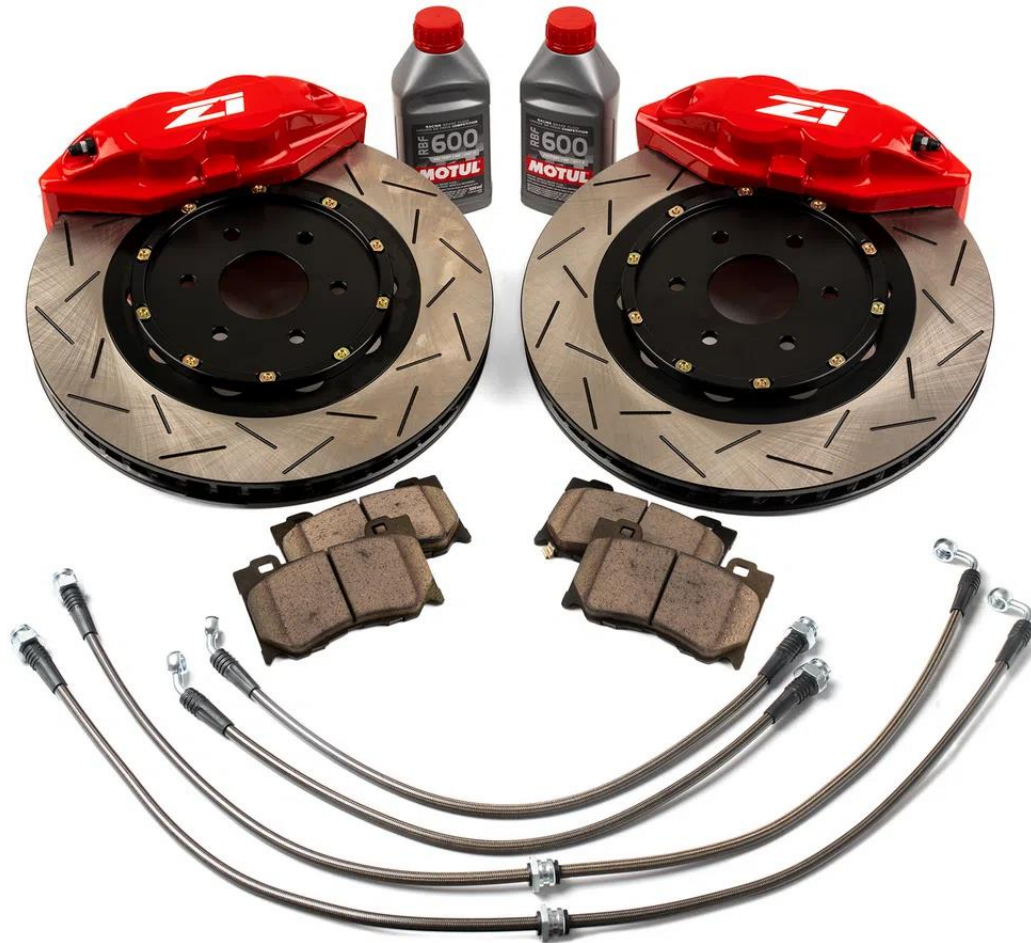


Z1 FRONTIER FRONT BIG BRAKE KIT INSTALLATION MANUAL



This Installation Manual is intended for the following models:	
2022+	Nissan Frontier (D41)
2005-2019	Nissan Frontier (D40)
2005-2015	Nissan Xterra

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 Frontier Big Brake Kit, consult with a Professional Mechanic, or contact Z1 Off-Road for more information.

