

user's manual

POWER AMPLIFIER
FOUR CHANNEL HIGH PERFORMANCE
PB1617X

POWER AMPLIFIER
TWO CHANNEL HIGH PERFORMANCE
PB1217X

POWER AMPLIFIER
TWO CHANNEL HIGH PERFORMANCE
PB717X

POWER AMPLIFIER
FOUR CHANNEL HIGH PERFORMANCE
PB617X

POWER AMPLIFIER
FOUR CHANNEL HIGH PERFORMANCE
PB417X

POWER AMPLIFIER
TWO CHANNEL HIGH PERFORMANCE
PB317X

PYRAMID



SERIES
ARCTIC

PYRAMID

All Pyramid products are carefully constructed and thoroughly tested before shipment, products purchased in the USA are warranted to be free of defects in material and workmanship for two (2) years from the date of purchase. This warranty is limited to the original retail purchase.

Should the product fail due to factory defects in material or workmanship, your unit will be repaired or replaced at the sole discretion of Pyramid.

To obtain warranty service you must first call our Consumer Return Hotline number at (718) 236-6948 to obtain a Return Authorization number. This R . A . # Must appear on the outside of your package and on all paperwork relating to your return.

R. A. #
Pyramid Service Center
1600 63RD Street
Brooklyn, NY 11204

You must also include the following items:
A copy of your sales receipt or other proof of purchase

- A brief letter indicating the problem you are experiencing
- include in your letter your return address, daytime phone number, and R. A. Number
- also include a check or order for \$ 18, 00 for return shipping, handling, and insurance, or provide your Visa/MC number with expiration date.

Our obligation under this warranty is limited to the repair or replacement of the defective unit when returned to us prepaid. This warranty will be considered void if the unit was tampered with, improperly serviced, or subject to misuse, neglect, or accidental damage.

PYRAMID

congratulations...

On your purchase of a Pyramid Arctic Series amplifier. This amplifier extends the pyramid 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 PB317X, PB417X, PB617X, PB717X, PB1217X, and PB1617X, you'll know you made the right choice with a Pyramid Power amplifier.

PYRAMID

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.

notes

Protection circuitry troubleshooting

The built-in protection circuitry in the pyramid Arctic 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.

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.

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 wire 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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general features

PB317X

High Performance 800Watt 2 channel Bridgeable MOSFET Amplifier

- 400 Watts×2 Output
- 800 Watts×1 Bridged Output
- Variable Hi/Lo Electronic Crossover Network
- Variable Bass Boost(0-6-+12dB@60Hz)
- Variable Input Level(Gain)Control
- Remote Turn on/Off
- RCA Inputs
- High Level MOLEX Indicator
- Power ON LED Indicator
- LED Protection Indicator
- S/N Ratio: >95dB
- THD :<0.2%
- Thermal Protection
- Overload Protection
- Short Circuit Protection
- Anti-Thump Turn-On

PB717X

High Performance 1000Watt 2 channel Bridgeable MOSFET Amplifier

- 500 Watts×2 Output
- 1000 Watts×1 Bridged Output
- Variable Hi/Lo Electronic Crossover Network
- Variable Bass Boost(0-6-+12dB@60Hz)
- Variable Input Level(Gain)Control
- Remote Turn on/Off
- RCA Inputs
- High Level MOLEX Indicator
- Power ON LED Indicator
- LED Protection Indicator
- S/N Ratio: >95dB
- THD :<0.2%
- Thermal Protection
- Overload Protection
- Short Circuit Protection
- Anti-Thump Turn-On

PB1217X

High Performance 1600Watt 2 channel Bridgeable MOSFET Amplifier

- 800 Watts×2 Output
- 1600 Watts×1 Bridged Output
- Variable Hi/Lo Electronic Crossover Network
- Variable Bass Boost(0-6-+12dB@60Hz)
- Variable Input Level(Gain)Control
- Remote Turn on/Off
- RCA Inputs
- High Level MOLEX Indicator
- Power ON LED Indicator
- LED Protection Indicator
- S/N Ratio: >95dB
- THD :<0.2%
- Thermal Protection
- Overload Protection
- Short Circuit Protection
- Anti-Thump Turn-On

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mounting and installation

Your new PYRAMID Arctic Series amplifier comes complete with 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 for 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.

