

# Z1 DE CLUTCH RELEASE UPGRADE INSTALLATION MANUAL



This Installation Manual is intended for the following models:

2003-2006	Nissan 350Z (DE Engine)
2003-2007	Infiniti G35 (Coupe, DE Engine)
2003-2206	Infiniti G35 (Sedan, DE Engine)

## 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 Motorsports DE Clutch Release Upgrade, consult with a Professional Mechanic, or contact Z1 Motorsports for more information.

## **PARTS INCLUDED:**

Item	Quantity	Description
1	1	Transmission Front Cover
2	1	Clutch Pivot Ball
3	1	Pivot Ball Washer
4	1	Clutch Fork Boot
5	1	Clutch Release Fork
6	1	Throw-Out Bearing Sleeve
7	1	Koyo Throw-Out Bearing
8	1	Fork to Bearing Clip
9	1	Fork to Pivot Ball Clip
10	1	Front Cover Gasket

## **TOOLS REQUIRED:**

- Hydraulic Jack
- (2) 2-Ton (or greater) Jack Stands
- Ratchet
- Ratchet Extension(s)
- Assorted Metric Wrenches
- Assorted Metric Sockets
- Torque Wrench
- Channel Lock Pliers
- RTV Gasket Maker
- Bearing Grease
- Parts Cleaner
- Small Brush
- Threadlocker

## **SAFETY REQUIREMENTS:**

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

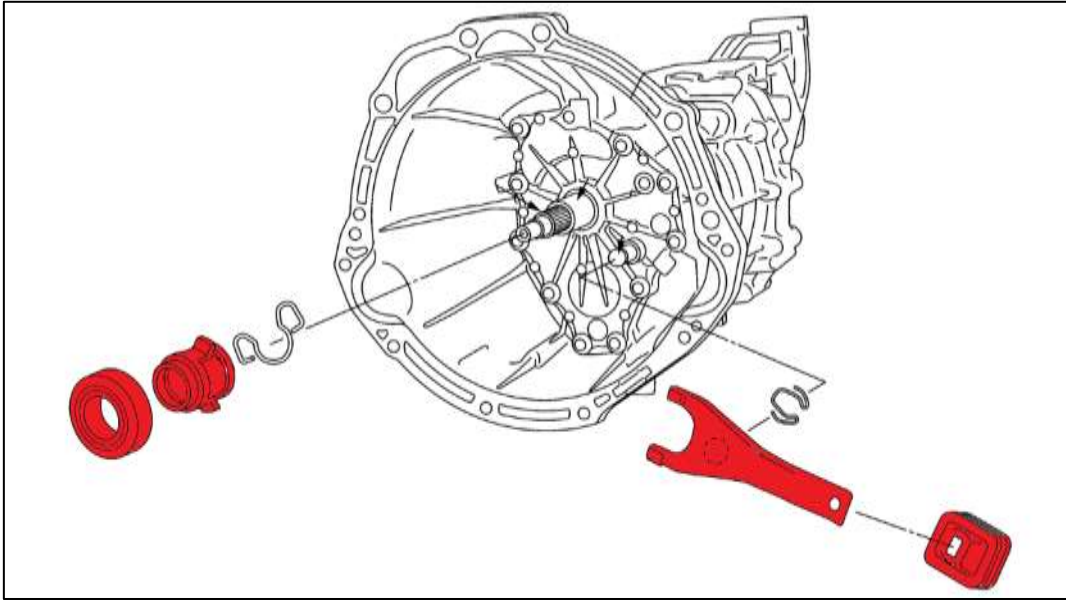
## **BEFORE YOU BEGIN:**

Remove contents from the Z1 Motorsports DE Clutch Release Upgrade and verify that ALL necessary hardware is present.

**THERE ARE (2) TWO SHIM RINGS INCLUDED IN THIS KIT THAT ARE NOT NEEDED. THEY ARE USED FOR THE 370Z, AND CAN BE DISCARDED.**

