PrintServer 17/600 Printer

Maintenance Advisory

S2343

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About This Maintenance Advisory

This maintenance advisory describes how the PrintServer 17/600 printer differs from the PrintServer 17 printer and provides new, corrected, or updated information for the PrintServer 17 Printer Service Guide.

You can carry both the PrintServer 17 Printer Service Guide and the maintenance advisory with you or write the new information from the maintenance advisory into the service guide and file the Maintenance Advisory for reference.

The following conventions are used throughout this maintenance advisory:

Convention	Description
Note:	Notes provide additional information.
Caution:	Cautions emphasize information for preventing damage to the equipment or software.

Correcting the Service Guide

The notes in the margin tell you where in the PrintServer 17 Printer Service Guide to write the underlined information. This convention is dropped in Chapter 3.

1.1 Training and Documentation

Before attempting to repair the printer, you must attend the Digital Education training course and all other prerequisite training courses.

Correct Table C–1.

The new course number is EY–N836E–P0–**002**.

The existing PrintServer 17 Printer SPI/lab training course has been modified to include information about the PrintServer 17/600 printer. The course number stays the same but the version field changes from 1 to 2.

The maintenance advisory is available as a PostScript file from TIMA, can be ordered as hardcopy, and is kitted with the PrintServer 17 Printer documentation kit.

Append Table C–2.

Table 1–1 lists the order numbers for this maintenance advisory and for related PrintServer 17/600 printer documentation.

Table 1–1 Documentation

EK–PRTSV–DK	*PrintServer 17 Printer Documentation kit*
EK–PRT17–SV	*PrintServer 17 Printer Service Guide*
EK–PRT17–MA	*PrintServer 17/600 Printer Maintenance Advisory*

1.1 Training and Documentation

Table 1–1 (Cont.)   Documentation

EK–LPS17–IP. C01   *PrintServer 17/600 printer Illustrated Parts Breakdown*

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PrintServer 17/600

This chapter describes the new PrintServer 17/600 Printer and describes several redesigned field replaceable units (FRU)s.

2.1 Differences

The following describes how the PrintServer 17/600 printer differs from the PrintServer 17 printer. In all other respects, the two printers are electronically, mechanically, and operationally the same.

Note in Sections 1.2, and 9.12.

- The front power-on switch and indicator are removed from the front panel of the PrintServer 17/600 printer.

- The PrintServer 17/600 printer logo snaps into the front panel hole where the power switch was. The logo covers the indicator light holes and the switch icon.

- The PrintServer 17/600 printer prints at 400 and 600 dots per inch (dpi) for high-quality graphics and letter quality text.

- The PrintServer 17/600 printer supports PostScript Level 2.

- The PrintServer 17/600 printer 's higher dot density is made possible by the following five redesigned field replaceable units (FRUs). See Section 2.6 for the new part numbers.

    - Scanning unit

    - DC controller board

    - High-voltage power supply assembly

    - Low-voltage power supply assembly

    - AC drive board

- New version V2.1 controller board firmware supports the PrintServer 17/600 features and the existing PrintServer 17 features. See Section 2.2 for more information.

2.1 Differences

2.1.1 Redesigned Components

The following FRUs have been redesigned for improved operation or reduced cost:

- The new controller board, which resides under the printer, replaces the original controller board (backward compatibility) and operates both the PrintServer 17 and PrintServer 17/600 dpi printers. There are some <u>minor sheet metal differences</u> between the original and the new controller boards.

- The new non-parity SIMMs support controller board firmware V2.1 or higher. See Sections 2.4 and 2.6.1 for additional information.

2.2 Firmware Differences

To date, the following versions of PrintServer 17 controller board firmware have been released.

Table 2–1   Firmware Code Differences

V1.0	Supports 300 dpi PrintServer 17 printers only.
V1.1	Supports 300 dpi only. Fixed a bug that caused potential ?54 errors during IP booting. Improved error coding for field test mode (FTM) errors. See Section 6.16 in the PrintServer 17 Printer Service Guide.
<u>V2.1</u>	Supports 300, 400, and 600 dpi PrintServer 17 and PrintServer 17/600 printers. Added a cost-reduced controller that features non-parity memory and improved network booting.

Note: *There is no implied mandatory reason to upgrade or change the older firmware. If a controller board that is operating under V1.x firmware goes bad, you can replace the defective board with a new board that has V2.1 firmware.*

2.3 New Boot Error Code

The boot errors in Table 2–2 are caused by a misconfigured host or boot server or by a malfunctioning network.

Table 2–2   Boot Errors

Message	Explanation
Ethernet address ?55	An illegal or unknown file was downline loaded from a volunteer that responded to the boot request (BOOTP).
Ethernet address ?56 (nn)	This error information is useful for troubleshooting network or system software.
	nn shows one of the following trivial file transfer protocol (TFTP) errors: 01 = Rear request (RRQ) 02 = Write request (WRQ) 03 = Data error (DATA) 04 = Acknowledgment (ACK) 05 = Error (ERROR)

2.4 New Non-parity SIMMs

Non-parity memory SIMMs replace the original parity SIMMs on the controller board. The older parity SIMMs work under all versions of the controller board firmware.

