



What is phantom power?

Phantom power is a system for providing electrical power to condenser microphones (and some electronic pickup devices) from the microphone input jack. The system is called “phantom” because the power is carried on standard microphone audio wiring in a way that is “invisible” to ordinary dynamic microphones. Mackie mixers and the M48 use standard +48 volt DC power, switchable on or off. Most quality condenser microphones are designed to use +48 VDC phantom power. Check your microphone’s owner’s manual for manufacturers recommended settings.

Generally, phantom power is safe to use with non-condenser microphones, especially dynamic microphones. However, unbalanced microphones, some electronic equipment (such as some wireless microphone receivers) and some ribbon microphones can short out the phantom power and severely damage the mixer or microphone if used improperly. Check the manufacturer’s recommendations and be careful!

Why would I need a phantom power supply?

The M48 48V Phantom Power Supply allows you to use devices and microphones that require external power. Sometimes phantom power that is supplied via USB or a mixer is inadequate, and with the M48, you will always get a clean, full 48V of power for the best sound and noise performance.

For example, some condenser microphone packages on the market use USB connections and claim that they can be powered sufficiently from a USB port. You can occasionally find that this USB power does not give you the best output (levels or audio quality) from your microphone. The M48 Phantom Power Supply can “boost” this signal and allow you to get higher quality sound from your microphone.

Also, some smaller mixing consoles will not come with phantom power built-in. The M48 Phantom Power Supply allows you to use your condenser microphones and other phantom powered devices with these types of mixers.





How do I power the M48?

This unit can be powered using the AC adapter included with the unit or with a 9V battery.

What type of connections does the M48 have?

For true phantom power to work, a balanced mic cable is needed. This has to do with how the XLR microphone cable is wired with its 3-pins, but we will not bore you with unnecessary details of wiring. The M48 48V Power Supply has a female XLR balanced connection for your input and a male XLR balanced connection for your output.

What is the output voltage/current of the M48?

- Output Voltage: 48V +/- 3V
- Max Output Current: 40mA
- Working Current: 25mA

Will the M48 add additional noise to my system?

No. The M48 48V Phantom Power Supply has transparent, noise-free operation and will not add any additional noise to your audio system.

What is the difference between bias voltage and phantom power?

Bias voltage is the amount of voltage that an electronic device needs in order to power on and function. It is a DC voltage, like phantom power, but is typically a lower DC voltage somewhere around 1.5 to 9.5V DC. It is used to power electronic circuitry inside a condenser microphone capsule, among other electronic devices.

There is a common misconception out there that bias voltage and phantom power are the same, but they are not the same and are not interchangeable. Where people can get confused typically, is the fact it's often said that we need to power wired microphones, like a condenser mic, with phantom power. Most of the time, however, phantom power which can be as much as 48V DC, will actually be brought down to that lower bias voltage (1.5 to 9.5V DC) by a transformer inside the microphone.

