## 4027/27A RELIABILITY MODS TO DEFLECTION BOARD (CONT.)

this C100, a 68 pf capacitor (P/N 281-0785-00) and R100, a 51 ohm resistor (P/N 315-0510-00) was added to the input of the Phase Shifter circuit. To install these, first cut the run on the back of the board between TP101 and pin 1 of U101. Then, on the front of the board, add the resistor between TP101 and pin 1 of U101 and add the capacitor between pins 1 and 8 of U101.

Some of these problems were also suspected as a cause of intermittent failures of Q121 and Q191 on the low voltage power supply. These fixes along with some improved assembly processes appear to have corrected this failure.

W<sup>2</sup> Issue 13-21

## 4052/4052A/4054/4054A FIRMWARE INFORMATION

The chart on the following page is a list of all the CRC's for the 4052/4052A/4054/4054A system firmware and current level firmware of each 4052/4052A/4054/4054A ROMpack.

W<sup>2</sup> Issue 13-19

## 4054/4114/4016-1/GMA101A/GMA102A/GMA125 618 POWER SUPPLY INTERCONNECT CABLE MODIFICATION

## Reference:

Mod #M43296 4054 Service Manual, p.n. 070-2839-03 4114 Service Manual, p.n. 070-3818-00 4016-1 Service Manual, p.n. 070-4551-00 GMA101A Service Manual, p.n. 070-2598-00 GMA102A Service Manual, p.n. 070-3635-00 GMA125 Service Manual, p.n. 070-2618-00

618 Service Manual, p.n. 070-2767-00

The 4054, 4114 power supply interconnect cable (p.n. 175-2684-00) and the 4016-1, GMA101A, GMA102A, GMA125 and 618 power supply interconnect cable (p.n. 175-2006-00), have both been changed to p.n. 175-2006-02. The Molex connectors used in the power supply interconnect cables (p.n. 175-2684-00) and (p.n. 175-2006-00) have had a history of poor contact reliability.

The single contact type connectors (p.n. 131-1790-00) and Molex housing (p.n. 204-0751-00) have been replaced by three point Molex Trifurcon connectors (p.n. 131-2728-00) and Molex housing (p.n. 352-0652-00). Also, the cable has been lengthened from  $16" \pm .5$  to  $17" \pm .250$ .

The serial number breaks for the products that have the mod incorporated at the Factory are as follows:

4054	B012326
4114	B021445
4016-1	B041160
GMA101A	B043859
GMA102A	B065634
GMA125	B040525
618	B013181

When installing a new cable, the pins that have overheated and have discolored the circuit board and/or the housings of the old cable, should be resoldered. Reason for doing this is that any pins that have overheated, may have caused their corresponding solder joints to deteriorate (melt and oxidize). supply interconnect cable power connector housings should be visually inspected for discoloration, and the corresponding pins for contact surface deterioration anytime that service is required on an applicable product.

W<sup>2</sup> Issue 13-17

4052/4052A/4054/4054A Firmware Information June 16, 1983

4052/4052A/4054/4054A ROMpack CRC's:

Editor ROMpack 4052/4054 RO6 Level 2.0

U1 160-1414-00 ----U11 160-1415-00 2D58 (1 CRC for both)

SPS ROMpack #1 4052/4054 R07 Level 2.0

U1 160-1416-00 B6B3

SPS ROMpack #2 4052/4054 RO8 Level 2.0

U1 160-1417-00 ---U11 160-1418-00 FF43 (1 CRC for both)

Real Time ROMpack 4052/4054 R09 Level 3.0

U21 160-0762-02 673E

4909 Advanced File Manager ROMpack 4052/4054 R10 Level 1

U1 160-1337-00 ----\*U11 160-1338-00 COCO (1 CRC for both)

Character & Symbol ROMpack 4052/4054 R11 Level 1

U1 160-1313-00 ---U11 160-1314-00 5AA8 (1 CRC for both)
U13 160-1315-00 ---U15 160-1316-00 6051 (1 CRC for both)

Graphics Enhancement ROMpack R12 Level 1.0

U1 160-2039-00 37D2 U11 160-2040-00 6FDC U13 160-2041-00 98B2

GPIB Enhancement ROMpack 4052/4054 R14 Level 1.0

U1 160-1638-00 ----U11 160-1639-00 B50F (1 CRC for both)

GPIB Enhancement ROMpack 4052A/4054A R14 Opt. 1A Level 1.0

U1 160-2026-00 ----U11 160-2027-00 8756 (1 CRC for both) U13 160-2043-00 B399

<sup>\*</sup>Checksum in this line was corrected.