



on your purchase of a Pyramid Royal Red 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 PB445X, PB545X, PB645X, PB845X, PB945X, PB1045X and PB1845X, you'll know you made the right choice with a Pyramid Power amplifier.

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7-YR-general features

PB445X 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

PB545X

High Performance 800 Watt 2 Channel Bridgeable MOSFET Amplifier

- · 400 Watts x 2 Output
- · 800 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
- · Remote Bass Boost
- · S/N Ratio: > 95 dB
- · THD: <0.04%
- · Thermal Protection
- · Overload Protection
- · Short Circuit Protection
- · Anti-Thump Turn-On

PB945X High Performance 1000 Watt 2 Channel

High Performance 1000 Watt 2 Channel Bridgeable MOSFET Amplifier

- · 500 Watts x 2 Output
- · 1000 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
- · Remote Bass Boost
- S/N Ratio: > 95 dB
- · THD: <0.04%
- · Thermal Protection
- · Overload Protection
- · Short Circuit Protection
- · Anti-Thump Turn-On

PB545X High Performance 1000 Watt 4 Channel Bridgeable MOSFET Amplifier

- · 250 Watts x 4 Output
- 500W x 2 Bridged Output (250W x 2 + 500W 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

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7-YR general features

PB845X High Performance 1200 Watt 4 Channel Bridgeable MOSFET Amplifier

· 300 Watts x 4 Output

- · 600W x 2 Bridged Output (300W x 2 + 600W 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
- Remote Bass Boost
- · S/N Ratio: > 95 dB
- · THD: <0.04%
- · Thermal Protection
- · Overload Protection
- · Short Circuit Protection
- · Anti-Thump Turn-On
- · Tri-Mode Configurable

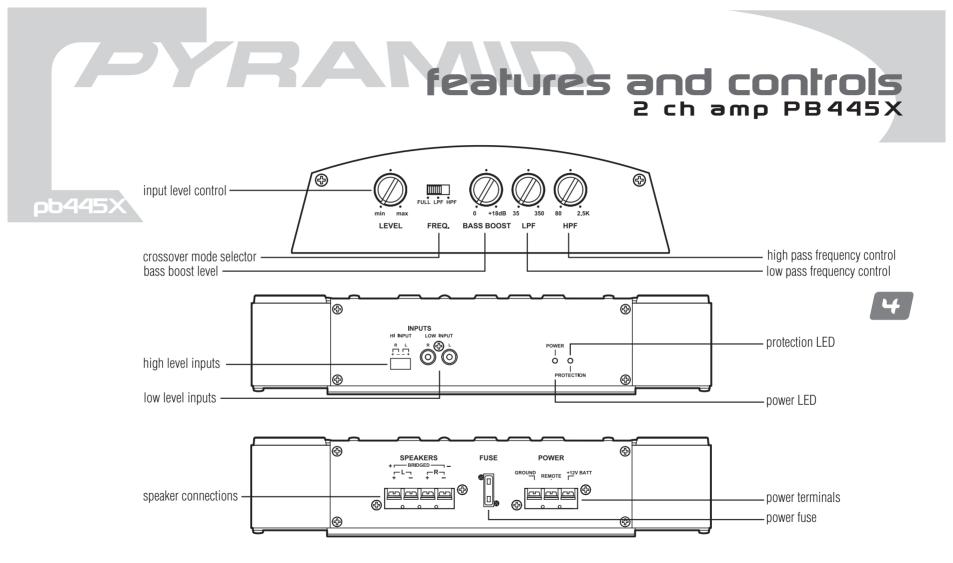
PB1045X High Performance 1600 Watt 4 Channel Bridgeable MOSFET Amplifier

· 400 Watts x 4 Output

- · 800W x 2 Bridged Output (400W x 2 + 800W x 1)
- \cdot 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
- · Remote Bass Boost
- · S/N Ratio: > 95 dB
- · THD: <0.04%
- · Thermal Protection
- · Overload Protection
- · Short Circuit Protection
- · Anti-Thump Turn-On
- · Tri-Mode Configurable

PB1845X High Performance 2000 Watt 4 Channel Bridgeable MOSFET Amplifier

- · 500 Watts x 4 Output.
- 1000 W x 2 Bridged Output (500 W x 2 + 1000 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
- · Remote Bass Boost
- · S/N Ratio: > 95 dB
- · THD: <0.04%
- · Thermal Protection
- · Overload Protection
- · Short Circuit Protection
- · Anti-Thump Turn-On
- · Tri-Mode Configurable



features and specifications 2 ch amp PB 445X

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.

