

TOOLS REQUIRED:

- Ratchet
- Ratchet Extension(s)
- Assorted Metric Sockets
- Assorted Metric Wrenches
- Allen/Hex Keys
- Trim Removal Tools

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/N50 HiFi Audio Upgrade and verify that ALL necessary hardware is present.

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.

PROCEDURE:

1. Refer to the Guides below to install the Speaker and Bass Packages for your setup:
 - a. D40 Frontier:
 - [D40 Frontier Speaker Upgrade](#)
 - [D40 Frontier Bass Package – Base Audio System](#)
 - [D40 Frontier Bass Package – Rockford Fosgate](#)
 - b. N50 Xterra:
 - [N50 Xterra Speaker Upgrade](#)
 - [N50 Xterra Bass Package – Base Audio System](#)
 - [N50 Xterra Bass Package – Rockford Fosgate](#)
2. Install the 5-Channel Amp onto the Amp Bracket and secure with the (4) four M4 Socket Head Screws.
Figure 1.



Figure 1

3. If you have the Rockford Fosgate Audio System, remove the OE Amp from the vehicle.
4. Loosen the +12V and Ground Terminals from the top of the Amp. *Figure 2.*



Figure 2

5. Insert the Power Wire and Ground Wire into the Ports on the front of the Amp, then tighten the screws on the top to secure the wires. *Figure 3.*



Figure 3

6. **Subwoofer Users Only:** Refer to the [Subwoofer Installation Manuals](#) to install the Subwoofer and Subwoofer Harness. Look at the Ferrule End of the Subwoofer Wiring Harness. One side is marked (+) and the other is marked (-). Each side will have a different colored wiring matching the (+) or (-) side. Connect the **BLUE** Wire to the (+) Terminal. Connect the **BLACK** Wire to the (-) Negative Terminal on the Amp. Tighten the Terminals once the wires are installed. *Figure 4.*



Figure 4

- 7.
- Base Audio Users:** Connect the Amp Harness to the back of the Head Unit to the Amp. Refer to the [D40 Frontier Bass Package – Base Audio/Xterra Bass Package – Base Installation Manual](#) on how to remove the Head Unit to install this harness.
 - Rockford Fosgate Users:** Locate the Amp Harness. Connect the (1) one White Connector to the OE Amp Harness. The OE Amp and Bracket can be removed if they have not been removed already. Refer to the [D40 Frontier Bass Package – RF Audio/Xterra Bass Package – RF Audio Installation Manual](#) on how to access the OE Amp to install this harness.

8. **Base and Rockford Fosgate Users:** Connect the Black Connector of the Amp Harness to the Amp. *Figure 5.*

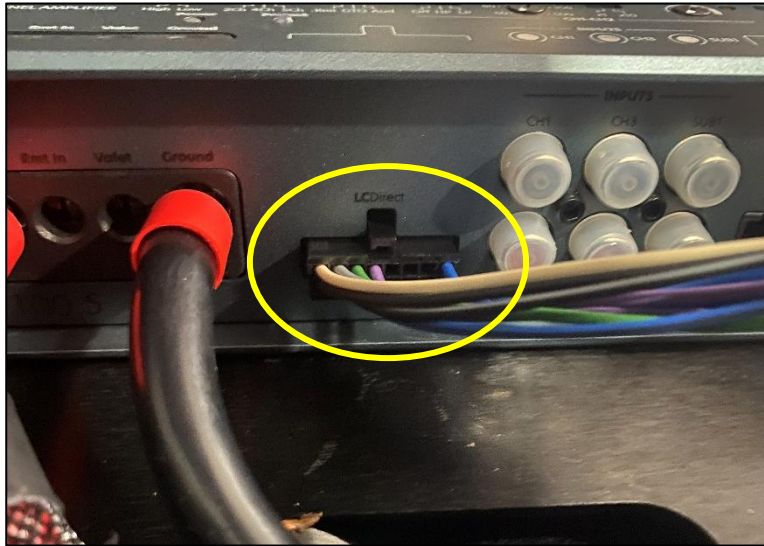


Figure 5

9. **Base and Rockford Fosgate Users:** The remainder of the Amp Harness has (8) eight open cables. These cables need to be installed into the **CHANNEL 1-4** ports of the AMP in this order from Left to Right: White, White/Black, Gray, Gray/Black, Green, Green/Black, Purple, Purple/Black. *Figure 6.*

