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INSTRUCTIONS

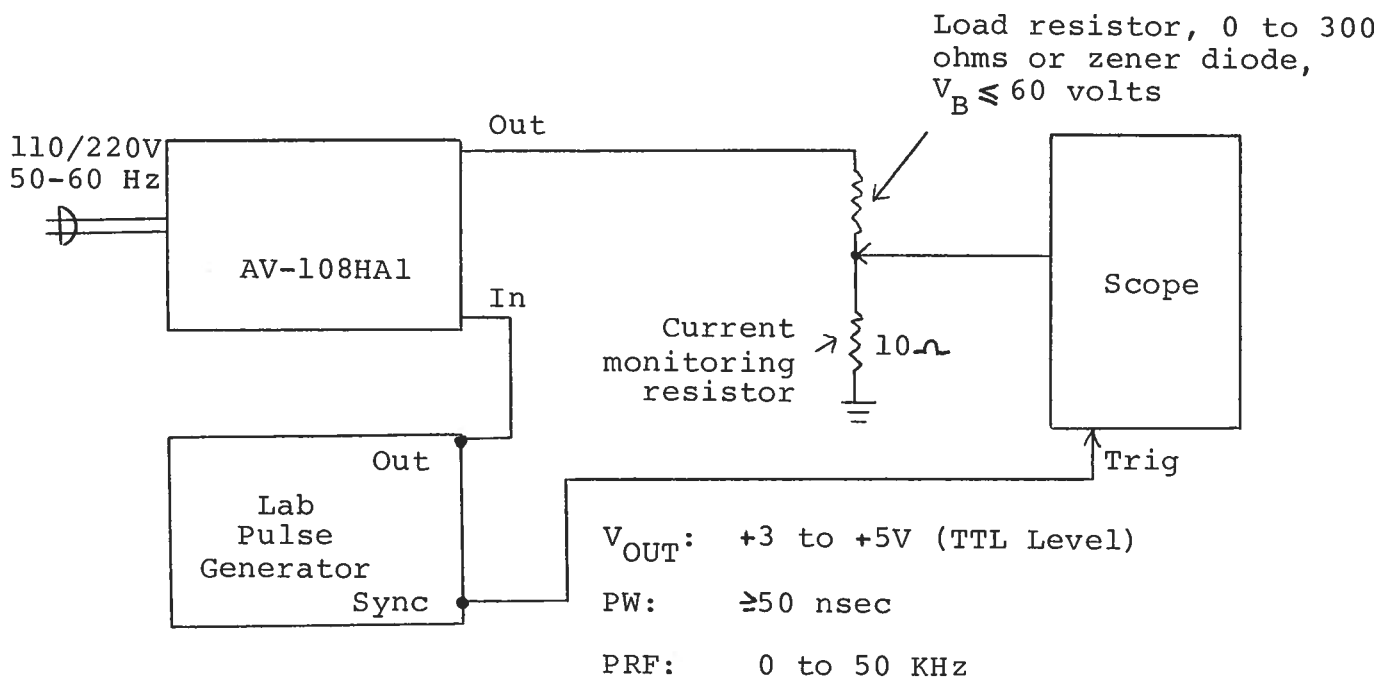
MODEL AV-108HA1 PULSE GENERATOR

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 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.

