



# product modification

050-0650-00

## VERTICAL HF AMPLIFIER REPLACEMENT

For the following TEKTRONIX<sup>®</sup> Oscilloscopes:

R7844	All Serial Numbers
R7903	All Serial Numbers
R7912	All Serial Numbers
7834	All Serial Numbers
7844	All Serial Numbers
7904	All Serial Numbers
7912AD	All Serial Numbers

This kit replaces the vertical high-frequency amplifier microcircuit, pn 155-0059-00. Due to variations in the gain characteristics of the microcircuit, two external emitter resistors may need to be changed. These resistors are preselected according to a numeric code printed on the microcircuit case and are provided with this kit.

## PARTS INCLUDED IN PARTS REPLACEMENT KIT:

Ckt. No.	Quantity	Part Number	Description
U685 <sup>1</sup>	1 ea	155-0059-00	Microcircuit, linear, HF Amplifier
R684 <sup>2</sup> R688 <sup>3</sup>	2 ea	317-XXXX-00 <sup>4</sup>	Resistor, cmpsn, (sel) 5% 0.125W

<sup>1</sup>The circuit number of the HF Amp in the 7834 and the 7844 Beam 1 is U1685, while the circuit number in the 7844 Beam 2 is U2685.

<sup>2</sup>The resistor circuit number is R1683 in the 7834 and the 7844 Beam 1 and is R2683 in the 7844 Beam 2.

<sup>3</sup>The resistor circuit number is R1687 in the 7834 and the 7844 Beam 1 and is R2687 in the 7844 Beam 2.

<sup>4</sup>The value of the selectable emitter resistors is determined by the numeric code printed on the microcircuit as shown below:

<u>IC Code Number</u>	<u>Emitter Resistors Value</u>	<u>Resistor Part Number</u>
1	91 $\Omega$	317-0910-00
2	100 $\Omega$	317-0101-00
3	110 $\Omega$	317-0111-00
4	130 $\Omega$	317-0131-00
5	160 $\Omega$	317-0161-00
6	220 $\Omega$	317-0221-00
7	300 $\Omega$	317-0301-00
8	510 $\Omega$	317-0511-00
9	No resistors required	-----

INSTRUCTIONS:

WARNING

Before proceeding, position the oscilloscope POWER switch to the OFF position, then disconnect the power cord from the power source.

- ( ) 1. Replace the HF Amplifier microcircuit, U685<sup>1</sup>, with the new microcircuit included in the kit.
- ( ) 2. Compare the values of R684<sup>2</sup> and R688<sup>3</sup> with the values of the two (2) 0.125W resistors included in the kit.
- ( ) 3. If necessary, replace R684<sup>2</sup> and R688<sup>3</sup>.

Refer to the appropriate Instruction Manual and recalibrate the Vertical Output Amplifier as necessary.

DH:cs