



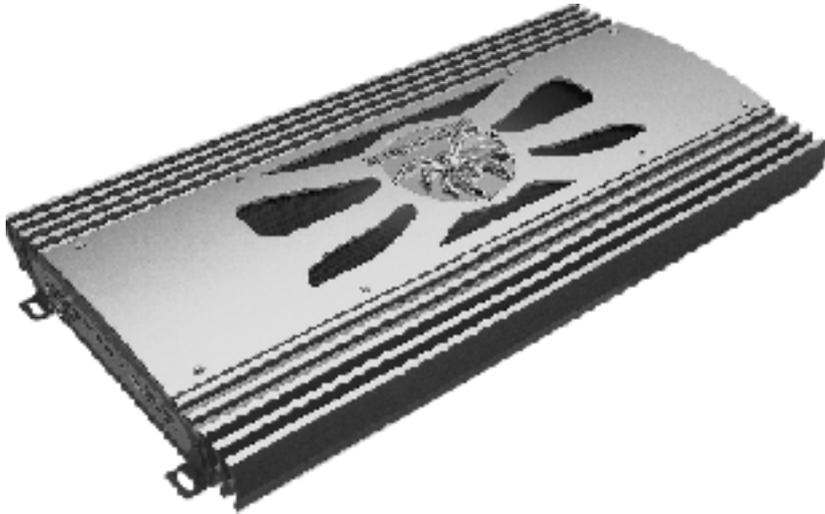
# SOUNDSTREAM

## OWNER'S MANUAL

PCA1000D / 1500D / 2000D / 3500D

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## INTRODUCTION

Amplifiers provide high-performance sound reinforcement for your mobile audio equipment. The Multi-Mode bridging capabilities allow flexibility in hosting several different speaker configurations.

To achieve optimum performance, it is highly recommended that you read this Owners Manual before beginning installation.

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## FEATURES

- TST™ (Twin Stack Technology) 2 amplifier's to drive one voice coil, effectively doubling the power.
- Class D circuitry
- 1 Ohm stable
- High quality FR-4 circuit board
- Continuously variable low-pass filter : 50Hz to 150Hz (24dB slopes)
- Continuously variable subsonic filter : 15Hz to 40Hz (24dB slopes)
- Subwoofer equalizer control : 0 ~ + 18dB
- Variable phase shift control : 0 ~ 180 degree
- Frequency response : 15Hz-150Hz
- Platinum RCA inputs and outputs
- Input sensitivity : 200mV-8V
- OEM floating ground input
- Platinum 4-gauge power connectors
- S/N Ratio : 100dB
- 0.30% THD
- Includes PCA-RM remote bass control

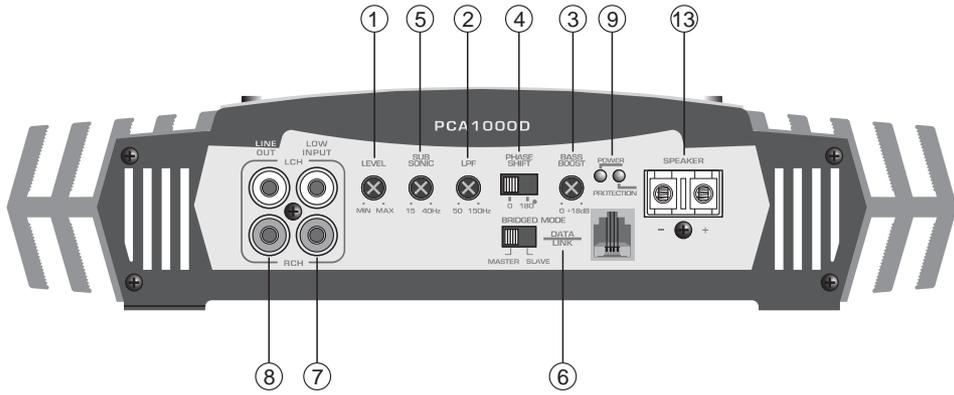
## Specifications

MODEL	CHANNEL	RMS @ 4 OHM	@ 2 OHM	@ 1 OHM	FUSES	DIMENSIONS
PCA1000D	1	500W x 1 Ch	800W x 1 Ch	1000W x 1Ch	30A x 3	11" x 2.6" x 12.6"
PCA1500D	1	800W x 1 Ch	1100W x 1 Ch	1500W x 1 Ch	30A x 4	11" x 2.6" x 15"
PCA2000D	1	1100W x 1 Ch	1500W x 1 Ch	2000W x 1 Ch	None	11" x 2.6" x 17.7"
PCA3500D	1	2500W x 1Ch	3000W x 1Ch	3500W x 1Ch	None	11.1" x 2.8" x 20.9"

