Dell 1720 Depot Repair Procedure
TLI/ Part Number s equence:
Content Owner: Mark Jones
Process Flow Owner: Andy Steinkuhl

Creation Date: 12/12/06
Revision Date: 6/18/07
Doc ID: USDEPOTDOC40

Dell 1720

Printer Descriptions:

Marketing Name	Model Type
Dell 1720n	
Dell 1720dn	

Parts Required:

| Photoconductor Kit	
Return Program Toner Cartridge	

Tools Required:

service manual
Flat-blade screwdrivers of various sizes
Phillips screwdrivers of various sizes
Needlenose pliers
Spring hook
Analog or digital multimeter
Flash light (optional, but strongly recommended)
Diagonal side cutters (optional, but recommended)

Dell 1720 Depot Repair Procedure
TLI/ Part Number s equence:
Content Owner: Mark Jones
Process Flow Owner: Andy Steinkuhl

Creation Date: 12/12/06
Revision Date: 6/18/07
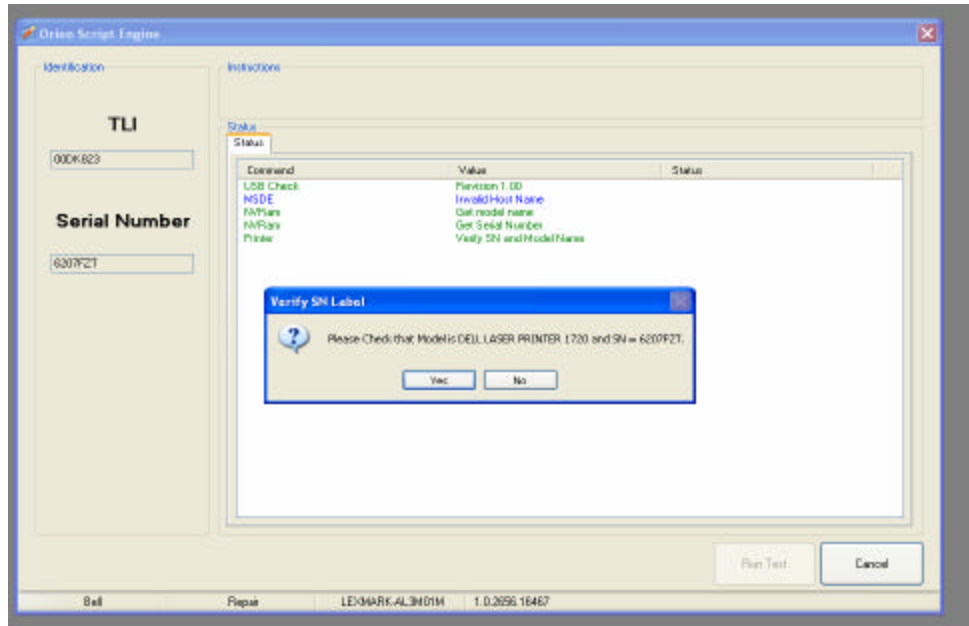Doc ID: USDEPOTDOC40

Section 01: Determining Printer Condition and Service History Research

1. Is the printer repairable:
   - Frame damage?
     - o Yes, scrap.
     - o No, continue
   - Excessive toner/dust contamination?
     - o Yes, scrap.
     - o No, continue.
   - Rodent/insect contamination?
     - o Yes, scrap.
     - o No, continue.
2. Prepare the printer for power:
   a. Open the front cover and verify the presence of the transfer roller.
   b. Install a working toner cartridge.
   c. Load tray 1 with at least 20 pages of plain letter size paper.
   d. Attach a power cord to the printer and a grounded power source.
   e. Move the printer's power switch to the on (|) position.
3. Does the printer go to Ready?
   - If the printer displays an error message move to step 7.
   - If the printer displays "Ready", continue testing.
4. USB verification check:
   a. Press the *continue* button to print out the menus pages.
   b. Change the "Operation" tab in Orion to "USB VERIFY".
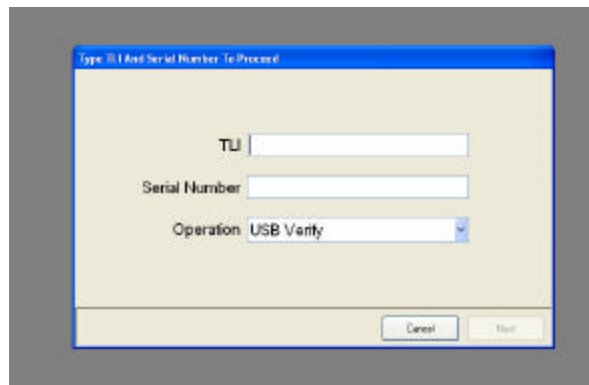
   c. Enter TLI and Serial number, select *next.*
   d. Verify the menus page printout, the TLI/ Serial label in front cover to the Verify SN label window in Orion.
   e. All three should match.

