

QX500.5 Five Channel Amplifier

SPECIFICATIONS

The QX Series Amplifiers are designed with an emphasis on exceptional power, superior sonic excellence, high performance features and unmatched cosmetics.

Continuous Output Power at 1% THD (watts):

QX500.5

Front and Rear Channels:

Into 4 ohms @ 12.5(IASCA) /14.4 VDC37.5/50 x 4
Into 2 ohms @ 14.4 VDC75 x 4
Bridged into 4 ohms @ 14.4 VDC150 x 2

Sub Channel:

Into 4 ohms @ 12.5(IASCA) /14.4 VDC150/175 x 1
Into 2 ohms @ 14.4 VDC225 x 1

Recommended Fuse Size2 x 20 amp and 1 x 40 amp ATO
Chassis Dimensions19.75L x 9.5W x 2.1H
Overall Dimensions20.75L x 9.5W x 2.1H

Total Harmonic Distortion<0.02%
Frequency Response±1dB 20Hz to 20kHz
Signal to Noise Ratio (20Hz to 20kHz)>100dB
Signal Input Sensitivity200 millivolts to 4 volts
DC Input Voltage Range10 Vdc to 15.5 Vdc
Typical current draw at idle<1.5 amps
Bass Boost0 to 15dB @ 45Hz
Highpass Crossover Slopes12dB per Octave
Lowpass Crossover Slope12 or 24dB per Octave
Crossover Range40 to 800Hz
Minimum Load Stability for all channels2 ohms

Due to on-going continuous product development, features, specifications and availability are subject to change without notice.

LIMITED WARRANTY

Phoenix Gold International, Inc. (or "Phoenix Gold") warrants its products against defects in materials and workmanship for a limited period of time. For a period of one (1) year from date of original purchase, we will repair or replace the electronic product, at our option, without charge for parts and labor. Customer must pay all parts, labor and shipping charges after the limited warranty period expires. The limited warranty period for factory refurbished products expires after ninety (90) days from date of original purchase. This limited warranty applies only to purchases from authorized Phoenix Gold Electronics/Speaker retailers.

This limited warranty is extended only to the original purchaser and is valid only to consumers in the United States. Consumers are required to provide a copy of the original sales invoice from an authorized Phoenix Gold dealer when making a claim against this limited warranty. This limited warranty only covers failures due to defects in materials or workmanship that occur during normal use. It does not cover failures resulting from accident, misuse, abuse, neglect, mishandling, misapplication, alteration, faulty installation, modification, service by anyone other than Phoenix Gold, or damage that is attributable to Acts of God. It does not cover costs of transportation to Phoenix Gold or damage in transit.