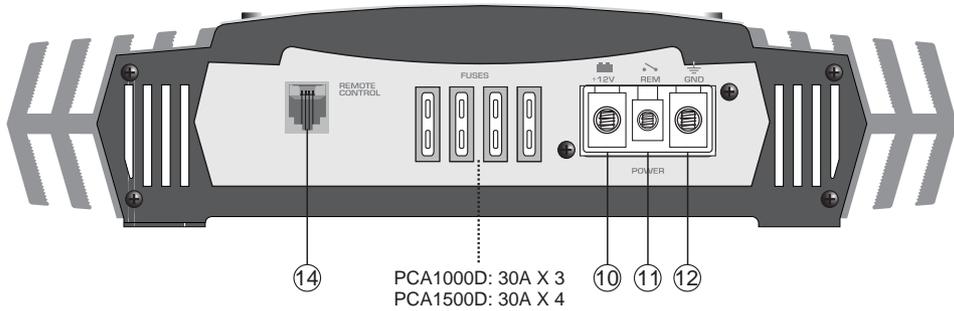
# SOUNDSTREAM

## Controls & Functions

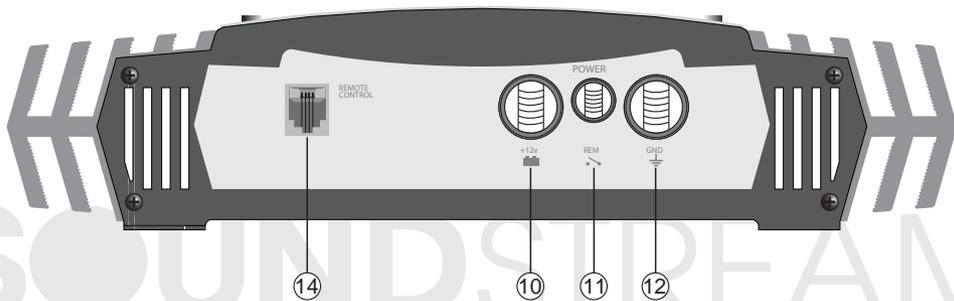
### PCA1000D / 1500D / 2000D FRONT



### PCA1000D / 1500D REAR

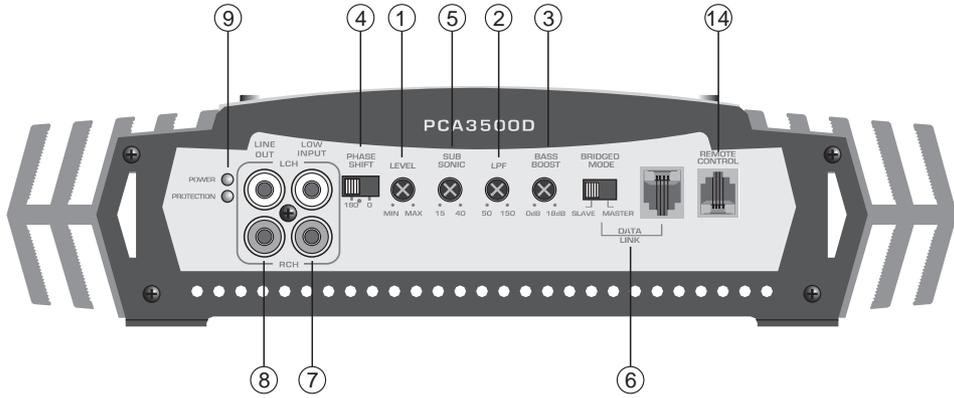


### PCA2000D REAR

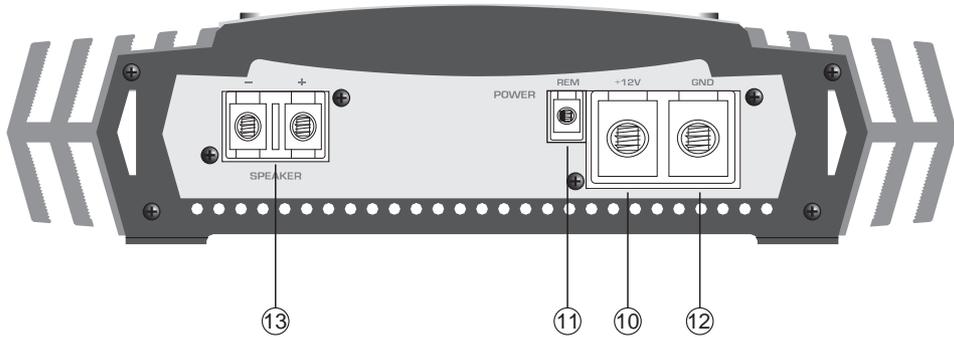


# Controls & Functions

## PCA3500D FRONT



## PCA3500D REAR



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## Controls & Functions

### 1. Input Level Adjustment



This control adjusts the amplifier's input sensitivity. Input sensitivity is variable from 200 Millivolts to 8 volts. Clockwise increases sensitivity. Counterclockwise decreases sensitivity. The amplifier can be driven to full power with a wide range of signal levels. A lower signal level will require increased sensitivity for full power. A higher signal level will require decreased sensitivity. Avoid setting sensitivity lower than necessary as this would introduce unwanted distortion.

### 2. Low Pass Filter Control



This control is used to set the desired low pass frequency (50 ~ 150Hz). The filter acts to cut-off frequencies above the set-point. In general, the selected frequency should closely match the resonant frequency of the speaker box.

### 3. Bass Boost Control



By using the bass boost function, bass notes at 35Hz - 80Hz are emphasized as much as 18dB.

### 4. Phase Shift Control



PHASE SHIFT SWITCH (0 AND 180 DEGREES):

Allows you to change the phase of your subwoofer from 0 to 180 degrees to help compensate for timing differences between drivers.

## Controls & Functions

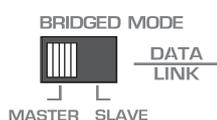
### 5. Subsonic Filter Control



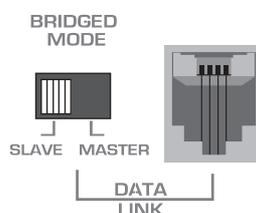
Variable Subsonic Filter (15Hz - 40Hz) :

The Subsonic filter will roll off all of the unwanted frequencies below 15Hz - 40Hz. This will allow the amplifier to use that wasted power on the audible bandwidth.