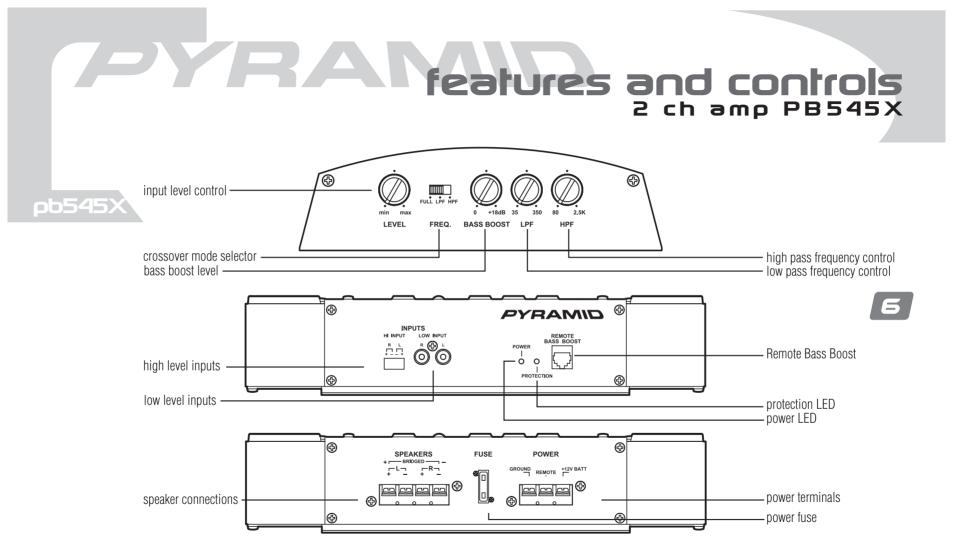
- protection LED this indicator is illuminated when built-in protection circuitry is activated.
 - **power fuse** the fuse protects the amplifier and your car's electrical system from short circuit conditions.
- **power terminals** use these connectors to deliver power, ground and remote turn-on control 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	40 Watts x 2 60 Watts x 2 300 Watts x 2
frequency response	15 Hz-30 KHz
input impedance <i>Iow level inputs</i> high level inputs	10K Ohms 100 Ohms
input sensitivity <i>Iow level inputs</i> high level inputs	250mV 2.5V
power supply voltage	14.4V DC Neg
matching speaker impedance stereo mode	2-4 Ohms

bridaed mode 4-8 Ohms 15A maximum current draw dimensions (W x H x L) mm inches

300 x 62 x 259 11.8 x 2.5 x 10.2

Neg. Ground (10.5-16V)



features and specifications 2 ch amp PB545X

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.

