

H I F O N I C S

C A R A U D I O

POWER FROM THE GODS

ZEUS

ZX 5.1 MOBILE VIDEO AMPLIFIER

OWNERS/INSTALLATION MANUAL

SHAKE YOUR FOUNDATION

ZEUS 20th ANNIVERSARY EDITION HIGH PERFORMANCE AMPLIFIERS

As Hifonics celebrates it's 20th anniversary of producing the finest high end car audio products available, we would like to thank you for your continued support.

The Zeus Series range of products have been designed to a very high level of performance, with features unavailable in any other product. All of the amplifiers have variable crossovers built in, with added touches such as subsonic filter, bass equalization and a bass remote control module.

To ensure years of listening pleasure, all amplifiers have a built-in diagnostic mode that will detect shorted speaker leads, low impedance, dangerous high temperatures, DC shorts and will shut down the amp to prevent serious damage.

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AMPLIFIER FEATURE DESCRIPTIONS

The ZX5.1 is capable of 4 Ohms & 2 Ohms for channels 1-4 in stereo mode and 4 Ohms bridged and 4 or 2 Ohms for channel 5.

It is not capable of 2 Ohms bridged for channels 1-4 or 1 Ohm for channel 5.

Running at 2 Ohms bridged on channels 1-4 or 1 Ohm for channel 5 will damage the amplifier and repairs will not be covered under warranty.

The ZX5.1 allows for two types of inputs.

1. Unbalanced Input (RCA): The typical unbalanced line inputs accept input from 0.15 to 4 volts and are fully adjustable. The amp can be wired for 2, 3, 4 or 5 channel operation from a source unit such as a Radio/CD player or pre-amp.
2. Digital Inputs: Accepts digital inputs from DVD, VCD and MP3 players. The amp will accept coaxial, auxiliary and optical signals.

You can connect both Unbalanced and Digital inputs at the same time.

The system has on-screen programming that allows you to select the type of input you want.

The ZX5.1 includes the following parts

- 6 Channel Amplifier
- IR Remote Control
- IR Sensor with 17 cable
- Hardware Package
- Spare Fuses
- Owners / Installation Manual
- Hifonics Window Decal

FEATURES

LINE INPUTS: The Unbalanced Line Inputs (RCA) accept input voltage from 0.15 to 4v. There are designated inputs labeled channels 1-5. Channels 1 & 2 are typically used for the front speakers, channels 3 & 4 are typically used for the rear speakers and channel 5 inputs are used for the subwoofer mono.

LEVEL: There are 3 Level controls. One for channels 1 & 2, one for channels 3 & 4 and one for channel 5 mono output. The Level controls are variable from 0.15v to 4v.

CROSSOVER ON/OFF: In the OFF position, the amplifier will operate in a Full Range mode and the individual HPF (High PassFilter) and LPF (Low PassFilters) will not work. In the ON position, you will have total control of the HPF and LPF.

HPF: The High Pass filter is fully variable from 30Hz to 1.2KHz. There are separate controls for Channels 1 & 2 and 3 & 4.

LPF: The Low Pass Filter for channel 5 is fully variable from 20Hz to 220Hz.

IR INPUT: The IR (Infrared) input is used for the IR Sensor that receives signal from the remote control.

ACC: This connects to the vehicle accessory +12 volt source.

RMT: The RMT (remote) input turns the amp on and off with the Radio/CD player.

OPTICAL: The Optical input carries audio signal from digital sources such as a DVD player.

VIDEO IN / OUT: The Video input allows you to add additional analog inputs from sources such as a DVD or VCP.

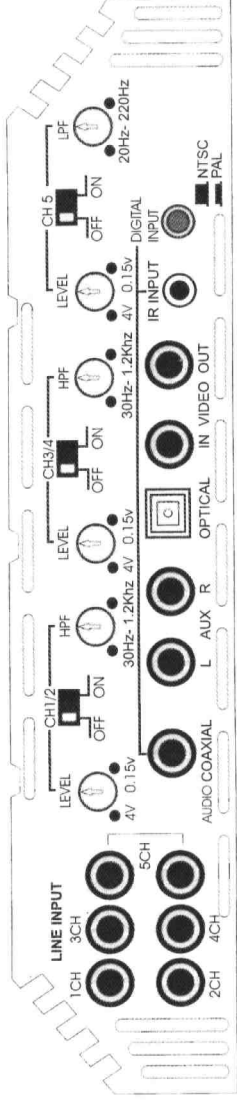
The output provides signal to your monitor. The purpose is to allow on-screen display of the video and audio adjustments.

INPUT: The input push button switch allows you to select NTSC or PAL formats.