### 6. Bridged Mode Switch

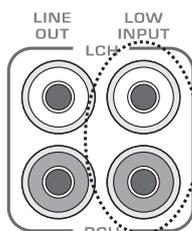


PCA1000D/1500D/2000D



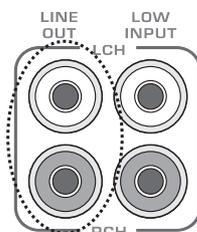
PCA3500D

### 7. Low Level Input RCA jacks



These inputs are for signal cables from the source. Always use high quality shielded RCA cables.

### 8. Low Level OUT RCA jacks

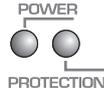


The LINE OUT allows you to build multiple amplifier systems without having to use splitter cords to distribute the signal. Now it is simply a matter of bringing one set of RCAS into the first amplifier, then using the line out RCA jacks as the feed to the next amplifier.

## Controls & Functions

### 9. LED Indicator

PCA1000D/1500D/2000D



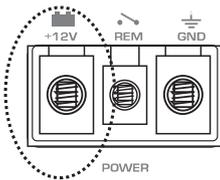
PCA3500D

**PWR(Power):** This GREEN LED will illuminate when the amplifier is turned "ON". If it fails to illuminate, check the power connections to the Amplifier and fuses.

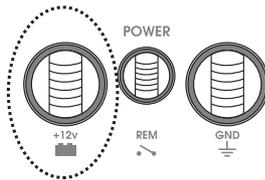
**PROT(Protection):** The amplifier protection circuitry will disable the amplifier if input overload, short circuit or extremely high temperature conditions are detected. When the protection mode is in operation, the LED indicator on the side panel will be illuminated, indicating the amplifier has gone into a self-preservation mode.

If you observe that the Protection LED is lit, please check the system carefully to determine what has caused the protection circuit to engage. The amplifier can be reset by turning the remote power off and then on again. If the amplifier shut down due to a thermal overload condition, please allow it to cool down before restarting. If the amplifier shut down because of an input overload or short circuit, be sure to repair these conditions before attempting to power up the amplifier again.