Dell 1720 Depot Repair Procedure
TLI/ Part Number s equence:
Content Owner: Mark Jones
Process Flow Owner: Andy Steinkuhl

Creation Date: 12/12/06
Revision Date: 6/18/07
Doc ID: USDEPOTDOC40

5.   Print the quality pages:
     a.   Press and release the Cancel button until the Press Continue and Ready/Data lights come on.
     b.   Press and hold the Continue button until all the lights flash on.
     c.   The 4 quality test pages will print (the last page should be blank)
     d.   Use these pages to isolate print quality problems. Refer to the Print Quality Service checks starting on page 2-44 of the 4512 service manual for diagnosis if needed.
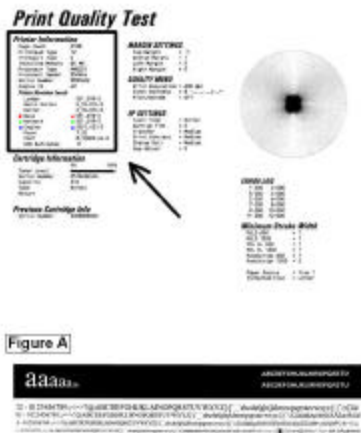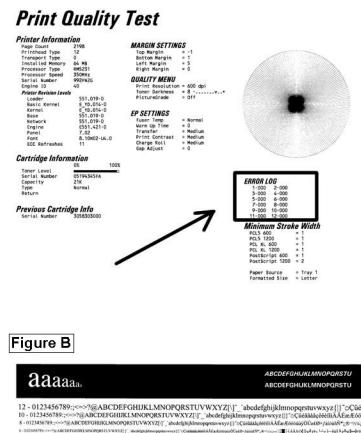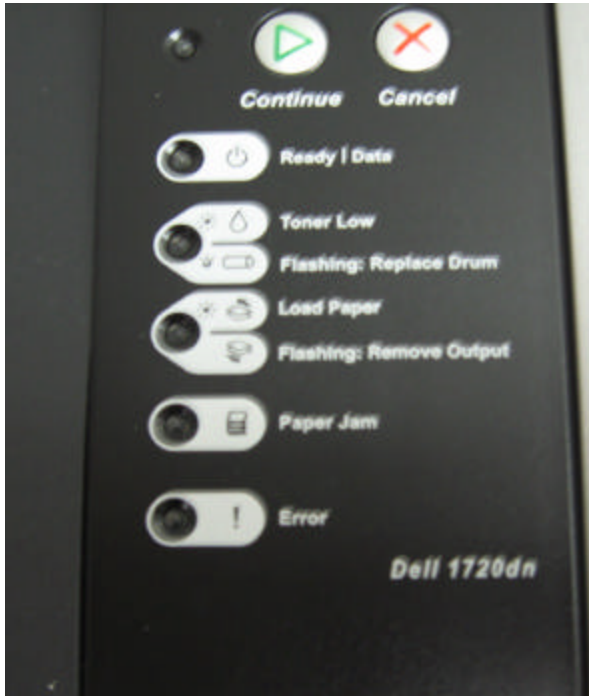

Figure A

Figure B

6.   Verify that the Firmware/Engine update was successful by checking the Base and Engine numbers in the Printer Revision Levels section of the first Quality page (Figure A).
7.   Determine what parts will be needed to repair the printer.
     •   If the parts are in stock, replace them and restart this procedure at step 2.
     •   If the parts are not in stock, make sure an order for them is placed and set the printer aside Awaiting Parts (AWOP). Remember to remove the toner cartridge.
8.   Compare the model and serial number of the printer with the work order in the tracking system (the printer must match the work order).
9.   Check the printer's previous repair history in the tracking system.
     •   If the printer has been serviced more than once (particularly for the same problem), use the previ ous complaint and fix, along with the error log on the first Quality Page (Figure B) as a guide in the current repair.

Section 02: Visual Inspection | toc

Dell 1720 Depot Repair Procedure
TLI/ Part Number s equence:
Content Owner: Mark Jones
Process Flow Owner: Andy Steinkuhl

Creation Date: 12/12/06
Revision Date: 6/18/07
Doc ID: USDEPOTDOC40

1. Clean printers with toner/dust contamination by removing the top, left and right covers and use compressed air and/or a toner vacuum. Avoid contaminating the printhead with dust.
2. Check the covers for damage. All covers must meet the A, B, and C surface cosmetics requirements.

