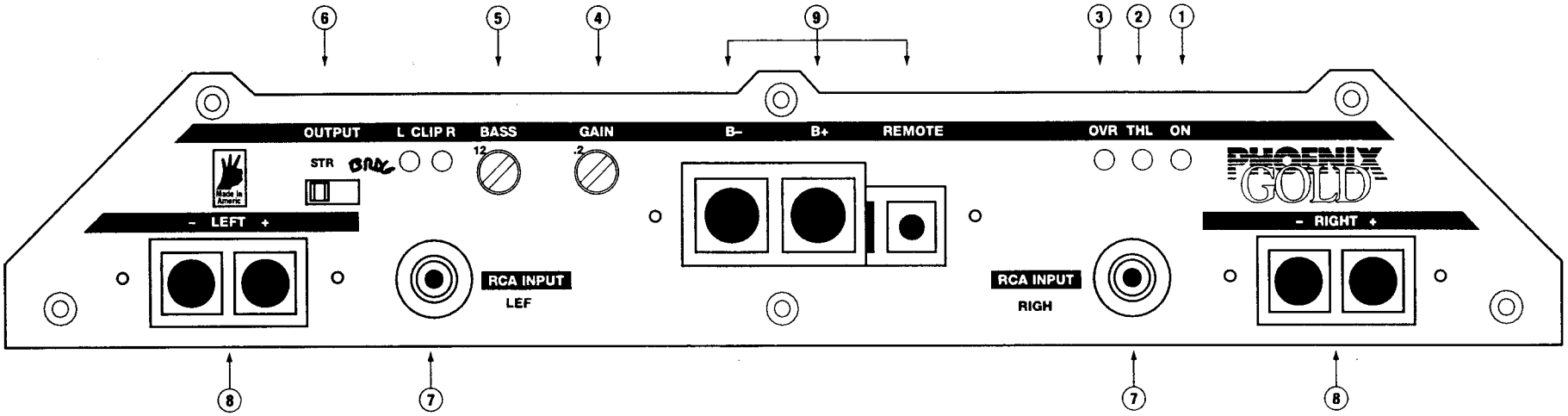
AMPLIFIER CONTROLS AND FUNCTIONS



1. **Power On LED Indicator**
   Indicates proper amplifier function.
2. **THL LED indicator**
   This LED lights up if the amplifier has shut itself down because the temperature of the heatsink has reached a temperature of 90°C (200°F). In simple terms, the amplifier is **extremely hot!**
3. **Overload LED indicator**
   This LED lights up if the amplifier has shut itself down because of an extremely low impedance load or short connected to the speaker outputs.
4. **Gain Adjustment**
   Allows correct matching of the line output from a CD player, cassette deck, processor, etc. to the input of the MS2125 or MPS2500.
5. **Bass Adjustment**
   Control for bass equalizer circuit which increases output levels below 30Hz.
6. **Output (STR/BRDG) switch**
   Switches the MS2125 and MPS2500 to stereo (STR) or bridged (BRDG) mode. In the bridged mode, the left input jack drives both channels for bridged mono operation. If the amplifier is to be operated in the **Tri-Linear** mode, leave switch in stereo mode with both left and right RCAs connected.
7. **RCA Connectors**
   The MS2125 and MPS2500 are designed to accept audio input from any source unit or signal processor with RCA preamp (line level) outputs.
8. **Speaker Connectors**
   This specially tooled connector is designed to accommodate up to a 7 gauge speaker cable. Be sure to connect positive and negative leads correctly!
9. **Power Connectors**
   This specially tooled connector is designed to accommodate up to a 2 gauge power cable. Connect the B– terminal to battery negative and the B+ terminal to battery positive. Connect the Remote terminal to a switched +12V DC source to allow the amplifier to be turned off and on by the source unit.

MS2250 AMPLIFIER AND FAN SHROUD INSTALLATION

1. The MS2250 is shipped with the fan shroud assembled to the amplifier and mounted to a 1/4 inch thick mounting board which doubles as a template. Remove the amplifier from it's mounting board.
2. Using the board as a template, mark all mounting holes and wire routing holes.
3. The mounting holes for the "Rails" should be drilled with a 1/8" inch drill bit. Holes for the wire should be drilled slightly larger than the actual diameter of the wires and RCA connectors you decide to use. Measure twice and drill once.
4. Mount the "Rails" to the desired surface (preferably not metal) with the four #8 x 1/2" sheet metal screws.
5. Lower the amplifier upside down onto the "Rails" with the bottom facing up (with the plexi-glass still mounted to the amplifier). Mount the amplifier with the four #10-32 x 1 1/4" machine screws to the "Rails" *as shown in figure A.*
6. Lower the fan shroud down onto the amplifier/rail assembly. Make sure that the end that houses the "fans" is at the back of the MS2250 (the end without connectors). There is a small 2 conductor wire with a connector that should be "dangling" down from the shroud. This is the fan power connection. Plug the fan power connector through the square hole at the rear of the amplifier into the fan thermal speed control board. Be careful not to apply too much force on this connector!
7. Finally, lower the shroud onto the amplifier and rail assembly and use a large flat head screwdriver to turn the "Dzus" fasteners a 1/4 turn until it "locks-up".