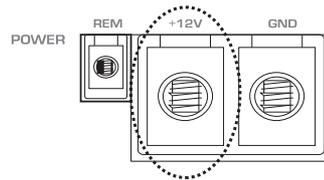
### 10. B+ Terminal (Battery positive)



PCA1000D/1500D



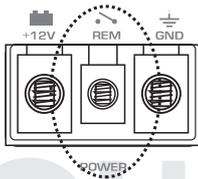
PCA2000D



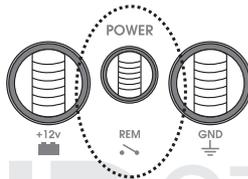
PCA3500D

Due to the power requirements of the Amplifier, this connection should be made directly to the positive(+) terminal of battery. For safety measure, install an in-line fuse Holder (not included) as close to the battery positive(+) terminal as possible with an ampere rating ; not to exceed total value of fuses in Amp.

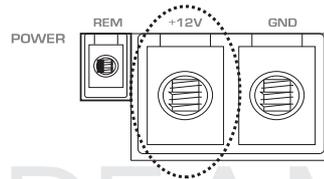
### 11. Remote Power On



PCA1000D/1500D



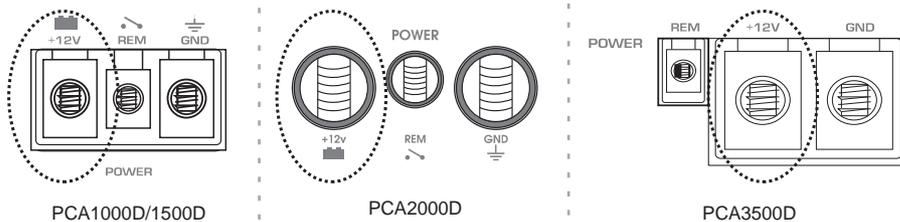
PCA2000D



PCA3500D

## Controls & Functions

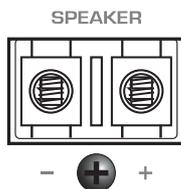
### 12. B- Terminal (Chassis ground)



To avoid unwanted ignition noise caused by ground loops, it is essential that the Amplifier be grounded to a clean, bare, metal surface of the vehicle's chassis.

Note : GROUND WIRE SHOULD NOT BE EXTENDED MORE THAN 3 FT (1 METER).

### 13. Speaker terminals



### 14. Remote Control Input



Remote Bass Boost Control : PCA-RM

Remote Bass Boost Control : This control adjusts the Bass Boost gain for the amplifier's speaker output (0 ~+18dB)

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## Planning and Mounting Your System

The mounting position of your Amplifier will have a great effect on its ability to dissipate the heat generated during normal operation. Under normal conditions, the heatsink will dissipate sufficient heat to avoid thermal shutdown. However please do not install the amplifier in a wooden box or similar device as this will prevent heat dissipation into the atmosphere.

Temperatures in car trunks have been measured as high as (155°F) in the summer time. since the thermal shut-down point for the amplifier is (158°F) it is easy to see that it must be mounted for maximum cooling capability. To achieve maximum advantage of convection air flow in an enclosed trunk, mount the amplifier in a horizontal position.

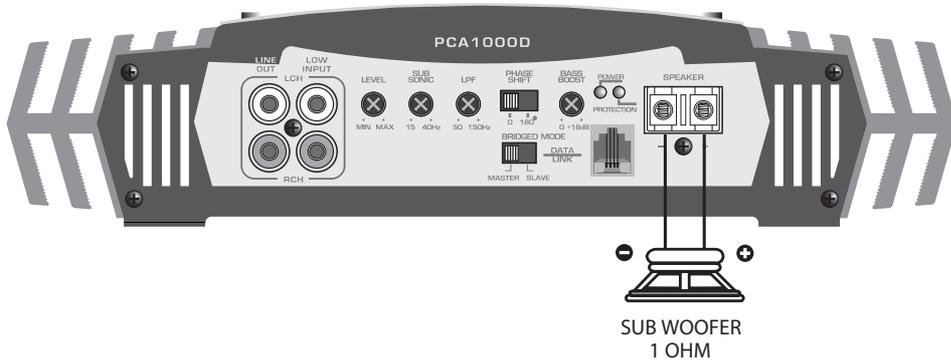
Cooling requirements are considerably relaxed when mounting inside the passenger compartment since the driver will not often allow temperatures to reach a critical point. Floor mounting under the seat is usually satisfactory as long as there is at least 1 inch of clearance (2.54 cm) above the Amplifier's fins for ventilation.

- A. Select a suitable location that is convenient for mounting, is accessible for wiring. And has ample room for air circulation and cooling.
- B. Use the amplifier as a template to mark the mounting holes. Remove the Amplifier and drill holes. Use extreme caution, inspect underneath surface before drilling!
- C. Secure the Amplifier using the screws provided.

