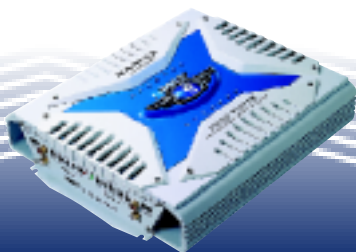


# PYLE®



user's manual



PLMRA220  
PLMRA420

high performance car audio amplifier

# PYLE

## congratulations...

on your purchase of a Pyle Marine Series amplifier. This amplifier extends the Pyle tradition into a totally new series of amps, designed from the ground up to deliver the power, performance and flexibility the modern car audio enthusiast demands.

When you check the list of features offered by the PLMRA220, PLMRA420 you'll know you made the right choice with a Pyle Marine amplifier.

# PYLE

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# PYLE

## general features

### PLMRA220

High Performance 600 Watt 2 Channel  
Bridgeable MOSFET Amplifier

- 300 Watts x 2 Output
- 600 Watts x 1 Bridged Output
- Variable Hi/Lo Electronic Crossover Network
- Variable Bass Boost (0 - +18 dB @ 60Hz)
- Variable Input Level (Gain) Control
- Remote Turn On/Off
- Gold Plated RCA Inputs
- High Level MOLEX Input
- Power ON LED Indicator
- LED Protection Indicator
- S/N Ratio: > 95 dB
- THD: <0.04%
- Thermal Protection
- Overload Protection
- Short Circuit Protection
- Anti-Thump Turn-On
- Blue LED Level Display

### PLMRA420

High Performance 1000 Watt 4 Channel  
Bridgeable MOSFET Amplifier

- 250 Watts x 4 Output
- 500 W x 2 Bridged Output (250 W x 2 + 500 W x 1)
- Dual Variable Hi/Lo Electronic Crossover Network
- Dual Variable Bass Boost (0 - +18 dB @ 60Hz)
- Variable Input Level (Gain) Control
- Remote Turn On/Off
- Gold Plated RCA Inputs
- High Level MOLEX Inputs
- Power ON LED Indicator
- LED Protection Indicator
- S/N Ratio: > 95 dB
- THD: <0.04%
- Thermal Protection
- Overload Protection
- Short Circuit Protection
- Anti-Thump Turn-On
- Tri-Mode Configurable
- Blue LED Level Display

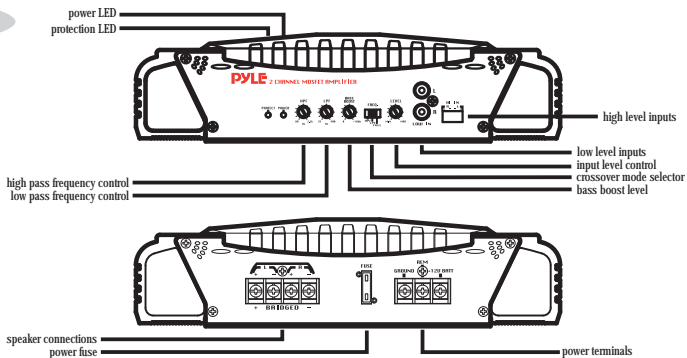
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# PYLE

