



Thank you for choosing **PPI** audio equipment. Now, HANG ON! **PPI** products are engineered and manufactured to deliver a wild ride of performance, sound quality, and reliability. This **PPI** product reflects our commitment to offer you versatility and quality for years of incredible power and listening enjoyment!

SERVICE

Do not attempt to service **PPI** products yourself. Performing exploratory surgery on your audio equipment yourself will void the warranty. All parts of your **PPI** gear have been built to our specifications. These parts are not made available to any unauthorized **PPI** dealer nor are they for sale. Our goal is to make sure that your **PPI** product will always perform as good as the day it was purchased. Contact your authorized **PPI** dealer about obtaining any warranty service through **PPI**. (See Warranty inside back cover.)

CAUTION!

The extended use of a high powered audio system may result in hearing loss or damage. While **PPI** systems are capable of "Concert Level" volumes, they are also designed for you to enjoy at more reasonable levels all of the creative expressions made by musicians. Please stay seated while driving and observe all local sound ordinances.



Features

- 5 Band Equalizer with Parametric Sub Band
- Preamp Line Driver
- Front/Rear Outputs with Fader Control
- Subwoofer Crossover (60, 80, 120Hz)
- Separate Subwoofer Frequency and Level Controls
- Center-Detented Boost/Cut Controls for Each Band
- Auxiliary Input
- Selectable Illumination
- Defeat Switch
- Gold-plated RCA Input and Output Connectors
- Independent L & R Input Gain Adjustments

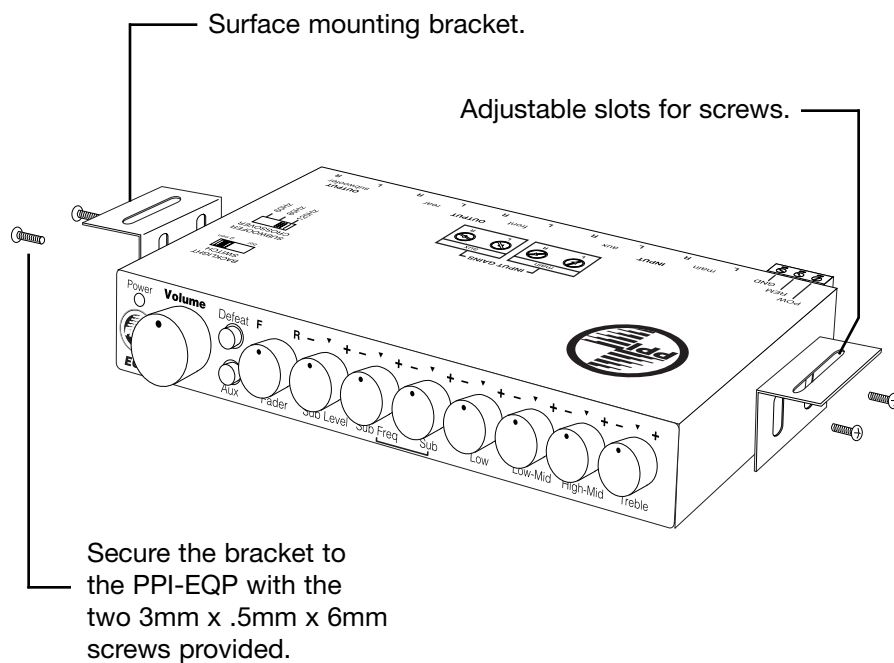
Specifications

● Signal-to-Noise Ratio	110 dB
● Total Harmonic Distortion (1 kHz, 1 VRMS)	0.03%
● Boost/Cut Range	±12 dB
● Equalizer Center Frequencies:	
<u>Band</u>	<u>Frequency</u>
Sub	40-120Hz
Low	250Hz
Low-Mid	500Hz
High-Mid	2kHz
Treble	10kHz
● Maximum Input Voltage (Flat)	2.0 VRMS
● Maximum Output	6.7 VRMS
● Frequency Response	1.5 to 20kHz
● Supply Voltage	9 - 15 VDC
● Dimensions	4.60" L
	6.75" W
	0.95" H

