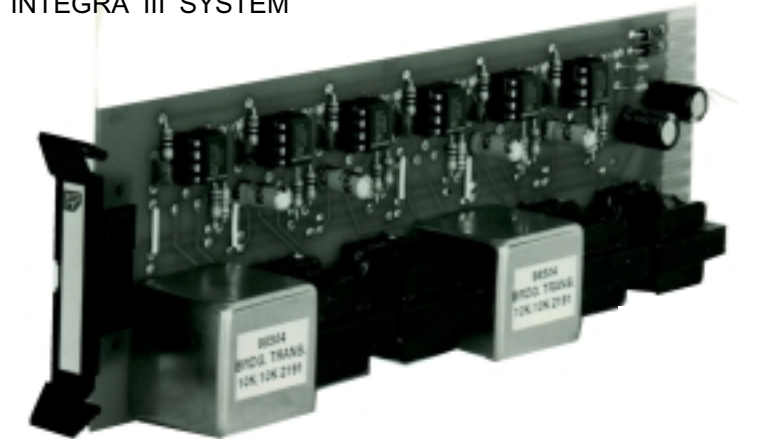


INTEGRA III SYSTEM

MODELS COVERED

899B



Model 899B Shown

www.protechaudio.com

The 800 Series Audio Distribution Amplifiers are designed for use in professional audio applications. Each model is designed to accept an audio signal(s) in, and send the signal(s) to multiple destinations. Typical applications are public address announcements that must be fed to different zones or power amplifiers, program material that must be fed to different studios, headphone listening systems where the user can select different program sources, or audio recording systems where the program material must be fed to the recorders at the same time it is being fed to a public address system. The actual application of the distribution amplifiers is found in such buildings as airports, factories, courthouses, casinos, convention centers, libraries, racetracks, training systems, and corporate boardrooms, to mention a few.

The 800 Series Audio Distribution Amplifiers are designed to incorporate a combination of features that will allow the units to deliver maximum performance and reliability. Each circuit is designed with a minimum of components, to reduce the possibility of failure, while still maintaining performance and feature criteria.

The Model 899B is a dual, 1 input by 2 output device. Each of the two identical circuits may be used to “split” an audio feed to two different locations.

The gain structure of the Model 899B allows the level of each output to be individually adjusted. The output level may be adjusted up, or down, with respect to the input level. If a low input level is present, and more gain is required, the input section has an additional 15dB of gain. The trimpots used to adjust the input and output levels are mounted on the accompanying backplane assembly. This feature allows the system gain settings to remain adjusted, even when a distribution amplifier is removed from its slot, and a spare unit is plugged into that slot. Since the 800 Series ADA's are used to connect multiple pieces of audio equipment, and there exists the potential for creating ground loops when doing so, the input section, and each of the outputs are individually isolated using high quality audio transformers. This feature provides the maximum in isolation and ground loop prevention.

INSTALLATION

The 800 Series Audio Distribution Amplifiers are designed to be mounted in the Model 857B Card Frame, or the Model 858B Card Frame.

The Model 857B Card Frame will accommodate up to 10 audio cards and requires an external power supply. (Model 66708). The Model 858B will accommodate up to 9 audio cards and has an internal power supply. (Model 2000-PS-A)

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

The actual steps necessary for installation of the 800 Audio Distribution Amplifier cards, are comparable to those necessary for any of the 800 series cards. They are as follows:

1- Mount the card frame in an appropriate EIA 19" width rack, using 4 screws of sufficient tensile 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 DC barrier connector, as shown in the card frame layout drawing. Turn on the power supply, and using a DC voltmeter, check for correct voltage and polarity at pins 1, 2, & 3 of the barrier connector.

INTERNAL POWER SUPPLY. If a plug-in power supply card is to be used, plug in the supply card, and check for proper illumination of both the positive and negative voltage LED's, on the power supply card.

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. Terminate each unused input with a 1K ohm resistor.

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 noticed 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 800 Series card with line level inputs has been shipped from the factory aligned for unity gain. This alignment optimizes 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 the input.
- 2 - While monitoring the #1 output channel, turn the output #1 gain trimpot clockwise (increased gain), or counterclockwise (decreased gain) until the output signal reaches the desired level.
- 3 - Repeat step #2 for each output on your distribution amplifier. For any unused output, leave the gain trimpot in the maximum counterclockwise position.

This completes the installation and alignment of your 800 Series Audio Distribution amplifiers. The cards may be expected to deliver years of uninterrupted service.

Note 1-

The alignment procedure outlined above will almost always provide the desired output level. However, when an unusually low input signal level is present (less than -20dB), the installer may wish to use the additional gain available in the input gain stage. This gain should be used only when each output has already been adjusted to the maximum gain setting. Using this gain in systems which do not require in excess of 20dB of gain, will result in reduced headroom.

Note 2-

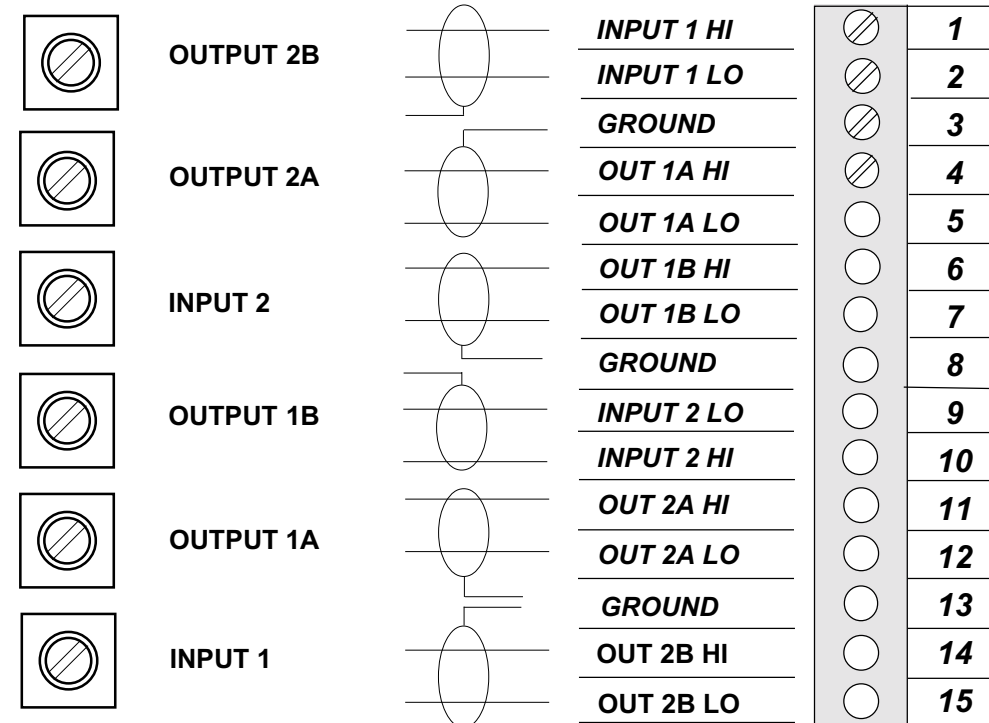
The alignment procedures for INTEGRA III Series cards, differ from card type to card type. Therefore it is necessary to consult the alignment procedure for each type of card being installed, to properly align a card frame using different card types.

PROTECH AUDIO

INTEGRA III SYSTEM

CONNECTOR DRAWING MODEL 899B

857B & 858B BACKPLANE CONNECTIONS



NOTES.