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## MODELS 4400 AND 4800 SERIES

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### AUTOMATIC MIXERS

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#### INTRODUCTION

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The 4400 and 4800 Series mixers are the most truly automatic mixers available. Once set up for an application, their proprietary circuitry functions automatically as if a trained operator were at the controls, requiring little or no operator intervention. This automatic operation, previously available only in the 4000 Series Automatic Mixer System is now within the reach of smaller applications such as churches, meeting facilities, courtrooms, council chambers, and any application requiring up to eight inputs.

The configuration of the system and setup of the options is described in the installation instructions, Section 4 Group 20 Sub B. This document describes the operation of the operator controls and indicators for the 4400 Series and 4800 Series Automatic Mixers, all of which are located on the front panel.

The gating sensitivity of the gated inputs is independent of the front panel level control setting, making level setup simple and straightforward. Set the Output control(s) at the mid to  $\frac{3}{4}$  point (between 12 o'clock and 3 o'clock position). Adjust each input individually to the desired level. Finally, adjust the overall level with the Output controls.



**ON/OFF SWITCH AND POWER LED**

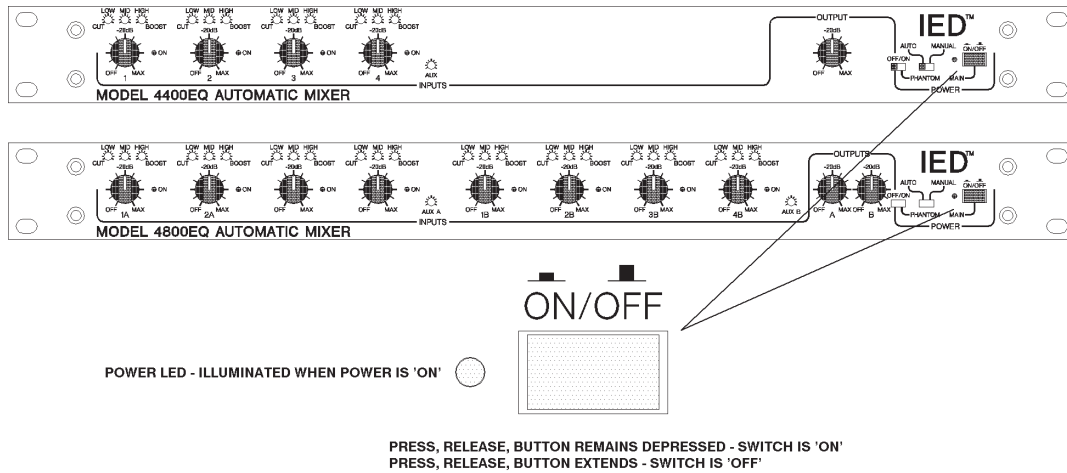


Figure 1 - Front Panel Controls and Indicators  
 Power switch and indicator LED

The power On/Off switch is of the push-push type. When it is 'Off' it protrudes from the front panel. When it is 'On', it is almost flush with the front panel. Press the button, then release it to switch from 'On' to 'Off' or from 'Off' to 'On'.

The green LED 'Power On' indicator is located to the left of the On/Off switch. It is illuminated when power is 'On'. If the switch is in the 'On' position and the LED indicator is not illuminated, check the power cord, the fuse, and the AC outlet.