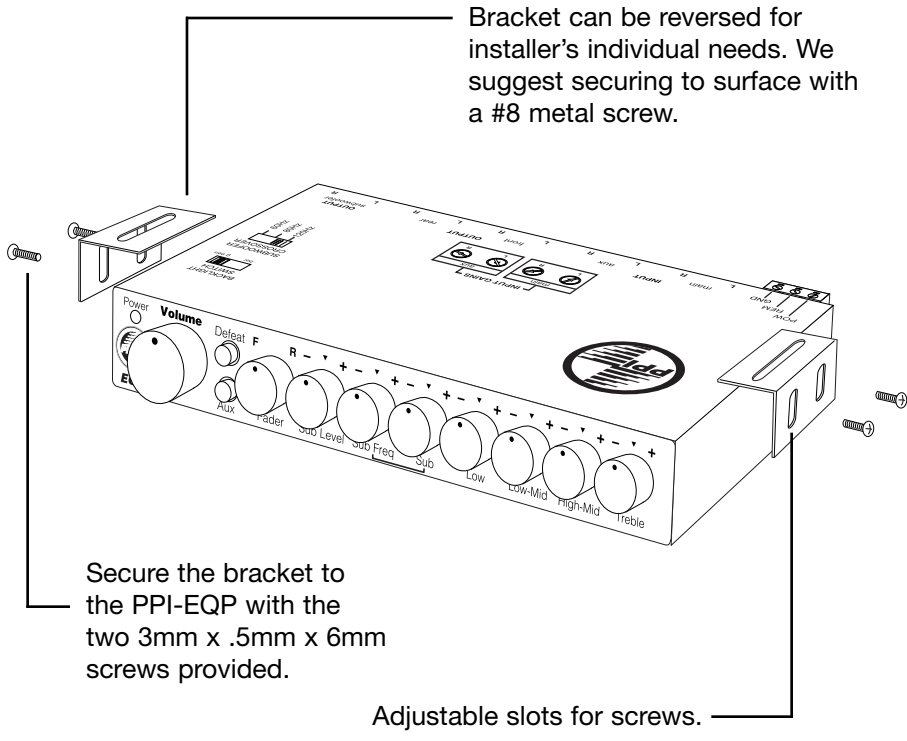
Mounting

To prevent damage to the **PPI-EQP** while driving, mount it in a secure place. Choosing the appropriate location will depend upon your vehicle and the complexity of your system design. Typical mounting locations for your new **PPI-EQP** would be in the dash or center console. Never mount the component in a location that would subject it to immersion or exposure to water.

Once a location has been chosen, securely mount the **PPI-EQP** using the two supplied brackets. The brackets are connected to the equalizer/preamp by two 3mm x .5mm x 6mm phillips head screws. We have made the brackets adjustable to compensate for the uniqueness of each vehicle. Be Careful! Inspect the area underneath to be sure you are not drilling into wires, etc. that could be damaged by the drill bit or screws.



