

Amp-50 Configuration & Installation

Before the **Amp-50** can be used, you will need to attach speakers, power supply and a line level audio source.

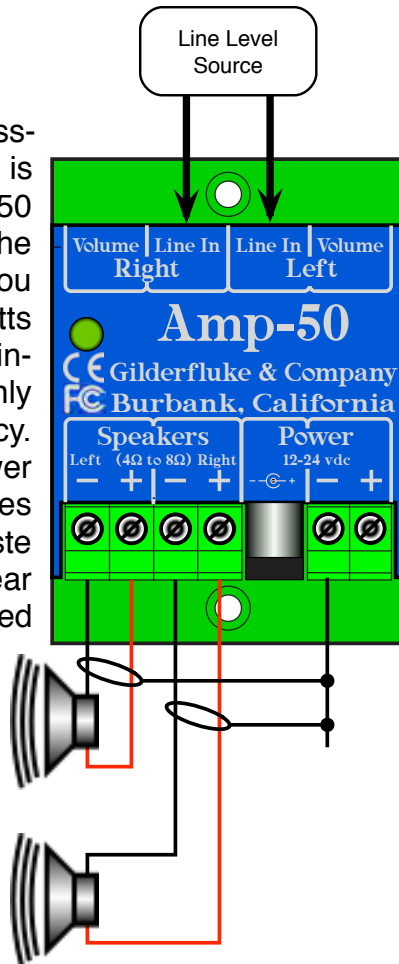
Speaker Outputs:

The **Amp-50** is a 'Class-D' design. Its efficiency is near 90%. If you feed 50 Watts of 24 vdc into the **Amp-50's** amplifier, you will get almost 50 Watts into your speakers. 'Linear' amplifiers have only about 20% efficiency. Fully 80% of the power you put into them goes into the heatsink as waste heat. A 50 Watt linear amplifier would only feed 10 Watts of power into your speakers, and 40 Watts into the heatsink. This makes the **Amp-50's** amplifier roughly equivalent to what would be a 200 Watt linear amplifier!

If you are going to run your speakers at high SPLs, you will need to select speakers that can handle at least a **100 Watts or more continuous power**. Smaller speakers may clip or be damaged if run at too high an output power level from the **Amp-50**.

The amplifier outputs from the **Amp-50** can be used with speakers of four to eight ohms impedance. As with any amplifier, you can series/parallel any number of speakers, so long as the impedance remains within limits.

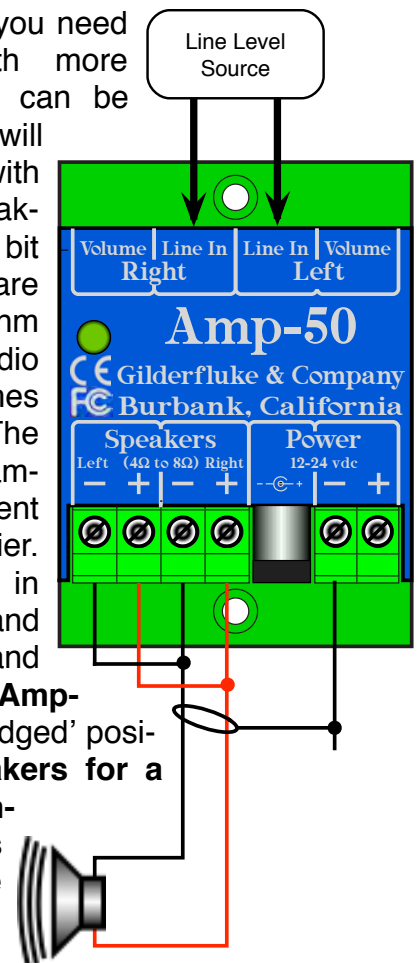
The **Amp-50** is well protected from short circuits and overheating. You can stick a screwdriver right across the speaker terminals! The **Amp-50** will go back to work a moment after a fault is removed. If the speaker impedance is too low and you are running at a high volume level, the amplifier may start to cut out. If you hear this, check the power supply



voltage. If the input voltage is dropping, you might simply be drawing too much power for the power supply and a larger supply may fix your problem. If the power supply is OK, and you can't increase the speaker impedance, then you might simply be asking too much of the **Amp-50's** amplifier, and need to turn down the volume a tad.

To comply with FCC and CE standards for radio frequency emissions, you should use conduit or shielded speaker wires with the **Amp-50**. The shield should be attached to the power supply 'negative' terminal, which is immediately adjacent to the speaker terminals. Shielding the speaker lines will not affect the sound quality from the **Amp-50**, but will make the FCC and CE folks happy. Shielded speaker lines were used during all CE/FCC certification testing.

Bridged Amplifier: If you need a mono output with more 'oomph', the **Amp-50** can be 'bridged'. Bridging will only have an effect with lower impedance speakers. You won't hear a bit of difference if you are using an eight ohm speaker. The only audio which is amplified comes from the 'left' input. The wiring to 'bridge' the amplifier is a little different than on a linear amplifier. The speaker is wired in parallel to both right and left speaker outputs, and the jumper inside the **Amp-50** is moved to the 'bridged' position. **Wiring the speakers for a 'bridged' output without moving this jumper can damage the Amp-50.**



Line Level Inputs:

Two RCA line level inputs are available on the **Amp-50s**. A line level audio signal from a **Sd-10** audio repeater, pre-amplified microphone, CD player, Video projector, or any other line-level audio source can be plugged into these two RCA jacks. Two trimpots can be used to adjust the levels of the mixer inputs.

