14/15/16/17. Trigger sensitivity channel A and B
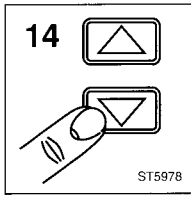

The trigger sensitivity depends on the amplitude and frequency of the trigger signal. This test checks the trigger sensitivity of the ScopeMeter. Also the +SLOPE/-SLOPE function (triggering on negative slope) is tested for both channels A and B. Channel B is tested first.

Test equipment:
   Tektronix SG 503 Constant Amplitude Sine Wave Generator

Test setup:
   Connect the banana jack COM to the BNC common

ScopeMeter
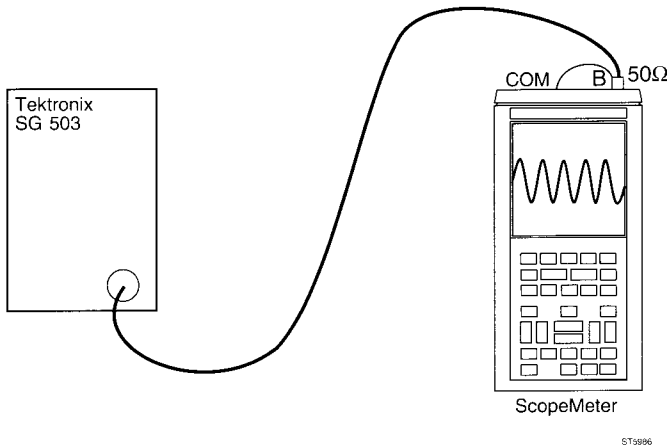
Procedure/requirements for channel B trigger sensitivity measurement:

A   Apply a 100 MHz sine wave, with an amplitude of approximately 200 mV peak-to-peak to channel B. Use a 50Ω termination.[1]
B   Adjust the amplitude of the input signal to exactly 4 divisions on the display.
C   Verify that the signal is well triggered.
D   Apply a 60 MHz sine wave, with an amplitude of approximately 100 mV peak-to-peak to channel B. Use a 50Ω termination.[1]
E   Adjust the amplitude of the input signal to exactly 2 divisions on the display.
F   Verify that the signal is well triggered.
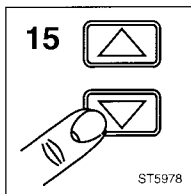
G   Apply a 10 MHz sine wave, with an amplitude of 300 mV peak-to-peak to channel B. Use a 50Ω termination.[1]

H   Adjust the amplitude of the input signal to exactly 1.5 divisions on the display.
I   Verify that the signal is well triggered on the **falling** edge. See figure 4.5.
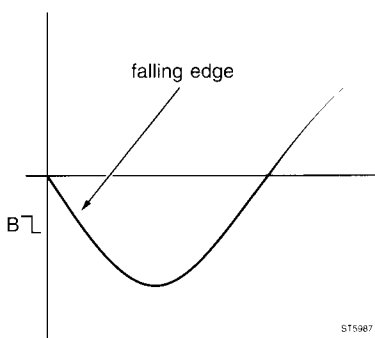
[1]   The SG 503 setting will be higher than the required ScopeMeter input value!

Figure 4.5   Signal triggered on the falling (negative) edge