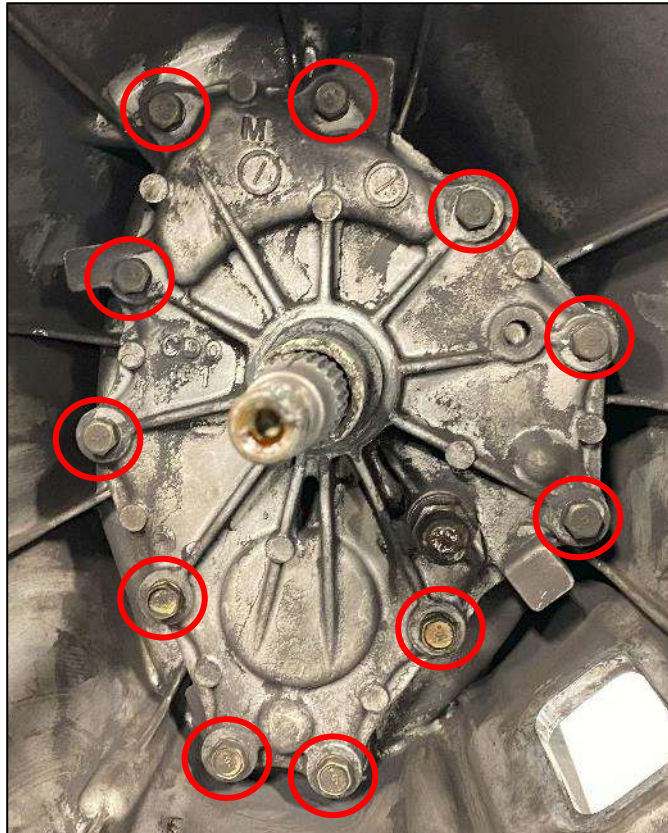
## **PROCEDURE:**

1. Refer to your Factory Service Manual (FSM) for removal of the Transmission.
2. Remove the OEM Throw-Out Bearing, Clutch Fork and Dust Cover from the vehicle. *Figure 1.*



*Figure 1*

3. Remove the (11) eleven bolts that secure the OE Transmission Cover to the vehicle. Retain these bolts. The Lower (4) four bolts will have RTV on them from the Factory and should be reused for the lower (4) four holes upon reinstallation. *Figure 2.*



*Figure 2*

4. Remove the OE Transmission Cover and Gasket from the Transmission. *Figure 3.*



*Figure 3*

5. Thoroughly clean the entire mounting surface of the Transmission Cover. Scrape up any residual factory RTV from the lower (4) four holes. *Figure 4.*



*Figure 4*

6. Clean the old RTV from the (4) four lower bolts using Parts Cleaner and a brush.
7. Locate the new Transmission Cover and Gasket. Position the Gasket onto the Transmission and sandwich it with the Transmission Cover. Use a few OE bolts to loosely secure it. *Figure 5.*



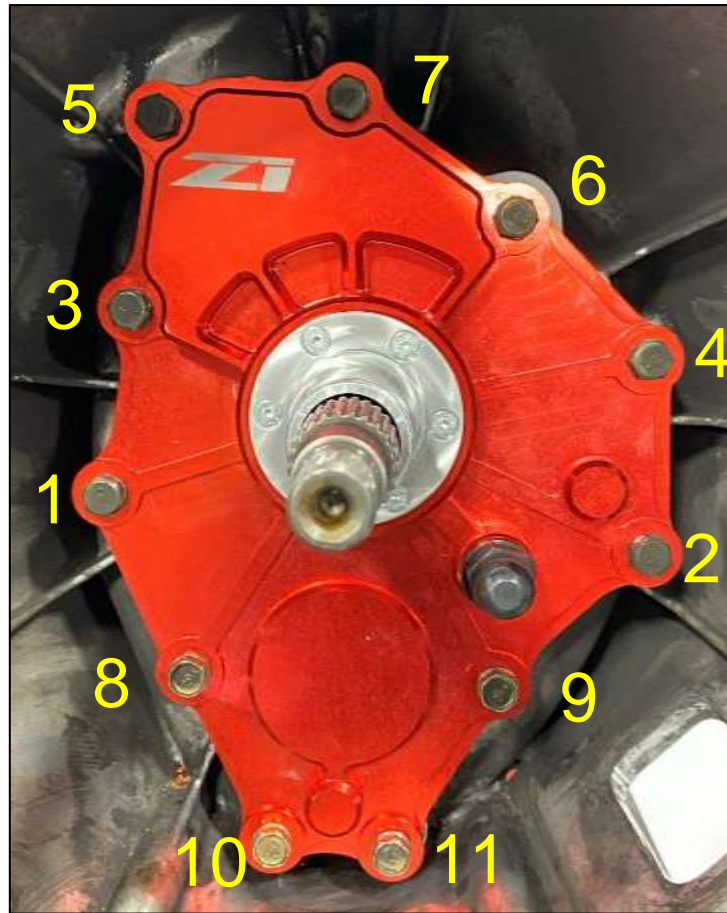
*Figure 5*

8. Reinstall all OE Bolts back into the new Transmission. Apply a small amount of RTV Gasket Maker to the Lower Four Bolts. *Figure 6.*



