

PHOENIX GOLD[®]

PHOENIX GOLD INTERNATIONAL, INC.

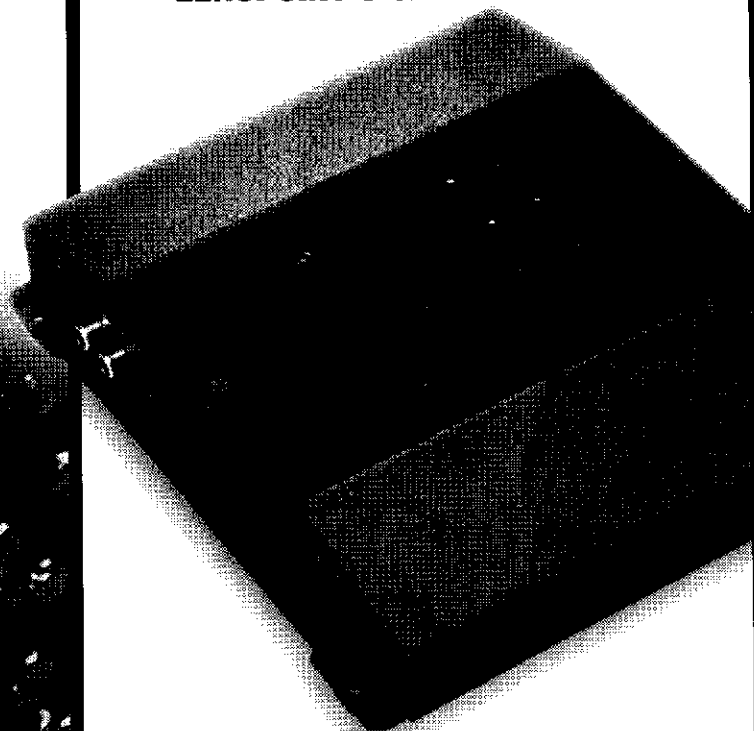
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**OWNER'S
MANUAL**

ZPX2

ZEROPOINT 3-WAY CROSSOVER



PHOENIX GOLD

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Features

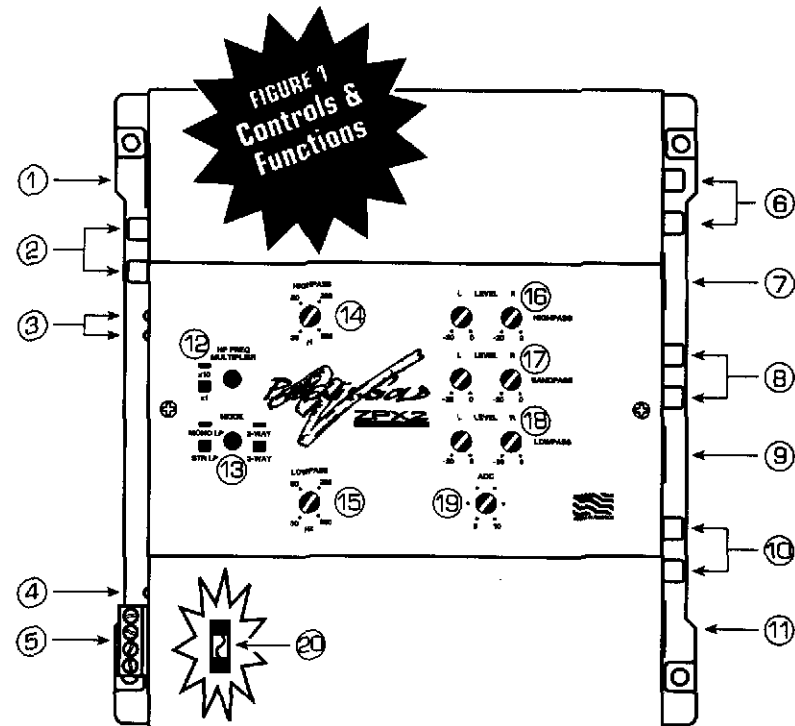
- Balanced Signal Input and Outputs for all channels
- 3-Way Symmetrical Operation with Stereo 24dB per octave Subwoofer Output
- 2-Way Asymmetrical Operation with Mono 48dB per octave Subwoofer Output
- Continuously Variable Highpass and Lowpass Crossover Points
- 24kt Gold Plated Unbalanced Input and Output Jacks
- Separate Left and Right Highpass Output Level Controls
- Separate Left and Right Bandpass Output Level Controls
- Separate Left and Right Lowpass Output Level Controls
- Adjustable Acoustical Delay Circuit (ADC) for Lowpass Output
- Separate Left and Right LED Input Clipping Indicators
- Power-On LED Indicator
- Quick Disconnect Power Plug
- Pulse Width Modulated Power Supply
- 3 Second Delayed Remote Turn-On Output
- 24kt Gold Plated, 2 layer Copper G10 Glass-Epoxy Printed Circuit Boards
- Audiophile Grade 1% Metal Film Resistors and WIMA Capacitors
- Precision Laser Cut 16 Gauge White or Black Powder Coated Steel Chassis



