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The Protech Audio Model 66708 Dual Power Supply is designed to provide regulated DC power to the INTEGRA III SYSTEM audio modules. The two separate 15-18 volt outputs are designed to allow strapping together to create a bipolar 15-18 volt configuration.

The Model 66708 is designed to be mounted in a standard 19 inch wide EIA rack. The unit requires only 3.5 inches of vertical rack space. The line cord plugs into a standard three prong 117VAC outlet. The front panel has five separate indicators. The power on/off switch incorporates a neon lamp, to indicate the presence of power to the AC circuit. Each includes two LED indicators. A green LED shows the output is providing the required DC voltage. A red LED indicates a fault condition.

Three separate protection circuits are designed into the Model 66708. The AC circuit is protected by a 3 amp slow-blow fuse.

Each DC output incorporates foldback/short circuit protection. If the load attached to the output is too great, the output voltage will be reduced. If a short is applied to the output, the DC voltage will reduce to zero volts, until the short is removed. The unit will then automatically increase the output voltage to the previously adjusted level.

The Model 66708 also features local or remote sensing of the regulated output voltage. The unit is shipped from the factory strapped for local output voltage. The unit is shipped from the factory strapped for local sensing. The output voltage at the rear terminal strip, will remain constant, from no load to full load. The terminal strip jumpers may be removed, and the sensing terminals wired to a remote location. This arrangement will insure that the output voltage will remain constant at the load. If the load is in the same rack as the power supply, it is not usually necessary to provide a remote sensing configuration.

INSTALLATION

The Model 66708 is designed to mount in a standard 19" EIA rack. The unit should be mounted in the bottom of the rack. A minimum of a one rack space ventilation panel should be mounted directly above the power supply, to provide adequate ventilation.

Check that the AC line voltage and amperage rating are correct before connecting the line cord. The rating should be 120VAC, with at least 3 amperes of current available.

The DC connections should be made using a minimum of 18AWG wire. In the local sensing mode, three conductors will be necessary. In the remote sensing mode, seven conductors will be required. The connections are made as indicated in Figure 1. After making all connections from the power supply to the load, turn on the unit, and using a voltmeter, verify that the voltages and the polarity are correct at the load. The output voltages are adjustable via potentiometers, which are accessible at the rear of the power supply chassis.

The actual steps for installation for the Model 66708 Dual Power Supply are as follows:

1 - Mount the Model 66708 into the lowest available position in the rack.

2 - Mount a single rack space (minimum) ventilation panel in the rack, immediately above the power supply.

3 - Check the AC receptacle for proper voltage and current rating before connecting the line cord.

4 - Plug in the line cord, and turn unit on. The neon power indicator in the on/off switch should illuminate. The two green LED DC voltage indicators should illuminate.

5 - Turn unit off, and wire the outputs to the load, observing connection points as indicated in figure 1.

6 - Turn unit on, and using a DC voltmeter, measure the DC voltage at the load. In the bipolar configuration*, the voltage between GROUND and +VDC should measure 18 volts DC positive. The voltage between the GND and -V should measure 18 volts DC negative. The voltages may be adjusted by using the potentiometers that are mounted on the rear of the power supply chassis.

*(ALL INTEGRA III SYSTEM Amplifiers require $\pm 15-18\text{VDC}$)

7 - Check the polarity of the voltage at the load. Between Pins GND and +V, it should measure +18 volts. Between pins GND and -V, the voltage should measure -18 volts.

Your installation is now complete. Continuous operation of the Model 66708 is normal, and requires no further operations from support technicians. There are no adjustments which must be made on a periodic basis. However, periodic testing of the overall system may be specified by the system designer.

CIRCUIT DESCRIPTION

The Model 66708 is a state of the art dual power supply. The unit has two independent regulated outputs. Each output may be used separately, or strapped together to form a bipolar configuration. The bipolar arrangement is the type usually used for the INTEGRA III SYSTEM.

