

# OPERATOR'S MANUAL

**Model AMPGARD  
Amplifier Monitor**

## PRODUCT DESCRIPTION:

The AMPGARD is a rack mounted amplifier monitor that compares the ratio of signal going to an amplifier to the signal coming out and indicates a fault if a significant difference is found.

The AMPGARD will monitor using program material and also generates an intermittent test tone for situations where the system is not in continuous use.

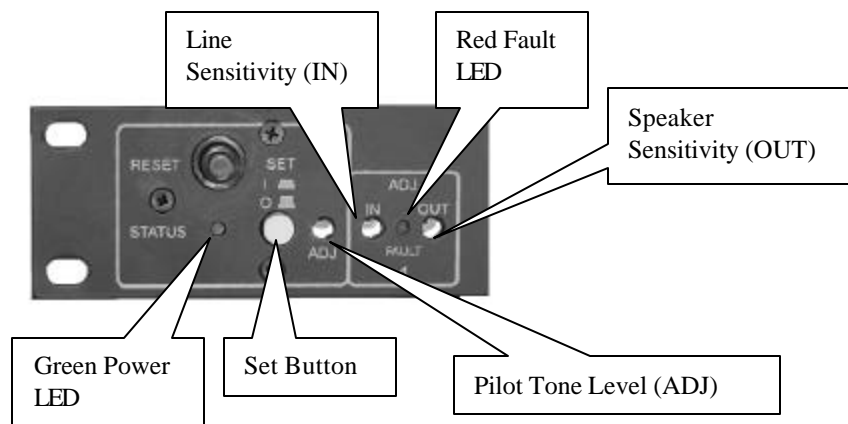
When a fault is detected, the affected channel will latch on, a front panel FAULT LED will light and a relay will be activated that can be used to remotely indicate a fault via the FAULT ALARM connector on the rear panel. The circuit will remain latched until the Reset button is pressed. The AMPGARD can be configured with up to 8 monitor channels. Modular construction allows channels to be added in the field.

The AMPGARD is connected in line with the signal going to the amplifier. The signal out connects to the preamp input. The signal in connects to the preamp output. The amplifier speaker output is connected in parallel to the AMPGARD speaker connector and the speaker distribution lines. All the signal connections are balanced. To use with an unbalanced system, it is necessary to jumper the negative side of the signal in and signal out to COM.

## CALIBRATION:

Allow the AMPGARD five minutes to warm up before calibration. As each brand of amplifier will have a different gain, it is necessary to calibrate the line and speaker controls to match. Perform calibration with all available channels connected. When a channel is added, calibrate the new channel and recalibrate previously installed channels. With the *amplifier* OFF:

1. Turn the pilot tone level fully down (counter-clockwise).
2. Turn both line and speaker sensitivity controls fully down (counter-clockwise).
3. Turn the *amplifier* ON.
4. Press the SET button IN.
5. Slowly increase the pilot tone level until the *amplifier* clip light comes on. Then reduce the tone level until the clip light goes out. Stop turning *as soon as* clip comes on and again when it goes out.
6. Slowly turn the speaker sensitivity until the Red Fault LED starts to blink. Stop turning *as soon as* the LED starts blinking. NOTE: A relay will click in time with the LED.
7. Slowly turn the line sensitivity until the red LED stops blinking. Stop turning *as soon as* the LED stops blinking.
8. Continue increasing the line sensitivity until the red LED starts blinking again. Stop *as soon as* the LED starts blinking.
9. Return to the speaker sensitivity and increase slightly until the red led stops blinking. Stop *as soon as* the LED stops blinking.
10. Now repeat steps 6 – 9 for each channel to be calibrated.
11. Press the SET button to OUT and press RESET.



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**Rear Panel Connector Layout. Fault Alarm on Channel 1 only.**



**SPECIFICATIONS**

**Signal:** Balanced input: maximum level 5v p-p, impedance 10K $\Omega$   
Balanced output: maximum level 5v p-p, impedance 100 $\Omega$   
Phoenix 3.81mm 5 position connector

**Speaker:** Maximum level 100V, impedance 100K $\Omega$   
Phoenix 5.08mm 2 position connector

**Test Tone:** 18kHz intermittent pilot tone

**Sensitivity:** 3dB variation in speaker level

**Fault Alarm:** 3.81mm Phoenix 2 position connector

**POWER REQUIREMENTS:**

**External:** 12Vdc @ 250mA via 2.1mm jack – positive sleeve.

**SIZE (W x H x D); WEIGHT:** 19" x 1.75" x 5"; 3 lbs.

**CASE MATERIAL:** Painted aluminum.

*WARRANTY and Factory Service*

GOLD LINE products are proudly made in the USA and are covered by a one year limited warranty. For details of this warranty, consult the enclosed warranty registration card or your local dealer.

GOLD LINE Customer Service will help you get the most from your new AmpGard. For answers to questions regarding use of the unit, or for information not covered in this manual, please write us. If you are experiencing difficulties with your AmpGard, please consult your dealer regarding factory service. If factory service is needed, you may call or fax us between 9:00am and 4:30pm US Eastern Time for instructions and a return authorization.

**Enter your serial#** \_\_\_\_\_ **date of purchase** \_\_\_\_\_

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