

ME-51 Subwoofer Amplifier

Introduction:

The ME-51 is a dual channel mono audio amplifier capable of delivering 50W RMS (100W total music power). It is designed to be used with the poly-planar MS-250 dual 2-ohm, 10" subwoofer. The compact, waterproof design allows for flexible mounting possibilities, and makes it simple to expand the audio system capabilities for any vehicle.

Features:

- Internal Crossover / Equalization matched to MS-250
- Internal distortion limiting circuit prevents harsh distortion
- Accepts line level, or speaker level input
- Polarity switch to optimize interaction with main system
- Gain level control to match output to main system
- Waterproof design for marine use

INSTALLATION INSTRUCTIONS

The ME-51 can be mounted either directly to the rear case of the MS-250 Subwoofer, or remotely to any flat surface. It is often advisable to mount the Amplifier close to the audio source equipment as this can simplify wiring.

Surface mounting the ME-51:

- 1) Choose a mounting location that is well ventilated. The Amplifier generates significant heat when operating at high power levels.
- 2) It is preferable to mount the unit such that the ventilation fins are vertical or facing upward.
- 3) Drill 1/8" (3mm) pilot holes in the mounting surface corresponding to the 4 mounting flanges of the amplifier. Be sure not to drill into any critical areas of your boat or vehicle.
- 4) Fasten the amplifier to the surface securely using the 4 included tapping screws.

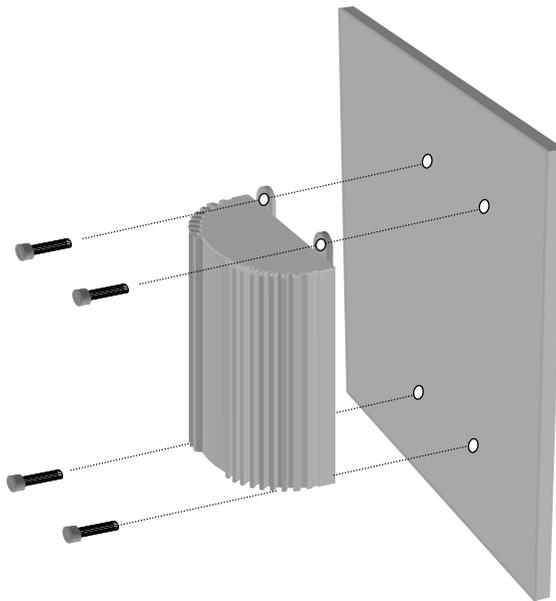


Figure 1 - Amplifier Surface Mounting

Subwoofer mounting the ME-51:

- 5) Insure that there is adequate ventilation behind the subwoofer magnet. The Amplifier generates significant heat when operating at high power levels.
- 6) It is preferable to mount the unit such that the ventilation fins are vertical or facing upward. Consider mounting such that access to the amplifier switch settings are possible.
- 7) Fasten the amplifier to the subwoofer securely using the 4 included tapping screws.

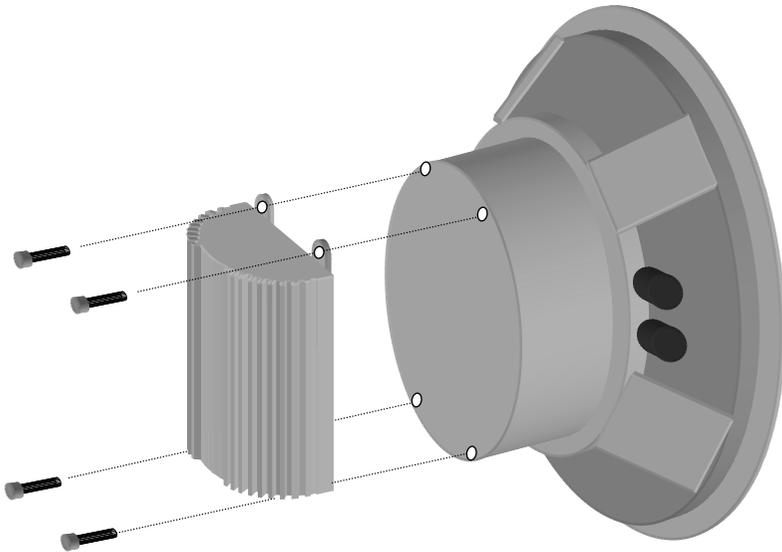


Figure 2 - Amplifier Subwoofer Mounting

Connecting the ME-51 Power and Speakers:

- 8) The Black and Red power wires should be connected directly to the vehicle battery or main fuse block using heavy gauge wire (AWG #16 or lower). Black = GROUND, Red = +
- 9) The Blue REMOTE wire turns on the amplifier. Connect this to the remote wire of your receiver, or connect to an on/off toggle switch or Accessory circuit.
- 10) Connect the white and grey loudspeaker wires to Subwoofer side screw terminals. Pay close attention to polarity. Connect black striped wire (negative) to the Black ringed terminal. If one of the connections is reversed then the subwoofer will produce no output.
- 11) When mounting the amplifier on a remote surface, use the included connector pigtail harness. When mounting directly on the Subwoofer, the wire ends can be cut, stripped, and connected directly to the gold screw contacts on the subwoofer.

