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**PLA2378 - PLA2678 - PLA2978 - PLA4278  
PLA4478 - PLA1800 - PLA3100D - PLA4600D**

**High Speed Car Amplifier**

# **USER GUIDE**

## **About PyleUSA**

Pyle, founded in the 1960s, has evolved into a renowned manufacturer of high-quality advanced woofers. Our journey started with the iconic Pyle Driver, becoming a household name in original speakers. In the late 20th century, we expanded into replacement speakers, car audio, home audio, marine audio, and professional audio & musical instruments with our Pyle Pro line.

### **Pyle Car:**

Transform your car into a perfect listening environment with our competitively priced speakers, amplifiers, and head units. Upgrade from factory speakers to enhance your music experience. Explore accessories like navigation systems, DVD players, iPod interfaces, and safety-focused cameras.

### **Pyle Home:**

Discover a range of home entertainment products, including projectors, TVs, mounts, stands, and HD technology. Pyle Home offers bass-expanding mini speakers, headphones, vintage turntables, power amplifiers, horn speakers, and more for an enriched media experience at home and on the go.

### **Pyle Pro:**

As the leading source of audio equipment worldwide, Pyle Pro caters to musicians, studio engineers, and amateurs. Our PA Systems, featuring wireless microphones, rechargeable batteries, and iPod/iPhone docks, are ideal for various events. Explore our emerging guitar line, effects pedals, and USB-to-analog converters without compromising on quality.

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**READ ALL INSTRUCTIONS CAREFULLY BEFORE USING THIS PRODUCT.**

**RETAIN THIS OWNER'S MANUAL FOR FUTURE REFERENCE.**

## California Prop 65 Warning



### **WARNING:**

This product may expose you to chemicals, which is known to the state of California to cause cancer, birth defects and other reproductive harm. Do not ingest.

For more info go to: [www.P65warnings.ca.gov](http://www.P65warnings.ca.gov)

## **Congratulations on purchasing the High-Speed Power Amplifier!**

*This amplifier has been designed with the latest electronic technology to deliver high-quality stereo reproduction for mobile applications.*

*It features low harmonic distortion, substantial reserve voltage, and excellent temperature stability.*

*Enjoy the perfect sound that this amplifier brings to you!*

## **INSTALLATION**

- Since the amplifier is sensitive to electrical and motor noise, it may affect your radio reception. Try to mount it at least 3 feet away from the receiver.  
Good locations include under a seat, in the trunk, or the hatch area.
- This is a high-power unit that generates significant electrical energy and heat. Be sure to install it in a location with sufficient airflow, minimal dust, and no moisture. Leave enough space around the cooling fins to allow proper air circulation.
- Never mount the amplifier in a location subject to direct sunlight or moisture. Ensure that it is mounted securely to a solid surface that can withstand sudden stops or accidents.
- If mounting on a side wall, position the cooling fins vertically. Do not mount the amplifier on the bottom of a rear deck with the fins facing down, as the heat will radiate back into the amplifier. Leave enough room on either side for wire connections and control adjustments. If you have a subwoofer box, you can mount the amplifier on the outside of the box.

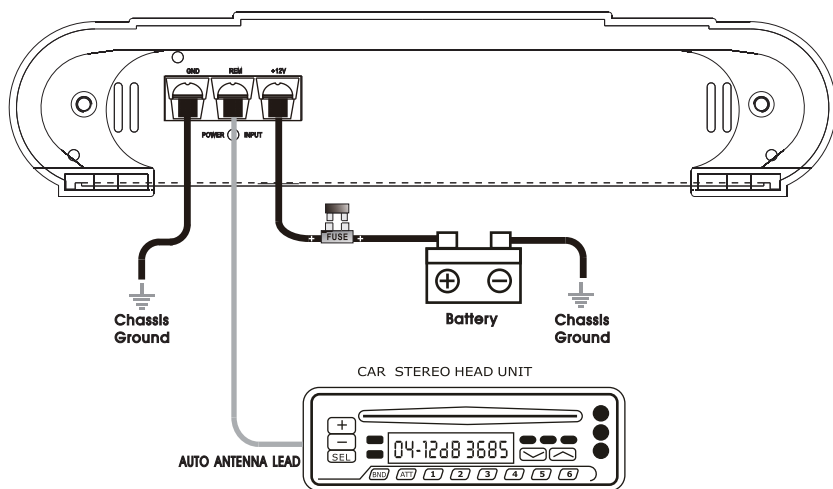
### **Caution:**

If mounting the amplifier to the vehicle's floor, check underneath the car to ensure that the screws will not puncture a brake or gas line.

### **WARNING:**

Continuous exposure to sound pressure levels over 100dB may cause permanent hearing loss. High-power autosound systems may produce sound pressure levels well over 130dB. Use common sense and practice safe listening habits!

## POWER CONNECTION

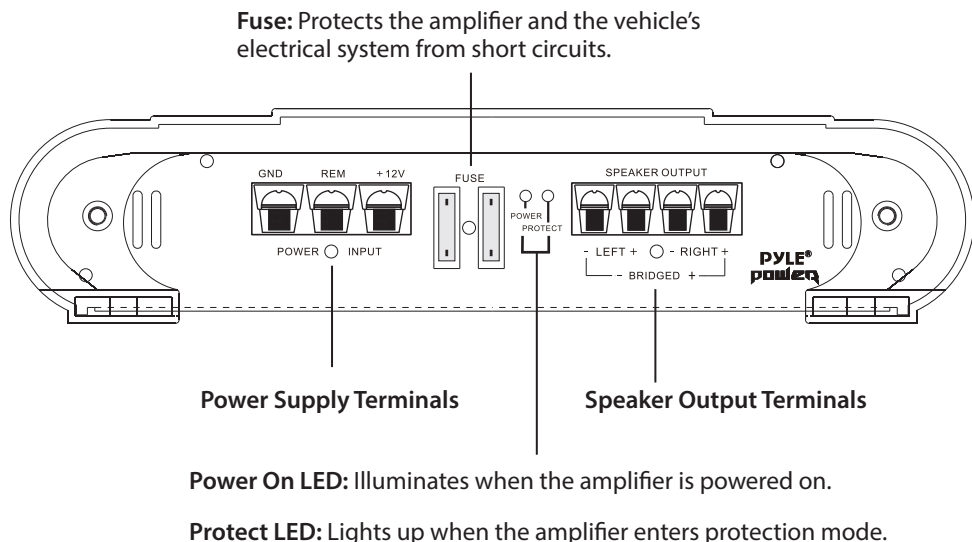
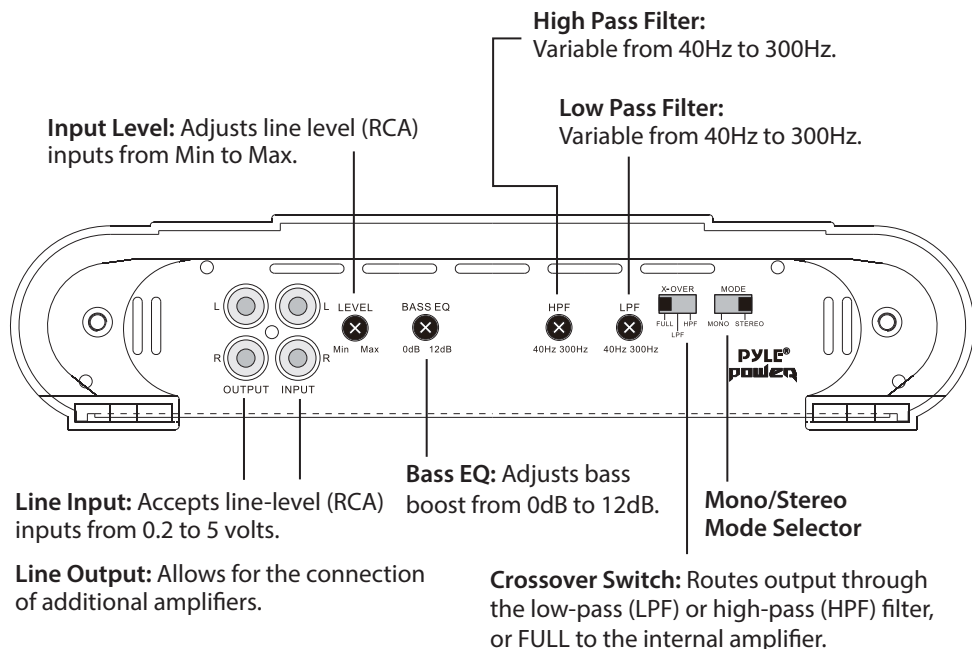


**IMPORTANT:** Before making any connections, disconnect the car's battery to avoid possible damage to the electrical system.

