

FRONT ROW (ZXDSP1)



Why you need a Front Row...

Re-create the fun and excitement of listening to your favorite band, up close & live!

- Provide the precise crossovers w/easy control and setup
- Analog control system for set-up of the latest in DSP (Digital Signal Processing) technology
- Easy to use knobs and switches
- Under the hood: powerful microcontroller
 - All signal manipulation is done in the digital domain

What it does:

- Provides 6 channels (3 stereo pairs) of fully variable, digital crossovers for maximum system design flexibility with the most common setups being:

Front
Rear
Sub

Tweeter
Midrange
Subwoofer

Component/Coaxial
Midbass
Subwoofer

What it does:

Sound stage and dynamic impact can be adjusted from the driver's seat using the remote:

- Stage Height & Width
 - Driver's Front Left Speaker Time Alignment
 - Driver's Rear Left Speaker Time Alignment
- Surround Sound
 - Rear Speaker Decorrelation (Left - Right)
- Bass Equalization & Low Frequency Restoration
 - Kicker's Legendary KickEQ™ Bass Boost
 - Kicker's New SHOCwave™ (Sub Harmonic Octave Creation)

What it has:

- 12 Volt or DC Offset turn on circuitry and FIT input technology to allow the Front Row to be used with any OEM or Aftermarket source unit.
- Input Gain and Output Level controls for each section (Front, Rear, Subwoofer)
- Input Clip indicators
 - Easy level matching for a clean, distortion free setup in any system.

What it has:

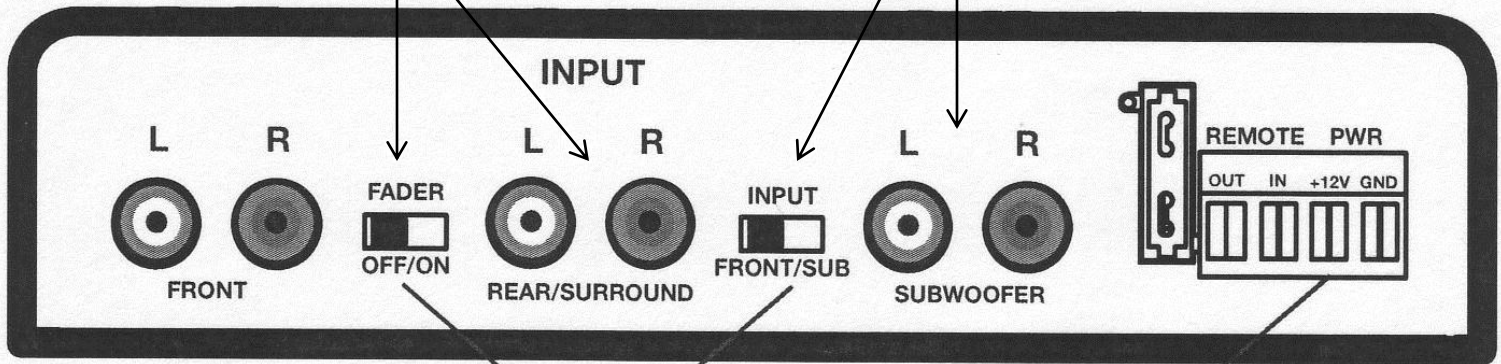
- Each section incorporates a fast acting limiter/compressor/speaker saver we simply call “Clip Limiter”
- When enabled, it monitors the input signal and as it reaches clipping, quickly compresses and reduces the signal to prevent clipping and distortion while preserving the overall output signal
- Selectable on all sections or any combination
 - Each section has an ON/OFF switch for the Clip Limiter

Customer Benefits

- Your music will sound better than it ever has!
- You will experience staging, imaging and bass response like the artist intended!
- Your music will come alive!
- You will be in the Front Row reliving the experience of the music!

