

[WWW.LANZAR.COM](http://WWW.LANZAR.COM)



**USER'S MANUAL**

**RDA753D**

Reign 4000 Watts 3 Channel Compact Class-D Full Range Hybrid Amplifier

**RDA754D**

Reign 3200 Watts 4 Channel Compact Class-D Full Range Amplifier

**RDA755D**

Reign 6200 Watts 5 Channel Compact Class-D Full Range Hybrid Amplifier

## INTRODUCTION

Thank you for purchasing the REIGN Class-D amplifier. Rest assured you have purchased a quality product designed and engineered to give you many years of uncompromised musical service.

The REIGN Class-D amplifier has been designed using the latest in electronic technology available today.

This compact class-D full range hybrid amplifier is the result of advanced high speed switching technology that overcomes the less-efficient classAB design. The REIGN Class-D amplifier reflects your true appreciation for beautiful music reproduction in the mobile environment.

This series amplifier is designed for full range frequency information and mono low frequency information.

The power supply incorporated into REIGN amplifier is a DC to DC switching power supply designed to have adequate headroom for even the most demanding peak and dynamic range found on today's Cds and recording.

## PRODUCT SPECIFICATIONS

ITEM \ MODEL	RDA753D	RDA754D	RDA755D
RMS POWER @ 4Ω	2*280W+1*750W	4*250W	4*250W+1*750W
MAX POWER @ 4Ω	2*550W+1*1500W	4*550W	4*550W+1*1500W
RMS POWER @ 2Ω	2*280W+1*1100W	2*250W+2*400W	4*250W+1*1100W
MAX POWER @ 2Ω	2*550W+1*1800W	2*550W+2*800W	4*550W+1*1800W
PEAK POWER @ 4Ω BRIDGED	N/A	1*550W+1*1600W	N/A
T.H.D (Filter=22KHz)	0.06%	0.07%	0.07%
S/N Ratio	>95dB	>95dB	>95dB
GAIN RANGE	0.2-4V	0.2-4V	0.2-4V
CROSSOVER RANGE	HPF:50-250Hz LPF:50-250Hz	HPF:50-250Hz LPF:50-250Hz	HPF:50-250Hz LPF:50-500Hz
FREQUENCY RANGE	20Hz-40KHz	20Hz-40KHz	20Hz-40KHz
BASS BOSS	0-15dB@45Hz	0-15dB@45Hz	0-15dB 40Hz-100Hz(Variable)
DIMENSION	9.8"(L)*6.3"(W)*2.1"(H)	8.3"(L)*6.3"(W)*2.1"(H)	11.4"(L)*6.3"(W)*2.1"(H)

## FEATURES

### CLASS-D DESIGN

Compact class-D full range hybrid amplifier. High efficient power

### POWER SUPPLIES

Stiffly regulated PWM power supplies. MOSFET switches maintain rated power over a wide range of battery voltages.

### LPF Crossover Adjustment

Use this adjustment to select the crossover point. Remember that you must select the Low Pass position (LPF) of the crossover adjustment switch first. The range of adjustment is limited between 30-200 Hz.

### HPF Crossover Adjustment

Use this adjustment to select the crossover point. Remember that you must select the high pass position (HPF) of the crossover adjustment switch first. the range of adjustment is limited between 50-250 Hz.

### X-OVER Selection Switch

This switch allows you to select the crossover. Use High Pass for midrange or high frequency speakers. Use Low Pass for subwoofers. In the FLAT position, neither crossover adjustment knob has an affect.

### Bass Boost

The amplifier feature a Quasi Parametric Bass EQ Bass Boost with adjustments for both Boost Level and Boost Frequency.

### BASS BOOST

The amplifier feature a Quasi Parametric Bass EQ Bass Boost with adjustments for both Boost Level and Boost Frequency. Begin your adjustments at low volume. Turn the Bass Boost Level control about 1/2 way up. Next, turn the Bass Boost Frequency up and down. This will take some tweaking but try to find the setting that gives you a richer and fuller Sound without over working the subwoofer. Play several different kinds of music to test your adjustment. You may find you have to go back and make some changes and compromises to get it sounding right with an assortment of

### PROTECTION CIRCUITRY

Protection against thermal, Overload and short circuit conditions.