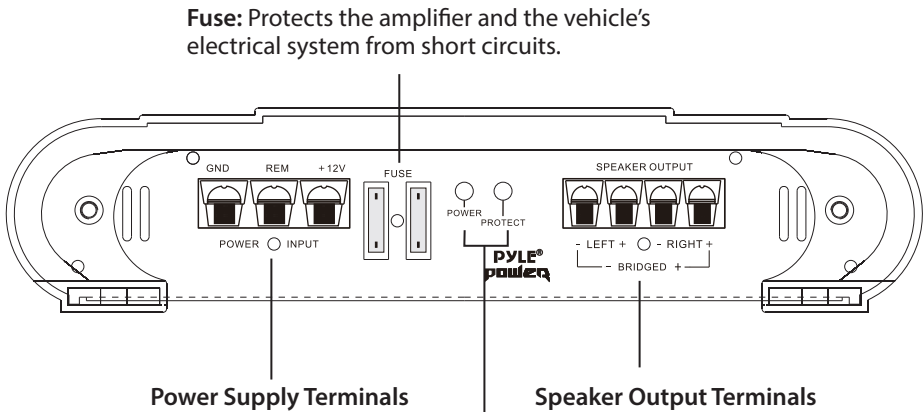
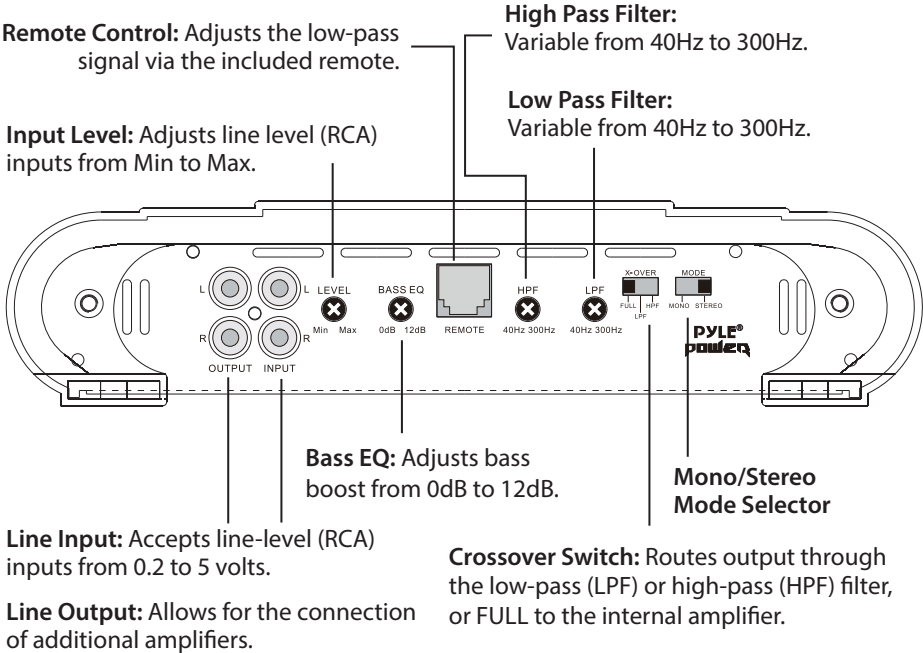
- The +12V DC power cable should be heavy-gauge, stranded copper wire with heavy insulation, as it draws power directly from the positive battery terminal. The cable gauge should be at least 10mm<sup>2</sup>, and the ground cable should be the same gauge.
- Connect the +12V power terminal to the battery's positive terminal. Install an in-line fuse in the +12V power cable near the battery (less than 50mm away). Without a fuse, an accidental short circuit could cause a fire and damage your amplifier. Do not install the fuse at this time.
- Connect the GROUND power terminal to the car's chassis or battery's negative terminal. Ensure all paint or insulation is removed from the grounding point, and securely fasten the wire using a self-tapping screw. Keep the ground cable as short as possible.
- If your radio has a remote turn-on feature, connect its output terminal to the amplifier's REM control jack. If the radio lacks this feature, connect the REM terminal to an external switch for +12V ON/OFF control.
- To minimize interference, run power cables on the opposite side of the car from the audio cables.

**Caution:** The power cables must be tightly connected. Loose connections may cause malfunctions, interference, or distortion.

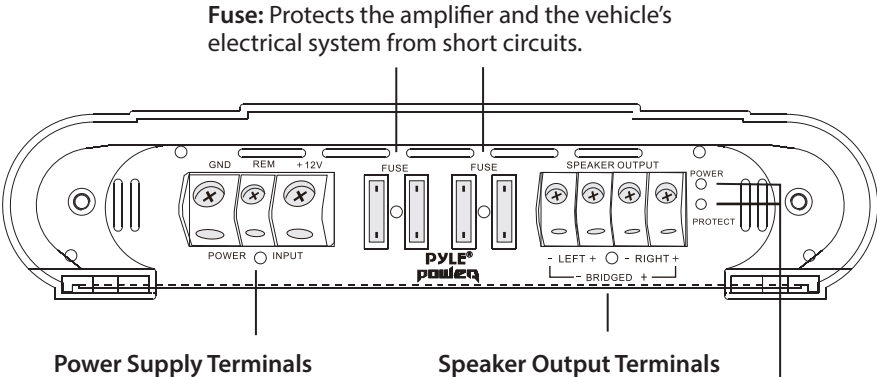
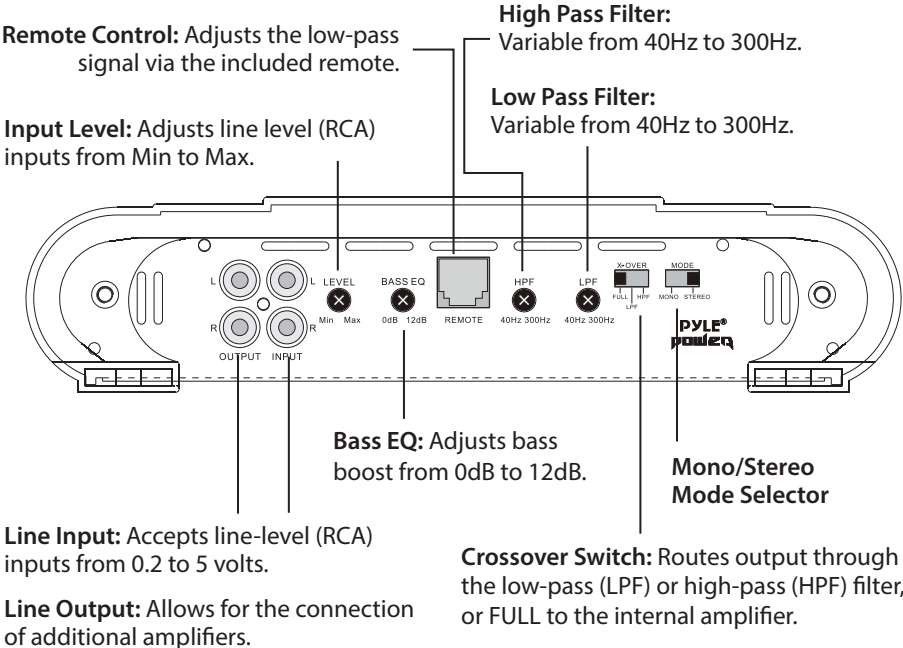
## 2 CHANNEL AMPLIFIER — FEATURES (PLA2378)



