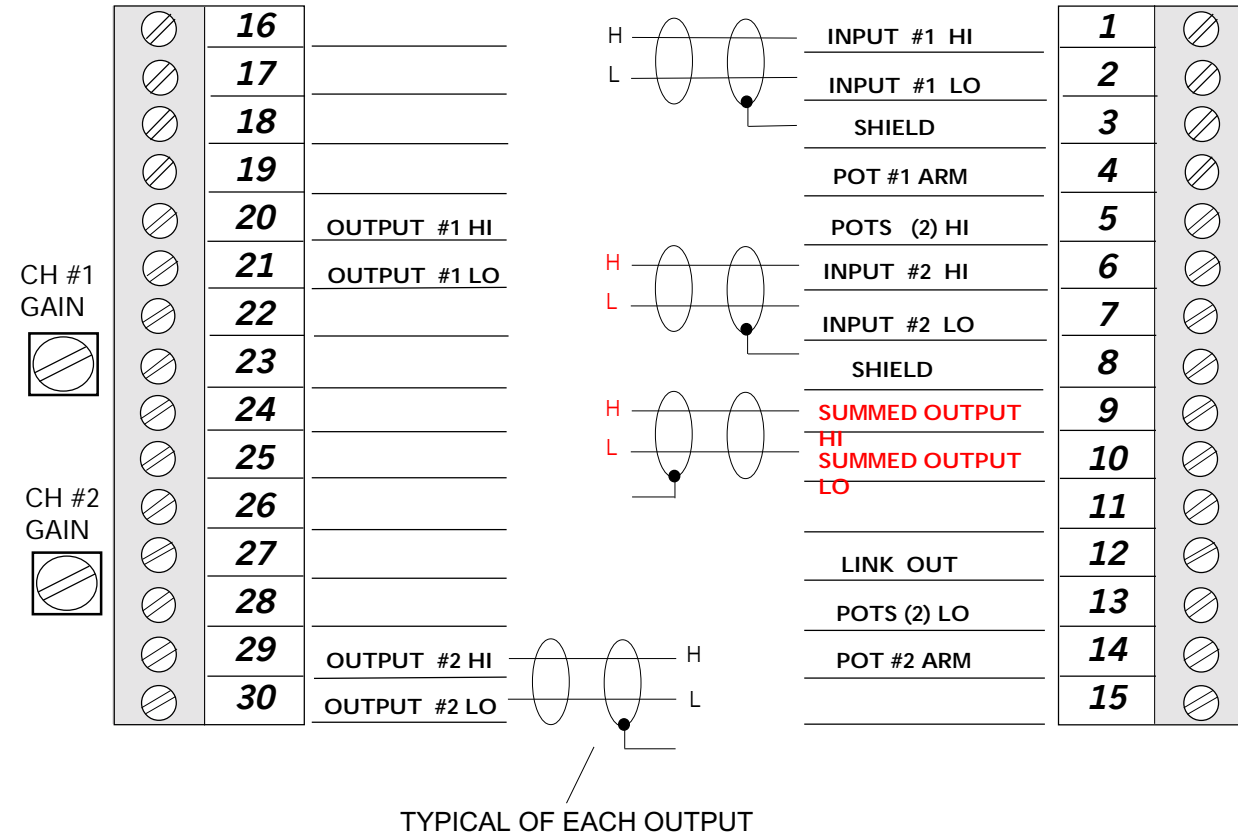


857B & 858B Backplane Connections



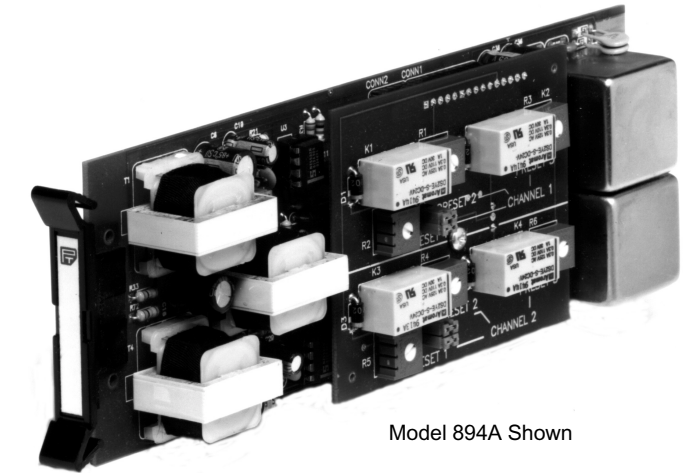
NOTES:

INTEGRA III SYSTEM

MODELS COVERED

891	895*
892	896*
893	897*
894	898*

*Microphone Level Inputs



Model 894A Shown

www.protechaudio.com

The Models 891 to 898 Remote Controlled Audio Cards are designed to operate with either microphone or line level input signals, with remote volume control, and are intended for use in professional audio systems.

Typical applications are public address systems, courtrooms, sales presentation rooms, headphone listening systems, and recording systems. The actual application of the amplifiers is found in buildings such as airports, factories, courthouses, casinos, convention centers, libraries, hotels, racetracks, training systems, corporate boardrooms, etc. The models 891, 892, 893, and 894 have line level inputs. The models 895, 896, 897, and 898 have microphone level inputs. All inputs are transformer isolated. The gain of each input stage is adjustable via a trimpot mounted on the backplane assembly. The gain adjustment is independent of the attenuation adjustment.

The attenuation is accomplished using an on-board VCA (voltage controlled amplifier) circuit in each input section. The VCA is controlled via a 0-5 volt DC control signal, generated on-board, which is adjusted by a remotely mounted 10K linear potentiometer. The default for the attenuation is zero volts = zero attenuation. This default prevents loss of signal if the control wires are accidentally cut.

The overall attenuation range of the VCA cards may be modified in the field, by using a series resistor and changing the value of the remote potentiometer.

The input sections are followed by a summing amplifier, on mixing units, and then by a line amplifier circuit (on all models) depending on the model selected. The output section is transformer isolated with a high quality, 600 ohm line transformer.

