4. Check for worn Idler Roll. Replace as required.

PQ 17 Smears

Symptom/ check	Probable Cause	Corrective Action
Areas of the image on the print are blurred. This occurs at the image transfer area. This could be caused by a different speed between the drum and the media.	1. Misadjusted or Defective Detack corotron	1. Check Detack Corotron adjustment (ADJ 1.3.5) Replace if necessary (PL 1.1). Adjust new corotron.
	2. Damaged media feed components	2. Examine components in the media feed area. Determine if any are damaged.
	3. Damaged gears in the fuser / exit transport drive assembly	3. Inspect the gears for damage and replace if necessary.
	4. Defective registration brake clutch	4. Replace the registration brake clutch (REP 7.4.2).

PQ 18 Spots

Symptom/ check	Probable Cause	Corrective Action
Circular black spots on the print.	1. Defective charge Scorotron	1. Clean or replace the corotron (PL 1.1).
	2. Defective, damaged or contaminated drum	2. If the drum is damaged, determine and fix the cause of the damage to the drum. Replace the drum (REP 1.4.1).
	3. Contaminated heat roller	3. Clean or replace the heat roller (REP 3.3.1).
	4. Defective Development roll	4. Replace the Developer Unit.

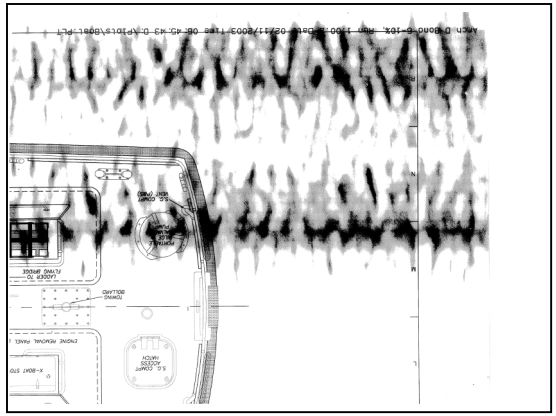
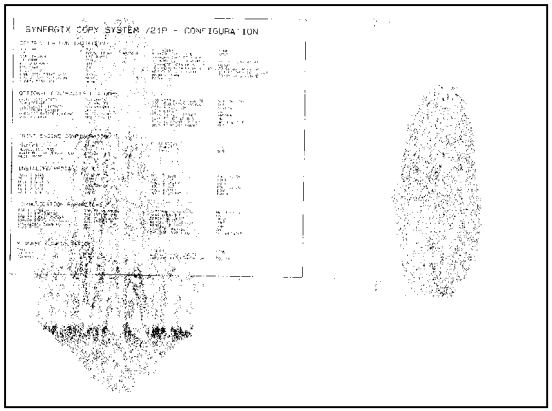
PQ 19 Uneven Density

Symptom/ check	Probable Cause	Corrective Action
Density and line thickness' vary across the print.	1. Machine level	1. Check the level of the machine.
	2. Contaminated self-foc lens	2. Clean the lens and check the cleaning system.
	3. Defective charge Scorotron	3. Clean or replace the Scorotron as required (PL 1.1).
	4. Uneven toner distribution	4. Run Test Pattern 2. If the black bands are not even from outboard to inboard, reload fresh toner into the Developer Housing.
	5. Contaminated or mis-adjusted Transfer Corotron.	5. Clean wires; replace as necessary. Adjust transfer fingers/lace with drum gauge tool.
	6. Uneven Development contact to the Drum	6. Check the Cam of the Development pusher.
	7. Defective drum	7. Clean or replace the drum (REP 1.4.1).
	8. Gap uneven between LED Head and Drum. (Tabs on LED Head may be bent.)	8. Ensure that there is a 4.6 mm gap between the LED Head and the drum surface (Silver). Reform the LED Head Tabs as necessary.

PQ 20 Unfused Prints

Symptom/ check	Probable Cause	Corrective Action
Characters and image are easily rubbed off a print.	1. Damp media	1. Ensure that the Customer is storing the media correctly.
	2. Incorrect fuser temperature	2. Perform the Fuser Temperature adjustment (ADJ 3.4.3)
	3. Incorrect fuser pressure	3. Perform Pressure Roller adjustment (ADJ 3.4.1).
	4. Defective heat roller or pressure roller	4. Replace the heat roller (REP 3.3.1) or pressure roller (REP 3.4.1).

PQ 21 Wavy Blotches (Smeared Lines)

Symptom/ check	Probable Cause	Corrective Action
 	1. Charge Scorotron Grid	1. Ensure grid is not curved or distorted in Charge Scorotron assembly. Remove and reinstall the Scorotron Grid. If problem still exists, replace the Grid.
	2. Installation of Developer Module not completed properly	2. Perform Developer Module Shipping Screw Procedure. One screw is still in place, or not loosened and then tightened.
	3. Contaminated Charge Scorotron wires or grid.	3. Clean with water or replace as necessary.
	4. Surface Potential (SPS)	4. Enter diagnostic code 2-0C to check the drum surface potential (SPS). a. If the SPS does not read 850 ± 50 VDC, perform the Charge Scorotron Adjustment (ADJ 1.3.1) and the Grid Bias adjustment (ADJ 1.3.7). b. If SPS is still incorrect, replace HVPS 1. c. If the Charge Scorotron cannot be adjusted, replace HVPS 1. d. If Grid Bias cannot be adjusted, refer to BSD 9.2 and check HVPS 6. Ensure that all connectors on HVPS 6 are seated correctly. Replace HVPS 6 as required.
	5. Dry environment below product specifications	5. Raise humidity in room. Install Tag 7 and perform ADJ 1.3.1 and ADJ 1.3.7.
	6. Defective Drum	6. Replace the Drum (REP 1.4.1).

PQ 22 Wrinkle

Symptom/ check	Probable Cause	Corrective Action
This is damage that is probably caused by the fuser subsystem. This is a severe case of creases that runs in the direction of media travel.	1. Damp media	1. Ensure that the Customer is storing the media correctly and that the Media Heater is set correctly.
	2. Damaged or contaminated media feed rollers	2. Check the media feed rollers.
	3. Damaged or contaminated heat roller	3. Clean or replace the heat roller (REP 3.3.1).
	4. Incorrect fuser contact pressure	4. Check for damage to the pressure roller and the heat roller (PL 4.2). Perform Pressure Roller adjustment (ADJ 3.4.1).
	5. Incorrect fuser temperature	5. Perform the Fuser Temperature adjustment (ADJ 3.4.3).
	6. Incorrect Fuser motor speed	6. Enter diagnostic mode 4 and adjust the media feed motor speed.
	7. Media Heater Switch set to 1 for on during low humidity conditions.	7. Enter diagnostic Mode 4 and adjust Media Heater Switch (4-07) as required. Under cold weather conditions, the switch should be set to 0 for off.

PQ 23 Jagged or Dashed Diagonal Lines

Symptom/ check	Probable Cause	Corrective Action
Lines that are not smooth (jagged) in the diagonal direction.	1. LED Head Strobe Time misadjusted	1. Perform NVM adjustment 4-13 (Section 6).
Diagonal lines are dashed	2. The DC Controller PWB has a bad channel.	2. Switch the HFT Controller input to the 721P from Channel A to Channel B. a. Switch off the power and switch the interface cable from Channel A to Channel B on the 721P. b. Switch the power on. Enter diagnostic code 4-01 and change the value from 1 to 2. c. If the defect is fixed, replace the DC Controller PWB or leave the interface cable connected to Channel B.

PQ 24 Print too Dark (Very Dark Halftones)

Symptom/ check	Probable Cause	Corrective Action
Halftones are too dark	1. LED Head Strobe Time misadjusted	1. Set to 25 for AccXES 9.2 or greater version of software (Section 6). (NVM adjustment 4-13 should be set to 28 for AccXES 9.1 software.) If using PLP Plotworks software to print directly to the printer, the Print Density setting under Device Options is set too high. Normally a value between 21 and 30 is expected.
	2. Scanned image does not originate from a Xerox scanner.	2. Scanned file may not be optimized for the 721p print process
	3. Surface Potential (SPS)	3. Enter diagnostic code 2-0C to check the drum surface potential (SPS). a. If the SPS does not read 850 ± 50 VDC, perform the Charge Scorotron Adjustment (ADJ 1.3.1) and the Grid Bias adjustment (ADJ 1.3.7). b. If SPS is still incorrect, replace HVPS 1. c. If the Charge Scorotron cannot be adjusted, replace HVPS 1. d. If Grid Bias cannot be adjusted, refer to BSD 9.2 and check HVPS 6. Ensure that all connectors on HVPS 6 are seated correctly. Replace HVPS 6 as required.

PQ 25 Cut Length Defect

Symptom/ check	Probable Cause	Corrective Action
Cut length varies from copy to copy	1. Incorrect Fuser Motor Speed. 2. Defective or contaminated Mid-Transport Feed Clutch CL6. 3. Incorrect Thrust Gap on Registration Brake Clutch 4. Cutter Needs Service. 5. Check that machine is connected to 220/240VAC power. If power measures below 212VAC when machine is off, it is likely connected to 208VAC power.	1. Ensure Fuser Motor Speed NVM locations 4-33 through 4-BA are set between- 0.15 and – 0.30 (- 0.20 Nominal). 2. Clean or replace Mid-Transport Feed Clutch CL6 (PL 8.2). 3. Adjust Thrust Gap between 0.2 mm and 0.1 mm (REP 7.4.2). 4. Perform the following: a. REP 4.2.2 Cutter Oil Pad b. REP 4.2.3 Clean/Lubricate Cutter c. ADJ 6.8.4 Cutter Home Position 5. The printer cannot perform to all published specifications when not operating on the specified power. If the machine is connected to 208 VAC, a step-up transformer is required to achieve the 220/240 VAC power requirements. After customer installs step-up transformer; redo the Cut-Length Adjustments.
Incorrect Cut Length	1. Cut length incorrectly adjusted.	1. Perform the following: a. ADJ 6.8.4 Cutter Home Position b. ADJ 5.1.2 Image Placement Series. c. ADJ 5.1.3 End of Roll Trail Edge/Cut Length Compensation.

Section Contents

Repairs

REP 1.1.1 Charge Scorotron

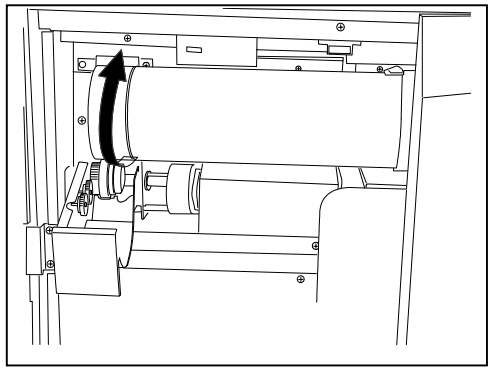
Parts List on PL 1.6

WARNING

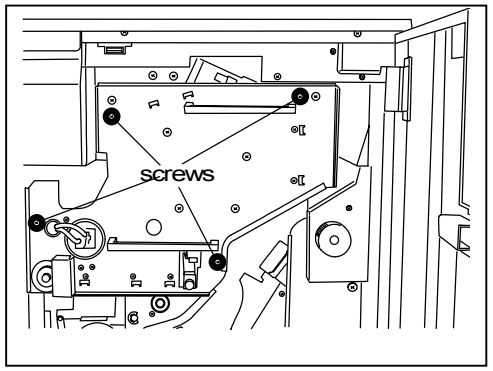
Turn off the Main Switch to allow the Developer Unit to release from its ON position. Switch off the Main Circuit Breaker. Disconnect the Power Cord.

Removal

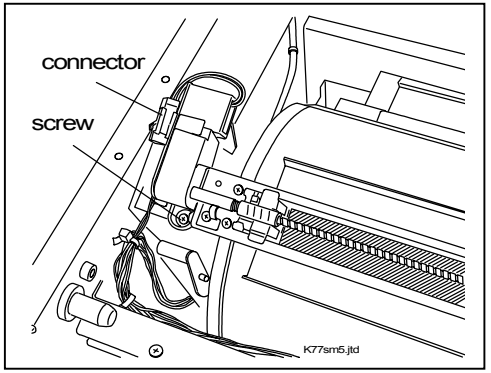
1. Remove the Charge Scorotron Assembly.
   a. Open the Left Hand Door and the Right Hand Door.
   b. Open the Toner Supply Mechanism and rotate the Toner Cartridge 180º holding the left end of the Toner Cartridge so that the Toner Feed Hole is in the up position. (Do not hold the center of the Toner Cartridge, since the toner comes out from the right hole.)



   c. Lower the Inner Transport and lock it in position.
   d. Loosen the 4 black screws, and pull out the Xerographic Module holding the two handles.



   e. Disconnect the connector from the Wire Cleaning Motor.
   f. Remove 2 screws from both edges of the Charge Scorotron, and remove the Charge Scorotron Assembly by holding it at both ends only (do not handle from the middle).



   g. Push the Xerographic Module into the machine temporarily to protect the Drum from light shock.

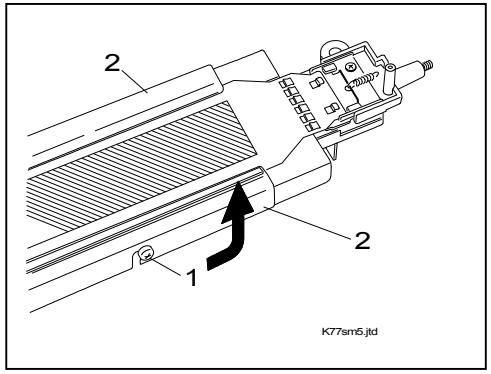
REP 1.1.2 Grid Plate

Parts List on PL 1.6

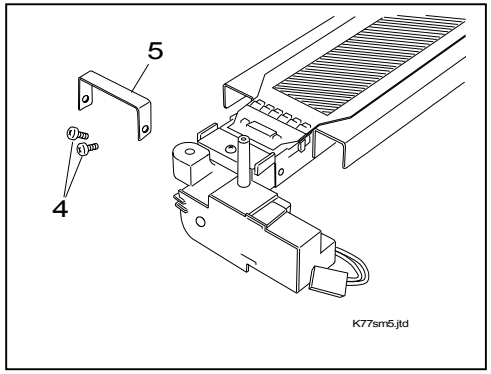
Removal

***Note**: Clean the Scorotron housing and the wires with a water-dampened lint free cloth. Clean the Grid Plate by running under water and patting dry with a lint free cloth.*

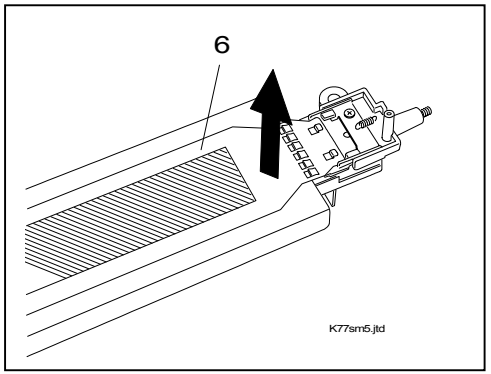
1. Remove the Grid Plate.
   a. Remove the Charge Scorotron (REP 1.1.1).
   b. Loosen 5 screws (1) of the Grid Plate Holder (2) from both sides, and remove the holders (2).



   c. Remove two Screws (4), and remove the Grid Plate Holding Plate (5).



   d. Slide the Hook to the left side a little, release nails from the Grid Plate (6), and remove it as shown arrow direction. (Watch to the spring.)



Replacement

***Note**: In reinstallation, keep pushing the Grid Plate Holders from the top and tighten the Screws.*

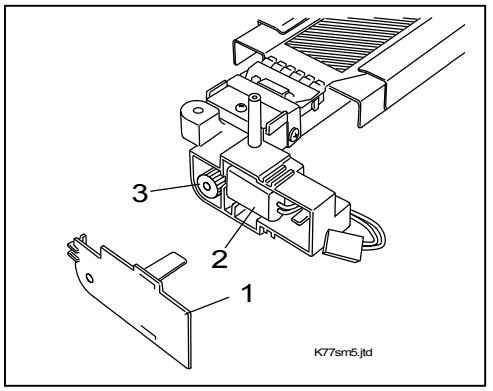
***Note**: To prevent contamination, do not touch the Grid.*

REP 1.1.3 Charge Scoroton Cleaning Motor (MOT9)

Parts List on PL 1.6

Removal

1. Remove the Charge Scorotron.
2. Remove the Charge Scoroton Cleaning Motor.
   a. Remove the Motor Cover (1).
   b. Remove the Motor (2).



***Note**: When you remove the Wire Cleaning Motor, a Gear (3) may fall. Do not lose.*

Replacement

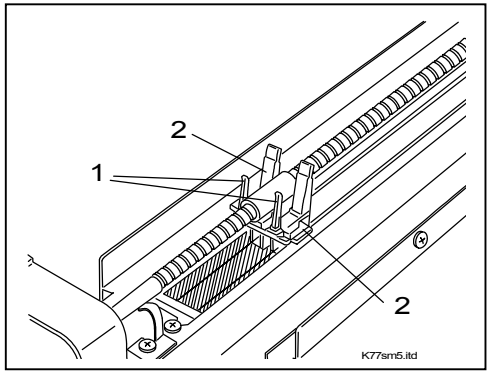
1. When reinstalling the motor, ensure that the label (on the motor) is visible. This will ensure that the motor is properly grounded.

REP 1.1.4 Cleaning Pads

Parts List on PL 1.6

Replacement

1. Remove the Charge Scorotron.
2. Remove the Charge Scoroton Cleaning Motor (REP 1.1.3).
3. Reposition the Cleaning Pad drive shaft by rotating it counter-clockwise, so that the pads are positioned as shown (2).
4. Gently squeeze the Lever Part (1) of the Cleaning Pad (2), the Cleaning Pad is released.



***Note**: When you reinstall the Cleaning Pad, open the Cleaning Pad by finger, and confirm that the Wire is correctly held between Pads.*

REP 1.1.5 Charge Wire

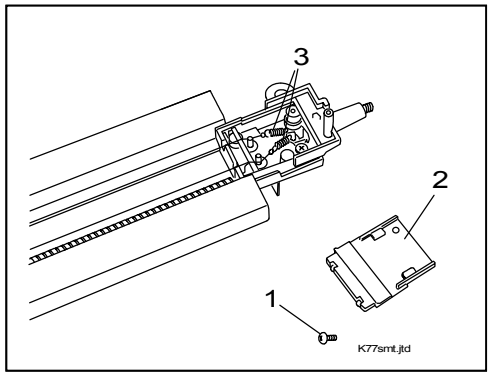
Parts List on PL 1.6

Replacement

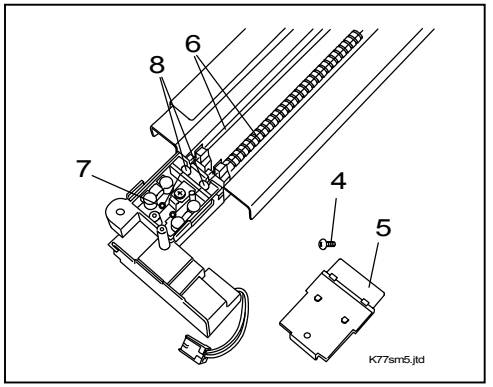
CAUTION

When reinstalling the Charge Scorotron Assembly, be careful not to damage the Drum.

1. Remove the Charge Scorotron.
2. Remove the Cleaning Pad.
3. Remove the Grid Plate.
4. Remove a screw (1), and remove the Lid (2).
5. Remove the Corona Springs (3).



6) Remove a screw (4) from the opposite side, and remove the Lid (5).
7) Remove the Corona Wire (6) from the Hook (7).



***Note**: When reinstalling the Charge Wire, confirm that the Charge Wire is correctly in the groove, and the Bead (8) is put into the position.*

REP 1.2.1 Pre Transfer Lamp

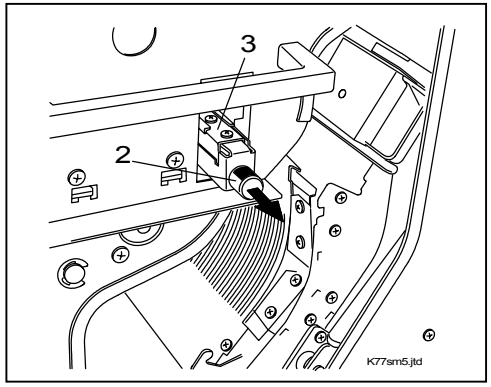
Parts List on PL 1.4

WARNING

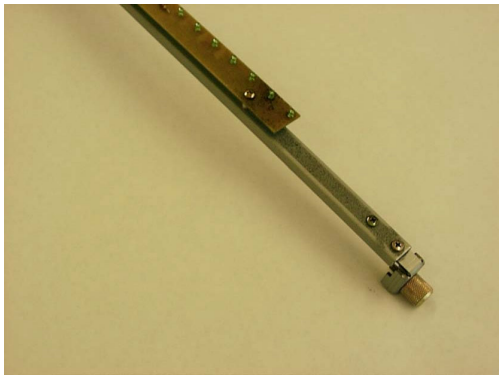
Turn off the Main Switch to allow the Developer Unit to release from its ON position. Switch off the Main Circuit Breaker. Disconnect the Power Cord.

Replacement

1. Open the Left Hand Door and the Right Hand Door.
2. Loosen the thumbscrew (2), and remove the Pre-Transfer Lamp (3).



3. Clean the Pre-Transfer Lamp as is necessary.



REP 1.3.1 Transfer / Detack Corotrons

Parts List on PL 1.5

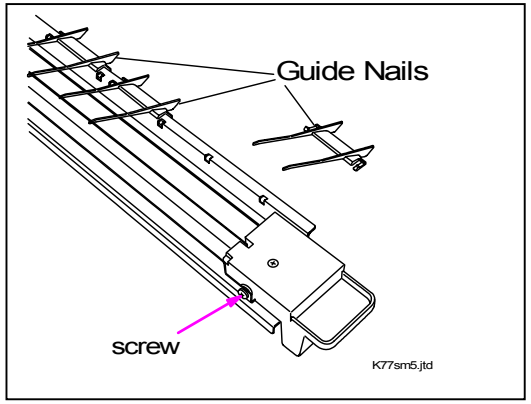
WARNING

Turn off the Main Switch to allow the Developer Unit to release from its ON position. Switch off the Main Circuit Breaker. Disconnect the Power Cord.

Lower the Inner Transport and lock it in position.

Replacement

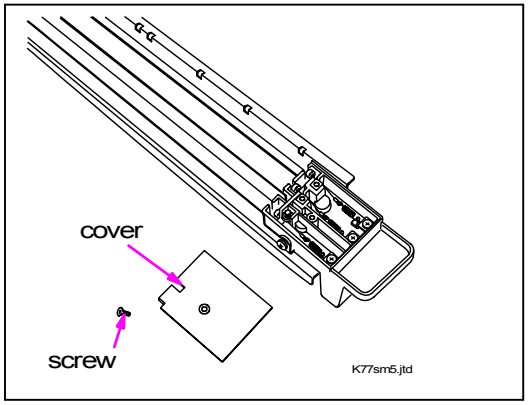
1. Open the Left Hand Door and the Right Hand Door.
2. Lower the Inner Transport and lock it in position.
3. Loosen the Thumb Screw and remove the Transfer / Detack Corotron Assembly.
4. Remove the Side Plate from the Detack Corotron Housing (2 screws). Remove the 12 paper guides.



5. Clean the Corotron housing and the wires with a water-dampened cloth. Also clean the Separation Lamp shield. It can be removed by sliding it out one end of the Transfer / Detack Corotron Assembly

Note: *Shims exist between the Side Plate and the Base.*

6. Remove the screw and the Cover from both ends.



7. Remove springs on both edges, and replace the Wire.

Note: *When reinstalling the Wire, confirm that the Wire is correctly in the groove, and the Beads are put into the position.*

REP 1.4.1 Drum Assembly

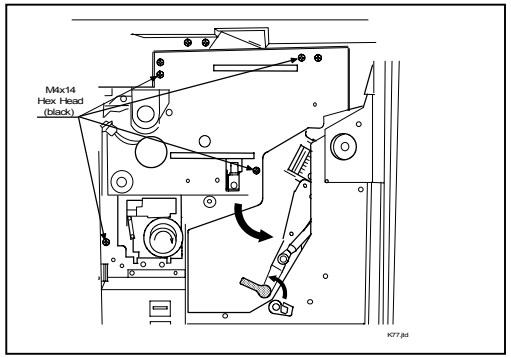
Parts List on PL 1.3

WARNING

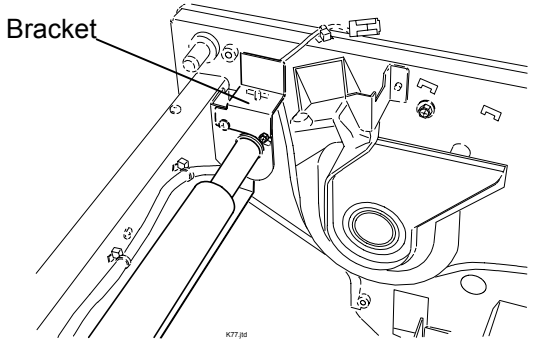
Turn off the Main Switch to allow the Developer Unit to release from its ON position. Switch off the Main Circuit Breaker. Disconnect the Power Cord.

Removal

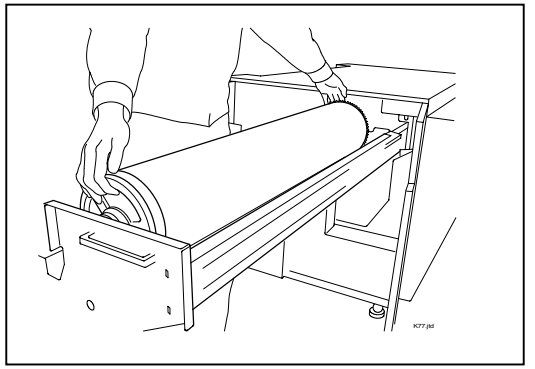
1. Remove the Drum.
   a. Open the Left Hand Door and the Right Hand Door.
   b. Open the Toner Supply Mechanism and rotate the Toner Cartridge 180º holding the left end of the Toner Cartridge so that the Toner Feed Hole is in the up position. (Do not hold the center of the Toner Cartridge, since the toner comes out from the right hole.).
   c. Lower the Inner Transport and lock it in position.
   d. Loosen the 4 black screws, and pull out the Xerographic Module holding the two handles.



   e. Disconnect the connector from the Wire Cleaning Motor.
   f. Remove a screw from each end of the Charge Scorotron, and remove the Charge Scorotron Assembly.
   g. Remove the Cleaning Roller by removing the left side (side that is not located in the bracket) first.

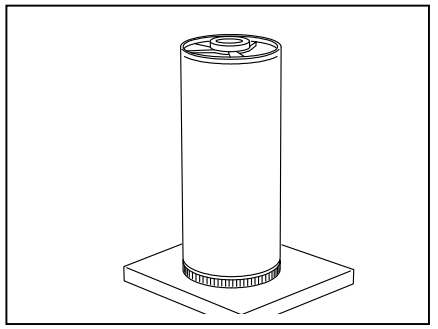


   h. Put the Cleaning Roller on a flat surface.
   i. Lift out the Photorecepter using great care.



***Note**: Before covering the drum with a bag, ensure that the gears and arbor are covered with paper to prevent getting grease on the inside of the bag. This prevents getting grease on the drum when removing the bag*

   j. Put the Drum vertically on the Drum stand carefully, preferably the Gear sides down, and cover it with a bag. Or put it in the box carefully, and close the box.



Replacement

1. When reinstalling the Cleaning Roller (2), ensure that the right side of the cleaning roll shaft is touching the contact behind the bracket. (1) The right side of the cleaning roll shaft is the end in which the shaft (4) extends beyond the bearing (3).

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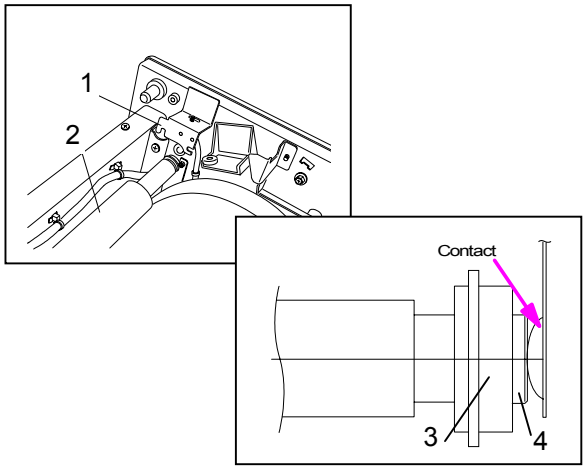
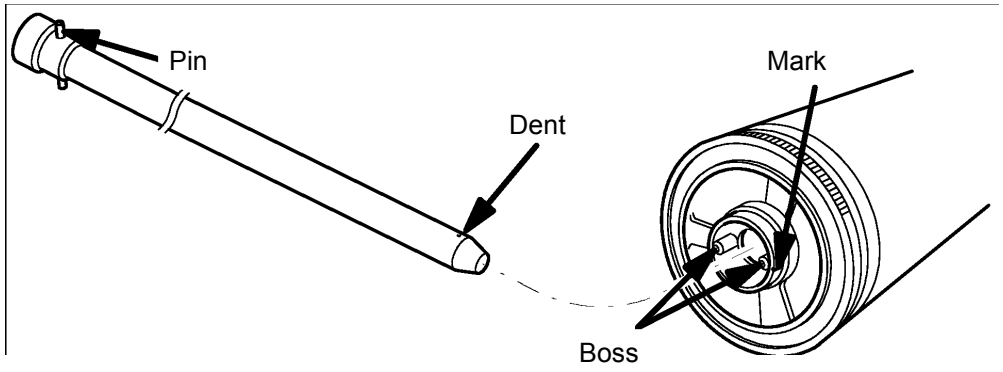


(Avoid touching the Drum.)

***Note**: When you install the Drum on the Xerographic Module, "Mark" on the Drum Gear and "Dent" of the Drum Shaft should not come to the same position, preferably 90 degrees. "Dent" of the Drum Shaft shows the same angle of the "Pin". "Mark" of the Drum Gear shows the position of the "Boss". If "Dent" and "Mark" is aligned at the same position, "Boss" will hit the "Pin" when the Xerographic Module is installed in the machine.*



REP 1.5.1 Drum Drive Timing Belt

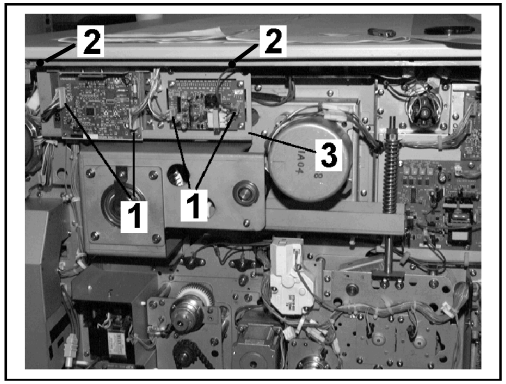
Parts List on PL 8.4

WARNING

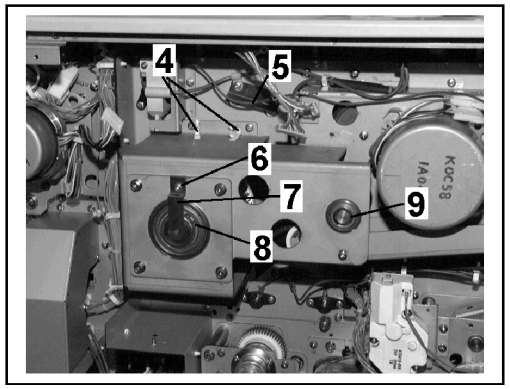
Turn off the Main Switch to allow the Developer Unit to release from its ON position. Switch off the Main Circuit Breaker. Disconnect the Power Cord.

Removal

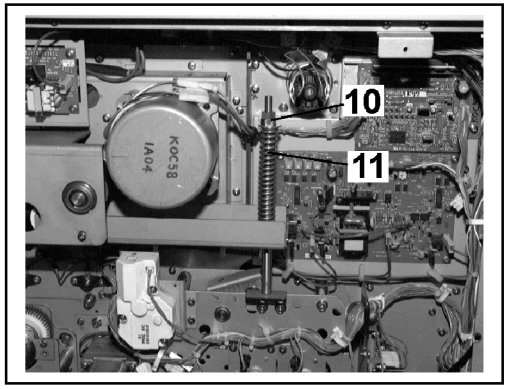
1. Ensure that the Xerographic Module is pushed in.
2. Remove the Left Side Cover.
3. Disconnect the four connectors (1), and remove the two screws securing the connectors
4. Remove the three screws securing the 5 ground wires.
5. Remove two screws (2), then remove the Bracket and PWB (3).



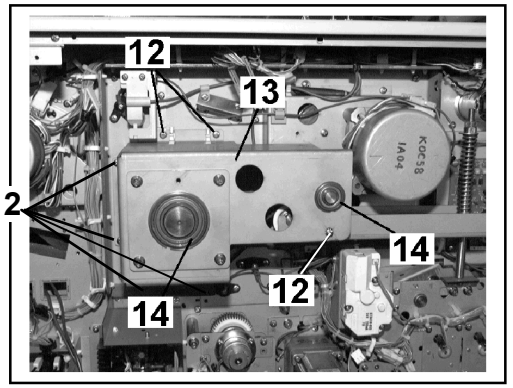
6. Remove Lead Wire (5) from the harness (4).
7. Remove screw (6), and remove the Ground Plate (7).
8. Carefully remove C-ring (8) and E-ring (9).



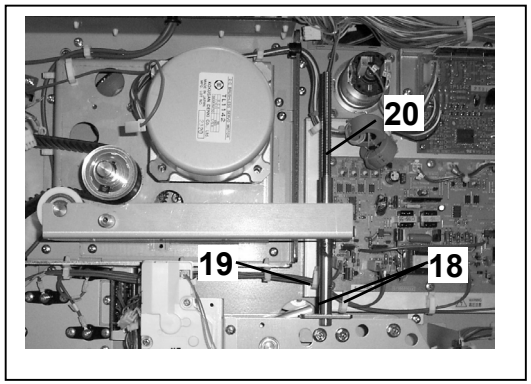
9. Remove the two nuts (10), and remove the Tension Spring (11).



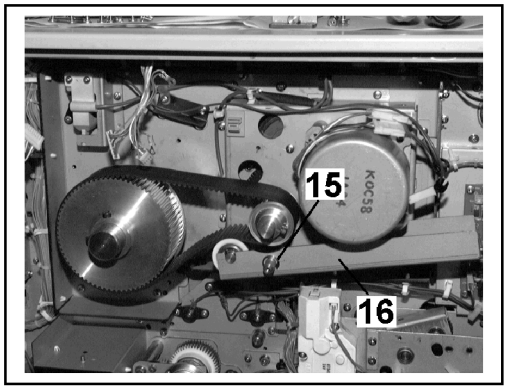
10. Remove seven screws (12), then remove the Bracket (13) with Bearing (14).



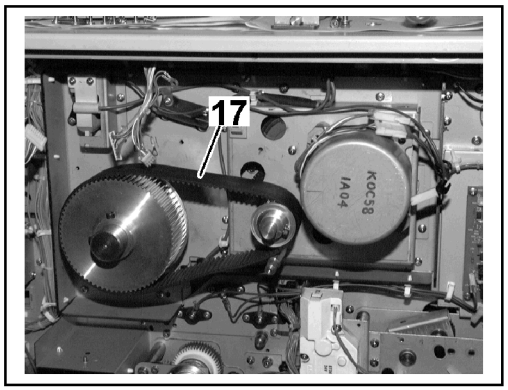
11. Remove the two screws (18) and remove the tension spring shaft bracket (19) and tension spring shaft (20).



12. Remove E-ring (15), then remove the Tension Plate (16).



13. Remove the Timing Belt (17).

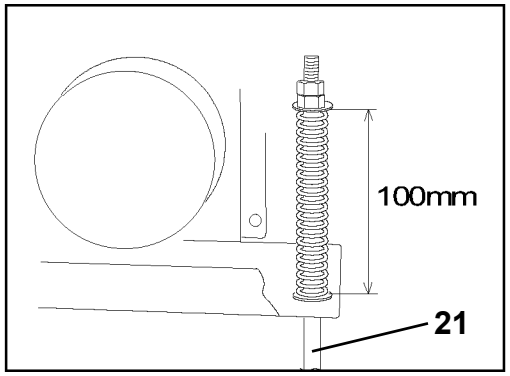


Replacement

Note: *All the hardware must be reinstalled before adjusting the length of the tension spring.*

Note*: Secure the shaft bottom (21) before adjusting the length of the Tension Spring.*

Adjust the length of the Tension Spring to 100mm +/- 0.5mm inside of flat washers.



REP 2.1.1 Developer Assembly

Parts List on PL 3.1

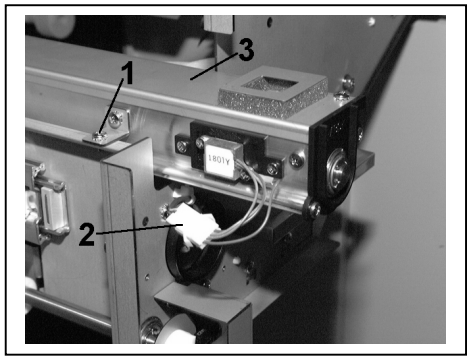
WARNING

Turn off the Main Switch to allow the Developer Unit to release from its ON position. Switch off the Main Circuit Breaker. Disconnect the Power Cord.

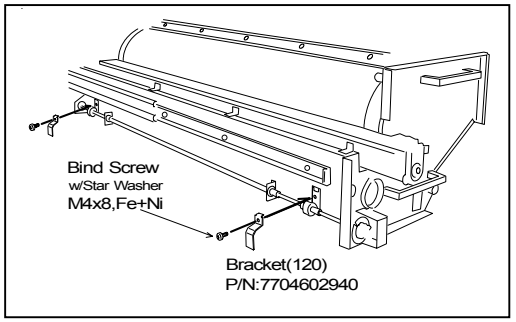
Removal

***Note**: Prepare the area by placing several sheets of paper on the floor under the Xerographic Module.*

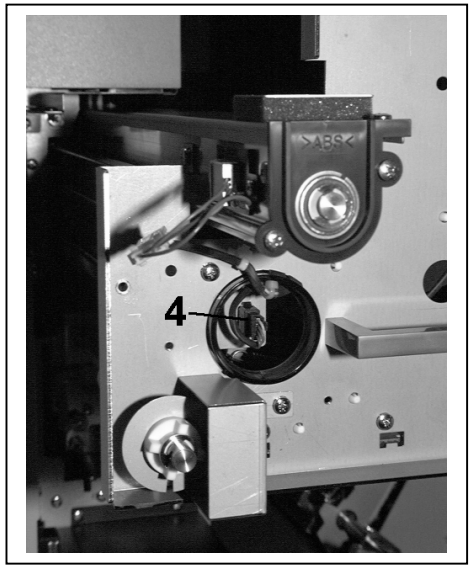
1. Remove the Drum assembly (REP 1.4.1).
2. Remove four Screws (1) and a Connector (2), then remove the Toner Hopper (3).

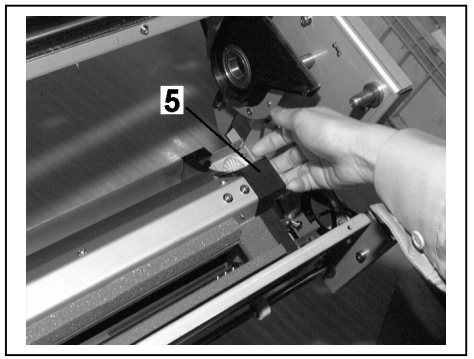


3. Remove a Screw and a Bracket (120) from both sides.



4. Remove a Connector (4), slant the Developer Unit a little holding both edges (5) of the Developer Unit, then lift up the Developer Unit.





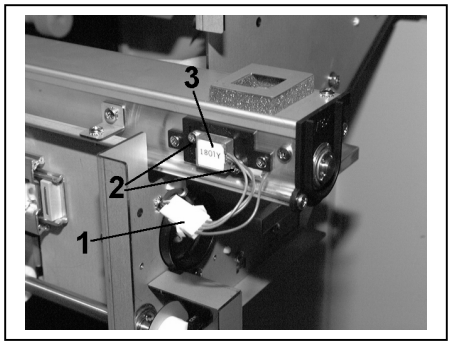
***Note:** Be careful that the Developer Unit is very heavy.*

REP 2.2.1 Toner Hopper Sensor (TLS 1)

Parts List on PL 3.4

WARNING

Turn off the Main Switch to allow the Developer Unit to release from its ON position. Switch off the Main Circuit Breaker. Disconnect the Power Cord.



Removal

Caution

Do not use the Air Vacuum Cleaner around the Toner Supply Sensor. Static Electricity produced by the Vacuum Cleaner may damage the sensor.

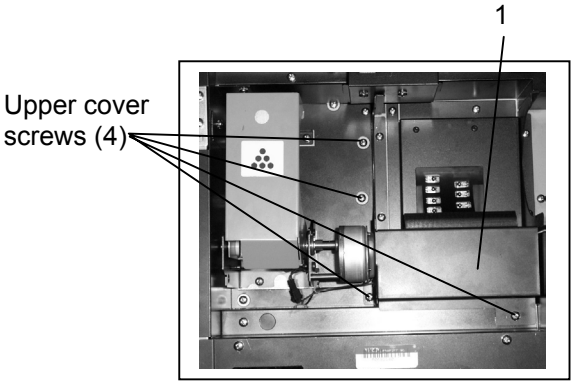
1. Open the Left Hand Door and the Right Hand Door.
2. Remove the Toner Cartridge.
3. Lower the Inner Transport and lock it in position.
4. Loosen the 4 black screws, and pull out the Xerographic Module holding the two handles.
5. Remove a Connector (1).
6. Remove two Screws (2), and remove the Toner Supply Sensor (3).

REP 2.2.2 Toner Dispense Clutch Assembly

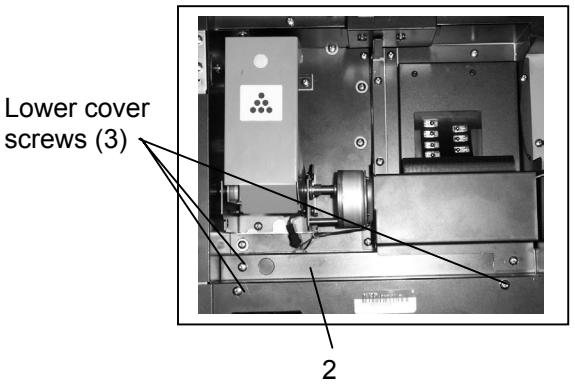
Parts List on PL 9.7

Removal

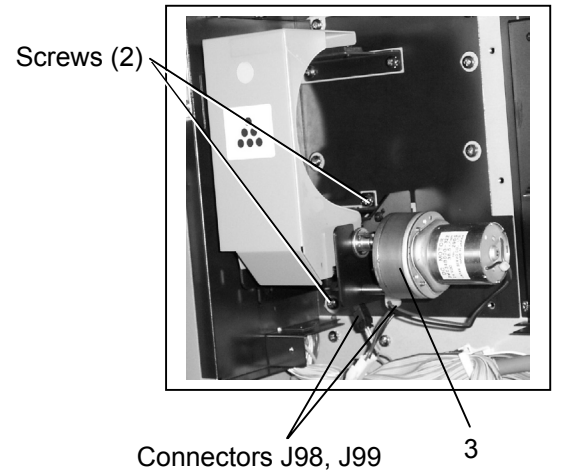
1. Open the Left Hand Door and the Right Hand Door.
2. Remove the Toner Cartridge.
3. Remove four screws, release the cable, and remove the upper cover (1).



4. Remove three screws, release the cable, and remove the lower cover (2).



5. Remove the two screws, disconnect the two connectors (J98, J99) and remove the Toner Dispense Clutch Assembly (3).



REP 2.3.1 Toner Sump Sensor (Developer Unit) (TLS 2)

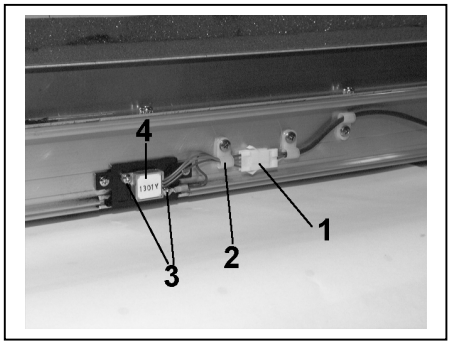
Parts List on PL 3.2

WARNING

Turn off the Main Switch to allow the Developer Unit to release from its ON position. Switch off the Main Circuit Breaker. Disconnect the Power Cord.

Removal

1. Open the Left Hand Door and the Right Hand Door.
2. Open the Toner Supply Mechanism and rotate the Toner Cartridge 180º holding the left end of the Toner Cartridge so that the Toner Feed Hole is in the up position. (Do not hold the center of the Toner Cartridge, since the toner comes out from the right hole.)
3. Lower the Inner Transport and lock it in position.
4. Loosen the 4 black screws, and pull out the Xerographic Module holding the two handles.
5. Remove the Developer Assembly REP 2.1.1
6. Remove a Connector (1) and a fastener (2).
7. Remove two Screws (3), and remove the Toner Supply Sensor (4).

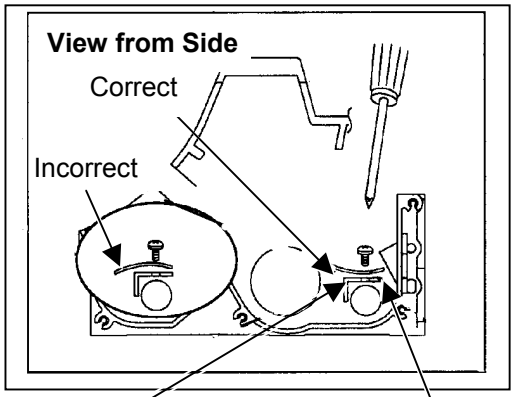


Caution

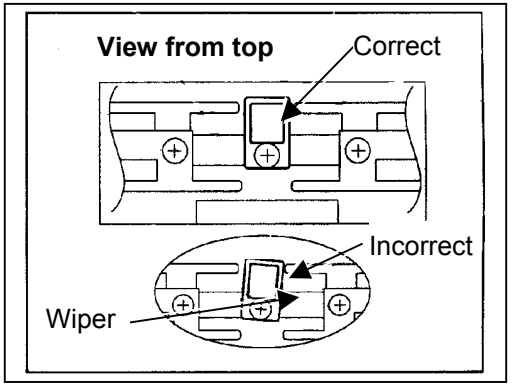
Do not use the Air Vacuum Cleaner around the Toner Supply Sensor. Static Electricity produced by the Vacuum Cleaner may damage the sensor.

Replacement

1. Ensure that the Toner Sensor Wiper is aligned properly.



***Note**: Ensure that bracket is not lost during disassembly*



REP 2.4.1 Developer Position Motor (MOT 4)

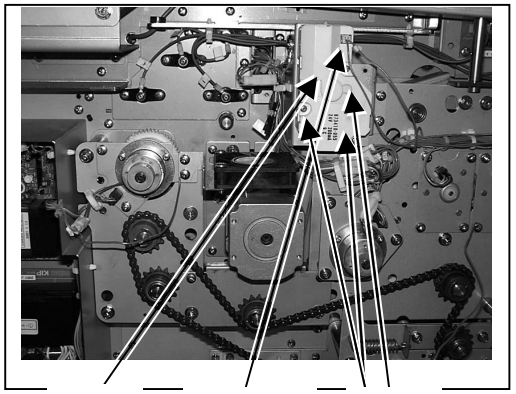
Parts List on PL 8.2

WARNING

Turn off the Main Switch to allow the Developer Unit to release from its ON position. Switch off the Main Circuit Breaker. Disconnect the Power Cord.

Removal

1. Remove the Left side Cover (4 screws).
2. Remove connector and 3 screws of the Developer Position Motor (M3x20).



REP 2.4.2 Developer Position Sensor (Q25)

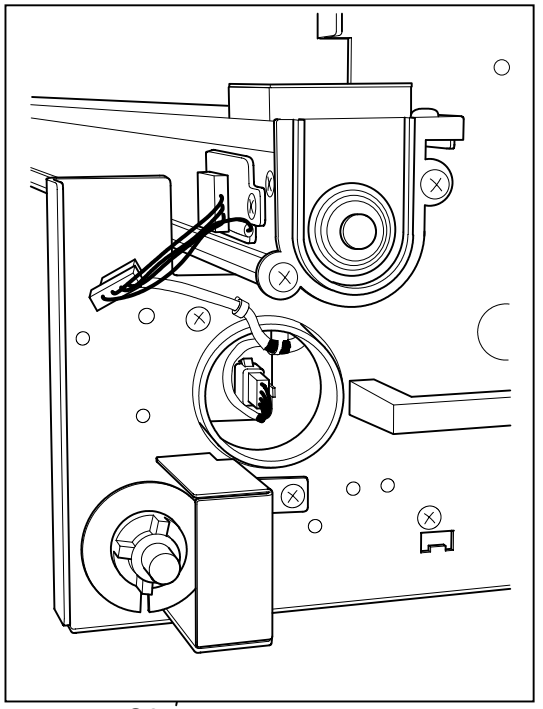
Parts List on PL 1.2

Removal

6. Open the Left Hand Door and the Right Hand Door.
7. Open the Toner Supply Mechanism and rotate the Toner Cartridge 180º holding the left end of the Toner Cartridge so that the Toner Feed Hole is in the up position. (Do not hold the center of the Toner Cartridge, since the toner comes out from the right hole.)
8. Lower the Inner Transport and lock it in position.
9. Loosen the 4 black screws, and pull out the Xerographic Module holding the two handles.
10. Loosen the Developer Position Sensor interrupter plate by removing one e-ring.
11. Remove two screws from the Q25 mounting Bracket.

    ***Note**: Use caution not to lose the pin behind the interrupter plate.*

12. Pull both the sensor and interrupter plate off at the same time. Unplug Q25 and remove it from the Bracket.



Replacement

***Note**: When reinstalling the sensor (Q25) and interrupter plate at the same time, it is possible to install the interrupter plate 180º out of position.*

1. To ensure correct interrupter plate positioning, check that the developer unit cam lobe high point is away from the developer unit, and that the interrupter plate opening faces in the same direction (the lobe high point and the interrupter plate opening should be in line).

REP 2.5.1 LED Print Head

Parts List on PL 1.7

WARNING

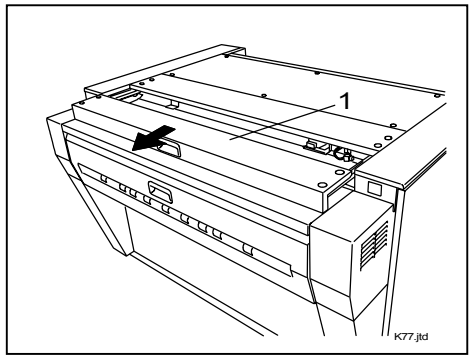
Turn off the Main Switch to allow the Developer Unit to release from its ON position. Switch off the Main Circuit Breaker. Disconnect the Power Cord.

Caution

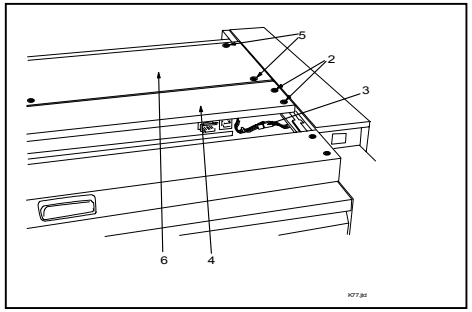
Use care not to touch the lens while removing the head.

Removal

1. Open the Top Rear Cover (1).



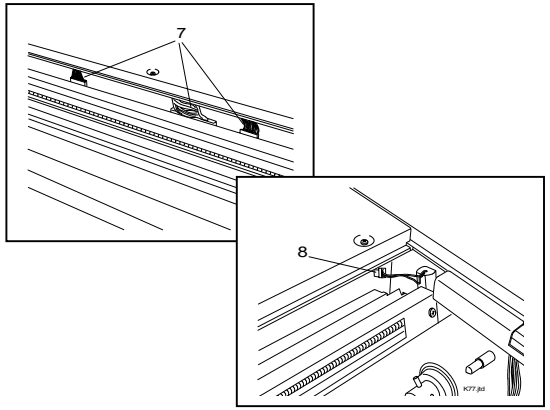
2. Remove four screws (2), disconnect the Connector (3), unhook the cable restrainer, and remove the Top Center Cover (4).



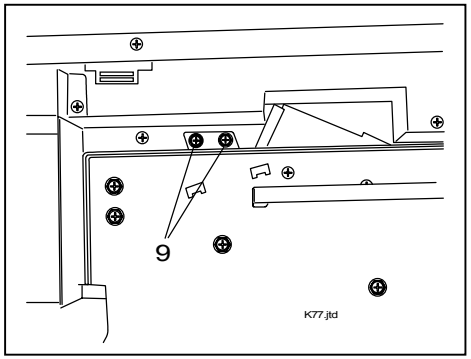
3. Open the Left Hand Door and the Right Hand Door. Open the Toner Supply Mechanism, holding the left end of toner cartridge and turn the toner cartridge upward. (Do not hold the center of the Toner Cartridge, since the toner comes out from the right hole.).
4. Lower the Inner Transport and lock it in position, loosen the 4 black screws, and pull out the Xerographic Module.

***Note**: Put a sheet of paper or something else on the Drum to protect it from the light.*

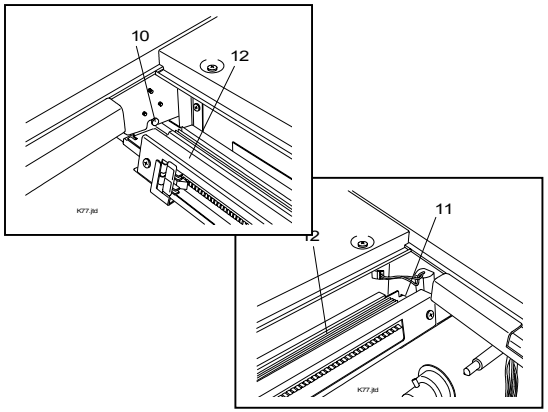
5. Remove three Connectors (7) from the LED Head and one Connector (8) from LED Cleaning Motor.



6. Remove two black Screws (9) holding the LED Head Unit.



7. Hold the LED Head Unit from the bottom, pull the left side a little to release the LED Head Unit from the Hook (10), slide the LED Head Unit to the left a little to release those tabs from the opening(11), and remove the LED Head Unit (12).



Caution

Use care to protect the LED Head Unit from Static Electricity.

Replacement

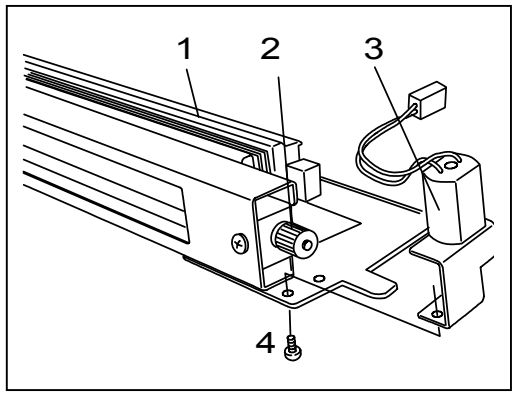
***Note**: When installing the LED Head Unit, do not tighten the two black Screws (9) of the LED Head Unit before tightening the four black Screws of the Xerographic Module.*

REP 2.5.2 LED Print Head Cleaning Motor (MOT 8)

Parts List on PL 1.7

Removal

1. Remove the LED Head (1). (REP 2.5.1)
2. Remove a screw (4) from the LED Print Head Cleaning motor (MOT 8) (3) with the Bracket. Then remove 2 screws (M2x5) and remove the motor. Do not lose the gear (2) and the motor bracket.

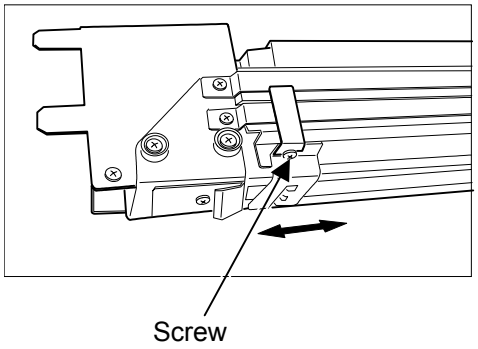


REP 2.5.3 LED Cleaning PAD

Parts List on PL 1.7

Removal

1. Remove the LED Head. (REP 2.5.1)
2. Loosen a screw to replace the LED cleaning pad.



***Note**: When you install this LED cleaning pad, confirm that the LED cleaning pad contacts to the sel-foc lens properly.*
If this is bent to upward, there is a risk to damage the Drum when it is operated.

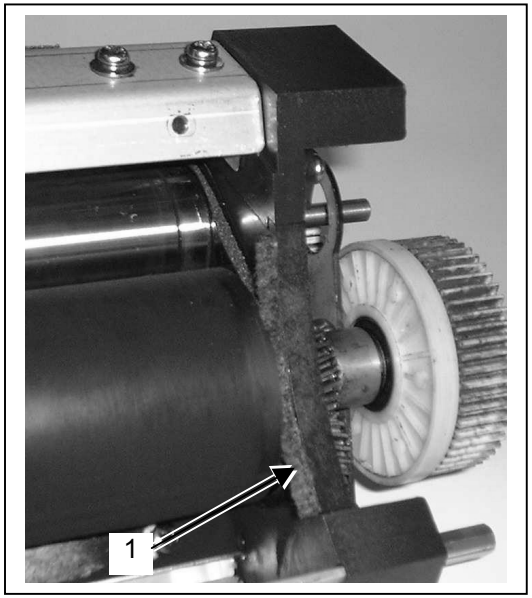
REP 2.5.4 Side Seal Replacement

Parts List on PL 3.x

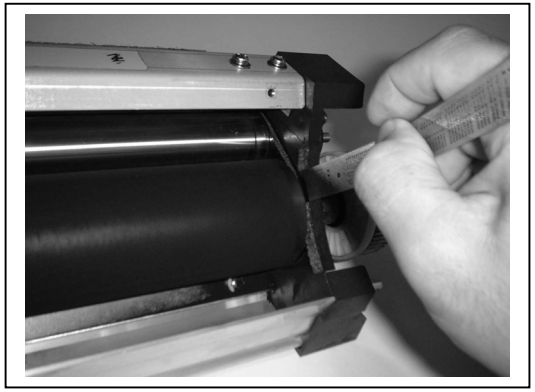
Removal

***Note**: Repeat the following procedure for each end of the Developer Housing.*

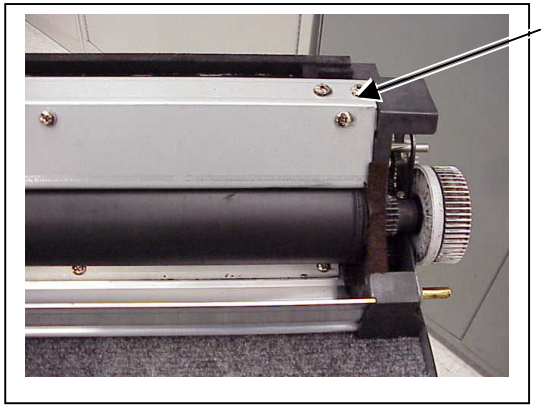
1. Remove the Developer Housing Front Cover (3).
2. Remove the Side Plate Edge Seal (1), the Front Cover Seal (3), and the Side Seal (5), if present.
3. Vacuum the toner inside the Side Plate of the developer housing, including the curved surface of the Side Plate. Wipe the area of the Side Plate, where the seal will be attached, with a dry cloth.
4. Adhere the Side Plate Edge Seal (1) inside of the Side Plate (between the developer roll and the side plate) along the curved edge. Ensure that the seal contours the curved edge.



5. Using a tool such as a ruler or a small straight screwdriver, press down on the seal to firmly attach it inside the Side Plate.



6. Install the Front Cover (3).



7. Repeat this procedure for the other side of the Developer Housing

REP 2.6.1 Xerographic Module

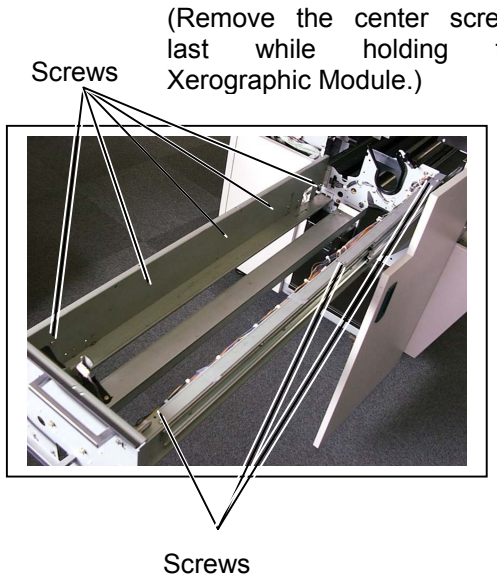
Parts List on PL 1.1

WARNING

Turn off the Main Switch to allow the Developer Unit to release from its ON position. Switch off the Main Circuit Breaker. Disconnect the Power Cord.

Removal

1. Remove the Drum Assembly. (REP 1.4.1)
2. Remove the Developer Assembly (REP 2.1.1)
3. Remove 3 screws from top, and remove 5 screws from inside.



4. Push in the rails for the safety.

REP 3.1.1 Fuser Assembly

Parts List on PL 4.1

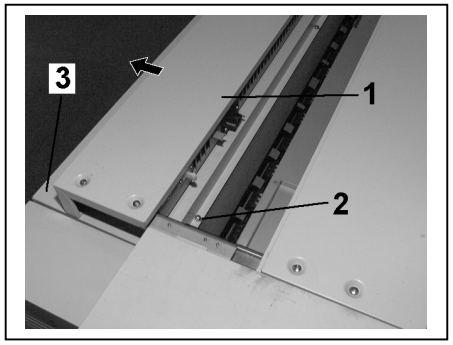
WARNING

Turn off the Main Switch to allow the Developer Unit to release from its ON position. Switch off the Main Circuit Breaker. Disconnect the Power Cord.

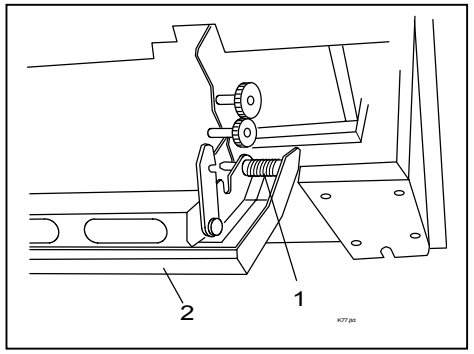
Allow the Fuser Assembly to cool before performing the procedure.

Removal

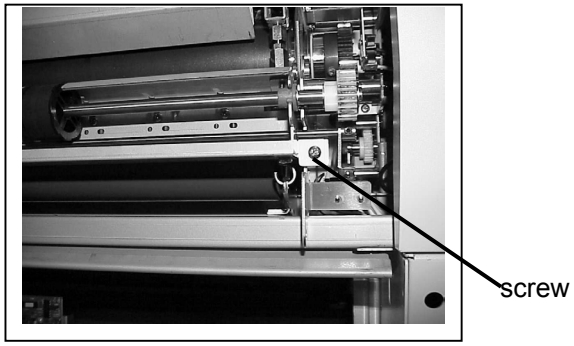
1. Remove the Output Trays and the Tray Frames, if present.
2. Pull the Top Rear Cover (1) to the rear side.
3. Loosen three Screws (2) and remove the Fuser Cover (3) by sliding it toward the machine rear.



4. Open the Exit Door. Slide the Pivot (1), and remove the Exit Door (2) and upper stripper finger assembly.



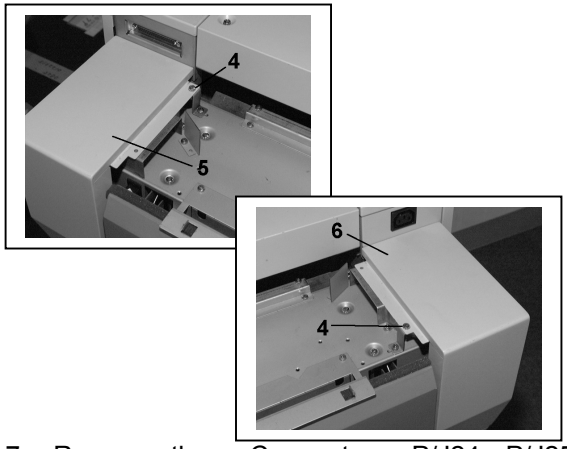
5. Remove the Exit Transport (2 screws, 1 on each side).



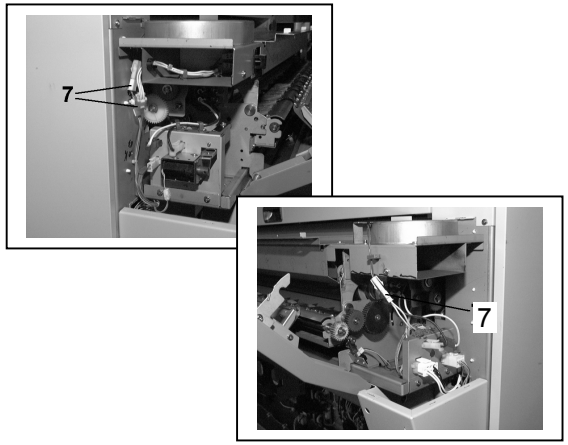
WARNING

The Fuser Assembly is very heavy and awkward to move.

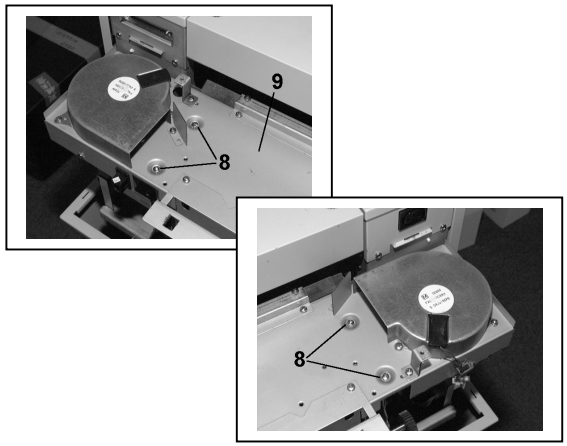
6. Remove a Screw (4) from each Cover, then remove Cover (5) and Cover (6).



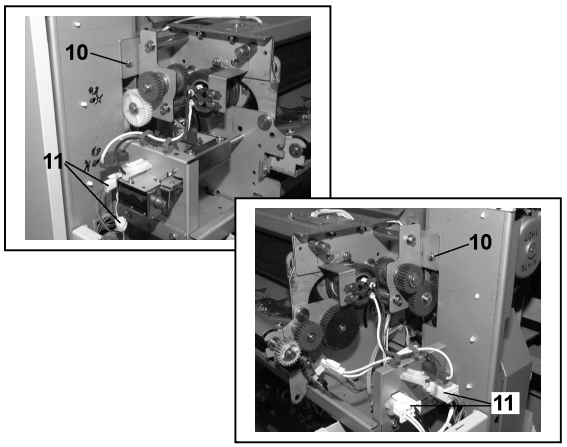
7. Remove three Connectors, P/J24, P/J25, and P/J96. (7).

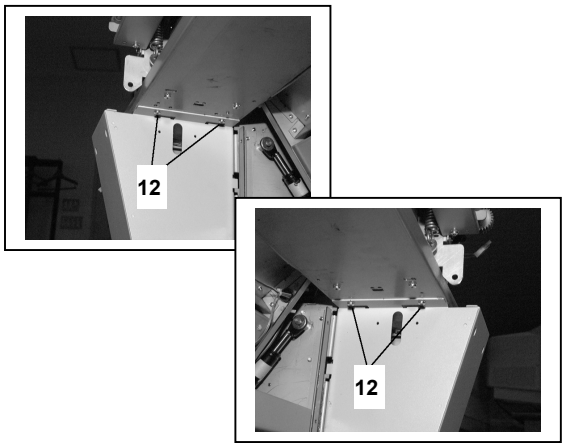


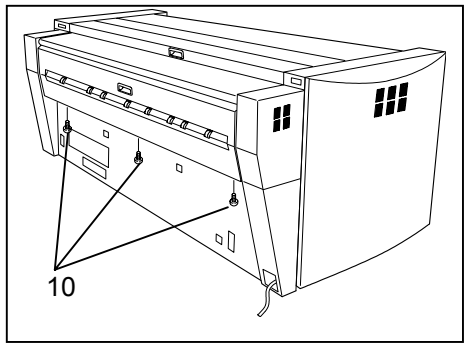
8. Remove four screws (8) and remove the Cooling Fan Unit (9).



9. Remove five screws (10) and 4 more from under the fuser unit (12). Remove connectors J32, J95, J1, J21 (11) and remove the Fuser Unit.







REP 3.2.1 Heat Rods (HTR 1, HTR 2)

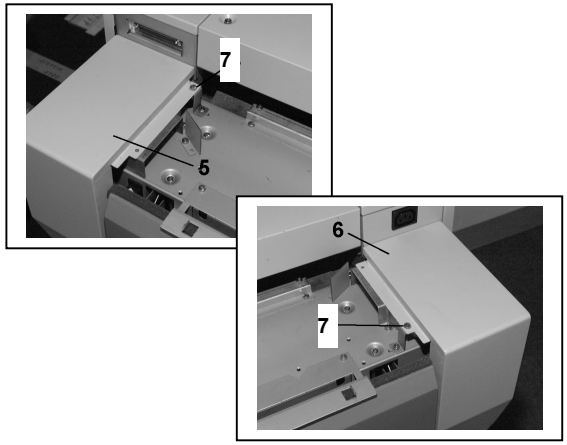
Parts List on PL 4.3

WARNING

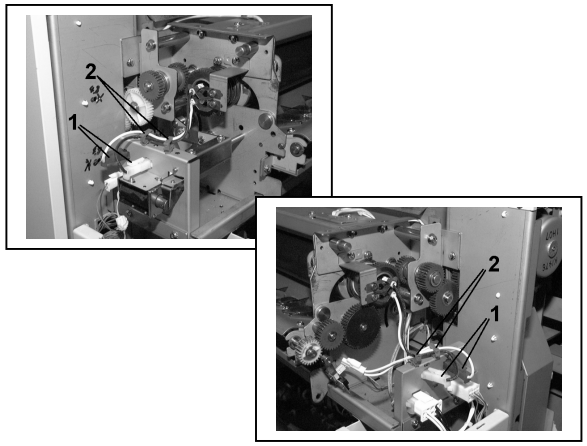
Turn off the Main Switch to allow the Developer Unit to release from its ON position. Switch off the Main Circuit Breaker. Disconnect the Power Cord. Allow the Fuser Assembly to cool before performing the procedure.

Removal

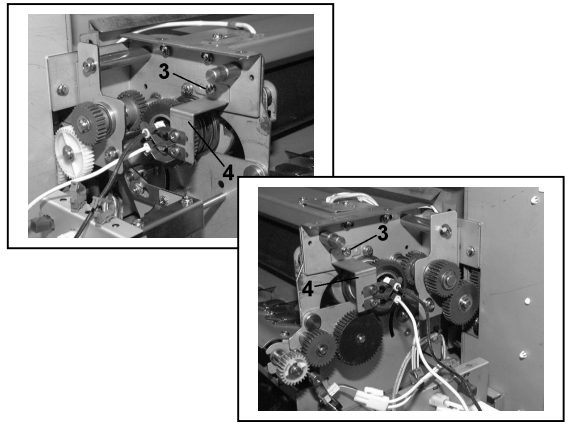
1. Remove the Output Trays and the Tray Frames, if present.
2. Pull the Top Rear Cover to the rear side.
3. Loosen three Screws and remove the Fuser Cover by sliding it toward the machine rear.
4. Remove a Screw (7) from each Cover, then remove Cover (5) and Cover (6).



5. Remove three connectors (P/J 24, P/J25, and P/J96).
6. Remove four screws and remove the Cooling Fan Unit.
7. Remove four connectors P/J 2, P/J 3, P/J 4, P/J 5 (1), and remove the leading wires of Heat rod from the Clamps (2).



8. Remove a Screw (3) from each side, and remove the Holding Brackets (4) of the Heat rod.



9. Make the Leading Wires of the Heat rods straight, and remove the Heat rods with care.

***Note**:*

- *When reassembling, install the Heat Rods so that the glass projections do not touch.*
- *The Heat rod with the black lead wire is positioned on the top.*
- *Black Lead Wire: Center Area, 1750W, H1 (same as 8855)*
- *White Lead Wire: Edge Area, 1350W, H2 (new item)*
- *Do not touch the Heat rod. If the Heat rod gets dirty with Oil or Grease, the life of the Heat rod may be shortened.*

Replacement

***Note**:*

- *When reassembling, install the Heat Rods so that the glass projections do not touch.*
- *The Heat rod with the black lead wire is positioned on the top.*
- *Black Lead Wire: Center Area, 1750W, H1 (same as 8855)*
- *White Lead Wire: Edge Area, 1350W, H2 (new item)*
- *Do not touch the Heat rod. If the Heat rod gets dirty with Oil or Grease, the life of the Heat rod may be shortened.*

1. Reinstall the Heater Rods with the glass nipples not aligned.
2. Connect the red connectors of the Heater Rod to the red connectors of the harness and the white connectors of the Heater Rod to the white connectors of the harness.

REP 3.3.1 Heat Roll

Parts List on PL 4.2

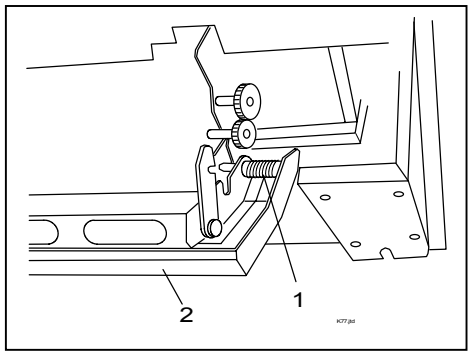
WARNING

Turn off the Main Switch to allow the Developer Unit to release from its ON position. Switch off the Main Circuit Breaker. Disconnect the Power Cord.

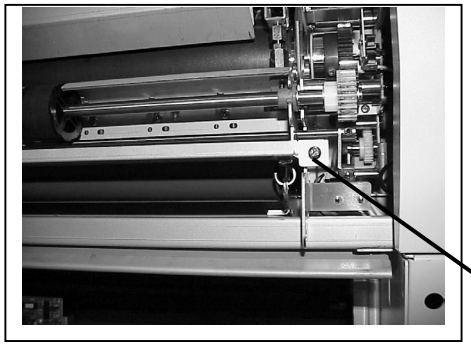
Allow the Fuser Assembly to cool before performing the procedure.

Removal

1. Remove Heat rods. (REP 3.2.1)
2. Slide the Pivot (1), and remove the Exit Cover (2) and lower stripper finger assembly.

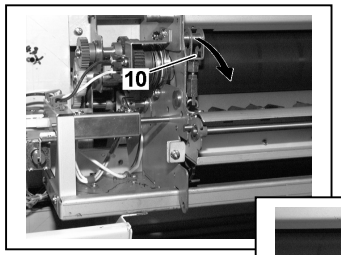


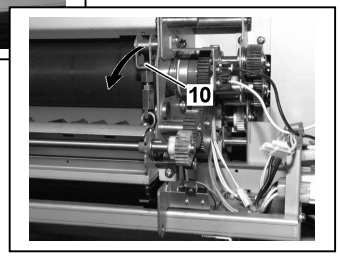
3. Remove the exit Transport (2 screws 1 on each side).



4. Remove tension on arm to enable Fuser Roll removal.
5. Pull the Bracket (10) towards you from each side, and release the pressure.

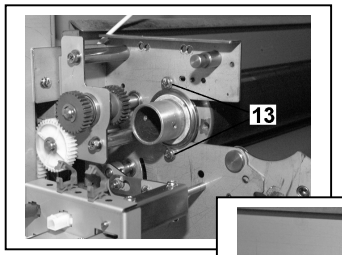
***Note**: Be careful that the spring is very strong.*

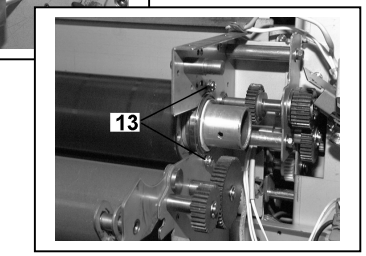




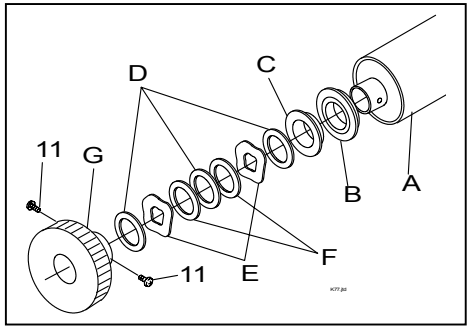
6. Remove both brackets by removing the e-clip and bracket pivot pin.

7. Remove four Collars and screws (13), which are fixing the Ball Bearing.



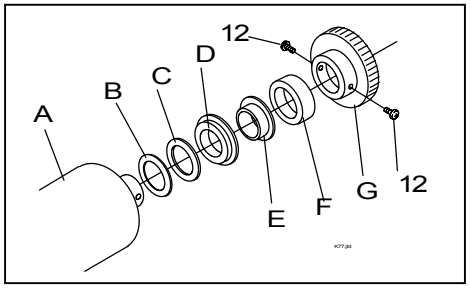


8. Loosen two Screws (11) from the non-drive side Gear, and remove the following items from the Fuser Roll.



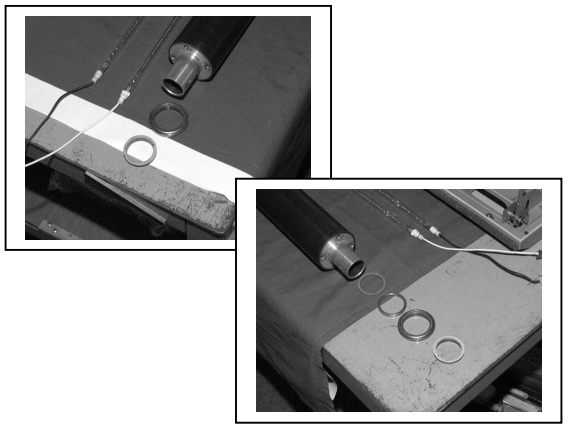
A: Fuser Roll
B: Ball Bearing
C: Heat Resist Bushing
D: Spacer
E: Wave Washer
F: Collar for Roll
G: Gear

9. Loosen two Screws (12) from the left Gear, and remove the following items from the Fuser Roll.



A: Fuser Roll
B: Collar
C: Collar for Roll
D: Ball Bearing
E: Heat Resisting Bushing
F: Collar
G: Gear

10. Remove the remaining parts from the removed Fuser Roll, and use them with a new Fuser Roll.



REP 3.4.1 Pressure Roll

Parts List on PL 4.2

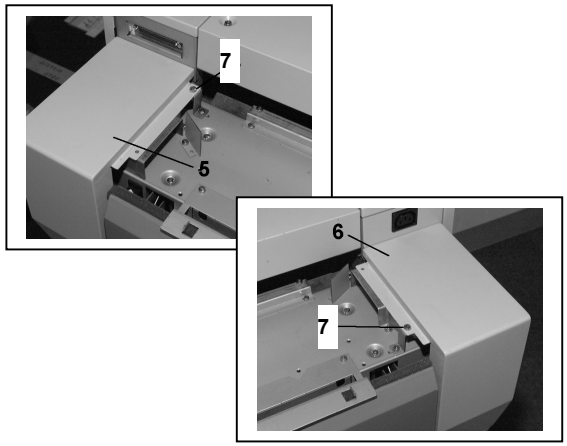
WARNING

Turn off the Main Switch to allow the Developer Unit to release from its ON position. Switch off the Main Circuit Breaker. Disconnect the Power Cord.

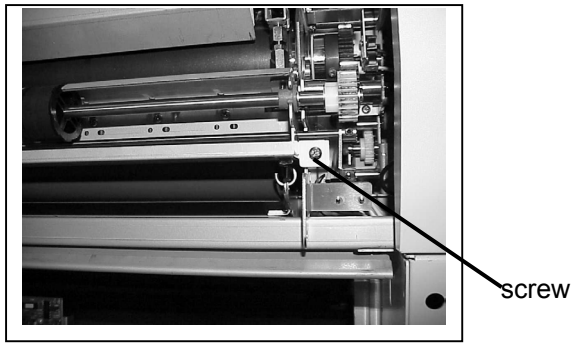
Allow the Fuser Assembly to cool before performing the procedure.

Removal

1. Remove the Output Trays and the Tray Frames, if they exist.
2. Pull the Top Rear Cover to the rear side.
3. Loosen three Screws and remove the Fuser Cover by sliding it toward the machine rear.
4. Remove a Screw (7) from each Cover, then remove Cover (5) and Cover (6).

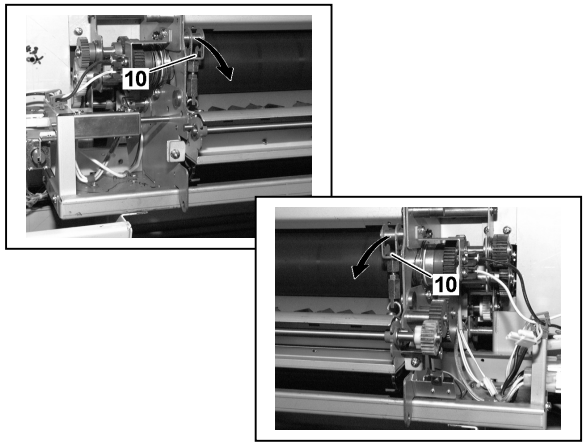


5. Slide the Pivot, and remove the Exit Cover.
6. Remove the exit Transport (2 screws, 1 on each side).

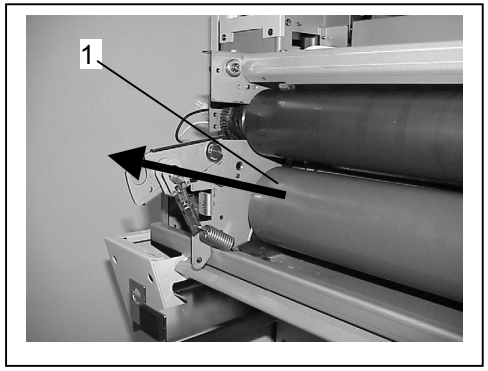


7. Remove tension on arm to enable Fuser Roll removal.
8. Pull the Bracket (10) towards you from each side, and release the pressure.

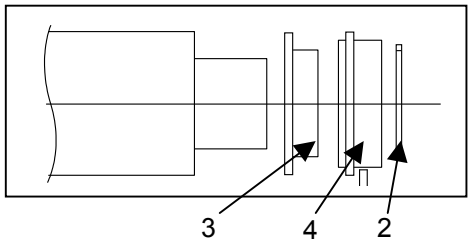
***Note**: Be careful that the spring is very strong.*

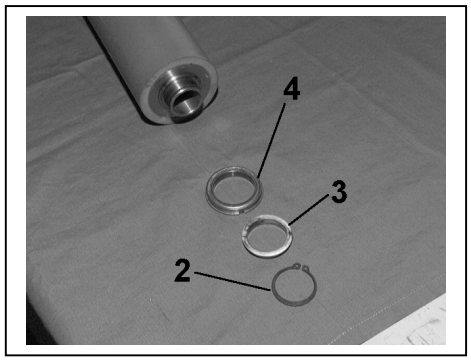


9. You can remove the Pressure Roll (1) under this condition.

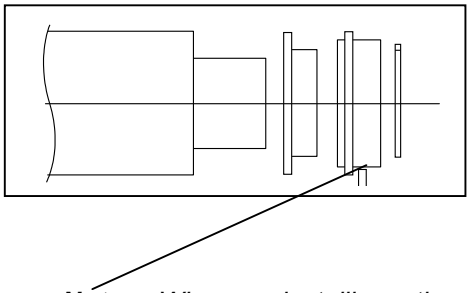


10. Put the C-Ring (2), Heat Resisting Bushing (3) and the Ball Bearing (4) to the new Pressure Roll.





Replacement



***Note**: When reinstalling the pressure roll, ensure that the fuser pressure roll brackets are properly engaged with the bearing shoulders on both ends of the pressure roll.*

REP 3.5.1 Fuser Guide Plate

Parts List on PL 4.x

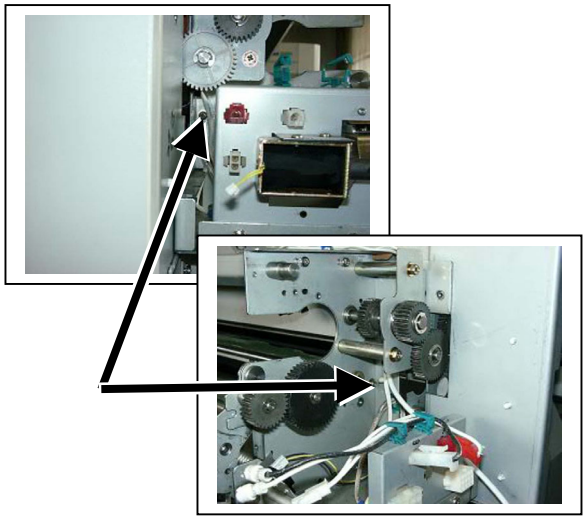
WARNING

Turn off the Main Switch to allow the Developer Unit to release from its ON position. Switch off the Main Circuit Breaker. Disconnect the Power Cord.

Allow the Fuser Assembly to cool before performing the procedure.

Removal

1. Remove the Heat Roll (REP 3.3.1).
2. Remove the Pressure Roll (REP 3.4.1).
3. Remove a screw from right or left of the Fuser Guide Plate.



Replacement

1. Ensure that the collar is set at the inside of the side plate.

REP 3.6.1 Thermostat (TS 1)

Parts List on PL 4.4

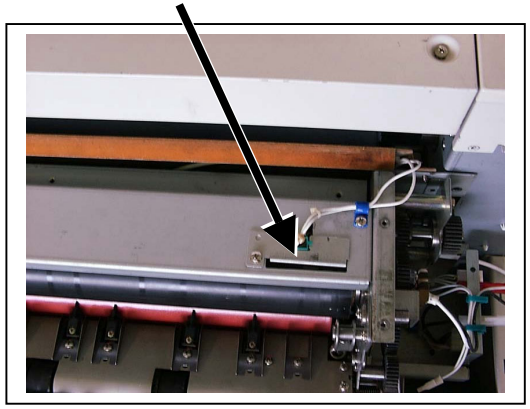
WARNING

Turn off the Main Switch to allow the Developer Unit to release from its ON position. Switch off the Main Circuit Breaker. Disconnect the Power Cord.

Allow the Fuser Assembly to cool before performing the procedure.

Removal

1. Remove the Cooling Fan Unit (REP 3.1.1).
2. Remove a screw, and remove the Thermostat (TS 1) with a bracket.



REP 3.6.2 Thermistor (RT 1)

Parts List on PL 4.4

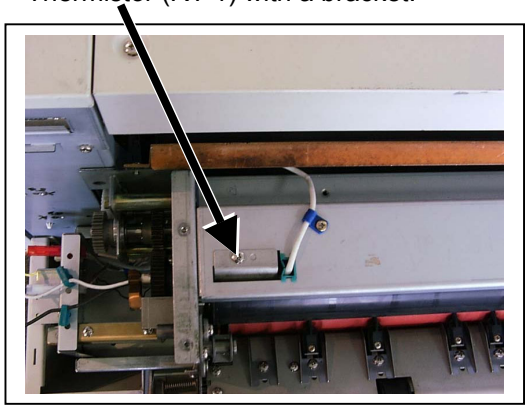
WARNING

Turn off the Main Switch to allow the Developer Unit to release from its ON position. Switch off the Main Circuit Breaker. Disconnect the Power Cord.

Allow the Fuser Assembly to cool before performing the procedure.

Removal

1. Remove the Cooling Fan Unit (REP 3.1.1).
2. Remove a screw, and remove the Thermistor (RT 1) with a bracket.



REP 4.1.1 Cutter Assembly

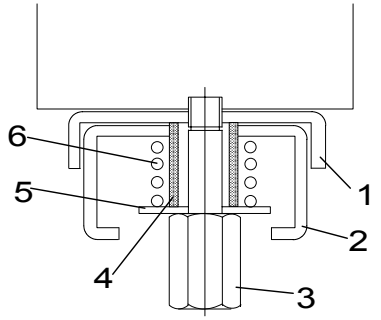
Parts List on PL 5.1

WARNING

Turn off the Main Switch to allow the Developer Unit to release from its ON position. Switch off the Main Circuit Breaker. Disconnect the Power Cord.

Removal

1. Pull out the 2nd drawer.
2. Open the Left Hand Door and the Right Hand Door.
3. Lower the Inner Transport Assembly and lock it with the hook.
4. (Figure 1): Remove a Fixing Screw using a wrench (10mm) from the bottom of the Cutter Assembly.



1: Unit Base
2: Frame
3: Fixing Screw
4: Collar
5: Washer
6: Spring

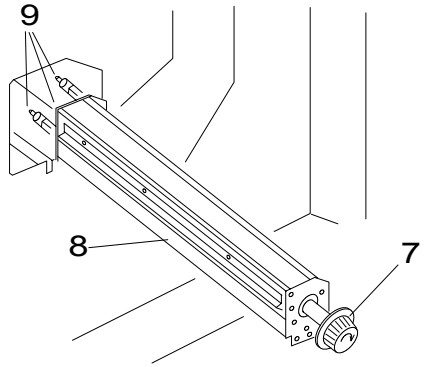
Figure 1. Removing the Fixing Screw

5. Disconnect the Oil Dispense Solenoid (SOL 2) connector.

Caution

Be aware in the next step that the Cutter Assembly is very heavy.

6. (Figure 2): Hold the Cutter Handle and its bottom, slide it out straight.



7: Cutter Handle
8: Cutter Assembly
9: Stud

Figure 2. Removing the Cutter Assembly

Replacement

1. (Figure 3): Align the cutter by aligning the green mark to the opening (10).

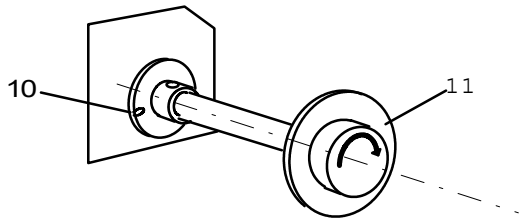


Figure 3. Aligning the Cutter

2. Confirm that the studs (9) are well inserted deeply in the position.

   Note**: In case studs are not inserted, rotate the Cutter Handle clockwise (arrow direction), and find the good position. **Do not rotate it to the other direction, as the Cutter Blade will be damaged.
3. Confirm that the Cutter Assembly will turn when the Cutter Handle is turned, after the Cutter Assembly is reinstalled.
4. Perform ADJ 6.8.5 Cutter Angle.

REP 4.2.1 Cutter Motor (MOT 3)

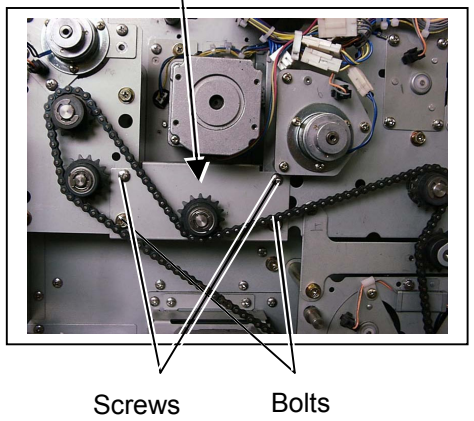
Parts List on PL 8.2

WARNING

Turn off the Main Switch to allow the Developer Unit to release from its ON position. Switch off the Main Circuit Breaker. Disconnect the Power Cord.

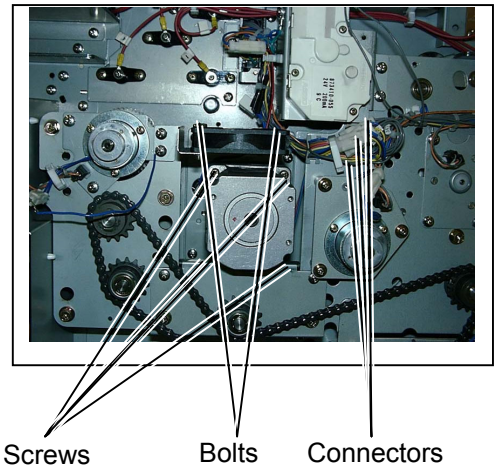
Removal

1. Remove the Left Side Cover.
2. Remove 2 screws, 2 bolts, and then remove a bracket with an idler gear.

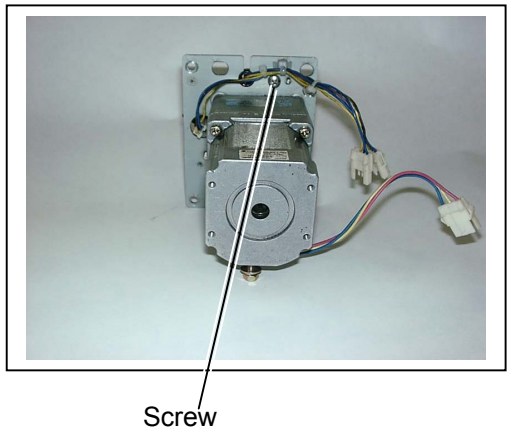


3.

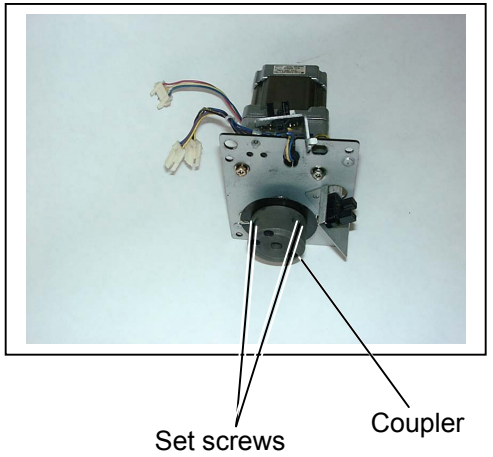
4. Disconnect three connectors, remove four screws, two bolts, and then remove the Cutter Motor Assembly.



5. Remove the screw and the Home Position Sensor Board along with its mounting bracket.



6. Remove two set screws and the Coupler.



7. Remove the four bolts and remove the mounting bracket from the Cutter Motor.

REP 4.2.2 Cutter Oil Pad

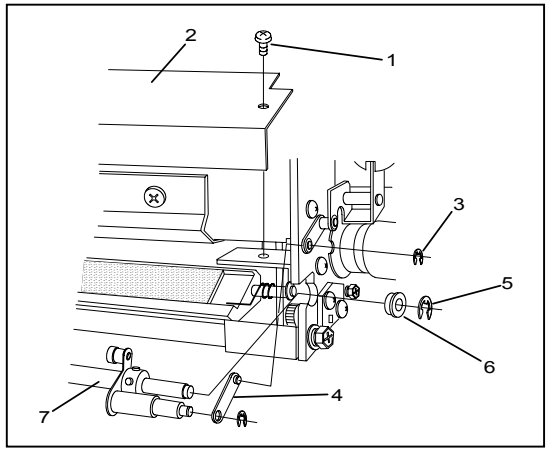
Parts List on PL 5.2

WARNING

Turn off the Main Switch to allow the Developer Unit to release from its ON position. Switch off the Main Circuit Breaker. Disconnect the Power Cord.

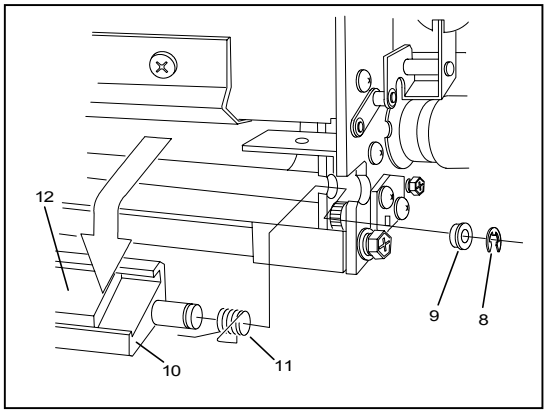
Removal

1. Remove the Cutter Assembly (REP 4.1.1).
2. Remove two screws (1), and remove the Paper Guide (2).
3. Remove an E-ring (3), and make the Link (4) free.
4. Apply a bead of oil (70P82) to the entire length of the oil pad. Remove an E-ring (5) and an Oil lite bearing bushing (6), shift the Shaft assembly to the left a little and remove it.



Remove E-ring (8) and Oil-less (9), slide the Stay assembly (10) to the left a little and remove it.

***Note**: Spring (11) exists only on the right side.*



***Note**: Oil for the Rotary Blade is supplied every 6 months onto the Felt part (12) of the Stay assembly. Oil supplying should be done after step 3 is finished.*

REP 4.2.3 Clean/Lubricate Cutter

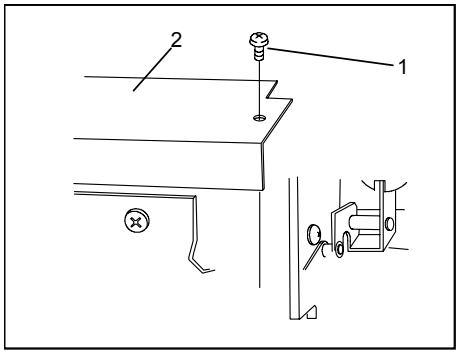
Parts List on PL 5.2

WARNING

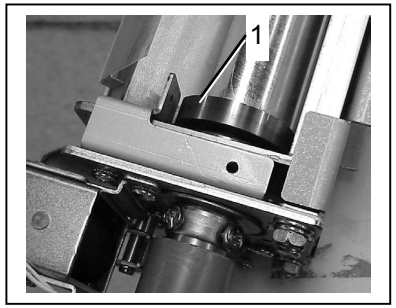
Turn off the Main Switch to allow the Developer Unit to release from its ON position. Switch off the Main Circuit Breaker. Disconnect the Power Cord.

Clean

1. Remove the Cutter Assembly (REP 4.1.1).
2. Remove two screws (1), and remove the Paper Guide (2).



3. Remove paper dust and other contamination from the entire length of the cutter.
4. Lubricate the cam (1) on the inboard and outboard side of the cutter with oil (70P82).



REP 5.1.1 Inner Transport Assembly

Parts List on PL 6.1

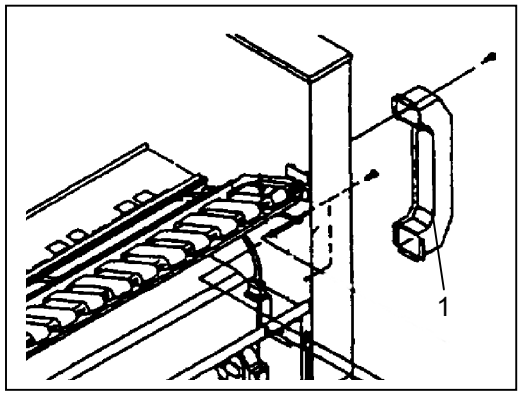
WARNING

Turn off the Main Switch to allow the Developer Unit to release from its ON position. Switch off the Main Circuit Breaker. Disconnect the Power Cord.

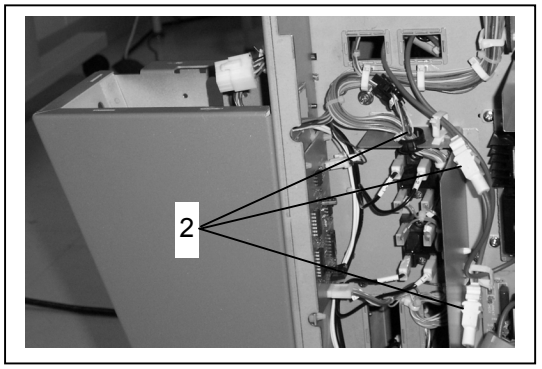
Removal

1. Open the Left Hand Door and the Right Hand Door. Open the Toner Supply Mechanism, holding the left end of toner cartridge and turn the toner cartridge upward. (Do not hold the center of the Toner Cartridge, since the toner comes out from the right hole.).
2. Lower the Inner Transport and lock it in position, loosen the 4 black screws, and pull out the Xerographic Module.

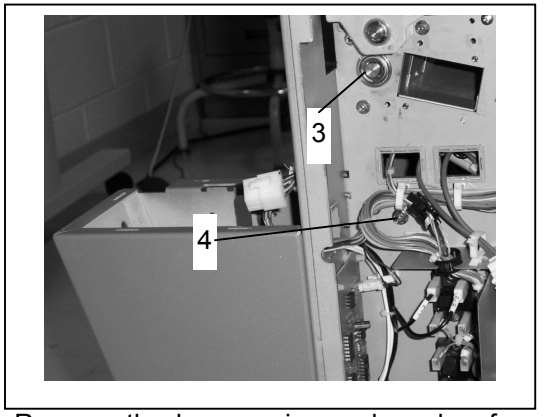
   ***Note**: Be careful not to expose the Drum under the light for a long time.*
3. Remove the Xerographic Module. (REP 2.6.1)
4. Remove two screws and the Left Side Cover.
5. Remove the Fuser Assembly. (REP 3.1.1)
6. Pull the Top Rear Cover to rear side. Remove four screws, disconnect the connector, and remove the Top Center Cover (1). (REP 2.5.1)
7. Remove the eight screws and the duct (1).



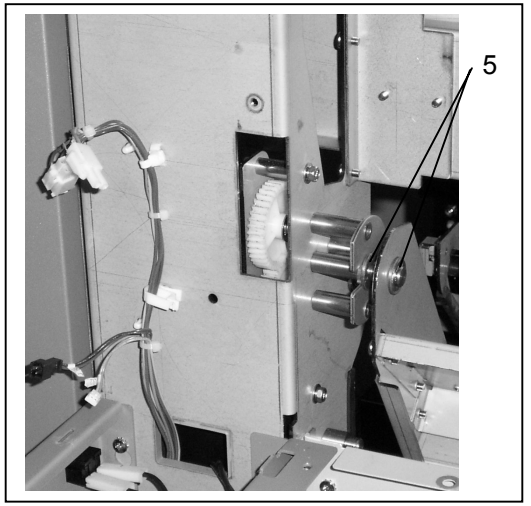
8. Disconnect the four connectors (2) (J51, J53, Transfer and Detack HV leads).



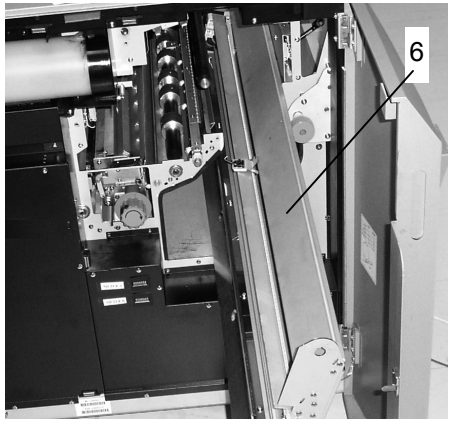
9. Remove the e-ring (3) and remove the screw (4) holding the left gas spring to the frame.



10. Remove the lower e-ring and washer from the Right Gas Spring.
11. Turn the Lock Lever and carefully lower the Inner Transport.
12. Remove two e-rings and bearings (5) from the right side.



13. Remove the transport (6) from the right side of the machine after ensuring that the gas struts are either discharged, or compressed with large tie-wraps, and the pivot points have been loosened and/or removed.



REP 5.2.1 Registration Sensor (Q12)

Parts List on PL 6.5

WARNING

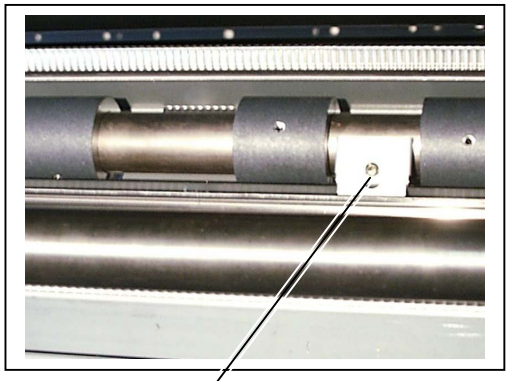
Turn off the Main Switch to allow the Developer Unit to release from its ON position. Switch off the Main Circuit Breaker. Disconnect the Power Cord.

Removal

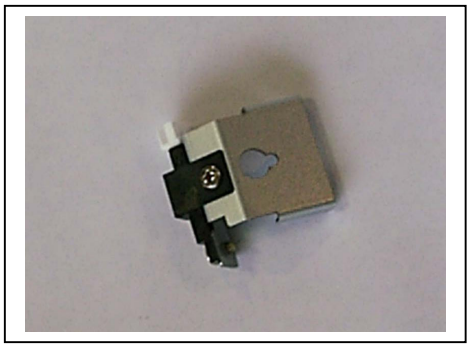
1. Open the Left Hand Door and the Right Hand Door. Open the Toner Supply Mechanism, holding the left end of toner cartridge and turn the toner cartridge upward. (Do not hold the center of the Toner Cartridge, since the toner comes out from the right hole.).
2. Lower the Inner Transport and lock it in position, loosen the 4 black screws, and pull out the Xerographic Module.

***Note**: Be careful not to expose the Drum under the light for a long time.*

3. Close the Inner Transport once.
4. Remove the top center machine cover by removing (4) screws and (1) connector.
5. Push the top rear machine cover to the rear of the machine.
6. Reach into the top of the machine, loosen a screw, and remove the Registration Sensor with bracket.



7. Disconnect the connectors and remove the sensor from the bracket.



REP 5.4.1 Separation Sensor (Q18)

Parts List on PL 6.4

WARNING

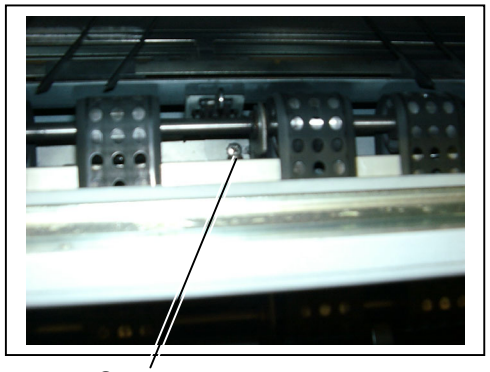
Turn off the Main Switch to allow the Developer Unit to release from its ON position. Switch off the Main Circuit Breaker. Disconnect the Power Cord.

Removal

1. Open the Left Hand Door and the Right Hand Door. Open the Toner Supply Mechanism, holding the left end of toner cartridge and turn the toner cartridge upward. (Do not hold the center of the Toner Cartridge, since the toner comes out from the right hole.).
2. Lower the Inner Transport and lock it in position, loosen the 4 black screws, and pull out the Xerographic Module.

***Note**: Be careful not to expose the Drum under the light for a long time.*

3. Close the Inner Transport once.
4. Remove the top center machine cover by removing (4) screws and (1) connector.
5. Push the top rear machine cover to the rear of the machine.
6. Reach into the top of the machine, loosen a screw, and remove the Separation Sensor with bracket.



REP 5.5.1 Registration Pinch Rollers

Parts List on PL 6.5

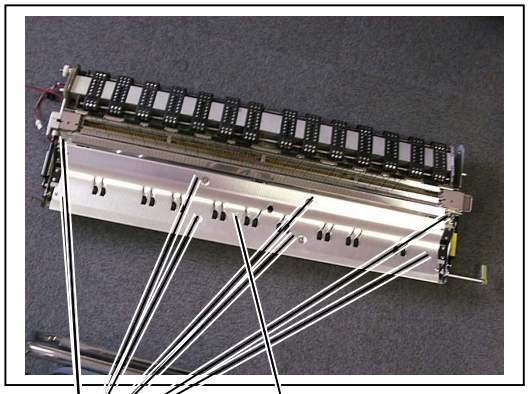
WARNING

Turn off the Main Switch to allow the Developer Unit to release from its ON position. Switch off the Main Circuit Breaker. Disconnect the Power Cord.

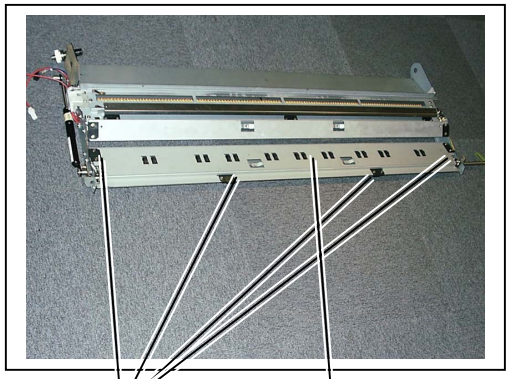
Removal

1. Open the Left Hand Door and the Right Hand Door. Open the Toner Supply Mechanism, holding the left end of toner cartridge and turn the toner cartridge upward. (Do not hold the center of the Toner Cartridge, since the toner comes out from the right hole.).
2. Lower the Inner Transport and lock it in position, loosen the 4 black screws, and pull out the Xerographic Module.

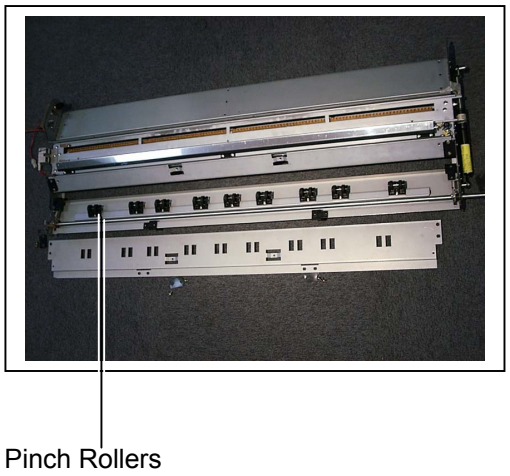
   ***Note**: Be careful not to expose the Drum under the light for a long time.*
3. Remove the top center machine cover by removing (4) screws and (1) connector.
4. Push the top rear machine cover to the rear of the machine.
5. (Figure 1): Remove the eight screws and the Paper Guide.



6. Remove eight screws and four insulators, then remove the Cover.

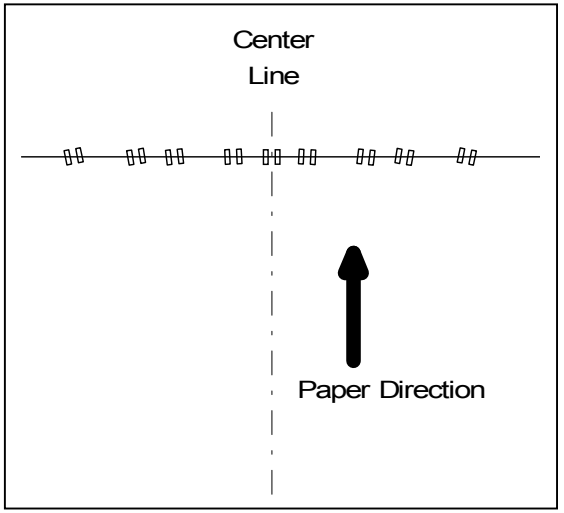


7. Remove a screw each and remove the Pinch Rollers.



Replacement

***Note**: The Pinch Rollers are fixed to the base so as to have a little angle from the center line utilizing hole plays. When you have removed the pinch Roller from the base, be sure to have this angle to reinstall.*



REP 5.6.1 Transport Belts

Parts List on PL 6.3

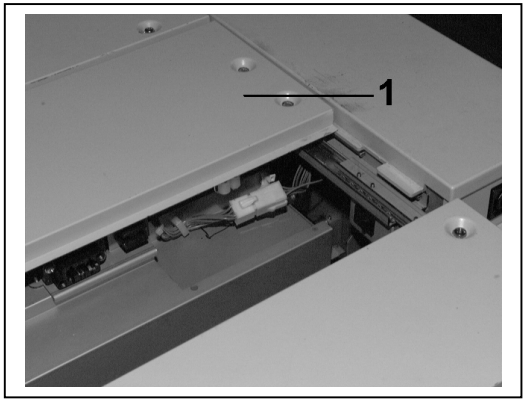
WARNING

Turn off the Main Switch to allow the Developer Unit to release from its ON position. Switch off the Main Circuit Breaker. Disconnect the Power Cord.

Removal

1. Open the Left Hand Door and the Right Hand Door. Open the Toner Supply Mechanism, holding the left end of toner cartridge and turn the toner cartridge upward. (Do not hold the center of the Toner Cartridge, since the toner comes out from the right hole.). Lower the Inner Transport and lock it in position.
2. Remove the Transfer / Detack Corotron.
3. Loosen the 4 black screws, and pull out the Xerographic Module.

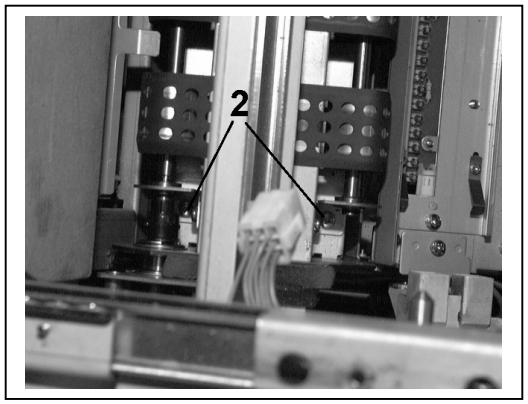
   ***Note**: Be careful not to expose the Drum under the light for a long time.*
4. Pull the Top Rear Cover to rear side. Remove four screws, disconnect the connector (P/J 28), and remove the Top Center Cover (1). (REP 2.5.1)

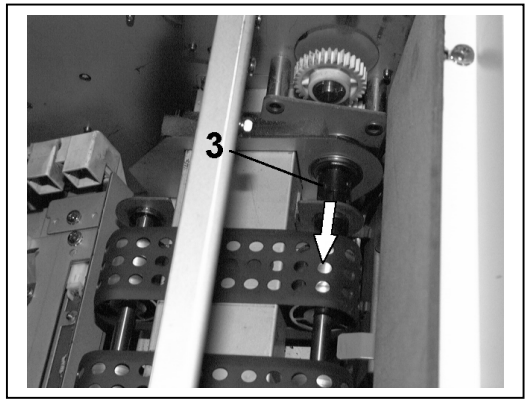


5. Set the Internal Transportation Unit in the normal position, once.
6. Remove six Screws (2).

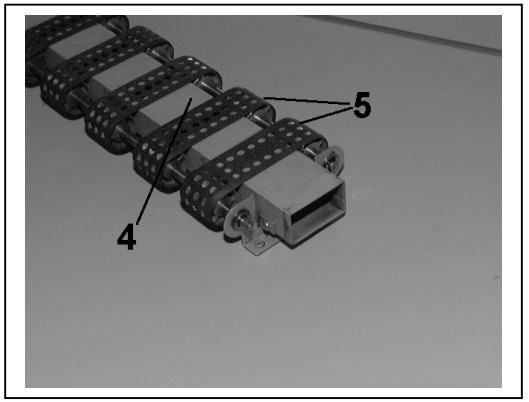
   Caution

   Take care not to damage the Separation Sensor cable.
7. Lift up the Inner Vacuum Transport Assembly, shifting in the arrow direction (towards the right door) pulling out from the Joint (3).





8. Remove the Belts (5) from the Vacuum Transport (4).



Replacement

***Note**: Ensure that the Separation Sensor bracket is positioned on top of the Vacuum Transport frame.*

***Note**: Ensure that the Inner Transport is lowered and locked in position before installing the Xerographic Module.*

REP 5.8.1 Registration Roll

Parts List on PL 6.5

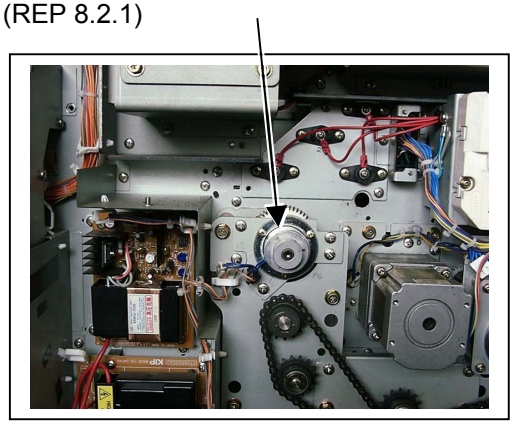
WARNING

Turn off the Main Switch to allow the Developer Unit to release from its ON position. Switch off the Main Circuit Breaker. Disconnect the Power Cord.

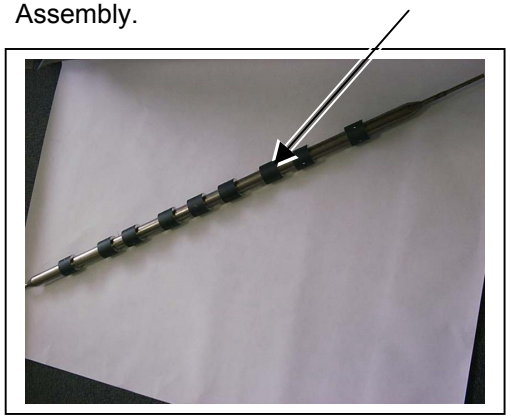
Removal

1. Open the Left Hand Door and the Right Hand Door. Open the Toner Supply Mechanism, holding the left end of toner cartridge and turn the toner cartridge upward. (Do not hold the center of the Toner Cartridge, since the toner comes out from the right hole.).
2. Lower the Inner Transport and lock it in position, loosen the 4 black screws, and pull out the Xerographic Module.

   Note: *Be careful* not to *expose the Drum under the light for a long time.*
3. Remove the Xerographic Module. (REP 2.6.1)
4. Pull the Top Rear Cover to rear side. Remove four screws, disconnect the connector, and remove the Top Center Cover (1). (REP 2.5.1)
5. Close the Inner Transport once, loosen a screw and remove the Registration Sensor with bracket. (REP 5.2.1)
6. Remove the Registration Clutch (CL 5). (REP 8.2.1)



7. Remove the two e-rings from the Registration Roll ends and remove the bearings.
8. Remove the Registration Roll Shaft Assembly.



9. Remove the Roll as required.

Notes:

REP 6.1.1 Upper Drawer

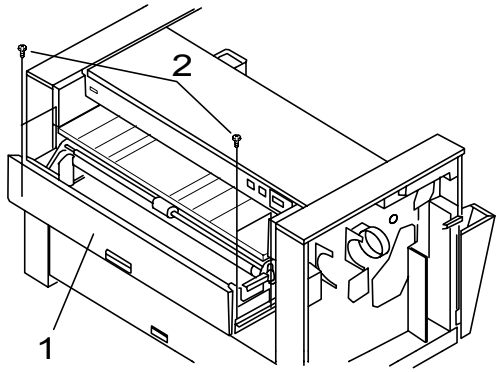
Parts List on PL 7.3

WARNING

Turn off the Main Switch to allow the Developer Unit to release from its ON position. Switch off the Main Circuit Breaker. Disconnect the Power Cord.

Removal

1. Pull out the Upper Drawer (1).
2. Remove the Paper Spool.
3. Remove four Screws (2), two from each side, which attach the drawer to the Slide Rail.
4. Remove the Upper Drawer (1).



***Note**: Push back the Slide Rail into the machine, after the Upper Drawer is removed.*

Otherwise it may cause injury.

***Note**: Confirm that the Upper Drawer slides in*

and out smoothly, after the Upper Drawer is reinstalled.

***Note**: In case the Drawer does not slide smoothly, confirm that the Drawer is settled properly.*

Adjust the fixed position of the Slide Rail, if it is required. (ADJ 6.8.1)

REP 6.2.1 Middle Drawer

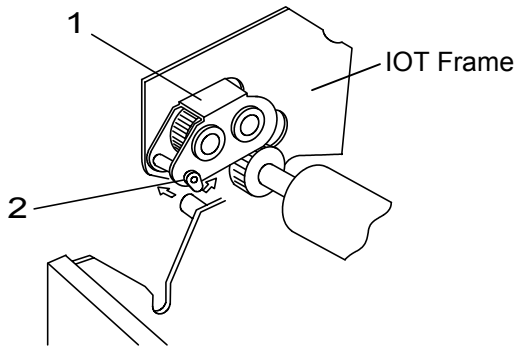
Parts List on PL 7.7

WARNING

Turn off the Main Switch to allow the Developer Unit to release from its ON position. Switch off the Main Circuit Breaker. Disconnect the Power Cord.

Removal

1. Pull out the Middle Drawer.
2. Remove the Paper Spool.
3. Remove two Screws individually from both sides, which are fixing to the Slide Rail.
4. Remove the Middle Drawer.



WARNING

Push back the Slide Rail into the machine, after the Lower Drawer is removed. Otherwise it may cause injury.

***Note**: Confirm that the Middle Drawer slides in and out smoothly, after the Middle Drawer is reinstalled.*

***Note**: In case Drawer does not slide smoothly, confirm that the Drawer is settled properly.*

Adjust the fixed position of the Slide Rail, if it is required. (ADJ 6.8.2)

***Note:** Confirm that the Stopper (2) of the Drive Idler Arm (1) moves smoothly.*

If not, follow the former note.

Replacement

1. Reinstall the Middle Drawer.
2. Check to ensure that the Drawer operates smoothly.
3. (Figure 1): If the Drawer does not operate smoothly, ensure that the Stopper secured by the Drive Idler Arm moves smoothly. If it does not, check and adjust the position of the rails. (ADJ 6.8.2)

REP 6.3.1 Lower Drawer

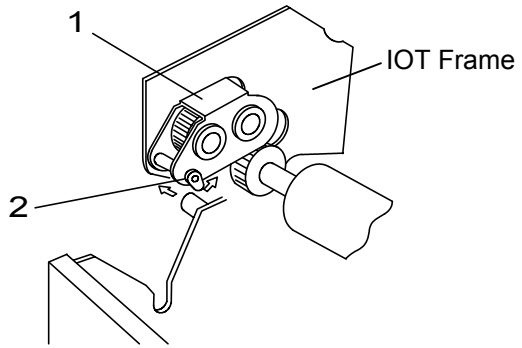
Parts List on PL 7.11

WARNING

Turn off the Main Switch to allow the Developer Unit to release from its ON position. Switch off the Main Circuit Breaker. Disconnect the Power Cord.

Removal

1. Pull out the Lower Drawer.
2. Remove the Paper Spool.
3. Remove three Screws individually from both sides, which are fixing to the Slide Rail.
4. Remove the Lower Drawer.



WARNING

Push back the Slide Rail into the machine, after the Lower Drawer is removed. Otherwise it may cause injury.

***Note**: Confirm that the Lower Drawer slides in and out smoothly, after the Lower Drawer is reinstalled.*

***Note**: In case Drawer does not slide smoothly, confirm that the Drawer is settled properly.*

***Note:** Adjust the fixed position of the Slide Rail, if it is required. (ADJ 6.8.3)*

***Note**: Confirm that the Stopper (2) of the Drive Idler Arm (1) moves smoothly.*

If not, follow the former note.

Replacement

1. Reinstall the Lower Drawer.
2. Check to ensure that the Drawer operates smoothly.
3. (Figure 1): If the Drawer does not operate smoothly, ensure that the Stopper secured by the Drive Idler Arm moves smoothly. If it does not, check and adjust the position of the rails. (ADJ 6.8.3)

REP 6.5.1 Roll 1, 2, and 3 Feed Clock Sensors (Q13, Q14, Q15)

Parts List on PL 7.5, 7.9, 7.14

WARNING

Turn off the Main Switch to allow the Developer Unit to release from its ON position. Switch off the Main Circuit Breaker. Disconnect the Power Cord.

NOTE: Roll Feed Clock Sensors Q13, Q14, and Q15 in the Upper, Middle, and Lower Drawers respectively, are removed by this procedure.

Removal

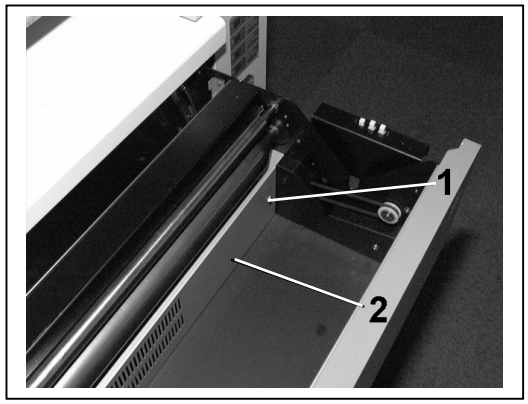
1. Pull out the Drawer.
2. Remove the Paper Spool.

Caution

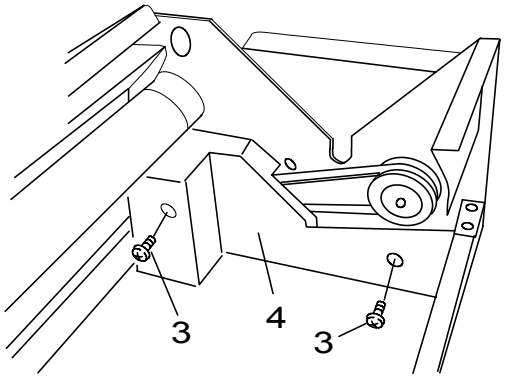
Whenever you remove the Paper Spool from the Drawer, be sure to rewind the paper. If you lift up the spool carelessly, you may break the gear on your left side.

By rotating the Paper Spool to the rewinding direction, gear is released from the drive gear.

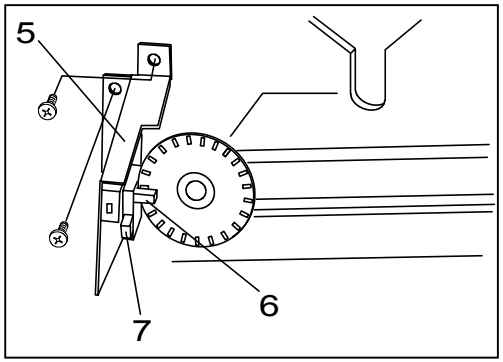
3. Remove two Screws (1), and remove the Dehumidify Heater Protection Cover (2).



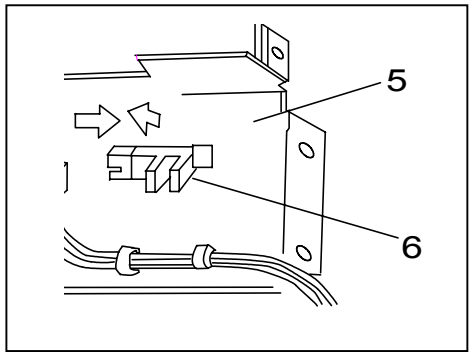
4. Remove two Screws (3), and remove the Pulse Cover (4).



5. Remove three Screws and remove the Sensor Bracket (5).
6. Remove a Connector (7) from the Sensor (6).
7. Remove the Sensor (6).



8. Shift it to the right and then lift it up.



Replacement

***Note**: When reinstalling the clock sensor bracket, ensure not to pinch any wires with the screws or the bracket.*

REP 6.5.2 Roll 4 Feed Clock Sensor (Q16)

Parts List on PL 7.14

WARNING

Turn off the Main Switch to allow the Developer Unit to release from its ON position. Switch off the Main Circuit Breaker. Disconnect the Power Cord.

Removal

1. Pull out the Lower Drawer (1).
2. Remove the Paper Spool.

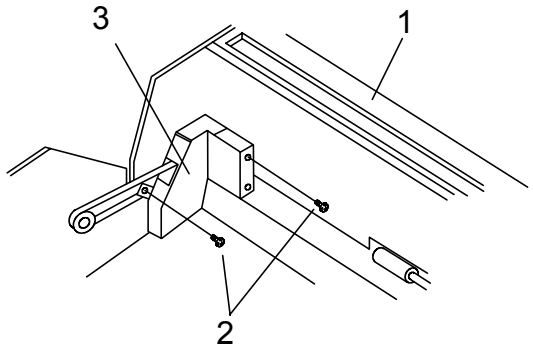
Caution

Whenever you remove the Paper Spool from the Drawer, be sure to rewind the paper. If you lift up the spool carelessly, you may break the gear on your left side.

By rotating the Paper Spool to the rewinding direction, gear is released from the drive gear.

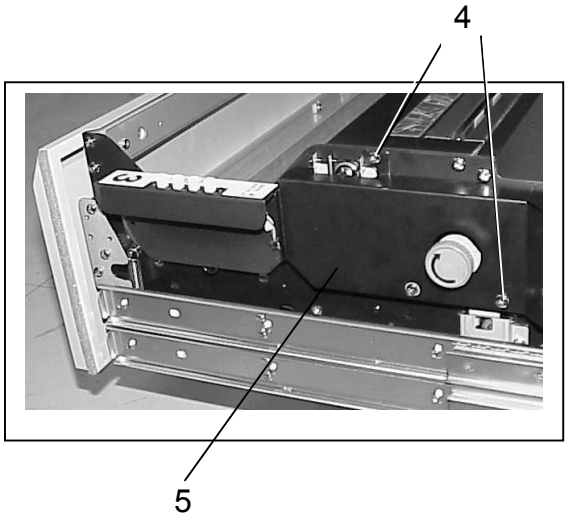
3. Remove two Screws (2), from the Cover for Pulse Disk (3). (Drawer 4 shown below)

***Note**: Do not remove the Cover for Pulse Disk yet.*

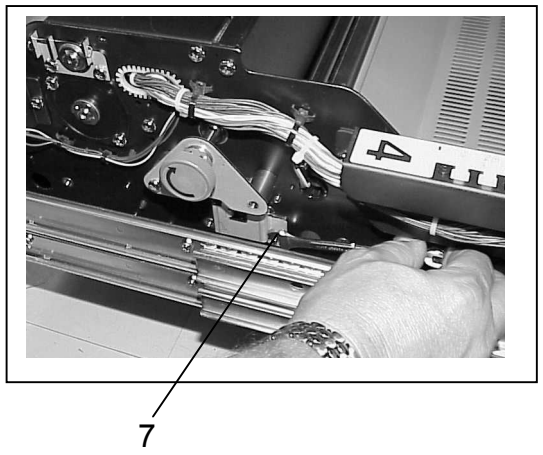


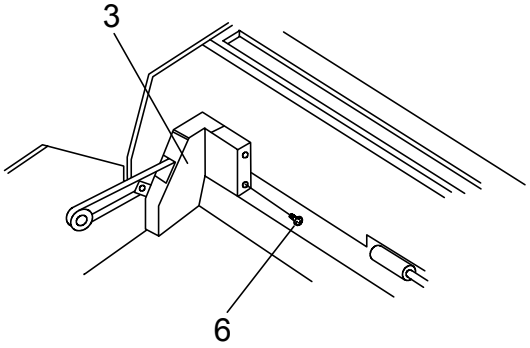
Drawer 4

4. Remove 2 screws (4) and remove the cover (5).



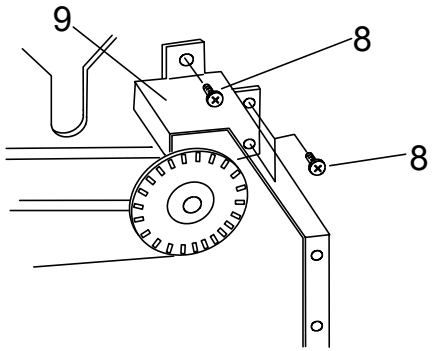
5. Secure bolt (7) with a wrench while removing the third screw (6) from the Cover for Pulse Disk (3).



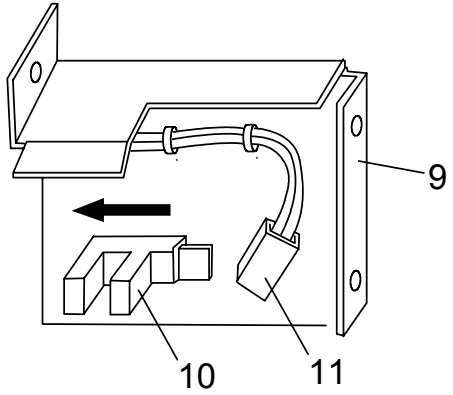


***Note**: To remove the screws, a long handled Phillips screwdriver and a magnetic pickup is necessary.*

6. Remove three Screws (8), then remove the Sensor Bracket (9)



7. Disconnect a connector (11) from the Sensor (10).
8. Remove the Sensor (10).



REP 6.6.1 Roll 1 Paper Set Sensor (Q1), Roll 1 Paper Size Sensors (Q5-Q11)

Parts List on PL 7.4, 7.6

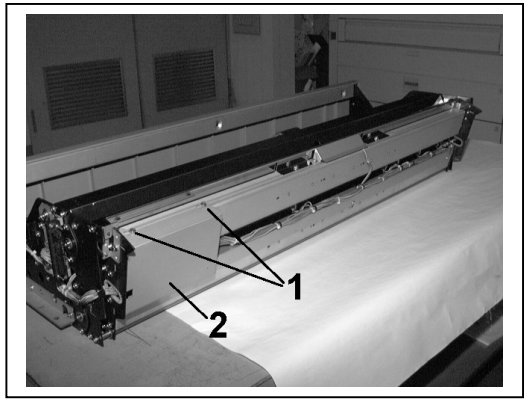
WARNING

Turn off the Main Switch to allow the Developer Unit to release from its ON position. Switch off the Main Circuit Breaker. Disconnect the Power Cord.

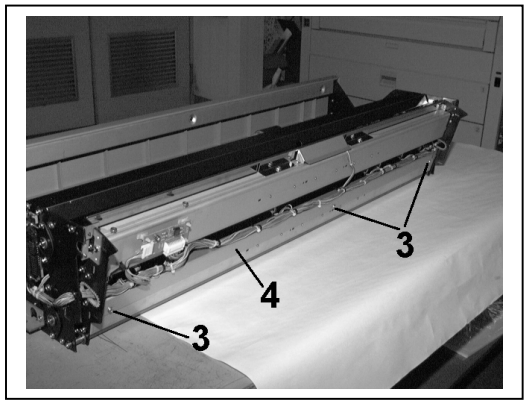
***Note**: Roll 1 Paper Set Sensor (Q1) and Roll 1 Paper Size Sensors (Q5-Q11) are removed by this procedure.*

Removal

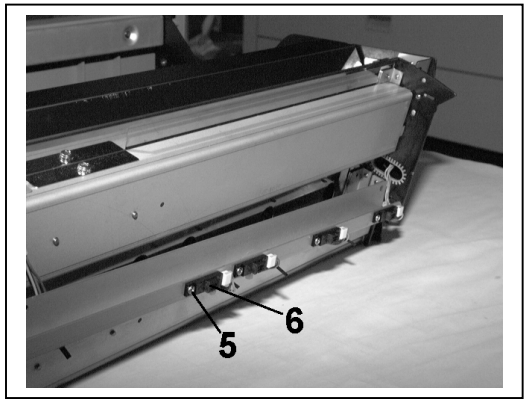
1. Remove the Upper Drawer (REP 6.1.1).
2. Remove two Screws (1), and remove the Cover (2).



3. Remove three Screws (3), and remove the Stay (4).



4. Remove a Screw (5), and remove the Sensor (6).
5. Remove the Connector.



***Note**: When you put the Sensor, care about the direction of the Sensor as shown above figure.*

REP 6.6.2 Roll 2 Paper Set Sensor (Q2), Roll 2 Paper Size Sensor (Q5-Q11)

Parts List on PL 7.9, 7.10

WARNING

Turn off the Main Switch to allow the Developer Unit to release from its ON position. Switch off the Main Circuit Breaker. Disconnect the Power Cord.

***Note**: Roll 2 Paper Set Sensor (Q2) and Roll 2 Paper Size Sensors (Q5-Q11) are removed by this procedure*

Removal

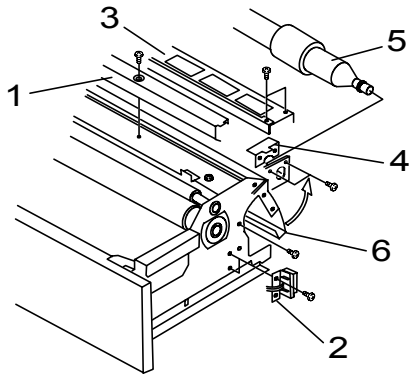
1. Remove the Paper Spool.
2. Remove the Middle Drawer from the Middle Drawer Slide Rail

Caution

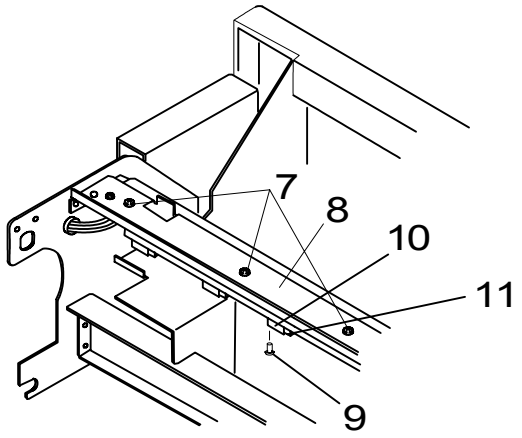
Whenever you remove the Paper Spool from the Drawer, be sure to rewind the paper. If you lift up the spool carelessly, you may break the gear on your left side.

By rotating the Paper Spool to the rewinding direction, gear is released from the drive gear.

3. Remove two Screws, and remove the Sensor Cover (1).
4. Remove two Screws, and remove the Connector Bracket (2).
5. Remove four Screws, and remove the Stay (3).
6. Remove two Screws from both sides, and remove the Bracket (4).
7. Remove Roller (5). (Remove E-rings from both edges.)
8. Remove two Screws from right and left individually, remove the Paper Guide (6) turning like the arrow.



9. Remove the three screws (7), and remove the Bracket (8).



10. Remove a Screw (9), then remove the Sensor (10) and the Connector (11).

Replacement

***Note**: When reinstalling the Sensor (10), confirm that the Photo Sensor is facing correctly.*

REP 6.6.3 Roll 3 Paper Set Sensor (Q3), Roll 3 Paper Size Sensor (Q5-Q11)

Parts List on PL 7.14

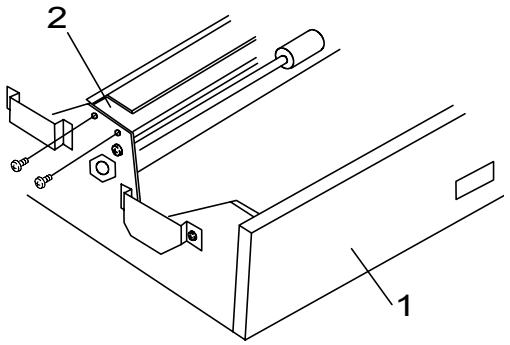
WARNING

Turn off the Main Switch to allow the Developer Unit to release from its ON position. Switch off the Main Circuit Breaker. Disconnect the Power Cord.

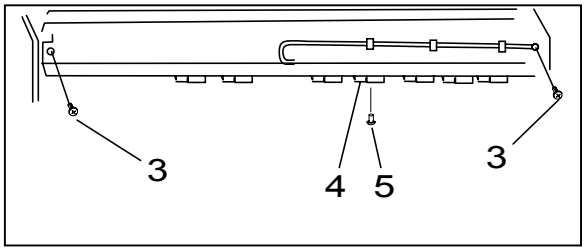
***Note**: Roll 3 Paper Set Sensor (Q3) and Roll 3 Paper Size Sensors (Q5-Q11) are removed by this procedure*

Removal

1. Pull out the Lower Drawer (1)and remove the paper spools.
2. Remove the Paper from the Drawer.
3. Remove four Screws and remove Cover Lower (2).



4. Remove two Screws (3), and remove the Stay for Sensor.
5. Disconnect a connector (4), and remove the Sensor (5) (one Screw).



***Note**: When you put the Sensor, care about the direction of the Sensor as shown above figure.*

REP 6.6.4 Roll 4 Paper Set Sensor (Q4), Roll 4 Paper Size Sensor (Q5-Q11)

Parts List on PL 7.14

WARNING

Turn off the Main Switch to allow the Developer Unit to release from its ON position. Switch off the Main Circuit Breaker. Disconnect the Power Cord.

***Note**: Roll 4 Paper Set Sensor (Q4) and Roll 4 Paper Size Sensors (Q5-Q11) are removed by this procedure*

Removal

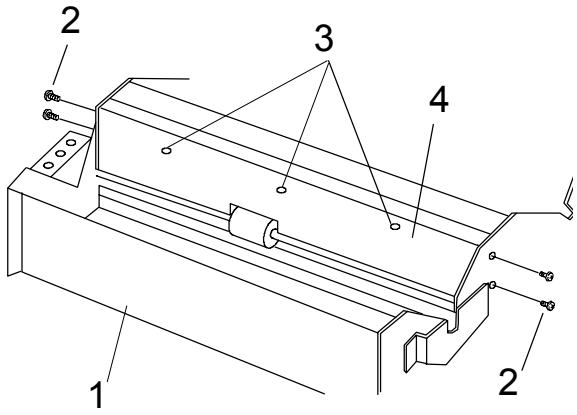
1. Pull out the Lower Drawer (1).
2. Remove the Paper Spool.

Caution

Whenever you remove the Paper Spool from the Drawer, be sure to rewind the paper. If you lift up the spool carelessly, you may break the gear on your left side.

By rotating the Paper Spool to the rewinding direction, gear is released from the drive gear.

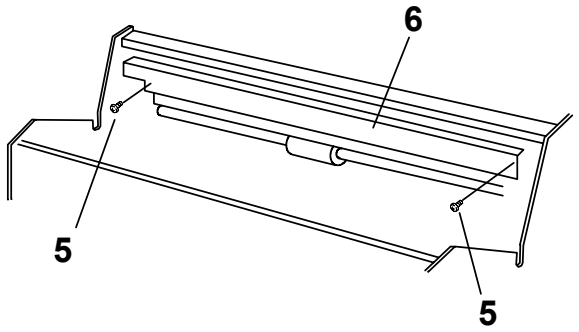
3. Remove two Screws (2) from each side.
4. Remove three screws (3) from the cover and remove the Cover (4).



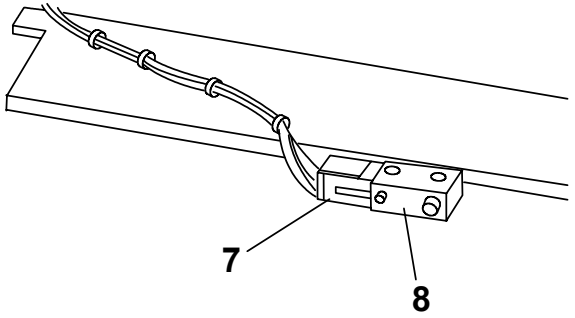
Drawer 4 viewed from the rear

***Note**: Use a magnetic screwdriver.*

5. Remove two Screws (5), and remove the Stay for Sensor (6).



6. Remove a Screw, disconnect a connector (7), then remove the Sensor (8).



***Note**: When you put the Sensor, care about the direction of the Sensor as above right figure.*

REP 6.6.5 Manual Start Sensor (Q20)

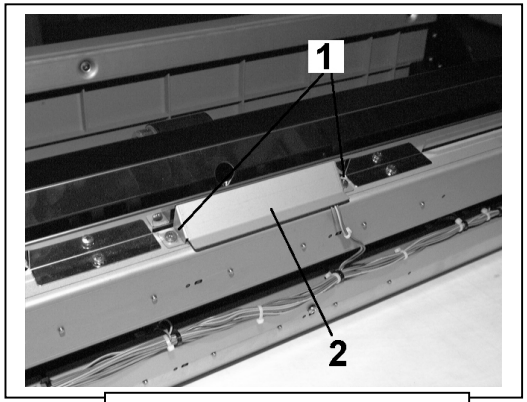
Parts List on PL 7.6

WARNING

Turn off the Main Switch to allow the Developer Unit to release from its ON position. Switch off the Main Circuit Breaker. Disconnect the Power Cord.

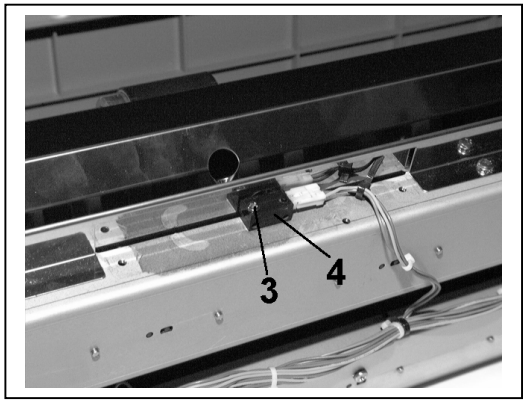
Removal

1. Slide out the Upper Drawer as well as the manual feed tray.
2. Remove two Screws (1), and remove the Cover (2).



Top Drawer, Rear View

3. Remove a Screw (3), and remove the Sensor (4).



***Note**: When you put the Sensor, care about the direction of Photo Receptor as shown above figure.*

REP 6.7.1 Media Selection PWB

Parts List on PL 7.5, 7.9, 7.14

WARNING

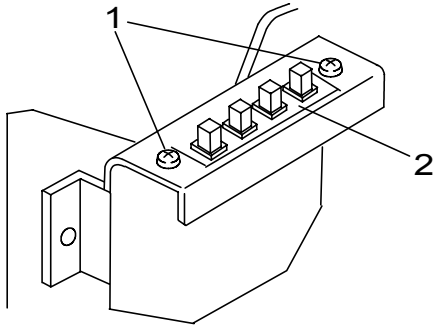
Switch off the Main Circuit Breaker. Disconnect the Power Cord.

***Note**: The Media Selection PWBs for all four Feed Mechanisms are removed by this procedure.*

Removal

Common with each Drawer

1. Slide out the Drawer.
2. Remove two Screws (1) and a Connector, then you can remove the Media Selection PCB (2).



REP 6.7.5 Manual Drive Clutch (CL 7)

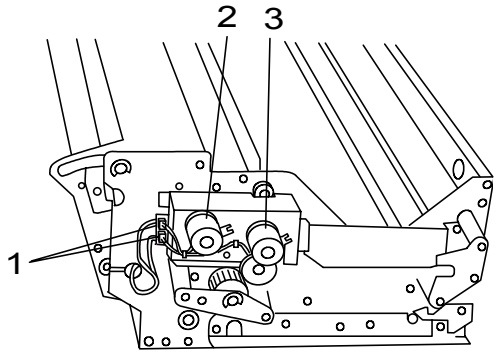
Parts List on PL 7.4

WARNING

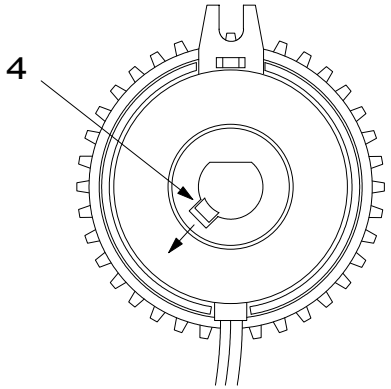
Turn off the Main Switch to allow the Developer Unit to release from its ON position. Switch off the Main Circuit Breaker. Disconnect the Power Cord.

Removal

1. Slide out the Upper Drawer.
2. Disconnect individual connectors, remove clutch CL 7 (2)



3. Release the Drive Key (4) from the Keyway, and remove the Clutch.



4. Insert the new Clutch on the shaft, confirm that the Drive Key (4) catches the groove.
5. Connect the Connector without mixed, top and bottom.

REP 6.7.6 Roll 1 Feed Clutch (CL 8)

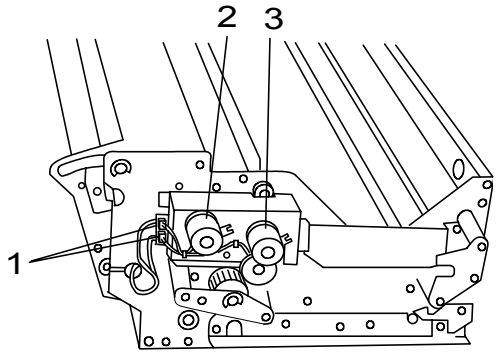
Parts List on PL 7.5

WARNING

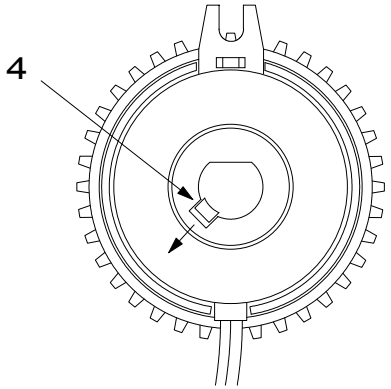
Turn off the Main Switch to allow the Developer Unit to release from its ON position. Switch off the Main Circuit Breaker. Disconnect the Power Cord.

Removal

1. Slide out the Upper Drawer.
2. Disconnect individual connectors, remove clutch CL 8 (3)



3. Release the Drive Key (4) from the keyway, and remove the Clutch.



4. Insert the new Clutch on the shaft, confirm that the Drive Key (4) catches the groove.
5. Connect the Connector without mixed, top and bottom.

REP 6.8.1 Upper Drawer Rails

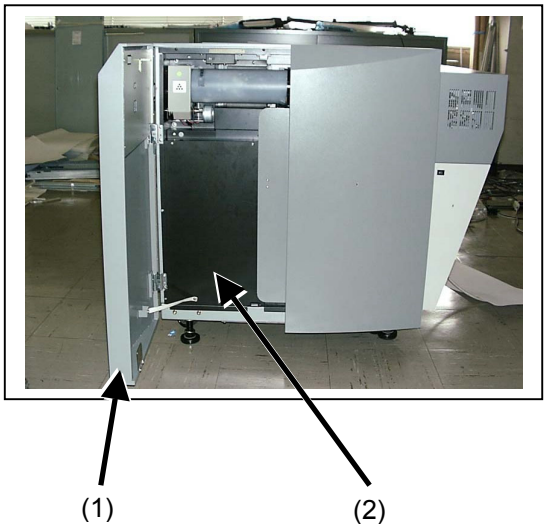
Parts List on PL 9.8

WARNING

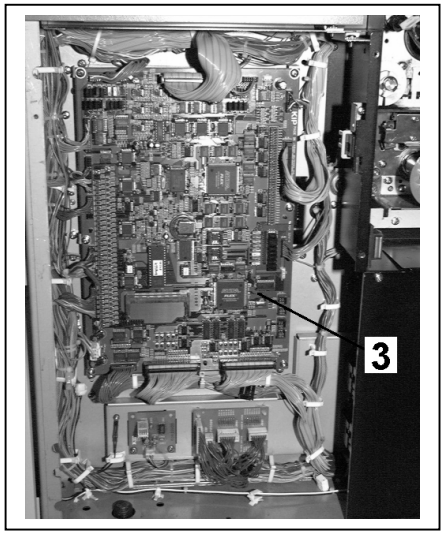
Turn off the Main Switch to allow the Developer Unit to release from its ON position. Switch off the Main Circuit Breaker. Disconnect the Power Cord.

Removal

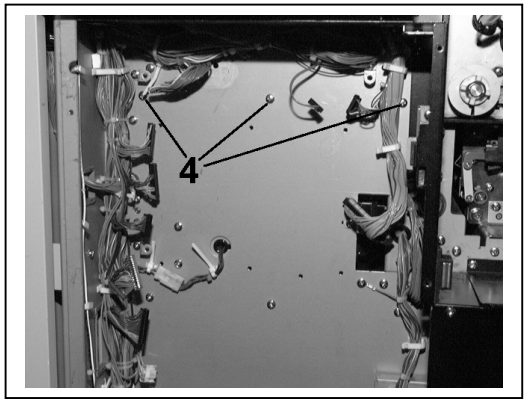
1. Remove the Upper Drawer. (REP 6.1.1)
2. Open Left Hand Door (1) and remove the Shield Plate (2).



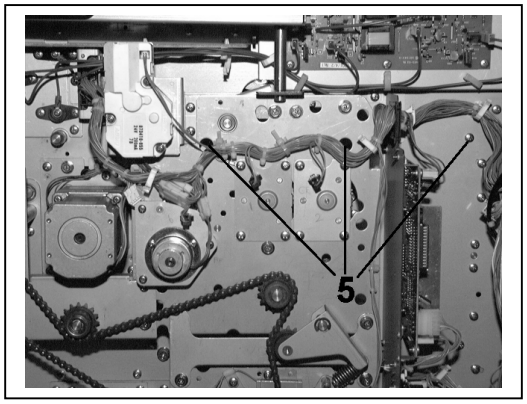
3. Disconnect 15 connectors, remove six Screws, and remove the DC Controller (3).



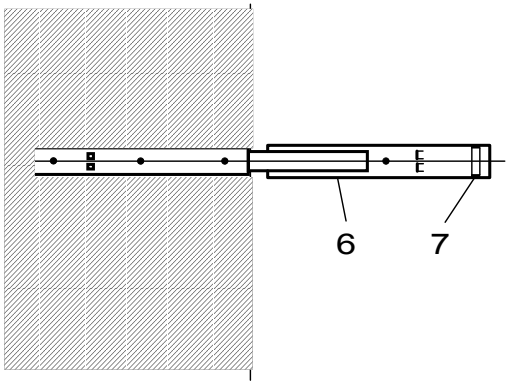
4. Remove three Screws (4), and remove the Right Slide Rail.



5. Remove four Screws, and remove the Left Side Cover.
6. Remove three Screws (5) through round holes, and remove the Left Slide Rail.



***Note**: When you install the Upper Drawer Slide Rail (6), ensure the Plastic Part (7) is facing forward.*



REP 6.8.2 Middle Drawer Rails

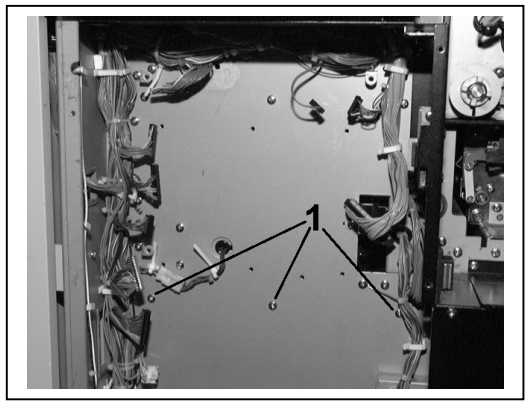
Parts List on PL 9.8

WARNING

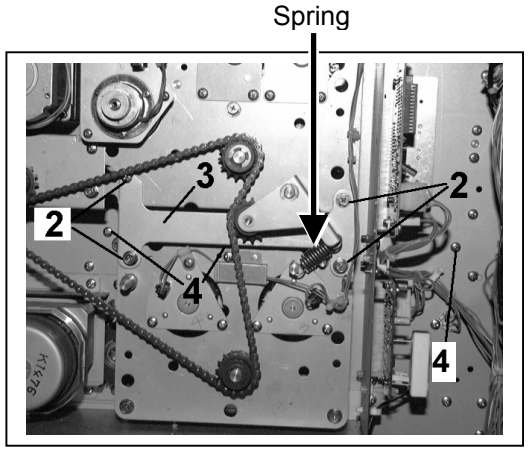
Turn off the Main Switch to allow the Developer Unit to release from its ON position. Switch off the Main Circuit Breaker. Disconnect the Power Cord.

Removal

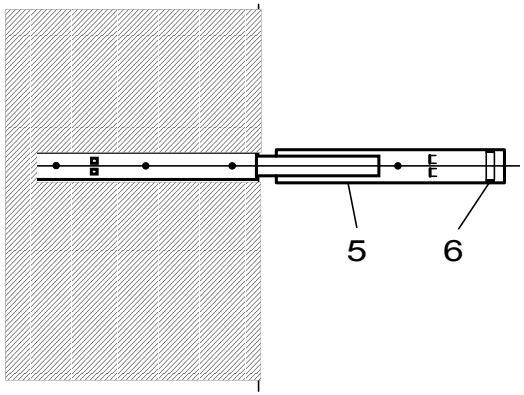
1. Remove the Middle Drawer. (REP 6.2.1)
2. Open the Left and Right Hand Doors and remove the Shield Plate.
3. Disconnect 15 connectors, remove six Screws, and remove the DC Controller.
4. Remove three Screws (1), and remove the Right Slide Rail.



5. Remove two Screws, and remove the Left Side Cover.
6. Remove the Spring, four Screws (2), and remove the Supporting Plate (3).
7. Insert the Driver after the Supporting Plate is removed, remove three Screws (4), and remove the left Slide Rail.



***Note**: When you install the Middle Drawer Slide Rail (5), put the Plastic Part (6) in front.*



REP 6.8.3 Lower Drawer Rails

Parts List on PL 9.8

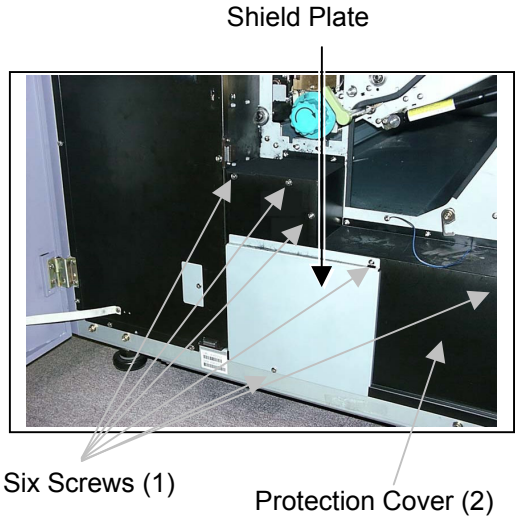
WARNING

Turn off the Main Switch to allow the Developer Unit to release from its ON position. Switch off the Main Circuit Breaker. Disconnect the Power Cord.

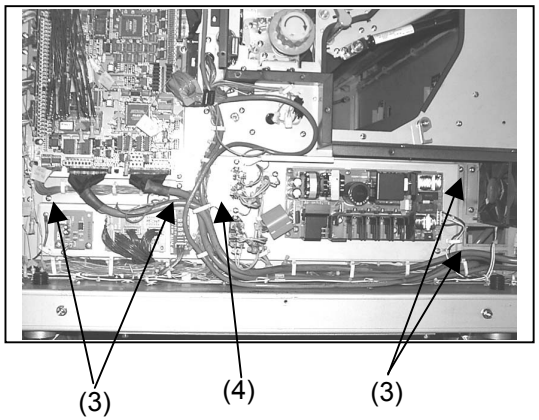
Removal

1. Remove the Lower Drawer. (REP 6.3.1)
2. Open Left and Right Hand Doors and remove the Shield Plate.

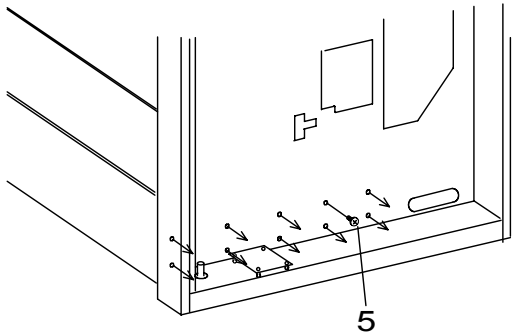
***Note**: Service Data Sheet, Drum Cover and Photoreceptor Cleaner are put inside of this Shield Plate. Ensure they are not lost.*



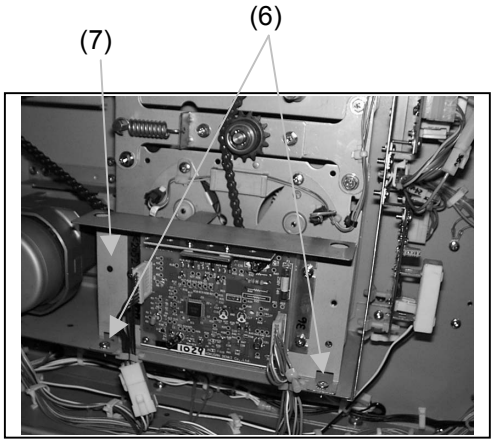
3. Remove six Screws (1), and remove the Protection Cover (2).
4. Remove four Screws (3) and a connector, then remove the Electric Base (4).



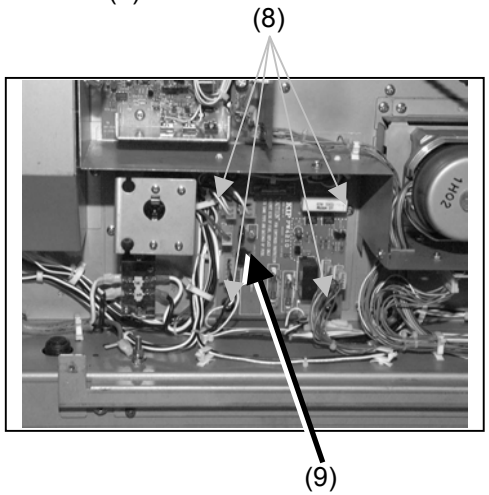
5. Remove ten Screws (5), and remove the right Slide Rail.



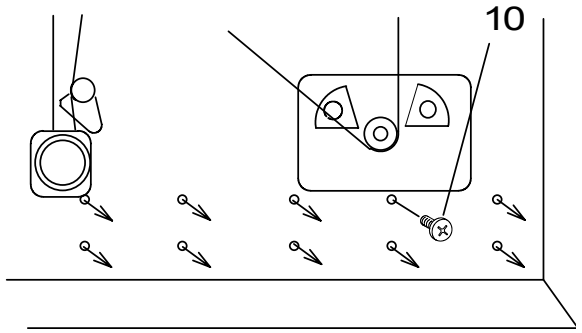
6. Remove the two Screws, and remove the Left Side Cover.
7. Remove two Screws (6), and remove the PWB Bracket (7).



8. Remove the four Screws (8), and remove the PWB (9).



9. Remove ten Screws (10), and remove the Left Slide Rail.



REP 7.1.1 Roll1 / Manual Feed Clutch (CL 1)

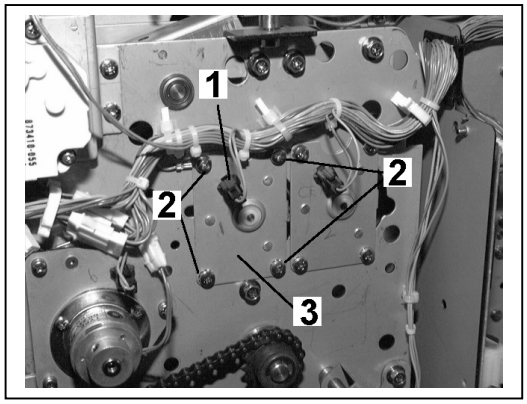
Parts List on PL 8.2

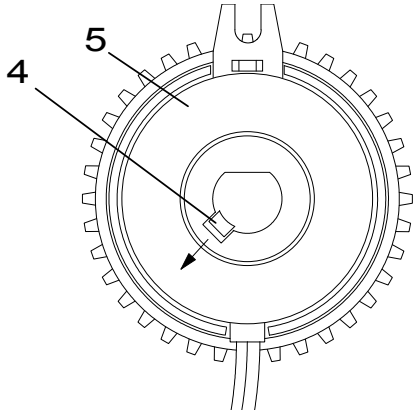
WARNING

Turn off the Main Switch to allow the Developer Unit to release from its ON position. Switch off the Main Circuit Breaker. Disconnect the Power Cord.

Removal

1. Remove two screws and remove the Left Side Cover.
2. Disconnect the connector (1).
3. Remove four Screws (2), then remove the Clutch Fixing Plate (3).
4. Release the Drive Key (4), and remove the Clutch CL 1 (5).





REP 7.1.2 Roll 2 Feed Clutch (CL 2)

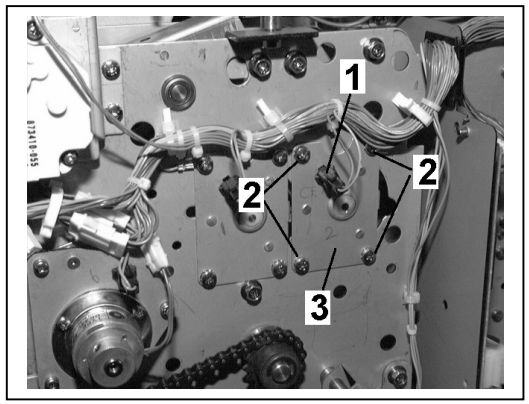
Parts List on PL 8.2

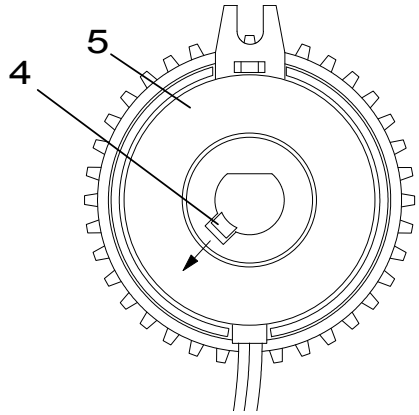
WARNING

Turn off the Main Switch to allow the Developer Unit to release from its ON position. Switch off the Main Circuit Breaker. Disconnect the Power Cord.

Removal

1. Remove two screws and remove the Left Side Cover.
2. Disconnect the connector (1).
3. Remove four Screws (2), then remove the Clutch Fixing Plate (3).
4. Release the Drive Key (4), and remove the Clutch CL 2 (5).





REP 7.1.3 Roll 3 Feed Clutch (CL 3)

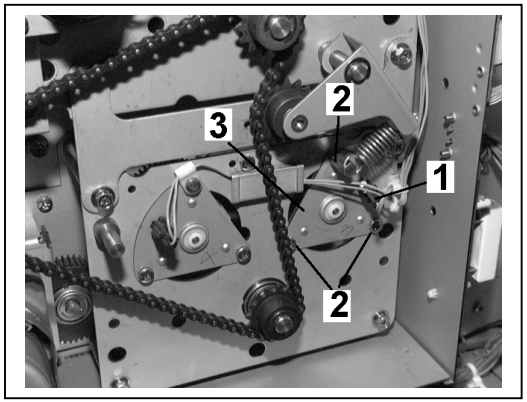
Parts List on PL 8.1

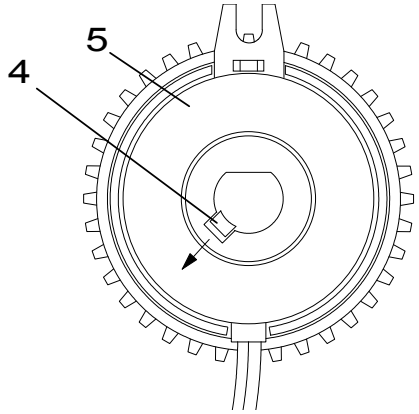
WARNING

Turn off the Main Switch to allow the Developer Unit to release from its ON position. Switch off the Main Circuit Breaker. Disconnect the Power Cord.

