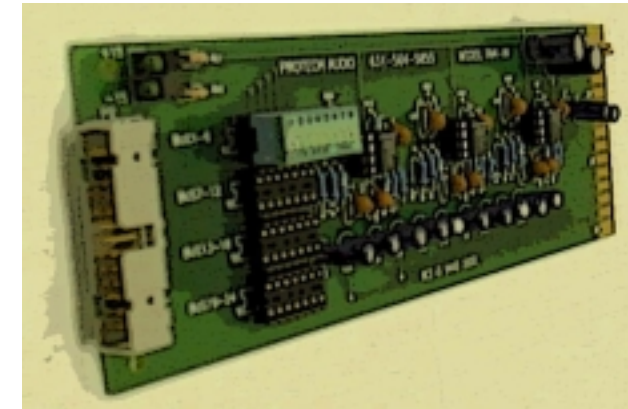


MODELS COVERED**704-IN
704-OP**www.protechaudio.com

The Models 704-IN and 704-OP Modular Matrix Mixers are designed to provide low cost, incremental matrix mixing of audio signals in professional, fixed installations.

Inputs can be added, in increments of 6, up to a maximum of 24 (Model 704-IN). Outputs can be added, in increments of 6, up to a maximum of 36 (Model 704-OP).

The design of the Model 704 is elegantly simple. Input circuits buffer the incoming signal, and pass the signal thru to a series of summing amplifiers. Each input may be assigned, via on-board DIP switches, to any or all summing amplifiers. Each summing amplifier will accept up to 24 separate, line level signals.

Matrixes, from as small as 6 x 6, all the way up to 24 x 36, may be created. Other switching cards in the INTEGRA III SYSTEM, for example the Model 703-4 Remote Push-Button Program Selector and Volume Control, may be used to remotely select between custom matrix outputs.

Inputs may be used in balanced or unbalanced configuration. Outputs may be used in balanced or unbalanced configuration. Selection of balanced or

unbalanced operation of outputs, is made via push-on jumpers.

A 26 pin ribbon cable straps input and output cards together, on the front edge, to complete the matrix assembly.

Each module is individually fused, with auto-resetting electronic fuses. In the event of a component failure, the module will remove itself from the power supply bus, allowing the remainder of the system to continue operating

As one of the INTEGRA III SYSTEM cards, the Model 704 Modular Matrix Mixer cards may be mounted in any of the system enclosures manufactured by Protech Audio. The Model 858B Card Frame allows mounting of up to 9 cards in just 3.5" of vertical rack space. The Model 857B Card Frame allows mounting of 10 cards in the same rack space, and requires an external power supply (Model 66708). The Model 704 Modular Matrix Mixers may be mixed and matched with other INTEGRA III SYSTEM cards within the same card frame.

For additional information contact:

APPLICATIONS ASSISTANCE

INSTALLATION

The Model 704 cards are designed to be mounted in the Models 857B or 858B Card Frame Assemblies. The Model 857B will accommodate up to 10 audio cards, using an external power supply (Model 66708), and the Model 858B will accommodate up to 9 audio cards, and uses a plug-in power supply card. The power supply card used in the Model 858B card frame assembly is designed to deliver 600ma of power to a card frame.

The actual steps necessary for installation of the Modular Matrix Mixer cards, are comparable to those necessary for any of the Integra III System cards, with the exception of the linking ribbon cable. 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 POWERED CARD FRAME Model 857B.

If an external power supply (Model 66708) is being used, terminate the supply connections to pins 1, 2, & 3 of the DC barrier connector, as shown in the card frame layout drawing, and the Model 66708 Installation and Operation Manual. Turn on the power supply, and using a DC voltmeter, check for correct voltage and polarity at pins 1, 2, & 3 of the DC barrier connector.

INTERNALLY POWERED CARD FRAME Model 858B

Plug in the external power transformer, and connect to card frame. Plug in the power supply card, , and check for proper illumination of both the positive and negative voltage LED's, on the front of 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. Output connections should be made using 22AWG wire or heavier.

