



C5-SERIES

COAXIAL & COMPONENT MANUAL

Thanks for buying our product! Product information follows; please read it carefully to get the most out of your subwoofers. Any questions, you can contact technical support:
Phone 972-570-0800; Email: tech@crossfirecaraudio.com

Enjoy!

Speaker Power Rating:

Power handling for speakers depends on the conditions used. How loudly you play, what type of music and how hard you drive the amplifier are more important than any numbers-but of course, some kind of numeric guideline is necessary for convenience. Therefore, Crossfire rates as follows:

Nominal Power Handling: This amount of RMS amplifier power should not cause damage to a speaker as long as the amplifier is not clipped.*

Maximum Power Handling: This amount of RMS amplifier power driving the speaker at maximum volume continuously could cause damage over time and should be used with caution and without clipping the amp.

Notes On Amplifier Power:

The important rating of an amp is RMS power. If this spec is not exaggerated, it is how many watts the amp can output continuously without distortion. Other specs ("peak" ; "maximum") are not very meaningful in most cases. How does this match a speakers power rating? Read on...

Notes On Speaker Limits:

Speakers have two limitations: **mechanical** and **thermal**. Crossfire combines these into the ratings explained at the top.

Thermal power handling of the speaker is basically how many watts you can pump into it before it burns or melts:

-Amps' RMS power similar to the speakers rating should a good match providing the amp is not clipped

-Amp's RMS power much more than speakers rating: could damage the speaker unless gains are carefully set to prevent the amplifiers ever clipping.

-Amp's RMS power much less than the speakers rating: could still damage the speaker if the amp is clipped.

Mechanical power handling means how far the cone can move before physical parts hit or deform ("bottoming out"). At very low frequencies, it does not take much power to move the speakers cone a lot, so even low powered amplifiers could damage the speaker. The enclosure affects how easy it is to hit the mechanical limits: please see notes on a later page.

***Amplifier Clipping and Dead Speakers:**

When "Clipped" the amplifier tries to put out more power than it is capable of, and the output waveform flattens out, no longer following the music. Viewed on an oscilloscope, it looks like the music waveform has had the tops "clipped off" with scissors. Under these conditions, an amplifiers could put out over twice it's rated RMS power, causing a speaker to overheat. Additionally, a clipped amplifier can generate DC currents which will drive the speakers coil out of position: it may burn and/or hit mechanical limits more easily. A clipping amp will sound highly distorted and crackly. A speaker hitting it's mechanical limits tends to sound like a jackhammer or woodpecker. These sounds often indicate damage could be imminent.

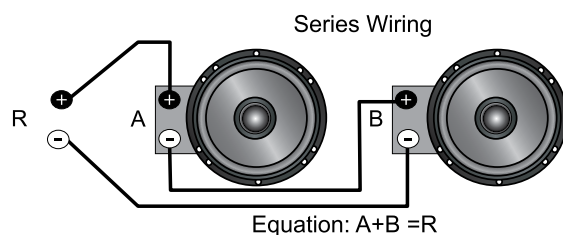
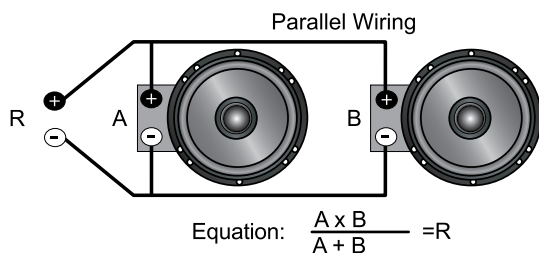
- Bottom line? If it sounds not merely loud but nasty, TURN IT DOWN before something breaks!

SPECS AND DIMENSIONS

MODEL:	CS 402	CS 462	CS 522	CS 652
Speaker Design	2 Way	2 Way	2 Way	2 Way
Woofer [in, mm]	4" / 102mm	4"x6" / 102x152mm	5.25" / 133mm	6.5" / 165mm
Mid [in, mm]	N/A	N/A	N/A	N/A
Tweeter [in, mm]	.75" / 19mm	.75" / 19mm	.75" / 19mm	.75" / 19mm
Rated Impedance [Ω]	4 Ohm	4 Ohm	4 Ohm	4 Ohm
Continuous Power RMS Handling	40 Watts	40 Watts	60 Watts	75 Watts
Peak Power Handling [Watts]	80 Watts	80 Watts	120 Watts	150 Watts
Sensitivity [1W, 1m]	88	88	88	90
Frequency Response [Hz]	100 - 20k	100 - 20k	80 - 20k	60 - 20k
Mounting Hole Diameter [in, mm]	3.7" / 94mm	3.7" x 5.7" / 91 x 144mm	4.6" / 116mm	5.7" / 145mm
Mounting Depth [in, mm]	2" / 52mm	2.1" / 55mm	2.2" / 56mm	2.4" / 61mm
Tweeter Protrusion [in, mm]	.35" / 9mm	.35" / 9mm	.35" / 9mm	.2" / 5mm
Grilles	NO	NO	YES	YES
Tweeter Magnet Material	Neodymium	Neodymium	Neodymium	Neodymium
Tweeter Dome Material	Silk	Silk	Silk	Silk
Woofer Cone Material	Glass / Carbon Fiber Cone	Glass / Carbon Fiber Cone	Glass / Carbon Fiber Cone	Glass / Carbon Fiber Cone
Woofer Surround Material	Butyl	Butyl	Butyl	Butyl

LOAD

Please be aware of the minimum impedance you may apply to your particular model amplifier. See chart below for more information. Any lower impedance than the minimum can send the amplifier into current protection or possibly damage the circuitry. To prevent damage, use the following formulas to help you figure out the load you are placing on your amplifier. If you have any difficulties, please contact your local Crossfire dealer or Crossfire's Technical Assistance at tech@crossfirecaraudio.com



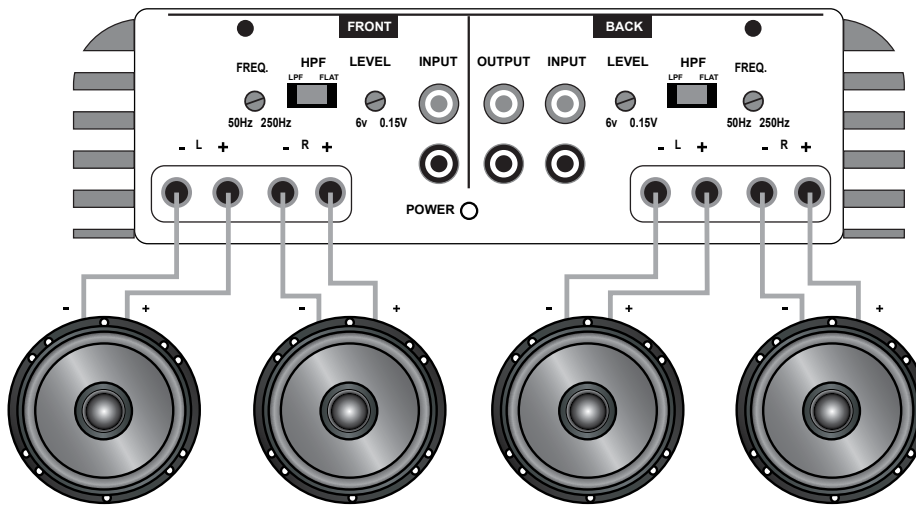
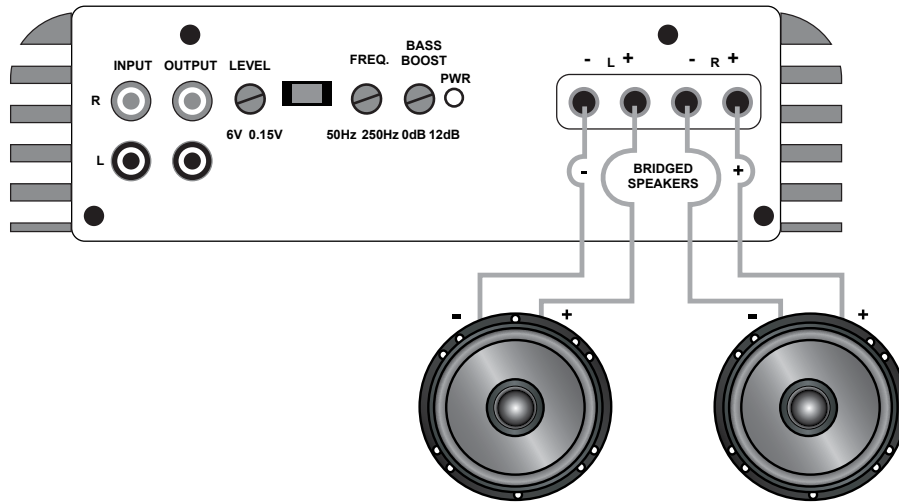
SPECS AND DIMENSIONS

MODEL:	CS 572	CS 693	CS X6
Speaker Design	2 Way	3 Way	2 Way - Component
Woofer [in, mm]	5"x7" / 157x178mm	6"x9" / 152x229mm	6.5" / 165mm
Mid [in, mm]	N/A	2.5" / 63.5mm	N/A
Tweeter [in, mm]	.75" / 19mm	.05" / 13mm	1" / 25mm
Rated Impedance [Ω]	4 Ohm	4 Ohm	4 Ohm
Continuous Power RMS Handling	75 Watts	75 Watts	75 Watts
Peak Power Handling [Watts]	150 Watts	150 Watts	150 Watts
Sensitivity [1W, 1m]	90	92	90
Frequency Response [Hz]	70 - 20k	50 - 20k	60 - 20k
Mounting Hole Diameter [in, mm]	5" x 7.2" / 129 x 183mm	5.9" x 8.7" / 150 x 220mm	5.7" / 145mm
Mounting Depth [in, mm]	2.4" / 61mm	3.2" / 81mm	2.4" / 61mm
Tweeter Protrusion [in, mm]	.08" / 2mm	.35" / 9mm	N/A
Grilles	NO	YES	YES
Tweeter Magnet Material	Neodymium	Neodymium	Neodymium
Tweeter Dome Material	Silk	Mylar	Silk
Woofer Cone Material	Glass / Carbon Fiber Cone	Glass / Carbon Fiber Cone	Glass / Carbon Fiber Cone
Woofer Surround Material	Butyl	Butyl	Butyl

WIRING

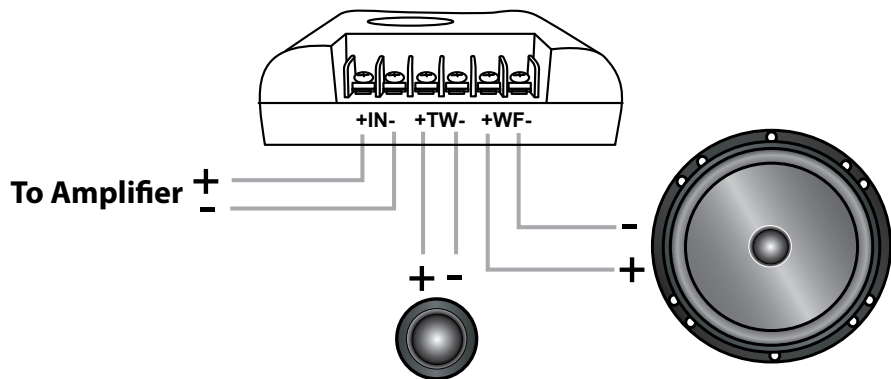
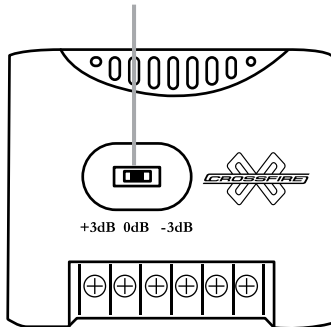
Always choose speaker wire wisely. Make sure that the wire is appropriate for the speaker you are applying it to. It is highly recommended not to use anything smaller than 16awg, consult your dealer. As with the power wires, use caution around sharp corners or body parts that may easily cut through the insulation on the wire. If running into the doors, it is important to use a protective boot in the door jam to protect the wire from being pinched as well as keeping water or moisture from entering the vehicle. Use the factory boots whenever possible. And always make sure the wire is out of the way of the window track. To connect the wire to the speaker, strip off approximately 1/2" inch (12mm) of the insulation and terminate the wires using insulated speaker terminals (not supplied) or by soldering the connection to the loudspeaker. Be sure that the polarity at the loudspeaker is correct.

C5 COAXIAL WIRING



C5 X6 COMPONENT WIRING

Tweeter Level Adjustment





LIMITED WARRANTY

LENGTH OF WARRANTY

Crossfire Speakers, Components, Coaxils, and Loudspeakers are covered by warranty for 1 year from date of purchase on parts and labor. This applies to the original purchaser only. Warranties are non-transferable.

DETAILS OF WARRANTY

From the date of original purchase and for the respective period, specified above. Crossfire agrees to repair or replace all Crossfire products which are defective in material and/or workmanship. This warranty is not transferable and applies only to the original purchaser of the product. No Exceptions. It is Crossfire's right to decide if a product will be repaired or replaced.

All returns must be sent with an RA # on the outside of the box. Any and all products sent without an RA# will be refused. An RA # can be obtained by calling or faxing Crossfire and requesting the number .

Warranty claims must be accompanied by the original invoice to validate the warranty service.

EXCLUSIONS

This warranty does not apply with respect to the following:

- Crossfire's warranty does not cover burned or open voice coils, lead wires, ripped surrounds or folded cones. These are all immediate signs of abuse and over-powering.
- It does not cover products driven over their mechanical limits .
- Defects or damage caused by accident, fire, flood, and lightning or other acts of God.
- Defects or damage caused by abuse, misuse, or negligence.
- Products with voice coils that have failed due to excessive power levels or clipping, i.e. burned or open voice coils or burned lead wires.
- Damage caused during shipping or handling. These claims are made with the Freight Company.
- Accessories or anything else attached to or to be used with Crossfire products.
- Products that have their serial numbers removed or altered.
- Packing materials i.e. card board boxes, foam inserts, corners, peanuts, etc .
- Adjustments or alterations required for any reason.
- Items subject to fatigue through normal wear and use.
Products, which has been altered or repaired by anyone other than Crossfire .





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