

# MODULAR MATRIX MIXER

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## ARCHITECT'S & ENGINEER'S SPECIFICATION

The modular matrix mixer shall be constructed as plug-in printed circuit board modules. It shall be designed to allow up to 10 modules to fit in a rack mount card frame, requiring no more than 3.5 inches of vertical rack space. The mixer shall be unpluggable from the front of the card frame, without the need to disconnect wires attached to the rear connector. Each module shall be individually fused. Each modular matrix mixer input module shall provide 6 balanced, line level inputs. Each balanced input shall be capable of operating in a balanced, or unbalanced mode. The modular matrix mixer shall allow up to 4 input modules (total of 24 inputs) to be connected within one card frame.

The modular matrix mixer output module shall provide six balanced, line level outputs. Each balanced output shall be capable of operating in a balanced, or unbalanced mode. The modular matrix mixer shall allow up to 6 output modules (36 total outputs) to be connected within one card frame. The gain structure of the modular matrix mixer shall be fixed at unity gain. The modular matrix mixer shall be Protech Audio Corporation Model - 704-IN (Input Module) 704-OP (Output Module)

## SPECIFICATIONS, MODEL 704

Gain.....	Unity
Maximum Input.....	+22dB
Input Impedance.....	10K Ohm
Maximum Output.....	+22dB Into 600 Ohms, Balanced
Output Impedance.....	300 Ohms
Frequency Response.....	+0.25dB, 20Hz To 20KHz
Distortion.....	0.1% Maximum @ +22dB Out
Noise.....	Better Than -85dB Below +4dBm Out,
Crosstalk.....	Better Than -70dB @ 20KHz
Power Requirements.....	+15-18VDC @ 40ma
Size.....	2.5" x 8.0" x 1.1"
Operating Temperature.....	0 to 70 Degrees C

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.

## Accessories

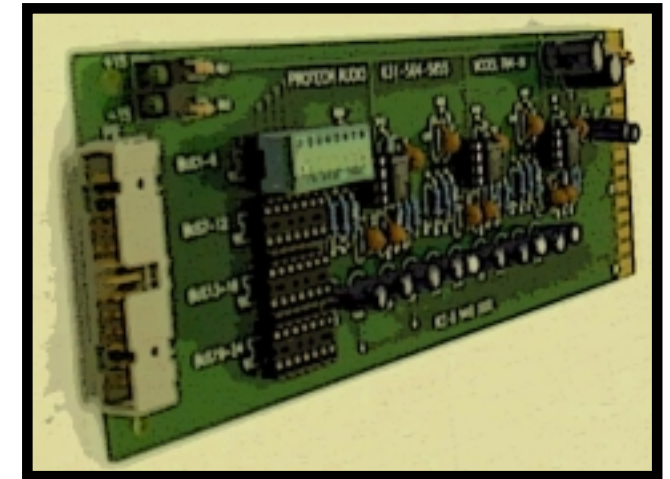
CARD FRAME PACKAGE.....MODEL 857B Includes Card Frame, and Backplane Assembly. For use with external power supply Model 66708. Allows mounting of up to 10 audio modules.	CARD FRAME PACKAGE.....MODEL 858B Includes Card Frame, Backplane, and Power Supply Card. Allows mounting of up to 9 audio cards.
REMOTE LEVEL CONTROL.....Model 703-4 Allows push-button operation of output level, and pushbutton selection of input source selection, from 1 of 4 inputs.	POWER AMPLIFIER.....Model 883A Provides up to 10 watts of audio power into 4 or eight ohm loads.
AUDIO DISTRIBUTION AMPLIFIER.....Model 865B One input by 5 outputs. Transformer isolated in and out. Individually adjustable gain on input and each output.	DUAL POWER AMPLIFIER.....Model 701 Provides two discreet channels of power amplification. Four watts per channel, into 4 or 8 ohms.

**PROTECH**®

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## Features

- Up To 24 Inputs.  
(6 Inputs Per Input Card)
- Up To 36 Outputs.  
(6 Outputs Per Output Card)
- Balanced or Unbalanced Operation.
- Low Cost.



