

ST-8000A FIRST ARTICLE TEST SETUP FOR HP5316B

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The first article tests of the ST-8000A may utilize the HP-5316B Universal Counter. During the first article test the HP-5316B measure different frequencies. Because it is a highly precise device the least precise digit of any reading will alter rapidly. The significant digits of the readings will be stable if the unit is properly adjusted. All of the following assume only a single source is connected to Channel A.

NOTE: All of the buttons on the HP-5316B have two positions, "in" and "out". The input signal conditioning buttons reflect the state labeled above the button when "out". The mode select buttons reflect the state above the button when the BLUE button is "out".

MEASURING CHANNEL A FREQUENCY

- 1) Put the BLUE button in the "out" position.
- 2) Put the FREQ A button into the "in" position.
- 3) Adjust the input signal conditions.
 - a) Put AC/DC in the "out" (AC) position.
 - b) Set ATTN X20/X1 in the "out" (X20) position.
 - c) Set FILTER NORM/100KHz to the "out" (NORM) position.
 - d) Put TRIGGER LEVEL/SENSITIVITY in the "out" (LEVEL) position.
- 4) Adjust the GATE TIME dial to $\sim .5s$ ($\sim 1/4$ turn above "min").
- 5) Set LEVEL/SENSE dial at halfway and adjust for most stable frequency display. Optimum is when the yellow LED pulse rapidly (not ON or OFF).
- 6) Make any precision adjustments you deem necessary and take readings.

TO INCREASE PRECISION

- 1) Rotate the GATE TIME dial towards "max". The GATE LED will slow as the dial is rotated clockwise.

NOTE: The slower the gate time the more precise the readings.

TO DECREASE PRECISION

- 1) Rotate the GATE TIME dial towards "min", counter-clockwise. The GATE LED will flash faster as the

dial is rotated.