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INSTRUCTIONS

MODEL AVR-B1-PS-W-PN-OS-MD1 PULSE GENERATOR

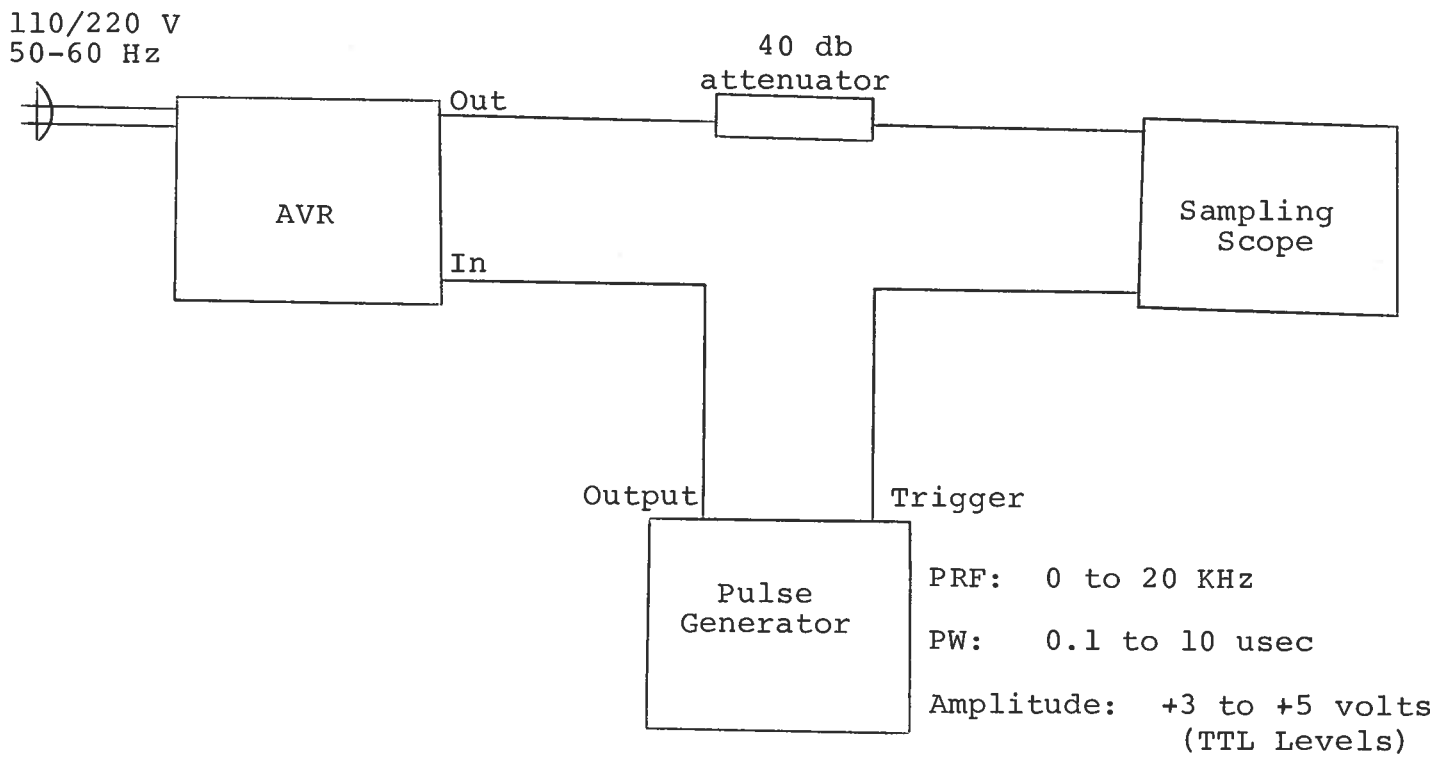
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WARRANTY

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.

MODEL AVR-B1-PS-W-PN-OS-MD1 PULSE GENERATOR

TEST ARRANGEMENT



Notes:

- 1) The bandwidth capability of components and instruments used to display the pulse generator output signal (attenuators, cables, connectors, etc.) should exceed one GHz.
- 2) The use of a 40 db attenuator will insure a peak input signal to the sampling scope of less than one volt.
- 3) The 2 inputs of Model AVR operate as an OR gate.
- 4) When triggering the AVR from a high speed lab pulse generator it may be necessary to shunt the input to the AVR by a 50 ohm resistor to eliminate reflection which may interfere with the operation of the lab pulse generator.
- 5) In general, the source pulse generator trigger delay control should be set in the 0.1 to 1.0 usec range. Other settings should be as shown in the above diagram.
- 6) **WARNING:** Model AVR may fail if triggered at a PRF greater than 20 KHz or if the duty cycle exceeds 20% or if the PW exceeds 10 usec.
- 7) The output amplitude is controlled by means of the one turn potentiometer (AMP).
- 8) The output pulse width is approximately equal to the input pulse width.
- 9) The required output DC offset voltage is applied to the rear panel DS solder terminals (± 50 volts, 100 mA max).
- 10) The desired output polarity is selected by means of the POLARITY switch. With the POLARITY switch in the P position, the negative output pulse generator is rendered inactive. Likewise, with the POLARITY switch in the N position, the positive pulse generator is rendered inactive.

SYSTEM DESCRIPTION AND REPAIR PROCEDURE

The AVR consists of two pulse generator modules (POS and NEG) and a power supply board which supplies +24 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 side of the unit. The top lid may then be slid off. Measure the voltage at the +24V pin of the PG module. If this voltage is substantially less than +24 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 +24 V DC. If this voltage is substantially less than 24 volts the PS module is defective and should be repaired or replaced. If the voltage across the resistor is near 24 volts, then the PG module should be replaced or repaired. The sealed PG module must be returned to Avtech for repair (or replacement).

Fig. 2

SYSTEM BLOCK DIAGRAM