3. <mark>Check the logo and molded graphics for damage.</mark>

4. Make sure there is no damage to the buttons, lights or printing on the printer operator panel.
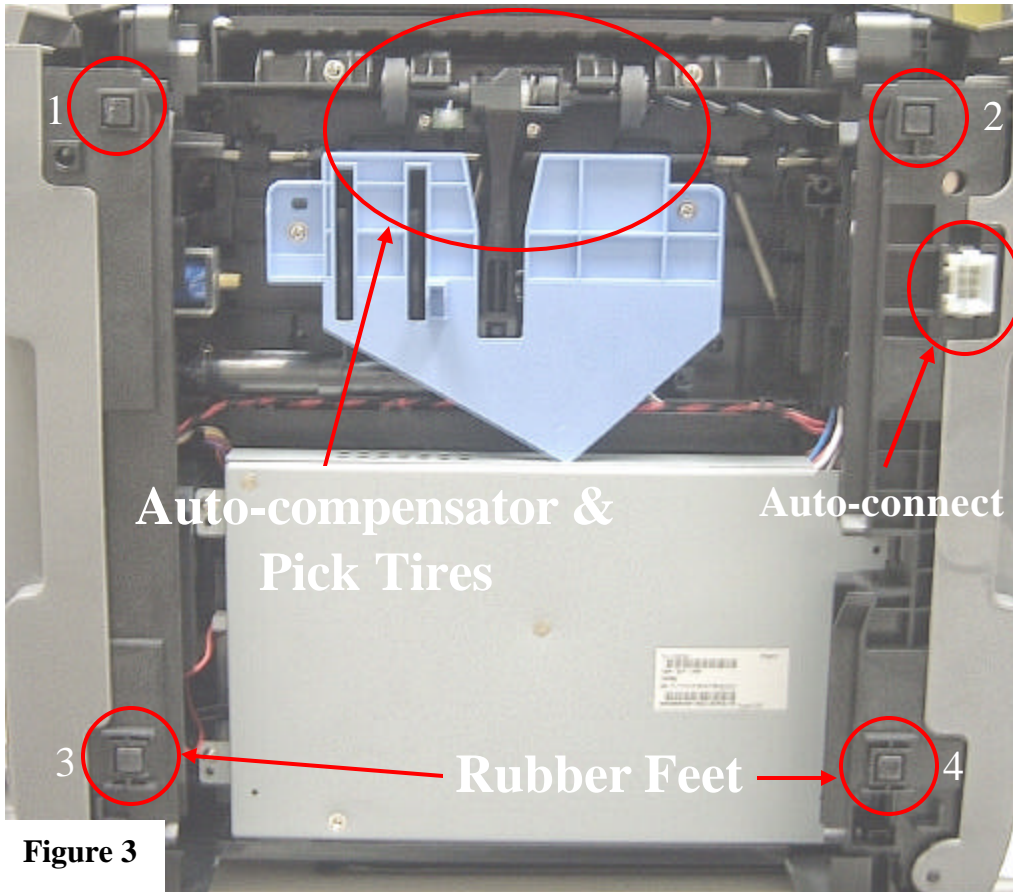5. Remove the paper tray and clean off any toner or dust.

Dell 1720 Depot Repair Procedure
TLI/ Part Number s equence:
Content Owner: Mark Jones
Process Flow Owner: Andy Steinkuhl

Creation Date: 12/12/06
Revision Date: 6/18/07
Doc ID: USDEPOTDOC40

Figure 3

6. Gently flip the printer over to view the bottom (Figure 3).
   - Check the Auto-connect for damage.
   - Make sure the 4 rubber feet are present.
   - Check the Auto-compensator for damage.

   Note: When replacing the pick tires, only remove the rubber tread from the wheel hub and replace the tread. Do not remove the hub from the shaft. Once complete, make sure that the tread is going in the correct direction. To do so, with reference to the above picture, place your thumb on the tire and rotate the tire in a clockwise direction. You should feel a lot of resistance. If not, then the tread is in the wrong direction and needs to be reversed.

7. Flip the printer back over to the upright position.

8. Check the certification label and ports on the back of the printer for damage.

   Note: On network models insert a network cable and make sure the port will hold the cable.

Dell 1720 Depot Repair Procedure
TLI/ Part Number s equence:
Content Owner: Mark Jones
Process Flow Owner: Andy Steinkuhl

