

# AVTECH ELECTROSYSTEMS LTD.

NANOSECOND WAVEFORM ELECTRONICS  
ENGINEERING - MANUFACTURING

□ P.O. BOX 265  
OGDENSBURG  
NEW YORK  
13669  
(315) 472-5270

☒ BOX 5120, STN. "F"  
OTTAWA, ONTARIO  
CANADA K2C 3H4  
TEL: (613) 226-5772  
FAX: (613) 226-2802  
TELEX: 053-4591

## INSTRUCTIONS

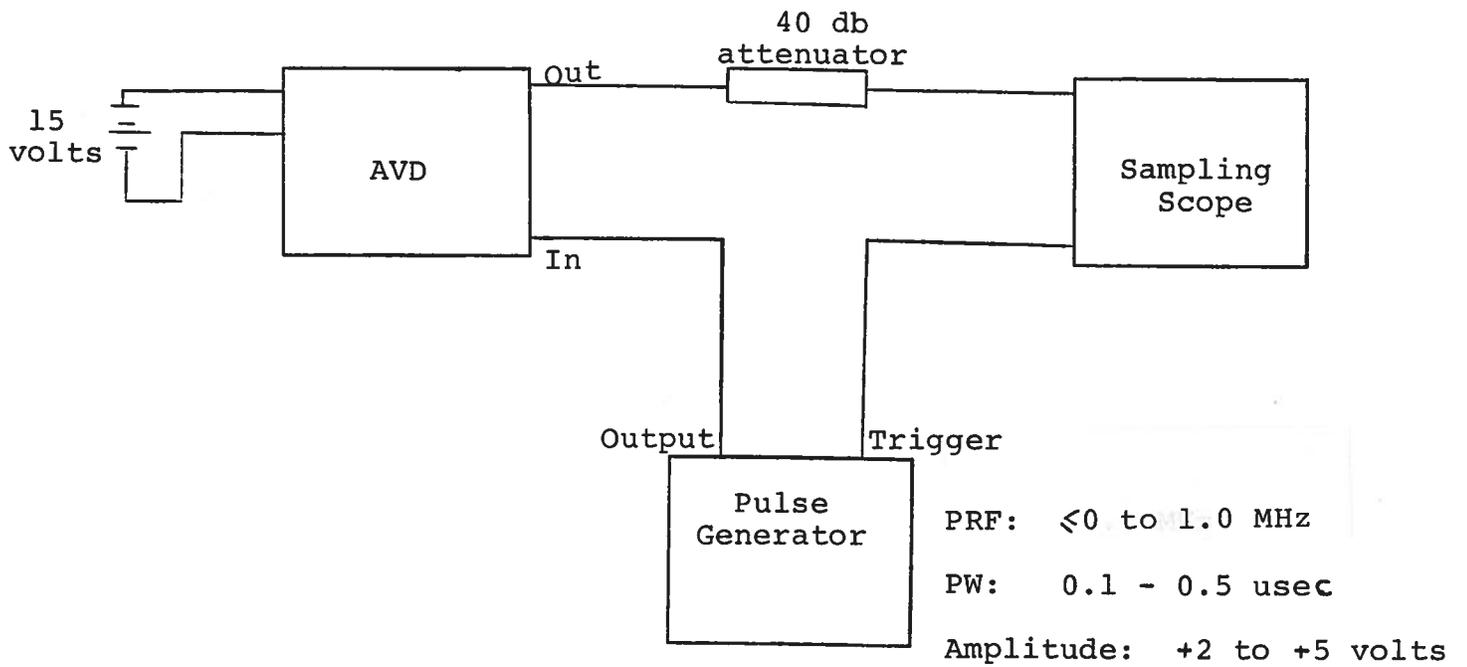
MODEL AVD-GSSB1 MONOCYCLE GENERATOR

S.N. :

### WARRANTY

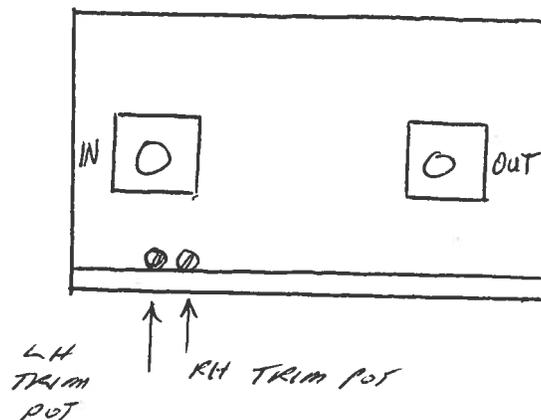
Avtech Electrosystems Ltd. warrants products of its manufacture to be free from defects in material and workmanship under conditions of normal use. If, within one year after delivery to the original owner, and after prepaid return by the original owner, this Avtech product is found to be defective, Avtech 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 10 GHz.
- 2) The use of a 40 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 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 75 nsec (typically).
- 4) The monocycle generator can withstand an infinite VSWR on the output port.
- 5) The unit may be tuned from about 2500 MHz to about 3300 MHz using the two ten turn TRIM pots shown below. Clockwise rotation of the right-hand pot tends to increase the period (or decrease the frequency) while clockwise rotation of the left-hand pot tends to decrease the period.



11  
12

The general quality of components and materials used in the design of the engine is of a high standard and it is felt that the engine will be a reliable and efficient power plant for the aircraft.

The use of a 50 cc. displacement engine is considered to be a reasonable compromise between power and weight.

In order to ensure that the engine is capable of operating at a high altitude, the carburettor has been designed to provide a rich mixture at high altitudes. This is achieved by means of a variable jet which is controlled by a pressure differential valve.

The engine is designed to operate at a maximum power output of 1000 watts at 2500 rev/min.

The engine is designed to operate at a maximum power output of 1000 watts at 2500 rev/min. The engine is designed to operate at a maximum power output of 1000 watts at 2500 rev/min. The engine is designed to operate at a maximum power output of 1000 watts at 2500 rev/min.