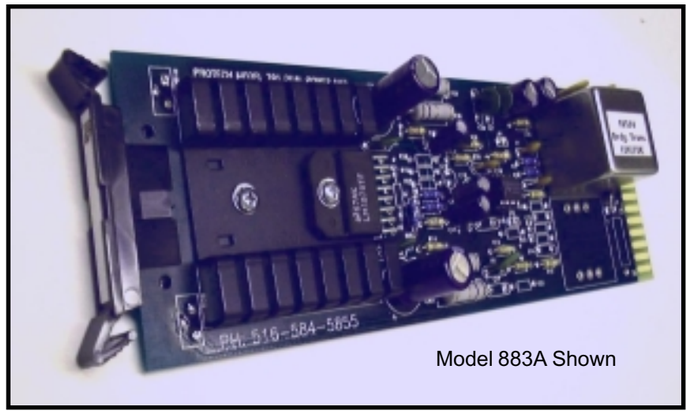
PROTECH®

12/03

INTEGRA III SYSTEM
10 Watt Audio Power Amplifier Cards
INSTALLATION & OPERATION MANUAL

INTEGRA III SYSTEM

MODELS COVERED
861A
883A
884A



Model 883A Shown

The Integra III System 10 Watt Audio Power Amplifier Cards are designed for use in continuous duty professional applications.

All 6 units are designed to drive 4 or 8 ohm loads to a maximum of 10 watts RMS. Each model incorporates a combination of features that will allow the unit 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. Only the highest quality components are used in the construction of these audio power amplifiers. These units are designed to be used in systems that operate 24 hours a day, 7 days a week.

Typical applications are legilsative venues, boardrooms, council chambers, judicial systems, sales presentation rooms, headphone listening systems, public address systems, multi-room audio systems, and recording systems. The actual application of the amplifiers is found in buildings such as public buildings, courthouses, legislative or council buildings, convention centers, factories, libraries, hotels, racetracks, training systems, corporate boardrooms, etc.,.

The Model 861A has a bridging, unbalanced input. The gain trimpot is mounted on the rear of the card frame. This rear mounting location serves two purposes. The rear mounted trimpots prevent tampering with the gain settings, and, if a spare unit should be put into service, no realignment of the gain setting is necessary. Both desirable features when semi-technical personnel may be called upon to maintain the system.

The model 883A has a balanced, transformer-isolated bridging type input.

The model 884A has a 600 ohm transformer isolated input.

All three models offer a mute function, that is activated by grounding the mute control pin.

The specifictions on all 3 units make them ideal for high quality audio systems. And the card file format allows up to 10 amplifier circuits to be mounted in just 3.5" of vertical rack space.

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

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INSTALLATION

The Audio Power Amplifier cards are designed to be mounted in the Models 857B or 858B Card Frame Assemblies. The Model 857B will accomodate up to 10 amplifier cards, using an external power supply, and the Model 858B will accomodate or up to 9 audio cards, and uses a plug-in power supply card. The Audio Power Amplifier Cards require 480ma of DC current, in order to deliver 10 watts of audio power. The power supply card used in the Model 858B card frame assembly is designed to deliver 600ma of power to a card frame. Therefore it is recommended that systems using these power amplifier cards have an external power supply configuration. (Model 857B and Power Supply Model 66708). The Model 858B may be used in systems where the power amplifier cards will be used to provide only 1 or 2 watts of audio power.

The backplane assemblies come in two versions.

Model 857B- is designed for use with 10 audio cards.

Model 858B- is designed for use with 9 audio cards, and one plug-in power supply card.

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 Power Amplifier cards, 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 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.

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. Output connections should be made using #18AWG wire or heavier.

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 Power Amplifier card has been shipped from the factory aligned for 7dB of gain. This alignment level helps prevents damage to speakers upon initial system turn-on. 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 output channel, turn the output gain trimpot, mounted on the backplane, clockwise, until the output signal reaches the desired level.

3- Repeat step #2 for each Power Amplifier Card in your system.

This completes the installation and alignment of your Power Amplifier Cards. The Power Amplifiers may be expected to deliver years of uninterrupted service.

Note #1-
The alignment procedures 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 fifferent card types.

PROTECH AUDIO®

INTEGRA III SYSTEM

CONNECTOR & TRIMPOT DRAWING
MODELS 861A, 883A, 884A

Models 857B, & 858B Backplane Connections