Creation Date: 12/12/06
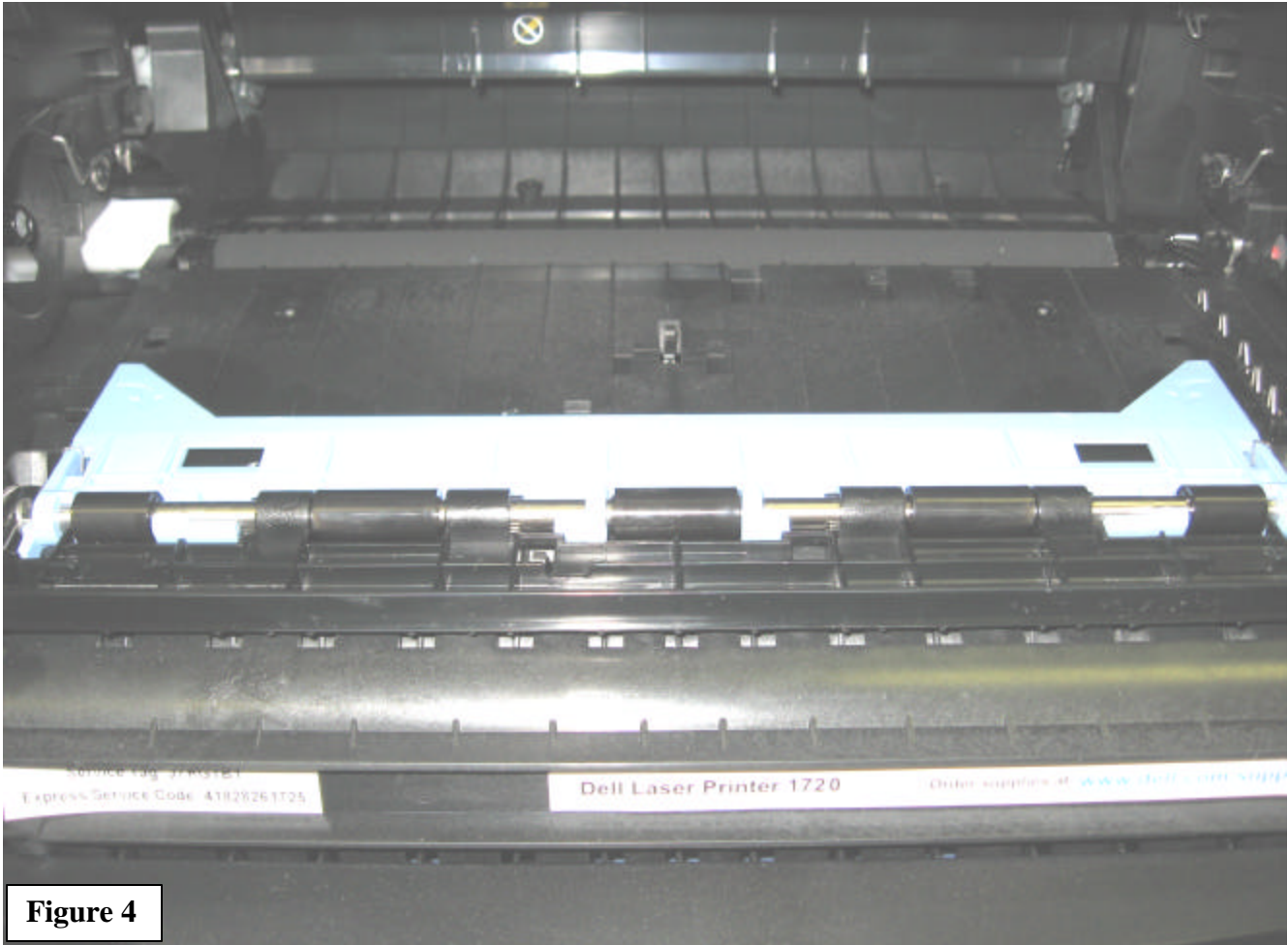Revision Date: 6/18/07
Doc ID: USDEPOTDOC40

Figure 4

9. Open the printer's front cover and remove the cartridge (if present) and any debris. (Figure 4)
10. Check the TLI label on the inside of the front cover for damage.
11. Remove the transfer roller
    a. Set the spring on the right off to the side.
    b. Check the transfer roller for damage.
    c. Clean the area under the transfer roller with a toner vac.
    d. Re-install the transfer roller, and don't forget the spring on the right side.

12. Clean the interior of the printer as needed. **Note:** If canned or compressed air is being used to clean the printer avoid contaminating the printhead on the underside of the top cover with dust or debris.
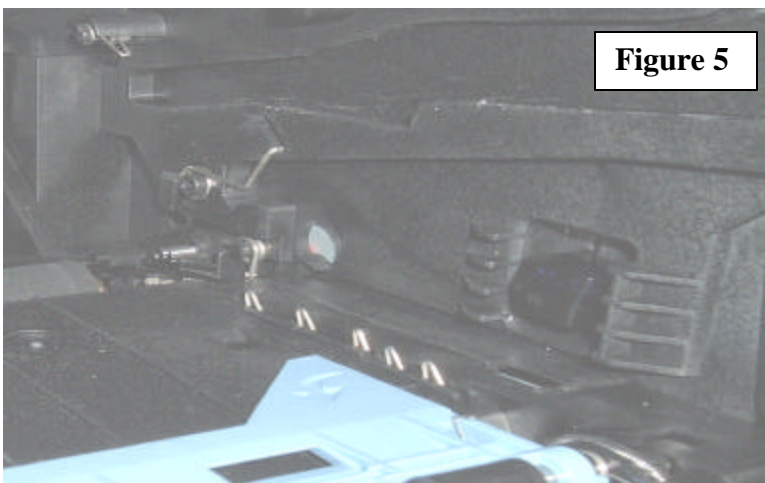

Figure 5

Dell 1720 Depot Repair Procedure
TLI/ Part Number s equence:
Content Owner: Mark Jones
Process Flow Owner: Andy Steinkuhl

