



MODEL PA-1©
(1992-MSRP \$110.00)
PRE-AMPLIFIER/EQUALIZER

OPERATION
INSTALLATION MANUAL

INTRODUCTION

The **PA-1©** is designed for the audiophile who needs to select between two sources - either low level or high level sources. It provides clean, undistorted pre-amplification and precise control of the three frequency bands that are the most critical in the car environment. It also conveniently mounts in a half DIN opening in the dash or under the dash. The **PA-1©** can drive the signal line with a 5 volt RMS signal to the amplifier, which greatly improves the signal to noise ratio and line loss in the system. In a well designed audio system the signal gain should be built up at the source

PA-1© INSTRUCTIONS AND CONTROLS

1. Volume and on/off switch
2. Source selector, Source 1 is the out position, Source 2 is the in position.
3. Bass Eq Control, +/- 15db
4. Mid Eq control, +/- 12db
5. Treble Eq control, +/- 12db
6. Source 1 low level inputs
7. Gain adjustments, L and R set weaker source to 3/4 volume and turn up both adjustments until system starts to clip then back adjustments off slightly. Stronger source can be controlled by turning volume up until system clips with these settings, then back off slightly. Then use **PA-1©** volume control as **Master Volume Control**.

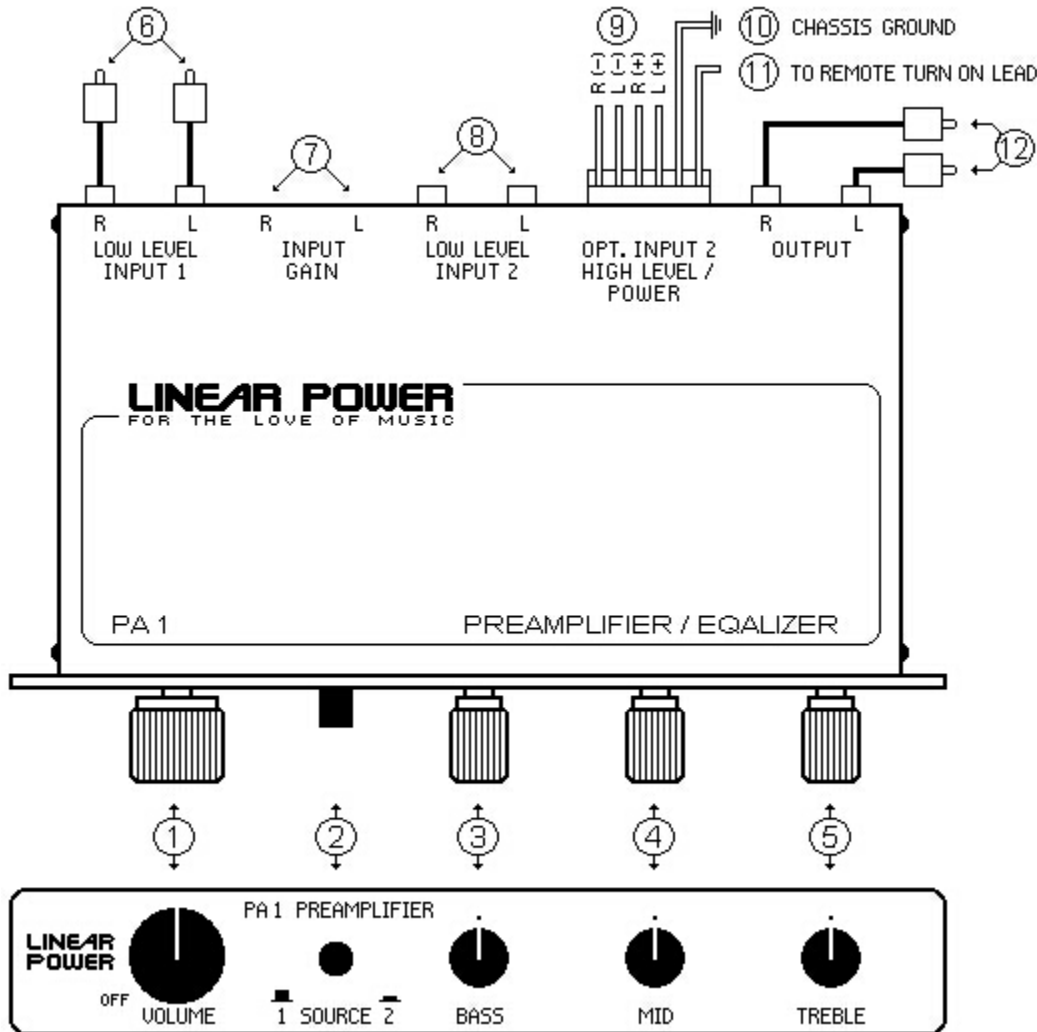
8. Source 2 low level inputs, use either these or speaker level inputs described in #9. **Warning: Do not use "high power" output to this input as it will damage both low level source inputs of the PA-1©.**

9. Speaker level inputs for Source 2 (for wiring see diagram). Do not use Source 2 low level inputs if using this input.

10. Black Wire-Chassis ground, should be connected to source ground to avoid noise. (Connect to where your radio, tape, or CD is grounded.)

11. Red Wire- Should be connected to remote turn on lead from either source or switched wire with ignition, or to constant 12 Volt source (battery). Note: If you use a constant 12V power source you must remember to turn off **PA-1©** when you turn off your vehicle.

12. Low level output to amplifier.



TROUBLESHOOTING

1. Check Connections.
2. Check high level input wiring (if applicable).
3. Make sure RCA connections are secure and not shorting.
4. Check power connections for 12 volts and ground.

NO SOUND: Check all signal connections. Check that the power indicator is on. Check for the +12Vdc on the **bat** and **rem** wires. Check the **gnd** wire connection. Bypass the **PA-1** and check for signal output.

BLOWS FUSES: Check all connections to be sure all power wires do not touch ground or each other. Re-check polarity of main power wires.

NOISE PROBLEMS: Be sure the metal sleeve on the RCA (phono) jack does not touch the metal chassis of the vehicle, the chassis of the **PA-1**, or the chassis of any other component in your installation. Route signal cables away from power wires, power connectors, speaker wires, engine alternator and vehicle firewall. Make sure all amplifier(s) or head unit(s) are properly and securely grounded.

SERVICE OR REPAIR

To obtain modification, service or repair, please contact our **ONLY Authorized LINEAR POWER™ Product Service Center:**

T.I.P.S. INC.
3455 Lanell lane, Pearl, MS 39208
(601) 932-8477
E-mail: ray@tipsinc.net

LINEAR POWER™

3455 LANELL LANE, PEARL, MS 39208 (601) 932-8477

Specifications

PA-1©

Number of inputs: 2-2 channel, switched + optional high level wires for second input.

Number of channels: 2

Equalizer Bands: 3

Equalizer Center Frequencies: Bass - 55Hz, Mid -2.3 KHz, Treble - 13KHz

Equalizer Maximum Boost or Cut: Bass - 15db, Mid - 12db, Treble - 12db

Frequency Response: =/- 3db, 5-200 KHz

Signal to Noise, A weighted: -68 db

THD controls at flat position: .06%

Dimensions: Faceplate: 7"L x 1"H,
Chassis 3 7/8"D x 6"W x 7/8"H

LINEAR POWER TM
3455 LANELL LANE, PEARL, MS 39208 (601)932-8477