

DIGITAL	FCO	LEVEL OF URGENCY	PAGE 1 OF 8
		[R]	

FIELD CHANGE ORDER	NUMBER: LG02-R002
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APPLIC: All models of the LG02 printers must be upgraded. Customers are experiencing high incidence of failure from the Power Amp PCB due to its minimal current carrying margin and lack of shut-down capability in its design. This FCO implements ECO: 3025434-00002.

| This revised FCO supersedes Rev. A released 01 Nov. 1988. It has  
| been revised to correct the part designator in the Compatibility  
| section on Page 1.

PROB/SYMPT: The most common symptoms are as follows:

1. Printer stops and no error message is displayed.
2. Printer stops and Paper Motion error is displayed.
3. Prior to Printer stopping, paper won't move or moves excessively.

QCK CK: See page 2.

COMPATIB/PREREQ: N/A	EST INSTALL TIME 1.0 hours
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TOOLS/TEST EQUIP:

- o Phillips screwdriver
- o Small flathead screwdriver
- o IC extraction/insertion tools (DEC PN: 29-24015-00)
- o ESD kit (DEC PN: 29-26246-00)

#### FCO PARTS INFORMATION

ORDER BY FCO KIT #	CONTENTS		
	QUANTITY	PART NUMBER	DESCRIPTION
EQ-01529-01	1		See page 2.
FA-04830-01	1		LG02 FCO documentation
FA-04829-01	1		LG01 FCO documentation

EQ KIT VARIATION/SYS-OPT APPLICABILITY: Only one kit for all variations.

#### APPROVALS

CSSE ENGINEER R. Mitchell	F.S. PRODUCT SAFETY Hank Aaron	F.S. LOGISTICS Dave Piehl
RESPON. CSSE MANAGER Al Sliz	F.S. MICROFICHE LIBS EP-FSNVX-LB VAX	AFFECTED POPULATION 2,400

MICROMEDIA PUBLISHING Ray LeBlanc	VAXnotes STARS	INITIAL KITTING 250
REVISION B		HARDCOPY PUBLICATION 6,500
FCO RELEASE DATE 18 November 1988		PARTS AVAILABILITY November 1988

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Quick Check: Continued from page 1.

Check the printer serial number for 93906 or greater.

For printers having lower serial numbers, check Revision levels:

1. On the unit, check for the DEC part number (LG02-A2) label (may not be present) inside the right side panel for Rev A02.
2. On the Power Amp PCB and CPU EPROM (socket 4B, See Figure 1), check the Vendor part numbers:
  - a. Power Amp PCB for Rev G.
  - b. CPU EPROM (socket 4B) for number 700524\_111.2.

For anything less, the printer must be upgraded by the FCO.

FCO Parts Information: Continued from page 1.

ORDER BY FCO KIT #	QUANTITY	CONTENTS PART NUMBER	DESCRIPTION
EQ-01529-01	1	29-25573-00	LG01/02 Power Amp PCB
	1	29-27269-01	LG01/02 CPU Firmware EPROM with CPU board label
	3	36-28231-01	LG01/02 DEC part number Labels
FA-04830-01	1		LG02 FCO documentation
FA-04829-01	1		LG01 FCO documentation

Installation Procedure:

\*\*\*\*\*  
\* C A U T I O N \*  
\* Before proceeding, make sure that all power to the printer \*  
\* is disconnected. Turn the power switch to the "OFF" (0) \*  
\* position, and unplug the power cord from the outlet. \*  
\*\*\*\*\*

1. Unplug the power cord from the printer.  
Disconnect the data cable using the small screwdriver.  
Remove the paper basket.
2. Remove the rear panel of the printer as follows:
  - a. Remove the 10 plastic caps which cover the rear panel retaining screws.
  - b. Loosen the 11 retaining screws.
  - c. Lift off the rear panel.

\*\*\*\*\*  
\* C A U T I O N \*  
\* All of the modules in the card-cage contain electrostatic \*  
\* sensitive devices. Use the ESD Kit mentioned in the special \*  
\* tools section. Put the appropriate end of the ESD strap \*  
\* around your wrist, and attach the other end of the strap to \*  
\* the printer frame. Spread out the ESD Mat so that you can \*  
\* set the PCBs on it as they are removed from the machine. \*  
\*\*\*\*\*

3. Remove the plate that holds the card-cage PCBs in their slots.
4. Remove the Power Amp PCB from the card-cage as follows:
  - a. Locate the Power Amp PCB. See Figure 1 on page 5.
  - b. Grasp the Power Amp PCB by the locking tabs (ejectors) at the top and bottom, lift the ejectors away from the PCB and pull the PCB free from the card-cage.
  - c. Place the PCB on to the ESD Mat.