Creation Date: 12/12/06
Revision Date: 6/18/07
Doc ID: USDEPOTDOC40

13. Examine the 6 High Volt Power Supply contacts (Figure 5) on the right side.
    Note: Make absolutely sure that the printer is not attached to power at this point.
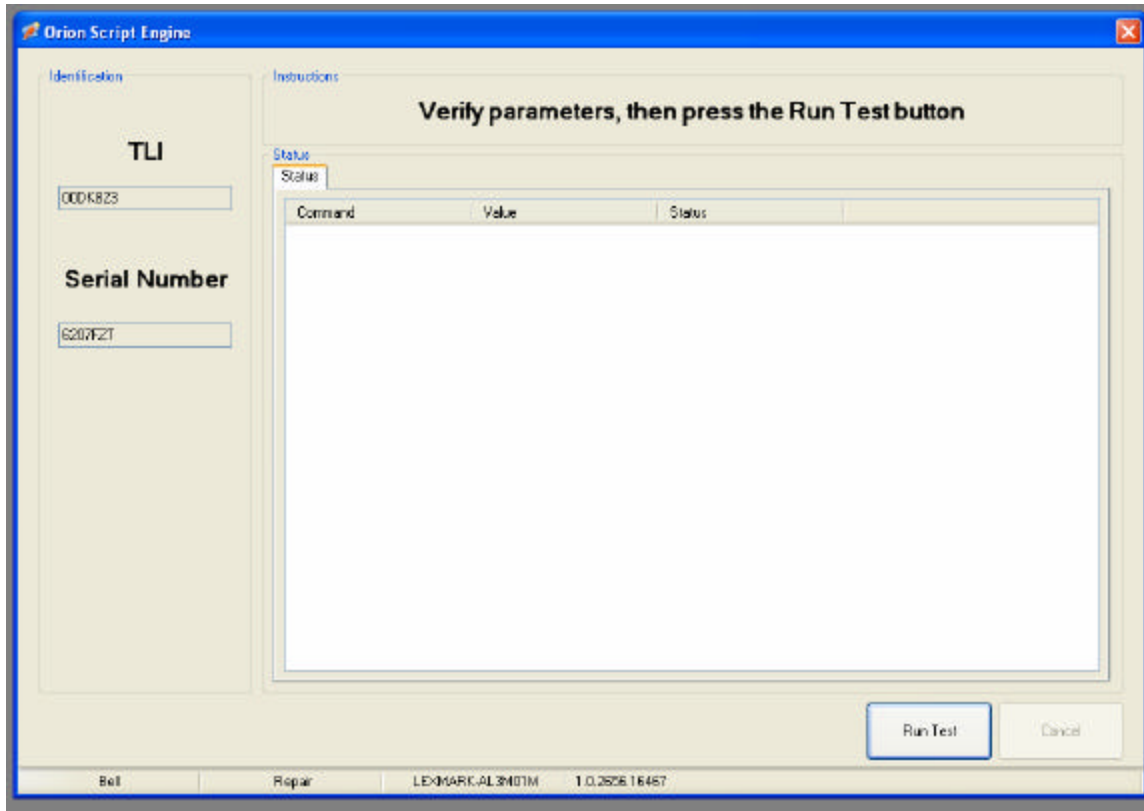   - Press on each of the contacts and make sure that they spring back to their original position.
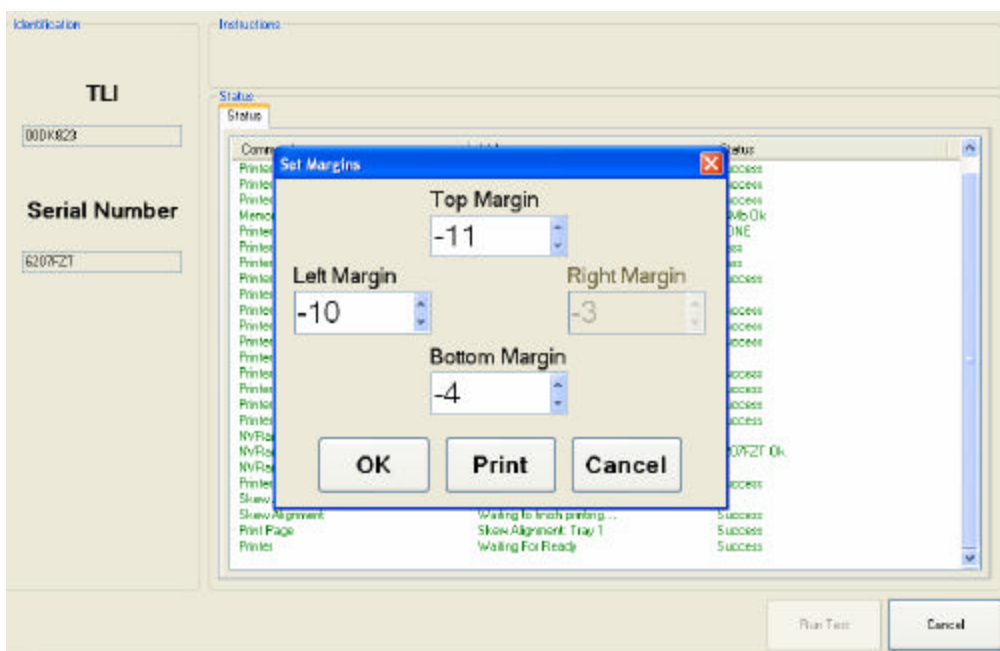
Section 03: Functional Test