Mounting

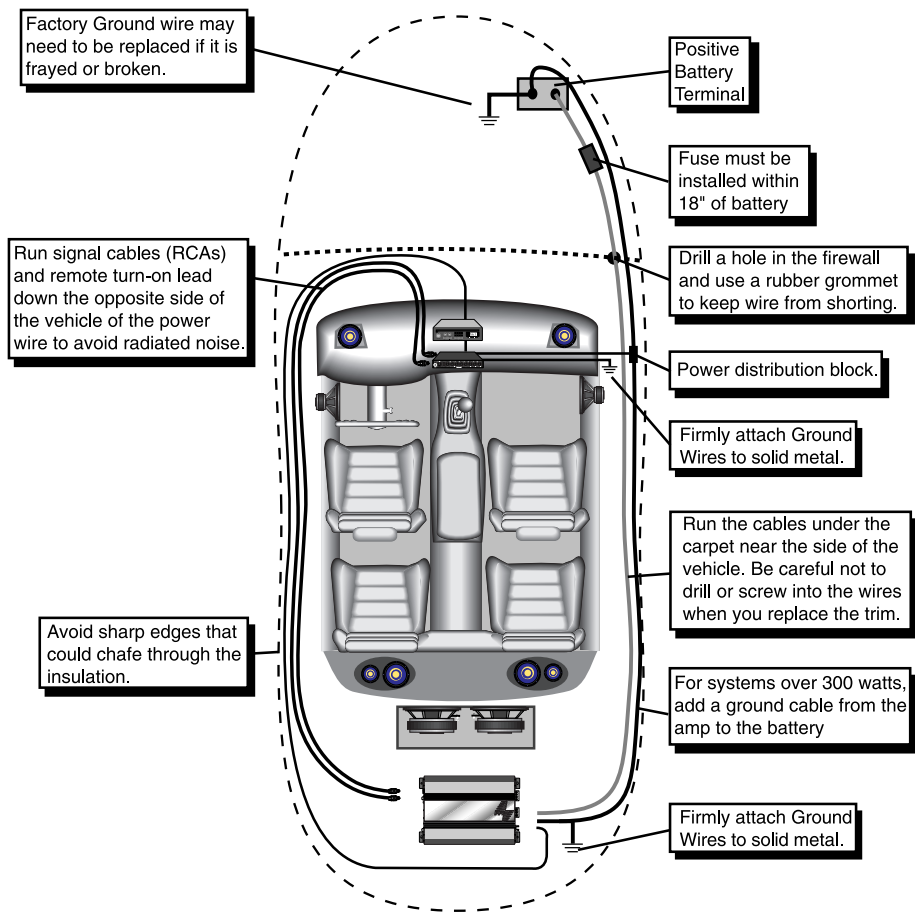


Bracket can be reversed for installer's individual needs. We suggest securing to surface with a #8 metal screw.

Secure the bracket to the PPI-EQP with the two 3mm x .5mm x 6mm screws provided.

Adjustable slots for screws.

Wiring



⚠ *Before beginning, disconnect the negative (-) terminal of the battery prior to working on the positive (+) terminal to prevent a short to ground. This is important, unless you want to spend the rest of your life with a nickname like "Sparky," or "Smokey." Reconnect the negative terminal only after all connections have been made.*

Wiring

The next step is to connect the Power, Ground, and Remote wires to your **PPI-EQP**. The power wire should run from the mounting location through the vehicle to the battery or power distribution block. Avoid sharp corners, creases, and sharp body parts. When passing through any metal wall (i.e. firewall etc.), a grommet must be used to prevent the wire from chaffing and shorting to ground.

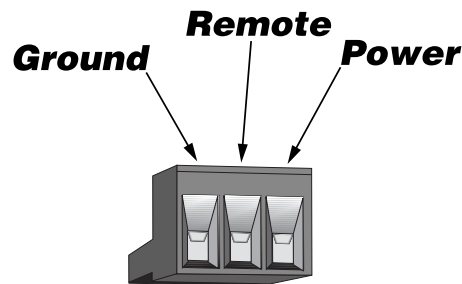
The ground wire should be of the same gauge as the power wire. As a rule of thumb, use as short a length of wire as possible.

Find a location near the equalizer that is metal (the floor is ideal) and clean an area about the size of a quarter to bare metal. Drill a pilot hole in the middle of this area. Be Careful! Inspect the area underneath to be sure you are not drilling into wires, brake or fuel lines, etc. Terminate the wire with a ring connector and attach it to the bare metal using a #8 sheet metal screw and washer (not supplied). We suggest crimping and/or soldering this connection. After the connection is complete, coat the area with silicone or some similar material to prevent rust from developing.