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:

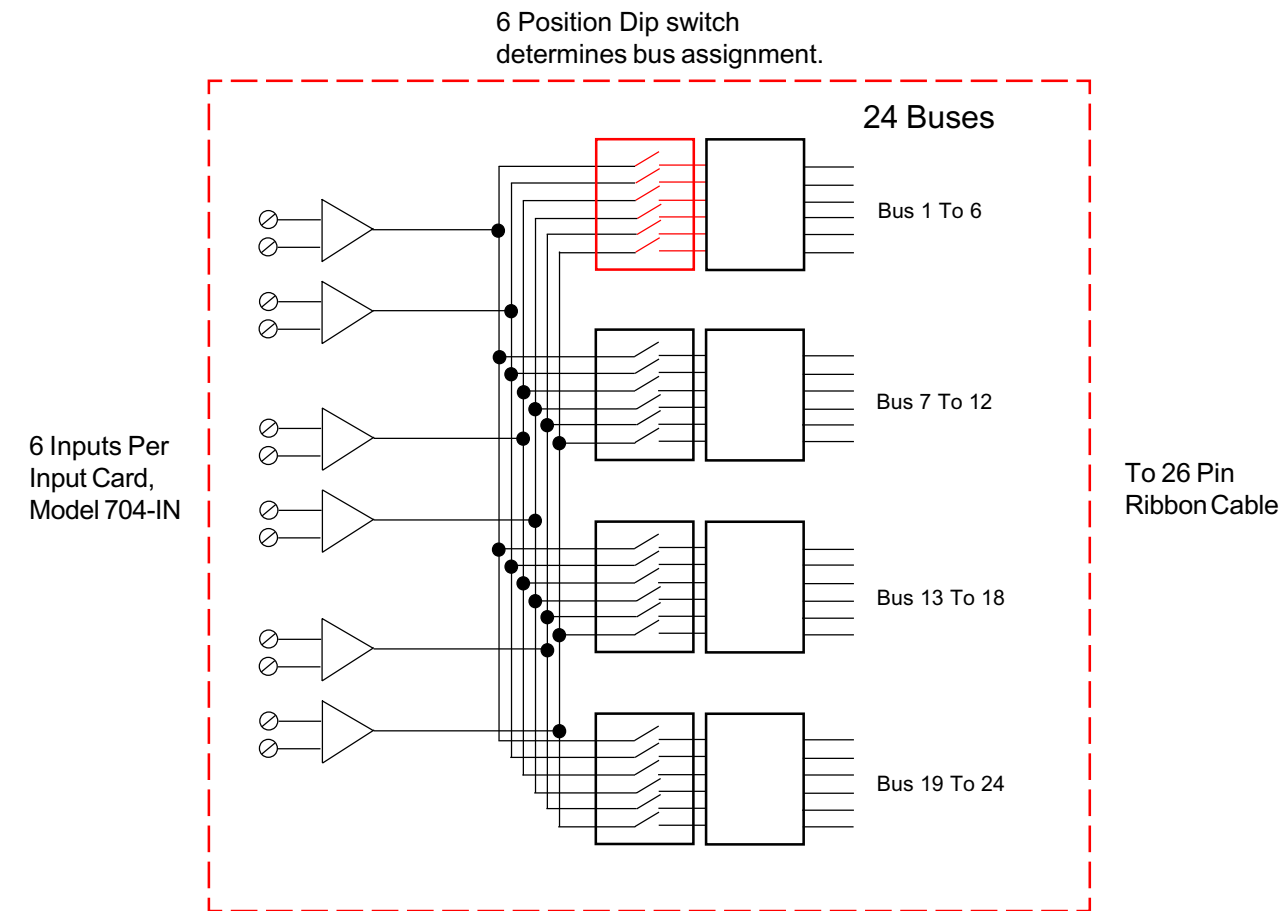
APPLICATIONS ASSISTANCE

**PROTECH**®

# INPUT CARD

Each Model 704-IN contains six balanced inputs. One DIP switch is supplied with each unit. By placing the switch in different sockets, the installer may program a card for a different set of buses. Only one card may be set to each group of buses.

Each balanced input may be used in a balanced or unbalanced mode. The gain structure of each input/output is set to unity gain. A 0dB signal entering the mixer, will exit the unit at 0dB



# OUTPUT CARD

Each Model 704-OP contains six balanced outputs. Each output circuit has 3 eight position DIP switches. The DIP switches are used to assign input signals to individual outputs. Up to 24 input signals may be combined to each output

Each balanced output may be used in a balanced or unbalanced mode. A push-on jumper sets the output for balanced or unbalanced operation.