Specifications

- Frequency Response ± 1 dB, 10Hz to 30kHz
- Signal to Noise Ratio > 105 dB ref. to B VRMS
- Total Harmonic Distortion plus Noise @ 1kHz, 1 Volts $< .02$ %
- Crossover Frequency Adjustment Range, Lowpass.....30Hz to 600Hz
- Crossover Frequency Adjustment Range, Highpass.....30Hz to 6kHz
- Crossover Frequency Adjustment Range, Bandpass.....30Hz to 6kHz
- Crossover Slope, Highpass and Bandpass24dB per octave
- Crossover Slope, Lowpass Stereo24dB per octave
- Crossover Slope, Lowpass Mono.....48dB per octave
- Acoustical Delay Circuit (ADC) range0 to 10 ms
- Input Impedance, Balanced20k Ω
- Input Impedance, Unbalanced10k Ω
- Output Impedance, all Outputs30 Ω
- Maximum Input Signal Voltage, RMS / peak.....8 / 11
- Maximum Output Signal Voltage, all outputs, RMS / peak8 / 11
- DC Operating Range.....10 volts to 15.5 volts
- Typical DC Current Draw1 amp
- Internal DC Power Fuse.....GMC 2 amp
- Dimensions of Chassis.....6.7"L x 8.25"W x 1.6"H
- Dimensions with Flanges & Term. Blocks.....7.7"L x 8.25"W x 1.6"H

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



1. **Balanced Input Jack:** This input is designed to accept an XBC style balanced signal cable from a Phoenix Gold signal processor such as the TBA12 Balanced Line Driver or EQ232 Equalizer. The ZPX2 receives both left and right signals from the XBC cable.
Note: The ZPX2 can receive signals from both balanced and unbalanced inputs simultaneously. Therefore it is possible use the ZPX2 to connect a second source unit to the system. However the signals will be summed together unless the installation includes a method to turn one source off while the other is on.
2. **Unbalanced Input Jacks:** These inputs are for standard RCA style signal cables from the headunit, line driver or other signal processor.



3. **Input Clip LED Indicators:** These separate left and right LEDs light when peaks in the musical signal are approaching the 11 volt level. They sense the signal level passing through the Balanced Input Jack #1 and the Unbalanced Input Jacks #2.
4. **Power-On LED Indicator:** This LED turns on whenever the ZPX2 is turned on. The unit cannot turn on unless it is grounded through the B- terminal and is receiving 12 volts at both the B+ and Remote Turn-On terminals of the Quick Disconnect Power Plug #5.

B + Terminal (Battery Positive): Connect to the system's power distribution system that is connected directly to the positive battery terminal. DO NOT connect to the vehicle's factory fuse box. Use a 16 gauge cable.

B - Terminal (Chassis Ground): Connect to a clean, solid chassis ground of the vehicle. Use a 16 gauge cable. Keep the cable as short as possible. DO NOT connect directly to the negative battery terminal.

R Terminal (Remote Turn-On): This connection allows the ZPX2 to be turned on and off remotely. Connect to a switched 12 volt source such as the "remote on" or "power antenna" wire from the headunit.

Note: Test the power antenna wire with a volt meter to insure it has 12 volts when both the tuner and tape / CD are playing. DO NOT connect this terminal to the B+ cable.

DR Terminal (Delayed Remote Turn-On Output): This output is used to delay the turn-on of amplifiers if they reproduce noises (turn-on pop) generated by preamp components as the system is first powered up. DO NOT connect this output to other signal processors.

Note: There is an inherent voltage drop of about 1 volt when using the DR output. It may be necessary to use a standard automotive relay controlled by the DR output when turning on multiple amplifiers.
6. **Unbalanced Highpass Output Jacks:** These outputs are for standard RCA style signal cables that connect to an amplifier or another signal processor. Driving an amplifier for mid range

and high frequency speakers is the primary use of this output. Note: The Highpass Balanced Output Jack #7 may be used simultaneously if desired.

7. **Balanced Highpass Output Jack:** This output accepts an XBC style balanced signal cable connected to a Phoenix Gold Zeropoint Pro amplifier or another Phoenix Gold signal processor with balanced input capability. The ZPX2 transmits both left and right signals through the XBC cable. Driving an amplifier for mid range and high frequency speakers is the primary use of this output.
8. **Unbalanced Bandpass Output Jacks:** These outputs are for standard RCA style signal cables that connect to an amplifier or another signal processor. Driving an amplifier for mid bass or mid range speakers is the primary use of this output when the ZPX2 is set for 3-way operation. This output is full range when the ZPX2 is set for 2-way operation. Note: The Bandpass Balanced Output Jack #9 may be used simultaneously if desired.
9. **Balanced Bandpass Output Jack:** This output accepts an XBC style balanced signal cable connected to a Phoenix Gold Zeropoint Pro amplifier or another Phoenix Gold signal processor with balanced input capability. The ZPX2 transmits both left and right signals through the XBC cable. Driving an amplifier for mid bass or mid range speakers is the primary use of this output when the ZPX2 is set for 3-way operation. This output is full range with the ZPX2 set for 2-way operation.
10. **Unbalanced Lowpass Output Jacks:** These outputs are for standard RCA style signal cables that connect to an amplifier or another signal processor. Driving an amplifier for low frequency speakers is the primary use of this output. This output is stereo with a 24dB per octave crossover slope when the ZPX2 is set for 3-way operation. This output is mono with a 48dB per octave crossover slope when the ZPX2 is set for 2-way operation. Note: The Lowpass Balanced Output Jack #11 may be used simultaneously if desired.
11. **Balanced Lowpass Output Jack:** This output accepts an XBC style balanced signal cable connected to a Phoenix Gold Zeropoint Pro amplifier or another Phoenix Gold signal



