

NISSAN VR38DETT (GTR) ENGINE TO VQ35HR (350Z) & VQ37VHR (370Z) MANUAL TRANSMISSION ADAPTER



INSTALLATION INSTRUCTIONS

Rev – Mar 2021

!!NOTICE!!

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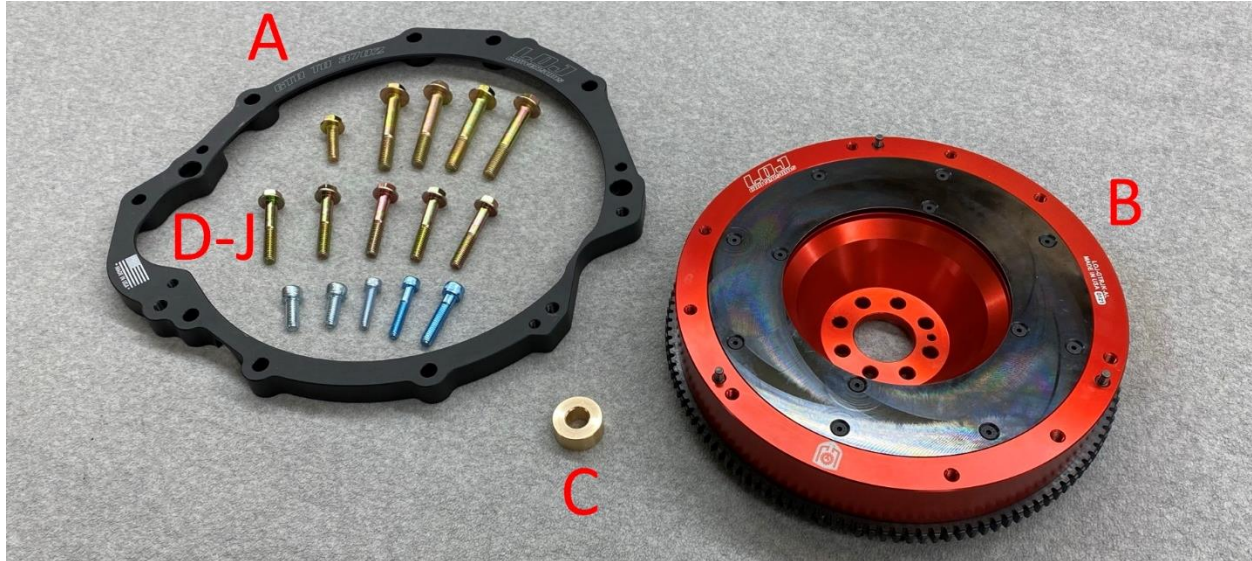
!!WARNING!!

THE USER OF THIS PRODUCT ASSUMES ALL LIABILITY FOR ANY DAMAGES TO PERSONAL OR PUBLIC PROPERTY RESULTING FROM THE USE OR MISUSE OF THIS PRODUCT. ANY INJURIES SUSTAINED BY THE USER AND/OR ANY OTHER INDIVIDUALS ARE ALSO THE SOLE RESPONSIBILITY OF THE USER. MOTORSPORTS ACTIVITIES ARE INHERINTLY DANGEROUS AND LOJ CONVERSIONS CORP CAN NOT BE HELD RESPONSIBLE FOR ANY INCIDENTS RESULTING FROM THE USE OR MISUSE OF THIS PRODUCT.

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BEFORE YOU BEGIN:

Please ensure that all of the components required for your installation have been included in your package. The Adapter Kit should include the following components:



A - (Qty 1) – Adapter Plate
B - (Qty 1) – Billet AL Flywheel (Accepts OEM 350Z Clutch Kit)
C - (Qty 1) – Pilot Bushing (Necessary for Adapter Thickness)
D - (Qty 1) – M10x1.50 Flange Head Bolt – 35mm Long
E - (Qty 4) – M12x1.75 Flange Head Bolts – 80mm Long
F - (Qty 5) – M10x1.50 Flange Head Bolts – 60mm Long
G - (Qty 2) – M10x1.50 Socket Head Bolts – 25mm Long
H - (Qty 1) – M8x1.25 Socket Head Bolt – 35mm Long
I - (Qty 1) – M8x1.25 Socket Head Bolt – 45mm Long
J - (Qty 1) – M10x1.50 Socket Head Bolt – 45mm Long
NOT SHOWN - (Qty 1) – 11mm Drill Bit

Other parts that you will need:

(Qty 4) – 370Z Transmission to Engine Block Alignment Dowels (OEM 30412-H1000)

(Qty 8) – M11x1.0 (23mm long) Flywheel Bolts (ARP Available from LOJ)

!!WARNING!!