Removal

1. Remove two screws and remove the Left Side Cover.
2. Disconnect the connector (1).
3. Remove three Screws (2), then remove the Clutch Fixing Plate (3).
4. Release the Drive Key (4), and remove the Clutch CL 3 (5).





REP 7.1.4 Roll 4 Feed Clutch (CL 4)

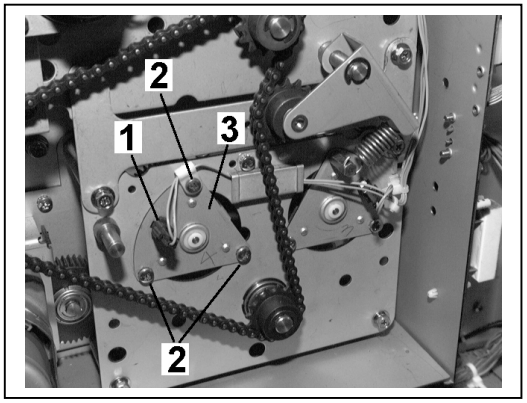
Parts List on PL 8.1

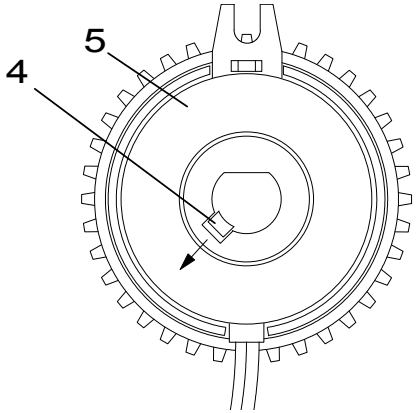
WARNING

Turn off the Main Switch to allow the Developer Unit to release from its ON position. Switch off the Main Circuit Breaker. Disconnect the Power Cord.

Removal

1. Remove two screws and remove the Left Side Cover.
2. Disconnect the connector (1).
3. Remove three Screws (2), then remove the Clutch Fixing Plate (3).
4. Release the Drive Key (4), and remove the Clutch CL 4 (5).





REP 7.2.1 Registration Clutch (CL5)

Parts List on PL 8.2

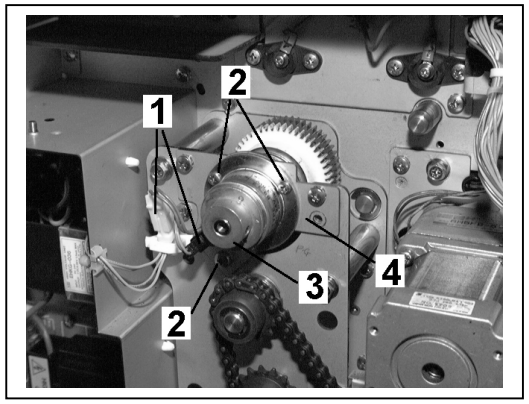
WARNING

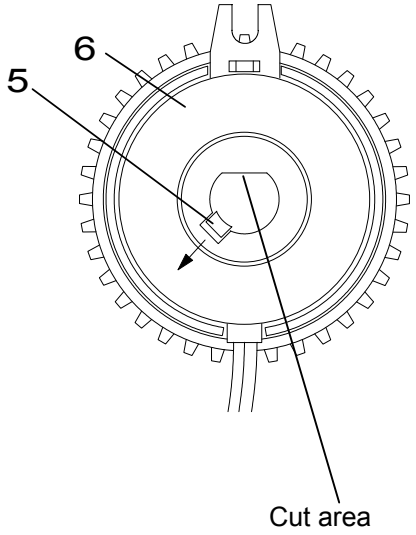
Turn off the Main Switch to allow the Developer Unit to release from its ON position. Switch off the Main Circuit Breaker. Disconnect the Power Cord.

Removal

1. Remove two screws and remove the Left Side Cover.
2. Disconnect two connectors (1).
3. Remove three Screws (2).
4. Loosen two set screws, and remove the spacer (Item 6 in the replacement drawing.
5. Remove the Clutch with the Clutch Fixing Plate (4).
6. Remove thrust adjustment washer and the Spacer from the Shaft.
7. Release the Drive Key (5), and remove the Clutch CL 5 (6).

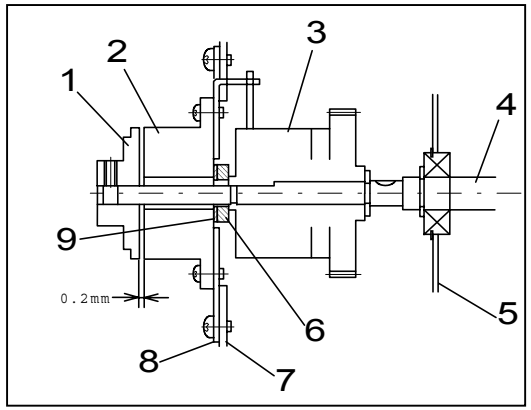
***Note**: When you remove the Clutch MC5 (6) be careful not to lose the "half moon key". To prevent this, rotate the Registration Roller so that the cut area faces up. The "half moon key" will then remain in the groove.*





Replacement

1. Set the gap between the brake and the Armature Assembly to 0.2 mm using a feeler gauge.



1: Armature Assembly
2: Field Assembly
3: Clutch
4: Roller Shaft
5: Side Plate of the machine
6: Spacer
7: Side Plate of Drive Assembly
8: Brake Fixing Plate
9: Thrust Adjustment Washer

(Clutch: MC5 / Brake: MC10)

REP 7.3.1 Mid-Transport Feed Clutch (CL 6)

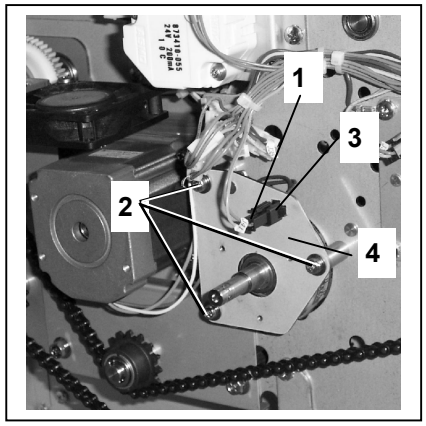
Parts List on PL 8.2

WARNING

Turn off the Main Switch to allow the Developer Unit to release from its ON position. Switch off the Main Circuit Breaker. Disconnect the Power Cord.

Removal

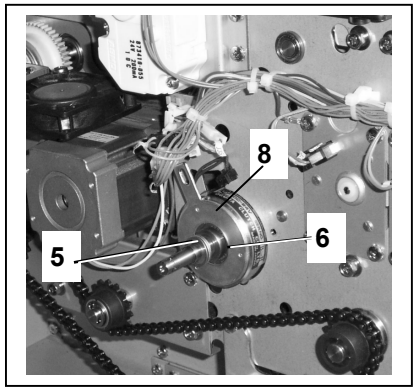
1. Perform REP 7.4.1 Mid-Transport Brake (CL 9).
2. Disconnect the connector (1).
3. Remove three Screws (2).
4. Remove the connector plug (3) from the Fixing Plate (4) and remove the Fixing Plate.

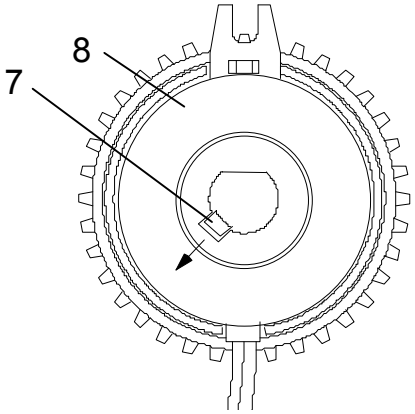


5. Remove Thrust Adjusting Washers (5).
6. Loosen two set screws, if present (set screws present on early machines only), and remove front collar (6).
7. Remove two of three parts of the Clutch (CL6).
   a. Clutch coil (13)
   b. Clutch Disk (12)

***Note**: When you remove the Clutch CL6 be careful not to lose the Drive Key. To prevent this, rotate the shaft so that the cut area faces up. The Drive Key will then remain in the groove.*

8. Remove the Drive Key (7).

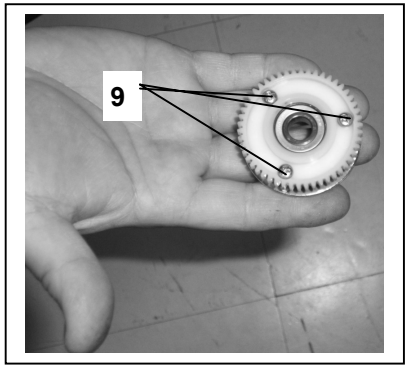




9. Remove the third part of Clutch (CL6), the Gear plate assembly (11).
10. Do not remove the rear collar (10).

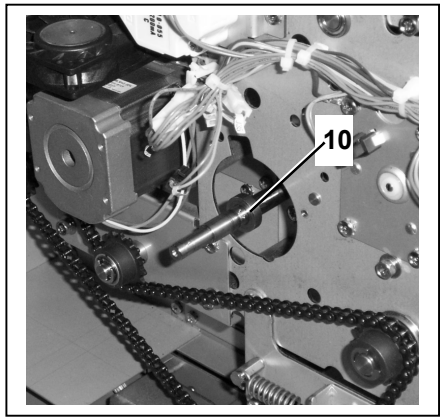
***Note**: Clean the shaft with film remover.*

11. Remove the 3 screws and remove the gear (9) and bearing from the gear plate assembly.

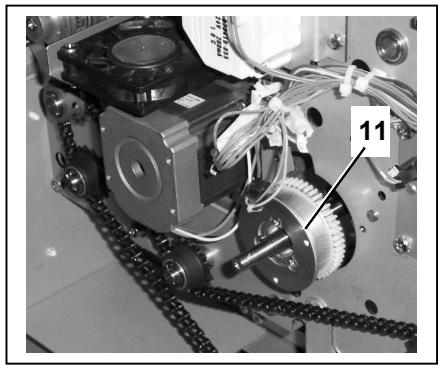


Replacement

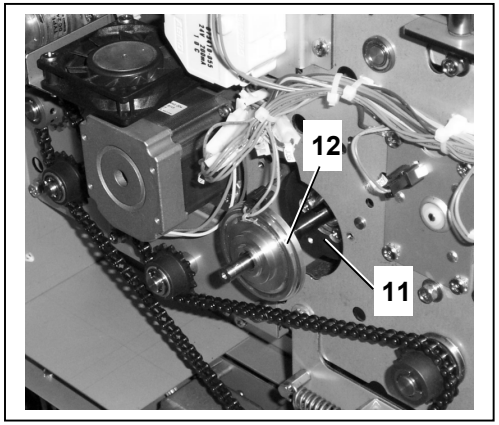
1. Pull out Drawer 2.
2. Ensure the rear collar (10) is slid all the way to the rear.



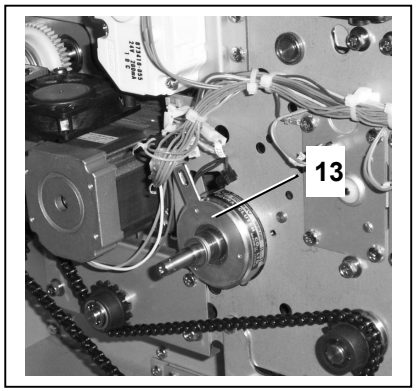
3. Attach the bearing and gear (3 screws) from the removed gear plate assembly to the new gear plate assembly.
4. Slide the new clutch gear plate assembly (11) toward the rear but not all the way (approximately 65mm from the front of the shaft).



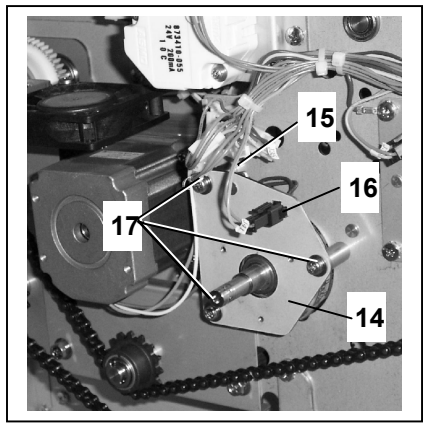
5. Rotate the shaft so that the Drive Key groove is facing up and insert the Drive Key (7) towards the front of the groove.
6. Install the clutch disk (12) while holding the gear plate assembly (11) away from the rear collar.



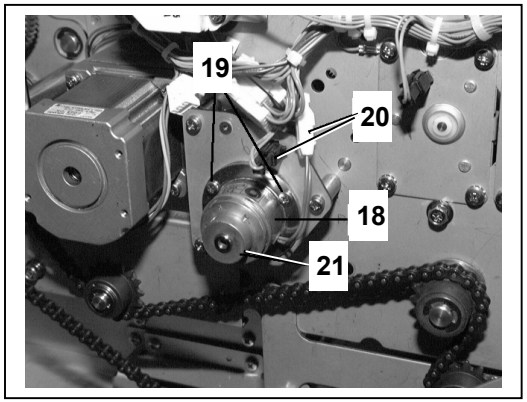
7. Install the clutch coil (13).



8. Install the fixing plate (14) ensuring that the locator pin (15) is inserted in the Clutch coil (CL6) and that the connector (16) is inserted in the fixing plate. Install the three screws (17).



9. Install the front collar.
10. Install two 1 mm thrust washers and one 0.5mm thrust washer as a starting point.
11. Install Brake (CL9) (18) and 3 screws (19).



12. Ensure that the shaft has no endplay and freely rotates by hand. If not, add or subtract Thrust Washers as needed.
13. Reconnect the connectors (20).
14. Reinstall the Armature (21) and set the gap between the brake and the Armature Assembly to 0.2 mm using a feeler gauge.

REP 7.4.1 Mid-Transport Brake (CL 9)

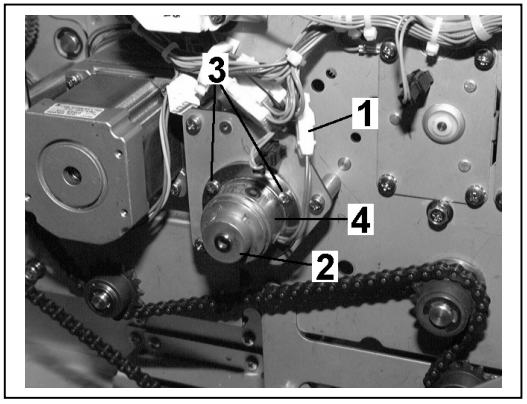
Parts List on PL 8.2

WARNING

Turn off the Main Switch to allow the Developer Unit to release from its ON position. Switch off the Main Circuit Breaker. Disconnect the Power Cord.

Removal

1. Remove two screws and remove the Left Side Cover.
2. Remove a connector (1).
3. Loosen two set Screws, and remove the Armature (2).
4. Remove three Screws (3), and remove the Brake CL 9 (4).



***Note**: When you reinstall this Brake, adjust thrust Gap between 0.2 mm to 0.1 mm. (Use one 0.2mm shim as a tool.)*

REP 7.4.2 Registration Brake Clutch (CL 10)

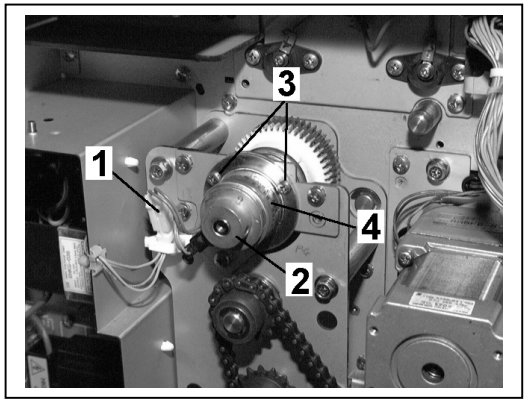
Parts List on PL 8.2

WARNING

Turn off the Main Switch to allow the Developer Unit to release from its ON position. Switch off the Main Circuit Breaker. Disconnect the Power Cord.

Removal

1. Remove two screws and remove the Left Side Cover.
2. Remove a connector (1).
3. Loosen two Screws, and remove the Armature (2).
4. Remove three Screws (3), and remove the Brake Clutch CL 10 (4).



***Note**: When you reinstall this Brake, adjust thrust Gap between 0.2 mm to 0.1 mm. (Use one 0.2mm shim as a tool.)*

REP 7.5.1 Paper Feed Motor (MOT 2)

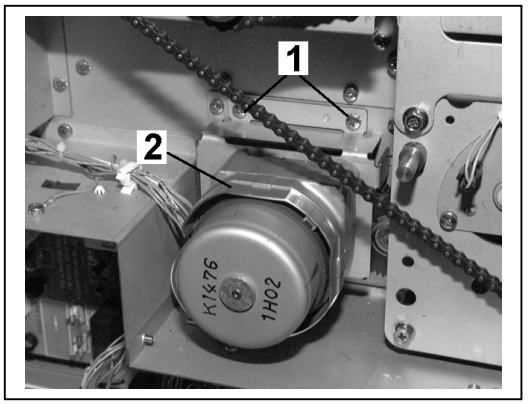
Parts List on PL 8.1

WARNING

Turn off the Main Switch to allow the Developer Unit to release from its ON position. Switch off the Main Circuit Breaker. Disconnect the Power Cord.

Removal

1. Remove two screws and remove the Left Side Cover.
2. Remove four Screws (1).
3. Remove a connector from the PWB, and remove it from the Clamp.
4. Remove the Motor MOT 2 (2).



REP 8.1.1 Ozone Filter A & B

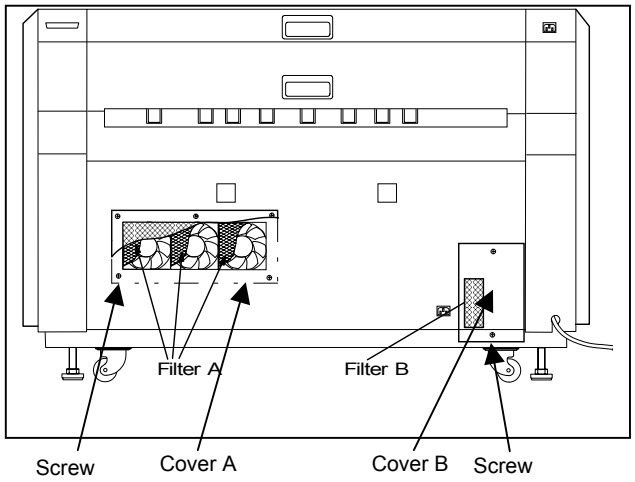
Parts List on PL 9.6

WARNING

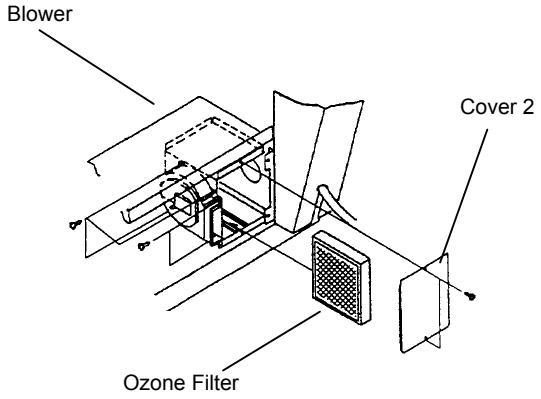
Turn off the Main Switch to allow the Developer Unit to release from its ON position. Switch off the Main Circuit Breaker. Disconnect the Power Cord.

Removal

1. Remove the Tray if present.
2. Disconnect the connectors from rear side.
3. For Filter A, remove five screws and remove Cover A.



4. For Filter B, loosen the two screws and remove Cover B.
5. Remove two screws and remove Cover 2.



6. Remove the four Ozone Filters.

REP 8.1.2 LED Head Cooling Blowers (BL 8-11)

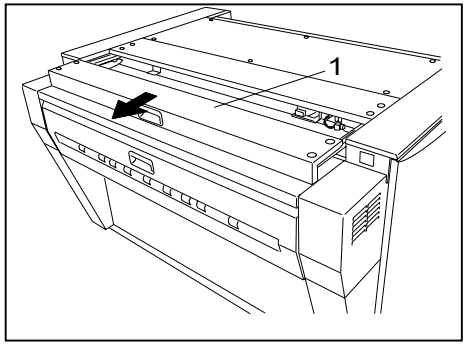
Parts List on PL 4.2

WARNING

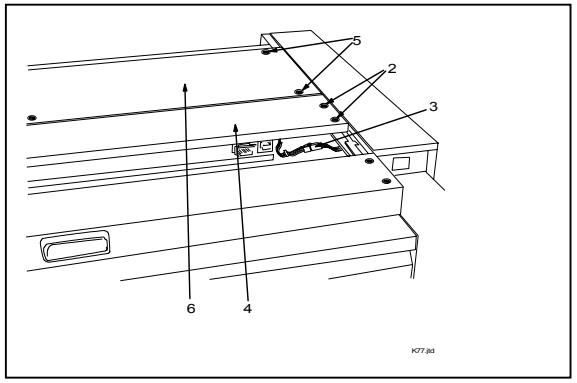
Turn off the Main Switch to allow the Developer Unit to release from its ON position. Switch off the Main Circuit Breaker. Disconnect the Power Cord.

Removal

1. Pull the Top Rear Cover (1) to rear side.



2. Remove four screws (2), disconnect the Connector (3), and remove the Top Center Cover (4).
3. Remove six screws (5) and remove the Top Front Cover (6).

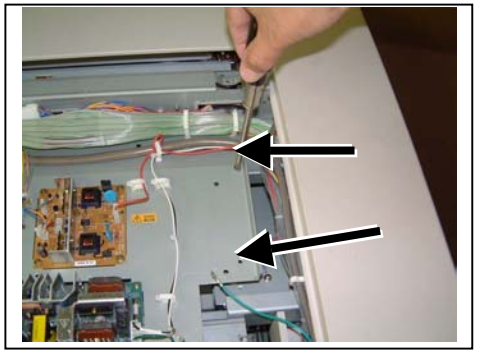


4. Pull out the Manual Table and the Top Drawer.
5. Remove three screws from front.

6. Loosen a screw from bottom.

7. Remove the bracket by pulling it straight out.

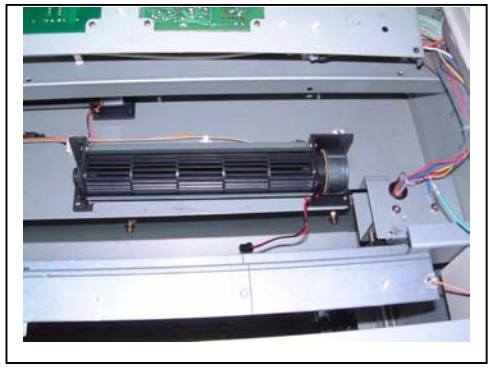
8. Loosen all harness clamps to free up the wiring.



9. Remove six screws from bottom.

10. Open up the Electric Stand.

11. Then you can access the blower from front.



REP 8.2.1 DC Controller PWB

Parts List on PL 10.1

***Note**: If the DC Controller is replaced, ensure that the value of Output 2 is 250VDC ± 3V. If not, adjust the value using diagnostic code 4-19. (Refer to ADJ 1.3.8)*

***Note**: The Life Count (Figure 1) indicates the linear meters on the printer while the DC Controller PWB was in the machine. This data will not be saved when the NVM is backed up (Step 1). A new PWB has a Life Count default value of 1 meter.*

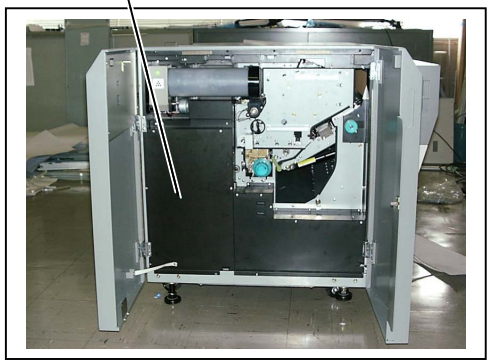
Removal

1. If possible, create a backup of all NVM values (see PC Diagnostic Setup Procedure, step 7, in Section 6).

WARNING

Turn off the Main Switch to allow the Developer Unit to release from its ON position. Switch off the Main Circuit Breaker. Disconnect the Power Cord.

2. Open Left Hand Door and remove the access cover.



3. Disconnect all connectors, remove six Screws, and remove the DC Controller.

Replacement

1. Replace DC Controller PWB.
2. Update Printer to the latest firmware.
3. Restore the NVM values from those saved in step 1 of "**Removal**" or to the latest saved values (see PC Diagnostic Setup Procedure, step 8, in Section 6).

***Note**: If the NVM values have never been backed up, manually input the values from the NVM log located behind the access cover.*

4. Ensure that the mechanical Billing Meter A (Figure 2) reading matches the values in 900B (lower 4 digits) and 900C (upper 3 digits). If the values do not match, change the NVM values to match Meter A (see PC Diagnostic Setup Procedure in Section 6).

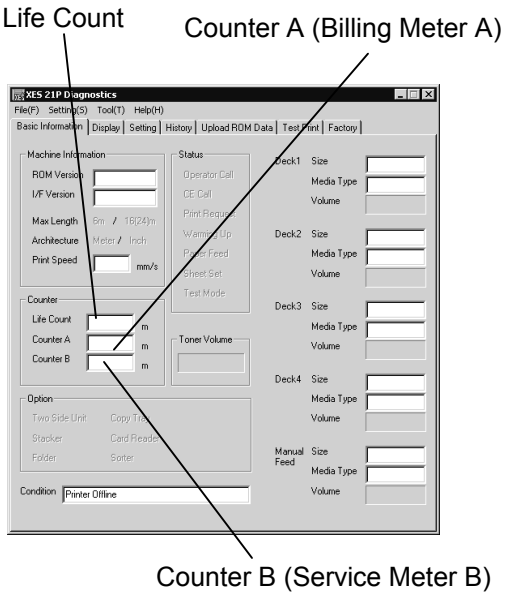


Figure 1 Life Count Location

5. Ensure that the mechanical Service Meter B (Figure 2) reading matches the values in 900D (lower 4 digits) and 900E (upper 3 digits). If the values do not match, change the NVM values to match Meter B (see PC Diagnostic Setup Procedure in Section 6).

***Note**: In order for the new values to be read by the AccXES software and PC Diagnostics, the printer must be rebooted.*

6. Switch the power off, then on to reboot the printer.

WARNING

Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer.

Caution

Dispose of used batteries according to the manufacturer's instructions and in accordance with local, state, and federal regulations.

ADJ 1.3.1 Charge Scorotron (HVPS 1)

Purpose

The purpose is to ensure the Charge Corotron is adjusted properly.

WARNING

High voltage is present. Use caution when performing this measurement.

Check

1. Connect the lead wires of multi-meter to the "OUTPUT MONITOR" pins. Connect the black lead to COM and the red lead to +. Use the DC volt range.
2. Run test pattern 1. Read the value. The value should read -2.0 ± 0.05 VDC.

***Note**: A reading of -2.0 Volts represents 2.0 mA of Charge Scorotron current.*

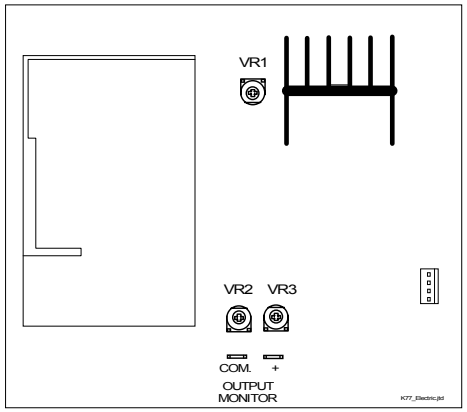
Adjustment

1. Perform the Grid Bias adjustment (ADJ 1.3.7).

Caution

Do not adjust the potentiometers VR1, VR2 and VR3. They are set at the factory.

2. You can change the value using NVM Setup Mode 0, location 4-1A. (See Section 6.)



***Note**: There is no height adjustment on the Charge Scorotron. Confirm that the Charge Scorotron wire is in the groove, and between the Cleaning pads correctly.*

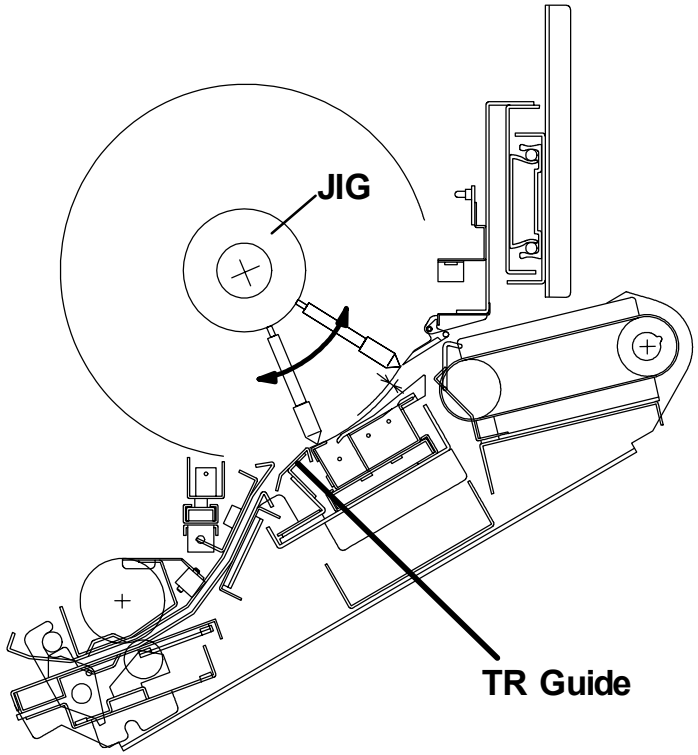
ADJ 1.3.2 Transfer/Detack Corotron Height

Purpose

The purpose is to adjust the gap between the Transfer Corotron Paper Guides and Drum after the Transfer/Detack Corotron Assembly has been replaced.

1. (REP 1.4.1) Remove the Drum.
2. Remove the Top Middle Cover.
3. Partially slide in the Xerographic Module (approximately half way).
4. Insert the Transfer/Detack Drum Gauge onto the Drum Shaft.
5. **Complete sliding in the Xerographic Module and secure with the four (4) screws**.
6. Raise the inner transport.
7. Swing the Drum Gauge slightly and check the height of the Transfer Corotron Paper Guides so that one touches (slightly), and that the other does not touch at all. Ensure the dimensions are equal on each end of the Assembly.
8. Adjust the height by adding or decreasing the number of spacers (0.2mm thickness).
9. The gap between the Drum and the Transfer Corotron Paper Guides should be 0.4 to 1.00mm across the entire Transfer/Detack Assembly length.
10. Perform ADJ 1.3.3 Transfer/Detack Corotron Wires.

Transfer/Detack Drum Gauge: ***0.4 to 1.00mm***
Part of Tool Kit # 600N01777



ADJ 1.3.3 Transfer / Detack Corotron Wires

Purpose

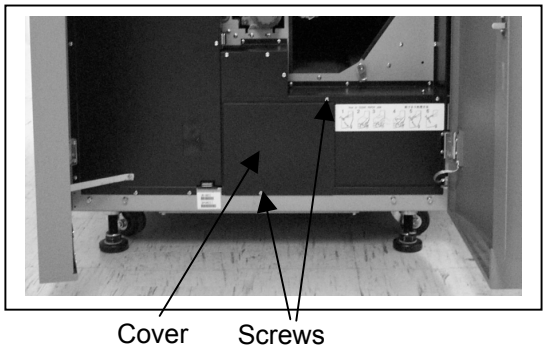
The purpose is to set the height of the Transfer and Detack Corotron wires to within specifications.

WARNING

Turn off the Main Switch to allow the Developer Unit to release from its ON position. Switch off the Main Circuit Breaker. Disconnect the Power Cord. Lower the Inner Transport and lock it in position.

Check

1. Perform ADJ 1.3.2 Transfer/Detack Corotron Height.
2. Remove the Transfer / Detack Corotron.
3. Open the Left Hand Door and the Right Hand Door, then loosen two screws and remove the cover.



***Note**: When you confirm the height T, do not remove the Spacer or Side Plate. A few spacers (0.2mm) may exist between Side Plate and the Base.*

4. (Figure 1) Check that the height of the Transfer Corotron Wire (Dimension T) is as recorded on the label inside the removed cover. (Labels on some machines may be located inside the right door.)
5. (Figure 1) Check that the heights of the Detack Corotron Wires (Dimensions S_1 and S_2) are as recorded on the label.

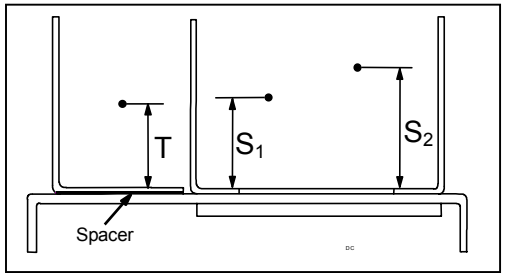


Figure 1. Corotron Wire Heights

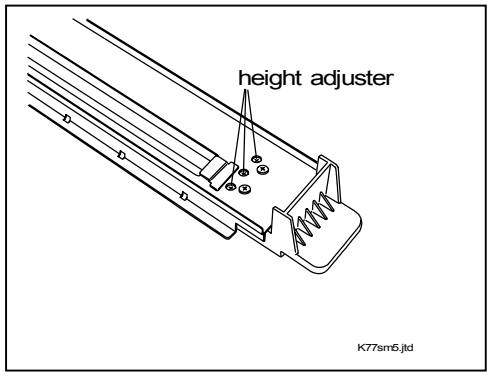
6. If the Label is not present or is unreadable, ensure the values are as shown (Table 1).

T	S_1	S_2
10.8 mm	14 mm	15 mm

Table 1 Corotron Height Values

Adjustment

1. Turn the screw on the adjusting block in order to position the wires to within ± 0.3mm of the values recorded on the label.



ADJ 1.3.4 Transfer Corotron (HVPS 3)

Purpose

The purpose is to ensure the Transfer Corotron is adjusted properly.

WARNING

High voltage is present. Use caution when performing this measurement.

Check

1. Connect the lead wires of multi-meter to pin "A" as shown below. Use the DC volt range.
2. Run test pattern 1. Read the value. The value should read 14 ± 0.02 VDC.

***Note**: A reading of 14 Volts represents 1.4 mA of Transfer Corotron current.*

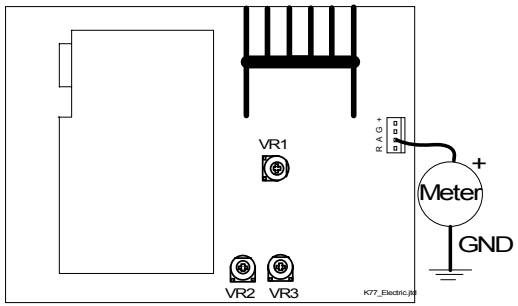
Adjustment

Caution

Do not adjust the potentiometers VR1, VR2 and VR3. They are set at the factory.

1. You can change the value using NVM Setup Mode 0. (See Section 6.)

Plain Paper	(4-1C)
Tracing	(4-1d)
Film	(4-1E)



ADJ 1.3.5 Detack Corotron (HVPS 4)

Purpose

The purpose is to ensure the Detack Corotron is adjusted properly.

WARNING

High voltage is present. Use caution when performing this measurement.

Check

1. Connect the lead wires of multi-meter between R43 and the ground. Use the DC volt range. (For HVPS 4 location, see Electrical Component Location in Section 7.)
2. Run the test pattern, and read the value. The value should read –250 VDC ±3 VDC in case of Plain Paper.

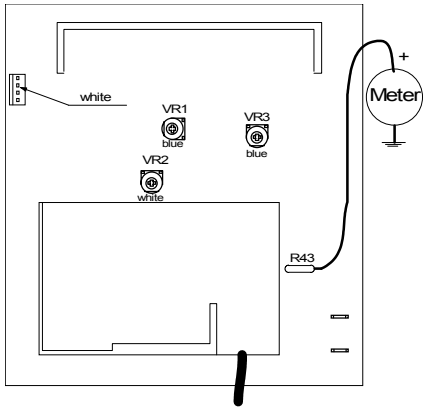
Adjustment

Caution

Do not adjust the potentiometers VR1, VR2 and VR3. They are set at the factory.

1. You can change the value using NVM Setup Mode 0. (See Section 6.)

Plain Paper	(4-1F)	-250 ±3 VDC
Tracing	(4-20)	-300 ±3 VDC
Film	(4-21)	-10 ±3 VDC



ADJ 1.3.6 Cleaning Roller (HVPS 5)

Purpose

The purpose is to ensure the Cleaning Roller Voltage is correct.

WARNING

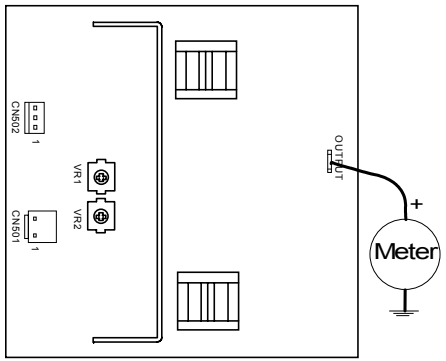
High voltage is present. Use caution when performing this measurement.

Check

1. Connect the lead wires of multi-meter to the "OUTPUT" of HVPS 5. Use the DC volt range. (For HVPS 5 location, see Electrical Component Location in Section 7.)
2. Run test pattern 1 and read the value. The value is +600 ±3 VDC (+800 ±3 VDC for Tag 1 machines) (VR2 is fully rotated clockwise) during printing cycle and –500 ±3 VDC during cleaning cycle.

Caution

Do not adjust the potentiometers VR1 and VR2. They are set at the factory.



3. If the voltage is incorrect, replace HVPS 5.

ADJ 1.3.7 Grid Bias (HVPS 6)

Purpose

The purpose is to ensure the Grid Bias is adjusted properly.

WARNING

High voltage is present. Use caution when performing this measurement.

Check

1. Connect the lead wires of multi-meter to the "OUTPUT" of HVPS 6. Use the DC volt range. (For HVPS 6 location, see Electrical Component Location in Section 7.)
2. Run test pattern 1, and read the value. The value for pre-Tag 7 IOT should be -850 VDC ±20 VDC. The value for an IOT with Tag 7 should be -780 VDC ±20 VDC.

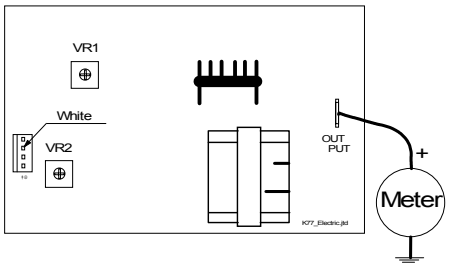
***Note**: The Tag 7 Grid Plate can be identified from the previous design Grid Plate by the thickness of the Grid Plate (it is 3 times thicker than the previous Grid Plate) and it has wider slots in the face of the Grid Plate. The Tag 7 Grid Plate does require the Grid HVPS be set to a lower voltage, but the resulting SPS voltage on the drum will still be -850VDC +/- 50VDC.*

Adjustment

Caution

Do not adjust the potentiometers VR1 and VR2. They are set at the factory.

1. Change the value using NVM Setup Mode 0 (Program 4), location 4-1b. (See Section 6.) Decreasing the NVM value increases the grid voltage.



2. Adjust the Charge Scorotron ADJ 1.3.1.

ADJ 1.3.8 Developer Bias

Purpose

The purpose is to ensure the developer bias adjustments are correct.

WARNING

High voltage is present. Use caution when performing this measurement.

1. Remove the Left Cover.
2. (Figure 1) Connect the multi-meter between **Output 2** (+) and ground (-).
3. Enter diagnostics. Reset the value of location 4-CA from 1 to 0 using NVM Setup Mode 0 (Program 4), (See Section 6.) This switches off the Developer Bias Temperature Compensation.

***Note 1**: Once Output 2 is readjusted,* using service mode 4-19, *outputs 1, 3, and 4 are shifted automatically, since all the outputs are linked to each other in the Developer Bias Control Circuit.*

***Note 2**: Diagnostic Code 9-8 must be manually stopped, once activated. It does not automatically shut off.*

4. Enter diagnostic code 9-8 to turn on the negative Developer Bias. Enter diagnostic code 4-19. Adjust the value until it measures -300V ± 3V. Record the NVM value.
5. Using diagnostic code 4-19, readjust the value until it measures -250V ± 3V. Record the NVM value.
6. Enter Code 4-Cb (Temperature compensation for below 10° C) and enter the value recorded in step 4.
7. Enter Code 4-CC (Temperature compensation for above 20° C) and enter the value recorded in step 5.

***Note**: When 4CA is set to 0, the Developer Bias uses the value of 4-19 for all temperatures. When 4CA is set to 1, the Developer Bias uses the value of 4-Cb for temperatures below 10°C and uses the value of 4-CC for temperatures above 20°C. For temperatures between 10°C and 20°C, the software will select an appropriate value from the curve between 4-Cb and 4-CC.*

8. (Table 1) In order to check the other Outputs, connect the lead wires of multi-meter between each Output and **Output 2**. Use the DC volt range.

***Note**: (VR2 is not used.)*

Meter Leads	**Negative printing cycle (Use Code 9-8)**	
	VDC	*ADJ*
Out2(+) Gnd. (-)	-250 ± 3V	Code 4-19
Out1(+) Out2(-)	-500 ± 3V	VR8
Out3(+) Out2(-)	-100 ± 3V	VR6
Out4(+) Out2(-)	+365 ± 3V	VR4

Table 1 Printing Cycle (Code 9-8)

***Note**: Developer Bias is applied on Developer Roller during copying. If the image density setting is changed by the copy density adjustment key, the Developer Bias does not change.*

9. Return the value of location 4-CA from 0 to 1 using NVM Setup Mode 0 (Program 4), (See Section 6.) This switches on the Developer Bias Temperature Compensation.

***Note**: Diagnostic Code 9-7 must be manually stopped, once activated. It does not automatically shut off.*

10. Enter Code 9-7 to turn on the positive Developer Bias. Measure the value and adjust as necessary. Individual voltage is shown in Table 2.
11. Exit diagnostics.

Meter Leads	**Positive cleaning cycle (Use Code 9-7 to adjust)**	
	VDC	*ADJ*
Out2(+) Gnd. (-)	+350 ± 3V	VR1
Out1(+) Out2(-)	-340 ± 3V	VR7
Out3(+) Out2(-)	0 ± 10V	VR5
Out4(+) Out2(-)	+120 ± 3V	VR3

Table 2 Cleaning Cycle (Code 9-7)

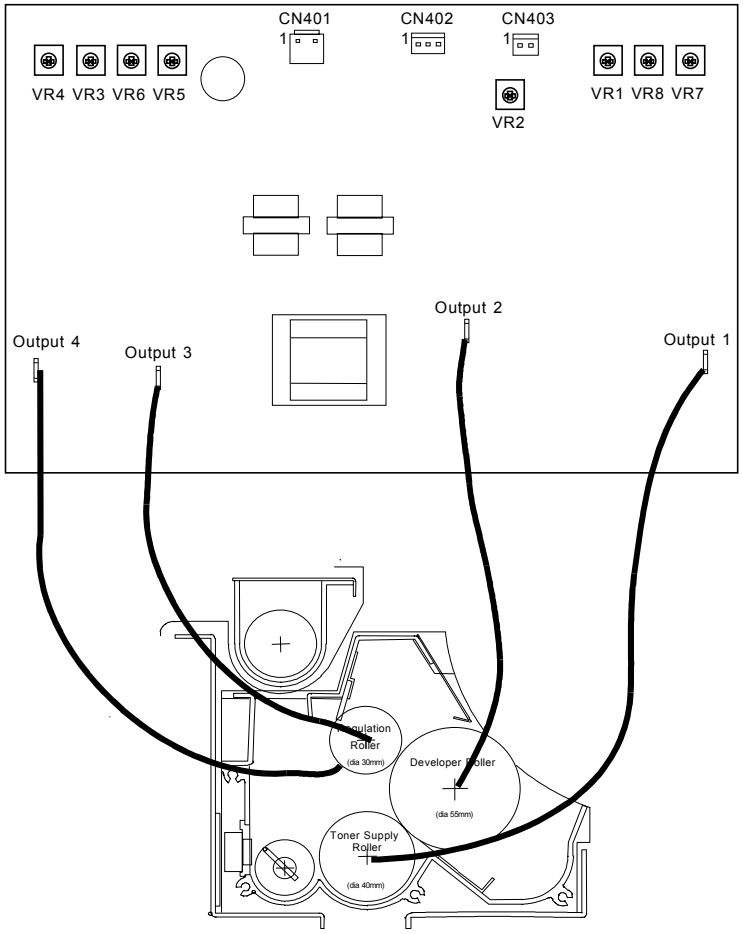

CN401
CN402
CN403
VR4 VR3 VR6 VR5
VR2
VR1 VR8 VR7
Output 4
Output 3
Output 2
Output 1
Developer Roller
(dia 55mm)
Toner Supply Roller
(dia 40mm)

Figure 2

ADJ 1.3.9 Drum Separation Finger Height

Purpose

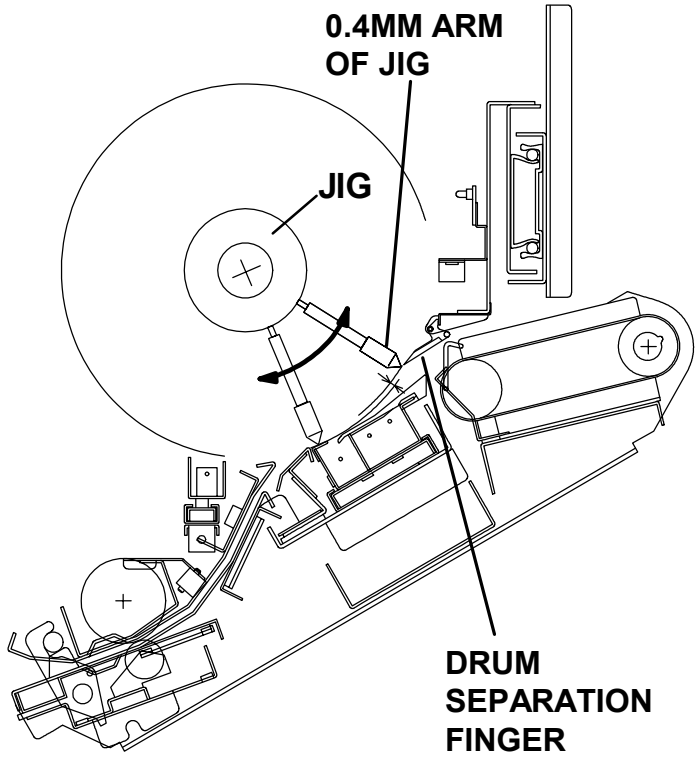
The purpose is to adjust the gap between the surface of the Drum and the four (4) Drum Separation Fingers after the fingers have been replaced or been bent out of position.

1. (REP 1.4.1) Remove the Drum.
2. Remove the Top Middle Cover.
3. Partially slide in the Xerographic Module (approximately half way).
4. Insert the Transfer/Detack Drum Gauge onto the Drum Shaft.
5. **Complete sliding in the Xerographic Module and secure with the four (4) screws.**

NOTE: The longer 1.0mm arm of the Drum Gauge is not used for this procedure.

6. Swing the Drum Gauge slightly and check the position of the Drum Stripper Fingers so that the shorter arm (0.4mm) just touches (slightly). Ensure the dimensions are equal for all four fingers. This ensures the fingers are 0.4mm off of the surface of the drum.

Transfer/Detack Drum Gauge: ***0.4 to 1.00mm***
Part of Tool Kit # 600N01777



ADJ 3.4.1 Pressure Roll

Purpose

The purpose is to set the Pressure Roll so that the Toner is properly fused to the print.

***Note**: Perform the contact arc check at printer install and at any times the Heat Roll or the Pressure roll is replaced.*

WARNING

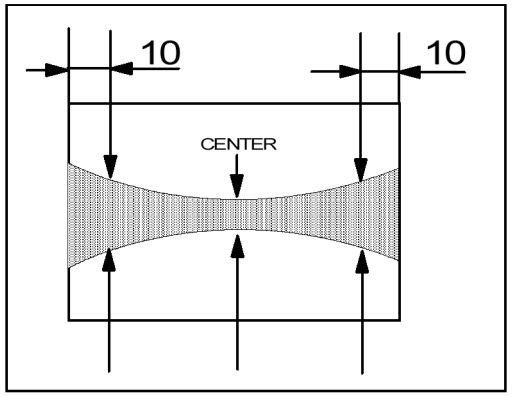
Turn off the Main Switch to allow the Developer Unit to release from its ON position. Switch off the Main Circuit Breaker. Disconnect the Power Cord.

Check

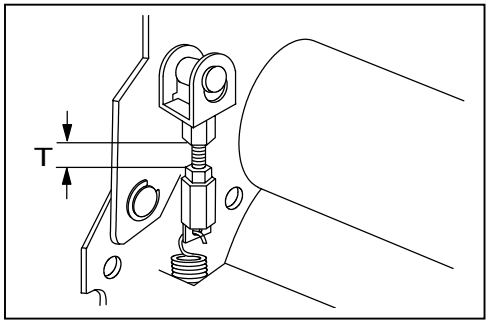
1. Check to ensure that the Toner is properly fused on the print.
2. Check to ensure that the media is not wrinkled from too much pressure at one end of the fusing nip.
3. If required, perform the adjustment.

Adjustment

1. Using Mode 8, run test pattern 7 (Horizontal lines) at 36" or A0. Set copy density to minimum.
2. Using Mode 8, run test pattern 4 (White print) at 36" or A0.
3. Place the horizontal lines print (Test Pattern 7) on top of the white print (Test Pattern 4).
4. Slide open the top cover. Using the green fuser knob, feed about an inch of the prints (black band on top) into the nip of the heat and pressure rolls.
5. Wait twenty seconds.
6. Continue rotating the green knob until the folded print is fed out. There should be a clear contact arc to measure.
7. Measure the contact arc 10-mm from each end of the paper. The contact arc should be 10 to 11-mm. The center contact arc should be 8 to 9-mm. This is due to the swelling at the end of the Pressure Roll.



8. If the contact arc needs adjusting, perform the following:
   - Decrease the setting T (increase pressure) if the Toner is improperly fused.
   - Increase the setting T (decrease pressure) if the image is blurred or the print is wrinkled from the fusing operation.



***Note**: Gap "T" is generally adjusted at 2.5-mm. In case the thinner paper is used as a standard paper, there are more chances to have the Smear Image. You can improve this problem by having the wider Gap rather than 2.5mm.*

The Left and Right Adjustment Springs should be approximately equal dimensions.

ADJ 3.4.2 Adjustment of the Stripper Fingers

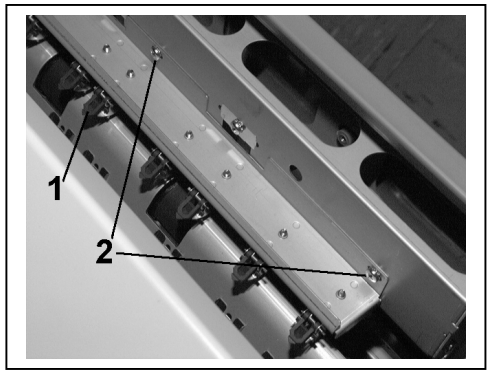
Purpose

The purpose is to avoid having the scratch mark on the Fuser Roll, which is created by the Stripper Fingers.

Adjustment

Stripper Fingers (1) exist at the Fuser Exit section, which contact to the Fuser Roll. In order to prevent the scratch mark onto the Fuser Roll, shift the contact position to left or right every 70,000 to 100,000 counts. The life of the Fusing Roll might be prolonged by this action.

***Note**: When this machine is newly shipped from our factory, six screws (2) are tightened at the center of the long holes. When you shift this location right or left put a mark which side you have shifted.*



ADJ 3.4.3 Fuser Temperature Adjustment

Purpose

The purpose is to adjust the fuser temperature for Plain Paper, Tracing Paper (vellum), and Film. The adjustment range is 150°C to 190°C.

Plain Paper Fuser Temp (PPC)

This adjustment changes the fuser temperature, and is used when printing Plain Paper.

***Note**: As a general rule, increase fuser temperature to improve fusing, decrease fuser temperature to eliminate wrinkling of paper. The default value for all media is 178°C.*

***Note**: This adjustment can be made for each of the "4-09" settings (0/1).*

1. Enter diagnostic code 4-10.
2. Press [-->] key to increase the temperature.
3. Press [<--] key to decrease the temperature.
4. Press [Enter] key to fix this value.

Tracing Paper Fuser Temp

This adjustment changes the fuser temperature, and is used when printing tracing paper (vellum). Substitute code 4-11 in step 1.

***Note**: This adjustment can be made for each of the "4-0A" settings (0/1).*

Film Fuser Temp

This adjustment changes the fuser temperature, and is used when printing film. Substitute code 4-12 in step 1.

***Note**: This adjustment can be made for each of the "4-0b" settings (0/1).*

ADJ 5.1.1 Adjustment of the Guide Plate

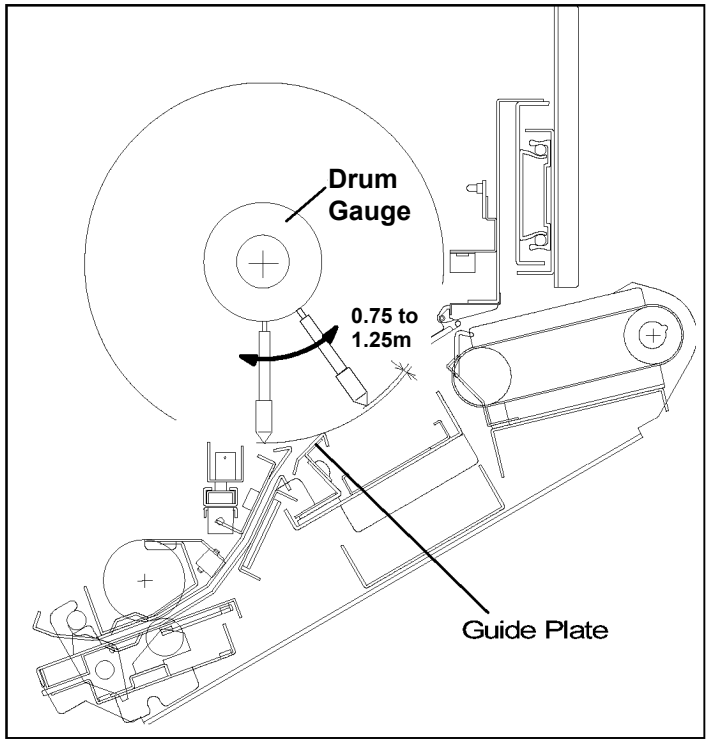
Purpose

The purpose is to adjust the gap between the Guide Plate and Drum after the Guide Plate has been replaced.

1. (REP 1.4.1) Remove the Drum.
2. (REP 1.3.1) Remove the Transfer / Detack Corotron.
3. Remove the Top Middle Cover.
4. Loosen the five screws of the Guide Plate.
5. Partially slide in the Xerographic Module (approximately half way).
6. Raise the inner transport.
7. Insert the Guide Plate Drum Gauge onto the Drum Shaft.
8. **Complete sliding in the Xerographic Module and secure with the four (4) screws**.
9. Swing the Drum Gauge slightly and adjust the height of the Guide Plate so that one touches (slightly), and that the other does not touch at all. Ensure the dimensions are equal at all five screw locations before tightening them.

The gap between the Drum and the Guide Plate should be 0.75 to 1.25mm across the entire guide plate length.

Guide Plate Drum Gauge: ***0.75 to 1.25mm***
Part of Tool Kit # 600N01777



ADJ 5.1.2 Image Placement Series

Purpose

The purpose is to set the Linearity, Lead Edge Registration, Trail Edge Margin and Cut Length.

This procedure is for all four drawers and for all widths of media in the following ranges:

- Large: 30” , 34”, 36”
- Medium: 22”, 24”
- Small: 17”, 18”
- Smallest: 11” – 12”

All of these attributes affect image placement. The different rolls (and manual bypass) have different media handling characteristics as well as the media types, (bond vellum and film). Also, with wide bond media, the length of the print affects media handling.

Always perform the adjustments in the following sequence (The adjustments are inter-dependant):

A. Fuser Motor Clock (Linearity)

B. Lead Edge Registration

C. Trail Edge Margin (Cut Length / Image Length)

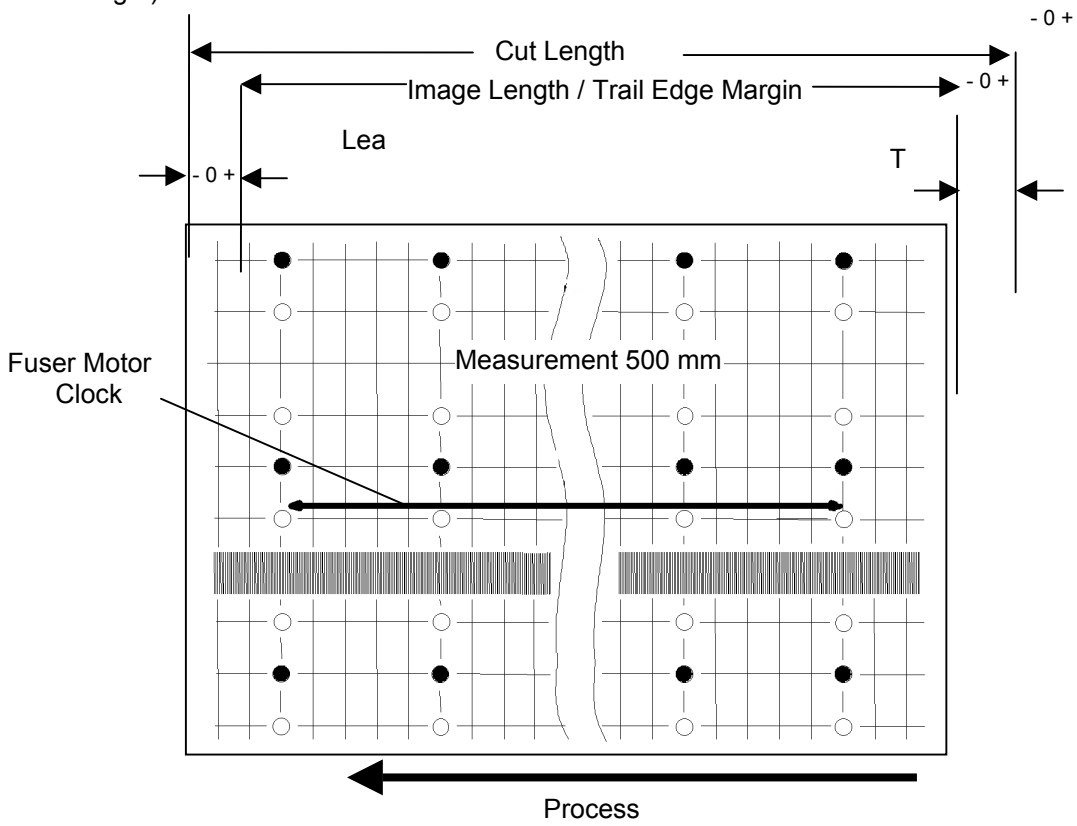


Figure 3 Image Placement

A. Fuser Motor Clock (Linearity)

1. Enter diagnostic Program 8 and run Test Pattern 1.
2. (Figure 1) Check the dimension between any 50 squares on test pattern 1.The dimension should equal 500 mm (1 square = 10mm): SPECIFICATION: ± 1.5 mm

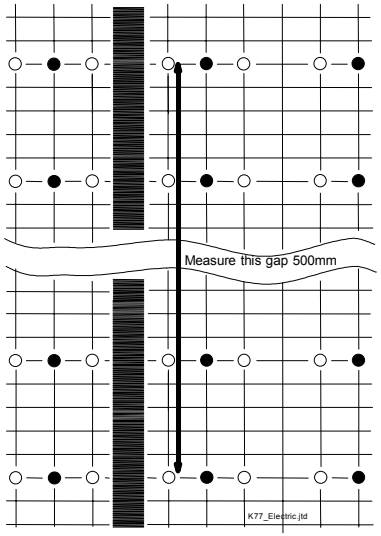


Figure 1 Test Pattern 1

Note: *Changing the value in [4-33] from the IOT front panel will change [4-34 to 4-49] to the same value; changing the value in [4-34] changes [4-35 to 4-49] to the same value etc. Do not use PC diagnostics in the next step. If PC Diagnostics is used, only the value of the NVM location entered will change.*

3. Using the IOT front panel, enter NVM code [4-33] (Program 4). This adjustment changes the speed of the Fuser Motor for large sizes of plain paper (A0, 30", 34", and 36" in width).
   a. The adjustment range is -1.0% to +1.0%.
   b. Each increment changes the speed of the motor by 0.05% percent.
   c. Press [-->] key to increase the value, and press [<--] key to decrease the value.
4. Repeat steps 2 and 3 as necessary for the NVM locations shown in Table 1 for the different rolls, types and paper lengths.
5. This procedure can be repeated once for each customized setting of the following:
   a. 4-09 Custom Setting (Plain Paper) 0 or 1
   b. 4-0A Custom Setting (Vellum/Tracing) 0 or 1
   c. 4-0b Custom Setting (Film) 0 or 1

			Roll 1	Roll 2	Roll 3	Roll 4	Manual Tray
Width	Length	Type	NVM	NVM	NVM	NVM	NVM
36" 34" 30"	0-2M	Bond	**4-33**	4-55	4-77	4-99	4-27
36" 34" 30"	2-3M	Bond	4-34	4-56	4-78	4-9A	
36" 34" 30"	3-4M	Bond	4-35	4-57	4-79	4-9B	
36" 34" 30"	4-5M	Bond	4-36	4-58	4-7A	4-9C	
36" 34" 30"	5-6M	Bond	4-37	4-59	4-7B	4-9D	
24" 22		Bond	4-4A	**4-6C**	4-8E	4-B0	4-28
18" 17"		Bond	4-4B	4-6D	4-8F	4-B1	4-29
12" 11"		Bond	4-4C	4-6E	4-90	4-B2	4-2A
36" 34" 30"		Vellum/ Tracing	4-4D	4-6F	4-91	4-B3	4-2B
22" 24"		Vellum/ Tracing	4-4E	4-70	4-92	4-B4	4-2C
18" 17"		Vellum/ Tracing	4-4F	4-71	4-93	4-B5	4-2D
12" 11"		Vellum/ Tracing	4-50	4-72	4-94	4-B6	4-2E
36" 34" 30"		Film	4-51	4-73	4-95	4-B7	4-2F
22" 24"		Film	4-52	4-74	4-96	4-B8	4-30
18" 17"		Film	4-53	4-75	4-97	4-B9	4-31
12" 11"		Film	4-54	4-76	4-98	4-BA	4-32

Note*: NVM [4-02] set at by manufacturing establishes the maximum cut length to 6 Meters (19.7 feet). This is the maximum length that print quality is guaranteed. It is possible to set [4-02] to a maximum cut length of 24 Meters (80 feet), however print quality cannot be guaranteed.*

Table 1. Fuser Motor Clock (Linearity)

B. Lead Edge Registration

1. Enter diagnostic Program 8 and run Test Pattern 1.
2. Enter NVM code 500C or [5-0C] (Program 5). This adjustment changes the lead edge registration for large sizes of Roll 1 / plain paper (A0, 30", 34", and 36" in width).
   a. The adjustment range is 0 to 20mm. The image registration changes 0.1mm for every increment.
   b. Press [-->] key to increase the value (lead edge of image moves away from the edge of the paper).
   c. Press [<--] key to decrease the value.
   d. Press [Enter] key to fix this value.

***Note**: If the lead edge registration varies more than 2mm from print to print, ensure the gap between the brake and the Armature Assembly of the Registration Clutch (CL5) is set to 0.2 mm (See REP 7.2.1, "Replacement").*

3. (Figure 2) Measure the arrow shown distance on test pattern 1. It should be measured as 10mm ± 3mm.

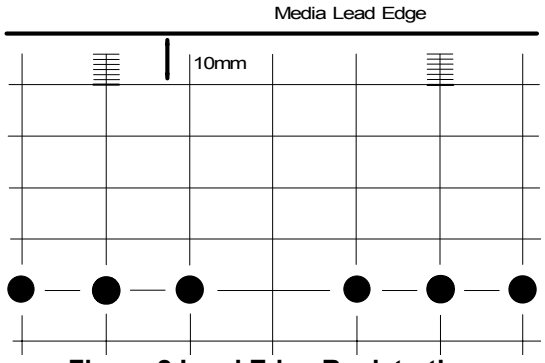


Figure 2 Lead Edge Registration

4. Repeat steps 2 and 3 as necessary for the NVM locations shown in Table 2 for the different rolls and types.
5. This procedure can be repeated once for each customized setting of the following:
   a. 4-09 Custom Setting (Plain Paper) 0 or 1
   b. 4-0A Custom Setting (Vellum/Tracing) 0 or 1
   c. 4-0b Custom Setting (Film) 0 or 1

		Roll 1	Roll 2	Roll 3	Roll 4	Manual Tray
Width	Type	NVM	NVM	NVM	NVM	NVM
36" 34 30"	Bond	**500C**	5018	5024	5030	5000
24" 22"	Bond	500D	**5019**	5025	5031	5001
18" 17"	Bond	500E	501A	5026	5032	5002
12" 11"	Bond	500F	501B	5027	5033	5003
36" 34 30"	Vellum/ Tracing	5010	501C	5028	5034	5004
24" 22"	Vellum/ Tracing	5011	501D	5029	5035	5005
18" 17"	Vellum/ Tracing	5012	501E	502A	5036	5006
12" 11"	Vellum/ Tracing	5013	501F	502B	5037	5007
36" 34 30"	Film	5014	5020	502C	5038	5008
24" 22"	Film	5015	5021	502D	5039	5009
18" 17"	Film	5016	5022	502E	503A	500A
12" 11"	Film	5017	5023	502F	503B	500B

Table 2 Lead Edge Registration

C. Cut Length (Cut Length / Image Length / Train Edge Margin)

Note 1: It is easier to use the "Factory" Tab in PC diagnostics to perform the Cut Length Adjustment Procedure
Note 2: Perform the End of Roll Compensation procedure before performing this procedure.

1. This procedure can be performed for each customized setting of the following:
   a. 4-09 Custom Setting (Plain Paper) 0 or 1.
   b. 4-0A Custom Setting (Vellum/Tracing) 0 or 1.
   c. 4-0b Custom Setting (Film) 0 or 1.

Note: The factory default settings for the printers are 503C to 509B. To use these settings, 4-09, 4-0A, and 4-0B must be set to 0.

2. Enter diagnostic Program 8.
3. Set cut length to 36 (A1).
4. Run Test Pattern 1 (Use at least three prints.)
5. Measure the average sheet length of the multiple prints. The length should measure 914.4mm ± 2mm for 36 inch; or 841mm ± 2mm for A1.
6. Enter NVM code 503C or [5-3C] (Program 5). This adjustment changes the Cut Length for large sizes of Roll 1/plain paper (A0, 30., 34. and 36. in width).
   a. The adjustment range is 0 to 20mm. The cut length margin changes approximately 0.1mm for every increment.
   b. Press [→] key to increase the value.
   c. Press [←] key to decrease the value.
   d. Press [**Enter**] key to store the value.
7. Observe the number recorded in the NVM location and do the following:
   a. Reduce the number to shorten the cut length.
   b. Increase the number to lengthen the cut length.

   Example: If the print is 2.5mm too long, reduce the number in the NVM location by 25 to shorten the prints.

Note: The average length of each drawer should be set as closely as possible (± 0.5mm) to 914.4mm (36") or 841mm (A1). Then as prints are made across multiple paper rolls during a run, they will remain in the ± 2mm range.

8. Adjust the Cut Length until the print lengths are within ± 0.5mm of 914.4mm (± 0.5mm of 841mm).
9. To check Image Length/ Trail Edge Margin, run at least three prints of Test Pattern 1.
10. (Figure 3) The average Image Length/Trail Edge Margin of the multiple prints should be 7mm +4mm –2mm.

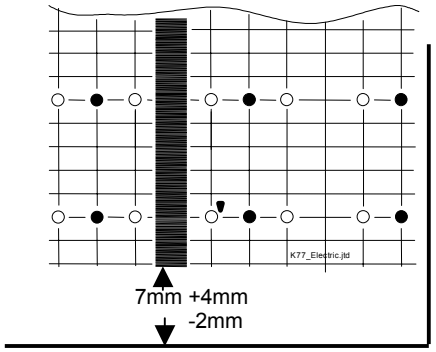


Figure 3 Trail Edge Margin

11. Enter NVM Code 506C or [5-6C] (Program 5). This adjustment changes the Image Length/Trail Edge Magin for large sizes of Roll 1/plain paper (A0, 30., 34. And 36. in width).
   a. The adjustment range is –1.00% to +1.00%. Image Length/Trail Edge Margin changes 0.01% for every increment. On a 36" print, every 0.01% equals approximately 0.1mm.
   b. Press [→] key to increase the value.
   c. Press [←] key to decrease the value.
   d. Press [Enter] to store this value.

12. Observe the number recorded in the NVM location and perform the following:
    a. Reduce the number to lengthen the Trail Edge Margin.
    b. Increase the number to shorten the Trail Edge Margin.

    Example: The Trail Edge Margin is 3mm. Reduce the number in the NVM location by about 40 to increase the Trail Edge Margin to about 7mm.
13. Run at least three prints of Test Pattern 1.

    Note: Cut Length and Image Length are interdependent. Both effect the Trail Edge Margin.
14. Measure the average Cut Length and Trail Edge Margin of the multiple prints.
15. Repeat steps 3 through 12 if the settings need to be adjusted for this media type, roll, or paper width.
16. Repeat steps 3 through 12 for the remaining NVM locations shown in Table 3 and 4 for the different rolls and media types.

		Roll 1	Roll 2	Roll 3	Roll 4
Width	Type	NVM	NVM	NVM	NVM
36” 34 30”	Bond	503C	5048	5054	5060
24” 22”	Bond	503D	5049	5055	5061
18” 17”	Bond	503E	504A	5056	5062
12” 11”	Bond	503F	504B	5057	5063
36” 34 30”	Vellum/ Tracing	5040	504C	5058	5064
24” 22”	Vellum/ Tracing	5041	504D	5059	5065
18” 17”	Vellum/ Tracing	5042	504E	505A	5066
12” 11”	Vellum/ Tracing	5043	504F	505B	5067
36” 34 30”	Film	5044	5050	505C	5068
24” 22”	Film	5045	5051	505D	5069
18” 17”	Film	5046	5052	505E	506A
12” 11”	Film	5047	5053	505F	506B

Table 3 Trail Edge

		Roll 1	Roll 2	Roll 3	Roll 4
Width	Type	NVM	NVM	NVM	NVM
36” 34 30”	Bond	506C	5078	5084	5090
24” 22”	Bond	506D	5079	5085	5091
18” 17”	Bond	506E	507A	5086	5092
12” 11”	Bond	506F	507B	5087	5093
36” 34 30”	Vellum/ Tracing	5070	507C	5088	5094
24” 22”	Vellum/ Tracing	5071	507D	5089	5095
18” 17”	Vellum/ Tracing	5072	507E	508A	5096
12” 11”	Vellum/ Tracing	5073	507F	508B	5097
36” 34 30”	Film	5074	5080	508C	5098
24” 22”	Film	5075	5081	508D	5099
18” 17”	Film	5076	5082	508E	509A
12” 11”	Film	5077	5083	508F	509B

Table 4 Cut Length

ADJ 5.1.3 End of Roll Trail Edge/Cut Length Compensation

Purpose

The purpose is to set the Trail Edge compensation (NVM locations 4-C2, 4C-3, 4C4, 4C5) so that the cut length does not vary between the beginning of the roll to the end of the roll for Roll 1, Roll 2, Roll 3, and Roll 4.

Procedure

1. Set the NVM value to 0 for locations 4C2, 4C3, 4C4, 4C5.
2. (Figure 1) Install a 36” roll of Bond media, with at least 7/8 remaining on it, in Roll 1.
3. Print three prints, 36” in length, of Test Pattern 1. Measure the average length of the three prints (measurement A).
4. Remove the paper from Roll 1.
5. (Figure 2) Install a 36” roll of Bond media, with a maximum of 3/8 remaining on it, in Roll 1.
6. Print three prints of Test Pattern 1 that are 36” long. Measure the average length of the three prints (measurement B).
7. Calculate the difference between measurement A and measurement B. Only the absolute difference, positive or negative matters.
8. Check Table 1 and locate the row that matches the paper that is left on the second roll (approximately 1/8, 2/8, or 3/8).
   a. Follow that row until you reach the column that contains the range you calculated between (A) and (B).
   b. Note the value at the top of that column.
9. Enter diagnostic code 4-C2. Enter the value at the top of that column.
10. Repeat the above steps as needed for Roll 2, Roll 3, and Roll 4 using the NVM locations shown in Table 2.

Remaining amount of paper on emptier/smaller roll	Setting for NVM value 4C2, 4C3, 4C4, 4C5			
	NVM Value 0	NVM value 1	NVM value 2	NVM value 3
3 / 8	0.0 to 0.5 mm	0.5 to 1.5 mm	1.5 to 2.5 mm	2.5 to 3.5 mm
2 / 8	0.0 to 0.6 mm	0.6 to 1.8 mm	1.8 to 3.0 mm	3.0 to 4.2 mm
1 / 8	0.0 to 0.7 mm	0.7 to 2.1 mm	2.1 to 3.5 mm	3.5 to 4.9 mm

Table 1

Roll	NVM Location for End-of-Roll Compensation
1	4C2
2	4C3
3	4C4
4	4C5

Table 2

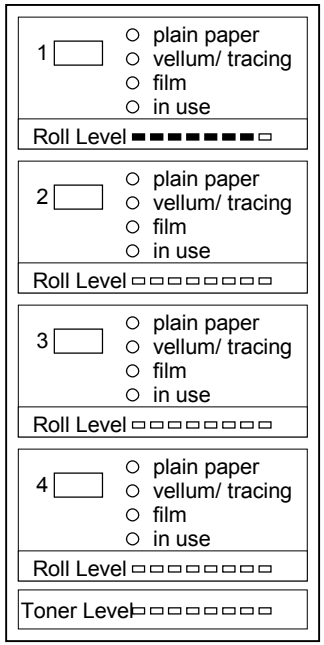


Figure 1 Roll 1 Level of 7/8

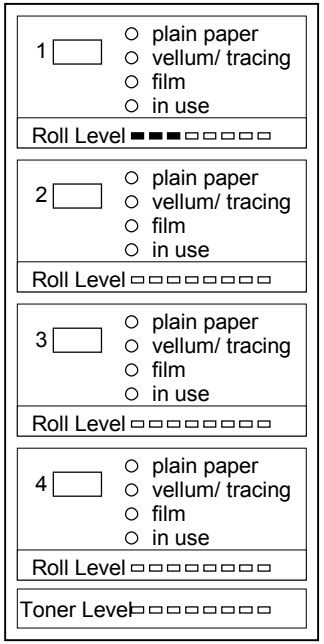


Figure 2 Roll 1 Level of 3/8

ADJ 6.8.1 Upper Drawer Rails

Purpose

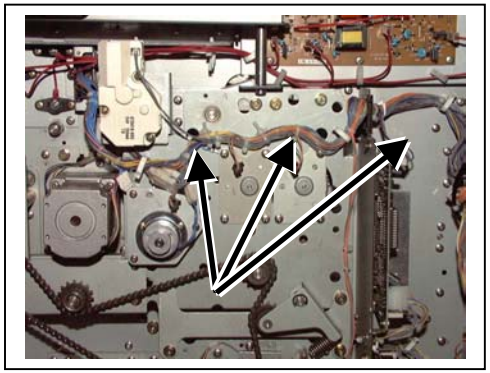
The purpose is to ensure that the Upper Drawer operates smoothly.

WARNING

Turn off the Main Switch to allow the Developer Unit to release from its ON position. Switch off the Main Circuit Breaker. Disconnect the Power Cord.

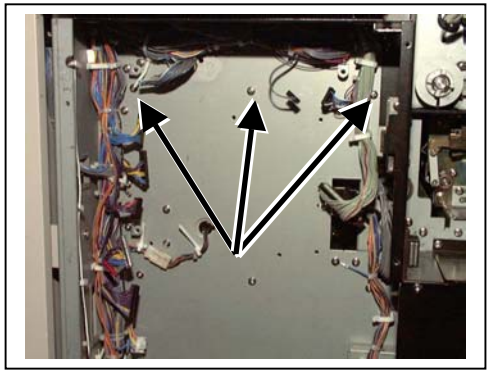
Adjustment

1. Remove the Left Side Cover.
2. Loosen the three Rail Attaching Screws through round holes (about one revolution).

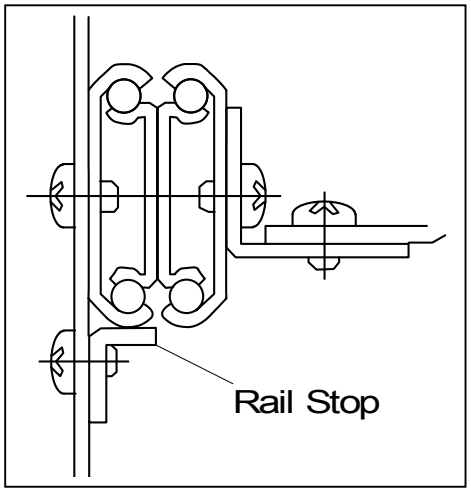


3. Open the Left Hand Door and the Right Hand Door. Remove the Shield Plate. Disconnect 15 connectors, remove six Screws, and remove the DC Controller.

4. Loosen the three Rail Attaching Screws (about one revolution).



5. Loosen the Rail Stop Screws (both sides).



6. Gently push in the Upper Drawer, and then loosen the Rail Attaching Screws an additional three turns.
7. Lift up Upper Drawer Door while tightening the Rail Attaching Screws.
8. Adjust the Rail Stop so that it securely supports the rail and secure it. Be sure to secure both stops.
9. Check that the Drawer operates smoothly. If not, repeat the adjustment.

ADJ 6.8.2 Middle Drawer Rails

Purpose

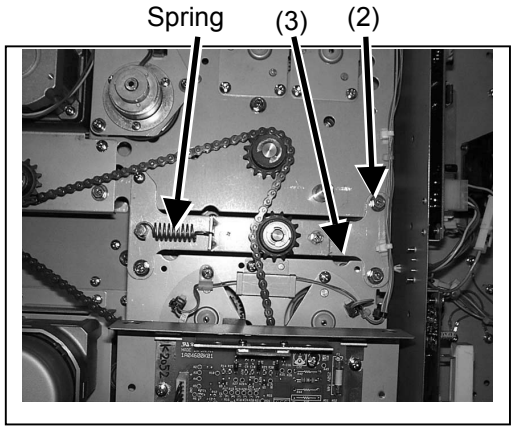
The purpose is to ensure that the Middle Drawer operates smoothly.

WARNING

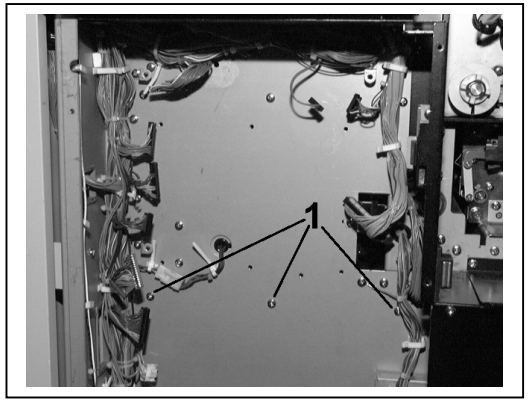
Turn off the Main Switch to allow the Developer Unit to release from its ON position. Switch off the Main Circuit Breaker. Disconnect the Power Cord.

Adjustment

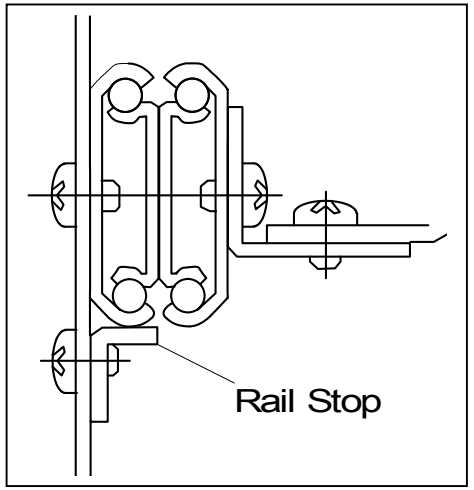
1. Remove two Screws, and remove the Left Side Cover.
2. Remove the Spring, four Screws (2), remove the Supporting Plate (3).
3. Loosen the three Rail Attaching Screws (4) (about one revolution).



4. Open Left Hand Door and remove the Shield Plate.
5. Disconnect 15 connectors, remove six Screws, and remove the DC Controller.
6. Loosen the three Rail Attaching Screws (1) (about one revolution).



7. Loosen the Rail Stop Screws (both sides).



8. Gently push in the Middle Drawer, and then loosen the Rail Attaching Screws an additional three turns.
9. Lift up Middle Drawer Door while tightening the Rail Attaching Screws.
10. Adjust the Rail Stop so that it securely supports the rail and secure it. Be sure to secure both stops.
11. Check that the Drawer operates smoothly. If not, repeat the adjustment.

ADJ 6.8.3 Lower Drawer Rails

Purpose

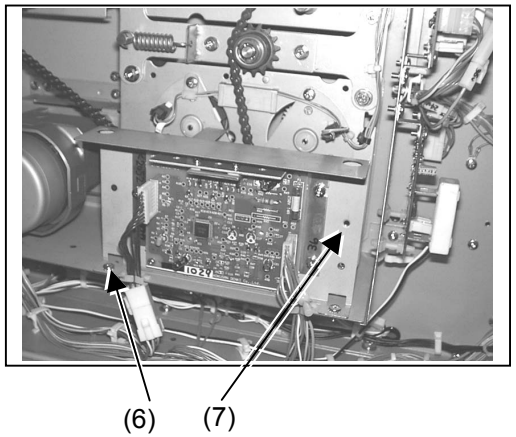
The purpose is to ensure that the Lower Drawer operates smoothly.

WARNING

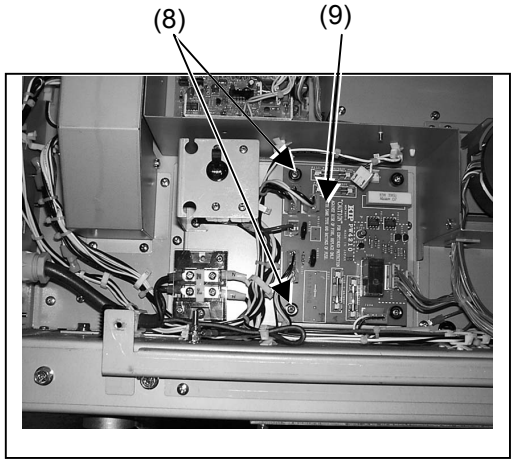
Turn off the Main Switch to allow the Developer Unit to release from its ON position. Switch off the Main Circuit Breaker. Disconnect the Power Cord.

Adjustment

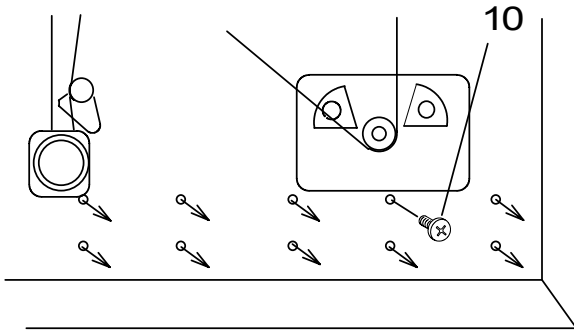
1. Remove two Screws, and remove the Left Side Cover.
2. Loosen two Screws (6), and remove the PWB Bracket (7).



3. Remove two Screws (8), and remove the PWB Bracket (9) of PW4210.

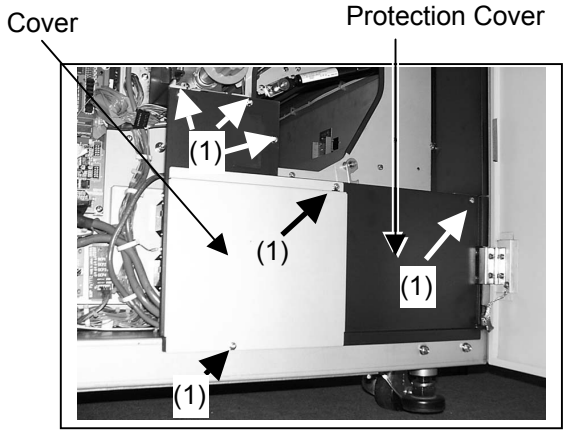


4. Loosen the ten Rail Attaching Screws (10) (about one revolution).

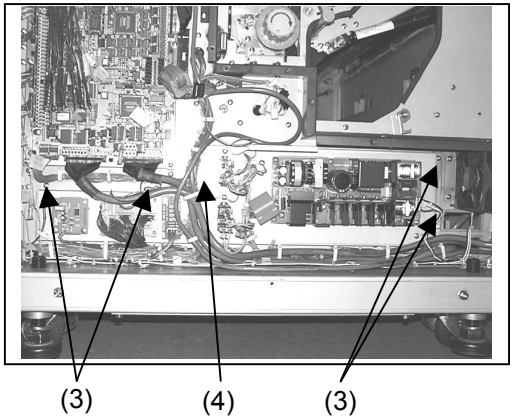


5. Open the Left Hand Door and Right hand Door and remove the Shield Plate.

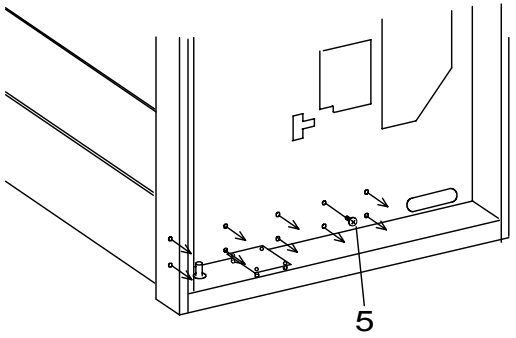
6. Remove six Screws (1), and remove the Cover and Protection Cover.



7. Remove four Screws (3) and a connector, then remove the Electric Base (4).



8. Loosen ten Rail Attaching Screws (5) (about one revolution).



9. Gently push in the Lower Drawer, and then loosen the Rail Attaching Screws an additional three turns.
10. Lift up Lower Drawer Door while tightening the Rail Attaching Screws.
11. Check that the Drawer operates smoothly. If not, repeat the adjustment.

ADJ 6.8.4 Cutter Home Position

Purpose

The purpose is to eliminate paper slivers or poor cutting by placing the Cutter Blade in the correct position.

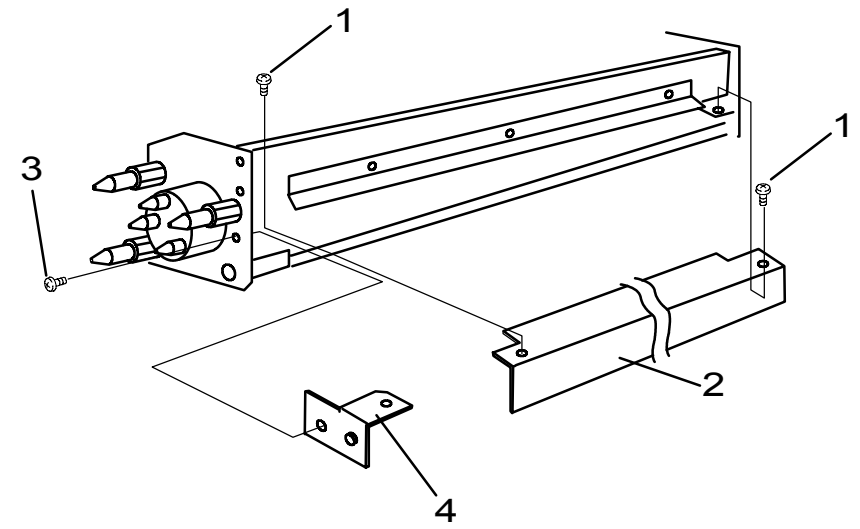
WARNING

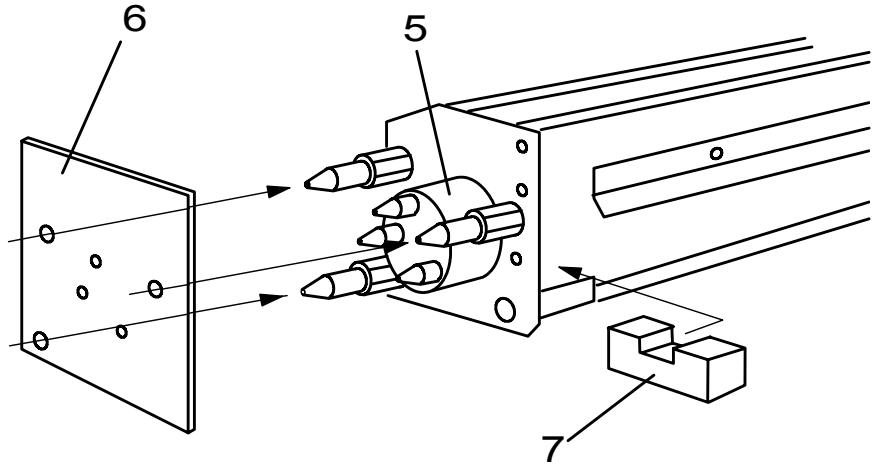
Turn off the Main Switch to allow the Developer Unit to release from its ON position. Switch off the Main Circuit Breaker. Disconnect the Power Cord.

Adjustment

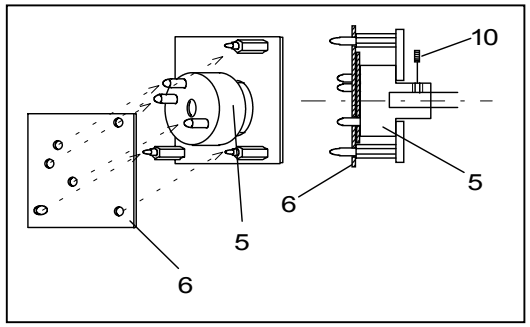
1. Pull out Drawer 2.
2. Remove the Cutter Assembly and lay it on a flat surface (REP 4.1.1).
3. Remove the two screws (1) and the Lower Paper Guide (2).
4. Remove the screw (3) and the bracket (4).
5. Remove the Oil Pad (REP 4.2.2).
6. Loosen two Set Screws of the Joint (5).
7. Insert the HP Adjustment tool 1 (6) to the studs firmly.
8. Insert the HP Adjustment tool 2 (7).

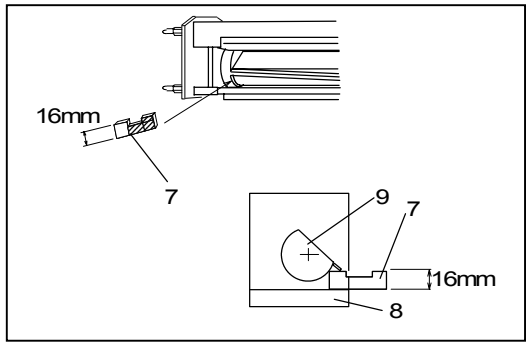
Part Name: HP Adjustment Tool 1.
(P/N: 3508560021)
Part Name: HP Adjustment tool 2
(P/N: 3108500020)





8. Turn the Cutter Handle, and make the bottom edge of the rotary blade touch to the “HP Adjustment Tool 2” (7) as shown below, so as the gap between Stay (8) and the bottom edge of the Rotary Blade (9) becomes 16mm. Then fasten one of the two Set Screws (10) of the Joint firmly. Do not remove the “HP Adjustment Assembly” and the “HP Adjustment Tool 2” until the Joint is fastened tightly.



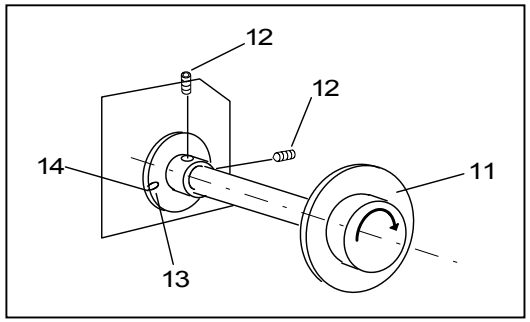


***Note**: Remove the “HP Adjustment Assembly” and the “HP Adjustment Tool 2” after one of the two Set Screws is fastened tightly, then fasten both of Set Screws tightly using pliers.*

9. Insert the “HP Adjustment Assembly” again, loosen two Set Screws (12) of the Cutter Handle (11).
10. When the cutting area (13) matches green (14), fasten two Set Screws (12).

***Note**: When turning the Cutter Handle, view the small cutout near the right side of the knob. If the Cutter is correctly adjusted, the color of this cut out should change from orange to green as the knob is rotated fully clockwise into the Home Position.*

11. Remove the “HP Adjustment Assembly” and reassemble with the reverse order.

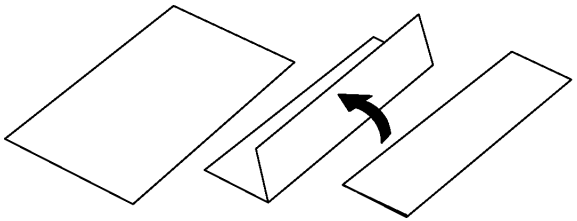


ADJ 6.8.5 Cut Angle

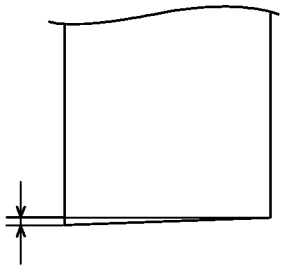
Purpose

To ensure that the paper is cut at a right angle after the Cutter Unit is replaced.

1. In order to confirm whether it is cut in a right angle, make a test print of Test Pattern #1 that is 36” (914.4mm) long. Fold it along the long side.

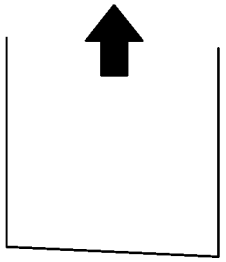


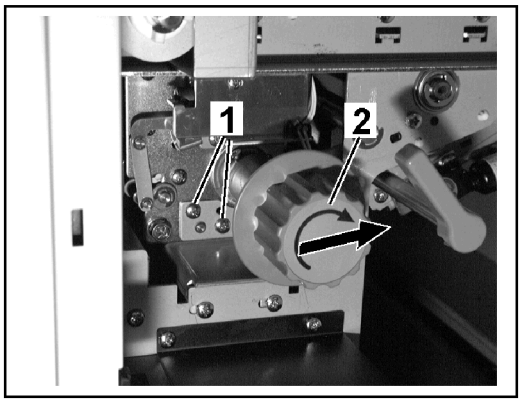
2. Measure the mismatching distance of two corners.



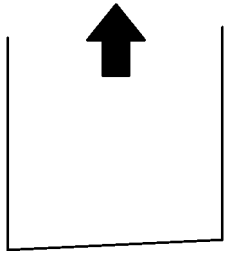
3. That should be less than 2.7 mm.

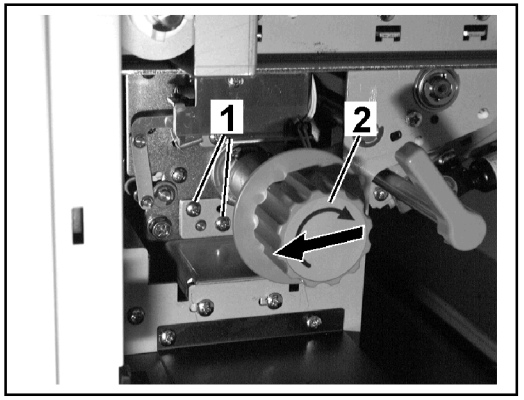
4. If it is out of specification, loosen the two screws (1), holding the knob (2), and slide the Cutter Unit right or left.
5. If the right end is longer than left, shift it to right.





6. If the left end is longer than right, shift it to left.





5. Parts List

Introduction

Overview

The Parts List section identifies all part numbers and the corresponding location of all spared subsystem components.

Organization

Parts Lists

Each item number in the part number listing corresponds to an item number in the related illustration. All the parts in a given subsystem of the machine will be located in the same illustration or in a series of associated illustrations.

Electrical Connectors and Fasteners

This section contains the illustrations and descriptions of the plugs, jacks, and fasteners used in the machine. A part number listing of the connectors is included.

Common Hardware

The common hardware is listed in alphabetical order by the letter or letters used to identify each item in the part number listing and in the illustrations. Dimensions are in millimeters unless otherwise identified.

Part Number Index

This index lists all the spared parts in the machine in numerical order. Each number is followed by a reference to the parts list on which the part may be found.

Other Information

Abbreviations

Abbreviations are used in the parts lists and the exploded view illustrations to provide information in a limited amount of space. The following abbreviations are used in this manual:

Table 1

Abbreviation	Meaning
A3	297 x 594 Millimeters
A4	210 x 297 Millimeters
A5	148 x 210 Millimeters
AD	Auto Duplex
AWG	American Wire Gauge
EMI	Electro Magnetic Induction
GB	Giga Byte
KB	Kilo Byte
MB	Mega Byte
MM	Millimeters
MOD	Magneto Optical Drive
NOHAD	Noise Ozone Heat Air Dirt
PL	Parts List
P/O	Part of

Table 1

Abbreviation	Meaning
R/E	Reduction/Enlargement
REF:	Refer to
SCSI	Small Computer Systems Interface
W/	With
W/O	Without

Table 2

	Operating Companies
Abbreviation	**Meaning**
AO	Americas Operations
NASG - US	North American Solutions Group - US
NASG - Canada	North American Solutions Group - Canada
XE	Xerox Europe

Symbology

Symbology used in the Parts List section is identified in the Symbology section.

Service Procedure Referencing

If a part or assembly has an associated repair or adjustment procedure, the procedure number will be listed at the end of the part description in the parts lists e.g. (REP 5.1, ADJ 5.3)

Subsystem Information

Use of the Term “Assembly”

The term “assembly” will be used for items in the part number listing that include other itemized parts in the part number listing. When the word “assembly” is found in the part number listing, there will be a corresponding item number on the illustrations followed by a bracket and a listing of the contents of the assembly.

Brackets

A bracket is used when an assembly or kit is spared, but is not shown in the illustration. The item number of the assembly or kit precedes the bracket; the item numbers of the piece parts follow the bracket.

Tag

The notation “W/Tag” in the parts description indicates that the part configuration has been updated. Check the change Tag index in the General Information section of the Service Data for the name and purpose of the modification.

In some cases, a part or assembly may be spared in two versions: with the Tag and without the Tag. In those cases, use whichever part is appropriate for the configuration of the machine on which the part is to be installed. If the machine does not have a particular Tag and the only replacement part available is listed as “W/Tag”, install the Tag kit or all of the piece parts. The Change Tag Index tells you which kit or piece parts you need.

Whenever you install a Tag kit or all the piece parts that make up a Tag, mark the appropriate number on the Tag matrix.

Symbology

A Tag number within a circle pointing to an item number shows that the part has been changed by the tag number within the circle (Figure 1). Information on the modification is in the Change Tag Index.

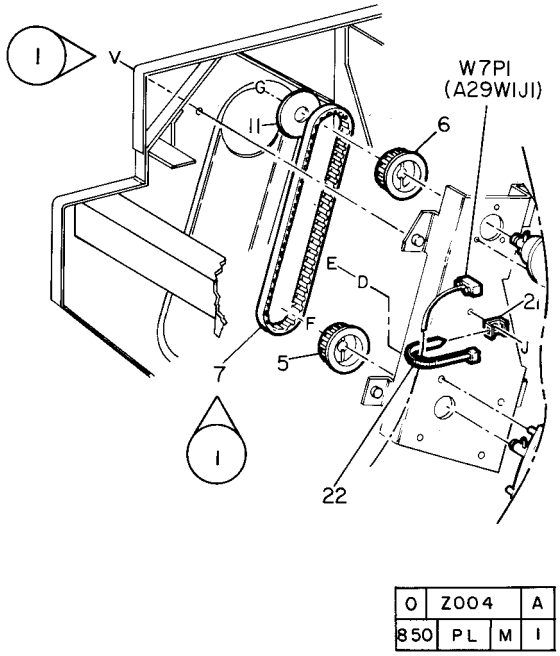


Figure 1 With Tag Symbol

A Tag number within a circle having a shaded bar and pointing to an item number shows that the configuration of the part shown is the configuration before the part was changed by the Tag number within the circle (Figure 2).

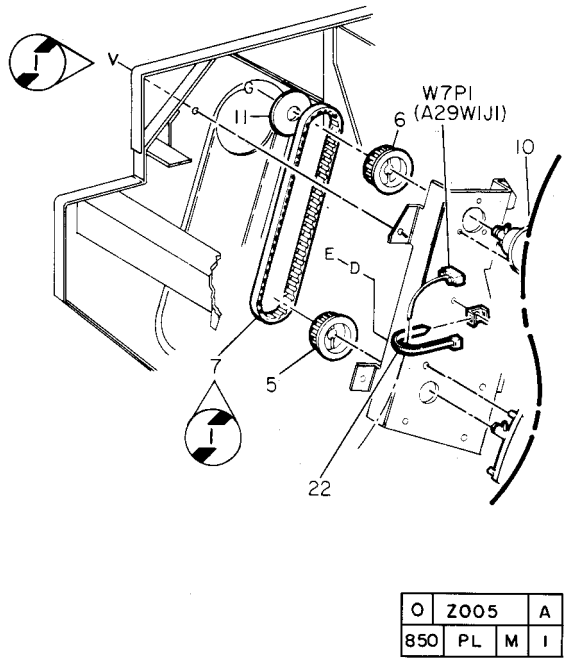


Figure 2 Without Tag Symbol

A tag number within a circle with no apex shows that the entire drawing has been changed by the tag number within the circle (Figure 3). Information on the modification is in the Change Tag Index.

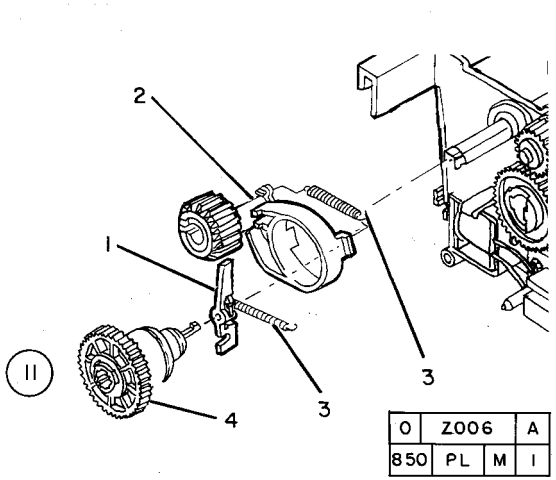


Figure 3 Entire Drawing With Tag Symbol

A tag number within a circle with no apex and having a shaded bar shows that the entire drawing was the configuration before being changed by the tag number within the circle (Figure 4).

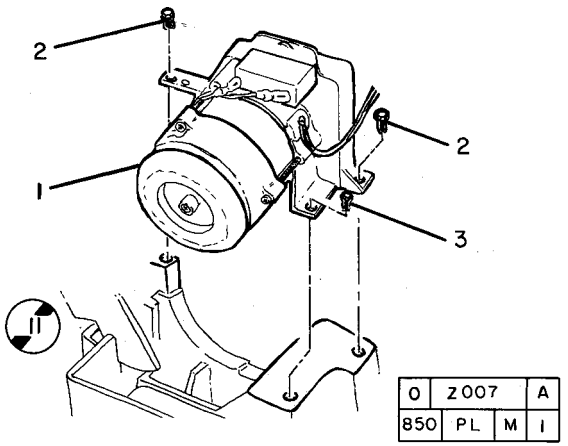
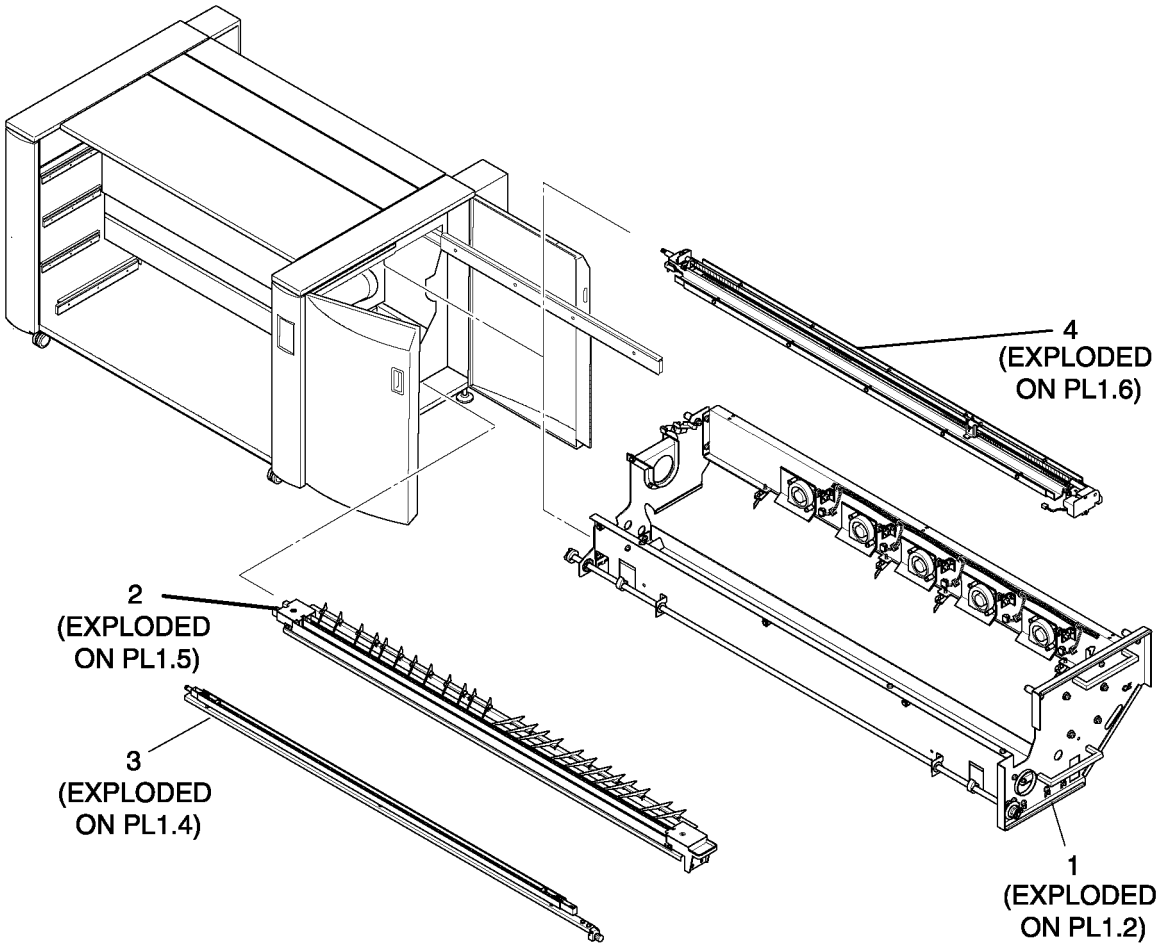


Figure 4 Entire Drawing Without Tag Symbol

PL 1.1 Xerographic Components

Item	Part	Description
1	–	Xerographic Module (Not Spared)
2	105N01999	Transfer/Detach Corotron Assembly
3	105N01998	Pretransfer Lamp Assembly
4	105N01997	Charge Scorotron Assembly



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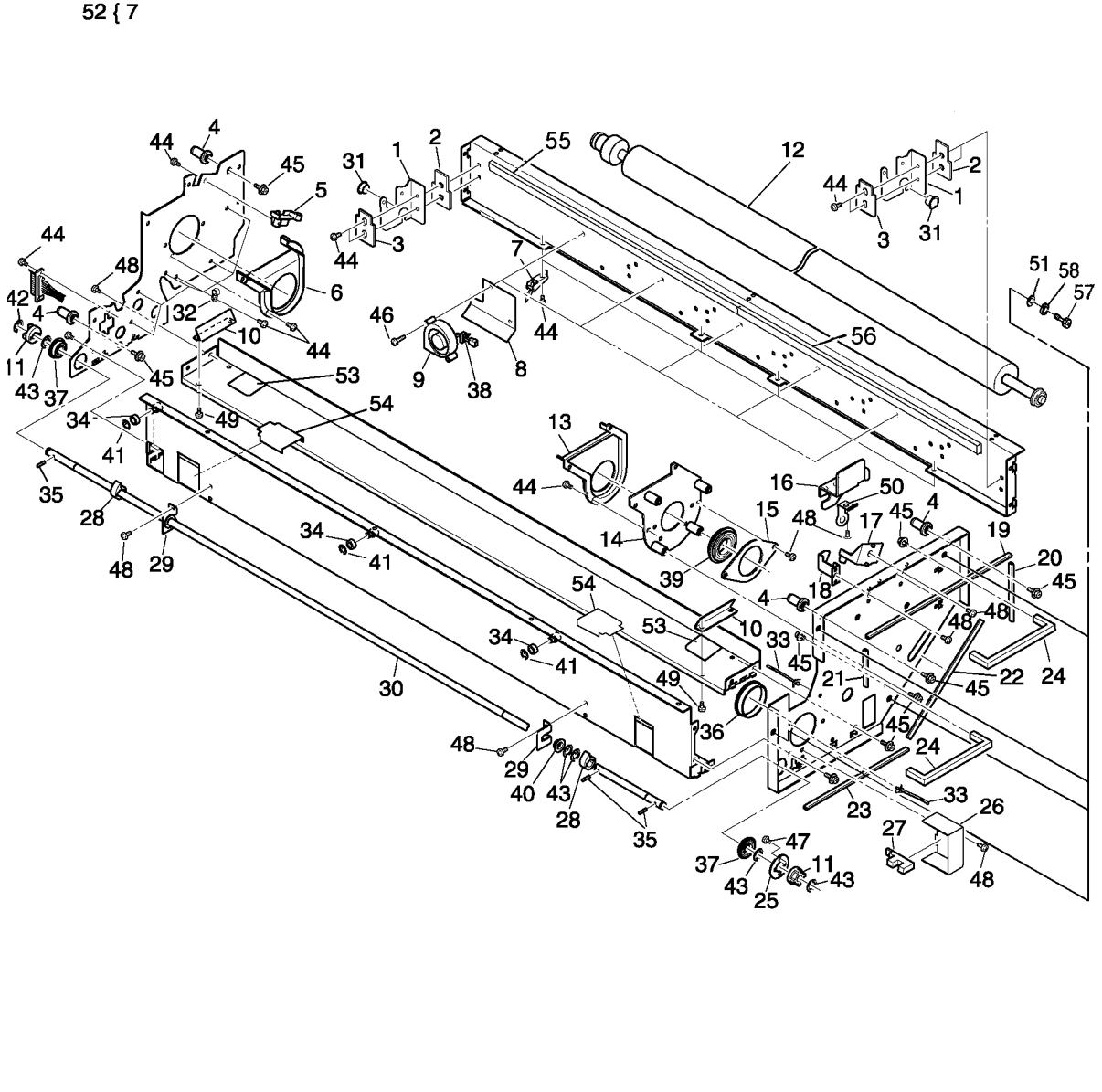
PL 1.2 Xerographic Module

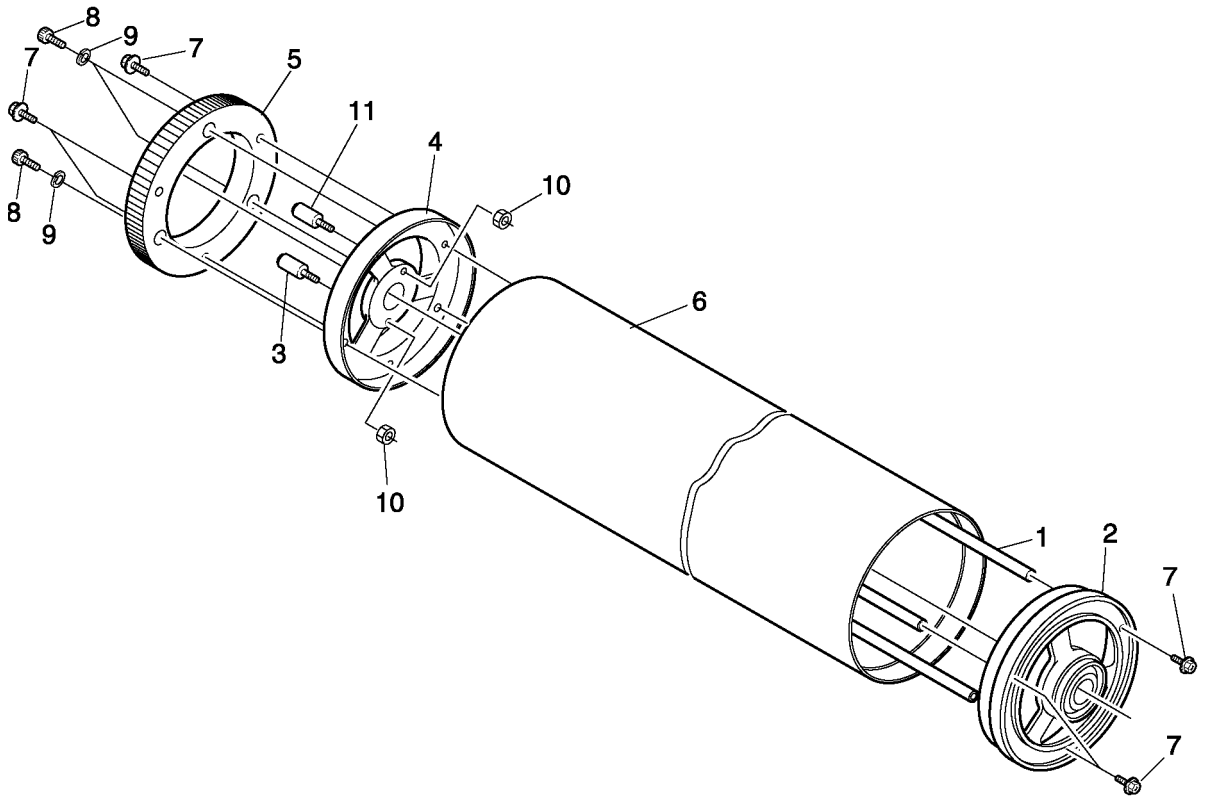
Item	Part	Description
1	–	Bracket (P/O PL 1.1 Item 1)
2	–	Spacer (P/O PL 1.1 Item 1)
3	–	Clamp (P/O PL 1.1 Item 1)
4	–	Pin (P/O PL 1.1 Item 1)
5	030N00635	Corona Bracket (Rear)
6	020N00726	Drum Guide
7	–	Stripper Finger (P/O PL 1.2 Item 52)
8	–	Bracket (P/O PL 1.1 Item 1)
9	127N01428	Separation Blower (BL12, BL13, BL14, BL15, BL16)
10	–	Block (P/O PL 1.1 Item 1)
11	005N00807	Coupling
12	022N01601	Cleaning Roller
13	–	Drum Guide (P/O PL 1.1 Item 1)
14	–	Inside Plate (P/O PL 1.1 Item 1)
15	–	Bracket (P/O PL 1.1 Item 1)
16	–	Bracket (P/O PL 1.1 Item 1)
17	030N00634	Corona Bracket (Front)
18	–	Drum Guide (P/O PL 1.1 Item 1)
19	–	Seal (P/O PL 1.1 Item 1)
20	–	Seal (P/O PL 1.1 Item 1)
21	–	Seal (P/O PL 1.1 Item 1)
22	–	Seal (P/O PL 1.1 Item 1)
23	–	Seal (P/O PL 1.1 Item 1)
24	–	Handle (P/O PL 1.1 Item 1)
25	–	Plate (P/O PL 1.1 Item 1)
26	–	Bracket (P/O PL 1.1 Item 1)
27	064N00018	Developer Position Sensor (Q25)
28	008N01733	Cam
29	–	Holder (P/O PL 1.1 Item 1)
30	–	Shaft (P/O PL 1.1 Item 1)
31	–	Bushing (P/O PL 1.1 Item 1)
32	–	Clamp (P/O PL 1.1 Item 1)
33	–	Binder (P/O PL 1.1 Item 1)
34	–	Collar (P/O PL 1.1 Item 1)
35	–	Pin (P/O PL 1.1 Item 1)
36	–	Bushing (P/O PL 1.1 Item 1)
37	013N00269	Bearing
38	–	Clamp (P/O PL 1.1 Item 1)
39	013N13804	Bearing
40	–	Bearing (P/O PL 1.1 Item 1)
41	–	E-Ring (P/O PL 1.1 Item 1)
42	–	E-Ring (P/O PL 1.1 Item 1)
43	–	E-Ring (P/O PL 1.1 Item 1)
44	–	Screw (P/O PL 1.1 Item 1)
45	–	Hex Head Bolt (P/O PL 1.1 Item 1)
46	–	Screw (P/O PL 1.1 Item 1)
47	–	Screw (P/O PL 1.1 Item 1)
48	–	Screw (P/O PL 1.1 Item 1)
49	–	Screw (P/O PL 1.1 Item 1)
50	015N00489	Ground Plate
51	–	Flat Washer (P/O PL 1.1 Item 1)
52	600N01780	Stripper Finger Kit (4/Kit)
53	–	Spacer (P/O PL 1.1 Item 1)
54	–	Spacer (P/O PL 1.1 Item 1)
55	122N00225	Erase Lamp PWB 1
56	122N00226	Erase Lamp PWB 2
57	026N00738	Screw
58	009N01450	Spring Washer



PL 1.3 Drum Assembly

Item	Part	Description
1	–	Tie Rod (P/O PL 1.3 Item 12)
2	–	End Bell (P/O PL 1.3 Item 12)
3	–	Drive Pin (P/O PL 1.3 Item 12)
4	–	End Bell (P/O PL 1.3 Item 12)
5	007N01189	Drum Gear (178T)
6	144N00116	Drum
7	–	Hex Head Bolt (P/O PL 1.3 Item 12)
8	–	Screw (P/O PL 1.3 Item 12)
9	–	Spring Washer (P/O PL 1.3 Item 12)
10	–	Hex Nut (P/O PL 1.3 Item 12)
11	–	Drive Pin (P/O PL 1.3 Item 12)
12	600N01781	Drum Kit

12 { 1-4, 7-11



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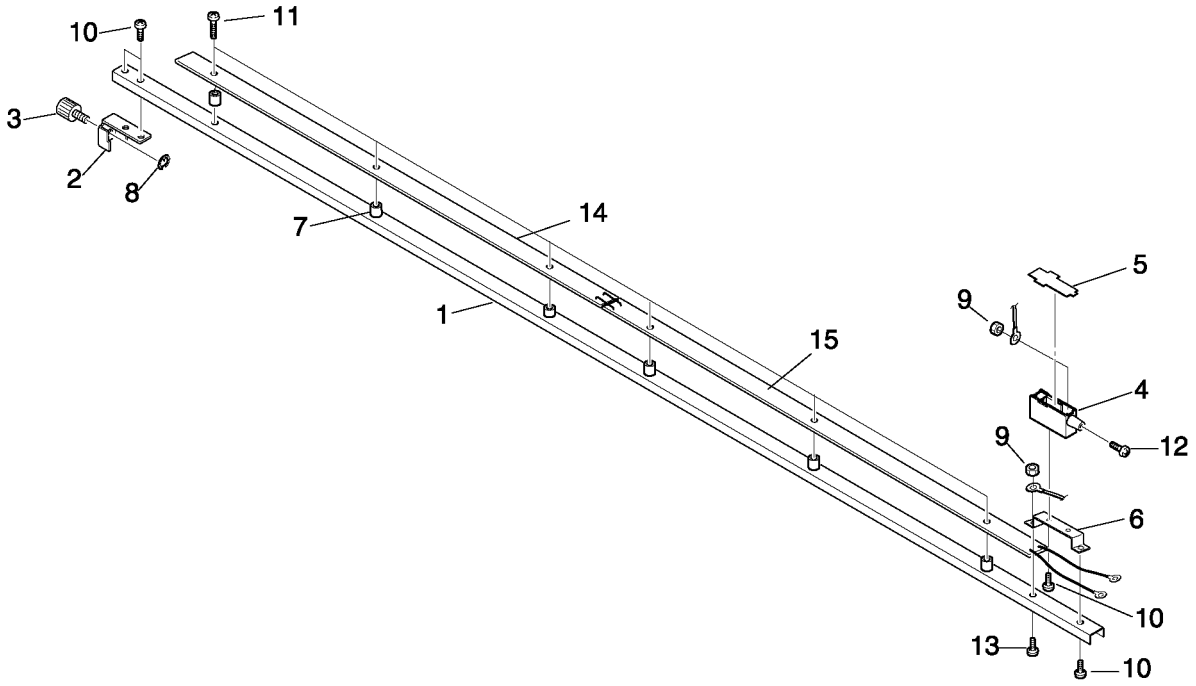
PL 1.4 Pretransfer Lamp Assembly

Item	Part	Description
1	–	Base (P/O PL 1.1 Item 3)
2	–	Plate (P/O PL 1.1 Item 3)
3	–	Knob (P/O PL 1.1 Item 3)
4	–	Holder (P/O PL 1.1 Item 3)
5	–	Cover (P/O PL 1.1 Item 3)
6	–	Bracket (P/O PL 1.1 Item 3)
7	–	Collar (P/O PL 1.1 Item 3)
8	–	E-Ring (P/O PL 1.1 Item 3)
9	–	Hex Nut (P/O PL 1.1 Item 3)
10	–	Screw (P/O PL 1.1 Item 3)
11	–	Screw (P/O PL 1.1 Item 3)
12	–	Screw (P/O PL 1.1 Item 3)
13	–	Screw (P/O PL 1.1 Item 3)
14	–	Pretransfer Lamp 1 (P/O PL 1.1 Item 3)
15	–	Pretransfer Lamp 2 (P/O PL 1.1 Item 3)



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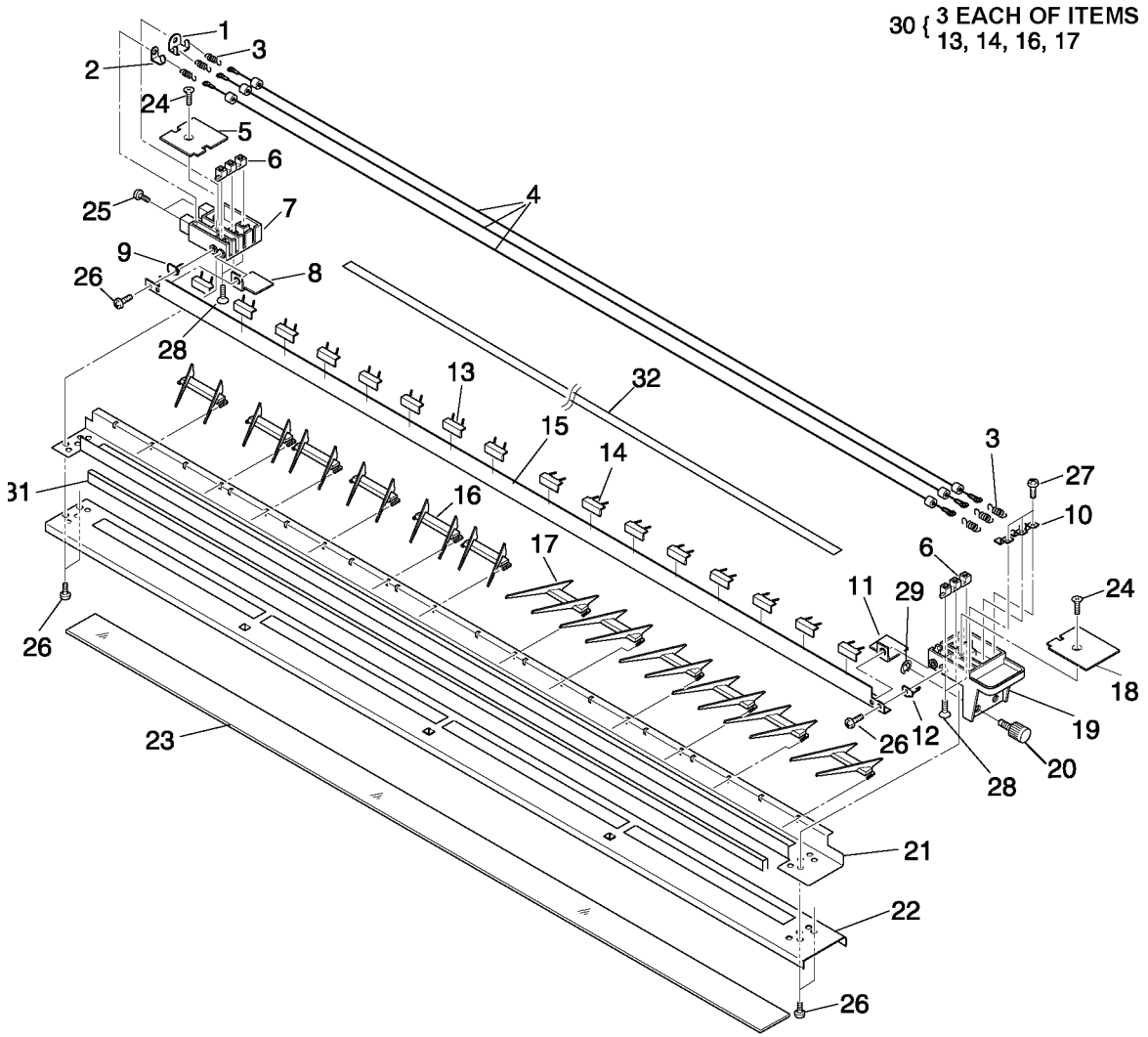
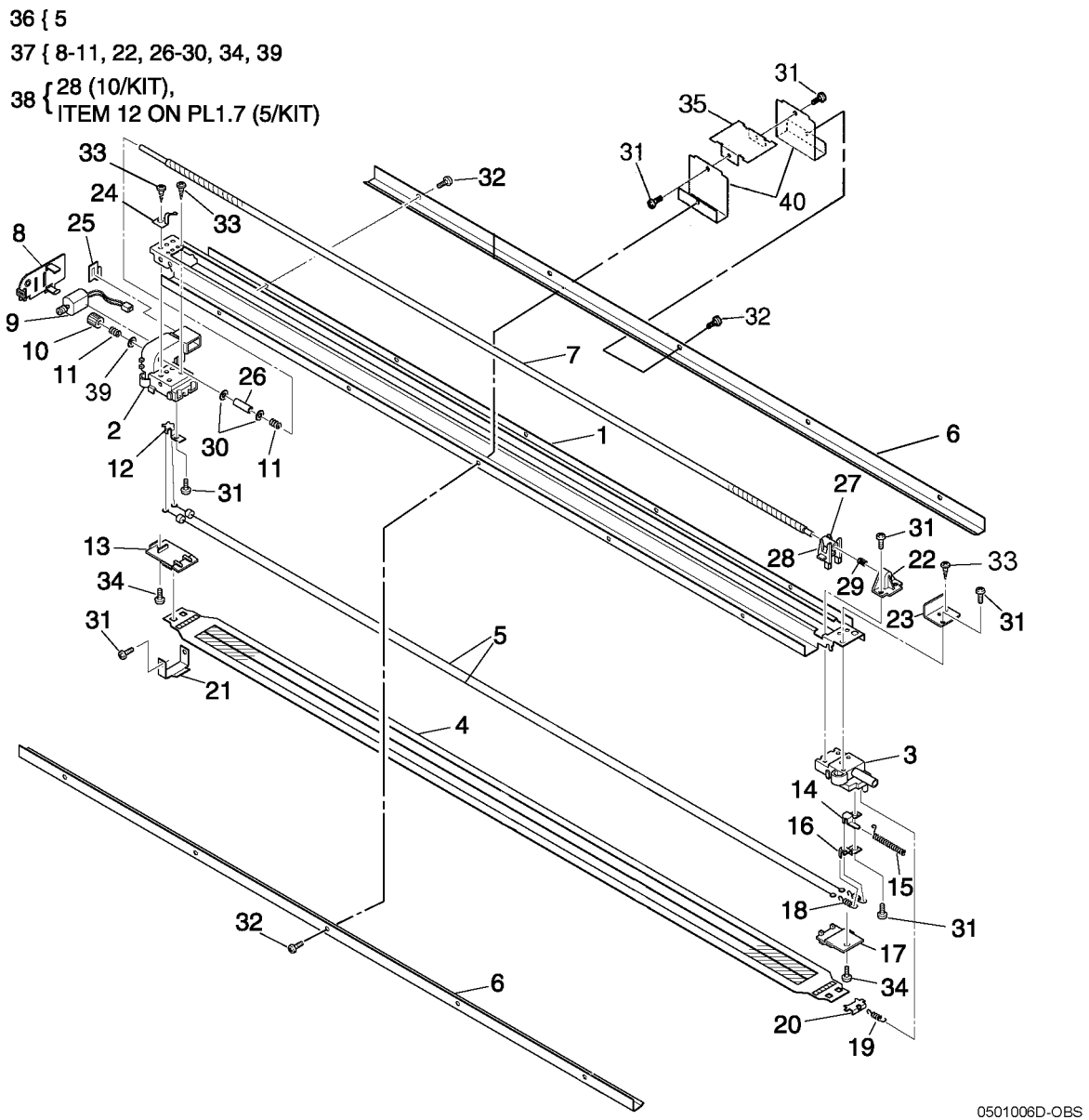
PL 1.5 Transfer/Detach Corotron Assembly

Item	Part	Description
1	–	Hook (P/O PL 1.1 Item 2)
2	–	Hook (P/O PL 1.1 Item 2)
3	009N00852	Wire Spring Kit (6/Kit)
4	117N01146	Corotron Wire Kit (3/Kit)
5	–	Cover (P/O PL 1.1 Item 2)
6	–	Height Adjuster (P/O PL 1.1 Item 2)
7	125N00052	Holder (P/O PL 1.1 Item 2)
8	014N00423	Spacer
9	091N00424	Ground Plate
10	–	Hook (P/O PL 1.1 Item 2)
11	014N00422	Spacer
12	091N00423	Ground Plate
13	–	Guide (P/O PL 1.5 Item 30)
14	–	Guide (P/O PL 1.5 Item 30)
15	–	Housing (P/O PL 1.1 Item 2)
16	–	Guard (P/O PL 1.5 Item 30)
17	–	Guard (P/O PL 1.5 Item 30)
18	–	Cover (P/O PL 1.1 Item 2)
19	125N00051	Holder (P/O PL 1.1 Item 2)
20	–	Knob (P/O PL 1.1 Item 2)
21	–	Holder (P/O PL 1.1 Item 2)
22	–	Base (P/O PL 1.1 Item 2)
23	–	Shield (P/O PL 1.1 Item 2)
24	–	Screw (P/O PL 1.1 Item 2)
25	–	Screw (P/O PL 1.1 Item 2)
26	–	Screw (P/O PL 1.1 Item 2)
27	–	Screw (P/O PL 1.1 Item 2)
28	–	Screw (P/O PL 1.1 Item 2)
29	–	E-Ring (P/O PL 1.1 Item 2)
30	600N01785	Transfer Corotron Guard-Corona Guide Kit
31	120N00419	Mylar Shield
32	120N00418	Mylar Tape Shield



PL 1.6 Charge Scorotron Assembly

Item	Part	Description
1	–	Corotron Housing (P/O PL 1.1 Item 4)
2	101N01323	Front Housing
3	101N01324	Rear Housing
4	015N00498	Grid Plate (without Tag 7)
–	015N00532	Grid Plate (with Tag 7)
5	–	Corotron Wire (P/O PL 1.6 Item 36)
6	–	Bracket (P/O PL 1.1 Item 4)
7	–	Screw Shaft (P/O PL 1.1 Item 4)
8	–	Motor Cover (P/O PL 1.6 Item 37)
9	127N07247	Charge Scorotron Cleaning Motor
10	007N01232	Gear (20T)
11	009N01417	Compression Spring
12	–	Hook (P/O PL 1.1 Item 4)
13	–	Cover (P/O PL 1.1 Item 4)
14	–	Hook (P/O PL 1.1 Item 4)
15	009N01416	Tension Spring
16	–	Hook (P/O PL 1.1 Item 4)
17	101N01325	Rear Housing Cover
18	–	Spring (P/O PL 1.1 Item 4)
19	–	Grid Spring (P/O PL 1.1 Item 4)
20	–	Hook (P/O PL 1.1 Item 4)
21	–	Electrode Plate (P/O PL 1.1 Item 4)
22	–	Screw Holder (P/O PL 1.6 Item 37)
23	–	Connection Plate (P/O PL 1.1 Item 4)
24	–	Leaf Spring (P/O PL 1.1 Item 4)
25	–	Ground Plate (P/O PL 1.1 Item 4)
26	–	Tube (P/O PL 1.6 Item 37)
27	–	Slider (P/O PL 1.6 Item 37)
28	600N03210	Wire Cleaning Unit
29	009N01418	Compression Spring
30	028N00317	Flat Washer
31	–	Screw (P/O PL 1.1 Item 4)
32	026N00727	Screw
33	–	Screw (P/O PL 1.1 Item 4)
34	–	Screw (P/O PL 1.6 Item 37)
35	–	Bracket (Not Spared)
36	600N01782	Corotron Wire Kit (6/Kit)
37	600N03218	Wire Cleaning Kit (W/[TAG 5])
38	600N01784	Pad Kit
39	–	Thrust Washer (P/O PL 1.6 Item 37)
40	–	Bracket (Not Spared)



PL 1.7 LED Print Head

Item	Part	Description
1	107N00439	LED Print Head Assembly
2	–	Screw Shaft (Not Spared)
3	–	Slider (P/O PL 1.7 Item 21)
4	–	Collar (Not Spared)
5	–	Collar (Not Spared)
6	–	Holder (Not Spared)
7	–	Holder (Not Spared)
8	–	Bracket (Not Spared)
9	–	Slider (P/O PL 1.7 Item 21)
10	030N00637	Bracket
11	032N00383	Guide
12	–	Pad (P/O PL 1.6 Item 38)
13	127N07247	LED Print Head Cleaning Motor (MOT8) (Not Spared)
14	028N00317	Flat Washer
15	–	Screw (Not Spared)
16	–	Gear (Not Spared) (20T)
17	009N01418	Compression Spring
18	026N00727	Pan Head Screw
19	–	Screw (Not Spared)
20	028N00318	Retaining Ring
21	010N01179	Slider Assembly Kit (2/Kit) (W/[TAG 5])
22	–	Contact Plate (Not Spared)
23	–	Bracket (Not Spared)
24	–	Bushing (Not Spared)
25	–	Screw (Not Spared)
26	–	Flat Washer (Not Spared)
27	–	Bracket (Not Spared)
28	–	Insulator (Not Spared)
29	–	Electrode (Not Spared)
30	–	Bracket (Not Spared)
31	–	Mylar Insulation (Not Spared)
32	–	Collar (Not Spared)
33	107N00423	LED Print Head

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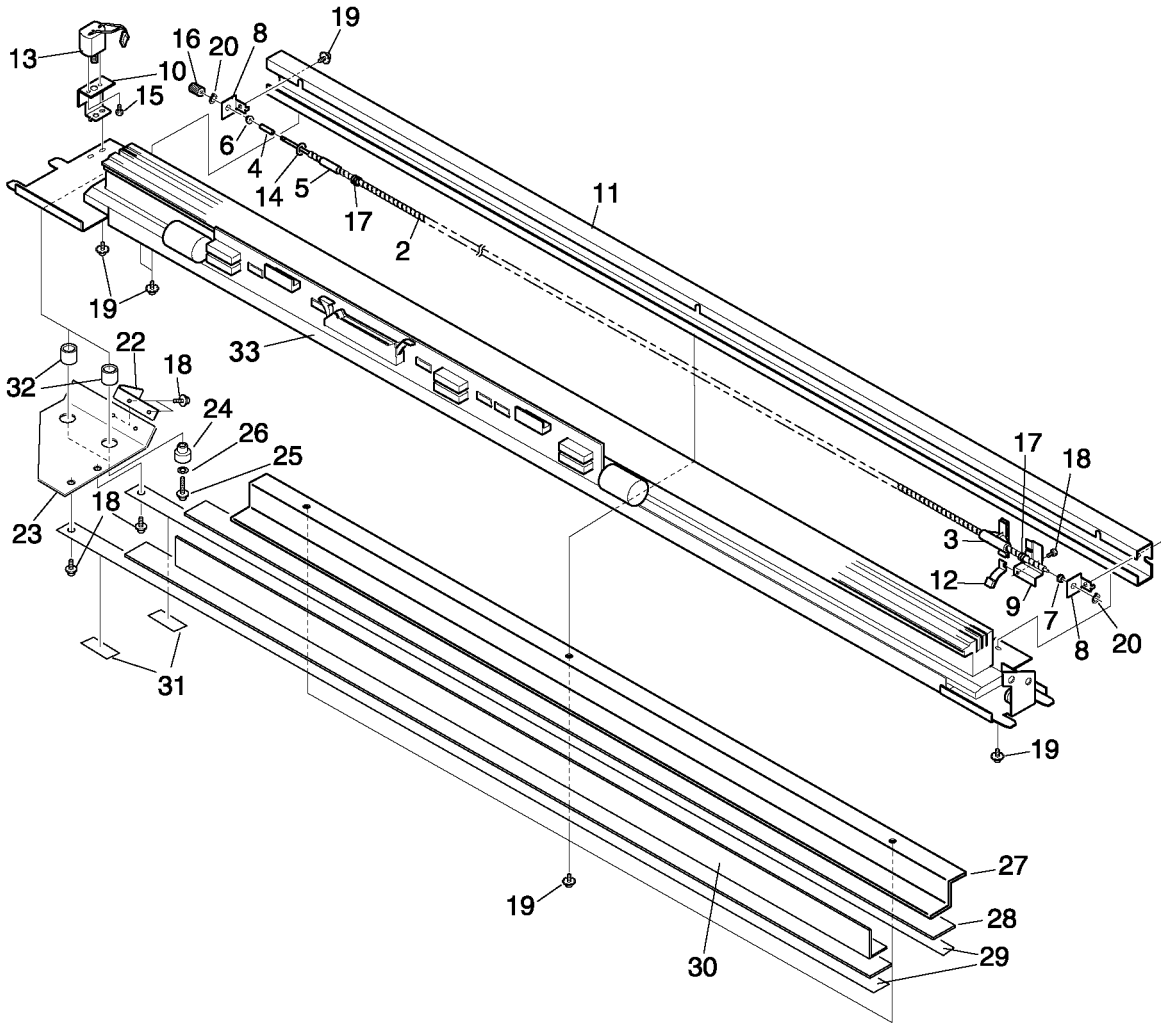
21 { 3, 9



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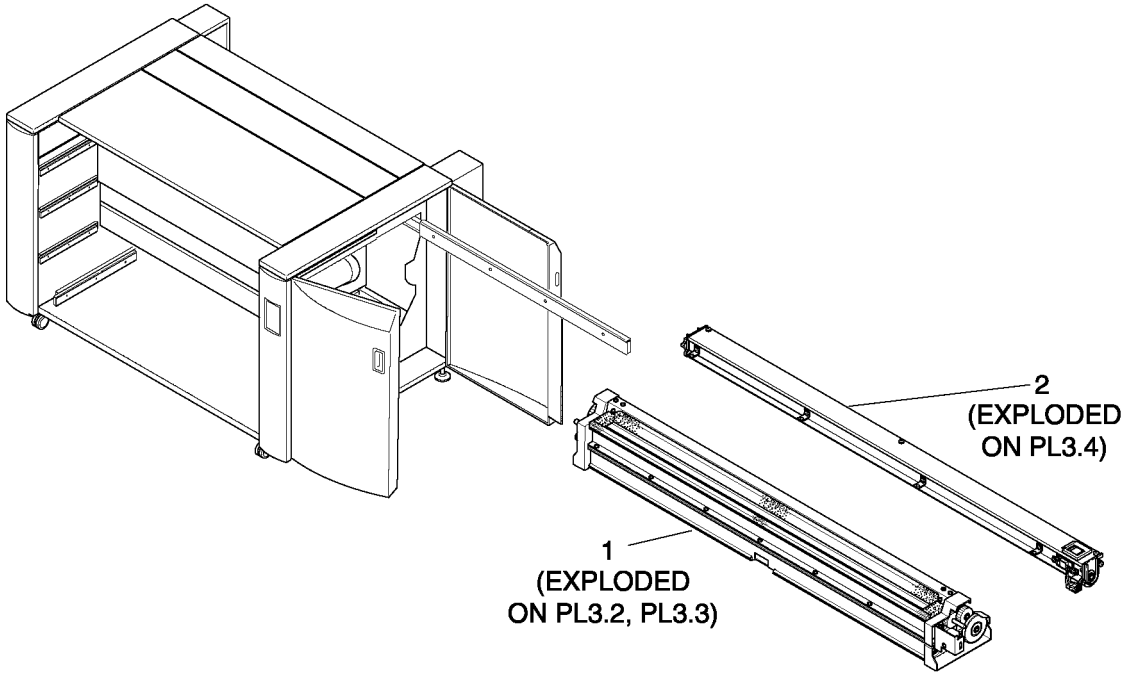
PL 3.1 Developer Assembly and Toner Hopper Assembly

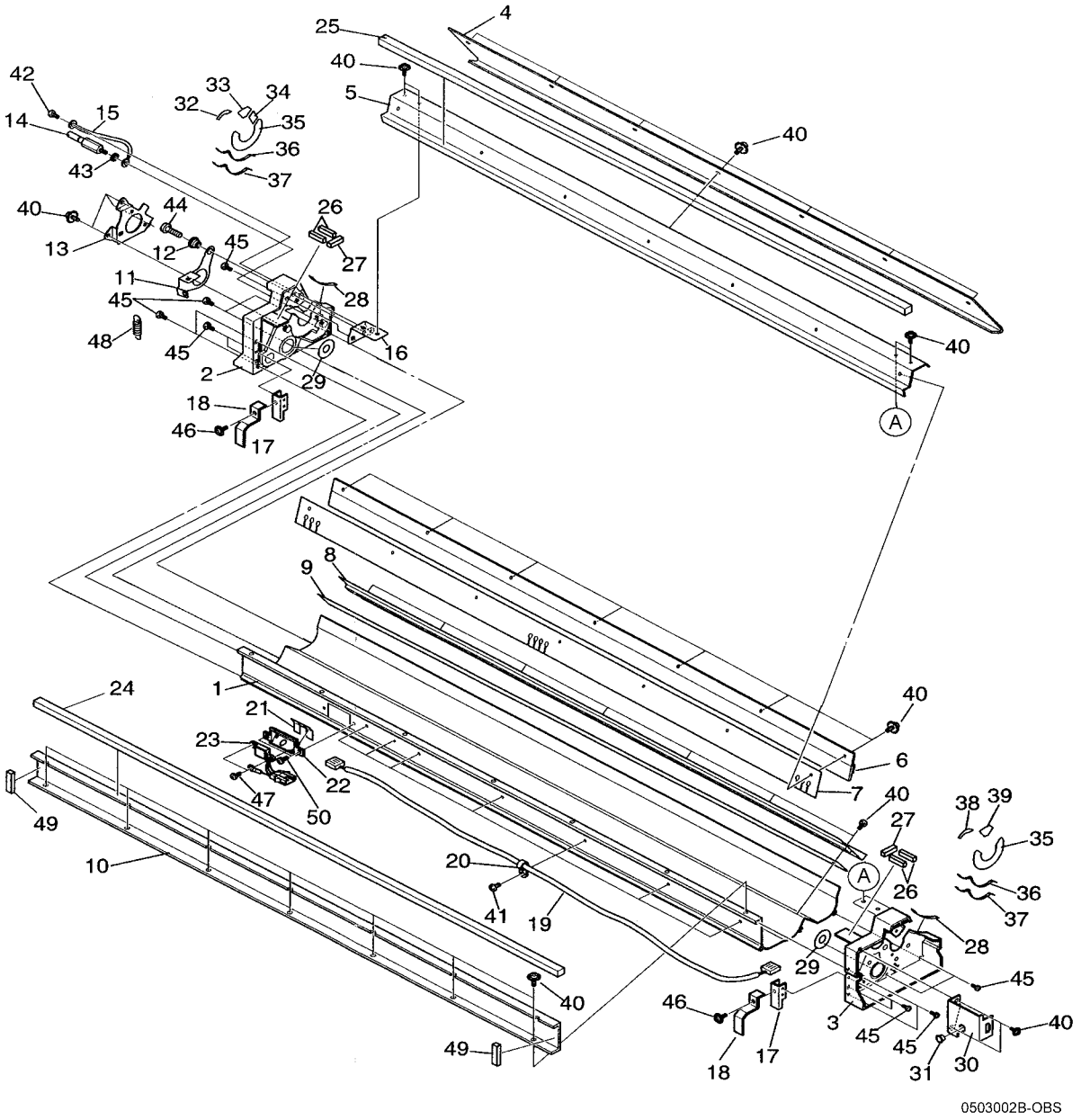
Item	Part	Description
1	121N00614	Developer Assembly
2	022N01584	Toner Hopper Assembly



0503001A-OBS

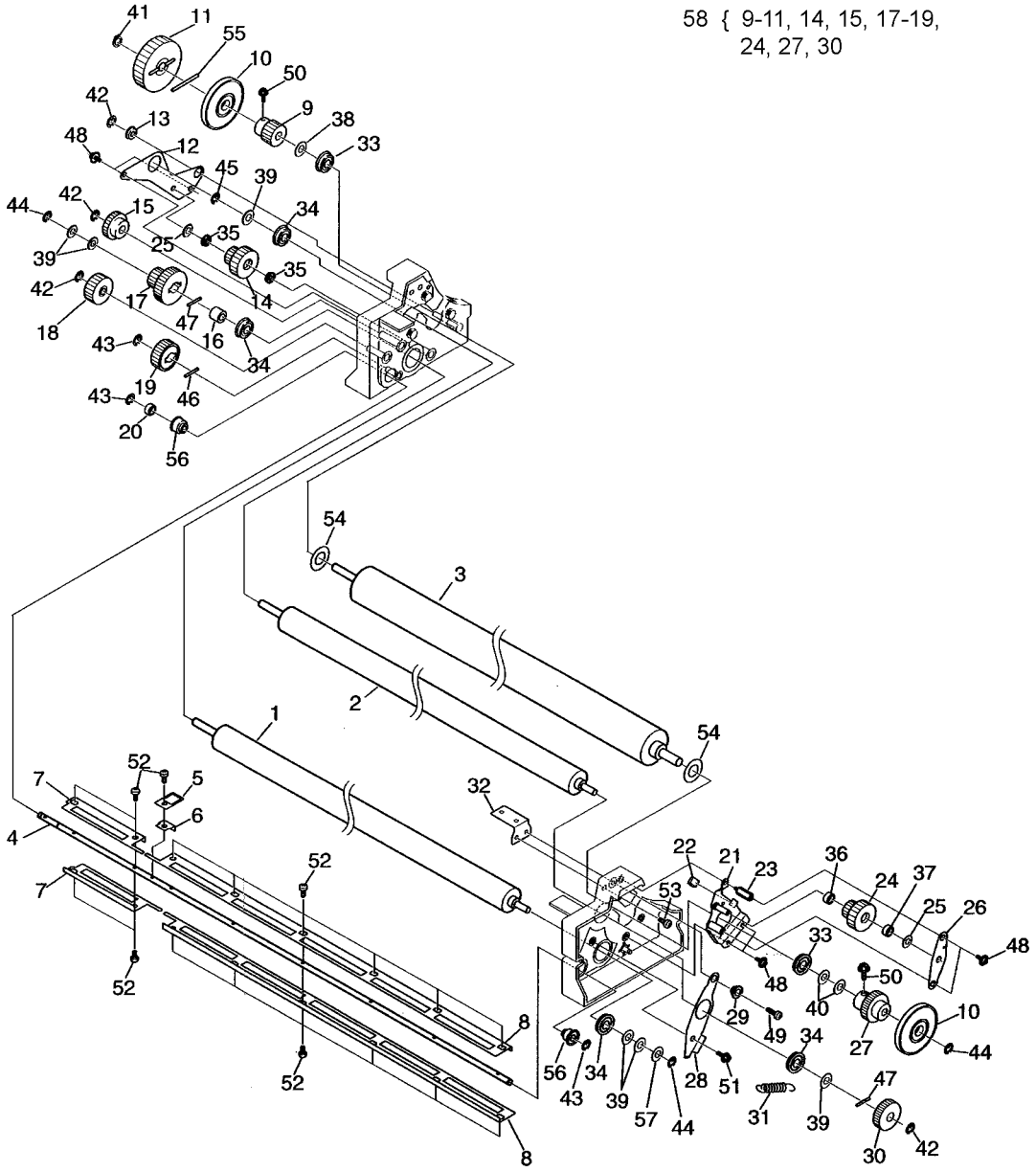
PL 3.2 Developer Components (Part 1 of 2)

Item	Part	Description
1	–	Base (Not Spared)
2	–	Side Plate A (Not Spared)
3	–	Side Plate B (Not Spared)
4	–	Cover (Not Spared)
5	–	Stay (Not Spared)
6	–	Bracket (Not Spared)
7	–	Spring Holder (Not Spared)
8	–	Bracket (Not Spared)
9	–	Spacer (Not Spared)
10	–	Stay (Not Spared)
11	–	Arm (Not Spared)
12	005N00808	Collar
13	–	Bracket (Not Spared)
14	–	Stud (Not Spared)
15	116N00237	Bias Terminal Lead
16	–	Bracket (Not Spared)
17	030N00646	Bracket
18	–	Bracket (Not Spared)
19	–	Toner Sensor Lead (Not Spared)
20	–	Clamp (Not Spared)
21	–	Guide (Not Spared)
22	–	Holder (Not Spared)
23	130N00681	Toner Sensor
24	–	Seal (Not Spared)
25	–	Seal (Not Spared)
26	–	Seal (Not Spared)
27	–	Seal (Not Spared)
28	–	Side Seal (Not Spared)
29	–	Seal (Not Spared)
30	–	Bracket (Not Spared)
31	–	Bushing (Not Spared)
32	–	Seal (Not Spared)
33	–	Seal (Not Spared)
34	–	Seal (Not Spared)
35	–	Seal (Not Spared)
36	–	Seal (Not Spared)
37	–	Seal (Not Spared)
38	–	Seal (Not Spared)
39	–	Seal (Not Spared)
40	–	Screw (Not Spared)
41	–	Screw (Not Spared)
42	–	Screw (Not Spared)
43	–	Washer (Not Spared)
44	–	Washer (Not Spared)
45	–	Screw (Not Spared)
46	–	Screw (Not Spared)
47	–	Screw (Not Spared)
48	–	Spring (Not Spared)
49	035N00364	Seal
50	–	Screw (Not Spared)



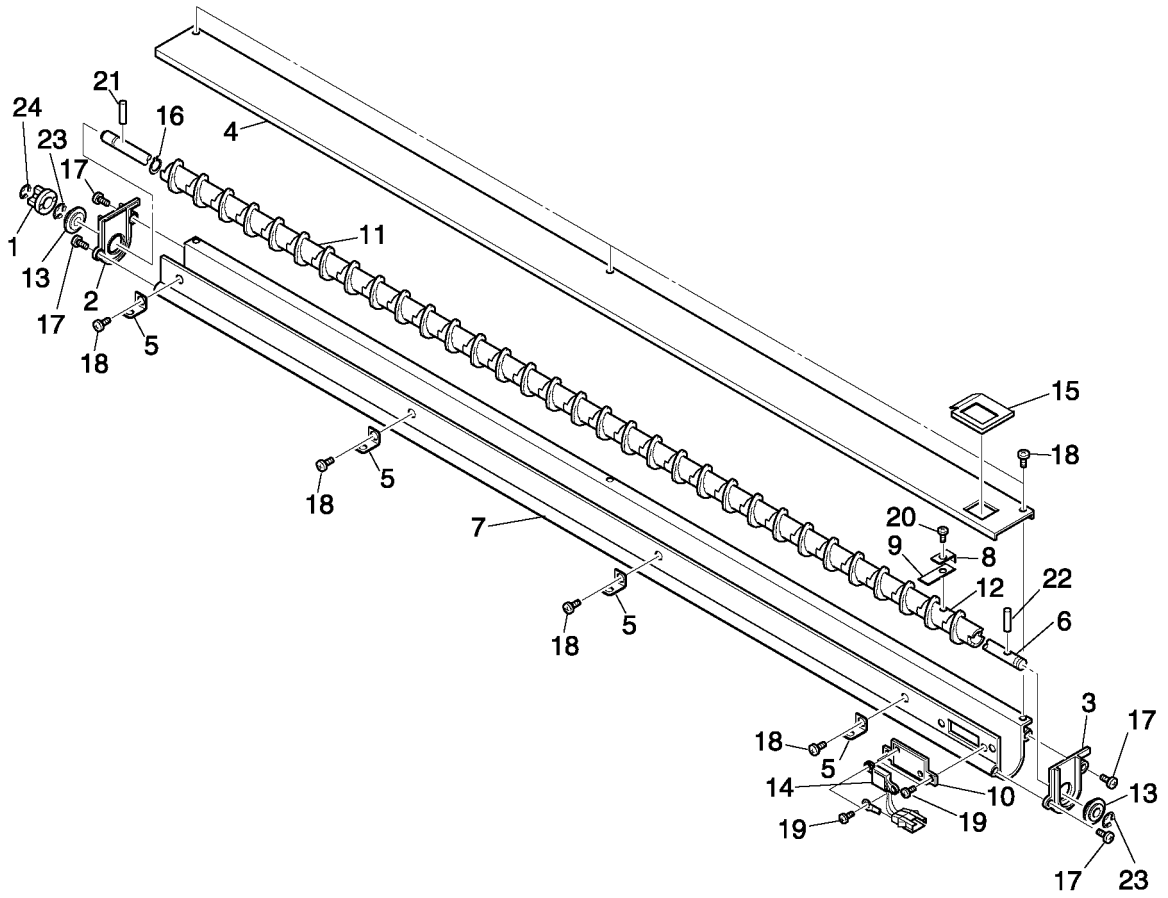
PL 3.3 Developer Components (Part 2 of 2)

Item	Part	Description
1	–	Donor Roll (Not Spared)
2	–	Metering Roll (Not Spared)
3	–	Developer Roll (Not Spared)
4	–	Mixing Shaft (Not Spared)
5	–	Wiper (Not Spared)
6	–	Bracket (Not Spared)
7	–	Agitator (Not Spared)
8	–	Agitator (Not Spared)
9	–	Gear (P/O PL 3.3 Item 58) (22T)
10	018N00189	Counter Roller
11	–	Gear (P/O PL 3.3 Item 58) (56T)
12	–	Bracket (Not Spared)
13	–	Collar (Not Spared)
14	–	Double Gear (P/O PL 3.3 Item 58) (39/23)
15	–	Double Gear (P/O PL 3.3 Item 58) (332/22)
16	–	Spacer (Not Spared)
17	–	Double Gear (P/O PL 3.3 Item 58) (39/23)
18	–	Gear (P/O PL 3.3 Item 58) (22T)
19	–	Gear (P/O PL 3.3 Item 58) (22T)
20	–	Collar (Not Spared)
21	–	Bracket (Not Spared)
22	–	Seal (Not Spared)
23	–	Stud (Not Spared)
24	–	Double Gear (P/O PL 3.3 Item 58) (34/18)
25	–	Collar (Not Spared)
26	–	Bracket (Not Spared)
27	–	Gear (P/O PL 3.3 Item 58) (29T)
28	–	Arm (Not Spared)
29	–	Collar (Not Spared)
30	–	Gear (P/O PL 3.3 Item 58) (30T)
31	–	Spring (Not Spared)
32	–	Bracket (Not Spared)
33	047N00015	Ball Bearing
34	013N00270	Ball Bearing
35	–	Ball Bearing (Not Spared)
36	–	Ball Bearing (Not Spared)
37	–	Ball Bearing (Not Spared)
38	–	Thrust Washer (Not Spared)
39	–	Thrust Washer (Not Spared)
40	–	Thrust Washer (Not Spared)
41	–	Retaining Ring (Not Spared)
42	–	Retaining Ring (Not Spared)
43	–	Retaining Ring (Not Spared)
44	–	Retaining Ring (Not Spared)
45	–	Retaining Ring (Not Spared)
46	–	Pin (Not Spared)
47	–	Pin (Not Spared)
48	–	Screw (Not Spared)
49	–	Screw (Not Spared)
50	–	Hex Head Bolt (Not Spared)
51	–	Hex Head Bolt (Not Spared)
52	–	Screw (Not Spared)
53	–	Screw (Not Spared)
54	–	Seal (Not Spared)
55	–	Pin (Not Spared)
56	–	Bearing (Not Spared)
57	028N00199	Thrust Washer
58	600N01786	Developer Gear Kit



PL 3.4 Toner Hopper Assembly

Item	Part	Description
1	–	Coupling (P/O PL 3.1 Item 2)
2	–	Side Plate (P/O PL 3.1 Item 2)
3	–	Side Plate (P/O PL 3.1 Item 2)
4	–	Cover (P/O PL 3.1 Item 2)
5	–	Bracket (P/O PL 3.1 Item 2)
6	–	Shaft (P/O PL 3.1 Item 2)
7	–	Toner Channel (P/O PL 3.1 Item 2)
8	030N00636	Bracket
9	035N00352	Wiper
10	–	Holder (P/O PL 3.1 Item 2)
11	–	Screw (P/O PL 3.1 Item 2)
12	–	Screw (P/O PL 3.1 Item 2)
13	013N00270	Bearing
14	130N00681	Toner Hopper Sensor (TLS1)
15	035N00351	Seal
16	–	Retaining Ring (P/O PL 3.1 Item 2)
17	–	Screw (P/O PL 3.1 Item 2)
18	–	Screw (P/O PL 3.1 Item 2)
19	–	Screw (P/O PL 3.1 Item 2)
20	–	Screw (P/O PL 3.1 Item 2)
21	–	Pin (P/O PL 3.1 Item 2)
22	–	Pin (P/O PL 3.1 Item 2)
23	–	E-Ring (P/O PL 3.1 Item 2)
24	–	E-Ring (P/O PL 3.1 Item 2)



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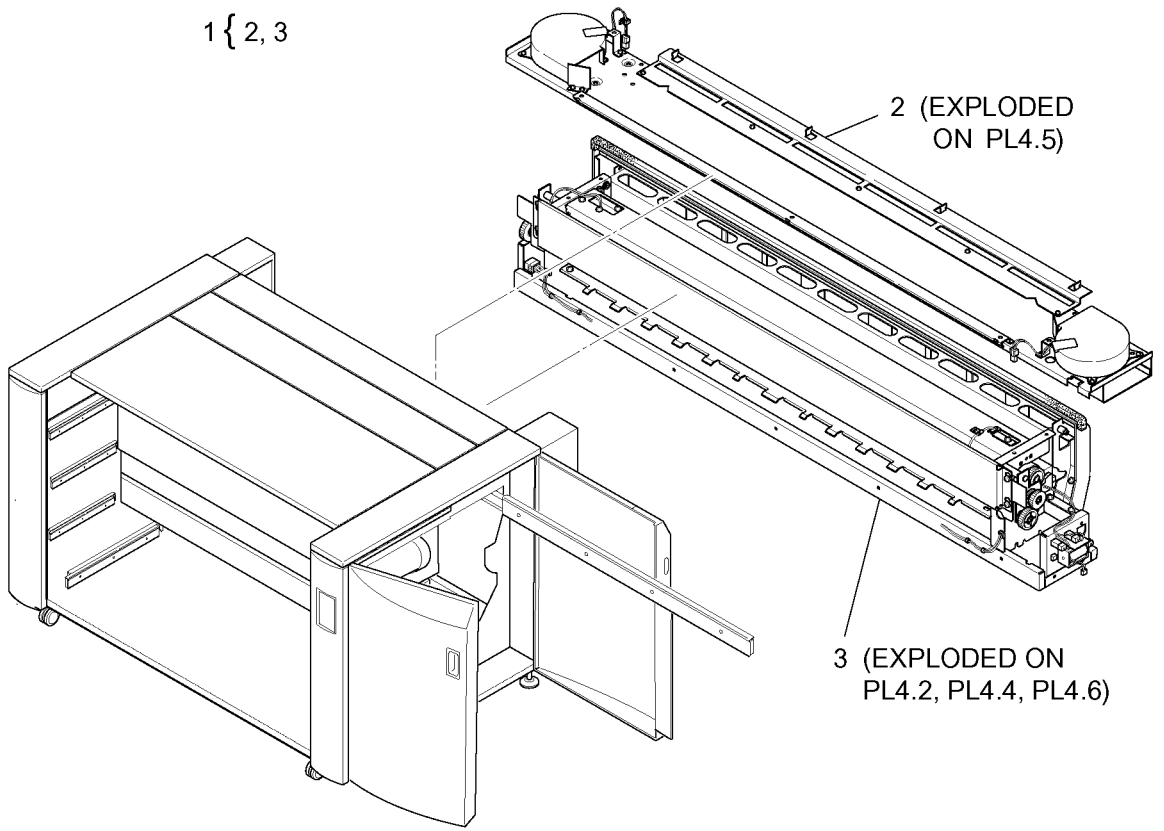
PL 4.1 Fuser Assembly

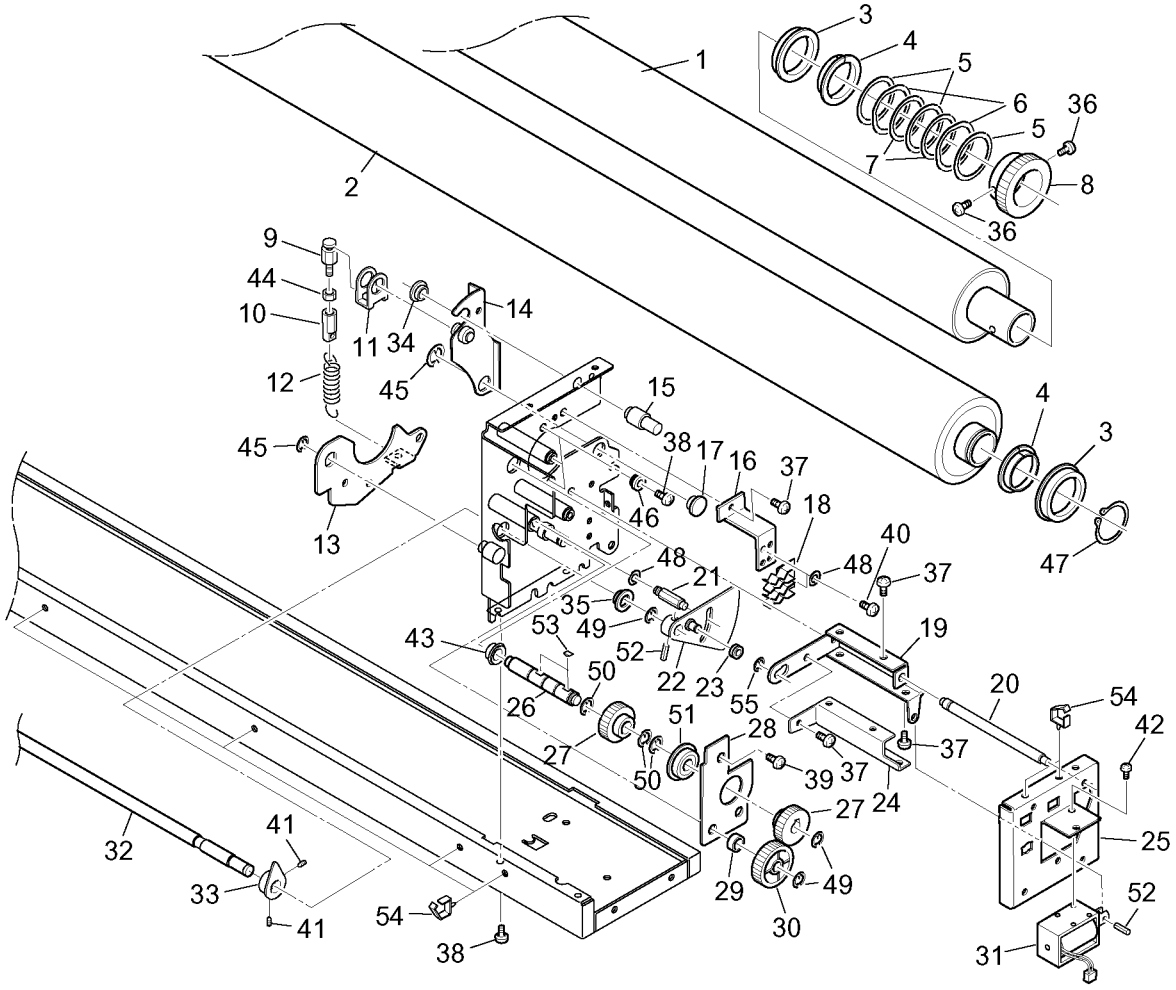
Item	Part	Description
1	126N00216	Fuser Assembly (RFU)
–	126N00202	Fuser Assembly (LML)
2	126N00217	Fuser Blower Assembly
3	–	Fuser (P/O PL 4.1 Item 1)



