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SINCE 1975

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INSTRUCTIONS

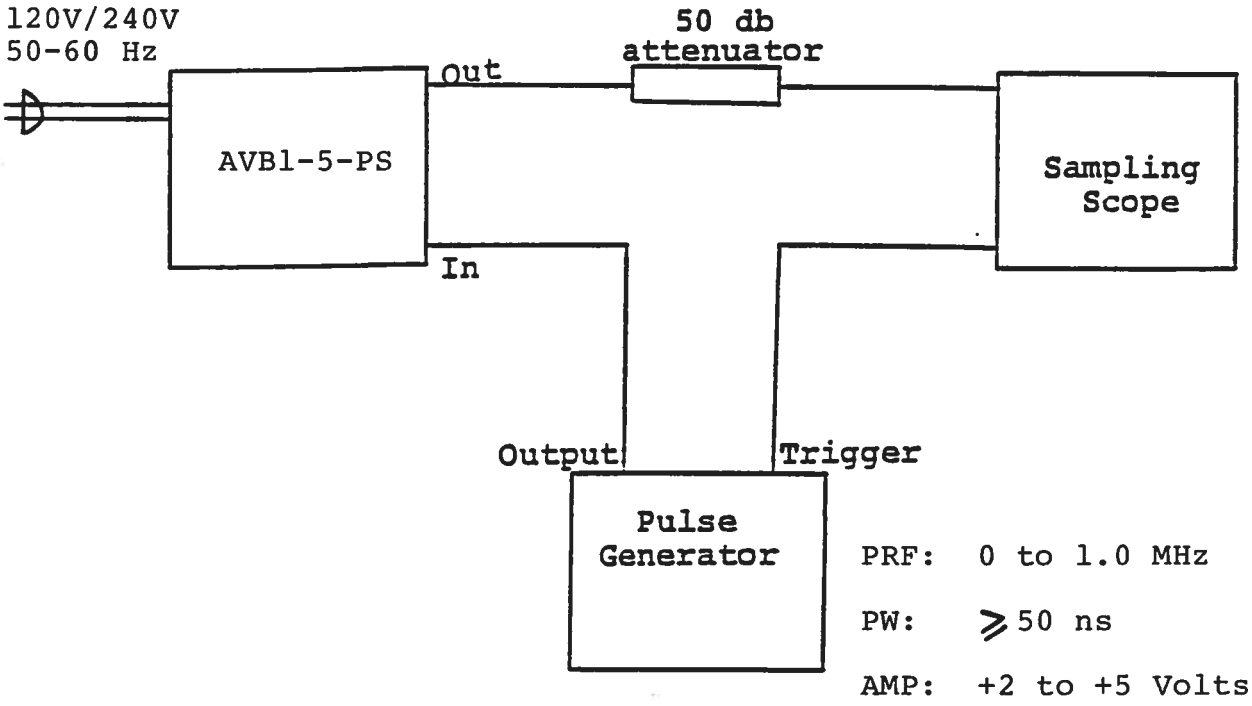
MODEL AVB1-5-PS MONOCYCLE GENERATOR

S.N.:

WARRANTY

Avtech Electrosystems Ltd. warrants products of its manufacture to be free from defects in material and workmanship under conditions of normal use. If, within one year after delivery to the original owner, and after prepaid return by the original owner, this Avtech product is found to be defective, Avtech shall at its option repair or replace said defective item. This warranty does not apply to units which have been dissembled, modified or subjected to conditions exceeding the applicable specifications or ratings. This warranty is the extent of the obligation or liability assumed by Avtech with respect to this product and no other warranty or guarantee is either expressed or implied.

MONOCYCLE GENERATOR TEST ARRANGEMENT



Notes:

1) The bandwidth capability of components and instruments used to display the monocycle generator output signal (attenuators, cables, connectors, etc.) should exceed 10 GHz.

2) The use of a 50 dB attenuator will insure a peak input signal to the sampling scope of less than one Volt.

3) In general, the pulse generator delay control should be set in the 100 ns range. Other settings should be as shown in the above diagram. The monocycle generator output is delayed with respect to the trigger input signal by about 30 ns (typically).

4) The monocycle generator can withstand an infinite VSWR on the output port (but requires a 50 Ohm load for proper operation).

5) The output frequency is set by the FREQUENCY A and FREQUENCY B controls. Initially, the FREQUENCY A control should be set mid range and the FREQUENCY B control set max clockwise and the amplitude should be set fully clockwise then, to obtain a particular frequency:

   A) Rotate the FREQUENCY A control to set the pulse width of the positive pulse equal to one half the period of the desired frequency (eg. for 500 MHz, the pulse width should be set to 1.0 ns). Clockwise rotation of the FREQUENCY A control reduces the pulse width.

   B) Rotate the FREQUENCY B control counter clockwise to line up the falling edge of the positive pulse with the rising edge of the negative pulse.

   C) Final minor adjustments are then made to the two controls to perfect the shape of the sinusoid. Note that if the PRF is changed dramatically (or if the amplitude is varied) it will be necessary to re-adjust the two controls.

6) The output amplitude is controlled by the front panel one turn control and the rear panel two position "HIGH-LOW" switch. With the switch set in the "HIGH" position, the output amplitude is slightly higher ($\approx$ 10%) but the spurious level following the output may also be higher (particularly at reduced amplitudes). For some demanding applications it may be desirable to use attenuator pads on the output to control the output amplitude.

7) The unit can be converted from 120 to 240V 50-60 Hz operation by adjusting the voltage selector card in the rear panel fused voltage selector-cable connector assembly.

8) For additional assistance:

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