

### AVTECH ELECTROSYSTEMS LTD.

NANOSECOND WAVEFORM ELECTRONICS SINCE 1975

P.O. BOX 265 OGDENSBURG, NY U.S.A. 13669-0265 TEL: (315) 472-5270 FAX: (613) 226-2802

TEL: 1-800-265-6681 FAX: 1-800-561-1970

e-mail: info@avtechpulse.com http://www.avtechpulse.com P.O. BOX 5120 STN. F OTTAWA, ONTARIO CANADA K2C 3H4 TEL: (613) 226-5772 FAX: (613) 226-2802

### **INSTRUCTIONS**

MODEL AVE1-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 assumed by Avtech with respect to this product and no other warranty or guarantee is either expressed or implied.

### **TECHNICAL SUPPORT**

Phone: 613-226-5772 or 1-800-265-6681 Fax: 613-226-2802 or 1-800-561-1970

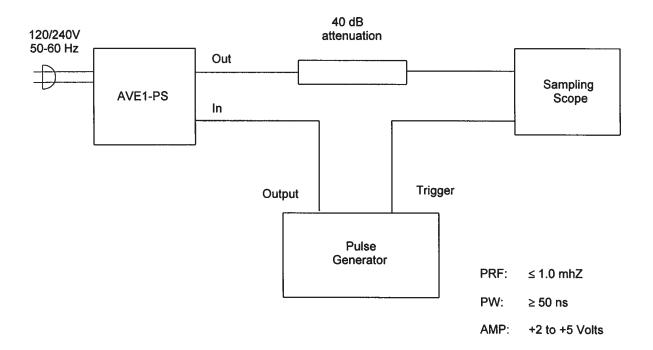
E-mail: info@avtechpulse.com
World Wide Web: http://www.avtechpulse.com

## **TABLE OF CONTENTS**

WARRANTY	2	
TABLE OF CONTENTS	3	
FIG. 1: PULSE GENERATOR TEST ARRANGEMENT	5	
GENERAL OPERATING INSTRUCTIONS		
POWER SUPPLY AND FUSE REPLACEMENT		
PERFORMANCE CHECK SHEET		

Manual Reference: Q:\office\instructword\Ave\AVE1-PS.doc, created March 31, 2000

# FIG. 1: PULSE GENERATOR TEST ARRANGEMENT



#### **GENERAL OPERATING INSTRUCTIONS**

- 1) The bandwidth capability of components and instruments used to display the pulse generator output signal (attenuators, cables, connectors, etc.) should exceed 10 GHz.
- 2) The use of 40 dB attenuator at the sampling scope vertical input channel will insure a peak input signal to the sampling scope of less than one Volt.
- 3) An external clock may be used to control the output PRF of the AVE1 unit by applying a 50 ns (or wider) TTL level pulse to the TRIG BNC connector input.
- 4) The unit may be tuned from about 1000 MHz to about 2000 MHz using the front panel control. Clockwise rotation of the pot tends to decrease the period (or increase the frequency).
- 5) The AVE1-PS 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.
- 6) For additional assistance:

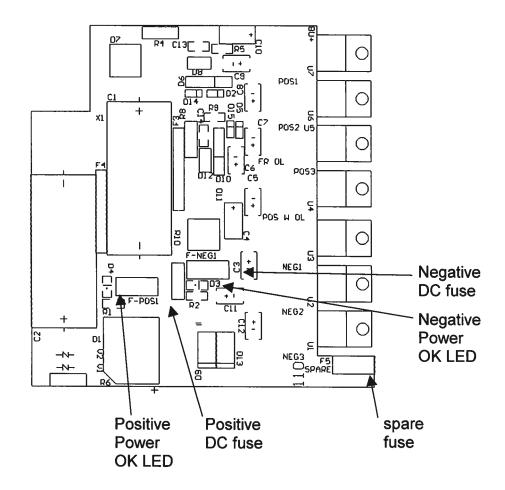
Tel: 613-226-5772 Fax: 613-226-2802

Email: info@avtechpulse.com

### POWER SUPPLY AND FUSE REPLACEMENT

This instrument has three fuses (plus one spare). One, which protects the AC input, is located in the rear-panel power entry module, as described in the "Rear Panel Controls" section of this manual. If the power appears to have failed, check the AC fuse first.

The other two fuses (plus one spare) are located on the internal DC power supply, as shown below:



The spare fuse may be used to replace one of the other fuses, if required.

The three fuses on this circuit board are 0.5A slow-blow fuses, Littlefuse part number R452.500. (This fuse can be ordered from Digikey, www.digikey.com. The Digikey part number is F1341CT-ND).

If you suspect that the DC fuses are blown, follow this procedure:

- 1. Remove the top cover, by removing the four Phillips screws on the top cover and then sliding the cover back and off.
- 2. Locate the two "Power OK" LEDs on the power supply circuit board, as illustrated above.
- 3. Turn on the instrument.
- 4. Observe the "Power OK" LEDs. If the fuses are not blown, the two LEDs will be lit (bright red). If one of the LEDs is not lit, the fuse next to it has blown.
- 5. Turn off the instrument.
- 6. If a fuse is blown, use needle-nose pliers to remove the blown fuse from its surface-mount holder.
- 7. Replace the fuse.