

KICKER.

CX

AMPLIFIERS

Owner's Manual

**CXA400.1 | CXA800.1
CXA1200.1 | CXA1800.1**

MODEL:

**CXA400.1 | CXA800.1
CXA1200.1 | CXA1800.1**

Authorized KICKER Dealer: _____

Purchase Date: _____

Model Number: _____

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:	CXA400.1	CXA800.1	CXA1200.1	CXA1800.1
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RMS Power [Watts]

@ 14.4V, 4Ω mono, ≤ 1% THD+N	150W x 1	300W x 1	600W x 1	900W x 1
@ 14.4V, 2Ω mono, ≤ 1% THD+N	300W x 1	600W x 1	1200W x 1	1800W x 1
@ 14.4V, 1Ω mono, ≤ 1% THD+N	400W x 1	800W x 1	1200W x 1	1800W x 1

Length [in, cm]	8-1/8, 20.6	8-1/8, 20.6	12, 30.6	13-5/8, 34.6
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Specifications common to all models:

Height [in, cm]	2-3/8, 5.9
Width [in, cm]	6-3/4, 17
Frequency Response [Hz]	25–200
Signal-to-Noise Ratio [dB]	>95, A-weighted, re: rated power
Input Sensitivity	Low Level: 250mV–10V High Level: 1V–40V
Electronic Crossover	Variable Lo-pass 50Hz–200Hz, 12dB/octave
KickEQ™ Bass Boost	Variable 0–6dB @ 40Hz
Subsonic Filter	25Hz, 24dB/octave
Remote Bass	Yes (sold separately)

NOTE: 2019 CXA mono amplifiers are 1Ω stable - power rating +/- 10%.

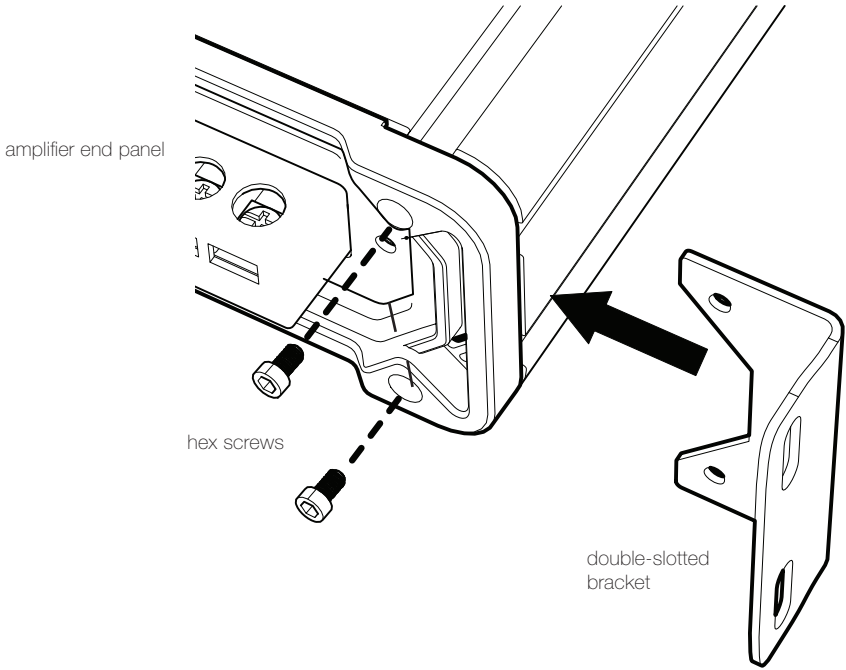
Pro Tip: To get the best performance from your new KICKER Amplifier and extend the warranty by 1 year, use genuine KICKER accessories and wiring.

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.

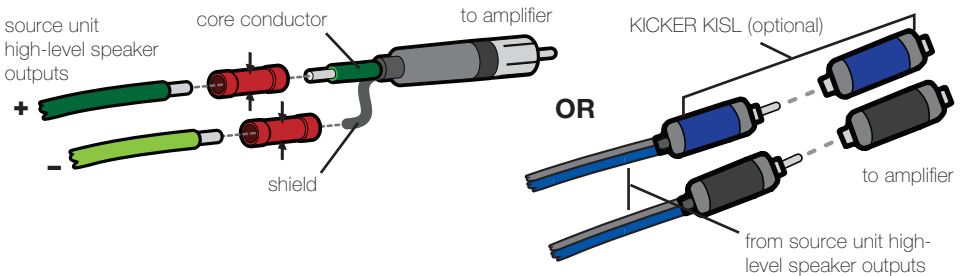
The KICKER CX Amplifiers are capable of space-saving vertical mounting. Use a 2.5mm hex key (Allen wrench) to loosen the end panel, remove the existing brackets, then insert and tighten the double-slotted brackets to the amplifier as illustrated on the next page.

