

KICKER.

CX

AMPLIFIERS

Owner's Manual

CXA660.5

MODEL: CXA660.5

Authorized KICKER Dealer: _____

Purchase Date: _____

Serial Number: _____

WARNING: KICKER products are capable of producing sound levels that can permanently damage your hearing! Turning up a system to a level that has audible distortion is more damaging to your ears than listening to an undistorted system at the same volume level. The threshold of pain is always an indicator that the sound level is too loud and may permanently damage your hearing. Please use common sense when controlling volume.

PERFORMANCE

Model:

CXA660.5

RMS Power, **AMP1** and **AMP2**

@ 14.4V, 4Ω stereo, ≤ 1% THD+N 65W x 4
@ 14.4V, 2Ω stereo, ≤ 1% THD+N 90W x 4
@ 14.4V, 4Ω mono, ≤ 1% THD+N 180W x 2

RMS Power, **SUB** channel

@ 14.4V, 4Ω mono, ≤ 1.5 % THD+N 150W x 1
@ 14.4V, 2Ω mono, ≤ 1.5 % THD+N 300W x 1

Length [in, cm] 14, 30

Height [in, cm] 2-3/8, 5.9

Width [in, cm] 6-3/4, 17

Frequency Response [Hz] **AMPS 1-2:** 10–20k
SUB: 25–200

Signal-to-Noise Ratio [dB] >90dB, A-weighted, re: rated power

Input Sensitivity Low Level: 250mV–10V
High Level: 1V–40V

Selectable Electronic Crossover **AMPS 1-2:** HI or OFF; Variable 10–200Hz @ 12dB/Octave
SUB: LO; 50–200Hz @ 12dB/Octave

KickEQ™ Bass Boost Variable 0–6dB @ 40Hz

Subsonic Filter **SUB:** 24dB/Octave, Fixed @ 25Hz

Remote Bass: Yes [sold separately]

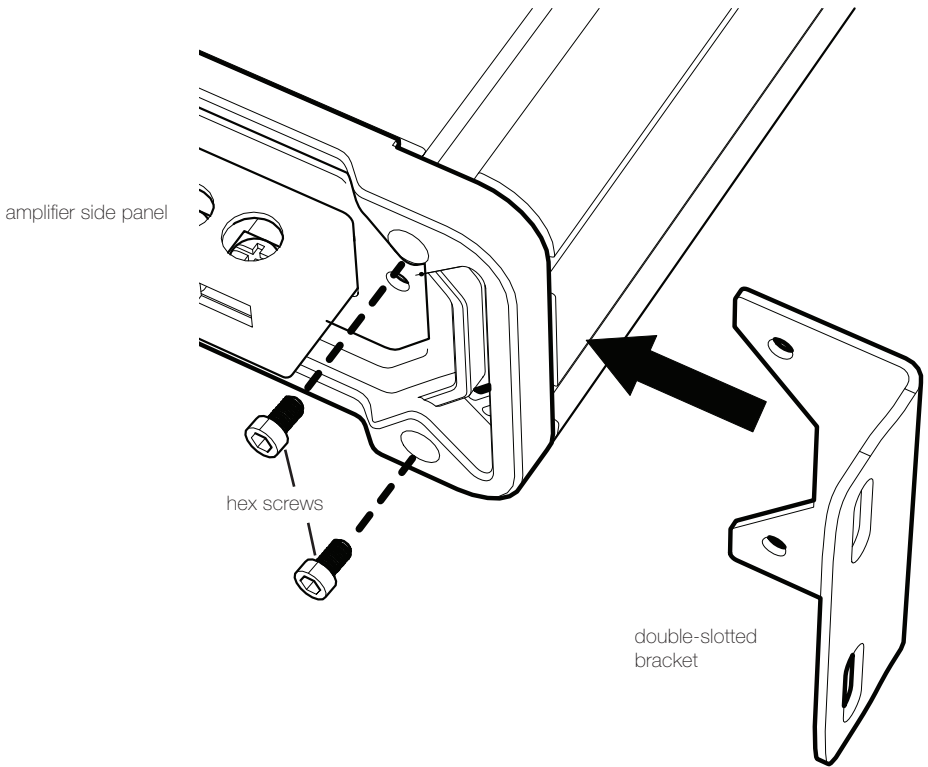
Pro Tip: To get the best performance from your new KICKER Amplifier and extend the warranty by 1 year, use genuine KICKER accessories and wiring.