0504001B-OBS

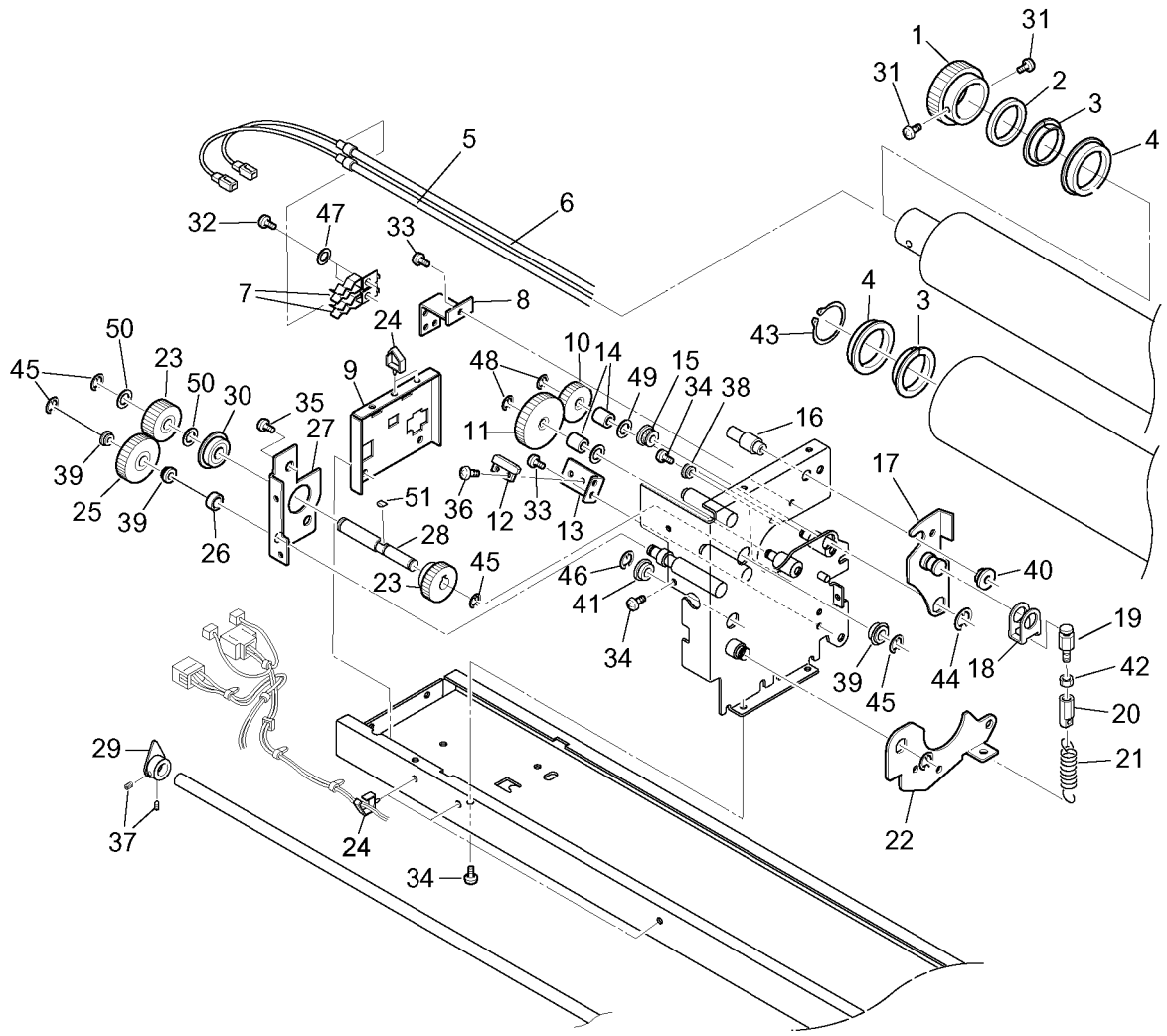
PL 4.2 Fuser Components (Part 1 of 5)

Item	Part	Description
1	126N00201	Heat Roll
2	022N00598	Pressure Roller
3	047N00014	Bearing
4	118N00128	Bushing
5	014N00296	Spacer
6	028N00190	Wave Washer
7	005N00409	Collar
8	007N00560	Spur Gear (50T)
9	009N00789	Hook
10	019N00347	Hook
11	019N00346	Hook
12	–	Extension Spring (Not Spared)
13	–	Side Plate (Not Spared)
14	011N00490	Lever
15	–	Stud (Not Spared)
16	129N00004	Fuser Rod Holder
17	–	Shaft (Not Spared)
18	113N00274	Lamp Mount
19	–	Lever (Not Spared)
20	–	Shaft (Not Spared)
21	–	Shaft (Not Spared)
22	–	Lever (Not Spared)
23	–	Collar (Not Spared)
24	–	Lever (Not Spared)
25	–	Bracket (Not Spared)
26	–	Shaft (Not Spared)
27	007N01190	Spur Gear (30T)
28	–	Side Plate (Not Spared)
29	005N00416	Collar
30	007N00546	Spur Gear (40T)
31	–	Fuser Entrance Solenoid (SOL1) (Not Spared)
32	–	Shaft (Not Spared)
33	–	Cam (Not Spared)
34	–	Bushing (Not Spared)
35	–	Collar (Not Spared)
36	–	Screw (Not Spared)
37	–	Screw (Not Spared)
38	–	Screw (Not Spared)
39	–	Hex Head Bolt (Not Spared)
40	–	Screw (Not Spared)
41	–	Set Screw (Not Spared)
42	–	Screw (Not Spared)
43	013N00271	Bearing
44	–	Hex Nut (Not Spared)
45	–	E-Ring (Not Spared)
46	–	Collar (Not Spared)
47	–	Retaining Ring (Not Spared)
48	–	Flat Washer (Not Spared)
49	–	E-Ring (Not Spared)
50	–	E-Ring (Not Spared)
51	013N00269	Bearing
52	–	Pin (Not Spared)
53	029N00180	Woodruff Key
54	–	Wire Saddle (Not Spared)
55	–	E-Ring (Not Spared)



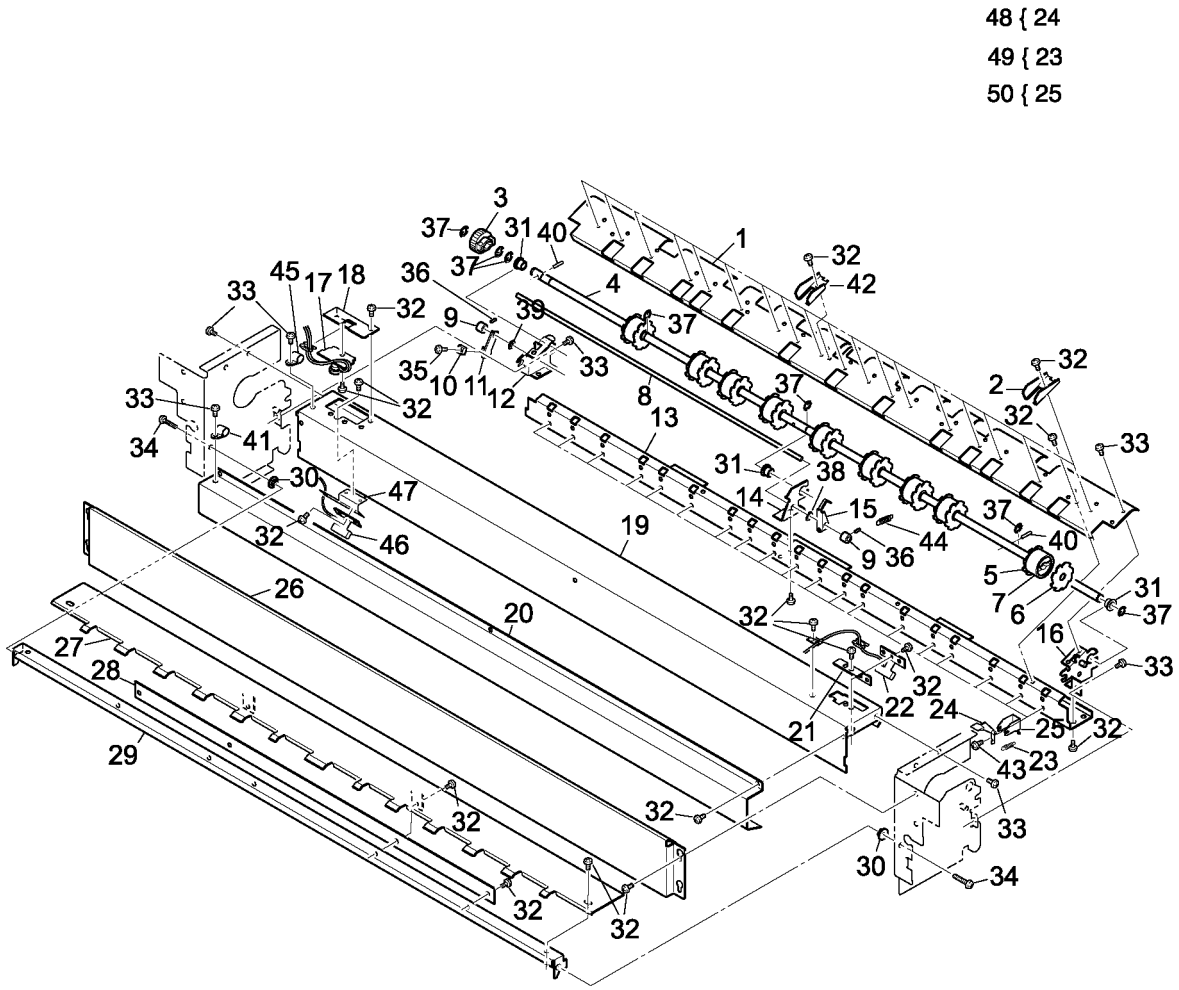
PL 4.3 Fuser Components (Part 2 of 5)

Item	Part	Description
1	007N00560	Spur Gear (50T)
2	005N00417	Collar
3	118N00128	Bushing
4	047N00014	Bearing
5	122N00219	Side Heat Rod (HTR2) (Red)
6	122N00101	Center Heat Rod (HTR1) (White)
7	113N00274	Lamp Mount
8	122N00100	Bracket
9	–	Connector Mount (Not Spared)
10	007N00506	Spur Gear (30T)
11	007N00553	Spur Gear (50T)
12	110N00727	Fuser Exit Switch (LS2)
13	–	Plate (Not Spared)
14	135N00029	Bearing
15	–	Shaft (Not Spared)
16	–	Stud (Not Spared)
17	011N00491	Lever
18	019N00346	Hook
19	009N00789	Hook
20	019N00347	Hook
21	009N01451	Extension Spring
22	–	Side Plate (Not Spared)
23	007N00547	Spur Gear
24	–	Wire Saddle (Not Spared)
25	007N00749	Spur Gear (40T)
26	005N00416	Collar
27	–	Side Plate (Not Spared)
28	–	Shaft (Not Spared)
29	–	Cam (Not Spared)
30	013N00269	Bearing
31	–	Screw (Not Spared)
32	–	Screw (Not Spared)
33	–	Screw (Not Spared)
34	–	Screw (Not Spared)
35	–	Hex Head Bolt (Not Spared)
36	–	Screw (Not Spared)
37	–	Set Screw (Not Spared)
38	–	Collar (Not Spared)
39	013N00271	Bearing
40	–	Bushing (Not Spared)
41	–	Collar (Not Spared)
42	–	Hex Nut (Not Spared)
43	–	Retaining Ring (Not Spared)
44	–	E-Ring (Not Spared)
45	–	E-Ring (Not Spared)
46	–	E-Ring (Not Spared)
47	–	Flat Washer (Not Spared)
48	–	E-Ring (Not Spared)
49	–	Thrust Washer (Not Spared)
50	028N00199	Thrust Washer
51	029N00180	Woodruff Key



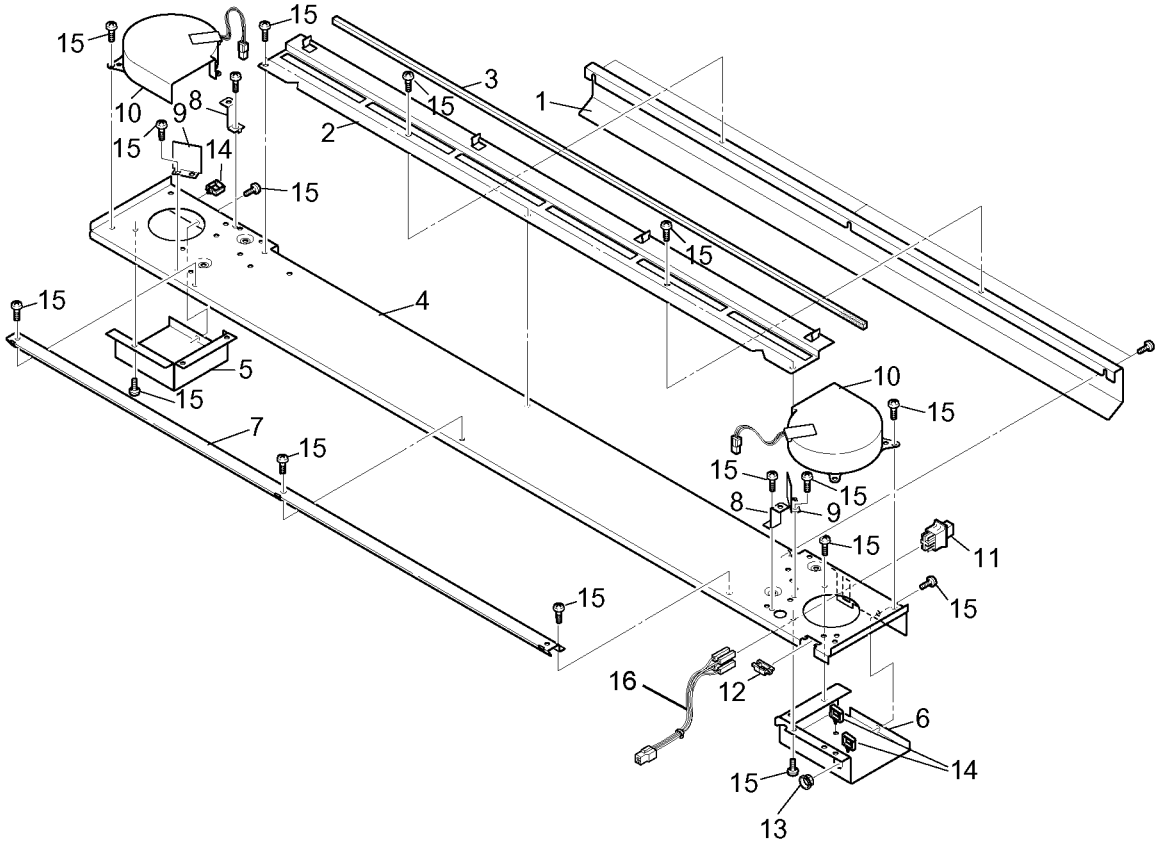
PL 4.4 Fuser Components (Part 3 of 5)

Item	Part	Description
1	–	Frame (Not Spared)
2	–	Guide (Not Spared)
3	007N00555	Spur Gear (26T)
4	–	Shaft (Not Spared)
5	022N02028	Roller
6	022N02029	Roller
7	003N00608	Seal
8	–	Shaft (Not Spared)
9	–	Bushing (Not Spared)
10	121N00292	Magnet
11	120N00434	Actuator
12	–	Side Plate (Not Spared)
13	–	Frame (Not Spared)
14	–	Bearing Plate (Not Spared)
15	120N00225	Actuator
16	–	Side Plate (Not Spared)
17	130N00671	Thermostat (TS1)
18	–	Plate (Not Spared)
19	–	Cover (Not Spared)
20	–	Cover (Not Spared)
21	–	Plate (Not Spared)
22	130N01294	Fuser Thermistor (RT1)
23	–	Extension Spring (P/O PL 4.4 Item 49)
24	–	Separation Finger (P/O PL 4.4 Item 48)
25	–	Holder (P/O PL 4.4 Item 50)
26	–	Cover (Not Spared)
27	–	Guide Plate (Not Spared)
28	–	Adjustment Plate (Not Spared)
29	–	Frame (Not Spared)
30	–	Collar (Not Spared)
31	013N00273	Bearing
32	–	Screw (Not Spared)
33	–	Screw (Not Spared)
34	–	Screw (Not Spared)
35	–	Screw (Not Spared)
36	–	Set Screw (Not Spared)
37	–	E-Ring (Not Spared)
38	–	Thrust Washer (Not Spared)
39	–	Grip Ring (Not Spared)
40	–	Pin (Not Spared)
41	–	Cable Clamp (Not Spared)
42	–	Guide (Not Spared)
43	–	Screw (Not Spared)
44	–	Spring (Not Spared)
45	–	Cable Clamp (Not Spared)
46	130N01295	Thermistor (RT3)
47	–	Bracket (Not Spared)
48	600N01788	Lower Separation Finger Kit (20/Kit)
49	600N01789	Extension Spring 1 Kit (10/Kit)
50	600N01790	Holder Kit (5/kit)



PL 4.5 Fuser Components (Part 4 of 5)

Item	Part	Description
1	–	Cover (Not Spared)
2	–	Bracket (Not Spared)
3	–	Seal (Not Spared)
4	–	Cover (Not Spared)
5	–	Duct (Not Spared)
6	–	Duct (Not Spared)
7	–	Bracket (Not Spared)
8	–	Mount (Not Spared)
9	–	Bracket (Not Spared)
10	033N00134	Blower (BL2, BL3)
11	109N00211	Exit Cover (Fuser) Interlock Switch (DS5)
12	–	Wire Saddle (Not Spared)
13	016N00145	Bushing
14	–	Wire Saddle (Not Spared)
15	–	Screw (Not Spared)
16	115N00848	SW Terminal Lead



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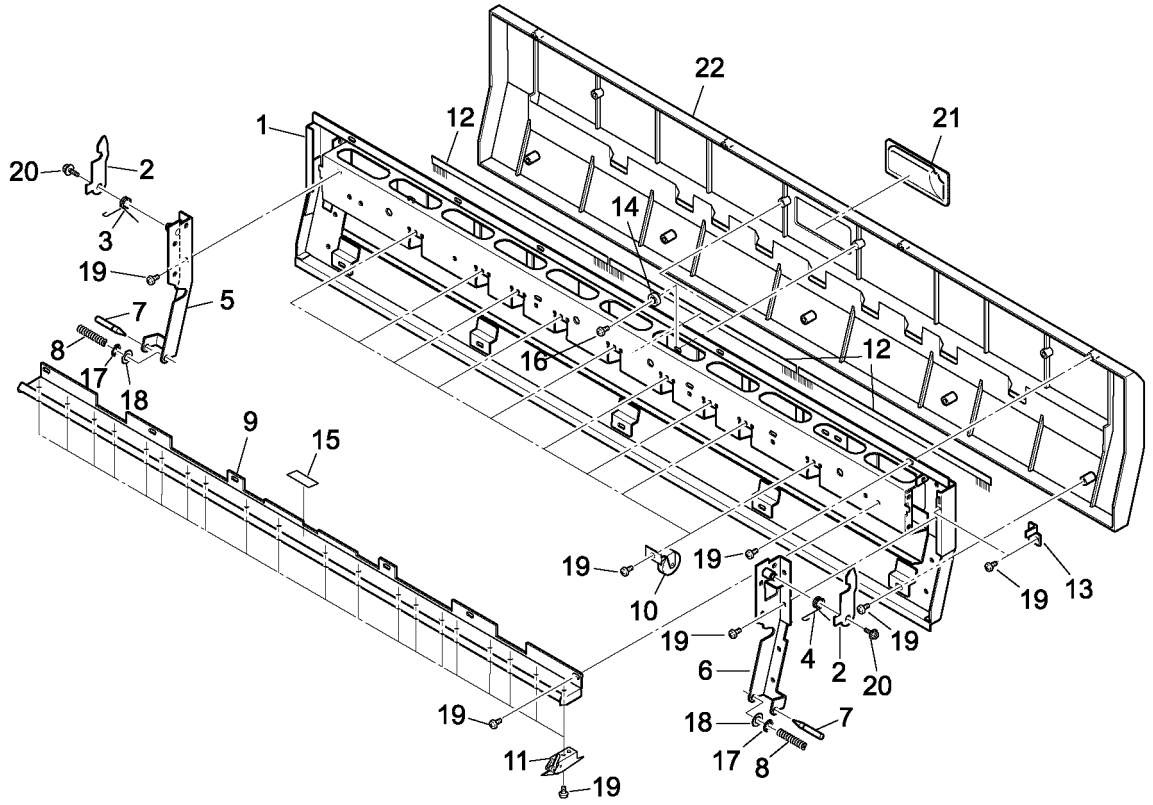
PL 4.6 Fuser Components (Part 5 of 5)

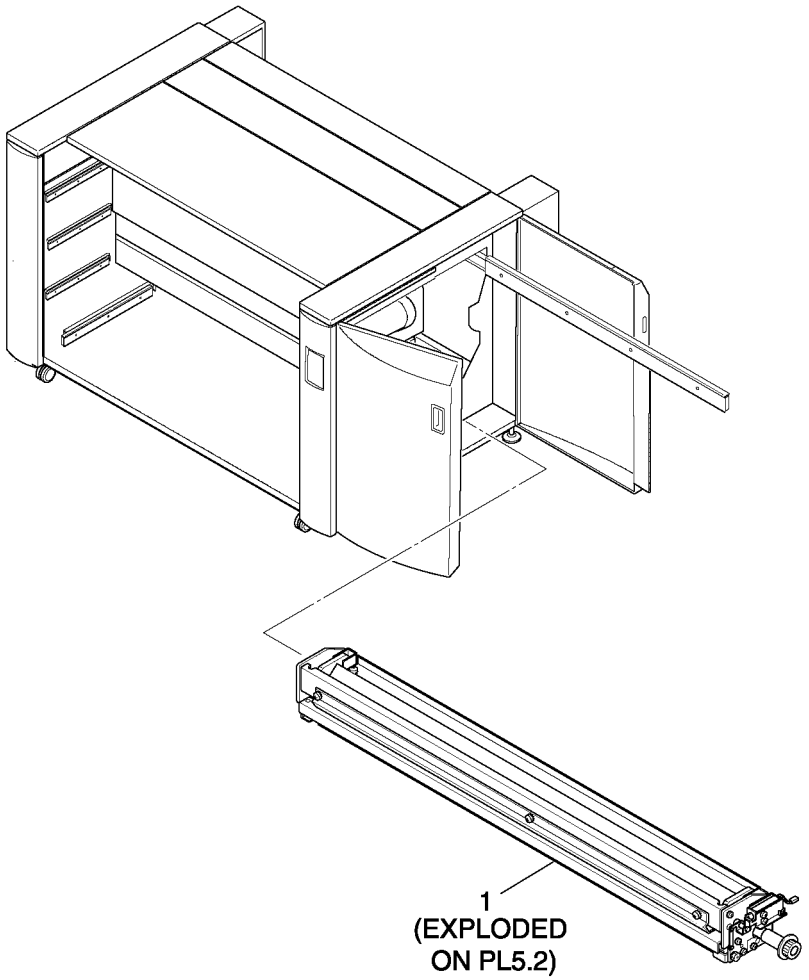
Item	Part	Description
1	–	Cover (Not Spared)
2	019N00769	Hook
3	009N01452	Torsion Spring
4	009N01453	Torsion Spring
5	091N80179	Side Plate
6	091N80180	Side Plate
7	006N01226	Shaft
8	009N00795	Compression Spring
9	–	Plate (Not Spared)
10	022N00686	Roller (9/Kit)
11	–	Separation Finger (P/O PL 4.6 Item 23)
12	115N00258	Static Eliminator
13	–	Actuator (Not Spared)
14	–	Spacer (Not Spared)
15	–	Label (Not Spared)
16	–	Screw (Not Spared)
17	–	E-Ring (Not Spared)
18	–	Flat Washer (Not Spared)
19	–	Screw (Not Spared)
20	–	Hex Head Bolt (Not Spared)
21	003N00925	Handle (RFU)
22	002N02234	Fuser Exit Door (RFU)
23	600N01787	Upper Separation Finger Kit (20/Kit)



0504006A-OSB

PL 5.1 Cutter Assembly

Item	Part	Description
1	037N00116	Cutter Assembly



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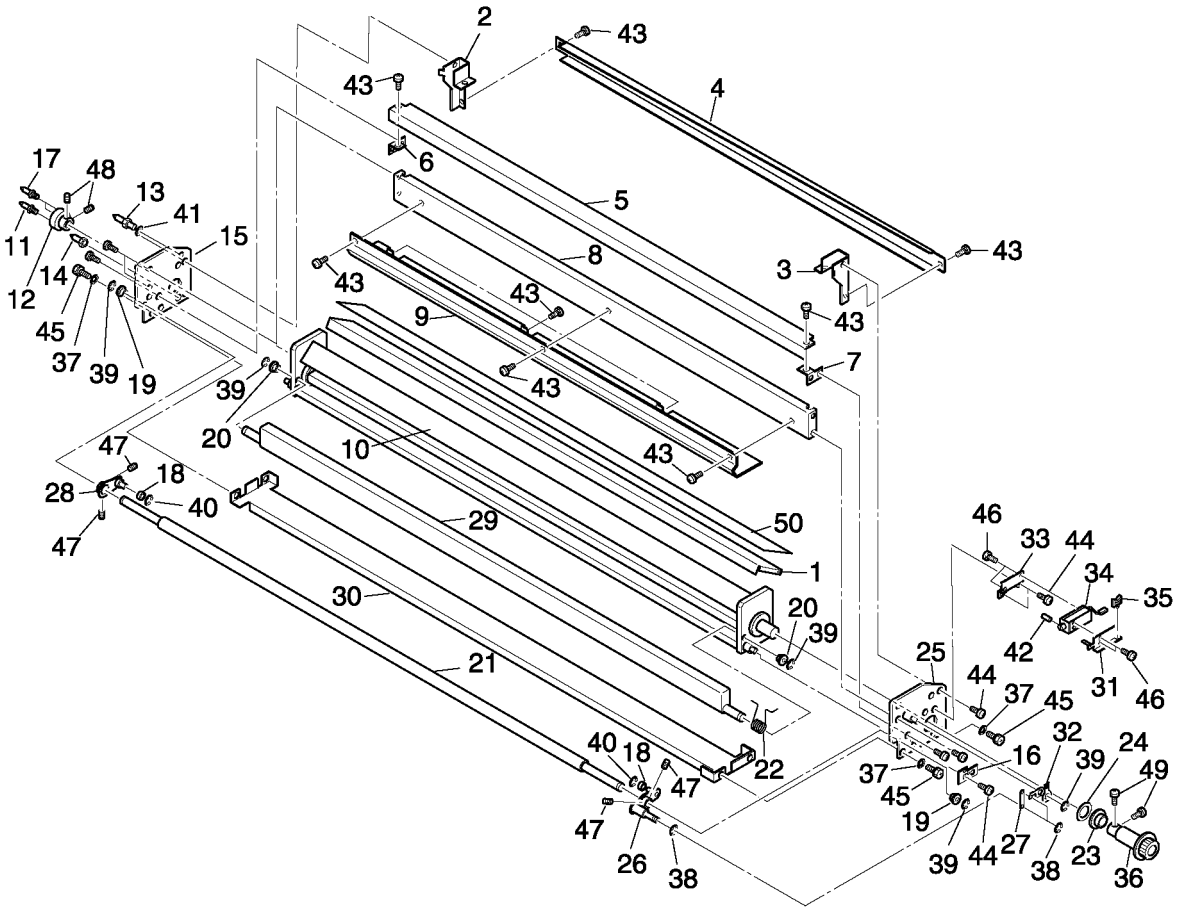
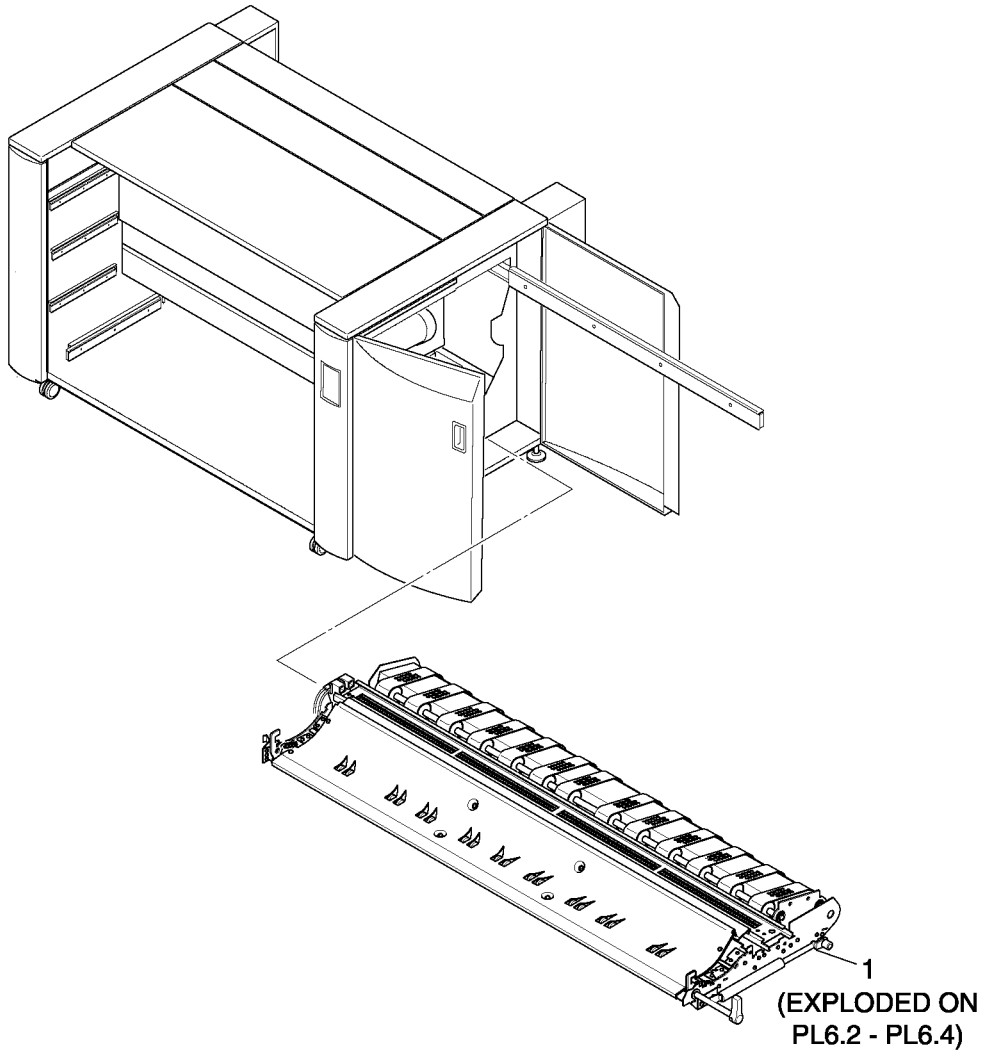
PL 5.2 Cutter Components

Item	Part	Description
1	–	Bracket (P/O PL 5.1 Item 1)
2	–	Bracket (P/O PL 5.1 Item 1)
3	–	Bracket (P/O PL 5.1 Item 1)
4	–	Guide (P/O PL 5.1 Item 1)
5	–	Plate (P/O PL 5.1 Item 1)
6	–	Plate (P/O PL 5.1 Item 1)
7	–	Plate (P/O PL 5.1 Item 1)
8	–	Stay (P/O PL 5.1 Item 1)
9	–	Plate (P/O PL 5.1 Item 1)
10	–	Cutter Bar (P/O PL 5.1 Item 1)
11	029N00179	Pin
12	023N00608	Coupling
13	026N00518	Stud
14	026N00519	Stud
15	–	Side Panel (P/O PL 5.1 Item 1)
16	–	Stop Plate (P/O PL 5.1 Item 1)
17	006N00884	Pin
18	–	Bearing (P/O PL 5.1 Item 1)
19	–	Bearing (P/O PL 5.1 Item 1)
20	–	Bearing (P/O PL 5.1 Item 1)
21	–	Shaft (P/O PL 5.1 Item 1)
22	–	Spring (P/O PL 5.1 Item 1)
23	–	Stop Plate (P/O PL 5.1 Item 1)
24	–	Label (P/O PL 5.1 Item 1)
25	–	Side Plate (P/O PL 5.1 Item 1)
26	–	Link Plate (P/O PL 5.1 Item 1)
27	–	Link Plate (P/O PL 5.1 Item 1)
28	–	Link Plate (P/O PL 5.1 Item 1)
29	037N00117	Stay (Oil Pad)
30	–	Base Plate (P/O PL 5.1 Item 1)
31	–	Stop Bracket (P/O PL 5.1 Item 1)
32	–	Link Plate (P/O PL 5.1 Item 1)
33	–	Solenoid Mounting Plate (P/O PL 5.1 Item 1)
34	121N00298	Oil Dispense Solenoid (SOL2)
35	–	Clamp (P/O PL 5.1 Item 1)
36	003N00930	Knob with Label
37	–	Flat Washer (P/O PL 5.1 Item 1)
38	–	E-Ring (P/O PL 5.1 Item 1)
39	–	E-Ring (P/O PL 5.1 Item 1)
40	–	E-Ring (P/O PL 5.1 Item 1)
41	–	Spring Washer (P/O PL 5.1 Item 1)
42	–	Spring Pin (P/O PL 5.1 Item 1)
43	–	Screw (P/O PL 5.1 Item 1)
44	–	Screw (P/O PL 5.1 Item 1)
45	–	Hex Head Bolt (P/O PL 5.1 Item 1)
46	–	Screw (P/O PL 5.1 Item 1)
47	026N00440	Set Screw
48	–	Set Screw (P/O PL 5.1 Item 1)
49	–	Screw (P/O PL 5.1 Item 1)
50	–	Paper Exit Guide (P/O PL 5.1 Item 1)



PL 6.1 Inner Transport Assembly

Item	Part	Description
1	–	Inner Transport Assembly (Not Spared)



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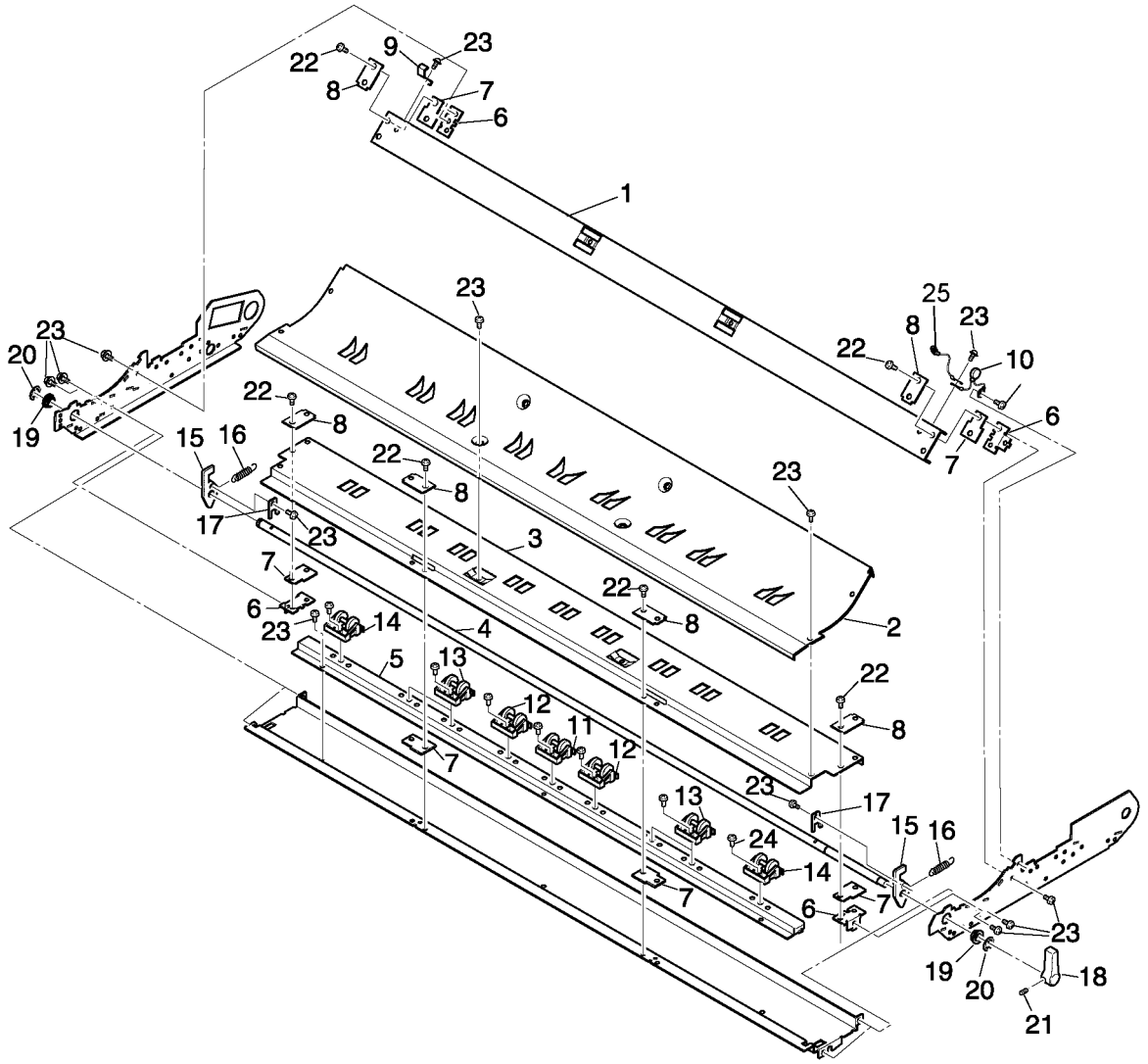
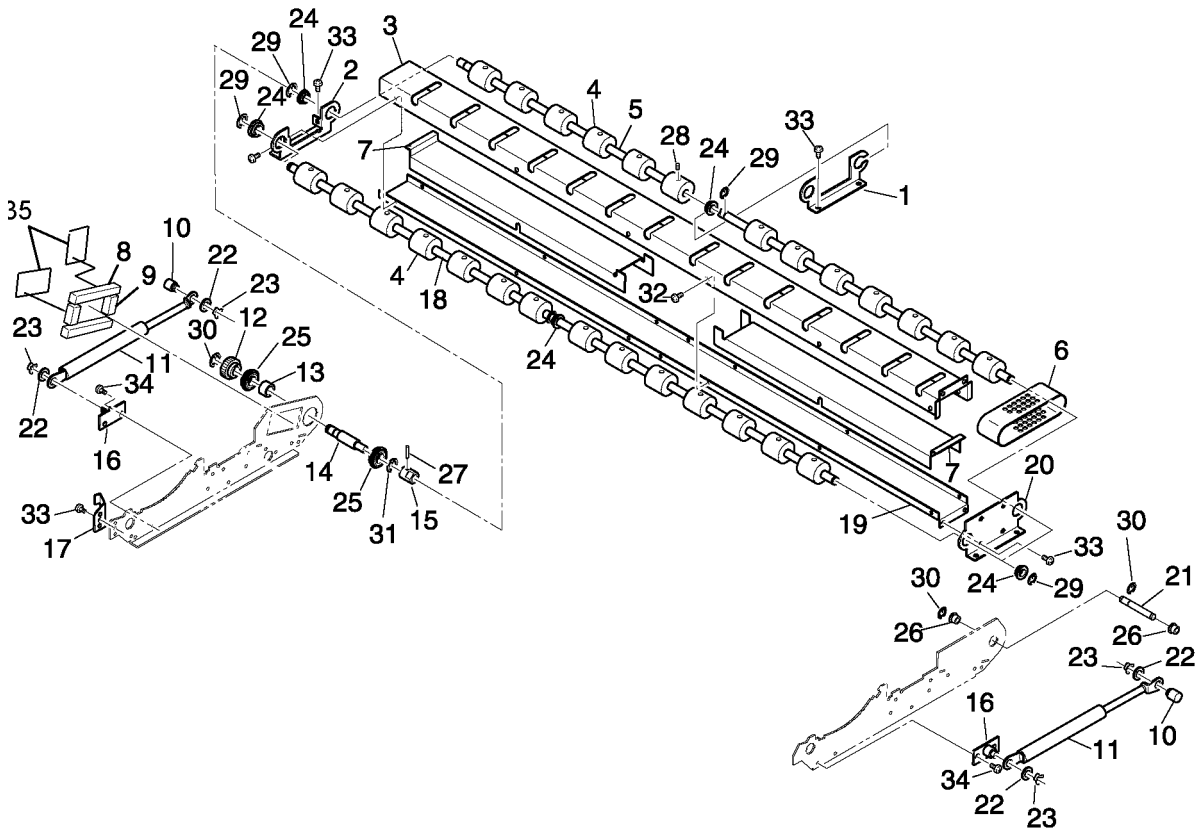
PL 6.2 Inner Transport Components (Part 1 of 3)

Item	Part	Description
1	–	Frame (Not Spared)
2	–	Plate (Not Spared)
3	–	Frame (Not Spared)
4	–	Shaft (Not Spared)
5	–	Bracket (Not Spared)
6	–	Bracket (Not Spared)
7	–	Spacer (Not Spared)
8	–	Clamp (Not Spared)
9	–	Contact Plate (Not Spared)
10	–	Varistor (Not Spared)
11	–	Roller (Not Spared)
12	–	Roller (Not Spared)
13	–	Roller (Not Spared)
14	–	Roller (Not Spared)
15	–	Hook (Not Spared)
16	009N01454	Spring
17	–	Plate (Not Spared)
18	003N00605	Knob
19	–	Bearing (Not Spared)
20	–	E-Ring (Not Spared)
21	026N00440	Set Screw
22	–	Screw (Not Spared)
23	–	Screw (Not Spared)
24	–	Screw (Not Spared)
25	–	High Voltage Lead (Not Spared)



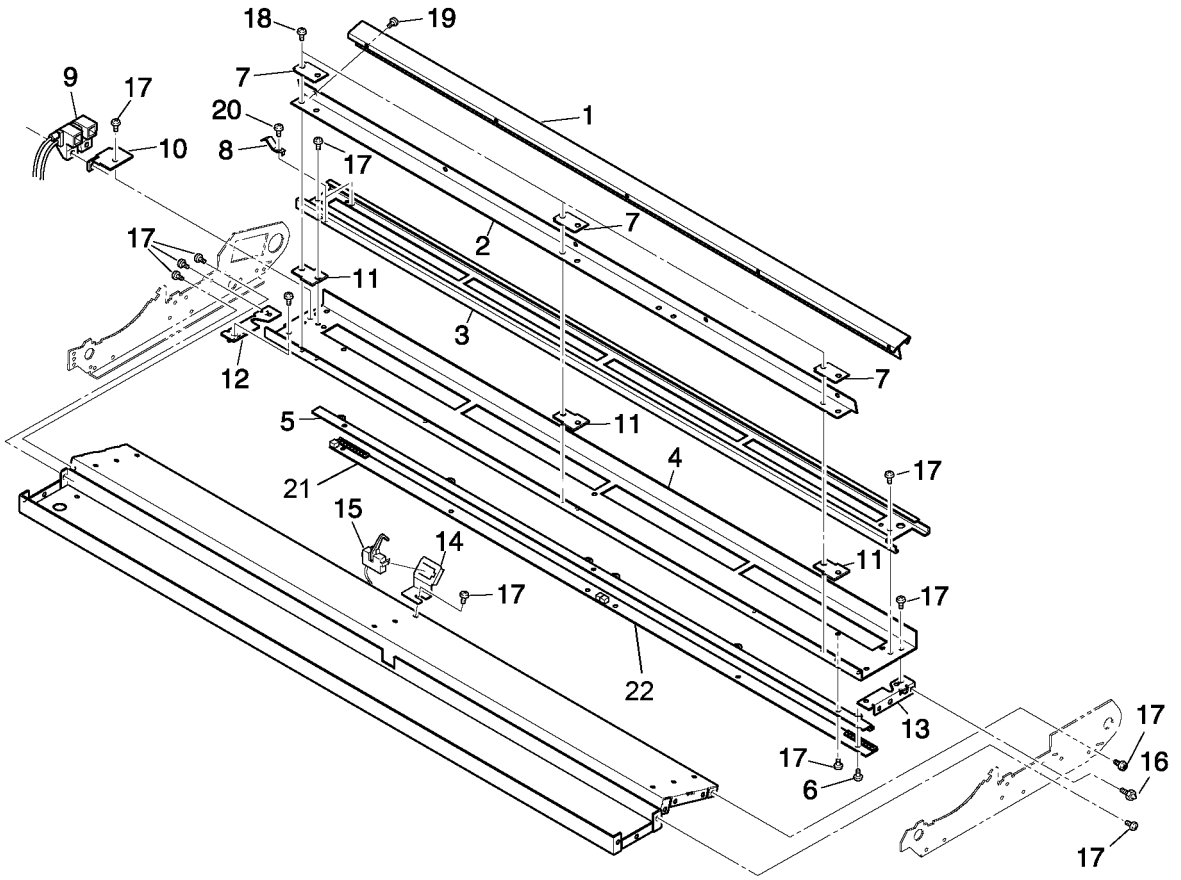
PL 6.3 Inner Transport Components (Part 2 of 3)

Item	Part	Description
1	–	Bracket (Not Spared)
2	–	Bracket (Not Spared)
3	–	Duct (Not Spared)
4	–	Roller (Not Spared)
5	–	Roller Shaft (Not Spared)
6	–	Belt (P/O PL 6.3 Item 36)
7	–	Duct (Not Spared)
8	142N00086	Seal
9	142N00085	Seal
10	–	Shaft (Not Spared)
11	009N00792	Gas Spring
12	007N00531	Spur Gear (27T)
13	–	Collar (Not Spared)
14	005N00452	Shaft
15	005N01006	Coupling
16	–	Bracket (Not Spared)
17	–	Actuator (Not Spared)
18	–	Roller Shaft (Not Spared)
19	–	Duct (Not Spared)
20	–	Bracket (Not Spared)
21	005N00423	Shaft
22	–	Flat Washer (Not Spared)
23	–	Retaining Ring (Not Spared)
24	013N00320	Bearing
25	047N00015	Bearing
26	135N00033	Bearing
27	–	Pin (Not Spared)
28	026N00440	Set Screw
29	–	E-Ring (Not Spared)
30	–	E-Ring (Not Spared)
31	–	E-Ring (Not Spared)
32	–	Screw (Not Spared)
33	–	Screw (Not Spared)
34	–	Screw (Not Spared)
35	–	Tape (Not Spared)
36	023N00379	Belt Kit (14/Kit)



PL 6.4 Inner Transport Components (Part 3 of 3)

Item	Part	Description
1	–	Guide Plate (Not Spared)
2	–	Setting Plate (Not Spared)
3	–	Rail (Not Spared)
4	–	Bracket (Not Spared)
5	–	Bracket (Not Spared)
6	–	Screw (Not Spared)
7	–	Clamp (Not Spared)
8	009N00793	Leaf Spring
9	605N00053	TR Connector Block Kit (W/[TAG 2])
10	–	Bracket (Not Spared)
11	–	Spacer (Not Spared)
12	–	Bracket (Not Spared)
13	–	Bracket (Not Spared)
14	–	Bracket (Not Spared)
15	120N00224	Separation Sensor (Q18)
16	–	Pin (Not Spared)
17	–	Screw (Not Spared)
18	–	Screw (Not Spared)
19	–	Screw (Not Spared)
20	–	Screw (Not Spared)
21	140N04704	Seperation Lamp PWB 1
22	121N00290	Seperation Lamp PWB 2



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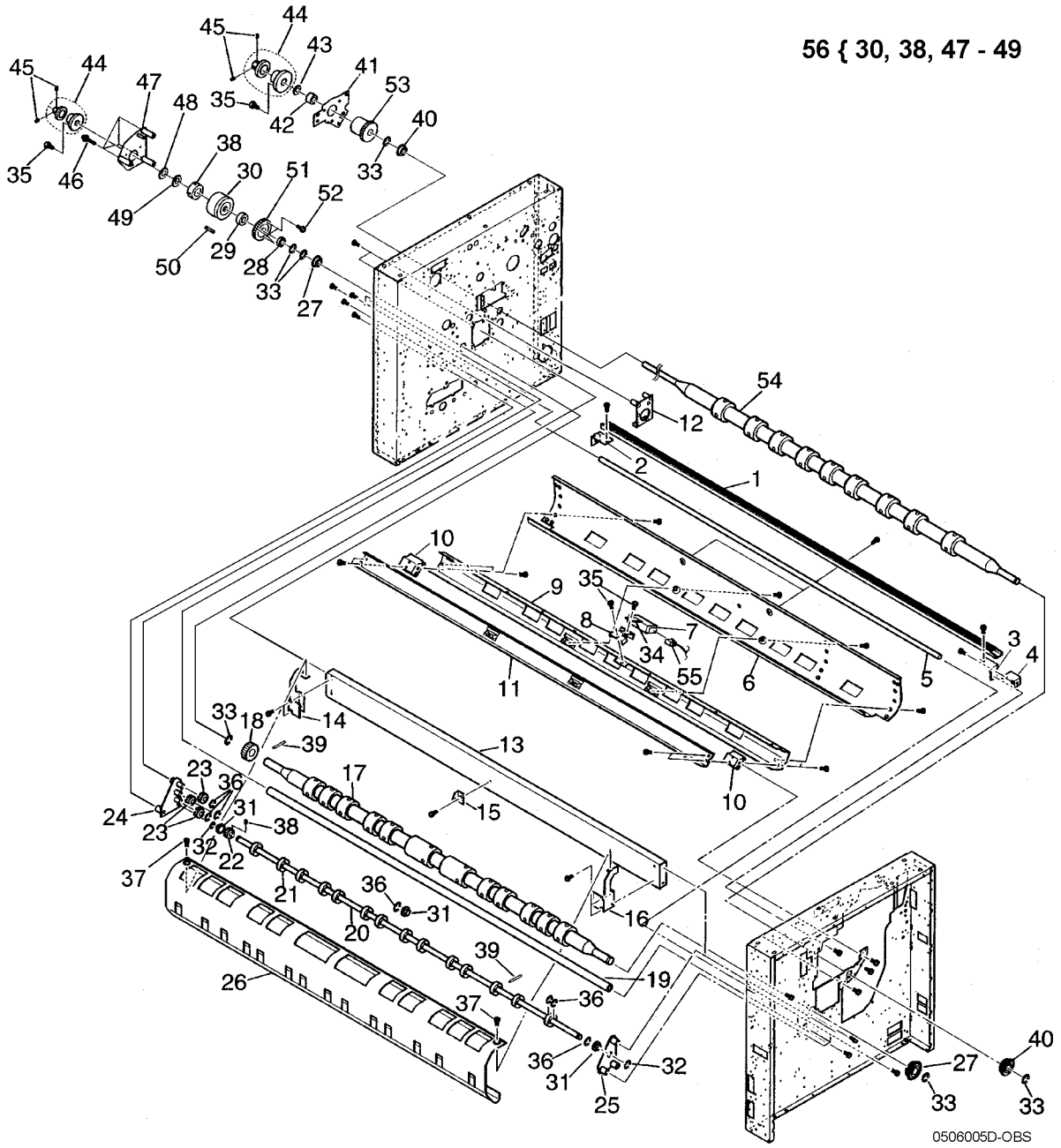
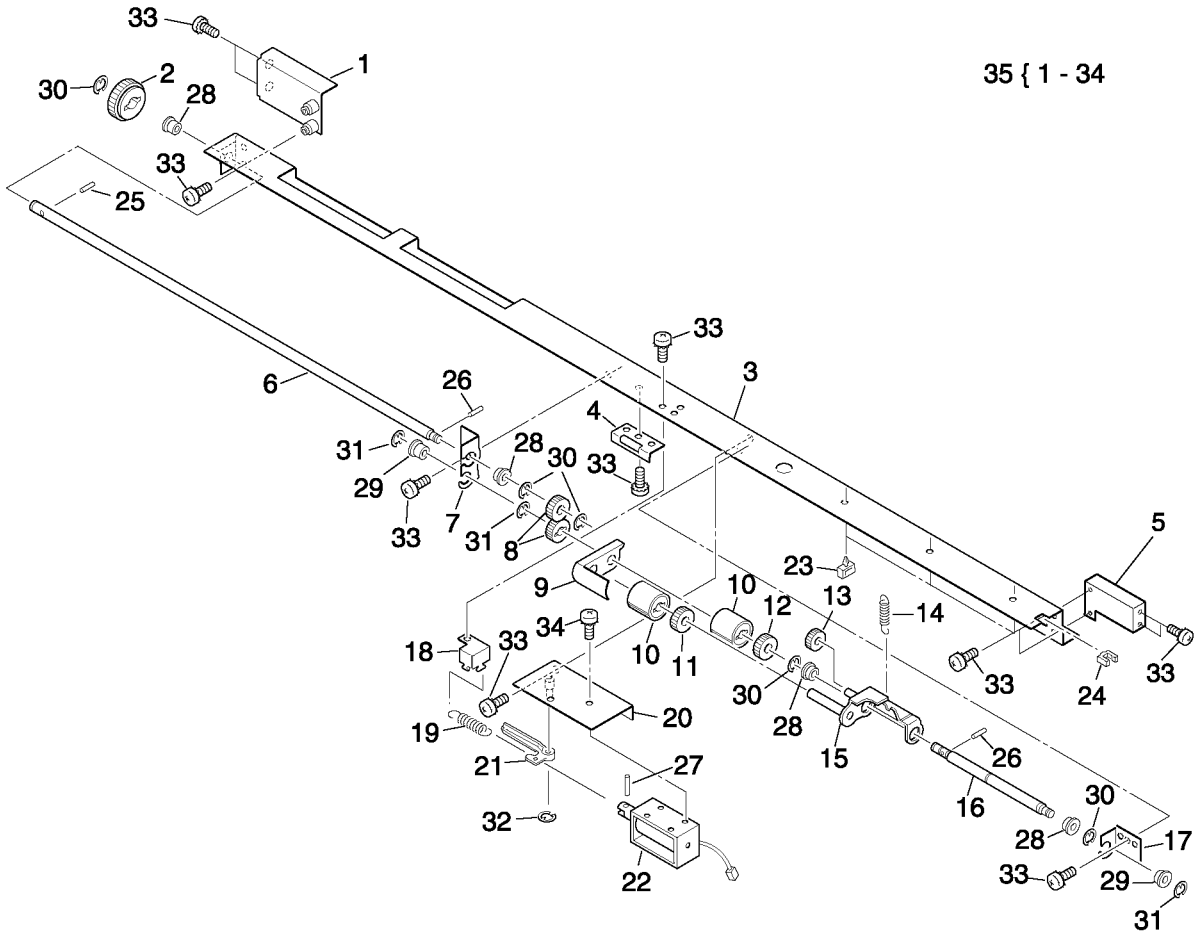
PL 6.5 Registration, Paper, Mid-Transport Rollers and Clutches

Item	Part	Description
1	–	Corona Rail (Not Spared)
2	–	Bracket (Not Spared)
3	–	Bracket (Not Spared)
4	–	Bracket (Not Spared)
5	–	Shaft (Not Spared)
6	–	Plate (Not Spared)
7	062N00244	Registration Sensor (Q12)
8	–	Bracket (Not Spared)
9	–	Rib (Not Spared)
10	–	Block (Not Spared)
11	–	Rib (Not Spared)
12	003N00601	Stop Plate
13	–	Stay (Not Spared)
14	–	Mount (Not Spared)
15	013N00267	Shaft Holder
16	–	Mount (Not Spared)
17	–	Registration Roller (Not Spared)
18	007N00510	Spur Gear (28T)
19	–	Stay (Not Spared)
20	–	Roller Shaft (Not Spared)
21	–	Registration Pinch Roller (Not Spared)
22	007N00559	Spur Gear (20T)
23	007N00516	Spur Gear (20T)
24	074N00023	Side Plate (L)
25	091N00425	Side Plate (R)
26	–	Guide Plate (Not Spared)
27	013N00269	Bearing
28	–	Collar (Not Spared)
29	–	Bearing (Not Spared)
30	005N00427	Mid-Transport Clutch (CL6)
31	–	Bearing (Not Spared)
32	–	E-Ring (Not Spared)
33	–	E-Ring (Not Spared)
34	–	Plate (Not Spared)
35	–	Screw (Not Spared)
36	–	Retaining Ring (Not Spared)
37	–	Screw (Not Spared)
38	–	Collar (P/O PL 6.5 Item 56)
39	–	Pin (Not Spared)
40	–	Ball Bearing (Not Spared)
41	–	Clutch Plate (Not Spared)
42	014N00298	Spacer
43	–	Thrust Washer (Not Spared)
44	–	Electromagnetic Brake (Not Spared)
45	–	Set Screw (Not Spared)
46	–	Screw (Not Spared)
47	–	Mount (P/O PL 6.5 Item 56)
48	028N00197	Thrust Washer (.5 mm Thick)
–	028N00196	Thrust Washer (.2 mm Thick)
49	028N00199	Thrust Washer (1.0 mm Thick)
50	–	Key (Not Spared)
51	007N00521	Spur Gear (50T)
52	–	Screw (Not Spared)
53	121N00615	Registration Clutch (CL5)
54	–	Registration Roller (Not Spared)
55	130N01297	Registration Sensor Harness
56	022N02024	Clutch Kit (RFU)
–	005N00997	Clutch Kit (LML)



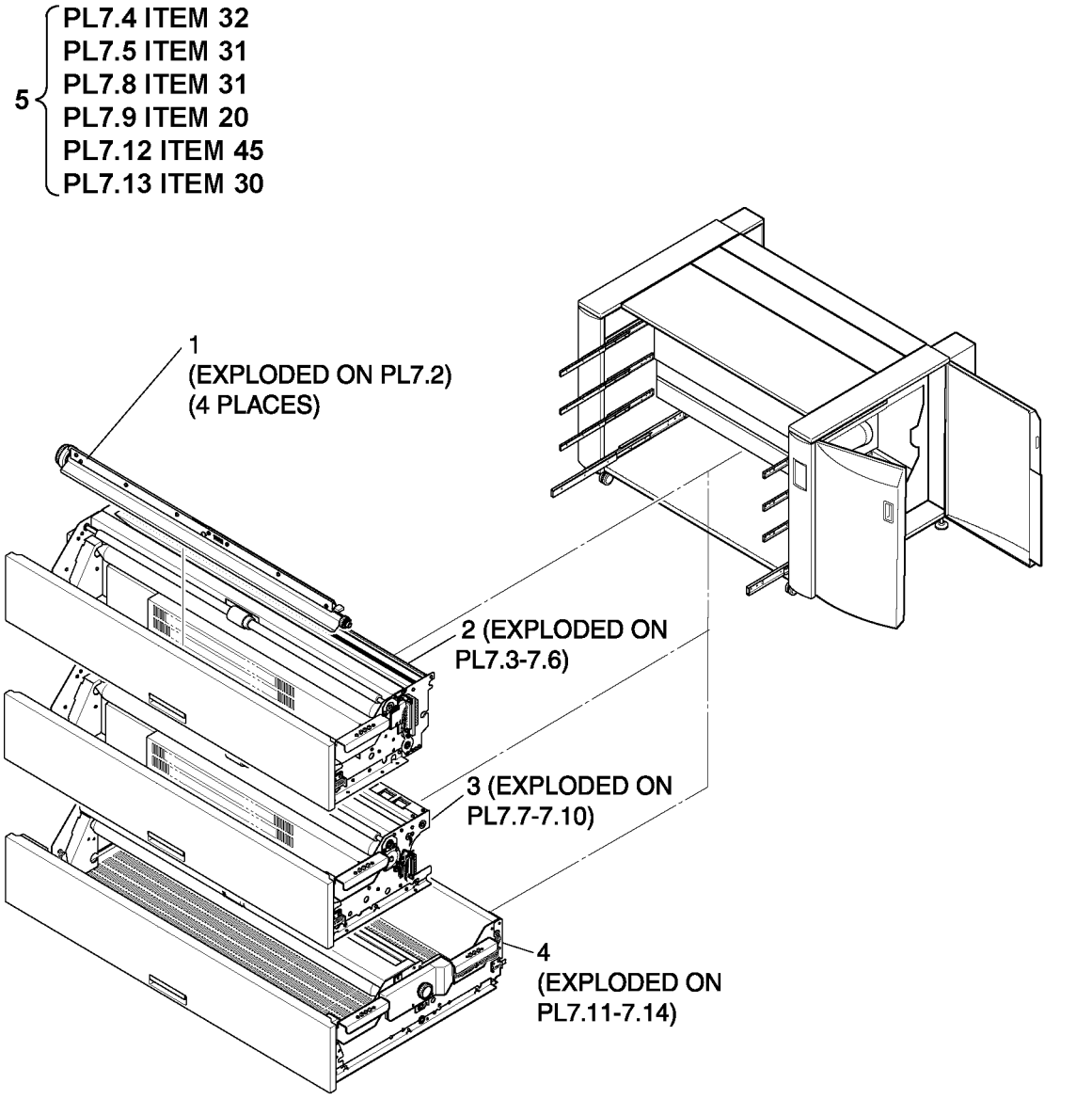
PL 6.6 Manual Feed Roller Assembly

Item	Part	Description
1	007N01233	Bracket
2	–	Spur Gear (P/O PL 6.6 Item 35) (32T)
3	–	Frame (P/O PL 6.6 Item 35)
4	–	Stop Bracket (P/O PL 6.6 Item 35)
5	–	Bracket (P/O PL 6.6 Item 35)
6	–	Shaft (P/O PL 6.6 Item 35)
7	–	Bracket (P/O PL 6.6 Item 35)
8	–	Gear (P/O PL 6.6 Item 35) (18T)
9	–	Roller Cover (P/O PL 6.6 Item 35)
10	022N02045	Paper Pickup Roller
11	–	Gear (P/O PL 6.6 Item 35) (18T)
12	–	Gear (P/O PL 6.6 Item 35) (18T)
13	–	Gear (P/O PL 6.6 Item 35) (14T)
14	–	Tension Spring (P/O PL 6.6 Item 35)
15	–	Roller Holder (P/O PL 6.6 Item 35)
16	–	Shaft (P/O PL 6.6 Item 35)
17	–	Bracket (P/O PL 6.6 Item 35)
18	–	Hook (P/O PL 6.6 Item 35)
19	–	Tension Spring (P/O PL 6.6 Item 35)
20	–	Bracket (P/O PL 6.6 Item 35)
21	–	Solenoid Arm (P/O PL 6.6 Item 35)
22	121N01063	Pickup Solenoid (SOL3)
23	–	Locking Wire Saddle (P/O PL 6.6 Item 35)
24	–	Edge Saddle (P/O PL 6.6 Item 35)
25	–	Pin (P/O PL 6.6 Item 35)
26	–	Pin (P/O PL 6.6 Item 35)
27	–	Spring Pin (P/O PL 6.6 Item 35)
28	–	Bearing (P/O PL 6.6 Item 35)
29	–	Bearing (P/O PL 6.6 Item 35)
30	–	E-Ring (P/O PL 6.6 Item 35)
31	–	E-Ring (P/O PL 6.6 Item 35)
32	–	E-Ring (P/O PL 6.6 Item 35)
33	–	Screw (P/O PL 6.6 Item 35)
34	–	Screw (P/O PL 6.6 Item 35)
35	001N00402	Roller Assembly



PL 7.1 Drawer Assemblies

Item	Part	Description
1	022N02015	Paper Shaft Assembly
2	–	Upper Drawer Assembly (Not Spared)
3	–	Middle Drawer Assembly (Not Spared)
4	–	Lower Drawer Assembly (Not Spared)
5	600N03216	Spring Kit (8/Kit)



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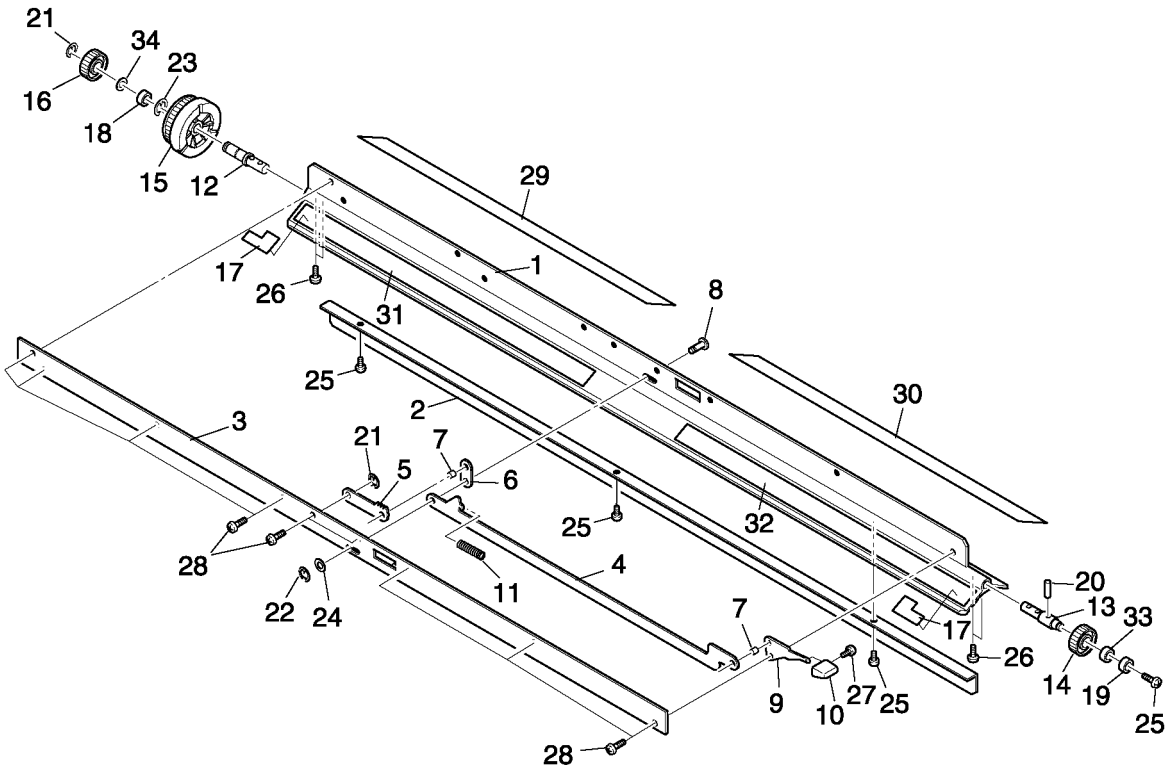
PL 7.2 Paper Shaft Assembly

Item	Part	Description
1	–	Spool Holder (P/O PL 7.1 Item 1)
2	–	Plate (P/O PL 7.1 Item 1)
3	–	Plate (P/O PL 7.1 Item 1)
4	–	Connecting Bracket (P/O PL 7.1 Item 1)
5	091N00549	Stop Lever
6	–	Plate (P/O PL 7.1 Item 1)
7	–	Pin (P/O PL 7.1 Item 1)
8	–	Shaft (P/O PL 7.1 Item 1)
9	–	Lever (P/O PL 7.1 Item 1)
10	–	Knob (P/O PL 7.1 Item 1)
11	–	Spring (P/O PL 7.1 Item 1)
12	–	Pin (P/O PL 7.1 Item 1)
13	029N00146	Pin
14	022N00600	Roller
15	022N00601	Brake
16	007N01191	Gear
17	–	Label (P/O PL 7.1 Item 1)
18	–	Bearing (P/O PL 7.1 Item 1)
19	022N00955	Collar
20	–	Pin (P/O PL 7.1 Item 1)
21	–	E-Ring (P/O PL 7.1 Item 1)
22	–	E-Ring (P/O PL 7.1 Item 1)
23	–	E-Ring (P/O PL 7.1 Item 1)
24	–	Flat Washer (P/O PL 7.1 Item 1)
25	–	Screw (P/O PL 7.1 Item 1)
26	–	Screw (P/O PL 7.1 Item 1)
27	–	Screw (P/O PL 7.1 Item 1)
28	–	Screw (P/O PL 7.1 Item 1)
29	–	Label (P/O PL 7.1 Item 1)
30	–	Label (P/O PL 7.1 Item 1)
31	–	Label (P/O PL 7.1 Item 1)
32	–	Label (P/O PL 7.1 Item 1)
33	013N00370	Bearing
34	–	Thrust Washer (P/O PL 7.1 Item 1)



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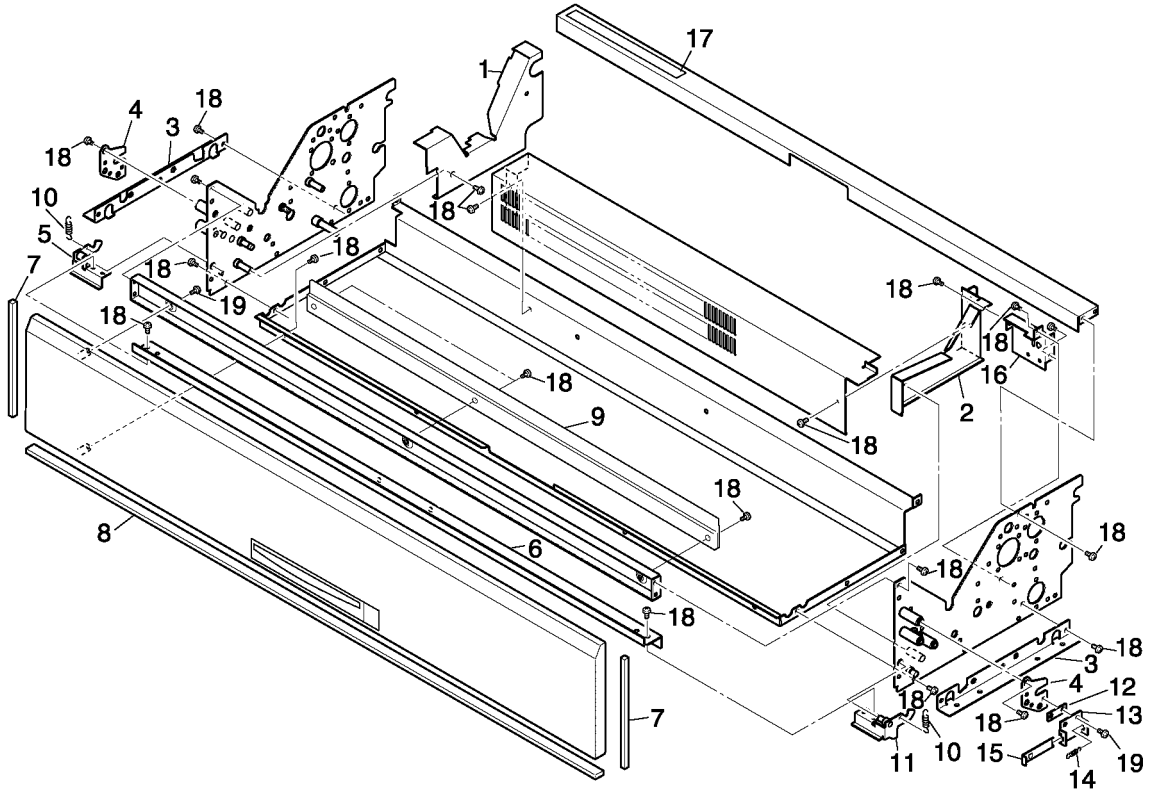
PL 7.3 Upper Drawer Components (Part 1 of 4)

Item	Part	Description
1	–	Gear Cover (Not Spared)
2	–	Cover (Not Spared)
3	–	Mount (Not Spared)
4	–	Stop Plate (Not Spared)
5	019N00344	Hook
6	–	Stay (Not Spared)
7	–	Seal (Not Spared)
8	–	Seal (Not Spared)
9	–	Guide (Not Spared)
10	009N00778	Extension Spring
11	019N00345	Hook
12	–	Spacer (Not Spared)
13	–	Mount (Not Spared)
14	009N00800	Extension Spring
15	–	Actuator (Not Spared)
16	–	Sensor Mount (Not Spared)
17	–	Label (Not Spared)
18	–	Screw (Not Spared)
19	–	Screw (Not Spared)



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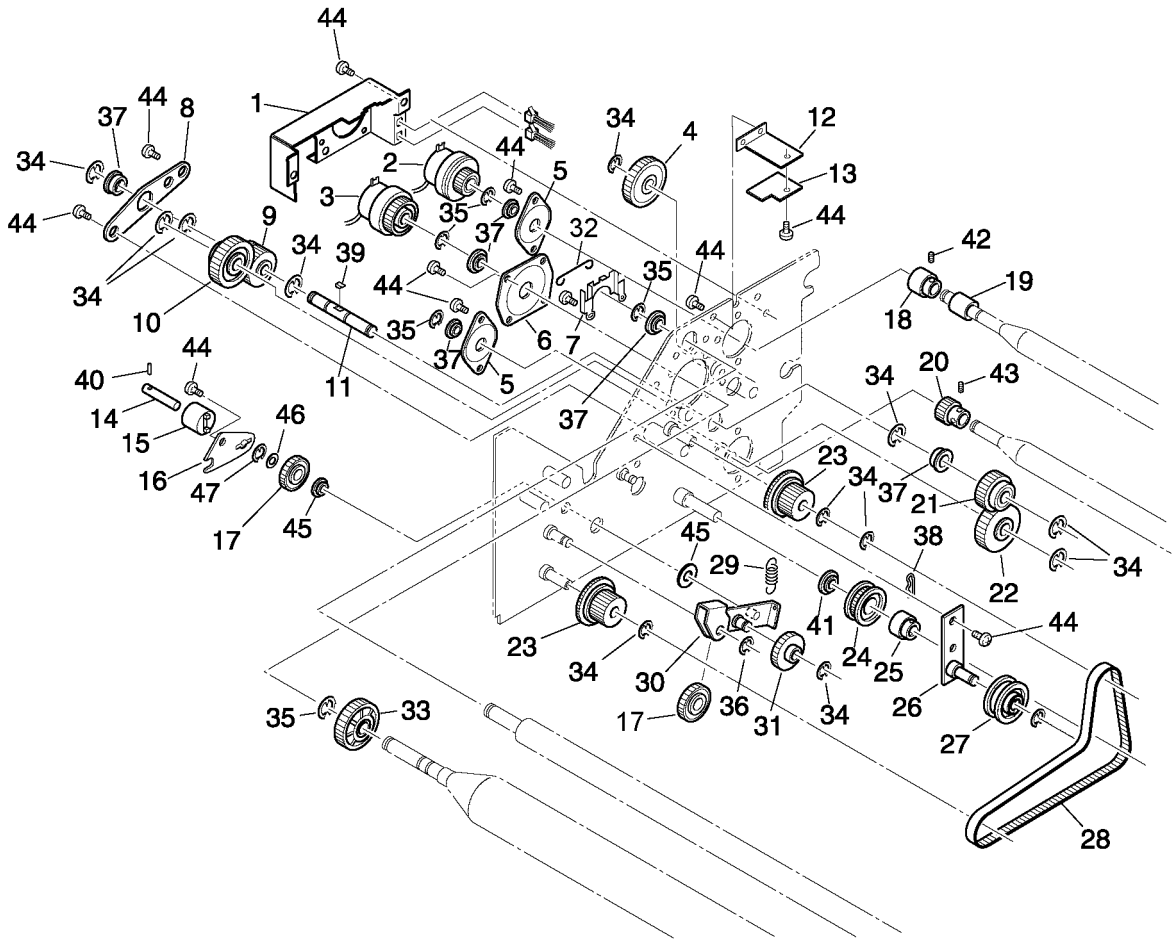
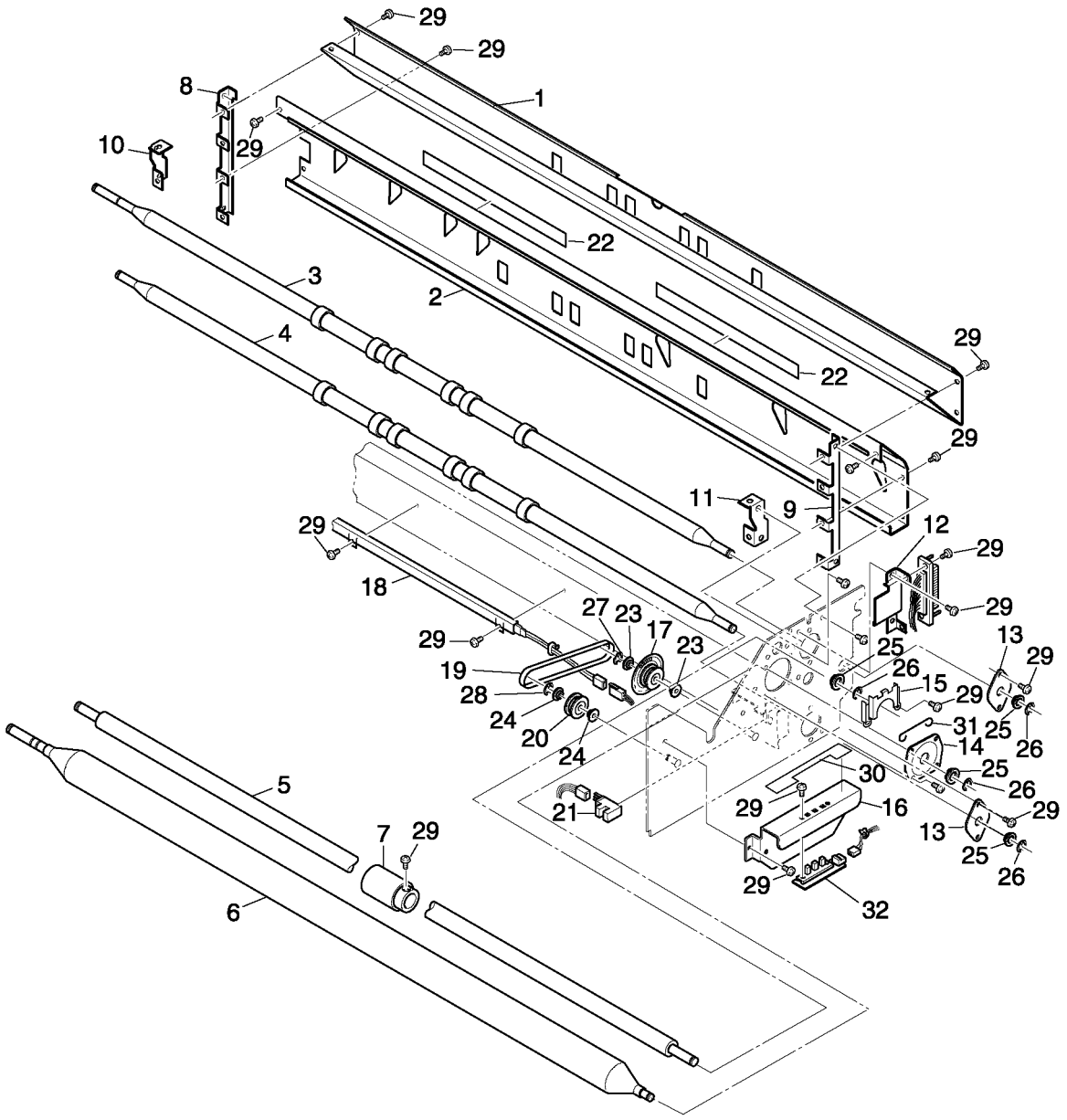
PL 7.4 Upper Drawer Components (Part 2 of 4)

Item	Part	Description
1	–	Mount (Not Spared)
2	121N00289	Manual Drive Clutch (CL7)
3	005N01017	Roll Feed Clutch (CL8)
4	007N00546	Spur Gear (40T)
5	091N00417	Stop Plate
6	091N00414	Roller Stop Plate
7	–	Bracket (Not Spared)
8	–	Stop Plate (Not Spared)
9	007N00528	Spur Gear (30T)
10	007N00527	Spur Gear (34T)
11	–	Shaft (Not Spared)
12	–	Mount (Not Spared)
13	–	Leaf (Not Spared)
14	–	Shaft (Not Spared)
15	105N01499	Torque Limiter
16	–	Bracket (Not Spared)
17	007N00514	Spur Gear
18	005N00413	Collar
19	019N00348	Brake Roller
20	007N00559	Spur Gear (30T)
21	007N00549	Spur Gear (30T)
22	007N00552	Spur Gear (36T)
23	007N00513	Spur Gear/Pulley (40T/P30)
24	020N00727	Pulley
25	105N01498	Torque Limiter
26	091N00415	Pin Plate
27	020N00268	Pulley
28	023N00322	Belt
29	009N00777	Extension Spring
30	031N00136	Tension Arm
31	007N00511	Spur Gear (30T)
32	–	Spring (P/O PL 7.1 Item 5)
33	007N00512	Spur Gear (40T)
34	–	E-Ring (Not Spared)
35	–	E-Ring (Not Spared)
36	–	E-Ring (Not Spared)
37	013N00271	Bearing
38	–	Snap Pin (Not Spared)
39	029N00180	Woodruff Key
40	–	Spring Pin (Not Spared)
41	013N13805	Bearing
42	–	Set Screw (Not Spared)
43	026N00440	Set Screw
44	–	Screw (Not Spared)
45	–	Collar (Not Spared)
46	–	Collar (Not Spared)
47	–	E-Ring (Not Spared)



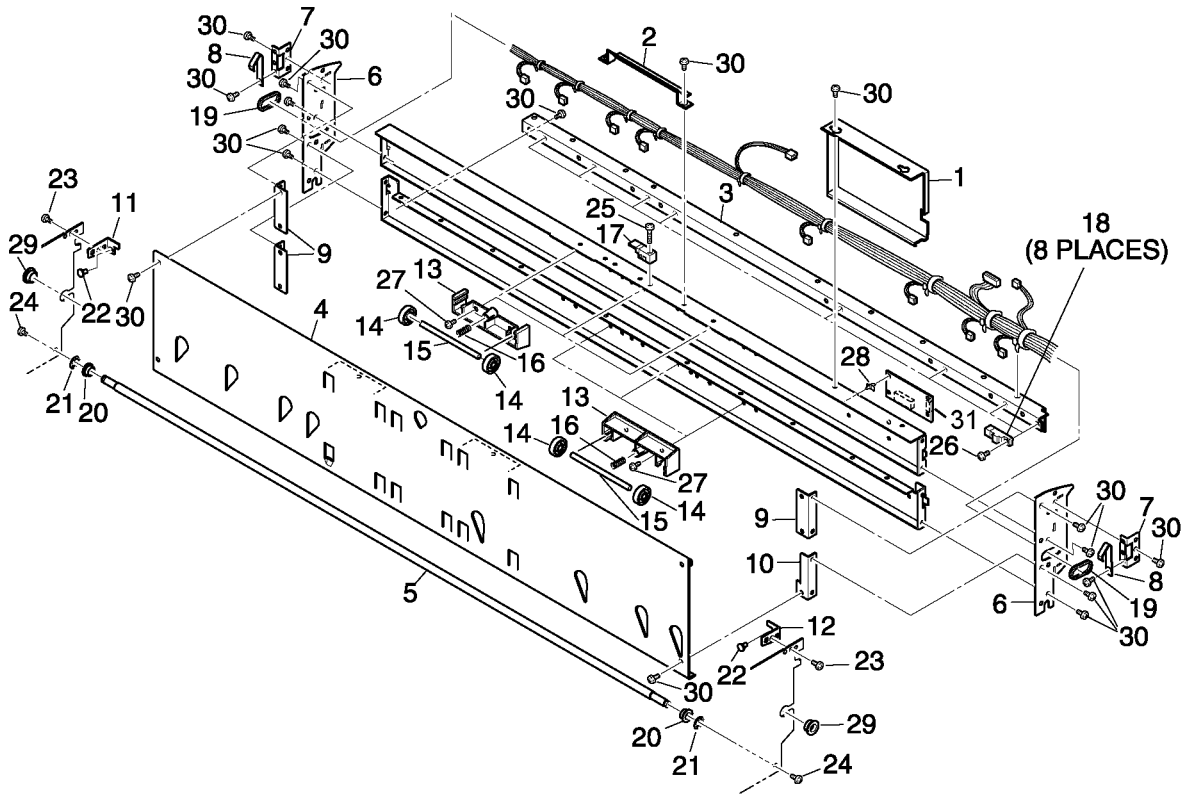
PL 7.5 Upper Drawer Components (Part 3 of 4)

Item	Part	Description
1	–	Paper Guide (Not Spared)
2	–	Paper Guide Plate (Not Spared)
3	022N00603	Roller
4	022N00604	Roller
5	–	Roller Shaft (Not Spared)
6	006N01227	Roll 1 Paper Feed Pinch Roller
7	022N00807	Roll 1 Paper Feeder Roller
8	–	Bracket (Not Spared)
9	–	Bracket (Not Spared)
10	–	Mount (Not Spared)
11	–	Mount (Not Spared)
12	–	Bracket (Not Spared)
13	091N00417	Stop Plate
14	091N00414	Roller Stop Plate
15	–	Bracket (Not Spared)
16	–	Spool Guide (Not Spared)
17	146N00122	Encoder Disk
18	126N00218	Paper Heater (HTR8)
19	023N00323	Belt
20	020N00267	Pulley
21	064N00018	Roll 1 Feed Clock Sensor (Q13)
22	–	Label (Not Spared)
23	–	Bearing (Not Spared)
24	–	Bearing (Not Spared)
25	135N00034	Bearing
26	–	E-Ring (Not Spared)
27	–	E-Ring (Not Spared)
28	–	E-Ring (Not Spared)
29	–	Screw (Not Spared)
30	–	Label (Not Spared)
31	–	Spring (P/O PL 7.1 Item 5)
32	–	Roll 1 Media Selection PWB (See PL 10.1 Item 16)



PL 7.6 Upper Drawer Components (Part 4 of 4)

Item	Part	Description
1	–	Cover (Not Spared)
2	–	Wire Harness Cover (Not Spared)
3	–	Stay (Not Spared)
4	–	Paper Guide (Not Spared)
5	–	Shaft (Not Spared)
6	–	Side Panel (Not Spared)
7	–	Bracket (Not Spared)
8	–	Leaf Spring (Not Spared)
9	–	Mount (Not Spared)
10	–	Mount (Not Spared)
11	–	Stop Bracket (Not Spared)
12	–	Stop Bracket (Not Spared)
13	022N00596	Roller Holder
14	022N00689	Roller (10/Kit)
15	–	Shaft (Not Spared)
16	009N00783	Compression Spring
17	064N00019	Manual Start Sensor (Q20)
18	062N00244	Roll 1 Paper Set Sensor (Q2), Roll 1 Size Sensor (Q5 thru Q11)
19	–	Grommet (Not Spared)
20	–	Bearing (Not Spared)
21	–	E-Ring (Not Spared)
22	–	Bumper (Not Spared)
23	–	Screw (Not Spared)
24	–	Hex Head Bolt (Not Spared)
25	–	Screw (Not Spared)
26	–	Screw (Not Spared)
27	–	Screw (Not Spared)
28	–	Spacer (Not Spared)
29	016N00146	Bushing
30	–	Screw (Not Spared)
31	–	DC Translation PWB (P/O PL 10.1 Item 17)



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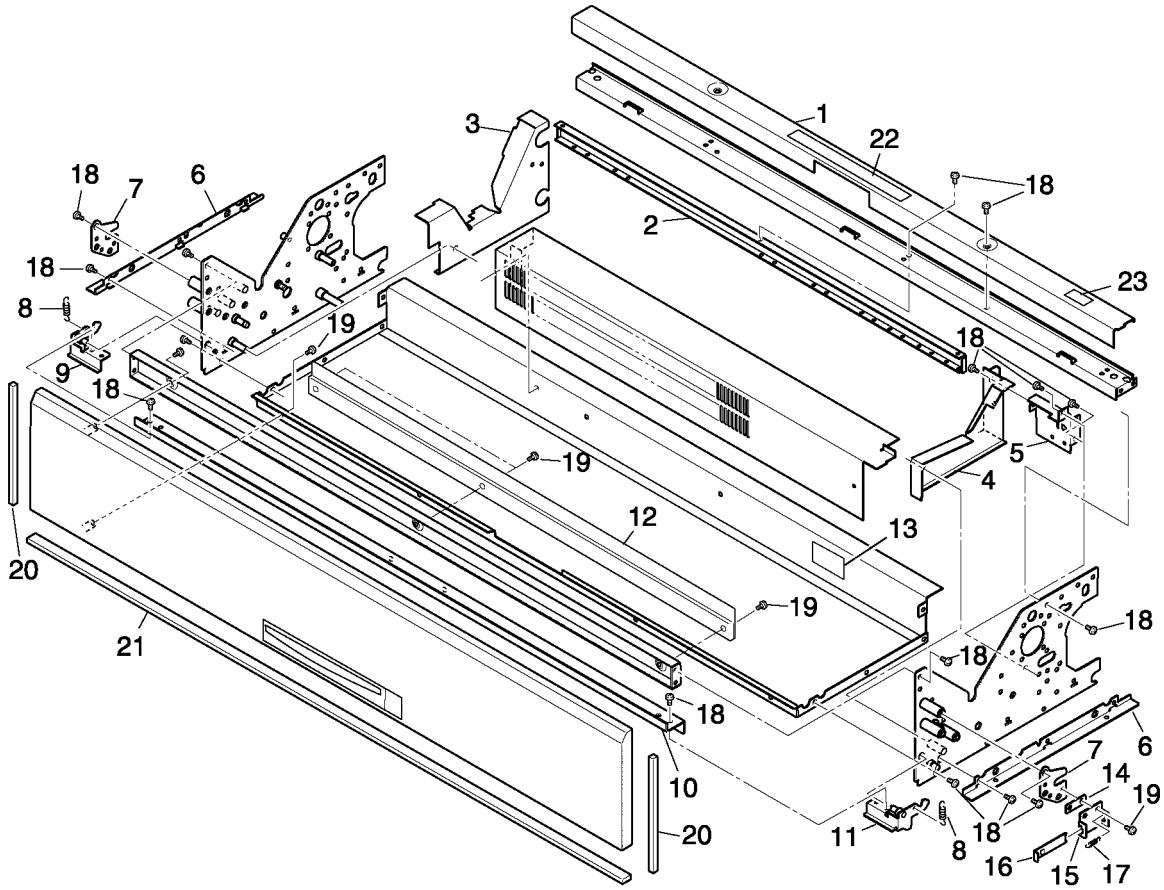
PL 7.7 Middle Drawer Components (Part 1 of 4)

Item	Part	Description
1	–	Sensor Cover (Not Spared)
2	–	Stay (Not Spared)
3	–	Gear Cover (Not Spared)
4	–	Cover (Not Spared)
5	–	Sensor Mount (Not Spared)
6	–	Bracket (Not Spared)
7	–	Stop Plate (Not Spared)
8	009N00778	Extension Spring
9	019N00344	Hook
10	–	Stay (Not Spared)
11	019N00345	Hook
12	–	Guide (Not Spared)
13	–	DC Translation PWB (P/O PL 10.1 Item 17)
14	–	Spacer (Not Spared)
15	–	Mount (Not Spared)
16	–	Actuator (Not Spared)
17	009N00800	Extension Spring
18	–	Screw (Not Spared)
19	–	Screw (Not Spared)
20	–	Seal (Not Spared)
21	–	Seal (Not Spared)
22	–	Label (Not Spared)
23	–	Label (Not Spared)



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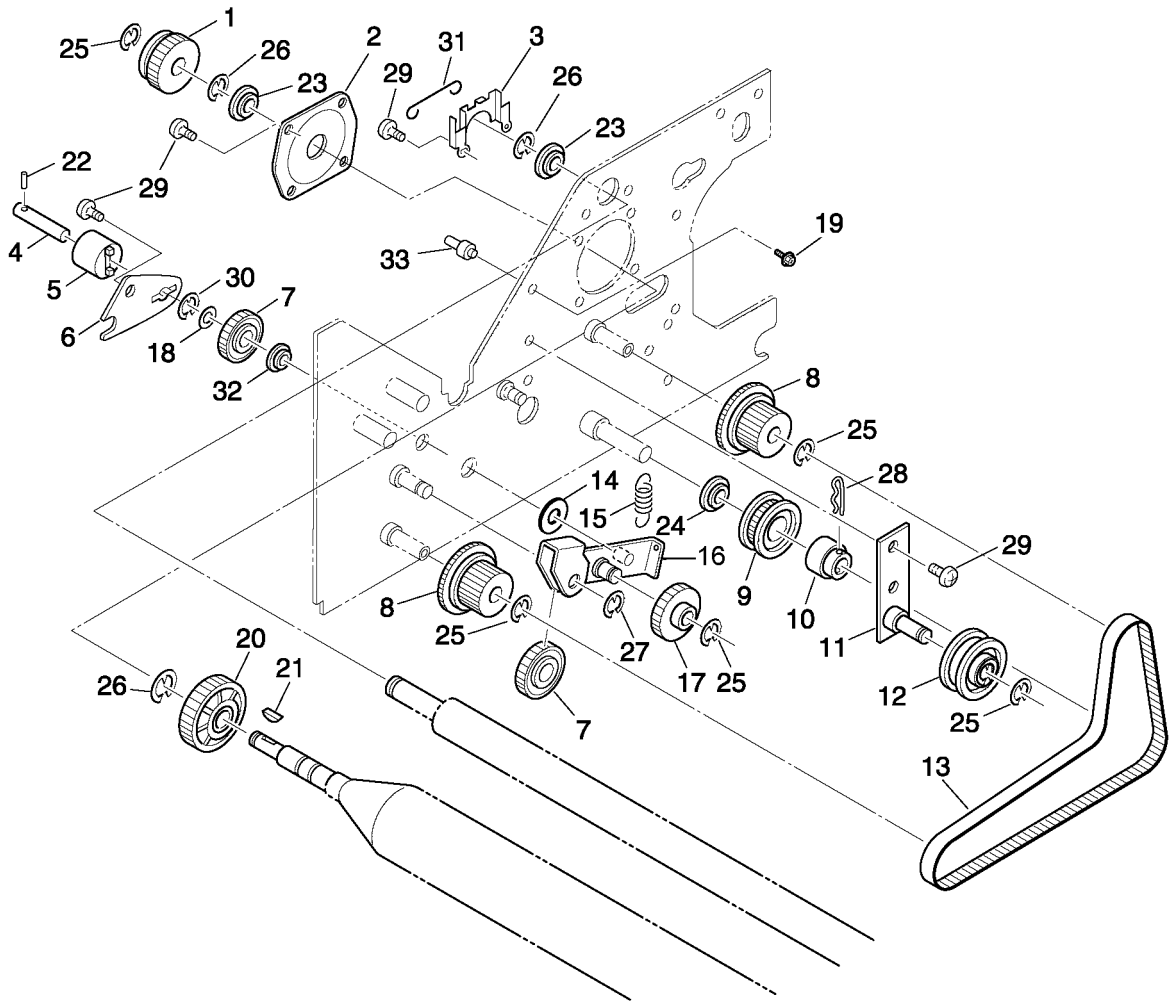
PL 7.8 Middle Drawer Components (Part 2 of 4)

Item	Part	Description
1	007N00558	Spur Gear (30T)
2	091N00414	Roller Stop Plate
3	–	Bracket (Not Spared)
4	–	Shaft (Not Spared)
5	–	Torque Limiter (Not Spared)
6	–	Bracket (Not Spared)
7	007N00514	Spur Gear (30T)
8	007N00513	Spur Gear/Pulley (40T/P30)
9	–	Pulley (Not Spared)
10	–	Torque Limiter (Not Spared)
11	091N00415	Pin Plate
12	020N00268	Pulley
13	023N00322	Belt
14	009N00777	Extension Spring
15	014N00297	Spacer
16	031N00136	Tension Arm
17	007N00511	Spur Gear (30T)
18	–	Collar (Not Spared)
19	–	Hex Head Bolt (Not Spared)
20	007N00512	Spur Gear (40T)
21	029N00180	Woodruff Key
22	–	Spring Pin (Not Spared)
23	135N00034	Bearing
24	–	Bearing (Not Spared)
25	–	E-Ring (Not Spared)
26	–	E-Ring (Not Spared)
27	–	E-Ring (Not Spared)
28	–	Snap Pin (Not Spared)
29	–	Screw (Not Spared)
30	–	E-Ring (Not Spared)
31	–	Spring (P/O PL 7.1 Item 5)
32	–	Collar (Not Spared)
33	–	Shaft (Not Spared)



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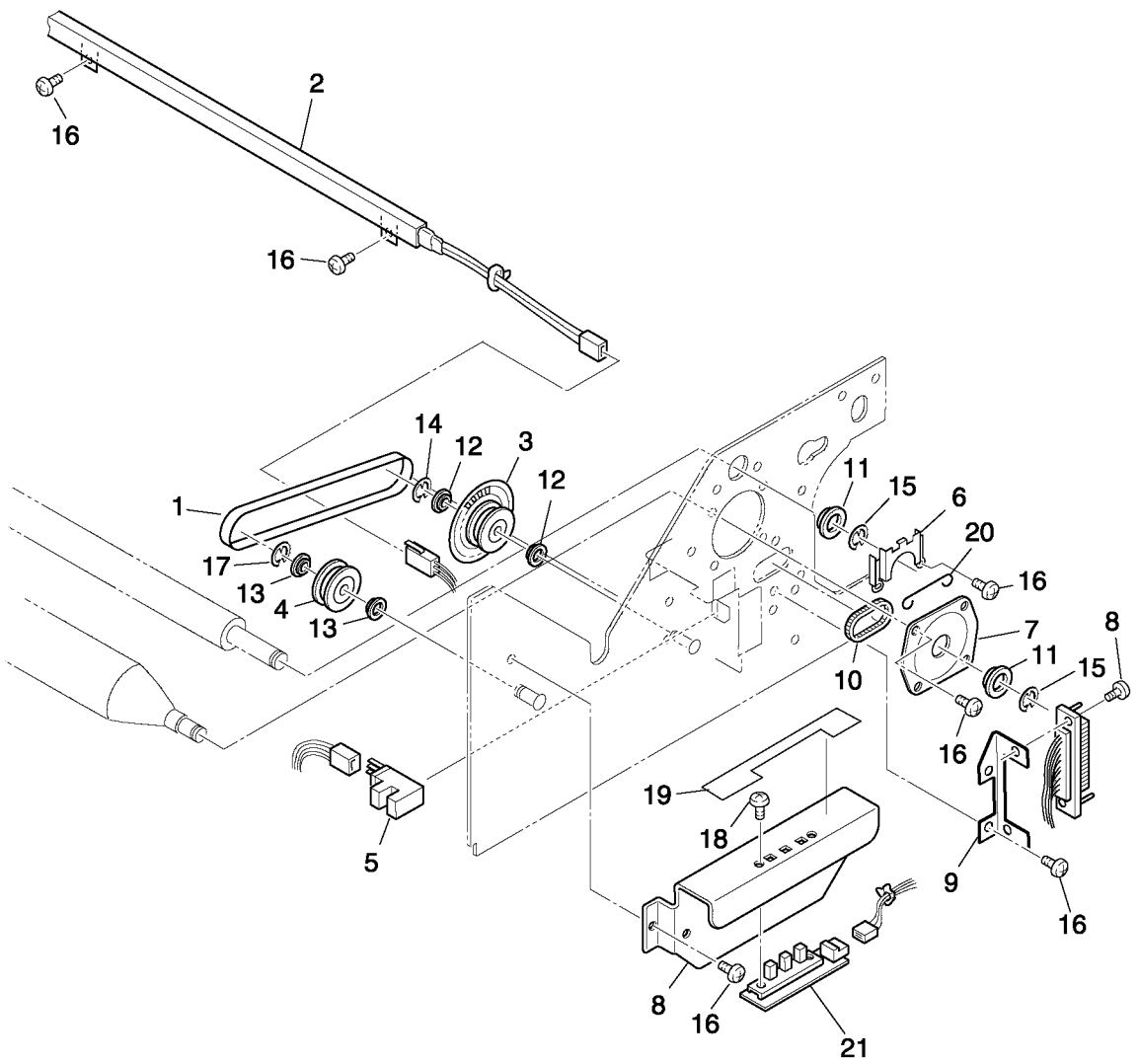
PL 7.9 Middle Drawer Components (Part 3 of 4)

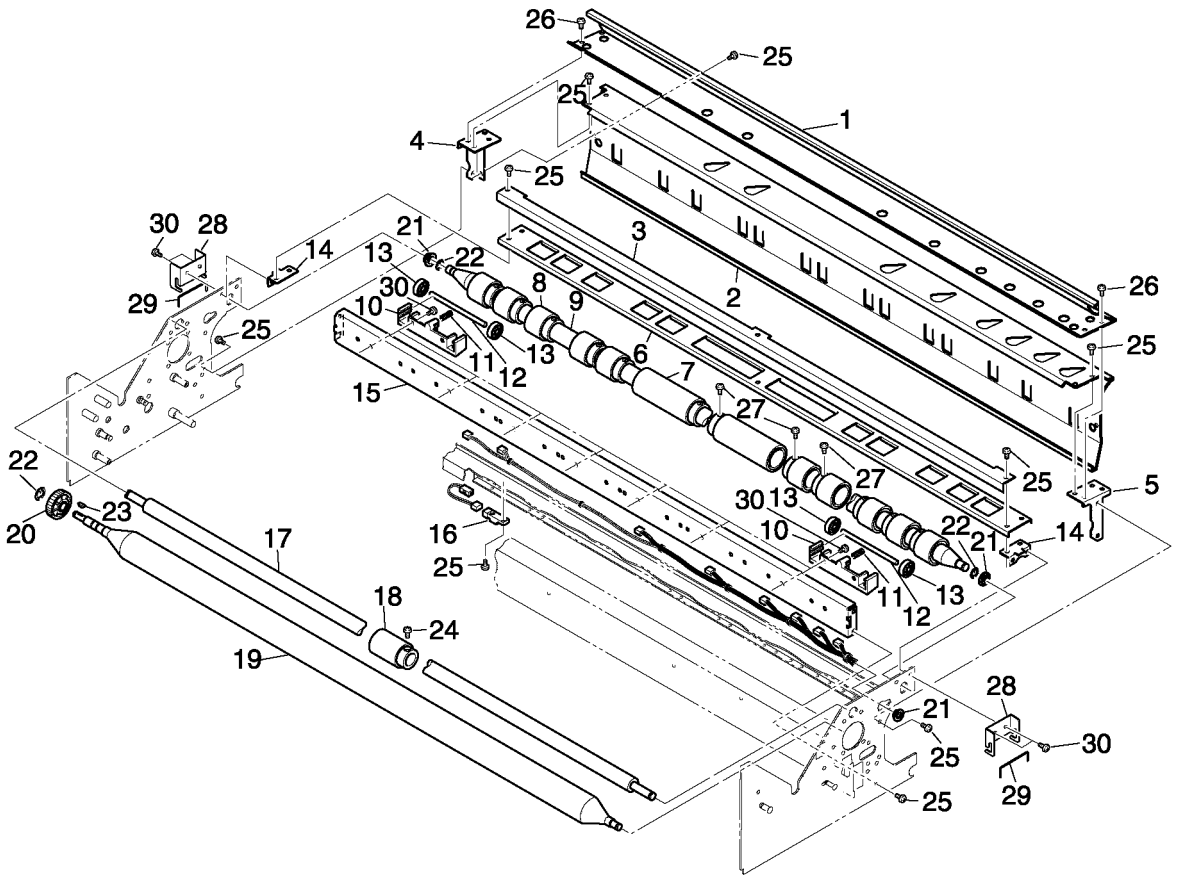
Item	Part	Description
1	023N00323	Belt
2	126N00218	Paper Heater (HTR7)
3	146N00122	Encoder Disk
4	020N00267	Pulley
5	064N00018	Roll 2 Feed Clock Sensor (Q14)
6	–	Bracket (Not Spared)
7	091N00414	Roller Stop Plate
8	–	Spool Guide (Not Spared)
9	–	Mount (Not Spared)
10	–	Grommet (Not Spared)
11	–	Bearing (Not Spared)
12	–	Bearing (Not Spared)
13	135N00034	Bearing
14	–	E-Ring (Not Spared)
15	–	E-Ring (Not Spared)
16	–	Screw (Not Spared)
17	–	E-Ring (Not Spared)
18	–	Screw (Not Spared)
19	–	Media Select Label (Not Spared)
20	–	Spring (P/O PL 7.1 Item 5)
21	–	Roll 2 Media Selection PWB (See PL 10.1 Item 16)



0507009A-OBS

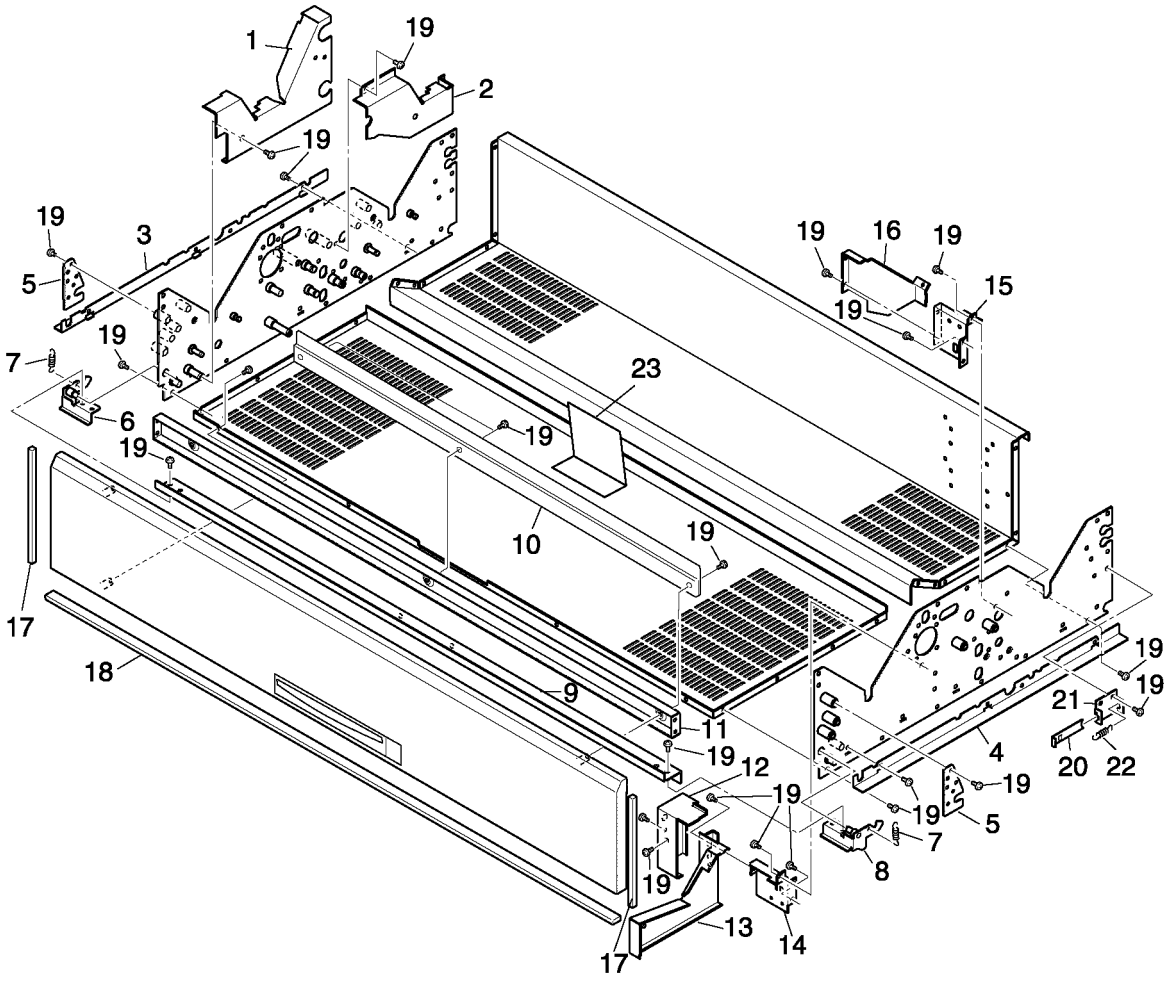
PL 7.10 Middle Drawer Components (Part 4 of 4)

Item	Part	Description
1	–	Paper Guide (Not Spared)
2	–	Paper Guide (Not Spared)
3	–	Paper Guide Plate (Not Spared)
4	–	Bracket (Not Spared)
5	–	Bracket (Not Spared)
6	–	Stay (Not Spared)
7	022N00623	Roller
8	022N00622	Roller
9	–	Roller Shaft (Not Spared)
10	022N00596	Roller Holder
11	009N00784	Compression Spring
12	–	Shaft (Not Spared)
13	022N00689	Roller (10/Kit)
14	–	Mount (Not Spared)
15	–	Mount (Not Spared)
16	062N00244	Roll 2 Paper Set Sensor (Q2), Roll 2 Size Sensor (Q5 thru Q11)
17	–	Shaft (Not Spared)
18	022N00807	Roll 2 Paper Feed Roller
19	006N01228	Roll 2 Paper Feed Pinch Roller
20	007N00512	Spur Gear (40T)
21	135N00034	Bearing
22	–	E-Ring (Not Spared)
23	029N00180	Woodruff Key
24	–	Screw (Not Spared)
25	–	Screw (Not Spared)
26	–	Screw (Not Spared)
27	–	Screw (Not Spared)
28	030N00644	Bracket
29	009N01425	Spring
30	–	Screw (Not Spared)



PL 7.11 Lower Drawer Components (Part 1 of 4)

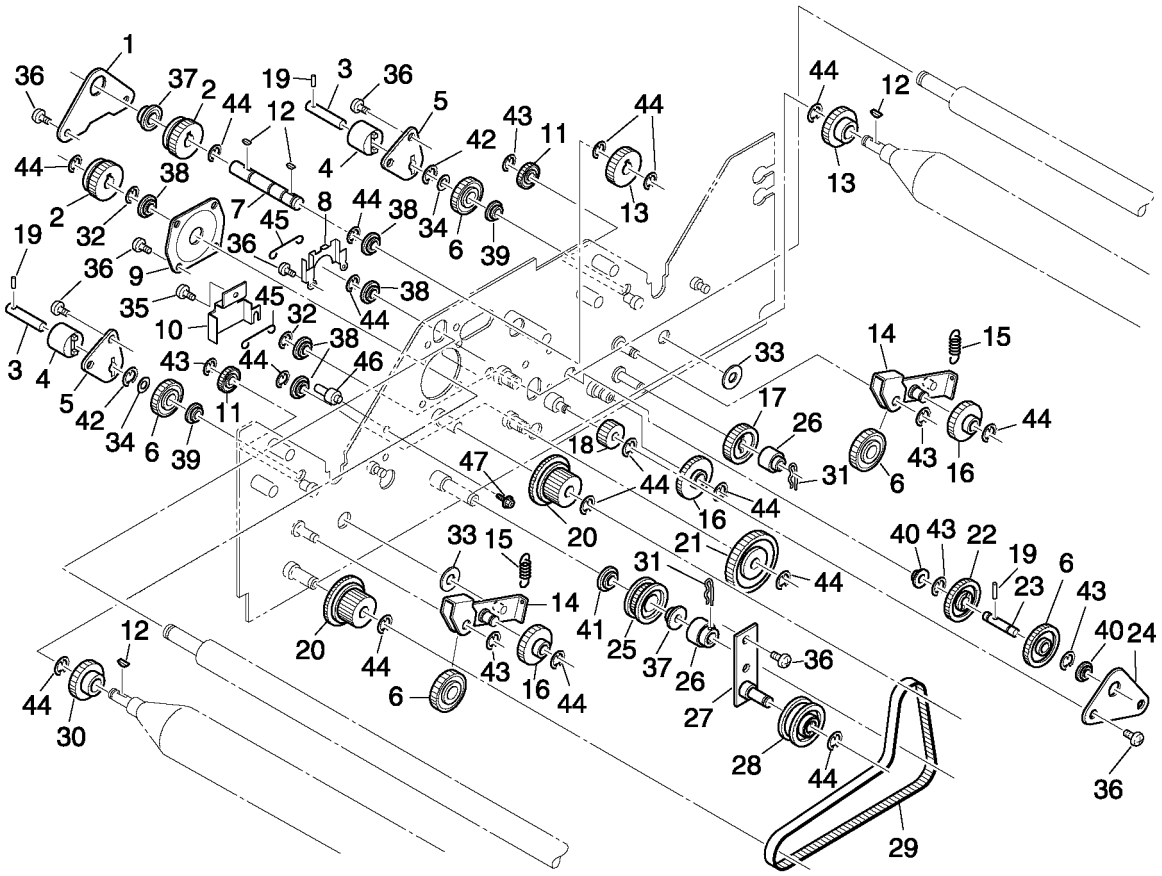
Item	Part	Description
1	–	Gear Cover (Not Spared)
2	–	Gear Cover (Not Spared)
3	–	Plate (Not Spared)
4	–	Plate (Not Spared)
5	–	Stop Plate (Not Spared)
6	019N00344	Hook
7	009N00778	Extension Spring
8	019N00345	Hook
9	–	Stay (Not Spared)
10	–	Guide (Not Spared)
11	–	Stay (Not Spared)
12	–	Cover (Not Spared)
13	–	Cover (Not Spared)
14	–	Sensor Mount (Not Spared)
15	–	Sensor Holder (Not Spared)
16	–	Encoder Disk Cover (Not Spared)
17	–	Seal (Not Spared)
18	–	Seal (Not Spared)
19	–	Screw (Not Spared)
20	–	Actuator (Not Spared)
21	–	Mount (Not Spared)
22	009N00800	Extension Spring
23	001N00415	Mylar Strip



0507011A-OBS

PL 7.12 Lower Drawer Components (Part 2 of 4)

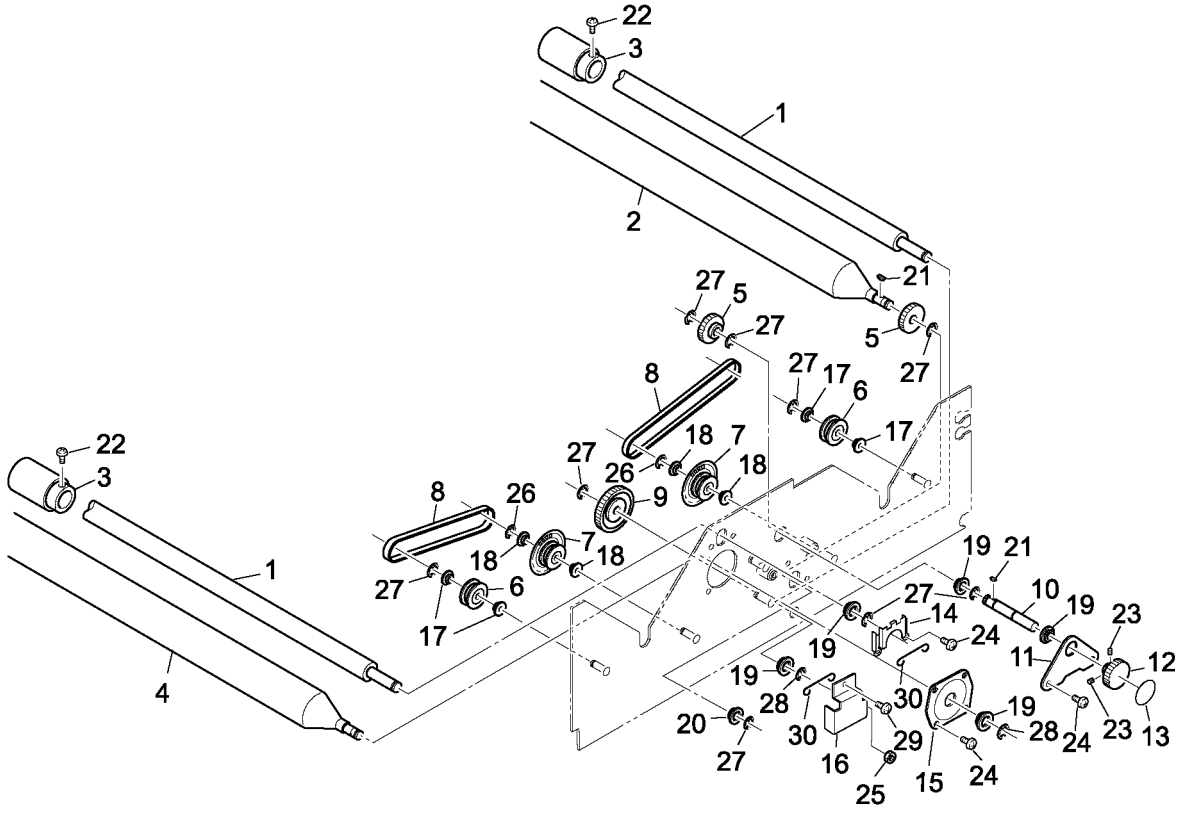
Item	Part	Description
1	–	Plate (Not Spared)
2	007N00558	Spur Gear (30T)
3	–	Shaft (Not Spared)
4	105N01499	Torque Limiter
5	–	Bracket (Not Spared)
6	007N00514	Spur Gear (30T)
7	006N00834	Drive Shaft
8	–	Bracket (Not Spared)
9	091N00414	Roller Stop Plate
10	–	Bracket (Not Spared)
11	007N01234	Spur Gear (20T)
12	029N00180	Woodruff Key
13	007N00520	Spur Gear (30T)
14	031N00136	Tension Arm
15	009N00777	Extension Spring
16	–	Spur Gear (Not Spared) (30T)
17	007N01192	Gear
18	007N00516	Spur Gear (20T)
19	–	Spring Pin (Not Spared)
20	007N00513	Spur Gear/Pulley (40T/P30)
21	007N00517	Spur Gear (45T)
22	007N00515	Spur Gear (30T)
23	005N00429	Transmission Shaft
24	–	Plate (Not Spared)
25	–	Pulley (Not Spared)
26	105N01498	Torque Limiter
27	091N00415	Pin Plate
28	020N00268	Pulley
29	023N00322	Belt
30	007N00512	Spur Gear (40T)
31	–	Snap Pin (Not Spared)
32	–	E-Ring (Not Spared)
33	014N00297	Spacer
34	–	Collar (Not Spared)
35	–	Screw (Not Spared)
36	–	Screw (Not Spared)
37	013N00271	Bearing
38	013N00271	Bearing
39	–	Collar (Not Spared)
40	–	Bearing (Not Spared)
41	–	Bearing (Not Spared)
42	–	E-Ring (Not Spared)
43	–	E-Ring (Not Spared)
44	–	E-Ring (Not Spared)
45	–	Spring (P/O PL 7.1 Item 5)
46	–	Shaft (Not Spared)
47	–	Hex Head Bolt (Not Spared)



0507012A-OBS

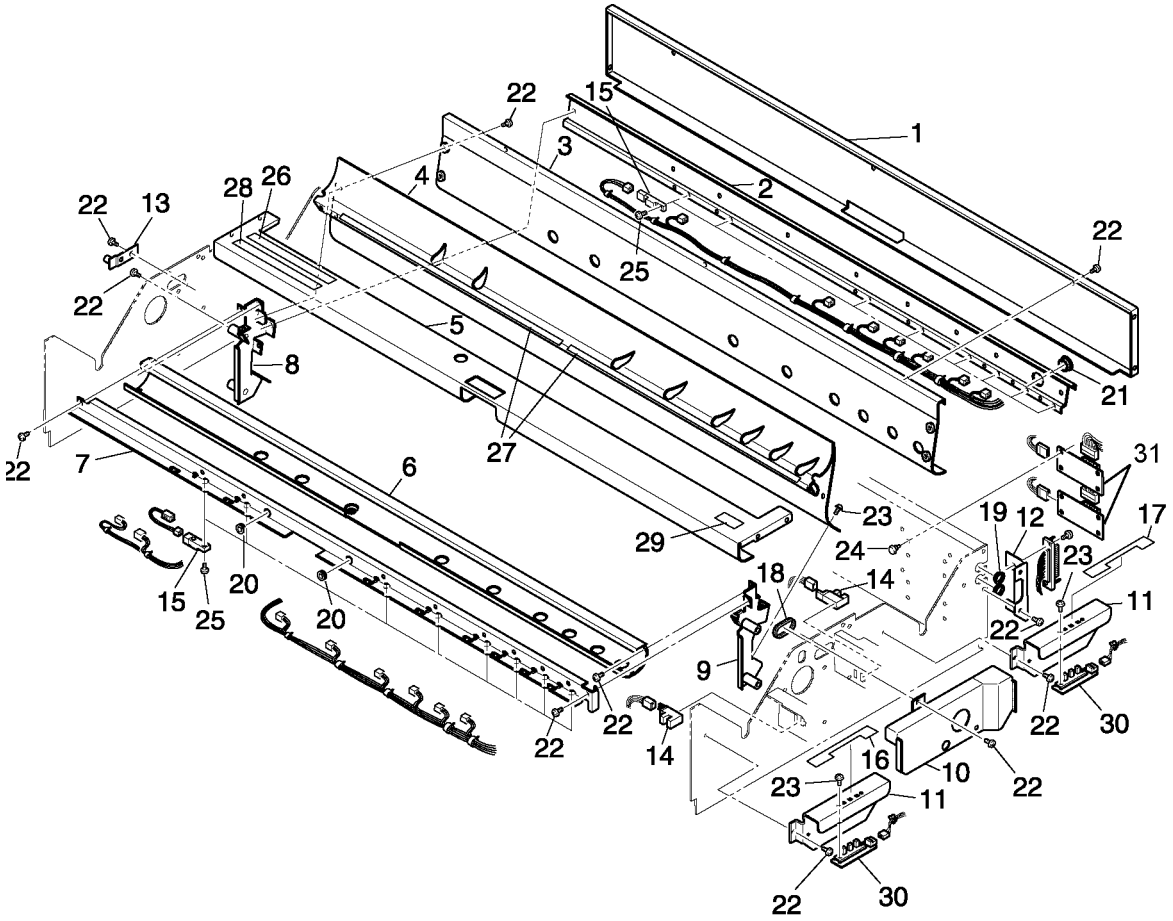
PL 7.13 Lower Drawer Components (Part 3 of 4)

Item	Part	Description
1	–	Roller Shaft (Not Spared)
2	006N01229	Roller Shaft
3	022N00807	Paper Feeder Roller
4	–	Roller Shaft (Not Spared)
5	007N00520	Spur Gear (30T)
6	020N00267	Pulley
7	146N00122	Encoder Disk
8	023N00323	Belt
9	007N00517	Spur Gear (45T)
10	–	Shaft (Not Spared)
11	–	Plate (Not Spared)
12	003N00606	Knob
13	–	Label (Not Spared)
14	–	Bracket (Not Spared)
15	091N00414	Roller Stop Plate
16	–	Bracket (Not Spared)
17	–	Bearing (Not Spared)
18	–	Bearing (Not Spared)
19	135N00034	Bearing
20	–	Bearing (Not Spared)
21	029N00180	Woodruff Key
22	–	Set Screw (Not Spared)
23	026N00440	Screw
24	–	Screw (Not Spared)
25	–	Hex Nut (Not Spared)
26	–	E-Ring (Not Spared)
27	–	E-Ring (Not Spared)
28	–	E-Ring (Not Spared)
29	–	Screw (Not Spared)
30	–	Spring (P/O PL 7.1 Item 5)



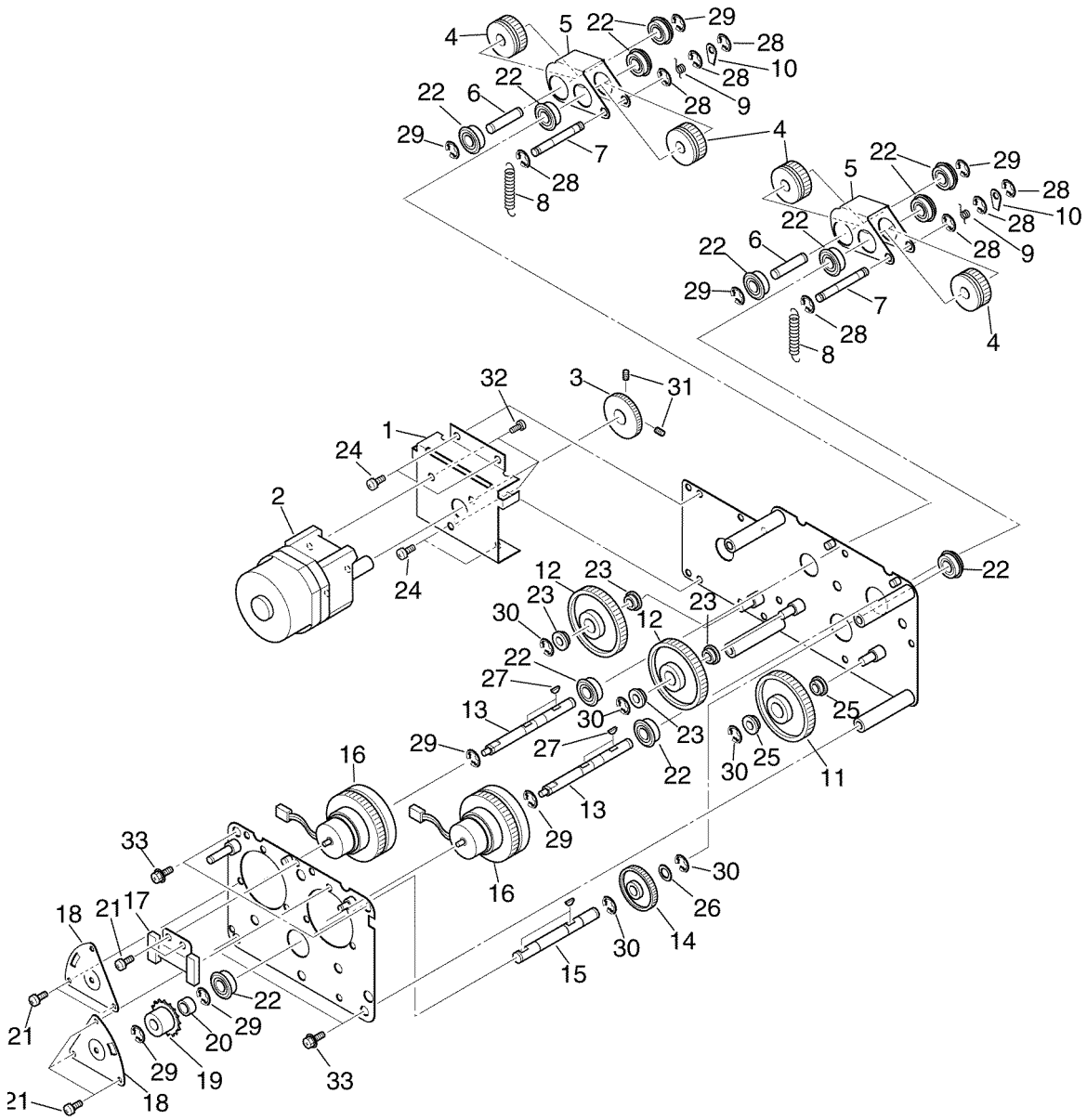
PL 7.14 Lower Drawer Components (Part 4 of 4)

Item	Part	Description
1	–	Rear Cover (Not Spared)
2	–	Stay (Not Spared)
3	–	Paper Guide (Not Spared)
4	–	Paper Guide (Not Spared)
5	–	Lower Cover (Not Spared)
6	–	Lower Guide (Not Spared)
7	–	Stay (Not Spared)
8	–	Bracket (Not Spared)
9	–	Bracket (Not Spared)
10	–	Cover (Not Spared)
11	–	Spool Guide (Not Spared)
12	–	Bracket (Not Spared)
13	–	Stop Bracket (Not Spared)
14	064N00018	Roll 3 Feed Clock Sensor (Q15), Roll 4 Feed Clock Sensor (Q16)
15	062N00244	Roll 3 Paper Set Sensor (Q3), Roll 4 Paper Set Sensor (Q4),Roll 3 Size Sensor, Roll 4 Size Sensor (Q5 thru Q11)
16	–	Label (Not Spared)
17	–	Label (Not Spared)
18	–	Grommet (Not Spared)
19	–	Bushing (Not Spared)
20	016N00145	Bushing
21	016N00146	Bushing
22	–	Screw (Not Spared)
23	–	Screw (Not Spared)
24	–	Spacer (Not Spared)
25	–	Screw (Not Spared)
26	–	Label (Not Spared)
27	–	Label (Not Spared)
28	–	Label (Not Spared)
29	–	Label (Not Spared)
30	140N04710	Media Selection PWB (P/O PL 10.1 Item 16)
31	–	DC Translation PWB (P/O PL 10.1 Item 17)



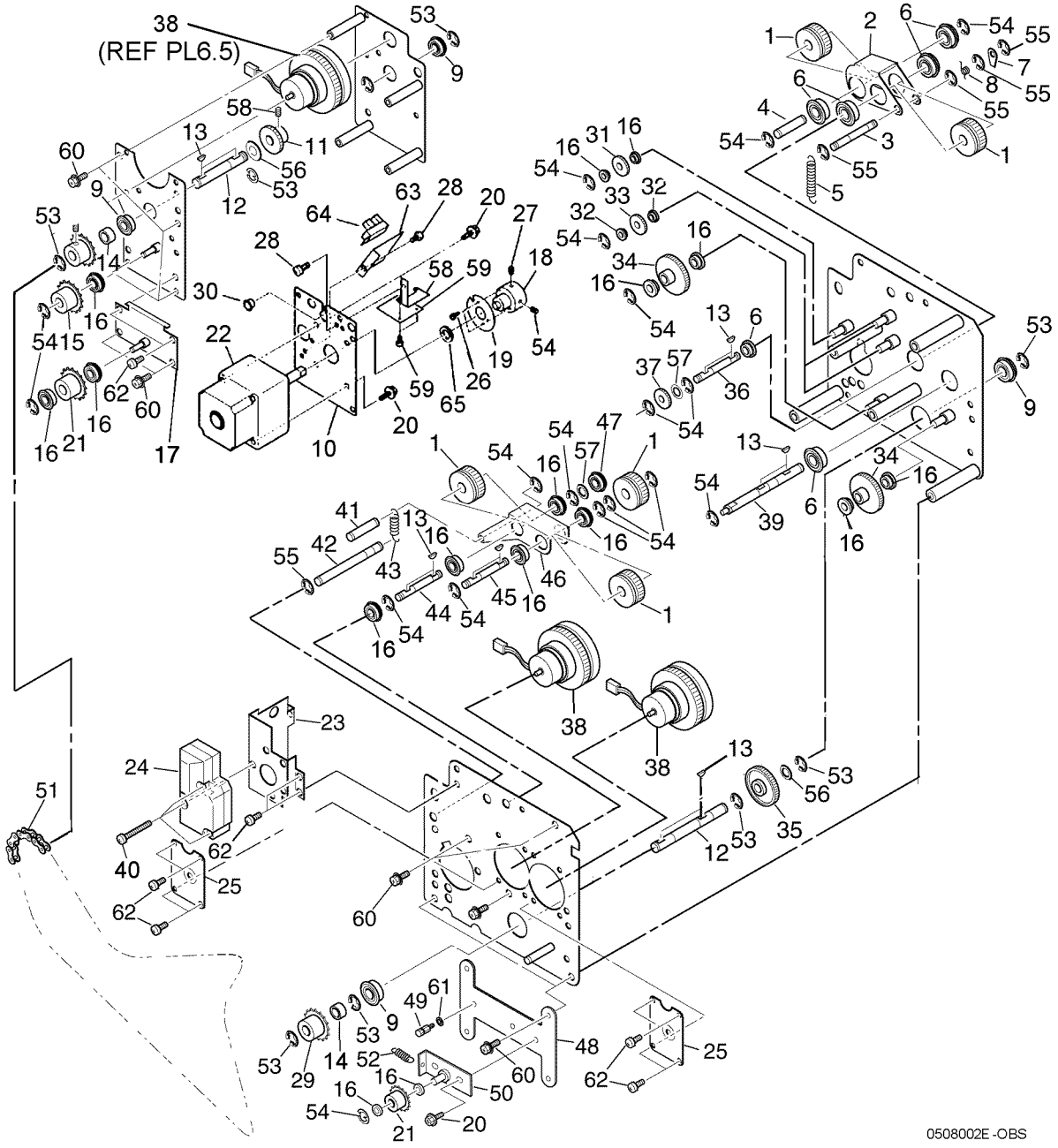
PL 8.1 Main Drive 1

Item	Part	Description
1	001N00399	Motor Bracket
2	127N00750	Paper Feed Motor (MOT2)
3	007N01235	Gear (40T)
4	007N00558	Spur Gear (30T)
5	–	Idler Arm (Not Spared)
6	005N00428	Lower Drive Shaft
7	–	Pin (Not Spared)
8	009N00779	Extension Spring
9	009N00780	Spring
10	003N00601	Spring Stop
11	007N00529	Spur Gear (50T)
12	007N01236	Spur Gear (50T)
13	005N00805	Clutch Transmission Shaft
14	007N00504	Spur Gear (50T)
15	006N01200	Drive Shaft
16	121N00615	Roll 3 Feed Clutch, Roll 4 Feed Clutch (CL3, CL4)
17	–	Wire Harness Holder (Not Spared)
18	005N00806	Clutch Setting Plate
19	007N00554	Sprocket (15T)
20	005N00404	Collar
21	–	Screw (Not Spared)
22	013N00383	Bearing
23	013N00269	Bearing
24	–	Screw (Not Spared)
25	013N00271	Bearing
26	028N00199	Thrust Washer
27	029N00180	Woodruff Key
28	–	E-Ring (Not Spared)
29	–	E-Ring (Not Spared)
30	–	E-Ring (Not Spared)
31	026N00440	Set Screw
32	–	Hex Head Bolt (Not Spared)
33	–	Hex Head Bolt (Not Spared)



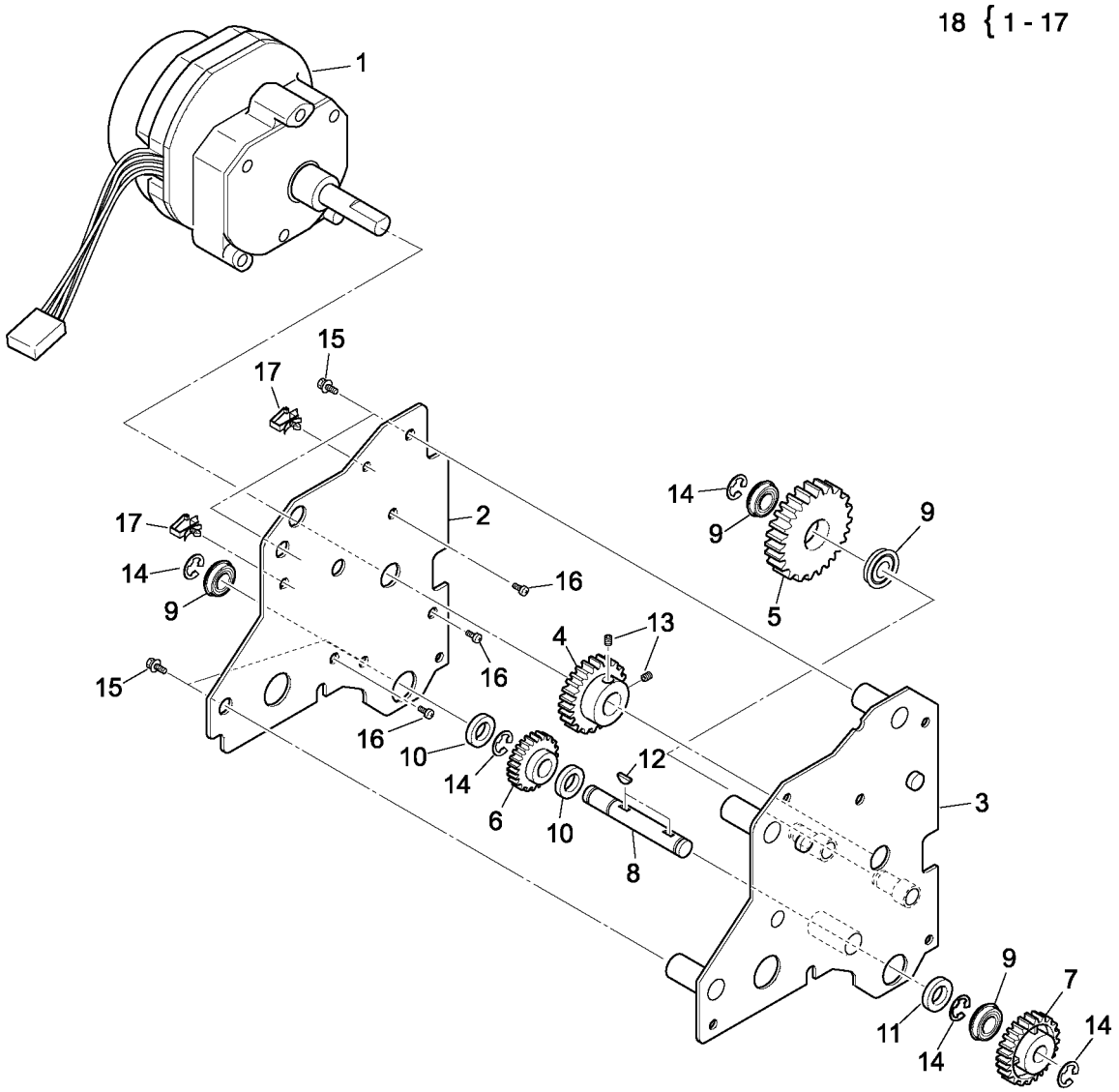
PL 8.2 Main Drive 2

Item	Part	Description
1	007N00558	Spur Gear (30T)
2	–	Idler Arm (Not Spared)
3	–	Shaft (Not Spared)
4	005N00428	Lower Drive Shaft
5	009N00779	Extension Spring
6	–	Bearing (Not Spared)
7	–	Spring Stop (Not Spared)
8	009N00780	Spring
9	013N00269	Bearing
10	–	Motor Base (Not Spared)
11	007N01187	Gear (50T)
12	006N01200	Drive Shaft
13	029N00180	Woodruff Key
14	005N00404	Collar
15	007N01188	Sprocket (15T)
16	013N00271	Bearing
17	–	Bracket (Not Spared)
18	011N00364	Coupling
19	–	Disk (Not Spared)
20	–	Hex Head Bolt (Not Spared)
21	007N00551	Sprocket (15T)
22	127N07248	Cutter Motor (MOT3)
23	–	Motor Bracket (Not Spared)
24	121N01060	Developer Position Motor (MOT4)
25	005N00407	Clutch Mount
26	–	Screw (Not Spared)
27	–	Set Screw (Not Spared)
28	–	Screw (Not Spared)
29	007N00554	Sprocket (15T)
30	–	Bushing (Not Spared)
31	007N01186	Spur Gear (24T)
32	135N00030	Bearing
33	007N00503	Spur Gear (30T)
34	007N00529	Spur Gear (50T)
35	007N00504	Spur Gear (50T)
36	005N00405	Clutch Shaft
37	007N00520	Spur Gear (30T)
38	121N00615	Roll 1/Manual Feed Clutch, Registration Clutch, Roll 2 Feed Clutch (CL1, CL5, CL2)
39	006N00838	Transmission Shaft
40	–	Screw (Not Spared)
41	–	Shaft (Not Spared)
42	–	Shaft (Not Spared)
43	009N01415	Spring
44	006N00990	Shaft
45	006N00992	Shaft
46	–	Idler Arm (Not Spared)
47	013N00327	Bearing
48	–	Support Plate (Not Spared)
49	–	Pin (Not Spared)
50	–	Idler Plate (Not Spared)
51	023N01001	Chain
52	009N01414	Spring
53	–	E-Ring (Not Spared)
54	–	E-Ring (Not Spared)
55	–	E-Ring (Not Spared)
56	028N00199	Thrust Washer (1.0 mm Thick)
58	–	Mount (Not Spared)
59	130N00672	Sensor PWB
60	–	Hex Head Bolt (Not Spared)
61	–	Spring Washer (Not Spared)
62	–	Screw (Not Spared)
63	–	Bracket (Not Spared)
64	064N00018	Inner Transport Set Sensor (Q24)
65	–	Thrust Washer (Not Spared)



PL 8.3 Fuser Drive

Item	Part	Description
1	127N00750	Fuser Motor (MOT5)
2	–	Side Plate (P/O PL 8.3 Item 18)
3	–	Side Plate (P/O PL 8.3 Item 18)
4	007N00561	Spur Gear (26T)
5	007N00749	Spur Gear (40T)
6	007N00532	Spur Gear (29T)
7	007N00533	Spur Gear (33T)
8	006N00988	Shaft
9	013N00271	Bearing
10	005N00408	Collar
11	005N00414	Collar
12	029N00180	Woodruff Key
13	–	Set Screw (P/O PL 8.3 Item 18)
14	–	E-Ring (P/O PL 8.3 Item 18)
15	–	Hex Head Bolt (P/O PL 8.3 Item 18)
16	–	Screw (P/O PL 8.3 Item 18)
17	–	Locking Wire Saddle (P/O PL 8.3 Item 18)
18	023N01002	Fuser Drive Assembly



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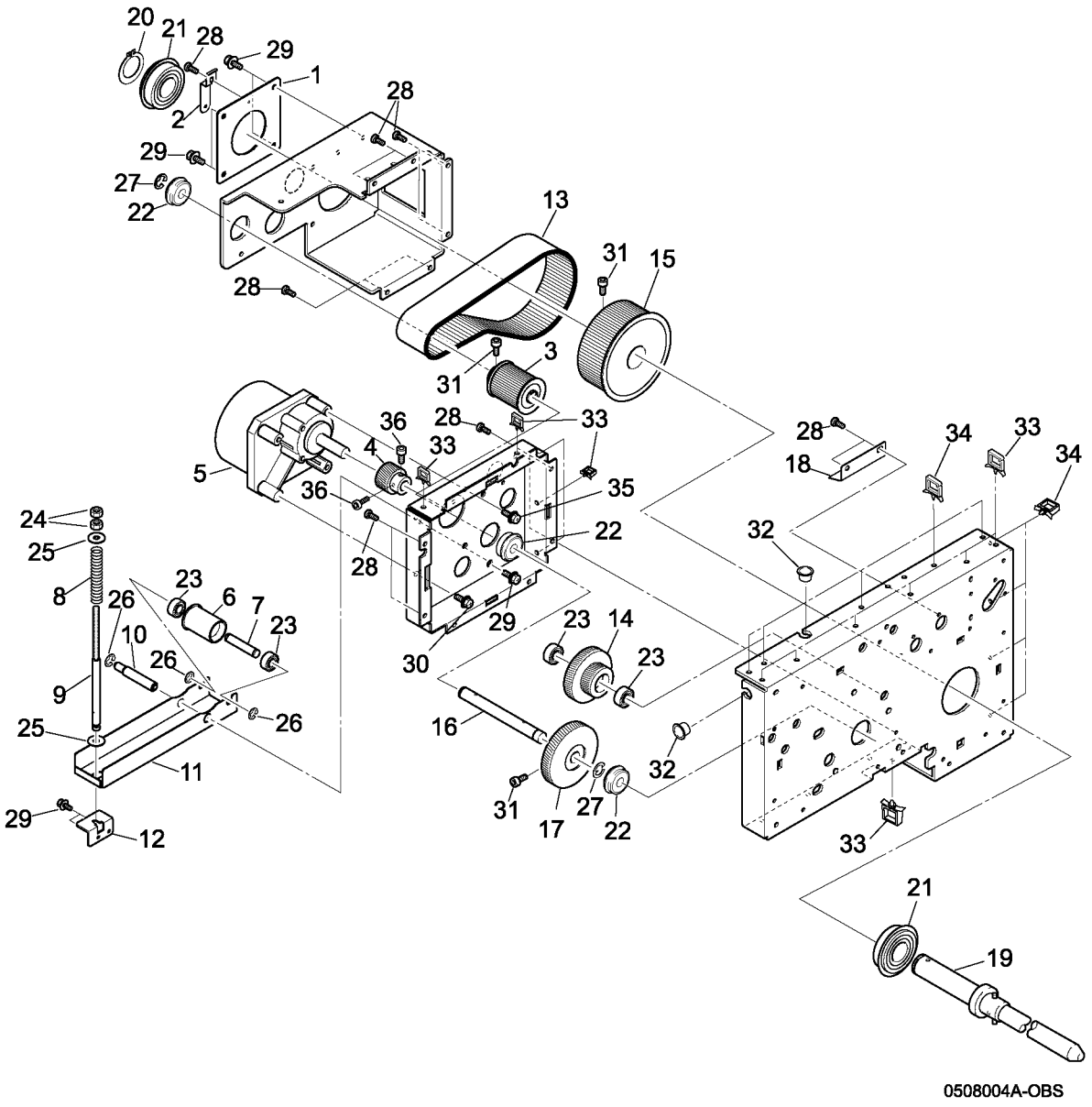
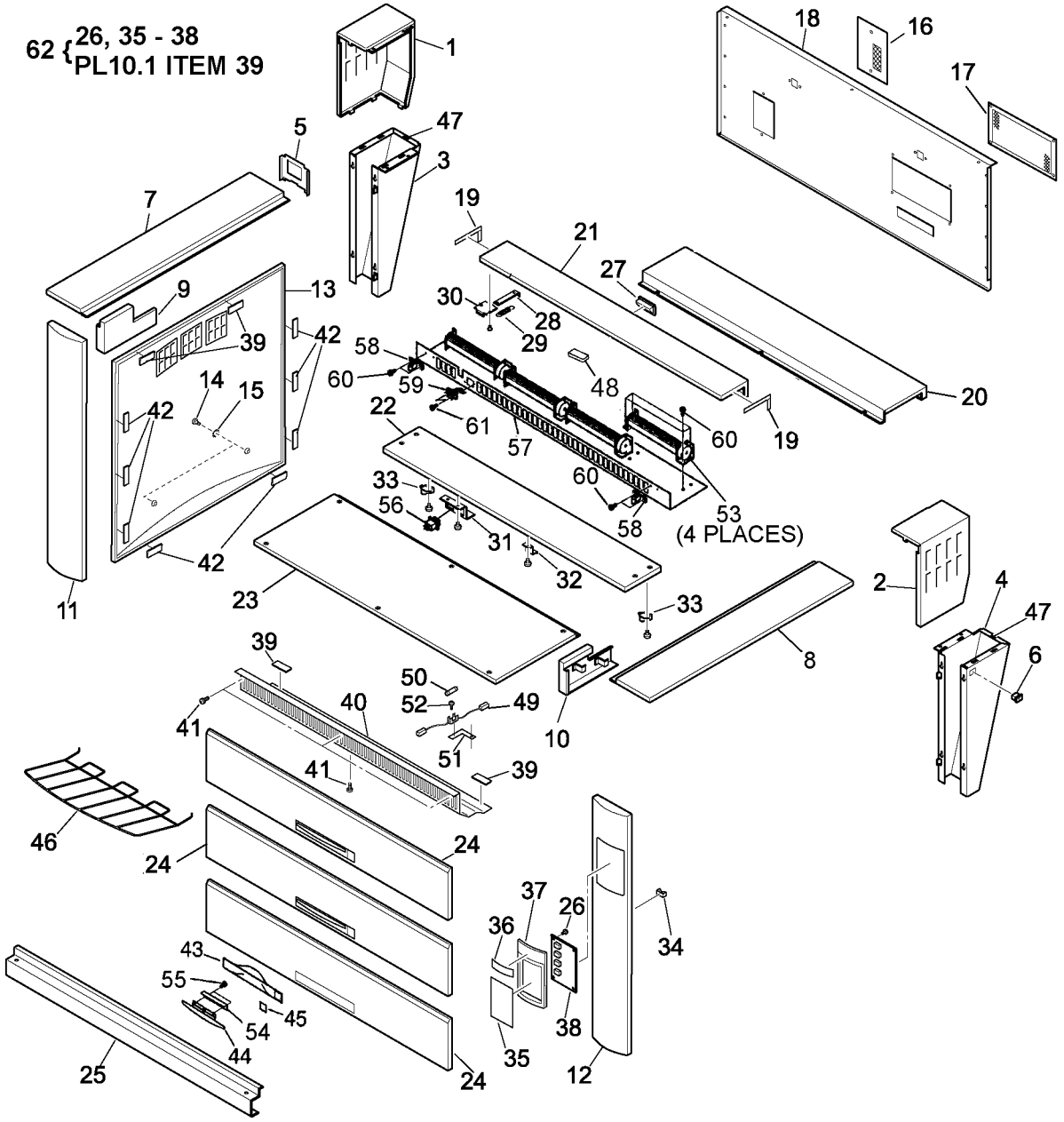
PL 8.4 Drum Drive

Item	Part	Description
1	–	Holder (Not Spared)
2	–	Contact Plate (Not Spared)
3	020N00723	Pulley (24T)
4	007N01183	Gear (50T)
5	127N01427	Drum Drive Motor (MOT1)
6	020N00725	Pulley
7	–	Shaft (Not Spared)
8	–	Tension Spring (Not Spared)
9	–	Shaft (Not Spared)
10	–	Shaft (Not Spared)
11	–	Idler Plate (Not Spared)
12	–	Bracket (Not Spared)
13	023N01000	Timing Belt
14	007N01184	Gear (40/140T)
15	020N00724	Pulley (72T)
16	–	Shaft (Not Spared)
17	007N01185	Gear (80T)
18	–	Plate (Not Spared)
19	–	Drum Shaft (Not Spared)
20	–	C-Ring (Not Spared)
21	–	Bearing (Not Spared)
22	013N13806	Bearing
23	013N13807	Bearing
24	–	Nut (Not Spared)
25	–	Plain Washer (Not Spared)
26	–	E-Ring (Not Spared)
27	–	E-Ring (Not Spared)
28	–	Screw (Not Spared)
29	–	Hex Head Bolt (Not Spared)
30	–	Hex Head Bolt (Not Spared)
31	–	Screw (Not Spared)
32	–	Bushing (Not Spared)
33	–	Wire Saddle (Not Spared)
34	–	Wire Saddle (Not Spared)
35	–	Screw (Not Spared)
36	026N00440	Set Screw



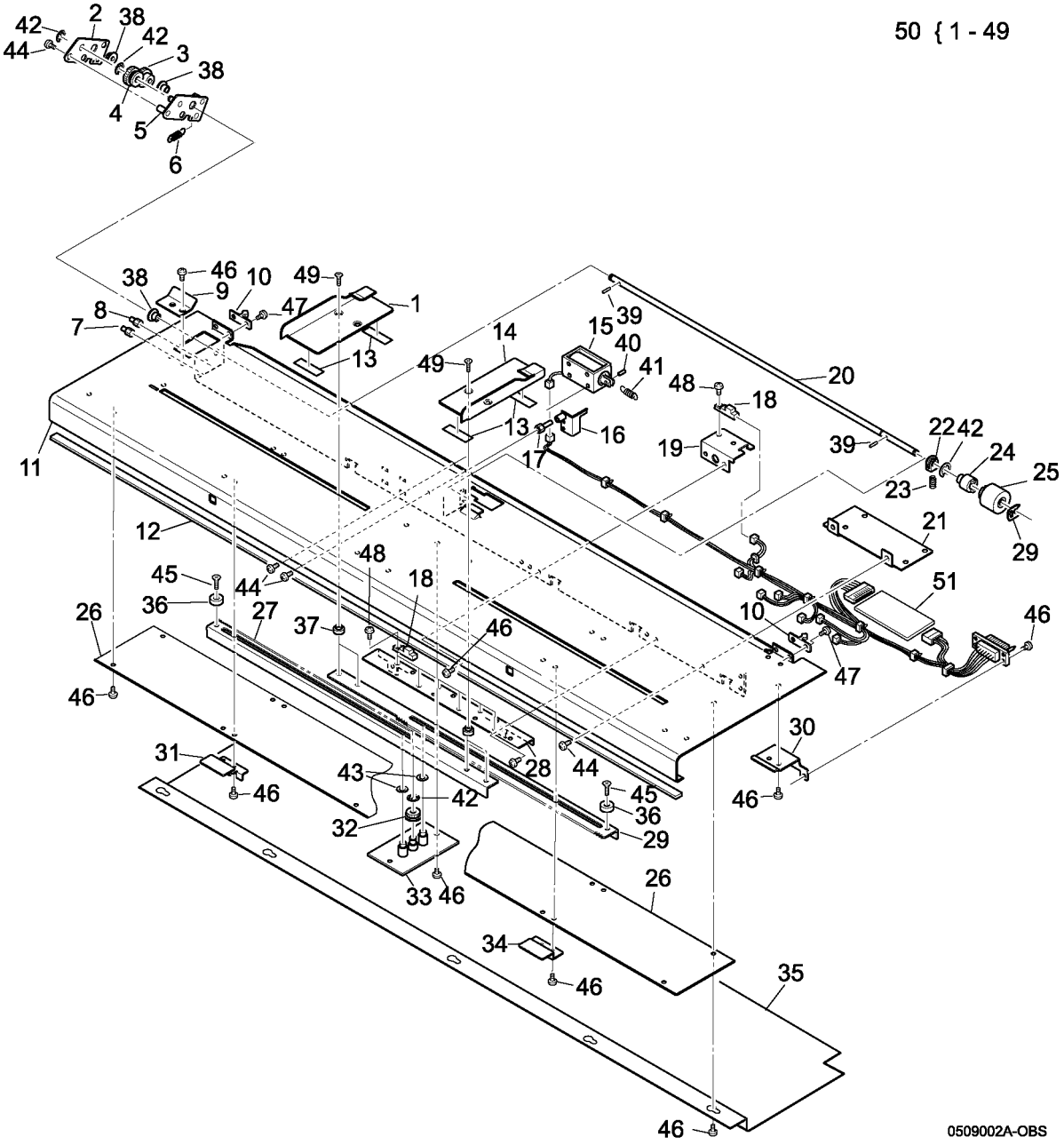
PL 9.1 Miscellaneous Covers

Item	Part	Description
1	101N01327	Fuser Cover (L) (LML)
2	101N01326	Fuser Cover (R) (LML)
3	001N00400	Base (LML)
–	002N02254	Base (RFU)
4	001N00401	Base (LML)
–	002N02255	Base (RFU)
5	002N02127	Cover (LML)
–	002N02220	Cover (RFU)
6	110N01355	Controller Power Switch (S3)
7	002N02122	Upper Cover (L) (LML)
–	002N02222	Upper Cover (L) (RFU)
8	002N02121	Upper Cover (R) (LML)
–	002N02223	Upper cover (R) (RFU)
9	002N02117	Cover (B) (LML)
–	002N02224	Cover (B) (RFU)
10	002N02116	Cover (A) (LML)
–	002N02225	Cover (A) (RFU)
11	002N02115	Cover (L) (LML)
–	002N02226	Cover (L) (RFU)
12	002N02114	Cover (R) (LML)
–	002N02227	Cover (R) (RFU)
13	002N02120	Left Cover (LML)
–	002N02228	Left Cover (RFU)
14	–	Screw (Not Spared)
15	–	Lock Washer (Not Spared)
16	002N02231	Cover (E) (RFU)
17	002N02232	Cover (F) (RFU)
18	002N02233	Panel (RFU)
19	–	Tape (Not Spared)
20	002N02126	Upper Cover (D) (LML)
–	002N02235	Upper Cover (D) (RFU)
21	002N02125	Upper Cover (C) (LML)
–	002N02236	Upper Cover (C) (RFU)
22	002N02124	Upper Cover (B) (LML)
–	002N02237	Upper Cover (B) (RFU)
23	002N02123	Upper Cover (A) (LML)
–	002N02238	Upper Cover (A) (RFU)
24	002N02113	Deck Cover (LML)
25	002N02111	Cover (G) (LML)
–	002N02239	Cover (RFU)
26	–	Screw (Not Spared)
27	003N00868	Handle (LML)
28	–	Actuator (Not Spared)
29	009N00800	Extension Spring
30	030N00640	Bracket
31	030N00639	Bracket
32	030N00638	Bracket
33	022N00611	Catch
34	–	Bushing (Not Spared)
35	892E88320	Roll Supply Label (FR)
–	892E88340	Roll Supply Label (GR)
–	–	Roll Supply Label (Not Spared) (EN)
–	892E88380	Roll Supply Label (SP)
–	892E88360	Roll Supply Label (IT)
36	–	Label (Not Spared)
37	038N00420	Bezel (RFU)
38	–	Media Status Indicator PWB (P/O PL 10.1 Item 39)
39	–	Gasket (Not Spared)
40	038N00419	Paper Guide
41	–	Screw (Not Spared)
42	–	Gasket (Not Spared)
43	003N00870	Deck Handle (A) (LML)
44	003N00883	Deck Handle (B) (LML)
–	003N00926	Deck Handle (B) (RFU)
45	–	Label (Not Spared)
46	050K54990	Catch Tray (LML)
–	050N00430	Catch Tray (RFU)
47	014N00424	Spacer
48	–	Seal (Not Spared)
49	116N00235	Fuse Block
50	108N00518	Fuse (F2)
51	030N00645	Bracket
52	–	Screw (Not Spared)
53	127N01424	Blower (BL4, BL5, BL6, BL7)
54	–	Bracket (Not Spared)
55	–	Screw (Not Spared)
56	110N01058	Upper Cover Interlock switch (DS6)
57	–	Cover (Not Spared)
58	–	Roller Catch Plunger (Not Spared)
59	–	Fan Lead (Not Spared)
60	–	Screw (Not Spared)
61	–	Screw (Not Spared)
62	018N00179	Deck Indicator Kit



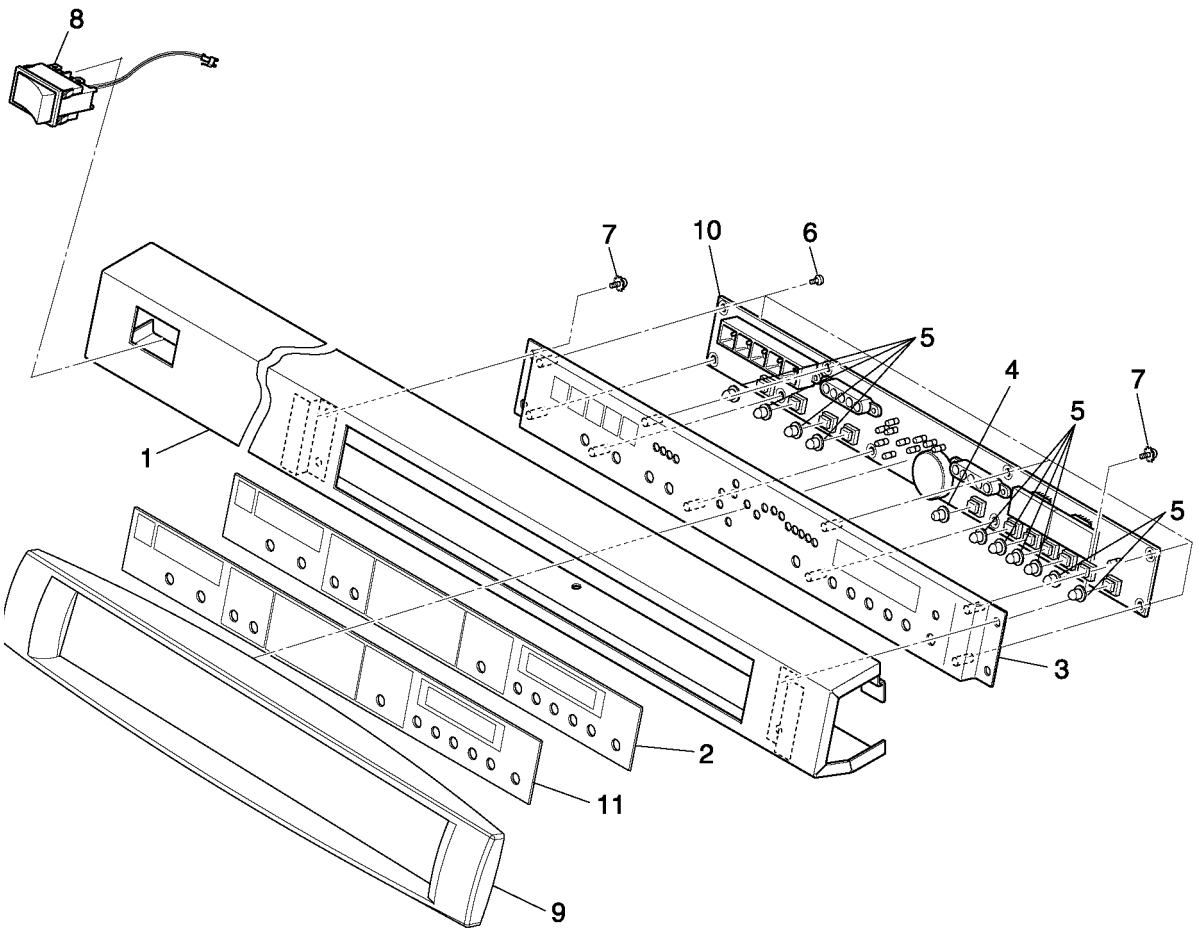
PL 9.2 Manual Bypass Tray

Item	Part	Description
1	–	Guide (P/O PL 9.2 Item 50)
2	–	Bracket (P/O PL 9.2 Item 50)
3	–	Gear (P/O PL 9.2 Item 50) (24T)
4	–	Gear (P/O PL 9.2 Item 50) (24T)
5	–	Bracket (P/O PL 9.2 Item 50)
6	–	Spring (P/O PL 9.2 Item 50)
7	–	Pin (P/O PL 9.2 Item 50)
8	–	Pin (P/O PL 9.2 Item 50)
9	–	Bracket (P/O PL 9.2 Item 50)
10	–	Plunger (P/O PL 9.2 Item 50)
11	050N00429	Manual Bypass Table (RFU)
12	–	Seal (P/O PL 9.2 Item 50)
13	–	Felt (P/O PL 9.2 Item 50)
14	–	Guide (P/O PL 9.2 Item 50)
15	–	Retard Solenoid (SOL4) (P/O PL 9.2 Item 50)
16	–	Bracket (P/O PL 9.2 Item 50)
17	–	Pin (P/O PL 9.2 Item 50)
18	062N00244	Manual Tray Size Sensor (Q31 thru Q37)
19	–	Bracket (P/O PL 9.2 Item 50)
20	–	Shaft (P/O PL 9.2 Item 50)
21	–	Bracket (P/O PL 9.2 Item 50)
22	–	Collar (P/O PL 9.2 Item 50)
23	009N01424	Compression Spring
24	–	Torque Limiter (P/O PL 9.2 Item 50)
25	022N02030	Roller
26	–	Cover (P/O PL 9.2 Item 50)
27	–	Rack (P/O PL 9.2 Item 50)
28	–	Bracket (P/O PL 9.2 Item 50)
29	–	Retaining Ring (P/O PL 9.2 Item 50)
30	–	Bracket (P/O PL 9.2 Item 50)
31	–	Bracket (P/O PL 9.2 Item 50)
32	–	Gear (P/O PL 9.2 Item 50) (16T)
33	–	Bracket (P/O PL 9.2 Item 50)
34	–	Bracket (P/O PL 9.2 Item 50)
35	–	Cover (P/O PL 9.2 Item 50)
36	–	Collar (P/O PL 9.2 Item 50)
37	–	Collar (P/O PL 9.2 Item 50)
38	–	Bearing (P/O PL 9.2 Item 50)
39	–	Pin (P/O PL 9.2 Item 50)
40	–	Pin (P/O PL 9.2 Item 50)
41	–	Spring (P/O PL 9.2 Item 50)
42	–	Retaining Ring (P/O PL 9.2 Item 50)
43	–	Collar (P/O PL 9.2 Item 50)
44	–	Hex Head Bolt (P/O PL 9.2 Item 50)
45	–	Screw (P/O PL 9.2 Item 50)
46	–	Screw (P/O PL 9.2 Item 50)
47	–	Screw (P/O PL 9.2 Item 50)
48	–	Screw (P/O PL 9.2 Item 50)
49	–	Screw (P/O PL 9.2 Item 50)
50	500N00101	Manual Bypass Tray Assembly (LML)
51	140N06100	Manual Sheet Size PWB



PL 9.3 Operator Panel

Item	Part	Description
1	–	Cover (Not Spared)
2	–	Panel (Not Spared)
3	–	Frame (Not Spared)
4	–	Button (Not Spared)
5	–	Button (Not Spared)
6	–	Screw (Not Spared)
7	–	Screw (Not Spared)
8	110N01356	Main Power Switch (S1)
9	056E05140	Bezel (White)
–	056E05150	Bezel (Celestial Blue)
–	056E05050	Bezel (Gray)
10	140N06067	Indication PWB
11	893E18440	Control Panel Label (E)
–	892E88310	Control Panel Label (FR)
–	892E88330	Control Panel Label (IT)
–	892E88350	Control Panel Label (GR)
–	892E88370	Control Panel Label (SP)



