product modification

050-0383-00
M12361
Type 575

HORIZONTAL AND VERTICAL AMPLIFIER TUBE REPLACEMENT

For TEKTRONIX® Type 575 Transistor Curve Tracers
Serial Numbers 101-12109

When replacing Horizontal Amplifier tubes V344 and V354, or Vertical Amplifier tubes V444 and V454, with a matched pair of tubes (PN 157-0050-00), it is also necessary to change the value of R345 (Horizontal), or R445 (Vertical), from its present value of 3.3M (302-0335-00) to a selected part with a nominal value of 8.2M (302-0825-00).

NOTE 1: V344 and V354, or V444 and V454, are matched tubes and must be replaced as a pair. If you intend to replace V344 - V354 and V444 - V454 at the same time, order two kits.

NOTE 2: If the serial number of your instrument is above those listed, or if this kit has been installed, disregard the instructions as PN 157-0050-00 is a direct replacement in the modified amplifier.

1-3-73
Supersedes: 10-67

PARTS INCLUDED IN PARTS REPLACEMENT KIT:

Ckt. Number	Quantity	Part Number	Description
V344 - V354 or V444 - V454	1 ea	157-0050-00	Tubes, matched pair, 12AU6
R345 or R445	1 ea	302-0825-00	Resistor, comp., 8.2M 1/2W 10%

INSTRUCTIONS:

HORIZONTAL AMPLIFIER

( ) 1. Replace V344 and V354, two 12AU6 tubes in the Horizontal Amplifier, with the matched pair of 12AU6 tubes from the kit.

( ) 2. Replace R345, a 3.3M 1/2W 10% resistor located on a ceramic strip between V344 and 354, with an 8.2M 1/2W 10% resistor from the kit.

VERTICAL AMPLIFIER

( ) 1. Replace V444 and V454, two 12AU6 tubes in the Vertical Amplifier, with the matched pair of 12AU6 tubes from the kit.

( ) 2. Replace R445, a 3.3M 1/2W 10% resistor located on a ceramic strip between V444 and V454, with an 8.2M 1/2W 10% resistor from the kit.

( ) Refer to your Instruction Manual and recalibrate the Horizontal or Vertical Amplifier as required.

( ) Correct your Manual schematic and parts list to conform to kit parts list.

INSTRUCTIONS (continued)

When adjusting Horizontal or Vertical Amplifier gain, select R345 or R445 as follows:

HORIZONTAL GAIN

a) Switch the BASE STEP GENERATOR REPETITIVE-OFF-SINGLE FAMILY switch to the OFF position and set the HORIZONTAL VOLTS PER DIVISION switch to .5 BASE VOLTS.

b) Hold the HORIZONTAL AMPLIFIER CALIBRATION switch in the ZERO CHECK position and move the trace directly behind the right hand edge of the graticule.

c) Switch the AMPLIFIER CALIBRATION switch to the -10 DIVISION position. If the Min Gain Adj is set properly, the trace will move to the left hand edge of the graticule (10 divisions).

d) Change the HORIZONTAL VOLTS/DIVISION switch to .1 or .05 BASE VOLTS and check gain and adjust Max Gain Adj for 10 divisions of deflection.

Change the HORIZONTAL VOLTS/DIVISION switch to .01 or .5 BASE VOLTS and check for 10 divisions of deflection. If deflection does not meet test specifications, adjust gain by selecting R345 as follows: Use standard RMA resistance values from 3.3M to 10M. If the gain is low (less than 10 divisions) use a lower value for R345, and if gain is high (more than 10 divisions) use higher value for R345.

VERTICAL GAIN

a) Switch the BASE STEP GENERATOR REPETITIVE-OFF-SINGLE FAMILY switch to the OFF position and set the VERTICAL CURRENT or VOLTAGE PER DIVISION switch to 1000 COLLECTOR MA.

b) Hold the VERTICAL AMPLIFIER CALIBRATION switch in the ZERO CHECK position and move the trace directly behind the fifth line above the center of the graticule.

c) Switch the AMPLIFIER CALIBRATION switch to the -10 DIVISION position. If the Min Gain Adj is set properly, the trace will move to the fifth line below the center graticule (10 divisions).

d) Change the VERTICAL CURRENT or VOLTAGE PER DIVISION switch to .1 or .05 BASE VOLTS and check gain and adjust Max Gain Adj for 10 divisions of deflection.

Change the VERTICAL CURRENT or VOLTAGE PER DIVISION switch to .01 or .5 BASE VOLTS and check for 10 divisions of deflection. If deflection does not meet specifications, adjust gain by selecting R445 as follows: Use standard RMA resistance values from 3.3M to 10M. If the gain is low (less than 10 divisions) use a lower value for R445, and if gain is high (more than 10 divisions) use a higher value for R445.

JT:mh