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**IA-250**  
**2 Ch. Mixer / 20W Class D Amp**

09/2008

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The IA-250 is a two channel mic/line audio mixer, and 20W Class D amplifier mounted in a 3-gang in-wall box. It was designed to be compact and easy to operate, while providing high quality sound reinforcement for a small room. Powered by it's own 24Vdc plug-in power supply, the IA-250 means that your requirement for sound reinforcement is no longer dependent on the presence of an 19" rack.

**Installation Overview**

Setting up the IA-250 is quite easy. Please refer to the back of the IA-250, where terminal and switch positions are etched in the copper, or to figure 1 below.

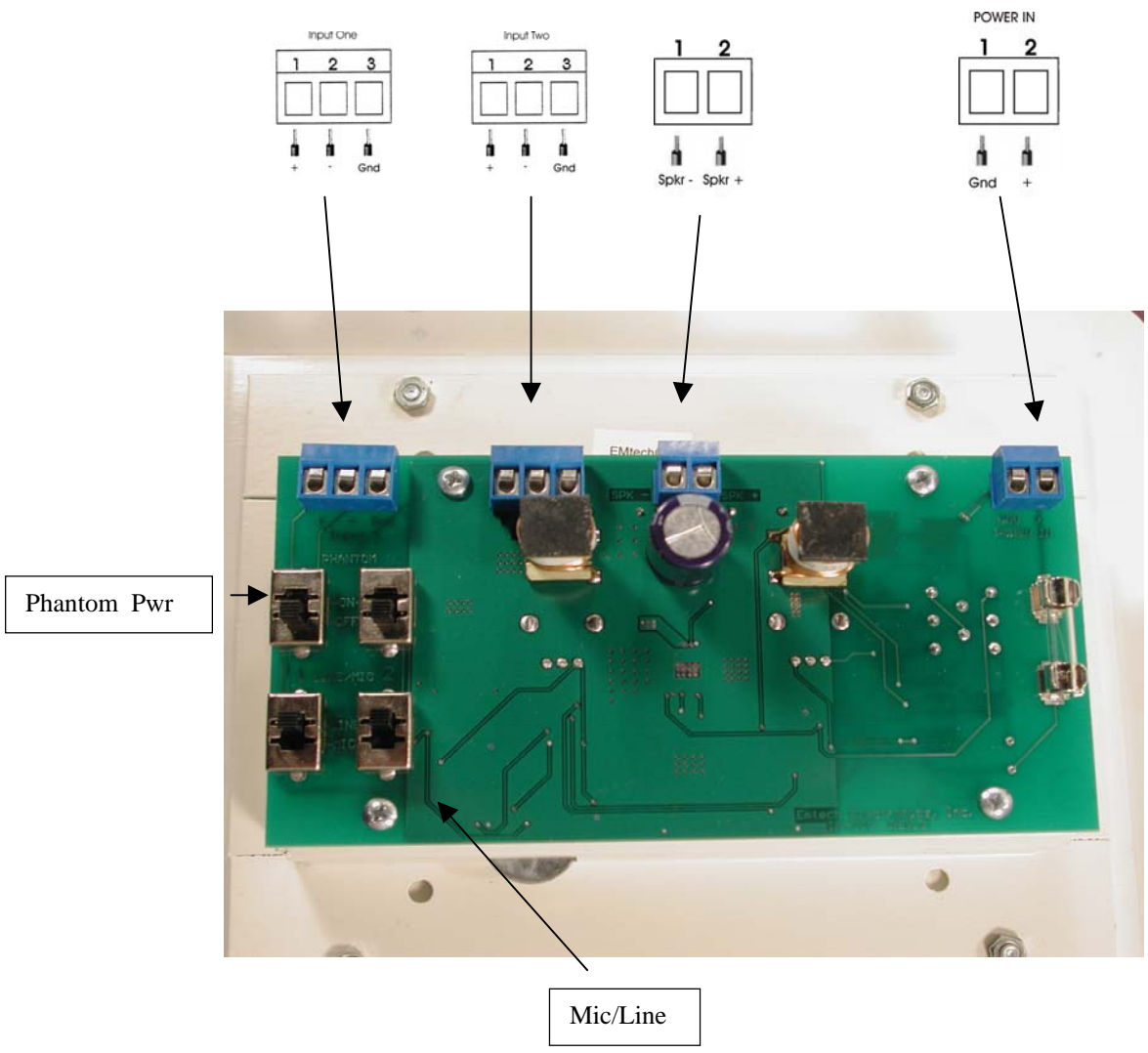


Figure 1 : Backside of the IA-250

Setting up the IA-250 requires selecting between microphone or line input for each mixer channel, and selecting between phantom power or no phantom power for each mixer channel. After making those selections, wiring the inputs, speaker output and applying power is all that is required to complete the installation.

## **Installation**

The IA-250 Mixer/Amplifier should be mounted into a standard 3-gang in-wall box. Make sure that the box is pre-mounted in the correct location, and that the wiring from microphones or line inputs, the speakers, and the power supply have been fed to the in-wall box prior to installing the IA-250.

**Step One:** Locate the mic/line selector switches on the back of the IA-250. The mic/line selector switches are the two bottom switches on the printed circuit board (see figure 2 below). Select the input for each mixer channel by choosing between mic or line.