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.

About power fuses:

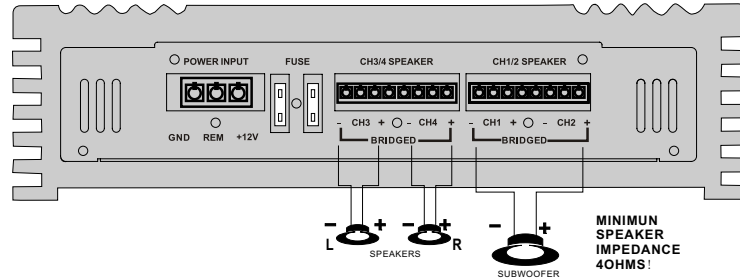
Pyramid Arctic Series amplifiers feature built-in fuse systems. These fuses protect both the amplifier and the electrical system in your vehicle from fault conditions. If you ever need to replace the fuse in your Pyramid Arctic Series amp, use a fuse of exactly the same type and rating. A different type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

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PYRAMID speaker connections

4ch amp PB417X PB617X PB1617X

2CH Bridged Output Mode With Subwoofer Output



PB417X

PB617X

PB1617X

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PYRAMID general features

PB417X

High Performance 1000Watt 4 channel Bridgeable MOSFET Amplifier

- 250 Watts×4 Output
- 500 Watts× 2 Bridged Output (250W×2+500W×1)
- Variable Hi/Lo Electronic Crossover Network
- Variable Bass Boost(0-6+12dB@60Hz)
- Variable Input Level(Gain)Control
- Remote Turn on/Off
- RCA Inputs
- High Level MOLEX Indicator
- Power ON LED Indicator
- LED Protection Indicator
- S/N Ratio: >95dB
- THD :<0.2%
- Thermal Protection
- Overload Protection
- Short Circuit Protection
- Anti-Thump Turn-On

PB617X

High Performance 1600Watt 4 channel Bridgeable MOSFET Amplifier

- 400 Watts×4 Output
- 800 Watts× 2 Bridged Output (400W×2+800W×1)
- Variable Hi/Lo Electronic Crossover Network
- Variable Bass Boost(0-6+12dB@60Hz)
- Variable Input Level(Gain)Control
- Remote Turn on/Off
- RCA Inputs
- High Level MOLEX Indicator
- Power ON LED Indicator
- LED Protection Indicator
- S/N Ratio: >95dB
- THD :<0.2%
- Thermal Protection
- Overload Protection
- Short Circuit Protection
- Anti-Thump Turn-On

PB1617X

High Performance 2000Watt 4 channel Bridgeable MOSFET Amplifier

- 500 Watts×4 Output
- 1000 Watts× 2 Bridged Output (500W×2+1000W×1)
- Variable Hi/Lo Electronic Crossover Network
- Variable Bass Boost(0-6+12dB@60Hz)
- Variable Input Level(Gain)Control
- Remote Turn on/Off
- RCA Inputs
- High Level MOLEX Indicator
- Power ON LED Indicator
- LED Protection Indicator
- S/N Ratio: >95dB
- THD :<0.2%
- Thermal Protection
- Overload Protection
- Short Circuit Protection
- Anti-Thump Turn-On

