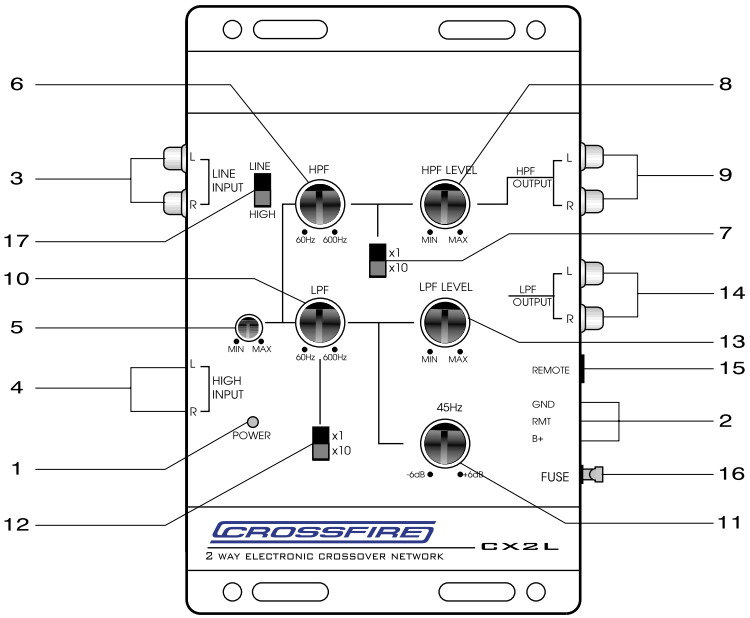
CX2L ELECTRONIC CROSSOVER

SPECIFICATIONS & FEATURES

Crossover frequencies		
-Lowpass output:	x1	60Hz to 600Hz variable
	x10	600Hz to 6000Hz variable
-Highpass output:	x1	60Hz to 600Hz variable
	x10	600Hz to 6000Hz variable
Crossover slope		12dB per octave
Subwoofer boost		0 to +6dB @ 45Hz
Input level		620mV to 7v
Input impedance		10K ohms
Output impedance		1K ohms
Frequency response		10Hz to 30khz + 3dB
T.H.D.		0.005 %
Channel separation		>75dB
Signal to noise ratio		>100dB
Dimensions		7.36(L) x 1.61(H) x 4.33(W)in.
		187(L) x 41(H) x 110(W)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. POWER CONNECTIONS:
B+ terminal: connect to a positive 12 volt source
Remote terminal: connect to remote turn-on of the radio or ignition switch when a remote turn on is not available.
GND: connect to the vehicle's chassis using the same point of ground as other system components.
3. RCA INPUTS PORTS:
This accepts the input signal from the source unit via RCA cables.
4. HIGH LEVEL INPUTS:
This accepts the input signal through the use of speaker leads from the source unit when RCA's are not provided by the source unit.
5. HIGH LEVEL INPUTS GAIN CONTROL:
This knob allows the adjustment of the input sensitivity for the high level inputs to provide maximum gain control for the output.
6. HIGH PASS FREQUENCY SELECTOR:
By using the continually adjustable dial, you may adjust the crossover points between 60 and 600Hz for the highpass output.
7. FREQUENCY MULTIPLIER FOR HIGHPASS:
This switch may be used to further the adjustment for the highpass crossover. Switching to the x10 position, you now have crossover points adjustable between 600 and 6000Hz for the highpass output.
8. HIGHPASS OUTPUT LEVEL CONTROL:
Use this knob to increase or decrease the output from the CX2L to match the input level of the highpass amplifier.

9. HIGHPASS OUTPUT:
This is a docking port for the RCA jacks leading to the highpass amplifiers input.
10. LOWPASS FREQUENCY SELECTOR:
By using the continually adjustable dial, you may adjust the crossover points between 60 and 600Hz for the lowpass output.
11. 45Hz BOOST/CUT CONTROL:
This knob allows you to boost or cut 6dB at 45Hz.
12. FREQUENCY MULTIPLIER FOR LOWPASS:
This switch may be used to further the adjustment for the lowpass crossover. Switching to the x10 position, you now have crossover points adjustable between 600 and 6000Hz for the lowpass output.
13. LOWPASS OUTPUT LEVEL CONTROL:
Use this knob to increase or decrease the output from the CF2L to match the input level of the lowpass amplifier.
14. LOWPASS OUTPUT:
This is a docking port for the RCA jacks leading to the lowpass amplifiers input.
15. LOWPASS REMOTE:
Use this jack with the optional CFR-1 remote level control for contouring the lowpass output.
16. FUSE:
The 1 amp fuse protects the CX2L from damage.
17. HIGH LEVEL/LOW LEVEL SELECTOR SWITCH: Use to select high or low level input in accordance with the input you are using.