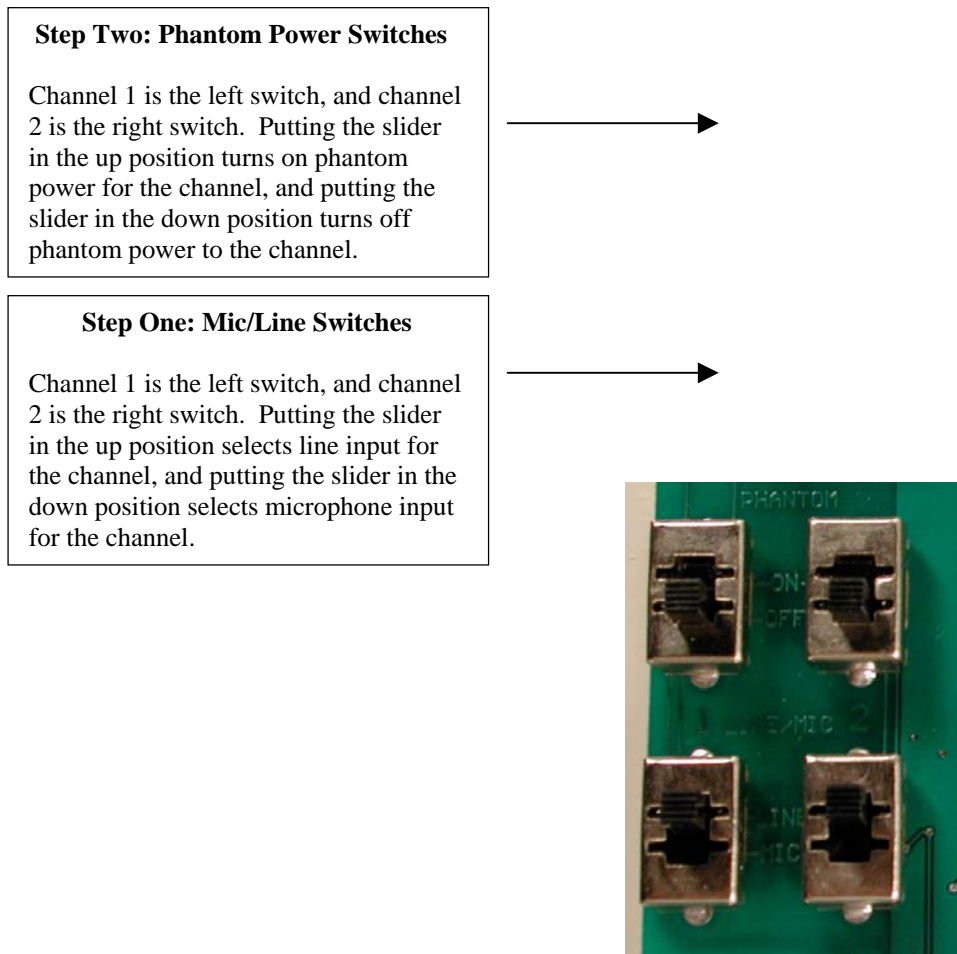


Figure 2

**Step Two:** Locate the phantom power selector switches on the back of the IA-250. The phantom power switches are the two top switches on the printed circuit board (*see figure 2 above*). Select phantom power for mixer channels by choosing between on or off.

**Note: Phantom power is supplied on microphone inputs to provide power to a microphone, so a channel being set-up for line input should have phantom power turned off.**

**Step Three:** Hook-up the inputs to channels 1 & 2. Both of these inputs are 3-pin terminals on the upper left side of the printed circuit board (*see figure 1 above*). Input 1 is the terminal on the far left, and Input 2 is to the right of Input 1. Correct wiring for the terminals is provided in the figure 1 illustration.

**Step Four:** Hook-up the outputs to the speaker or speakers. The speaker hook-up is the 2-pin terminal located in the upper middle of the printed circuit board (*see figure 1 above*). The negative wire goes to pin 1, and positive to pin 2, as shown in the figure 1 illustration.

**Note: Emtech offers two different speaker distribution products designed to help simplify the wiring of speakers. The SD-8 simplifies parallel wiring for up to six 8 ohm speakers, while the SD-70V converts the 8 ohm output of the IA-250 to 70.7 volts and distributes the signal for up to six 70V speakers.**

**Step Five:** Hook-up the 24Vdc power supply. The power hook-up is the 2-pin terminal located on the upper right side of the printed circuit board (*see figure 1 above*). The power ground connection goes to pin 1, and the +24Vdc goes to pin 2, as shown in the figure 1 illustration. The IA-250 is supplied with a dedicated +24Vdc regulated power supply. **The ground wire on the power supply has lettering printed down the length of the wire.