

# ZI TRANSMISSION MOUNT INSTALLATION MANUAL



This Installation Manual is intended for the following models:		
2009-2020	Nissan 370Z	
2008-2013	Infiniti G37	
2014+	Infiniti Q60 RWD	
2014+	Infiniti Q50 RWD	

#### 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 Transmission Mount, consult with a Professional Mechanic or contact Z1 Motorsports for more information.

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#### **PARTS INCLUDED:**

Item	Quantity	Description
1	1	Transmission Mount Assembly

### **TOOLS REQUIRED:**

- Hydraulic Jack
- (2) 2-Ton (or greater) Jack Stands
- Ratchet
- Ratchet Extension(s)
- Torque Wrench

- 10mm Socket
- 14mm Socket
- 14mm Deep Well Socket
- 17mm Socket
- 19mm Socket

#### **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 Transmission Mount and verify that ALL necessary hardware is present.

Q50 3.7L owners will need to modify their transmission crossmember by enlarging two holes. Additional instructions are included on page 4.

### **PROCEDURE:**

- 1. Place the transmission in Park position (or in Reverse gear if equipped with a manual transmission). Apply the parking brake.
- 2. Locate proper jacking points on vehicle's chassis (refer to vehicle's Owner Manual). Raise and support vehicle using jack & jack stands.
- 3. If present, remove factory transmission under body cover.
- Using either a floor jack, transmission jack, or other suitable supporting method, remove the weight of the transmission from the cross member (as shown). DO NOT place jack on the transmission oil pan.

<u>Note</u>: Do not raise the transmission, just apply pressure with jack to prevent transmission from sagging after the crossmember is removed.

<u>Note</u>: Picture at right is shown with transmission crossmember already removed. Ensure jack is supporting transmission before removing the crossmember.



5. Remove the (4) bolts and (2) nuts securing the transmission cross member to vehicle. Remove the cross member and set aside.

Note: Retain all hardware as it will be reused.

6. Remove the (2) bolts securing the transmission mount to the transmission. Remove the old transmission mount.

<u>Note</u>: Retain the (2) bolts as they will be reused.

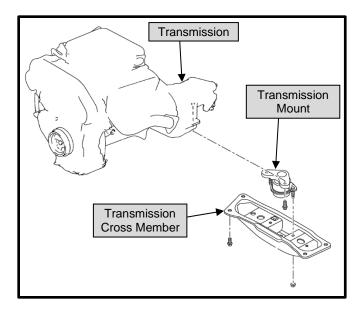
- 7. Locate new Z1 Transmission Mount. Orient Z1 mount in the same direction as the OEM mount was under transmission.
- 8. Attach the Z1 mount to the transmission using the OEM hardware removed in step #6 (as shown). Torque bolts to 36ft-lbs.
- Locate transmission cross member (Q50 3.7L owners should refer to page 4 before continuing).
  Reattach cross member to Z1 mount using the (2) nuts removed in step #6. There is an arrow on the top of the cross member that will point to the front of the vehicle once installed.

Note: **DO NOT** fully tighten the nuts yet. Leave them loose so the cross member can pivot slightly to line up the cross member and mounting holes on the chassis.

10. Reattach cross member to chassis using the (4) bolts removed in step #6.

Note: If the outer holes on the cross member aren't lining up perfectly, try raising or lowering the jack on the transmission by a small amount. This may help line up the mounting holes and ensure the bolts do not get cross threaded.

- 11. Torque all nuts and bolts on cross member to 36ft-lbs.
- 12. If removed, reattach transmission under body cover.
- 13. Inspect vehicle for loose tools/items
- 14. Properly lower vehicle from jack stands.
- 15. Perform a final test drive of vehicle.





# **Q50 3.7L MODIFICATION:**

1. Using a step drill bit, drill out the (2) middle holes of the crossmember where the transmission mount attaches, to just over 12mm or  $\sim 9/16$ " (as shown below).







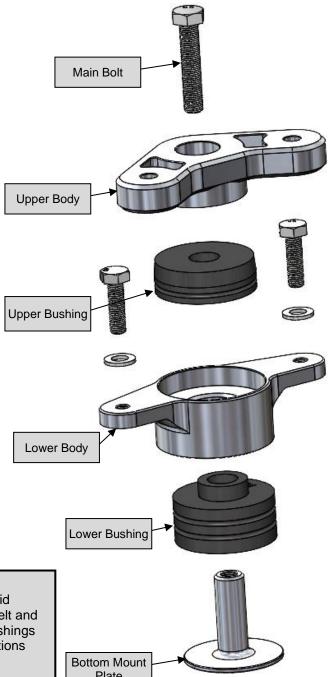
### **ASSEMBLY:**

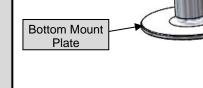
If you are switching the Z1 Solid Aluminum Transmission Mount Bushings to the Z1 Urethane Transmission Mount Bushings (or vice versa), please follow the below reassembly instructions.

- 1. Remove the main bolt from the bottom mount plate.
- 2. Remove (2) Z1 Aluminum/Urethane Transmission Mount bushings.
- 3. If using urethane bushings, orient the bushings so that the #1001 bushing is ON TOP and the #1002 bushing is on bottom.
- 4. If using aluminum bushings, orient the bushings so that the taller 24.5mm bushing is on bottom and the 20mm bushing is on top.
- 5. Insert bottom mount plate into lower bushing.
- 6. Place lower body onto bottom mount plate.
- Place upper bushing in lower body.
- 8. Place upper body on top of upper bushing.
- 9. Apply red Loctite to main bolt. Re-insert main bolt into assembly. Hand tighten.
- 10. While securing the lower mount plate with a 1/2" ratchet, torque main bolt to 80in-lbs for urethane bushings, and 25ft-lbs for solid bushings.

Please note that additional vibrations and noise should be expected following the installation of the Z1 Motorsports Solid Aluminum Transmission Mount. The increase in vibrations felt and noise heard is normal. This is the result of the aluminum bushings being completely solid and not allowing for ANY noise/vibrations insulation. Benefits of the Z1 Motorsport Solid Aluminum Transmission Mount over other, replacement non-OEM transmission mounts:

- 100% Solid aluminum transmission mount. This will allow for complete transfer of torque to the rear wheels and no loss of energy through drivetrain movement.
- No servicing or maintenance required. Re-buildable design allows for interchanging of urethane bushings.
- Will fit both the automatic and manual transmissions.
- Uses 6061-T6 aluminum construction shaves 1.05lbs from overall vehicle weight.





## **END**

#### **Additional Technical Support:**

Contact Z1 Motorsports at info@z1motorsports.com Or call 770-838-7777 between 9am and 6pm ET