

INSTRUCTIONS

MODEL AV-143B-PS-EKA PULSE AMPLIFIER

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.

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SPECIFICATIONS

The Model AV-143B-PS-EKA dual channel amplifier is designed to amplify bipolar baseband pulses in the pulse width range of about 200 ns and higher. The basic specifications for the unit are as follows:

Gain:	x 5 (voltage, non-inverting)
Bandwidth:	DC to 10 MHz
Peak Output Voltage (to 50 Ohms or higher):	<input type="checkbox"/> 20 Volts
Rise Time:	<input type="checkbox"/> 50 ns
Input Impedance:	1 K
Output Impedance:	<input type="checkbox"/> 2 Ohms
Max Output Power:	8 Watts
Prime Power:	120/240V, 50-60 Hz
Connectors:	BNC
Size:	4 x 8 x 12 inches

REAR PANEL CONTROLS

- 1) FUSED CONNECTOR, VOLTAGE SELECTOR. The detachable power cord is connected at this point. In addition, the removable card is adjusted to select the desired input operating voltage. The unit also contains the main power fuse (0.5A SB).

FRONT PANEL CONTROLS

- 1) The unit has separate input and output connectors (BNC) and ON-OFF switches.

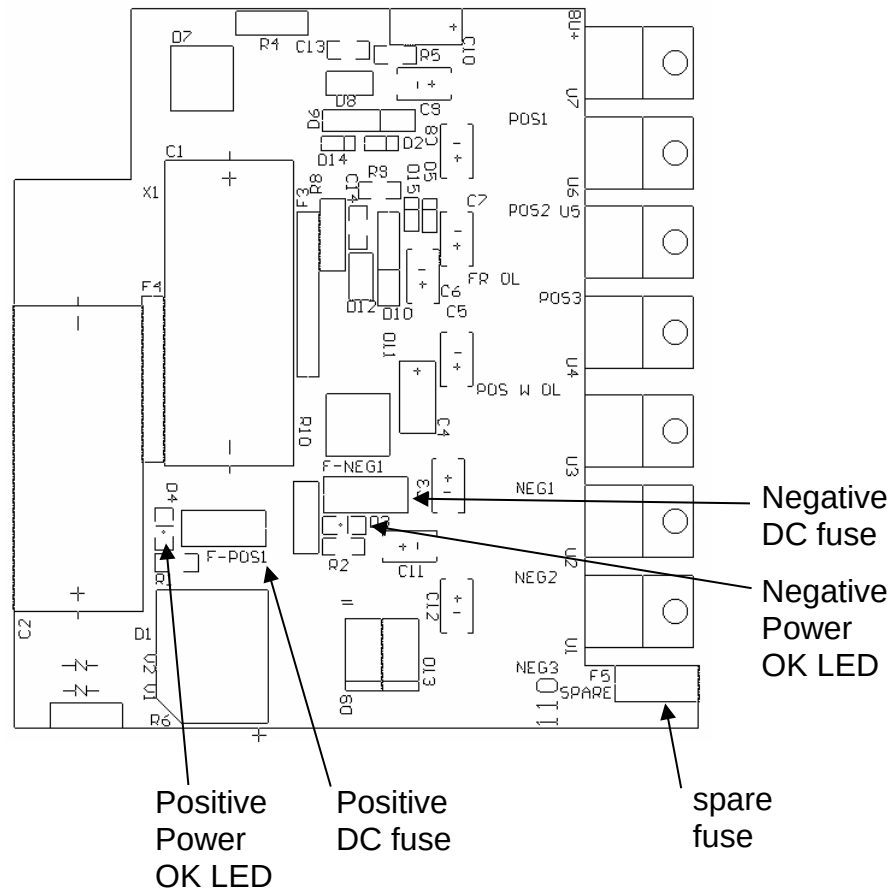
INTERNAL CONTROLS

- 1) Two separate ten-turn trim pots are provided for zeroing the spurious DC offset on the outputs.

POWER SUPPLY AND FUSE REPLACEMENT

This instrument has three fuses (plus one spare). One, which protects the AC input, is located in the rear-panel power entry module, as described in the “Rear Panel Controls” section of this manual. If the power appears to have failed, check the AC fuse first.

The other two fuses (plus one spare) are located on the internal DC power supply, as shown below:



The positive fuse and the spare fuse on this circuit board are 1A slow-blow fuses, Littlefuse part number R452001. (This fuse can be ordered from Digikey, www.digikey.com. The Digikey part number is F1343CT-ND). The negative fuse is a 0.5A slow-blow fuse (Littlefuse R452.500, Digikey part number F1341CT-ND).

If you suspect that the DC fuses are blown, follow this procedure:

1. Remove the top cover, by removing the four Phillips screws on the top cover and then sliding the cover back and off.

2. Locate the two “Power OK” LEDs on the power supply circuit board, as illustrated above.
3. Turn on the instrument.
4. Observe the “Power OK” LEDs. If the fuses are not blown, the two LEDs will be lit (bright red). If one of the LEDs is not lit, the fuse next to it has blown.
5. Turn off the instrument.
6. If a fuse is blown, use needle-nose pliers to remove the blown fuse from its surface-mount holder.
7. Replace the fuse.

PERFORMANCE CHECK SHEET