INSTRUCTIONS

MODEL AV-141F-PS-LM1 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 dissembled, 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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Manual Reference: /fileserver1/officefiles/instructword/av-141/OBS/AV-141F-PS-LM1, edition1.doc, created January 31, 2002

MODEL AV-141F-PS-LM1 SPECIFICATIONS

The Model AV-141F amplifier is designed to amplify bipolar baseband pulses in the pulse width range of about 10 ns and higher and CW signals in the frequency range of DC to 75 MHz. The basic specifications for the unit are as follows:

Gain:	☐ 20 dB
Bandwidth:	DC to 75 MHz
Peak Output Voltage (to 50 Ohms or higher):	±5.0 Volts
Rise Time:	≤ 4 ns
Input Impedance:	50 Ohms
Input Noise Level:	30 uV
Prime power:	120/240 Volt, 50-60 Hz
Connectors:	SMA
Size:	3.9” x 14.8” x 17”

1) The side panel OS pot on the amplifier –PG module serves to adjust the output DC offset level. At time of shipping, the pot was adjusted for 0 Volts offset.

TOP COVER REMOVAL AND RACK MOUNTING

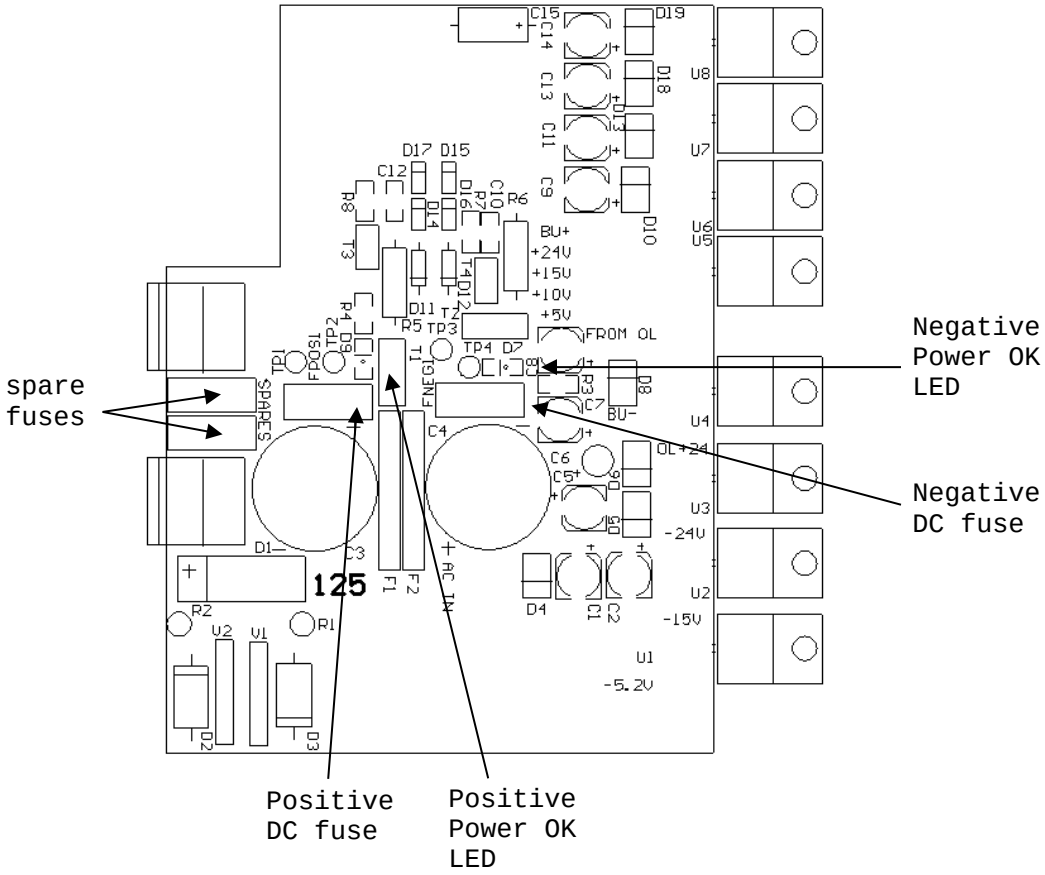
1) The interior of the instrument may be accessed by removing the four Philips screws on the top panel. With the four screws removed, the top cover may be slide back (and off).

2) The –R5 rack mount kit may be installed after first removing the one Philips screw on the side panel adjacent to the front handle.

POWER SUPPLY AND FUSE REPLACEMENT

This instrument has three main fuses, plus two spares. 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 two spares) are located on the internal DC power supply, as shown below:



The four fuses on this circuit board are 0.5A slow-blow fuses, Littlefuse part number R452.500. (This fuse can be ordered from Digikey, www.digikey.com. The Digikey part number is 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. (Two spare 0.5 Amp fuses are provided on the circuit board. They may be transferred to the active fuse locations using needle-nose pliers.)