## features and controls

2 ch amp PLMRA220

PLMRA220



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# PYLE

## features and specifications 2 ch amp PLMRA220

### PLMRA220 2 channel amplifier

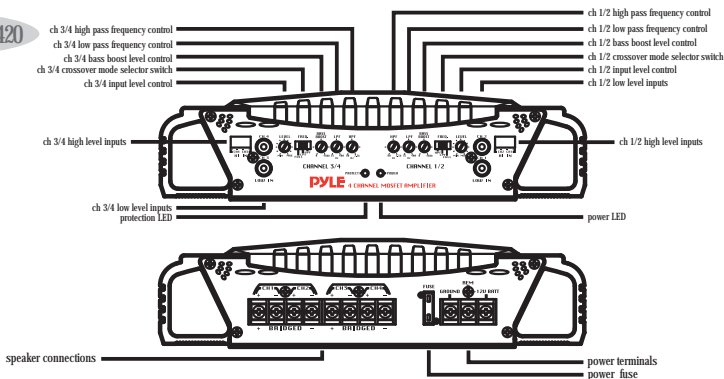
<b>crossover mode selector</b>	when used with normal, full range systems, set this switch to "FULL" if you wish to use the internal crossover to power a driver of specific frequency range, use the "LOWPASS" or "HIGHPASS" settings.
<b>input level control</b>	use this control to match the outputs of your head unit to the amplifier. Starting with your head unit set at about the 2 o'clock position, increase the amp level control until distortion begins to occur, and reduce slightly from this point.
<b>low pass frequency control</b>	when the crossover selector switch is in "low pass" mode, this control sets the upper frequency limit for audio program sent to the speakers.
<b>high pass frequency control</b>	when the crossover selector switch is in "high pass" mode, this control sets the lower frequency limit for audio program sent to the speakers.
<b>bass boost level control</b>	this control permits adjustment of the bass level up to an increase of approximately 18 dB.
<b>low level inputs</b>	this amp features gold-plated RCA input jacks for high impedance input. Use these with car stereo output which uses RCA-type connector cables.
<b>high level inputs</b>	if your car stereo lacks RCA-type output jacks, you may connect speaker output leads to these input connectors.
<b>power LED</b>	this indicator is illuminated when power is applied.
<b>protection LED</b>	this indicator is illuminated when built-in protection circuitry is activated.
<b>power fuse</b>	the fuse protects the amplifier and your car's electrical system from short circuit conditions.
<b>power terminals</b>	use these connectors to deliver power, ground and remote turn-on control to the amplifier.
<b>speaker connections</b>	these terminals are 14K gold plated to guarantee high conductivity and minimum signal loss.

output power @ 14.4v DC, 1KHz	40 Watts x 2
RMS Power @ 4 Ohms	70 Watts x 2
RMS Power @ 2 Ohms	300 Watts x 2
Maximum Power Output	
frequency response	15 Hz-30 KHz
input impedance	
low level inputs	10K Ohms
high level inputs	100 Ohms
input sensitivity	
low level inputs	250mV
high level inputs	2.5V
power supply voltage	14.4V DC Neg. Ground (10.5-16V)
matching speaker impedance	
stereo mode	2-4 Ohms
bridged mode	4-8 Ohms
maximum current draw	15A
dimensions (W x H x L)	
mm	276 x 69.5 x 209
inches	10.9 x 2.7 x 8.25

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# PYLE

## features and specifications 4 ch amp PLMRA420

**PLMRA420****5**

# PYLE

## features and specifications

### 4 ch amp PLMRA420

- crossover mode selector** when used with normal, full range systems, set this switch to "FULL." If you wish to use the internal crossover to power a driver of specific frequency range, use the "LOWPASS" or "HIGHPASS" settings.
- input level control** use this control to match the outputs of your head unit to the amplifier. Starting with your head unit set at about the 2 o'clock position, increase the amp level control until distortion begins to occur, and reduce slightly from this point.
- low pass frequency control** when the crossover selector switch is in "low pass" mode, this control sets the upper frequency limit for audio program sent to the speakers.
- high pass frequency control** when the crossover selector switch is in "high pass" mode, this control sets the lower frequency limit for audio program sent to the speakers.
- bass boost level control** this control permits adjustment of the bass level up to an increase of approximately 18 dB.
- low level inputs** this amp features gold-plated RCA input jacks for high impedance input. Use these with car stereo output which uses RCA-type connector cables.
- high level inputs** if your car stereo lacks RCA-type output jacks, you may connect speaker output leads to these input connectors.
- power LED** this indicator is illuminated when power is applied.
- protection LED** this indicator is illuminated when built-in protection circuitry is activated.
- power fuse** the fuse protects the amplifier and your car's electrical system from short circuit conditions.
- power terminals** use these connectors to deliver power, ground and remote turn-on control to the amplifier.
- speaker connections** these terminals are 14K gold plated to guarantee high conductivity and minimum signal loss.

output power @ 14.4v DC, 1KHz

*RMS Power @ 4 Ohms*  
*RMS Power @ 2 Ohms*  
*Maximum Power Output*

frequency response

input impedance  
*low level inputs*  
*high level inputs*

input sensitivity  
*low level inputs*  
*high level inputs*

power supply voltage

matching speaker impedance  
*stereo mode*  
*bridged mode*

maximum current draw

dimensions (W x H x L)

*mm*  
*inches*

### PLMRA420

4 channel amplifier

*35 Watts x 4*  
*50 Watts x 4*  
*250 Watts x 4*

*15 Hz-30 KHz*

*10K Ohms*  
*100 Ohms*

*250mV*  
*2.5V*

*14.4V DC Neg. Ground (10.5-16V)*

*2-4 Ohms*

*4-8 Ohms*

*20A*

*276 x 69.5 x 305*  
*10.9 x 2.7 x 12*

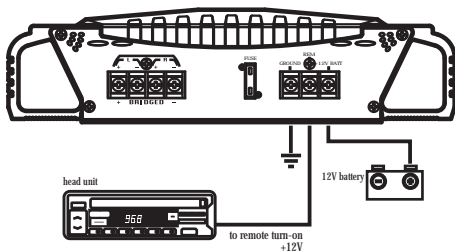
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# PYLE