INSTALLATION

Mounting: Choose a structurally sound location to mount your KICKER amplifier. Make sure there are no items behind the area where the screws will be driven. Choose a location that allows at least 4" (10cm) of open ventilation for the amplifier. If possible, mount the amplifier in the climate-controlled passenger compartment. Drill four holes using a 7/64" (3mm) bit and use the supplied #8 screws to mount the amplifier.

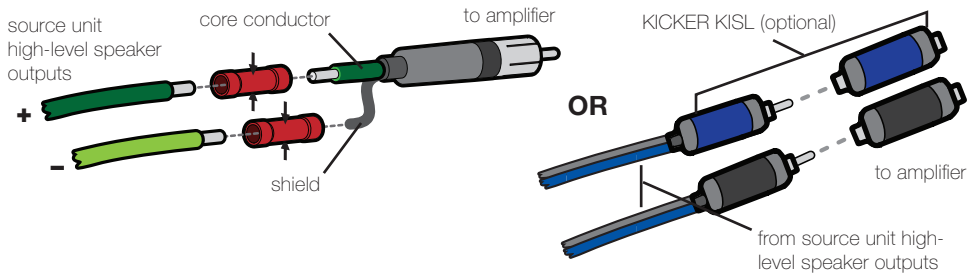
The KICKER CX Amplifiers are capable of space-saving vertical mounting. Use a 2.5mm hex key (Allen wrench) to loosen the endpanel, remove the existing brackets, then insert and tighten the double-slotted brackets to the amplifier as illustrated.

VERTICAL MOUNTING



Wiring: Disconnect the vehicle's battery to avoid an electrical short. Then, connect the ground wire to the amplifier. Make the ground wire short, 24" (60cm) or less, and connect it to a paint-and-corrosion-free, solid, metal area of the vehicle's chassis. Adding an additional ground wire of this same gauge (or larger) between the battery's negative post and the vehicle chassis is recommended.

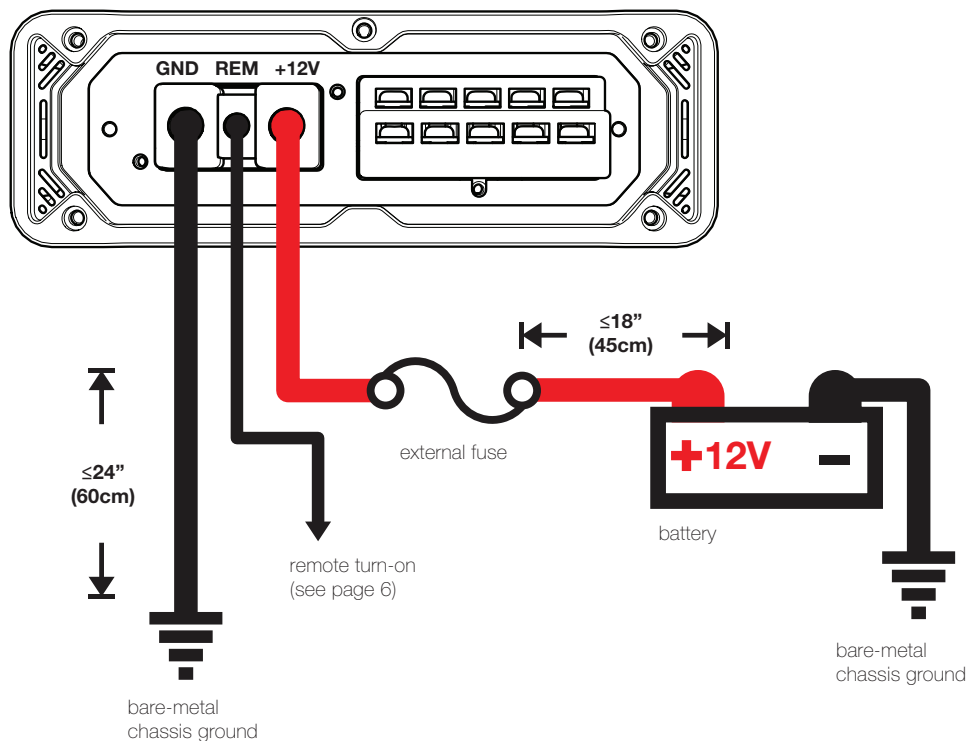
The CX amplifier has dual input sensitivity differential RCA inputs which will receive either high or low level signals from your car stereo's source unit. A high-level signal can be run from the source unit's speaker outputs to the stereo RCA input on the end panel of the amplifier using the KICKER KISL as shown (make sure you set the CX amplifier's input level switch to "HI"). Alternatively, the signal can be delivered to the amplifier using the low-level RCA outputs on the source unit; set the input level switch on the end panel of the amplifier to "LO". Keep the audio signal cable away from factory wiring harnesses and other power wiring. If you need to cross this wiring, cross it at a 90 degree angle.