5. Install the new Power Amp PCB as follows:
  - a. Remove the Power Amp PCB from the ESD bag in the kit.

- b. Grasp the PCB at the top and bottom and carefully slide it into the slot, with the component side facing to the left, where the old PCB was located.
- c. Press the PCB into the backplane, and close the ejectors.

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Installation Procedure: Continued

6. Remove the Control CPU PCB from the card-cage as follows:
  - a. Locate the Control CPU PCB. See Figure 1 on page 5.
  - b. Grasp the Control CPU PCB by the locking tabs (ejectors) at the top and bottom, lift the ejectors away from the PCB and pull the PCB free from the card cage.
  - c. Place the PCB on to the ESD Mat.
7. With the Control CPU PCB "resting" on the ESD mat replace the EPROM in socket 4B of the PCB as follows:
  - a. Locate the EPROM (700524-111.1) in socket 4B. See Figure 2 on page 6.
  - b. Using the extraction tool (PROM puller), remove the EPROM (700524-111.1) from the socket.
  - c. Insert the new EPROM (700524-111.2) into the socket using the insertion tool. Make sure to align the U-shaped notch on the EPROM with the U-shaped notch on the socket. Be careful not to bend any pins, and make sure the EPROM is seated firmly in the socket.
8. Replace old part number label on Control CPU PCB with new part number label. Use label: 610424-34 for LG01 and, 610424-35 for LG02.
9. Install the Control CPU PCB with the new EPROM as follows:
  - a. Grasp the PCB at the top and bottom, and carefully slide it into the slot, with the component side facing to the left, where it was previously.
  - b. Press the PCB into the backplane, and close the ejectors.
10. Install the plate that holds the card-cage PCBs in their slots.
11. Disconnect your static strap from the printer.

12. Install the rear panel as follows:
  - a. Position the rear panel on the frame and align the holes for the retaining screws.
  - b. Tighten the retaining screws.
  - c. Install the plastic caps by pressing them onto the rear panel retaining screws.
13. Open the panel door and attach the appropriate (LG02 A2) DEC part number label from the EQ kit to the right side panel inside the printer next to the existing serial number labels.

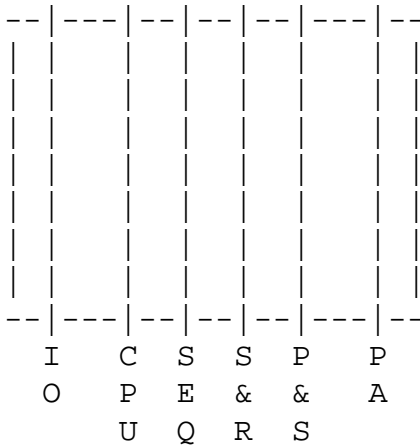
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14. Install the power cord, the data cable and the paper basket, and power-on the printer.
15. Verification testing: Refer to Appendix A.
16. Be sure to return the Power Amp PCB and the EPROM, which were replaced, to FS logistics.

FIGURE 1

Card-cage (Front view)