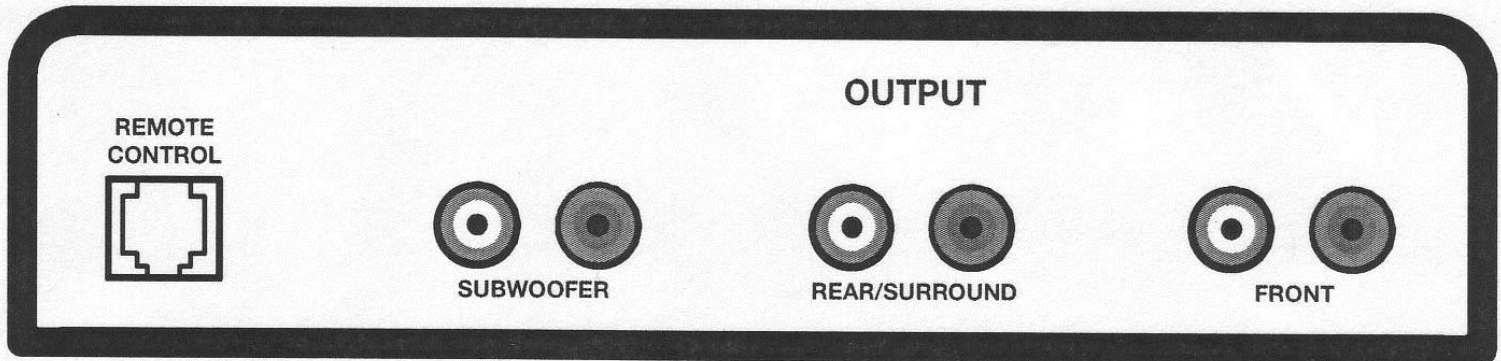
If radio has rear outputs, set switch to "ON"

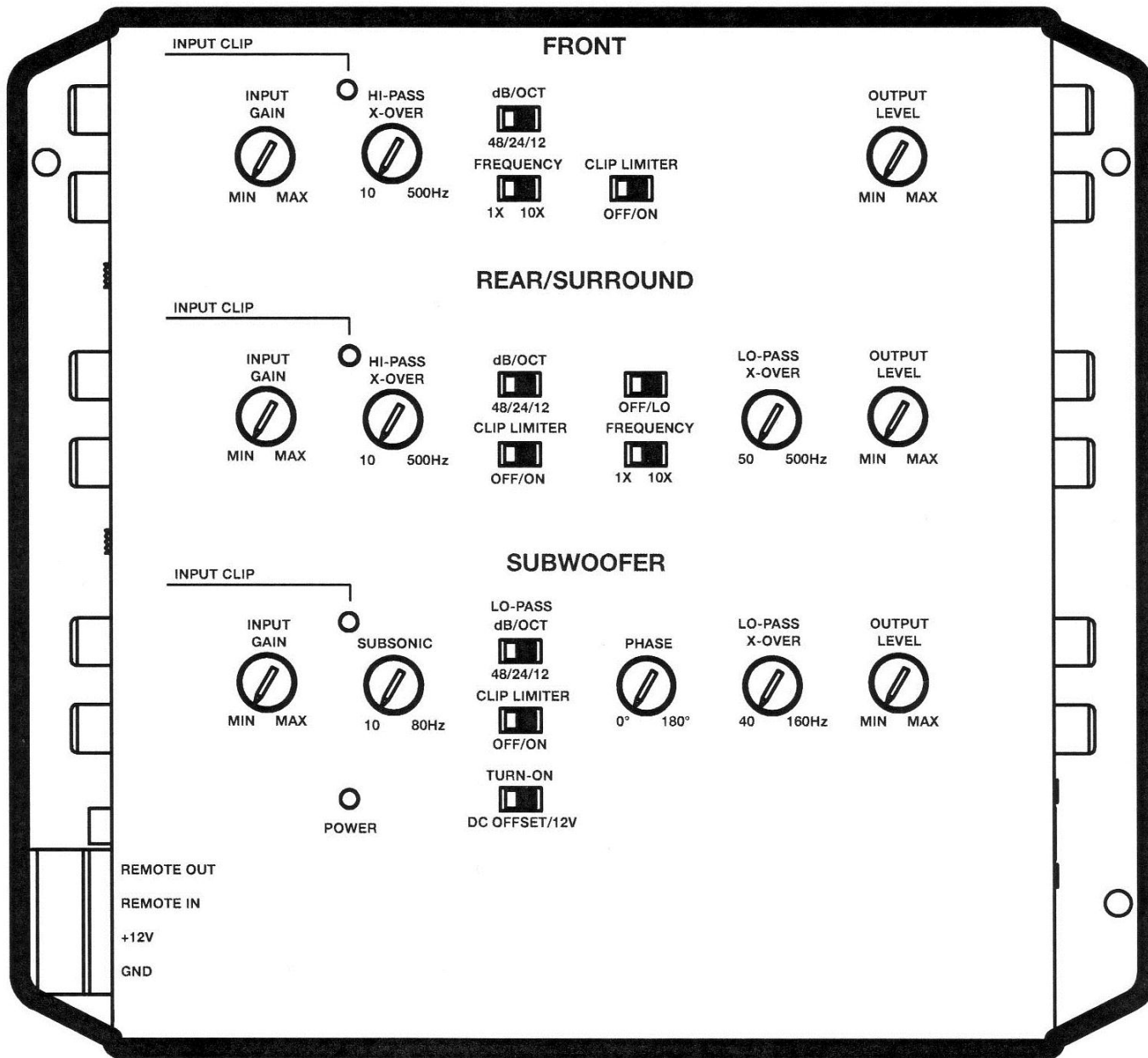
If your source does not have a dedicated subwoofer output, set the Sub Input switch to the "Front" position

