

DAYTON

SHRADER ROBERT E

34703A-1-75

I N T E R - O F F I C E S E R V I C E M E M O

Date: November 19, 1975

TO: EPG Personnel with the Following Titles:
Service Manager Repair Supervisor
Field Engineer Customer Engineer
Service/Electronic Technician

FROM: Les Walker, Service Engineer, Loveland Instrument Division

SUBJECT: Modification of Model 34703A Option H02 A3 Logic Board
to Prevent Sampling Lock-Up

A simple modification to the A3 Logic Board Assembly (-hp- Part Number 34703-91006) is recommended for 34703A Option H02's (plug-on section of 34703A/34740A Option E01 Autoranging DC Voltmeter) with serial numbers prior to 1251A1850. There are 38 such units which are used aboard submarines. They will most likely be sent to offices in the United Kingdom, Spain or the East or West Coast of the United States if repairs are needed. The modification is a Warranty Always.

The 34703A Option H02's with serial numbers prior to 1251A1850 will operate correctly as they come from the factory. However, if the main ROM, A3U111, is replaced, the instrument may take only a few readings and quit sampling when it attempts to autorange. The last reading may remain on the display or overload may be indicated.

This potential problem is eliminated by installing a capacitor between pin 9 of A3U111 and ground. Those instruments with serial numbers 1251A1850 and greater include this capacitor.

MODIFICATION PROCEDURE

1. Read all modification instructions before performing modification.
2. Remove power cord from the instrument. Separate the Model 34703A Option H02 from the Model 34740A Option H02 Display Module by pulling the two side locks at the back of the instrument and lifting the display module from the 34703A. Separate the 34703A main assembly by carefully spreading apart the two sets of plastic fingers.

NOTE

The Model 34703A Mother Board (-hp- Part Number 34703-66501) contains high impedance circuitry and should be clean handled.

3. Remove the three screws that secure the A3 board to the mother board. Unsolder the two connectors attached to the flat cables which go to the mother board (see Figure 1).
4. Unsolder end of jumper wire furthest away from white ceramic ROM on the A3 board (see Figure 2). Resolder jumper in the hole indicated in Figure 3.

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5. Solder a piece of fine bus wire to short the two holes indicated in Figure 3.
6. Install 0.001 microfarad capacitor (-hp- Part Number 0150-0050) in the holes indicated in Figure 3. (Standoff beads shown in photo are not necessary.)
7. Solder flat cable connector back into A3 board and replace three screws.
8. Replace main assembly of 34703A in case and lock plastic fingers. Mate the mainframe and display module and push in the two side locks.
9. Update your Operating and Service Manual by indicating a 0.001 microfarad capacitor, A3C10, between pin 9 of A3U111 (LHLD) and ground on Figure 7-10. Also, add A3C10, -hp- Part Number 0150-0050 to the Replacement Parts List.

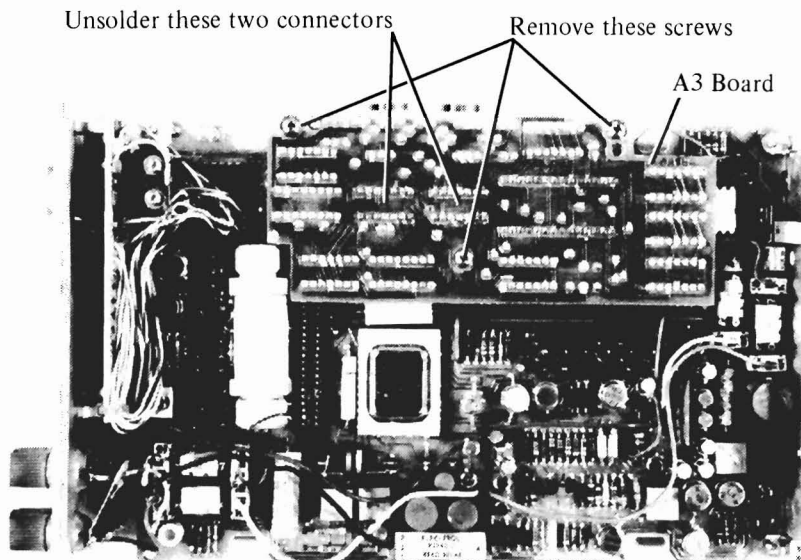


Figure 1. Removal of A3 Board.

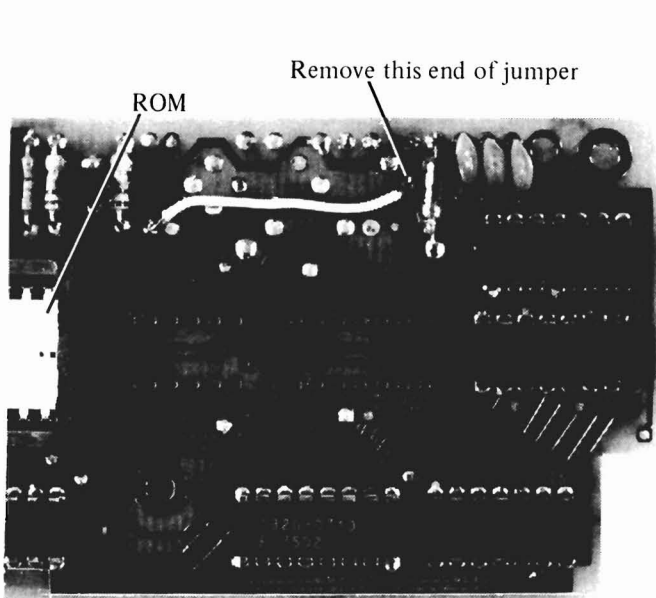


Figure 2. A3 Board Before Modifications.

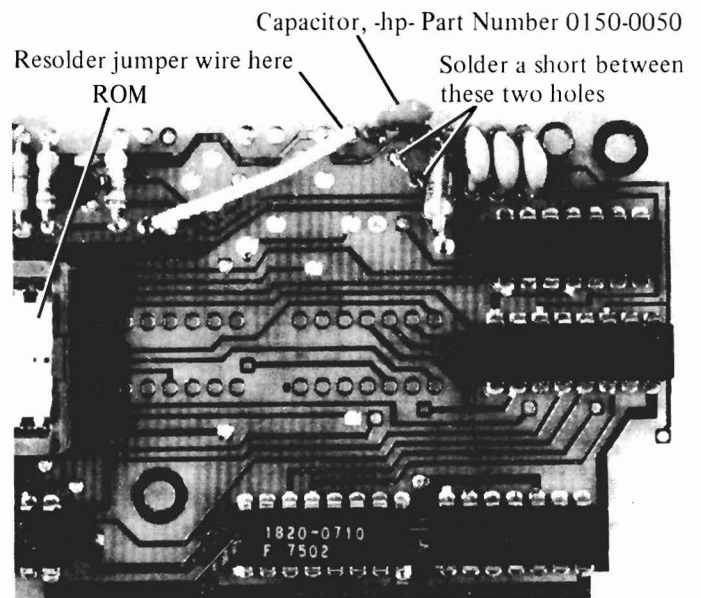


Figure 3. A3 Board After Modifications.