



AVTECH ELECTROSYSTEMS LTD.

NANOSECOND WAVEFORM ELECTRONICS
SINCE 1975

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INSTRUCTIONS

MODEL AVH-SA-PS IMPULSE GENERATOR

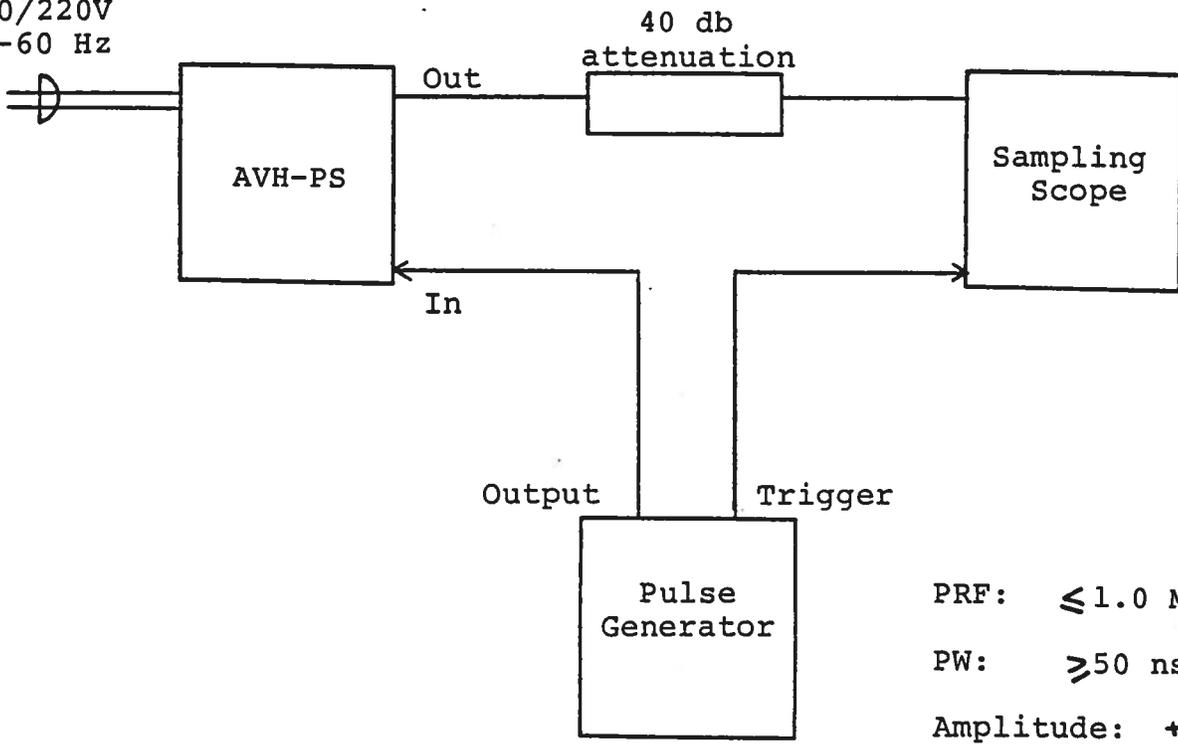
S.N. :

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.