## electrical connections

### 2 ch amps PLMRA220

PLMRA220

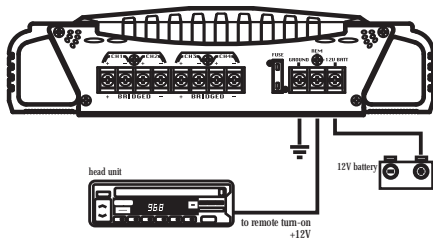


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# PYLE

## electrical connections 4 ch amps PLMRA420

PLMRA420



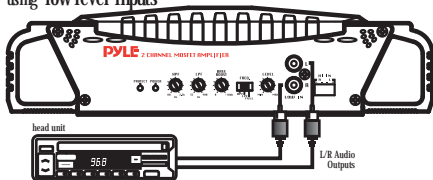
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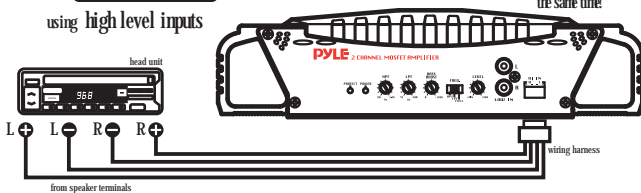
## stereo input connections 2 ch amps PLMRA220

PLMRA220

using low level inputs



using high level inputs



**WARNING!** If using high level inputs, do not use the low level RCA inputs at the same time!

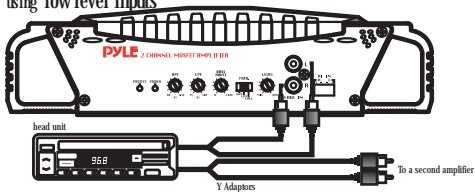
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## mono input connections 2 ch amps PLMRA220

PLMRA220

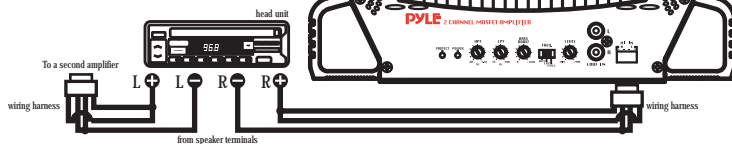
using low level inputs



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**PLEASE NOTE!** If using high level inputs, do not use the low level RCA inputs at the same time!

using high level inputs

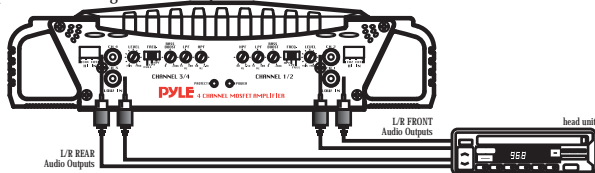


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## 2/4 channel input connections 4 ch amps PLMRA420

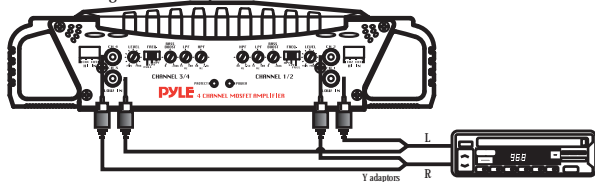
PLMRA420

4 Channel connections using low level inputs



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2 Channel connections using low level inputs

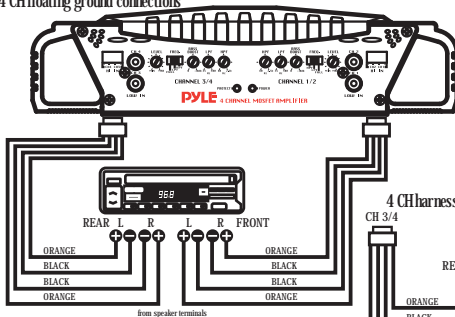


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## high level input connections 4 ch amps PLMRA420

PLMRA420

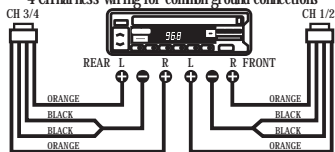
4 CH floating ground connections



PLEASE NOTE! If using high level inputs, do not use the low level RCA inputs at the same time!