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**AUTO/MANUAL SWITCH**

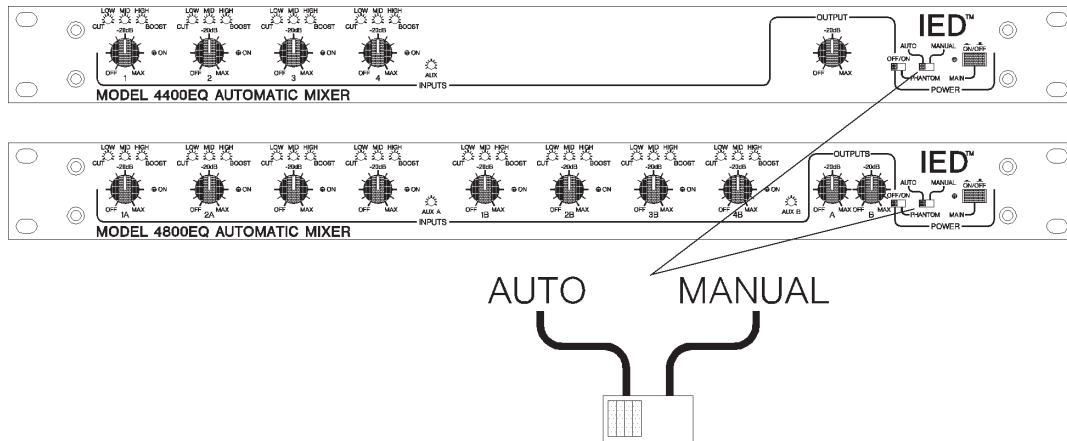


Figure 2 - Front Panel Controls and Indicators  
Auto/Manual Switch

The Auto/Manual switch switches the mixer between automatic and manual operation. When the switch is in the Auto position, the gated inputs gate 'On' when an input signal is present, and gate 'Off' when it is removed. When the switch is in the Manual position, there is no gating function. The gated inputs are forced 'On' and remain 'On' at all times, as do the red LED input 'On' indicators. See page 9 for additional information.



**PHANTOM POWER ON/OFF**

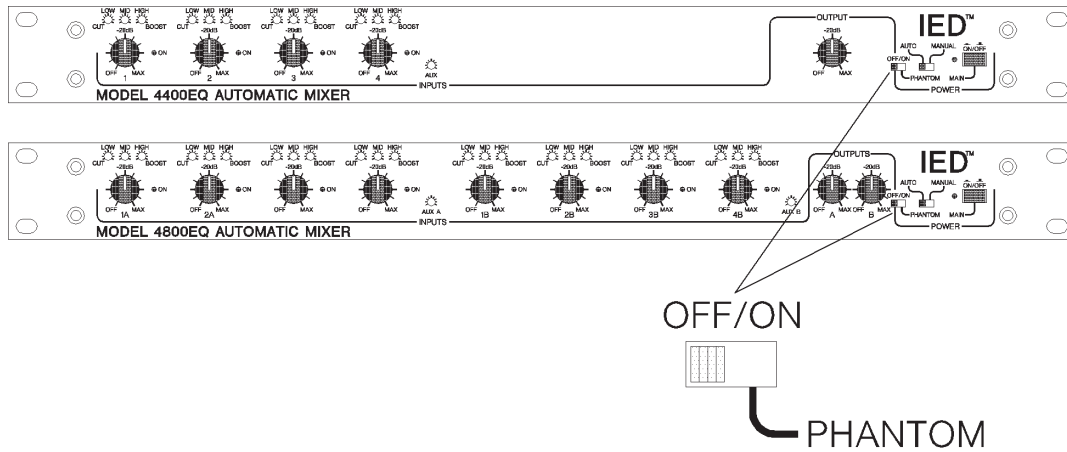


Figure 3 - Front Panel Controls and Indicators  
Phantom Power On/Off

Phantom power is the DC bias voltage required to make condenser microphones operate. The phantom power On/Off switch controls the DC voltage which goes to each individual gated input. If the switch is in the 'Off' position, there can be no phantom powering. If the switch is in the 'On' position, phantom power will be available to the microphones, provided that the setup jumpers are in the proper position. Refer to the installation instructions, Section 4, Group 20, Sub B.

