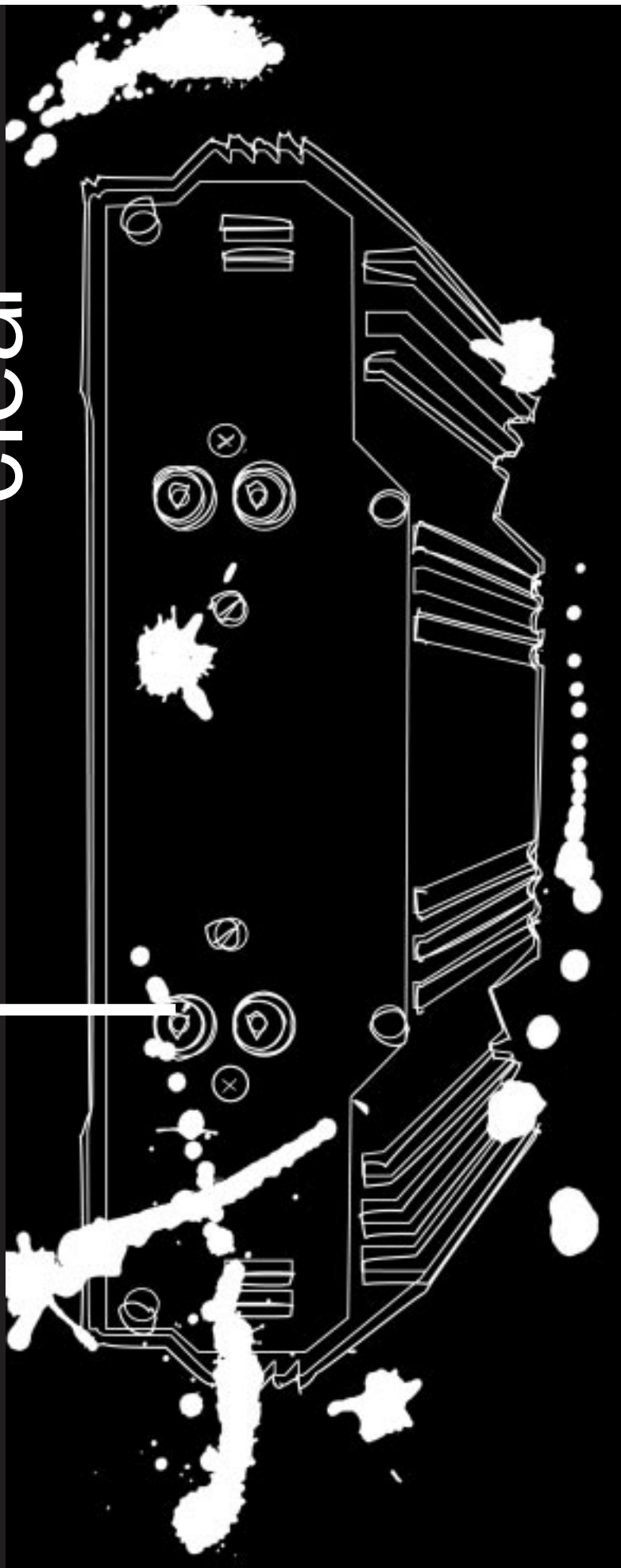


JBL

LOUD

clear®

clear®





Thank you for purchasing a JBL Loud + Clear amplifier. In order that we may better serve you should you require warranty service on your new amplifier, please retain your original purchase receipt and return the enclosed warranty registration card.

Important: Installation of automotive stereo components can require extensive experience in performing a variety of mechanical and electrical procedures. Although these instructions explain, in a general sense, how to install Loud + Clear amplifiers, they may not show the exact installation methods for your particular vehicle. If you feel you lack the tools or necessary experience, ask your authorized JBL car-audio dealer about professional installation options.

Installation Warnings and Tips

- Always wear protective eyewear when using tools.
- Turn off all audio systems and other electrical devices before you start.
- Disconnect the negative (-) lead from your vehicle's battery.
- Check clearances on both sides of a planned mounting surface before drilling any holes or installing any screws. Remember that the screws can extend behind the surface.
- At the installation sites, locate and make a note of all fuel lines, hydraulic brake lines, vacuum lines and electrical wiring. Use extreme caution when cutting or drilling in and around these areas.
- Before drilling or cutting holes, use a utility knife to remove unwanted fabric or vinyl to keep material from snagging in a drill bit.

- When routing cables, keep input-signal cables away from power cables and speaker wires.
- When making connections, ensure that they are secure and properly insulated.
- If the amplifier's fuse must be replaced, use only the same type and rating as that of the original. Do not substitute another kind.

Warning: Playing loud music in an automobile can permanently damage your hearing as well as hinder your ability to hear traffic. We recommend listening at low levels while in your car. JBL accepts no liability for hearing loss, bodily injury or property damage resulting from use or misuse of this product.



Choosing a Location and Mounting the Amplifier

Amplifiers need air to stay cool. Suitable locations are under seats (provided the amplifier doesn't interfere with the seat-adjustment mechanism), in the trunk or in any location that provides enough air for the amp to cool itself. Do not mount the amplifier with the heat-sink fins facing downward; this makes convection cooling of the amplifier impossible.

Mount the amplifier so that it is not damaged by the feet of back-seat passengers or shifting cargo in the trunk. Mount the amplifier so that it remains dry – never mount an amplifier outside the car or in the engine compartment.

Using the amplifier as a template, mark the location of the mounting holes on the mounting surface, drill pilot holes and attach the amplifier to the mounting surface with screws. Make sure the amplifier is mounted securely.

Wiring the Power Connections

Refer to Figures 1-4 for connector locations. Use at least 10-gauge wire for power and ground connections.

For power, remote and ground connections strip off one end of each jacket to reveal bare wire for insertion into the barrier-strip connectors. Connect a wire from the GND connector on the amplifier to the nearest bare-metal chassis component; scrape away the paint to ensure good conductivity. Next, connect a wire between the BATT terminal on the amplifier and the POS (+) terminal of the vehicle's battery. Pass the wire through a factory-installed grommet in the firewall, or install a grommet if a factory grommet is not available. You must install, within 18" of the battery connection, a fuse holder and fuse with the same rating as the fuse in the amplifier's chassis. This will prevent a short circuit from causing damage to the amplifier or the car. Connect a wire between the REM terminal of the amplifier and the "remote out" or power-antenna lead on the vehicle's radio.

Wiring the Speaker-Output Connections

Connect the speakers, observing proper polarity, to the speaker-output barrier strip. The total impedance of the speaker system connected to the amplifier when the amplifier is driven in stereo must be at least two ohms.

If you are bridging the amplifier, connect the speaker wires to the terminals marked "bridged," observing proper polarity. The total impedance of the speaker system connected to the amplifier must be at least four ohms in bridged mode.

If you are running the amp in Tri-Mode (stereo and mono simultaneously), connect the satellite speakers to the speaker connector as you would a pair of stereo speakers. Connect the subwoofer to the terminals marked "bridged." Refer to the chart below to determine the capacitor and inductor values you'll need to route bass signals to the woofer, and the midrange and high frequencies to the satellite speakers. These passive crossover components will also ensure that the impedance of the speaker system doesn't drop below two ohms.

FREQUENCY	INDUCTOR	CAPACITOR
Crossover	6dB/oct. LP (4 ohm)	6dB/oct. HP (4 ohm)
75Hz	8.0mH	530µF
100Hz	6.4mH	400µF
125Hz	5.0mH	318µF
150Hz	4.2mH	265µF
175Hz	3.6mH	227µF
200Hz	3.2mH	198µF

Wiring the Input-Signal Connections

Connect a pair of signal cables with RCA-type ends between the connectors on the amplifier and the RCA-type signal connectors on the source unit. If your radio has only speaker-level outputs, you must purchase a speaker-level-to-line-level adapter, commonly sold as an accessory.

System Setup and Adjustment

Refer to figures 1–4 for location of adjustment switches and controls.

Electronic Crossover (for LC-A752 and LC-A504)

The electronic crossover can be selected as a 12dB/oct high-pass filter (HPF), 12dB/oct low-pass filter (LPF) or it can be defeated (FLAT). The crossover frequency can be set at any frequency between 32Hz and 320Hz.

Setting Input Level

Initially, turn the input-sensitivity LEVEL control to its maximum (counterclockwise) position. Turn on the source unit and increase the volume control until it is approximately three-quarters of maximum-output level. Slowly increase the input LEVEL control (clockwise) while listening to the quality of the reproduced sound. When you hear distortion on the music peaks, turn the LEVEL control back slightly. This is the maximum undistorted output level of your system. Turning the LEVEL control up farther WILL NOT INCREASE THE OUTPUT POWER OF YOUR AMP! It will only decrease the amount of volume control rotation before the amp is at full output power. It will also increase the amount of extraneous noise present in your system.

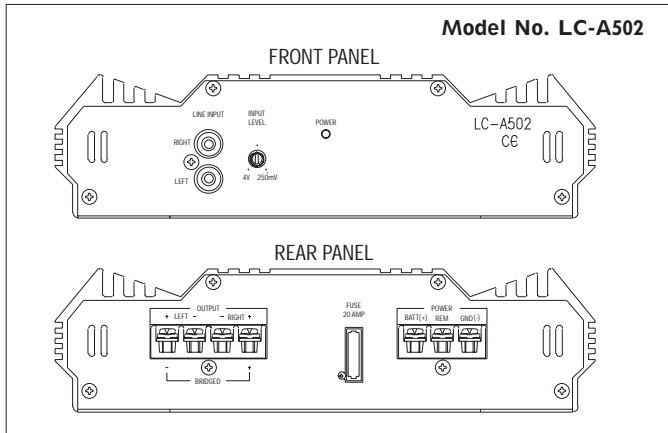


Figure 1

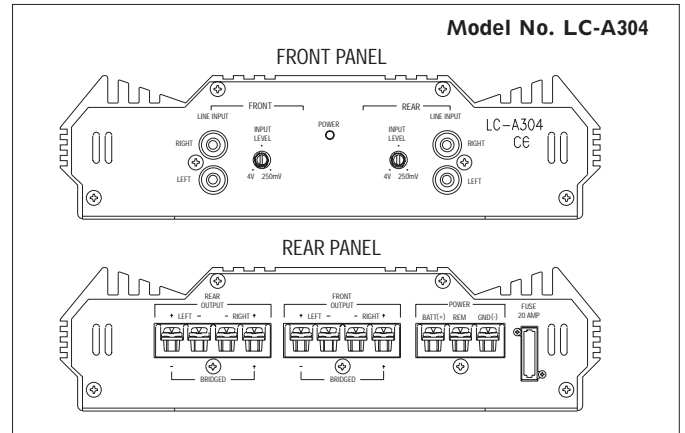


Figure 3

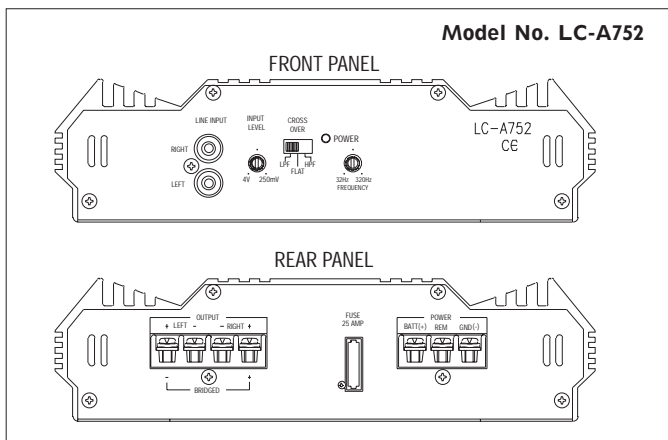


Figure 2

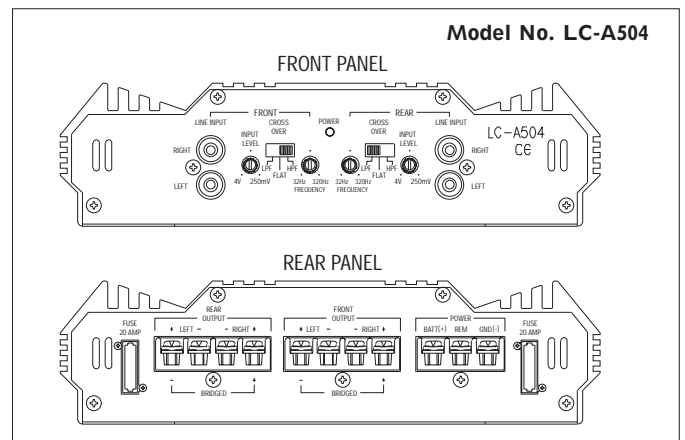


Figure 4

Troubleshooting

Symptom	Likely Cause	Solution
No audio (power indicator is on).	Speakers or input-signal cables disconnected; defective speaker or source unit.	Check connections, source, speakers.
No audio (power indicator is off).	No voltage at BATT or REM terminals; bad ground connection.	Check voltage at amplifier terminals with VOM. Repair faulty connection.
No audio (power indicator is off, voltage at terminal OK).	Amplifier protection is engaged due to overheating; shorted or defective speaker or speaker cable.	Disconnect speaker leads one at a time to determine which speaker or wire is shorted or defective. Repair the short circuit or replace bad speaker.
Distorted audio.	Input sensitivity not set properly; amplifier or source unit defective.	Check LEVEL setting; check source unit.
Music lacks "punch".	Speakers are not connected properly.	Check speaker connections for proper polarity.

	LC-A502	LC-A752	LC-A304	LC-A504
Specifications				
Power Output, 4 Ohms	50W x 2	75W x 2	30W x 4	50W x 4
Power Output, 2 Ohms	65 W x 2	90W x 2	37.5W x 4	62.5W x 4
Power Output, 4 Ohms Bridged	130W x 1	180W x 1	75W x 2	125W x 2
Frequency Response	20Hz – 40kHz	20Hz – 40kHz	20Hz – 40kHz	20Hz – 40kHz
Input Sensitivity	250mV – 4V	250mV – 4V	250mV – 4V	250mV – 4V
THD + Noise	.10%	.10%	.10%	.10%
Signal-to-Noise Ratio	>90dB	>90dB	>90dB	>90dB
Maximum Current Draw	20A	26A	23A	42A
Dimensions (H x W x D)	2-5/16" x 8-5/16" x 7-9/16" (58mm x 217mm x 191mm)	2-5/16" x 8-5/16" x 12-1/2" (58mm x 217mm x 317mm)	2-5/16" x 8-5/16" x 11-5/8" (58mm x 217mm x 297mm)	2-5/16" x 8-5/16" x 14-1/16" (58mm x 217mm x 357mm)



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