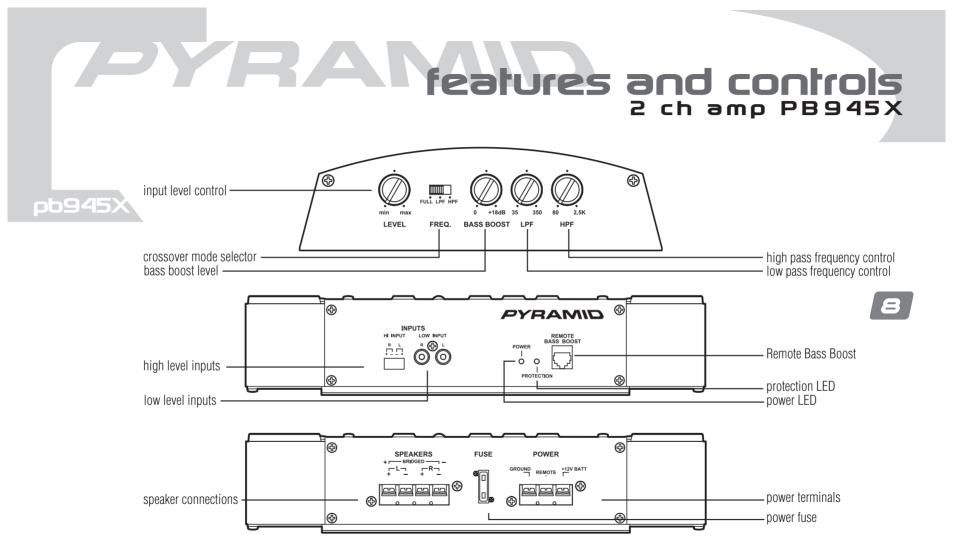
- input level control use this control to match the outputs of your head unit to the amplifier. Starting with your head unit set at about the 2 o'clock position, increase the amp level control until distortion begins to occur, and reduce slightly from this point.
- low pass frequency control when the 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	80 Watts x 2
frequency response	15 Hz-30 KHz
input impedance <i>low level inputs</i> <i>high level inputs</i>	
input sensitivity <i>Iow level inputs</i> high level inputs	250mV 2.5V
power supply voltage	14.4V DC Neg. Ground (10.5-16V)
matching speaker impedance stereo mode bridged mode	2-4 Ohms 4-8 Ohms
maximum current draw	20A
dimensions (W x H x L)	

300 x 62 x 285 mm inches 11.8 x 2.5 x 11.6



Features and specifications 2 ch amp PB945X

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.
 - **Iow 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.

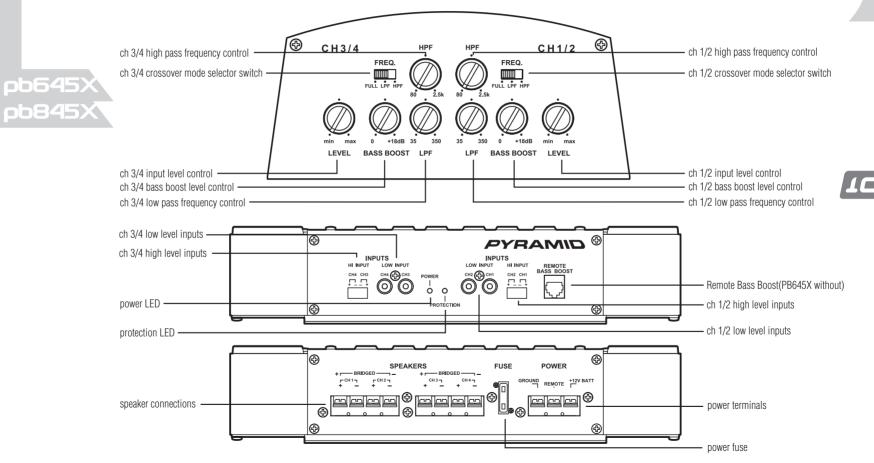
output power @ 14.4v DC, 1KHz

80 Watts x 2 120 Watts x 2 500 Watts x 2
15 Hz-30 KHz
10K Ohms 100 Ohms
250mV 2.5V
14.4V DC Neg. (
2-4 Ohms 4-8 Ohms
20A
300 x 62 x 355 11.8 x 2.5x 13.9

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4.4V DC Neg. Ground (10.5-16V)

