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INSTRUCTIONS

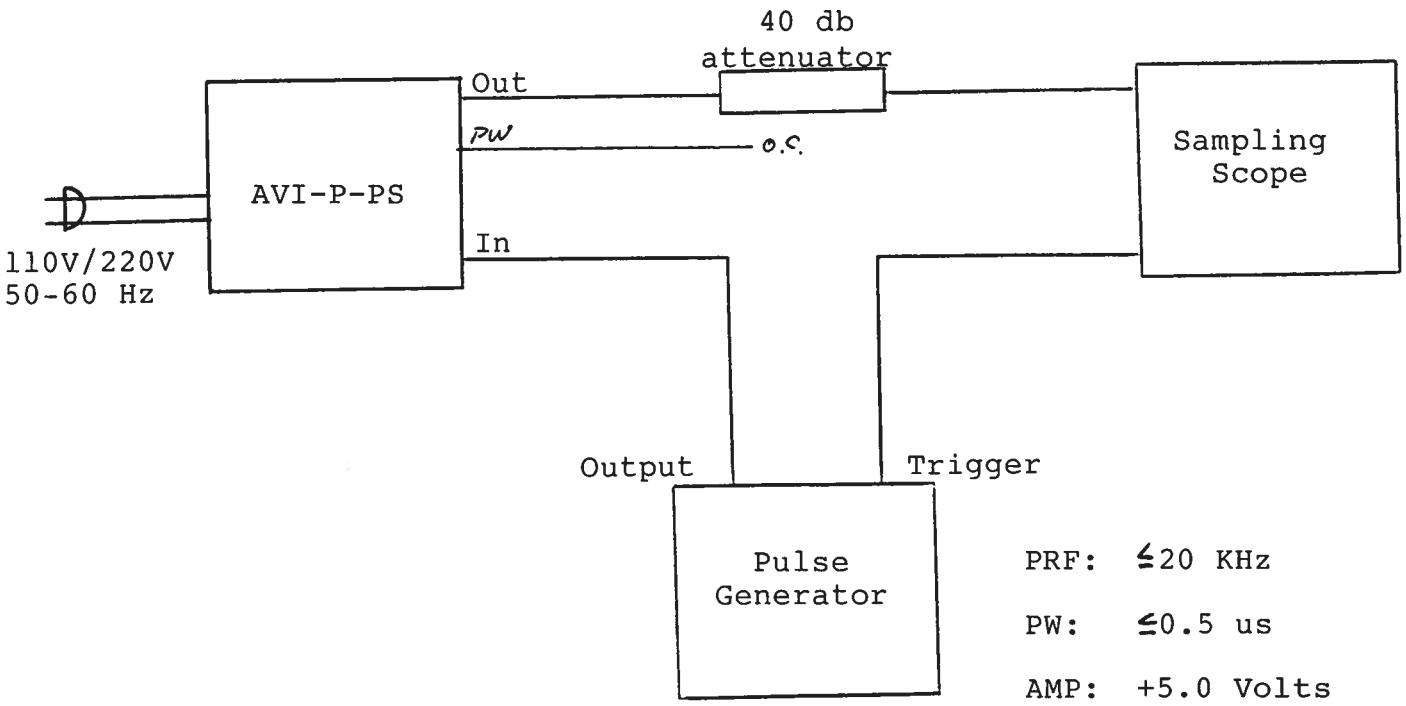
MODEL AVI-P-PS-KMP1 PULSE GENERATOR

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 dissembled, 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.

MODEL AVI-P-PS PULSE GENERATOR TEST ARRANGEMENT



PRF: ≤20 KHz

PW: ≤0.5 us

AMP: +5.0 Volts
(from a 50 Ohm
or lower source)

Notes:

1) The bandwidth capability of components and instruments used to display the pulse generator output signal (attenuators, cables, connectors, etc.) should exceed several gigahertz.

2) Note that the unit requires a +5 Volts pulse from a low source impedance generator (approx. 50 Ohms). The specified propagation delay of 5 ns may not be met if the amplitude is less.

3) The use of a 40 db attenuator will insure a peak input signal to the sampling scope of less than one volt.