**You must use appropriate engine to adapter plate and adapter plate to transmission alignment dowels!
Failure to align these components properly will result in damage to engine, transmission, and clutch
components!**

INSTALLATION PROCEDURE:

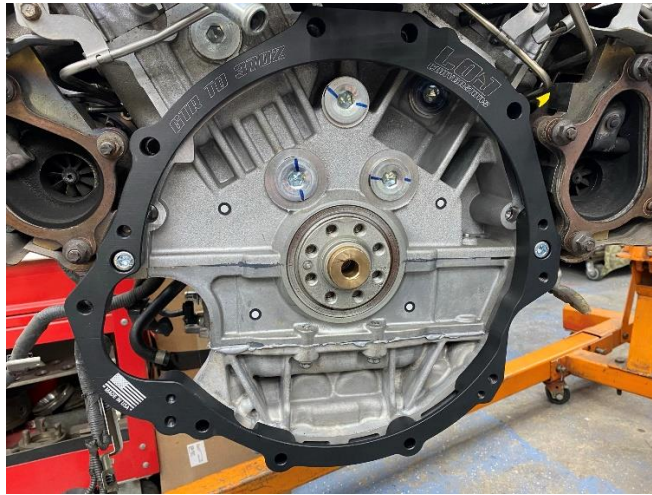
- 1) Remove the factory VR38DETT Flywheel from the engine.



- 2) Install the custom pilot bushing to the VR38DETT Crankshaft

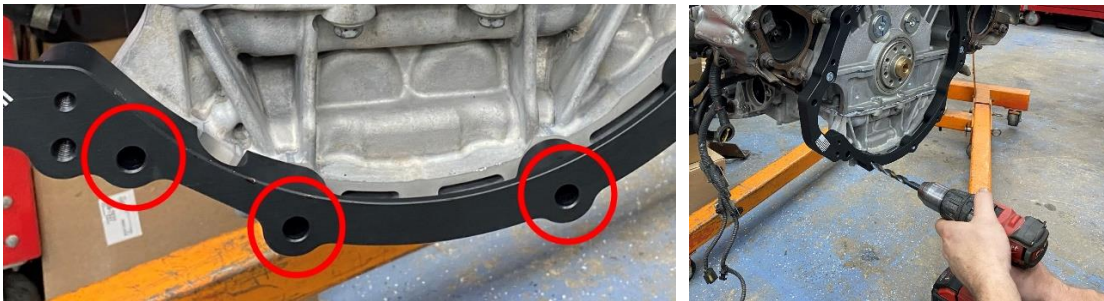


- 3) Install the adapter plate to the engine using two OEM VQ Engine to Transmission alignment dowels (not included) and supplied mounting hardware. Qty. 2 M10x1.5 25mm long socket head bolts will hold the adapter in place on the engine as shown below.



!!WARNING!! - If adapter plate does not seat fully onto dowels, use a hammer and a block of wood to tap adapter down until it is flush with the engine block, **DO NOT** use the bolts to pull the plate down, as damage to the plate will result!

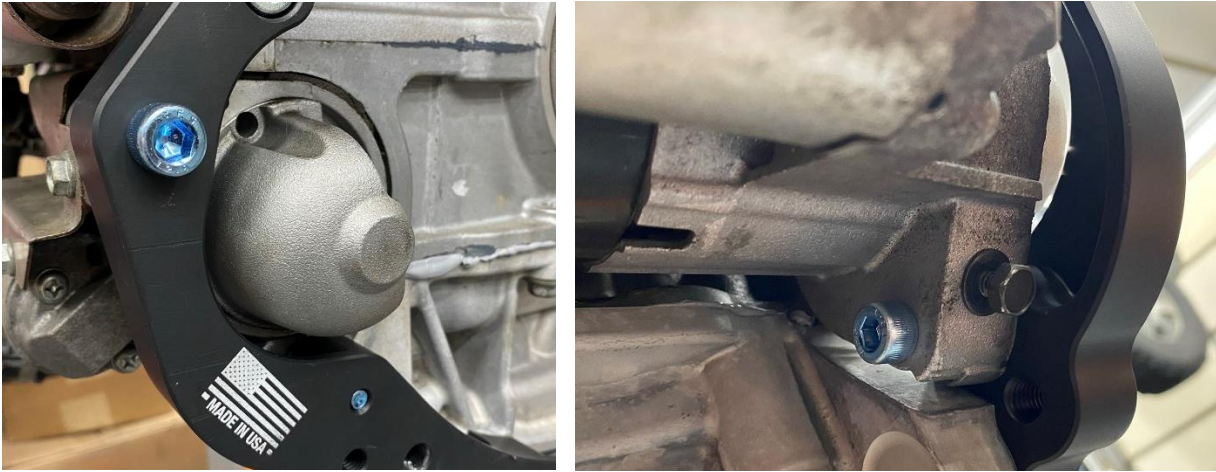
- 4) Using the supplied 11mm drill bit and the adapter plate as a guide, drill out three of the holes through the VR38DETT oil pan as shown below.



