AVTECH ELECTROSYSTEMS LTD.

NANOSECOND WAVEFORM ELECTRONICS
ENGINEERING - MANUFACTURING

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INSTRUCTIONS

Model AVX-D-5B-PS Delay Generator

S.N.:

WARRANTY

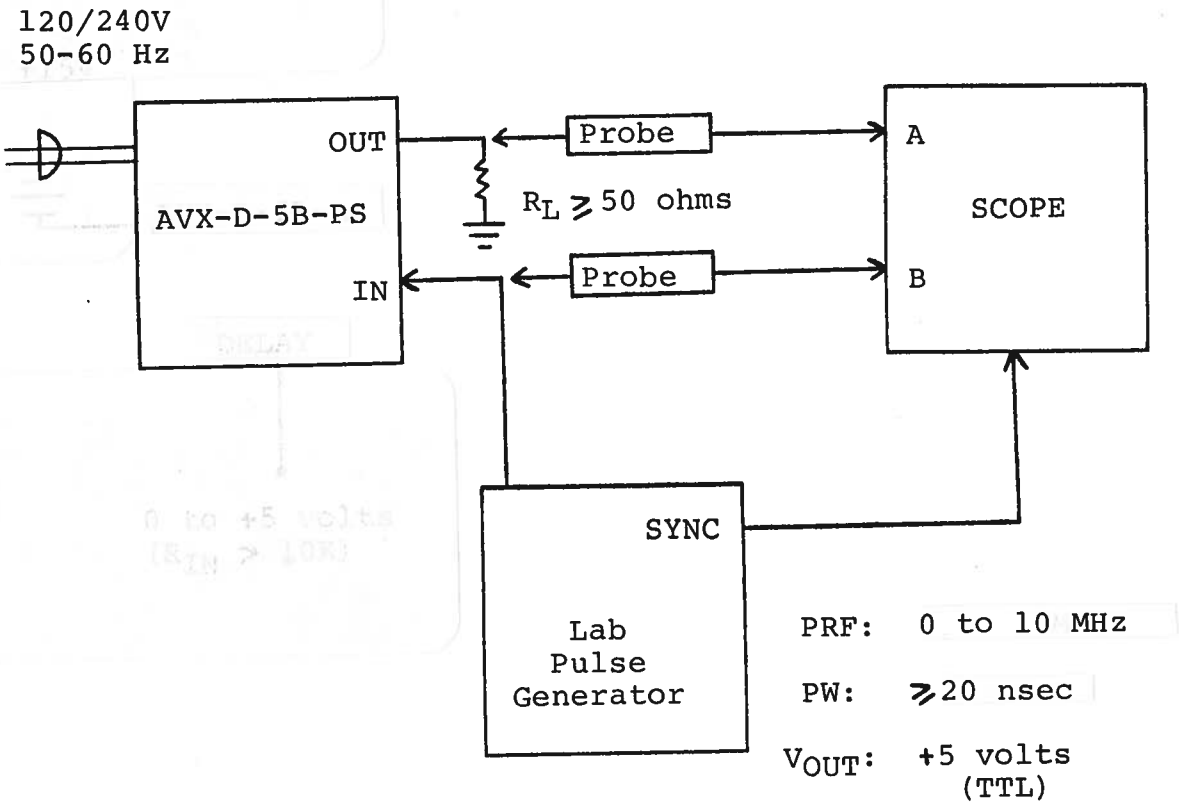
Avtech Electrosystems Ltd. warrants products of its manufacture to be free from defects in material and workmanship under conditions of normal use. If, within one year after delivery to the original owner, and after prepaid return by the original owner, this Avtech product is found to be defective, Avtech 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.

Specifications

Model AVX-D-5B-PS

Delay range:	LOW Range: 10 to 30 nsec HIGH Range: 30 to 200 nsec
PRF range:	0 to 10 MHz
Jitter:	$\leq \pm$100 psec
Input PW:	Min: 10 nsec Max: 30% of PRF period
Output PW:	20 nsec TTL Will drive 50 ohms
Signal amplitudes:	TTL levels Outputs will drive 50 ohm loads
Power requirements:	120/240V, 50-60 Hz
Connectors:	BNC

DELAY TEST ARRANGEMENT



GENERAL INSTRUCTIONS

1) The unit should be connected as shown in the preceding diagram.

2) The LOW range provides propagation delays variable from 10 to about 30 nsec. The HIGH range provides delays variable from 30 nsec to at least 200 nsec (50 nsec at 10 MHz PRF).