from speaker terminals

4 CH harness wiring for common ground connections



from speaker terminals

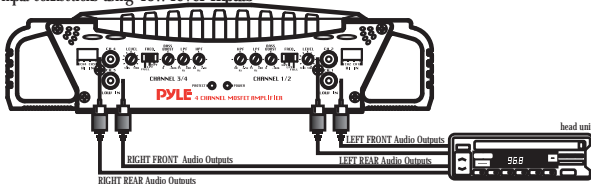
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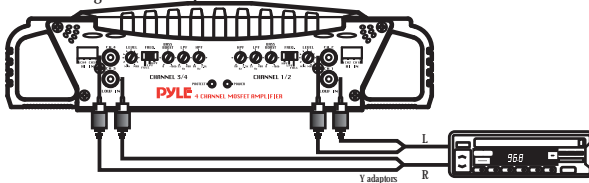
## mono input connections 4 ch amps PLMRA420

PLMRA420

4 CH mono input connections using low level inputs



2 CH input connections using low level inputs



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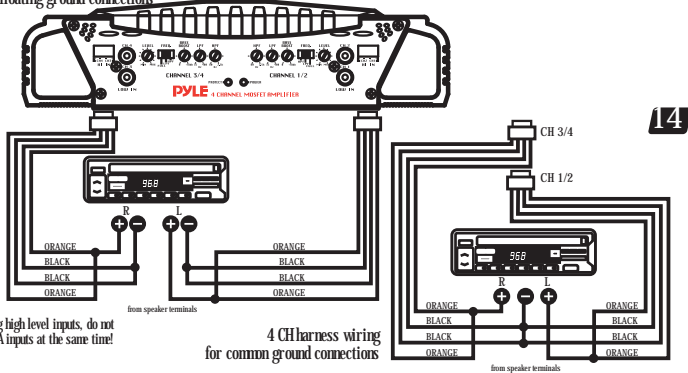


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## high level mono input connections 4 ch amps PLMRA420

4 CH floating ground connections

PLMRA420

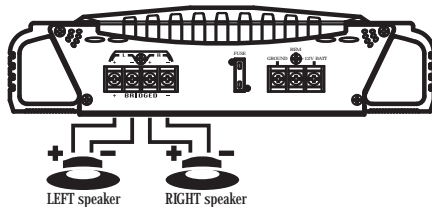


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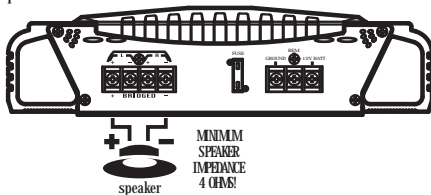
## speaker connections 2 ch amps PLMRA220

Stereo Output Mode

PLMRA220



Bridged Mono Output Mode

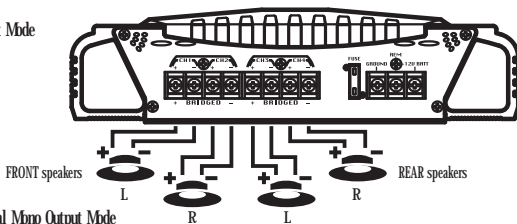


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## speaker connections 4 ch amps PLMRA420

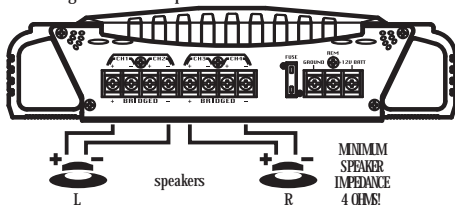
4 CH Output Mode

PLMRA420



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Bridged Dual Mono Output Mode

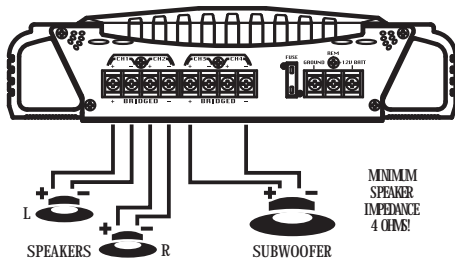


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## speaker connections 4 ch amp PLMRA420

4 CH Stereo Output Mode with Mono Bridged Subwoofer Output

PLMRA420



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## mounting and installation

### mounting

Your new Marine amplifier comes complete with all required mounting hardware. When determining a suitable location in your vehicle for the amp, please remember that it is a high-power electronic device capable of generating high heat.