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**OUTPUT GAIN CONTROLS**

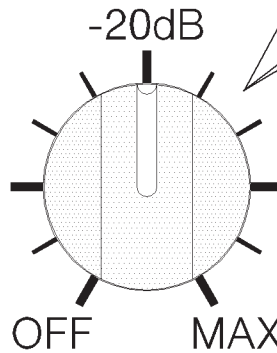
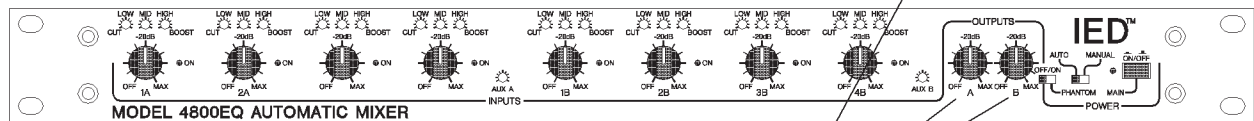
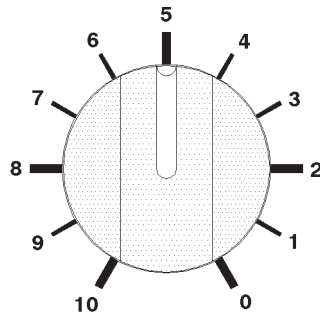


Figure 4 - Front Panel Controls and Indicators  
Output Gain Controls

The Output Gain Controls control the attenuation of the output level(s). The maximum level (full clockwise) depends upon the options and the setup. Refer to the product description, Section 4, Group 20, Sub A and the installation instructions, Section 4, Group 20, Sub B for further details. Set the Output control(s) at the mid to 3/4 point (between 12 o'clock and 3 o'clock position). Adjust each input individually to the desired level. Finally, adjust the overall level with the Output controls.

The table below describes typical attenuation versus pot rotation.

^F:4\_20C\CALPOT.SFP^



REFERENCE	ATTENUATION
0	0 dB
1	0.5 dB
2	3.0 dB
3	6.5 dB
4	12 dB
5	20 dB
6	27 dB
7	37 dB
8	47 dB
9	OFF
10	OFF



**AUXILIARY INPUT GAIN CONTROLS**

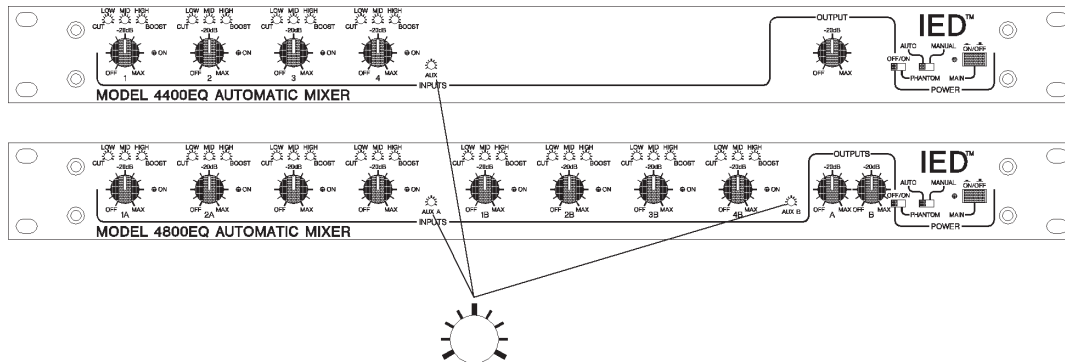


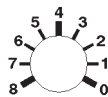
Figure 5 - Front Panel Controls and Indicators  
Auxiliary Input gain Controls

The Auxiliary Input gain controls control the level of the Auxiliary Input signal before it is mixed to the Main or Aux Output. They are adjusted with a small screwdriver (supplied with the mixer). The position of the pot may be determined by observing the position of the slots in the shaft. When shipped from the factory, the pots are set at the mid position (6 dB of attenuation).

**If Option A, Auxiliary Input remote control is installed, the front panel Auxiliary Input gain controls are not functional.**

Auxiliary Input Gain Controls

REFERENCE	ATTENUATION
0	0 dB
1	1 dB
2	2 dB
3	4 dB
4	6 dB
5	8 dB
6	12 dB
7	20 dB
8	OFF



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### GATED INPUT GAIN CONTROLS