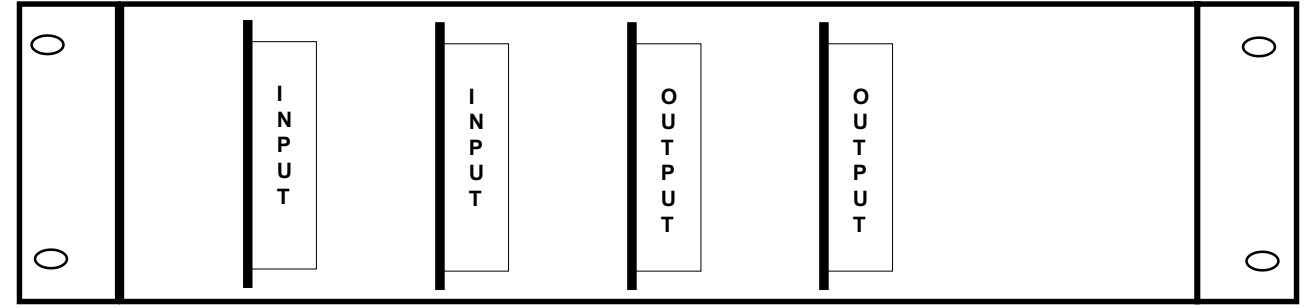
4- Unpack each individual card, inspect for shipping damage, and assuming none is found, slide the card half-way into the appropriate slot. After all cards have been installed half-way into the card frame, plug in one card at a time and turn on the power supply. Make sure no unusual loading is indicated 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 Modular Matrix Mixer card has been shipped from the factory set for balanced line operation. If unbalanced operation is desired, move red push-on jumpers on output cards.

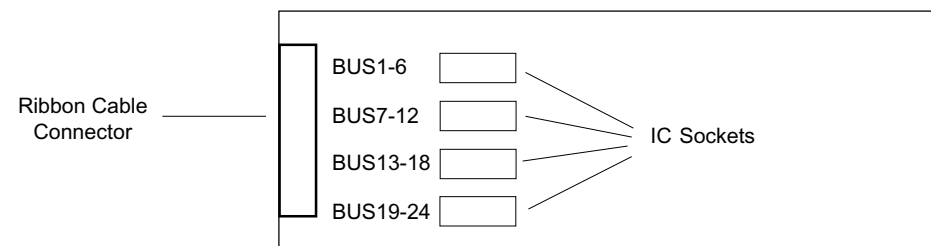
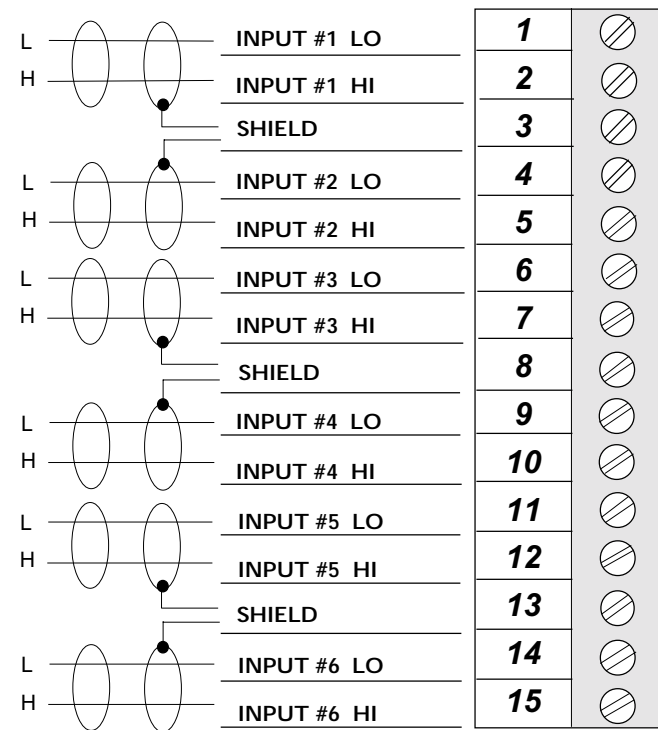
- 1- On the input cards, place the bus selector DIP switch into the desired bus group IC socket.
- 2- On the output cards, select inputs to appear on each output by selecting that channel on the 8 position DIP switches.
- 3- On the output cards, if unbalanced operation is desired, move the red push-on jumpers, over one pin.
- 4- Place the ribbon cable/connector assembly onto the front of all Modular Matrix Mixer cards in the system.