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.

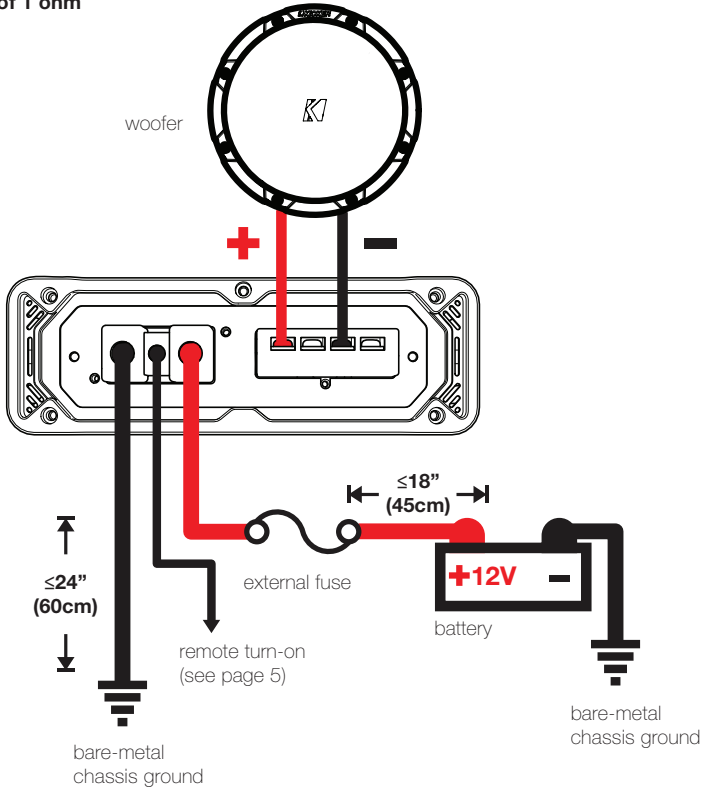
The CX amplifier has dual input sensitivity differential RCA inputs which will receive either high or low level signals from your car stereo's source unit. A high-level signal can be run from the source unit's speaker outputs to the stereo RCA input on the end panel of the amplifier using the KICKER 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". Either input method will provide an output signal at the RCA output, which effectively passes the audio signal to another amplifier or component. 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.



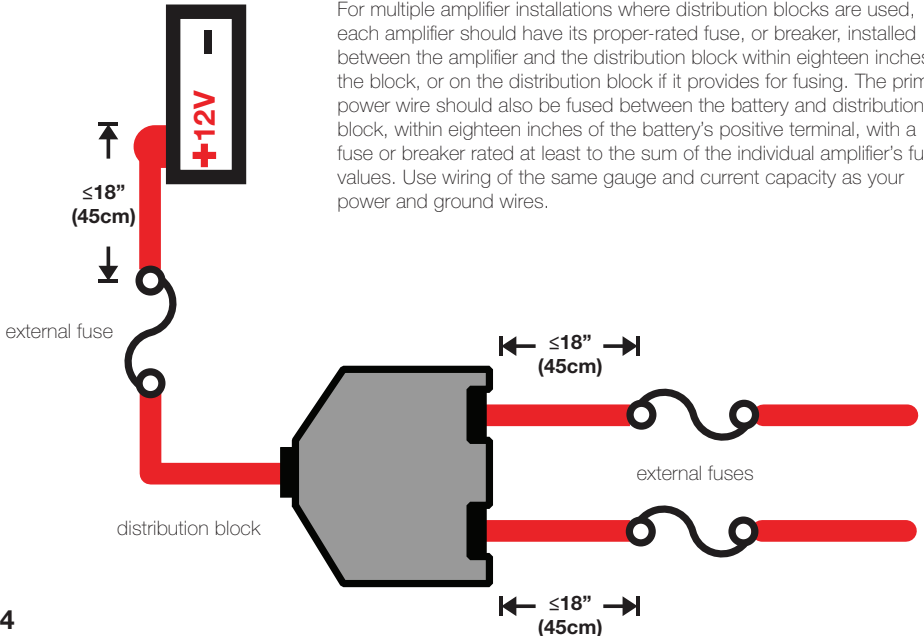
Install a fuse within 18" (45cm) of the battery and in-line with the power cable connected to your amplifier. If you ever need to remove the amplifier from the vehicle after it has been installed, the ground wire should be the last wire disconnected from the amplifier--just the opposite as when you installed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

MONO OPERATION

minimum impedance of 1 ohm

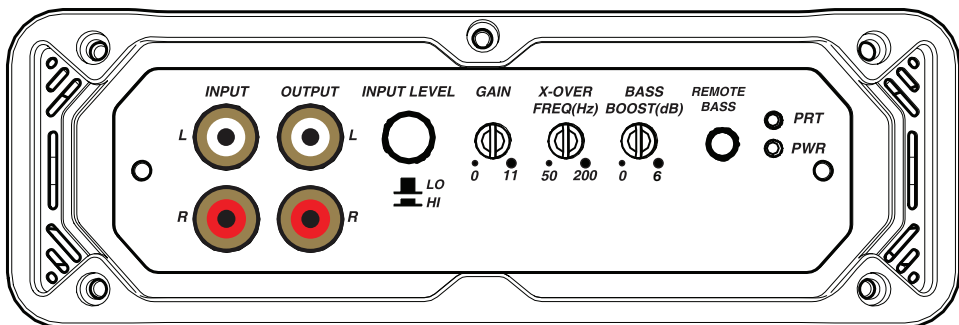


For multiple amplifier installations where distribution blocks are used, each amplifier should have its proper-rated fuse, or breaker, installed between the amplifier and the distribution block within eighteen inches of the block, or on the distribution block if it provides for fusing. The primary power wire should also be fused between the battery and distribution block, within eighteen inches of the battery's positive terminal, with a fuse or breaker rated at least to the sum of the individual amplifier's fuse values. Use wiring of the same gauge and current capacity as your power and ground wires.



Model	External Fuse (sold separately)	Power/Ground Wire	KICKER Wiring Kit
CXA400.1	1 x 40 Ampere	8 Gauge	PK8, CK8
CXA800.1	1 x 80 Ampere	4 Gauge	PK4, CK4
CXA1200.1	1 x 100 Ampere	4 Gauge	PK4, CK4
CXA1800.1	1 x 150 Ampere	1/0 Gauge	PKD1

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.

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

Input Gain Control: The input gain control is not a volume control. It matches the output level of the source unit to the input sensitivity 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.

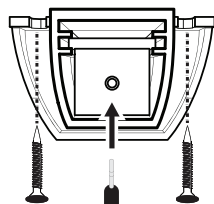
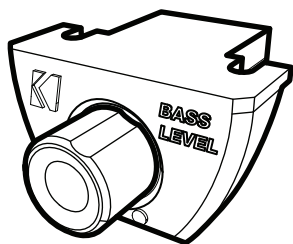
Bass Boost Control: The variable bass boost control on the side of the amplifier is designed to give you increased output, 0–6dB, at 40Hz. The setting for this control is subjective. If you turn it up, you must readjust the input gain control to avoid clipping the amplifier.

Remote Bass-CXARC (sold separately): With the optional CXARC remote bass level control, you have the ability to attenuate 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.



back view

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.

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.

CXA400.1

150 x 1 @ 4 ohms, 14.4VDC, 1% THD, CEA-2006B (Watts)
Signal to Noise Ratio -75dB CEA-2006B (ref: 1W, A-weighted)

CXA800.1

300 x 1 @ 4 ohms, 14.4VDC, 1% THD, CEA-2006B (Watts)
Signal to Noise Ratio -75dB CEA-2006B (ref: 1W, A-weighted)

CXA1200.1

600 x 1 @ 4 ohm, 14.4VDC, 1% THD, CEA-2006B (Watts)
Signal to Noise Ratio -70dB CEA-2006B (ref: 1W, A-weighted)

CXA1800.1

900 x 1 @ 4 ohm, 14.4VDC, 1% THD, CEA-2006B (Watts)
Signal to Noise Ratio -70dB CEA-2006B (ref: 1W, A-weighted)



KICKER will now provide a three-year warranty with all CXA-Series Amplifier purchases paired with a qualifying KICKER Installation Kit* .

This extends the standard warranty by an additional year. *Amplifier and Kit must be purchased from an Authorized KICKER Dealer.*

KICKER CX amplifier success is currently at an unheard-of rate, making the extended warranty program even more beneficial to you.

Using poor-quality, under-spec wiring kits will impede CX amplifier performance.

A superior-quality KICKER installation Kit is guaranteed to extend the life of CX amplifiers.

The new extended warranty applies only to KICKER amplifiers and accessories sold to consumers by Authorized KICKER Dealers in the United States of America or its possessions. It also only applies to the original purchaser of KICKER amplifiers and accessories. One warranty extension per amplifier is allowed regardless of the number of amplifier installation kits purchased. This program does not apply to "B"-stock product or factory-refurbished product.

This offer is for a limited time, so see your local Authorized KICKER Dealer soon for details.



If you're looking for quality car amplifiers, visit our website.