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 CX2L, 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 OUTPUTS

The CX2L has two different types of inputs: low level inputs through RCA jacks and high level inputs through a four pin modular connector. Low level inputs provide an exceptionally clean sound from a source unit that accepts RCA jacks. High level inputs make your Crossfire CX2L virtually adaptable to any source unit through the use of speaker outputs. High level inputs should only be used when RCA outputs are not available.

Low level inputs
Choose the correct length and style of RCA patch cables for your needs. Better RCA's usually have gold plated connectors and multiple layers of shielding for better noise rejection (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. Avoid running your RCA's near large wire looms and electric fans if possible. Starting at the source, connect the patch cables to the RCA output. Run the cables to the location of the CX2L. Connect your patch cables to the input. Be sure to check for correct balance (red is right and black or white is left) on both the radio and the crossover.

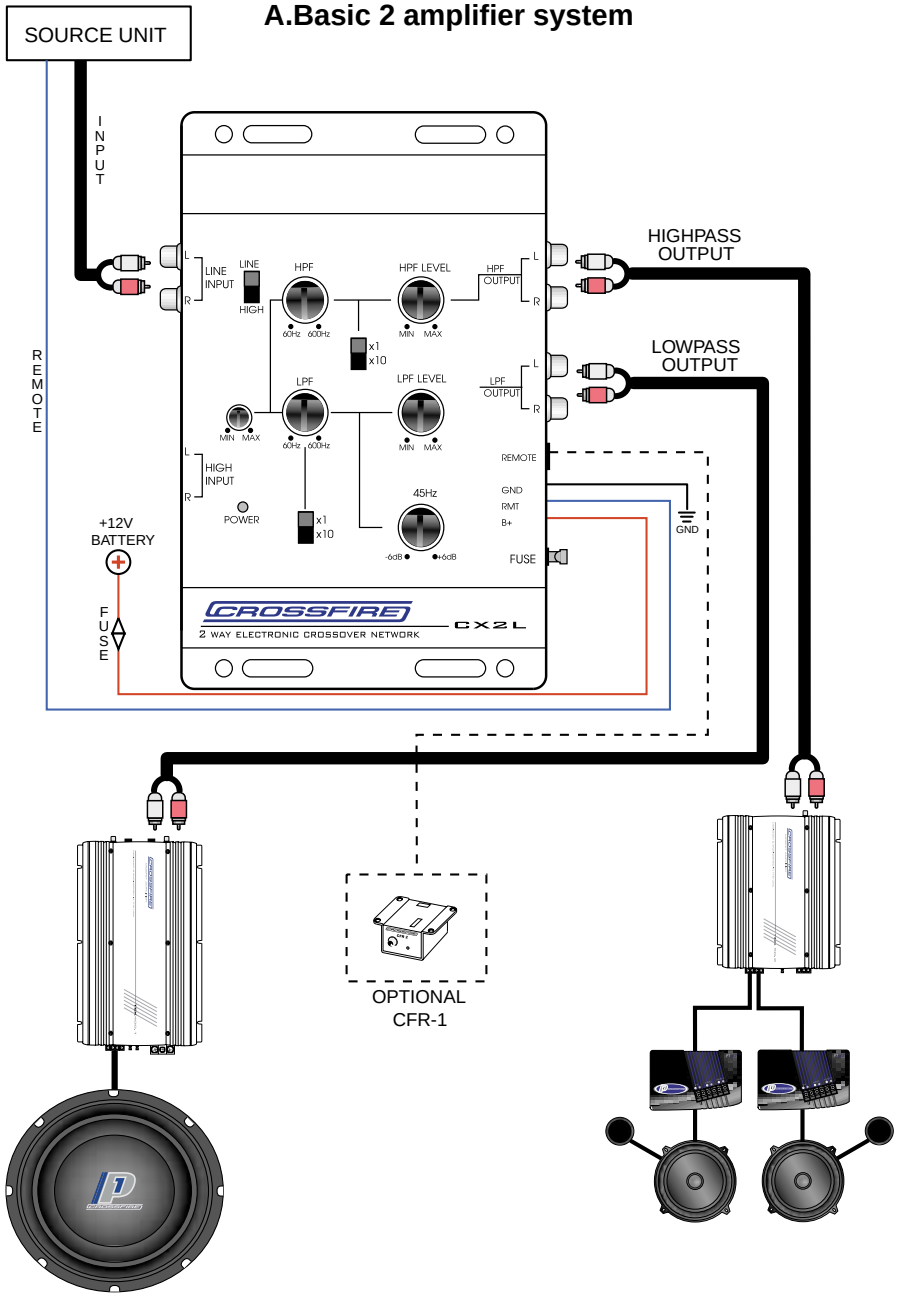
High level inputs
Use the high level inputs only if your current source unit does not have low level inputs. These inputs may be tapped to the closest left and right speaker wire available for greater convenience. Be certain of the polarity of the speaker wire you connect the four pin modular connector to. If the polarity is reversed on one or more wires, engine wine may result through the entire sound system.

OUTPUT LEVEL CONTROLS

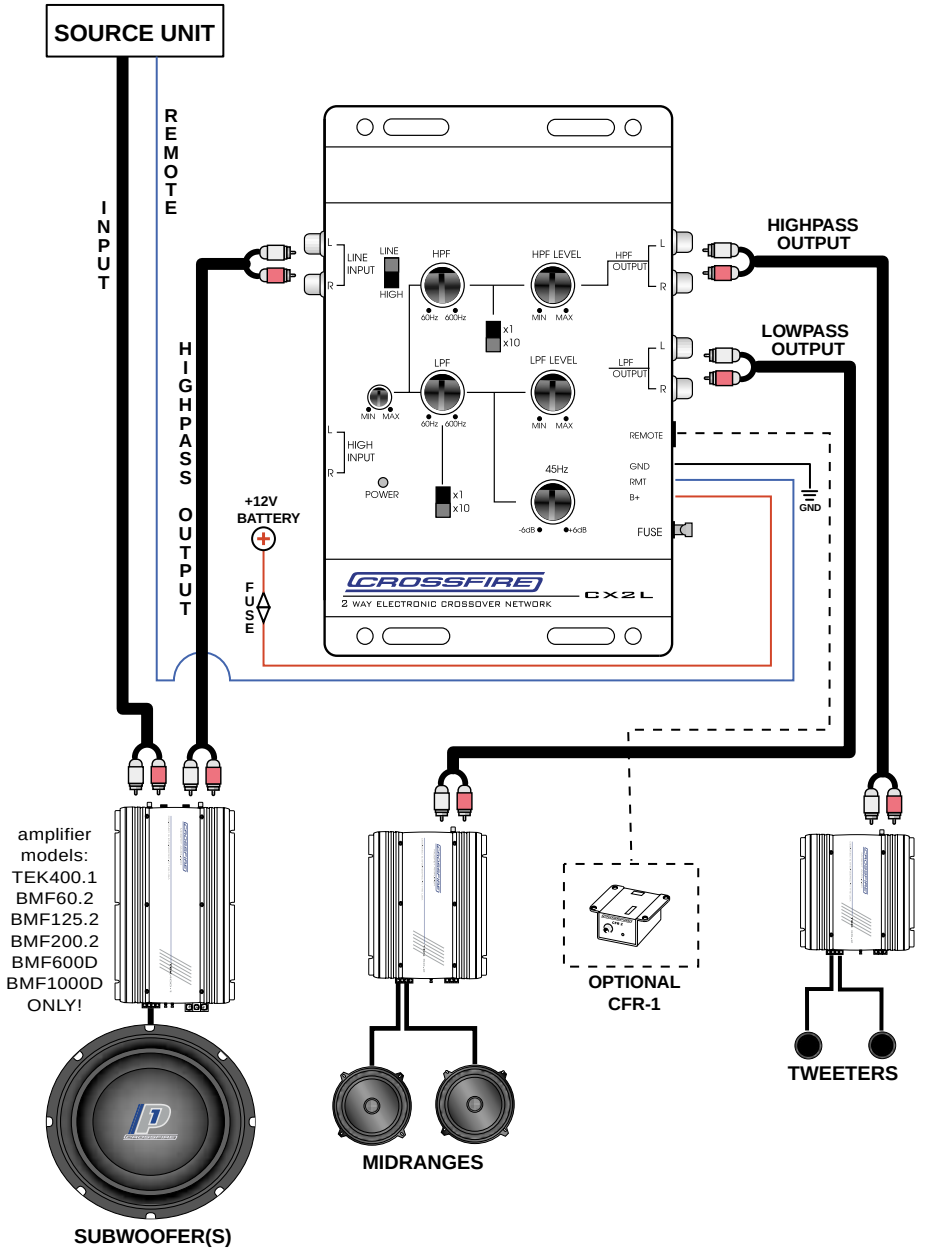
Now that your connections have all been made, it's time to adjust your stereo system. Before you turn the system on, be sure to turn all of the gains down on the amplifier(s) and the CX2L. Choose the correct crossover points for the speakers you are using. Once this is accomplished, you may turn the source unit on and adjust the volume level to 2/3 of maximum volume. Now adjust the CX2L output level controls until desired volume is achieved without audible distortion. If the output levels are at maximum gain on the CX2L 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.Basic 2 amplifier system

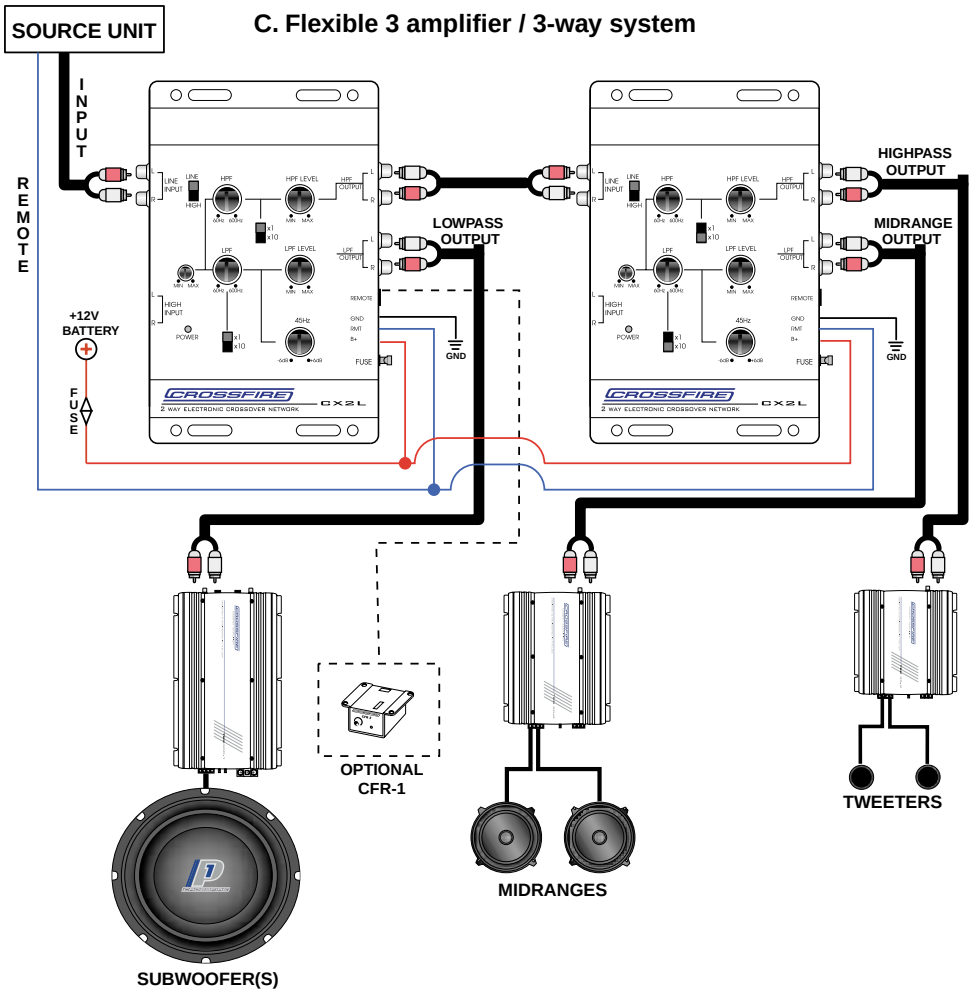


B. Easy 3 amplifier / 3-way system



SYSTEM VARIATIONS CONTINUED

C. Flexible 3 amplifier / 3-way system



CFR-1 REMOTE BASS LEVEL CONTROL

Is the bass in your vehicle not sufficient for the variety of music you listen to? Would you like to have more control, say from the front seat of your vehicle? Well then, we've the answer for you -- the optional CFR-1 remote bass level control.

The CFR-1 comes in a small metal casing and includes a 20 ft. cable so you can easily mount the unit under the dash and have complete control over your subwoofers. The LED illuminates when the system is in the on position so it can be easily located at night. All this and an installation time of approximately fifteen minutes.

Connecting the CFR-1 is easy. This kit is small enough to be mounted under the dash, in the center console, or even the glove box. Use the CFR-1 as a template and drill two 1/8" holes for mounting. Use the screws supplied in the kit to mount the unit. After mounting the CFR-1, run the twenty foot section of cable to the CX2L. Plug this end into the port labeled "REMOTE." Turn the lowpass level control on the CX2L up just a little from your initial setting. Now your finished.

Enjoy the music!