



## CFQ5.2

Congratulations and thank you for choosing Crossfire Car Audio. You have selected the CFQ5.2 equalizer, a processor capable of single handedly improving the sound quality of your car audio system. The CFQ5.2 incorporates Surface Mount Technology (SMT) for superior performance along with unique features that make it extremely flexible. Also, the new ISO mount design makes for easy installation for dash mount or surface mount.

Manufacturing sophisticated processors is not all **Crossfire** has accomplished. Check out our full line of amplifiers, crossovers, dynamic component systems, coaxial speakers, and of course our wide selection of high performance subwoofers. Explore the potential of **Crossfire Car Audio**, and most of all, **enjoy the music!**

### ***IMPORTANT!***

**PLEASE READ ALL INSTRUCTIONS BEFORE INSTALLATION!**

The quality of installation may affect the performance and reliability of your Crossfire product. If you have any doubts or questions regarding installation or use, you may wish to contact your local authorized Crossfire dealer or call Crossfire at 562-483-8111 for further assistance.

### ***FEATURES***

- Surface Mount Technology
- ½ DIN, ISO mount faceplate
- 5 band equalizer
  - ±12dB variable
- Illumination
- Master volume control
- Subwoofer volume control
- Front to Rear fader
- Auxiliary input with level control
- LED peak indicator
- LED power indicator
- Selectable 12dB highpass crossover for both front and rear output
- Selectable 18dB lowpass crossover for subwoofer output
- Delayed remote output
- Gold plated RCA connectors
- Preamp output level : 7.5 volts RMS
- Two year warranty

### CFQ5.2 front panel

1. **Input select button:** selects from input 1 to input 2
2. **Peak indicator:** this will illuminate when the inputs or outputs are overloaded
3. **Power on/off indicator:** this illuminates when system is turned on
4. **Master volume control:** used to control the system volume when the source unit is preset to a specific volume.
5. **Fader:** adjusts the proportionate level of the front and rear outputs
6. **Subwoofer level control:** adjusts the subwoofer output level below the crossover frequency selected.
7. **50 Hz:** this adjusts the boost or cut of up to 12 dB at 50Hz.
8. **250 Hz:** this adjusts the boost or cut of up to 12 dB at 250Hz.
9. **1 KHz:** this adjusts the boost or cut of up to 12 dB at 1KHz.
10. **2.5 KHz:** this adjusts the boost or cut of up to 12 dB at 2.5KHz.
11. **6.5 KHz:** this adjusts the boost or cut of up to 12 dB starting at 6.5KHz and peaking at 22KHz

### CFQ5.2 rear panel

1. **Subwoofer output:** accepts male RCA connectors leading to the subwoofer amplifier
2. **Rear output:** accepts male RCA connectors leading to the rear speaker amplifier
3. **Front output:** accepts male RCA connectors leading to the front speaker amplifier
4. **Input 2:** pigtailed accept male RCA connectors from an auxiliary source
5. **Input 1:** pigtailed accept male RCA connectors from primary source
6. **Input 2 level control:** use flathead screw driver to adjust the input level to match that of the primary unit's (source) input.
7. **Input 1 level control:** use a flathead screwdriver to adjust the input level to the source unit's output .
8. **4 pin modular socket:** contains the power, ground and remote turn-on input and delayed remote output.

## CFQ5.2 top panel

1. **Subwoofer crossover:** use this four position switch to select the correct lowpass crossover points for your subwoofers : 50 Hz, 80 Hz, 100 Hz, or 120 Hz.
2. **Rear crossover:** use this four position switch to select the correct highpass crossover points for your rear speakers: 80 Hz, 100 Hz, 150 Hz, or FULL range.
3. **Front crossover:** use this four position switch to select the correct highpass crossover points for your front speakers: 80 Hz, 100 Hz, 150 Hz, or FULL range.

## INSTALLATION

### Mounting

Choose the mounting location that best suits your vehicle. Try to maintain ergonomics so that the CFQ5.2 is easy to use while driving. Note that the ISO mount chassis can be mounted into a 1½ factory DIN location when using a DIN sized after market head unit, flush mounted into an after market dash kit, or be mounted under a dash.

#### Factory 1½ DIN Location

Commonly, when mounting into a factory 1½ DIN location, it will be necessary to fabricate custom brackets to mount the CFQ5.2. Most of these brackets can be made out of sheet metal or 1/8" ABS plastic. These brackets will connect the source to the equalizer using the screw holes on the sides of both the CFQ5.2 and source. However, if a dash kit is available for your particular vehicle, Crossfire highly recommends using one.

#### After Market Dash Kit

Mounting the CFQ5.2 into a dash kit is fairly easy in most vehicles. Most dash kits contain a bracket extending back from the backside of the face. These brackets should line up with the bolt holes on the side of the CFQ5.2. Simply use the screws provided and bolt the brackets to the side panels.