Power Supply:

The **Amp-50** will run on any voltage from 12 through 24 vdc. Size your power supply so it will provide enough current for the volume you are planning to run at. The amplifier will put out more power at 24 volts than it can at a lower voltage. If using all 50 Watts of the amplifier power, you will need to use a 24 volt supply rated at least 60 Watts. If you hear clipping, the speakers or power supply may be undersized for your application.

The power supply can be attached through the 2.1 mm power jack, or the screw terminals. Power Supply voltages higher than 24 vdc can damage the amplifier on the **Amp-50**.

Volume Controls:

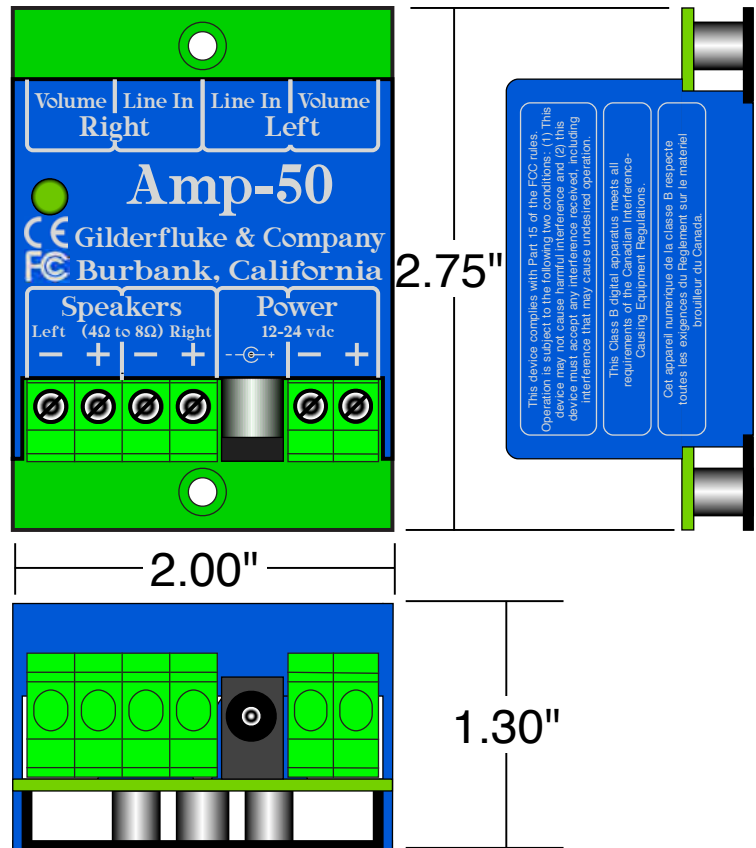
A pair of small trimpots on the **Amp-50** are used to set the audio output level. You can adjust these pots using a small 'trimmer' screwdriver.

These trimpots are smaller than you. Do not use a big screwdriver on them. Do not apply too much force. **They will break!**

Amp-50 Installation:

The **Amp-50** can be mounted using two screws; DIN rail adapters; 2-3/4" Augat 'Snap-Track' (which itself can be DIN rail mounted using DIN rail adapters); or just Velcro'd down. In many applications, the **Amp-50** can be attached on (or in) the speakers it is feeding. The **Amp-50** must not be mounted where it might get wet, or suffer from extremes of temperature.

Unless the amplifier is being run at extreme output levels, the **Amp-50** will generate very little heat. Attaching it to something metal will allow it to dissipate what little heat it does generate.



FCC and CE Compliance:

Amp-50s have been tested to comply with FCC and CE requirements.

Because **Amp-50s** are low voltage DC devices, neither UL or CE require safety testing.

For fireproofing or additional radio frequency interference shielding, **Amp-50s** can be mounted in a fire rated metallic case. Typically, this would be a NEMA-rated electrical enclosure or 19" electrical rack.

FCC Instruction to User:

This equipment has been tested and found to comply with the limits for a class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

- Consult the dealer or an experienced radio/TV technician for help.

This equipment has been verified to comply with the limits for a class B computing device, pursuant to FCC Rules. In order to maintain compliance with FCC regulations, shielded cables must be used with this equipment. Operation with non-approved equipment or unshielded cables is likely to result in interference to radio and TV reception. The user is cautioned that changes and modifications made to the equipment without the approval of manufacturer could void the user's authority to operate this equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference and (2) this device must accept any interference received, including interference that may cause undesired operation.

This Class B digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.

Cet appareil numerique de la classe B respecte toutes les exigences du Reglement sur le materiel brouilleur du Canada.

EC DECLARATION OF CONFORMITY

Friday, February 9, 2007

Application of Council Directives:

EMC Directive, 89/336/EEC

Manufacturer's Name:

Gilderfluke & Co., Inc.

Manufacturer's Address:

205 South Flower St., Burbank, California 91502 USA

Importer's Name:

Importer's Address:

Type of Equipment:

Professional Audio

Equipment Class:

Commercial and Light Industrial

Model:

Amp-50

Conforms to the following Standards:

EN 55103-1: 1996 and EN 55103-2: 1996

Year of Manufacture:

2006

I the undersigned, hereby declare that the equipment specified above conforms to the above directive(s) and standard(s).

Place: Burbank, California

Signature: (signed) _____

Date: August 1, 2006

Full Name: Doug Mobley

Position: CEO