A ch amp PB645X · PB845X

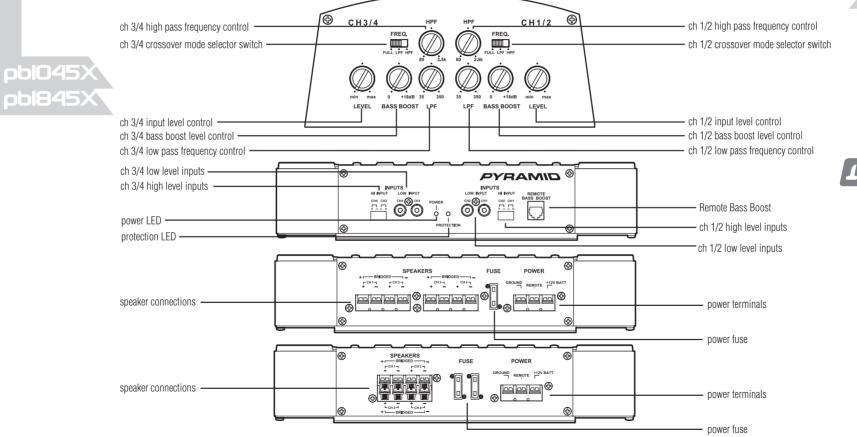


features and specifications 4 ch amp PB645X · PB845X

****645X** **845X 4 channel amplifier 4 channel amplifier dual crossover mode selectors when used with normal, full range systems, set these switches to "FULL." output power @ 14.4y DC. 1KHz If you wish to use the internal crossovers to power a driver of specific **RMS Power @ 4 Ohms** 35 Watts x 4 50 Watts x 4 frequency range, use the "LOWPASS" or "HIGHPASS" settings. **RMS Power @ 2 Ohms** 55 Watts x 4 60 Watts x 4 Maximum Power Output 250 Watts x 4 300 Watts x 4 dual input level controls use these controls 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 controls until distortion begins to occur, and reduce slightly frequency response ______ 15 Hz-30 KHz ______ from this point. input impedance dual low pass frequency controls when one or both of the crossover selector switches is in "low pass" low level inputs ______ 10K Ohms ______ high level inputs ______ 100 Ohms ______ mode, one can set the upper frequency limit for audio program sent to the speakers. dual high pass frequency controls when the one or both of crossover selector switch is in "high pass" mode. input sensitivity one can set the lower frequency limit for audio program sent to the low level inputs250mVhigh level inputs2.5V speakers dual bass boost level controls this control permits adjustment of the bass level up to an increase of approximately 18 dB in either or both pairs of channels. power supply voltage — 14.4V DC Neg. Ground (10.5-16V) 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. matching speaker impedance stereo mode _____ 2-4 Ohms _____ high level inputs if your car stereo lacks RCA-type output jacks, you may connect speaker bridged mode ______ 4-8 Ohms _____ output leads to these input connectors. 20 A 30 A maximum current draw **power LED** this indicator is illuminated when power is applied. **protection LED** this indicator is illuminated when built-in protection circuitry is activated. dimensions (W x H x L) **mm** 300 x 62 x 355 300 x 62 x 403 **power fuse** the fuse protects the amplifier and your car's electrical system from short *inches* 11.8 x 2.5 x 13.9 11.8 x 2.5 x 14.9 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.

4 ch amp PBI045X · PBI845X



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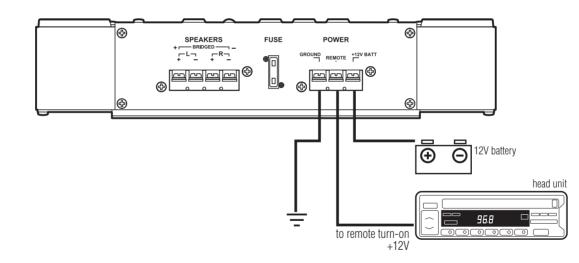
4 ch amp PBI045X · PBI845X

