

# ProMatrix™ Digitally Matrixed Pre-Amplifier



## Model PM3000

### Description

Bogen's ProMatrix™ Digitally Matrixed Pre-Amplifier, Model PM3000, is the ideal solution for restaurant, lounge/bar, hotel, factory or similar facilities where multiple audio sources and voice paging inputs need to be distributed to separate areas and automatically switched based on input priorities.

The PM3000 provides up to 4 unbalanced aux inputs and 2 mic inputs that can be individually assigned to each of 3 output channels (one of the mic inputs can be programmed for telephone paging applications). Each input can be assigned a particular priority level for each output channel; the PM3000 will then automatically switch inputs based on input activity.

Microphones can be assigned to priority level 1 or 2 and aux sources to levels 3, 4, 5, or 6. For example, a paging microphone can be assigned priority level 1, a jukebox to level 3 and a tuner to level 4. In this configuration, the tuner will play until the jukebox becomes active; when the page microphone is activated, it will override both of the other inputs.

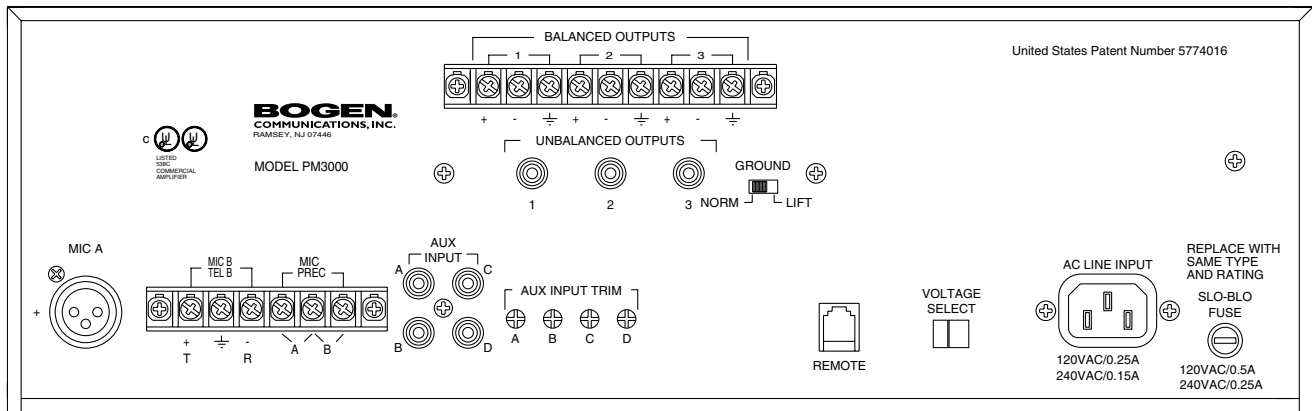
With tremendous flexibility for audio control and distribution in a single unit, the PM3000 is the preferred solution for multi-zone, multi-input sound management.

### Features

- 3 Independent audio channels
- 3 Pre-amp level outputs, both balanced and unbalanced
- 4 High-impedance, unbalanced auxiliary inputs
- 2 Microphone inputs; one input can be programmed to accept a telephone line for paging
- 6 User-assigned priority levels
- Inputs assigned to each output channel auto-switch based on priority levels assigned
- Each input can be assigned different priority levels for each of the 3 output channels
- Auxiliary trim controls accommodate a wide range of auxiliary input signal levels
- Digital interface for quick setup
- Tamper-proof system settings for consistent, fool-proof operation
- Preset power-up levels of each input for volume, treble, and bass
- Password-protected programming
- Two modes of operation: user and programming
- Program using control panel or wireless infrared remote control unit (included)
- Output level metering
- Automatic fade-in of audio source after a mic page or when switching to a lower priority
- Automatic level control for microphones (selectable)
- Choice of microphone page (VOX, N.O., or N.C. switch)
- Phantom power for microphones (selectable)
- Variable music mute levels during mic or tel page
- Rack mountable with kit (RPK79)
- Detachable front panel can be mounted up to 25 feet away from main unit using accessory cable shipped with unit or 250 feet using RMPWМК3 adapter with 22 AWG wire run
- Easy to understand and operate