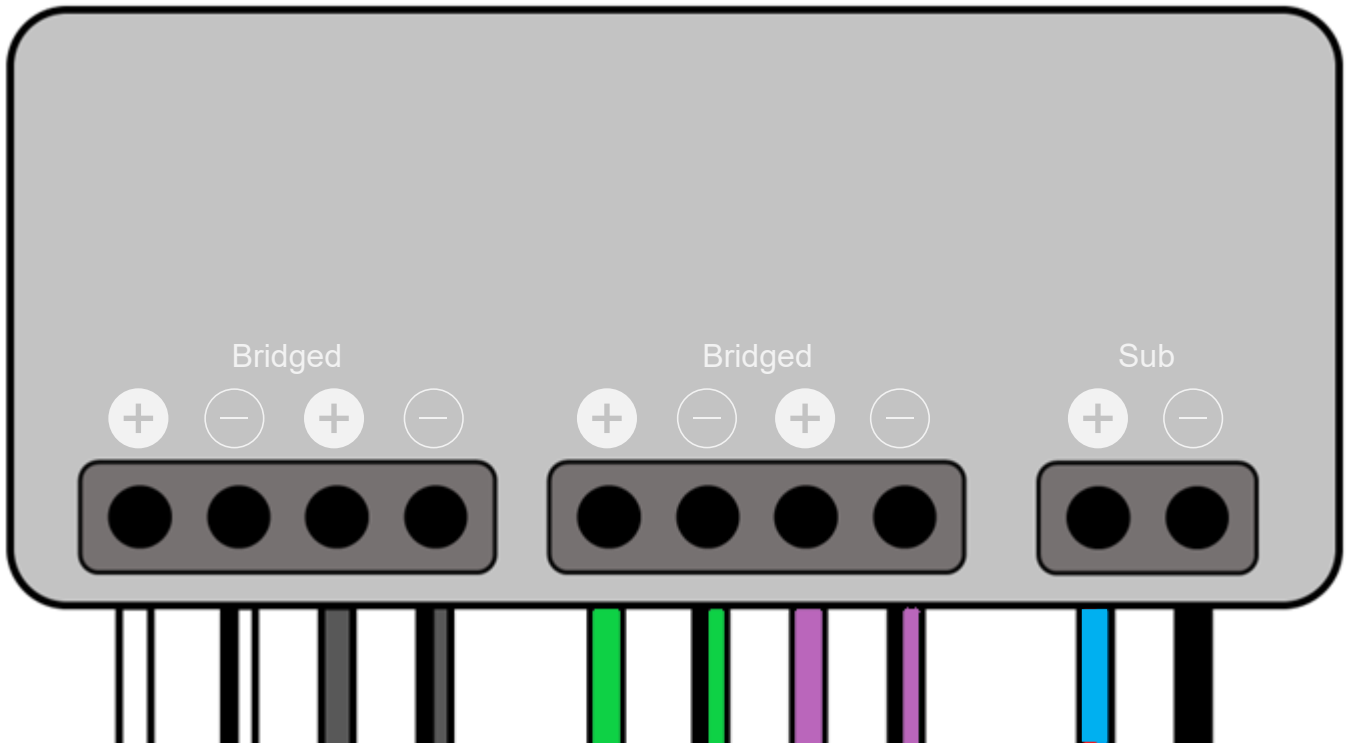


Figure 6

10. Install the remainder of the Z1 Audio System if it has not been reinstalled already.

AUDIO TUNING:

1. Use the recommended settings shown below to adjust the Amp. These are safe settings designed to deliver a clear, natural sound output which you can fine-tune with the radio settings. Refer to the [Amplifier Settings Section](#) to learn more about all of the settings.

Input Signal is now more important than ever. The new speakers will allow you to hear any imperfections or poor mixes of the audio.