****1045X**1845X**

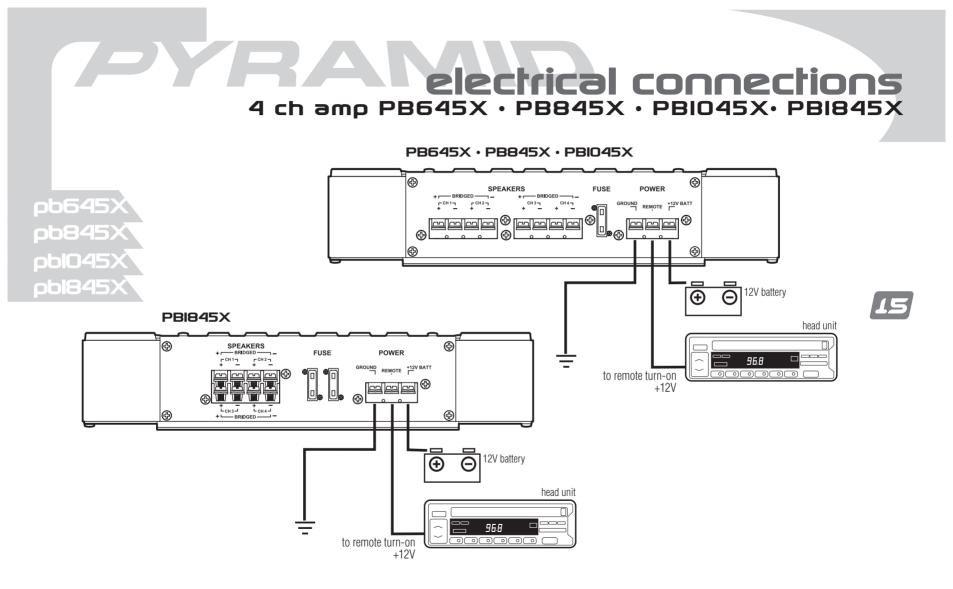
dual crossover mode selectors	when used with normal, full range systems, set these switches to "FULL."	output power @ 14.4v DC, 1KHz	4 channel amplifier	4 channel amplifier
	If you wish to use the internal crossovers to power a driver of specific frequency range, use the "LOWPASS" or "HIGHPASS" settings.		75 Watts x 4	125 Watts x 4
dual input level controls	use these controls to match the outputs of your head unit to the amplifier.	RMS Power @ 2 Ohms Maximum Power Output	110 Watts x 4 400 Watts x 4	200 Watts x 4 500 Watts x 4
	Starting with your head unit set at about the 2 o'clock position, increase	-		
	the amp level controls until distortion begins to occur, and reduce slightly from this point.	frequency response		- 15 Hz-30 KHz
dual low pass frequency controls	when one or both of the crossover selector switches is in "low pass"	input impedance		
	mode, one can set the upper frequency limit for audio program sent to the speakers.	low level inputs		- 10K Ohms
	•	nign level inputs		100 Ohms
dual high pass frequency controls	when the one or both of crossover selector switch is in "high pass" mode, one can set the lower frequency limit for audio program sent to the	input sensitivity		13
	speakers.	low level inputs		- 250mV
	this control permits adjustment of the bass level up to an increase of approximately 18 dB in either or both pairs of channels.	high level inputs		- 2.5V
		power supply voltage	—— 14.4V DC I	Neg. Ground (10.5-16V) ———
low level inputs	this amp features gold-plated RCA input jacks for high impedance input.			0 ()
	Use these with car stereo output which uses RCA-type connector cables.	matching speaker impedance		0.4.0hma
high level inputs	if your car stereo lacks RCA-type output jacks, you may connect speaker output leads to these input connectors.			- 2-4 Ohms - 4-8 Ohms
power LED	this indicator is illuminated when power is applied.	maximum current draw	40 A	50 A
protection LED	this indicator is illuminated when built-in protection circuitry is activated.	dimensions (W x H x L)		
power fuse	the fuse protects the amplifier and your car's electrical system from short circuit conditions.	mm	300 x 62 x 475	300 x 62 x 499
	circuit conditions.	inches	11.8 x 2.5 x 18.7	11.8 X 2.5 X 19.0
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.			