Append 6.1, 6.1.1, and 9.15

Installing non-parity SIMMs with V1.0 or V1.1 causes the power up bootstrap to hang at the **9, 8,** or **9, 7** point in the countdown. (For a description of the power up bootstrap, read chapter 2 of the service guide.)

Install only non-parity SIMMs with version 2.1 or higher controller board firmware.

Note: *See chapter 2 of the service guide for a description of the bootstrap process.*

2.4.1   New SIMM Configuration Minimums

The following lists the minimum memory requirements for the various PrintServer 17 configurations:

- 12 MB for a simplex or duplex PrintServer 17 printer

- 16 MB for a level 2 PostScript, simplex or duplex PrintServer 17/600

- 20 MB for legal size duplex printing on the PrintServer 17/600

2.5 New V2.1 FTM Test Patterns

Figure 2–1 shows the 400 and 600 dpi test patterns that are printed by a PrintServer 17/600 printer. An example of the PrintServer 17 300 dpi pattern appears in Figure 4-2 of the service guide.

Note under Figure 4-2.

- Patterns A and B are printed at 400 dpi. Compare the B and D test test patterns. <u>Notice how the B pattern is smaller on the page then pattern D. This only happens at 400 dpi.</u>

- Patterns C and D are printed at 600 dpi. Compare the C and the A test patterns. <u>Notice how the C test pattern is horizontally compressed. This compression effect increases as the density (dots-per-inch) increases.</u>

Figure 2–1   New V2.1 Controller Board Test Patterns

Pattern A

Pattern B

Pattern C

Pattern D
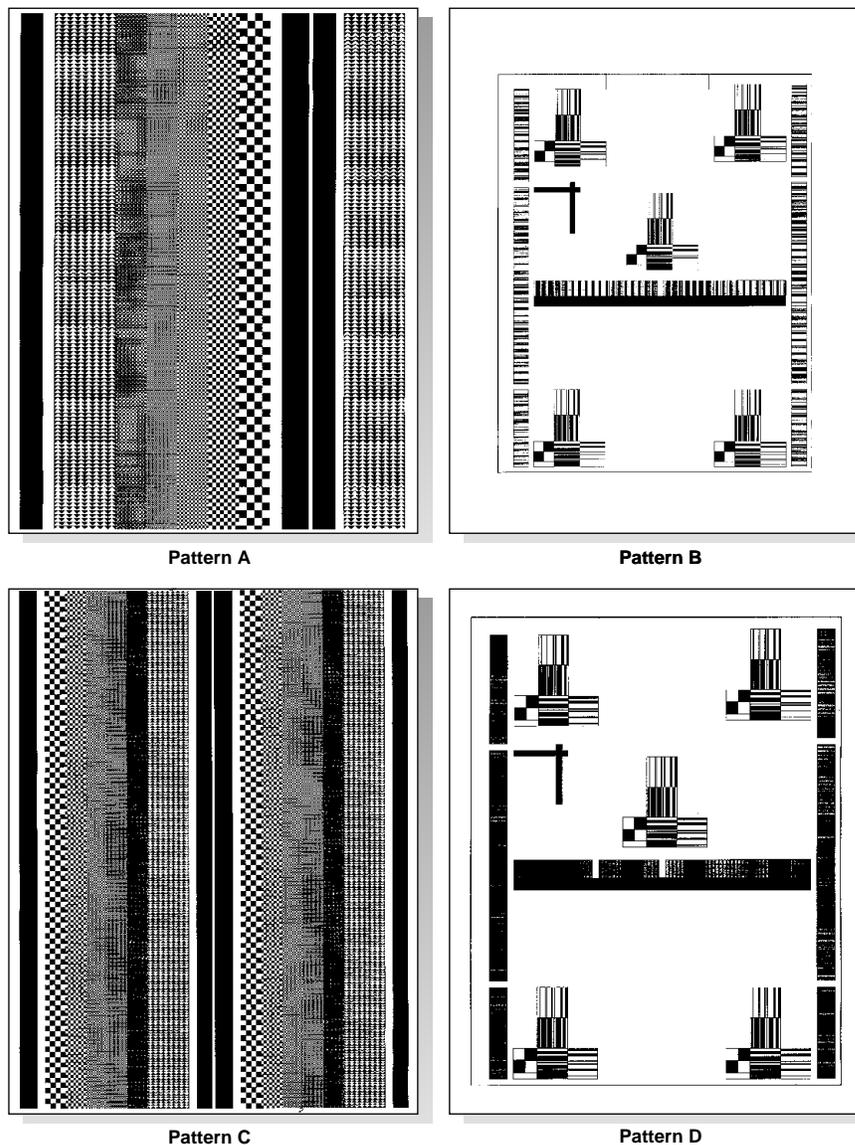
2.6 New Field Replaceable Units

Table 2–3 lists printer-specific FRUs. All other FRUs are interchangeable between the two printers.