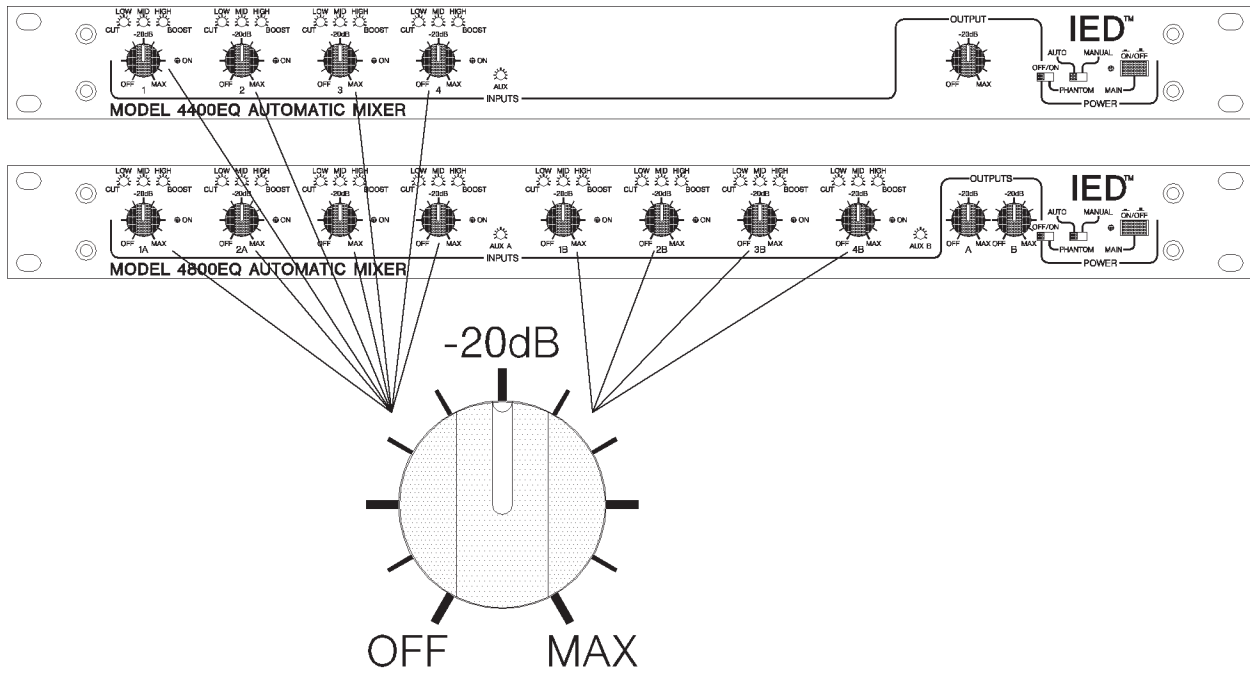
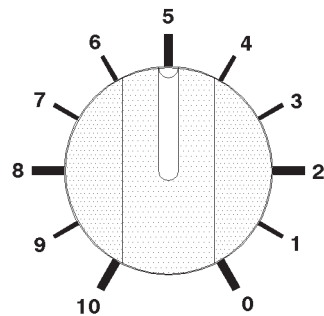


Figure 6 - Front Panel Controls and Indicators

^F:\4\_20C\4448FP-7.SFP^

The Input Gain Controls control the attenuation of the input level(s). The maximum level (full clockwise) depends upon the options and the setup. Refer to the product description, Section 4, Group 20, Sub A and the installation instructions, Section 4, Group 20, Sub B for further details. The gating sensitivity of the gated inputs is independent of the front panel level control setting.

The table below describes typical attenuation versus pot rotation.



Gated Input Gain Controls

REFERENCE	ATTENUATION
0	0 dB
1	0.5 dB
2	3.0 dB
3	6.5 dB
4	12 dB
5	20 dB
6	27 dB
7	37 dB
8	47 dB
9	OFF
10	OFF



