

# GEN III/IV CHEVROLET SMALL BLOCK TO NISSAN 350Z VQ35DE TRANSMISSION ADAPTER



## INSTALLATION INSTRUCTIONS

Rev B – Jan 2018

### **!!NOTICE!!**

LOJ CONVERSIONS CORP HAS PREPARED THESE INSTRUCTIONS TO MAKE YOUR PRODUCT INSTALLATION AS SIMPLE AND HASSLE-FREE AS POSSIBLE. INSTALLATION ISSUES EXPERIENCED AS A RESULT OF NOT FOLLOWING THESE INSTRUCTIONS ARE THE SOLE RESPONSIBILITY OF THE USER.

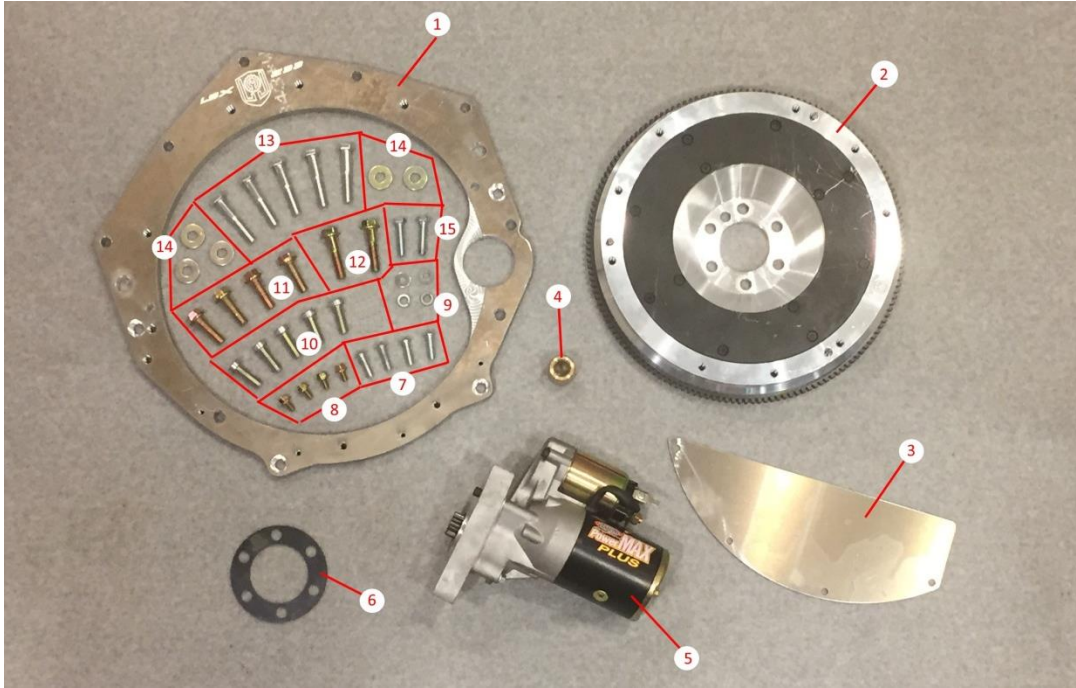
### **!!WARNING!!**

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 Basic Gen III/IV Adapter Kit should include the following components:



|  |   |
|--|---|
| <b>1 - (Qty 1) – Adapter Plate</b>                   | <b>8 - (Qty 4) – M6x1.0 12mm Flange Head Bolts</b>                |
| <b>2 - (Qty 1) – Flywheel</b>                        | <b>9 - (Qty 2ea) – M10 Flat and Lock Washers</b>                  |
| <b>3 - (Qty 1) – Dust Shield Plate</b>               | <b>10 - (Qty 5) – M10x1.5 30mm Low-Profile Socket Head Screws</b> |
| <b>4 - (Qty 1) – Pilot Bushing</b>                   | <b>11 – (Qty 4) – M10x1.5 35mm Flange Head Bolts</b>              |
| <b>5 - (Qty 1) – High-Torque Mini-Starter</b>        | <b>12 – (Qty 2) – M10x1.5 45mm Flange Head Bolts</b>              |
| <b>6 - (Qty 1) – Flywheel Torque Plate</b>           | <b>13 – (Qty 5) – M10x1.5 55mm Hex Head Bolts</b>                 |
| <b>7 - (Qty 4) – M8x1.25 25mm Button Head Screws</b> | <b>14 – (Qty 5) – M10 Large Flat Washers</b>                      |
| <b>15 – (Qty 2) – M10x1.5 35mm Hex Head Bolts</b>    |   |