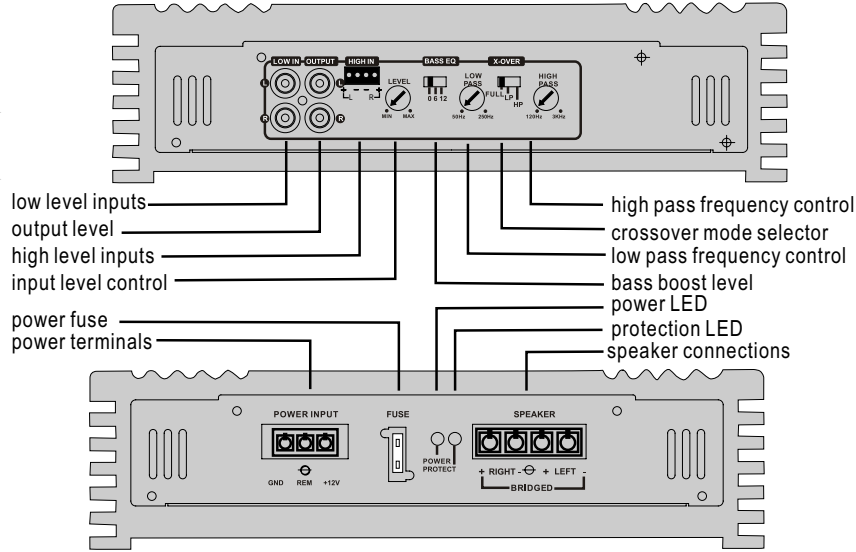
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PYRAMID features and specifications

2ch amp PB317X PB717X

PB317X

PB717X



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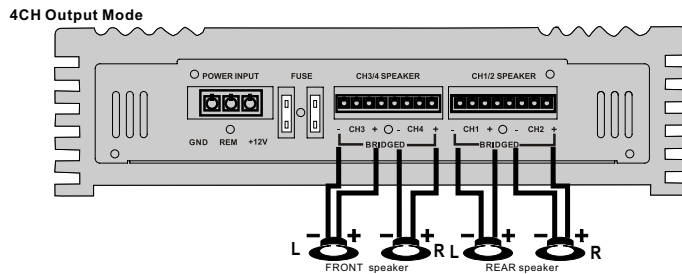
PYRAMID speaker connections

4ch amp PB417X PB617X PB1617X

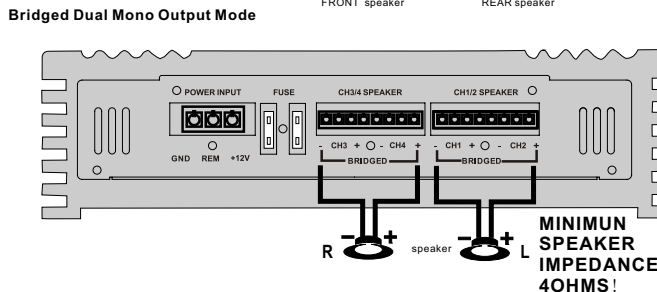
PB417X

PB617X

PB1617X



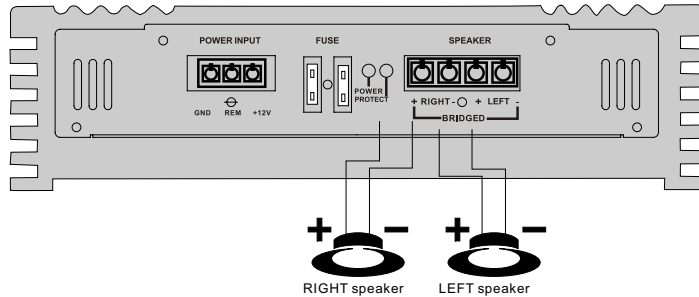
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PYRAMID speaker connections

2ch amp PB1217X

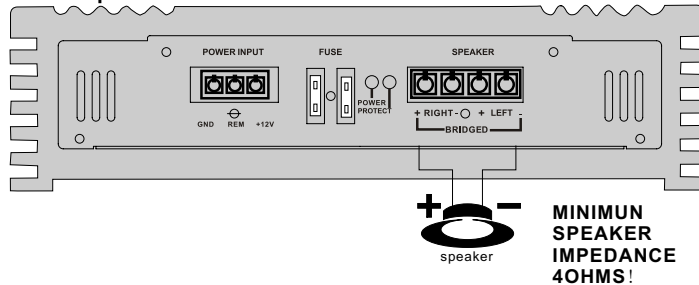
Stereo Output Mode



PB1217X

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Bridged Mono Output Mode



PYRAMID features and specifications

2ch amp PB317X PB717X

- crossover mode selector** when used with normal, full range systems, set this switch to "FULL". If you wish 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 upper 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-plate 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.