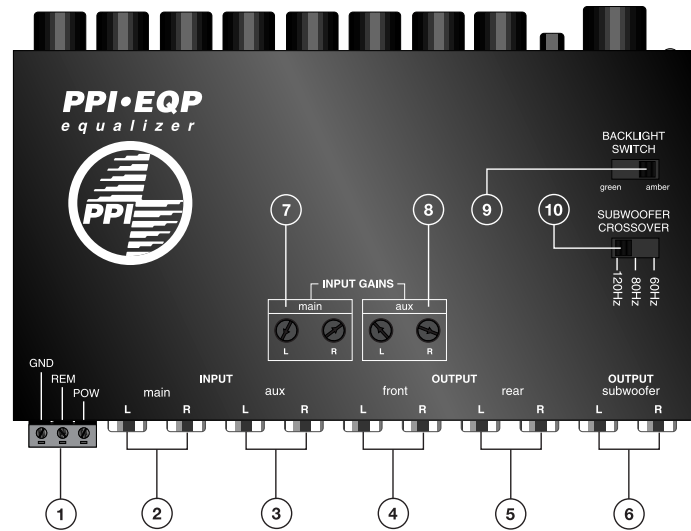
Finally, the remote wire needs to run to the power antenna (or amplifier remote) lead of the head unit. This wire supplies a 12 volt signal to the **PPI-EQP** when the main system is activated.

Once you have routed the power, ground, and remote wires through the vehicle, it is time to connect the wires to the **PPI-EQP**. Be sure that you have not reconnected the ground cable to the negative post of the battery.

Cut off excess wire and, using wire strippers, strip the power, ground and remote cables about 1/8 inch. Locate the power, ground, and remote **Powerlock** connector (supplied). On the top of the connector are three slotted screws. With a small flat-bladed screwdriver, loosen the screws before attempting to insert the cables. After you have inserted the stripped end of each cable into the connector, secure it by tightening the associated screw. Check that each connection is tight. If the wires are secure, the connector may be plugged into the **PPI-EQP**.

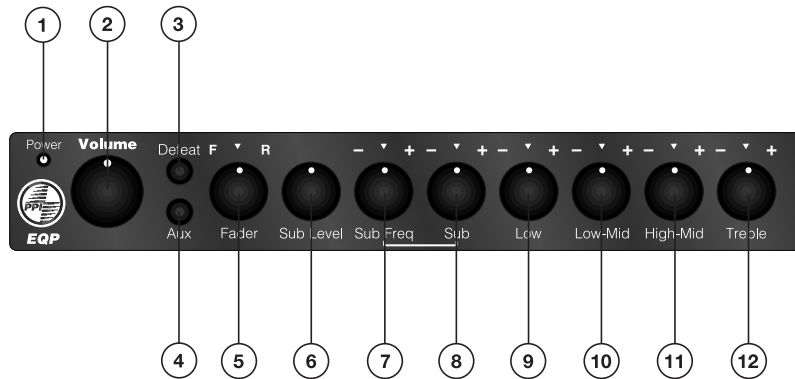


Functions



1. **Power:** After connecting the Ground, Remote and Power wires, plug in the PowerLock connector here.
2. **Main Input:** Gold plated RCA inputs. Plug in the RCA cables from the source unit here.
3. **Auxiliary Input:** Gold plated RCA inputs. Plug in the RCA cables from the auxiliary source unit here.
4. **Front Output:** Gold plated RCA outputs. Plug in the RCA cables to your front channel amplifier here.
5. **Rear Output:** Gold plated RCA outputs. Plug in the RCA cables to your rear channel amplifier here.
6. **Subwoofer Output:** Gold plated RCA outputs. Plug in the RCA cables to your subwoofer amplifier here.
7. **Left and Right Gain Controls for the Main Source:** Sets Left and Right input gain to match the output level from the source unit.
8. **Left and Right Gain Controls for the Aux Source:** Sets Left and Right input gain to match the output level from the source unit.
9. **Back Light Switch:** Push this switch to the right for amber illumination, to the left for green illumination.
10. **Subwoofer Crossover:** Set the Crossover frequency for the sub output with this switch.