*Other parts that you will need, available separately from LOJ Conversions:*

(Qty 2) – 350Z Transmission to Engine Block Alignment Dowels

(Qty 2) – Gen III/IV Engine Block to Transmission Alignment Dowels

(Qty 6) – Gen III/IV Flywheel Bolts – OEM P/N 12563485/19257940 or LOJ ARP Long Length Flywheel Bolts

(Qty 9) – 350Z Pressure Plate Bolts or LOJ ARP Pressure Plate Bolts

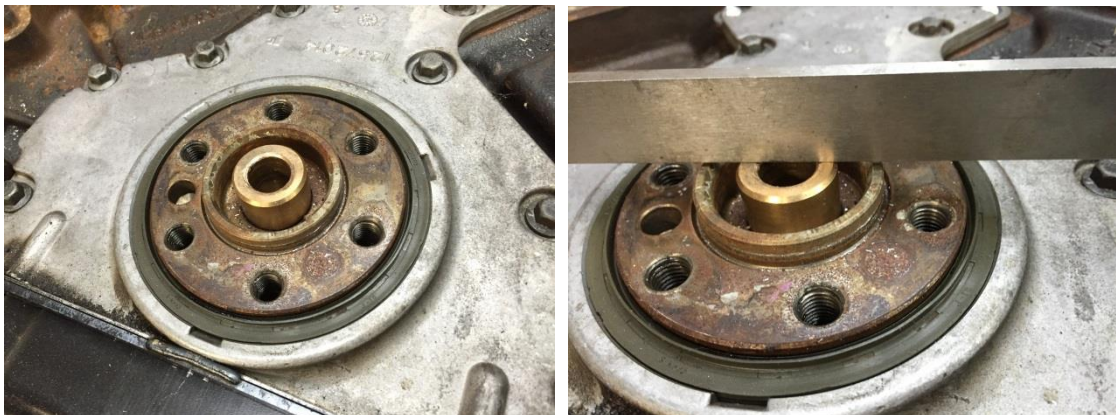
## **!!WARNING!!**

**The standard GM flexplate bolts can not be used with this kit! You must either purchase OEM GM flywheel bolts, part number 12563485/19257940 or the extended length ARP flywheel bolts available from LOJ Conversions!**

### **INSTALLATION PROCEDURE:**

- 1) If your Engine came from a donor vehicle equipped with an Automatic Transmission, remove the Automatic Transmission Flex Plate and install the supplied Pilot Bushing into the crankshaft. If your Engine came from a donor vehicle equipped with a Manual Transmission, remove the Flywheel and Pilot Bushing before installing the LOJ Pilot Bushing into the crankshaft.

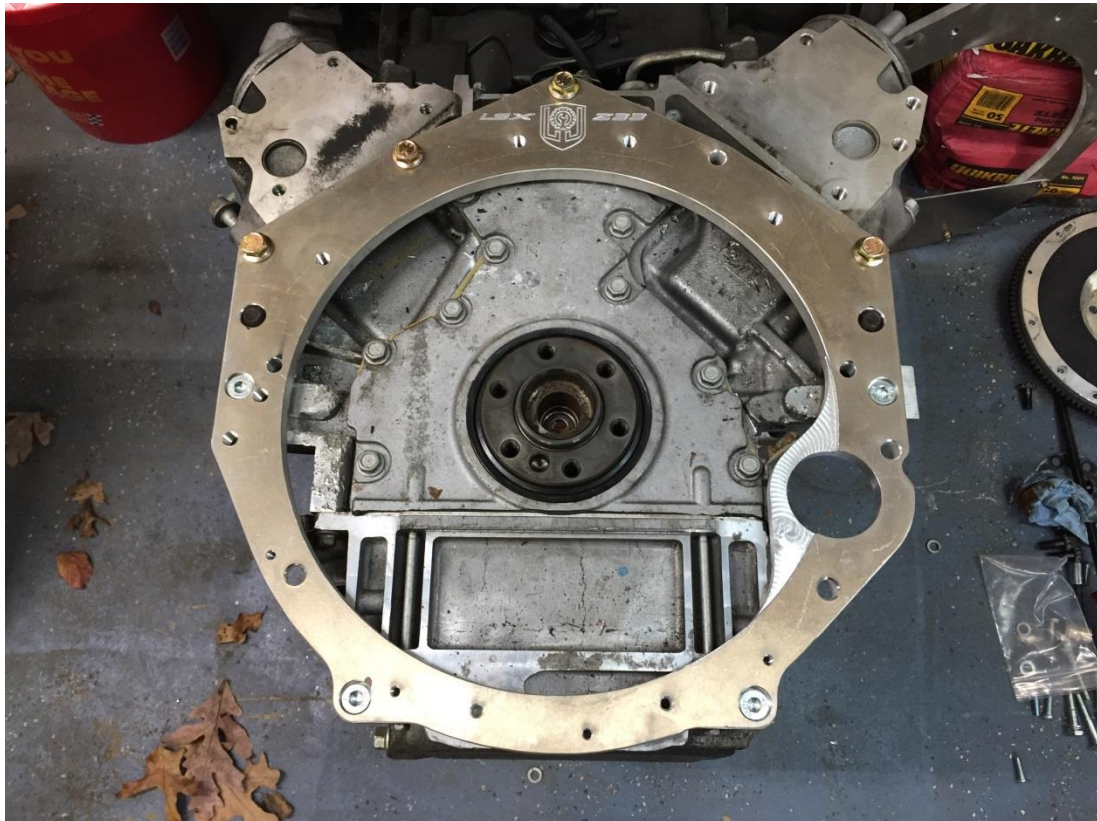
**IMPORTANT – Install the Pilot Bushing until it is flush with the end of the pilot flange on the crankshaft. DO NOT Over-Drive the bushing past this point. (See Photos Below) If you over-drive the pilot bushing your input shaft will not engage it and will not be properly supported. This WILL result in input shaft bearing failure!**



