

S E R V I C E N O T E

Supersedes
None

HP MODEL 1710A OSCILLOSCOPES

Serial Prefix 1316A and Below.

CRT BURN PROTECTION MODIFICATION

This modification reduces beam intensity when in Bright Scan EXT Horiz and when pressing Beam Find so that chances of burning the CRT are reduced. The kit, Part No. 01710-69501, consists of the following parts:

Terminal - solder stud	0360-0124	2
Nylon Screw	2200-0707	2
Bd Assy. - Gate Mod	01710-66549	1
Wht/Brn/Orn Wire, 11-1/2 inches #24 gauge		1
Wht/Yel/Grn Wire, 2-1/2 inches #24 gauge		1
Wht/Yel/Blu Wire, 10-1/2 inches #24 gauge		1
R16 RF .25 cc 22 K 10	0684-2231	1
Service Note	1710A-2	1

BD ASSY - GATE MOD, 01710-66549, consists of:

Terminal Pin	0360-1788	2
Metal Spacers	0380-0785	2
Resistor, metal film 3.32 K 1/8W	0757-0433	1
Resistor, metal film 8.25 K 1/8W	0757-0441	1
Transistor SI HP Spec	1854-0071	1
Diode SI	1901-0040	2
Bd - Etched	01710-26549	1

To install the kit, proceed as follows:

1. Remove three screws and four wires from GATE ASSY Board, A6, and remove board from instrument.

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2. Mark, punch and drill two 1/8 inch diameter holes as shown in Figure 1.
3. Insert the two nylon screws through the back side of board A6 and fasten BD ASSY - GATE MOD to component side of board A6. Insure metal components do not ground P. C. board. Orient modification board so square pins are toward bottom of Gate Assembly board.
4. Solder 2-1/2 inch Wht/Yel/Grn wire between point marked (945) on BD ASSY - GATE MOD and point on board A6 as shown on Figure 1.
5. Attach 10-1/2 inch Wht/Yel/Blu wire to point marked (946) on BD ASSY - GATE MOD.
6. Attach 11-1/2 inch Wht/Brn/Orn wire to point marked (913) on BD ASSY - GATE MOD.
7. Set TIME/DIV on front panel of instrument as follows: DELAYED SWEEP, MAIN TIME to .2 Sec, and DELAYED TIME to 10 μ sec.
8. Loosen collar and remove shaft.
9. Remove HORIZ. PREAMP BD.
10. On HORIZ PREAMP BD locate A8A7R25 (see Figure 8-40). Unsolder end of A8A7R25 that leads to pin 9.
11. Clean hole and install terminal pin to component side of board.
12. Solder end of A8A7R25 to base of terminal pin.
13. Remove HOLDOFF and COMPARATOR BD.
14. On HOLDOFF and COMPARATOR BD. locate A8A5R1 (see Figure 8-34). Unsolder end of A8A5R1 that is closest to bottom of board (opposite end of A8A5R1 from ground).
15. Clean hole and install terminal pin to component side of board.
16. Solder end of A8A5R1 to base of terminal pin.
17. Replace HORIZ PREAMP BD in instrument connecting all wires. Connect the 11-1/2 inch, Wht/Brn/Orn, wire to the newly installed terminal pin.

18. Replace HOLDOFF and COMPARATOR BD in instrument connecting all wires. Connect the 10-1/2 inch, Wht/Yel/Blu wire to the newly installed terminal pin.
19. Locate A3R16 (see Figure 8-56) on the LV MOTHER BD (A3). Replace A3R16 with the 22 K resistor contained in modification kit. This replacement will be simplified if the LV PREREGULATOR BD is disconnected and moved out of the way.
20. Add the parts in the modification kit to the Parts List of the Operating and Service Manual.
21. Add Figure 2 to the Gate Assembly, A6, Schematic 23.
22. Instrument re-calibration is not necessary.