### REMOTE GAIN CONTROL

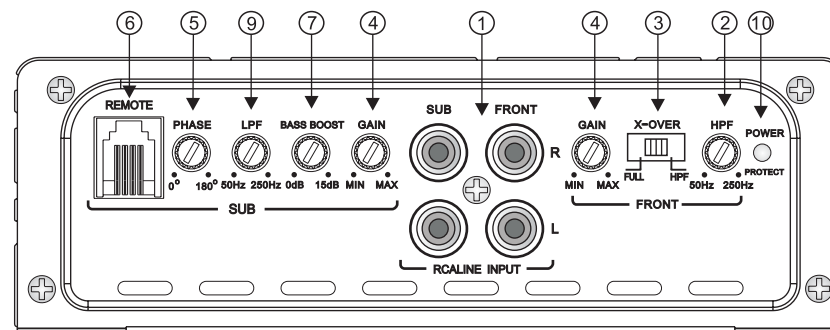
This amplifier come complete with a compact remote gain controller which can be conveniently mounted on or under the dashboard of your car.

## AMPLIFIER INSTALLATION

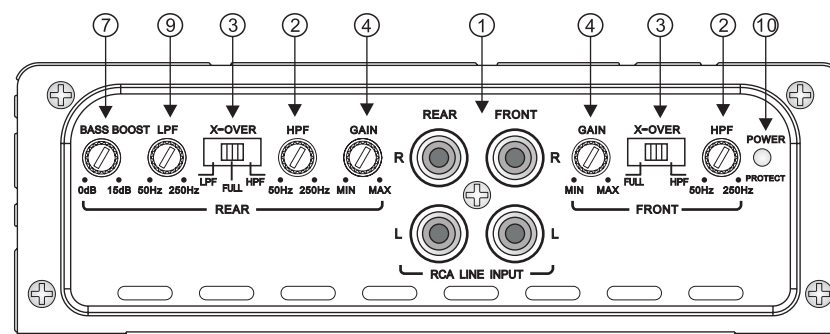
1. Find a suitable location in the vehicle to mount the amplifier.
2. Make sure there is sufficient air flow around the intended mounting location.
3. Bolt the amplifier to the mounting surface.
4. Connect the power ground terminal to the nearest point on the chassis of the car. Keep this ground wire less than one meter (39") in length. Use 4 gauge wire.
5. Connect the remote terminal to the remote output of the head unit using 14 gauge.
6. Connect an empty fuse holder within 300mm (12") of the battery and 4 gauge or larger high quality cable from this fuse to the amplifier Location.
7. Make sure there is no fuse in this fuse holder. Then make the connection to the " BATT " connection on the amplifier.
8. If multiple amplifiers are being used, use cables (each with its own fuse at the battery) or a #0 or a #2 cable from the fuse holder at the battery to a distribution block at or near the amplifier's location.
9. Connect all line inputs and outputs using high-quality RCA-RCA Cables.
10. Insert fuse(s) at the battery fuse holder(s).
11. Recheck all connections before powering up.
12. Set all level controls to their least sensitive positions and set all crossover controls, switches, etc. to the desired frequency or position.
13. Once the system is powered up, set the volume control on the head unit to about the 2 o'clock position, and then set all the amplifiers' level controls for maximum output level.
14. Further fine tuning of the various controls may be necessary to obtain the desired results.

## FUNCTIONAL DESCRIPTION

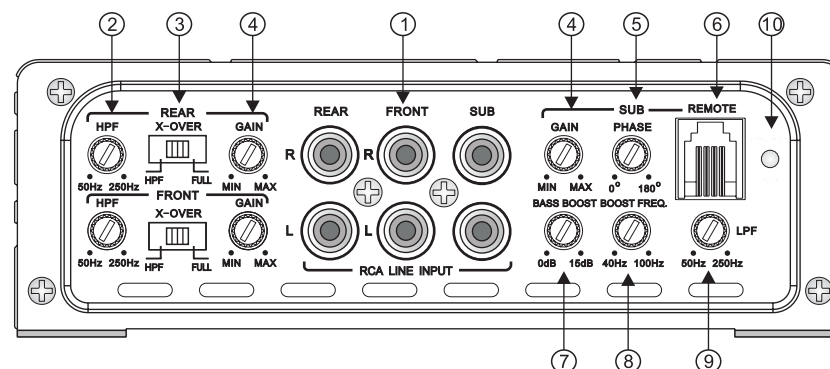
RDA753D (Control terminals)



RDA754D (Control terminals)

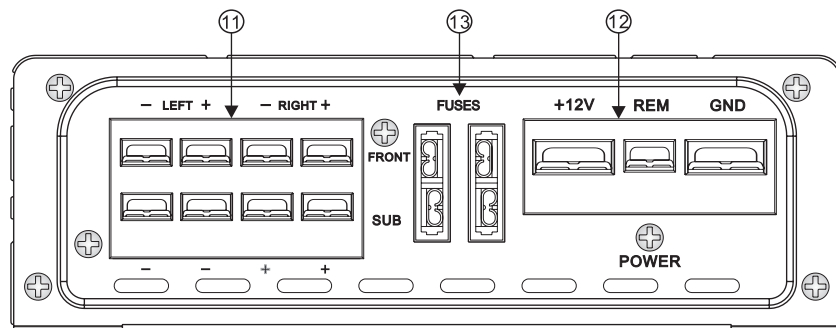


RDA755D (Control terminals)

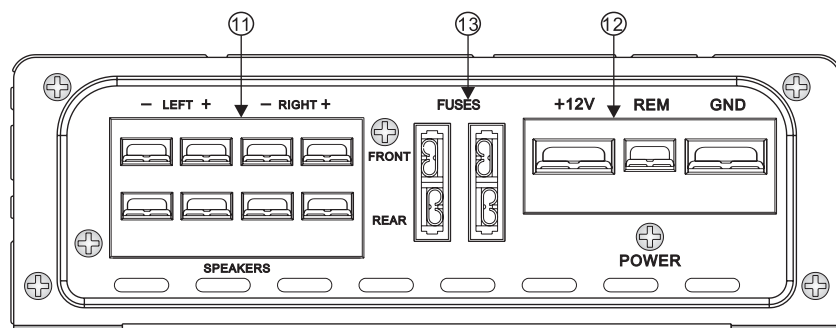


## FUNCTIONAL DESCRIPTION

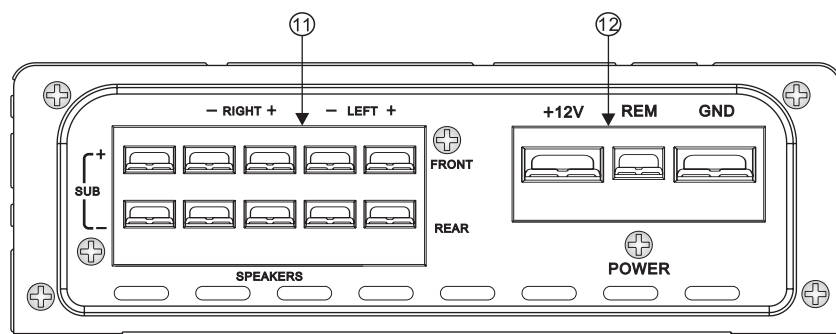
RDA753D (Power terminals)



RDA754D (Power terminals)



RDA755D (Power terminals)

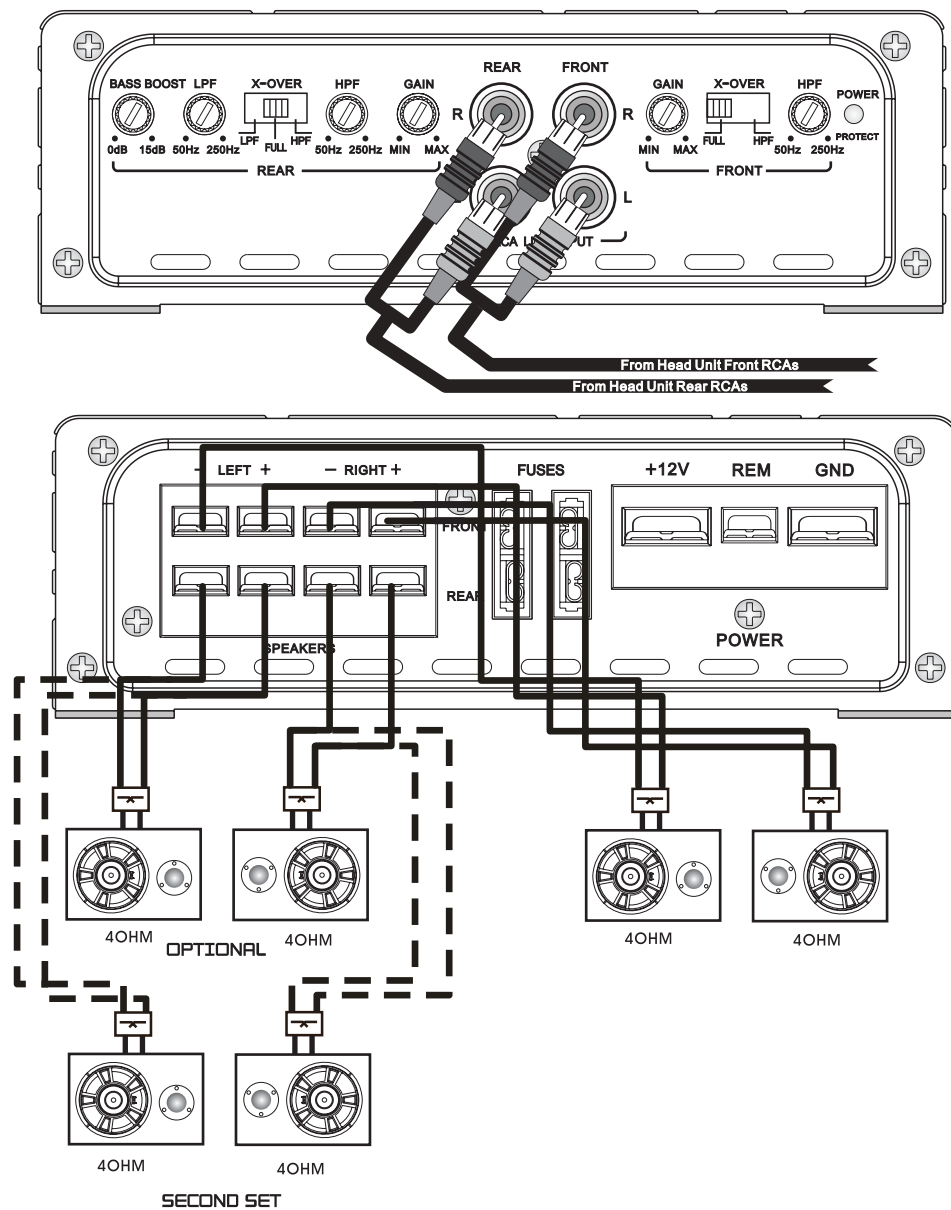


①	<b>RCA Line Input</b> --These RCA jacks allow for a normal Left and Right channel signal input. Simply connect to the source unit using RCA type audio cables, keeping them away from power wiring wherever possible.
②	<b>HPF Crossover Adjustment</b> -- Use this adjustment to select the crossover point. Remember that you must select the high pass position (HPF) of the crossover adjustment switch first. the range of adjustment is limited between 50-250 Hz.
③	<b>X-OVER Selection Switch</b> -- This switch allows you to select the crossover. Use High Pass formidrange or high frequency speakers. Use Low Pass for subwoofers. In the FLAT position, neither crossover adjustment knob has an affect.
④	<b>Input Gain Adjustment</b> -- This control matches the preamp stage of the amplifier to your source unit. This is NOT a volume control. The range is between 200mV and 4V.
⑤	<b>Phase Shift</b> -- Allows you to change the phase of your subwoofer from 0 to 180 degrees to help compensate for timing differences between drivers.
⑥	<b>Remote Level Control (subwoofer Only)</b> --This port is for the remote level control (included). The control is intended to allow theuser to control the level of gain up to the maximum adjustmen level set on the amplifier. The control does not add additional boost, it only attenuates the setting that is fixed at the amplifier's control panel.
⑦	<b>Bass Boost</b> --This control adds 0 to +15dB. Be cautious when adding boost to some subwoofer systems as they may not be handle the additional low frequency boost. In the 0dB position, no bass boost is added. The LPF must be switched on for the bass boost to activate.
⑧	<b>Boost Frequency</b> -- Use this adjustment to select the specific frequency that your amplifier Bass will boost at 40Hz-100HZ(RDA753D\RDA754D at45Hz only).
⑨	<b>LPF Crossover Adjustment</b> -- Use this adjustment to select the crossover point. Remember thatyou must select the Low Pass position (LPF) of the crossover adjustment switch first. The range of adjustment is limited between 50-250 Hz.
⑩	<b>Status LED ' s</b> -- These lights indicate when the amplifier is powered up normally and when there is a protection fault . See the “ Troubleshooting ” section for details on what theseuseful indicators can tell you if there's a problem.
⑪	<b>Speaker Output Terminals</b> -- Connect your speakers to these terminals. Stereo connections are connected as labeled.For RDA753D, RDA755D disapprove of bridge, only RDA755D RR \RL can bridge. DO NOT run 2 Ohm bridged loads on these amplifiers, The minimum load 2Ω subwoofer.
⑫	<b>Power Input Connections</b> -- These connections are for input power, chassis ground, and remote turn-on. Use a minimum of 4 gauge wiring for power and ground connections. The terminals willhandle up to 4 gauge wiring with no problem whatsoever. Be sure any wiring that passes through.
⑬	<b>Power Fuses</b> -- Standard automotive type ATC/ATO fuses are used on RDA753D, RDA755D amplifiers. Always replace with the correct fuse size.RDA755D the built in fuse.



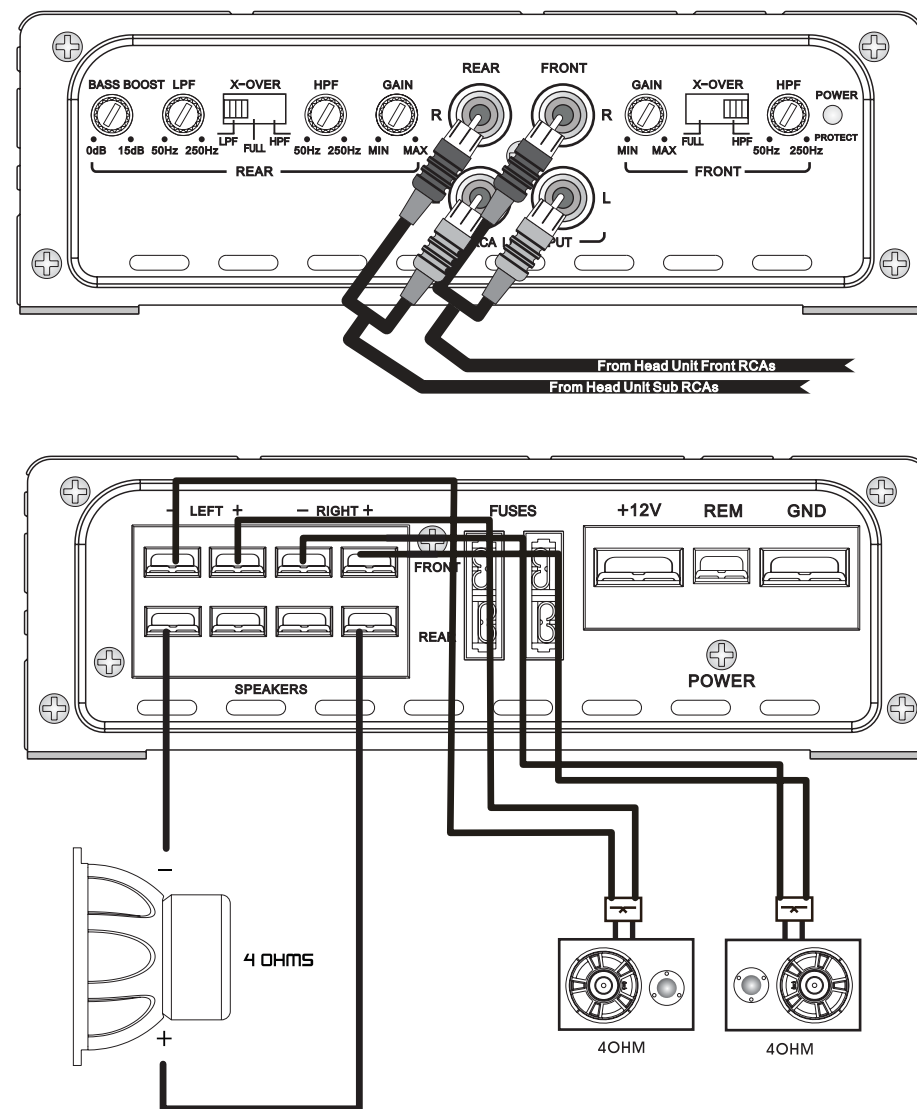
## The Typical Connecting Scheme

### RDA754D STEREO 4 CHANNEL FULL



## The Typical Connecting Scheme

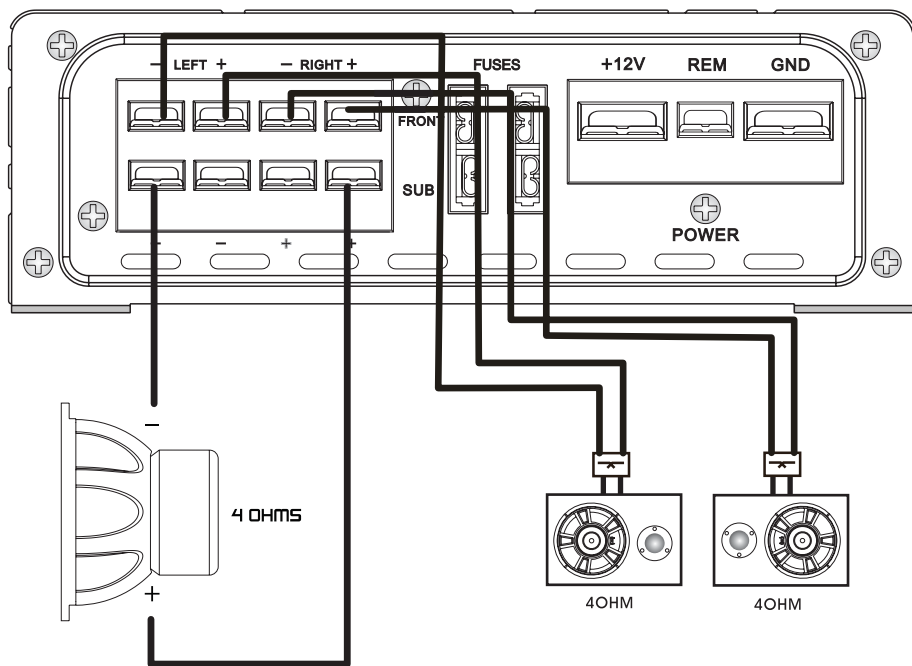
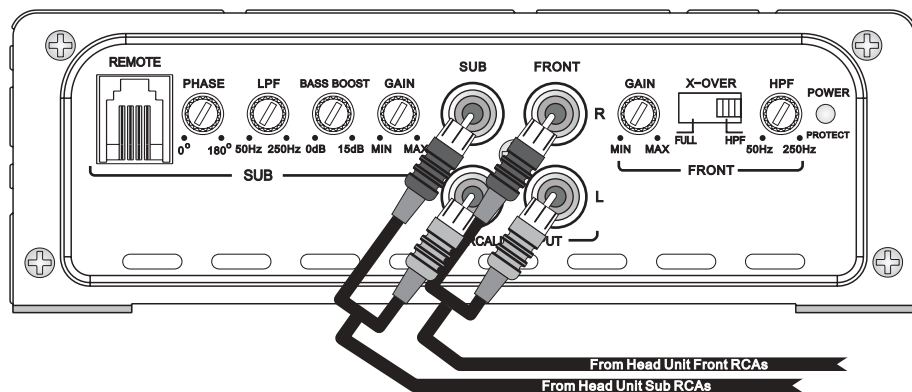
### RDA754D STEREO HPF WITH MONO SUBWOOFER



## The Typical Connecting Scheme

### RDA753D

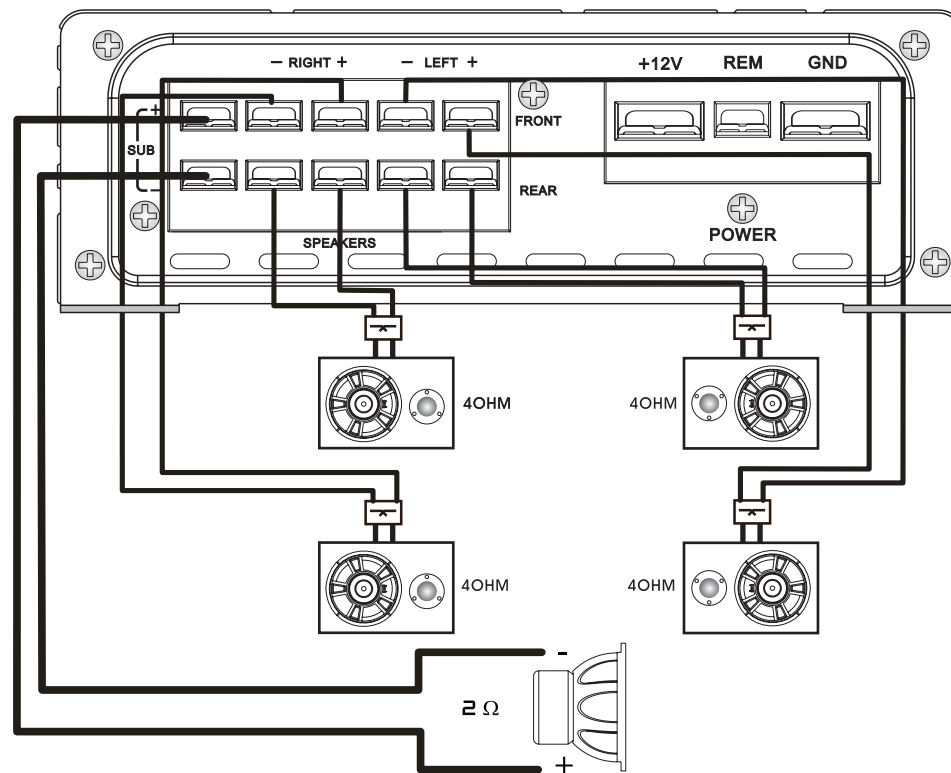
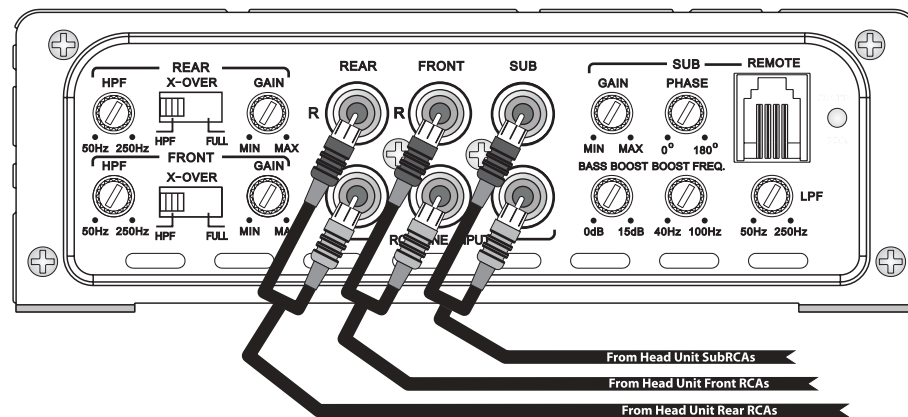
STEREO 2 CHANNEL HPF WITH SUBWOOFER



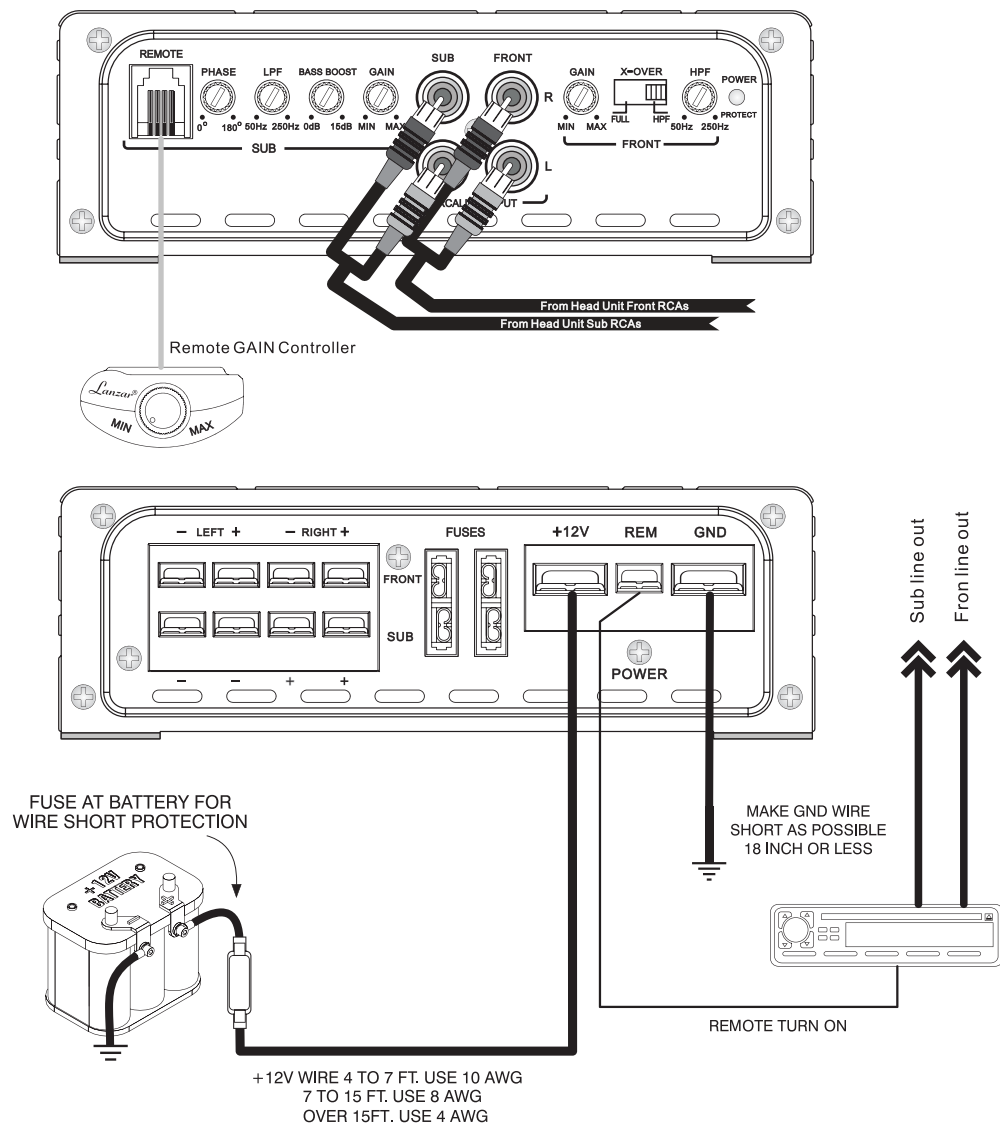
## The Typical Connecting Scheme

### RDA755D

STEREO 4 CHANNEL HPF WITH MONO SUBWOOFER



## The Typical Remote And Power Wiring For All Models



## TROUBLESHOOTING

Before removing your amplifier, refer to the list below and follow the suggested procedures. Always test the speakers and their wires first.

### AMPLIFIER WILL NO POWER UP.

Check for good ground connection.

Check that remote DC terminal has at least 8.5v DC.

Check that there is battery power on the +terminal.

Check all fuses.

Check that Protection LED is not lit. If it is lit, shut off amplifier briefly and then repower it.

### HIGH HISS OR ENGINE NOISE(ALTERNATOR WHINE) IN SPEAKER

Disconnect all RCA inputs to the amplifier(s)-if hiss / noise disappears, then plug in the component driving the amplifier and unplug its inputs. If hiss / noise disappears, go on until the faulty /noisy component is found.

It is best to set the amplifier's input level as insensitive as possible. The best subjective S/N ratio is obtainable this way. Try to drive as high a signal level from the head unit as possible.

### PROTECTION LED COMES ON WHEN THE AMPLIFIER IS POWERED UP .

Check for shorts on speaker leads.

Check that the volume control on the head unit is turned down low.

Remove speaker leads, and reset the amplifier. If the Protection LED still comes on, then the amplifier is faulty.

### AMPLIFIER(S) GETS VERY HOT.

Check that the minimum speaker impedance for that model is correct.

Check for speaker shorts.

Check that there is good airflow around the amplifier. In some applications, an external cooling fan may be required.

### DISTORTED SOUND

Check that the Level control(s) is set to match the signal level of the head unit.

Check that all crossover frequencies have been properly set.

Check for shorts on the speaker leads.

### HIGH SQUEAL NOISE FROM SPEAKERS.

This is always caused by a poorly-grounded RCA patch cord.



[WWW.LANZAR.COM](http://WWW.LANZAR.COM)

**IMPORTANT:** Pack carefully in original package if possible. We are not responsible for damage incurred in returning items for repair. A letter stating your exact street address, daytime phone number, and the problem you are experiencing should be included. You must also enclose a copy of the original receipt as proof with date of purchase