



050-1706-01

M45639, S48648

## DC OFFSET POTENTIOMETER REPLACEMENT

For TEKTRONIX® 7S11 Sampling Units

Serial Numbers B010100 - B139999

The provided potentiometer assembly replaces the DC OFFSET potentiometer, pn 311-0965-00, 311-1162-00 or 311-1591-00, used for R151/R157. The new precision potentiometer has ten turns as compared to the single turn of the previous potentiometers. This new potentiometer provides improved reliability and adjustability of the DC OFFSET controls. In some cases, the control knobs may need to be replaced.

### NOTE

If the instrument serial number is greater than those listed above or if this kit has been previously installed, disregard these instructions and use the provided potentiometer assembly as a direct replacement for R151/R157.

## PARTS INCLUDED IN PARTS REPLACEMENT KIT:

Ckt. No.	Quantity	Part Number	Description
	1 ea		Assembly, potentiometer, DC OFFSET (consisting of)
	3 ea	131-0621-00	Connector, term, 22-26 AWG
	0.041 ft	162-0026-00	Insul sleeving, 0.059 ID, PTFE, clear
R151/R157	1 ea	311-2196-00	Resistor, var, prec, 2 x 10k $\Omega$ , 5%, 1W
R156	1 ea	315-0101-00	Resistor, cmpsn, 100 $\Omega$ , 5%, 0.25W
R153,R154	2 ea	315-0273-00	Resistor, cmpsn, 27k $\Omega$ , 5%, 0.25W
R158	1 ea	315-0821-00	Resistor, cmpsn, 820 $\Omega$ , 5%, 0.25W
	0.438 ft	-----	Cable, ribbon, 3-cond, 26 AWG
	1 ea	210-0046-00	Washer, lock, 0.261 ID, intl
	1 ea	366-1084-00	Knob, gray, 0.08 ID x 0.392 OD x 0.4 H
	1 ea	366-1101-00	Knob, gray, 0.127 ID x 0.706 OD x 0.6 H
	1 ea	-----	Label, identification, 050-kit

## INSTRUCTIONS:

**WARNING**

Before proceeding, ensure the oscilloscope mainframe POWER switch is in the OFF position. Then disconnect the 7S11 Sampling Unit from the mainframe.

- ( ) 1. Remove the right-side electrical shield.
- ( ) 2. Disconnect the 5-pin connector, P158, from the Interface circuit board.
- ( ) 3. Remove the terminal connectors from slots 3, 4 and 5 (orange, yellow, and green color-coded wires) of the connector housing for P158. First, carefully push on the connectors with a blunt tool through the holes (located above the slot numbers) in the connector housing to release the connectors from the holding tabs. Then gently pull on the wires to remove the connectors from the housing.
- ( ) 4. Loosen the knob setscrews and remove the DC OFFSET control knobs.
- ( ) 5. Remove the nut attaching the DC OFFSET potentiometer to the front subpanel.

- ( ) 6. Remove the DC OFFSET potentiometer, R151/R157.
- ( ) 7. Install the new DC OFFSET potentiometer, provided in the kit, into the front subpanel hole.
- ( ) 8. Orient the potentiometer terminals toward the left side of the sampling unit.
- ( ) 9. Install the provided lock washer onto the potentiometer shaft.
- ( ) 10. Secure the potentiometer to the front subpanel, using the nut removed earlier. Ensure the terminals remain oriented toward the left side of the instrument.

NOTE

Different knobs with varying inside diameters have been used for the DC OFFSET controls. The two knobs included in this kit have the correct diameter for the shafts on the new DC OFFSET potentiometer.

- ( ) 11. Install the DC OFFSET control knobs onto the new potentiometer shafts and tighten the setscrews. Do not excessively tighten the setscrew on the outer shaft (larger knob). If excess pressure is applied, the outer shaft may bend and rub against the inner shaft.
- ( ) 12. Insert the terminal connectors for the orange, yellow and green wires, attached to the new potentiometer, into slots 3, 4 and 5, respectively, of P158.
- ( ) 13. Connect P158 to the five square pins, labeled P158, on the Interface circuit board. Ensure the pin 1 indicators (▼) on the circuit board and the connector housing are aligned.
- ( ) 14. Refer to the Performance Check/Calibration section of the instruction manual and check instrument performance, making any necessary adjustments.
- ( ) 15. Install the right-side electrical shield.
- ( ) 16. Remove the protective backing from the provided 050-kit identification label and apply the label to a clean, dry area on the top frame section.
- ( ) 17. Update the Replaceable Electrical Parts section of the instruction manual with the information for R151/R157 included in the parts list of this kit. Also, change the information for the DC OFFSET control knobs in the Replaceable Mechanical Parts section.

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