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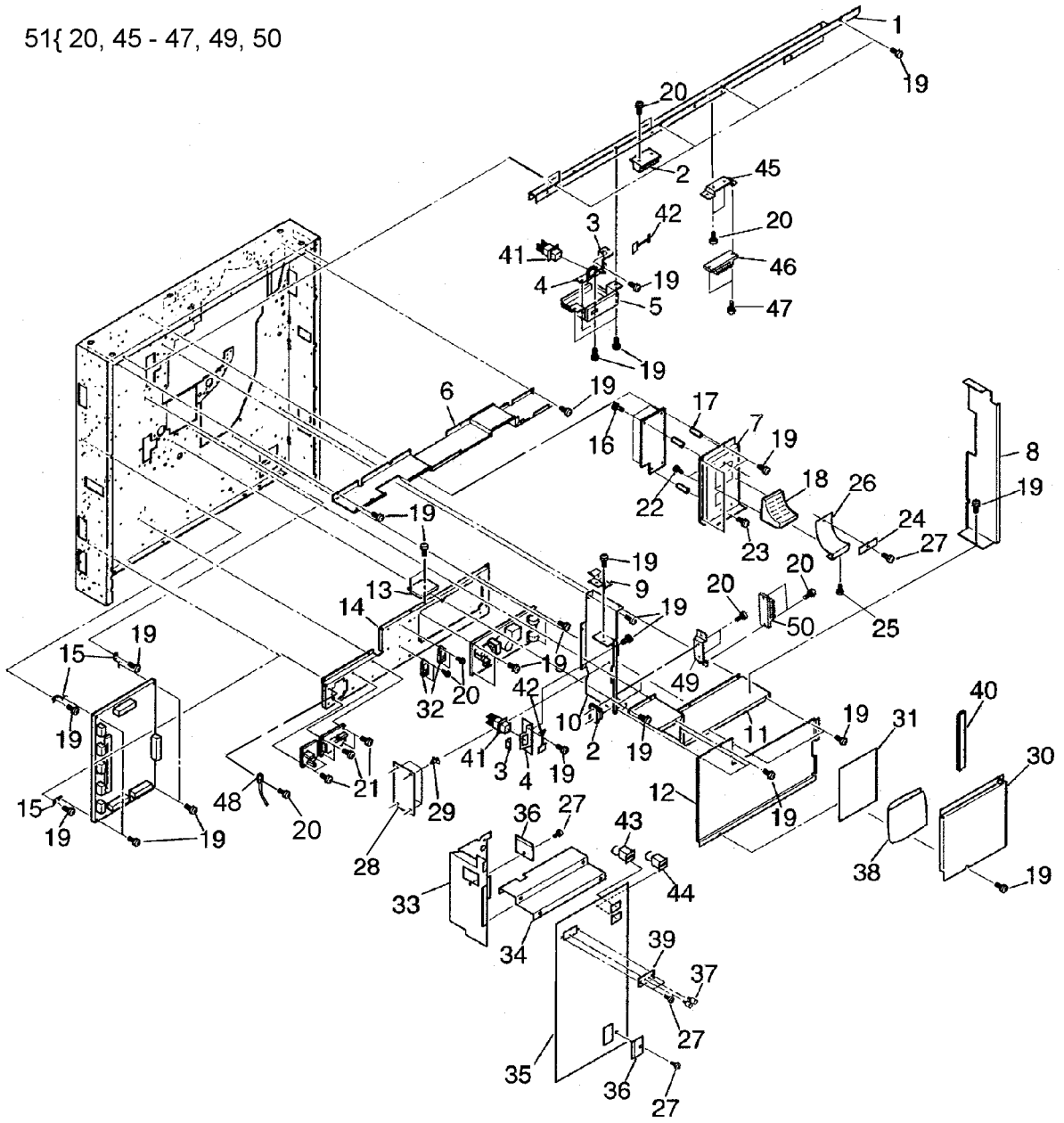
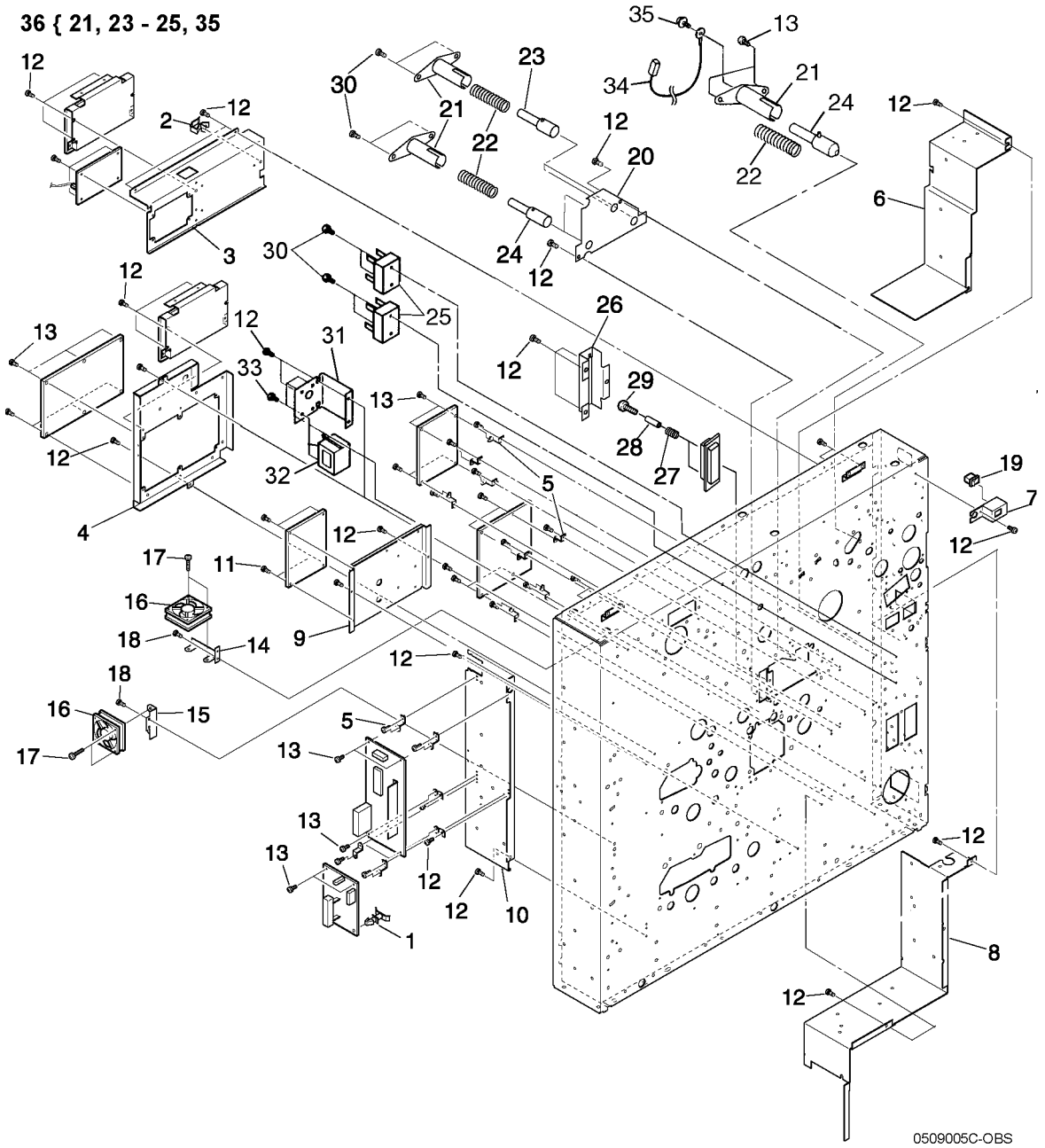
PL 9.4 Right Side Frame Components

Item	Part	Description
1	–	Bracket (Not Spared)
2	–	Magnet Catch (Not Spared)
3	–	Bracket (Not Spared)
4	–	Bracket (Not Spared)
5	–	Bracket (Not Spared)
6	–	Bracket (Not Spared)
7	–	Bracket (Not Spared)
8	–	Cover (Not Spared)
9	–	Bracket (Not Spared)
10	–	Bracket (Not Spared)
11	–	Bracket (Not Spared)
12	–	Bracket (Not Spared)
13	–	Bracket (Not Spared)
14	–	Bracket (Not Spared)
15	113N00368	Mount
16	–	Screw
17	–	Stud (Not Spared)
18	–	Hood (Not Spared)
19	–	Screw (Not Spared)
20	–	Screw (P/O PL 9.4 Item 51)
21	–	Screw (Not Spared)
22	–	Screw (Not Spared)
23	–	Screw (Not Spared)
24	–	Cover (Not Spared)
25	–	Screw (Not Spared)
26	–	Sheet (Not Spared)
27	–	Screw (Not Spared)
28	–	Toner Dispense Motor Controller PWB (PL 10.1 Item 33)
29	–	Locking Card Spacer (Not Spared)
30	–	Cover (Not Spared)
31	–	Service Mode List (Not Spared)
32	109N00213	DC Power Relays (K4, K5)
33	–	Bracket (Not Spared)
34	–	Bracket (Not Spared)
35	–	Bracket (Not Spared)
36	–	Bracket (Not Spared)
37	–	Pin (Not Spared)
38	–	Drum Bag (Not Spared)
39	030N00662	Bracket
40	042N00123	Drum Cleaner
41	110N01058	Right Door Interlock switch (DS7), Left (Toner) Door Interlock switch (DS8)
42	–	Bracket (Not Spared)
43	111N00048	Counter 1
44	111N00047	Counter 2
45	–	Bracket (P/O PL 9.4 Item 51)
46	–	Magnet (P/O PL 9.4 Item 51)
47	–	Screw (P/O PL 9.4 Item 51)
48	130N01263	Thermistor
49	–	Bracket (P/O PL 9.4 Item 51)
50	–	Magnet (P/O PL 9.4 Item 51)
51	600N03213	Door Magnet Kit (W/[TAG 3])



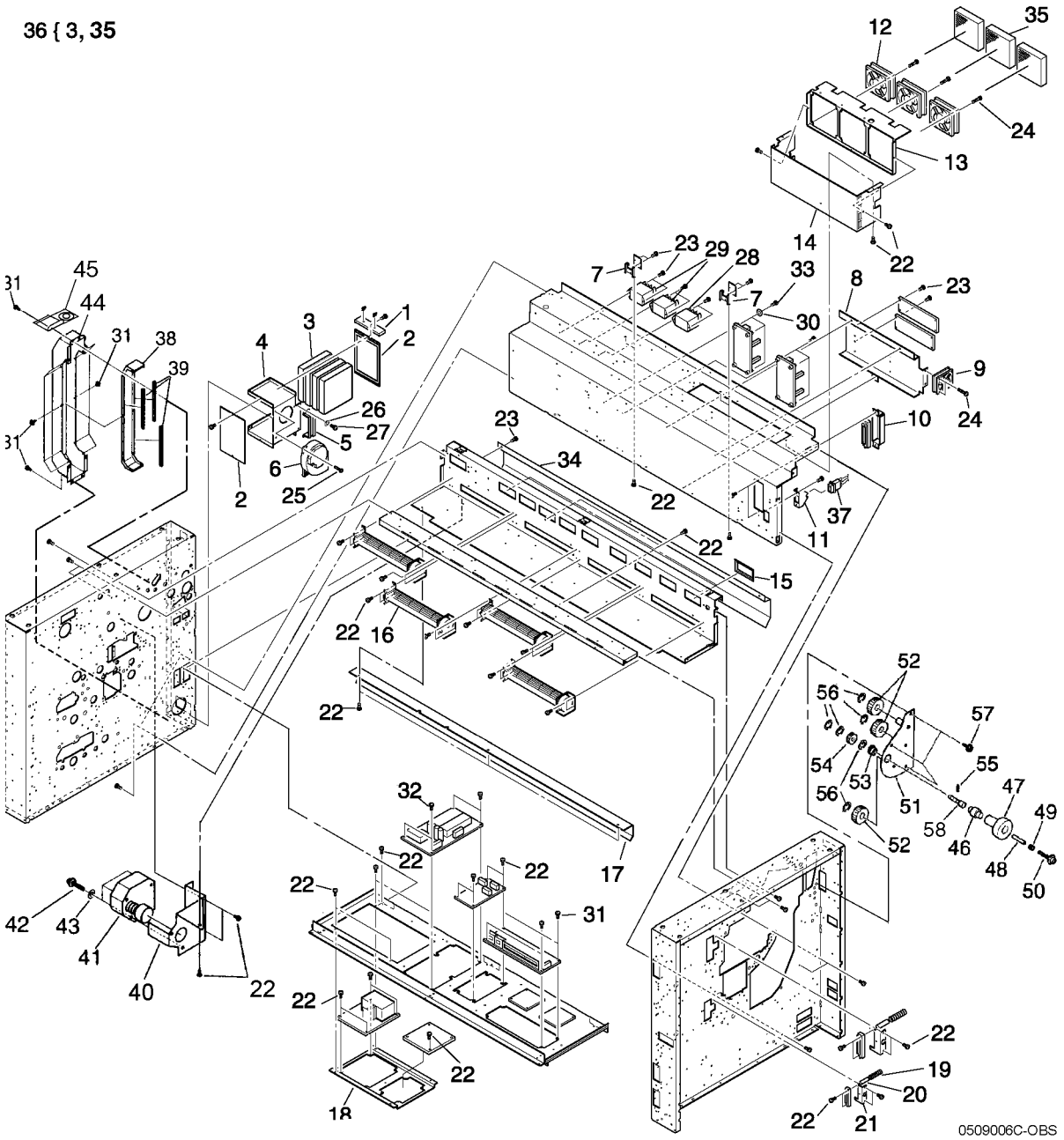
PL 9.5 Left Side Frame Components

Item	Part	Description
1	–	Locking Card Spacer (Not Spared)
2	–	Locking Wire Saddle (Not Spared)
3	–	Bracket (Not Spared)
4	–	Bracket (Not Spared)
5	113N00368	Mount
6	–	Cover 1 (Not Spared)
7	–	Bracket (Not Spared)
8	–	Cover 2 (Not Spared)
9	–	Bracket (Not Spared)
10	–	Bracket (Not Spared)
11	–	Screw (Not Spared)
12	–	Screw (Not Spared)
13	–	Screw (Not Spared)
14	–	Bracket (Not Spared)
15	–	Bracket (Not Spared)
16	033N00225	Cutter Cooling Fan (FM3, FM4)
17	–	Screw (Not Spared)
18	–	Screw (Not Spared)
19	–	Paper Heater Switch (S2) (Not Spared)
20	–	Plate (Not Spared)
21	–	Holder (Not Spared)
22	–	Spring (Not Spared)
23	–	Pin (Not Spared)
24	–	Pin (Not Spared)
25	109N00572	Solid State Relay
26	–	Bracket (Not Spared)
27	009N00794	Compression Spring
28	005N00410	Collar
29	–	Screw (Not Spared)
30	–	Screw (Not Spared)
31	–	Plate (Not Spared)
32	101N00829	Circuit Protector (CB1)
33	–	Screw (Not Spared)
34	152N11502	Bias Lead
35	–	Pan Head Screw (Not Spared)
36	600N03217	HV Spring Kit



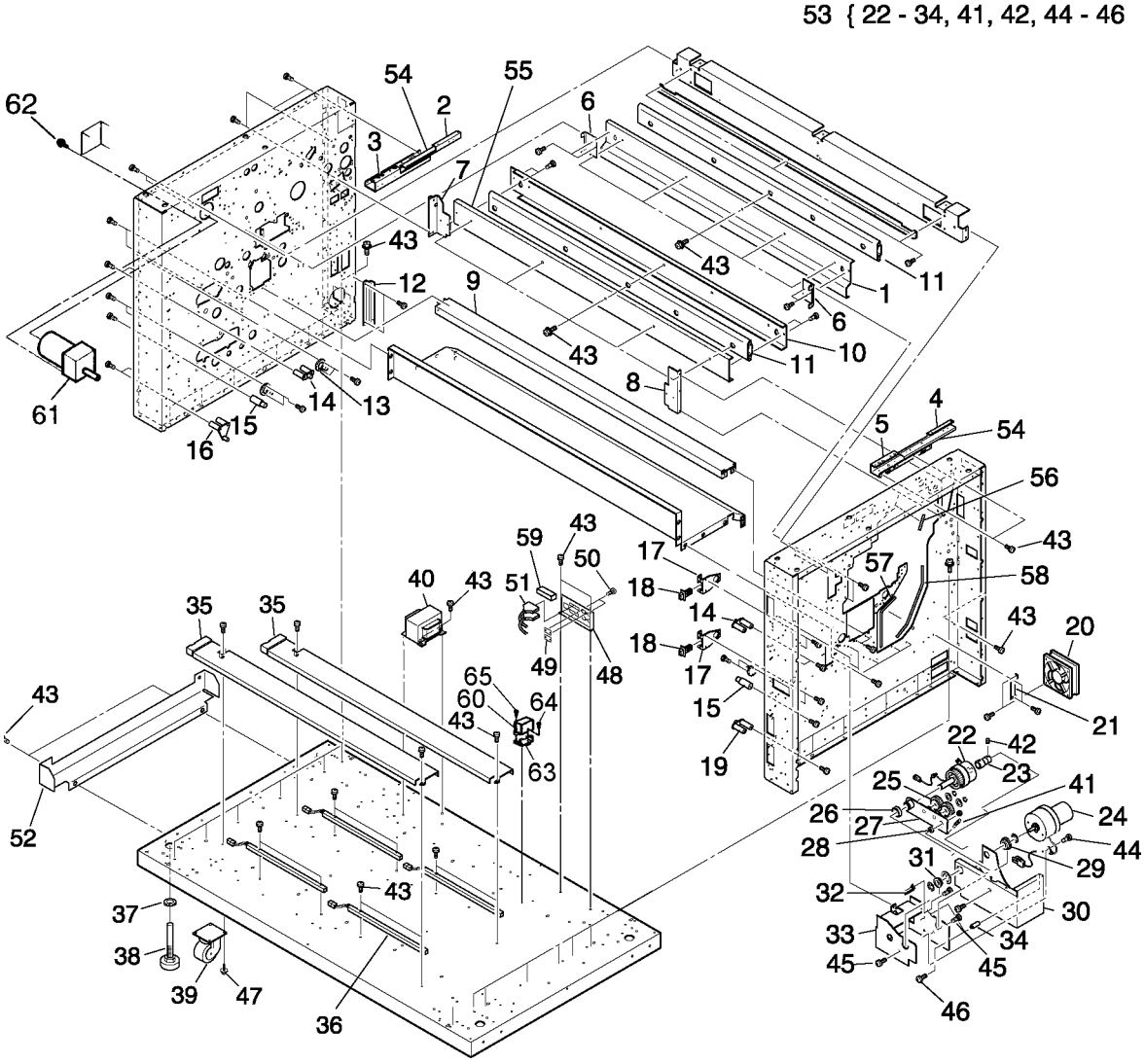
PL 9.6 Main Frame Components

Item	Part	Description
1	–	Cover (Not Spared)
2	–	Cover (Not Spared)
3	–	Ozone Filter (P/O PL 9.6 Item 36)
4	–	Filter Case (Not Spared)
5	–	Cover (Not Spared)
6	105N01098	Vacuum Transport Blower (BL1)
7	–	Mount (Not Spared)
8	–	Bracket (Not Spared)
9	127N01425	LVPS 3, 4 Cooling Fan (FM2)
10	–	Mount (Not Spared)
11	–	Mount (Not Spared)
12	127N01426	Blower (BL17, BL18, BL19)
13	–	Bracket (Not Spared)
14	–	Duct (Not Spared)
15	–	Bushing (Not Spared)
16	127N01424	Blower (BL8, BL9, BL10, BL11)
17	–	Cover (Not Spared)
18	–	PWB Mount (Not Spared)
19	009N00794	Compression Spring
20	005N00410	Collar
21	–	Mount (Not Spared)
22	–	Screw (Not Spared)
23	–	Screw (Not Spared)
24	–	Screw (Not Spared)
25	–	Screw (Not Spared)
26	–	Flat Washer (Not Spared)
27	–	Screw (Not Spared)
28	109N00592	AC Interlock Relay (K1)
29	109N00593	AC Interlock Relay, Side Fuser Relay (K2, K3)
30	–	Flat Washer (Not Spared)
31	–	Screw (Not Spared)
32	–	Screw (Not Spared)
33	–	Screw (Not Spared)
34	–	Bracket (Not Spared)
35	–	Ozone Filter (P/O PL 9.6 Item 36)
36	600N01779	Ozone Filter Kit (7/Kit)
37	109N00211	Lower Drawer Interlock Switch (DS3)
38	–	Duct (Not Spared)
39	–	Grommet (Not Spared)
40	–	Bracket (Not Spared)
41	127N01449	DC Motor, Hopper Auger
42	–	Screw (Not Spared)
43	–	Flat Washer (Not Spared)
44	–	Duct (Not Spared)
45	–	Oil Pan (Not Spared)
46	–	Knob Coupling (Not Spared)
47	–	Knob (Not Spared)
48	–	Sleeve (Not Spared)
49	–	Compression Spring (Not Spared)
50	–	Pan Head Screw
51	–	Mount 1 (Not Spared)
52	–	Gear (Not Spared) (40T)
53	–	Ball Bearing (Not Spared)
54	–	Gear (Not Spared) (20T)
55	–	Parallel Pin (Not Spared)
56	–	Retaining E-Ring (Not Spared)
57	–	Hex Head Bolt (Not Spared)
58	–	Shaft 1 (Not Spared)



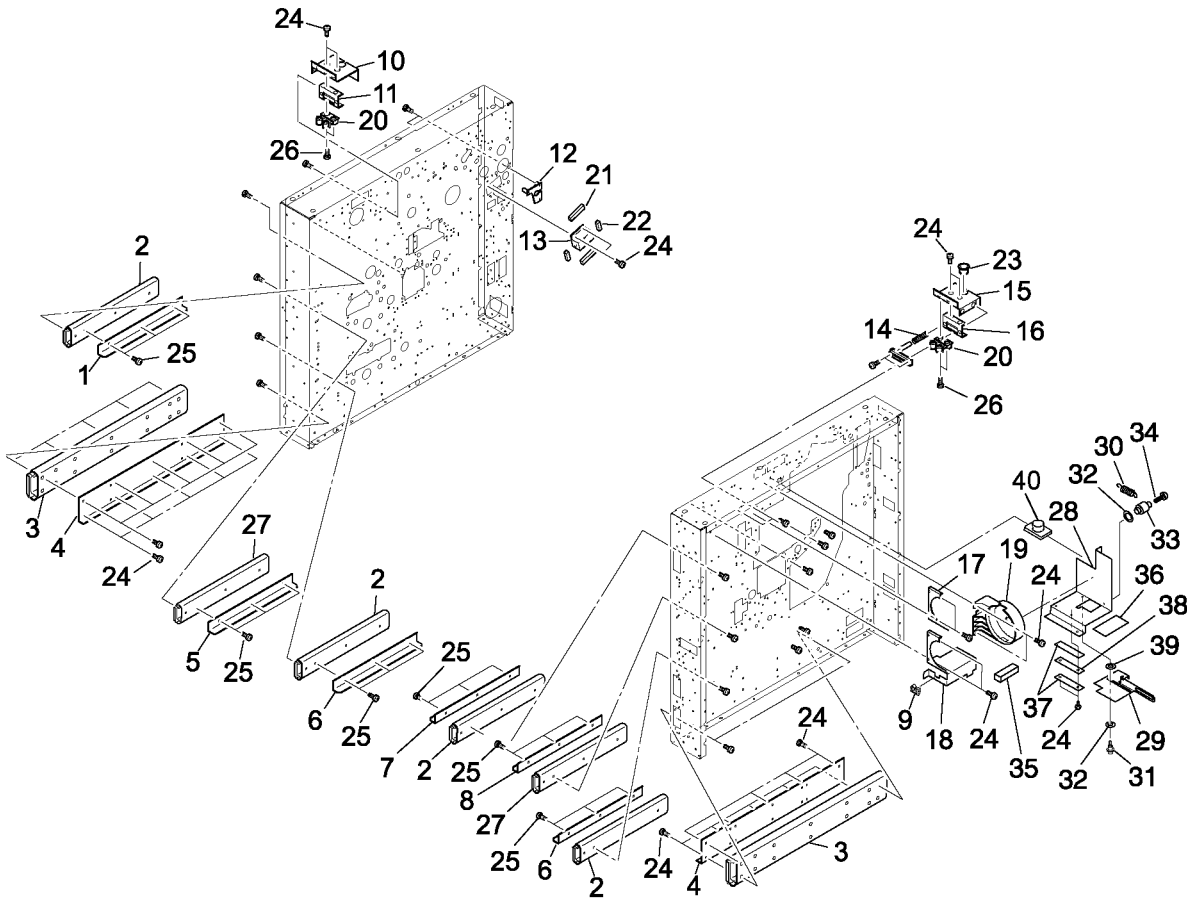
PL 9.7 Frame Components

Item	Part	Description
1	–	Rail Bracket (Not Spared)
2	–	Bracket (Not Spared)
3	–	Bracket (Not Spared)
4	–	Bracket (Not Spared)
5	–	Bracket (Not Spared)
6	–	Rail Bracket (Not Spared)
7	–	Rail Bracket (Not Spared)
8	–	Rail Bracket (Not Spared)
9	–	Stay (Not Spared)
10	–	Rail Bracket (Not Spared)
11	–	Rail Slide (Not Spared)
12	–	Bracket (Not Spared)
13	–	Boss (Not Spared)
14	–	Plate (Not Spared)
15	–	Pin (Not Spared)
16	–	Plate (Not Spared)
17	–	Mount (Not Spared)
18	109N00211	Upper Drawer Interlock Switch (DS1), Middle Drawer Interlock Switch (DS2)
19	–	Plate (Not Spared)
20	127N01425	LVPS1 Cooling Fan (FM1)
21	–	Bracket (Not Spared)
22	–	Toner Dispense Clutch (CL11) (P/O PL 9.7 Item 53)
23	–	Pin (P/O PL 9.7 Item 53)
24	–	Toner Dispense Motor (MOT7) (P/O PL 9.7 Item 53)
25	–	Gear (P/O PL 9.7 Item 53) (22T)
26	–	Collar (P/O PL 9.7 Item 53)
27	–	Mount (P/O PL 9.7 Item 53)
28	–	Pin (P/O PL 9.7 Item 53)
29	–	Bearing (P/O PL 9.7 Item 53)
30	–	Mount (P/O PL 9.7 Item 53)
31	135N00030	Bearing
32	–	Mount (P/O PL 9.7 Item 53)
33	–	Bracket (P/O PL 9.7 Item 53)
34	–	Stud (P/O PL 9.7 Item 53)
35	–	Cover (Not Spared)
36	126N00203	Paper Heater (HTR3, HTR4, HTR5, HTR6)
37	009N01413	Spring Washer
38	017N00134	Adjuster
39	017N00132	Caster
40	105N01497	Transformer (T1)
41	–	Extension Spring (P/O PL 9.7 Item 53)
42	–	Set Screw (P/O PL 9.7 Item 53)
43	–	Screw (Not Spared)
44	–	Screw (P/O PL 9.7 Item 53)
45	–	Screw (P/O PL 9.7 Item 53)
46	–	Screw (P/O PL 9.7 Item 53)
47	–	Hex Head Bolt (Not Spared)
48	–	Bracket (Not Spared)
49	–	Connector Plate (Not Spared)
50	–	Screw (Not Spared)
51	–	Signal Cable (Not Spared)
52	–	Bracket (Not Spared)
53	005N00809	Toner Dispense Clutch Assembly
54	–	Slide Rail (Not Spared)
55	–	Rail Bracket (Not Spared)
56	–	Gasket (Not Spared)
57	–	Gasket (Not Spared)
58	–	Gasket (Not Spared)
59	–	Dust Cover (Not Spared)
60	109N00593	DC Power Relay (K6)
61	127N01448	DC Motor, Manual Feed
62	–	Hex Head Bolt (Not Spared)
63	–	Relay Mount (Not Spared)
64	–	Screw (Not Spared)
65	–	Screw (Not Spared)



PL 9.8 Paper Drawer Rails

Item	Part	Description
1	–	Bracket (Not Spared)
2	010N00048	Rail
3	010N00047	Rail
4	–	Bracket (Not Spared)
5	–	Mount (Not Spared)
6	–	Bracket (Not Spared)
7	–	Bracket (Not Spared)
8	–	Mount (Not Spared)
9	–	Edge Saddle (Not Spared)
10	–	Bracket (Not Spared)
11	–	Bracket (Not Spared)
12	–	Bearing Plate (Not Spared)
13	–	Duct (Not Spared)
14	009N00794	Compression Spring
15	–	Bracket (Not Spared)
16	–	Bracket (Not Spared)
17	–	Mount (Not Spared)
18	–	Bracket (Not Spared)
19	120N00435	Toner Cartridge Support
20	022N00611	Catch
21	142N00086	Seal
22	142N00085	Seal
23	016N00145	Bushing
24	–	Screw (Not Spared)
25	–	Screw (Not Spared)
26	–	Screw (Not Spared)
27	001N00416	Rail
28	–	Bracket (Not Spared)
29	055N00283	Shutter
30	009N01455	Spring
31	–	Screw (Not Spared)
32	–	Thrust Washer (Not Spared)
33	–	Spring Hook (Not Spared)
34	–	Screw (Not Spared)
35	–	Gasket (Not Spared)
36	–	Sheet (Not Spared)
37	–	Spacer (Not Spared)
38	–	Spacer (Not Spared)
39	–	Flat Washer (Not Spared)
40	–	Seal (Not Spared)

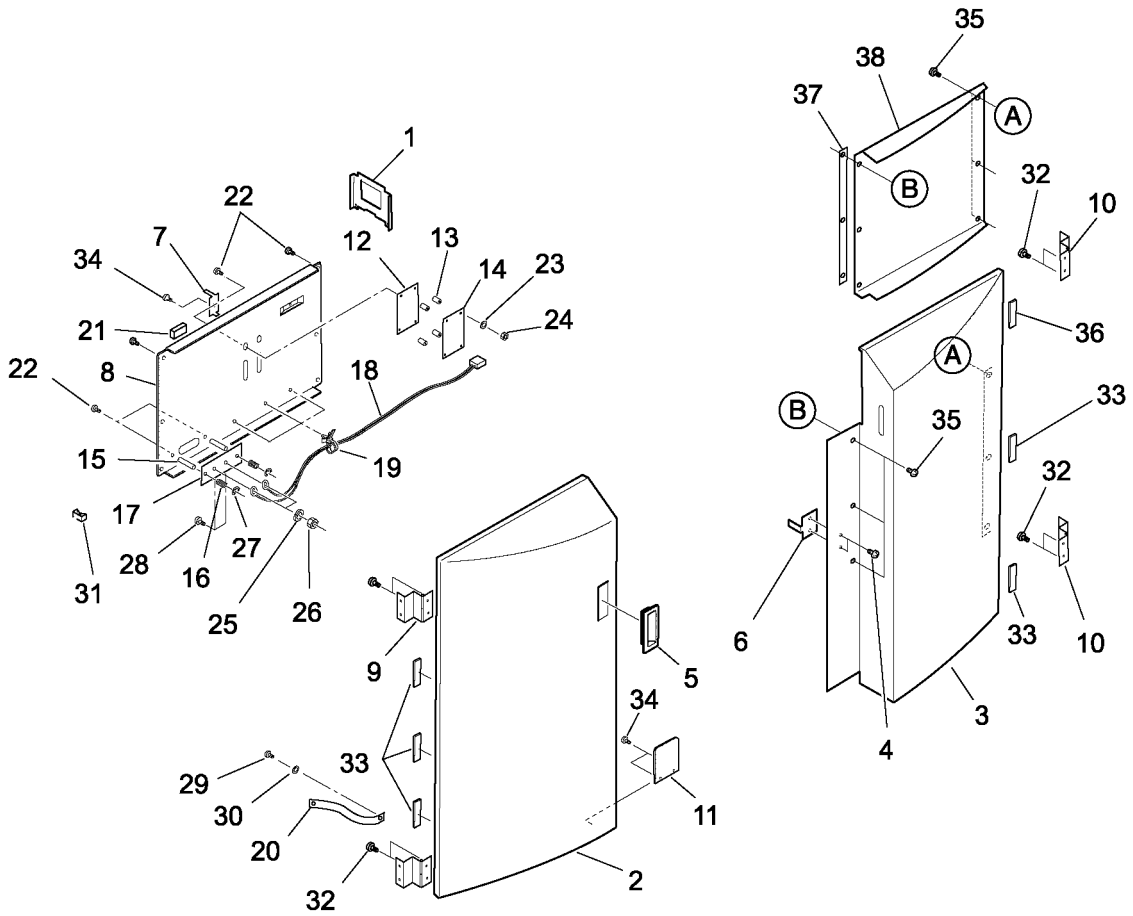


PL 9.9 Right Side Covers

Item	Part	Description
1	002N02221	1394 Connector Cover (White)
–	002N02112	1394 Connector Cover (Purple)
2	002N02229	Left Door (White)
–	002N02119	Left Door (Purple)
3	002N02230	Right Door (White)
–	002N02118	Purple Right Door (Purple)
4	–	Screw (P/O PL 9.9 Item 39)
5	003N00868	Handle (Purple)
6	120N00413	Actuator
7	–	Actuator (P/O PL 9.9 Item 40)
8	–	Bracket (P/O PL 9.9 Item 40)
9	–	Bracket (P/O PL 9.9 Item 40)
10	–	Bracket (P/O PL 9.9 Item 39)
11	–	Bracket (P/O PL 9.9 Item 40)
12	–	Mylar Sheet (P/O PL 9.9 Item 40)
13	–	Stud (P/O PL 9.9 Item 40)
14	–	Toner Level Transmission PWB (PL 10.1 Item 8)
15	029N00341	Pin
16	009N01456	Spring
17	–	Bracket (P/O PL 9.9 Item 40)
18	107N00437	LED Terminal Lead
19	–	Binder (P/O PL 9.9 Item 40)
20	–	Door Strap (P/O PL 9.9 Item 40)
21	–	Stop Bracket (P/O PL 9.9 Item 40)
22	–	Screw (P/O PL 9.9 Item 40)
23	–	Flat Washer (P/O PL 9.9 Item 40)
24	–	Hex Nut (P/O PL 9.9 Item 40)
25	–	Spring Washer (P/O PL 9.9 Item 40)
26	–	Hex Nut (P/O PL 9.9 Item 40)
27	–	E-Ring (P/O PL 9.9 Item 40)
28	–	Screw (P/O PL 9.9 Item 40)
29	–	Screw (P/O PL 9.9 Item 40)
30	–	Flat Washer (P/O PL 9.9 Item 40)
31	–	Bushing (P/O PL 9.9 Item 40)
32	–	Screw (P/O PL 9.9 Item 39,PL 9.9 Item 40)
33	–	Gasket (P/O PL 9.9 Item 39,PL 9.9 Item 40)
34	–	Screw (P/O PL 9.9 Item 40)
35	–	Screw (P/O PL 9.9 Item 39)
36	–	Gasket (P/O PL 9.9 Item 39)
37	–	Guard (P/O PL 9.9 Item 39)
38	–	Bracket (P/O PL 9.9 Item 39)
39	002N02253	Right Door Assembly (White)
40	002N02252	Left Door Assembly (White)

39 { 3, 4, 6, 10, 32, 33, 35 - 38

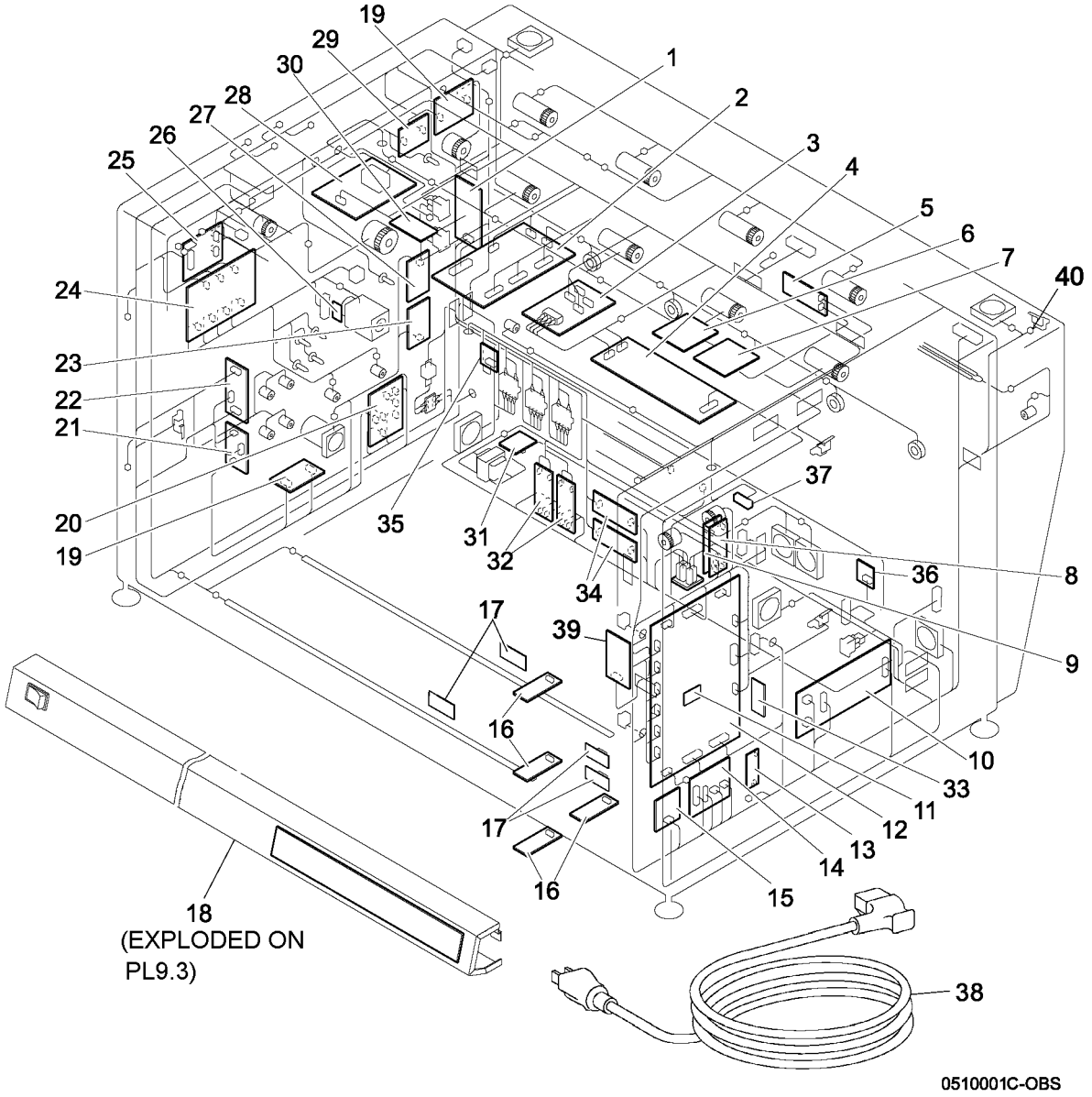
40 { 1, 2, 5, 7 - 9, 11 - 34



0509009A-OBS

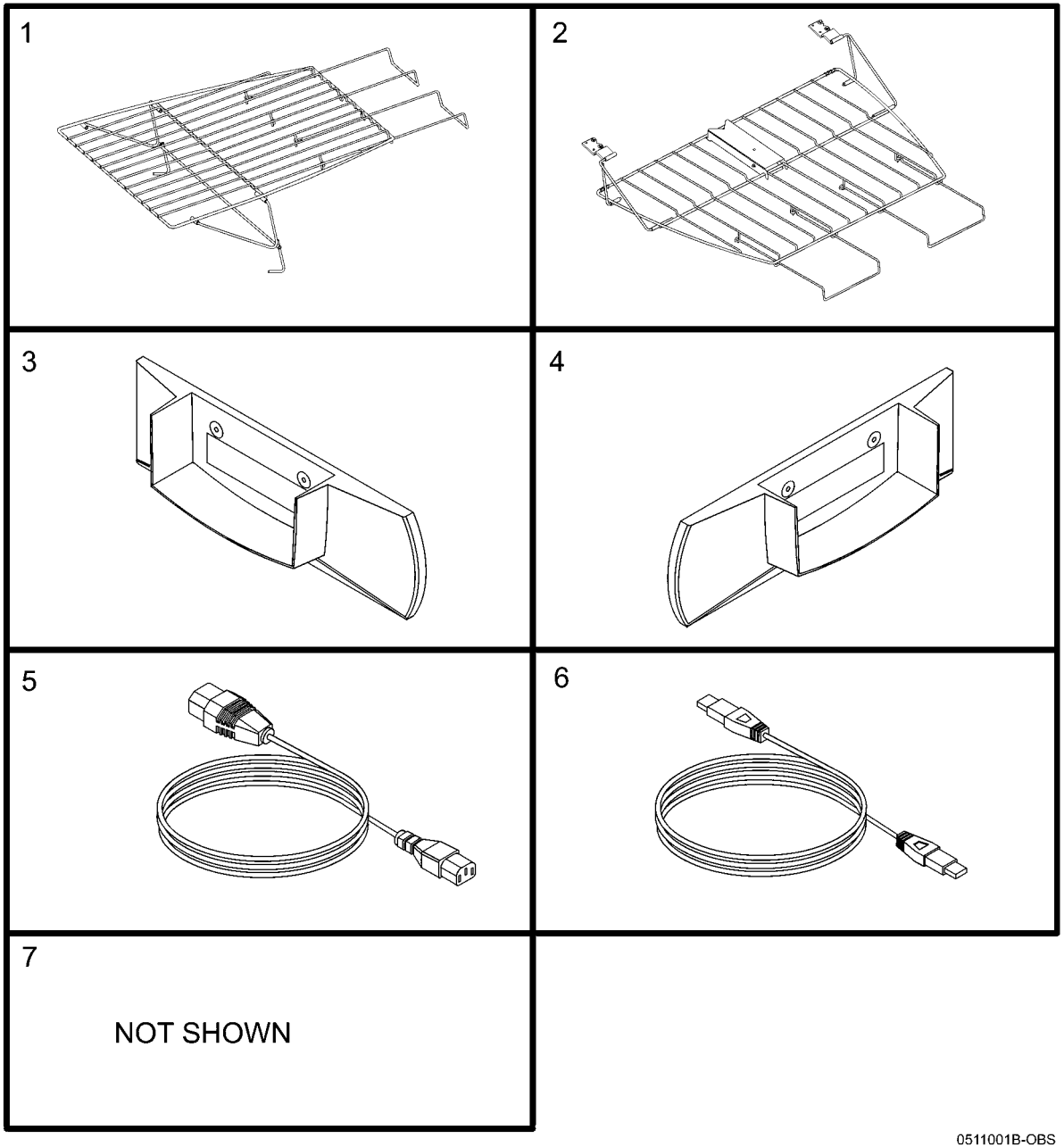
PL 10.1 Electrical Components

Item	Part	Description
1	140N06073	Overheat Protection PWB
2	140N06068	DC Driver PWB
3	140N04709	DC Terminal PWB
4	112N00173	LVPS 2
5	130N01254	SPS Controller PWB
6	140N06072	LED Driver PWB
7	105N02011	HVPS 5 (W/[TAG 1])
8	140N06070	Toner Level Transmission PWB
9	140N06071	Toner Level Receiver PWB
10	112N00174	LVPS 1
11	140N06075	Memory PWB
12	127N07269	DC Controller PWB (W/[TAG 6])
13	140N06069	LED Indicator PWB
14	140N04711	Diode PWB
15	130N01255	Humidity Sensor PWB
16	128N00399	Media Selection PWB
17	140N04710	DC Translation PWB
18	–	Operator Panel (Not Spared)
19	127N01431	Paper Feed Motor Controller PWB/Fuser Motor Controller PWB
20	140N06066	AC Terminal PWB
21	140N06074	Anti-Flickering PWB
22	127N07225	Cutter Motor Control PWB (W/[TAG 4])
23	105N01505	HVPS 4
24	105N01500	Developer Bias Power Supply
25	127N01430	Drum Motor Controller PWB
26	130N00672	Cutter Home Position Sensor (Q22)
27	105N01504	HVPS 3
28	105N01501	HVPS 1
29	105N01502	HVPS 6
30	105N02010	Pretransfer PWB
31	142N00159	Noise Filter PWB (NF3)
32	142N00160	Noise Filter PWB (NF1, NF2)
33	127N07250	Toner Dispense Motor Control PWB
34	112N00172	LVPS3/LVPS4
35	–	Transmission PWB (Not Spared)
36	–	Receiving PWB (Not Spared)
37	–	Surface Potential Sensor (SPS1) (Not Spared)
38	117K27001	Power Cord
–	117E25540	Power Cord (EO) (16 Amp)
39	–	Media Status Indicator (Not Spared)
40	117N01629	1394 Cable, Internal



PL 11.1 Scanner and Other Components

Item	Part	Description
1	050K55330	Scanner Catch Tray (RFU)
2	050K55350	IOT Catch Tray (RFU)
3	068K40330	LH Scanner Support (RFU)
4	068K40340	RH Scanner Support (RFU)
5	117E25610	Power Cord
6	117E25530	1394/Firewire Cord
7	117E25410	Access Controllor Power Cord



0511001B-OBS

Part Number Index

Table 1 Part Number Index

Part Number	Part List
001N00399	PL 8.1
001N00400	PL 9.1
001N00401	PL 9.1
001N00402	PL 6.6
001N00415	PL 7.11
001N00416	PL 9.8
002N02111	PL 9.1
002N02112	PL 9.9
002N02113	PL 9.1
002N02114	PL 9.1
002N02115	PL 9.1
002N02116	PL 9.1
002N02117	PL 9.1
002N02118	PL 9.9
002N02119	PL 9.9
002N02120	PL 9.1
002N02121	PL 9.1
002N02122	PL 9.1
002N02123	PL 9.1
002N02124	PL 9.1
002N02125	PL 9.1
002N02126	PL 9.1
002N02127	PL 9.1
002N02220	PL 9.1
002N02221	PL 9.9
002N02222	PL 9.1
002N02223	PL 9.1
002N02224	PL 9.1
002N02225	PL 9.1
002N02226	PL 9.1
002N02227	PL 9.1
002N02228	PL 9.1
002N02229	PL 9.9
002N02230	PL 9.9
002N02231	PL 9.1
002N02232	PL 9.1
002N02233	PL 9.1
002N02234	PL 4.6
002N02235	PL 9.1

Table 1 Part Number Index

Part Number	Part List
002N02236	PL 9.1
002N02237	PL 9.1
002N02238	PL 9.1
002N02239	PL 9.1
002N02252	PL 9.9
002N02253	PL 9.9
002N02254	PL 9.1
002N02255	PL 9.1
003N00601	PL 6.5
	PL 8.1
003N00605	PL 6.2
003N00606	PL 7.13
003N00608	PL 4.4
003N00868	PL 9.1
	PL 9.9
003N00870	PL 9.1
003N00883	PL 9.1
003N00925	PL 4.6
003N00926	PL 9.1
003N00930	PL 5.2
005N00404	PL 8.1
	PL 8.2
005N00405	PL 8.2
005N00407	PL 8.2
005N00408	PL 8.3
005N00409	PL 4.2
005N00410	PL 9.5
	PL 9.6
005N00413	PL 7.4
005N00414	PL 8.3
005N00416	PL 4.2
	PL 4.3
005N00417	PL 4.3
005N00423	PL 6.3
005N00427	PL 6.5
005N00428	PL 8.1
	PL 8.2
005N00429	PL 7.12
005N00452	PL 6.3
005N00805	PL 8.1
005N00806	PL 8.1

Table 1 Part Number Index

Part Number	Part List
005N00807	PL 1.2
005N00808	PL 3.2
005N00809	PL 9.7
005N00997	PL 6.5
005N01006	PL 6.3
005N01017	PL 7.4
006N00834	PL 7.12
006N00838	PL 8.2
006N00884	PL 5.2
006N00988	PL 8.3
006N00990	PL 8.2
006N00992	PL 8.2
006N01200	PL 8.1
	PL 8.2
006N01226	PL 4.6
006N01227	PL 7.5
006N01228	PL 7.10
006N01229	PL 7.13
007N00503	PL 8.2
007N00504	PL 8.1
	PL 8.2
007N00506	PL 4.3
007N00510	PL 6.5
007N00511	PL 7.4
	PL 7.8
007N00512	PL 7.10
	PL 7.12
	PL 7.4
	PL 7.8
007N00513	PL 7.12
	PL 7.8
	PL 7.4
007N00514	PL 7.12
	PL 7.8
	PL 7.4
007N00515	PL 7.12
007N00516	PL 6.5
	PL 7.12
007N00517	PL 7.12
	PL 7.13
007N00520	PL 7.12

Table 1 Part Number Index

Part Number	Part List
	PL 7.13
	PL 8.2
007N00521	PL 6.5
007N00527	PL 7.4
007N00528	PL 7.4
007N00529	PL 8.1
	PL 8.2
007N00531	PL 6.3
007N00532	PL 8.3
007N00533	PL 8.3
007N00546	PL 4.2
	PL 7.4
007N00547	PL 4.3
007N00549	PL 7.4
007N00551	PL 8.2
007N00552	PL 7.4
007N00553	PL 4.3
007N00554	PL 8.1
	PL 8.2
007N00555	PL 4.4
007N00558	PL 7.12
	PL 8.2
	PL 8.1
	PL 7.8
007N00559	PL 6.5
	PL 7.4
007N00560	PL 4.2
	PL 4.3
007N00561	PL 8.3
007N00749	PL 4.3
	PL 8.3
007N01183	PL 8.4
007N01184	PL 8.4
007N01185	PL 8.4
007N01186	PL 8.2
007N01187	PL 8.2
007N01188	PL 8.2
007N01189	PL 1.3
007N01190	PL 4.2
007N01191	PL 7.2
007N01192	PL 7.12

Table 1 Part Number Index

Part Number	Part List
007N01232	PL 1.6
007N01233	PL 6.6
007N01234	PL 7.12
007N01235	PL 8.1
007N01236	PL 8.1
008N01733	PL 1.2
009N00777	PL 7.12
	PL 7.4
	PL 7.8
009N00778	PL 7.11
	PL 7.7
	PL 7.3
009N00779	PL 8.1
	PL 8.2
009N00780	PL 8.1
	PL 8.2
009N00783	PL 7.6
009N00784	PL 7.10
009N00789	PL 4.2
	PL 4.3
009N00792	PL 6.3
009N00793	PL 6.4
009N00794	PL 9.5
	PL 9.6
	PL 9.8
009N00795	PL 4.6
009N00800	PL 7.11
	PL 7.7
	PL 9.1
	PL 7.3
009N00852	PL 1.5
009N01413	PL 9.7
009N01414	PL 8.2
009N01415	PL 8.2
009N01416	PL 1.6
009N01417	PL 1.6
009N01418	PL 1.6
	PL 1.7
009N01424	PL 9.2
009N01425	PL 7.10
009N01450	PL 1.2

Table 1 Part Number Index

Part Number	Part List
009N01451	PL 4.3
009N01452	PL 4.6
009N01453	PL 4.6
009N01454	PL 6.2
009N01455	PL 9.8
009N01456	PL 9.9
010N00047	PL 9.8
010N00048	PL 9.8
010N01179	PL 1.7
011N00364	PL 8.2
011N00490	PL 4.2
011N00491	PL 4.3
013N00267	PL 6.5
013N00269	PL 1.2
	PL 6.5
	PL 8.2
	PL 8.1
	PL 4.3
	PL 4.2
013N00270	PL 3.3
	PL 3.4
013N00271	PL 4.2
	PL 7.12
	PL 4.3
	PL 8.1
	PL 8.2
	PL 8.3
013N00273	PL 4.4
013N00320	PL 6.3
013N00327	PL 8.2
013N00370	PL 7.2
013N00383	PL 8.1
013N13804	PL 1.2
013N13805	PL 7.4
013N13806	PL 8.4
013N13807	PL 8.4
014N00296	PL 4.2
014N00297	PL 7.12
	PL 7.8
014N00298	PL 6.5
014N00422	PL 1.5

Table 1 Part Number Index

Part Number	Part List
014N00423	PL 1.5
014N00424	PL 9.1
015N00489	PL 1.2
015N00498	PL 1.6
016N00145	PL 4.5
	PL 7.14
	PL 9.8
016N00146	PL 7.14
	PL 7.6
017N00132	PL 9.7
017N00134	PL 9.7
018N00179	PL 9.1
018N00189	PL 3.3
019N00344	PL 7.11
	PL 7.7
	PL 7.3
019N00345	PL 7.11
	PL 7.7
	PL 7.3
019N00346	PL 4.2
	PL 4.3
019N00347	PL 4.2
	PL 4.3
019N00348	PL 7.4
019N00769	PL 4.6
020N00267	PL 7.13
	PL 7.9
	PL 7.5
020N00268	PL 7.12
	PL 7.4
	PL 7.8
020N00723	PL 8.4
020N00724	PL 8.4
020N00725	PL 8.4
020N00726	PL 1.2
020N00727	PL 7.4
022N00596	PL 7.10
	PL 7.6
022N00598	PL 4.2
022N00600	PL 7.2
022N00601	PL 7.2

Table 1 Part Number Index

Part Number	Part List
022N00603	PL 7.5
022N00604	PL 7.5
022N00611	PL 9.1
	PL 9.8
022N00622	PL 7.10
022N00623	PL 7.10
022N00686	PL 4.6
022N00689	PL 7.10
	PL 7.6
022N00807	PL 7.10
	PL 7.13
	PL 7.5
022N00955	PL 7.2
022N01584	PL 3.1
022N01601	PL 1.2
022N02015	PL 7.1
022N02024	PL 6.5
022N02028	PL 4.4
022N02029	PL 4.4
022N02030	PL 9.2
022N02045	PL 6.6
023N00322	PL 7.12
	PL 7.4
	PL 7.8
023N00323	PL 7.13
	PL 7.9
	PL 7.5
023N00379	PL 6.3
023N00608	PL 5.2
023N01000	PL 8.4
023N01001	PL 8.2
023N01002	PL 8.3
026N00440	PL 5.2
	PL 6.3
	PL 7.13
	PL 6.2
	PL 8.4
	PL 7.4
	PL 8.1
026N00518	PL 5.2
026N00519	PL 5.2

Table 1 Part Number Index

Part Number	Part List
026N00727	PL 1.6
	PL 1.7
026N00738	PL 1.2
028N00190	PL 4.2
028N00196	PL 6.5
028N00197	PL 6.5
028N00199	PL 3.3
	PL 8.1
	PL 8.2
	PL 6.5
	PL 4.3
028N00317	PL 1.6
	PL 1.7
028N00318	PL 1.7
029N00146	PL 7.2
029N00179	PL 5.2
029N00180	PL 4.2
	PL 7.12
	PL 7.10
	PL 4.3
	PL 7.4
	PL 8.1
	PL 8.3
	PL 8.2
	PL 7.8
	PL 7.13
029N00341	PL 9.9
030N00634	PL 1.2
030N00635	PL 1.2
030N00636	PL 3.4
030N00637	PL 1.7
030N00638	PL 9.1
030N00639	PL 9.1
030N00640	PL 9.1
030N00644	PL 7.10
030N00645	PL 9.1
030N00646	PL 3.2
030N00662	PL 9.4
031N00136	PL 7.12
	PL 7.4
	PL 7.8

Table 1 Part Number Index

Part Number	Part List
032N00383	PL 1.7
033N00134	PL 4.5
033N00225	PL 9.5
035N00351	PL 3.4
035N00352	PL 3.4
035N00364	PL 3.2
037N00116	PL 5.1
037N00117	PL 5.2
038N00419	PL 9.1
038N00420	PL 9.1
042N00123	PL 9.4
047N00014	PL 4.2
	PL 4.3
047N00015	PL 3.3
	PL 6.3
050N00429	PL 9.2
050N00430	PL 9.1
050K54990	PL 9.1
050K55330	PL 11.1
050K55350	PL 11.1
055N00283	PL 9.8
056E05050	PL 9.3
056E05140	PL 9.3
056E05150	PL 9.3
062N00244	PL 6.5
	PL 7.10
	PL 7.14
	PL 9.2
	PL 7.6
064N00019	PL 7.6
068K40330	PL 11.1
068K40340	PL 11.1
074N00023	PL 6.5
091N00414	PL 7.12
	PL 7.13
	PL 7.8
	PL 7.9
	PL 7.5
	PL 7.4
091N00415	PL 7.12
	PL 7.8

Table 1 Part Number Index

Part Number	Part List
	PL 7.4
091N00417	PL 7.4
	PL 7.5
091N00423	PL 1.5
091N00424	PL 1.5
091N00425	PL 6.5
091N00549	PL 7.2
091N80179	PL 4.6
091N80180	PL 4.6
101N00829	PL 9.5
101N01323	PL 1.6
101N01324	PL 1.6
101N01325	PL 1.6
101N01326	PL 9.1
101N01327	PL 9.1
105N01098	PL 9.6
105N01497	PL 9.7
105N01498	PL 7.12
	PL 7.4
105N01499	PL 7.12
	PL 7.4
105N01500	PL 10.1
105N01501	PL 10.1
105N01502	PL 10.1
105N01504	PL 10.1
105N01505	PL 10.1
105N01997	PL 1.1
105N01998	PL 1.1
105N01999	PL 1.1
105N02010	PL 10.1
105N02011	PL 10.1
107N00423	PL 1.7
107N00437	PL 9.9
107N00439	PL 1.7
108N00518	PL 9.1
109N00211	PL 4.5
	PL 9.7
	PL 9.6
	PL 9.1
109N00213	PL 9.4
109N00572	PL 9.5

Table 1 Part Number Index

Part Number	Part List
109N00592	PL 9.6
109N00593	PL 9.6
	PL 9.7
110N00727	PL 4.3
110N01058	PL 9.1
	PL 9.4
110N01355	PL 9.1
110N01356	PL 9.3
111N00047	PL 9.4
111N00048	PL 9.4
112N00172	PL 10.1
112N00173	PL 10.1
112N00174	PL 10.1
113N00274	PL 4.2
	PL 4.3
113N00368	PL 9.4
	PL 9.5
115N00258	PL 4.6
115N00848	PL 4.5
116N00235	PL 9.1
116N00237	PL 3.2
117N01146	PL 1.5
117N01629	PL 10.1
117E25410	PL 11.1
117E25530	PL 11.1
117E25540	PL 10.1
117E25610	PL 11.1
117K27001	PL 10.1
118N00128	PL 4.2
	PL 4.3
120N00224	PL 6.4
120N00225	PL 4.4
120N00413	PL 9.9
120N00418	PL 1.5
120N00419	PL 1.5
120N00434	PL 4.4
120N00435	PL 9.8
121N00289	PL 7.4
121N00290	PL 6.4
121N00292	PL 4.4
121N00298	PL 5.2

Table 1 Part Number Index

Part Number	Part List
121N00614	PL 3.1
121N00615	PL 6.5
	PL 8.1
	PL 8.2
121N01060	PL 8.2
121N01063	PL 6.6
122N00100	PL 4.3
122N00101	PL 4.3
122N00219	PL 4.3
122N00225	PL 1.2
122N00226	PL 1.2
126N00201	PL 4.2
126N00202	PL 4.1
126N00203	PL 9.7
126N00216	PL 4.1
126N00217	PL 4.1
126N00218	PL 7.5
	PL 7.9
127N00750	PL 8.1
	PL 8.3
127N01424	PL 9.1
	PL 9.6
127N01425	PL 9.6
	PL 9.7
127N01426	PL 9.6
127N01427	PL 8.4
127N01428	PL 1.2
127N01430	PL 10.1
127N01431	PL 10.1
127N01448	PL 9.7
127N01449	PL 9.6
127N07225	PL 10.1
127N07247	PL 1.6
127N07248	PL 8.2
127N07250	PL 10.1
127N07269	PL 10.1
128N00399	PL 10.1
129N00004	PL 4.2
130N00671	PL 4.4
130N00672	PL 10.1
	PL 8.2

Table 1 Part Number Index

Part Number	Part List
130N00681	PL 3.2
	PL 3.4
130N01254	PL 10.1
130N01255	PL 10.1
130N01263	PL 9.4
064N00018	PL 1.2
	PL 8.2
	PL 7.9
	PL 7.14
	PL 7.5
130N01294	PL 4.4
130N01295	PL 4.4
130N01297	PL 6.5
135N00029	PL 4.3
135N00030	PL 8.2
	PL 9.7
135N00033	PL 6.3
135N00034	PL 7.10
	PL 7.12
	PL 7.13
	PL 7.4
	PL 7.8
	PL 7.9
	PL 7.5
140N04704	PL 6.4
140N04709	PL 10.1
140N04710	PL 10.1
140N04711	PL 10.1
140N06066	PL 10.1
140N06067	PL 9.3
140N06068	PL 10.1
140N06069	PL 10.1
140N06070	PL 10.1
140N06071	PL 10.1
140N06072	PL 10.1
140N06073	PL 10.1
140N06074	PL 10.1
140N06075	PL 10.1
140N06100	PL 9.2
142N00085	PL 6.3
	PL 9.8

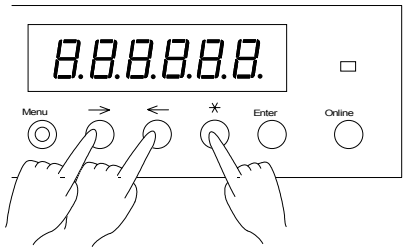
Table 1 Part Number Index

Part Number	Part List
142N00086	PL 6.3
	PL 9.8
142N00159	PL 10.1
142N00160	PL 10.1
144N00116	PL 1.3
146N00122	PL 7.13
	PL 7.5
	PL 7.9
152N11502	PL 9.5
500N00101	PL 9.2
600N01779	PL 9.6
600N01780	PL 1.2
600N01781	PL 1.3
600N01782	PL 1.6
600N01784	PL 1.6
600N01785	PL 1.5
600N01786	PL 3.3
600N01787	PL 4.6
600N01788	PL 4.4
600N01789	PL 4.4
600N01790	PL 4.4
600N03210	PL 1.6
600N03213	PL 9.4
600N03216	PL 7.1
600N03217	PL 9.5
600N03218	PL 1.6
605N00053	PL 6.4
892E88310	PL 9.3
892E88320	PL 9.1
892E88330	PL 9.3
892E88340	PL 9.1
892E88350	PL 9.3
892E88360	PL 9.1
892E88370	PL 9.3
892E88380	PL 9.1
893E18440	PL 9.3

Section Contents

Diagnostics

Entering the Diagnostic mode



To enter the diagnostic mode, press and hold [*] and then press [-->], [-->], [<--], and [-->] in that sequence.
Prom version is indicated on the Indicator Panel display. When [Menu] is pressed all LEDs on the Operator Panel and all indicators will light. Press [Menu] key to step through the 8 diagnostic program selections.

Exiting the Diagnostic Mode

To exit the diagnostic mode press [Online] key.

NOTE: You cannot exit from the Diagnostic Mode while the printer is operating in the Component Control Mode or setting the data in the NVM Setup Mode.

***NOTE**: After exiting the Diagnostic Mode, be sure to turn off and turn on the power.*

PROM version Indication Mode

When the PROM version Indication Mode is selected, PROM version, Major version, Minor Version and the Engineer Version are indicated.
For example, given the displayed code of **0 1. 0 1. 0 1**:

- The first and the second digits indicate the major version (decimal) of the PROM.
- The third and the fourth digits indicate the minor version (decimal) of the PROM.
- Two remaining digits indicate the engineer version (decimal) of the PROM.

All LEDs indication Mode

All of LED on Operator Panel and Paper Size Indication are lit.

Diagnostics Programs

The diagnostic programs are listed below:

Program 1	Input/Output Display Mode
Program 2	Analog Display Mode
Program 3	Component Control Mode
Program 4	NVM Setup Mode 0
Program 5	NVM Setup Mode 1
Program 6	Dead Cycle
Program 7	Jam Bypass Mode
Program 8	Test Print Mode
Program 9	Factory Adjustment Mode

Program 1. Input/Output Display Mode

The purpose of the program is to view the status of all Input/Output signals during printer operation. Refer to the tables on pages 6-3 through 6-10 (Input/Output Signals) for the signal code, name and signal classification (Input or Output).

When this mode (Program 1) is selected, signal code and its status are displayed on the Indicator Panel. Press [-->] key to step forward through the list of selections and [<--] key to step backward through the list.

When the Input/Output Display Mode is selected, a signal code and its level will be displayed on the Indicator Panel.
For example, given the displayed code of **1 0 0. - L -**:

- the first number indicates the Diagnostic program (1 – Input/Output Display Mode).
- the second and the third numbers indicate the Signal Code (0 0).
- three remaining digits indicate the level of the selected signal.

Diagnostic Code	Description	I / O
[1-00]	Top Rear Cover Signal	I
[1-01]	Right Side Door SW 1	I
[1-02]	Right Side Door SW 2 (Toner)	I
[1-03]	Manual Paper Set Sensor Signal	I
[1-04]	Roll Paper Set Sensor 1 Signal	I
[1-05]	Roll Paper Set Sensor 2 Signal	I
[1-06]	Roll Paper Set Sensor 3 Signal	I
[1-07]	Roll Paper Set Sensor 4 Signal	I
[1-08]	Paper Detection Signal 1	I
[1-09]	Paper Detection Signal 2	I
[1-0A]	Paper Detection Signal 3	I
[1-0b]	Paper Detection Signal 4	I
[1-0C]	Media Selection Signal 0 (Plain)	I
[1-0d]	Media Selection Signal 1 (Tracing)	I
[1-0E]	Media Selection Signal 2 (Film)	I
[1-0F]	Media Interchange Signal	I
[1-10]	Paper Size Sensor Signal 0	I
[1-11]	Paper Size Sensor Signal 1	I
[1-12]	Paper Size Sensor Signal 2	I
[1-13]	Paper Size Sensor Signal 3	I
[1-14]	Paper Size Sensor Signal 4	I
[1-15]	Paper Size Sensor Signal 5	I
[1-16]	Paper Size Sensor Signal 6	I
[1-17]		
[1-18]	Paper Feed Motor Synchronous Signal	I
[1-19]	Toner Volume Detection Signal	I
[1-1A]	Fuser Motor Synchronous Signal	I
[1-1b]		
[1-1C]	Toner Detection Signal 2 (Developer)	I
[1-1d]	Toner Detection Signal 1 (Hopper)	I

Diagnostic Code	Description	I / O
[1-1E]	Manual Bypass Shelf Switch Signal	I
[1-1F]	Exit Cover Switch Signal	I
[1-20]		
[1-21]	Switch Data Signal 0	I
[1-22]	Switch Data Signal 1	I
[1-23]	Transmission PCB input Signal	I
[1-24]		
[1-25]	Roll Deck Switch Signal 1	I
[1-26]	Roll Deck Switch Signal 2	I
[1-27]	Roll Deck Switch Signal 3	I
[1-28]		
[1-29]		
[1-2A]	Multiple Manual Size Sensor 0 Signal	I
[1-2b]	Developer Position Sensor Signal	I
[1-2C]	Internal Transportation Unit Set Signal	I
[1-2d]	Multiple Manual Size Sensor 1 Signal	I
[1-2E]	Paper Detack Sensor Signal	I
[1-2F]	Paper Exit Sensor Signal	I
[1-30]		
[1-31]		
[1-32]	Lower Counter Control Signal Feed Back	I
[1-33]	Upper Counter Control Signal Feed Back	I
[1-34]		
[1-35]		
[1-36]		
[1-37]		
[1-38]	Power Switch OFF Control Signal	O
[1-39]	Paper Feed Motor Speed Exchange Signal	O
[1-3A]	Multi Manual Pick Up Roller Down Solenoid Signal	O
[1-3b]	Multi Manual Reverse Roller Down Solenoid Signal	O

Diagnostic Code	Description	I / O
[1-3C]	Multi Manual Paper Feed Motor	O
[1-3d]		
[1-3E]	Detack Assist Blower 4 Control Signal	O
[1-3F]	Detack Assist Blower 3 Control Signal	O
[1-40]	Interlock Signal 1 (Thermostat)	I
[1-41]	Interlock Signal 2 (Door)	I
[1-42]	Wire Cleaning Motor Over Current Detection Signal	I
[1-43]	Cutter Home Position Signal	I
[1-44]	Dev Bias Output 2 Detection Signal	I
[1-45]	Power Switch Detection Signal	I
[1-46]	Drum Motor Synchronous Signal	I
[1-47]	LED Head Cleaning Motor Over Current Detection Signal	I
[1-48]	Indication Data Signal 24	O
[1-49]	Indication Data Signal 25	O
[1-4A]	Indication Data Signal 26	O
[1-4b]	Indication Data Signal 27	O
[1-4C]	Indication Data Signal 28	O
[1-4d]	Indication Data Signal 29	O
[1-4E]	Indication Data Signal 30	O
[1-4F]	Indication Data Signal 31	O
[1-50]	Indication Data Signal 8	O
[1-51]	Indication Data Signal 9	O
[1-52]	Indication Data Signal 10	O
[1-53]	Indication Data Signal 11	O
[1-54]	Indication Data Signal 12	O
[1-55]	Indication Data Signal 13	O
[1-56]	Indication Data Signal 14	O
[1-57]	Indication Data Signal 15	O
[1-58]	Indication Data Signal 16	O
[1-59]	Indication Data Signal 17	O

Diagnostic Code	Description	I / O
[1-5A]	Indication Data Signal 18	O
[1-5b]	Indication Data Signal 19	O
[1-5C]	Indication Data Signal 20	O
[1-5d]	Indication Data Signal 21	O
[1-5E]	Indication Data Signal 22	O
[1-5F]	Indication Data Signal 23	O
[1-60]	RY6 Control Signal	O
[1-61]	Clock of M62362P	-
[1-62]	DI of M62362P	-
[1-63]	BS of M62362P	-
[1-64]	Selector A of 74HC4051	-
[1-65]	Selector B of 74HC4051	-
[1-66]	Selector C of 74HC4051	-
[1-67]		-
[1-68]	Developer Home Position Motor Control Signal	O
[1-69]	Cutter Motor Control Signal	O
[1-6A]	Power CHG Control Signal for Developer Release	O
[1-6b]	Cutter Motor Reset Signal	O
[1-6C]	Wire Cleaning Motor Control Signal	O
[1-6d]	Pressure Blower (High Speed)	O
[1-6E]	Wire Cleaning Motor Reverse Signal	O
[1-6F]	Pressure Blower (Low Speed)	O
[1-70]	Paper Feed Motor Reverse Control Signal	O
[1-71]		
[1-72]	Drum Motor Reverse Control Signal	O
[1-73]	Exhaust Fan 3 Control Signal	O
[1-74]	Drum Cleaning Roller Bias Control Signal	O
[1-75]	Drum Cleaning Roller Bias Polarity Switching Control Signal	O
[1-76]	Lower Counter Control Signal (3 pins)	O
[1-77]	Upper Counter Control Signal (2 pins)	O

Diagnostic Code	Description	I / O
[1-78]	Eraser Lamp Control Signal	O
[1-79]	Toner Supply Clutch Control Signal	O
[1-7A]		
[1-7b]	Detack Lamp Control Signal	O
[1-7C]	Exhaust Blower Control Signal (Low Speed)	O
[1-7d]	Detack Fan Control Signal	O
[1-7E]	Developer Bias Control Signal	O
[1-7F]	Exhaust Blower Control Signal (High Speed)	O
[1-80]	Transmission PCB Output Signal	O
[1-81]	LED Head Cleaning Motor Reverse Control Signal	O
[1-82]	Developer Bias Polarity Switching Control Signal	O
[1-83]	LED Head Cleaning Motor Control Signal	O
[1-84]	Paper Feed Motor Control Signal	O
[1-85]	Drum Motor Control Signal	O
[1-86]	Drum Motor Speed Switching Control Signal	O
[1-87]	Fuser Motor Control Signal	O
[1-88]	Print Condition Data Select Signal 0	-
[1-89]	Print Condition Data Select Signal 1	-
[1-8A]	Print Condition Data Select Signal 2	-
[1-8b]	Print Condition Data Select Signal 3	-
[1-8C]	Print Condition Data Select Signal 4	-
[1-8d]	Device Clear Signal	-
[1-8E]	Select Write Enable Signal	-
[1-8F]	DIR Signal Control of 74HC245	-
[1-90]	Gate Roller Clutch Control Signal	O
[1-91]	Merging Roller Clutch Control Signal	O
[1-92]	Paper Feed Clutch Control Signal	O
[1-93]	Roll Paper Feed Clutch 2 Control Signal	O
[1-94]	Roll Paper Feed Clutch 3 Control Signal	O
[1-95]	Roll Paper Feed Clutch 4 Control Signal	O

Diagnostic Code	Description	I / O
[1-96]	Fuser Entrance Solenoid Control Signal	O
[1-97]	Dehumidify Heater Control Signal	O
[1-98]	Toner Supply Motor 2 Control Signal (Hopper to Developer)	O
[1-99]	Detack Assist Blower 2 Control Signal	O
[1-9A]	Relay Control Signal	O
[1-9b]	Manual Paper Feed Clutch Control Signal	O
[1-9C]	Roll Paper Feed 1 Clutch Control Signal	O
[1-9d]	Gate Roller Brake Control Signal	O
[1-9E]	Merging Roller Brake Control Signal	O
[1-9F]	Cutter Oil Supply Solenoid Control Signal	O
[1-A0]	Charge Scorotron Control Signal	O
[1-A1]	Detack Corotron Control Signal	O
[1-A2]	Transfer Corotron Control Signal	O
[1-A3]	Pre-Transfer Lamp Control Signal	O
[1-A4]	LED Head Cooling Fans (BL8, BL9) Control Signal	O
[1-A5]	LED Head Cooling Fans (BL10, BL11) Control Signal	O
[1-A6]	Grid Bias Control Signal	O
[1-A7]	Toner Supply Motor 1 Control Signal (Cartridge to Hopper)	O
[1-A8]	Digit Signal 0	O
[1-A9]	Digit Signal 1	O
[1-AA]	Digit Signal 2	O
[1-Ab]	Digit Signal 3	O
[1-AC]	Digit Signal 4	O
[1-Ad]	Digit Signal 5	O
[1-AE]	Digit Signal 6	O
[1-AF]	Digit Signal 7	O
[1-b0]	Indication Data Signal 0	O
[1-b1]	Indication Data Signal 1	O
[1-b2]	Indication Data Signal 2	O

Diagnostic Code	Description	I / O
[1-b3]	Indication Data Signal 3	O
[1-b4]	Indication Data Signal 4	O
[1-b5]	Indication Data Signal 5	O
[1-b6]	Indication Data Signal 6	O
[1-b7]	Indication Data Signal 7	O
[1-b8]	Toner Volume Detect Sensor Selection Signal A	O
[1-b9]	Toner Volume Detect Sensor Selection Signal B	O
[1-bA]	Toner Volume Detect Sensor Selection Signal C	O
[1-bb]	Exit Sensor Output Signal(Ach)	O
[1-bC]	Buzzer Control Signal	O
[1-bd]	Exit Sensor Output Signal(Bch)	O
[1-bE]	Fuser Lamp 1 Control Signal	O
[1-bF]	Fuser Lamp 2 Control Signal	O
[1-C0]	Indication Data Signal 32	O
[1-C1]	Indication Data Signal 33	O
[1-C2]	Indication Data Signal 34	O
[1-C3]	Indication Data Signal 35	O
[1-C4]	Indication Data Signal 36	O
[1-C5]	Indication Data Signal 37	O
[1-C6]	Indication Data Signal 38	O
[1-C7]	Indication Data Signal 39	O
[1-C8]		
[1-C9]		
[1-CA]		
[1-Cb]		
[1-CC]		
[1-Cd]	Toner Supply Motor 1 Reverse Signal	O
[1-CE]	Image Magnification Switching Signal	O
[1-CF]	STR/STP of HD64610	O
[1-d0]		

Diagnostic Code	Description	I / O
[1-d1]		
[1-d2]		
[1-d3]		
[1-d4]		
[1-d5]		
[1-d6]		
[1-d7]		
[1-d8]	Input Data Bus 0	I
[1-d9]	Input Data Bus 1	I
[1-dA]	Input Data Bus 2	I
[1-db]	Input Data Bus 3	I
[1-dC]	Input Data Bus 4	I
[1-dd]	Input Data Bus 5	I
[1-dE]	Input Data Bus 6	I
[1-dF]	Input Data Bus 7	I
[1-E0]	Printer Ready Signal	O
[1-E1]	Print Request Signal	O
[1-E2]	LED Control Signal of Toner Volume Detection	O
[1-E3]		
[1-E4]		
[1-E5]	GATE0 of uPD71054	O
[1-E6]	GATE1 of uPD71054	O
[1-E7]	GATE2 of uPD71054	O
[1-E8]	Printing Request Signal	
[1-E9]	Data Output Busy Signal	
[1-EA]	Print Request Signal	
[1-Eb]	Test Pattern Printing Signal	
[1-EC]	Cut Request Signal	
[1-Ed]	Command Receive Signal	
[1-EE]	Registration Sensor Signal	

Program 2. Analog Display Mode

The purpose of this program is to display and monitor various analog signals during printer operation. The input voltage of the analog port on DC Controller Board (and its converted value) is displayed.

When the Analog Display Mode (Program 2) is selected, a signal code will be displayed on the Indicator Panel.
For example, given the displayed code of **2 0 0. 1 7 0.**:

- the first number indicates the Diagnostic program (2 - Analog Display Mode).
- the second and the third numbers indicate the Signal Code (0 0).
- the three remaining digits indicate the temperature of Fuser Roll for the test being performed.

Press [-->] key to step through the selections and press [<--] key to step backward through the selections. When the desired signal has been selected, press [Enter] to run a test print and monitor the signal. The following table lists the selections.

Code	Description
00	Fuser Temperature (Celsius)
01	Roll 1 Paper Size Sensor Input (hexadecimal indication: 0 = paper exists, 1 = no paper)
02	Roll 2 Paper Size Sensor Input (hexadecimal indication: 0 = paper exists, 1 = no paper)
03	Roll 3 Paper Size Sensor Input (hexadecimal indication: 0 = paper exists, 1 = no paper)
04	Roll 4 Paper Size Sensor Input (hexadecimal indication: 0 = paper exists, 1 = no paper)
05	Manual Paper Size Sensor Input (hexadecimal indication: 0 = paper exists, 1 = no paper)
06	Roll 1 remaining volume
07	Roll 2 remaining volume
08	Roll 3 remaining volume
09	Roll 4 remaining volume
0A	Humidity of Inside of the Machine
0b	Analog Voltage of Humidity Sensor
0C	Surface Potential
0d	Analog Voltage of SPS
0E	Temperature (Celsius) of Inside of the Machine
0F	(Reserved)
10	Toner Level Supply Status Check 1
11	Toner Level Supply Status Check 2
12	Toner Level Supply Status Check 3

The dot on the far right turns on when Fuser Lamp 1 is turned on.
The second dot from right turns on when Fuser Lamp 2 is turned on.
For example, given the displayed code of **2 0 1. 7 F**:

- the first number indicates the Diagnostic program (2 - Analog Display Mode).
- the second and the third numbers indicate the Code (0 1).
- two remaining digits indicate the status of paper existence.
  Decode 7Fh to binary code. (0111 1111)
  LSB 0 shows Paper Size Data Signal 0
  1 shows Paper Size Data Signal 1
  2 shows Paper Size Data Signal 2
  3 shows Paper Size Data Signal 3
  4 shows Paper Size Data Signal 4
  5 shows Paper Size Data Signal 5
  6 shows Paper Size Data Signal 6
  MSB 7 is not used and always equals 0 for Rolls 1 through 4 and equals 1 for the manual Tray.
  0 shows that paper exists on that sensor, while 1 shows no paper condition individually.

Paper Size	Hex	Size Data Signals for								Good Drawers
		7	6	5	4	3	2	1	0	
B3	7E	0	1	1	1	1	1	1	0	
18" (A2)	7C	0	1	1	1	1	1	0	0	2,3,4
B2	78	0	1	1	1	1	0	0	0	
24" (A1)	70	0	1	1	1	0	0	0	0	2,3,4
30" (B1)	60	0	1	1	0	0	0	0	0	2,3,4
34" (A0)	40	0	1	0	0	0	0	0	0	1,2,3,4
36"	00	0	0	0	0	0	0	0	0	1,2,3,4

Table 1 Roll 1, 2, 3, and 4 Size Sensors

Paper Size	Hex	Size Data Signals							
		7	6	5	4	3	2	1	0
B3	FE	1	1	1	1	1	1	1	0
18" (A2)	FC	1	1	1	1	1	1	0	0
B2	F8	1	1	1	1	1	0	0	0
24" (A1)	F0	1	1	1	1	0	0	0	0
30" (B1)	E0	1	1	1	0	0	0	0	0
34" (A0)	C0	1	1	0	0	0	0	0	0
36"	80	1	0	0	0	0	0	0	0

Table 2 Manual Tray Size Sensors

Drawer 1	Hex
17"/18"	7D
24	71
30	61
34	40
36	00

Table 3

For example, given the displayed code of **2 0 6. 1 - 8**:

- the first number indicates the Diagnostic program (2 - Analog Display Mode).
- the second and the third numbers indicate the Signal Code (0 6).
- three remaining digits indicate the remaining volume of the toner.
  One eighth of the toner is still remaining in this example.

For example, given the displayed code of **2 1 0. 8 7 F**:

- the first number indicates the Diagnostic program (2 - Analog Display Mode).
- the second and the third numbers indicate the Code (1 0).
- fourth number indicates the toner level from 1 to 8 (there are 8 levels). (In this case, level 8 is indicated.)
- two remaining digits indicate the data information of the Toner Level Receiving PWB Sensors in hex code. This information is for factory use only.

***Note**: The printer will check the level of toner under each of the following conditions.*

1. *When the printer is turned on.*
2. *When the Toner Cover is opened then closed.*
3. *Every 30m print*

The printer will check the level of toner 3 times in succession, average the three checks, and display the results on the Media Status Indicator PWB.

"2-10" memorizes the Toner level detected in the 1st check.

"2-11" memorizes the Toner level detected in the 2nd check.

"2-12" memorizes the Toner level detected in the 3rd check.

Program 3. Component Control Mode

The purpose of this mode is to operate components such as clutches and motors. Refer to the table on the following pages for Component Control Codes and descriptions.

When the Component Control Mode (Program 3) is selected the Code and its status are displayed on the Indicator Panel. Press [-->] key to step through the list of selections and press [<--] key to step backward through the list of selections. Press [Enter] key to switch the component ON/OFF.

For example, given the displayed code of
3 7 d - -

- The first number indicates the Diagnostic program (3 - Component Control Mode).
- The second and the third digits indicate the Code (7d).
- The two dashes following the Signal code display the operating status of the component being tested:
  *If both dashes are blanked out, the component is not operable.
  *If the dashes are visible, but not blinking, the component is OFF.
  *If the dashes are blinking, the component is ON.

Refer to the tables on pages 6-13 through 6-15 for a complete listing of available outputs.

Code	Description
[3-38]	Power Switch OFF Control Signal
[3-39]	Paper Feed Motor Speed Exchange Signal
[3-3A]	Multi Manual Pick Up Roller Down Solenoid Control Signal
[3-3b]	Multi Manual Reverse Roller Down Solenoid Control Signal
[3-3C]	Multi Manual Paper Feed Motor
[3-3E]	Detack Assist Blower 4 Control Signal
[3-3F]	Detack Assist Blower 3 Control Signal
[3-68]	Developer Home Position Motor Control Signal
[3-69]	Cutter Motor Control Signal
[3-6A]	Power CHG Control Signal for Developer Release
[3-6b]	Cutter Motor Reset Signal
[3-6C]	Wire Cleaning Motor Control Signal
[3-6d]	Pressure Blower (High Speed)
[3-6E]	Wire Cleaning Motor Reverse Signal
[3-6F]	Pressure Blower (Low Speed)
[3-70]	Paper Feed Motor Reverse Control Signal
[3-71]	
[3-72]	Drum Motor Reverse Control Signal
[3-73]	Exhaust Fan 3 Control Signal
[3-74]	Drum Cleaning Roller Bias Control Signal
[3-75]	Drum Cleaning Roller Bias Polarity Switching Control Signal
[3-76]	Lower Counter Control Signal (3 pins)
[3-77]	Upper Counter Control Signal (2 pins)
[3-78]	Eraser Lamp Control Signal
[3-79]	Toner Supply Clutch Control Signal
[3-7A]	

Code	Description
[3-7b]	Detack Lamp Control Signal
[3-7C]	Exhaust Blower Control Signal (Low Speed)
[3-7d]	Detack Fan Control Signal
[3-7E]	Developer Bias Control Signal
[3-7F]	Exhaust Blower Control Signal (High Speed)
[3-80]	Transmission PCB Output Signal
[3-81]	LED Head Cleaning Motor Reverse Control Signal
[3-82]	Developer Bias Polarity Switching Control Signal
[3-83]	LED Head Cleaning Motor Control Signal
[3-84]	Paper Feed Motor Control Signal
[3-85]	Drum Motor Control Signal
[3-86]	Drum Motor Speed Switching Control Signal
[3-87]	Fuser Motor Control Signal
[3-90]	Registration Roller Clutch Control Signal
[3-91]	Merging Roller Clutch Control Signal
[3-92]	Paper Feed Clutch Control Signal
[3-93]	Roll Paper Feed Clutch 2 Control Signal
[3-94]	Roll Paper Feed Clutch 3 Control Signal
[3-95]	Roll Paper Feed Clutch 4 Control Signal
[3-96]	Fuser Entrance Solenoid Control Signal
[3-97]	Dehumidify Heater Control Signal
[3-98]	Toner Supply Motor 2 Control Signal (Hopper to Developer)
[3-99]	Detack Assist Blower 2 Control Signal
[3-9A]	Relay Control Signal
[3-9b]	Manual Paper Feed Clutch Control Signal
[3-9C]	Roll Paper Feed 1 Clutch Control

Code	Description
	Signal
[3-9d]	Registration Roller Brake Control Signal
[3-9E]	Merging Roller Brake Control Signal
[3-9F]	Cutter Oil Supply Solenoid Control Signal
[3-A0]	Charge Scorotron Control Signal
[3-A1]	Detack Corotron Control Signal
[3-A2]	Transfer Corotron Control Signal
[3-A3]	Pre-transfer lamp Control Signal
[3-A4]	LED Head Cooling Fan 1 Control Signal
[3-A5]	LED Head Cooling Fan 2 Control Signal
[3-A6]	Grid Bias Control Signal
[3-A7]	Toner Supply Motor 1 Control Signal (Cartridge to Hopper)
[3-b8]	Toner Volume Detect Sensor Selection Signal A
[3-b9]	Toner Volume Detect Sensor Selection Signal B
[3-bA]	Toner Volume Detect Sensor Selection Signal C
[3-bb]	Exit Sensor Output Signal(Ach)
[3-bC]	Buzzer Control Signal
[3-CE]	Image Magnification Switching Signal
[3-E2]	LED Control Signal of Toner Volume Detection

Program 4. NVM Setup Mode 0

Introduction

The purpose of this program is to view and modify the NVM values such as, fuser temperature, fuser motor speed, and developer bias.
This section includes the NVM Quick Reference Chart and the NVM Adjustments.
The NVM Quick Reference Chart includes the NVM code, a description, a default value, a range, a recommended range, and the unit value.
The NVM Adjustments contain a more detailed description and adjustment procedure.

Procedure

When the NVM Setup Mode 0 (Program 4) is selected, press [-->] key to step through the list of selections and press [<--] key to step backward through the list of selections.
Press [Enter] key to modify the NVM value.
Adjustment data starts flickering.
Press [-->] key to increase the value and press [<--] key to decrease the value.
And when desired value is shown, press the [Enter] key.
When [Online] key is pressed without pressing [Enter] key, NVM Setup Mode 0 is exited without changing the NVM value.
You cannot change Mode number or Sub Mode number during NVM Setup Mode.

All NVM Values are set at the factory and can vary from printer to printer. For the NVM value for the particular printer that you are servicing, refer to the matrix located inside the right side door.

NVM Quick Reference Chart

***Note**: This chart includes only those locations available from the control console. For all NVM locations, see PC Diagnostic NVM Setup Procedure*

NVM Code	Description	Default Value	Range	Recommended Range	Unit Value
4-00	Metric or inch	36	A0/36	-	-
4-01	Operation of Interface	1	0/1/2	-	-
4-02	Maximum cut length	6	6/24	-	-
4-03	Trailing margin for long print	OFF	OFF/ON	-	-
4-04	Special paper size	900	900/891/880	-	mm
4-05	Counting unit of Counter A	1	0/1/(2)/(3)	-	-
4-06	Counting unit of Counter B	0	0/1/(2)/(3)	-	-
4-07	Operation of Dehumidify Heater	0	0/1	-	-
4-08	Cut length of Test Print	48 (A0)	A0.....b5, 48....8.5	-	-
4-09	Custom settings for plain paper	0	0/1	-	-
4-0A	Custom settings for tracing paper	0	0/1	-	-
4-0B	Custom settings for film	0	0/1	-	-
4-10	Fuser temperature (PPC)	178	150-190	170-180	° C
4-11	Fuser temperature (Tracing)	178	150-190	170-180	° C
4-12	Fuser temperature (Film)	178	150-190	170-180	° C
4-13	LED strobe time (Original image)	25 (AccXES 9.2 or higher) 28 (AccXES 9.1)	0-42	10-30	microsecond
4-14	LED strobe time (Supplemental Image)	0 (AccXES 9.2 or higher) 22 (AccXES 9.1)	0-50	10-30	microsecond
4-15	Pre-Transfer / Separation Corona OFF timing	0	0/1	-	-
4-16	Pre-Transfer Lamp ON / OFF	1	0/1	-	-
4-17	Separation Lamp ON / OFF (PPC)	1	0/1	-	-
4-18	Separation Lamp ON / OFF (Tracing)	1	0/1	-	-
4-19	Developer Bias	04F	000-0FF	Fixed by Factory Setting	Hex.
4-1A	Image Corona current	04A	000-0FF	Fixed by Factory Setting	Hex.
4-1B	Image Corona Grid current	025C	000-500	Fixed by Factory Setting	Hex.
4-1C	Transfer Corona current (PPC)	3C2	000-500	Fixed by Factory Setting	Hex.

***Note**: This chart includes only those locations available from the control console. For all NVM locations, see PC Diagnostic NVM Setup Procedure*

Note 2: AccXES 9.1 Default value for NVM Code 4-14 = 22. AccXES 9.2 or higher default value for NVM Code 4-14 = 0

***Note**: This chart includes only those locations available from the control console. For all NVM locations, see PC Diagnostic NVM Setup Procedure*

NVM Code	Description	Default Value	Range	Recommended Range	Unit Value
4-1D	Transfer Corona current (Tracing)	3C2	000-500	Fixed by Factory Setting	Hex.
4-1E	Transfer Corona current (Film)	3C2	000-500	Fixed by Factory Setting	Hex.
4-1F	DC component for Detack Corona (PPC)	1A8	000-500	Fixed by Factory Setting	Hex.
4-20	DC component for Detack Corona (Tracing)	1A8	000-500	Fixed by Factory Setting	Hex.
4-21	DC component for Detack Corona (Film)	1A8	000-500	Fixed by Factory Setting	Hex.
4-22	Paper Feed Motor speed (Manual feed)	0	±1.0	±0.5	0.05%
4-23	Paper Feed Motor speed (Roll 1)	0	±1.0	±0.5	0.05%
4-24	Paper Feed Motor speed (Roll 2)	0	±1.0	±0.5	0.05%
4-25	Paper Feed Motor speed (Roll 3)	0	±1.0	±0.5	0.05%
4-26	Paper Feed Motor speed (Roll 4)	0	±1.0	±0.5	0.05%
4-27	Fuser Motor speed (Manual feed / PPC / Large size)	0	±1.0	±0.5	0.05%
4-28	Fuser Motor speed (Manual feed / PPC / Medium size)	0	±1.0	±0.5	0.05%
4-29	Fuser Motor speed (Manual feed / PPC / Small size)	0	±1.0	±0.5	0.05%
4-2A	Fuser Motor speed (Manual feed / PPC / Smallest size)	0	±1.0	±0.5	0.05%
4-2B	Fuser Motor speed (Manual feed / Tracing / Large size)	0	±1.0	±0.5	0.05%
4-2C	Fuser Motor speed (Manual feed / Tracing / Medium size)	0	±1.0	±0.5	0.05%
4-2D	Fuser Motor speed (Manual feed / Tracing / Small size)	0	±1.0	±0.5	0.05%
4-2E	Fuser Motor speed (Manual feed / Tracing / Smallest size)	0	±1.0	±0.5	0.05%
4-2F	Fuser Motor speed (Manual feed / Film / Large size)	0	±1.0	±0.5	0.05%
4-30	Fuser Motor speed (Manual feed / Film / Medium size)	0	±1.0	±0.5	0.05%
4-31	Fuser Motor speed (Manual feed / Film / Small size)	0	±1.0	±0.5	0.05%
4-32	Fuser Motor speed (Manual feed / Film / Smallest size)	0	±1.0	±0.5	0.05%
4-33	Fuser Motor speed (Roll 1 / PPC / Large size / 0 to 2m)	-0.20	±1.0	±0.2	0.05%
4-34	Fuser Motor speed (Roll 1 / PPC / Large size / 2 to 3m)	-0.20	±1.0	±0.2	0.05%
4-35	Fuser Motor speed (Roll 1 / PPC / Large size / 3 to 4m)	-0.20	±1.0	±0.2	0.05%
4-36	Fuser Motor speed (Roll 1 / PPC / Large size / 4 to 5m)	-0.20	±1.0	±0.2	0.05%
4-37	Fuser Motor speed (Roll 1 / PPC / Large size / 5 to 6m)	-0.20	±1.0	±0.2	0.05%
4-38	Fuser Motor speed (Roll 1 / PPC / Large size / 6 to 7m)	-0.20	±1.0	±0.2	0.05%
4-39	Fuser Motor speed (Roll 1 / PPC / Large size / 7 to 8m)	-0.20	±1.0	±0.2	0.05%

***Note**: This chart includes only those locations available from the control console. For all NVM locations, see PC Diagnostic NVM Setup Procedure*

NVM Code	Description	Default Value	Range	Recommended Range	Unit Value
4-3A	Fuser Motor speed (Roll 1 / PPC / Large size / 8 to 9m)	-0.20	±1.0	±0.2	0.05%
4-3B	Fuser Motor speed (Roll 1 / PPC / Large size / 9 to 10m)	-0.20	±1.0	±0.2	0.05%
4-3C	Fuser Motor speed (Roll 1 / PPC / Large size / 10 to 11m)	-0.20	±1.0	±0.2	0.05%
4-3D	Fuser Motor speed (Roll 1 / PPC / Large size / 11 to 12m)	-0.20	±1.0	±0.2	0.05%
4-3E	Fuser Motor speed (Roll 1 / PPC / Large size / 12 to 13m)	-0.20	±1.0	±0.2	0.05%
4-3F	Fuser Motor speed (Roll 1 / PPC / Large size / 13 to 14m)	-0.20	±1.0	±0.2	0.05%
4-40	Fuser Motor speed (Roll 1 / PPC / Large size / 14 to 15m)	-0.20	±1.0	±0.2	0.05%
4-41	Fuser Motor speed (Roll 1 / PPC / Large size / 15 to 16m)	-0.20	±1.0	±0.2	0.05%
4-42	Fuser Motor speed (Roll 1 / PPC / Large size / 16 to 17m)	-0.20	±1.0	±0.2	0.05%
4-43	Fuser Motor speed (Roll 1 / PPC / Large size / 17 to 18m)	-0.20	±1.0	±0.2	0.05%
4-44	Fuser Motor speed (Roll 1 / PPC / Large size / 18 to 19m)	-0.20	±1.0	±0.2	0.05%
4-45	Fuser Motor speed (Roll 1 / PPC / Large size / 19 to 20m)	-0.20	±1.0	±0.2	0.05%
4-46	Fuser Motor speed (Roll 1 / PPC / Large size / 20 to 21m)	-0.20	±1.0	±0.2	0.05%
4-47	Fuser Motor speed (Roll 1 / PPC / Large size / 21 to 22m)	-0.20	±1.0	±0.2	0.05%
4-48	Fuser Motor speed (Roll 1 / PPC / Large size / 22 to 23m)	-0.20	±1.0	±0.2	0.05%
4-49	Fuser Motor speed (Roll 1 / PPC / Large size / 23 to 24m)	-0.20	±1.0	±0.2	0.05%
4-4A	Fuser Motor speed (Roll 1 / PPC / Medium size)	-0.20	±1.0	±0.2	0.05%
4-4B	Fuser Motor speed (Roll 1 / PPC / Small size)	-0.20	±1.0	±0.2	0.05%
4-4C	Fuser Motor speed (Roll 1 / PPC / Smallest size)	-0.20	±1.0	±0.2	0.05%
4-4D	Fuser Motor speed (Roll 1 / Tracing / Large size)	-0.20	±1.0	±0.2	0.05%
4-4E	Fuser Motor speed (Roll 1 / Tracing / Medium size)	-0.20	±1.0	±0.2	0.05%
4-4F	Fuser Motor speed (Roll 1 / Tracing / Small size)	-0.20	±1.0	±0.2	0.05%
4-50	Fuser Motor speed (Roll 1 / Tracing / Smallest size)	-0.20	±1.0	±0.2	0.05%
4-51	Fuser Motor speed (Roll 1 / Film / Large size)	-0.20	±1.0	±0.2	0.05%
4-52	Fuser Motor speed (Roll 1 / Film / Medium size)	-0.20	±1.0	±0.2	0.05%
4-53	Fuser Motor speed (Roll 1 / Film / Small size)	-0.20	±1.0	±0.2	0.05%
4-54	Fuser Motor speed (Roll 1 / Film / Smallest size)	-0.20	±1.0	±0.2	0.05%
4-55	Fuser Motor speed (Roll 2 / PPC / Large size / 0 to 2m)	-0.20	±1.0	±0.2	0.05%
4-56	Fuser Motor speed (Roll 2 / PPC / Large size / 2 to 3m)	-0.20	±1.0	±0.2	0.05%
4-57	Fuser Motor speed (Roll 2 / PPC / Large size / 3 to 4m)	-0.20	±1.0	±0.2	0.05%
4-58	Fuser Motor speed (Roll 2 / PPC / Large size / 4 to 5m)	-0.20	±1.0	±0.2	0.05%
4-59	Fuser Motor speed (Roll 2 / PPC / Large size / 5 to 6m)	-0.20	±1.0	±0.2	0.05%

***Note**: This chart includes only those locations available from the control console. For all NVM locations, see PC Diagnostic NVM Setup Procedure*

NVM Code	Description	Default Value	Range	Recommended Range	Unit Value
4-5A	Fuser Motor speed (Roll 2 / PPC / Large size / 6 to 7m)	-0.20	±1.0	±0.2	0.05%
4-5B	Fuser Motor speed (Roll 2 / PPC / Large size / 7 to 8m)	-0.20	±1.0	±0.2	0.05%
4-5C	Fuser Motor speed (Roll 2 / PPC / Large size / 8 to 9m)	-0.20	±1.0	±0.2	0.05%
4-5D	Fuser Motor speed (Roll 2 / PPC / Large size / 9 to 10m)	-0.20	±1.0	±0.2	0.05%
4-5E	Fuser Motor speed (Roll 2 / PPC / Large size / 10 to 11m)	-0.20	±1.0	±0.2	0.05%
4-5F	Fuser Motor speed (Roll 2 / PPC / Large size / 11 to 12m)	-0.20	±1.0	±0.2	0.05%
4-60	Fuser Motor speed (Roll 2 / PPC / Large size / 12 to 13m)	-0.20	±1.0	±0.2	0.05%
4-61	Fuser Motor speed (Roll 2 / PPC / Large size / 13 to 14m)	-0.20	±1.0	±0.2	0.05%
4-62	Fuser Motor speed (Roll 2 / PPC / Large size / 14 to 15m)	-0.20	±1.0	±0.2	0.05%
4-63	Fuser Motor speed (Roll 2 / PPC / Large size / 15 to 16m)	-0.20	±1.0	±0.2	0.05%
4-64	Fuser Motor speed (Roll 2 / PPC / Large size / 16 to 17m)	-0.20	±1.0	±0.2	0.05%
4-65	Fuser Motor speed (Roll 2 / PPC / Large size / 17 to 18m)	-0.20	±1.0	±0.2	0.05%
4-66	Fuser Motor speed (Roll 2 / PPC / Large size / 18 to 19m)	-0.20	±1.0	±0.2	0.05%
4-67	Fuser Motor speed (Roll 2 / PPC / Large size / 19 to 20m)	-0.20	±1.0	±0.2	0.05%
4-68	Fuser Motor speed (Roll 2 / PPC / Large size / 20 to 21m)	-0.20	±1.0	±0.2	0.05%
4-69	Fuser Motor speed (Roll 2 / PPC / Large size / 21 to 22m)	-0.20	±1.0	±0.2	0.05%
4-6A	Fuser Motor speed (Roll 2 / PPC / Large size / 22 to 23m)	-0.20	±1.0	±0.2	0.05%
4-6B	Fuser Motor speed (Roll 2 / PPC / Large size / 23 to 24m)	-0.20	±1.0	±0.2	0.05%
4-6C	Fuser Motor speed (Roll 2 / PPC / Medium size)	-0.20	±1.0	±0.2	0.05%
4-6D	Fuser Motor speed (Roll 2 / PPC / Small size)	-0.20	±1.0	±0.2	0.05%
4-6E	Fuser Motor speed (Roll 2 / PPC / Smallest size)	-0.20	±1.0	±0.2	0.05%
4-6F	Fuser Motor speed (Roll 2 / Tracing / Large size)	-0.20	±1.0	±0.2	0.05%
4-70	Fuser Motor speed (Roll 2 / Tracing / Medium size)	-0.20	±1.0	±0.2	0.05%
4-71	Fuser Motor speed (Roll 2 / Tracing / Small size)	-0.20	±1.0	±0.2	0.05%
4-72	Fuser Motor speed (Roll 2 / Tracing / Smallest size)	-0.20	±1.0	±0.2	0.05%
4-73	Fuser Motor speed (Roll 2 / Film / Large size)	-0.20	±1.0	±0.2	0.05%
4-74	Fuser Motor speed (Roll 2 / Film / Medium size)	-0.20	±1.0	±0.2	0.05%
4-75	Fuser Motor speed (Roll 2 / Film / Small size)	-0.20	±1.0	±0.2	0.05%
4-76	Fuser Motor speed (Roll 2 / Film / Smallest size)	-0.20	±1.0	±0.2	0.05%
4-77	Fuser Motor speed (Roll 3 / PPC / Large size / 0 to 2m)	-0.20	±1.0	±0.2	0.05%
4-78	Fuser Motor speed (Roll 3 / PPC / Large size / 2 to 3m)	-0.20	±1.0	±0.2	0.05%
4-79	Fuser Motor speed (Roll 3 / PPC / Large size / 3 to 4m)	-0.20	±1.0	±0.2	0.05%

***Note**: This chart includes only those locations available from the control console. For all NVM locations, see PC Diagnostic NVM Setup Procedure*

NVM Code	Description	Default Value	Range	Recommended Range	Unit Value
4-7A	Fuser Motor speed (Roll 3 / PPC / Large size / 4 to 5m)	-0.20	±1.0	±0.2	0.05%
4-7B	Fuser Motor speed (Roll 3 / PPC / Large size / 5 to 6m)	-0.20	±1.0	±0.2	0.05%
4-7C	Fuser Motor speed (Roll 3 / PPC / Large size / 6 to 7m)	-0.20	±1.0	±0.2	0.05%
4-7D	Fuser Motor speed (Roll 3 / PPC / Large size / 7 to 8m)	-0.20	±1.0	±0.2	0.05%
4-7E	Fuser Motor speed (Roll 3 / PPC / Large size / 8 to 9m)	-0.20	±1.0	±0.2	0.05%
4-7F	Fuser Motor speed (Roll 3 / PPC / Large size / 9 to 10m)	-0.20	±1.0	±0.2	0.05%
4-80	Fuser Motor speed (Roll 3 / PPC / Large size / 10 to 11m)	-0.20	±1.0	±0.2	0.05%
4-81	Fuser Motor speed (Roll 3 / PPC / Large size / 11 to 12m)	-0.20	±1.0	±0.2	0.05%
4-82	Fuser Motor speed (Roll 3 / PPC / Large size / 12 to 13m)	-0.20	±1.0	±0.2	0.05%
4-83	Fuser Motor speed (Roll 3 / PPC / Large size / 13 to 14m)	-0.20	±1.0	±0.2	0.05%
4-84	Fuser Motor speed (Roll 3 / PPC / Large size / 14 to 15m)	-0.20	±1.0	±0.2	0.05%
4-85	Fuser Motor speed (Roll 3 / PPC / Large size / 15 to 16m)	-0.20	±1.0	±0.2	0.05%
4-86	Fuser Motor speed (Roll 3 / PPC / Large size / 16 to 17m)	-0.20	±1.0	±0.2	0.05%
4-87	Fuser Motor speed (Roll 3 / PPC / Large size / 17 to 18m)	-0.20	±1.0	±0.2	0.05%
4-88	Fuser Motor speed (Roll 3 / PPC / Large size / 18 to 19m)	-0.20	±1.0	±0.2	0.05%
4-89	Fuser Motor speed (Roll 3 / PPC / Large size / 19 to 20m)	-0.20	±1.0	±0.2	0.05%
4-8A	Fuser Motor speed (Roll 3 / PPC / Large size / 20 to 21m)	-0.20	±1.0	±0.2	0.05%
4-8B	Fuser Motor speed (Roll 3 / PPC / Large size / 21 to 22m)	-0.20	±1.0	±0.2	0.05%
4-8C	Fuser Motor speed (Roll 3 / PPC / Large size / 22 to 23m)	-0.20	±1.0	±0.2	0.05%
4-8D	Fuser Motor speed (Roll 3 / PPC / Large size / 23 to 24m)	-0.20	±1.0	±0.2	0.05%
4-8E	Fuser Motor speed (Roll 3 / PPC / Medium size)	-0.20	±1.0	±0.2	0.05%
4-8F	Fuser Motor speed (Roll 3 / PPC / Small size)	-0.20	±1.0	±0.2	0.05%
4-90	Fuser Motor speed (Roll 3 / PPC / Smallest size)	-0.20	±1.0	±0.2	0.05%
4-91	Fuser Motor speed (Roll 3 / Tracing / Large size)	-0.20	±1.0	±0.2	0.05%
4-92	Fuser Motor speed (Roll 3 / Tracing / Medium size)	-0.20	±1.0	±0.2	0.05%
4-93	Fuser Motor speed (Roll 3 / Tracing / Small size)	-0.20	±1.0	±0.2	0.05%
4-94	Fuser Motor speed (Roll 3 / Tracing / Smallest size)	-0.20	±1.0	±0.2	0.05%
4-95	Fuser Motor speed (Roll 3 / Film / Large size)	-0.20	±1.0	±0.2	0.05%
4-96	Fuser Motor speed (Roll 3 / Film / Medium size)	-0.20	±1.0	±0.2	0.05%
4-97	Fuser Motor speed (Roll 3 / Film / Small size)	-0.20	±1.0	±0.2	0.05%
4-98	Fuser Motor speed (Roll 3 / Film / Smallest size)	-0.20	±1.0	±0.2	0.05%
4-99	Fuser Motor speed (Roll 4 / PPC / Large size / 0 to 2m)	-0.20	±1.0	±0.2	0.05%

***Note**: This chart includes only those locations available from the control console. For all NVM locations, see PC Diagnostic NVM Setup Procedure*

NVM Code	Description	Default Value	Range	Recommended Range	Unit Value
4-9A	Fuser Motor speed (Roll 4 / PPC / Large size / 2 to 3m)	-0.20	±1.0	±0.2	0.05%
4-9B	Fuser Motor speed (Roll 4 / PPC / Large size / 3 to 4m)	-0.20	±1.0	±0.2	0.05%
4-9C	Fuser Motor speed (Roll 4 / PPC / Large size / 4 to 5m)	-0.20	±1.0	±0.2	0.05%
4-9D	Fuser Motor speed (Roll 4 / PPC / Large size / 5 to 6m)	-0.20	±1.0	±0.2	0.05%
4-9E	Fuser Motor speed (Roll 4 / PPC / Large size / 6 to 7m)	-0.20	±1.0	±0.2	0.05%
4-9F	Fuser Motor speed (Roll 4 / PPC / Large size / 7 to 8m)	-0.20	±1.0	±0.2	0.05%
4-A0	Fuser Motor speed (Roll 4 / PPC / Large size / 8 to 9m)	-0.20	±1.0	±0.2	0.05%
4-A1	Fuser Motor speed (Roll 4 / PPC / Large size / 9 to 10m)	-0.20	±1.0	±0.2	0.05%
4-A2	Fuser Motor speed (Roll 4 / PPC / Large size / 10 to 11m)	-0.20	±1.0	±0.2	0.05%
4-A3	Fuser Motor speed (Roll 4 / PPC / Large size / 11 to 12m)	-0.20	±1.0	±0.2	0.05%
4-A4	Fuser Motor speed (Roll 4 / PPC / Large size / 12 to 13m)	-0.20	±1.0	±0.2	0.05%
4-A5	Fuser Motor speed (Roll 4 / PPC / Large size / 13 to 14m)	-0.20	±1.0	±0.2	0.05%
4-A6	Fuser Motor speed (Roll 4 / PPC / Large size / 14 to 15m)	-0.20	±1.0	±0.2	0.05%
4-A7	Fuser Motor speed (Roll 4 / PPC / Large size / 15 to 16m)	-0.20	±1.0	±0.2	0.05%
4-A8	Fuser Motor speed (Roll 4 / PPC / Large size / 16 to 17m)	-0.20	±1.0	±0.2	0.05%
4-A9	Fuser Motor speed (Roll 4 / PPC / Large size / 17 to 18m)	-0.20	±1.0	±0.2	0.05%
4-AA	Fuser Motor speed (Roll 4 / PPC / Large size / 18 to 19m)	-0.20	±1.0	±0.2	0.05%
4-AB	Fuser Motor speed (Roll 4 / PPC / Large size / 19 to 20m)	-0.20	±1.0	±0.2	0.05%
4-AC	Fuser Motor speed (Roll 4 / PPC / Large size / 20 to 21m)	-0.20	±1.0	±0.2	0.05%
4-AD	Fuser Motor speed (Roll 4 / PPC / Large size / 21 to 22m)	-0.20	±1.0	±0.2	0.05%
4-AE	Fuser Motor speed (Roll 4 / PPC / Large size / 22 to 23m)	-0.20	±1.0	±0.2	0.05%
4-AF	Fuser Motor speed (Roll 4 / PPC / Large size / 23 to 24m)	-0.20	±1.0	±0.2	0.05%
4-B0	Fuser Motor speed (Roll 4 / PPC / Medium size)	-0.20	±1.0	±0.2	0.05%
4-B1	Fuser Motor speed (Roll 4 / PPC / Small size)	-0.20	±1.0	±0.2	0.05%
4-B2	Fuser Motor speed (Roll 4 / PPC / Smallest size)	-0.20	±1.0	±0.2	0.05%
4-B3	Fuser Motor speed (Roll 4 / Tracing / Large size)	-0.20	±1.0	±0.2	0.05%
4-B4	Fuser Motor speed (Roll 4 / Tracing / Medium size)	-0.20	±1.0	±0.2	0.05%
4-B5	Fuser Motor speed (Roll 4 / Tracing / Small size)	-0.20	±1.0	±0.2	0.05%
4-B6	Fuser Motor speed (Roll 4 / Tracing / Smallest size)	-0.20	±1.0	±0.2	0.05%
4-B7	Fuser Motor speed (Roll 4 / Film / Large size)	-0.20	±1.0	±0.2	0.05%
4-B8	Fuser Motor speed (Roll 4 / Film / Medium size)	-0.20	±1.0	±0.2	0.05%
4-B9	Fuser Motor speed (Roll 4 / Film / Small size)	-0.20	±1.0	±0.2	0.05%

***Note**: This chart includes only those locations available from the control console. For all NVM locations, see PC Diagnostic NVM Setup Procedure*

NVM Code	Description	Default Value	Range	Recommended Range	Unit Value
4-BA	Fuser Motor speed (Roll 4 / Film / Smallest size)	-0.20	±1.0	±0.2	0.05%
4-BB	Lead Edge Registration (For 2nd and later prints during multi-print)	0	0-100	←	0.1mm
4-BC	Paper Feed Clutch (CL 6) ON timing	20	1-30	Fixed by Factory Setting	1msec
4-BD	Roll Paper Feed Clutch (CL 3 & 4) ON timing	3	1-20	Fixed by Factory Setting	1msec
4-BE	Paper Gate Brake (CL 10) ON timing	10	1-20	Fixed by Factory Setting	1msec
4-BF	Sub Separation Blower Control Mode (PPC)	0	0/1	-	-
4-C0	Sub Separation Blower Control Mode (Tracing)	1	0/1	-	-
4-C1	Sub Separation Blower Control Mode (Film)	1	0/1	-	-
4-C2	Trailing Edge Correction (Roll1)	3	0/1/2/3	-	-
4-C3	Trailing Edge Correction (Roll2)	0	0/1/2/3	-	-
4-C4	Trailing Edge Correction (Roll3)	0	0/1/2/3	-	-
4-C5	Trailing Edge Correction (Roll4)	0	0/1/2/3	-	-
4-C6	Separation Lamp ON / OFF (Film)	0	0/1/2/3	-	-
4-C7	Image Enhancement	0	0/1/2/3	-	-
4-C8	OFF timing of Pre-Transfer-Lamp / Detack Corotron (Tracing)	0	0/1	-	-
4-C9	OFF timing of Pre-Transfer-Lamp / Detack Corotron (Film)	0	0/1	-	-
4-CA	Developer Bias Temperature Compensation	1	0/1	-	-
4-Cb	Developer Bias Temperature compensation for below 10° C	056	000-0FF	Fixed by Factory Setting	Hex.
4-CC	Developer Bias Temperature compensation for above 20° C	04A	000-0FF	Fixed by Factory Setting	Hex.

NVM Adjustments

[4-00]	Metric / Inch

This adjustment changes the printer to operate and display metric or inch parameters.
Press [-->] key or [<--] key to change from metric to inch.
Press [Enter] key to fix this value.

- **4 0 0. 3 6** Inch Format
- **4 0 0. A 0** Metric Format

[4-01]	Interface Operation Setting

This adjustment changes the Interface Operation Setting to one of the following: 0, 1 or 2. (Every time [-->] key is pressed, selections will cycle in this order.)
Press [Enter] key to fix this value.

- **4 0 1. 0** Alternatively Selecting channel A and B
- **4 0 1. 1** Fix to Channel A
- **4 0 1. 2** Fix to Channel B

[4-02]	Maximum Cut Length

This adjustment changes the maximum cut length to either 19.7 feet (6 meters) or 78.7 feet (24 meters). Press [-->] key to switch between settings.
Press [Enter] key to fix this value.

- **4 0 2. 0 6** Shorter cut length
- **4 0 2. 2 4** Longer cut length

[4-03]	Long Copy Margin Setting

This adjustment allows to add 260mm trailing margin when 3m or longer print is made. Press [-->] key to switch between settings.
Press [Enter] key to fix this value.

- **4 0 3. O n** 260mm blank is added.
- **4 0 3. O F F** No blank area is added.

[4-04]	Special Paper Size Setting

This adjustment allows recognizing to top Deck special paper sizes roll, such as 900mm, 891mm or 880mm. Every time [-->] key is pressed, selections will cycle in this order.
Press [Enter] key to fix this value.

- **4 0 4. 9 0 0** 900mm roll is available.
- **4 0 4. 8 9 1** 891mm roll is available.
- **4 0 4. 8 8 0** 800mm roll is available.

[4-05]	Counter A (Top)

This adjustment changes the method for measuring how much paper the printer is using. Press [-->] key and [<--] key to select the setting.
Press [Enter] key to fix this value.

For Metric Systems:
- **4 0 5. 0:** 1 m/count
- **4 0 5. 1:** 0.1 m/count
- **4 0 5. 2:** 1 m^2/count
- **4 0 5. 3:** 0.1m^2/count

For ANSI Systems:
- **4 0 5. 0:** 1 feet/count
- **4 0 5. 1:** 1 $feet^2$/count

[4-06]	Counter B (Bottom)

This adjustment changes the method for measuring how much paper the printer is using. Press [-->] key and [<--] key to select the setting.
Press [Enter] key to fix this value.

For Metric Systems:
- **4 0 6. 0:** 1 m/count
- **4 0 6. 1:** 0.1 m/count
- **4 0 6. 2:** 1 m^2/count
- **4 0 6. 3:** 0.1m^2/count

For ANSI Systems:
- **4 0 6. 0:** 1 feet/count
- **4 0 6. 1:** 1 $feet^2$/count

[4-07]	Dehumid Heater Control

This adjustment changes the mode of operation for the paper heater.
Press [-->] key to switch between settings.
Press [Enter] key to fix this value.

- **4 0 7. 0:** Paper Heater is OFF while the power switch is ON.
- **4 0 7. 1:** Paper Heater is always ON when the printer is connected to source voltage and the circuit breaker in the printer is on.

[4-08]	Test Print Length

This adjustment changes the cut length of the Test Print.
Press [Enter] key to fix this value.

- Press [-->] key to increase the cut length.
- Press [<--] key to decrease the cut length.

Metric and ANSI paper sizes are given.
Selections are as follows:

Metric Display: A0, A1, A2, A3, A4, A5, b1, b2, b3, b4, b5

ANSI Display: 48, 44, 36, 34, 30, 24, 22, 18, 17, 12, 11, 8.5

[4-09]	Custom Setting (Plain paper)

This adjustment is the selection of another customized setting of Plain Paper.
Following items are possible to memorize another customized setting.
Fuser Temperature
Fuser Motor Speed
Leading Edge
Trailing Margin
Transfer Corotron Current
DC Component of Detack Corotron
Image Length

Press [-->] key or [<--] key to select customized setting “0” or “1”.
Press [Enter] key to fix this value.

[4-0A]	Custom Setting (Tracing)

This adjustment is the selection of another customized setting of Tracing Paper.
Following items are possible to memorize another customized setting.
Fuser Temperature
Fuser Motor Speed
Leading Edge
Trailing Margin
Transfer Corotron Current
DC Component of Detack Corotron
Image Length

Press [-->] key or [<--] key to select customized setting “0” or “1”.
Press [Enter] key to fix this value.

[4-0b]	Custom Setting (Film)

This adjustment is the selection of another customized setting of Film.
Following items are possible to memorize another customized setting.
Fuser Temperature
Fuser Motor Speed
Leading Edge
Trailing Margin
Transfer Corotron Current
DC Component of Detack Corotron
Image Length

Press [-->] key or [<--] key to select customized setting “0” or “1”.
Press [Enter] key to fix this value.

[4-10]	Fuser Temp (PPC)

This adjustment changes the fuser temperature, and is used when printing Plain Paper.

NOTE: As a general rule, increase fuser temperature to improve fusing, decrease fuser temperature to eliminate wrinkling of paper.
NOTE: Since there are two different selections in this setting, you have to confirm the number of "4-09", first.

- The adjustment range is 150 degree C to 190 degree C.
- Press [-->] key to increase the temperature.
- Press [<--] key to decrease the temperature.
- Press [Enter] key to fix this value.

[4-11]	Fuser Temp (Tracing)

This adjustment changes the fuser temperature, and is used when printing tracing paper (vellum). Adjustment is the same as for [4-10].

NOTE: Since there are two different selections in this setting, you have to confirm the number of "4-0A", first.

[4-12]	Fuser Temp (Film)

This adjustment changes the fuser temperature, and is used when printing film. Adjustment is the same as for [4-10].

NOTE: Since there are two different selections in this setting, you have to confirm the number of "4-0b", first.

[4-13]	LED Head Strobe Time (Original Image)

This adjustment changes the Strobe time for the LED Print Head. The adjustment range is 0 to 42 microseconds.

Press [-->] key to increase the time (print becomes darker). Press [<--] key to decrease the time. Each increment changes the on-time by 1 microsecond.
Press [Enter] key to fix this value.

[4-14]	LED Head Strobe Time (Supplemental Image)

This adjustment changes the Strobe time % of the Supplemental Image for the LED Print Head. The adjustment range is 0 to 50%.

Press [-->] key to increase the ratio (slant line becomes smoother). Press [<--] key to decrease the ratio. Each increment changes the ratio by 1%.
Press [Enter] key to fix this value.

[4-15]	OFF timing of Pre-TR / Detack Corotron (PPC)

This adjustment changes the OFF timing of Pre-TR Corotron and Detack Corotron (PPC).
Press [-->] key to switch between settings.
Press [Enter] key to fix this value.

- **4 1 5. 0** OFF timing of both Corotrons does not change any.
- **4 1 5. 1** OFF timing of both Corotrons for PPC becomes 0.12sec. earlier than the normal timing.
  For other media, it is the same.

[4-16]	Pre-transfer lamp

This adjustment controls the Pre-transfer lamp.
Press [-->] key to switch between settings.
Press [Enter] key to fix this value.

- **4 1 6. 0** Pre-transfer lamp always stays OFF during printing.
- **4 1 6. 1** Pre- Transfer Corotron is ordinary controlled during printing.

[4-17]	Detack Lamp (PPC)

This adjustment controls the Detack Lamp ON or OFF when printing on plain paper.
Press [-->] key to switch between settings.
Press [Enter] key to fix this value.

- **4 1 7. 0** Detack Lamp always stays OFF during printing.
- **4 1 7. 1** Detack Lamp is controlled ON or OFF during printing.

[4-18]	Detack Lamp (Tracing)

This adjustment controls the Detack Lamp ON or OFF when printing on tracing paper.
Press [-->] key to switch between settings.
Press [Enter] key to fix this value.

- **4 1 8. 0** Detack Lamp always stays OFF during printing.
- **4 1 8. 1** Detack Lamp is controlled ON or OFF during printing.

[4-19]	Developer Bias Level

This adjustment changes the developer bias set point.

- The adjustment range is 00 to FF.
- Press [-->] key to increase the value (the gap between light and bias increases, and the copy becomes darker). Press [<--] key to decrease the value.
- Press [Enter] key to fix this value. (Refer to ADJ 1.3.8.)

[4-1A]	Charge Scorotron

This adjustment changes the current of Charge Scorotron. If you increase this value, the current also increases.

- The adjustment range is 00 to FF.
- Press [-->] key to increase the value
- Press [<--] key to decrease the value.
- Press [Enter] key to fix this value.

[4-1b]	Grid Bias (Charge Scorotron)

This adjustment changes the Grid Bias. If you decrease this value, the Grid Bias increases.

- The adjustment range is 000 to 500.
- Press [-->] key to increase the value
- Press [<--] key to decrease the value.
- Press [Enter] key to fix this value.

[4-1C]	TR Corotron (PPC)

This adjustment changes the transfer corotron current when printing on plain paper.

- The adjustment range is 000 to 500.
- Press [-->] key to increase the value
- Press [<--] key to decrease the value.
- Press [Enter] key to fix this value.

NOTE: Since there are two different selections in this setting, you have to confirm the number of "4-09", first.

[4-1d]	TR Corotron (Tracing)

This adjustment changes the transfer corotron current when printing on tracing paper.

- The adjustment is the same as for [4-1C].

[4-1E]	TR Corotron (Film)

This adjustment changes the transfer corotron current when printing on film.

- The adjustment is the same as for [4-1C].

[4-1F]	Detack Corotron DC Component (PPC)

This adjustment changes the DC component of Detack corotron when printing on plain paper.

- The adjustment range is 000 to 500.
- Press [-->] key to increase the value. Press [<--] key to decrease the value.
- If the value is increased, the Detack corotron current is decreased.
- Press [Enter] key to fix this value.

NOTE: Since there are two different selections in this setting, you have to confirm the number of "4-09", first.

[4-20]	Detack Corotron DC Component (Tracing)

This adjustment changes the Detack corotron current when printing on tracing paper.

- The adjustment is the same as for [4-1F].

[4-21]	Detack Corotron DC Component (Film)

This adjustment changes the Detack corotron current when printing on film.

- The adjustment is the same as for [4-1F].

[4-22]	Paper Feed Motor Clock (Manual Feed)

This adjustment changes the speed of the Paper Feed Motor when printing with Manual.

- The adjustment range is -1.0% to +1.0%.
- The speed of the Paper Feed Motor changes 0.05% for every increment.
- Press [-->] key to increase the value, and press [<--] key to decrease the value.
- Press [Enter] key to fix this value.

[4-23]	Paper Feed Motor Clock (Roll 1)

This adjustment changes the speed of the Paper Feed Motor when printing with Roll 1.

- The adjustment is the same as for [4-22].

[4-24]	Paper Feed Motor Clock (Roll 2)

This adjustment changes the speed of the Paper Feed Motor when printing with Roll 2.

- The adjustment is the same as for [4-22].

[4-25]	Paper Feed Motor Clock (Roll 3)

This adjustment changes the speed of the Paper Feed Motor when printing with Roll 3.

- The adjustment is the same as for [4-22].

[4-26]	Paper Feed Motor Clock (Roll 4)

This adjustment changes the speed of the Paper Feed Motor when printing with Roll 4.

- The adjustment is the same as for [4-22].

[4-27]	Fuser Motor Clock (Manual / PPC / Large)

This adjustment changes the speed of the Fuser Motor for Manual of plain paper, Large Size (A0, 30", 34", and 36" in width).

- The adjustment range is -1.0% to +1.0%.
- The speed of the Fuser Motor changes 0.05% for every increment.
- Press [-->] key to increase the value, and press [<--] key to decrease the value.
- Press [Enter] key to fix this value.

NOTE: Since there are two different selections in this setting, you have to confirm the number of "4-09", first.

[4-28]	Fuser Motor Clock (Manual / PPC / Medium)

This adjustment changes the speed of the Fuser Motor for Manual of plain paper, Medium Size (A1, 22", and 24" in width).

- The adjustment is the same as for [4-27].

[4-29]	Fuser Motor Clock (Manual / PPC / Small)

This adjustment changes the speed of the Fuser Motor for Manual of plain paper, Small Size (A2, 17", and 18" in width).

- The adjustment is the same as for [4-27].

[4-2A]	Fuser Motor Clock (Manual / PPC / Smallest)

This adjustment changes the speed of the Fuser Motor for Manual of plain paper, Smallest Size (A3, 11", and 12" in width).

- The adjustment is the same as for [4-27].

[4-2b]	Fuser Motor Clock (Manual / Tracing / Large)

This adjustment changes the speed of the Fuser Motor for Manual of tracing paper, Large Size (A0, 30", 34", and 36" in width).

- The adjustment is the same as for [4-27].

NOTE: Since there are two different selections in this setting, you have to confirm the number of "4-0A", first.

[4-2C]	Fuser Motor Clock (Manual / Tracing / Medium)

This adjustment changes the speed of the Fuser Motor for Manual of tracing paper, Medium Size (A1, 22”, and 24” in width).

- The adjustment is the same as for [4-27].

[4-2d]	Fuser Motor Clock (Manual / Tracing / Small)

This adjustment changes the speed of the Fuser Motor for Manual of tracing paper, Small Size (A2, 17”, and 18” in width).

- The adjustment is the same as for [4-27].

[4-2E]	Fuser Motor Clock (Manual / Tracing / Smallest)

This adjustment changes the speed of the Fuser Motor for Manual of tracing paper, Smallest Size (A3, 11”, and 12” in width).

- The adjustment is the same as for [4-27].

[4-2F]	Fuser Motor Clock (Manual / Film / Large)

This adjustment changes the speed of the Fuser Motor for Manual of Film, Large Size (A0, 30”, 34”, and 36” in width).

- The adjustment is the same as for [4-27].

NOTE: Since there are two different selections in this setting, you have to confirm the number of “4-0b”, first.

[4-30]	Fuser Motor Clock (Manual / Film / Medium)

This adjustment changes the speed of the Fuser Motor for Manual of Film, Medium Size (A1, 22”, and 24” in width).

- The adjustment is the same as for [4-27].

[4-31]	Fuser Motor Clock (Manual / Film / Small)

This adjustment changes the speed of the Fuser Motor for Manual of Film, Small Size (A2, 17”, and 18” in width).

- The adjustment is the same as for [4-27].

[4-32]	Fuser Motor Clock (Manual / Film / Small)

This adjustment changes the speed of the Fuser Motor for Manual of Film, Smallest Size (A3, 11”, and 12” in width).

- The adjustment is the same as for [4-27].

[4-33]	Fuser Motor Clock (Roll 1 / PPC / Large / 0 to 2m)

This adjustment changes the speed of the Fuser Motor for large sizes of plain paper (A0, 30", 34", and 36" in width).
It starts from 0 when paper leading edge triggers the paper exit sensor.

- The adjustment range is -1.0% to +1.0%.
- Each increment changes the speed of the motor by 0.05% percent.
- Press [-->] key to increase the value, and press [<--] key to decrease the value.

Note: Changing the value in [4-33] changes [4-34 to 4-49] the same value.

NOTE: Since there are two different selections in this setting, you have to confirm the number of "4-09", first.

[4-34]	Fuser Motor Clock (Roll 1 / PPC / Large / 2 to 3m)

- The adjustment is the same as for [4-27].

Note: Changing the value in [4-34] changes [4-35 to 4-49] the same value.

[4-35]	Fuser Motor Clock (Roll 1 / PPC / Large / 3 to 4m)

- The adjustment is the same as for [4-27].

Note: Changing the value in [4-35] changes [4-36 to 4-49] the same value.

[4-36]	Fuser Motor Clock (Roll 1 / PPC / Large / 4 to 5m)

- The adjustment is the same as for [4-27].

Note: Changing the value in [4-36] changes [4-37 to 4-49] the same value.

[4-37]	Fuser Motor Clock (Roll 1 / PPC / Large / 5 to 6m)

- The adjustment is the same as for [4-27].

Note: Changing the value in [4-37] changes [4-38 to 4-49] the same value.

[4-38]	Fuser Motor Clock (Roll 1 / PPC / Large / 6 to 7m)

- The adjustment is the same as for [4-27].

Note: Changing the value in [4-38] changes [4-39 to 4-49] the same value.

[4-39]	Fuser Motor Clock (Roll 1 / PPC / Large / 7 to 8m)

- The adjustment is the same as for [4-27].

Note: Changing the value in [4-39] changes [4-3A to 4-49] the same value.

[4-3A]	Fuser Motor Clock (Roll 1 / PPC / Large / 8 to 9m)

- The adjustment is the same as for [4-27].

Note: Changing the value in [4-3A] changes [4-3b to 4-49] the same value.

[4-3b]	Fuser Motor Clock (Roll 1 / PPC / Large / 9 to 10m)

- The adjustment is the same as for [4-27].

Note: Changing the value in [4-3b] changes [4-3C to 4-49] the same value.

[4-3C]	Fuser Motor Clock (Roll 1 / PPC / Large / 10 to 11m)

- The adjustment is the same as for [4-27].

Note: Changing the value in [4-3C] changes [4-3d to 4-49] the same value.

[4-3d]	Fuser Motor Clock (Roll 1 / PPC / Large / 11 to 12m)

- The adjustment is the same as for [4-27].

Note: Changing the value in [4-3d] changes [4-3E to 4-49] the same value.

[4-3E]	Fuser Motor Clock (Roll 1 / PPC / Large / 12 to 13m)

- The adjustment is the same as for [4-27].

Note: Changing the value in [4-3E] changes [4-3F to 4-49] the same value.

[4-3F]	Fuser Motor Clock (Roll 1 / PPC / Large / 13 to 14m)

- The adjustment is the same as for [4-27].

Note: Changing the value in [4-3F] changes [4-40 to 4-49] the same value.

[4-40]	Fuser Motor Clock (Roll 1 / PPC / Large / 14 to 15m)

- The adjustment is the same as for [4-27].

Note: Changing the value in [4-40] changes [4-41 to 4-49] the same value.

[4-41]	Fuser Motor Clock (Roll 1 / PPC / Large / 15 to 16m)

- The adjustment is the same as for [4-27].

Note: Changing the value in [4-41] changes [4-42 to 4-49] the same value.

[4-42]	Fuser Motor Clock (Roll 1 / PPC / Large / 16 to 17m)

- The adjustment is the same as for [4-27].

Note: Changing the value in [4-42] changes [4-43 to 4-49] the same value.

[4-43]	Fuser Motor Clock (Roll 1 / PPC / Large / 17 to 18m)

- The adjustment is the same as for [4-27].

Note: Changing the value in [4-43] changes [4-44 to 4-49] the same value.

[4-44]	Fuser Motor Clock (Roll 1 / PPC / Large / 18 to 19m)

- The adjustment is the same as for [4-27].

Note: Changing the value in [4-44] changes [4-45 to 4-49] the same value.

[4-45]	Fuser Motor Clock (Roll 1 / PPC / Large / 19 to 20m)

- The adjustment is the same as for [4-27].

Note: Changing the value in [4-45] changes [4-46 to 4-49] the same value.

[4-46]	Fuser Motor Clock (Roll 1 / PPC / Large / 20 to 21m)

- The adjustment is the same as for [4-27].

Note: Changing the value in [4-46] changes [4-47 to 4-49] the same value.

[4-47]	Fuser Motor Clock (Roll 1 / PPC / Large / 21 to 22m)

- The adjustment is the same as for [4-27].

Note: Changing the value in [4-47] changes [4-48 to 4-49] the same value.

[4-48]	Fuser Motor Clock (Roll 1 / PPC / Large / 22 to 23m)

- The adjustment is the same as for [4-27].

Note: Changing the value in [4-48] changes [4-49] the same value.

[4-49]	Fuser Motor Clock (Roll 1 / PPC / Large / 23 to 24m)

- The adjustment is the same as for [4-27].

[4-4A]	Fuser Motor Clock (Roll 1 / PPC / Medium)

This adjustment changes the speed of the Fuser Motor of plain paper, Medium Size (A1, 22", and 24" in width).

- The adjustment is the same as for [4-27].

[4-4b]	Fuser Motor Clock (Roll 1 / PPC / Small)

This adjustment changes the speed of the Fuser Motor of plain paper, Small Size (A2, 17", and 18" in width).

- The adjustment is the same as for [4-27].

[4-4C]	Fuser Motor Clock (Roll 1 / PPC / Smallest)

This adjustment changes the speed of the Fuser Motor of plain paper, Smallest Size (A3, 11", and 12" in width).

- The adjustment is the same as for [4-27].

[4-4d]	Fuser Motor Clock (Roll 1 / Tracing / Large)

This adjustment changes the speed of the Fuser Motor for Manual of tracing paper, Large Size (A0, 30", 34", and 36" in width).

- The adjustment is the same as for [4-27].

NOTE: Since there are two different selections in this setting, you have to confirm the number of "4-0A", first.

[4-4E]	Fuser Motor Clock (Roll 1 / Tracing / Medium)

This adjustment changes the speed of the Fuser Motor for Manual of tracing paper, Medium Size (A1, 22", and 24" in width).

- The adjustment is the same as for [4-27].

[4-4F]	Fuser Motor Clock (Roll 1 / Tracing / Small)

This adjustment changes the speed of the Fuser Motor for Manual of tracing paper, Small Size (A2, 17", and 18" in width).

- The adjustment is the same as for [4-27].

[4-50]	Fuser Motor Clock (Roll 1 / Tracing / Smallest)

This adjustment changes the speed of the Fuser Motor for Manual of tracing paper, Smallest Size (A3, 11", and 12" in width).

- The adjustment is the same as for [4-27].

[4-51]	Fuser Motor Clock (Roll 1 / Film / Large)

This adjustment changes the speed of the Fuser Motor for Manual of Film, Large Size (A0, 30", 34", and 36" in width).

- The adjustment is the same as for [4-27].

NOTE: Since there are two different selections in this setting, you have to confirm the number of "4-0b", first.

[4-52]	Fuser Motor Clock (Roll 1 / Film / Medium)

This adjustment changes the speed of the Fuser Motor for Manual of Film, Medium Size (A1, 22", and 24" in width).

- The adjustment is the same as for [4-27].

[4-53]	Fuser Motor Clock (Roll 1 / Film / Small)

This adjustment changes the speed of the Fuser Motor for Manual of Film, Small Size (A2, 17", and 18" in width).

- The adjustment is the same as for [4-27].

[4-54]	Fuser Motor Clock (Roll 1 / Film / Smallest)

This adjustment changes the speed of the Fuser Motor for Manual of Film, Smallest Size (A3, 11", and 12" in width).

- The adjustment is the same as for [4-27].

[4-55]	Fuser Motor Clock (Roll 2 / PPC / Large / 0 to 2m)

This adjustment changes the speed of the Fuser Motor for large sizes of plain paper (A0, 30", 34", and 36" in width).
It starts from 0 when paper leading edge triggers the paper exit sensor.

- The adjustment range is -1.0% to +1.0%.
- Each increment changes the speed of the motor by 0.05% percent.
- Press [-->] key to increase the value, and press [<--] key to decrease the value.

Note: Changing the value in [4-55] changes [4-56 to 4-6b] the same value.

NOTE: Since there are two different selections in this setting, you have to confirm the number of "4-09", first.

[4-56]	Fuser Motor Clock (Roll 2 / PPC / Large / 2 to 3m)

- The adjustment is the same as for [4-27].

Note: Changing the value in [4-56] changes [4-57 to 4-6b] the same value.

[4-57]	Fuser Motor Clock (Roll 2 / PPC / Large / 3 to 4m)

- The adjustment is the same as for [4-27].

Note: Changing the value in [4-57] changes [4-58 to 4-6b] the same value.

[4-58]	Fuser Motor Clock (Roll 2 / PPC / Large / 4 to 5m)

- The adjustment is the same as for [4-27].

Note: Changing the value in [4-58] changes [4-59 to 4-6b] the same value.

[4-59]	Fuser Motor Clock (Roll 2 / PPC / Large / 5 to 6m)

- The adjustment is the same as for [4-27].

Note: Changing the value in [4-59] changes [4-5A to 4-6b] the same value.

[4-5A]	Fuser Motor Clock (Roll 2 / PPC / Large / 6 to 7m)

- The adjustment is the same as for [4-27].

Note: Changing the value in [4-5A] changes [4-5b to 4-6b] the same value.

[4-5b]	Fuser Motor Clock (Roll 2 / PPC / Large / 7 to 8m)

- The adjustment is the same as for [4-27].

Note: Changing the value in [4-5b] changes [4-5C to 4-6b] the same value.

[4-5C]	Fuser Motor Clock (Roll 2 / PPC / Large / 8 to 9m)

- The adjustment is the same as for [4-27].

Note: Changing the value in [4-5C] changes [4-5d to 4-6b] the same value.

[4-5d]	Fuser Motor Clock (Roll 2 / PPC / Large / 9 to 10m)

- The adjustment is the same as for [4-27].

Note: Changing the value in [4-5d] changes [4-5E to 4-6b] the same value.

[4-5E]	Fuser Motor Clock (Roll 2 / PPC / Large / 10 to 11m)

- The adjustment is the same as for [4-27].

Note: Changing the value in [4-5E] changes [4-5F to 4-6b] the same value.

[4-5F]	Fuser Motor Clock (Roll 2 / PPC / Large / 11 to 12m)

- The adjustment is the same as for [4-27].

Note: Changing the value in [4-5F] changes [4-60 to 4-6b] the same value.

[4-60]	Fuser Motor Clock (Roll 2 / PPC / Large / 12 to 13m)

- The adjustment is the same as for [4-27].

Note: Changing the value in [4-60] changes [4-61 to 4-6b] the same value.

[4-61]	Fuser Motor Clock (Roll 2 / PPC / Large / 13 to 14m)

- The adjustment is the same as for [4-27].

Note: Changing the value in [4-61] changes [4-62 to 4-6b] the same value.

[4-62]	Fuser Motor Clock (Roll 2 / PPC / Large / 14 to 15m)

- The adjustment is the same as for [4-27].

Note: Changing the value in [4-62] changes [4-63 to 4-6b] the same value.

[4-63]	Fuser Motor Clock (Roll 2 / PPC / Large / 15 to 16m)

- The adjustment is the same as for [4-27].

Note: Changing the value in [4-63] changes [4-64 to 4-6b] the same value.

[4-64]	Fuser Motor Clock (Roll 2 / PPC / Large / 16 to 17m)

- The adjustment is the same as for [4-27].

Note: Changing the value in [4-64] changes [4-65 to 4-6b] the same value.

[4-65]	Fuser Motor Clock (Roll 2 / PPC / Large / 17 to 18m)

- The adjustment is the same as for [4-27].

Note: Changing the value in [4-65] changes [4-66 to 4-6b] the same value.

[4-66]	Fuser Motor Clock (Roll 2 / PPC / Large / 18 to 19m)

- The adjustment is the same as for [4-27].

Note: Changing the value in [4-66] changes [4-67 to 4-6b] the same value.

[4-67]	Fuser Motor Clock (Roll 2 / PPC / Large / 19 to 20m)

- The adjustment is the same as for [4-27].

Note: Changing the value in [4-67] changes [4-68 to 4-6b] the same value.

[4-68]	Fuser Motor Clock (Roll 2 / PPC / Large / 20 to 21m)

- The adjustment is the same as for [4-27].

Note: Changing the value in [4-68] changes [4-69 to 4-6b] the same value.

[4-69]	Fuser Motor Clock (Roll 2 / PPC / Large / 21 to 22m)

- The adjustment is the same as for [4-27].

Note: Changing the value in [4-69] changes [4-6A to 4-6b] the same value.

[4-6A]	Fuser Motor Clock (Roll 2 / PPC / Large / 22 to 23m)

- The adjustment is the same as for [4-27].

Note: Changing the value in [4-6A] changes [4-6b to 4-6b] the same value.

[4-6b]	Fuser Motor Clock (Roll 2 / PPC / Large / 23 to 24m)

- The adjustment is the same as for [4-27].

[4-6C]	Fuser Motor Clock (Roll 2 / PPC / Medium)

This adjustment changes the speed of the Fuser Motor of plain paper, Medium Size (A1, 22”, and 24” in width).

- The adjustment is the same as for [4-27].

[4-6d]	Fuser Motor Clock (Roll 2 / PPC / Small)

This adjustment changes the speed of the Fuser Motor of plain paper, Small Size (A2, 17”, and 18” in width).

- The adjustment is the same as for [4-27].

[4-6E]	Fuser Motor Clock (Roll 2 / PPC / Smallest)

This adjustment changes the speed of the Fuser Motor of plain paper, Smallest Size (A3, 11", and 12" in width).

- The adjustment is the same as for [4-27].

[4-6F]	Fuser Motor Clock (Roll 2 / Tracing / Large)

This adjustment changes the speed of the Fuser Motor for Manual of tracing paper, Large Size (A0, 30", 34", and 36" in width).

- The adjustment is the same as for [4-27].

NOTE: Since there are two different selections in this setting, you have to confirm the number of "4-0A", first.

[4-70]	Fuser Motor Clock (Roll 2 / Tracing / Medium)

This adjustment changes the speed of the Fuser Motor for Manual of tracing paper, Medium Size (A1, 22", and 24" in width).

- The adjustment is the same as for [4-27].

[4-71]	Fuser Motor Clock (Roll 2 / Tracing / Small)

This adjustment changes the speed of the Fuser Motor for Manual of tracing paper, Small Size (A2, 17", and 18" in width).

- The adjustment is the same as for [4-27].

[4-72]	Fuser Motor Clock (Roll 2 / Tracing / Smallest)

This adjustment changes the speed of the Fuser Motor for Manual of tracing paper, Smallest Size (A3, 11", and 12" in width).

- The adjustment is the same as for [4-27].

[4-73]	Fuser Motor Clock (Roll 2 / Film / Large)

This adjustment changes the speed of the Fuser Motor for Manual of Film, Large Size (A0, 30", 34", and 36" in width).

- The adjustment is the same as for [4-27].

NOTE: Since there are two different selections in this setting, you have to confirm the number of "4-0b", first.

[4-74]	Fuser Motor Clock (Roll 2 / Film / Medium)

This adjustment changes the speed of the Fuser Motor for Manual of Film, Medium Size (A1, 22", and 24" in width).

- The adjustment is the same as for [4-27].

[4-75]	Fuser Motor Clock (Roll 2 / Film / Small)

This adjustment changes the speed of the Fuser Motor for Manual of Film, Small Size (A2, 17", and 18" in width).

- The adjustment is the same as for [4-27].

[4-76]	Fuser Motor Clock (Roll 2 / Film / Smallest)

This adjustment changes the speed of the Fuser Motor for Manual of Film, Smallest Size (A3, 11", and 12" in width).

- The adjustment is the same as for [4-27].

[4-77]	Fuser Motor Clock (Roll 3 / PPC / Large / 0 to 2m)

This adjustment changes the speed of the Fuser Motor for large sizes of plain paper (A0, 30", 34", and 36" in width).
It starts from 0 when paper leading edge triggers the paper exit sensor.

- The adjustment range is -1.0% to +1.0%.
- Each increment changes the speed of the motor by 0.05% percent.
- Press [-->] key to increase the value, and press [<--] key to decrease the value.

Note: Changing the value in [4-77] changes [4-78 to 4-8d] the same value.

NOTE: Since there are two different selections in this setting, you have to confirm the number of "4-09", first.

[4-78]	Fuser Motor Clock (Roll 3 / PPC / Large / 2 to 3m)

- The adjustment is the same as for [4-27].

Note: Changing the value in [4-78] changes [4-79 to 4-8d] the same value.

[4-79]	Fuser Motor Clock (Roll 3 / PPC / Large / 3 to 4m)

- The adjustment is the same as for [4-27].

Note: Changing the value in [4-79] changes [4-7A to 4-8d] the same value.

[4-7A]	Fuser Motor Clock (Roll 3 / PPC / Large / 4 to 5m)

- The adjustment is the same as for [4-27].

Note: Changing the value in [4-7A] changes [4-7b to 4-8d] the same value.

[4-7b]	Fuser Motor Clock (Roll 3 / PPC / Large / 5 to 6m)

- The adjustment is the same as for [4-27].

Note: Changing the value in [4-7b] changes [4-7C to 4-8d] the same value.

[4-7C]	Fuser Motor Clock (Roll 3 / PPC / Large / 6 to 7m)

- The adjustment is the same as for [4-27].

Note: Changing the value in [4-7C] changes [4-7d to 4-8d] the same value.

[4-7d]	Fuser Motor Clock (Roll 3 / PPC / Large / 7 to 8m)

- The adjustment is the same as for [4-27].

Note: Changing the value in [4-7d] changes [4-7E to 4-8d] the same value.

[4-7E]	Fuser Motor Clock (Roll 3 / PPC / Large / 8 to 9m)

- The adjustment is the same as for [4-27].

Note: Changing the value in [4-7E] changes [4-7F to 4-8d] the same value.

[4-7F]	Fuser Motor Clock (Roll 3 / PPC / Large / 9 to 10m)

- The adjustment is the same as for [4-27].

Note: Changing the value in [4-7F] changes [4-80 to 4-8d] the same value.

[4-80]	Fuser Motor Clock (Roll 3 / PPC / Large / 10 to 11m)

- The adjustment is the same as for [4-27].

Note: Changing the value in [4-80] changes [4-81 to 4-8d] the same value.

[4-81]	Fuser Motor Clock (Roll 3 / PPC / Large / 11 to 12m)

- The adjustment is the same as for [4-27].

Note: Changing the value in [4-81] changes [4-82 to 4-8d] the same value.

[4-82]	Fuser Motor Clock (Roll 3 / PPC / Large / 12 to 13m)

- The adjustment is the same as for [4-27].

Note: Changing the value in [4-82] changes [4-83 to 4-8d] the same value.

[4-83]	Fuser Motor Clock (Roll 3 / PPC / Large / 13 to 14m)

- The adjustment is the same as for [4-27].

Note: Changing the value in [4-83] changes [4-84 to 4-8d] the same value.

[4-84]	Fuser Motor Clock (Roll 3 / PPC / Large / 14 to 15m)

- The adjustment is the same as for [4-27].

Note: Changing the value in [4-84] changes [4-85 to 4-8d] the same value.

[4-85]	Fuser Motor Clock (Roll 3 / PPC / Large / 15 to 16m)

- The adjustment is the same as for [4-27].

Note: Changing the value in [4-85] changes [4-86 to 4-8d] the same value.

[4-86]	Fuser Motor Clock (Roll 3 / PPC / Large / 16 to 17m)

- The adjustment is the same as for [4-27].

Note: Changing the value in [4-86] changes [4-87 to 4-8d] the same value.

[4-87]	Fuser Motor Clock (Roll 3 / PPC / Large / 17 to 18m)

- The adjustment is the same as for [4-27].

Note: Changing the value in [4-87] changes [4-88 to 4-8d] the same value.

[4-88]	Fuser Motor Clock (Roll 3 / PPC / Large / 18 to 19m)

- The adjustment is the same as for [4-27].

Note: Changing the value in [4-88] changes [4-89 to 4-8d] the same value.

[4-89]	Fuser Motor Clock (Roll 3 / PPC / Large / 19 to 20m)

- The adjustment is the same as for [4-27].

Note: Changing the value in [4-89] changes [4-8A to 4-8d] the same value.

[4-8A]	Fuser Motor Clock (Roll 3 / PPC / Large / 20 to 21m)

- The adjustment is the same as for [4-27].

Note: Changing the value in [4-8A] changes [4-8b to 4-8d] the same value.

[4-8b]	Fuser Motor Clock (Roll 3 / PPC / Large / 21 to 22m)

- The adjustment is the same as for [4-27].

Note: Changing the value in [4-8b] changes [4-8C to 4-8d] the same value.

[4-8C]	Fuser Motor Clock (Roll 3 / PPC / Large / 22 to 23m)

- The adjustment is the same as for [4-27].

Note: Changing the value in [4-8c] changes [4-8d] the same value.

[4-8d]	Fuser Motor Clock (Roll 3 / PPC / Large / 23 to 24m)

- The adjustment is the same as for [4-27].

[4-8E]	Fuser Motor Clock (Roll 3 / PPC / Medium)

This adjustment changes the speed of the Fuser Motor of plain paper, Medium Size (A1, 22", and 24" in width).

- The adjustment is the same as for [4-27].

[4-8F]	Fuser Motor Clock (Roll 3 / PPC / Small)

This adjustment changes the speed of the Fuser Motor of plain paper, Small Size (A2, 17", and 18" in width).

- The adjustment is the same as for [4-27].

[4-90]	Fuser Motor Clock (Roll 3 / PPC / Smallest)

This adjustment changes the speed of the Fuser Motor of plain paper, Smallest Size (A3, 11", and 12" in width).

- The adjustment is the same as for [4-27].

[4-91]	Fuser Motor Clock (Roll 3 / Tracing / Large)

This adjustment changes the speed of the Fuser Motor for Manual of tracing paper, Large Size (A0, 30", 34", and 36" in width).

- The adjustment is the same as for [4-27].

NOTE: Since there are two different selections in this setting, you have to confirm the number of "4-0A", first.

[4-92]	Fuser Motor Clock (Roll 3 / Tracing / Medium)

This adjustment changes the speed of the Fuser Motor for Manual of tracing paper, Medium Size (A1, 22", and 24" in width).

- The adjustment is the same as for [4-27].

[4-93]	Fuser Motor Clock (Roll 3 / Tracing / Small)

This adjustment changes the speed of the Fuser Motor for Manual of tracing paper, Small Size (A2, 17", and 18" in width).

- The adjustment is the same as for [4-27].

[4-94]	Fuser Motor Clock (Roll 3 / Tracing / Smallest)

This adjustment changes the speed of the Fuser Motor for Manual of tracing paper, Smallest Size (A3, 11", and 12" in width).

- The adjustment is the same as for [4-27].

[4-95]	Fuser Motor Clock (Roll 3 / Film / Large)

This adjustment changes the speed of the Fuser Motor for Manual of Film, Large Size (A0, 30", 34", and 36" in width).

- The adjustment is the same as for [4-27].

Note: Since there are two different selections in this setting, you have to confirm the number of "4-0b", first.

[4-96]	Fuser Motor Clock (Roll 3 / Film / Medium)

This adjustment changes the speed of the Fuser Motor for Manual of Film, Medium Size (A1, 22", and 24" in width).

- The adjustment is the same as for [4-27].

[4-97]	Fuser Motor Clock (Roll 3 / Film / Small)

This adjustment changes the speed of the Fuser Motor for Manual of Film, Small Size (A2, 17", and 18" in width).

- The adjustment is the same as for [4-27].

[4-98]	Fuser Motor Clock (Roll 3 / Film / Smallest)

This adjustment changes the speed of the Fuser Motor for Manual of Film, Smallest Size (A3, 11", and 12" in width).

- The adjustment is the same as for [4-27].

[4-99]	Fuser Motor Clock (Roll 4 / PPC / Large / 0 to 2m)

This adjustment changes the speed of the Fuser Motor for large sizes of plain paper (A0, 30", 34", and 36" in width).
It starts from 0 when paper leading edge triggers the paper exit sensor.

- The adjustment range is -1.0% to +1.0%.
- Each increment changes the speed of the motor by 0.05% percent.
- Press [-->] key to increase the value, and press [<--] key to decrease the value.

Note: Changing the value in [4-99] changes [4-9A to 4-AF] the same value.

NOTE: Since there are two different selections in this setting, you have to confirm the number of "4-09", first.

[4-9A]	Fuser Motor Clock (Roll 4 / PPC / Large / 2 to 3m)

- The adjustment is the same as for [4-27].

Note: Changing the value in [4-9A] changes [4-9b to 4-AF] the same value.

[4-9b]	Fuser Motor Clock (Roll 4 / PPC / Large / 3 to 4m)

- The adjustment is the same as for [4-27].

Note: Changing the value in [4-9b] changes [4-9C to 4-AF] the same value.

[4-9C]	Fuser Motor Clock (Roll 4 / PPC / Large / 4 to 5m)

- The adjustment is the same as for [4-27].

Note: Changing the value in [4-9C] changes [4-9d to 4-AF] the same value.

[4-9d]	Fuser Motor Clock (Roll 4 / PPC / Large / 5 to 6m)

- The adjustment is the same as for [4-27].

Note: Changing the value in [4-9d] changes [4-9E to 4-AF] the same value.

[4-9E]	Fuser Motor Clock (Roll 4 / PPC / Large / 6 to 7m)

- The adjustment is the same as for [4-27].

Note: Changing the value in [4-9E] changes [4-9F to 4-AF] the same value.

[4-9F]	Fuser Motor Clock (Roll 4 / PPC / Large / 7 to 8m)

- The adjustment is the same as for [4-27].

Note: Changing the value in [4-9F] changes [4-A0 to 4-AF] the same value.

[4-A0]	Fuser Motor Clock (Roll 4 / PPC / Large / 8 to 9m)

- The adjustment is the same as for [4-27].

Note: Changing the value in [4-A0] changes [4-A1 to 4-AF] the same value.

[4-A1]	Fuser Motor Clock (Roll 4 / PPC / Large / 9 to 10m)

- The adjustment is the same as for [4-27].

Note: Changing the value in [4-A1] changes [4-A2 to 4-AF] the same value.

[4-A2]	Fuser Motor Clock (Roll 4 / PPC / Large / 10 to 11m)

- The adjustment is the same as for [4-27].

Note: Changing the value in [4-A2] changes [4-A3 to 4-AF] the same value.

[4-A3]	Fuser Motor Clock (Roll 4 / PPC / Large / 11 to 12m)

- The adjustment is the same as for [4-27].

Note: Changing the value in [4-A3] changes [4-A4 to 4-AF] the same value.

[4-A4]	Fuser Motor Clock (Roll 4 / PPC / Large / 12 to 13m)

- The adjustment is the same as for [4-27].

Note: Changing the value in [4-A4] changes [4-A5 to 4-AF] the same value.

[4-A5]	Fuser Motor Clock (Roll 4 / PPC / Large / 13 to 14m)

- The adjustment is the same as for [4-27].

Note: Changing the value in [4-A5] changes [4-A6 to 4-AF] the same value.

[4-A6]	Fuser Motor Clock (Roll 4 / PPC / Large / 14 to 15m)

- The adjustment is the same as for [4-27].

Note: Changing the value in [4-A6] changes [4-A7 to 4-AF] the same value.

[4-A7]	Fuser Motor Clock (Roll 4 / PPC / Large / 15 to 16m)

- The adjustment is the same as for [4-27].

Note: Changing the value in [4-A7] changes [4-A8 to 4-AF] the same value.

[4-A8]	Fuser Motor Clock (Roll 4 / PPC / Large / 16 to 17m)

- The adjustment is the same as for [4-27].

Note: Changing the value in [4-A8] changes [4-A9 to 4-AF] the same value.

[4-A9]	Fuser Motor Clock (Roll 4 / PPC / Large / 17 to 18m)

- The adjustment is the same as for [4-27].

Note: Changing the value in [4-A9] changes [4-AA to 4-AF] the same value.

[4-AA]	Fuser Motor Clock (Roll 4 / PPC / Large / 18 to 19m)

- The adjustment is the same as for [4-27].

Note: Changing the value in [4-AA] changes [4-Ab to 4-AF] the same value.

[4-Ab]	Fuser Motor Clock (Roll 4 / PPC / Large / 19 to 20m)

- The adjustment is the same as for [4-27].

Note: Changing the value in [4-Ab] changes [4-AC to 4-AF] the same value.

[4-AC]	Fuser Motor Clock (Roll 4 / PPC / Large / 20 to 21m)

- The adjustment is the same as for [4-27].

Note: Changing the value in [4-AC] changes [4-Ad to 4-AF] the same value.

[4-Ad]	Fuser Motor Clock (Roll 4 / PPC / Large / 21 to 22m)

- The adjustment is the same as for [4-27].

Note: Changing the value in [4-Ad] changes [4-AE to 4-AF] the same value.

[4-AE]	Fuser Motor Clock (Roll 4 / PPC / Large / 22 to 23m)

- The adjustment is the same as for [4-27].

Note: Changing the value in [4-AE] changes [4-AF] the same value.

[4-AF]	Fuser Motor Clock (Roll 4 / PPC / Large / 23 to 24m)

- The adjustment is the same as for [4-27].

[4-b0]	Fuser Motor Clock (Roll 4 / PPC / Medium)

This adjustment changes the speed of the Fuser Motor of plain paper, Medium Size (A1, 22", and 24" in width).

- The adjustment is the same as for [4-27].

[4-b1]	Fuser Motor Clock (Roll 4 / PPC / Small)

This adjustment changes the speed of the Fuser Motor of plain paper, Small Size (A2, 17", and 18" in width).

- The adjustment is the same as for [4-27].

[4-b2]	Fuser Motor Clock (Roll 4 / PPC / Smallest)

This adjustment changes the speed of the Fuser Motor of plain paper, Smallest Size (A3, 11", and 12" in width).

- The adjustment is the same as for [4-27].

[4-b3]	Fuser Motor Clock (Roll 4 / Tracing / Large)

This adjustment changes the speed of the Fuser Motor for Manual of tracing paper, Large Size (A0, 30”, 34”, and 36” in width).

- The adjustment is the same as for [4-27].

NOTE: Since there are two different selections in this setting, you have to confirm the number of “4-0A”, first.

[4-b4]	Fuser Motor Clock (Roll 4 / Tracing / Medium)

This adjustment changes the speed of the Fuser Motor for Manual of tracing paper, Medium Size (A1, 22”, and 24” in width).

- The adjustment is the same as for [4-27].

[4-b5]	Fuser Motor Clock (Roll 4 / Tracing / Small)

This adjustment changes the speed of the Fuser Motor for Manual of tracing paper, Small Size (A2, 17”, and 18” in width).

- The adjustment is the same as for [4-27].

[4-b6]	Fuser Motor Clock (Roll 4 / Tracing / Smallest)

This adjustment changes the speed of the Fuser Motor for Manual of tracing paper, Smallest Size (A3, 11”, and 12” in width).

- The adjustment is the same as for [4-27].

[4-b7]	Fuser Motor Clock (Roll 4 / Film / Large)

This adjustment changes the speed of the Fuser Motor for Manual of Film, Large Size (A0, 30”, 34”, and 36” in width).

- The adjustment is the same as for [4-27].

NOTE: Since there are two different selections in this setting, you have to confirm the number of “4-0b”, first.

[4-b8]	Fuser Motor Clock (Roll 4 / Film / Medium)

This adjustment changes the speed of the Fuser Motor for Manual of Film, Medium Size (A1, 22”, and 24” in width).

- The adjustment is the same as for [4-27].

[4-b9]	Fuser Motor Clock (Roll 4 / Film / Small)

This adjustment changes the speed of the Fuser Motor for Manual of Film, Small Size (A2, 17”, and 18” in width).

- The adjustment is the same as for [4-27].

[4-bA]	Fuser Motor Clock (Roll 4 / Film / Smallest)

This adjustment changes the speed of the Fuser Motor for Manual of Film, Smallest Size (A3, 11”, and 12” in width).

- The adjustment is the same as for [4-27].

[4-bb]	Leading Edge (2nd and after in multiple copy)

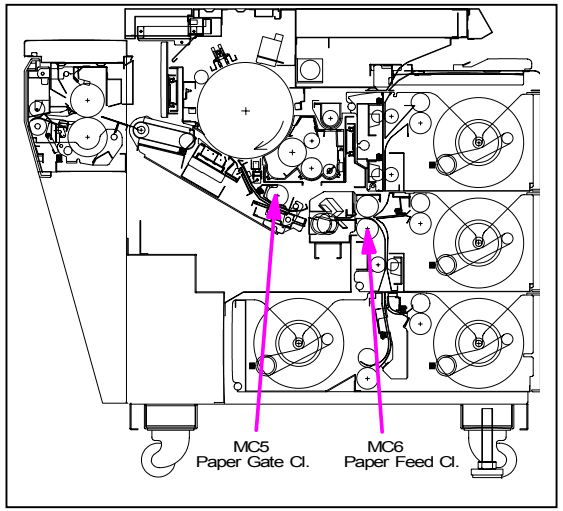
This adjustment changes the lead edge registration for the 2nd and after in multiple copy of Roll.

- The adjustment range is 0 to 10mm. The image registration changes 0.1 mm for every increment.
- Press [-->] key to increase the value (lead edge of image moves toward the edge of the paper, i.e. decrease leading margin).
- Press [<--] key to decrease the value.
- Press [Enter] key to fix this value.

[4-bC]	Paper Feed Clutch (CL 6) ON timing

This adjustment changes ON timing of Paper Feed Clutch (CL 6).
When this value is increased, CL 6 turns ON earlier than the timing of Paper Gate Clutch (CL 5) in order to create the buckling to avoid the Cutter shock.

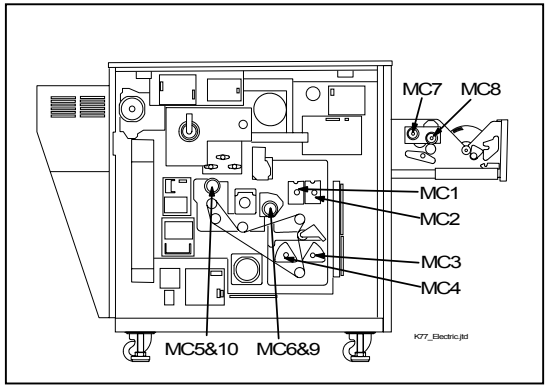
- The adjustment range is 1 to 30msec. Every increment changes 1msec.
- Press [-->] key to increase the value.
- Press [<--] key to decrease the value.
- Press [Enter] key to fix this value.



[4-bd]	Roll Paper Feed Clutch (CL 3 & 4) ON timing

This adjustment changes ON timing of Pick up Roller when the timing “Paper Go” has come.
When this value is increased, Pick up Roller turns ON earlier than the timing of Paper Feed Clutch (CL 6)

- The adjustment range is 1 to 20msec. Every increment changes 1msec.
- Press [-->] key to increase the value.
- Press [<--] key to decrease the value.
- Press [Enter] key to fix this value.



[4-bE]	Paper Gate Break (CL 10) ON timing

This adjustment changes ON timing Paper Gate Break (CL 10).
When this value is increased, CL 10 turns ON earlier than the OFF timing of Paper Gate Clutch (CL 5)

- The adjustment range is 1 to 20msec. Every increment changes 1msec.
- Press [-->] key to increase the value.
- Press [<--] key to decrease the value.
- Press [Enter] key to fix this value.

[4-bF]	Sub Separation Blower Control Mode (BL12 – 16) (Plain Paper)

This adjustment controls the Sub Separation Blower ON or OFF during print cycle.
Press [-->] key to switch between settings.
Press [Enter] key to fix this value.

- **4 b F. 0** Sub Separation Blower always stays OFF during printing.
- **4 b F. 1** Sub Separation Blower always stays ON during printing.

[4-C0]	Sub Separation Blower Control Mode (BL12 – 16) (Tracing)

This adjustment controls the Sub Separation Blower ON or OFF during print cycle.
Press [-->] key to switch between settings.
Press [Enter] key to fix this value.

- **4 C 0. 0** Sub Separation Blower always stays OFF during printing.
- **4 C 0. 1** Sub Separation Blower always stays ON during printing.

[4-C1]	Sub Separation Blower Control Mode (BL12 – 16) (Film)

This adjustment controls the Sub Separation Blower ON or OFF during print cycle.
Press [-->] key to switch between settings.
Press [Enter] key to fix this value.

- **4 C 1. 0** Sub Separation Blower always stays OFF during printing.
- **4 C 1. 1** Sub Separation Blower always stays ON during printing.

[4-C2]	Trailing Edge Margin Compensation Value Setting Mode (Roll 1)

This adjustment controls the compensation value of trailing edge margin depends on the roll remaining volume.
Press [-->] or [<--] key to select settings.
Press [Enter] key to fix this value.

Roll Remaining Volume	Value 0 [mm]	Value 1 [mm]	Value 2 [mm]	Value 3 [mm]
8/8	0.0	0.0	0.0	0.0
7/8	0.0	+0.2	+0.4	+0.6
6/8	0.0	+0.4	+0.8	+1.2
5/8	0.0	+0.6	+1.2	+1.8
4/8	0.0	+0.8	+1.6	+2.4
3/8	0.0	+1.0	+2.0	+3.0
2/8	0.0	+1.2	+2.4	+3.6
1/8	0.0	+1.4	+2.8	+4.2

[4-C3]	Trailing Edge Margin Compensation Value Setting Mode (Roll 2)

This adjustment controls the compensation value of trailing edge margin depends on the roll remaining volume.
Press [-->] or [<--] key to select settings.
Press [Enter] key to fix this value.

Refer to [4-2C] table for the details.

[4-C4]	Trailing Edge Margin Compensation Value Setting Mode (Roll 3)

This adjustment controls the compensation value of trailing edge margin depends on the roll remaining volume.
Press [-->] or [<--] key to select settings.
Press [Enter] key to fix this value.

Refer to [4-2C] table for the details.

[4-C5]	Trailing Edge Margin Compensation Value Setting Mode (Roll 4)

This adjustment controls the compensation value of trailing edge margin depends on the roll remaining volume.
Press [-->] or [<--] key to select settings.
Press [Enter] key to fix this value.

Refer to [4-2C] table for the details.

[4-C6]	Separation Lamp (Film)

This adjustment controls the Detack Lamp ON or OFF when printing on film.
Press [-->] key to switch between settings.
Press [Enter] key to fix this value.

- **4 1 8. 0** Detack Lamp always stays OFF during printing.
- **4 1 8. 1** Detack Lamp is controlled ON or OFF during printing.

[4-C7]	Image Enhancement

This adjustment controls the enhancement level of the isolated dot.
Press [-->] or [<--] key to change the enhancement level.
Press [Enter] key to fix this level.

- **4 C 7. 0** Not enhanced.
- **4 C 7. 1** Isolated dot is enhanced a little.
- **4 C 7. 2** Isolated dot is enhanced more.
- **4 C 7. 3** Isolated dot is enhanced most strongly.

[4-C8]	OFF timing of Pre-Transfer-Lamp / Detack Corotron (Tracing)

This adjustment changes the OFF timing of Pre-Transfer Lamp and Detack Corotron (Tracing).

The adjustment is the same as for [4-15].

[4-C9]	OFF timing of Pre-Transfer-Lamp / Detack Corotron (Film)

This adjustment changes the OFF timing of Pre-Transfer Lamp and Detack Corotron (Film).

The adjustment is the same as for [4-15].

[4-CA]	Developer Bias Temperature Compensation

This adjustment turns the Developer Bias Temperature Compensation off or on.
Press [-->] key to switch between settings.
Press [Enter] key to fix this value.

- **4 CA. 0:**
  Developer Bias Temperature Compensation is OFF.
- **4 CA. 1:**
  Developer Bias Temperature Compensation is ON.

Press [-->] key or [<--] key to select customized setting “0” or “1”.
Press [Enter] key to fix this value.

[4-Cb]	Developer Bias Temperature compensation for below 10° C

- The adjustment range is 00 to FF.
- Press [-->] key to increase the value (the gap between light and bias increases, and the copy becomes darker). Press [<--] key to decrease the value.
- Press [Enter] key to fix this value. (Refer to ADJ 1.3.8.)

[4-CC]	Developer Bias Temperature compensation for above 20° C

- The adjustment range is 00 to FF.
- Press [-->] key to increase the value (the gap between light and bias increases, and the copy becomes darker). Press [<--] key to decrease the value.
- Press [Enter] key to fix this value. (Refer to ADJ 1.3.8.)

[4-10]	Fuser Temp (PPC)

This adjustment changes the fuser temperature, and is used when printing Plain Paper.

NOTE: As a general rule, increase fuser temperature to improve fusing, decrease fuser temperature to eliminate wrinkling of paper.
NOTE: Since there are two different selections in this setting, you have to confirm the number of “4-09”, first.

- The adjustment range is 150 degree C to 190 degree C.
- Press [-->] key to increase the temperature.
- Press [<--] key to decrease the temperature.
- Press [Enter] key to fix this value.

[4-11]	Fuser Temp (Tracing)

This adjustment changes the fuser temperature, and is used when printing tracing paper (vellum). Adjustment is the same as for [4-10].