2 CHANNEL AMPLIFIER — FEATURES (PLA2678)



2 CHANNEL AMPLIFIER — FEATURES (PLA2978)

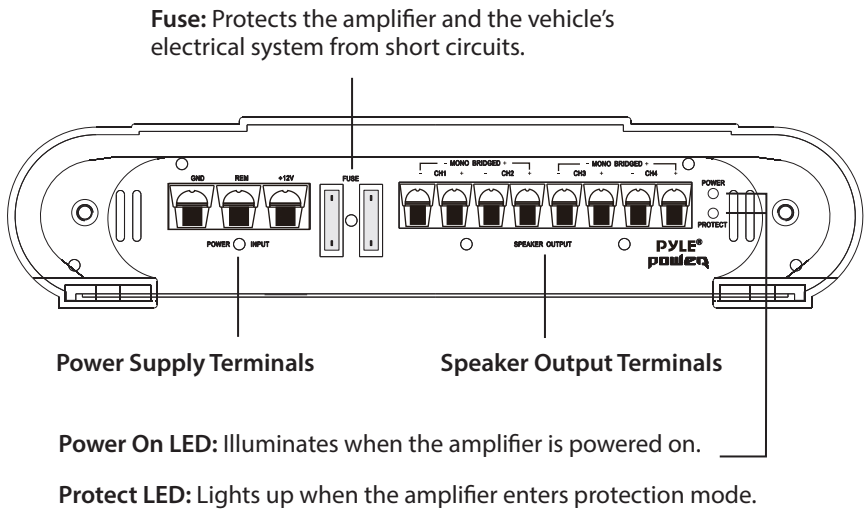
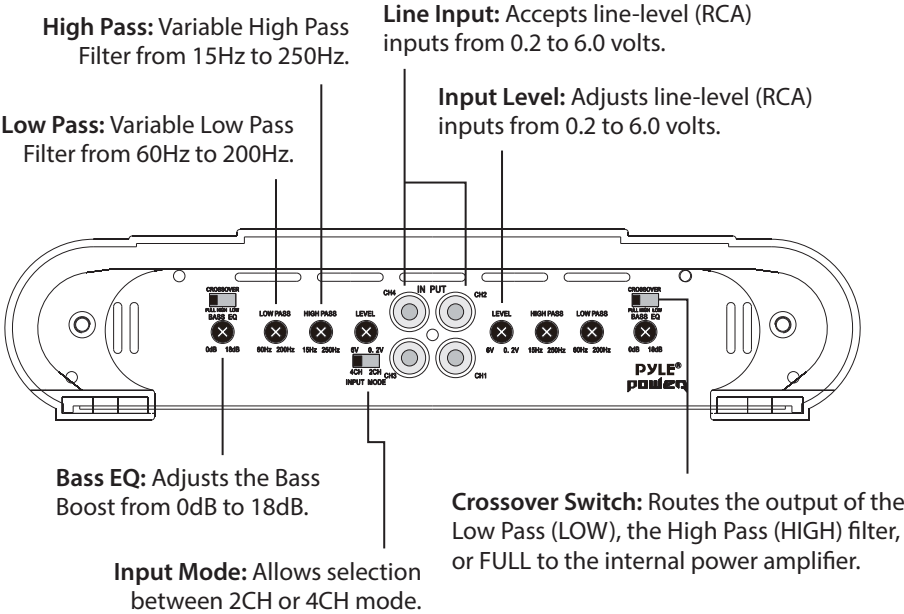


**Power On LED:** Illuminates when the amplifier is powered on.

**Protect LED:** Lights up when the amplifier enters protection mode.



4 CHANNEL AMPLIFIER — FEATURES (PLA4278/PLA4478)



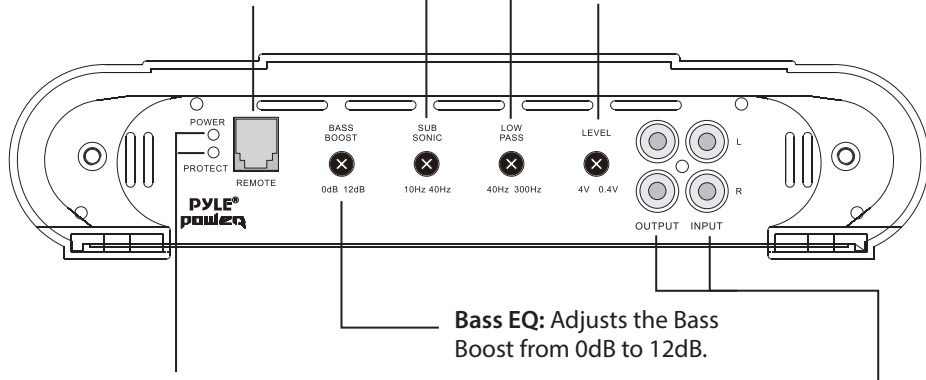
## MONO CHANNEL AMPLIFIER — FEATURES (PLA1800)

**Subsonic Filter:** Sets the lower cutoff frequency, variable from 10Hz to 40Hz.

**Remote Control:** Adjusts the low pass signal via the enclosed remote control.

**Low Pass:** Variable Low Pass Filter from 40Hz to 300Hz.

**Input Level:** Accepts line-level (RCA) inputs from 0.4 to 4 volts.



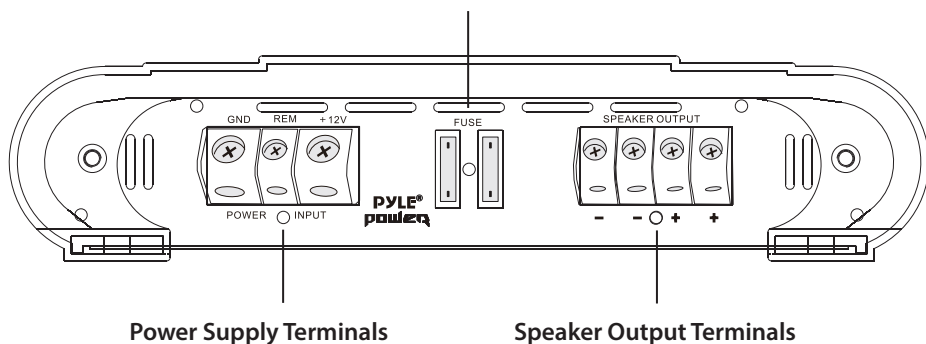
**Power On LED:** Illuminates when the amplifier is powered on.

