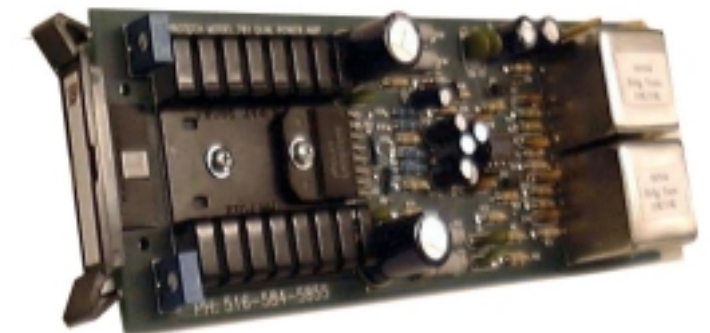


## INTEGRA III SYSTEM

## MODELS COVERED

701



Model 701 Shown

[www.protechaudio.com](http://www.protechaudio.com)

The Model 701 Dual Channel Power Amplifier card represents state-of-the-art design work. Each card is designed to incorporate features demanded by some of industries most notable design/consulting firms. The quality and workmanship of these products will not be surpassed anywhere. These power amplifiers will work well in such applications as: boardroom speakers, meeting room speakers, diorama speakers, talk-thru speakers, or low wattage sound reinforcement speakers. The Model 701 is ideally suited to mix-minus applications.

The Model 701 incorporates two discrete audio power amplifier channels. Each channel will deliver 4 watts RMS into a 4 or 8 ohm load. (For applications requiring more power, see Models 661A, 683A, and 684A.) Each channel has a balanced transformer isolated 10K ohm input. The gain of each channel is adjustable via a trimpot mounted on the front of the printed circuit board assembly. The gain range on each channel is specifically tailored to low wattage applications.

In addition to the gain trim pots, each channel has a built-in mute circuit. By applying ground to the appropriate barrier terminal pin, each channel may be muted.

This feature may be controlled by external hardwire closures, or by the logic closure on the Model 2000 Automixer.

As one of the INTEGRA III SYSTEM cards, the Model 701 power amplifier card may be mounted in any of the system enclosures manufactured by PROTECH AUDIO Corporation. The Models 858 and 858B Card Frame Assemblies will allow use of one Model 701. Both card frame assemblies are self-powered and require 3.5" of vertical rack space.

The Model 857 Card Frame Assembly will allow mounting of up to 10 Model 701 cards, in just 3.5" of vertical rack space. The Model 857 uses an external rack mounted power supply, the Model 66708, for power. This is due to the amount of current required to supply each channel with 4 watts RMS. The power supply section of each card has auto-resetting electronic fusing devices to prevent damage to the card. The output section is overvoltage and undervoltage protected, as well as thermal runaway protected.

For additional information or applications assistance contact: APPLICATIONS ASSISTANCE

## INSTALLATION

The Model 701 Dual Channel Power Amplifier Card is designed to be mounted in the Model 858B, or the Model 857B Card Frame Assemblies. While the Model 858B will hold up to 9 cards and an internal power supply, the current requirement for the Model 701 limits these card frame assemblies to only one or two units, when used at less than full power.

The Model 857B Card Frame Assembly will hold up to 10 Model 701 cards, and uses an external power supply, Model 66708.

The backplane assemblies, on all card frame assemblies, bus the DC power to the individual card slots, and provide screw-type barrier termination points for audio and DC connections.

The determination as to which card frame assembly to use in your project, was made prior to our factory receiving the order. The card frame assembly you have received will accommodate the group of cards you or your designer have specified.

The actual steps necessary, for installation of the Model 701 Dual Channel Power Amplifier card, are comparable to those necessary for any of the INTEGRA III SYSTEM cards. They are as follows:

1- Mount the card frame assembly in an appropriate EIA 19" width rack, using 4 screws of sufficient strength to provide secure mounting.

2- A determination has been made as to which type of power supply will be used on your system. Follow the instructions for the type of power supply you will be installing.

**EXTERNAL POWER SUPPLY.** If an external power supply is to be used, terminate the proper supply connections to pins 1, 2, & 3 of the 3 pin barrier connector on the left hand side of the backplane assembly. Turn on the power supply, and using a DC voltmeter, check for correct voltage and polarity at pins 1, 2, & 3 of the 3 pin barrier connector.