Program 5. NVM Setup Mode 1

Introduction

The purpose of this program is to view and modify the NVM values such as, leading edge, trailing edge and image length.

This section includes the NVM Quick Reference Chart and the NVM Adjustments.
The NVM Quick Reference Chart includes the NVM code, a description, a default value, a range, a recommended range, and the unit value.
The NVM Adjustments contain a more detailed description and adjustment procedure

Procedure

When the NVM Setup Mode 1 (Program 5) is selected, press [-->] key to step through the list of selections and press [<--] key to step backward through the list of selections.
Press [Enter] key to modify the NVM value.
Adjustment data starts flickering.
Press [-->] key to increase the value and press [<--] key to decrease the value.
And when desired value is shown, press the [Enter] key.
When [Online] key is pressed without pressing [Enter] key, NVM Setup Mode 1 is exited without changing the NVM value.
You cannot change Mode number or Sub Mode number during NVM Setup Mode.

All NVM Values are set at the factory and can vary from printer to printer. For the NVM value for the particular printer that you are servicing, refer to the matrix located inside the right side door.

NVM Chart

NVM Code	Description	Default Value	Range	Recommended Range	Unit Value
5000	Lead Edge Registration (Manual feed / PPC / Large size)	100	0-200	50-150	0.1mm
5001	Lead Edge Registration (Manual feed / PPC / Medium size)	100	0-200	50-150	0.1mm
5002	Lead Edge Registration (Manual feed / PPC / Small size)	100	0-200	50-150	0.1mm
5003	Lead Edge Registration (Manual feed / PPC / Smallest size)	100	0-200	50-150	0.1mm
5004	Lead Edge Registration (Manual feed / Tracing / Large size)	100	0-200	50-150	0.1mm
5005	Lead Edge Registration (Manual feed / Tracing / Medium size)	100	0-200	50-150	0.1mm
5006	Lead Edge Registration (Manual feed / Tracing / Small size)	100	0-200	50-150	0.1mm
5007	Lead Edge Registration (Manual feed / Tracing / Smallest size)	100	0-200	50-150	0.1mm
5008	Lead Edge Registration (Manual feed / Film / Large size)	100	0-200	50-150	0.1mm
5009	Lead Edge Registration (Manual feed / Film / Medium size)	100	0-200	50-150	0.1mm
500A	Lead Edge Registration (Manual feed / Film / Small size)	100	0-200	50-150	0.1mm
500B	Lead Edge Registration (Manual feed / Film / Smallest size)	100	0-200	50-150	0.1mm
500C	Lead Edge Registration (Roll 1 / PPC / Large size)	100	0-200	50-150	0.1mm
500D	Lead Edge Registration (Roll 1 / PPC / Medium size)	100	0-200	50-150	0.1mm
500E	Lead Edge Registration (Roll 1 / PPC / Small size)	100	0-200	50-150	0.1mm
500F	Lead Edge Registration (Roll 1 / PPC / Smallest size)	100	0-200	50-150	0.1mm
5010	Lead Edge Registration (Roll 1 / Tracing / Large size)	100	0-200	50-150	0.1mm
5011	Lead Edge Registration (Roll 1 / Tracing / Medium size)	100	0-200	50-150	0.1mm
5012	Lead Edge Registration (Roll 1 / Tracing / Small size)	100	0-200	50-150	0.1mm
5013	Lead Edge Registration (Roll 1 / Tracing / Smallest size)	100	0-200	50-150	0.1mm
5014	Lead Edge Registration (Roll 1 / Film / Large size)	100	0-200	50-150	0.1mm
5015	Lead Edge Registration (Roll 1 / Film / Medium size)	100	0-200	50-150	0.1mm
5016	Lead Edge Registration (Roll 1 / Film / Small size)	100	0-200	50-150	0.1mm
5017	Lead Edge Registration (Roll 1 / Film / Smallest size)	100	0-200	50-150	0.1mm
5018	Lead Edge Registration (Roll 2 / PPC / Large size)	100	0-200	50-150	0.1mm
5019	Lead Edge Registration (Roll 2 / PPC / Medium size)	100	0-200	50-150	0.1mm
501A	Lead Edge Registration (Roll 2 / PPC / Small size)	100	0-200	50-150	0.1mm
501B	Lead Edge Registration (Roll 2 / PPC / Smallest size)	100	0-200	50-150	0.1mm
501C	Lead Edge Registration (Roll 2 / Tracing / Large size)	100	0-200	50-150	0.1mm
501D	Lead Edge Registration (Roll 2 / Tracing / Medium size)	100	0-200	50-150	0.1mm
501E	Lead Edge Registration (Roll 2 / Tracing / Small size)	100	0-200	50-150	0.1mm
501F	Lead Edge Registration (Roll 2 / Tracing / Smallest size)	100	0-200	50-150	0.1mm
5020	Lead Edge Registration (Roll 2 / Film / Large size)	100	0-200	50-150	0.1mm
5021	Lead Edge Registration (Roll 2 / Film / Medium size)	100	0-200	50-150	0.1mm

NVM Code	Description	Default Value	Range	Recommended Range	Unit Value
5022	Lead Edge Registration (Roll 2 / Film / Small size)	100	0-200	50-150	0.1mm
5023	Lead Edge Registration (Roll 2 / Film / Smallest size)	100	0-200	50-150	0.1mm
5024	Lead Edge Registration (Roll 3 / PPC / Large size)	100	0-200	50-150	0.1mm
5025	Lead Edge Registration (Roll 3 / PPC / Medium size)	100	0-200	50-150	0.1mm
5026	Lead Edge Registration (Roll 3 / PPC / Small size)	100	0-200	50-150	0.1mm
5027	Lead Edge Registration (Roll 3 / PPC / Smallest size)	100	0-200	50-150	0.1mm
5028	Lead Edge Registration (Roll 3 / Tracing / Large size)	100	0-200	50-150	0.1mm
5029	Lead Edge Registration (Roll 3 / Tracing / Medium size)	100	0-200	50-150	0.1mm
502A	Lead Edge Registration (Roll 3 / Tracing / Small size)	100	0-200	50-150	0.1mm
502B	Lead Edge Registration (Roll 3 / Tracing / Smallest size)	100	0-200	50-150	0.1mm
502C	Lead Edge Registration (Roll 3 / Film / Large size)	100	0-200	50-150	0.1mm
502D	Lead Edge Registration (Roll 3 / Film / Medium size)	100	0-200	50-150	0.1mm
502E	Lead Edge Registration (Roll 3 / Film / Small size)	100	0-200	50-150	0.1mm
502F	Lead Edge Registration (Roll 3 / Film / Smallest size)	100	0-200	50-150	0.1mm
5030	Lead Edge Registration (Roll 4 / PPC / Large size)	100	0-200	50-150	0.1mm
5031	Lead Edge Registration (Roll 4 / PPC / Medium size)	100	0-200	50-150	0.1mm
5032	Lead Edge Registration (Roll 4 / PPC / Small size)	100	0-200	50-150	0.1mm
5033	Lead Edge Registration (Roll 4 / PPC / Smallest size)	100	0-200	50-150	0.1mm
5034	Lead Edge Registration (Roll 4 / Tracing / Large size)	100	0-200	50-150	0.1mm
5035	Lead Edge Registration (Roll 4 / Tracing / Medium size)	100	0-200	50-150	0.1mm
5036	Lead Edge Registration (Roll 4 / Tracing / Small size)	100	0-200	50-150	0.1mm
5037	Lead Edge Registration (Roll 4 / Tracing / Smallest size)	100	0-200	50-150	0.1mm
5038	Lead Edge Registration (Roll 4 / Film / Large size)	100	0-200	50-150	0.1mm
5039	Lead Edge Registration (Roll 4 / Film / Medium size)	100	0-200	50-150	0.1mm
503A	Lead Edge Registration (Roll 4 / Film / Small size)	100	0-200	50-150	0.1mm
503B	Lead Edge Registration (Roll 4 / Film / Smallest size)	100	0-200	50-150	0.1mm
503C	Cut Length (Roll 1 / PPC / Large size)	100	0-200	50-150	0.1mm
503D	Cut Length (Roll 1 / PPC / Medium size)	100	0-200	50-150	0.1mm
503E	Cut Length (Roll 1 / PPC / Small size)	100	0-200	50-150	0.1mm
503F	Cut Length (Roll 1 / PPC / Smallest size)	100	0-200	50-150	0.1mm
5040	Cut Length (Roll 1 / Tracing / Large size)	100	0-200	50-150	0.1mm
5041	Cut Length (Roll 1 / Tracing / Medium size)	100	0-200	50-150	0.1mm
5042	Cut Length (Roll 1 / Tracing / Small size)	100	0-200	50-150	0.1mm
5043	Cut Length (Roll 1 / Tracing / Smallest size)	100	0-200	50-150	0.1mm
5044	Cut Length (Roll 1 / Film / Large size)	100	0-200	50-150	0.1mm

NVM Code	Description	Default Value	Range	Recommended Range	Unit Value
5045	Cut Length (Roll 1 / Film / Medium size)	100	0-200	50-150	0.1mm
5046	Cut Length (Roll 1 / Film / Small size)	100	0-200	50-150	0.1mm
5047	Cut Length (Roll 1 / Film / Smallest size)	100	0-200	50-150	0.1mm
5048	Cut Length (Roll 2 / PPC / Large size)	100	0-200	50-150	0.1mm
5049	Cut Length (Roll 2 / PPC / Medium size)	100	0-200	50-150	0.1mm
504A	Cut Length (Roll 2 / PPC / Small size)	100	0-200	50-150	0.1mm
504B	Cut Length (Roll 2 / PPC / Smallest size)	100	0-200	50-150	0.1mm
504C	Cut Length (Roll 2 / Tracing / Large size)	100	0-200	50-150	0.1mm
504D	Cut Length (Roll 2 / Tracing / Medium size)	100	0-200	50-150	0.1mm
504E	Cut Length (Roll 2 / Tracing / Small size)	100	0-200	50-150	0.1mm
504F	Cut Length (Roll 2 / Tracing / Smallest size)	100	0-200	50-150	0.1mm
5050	Cut Length (Roll 2 / Film / Large size)	100	0-200	50-150	0.1mm
5051	Cut Length (Roll 2 / Film / Medium size)	100	0-200	50-150	0.1mm
5052	Cut Length (Roll 2 / Film / Small size)	100	0-200	50-150	0.1mm
5053	Cut Length (Roll 2 / Film / Smallest size)	100	0-200	50-150	0.1mm
5054	Cut Length (Roll 3 / PPC / Large size)	100	0-200	50-150	0.1mm
5055	Cut Length (Roll 3 / PPC / Medium size)	100	0-200	50-150	0.1mm
5056	Cut Length (Roll 3 / PPC / Small size)	100	0-200	50-150	0.1mm
5057	Cut Length (Roll 3 / PPC / Smallest size)	100	0-200	50-150	0.1mm
5058	Cut Length (Roll 3 / Tracing / Large size)	100	0-200	50-150	0.1mm
5059	Cut Length (Roll 3 / Tracing / Medium size)	100	0-200	50-150	0.1mm
505A	Cut Length (Roll 3 / Tracing / Small size)	100	0-200	50-150	0.1mm
505B	Cut Length (Roll 3 / Tracing / Smallest size)	100	0-200	50-150	0.1mm
505C	Cut Length (Roll 3 / Film / Large size)	100	0-200	50-150	0.1mm
505D	Cut Length (Roll 3 / Film / Medium size)	100	0-200	50-150	0.1mm
505E	Cut Length (Roll 3 / Film / Small size)	100	0-200	50-150	0.1mm
505F	Cut Length (Roll 3 / Film / Smallest size)	100	0-200	50-150	0.1mm
5060	Cut Length (Roll 4 / PPC / Large size)	100	0-200	50-150	0.1mm
5061	Cut Length (Roll 4 / PPC / Medium size)	100	0-200	50-150	0.1mm
5062	Cut Length (Roll 4 / PPC / Small size)	100	0-200	50-150	0.1mm
5063	Cut Length (Roll 4 / PPC / Smallest size)	100	0-200	50-150	0.1mm
5064	Cut Length (Roll 4 / Tracing / Large size)	100	0-200	50-150	0.1mm
5065	Cut Length (Roll 4 / Tracing / Medium size)	100	0-200	50-150	0.1mm
5066	Cut Length (Roll 4 / Tracing / Small size)	100	0-200	50-150	0.1mm
5067	Cut Length (Roll 4 / Tracing / Smallest size)	100	0-200	50-150	0.1mm

NVM Code	Description	Default Value	Range	Recommended Range	Unit Value
5068	Cut Length (Roll 4 / Film / Large size)	100	0-200	50-150	0.1mm
5069	Cut Length (Roll 4 / Film / Medium size)	100	0-200	50-150	0.1mm
506A	Cut Length (Roll 4 / Film / Small size)	100	0-200	50-150	0.1mm
506B	Cut Length (Roll 4 / Film / Smallest size)	100	0-200	50-150	0.1mm
506C	Image Length/Trail Edge (Roll 1 / PPC / Large size)	0	±1.00	±0.5	0.01%
506D	Image Length/Trail Edge (Roll 1 / PPC / Medium size)	0	±1.00	±0.5	0.01%
506E	Image Length/Trail Edge (Roll 1 / PPC / Small size)	0	±1.00	±0.5	0.01%
506F	Image Length/Trail Edge (Roll 1 / PPC / Smallest size)	0	±1.00	±0.5	0.01%
5070	Image Length/Trail Edge (Roll 1 / Tracing / Large size)	0	±1.00	±0.5	0.01%
5071	Image Length/Trail Edge (Roll 1 / Tracing / Medium size)	0	±1.00	±0.5	0.01%
5072	Image Length/Trail Edge (Roll 1 / Tracing / Small size)	0	±1.00	±0.5	0.01%
5073	Image Length/Trail Edge (Roll 1 / Tracing / Smallest size)	0	±1.00	±0.5	0.01%
5074	Image Length/Trail Edge (Roll 1 / Film / Large size)	0	±1.00	±0.5	0.01%
5075	Image Length/Trail Edge (Roll 1 / Film / Medium size)	0	±1.00	±0.5	0.01%
5076	Image Length/Trail Edge (Roll 1 / Film / Small size)	0	±1.00	±0.5	0.01%
5077	Image Length/Trail Edge (Roll 1 / Film / Smallest size)	0	±1.00	±0.5	0.01%
5078	Image Length/Trail Edge (Roll 2 / PPC / Large size)	0	±1.00	±0.5	0.01%
5079	Image Length/Trail Edge (Roll 2 / PPC / Medium size)	0	±1.00	±0.5	0.01%
507A	Image Length/Trail Edge (Roll 2 / PPC / Small size)	0	±1.00	±0.5	0.01%
507B	Image Length/Trail Edge (Roll 2 / PPC / Smallest size)	0	±1.00	±0.5	0.01%
507C	Image Length/Trail Edge (Roll 2 / Tracing / Large size)	0	±1.00	±0.5	0.01%
507D	Image Length/Trail Edge (Roll 2 / Tracing / Medium size)	0	±1.00	±0.5	0.01%
507E	Image Length/Trail Edge (Roll 2 / Tracing / Small size)	0	±1.00	±0.5	0.01%
507F	Image Length/Trail Edge (Roll 2 / Tracing / Smallest size)	0	±1.00	±0.5	0.01%
5080	Image Length/Trail Edge (Roll 2 / Film / Large size)	0	±1.00	±0.5	0.01%
5081	Image Length/Trail Edge (Roll 2 / Film / Medium size)	0	±1.00	±0.5	0.01%
5082	Image Length/Trail Edge (Roll 2 / Film / Small size)	0	±1.00	±0.5	0.01%
5083	Image Length/Trail Edge (Roll 2 / Film / Smallest size)	0	±1.00	±0.5	0.01%
5084	Image Length/Trail Edge (Roll 3 / PPC / Large size)	0	±1.00	±0.5	0.01%
5085	Image Length/Trail Edge (Roll 3 / PPC / Medium size)	0	±1.00	±0.5	0.01%
5086	Image Length/Trail Edge (Roll 3 / PPC / Small size)	0	±1.00	±0.5	0.01%
5087	Image Length/Trail Edge (Roll 3 / PPC / Smallest size)	0	±1.00	±0.5	0.01%
5088	Image Length/Trail Edge (Roll 3 / Tracing / Large size)	0	±1.00	±0.5	0.01%
5089	Image Length/Trail Edge (Roll 3 / Tracing / Medium size)	0	±1.00	±0.5	0.01%
508A	Image Length/Trail Edge (Roll 3 / Tracing / Small size)	0	±1.00	±0.5	0.01%

NVM Code	Description	Default Value	Range	Recommended Range	Unit Value
508B	Image Length/Trail Edge (Roll 3 / Tracing / Smallest size)	0	±1.00	±0.5	0.01%
508C	Image Length/Trail Edge (Roll 3 / Film / Large size)	0	±1.00	±0.5	0.01%
508D	Image Length/Trail Edge (Roll 3 / Film / Medium size)	0	±1.00	±0.5	0.01%
508E	Image Length/Trail Edge (Roll 3 / Film / Small size)	0	±1.00	±0.5	0.01%
508F	Image Length/Trail Edge (Roll 3 / Film / Smallest size)	0	±1.00	±0.5	0.01%
5090	Image Length/Trail Edge (Roll 4 / PPC / Large size)	0	±1.00	±0.5	0.01%
5091	Image Length/Trail Edge (Roll 4 / PPC / Medium size)	0	±1.00	±0.5	0.01%
5092	Image Length/Trail Edge (Roll 4 / PPC / Small size)	0	±1.00	±0.5	0.01%
5093	Image Length/Trail Edge (Roll 4 / PPC / Smallest size)	0	±1.00	±0.5	0.01%
5094	Image Length/Trail Edge (Roll 4 / Tracing / Large size)	0	±1.00	±0.5	0.01%
5095	Image Length/Trail Edge (Roll 4 / Tracing / Medium size)	0	±1.00	±0.5	0.01%
5096	Image Length/Trail Edge (Roll 4 / Tracing / Small size)	0	±1.00	±0.5	0.01%
5097	Image Length/Trail Edge (Roll 4 / Tracing / Smallest size)	0	±1.00	±0.5	0.01%
5098	Image Length/Trail Edge (Roll 4 / Film / Large size)	0	±1.00	±0.5	0.01%
5099	Image Length/Trail Edge (Roll 4 / Film / Medium size)	0	±1.00	±0.5	0.01%
509A	Image Length/Trail Edge (Roll 4 / Film / Small size)	0	±1.00	±0.5	0.01%
509B	Image Length/Trail Edge (Roll 4 / Film / Smallest size)	0	±1.00	±0.5	0.01%
509C	Image Length/Trail Edge (Manual feed / Large size)	100	0-200	50-150	0.1mm
5100	User - Lead Edge Registration (Manual feed / PPC / Large size)	100	0-200	50-150	0.1mm
5101	User - Lead Edge Registration (Manual feed / PPC / Medium size)	100	0-200	50-150	0.1mm
5102	User - Lead Edge Registration (Manual feed / PPC / Small size)	100	0-200	50-150	0.1mm
5103	User - Lead Edge Registration (Manual feed / PPC / Smallest size)	100	0-200	50-150	0.1mm
5104	User - Lead Edge Registration (Manual feed / Tracing / Large size)	100	0-200	50-150	0.1mm
5105	User - Lead Edge Registration (Manual feed / Tracing / Medium size)	100	0-200	50-150	0.1mm
5106	User - Lead Edge Registration (Manual feed / Tracing / Small size)	100	0-200	50-150	0.1mm
5107	User - Lead Edge Registration (Manual feed / Tracing / Smallest size)	100	0-200	50-150	0.1mm
5108	User - Lead Edge Registration (Manual feed / Film / Large size)	100	0-200	50-150	0.1mm
5109	User - Lead Edge Registration (Manual feed / Film / Medium size)	100	0-200	50-150	0.1mm
510A	User - Lead Edge Registration (Manual feed / Film / Small size)	100	0-200	50-150	0.1mm
510B	User - Lead Edge Registration (Manual feed / Film / Smallest size)	100	0-200	50-150	0.1mm
510C	User - Lead Edge Registration (Roll 1 / PPC / Large size)	100	0-200	50-150	0.1mm
510D	User - Lead Edge Registration (Roll 1 / PPC / Medium size)	100	0-200	50-150	0.1mm
510E	User - Lead Edge Registration (Roll 1 / PPC / Small size)	100	0-200	50-150	0.1mm
510F	User - Lead Edge Registration (Roll 1 / PPC / Smallest size)	100	0-200	50-150	0.1mm
5110	User - Lead Edge Registration (Roll 1 / Tracing / Large size)	100	0-200	50-150	0.1mm

NVM Code	Description	Default Value	Range	Recommended Range	Unit Value
5111	User - Lead Edge Registration (Roll 1 / Tracing / Medium size)	100	0-200	50-150	0.1mm
5112	User - Lead Edge Registration (Roll 1 / Tracing / Small size)	100	0-200	50-150	0.1mm
5113	User - Lead Edge Registration (Roll 1 / Tracing / Smallest size)	100	0-200	50-150	0.1mm
5114	User - Lead Edge Registration (Roll 1 / Film / Large size)	100	0-200	50-150	0.1mm
5115	User - Lead Edge Registration (Roll 1 / Film / Medium size)	100	0-200	50-150	0.1mm
5116	User - Lead Edge Registration (Roll 1 / Film / Small size)	100	0-200	50-150	0.1mm
5117	User - Lead Edge Registration (Roll 1 / Film / Smallest size)	100	0-200	50-150	0.1mm
5118	User - Lead Edge Registration (Roll 2 / PPC / Large size)	100	0-200	50-150	0.1mm
5119	User - Lead Edge Registration (Roll 2 / PPC / Medium size)	100	0-200	50-150	0.1mm
511A	User - Lead Edge Registration (Roll 2 / PPC / Small size)	100	0-200	50-150	0.1mm
511B	User - Lead Edge Registration (Roll 2 / PPC / Smallest size)	100	0-200	50-150	0.1mm
511C	User - Lead Edge Registration (Roll 2 / Tracing / Large size)	100	0-200	50-150	0.1mm
511D	User - Lead Edge Registration (Roll 2 / Tracing / Medium size)	100	0-200	50-150	0.1mm
511E	User - Lead Edge Registration (Roll 2 / Tracing / Small size)	100	0-200	50-150	0.1mm
511F	User - Lead Edge Registration (Roll 2 / Tracing / Smallest size)	100	0-200	50-150	0.1mm
5120	User - Lead Edge Registration (Roll 2 / Film / Large size)	100	0-200	50-150	0.1mm
5121	User - Lead Edge Registration (Roll 2 / Film / Medium size)	100	0-200	50-150	0.1mm
5122	User - Lead Edge Registration (Roll 2 / Film / Small size)	100	0-200	50-150	0.1mm
5123	User - Lead Edge Registration (Roll 2 / Film / Smallest size)	100	0-200	50-150	0.1mm
5124	User - Lead Edge Registration (Roll 3 / PPC / Large size)	100	0-200	50-150	0.1mm
5125	User - Lead Edge Registration (Roll 3 / PPC / Medium size)	100	0-200	50-150	0.1mm
5126	User - Lead Edge Registration (Roll 3 / PPC / Small size)	100	0-200	50-150	0.1mm
5127	User - Lead Edge Registration (Roll 3 / PPC / Smallest size)	100	0-200	50-150	0.1mm
5128	User - Lead Edge Registration (Roll 3 / Tracing / Large size)	100	0-200	50-150	0.1mm
5129	User - Lead Edge Registration (Roll 3 / Tracing / Medium size)	100	0-200	50-150	0.1mm
512A	User - Lead Edge Registration (Roll 3 / Tracing / Small size)	100	0-200	50-150	0.1mm
512B	User - Lead Edge Registration (Roll 3 / Tracing / Smallest size)	100	0-200	50-150	0.1mm
512C	User - Lead Edge Registration (Roll 3 / Film / Large size)	100	0-200	50-150	0.1mm
512D	User - Lead Edge Registration (Roll 3 / Film / Medium size)	100	0-200	50-150	0.1mm
512E	User - Lead Edge Registration (Roll 3 / Film / Small size)	100	0-200	50-150	0.1mm
512F	User - Lead Edge Registration (Roll 3 / Film / Smallest size)	100	0-200	50-150	0.1mm
5130	User - Lead Edge Registration (Roll 4 / PPC / Large size)	100	0-200	50-150	0.1mm
5131	User - Lead Edge Registration (Roll 4 / PPC / Medium size)	100	0-200	50-150	0.1mm
5132	User - Lead Edge Registration (Roll 4 / PPC / Small size)	100	0-200	50-150	0.1mm
5133	User - Lead Edge Registration (Roll 4 / PPC / Smallest size)	100	0-200	50-150	0.1mm

NVM Code	Description	Default Value	Range	Recommended Range	Unit Value
5134	User - Lead Edge Registration (Roll 4 / Tracing / Large size)	100	0-200	50-150	0.1mm
5135	User - Lead Edge Registration (Roll 4 / Tracing / Medium size)	100	0-200	50-150	0.1mm
5136	User - Lead Edge Registration (Roll 4 / Tracing / Small size)	100	0-200	50-150	0.1mm
5137	User - Lead Edge Registration (Roll 4 / Tracing / Smallest size)	100	0-200	50-150	0.1mm
5138	User - Lead Edge Registration (Roll 4 / Film / Large size)	100	0-200	50-150	0.1mm
5139	User - Lead Edge Registration (Roll 4 / Film / Medium size)	100	0-200	50-150	0.1mm
513A	User - Lead Edge Registration (Roll 4 / Film / Small size)	100	0-200	50-150	0.1mm
513B	User - Lead Edge Registration (Roll 4 / Film / Smallest size)	100	0-200	50-150	0.1mm
513C	User - Cut Length (Roll 1 / PPC / Large size)	100	0-200	50-150	0.1mm
513D	User - Cut Length (Roll 1 / PPC / Medium size)	100	0-200	50-150	0.1mm
513E	User - Cut Length (Roll 1 / PPC / Small size)	100	0-200	50-150	0.1mm
513F	User - Cut Length (Roll 1 / PPC / Smallest size)	100	0-200	50-150	0.1mm
5140	User - Cut Length (Roll 1 / Tracing / Large size)	100	0-200	50-150	0.1mm
5141	User - Cut Length (Roll 1 / Tracing / Medium size)	100	0-200	50-150	0.1mm
5142	User - Cut Length (Roll 1 / Tracing / Small size)	100	0-200	50-150	0.1mm
5143	User - Cut Length (Roll 1 / Tracing / Smallest size)	100	0-200	50-150	0.1mm
5144	User - Cut Length (Roll 1 / Film / Large size)	100	0-200	50-150	0.1mm
5145	User - Cut Length (Roll 1 / Film / Medium size)	100	0-200	50-150	0.1mm
5146	User - Cut Length (Roll 1 / Film / Small size)	100	0-200	50-150	0.1mm
5147	User - Cut Length (Roll 1 / Film / Smallest size)	100	0-200	50-150	0.1mm
5148	User - Cut Length (Roll 2 / PPC / Large size)	100	0-200	50-150	0.1mm
5149	User - Cut Length (Roll 2 / PPC / Medium size)	100	0-200	50-150	0.1mm
514A	User - Cut Length (Roll 2 / PPC / Small size)	100	0-200	50-150	0.1mm
514B	User - Cut Length (Roll 2 / PPC / Smallest size)	100	0-200	50-150	0.1mm
514C	User - Cut Length (Roll 2 / Tracing / Large size)	100	0-200	50-150	0.1mm
514D	User - Cut Length (Roll 2 / Tracing / Medium size)	100	0-200	50-150	0.1mm
514E	User - Cut Length (Roll 2 / Tracing / Small size)	100	0-200	50-150	0.1mm
514F	User - Cut Length (Roll 2 / Tracing / Smallest size)	100	0-200	50-150	0.1mm
5150	User - Cut Length (Roll 2 / Film / Large size)	100	0-200	50-150	0.1mm
5151	User - Cut Length (Roll 2 / Film / Medium size)	100	0-200	50-150	0.1mm
5152	User - Cut Length (Roll 2 / Film / Small size)	100	0-200	50-150	0.1mm
5153	User - Cut Length (Roll 2 / Film / Smallest size)	100	0-200	50-150	0.1mm
5154	User - Cut Length (Roll 3 / PPC / Large size)	100	0-200	50-150	0.1mm
5155	User - Cut Length (Roll 3 / PPC / Medium size)	100	0-200	50-150	0.1mm
5156	User - Cut Length (Roll 3 / PPC / Small size)	100	0-200	50-150	0.1mm

NVM Code	Description	Default Value	Range	Recommended Range	Unit Value
5157	User - Cut Length (Roll 3 / PPC / Smallest size)	100	0-200	50-150	0.1mm
5158	User - Cut Length (Roll 3 / Tracing / Large size)	100	0-200	50-150	0.1mm
5159	User - Cut Length (Roll 3 / Tracing / Medium size)	100	0-200	50-150	0.1mm
515A	User - Cut Length (Roll 3 / Tracing / Small size)	100	0-200	50-150	0.1mm
515B	User - Cut Length (Roll 3 / Tracing / Smallest size)	100	0-200	50-150	0.1mm
515C	User - Cut Length (Roll 3 / Film / Large size)	100	0-200	50-150	0.1mm
515D	User - Cut Length (Roll 3 / Film / Medium size)	100	0-200	50-150	0.1mm
515E	User - Cut Length (Roll 3 / Film / Small size)	100	0-200	50-150	0.1mm
515F	User - Cut Length (Roll 3 / Film / Smallest size)	100	0-200	50-150	0.1mm
5160	User - Cut Length (Roll 4 / PPC / Large size)	100	0-200	50-150	0.1mm
5161	User - Cut Length (Roll 4 / PPC / Medium size)	100	0-200	50-150	0.1mm
5162	User - Cut Length (Roll 4 / PPC / Small size)	100	0-200	50-150	0.1mm
5163	User - Cut Length (Roll 4 / PPC / Smallest size)	100	0-200	50-150	0.1mm
5164	User - Cut Length (Roll 4 / Tracing / Large size)	100	0-200	50-150	0.1mm
5165	User - Cut Length (Roll 4 / Tracing / Medium size)	100	0-200	50-150	0.1mm
5166	User - Cut Length (Roll 4 / Tracing / Small size)	100	0-200	50-150	0.1mm
5167	User - Cut Length (Roll 4 / Tracing / Smallest size)	100	0-200	50-150	0.1mm
5168	User - Cut Length (Roll 4 / Film / Large size)	100	0-200	50-150	0.1mm
5169	User - Cut Length (Roll 4 / Film / Medium size)	100	0-200	50-150	0.1mm
516A	User - Cut Length (Roll 4 / Film / Small size)	100	0-200	50-150	0.1mm
516B	User - Cut Length (Roll 4 / Film / Smallest size)	100	0-200	50-150	0.1mm
516C	User - Image Length / Trail Edge (Roll 1 / PPC / Large size)	0	±1.00	±0.5	0.01%
516D	User - Image Length / Trail Edge (Roll 1 / PPC / Medium size)	0	±1.00	±0.5	0.01%
516E	User - Image Length / Trail Edge (Roll 1 / PPC / Small size)	0	±1.00	±0.5	0.01%
516F	User - Image Length / Trail Edge (Roll 1 / PPC / Smallest size)	0	±1.00	±0.5	0.01%
5170	User - Image Length / Trail Edge (Roll 1 / Tracing / Large size)	0	±1.00	±0.5	0.01%
5171	User - Image Length / Trail Edge (Roll 1 / Tracing / Medium size)	0	±1.00	±0.5	0.01%
5172	User - Image Length / Trail Edge (Roll 1 / Tracing / Small size)	0	±1.00	±0.5	0.01%
5173	User - Image Length / Trail Edge (Roll 1 / Tracing / Smallest size)	0	±1.00	±0.5	0.01%
5174	User - Image Length / Trail Edge (Roll 1 / Film / Large size)	0	±1.00	±0.5	0.01%
5175	User - Image Length / Trail Edge (Roll 1 / Film / Medium size)	0	±1.00	±0.5	0.01%
5176	User - Image Length / Trail Edge (Roll 1 / Film / Small size)	0	±1.00	±0.5	0.01%
5177	User - Image Length / Trail Edge (Roll 1 / Film / Smallest size)	0	±1.00	±0.5	0.01%
5178	User - Image Length / Trail Edge (Roll 2 / PPC / Large size)	0	±1.00	±0.5	0.01%
5179	User - Image Length / Trail Edge (Roll 2 / PPC / Medium size)	0	±1.00	±0.5	0.01%

NVM Code	Description	Default Value	Range	Recommended Range	Unit Value
517A	User - Image Length / Trail Edge (Roll 2 / PPC / Small size)	0	±1.00	±0.5	0.01%
517B	User - Image Length / Trail Edge (Roll 2 / PPC / Smallest size)	0	±1.00	±0.5	0.01%
517C	User - Image Length / Trail Edge (Roll 2 / Tracing / Large size)	0	±1.00	±0.5	0.01%
517D	User - Image Length / Trail Edge (Roll 2 / Tracing / Medium size)	0	±1.00	±0.5	0.01%
517E	User - Image Length / Trail Edge (Roll 2 / Tracing / Small size)	0	±1.00	±0.5	0.01%
517F	User - Image Length / Trail Edge (Roll 2 / Tracing / Smallest size)	0	±1.00	±0.5	0.01%
5180	User - Image Length / Trail Edge (Roll 2 / Film / Large size)	0	±1.00	±0.5	0.01%
5181	User - Image Length / Trail Edge (Roll 2 / Film / Medium size)	0	±1.00	±0.5	0.01%
5182	User - Image Length / Trail Edge (Roll 2 / Film / Small size)	0	±1.00	±0.5	0.01%
5183	User - Image Length / Trail Edge (Roll 2 / Film / Smallest size)	0	±1.00	±0.5	0.01%
5184	User - Image Length / Trail Edge (Roll 3 / PPC / Large size)	0	±1.00	±0.5	0.01%
5185	User - Image Length / Trail Edge (Roll 3 / PPC / Medium size)	0	±1.00	±0.5	0.01%
5186	User - Image Length / Trail Edge (Roll 3 / PPC / Small size)	0	±1.00	±0.5	0.01%
5187	User - Image Length / Trail Edge (Roll 3 / PPC / Smallest size)	0	±1.00	±0.5	0.01%
5188	User - Image Length / Trail Edge (Roll 3 / Tracing / Large size)	0	±1.00	±0.5	0.01%
5189	User - Image Length / Trail Edge (Roll 3 / Tracing / Medium size)	0	±1.00	±0.5	0.01%
518A	User - Image Length / Trail Edge (Roll 3 / Tracing / Small size)	0	±1.00	±0.5	0.01%
518B	User - Image Length / Trail Edge (Roll 3 / Tracing / Smallest size)	0	±1.00	±0.5	0.01%
518C	User - Image Length / Trail Edge (Roll 3 / Film / Large size)	0	±1.00	±0.5	0.01%
518D	User - Image Length / Trail Edge (Roll 3 / Film / Medium size)	0	±1.00	±0.5	0.01%
518E	User - Image Length / Trail Edge (Roll 3 / Film / Small size)	0	±1.00	±0.5	0.01%
518F	User - Image Length / Trail Edge (Roll 3 / Film / Smallest size)	0	±1.00	±0.5	0.01%
5190	User - Image Length / Trail Edge (Roll 4 / PPC / Large size)	0	±1.00	±0.5	0.01%
5191	User - Image Length / Trail Edge (Roll 4 / PPC / Medium size)	0	±1.00	±0.5	0.01%
5192	User - Image Length / Trail Edge (Roll 4 / PPC / Small size)	0	±1.00	±0.5	0.01%
5193	User - Image Length / Trail Edge (Roll 4 / PPC / Smallest size)	0	±1.00	±0.5	0.01%
5194	User - Image Length / Trail Edge (Roll 4 / Tracing / Large size)	0	±1.00	±0.5	0.01%
5195	User - Image Length / Trail Edge (Roll 4 / Tracing / Medium size)	0	±1.00	±0.5	0.01%
5196	User - Image Length / Trail Edge (Roll 4 / Tracing / Small size)	0	±1.00	±0.5	0.01%
5197	User - Image Length / Trail Edge (Roll 4 / Tracing / Smallest size)	0	±1.00	±0.5	0.01%
5198	User - Image Length / Trail Edge (Roll 4 / Film / Large size)	0	±1.00	±0.5	0.01%
5199	User - Image Length / Trail Edge (Roll 4 / Film / Medium size)	0	±1.00	±0.5	0.01%
519A	User - Image Length / Trail Edge (Roll 4 / Film / Small size)	0	±1.00	±0.5	0.01%
519B	User - Image Length / Trail Edge (Roll 4 / Film / Smallest size)	0	±1.00	±0.5	0.01%
900B	Counter A setting mode (Lower 4 digits)	0000	0-9999	-	-

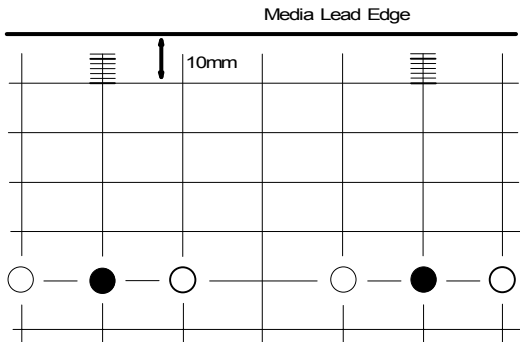
NVM Code	Description	Default Value	Range	Recommended Range	Unit Value
900C	Counter A setting mode (Upper 3 digits)	000	0-999	-	-
900D	Counter B setting mode (Lower 4 digits)	0000	0-9999	-	-
900E	Counter B setting mode (Upper 3 digits)	000	0-999	-	-

[5-00]	Leading Edge (Manual / PPC / Large)

This adjustment changes the lead edge registration for large sizes of Manual / plain paper (A0, 30”, 34”, and 36” in width).

- The adjustment range is 0 to 20mm. The image registration changes 0.1mm for every increment.
- Press [-->] key to increase the value (lead edge of image moves away from the edge of the paper).
- Press [<--] key to decrease the value.
- Press [Enter] key to fix this value.

Measure the arrow shown distance on test pattern 1.
It should be measured as 10mm ± 3mm.



Test Pattern 1

***Note**: Since there are two different selections in this setting, you have to confirm the number of “4-09”, first.*

[5-01]	Leading Edge (Manual / PPC / Medium)

This adjustment changes the lead edge registration for medium sizes of Manual / plain paper (A1, 22”, and 24” in width).

- The adjustment is the same as for [5-00].

[5-02]	Leading Edge (Manual / PPC / Small)

This adjustment changes the lead edge registration for medium sizes of Manual / plain paper (A2, 17”, and 18” in width).

- The adjustment is the same as for [5-00].

[5-03]	Leading Edge (Manual / PPC / Smallest)

This adjustment changes the lead edge registration for medium sizes of Manual / plain paper (A3, 11”, and 12” in width).

- The adjustment is the same as for [5-00].

[5-04]	Leading Edge (Manual / Tracing / Large)

This adjustment changes the lead edge registration for large sizes of Manual / tracing paper (A0, 30”, 34”, and 36” in width).

- The adjustment is the same as for [5-00].

NOTE: Since there are two different selections in this setting, you have to confirm the number of “4-0A”, first.

[5-05]	Leading Edge (Manual / Tracing / Medium)

This adjustment changes the lead edge registration for medium sizes of Manual / tracing paper (A1, 22”, and 24” in width).

- The adjustment is the same as for [5-00].

[5-06]	Leading Edge (Manual / Tracing / Small)

This adjustment changes the lead edge registration for medium sizes of Manual / tracing paper (A2, 17”, and 18” in width).

- The adjustment is the same as for [5-00].

[5-07]	Leading Edge (Manual / Tracing / Smallest)

This adjustment changes the lead edge registration for medium sizes of Manual / tracing paper (A3, 11”, and 12” in width).

- The adjustment is the same as for [5-00].

[5-08]	Leading Edge (Manual / Film / Large)

This adjustment changes the lead edge registration for large sizes of Manual / Film (A0, 30”, 34”, and 36” in width).

- The adjustment is the same as for [5-00].

NOTE: Since there are two different selections in this setting, you have to confirm the number of “4-0b”, first.

[5-09]	Leading Edge (Manual / Film / Medium)

This adjustment changes the lead edge registration for medium sizes of Manual / Film (A1, 22”, and 24” in width).

- The adjustment is the same as for [5-00].

[5-0A]	Leading Edge (Manual / Film / Small)

This adjustment changes the lead edge registration for medium sizes of Manual / Film (A2, 17”, and 18” in width).

- The adjustment is the same as for [5-00].

[5-0b]	Leading Edge (Manual / Film / Smallest)

This adjustment changes the lead edge registration for medium sizes of Manual / Film (A3, 11”, and 12” in width).

- The adjustment is the same as for [5-00].

[5-0C]	Leading Edge (Roll 1 / PPC / Large)

This adjustment changes the lead edge registration for large sizes of Roll 1 / plain paper (A0, 30”, 34”, and 36” in width).

- The adjustment is the same as for [5-00].

NOTE: Since there are two different selections in this setting, you have to confirm the number of “4-09”, first.

[5-0d]	Leading Edge (Roll 1 / PPC / Medium)

This adjustment changes the lead edge registration for medium sizes of Roll 1 / plain paper (A1, 22”, and 24” in width).

- The adjustment is the same as for [5-00].

[5-0E]	Leading Edge (Roll 1 / PPC / Small)

This adjustment changes the lead edge registration for medium sizes of Roll 1 / plain paper (A2, 17”, and 18” in width).

- The adjustment is the same as for [5-00].

[5-0F]	Leading Edge (Roll 1 / PPC / Smallest)

This adjustment changes the lead edge registration for medium sizes of Roll 1 / plain paper (A3, 11”, and 12” in width).

- The adjustment is the same as for [5-00].

[5-10]	Leading Edge (Roll 1 / Tracing / Large)

This adjustment changes the lead edge registration for large sizes of Roll 1 / tracing paper (A0, 30”, 34”, and 36” in width).

- The adjustment is the same as for [5-00].

NOTE: Since there are two different selections in this setting, you have to confirm the number of “4-0A”, first.

[5-11]	Leading Edge (Roll 1 / Tracing / Medium)

This adjustment changes the lead edge registration for medium sizes of Roll 1 / tracing paper (A1, 22”, and 24” in width).

- The adjustment is the same as for [5-00].

[5-12]	Leading Edge (Roll 1 / Tracing / Small)

This adjustment changes the lead edge registration for medium sizes of Roll 1 / tracing paper (A2, 17”, and 18” in width).

- The adjustment is the same as for [5-00].

[5-13]	Leading Edge (Roll 1 / Tracing / Smallest)

This adjustment changes the lead edge registration for medium sizes of Roll 1 / tracing paper (A3, 11”, and 12” in width).

- The adjustment is the same as for [5-00].

[5-14]	Leading Edge (Roll 1 / Film / Large)

This adjustment changes the lead edge registration for large sizes of Roll 1 / Film (A0, 30", 34", and 36" in width).

- The adjustment is the same as for [5-00].

NOTE: Since there are two different selections in this setting, you have to confirm the number of "4-0b", first.

[5-15]	Leading Edge (Roll 1 / Film / Medium)

This adjustment changes the lead edge registration for medium sizes of Roll 1 / Film (A1, 22", and 24" in width).

- The adjustment is the same as for [5-00].

[5-16]	Leading Edge (Roll 1 / Film / Small)

This adjustment changes the lead edge registration for medium sizes of Roll 1 / Film (A2, 17", and 18" in width).

- The adjustment is the same as for [5-00].

[5-17]	Leading Edge (Roll 1 / Film / Smallest)

This adjustment changes the lead edge registration for medium sizes of Roll 1 / Film (A3, 11", and 12" in width).

- The adjustment is the same as for [5-00].

[5-18]	Leading Edge (Roll 2 / PPC / Large)

This adjustment changes the lead edge registration for large sizes of Roll 2 / plain paper (A0, 30", 34", and 36" in width).

- The adjustment is the same as for [5-00].

NOTE: Since there are two different selections in this setting, you have to confirm the number of "4-09", first.

[5-19]	Leading Edge (Roll 2 / PPC / Medium)

This adjustment changes the lead edge registration for medium sizes of Roll 2 / plain paper (A1, 22", and 24" in width).

- The adjustment is the same as for [5-00].

[5-1A]	Leading Edge (Roll 2 / PPC / Small)

This adjustment changes the lead edge registration for medium sizes of Roll 2 / plain paper (A2, 17", and 18" in width).

- The adjustment is the same as for [5-00].

[5-1b]	Leading Edge (Roll 2 / PPC / Smallest)

This adjustment changes the lead edge registration for medium sizes of Roll 2 / plain paper (A3, 11", and 12" in width).

- The adjustment is the same as for [5-00].

[5-1C]	Leading Edge (Roll 2 / Tracing / Large)

This adjustment changes the lead edge registration for large sizes of Roll 2 / tracing paper (A0, 30", 34", and 36" in width).

- The adjustment is the same as for [5-00].

NOTE: Since there are two different selections in this setting, you have to confirm the number of "4-0A", first.

[5-1d]	Leading Edge (Roll 2 / Tracing / Medium)

This adjustment changes the lead edge registration for medium sizes of Roll 2 / tracing paper (A1, 22", and 24" in width).

- The adjustment is the same as for [5-00].

[5-1E]	Leading Edge (Roll 2 / Tracing / Small)

This adjustment changes the lead edge registration for medium sizes of Roll 2 / tracing paper (A2, 17", and 18" in width).

- The adjustment is the same as for [5-00].

[5-1F]	Leading Edge (Roll 2 / Tracing / Smallest)

This adjustment changes the lead edge registration for medium sizes of Roll 2 / tracing paper (A3, 11", and 12" in width).

- The adjustment is the same as for [5-00].

[5-20]	Leading Edge (Roll 2 / Film / Large)

This adjustment changes the lead edge registration for large sizes of Roll 2 / Film (A0, 30", 34", and 36" in width).

- The adjustment is the same as for [5-00].

NOTE: Since there are two different selections in this setting, you have to confirm the number of "4-0b", first.

[5-21]	Leading Edge (Roll 2 / Film / Medium)

This adjustment changes the lead edge registration for medium sizes of Roll 2 / Film (A1, 22", and 24" in width).

- The adjustment is the same as for [5-00].

[5-22]	Leading Edge (Roll 2 / Film / Small)

This adjustment changes the lead edge registration for medium sizes of Roll 2 / Film (A2, 17", and 18" in width).

- The adjustment is the same as for [5-00].

[5-23]	Leading Edge (Roll 2 / Film / Smallest)

This adjustment changes the lead edge registration for medium sizes of Roll 2 / Film (A3, 11", and 12" in width).

- The adjustment is the same as for [5-00].

[5-24]	Leading Edge (Roll 3 / PPC / Large)

This adjustment changes the lead edge registration for large sizes of Roll 3 / plain paper (A0, 30", 34", and 36" in width).

- The adjustment is the same as for [5-00].

NOTE: Since there are two different selections in this setting, you have to confirm the number of "4-09", first.

[5-25]	Leading Edge (Roll 3 / PPC / Medium)

This adjustment changes the lead edge registration for medium sizes of Roll 3 / plain paper (A1, 22", and 24" in width).

- The adjustment is the same as for [5-00].

[5-26]	Leading Edge (Roll 3 / PPC / Small)

This adjustment changes the lead edge registration for medium sizes of Roll 3 / plain paper (A2, 17", and 18" in width).

- The adjustment is the same as for [5-00].

[5-27]	Leading Edge (Roll 3 / PPC / Smallest)

This adjustment changes the lead edge registration for medium sizes of Roll 3 / plain paper (A3, 11", and 12" in width).

- The adjustment is the same as for [5-00].

[5-28]	Leading Edge (Roll 3 / Tracing / Large)

This adjustment changes the lead edge registration for large sizes of Roll 3 / tracing paper (A0, 30", 34", and 36" in width).

- The adjustment is the same as for [5-00].

NOTE: Since there are two different selections in this setting, you have to confirm the number of "4-0A", first.

[5-29]	Leading Edge (Roll 3 / Tracing / Medium)

This adjustment changes the lead edge registration for medium sizes of Roll 3 / tracing paper (A1, 22", and 24" in width).

- The adjustment is the same as for [5-00].

[5-2A]	Leading Edge (Roll 3 / Tracing / Small)

This adjustment changes the lead edge registration for medium sizes of Roll 3 / tracing paper (A2, 17", and 18" in width).

- The adjustment is the same as for [5-00].

[5-2b]	Leading Edge (Roll 3 / Tracing / Smallest)

This adjustment changes the lead edge registration for medium sizes of Roll 3 / tracing paper (A3, 11", and 12" in width).

- The adjustment is the same as for [5-00].

[5-2C]	Leading Edge (Roll 3 / Film / Large)

This adjustment changes the lead edge registration for large sizes of Roll 3 / Film (A0, 30", 34", and 36" in width).

- The adjustment is the same as for [5-00].

NOTE: Since there are two different selections in this setting, you have to confirm the number of "4-0b", first.

[5-2d]	Leading Edge (Roll 3 / Film / Medium)

This adjustment changes the lead edge registration for medium sizes of Roll 3 / Film (A1, 22", and 24" in width).

- The adjustment is the same as for [5-00].

[5-2E]	Leading Edge (Roll 3 / Film / Small)

This adjustment changes the lead edge registration for medium sizes of Roll 3 / Film (A2, 17", and 18" in width).

- The adjustment is the same as for [5-00].

[5-2F]	Leading Edge (Roll 3 / Film / Smallest)

This adjustment changes the lead edge registration for medium sizes of Roll 3 / Film (A3, 11", and 12" in width).

- The adjustment is the same as for [5-00].

[5-30]	Leading Edge (Roll 4 / PPC / Large)

This adjustment changes the lead edge registration for large sizes of Roll 4 / plain paper (A0, 30", 34", and 36" in width).

- The adjustment is the same as for [5-00].

NOTE: Since there are two different selections in this setting, you have to confirm the number of "4-09", first.

[5-31]	Leading Edge (Roll 4 / PPC / Medium)

This adjustment changes the lead edge registration for medium sizes of Roll 4 / plain paper (A1, 22", and 24" in width).

- The adjustment is the same as for [5-00].

[5-32]	Leading Edge (Roll 4 / PPC / Small)

This adjustment changes the lead edge registration for medium sizes of Roll 4 / plain paper (A2, 17", and 18" in width).

- The adjustment is the same as for [5-00].

[5-33]	Leading Edge (Roll 4 / PPC / Smallest)

This adjustment changes the lead edge registration for medium sizes of Roll 4 / plain paper (A3, 11", and 12" in width).

- The adjustment is the same as for [5-00].

[5-34]	Leading Edge (Roll 4 / Tracing / Large)

This adjustment changes the lead edge registration for large sizes of Roll 4 / tracing paper (A0, 30", 34", and 36" in width).

- The adjustment is the same as for [5-00].

NOTE: Since there are two different selections in this setting, you have to confirm the number of "4-0A", first.

[5-35]	Leading Edge (Roll 4 / Tracing / Medium)

This adjustment changes the lead edge registration for medium sizes of Roll 4 / tracing paper (A1, 22", and 24" in width).

- The adjustment is the same as for [5-00].

[5-36]	Leading Edge (Roll 4 / Tracing / Small)

This adjustment changes the lead edge registration for medium sizes of Roll 4 / tracing paper (A2, 17", and 18" in width).

- The adjustment is the same as for [5-00].

[5-37]	Leading Edge (Roll 4 / Tracing / Smallest)

This adjustment changes the lead edge registration for medium sizes of Roll 4 / tracing paper (A3, 11", and 12" in width).

- The adjustment is the same as for [5-00].

[5-38]	Leading Edge (Roll 4 / Film / Large)

This adjustment changes the lead edge registration for large sizes of Roll 4 / Film (A0, 30", 34", and 36" in width).

- The adjustment is the same as for [5-00].

NOTE: Since there are two different selections in this setting, you have to confirm the number of "4-0b", first.

[5-39]	Leading Edge (Roll 4 / Film / Medium)

This adjustment changes the lead edge registration for medium sizes of Roll 4 / Film (A1, 22", and 24" in width).

- The adjustment is the same as for [5-00].

[5-3A]	Leading Edge (Roll 4 / Film / Small)

This adjustment changes the lead edge registration for medium sizes of Roll 4 / Film (A2, 17", and 18" in width).

- The adjustment is the same as for [5-00].

[5-3b]	Leading Edge (Roll 4 / Film / Smallest)

This adjustment changes the lead edge registration for medium sizes of Roll 4 / Film (A3, 11", and 12" in width).

- The adjustment is the same as for [5-00].

[5-3C]	Trailing Edge (Roll 1 / PPC / Large)

This adjustment changes the trail edge margin for large sizes of Roll 1 / plain paper (A0, 30", 34", and 36" in width).

- The adjustment range is 0 to 20mm. The trail edge margin changes 0.1mm for every increment.
- Press [-->] key to increase the value (trail edge margin increases).
- Press [<--] key to decrease the value.
- Press [Enter] key to fix this value.

NOTE: Since there are two different selections in this setting, you have to confirm the number of "4-09", first.

[5-3d]	Trail Edge (Roll 1 / PPC / Medium)

This adjustment changes the trail edge margin for medium sizes of Roll 1 / plain paper (A1, 22", and 24" in width).

- The adjustment is the same as for [5-3C].

[5-3E]	Trail Edge (Roll 1 / PPC / Small)

This adjustment changes the trail edge margin for medium sizes of Roll 1 / plain paper (A2, 17", and 18" in width).

- The adjustment is the same as for [5-3C].

[5-3F]	Trail Edge (Roll 1 / PPC / Smallest)

This adjustment changes the trail edge margin for medium sizes of Roll 1 / plain paper (A3, 11", and 12" in width).

- The adjustment is the same as for [5-3C].

[5-40]	Trail Edge (Roll 1 / Tracing / Large)

This adjustment changes the trail edge margin for large sizes of Roll 1 / tracing paper (A0, 30", 34", and 36" in width).

- The adjustment is the same as for [5-3C].

NOTE: Since there are two different selections in this setting, you have to confirm the number of "4-0A", first.

[5-41]	Trail Edge (Roll 1 / Tracing / Medium)

This adjustment changes the trail edge margin for medium sizes of Roll 1 / tracing paper (A1, 22", and 24" in width).

- The adjustment is the same as for [5-3C].

[5-42]	Trail Edge (Roll 1 / Tracing / Small)

This adjustment changes the trail edge margin for medium sizes of Roll 1 / tracing paper (A2, 17", and 18" in width).

- The adjustment is the same as for [5-3C].

[5-43]	Trail Edge (Roll 1 / Tracing / Smallest)

This adjustment changes the trail edge margin for medium sizes of Roll 1 / tracing paper (A3, 11", and 12" in width).

- The adjustment is the same as for [5-3C].

[5-44]	Trail Edge (Roll 1 / Film / Large)

This adjustment changes the trail edge margin for large sizes of Roll 1 / Film (A0, 30", 34", and 36" in width).

- The adjustment is the same as for [5-3C].

NOTE: Since there are two different selections in this setting, you have to confirm the number of "4-0b", first.

[5-45]	Trail Edge (Roll 1 / Film / Medium)

This adjustment changes the trail edge margin for medium sizes of Roll 1 / Film (A1, 22", and 24" in width).

- The adjustment is the same as for [5-3C].

[5-46]	Trail Edge (Roll 1 / Film / Small)

This adjustment changes the trail edge margin for medium sizes of Roll 1 / Film (A2, 17", and 18" in width).

- The adjustment is the same as for [5-3C].

[5-47]	Trail Edge (Roll 1 / Film / Smallest)

This adjustment changes the trail edge margin for medium sizes of Roll 1 / Film (A3, 11", and 12" in width).

- The adjustment is the same as for [5-3C].

[5-48]	Trail Edge (Roll 2 / PPC / Large)

This adjustment changes the trail edge margin for large sizes of Roll 2 / plain paper (A0, 30", 34", and 36" in width).

- The adjustment is the same as for [5-3C].

NOTE: Since there are two different selections in this setting, you have to confirm the number of "4-09", first.

[5-49]	Trail Edge (Roll 2 / PPC / Medium)

This adjustment changes the trail edge margin for medium sizes of Roll 2 / plain paper (A1, 22", and 24" in width).

- The adjustment is the same as for [5-3C].

[5-4A]	Trail Edge (Roll 2 / PPC / Small)

This adjustment changes the trail edge margin for medium sizes of Roll 2 / plain paper (A2, 17", and 18" in width).

- The adjustment is the same as for [5-3C].

[5-4b]	Trail Edge (Roll 2 / PPC / Smallest)

This adjustment changes the trail edge margin for medium sizes of Roll 2 / plain paper (A3, 11", and 12" in width).

- The adjustment is the same as for [5-3C].

[5-4C]	Trail Edge (Roll 2 / Tracing / Large)

This adjustment changes the trail edge margin for large sizes of Roll 2 / tracing paper (A0, 30", 34", and 36" in width).

- The adjustment is the same as for [5-3C].

NOTE: Since there are two different selections in this setting, you have to confirm the number of "4-0A", first.

[5-4d]	Trail Edge (Roll 2 / Tracing / Medium)

This adjustment changes the trail edge margin for medium sizes of Roll 2 / tracing paper (A1, 22", and 24" in width).

- The adjustment is the same as for [5-3C].

[5-4E]	Trail Edge (Roll 2 / Tracing / Small)

This adjustment changes the trail edge margin for medium sizes of Roll 2 / tracing paper (A2, 17", and 18" in width).

- The adjustment is the same as for [5-3C].

[5-4F]	Trail Edge (Roll 2 / Tracing / Smallest)

This adjustment changes the trail edge margin for medium sizes of Roll 2 / tracing paper (A3, 11", and 12" in width).

- The adjustment is the same as for [5-3C].

[5-50]	Trail Edge (Roll 2 / Film / Large)

This adjustment changes the trail edge margin for large sizes of Roll 2 / Film (A0, 30", 34", and 36" in width).

- The adjustment is the same as for [5-3C].

NOTE: Since there are two different selections in this setting, you have to confirm the number of "4-0b", first.

[5-51]	Trail Edge (Roll 2 / Film / Medium)

This adjustment changes the trail edge margin for medium sizes of Roll 2 / Film (A1, 22", and 24" in width).

- The adjustment is the same as for [5-3C].

[5-52]	Trail Edge (Roll 2 / Film / Small)

This adjustment changes the trail edge margin for medium sizes of Roll 2 / Film (A2, 17", and 18" in width).

- The adjustment is the same as for [5-3C].

[5-53]	Trail Edge (Roll 2 / Film / Smallest)

This adjustment changes the trail edge margin for medium sizes of Roll 2 / Film (A3, 11", and 12" in width).

- The adjustment is the same as for [5-3C].

[5-54]	Trail Edge (Roll 3 / PPC / Large)

This adjustment changes the trail edge margin for large sizes of Roll 3 / plain paper (A0, 30", 34", and 36" in width).

- The adjustment is the same as for [5-3C].

NOTE: Since there are two different selections in this setting, you have to confirm the number of "4-09", first.

[5-55]	Trail Edge (Roll 3 / PPC / Medium)

This adjustment changes the trail edge margin for medium sizes of Roll 3 / plain paper (A1, 22", and 24" in width).

- The adjustment is the same as for [5-3C].

[5-56]	Trail Edge (Roll 3 / PPC / Small)

This adjustment changes the trail edge margin for medium sizes of Roll 3 / plain paper (A2, 17", and 18" in width).

- The adjustment is the same as for [5-3C].

[5-57]	Trail Edge (Roll 3 / PPC / Smallest)

This adjustment changes the trail edge margin for medium sizes of Roll 3 / plain paper (A3, 11", and 12" in width).

- The adjustment is the same as for [5-3C].

[5-58]	Trail Edge (Roll 3 / Tracing / Large)

This adjustment changes the trail edge margin for large sizes of Roll 3 / tracing paper (A0, 30", 34", and 36" in width).

- The adjustment is the same as for [5-3C].

NOTE: Since there are two different selections in this setting, you have to confirm the number of "4-0A", first.

[5-59]	Trail Edge (Roll 3 / Tracing / Medium)

This adjustment changes the trail edge margin for medium sizes of Roll 3 / tracing paper (A1, 22", and 24" in width).

- The adjustment is the same as for [5-3C].

[5-5A]	Trail Edge (Roll 3 / Tracing / Small)

This adjustment changes the trail edge margin for medium sizes of Roll 3 / tracing paper (A2, 17", and 18" in width).

- The adjustment is the same as for [5-3C].

[5-5b]	Trail Edge (Roll 3 / Tracing / Smallest)

This adjustment changes the trail edge margin for medium sizes of Roll 3 / tracing paper (A3, 11", and 12" in width).

- The adjustment is the same as for [5-3C].

[5-5C]	Trail Edge (Roll 3 / Film / Large)

This adjustment changes the trail edge margin for large sizes of Roll 3 / Film (A0, 30", 34", and 36" in width).

- The adjustment is the same as for [5-3C].

NOTE: Since there are two different selections in this setting, you have to confirm the number of "4-0b", first.

[5-5d]	Trail Edge (Roll 3 / Film / Medium)

This adjustment changes the trail edge margin for medium sizes of Roll 3 / Film (A1, 22", and 24" in width).

- The adjustment is the same as for [5-3C].

[5-5E]	Trail Edge (Roll 3 / Film / Small)

This adjustment changes the trail edge margin for medium sizes of Roll 3 / Film (A2, 17", and 18" in width).

- The adjustment is the same as for [5-3C].

[5-5F]	Trail Edge (Roll 3 / Film / Smallest)

This adjustment changes the trail edge margin for medium sizes of Roll 3 / Film (A3, 11", and 12" in width).

- The adjustment is the same as for [5-3C].

[5-60]	Trail Edge (Roll 4 / PPC / Large)

This adjustment changes the trail edge margin for large sizes of Roll 4 / plain paper (A0, 30", 34", and 36" in width).

- The adjustment is the same as for [5-3C].

NOTE: Since there are two different selections in this setting, you have to confirm the number of "4-09", first.

[5-61]	Trail Edge (Roll 4 / PPC / Medium)

This adjustment changes the trail edge margin for medium sizes of Roll 4 / plain paper (A1, 22", and 24" in width).

- The adjustment is the same as for [5-3C].

[5-62]	Trail Edge (Roll 4 / PPC / Small)

This adjustment changes the trail edge margin for medium sizes of Roll 4 / plain paper (A2, 17", and 18" in width).

- The adjustment is the same as for [5-3C].

[5-63]	Trail Edge (Roll 4 / PPC / Smallest)

This adjustment changes the trail edge margin for medium sizes of Roll 4 / plain paper (A3, 11", and 12" in width).

- The adjustment is the same as for [5-3C].

[5-64]	Trail Edge (Roll 4 / Tracing / Large)

This adjustment changes the trail edge margin for large sizes of Roll 4 / tracing paper (A0, 30", 34", and 36" in width).

- The adjustment is the same as for [5-3C].

NOTE: Since there are two different selections in this setting, you have to confirm the number of "4-0A", first.

[5-65]	Trail Edge (Roll 4 / Tracing / Medium)

This adjustment changes the trail edge margin for medium sizes of Roll 4 / tracing paper (A1, 22", and 24" in width).

- The adjustment is the same as for [5-3C].

[5-66]	Trail Edge (Roll 4 / Tracing / Small)

This adjustment changes the trail edge margin for medium sizes of Roll 4 / tracing paper (A2, 17", and 18" in width).

- The adjustment is the same as for [5-3C].

[5-67]	Trail Edge (Roll 4 / Tracing / Smallest)

This adjustment changes the trail edge margin for medium sizes of Roll 4 / tracing paper (A3, 11", and 12" in width).

- The adjustment is the same as for [5-3C].

[5-68]	Trail Edge (Roll 4 / Film / Large)

This adjustment changes the trail edge margin for large sizes of Roll 4 / Film (A0, 30", 34", and 36" in width).

- The adjustment is the same as for [5-3C].

NOTE: Since there are two different selections in this setting, you have to confirm the number of "4-0b", first.

[5-69]	Trail Edge (Roll 4 / Film / Medium)

This adjustment changes the trail edge margin for medium sizes of Roll 4 / Film (A1, 22", and 24" in width).

- The adjustment is the same as for [5-3C].

[5-6A]	Trail Edge (Roll 4 / Film / Small)

This adjustment changes the trail edge margin for medium sizes of Roll 4 / Film (A2, 17", and 18" in width).

- The adjustment is the same as for [5-3C].

[5-6b]	Trail Edge (Roll 4 / Film / Smallest)

This adjustment changes the trail edge margin for medium sizes of Roll 4 / Film (A3, 11", and 12" in width).

- The adjustment is the same as for [5-3C].

[5-6C]	Image Length (Roll 1 / PPC / Large)

This adjustment changes the image length for large sizes of Roll 1 / plain paper (A0, 30", 34", and 36" in width).

- The adjustment range is –1.00 to +1.00%. Image length changes 0.01% for every increment.
- Press [-->] key to increase the value (image length gets longer).
- Press [<--] key to decrease the value.
- Press [Enter] key to fix this value.

NOTE: Since there are two different selections in this setting, you have to confirm the number of "4-09", first.

[5-6d]	Image Length (Roll 1 / PPC / Medium)

This adjustment changes the image length for medium sizes of Roll 1 / plain paper (A1, 22", and 24" in width).

- The adjustment is the same as for [5-6C].

[5-6E]	Image Length (Roll 1 / PPC / Small)

This adjustment changes the image length for medium sizes of Roll 1 / plain paper (A2, 17", and 18" in width).

- The adjustment is the same as for [5-6C].

[5-6F]	Image Length (Roll 1 / PPC / Smallest)

This adjustment changes the image length for medium sizes of Roll 1 / plain paper (A3, 11", and 12" in width).

- The adjustment is the same as for [5-6C].

[5-70]	Image Length (Roll 1 / Tracing / Large)

This adjustment changes the image length for large sizes of Roll 1 / tracing paper (A0, 30", 34", and 36" in width).

- The adjustment is the same as for [5-6C].

NOTE: Since there are two different selections in this setting, you have to confirm the number of "4-0A", first.

[5-71]	Image Length (Roll 1 / Tracing / Medium)

This adjustment changes the image length for medium sizes of Roll 1 / tracing paper (A1, 22", and 24" in width).

- The adjustment is the same as for [5-6C].

[5-72]	Image Length (Roll 1 / Tracing / Small)

This adjustment changes the image length for medium sizes of Roll 1 / tracing paper (A2, 17", and 18" in width).

- The adjustment is the same as for [5-6C].

[5-73]	Image Length (Roll 1 / Tracing / Smallest)

This adjustment changes the image length for medium sizes of Roll 1 / tracing paper (A3, 11", and 12" in width).

- The adjustment is the same as for [5-6C].

[5-74]	Image Length (Roll 1 / Film / Large)

This adjustment changes the image length for large sizes of Roll 1 / Film (A0, 30”, 34”, and 36” in width).

- The adjustment is the same as for [5-6C].

NOTE: Since there are two different selections in this setting, you have to confirm the number of “4-0b”, first.

[5-75]	Image Length (Roll 1 / Film / Medium)

This adjustment changes the image length for medium sizes of Roll 1 / Film (A1, 22”, and 24” in width).

- The adjustment is the same as for [5-6C].

[5-76]	Image Length (Roll 1 / Film / Small)

This adjustment changes the image length for medium sizes of Roll 1 / Film (A2, 17”, and 18” in width).

- The adjustment is the same as for [5-6C].

[5-77]	Image Length (Roll 1 / Film / Smallest)

This adjustment changes the image length for medium sizes of Roll 1 / Film (A3, 11”, and 12” in width).

- The adjustment is the same as for [5-6C].

[5-78]	Image Length (Roll 2 / PPC / Large)

This adjustment changes the image length for large sizes of Roll 2 / plain paper (A0, 30”, 34”, and 36” in width).

- The adjustment is the same as for [5-6C].

NOTE: Since there are two different selections in this setting, you have to confirm the number of “4-09”, first.

[5-79]	Image Length (Roll 2 / PPC / Medium)

This adjustment changes the image length for medium sizes of Roll 2 / plain paper (A1, 22”, and 24” in width).

- The adjustment is the same as for [5-6C].

[5-7A]	Image Length (Roll 2 / PPC / Small)

This adjustment changes the image length for medium sizes of Roll 2 / plain paper (A2, 17”, and 18” in width).

- The adjustment is the same as for [5-6C].

[5-7b]	Image Length (Roll 2 / PPC / Smallest)

This adjustment changes the image length for medium sizes of Roll 2 / plain paper (A3, 11”, and 12” in width).

- The adjustment is the same as for [5-6C].

[5-7C]	Image Length (Roll 2 / Tracing / Large)

This adjustment changes the image length for large sizes of Roll 2 / tracing paper (A0, 30”, 34”, and 36” in width).

- The adjustment is the same as for [5-6C].

NOTE: Since there are two different selections in this setting, you have to confirm the number of “4-0A”, first.

[5-7d]	Image Length (Roll 2 / Tracing / Medium)

This adjustment changes the image length for medium sizes of Roll 2 / tracing paper (A1, 22”, and 24” in width).

- The adjustment is the same as for [5-6C].

[5-7E]	Image Length (Roll 2 / Tracing / Small)

This adjustment changes the image length for medium sizes of Roll 2 / tracing paper (A2, 17”, and 18” in width).

- The adjustment is the same as for [5-6C].

[5-7F]	Image Length (Roll 2 / Tracing / Smallest)

This adjustment changes the image length for medium sizes of Roll 2 / tracing paper (A3, 11”, and 12” in width).

- The adjustment is the same as for [5-6C].

[5-80]	Image Length (Roll 2 / Film / Large)

This adjustment changes the image length for large sizes of Roll 2 / Film (A0, 30”, 34”, and 36” in width).

- The adjustment is the same as for [5-6C].

NOTE: Since there are two different selections in this setting, you have to confirm the number of “4-0b”, first.

[5-81]	Image Length (Roll 2 / Film / Medium)

This adjustment changes the image length for medium sizes of Roll 2 / Film (A1, 22”, and 24” in width).

- The adjustment is the same as for [5-6C].

[5-82]	Image Length (Roll 2 / Film / Small)

This adjustment changes the image length for medium sizes of Roll 2 / Film (A2, 17”, and 18” in width).

- The adjustment is the same as for [5-6C].

[5-83]	Image Length (Roll 2 / Film / Smallest)

This adjustment changes the image length for medium sizes of Roll 2 / Film (A3, 11”, and 12” in width).

- The adjustment is the same as for [5-6C].

[5-84]	Image Length (Roll 3 / PPC / Large)

This adjustment changes the image length for large sizes of Roll 3 / plain paper (A0, 30”, 34”, and 36” in width).

- The adjustment is the same as for [5-6C].

NOTE: Since there are two different selections in this setting, you have to confirm the number of “4-09”, first.

[5-85]	Image Length (Roll 3 / PPC / Medium)

This adjustment changes the image length for medium sizes of Roll 3 / plain paper (A1, 22”, and 24” in width).

- The adjustment is the same as for [5-6C].

[5-86]	Image Length (Roll 3 / PPC / Small)

This adjustment changes the image length for medium sizes of Roll 3 / plain paper (A2, 17”, and 18” in width).

- The adjustment is the same as for [5-6C].

[5-87]	Image Length (Roll 3 / PPC / Smallest)

This adjustment changes the image length for medium sizes of Roll 3 / plain paper (A3, 11”, and 12” in width).

- The adjustment is the same as for [5-6C].

[5-88]	Image Length (Roll 3 / Tracing / Large)

This adjustment changes the image length for large sizes of Roll 3 / tracing paper (A0, 30”, 34”, and 36” in width).

- The adjustment is the same as for [5-6C].

NOTE: Since there are two different selections in this setting, you have to confirm the number of “4-0A”, first.

[5-89]	Image Length (Roll 3 / Tracing / Medium)

This adjustment changes the image length for medium sizes of Roll 3 / tracing paper (A1, 22”, and 24” in width).

- The adjustment is the same as for [5-6C].

[5-8A]	Image Length (Roll 3 / Tracing / Small)

This adjustment changes the image length for medium sizes of Roll 3 / tracing paper (A2, 17”, and 18” in width).

- The adjustment is the same as for [5-6C].

[5-8b]	Image Length (Roll 3 / Tracing / Smallest)

This adjustment changes the image length for medium sizes of Roll 3 / tracing paper (A3, 11”, and 12” in width).

- The adjustment is the same as for [5-6C].

[5-8C]	Image Length (Roll 3 / Film / Large)

This adjustment changes the image length for large sizes of Roll 3 / Film (A0, 30", 34", and 36" in width).

- The adjustment is the same as for [5-6C].

NOTE: Since there are two different selections in this setting, you have to confirm the number of "4-0b", first.

[5-8d]	Image Length (Roll 3 / Film / Medium)

This adjustment changes the image length for medium sizes of Roll 3 / Film (A1, 22", and 24" in width).

- The adjustment is the same as for [5-6C].

[5-8E]	Image Length (Roll 3 / Film / Small)

This adjustment changes the image length for medium sizes of Roll 3 / Film (A2, 17", and 18" in width).

- The adjustment is the same as for [5-6C].

[5-8F]	Image Length (Roll 3 / Film / Smallest)

This adjustment changes the image length for medium sizes of Roll 3 / Film (A3, 11", and 12" in width).

- The adjustment is the same as for [5-6C].

[5-90]	Image Length (Roll 4 / PPC / Large)

This adjustment changes the image length for large sizes of Roll 4 / plain paper (A0, 30", 34", and 36" in width).

- The adjustment is the same as for [5-6C].

NOTE: Since there are two different selections in this setting, you have to confirm the number of "4-09", first.

[5-91]	Image Length (Roll 4 / PPC / Medium)

This adjustment changes the image length for medium sizes of Roll 4 / plain paper (A1, 22", and 24" in width).

- The adjustment is the same as for [5-6C].

[5-92]	Image Length (Roll 4 / PPC / Small)

This adjustment changes the image length for medium sizes of Roll 4 / plain paper (A2, 17", and 18" in width).

- The adjustment is the same as for [5-6C].

[5-93]	Image Length (Roll 4 / PPC / Smallest)

This adjustment changes the image length for medium sizes of Roll 4 / plain paper (A3, 11", and 12" in width).

- The adjustment is the same as for [5-6C].

[5-94]	Image Length (Roll 4 / Tracing / Large)

This adjustment changes the image length for large sizes of Roll 4 / tracing paper (A0, 30", 34", and 36" in width).

- The adjustment is the same as for [5-6C].

NOTE: Since there are two different selections in this setting, you have to confirm the number of "4-0A", first.

[5-95]	Image Length (Roll 4 / Tracing / Medium)

This adjustment changes the image length for medium sizes of Roll 4 / tracing paper (A1, 22", and 24" in width).

- The adjustment is the same as for [5-6C].

[5-96]	Image Length (Roll 4 / Tracing / Small)

This adjustment changes the image length for medium sizes of Roll 4 / tracing paper (A2, 17", and 18" in width).

- The adjustment is the same as for [5-6C].

[5-97]	Image Length (Roll 4 / Tracing / Smallest)

This adjustment changes the image length for medium sizes of Roll 4 / tracing paper (A3, 11", and 12" in width).

- The adjustment is the same as for [5-6C].

[5-98]	Image Length (Roll 4 / Film / Large)

This adjustment changes the image length for large sizes of Roll 4 / Film (A0, 30", 34", and 36" in width).

- The adjustment is the same as for [5-6C].

NOTE: Since there are two different selections in this setting, you have to confirm the number of "4-0b", first.

[5-99]	Image Length (Roll 4 / Film / Medium)

This adjustment changes the image length for medium sizes of Roll 4 / Film (A1, 22", and 24" in width).

- The adjustment is the same as for [5-6C].

[5-9A]	Image Length (Roll 4 / Film / Small)

This adjustment changes the image length for medium sizes of Roll 4 / Film (A2, 17", and 18" in width).

- The adjustment is the same as for [5-6C].

[5-9b]	Image Length (Roll 4 / Film / Smallest)

This adjustment changes the image length for medium sizes of Roll 4 / Film (A3, 11", and 12" in width).

- The adjustment is the same as for [5-6C].

[5-9C]	Trailing Edge (Manual / Large)

This adjustment changes the trail edge margin for large sizes of Manual (A0, 30", 34", and 36" in width).

- The adjustment range is 0 to 20mm. The trail edge margin changes 0.1mm for every increment.
- Press [-->] key to increase the value (trail edge margin decreases).
- Press [<--] key to decrease the value.
- Press [Enter] key to fix this value.

Program 6. Dead Cycle Mode

Introduction

This program initiates a continuous print cycle without paper. To operate the printer without paper, remove paper from the selected drawer.
When this mode is entered the Indicator Panel will display **6 n o r**
When [Enter] key is pressed, the following indication is displayed alternatively.
6 r u n (Dead Cycle Mode)
6 n o r (Normal Mode)

- The first number indicates the Mode Number (blinking).
- The remaining letters indicate the status of ready condition, and are ready to be placed into the Dead Cycle Mode.

Procedure

1. Select **6 r u n**.
2. Disconnect any accessory.
3. Go to Program 8 "Test Print Mode" to exercise the printer.

Program 7. Jam Bypass Mode

This program enables the bypassing of error codes.
Some fault codes can be bypassed, allowing checks on other parts of the printer.

When this mode is selected, the Bypass Code and its current status are displayed on the Indicator Panel.

- Press [-->] key to step forward through the selections.
- Press [<--] key to step backward through the selections.

Example: **7 0 0. - L**

- The first number (blinking) is the Program number.
- The second two numbers contain the Bypass Code.
- The letter at the end of the display indicates the Bypass Code status.
  - L = Enabled
  - H = Disabled

Press [Enter] key to change status.

The following table contains all the Bypass Codes and their descriptions.

NOTE: Multiple items are possible to mask at the same time.

NOTE: When the power is turned OFF or exiting from the Service Mode, all codes turn "L".

Code	Description
7-00	Fuser Temperature Rising error "E-01"
7-01	Fuser Temperature too high "E-02"
7-02	Fuser Thermostat error "E-21"
7-03	Paper Feed Motor error "E-13"
7-04	Drum Motor error "E-05"
7-05	Fuser Motor error "E-14"
7-06	Developer Pushing Motor error "E-49"
7-07	Cutter Motor error "E-07"
7-08	Counter A error (linear) "E-06"
7-09	Counter B error (square) "E-06"
7-0A	Wire Cleaning error "E-16"
7-0b	LED Head Cleaning error "E-23"
7-0C	Unused
7-0d	Unused
7-0E	Unused
7-0F	Unused
7-10	Unused
7-1F	Unused

Program 8. Test Pattern Mode

This program enables up to 8 different test patterns to be generated by the printer alone for the purpose of analyzing printer parameters. There are eight attributes that can be changed: (Select your desired attribute pressing [-->] key or [<--] key.)

1. Print Quantity
2. Test Pattern Type
3. Media Source (Roll 1, 2, 3, 4, or Bypass Feed)
4. Paper Cut Length
5. Manual Media
6. Continuous / Intermittent selection
7. Reversed Image
8. Mirrored Image

1. Print Quantity
After the selection of Program 8, press [Enter] key to advance to Print Quantity attribute.

Press [-->] key to increase the print quantity.
Press [<--] key to decrease the print quantity.

2. Test Pattern Type
Press [Enter] key to advance to the Test Pattern Type attribute.

Press [-->] key to step through the test pattern type selection. There are 8 test patterns available (Figure 1):

1. This is the default test pattern.
2. Horizontal black and white bands 5 inches (127 mm) high.
3. Three horizontal bands, consisting of black, gray (horizontal lines), and gray (vertical lines), about 7.625 inches (194 mm) high.
4. White copy
5. Square and slant lines, which grow gradually bigger.
6. Half tone
7. Horizontal lines
8. White copy

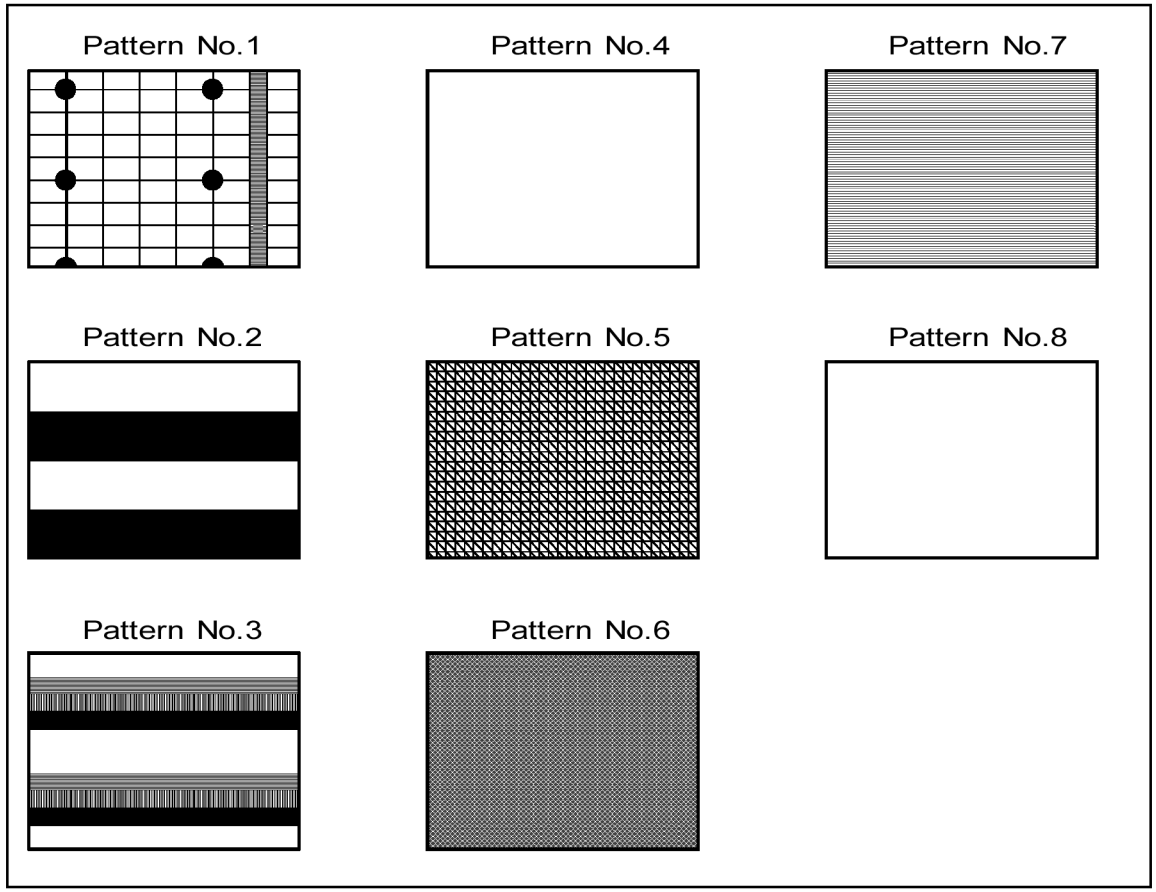


Figure 1

3. Media Source
Press [Enter] key to step to the Media Source attribute.

Press [-->] key to step through the selections:
- 0 = Sheet paper (manual) feed
- 1 = Paper Roll 1
- 2 = Paper Roll 2
- 3 = Paper Roll 3
- 4 = Paper Roll 4

NOTE: In case of Manual, up to 50 sheets of paper are available to stock if paper is A2 (landscape) or smaller.

4. Paper Cut Length
Press [Enter] key to advance to the Paper Cut Length. The display will show the current length setting. Press [-->] key or [<--] key to step through the cut length selections.

Example: **84. 36** indicates that 36 inches is the selected cut length.

NOTE: SC indicates that the paper will be cut when [Enter] key is pressed. If [Enter] key is not pressed, paper will be cut to the length set in Maximum Cut Length [4-02] (6 or 24 metres).

The selections for paper:

ANSI - 48, 44, 36, 34, 30, 24, 22, 18, 17, 12, 11, 8.5

ISO - A0, A1, A2, A3, A4, A5, B1, B2, B3, B4, B5

5. Manual Media
Press [Enter] key to step to the Manual Media attribute.

Press [-->] key to step through the selections:
- 0 Plain Paper
- 1 Tracing Paper
- 2 Film

6. Continuous / Intermittent selection
Press [Enter] key to step to
Continuous / Intermittent attribute.

Press [-->] key to step through the selections:
- 0 Normal Copy
- 1 Intermittent Copy

Press [Enter] to exit **Continuous** mode.

7. Reversed Image
Press [Enter] key to step to Reversed attribute.

Press [-->] key to step through the selections:
- 0 Normal Image
- 1 Reversed Image

8. Mirrored Image
Press [Enter] key to step to Mirrored attribute.

Press [-->] key to step through the selections:
- 0 Normal Image
- 1 Mirrored Image

Running a test print
After all of the attributes are selected, press [Enter] key to return to the attribute 0.

Press [Enter] key to initiate a test print cycle. Then the indication will display as follows.
8 0. P r t

Other indications:

8 0. - - Waiting for the warmed up
8 0. r d y Ready to start
8 0. n o P No Paper in the selected Deck
8 0. E r Error condition
8 0. J A Jam condition
8 0. O P Door Opened

NOTE: If [Enter] key is pressed during a test print cycle of several sheets, the print quantity will be cleared to 1, and printing will stop after that sheet is printed.

NOTE: While test printing is done under the Signal Cut Mode, the paper will be cut if [Enter] key is pressed. If [Enter] key is not pressed, the printer will then default to maximum length.
NOTE: When you exit from the Diagnostics, the last selected roll will be displayed on the operator panel.

Program 9 Factory Adjustment Mode

This program is primarily used during manufacturing for test purposes. The Power Supply adjustment procedures are located in section 4.

NOTE: Wait until machine gets "ready".

Meaning of the last two digits:
9 0. - -
"**. .**" blinking: Not available to operate
"- -" lighting: Ready to operate
"8 8" blinking: Under operation

0. Charge Scorotron Wire Cleaning Mode
Press [Enter] key to perform.
One round trip will be done.

1. Cutter Cleaning Mode
Press [Enter] key to perform.
One rotation will be done while Cutter Oil Supply Solenoid (SL2) is working.

2. LED Head Cleaning Mode
Press [Enter] key to perform.
One round trip will be done.

3. Charge Scorotron Adjustment Mode
Press [Enter] key to perform.
Eraser Lamp turns ON, and the Drum starts. Then Charge Scorotron and the Grid Bias are applied. Drum rotates for 330 degrees.

4. Pre-Transfer Adjustment Mode
Press [Enter] key to perform.
Pre-transfer lamp is applied, and the Drum rotates for 330 degrees.

5. Transfer Corotron Adjustment Mode
Press [Enter] key to perform.
Transfer Corotron is applied, and the Drum rotates for 330 degrees.

6. Detack Corotron Adjustment Mode
Press [Enter] key to perform.
Detack Corotron is applied, and the Drum rotates for 330 degrees.

7. Developer Bias (Positive) Adjustment Mode (Cleaning Cycle)
Press [Enter] key to apply the Developer Bias (Positive).
Press [Enter] key to stop it.

8. Developer Bias (Negative) Adjustment Mode
Press [Enter] key to apply the Developer Bias (Negative).
Press [Enter] key to stop it.

9. Toner Supplying Mode
Press [Enter] key to supply toner into the Developer Unit.
If "Toner Full" is detected, it stops automatically. (approx. 2 min.)

A. Back Up Data Clearing Mode
Keep pressing [Enter], [Menu] and [Online] keys at the same time.
"CL" starts blinking then release all keys.
Press [Enter] key again, then all the back up Data and counter data are cleared, and the Power Switch turns off automatically.

NOTE: Make a note all the back up data before performance.
(They will return back to the default values.)

b. Counter A Setting Mode (Lower 4 digits)
This is a mode to set the back up counter, which shows the same value with the hard counter A.

- Press [Enter] key to set lower 4 digits of the back up counter A.
- Press [-->] key to increase the counter.
- Press [<--] key to decrease the counter.
- Press [Enter] key to fix this data and exit from this mode, or press [Online] key to exit from this mode without fixing this data.

You cannot change mode number or sub mode number during this setting mode.

C. Counter A Setting Mode (Upper 3 digits)
This is a mode to set the back up counter, which shows the same value with the hard counter A.

- The adjustment is the same as for [9-b].

d. Counter B Setting Mode (Lower 4 digits)
This is a mode to set the back up counter, which shows the same value with the hard counter B.

- The adjustment is the same as for [9-b].

E. Counter B Setting Mode (Upper 4 digits)
This is a mode to set the back up counter, which shows the same value with the hard counter B.

- The adjustment is the same as for [9-b].

Notes:

PC DIAGNOSTICS

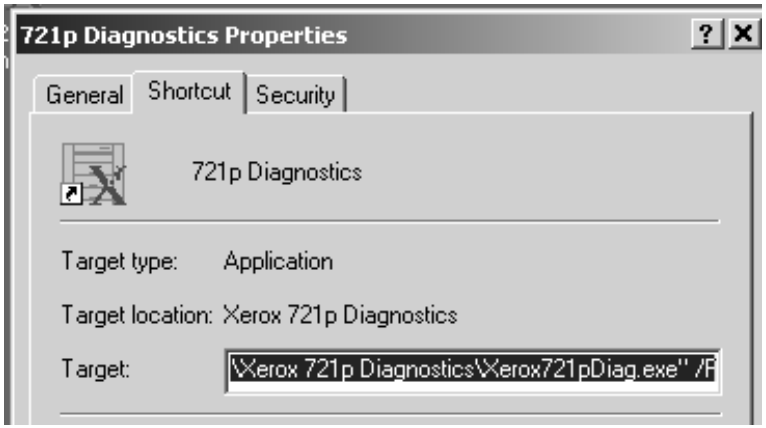
Introduction

The 721P PC Diagnostic program is loaded on the service PC Laptop computer and is used to access the diagnostic programs resident on the printer through the Serial Port. As you will see, using the PC Diagnostics saves time when performing tests and is much easier to use than manipulating the on-board diagnostic through the Control Panel.
For additional details and help as you use PC Diagnostics, refer to the Help menu in the program screens.

PC Diagnostics Installation

***Note**: Using the Documentation CD, follow these steps to load the PC Diagnostics on your laptop computer:*

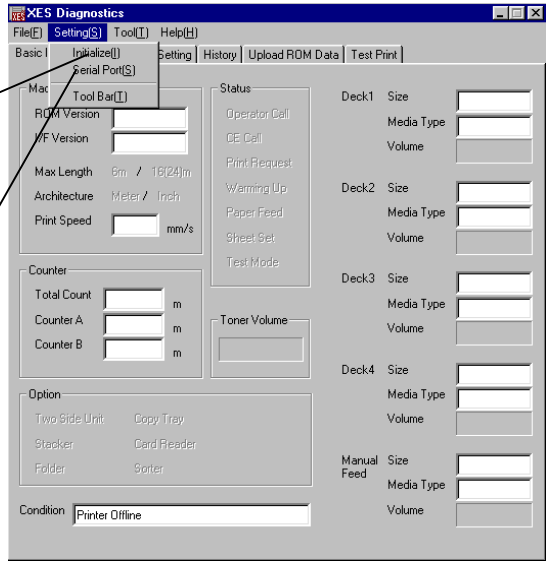
1. Create a folder on your hard drive and name it XES 721P Diagnostics
2. Load the CD into the CD drive and copy the files to the folder you just created.
3. Create a shortcut of the .exe file on your desktop.
   a. Hi-light the .exe file, and press the right mouse key.
   b. Select Create a Shortcut from the pull down menu.
   c. Grab the shortcut and move it onto your desktop.
   d. Select the shortcut for the 721p Diagnostics Software.
   e. Position the mouse pointer over the shortcut and then press and hold the right mouse button.
   f. Select Properties from the right mouse menu.
   g. A properties box will appear for the shortcut.



   h. Move the mouse pointer to the "Target" field and press the left mouse button once.
   i. Using the cursor keys on the keyboard, move to the end of the text (past all visible characters) in the "Target" field.
   j. Enter "/F" (/F without the quotes) at the end of the "Target" field. This will enable the "Factory" tab in the diagnostics software. Ensure the characters /F are outside of any quotes located in the "Target" field text.
   k. Move the mouse pointer to the OK button and press the left mouse button once."
4. Ensure that the printer and PC are both OFF and then attach the Serial Null Modem cable between the serial port on your computer and the serial port on the 721P Printer.
5. Open the PC Diagnostic program by double clicking on the shortcut you created. Enter the password 6789 and press **Enter**.
6. Set up communication with the printer by selecting **Serial Port(S)** from the Settings pull down
7. Establish communication with the printer by selecting **Initialize** from the Settings pull down

Select "**Initialize**" to establish communications with the printer.

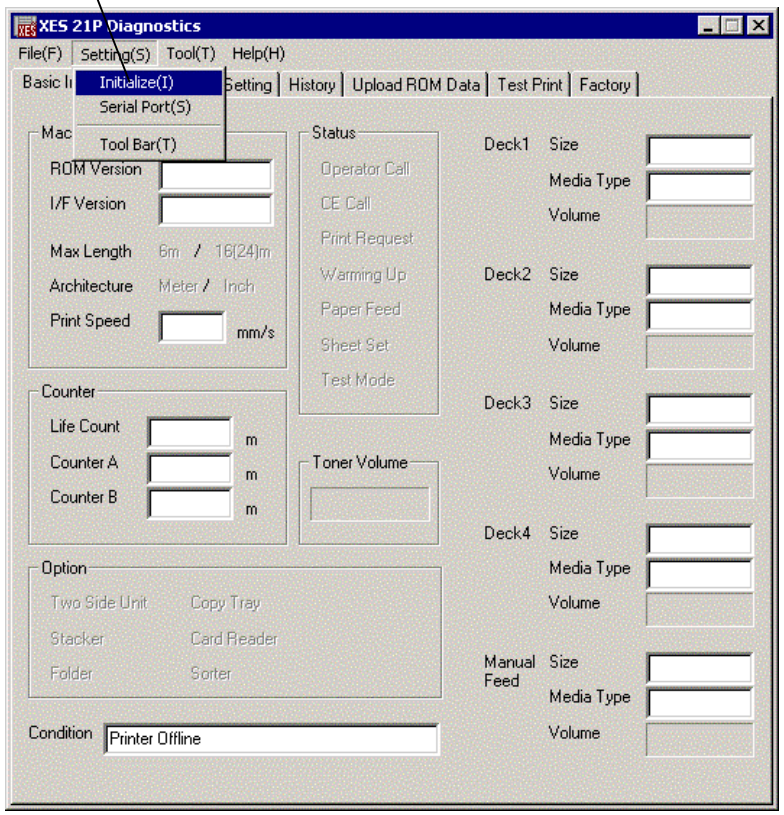
Select "**Serial Port(S)**" to set up communications with the printer.



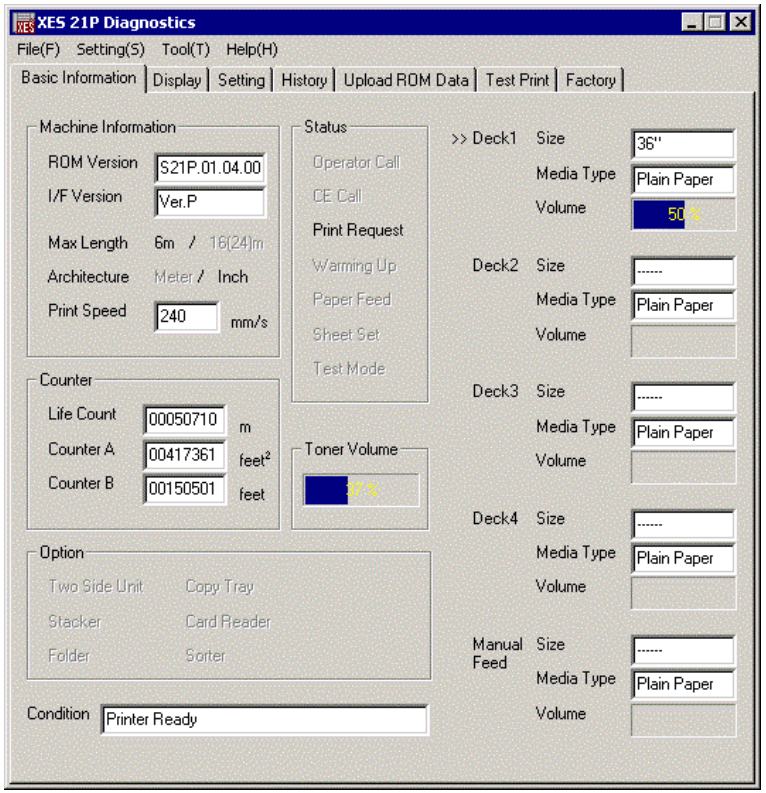
PC Diagnostic Screens

1. Open the PC Diagnostic program by double clicking on the shortcut you created.
2. Establish communication with the printer by selecting Initialize from the Settings pull down

Select "**Initialize**" to establish communications with the printer.

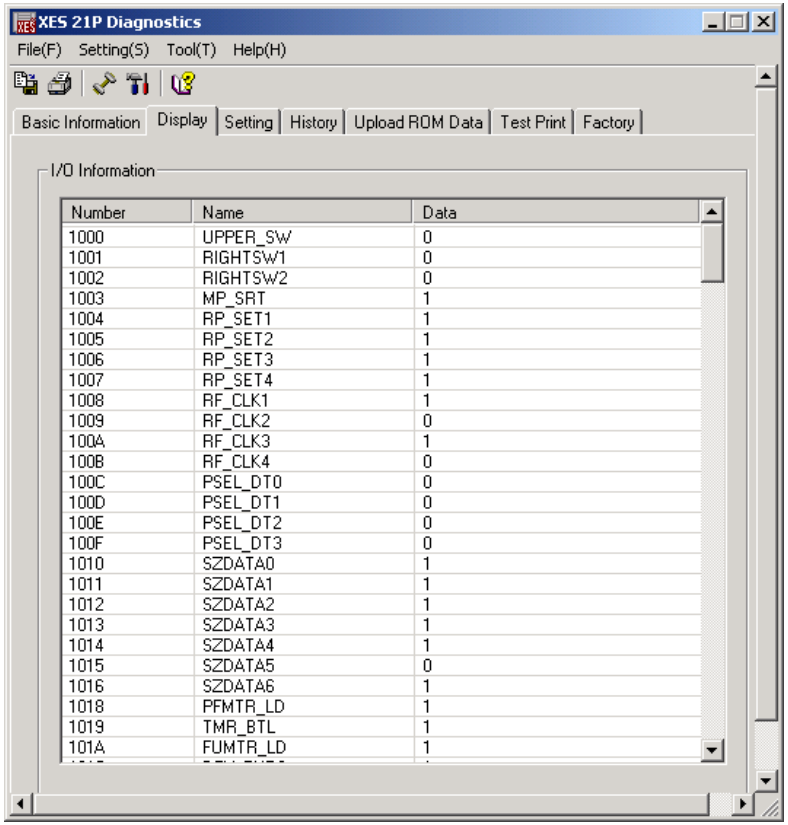


3. The Basic Information Tab displays the printer status.

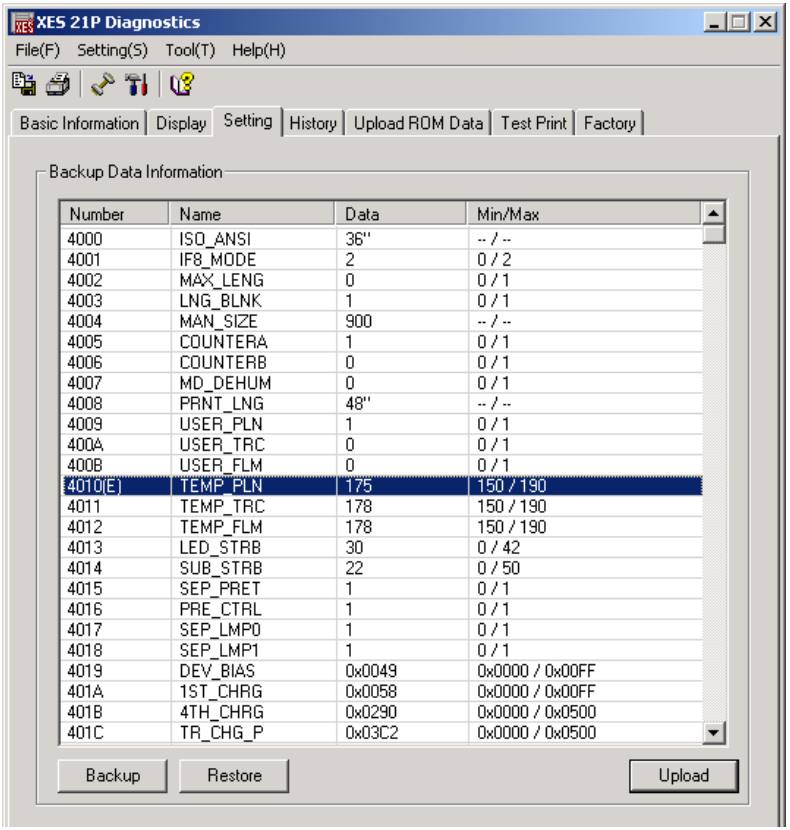


4. This tab displays following information:
   a. Firmware Level
   b. Interface Version
   c. Electronic Counter A and B
   d. Printer Status
   e. Media Status – all drawers and Manual Feed

5. The Display Tab displays the status of the printer input/output components.

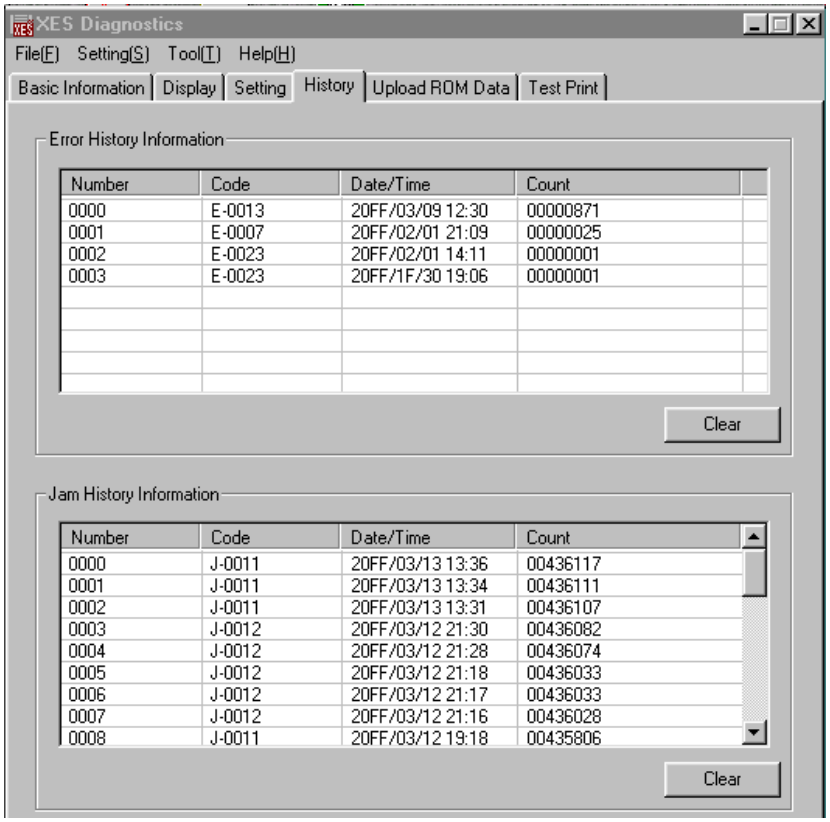


6. The setting tab displays all of the NVM locations in order and the value loaded into the location. You will also use this tab to back up the NVM data to file and then to restore the NVM data from the backup file.

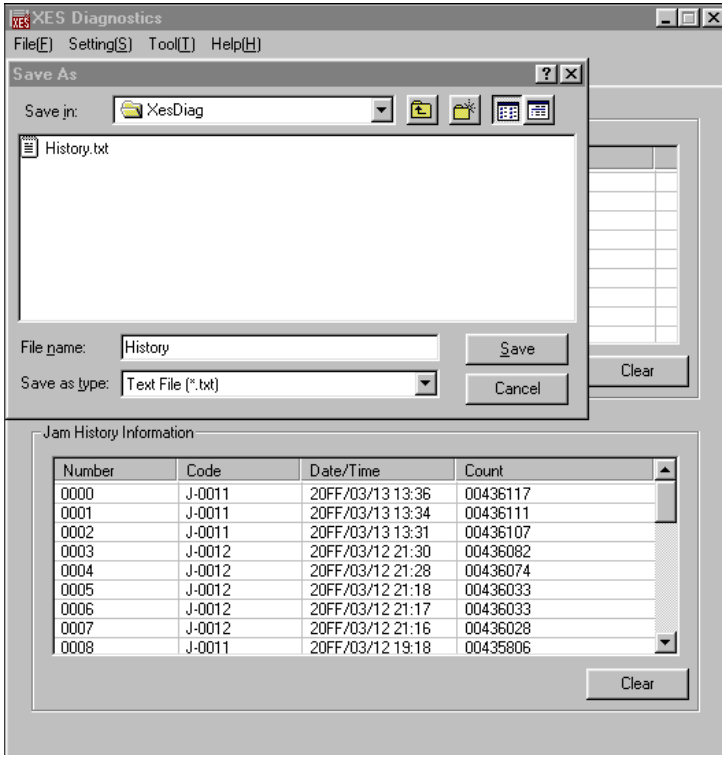


***Note**: To save, restore or change the NVM values, go to the PC Diagnostic NVM Setup Procedure.*

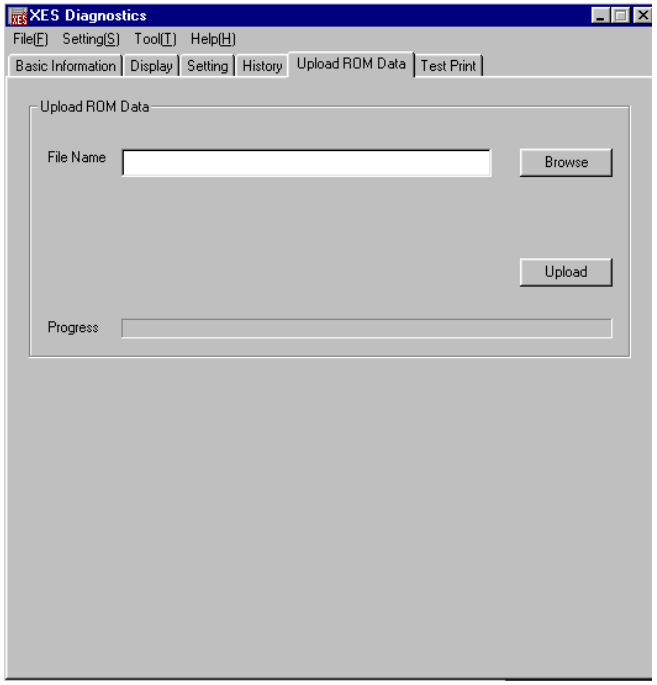
7. The History Tab displays the last 100 Error Codes and Jam Codes. The list is updated with a new Error or Jam code and deletes the oldest data. The History Logs can be cleared as a service call process.



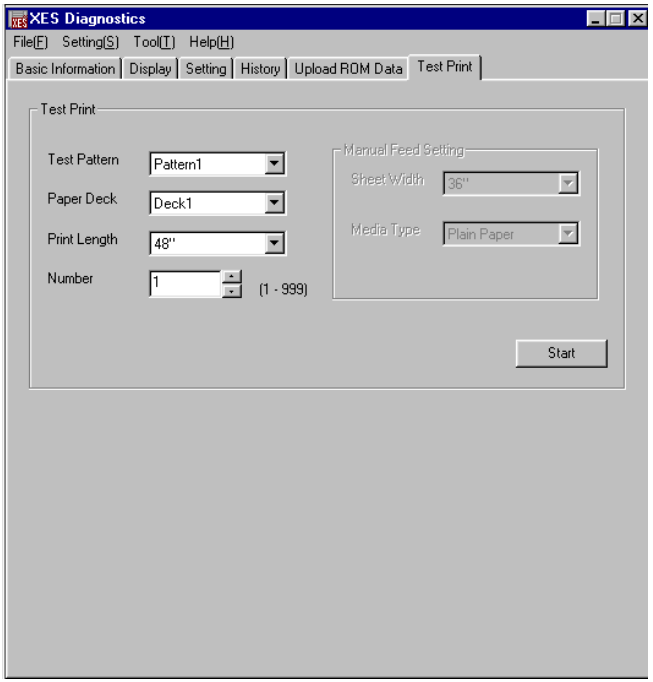
8. The History file can be saved as a .txt (text file by selecting Save(s) from the File pull down.



9. The Upload ROM Data Tab is used for installing new printer Firmware. Instructions for uploading new firmware will be included in the installation kit. The new firmware will be delivered as a file copied to your laptop computer and by using this screen to browse (find) the file, select the Upload button to install the new firmware. The process takes a few minutes. Any interruption in power during the process does not cause any lasting problems as it does in other products. Simply start the process over again.



10. The Test Print tab enables the selection and printing of all 8 of the printer test prints.

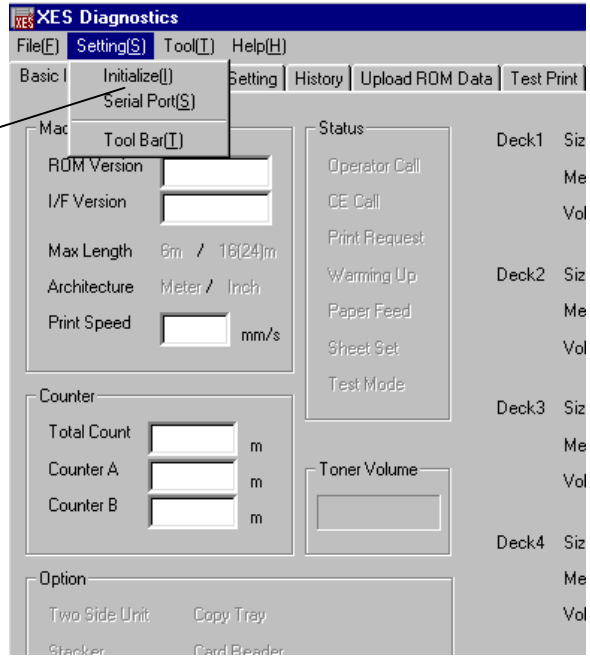


11. The Factory Tab is used to display NVM settings at the same time test prints can be performed. This is very useful when modifying cut-length settings. Only settings that have changed will download and be displayed (Faster NVM download). The test print commands are also displayed on the Factory tab.

PC Diagnostics NVM Setup Procedure

1. Open the PC Diagnostic program by double clicking on the shortcut.
2. Establish communication with the printer by selecting Initialize from the Settings pull down

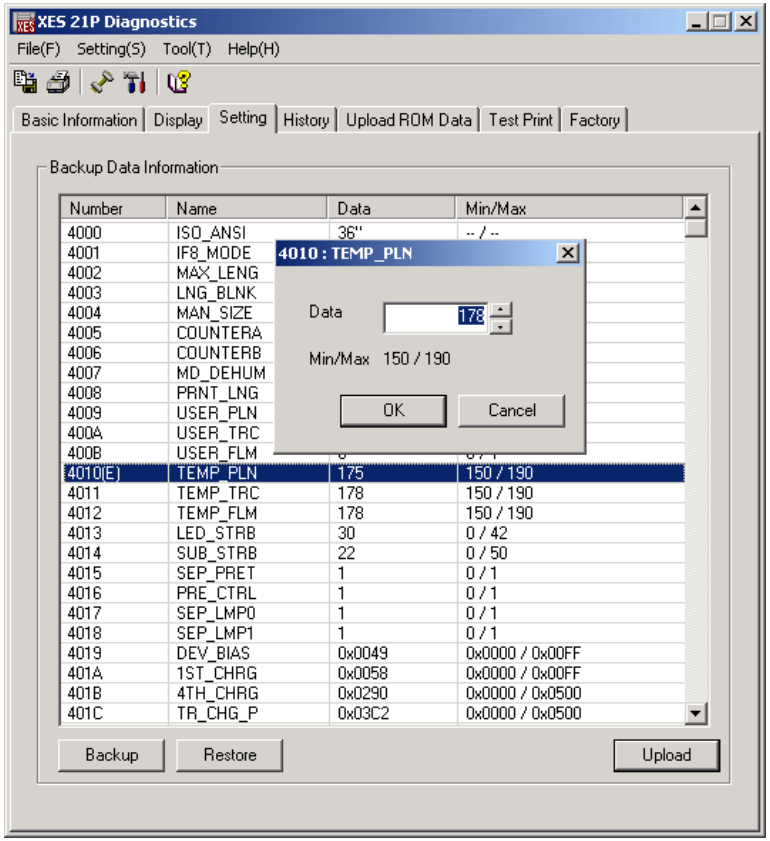
Select "**Initialize**" to establish communications with the printer.



3. Select the **Setting** tab.
4. To change an NVM value in PC Diagnostics, double click the NVM item to be changed.

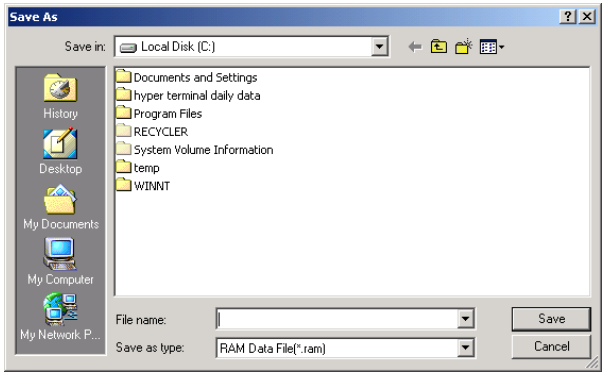
***Note**: See the NVM Quick Reference Chart following this procedure. The NVM Quick Reference Chart includes the NVM code, a description, a default value, a range, a recommended range, and the unit value.*

***Note:** When adjusting Fuser Motor Clock (Linearity) (ADJ 5.1.2), changing the value in [4-33] from the **IOT front panel** will change [4-34 to 4-49] to the same value; changing the value in [4-34] changes [4-35 to 4-49] to the same value etc. Do not use PC diagnostics when making this adjustment. If PC Diagnostics is used, only the value of the NVM location entered will change.*

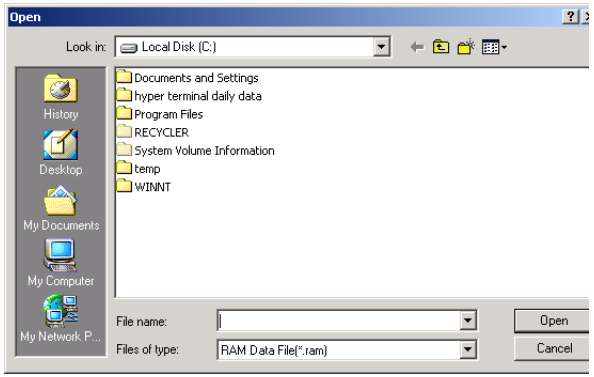


5. Adjust the data to the desired value and click **OK**.
6. Click **Upload** to store the new value in the NVM.

7. To back up the NVM values click **Backup**. The save screen appears. Name the file (use the date and machine number in the file name) and click **Save**.



8. To restore the NVM values from a previously saved backup, click **Restore**. The restore screen appears. Select the file and click **Open**.



NVM Quick Reference Chart

NVM Code	Description	Default Value	Range	Recommended Range	Unit Value
4000	Metric or inch	36 (A0)	A0/36	-	-
4001	Operation of Interface	1	0/1/2	-	-
4002	Maximum cut length	6	6/24	-	-
4003	Trailing margin for long print	OFF	OFF/ON	-	-
4004	Special paper size	900	900/891/880	-	mm
4005	Counting unit of Counter A	1	0/1/(2)/(3)	-	-
4006	Counting unit of Counter B	0	0/1/(2)/(3)	-	-
4007	Operation of Dehumidify Heater	0	0/1	-	-
4008	Cut length of Test Print	48 (A0)	A0.....b5, 48....8.5	-	-
4009	Custom settings for plain paper	0	0/1	-	-
400A	Custom settings for tracing paper	0	0/1	-	-
400B	Custom settings for film	0	0/1	-	-
4010	Fuser temperature (PPC)	178	150-190	170-180	° C
4011	Fuser temperature (Tracing)	178	150-190	170-180	° C
4012	Fuser temperature (Film)	178	150-190	170-180	° C
4013	LED strobe time (Original image)	25 (AccXES 9.2 or higher) 28 (AccXES 9.1)	0-42	10-30	microsecond
4014	LED strobe time (Supplemental Image)	0 (AccXES 9.2 or higher) 22 (AccXES 9.1)	0-50	10-30	microsecond
4015	Pre-Transfer / Separation Corona OFF timing	0	0/1	-	-
4016	Pre-Transfer Lamp ON / OFF	1	0/1	-	-
4017	Separation Lamp ON / OFF (PPC)	1	0/1	-	-
4018	Separation Lamp ON / OFF (Tracing)	1	0/1	-	-
4019	Developer Bias	067	000-0FF	Fixed by Factory Setting	Hex.
401A	Image Corona current	04A	000-0FF	Fixed by Factory Setting	Hex.
401B	Image Corona Grid current	236	000-500	Fixed by Factory Setting	Hex.
401C	Transfer Corona current (PPC)	3C2	000-500	Fixed by Factory Setting	Hex.
401D	Transfer Corona current (Tracing)	3C2	000-500	Fixed by Factory Setting	Hex.
401E	Transfer Corona current (Film)	3C2	000-500	Fixed by Factory	Hex.

NVM Code	Description	Default Value	Range	Recommended Range	Unit Value
				Setting	
401F	DC component for Separation Corona (PPC)	1A8	000-500	Fixed by Factory Setting	Hex.
4020	DC component for Separation Corona (Tracing)	1A8	000-500	Fixed by Factory Setting	Hex.
4021	DC component for Separation Corona (Film)	1A8	000-500	Fixed by Factory Setting	Hex.
4022	Paper Feed Motor speed (Manual feed)	0	±1.0	±0.5	0.05%
4023	Paper Feed Motor speed (Roll 1)	0	±1.0	±0.5	0.05%
4024	Paper Feed Motor speed (Roll 2)	0	±1.0	±0.5	0.05%
4025	Paper Feed Motor speed (Roll 3)	0	±1.0	±0.5	0.05%
4026	Paper Feed Motor speed (Roll 4)	0	±1.0	±0.5	0.05%
4027	Fuser Motor speed (Manual feed / PPC / Large size)	0	±1.0	±0.5	0.05%
4028	Fuser Motor speed (Manual feed / PPC / Medium size)	0	±1.0	±0.5	0.05%
4029	Fuser Motor speed (Manual feed / PPC / Small size)	0	±1.0	±0.5	0.05%
402A	Fuser Motor speed (Manual feed / PPC / Smallest size)	0	±1.0	±0.5	0.05%
402B	Fuser Motor speed (Manual feed / Tracing / Large size)	0	±1.0	±0.5	0.05%
402C	Fuser Motor speed (Manual feed / Tracing / Medium size)	0	±1.0	±0.5	0.05%
402D	Fuser Motor speed (Manual feed / Tracing / Small size)	0	±1.0	±0.5	0.05%
402E	Fuser Motor speed (Manual feed / Tracing / Smallest size)	0	±1.0	±0.5	0.05%
402F	Fuser Motor speed (Manual feed / Film / Large size)	0	±1.0	±0.5	0.05%
4030	Fuser Motor speed (Manual feed / Film / Medium size)	0	±1.0	±0.5	0.05%
4031	Fuser Motor speed (Manual feed / Film / Small size)	0	±1.0	±0.5	0.05%
4032	Fuser Motor speed (Manual feed / Film / Smallest size)	0	±1.0	±0.5	0.05%
4033	Fuser Motor speed (Roll 1 / PPC / Large size / 0 to 2m)	-0.20	±1.0	±0.2	0.05%
4034	Fuser Motor speed (Roll 1 / PPC / Large size / 2 to 3m)	-0.20	±1.0	±0.2	0.05%
4035	Fuser Motor speed (Roll 1 / PPC / Large size / 3 to 4m)	-0.20	±1.0	±0.2	0.05%
4036	Fuser Motor speed (Roll 1 / PPC / Large size / 4 to 5m)	-0.20	±1.0	±0.2	0.05%
4037	Fuser Motor speed (Roll 1 / PPC / Large size / 5 to 6m)	-0.20	±1.0	±0.2	0.05%
4038	Fuser Motor speed (Roll 1 / PPC / Large size / 6 to 7m)	-0.20	±1.0	±0.2	0.05%
4039	Fuser Motor speed (Roll 1 / PPC / Large size / 7 to 8m)	-0.20	±1.0	±0.2	0.05%
403A	Fuser Motor speed (Roll 1 / PPC / Large size / 8 to 9m)	-0.20	±1.0	±0.2	0.05%
403B	Fuser Motor speed (Roll 1 / PPC / Large size / 9 to 10m)	-0.20	±1.0	±0.2	0.05%
403C	Fuser Motor speed (Roll 1 / PPC / Large size / 10 to 11m)	-0.20	±1.0	±0.2	0.05%
403D	Fuser Motor speed (Roll 1 / PPC / Large size / 11 to 12m)	-0.20	±1.0	±0.2	0.05%
403E	Fuser Motor speed (Roll 1 / PPC / Large size / 12 to 13m)	-0.20	±1.0	±0.2	0.05%

NVM Code	Description	Default Value	Range	Recommended Range	Unit Value
403F	Fuser Motor speed (Roll 1 / PPC / Large size / 13 to 14m)	-0.20	±1.0	±0.2	0.05%
4040	Fuser Motor speed (Roll 1 / PPC / Large size / 14 to 15m)	-0.20	±1.0	±0.2	0.05%
4041	Fuser Motor speed (Roll 1 / PPC / Large size / 15 to 16m)	-0.20	±1.0	±0.2	0.05%
4042	Fuser Motor speed (Roll 1 / PPC / Large size / 16 to 17m)	-0.20	±1.0	±0.2	0.05%
4043	Fuser Motor speed (Roll 1 / PPC / Large size / 17 to 18m)	-0.20	±1.0	±0.2	0.05%
4044	Fuser Motor speed (Roll 1 / PPC / Large size / 18 to 19m)	-0.20	±1.0	±0.2	0.05%
4045	Fuser Motor speed (Roll 1 / PPC / Large size / 19 to 20m)	-0.20	±1.0	±0.2	0.05%
4046	Fuser Motor speed (Roll 1 / PPC / Large size / 20 to 21m)	-0.20	±1.0	±0.2	0.05%
4047	Fuser Motor speed (Roll 1 / PPC / Large size / 21 to 22m)	-0.20	±1.0	±0.2	0.05%
4048	Fuser Motor speed (Roll 1 / PPC / Large size / 22 to 23m)	-0.20	±1.0	±0.2	0.05%
4049	Fuser Motor speed (Roll 1 / PPC / Large size / 23 to 24m)	-0.20	±1.0	±0.2	0.05%
404A	Fuser Motor speed (Roll 1 / PPC / Medium size)	-0.20	±1.0	±0.2	0.05%
404B	Fuser Motor speed (Roll 1 / PPC / Small size)	-0.20	±1.0	±0.2	0.05%
404C	Fuser Motor speed (Roll 1 / PPC / Smallest size)	-0.20	±1.0	±0.2	0.05%
404D	Fuser Motor speed (Roll 1 / Tracing / Large size)	-0.20	±1.0	±0.2	0.05%
404E	Fuser Motor speed (Roll 1 / Tracing / Medium size)	-0.20	±1.0	±0.2	0.05%
404F	Fuser Motor speed (Roll 1 / Tracing / Small size)	-0.20	±1.0	±0.2	0.05%
4050	Fuser Motor speed (Roll 1 / Tracing / Smallest size)	-0.20	±1.0	±0.2	0.05%
4051	Fuser Motor speed (Roll 1 / Film / Large size)	-0.20	±1.0	±0.2	0.05%
4052	Fuser Motor speed (Roll 1 / Film / Medium size)	-0.20	±1.0	±0.2	0.05%
4053	Fuser Motor speed (Roll 1 / Film / Small size)	-0.20	±1.0	±0.2	0.05%
4054	Fuser Motor speed (Roll 1 / Film / Smallest size)	-0.20	±1.0	±0.2	0.05%
4055	Fuser Motor speed (Roll 2 / PPC / Large size / 0 to 2m)	-0.20	±1.0	±0.2	0.05%
4056	Fuser Motor speed (Roll 2 / PPC / Large size / 2 to 3m)	-0.20	±1.0	±0.2	0.05%
4057	Fuser Motor speed (Roll 2 / PPC / Large size / 3 to 4m)	-0.20	±1.0	±0.2	0.05%
4058	Fuser Motor speed (Roll 2 / PPC / Large size / 4 to 5m)	-0.20	±1.0	±0.2	0.05%
4059	Fuser Motor speed (Roll 2 / PPC / Large size / 5 to 6m)	-0.20	±1.0	±0.2	0.05%
405A	Fuser Motor speed (Roll 2 / PPC / Large size / 6 to 7m)	-0.20	±1.0	±0.2	0.05%
405B	Fuser Motor speed (Roll 2 / PPC / Large size / 7 to 8m)	-0.20	±1.0	±0.2	0.05%
405C	Fuser Motor speed (Roll 2 / PPC / Large size / 8 to 9m)	-0.20	±1.0	±0.2	0.05%
405D	Fuser Motor speed (Roll 2 / PPC / Large size / 9 to 10m)	-0.20	±1.0	±0.2	0.05%
405E	Fuser Motor speed (Roll 2 / PPC / Large size / 10 to 11m)	-0.20	±1.0	±0.2	0.05%
405F	Fuser Motor speed (Roll 2 / PPC / Large size / 11 to 12m)	-0.20	±1.0	±0.2	0.05%
4060	Fuser Motor speed (Roll 2 / PPC / Large size / 12 to 13m)	-0.20	±1.0	±0.2	0.05%
4061	Fuser Motor speed (Roll 2 / PPC / Large size / 13 to 14m)	-0.20	±1.0	±0.2	0.05%

NVM Code	Description	Default Value	Range	Recommended Range	Unit Value
4062	Fuser Motor speed (Roll 2 / PPC / Large size / 14 to 15m)	-0.20	±1.0	±0.2	0.05%
4063	Fuser Motor speed (Roll 2 / PPC / Large size / 15 to 16m)	-0.20	±1.0	±0.2	0.05%
4064	Fuser Motor speed (Roll 2 / PPC / Large size / 16 to 17m)	-0.20	±1.0	±0.2	0.05%
4065	Fuser Motor speed (Roll 2 / PPC / Large size / 17 to 18m)	-0.20	±1.0	±0.2	0.05%
4066	Fuser Motor speed (Roll 2 / PPC / Large size / 18 to 19m)	-0.20	±1.0	±0.2	0.05%
4067	Fuser Motor speed (Roll 2 / PPC / Large size / 19 to 20m)	-0.20	±1.0	±0.2	0.05%
4068	Fuser Motor speed (Roll 2 / PPC / Large size / 20 to 21m)	-0.20	±1.0	±0.2	0.05%
4069	Fuser Motor speed (Roll 2 / PPC / Large size / 21 to 22m)	-0.20	±1.0	±0.2	0.05%
406A	Fuser Motor speed (Roll 2 / PPC / Large size / 22 to 23m)	-0.20	±1.0	±0.2	0.05%
406B	Fuser Motor speed (Roll 2 / PPC / Large size / 23 to 24m)	-0.20	±1.0	±0.2	0.05%
406C	Fuser Motor speed (Roll 2 / PPC / Medium size)	-0.20	±1.0	±0.2	0.05%
406D	Fuser Motor speed (Roll 2 / PPC / Small size)	-0.20	±1.0	±0.2	0.05%
406E	Fuser Motor speed (Roll 2 / PPC / Smallest size)	-0.20	±1.0	±0.2	0.05%
406F	Fuser Motor speed (Roll 2 / Tracing / Large size)	-0.20	±1.0	±0.2	0.05%
4070	Fuser Motor speed (Roll 2 / Tracing / Medium size)	-0.20	±1.0	±0.2	0.05%
4071	Fuser Motor speed (Roll 2 / Tracing / Small size)	-0.20	±1.0	±0.2	0.05%
4072	Fuser Motor speed (Roll 2 / Tracing / Smallest size)	-0.20	±1.0	±0.2	0.05%
4073	Fuser Motor speed (Roll 2 / Film / Large size)	-0.20	±1.0	±0.2	0.05%
4074	Fuser Motor speed (Roll 2 / Film / Medium size)	-0.20	±1.0	±0.2	0.05%
4075	Fuser Motor speed (Roll 2 / Film / Small size)	-0.20	±1.0	±0.2	0.05%
4076	Fuser Motor speed (Roll 2 / Film / Smallest size)	-0.20	±1.0	±0.2	0.05%
4077	Fuser Motor speed (Roll 3 / PPC / Large size / 0 to 2m)	-0.20	±1.0	±0.2	0.05%
4078	Fuser Motor speed (Roll 3 / PPC / Large size / 2 to 3m)	-0.20	±1.0	±0.2	0.05%
4079	Fuser Motor speed (Roll 3 / PPC / Large size / 3 to 4m)	-0.20	±1.0	±0.2	0.05%
407A	Fuser Motor speed (Roll 3 / PPC / Large size / 4 to 5m)	-0.20	±1.0	±0.2	0.05%
407B	Fuser Motor speed (Roll 3 / PPC / Large size / 5 to 6m)	-0.20	±1.0	±0.2	0.05%
407C	Fuser Motor speed (Roll 3 / PPC / Large size / 6 to 7m)	-0.20	±1.0	±0.2	0.05%
407D	Fuser Motor speed (Roll 3 / PPC / Large size / 7 to 8m)	-0.20	±1.0	±0.2	0.05%
407E	Fuser Motor speed (Roll 3 / PPC / Large size / 8 to 9m)	-0.20	±1.0	±0.2	0.05%
407F	Fuser Motor speed (Roll 3 / PPC / Large size / 9 to 10m)	-0.20	±1.0	±0.2	0.05%
4080	Fuser Motor speed (Roll 3 / PPC / Large size / 10 to 11m)	-0.20	±1.0	±0.2	0.05%
4081	Fuser Motor speed (Roll 3 / PPC / Large size / 11 to 12m)	-0.20	±1.0	±0.2	0.05%
4082	Fuser Motor speed (Roll 3 / PPC / Large size / 12 to 13m)	-0.20	±1.0	±0.2	0.05%
4083	Fuser Motor speed (Roll 3 / PPC / Large size / 13 to 14m)	-0.20	±1.0	±0.2	0.05%
4084	Fuser Motor speed (Roll 3 / PPC / Large size / 14 to 15m)	-0.20	±1.0	±0.2	0.05%

NVM Code	Description	Default Value	Range	Recommended Range	Unit Value
4085	Fuser Motor speed (Roll 3 / PPC / Large size / 15 to 16m)	-0.20	±1.0	±0.2	0.05%
4086	Fuser Motor speed (Roll 3 / PPC / Large size / 16 to 17m)	-0.20	±1.0	±0.2	0.05%
4087	Fuser Motor speed (Roll 3 / PPC / Large size / 17 to 18m)	-0.20	±1.0	±0.2	0.05%
4088	Fuser Motor speed (Roll 3 / PPC / Large size / 18 to 19m)	-0.20	±1.0	±0.2	0.05%
4089	Fuser Motor speed (Roll 3 / PPC / Large size / 19 to 20m)	-0.20	±1.0	±0.2	0.05%
408A	Fuser Motor speed (Roll 3 / PPC / Large size / 20 to 21m)	-0.20	±1.0	±0.2	0.05%
408B	Fuser Motor speed (Roll 3 / PPC / Large size / 21 to 22m)	-0.20	±1.0	±0.2	0.05%
408C	Fuser Motor speed (Roll 3 / PPC / Large size / 22 to 23m)	-0.20	±1.0	±0.2	0.05%
408D	Fuser Motor speed (Roll 3 / PPC / Large size / 23 to 24m)	-0.20	±1.0	±0.2	0.05%
408E	Fuser Motor speed (Roll 3 / PPC / Medium size)	-0.20	±1.0	±0.2	0.05%
408F	Fuser Motor speed (Roll 3 / PPC / Small size)	-0.20	±1.0	±0.2	0.05%
4090	Fuser Motor speed (Roll 3 / PPC / Smallest size)	-0.20	±1.0	±0.2	0.05%
4091	Fuser Motor speed (Roll 3 / Tracing / Large size)	-0.20	±1.0	±0.2	0.05%
4092	Fuser Motor speed (Roll 3 / Tracing / Medium size)	-0.20	±1.0	±0.2	0.05%
4093	Fuser Motor speed (Roll 3 / Tracing / Small size)	-0.20	±1.0	±0.2	0.05%
4094	Fuser Motor speed (Roll 3 / Tracing / Smallest size)	-0.20	±1.0	±0.2	0.05%
4095	Fuser Motor speed (Roll 3 / Film / Large size)	-0.20	±1.0	±0.2	0.05%
4096	Fuser Motor speed (Roll 3 / Film / Medium size)	-0.20	±1.0	±0.2	0.05%
4097	Fuser Motor speed (Roll 3 / Film / Small size)	-0.20	±1.0	±0.2	0.05%
4098	Fuser Motor speed (Roll 3 / Film / Smallest size)	-0.20	±1.0	±0.2	0.05%
4099	Fuser Motor speed (Roll 4 / PPC / Large size / 0 to 2m)	-0.20	±1.0	±0.2	0.05%
409A	Fuser Motor speed (Roll 4 / PPC / Large size / 2 to 3m)	-0.20	±1.0	±0.2	0.05%
409B	Fuser Motor speed (Roll 4 / PPC / Large size / 3 to 4m)	-0.20	±1.0	±0.2	0.05%
409C	Fuser Motor speed (Roll 4 / PPC / Large size / 4 to 5m)	-0.20	±1.0	±0.2	0.05%
409D	Fuser Motor speed (Roll 4 / PPC / Large size / 5 to 6m)	-0.20	±1.0	±0.2	0.05%
409E	Fuser Motor speed (Roll 4 / PPC / Large size / 6 to 7m)	-0.20	±1.0	±0.2	0.05%
409F	Fuser Motor speed (Roll 4 / PPC / Large size / 7 to 8m)	-0.20	±1.0	±0.2	0.05%
40A0	Fuser Motor speed (Roll 4 / PPC / Large size / 8 to 9m)	-0.20	±1.0	±0.2	0.05%
40A1	Fuser Motor speed (Roll 4 / PPC / Large size / 9 to 10m)	-0.20	±1.0	±0.2	0.05%
40A2	Fuser Motor speed (Roll 4 / PPC / Large size / 10 to 11m)	-0.20	±1.0	±0.2	0.05%
40A3	Fuser Motor speed (Roll 4 / PPC / Large size / 11 to 12m)	-0.20	±1.0	±0.2	0.05%
40A4	Fuser Motor speed (Roll 4 / PPC / Large size / 12 to 13m)	-0.20	±1.0	±0.2	0.05%
40A5	Fuser Motor speed (Roll 4 / PPC / Large size / 13 to 14m)	-0.20	±1.0	±0.2	0.05%
40A6	Fuser Motor speed (Roll 4 / PPC / Large size / 14 to 15m)	-0.20	±1.0	±0.2	0.05%
40A7	Fuser Motor speed (Roll 4 / PPC / Large size / 15 to 16m)	-0.20	±1.0	±0.2	0.05%

NVM Code	Description	Default Value	Range	Recommended Range	Unit Value
40A8	Fuser Motor speed (Roll 4 / PPC / Large size / 16 to 17m)	-0.20	±1.0	±0.2	0.05%
40A9	Fuser Motor speed (Roll 4 / PPC / Large size / 17 to 18m)	-0.20	±1.0	±0.2	0.05%
40AA	Fuser Motor speed (Roll 4 / PPC / Large size / 18 to 19m)	-0.20	±1.0	±0.2	0.05%
40AB	Fuser Motor speed (Roll 4 / PPC / Large size / 19 to 20m)	-0.20	±1.0	±0.2	0.05%
40AC	Fuser Motor speed (Roll 4 / PPC / Large size / 20 to 21m)	-0.20	±1.0	±0.2	0.05%
40AD	Fuser Motor speed (Roll 4 / PPC / Large size / 21 to 22m)	-0.20	±1.0	±0.2	0.05%
40AE	Fuser Motor speed (Roll 4 / PPC / Large size / 22 to 23m)	-0.20	±1.0	±0.2	0.05%
40AF	Fuser Motor speed (Roll 4 / PPC / Large size / 23 to 24m)	-0.20	±1.0	±0.2	0.05%
40B0	Fuser Motor speed (Roll 4 / PPC / Medium size)	-0.20	±1.0	±0.2	0.05%
40B1	Fuser Motor speed (Roll 4 / PPC / Small size)	-0.20	±1.0	±0.2	0.05%
40B2	Fuser Motor speed (Roll 4 / PPC / Smallest size)	-0.20	±1.0	±0.2	0.05%
40B3	Fuser Motor speed (Roll 4 / Tracing / Large size)	-0.20	±1.0	±0.2	0.05%
40B4	Fuser Motor speed (Roll 4 / Tracing / Medium size)	-0.20	±1.0	±0.2	0.05%
40B5	Fuser Motor speed (Roll 4 / Tracing / Small size)	-0.20	±1.0	±0.2	0.05%
40B6	Fuser Motor speed (Roll 4 / Tracing / Smallest size)	-0.20	±1.0	±0.2	0.05%
40B7	Fuser Motor speed (Roll 4 / Film / Large size)	-0.20	±1.0	±0.2	0.05%
40B8	Fuser Motor speed (Roll 4 / Film / Medium size)	-0.20	±1.0	±0.2	0.05%
40B9	Fuser Motor speed (Roll 4 / Film / Small size)	-0.20	±1.0	±0.2	0.05%
40BA	Fuser Motor speed (Roll 4 / Film / Smallest size)	-0.20	±1.0	±0.2	0.05%
40BB	Image placement (For 2nd and later prints during multi-print)	0	0-10.0	←	0.1mm
40BC	Paper Feed Clutch (CL 6) ON timing	20	1-30	Fixed by Factory Setting	1msec
40BD	Roll Paper Feed Clutch (CL 3 & 4) ON timing	3	1-20	Fixed by Factory Setting	1msec
40BE	Paper Gate Brake (CL 10) ON timing	10	1-20	Fixed by Factory Setting	1msec
40BF	Sub Separation Blower Control Mode (PPC)	0	0/1	-	-
40C0	Sub Separation Blower Control Mode (Tracing)	1	0/1	-	-
40C1	Sub Separation Blower Control Mode (Film)	1	0/1	-	-
40C2	Trailing Edge Correction (Roll1)	3	0/1/2/3	-	-
40C3	Trailing Edge Correction (Roll2)	0	0/1/2/3	-	-
40C4	Trailing Edge Correction (Roll3)	0	0/1/2/3	-	-
40C5	Trailing Edge Correction (Roll4)	0	0/1/2/3	-	-
40C6	Separation Lamp ON / OFF (Film)	0	0/1/2/3	-	-
40C7	Image Enhancement	0	0/1/2/3	-	-
40C8	OFF timing of Pre-Transfer-Lamp / Detack Corotron (Tracing)	0	0/1	-	-

NVM Code	Description	Default Value	Range	Recommended Range	Unit Value
40C9	OFF timing of Pre-Transfer-Lamp / Detack Corotron (Film)	0	0/1	-	-
40CA	Developer Bias Temperature Compensation	1	0/1	-	-
40Cb	Developer Bias Temperature compensation for below 10° C	056	000-0FF	Fixed by Factory Setting	Hex.
40CC	Developer Bias Temperature compensation for above 20° C	04A	000-0FF	Fixed by Factory Setting	Hex.
4110	User - Fuser temperature (PPC)	178	150-190	170-180	° C
4111	User - Fuser temperature (Tracing)	178	150-190	170-180	° C
4112	User - Fuser temperature (Film)	178	150-190	170-180	° C
411C	User - Transfer Corona current (PPC)	3C2	000-500	Fixed by Factory Setting	Hex.
411D	User - Transfer Corona current (Tracing)	3C2	000-500	Fixed by Factory Setting	Hex.
411E	User - Transfer Corona current (Film)	3C2	000-500	Fixed by Factory Setting	Hex.
411F	User - DC component for Separation Corona (PPC)	1A8	000-500	Fixed by Factory Setting	Hex.
4120	User - DC component for Separation Corona (Tracing)	1A8	000-500	Fixed by Factory Setting	Hex.
4121	User - DC component for Separation Corona (Film)	1A8	000-500	Fixed by Factory Setting	Hex.
4127	User - Fuser Motor speed (Manual feed / PPC / Large size)	0	±1.0	±0.5	0.05%
4128	User - Fuser Motor speed (Manual feed / PPC / Medium size)	0	±1.0	±0.5	0.05%
4129	User - Fuser Motor speed (Manual feed / PPC / Small size)	0	±1.0	±0.5	0.05%
412A	User - Fuser Motor speed (Manual feed / PPC / Smallest size)	0	±1.0	±0.5	0.05%
412B	User - Fuser Motor speed (Manual feed / Tracing / Large size)	0	±1.0	±0.5	0.05%
412C	User - Fuser Motor speed (Manual feed / Tracing / Medium size)	0	±1.0	±0.5	0.05%
412D	User - Fuser Motor speed (Manual feed / Tracing / Small size)	0	±1.0	±0.5	0.05%
412E	User - Fuser Motor speed (Manual feed / Tracing / Smallest size)	0	±1.0	±0.5	0.05%
412F	User - Fuser Motor speed (Manual feed / Film / Large size)	0	±1.0	±0.5	0.05%
4130	User - Fuser Motor speed (Manual feed / Film / Medium size)	0	±1.0	±0.5	0.05%
4131	User - Fuser Motor speed (Manual feed / Film / Small size)	0	±1.0	±0.5	0.05%
4132	User - Fuser Motor speed (Manual feed / Film / Smallest size)	0	±1.0	±0.5	0.05%
4133	User - Fuser Motor speed (Roll 1 / PPC / Large size / 0 to 2m)	0	±1.0	±0.5	0.05%
4134	User - Fuser Motor speed (Roll 1 / PPC / Large size / 2 to 3m)	0	±1.0	±0.5	0.05%
4135	User - Fuser Motor speed (Roll 1 / PPC / Large size / 3 to 4m)	0	±1.0	±0.5	0.05%
4136	User - Fuser Motor speed (Roll 1 / PPC / Large size / 4 to 5m)	0	±1.0	±0.5	0.05%
4137	User - Fuser Motor speed (Roll 1 / PPC / Large size / 5 to 6m)	0	±1.0	±0.5	0.05%

NVM Code	Description	Default Value	Range	Recommended Range	Unit Value
4138	User - Fuser Motor speed (Roll 1 / PPC / Large size / 6 to 7m)	0	±1.0	±0.5	0.05%
4139	User - Fuser Motor speed (Roll 1 / PPC / Large size / 7 to 8m)	0	±1.0	±0.5	0.05%
413A	User - Fuser Motor speed (Roll 1 / PPC / Large size / 8 to 9m)	0	±1.0	±0.5	0.05%
413B	User - Fuser Motor speed (Roll 1 / PPC / Large size / 9 to 10m)	0	±1.0	±0.5	0.05%
413C	User - Fuser Motor speed (Roll 1 / PPC / Large size / 10 to 11m)	0	±1.0	±0.5	0.05%
413D	User - Fuser Motor speed (Roll 1 / PPC / Large size / 11 to 12m)	0	±1.0	±0.5	0.05%
413E	User - Fuser Motor speed (Roll 1 / PPC / Large size / 12 to 13m)	0	±1.0	±0.5	0.05%
413F	User - Fuser Motor speed (Roll 1 / PPC / Large size / 13 to 14m)	0	±1.0	±0.5	0.05%
4140	User - Fuser Motor speed (Roll 1 / PPC / Large size / 14 to 15m)	0	±1.0	±0.5	0.05%
4141	User - Fuser Motor speed (Roll 1 / PPC / Large size / 15 to 16m)	0	±1.0	±0.5	0.05%
4142	User - Fuser Motor speed (Roll 1 / PPC / Large size / 16 to 17m)	0	±1.0	±0.5	0.05%
4143	User - Fuser Motor speed (Roll 1 / PPC / Large size / 17 to 18m)	0	±1.0	±0.5	0.05%
4144	User - Fuser Motor speed (Roll 1 / PPC / Large size / 18 to 19m)	0	±1.0	±0.5	0.05%
4145	User - Fuser Motor speed (Roll 1 / PPC / Large size / 19 to 20m)	0	±1.0	±0.5	0.05%
4146	User - Fuser Motor speed (Roll 1 / PPC / Large size / 20 to 21m)	0	±1.0	±0.5	0.05%
4147	User - Fuser Motor speed (Roll 1 / PPC / Large size / 21 to 22m)	0	±1.0	±0.5	0.05%
4148	User - Fuser Motor speed (Roll 1 / PPC / Large size / 22 to 23m)	0	±1.0	±0.5	0.05%
4149	User - Fuser Motor speed (Roll 1 / PPC / Large size / 23 to 24m)	0	±1.0	±0.5	0.05%
414A	User - Fuser Motor speed (Roll 1 / PPC / Medium size)	0	±1.0	±0.5	0.05%
414B	User - Fuser Motor speed (Roll 1 / PPC / Small size)	0	±1.0	±0.5	0.05%
414C	User - Fuser Motor speed (Roll 1 / PPC / Smallest size)	0	±1.0	±0.5	0.05%
414D	User - Fuser Motor speed (Roll 1 / Tracing / Large size)	0	±1.0	±0.5	0.05%
414E	User - Fuser Motor speed (Roll 1 / Tracing / Medium size)	0	±1.0	±0.5	0.05%
414F	User - Fuser Motor speed (Roll 1 / Tracing / Small size)	0	±1.0	±0.5	0.05%
4150	User - Fuser Motor speed (Roll 1 / Tracing / Smallest size)	0	±1.0	±0.5	0.05%
4151	User - Fuser Motor speed (Roll 1 / Film / Large size)	0	±1.0	±0.5	0.05%
4152	User - Fuser Motor speed (Roll 1 / Film / Medium size)	0	±1.0	±0.5	0.05%
4153	User - Fuser Motor speed (Roll 1 / Film / Small size)	0	±1.0	±0.5	0.05%
4154	User - Fuser Motor speed (Roll 1 / Film / Smallest size)	0	±1.0	±0.5	0.05%
4155	User - Fuser Motor speed (Roll 2 / PPC / Large size / 0 to 2m)	0	±1.0	±0.5	0.05%
4156	User - Fuser Motor speed (Roll 2 / PPC / Large size / 2 to 3m)	0	±1.0	±0.5	0.05%
4157	User - Fuser Motor speed (Roll 2 / PPC / Large size / 3 to 4m)	0	±1.0	±0.5	0.05%
4158	User - Fuser Motor speed (Roll 2 / PPC / Large size / 4 to 5m)	0	±1.0	±0.5	0.05%
4159	User - Fuser Motor speed (Roll 2 / PPC / Large size / 5 to 6m)	0	±1.0	±0.5	0.05%
415A	User - Fuser Motor speed (Roll 2 / PPC / Large size / 6 to 7m)	0	±1.0	±0.5	0.05%

NVM Code	Description	Default Value	Range	Recommended Range	Unit Value
415B	User - Fuser Motor speed (Roll 2 / PPC / Large size / 7 to 8m)	0	±1.0	±0.5	0.05%
415C	User - Fuser Motor speed (Roll 2 / PPC / Large size / 8 to 9m)	0	±1.0	±0.5	0.05%
415D	User - Fuser Motor speed (Roll 2 / PPC / Large size / 9 to 10m)	0	±1.0	±0.5	0.05%
415E	User - Fuser Motor speed (Roll 2 / PPC / Large size / 10 to 11m)	0	±1.0	±0.5	0.05%
415F	User - Fuser Motor speed (Roll 2 / PPC / Large size / 11 to 12m)	0	±1.0	±0.5	0.05%
4160	User - Fuser Motor speed (Roll 2 / PPC / Large size / 12 to 13m)	0	±1.0	±0.5	0.05%
4161	User - Fuser Motor speed (Roll 2 / PPC / Large size / 13 to 14m)	0	±1.0	±0.5	0.05%
4162	User - Fuser Motor speed (Roll 2 / PPC / Large size / 14 to 15m)	0	±1.0	±0.5	0.05%
4163	User - Fuser Motor speed (Roll 2 / PPC / Large size / 15 to 16m)	0	±1.0	±0.5	0.05%
4164	User - Fuser Motor speed (Roll 2 / PPC / Large size / 16 to 17m)	0	±1.0	±0.5	0.05%
4165	User - Fuser Motor speed (Roll 2 / PPC / Large size / 17 to 18m)	0	±1.0	±0.5	0.05%
4166	User - Fuser Motor speed (Roll 2 / PPC / Large size / 18 to 19m)	0	±1.0	±0.5	0.05%
4167	User - Fuser Motor speed (Roll 2 / PPC / Large size / 19 to 20m)	0	±1.0	±0.5	0.05%
4168	User - Fuser Motor speed (Roll 2 / PPC / Large size / 20 to 21m)	0	±1.0	±0.5	0.05%
4169	User - Fuser Motor speed (Roll 2 / PPC / Large size / 21 to 22m)	0	±1.0	±0.5	0.05%
416A	User - Fuser Motor speed (Roll 2 / PPC / Large size / 22 to 23m)	0	±1.0	±0.5	0.05%
416B	User - Fuser Motor speed (Roll 2 / PPC / Large size / 23 to 24m)	0	±1.0	±0.5	0.05%
416C	User - Fuser Motor speed (Roll 2 / PPC / Medium size)	0	±1.0	±0.5	0.05%
416D	User - Fuser Motor speed (Roll 2 / PPC / Small size)	0	±1.0	±0.5	0.05%
416E	User - Fuser Motor speed (Roll 2 / PPC / Smallest size)	0	±1.0	±0.5	0.05%
416F	User - Fuser Motor speed (Roll 2 / Tracing / Large size)	0	±1.0	±0.5	0.05%
4170	User - Fuser Motor speed (Roll 2 / Tracing / Medium size)	0	±1.0	±0.5	0.05%
4171	User - Fuser Motor speed (Roll 2 / Tracing / Small size)	0	±1.0	±0.5	0.05%
4172	User - Fuser Motor speed (Roll 2 / Tracing / Smallest size)	0	±1.0	±0.5	0.05%
4173	User - Fuser Motor speed (Roll 2 / Film / Large size)	0	±1.0	±0.5	0.05%
4174	User - Fuser Motor speed (Roll 2 / Film / Medium size)	0	±1.0	±0.5	0.05%
4175	User - Fuser Motor speed (Roll 2 / Film / Small size)	0	±1.0	±0.5	0.05%
4176	User - Fuser Motor speed (Roll 2 / Film / Smallest size)	0	±1.0	±0.5	0.05%
4177	User - Fuser Motor speed (Roll 3 / PPC / Large size / 0 to 2m)	0	±1.0	±0.5	0.05%
4178	User - Fuser Motor speed (Roll 3 / PPC / Large size / 2 to 3m)	0	±1.0	±0.5	0.05%
4179	User - Fuser Motor speed (Roll 3 / PPC / Large size / 3 to 4m)	0	±1.0	±0.5	0.05%
417A	User - Fuser Motor speed (Roll 3 / PPC / Large size / 4 to 5m)	0	±1.0	±0.5	0.05%
417B	User - Fuser Motor speed (Roll 3 / PPC / Large size / 5 to 6m)	0	±1.0	±0.5	0.05%
417C	User - Fuser Motor speed (Roll 3 / PPC / Large size / 6 to 7m)	0	±1.0	±0.5	0.05%
417D	User - Fuser Motor speed (Roll 3 / PPC / Large size / 7 to 8m)	0	±1.0	±0.5	0.05%

NVM Code	Description	Default Value	Range	Recommended Range	Unit Value
417E	User - Fuser Motor speed (Roll 3 / PPC / Large size / 8 to 9m)	0	±1.0	±0.5	0.05%
417F	User - Fuser Motor speed (Roll 3 / PPC / Large size / 9 to 10m)	0	±1.0	±0.5	0.05%
4180	User - Fuser Motor speed (Roll 3 / PPC / Large size / 10 to 11m)	0	±1.0	±0.5	0.05%
4181	User - Fuser Motor speed (Roll 3 / PPC / Large size / 11 to 12m)	0	±1.0	±0.5	0.05%
4182	User - Fuser Motor speed (Roll 3 / PPC / Large size / 12 to 13m)	0	±1.0	±0.5	0.05%
4183	User - Fuser Motor speed (Roll 3 / PPC / Large size / 13 to 14m)	0	±1.0	±0.5	0.05%
4184	User - Fuser Motor speed (Roll 3 / PPC / Large size / 14 to 15m)	0	±1.0	±0.5	0.05%
4185	User - Fuser Motor speed (Roll 3 / PPC / Large size / 15 to 16m)	0	±1.0	±0.5	0.05%
4186	User - Fuser Motor speed (Roll 3 / PPC / Large size / 16 to 17m)	0	±1.0	±0.5	0.05%
4187	User - Fuser Motor speed (Roll 3 / PPC / Large size / 17 to 18m)	0	±1.0	±0.5	0.05%
4188	User - Fuser Motor speed (Roll 3 / PPC / Large size / 18 to 19m)	0	±1.0	±0.5	0.05%
4189	User - Fuser Motor speed (Roll 3 / PPC / Large size / 19 to 20m)	0	±1.0	±0.5	0.05%
418A	User - Fuser Motor speed (Roll 3 / PPC / Large size / 20 to 21m)	0	±1.0	±0.5	0.05%
418B	User - Fuser Motor speed (Roll 3 / PPC / Large size / 21 to 22m)	0	±1.0	±0.5	0.05%
418C	User - Fuser Motor speed (Roll 3 / PPC / Large size / 22 to 23m)	0	±1.0	±0.5	0.05%
418D	User - Fuser Motor speed (Roll 3 / PPC / Large size / 23 to 24m)	0	±1.0	±0.5	0.05%
418E	User - Fuser Motor speed (Roll 3 / PPC / Medium size)	0	±1.0	±0.5	0.05%
418F	User - Fuser Motor speed (Roll 3 / PPC / Small size)	0	±1.0	±0.5	0.05%
4190	User - Fuser Motor speed (Roll 3 / PPC / Smallest size)	0	±1.0	±0.5	0.05%
4191	User - Fuser Motor speed (Roll 3 / Tracing / Large size)	0	±1.0	±0.5	0.05%
4192	User - Fuser Motor speed (Roll 3 / Tracing / Medium size)	0	±1.0	±0.5	0.05%
4193	User - Fuser Motor speed (Roll 3 / Tracing / Small size)	0	±1.0	±0.5	0.05%
4194	User - Fuser Motor speed (Roll 3 / Tracing / Smallest size)	0	±1.0	±0.5	0.05%
4195	User - Fuser Motor speed (Roll 3 / Film / Large size)	0	±1.0	±0.5	0.05%
4196	User - Fuser Motor speed (Roll 3 / Film / Medium size)	0	±1.0	±0.5	0.05%
4197	User - Fuser Motor speed (Roll 3 / Film / Small size)	0	±1.0	±0.5	0.05%
4198	User - Fuser Motor speed (Roll 3 / Film / Smallest size)	0	±1.0	±0.5	0.05%
4199	User - Fuser Motor speed (Roll 4 / PPC / Large size / 0 to 2m)	0	±1.0	±0.5	0.05%
419A	User - Fuser Motor speed (Roll 4 / PPC / Large size / 2 to 3m)	0	±1.0	±0.5	0.05%
419B	User - Fuser Motor speed (Roll 4 / PPC / Large size / 3 to 4m)	0	±1.0	±0.5	0.05%
419C	User - Fuser Motor speed (Roll 4 / PPC / Large size / 4 to 5m)	0	±1.0	±0.5	0.05%
419D	User - Fuser Motor speed (Roll 4 / PPC / Large size / 5 to 6m)	0	±1.0	±0.5	0.05%
419E	User - Fuser Motor speed (Roll 4 / PPC / Large size / 6 to 7m)	0	±1.0	±0.5	0.05%
419F	User - Fuser Motor speed (Roll 4 / PPC / Large size / 7 to 8m)	0	±1.0	±0.5	0.05%
41A0	User - Fuser Motor speed (Roll 4 / PPC / Large size / 8 to 9m)	0	±1.0	±0.5	0.05%

NVM Code	Description	Default Value	Range	Recommended Range	Unit Value
41A1	User - Fuser Motor speed (Roll 4 / PPC / Large size / 9 to 10m)	0	±1.0	±0.5	0.05%
41A2	User - Fuser Motor speed (Roll 4 / PPC / Large size / 10 to 11m)	0	±1.0	±0.5	0.05%
41A3	User - Fuser Motor speed (Roll 4 / PPC / Large size / 11 to 12m)	0	±1.0	±0.5	0.05%
41A4	User - Fuser Motor speed (Roll 4 / PPC / Large size / 12 to 13m)	0	±1.0	±0.5	0.05%
41A5	User - Fuser Motor speed (Roll 4 / PPC / Large size / 13 to 14m)	0	±1.0	±0.5	0.05%
41A6	User - Fuser Motor speed (Roll 4 / PPC / Large size / 14 to 15m)	0	±1.0	±0.5	0.05%
41A7	User - Fuser Motor speed (Roll 4 / PPC / Large size / 15 to 16m)	0	±1.0	±0.5	0.05%
41A8	User - Fuser Motor speed (Roll 4 / PPC / Large size / 16 to 17m)	0	±1.0	±0.5	0.05%
41A9	User - Fuser Motor speed (Roll 4 / PPC / Large size / 17 to 18m)	0	±1.0	±0.5	0.05%
41AA	User - Fuser Motor speed (Roll 4 / PPC / Large size / 18 to 19m)	0	±1.0	±0.5	0.05%
41AB	User - Fuser Motor speed (Roll 4 / PPC / Large size / 19 to 20m)	0	±1.0	±0.5	0.05%
41AC	User - Fuser Motor speed (Roll 4 / PPC / Large size / 20 to 21m)	0	±1.0	±0.5	0.05%
41AD	User - Fuser Motor speed (Roll 4 / PPC / Large size / 21 to 22m)	0	±1.0	±0.5	0.05%
41AE	User - Fuser Motor speed (Roll 4 / PPC / Large size / 22 to 23m)	0	±1.0	±0.5	0.05%
41AF	User - Fuser Motor speed (Roll 4 / PPC / Large size / 23 to 24m)	0	±1.0	±0.5	0.05%
41B0	User - Fuser Motor speed (Roll 4 / PPC / Medium size)	0	±1.0	±0.5	0.05%
41B1	User - Fuser Motor speed (Roll 4 / PPC / Small size)	0	±1.0	±0.5	0.05%
41B2	User - Fuser Motor speed (Roll 4 / PPC / Smallest size)	0	±1.0	±0.5	0.05%
41B3	User - Fuser Motor speed (Roll 4 / Tracing / Large size)	0	±1.0	±0.5	0.05%
41B4	User - Fuser Motor speed (Roll 4 / Tracing / Medium size)	0	±1.0	±0.5	0.05%
41B5	User - Fuser Motor speed (Roll 4 / Tracing / Small size)	0	±1.0	±0.5	0.05%
41B6	User - Fuser Motor speed (Roll 4 / Tracing / Smallest size)	0	±1.0	±0.5	0.05%
41B7	User - Fuser Motor speed (Roll 4 / Film / Large size)	0	±1.0	±0.5	0.05%
41B8	User - Fuser Motor speed (Roll 4 / Film / Medium size)	0	±1.0	±0.5	0.05%
41B9	User - Fuser Motor speed (Roll 4 / Film / Small size)	0	±1.0	±0.5	0.05%
41BA	User - Fuser Motor speed (Roll 4 / Film / Smallest size)	0	±1.0	±0.5	0.05%
5000	Image placement (Manual feed / PPC / Large size)	100	0-200	50-150	0.1mm
5001	Image placement (Manual feed / PPC / Medium size)	100	0-200	50-150	0.1mm
5002	Image placement (Manual feed / PPC / Small size)	100	0-200	50-150	0.1mm
5003	Image placement (Manual feed / PPC / Smallest size)	100	0-200	50-150	0.1mm
5004	Image placement (Manual feed / Tracing / Large size)	100	0-200	50-150	0.1mm
5005	Image placement (Manual feed / Tracing / Medium size)	100	0-200	50-150	0.1mm
5006	Image placement (Manual feed / Tracing / Small size)	100	0-200	50-150	0.1mm
5007	Image placement (Manual feed / Tracing / Smallest size)	100	0-200	50-150	0.1mm
5008	Image placement (Manual feed / Film / Large size)	100	0-200	50-150	0.1mm

NVM Code	Description	Default Value	Range	Recommended Range	Unit Value
5009	Image placement (Manual feed / Film / Medium size)	100	0-200	50-150	0.1mm
500A	Image placement (Manual feed / Film / Small size)	100	0-200	50-150	0.1mm
500B	Image placement (Manual feed / Film / Smallest size)	100	0-200	50-150	0.1mm
500C	Image placement (Roll 1 / PPC / Large size)	100	0-200	50-150	0.1mm
500D	Image placement (Roll 1 / PPC / Medium size)	100	0-200	50-150	0.1mm
500E	Image placement (Roll 1 / PPC / Small size)	100	0-200	50-150	0.1mm
500F	Image placement (Roll 1 / PPC / Smallest size)	100	0-200	50-150	0.1mm
5010	Image placement (Roll 1 / Tracing / Large size)	100	0-200	50-150	0.1mm
5011	Image placement (Roll 1 / Tracing / Medium size)	100	0-200	50-150	0.1mm
5012	Image placement (Roll 1 / Tracing / Small size)	100	0-200	50-150	0.1mm
5013	Image placement (Roll 1 / Tracing / Smallest size)	100	0-200	50-150	0.1mm
5014	Image placement (Roll 1 / Film / Large size)	100	0-200	50-150	0.1mm
5015	Image placement (Roll 1 / Film / Medium size)	100	0-200	50-150	0.1mm
5016	Image placement (Roll 1 / Film / Small size)	100	0-200	50-150	0.1mm
5017	Image placement (Roll 1 / Film / Smallest size)	100	0-200	50-150	0.1mm
5018	Image placement (Roll 2 / PPC / Large size)	100	0-200	50-150	0.1mm
5019	Image placement (Roll 2 / PPC / Medium size)	100	0-200	50-150	0.1mm
501A	Image placement (Roll 2 / PPC / Small size)	100	0-200	50-150	0.1mm
501B	Image placement (Roll 2 / PPC / Smallest size)	100	0-200	50-150	0.1mm
501C	Image placement (Roll 2 / Tracing / Large size)	100	0-200	50-150	0.1mm
501D	Image placement (Roll 2 / Tracing / Medium size)	100	0-200	50-150	0.1mm
501E	Image placement (Roll 2 / Tracing / Small size)	100	0-200	50-150	0.1mm
501F	Image placement (Roll 2 / Tracing / Smallest size)	100	0-200	50-150	0.1mm
5020	Image placement (Roll 2 / Film / Large size)	100	0-200	50-150	0.1mm
5021	Image placement (Roll 2 / Film / Medium size)	100	0-200	50-150	0.1mm
5022	Image placement (Roll 2 / Film / Small size)	100	0-200	50-150	0.1mm
5023	Image placement (Roll 2 / Film / Smallest size)	100	0-200	50-150	0.1mm
5024	Image placement (Roll 3 / PPC / Large size)	100	0-200	50-150	0.1mm
5025	Image placement (Roll 3 / PPC / Medium size)	100	0-200	50-150	0.1mm
5026	Image placement (Roll 3 / PPC / Small size)	100	0-200	50-150	0.1mm
5027	Image placement (Roll 3 / PPC / Smallest size)	100	0-200	50-150	0.1mm
5028	Image placement (Roll 3 / Tracing / Large size)	100	0-200	50-150	0.1mm
5029	Image placement (Roll 3 / Tracing / Medium size)	100	0-200	50-150	0.1mm
502A	Image placement (Roll 3 / Tracing / Small size)	100	0-200	50-150	0.1mm
502B	Image placement (Roll 3 / Tracing / Smallest size)	100	0-200	50-150	0.1mm

NVM Code	Description	Default Value	Range	Recommended Range	Unit Value
502C	Image placement (Roll 3 / Film / Large size)	100	0-200	50-150	0.1mm
502D	Image placement (Roll 3 / Film / Medium size)	100	0-200	50-150	0.1mm
502E	Image placement (Roll 3 / Film / Small size)	100	0-200	50-150	0.1mm
502F	Image placement (Roll 3 / Film / Smallest size)	100	0-200	50-150	0.1mm
5030	Image placement (Roll 4 / PPC / Large size)	100	0-200	50-150	0.1mm
5031	Image placement (Roll 4 / PPC / Medium size)	100	0-200	50-150	0.1mm
5032	Image placement (Roll 4 / PPC / Small size)	100	0-200	50-150	0.1mm
5033	Image placement (Roll 4 / PPC / Smallest size)	100	0-200	50-150	0.1mm
5034	Image placement (Roll 4 / Tracing / Large size)	100	0-200	50-150	0.1mm
5035	Image placement (Roll 4 / Tracing / Medium size)	100	0-200	50-150	0.1mm
5036	Image placement (Roll 4 / Tracing / Small size)	100	0-200	50-150	0.1mm
5037	Image placement (Roll 4 / Tracing / Smallest size)	100	0-200	50-150	0.1mm
5038	Image placement (Roll 4 / Film / Large size)	100	0-200	50-150	0.1mm
5039	Image placement (Roll 4 / Film / Medium size)	100	0-200	50-150	0.1mm
503A	Image placement (Roll 4 / Film / Small size)	100	0-200	50-150	0.1mm
503B	Image placement (Roll 4 / Film / Smallest size)	100	0-200	50-150	0.1mm
503C	Length of trailing margin (Roll 1 / PPC / Large size)	100	0-200	50-150	0.1mm
503D	Length of trailing margin (Roll 1 / PPC / Medium size)	100	0-200	50-150	0.1mm
503E	Length of trailing margin (Roll 1 / PPC / Small size)	100	0-200	50-150	0.1mm
503F	Length of trailing margin (Roll 1 / PPC / Smallest size)	100	0-200	50-150	0.1mm
5040	Length of trailing margin (Roll 1 / Tracing / Large size)	100	0-200	50-150	0.1mm
5041	Length of trailing margin (Roll 1 / Tracing / Medium size)	100	0-200	50-150	0.1mm
5042	Length of trailing margin (Roll 1 / Tracing / Small size)	100	0-200	50-150	0.1mm
5043	Length of trailing margin (Roll 1 / Tracing / Smallest size)	100	0-200	50-150	0.1mm
5044	Length of trailing margin (Roll 1 / Film / Large size)	100	0-200	50-150	0.1mm
5045	Length of trailing margin (Roll 1 / Film / Medium size)	100	0-200	50-150	0.1mm
5046	Length of trailing margin (Roll 1 / Film / Small size)	100	0-200	50-150	0.1mm
5047	Length of trailing margin (Roll 1 / Film / Smallest size)	100	0-200	50-150	0.1mm
5048	Length of trailing margin (Roll 2 / PPC / Large size)	100	0-200	50-150	0.1mm
5049	Length of trailing margin (Roll 2 / PPC / Medium size)	100	0-200	50-150	0.1mm
504A	Length of trailing margin (Roll 2 / PPC / Small size)	100	0-200	50-150	0.1mm
504B	Length of trailing margin (Roll 2 / PPC / Smallest size)	100	0-200	50-150	0.1mm
504C	Length of trailing margin (Roll 2 / Tracing / Large size)	100	0-200	50-150	0.1mm
504D	Length of trailing margin (Roll 2 / Tracing / Medium size)	100	0-200	50-150	0.1mm
504E	Length of trailing margin (Roll 2 / Tracing / Small size)	100	0-200	50-150	0.1mm

