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INSTRUCTIONS

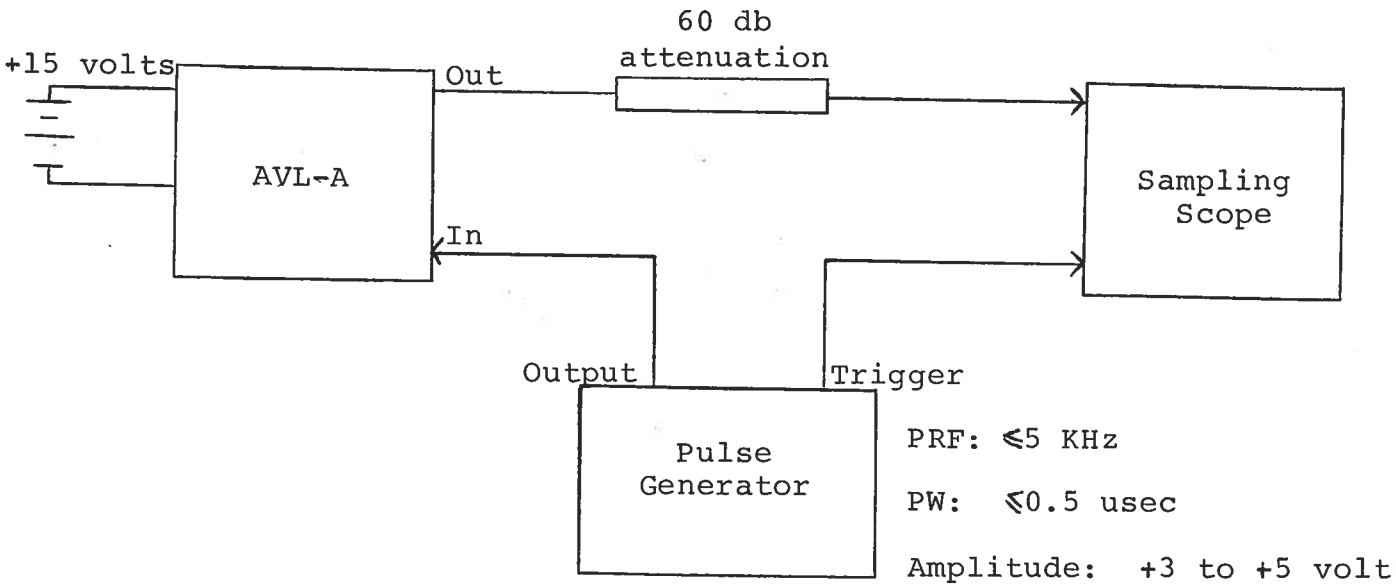
MODEL AVL-A PULSE GENERATOR

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 AVL-A 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 1000 MHz.

2) The use of a 60 db attenuator will insure a peak input signal to the sampling scope of less than one volt.

3) 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.

4) The Model AVL-A pulse generator can withstand an infinite VSWR on the output port.

5) WARNING: Model AVL-A may fail if triggered at a PRF greater than 5 KHz.

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

7) NOTE: The lifetime of the switching element in the pulse generator module is proportional to the running time of the instrument. For this reason the prime power to the instrument should be turned off when the instrument is not in use. In the case of failure, the switching elements are easily replaced following the procedure described in the following section.

REPAIR PROCEDURE

1) WARNING: Before attempting any repairs, note that potentials as high as 400 volts are employed in the chassis structure.

2) The pulse generator is constructed from the following basic subsystems or modules:

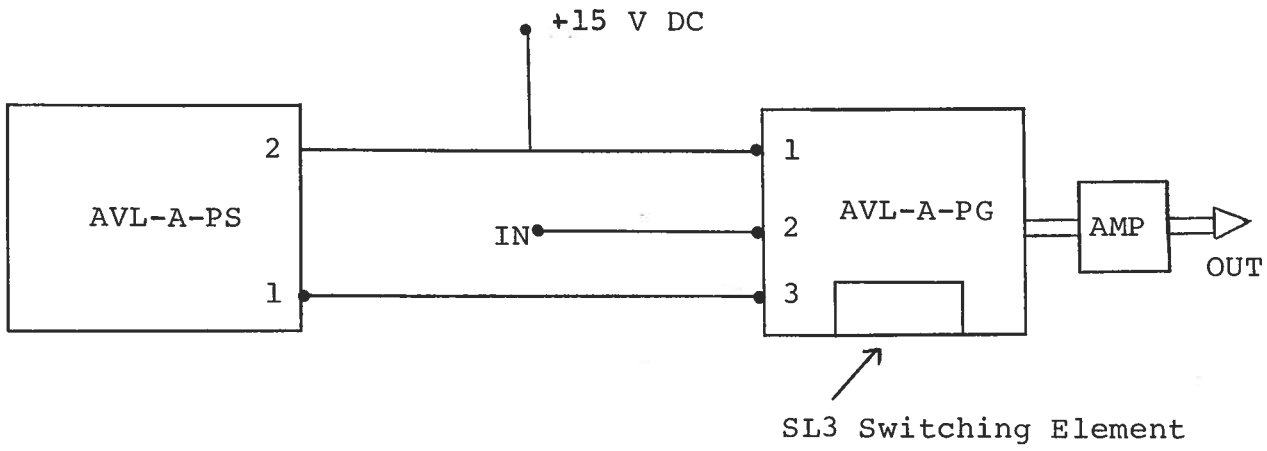
   a) Metal chassis
   b) Pulse generator module (AVL-A-PG)
   c) Power supply module (AVL-A-PS)
   d) Delay line module (AVL-A-DL)

   The modules are interconnected as shown in Fig. 1.

3) If no output pulse is provided by the AVL-A unit, then the switching transistor (Part No. SL3) in the AVL-A-PG module has probably failed. To access the switching transistor, remove the three 2-56 screws which secure

the cover plate on the back panel of the pulse generator. WARNING: The case of the transistor is at potentials as high as 380 volts. With the unit untriggered turn on the prime power supply and measure the voltage from the case of the transistor to ground. If the voltage is about 360 to 380 volts then the transistor is O.K. If the voltage which is measured is less than 360 volts then the transistor is defective and should be replaced. Note that with the transistor removed, the voltage at pin 1 on the AVL-A-PS module should be in the range of 360 to 380 volts. If the voltage is less then the AVL-A-PS module must be replaced.

Fig. 1



Notes:

1) All module chassis are grounded to main chassis and to each other via separate ground lines.

2) WARNING: The line connecting pin 1 of AVL-A-PS to pin 3 of AVL-A-PG is a potential of 360 to 380 volts.

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