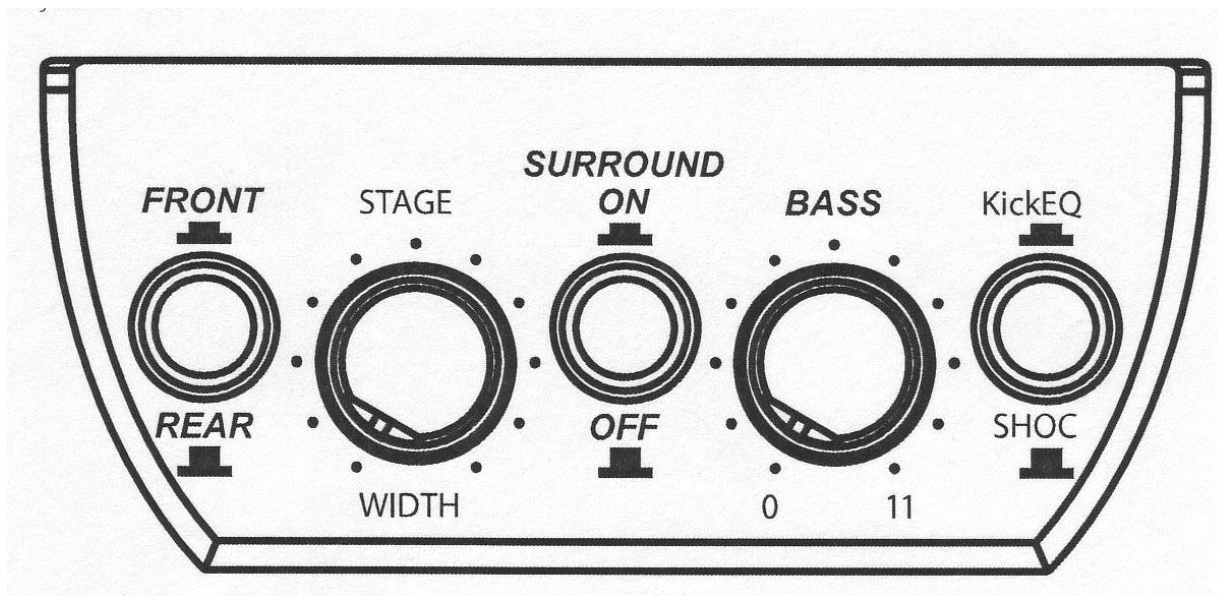


input selection switches

quick disconnect connector







Front, Rear and Subwoofer wiring

factory source unit /
factory amplifier

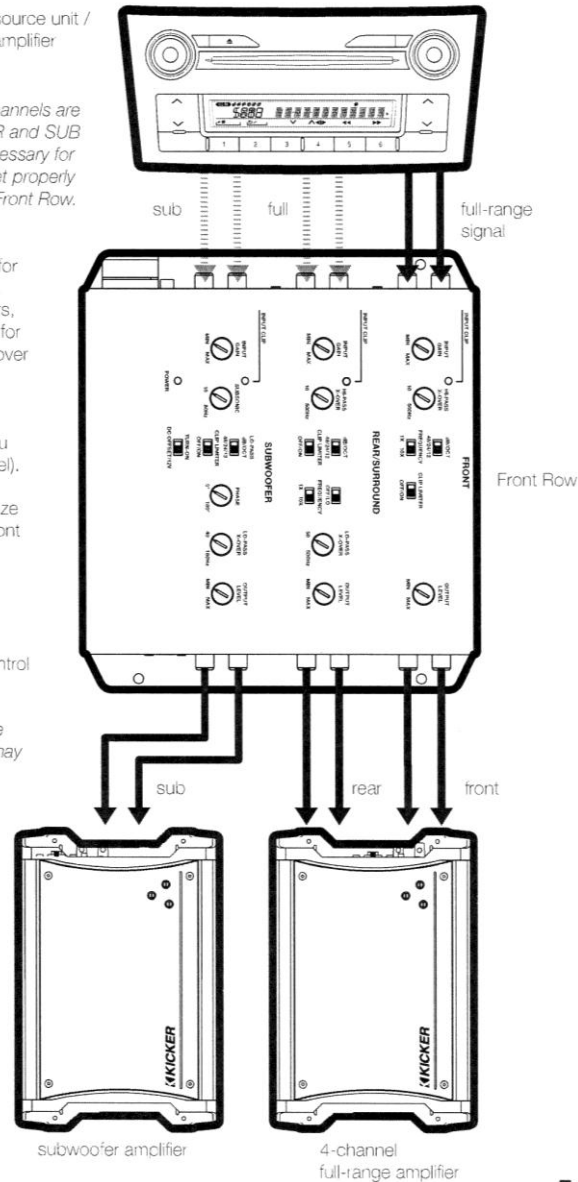
NOTE: dashed, gray channels are optional with the FADER and SUB input switches. It is necessary for these switches to be set properly when configuring your Front Row.

This is the most common configuration for the Front Row, best when utilized with a high-pass crossover for your front drivers, high-pass crossover or band-pass filter for your rear drivers, and a low-pass crossover for your subwoofer(s). Recommended crossover starting points are 80Hz for HI and LO (Set LO-PASS on REAR/SURROUND channel to **OFF** unless you require a band-pass filter for that channel).

This configuration also allows you to utilize the Surround Sound function of your Front Row, as well as time alignment for both your Rear-Left and Front-Left speakers for an optimal driver's-side listening experience. Once the crossovers and OUTPUT LEVEL controls on your Front Row are configured, use the remote control to fine-tune the sound.

NOTE: All stated crossover numbers are given as referential starting points and may not be ideal for your audio system.

NOTE: diagram shows 4-channel full-range amplifier receiving front and rear speaker output channels, however, separate 2 or 4-channel amplifiers may be used with the front and rear outputs.



High, Mid and Low wiring

In this configuration, the Front Row is used to drive your tweeters, midrange/midbass drivers and subwoofers separately; each with their own amplifier, crossover points and time alignment. Use this configuration with a set of components that require active crossovers and independent time alignment.