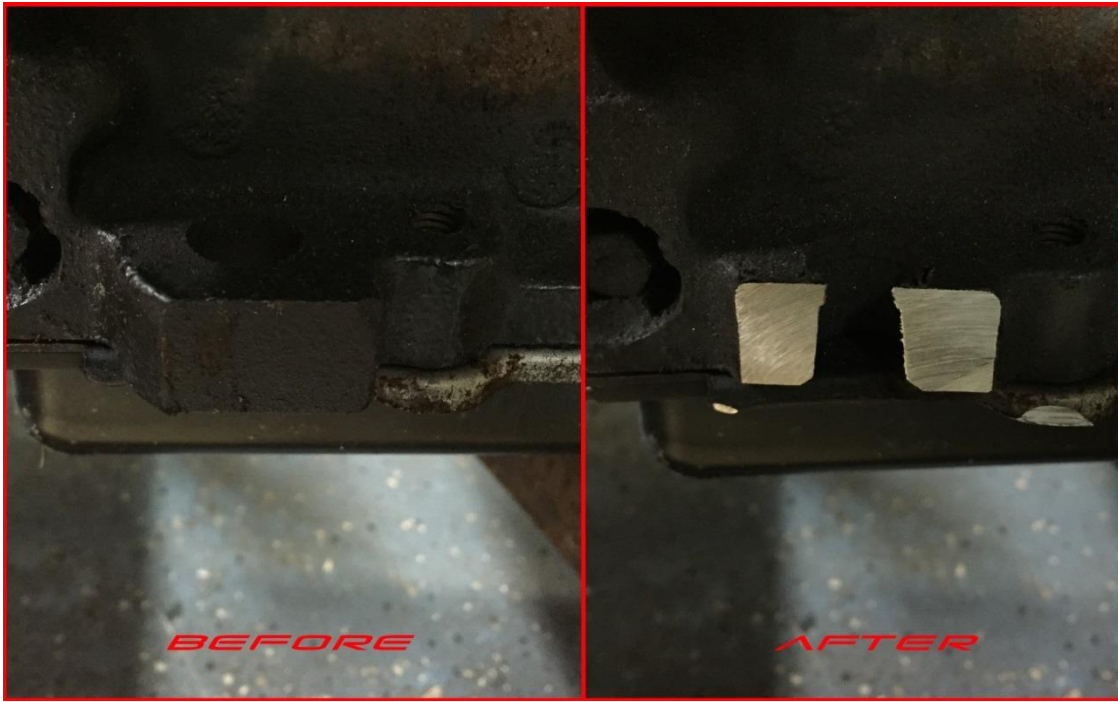
- 2) First you will need to replace the top four bolts holding the rear cover onto your engine. This is necessary to provide clearance for the transmission adapter plate. Use the four supplied M8x1.25 25mm long button head allen key bolts. Replace the bolts one at a time to prevent unsealing the gasket.



