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**NANOSECOND WAVEFORM ELECTRONICS
ENGINEERING . MANUFACTURING**

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INSTRUCTIONS

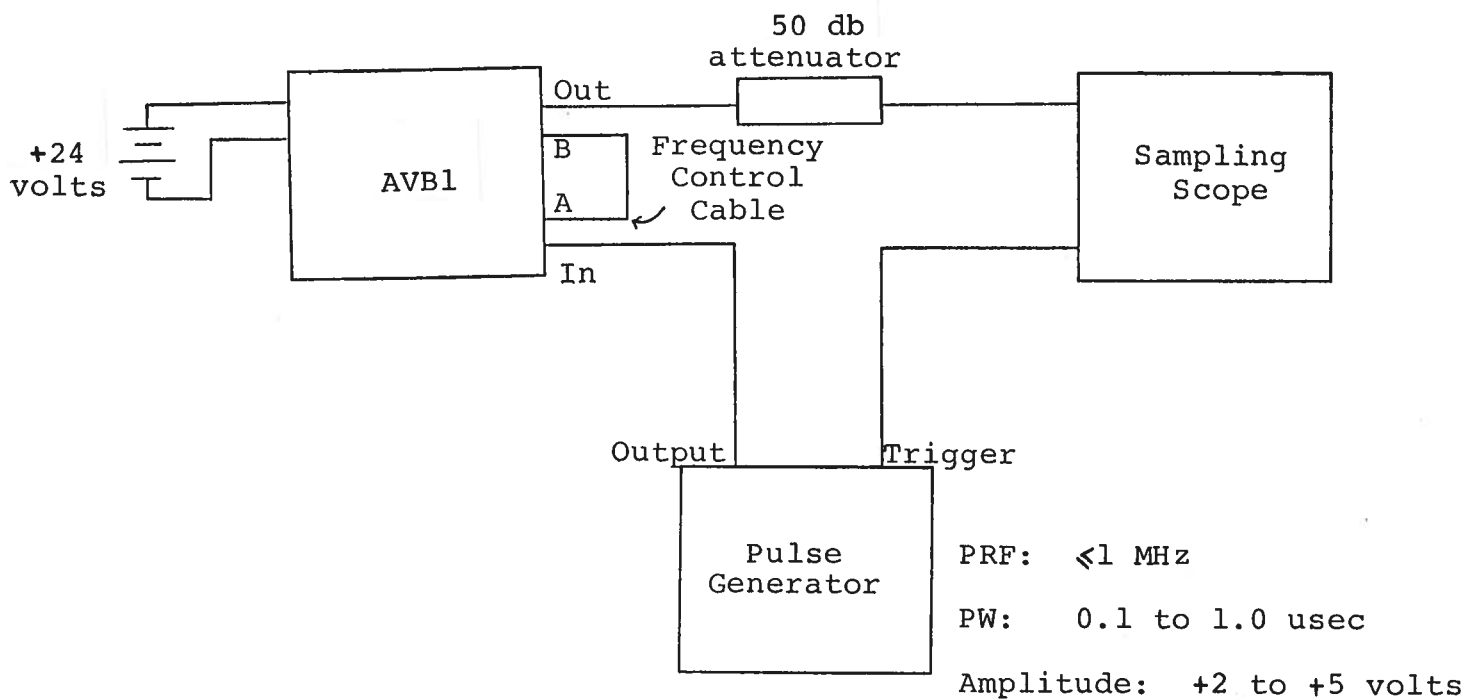
MODEL AVB1-500-ES1 MONOCYCLE GENERATOR

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 disassembled, 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 several gigahertz.
- 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 trigger delay control should be set in the <100 nsec 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 70 nsec (typically).
- 4) The output frequency is controlled primarily by the length of miniature 50 ohm coaxial cable connected between the A and B ports. The frequency control cable may be fabricated from RG 174 miniature coax with American 2001 - 7188 connectors (or the equivalent) or from 85 mil semi-rigid cable with American 2001 - 5032 connectors (or the equivalent). The output signal half-period ($T/2$) and cable length (L) are related linearly (≈ 1.5 nsec per foot of cable). CAUTION: The center conductor on the frequency control cable is at a DC potential of +130V and so the instrument should be turned off when the cable is to be changed.
- 5) The output frequency is also slightly dependent on the setting of the PW P and PW N pot controls. Clockwise rotation of the pot controls tends to increase the width of positive and negative going segments of the output sinusoid.
- 6) The unit was adjusted to provide 500 MHz output at the time of shipping so little or no adjustment of the above controls should be necessary.
- 7) The +15 volt supply should be disconnected when changing or removing the frequency control cable.
- 8) The monocycle generator can withstand an infinite VSWR on the output port.
- 9) CAUTION: The unit may fail if the trigger PRF exceeds 1.0 MHz.

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