IMPULSE GENERATOR TEST ARRANGEMENT

110/220V
50-60 Hz



PRF: ≤ 1.0 MHz

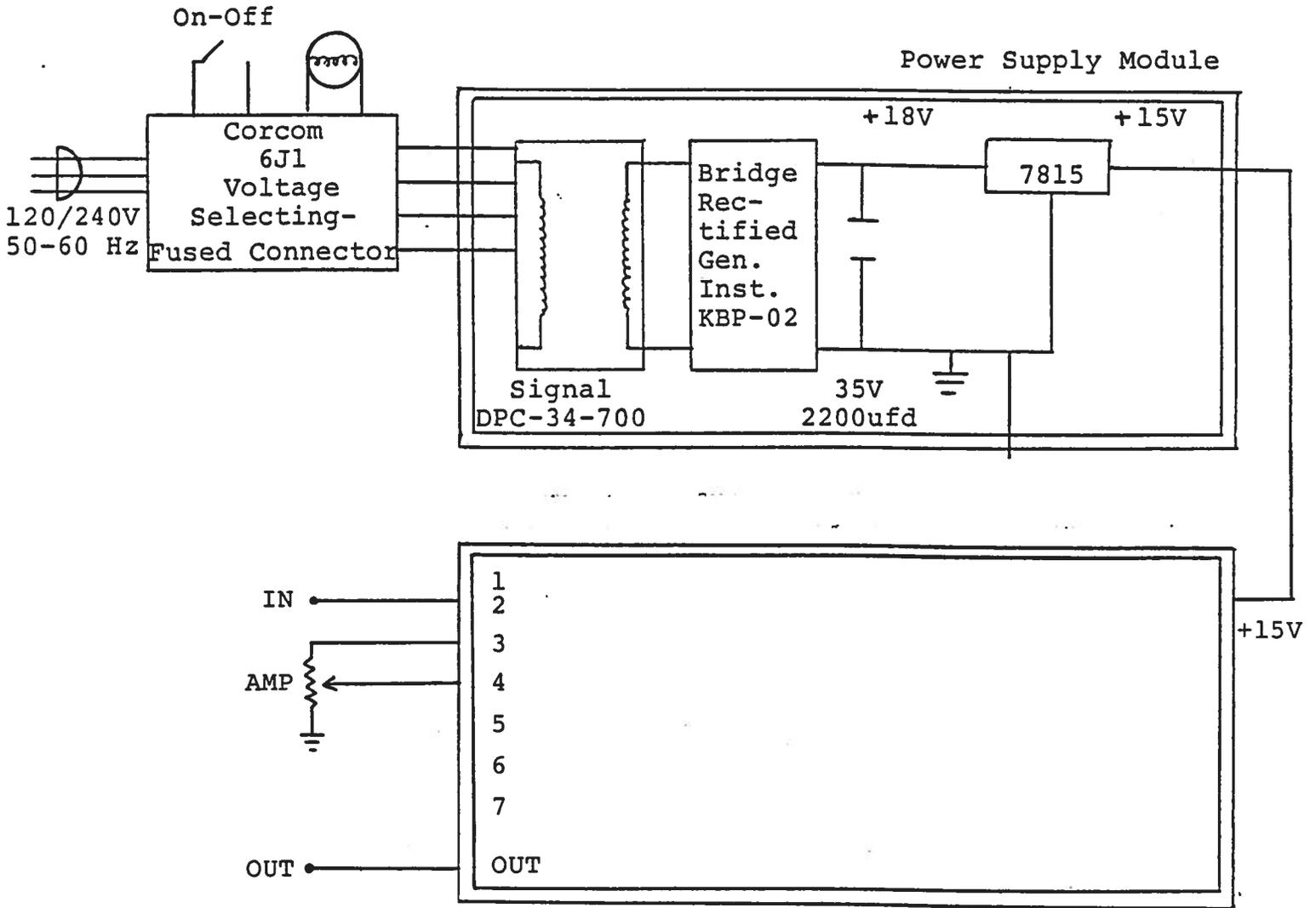
PW: ≥ 50 ns

Amplitude: +3 to +5 volts
(TTL Levels)

Notes:

- 1) The bandwidth capability of components and instruments used to display the impulse generator output signal (attenuators, cables, connectors, etc.) should exceed 10 gigahertz.
- 2) The use of 40 dB attenuation 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 ns range. Other settings should be as shown in the above diagram. The impulse generator output is delayed with respect to the trigger input signal by about 35 ns (typically).
- 4) The output pulse shape is determined by the two front panel pot controls TR and TF. TR controls the leading edge of the pulse while TF controls the falling edge. Initially set the TF pot and the TR pot at mid-range. Iterative adjustments of TR and TF will be necessary to simultaneously obtain the lowest rise time, lowest fall time, the desired pulse width and low spurious signal level. In addition, some additional adjustment of signal level will be necessary to obtain the desired amplitude.
- 5) The output amplitude is controlled by the one turn AMP control.
- 6) The impulse generator can withstand an infinite VSWR on the output port.

SYSTEM BLOCK DIAGRAM AND REPAIR PROCEDURE



AVH-PG Module

SYSTEM DESCRIPTION AND REPAIR PROCEDURE

The AVH-PS consists of a pulse generator module (AVH-PG) and a power supply board which supplies +15 Volts (600 mA max) to the pulse generator module. In the event that the AVH-PS unit malfunctions, remove the instrument cover by removing the four Phillips screws on the back panel. The top cover may then be slid off. Measure the voltage at the +15 V pin of the PG module. If this voltage is substantially less than +15 Volts, unsolder the line connecting the PS and PG modules and connect 50 Ohm 10 W load to the PS output. The voltage across this load should be about 15 V 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).

June 30/95

Dist: AVH

Name: AVHSAPS.INS