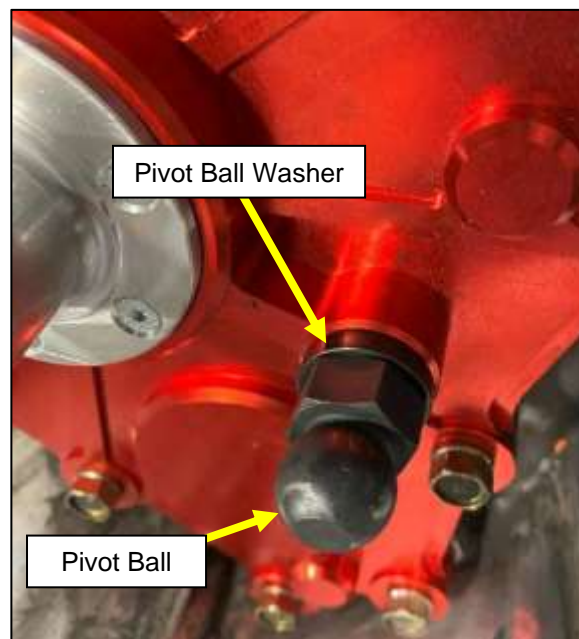
*Figure 6*

9. Follow the image below for the proper torque sequence of all the bolts. Torque the bolts to **13 ft-lbs**. *Figure 7.*



*Figure 7*

10. Locate the new Clutch Pivot Ball and Pivot Ball Washer. Place the Washer on the Clutch Pivot Ball and install it into the Transmission Cover. Torque to **30 ft-lbs**. Z1 recommends using Threadlocker on the Clutch Pivot Ball Threads. *Figure 8.*



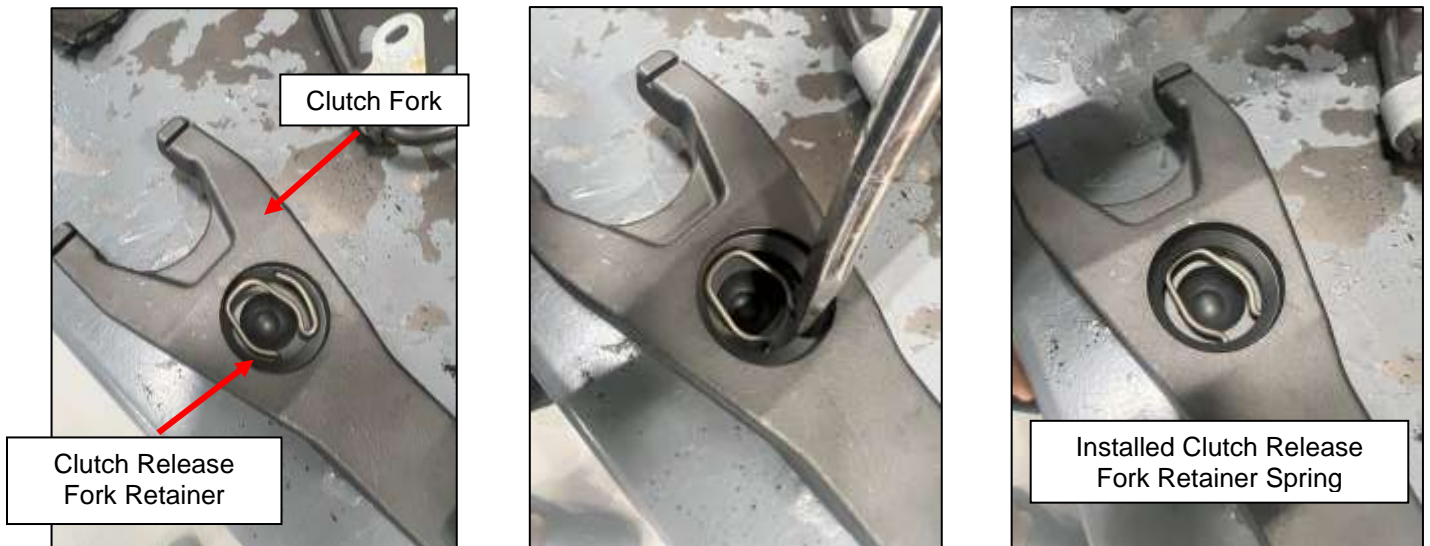
*Figure 8*

11. Locate the Throw-Out Bearing and the Throw-Out Bearing Sleeve. Using a press, install the Throw-Out Bearing onto the Bearing Sleeve and ensure the Bearing is pressed on evenly. Ensure that the flat stamped, part number side of the Throw-Out Bearing is facing the Transmission. *Figure 9.*