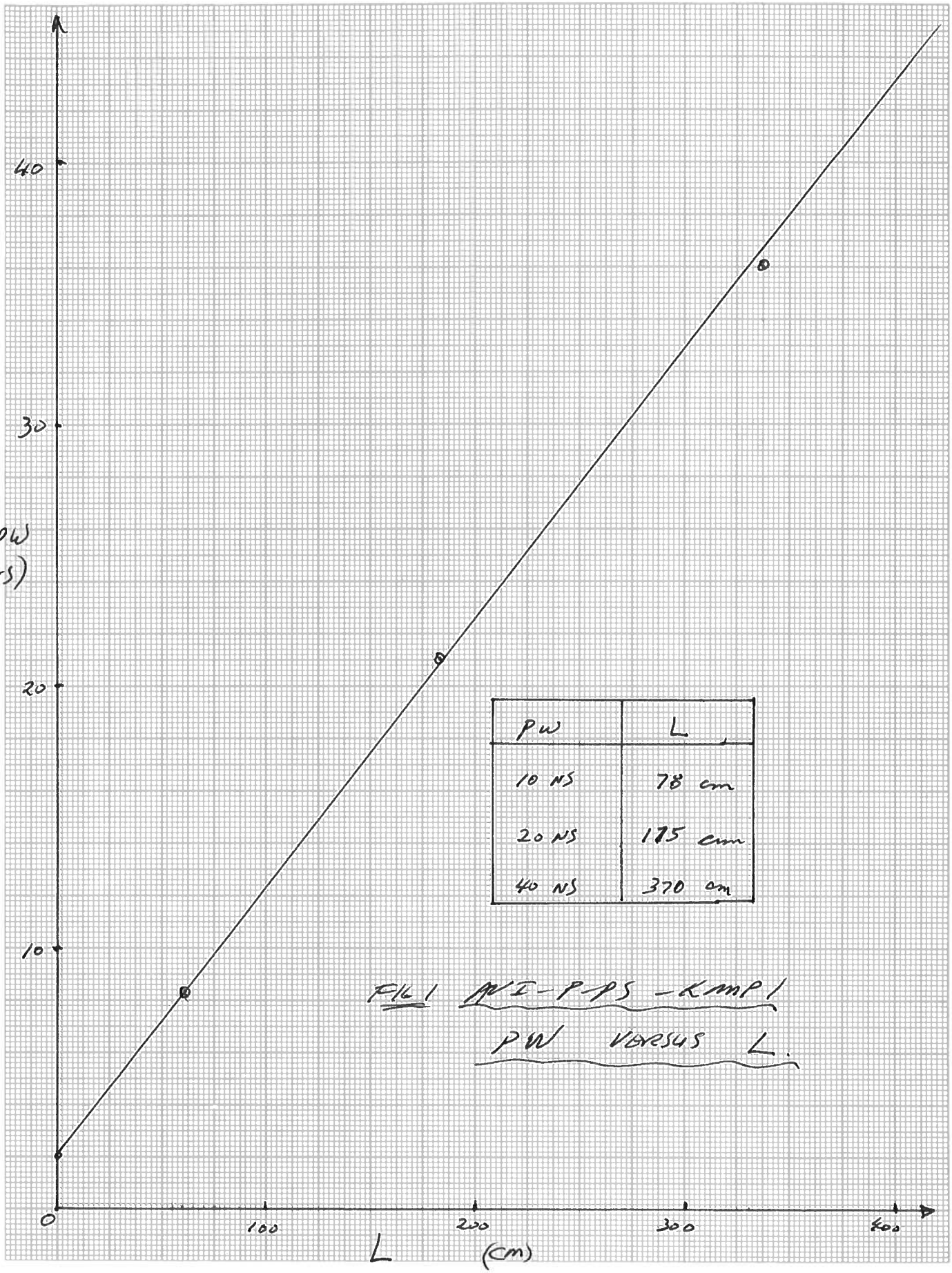
4) In general, the source pulse generator trigger delay control should be set in the 0.1 to 1.0 us range. Other settings should be as shown in the above diagram.

5) The Model AVI-P pulse generator can withstand an infinite VSWR on the output port.

6) WARNING: Model AVI-P may fail if triggered at a PRF greater than 20 kHz.

7) The Model AVI output pulse width is a linear function of the length of open circuited coaxial cable connected to the "PW" port (see Fig. 1). The open circuited delay line should be formed from high-quality semi-rigid 50 Ohm coaxial cable (eg. 0.085 inch copper 50 Ohm semi-rigid). Miniature flexible coaxial cable such as RG174 may be used but will result in a degraded fall time. In the absence of an external cable connected to the tune port, Model AVI outputs an impulse of pulse width less than 2.0 ns.

8) The output amplitude is controlled by means of the one-turn potentiometer (AMP).