PARTS INCLUDED:

Item	Quantity	Description
1	1	Brake Caliper Left
2	1	Brake Caliper Right
3	1	Front Brake Pads
4	2	Motul RBF 600 Brake Fluid 0.5 L
5	2	Brake Rotors
6	2	Stainless Steel Brake Line
7	1	Front Caliper Hardware Kit
8	2	Banjo Bolt
9	4	10mm Copper Crush Washer

TOOLS REQUIRED:

- Hydraulic Jack
- (2) 2-Ton (or greater) Jack Stands
- Ratchet
- Ratchet Extension(s)
- Assorted Metric Sockets
- Assorted Metric Wrenches
- Torque Wrench

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 Frontier Front Big Brake Kit and verify that ALL necessary hardware is present.

PROCEDURE:

1. Place the transmission in Park position (or in Reverse gear if equipped with a manual transmission). Apply the parking brake.
2. Loosen the Lug Nuts on all wheels.
3. Properly raise and support the vehicle with a jack and jackstands.
4. Remove and set aside the wheels of the vehicle.
5. Starting on the Drivers Side of the vehicle, remove the Lock Plate securing the OE Brake Line to the Brake Line Bracket. Retain this Lock Plate.

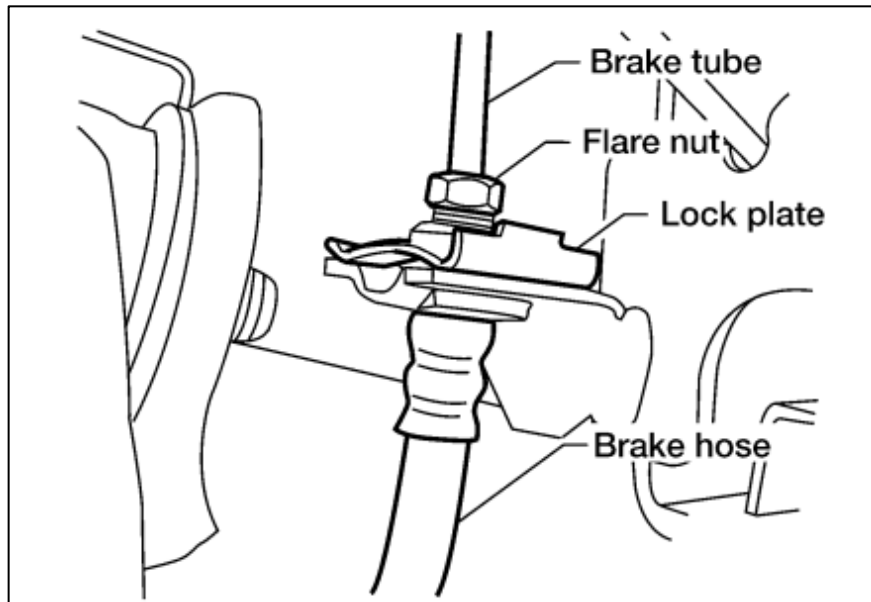
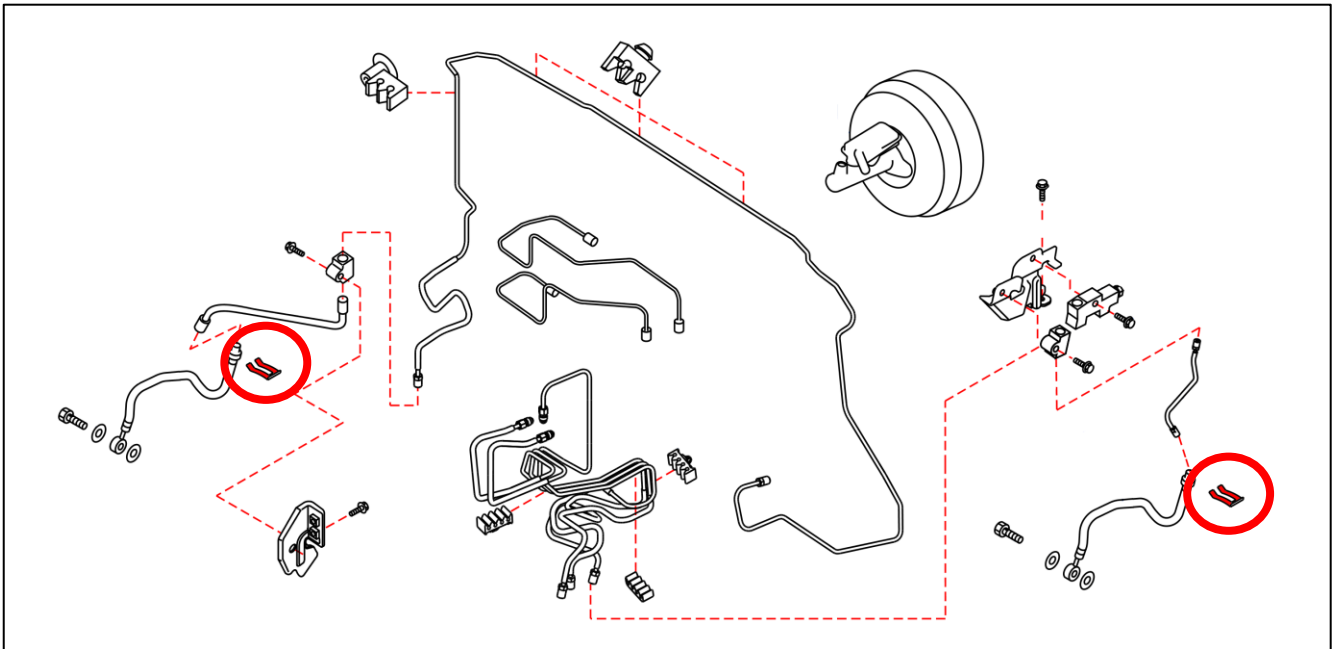