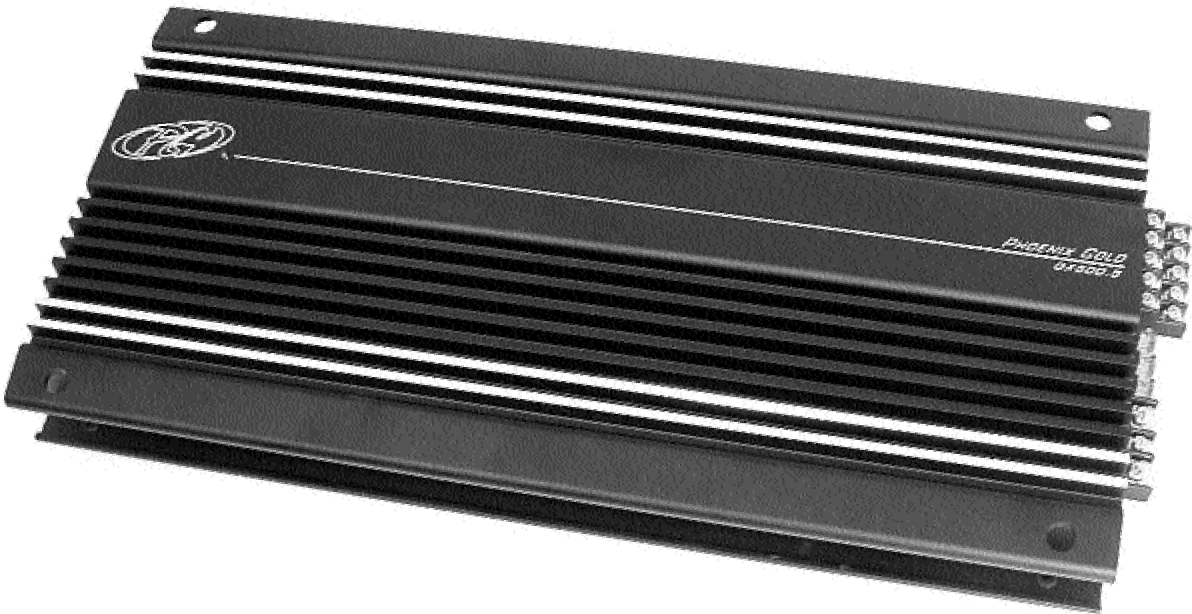
This warranty will become void if the serial number identification has been wholly or partially removed, altered or erased. Repair or replacement under the terms of this warranty does not extend the terms of this warranty. Should a product prove to be defective in workmanship or material, the consumer's sole remedies will be repair or replacement as provided under the terms of this warranty. Under no circumstances shall Phoenix Gold be liable for loss or damage, direct, consequential or incidental, arising out of the use of or inability to use the product. There are no express warranties other than described above.



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PHOENIX GOLD®



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FEATURES

* For complete manuals, technical tips, FAQ's, system diagrams and new product information visit us @

- Variable 12dB per octave highpass crossover from 40 to 800Hz
- Variable 12dB or 24dB (Front Input Only) per octave lowpass crossover from 40 to 800Hz
- Adjustable 0 to +15dB Twin-T™ 45Hz bass boost
- Remote Monitoring Display output connects to optional RMD voltage display
- LPL Ready: optional LPL44 allows the subwoofer level to be adjusted from the dash
- TAIM™ Muting circuitry for soft turn-on and turn-off
- Fully complimentary output stages
- Advanced overload and thermal protection circuitry
- High current buss bars for all high current/high voltage stages
- PWM MOSFET power supply
- Gold plated high current power and speaker terminals
- Gold plated signal input jacks
- Unique black anodized heatsink with fly cut fins
- Optional QLink/2 available for seamless installation of multiple amplifiers



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Operational Details

REMOTE VOLTAGE DISPLAY INPUT Connect the optional RMD Voltage Display to this jack.

STATUS LEDs

BLUE - Lights on top of heatsink to indicate power on.
RED - Lights if the amplifier shuts down due to overheating. If the internal heatsink reaches 90 degrees Celsius or 194 degrees Fahrenheit, the amplifier shuts down until the internal temperature falls below this temperature. It also lights if too low of an impedance or a direct short is present on the speaker outputs.