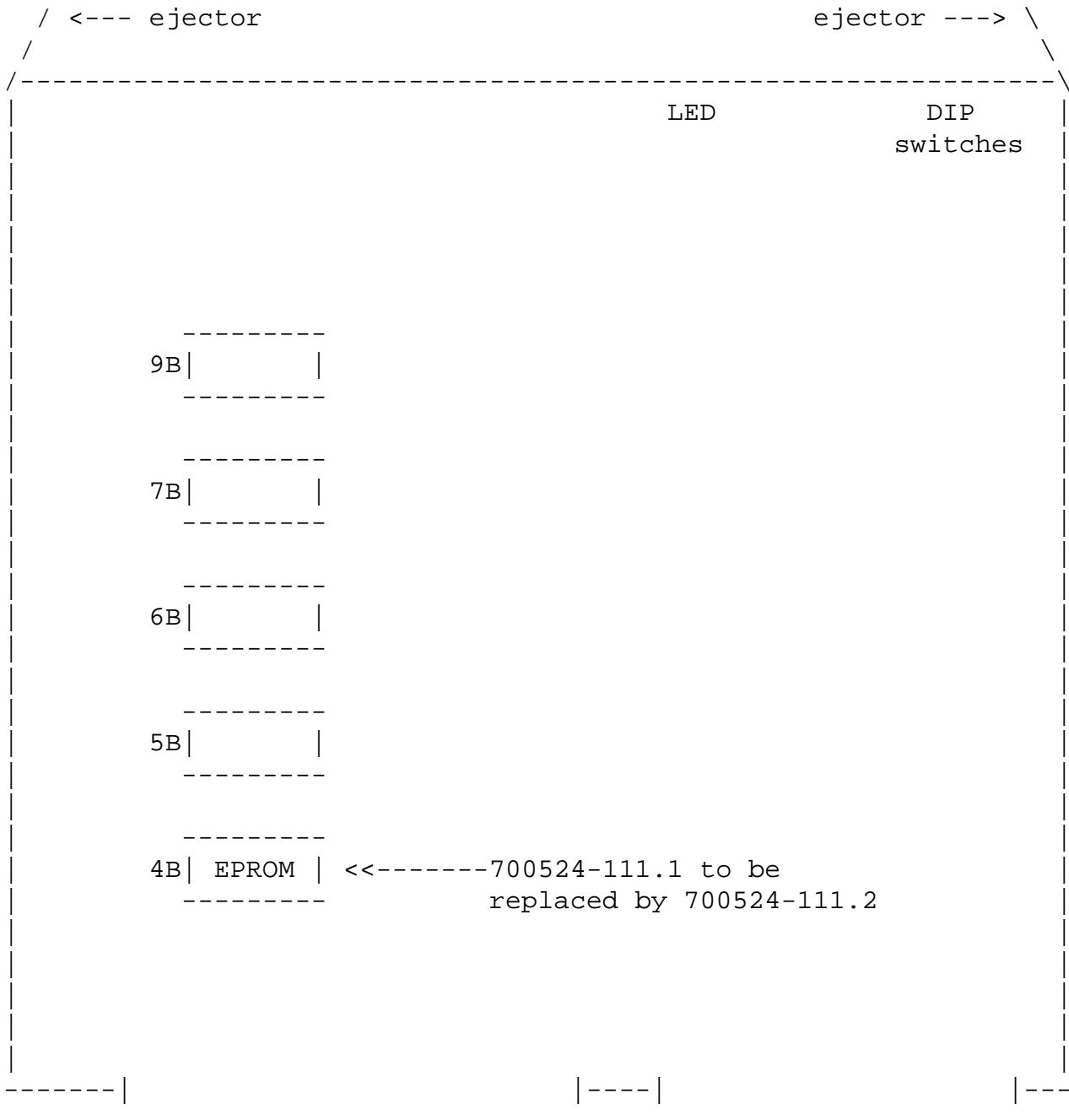


KEY

IO	-	IO Controller PCB
CPU	-	Control CPU PCB
SEQ	-	Sequencer PCB
S&R	-	Shuttle and Ribbon Control PCB
P&S	-	Paper and Status Control PCB
PA	-	Power Amp PCB

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FIGURE 2



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## APPENDIX A: Verification testing for the LG02

If available, please refer to Chapter five of the LG02 Technical Manual.

1. Using control panel Enter DIAG mode as follows:
  - a. Start with the printer in the OFFL mode.
  - b. Press and hold the SELECT key until DIAG appears in the display.
2. Run the PAPM test as follows:
  - a. Press TEST key until PRNT appears in the display.
  - b. Press +1 key until PAPM appears in the display.
  - c. Start the test by pressing the ONLINE/OFFLINE key.
  - d. Observe ASCII test pattern and random paper motion.
  - e. Stop the test by pressing the ONLINE/OFFLINE key after 1 minute.
  - f. Leave the printer displaying PAPM.
3. Run the MOTR test as follows:
  - a. Press TEST key until MISC appears in the display.
  - b. Press +1 key until MOTR appears in the display.
  - c. Press ONLINE/OFFLINE key. Check that all motors are running. Observe paper advancing, ribbon advancing and shuttle movement.
  - d. Stop by pressing ONLINE/OFFLINE key after 1 minute.

LARS

	USA	GIA	EUROPE
Activity -			
Contract and Warranty	W	U	Y
Non Contract/Non Warranty	F	U	F
DEC Option	LG02	LG02	LG02
Type of Call	M	M	M
Action Taken	D	D	I
Fail Area-Module-FCO-Comment	LG02-R002	LG02-R002	LG02-R002
Material Used	EQ-01529-01	EQ-01529-01	EQ-01529-01

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