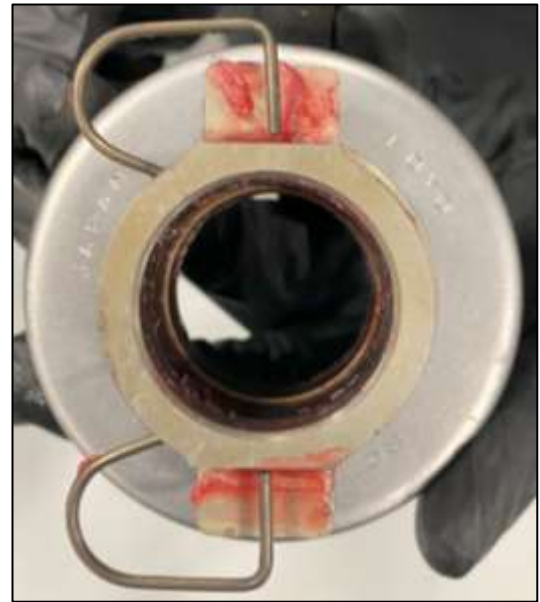
*Figure 9*

12. Locate the Clutch Release Fork and the Fork to Pivot Ball Clip. Install the Fork to Pivot Ball Clip into the Clutch Fork. Use of a screwdriver or similar tool may be necessary to get the Clip to seat in the Clutch Fork Properly. *Figure 10.*



*Figure 10*

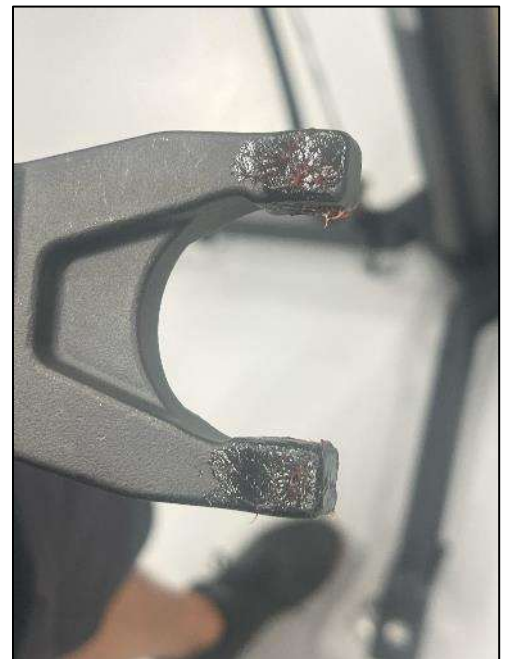
13. Locate the Fork to Bearing Clip and the Throw-Out Bearing and Sleeve Assembly. Apply a small amount of bearing Grease on the inside of and the ears of the Throw-Out Bearing Sleeve as shown below. Install the Fork to Bearing Clip onto the Throw-Out Bearing Sleeve. *Figure 11.*



*Figure 11*

14. Apply a small amount of grease to the Clutch Fork, Fork to Pivot Ball Clip, and Pivot Ball and Input shaft. *Figure 12.*