**Protect LED:** Lights up when the amplifier enters protection mode.

**Line Input:** Accepts line-level (RCA) inputs from 0.4 to 4 volts.

**Line Output:** Allows connection of additional amplifiers.

**Fuse:** Protects the amplifier and the vehicle's electrical system from short circuits.



Power Supply Terminals

Speaker Output Terminals

# MONO CHANNEL AMPLIFIER — FEATURES (PLA3100D/PLA4600D)

**Remote Control:** Adjusts the low pass signal via the enclosed remote control.

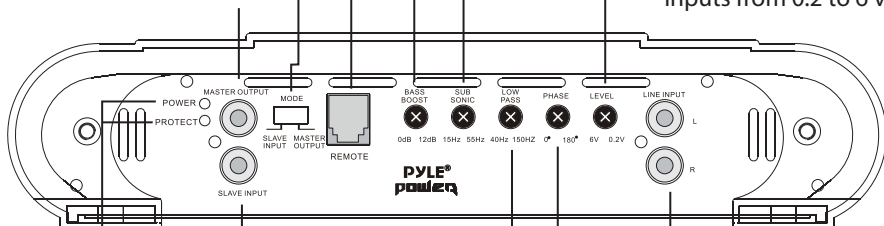
**Mode:** Allows you to select either the MASTER OUTPUT mode or SLAVE INPUT.

**Master Output:** Allows connection of additional amplifiers.

**Bass EQ:** Adjusts the Bass Boost from 0dB to 12dB.

**Subsonic Filter:** Sets the lower cutoff frequency, variable from 15Hz to 55Hz.

**Input Level:** Accepts line-level (RCA) inputs from 0.2 to 6 volts.



**Slave Input:** Accepts line-level (RCA) inputs from the master output.

**Line Input:** Accepts line-level (RCA) inputs from 0.2 to 6 volts.

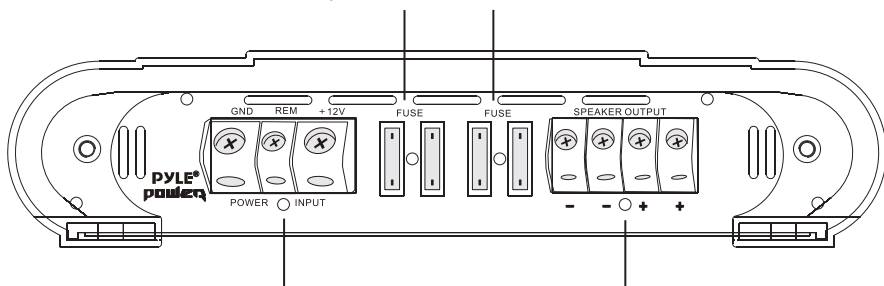
**Power On LED:** Illuminates when the amplifier is powered on.

**Protect LED:** Lights up when the amplifier enters protection mode.

**Phase Shift:** Allows adjustment between 0° and 180°.

**Low Pass:** Variable Low Pass Filter from 40Hz to 150Hz.

**Fuse:** Protects the amplifier and the vehicle's electrical system from short circuits.



**Power Supply Terminals**

**Speaker Output Terminals**

## **2 CHANNEL AMPLIFIER — APPLICATIONS**

### **Input Connections**

- This amplifier has RCA connections for low-level inputs, which carry the signal through RCA cables. It is preferred to use low-level inputs to the amplifier if the head unit is equipped with low-level outputs.
- The amplifier also has high input connections for use with radios that do not have line-level outputs.
- Be sure not to use both low- and high-level inputs simultaneously.

### **Speaker Output Connections**

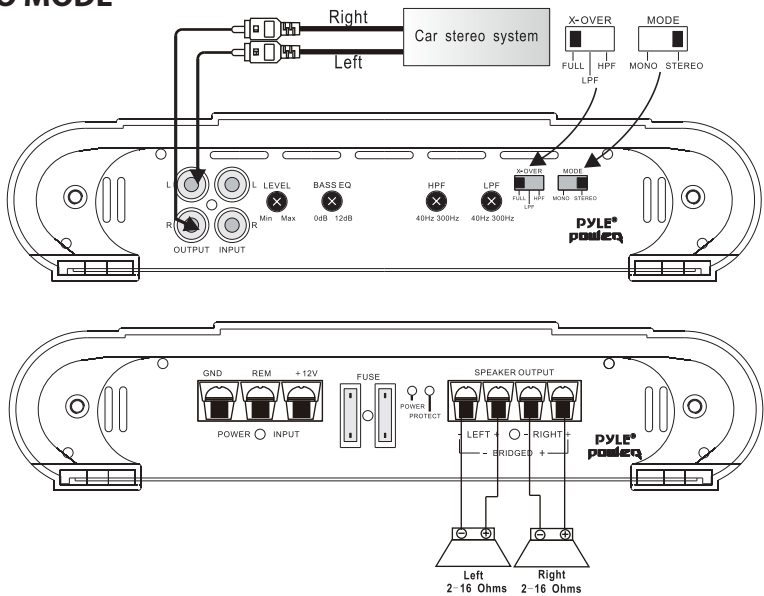
- Connect the right and left speaker wires to the corresponding speaker output terminals of the amplifier.
- Ensure the positive wire from the speaker is connected to the positive speaker terminal of the amplifier, and the negative wire is connected to the negative terminal. Reversing these connections will result in out-of-phase movement, causing bass cancellation.

### **Level Controls**

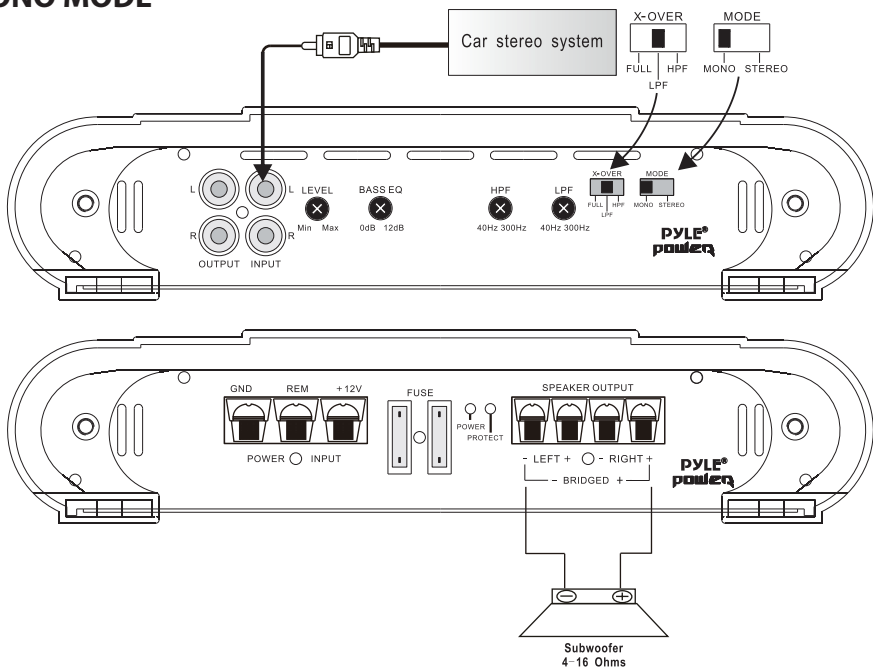
- Turn the VOLUME control on the amplifier to "Min" initially.
- After powering on, set the CD/Radio volume control to approximately 80% of full. Insert a CD or tune to a radio station and gradually turn up the amplifier's VOLUME control until distortion is heard, then back it off for clean sound.

