hp MODEL 175A OSCILLOSCOPE
Serial Prefixes Below 436-

INCREASED VERTICAL DC STABILITY

The DC stability of the main vertical amplifier in the above instruments may be improved by installing the hp Part No. 175A-65V input amplifier circuit board. This modification eliminates the small amount of trace drift that occurs over a period of one or two minutes after a DC voltage step is applied to the vertical input. This is the only advantage of the new board so the modification is worthwhile only if the slight drift poses a problem.

The new board is a direct replacement and no special tools are needed for the modification.

Recalibration is necessary after completing the modification.

Note

The hp Model 1750A Dual Trace Vertical Amplifier has the same type of drift as above. This modification will eliminate the drift caused by the 175A. To eliminate the drift caused by the 1750A, it should be operated with the vernier turned fully ccw.

Parts Required

Quantity	Description	hp Part No.
1	Vertical Input Assembly	175A-65V
1	Resistor: 1K ohms, 5%, 1/2W	0758-0003

MODIFICATION PROCEDURE

1. Remove top cover.

2. Replace Vertical Input Assembly A1 with new 175A-65V board. All connections remain the same.

3. Replace R46 on circuit board A2 with 1K ohms resistor.

Recalibrate the vertical amplifier as described in the Model 175A Operating and Service Manual except for the Adjustment Procedure change as follows: In the Hi Freq Response step of the Pulse Response Adjustment paragraph in the Maintenance Section of your Operating and Service Manual, substitute C53 for L7 and L8.

REVISION TO TABLE OF REPLACEABLE PARTS

Ckt Ref	Description	hp Part No.
CHANGE:	TO:	
A1	Assy: vertical input	175A-65V
L13	Coil: fxd, rf, .68 μh	9140-0094
R15	R: fxd, metal oxide, 750 ohms, 2%, 2W	0763-0009
R23, R24	R: fxd, comp, 330 ohms, 5%, 1/4W	0683-3315
DELETE:		
C7, C8	C: fxd, cer, 0.05 μf, 20% 400VDCW	0150-0052
L7, L8	Coil: var, rf	175A-60F
R16	R: fxd, comp, 1.5K, 1%, 1/2W	0727-0110
R19, R20	R: fxd, comp, 68 ohms, 5%, 1/4W	0683-6805
R21, R22	R: fxd, metal film, 6.5K, 5%, 3W	0767-0006
* ADD:		
C12, C13	C: fxd, cer, 1000 pf, 600VDCW	0150-0050
C53	C: var, cer, 5-25 pf	0130-0016
C54	C: fxd, mica, 30 pf, 5%, 500VDCW	0140-0203
Q1, Q2	Transistor: 2N708	1854-0005
R1	R: fxd, comp, 120 ohms, 10%, 1/4W	0684-1211
R2	R: fxd, comp, 6.8K, 5%, 1/4W	0683-6825
R27, R28	R: fxd, comp, 1.5K, 10%, 1/2W	0687-1521
R29	R: fxd, comp, 2.7K, 5%, 3W	0767-0021
R98	R: fxd, comp, 91K, 5%, 1/2W	0686-9135
R99, R100	R: fxd, comp, 15K, 5%, 1/4W	0684-1535
R101	R: fxd, comp, 56 ohms, 10%, 1/4W	0684-5601
R102, R103	R: fxd, comp, 220 ohms, 10%, 1/4W	0684-2211
* Refer to Figure 1.		

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Note: Incorporate Figure 1, Adjustment Procedure Change, and Revisions to Table of Replaceable Parts with your Operating and Service Manual for future reference.

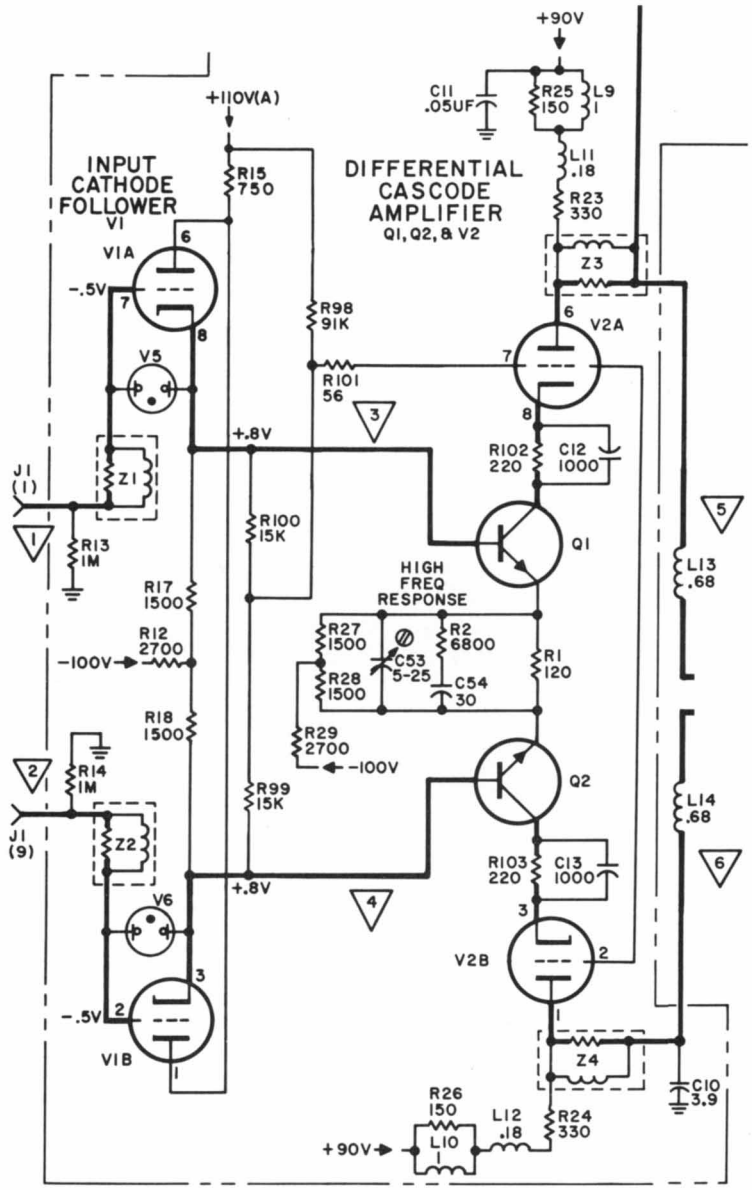

Figure 1. HP Model 175A Oscilloscope, Schematic of Modified Circuit