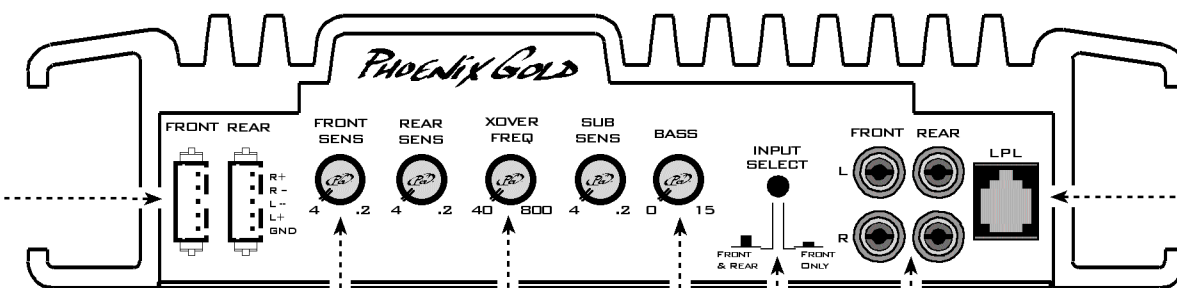
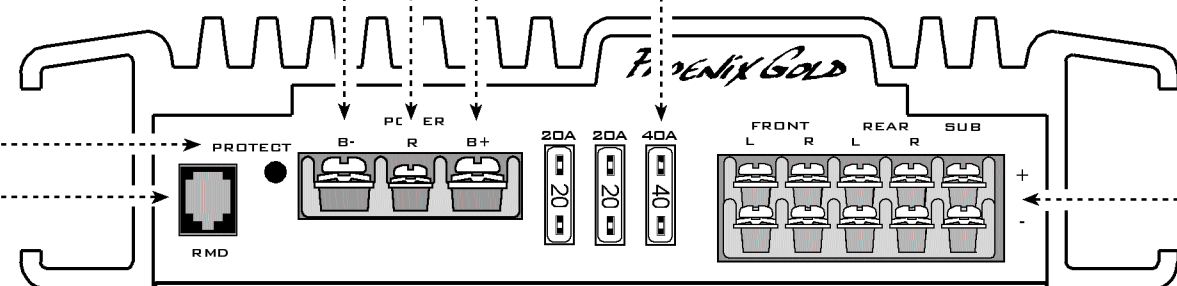
REMOTE TURN-ON TERMINAL Connect to a switched 12 Vdc source such as the headunit's "remote" or power antenna wire.

B- TERMINAL (CHASSIS GROUND) Connect to a clean, solid chassis ground. Remove all paint and dirt from the chassis connection point. Minimum cable size is 8 gauge, for best connection use a JA80 ring terminal. Keep the cable as short as possible.

B+ TERMINAL (BATTERY POSITIVE) Connect directly to the positive battery terminal. Minimum cable size is 8 gauge, for best connection use a JA80 ring terminal. Remember to fuse this cable within 18 inches of the positive battery terminal.

SPEAKER OUTPUTS Used to connect the amplifier to speakers. Use the left + and right - terminals for bridged mode. Minimum speaker cable size is 16 gauge (PG# SS162 or QS162). Use 12 gauge for bridged operation (SS122, SS212 or QS122). Front and rear speaker outputs have a minimum impedance is 4 ohms bridged or 2 ohms stereo. The sub speaker output is stable to 2 ohms, and is not bridgeable with other channels.

FUSES Used to protect the amplifier. If replacement is necessary, use the same size and type. *Never use a fuse with a higher amp rating. The QX500.5 uses two 20A and one 40A amp ATO style fuses.*



INPUT SENSITIVITY Separate front, rear and sub controls are used to reach maximum amplifier power with a wide variety of headunits. The amplifier is more sensitive to input signals when set to .2 and less sensitive when set to 4.

CROSSOVER FREQUENCY Controls the crossover point for the front, rear and sub speaker outputs. The crossover is always engaged. The front and rear speaker outputs are highpass. The sub speaker output is lowpass.

The front and rear crossovers have 12dB per octave slopes. *If the input select switch is set to the "IN" or Front Only position the sub channel's lowpass crossover is 24dB per octave.* If set to the "OUT" or Front and Rear position then the sub channel's lowpass slope is 12dB per octave. The input select switch does not affect the front and rear channels' highpass crossovers slopes.

HI-LEVEL INPUTS Connect speaker wires from a headunit without pre-amp level outputs directly to the supplied terminal. Maximum input power is 35 watts per channel. Never use Hi-Level and Low Inputs at the same time.

INPUTS Connect preamp signal cables from the head unit to these terminals. To maximize noise rejection, we recommend using Phoenix Gold ARx.800, ARx.700, ARx.600 or ARx.500 series twisted pair interconnects.