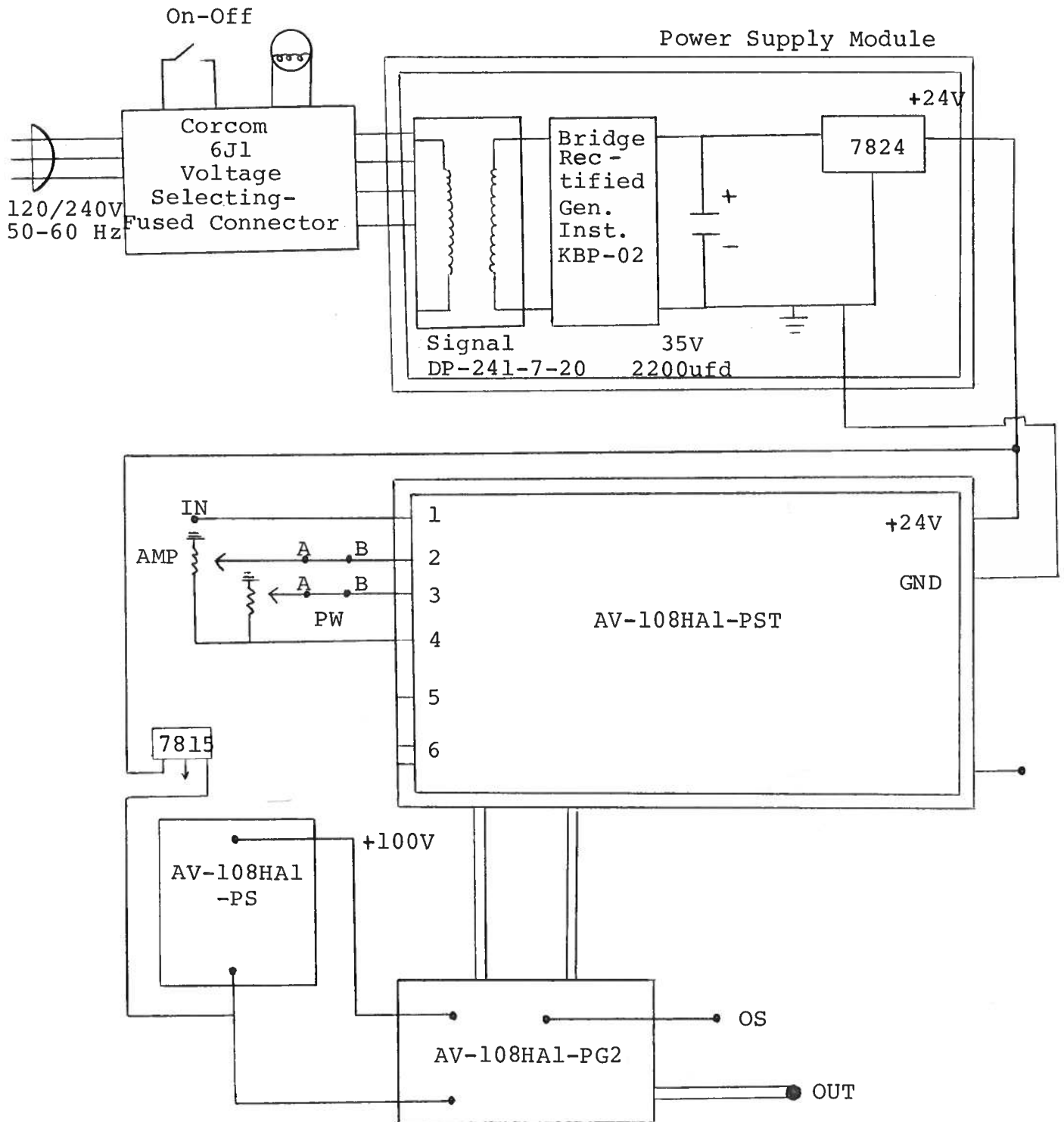
TEST ARRANGEMENT AND OPERATING INSTRUCTIONS



- 1) Set the ON-OFF switch in the OFF position and rotate the front panel pot AMP control and the PW control to mid range. The TR switch may be in any position. Connect the load as shown and connect to 50-60 Hz outlet. Set the scope gain at 500 mV/div (therefore 50 mA/div). A current probe may also be used to monitor the load current.
- 2) Switch ON-OFF switch to ON position. An output pulse should be observed. Clockwise rotation of the AMP control will increase the output current to a maximum of at least 0.2 Amp (for load voltages in the range of 0 to 70 volts).
- 3) Rotate the PW pot clockwise to increase the output PW to a maximum of about 200 nsec (and a minimum of 25 nsec).
- 4) The four position TR control switch controls the overshoot on the leading edge of the output pulse. For a given peak output current and voltage, the TR switch is adjusted to yield a rectangular output pulse.
- 5) To voltage control the output pulse width, remove the jumper wire between banana plugs A and B on the back panel and apply 0 to +10V to connector B ( $R_{TN} \gg 10K$ ).
- 6) To voltage control the output amplitude, remove the jumper wire between banana plugs A and B on the back panel and apply 0 to +10V to connector B ( $R_{TN} \gg 10K$ ).
- 7) To DC offset the output pulse, connect a DC power supply set to required DC offset value to the back panel terminals marked D.S. The maximum attainable DC offset voltage is  $\pm 50$  volts (20 mA max).

Fig. 4

SYSTEM BLOCK DIAGRAM



## REPAIR PROCEDURE

- 1) The pulse generator is constructed from the following basic subsystems or modules:
  - a) Metal chassis
  - b) Pulse generator module (AV-108HA1-PG)
  - c) Power supply-timing module (AV-108HA1-PST)
  - d) Power supply module (+24 volts)
  - e) Power supply module (+100 volts)

The four modules are interconnected as shown in the preceding figure.

- 2) If no output pulse is provided by the unit, turn off the prime power supply and remove the top cover panel by removing the four Phillips screws on the back of the instrument. Turn on the instrument and confirm that +24V exists at the output of the 7824. If the voltage is substantially below 24 volts then the power supply board should be repaired or replaced. If the +24V supply is functional, then the sealed AV-108HA1-PST or AV-108HA1-PG modules are defective and must be replaced.