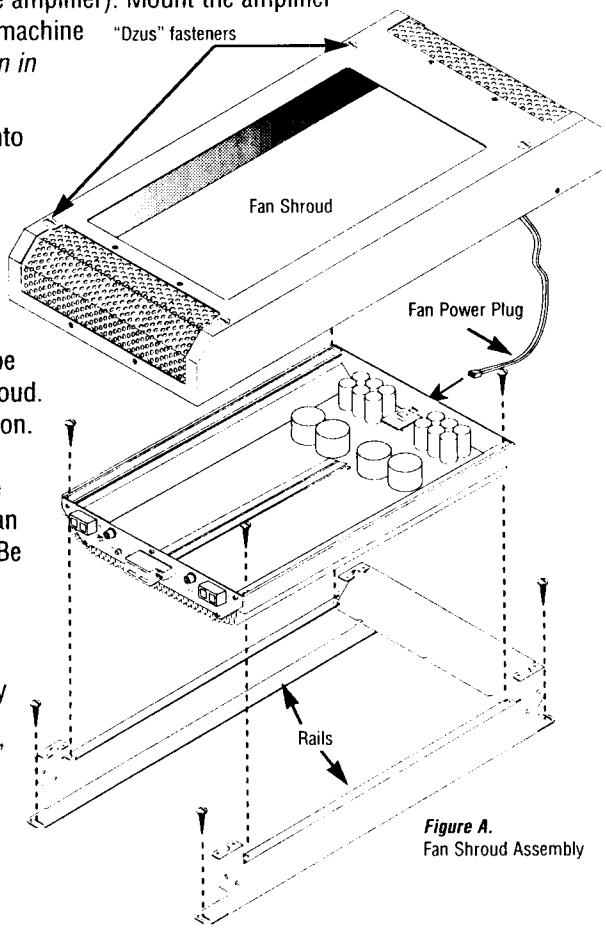


Figure A.
Fan Shroud Assembly

AMPLIFIER FEATURES

- ❑ 2 x 340W per channel • 1060W bridged mono
- ❑ Bridgeable Outputs
- ❑ TRI-LINEAR™ output capability, simultaneous stereo and bridged mono operation possible
- ❑ Adjustable Bass EQ 0 to +12dB at 30Hz
- ❑ Pulse Width Modulated (PWM) MOSFET Switching Power Supply
- ❑ RIBBON-WINDING™ of Power Toroid
- ❑ Low RFI / EMI design
- ❑ Stable into 2 Ω stereo or 4 Ω bridged mono loads
- ❑ High Current Triple-Darlington Output Design
- ❑ Gold Plated, Double-Sided 2 oz G10 Glass Epoxy PCB
- ❑ Variable input sensitivity .2V to 5V
- ❑ Fully muted turn-on / turn-off circuitry
- ❑ Optically isolated Power and Signal grounds
- ❑ Custom fan shroud with thermally controlled 2 speed fan
- ❑ Output Status LED's
- ❑ Extensive burn-in and QC testing for the ultimate in reliability
- ❑ MADE IN THE GOOD OL' USA

AMPLIFIER SPECIFICATIONS

- ❑ Output Power - Both Channels Driven
  - Into 4 Ω @ 13.8V DC ..... 340 WRMS
  - Into 2 Ω @ 13.8V DC* ..... 517 WRMS
  - Bridged Power into 4 Ω* ..... 1060 WRMS
- ❑ THD at rated power 4 Ω ..... <0.05%
- ❑ SMPTE at rated power 4 Ω ..... <0.03%
- ❑ DIM at rated power 4 Ω ..... <0.01%
- ❑ Frequency response ..... 15Hz to 20KHz +/-1dB
- ❑ Signal to Noise Ratio ..... >100 dB (20 to 20kHz)
- ❑ Input Sensitivity ..... 200mV to 5V
- ❑ Input Impedance ..... 10K Ω
- ❑ Typical Idle Current ..... 3 Amps
- ❑ Power Supply Efficiency ..... > 80%
- ❑ Damping Factor (60Hz, 4Ω) ..... >400
- ❑ Max Battery Voltage ..... 15.5V DC
- ❑ Amplifier Dimensions ..... 17.00" L x 11.40" W x 2.40" H
- ❑ Fan Shroud Dimensions ..... 25.50" L x 11.75" W x 3.35" H

***NOTE:** Impedance loads below 2 Ω stereo/4 Ω bridged mono are not rated due to thermal limitations.