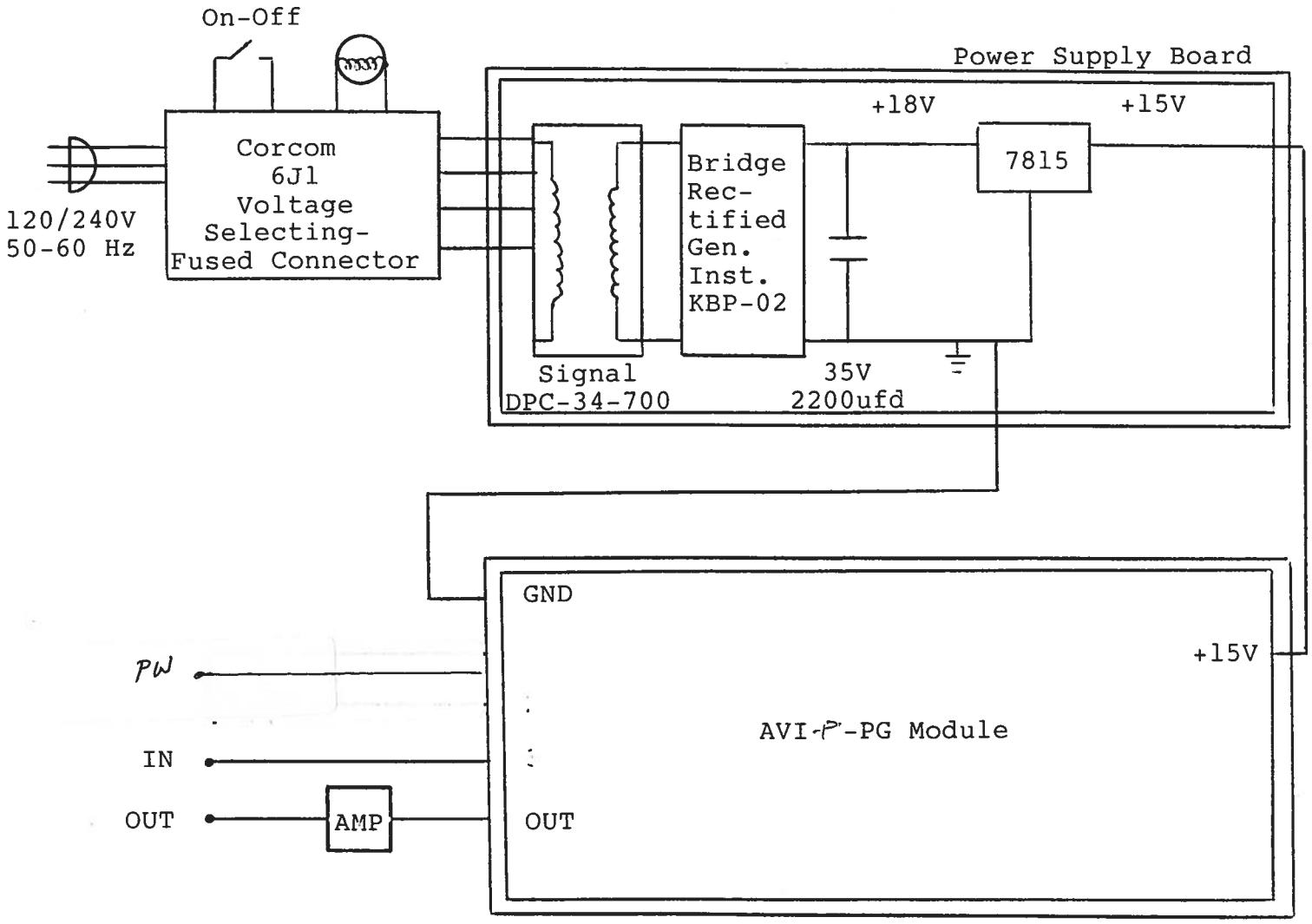
PW	L
10 NS	78 cm
20 NS	175 cm
40 NS	370 cm

FIG 1 MI-PPS-KMP1

PW VERSUS L.

10 MM/CM

SYSTEM BLOCK DIAGRAM AND REPAIR PROCEDURE



SYSTEM DESCRIPTION AND REPAIR PROCEDURE

The AVI-P-PS consists of a pulse generator module (AVI-P-PG) and a power supply board which supplies +15 volts (600 mA max) to the pulse generator module. In the event that the AVI-P-PS unit malfuctions, remove the instrument cover by removing the 4 Phillips screws on the back panel of the unit. 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).

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