Functions



- 1. Power LED:** Green light indicates power ON.
- 2. Volume Control:** Leave the source unit at 3/4 volume and use this control as the master volume control.
- 3. Defeat Switch:** With the switch in the "OUT" position, the equalizer controls are bypassed. Use this switch to compare the sound with and without equalization.
- 4. Auxiliary Switch:** With the switch in the "OUT" position, the Main Input is selected. With the switch in the "IN" position, you are using the input from an auxiliary source.
- 5. Fader:** Controls the output level to front and rear.
- 6. Sub Level:** Independent level control for subwoofer output.
- 7. Sub Frequency:** Selects the equalization frequency (40-120Hz) to boost or cut.
- 8. Sub:** Subwoofer band (40-120Hz) boost/cut control.
- 9. Low:** Low band (250Hz) boost/cut control.
- 10. Low-Mid:** Low Midrange band (500Hz) boost/cut control.
- 11. High-Mid:** High Midrange band (2kHz) boost/cut control.
- 12. Treble:** Treble band (10kHz) boost/cut control.

System Adjustments

SYSTEM GAIN ADJUSTMENT

In order to achieve maximum signal-to-noise performance from a high quality auto stereo system, it is desirable to use high signal levels wherever possible in the interconnect cables. High signal levels will reduce the effect of induced noise. The peak level of an audio signal is usually determined by the clipping level of electronic components. The following procedure should be used as a guide before the system installation is completed.

Adjust the Main and Auxiliary gain controls separately, using the following procedure:

1. Turn the **PPI-EQP** Volume control to 1/2 of maximum.
2. Turn the **PPI-EQP** and amplifier gain controls fully counterclockwise.
3. Turn source unit volume 1/2 to 3/4 of maximum output.
4. Play a CD or cassette. A loud music selection is desired.
5. Adjust the Left and Right gain controls clockwise until you hear the music sounding distorted. (If you can't hear any music at this point, turn up the gain control on your amplifier until the music is at a comfortable listening level.)
6. When you hear distortion in the music, turn the **PPI-EQP** gain controls back down slightly until the distortion goes away.

Adjusting amplifier input gains:

1. Adjust gains to minimum sensitivity (fully counterclockwise on the gain control of a **PPI** amplifier.)
2. Turn the volume knob on the **PPI-EQP** to the 3 o'clock position.
3. Increase the gain on the amplifier until the onset of audible distortion.
4. Repeat step 3 for any remaining amplifiers in the system.

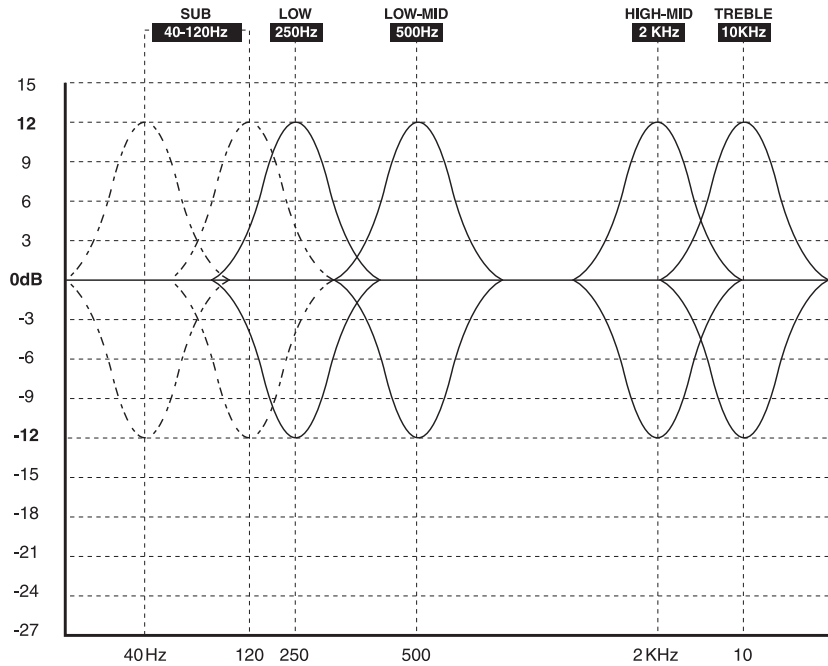
NOTE: In many multi-amplifier systems, the gain of some amplifiers may need to be further decreased to achieve tonal balance.