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## Technical Specifications

	<b>Outputs:</b>	0dBV balanced outputs via screw terminal strips (all channels); 0dBV unbalanced outputs via RCA jacks (all channels)
	<b>Maximum Output:</b>	15dBV into 600-ohm balanced
	<b>Maximum Gain:</b>	17.7dB (volume control @ 25)
	<b>Headroom:</b>	15dB
	<b>Input Sensitivities:</b>	<i>Mic Inputs</i> — 750 microvolt rms (no ALC) <i>Tel Input</i> — 170m Vrms <i>Aux Inputs</i> — 100m Vrms to 2.5 Vrms (trim adjustable)
	<b>Input Impedance:</b>	<i>Mic Inputs</i> — 200-ohm balanced <i>Tel Input</i> — 600-ohm transformer-balanced <i>Aux Inputs</i> — 50k-ohm unbalanced
<b>Frequency Response &amp; Distortion (20Hz to 20kHz):</b>		<i>Mic Inputs</i> — 100Hz to 10kHz $\pm 2$ dB, <0.1% THD+N <i>Aux Inputs</i> — 20Hz to 20kHz $\pm 2$ dB, <0.1% THD+N
<b>Signal-to-Noise Ratio (20Hz to 20kHz):</b>		<i>Mic Inputs</i> — -55dBr <i>Tel Input</i> — -55dBr <i>Aux Inputs</i> — -70dBr
	<b>Volume Control:</b>	25-step digital
	<b>Tone Controls:</b>	<i>Bass</i> — $\pm 10$ dB @ 50Hz in 15 steps <i>Treble</i> — $\pm 10$ dB @ 15kHz in 15 steps
	<b>Phantom Power Supply:</b>	13V DC switchable, mic inputs
	<b>Power Consumption:</b>	120V AC @ .25A, 240V AC @ .15A, 30-watts
	<b>Dimensions:</b>	17" W x 5-1/2" H x 8-1/2" D
	<b>Shipping Weight:</b>	12 lbs.

## Architect and Engineer Specifications

The pre-amplifier shall be a Bogen ProMatrix Digitally Matrixed Pre-Amplifier, Model PM3000.

The pre-amplifier shall incorporate three independent audio channels and provide 4 aux inputs and 2 mic inputs that can be individually assigned to each pre-amplifier channel with one of the mic inputs programmable for telephone paging applications.

The pre-amplifier shall provide for automatic switching of inputs based on input activity. It shall be possible to assign a priority level for each input on each output channel.

Each output shall supply both balanced and unbalanced signals. Front panel mounted LED output level meters shall be provided for each pre-amplifier channel.

The pre-amplifier shall provide automatic fade-in of audio source after a microphone page or when switching to a lower priority input. The paging over music level shall be adjustable.

A front-mounted, removable control panel and a wireless infrared remote control unit shall be provided.

There shall be two (2) modes of operation. The User mode shall permit the selection of a pre-amplifier channel to perform the following operations: manual selection of an input

source; adjustment of volume level; adjustment of bass and treble response. The *Programming* mode shall be password-protected and shall permit the following operations: assignment of priority levels; set microphone precedence activation, ALC, phantom power and mic/tel assignment; preset volume, bass, and treble levels; limit maximum output volume; inhibit user's ability to make volume or tone adjustments; set mute level of aux inputs during a microphone page; change program mode password; create custom display labels for input sources; reset all features to factory defaults. All programming steps shall be displayed and verified on an alphanumeric display panel. It shall be possible to program the unit using the control panel or infrared remote control unit. Non-volatile memory shall be used to retain user control settings.

The pre-amplifier shall operate from either a 120V or 240V AC source. Technical specifications shall be as listed in the Technical Specifications Table.

**BOGEN**  
COMMUNICATIONS, INC.

50 Spring Street, Ramsey, New Jersey 07446  
201-934-8500 FAX: 201-934-9832, www.bogen.com