

INSTRUCTIONS

MODEL AV-151B FUNCTION 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 assumed by Avtech with respect to this product and no other warranty or guarantee is either expressed or implied.

TECHNICAL SUPPORT

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MODEL AV-151B SPECIFICATIONS

The Model AV-151B linear amplifier is designed to amplify bipolar baseband pulses in the pulse width range of about 2 us and higher and CW signals in the frequency range of DC to 100 kHz. The basic specifications for the unit are as follows:

Gain (voltage):	0 to x100 (adjustable, one turn control)
Bandwidth:	DC to \geq 100 kHz
Peak output voltage (to 50K or higher):	\pm 200 Volt
Rise time:	\leq 1 us
DC offset: (one turn control)	0 to \pm 50 Volts
Input impedance:	1 K
Prime power:	+24 V, 750 mA (max)
Connectors:	SMA
Size:	1.7 x 2.6 x 4.3 inches

Note that the module should be securely bolted to a heat sink capable of dissipating about 20 Watts.

FIG. 1: BASIC TEST SET-UP

GENERAL OPERATING PROCEDURE

- 1) Connect the instrument as shown above. Do not apply prime power. Attach the module to a heat sink capable of dissipating 20 Watts or more.
- 2) Terminate OUT in a load impedance of 50K (or higher).
- 3) Set the amplitude control to maximum counter clockwise.
- 4) Set the offset control at mid range and the offset ON-OFF switch in the OFF position.
- 5) Set the function generator to provide a 10 kHz square wave with 4 Volts peak to peak amplitude.
- 6) Set the scope time base on about 50 us/div and the vertical on about 50 Volts/div and set the scope time base to trigger on EXT (+).
- 7) Turn on the prime power and adjust scope trigger controls to obtain a trace.
- 8) Rotate the amplitude control clockwise to obtain the desired output amplitude (as high as 400 Volts peak to peak).
- 9) Set the OFFSET ON-OFF switch in the ON position and rotate the OFFSET amplitude control to obtain the desired offset (0 to ± 50 Volts).
CAUTION: The combined AC plus DC output must not exceed ± 200 Volts.
- 10) CAUTION: Take great care not to operate into a low impedance (i.e. $< 50K$) or into a short circuit as this may result in damage to the output stage.
- 11) For additional assistance:

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PERFORMANCE CHECK SHEET