NVM Code	Description	Default Value	Range	Recommended Range	Unit Value
504F	Length of trailing margin (Roll 2 / Tracing / Smallest size)	100	0-200	50-150	0.1mm
5050	Length of trailing margin (Roll 2 / Film / Large size)	100	0-200	50-150	0.1mm
5051	Length of trailing margin (Roll 2 / Film / Medium size)	100	0-200	50-150	0.1mm
5052	Length of trailing margin (Roll 2 / Film / Small size)	100	0-200	50-150	0.1mm
5053	Length of trailing margin (Roll 2 / Film / Smallest size)	100	0-200	50-150	0.1mm
5054	Length of trailing margin (Roll 3 / PPC / Large size)	100	0-200	50-150	0.1mm
5055	Length of trailing margin (Roll 3 / PPC / Medium size)	100	0-200	50-150	0.1mm
5056	Length of trailing margin (Roll 3 / PPC / Small size)	100	0-200	50-150	0.1mm
5057	Length of trailing margin (Roll 3 / PPC / Smallest size)	100	0-200	50-150	0.1mm
5058	Length of trailing margin (Roll 3 / Tracing / Large size)	100	0-200	50-150	0.1mm
5059	Length of trailing margin (Roll 3 / Tracing / Medium size)	100	0-200	50-150	0.1mm
505A	Length of trailing margin (Roll 3 / Tracing / Small size)	100	0-200	50-150	0.1mm
505B	Length of trailing margin (Roll 3 / Tracing / Smallest size)	100	0-200	50-150	0.1mm
505C	Length of trailing margin (Roll 3 / Film / Large size)	100	0-200	50-150	0.1mm
505D	Length of trailing margin (Roll 3 / Film / Medium size)	100	0-200	50-150	0.1mm
505E	Length of trailing margin (Roll 3 / Film / Small size)	100	0-200	50-150	0.1mm
505F	Length of trailing margin (Roll 3 / Film / Smallest size)	100	0-200	50-150	0.1mm
5060	Length of trailing margin (Roll 4 / PPC / Large size)	100	0-200	50-150	0.1mm
5061	Length of trailing margin (Roll 4 / PPC / Medium size)	100	0-200	50-150	0.1mm
5062	Length of trailing margin (Roll 4 / PPC / Small size)	100	0-200	50-150	0.1mm
5063	Length of trailing margin (Roll 4 / PPC / Smallest size)	100	0-200	50-150	0.1mm
5064	Length of trailing margin (Roll 4 / Tracing / Large size)	100	0-200	50-150	0.1mm
5065	Length of trailing margin (Roll 4 / Tracing / Medium size)	100	0-200	50-150	0.1mm
5066	Length of trailing margin (Roll 4 / Tracing / Small size)	100	0-200	50-150	0.1mm
5067	Length of trailing margin (Roll 4 / Tracing / Smallest size)	100	0-200	50-150	0.1mm
5068	Length of trailing margin (Roll 4 / Film / Large size)	100	0-200	50-150	0.1mm
5069	Length of trailing margin (Roll 4 / Film / Medium size)	100	0-200	50-150	0.1mm
506A	Length of trailing margin (Roll 4 / Film / Small size)	100	0-200	50-150	0.1mm
506B	Length of trailing margin (Roll 4 / Film / Smallest size)	100	0-200	50-150	0.1mm
506C	Length of Image (Roll 1 / PPC / Large size)	0	±1.00	±0.5	0.01%
506D	Length of Image (Roll 1 / PPC / Medium size)	0	±1.00	±0.5	0.01%
506E	Length of Image (Roll 1 / PPC / Small size)	0	±1.00	±0.5	0.01%
506F	Length of Image (Roll 1 / PPC / Smallest size)	0	±1.00	±0.5	0.01%
5070	Length of Image (Roll 1 / Tracing / Large size)	0	±1.00	±0.5	0.01%
5071	Length of Image (Roll 1 / Tracing / Medium size)	0	±1.00	±0.5	0.01%

NVM Code	Description	Default Value	Range	Recommended Range	Unit Value
5072	Length of Image (Roll 1 / Tracing / Small size)	0	±1.00	±0.5	0.01%
5073	Length of Image (Roll 1 / Tracing / Smallest size)	0	±1.00	±0.5	0.01%
5074	Length of Image (Roll 1 / Film / Large size)	0	±1.00	±0.5	0.01%
5075	Length of Image (Roll 1 / Film / Medium size)	0	±1.00	±0.5	0.01%
5076	Length of Image (Roll 1 / Film / Small size)	0	±1.00	±0.5	0.01%
5077	Length of Image (Roll 1 / Film / Smallest size)	0	±1.00	±0.5	0.01%
5078	Length of Image (Roll 2 / PPC / Large size)	0	±1.00	±0.5	0.01%
5079	Length of Image (Roll 2 / PPC / Medium size)	0	±1.00	±0.5	0.01%
507A	Length of Image (Roll 2 / PPC / Small size)	0	±1.00	±0.5	0.01%
507B	Length of Image (Roll 2 / PPC / Smallest size)	0	±1.00	±0.5	0.01%
507C	Length of Image (Roll 2 / Tracing / Large size)	0	±1.00	±0.5	0.01%
507D	Length of Image (Roll 2 / Tracing / Medium size)	0	±1.00	±0.5	0.01%
507E	Length of Image (Roll 2 / Tracing / Small size)	0	±1.00	±0.5	0.01%
507F	Length of Image (Roll 2 / Tracing / Smallest size)	0	±1.00	±0.5	0.01%
5080	Length of Image (Roll 2 / Film / Large size)	0	±1.00	±0.5	0.01%
5081	Length of Image (Roll 2 / Film / Medium size)	0	±1.00	±0.5	0.01%
5082	Length of Image (Roll 2 / Film / Small size)	0	±1.00	±0.5	0.01%
5083	Length of Image (Roll 2 / Film / Smallest size)	0	±1.00	±0.5	0.01%
5084	Length of Image (Roll 3 / PPC / Large size)	0	±1.00	±0.5	0.01%
5085	Length of Image (Roll 3 / PPC / Medium size)	0	±1.00	±0.5	0.01%
5086	Length of Image (Roll 3 / PPC / Small size)	0	±1.00	±0.5	0.01%
5087	Length of Image (Roll 3 / PPC / Smallest size)	0	±1.00	±0.5	0.01%
5088	Length of Image (Roll 3 / Tracing / Large size)	0	±1.00	±0.5	0.01%
5089	Length of Image (Roll 3 / Tracing / Medium size)	0	±1.00	±0.5	0.01%
508A	Length of Image (Roll 3 / Tracing / Small size)	0	±1.00	±0.5	0.01%
508B	Length of Image (Roll 3 / Tracing / Smallest size)	0	±1.00	±0.5	0.01%
508C	Length of Image (Roll 3 / Film / Large size)	0	±1.00	±0.5	0.01%
508D	Length of Image (Roll 3 / Film / Medium size)	0	±1.00	±0.5	0.01%
508E	Length of Image (Roll 3 / Film / Small size)	0	±1.00	±0.5	0.01%
508F	Length of Image (Roll 3 / Film / Smallest size)	0	±1.00	±0.5	0.01%
5090	Length of Image (Roll 4 / PPC / Large size)	0	±1.00	±0.5	0.01%
5091	Length of Image (Roll 4 / PPC / Medium size)	0	±1.00	±0.5	0.01%
5092	Length of Image (Roll 4 / PPC / Small size)	0	±1.00	±0.5	0.01%
5093	Length of Image (Roll 4 / PPC / Smallest size)	0	±1.00	±0.5	0.01%
5094	Length of Image (Roll 4 / Tracing / Large size)	0	±1.00	±0.5	0.01%

NVM Code	Description	Default Value	Range	Recommended Range	Unit Value
5095	Length of Image (Roll 4 / Tracing / Medium size)	0	±1.00	±0.5	0.01%
5096	Length of Image (Roll 4 / Tracing / Small size)	0	±1.00	±0.5	0.01%
5097	Length of Image (Roll 4 / Tracing / Smallest size)	0	±1.00	±0.5	0.01%
5098	Length of Image (Roll 4 / Film / Large size)	0	±1.00	±0.5	0.01%
5099	Length of Image (Roll 4 / Film / Medium size)	0	±1.00	±0.5	0.01%
509A	Length of Image (Roll 4 / Film / Small size)	0	±1.00	±0.5	0.01%
509B	Length of Image (Roll 4 / Film / Smallest size)	0	±1.00	±0.5	0.01%
509C	Length of trailing margin (Manual feed / Large size)	100	0-200	50-150	0.1mm
5100	User - Image placement (Manual feed / PPC / Large size)	100	0-200	50-150	0.1mm
5101	User - Image placement (Manual feed / PPC / Medium size)	100	0-200	50-150	0.1mm
5102	User - Image placement (Manual feed / PPC / Small size)	100	0-200	50-150	0.1mm
5103	User - Image placement (Manual feed / PPC / Smallest size)	100	0-200	50-150	0.1mm
5104	User - Image placement (Manual feed / Tracing / Large size)	100	0-200	50-150	0.1mm
5105	User - Image placement (Manual feed / Tracing / Medium size)	100	0-200	50-150	0.1mm
5106	User - Image placement (Manual feed / Tracing / Small size)	100	0-200	50-150	0.1mm
5107	User - Image placement (Manual feed / Tracing / Smallest size)	100	0-200	50-150	0.1mm
5108	User - Image placement (Manual feed / Film / Large size)	100	0-200	50-150	0.1mm
5109	User - Image placement (Manual feed / Film / Medium size)	100	0-200	50-150	0.1mm
510A	User - Image placement (Manual feed / Film / Small size)	100	0-200	50-150	0.1mm
510B	User - Image placement (Manual feed / Film / Smallest size)	100	0-200	50-150	0.1mm
510C	User - Image placement (Roll 1 / PPC / Large size)	100	0-200	50-150	0.1mm
510D	User - Image placement (Roll 1 / PPC / Medium size)	100	0-200	50-150	0.1mm
510E	User - Image placement (Roll 1 / PPC / Small size)	100	0-200	50-150	0.1mm
510F	User - Image placement (Roll 1 / PPC / Smallest size)	100	0-200	50-150	0.1mm
5110	User - Image placement (Roll 1 / Tracing / Large size)	100	0-200	50-150	0.1mm
5111	User - Image placement (Roll 1 / Tracing / Medium size)	100	0-200	50-150	0.1mm
5112	User - Image placement (Roll 1 / Tracing / Small size)	100	0-200	50-150	0.1mm
5113	User - Image placement (Roll 1 / Tracing / Smallest size)	100	0-200	50-150	0.1mm
5114	User - Image placement (Roll 1 / Film / Large size)	100	0-200	50-150	0.1mm
5115	User - Image placement (Roll 1 / Film / Medium size)	100	0-200	50-150	0.1mm
5116	User - Image placement (Roll 1 / Film / Small size)	100	0-200	50-150	0.1mm
5117	User - Image placement (Roll 1 / Film / Smallest size)	100	0-200	50-150	0.1mm
5118	User - Image placement (Roll 2 / PPC / Large size)	100	0-200	50-150	0.1mm
5119	User - Image placement (Roll 2 / PPC / Medium size)	100	0-200	50-150	0.1mm
511A	User - Image placement (Roll 2 / PPC / Small size)	100	0-200	50-150	0.1mm

NVM Code	Description	Default Value	Range	Recommended Range	Unit Value
511B	User - Image placement (Roll 2 / PPC / Smallest size)	100	0-200	50-150	0.1mm
511C	User - Image placement (Roll 2 / Tracing / Large size)	100	0-200	50-150	0.1mm
511D	User - Image placement (Roll 2 / Tracing / Medium size)	100	0-200	50-150	0.1mm
511E	User - Image placement (Roll 2 / Tracing / Small size)	100	0-200	50-150	0.1mm
511F	User - Image placement (Roll 2 / Tracing / Smallest size)	100	0-200	50-150	0.1mm
5120	User - Image placement (Roll 2 / Film / Large size)	100	0-200	50-150	0.1mm
5121	User - Image placement (Roll 2 / Film / Medium size)	100	0-200	50-150	0.1mm
5122	User - Image placement (Roll 2 / Film / Small size)	100	0-200	50-150	0.1mm
5123	User - Image placement (Roll 2 / Film / Smallest size)	100	0-200	50-150	0.1mm
5124	User - Image placement (Roll 3 / PPC / Large size)	100	0-200	50-150	0.1mm
5125	User - Image placement (Roll 3 / PPC / Medium size)	100	0-200	50-150	0.1mm
5126	User - Image placement (Roll 3 / PPC / Small size)	100	0-200	50-150	0.1mm
5127	User - Image placement (Roll 3 / PPC / Smallest size)	100	0-200	50-150	0.1mm
5128	User - Image placement (Roll 3 / Tracing / Large size)	100	0-200	50-150	0.1mm
5129	User - Image placement (Roll 3 / Tracing / Medium size)	100	0-200	50-150	0.1mm
512A	User - Image placement (Roll 3 / Tracing / Small size)	100	0-200	50-150	0.1mm
512B	User - Image placement (Roll 3 / Tracing / Smallest size)	100	0-200	50-150	0.1mm
512C	User - Image placement (Roll 3 / Film / Large size)	100	0-200	50-150	0.1mm
512D	User - Image placement (Roll 3 / Film / Medium size)	100	0-200	50-150	0.1mm
512E	User - Image placement (Roll 3 / Film / Small size)	100	0-200	50-150	0.1mm
512F	User - Image placement (Roll 3 / Film / Smallest size)	100	0-200	50-150	0.1mm
5130	User - Image placement (Roll 4 / PPC / Large size)	100	0-200	50-150	0.1mm
5131	User - Image placement (Roll 4 / PPC / Medium size)	100	0-200	50-150	0.1mm
5132	User - Image placement (Roll 4 / PPC / Small size)	100	0-200	50-150	0.1mm
5133	User - Image placement (Roll 4 / PPC / Smallest size)	100	0-200	50-150	0.1mm
5134	User - Image placement (Roll 4 / Tracing / Large size)	100	0-200	50-150	0.1mm
5135	User - Image placement (Roll 4 / Tracing / Medium size)	100	0-200	50-150	0.1mm
5136	User - Image placement (Roll 4 / Tracing / Small size)	100	0-200	50-150	0.1mm
5137	User - Image placement (Roll 4 / Tracing / Smallest size)	100	0-200	50-150	0.1mm
5138	User - Image placement (Roll 4 / Film / Large size)	100	0-200	50-150	0.1mm
5139	User - Image placement (Roll 4 / Film / Medium size)	100	0-200	50-150	0.1mm
513A	User - Image placement (Roll 4 / Film / Small size)	100	0-200	50-150	0.1mm
513B	User - Image placement (Roll 4 / Film / Smallest size)	100	0-200	50-150	0.1mm
513C	User - Length of trailing margin (Roll 1 / PPC / Large size)	100	0-200	50-150	0.1mm
513D	User - Length of trailing margin (Roll 1 / PPC / Medium size)	100	0-200	50-150	0.1mm

NVM Code	Description	Default Value	Range	Recommended Range	Unit Value
513E	User - Length of trailing margin (Roll 1 / PPC / Small size)	100	0-200	50-150	0.1mm
513F	User - Length of trailing margin (Roll 1 / PPC / Smallest size)	100	0-200	50-150	0.1mm
5140	User - Length of trailing margin (Roll 1 / Tracing / Large size)	100	0-200	50-150	0.1mm
5141	User - Length of trailing margin (Roll 1 / Tracing / Medium size)	100	0-200	50-150	0.1mm
5142	User - Length of trailing margin (Roll 1 / Tracing / Small size)	100	0-200	50-150	0.1mm
5143	User - Length of trailing margin (Roll 1 / Tracing / Smallest size)	100	0-200	50-150	0.1mm
5144	User - Length of trailing margin (Roll 1 / Film / Large size)	100	0-200	50-150	0.1mm
5145	User - Length of trailing margin (Roll 1 / Film / Medium size)	100	0-200	50-150	0.1mm
5146	User - Length of trailing margin (Roll 1 / Film / Small size)	100	0-200	50-150	0.1mm
5147	User - Length of trailing margin (Roll 1 / Film / Smallest size)	100	0-200	50-150	0.1mm
5148	User - Length of trailing margin (Roll 2 / PPC / Large size)	100	0-200	50-150	0.1mm
5149	User - Length of trailing margin (Roll 2 / PPC / Medium size)	100	0-200	50-150	0.1mm
514A	User - Length of trailing margin (Roll 2 / PPC / Small size)	100	0-200	50-150	0.1mm
514B	User - Length of trailing margin (Roll 2 / PPC / Smallest size)	100	0-200	50-150	0.1mm
514C	User - Length of trailing margin (Roll 2 / Tracing / Large size)	100	0-200	50-150	0.1mm
514D	User - Length of trailing margin (Roll 2 / Tracing / Medium size)	100	0-200	50-150	0.1mm
514E	User - Length of trailing margin (Roll 2 / Tracing / Small size)	100	0-200	50-150	0.1mm
514F	User - Length of trailing margin (Roll 2 / Tracing / Smallest size)	100	0-200	50-150	0.1mm
5150	User - Length of trailing margin (Roll 2 / Film / Large size)	100	0-200	50-150	0.1mm
5151	User - Length of trailing margin (Roll 2 / Film / Medium size)	100	0-200	50-150	0.1mm
5152	User - Length of trailing margin (Roll 2 / Film / Small size)	100	0-200	50-150	0.1mm
5153	User - Length of trailing margin (Roll 2 / Film / Smallest size)	100	0-200	50-150	0.1mm
5154	User - Length of trailing margin (Roll 3 / PPC / Large size)	100	0-200	50-150	0.1mm
5155	User - Length of trailing margin (Roll 3 / PPC / Medium size)	100	0-200	50-150	0.1mm
5156	User - Length of trailing margin (Roll 3 / PPC / Small size)	100	0-200	50-150	0.1mm
5157	User - Length of trailing margin (Roll 3 / PPC / Smallest size)	100	0-200	50-150	0.1mm
5158	User - Length of trailing margin (Roll 3 / Tracing / Large size)	100	0-200	50-150	0.1mm
5159	User - Length of trailing margin (Roll 3 / Tracing / Medium size)	100	0-200	50-150	0.1mm
515A	User - Length of trailing margin (Roll 3 / Tracing / Small size)	100	0-200	50-150	0.1mm
515B	User - Length of trailing margin (Roll 3 / Tracing / Smallest size)	100	0-200	50-150	0.1mm
515C	User - Length of trailing margin (Roll 3 / Film / Large size)	100	0-200	50-150	0.1mm
515D	User - Length of trailing margin (Roll 3 / Film / Medium size)	100	0-200	50-150	0.1mm
515E	User - Length of trailing margin (Roll 3 / Film / Small size)	100	0-200	50-150	0.1mm
515F	User - Length of trailing margin (Roll 3 / Film / Smallest size)	100	0-200	50-150	0.1mm
5160	User - Length of trailing margin (Roll 4 / PPC / Large size)	100	0-200	50-150	0.1mm

NVM Code	Description	Default Value	Range	Recommended Range	Unit Value
5161	User - Length of trailing margin (Roll 4 / PPC / Medium size)	100	0-200	50-150	0.1mm
5162	User - Length of trailing margin (Roll 4 / PPC / Small size)	100	0-200	50-150	0.1mm
5163	User - Length of trailing margin (Roll 4 / PPC / Smallest size)	100	0-200	50-150	0.1mm
5164	User - Length of trailing margin (Roll 4 / Tracing / Large size)	100	0-200	50-150	0.1mm
5165	User - Length of trailing margin (Roll 4 / Tracing / Medium size)	100	0-200	50-150	0.1mm
5166	User - Length of trailing margin (Roll 4 / Tracing / Small size)	100	0-200	50-150	0.1mm
5167	User - Length of trailing margin (Roll 4 / Tracing / Smallest size)	100	0-200	50-150	0.1mm
5168	User - Length of trailing margin (Roll 4 / Film / Large size)	100	0-200	50-150	0.1mm
5169	User - Length of trailing margin (Roll 4 / Film / Medium size)	100	0-200	50-150	0.1mm
516A	User - Length of trailing margin (Roll 4 / Film / Small size)	100	0-200	50-150	0.1mm
516B	User - Length of trailing margin (Roll 4 / Film / Smallest size)	100	0-200	50-150	0.1mm
516C	User - Length of Image (Roll 1 / PPC / Large size)	0	±1.00	±0.5	0.01%
516D	User - Length of Image (Roll 1 / PPC / Medium size)	0	±1.00	±0.5	0.01%
516E	User - Length of Image (Roll 1 / PPC / Small size)	0	±1.00	±0.5	0.01%
516F	User - Length of Image (Roll 1 / PPC / Smallest size)	0	±1.00	±0.5	0.01%
5170	User - Length of Image (Roll 1 / Tracing / Large size)	0	±1.00	±0.5	0.01%
5171	User - Length of Image (Roll 1 / Tracing / Medium size)	0	±1.00	±0.5	0.01%
5172	User - Length of Image (Roll 1 / Tracing / Small size)	0	±1.00	±0.5	0.01%
5173	User - Length of Image (Roll 1 / Tracing / Smallest size)	0	±1.00	±0.5	0.01%
5174	User - Length of Image (Roll 1 / Film / Large size)	0	±1.00	±0.5	0.01%
5175	User - Length of Image (Roll 1 / Film / Medium size)	0	±1.00	±0.5	0.01%
5176	User - Length of Image (Roll 1 / Film / Small size)	0	±1.00	±0.5	0.01%
5177	User - Length of Image (Roll 1 / Film / Smallest size)	0	±1.00	±0.5	0.01%
5178	User - Length of Image (Roll 2 / PPC / Large size)	0	±1.00	±0.5	0.01%
5179	User - Length of Image (Roll 2 / PPC / Medium size)	0	±1.00	±0.5	0.01%
517A	User - Length of Image (Roll 2 / PPC / Small size)	0	±1.00	±0.5	0.01%
517B	User - Length of Image (Roll 2 / PPC / Smallest size)	0	±1.00	±0.5	0.01%
517C	User - Length of Image (Roll 2 / Tracing / Large size)	0	±1.00	±0.5	0.01%
517D	User - Length of Image (Roll 2 / Tracing / Medium size)	0	±1.00	±0.5	0.01%
517E	User - Length of Image (Roll 2 / Tracing / Small size)	0	±1.00	±0.5	0.01%
517F	User - Length of Image (Roll 2 / Tracing / Smallest size)	0	±1.00	±0.5	0.01%
5180	User - Length of Image (Roll 2 / Film / Large size)	0	±1.00	±0.5	0.01%
5181	User - Length of Image (Roll 2 / Film / Medium size)	0	±1.00	±0.5	0.01%
5182	User - Length of Image (Roll 2 / Film / Small size)	0	±1.00	±0.5	0.01%
5183	User - Length of Image (Roll 2 / Film / Smallest size)	0	±1.00	±0.5	0.01%

NVM Code	Description	Default Value	Range	Recommended Range	Unit Value
5184	User - Length of Image (Roll 3 / PPC / Large size)	0	±1.00	±0.5	0.01%
5185	User - Length of Image (Roll 3 / PPC / Medium size)	0	±1.00	±0.5	0.01%
5186	User - Length of Image (Roll 3 / PPC / Small size)	0	±1.00	±0.5	0.01%
5187	User - Length of Image (Roll 3 / PPC / Smallest size)	0	±1.00	±0.5	0.01%
5188	User - Length of Image (Roll 3 / Tracing / Large size)	0	±1.00	±0.5	0.01%
5189	User - Length of Image (Roll 3 / Tracing / Medium size)	0	±1.00	±0.5	0.01%
518A	User - Length of Image (Roll 3 / Tracing / Small size)	0	±1.00	±0.5	0.01%
518B	User - Length of Image (Roll 3 / Tracing / Smallest size)	0	±1.00	±0.5	0.01%
518C	User - Length of Image (Roll 3 / Film / Large size)	0	±1.00	±0.5	0.01%
518D	User - Length of Image (Roll 3 / Film / Medium size)	0	±1.00	±0.5	0.01%
518E	User - Length of Image (Roll 3 / Film / Small size)	0	±1.00	±0.5	0.01%
518F	User - Length of Image (Roll 3 / Film / Smallest size)	0	±1.00	±0.5	0.01%
5190	User - Length of Image (Roll 4 / PPC / Large size)	0	±1.00	±0.5	0.01%
5191	User - Length of Image (Roll 4 / PPC / Medium size)	0	±1.00	±0.5	0.01%
5192	User - Length of Image (Roll 4 / PPC / Small size)	0	±1.00	±0.5	0.01%
5193	User - Length of Image (Roll 4 / PPC / Smallest size)	0	±1.00	±0.5	0.01%
5194	User - Length of Image (Roll 4 / Tracing / Large size)	0	±1.00	±0.5	0.01%
5195	User - Length of Image (Roll 4 / Tracing / Medium size)	0	±1.00	±0.5	0.01%
5196	User - Length of Image (Roll 4 / Tracing / Small size)	0	±1.00	±0.5	0.01%
5197	User - Length of Image (Roll 4 / Tracing / Smallest size)	0	±1.00	±0.5	0.01%
5198	User - Length of Image (Roll 4 / Film / Large size)	0	±1.00	±0.5	0.01%
5199	User - Length of Image (Roll 4 / Film / Medium size)	0	±1.00	±0.5	0.01%
519A	User - Length of Image (Roll 4 / Film / Small size)	0	±1.00	±0.5	0.01%
519B	User - Length of Image (Roll 4 / Film / Smallest size)	0	±1.00	±0.5	0.01%
900B	Counter A setting mode (Lower 4 digits)	0000	0-9999	-	-
900C	Counter A setting mode (Upper 3 digits)	000	0-999	-	-
900D	Counter B setting mode (Lower 4 digits)	0000	0-9999	-	-
900E	Counter B setting mode (Upper 3 digits)	000	0-999	-	-

Notes:

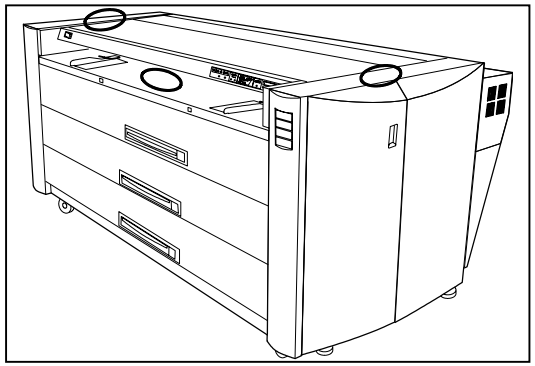
721p Install

Inspecting the Shipment

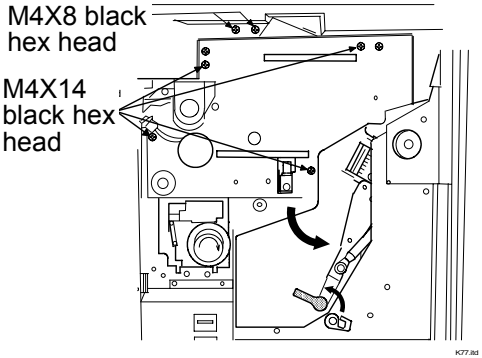
1. Ensure that the customer power source is 208 to 240 VAC.
2. **(NACO and EO)**: Inspect the shipment at the customer's site for the following items.
   - Base machine
   - Nationalization Kit
   - HFT Controller
   - AccXES 9.0 Controller Install Kit
   - LED Print Head
   - 721P Catch Tray Kit (Optional)
   - Photoreceptor
   - Photoreceptor Stand
   - Photoreceptor Cleaning Tool
   - Photoreceptor Bag
   - Photoreceptor Cover
   - Machine Log & Log Sheet
   - Operator Manual
   - Manual Feed Tray

Preparing the Machine

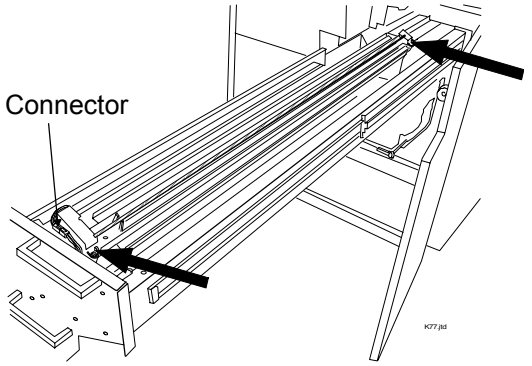
1. Remove the wrapping film and wrapping paper from the machine.
2. Remove the packing materials and tapes from the media mandrels and install the media.
3. Ensure that the correct Media Type buttons are selected.
4. Open the right and left door and remove all shipping tape (if present) from the following items.
   - Cutter knob
   - Inner transport down lock
   - Inner transport catch lever
   - Toner supply mechanism cover
5. Adjust the machine level as required.
   a. Level the machine:
   b. Lower the feet until the casters no longer touch the floor.
   c. Check the machine level at the machine locations shown below.



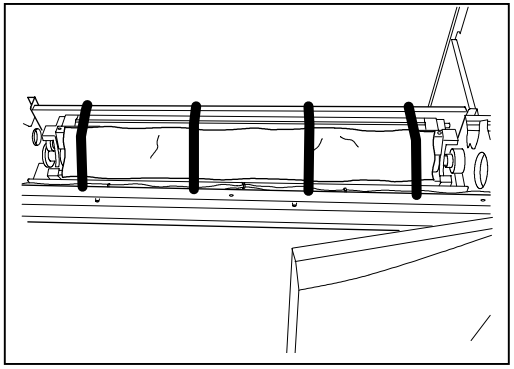
6. Pull open the Upper Rear Door and remove one pad with a tag from the Fuser Entrance Area.
7. Remove the two bolts with tags that secure the pressure mechanism underneath the Fuser Assembly (machine rear).
8. Lower the Inner Transport and lock it into position.
9. Remove the Transfer / Detack Corotron. Clean the corotrons with a water-dampened cloth.
10. Check the Transfer / Detack Corotron Wires (ADJ 1.3.3).
11. Reinstall the Transfer / Detack Corotron.
12. Remove 2 black Hex Head screws (M4x8) to use later. Loosen 4 black Hex Head screws (M4x14). Then pull out the Xerographic Module by the two handles.
13. Unplug the Charge Scorotron connector.



Remove 2 screws, then remove Charge Scorotron (grasp from ends).

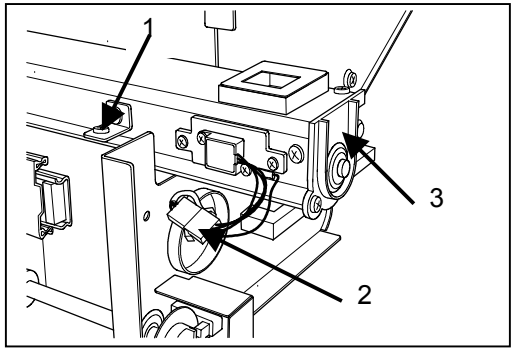


14. Clean the Charge Scorotron with a lint free water-dampened cloth by patting (not wiping) it. Inspect the Scorotron for being warped. If warped, reinstall the grid (REP 1.1.2).
15. Remove all tape, from the Developer Assy. Remove the paper from the front of the Development Roller.

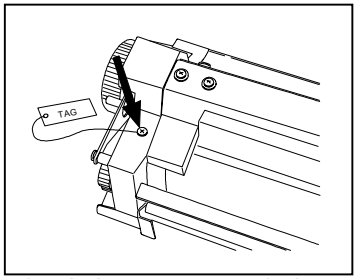


***Note**: The Development Roller is covered with toner.*

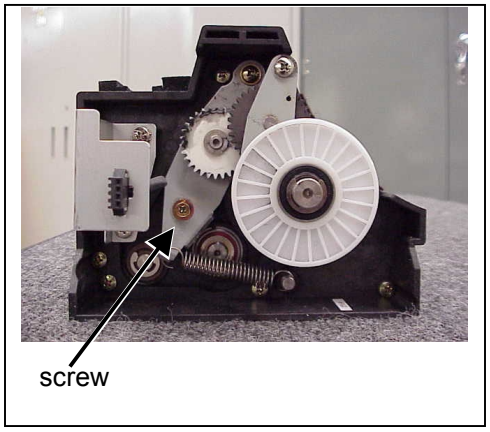
16. Remove four Screws (1) and Connector J-57 (2), then remove the Toner Hopper (3).



17. Remove the screw with tag from the left side, releasing the Spring force from the Development Roller.

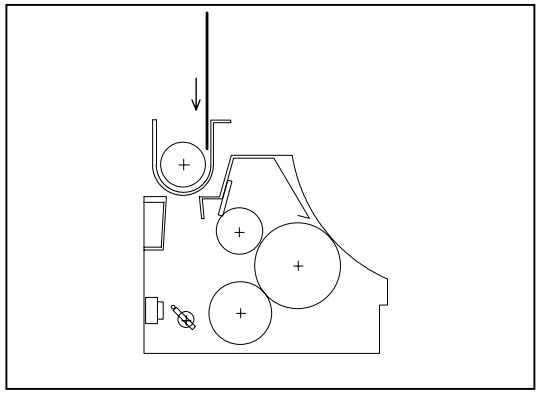


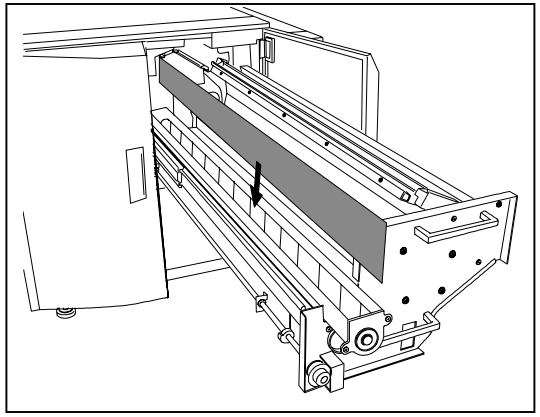
18. Loosen (and do not remove) the screw with tag from right side, releasing the Spring force from the Development Roller. Allow the spring to work normally, and then tighten this screw again. (Remove the tag.)



19. Ensure that the Developer Assembly is biased against the low side of the positioning cams.
20. Reinstall the Toner Hopper and connect J-57.
21. Remove the Toner Hopper Cover (3 screws).
22. Insert a sheet of paper (5 inch x 36 inch) in the Toner Hopper around the auger, until the leading edge of the paper hits the feet of the screws.

***Note**: Insert the paper inboard to mask the left most hole.*

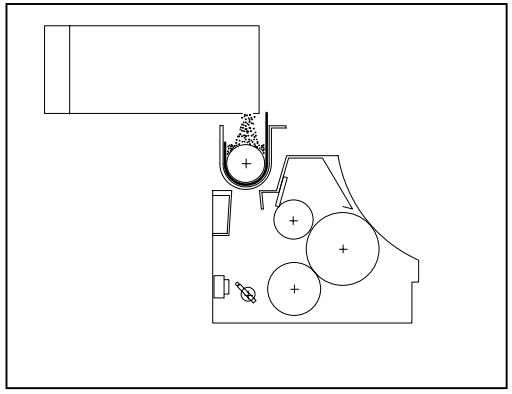


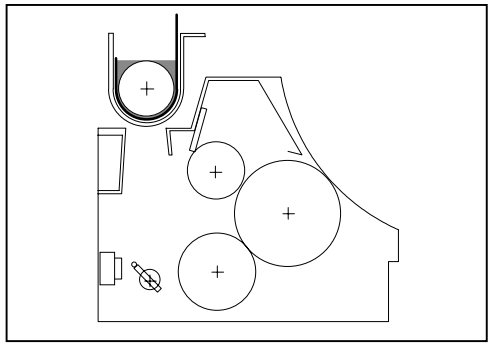


Note: *It the Toner Starter bottle is not available for the next step, use the Toner Cartridge instead.*

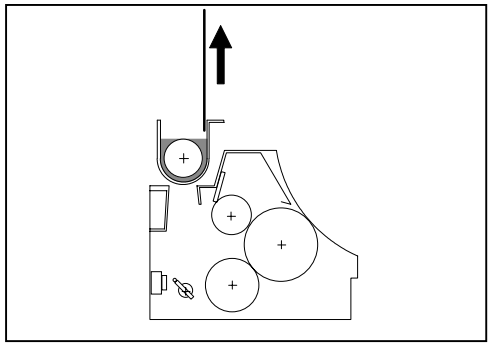
23. Pour the toner from the Toner Starter bottle in the Toner Hopper as shown below, starting at the outboard side, until most of the Supply Auger Sender Screw of the Toner Hopper is covered with toner. The last four to six inches should not be covered. If it is, the auger may jam or the toner level in the Developer unit will not be level.

Note*: It is acceptable if the Toner Starter bottle empties before reaching the inboard side.*





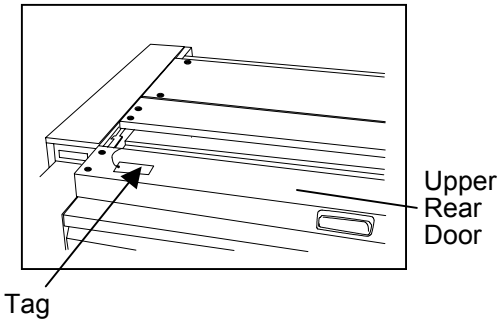
24. Remove the sheet of paper.



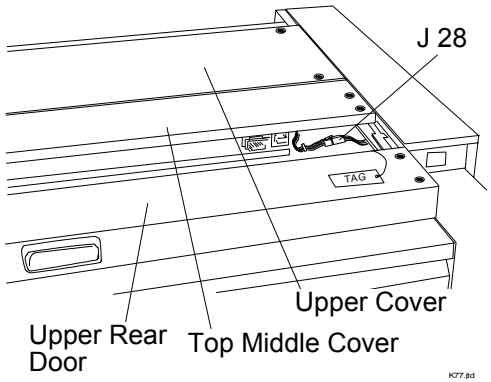
25. Replace the toner hopper cover.

LED Print Head /Drum Assembly

1. Slide open the Upper Rear Door.
2. Remove the shock absorber with the tag attached.



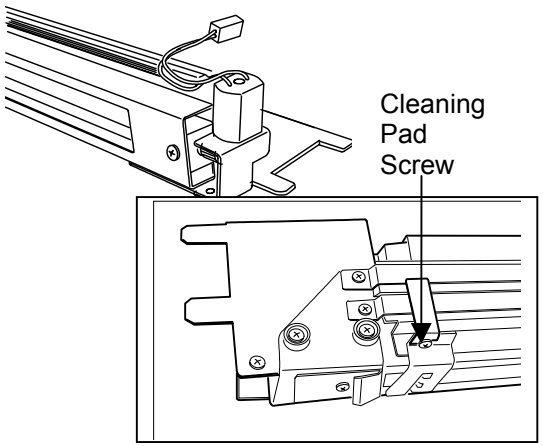
3. Unclamp the wires and disconnect the J 28, and remove Top Middle Cover (4 screws).



Caution

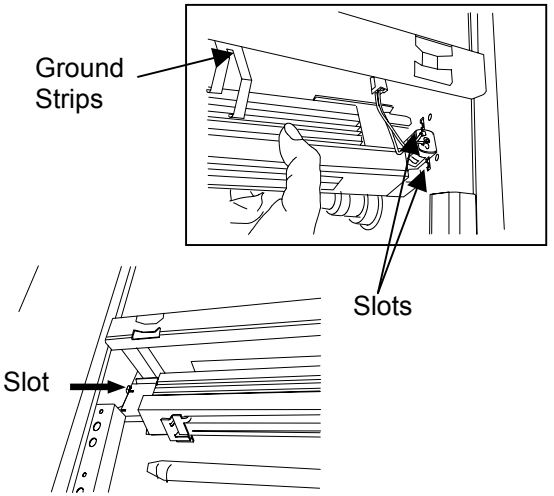
Use caution removing the shipping materials from the LED Print Head because the Selfoc Lens Assembly is easily damaged.

4. Remove the LED Head from the box and remove the cardboard cover from the motor. Remove the cleaning pad from the small box, loosen a screw and install it with the screw.



5. Install the LED Print Head by inserting the inboard tabs of the LED Head into the slots.

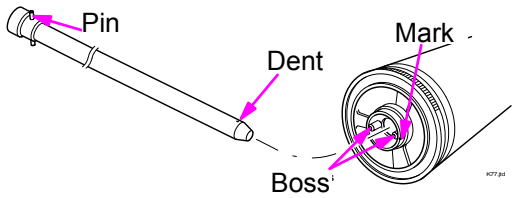
   Then position the pin on the outboard end in the slot in the frame. Install the two black head screws but do not tighten at this time.



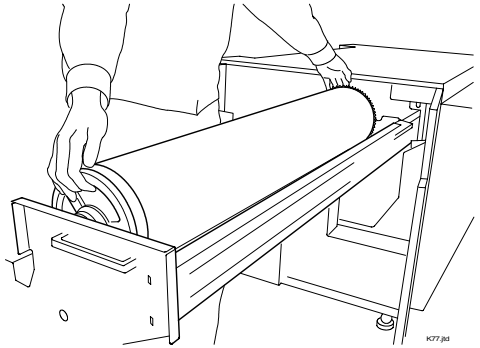
6. Ensure that the copper ground strips are contacting the top of the LED Print Head.

7. Insert the Xerographic Module, and tighten 4 Black Head Screws of Xerographic Module. Press down on the LED Head and tighten the 2 black hex head screws.
8. Connect all three connectors to the LED Print Head and one connector for the motor.
9. Remove the tape from the Cleaner Roll. Remove the Cleaner Roll by removing the left side (slotted bracket) first.
10. Place the Cleaner Roll on a clean flat surface.

***Note**: When installing the drum, the "Mark" on the Drum Gear and "Dimple" of the Drum Shaft should be offset by 90 degrees.*
If the "Dimple" and "Mark" are aligned, the pins will interfere with one another when the Xerographic Module is installed in the machine.

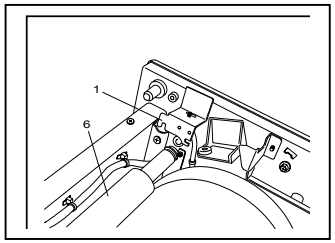


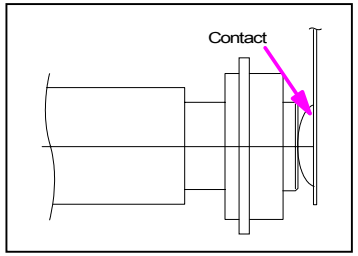
1. Remove the Drum from the box. Holding the Gear Side of the Drum on your left hand, carefully install the Drum, sliding it down the guide, ensuring that the drum meshes correctly with the gears.



2. Reinstall the Cleaner Roll (6).
3. Ensure that the right side of the cleaning roll shaft is touching the contact behind the bracket. (1)

(Avoid touching the Drum.)



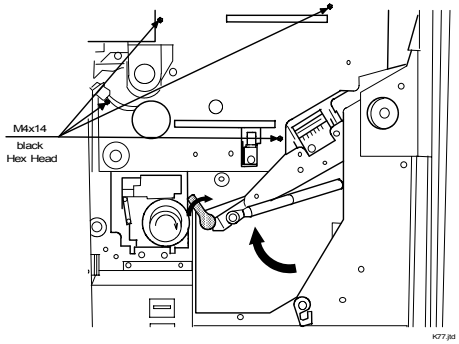


4. Reinstall the Charge Scorotron, and connect J92. Install the 2 screws on the Charge Scorotron.

Caution

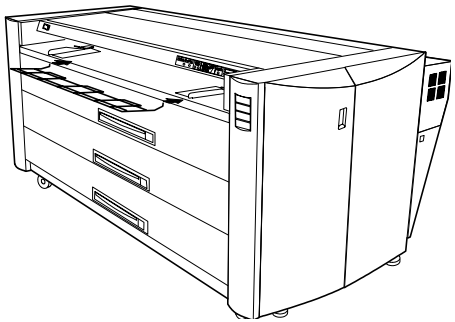
If the LED Head screws (2) are tightened prior to inserting the Xerographic Module, the LED Head locating pins can bend and result in defocus of the LED Head.

15. Push in Xerographic Module. Tighten the 4 black Hex Head screws. Press down on the LED Head and tighten the 2 black hex head screws. Return the Inner Transport Unit and latch it into position.
16. Reconnect J-28 and re-clamp the wires and reinstall the Top Middle Cover.



Manual Bypass Tray

1. Install the Manual Bypass Tray in the front.

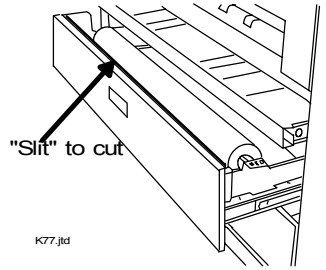


Initial Cut (Manually)

***Note**: Remove all packaging and tape from the drawers before installing paper.*

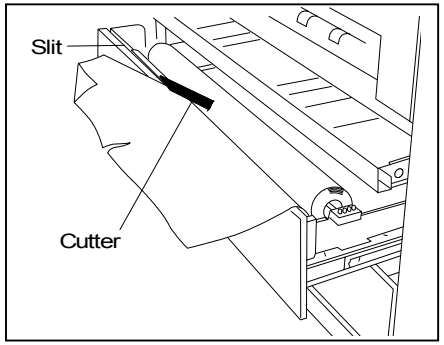
Use the “Slit” to cut media in the drawer.

1. Install the power cord and switch the power on. Perform the following steps while the copier is warming up.
2. Cut the leading edge of the Roll Paper **manually** in the following cases using a knife.
   a. In case the leading edge of the roll paper Is taped, cut more than 550mm (one revolution).



***Note**: Ensure all of the glue residue is cut from the media or image quality problems will result from glue adhering to the drum.*

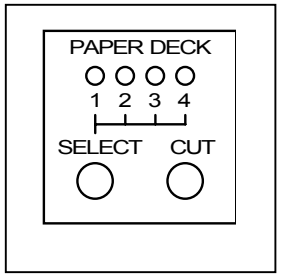
   b. In case the leading edge of the roll paper is torn, folded or very rough.



Auto Media Cut

After the printer is warmed up and ready, and the lead edge of the media is not sufficiently smooth, perform the Auto Cut :

1. Select the desired roll by pressing [Select] key.
2. Press the [Cut] key. Approximately 240mm paper is cut and fed from the printer.

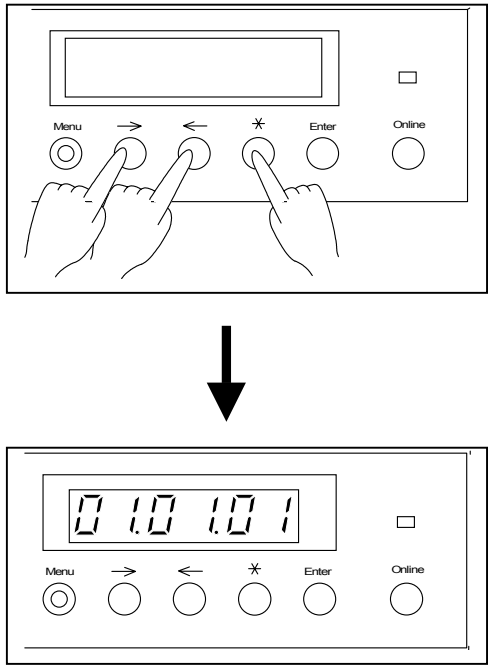


Toner Supply

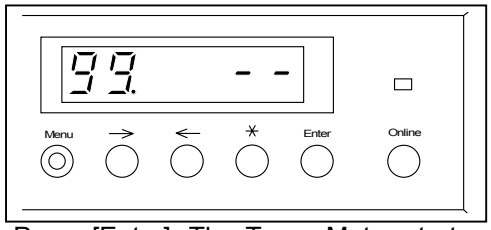
***Note**: The Toner Cartridge feed hole must be in the down position.*

1. Install Toner Cartridge in the printer.
2. Enter the Service Mode: Press and hold the [*] key and then press [-->], [-->], [<--] and [-->].

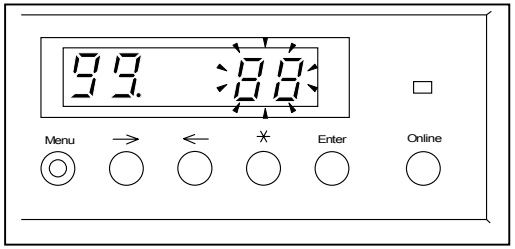
The Operation Panel indicates the PROM version.



3. Press the [Menu] key until [9] is indicated on the 1st digit from the left. Then you can enter in the “Factory Adjustment Mode”.
4. Select Sub Mode 9 (Toner Supply Mode) by pressing [-->] or [<--] keys. Then indication is indicated [9 9]



5. Press [Enter]. The Toner Motor starts and the toner is supplied in the Toner Hopper and Developer Sump. The printer will continue to operate for about 10 minutes. [8 8] on 5th and 6th digits keeps on flashing during the operation. Do not turn off the printer at this time.



6. [8 8] on 5th and 6th digits stops flashing when the printer has stopped operating. Press the [ONLINE] key to cancel the Service Mode.

***Note**: The printer may be shipped with a starter toner bottle. If no toner starter bottle is available, filling the system with a toner cartridge will consume approximately 2/3 of the cartridge.*

Final Checks

1. Verify the Billing and Service meter operation: Using Mode 4, check that 4-05 (Meter A) is programmed to read square feet, square metres, or square decimetres, and 4-06 (Meter B) is programmed to linear feet, metres, or decimetres. Run a 36 X 48 or A0 print.
   a. Check Meter A for the appropriate reading in Table 1.

Paper Size	Square Feet	Square metres	Square decimetres
36x48	12	-	-
A0	-	1	99.99

Table 3 Meter A

   b. Check Meter B for the appropriate reading in Table 2.

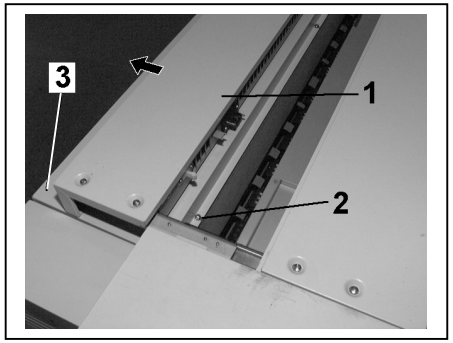
Paper Size	Linear Feet	Linear metres	Linear decimetres
36x48	4	-	-
A0	-	1	11

Table 4 Meter B

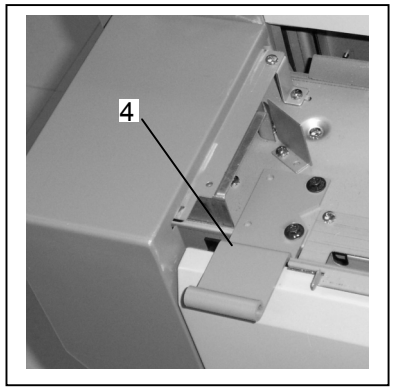
2. Verify that Program 4 (NVM Setup Mode 0) and Program 5 (NVM Setup Mode 1) settings match the factory settings on the inside of the Service Cover.
3. Set Code 4-01 [4001] to 1 (Channel A). Connect the HFT Controller to Channel A.
4. Verify machine operation and Copy Quality by running five prints of Test Pattern 1.
5. Set User Mode 2 – Date and Time.
6. Ensure Code 4-13 [4013] (LED Strobe Time) is set to 25 and Code 4-14 [4014] (LED Auxiliary Strobe Time) is set to 0.
7. Perform ADJ 5.1.2 Image Placement Series if required.
8. Clean the covers.
9. Create a backup of all NVM values (see PC Diagnostic Setup Procedure, step 7, in Section 6).
10. Upgrade the Controller and Scanner software to the latest version available on the web site.
11. Train the customer on the following tasks.
    - Powering on the system
    - Making copies with the Scanner
    - Assist the Customer (only upon request) to install Client Tools for the customer (ACT or PLP, etc.)
    - Operation of all applicable accessories (Folder/Stacker)
    - Manual Tray operation
    - Canceling a job from the IOT.
    - How to Clean the Charge Scorotron
    - How to Clean the LED Head
    - Toner replacement - to include shaking the Toner Cartridge (Do not hold the center of the Toner Cartridge while rotating downward, since toner comes out from the right hole.)
    - How to run a test print
    - How to make an Initial Cut (manually and Electrically)
    - Jam clearance
    - Explain Billing Meter location and how to read the meters.
    - How to replace roll paper during printing.

Catch Tray Install

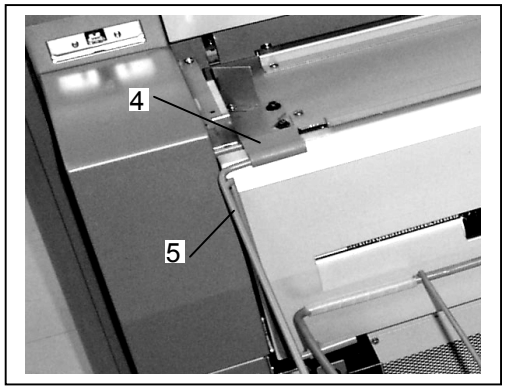
1. Ensure the following components are present before installing the HFT Controller:
   a. Catch Tray
   b. 2 Catch Tray Brackets
   c. 4 Hex Head screws
2. Switch off the power to the 721P.
3. Pull the Top Rear Cover (1) to the rear side.
4. Loosen three Screws (2) and remove the Fuser Cover (3) by sliding it toward the machine rear.



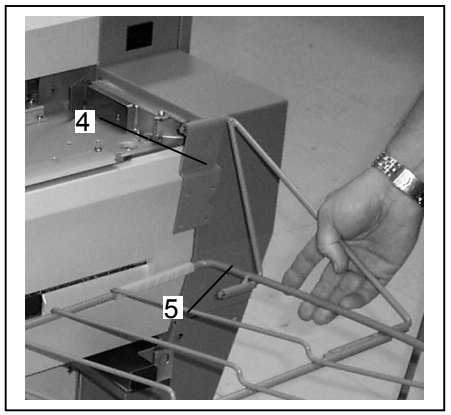
5. Install one of the Catch Tray Brackets (4) using 2 of the Hex Head screws.



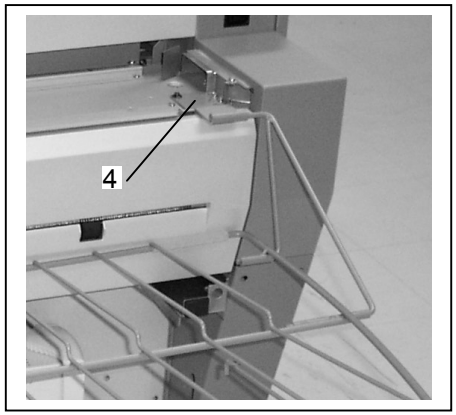
6. Insert one end of the Catch Tray (5) into the installed bracket (4).



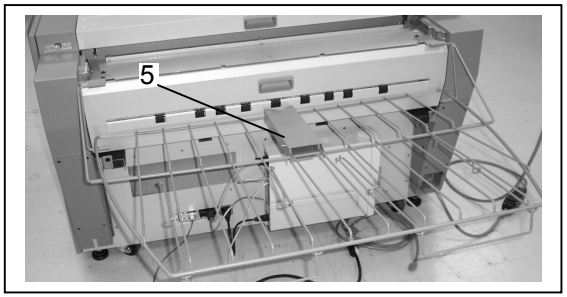
7. Slide the uninstalled bracket (4) over the other end of the Catch Tray (5).



8. Install the second bracket (4) using 2 Hex Head screws.



9. Ensure that the Catch Tray (5) is centered.



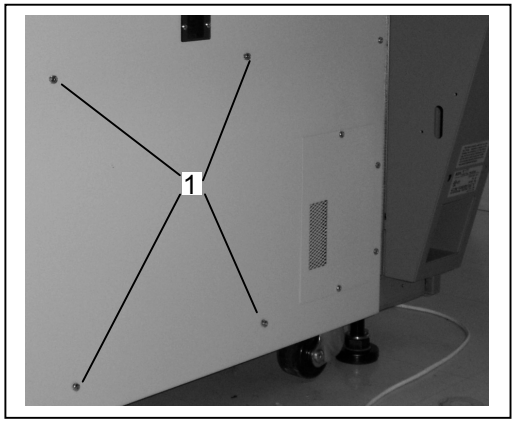
10. Reinstall the Fuser Cover.
11. Reposition the Top Rear Cover.

HFT Controller Install

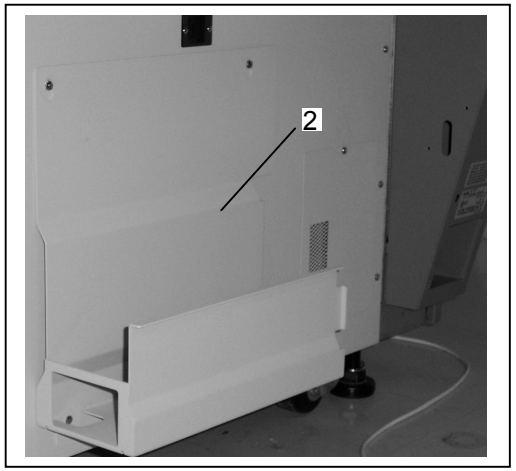
1. Ensure the following components are present before installing the HFT Controller:
   a. HFT Controller
   b. HFT Bracket
   c. Data Cable
   d. Power Cable
   e. Interface (PCI) PWB (Controller HFT)
2. Install the Interface (PCI) PWB into the HFT Controller using REP 1.4D Interface (PCI) PWB (Controller HFT) in the AccXES Service Manual.

***Note**: A minimum version of AccXES code 9.1, Build 121, must be used on the 721P product.*

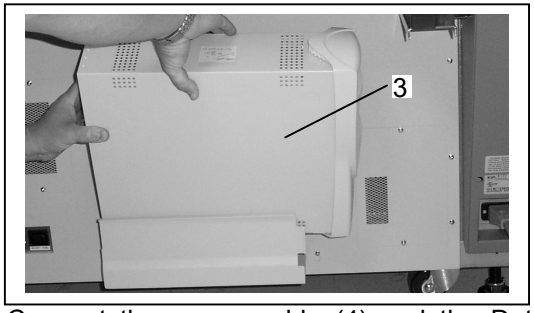
3. Install the Hard Disk Drive Kit using AccXES REP 1.7D and install the proper memory configuration.
4. Switch off the power to the 721P.
5. Loosen the four screws (1) on the lower rear of the 721P.



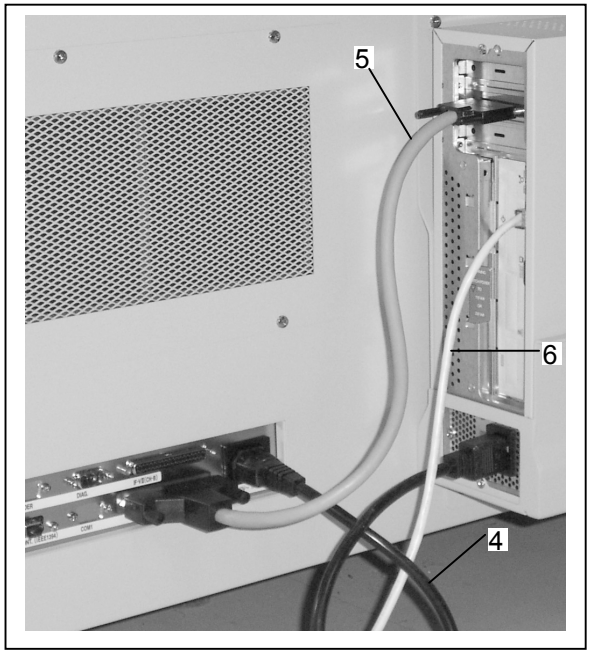
6. Insert the HFT Bracket (2) onto the four loosened screws and tighten the screws.



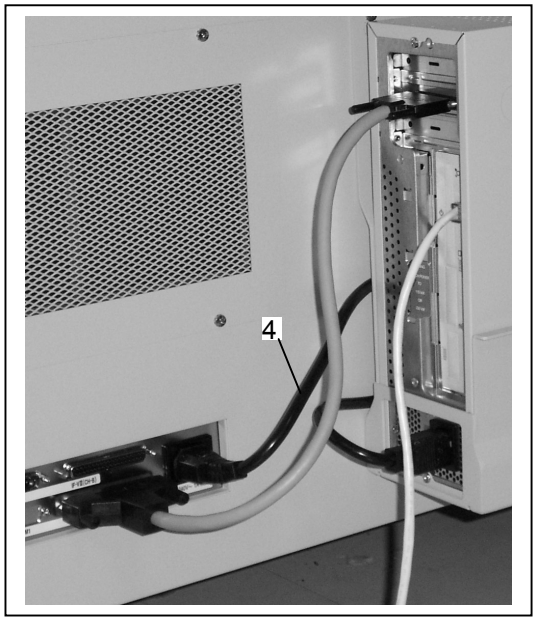
7. Record the serial number of the controller.
8. Ensure red switch is set to 220 V.
9. Insert the HFT Controller (3) into the Bracket.



10. Connect the power cable (4) and the Data Cable (5) between the HFT Controller and the 721P. Also connect the network Cable (6) to the HFT Controller.



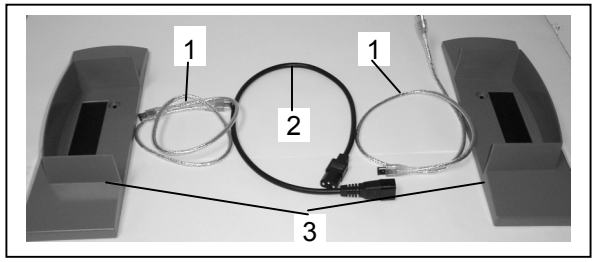
11. Tuck the Power Cable (4) (and any cables installed at a later time) behind the HFT Controller.

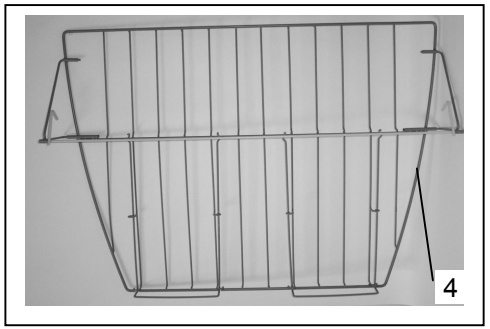


12. Switch on the power to the 721P and the HFT Controller (Switch is located on the right side of the machine).

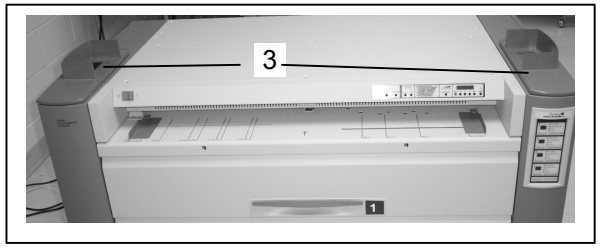
Synergix Scan System Install

1. Ensure the following components are present before installing the Synergix Scan System:
   a. Two Fire wire cables (1)
   b. Power Cable (2)
   c. Two Scanner Feet (3)
   d. Scanner Catch Tray (4)
   e. Scanner (5)

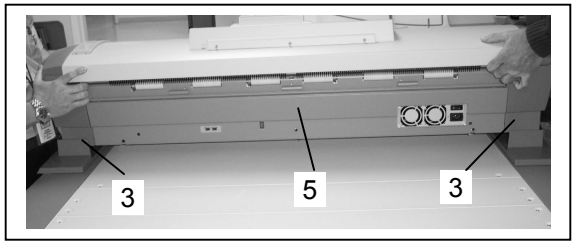




2. Switch off the power to the 721P and the HFT Controller.
3. Place the Scanner Feet (3) on the each side of the printer Top/Front as shown. Offset each foot towards the outboard edge of each side of the 721P.

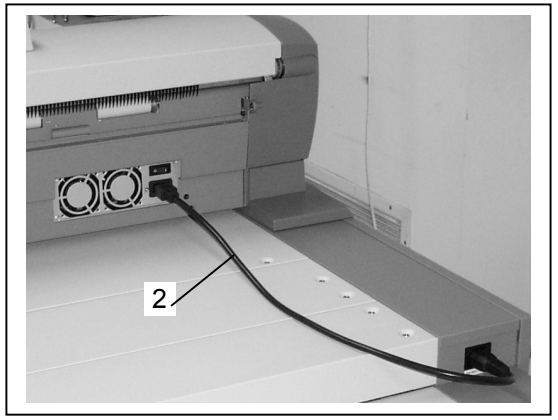


4. Place the Scanner (5) on the Scanner Feet (3).

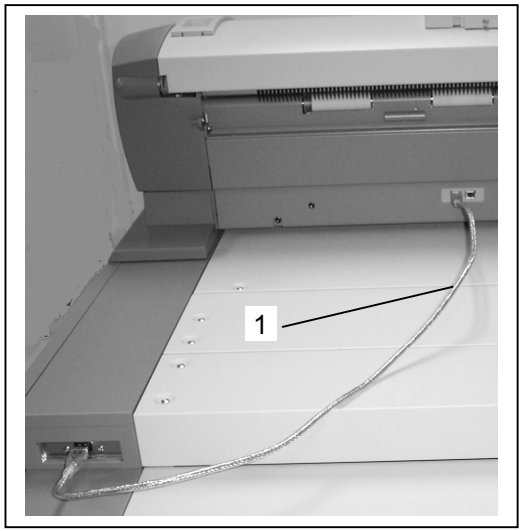


5. Maneuver the Scanner Feet until they are flush against the scanner and their edges are flushed with the 721P front edges.

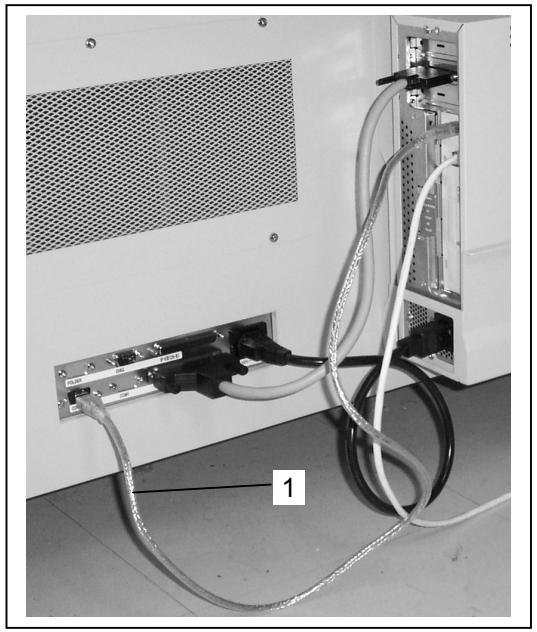
6. Connect the Power Cable (2) from the scanner to the 721P.



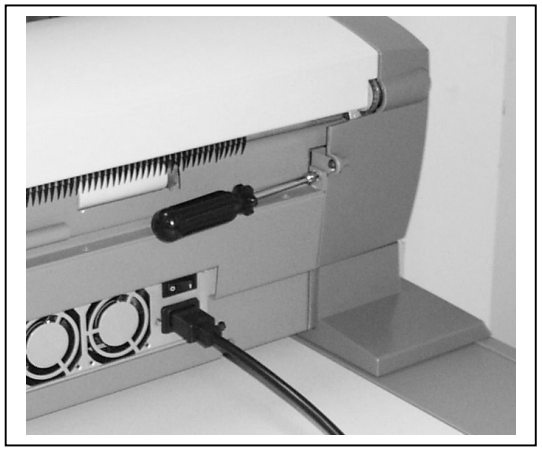
7. Connect one of the Fire wire cables (1) from the Scanner to the 721P.

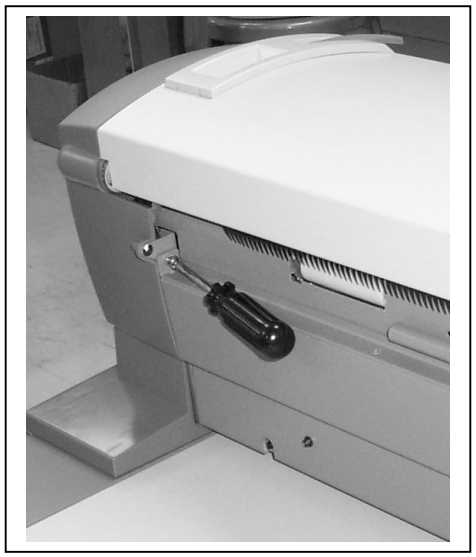


8. Connect the second Fire wire cable (1) from the 721P to the HFT Controller.

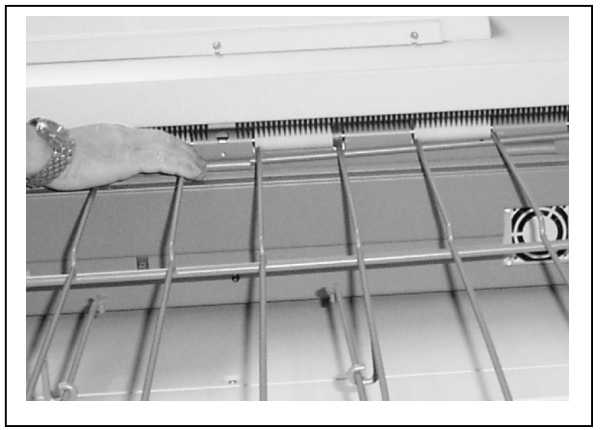


9. Loosen the screw (5) on each side of the Scanner catch Tray bracket (6).

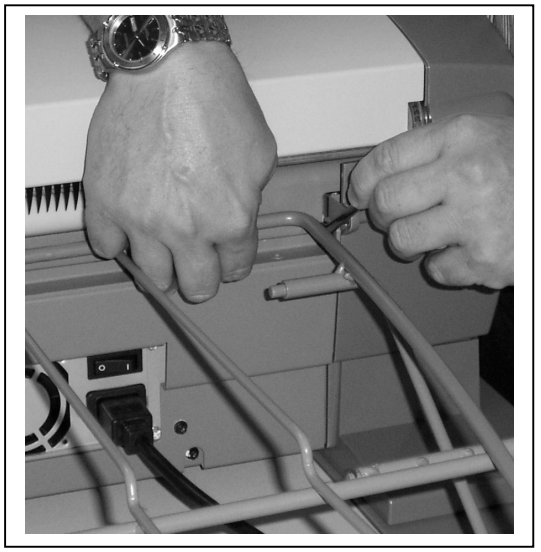




10. Snap the Scanner Catch Tray behind the bracket as shown.



11. Tighten the screw on each side of the Scanner catch Tray bracket.



12. Switch on the power to the 721P, the HFT Controller, and the Synergix Scan System.

Stacker Install

Pre-installation Check:

The following should have been completed prior to beginning the installation:

- The Stacker should be assembled.
- The Stacker Legs should be set to the third hole.

The following parts should have been placed on top of the Stacker:

Item	Description	Qty
1	Screws	4
2	Stop Brackets	2
3	Stacker Extensions Arms	4
4	Stacker Install Kit (675K10170)	1

Procedure

1. Switch off the power from the 721P Printer and disconnect the power cord.
2. Remove all shipping material (tape, foam) from the stacker.
3. (Figure 2) Install the Stop Brackets on the right and left side of the 721P Rear Side Covers using the top two (2) holes.

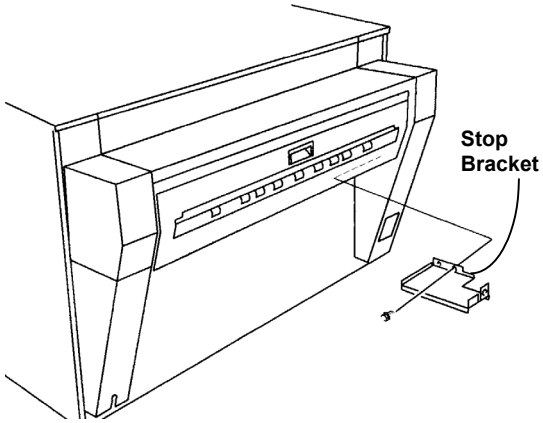


Figure 2 Installing the Stop Brackets.

4. (Figure 3) Move the Stacker into position behind the 721P. Ensure the locating pins on the Stacker are centered in the Stop Bracket holes.

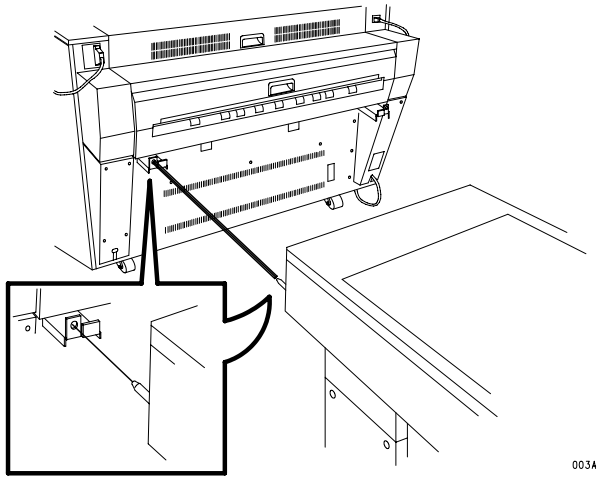


Figure 3 Connecting the Stacker to the 721P.

***Note**: If any adjustment is necessary, turn the four (4) Adjustable Feet CW or CCW as necessary to raise or lower the Stacker to the correct height.*

5. (Figure 4) Level the Stacker from front-to-back by adjusting the four (4) Adjustable feet CW or CCW as required.

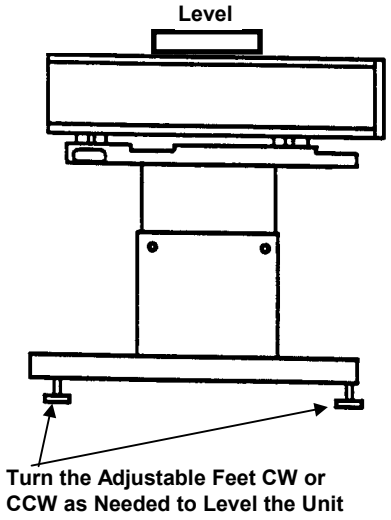


Figure 4 Leveling the Stacker

6. (Figure 5) Install the four Stacker Extension Arms to the back of the Stacker.

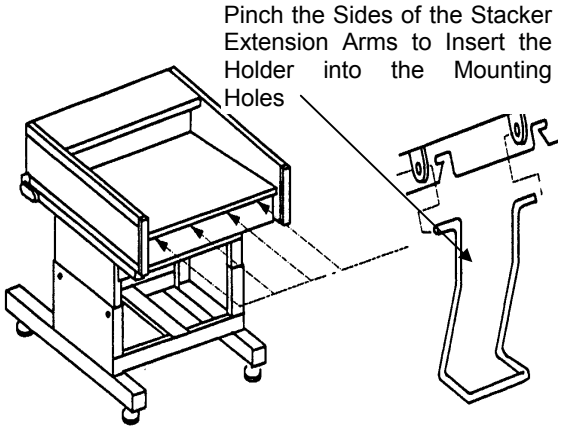


Figure 5 Installing the Paper Holder Arms to the Stacker

7. Test the electrical outlet for the correct voltage of 220 or 115 VAC nominal voltage.
8. Plug in the Power Cord, the Stacker Power Cord, and power up the Stacker (a green light indicates the power is on).
9. Review the following Stacker operations with the customer:
   a. Jam Clearance.
   b. Demonstrate the power-up procedure.
   c. Correct stacking Limits.
   d. How to use the Stacker Extension Arms.
   e. Caution against putting any containers containing liquid on top of the Stacker.
10. Report the installation to FWSS.
11. Run a test print to ensure operation.

Removal Procedure

Purpose

The purpose is to repack the machine for removal by Xerox Riggers.

CSE Repack Kit: 604K21870

Repack Kit Contents

Inspect the shipment at the customer's site for the following items.

Kit Contents

Item	Description	Qty.
1	95P01903, Bubble Wrap Feet	60
2	06H00009, Filament Tape	1
3	695P01760, LED Box	1
4	95P06401, Foam block	8
5	826E21050, Screw, M5 X 30	2
6	251W10555, M5 Flat Washer	2
7	112W07658, Screw, M4 X 16	1
8	604E04070, Instructions	1
9	695P01761, Main Box	1

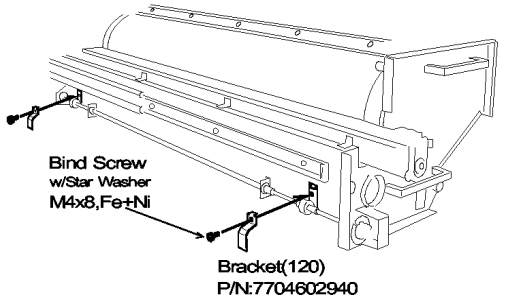
Preparing the Machine

1. Turn off the machine and disconnect the Power Cord.
2. Remove the Manual Tray and pack it in bubble pack.
3. Remove the Catch Tray from the machine and wrap with bubble pack if it is present (Option).
4. Remove the Drum from the Xerographic Module and put it in the Drum box (which has been stored at the Customer site).

Caution

Use a ground strap on the vacuum cleaner hose and do not vacuum directly on the Toner Sump Sensor (TSL 2) in the Developer Assembly or Toner Hopper as this may damage the sensor.

5. Place an approximately E-size print (36 in. x 48 in.) or A0 size print on the floor under the Xerographic module.
6. Remove the Toner Hopper from the top of the Developer Assembly and set it on the paper on the floor below the Xerographic Module.
7. Remove the Toner Hopper top cover. Remove the Toner from the Toner Hopper using the vacuum. Manually rotate the hopper auger by hand to ensure majority of toner is removed.
8. Remove the Toner from the Developer Assembly (use vacuum), but do not wipe the Development Roller.
9. Remove the cam brackets and disconnect the connector from the Developer Housing.



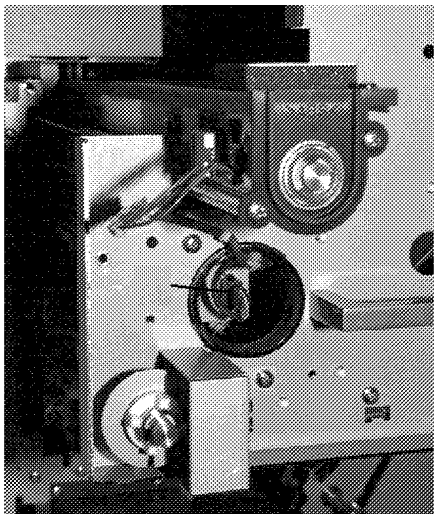


Figure 6

10. Remove the Developer Assembly from the Xerographic Module.

11. Install the one bolt (M4 x 16) in the bracket on the inboard side of the Developer Assembly to remove pressure from the Development Roller (Figure 6).

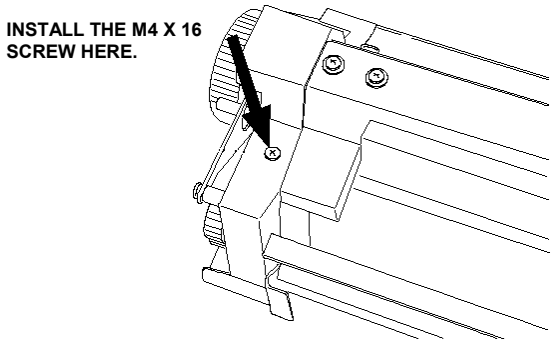


Figure 7

12. Place the shipping bracket on the outboard end in the shipping position (Figure 7).

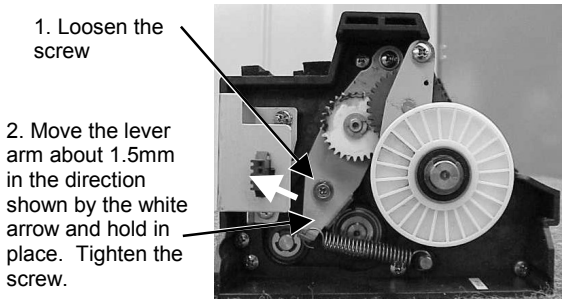


Figure 8

13. Place a sheet of paper approximately 36" X 5" over the Development Roller.
14. Reinstall the Developer Assembly in the Xerographic Module.
15. Reinstall the cam brackets and connector.
16. Put a piece of tape on each end of the Cleaning Roller to secure it (Figure 8).

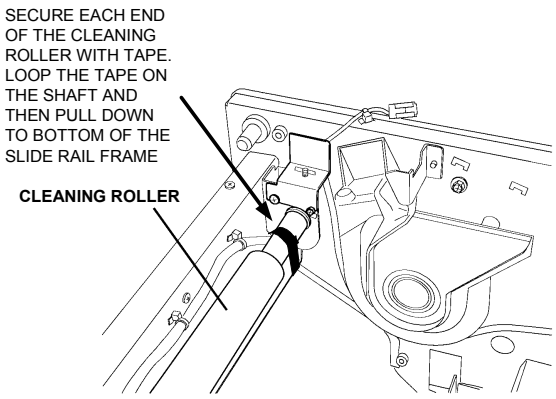


Figure 9

17. Remove the LED Print Head.
18. Remove the Cleaning Pad and secure with tape to the outside of the cleaning motor housing.
19. Wrap the LED Print Head in at least six (6) layers of bubble pack and place it in the long narrow box. (NOTE: Be careful not to damage the motor or the wire leads attached to the motor.)
20. Reinstall the Charge Scorotron, and push back the Xerographic Module. Tighten four screws to secure the Xerographic Module.
21. Install the two bolts into the Fuser Assembly to remove pressure from the Fuser Roller (Figure 9). Tighten the screws until there is at least a 1/16" or 1.5mm gap between the Fuser Roller and the Pressure Roller.

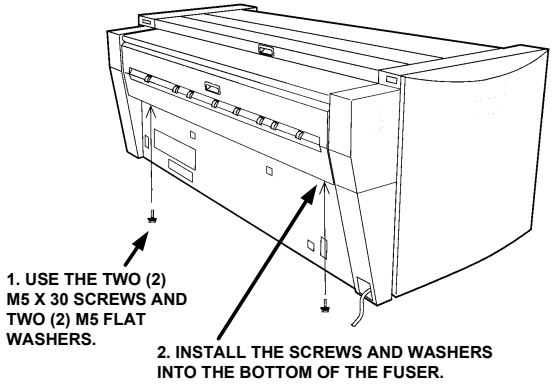


Figure 10

22. Remove all paper from the Paper Drawers.
23. Secure the four Paper Shafts in position in the drawers using four foam pads and tape (Figure 10).

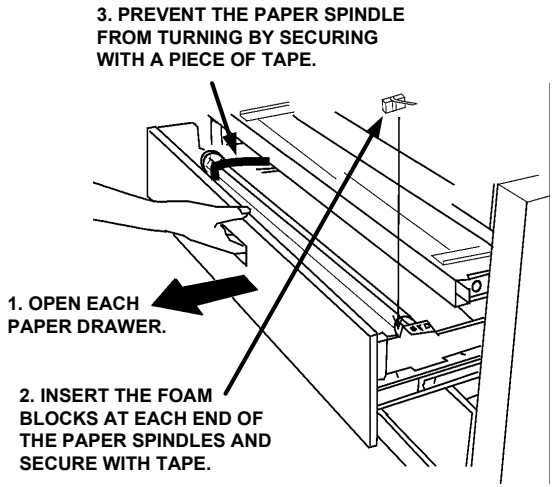


Figure 11

24. Secure the Cutter Knob with tape (Figure 11).
25. Secure the Inner Transport Release Lever with tape (Figure 11).
26. Secure the Fuser Knob with tape (Figure 7).
27. Secure the Hook of the Internal Transport Unit with tape (Figure 11).
28. Secure three (3) foam pads together with tape and insert them between the frame and the end of the Inner Transport. This will prevent the Inner Transport from sliding back and forth. (Figure 11).

***Note**: You will probably have one (1) spare foam pad left in the repack kit.*

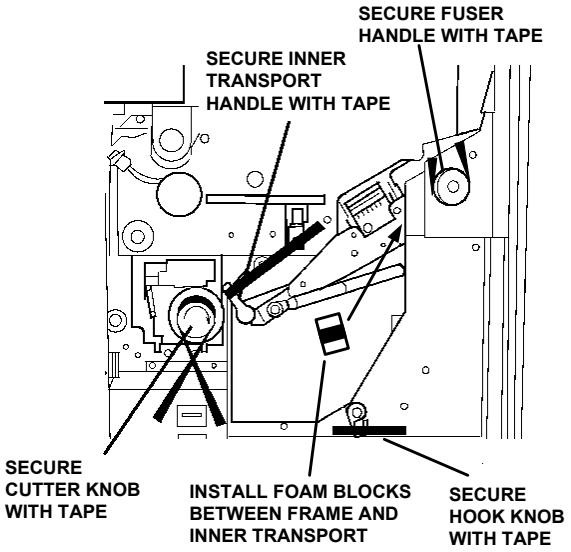


Figure 12

29. Turn the Toner Cartridge to the 12 o'clock position (dispensing hole is pointed up).
30. Secure the Toner Cartridge Locking Mechanism and the Toner Cartridge with tape (Figure 12).

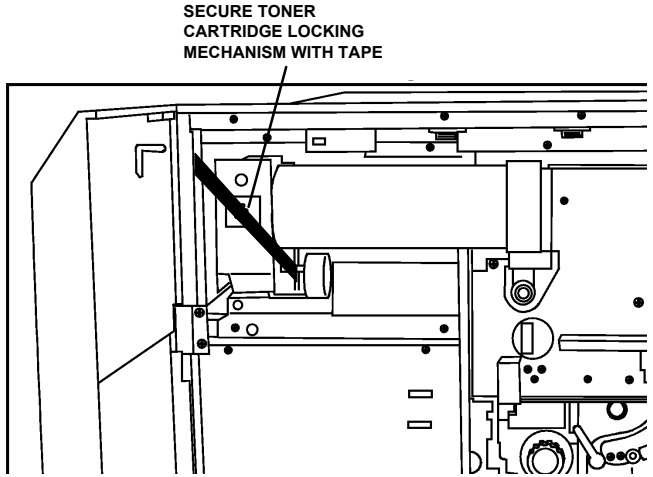


Figure 13

31. If a Catch Tray is present, leave it wrapped in bubble pack on top of the machine (Option).
32. Place the power cord on top of the Fuser Cover and secure with tape.
33. Place the LED Print Head Box and the Drum box on top of the machine and secure them with tape.
34. Raise the leveling feet all the way up and tighten with wrench.

Product Specifications

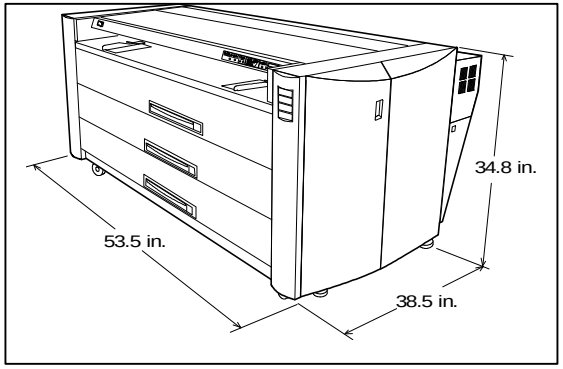
Physical Characteristics
Dimensions

Width: **57.1 inches (1450 mm)**

Depth: **39.4 inches (1002 mm)**

Height: **34.8 inches (885 mm)**

Weight: **880 pounds (400 kg)**



Product Codes:
Printer **LML RFU**
Stacker **NTM RFV**
Scanner **MNT PKU NY5**

Electrical Specifications
Voltage Requirements

Single Phase (two conductors and ground)
Nominal 50 / 60 Hz
20 Amp dedicated circuit
Nominal 230 VAC ±10%

***Note**: The 721P requires a dedicated 230vAC +/-10%, 20 Amp, 60Hz receptacle (NEMA 6-20R), 3 wire service (two conductors and ground. Each hot lead of the receptacle must measure 120VAC +/- 10% to earth ground (the hot leads must be balanced to ground). If 208VAC power is used, a voltage step-up transformer should be installed to achieve rated product voltage and ensure specification performance.*

Power Consumption
630 Watts (Standby)
2450 Watts (Running)

Power Cord Length
10 feet, 20 Amp

Environmental Conditions
Operating Range

Relative Humidity	20% to 82.5%
Temperature	50°F to 90°F
	(10°C to 32°C)

Audible Noise

Running	70 dB(A) or less (Continuous)
Ready	55 dB(A) or less (Continuous)

Media Specifications

Lead Edge Registration
± 3 mm

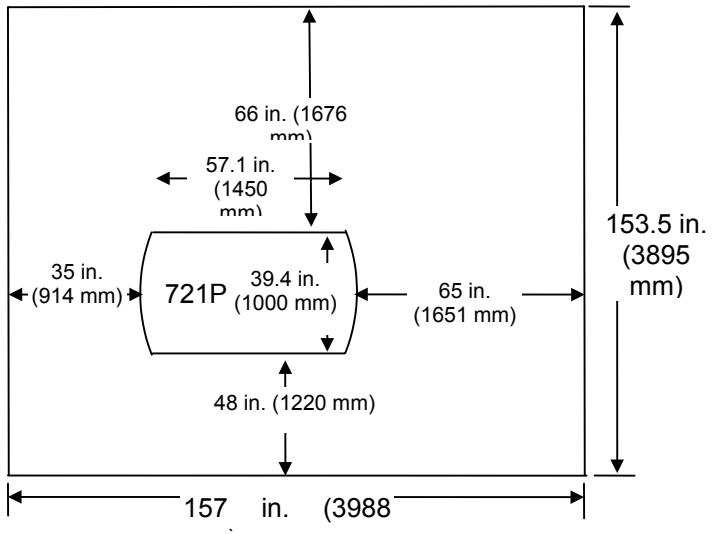
Cut Accuracy
± 2 mm

Resolution
400 dpi

Media type	Recommended media types: Bond/ Vellum/Tracing – 20 lb. Film –4-millimeter thickness
Media size	Roll feed: Width – 11 to 36 inches (279 to 914 mm) Length – 500 ft (152 M) Roll Diameter– 175mm maximum Core diameter – 3 inches (76 mm) Manual Bypass Feed: Maximum Width – 36 in. (E SEF) Minimum Width - 11 in. (A LEF) Tray runs standard ARCH/ANSI/ISO sizes fed long edge first (LEF) except for A0/E sizes only (SEF). Any image plotted outside of standard ARCH/ANSI/ISO sizes will be clipped.
Print size	Minimum – 11 in. x 8.5 in. (A LEF) Maximum – 36 in. x 48 in. (E SEF) Maximum Length – 20 feet (bond media only) (The machine can be set to a maximum length of 79.75 feet with a increased risk of wrinkles or deletions. The specified performance of wrinkles and deletions cannot be guaranteed past 20 feet. Risk can be minimized by making fuser motor speed adjustments)

Floor Space Requirements

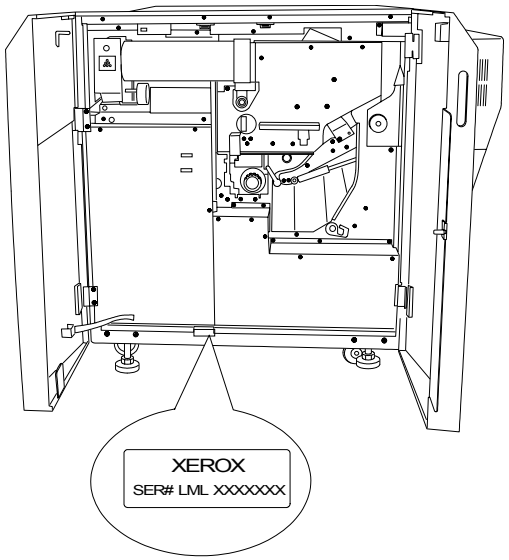
Height – 96 in. (2438 mm) (minimum)
Width – 157 in. (3988 mm)
Depth – 153.5 in. (3894 mm)



Room Air Change Requirements (for Ozone Dissipation)

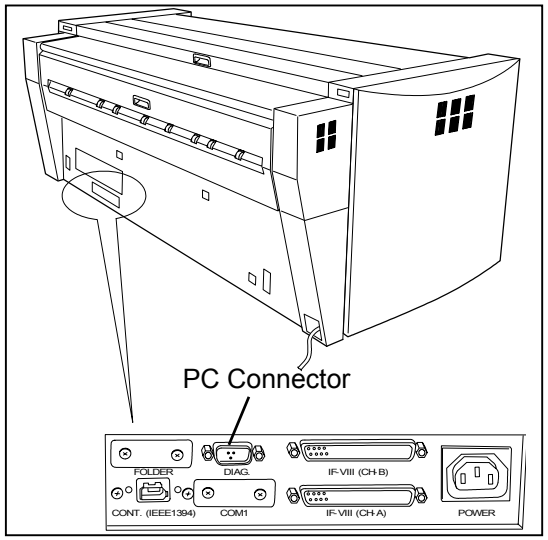
Air should be cycled 5 times per hour (minimum)

Serial Number Location



Supplemental Tools and Supplies

Self Diagnostics



***Note**: The rear-bottom outlet (SK3) is used for the Optional Controller only. Do not use for any other purpose.*

The printer can be connected to your PC using a RS232C null modem cable".

You can perform the following functions.
1. Basic Information
2. Display
3. Setting
4. History
5. Upload ROM Data
6. Test Print

For further details, check the "Help" in Self-Diagnostics.

Printer Consumables

Description	Part Number
Toner Canister	6R1141
Tag Matrix Label	91P63536
Cutter oil (Turbine # 32)	70P82

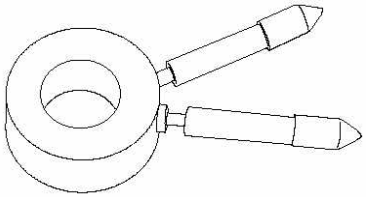
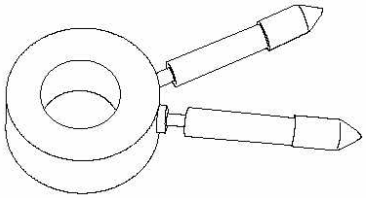
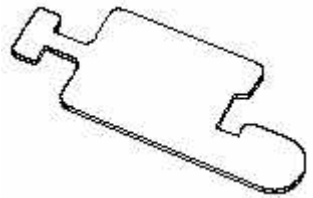
Kits

Kit	Part Number
Ozone Filter Kit	600N01779
Separation Finger Kit	600N01780
Drum Kit	600N01781
Corona Wire 1 Kit	600N01782
Wire Clean Kit	600N01783
LED and Scorotron Cleaning Pad Kit	600N01784
Transfer Guard-Corona Guide Kit	600N01785
Developer Gear Kit	600N01786
Separation Fingers Upper Kit	600N01787
Separation Fingers Lower Kit	600N01788
Extension Spring 1 Kit	600N01789
Holder Kit	600N01790
Hardware Kit	600N01791
Tool Kit -CSE	600N01777

Cleaning/Lubricating Materials

Description	Part Number
Paper towels	35P3191
Drop cloth	35P1737
Formula A cleaner	43P48
Cleaning solvent	43P63
Film remover	43P45
Cleaning absorbent	19P580
Cutter oil (Turbine # 32)	70P82

Tools

Name	Related Section or Purpose	Part Number
Cutter Home Position Tool 1	ADJ 6.8.4 Cuter Home Position	Tool Kit # 600N01777
Cutter Home Position Tool 2		
Transfer/Detack Drum Gauge	ADJ 1.3.2 Transfer/Detack Corotron Height ADJ 1.3.9 Drum Separation Finger Height 	
Guide Plate Drum Gauge	ADJ 5.1.1 Adjustment of the Guide Plate 	
Interlock Bypass Tool	Bypass Interlock Switch 	
Phillips Screwdriver, 8”	Repairs and Adjustments	600T2044
Shim Stock	Repairs and Adjustments	600T41511
Spring Retainer	Repairs and Adjustments	120N00436

Description	Part Number
Basic Multinational Tool Kit	600T1835
Metric Tool Kit	600T1836
Digital Multi meter	600T2020
Meter Leads Kit	600T2030
Stackable Leads	600T1652
CSE Repack Kit	604K21870
Tweezers	499T8201
5.5 mm Nut driver	499T1421

Change Tag Index

Introduction

The purpose of this section is to list the Change Tag Index.

All important modifications are identified by a tag number on a matrix card attached to the machine.

This section describes all of the tags as well as multinational applicability, classification codes, and permanent or temporary modification information.

Classification Codes

A tag number may be required to identify differences between parts that cannot be interchanged, or differences in diagnostic, repair, installation, or adjustment procedures. A tag number may also be required to identify the presence of optional hardware, special non-volatile memory programming, or if mandatory modifications have been installed.

Each tag number is given a classification code to identify the type of change the tag has made:

M - Mandatory

N - Not installed in the field

O - Optional

R - Repair

TAG: 1

CLASS: O

USE:

MFG. SERIAL NUMBERS: LML 496557

NAME: HVPS 5 Modification

PURPOSE: Improve Drum Cleaning

PART NUMBER: 105N02011

REFERENCE:

TAG: 2

CLASS: O

USE:

MFG. SERIAL NUMBERS: RFU 790011

NAME: New Transfer/Detack HVPS Leads

PURPOSE: Improved wire insulation to prevent deterioration of the Detack and Transfer outputs caused by insulation breakdown.

KIT NUMBER: 605N00053

REFERENCE:

TAG: 3

CLASS:

USE: O

MFG. SERIAL NUMBERS: LML496557

NAME: New Door Magnets

PURPOSE: To improve door latching of right side door

KIT NUMBER: 600N03213

REFERENCE:

TAG: 4

CLASS: O

USE:

MFG. SERIAL NUMBERS: LML496557

NAME: New Cutter Motor Controller PWB

PURPOSE: Higher torque to improve cutter motor performance when cutting film or paper with a dirty cutter.

PART NUMBER: 127N07225

REFERENCE:

TAG: 5

CLASS: O

USE:

MFG. SERIAL NUMBERS: RFU790022

NAME: New Slider

PURPOSE: Eliminate squeak noise during cleaning of LED head or Charge Scorotron.
KIT NUMBER: 010N01179

REFERENCE:

TAG: 6

CLASS: O

USE:

MFG. SERIAL NUMBERS: RFU790011

NAME: DC Controller PWB Battery

PURPOSE: Extend battery life

PART NUMBER: 127N07269

REFERENCE:

TAG: 7

CLASS: O

USE:

MFG. SERIAL NUMBERS: RFU-790210

NAME: 3X Thicker grid plate

PURPOSE:

PART NUMBER: 015N00532

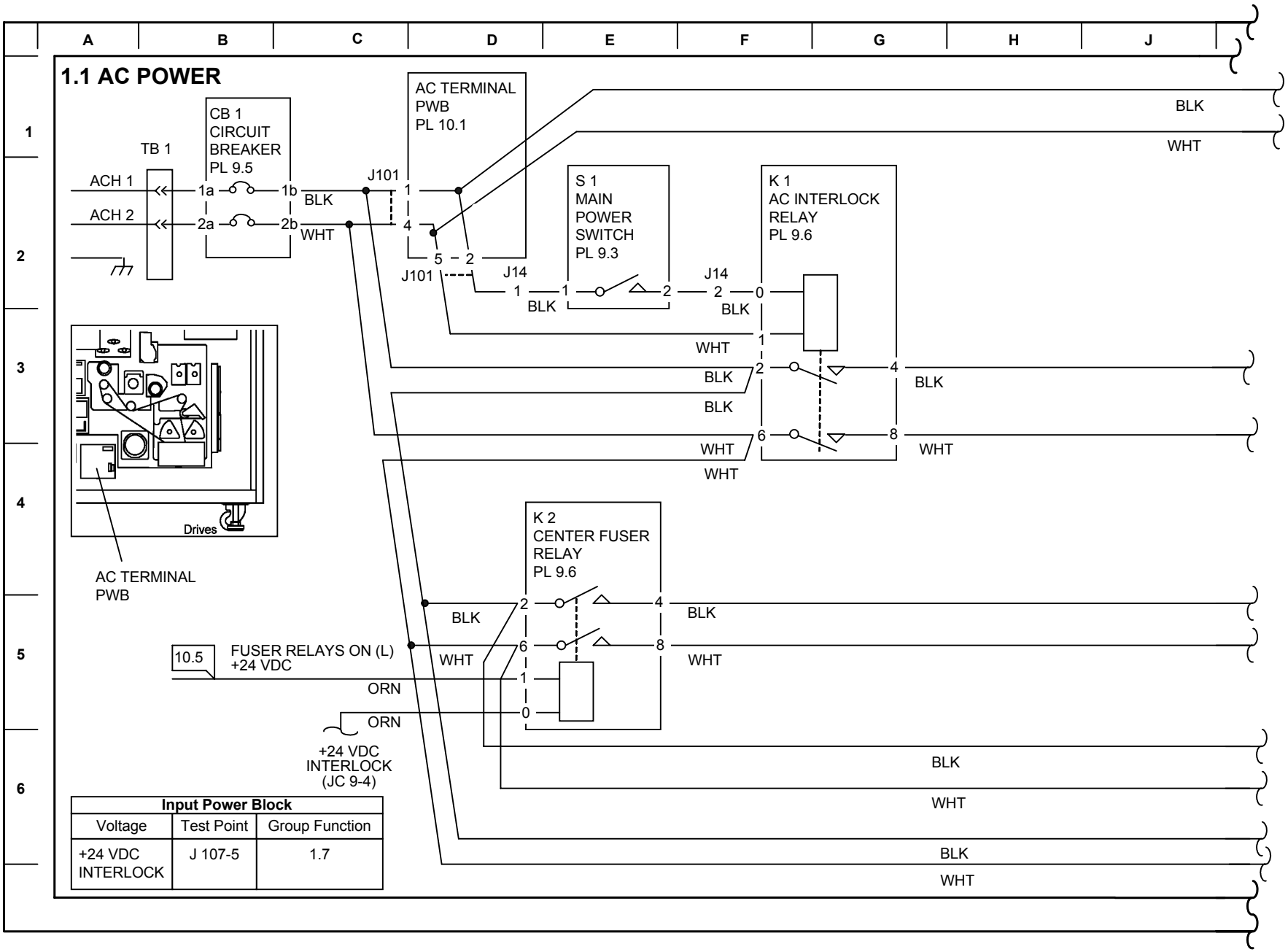
REFERENCE:

Notes:

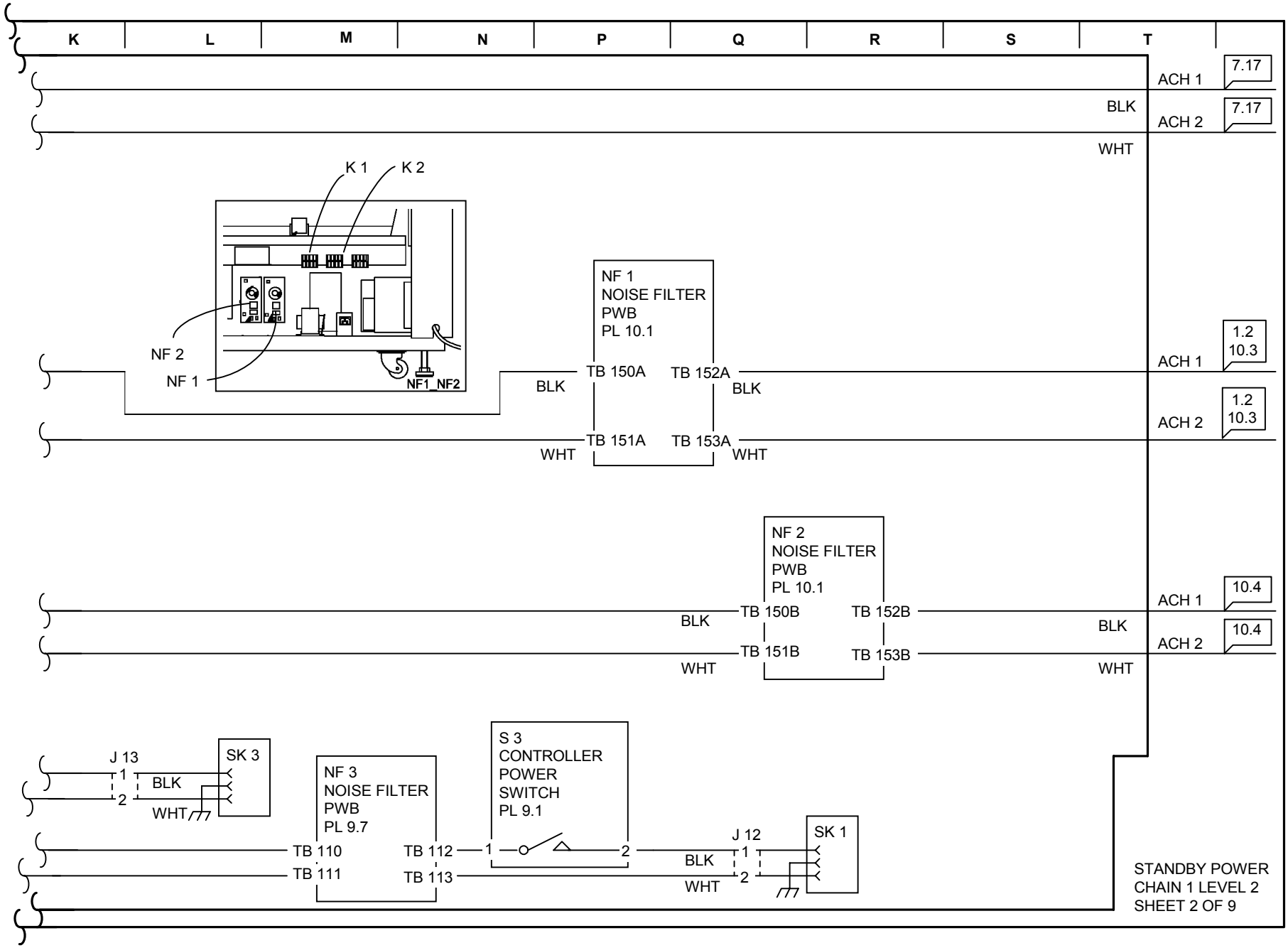
7. Wiring Data

Section Contents

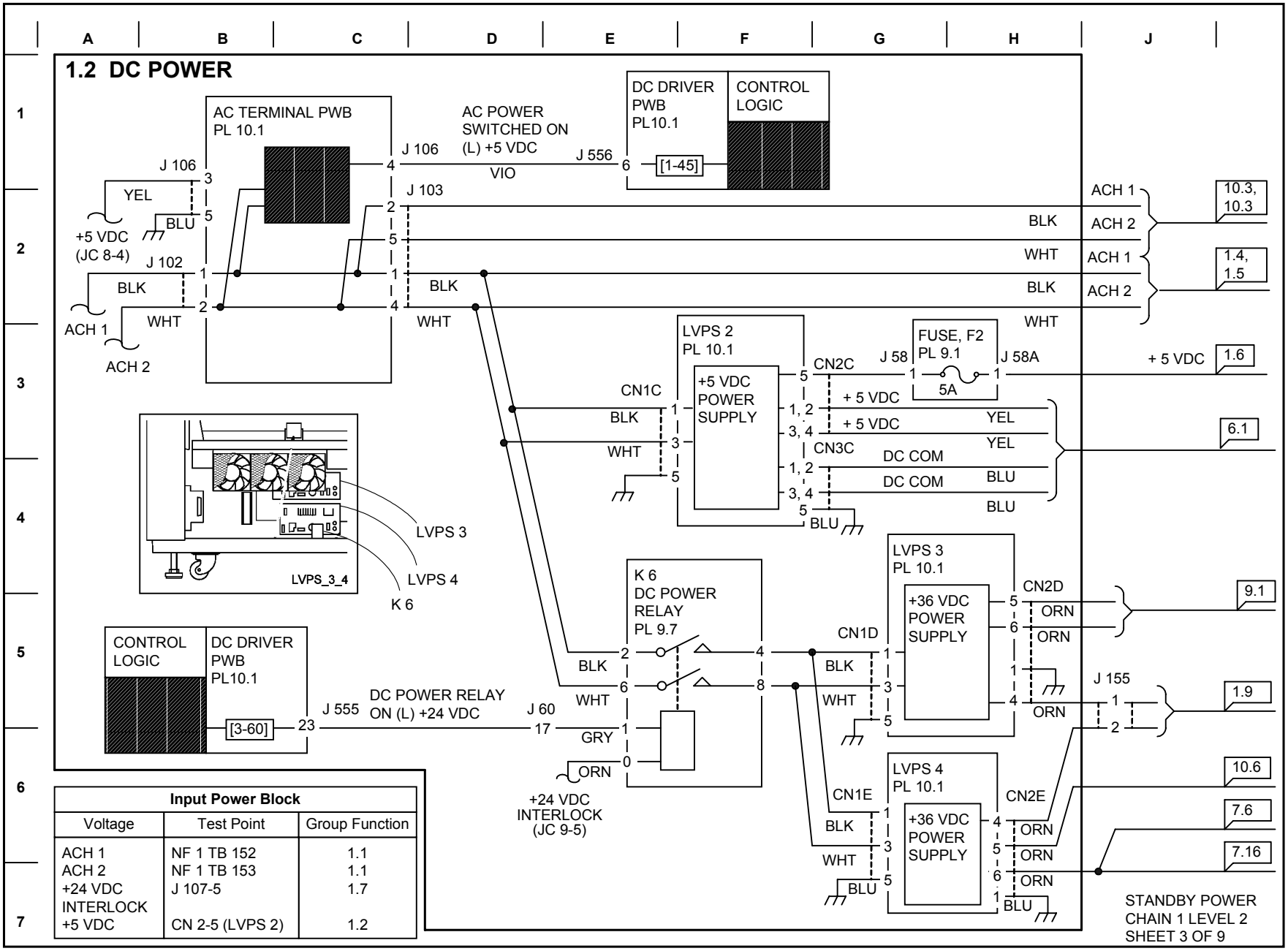
BSD 1.1 AC Power



Input Power Block		
Voltage	Test Point	Group Function
+24 VDC INTERLOCK	J 107-5	1.7

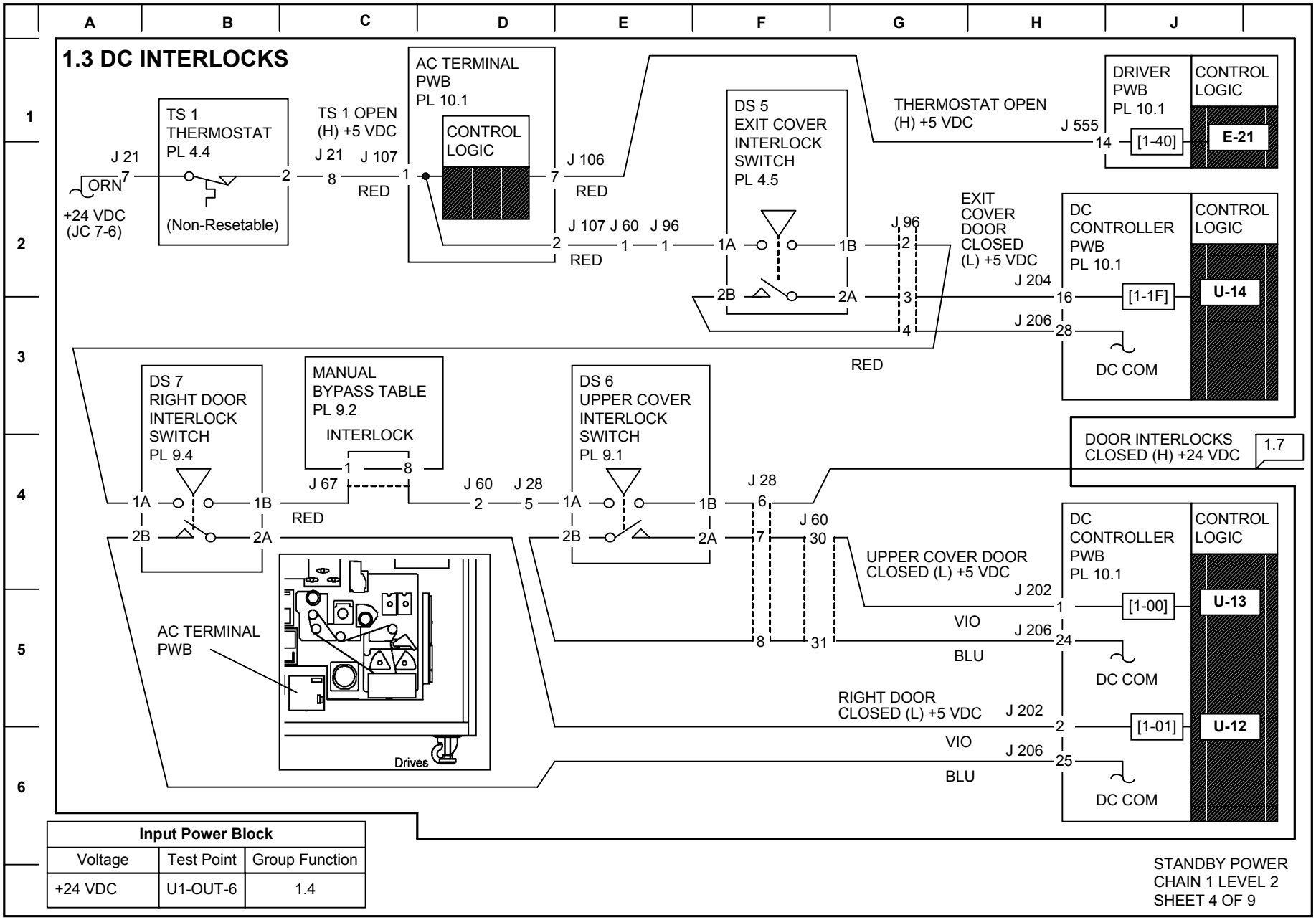

K
L
M
N
P
Q
R
S
T
ACH 1
7.17
BLK
ACH 2
7.17
WHT
K 1
K 2
NF 2
NF 1
NF1_NF2
NF 1
NOISE FILTER
PWB
PL 10.1
TB 150A
TB 152A
BLK
BLK
ACH 1
1.2
10.3
TB 151A
TB 153A
WHT
WHT
ACH 2
1.2
10.3
NF 2
NOISE FILTER
PWB
PL 10.1
TB 150B
TB 152B
BLK
BLK
ACH 1
10.4
TB 151B
TB 153B
WHT
WHT
ACH 2
10.4
J 13
1
2
BLK
WHT
SK 3
NF 3
NOISE FILTER
PWB
PL 9.7
TB 110
TB 111
TB 112
TB 113
S 3
CONTROLLER
POWER
SWITCH
PL 9.1
1
2
J 12
1
2
BLK
WHT
SK 1
STANDBY POWER
CHAIN 1 LEVEL 2
SHEET 2 OF 9

BSD 1.2 DC Power

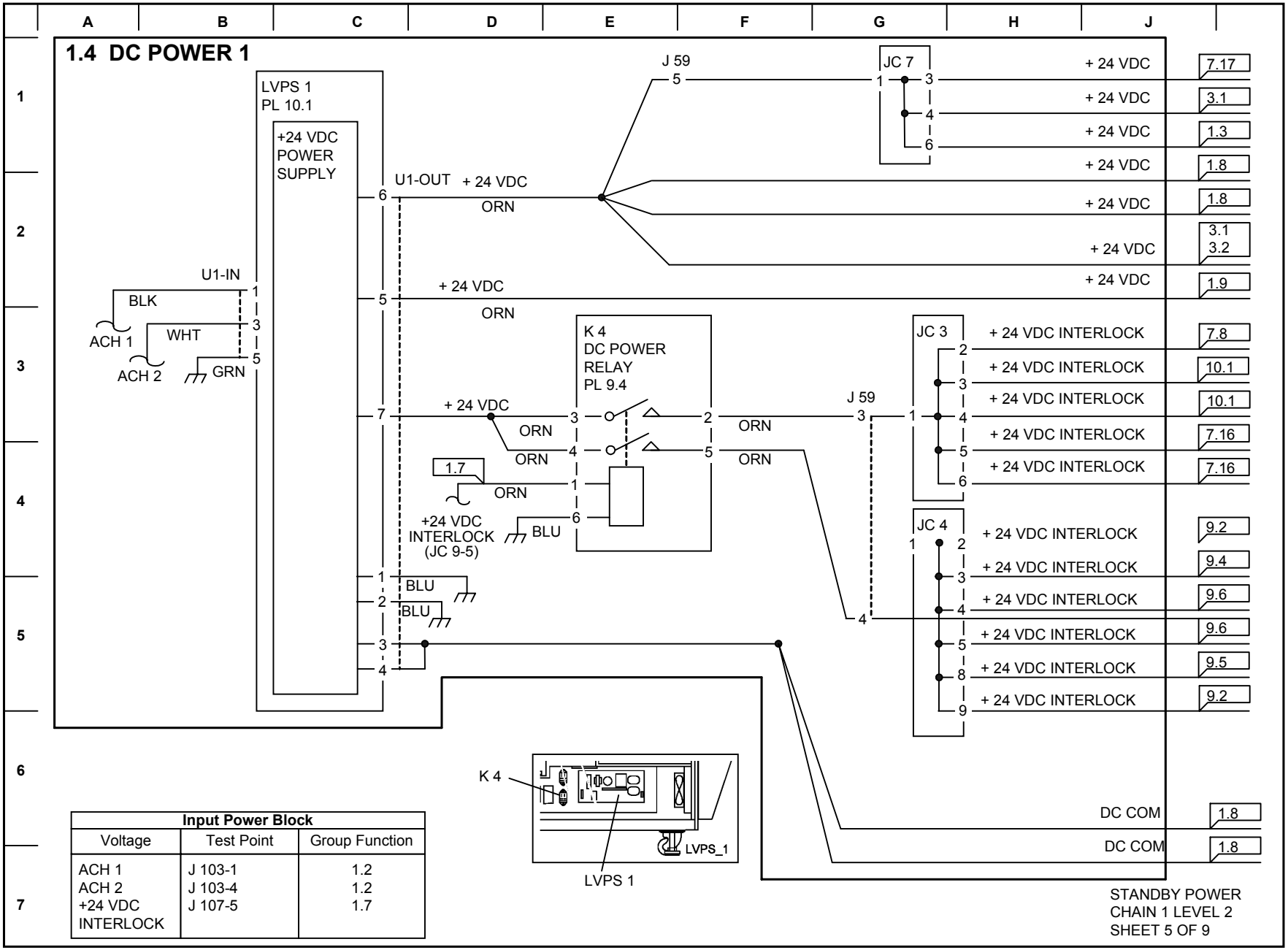


Input Power Block		
Voltage	Test Point	Group Function
ACH 1	NF 1 TB 152	1.1
ACH 2	NF 1 TB 153	1.1
+24 VDC INTERLOCK	J 107-5	1.7
+5 VDC	CN 2-5 (LVPS 2)	1.2

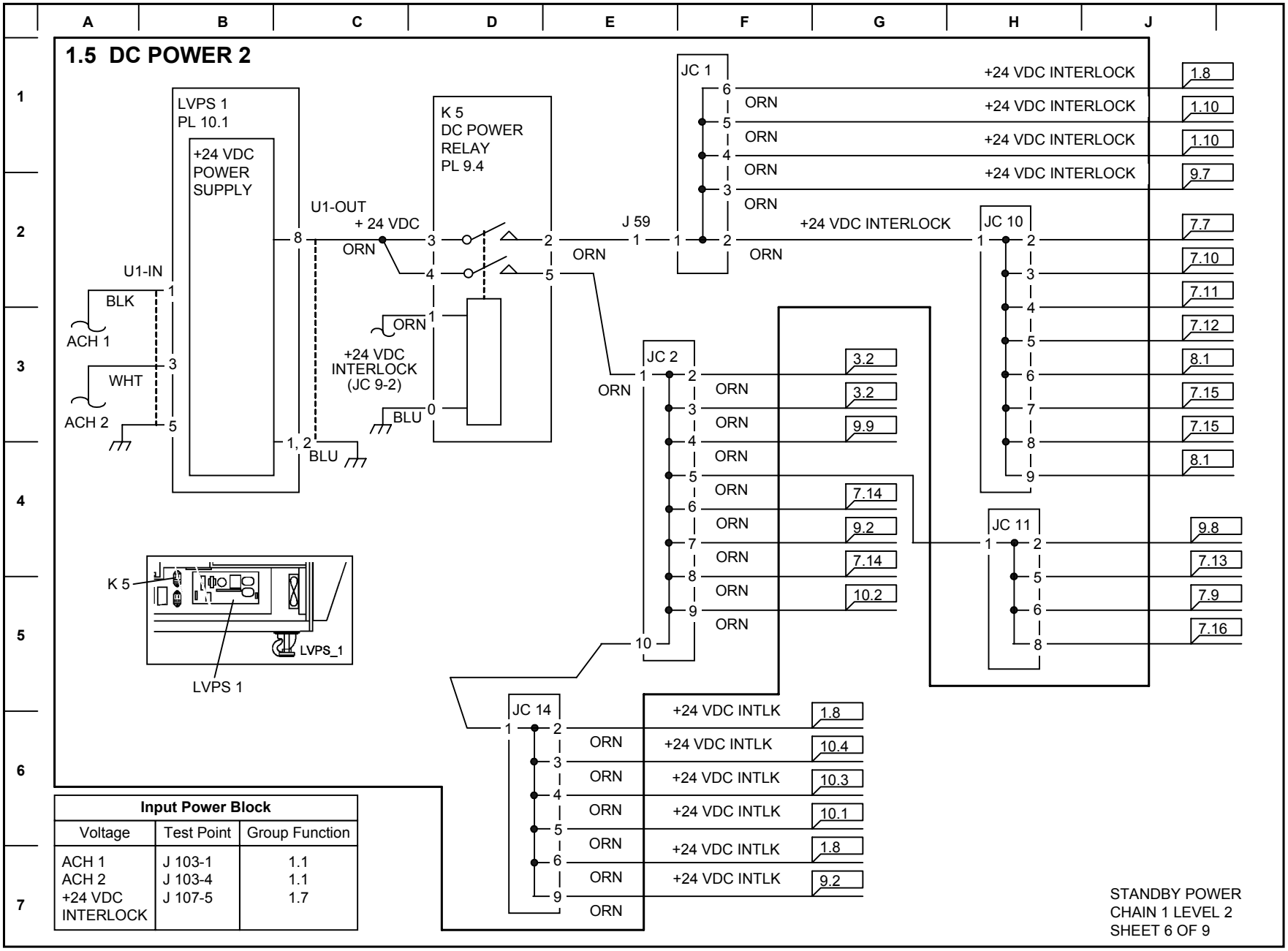
BSD 1.3 Interlocks



BSD 1.4 DC Power

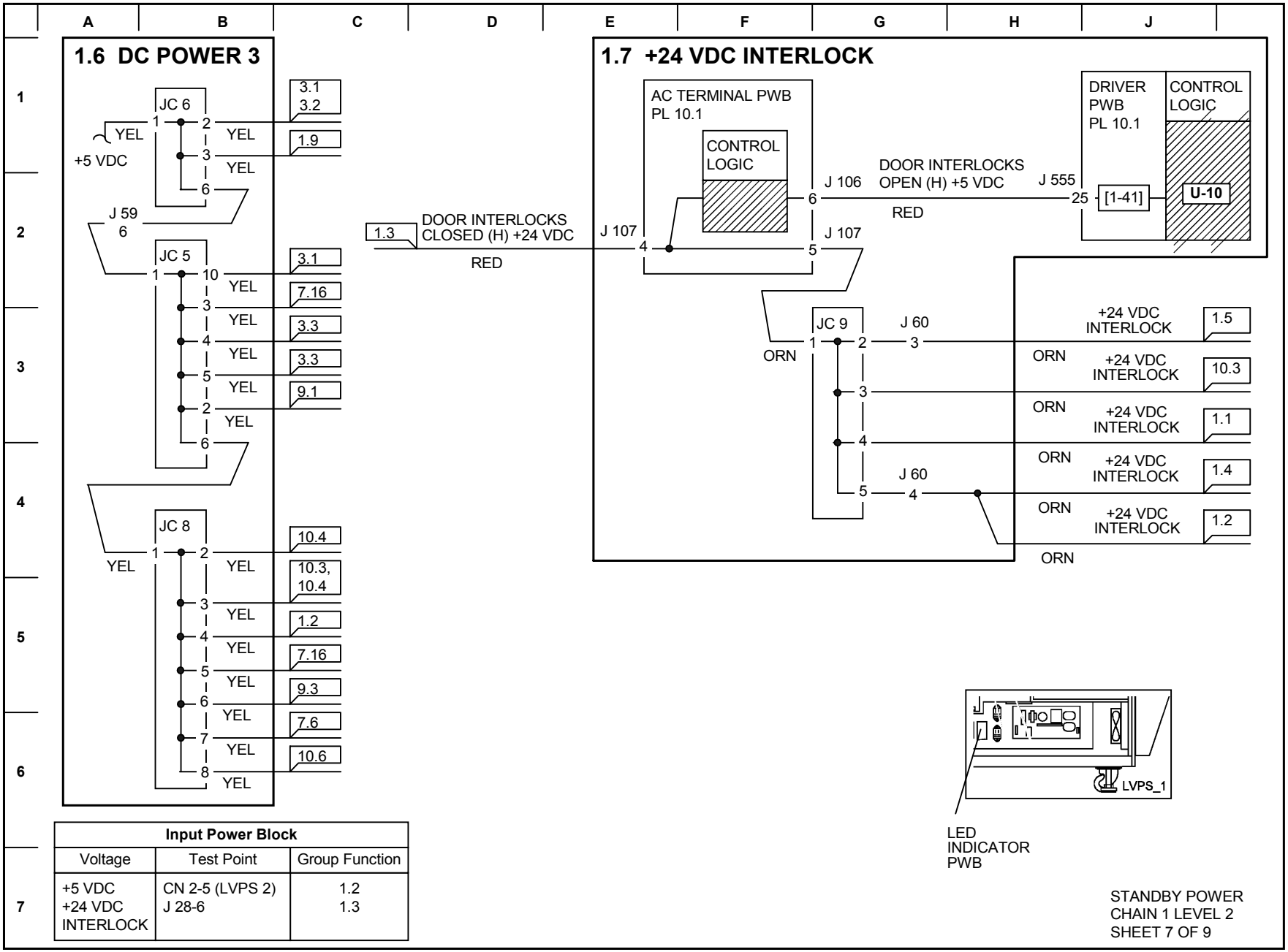


Input Power Block		
Voltage	Test Point	Group Function
ACH 1	J 103-1	1.2
ACH 2	J 103-4	1.2
+24 VDC INTERLOCK	J 107-5	1.7

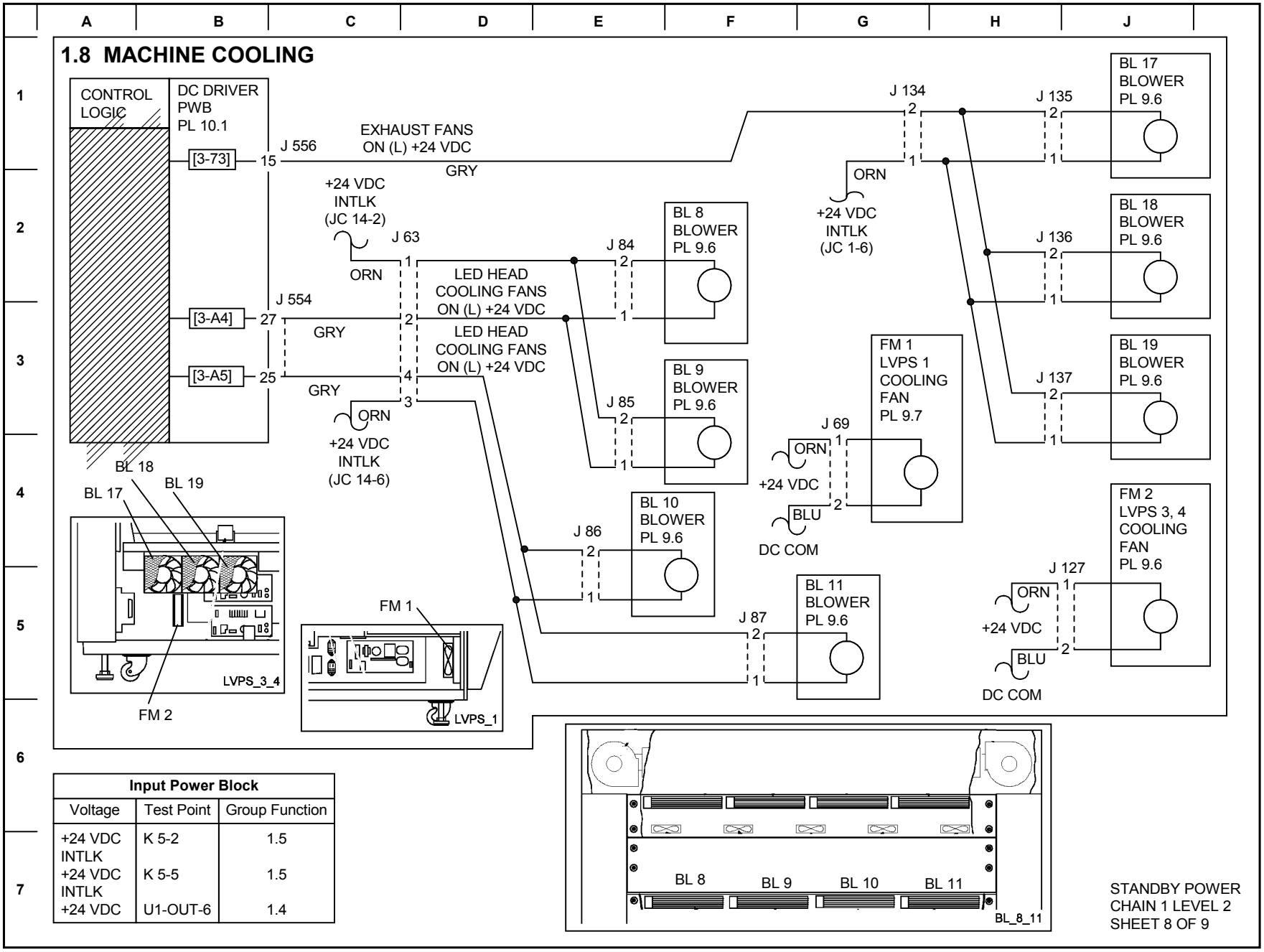


Input Power Block		
Voltage	Test Point	Group Function
ACH 1 ACH 2 +24 VDC INTERLOCK	J 103-1 J 103-4 J 107-5	1.1 1.1 1.7

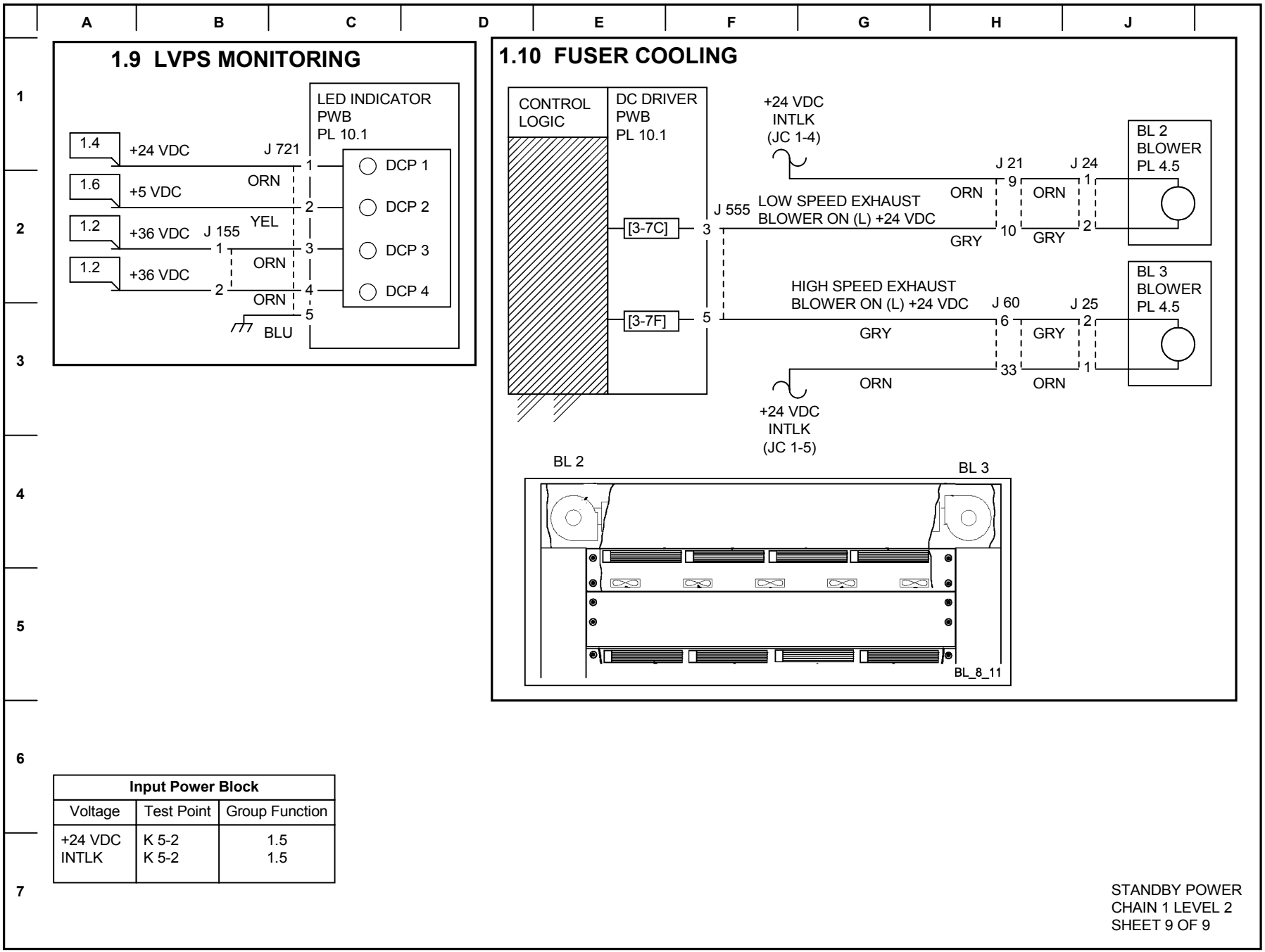
BSD 1.6 DC Power 3, BSD 1.7 +24 VDC Interlock



Input Power Block		
Voltage	Test Point	Group Function
+5 VDC +24 VDC INTERLOCK	CN 2-5 (LVPS 2) J 28-6	1.2 1.3

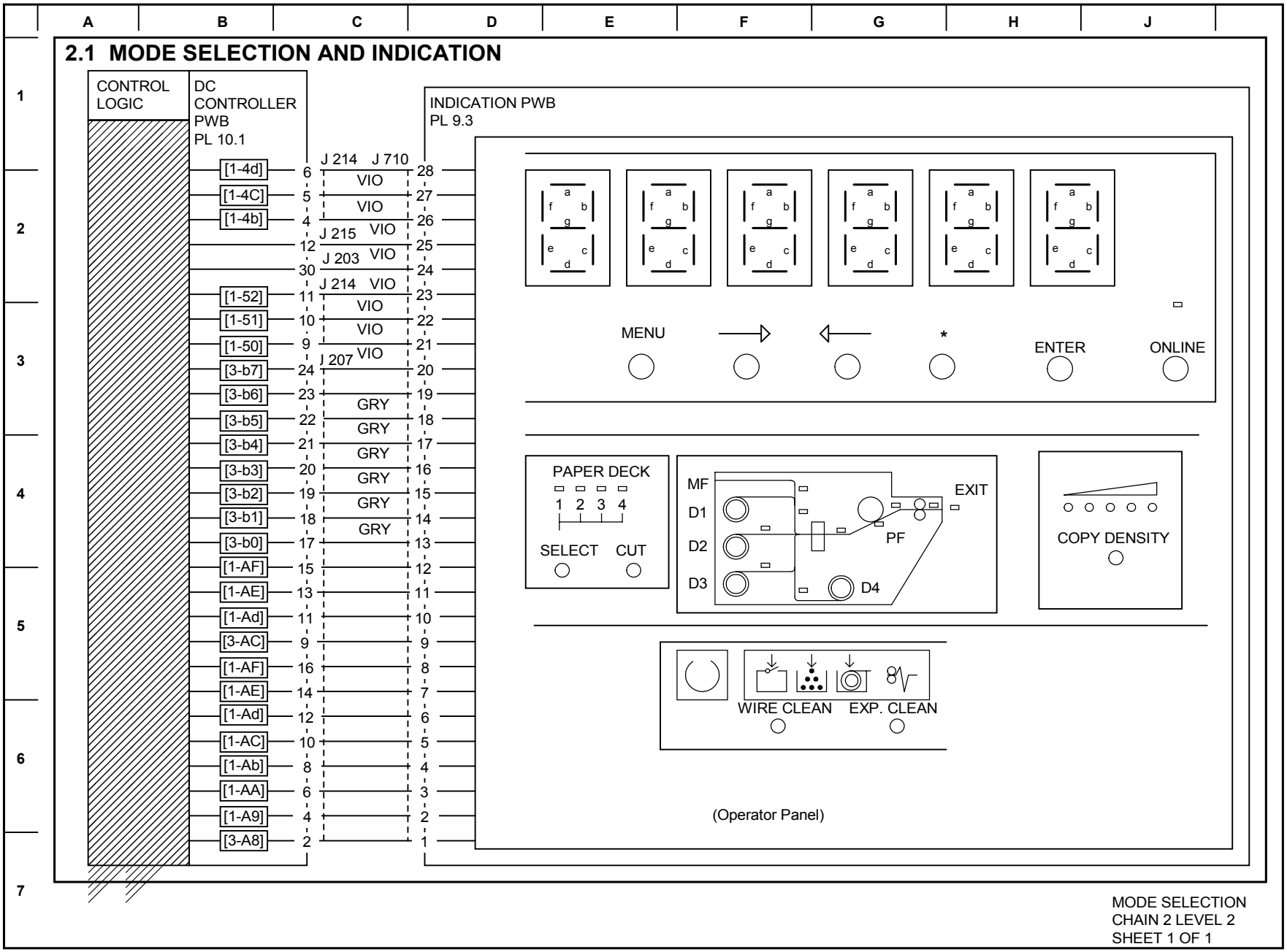


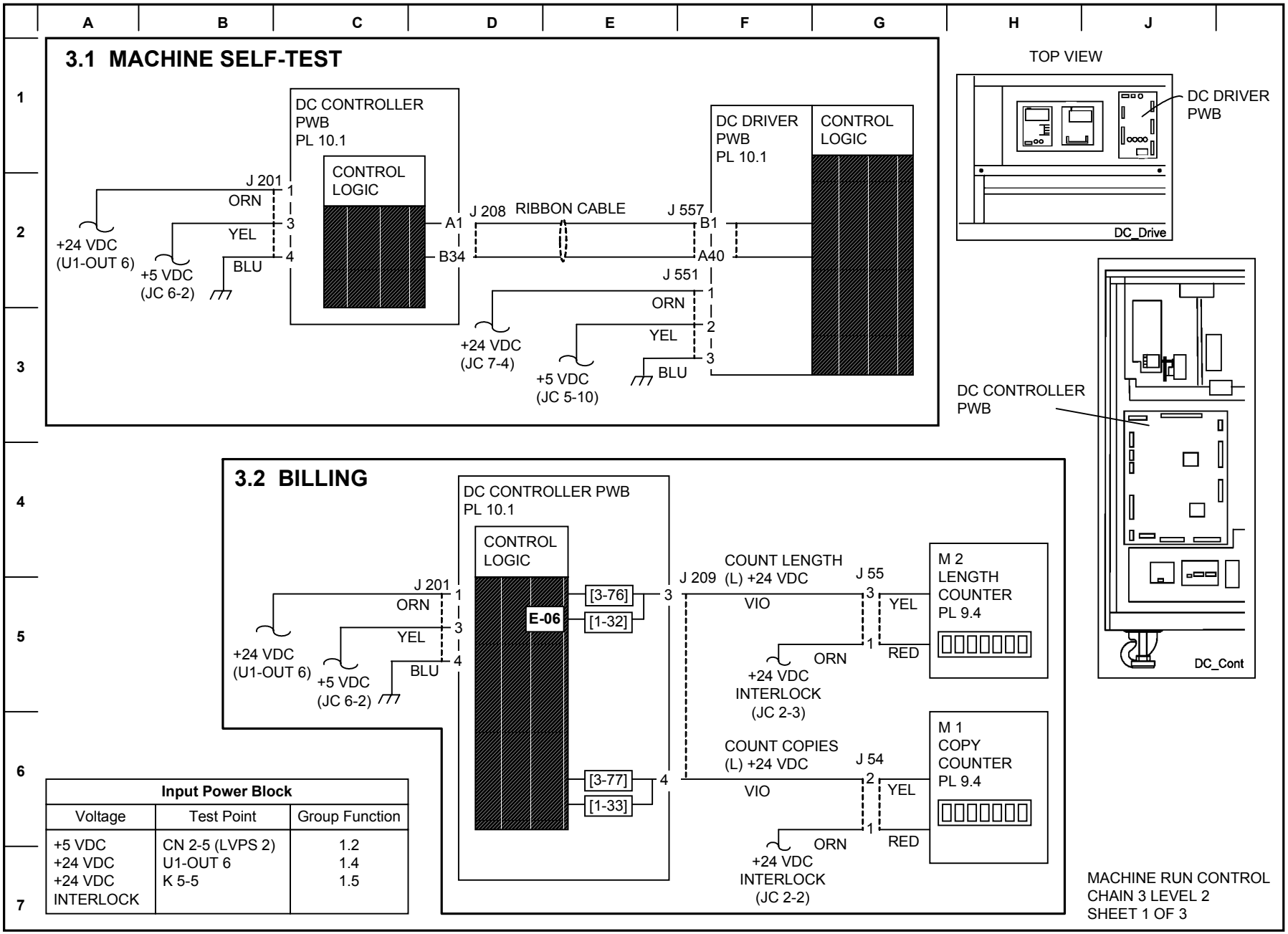
Input Power Block		
Voltage	Test Point	Group Function
+24 VDC INTLK	K 5-2	1.5
+24 VDC INTLK	K 5-5	1.5
+24 VDC	U1-OUT-6	1.4



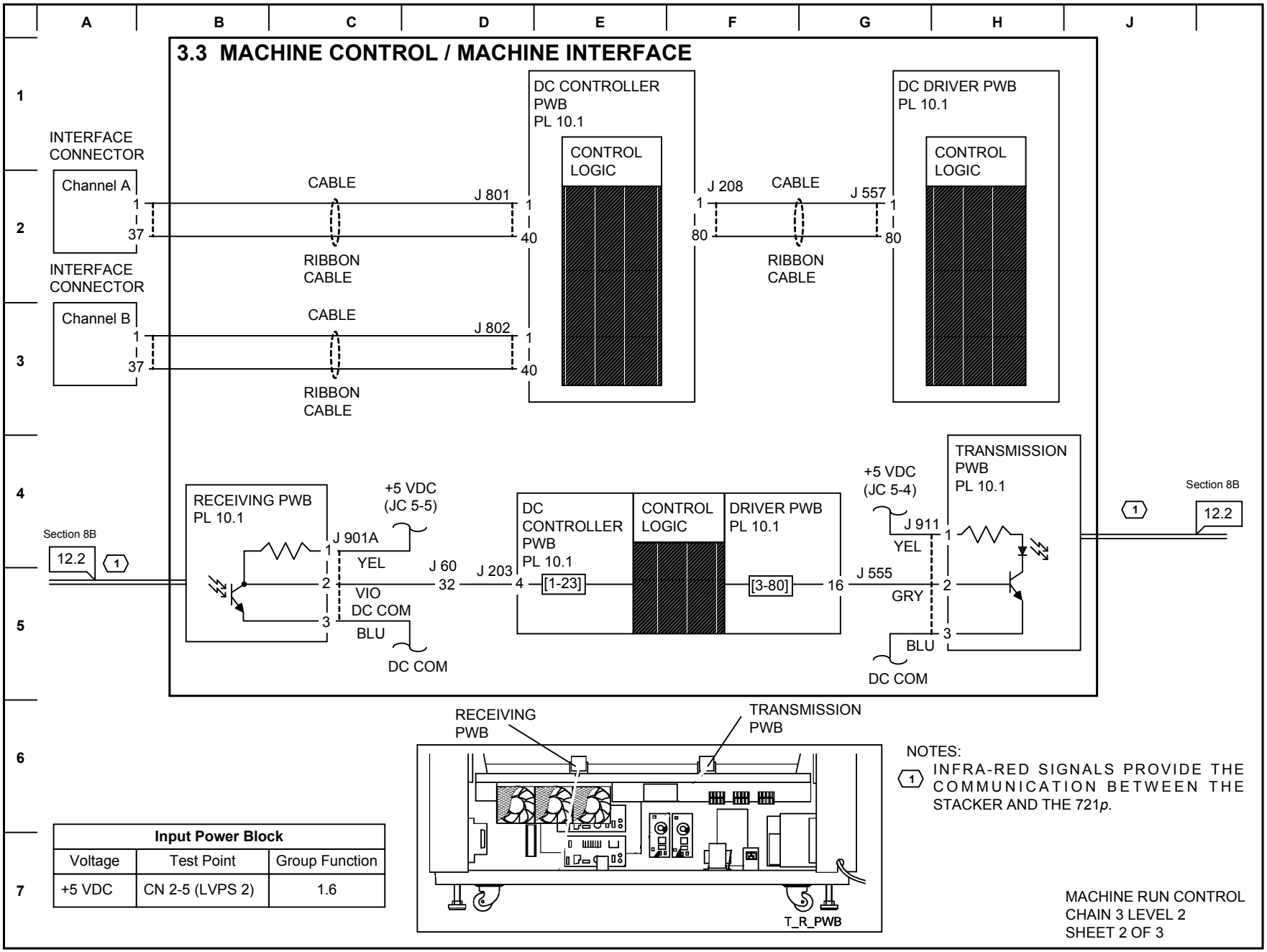
Input Power Block		
Voltage	Test Point	Group Function
+24 VDC	K 5-2	1.5
INTLK	K 5-2	1.5

BSD 2.1 Mode Selection and Indication



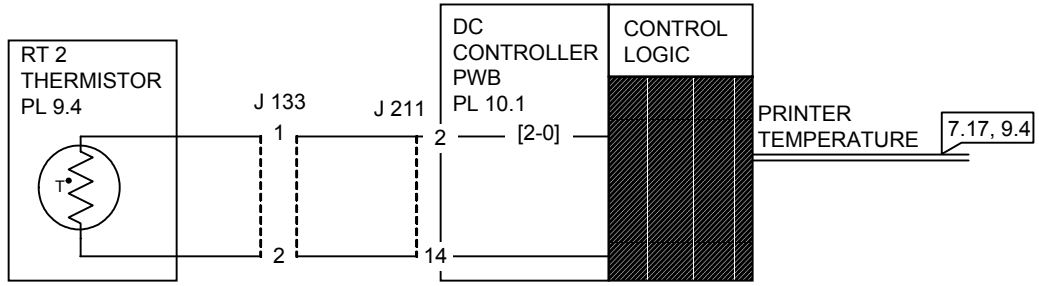


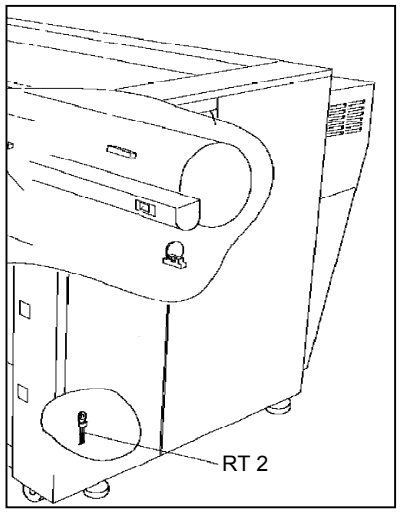
Input Power Block		
Voltage	Test Point	Group Function
+5 VDC	CN 2-5 (LVPS 2)	1.2
+24 VDC	U1-OUT 6	1.4
+24 VDC INTERLOCK	K 5-5	1.5



Input Power Block		
Voltage	Test Point	Group Function
+5 VDC	CN 2-5 (LVPS 2)	1.6

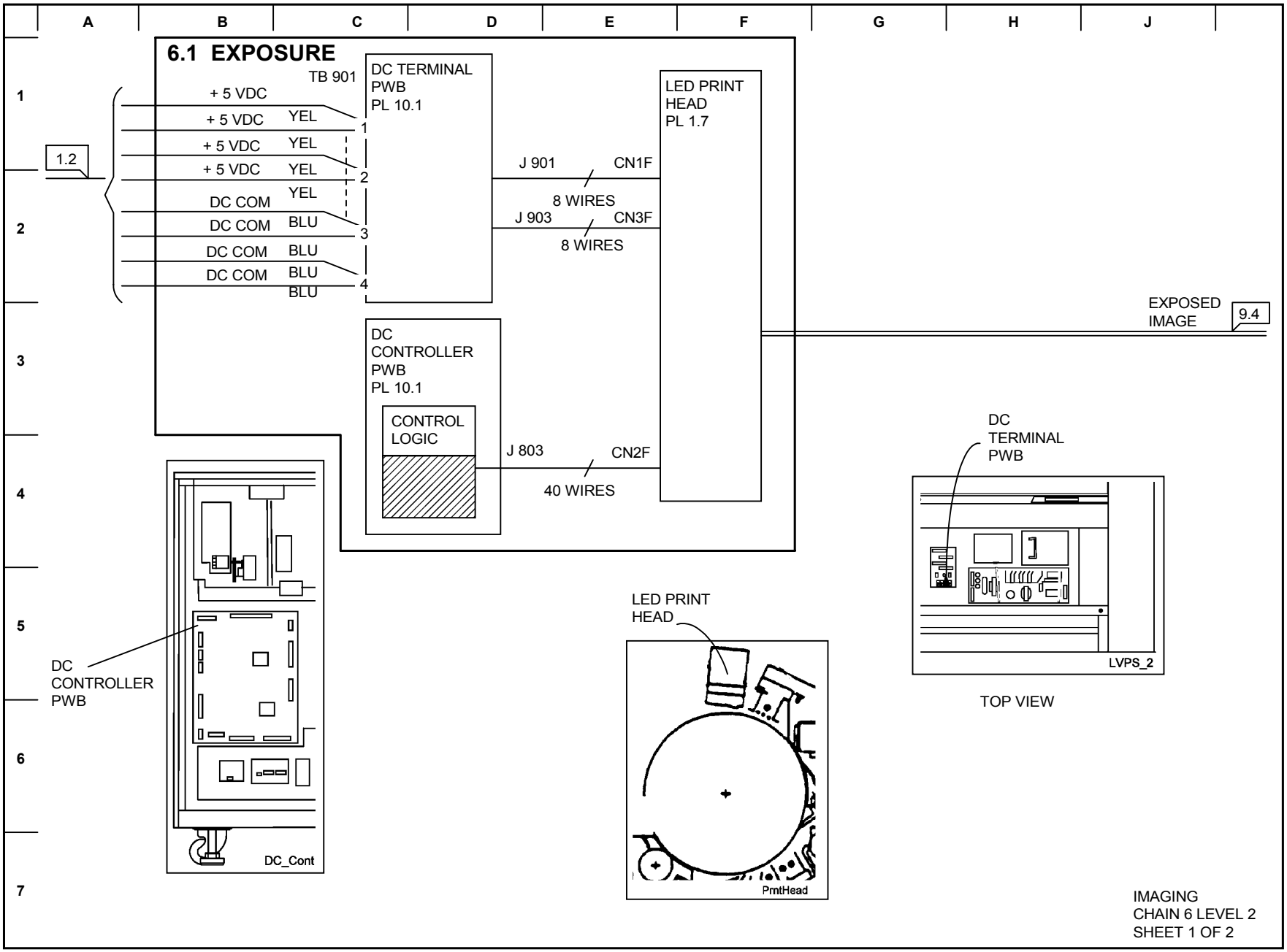
3.4 PRINTER TEMPERATURE

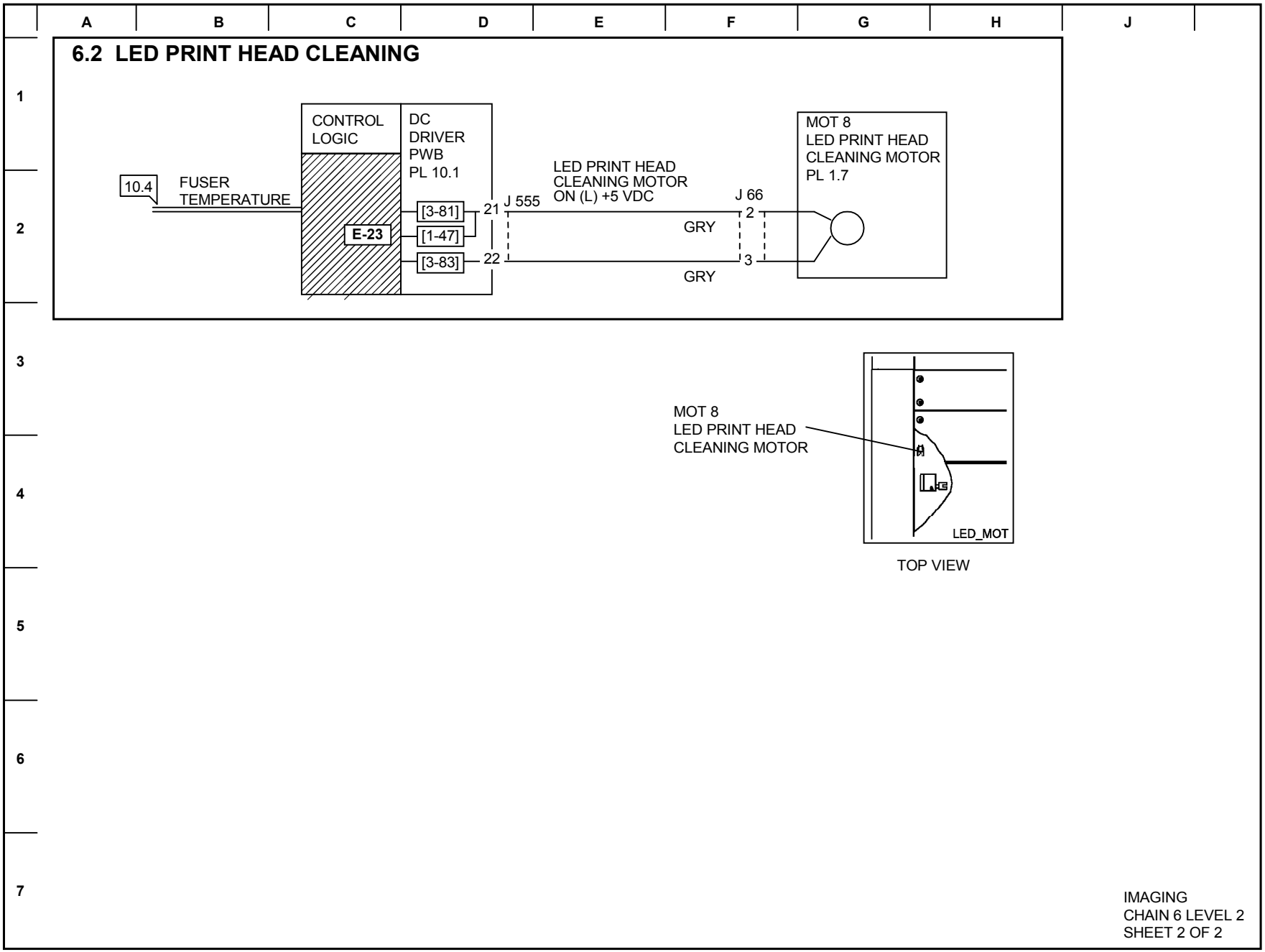


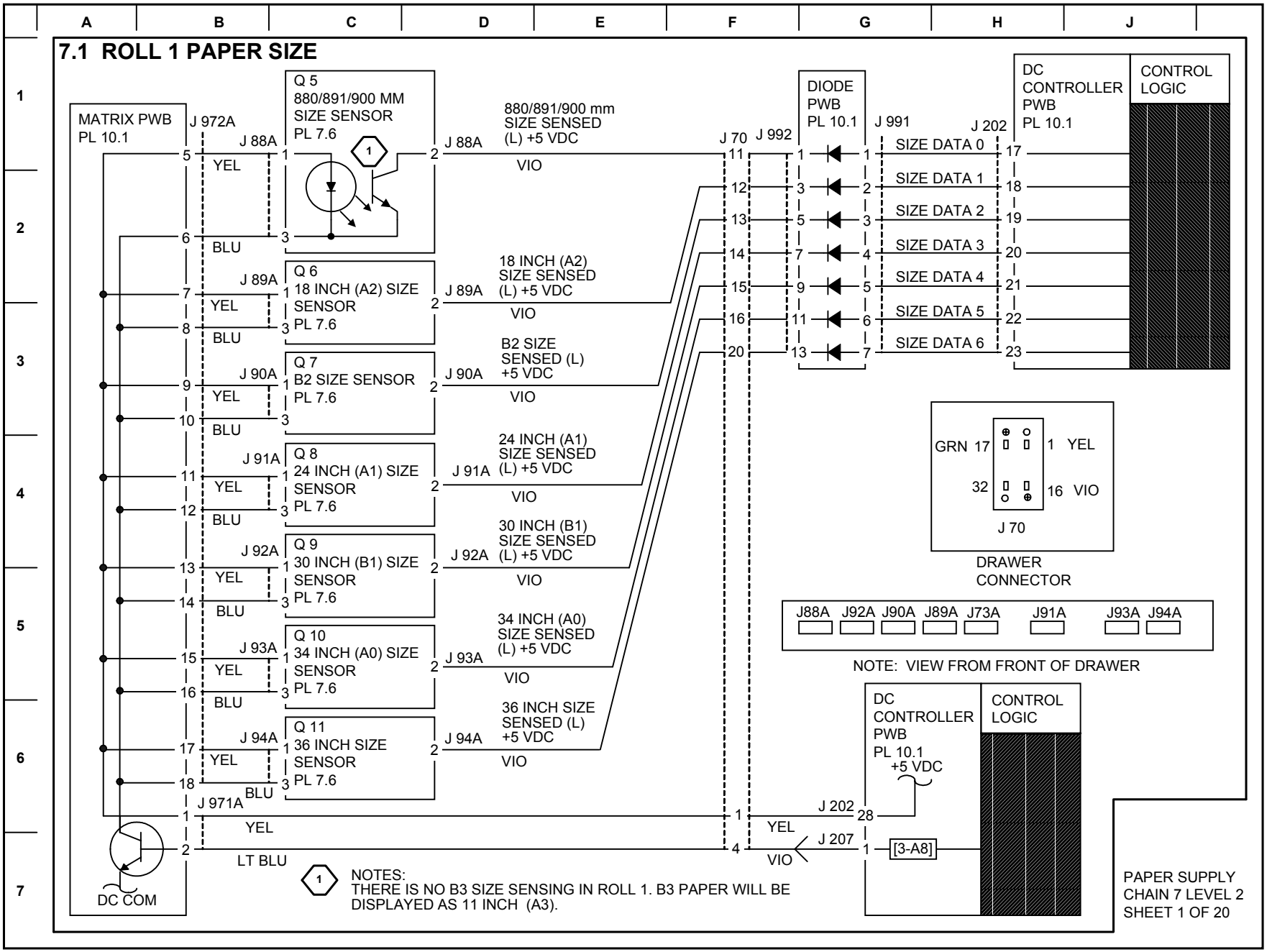


MACHINE RUN
CONTROL
CHAIN 3 LEVEL 2
SHEET 3 OF 3

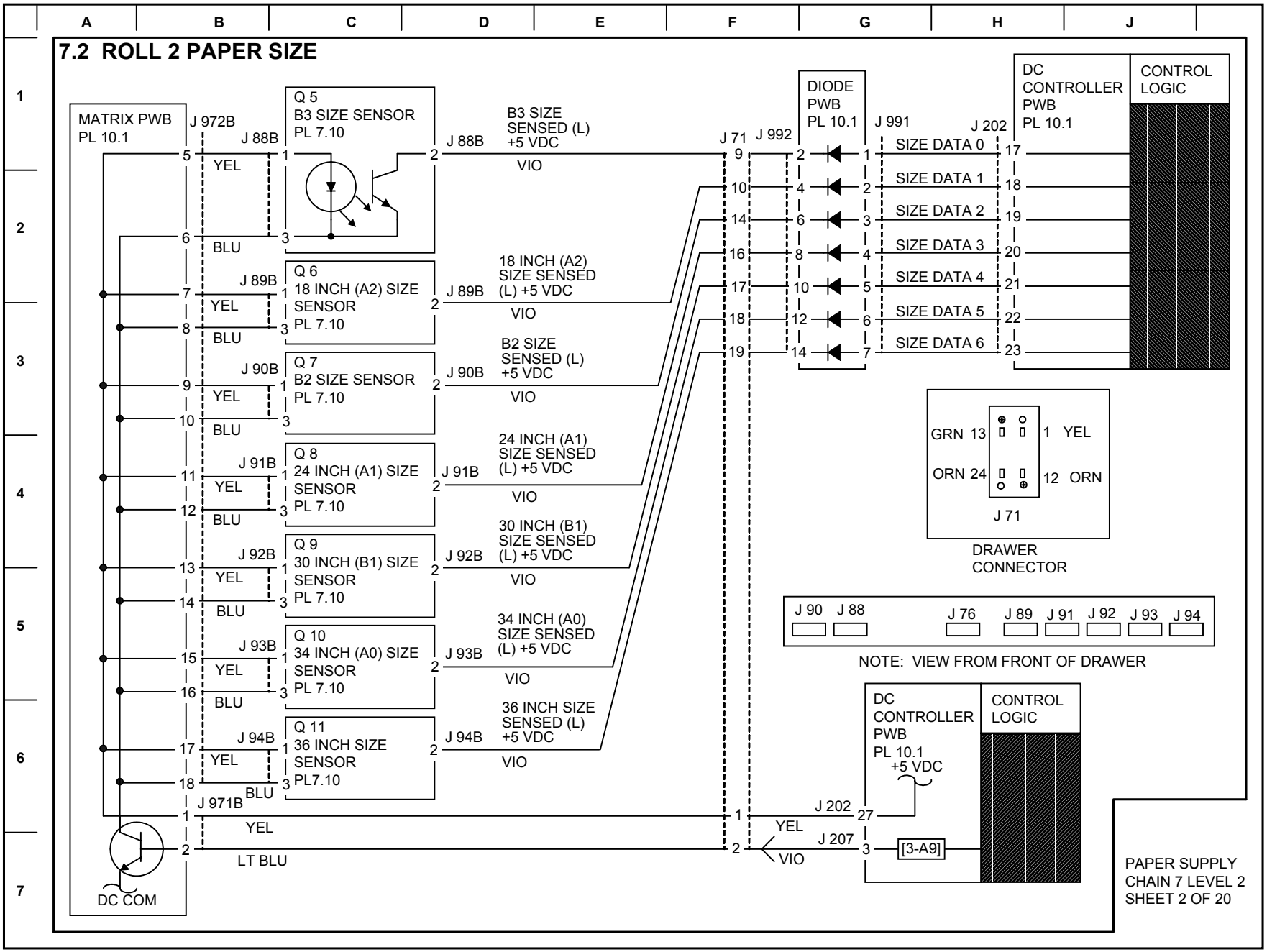
BSD 6.1 Exposure

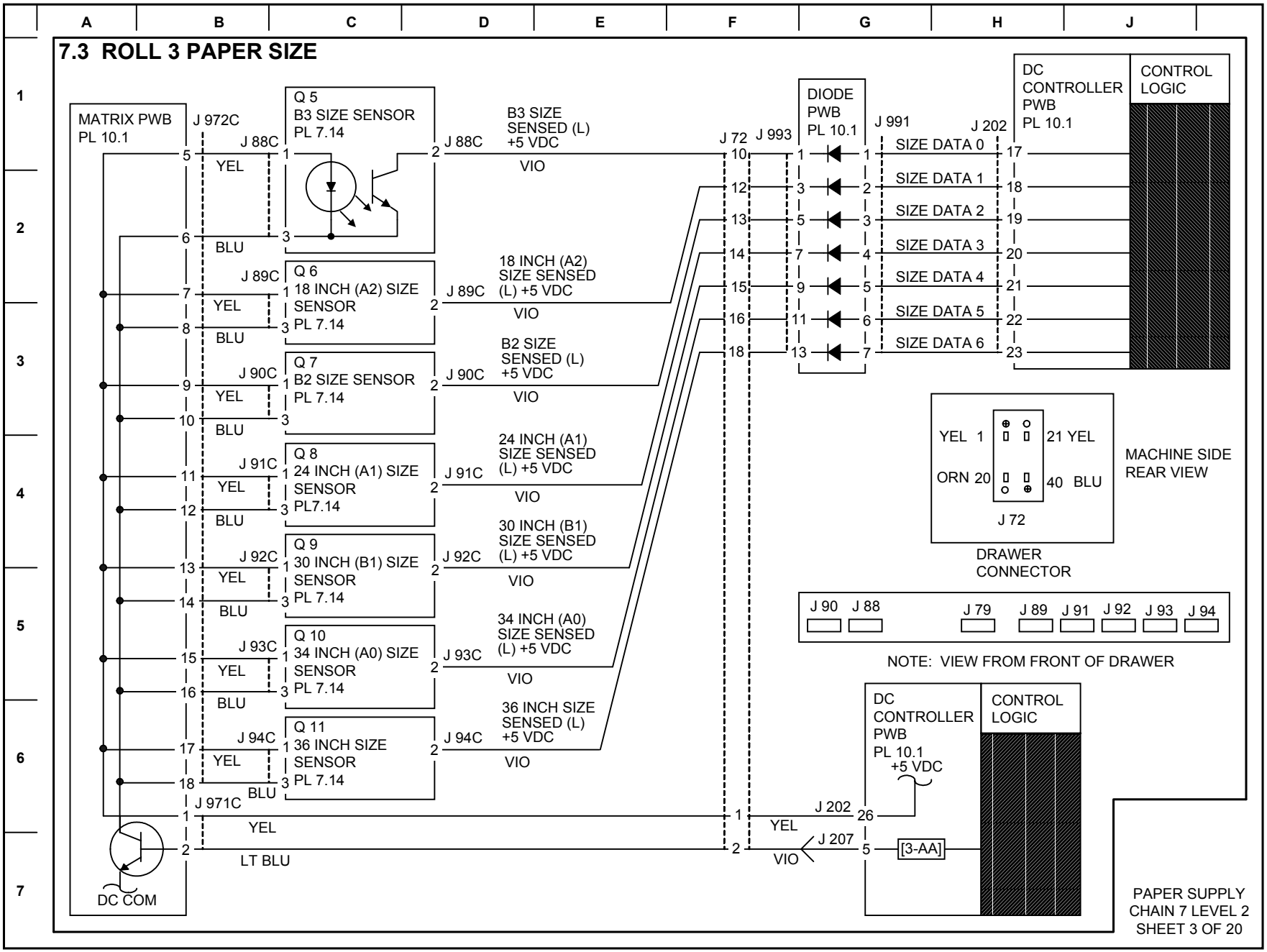



A
B
C
D
E
F
G
H
J
1
2
3
4
5
6
7
6.2 LED PRINT HEAD CLEANING
CONTROL LOGIC
DC DRIVER PWB PL 10.1
10.4
FUSER TEMPERATURE
E-23
[3-81]
[1-47]
[3-83]
21
22
J 555
LED PRINT HEAD CLEANING MOTOR ON (L) +5 VDC
GRY
GRY
J 66
2
3
MOT 8 LED PRINT HEAD CLEANING MOTOR PL 1.7
MOT 8 LED PRINT HEAD CLEANING MOTOR
LED_MOT
TOP VIEW
IMAGING CHAIN 6 LEVEL 2 SHEET 2 OF 2

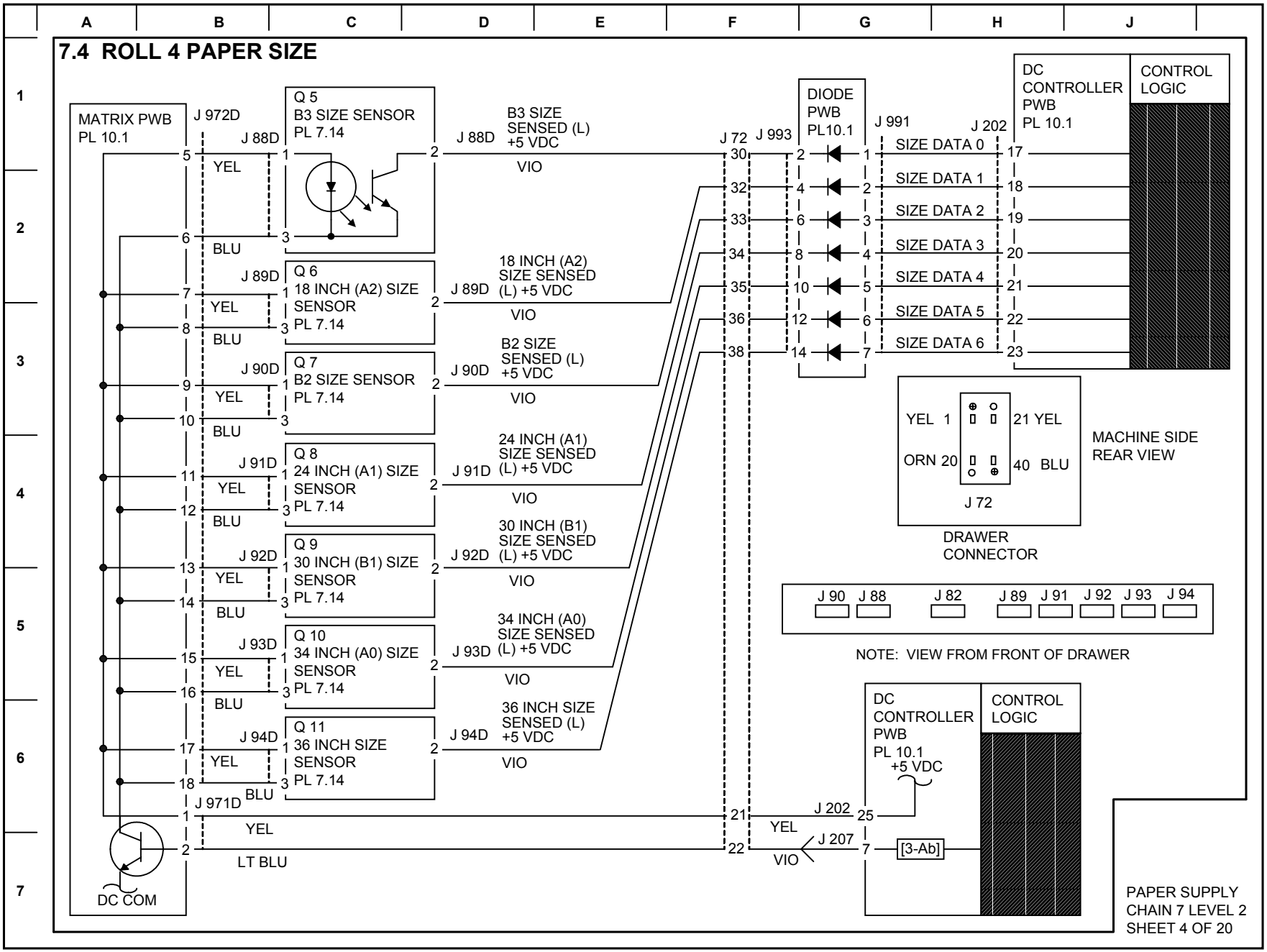

7.1 ROLL 1 PAPER SIZE
MATRIX PWB PL 10.1
J 972A
Q 5 880/891/900 MM SIZE SENSOR PL 7.6
880/891/900 mm SIZE SENSED (L) +5 VDC
Q 6 18 INCH (A2) SIZE SENSOR PL 7.6
18 INCH (A2) SIZE SENSED (L) +5 VDC
Q 7 B2 SIZE SENSOR PL 7.6
B2 SIZE SENSED (L) +5 VDC
Q 8 24 INCH (A1) SIZE SENSOR PL 7.6
24 INCH (A1) SIZE SENSED (L) +5 VDC
Q 9 30 INCH (B1) SIZE SENSOR PL 7.6
30 INCH (B1) SIZE SENSED (L) +5 VDC
Q 10 34 INCH (A0) SIZE SENSOR PL 7.6
34 INCH (A0) SIZE SENSED (L) +5 VDC
Q 11 36 INCH SIZE SENSOR PL 7.6
36 INCH SIZE SENSED (L) +5 VDC
YEL
BLU
VIO
LT BLU
J 971A
DC COM
J 70
J 992
DIODE PWB PL 10.1
J 991
J 202
DC CONTROLLER PWB PL 10.1
CONTROL LOGIC
SIZE DATA 0
SIZE DATA 1
SIZE DATA 2
SIZE DATA 3
SIZE DATA 4
SIZE DATA 5
SIZE DATA 6
GRN 17
1 YEL
32
16 VIO
J 70
DRAWER CONNECTOR
J88A J92A J90A J89A J73A J91A J93A J94A
NOTE: VIEW FROM FRONT OF DRAWER
DC CONTROLLER PWB PL 10.1
+5 VDC
CONTROL LOGIC
J 207
[3-A8]
NOTES:
THERE IS NO B3 SIZE SENSING IN ROLL 1. B3 PAPER WILL BE DISPLAYED AS 11 INCH (A3).
PAPER SUPPLY CHAIN 7 LEVEL 2
SHEET 1 OF 20

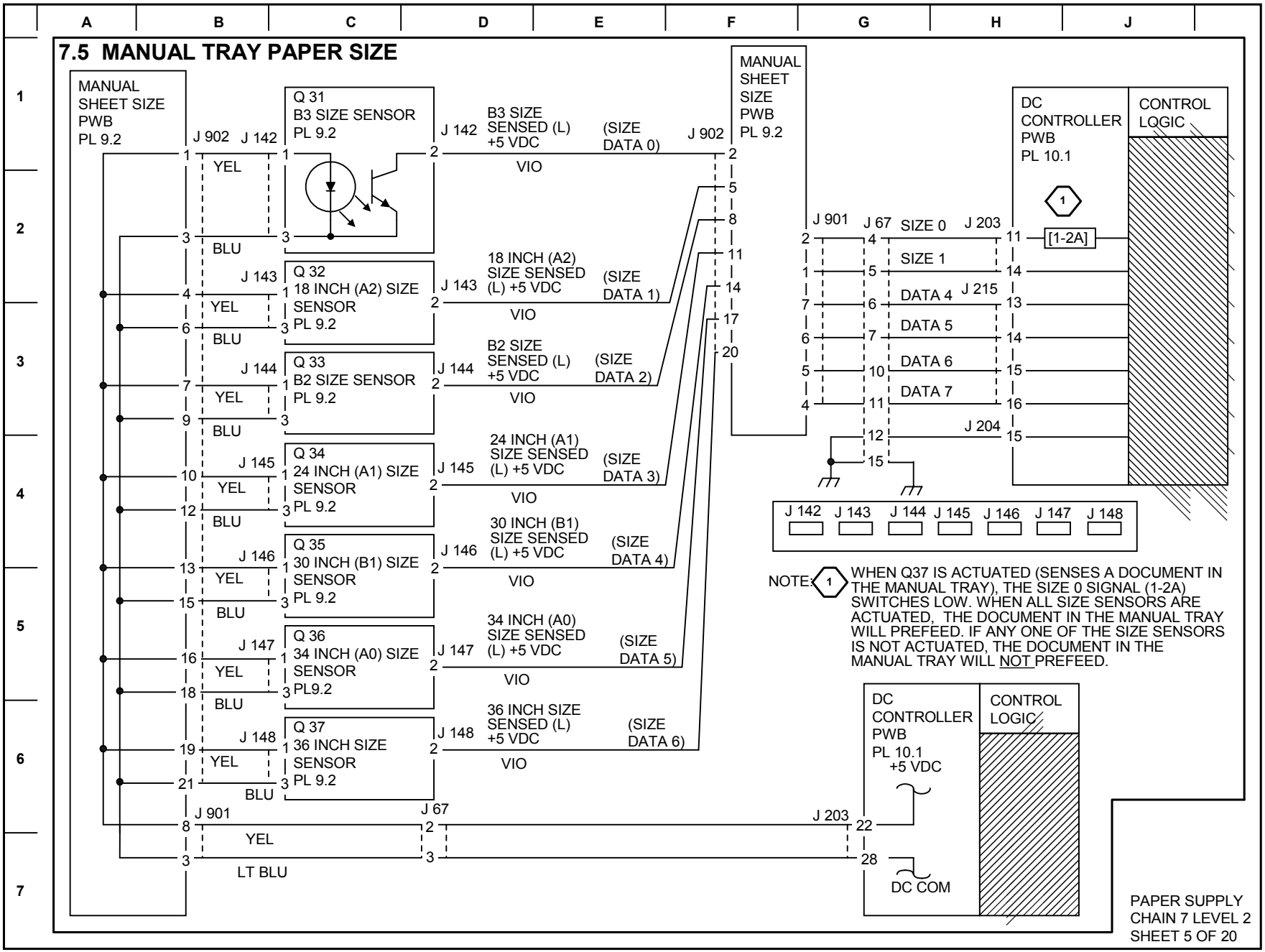
BSD 7.2 Roll 2 Paper Size



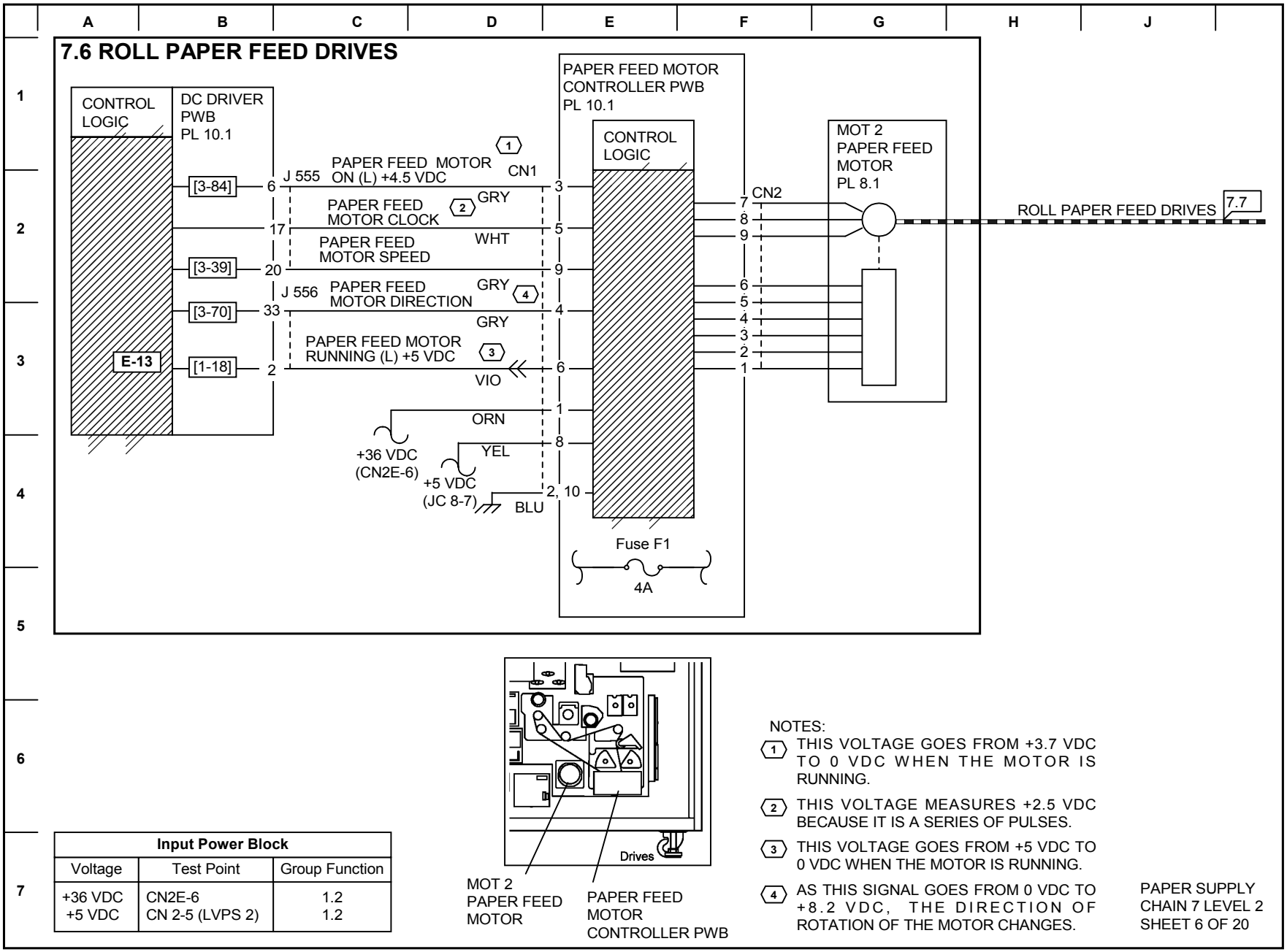

7.3 ROLL 3 PAPER SIZE
MATRIX PWB PL 10.1
J 972C
Q 5 B3 SIZE SENSOR PL 7.14
B3 SIZE SENSED (L) +5 VDC
Q 6 18 INCH (A2) SIZE SENSOR PL 7.14
18 INCH (A2) SIZE SENSED (L) +5 VDC
Q 7 B2 SIZE SENSOR PL 7.14
B2 SIZE SENSED (L) +5 VDC
Q 8 24 INCH (A1) SIZE SENSOR PL7.14
24 INCH (A1) SIZE SENSED (L) +5 VDC
Q 9 30 INCH (B1) SIZE SENSOR PL 7.14
30 INCH (B1) SIZE SENSED (L) +5 VDC
Q 10 34 INCH (A0) SIZE SENSOR PL 7.14
34 INCH (A0) SIZE SENSED (L) +5 VDC
Q 11 36 INCH SIZE SENSOR PL 7.14
36 INCH SIZE SENSED (L) +5 VDC
DIODE PWB PL 10.1
DC CONTROLLER PWB PL 10.1
CONTROL LOGIC
SIZE DATA 0
SIZE DATA 1
SIZE DATA 2
SIZE DATA 3
SIZE DATA 4
SIZE DATA 5
SIZE DATA 6
DC COM
MACHINE SIDE REAR VIEW
DRAWER CONNECTOR
NOTE: VIEW FROM FRONT OF DRAWER
PAPER SUPPLY CHAIN 7 LEVEL 2 SHEET 3 OF 20

BSD 7.4 Roll 4 Paper Size




7.5 MANUAL TRAY PAPER SIZE
MANUAL SHEET SIZE PWB PL 9.2
Q 31 B3 SIZE SENSOR PL 9.2
Q 32 18 INCH (A2) SIZE SENSOR PL 9.2
Q 33 B2 SIZE SENSOR PL 9.2
Q 34 24 INCH (A1) SIZE SENSOR PL 9.2
Q 35 30 INCH (B1) SIZE SENSOR PL 9.2
Q 36 34 INCH (A0) SIZE SENSOR PL9.2
Q 37 36 INCH SIZE SENSOR PL 9.2
B3 SIZE SENSED (L) +5 VDC (SIZE DATA 0)
18 INCH (A2) SIZE SENSED (L) +5 VDC (SIZE DATA 1)
B2 SIZE SENSED (L) +5 VDC (SIZE DATA 2)
24 INCH (A1) SIZE SENSED (L) +5 VDC (SIZE DATA 3)
30 INCH (B1) SIZE SENSED (L) +5 VDC (SIZE DATA 4)
34 INCH (A0) SIZE SENSED (L) +5 VDC (SIZE DATA 5)
36 INCH SIZE SENSED (L) +5 VDC (SIZE DATA 6)
YEL
BLU
LT BLU
VIO
MANUAL SHEET SIZE PWB PL 9.2
DC CONTROLLER PWB PL 10.1
CONTROL LOGIC
SIZE 0
SIZE 1
DATA 4
DATA 5
DATA 6
DATA 7
[1-2A]
J 142 J 143 J 144 J 145 J 146 J 147 J 148
NOTE: 1 WHEN Q37 IS ACTUATED (SENSES A DOCUMENT IN THE MANUAL TRAY), THE SIZE 0 SIGNAL (1-2A) SWITCHES LOW. WHEN ALL SIZE SENSORS ARE ACTUATED, THE DOCUMENT IN THE MANUAL TRAY WILL PREFEED. IF ANY ONE OF THE SIZE SENSORS IS NOT ACTUATED, THE DOCUMENT IN THE MANUAL TRAY WILL NOT PREFEED.
DC CONTROLLER PWB PL 10.1
+5 VDC
DC COM
CONTROL LOGIC
PAPER SUPPLY CHAIN 7 LEVEL 2 SHEET 5 OF 20

BSD 7.6 Roll Paper Feed Drives



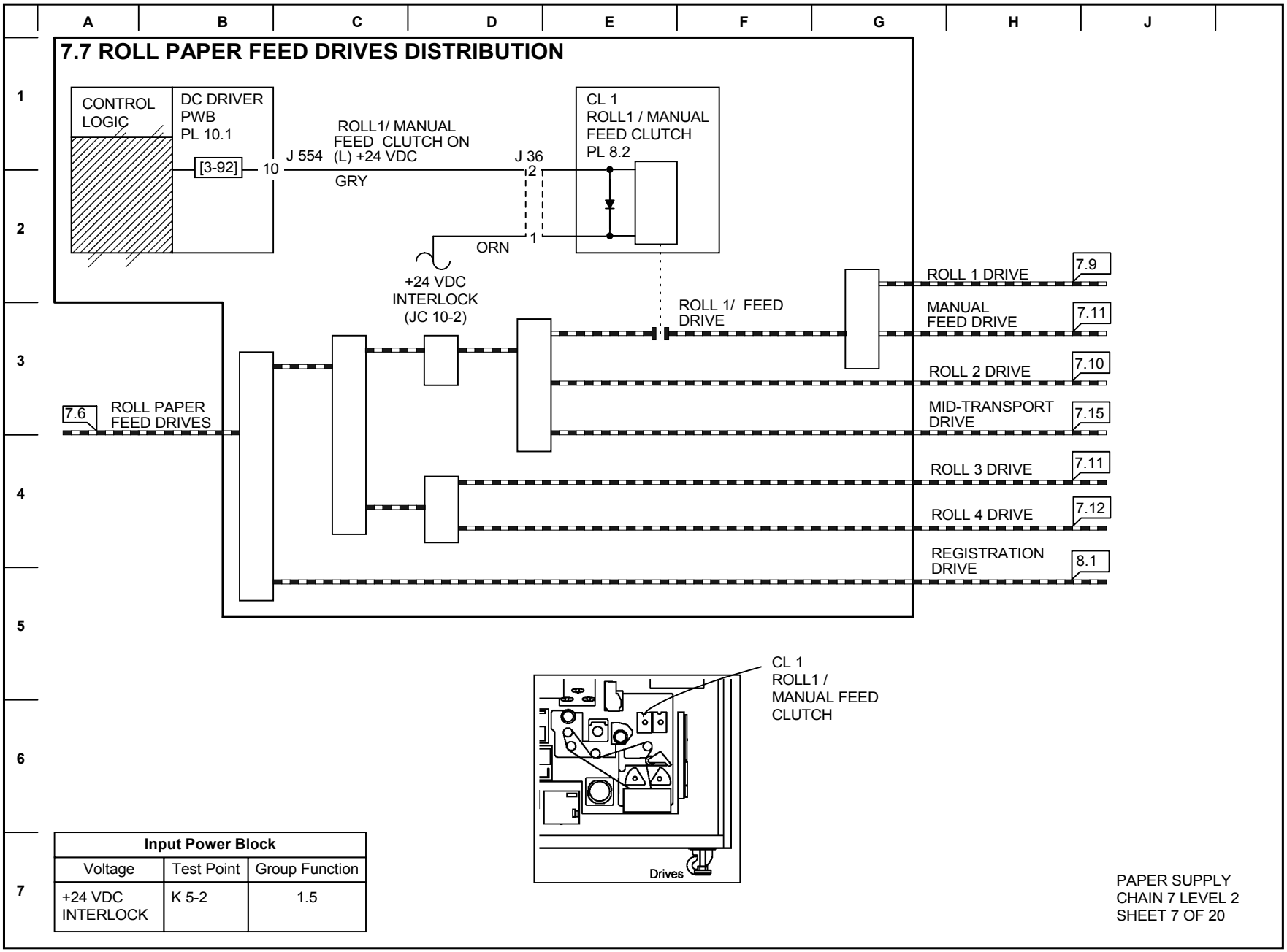
Input Power Block		
Voltage	Test Point	Group Function
+36 VDC	CN2E-6	1.2
+5 VDC	CN 2-5 (LVPS 2)	1.2

NOTES:

1. THIS VOLTAGE GOES FROM +3.7 VDC TO 0 VDC WHEN THE MOTOR IS RUNNING.
2. THIS VOLTAGE MEASURES +2.5 VDC BECAUSE IT IS A SERIES OF PULSES.
3. THIS VOLTAGE GOES FROM +5 VDC TO 0 VDC WHEN THE MOTOR IS RUNNING.
4. AS THIS SIGNAL GOES FROM 0 VDC TO +8.2 VDC, THE DIRECTION OF ROTATION OF THE MOTOR CHANGES.

