

CX23L ELECTRONIC CROSSOVER

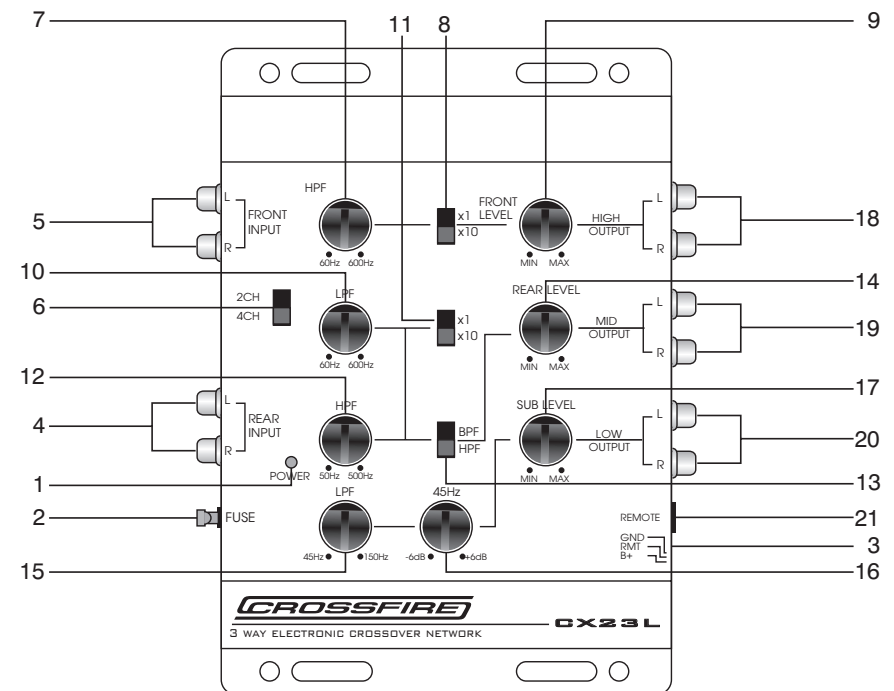
IMPORTANT

PLEASE READ ALL INSTRUCTIONS BEFORE INSTALLATION!!!

The quality of installation may affect the performance and reliability of your Crossfire crossover. Please take a few minutes to read the manual carefully. The time you spend on installation will prove to be worthwhile when it's time to listen to your investment. If you have any doubts or questions regarding installation or use, you may wish to contact your authorized Crossfire Car Audio dealer or call Crossfire at 562-483-8111 for further assistance.

SPECIFICATIONS & FEATURES

Crossover frequencies			
-Front output	Highpass:	x1	variable between 60Hz and 600Hz
		x10	variable between 600Hz and 6KHz
-Rear/Mid output			
	Lowpass:	x1	variable between 60Hz and 600Hz
		x10	variable between 600Hz and 6KHz
	Highpass:		variable between 50Hz and 500Hz
-Sub output	Lowpass:		variable between 40Hz and 150Hz
Crossover slope: 12 dB per octave			
Output level: 6dB gain, up to 8 VRMS			
Subwoofer boost: variable, 0-6dB @ 45Hz			
Input level: 620mV to 7V			
Input impedance: 10K ohms			
Frequency response: 10Hz to 30KHz + 1dB			
T.H.D.: .005%			
Channel separation: >75dB			
Signal to noise ratio: >100dB			
Dimensions: 5.12(W) x 7.36(L) x 1.61(H) in.			
130(W) x 187(L) x 41(H) mm			



- 1. L.E.D. POWER INDICATOR**
This indicator lights up when the unit is properly powered and the source unit is turned on.
- 2. FUSE**
This 1 amp fuse will protect the CX23L from damage in case of a short.
- 3. POWER TERMINALS**
B+ terminal: connect to a positive 12 volts DC
Remote terminal: connect to remote turn-on lead of the source
GND: connect to the vehicle's chassis (-12 volt DC)
- 4. REAR INPUTS**
This accepts input signal from the rear output of the source unit via RCA cables.
- 5. FRONT INPUTS**
This accepts input signal from the front output of the source unit via RCA cables.

MOUNTING

Find a sturdy, secure area to mount the CX23L. Be sure it is accessible, but not out in the open where the crossover points or the level controls may be easily bumped. Pre-drill your mounting holes with a 7/32" diameter drill bit and use the supplied screws to mount the CX23L securely.

POWER CONNECTIONS

Before connecting anything, be sure to disconnect the ground from your battery to prevent any damage to the audio components. All components should be hooked up before the battery is reconnected.

B+

Connect to this terminal a positive 12 volt lead using the same source of power used to power your amplifiers. This should eliminate any chance of picking up noise due to voltage differences. If you decide to run the power wire for the crossover directly to the battery, be sure to add an inline fuse holder containing a 1 amp fuse at the battery in case of a short. Use a minimum of 16 awg stranded copper wire and be sure to apply grommets whenever the power wire is run through any metal wall.

