

# MODEL 5044

# MATRIX MIXER

## FEATURES

- Transformer Balanced Inputs.
- Transformer Balanced Outputs.



- Adjustable Mixing Level(s).
- Individual Mutes For Each Output
- Switchable 15dB Pad and 10dB Gain Setting
- External UL Listed Power Transformer For Lowest Possible Noise.

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MODEL 5044 MATRIX MIXER

The Model 5044 Matrix Mixer is designed to provide the system designer, and audio contractor, with a matrix mixer that provides adjustable output levels for each line level input signal to each output. The 5044 will accommodate up to 4 inputs and provides 4 separate outputs each with its own custom signal mix.

Each input is balanced bridging transformer isolated. Each output is low impedance transformer isolated capable of driving loads as low as 600 ohms.

Each input level is adjustable from off to +25dBv to each output, relative to the input signal level. Adjustment of an input level to any output will not effect levels adjusted to other outputs.

Each output contains an externally controlled mute switch for each input signal to allow mixes to be changed from other control devices.

Typical mixes can include any or all input signals.

The Model 5044 can also be used as a 4 channel line amplifier.

Actual installations include such facilities as factories, convention centers, racetracks, arenas, corporate communication centers, airports, mass transit systems, and broadcast centers.

Every circuit in the Toolbox Series has been meticulously engineered, to achieve maximum reliability. The power supply section of all Tool Box Series audio devices, incorporates a UL recognized power transformer. By mounting the AC power transformer outside of the audio chassis, the Toolbox Series audio devices achieve the lowest possible hum specification. Fusing is accomplished thru the use of a standard, easily available 3AG size Slo-Blo fuse, with the fuseholder mounted on the rear of the chassis. A ground lift switch is mounted on the rear of the chassis, to provide additional installation flexibility.

TOOLBOX SERIES

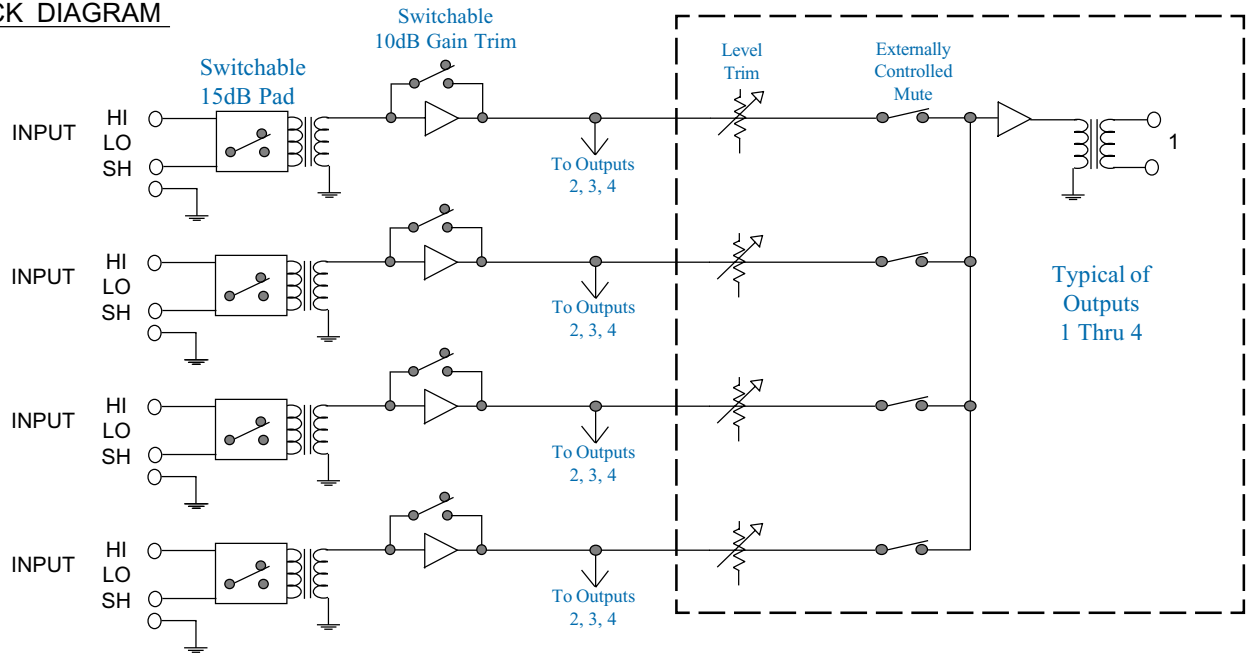
**PROTECH**®

Engineering Data

12/07

# Model 5044 Matrix Mixer

## BLOCK DIAGRAM



## Specifications

|                            |   |
|----------------------------|---|
| GAIN.....                  | Off To +25dB, adjustable                  |
| MAXIMUM INPUT LEVEL.....   | +24dBv                                    |
| INPUT IMPEDANCE.....       | Transformer Balanced Bridging, 10K        |
| MAXIMUM OUTPUT.....        | +20dBv 600 Ohm Load, +24dBv 10K Ohm Load  |
| FREQUENCY RESPONSE.....    | +0, -1dB, 20Hz To 20KHz                   |
| DISTORTION.....            | 0.1% Maximum @ +15dBm Out, & 15dB of Gain |
| NOISE.....                 | -91dB Below +4dBm Out, and 15dB of Gain   |
| POWER REQUIREMENTS.....    | 117VAC @ 0.5 Amp.                         |
| SIZE.....                  | 1.75" x 19" x 10"                         |
| OPERATING TEMPERATURE..... | -20 To +75 Degrees C                      |

## Architect's & Engineer's Specifications

The matrix mixer shall contain four inputs which can be adjusted in level to each of four outputs.

The inputs shall be balanced, bridging transformer isolated type. Each input section shall contain RFI protection circuitry. The gain of the input shall be programmable via an on-board slide switch. Each input shall feature a 15dB switchable pad.

The outputs shall be low impedance transformer balanced floating type, capable of driving 600 ohm impedance lines to a +20dB level. Adjustment of any input level to any output shall not effect the output level of any other output section.

The matrix mixer shall be constructed in an all steel chassis set, to facilitate shielding. The unit shall mount in standard 19" EIA racks, without the need for additional mounting brackets, and require no more than 1.75" of vertical rack space. The matrix mixer shall have a ground lift switch accessible only from the rear of the chassis set. The matrix shall not contain an ON/Off switch.

The matrix mixer shall have an external, UL Listed wall mount power transformer. The fusing of the power supply section shall be via a standard 3AG type fuse, contained in a fuse holder accessible only from the rear of the chassis.

The MATRIX MIXER shall be Protech Audio Corporation Model 5044

## Accessories

Automatic Level Control.....MODEL 65306  
Senses ambient noise in paging area, & automatically adjusts paging levels.  
Incorporates 4 input prioritized mixer, 2:1 compressor circuit, and a peak limiter circuit.

Dugan Automatic Microphone Mixers.....MODELS 2004, 2008, 2010, 2012, 2014. Allows automatic mixing of microphone and line level signals to common or direct outputs. Provides more gain, less echo pickup.

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