	PB317X	PB717X
output power@14.4v DC, 1KHz		
RMS Power @ 4 ohms	40Watts × 2	50Watts × 2
RMS Power @ 2 ohms	60Watts × 2	75Watts × 2
Maximum Power Output	400Watts × 2	500Watts × 2
frequency response	10Hz-70KHz	
input impedance		
low level inputs	10K Ohms	
high level inputs	100 Ohms	
input sensitivity		
low level inputs	200 mV	
high level inputs	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	20A	30A
dimensions(W×H×L)		
mm	56×48×220	56×48×270
inches	2.24×1.92×8.8	2.24×1.92×10.8

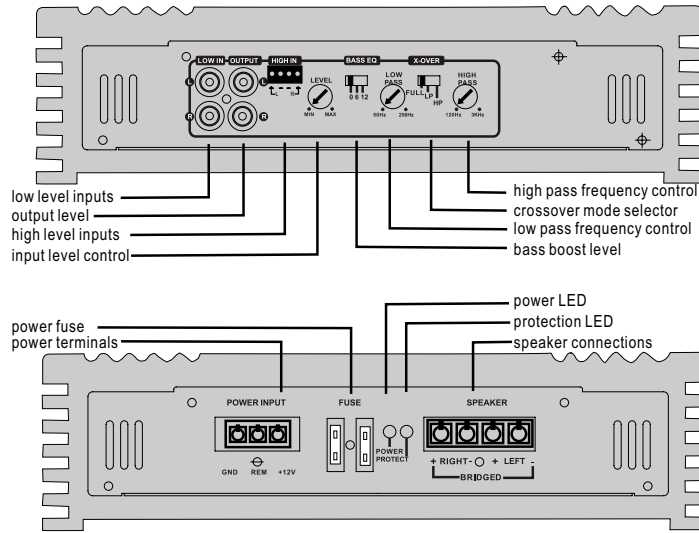
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PYRAMID