All units may be linked together to create larger mixing networks. Both the audio output, and the link output may be strapped for PRE or POST VCA. This feature allows the audio output level to be remotely controlled, while the link output is fed to other units at full volume, or the link output level may be post VCA while the main output remains at full volume. This PRE/POST VCA feature is particularly useful when logging recorders are used.

Both models are designed to mount in the Models 857B or the 858B Card Frame Packages. The all VCA units may be mixed or matched with other INTEGRA III SYSTEM cards to create a complete audio system. The Model 858B will allow mounting of 9 cards and an internal power supply. The Model 857B will allow mounting of up to 10 cards with an external power supply.

INSTALLATION

The Models 891 - 898 Remote Controlled Audio Cards are designed to be mounted in the Models 858B Card Frame Package or the Model 857B Card Frame Package. The Model 858B will hold up to 9 cards and an internal power supply. The Model 857B will hold up to 10 cards with an external power supply.

The backplane assemblies bus the DC power to the individual card slots, and provide screw-type barrier termination points for audio and DC connections. They also allow mounting of the gain control trimpots.

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 Remote Control Audio Cards 891 and 895 are comparable to those necessary for any of the INTEGRA III SYSTEM cards. They are as follows:

1- Mount the card frame 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 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- Terminate the remote potentiometer leads as shown on the facing page. If a restricted attenuation range is desired, install selected resistor in series with potentiometer LO connection, and use potentiometer value as shown on facing page.

5- 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 line level card has been shipped from the factory with the gain trimpot installed in the backplane, and aligned for unity gain. Each microphone level card has been shipped with the gain trimpot installed in the backplane, and aligned for 45 dB of Gain.