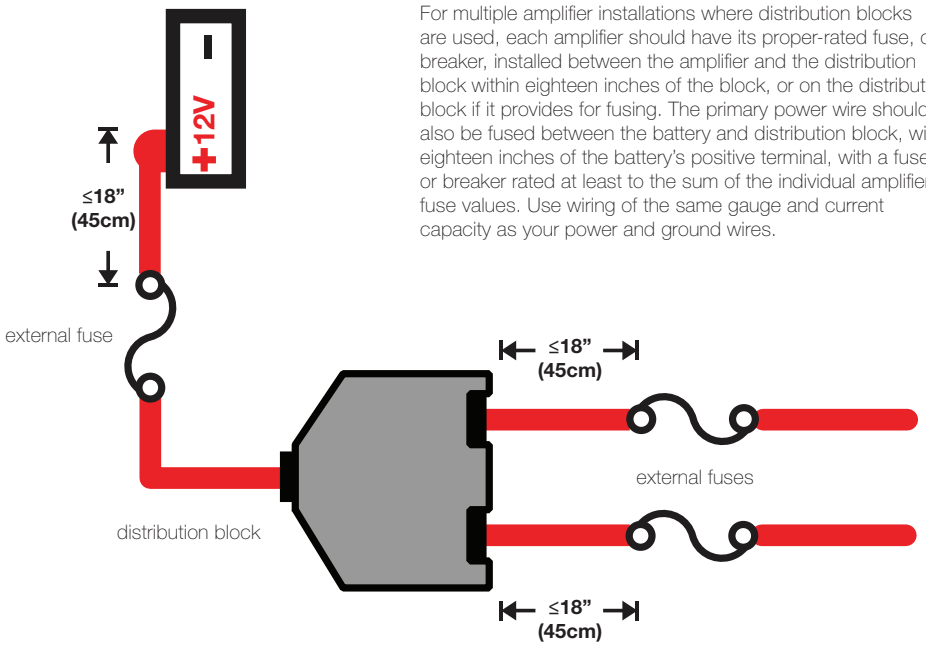


Install a fuse within 18" (45cm) of the battery and in-line with the power cable connected to your amplifier. If you ever need to remove the amplifier from the vehicle after it has been installed, the ground wire should be the last wire disconnected from the amplifier--just the opposite as when you installed it.

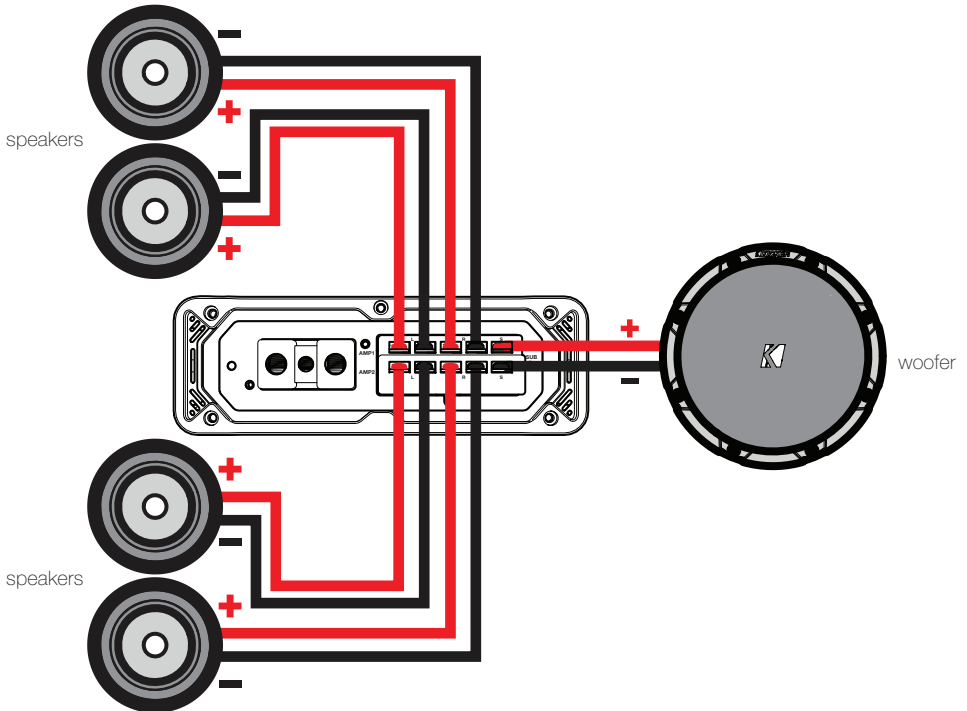
Model	External Fuse (sold separately)	Power/Ground Wire	KICKER Wiring Kit
CXA660.5	1 x 80 Ampere	4 Gauge	PK4, CK4

POWER WIRING

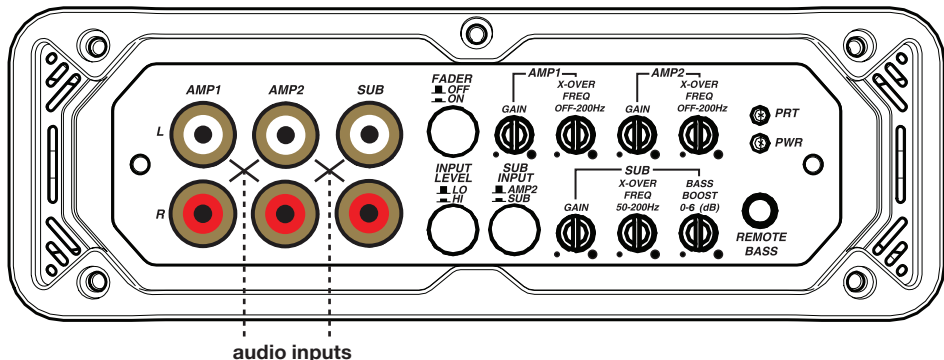




FOUR CHANNEL OPERATION with SUBWOOFER
 minimum impedance of 2 ohms per channel (AMP1, AMP2, and SUB channels)



OPERATION



Automatic Turn-On Selection: The CX series offers two different automatic turn-on modes; +12V and DC Offset.

- Remote Turn-On: Run 18 gauge wire from the Remote Turn-On Lead on your source unit to the terminal labeled REM between the amplifier's positive and negative power terminals.
- DC Offset Turn-On: The DC Offset mode detects a >2.5V DC offset from the HI-Level speaker outputs when the source unit has been turned on.

Input Level: The RCA inputs on KICKER CX amplifiers are capable of receiving either Hi or Low-level signals from your source unit. If the only output available from your source unit is a Hi-Level signal, simply press in the Input Level switch on the amplifier. Refer to the wiring section of this manual for additional instructions.

Fader Switch: Depress the fader switch if you are running two sets of inputs (front and rear for example) to the amplifier. Leave the fader switch OFF if you want to drive all channels from a single stereo input.

Sub Input: If there is no dedicated output on your source unit for a subwoofer, use the SUB INPUT switch to set your subwoofer input to either SUB INPUT or AMP INPUT 2.

Input Gain Control: The input gain control is not a volume control. It matches the output of the source unit to the input level of the amplifier. Maximum power out of the amplifier is possible with the gain in the lowest position. Incorrectly setting the gain can result in distorted output or damage to, and premature failure of, your speakers. For a quick setup, turn the source unit up to about 3/4 volume (if the source unit goes to 30, turn it to 25). Slowly turn up (clockwise) the gain on the amplifier until you can hear audible distortion, then turn it down a little.

To use the preferred method of setting the input gain using a voltmeter or oscilloscope, begin by turning off the amplifier and disconnecting all speakers from it. Turn the gain knob completely off (counterclockwise) and all crossovers off, or to their least effective setting. Turn the bass boost knob completely off (counterclockwise). If a remote bass accessory is connected to the amplifier, turn it completely on (clockwise). Ensure all EQ and DSP settings on the source unit such as bass, treble, fader, seating position etc are set to linear, flat, center, or off. Turn on the amplifier. Play a 0dB sine wave through your source unit and increase the volume to about 3/4 of maximum. Use the 50Hz sine wave to set the gain for a subwoofer and the 1kHz sine wave for full-range speakers. Set your voltmeter or oscilloscope to measure AC voltage. Place the voltmeter's probes on the amplifier's speaker output terminals. With the sine wave playing, slowly turn the gain knob clockwise and watch the AC voltage on the voltmeter increase. When the desired voltage is shown (reference power chart insert), or you start to see the waveform square off stop increasing the gain, turn the amplifier off, reconnect all speakers and set the crossovers to your desired setting. Your gain is now set for maximum unclipped power from the amplifier. If you increase amplitude using settings on the source unit or the bass boost on the amplifier it will introduce distortion and you will need to redo these steps.

Bass Boost Control: The variable bass boost control on the top of the amplifier is designed to give you increased output, 0-6dB, at 40 Hz. The setting for this control is subjective. If you turn it up, you must readjust the input gain control to avoid clipping the amplifier.

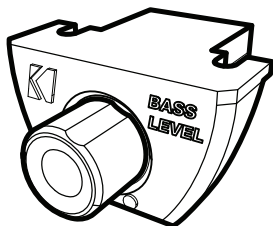
Crossover Control: The variable crossovers on the side panel of the amplifier allow you to adjust the crossover frequency from 50Hz–200Hz. The setting for this control is subjective; 80Hz is a good place to start.

Remote Bass-CXARC (not included): With the CXARC remote bass level control, you have the ability to control the output level of the amplifier remotely. To surface-mount the CXARC remote bass level control, simply screw the remote to the chosen location, then run the cable from the controller to the "Remote Bass" jack on the amplifier panel. Do **NOT** connect/disconnect while the amplifier is on. Connecting the 3.5mm cable without the remote knob will cause the amplifier to output at full gain, possibly damaging your speakers.

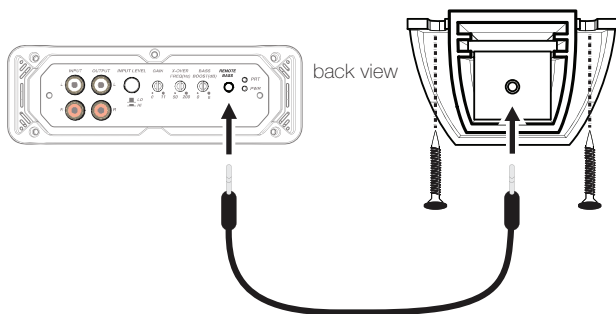
CXARC REMOTE BASS INSTALLATION

(Optional - CXARC not included.)

Surface-mount the CXARC remote using the supplied screws.



Remote cable passes audio; do not run cable parallel to power wires.



Connect the supplied 1/8th inch [3.5mm] patch cable to the CXARC remote and the Remote Bass jack on the amplifier

TROUBLESHOOTING

If your amplifier does not appear to be working, check the obvious things first such as blown fuses, poor or incorrect wiring connections, incorrect setting of crossover switch and gain controls, etc. There are Power (PWR) & Protection (PRT) LEDs on the side panel of your Kicker CX series amplifier. Depending on the state of the amplifier and the vehicle's charging system, the LEDs will glow either green or red. When the green LED is lit, this indicates the amplifier is turned on and no trouble exists.

Green LED off, no output? With a Volt Ohm Meter (VOM) check the following: **1**+12 volt power terminal (should read +12V to +16V) **2**Remote turn-on terminal (should read +12V to +16V) **3**Check for reversed power and ground connections **4**Ground terminal, for proper conductivity.

Green LED on, no output? Check the following: **1**RCA connections **2**Test speaker outputs with a "known" good speaker. **3**Substitute source unit with a "known" good source unit. **4**Check for a signal in the RCA cable feeding the amplifier with the VOM meter set to measure "AC" voltage.

Red LED flickering with loud music? The red LED indicates low battery voltage. Check all the connections in your vehicle's charging system. It may be necessary to replace or charge your vehicle's battery or replace your vehicle's alternator.

Red LED on, no output? **1**Amplifier is very hot = thermal protection is engaged. Test for proper impedance at the speaker terminals with a VOM meter (see the diagrams in this manual for minimum recommended impedance and multiple speaker wiring suggestions). Also check for adequate airflow around the amplifier. **2**Amplifier shuts down = voltage protection circuitry is engaged. Voltage to the amplifier is not within the 8–16 volt operating range. Have the vehicle's charging and electrical system inspected. **3**Amplifier will only play at low volume levels = short circuit protection is engaged. Check for speaker wires shorted to each other or to the vehicle chassis. Check for damaged speakers or speaker(s) operating below the minimum recommended impedance.

No or low output? **1**Check the balance and fader controls on source unit **2**Check the RCA (or speaker input) and speaker output connections.

Alternator noise-whining sound with engine's RPM? ❶ Check for damaged RCA (or speaker input) cable ❷ Check the routing of RCA (or speaker input) cable ❸ Check the source unit for proper grounding ❹ Check the gain settings and turn them down if they are set too high.

Reduced bass response? Reverse a speaker connection from positive to negative on the stereo/subwoofer channel(s); if the bass improves, the speaker was out of phase.

Ground Noise? KICKER amplifiers are engineered to be fully compatible with all manufacturers' head units. Some head units may require additional grounding to prevent noise from entering the audio signal. If you are experiencing this problem with your head unit, in most cases running a ground wire from the RCA outputs on the head unit to the chassis will remedy this issue.

CAUTION: When jump starting the vehicle, be sure that connections made with jumper cables are correct. Improper connections can result in blown amplifier fuses as well as the failure of other critical systems in the vehicle.



CXA660.5

AMPS 1 & 2: 65 x 4 @ 4 ohms

Signal to Noise Ratio -75dB CEA-2006B (ref: 1W, A-weighted)

SUB: 150 x 1 @ 4 ohms (25Hz–200Hz)

Signal to Noise Ratio -75dB CEA-2006B (ref: 1W, A-weighted)

14.4VDC, 1% THD, CEA-2006B (Watts)