

## Installation Manual

*CWC-9 and CWC-9B*

*(2006-2008 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.
- 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. *Screws (8)*
5. *Large Zip Tie (Cable Ties) (2)*
6. *Small Zip Ties (Cable Ties) (12)*
7. *Door speaker water shields (2)*
8. *Installation Manual (1)*

### **Tools Needed:**

1. *Phillips Head Screwdriver #2*
2. *Knife or wire cutters*
3. *Pliers*
4. *Small (very small) flat head screwdriver*

## Step 2: Factory Speaker Removal



- With the door handle held in the “open-the-door” position, gently insert a small flat head screwdriver behind the blank plastic insert and apply enough prying force to loosen.



- With the door handle still in the “open-the-door” position, insert the small flat head screwdriver into the front of the now loosened blank plastic insert and pry it out.



- Using a #2 Phillips head screwdriver, unscrew the screw from behind the blank plastic insert that you just removed.



- Gently insert your small flat head screwdriver upwards into the base of the plastic cap at the top of the main door grab handle. Apply upward pressure until the plastic cap comes off into your hands. Be ready to catch these because they have been known to take flight.

## Step 2: Factory Speaker Removal

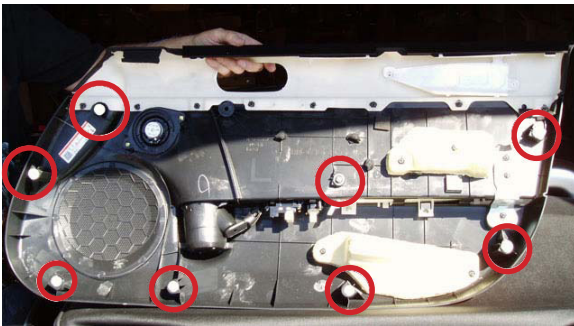
- Remove the screw at the top of the grab handle with your #2 Phillips head screwdriver.



- Locate the screw inside the doors cup holder and remove with your #2 Phillips head screwdriver.



- Using your hands, start at the bottom of the door panel and pull outward to release the snaps from the back side of the panel. These snaps will make a “pop” sound as they release one by one. Once all 8 snaps have been released, the door panel can be lifted and pulled away from the door. Push the door panel upwards to remove from the door. (These clips can break, we have included a few replacements just in case. Also they sometimes get left in the door instead of sticking to the panel, if this happens pry them off the door and re-insert into the door panel)

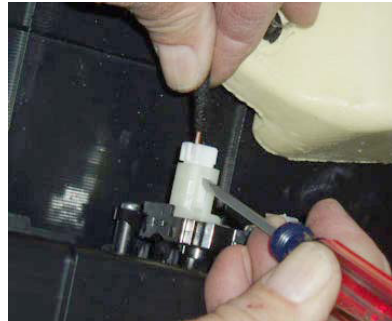


## Step 2: Factory Speaker Removal

- Press the door handle from the back to “pop” it off of the door panel. Twist the door handle assembly so it can pass through the hole in the door panel.



- Remove the connector from the door lock wires on the back side of the door panel. Remove the connector from the factory tweeter. (these connectors can be tricky as they require the insertion of your small sized flat head screwdriver into their “release” tabs as you are pulling them out)



## Step 2: Factory Speaker Removal

- Unplug the remaining factory wire connectors from the back of the door panel. (one connector is removed in the same manner as the tweeter connector, the other has a thumb tab to release)



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

- Remove the two screws holding the factory tweeter into place.
- Remove the factory tweeter.
- 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.

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## Step 3: Clearwater Speaker Installation

### Speaker Mounting Location Modifications:

- For CWC-9 installation: Follow the instructions below for plastic tab removal.
- For CWC-9B installation: All that needs to be done is to remove the plastic tabs that are on the outside of two mounting screw locations. This is easily done by grabbing the plastic with pliers and twisting them off.
- Note that your factory speaker is oval and the CWC-9 replacement speaker is round. Following are instructions on putting this round peg in the oval hole.





### Step 3: Clearwater Speaker Installation



- There is a “groove” around the top and bottom of the oval opening that the factory put in place for us to easily be able to install the round CWC-9 speakers. Using the corner of your small flat head screwdriver, score the plastic along

this groove until you have carved into the plastic about half way through. Be patient here, this will take about 5-8 minutes per door and will result in plastic shavings falling away as you go. The deeper you make the grooves, the easier the next steps will be.

- Using your pliers, grab the corners of the plastic and gently pry the plastic along the score marks until you reach the screw holes. Do this on the top and the bottom of the opening. (The plastic should “tear” easily. If it doesn’t, please go back to the previous step. We will wait here for you.)



- Now grab the plastic in between the torn corners and pry outwards until the rest of the plastic tears free, top and bottom. (This should happen fairly easily, however you may need to use both hands, the installer pictured here possesses super human strength)

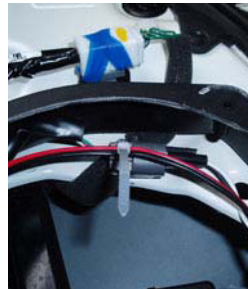
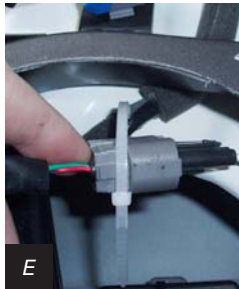
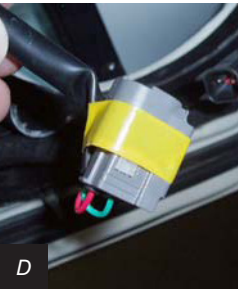
## Step 3: Clearwater Speaker Installation

### Custom Sound Module:

- Inside the door cavity there is a side impact protection bar. Using the provided large zip tie secure the “Custom Sound Module” to the bar using the following directions:
  - a) Feed the zip tie through one of the holes on the sound module.
  - b) Insert the sound module into the door cavity through the speaker opening.
  - c) With the wires pointing toward the front of the car, wrap the zip tie around the protection bar and back through the second hole of the sound module. (this will not compromise any protection). After the module is secured against the bar, cut off the excess tie.



- d) Remove the tape from the factory connector and plug it into the “input” plug on the sound module.
- e) With one of the small zip ties, attach the wires labeled “input” and “tweeter” to the factory wires located above the woofer cutout between the plastic and metal parts of the door. Cut off the end of the zip tie.

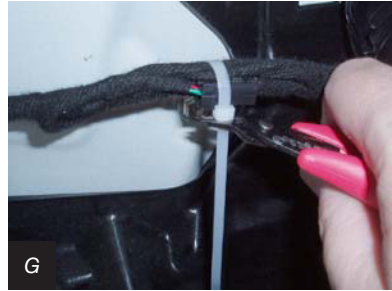
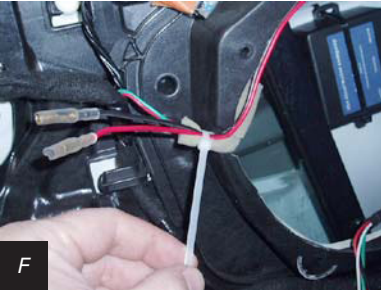




## Step 3: Clearwater Speaker Installation

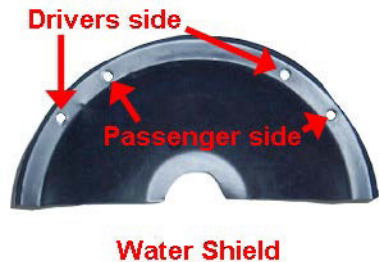
f) Place the tweeter wire in the “groove” with the factory input wire and hold in place with a small zip tie. Cut off the end of the zip tie.

g) The factory tweeter wire will not be used. Wrap the factory tweeter wire around itself and hold in place with a small zip tie. (the tweeter wire will make a rattling sound if it is left loose) Cut off the end of the zip tie.



### Door Speaker:

- Plug the wires coming from the sound module labeled “woofer” into the rear of the Clearwater door speaker. The red wire connects to the “red” terminal, the black wire connects to the “black” terminal, the white wire connects to the “white” terminal, and the green wire connects to the “green” 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 as shown below and the terminals to the left and right (front and back of the car).



## Step 3: Clearwater Speaker Installation

- Insert one of the supplied 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. **Make sure that the wires do not get pinched between the woofer and door.**
- Using the screwdriver and the three remaining supplied 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.**

### Custom Tweeter:

- Place the custom tweeter into the tweeter hole on the rear of the door panel and attach with the factory screws.
- Connect the wires from the tweeter to the wires labeled “tweeter” from the sound module. (Connect the red wire to the red wire, and the black wire to black wire)



### 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.

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

### Re-Installation:

- Make sure to re-connect the wiring for the power door locks and electric window controls.
- The door panel can now be re-installed in the reverse order that it was removed.
- Make sure that all of the snaps are pushed into place. (Don't forget the one in the middle of the door, shown above on the right)
- Make sure to re-install all of the factory screws back into place.



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### Product Specifications:

#### Woofers:

Cone Material:	<i>Treated Paper</i>
Surround Material:	<i>Waterproof acoustic damped UV treated foam</i>
Power Handling:	<i>200 Watts</i>
Nominal Impedance:	<i>1 <math>\Omega</math> (CWC-9B), 4.0 <math>\Omega</math> (CWC-9)</i>
Weight:	<i>2.25 lbs. each.</i>
Mounting Depth:	<i>2.50" w/ Water shield</i>

#### Tweeters:

Power Handling:	<i>150 Watts</i>
Weight:	<i>0.22 lbs. each</i>

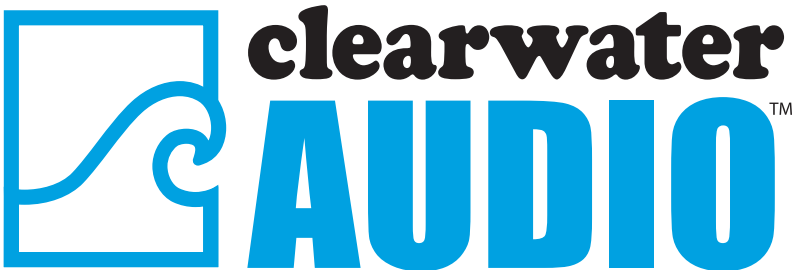
#### Crossovers (Custom Sound Modules):

Woofers 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.



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