BYRNE RICHARD D

34703A-8 SERVICE NOTE

P.C. 09-09704 SUPERSEDES
NONE

-hp- MODEL 34703A DCV/DCA/OHMMETER

Serial Numbers: Prior to 1251A01351

FAILURE OF AUTO MODE TEST 8

A simple check is described that should be made if the only failure symptom of the Model 34703A is failure of AUTO MODE TEST 8.

In Model 34703A's after Serial Number 1251A01350 the A3 Logic Board Assembly (-hp- Part Number 34703-66503) is a Revision C board. This Revision C board includes a 1000 pF capacitor A3C2 (-hp- Part Number 0150-0050) between the HCLR logic line and Ground 3. This capacitor serves to filter out any unwanted "glitches" that might appear on the output of the Main ROM A3U11 (-hp- Part Number 1818-2132).

If the characteristics of components on an A3 logic board prior to Revision C change, it is possible for "glitches" to occur. If this happens a pulse can appear on the HCLR signal line during AUTO MODE TEST 8. This pulse will clear the Range Counter A3U3 (-hp- Part Number 1820-0912) at the wrong time. The net result is that the instrument will run through AUTO MODE TEST 8, but it will stop on the wrong range (usually with the RANGE 6 LED lit).

If the *only* failure symptom of a 34703A is failure of AUTO MODE TEST 8 and the A3 Logic Board is not Revision C or later, you should check for a "glitch" on the HCLR line. This can be done with an oscilloscope or by temporarily adding a capacitor to see if the problem is eliminated. The new 1000 pF capacitor (-hp- Part Number 0150-0050) can be soldered between pins 14 (HCLR) and 8 (Ground 3) of the Range Counter A3U3.

If the stray pulse is present, the new capacitor should be added to the A3 board permanently.

GWH/bjb/WN 4/75-09

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