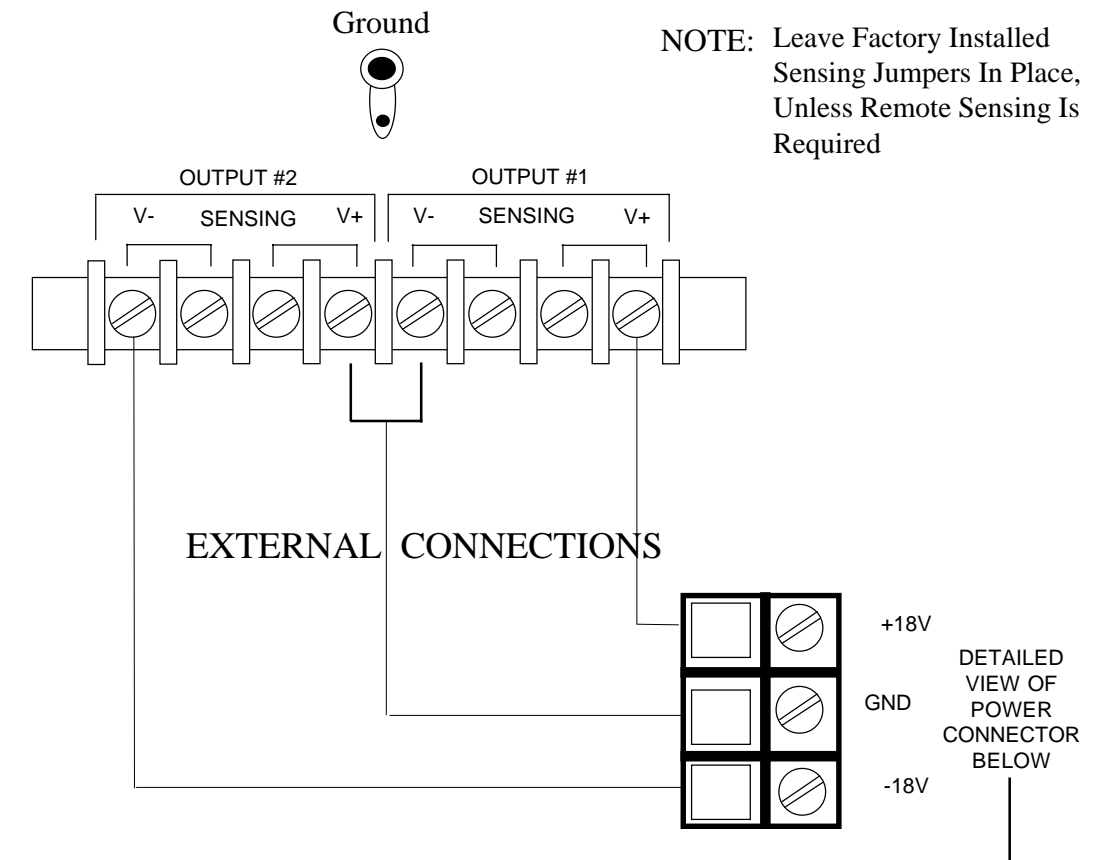
The power transformer is toroidal in construction. This type of power transformer emanates a much smaller AC field, which is of great importance when working with low level audio amplifiers. The secondary of the toroid has two separate windings, one for each power supply output.

There are two separate rectifier/regulator circuits in each Model 66708. The rectifier is a standard full wave bridge rectifier followed by two 4700uf filter capacitors. The voltage regulation, and current sensing are derived by using an I. C. regulator, the MC1723. The output current capability is increased by the addition of 4 external pass transistors (TIP120) for each output.

NOTE: Power supply outputs are floating with respect to chassis and earth ground.

PROTECH[®]

CONNECTION DIAGRAM FOR MODEL 66708
TO BE USED WITH 857B CARD FRAME.
MODEL 66708



Power Supply Output is floating with respect to ground. It may be necessary, depending on the individual installation, to provide a ground strap from the card frame "GND" pin to power supply ground.

Model 857B
REAR VIEW BACKPLANE/CARD FRAME ASSEMBLY