The resulting holes will appear to be ovals on the oil pan side as shown below.



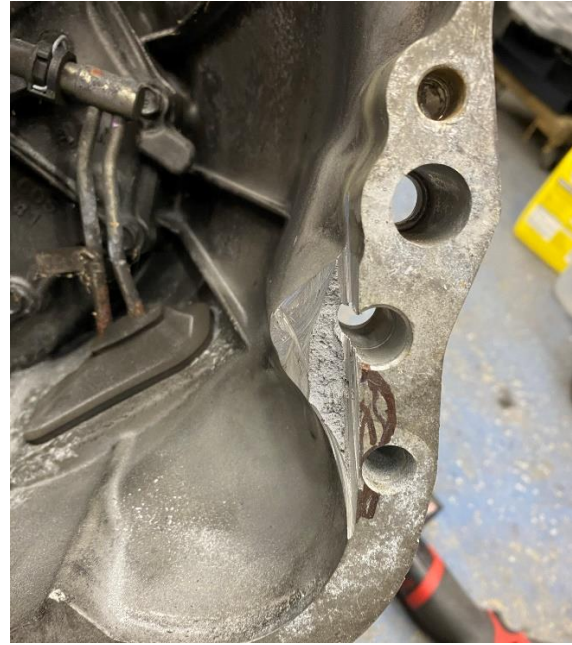
- 5) Install the GTR starter using the M10x1.5 45mm long socket head bolt and the M8x1.25 45mm long socket head bolt. The M8 bolt will pass through the lower threaded hole on the starter and thread into the adapter plate as shown below.



- 6) Install two additional OEM 370Z engine to transmission alignment dowels into the adapter plate.



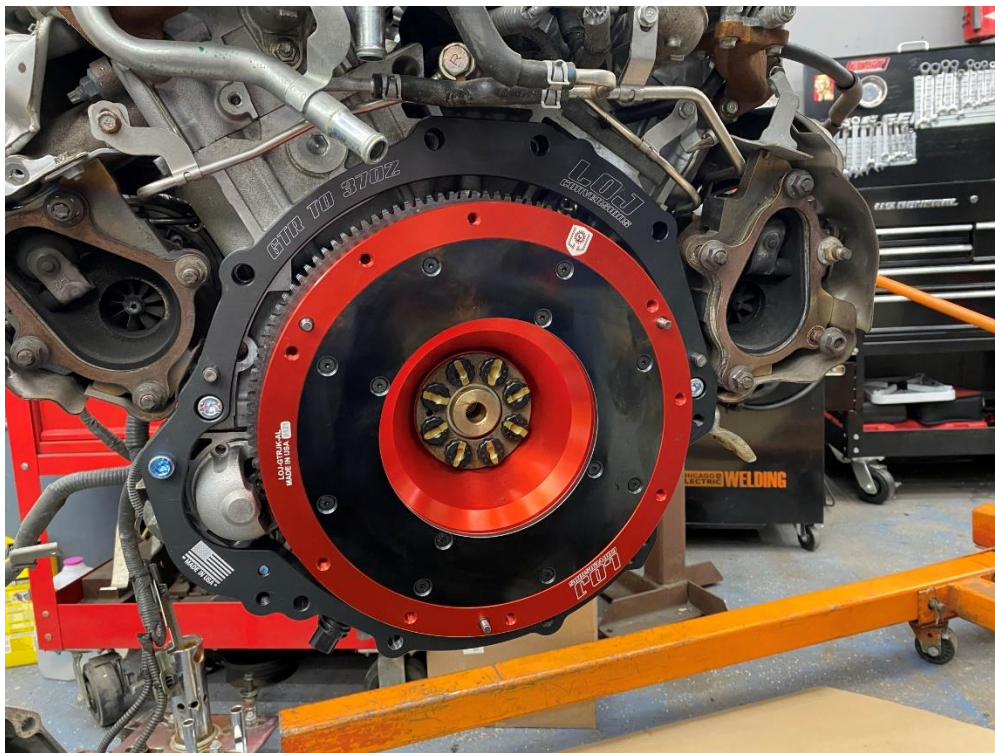
- 7) There is a boss above the starter pocket on the Z transmission that will need to be removed to allow the GTR starter to fit properly. Using an appropriate cutoff tool, modify the bellhousing as shown. A second notch will need to be cut to clear the head of the M10 starter bolt.