features and specifications

2ch amp PB1217X

PB1217X



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PYRAMID

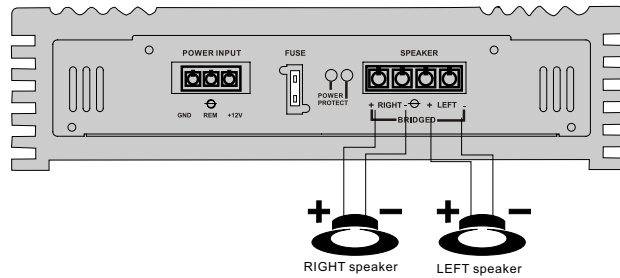
speaker connections

2ch amp PB317X PB717X

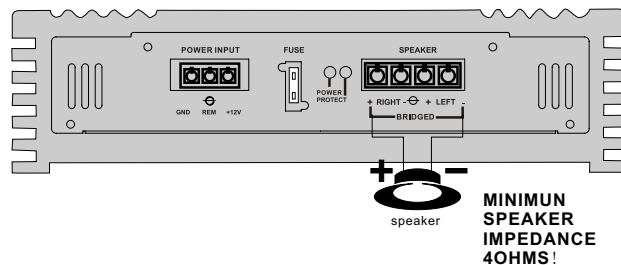
PB317X

PB717X

Stereo Output Mode



Bridged Mono Output Mode

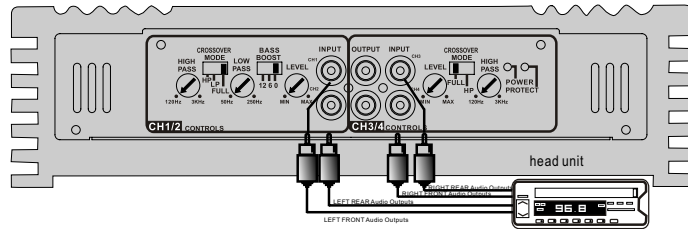


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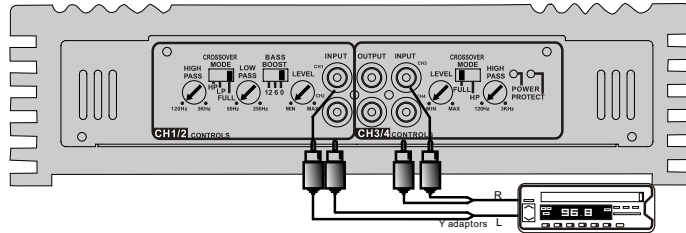
PYRAMID mono input connections

4CH amp PB417X PB617X PB1617X

4ch mono input connections using low level inputs



2ch mono input connections using low level inputs



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PB417X

PB617X

PB1617X

PYRAMID features and specifications

2ch amp PB1217X

- crossover mode selector** when used with normal, full range systems, set this switch to "FULL". If you wish 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 upper 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-plate 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** 75Watts × 2
- RMS Power @ 2 ohms** 120Watts × 2
- Maximum Power Output** 800Watts × 2
- frequency response** 10Hz-70KHz
- input impedance**
- low level inputs** 10K Ohms
- high level inputs** 100 Ohms
- input sensitivity**
- low level inputs** 200 mV
- high level inputs** 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** 25A × 2
- dimensions(W×H×L)**
- mm** 56 × 48 × 340
- inches** 2.24 × 1.92 × 13.6

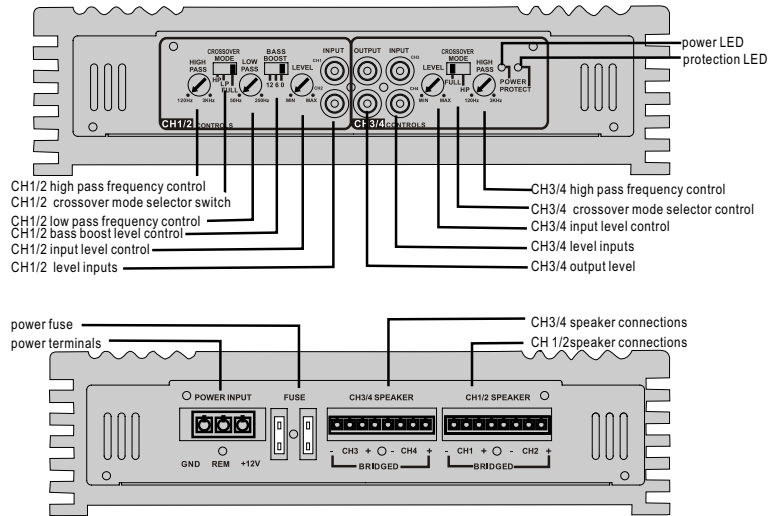
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features and specifications

4ch amp PB417X PB617X

PB417X

PB617X

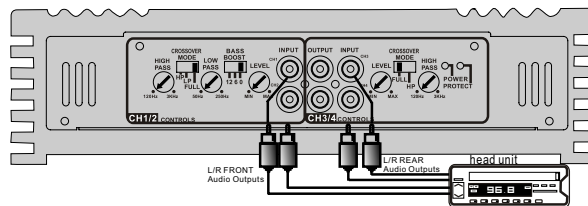


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2/4 channel input connections