2 CHANNEL AMPLIFIER — APPLICATIONS  
PLA2378 / PLA2678 / PLA2978

STEREO MODE

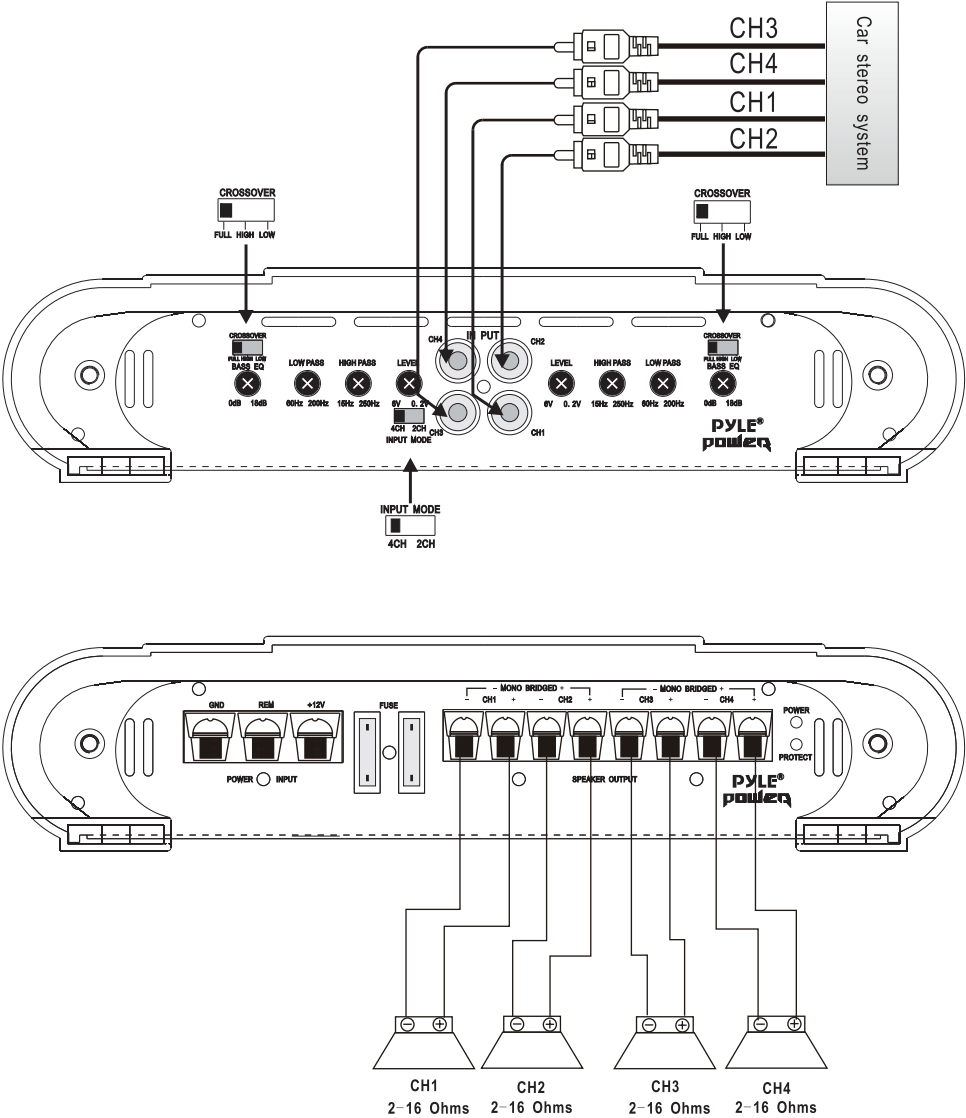


MONO MODE



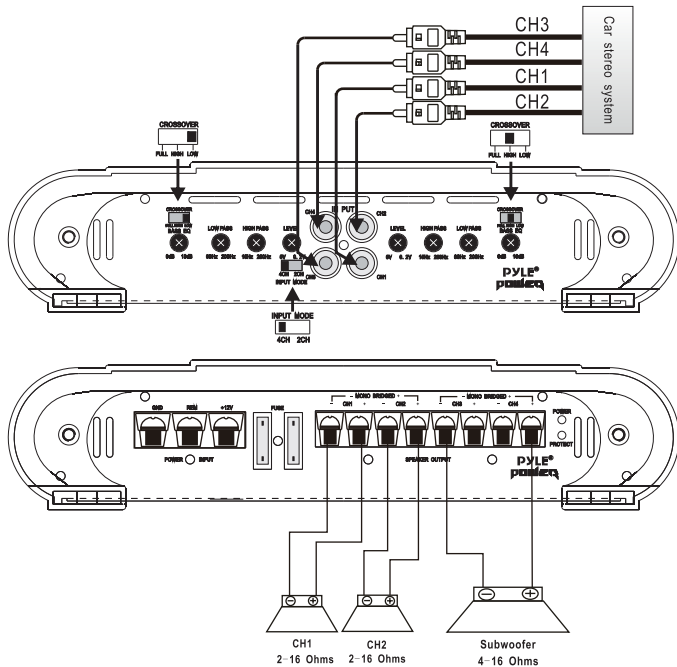
MONO CHANNEL AMPLIFIER — FEATURES (PLA4278/PLA4478)

4-CHANNEL MODE

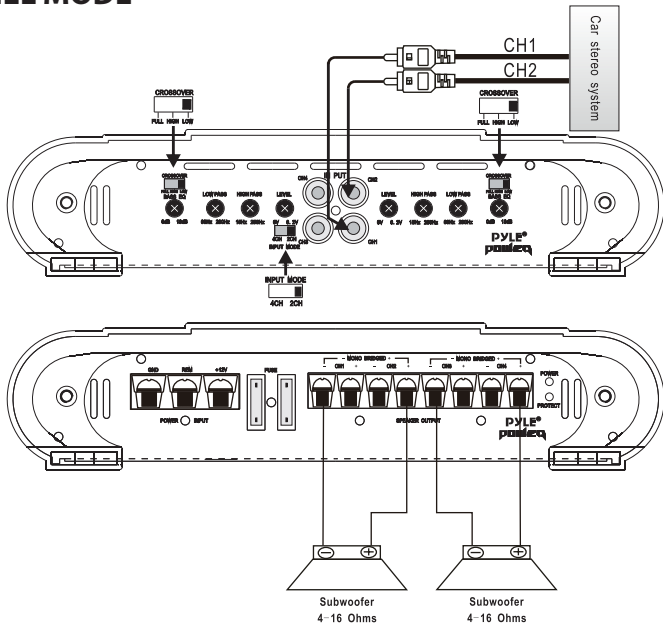


MONO CHANNEL AMPLIFIER — FEATURES (PLA4278/PLA4478)

3-CHANNEL MODE



2-CHANNEL MODE



## **MONO AMPLIFIER — APPLICATIONS**

### **Input Connections**

- This amplifier has RCA connections for low-level inputs.  
Low-level signals are carried through RCA cables. It is preferred to use low-level inputs to the amplifier if the head unit is equipped with low-level outputs.