This completes the installation and alignment of your Modular Matrix Mixer Cards. The mixers may be expected to deliver years of uninterrupted service.



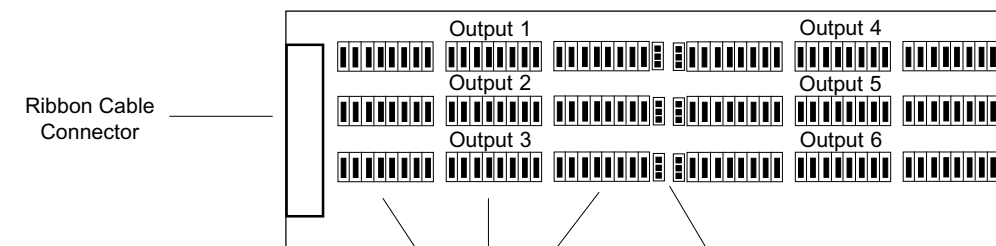
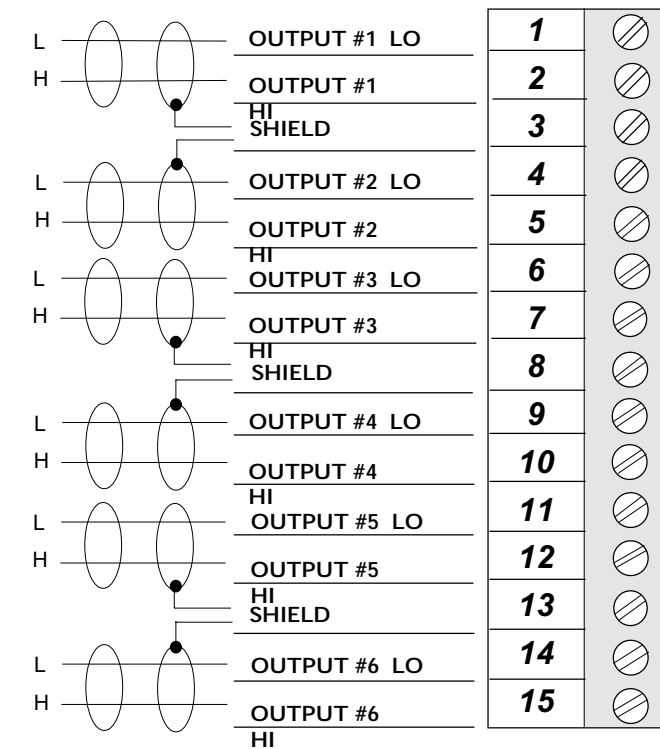
Drawing shows 12 x 12 system. Link cable simply pushes onto front of input and output cards, after DIP switches and balanced/unbalanced jumpers have been set.
Factory provides exact cable length for the system ordered (6 x 6, 12 x 12, etc.).

Models 857B, & 858B Backplane Connections




DIP Switch  Placing DIP Switch in IC Socket Selects Bus Assignment. Only One Input Card Can Be Assigned To Each Bus Group.

Models 857B, & 858B Backplane Connections



Channel Selection
DIP Switches

 BAL = Balanced Output
UNB = Unbalanced Output
Jumper between top and middle pin for balanced output.
Jumper between middle pin and bottom pin for unbalanced output.