Caution: *The FRUs listed in Table 2–3 are not interchangeable. An FRU intended for one printer might behave unpredictably if installed in the wrong printer.*

Table 2–3   Field Replaceable Unit Part Numbers

Append
Appendix A

FRU Name	Order Numbers	
	PrintServer 17	PrintServer 17/600
Laser scanner unit	FD–31374–01	29-31411-01
Board, DC controller	29–30605–01	29-31412-01
Board, AC drive	FD–28556–01[1] 29–30599–01[2]	29-31409-01[1] 29-31410-01[2]
Assembly, high–voltage power supply (HVPSA)	FD–37679–01	29-31413-01
Assembly, low-voltage power supply (LVPSA)	29–30594–01[1] 29–30598–01[2]	29-31404-01[1] 29-31405-01[2]

[1] 120 volt operation

[2] 220 volt operation

2.6.1 Part Numbers for Non-parity SIMMs

Table 2–4 lists the part numbers for the original parity and new non-parity SIMMs. The parity SIMMs work with all firmware versions. The non-parity SIMMs work only with firmware version V2.1 or later. See Section 2.4 for more information.

Table 2–4 SIMM Option FRU Part Numbers

SIMM Size	Parity	Non Parity
4-MB	LPS1X–UC	LPS1X–UE
8-MB	LPS1X–UD	LPS1X–UF

2.6.2 Part Numbers for the Controller Board V2.1 ROMs

*Append
Section
9.7.1*

Table 2–5 correlates the various numbers associated with the two read only memories (ROMs) that occupy sockets E19 and E24 of the controller board. The part numbers are printed on the labels of the 40-pin ROMs. ROM 0 and the socket numbers are printed on the circuit board. ROM 1 is not printed anywhere; its location is assumed.

Table 2–5 Controller Board V2.1 ROMs Part Numbers

*Append
Appendix A*

Socket	ROM	Part
E19	ROM 0	23–272E8–00
E24	ROM 1	23–273E8–00

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Service Guide Corrections

This chapter contains corrections and supplemental information for the PrintServer 17 Printer Service Guide.

At this Location...	Make This Correction...
Section 1.3, page 1–10, second paragraph includes the ❸ callout.	Add the following statements: Only install the envelope feeding cover in the top cassette slot. When the cover is installed in the lower slot, it can cause errors.
Section 1.3, page 1–14	Change: 50 envelopes To: 100 envelopes
Section 1.10, Figure 1–19 Same figure appears in Section 6.1, Figure 6–1	Find where J009 pin –1 and –2 connect the +24VB and +24VA supplies to the DC controller board. Correct the following pin numbers: • The +24VB supply enters the DC controller board on pin –3 of J009. • The +24VA supply enters the DC controller board on pins –1 and –2 of J009.
Table 4–2, SGEC test Section C.3, Table C–3 Section C.3.1, Figure C–1	Add the following correction: No loopback testing is performed on the twisted pair port. The twisted pair loopback connector is not needed.
Section 5.4, Table 5–1	The four question marks and double XXs that appear in the FTM error code stand for numbers that indicate a failing controller board circuit; for example, **10xx.????**. For trouble shooting, you can ignore the numbers or write them down as a symptom on the repair tag.

At this Location...	Make This Correction...
Section 8.2	Add the following steps under the line "If there is a **dark normal image on the drum**":
	• Check the installation of the transfer roller and the blue restraint clip.
	• Look for damaged transfer roller mountings.
	• Swap the HVPSA.
Section 9.7.1	Change the Ethernet IC from: an 8-pin socket-mounted device. To: a 16-pin socket-mounted device designated E15.
Section 9.7.1 accompanying figure	The ❷ that points to the Ethernet IC is misdirected. The correct Ethernet IC is E15. It is located below and to the right of the ROM labeled ❹.
Section 9.15.1, Figure 9–1	Add the following caution: **Caution:** *The new non-parity SIMMs cause the boot to hang, if the controller board is running firmware versions 1.0 or 1.1 code.* *Parity SIMMs work under all current firmware versions.*
Section 10.1, Page 10–3 lower illustration	Swap the locations of callouts ❸ and ❹.
Section A.1, Page A–1, Board, daughter ThinWire and ThickWire	Change: 70–30844–03 To: 70–30844–07
Section A.1, Page A–2, Board, daughter ThinWire and TwistedPair	Change: 70–30844–04 To: 70–30844–08
Section A.1, Page A–2, Board, front power on unit	Add the following note: This FRU is used only in the PrintServer 17 Printer.

At this Location...	Make This Correction...
Section A.1, Page A–3 the 7 sensors	Add the following note: All seven sensors use the same part number.
Section A.2, Page A–4, LCIT power cord	Change: LCIT power cord (universal) To: LCIT power adapter 120 Vac.
Section A.2, page A–4, EP-N Cartridge Kit	Change: LPS1X–AA To: LPS1X–AD
Section A.2, Page A-4, LCIT A4, size, no power cord	Change: LPS1X–BA To: LPS1X–A3
Section A.2, Page A-4, LCIT, letter size, no power cord	Change: LPS1X–A3 To: LPS1X–BA