### **Speaker Output Connections**

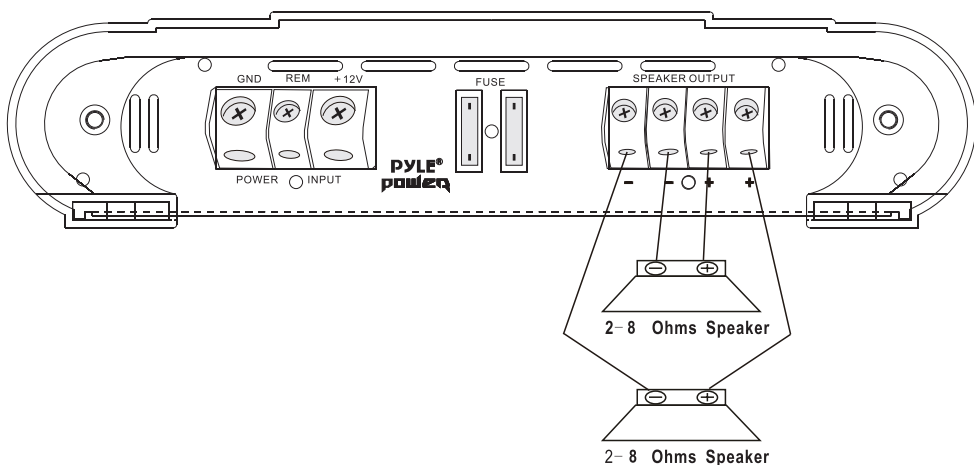
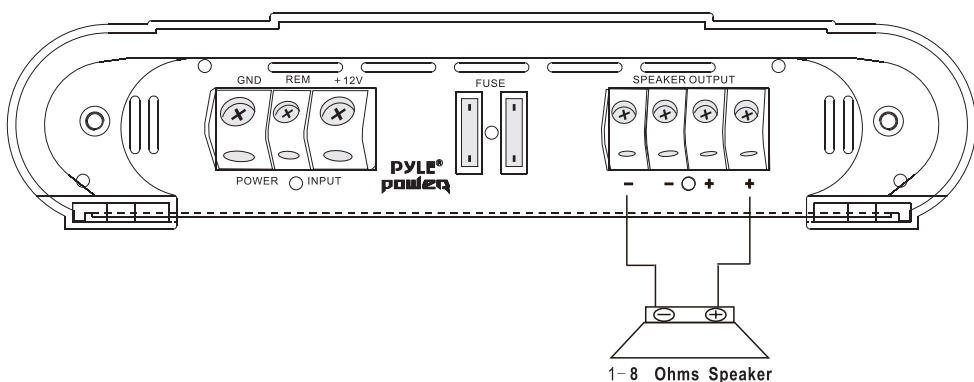
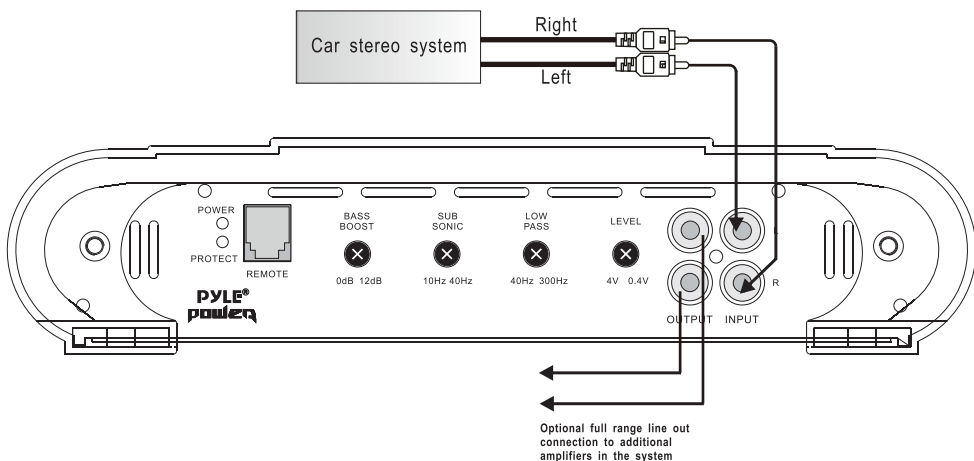
- No adjustment is needed for the input connection of the amplifier before connecting the speaker output.
- Connect the subwoofer wire to the corresponding speaker output terminals of the amplifier.
- Ensure that the positive wire from the speaker connects to the positive terminal of the amplifier, and the negative wire to the negative terminal. Reversing these connections can cause the speaker cones to move out of phase, resulting in bass cancellation.

### **Level Controls**

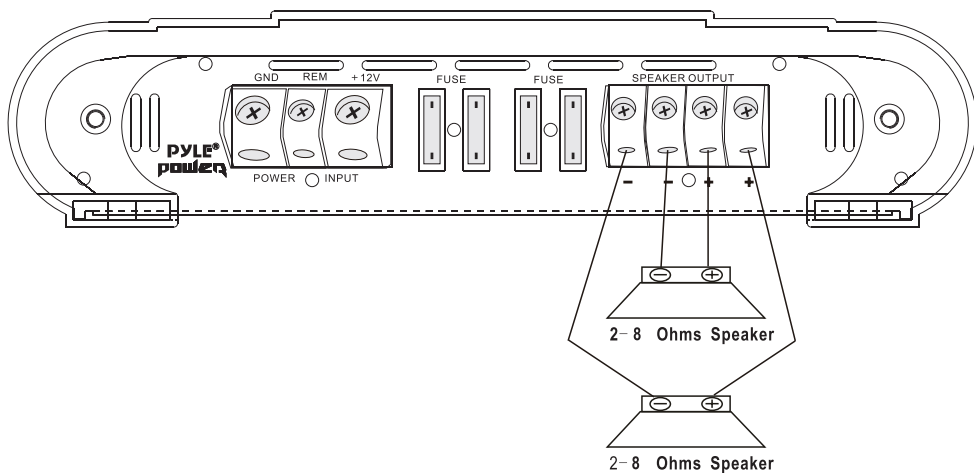
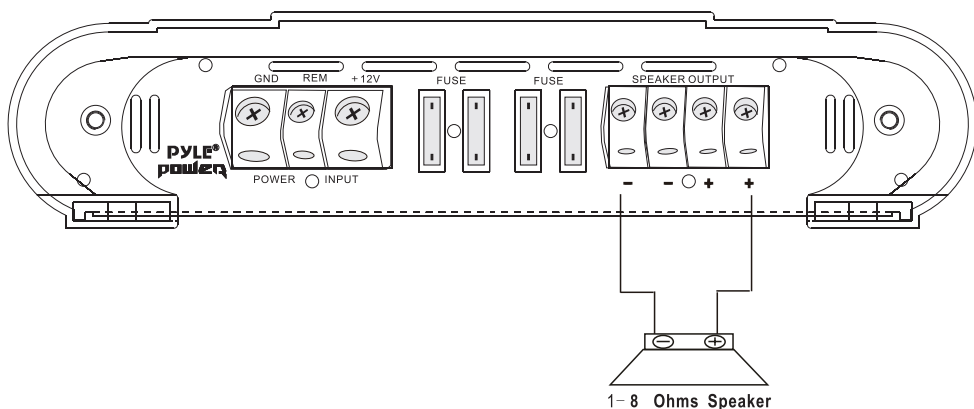
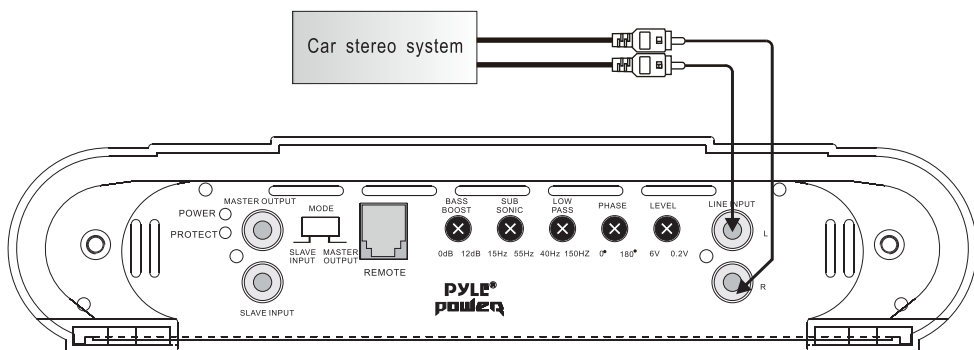
- Initially, set the VOLUME control on the amplifier to minimum.
- After the initial power sequence, set the CD/Radio volume control to roughly 80% of full. Insert a CD or tune to a radio station and gradually increase the amplifier VOLUME control until distortion is heard, then back off slightly for clean sound.