GND

When grounding your Crossfire CX23L, locate a metal area close to the crossover that is a good source of ground (preferably the floor). Investigate the area you wish to use for electrical wires, vacuum lines, and brake or fuel lines. Using either a wire brush or sandpaper, eliminate unwanted paint to supply a better contact when grounding. Use the same gauge wire for ground as you did for the power. Terminate your ground wire using the correct size ring terminal and attach it to the bare metal using a #8 sheet metal screw. It is important for this connection to be solid. To complete the job, spread silicon over the screw and bare metal to prevent rust.

REMOTE

Between the power and ground is a remote turn-on terminal. This terminal must be connected to a switched +12 volt source. Typically, remote turn-on leads are provided by the source unit which will turn on and off the amplifier in correspondence with the source. If a radio does not have a remote turn-on, then a power antenna wire may be used. Yet, if neither of these leads are available at the source, a switched +12 volt supply must be used. Run a minimum of 18gauge wire from the amplifier location to the source of the switched +12 volt lead. Remember, it's best to keep all +12 volt wire ran on one side of the vehicle and away from the RCA cable. Avoid running the wire near sharp edges that may easily cut through the insulation. Connect the source to the wire. Check your connections by turning on the source. The green light will illuminate if your connections are correct.

SIGNAL CONNECTIONS

Check system variation diagrams and choose the application that works best in your system. For applications requiring fader control, two pairs of RCA patch cables are needed to link the source unit to the CX23L. If fader control is not needed or the source unit has only one pair of low level outputs (RCA outputs), only a single pair of RCA patch cables are needed to connect the source unit to the CX23L.

Choose the correct length and style of RCA patch cables for your needs. Better RCA's have either multiple layers of shielding or twisted pair wiring and gold plated terminals for better noise rejection and outstanding contact (consult your dealer).

Be extra careful when running your RCA patch cables. Car environments are notorious for poorly insulated wires. This means that hiss, engine noise, and fan noise can easily be picked up through RCA cables if ran incorrectly. As a precaution, avoid placing your RCA's near large wire looms and electric fans whenever possible.

Starting at the source, connect the patch cables to the RCA output. Run the cables to the location of the CX23L. Connect your patch cables to the corresponding inputs. Be sure to check for correct balance (red is right and black or white is left) on both the radio and the crossover.

Now it's time to do the final connections, the outputs. Be careful you link the outputs, via RCA patch cables, to the proper amplifier(s). Use the diagrams on the following pages to determine the correct system layout. Avoid entanglement between the RCA's and the power wires. Once again, check for correct balance between the CX23L and the corresponding amplifier.

You may now reconnect your battery and install the correct size fuse into the fuse holder.