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# PCA1000D / 1500D / 2000D

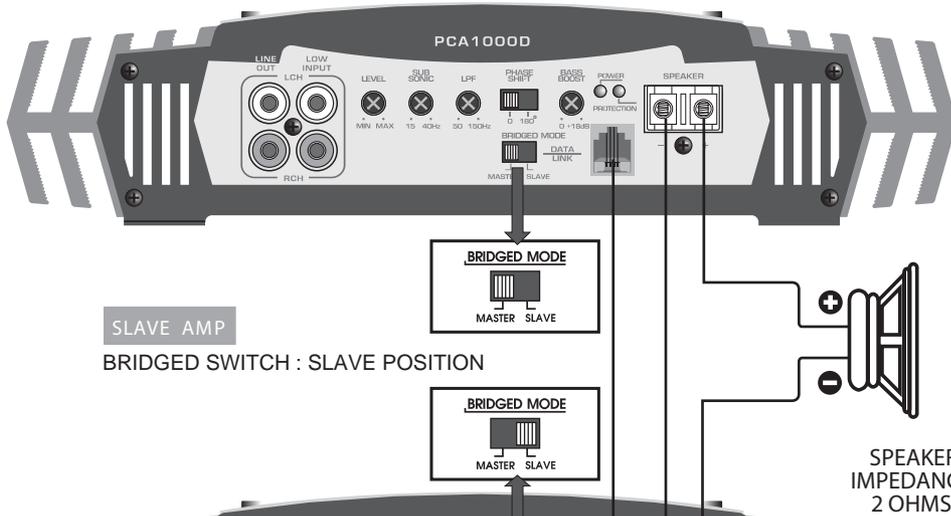
MONO MODE



## Bridging Two Amplifier's

MASTER AMP

BRIDGED SWITCH : MASTER POSITION

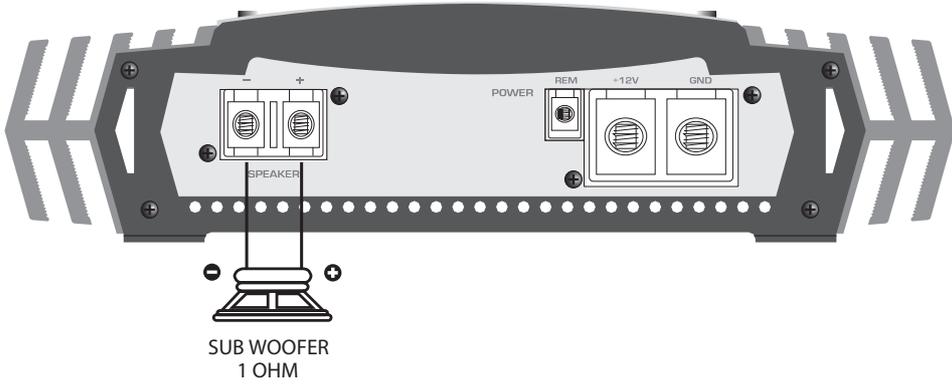


SLAVE AMP

BRIDGED SWITCH : SLAVE POSITION

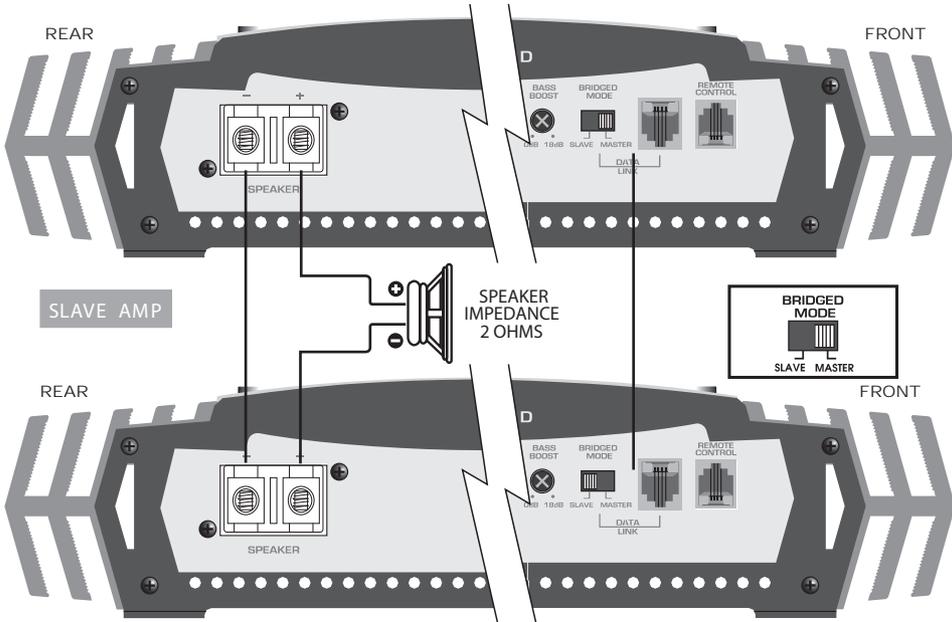
# PCA3500D

## MONO MODE



## Bridging Two Amplifier's

### MASTER AMP



SOUNDSTREAM

## Tuning on the Amplifier

The amplifier automatically turns on a few seconds after you turn your vehicle's ignition switch to ACC or ON or turn on your auto sound system, depending on how you wired the system. The POWER indicator on the top of the amplifier lights when the amplifier is on.

Important : Your amplifier requires 30 amps or more of power from your vehicle's battery during operation. To protect your battery from discharging, do not operate the amplifier unless your vehicle is running.

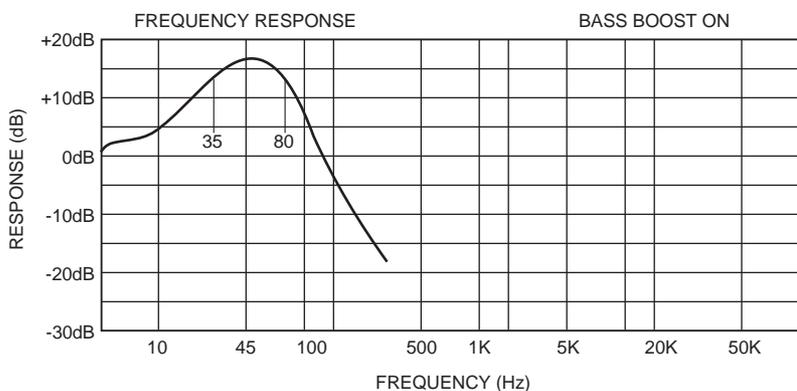
## Adjusting The Audio Level

For the best performance, you must set GAIN (MIN / MAX) on the side of the amplifier to adjust the level of the audio signals that enter the amplifier.

1. Use a screwdriver to turn GAIN (MIN / MAX) fully counterclockwise to MIN.
2. Turn the auto sound system's volume control to about one-third of its full range.
3. Adjust GAIN (MIN / MAX) to a comfortable listening level.
4. Turn up the auto sound system's volume control until the sound begins to distort. Then immediately turn the volume down to a point just before where the distortion began.

Caution : Never turn up the auto sound system's volume control more than needed to adjust the audio level, more than two thirds of its maximum volume.