processor with balanced input capability. The ZPX2 transmits both left and right signals through the XBC cable. This output is stereo with a 24dB per octave crossover slope when the ZPX2 is set for 3-way operation. This output is mono with a 48 dB per octave crossover slope when the ZPX2 is set for 2-way operation.

12. **Frequency Multiplier Switch:** This switch can multiply the highpass crossover frequency by a factor of 10. With the switch in the x1 position, the crossover frequency is adjustable from 30Hz to 600Hz. In the x10 position the crossover frequency is adjustable from 300Hz to 6kHz.
13. **Mode Switch:** This switch determines if the ZPX2 operates in 3-way or 2-way mode:
- 3-way - The difference between the settings of the Highpass Crossover Frequency Control #14 and the Lowpass Crossover Frequency Control #15 determine the bandpass output's frequency range. The lowpass output is stereo with a 24dB per octave crossover slope.
 Note: The lowpass crossover's setting limits the highpass output's lowest possible crossover point. Example: The lowpass crossover is set to 100Hz. The highpass output's crossover frequency is limited to 100Hz and up.
- 2-way - The bandpass output is full range. The lowpass output is mono with a 48dB per octave crossover slope.
 Note: The highpass output's crossover setting and the lowpass output's crossover setting may be adjusted independently of each other. This allows overlapping or underlapping of crossover frequencies.
14. **Highpass Crossover Frequency Control:** This control adjusts the crossover frequency for the Highpass Outputs #6 and #7. The frequency is adjustable from 30Hz to 600Hz with the Frequency Multiplier Switch #12 set to x1. The frequency is adjustable from 300Hz to 6kHz with the Frequency Multiplier Switch #12 set to x10. This control also sets the upper limit of the Bandpass Outputs #8 and #9 when the Mode Switch #13 is set to 3-way.
15. **Lowpass Crossover Frequency Control:** This control adjusts the crossover frequency for the Lowpass Outputs #10 and #11. The frequency is adjustable from 30Hz to 600Hz. This

control also sets the lower limit of the Bandpass Outputs #8 and #9 when the Mode Switch #13 is set to 3-way.

16. **Highpass Output Level Controls:** These controls allow independent adjustment of the left and right Highpass Outputs. The level may be cut as much as 20dB. With these controls set to maximum, the ZPX2 may pass 11 volts peak to the next component. The next component in the system will determine the amount of output signal desired. Consult the component's specifications to determine proper input signal level.
17. **Bandpass Output Level Controls:** These controls allow independent adjustment of the left and right Bandpass Outputs. The level may be cut as much as 20dB. With these controls set to maximum, the ZPX2 may pass 11 volts peak to the next component. The next component in the system will determine the amount of output signal desired. Consult the component's specifications to determine the proper input signal level.
18. **Lowpass Output Level Controls:** These controls allow independent adjustment of the left and right Lowpass Outputs. The level may be cut as much as 20dB. With these controls set to maximum, the ZPX2 may pass 11 volts peak to the next component. The next component in the system will determine the amount of output signal desired. Consult the manufacturer's specifications to determine the proper input signal level.
19. **Acoustical Delay Circuit (ADC):** This control adjust the amount of delay for the Lowpass Output Jacks #10 and #11. The signal may be delayed as much as 10 milliseconds. The primary use for this control is to insure that bass speakers and midrange / midbass speakers are acoustically in phase.
20. **Internal Power Fuse:** This fuse is installed inside the ZPX2 to protect the power supply from improper connection (reverse polarity) or a short in the B + cable. It should never blow from normal operation. If replacement is necessary, use a fuse of the same size and type (GMC 2 amp). NEVER USE A FUSE WITH A HIGHER RATING.