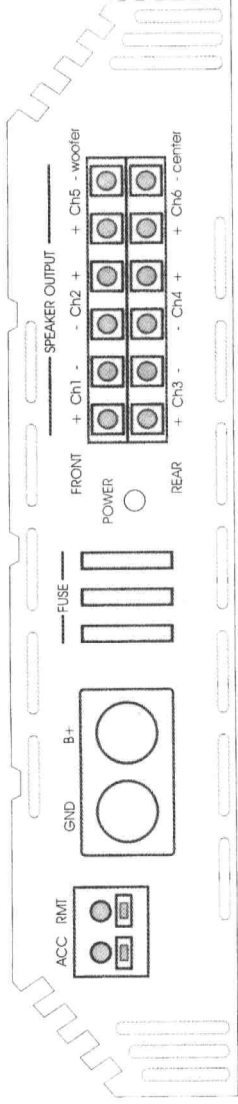
COAXIAL: The Coaxial video input allows the use of digital coaxial signal into the amp.

AMPLIFIER FRONT AND BACK PANEL DRAWINGS

ZX5.1 6 CHANNEL AMPLIFIER FRONT PANEL



ZX5.1 6 CHANNEL AMPLIFIER BACK PANEL



Output Power Rating(14.4V battery)

4 Ohms Stereo channels 1-5	50 x 5
2 Ohms Stereo channels 1-5	65 x 5
4 Ohms Bridged channels 1-4	130 x 2
4 Ohms mono channel 5	200 x 1
2 Ohms mono channel 5	300 x 1

Miscellaneous Specifications

Soft Start	YES
Frequency response, -3dB	10 Hz - 30 KHz
Damping factor	>200
Signal to noise ratio (A-weighted)	>95 dB
THD&N	< 0.05%
Channel separation at 1 KHz	>70 dB
Variable input level control	0.15V - 4V
Input impedance	47 Kohm
Power and Diagnostic LED	YES
Protection:	
DC, short, thermal, overload	YES
Power supply, all MOSFET PWM	YES
Audio output, all Bipolar	YES

Crossover and Switching

Input Selector Switch	ON / OFF
Channels 1 / 2	30Hz - 1.2 KHz
Variable high pass, 12 db/octave	
Channels 3 / 4	30Hz - 1.2KHz
Variable high pass, 12db/octave	
Channel 5 / Mono amp crossover	ON / OFF
Variable Mono low pass, 24 dB/octave	20Hz - 220Hz

Connector types

Unbalanced inputs (RCA)	YES
Remote control	YES

Mechanical

Molded power terminal	8 GA
Molded speaker terminals	12 GA
Fuse type	ATC
Fuse size	3 X 30 AMP
Dimensions	L:18 W:10.4 H:2.4