#### Under Dash Installation

Find a place where the unit can be mounted that is sturdy, yet easy to access. Using the brackets and screws provided with the CFQ5.2, follow the diagram below.

**Please read the remainder of the instruction manual thoroughly before mounting the unit.**

### WIRING

Wiring for the CFQ5.2 comes in the form of a modular wiring harness. This wiring harness contains four color-coated wires; red, black, blue and yellow. The colors correspond with the following:

- Red wire is to be connected with a constant +12 volts

- Black wire is to be connected to a secure ground
- Blue wire is to be connected to the remote turn-on lead from the primary source
- Yellow wire is to be connected to any amplifiers following the CFQ5.2

The following instructions are to be used primarily when installing the CFQ5.2 in a dash location. Understand that these instructions require you to use the power and ground wires used for the source unit. Crossfire highly recommends using the same power wire as the source unit to reduce the risk of inducing electrical noise into the system due to voltage variances.

1. Remove the source unit from the dash, far enough so that the wires are exposed.
2. Use a digital voltmeter and find the constant +12 volt lead for the radio. Using a wire cutter, cut this lead and strip off approximately 3/8" of the insulation from both ends. Find the red wire on the harness and strip off approximately 3/8" of insulation from the end of this wire as well. Twist the red wire to one side of the existing +12 volt lead you cut into. Place a barrel connector of appropriate size over both ends of the wire and crimp these in place.
3. Once you have found your +12 volt lead, it is now time to locate the ground wire supplied to the source. Splice into this lead. Take the black wire from the wiring harness. Connect it inline with the ground wire using a barrel connector of appropriate size. Crimp the wires back together.

If the ground wire has been screwed to the chassis of the source (such as Chrysler vehicles), you may use this to ground the black wire. Be sure to use a ring terminal of appropriate size and tighten the screw securely.

4. The next wire you will be connecting is the remote turn-on (blue). This wire is to be connecting to the remote turn-on lead coming from the source unit. Again, strip off approximately 3/8" of insulation from the end of both the source remote output and the blue wire for the CFQ5.2. Connect these wires using a barrel connector of appropriate size.

If your source does not have a remote turn-on lead, you will need to find a switched +12 volt supply. This can be done by using an ignition controlled lead for the source unit.

5. The last wire is the delayed remote turn on (yellow). This wire sends out a 2 second delayed +12VDC output to turn on any processors and amplifiers following the CFQ5.2.
6. Plug the wiring harness into the back CFQ5.2.

### **SIGNAL CABLES**

Choose the correct length and style of RCA patch cables for your needs. Better RCA's usually multiple layers of shielding or twisted pair wiring for better noise rejection (consult your dealer).

When running the RCA's in the vehicle, make sure you run them on the opposite side of the vehicle as the you ran the power cables. Avoid sharp corners and holes without grommets as they may cut through the outside insulation of the RCA and induce engine noise or short the RCA. When connecting to the CFQ5.2, be sure that you connect the correct RCA to the corresponding output (i.e. subwoofer amplifier is hooked up to the subwoofer output, the rear to the rear output, and the front to the front output). Connect the inputs as necessary for the source and the auxiliary input if applicable. Be careful not intertwine the RCA's with the power wires as much as possible.

### **CROSSOVERS**

It is very important that you select your crossover points correctly before you mount the CFQ5.2. Consult your dealer if you are unsure of the correct setting for the application or contact Crossfire's Technical department at 562-483-8111.

**INPUT SENSITIVITY**

**IMPORTANT!** Before you start, turn the input level controls to lowest position on all amplifiers and the CFQ5.2.

1. Adjust the input sensitivity control of input 1 to produce the greatest possible signal level without overloading your CFQ5.2 preamp. To do this, first turn the volume of the source unit to 2/3 of maximum volume. If available on your source unit, set the maximum output to the **on** position. Find a CD or cassette with a dynamic recording (vary high peaks in the music). Be sure all equalizer knobs are in their center position (at 12 o'clock). Play the CD or cassette and adjust the master volume and the subwoofer volume control of the CFQ5.2 to 3 o'clock. Take a flathead screw driver and adjust the input level control until the peak light on the face of the preamp gently flickers. Back the input level adjustment up until the peak indicator light is no longer flickering. This adjustment will provide you with the maximum output from the CFQ5.2.
2. Continue playing your CD or cassette. Set the master volume control of the CFQ5.2 to 3 o'clock and the subwoofer volume control to 12 o'clock. Now begin adjusting the gains on your amplifiers. Increase the gain control on the amplifier until the onset of audible distortion and then back off the setting slightly. Do this to each of the amplifiers or until all of the speakers blend correctly. Remember, always adjust to the system to the weakest speaker.
3. If you are using input 2, you will repeat the above procedure. If there is no volume control for the auxiliary unit, simply adjust the input level control until the peak LED starts to flicker. Once this is set, play the source unit at a moderate volume and switch back and forth to verify that both input 1 and input 2 levels are adjusted evenly. If necessary, readjust the input levels until the output level between input 1 and input 2 are equal.

Now that is finished, proceed with mounting the CFQ5.2. Enjoy your listening!

**SPECIFICATIONS**

<b>Equalizer frequencies</b> .....	50Hz, 250Hz, 1KHz, 2.5KHz, 6.5KHz
-Cut/boost.....	± 12dB
<b>Subwoofer level control</b> .....	0 to +12dB
<b>Crossover</b>	
-Subwoofer output.....	50Hz, 80Hz, 100Hz, 120Hz
Slope.....	18dB/octave
-Rear output.....	80Hz, 100Hz, 150Hz, FULL
Slope.....	12dB/octave
-Front output.....	80Hz, 100Hz, 150Hz, FULL
Slope.....	12dB/octave
<b>Input level</b> .....	120mV to 6V
<b>Input impedance</b> .....	10Kohms
<b>Frequency response</b> .....	10Hz to 30KHz ± 1dB
<b>T.H.D.</b> .....	0.01%
<b>Channel separation</b> .....	>96dB
<b>Signal to noise ratio</b> .....	>120dB
<b>Maximum output</b> .....	7.5 volts RMS



This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. This warranty is only valid on **Crossfire** products purchased in the U.S.A. from an authorized **Crossfire** dealer. All **Crossfire** amplifiers are warranted to be free from defects in materials and workmanship under normal use and serviced for a period of (2) years when the unit is installed by an authorized **Crossfire** dealer. Non-authorized dealer installed

products carry a (1) year parts and labor limited warranty. The extent and conditions of **Crossfire's** limited warranty are as follows:

i. **Crossfire** will either repair or replace (at our option) any unit which **Crossfire** has examined and found to be defective and under warranty, to the original purchaser, provided the defect occurs within (2) years of the date of purchase when the unit is installed by an authorized **Crossfire** dealer. This warranty includes both parts and labor and applies to the original purchaser only.

ii. **Crossfire** will either repair or replace (at our option) any unit which **Crossfire** has examined and found to be defective and under warranty, to the original purchaser, provided the defect occurs within (1) year of the date of purchase when the unit is installed by a non-authorized **Crossfire** dealer. This (1) year warranty includes both parts and labor and applies to the original purchaser only.

iii. This warranty will be void to any unit found with the original factory serial number removed, altered or defaced. All units received by **Crossfire** for warranty with their original serial numbers removed will not be repaired and returned to sender freight collect.

iv. The provisions of this warranty shall not apply to products used for any industrial, professional or commercial purposes or any other uses for which it was not designed.

v. This warranty does not cover costs for removal of product for repair or reinstallation of the product after repair, nor does it cover the cost of returning the product to **Crossfire's** service center for repair.

vi. This warranty does not apply to repairs or replacements necessitated by any cause beyond the control of **Crossfire**. Including, but not limited to, any malfunction, defect or failure caused by or resulting from unauthorized service or parts, improper maintenance, operation contrary to furnished instructions, shipping or transit accidents, incorrect power line voltages, fire, flood or any other acts of nature, or normal wear and tear.

vii. The foregoing is in lieu of all other expressed warranties and **Crossfire** does not assume or authorize any party to assume for it any other obligation or liability. The duration of any warranties which may be implied by law (including the warranties of merchantability and fitness) is limited to the term of this warranty. In no event shall **Crossfire** be liable for special, incidental or consequential damages arising from obligations under this warranty due to causes beyond its control. Some states do not allow limitations on how long an implied warranty lasts and/or do not allow the exclusions or limitation of consequential damages, so the above limitations and exclusions may not apply to you.

viii. **Return policy**

Your unit will be serviced free of charges on an in-warranty basis only. If improper operation occurs, contact your authorized **Crossfire** dealer for assistance with the return and factory repair of your **Crossfire** product. If an authorized **Crossfire** dealer is not available, the following procedure must be followed: phone (562 483-8111) or fax (562 483-8106) in your name, address, telephone/fax number and the model number of the item to be returned to receive a return authorization number. Your return authorization number must be clearly written on the outside of the packing box returned to **Crossfire**. All returned products must be accompanied by a dated purchase invoice or the product may be subject to costs of parts and labor. Return the unit, prepaid postage, in the original protective carton or a carton with ample protection. Please include a brief description of the problem and send the unit to:



12737 Moore Street  
Cerritos, CA 90703