PYRA electrical connections 2 ch amp PB445X · PB545X · PB945X



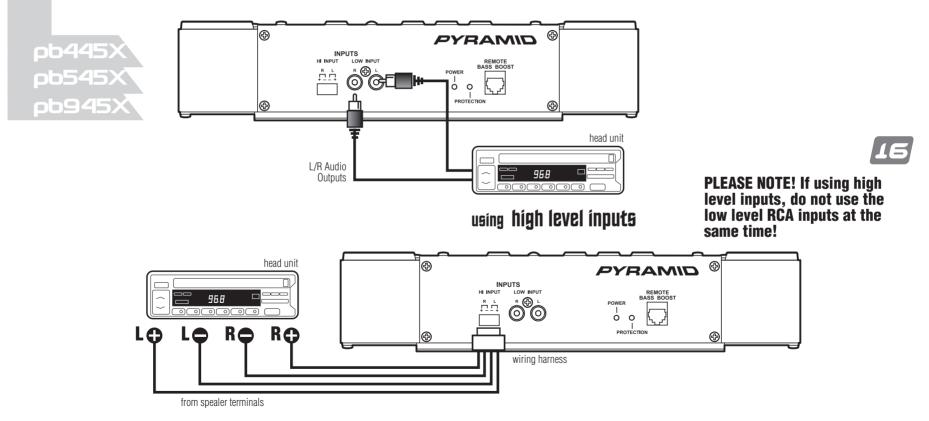


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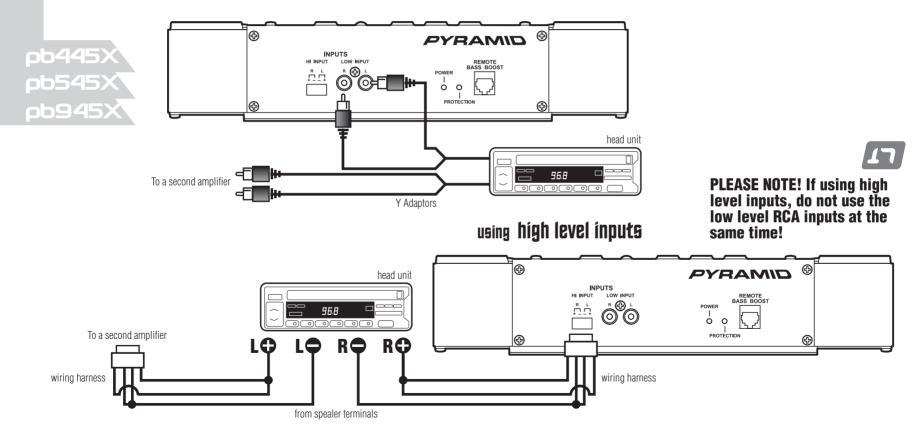


using IOW level inputs



2 ch amp PB445X · PB545X · PB945X

using IOW level inputs



274 channel input connections 4 ch amp PB645X · PB845X · PBI045X · PBI845X

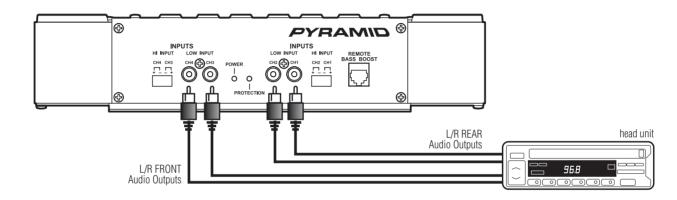
4 CH input connections using low level inputs

pb645

ob845>

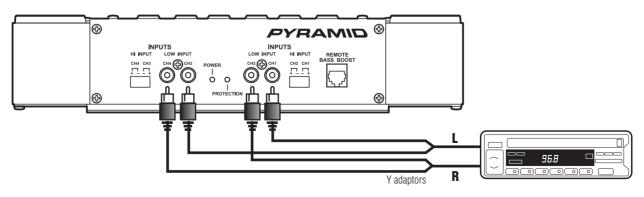
obI045)