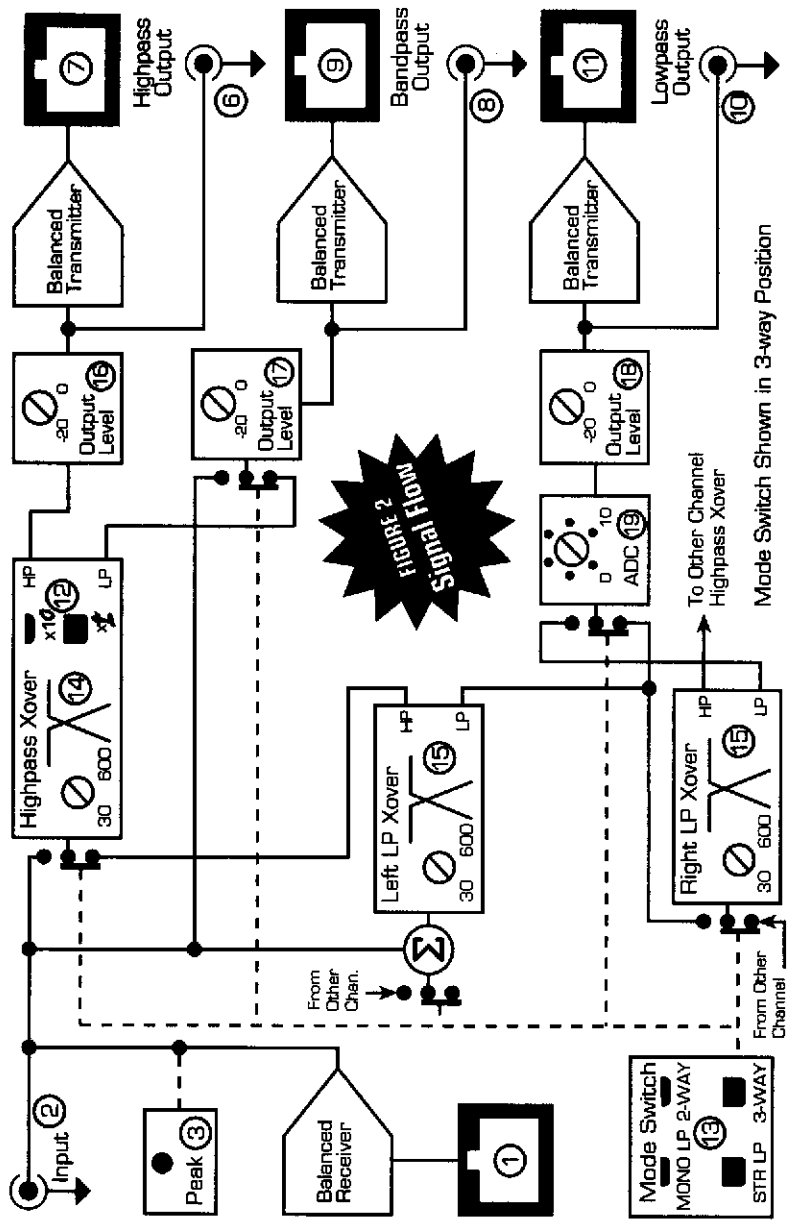
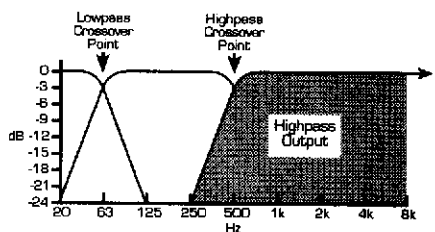
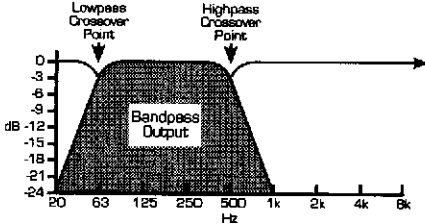


FIGURE 2
Signal Flow

FIGURE 3
3-Way Operation



Highpass output is continuously variable from the lowpass crossover point up to 6kHz.



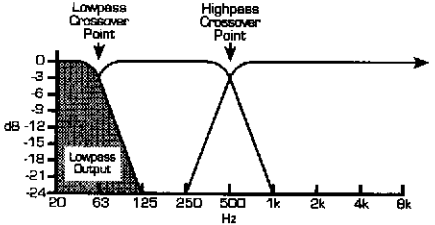
The highpass crossover point must be set to a higher frequency than the lowpass crossover point for the bandpass output to function.

Bandpass output frequency range is defined by the frequencies between the lowpass and highpass crossover points.

The widest possible bandpass output frequency range is 30Hz to 600Hz with the highpass frequency multiplier switch set to x1.

With the highpass frequency multiplier switch set to x10, the widest possible frequency range is from 30Hz to 6kHz.

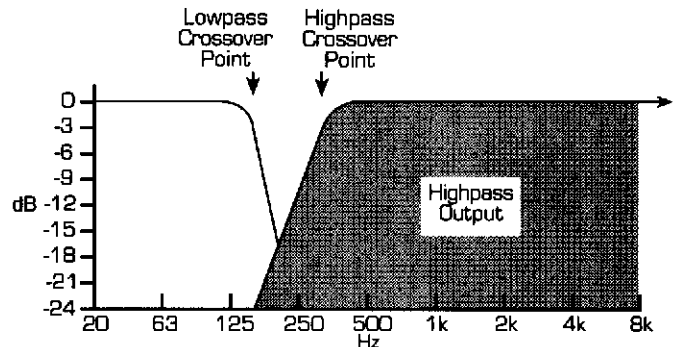
Lowpass output is continuously variable from 30Hz to 600Hz



The lowpass crossover slope is 24dB per octave and stereo when the mode switch is set to 3-way.

For 48dB mono output the ZPX2 must be configured for 2-way operation.





The highpass crossover frequency range is 30Hz to 600Hz with the highpass frequency multiplier switch set to x1.