System Adjustments

The **PPI-EQP** Equalizer/Preamp puts an incredible amount of control at your fingertips. Correctly adjusted, it can solve many of the problems you will encounter along your road to perfect sound.

For best results, it is important to understand how the **EQP** controls affect the sound of your system. On the front of your **EQP** four controls marked LOW, LOW MID, HIGH MID, and TREBLE. These are the Boost/Cut controls that increase or decrease the level of certain frequencies. As you can see from the chart below, each control actually affects a group of frequencies around each 'center frequency'.

The SUB band works the same way, but with an extra twist. Not only can you boost and cut the frequency, but you can also choose which frequency to boost or cut. The control marked SUB FREQ is used to select the center frequency anywhere from 40Hz to 120Hz, and the SUB control does the boost/cut. This type of equalization is generally called 'parametric' equalization. To get a feel for the parametric SUB band, try boosting the sub control, and then move the SUB FREQ control from 40Hz to 120Hz as the music is playing.





Troubleshooting



NO SOUND Is the LED lit?

YES

Check Input cables for signal by connecting them to the next component in line.

NO

Check Power and Remote turn-on wire for voltage. Make sure Ground wire is secure.

ANY SOUND NOW?

YES

Problem is in the Equalizer. See your local Authorized **PPI** Dealer or call 1-800-62**POWER**.

NO

Problem is elsewhere in the system. Check head unit and amplifiers.

SOUND IN ONE CHANNEL ONLY

Check Balance control.
Reverse left and right RCA outputs.

SOUND IS NOW IN

OPPOSITE CHANNEL

Reverse RCA inputs

SAME CHANNEL

Problem is in the amplifier, speakers or associated wiring of the silent channel.

SOUND IS NOW IN

OPPOSITE CHANNEL

Reverse RCAs at head unit

SAME CHANNEL

Problem is in the Equalizer.
See your local Authorized **PPI** Dealer or call 1-800-62**POWER**