For this reason, always choose a location in your vehicle which has low vibration, adequate ventilation, a minimum of dust, and no moisture. Be sure to mount the amp in such a manner as to allow reasonable airflow over the cooling fins.

Mark the location for the mounting screw holes by positioning the amp where you wish to install it and use a scribe (or one of the mounting screws) inserted in each of the mounting holes to mark the mounting surface. If the mounting surface is carpeted, measure the hole centers and mark with a felt tip pen.

Before attempting to drill the mounting holes, take note of any wires, lines or other devices in your vehicle which may be located behind the mounting surface! Then drill pilot holes in the mounting surface for the mounting screws and insert them. Tighten the screws securely. **18**

### wiring tips

When making electrical connections to your amplifier, please observe the following:

Use at least 8 gauge wire for power and ground connections.

Wire the amplifier directly to the car battery.

For the ground connection, use the shortest possible wire to a good chassis ground point.

Wire the Remote connection to the auto start lead of your head unit, equalizer or power antenna.

### fuses

About power fuses:

Pyle Marine Series amplifiers feature built-in fuse systems. These fuses protect both the amplifier and the electrical system in your vehicle from fault conditions. If you ever need to replace the fuse in your Pyle Marine Series amp, use a fuse of exactly the same type and rating. A different type or rating of fuse may result in damage or fire.

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## protection circuitry

The built-in protection circuitry in the Marine amplifiers will disable the amplifier if it senses an input overload, a speaker short circuit, or extreme temperature conditions.

When the protection circuit is activated by any of these conditions, the Protection LED will be illuminated.

If this occurs, carefully inspect the system to determine the source of the problem.

- If the shutdown was a result of a thermal overload condition, allow the amplifier to cool down before attempting to restart it.
- If the shutdown was a result of an input overload, or speaker short circuit, be sure to correct the condition before restarting.

The amplifier can be restarted by turning the remote power OFF and then ON again.

## troubleshooting

No output.

Confirm that all terminal strip connections are secure and tight.

Check both in-line and built-in fuses. Both the +12V and the Remote terminals must have +12v referenced to chassis ground.

Confirm that the audio signal source (car radio, equalizer, etc.) is connected and is supplying output signal. To check if the amp is supplying signal, unplug the cables from the signal source (but leave them plugged into the amp). Briefly tap the center pin of each of the disconnected RCA plugs with your finger. This should produce a noise (feedback) in your speakers.

Only one channel works.

Confirm that all terminal strip connections are secure and tight.

Check the Balance control on the head unit (or other source) to verify that it is set to its midpoint. **19**

If you are using the Low Level RCA input, reverse the input plugs at the amplifier (i.e., switch the L with the R). If the channels which is silent switches to the other side, the problem is either in the head unit/other source or the connecting cables.

Weak output.

Readjust the Input Level Control(s) to better suit the input signal.

Noise in the audio.

If the noise is a "whine" whose pitch follows the engine speed, confirm that the amplifier and any other signal sources (head unit, etc.) are properly grounded.

If the noise is a "clicking" or "popping" noise whose rate follows the engine speed, this usually means that the vehicle is equipped with resistor spark plugs and wires, or that the ignition is in need of service.

Check the routing of the speaker and input wires to make sure they are not adjacent to wires which interconnect lights and other accessories.

If the above steps fail to improve or clear noise interference, the system should be checked by a professional mobile audio installer.

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## precautions

Do not operate the amplifier when it is unmounted. Attach all audio system components securely within the automobile to prevent damage, especially in an accident.

Do not mount this amplifier so that the wire connections are unprotected, or in a pinched condition, or likely to be damaged by nearby objects.

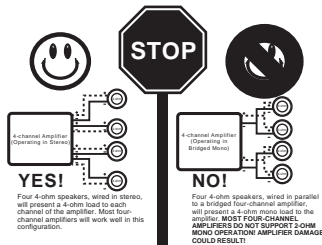
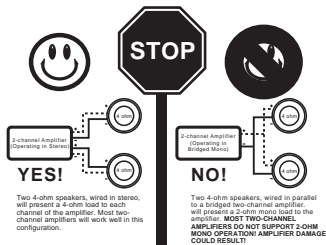
Before making or breaking power connections in your system, disconnect the vehicle battery. Confirm that your head unit or other equipment is turned off while connecting the input jacks and speaker terminals.

If you need to replace the power fuse, do so only with a fuse identical to that supplied with the amplifier. Using a fuse of a different type or rating may result in damage that isn't covered in the manufacturer's warranty.

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## notes



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