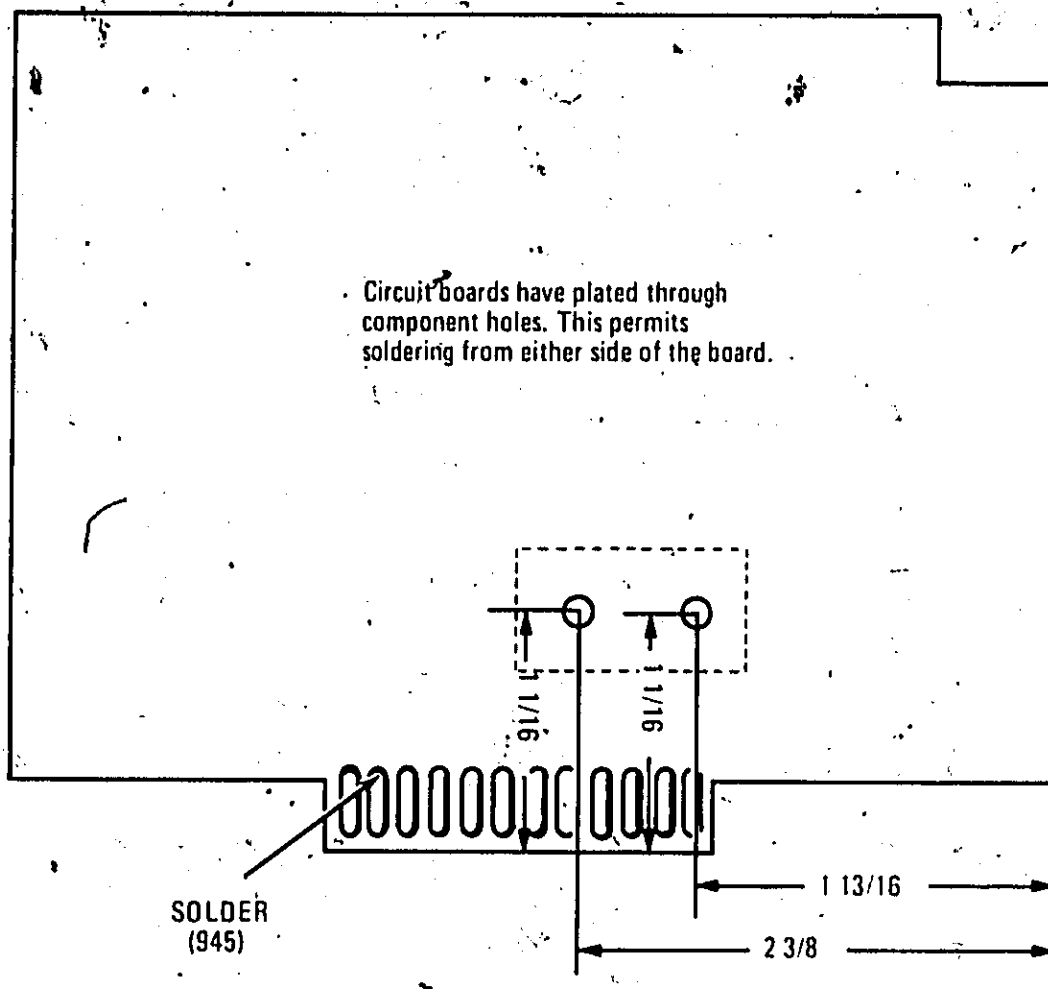


Figure 1.

(Figure 8-45. Component Identification, Assembly A6)

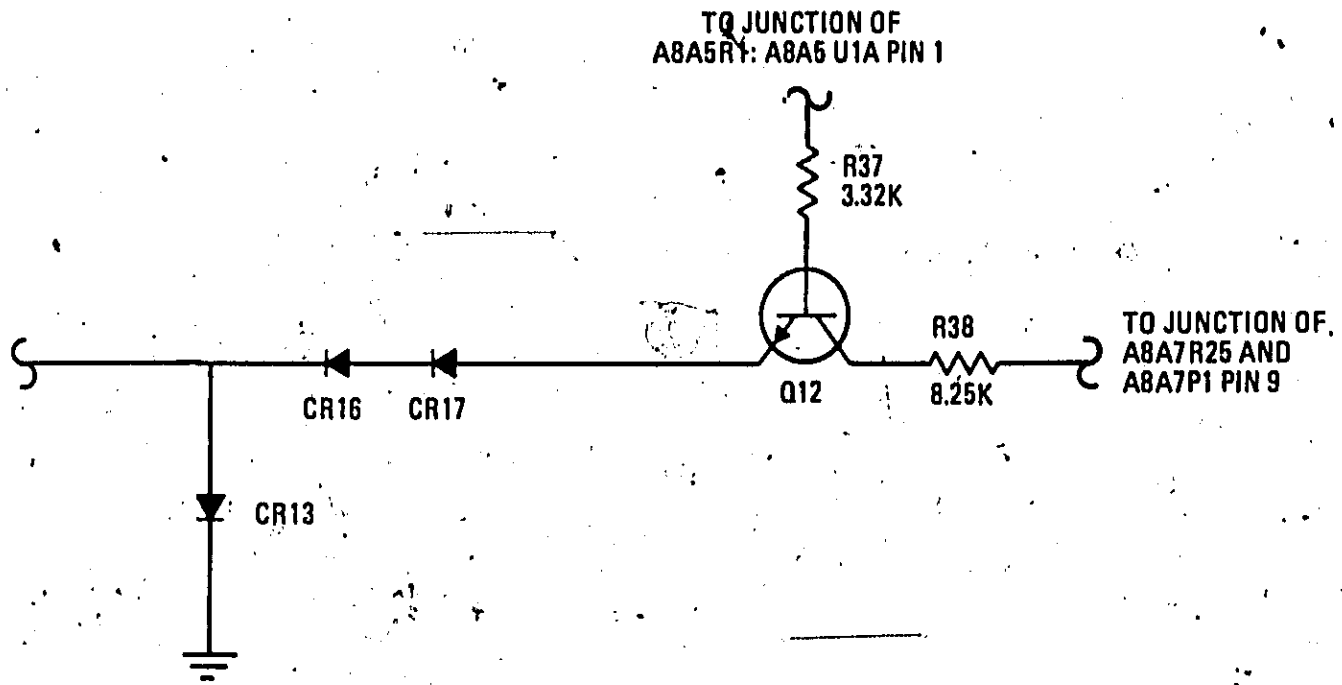


Figure 2. Board Assembly - Gate Mod, 01710-66549