3) The input PW should be in the range of 10 nsec to 0.3 of the PRF period (eg. 30 nsec max at 10 MHz). The delay on the LOW range is sensitive to the input pulse width. Ideally, the input pulse width for the LOW range should be set at about 20 nsec to minimize this interaction.

4) The unit will drive TTL loads and resistive loads as low as 50 ohms.

SYSTEM DESCRIPTION AND REPAIR PROCEDURE

The AVX-D-PS consists of a delay generator module (AVX-D-PG) and a power supply board which supplies +15 volts (600 mA max) to the delay generator module. In the event that the AVX-D 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 power supply 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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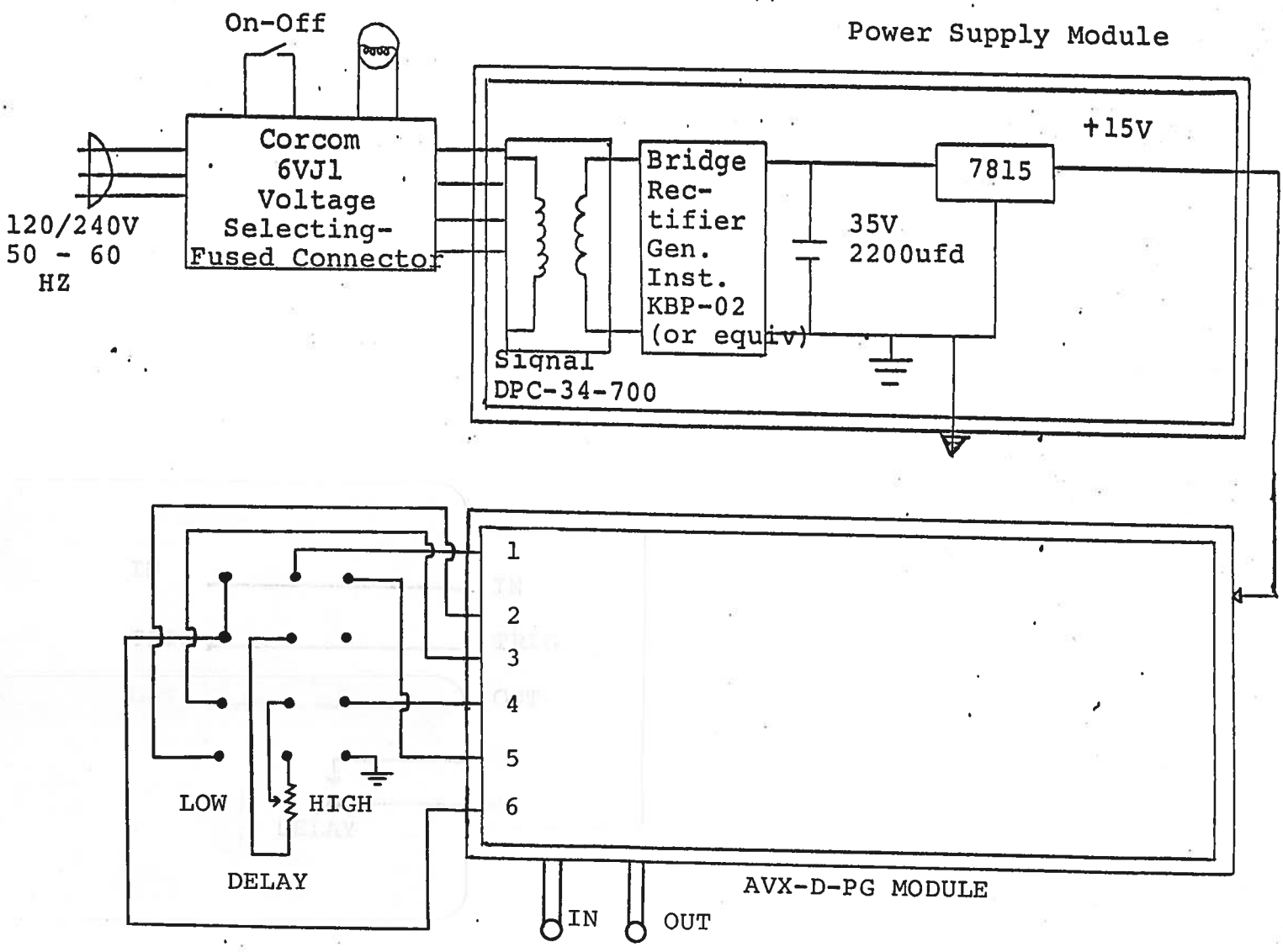
SYSTEM BLOCK DIAGRAM AND REPAIR PROCEDURE



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