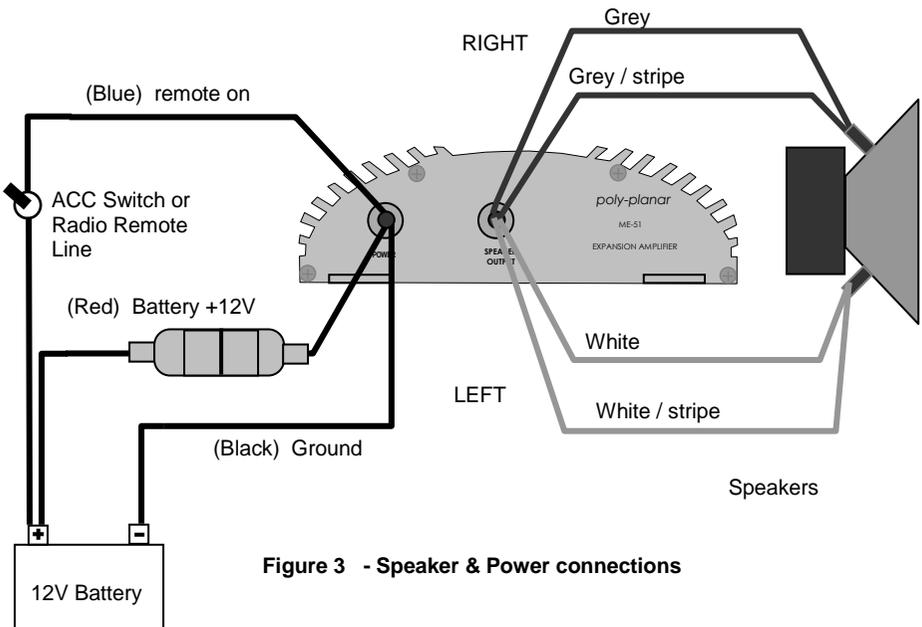


Figure 3 - Speaker & Power connections

Connecting the ME-51 Input:

- 12) For operation without the optional external volume control, connect the amplifier inputs to the VARIABLE LINE OUT of your receiver using shielded RCA patch cables. In this case the amplifier volume will be determined by the volume setting of the source component. If the receiver does not have line level outputs, the ME-51 can be connected to the speaker outputs, however line level is preferred due to superior noise and distortion performance. See Figure 5 for amplifier settings related to input connections.

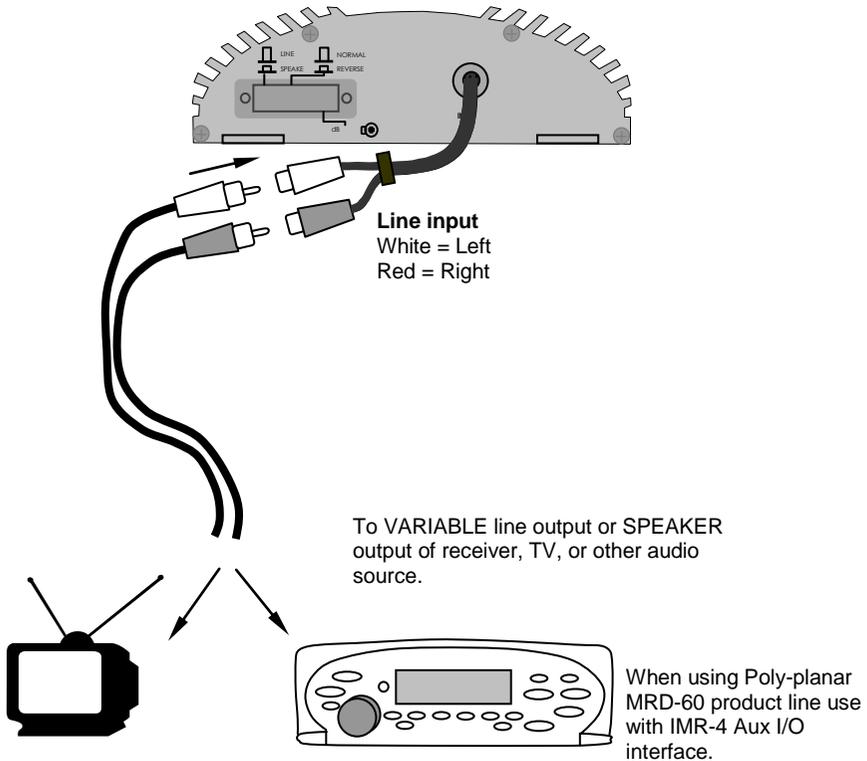


Figure 4 - Input connections without Volume control

Switch & Gain Settings:

- 13) The switches and gain settings are hidden behind a watertight seal accessible by removing the 2 screws. Be sure to replace the cover when finished with adjustments.
- 14) The INPUT LEVEL switch selects the input sensitivity of the amplifier. If you are connecting to a LINE level source (typically any RCA type connection) then the switch should be in the LINE (out) position. When connecting to loudspeaker outputs or headphone or high level sources then set the switch to the SPEAKER (in) position.
- 15) The POLARITY switch allows the user to optimize bass performance due to interaction with other loudspeakers producing bass in the system. Play some music with strong bass content and listen with the switch alternately in the NORMAL and REVERSE position until it can be determined which setting results in more pleasing bass response. If in doubt, or if any interaction with other speakers is unlikely, then leave the switch in the NORMAL position.
- 16) The GAIN control adjusts the overall level of the amplifier. The level should be set to achieve a balance with other loudspeakers in the system. Play familiar music and adjust until the Bass level is to your liking.

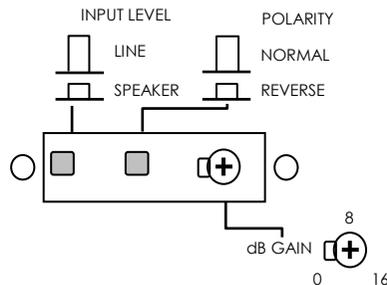


Figure 5 – Amplifier Switch and gain settings

