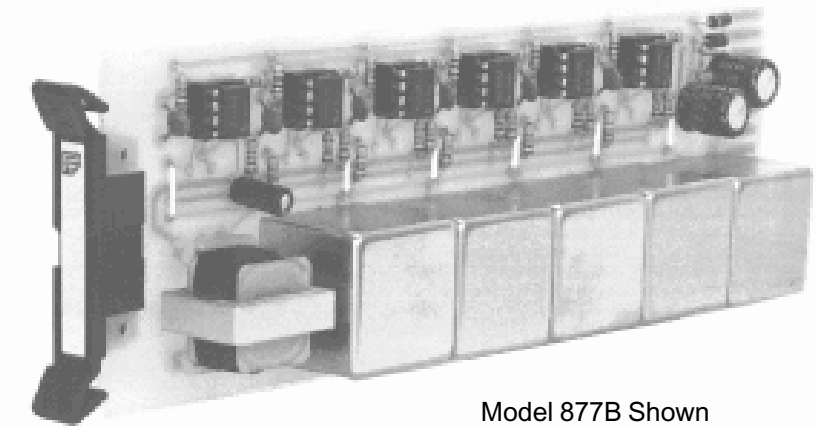


MODELS COVERED	
870B*	874B
871B*	875B
872B*	876B
873B*	877B

\*Microphone Level  
Input

## INTEGRA III SYSTEM



Model 877B Shown

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

The 800 Series Mixer/Preamplifiers and Mixer/Line Amplifiers are designed for use in professional audio applications. Each model is designed to accept multiple microphone signals in, and combine the individual signals into one common output signal.

Typical applications are public address announcements, with different paging stations, program material that must be combined from different studios, headphone listening systems where the user can directly interface with various program sources, or audio recording systems, where different program material must be fed to the recorders at the same time.

The actual application of the mixers is found in buildings such as airports, courthouses, factories, casinos, convention centers, libraries, racetracks, training systems, and corporate boardrooms, to mention just a few.

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

Each of the 800 Series mixer cards, is designed with the same combination of features. The input level type, the link feature (not available on 5 input units), and number of inputs are the only variables between models.

The gain structure of the 800 Series mixer cards allows the output level to be adjusted from off to +55dB, with respect to the input level. The trimpots used to adjust the input gains, are mounted on the backplane assembly. The alignment procedure is described on page two of this manual.

The input sections, and the output section of each model are individually isolated using the highest quality audio transformers. In addition, each input, and the output section on every model has individually adjustable operational amplifiers. These features provide the maximum in isolation. Each model may be mixed or matched with other INTEGRA III SYSTEM audio cards, to create a complete audio system.

These products are designed to provide the user with high quality audio, for years of uninterrupted service.

## INSTALLATION

The 800 Series Mixer are designed to be mounted in the Model 857B Card Frame Package, or the Model 858B Card Frame Package. The Model 857B Card Frame Package will accommodate up to 10 audio cards, and requires an external power supply (Model 66708). The Model 858B Card Frame Package will accommodate up to 9 audio cards, and has a built-in, unpluggable power supply card.

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 Series Mixer 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 front edge.

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 microphone level inputs has been shipped from the factory aligned for 45dB of gain. Mixer cards with line level inputs have been 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 input #1.
- 2- While monitoring the output channel, turn the input gain trimpot clockwise until the output signal reaches the desired level.
- 3- Repeat steps 1 & 2 for each input on your mixer/pre-amplifier.

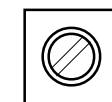
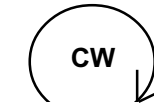
This completes the installation and alignment of your 800 Series mixer cards. The cards may be expected to deliver years of uninterrupted service.

Note 1- The alignment procedures for 800 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.

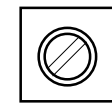
# PROTECH®

INTEGRA III SYSTEM  
CONNECTOR & TRIMPOT DRAWING  
MODELS 870B Through 877B

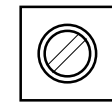
MORE GAIN



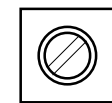
INPUT #5 GAIN



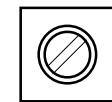
INPUT #4 GAIN



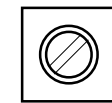
INPUT #3 GAIN



INPUT #2 GAIN

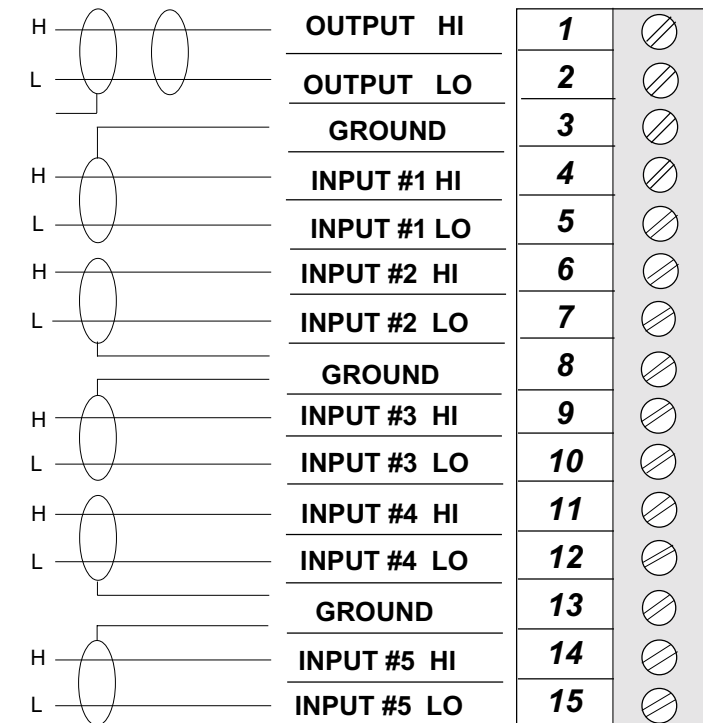


INPUT #1 GAIN



OUTPUT GAIN

### 857B & 858B BACKPLANE CONNECTIONS



NOTE: For Link Capability Strap Pins 14 Together, and remove IC from socket nearest card handle, on unit to be used as slave.