

JBL® Control® Monitor

JBL Loudspeaker Troubleshooting/Repair Tips

Most customers prefer to do simple loudspeaker repairs themselves. By following the steps below, a majority of loudspeakers can be returned to their original factory performance with minimum effort. Choose the example that best describes the problem you are experiencing.

Problem 1: No sound or distorted sound from one loudspeaker in a pair (or set)

Connect the dead/distorting loudspeaker to a different amplifier channel (one that had a functioning loudspeaker connected to it). If it functions normally, the problem is not loudspeaker-related. If the loudspeaker still makes no sound or sounds distorted, a wire may have become loose or disconnected, the network (also known as a crossover) may be defective, the drivers (woofer, tweeter, etc.) may be defective or, in very rare cases, all may be defective.

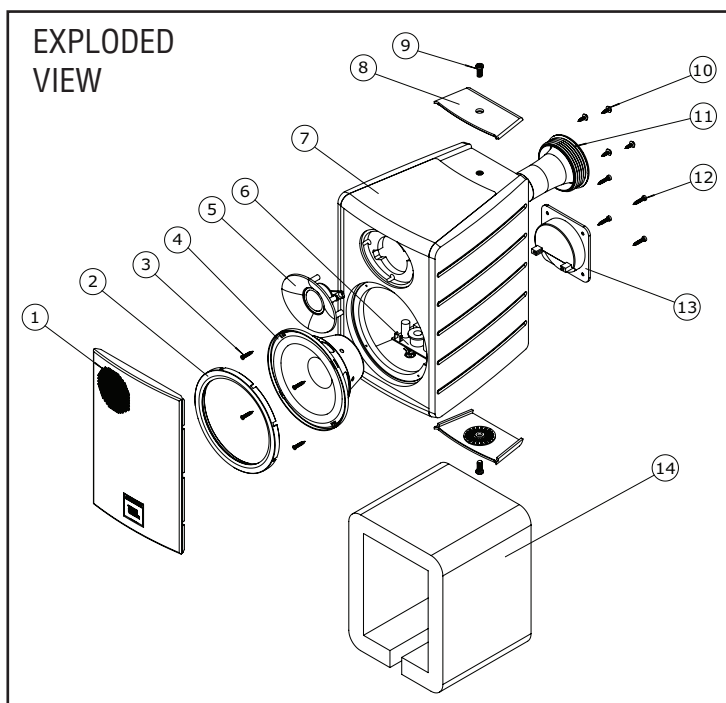
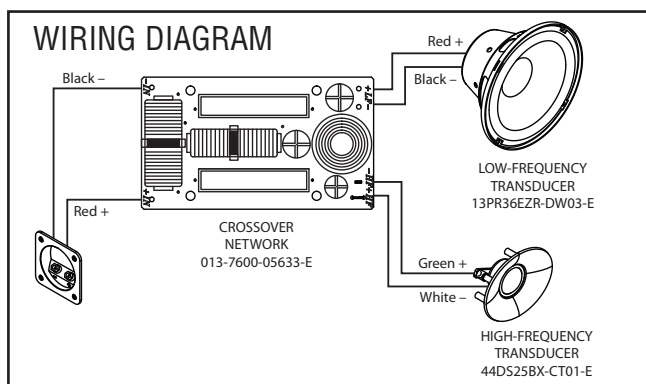
Refer to the wiring diagram and exploded view below. The network is a small circuit board found on the inside of the terminal cup, or mounted to an inside wall of the enclosure. It sends low-frequency sounds to the woofer, high-frequency sounds to the tweeter and, if applicable, mid-frequency sounds to the midrange driver. Make sure all wires are secure and connected. Look for components on the network that look burnt, "bulged," or abnormal. If everything looks normal, connect the network to the drivers from another matching loudspeaker. **MAKE SURE** you attach the correct wires to each driver – mid- and low-frequency sounds can damage the tweeter! If there is still no sound or distorted sound, the network is defective. If there is clean undistorted sound, the drivers are defective.

Problem 2: No sound or distorted sound from one or more (but not all) drivers in an enclosure

Remove the problem driver(s) from the enclosure and make sure all wires are secure and connected. If they are, proceed with the following test:
Woofer or midrange driver – Connect the driver's + and – input terminals directly to the loudspeaker wires from your receiver/amplifier and play some music at a reasonable volume. If the driver now sounds normal (produces a clean, undistorted sound), the network is most likely defective.
Tweeter – Replace the tweeter with a functioning tweeter from another loudspeaker. If the tweeter now functions normally (produces clean, undistorted sound), the original tweeter is defective. If the replacement tweeter also sounds distorted or produces no sound, the network is most likely defective.

Problem 3: Loudspeakers distort, rattle or pop at higher volumes

This is usually NOT a loudspeaker problem. Common causes are too much power (playing the loudspeakers too loud and causing them to distort), an amplifier with not enough power (the amplifier can't produce the required volume without distorting), excessive equalization (turning the tone controls too far clockwise, and/or engaging the loudness/bass boost button on your receiver) or some combination of the above. If only one loudspeaker is exhibiting the problem, and you're confident that it's not caused by too little power/too much power/excessive equalization, see solutions for Problems 1 and 2.



SERVICE NOTES

- 1) All parts (with the exception of the terminal cup/binding posts) are accessible through the woofer opening.
- 2) Carefully pry metal grille out of its recess with a sharp, pointed instrument such as an awl or dental pick – USE CAUTION and protect the grille and cabinet from scratches or dents. Work evenly around the perimeter until the grille w/gasket can be removed.
- 3) Pry the woofer trim ring out of the counterbore, which is attached with a friction fit, using a small, flat-blade screwdriver or similar tool. The four Phillips screws will then be visible.
- 4) Remove the woofer and unplug both Faston® terminals.
- 5) The tweeter/waveguide is held on with four Phillips screws on the inside of the cabinet.
- 6) The port tube must be removed from the cabinet, as it is not practical to try and remove the tweeter screws with the port tube in place. Insert a dowel of suitable diameter into the rear of the port tube and rock it back and forth to dislodge the port tube from the cabinet. Pushing the port tube out from the front, through the woofer opening, may be of some assistance.
- 7) With the port tube removed, use a 8" or longer Phillips bit to remove the four tweeter screws; unplug the two Faston connectors at the front of the network.

ITEM	PART NO.	DESCRIPTION	QTY.	ITEM	PART NO.	DESCRIPTION	QTY.
1	329-FE-05405-0BAE	Front grille assembly w/gasket	1	12	352-GM03520D850-E	Screw, terminal cup	1
2	213-040-05171-0BAE	Woofer trim ring	1	13	317-ABS-05160-0BAE	Terminal cup	1
3	352-BM03516D1053-E	Screw, woofer	4	14	Not for Sale	Damping	1
4	13PR36EZR-DW03-E	5" Woofer	1	15	400-000-08810-E	Outer carton	1
5	44DS25BX-CT01-E	Tweeter assembly w/waveguide	1	16	405-000-05122-E	Warranty card	1
6	013-7600-05633-E	Crossover network	1	17	Visit www.jbl.com	Owner's manual	1
7	Not for Sale	JBL Control Monitor cabinet	1	18	431-000-06627-E	Foam packing (top)	1
8	315-ABS-05179-0BAE	Plastic bracket cover, top & bottom	2	19	431-000-06628-E	Foam packing (bottom)	1
9	351-KC06013A1403-E	Screw, cover	2	20	320-SIL-05175-0BAE	Rubber feet (8)	1 set
10	352-HM03012D1348-E	Screw, tweeter	4	21	325-FE-05331-0BAE	Wall-mount bracket	2
11	Not for Sale	Port tube	1	22	399-FE-00628-0BAE	4mm Allen (hex key) wrench	11