With the highpass frequency multiplier switch set to x10, the highpass crossover frequency range is from 30Hz to 6kHz.

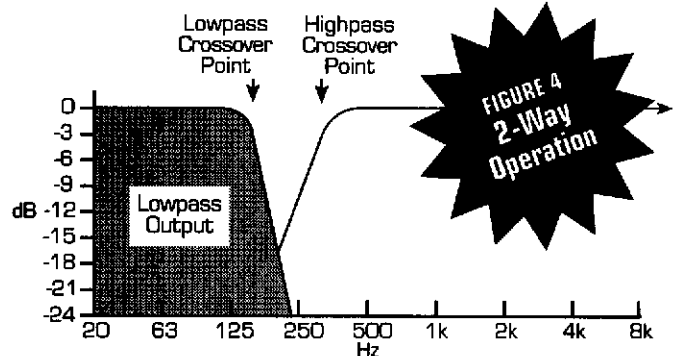


FIGURE 4
2-Way
Operation

The lowpass crossover slope is 48dB per octave and mono when the mode switch is set to 2-way.

For 24dB per octave stereo lowpass output, the ZPX2 must be configured for 3-way operation.

The bandpass output is full range and is not effected by the highpass or lowpass crossover points.

Highpass and lowpass crossover points are independent and may be overlapped.

A successful installation must begin with planning. Before beginning the installation there are several things to consider.

1. Inspect the vehicle's electrical system:
The vehicle's battery and charging system must be in excellent condition before the system is installed. If there is any doubt as to the condition of the electrical system, it should be inspected and repaired by a qualified technician.

2. Plan the mounting locations for all components:
Select a mounting location for each component based on the guidelines below. This is the only way to determine if custom work is needed. If custom work is required, consult with a qualified custom installer. Attempting to modify your vehicle without the proper tools and experience can lead to damaging the equipment or vehicle.

Speaker placement - This is the most important consideration for a great sounding system. Try to mount the left and right mid / high frequency speakers an equal distance from the listening position. The kick panel area is a good location. Low frequency speakers are less critical.

Preamp components - Mount preamp components where they can be easily adjusted and serviced but not where loose cargo or other items can damage them or accidentally alter their settings.

Amplifiers - The primary consideration for amplifier location is ventilation. Make sure your amplifiers will receive plenty of fresh air to avoid overheating.

3. Plan all system cable routes:
When choosing cable routes, make sure no cables are allowed to interfere with the mechanical operation of the vehicle controls such as steering wheel, gas, brake, clutch pedal, trunk hinges, etc.

All main power cables must be fused within 18 inches of the positive battery terminal. Do not route power cables near hot engine components such as exhaust manifolds. Power cables must be protected with grommets when they pass through any metal panels such as the firewall.

Signal cables should never be run alongside power cables and must be routed away from all other vehicle wiring and electrical components such as computers. Use Phoenix Gold XBC Balanced Signal Cables or QLX Signal Cables wherever possible to maximize noise rejection.



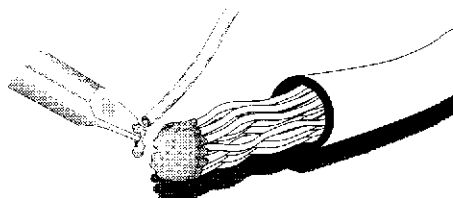
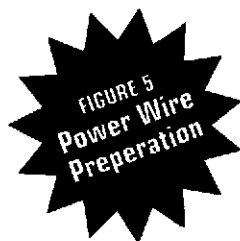
MOUNTING

The ZPX2 can be mounted in a variety of positions. There are only a few precautions that must be observed.

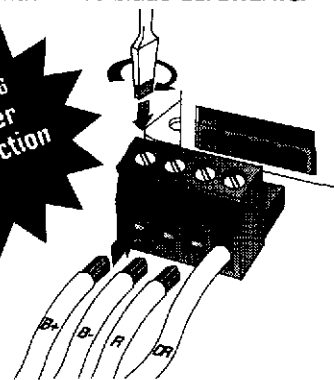
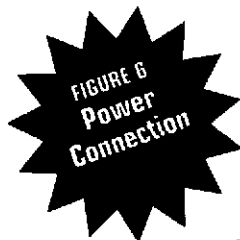
1. Never mount the ZPX2 where it can get wet. Water damage is not covered by the limited warranty.
2. Do not mount the ZPX2 where debris or cargo can damage it or change the settings. Physical damage is not covered by the limited warranty.
3. Mount the ZPX2 to a flat surface with screws. Make sure the base does not flex or distort.
4. Do not mount the ZPX2 where it may be exposed to excessive amounts of heat from other stereo components (amplifiers).

ELECTRICAL

All power connections are made with the removable power connector. Strip 1/4" of insulation from the end of the wire and "tin" the tip with solder as shown in figure 5.



Insert each wire into the appropriate position in the power connector and tighten the set screw with a flat blade screwdriver as shown in figure 6.



Note: Use 16 gauge cable for the B+ and B- connection. Use 18 gauge cable for the Remote and Delayed Remote connections.



