

Supersedes

None

## HP MODEL 1710A OSCILLOSCOPE

Serials Prefixed 1302A- and Below

## VERTICAL AMPLIFIER PROTECTION MODIFICATION

This modification prevents random CRT arcing from damaging the vertical amplifier output integrated circuit. The kit, HP Part No. 01710-69502, consists of the following parts:

01710-66526	P. C. Board
0380-0003	Spacer
2420-0001	Nut
2360-0197	Screw
1710A-1	Service Note
Red/White wire, 3.5 inches	#22 gauge

To install the kit, proceed as follows:

1. Disconnect red wires (vertical input) from neck pins of CRT.
2. Remove the 2 screws holding the vertical output shield to the main chassis.
3. Remove 7 screws holding the P. C. Board to the shield, 6 on board side and one by the delay line on back side.
4. Remove shield from instrument.
5. Mark, punch and drill 3/16" hole in shield as shown in Figure 1.
6. Fasten the small board to shield (on side opposite the output board) using the screw, nut and spacer. Use spacer to keep board elevated from shield.

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7. Unsolder the 2 red vertical output leads from output board and clean out holes with toothpick.
8. Fasten the output board back onto the shield with the 7 screws and insert the two wire leads from the small board into the holes that the red leads were just removed from. Solder the wires.
9. Connect the 2 red leads to the stand-offs on the small board, (the unsoldered holes that the 2 diodes are connected to).
10. Gently move the assembly away from the instrument and loosen the CRT termination assembly from the CRT shield.
11. Solder the enclosed red/white wire to the metallic surface at a point adjacent to the red/white wire square pin that is already attached to the CRT termination assembly.
12. Secure CRT termination assembly back to CRT shield.
13. Reposition output amplifier assembly and secure with 2 screws.
14. Attach the square pin end of the short red/white wire to the square pin connector on the small P. C. Board.
15. Reconnect the red wires to the CRT neck pins.
16. Add the following to the Parts List of the Operating and Service Manual:

A7A6	Board Assembly, vertical output protection	01710-66526
A7A6C1, 2, 3	C, Fxd .47 $\mu$ F 25 V	0160-0174
A7A6CR1, 2	Diode, silicon	1901-0047
17. Add the following schematic to the vertical output amplifier schematic in the Operating and Service Manual.
18. Instrument re-calibration is not necessary.

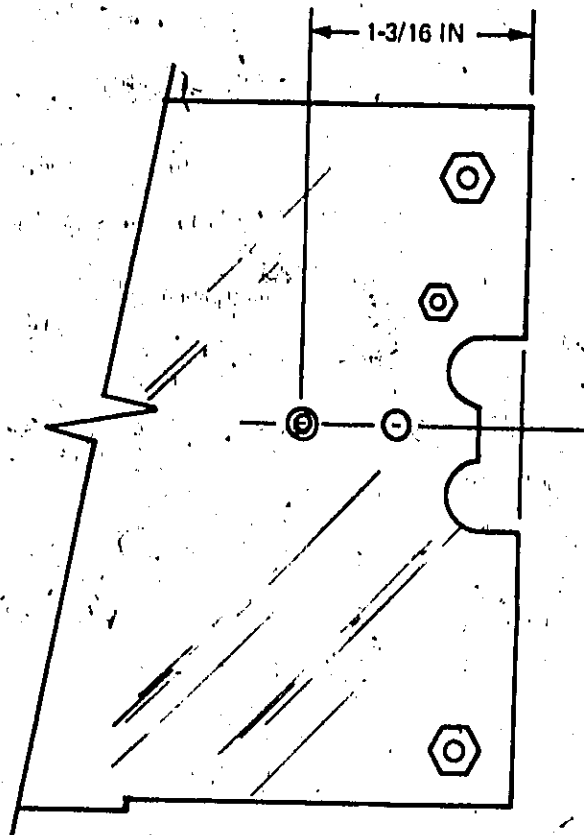


Figure 1.