4CH amp PB417X PB617X PB1617X

4ch input connections using low level inputs



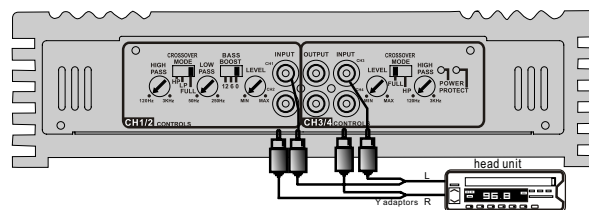
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PB417X

PB617X

PB1617X

2ch input connections using low level inputs

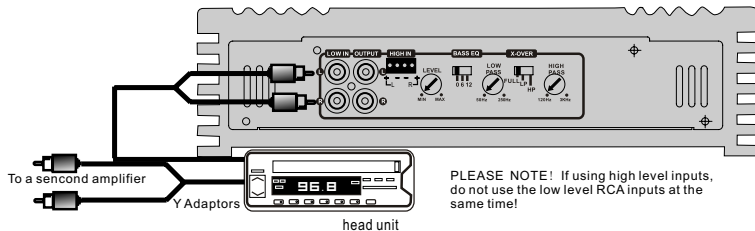


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mono input connections

2CH amp PB317X PB717X PB1217X

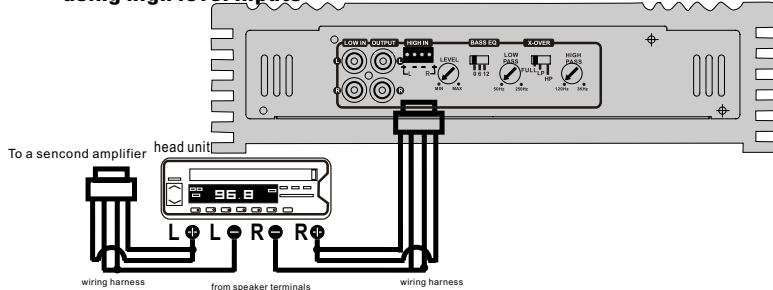
using low level inputs



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PB317X
PB717X
PB1217X

using high level inputs



- dual crossover mode selectors** when used with normal, full range systems, set this switch to "FULL". If you wish the internal crossover to power a driver of specific frequency range, use the "LOWPASS" or "HIGHPASS" settings.
- dual input level controls** use this control to match the outputs of you 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.
- CH1/2 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.
- dual high pass frequency controls** when the crossover selector switch is in "high pass" mode, this control sets the upper frequency limit for audio program sent to the speakers.
- CH1/2 bass boost level control** this control permits adjustment of the bass level up to an increase of approximately 18 dB.
- dual level inputs** this amp features gold-plate RCA input jacks for high impedance input. Use these with car stereo output which uses RCA-type connector cables. if your car stereo lacks RCA-type output jacks, you may connect speaker output leads to these input connectors.
- level output** use it connect to the second amplifier.
- 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.
- dual speaker connections** these terminals are 14K gold plated to guarantee high conductivity and minimum signal loss.