- 8) Test fit the transmission to the engine to ensure there is sufficient clearance for the starter snout inside the bellhousing and for the starter mounting bolt.



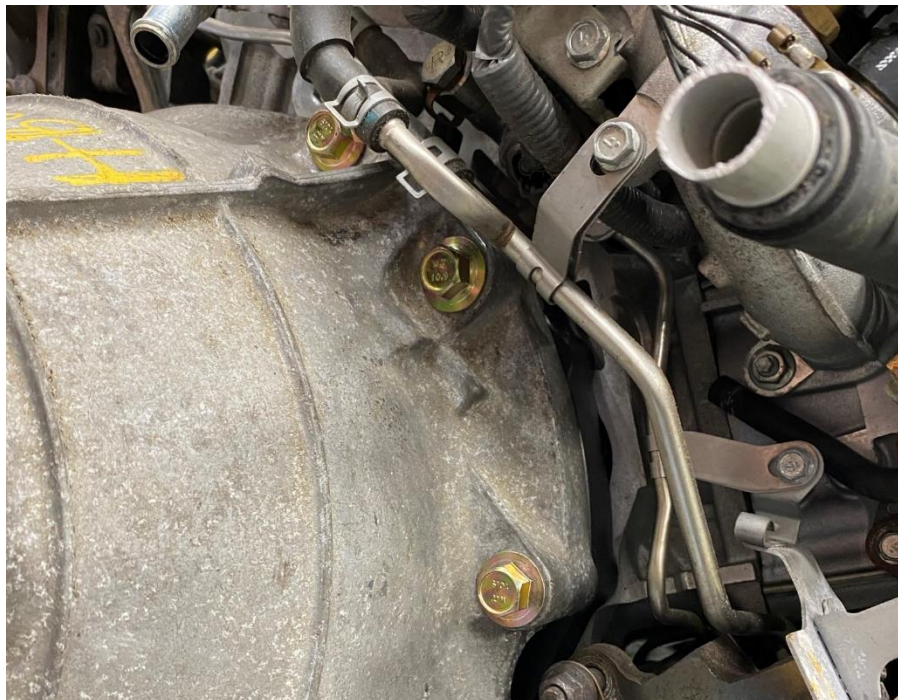
- 9) Remove the transmission and install the flywheel onto the engine. If you choose, the factory GTR torque plate can be used between the heads of the bolts and the flywheel. This is optional and not required.



10) Install the 350Z/370Z clutch onto the flywheel following the manufacturers recommended practices.



11) Reinstall the transmission to the engine. Along the top of the engine, use the 4 supplied M12x1.75 80mm long bolts to attach the transmission to the engine block. These bolts will pass through the adapter plate.



12) Along the bottom of the engine, 3 of the supplied M10x1.50 60mm long bolts will attach the engine to the transmission by passing through the three holes that were drilled out earlier in the instructions. 1 of the M10x1.50 60mm long bolts will pass through the transmission into the adapter plate below the starter, and the last will be used on the RH side of the transmission holding it to the adapter plate.



13) Lastly, The M10x1.50 35mm long flange head bolt and M8x1.25 35mm long socket head bolt will be used to attach the oil pan and transmission to the adapter plate, respectively. The M10 flange head bolt will install through the last hole in the oil pan, and the M8 bolt will pass through the threaded hole on the bottom RH side of the bellhousing.



Installation is complete!