SOUND IS NOW IN

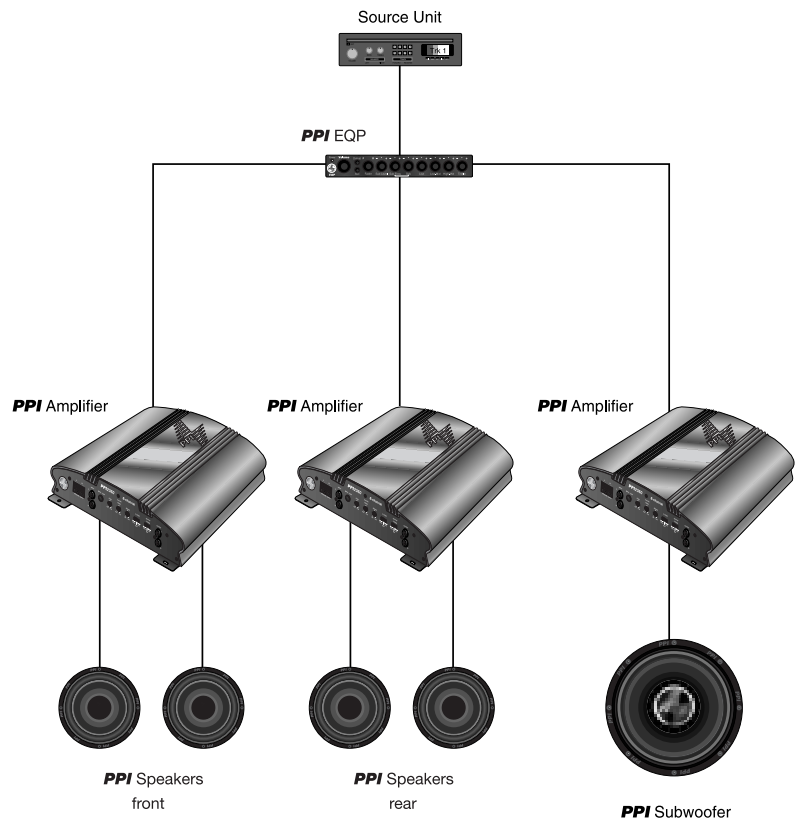
OPPOSITE CHANNEL

Problem is in the head unit

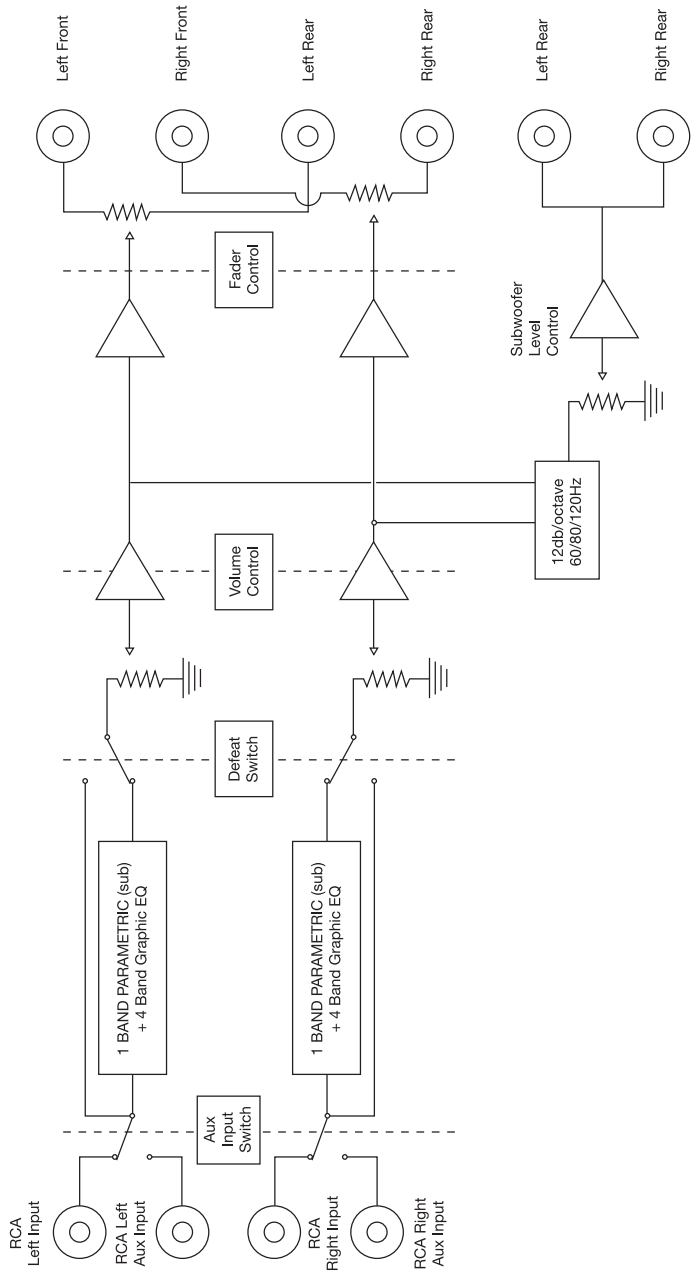
SAME CHANNEL

Problem is in the RCA cables

System Diagram



Block Diagram



3-Year Limited U.S.A. Warranty

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. PrecisionPower, Inc. (PPI) warrants its products to be free from defects in materials and workmanship under normal use and service for a period of three (3) years from the date of original purchase when the unit is installed by an Authorized Dealer. Non-Authorized Dealer installed products carry a one (1) year parts and ninety (90) days labor limited warranty. The extent and conditions of Limited Warranty are as follows:

1. Authorized Dealer Installed Products: PPI will either repair or replace at no charge, to the original purchaser, any unit which PPI's examination discloses to be defective and under warranty, provided the defect occurs within three (3) years from the date of original purchase when the unit is installed by an Authorized Dealer and the product is returned immediately to PPI. This warranty is not transferable.
2. Non-Authorized Dealer Installed Products: PPI will either repair or replace at no charge, to the original purchaser, any unit which PPI's examination discloses to be defective and under warranty, provided the defect occurs within ninety (90) days from the date of purchase and the product is returned immediately to PPI. Warranty claims beyond ninety (90) days for Non-Authorized Dealer Installed Products will be for parts only and will extend for one (1) year from the date of purchase. This warranty is not transferable.
3. The date of purchase and proof of Authorized Dealer Installation of a PPI product must be established by an original sales receipt which must accompany the article being returned for warranty work.
4. This warranty shall NOT apply to any PPI product found to have the original factory serial number removed or defaced. All products received (by PPI) for in warranty or out of warranty repair, with their original serial numbers removed or defaced, will NOT be repaired and will be returned to sender, freight collect. Refer to original packaging for the serial number of your component speakers.