PYRAMID

features and specifications

4ch amp PB417X PB617X

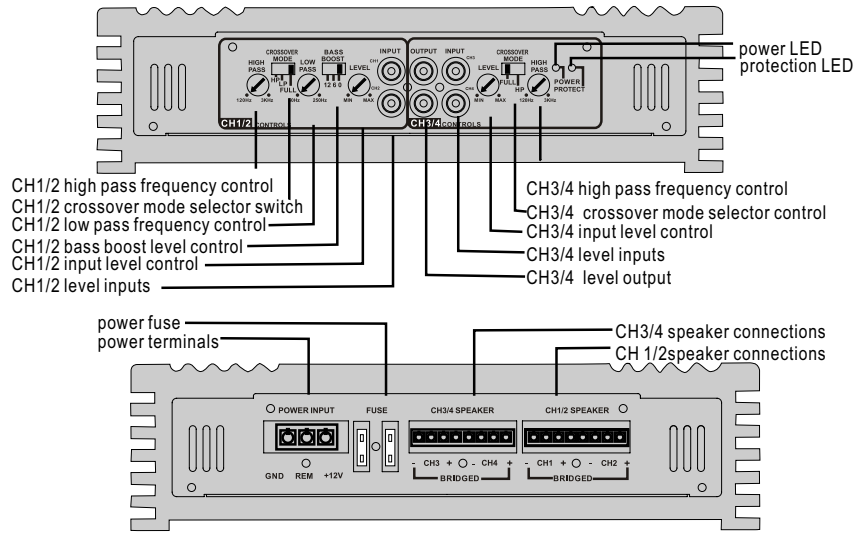
PB417 X PB617X

output power@14.4v DC, 1KHz		
RMS Power @ 4 ohms	35Watts × 4	50Watts × 4
RMS Power @ 2 ohms	55Watts × 4	60Watts × 4
Maximum Power Output	250Watts × 4	400Watts × 4
frequency response	10Hz-70KHz	
input impedance		
low level inputs	10K Ohms	
high level inputs	100 Ohms	
input sensitivity		
low level inputs	200 mV	
high level inputs	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	20A × 2	25A × 2
dimensions(W×H×L)		
mm	56 × 48 × 300	56 × 48 × 340
inches	2.24 × 1.92 × 13.6	2.24 × 1.92 × 12

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PYRAMID features and specifications

4ch amp PB1617X

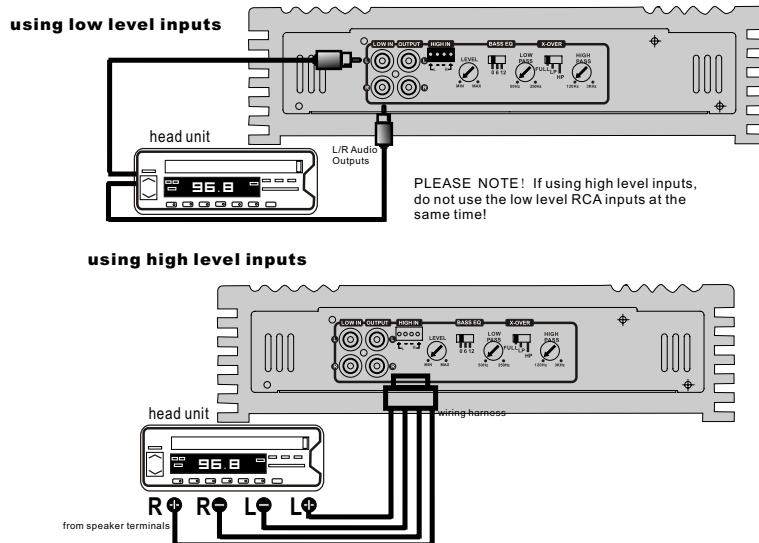


PB1617X

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PYRAMID stereo input connections

2CH amp PB317X PB717X PB1217X



PB317X

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PB1217X

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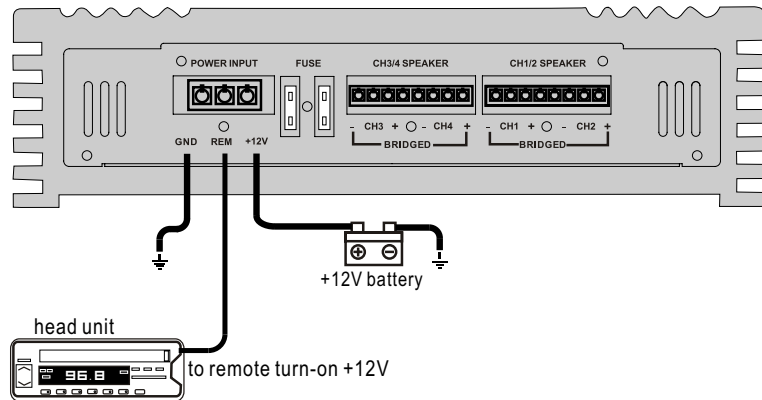
PYRAMID electrical connections