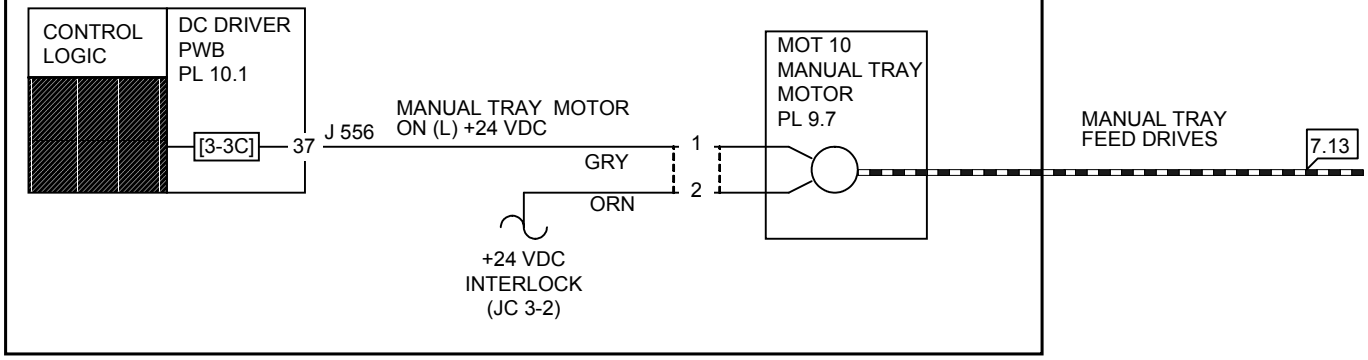
PAPER SUPPLY
CHAIN 7 LEVEL 2
SHEET 6 OF 20

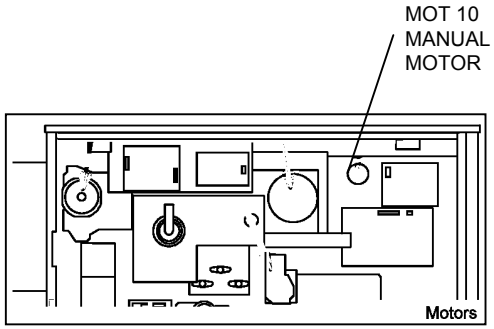
BSD 7.7 Roll Paper Feed Drives Distribution



BSD 7.8 Manual Tray Feed Drives

7.8 MANUAL TRAY FEED DRIVES

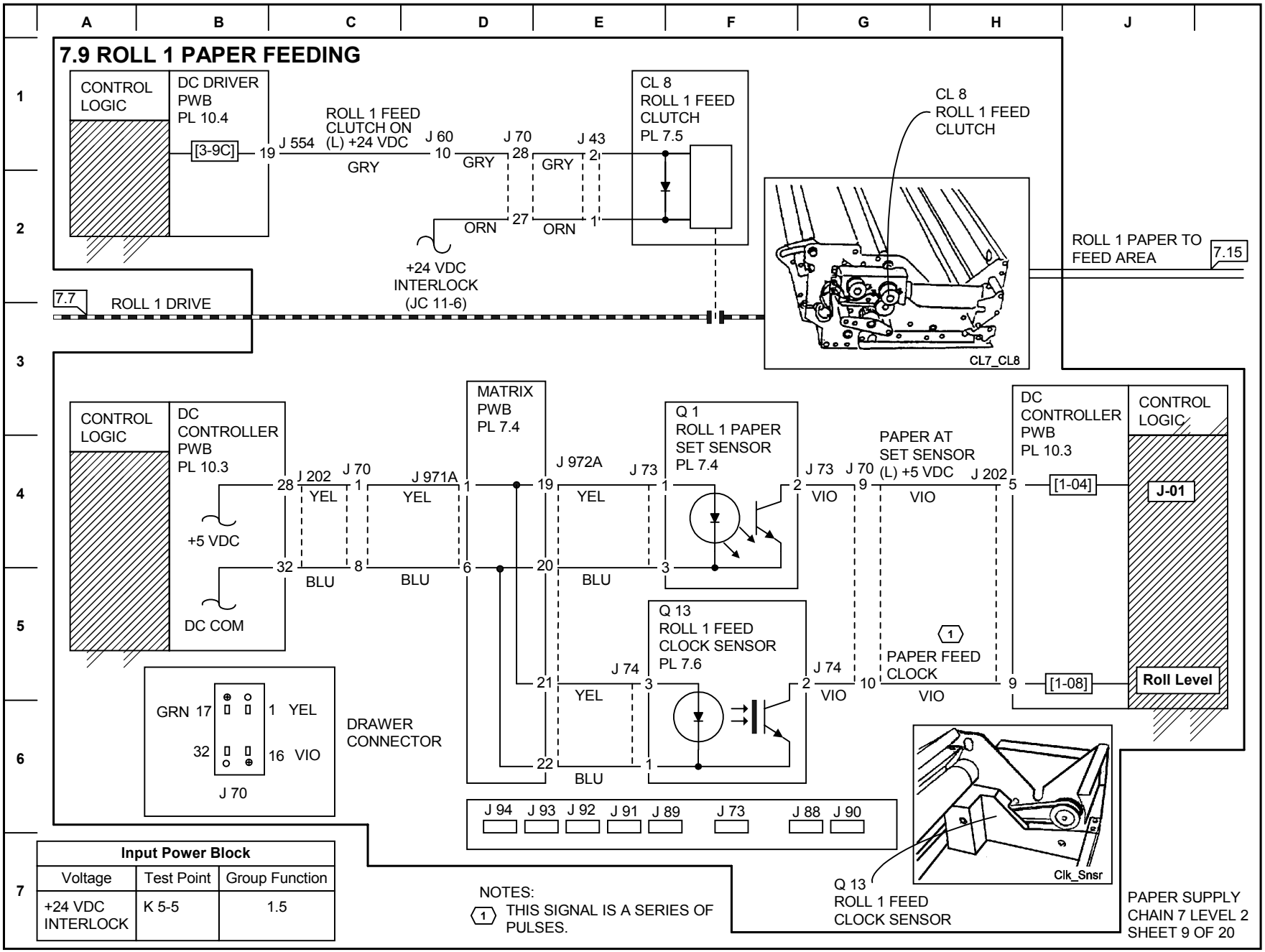




Input Power Block		
Voltage	Test Point	Group Function
+24 VDC INTERLOCK	K 4-2	1.4

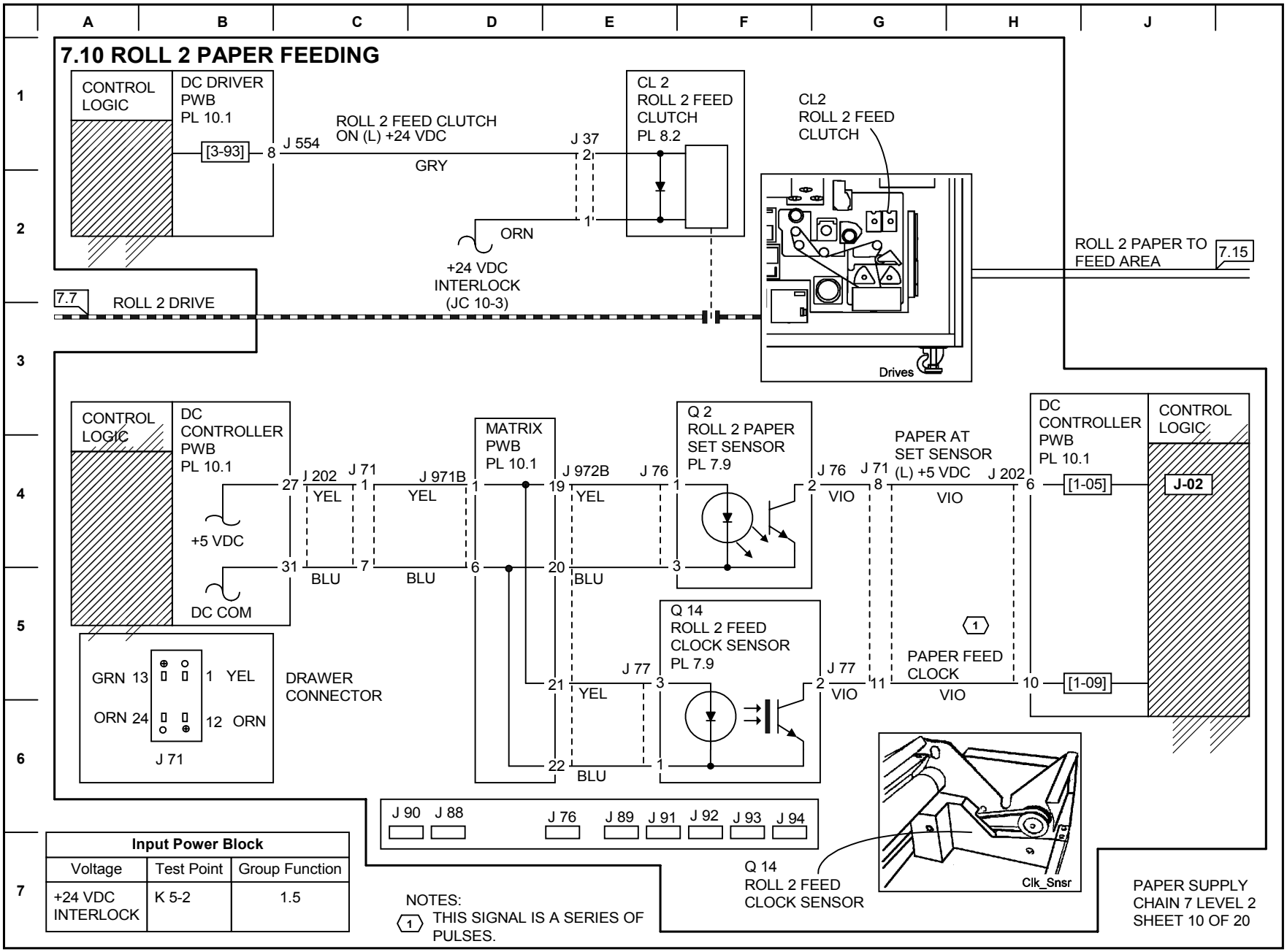
PAPER SUPPLY
CHAIN 7 LEVEL 2
SHEET 8 OF 20

BSD 7.9 Roll 1 Paper Feeding



Input Power Block		
Voltage	Test Point	Group Function
+24 VDC INTERLOCK	K 5-5	1.5

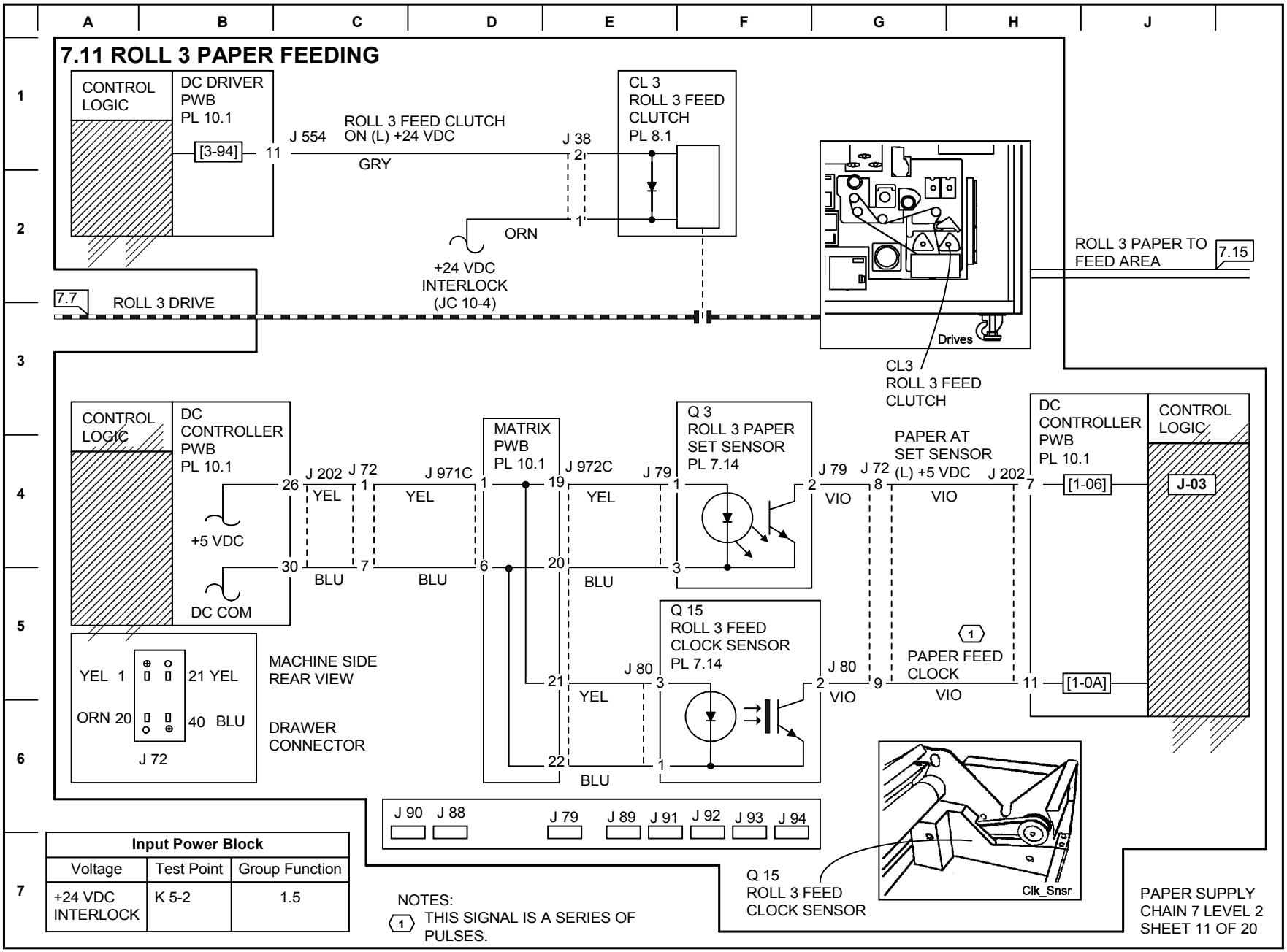
BSD 7.10 Roll 2 Paper Feeding



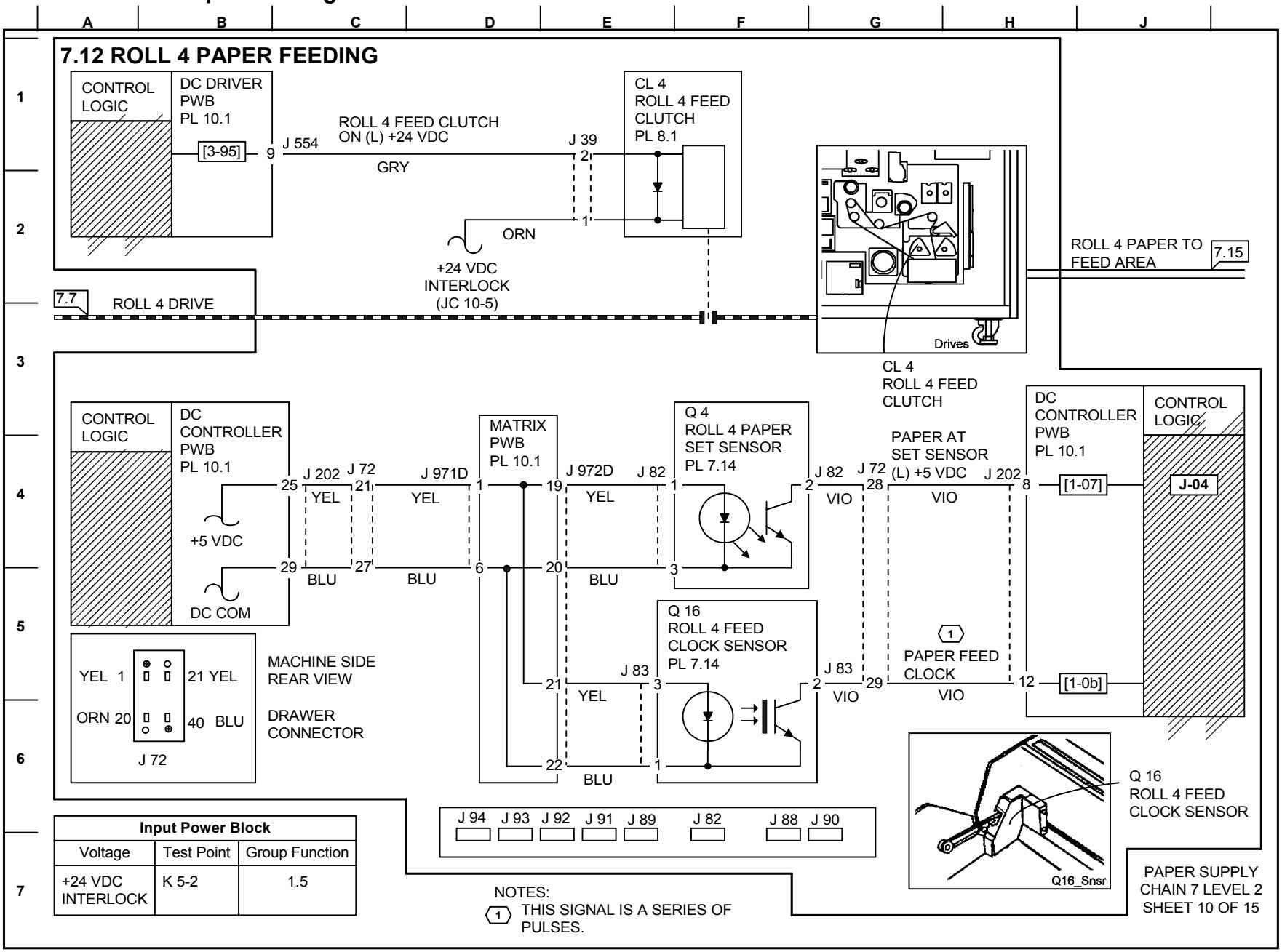
Input Power Block		
Voltage	Test Point	Group Function
+24 VDC INTERLOCK	K 5-2	1.5

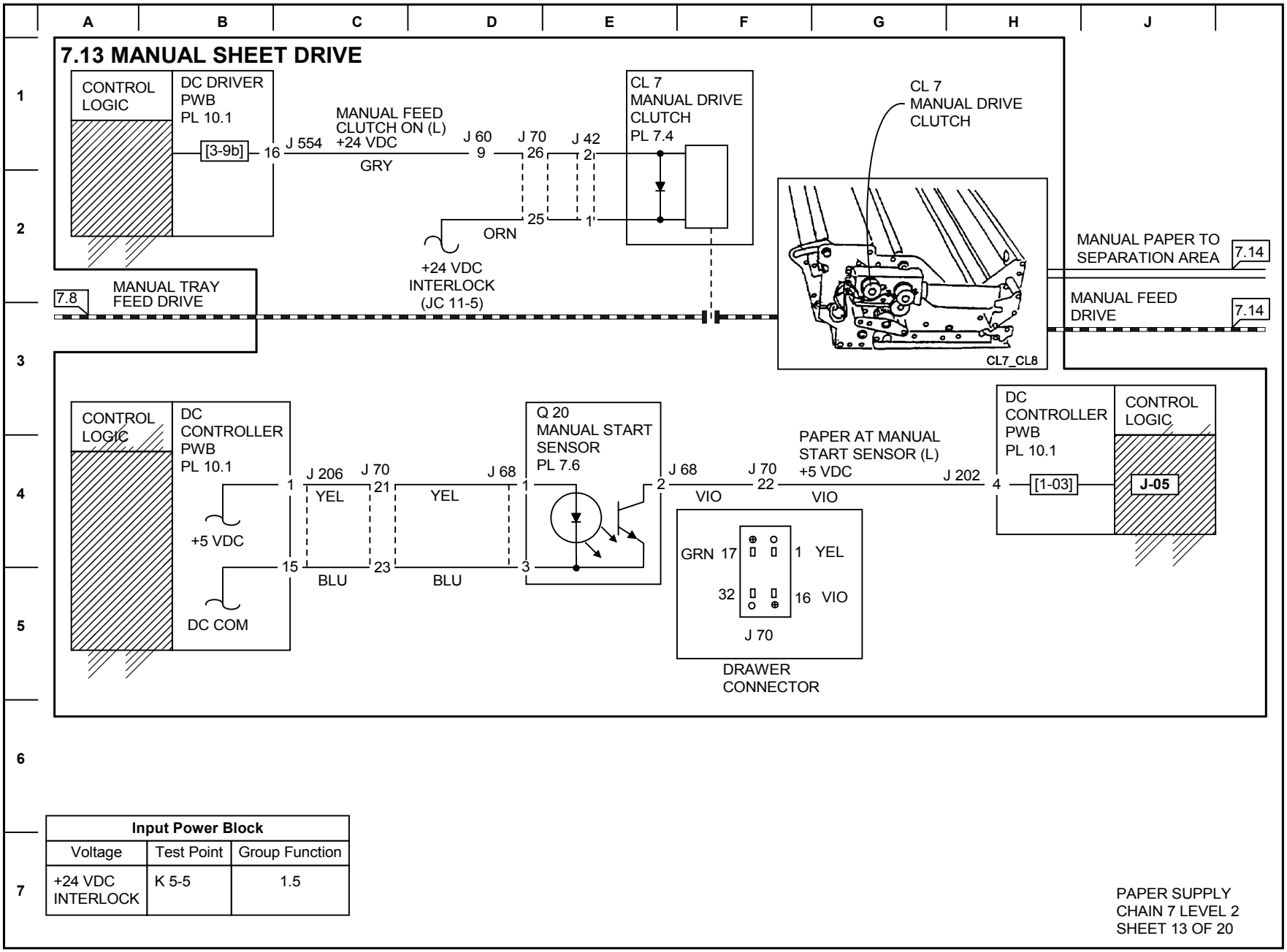
NOTES:
1. THIS SIGNAL IS A SERIES OF PULSES.

BSD 7.11 Roll 3 Paper Feeding



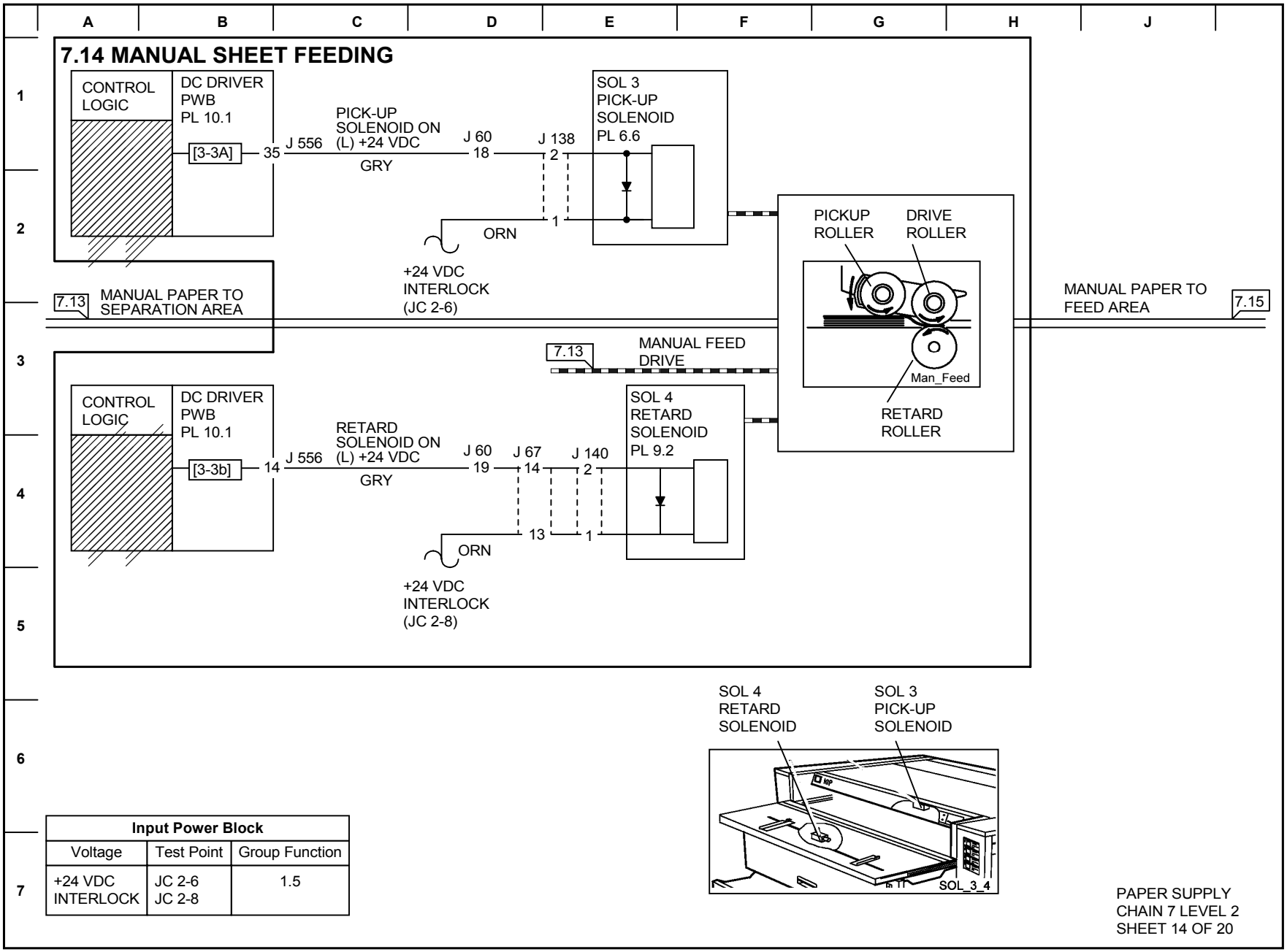
BSD 7.12 Roll 4 Paper Feeding



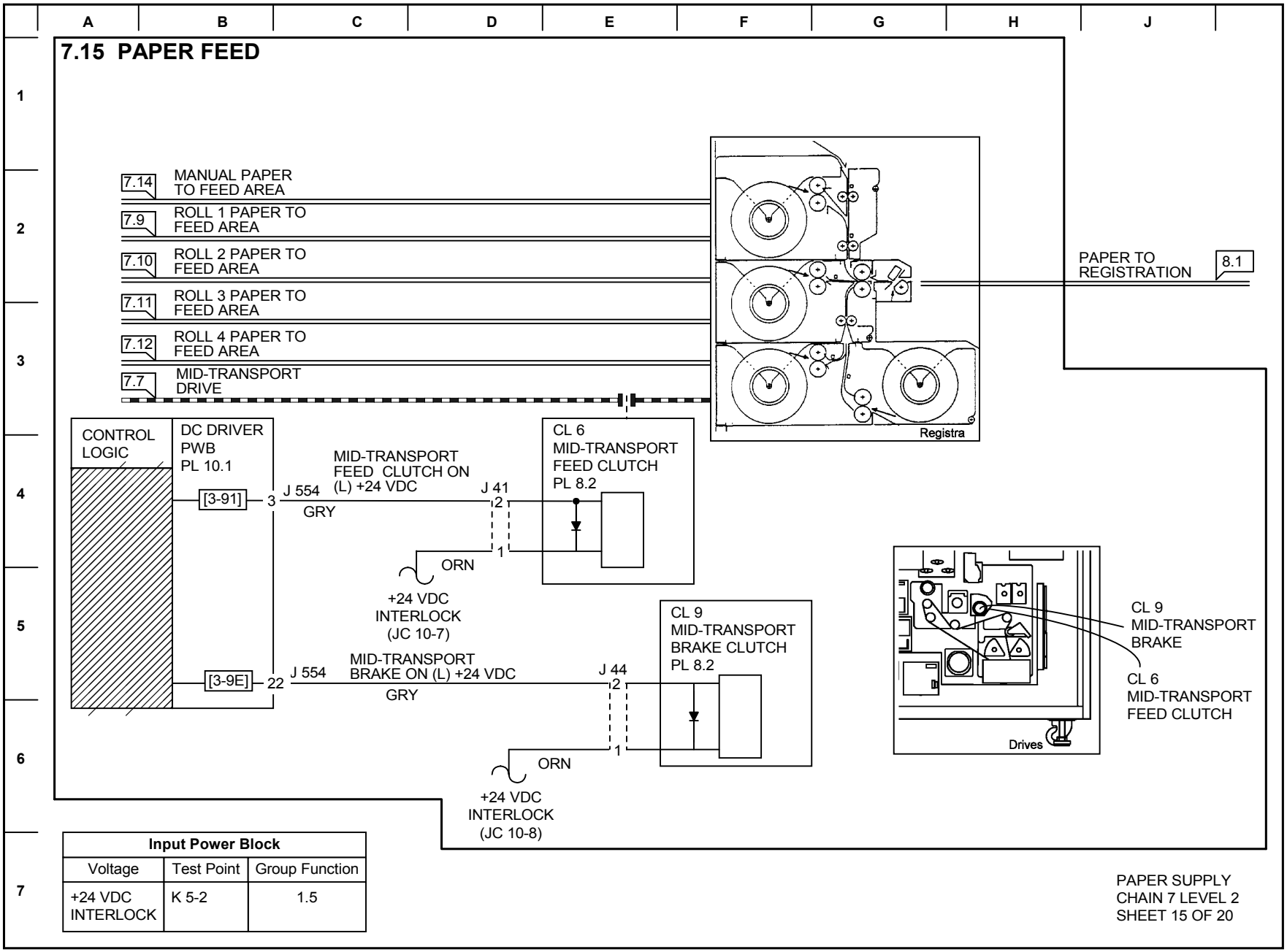


Input Power Block		
Voltage	Test Point	Group Function
+24 VDC INTERLOCK	K 5-5	1.5

BSD 7.14 Manual Sheet Feeding

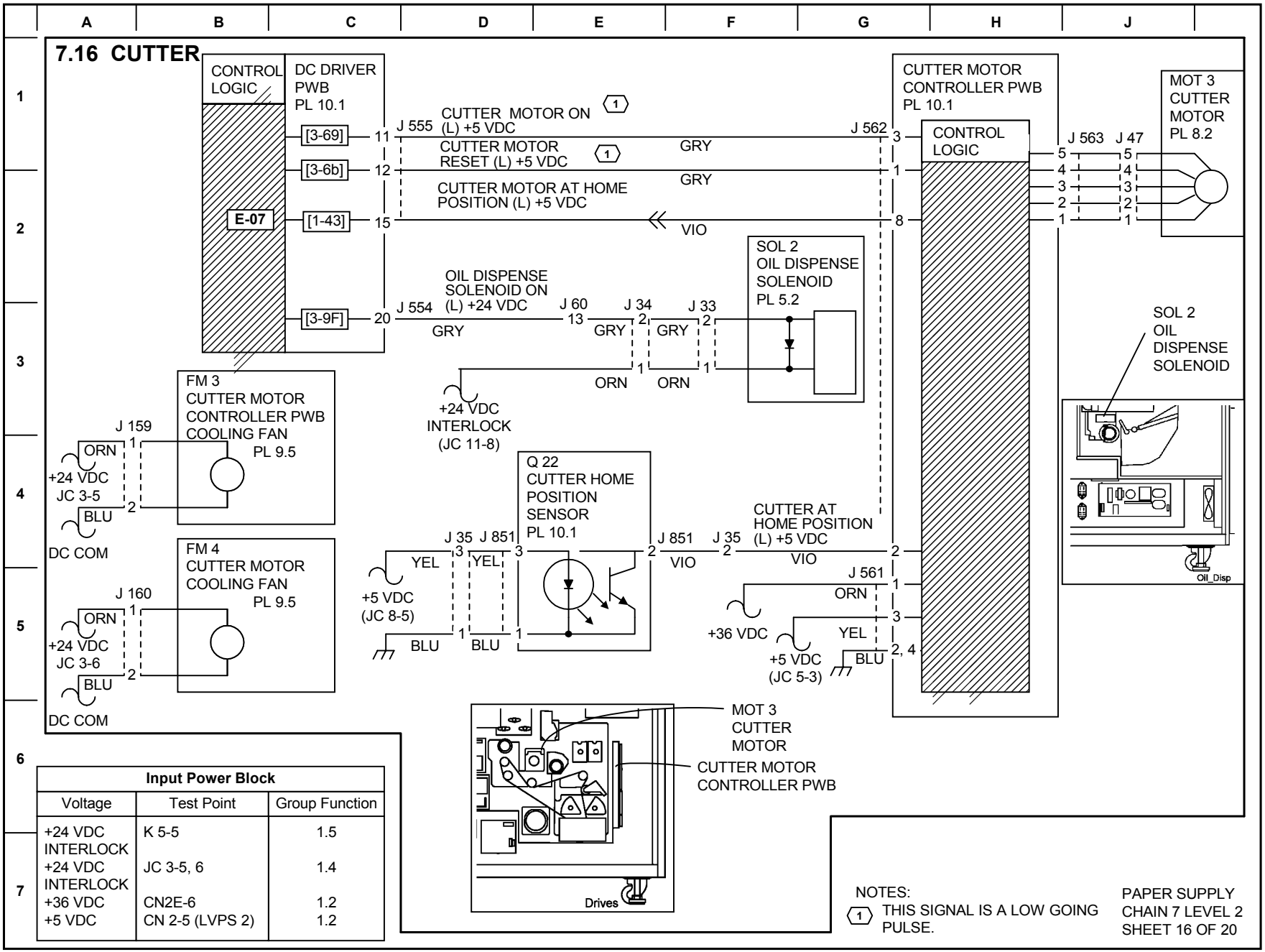


Input Power Block		
Voltage	Test Point	Group Function
+24 VDC INTERLOCK	JC 2-6 JC 2-8	1.5

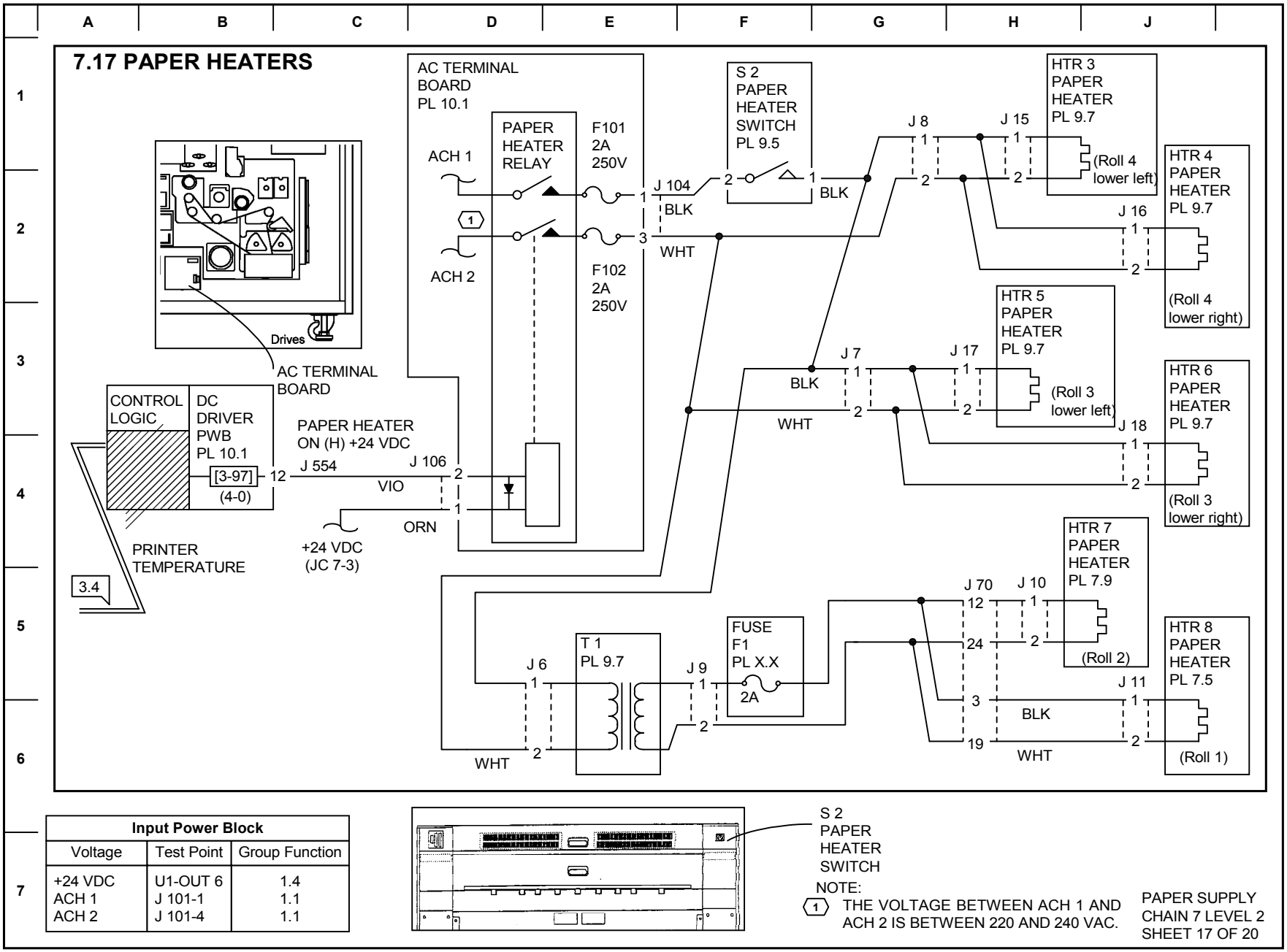


Input Power Block		
Voltage	Test Point	Group Function
+24 VDC INTERLOCK	K 5-2	1.5

BSD 7.16 Cutter

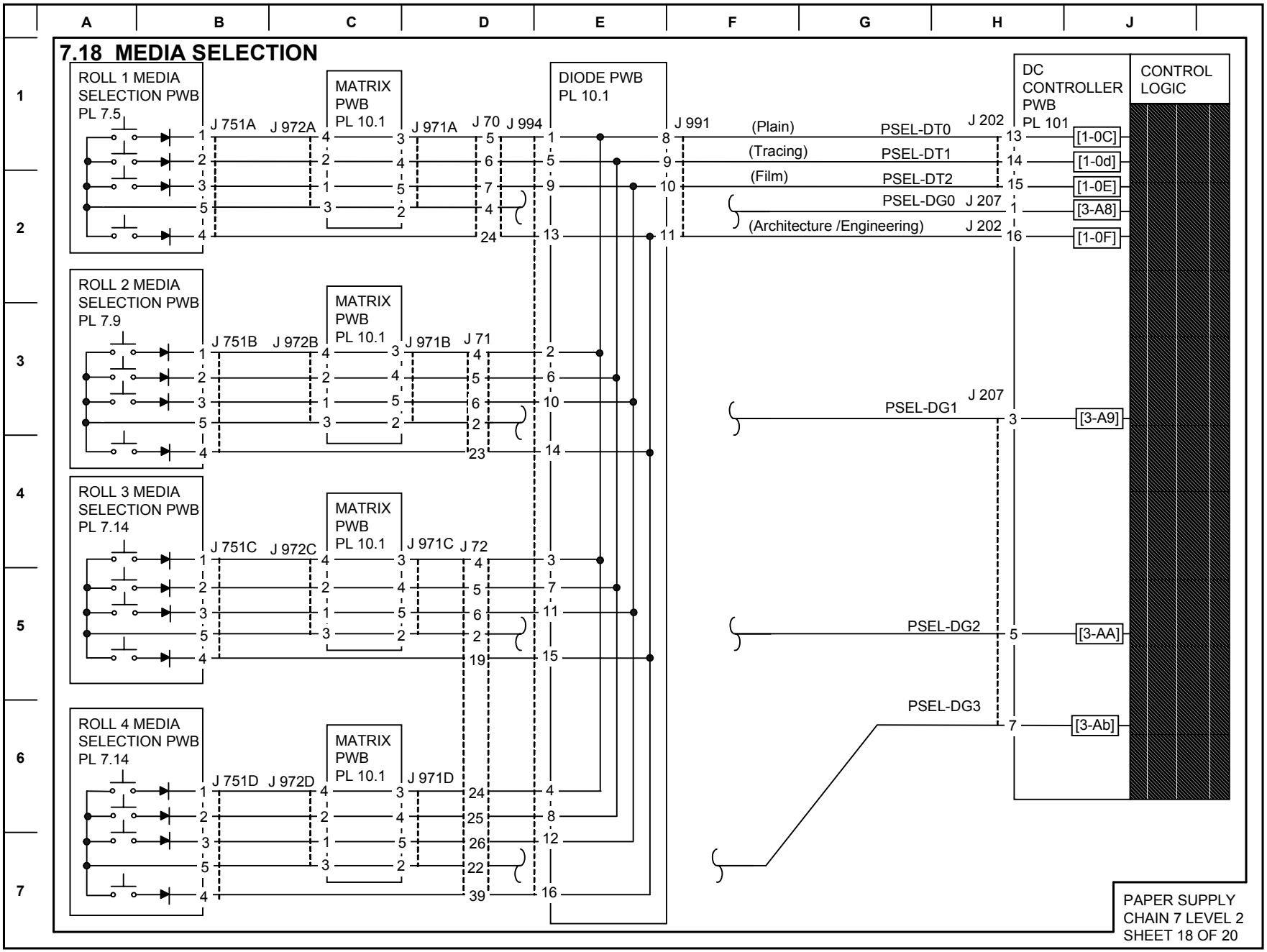


Input Power Block		
Voltage	Test Point	Group Function
+24 VDC INTERLOCK	K 5-5	1.5
+24 VDC INTERLOCK	JC 3-5, 6	1.4
+36 VDC	CN2E-6	1.2
+5 VDC	CN 2-5 (LVPS 2)	1.2

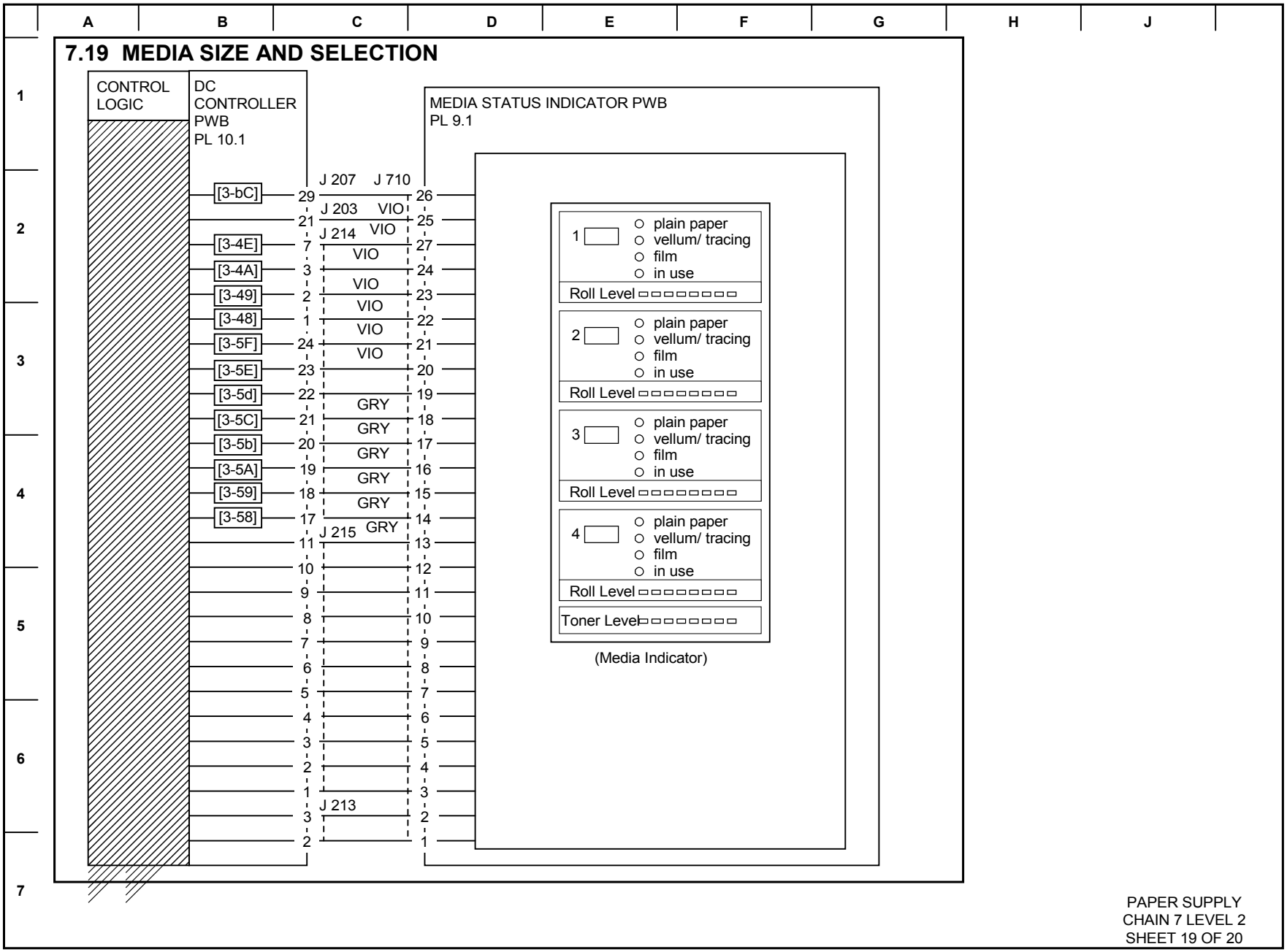


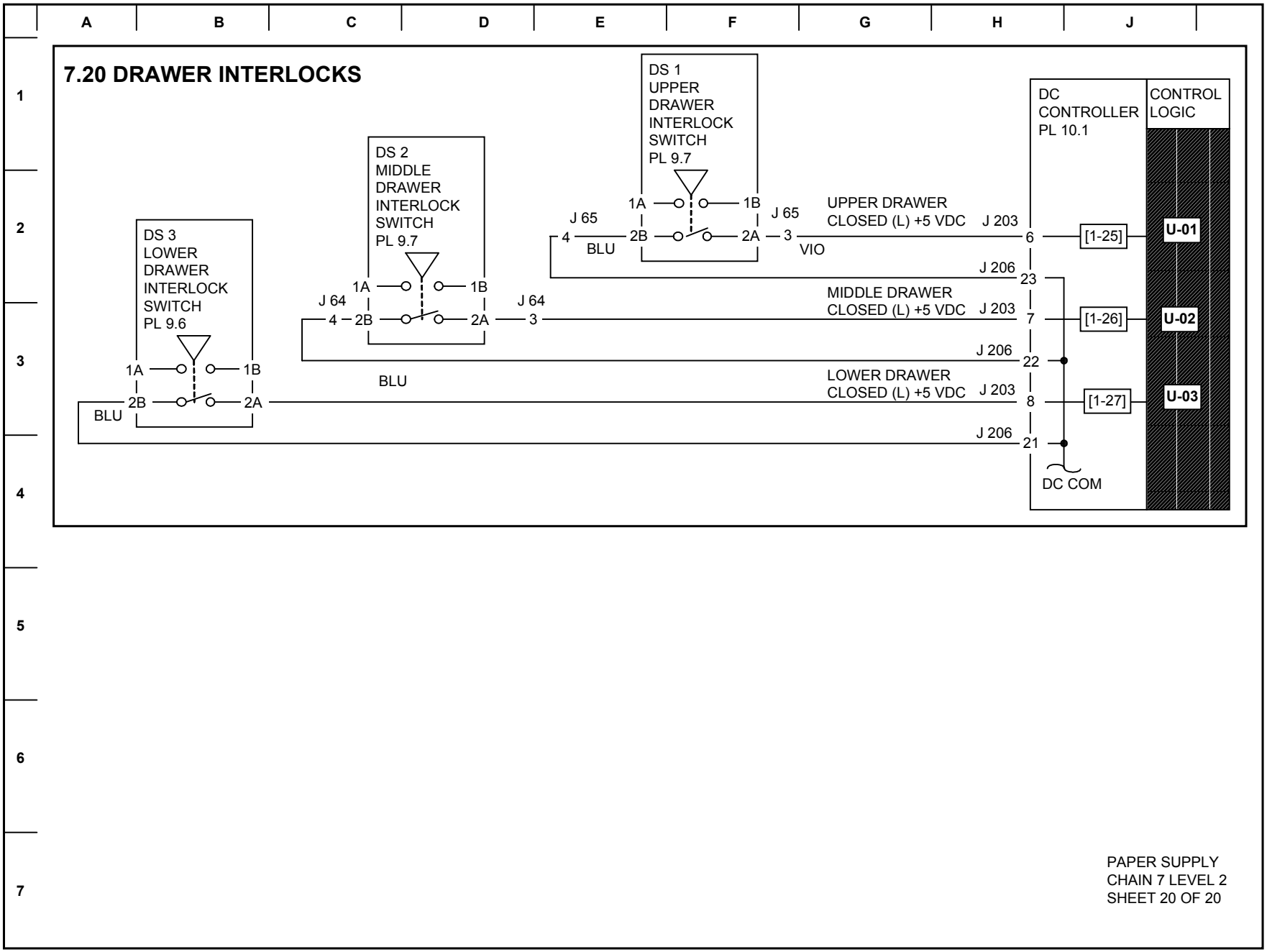
Input Power Block		
Voltage	Test Point	Group Function
+24 VDC	U1-OUT 6	1.4
ACH 1	J 101-1	1.1
ACH 2	J 101-4	1.1

BSD 7.18 Media Selection

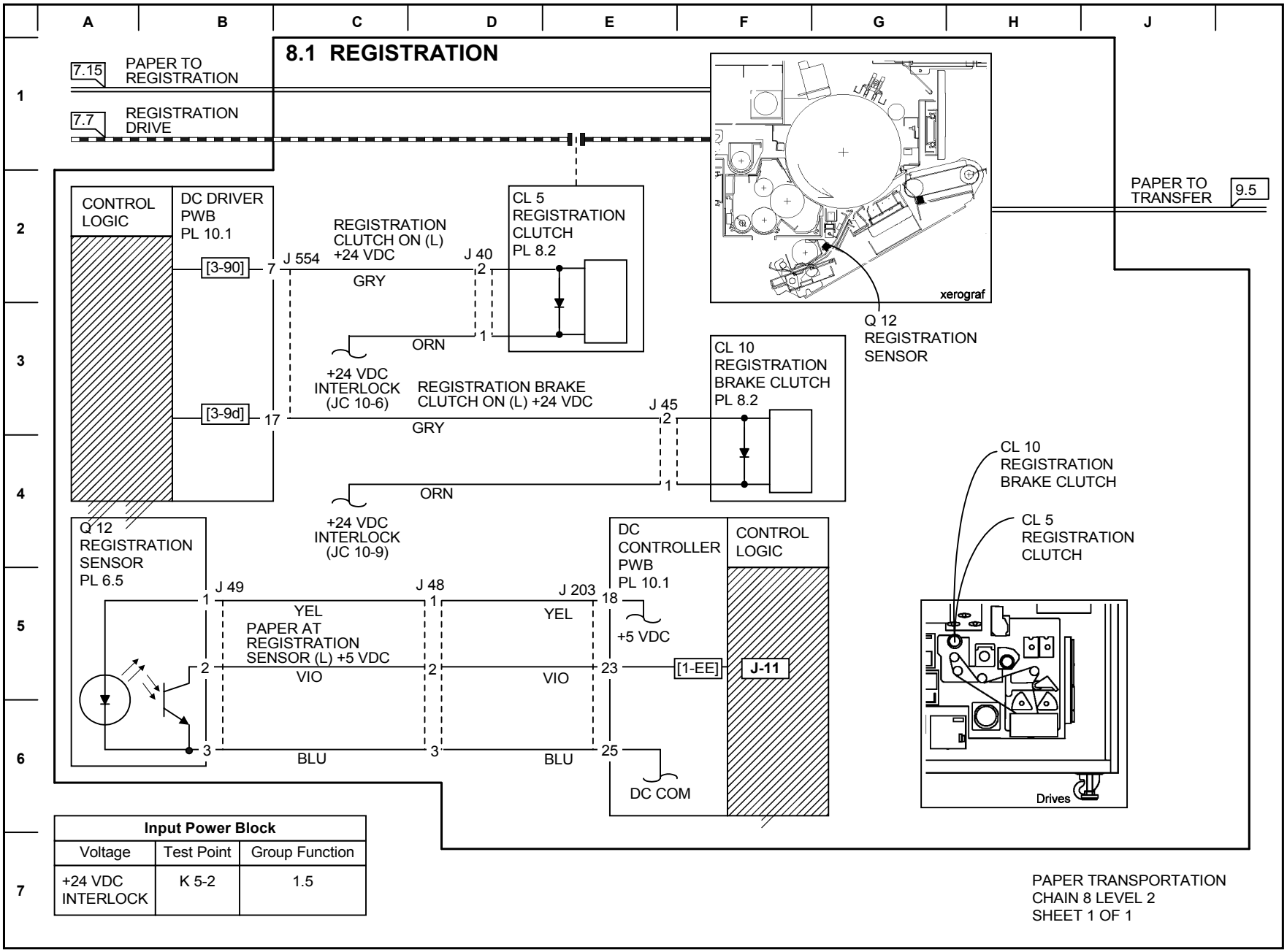


BSD 7.19 Media Size and Selection



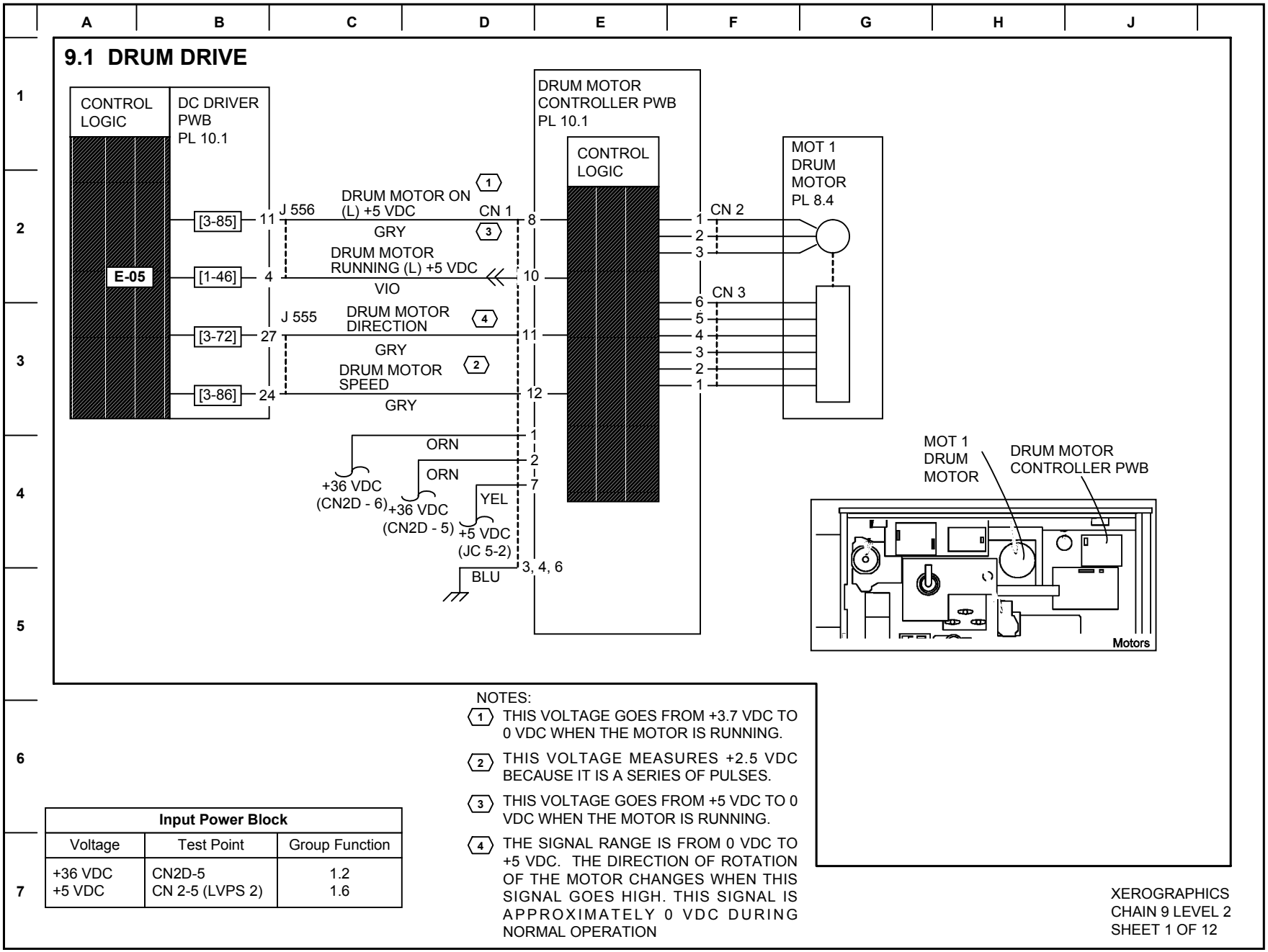

A
B
C
D
E
F
G
H
J
1
2
3
4
5
6
7
7.20 DRAWER INTERLOCKS
DS 1
UPPER
DRAWER
INTERLOCK
SWITCH
PL 9.7
DS 2
MIDDLE
DRAWER
INTERLOCK
SWITCH
PL 9.7
DS 3
LOWER
DRAWER
INTERLOCK
SWITCH
PL 9.6
1A
1B
2B
2A
J 65
4
BLU
J 65
3
VIO
UPPER DRAWER
CLOSED (L) +5 VDC
J 203
6
J 206
23
J 64
4
J 64
3
MIDDLE DRAWER
CLOSED (L) +5 VDC
J 203
7
J 206
22
BLU
LOWER DRAWER
CLOSED (L) +5 VDC
J 203
8
J 206
21
BLU
DC
CONTROLLER
PL 10.1
CONTROL
LOGIC
[1-25]
[1-26]
[1-27]
U-01
U-02
U-03
DC COM
PAPER SUPPLY
CHAIN 7 LEVEL 2
SHEET 20 OF 20

BSD 8.1 Registration



Input Power Block		
Voltage	Test Point	Group Function
+24 VDC INTERLOCK	K 5-2	1.5

BSD 9.1 Drum Drive



Input Power Block		
Voltage	Test Point	Group Function
+36 VDC +5 VDC	CN2D-5 CN 2-5 (LVPS 2)	1.2 1.6

NOTES:

1. THIS VOLTAGE GOES FROM +3.7 VDC TO 0 VDC WHEN THE MOTOR IS RUNNING.
2. THIS VOLTAGE MEASURES +2.5 VDC BECAUSE IT IS A SERIES OF PULSES.
3. THIS VOLTAGE GOES FROM +5 VDC TO 0 VDC WHEN THE MOTOR IS RUNNING.
4. THE SIGNAL RANGE IS FROM 0 VDC TO +5 VDC. THE DIRECTION OF ROTATION OF THE MOTOR CHANGES WHEN THIS SIGNAL GOES HIGH. THIS SIGNAL IS APPROXIMATELY 0 VDC DURING NORMAL OPERATION

XEROGRAPHICS
CHAIN 9 LEVEL 2
SHEET 1 OF 12

9.2 CHARGE

CONTROL LOGIC

DC DRIVER PWB PL 10.1

CHARGE ANALOG VOLTAGE

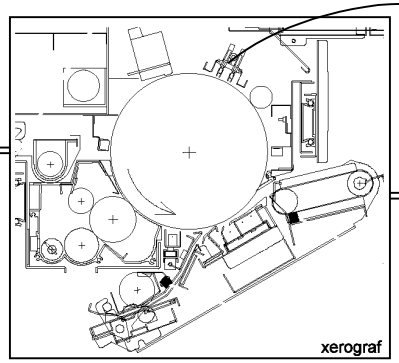
J 556 29 — CN1J 4 WHT

ADJ 1.3.1 [3-A0] — J 554 23 — HVPS 1 ON (L) +24 VDC — 3 GRY — 1 ORN — 2 BLU

+24 VDC INTERLOCK (JC 4-2)

HVPS 1 HIGH VOLTAGE POWER SUPPLY PL 10.1

ED 1 CHARGE SCOROTRON PL 1.1



CHARGE SCOROTRON

CHARGED DRUM 9.3

GRID ANALOG VOLTAGE

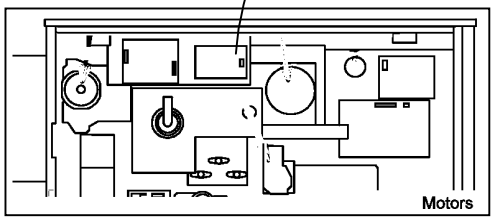
ADJ 1.3.7 — J 555 10 — CN 501 3 WHT

[3-A6] — J 556 1 — HVPS 6 ON (L) +24 VDC — 2 GRY — 1 ORN — 4 BLU

+24 VDC INTERLOCK (JC 4-9)

HVPS 6 HIGH VOLTAGE POWER SUPPLY PL 10.1

HVPS 6 HIGH VOLTAGE POWER SUPPLY



LEFT SIDE VIEW

SPS 1 PL 10.1

CN2A 1 2 3 4 5

SPS CONTROLLER PWB PL 10.1

CN1A 2 — J 211 3 — VIO

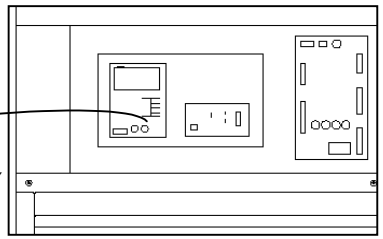
DC CONTROLLER PWB PL 10.1 [2-d]

CONTROL LOGIC

CN1A 1 ORN — 3 BLU — 4 BLU

+24 VDC INTERLOCK (JC 2-7)

HVPS 1 HIGH VOLTAGE POWER SUPPLY



TOP VIEW

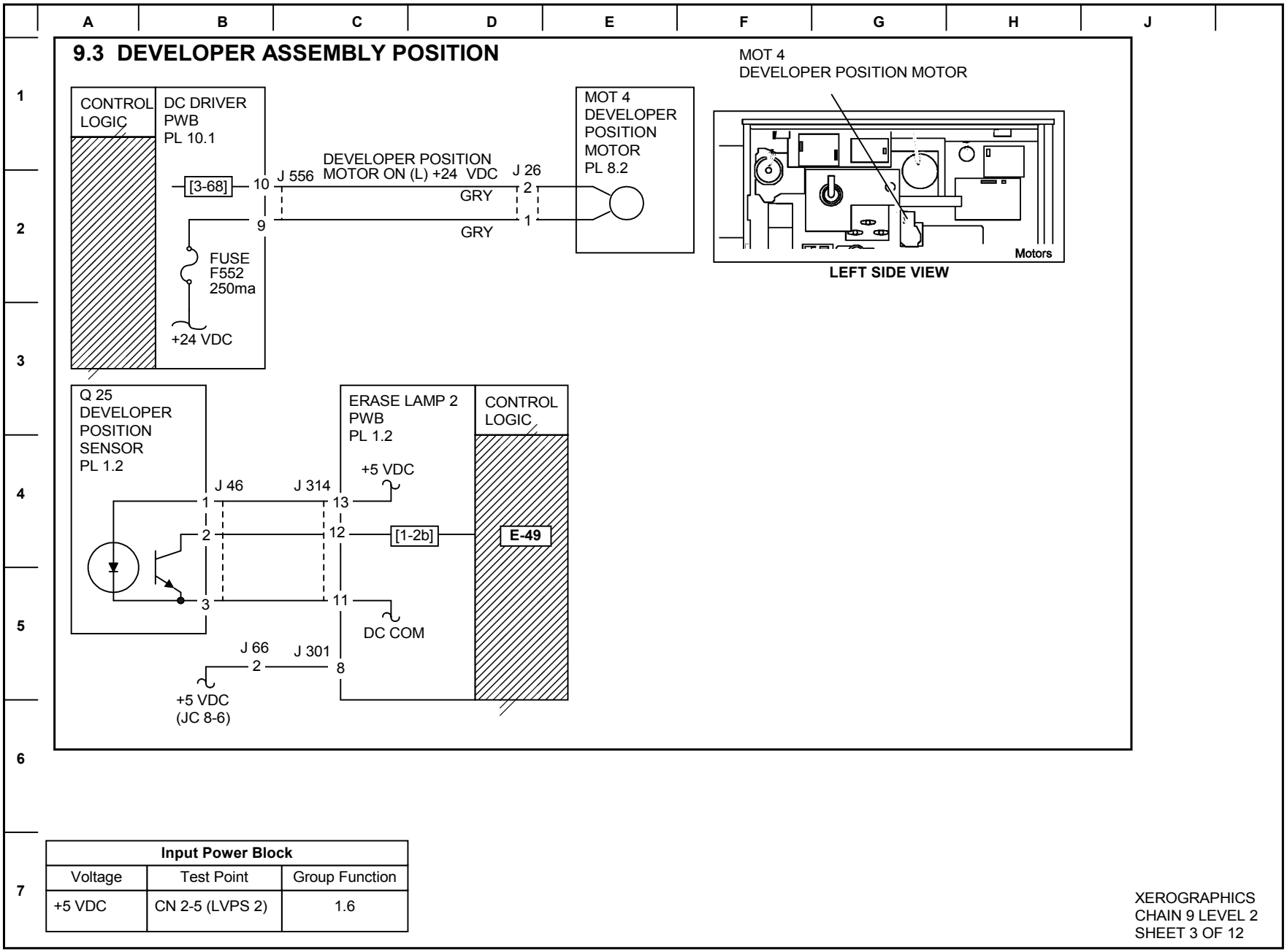
Input Power Block		
Voltage	Test Point	Group Function
+24 VDC INTERLOCK	K 4-5 K 5-5	1.4 1.5

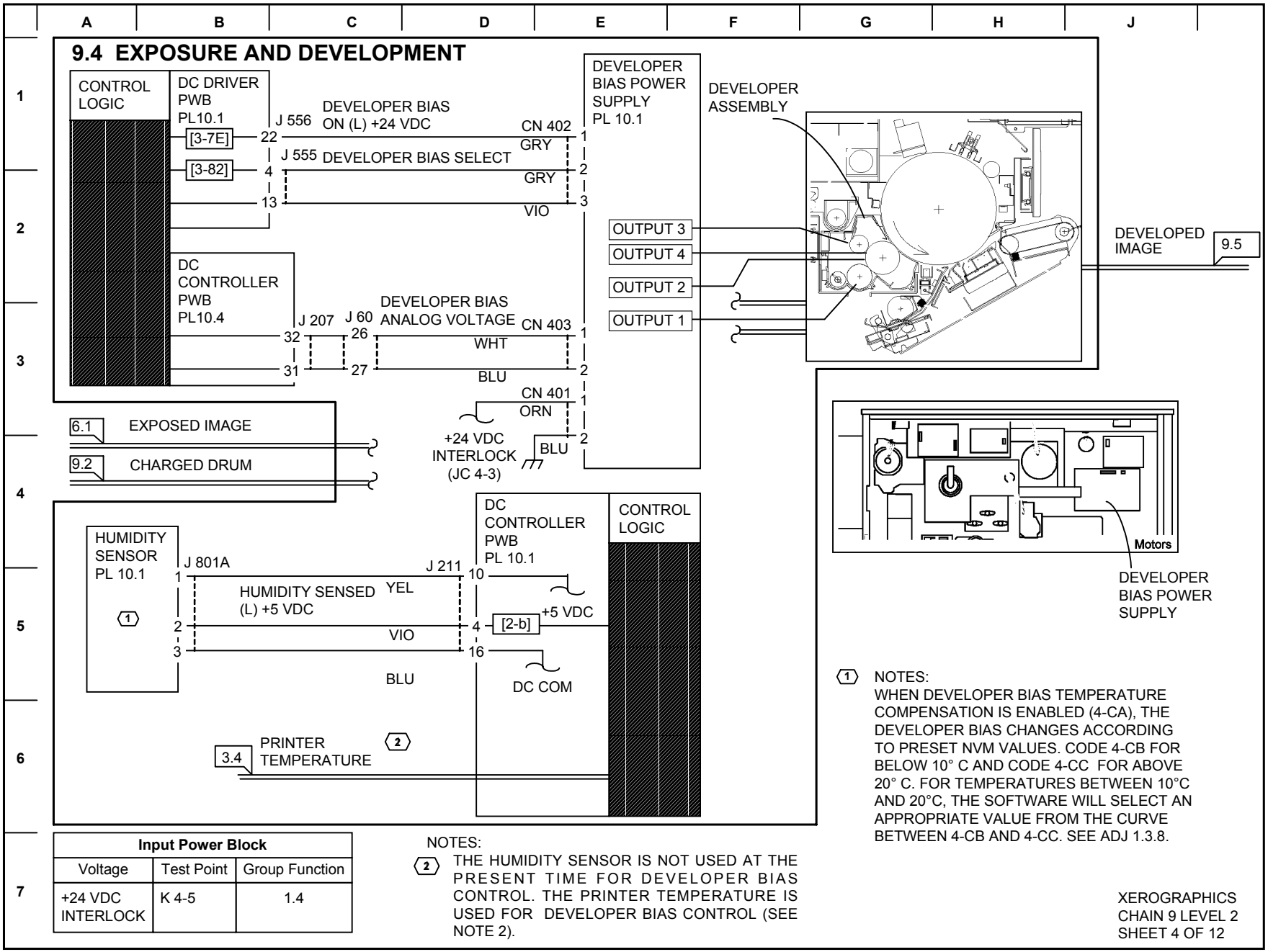
NOTES:

(1) THIS VOLTAGE GOES FROM +13 VDC TO 0 VDC WHEN THE LAMP IS LIT.

XEROGRAPHICS
CHAIN 9 LEVEL 2
SHEET 2 OF 12

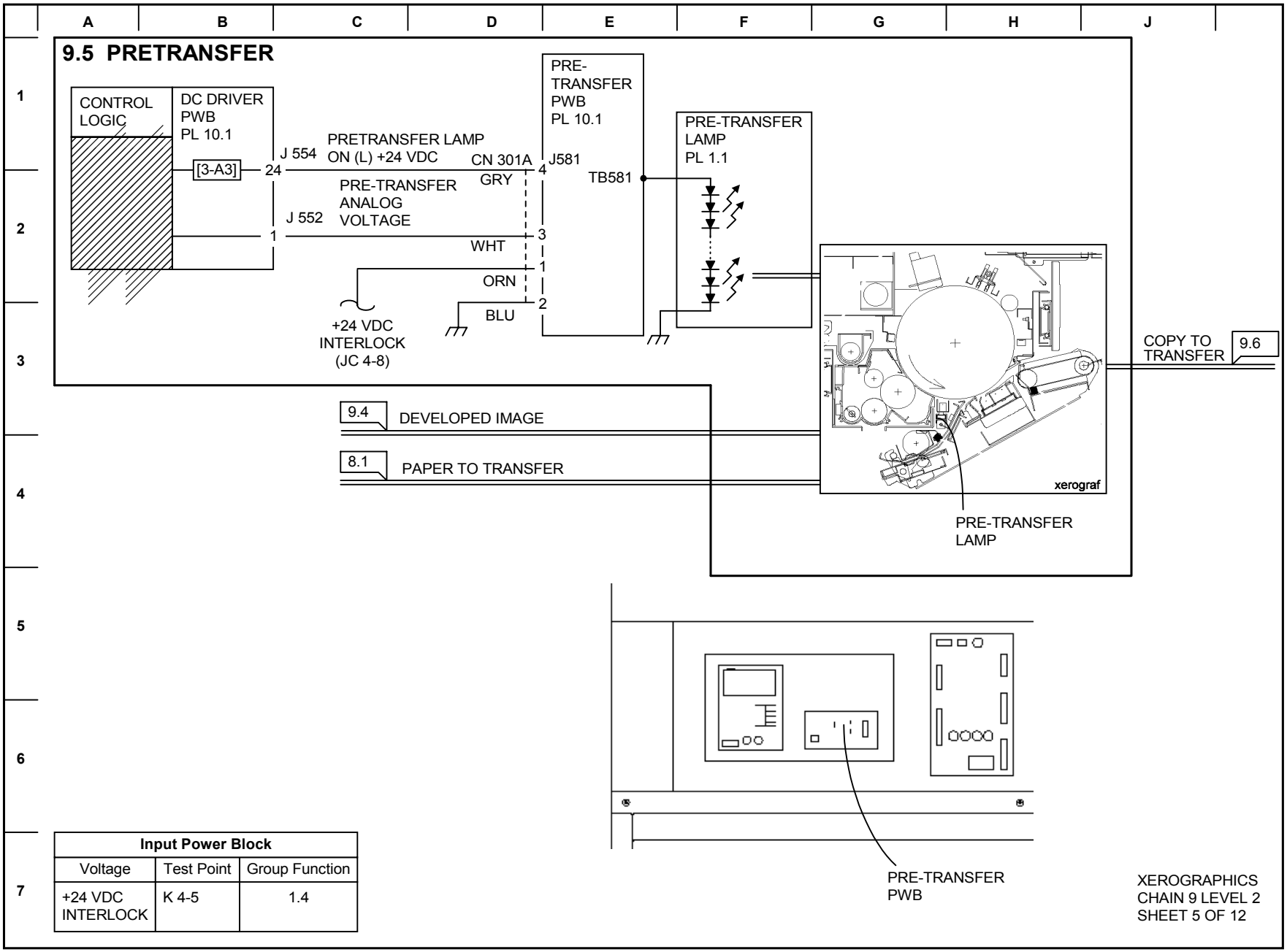
BSD 9.3 Developer Assembly Position



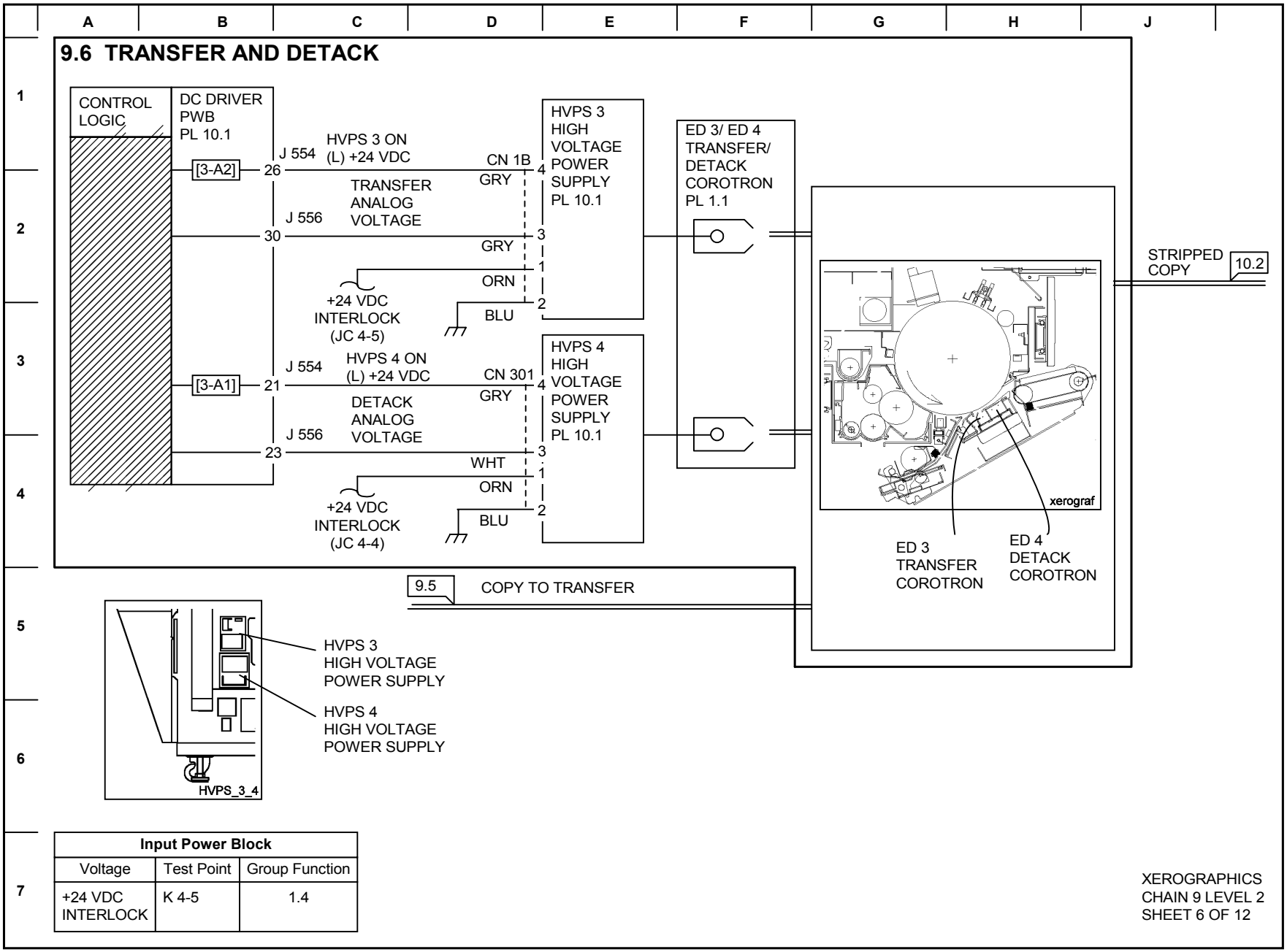


Input Power Block		
Voltage	Test Point	Group Function
+24 VDC INTERLOCK	K 4-5	1.4

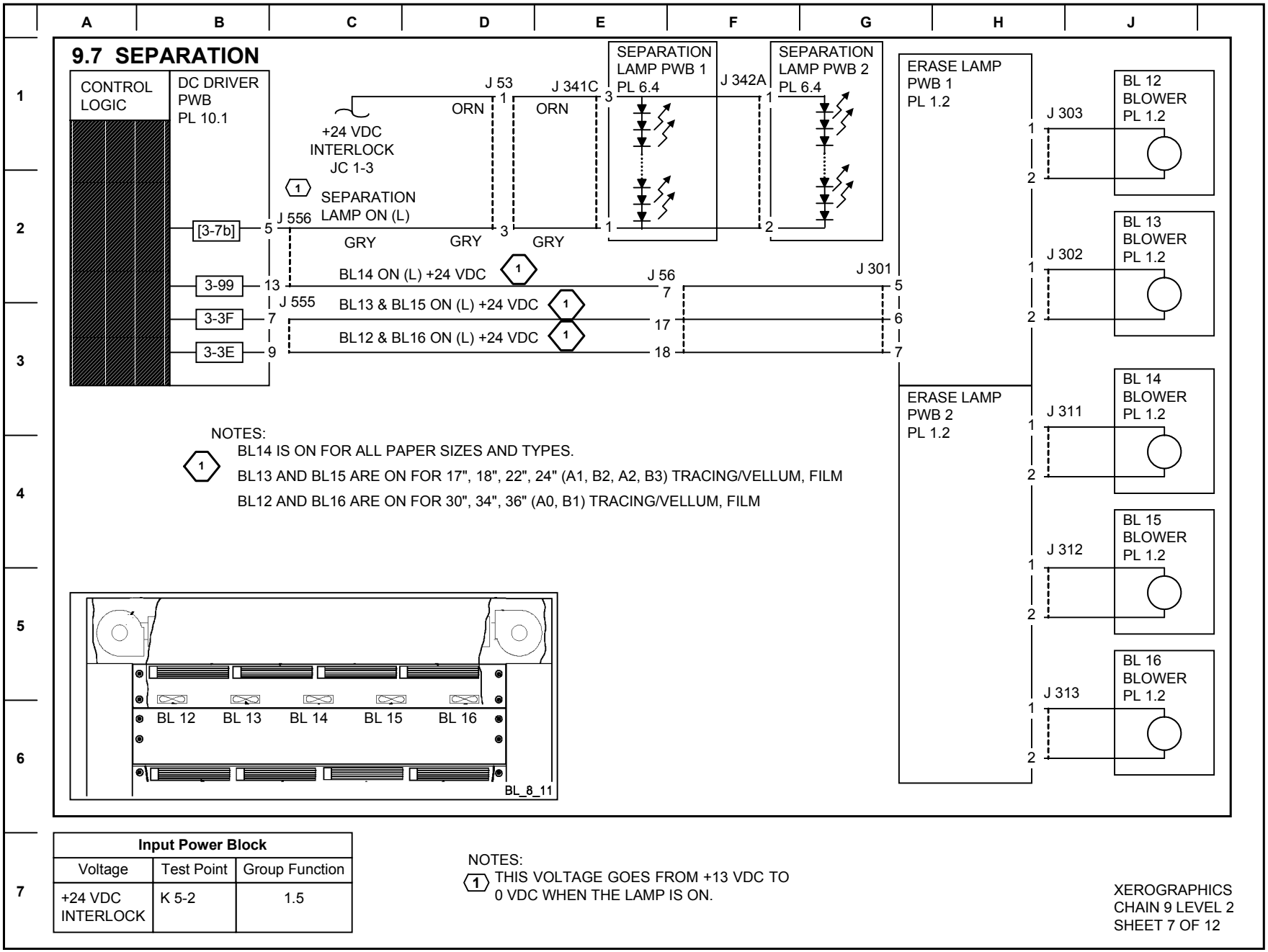
BSD 9.5 Pretransfer



Input Power Block		
Voltage	Test Point	Group Function
+24 VDC INTERLOCK	K 4-5	1.4



Input Power Block		
Voltage	Test Point	Group Function
+24 VDC INTERLOCK	K 4-5	1.4



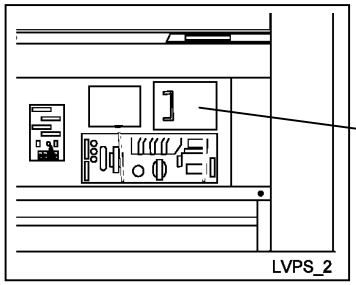
Input Power Block		
Voltage	Test Point	Group Function
+24 VDC INTERLOCK	K 5-2	1.5

NOTES:
(1) THIS VOLTAGE GOES FROM +13 VDC TO 0 VDC WHEN THE LAMP IS ON.

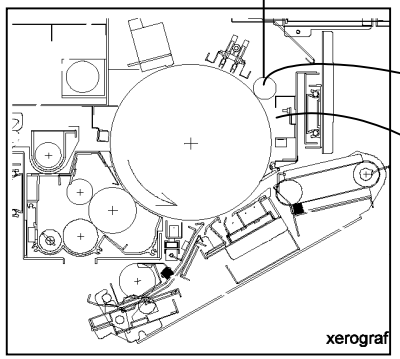
XEROGRAPHICS
CHAIN 9 LEVEL 2
SHEET 7 OF 12

9.8 CLEANING

CONTROL LOGIC
DC CONTROLLER PWB PL 10.1
[3-74]
[3-75]
J 209
1
2
HVPS 5 ON (L) +24 VDC
CLEANER VOLTAGE SELECT
CN 502A
GRY
GRY
1
3
HVPS 5 HIGH VOLTAGE POWER SUPPLY PL 10.1
CN 501A
ORN
BLU
1
2
OUTPUT
+24 VDC INTERLOCK (JC 11-2)



HVPS 5 HIGH VOLTAGE POWER SUPPLY



CLEANER ROLLER

ERASE LAMP

CONTROL LOGIC
DC DRIVER PWB PL 10.1
[3-78]
3
J 556
ERASE LAMP ON (L) +24 VDC
1
GRY
GRY
21
GRY
J 56
6
ORN
GRN
1
+24 VDC INTERLOCK (JC 14-9)
J 301
ORN
GRN
1
2

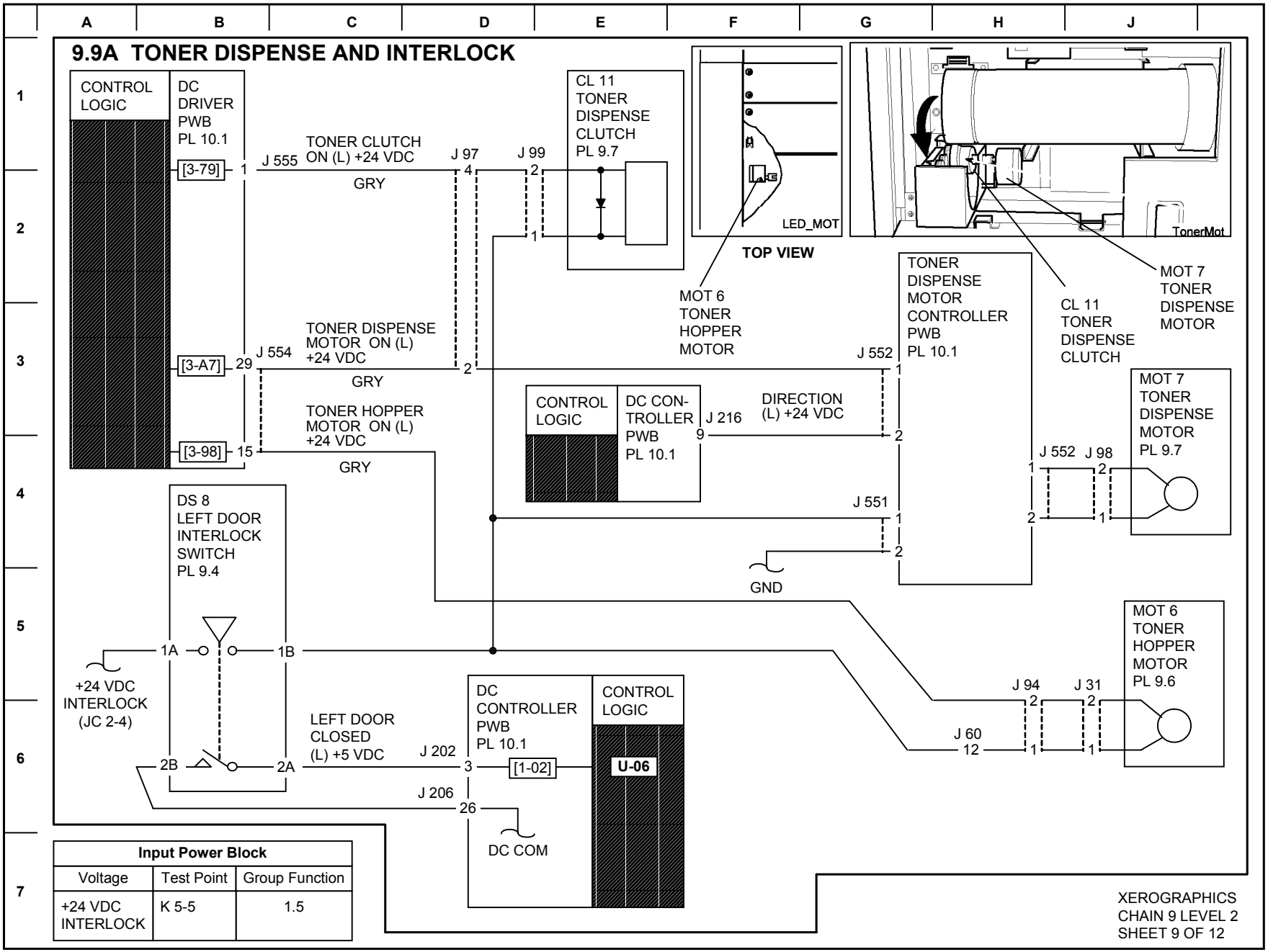
ERASE LAMP PWB 1 PL 1.2
J 304
1
2

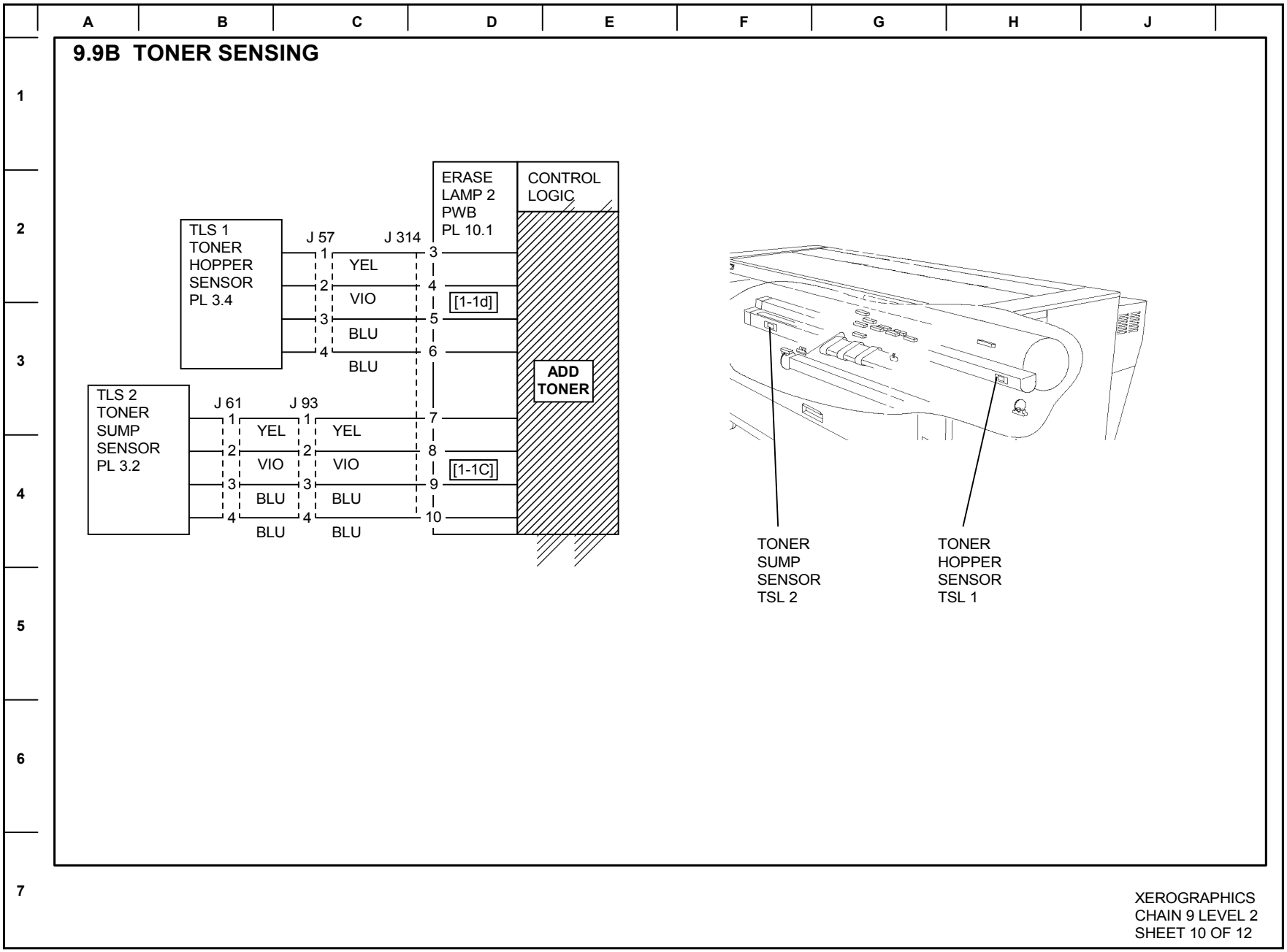
ERASE LAMP PWB 2 PL 1.2
J 315
1
2

Input Power Block		
Voltage	Test Point	Group Function
+24 VDC INTERLOCK	K 5-5	1.5

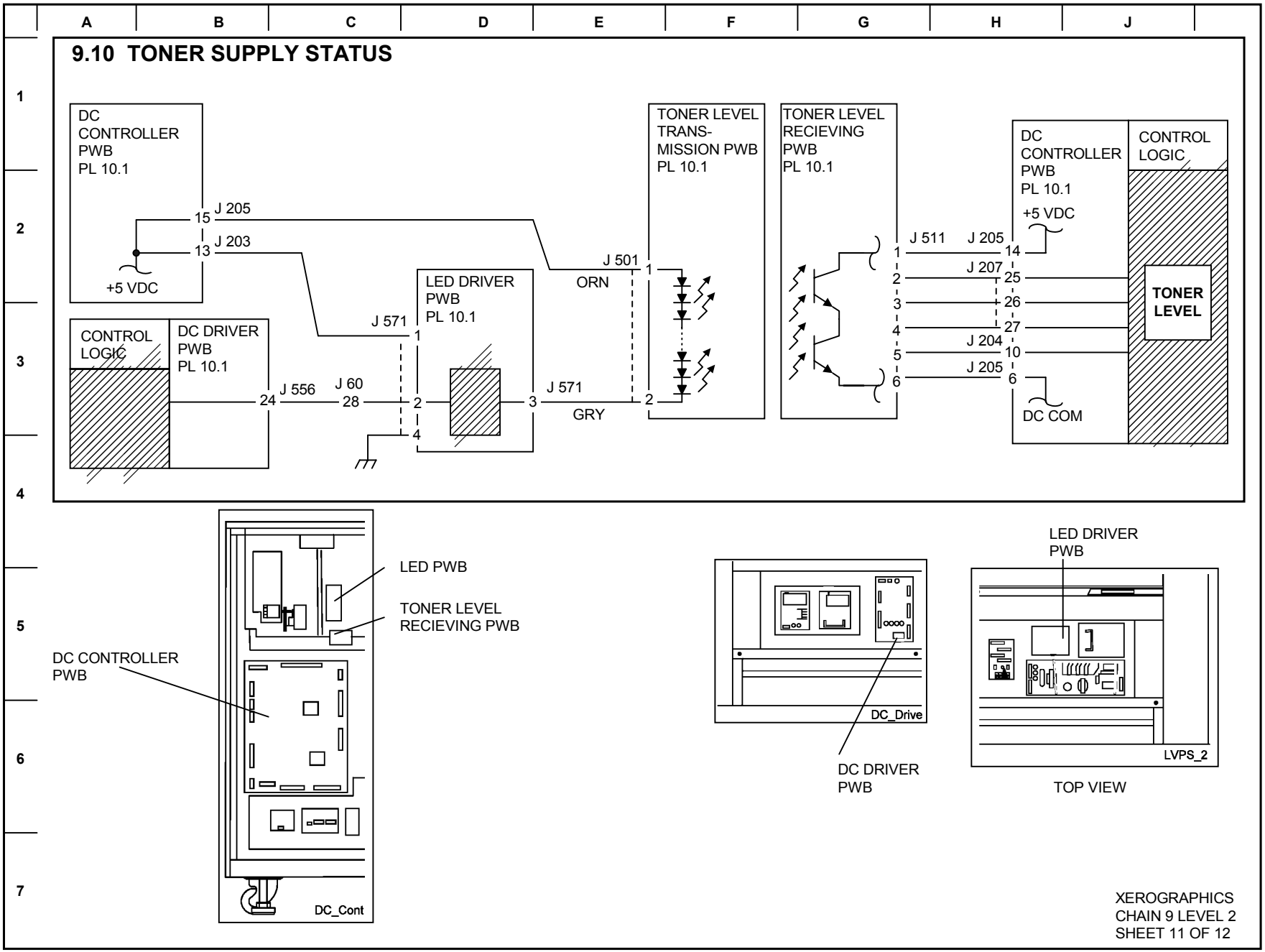
XEROGRAPHICS
CHAIN 9 LEVEL 2
SHEET 8 OF 12

BSD 9.9A Toner Dispense and Interlock

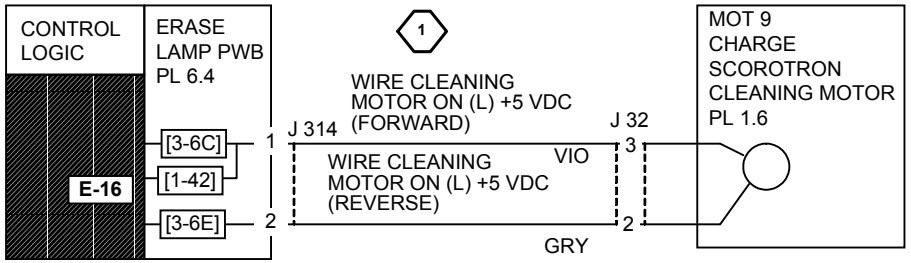


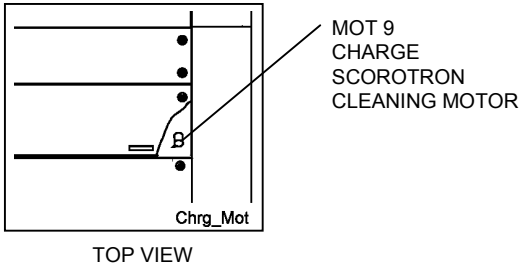

A
B
C
D
E
F
G
H
J
1
2
3
4
5
6
7
9.9B TONER SENSING
ERASE LAMP 2 PWB PL 10.1
CONTROL LOGIC
TLS 1 TONER HOPPER SENSOR PL 3.4
J 57
J 314
1
2
3
4
YEL
VIO
BLU
BLU
3
4
5
6
[1-1d]
ADD TONER
TLS 2 TONER SUMP SENSOR PL 3.2
J 61
J 93
1
2
3
4
YEL
VIO
BLU
BLU
YEL
VIO
BLU
BLU
7
8
9
10
[1-1C]
TONER SUMP SENSOR TSL 2
TONER HOPPER SENSOR TSL 1
XEROGRAPHICS
CHAIN 9 LEVEL 2
SHEET 10 OF 12

BSD 9.10 Toner Supply Status



9.11 CHARGE SCOROTRON CLEANING





TOP VIEW

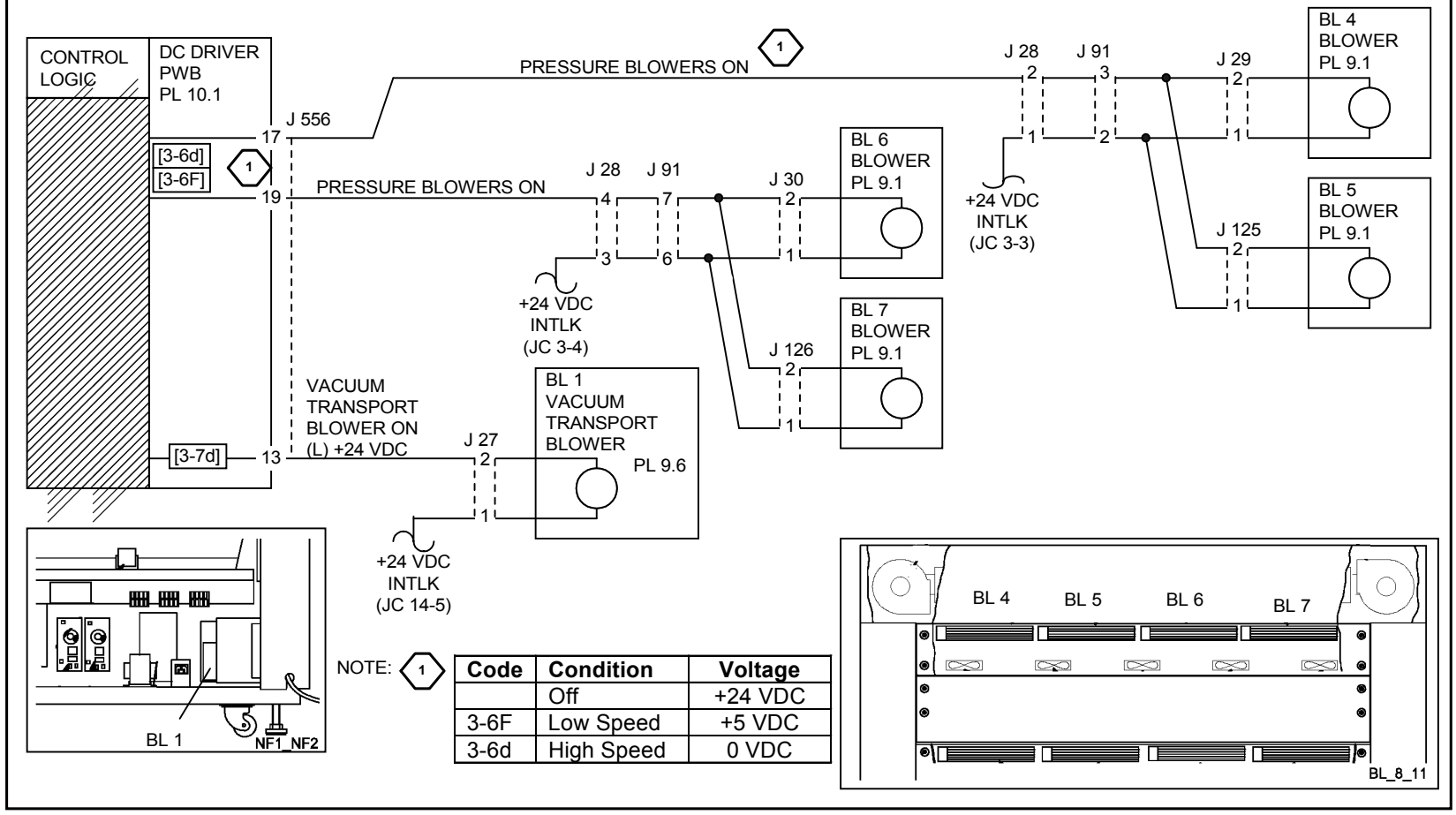
(1) **NOTES**:

CLEANING TAKES PLACE WHEN ANY OF THE FOLLOWING CONDITIONS OCCURS:

- EVERY 1000 METERS
- THE USER INITIATES THE CLEANING CYCLE
- WHEN THE PRINTER IS POWERED ON

XEROGRAPHICS
CHAIN 9 LEVEL 2
SHEET 12 OF 12

10.1 PAPER PRESSURE BLOWERS

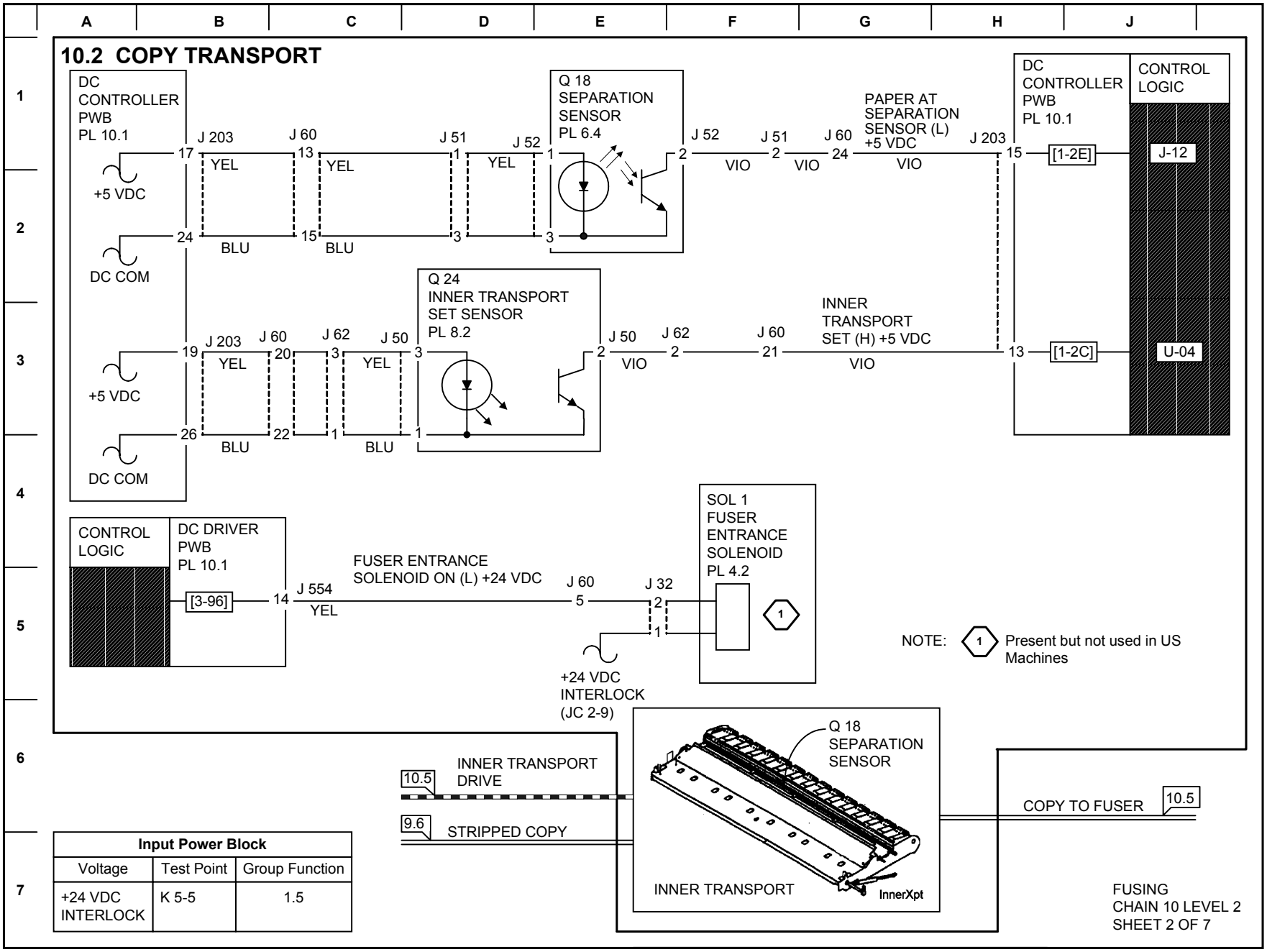


NOTE: 1

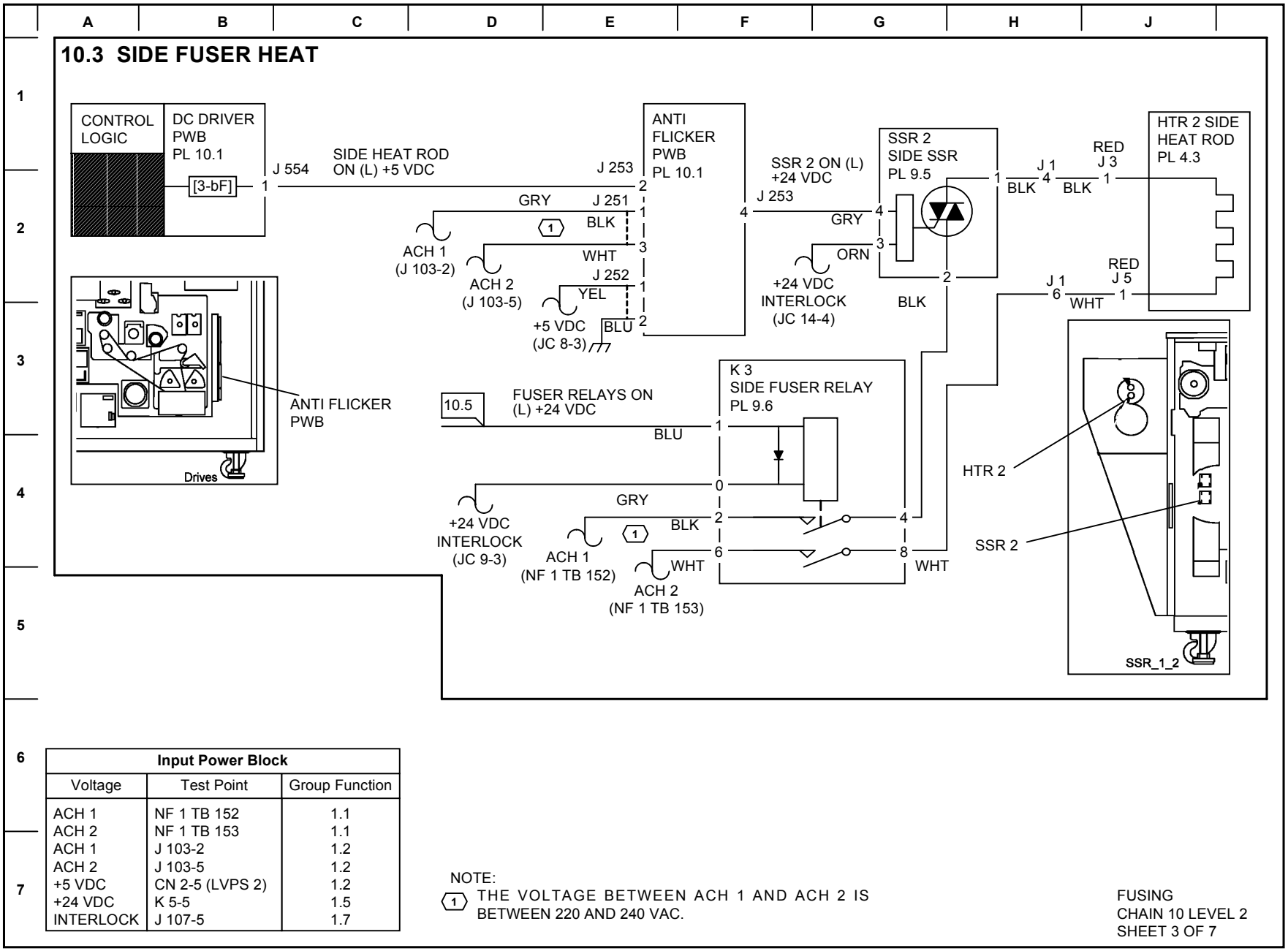
Code	Condition	Voltage
	Off	+24 VDC
3-6F	Low Speed	+5 VDC
3-6d	High Speed	0 VDC

Input Power Block		
Voltage	Test Point	Group Function
+24 VDC INTERLOCK	K 4-2 K 5-5	1.4 1.5

FUSING
CHAIN 1 LEVEL 2
SHEET 1 OF 7



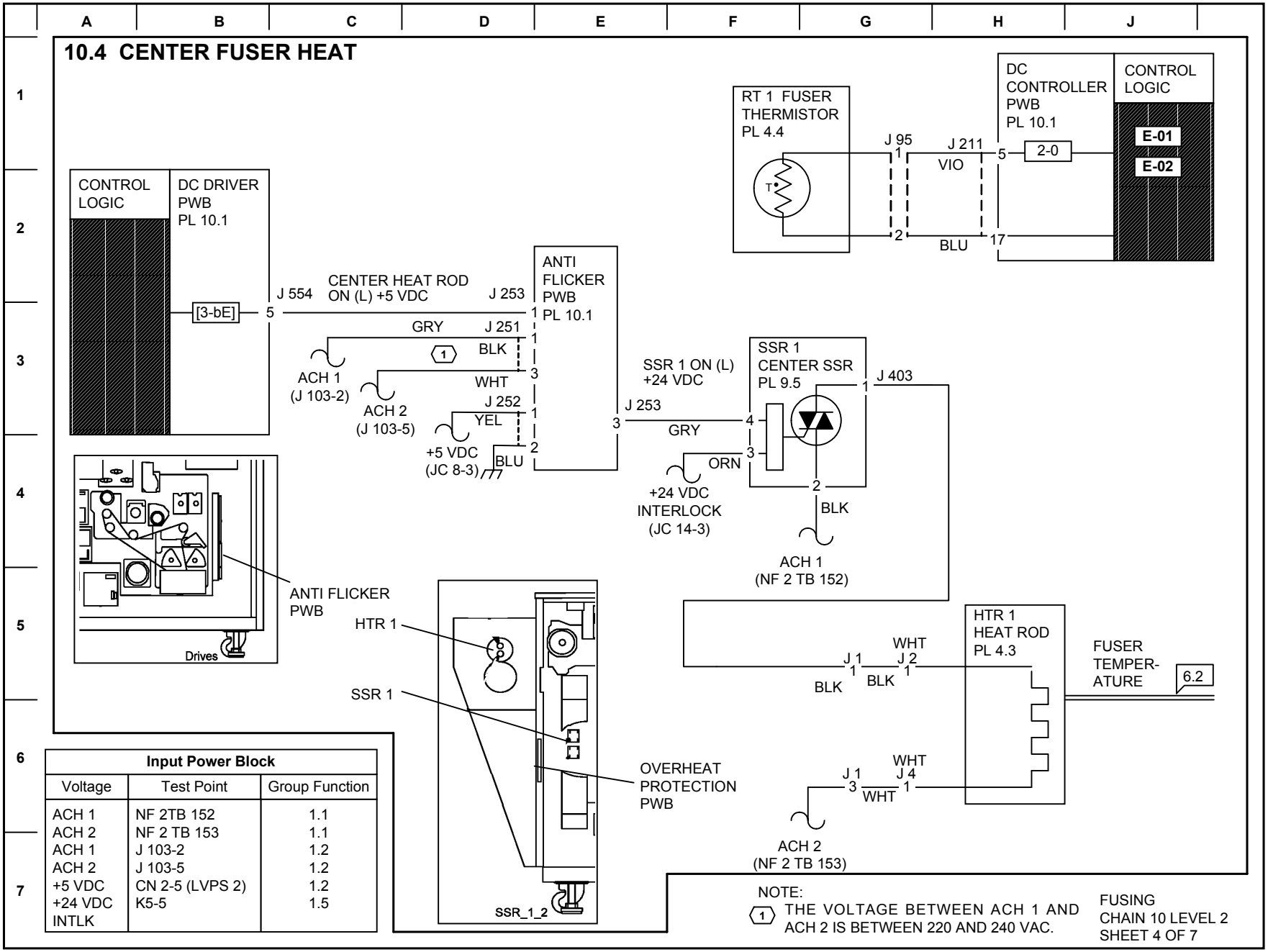
Input Power Block		
Voltage	Test Point	Group Function
+24 VDC INTERLOCK	K 5-5	1.5



Input Power Block		
Voltage	Test Point	Group Function
ACH 1	NF 1 TB 152	1.1
ACH 2	NF 1 TB 153	1.1
ACH 1	J 103-2	1.2
ACH 2	J 103-5	1.2
+5 VDC	CN 2-5 (LVPS 2)	1.2
+24 VDC	K 5-5	1.5
INTERLOCK	J 107-5	1.7

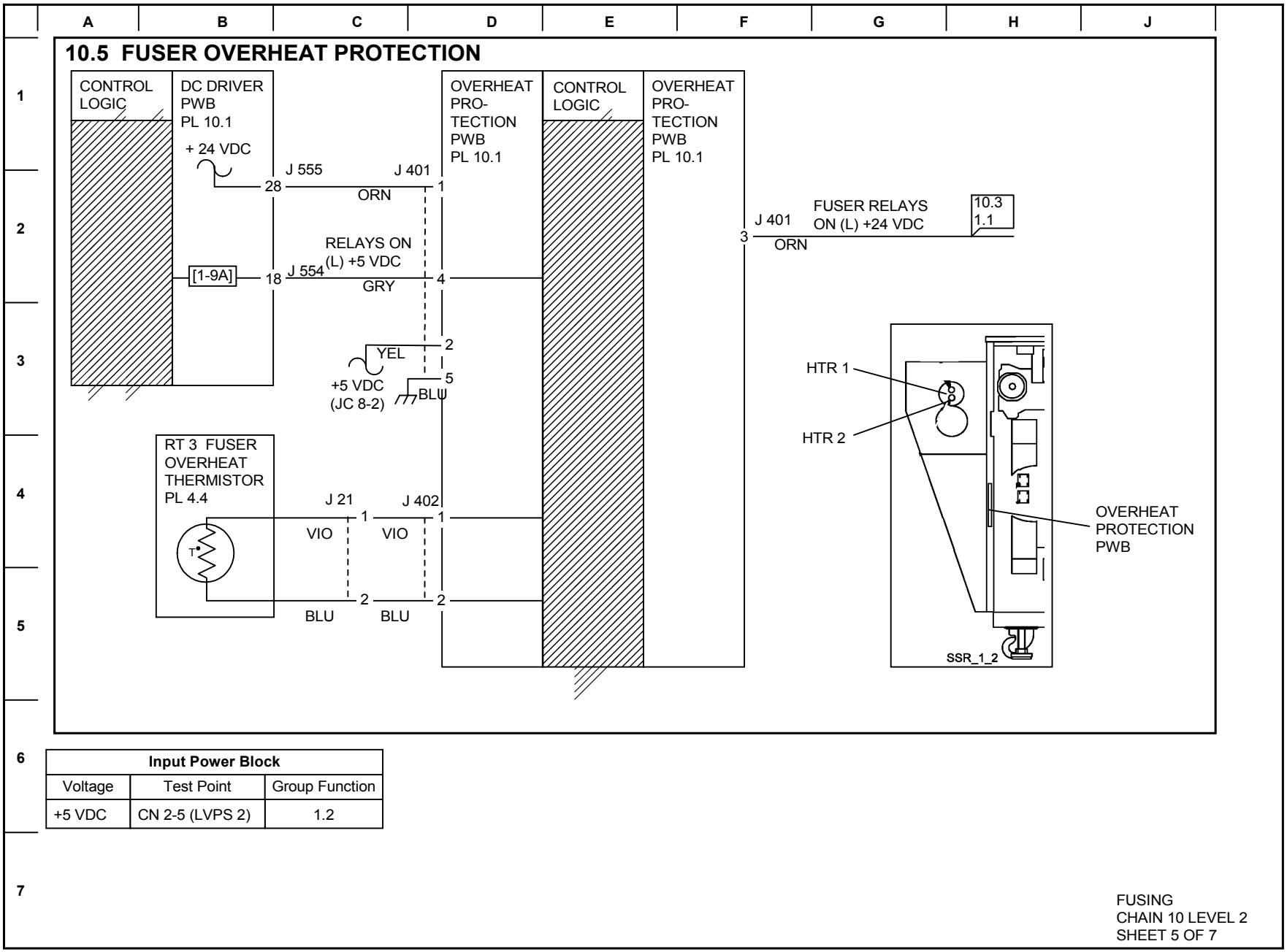
NOTE:
(1) THE VOLTAGE BETWEEN ACH 1 AND ACH 2 IS BETWEEN 220 AND 240 VAC.

FUSING
CHAIN 10 LEVEL 2
SHEET 3 OF 7



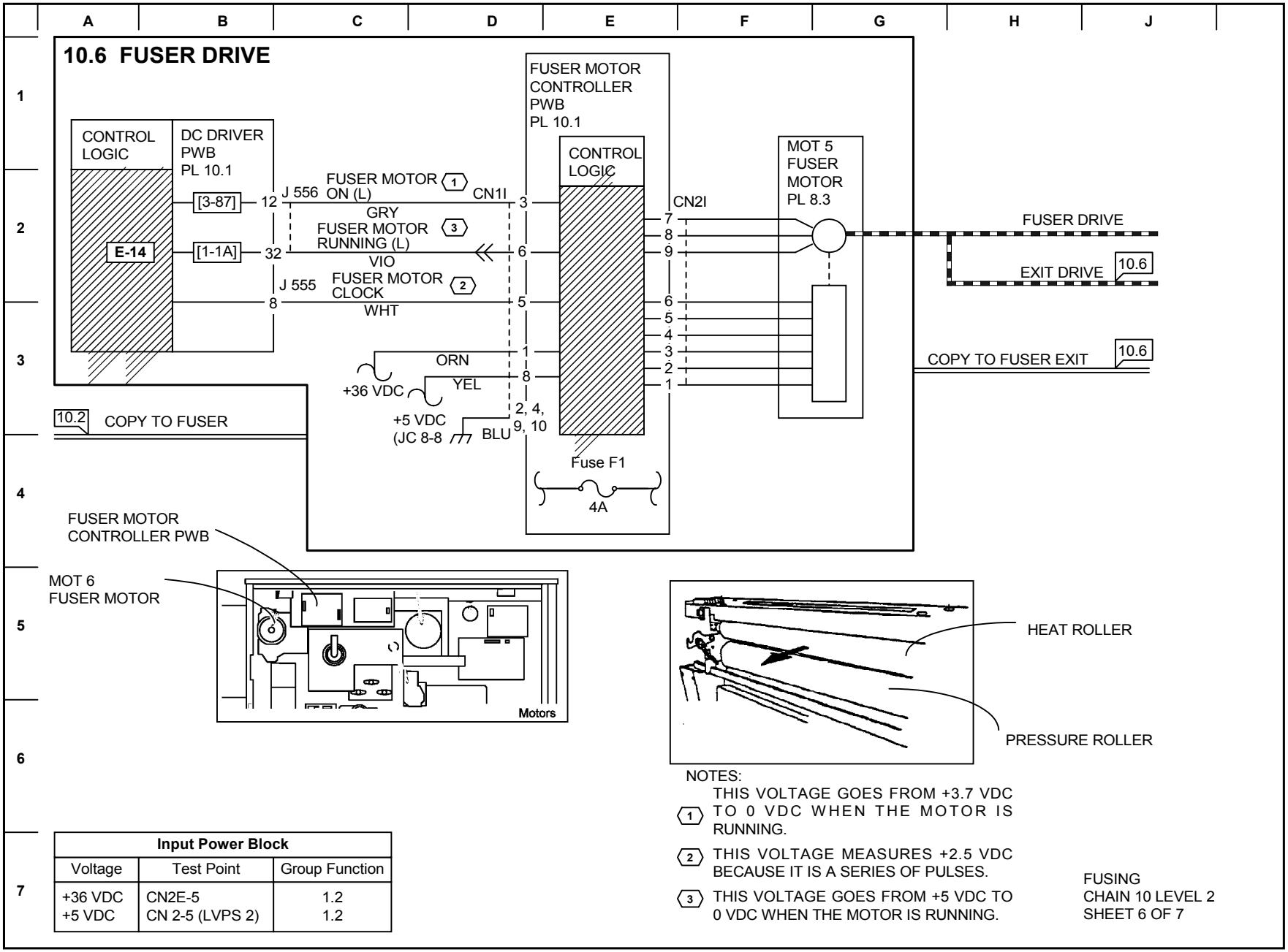
Input Power Block		
Voltage	Test Point	Group Function
ACH 1	NF 2TB 152	1.1
ACH 2	NF 2 TB 153	1.1
ACH 1	J 103-2	1.2
ACH 2	J 103-5	1.2
+5 VDC	CN 2-5 (LVPS 2)	1.2
+24 VDC INTLK	K5-5	1.5

BSD 10.5 Fuser Overheat Protection



Input Power Block		
Voltage	Test Point	Group Function
+5 VDC	CN 2-5 (LVPS 2)	1.2

BSD 10.6 Fuser Drive



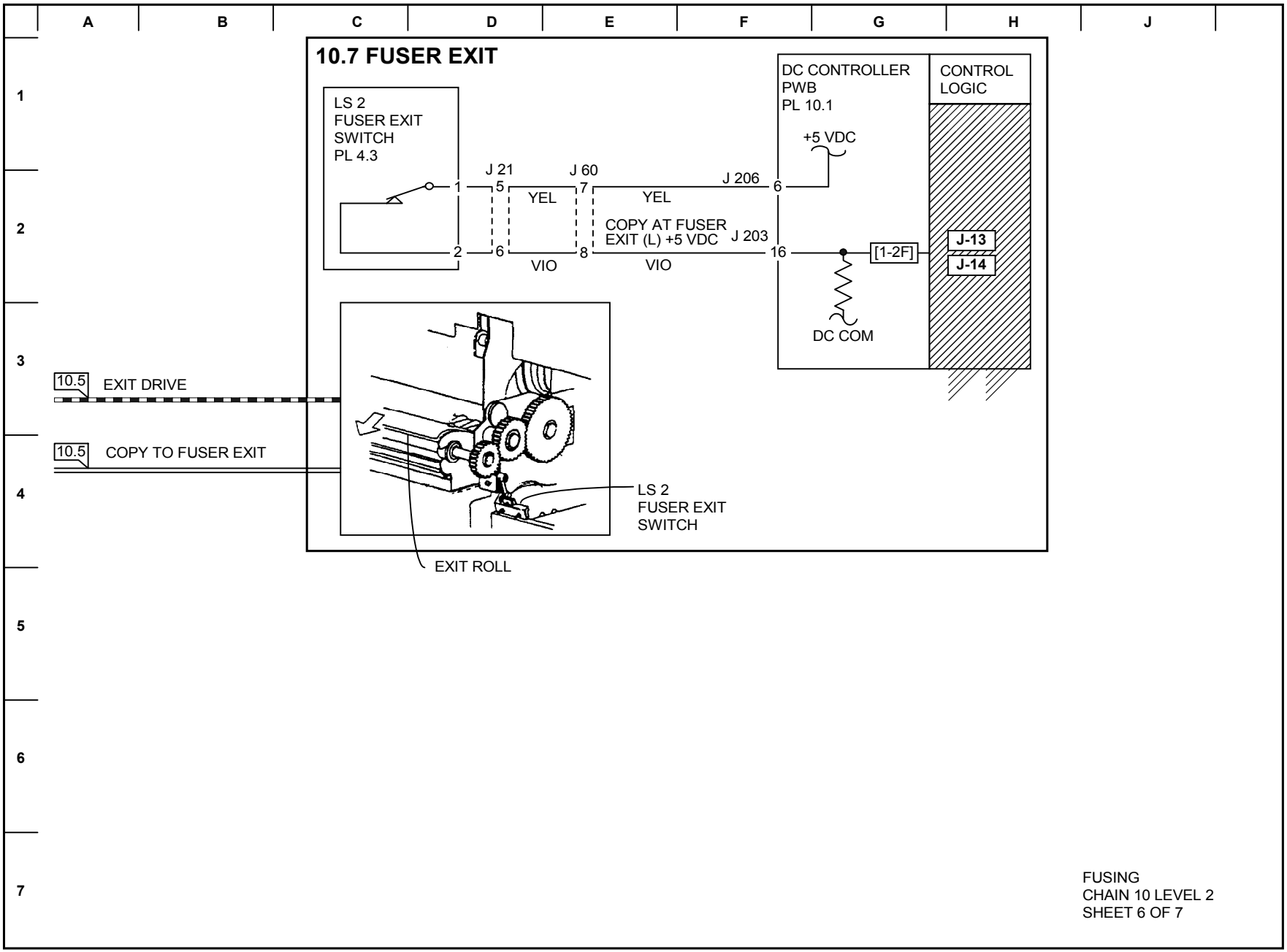
Input Power Block		
Voltage	Test Point	Group Function
+36 VDC	CN2E-5	1.2
+5 VDC	CN 2-5 (LVPS 2)	1.2

NOTES:

1. THIS VOLTAGE GOES FROM +3.7 VDC TO 0 VDC WHEN THE MOTOR IS RUNNING.
2. THIS VOLTAGE MEASURES +2.5 VDC BECAUSE IT IS A SERIES OF PULSES.
3. THIS VOLTAGE GOES FROM +5 VDC TO 0 VDC WHEN THE MOTOR IS RUNNING.

