

TYPE 107

F A C T O R Y C A L I B R A T I O N P R O C E D U R E

RECOMMENDED EQUIPMENT

Tektronix 540 series scope with "L" or "K" preamplifier,
52 Ω cable with 52 Ω terminator.

PRELIMINARY INSPECTION

Check for unsoldered joints, rosin joints, lead dress, and check all hardware to see if it is loose. Fuse should be a slow blo 1.6 amp. Check resistance to ground of transformer and power supply. Check to see that the hot lead of the polarized plug goes to the rear of the fuse.

1. MEASURE VOLTAGES AND CHECK RIPPLE

APPROXIMATE VOLTAGES

+240 v	5 mv ripple
+225 v	150 mv ripple
+200 v	100 mv ripple
+180 v	10 mv ripple
+120 v	2 mv ripple

Check +150 v for voltage and regulation from 105 to 125 volts. The ripple is approximately 100 mv.

2. ADJUST SYMMETRY

Connect the 52 Ω cable to the 107 with the terminator on the end away from the 107. Turn the frequency pot to mid-range and adjust the symmetry pot for a symmetrical waveshape. (located on the left hand side almost in the fan blade)

3. ADJUST LOW FREQUENCY COMPENSATION

Turn the APPROXIMATE FREQUENCY pot to the low frequency or ccw end and adjust R89 for level on the lower edge of the square wave. (minipot near OUTPUT jack on upper right hand side)

4. ADJUST HIGH FREQUENCY COMPENSATION

Turn the APPROXIMATE FREQUENCY pot to the CW or high frequency end. Adjust C88 (small tubular variable capacitor thru chassis) for best lower left hand corner on square wave.

5. CHECK OUTPUT AMPLITUDE

Turn the APPROXIMATE AMPLITUDE control from one extreme to the other. It should vary the output from less than 0.1 volt to 0.5 volts or more.

6. CHECK OUTPUT FREQUENCY

Check APPROXIMATE FREQUENCY control by turning it from one extreme to the other. This control should vary the frequency from below 400 kc to above 1 mc.

7. CHECK TRIGGER OUT AMPLITUDE

Connect the 52 Ω cable and terminator to the trigger output jack on the rear of the 107 and see that the trigger is 1 volt or more.

8. CHECK RISE TIME AND WAVEFORM

The risetime of the 107 is less than 3 millimicroseconds and will generally show up as the risetime of the scope measuring it. (If there are any lumps in the lower part of the waveform, it may be due to regeneration in the 12BY7 stages and can be cured by dressing the by-pass caps more closely to the chassis and shortening the lead lengths.