5. Adjust GAIN (MIN / MAX) until the sound is at the maximum level you want the amplifier to produce.
6. Adjust the auto sound system's volume control to a comfortable listening level.



NOTE: Raising the Bass frequency allows higher frequencies to reach the bass speakers while blocking lower frequencies from midrange speakers. Lowering the Bass frequency allows lower frequencies to reach the midrange speakers while blocking higher frequencies from bass speakers.

## Trouble Shooting

SYMPTOMS	CHECK	REMEDY
NO SOUND	Is the power LED illuminated? (NO)	Check all fuses to amplifier. Be sure Turn-on lead is connected check signal leads. Check gain control. Check Tuner/Deck volume level. Clean contacts on fuse holders.
	Is the Diagnostic LED illuminated? (YES)	Check for speaker short or amplifier overheating.
AMP NOT SWITCHING ON	No power to power wire	Repair power wire or connections.
	No power to remote wire with receiver on	Check connections to radio.
	Burnt or broken fuse	Replace fuse
NO SOUND IN ONE CHANNEL	Check Speaker Leads	Inspect for short circuit or an open connection.
	Check Audio Leads	Reverse Left and Right RCA inputs to determine if the problem is occurring before the amp.
AMP TURNING OFF MEDIUM / HIGH VOLUME	Check Speaker load impedance	Be sure proper speaker load impedance recommendations are observed.  (If you use an ohmmeter to check speaker resistance, please remember that DC resistance and AC impedance may not be the same.)
PROTECTION LAMP ON	Shut down	Turn radio down Wait for AMP to cool
	Speaker wires shorted	Separate speaker wires and insulate

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