FUSING
CHAIN 10 LEVEL 2
SHEET 6 OF 7

BSD 10.7 Fuser Exit



PWBs Location Drawings

Item	Name	Function	BSD	Figure
I	UI Indicator PWB	Operation and Indication	2.1	1
2	Media Status Indicator PWB	Size and Media Indication	7.19	1
6	Manual Sheet Size PWB	Manual Sheet Size Sensor interface	7.5	1
7	DC Driver PWB	Drivers for Motor, HVPS, Bias, Fans, Solenoid and Clutches	Most BSDs	2
8	DC terminal PWB	Junction for LED Head	6.1	2
9	LED Driver PWB	LED Driver for Toner check	9.10	2
10	SPS Controller PWB	Detects Surface Potential (always replace with SPS Sensor)	9.2	2
11	DC Controller PWB	Overall Sequence Control with Interface	Most BSDs	3
12	Humidity Sensor	Detecting Humidity in the machine.	9.4	3
13	Diode PWB	Signal Junction	7.18	3
14	Roll 1 Media Selection PWB	Selects media	7.18	3
15	Roll 2 Media Selection PWB	Selects media	7.18	3
16	Roll 3 Media Selection PWB	Selects media	7.18	3
17	Roll 4 Media Selection PWB	Selects media	7.18	3
18	Toner Level Transmission PWB	LED for Toner level check	9.10	3
19	Toner Level Receiving PWB	Photo Sensor for Toner level check	9.10	3
20	Fuser Motor Controller PWB	Fuser Motor Controller	10.5	4
21	Drum Motor Controller PWB	Drum Motor Controller	9.1	4
22	Cutter Motor Controller PWB	Cutter Motor Controller	7.16	4
23	Anti-Flickering PWB	Fuser Heat Rod flickering is reduced.	10.3 10.4	4
24	AC Terminal PWB		1.1 1.2 1.3	4
25	Paper Feed Motor Controller PWB	Paper Feed Motor Controller	7.6	4
26	Overheat Protection PWB	Temperature Detection for Fuser Safety	10.5	4
27	Noise Filter PWB NF1	Filter for AC in	1.1	5
28	Noise Filter PWB NF2	Filter for AC in	1.1	5
30	Receiving PWB	Receive in (Option)	3.3	5
31	Transmission PWB	Transmit out (Option)	3.3	5
32	Erase Lamp		9.2	6
33	Separation Lamp		9.7	6
34	Roll 1 Matrix PWB	Selects Media Type	7.18	6
35	Roll 2 Matrix PWB	Selects Media Type	7.18	6
36	Roll 3 Matrix PWB	Selects Media Type	7.18	6
37	Roll 4 Matrix PWB	Selects Media Type	7.18	6
38	LED Indicator PWB	LED indicator of LVPS Voltages	1.9	3
39	Pre-transfer PWB	Controls Pre-transfer Lamp	9.5	2
40	Fuse F2 (5A)	Fuses +5 VDC from LVPS 2	1.2	2

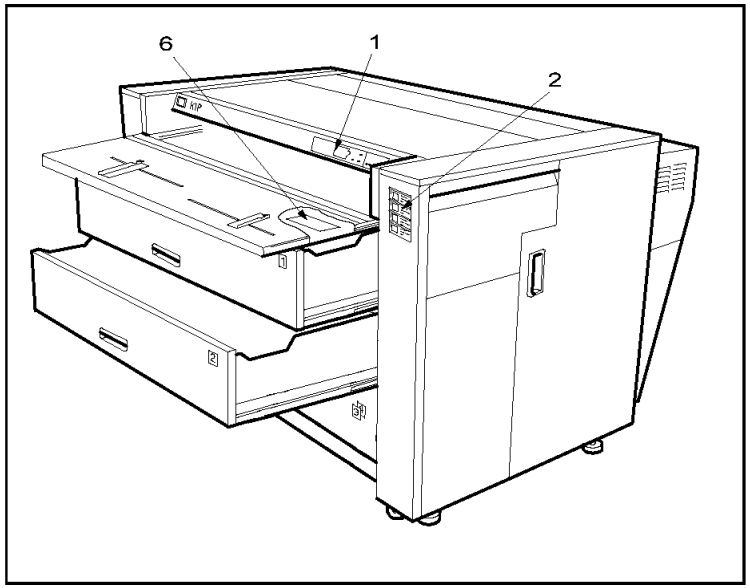


Figure 1 Diagonal View

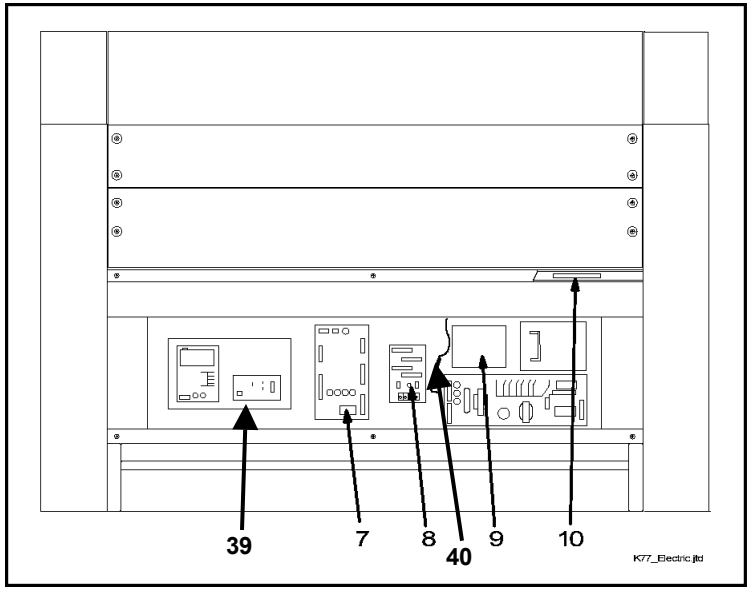


Figure 2 Top View

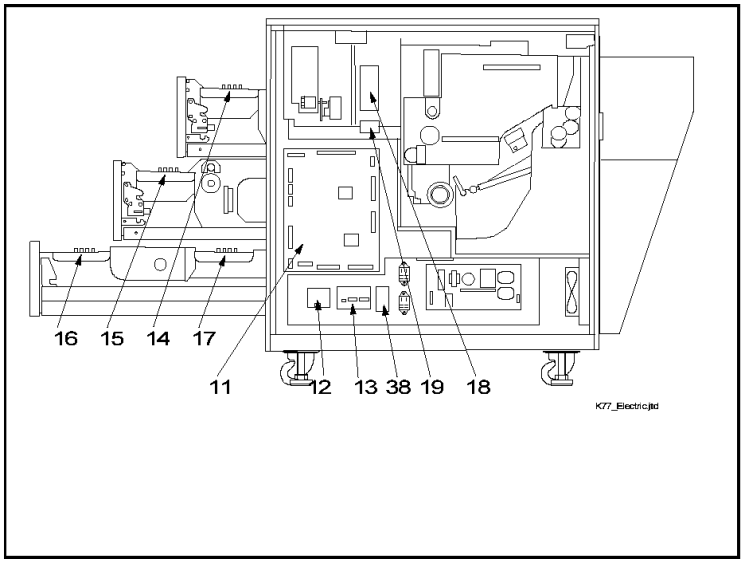


Figure 3 Right Side View

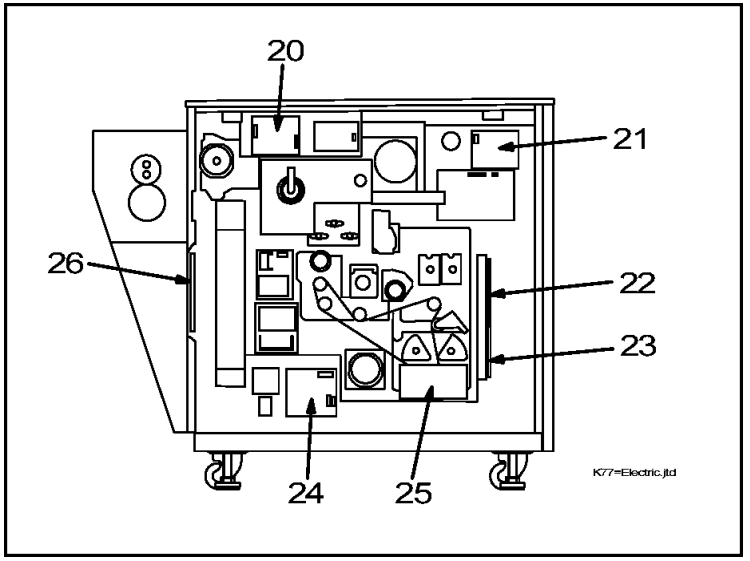


Figure 4 Left Side View

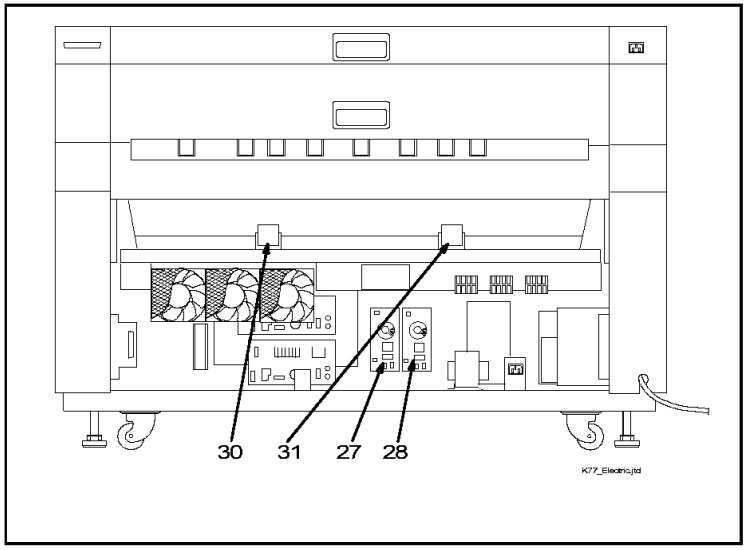


Figure 5 Rear View

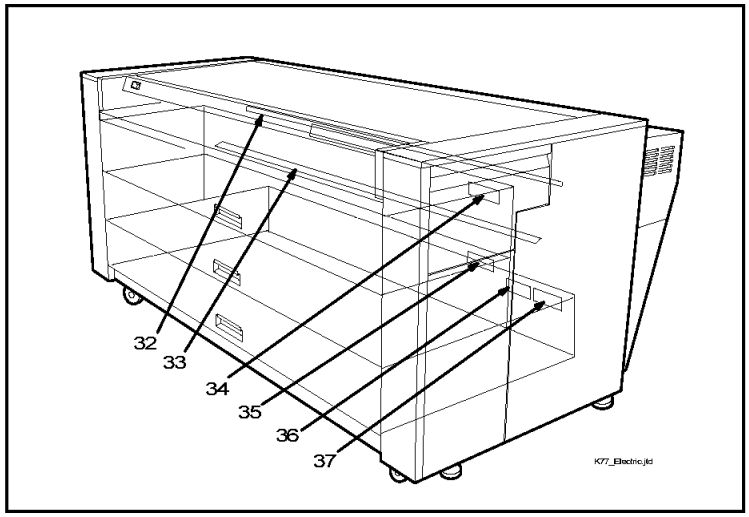


Figure 6 See Through View

HVPS, Pre-transfer PWB and Transformer Location Drawings

Item	Name	Function	BSD	Figure
1	HVPS 1	Charge Scorotron	9.2	7
2	Pre-transfer PWB	Pre-Transfer Lamp	9.5	7
3	HVPS 3	Transfer Corotron	9.6	8
4	HVPS 4	Detack Corotron	9.6	8
5	HVPS 5	Power Supply for Cleaning Roller	9.8	7
6	HVPS 6	High Voltage Power Supply for Grid Plate	9.2	8
7	Developer Bias Power Supply	Developer Bias (Out 1, 2, 3 & 4)	9.4	8
8	T1	For Roll I Paper Heater	7.17	9

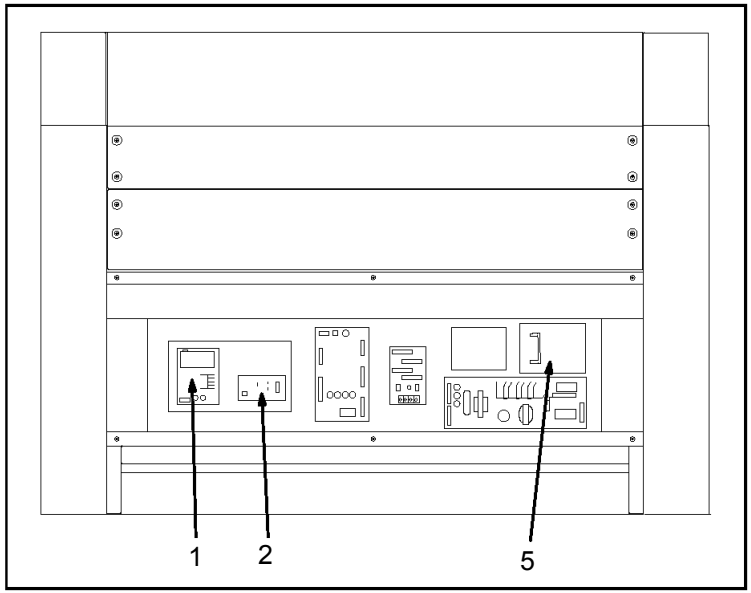


Figure 7 Top View

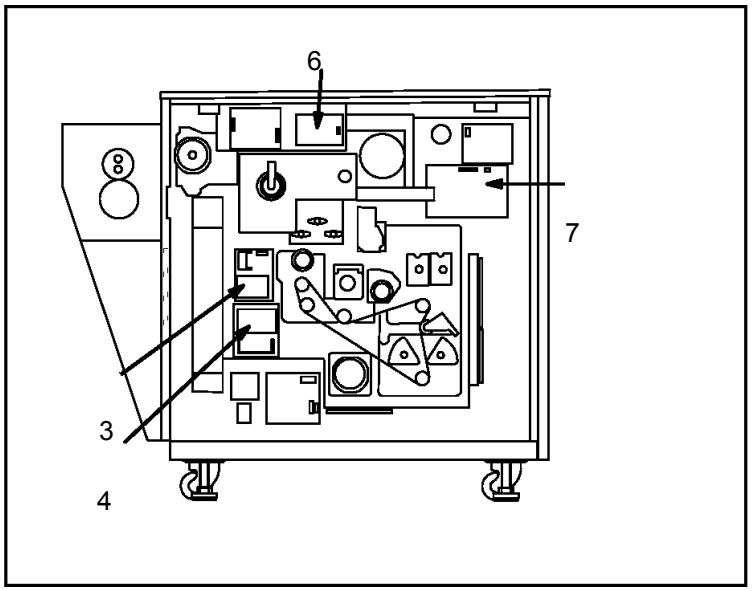


Figure 8 Left Side View

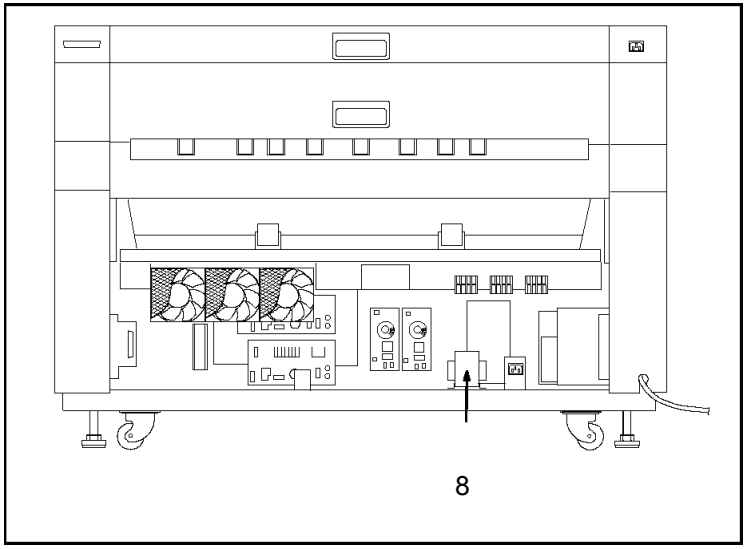


Figure 9 Rear View

Low Voltage Power Supply Location Drawings

Item	Name	Function	BSD	Figure
1	LVPS 1	24V 240W	1.4	10
2	LVPS 2	+5V, 150W for LED Head	1.2	11
3	LVPS 3	+36V, 150W for Process Motor	1.2	12
4	LVPS 4	+36V, 150W for Paper Feed Motor & Fuser Motor	1.2	12

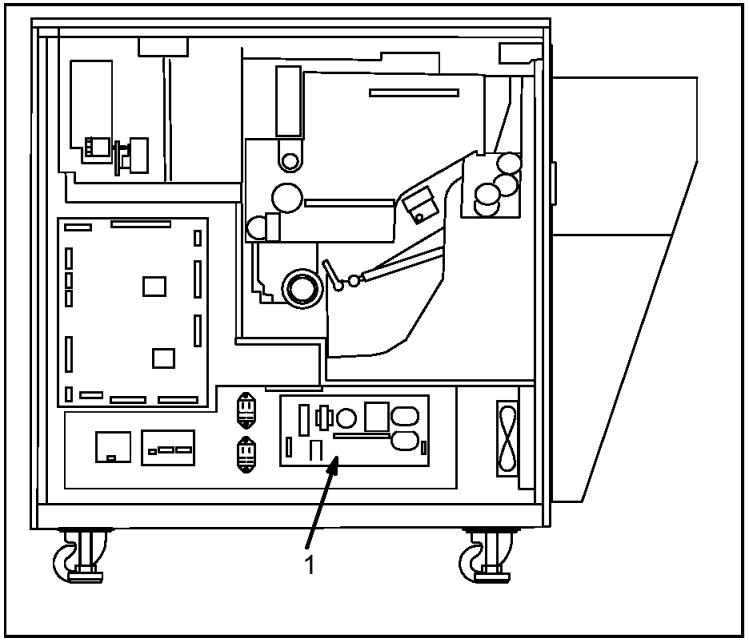


Figure 10 Right Side View

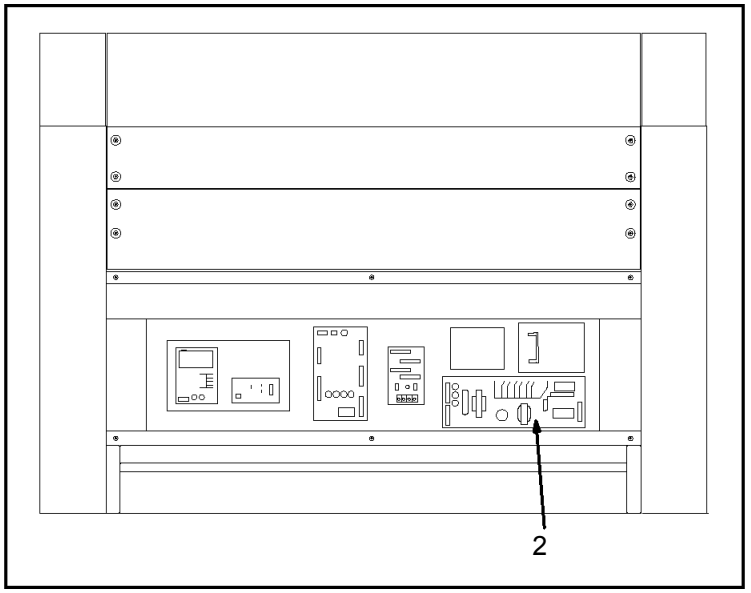


Figure 11 Top View

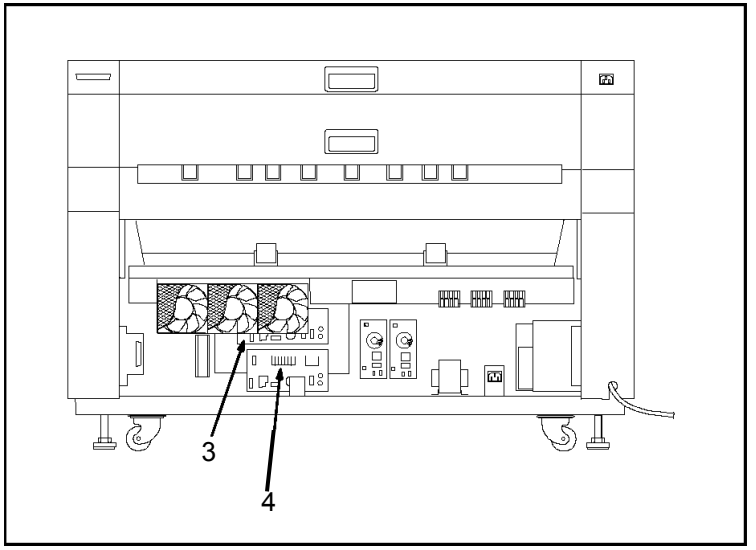


Figure 12 Rear View

Motor Location Drawings

Item	Name	Function	BSD	Figure
1	Drum Motor MOT 1	Drives the Drum & the Developer Unit	9.1	13
2	Paper Feed Motor MOT 2	Roll Drive and paper transport	7.6	13
3	Cutter Motor MOT 3	Cutter drive	7.16	13
4	Developer Position Motor MOT 4	Developer Pressing against Drum	9.3	13
5	Fuser Motor MOT 5	Fuser Drive	10.5	13
6	Manual Tray Motor MOT 10	Manual feed drive	7.8	13
7	Toner Dispense Motor MOT 7	Toner Cartridge	9.9A	15
8	LED Print Head Cleaning Motor MOT 8	LED Head Cleaning	6.2	14
9	Charge Scorotron Cleaning Motor MOT 9	Charge Scorotron Wire Cleaning	9.11	14
10	Toner Hopper Motor MOT 6	Toner Hopper	9.9A	14

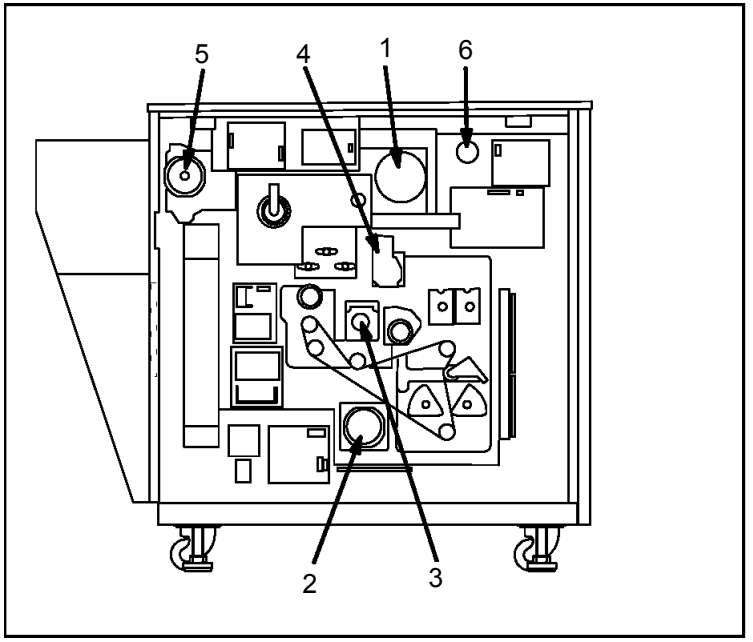


Figure 13 Left Side View

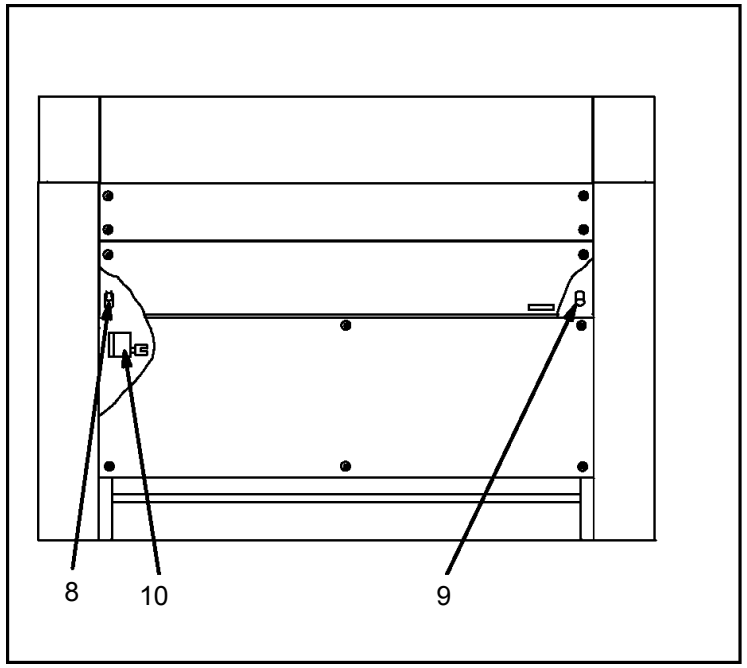


Figure 14 Top View

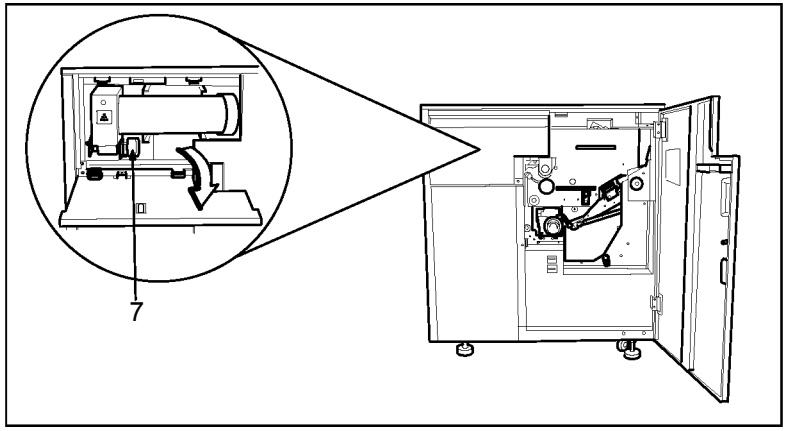


Figure 15 Right Side View

Blower and Fan Location Drawings

Item	Name	Function	BSD	Figure
1	Vacuum Transport Blower BL 1	From Bottom. Vacuum Transport blower. Ozone Filters exists.	10.1	16
2	Blower BL 17	From behind. Exhaust inside air. Ozone Filter exists.	1.8	16
3	Blower BL 18	From behind. Exhaust inside air. Ozone Filter exists.	1.8	16
4	Blower BL 19	From behind. Exhaust inside air. Ozone Filter exists.	1.8	16
5	Cooling Fan FM 2	Cooling down LVPS 3 & LVPS 4	1.8	16
6	Blower BL 2	Cooling down the top of the Fuser	1.10	17
7	Blower BL 3	Cooling down the top of the Fuser	1.10	17
8	Blower 4	Guide the paper to the Fuser section	10.1	17
9	Blower 5	Guide the paper to the Fuser section	10.1	17
10	Blower 6	Guide the paper to the Fuser section	10.1	17
11	Blower 7	Guide the paper to the Fuser section	10.1	17
12	Blower BL 8	LED Head Cool down	1.8	17
13	Blower BL 9	LED Head Cool down	1.8	17
14	Blower BL 10	LED Head Cool down	1.8	17
15	Blower BL 11	LED Head Cool down	1.8	17
16	Blower BL 12	Separation is assisted from Top.	9.7	17
17	Blower BL 13	Separation is assisted from Top.	9.7	17
18	Blower BL 14	Separation is assisted from Top.	9.7	17
19	Blower BL 15	Separation is assisted from Top.	9.7	17
20	Blower BL 16	Separation is assisted from Top.	9.7	17
21	Cooling Fan FM 1	Cooling down LVPS 1	1.8	18A
22	Cutter Motor Controller PWB Cooling Fan FM 3	Cooling down Cutter Motor Controller PWB	7.16	18B
23	Cutter Motor Cooling Fan FM 4	Cooling down Cutter Motor	7.16	18B

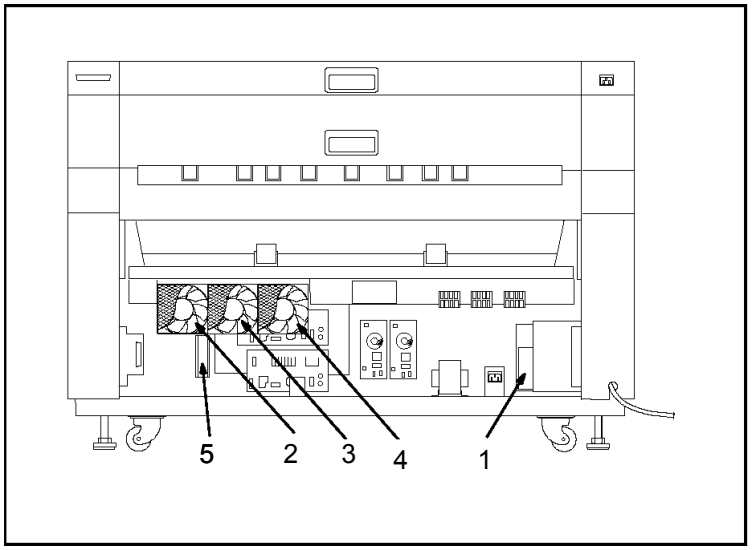


Figure 16 Rear View

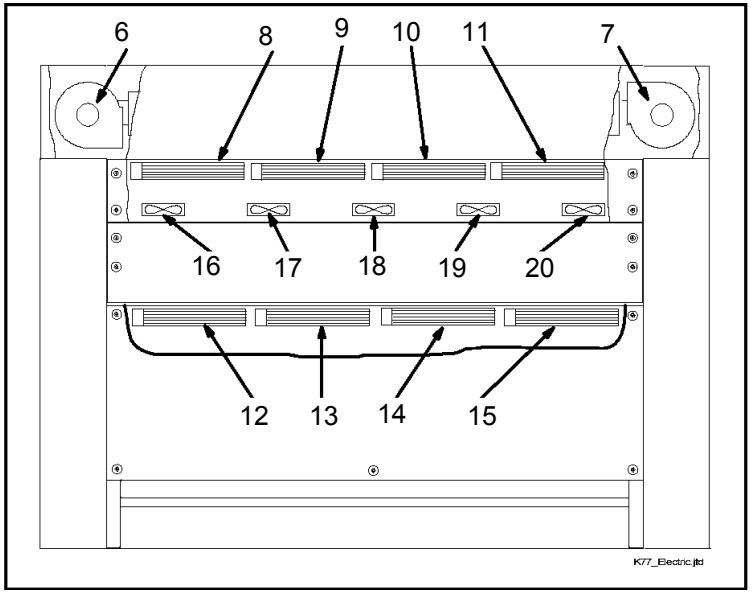


Figure 17 Top View

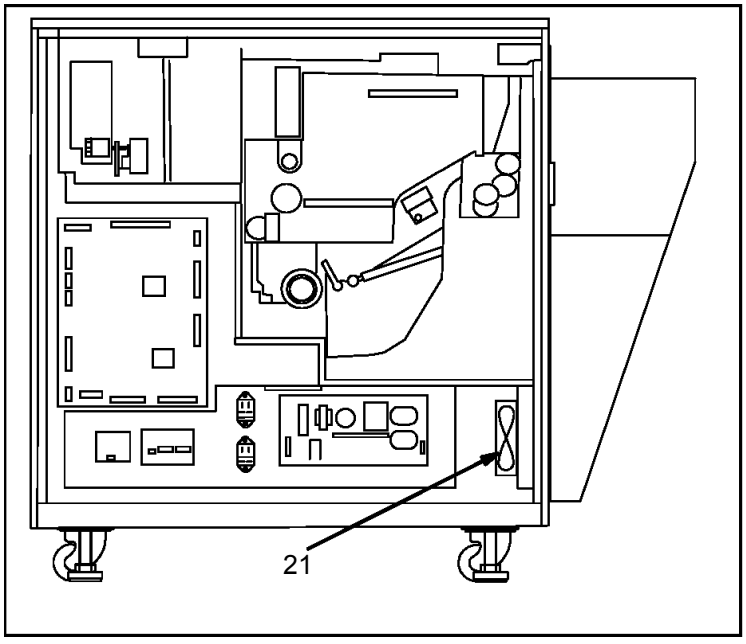


Figure 18A Right Side View

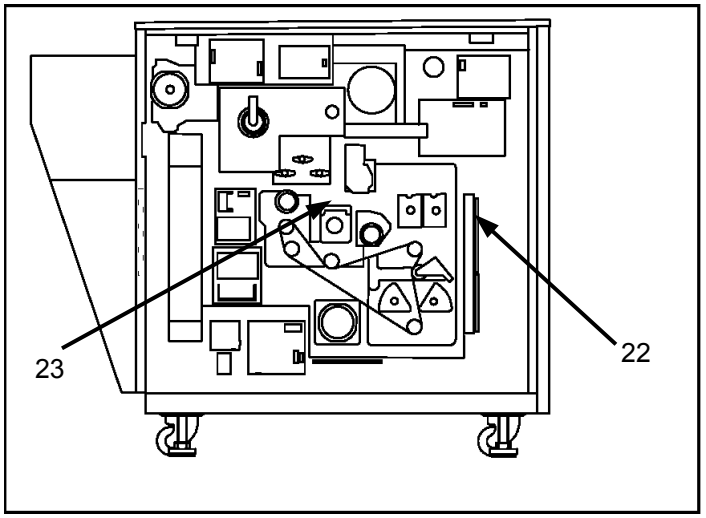


Figure 18B Left Side View

Clutch and Brake Location Drawings

Item	Name	Function	BSD	Figure
1	Roll 1/Manual Feed Clutch CL 1		7.7	19
2	Roll 2 Feed Clutch CL 2		7.10	19
3	Roll 3 Feed Clutch CL 3		7.11	19
4	Roll 4 Feed Clutch CL 4		7.12	19
5	Registration Clutch CL 5		8.1	19
6	Registration Brake Clutch CL 10		8.1	19
7	Mid-Transport Feed Clutch CL 6		7.15	19
8	Mid-Transport Brake CL 9		7.15	19
9	Manual Drive Clutch CL 7		7.13	19
10	Roll 1 Feed Clutch CL 8		7.9	19
11	Toner Dispense Clutch CL 11		9.9	20

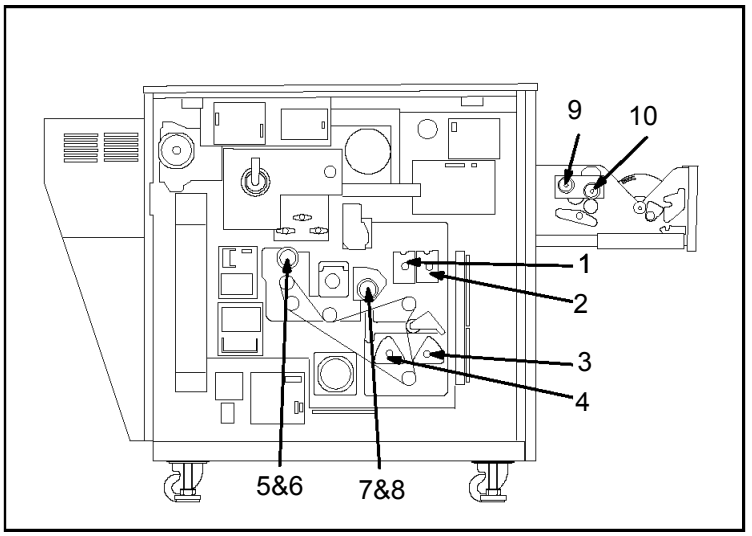


Figure 19 Left Side View

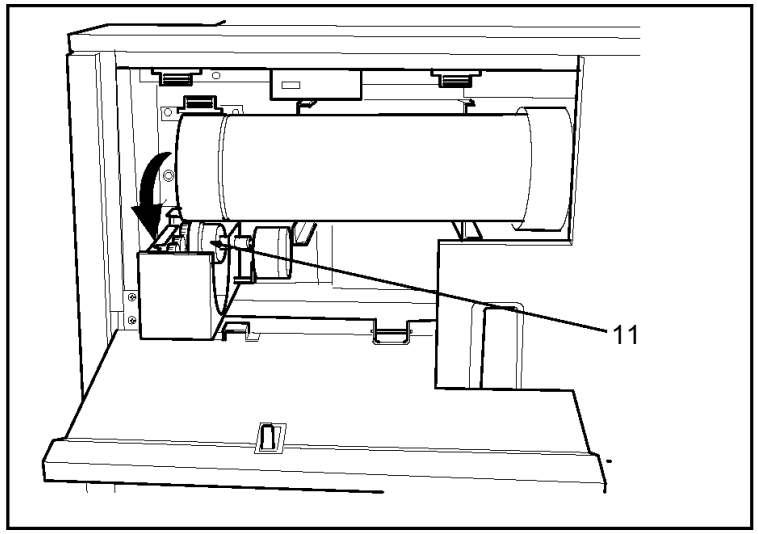


Figure 20 Right Side View

Solenoid Location Drawings

Item	Name	Function	BSD	Figure
1	Fuser Entrance Solenoid SOL 1	Fuser Entrance	10.2	21
2	Oil Dispense Solenoid SOL 2	Oil is supplied to Cutter Blade.	7.17	22
3	Pick-Up Solenoid SOL 3		7.14	23
4	Retard Solenoid SOL 4		7.14	23

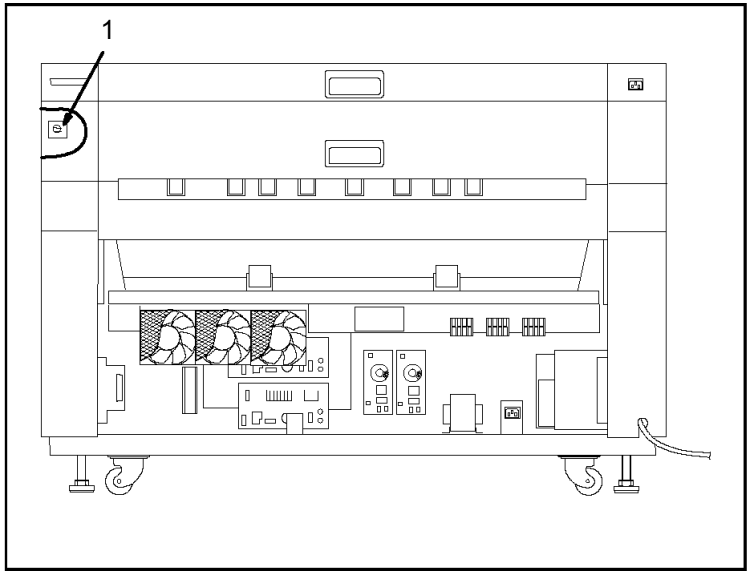


Figure 21 Rear View

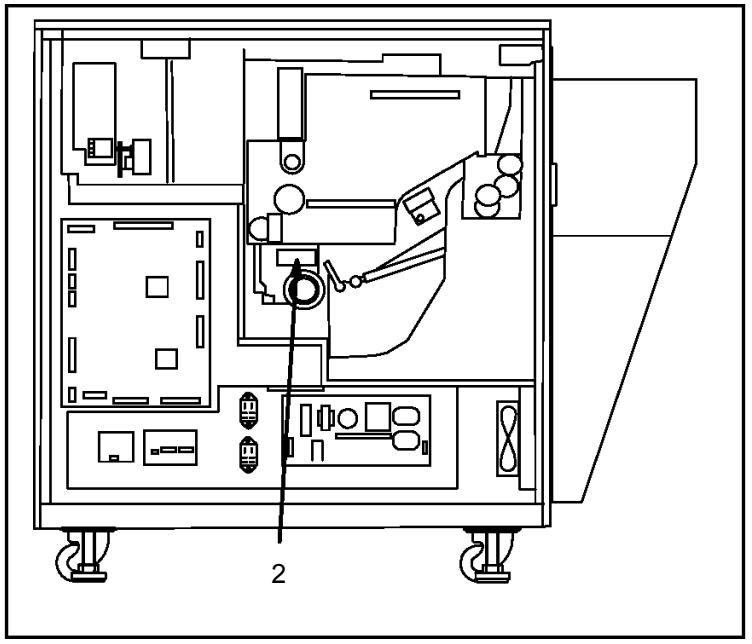


Figure 22 Right Side View

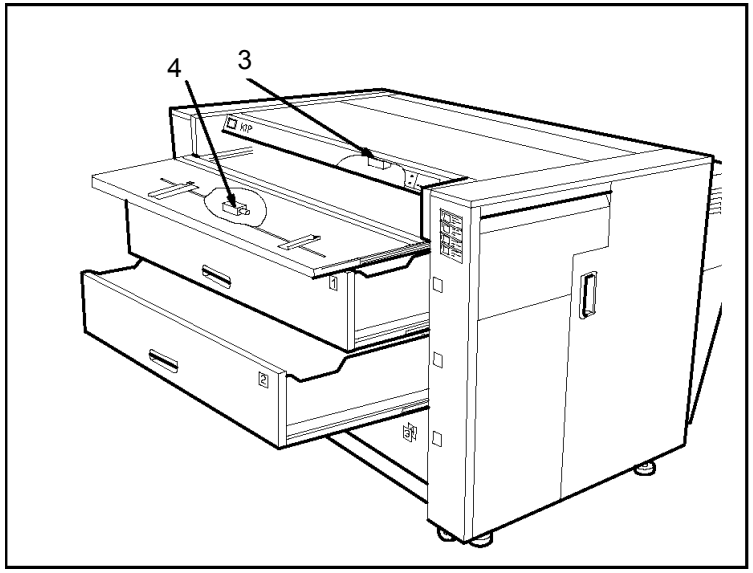


Figure 23 Diagonal View

Heater and SSR Location Drawings

Item	Name	Function	BSD	Figure
1	Heat Rod HTR 1	Center Heat Rod	10.4	24
2	Side Heat Rod HTR 2	Side Heat Rod	10.3	24
3	Center SSR 1	For Center Heat Rod	10.4	24
4	Side SSR 2	For Side Heat Rod	10.3	24
5	Paper Heater HTR3	Roll 4 (lower left)	7.17	25
6	Paper Heater HTR4	Roll 4 (lower right)	7.17	25
7	Paper Heater HTR5	Roll 3 (lower left)	7.17	25
8	Paper Heater HTR6	Roll 3 (lower right)	7.17	25
9	Paper Heater HTR7	Roll 2	7.17	25
10	Paper Heater HTR8	Roll 1	7.17	25

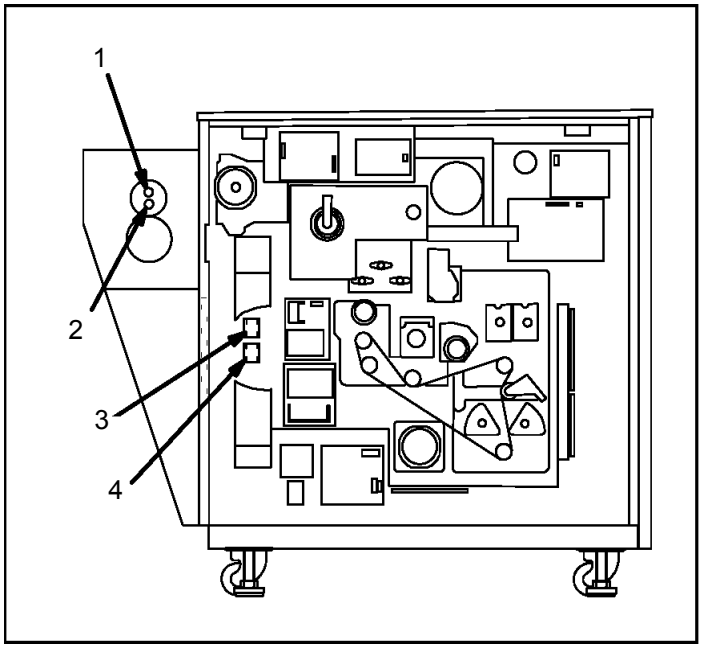


Figure 24 Left Side View

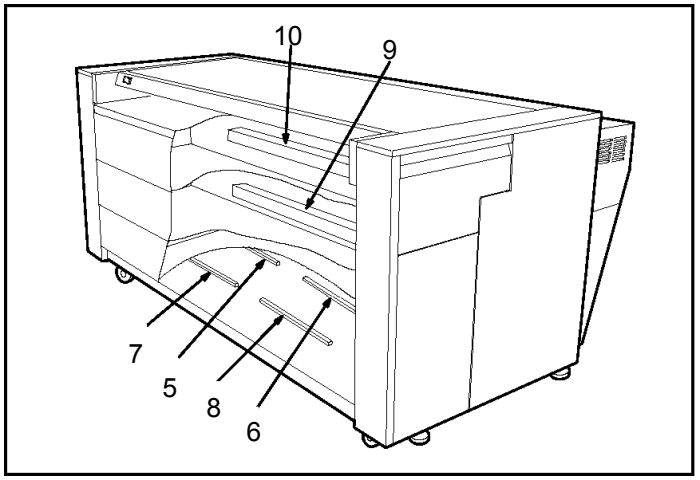


Figure 25 Diagonal View

Terminal Block, Switch, Breaker, and Counter Location Drawings

Item	Name	Function	BSD	Figure
1	Terminal Block TB 1	Main power terminal block	1.1	26
2	Circuit Breaker CB 1	Main power Circuit Breaker	1.1	26
3	Main Power Switch S1	Switches on the main Power	1.1	27
4	Paper Heater Switch S2	Turns on Paper Heaters	7.17	27
5	Copy Counter M1	Counter Mode is selectable.	3.2	28
6	Length Counter M2	Counter Mode is selectable.	3.2	28
7	Controller Switch S3	Switches power to SK 1 on the rear panel.	1.1	27

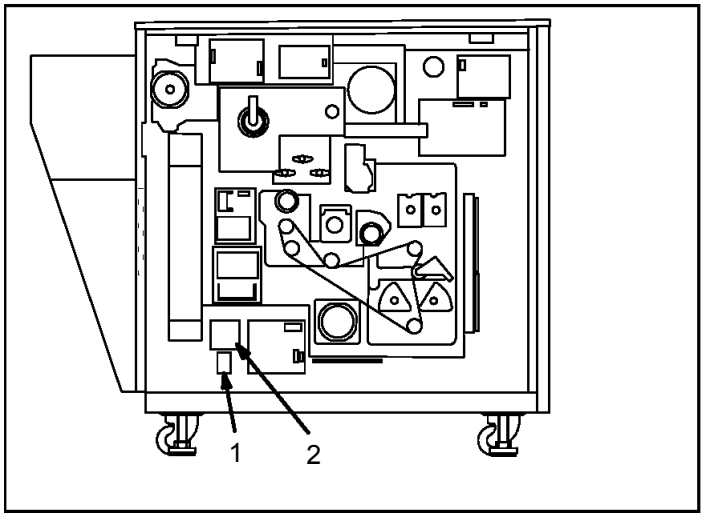


Figure 26 Left Side View

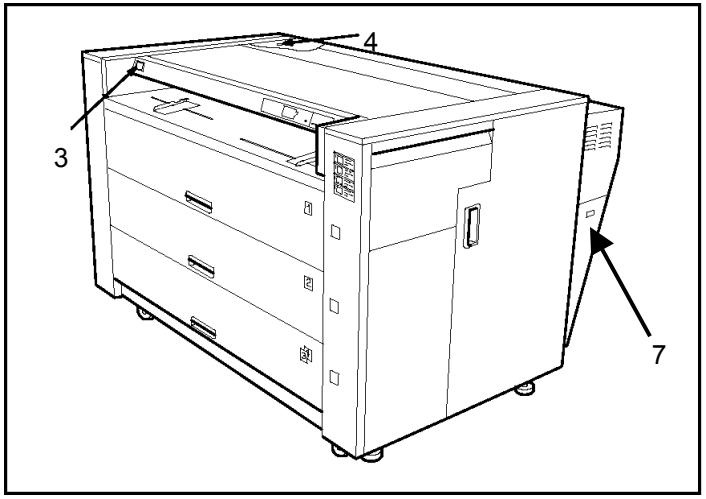


Figure 27 Diagonal View

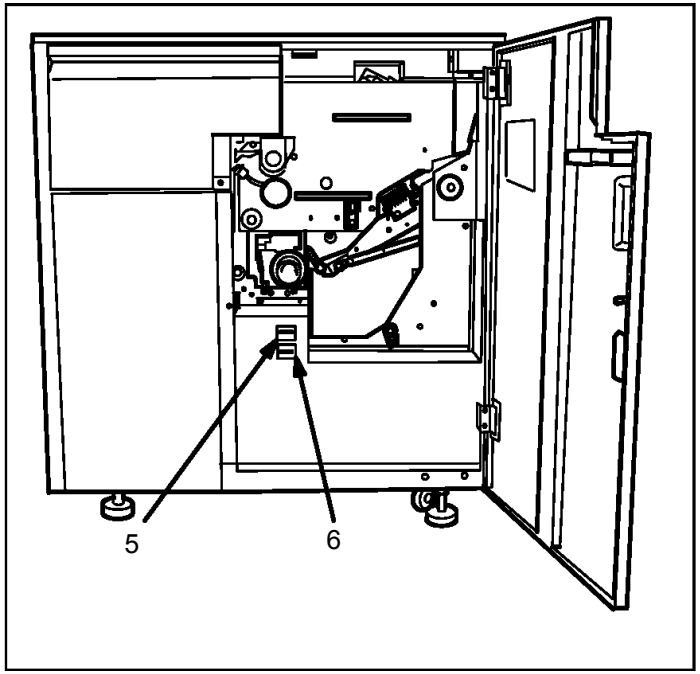


Figure 28 Right Side View

Relay Location Drawings

Item	Name	Function	BSD	Figure
1	AC Interlock Relay K1	Power is supplied to Noise Filter PWB NF1.	1.1	29
2	AC Interlock Relay K2	Power is supplied to Noise Filter PWB NF2.	1.1	29
3	Side Fuser Relay K3	Power is supplied to Side Heat Rod HTR 2.	10.3	29
4	DC Power Relay K6	Power is supplied to LVPS 3 and LVPS 4.	1.2	29
5	DC Power Relay K4	Supplies +24VDC Interlock.	1.4	30
6	DC Power Relay K5	Supplies +24VDC Interlock.	1.5	30

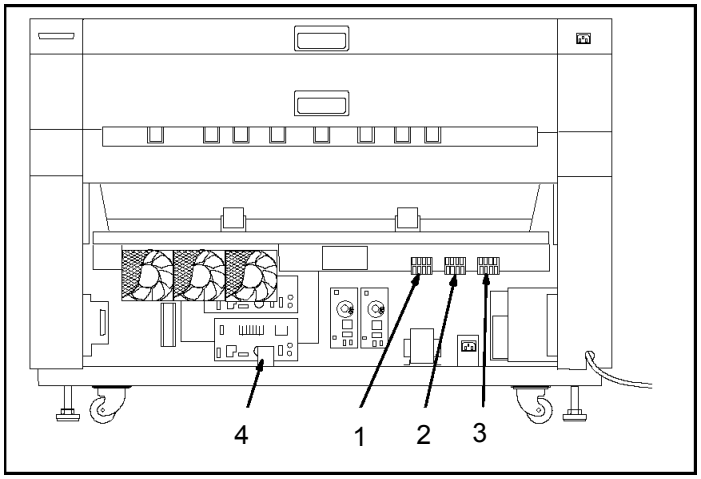


Figure 29 Rear View

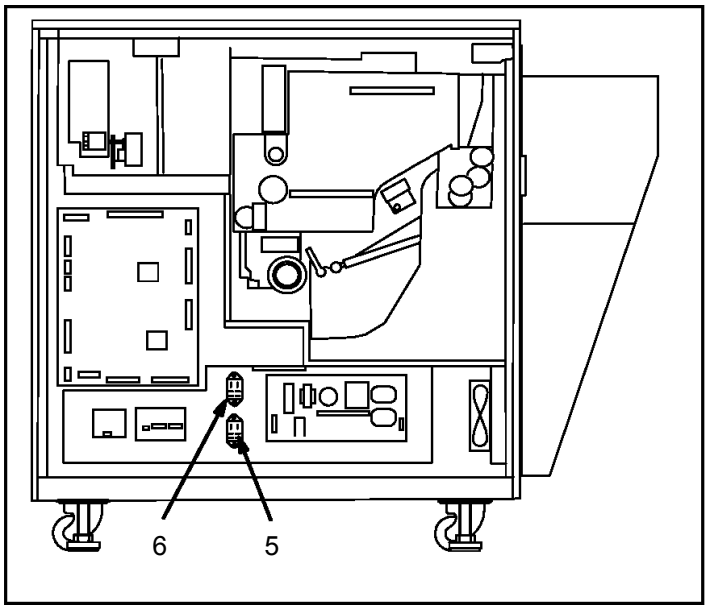


Figure 30 Right Side View

Size Sensors Location Drawings

***Note**: The Manual Tray Paper Size Sensors are located on Figure 32.*

Roll	Paper Size Sensor				BSD	Paper Set Sensor	BSD	Paper Size Sensor			BSD	Roll Feed Clock Sensor	BSD
Roll 1	Q11	Q10	Q9	Q8	7.1	Q1	7.9	Q7	Q6	Q5	7.1	Q13	7.9
Roll 2	Q11	Q10	Q9	Q8	7.2	Q2	7.10	Q7	Q6	Q5	7.2	Q14	7.10
Roll 3	Q11	Q10	Q9	Q8	7.3	Q3	7.11	Q7	Q6	Q5	7.3	Q15	7.11
Roll 4	Q11	Q10	Q9	Q8	7.4	Q4	7.12	Q7	Q6	Q5	7.4	Q16	7.12

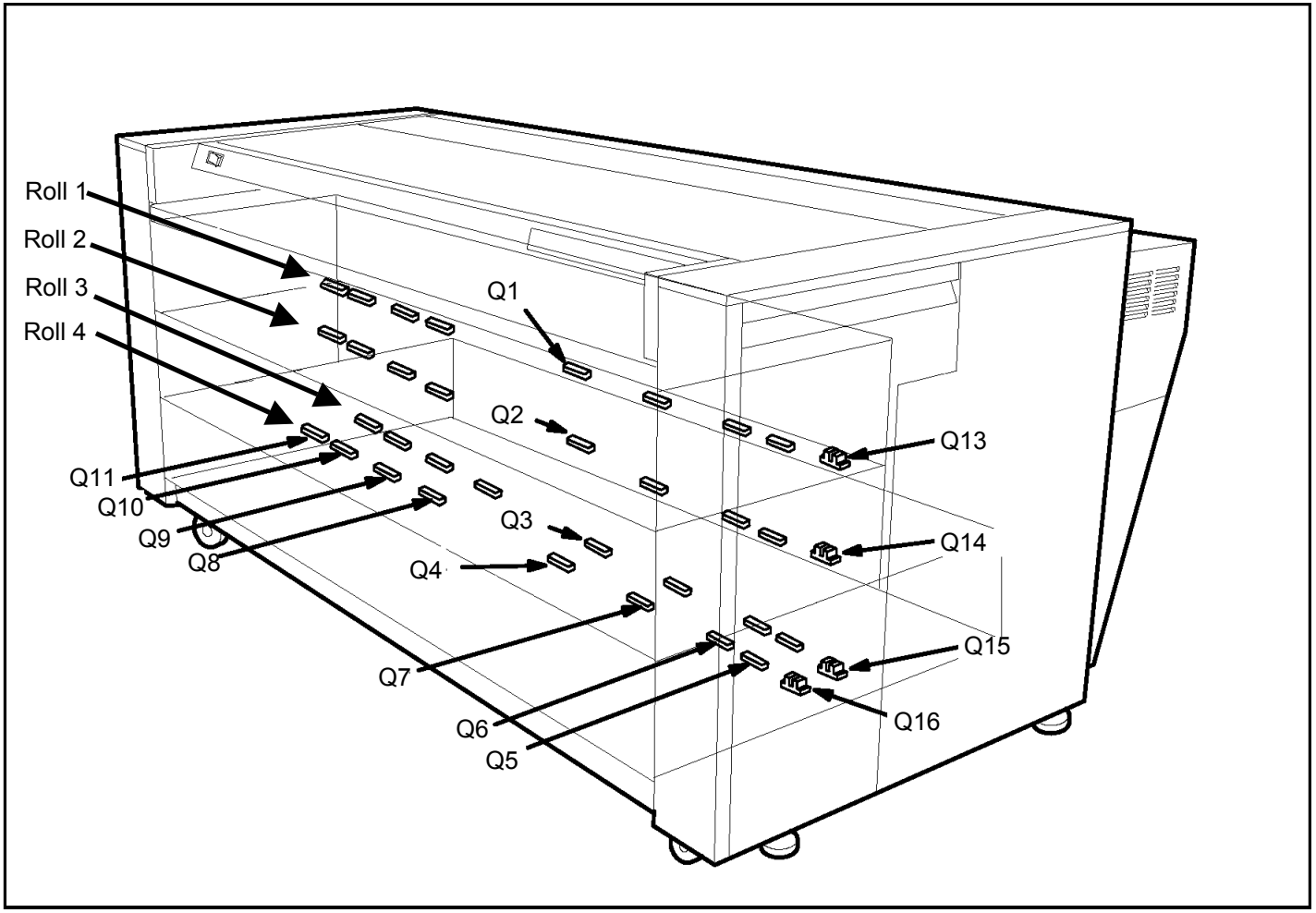


Figure 31 Paper Size Sensors, Clock Sensors, and Set Sensors

Other Sensors Location Drawings

***Note**: Manual Tray Paper Size Sensors, Paper Sensors, Thermistor, Thermostat, and Toner Sensors are located here.*

Item	Name	Function	BSD	Figure
1	Paper Exit Switch LS 2	Detects copy exit.	10.6	33
2	Thermostat TS 1	Fuser Temperature	1.3	33
3	Thermistor RT1	Center Fuser Temperature	10.4	33
4	Manual Start Sensor Q20	Detects paper when feeding from Manual Tray	7.13	32
5	Cutter Home Position Sensor Q22	Detects Cutter Home Position	7.16	32
6	Inner Transport Set Sensor Q24	Detects Inner Transport position	10.2	32
7	Developer Position Sensor Q25	(Left Side Plate)	9.3	32
8	B3 Size Sensor (Manual Tray) Q31	Manual Tray size sensing	7.5	32
9	Manual Size Sensors Q32	Manual Tray size sensing	7.5	32
10	Manual Size Sensors Q33	Manual Tray size sensing	7.5	32
11	Manual Size Sensors Q34	Manual Tray size sensing	7.5	32
12	Manual Size Sensors Q35	Manual Tray size sensing	7.5	32
13	Manual Size Sensors Q36	Manual Tray size sensing	7.5	32
14	Manual Size Sensors Q37	Manual Tray size sensing	7.5	32
15	Separation Sensor Q18	Inner Transport jam detection	10.2	32
16	Thermistor RT2	Printer Temperature	3.4	32
17	Toner Hopper Sensor TLS 1	Hopper	9.9B	32
18	Toner Sump Sensor TLS 2	Developer	9.9B	32
19	Registration Sensor Q12	Detects paper registration	8.1	32
20	Surface Potential Sensor SPS 1	Measures Charge Potential	9.2	32
21	Fuser Overheat Thermistor RT3	Detects a fuser overheat	10.5	33

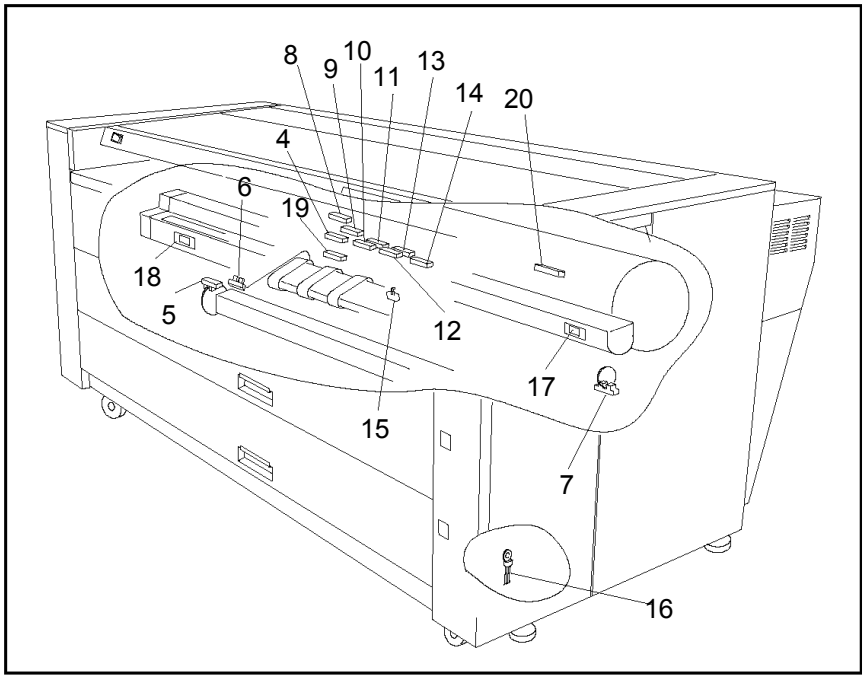


Figure 32 See Through View

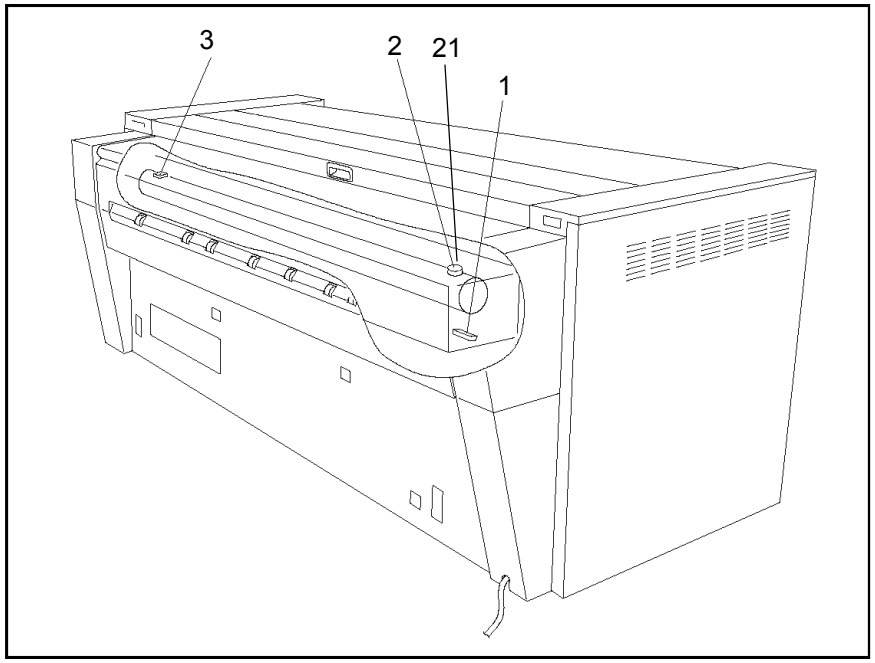


Figure 33 Diagonal View

Micro Switches Location Drawings

Item	Name	Function	BSD	Figure
1	Top Drawer Interlock Switch DS 1	Interlock Switch	7.20	34
2	Middle Drawer Interlock Switch DS 2	Interlock Switch	7.20	34
3	Lower Drawer Interlock Switch DS 3	Interlock Switch	7.20	34
4	Exit Cover Interlock Switch DS 5	Interlock Switch	1.3	35
5	Upper Cover Interlock Switch DS 6	Interlock Switch	1.3	35
6	Right Door Interlock Switch DS 7	Interlock Switch	1.3	34
7	Toner Cover Door Interlock Switch DS 8	De-energizes Hopper Motor & Clutch are	9.9	34

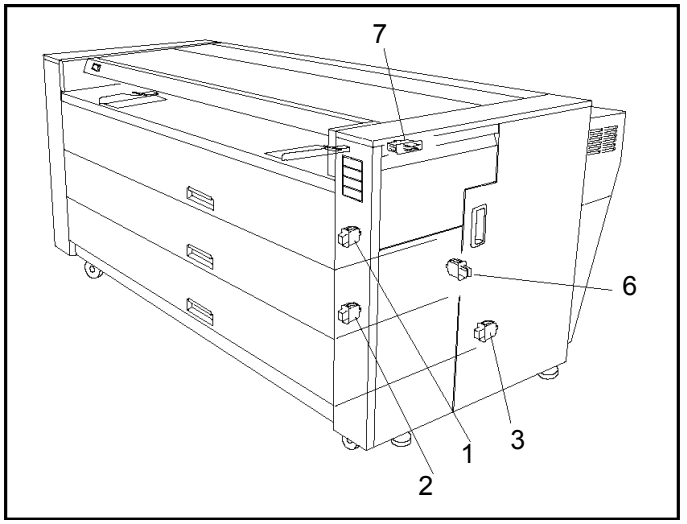


Figure 34 Front Diagonal View

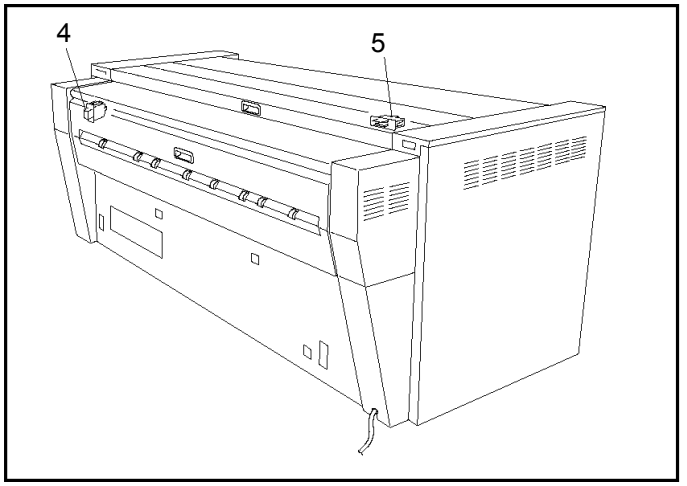


Figure 35 Rear Diagonal View

NOTES:

Plug / Jack Location Index

Connector	Figure
CB1	5
CN1	5
CN1A	10
CN1B	5
CN1C	10
CN1D	4
CN1E	4
CN1F	10
CN1H	5
CN1I	5
CN1J	10
CN2	5
CN2C	10
CN2D	4
CN2E	4
CN2F	10
CN2H	5
CN2I	5
CN3	5
CN3C	10
CN3F	10
CN301	5
CN401	5
CN402	5
CN403	5
CN501	5
CN501A	10
CN502A	10
DS5	6
DS8	6

Connector	Figure
J1	5
J2	5
J3	5
J4	6
J5	6
J7	3, 5
J8	3, 5
J10	8
J11	7
J12	5
J15	3
J16	3
J17	3
J18	3
J19	4
J21	5
J24	5
J26	5
J28	10
J29	10
J30	10
J31	10
J32	6
J35	5
J36	5
J37	55
J38	5
J39	5
J40	5
J41	5
J42	7
J43	7

Connector	Figure
J44	5
J45	5
J46	1
J47	5
J48	6
J49	6
J50	5
J52	4
J54	6
J55	6
J56	1, 5
J57	1
J58	10
J58A	10
J59	10
J60	10
J62	5
J63	10
J64	6
J65	6
J66	10
J67	10, 2
J68	7
J69	6
J70	6, 7
J71	8
J72	4, 9
J73	7
J74	7
J75D	9
J76	8
J77	8

Connector	Figure
J79	9
J80	9
J82	9
J83	9
J84	10
J85	10
J86	10
J87	10
J88A	7
J88B	8
J88C	9
J88D	9
J89A	7
J89B	8
J89C	9
J89D	9
J90A	7
J90B	8
J90C	9
J90D	9
J91	10
J91A	7
J91B	8
J91C	9
J91D	9
J92	1
J92A	7
J92B	8
J92C	9
J92D	9
J93	1
J93A	7

Connector	Figure
J93B	8
J93C	9
J93D	9
J94	10
J94A	7
J94B	8
J94C	9
J94D	9
J95	6
J96	6
J97	10
J98	6
J99	6
J101	5
J102	5
J103	5
J104	5
J106	5
J107	5
J125	10
J126	10
J127	4
J133	6
J134	4
J135	4
J136	4
J137	4
J138	10
J140	2
J142	2
J143	2
J144	2

Connector	Figure
J145	2
J146	2
J147	2
J148	2
J154	5
J155	4
J158	5
J159	5
J160	5
J170	6
J201	6
J202	6
J203	6
J204	6
J205	6
J206	6
J207	6
J208	6
J209	6
J210	6
J211	6
J212	6
J214	6
J215	6
J216	6
J251	5
J252	5
J253	5
J301	1
J302	1
J303	1
J311	1

Connector	Figure
J312	1
J314	1
J341C	4
J551	10
J552	10
J554	10
J555	10
J556	10
J557	10
J558	10
J561	5
J562	5
J563	5
J571	10
J581	10
J710	10
J721	6
J730	6
J731	6
J751A	7
J751B	8
J751C	9
J801	6
J801A	6
J802	6
J803	6
J901	2, 4, 10
J902	10
J902	2
J911	4
J971A	7
J971B	8

Connector	Figure
J971C	9
J971D	9
J972A	7
J972B	8
J972C	9
J972D	9
J991	6
J992	6
J993	6
J994	6
JC1	5
JC2	6
JC3	5
JC4	5
JC5	10
JC6	10
JC7	10
JC8	10
JC9	5
JC10	5
JC11	6
JC12	5
JC14	5
K1	4
K2	4
K3	4
K4	6
K5	6
K6	4
S2	5
S3	4, 6
SSR1	5

Connector	Figure
SSR2	5
TB1	5
TB101	5
TB11	4
TB110	4
TB112	4
TB113	4
TB150A	4
TB150B	4
TB151A	4
TB151B	4
TB152A	4
TB152B	4
TB153A	4
TB153B	4
TB154A	4
TB154B	4
TB581	10
U1-IN	6
U1-OUT	6

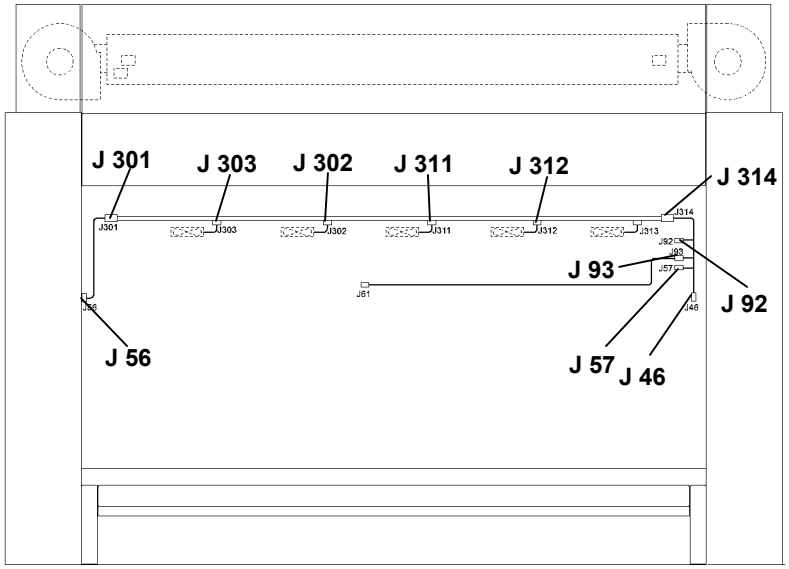


Figure 1 Top View (Xerographic Module)

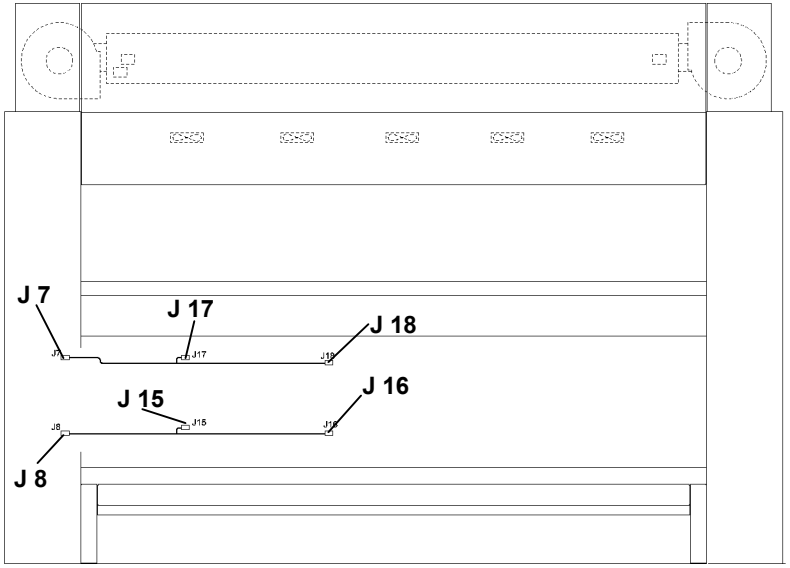


Figure 3 Top View (Base)

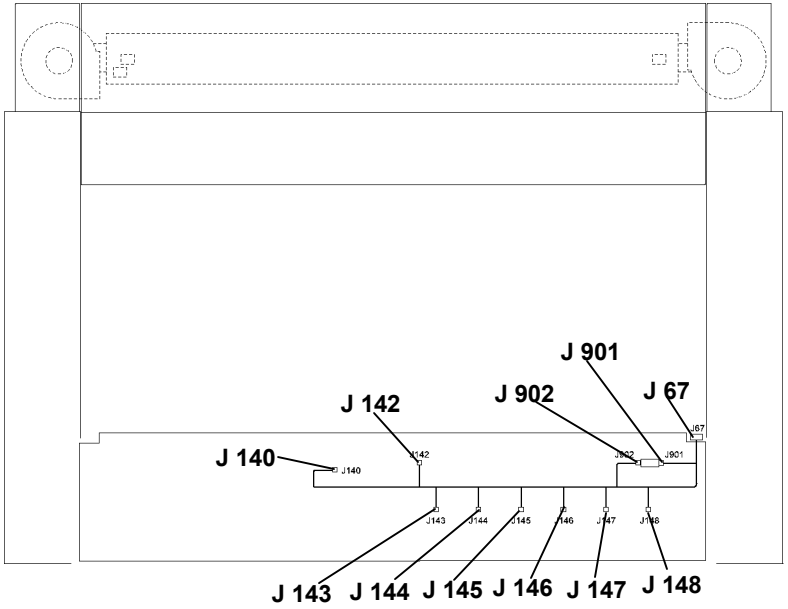


Figure 2 Top View (Tray)

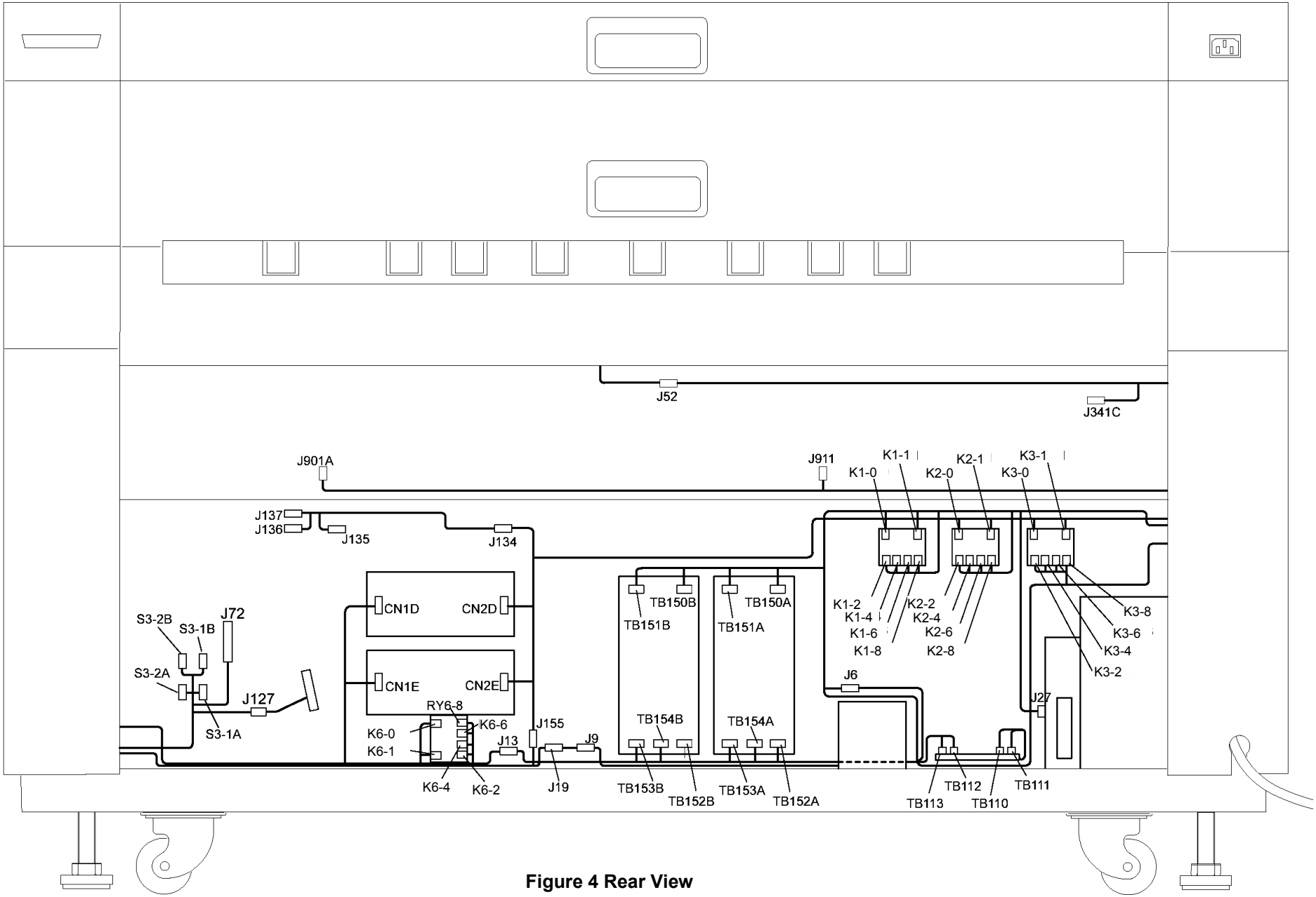


Figure 4 Rear View

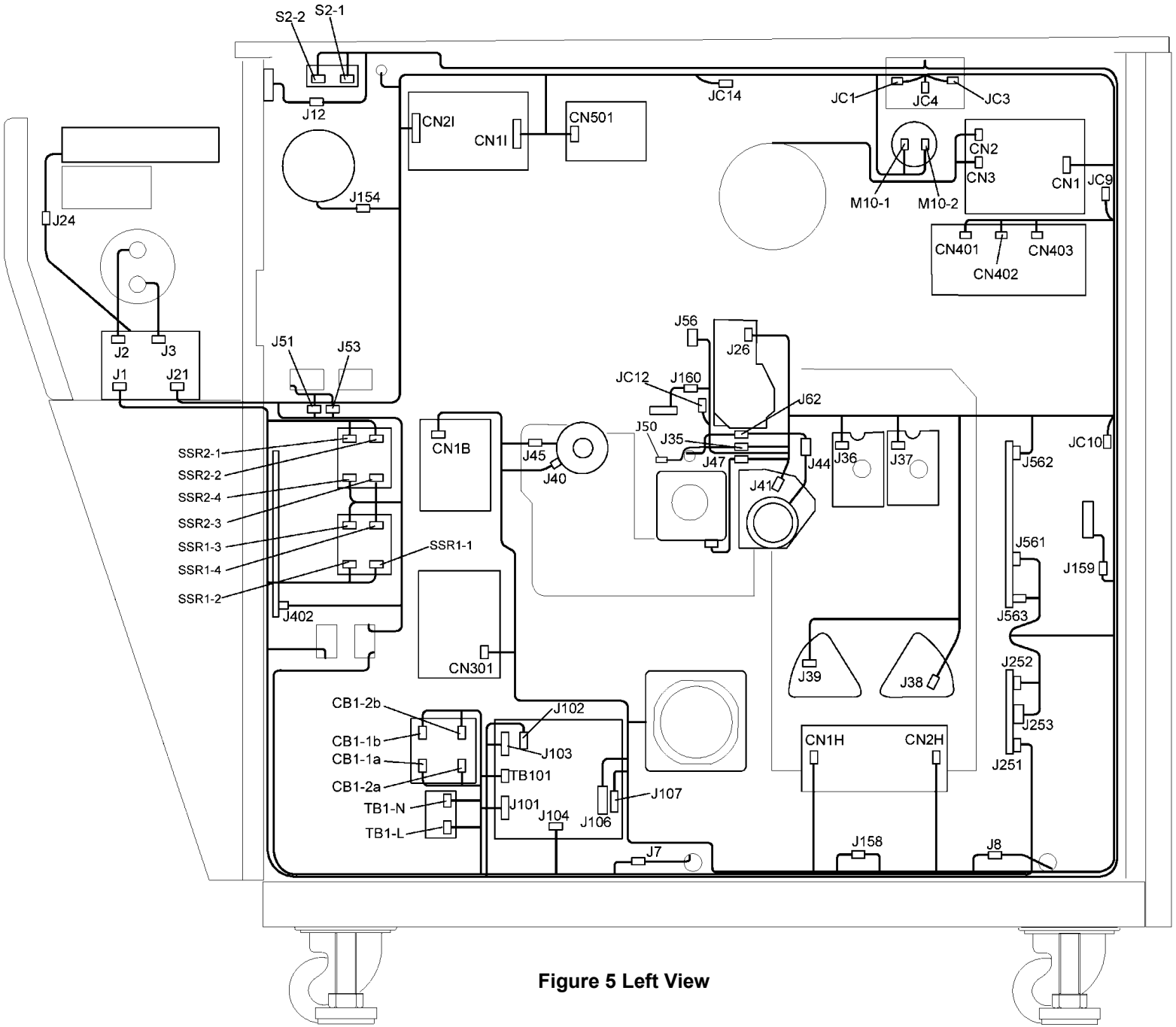


Figure 5 Left View

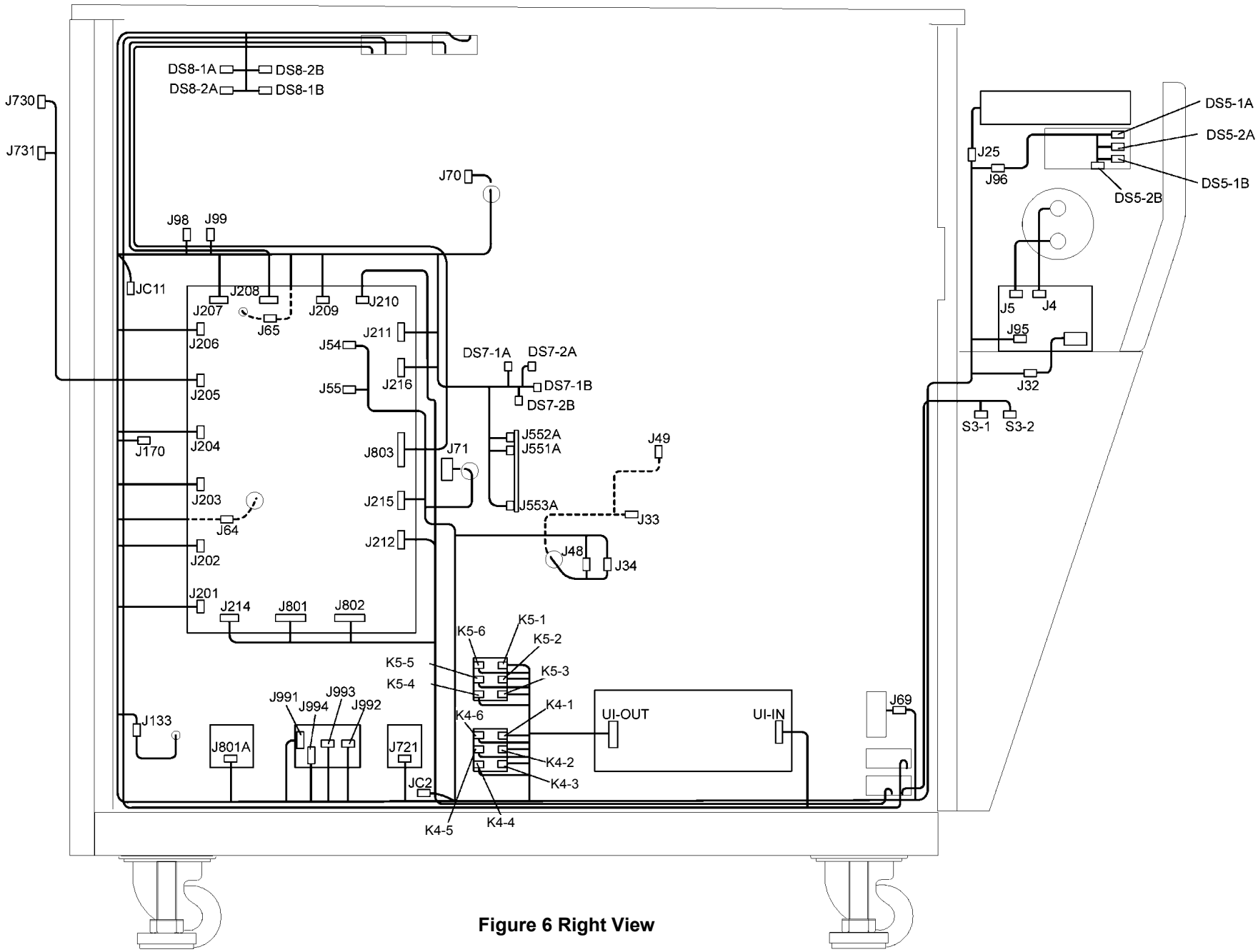


Figure 6 Right View

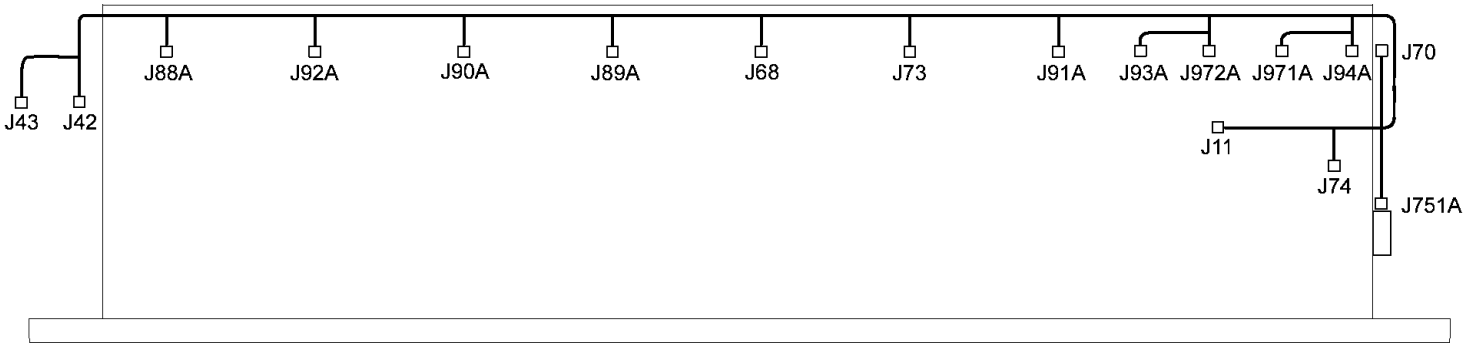


Figure 7 Upper Drawer

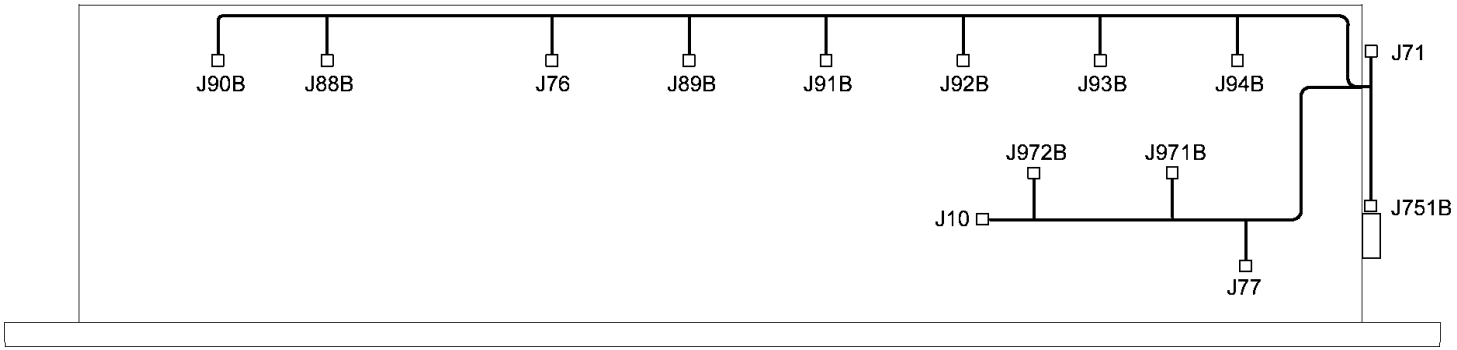


Figure 8 Middle Drawer

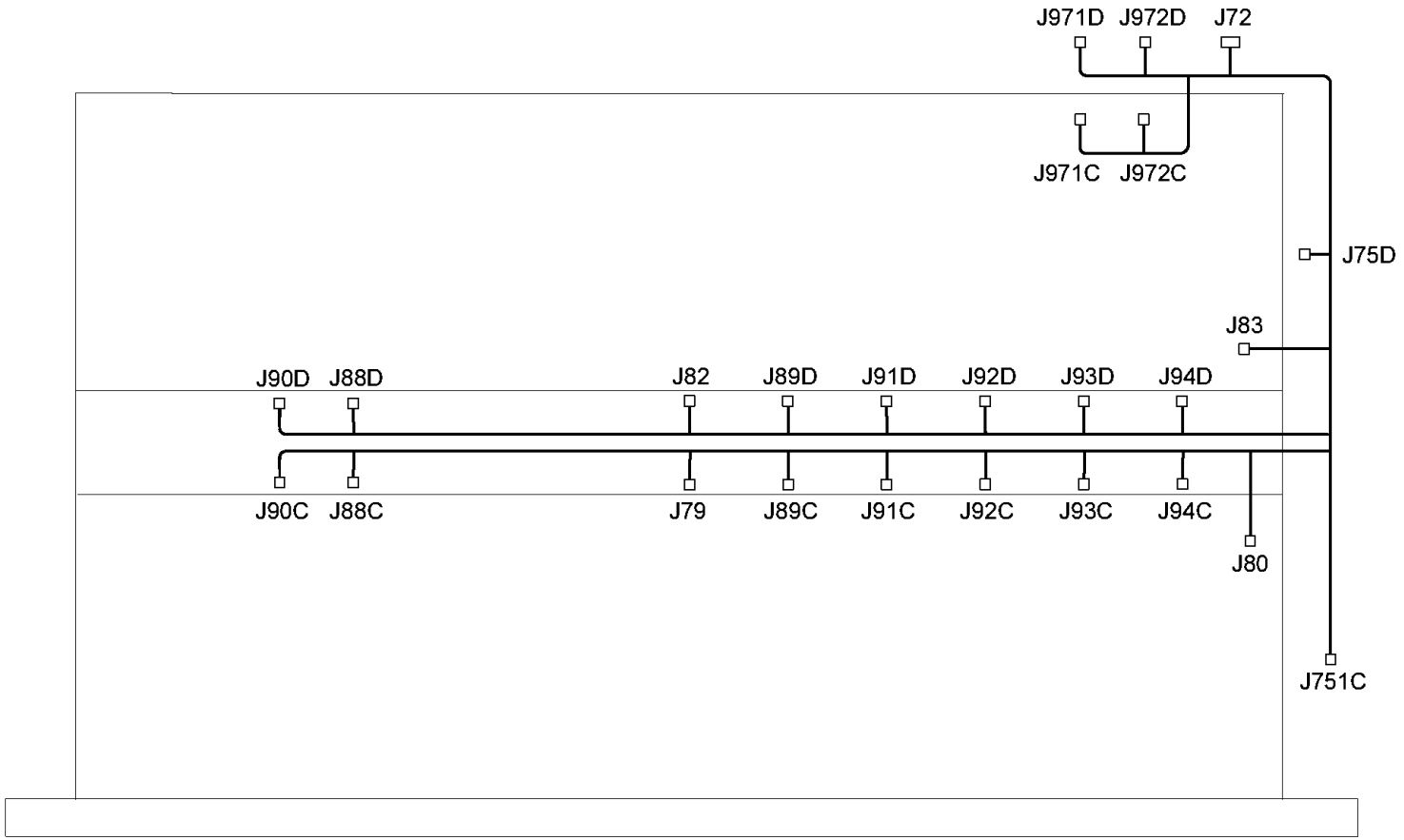


Figure 9 Lower Drawer (Rolls 3/4)

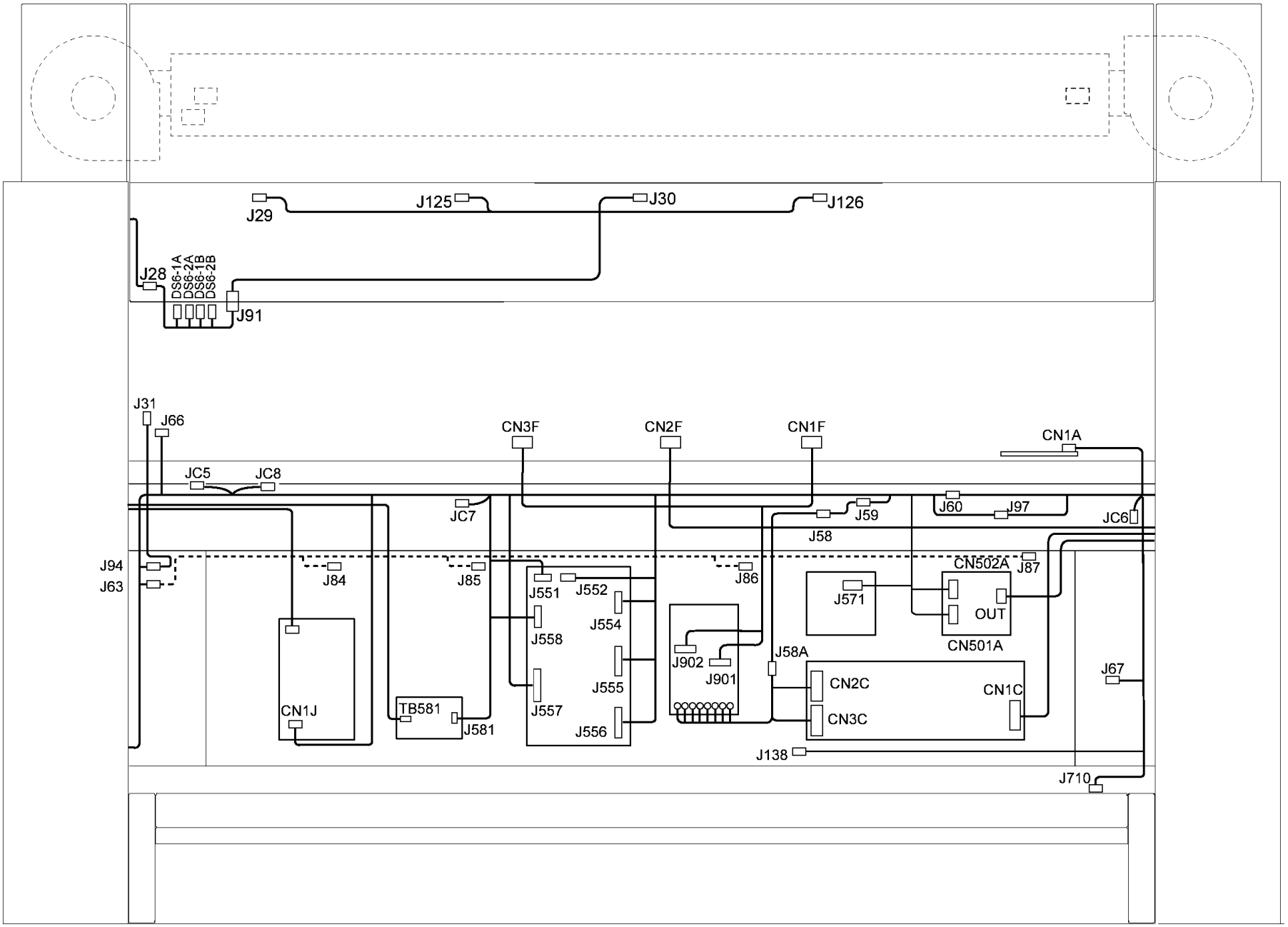


Figure 10 Top View (Upper)

Section Contents

Repairs

REP 1.1.1 Upper Panel Assembly

Parts List on PL 1.5

WARNING

Switch off the Main Power Switch. Disconnect the Power Cord.

Removal

1. Move the Stacker away from Printer.
2. Remove the Right Cover (PL 1.1).
3. (Figure 1): Remove a screw and a Pivot.
3. Slowly lift the right side of the Upper Panel Assembly and move the assembly to the right.

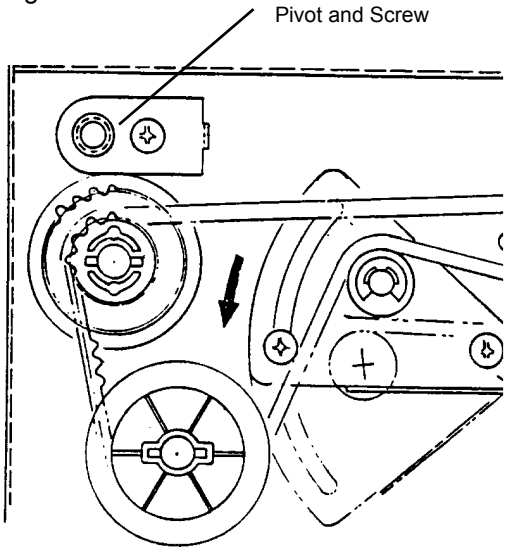


Figure 1. A Pivot Removal

REP 1.2.1 Drive Motor

Parts List on PL 1.4

WARNING

Switch off the Main Power Switch. Disconnect the Power Cord.

Removal

1. Remove the Upper Panel Assembly (REP 1.1.1).

Note: There is a metal washer located under each of the black plastic washers in the following step. Be careful not to lose the metal washer.

2. Remove two screws and washers from the top of the Lower Guide Plate (PL 1.1).
3. Remove the screw located near the paper jam sensor on the Lower Guide Plate.
4. Remove four screws and collars from the front of the Lower Guide Plate.
5. Remove the Lower Guide Plate.
6. Remove the Timing Belt (REP 1.3.1).
7. Disconnect the Drive Motor connector (J 253) from the Motor Driver PWB.
8. Remove the motor harness from the cable clamp.
9. (Figure 1): Remove the E-ring and bearing from the Drive Unit.
10. Remove two screws that secure the Drive Unit Shafts to the right side frame.
11. Remove two screws that secure the Motor Bracket to the base.
12. Remove the Drive Unit.
13. Remove the three gears from the Drive Unit

.

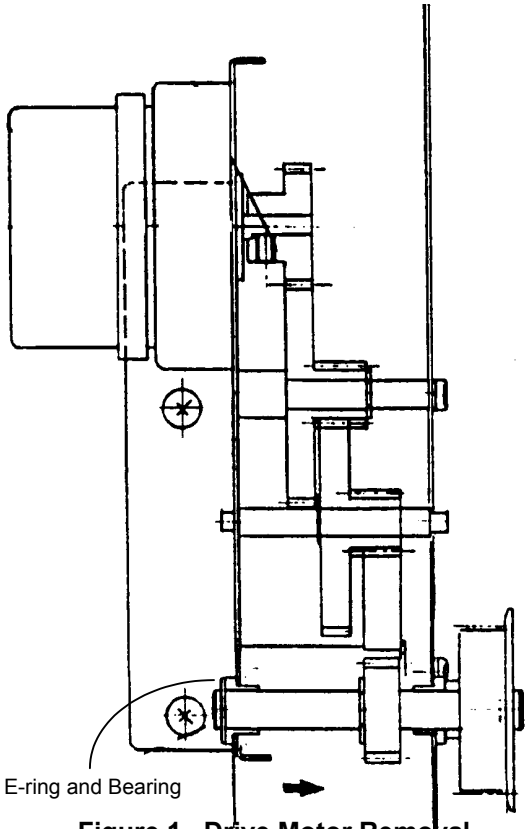


Figure 1. Drive Motor Removal

13. Remove the gear from the Drive Motor.
14. Remove the Drive Motor.

REP 1.3.1 Timing Belt

Parts List on PL 1.4

WARNING

Switch off the Main Power Switch. Disconnect the Power Cord.

Removal

1. Remove the Right Cover (PL 1.1).
2. (Figure 1): Loosen the two screws securing the base plate.
3. Rotate the base plate counterclockwise.
4. Remove the Timing Belt.

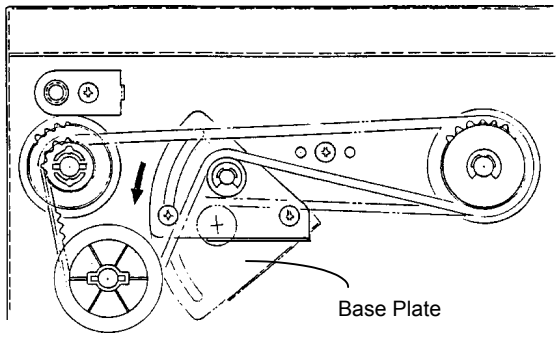


Figure 1. Timing Belt Removal

REP 1.4.1 Left Cover

Parts List on PL 1.1

WARNING

Switch off the Main Power Switch. Disconnect the Power Cord.

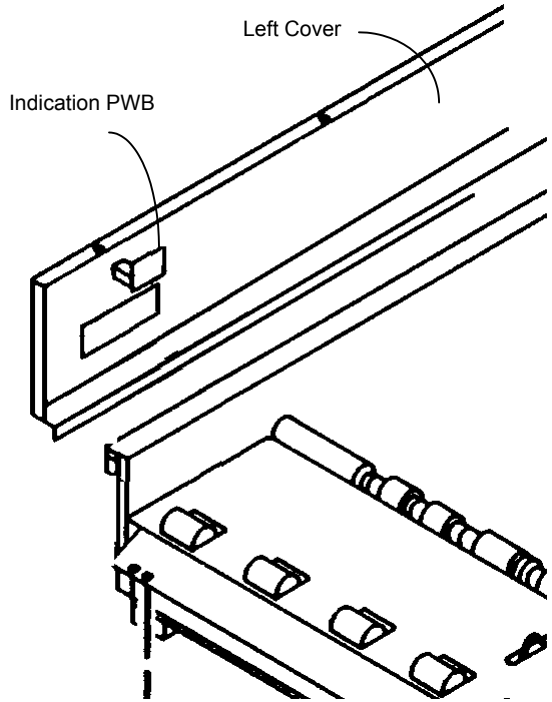


Figure 1. Left Cover Removal

Caution

Be careful not to damage the Indication PWB when removing the Left Cover. There is a harness connected to the Indication PWB which is mounted on the Left Cover.

Removal

1. Move the Stacker away from Printer.
2. Remove the three screws that secure the Left Cover (PL 1.1).
3. (Figure 1): Slowly move the Left Cover away from the Left Side Frame.
4. Disconnect the harness from the Indication PWB.

REP 1.5.1 Feedout Roller

Parts List on PL 1.3

WARNING

Switch off the Main Power Switch. Disconnect the Power Cord.

Caution

Be careful not to damage the Indication PWB when removing the Left Cover. There is a harness connected to the Indication PWB which is mounted on the Left Cover.

Removal

1. Move the Stacker away from Printer.
2. Remove the Timing Belt (REP 1.3.1).
3. (Figure 1): Remove the E-ring from the right end of the Roller Shaft.

Note: In the following step, be careful not to lose the pin when the timing pulley is removed.

4. Carefully remove the Timing Pulley (PL 1.4, item #17) and pin from the right end of the Roller Shaft.

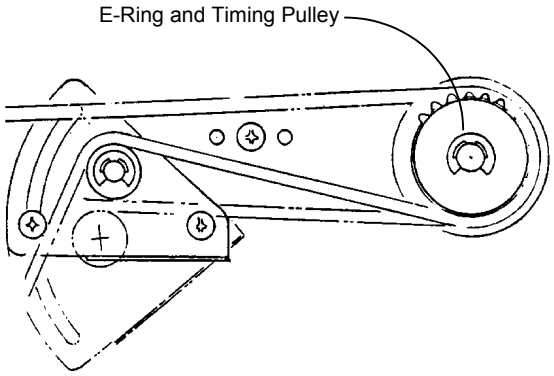


Figure 1. E-ring and Pulley

5. Remove another E-ring from the right end of the Feedout Roller Shaft.
6. Remove the four screws that secure the Panel (PL 1.3, item 19).
7. Move the Panel toward the back of the Stacker.
8. Remove the Left Cover (REP 1.4.1).
9. Remove the E-ring from the left end of the Roller Shaft (PL 1.3, item 13).
10. Remove the center bracket that supports the Feedout Roller Shaft.
11. Slowly lift the left end of the Roller Shaft and move the assembly to the left.

REP 1.6.1. Feed-in Roller

Parts List on PL 1.3

WARNING

Switch off the Main Power Switch. Disconnect the Power Cord.

Caution

Be careful not to damage the Indication PWB when removing the Left Cover. There is a harness connected to the Indication PWB which is mounted on the Left Cover.

Removal

1. Move the Stacker away from Printer.
2. Remove the Timing Belt (REP 1.3.1).
3. Remove the Left Cover (REP 1.4.1).
4. Remove the E-ring from the left end of the Roller Shaft (PL 1.3, item 20).
5. Remove the E-ring from the center of the Roller Shaft that is next to the bearing.

Note: In the following step, be careful not to lose the pin when the timing pulley is removed.

6. Move the shaft to the right and carefully move the timing pulley to the left and remove the pulley and pin.

5 Parts List

Introduction

Overview

The Parts List section identifies all part numbers and the corresponding location of all spared subsystem components.

Organization

Parts Lists

Each item number in the part number listing corresponds to an item number in the related illustration. All the parts in a given subsystem of the machine will be located in the same illustration or in a series of associated illustrations.

Electrical Connectors and Fasteners

This section contains the illustrations and descriptions of the plugs, jacks, and fasteners used in the machine. A part number listing of the connectors is included.

Common Hardware

The common hardware is listed in alphabetical order by the letter or letters used to identify each item in the part number listing and in the illustrations. Dimensions are in millimeters unless otherwise identified.

Part Number Index

This index lists all the spared parts in the machine in numerical order. Each number is followed by a reference to the parts list on which the part may be found.

Other Information

Abbreviations

Abbreviations are used in the parts lists and the exploded view illustrations to provide information in a limited amount of space. The following abbreviations are used in this manual:

Table 1

Abbreviation	Meaning
A3	297 x 594 Millimeters
A4	210 x 297 Millimeters
A5	148 x 210 Millimeters
AD	Auto Duplex
AWG	American Wire Gauge
EMI	Electro Magnetic Induction
GB	Giga Byte
KB	Kilo Byte
MB	Mega Byte
MM	Millimeters
MOD	Magneto Optical Drive
NOHAD	Noise Ozone Heat Air Dirt
PL	Parts List
P/O	Part of

Table 1

Abbreviation	Meaning
R/E	Reduction/Enlargement
REF:	Refer to
SCSI	Small Computer Systems Interface
W/	With
W/O	Without

Table 2

	Operating Companies
Abbreviation	**Meaning**
AO	Americas Operations
NASG - US	North American Solutions Group - US
NASG - Canada	North American Solutions Group - Canada
XE	Xerox Europe

Symbology

Symbology used in the Parts List section is identified in the Symbology section.

Service Procedure Referencing

If a part or assembly has an associated repair or adjustment procedure, the procedure number will be listed at the end of the part description in the parts lists e.g. (REP 5.1, ADJ 5.3)

Subsystem Information

Use of the Term “Assembly”

The term “assembly” will be used for items in the part number listing that include other itemized parts in the part number listing. When the word “assembly” is found in the part number listing, there will be a corresponding item number on the illustrations followed by a bracket and a listing of the contents of the assembly.

Brackets

A bracket is used when an assembly or kit is spared, but is not shown in the illustration. The item number of the assembly or kit precedes the bracket; the item numbers of the piece parts follow the bracket.

Tag

The notation “W/Tag” in the parts description indicates that the part configuration has been updated. Check the change Tag index in the General Information section of the Service Data for the name and purpose of the modification.

In some cases, a part or assembly may be spared in two versions: with the Tag and without the Tag. In those cases, use whichever part is appropriate for the configuration of the machine on which the part is to be installed. If the machine does not have a particular Tag and the only replacement part available is listed as “W/Tag”, install the Tag kit or all of the piece parts. The Change Tag Index tells you which kit or piece parts you need.

Whenever you install a Tag kit or all the piece parts that make up a Tag, mark the appropriate number on the Tag matrix.

Symbology

A Tag number within a circle pointing to an item number shows that the part has been changed by the tag number within the circle (Figure 1). Information on the modification is in the Change Tag Index.

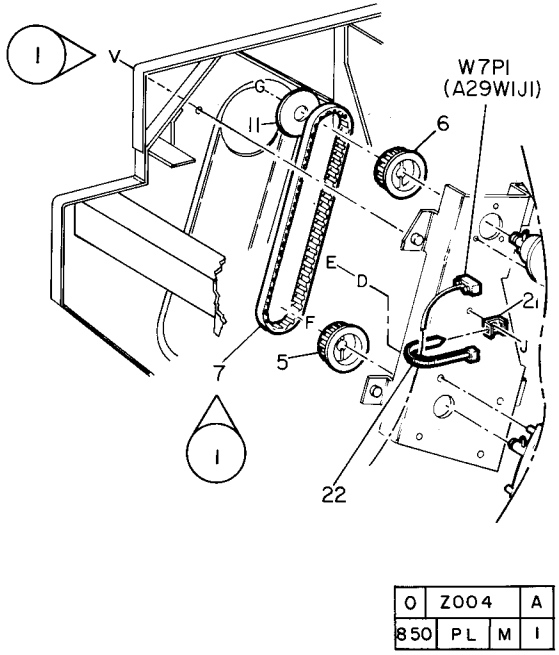


Figure 1 With Tag Symbol

A Tag number within a circle having a shaded bar and pointing to an item number shows that the configuration of the part shown is the configuration before the part was changed by the Tag number within the circle (Figure 2).

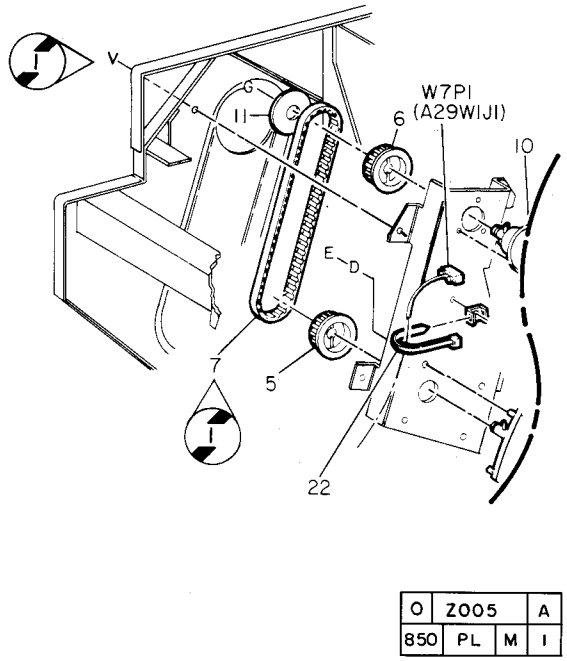


Figure 2 Without Tag Symbol

A tag number within a circle with no apex shows that the entire drawing has been changed by the tag number within the circle (Figure 3). Information on the modification is in the Change Tag Index.

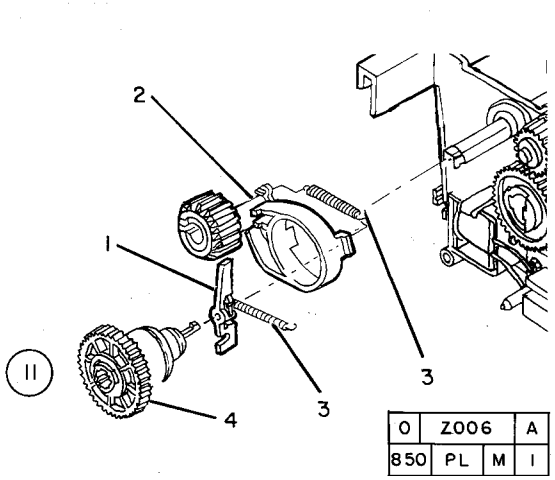


Figure 3 Entire Drawing With Tag Symbol

A tag number within a circle with no apex and having a shaded bar shows that the entire drawing was the configuration before being changed by the tag number within the circle (Figure 4).

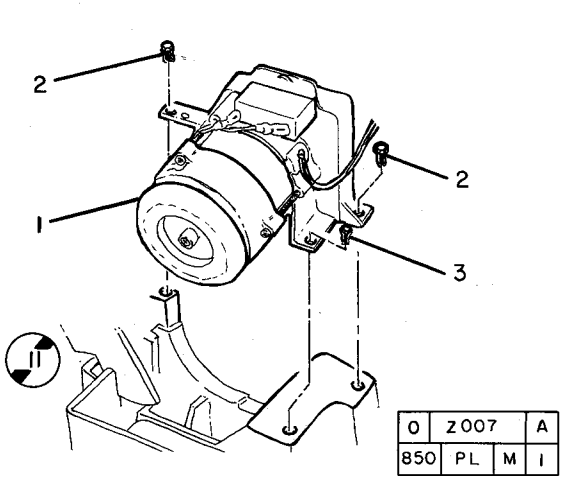
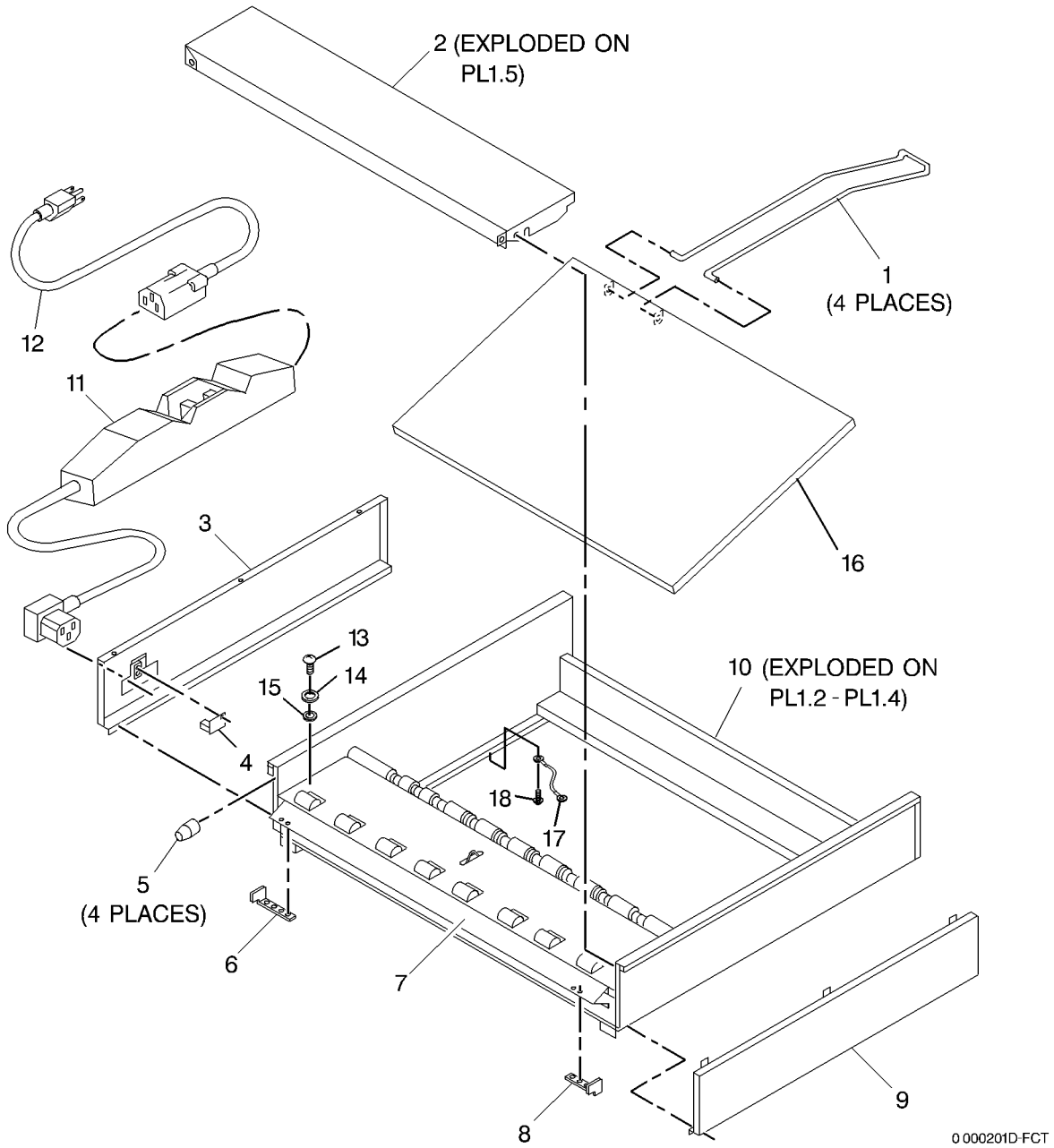


Figure 4 Entire Drawing Without Tag Symbol

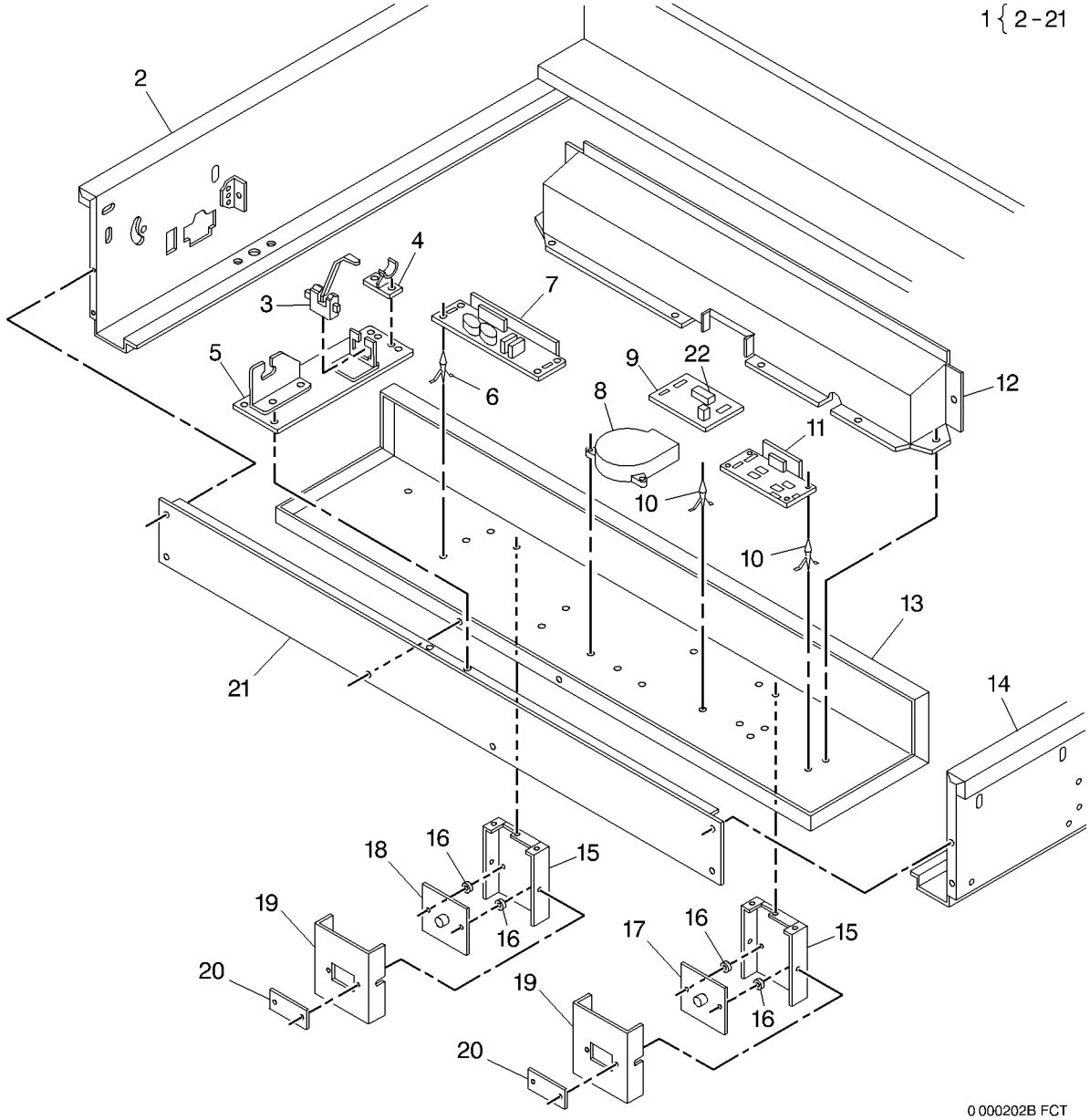
PL 1.1 Stacker Housing And Covers

Item	Part	Description
1	019N00382	Print Holder (Purple)
–	019N00774	Print Holder (Gray)
2	–	Upper Panel Assembly (Not Spared)
3	002N01433	Left Cover (Gray)
–	002N02258	Left Cover (White)
4	105N01198	Indication PWB
5	004N00178	Bumper
6	091N00464	Left Adjust Plate
7	032N00190	Lower Guide Plate
8	091N00463	Right Adjust Plate
9	002N01430	Right Cover (Gray)
–	002N02259	Right Cover (White)
10	–	Stacker Unit Assembly (Not Spared)
11	117K27690	Power Cord (RFU)
–	117K26830	Power Cord (K8C)
12	117P80447	Power Cord
–	117E25630	Power Cord (12') (USO) (10 Amp)
13	–	Screw (Not Spared)
14	014N00433	Spacer
15	005N01016	Collar
16	001N00417	Stacker Base G (White)
17	152N11503	Grounding Strap
18	–	Screw (Not Spared)



PL 1.2 Electrical Components

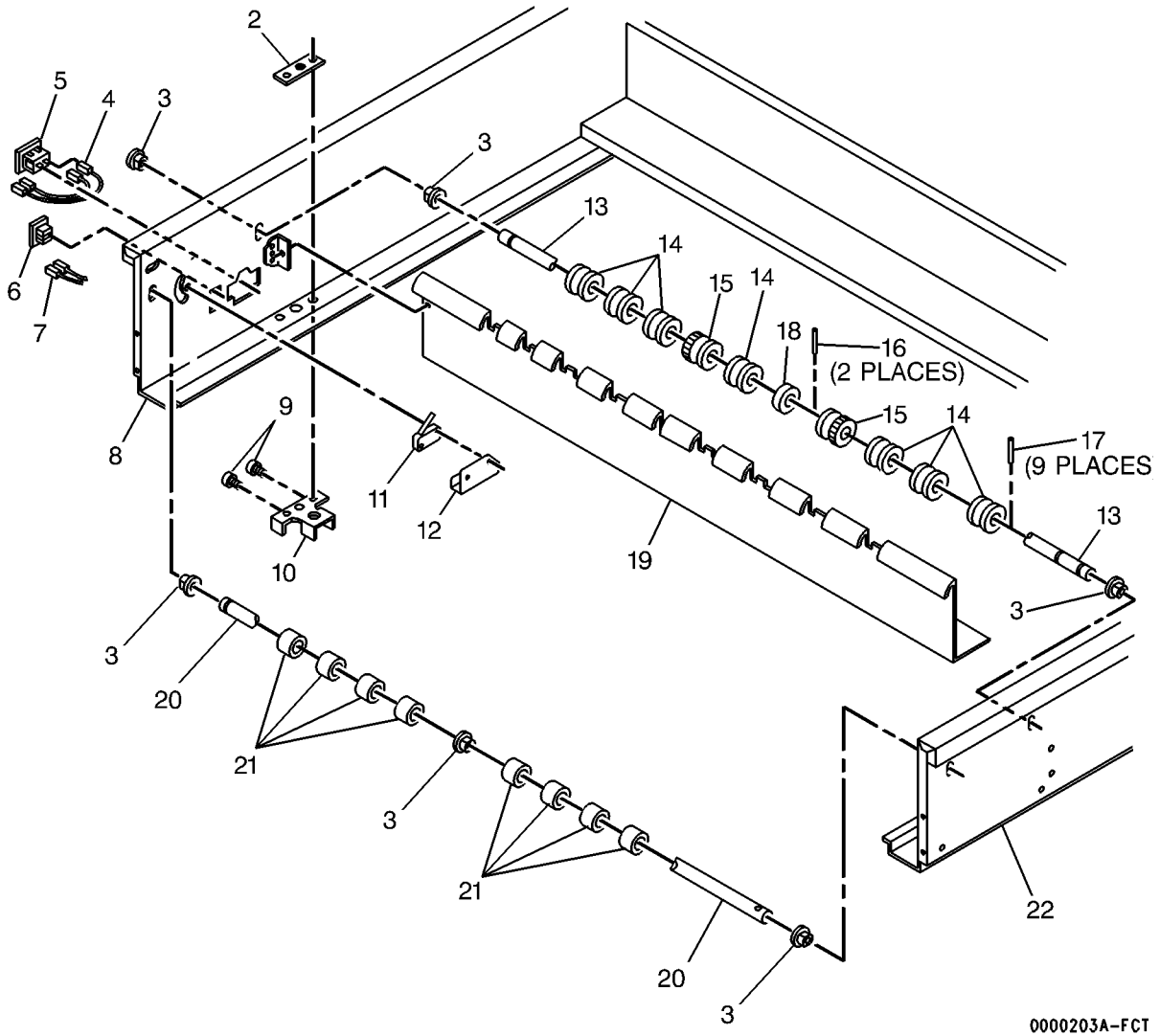
Item	Part	Description
1	–	Part of Stacker Assembly (REF: PL 1.1 Item 10)
2	–	Left Side Frame (P/O PL 1.2 Item 1)
3	130N00763	Jam Sensor
4	–	Bearing (P/O PL 1.2 Item 1)
5	–	Bracket (P/O PL 1.2 Item 1)
6	–	Spacer (P/O PL 1.2 Item 1)
7	105N01194	DC Power Supply
8	033N00134	Fan
9	109N00342	Controller PWB (8855)
–	109N00590	Controller PWB (721P)
10	–	Spacer (P/O PL 1.2 Item 1)
11	127N00903	Motor Driver PWB "c"
12	–	Duct Case (P/O PL 1.2 Item 1)
13	–	Base Frame (P/O PL 1.2 Item 1)
14	–	Right Side Frame (P/O PL 1.2 Item 1)
15	–	PWB Bracket (P/O PL 1.2 Item 1)
16	–	PWB Collar (P/O PL 1.2 Item 1)
17	140N05264	Transmission PWB
18	105N01195	Receiving PWB
19	–	PWB Cover (P/O PL 1.2 Item 1)
20	002N01432	Transparent Cover
21	–	Electrical Front Cover (P/O PL 1.2 Item 1)
22	050N00414	Eprom (8855)
–	537N00165	Eprom (721P)



PL 1.3 Electrical And Drive Components

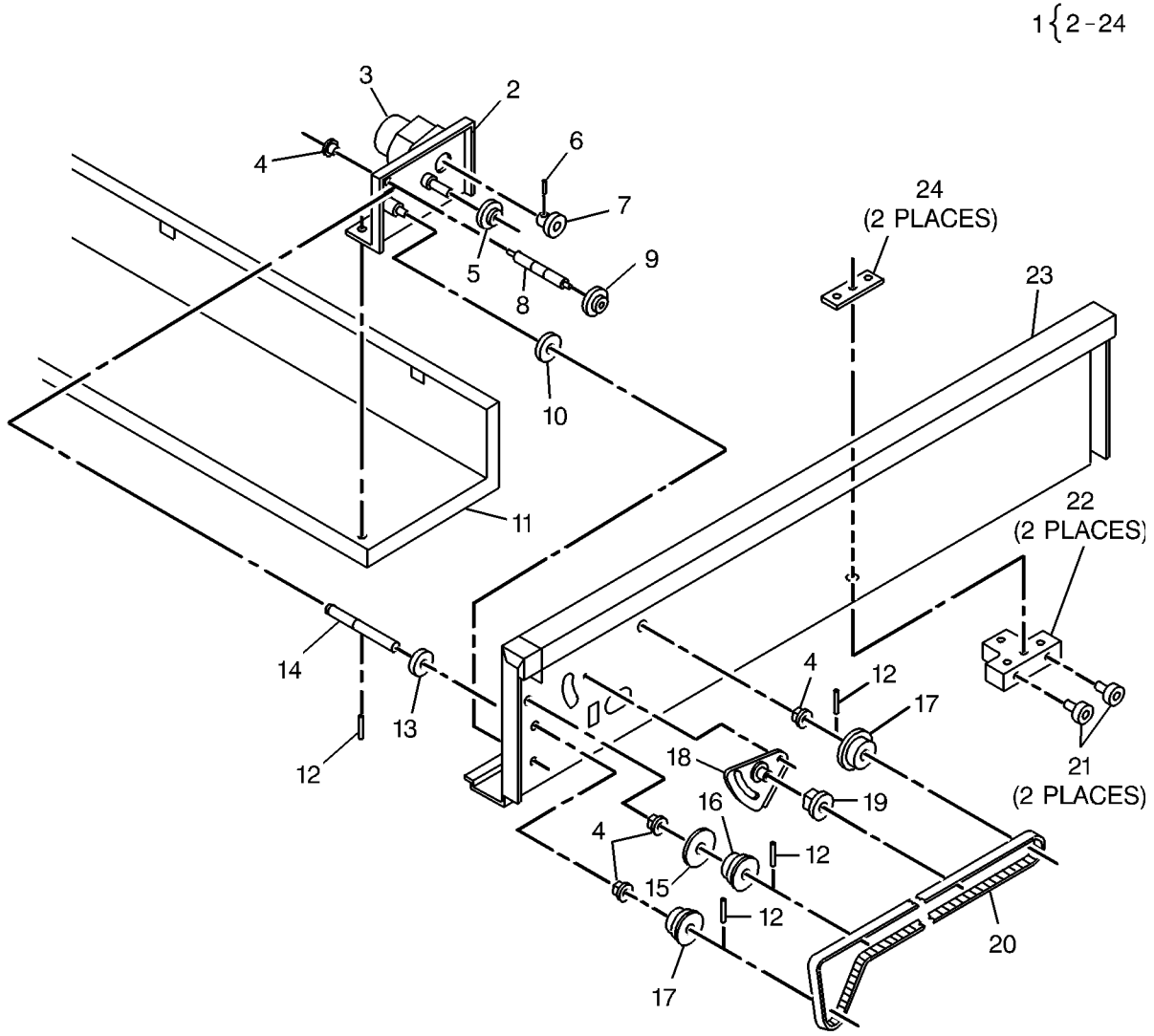
1 { 2 -22

Item	Part	Description
1	–	Part of Stacker Assembly (REF: PL 1.1 Item 10)
2	–	Plate (P/O PL 1.3 Item 1)
3	013N00320	Bearing Pa
4	105N01199	AC Lead 1
5	105N01196	AC Receptacle
6	109N00341	Main Power Switch
7	105N01200	AC Lead 2
8	–	Left Side Frame (P/O PL 1.3 Item 1)
9	013N00321	Bearing
10	–	Slider Bracket (P/O PL 1.3 Item 1)
11	110N00726	Interlock Switch
12	–	Switch Bracket (P/O PL 1.3 Item 1)
13	–	Roller Shaft "a" (P/O PL 1.3 Item 1)
14	022N01379	Feed-out Roller (7/Kit)
15	022N01377	Feed-out Roller (2/Kit)
16	029N00162	Parallel Pin
17	029N00161	Parallel Pin
18	013N00327	Bearing
19	–	Panel (P/O PL 1.3 Item 1)
20	–	Roller Shaft (P/O PL 1.3 Item 1)
21	022N01380	Feed-in Roller (8/Kit)
22	–	Right Side Frame (P/O PL 1.3 Item 1)



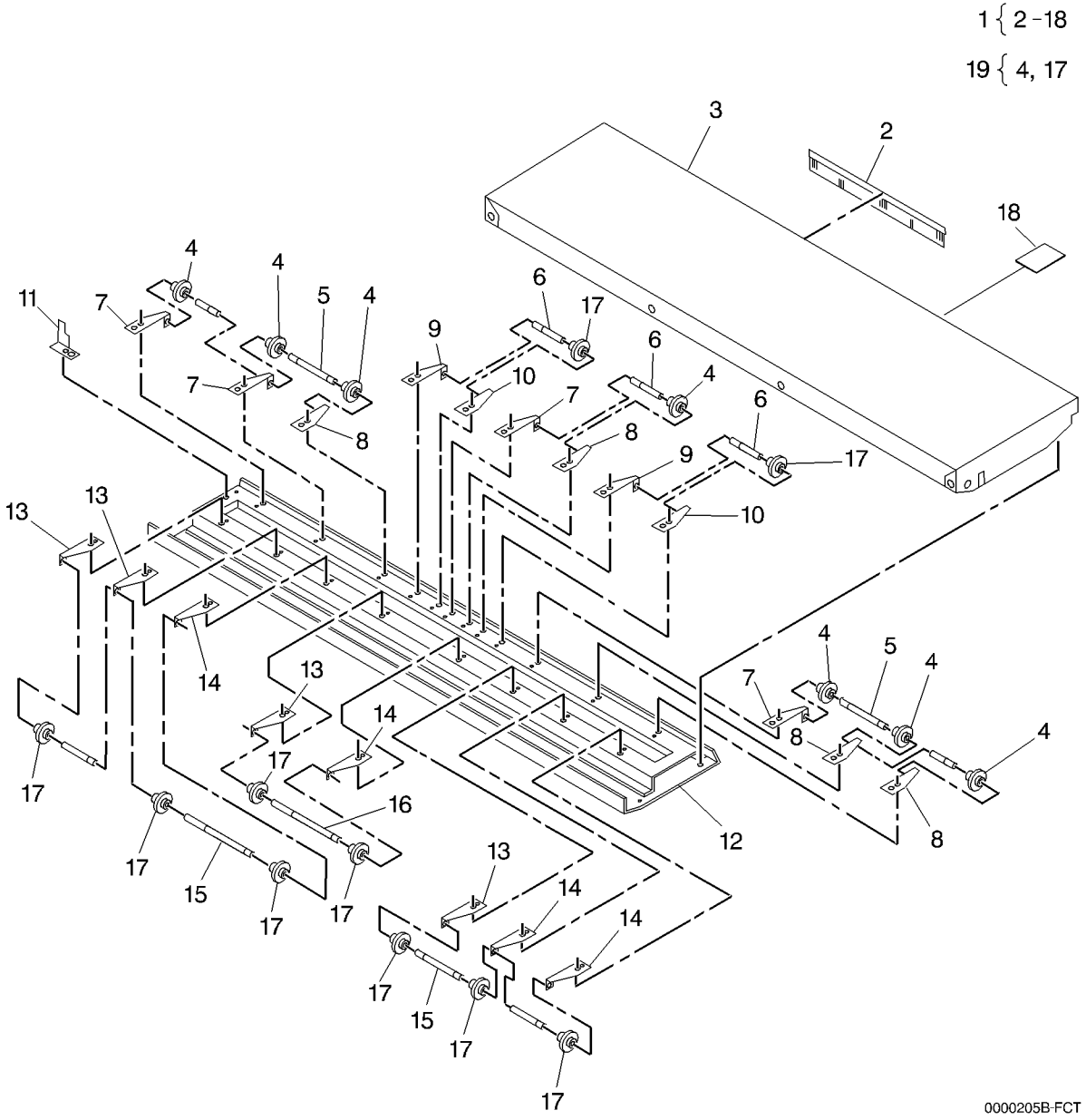
PL 1.4 Drive Components

Item	Part	Description
1	–	Part of Stacker Assembly (REF: PL 1.1 Item 10)
2	–	Motor Bracket (P/O PL 1.4 Item 1)
3	127N00902	Drive Motor
4	013N00327	Bearing
5	007N00659	Spur Gear (20t/45t)
6	026N00456	Set Screw
7	007N00658	Spur Gear
8	–	Idler Shaft (P/O PL 1.4 Item 1)
9	007N00660	Spur Gear (12t/37t)
10	007N00662	Spur Gear (50t)
11	–	Frame Base (P/O PL 1.4 Item 1)
12	029N00161	Pin
13	007N00661	Gear (12t)
14	–	Pulley Shaft (P/O PL 1.4 Item 1)
15	020N00752	Pulley Flange
16	020N00352	Timing Pulley
17	020N00353	Timing Pulley
18	001N00418	Idler Bracket
19	020N00354	Spur Pulley
20	023N00496	Timing Belt
21	013N00321	Bearing
22	–	Slider (P/O PL 1.4 Item 1)
23	–	Right Side Frame (P/O PL 1.4 Item 1)
24	–	Plate (P/O PL 1.4 Item 1)



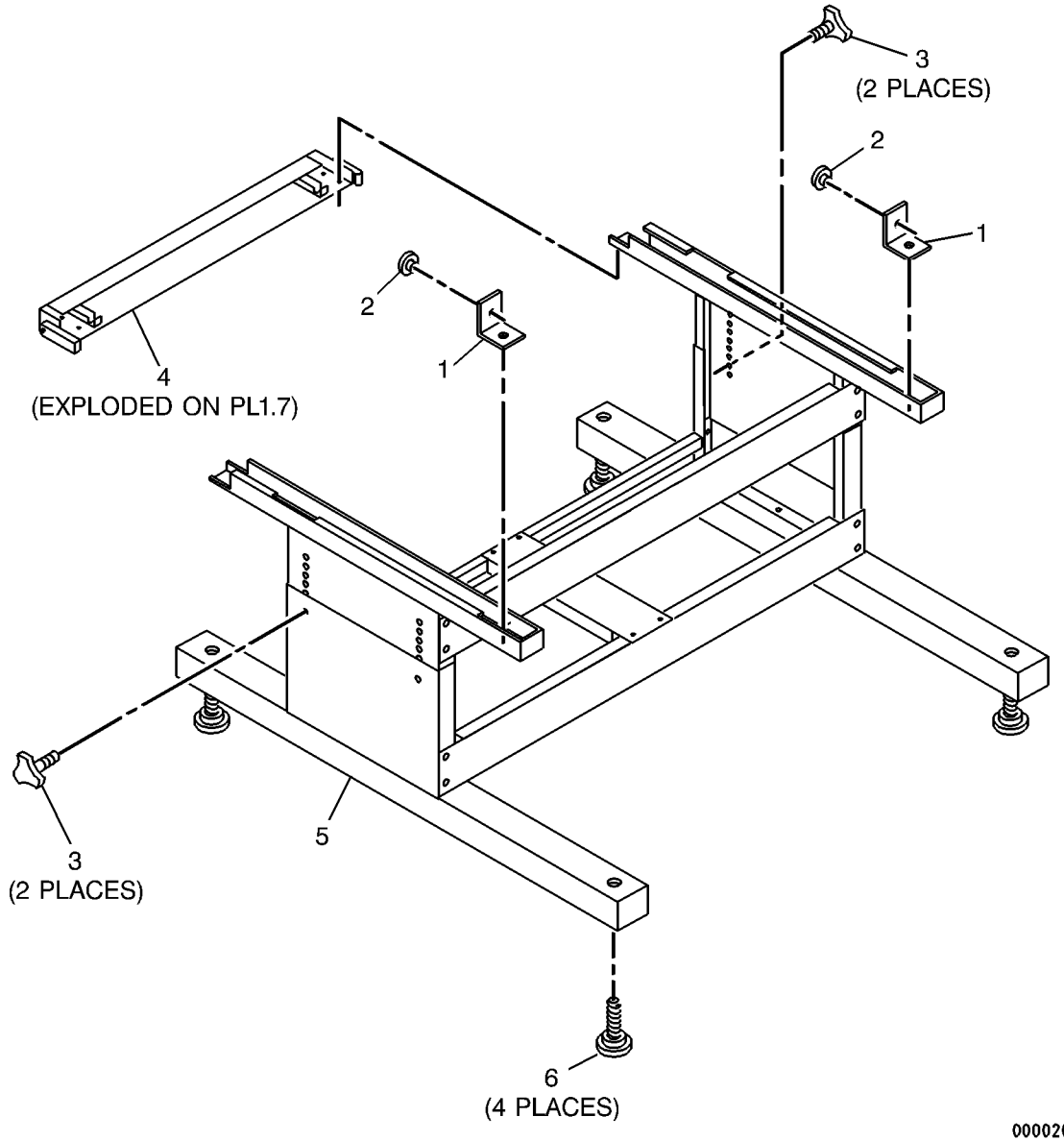
PL 1.5 Upper Panel

Item	Part	Description
1	–	Part of Upper Panel Assembly (REF: PL 1.1 Item 2)
2	115N00258	Static Eliminator
3	002N01431	Upper Panel Cover (Gray)
–	002N02257	Upper Panel Cover (White)
4	022N00796	Pinch Roller (11/Kit)
5	–	Pinch Roller Shaft "a" (P/O PL 1.5 Item 1)
6	–	Pinch Roller Shaft "b" (P/O PL 1.5 Item 1)
7	009N01315	Spring Plate A (4/Kit)
8	009N01316	Spring Plate B (4/Kit)
9	009N00894	Spring Plate "a"
10	009N00895	Spring Plate A
11	120N00246	Actuator
12	–	Upper Guide Plate (P/O PL 1.5 Item 1)
13	009N00899	Spring Plate A
14	009N00900	Spring Plate "a"
15	–	Roller Shaft "a" (P/O PL 1.5 Item 1)
16	–	Roller Shaft "b" (P/O PL 1.5 Item 1)
17	022N00806	Pinch Roller (10/Kit)
18	038N00425	Guide Sheet
19	022N01378	Pinch Roller Kit



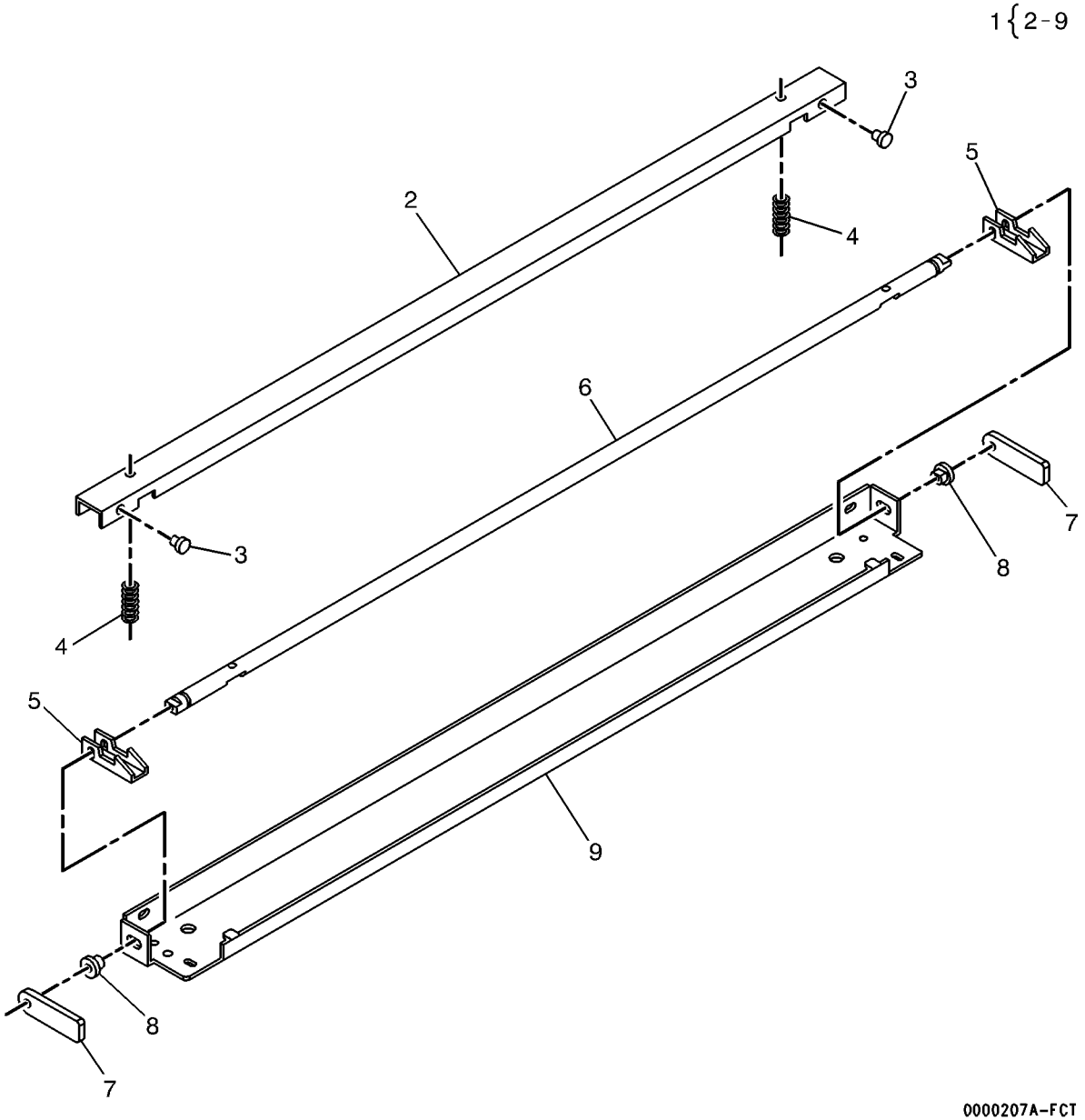
PL 1.6 Stacker Base And Cross Beam

Item	Part	Description
1	003N00635	Stop Bracket
2	004N00179	Cushion
3	026N00739	Thumb Screw (Black)
–	026N00457	Thumb Screw (White)
4	–	Cross Beam Assembly (Not Spared)
5	–	Stacker Base Frame (Not Spared)
6	026N00458	Adjustable Foot



PL 1.7 Cross Beam

Item	Part	Description
1	–	Part of Cross Beam Assembly (REF: PL 1.6 Item 4)
2	–	Stopper Bar (P/O PL 1.7 Item 1)
3	004N00179	Cushion
4	–	Spring (P/O PL 1.7 Item 1)
5	003N00679	Hook
6	–	Release Shaft (P/O PL 1.7 Item 1)
7	003N00634	Handle (Gray)
–	003N00931	Handle (Green)
8	–	Bearing (P/O PL 1.7 Item 1)
9	–	Cross Beam Frame (P/O PL 1.7 Item 1)



Part Number Index

Table 1 Part Number Index

Part Number	Part List
001N00417	PL 1.1
001N00418	PL 1.4
002N01430	PL 1.1
002N01431	PL 1.5
002N01432	PL 1.2
002N01433	PL 1.1
002N02257	PL 1.5
002N02258	PL 1.1
002N02259	PL 1.1
003N00634	PL 1.7
003N00635	PL 1.6
003N00679	PL 1.7
003N00931	PL 1.7
004N00178	PL 1.1
004N00179	PL 1.6
	PL 1.7
005N01016	PL 1.1
007N00658	PL 1.4
007N00659	PL 1.4
007N00660	PL 1.4
007N00661	PL 1.4
007N00662	PL 1.4
009N00894	PL 1.5
009N00895	PL 1.5
009N00899	PL 1.5
009N00900	PL 1.5
009N01315	PL 1.5
009N01316	PL 1.5
013N00320	PL 1.3
013N00321	PL 1.3
	PL 1.4
013N00327	PL 1.3
	PL 1.4
014N00433	PL 1.1
019N00382	PL 1.1
019N00774	PL 1.1
020N00352	PL 1.4
020N00353	PL 1.4
020N00354	PL 1.4

Table 1 Part Number Index

Part Number	Part List
020N00752	PL 1.4
022N00796	PL 1.5
022N00806	PL 1.5
022N01377	PL 1.3
022N01378	PL 1.5
022N01379	PL 1.3
022N01380	PL 1.3
023N00496	PL 1.4
026N00456	PL 1.4
026N00457	PL 1.6
026N00458	PL 1.6
026N00739	PL 1.6
029N00161	PL 1.3
	PL 1.4
029N00162	PL 1.3
032N00190	PL 1.1
033N00134	PL 1.2
038N00425	PL 1.5
050N00414	PL 1.2
091N00463	PL 1.1
091N00464	PL 1.1
105N01194	PL 1.2
105N01195	PL 1.2
105N01196	PL 1.3
105N01198	PL 1.1
105N01199	PL 1.3
105N01200	PL 1.3
109N00341	PL 1.3
109N00342	PL 1.2
109N00590	PL 1.2
110N00726	PL 1.3
115N00258	PL 1.5
117E25630	PL 1.1
117K26830	PL 1.1
117K27690	PL 1.1
117P80447	PL 1.1
120N00246	PL 1.5
127N00902	PL 1.4
127N00903	PL 1.2
130N00763	PL 1.2
140N05264	PL 1.2

6. General Procedures

Section Contents

Component Test

Note: Refer to REP 1.2.1 in Section 8B 4 and remove the Lower Guide Plate. Actuate the Interlock Switch in order to test the input and output components. The Paper Feed Motor and Fan require Interlocked +24 VDC. The Interlocked +24 VDC develops the +5 VDC for the Reception and Transmission PWBs as well as the Paper Jam Sensor.

Description of the Component Test

1. Ensure that the Interlock Switch is actuated.
2. Locate the switch DS 201 on the Control PWB.
3. Refer to the following table.
4. Actuate the component by moving the switch to the **ON** position.

DS 201	Component
7	Fan
8	Paper Feed Motor

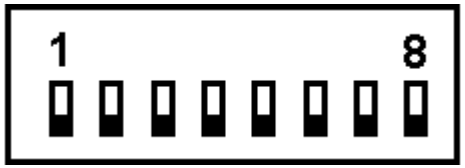


Figure 1. DS 201

Installation

Pre-installation Check:

The following should have been completed prior to beginning the installation:

- The Stacker should be assembled.
- The Stacker Legs should be set to the third hole.

Kit Contents (P/N 673P35580)

Check the kit contents against the following list:

Item	Description	Qty
1	GFI Power Cord	1
2	Power Cord	1
3	User Guide	1

The following parts should have been placed on top of the Stacker:

Item	Description	Qty
1	Paper Holders	4
2	CSE Install Kit (includes)	1
	• Transmission PWB	1
	• Receiving PWB	1
	• Installation Screws	4
	• Miscellaneous Gears (Not Required)	2
3	Stop Brackets	2

***Note**: The 721P Printers have the Transmission and Receiving PWBs already installed.*

Procedure:

1. Switch off the 721P/8855 power and disconnect the power cord.
2. (Figure 1): Remove the Catch Tray, Catch Tray Brackets and the Stop Bracket from the rear of the 721P/8855. These items should be retained by the customer.
3. Remove the eleven screws securing the Lower Rear Cover.

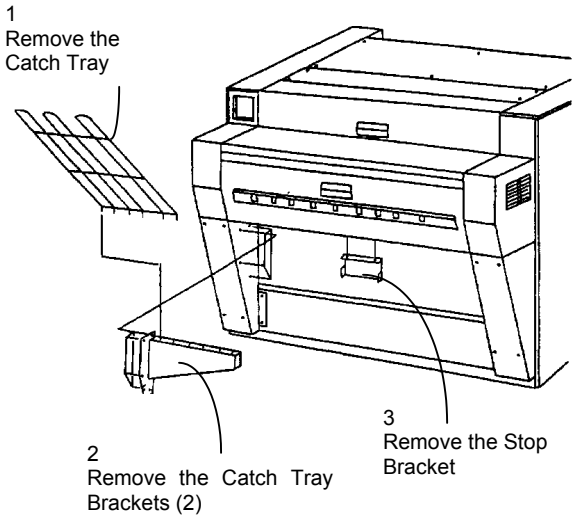


Figure 1. Removing the Existing Catch Tray Assembly

Caution

Certain components in the 721P/8855 are susceptible to damage from electrostatic discharge. Observe all ESSD procedures in order to avoid component damage.

4. (Figure 2): Install the Transmission PWB on the right bracket.
5. (Figure 3): Connect J 911 to the Transmission PWB.
6. (Figure 2): Install the Receiving PWB on the left bracket.
7. (Figure 3): Connect J 901A to the Receiving PWB.
8. Reinstall the Lower Rear Cover.

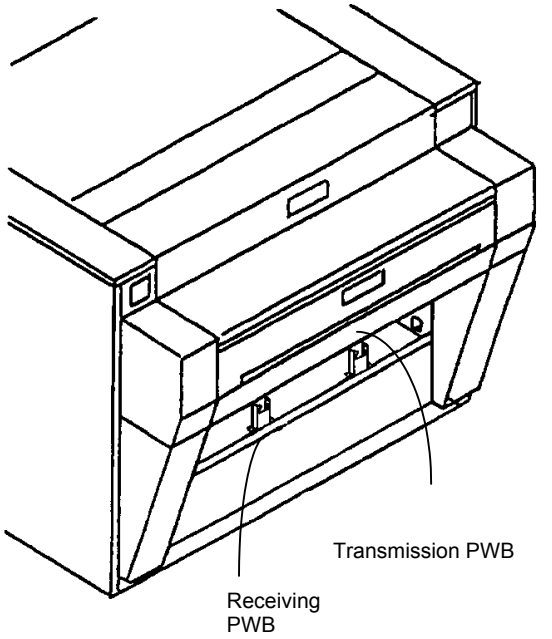


Figure 2. PWB Installation

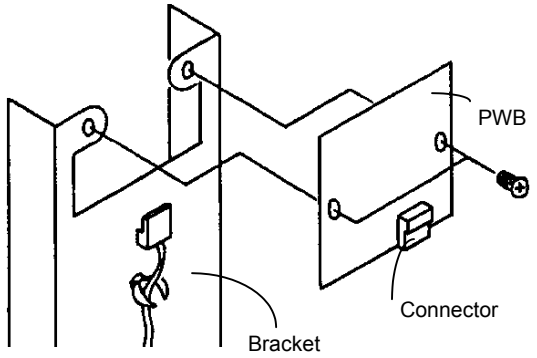


Figure 3. PWB Connector

9. (Figure 4): Install the Stop Brackets on the right and left sides of the 721P/8855 rear side covers using the existing top two holes that were used to attach the Support Arms for the 30 sheet catch tray.

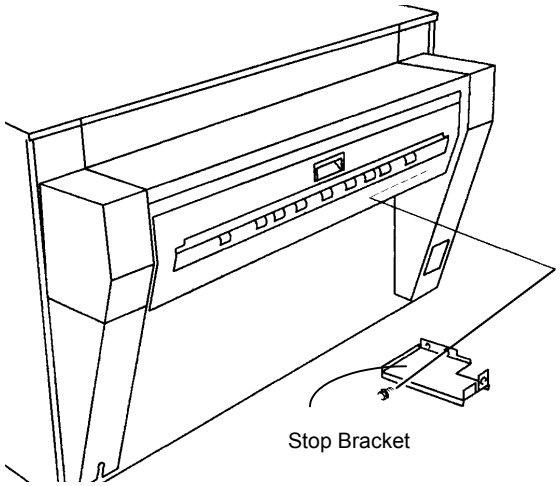


Figure 4. Installing the Stop Bracket

10. (Figure 5): Move the Stacker into position behind the 721P/8855. Ensure that the locating pins on the Stacker are centered in the Stop Bracket holes.
11. (Figure 6): Turn the Adjustable Feet CW or CCW as necessary to raise or lower the Stacker to the correct height. Level the Stacker from front-to-back and from side-to-side by adjusting the feet CW or CCW as necessary.
12. (Figure 7): Install the four Print Holders to the back of the Stacker.

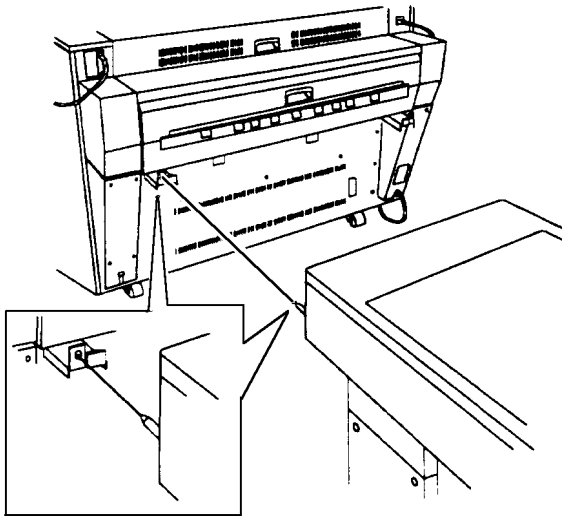


Figure 5. Docking the Stacker

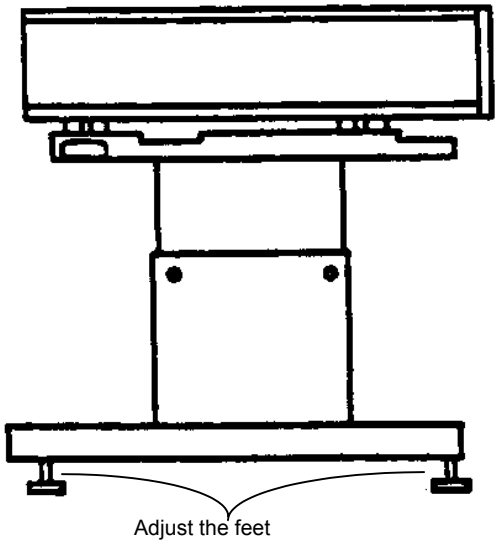


Figure 6. Leveling the Stacker

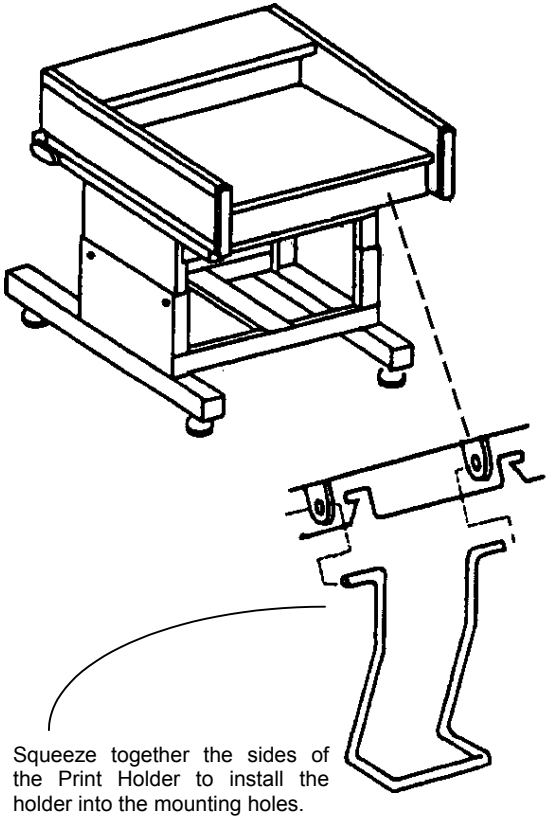


Figure 7. Installation of the Print Holders

13. (Figure 8): Connect the GFI Power Cord to the Stacker. Connect the other power cord to the GFI Power Cord.
14. Plug in the 721P/8855 Power Cord and the Stacker Power Cord.
15. Switch on the 721P/8855 and the Stacker. A green light on the Left Cover of the Stacker indicates that the power is on.
16. (Figure 8): Test the GFI to ensure it is working correctly.
17. Ensure that the Stacker is operating correctly.

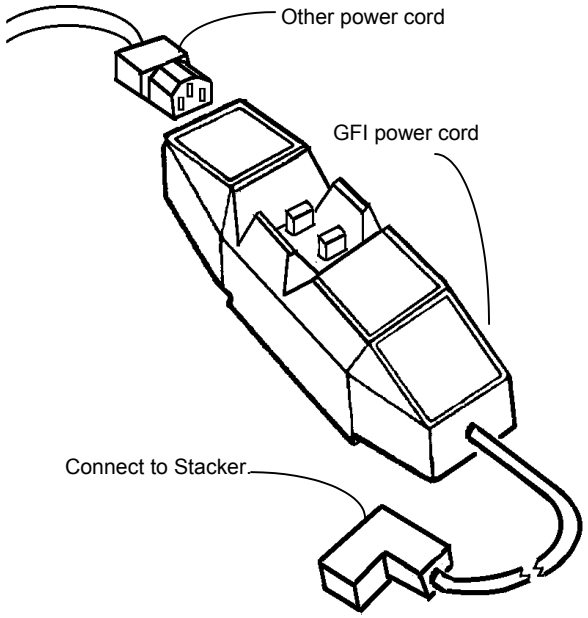


Figure 8. GFI

Removal

Kit Contents (P/N 600K64140)

Check the kit contents against the following list:

Item	Description	Qty
1	Tape	A/R
2	Bubble Pack	A/R
3	Repack Box	1

Procedure

1. Switch off the 721P/8855 and the Stacker.
2. Unplug the power cords.
3. Place the Stacker Power Cord and GFI Power Cord in the repack box.
4. (Figure 1): Remove the four Print Holders. Wrap the holders in bubble pack and place on top of the Stacker.
5. Move the Stacker away from the 721P/8855.
6. (Figure 2): Remove the Stop Brackets from the 721P/8855. Place the brackets and screws in the repack box.
7. Remove the Lower Rear Cover from the 721P/8855.

Caution

Certain components in the 721P/8855 are susceptible to damage from electrostatic discharge. Observe all ESD procedures in order to avoid component damage.

8. (Figure 3): Disconnect the connectors from the Transmission and Receiving PWBs.
9. Remove the PWBs from the brackets.

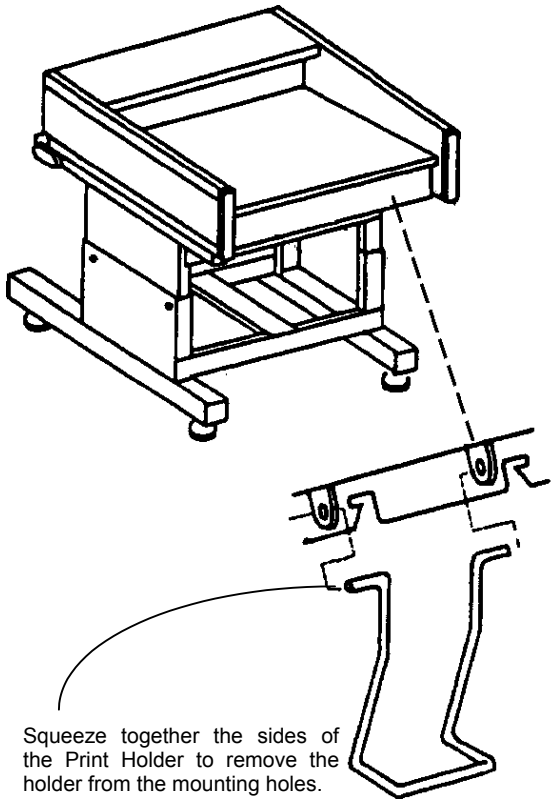


Figure 1. Removal of the Print Holders

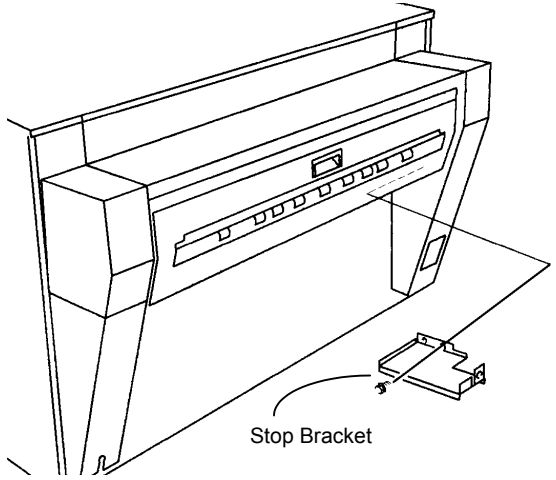


Figure 2. Removal of the Stop Bracket

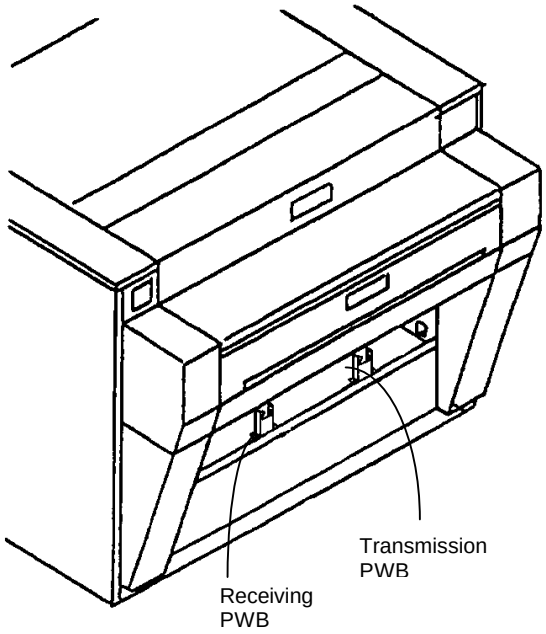


Figure 3. PWB Removal

10. Wrap the PWBs in bubble pack and place in the repack box. Place the four mounting screws in the box.
11. Wrap tape around the Top Cover and the Release Handles to prevent the handle from releasing the Stacker during shipment.
12. Obtain the User Guide from the customer and place in the repack box.
13. Tape the repack box closed.
14. Place the box on top of the Stacker.
15. Install the Lower Rear Cover.
16. (Figure 4): Install the Catch Tray, Catch Tray Brackets and the Stopper on the rear of the 721P/8855.
17. Connect the power cord and switch on the 721P/8855 power.
18. Ensure that the 721P/8855 is working correctly.
19. Complete the call with FWSS.

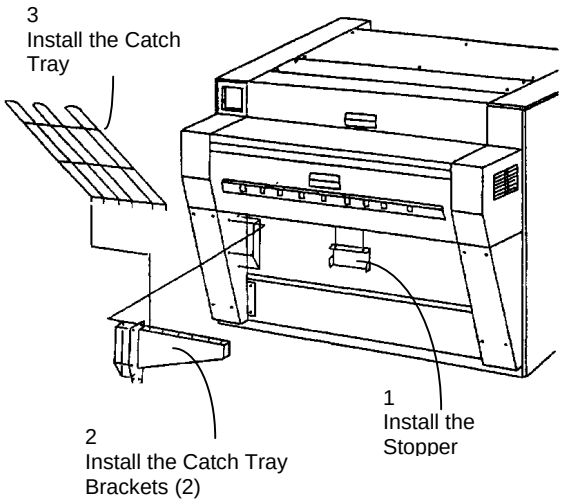


Figure 4. Installing the 8855 Catch Tray Assembly

Product Specifications

Physical Characteristics

Dimensions

Width: 34 inches (864 mm)
57.5 inches (1461 mm) (with paper supports extended)
Depth: 41 inches (1040 mm)
Height: 28.5 inches (724 mm)
Weight: 108 pounds (49 kg)

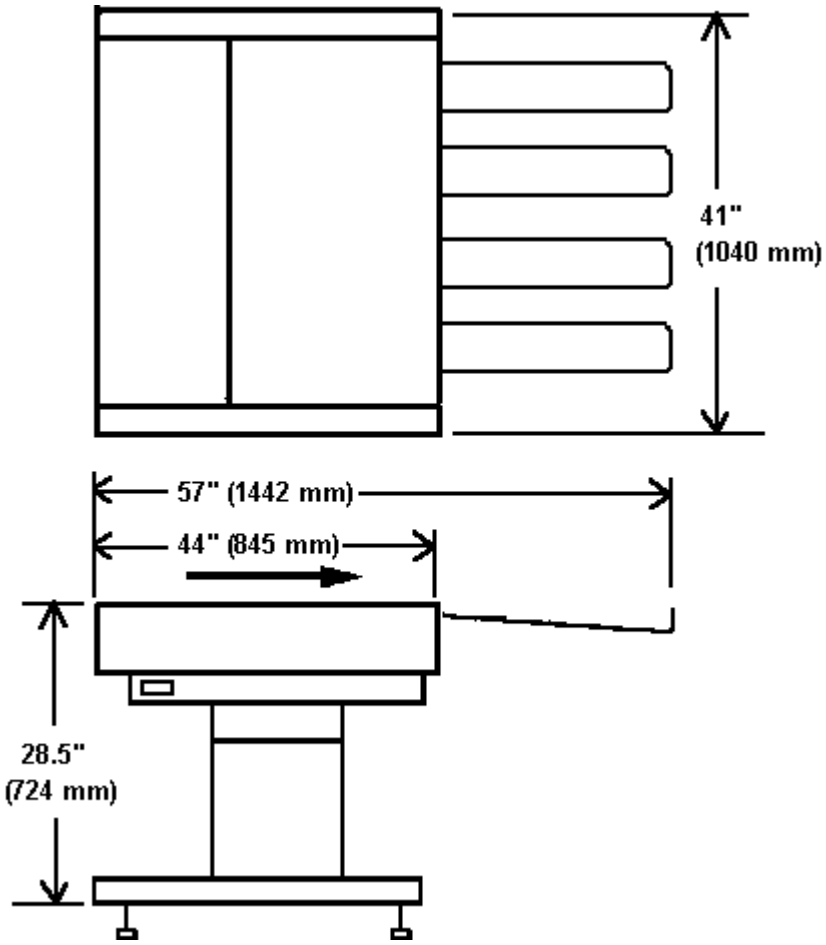


Figure 1. Stacker **Dimensions**

Electrical Specifications

Voltage Requirements

Source voltage:	100 - 240 VAC
Current rating:	3 Amps
Frequency:	50/ 60Hz
Power Consumption:	60 Watts

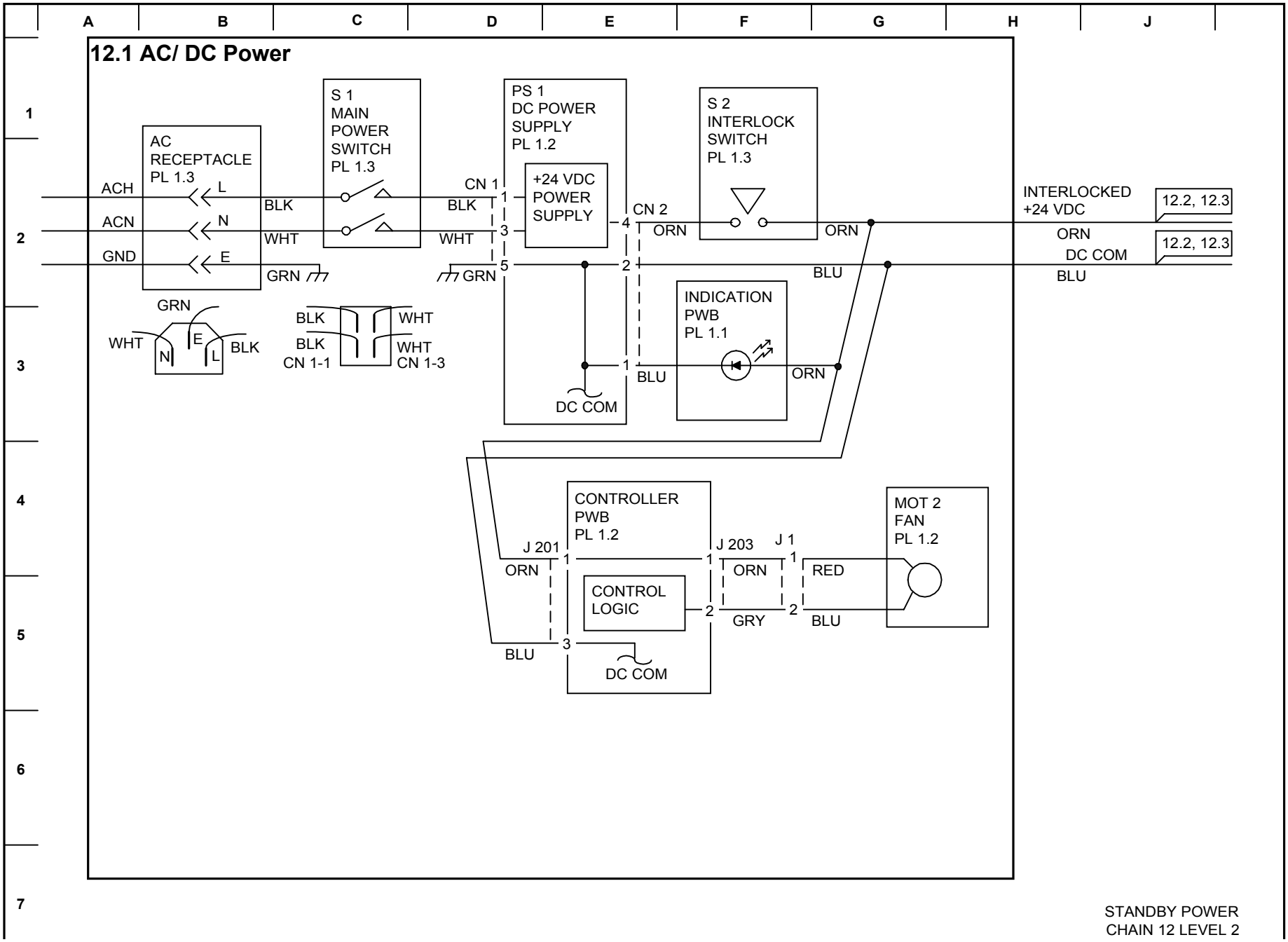
Environmental Conditions

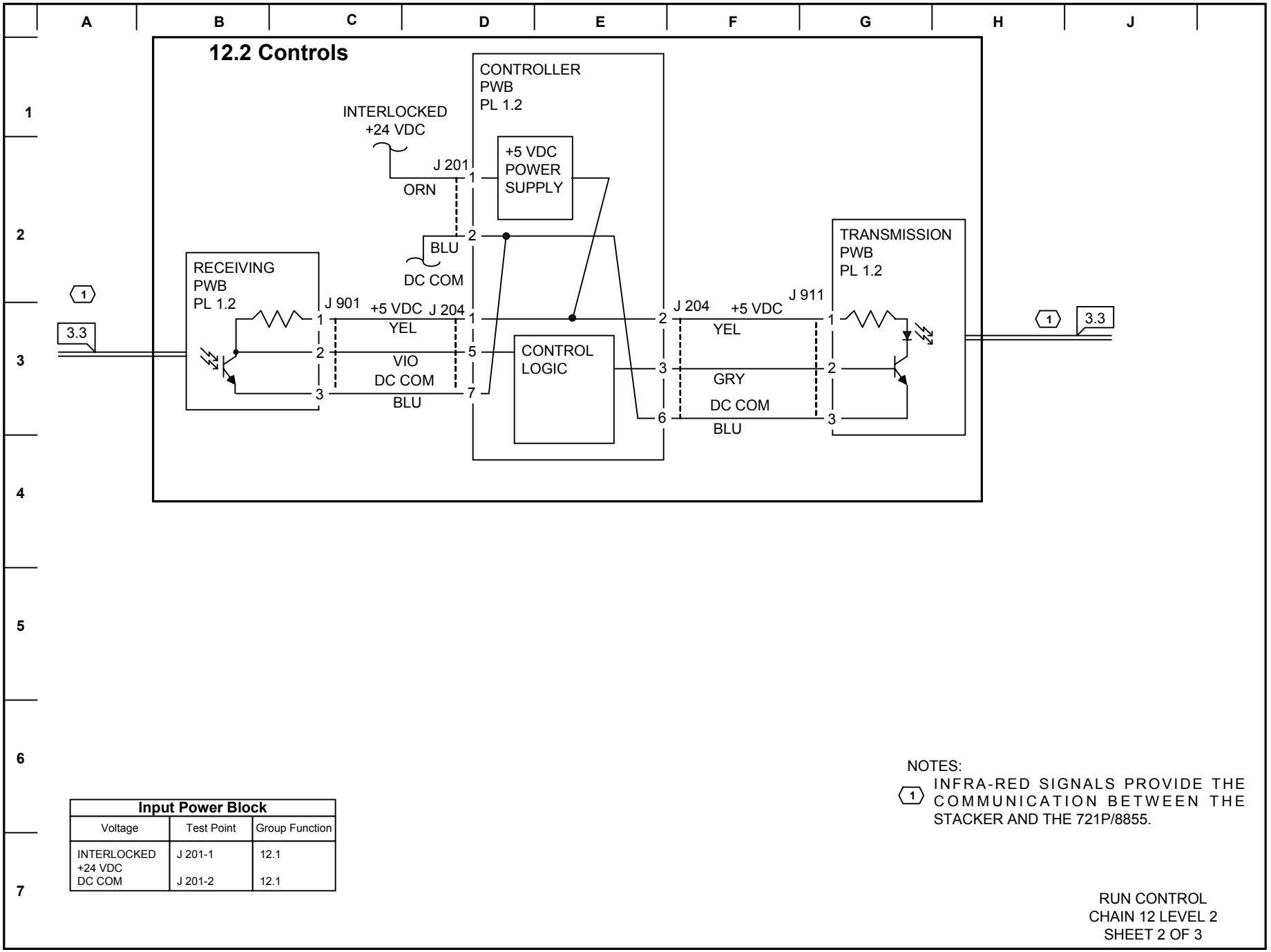
Temperature:	50°F to 90°F (10°C to 32°C)
Humidity:	20 to 85%

Floor Space Requirements

Note: See Section 6 of the 721P or 8855 Service Manuals for the appropriate space requirements.

Section Contents


A
B
C
D
E
F
G
H
J
1
2
3
4
5
6
7
12.1 AC/ DC Power
AC
RECEPTACLE
PL 1.3
ACH
ACN
GND
L
N
E
BLK
WHT
GRN
S 1
MAIN
POWER
SWITCH
PL 1.3
CN 1
PS 1
DC POWER
SUPPLY
PL 1.2
+24 VDC
POWER
SUPPLY
CN 2
S 2
INTERLOCK
SWITCH
PL 1.3
ORN
INTERLOCKED
+24 VDC
12.2, 12.3
DC COM
BLU
INDICATION
PWB
PL 1.1
DC COM
CONTROLLER
PWB
PL 1.2
J 201
J 203
J 1
CONTROL
LOGIC
GRY
RED
MOT 2
FAN
PL 1.2
BLK
CN 1-1
WHT
CN 1-3
STANDBY POWER
CHAIN 12 LEVEL 2

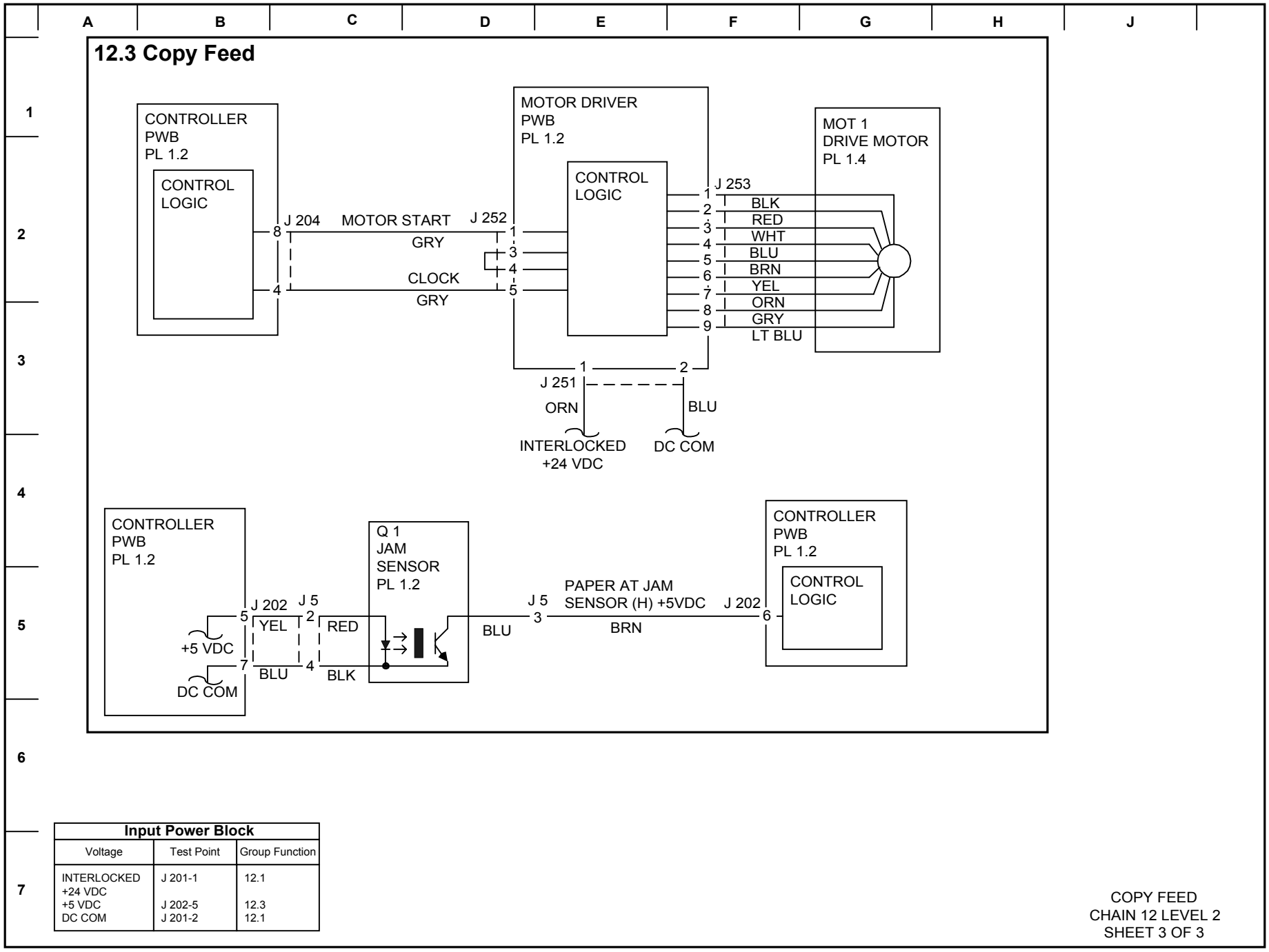


Input Power Block		
Voltage	Test Point	Group Function
INTERLOCKED +24 VDC	J 201-1	12.1
DC COM	J 201-2	12.1

NOTES:

1. INFRA-RED SIGNALS PROVIDE THE COMMUNICATION BETWEEN THE STACKER AND THE 721P/8855.

RUN CONTROL
CHAIN 12 LEVEL 2
SHEET 2 OF 3



Input Power Block		
Voltage	Test Point	Group Function
INTERLOCKED +24 VDC	J 201-1	12.1
+5 VDC	J 202-5	12.3
DC COM	J 201-2	12.1

COPY FEED
CHAIN 12 LEVEL 2
SHEET 3 OF 3