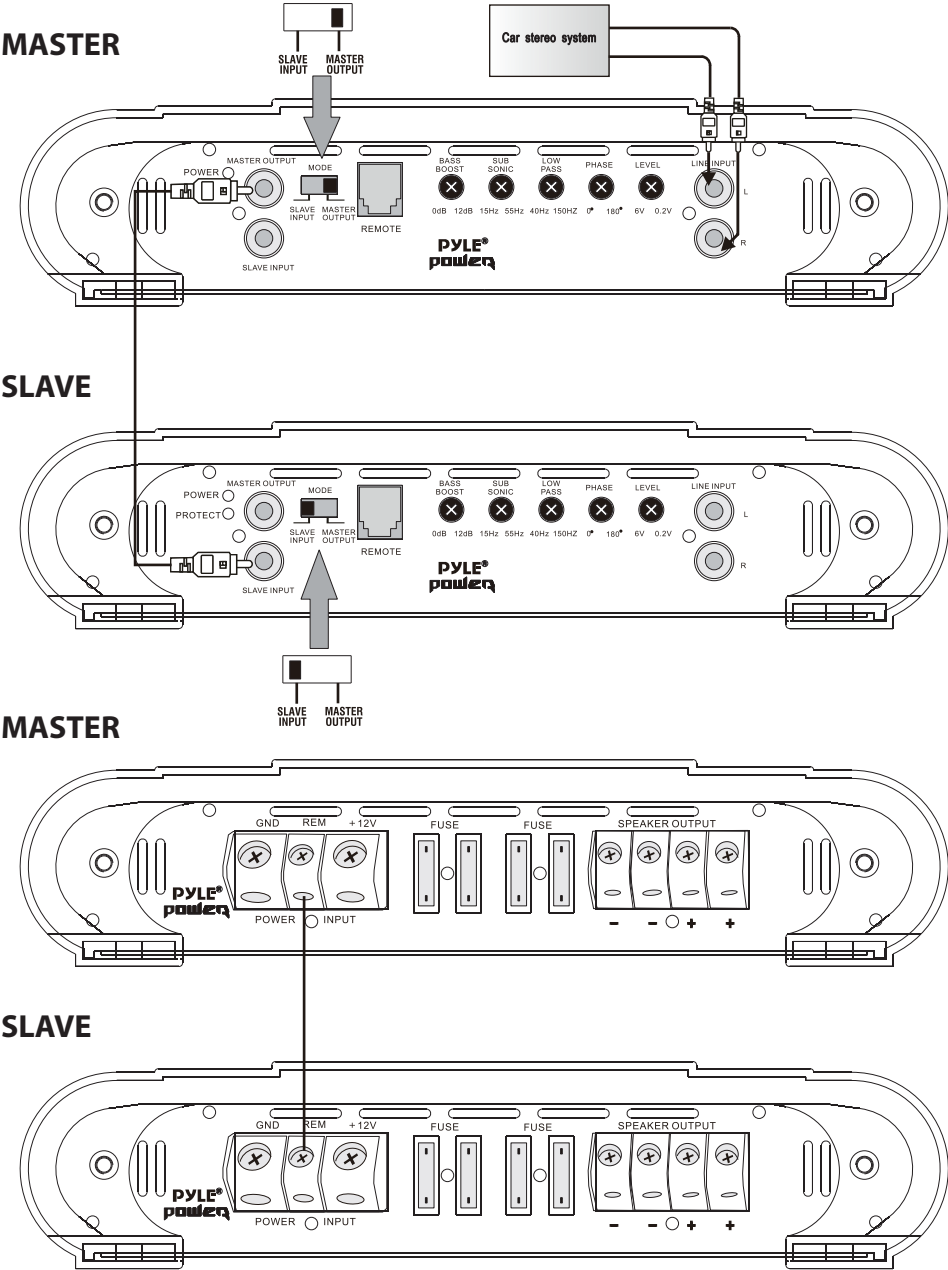
## MONO AMPLIFIER — APPLICATIONS (PLA1800)



## MONO AMPLIFIER — APPLICATIONS (PLA3100D/PLA4600D)



**MONO CHANNEL AMPLIFIER — APPLICATIONS**  
**(PLA3100D / PLA4600D)**  
**MASTER/SLAVE Link**

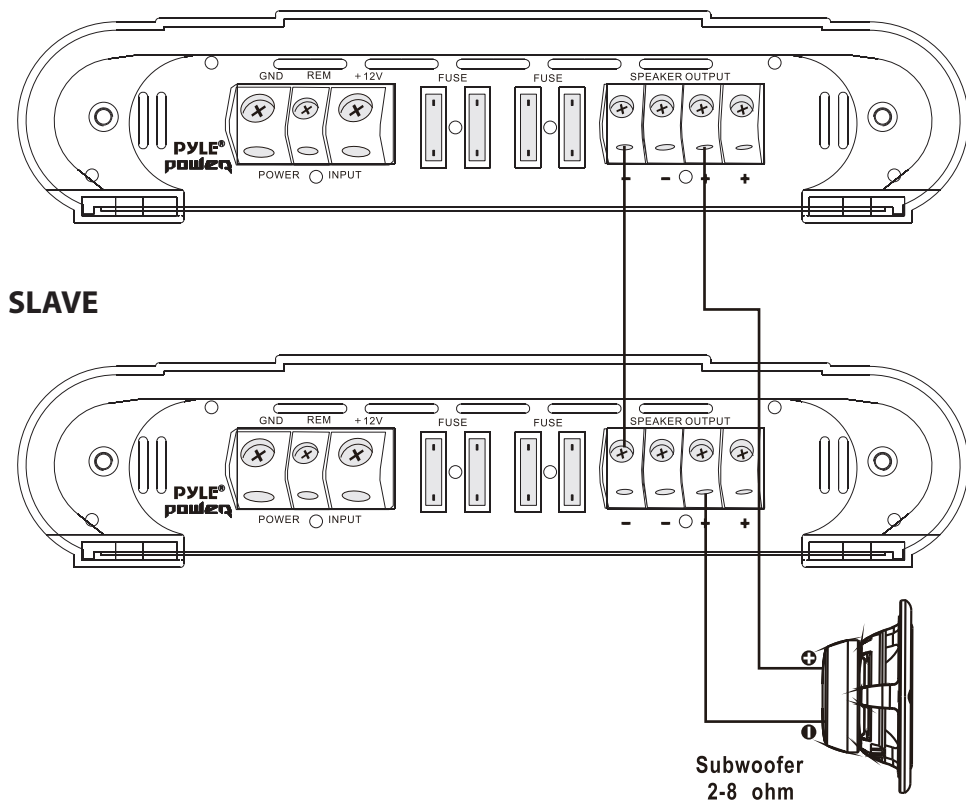


# MONO CHANNEL AMPLIFIER — APPLICATIONS

(PLA3100D / PLA4600D)