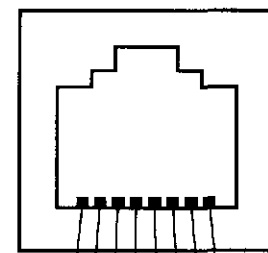
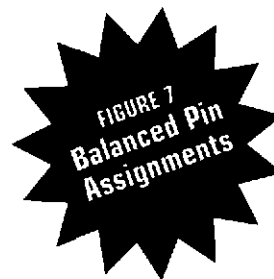
XBC BALANCED SIGNAL CABLES

Phoenix Gold's exclusive XBC cables are available in 0.5, 1.0, 2.5, 5.0 and 6.0 meter lengths. These lengths should be adequate for most needs. If desired, custom made longer length cables may be ordered through an authorized Phoenix Gold dealer.

The information shown in figure 7 is for the benefit of the custom installer who wishes to modify an existing XBC cable by cutting an existing cable to length and installing a new connector on one end. The following parts should be ordered from an authorized Phoenix Gold dealer:

- X8PC - A special shielded eight position connector with a modular protective rubber boot.
- CT8P - A special crimping tool used to properly crimp the X8PC onto the XBC cable.

Balanced Input AND Output Jacks



Note: View looking into the female jack.



Attaching a new X8PC to an XBC cable:

Refer to figure 8.

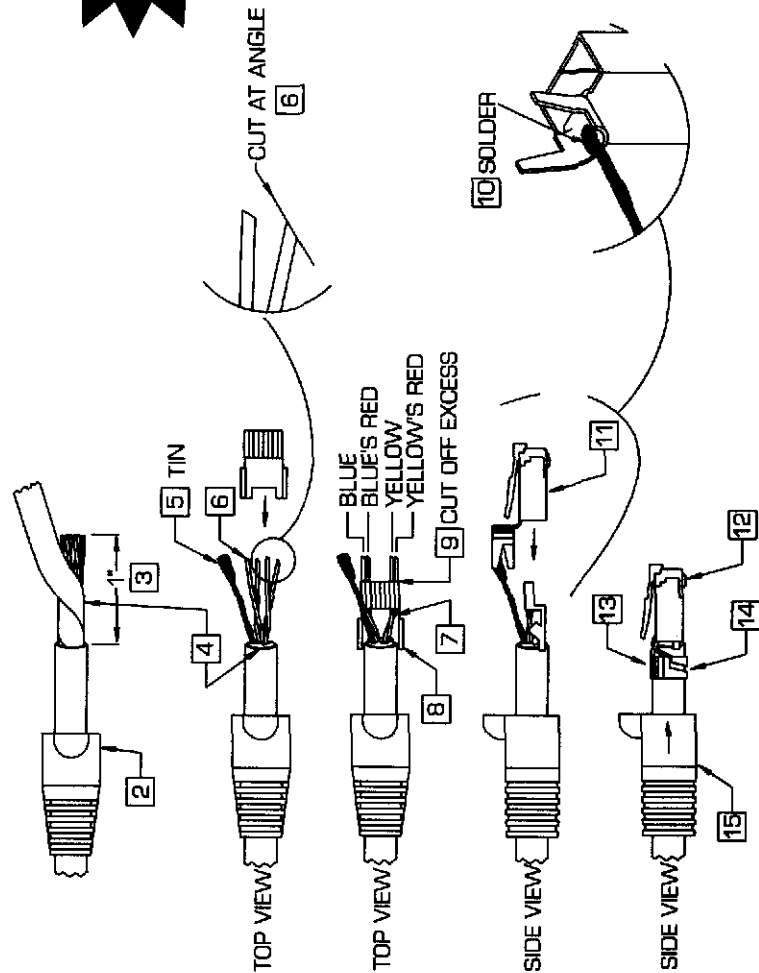
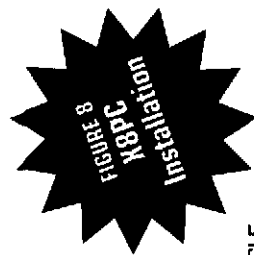
1. Cut the XBC cable to length.
2. Slide the modular rubber boot onto the XBC cable.



3. Strip the cable's insulating jacket back 1" from the end.
4. Unwrap the foil shield and cut it off flush with the end of the cable's insulating jacket.
5. Separate the bare ground wires from the twisted conductor pairs, twist the two wires together and "tin" the tip with solder.
6. Trim the ends of the insulated conductors at an angle to make threading them into the insert easier.
7. Thread the conductors into the insert. Make sure the conductors are in the proper order according to the color code shown in figure 8. Keep the conductors twisted together as much as possible.

Hint: Use a large paperclip inserted into one of the middle wire holes to spread the plug insert apart slightly. This will make inserting the wires easier.

8. Press the plug insert back snugly against the end of the cable jacket while pulling the conductors through the insert to remove any slack.
9. Trim the excess insulated conductors off flush with the end of the insert.
10. Solder the tinned ground wires to the inside of the plug housing strain relief.
11. Press the insert into the connector housing. Make sure the insert is pressed all the way into the housing.
12. Use the CT8P crimping tool to press the eight brass contacts down into the insulated conductors.
13. Bend the strain relief down to lie flat against the cable.
14. Crimp the strain relief around the cable using the CT8P crimping tool.
15. Slide the modular rubber boot into place on the connector.