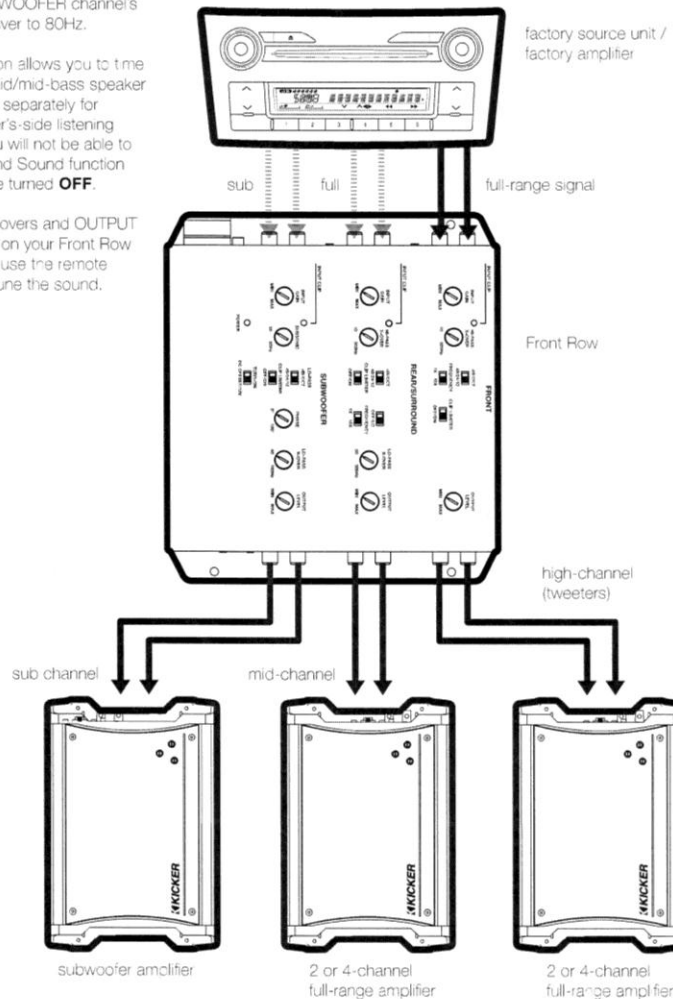
Set the FRONT FREQUENCY switch to a factor of **X10** and adjust the HI-PASS crossover for tweeter use (Recommended starting point of 3KHz).

Configure the REAR/SURROUND channel for mids by using the crossovers as a band-pass filter. Set the LO-PASS switch to ON and the FREQUENCY switch to a factor of **X10**, then adjust both the HI-PASS and LO-PASS crossovers accordingly (Recommended starting points of 80Hz and 3KHz, respectively).

Adjust the SUBWOOFER channel's LO-PASS crossover to 80Hz.

This configuration allows you to time align your left mid/mid-bass speaker and left tweeter separately for an optimal driver's-side listening experience. You will not be able to use the Surround Sound function and it should be turned **OFF**.

Once the crossovers and OUTPUT LEVEL controls on your Front Row are configured, use the remote control to fine-tune the sound.



High/Mid, Mid-Bass and Low wiring

In this configuration, the Front Row is used to drive your mid-range and tweeters, mid-bass drivers, and subwoofers separately; each with their own amplifier, crossover points and time alignment. Use this configuration with a dedicated midbass driver and either a coaxial or set of components providing your mid and treble frequencies.

