

## Installation Manual

*CWC-8 and CWC-8B*

*(1999-2005 MX-5 / Miata Sound Systems)*



# Step 1: Parts and Overview

*Please be sure to read our instructions thoroughly before attempting installation.*

## **Congratulations on your purchase of the ultimate car audio upgrade available for the Mazda Miata/MX5!**

Below are some of the features associated with this speaker component set:

- This system was specifically designed for the Miata/MX5.
- Hundreds of hours have gone into the testing and design of this audio system.
- Measurements were made with the industry's top equipment.
- No other speakers in the world have been so meticulously designed specifically for one vehicle.
- The system was designed so that anyone can install it with minimal tools.
- There is no need to do any drilling, cutting, tearing or splicing with this install. This will keep your factory warranty intact.
- As with all Clearwater purchases your satisfaction is guaranteed!!

**We are passionate about our audio and you should be too!**

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### **Parts Included:**

1. *Door Speakers (2)*
2. *Custom Tweeters (2)*
3. *Sound Modules (2)*
4. *Small Screws (4)*
5. *Larger Screws (8)*
6. *Tweeter Mounting Brackets (2)*
7. *Small screw washers (4)*
8. *Large Zip Ties (Cable Ties) (4)*
9. *Small Zip Ties (Cable Ties) (12)*
10. *Door speaker water shields (2)*
11. *Installation Manual (1)*

### **Tools Needed:**

1. *Phillips Head Screwdriver (#2)*
2. *Knife or cutting pliers*

## Step 2: Factory Speaker Removal

- Remove the two push clips on the rear side of the door panel with your fingernails. (The center circle will pull out of the middle, then the entire pin will slide out.)
- Remove the entire clip including center by pulling it away from the door panel.



- Remove the push clip next to the tweeter location using the same method.
- Remove the screw from the door handle bezel using the Phillips head #2 screwdriver.
- Holding the door handle open, pull the bezel out of the door panel by pulling from the front. (A)



- Remove the remaining screws in the door panel.
  - a. One of the screws is located at the top of the door panel handle.
  - b. 1999 and 2000 models will have a screw under the felt pad at the bottom of the door handle. (B)
  - c. 2001 and up models will have a screw located at the bottom of the door panel handle.
- For cars with power windows, skip to Number 8. For those without power windows you can remove the window crank as follows:
  - a. Roll down window. Position crank in down position. Stand over the window and locate the brass colored metal "C" clip holding on the door window crank. It is visible between the door crank and the round plastic washer. This clip must be removed.
  - b. Rotate the window crank to the up position. Only the ends of the "C" clip will be visible, but it will be easier to push the clip down this way. Insert a small slotted screwdriver between the plastic washer and the window crank. Gently push one of the "C" clip ends downward, then the other. It may be easier to now rotate the window crank down and remove the clip. If it is not visible, rotate the crank and try pushing down

## Step 2: Factory Speaker Removal

again. Remove “C” clip, washer and crank. Note: Be careful not to scratch the door cover with screwdriver!



- Using your hands start at the bottom of the door pull outward to release the snaps from the rear of the door panel. Once all 6 of the snaps have been released do not continue to pull on the door panel, this may damage your panel. These snaps will make a “pop” sound as they release one by one. Once all snaps have been release the door panel can be lifted. Pull the door panel upwards to remove from the door.

- Remove the connector from the door lock wires on the rear of the door panel (if equipped).



- Remove the connector from the factory tweeter (if equipped).

- Place the door panel on a flat smooth surface (to prevent scratches) with the rear of the panel facing upwards.

- Remove the two screws holding the factory tweeter into place (if equipped).

- Remove the factory tweeter.

- Tuck the factory tweeter wire out of the way (this will no longer be needed). We suggest putting the wire behind the protective plastic sheet in the door.

- Remove the four screws holding the factory door speaker into the door.

- Disconnect the plug on the rear of the factory speaker.

- All the factory door speaker components have now been removed.

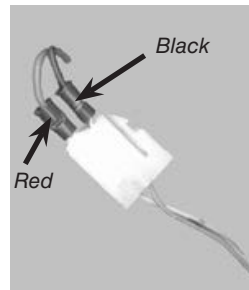
## Step 3: Clearwater Speaker Installation

### Custom Sound Module:

- Inside the door cavity there is a side impact protection bar. Using the provided large zip ties secure the “Custom Sound Module” to the bar using the following directions:
  - a. Feed the zip ties through each of the holes on the sound module.
  - b. Insert the sound module into the door cavity through the door speaker opening.
  - c. With the wires pointing downward wrap the zip ties around the protection bar (this will not compromise any protection).
  - d. Make sure that the module will clear the provided water shield before tightening the tie wraps.
  - e. After the module is secure against the bar, cut off the excess tie.



- There is a small hole to the top inside corner of the speaker hole in the door. Cut or punch a small hole through the plastic covering this hole. (D)
- Pull about 6 to 8 inches of the tweeter wires through the hole in the door and the hole in the plastic from the inside.
- You can secure the tweeter wire using the provided small zip ties.
- Connect the input wires from the sound module into the factory connector that was plugged into the factory door speaker.
- There is a hook end on side of the connector. Plug the black wire (negative) into the connector closest to the hook.
- Plug the red wire (positive) into the connector farthest from the hook.
- Make sure that both connectors are fully pushed into the plug.



## Step 3: Clearwater Speaker Installation

### Door Speaker:

- Plug the wires coming from the “woofer” wires into the rear of the Clearwater door speaker. The red wire connects to the “+” terminal and the black wire connects to the “-” terminal.



- Make sure that the included gasket is securely attached to the frame.

- The water shield is provided to protect the speaker from the top, not the bottom.

- When properly installed, the water shield should be located at the top of the speaker and the terminals at the bottom. (See image above)

- Insert one of the large screws through the frame and the top hole of the water shield.

- Insert the door speaker and water-shield into the door and loosely secure the top screw into place.

- Using the screwdriver and the three remaining large screws, gradually tighten each screw making sure the speaker goes in straight. **Be careful not to slip with the screwdriver, this could seriously damage the door speaker, and insure wiring is not pinched between the speaker and door.**

### Custom Tweeter:

- Place the custom tweeter into the tweeter hole on the rear of the door panel.

- Align the wires so that there is one wire at the top and one wire at the bottom.

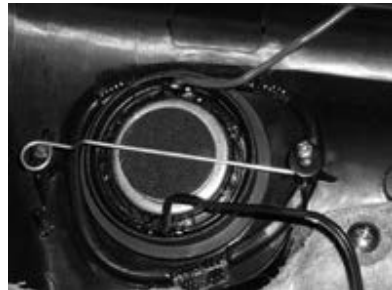
- Place the tweeter-mounting bracket over the back of the tweeter.

(The bent side of the bracket should be facing inside of the vehicle.)

- Using the provided small screws and washers tighten down the mounting bracket using the factory tweeter mounting holes.

- Secure the tweeter wires to the tweeter-mounting bracket using one of the provided small zip ties. Cut off the excess tie.

- Connect the wires from the tweeter to the wires labeled “tweeter” on the sound module.



## Step 3: Testing, Re-Assembly & Product Specs.

### Testing:

- Before completely re-installing the door panel, verify the tweeter wires are connected together and turn on the radio to confirm that all connections are secure.
- If there is no sound from the tweeter, re-check the tweeter wire connections.
- If there is no sound from the woofer, re-check the woofer wire connections.
- If there is no sound from either, re-check the input wire connections.

### Re-Installation:

- Make sure to re-connect the wiring for the power door locks (if equipped).
- The door panel can now be re-installed in the reverse order.
- Make sure that all of the snaps are pushed into place.
- Make sure to re-install all of the factory screws back into place.

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### Product Specifications:

#### Woofers:

Cone Material:	<i>Waterproof Poly-Vinyl Plastic</i>
Surround Material:	<i>Waterproof acoustic damped UV treated foam</i>
Power Handling:	<i>200 Watts</i>
Nominal Impedance:	<i>0.50 <math>\Omega</math> (CWC-8B), 4.0 <math>\Omega</math> (CWC-8)</i>
Weight:	<i>5.15 lbs each.</i>
Mounting Depth:	<i>3.8" w/ Water shield</i>

#### Tweeters:

Power Handling:	<i>150 Watts</i>
Weight:	<i>0.14 lbs each</i>

#### Crossovers (Custom Sound Modules):

Woofer Crossover point:	<i>2900 Hz</i>
Tweeter Crossover point:	<i>2900 Hz</i>
Dimensions:	<i>2.0" x 3.0"</i>

Thank you for purchasing your Clearwater Speakers. Please feel free to send us comments or suggestions at any time. We love to hear from our customers. If you have the time we would love to see some pictures of you and your car. Send your photos to us at [sales@clearwateraudio.com](mailto:sales@clearwateraudio.com) or mail them to us at P.O. Box 428, Folsom, CA, 95630.

Sincerely,

Glenn and the team at Clearwater.



The Clearwater Company | 2546 Mercantile Dr. Ste B | Rancho Cordova, CA 95742  
Phone: (916) 852-7029 | Fax: (916) 852-9410 | [www.clearwateraudio.com](http://www.clearwateraudio.com)

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