Figure 1

6. Prepare either a cap, rag, or container to catch leaking brake fluid, and disconnect the OE Brake Line from the Brake Hard Line.

NOTE: Disconnecting the Brake Line will result in Brake Fluid leaking. Brake Fluid will damage painted surfaces, quickly clean up any spilled fluid.

7. Remove the (2) two OE Bolts securing the Brake Caliper to the vehicle. Once removed, remove the OE Brake Caliper and Brake Line assembly from the vehicle. Retain the hardware for the Caliper. *Figure 2.*

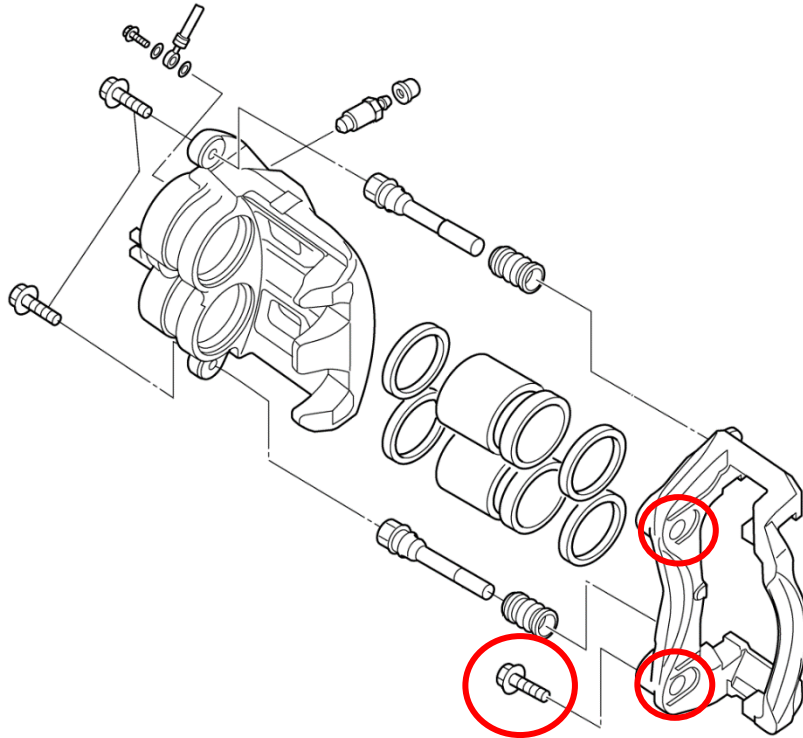


Figure 2

8. With the Brake Assembly out of the way, remove the OE Rotor from the vehicle.
9. Clean the Rotor mounting surface of any debris.
10. Locate (1) one Z1 Brake Rotor, and install it onto the Wheel Hub. Secure it with a lug nut to make sure it doesn't fall off while installing the rest of the braking system.
11. Wipe down the surface of the Rotor with Brake Cleaner to remove the protective oils and any debris.

12. Locate (1) one Z1 Stainless Steel Brake Line. Install the threaded end into the OE Brake Hard Line of the vehicle, and position the mount for the Brake Line Bracket as necessary. Secure the Line with the Lock Plate removed in *Step 4. Figure 3.*

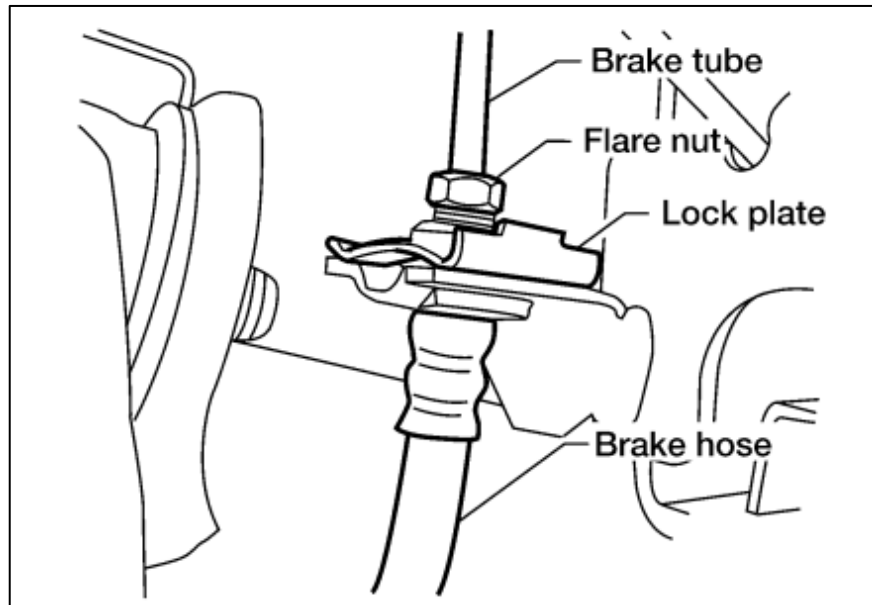


Figure 3

13. Locate the Driver Side Caliper. The Calipers are marked with an **L** and an **R**. The sides are indicated by which side the Bleeder Valve is on. The Driver Side Caliper will be the one marked with the **L**. The Bleeder Valve of the Caliper **MUST** point upwards when installed. *Figure 4.*

Position the Caliper onto the OE Mounting Points and over the new Rotor. Secure the Caliper using the OE Brake Hardware removed in *Step 7.* Torque the (2) two Caliper bolts to **136 ft-lbs.**

NOTE: The following images show a Rear Frontier Brake Caliper, the process is the same.

