

INSTRUCTIONS

MODEL AVP-2S-PS PULSE 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 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](mailto:info@avtechpulse.com)

World Wide Web: <http://www.avtechpulse.com>

## TABLE OF CONTENTS

WARRANTY.....	2
TABLE OF CONTENTS.....	3
FIG. 1: AVP-2S-PS PULSE GENERATOR TEST ARRANGEMENT.....	4
GENERAL OPERATING INSTRUCTIONS.....	5
SYSTEM BLOCK DIAGRAM.....	7
SYSTEM DESCRIPTION AND REPAIR PROCEDURE.....	8
PERFORMANCE CHECK.....	9

FIG. 1: AVP-2S-PS 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 ten gigahertz.
- 2) The use of 20 dB attenuator will insure a peak input signal to the sampling scope of less than one Volt.
- 3) The input resistance to the pulser is 1K so the unit can be triggered by a TTL device. However for the best low jitter performance, the TRIG input should be shunted by 50 Ohms.
- 4) The Model AVP-2S pulse generator can withstand an infinite VSWR on the output port.
- 5) WARNING: Model AVP-2S may fail if triggered at a PRF greater than 1.0 MHz.
- 6) The output pulse width is controlled by means of the front panel one turn PW control.
- 7) The output pulse amplitude is controlled by means of the front panel one turn AMP control. Some properties of the output pulse may change as a function of the amplitude pot setting. For some demanding applications, it may be desirable to use a combination of external attenuators and the amplitude pot to achieve the desired output amplitude.
- 8) To voltage control the output pulse width, set the rear panel switch in the EXT position and apply 0 to +10V to the A BNC connector ( $R_{IN} \geq 10K$ ). (option).
- 9) To voltage control the output amplitude, set the rear panel switch in the EXT position and apply 0 to +10V to the A BNC connector ( $R_{IN} \geq 10K$ ). (option).
- 10) For units with the OT or EO options, the output DC offset is variable from +5 to -5 Volts by means of the front panel one turn OFFSET control. The offset control may be turned off by means of the rear panel ON-OFF OFFSET switch.

11) The AVP 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.

12) For additional assistance:

Tel: (613) 226-5772

Fax: (613) 226-2802

SYSTEM BLOCK DIAGRAM

## SYSTEM DESCRIPTION AND REPAIR PROCEDURE

The AVP-2S-PS consists of a pulse generator module (AVP-2S-PG) and a power supply board which supplies +15 Volts (600 mA max) to the pulse generator module. In the event that the unit malfunctions, remove the instrument cover by removing the four Phillips screws on the back of the unit. The top lid may then be slid off. Measure the voltage at the +15V pin of the PG module. If this voltage is substantially less than +15 Volts, unsolder the line connecting the power supply and PG modules and connect 50 Ohm 10 W load to the PS output. The voltage across this load should be about +15V DC. If this voltage is substantially less than 15 Volts the PS module is defective and should be repaired or replaced. If the voltage across the resistor is near 15 Volts, then the PG module should be replaced or repaired. The sealed PG module must be returned to Avtech for repair (or replacement).



PERFORMANCE CHECK