

54830D-10

S E R V I C E N O T E

Supersedes:
NONE

54830D

Serial Numbers: [0000A00000 / 9999Z99999]

Update on errors in service manual 54830-97013.

Parts Required:

P/N	Description	Qty.
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NA		
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ADMINISTRATIVE INFORMATION

SERVICE NOTE CLASSIFICATION:

INFORMATION ONLY

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ADDITIONAL INFORMATION:

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Situation:

Performance Verification procedure in the Service Manual does not explain the correct procedure for testing 100 MHz and 500 MHz External Trigger Sensitivity. The 100 MHz test is done using 90mVpp input to a splitter and thus supplying only a 45mVpp input to the external channel. This lower voltage does not overcome the effects of Hysteresis consequently the test will fail. The original interpretation of the specification is $.05 \times [\text{signal range}]$ and the signal range is $\pm 1\text{V}$. Calculating the input voltage was thought to be 50mV this was not correct considering the range is $\times 2$ it should have been 100mVpp.

Solution/Action:**Procedure—External Trigger Test (2-channel models only)**

This test is necessary only on the Agilent 54830B/D & 54833A/D.

- 1 Connect the equipment.
 - a With the N cable, connect the signal generator to the power splitter input.
 - b Using an N-to-BNC adapter and BNC cable, connect one splitter output to the channel 1 input.
 - c Press the channel 1 button to turn the channel on. Set the channel to 50 Ω , DC coupling.
 - d Connect the second splitter output to the Ext Trig input.
- 2 Set the signal generator frequency to 100 MHz and the output level to 71mV_{rms} (200mV_{pp} from the generator, 100mV_{pp} into the trigger).
- 3 Press Autoscale.
- 4 Use the Ext Trig Input Range knob to set the range to $\pm 1\text{ V}$. Set Input to 50 Ω and coupling to dc.
- 5 Press the Source key to select Ext.
- 6 Press the Sweep key to select Trig'd.
- 7 Adjust the trigger level for a stable display.
- 8 The test passes if triggering is stable. Record the result in the Performance Test Record.
- 9 Set the signal generator frequency to 500 MHz and output level to 141mV_{rms} (400mV_{pp} from the generator, 200mV_{pp} into the trigger).
- 10 Adjust the trigger level for a stable display.
- 11 The test passes if triggering is stable. Record the result in the Performance Test Record.