**EQ CONTROLS**

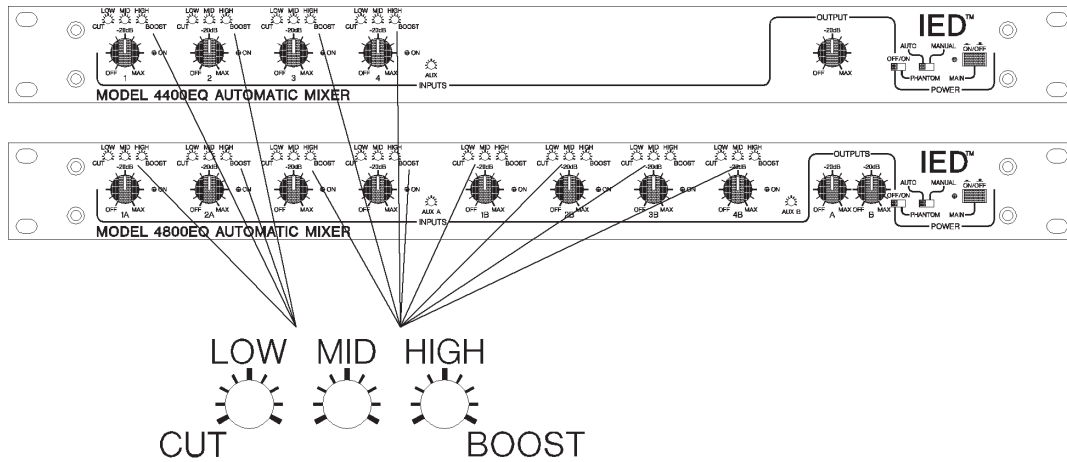


Figure 7 - Front Panel Controls and Indicators  
EQ Controls

The EQ controls adjust the cut or boost of the frequency response of each of the 3 bands of each input. The center frequency of the low band is 200 Hz, the mid band is 1 kHz, and the high band is 4 kHz. When a control is at the midpoint, the frequency response of that band for that input will be flat. Turning the pot clockwise boosts that band, and turning the pot counterclockwise cuts that band. Adjustments are made with the small screwdriver which is supplied with the mixer. The position of the pot may be determined by observing the orientation of the slots in the shaft. When shipped from the factory, the EQ controls are set at the mid position (flat).

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### GATE INPUT "ON" INDICATORS

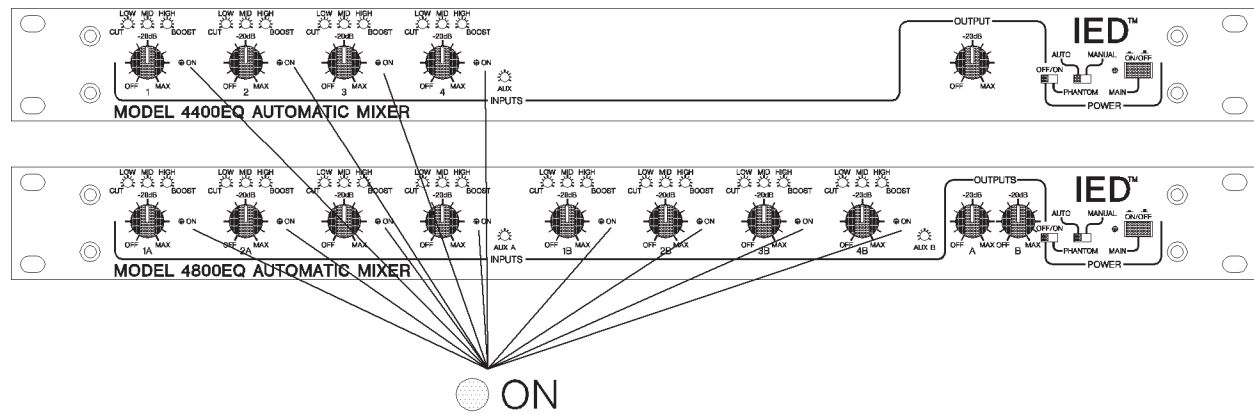


Figure 8 - Front Panel Controls And Indicators  
Input 'On' Indicators

The input 'On' indicators are red LEDs mounted in the front panel, just to the right of the gated input gain controls. The 'On' indicator for a gated input is illuminated when a gated input is 'On', either from being gated 'On' by the input signal, forced 'On', or when in the Manual mode.



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