5. The provisions of this warranty shall not apply to any PPI product used for a purpose for which it is not designed, which has been repaired or altered in any way, or which has been connected, installed, or adjusted other than in accordance with the instructions furnished in PPI's owner's manual. Nor shall this warranty apply to any part which has been subject to misuse, neglect, or accident.
6. PPI does not authorize any other persons to assume any other liability in connection with its products. THIS WARRANTY IS THE ONLY EXPRESS WARRANTY MADE BY PRECISIONPOWER APPLICABLE TO ITS PRODUCTS. ANY IMPLIED WARRANTY OR MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE APPLICABLE TO PRECISIONPOWER PRODUCTS IS LIMITED IN DURATION TO THE DURATION OF THIS LIMITED WARRANTY. PRECISIONPOWER SHALL NOT BE LIABLE FOR THE INCIDENTAL, CONSEQUENTIAL, OR COMMERCIAL DAMAGES RESULTING FROM THE BREACH OF THIS WRITTEN WARRANTY. Some states or provinces do not allow the exclusion or limitation of incidental or consequential damages or limitations on how long an implied warranty lasts; so the above limitations or exclusions may not apply to you.
7. Your product will be serviced on an in-warranty basis within the warranty period for the correction of warranted defects. If improper operation of your PPI product should occur, contact your Authorized Dealer for assistance with the return and factory repair of your PPI product. If an Authorized Dealer is not available, return the unit including your name, telephone number, return address, a copy of your sales receipt, and a description of the problem to:

Precision**Power**, Inc.
Service Department
4829 S. 38th Street
Phoenix, AZ 85040-2964

TO RETURN PPI PRODUCTS OUT OF WARRANTY: Return the unit, postage prepaid, in the original protective carton. Please include a description of the problem and, if desired, a request for an estimate of repair costs. Unless a request for an estimate is included, the unit will be repaired as necessary. Please contact PPI Customer Service at 1-800-62-POWER for questions concerning out of warranty repair charges. Repaired unit will be returned with an itemized statement, C.O.D.