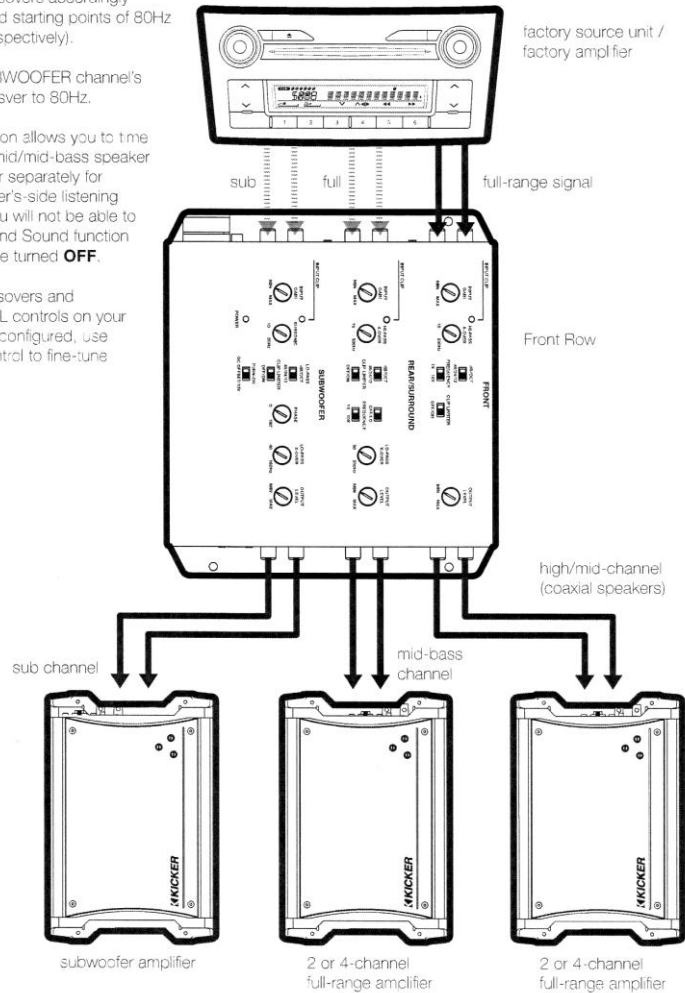
Set the FRONT FREQUENCY switch to a factor of **X1** and adjust the HI-PASS crossover for mid-range and high-range use (Recommended starting point of 160Hz).

Configure the REAR/SURROUND channel for mid-bass by using the crossovers as a band-pass filter. Set the LO-PASS switch to ON and the FREQUENCY switch to a factor of **X1**, then adjust both the HI-PASS and LO-PASS crossovers accordingly (Recommended starting points of 80Hz and 160Hz, respectively).

Adjust the SUBWOOFER channel's LO-PASS crossover to 80Hz.

This configuration allows you to time align your left mid/mid-bass speaker and left tweeter separately for an optimal driver's-side listening experience. You will not be able to use the Surround Sound function and it should be turned **OFF**.

Once the crossovers and OUTPUT LEVEL controls on your Front Row are configured, use the remote control to fine-tune the sound.



PERFORMANCE

Operating Voltage	DC 10–16V
Fuse	2A
Remote Out Current Capacity	100mA
DSP Specifications	50MHz ZX CPU 28/56-bit double-precision DSP
Signal-to-Noise Ratio	110dB (ref. 4V)
Frequency Response \pm 0.2dB	10Hz–22KHz
A/D-D/A Converters	24-Bit
THD+N	0.004%
Input Sensitivity	300mV-10V
Electronic Crossovers 32-Step Precision with Analog Control Selectable Slope of 12dB, 24dB, or 48dB per Octave	FRONT: Variable HI-PASS, 10–5kHz REAR/SURROUND: Variable HI-PASS, 10–500Hz REAR/SURROUND: Variable LO-PASS, 50–5kHz SUB: Variable LO-PASS, 40–160Hz
Subsonic Filter	Variable, 10–80Hz @ 48dB/Octave
Subwoofer Phase Control	Variable, 0–180°
KickEQ™	Variable, 0–15dB @ 45Hz
SHOCwave™	Variable Bass Restoration 0–12dB, 1 Octave Below Fundamental
Width	7-1/32" (178.5mm)
Depth	7-23/32" (196mm)
Height	1-19/23" (40.6mm)