pb1845X



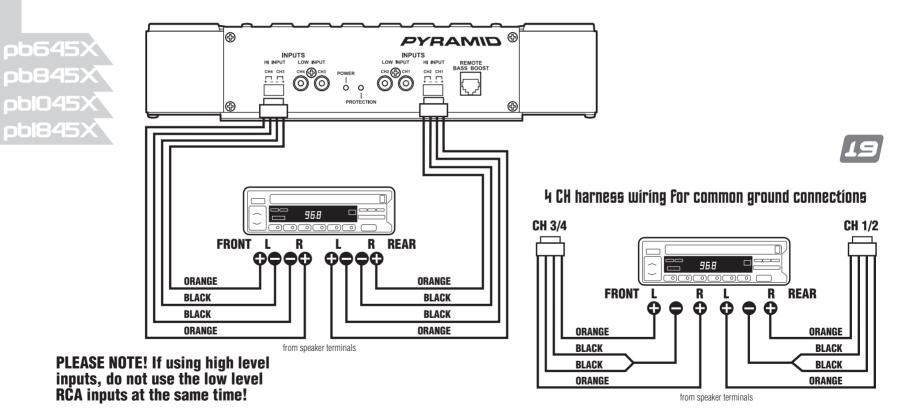
18

2 CH input connections using low level inputs



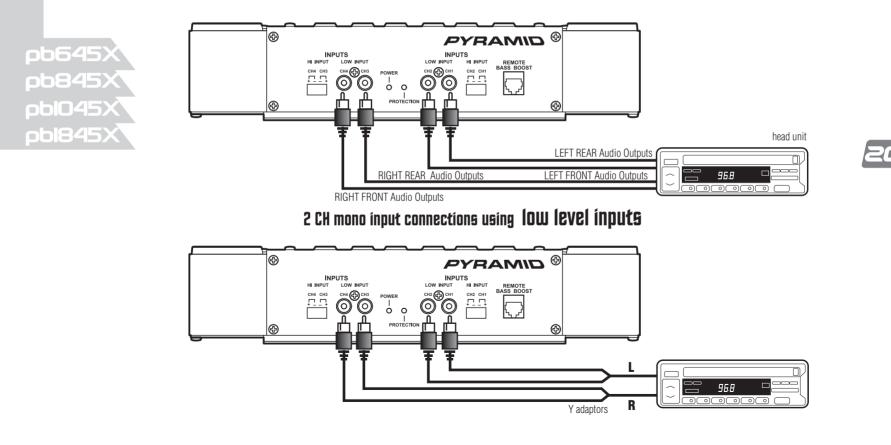
4 ch amp PB645X · PB845X · PBI045X · PBI845X

4 CH Floating ground connections



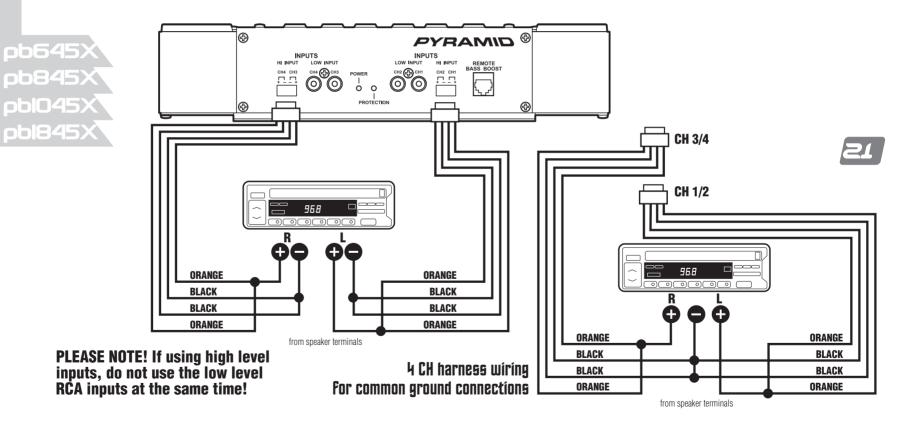
4 ch amp PB645X · PB845X · PBI045X · PBI845X