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- Turn the remote control pots to the minimum attenuation position.
- 2- Apply a signal representative of the actual signal level to be used, to input #1.
- 3- While monitoring the output, turn the input #1 gain trimpot, mounted on the backplane assembly, until the output signal reaches the desired level.
- 4- Repeat steps 1 to 3 for input channel #2.

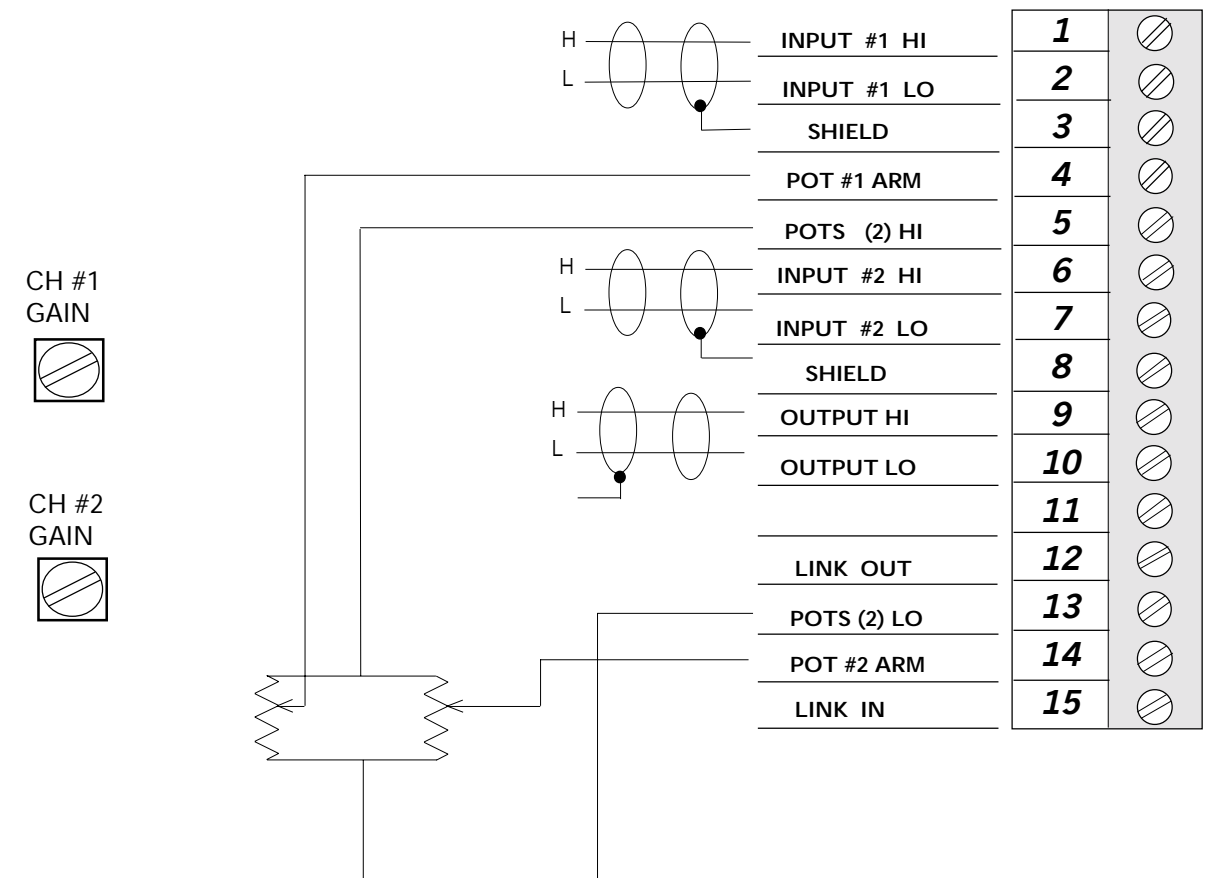
Note #1-

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
CONNECTOR & TRIMPOT DRAWING
MODEL 891 & 895

857B & 858B Backplane Connections



NOTES: