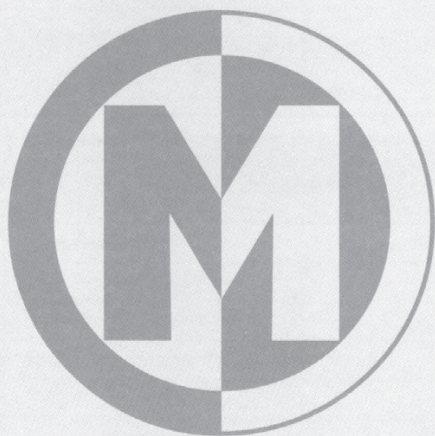


PR

POWER REFERENCE
amplifier instructions



PRXA1500.1

PRXA1000.1

PRXA600.1

PRXA700.5

PRXA300.4

PRXA300.2

MEMPHIS

READY TO TURN IT UP? READ THIS FIRST!

Memphis Audio built a 50 year legacy in the audio industry engineering the highest quality products to produce the best possible listening experience for our fans and loyal supporters. To fully appreciate our products we recommend taking the time to read and follow the instructions in this manual. As always, we recommend all installations and service be performed by an authorized Memphis Audio dealer.



TIP For optimal performance, Memphis recommends using only Memphis Connection accessories. Outfitting your system with properly sized Memphis Connection wire and accessories will dramatically boost your listening experience and increase the durability of your Memphis Audio products.

Power Reference amplifiers feature a MOSFET power supply with a 12dB per octave crossover to ensure the most accurate musical reproduction. 1Ω stability on mono block models & 45 Hz Bass Boost on all models will make your system perform to its full potential for all types of music.



TIP Check out our full line of Power Reference speakers and woofers to create a complete Memphis Street Reference system in your ride.

Features

Multi Channel: PRXA700.5 // PRXA300.4 // PRXA300.2

- Diecast aluminum heatsink
- Signal sensing auto turn on
- Hidden top mounted control panel
- 12dB/ octave butterworth crossover
- Short Circuit protection
- Input select switch

MONO: PRXA1500.1 // PRXA1000.1 // PRXA600.1

- Remote bass knob Mono & 5-Channel models
- 1Ω stable
- Low Level bypass outputs
- Variable bass boost (0-12dB) centered at 45Hz
- 24dB Infrasonic Filter
- Fully Variable low pass crossover
- Protection circuitry against overload, short circuit, thermal & reverse polarity.

Platinum Plated Connectors

Ensures solid electrical connections that resist corrosion.

Fully Variable High & Low Pass Crossovers

Fully variable crossovers promote installation ease and save the cost of outboard crossovers. The 12dB per octave slope offers steep roll-off above/below the selected frequency.

Protection Circuitry

Protects against overload, short circuit, thermal and reverse polarity. These protection features are designed to protect the amplifier from misuse as well as from common causes of amplifier failure.

LED Light

Blue light indicates that the amplifier is working normally. If the light is not illuminated or glowing red please consult the troubleshooting section of the manual.

Specifications

PR AMPLIFIERS	Specifications	PRXA700.5	PRX300.4	PRXA300.2
	RMS Power/CH @ 4Ω	50x4 + 200x1	50x4	100 x 2
	RMS Power/CH @2Ω	75x4 + 400x1	75x4	150 x 2
	RMS Power/CH @ 1Ω	-	-	-
	RMS Power/Bridge 4 Ohms	140x2 + N/A	140x2	300 x 1
	THD	<1%	<1%	<1%
	Signal/Noise Ratio	>80dB	>80dB	>80dB
	Frequency Response ± 0.5dB	20Hz-20kHz/20Hz - 180Hz	20Hz-20kHz	20Hz-20kHz
	Crossover Frequency (HPF)	80 Hz - 1 kHz	80 Hz - 1 kHz	80 Hz - 1 kHz
	Crossover Frequency (LPF)	50 Hz - 250 Hz	50 Hz - 250 Hz	50 Hz - 250 Hz
	Dimensions (in)	16.1 x 7.5 x 2.1	13.2 x 7.5 x 2.1	13.2 x 7.5 x 2.1
	Input Range	200mV - 6V	200mV-6V	200mV - 6V

PR AMPLIFIERS	Specifications	PRXA1500.1	PRXA1000.1	PRXA600.1
	RMS Power/CH @ 4Ω	700x1	400 x 1	250 x 1
	RMS Power/CH @2Ω	1000x1	750 x 1	400 x 1
	RMS Power/CH @ 1Ω	1500 x 1	1000 x 1	600 x 1
	RMS Power/Bridge 4 Ohms	-	-	-
	THD	<1%	<1%	<1%
	Signal/Noise Ratio	>80dB	>80dB	>80dB
	Frequency Response ± 0.5dB	20Hz - 180Hz	20Hz - 180Hz	20Hz - 180Hz
	Crossover Frequency (HPF)	20Hz-50Hz	20Hz-50Hz	20Hz-50Hz
	Crossover Frequency (LPF)	50Hz-180Hz	50Hz-180Hz	50Hz-180Hz
	Dimensions (in)	16.1 x 7.5 x 2.1	13.2 x 7.5 x 2.1	11 x 7.5 x 2.1
	Input Sensitivity	200mV-6V	200mV - 6V	200mV - 6V

*Features and Specifications are subject to change without notice.

Service/Returns

Please consult with your local authorized dealer if you experience issues with your unit. You may also contact Memphis Audio customer service at 800-489-2300 or email tech support directly at: techsupport@memphiscaraudio.com. Do not attempt to return your amplifier directly to us without first calling for a Return Authorization number. Units received without an accompanying Return Authorization number will be processed more slowly. Additionally, you must include a copy of your purchase receipt from an authorized dealer for consideration of in-warranty service, otherwise repair charges will apply. Units received without a receipt will be held for up to 30 days allowing us time to contact you and obtain a copy of the receipt. After 30 days all units will be returned to you unrepai

Installation Information

Memphis Audio recommends the installation of our products to be performed by an Authorized dealer. Attempting an installation project on your own or through an unauthorized source may result in damage to your products and may potentially void your warranty.

Amplifiers are generally mounted in the hatch/trunk area of your car or SUV or behind the seat of most pick up trucks. Select a location that provides adequate ventilation. Avoid mounting the amplifier with fins facing down. Amplifier should be secured using the screws provided.

Warning

For your safety, always inspect the mounting location carefully to ensure you are not drilling into any electrical, hydraulic, fuel or fluid lines. Always check your speaker load with a multi-meter before connecting the amplifier. Connecting any speaker load lower than the rated impedance of the amplifier will result in damage to the amplifier. Damage of this nature is NOT covered under warranty. Please pay close attention to what connections are made to the amplifier.



TIP If you are uncertain or uncomfortable proceeding with your installation, please contact your local authorized Memphis Audio Dealer

Troubleshooting

When troubleshooting your amp, speaker and speaker wires should be tested first.

No Output:

- Confirm all wiring is firmly connected. Both +12V and REM terminals must have +12 Volts present and GND must be connected to chassis' ground or to the negative battery terminal.
- Confirm the signal source is connected and supplying an output signal. To confirm the amp is working, connect an RCA patch cord to the line inputs of the amplifier (do not connect the other end of the patch cord). Briefly tap the center pin of each disconnected RCA with your finger. This should produce a noise (brief static or hum) in the speakers.
- If the amp is hot, check the speaker impedance or load. The total minimum impedance of all speakers should not be lower than the rating of the amp.

Only One Channel Works:

- Confirm the speaker terminal strip connections are firmly connected.
- Check "balance" control on your signal source.
- If using RCA Low-Level inputs, reverse the input plugs at the amplifier. If the channel that is silent reverses position, the problem is in the source unit or connecting cable.

Weak Output

- Check input sensitivity control adjustment.

Unwanted Noise

- Whine that increases and decreases with engine speed - confirm the Amp & Source unit are grounded properly.
- Clicking or popping noise at a rate that follows engine speed - this is often induced by the vehicles ignition system. Confirm that the vehicle is equipped with resistor spark plugs and wires. The ignition system may need service.
- Noise can be caused by routing speaker input wires too close to the light wires and other accessory wires in the vehicle. Re-route wires to avoid unwanted interference.
- If above steps do not improve/reduce noise, the system should be checked by a professional audio installer at a Memphis Authorized Dealer.

Red LED is Illuminated

- Speaker or wire is shorted
- Battery voltage too high
- Battery voltage too low
- Amplifier has overheated due to improper ventilation

Power Supply Connections



Install the fuse at the battery last!



Use conventional stranded copper wire for all connections. Finish the ends of the wires at the amp and vehicle with proper size terminals. Poorly made connections and/or inadequate wire size will generate excessive heat and may lead to equipment failure.

12 Volt + Connection

make the 12V+ connection directly at the positive battery post using the proper wire size and fuse listed below. The fuse should be installed within 18" of the battery. This fuse is vital to protecting the vehicle from damage in the case of a dead short. The fuse value at the battery should be at least equal to the total fuse value of all the amplifiers being used.

Model	Amp Kit	Fuse Value
PRXA300.4	17-8GKIT	60A
PRXA700.5	17-4GKIT	150A
PRXA300.2	17-8GKIT	60A

Model	Amp Kit	Fuse Value
PRXA600.1	17-8GKIT	60A
PRXA1000.1	17-4GKIT	150A
PRXA1500.1	17-4GKIT	150A

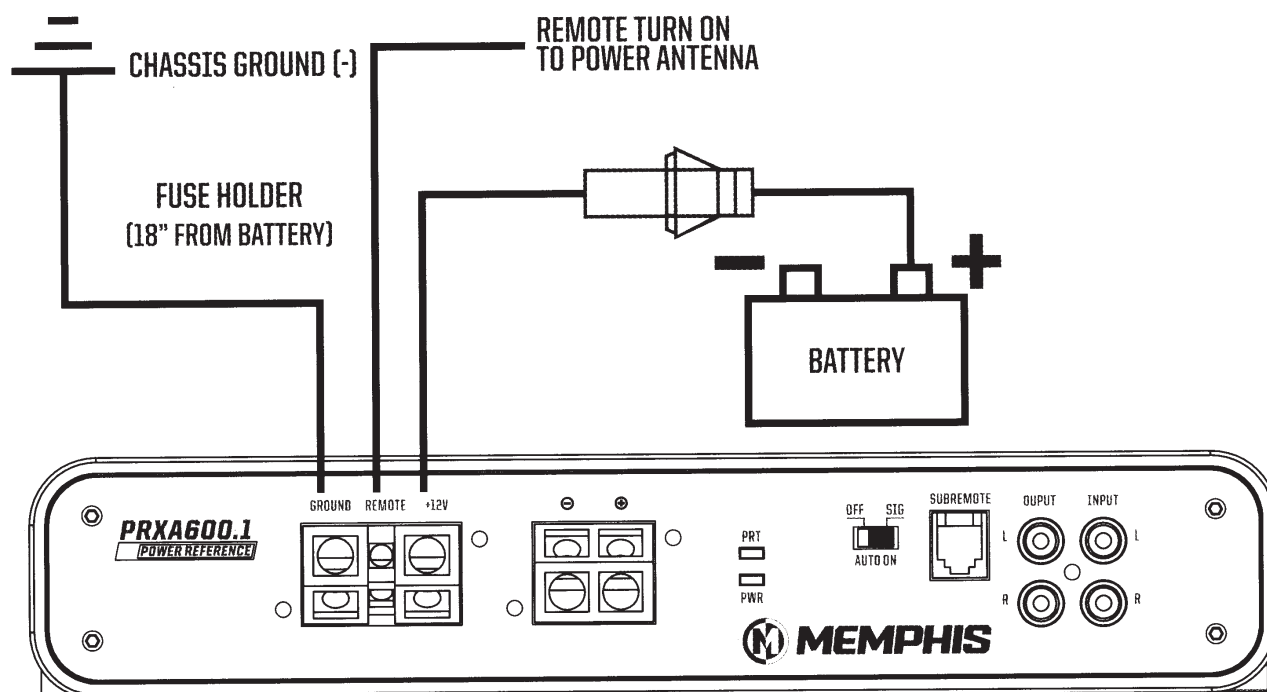
Ground Connection:

Make ground connection directly to the chassis of the vehicle as close to the amp as possible. Make sure this connection is made with the same wire size as used for the 12 volt connection. Ensure that all dirt, grease, paint and coatings are removed prior to attaching the ground wire to chassis.

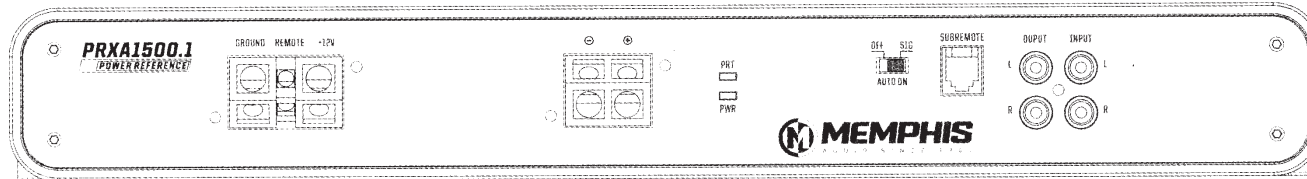
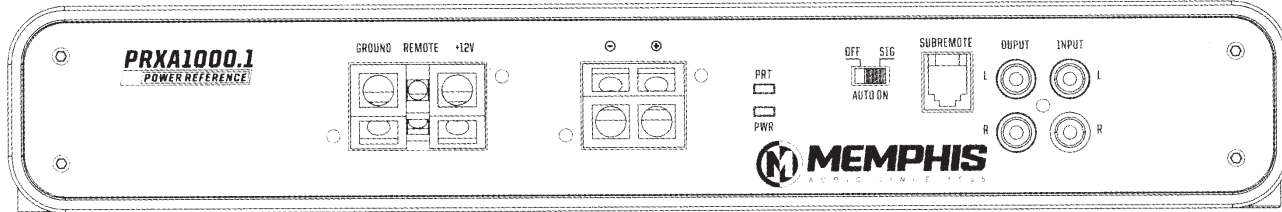
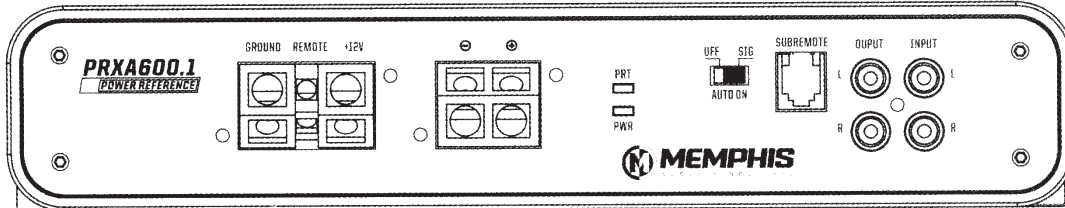
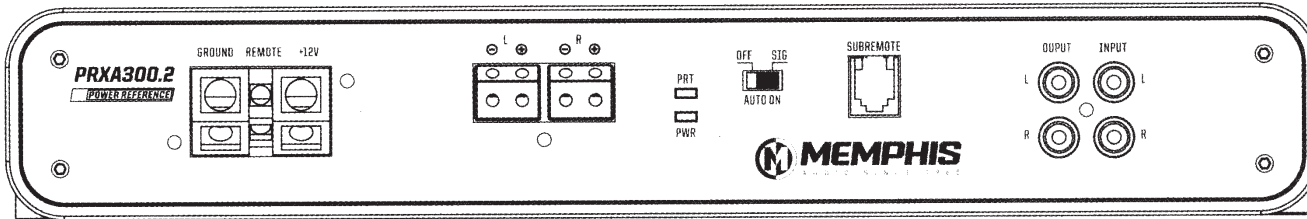
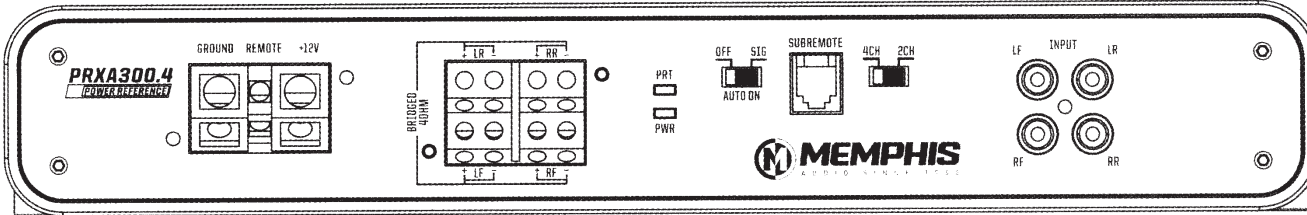
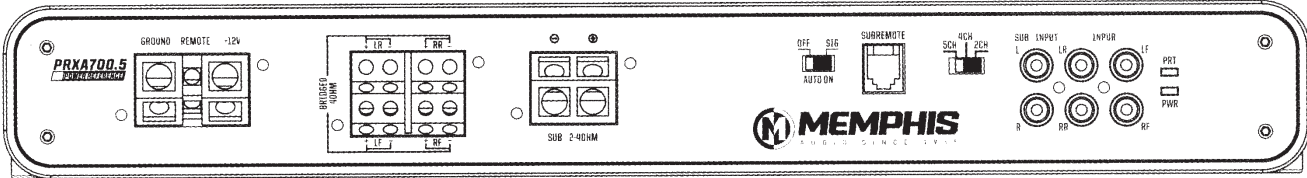
Remote Turn On

Remote turn on should be connected to the source unit's remote turn on lead or power antenna output wire. When using the power antenna wire, make certain it does not lose power when any source other than the radio is selected.

Power Connections



Control View



End Panel Connections

Low Level Output: (MONO Amps) Use this output connection to feed the audio signal to additional amplifiers.

Remote: (all models) Use only "PRX" Remotes for this amplifier model. The adjustment will increase/decrease the output level of the amplifier. The remote controller only operates the rear channels of the PRXA300.4 and only the subwoofer channel of the PRXA700.5.

Input Mode Switch: (PRXA700.5/PRXA300.4) Place the switch on the number of audio inputs being used. If 2CH or 4CH is selected on the PRXA700.5, the subwoofer channel will be provided.

Setup And Adjustment

Gain

The gain control is NOT a volume control. The gain control adjusts the amount of signal required to drive the amplifier to full output. With the gain at full clockwise rotation, less signal voltage is required to drive the amp to full output. With the gain at full counter clockwise rotation, more signal voltage is required to drive the amp to full output. For optimal performance, set the gain control to minimum

High Pass Filter (HPF)

The high pass crossover/filter is designed to remove low frequency information from a speaker. This is generally used to protect smaller devices from trying to reproduce low frequency information that might damage them. The crossover frequency is adjustable from 80 Hz to 1 kHz and uses 12 dB per octave slope. To engage the HPF simply slide the switch to the position on the marked HPF. Crossover frequency selection is made by rotating the dial: clockwise raises the frequency, counter-clockwise lowers the frequency. Most mid-bass or midrange drivers should be set between 80 and 400 Hz depending on how high the subwoofer(s) plays. For mid-range drivers that are 5" or smaller we suggest setting the HPF to 120Hz. The HPF can also be combined with passive crossovers on a separate or coaxial speaker set to provide low frequency protection to the midrange driver, or to form band-pass filter for a midrange speaker already using a passive low-pass filter.

Low Pass Filter (LPF)

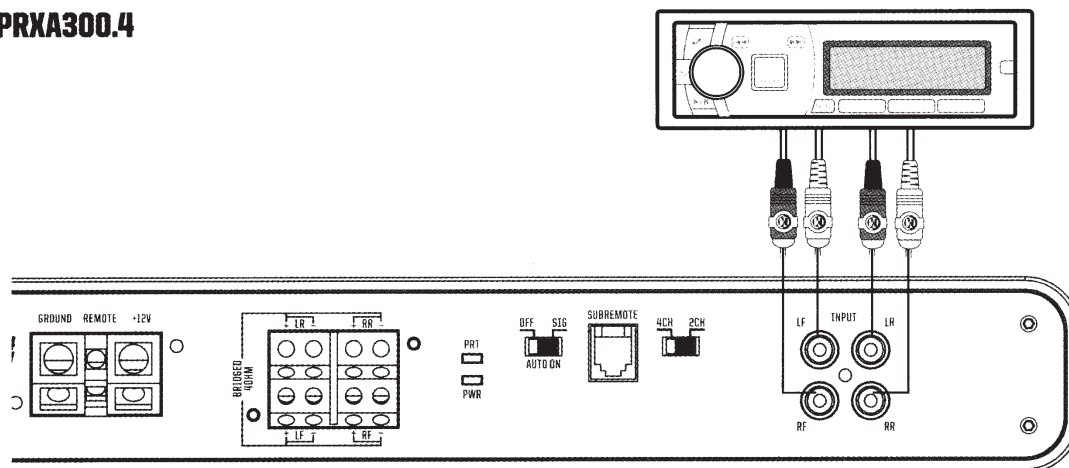
The Lowpass crossover/filter is designed to remove high frequency information from a speaker. This is generally used to prevent mid bass speakers or subwoofers from trying to reproduce mid and high frequency information that they are not designed to reproduce. The crossover frequency is adjustable from 50Hz to 250Hz and uses a 12dB per octave slope. To engage the LPF slide the switch to the position marked LPF. Frequency selection is made by rotating the dial: clockwise raises the frequency and counter clockwise lowers the frequency. Most subwoofers should be set between 80Hz and 100Hz depending on how low the mid-bass or midrange drivers are capable of playing.

Full Range

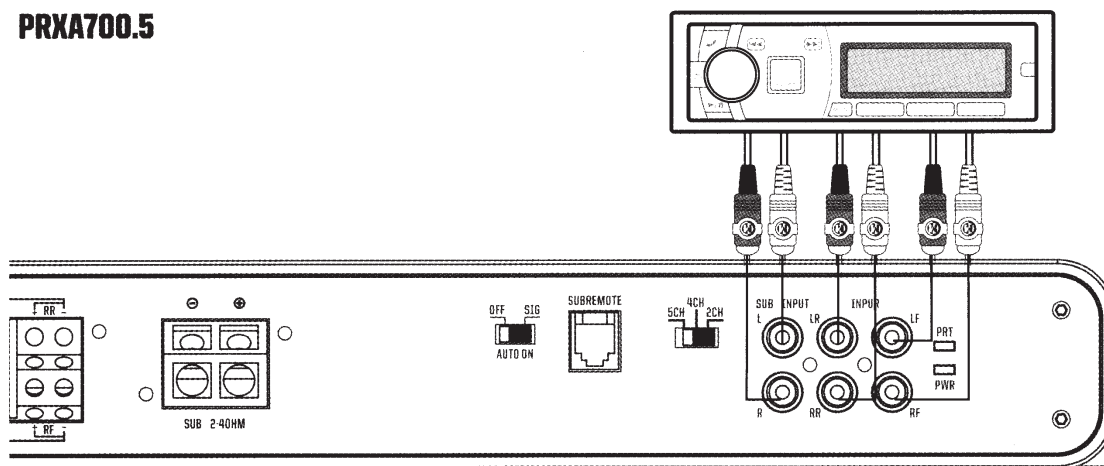
Sliding the selector switch to this position turns off all crossovers and allows a full range signal to pass. The flat position should be selected when using outboard electronic crossovers.

Signal Input Connections

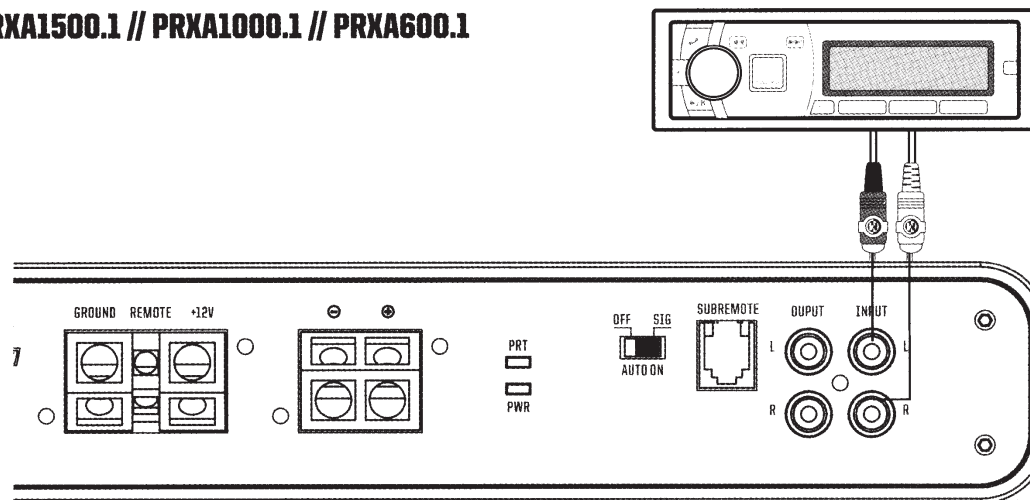
PRXA300.4



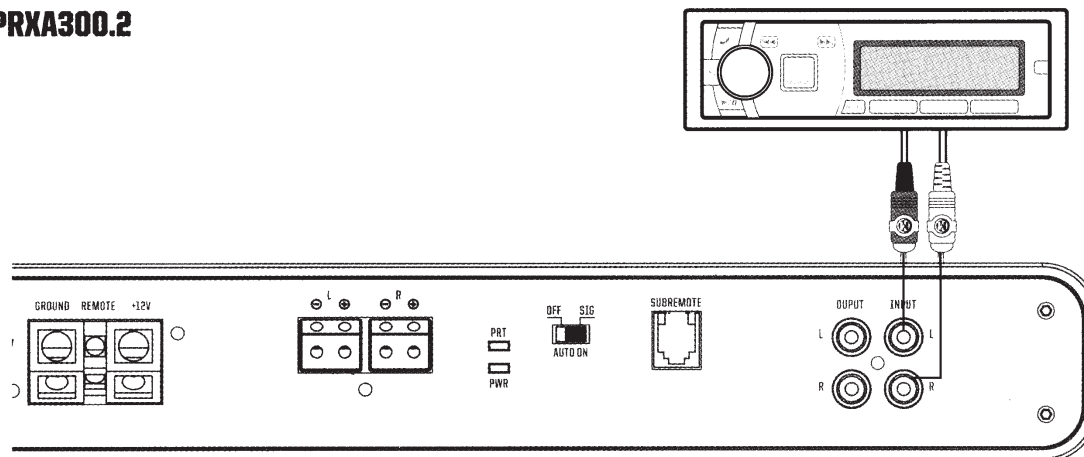
PRXA700.5



PRXA1500.1 // PRXA1000.1 // PRXA600.1



PRXA300.2

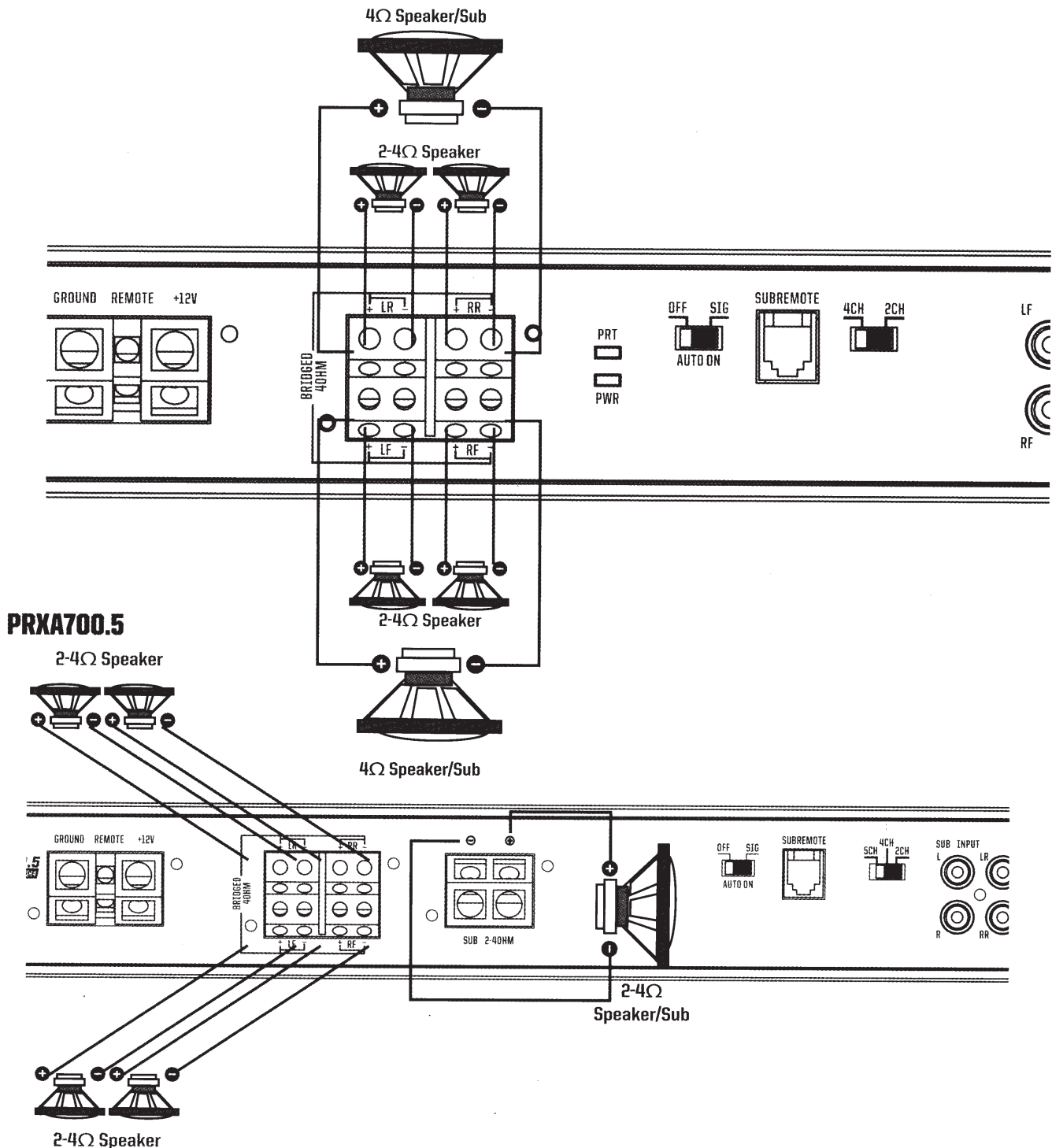


Wiring Multi-Channel Amps

Speakers have a positive and negative marking on the terminals. These are used to indicate polarity and must be considered when wiring speakers or subwoofers to an amplifier. Amplifiers also have positive and negative markings on their speaker outputs. Use these markings to match polarities to ensure the speakers are in phase. Failure to wire speakers or woofers in phase with one another will result in a loss of bass. All street reference amplifiers require a minimum 2ohm impedance in stereo or 4 ohms in mono (bridged) mode.

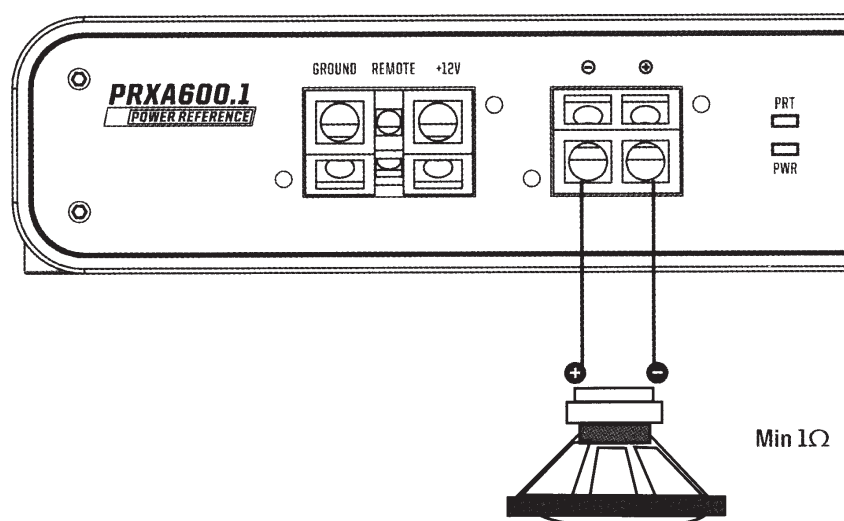


Always check your speaker load with a multi-meter before hooking them up to the amplifier. The PRXA300.4/PRXA300.2 amplifier is stable to 2 ohms stereo or 4 ohms bridged mono. The PRXA700.5 amplifiers are stable to 2 ohms stereo or 4 ohms bridged mono (front & rear channels) and stable to 2 ohms (sub channel). Any Impedance (load) smaller than what is recommended will damage the amplifier! Such damage is not covered under warranty, so pay strict attention to what connections are made to the amplifier.



Wiring Single Channel Amps

PRXA600.1 // 1000.1 // 1500.1



WIRING SUBWOOFERS

When using a single amplifier to power one subwoofer, the positive and negative terminal of the subwoofers voice coil is connected the positive and negative terminal of the Amplifier.



Always check your speaker load with a multi-meter before hooking up to the amplifier. The PRXA600.1, PRXA1000.1, PRXA1500.1 amplifiers are 1 ohm stable. Any Impedance (load) smaller than 1 ohm will damage the amplifier! Such damage is not covered under warranty, so pay strict attention to what connections are made to the amplifier.

SET UP AND ADJUSTMENT

Sensitivity The sensitivity control is NOT a volume control. The sensitivity control adjusts the amount of signal required to drive the amplifier to full output. With the sensitivity at maximum (full clockwise rotation), less signal voltage is required to drive the amp to full output. With the sensitivity at minimum (full counter-clockwise rotation), more signal voltage is required to drive the amp to full output.

Low Pass Filter (LPF) The low pass crossover, or filter, is designed to remove high frequency information from a subwoofer. This is generally used to prevent mid-bass speakers or subwoofers from trying to reproduce mid and high frequency information that they are not designed to reproduce. The crossover frequency is adjustable from 50Hz to 180Hz, and uses a 12dB per octave slope. Frequency selection is made by rotating the dial; clockwise raises the frequency and counter-clockwise lowers the frequency. Most subwoofers should be set between 80 and 100Hz, depending on how low the mid-bass or midrange drivers are capable of playing.

Bass Boost (45Hz) Boost should be used with discretion, keeping in mind that electronically enhanced boost places an additional load on the amplifier and the speakers they are connected to. This control is fully variable from 0 - 12dB.

Infrasonic Filter This filter is fully variable from 20Hz-50Hz and removes unwanted frequencies below the frequency selection. This filter is most useful with subwoofers loaded in a ported enclosure, which helps prevent unloading (rapid loss of power handling below the port tuned frequency).

WARRANTY

Memphis Audio Power Reference Amplifier Limited Warranty

This product has a one year warranty from the date of purchase for defects in material or workmanship. This warranty will be extended to 2 years when installed by a Memphis authorized dealer using Memphis Connection products. The warranty is void if the product has been physically damaged by improper usage or abuse. If repairs are attempted outside of a Memphis Audio facility, the warranty is void.

This warranty is limited to the original retail purchaser and does not cover any expenses incurred in the removal or re-installation of the product. This warranty does NOT apply to product exterior and cosmetics. Memphis Audio disclaims any liability for incidental or consequential damages caused by product defects. Memphis Audio liability will not exceed the purchase price of the product and the warranty period specified.

What is NOT covered under warranty

- Damage due to improper installation
- Damage caused by exposure to moisture, excessive heat, chemical cleaners and/or UV radiation
- Damage through negligence, misuse, accident or abuse. (Repeated returns for the same damage may be abuse)
- Product damaged in accident and/or due to criminal activity
- Service performed by anyone other than Memphis Audio
- Subsequent damage to other components
- Any cost or expense related to the removal or re-installation of product
- Products with tampered, missing, altered or defaced serial numbers/labels
- Freight damage
- The cost of shipping product to Memphis Audio
- Return shipping on non-defective items
- Any product not purchased from an authorized Memphis Audio dealer

Some states do not allow the exclusion or limitation of incidental or consequential damages. The above limitations or exclusions may not apply to you. This warranty gives you specific rights, you may have other rights which vary from state to state.

If warranty service is required, a return authorization number is required to return the product to Memphis Audio. Warranty shipments to Memphis Audio are the responsibility of the purchaser. Pack the product carefully in the original carton if possible. Memphis Audio will not be responsible for damages incurred in shipment or due to improper packaging materials used by the purchaser.

If determined to be within warranty your product will be repaired or replaced at the discretion of Memphis Audio.

MEMPHIS



CONTACT INFO



**122 GAYOSO AVE
MEMPHIS, TN USA 38101**



**TECH SUPPORT
800-903-6979**

SHOW US YOUR INSTALL



WWW.MEMPHISCARAUDIO.USA



@MEMPHISCARAUDIO



@MEMPHISCARAUDIOUSA



CERTIFIED POWER

740W

TOTAL MAXIMUM POWER OUTPUT (watts)

PASSED

TOTAL HARMONIC DISTORTION TEST

PASSED

SIGNAL-TO-NOISE RATIO TEST

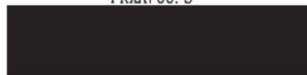
PASSED

PROTECTION CIRCUIT TEST

PRXA700. 5

MODEL NUMBER

PRXA700. 5



SERIAL NUMBER

20187 4A 29B

DATE TESTED



Power Reference Amplifier Warranty

Memphis Audio offers a limited warranty on Memphis Audio products on the following terms:

Length of Warranty

Memphis Audio warranties this product for defects in material or workmanship for 2 years from the date of purchase when installed by an authorized Memphis Audio Dealer using Memphis Connection. If installed by an authorized Memphis Audio Dealer without using Memphis Connection the warranty is 1 year. If purchased from but not installed by an authorized dealer, the warranty is a year. This warranty is void if the product has been physically damaged by improper use or abuse, or if repairs have been attempted outside of a Memphis Audio repair facility.

What Is Covered

This warranty applies only to Memphis Audio products sold to consumers by Authorized Memphis Audio Dealers in the United States of America or its possessions.

Who Is Covered

This warranty covers only the original purchaser of Memphis Audio product purchased from an Authorized Memphis Audio Dealer in the United States. In order to receive service, the purchaser must provide Memphis Audio with a copy of the receipt stating the consumer name, dealer name, product purchased, and date of purchase.

Products found to be defective during the warranty period will be repaired or replaced (with a product deemed to be equivalent) at Memphis Audio's discretion.

What Is Not Covered

1. Damage caused by accident, abuse, improper operation or installation, water, theft, shipping.
2. Any cost or expense related to the removal or reinstallation of product.
3. Service performed by anyone other than Memphis Audio.
4. Any product which has had the serial number defaced, altered, or removed.
5. Subsequent damage to other components.
6. Any product purchased outside the US.
7. Any product not purchased from an authorized Memphis Audio Dealer.

Limit on Implied Warranties

Any implied warranties including warranties of fitness for use and merchantability are limited in duration to the period of the express warranty set forth above. Some states do not allow limitations on the length of an implied warranty, so this limitation may not apply. No person is authorized to assume for Memphis Audio any other liability in connection with the sale of the product.

EU Warranty

This product meets the current EU warranty requirements. See your Authorized dealer for details.

How To Obtain Service

Contact the Authorized Memphis Audio Dealer you purchased this product from.

If you need further assistance, call 1-800-489-2300 for Memphis Audio's Customer Service.

YOU MUST OBTAIN A RETURN AUTHORIZATION (RA#) TO RETURN ANY PRODUCT TO MEMPHIS AUDIO'S WARRANTY FACILITY. NO PRODUCT WILL BE ACCEPTED WITHOUT THIS RETURN AUTHORIZATION!

You are responsible for shipment of product to Memphis Audio. Repaired and replaced product will be returned freight prepaid.

FOR MORE INFORMATION, PLEASE VISIT: WWW.MEMPHISCARAUDIO.COM

Established 1965, Memphis, TN USA