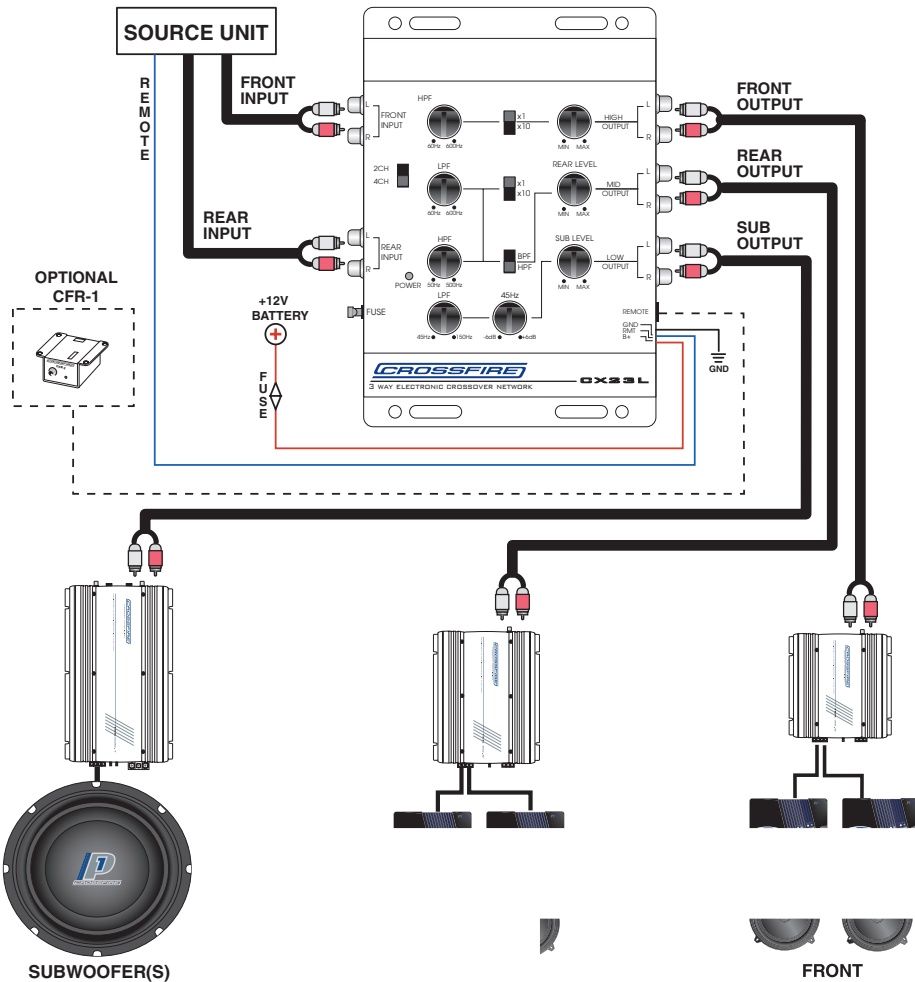
OUTPUT LEVEL CONTROLS

Now that your connections have all been made, it's time to adjust your stereo system. Before you turn the system on, be sure to turn all of the gains down on the amplifier(s) and the CX23L. Choose the correct crossover points for the speakers you are using. Once this is accomplished, you may turn the source unit on and adjust the volume level to 2/3 of maximum volume. Now adjust the CX23L output level controls until desired volume is achieved without audible distortion. If the output levels are at maximum gain on the CX23L and desired volume level is not reached, you may now wish to adjust the gain controls of the amplifier(s) for more volume control. Remember, turning the gain control all the way up on your amplifier(s) does not increase output power to your speakers, but will definitely make your speakers distort much sooner. (A word to the wise: Distortion Kills)

SYSTEM VARIATIONS

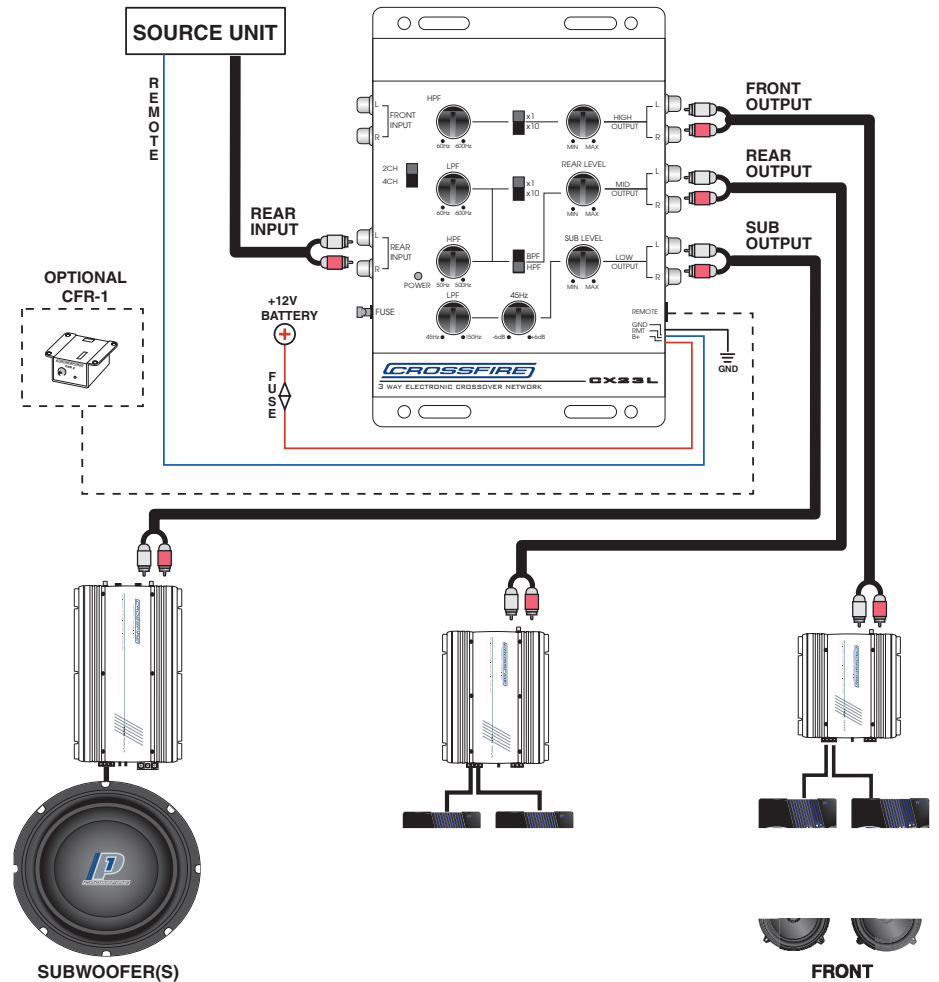
A. 4CHANNEL 2-WAY SYSTEM WITH FADER CONTROL

2CH/4CH	Front/HP	Rear/Mid	HP/BP
2CH	Front/HP x1	Rear/Mid x1	HP/BP BPF
4CH	Front/HP x10	Rear/Mid x10	HP/BP HPF



B. 2CHANNEL 2-WAY SYSTEM FRONT/REAR NON-FADE

2CH/4CH	Front/HP	Rear/Mid	HP/BP
2CH	Front/HP x1	Rear/Mid x1	HP/BP BPF
4CH	Front/HP x10	Rear/Mid x10	HP/BP HPF



SYSTEM VARIATIONS CONTINUED

C. 2CHANNEL 3-WAY

2CH/4CH Front/HP Rear/Mid HP/BP
 2CH x1 x1 BPF
 4CH x10 x10 HPF

