



Customer Service

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M480L SERVICE BULLETIN #3

SUBJECT: M480L Program Packs & Diagnostic Cartridges

REFERENCE: ECO 921211-00

PURPOSE: To enable the M480L to read the new ROM carts. **Older** ROM carts used a 64K ROM IC. This chip is no longer available from vendors. It has been replaced by a faster 256K ROM IC.

CORRECTIVE ACTION: The program packs and diagnostic carts using the 256K ROM may or may not work in all M480L systems. If it does not, do not send it back to Lexicon, as it may work in other M480L units. We do not know what machines it will or will not work in except that it will work in all machines manufactured as of 11 Dec. 1992, with Rev 8 HOST Boards installed.

If your M480L is up to date with all required ECOs and the cart will not work, then the ECO listed above will be needed. Note: If the Host board is not up to date for all ECOs the board may have to be returned for update repair. There will be a flat rate charge for this. If a quicker repair time is needed a Repair/Exchange can be requested.

EQUIPMENT REQUIRED:

- 1 74ALS32 P/N 330-09643
- 1 14 pin socket part # 520-00942
- 1 220Ω 1/8W 5% resistor P/N 202-00518
- 28 AWG kynar wire

WARNING

This modification should be performed by qualified technical personnel only. Damage caused by performing this modification may void the manufacturer's warranty or standard repair policies.

CAUTION

Electrostatic Discharge (ESD) Precautions

The following practices minimize possible damage to ICs resulting from electrostatic discharge or improper insertion.

- Keep parts in original containers until ready for use.
- Avoid having plastic, vinyl or styrofoam in the work area.
- Wear a properly installed anti-static wrist-strap.
- Discharge personal static before handling devices.
- Remove and insert boards with care.
- When removing boards, handle only by non-conductive surfaces and never touch open-edge connectors except at a static-free workstation.*
- Minimize handling of ICs.
- Handle each IC by its body.
- Do not slide ICs or boards over any surface.
- Insert ICs with the proper orientation, and watch for bent pins on ICs.
- Use anti-static containers for handling and transport.

* To make a plastic-laminated workbench anti-static, wash with a solution of Lux liquid detergent, and allow to dry without rinsing.

INSTRUCTIONS:

The following instructions apply to the HOST Board, Rev 3 through 8.

- 1) Remove the 74HCT32 or 74AC32 in location U25 and install a 14 pin socket at this location.
- 2) Install the 74ALS32, P/N 330-09643 in location U25.
- 3) Make the following etch cuts on the solder side of the HOST board.
 - a) Cut the etch between U23, Pin 19 and the feedthru connected to it.
 - b) Cut the etch at U25, Pin 4 from the 5V etch connected to U25, Pin 14.
 - c) Cut etch at U25, Pin 5 from 5V etch connected to U25, Pin 14.
 - d) Cut etch between U18, Pin 1 and J1, Pin 12.
- 4) Install R66, resistor, 1/8W, 5%, 220 ohm on the solder side between U23, Pin 19 and the feedthru where the etch was cut in step (a).
- 5) Install 28 gauge kynar wire on the solder side at the following locations:
 - a) Install jumper wire between U25, Pin 13 and U25, Pin 4, Pin 5.
 - b) Install jumper wire between U25, Pin 6 and J1, Pin 12. Secure wire to the board with an appropriate adhesive, at three locations.

Please contact LEXICON CUSTOMER SERVICE with any questions.