Properly tuning the ZPX2 requires the following steps that must be taken in the correct order:

1. Setting system Input Gains and Output Levels.
2. Adjusting the Acoustical Delay Circuit (ADC).

INPUT GAIN AND OUTPUT LEVEL SETTING

1. After all power, speaker, and signal cables are connected install the system's power fuses
2. Set all ZPX2 Output Level Controls to their minimum settings (full counterclockwise).
3. Set the HP Frequency Multiplier Switch and Mode Switch to their appropriate positions for your system configuration.
4. Make a preliminary adjustment to the Highpass and Lowpass Crossover Frequencies. Check the manufacturer's specifications for the proper frequency range of each speaker. It may be necessary to fine tune the crossover frequency later for the best overall sound quality.
5. Set the ADC Control to 0 (full counterclockwise).
6. Set all other signal processor input gain controls and output level controls to their minimum settings.
7. Set all amplifier input gain controls to their minimum settings.
8. Turn the headunit on with the volume set to minimum.
9. Visually check the ZPX2's condition. The green Power-On LED should be on. The red Input Clip LED indicators should be off.
10. Visually check the power-on indicators (if equipped) of all other system components to verify that they are on.
11. Set the headunit's tone controls, balance and fader to the center (flat) position and turn off any loudness features or other processing effects.
12. Set the volume control of the head unit to approximately 7/8 of maximum (maximum undistorted output). Play a very clear and dynamic recording. Turn on the headunit's repeat track feature.

Note: Do not be alarmed if you don't hear much sound coming from the speakers at this time.

13. Adjust all preamp components between the headunit and ZPX2 for maximum undistorted output as per the manufacturer's instructions. Start with the first component after the headunit and work your way towards the ZPX2.
14. Turn up the output level controls for the last signal processor before the ZPX2 until the red LED Input Clip Indicators flicker on about once a second with the peaks in the music.
15. At this point approximately 1100 millivolts peak is being passed through the Highpass, Bandpass and Lowpass Output Level Controls to the next components in the system. It is possible to send as much as 11 volts peak to each component by turning up the Output Level Controls. The input signal needs of the next component determine the settings for the Output Level Controls.

ZPX2 outputs going directly to an amplifier:

a - Turn up each Output Level Control separately until the speakers connected to the corresponding channel of the amplifier begin to distort. Turn the output level back down just enough to eliminate the distortion. If this adjustment cannot distort the speakers, then leave the output level at maximum and use the amplifier's input gain control to reach maximum undistorted output.

b - Repeat this step for each channel. Once the maximum undistorted output of a channel is determined, you may find it helpful to disconnect the signal input at the amplifier so it won't interfere with listening to other channels. The idea is to establish the maximum undistorted output of each amplifier channel and it's associated speakers independently of the others. When each output is properly adjusted, go to step 16.

ZPX2 outputs going to another signal processor:

a - Turn up each Output Level Control separately until the next signal processor is receiving the maximum amount of signal it can accept (consult the manufacturer's specifications).

b - Turn up the output level adjustments of the next signal processor according to the input needs of the following signal processor. Repeat this procedure for each processor until the correct input gain of the last signal processor before the amplifier is set.



c - Turn up the output level of the last processor until the speakers connected to the amplifier begin to distort. Turn the output level back down just enough to eliminate the distortion. If this adjustment cannot distort the speakers, then leave the output level at maximum and use the amplifier's input gain control to reach maximum undistorted output. Repeat this step for each channel in the system. Once the maximum undistorted output of a channel is determined, you may find it helpful to disconnect the signal input at the amplifier so it won't interfere with listening to other channels. The idea is to establish the maximum undistorted output of each amplifier channel and it's associated speakers independently of the others.

16. Once the maximum undistorted output for each amplified channel has been established it will be necessary to listen to the overall balance of the system and readjust the level controls for some channels. For example: If the right channel sounds louder than the left channel, the right channel's output should be lowered until it is equal to the left channel. Compare left to right highpass, midbass to subwoofer, etc. until the system is properly balanced. The idea is that all the channels in the system must be referenced to the weakest amplifier and speaker combination.
17. Listen to several musical selections and fine tune the Crossover Frequency Controls for the best overall sound quality.
18. When all input gains and output levels are set correctly, the system will reach maximum undistorted output at the volume level set in step 12. If more overall volume is desired, it will be necessary to increase amplifier power or speaker capability or both.