ZX5.1 5 CHANNEL OPERATION

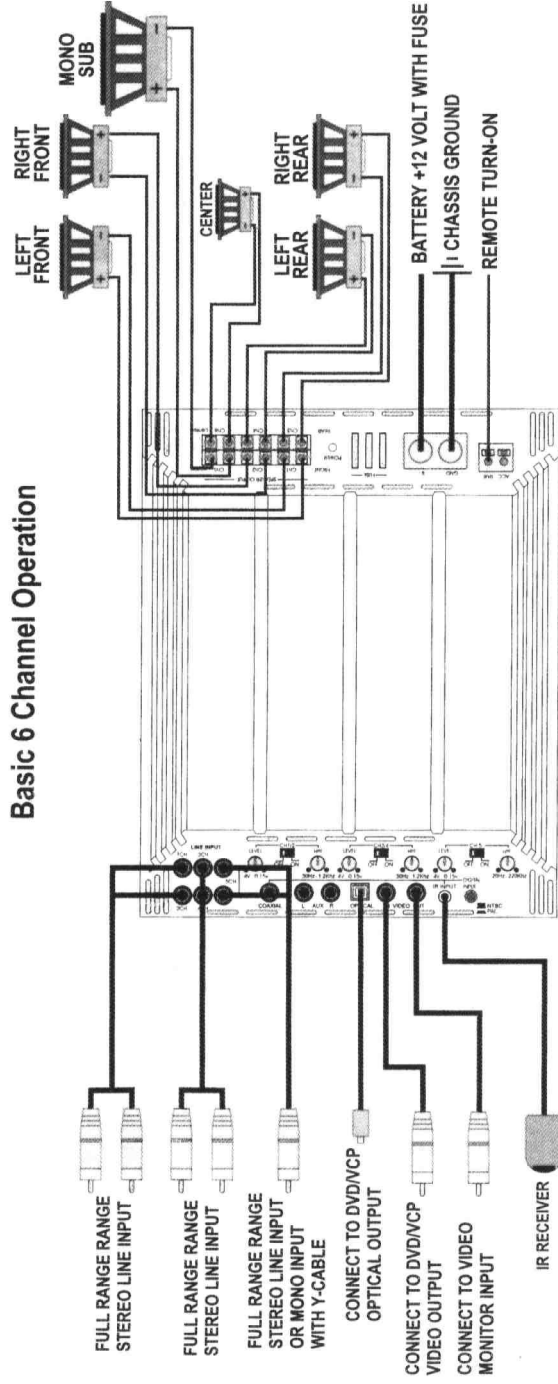
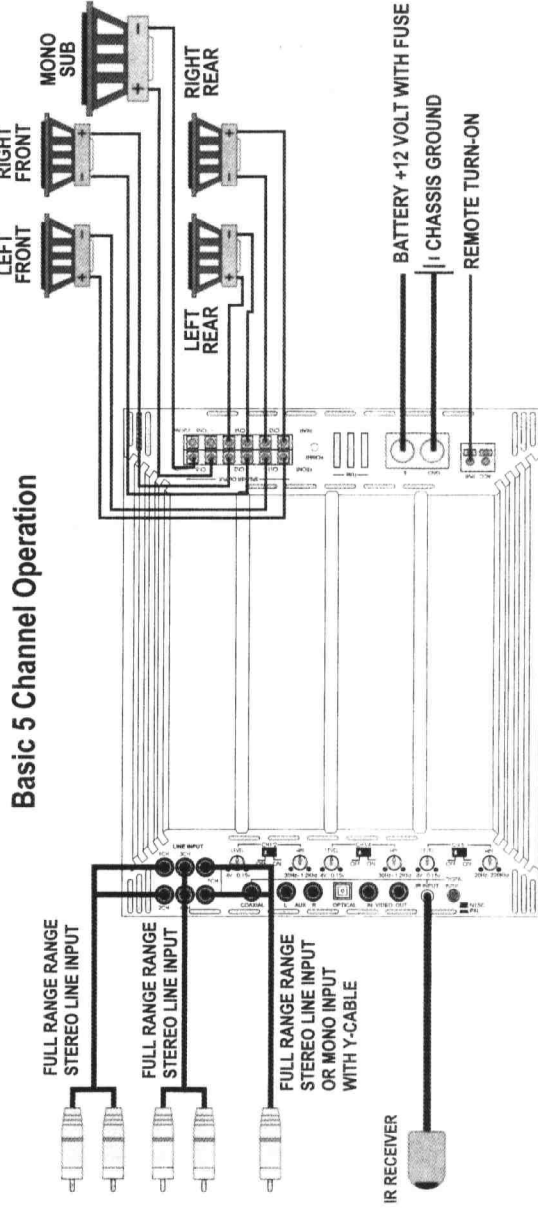
This configuration illustrates a basic 5 channel set up using a Radio/CD player with 4 stereo speakers and a mono subwoofer. You can run the amplifier full range for all 4 speakers by selecting the OFF position on the ON/OFF crossover switch for channels 1-2 & 3-4. Channel 5 will always be mono regardless of the crossover switch. This will allow you to control all crossover settings via the Radio/CD player crossover controls.

You can also control the crossover settings to the 4 stereo speakers by selecting the ON position of the ON/OFF crossover switch. The channel 5 has an ON/OFF crossover switch and in the ON position, you can control the LPF (low pass filter) to adjust the subwoofer crossover points.

INTER CONNECT CABLE CHECK LIST

Using high quality RCA cables, connect the amp channels 1 & 2 to the Radio/CD player channels 1 & 2 outputs. Connect the amp channels 3 & 4 to the Radio/CD player channels 3 & 4 outputs. There are two ways to connect the channel 5 input.

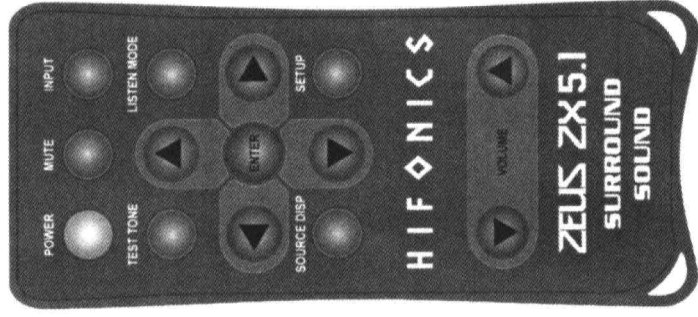
NOTE: The 4 stereo speakers and mono subwoofer outputs are capable of 4 & 2 Ohms only. They are not capable of 1 Ohm operation.