**INTERNAL POWER SUPPLY.** If a plug-in power supply card is to be used, plug in the supply card, and observe the two green LED's for proper illumination.

3- Terminate all audio input and output connections, using the card connection drawing on the facing page. Double conductor shielded cable is recommended for all audio connections.

4- Unpack each individual card, inspect for shipping damage, and assuming none is found, slide the card

half-way into the appropriate slot. After all cards have been installed half-way into the card frame, plug in one card at a time and turn on the power supply. Make sure no unusual loading is indicated at the power supply. If loading is noticed, turn off the power supply, unplug the card and recheck terminations. If no loading is noticed, continue inserting each card in the card frame, checking power supply loading as each card is plugged in. When all the cards have been plugged in, the installation is complete, and all that remains is the alignment.

## ALIGNMENT

Each Model 701 card has been shipped from the factory with the gain trimpots aligned for 8dB of gain into 8 ohm loads.

This alignment level helps prevent overload upon initial system turn-on, and maximizes headroom. If additional gain is required, the following alignment procedure is recommended;

- 1- Apply a signal representative of the actual signal level to be used, to input #1.
- 2- While monitoring output #1, turn the input #1 gain trimpot, until the output signal reaches the desired level.
- 3- Repeat steps 1 & 2 for channel #2.

### Note #1-

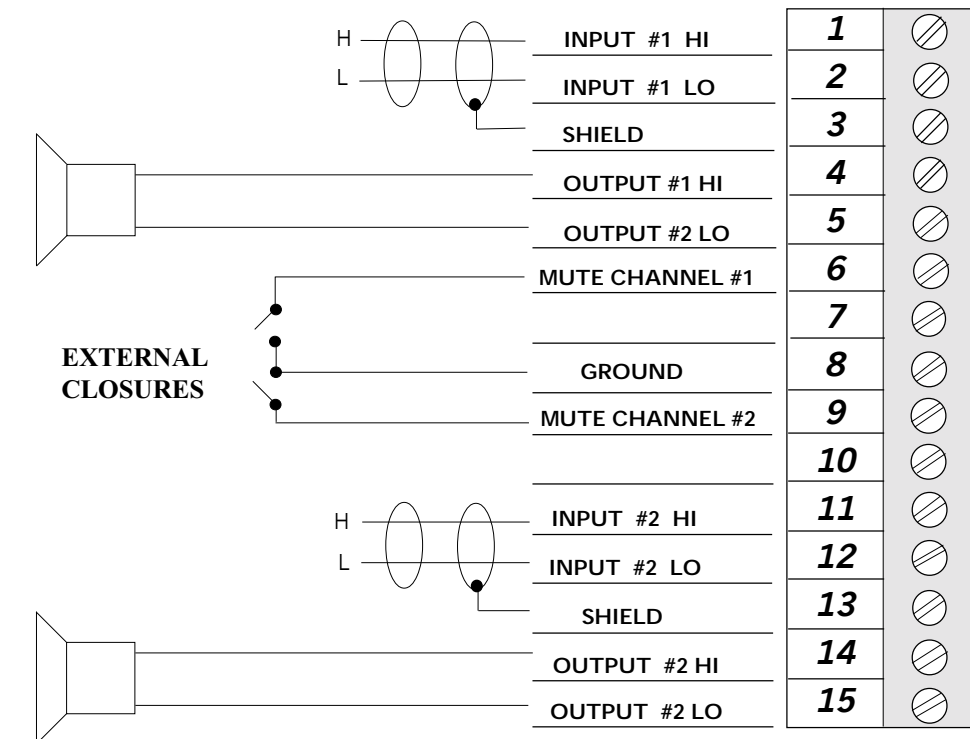
The alignment procedures for INTEGRA III SYSTEM Cards, differ from card type to card type. Therefore it is necessary to consult the alignment procedure for each type of card being installed, to properly align a card frame using different card types.

**PROTECH**®

INTEGRA III SYSTEM

CONNECTION DRAWING  
MODEL 701

### Models 857B, & 858B Backplane Connections



NOTES: