

# Z1 D40 FRONTIER SPEAKER UPGRADE INSTALLATION MANUAL



This Installation Manual is intended for the following models:	
2005-2021	Nissan Frontier (D40)

## PROLOGUE:

Study these instructions completely before proceeding to assembly. The installer must have a thorough knowledge of automotive systems operation. If unfamiliar with any of the concepts outlined in this instruction, we recommend the installation be completed by a qualified professional.

## WARNING!

Extreme caution should be taken when performing maintenance or performance upgrades to your vehicle. Please observe and abide by any Warning or Caution labels placed on the various components and tools used when servicing your vehicle. If you have any questions regarding installation or the various components included with the Z1 Off-Road D40 Frontier Audio Upgrade, consult with a Professional Mechanic, or contact Z1 Off-Road for more information.

## **PARTS INCLUDED:**

Item	Quantity	Description
1	2	Front Door Speaker
2	2	Rear Door Speaker
3	2	Dash Speaker
4	2	Front Door Crossover (LP350)
5	2	Dash Crossover (HP350)
6	2	Dash Retaining Ring w/ Hardware
Component Speaker Kit		
7	2	Tweeter
8	2	Rear Door Crossover (2W3500)
9	2	Tweeter Bracket
10	1	Cutting Template

## **TOOLS REQUIRED:**

- Ratchet
- Ratchet Extension(s)
- Assorted Metric Sockets
- Assorted Metric Wrenches (7mm is necessary)
- Torque Wrench
- Trim Removal Tools
- 1 3/4" Hole Saw (Component Speakers with Base Audio Only)
- Painters Tape (Component Speakers with Base Audio Only)
- Marker (Component Speakers with Base Audio Only)

## **SAFETY REQUIREMENTS:**

- Always wear safety glasses and any necessary protective garments. If using any fluids, chemicals, or solvents, a respirator is recommended.
- Always use properly rated jack stands when working under your vehicle.
- Always keep limbs and parts away from moving drivetrain parts.
- Always turn the ignition to the OFF position and disconnect the NEGATIVE battery terminal.
- Only operate drivetrain in safe space and well-ventilated areas.

## **BEFORE YOU BEGIN:**

Remove contents from the Z1 Off-Road D40 Frontier Speaker Upgrade and verify that ALL necessary hardware is present.

This Guide includes instructions for both the Component and Coaxial Kits. Some steps for the Rear Component Kit will not apply to Rear Coaxial Kit users and can be skipped.

## **WARRANTY:**

All components carry a warranty of (1) one year from the date of purchase. Abuse, misuse, or improper installation voids all warranties. Please follow the Installation Manual, break-in, and tuning instructions carefully.

If you are having issues with your Z1 Audio setup, please review the [TROUBLESHOOTING MANUAL](#) to narrow down the problem first. If you have further questions or need a replacement component, please contact our Z1 Customer Service specialists.

**TABLE OF CONTENTS:**

FRONT DOOR SPEAKER: ..... 5  
REAR DOOR SPEAKER: ..... 12  
DASHBOARD SPEAKER: ..... 21  
AUDIO TUNING: ..... 25  
AUDIO TESTING: ..... 25  
AUDIO BREAK-IN: ..... 25

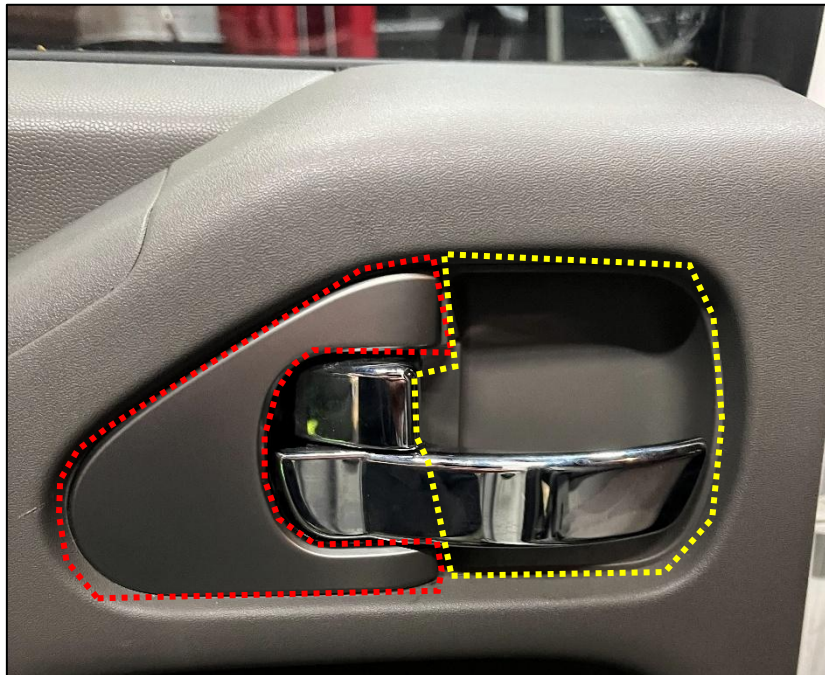
## **FRONT DOOR SPEAKER:**

1. Place the transmission in Park position (or in Reverse gear if equipped with a manual transmission). Apply the parking brake.
2. Open the Driver Side Door.
3. Remove the Trim Piece on the Arm Rest using a Trim Removal Tool. *Figure 1.*



*Figure 1*

4. Remove the Trim Pieces around the Door Handle using a Trim Removal Tool. *Figure 2.*



*Figure 2*

5. Pry up the Door Control Panel using a Trim Removal Tool. *Figure 3.*



*Figure 3*

6. Disconnect the Electrical Connector from the Door Control Panel and set the Panel aside.
7. Remove the (3) three 10mm bolts securing the Door Panel to the Door. *Figure 4.*



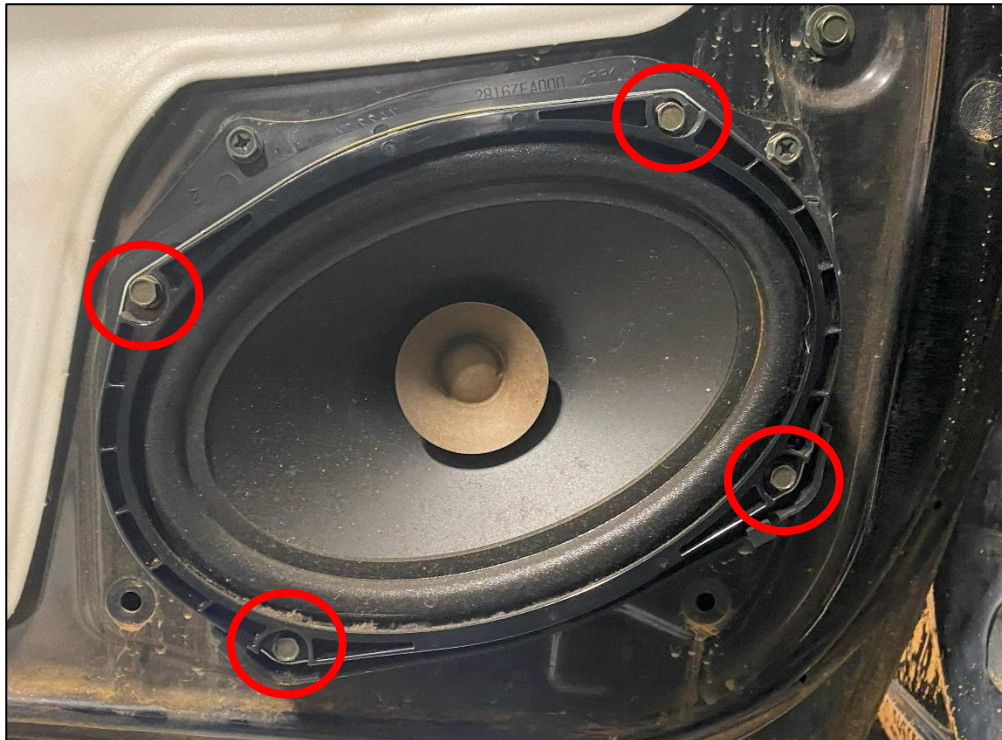
*Figure 4*

8. Use a Trim Removal Tool on the bottom of the Door Panel to release the plastic clips from the Door. Work around the Door Panel until it is fully released from the Door. *Figure 5.*



*Figure 5*

9. Remove the (4) four bolts securing the OE Speaker to the Speaker Bracket, retain this hardware. *Figure 6.*



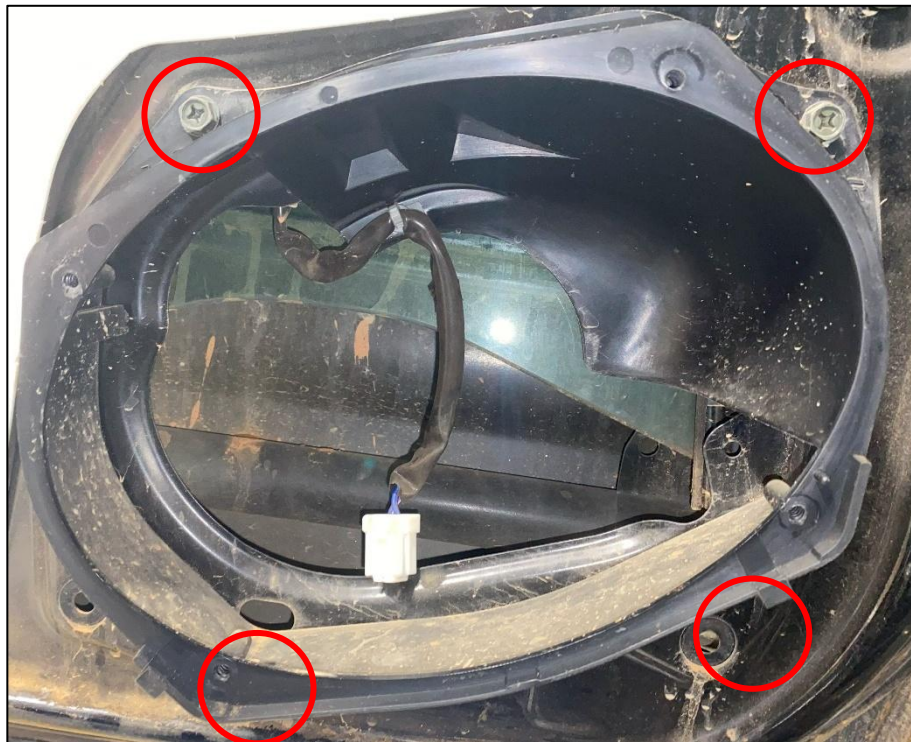
*Figure 6*

10. Remove the OE Speaker from the door and disconnect the Electrical Connector on the back of the Speaker.  
*Figure 7.*



*Figure 7*

11. Remove the (4) four bolts that secure the Speaker Bracket to the Door, retain this hardware. *Figure 8.*



*Figure 8*

12. Remove the Speaker Bracket from the Door.

13. Trim the center section of the Speaker Bracket using Snips, a Dremel, Saw or similar tool. This is necessary to clear the new Speakers. *Figure 9.*



Figure 9

14. Trim the small Locating Tab off the front of the Speaker Bracket. *Figure 10.*



Figure 10

15. Locate (1) one Front Crossover (LP350). Connect the Crossover to the OE Speaker Harness. *Figure 11.*
16. Peel the cover of the Double-Sided Tape on the back of the Crossover off and stick the Crossover to the Door Panel underneath the Crash Structure behind the Speaker. *Figure 11.*

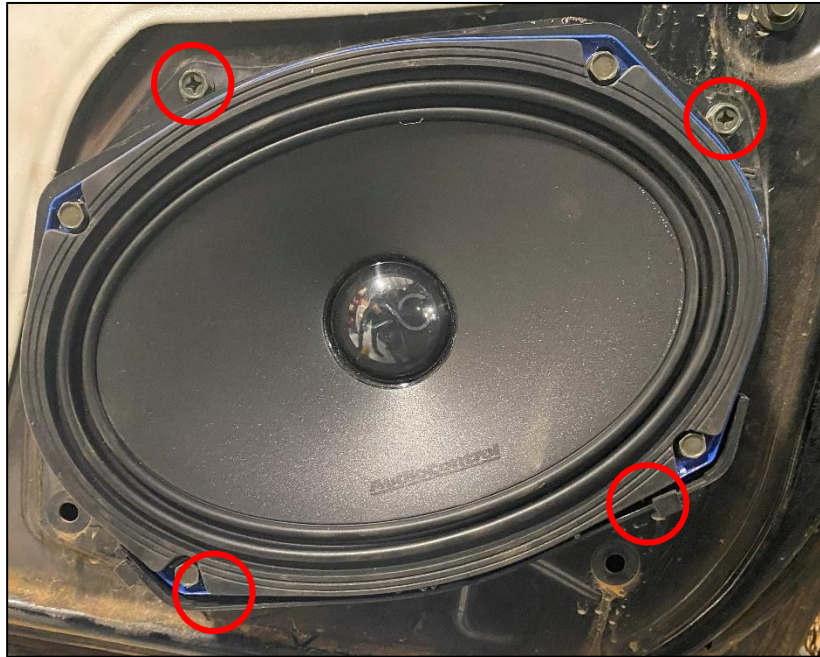
**NOTE:** Clean the area you plan on adhering the Crossover to prior to installation to maximize adhesion.



*Figure 11*

17. Locate a new Front Door Speaker. Secure the Speaker to the OE Speaker Ring with the Hardware removed in *Step 9*. **DO NOT** overtighten this hardware as you can easily strip the threads. Trim more of the OE Speaker Ring as necessary for the Speaker to sit flush in the Ring.

18. Connect the Speaker to the Crossover Connector and secure the Speaker to the Door with the Hardware removed in *Step 11*. **DO NOT** overtighten the (4) four bolts, as they can easily strip. *Figure 12*.



*Figure 12*

19. Reinstall the Door Panel by following *Steps 3-8* in reverse order.

20. Repeat *Steps 3-19* for the Passenger Side Front Door.

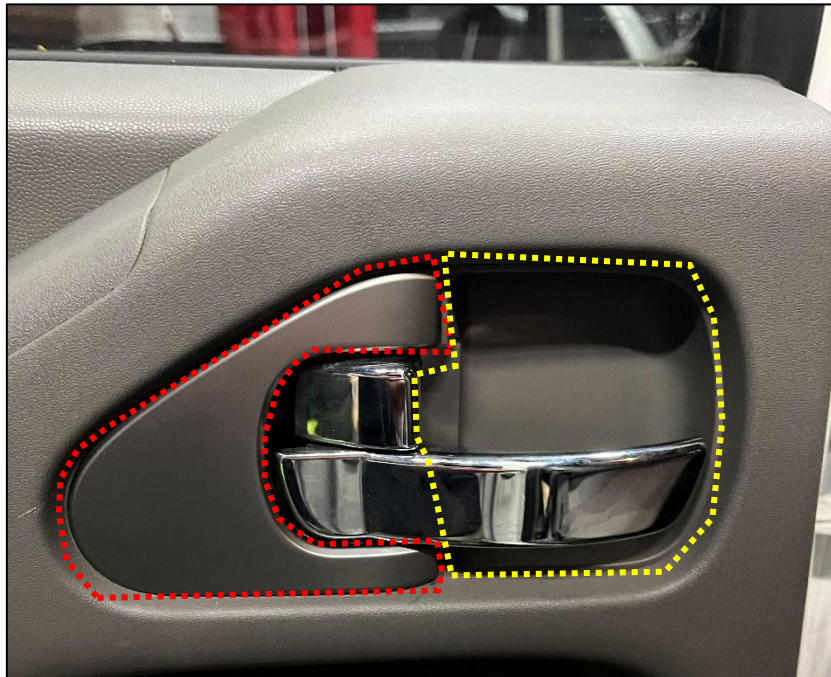
## **REAR DOOR SPEAKER:**

1. Open the Driver Side Rear Door.
2. Remove the Trim Piece on the Arm Rest using a Trim Removal Tool. *Figure 13.*



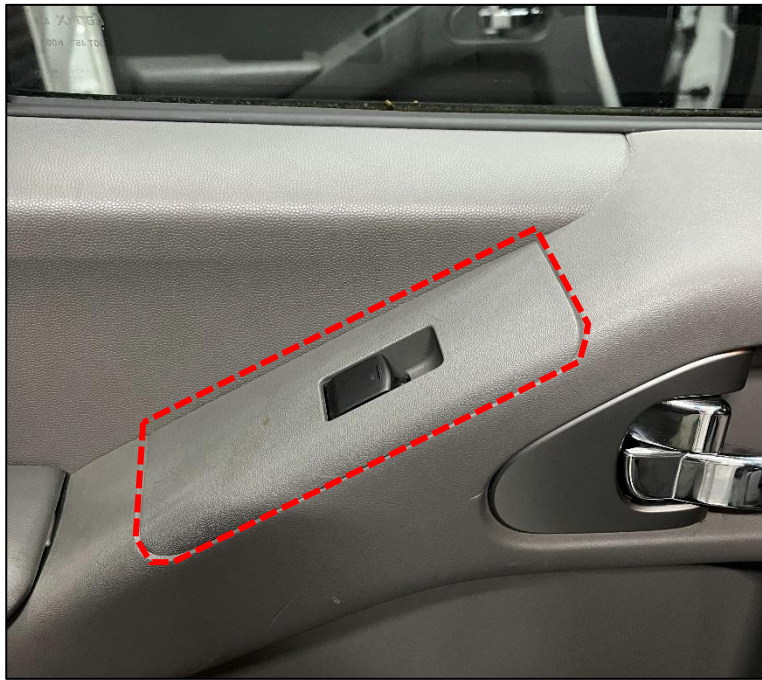
*Figure 13*

3. Remove the Trim Piece around the Door Handle using a Trim Removal Tool. *Figure 14.*



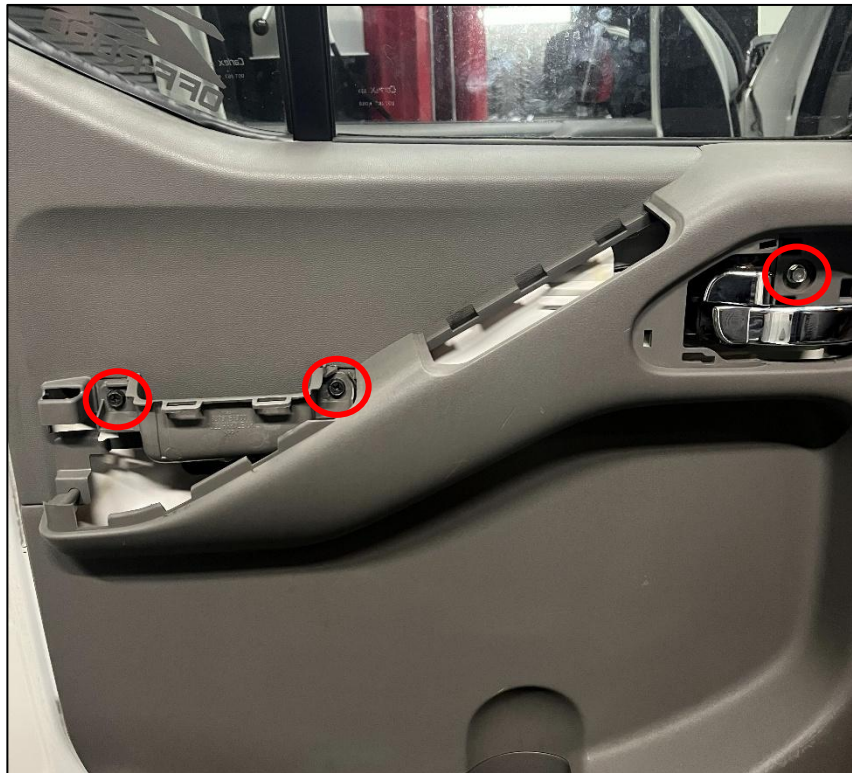
*Figure 14*

4. Pry up the Door Control Panel using a Trim Removal Tool. *Figure 15.*



*Figure 15*

5. Disconnect the Electrical Connector from the Door Control Panel and set the Panel aside.
6. Remove the (3) three 10mm Bolts securing the Door Panel to the Door. *Figure 16.*



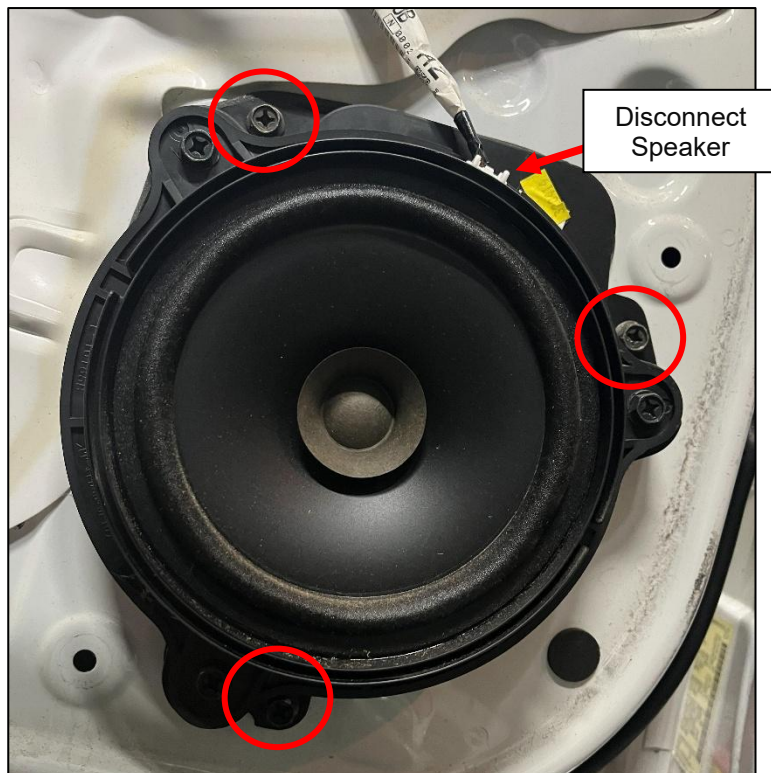
*Figure 16*

7. Use a Trim Removal Tool on the bottom of the Door Panel to release the plastic clips from the Door. Work around the Door Panel until it is fully released from the Door. Once released, disconnect the OE Door Tweeter (if applicable) and set the Door Panel aside. *Figure 17.*



*Figure 17*

8. Disconnect the OE Rear Speaker. *Figure 18.*
9. Remove the (3) three screws that secure the Speaker to the Door. Retain this hardware. *Figure 18.*



*Figure 18*

10. Remove the OE Speaker from the vehicle.

11. Locate the new rear Speaker. This speaker has a Speaker Ring already installed. Install the Speaker into the Door with the Connector facing the top. Secure to the Door with the OE Hardware removed in *Step 9*. *Figure 19*.



*Figure 19*

**NOTE:** *Steps 12-15* are for users with Component Speakers AND Base Audio. If you have the Rockford Fosgate Audio System, skip to *Step 16*. If you have the Coaxial option, connect the new speaker to the OE Speaker Harness and skip to *Step 20*.

12. Locate the Cutting Template. On the Front of the Rear Door Panel, position the Template in the Corner as shown. *Figure 20*.

**NOTE:** Rockford Fosgate users can skip this step. The template can be used to help enlarge the OE Tweeter Hole in the upcoming steps.

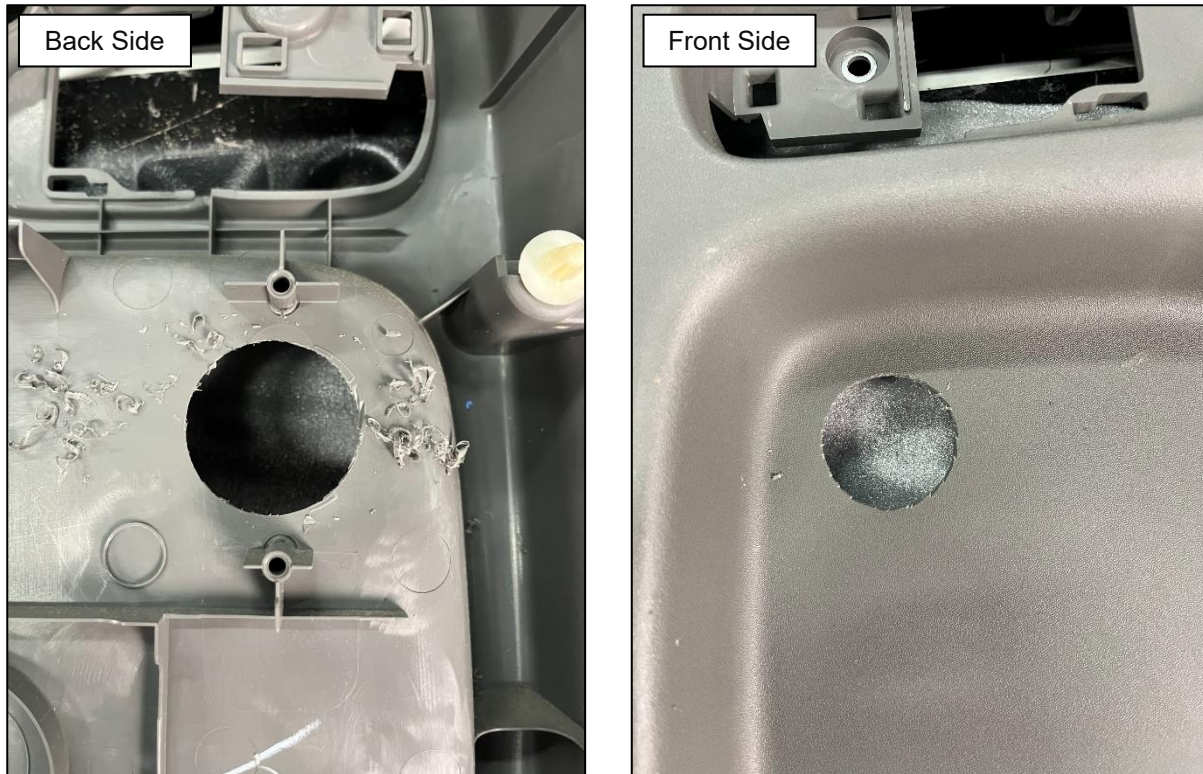


*Figure 20*

13. Mark the center and outside diameter of the Template onto the Door Panel.

14. Use a Drill and a 1 3/4" Hole Saw to cut the hole marked in *Step 13* out of the Door Panel. This hole will be slightly too small for the Tweeter, use a deburring tool to clean up the edges and slightly enlarge the Hole until the Tweeter fits snug in the hole. *Figure 21*.

**NOTE:** Some vehicles will have insulation behind the Door Panel. The Insulation can be lifted to access this area.



*Figure 21*

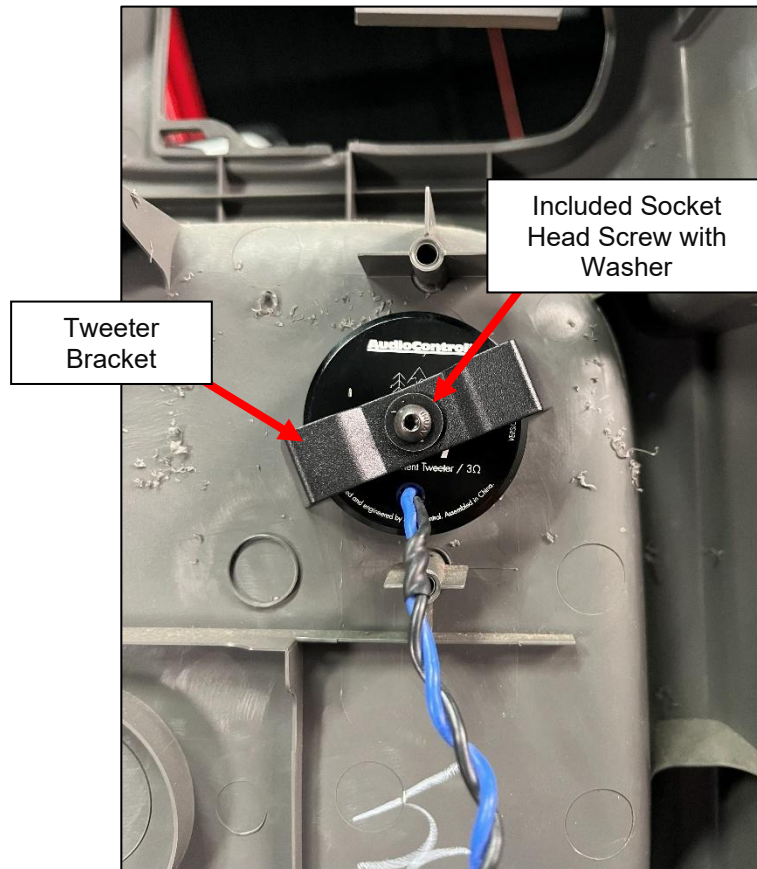
15. Place the new Tweeter in the hole cut in *Step 14*. If you have the Rockford Fosgate System, remove the OE Tweeter and replace it with the new one. *Figure 22*.

**NOTE:** The OE Hole will have to be slightly enlarged to fit the new Tweeter.



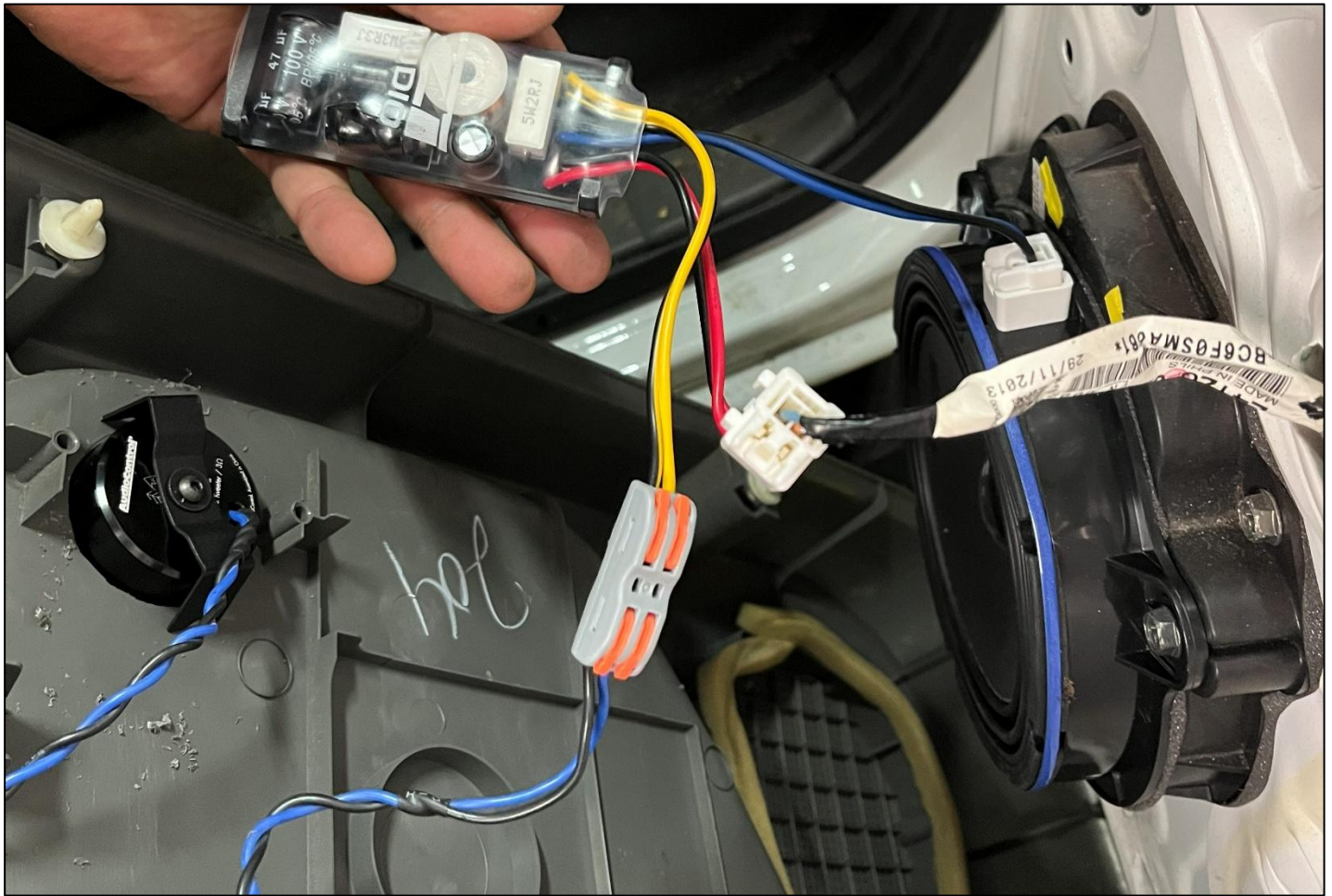
*Figure 22*

16. Locate the Tweeter Bracket and Hardware. Carefully flip over the Door Panel and install the Bracket to the back of the Tweeter with the included hardware to secure the Tweeter to the door. *Figure 23*.



*Figure 23*

17. Locate (1) one Rear Crossover (2W3500). Connect the **Red** and **Black** Wired Connector to the OE Speaker Harness and the **Black** and **Blue** Wired Connector to the new Speaker. Open the Orange Tabs of the Gray Connector to install the wires from the Tweeter, match the **Black** Tweeter Wire to the **Black** Wire from the Crossover, and match the **Blue** Wire of the Tweeter to the **Yellow** Wire of the Crossover. Close the Orange Tabs once connected to secure the wires. *Figure 24.*



*Figure 24*

18. Remove the protective cover from the backing tape of the Crossover and stick the Crossover into the pocket of the Door above the Rear Speaker Grille. *Figure 25.*



*Figure 25*

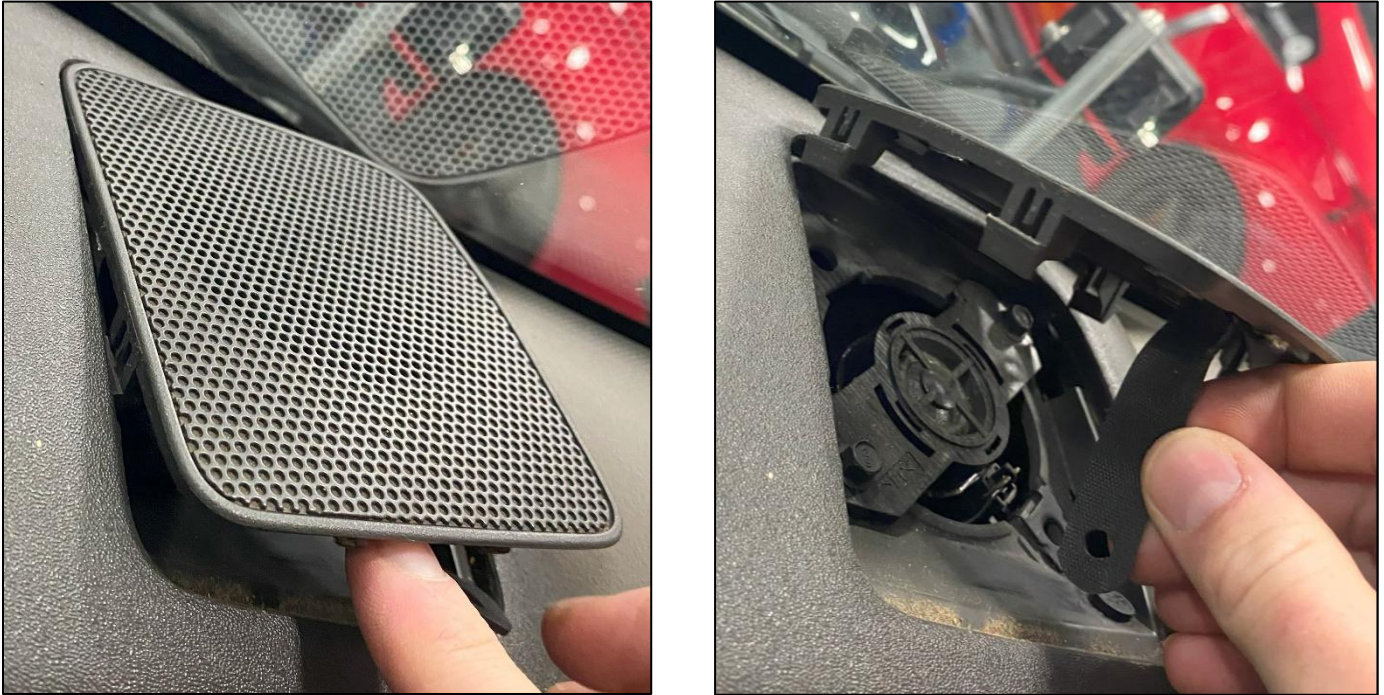
19. Follow *Steps 2-7* to reinstall the Door Panel.

20. Repeat *Steps 1-19* for the other side of the vehicle.

## **DASHBOARD SPEAKER:**

1. Starting on either side of the vehicle, pry up the front Dashboard Speaker Cover with a Trim Removal Tool. *Figure 26.*

**NOTE:** Some models will have a tether connected to the Speaker Cover, disconnect it to fully remove the Speaker Cover.



*Figure 26*

- Remove the (2) two bolts that secure the OE Speaker to the Dashboard. Retain this hardware. *Figure 27.*

**NOTE:** Some models will have (3) three bolts securing the speaker. A 7mm Wrench or very shallow socket is necessary to remove these bolts, as they are very close to the windshield.



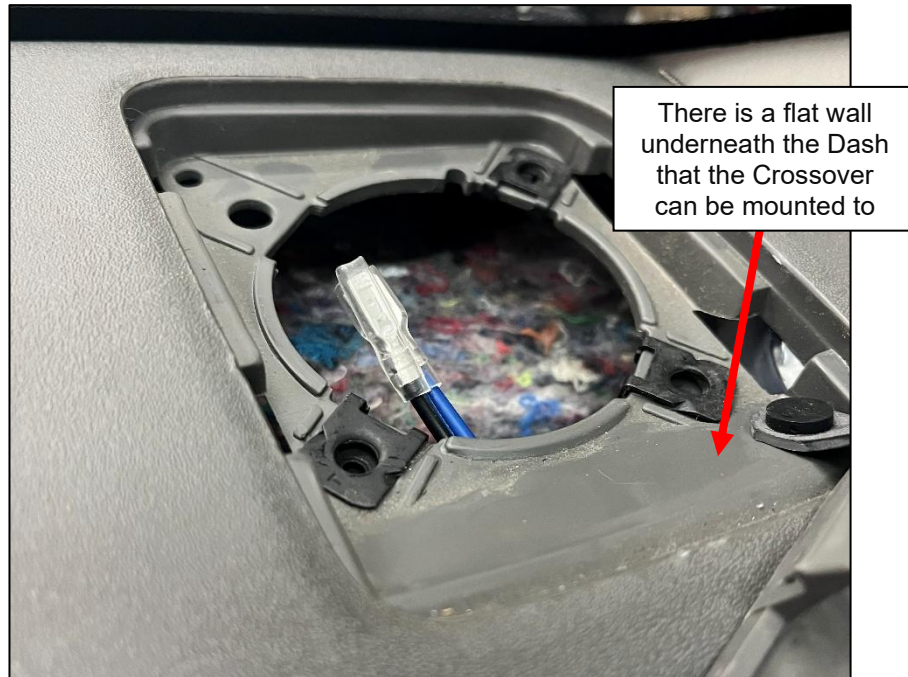
*Figure 27*

- Remove the Speaker from the dashboard and disconnect the Electrical Connector to fully remove the Speaker. *Figure 28.*



*Figure 28*

4. Locate (1) one Dash Crossover (HP350). Remove the backing from the Double-Sided Tape on the Crossover. Feel for the wall in the Corner of the Dash to adhere the Crossover to. It needs to be low enough to clear the Dash Speaker when installed. *Figure 29.*



*Figure 29*

5. Locate the new Z1 Dash Speaker Connect the ends of the Wiring Harness to the (2) two Leads coming from the Crossover. Join the **Blue** Wires to each other and the **Black** Wires to each other. *Figure 30.*



*Figure 30*

6. Connect the other Connector of the Crossover to the OE Speaker Harness.
7. Position the Dash Speaker onto the Dashboard Mount.
8. Install the Metal Plate on top of the Speaker and secure with the Hardware removed in *Step 2. Figure 31.*



*Figure 31*

9. Reinstall the Speaker Cover onto the Dashboard.
10. Repeat *Steps 1-9* for the other side of the Dash.

## **AUDIO TUNING:**

1. To ensure we are providing the cleanest natural input signal possible:
  - a. Set your OEM Radio to the middle (neutral) settings.
  - b. Bluetooth Devices:
    - i. Many phones treat any Bluetooth Audio Output like Bluetooth Headphones, which will negatively affect the sound quality.
    - ii. Turn off **Spatial Audio, Dolby Atmos, Adaptive Sound** or anything else along those lines.
    - iii. On Audio Streaming Apps, set the audio quality to **High** or better. Disable any built-in Equalizers. If you can't disable them, set them to "Flat."
  - c. For an even cleaner sound, consider using the AUX Input.

## **AUDIO TESTING:**

1. Start the vehicle to test the audio system. Make sure the volume is very low to start.
2. Play music you are familiar with, ideally with multiple frequencies.
3. Use the Fade and Balance of the Head Unit to move the sound to each corner of the vehicle. Make sure that all (4) four corners have sound in the correct positions and they sound as they should.
  - a. For Front Speakers, make sure to listen for the Speakers in the Dash. Move lower to make sure the Door Speaker is working as well.
  - b. If you have Component Rear Speakers, listen to make sure the Tweeter and Door Speaker are both working.
4. If all Speakers are functioning as they should, continue to the Audio Break-In Section. If you have any issues or questions, refer to the [Audio Troubleshooting Manual](#).

## **AUDIO BREAK-IN:**

1. It is highly recommended to start at a low volume and [break in the Speakers and Subwoofer](#) properly. New speakers may sound harsh; however, the sound will smooth out over time. Play a variety of music with different frequencies to fully exercise all of the speakers.

If you are impatient, just keep the volume below 15 for the first 8 Hours of use and slowly raise the volume afterwards. If you notice any cracking or distortion in the speakers, turn the volume down.

Be careful not to turn the Gain up too high, **Gain Volume**. Too much Gain, especially when the speakers are brand new, can cause damage.

While breaking in the speakers, adjust the Radio Settings to your desired preferences.

**END**

**Additional Technical Support:**  
Contact Z1 Off-Road at [info@z1offroad.com](mailto:info@z1offroad.com)  
Or call 678-839-8019 between 9am and 6pm ET