4016-1 with 620-0290-0X LVPS/GMA125 with 620-0279-01 LVPS

When replacing the switching transistors Q1022 and Q1023 (p.n. 153-0652-00) in the LVPS, replace with ones known to have a hfe of 14 or less. Having a gain of more than 14 may cause instability in the switching circuit, which leads to the failure of Q1022 and Q1023.

Prior to February 1983, the parameters at which the transistor were specified did not assure a hfe of less than 14 at low collector current levels.

Stock of selected transistor, p.n. 153-0652-00, ordered prior to February 1983, should be checked on a curve tracer for a hfe less than 14 measured at 5 volts and .1 amps. If curve tracer is not available, purge stock and reorder.

The reliability of the selected transistor at the new specification is much greater than the previous part.

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4052A/4054A MAS F/W V1.4 CHECKSUMS

REF: IDD GAS Modification M49382

A new version of firmware; V1.4 for the 4052A/4054A products is now available. This firmware level corrects an operational fault where interrupts from SRQ, keyboard, RS232, Option 1, etc. can cause the system to hang during GPIB operations. The fix consisted of reprogramming the two GPIB EPROMs (U835 and U885) to eliminate the GPIB hang condition.

The MAS circuit board, 670-7624-00, rolls to a -01 and the two EPROMs change part numbers as follows:

Ckt #	V1.3 P.N.	V1.4 P.N.
U835	160-1701-00	160-1701-01
U885	160-1691-00	160-1691-01

A parts replacement kit, part number 050-1743-00, is available to replace the above two EPROMs. The other EPROMs are the same for V1.4 as were in V1.3.

Below is a list of checksums for all EPROMs on the MAS board for V1.4:

Ckt #	CRC
U810	68DF
U820A	E525
U820B	4869
U825	7DDF
U835	EC6E
U870A	64B7
U870B	4F31
U880	59EE
U885	43DF
U893	7F39

When using the 067-0900-00/01 Diagnostic Test Fixture, any checksums listed for U805 and U897 should be ignored. They are for non-existent patch ROM and FPLA which are no longer used.

Serial number breaks for new products manufactured with V1.4 firmware are as follows:

Product	Serial Number
4052A	B045040
4054A	B033027
4052F39	B010474
4054F39	B010342

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4113/4114/4116A PEDESTAL POWER SUPPLY MODIFICATION #M50093

A new power supply, p.n. 620-0294-02, is the result of reliability modification #M50093 to 4113, 4114, and 4116A series terminals. The new power supply is also used on the "A" version and -30 versions of the terminals.

The power supply uses metal oxide varistors in place of the neon spark gaps. This change along with other components in the mod will reduce intermittent fuse blowing during power line transients.

Pedestal power supply modification:

1. Gain access to the inverter board, p.n. 670-6503-04 by removing the power supply from the pedestal and the shield covering the inverter board.

2. Replace CR661 & CR663 with new diodes, p.n. 152-0141-02.

3. Remove E435, p.n. 119-0181-00 and install RV435, p.n. 307-0456-00.

4. Remove E431 and E237, p.n. 119-0181-00 and install RV431 and RV237, p.n. 307-0415-00.

5. Replace power supply.

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4907 FIRMWARE VERSION 1.3 CHECKSUMS

Ref: 4907 File Manager Service Manual, P/N 070-2405-00.

Firmware Checksums for the 4907 ROM board can be obtained by using the 067-0746-00 System Test Fixture. For details on this procedure, please refer to the 4907 File Manager Service Manual.

Below are listed the Checksums for V1.3. This Version no longer uses the Patch ROM or FPLA; therefore, there is only one Checksum for each EPROM.

4907 F/W V1.3 Checksums

Ckt#	P/N	Starting Address (H)	Checksum
U121	156-1067-00	A000	CF
U131	156-1068-01	A800	28
U141	156-1069-00	B000	64
U151	156-1070-01	B800	7C
U161	156-1071-00	C000	C1
U201	156-1072-00	C800	E8
U211	156-1073-00	D000	5A
U221	156-1074-01	D800	35
U231	156-1075-00	E000	79
U241	156-1076-00	E800	47
U251	156-1077-00	F000	AA
U261	156-1078-01	F800	68
U271	156-1079-01	6000	7F

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