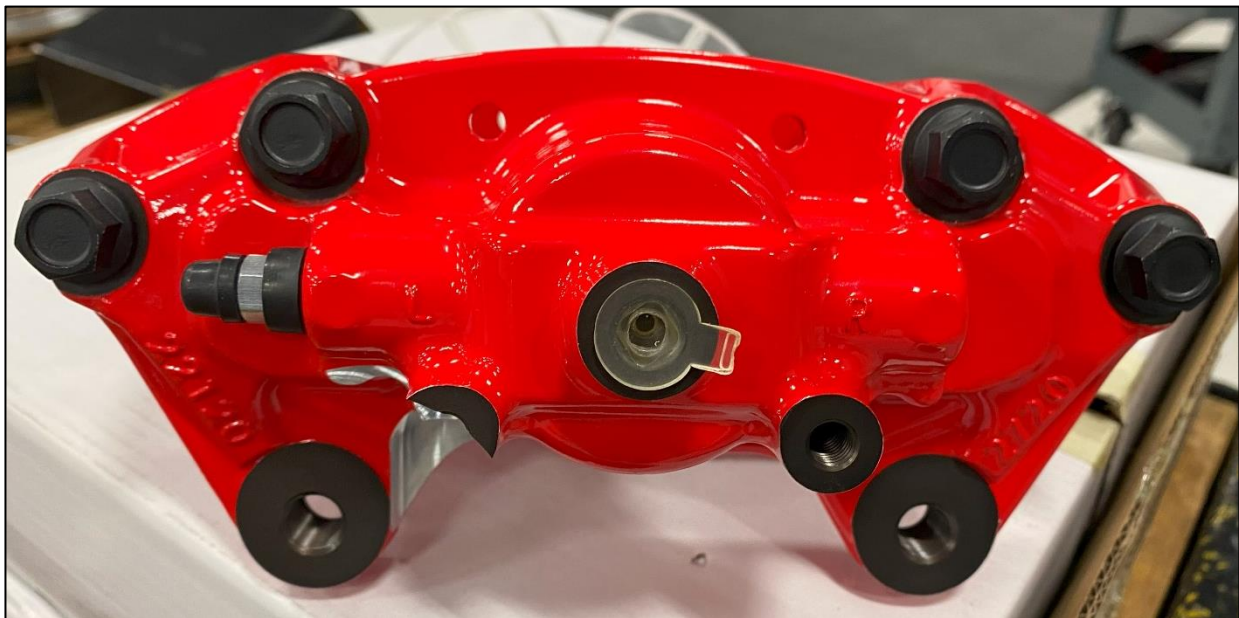


Figure 4

14. Locate (2) two Copper Crush Washers, and (1) one **SHORT** Banjo Bolt. Place a Crush Washer on the Banjo Bolt, and insert it through the end of the new Brake Line, and install the other Crush Washer on the bottom of the Banjo Bolt. *Figure 5.*

NOTE: You must use the **SHORT** Banjo Bolts provided with this kit, **NOT** the longer bolts included with the prepacked Brake Line Kit.

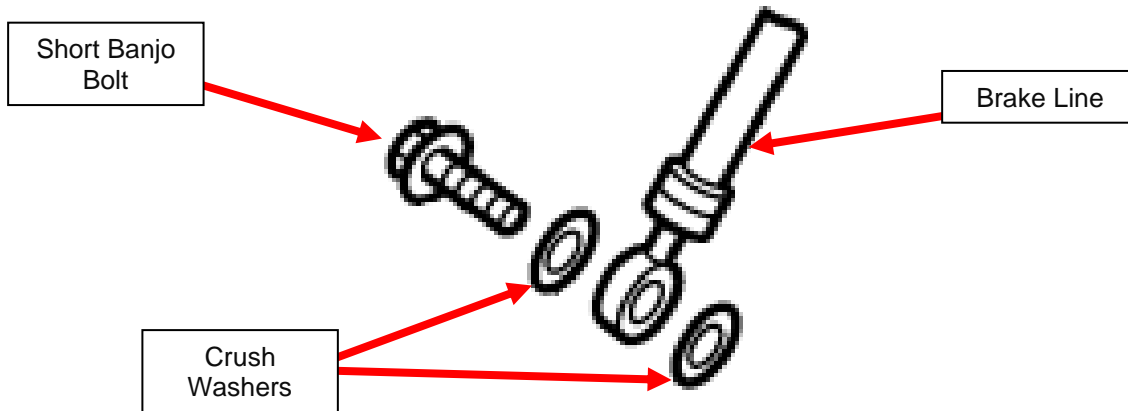


Figure 5

15. Install the Banjo Bolt and Brake Line into the back of the Caliper. Start the threads of the Banjo Bolt by hand before tightening with a wrench. Torque the Banjo Bolt to **13 ft-lbs.** *Figure 6.*