## INTERCONNECTION EXAMPLES Subwoofer with a Single Voice Coil

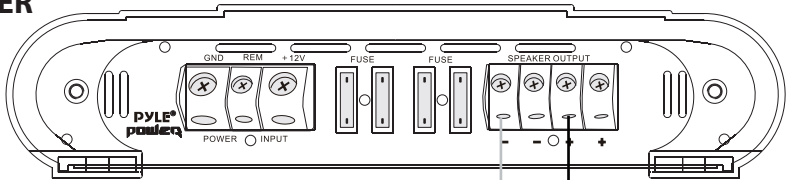
### MASTER



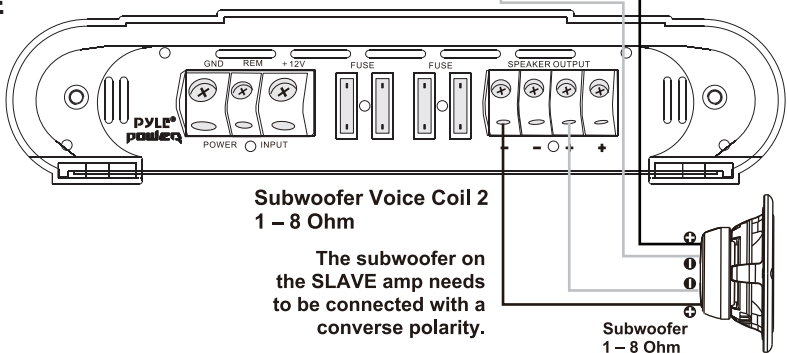
**MONO CHANNEL AMPLIFIER — APPLICATIONS**  
**(PLA3100D / PLA4600D)**

**INTERCONNECTION EXAMPLE Subwoofer with a Dual Voice Coil**

**MASTER**



**SLAVE**



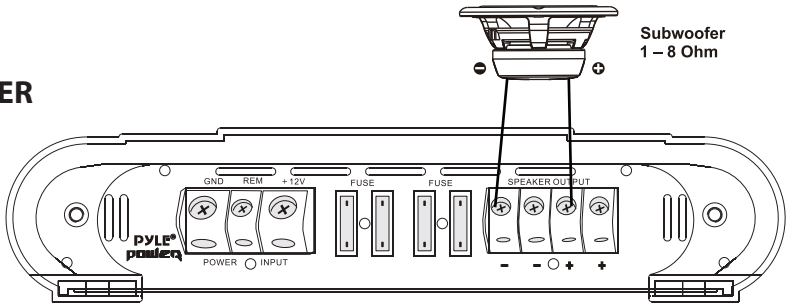
Subwoofer Voice Coil 2  
1 – 8 Ohm

The subwoofer on  
the SLAVE amp needs  
to be connected with a  
converse polarity.

Subwoofer  
1 – 8 Ohm

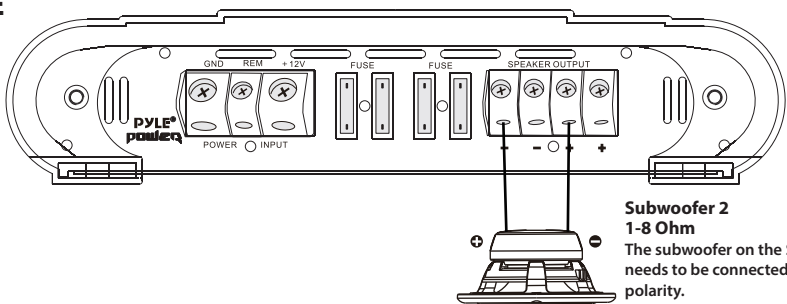
**Subwoofer with a Single Voice Coil (1-8 Ohm)**

**MASTER**



Subwoofer  
1 – 8 Ohm

**SLAVE**



Subwoofer 2  
1-8 Ohm  
The subwoofer on the SLAVE amp  
needs to be connected with reverse  
polarity.

SPECIFICATION

	PLA2378	PLA2678	PLA2978	PLA4278	PLA4478	PLA1800	PLA3100D	PLA4600D
Channels	2	2	2	4	4	1	1	1
Output Power Rating @ 4 Ohms	2×1000W	2×2000W	2×2500W	4×500W	4×1000W	1×300W	1×900W	1×1200W
@ 2 Ohms	—	—	—	—	—	1×500W	1×1200W	1×1800W
@ 1. 3 Ohms	—	—	—	—	—	1×700W	1×1600W	1×2400W
Bridged @ 4 Ohms	1×2000W	1×4000W	1×5000W	2×1000W (2×500W+1×1000W)	2×2000W (2×1000W+1×2000W)	—	—	—
Maximum Power Output	2000W	4000W	5000W	2000W	4000W	2400W	3100W	4600W
Frequency Response	10Hz–50KHz	10Hz–50KHz	10Hz–50KHz	10Hz–50KHz	10Hz–50KHz	10Hz–300Hz	15Hz–150Hz	15Hz–150Hz
Input Sensitivity	0. 2–5. 0V	0. 2–5. 0V	0. 2–5. 0V	0. 2–6. 0V	0. 2–6. 0V	0. 4–4. 0V	0. 2–6. 0V	0. 2–6. 0V
Signal To Noise Ratio	>90dB	>90dB	>90dB	>90dB	>90dB	>95dB	>95dB	>95dB
THD&Noise	<0. 05%	<0. 05%	<0. 05%	<0. 05%	<0. 05%	<0. 01%	<0. 01%	<0. 01%
Low Pass Cross Frequency	40Hz–300Hz	40Hz–300Hz	40Hz–300Hz	60Hz–200Hz	60Hz–200Hz	40Hz–300Hz	40Hz–150Hz	40Hz–150Hz
High Pass Cross Frequency	40Hz–300Hz	40Hz–300Hz	40Hz–300Hz	15Hz–250Hz	15Hz–250Hz	—	—	—
Subsonic Filter	—	—	—	—	—	10Hz–40Hz	15Hz–55Hz	15Hz–55Hz
Bass EQ	0–12dB@45Hz	0–12dB@45Hz	0–12dB@45Hz	0–18dB@45Hz	0–18dB@45Hz	0–12dB@45Hz	0–12dB@45Hz	0–12dB@45Hz
Speaker Impedance	2–16 Ω	2–16 Ω	2–16 Ω	2–16 Ω	2–16 Ω	1–8 Ω	1–8 Ω	1–8 Ω
Fuse Size	2×15A	2×40A	4×30A	2×25A	2×40A	2×30A	4×25A	4×30A
Dimensions (L×H×W) mm	280×56×260	410×56×260	480×56×260	370×56×260	450×56×260	410×56×260	350×56×260	370×56×260

All specifications subject to change without notice.

FCC Caution

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Note:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

The device has been evaluated to meet general RF exposure requirement.  
The device can be used in portable exposure condition without restriction.

#### **- English:**

**This device complies with Industry Canada licence-exempt RSS standard(s).  
Operation is subject to the following two conditions:**

(1) This device may not cause interference, and (2) This device must accept any interference, including interference that may cause undesired operation of the device.

#### **- French:**

L'émetteur/récepteur exempt de licence contenu dans le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempts de licence.

#### **L'exploitation est autorisée aux deux conditions suivantes:**

(1) L'appareil ne doit pas produire de brouillage; (2) L'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

This equipment complies with IC RSS-102 radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

Cet équipement est conforme aux limites d'exposition aux rayonnements IC établies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé avec un minimum de 20cm de distance entre la source de rayonnement et votre corps.

#### ***Register Product***

Thank you for choosing PyleUSA. By registering your product, you ensure that you receive the full benefits of our exclusive warranty and personalized customer support.

Complete the form to access expert support and to keep your PyleUSA purchase in perfect condition.



[PyleUSA.com/register](https://PyleUSA.com/register)

# PYLE<sup>®</sup>

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**We are here to help!**

Phone: 1.718.535.1800

[PyleUSA.com/ContactUs](http://PyleUSA.com/ContactUs)