ZX5.1 REMOTE CONTROL OPERATION

Below is a list of the Remote Control features

1. **POWER:** This button turns the amplifier on and off. Press for 1-2 seconds.
2. **MUTE:** The Mute button allows you to turn the audio on and off.
3. **INPUT:** This button allows you to choose which type of Audio / Video input you need such as Optical, Coaxial or Aux (auxiliary).
4. **TEST TONE:** This is the toggle key for automatic channel moving from L->C->R->RS->L->.
5. **LISTEN MODE:** This button allows you to choose Stereo, Phantom or Surround Sound affects.
6. **LEFT ARROW:** This allows control of On / Off for sub speaker, DRC, Prologic and Low Frequency cut-off selection for the crossover.
7. **RIGHT ARROW:** This allows control of On / Off for the sub speaker, DRC, Prologic and High Frequency cut-off for the crossover.
8. **ENTER:** This button is the escape when you are in the MENU mode and TRIM menu.
9. **SOURCE DISPLAY:** This allows you to choose decoding mode DOLBY DIGITAL, DOLBY DIGITAL 5.1, PCM with Prologic, PCM without Prologic, DOLBY DIGITAL with Prologic, Dolby without Prologic.
10. **ARROW UP:** Allows you to move the Menu up.
11. **ARROW DOWN:** Allows you to move the Menu down.
12. **SET UP:** Activate SET UP MENU.
13. **VOLUME:** Master amp volume up and down.

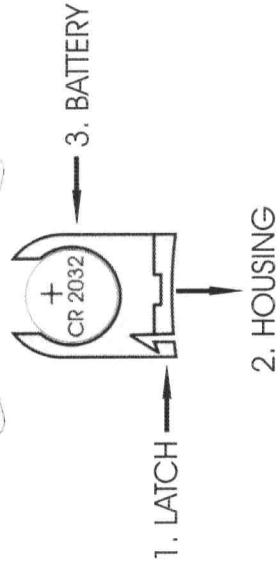


BATTERY INSTALLATION / REPLACEMENT

The battery is a Panasonic Cr2032

3 volt lithium.

1. Push latch inward
2. Pull battery housing outward
3. Insert battery with + facing upward.



ON SCREEN DISPLAY (OSD) OPERATION

The On Screen Display options are listed below.

You can access these features with the Remote Control provided.

These features are used when using Digital inputs from options such as DVD, VCP and other digital video sources.

An explanation of the features and remote control operations are provided on previous pages.

1. DIGITAL INPUT CONTROL BY OSD INPUT SOURCE

Optical - Coaxial - Aux - Optical

LISTENING MODE

Stereo - Phantom - Surround

* Display for 5 seconds

MUTE

Mute ON display until mute OFF or volume is changes

SET UP MENU

Displays until RETURN or ENTER is selected

VOLUME UP / DOWN

Normal bar display for 5 seconds

1 step change if up or down button is pressed for
2-3 seconds

SOURCE DISPLAY

Display of decoding mode or Prologic status

* Displays for 5 seconds

2. SET UP MENU WINDOW

> Sub Speaker

> DRC On

> Pro Logic On

> Crossover On

> Remote Signal ___Hz

> Channel Level On

> Return

* Menu Selection: $\uparrow\downarrow$ Up / Down Button

* Selected Menu: $\Rightarrow$ Arrow Blinking

* On / Off Selection: $\Leftarrow\Rightarrow$ Left / Right Buttons

* Crossover Filter: $\Leftarrow\Rightarrow$ Left / Right Buttons

* Channel Level Selection: Move To Trim Window
with ENTER Button

* Return: Escape Set Up

3. TRIM MENU WINDOW (OSD)

> L ___dB

> R ___dB

> C ___dB

> LS ___dB

> RS ___dB

> SUB ___dB

> RETURN ___dB

* Trim Menu Selection: $\uparrow\downarrow$ Up / Down Buttons

* Selected Menu: $\Rightarrow$ Arrow Blinking

* Level Selection: $\uparrow\downarrow$ Left / Right Button

* Left Button $\Leftarrow$: 1dB Down

* Right Button $\Rightarrow$: 1dB Up

* RETURN: Escape set up menu and return to set up menu

4. CALIBRATIONS

* Trim Level Control

- L / C / R / LS / RS / SUB / Controllable

- Each +10dB ~ -10dB in 1dB steps

- Default: 0dB

CUT OFF FREQUENCY SELECTION OF CROSSOVER FILTER

Low: 60Hz (over 12dB/oct) High: 220Hz (over 12dB/oct)

- Selectable 10Hz steps

Default: 20 steps

MASTER VOLUME CONTROL

Max Level: 50 (0dB), Min: 0 (-90dB)

- Mute on below volume level 0

Default: 20 steps