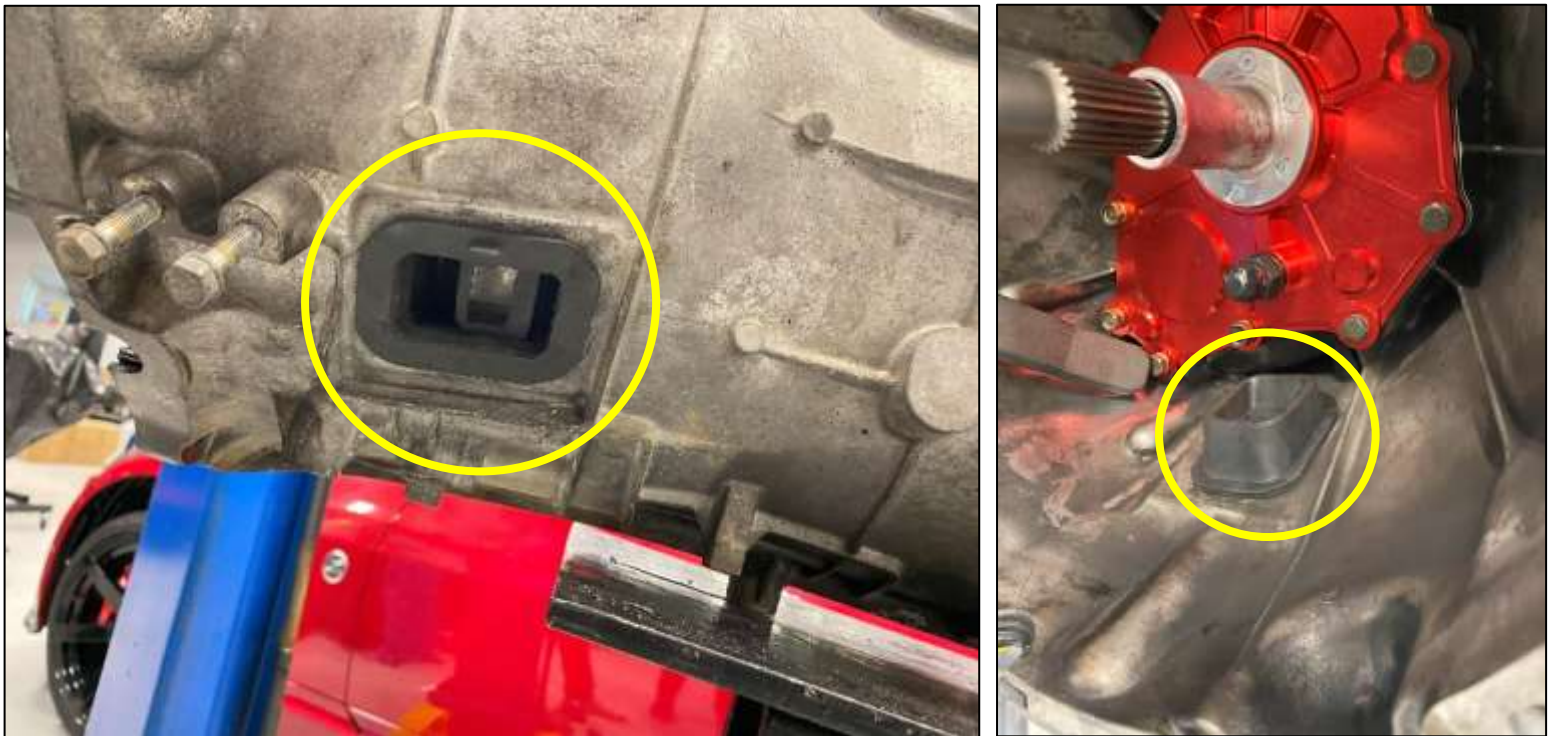
**NOTE:** Be careful to avoid getting any excess grease on the Clutch Disc, Pressure Plate, Flywheel or the face of the Throw-Out Bearing. This can cause noise, poor disengagement, Clutch Slippage, or damage to the Clutch Assembly. Wipe up any excess grease.



*Figure 12*



15. Install the Clutch Fork Boot into the opening of the Transmission as shown below. *Figure 13.*



*Figure 13*

16. Install the Throw-Out Bearing and Sleeve Assembly onto the Input Shaft of the Transmission.

17. Insert the Clutch Fork Assembly through the Clutch Fork Boot with the Z1 Logo facing outwards and secure it to the Pivot Ball.

18. Attach the Throw-Out Bearing and Sleeve to the Clutch Fork. The Throw-Out Bearing Clip will be bent to clip into the Clutch Fork. *Figure 14.*



*Figure 14*

19. Check the components for smooth operation before reinstalling the Transmission. The Clutch Fork should move freely within the "Window" of the Transmission housing.
20. Refer to your Factory Service Manual (FSM) for the Installation Procedures for the remaining Clutch Assembly and Transmission.

**NOTE: THERE ARE (2) TWO SHIM RINGS INCLUDED IN THIS KIT THAT ARE NOT NEEDED. THEY ARE USED FOR THE 370Z, AND CAN BE DISCARDED.**

**END**

**Additional Technical Support:**  
Contact Z1 Motorsports at [info@z1motorsports.com](mailto:info@z1motorsports.com)  
Or call 770-838-7777 between 9am and 6pm ET