A1100.5 Amp	
Input Level	Base: High, Rockford: Low
Input Mode	4Ch
Trigger Mode	Base: Aud, Rockford: Rmt
Filter Mode	HPF
Filter Freq (Hz)	80
Filter Range	X1
Gain	10 O'clock
Filter Mode	HPF
Filter Freq (Hz)	80
Filter Range	X1
Gain	10 O'Clock
LPF (Hz)	105
Subsonic (Hz)	25
Gain	10 O'clock
ParaBASS (Hz)	Full Left/Negative
Level	Full Left/Negative

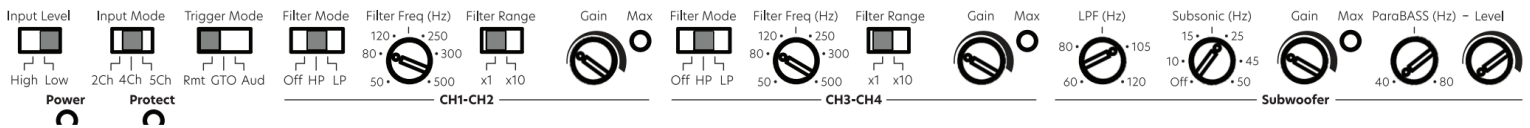


Figure 7

2. 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 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 w to start.
2. Play music that 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.
 - c. You may notice the Subwoofer fades away as you shift the sound to the rear of the vehicle. This is normal as the Amplifier is pulling Bass Signal from the front input.
4. If all speakers are functioning as they should, you can begin to reassemble the interior and 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 20 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 Sub is brand new can cause damage. Refer to the [Amplifier Settings Section](#) to learn more about all of the settings.

While breaking in the speakers, adjust the Amp Settings to your desired preferences. Most Sound Tuning can be accomplished from the radio head unit, here you can adjust the Treble and Bass to your preference.

2. Once the Settings have been adjusted to your liking, reinstall all trim pieces and the Front Seat.

NOTE: When reinstalling the Trim on the rear of the Seat, you will need to trim a portion off to clear the Amp. Measure 3” from the end of the inside and cut the trim with shears or equivalent tool. *Figure 9*.

AMPLIFIER SETTINGS:

Input Level:

- Tells the Amplifier what type of input it is receiving. Vehicles with the Factory Amplifier should use *Low*, those without the Factory Amplifier will use *High*.

Input Mode:

- Tells the Amplifier how many audio signals it receives. Bass Packages use *2ch* and Hifi Packages use *4ch*. The Amplifier will automatically extract the Subwoofer Bass from these channels.

Trigger Mode:

- Tells the Amp what will be used to turn it on.

Filter Mode, Filter Frequency, Filter Range:

- Crossover settings that control which sounds get sent to the Speakers vs. the Subwoofer. *HP (High-Pass)* means frequencies higher than the setting will be allowed on that channel. *LP (Low-Pass)* will allow any frequency lower to be played.
- Z1 Audio recommends *80-90Hz*, which should be low enough to prevent deeper vocals from playing through the Subwoofer.
- These are safe to adjust to your taste through the *80-120Hz* Range.
- Keep them at *High-Pass* and *1X* for the Speaker Channels and *Low-Pass* and *1X* for the Subwoofer Channel.
- Try to keep all three values the same to avoid gaps or overlaps.

Gain:

- Determines how sensitive the Amplifier is to the Input Signal. **GAIN ≠ VOLUME**. Increasing Gain *will* make the Channel louder, but it should not be treated as a volume knob. Increasing the Gain too much can induce static, clipping and overpower the Drivers.
- **CAUTION:** Getting the Gain setting wrong is a quick way to destroy your new Speakers.
- Start at the recommended 10 O'clock position. ONLY increase the Gain if you still don't have enough volume when your Radio is at MAX volume. Adjustments to Gain are very sensitive, so make small adjustments.
- Setting the Gain too high will cause extra noise and distortion, even at low volumes. This is BAD and can damage your speakers.
- Setting the Gain too low means your system might not play as loud as before; however, this is safe and won't damage anything.
- Try to keep the Gain in the 9-10 O'clock range.
- If you want more Gain from the Subwoofer but the Gain is already at 10 O'clock, lower the Gain on the Speaker Channels and turn the volume up at the Radio.

Subsonic:

- The lowest Frequency the Subwoofer will try to play.
- It is recommended to leave this setting at *25Hz* to protect the Subwoofer as it is not designed to perform lower. It is also rare for frequencies in music to go lower than *25Hz*.

ParaBASS (Hz) and Level:

- Used to supplement the Factory Audio Systems that decrease bass with volume. These are not needed on Nissan vehicles, leave the level at *Full Negative*.

END

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