1. Insert a toner cartridge for testing and load the paper tray with letter size plain paper (approx. 50 sheets).
2. Listen for any unusual noises coming from the printer, and resolve as needed.
3. Connect to the Orion Network system through the USB port.
4. Double-click on the **Orion** icon on the desktop to load the test program.
5. In **Orion, enter the TLI**.
6. In **Orion, enter the Serial #.**
7. Confirm the **Operation** is **DepotRepair**.
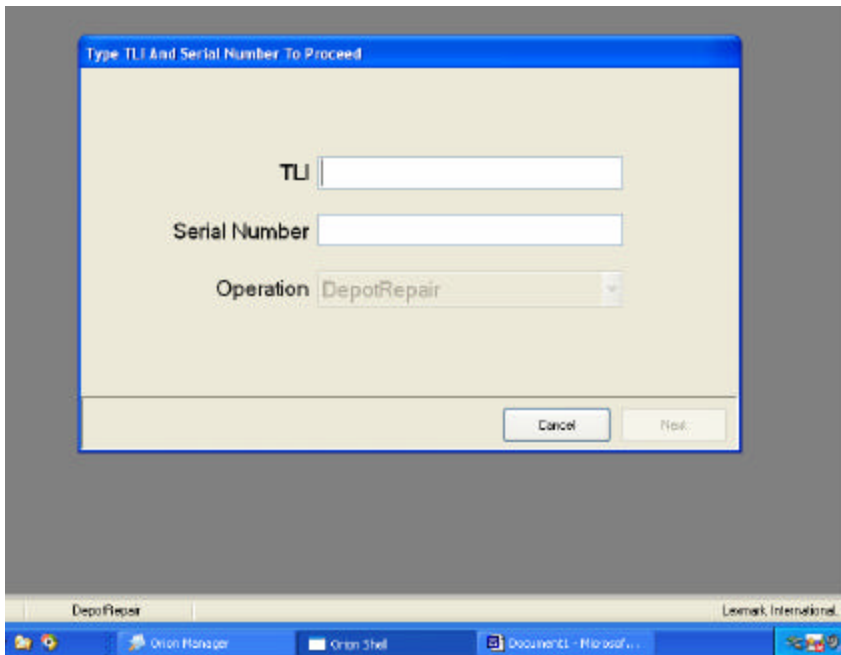
8. Click the on the **NEXT** button.
9. Under the **Verify Parameters** screen check the **TLI #**and **Serial** # to confirm they are correct.

Dell 1720 Depot Repair Procedure
TLI/ Part Number s equence:
Content Owner: Mark Jones
Process Flow Owner: Andy Steinkuhl

Creation Date: 12/12/06
Revision Date: 6/18/07
Doc ID: USDEPOTDOC40

10. Click on the **Run Test** button.
11. The printer will print skew page, review and make any adjustments that are necessary.
    a. Setting the Margins
    b. adjust the top, left and bottom margins by either entering the new value or use the up and down arrows.
    c. After the adjustments are made select the print button to reprint a new skew sample.
    d. Once you have reviewed the skew page select the ok button to save the settings and exit the margin adjust portion of Orion test.

12. Review the Quality/Print samples, and make sure there are no:
    - Light or blurred characters

Dell 1720 Depot Repair Procedure
TLI/ Part Number s equence:
Content Owner: Mark Jones
Process Flow Owner: Andy Steinkuhl