INPUT SELECT When set to "IN" only the front inputs will provide signal for the entire amplifier. When set to "OUT" both the front and rear inputs will accept signal separately allowing the use of a headunit fader.

TWIN-T™ BASS EQ This control allows up to 15dB of boost at 45Hz for the sub speaker outputs. It cannot affect the front or rear speaker outputs. Use this control sparingly. Every 3dB of boost requires double the power at 45Hz.

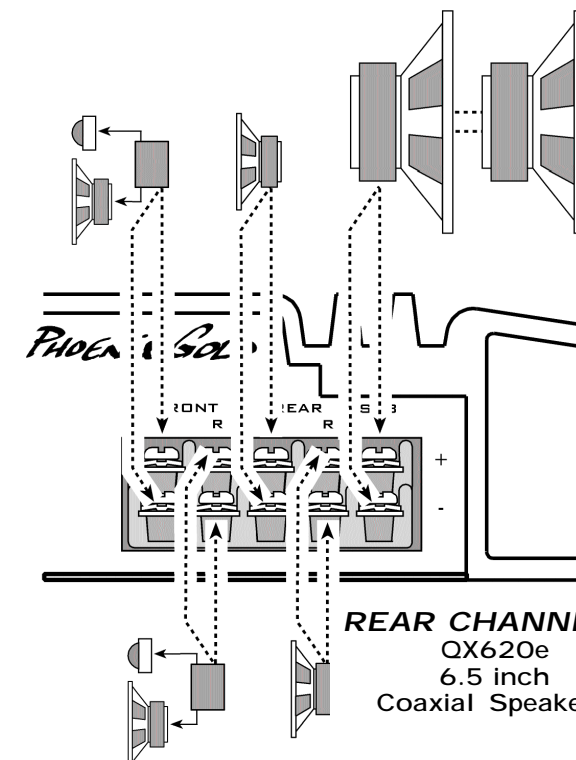
LPL PORT This port is for connecting the optional LPL44™ Remote Lowpass Level Control knob allowing up to 20dB of volume adjustment of the sub speaker outputs.



System Example

FRONT	REAR	SUB
Highpass 100Hz	Highpass 100Hz	Lowpass 100Hz

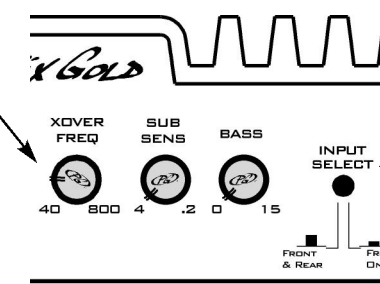
FRONT CHANNELS:
 QX165
 6.5 inch
 Component Speakers



SUB CHANNEL:
 QX104
 (2) 10 Inch SVC 4 ohm
 Subwoofers are wired in
 parallel for a overall
 load of 2 ohms

REAR CHANNELS:
 QX620e
 6.5 inch
 Coaxial Speakers

CROSSOVER FREQUENCY:
 The crossover frequency potentiometer adjusts the crossover points for all the speaker outputs. In this example, the crossover points are set to 100Hz.



INPUT SELECT:
"IN" or FRONT ONLY: Only the front inputs will provide signal for the entire amplifier. The sub channel's lowpass crossover is 24dB per octave.

"OUT" or FRONT and REAR:
 The front and rear inputs will accept signals separately allowing the use of a headunit fader. The sub channel's lowpass crossover is 12dB per octave.

The example above illustrates the most common system diagram for the QX500.5. The front channels power a pair of QX165 component speakers. The rear channels power a pair of QX620e coaxial speakers. The sub channel powers a pair of QX104 subwoofers. The subwoofers are 4 ohm drivers and are wired in parallel to achieve a final load of 2 ohms to the sub channel. **The sub channel is stable to 2 ohms, 1 ohm operation or lower is not recommended.**