**

**Note: Do not substitute another power supply. The power supply that comes with the IA-250 was selected specifically to provide optimum performance of the product. If any problems with the power supply occur, contact the factory for a replacement.**

Once all of the connections have been made according to these instructions, fasten the IA-250 into the 3-gang in-wall box using the four screws provided with the mixer/amp. Plug-in the power supply once the IA-250 is securely mounted into the in-wall box. Installation is now complete – turn on the IA-250.

**Emtech Electronics, Inc.**  
**1126 N. 1200 West, Orem, UT 84057**  
**Voice: 1-866-200-2878 / 801-426-8333**  
**Fax: 801-426-8334**  
**[www.emtechelectronics.com](http://www.emtechelectronics.com)**

**Specifications**

Rated Power .....23 Watts @ 1Vrms  
Line Input Sensitivity ..... 1v  
Microphone Input ..... Balanced Lo-Z  
Total Harmonic Distortion ..... 0.022%  
Number of Channels ..... 2- Switchable Microphone/Line Level  
Number of Outputs ..... 1- 8 ohm Speaker  
Power Requirements ..... +24Vdc @ 1.05A  
Dimensions ..... 6.0" H X 7.5" W X 2.25" D  
Weight ..... 1 lbs.

**Warranty**

Emtech Electronics, Inc. warrants the IA-250 for a period of one year, from the original date of purchase, against defects in parts and workmanship. If a defect occurs, the unit will be repaired or replaced, at our option, free of all charges if delivered prepaid to the factory. Warranty does not extend to finish, appearance, abuse or defects due to the misuse or operation under other than specified conditions, nor does it extend to incidental or consequential damages. Repair by anyone other than Emtech will void the warranty.