4 CH mono input connections using low level inputs



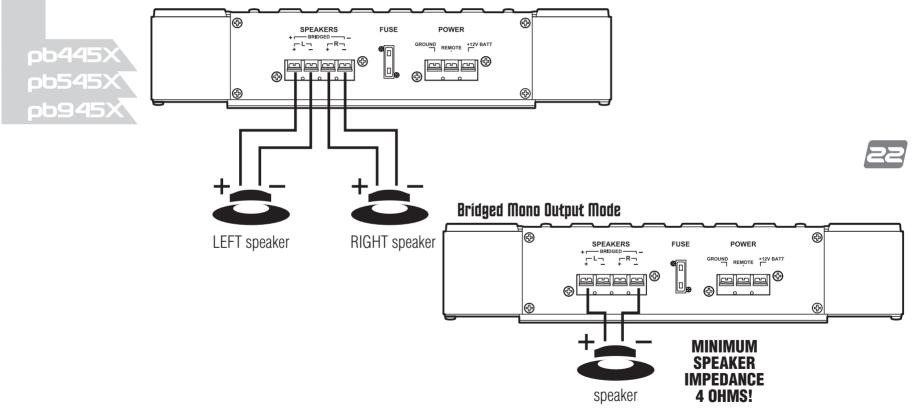
high level mono input connections 4 ch amp PB645X · PB845X · PBI045X · PBI845X

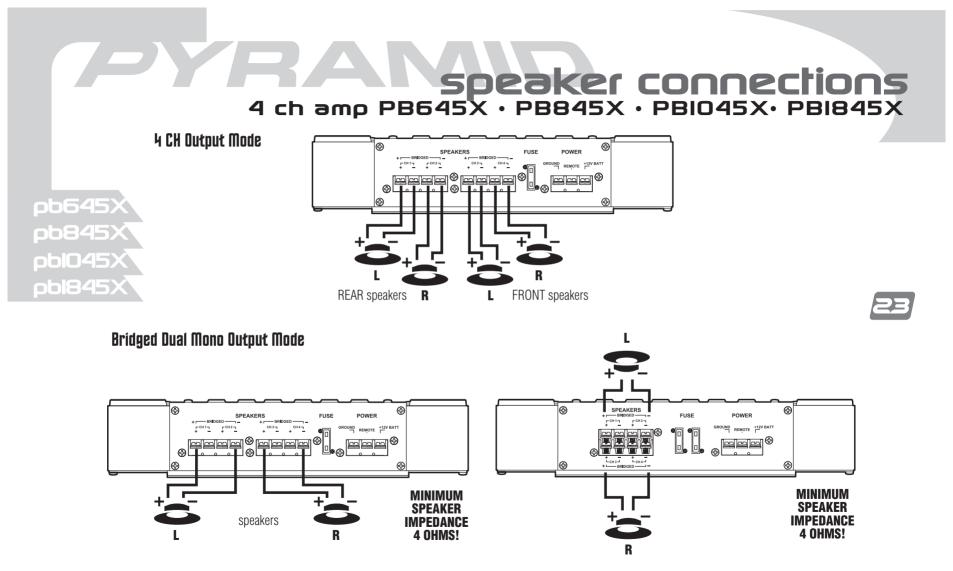
4 CH Floating ground connections



2 ch amp PB445X · PB545X · PB945X

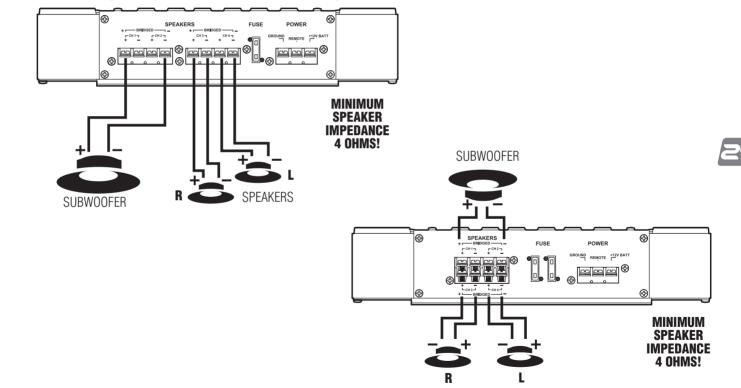






4 ch amp PB645X · PB845X · PBI045X · PBI845X

2 CH Bridged Output Mode with SubwooFer Output



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рb645X рb845X рb1045X рb1845X

7-YR mounting and installation

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Your new Pyramid Royal Red Series 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.

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 Royal Red 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 Royal Red 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 troubleshooting

The built-in protection circuitry in the Pyramid Royal Red 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.

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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 rounting 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.

precautions

notes

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.