

hp MODEL 1750B DUAL TRACE AMPLIFIER
Serial Prefixes Below 516-

Improved DC Balance
Parts Kit #01750-69502

The following modification improves the DC balance of the above instruments by adding a base current adjustment. Formerly there was only one balance adjustment and no provision for a vernier balance was made. After modification, the base current will be adjustable for no trace shift as the vernier is rotated.

This modification includes the addition of two variable resistors and replacement of two fixed resistors.

Components Included in Kit #01750-69502

Quantity	Description	Ref Desig	hp Part No.
2	300k 5% 1/2w	R131, R231	0686-3045
2	2.5M Variable Resistor	R129, R239	2100-1543
1	Service Note		1750B-4

Modification Procedure

1. Remove R131 and R231.
2. Remove the right hand lead from both of the variable resistors as viewed from the lead side with the three contacts toward the top. The fourth lead is not electrically connected.
3. Bend up the center leads of both variable resistors at their center such that they point in opposite directions. Be careful not to bend too sharply and break them off. Do not bend at the point at which the right angle bend is already there.
4. Insert the third lead in the hole left by removing R131, located farthest away from the tube. Make an arc with the fourth lead. Drill a small hole at a point on this arc that does not touch the print on the circuit board.
5. Repeat step 4 for the other variable resistor around corresponding hole left by R231.

6. Trim the leads of the 300k resistors as follows:
 - a. At one end make the lead 1/8" long.
 - b. At other end make the lead 3/8" long and bend a right angle in it at its mid point.
7. Solder the bent end of the resistors to the bent lead of the variable resistor.
8. Insert the combination such that the 300k resistor (short end) goes in the hole nearest the tube. The remaining variable resistor lead goes in other hole, and the fourth lead of the variable resistor goes into the hole drilled in the pc board. Do this for both combinations.
9. Solder the 300k resistors and variable resistors in place.

Adjustment Procedure

Channel A

Short the junction of R123, CR101 to pin 3 of V101. Adjust R129 until there is no movement of the trace with rotation of the VERNIER. Remove the short and reset the trace with the DC BAL to the same position on the screen as when the short was in place.

Channel B

Repeat as in Channel A using the junction of R223, CR201, and pin 3 of V201A. Use R229 for adjustment.

Insert the above adjustment procedure in Section V of your hp Model 1750B Operating and Service Manual in place of the dc balance procedure.

Change the schematic diagram and Replaceable Parts List as indicated in Table 1.