NOTE: If the Banjo Bolt is removed after use, new Crush Washers **MUST** be used.

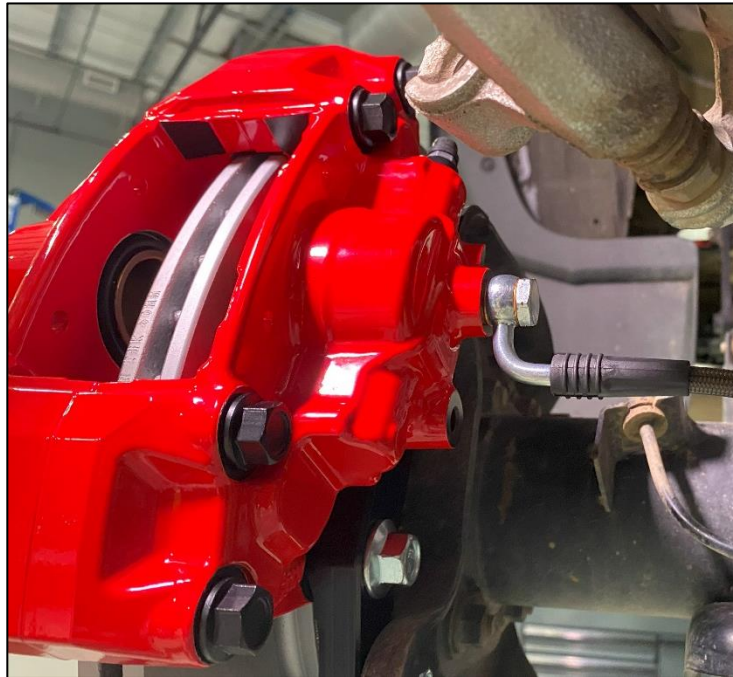


Figure 6

16. Locate the Z1 Brake Caliper Hardware Kit and (2) two front Brake Pads. Install the new Pads into the Caliper. Make sure the Pad Surface is facing the rotor.

NOTE: Use Brake Grease on the back side of the Brake Pads to prevent squeaking of the pads.

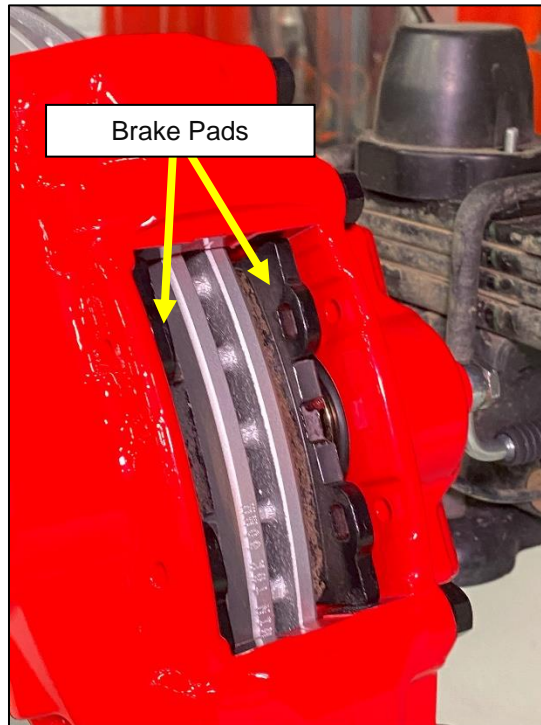


Figure 7

17. Locate (1) one Front Brake Pad Retainer from the Brake Hardware Kit. Install it onto the the Brake Pads and Caliper as shown below. *Figure 8.*