Creation Date: 12/12/06
Revision Date: 6/18/07
Doc ID: USDEPOTDOC40

- Toner smudges on the front or back
- Vertical Streaks
- Smears or ruboffs

13. Indicate if the Print Test passed. Note: Keep the printouts with the printer for QC verification.
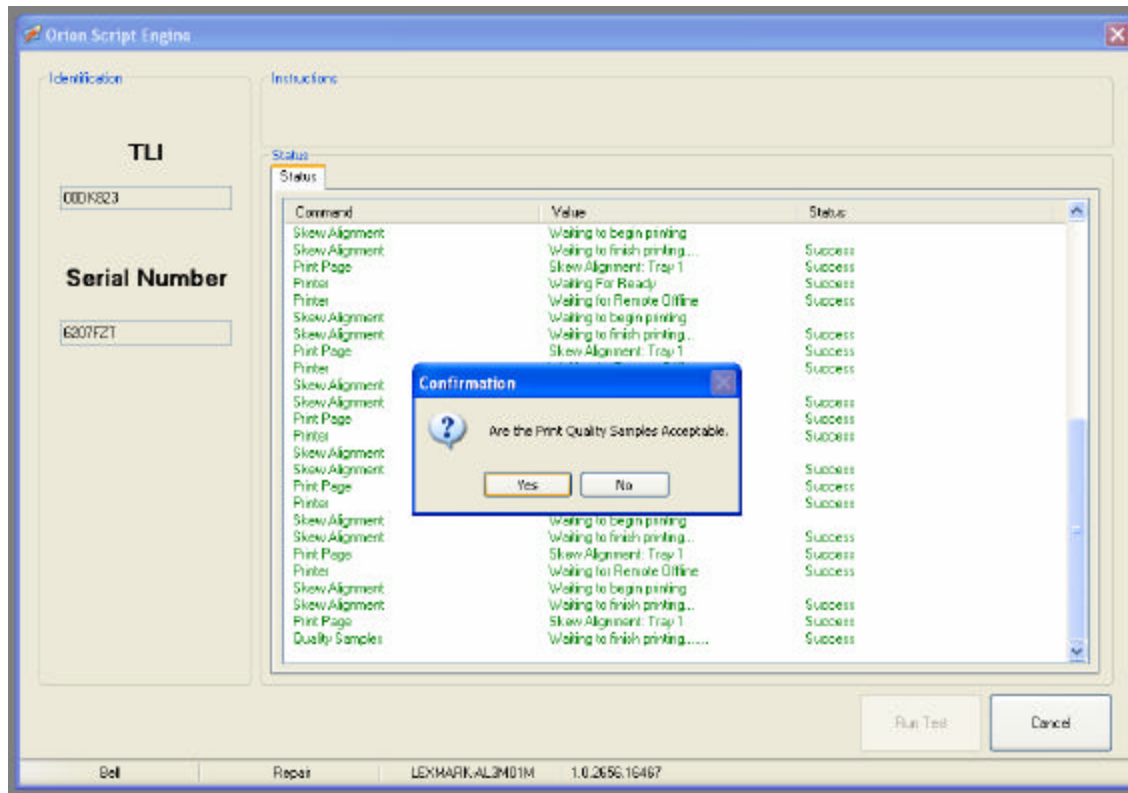
14. Confirm that the Model type is correct on the print menu page.
15. Wait for the test to complete.
16. Make sure all parts of the test pass.
17. Click on the pass **OK** once test is completed.

18. Print 65 pages from a text file on a PC.
    - Print 60 pages to tray 1.
    - Print 5 pages using the manual sheet feed and print from either port.
    - Keep 1 page from each of the tests above with the printer for QC verification.

19. Access the Configuration Menu:
    a. Turn the printer off.
    b. Open the front cover.
    c. Hold down the continue button while turning the printer on.
    d. Release the button when the error light (bottom light) stays on solid.
    e. Close the front cover.

20. Clear the Error Log:
    a. Turn the printer off.
    b. Open the front cover.
    c. Hold down both buttons while powering on.
    d. Release the buttons when the error light stays on solid.
    e. Close the front cover.

Section 04: Network Card Testing

Dell 1720 Depot Repair Procedure
TLI/ Part Number s equence:
Content Owner: Mark Jones
Process Flow Owner: Andy Steinkuhl

Creation Date: 12/12/06
Revision Date: 6/18/07
Doc ID: USDEPOTDOC40

1. Press and release the continue button to print a menus & network settings page.
2. On the page that prints verify the following:
   - Status = Not Connected
   - Active = Yes
   - DHCP,BOOTP,RARP Enabled = Yes, Yes, Yes
   - Address Source = Manual
   - Address = 0.0.0.0
   - View Figure 14 for reference if needed.

Figure 14

Standard Network Card

Status:	Not Connected
Speed, Duplex:	Unknown
Current Date & Time:	1969-12-31 19:00
End-of-Job Timeout:	90
UAA (MSB, Canonical):	002000DABDC1, 0004005BBD83
LAA:	000000000000, 000000000000
Firmware, Bootcode Revision:	141.C09, NA
Compi:	bld-lib, 141.C09, 14-May-04 11:16

Integrated Network Option Settings

Printer Type:	Dell Laser Printer 1720dn

AppleTalk*

Active:	Yes
Name:	LDABDC1 Lexmark E332n
Type:	LaserWriter
Zone:	*
Address:	0.0

TCP/IP

Active:	Yes
Enable DHCP:	Yes
Enable BOOTP:	Yes
Enable RARP:	Yes
AutoIP:	Yes
Address Source:	Manual
IP Address:	0.0.0.0
Netmask:	255.255.255.0
Gateway:	0.0.0.0
Hostname:	ET0004005BBD83
WINS Status:	Unregistered
WINS Server:	0.0.0.0
Zero Configuration Name:	

3. Attach a network cable to the printer.
4. A network settings page should print when an IP address is acquired.
5. Locate the IP address (highlighted below) on the network settings page.

TCP/IP

Active:	Yes
DHCP, BOOTP, RARP Enabled:	Yes, Yes, Yes
Address Source:	BOOTP
Address:	192.168.0.101
Netmask:	255.255.255.0
Gateway:	192.168.0.1
Hostname, WINS Status:	LXK431032, Unregistered
WINS Server:	0.0.0.0
BOOTP Server:	0.0.0.0

Note: 192.168.0.101 is an example of an IP address, each time this process is used the IP address may vary.