4ch amp PB417X PB617X PB1617X

PB417X

PB617X

PB1617X



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PYRAMID features and specifications

4ch amp PB1617X

dual crossover mode selectors	when used with normal, full range systems, set this switch to "FULL". If you wish the internal crossover to power a driver of specific frequency range, use the "LOWPASS" or "HIGHPASS" settings.	output power@14.4v DC, 1KHz RMS Power @ 4 ohms 75Watts × 4 RMS Power @ 2 ohms 120Watts × 4 Maximum Power Output 500Watts × 4
dual input level controls	use this control to match the outputs of you 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.	frequency response 10Hz-70KHz
CH1/2 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.	input impedance low level inputs 10K Ohms high level inputs 100 Ohms
dual high pass frequency controls	when the crossover selector switch is in "high pass" mode, this control sets the upper frequency limit for audio program sent to the speakers.	input sensitivity low level inputs 200 mV high level inputs 5V
CH1/2 bass boost level control	this control permits adjustment of the bass level up to an increase of approximately 18 dB.	power supply voltage 14.4V DC Neg.Ground (10.5-16V)
dual level inputs	this amp features gold-plate RCA input jacks for high impedance input. Use these with car stereo output which uses RCA-type connector cables. if your car stereo lacks RCA-type output jacks, you may connect speaker output leads to these input connectors.	matching speaker impedance stereo mode 2-4 Ohms bridged mode 4-8 Ohms
level output	use this control to match the speakers of the head unit to the amplifier.	maximum current draw 30A × 2
power LED	this indicator is illuminated when power is applied.	dimensions(W×H×L) mm 56 × 48 × 380 inches 2.24 × 1.92 × 15.2
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.	
dual speaker connections	these terminals are 14K gold plated to guarantee high conductivity and minimum signal loss.	

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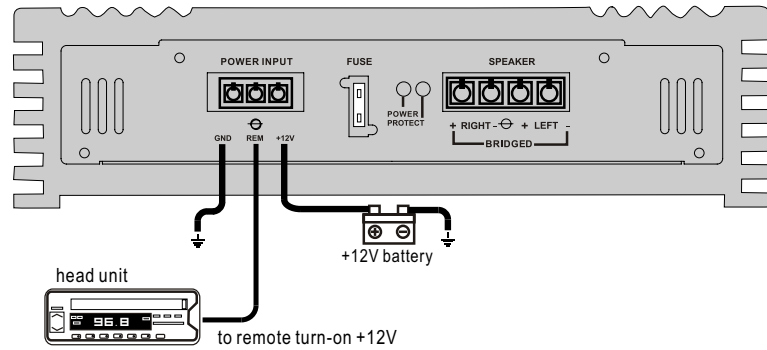
PYRAMID

electrical connections

2ch amp PB317X PB717X

PB317X

PB717X



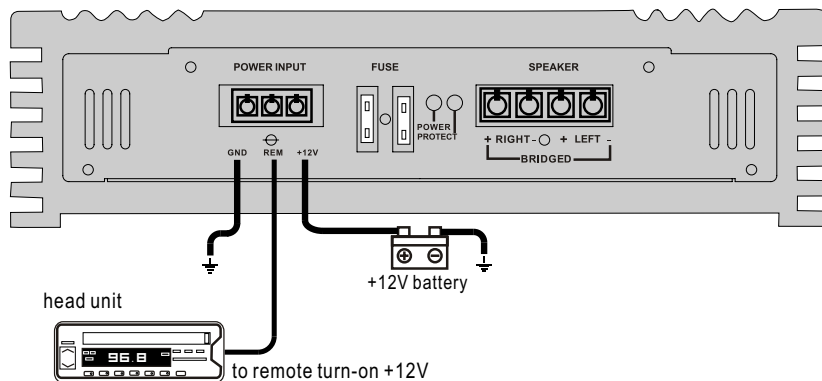
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PYRAMID

electrical connections

2ch amp PB1217X

PB1217X



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