Figure 8

18. Locate (2) two Front Brake Retaining Pins. Insert them from the inside of the Caliper as shown below. They may need to be slightly tapped with a hammer to go through the Caliper. *Figure 9.*

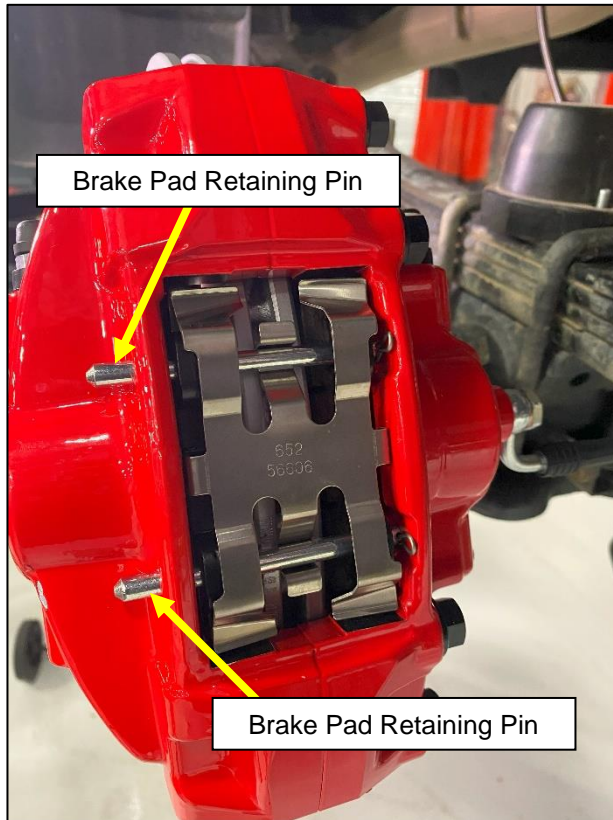


Figure 9

19. Locate (2) two Cotter Pins. Insert them through the Brake Pad Retaining Pins installed in *Step 18*. The Retaining Pins may need to be rotated to allow access for the Cotter Pin Holes. *Figure 10.*

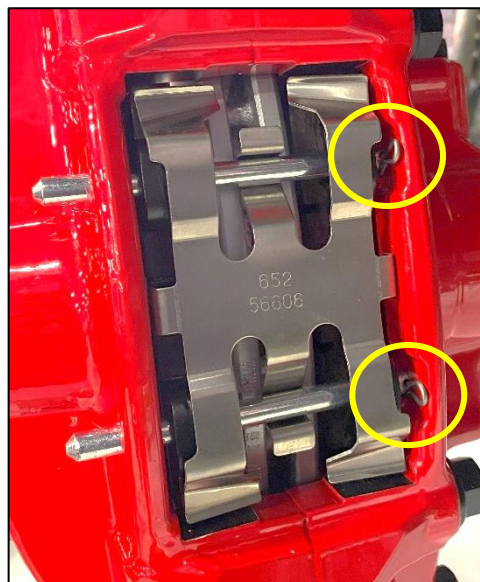


Figure 10

20. Repeat *Steps 5-19* on the Passenger Side of the Vehicle.
21. Bleed the brakes in accordance with the Factory Service Manual (FSM), starting with the Rear Passenger Side Caliper. If you are also installing the Z1 Rear Big Brake Kit for your vehicle, wait to bleed the system until they are installed.
22. Once the Brakes have been bled, reinstall the Wheels and Lugnuts of the vehicle.
23. Safely lower the vehicle.
24. Take your vehicle for a test drive. Bed your Brake Pads in accordance with the Pad Manufacturer instructions.

END

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