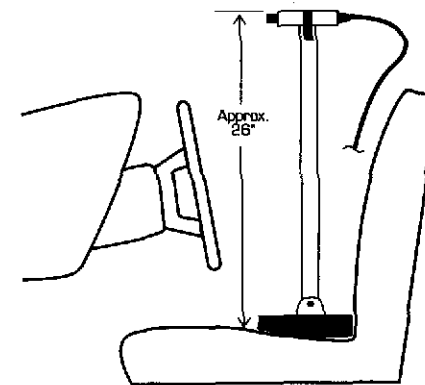
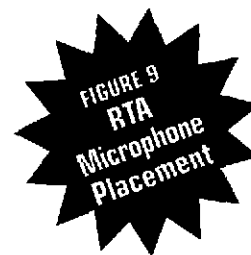
ADJUSTING THE ACOUSTICAL DELAY CIRCUIT

The Acoustical Delay Circuit (ADC) corrects response problems caused by constructive or destructive interference around the lowpass crossover region. The frequency range around the lowpass crossover point includes frequencies that are being reproduced by both lowpass and bandpass / highpass speakers. The ZPX2 incorporates very steep 24 dB per octave crossovers to minimize interaction between speakers at the crossover point. However, when the distance from the listening position to each speaker is different, the signals may arrive slightly out of phase with respect to each other. Constructive interference occurs when the two signals sum together and create a peak in the overall response at the crossover point. Destructive interference occurs when the two signals cancel each other and create a dip in the overall response.

The ADC can delay the lowpass signal as much as 10 milliseconds. This has the same effect as physically adjusting the placement of the lowpass speaker to allow the two signals to arrive in phase with each other.

A real time analyzer (RTA) capable of 1/3 octave resolution is required to adjust the ADC.

1. Set up the RTA so its display can be seen while adjusting the ZPX2. Set the response time of the RTA's display to its slowest setting. Attach the RTA's microphone to a stand and place it in the driver's seat as shown in figure 9.



The microphone should be placed horizontal and pointing forward towards the dash with a height of 26 inches from the seat cushion.

2. Play uncorrelated (stereo) pink noise with the headunit's repeat track function turned on and the bass and treble controls set to their flat positions. Turn off any loudness controls or other sound processing effects.
3. Set the volume level for approximately 90dB.

Note: The level must be at least 10dB above any ambient noise that could interfere with RTA readings.

4. Observe the RTA and adjust the sensitivity to center the overall curve in the display area.
5. Turn the ADC Control from 0 to 10 while observing the response curve in the area of the crossover point between lowpass and bandpass / highpass. The idea is to smooth either a peak or dip in the response by delaying the lowpass output slightly and thus changing the phase relationship between the two signals.
6. Adjust any equalization controls used in the system for a smooth frequency curve.
7. Check the sound quality of the system with various music selections and fine tune the equalizer settings based on what you hear. Remember that the RTA is just a guide and should never be the final judge of the sound quality of the system. Use your ears.

SYMPTOM	PROBABLE CAUSE	SOLUTION
Power On LED not on	No battery, chassis ground, or remote connection Blown power fuse inside the ZPX2	Connect B +, B -, and Remote Turn On to the Quick Disconnect Power Plug (pages 7 & 15) Check for a short to chassis ground in the B + cable. Install a new fuse (2 amp GMC)
No output and Power On LED is on	No signal from the source Faulty input or output signal cables	Check the signal source for proper output Try substituting different signal cables
Distorted sound in all channels	Clipped input signal	Make sure the signal source is not providing a clipped signal (pages 19 - 21)
Distorted sound in individual channels	Output Level Controls set too high for the next component	Set the Output Level Controls to a lower setting (pages 12 - 14)
Full Range Sound coming from the bandpass outputs	Mode switch is incorrectly set for 2-way operation	Set the mode switch for 3-way operation (pages 8-9, 12 and 19)



DECLARATION OF CONFORMITY

We: Phoenix Gold International
(supplier's name)

9300 N Decatur, Portland, OR 97203 USA
(address)

declare under our sole responsibility that the product:

ZPX2
(name, type or model, lot, batch or serial number,
possibly sources and numbers of items)

to which this declaration relates is in conformity with the
following standard(s) or other normative document(s):

EN55013, EN55020
(title and/or number and date of issue of the standard(s)
or other normative document(s))

(if applicable) following the provisions of:

89/336/EEC, EMC
(directive)

Portland, OR USA Feb. 1, 1997
(place and date of issue)





(name and signature or equivalent marking
of authorized person)

Limited Warranty

Phoenix Gold provides a limited warranty on all electronics (free of manufacturing defects in materials and/or workmanship) to the original consumer/purchaser for a period of eighteen (18) months when installed by an Authorized Phoenix Gold Mobile Electronics Retailer. Returning a copy of the original sales receipt with the warranty registration card extends the period to thirty-six (36) months. The limited warranty period is thirty (30) days if installed by anyone other than an Authorized Phoenix Gold Mobile Electronics Retailer. We will cover parts and labor provided the product was purchased from an Authorized Phoenix Gold Retailer. This Warranty does not apply to any product where the tags and/or serial numbers have been cut, removed, tampered or altered in any manner. This limited warranty is applicable to only the original consumer/purchaser and is not transferable. Electronics that are deemed defective during the warranty period will be repaired or replaced at the discretion of Phoenix Gold. Repaired or replaced product will be covered until the original warranty period expires. Phoenix Gold will not be responsible for any incidental or consequential damages that may result from a defect in the product. Select states may not allow the exclusion or limitation of incidental or consequential damages, so the prior limitations may not apply.



Dealer's Name _____

Telephone Number _____

Salesperson's Name _____

Model Number ZPX2

Serial Number _____