6. Disconnect the network cable.

7. Network Card Reset:
   a. Turn the printer off.

Dell 1720 Depot Repair Procedure
TLI/ Part Number s equence:
Content Owner: Mark Jones
Process Flow Owner: Andy Steinkuhl

Creation Date: 12/12/06
Revision Date: 6/18/07
Doc ID: USDEPOTDOC40

b. Open the front cover.
c. Hold down the Continue and the Cancel button while powering the printer on.
d. Release the buttons when the Error light (bottom light) stays on solid.
e. Close the front cover and the printer should return to a READY state.
f. Press and release the continue button to print a network settings page.
g. On the page that prints verify the following:
- Status = Not Connected
- Active = Yes
- DHCP,BOOTP,RARP Enabled = Yes, Yes, Yes
- Address Source = Manual
- Address = 0.0.0.0
h. Keep this page with the printer for QC verification

Section 05: Repair Procedure completion Checklist

1. ____ Covers are OK & clean.

2. ____ Operator panel is OK

3. ____ Bottom OK (4 feet, auto-connect, bellcrank & auto-comp)

4. ____ UL label is OK

5. ____ Ports are OK (Ethernet port will hold a cable)

6. ____ TLI label is OK

7. ____ Inside is clean and free of toner, dust and other contaminants

8. ____ Transfer roller OK

9. ____ HVPS contacts are OK

10. ____ Printer sounds OK

11. ____ Error log cleared

12. ____ Print quality is OK

13. ____ Paper feeds OK

14. ____ Network card is functioning properly and IP address is cleared

Dell 1720 Depot Repair Procedure
TLI/ Part Number s equence:
Content Owner: Mark Jones
Process Flow Owner: Andy Steinkuhl

Creation Date: 12/12/06
Revision Date: 6/18/07
Doc ID: USDEPOTDOC40

Section 06: QC Checklist

Visual Inspection:

1. ____ Test pages from the repair process are present.
2. ____ Verify that the serial number on the paper work matches the printer.
3. ____ Covers are clean and undamaged
4. ____ Logo/graphics are OK
5. ____ UL label on back is OK
6. ____ Ports are ok.
   - ____ Parallel clips are present.
   - ____ Ethernet port will hold a cable.

7. ____ Inside of printer is clean (no dust or toner)
8. ____ Transfer roller OK.
9. ____ 6 Hi-volt contacts OK
10. ____ Menu settings page prints
    - ____ Serial number on page matches printer
    - ____ Model name and number matches the printer
    - ____ Network models, Network settings page printed and the TCP/IP settings have been reset (highlighted below)
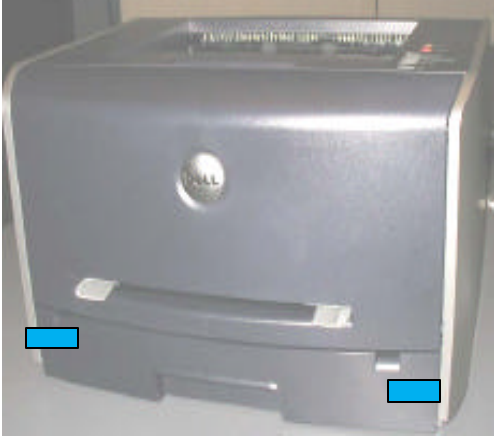
TCP/IP

Active:	Yes
DHCP, BOOTP, RARP Enabled:	Yes, Yes, Yes
Address Source:	Manual
Address:	0.0.0.0
Netmask:	255.255.255.0
Gateway:	0.0.0.0
Hostname, WINS Status:	LXK431052, Unregistered
WINS Server:	0.0.0.0
DHCP Server:	0.0.0.0

11. ____ Quality pages print and print quality is acceptable.
    - ____ Error log on the first page is clear.

Finish:
1. ____ Clean the printer as needed
2. ____ Install shipping foam
3. ____ Remove and file paperwork

Dell 1720 Depot Repair Procedure
TLI/ Part Number s equence:
Content Owner: Mark Jones
Process Flow Owner: Andy Steinkuhl

Creation Date: 12/12/06
Revision Date: 6/18/07
Doc ID: USDEPOTDOC40

Section 09: Packaging

1. Dell Laser Printer 1700 and 1710 printers.

2. Place tape on the front cover across the paper support flap and over the fuser wick cover.

3. Place tape across the rear jam removal door to the top cover.

4. Bag the printer.

5. Use cushion set part # 7373782 to pack printer.

6. Place the thicker of the two cushions in the bottom of the box.

Dell 1720 Depot Repair Procedure
TLI/ Part Number s equence:
Content Owner: Mark Jones
Process Flow Owner: Andy Steinkuhl

Creation Date: 12/12/06
Revision Date: 6/18/07
Doc ID: USDEPOTDOC40

7. Place printer into carton # 7375022.

8. Place top cushion on printer. Close carton and seal with tape. Place part identification labels onto carton.
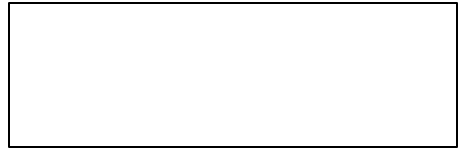
Section 10: Revisions

Revision Date	Revision Detail	Revised by
12-12-06	Initial Document	Mark Jones
6/18/07	Revision. Addition of pictures and Orion Screen Shoot	A Steinkuhl/ M Jones