- 3) Install the LOJ Conversions Transmission Adapter Plate onto your Engine. Use four M10x1.5 30mm Low-Profile Socket Head Cap Screws and four M10x1.5 35mm Flange Head Cap Screws. If your engine did not have alignment dowel pins, install them before installing the adapter plate! Additionally, if you are using an aftermarket oil pan that does not utilize the lower two bolt, leave them uninstalled.



- 4) You will need to remove one boss from the RH rear side of your engine to provide sufficient clearance for the new starter. This can be accomplished with an angle grinder, hack saw, sawzall, or other suitable cutting tool.

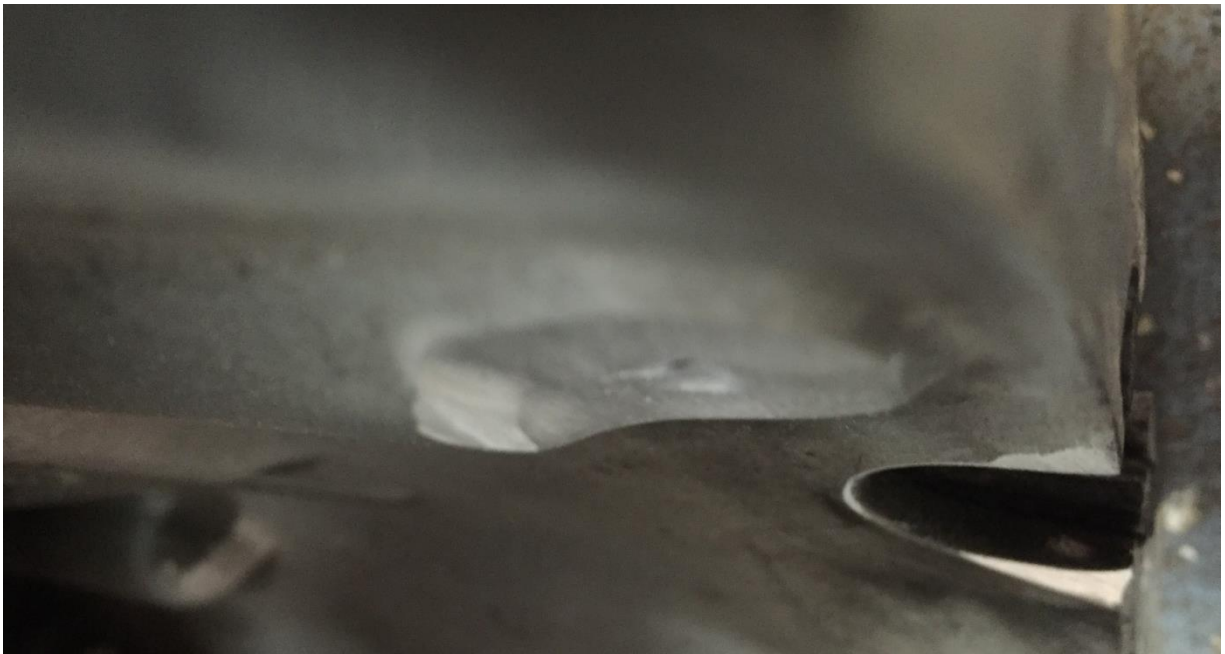


- 5) Now install your flywheel onto the engine. Apply Loctite 242 thread locker (optional, not included) to the thread of the flywheel bolts and install according to factory specs.



- 6) After testing multiple 350Z transmissions, it was determined that some castings are slightly different than others. One small area on the inside of the bellhousing (the inside wall of the slave cylinder mounting area) on some castings can cause interference with the flywheel ring gear. It is recommended to use a grinder to slightly enlarge this area. You can test fit your transmission to determine if this is necessary, or simply grind the area from the get-go to prevent the possibility of needing to remove the transmission and perform this step later. The pictures below show the area to be ground and the amount needed to be removed. This amount shown is MORE than enough to provide the necessary clearance.





**NOTICE**– If you grind through the transmission case you have gone far beyond what is necessary. 0.125" was enough material to resolve the problem on the transmissions that have this issue.

- 7) You are not ready to install your transmission onto the engine. Before you install your transmission, **YOU WILL NEED TO DRILL THE TRANSMISSION BELLHOUSING FOR THE TWO LOWER BOLTS!** Use a 7/16" or 15/32" Drill Bit and drill through the two threaded holes on the bottom of the transmission for the M10 bolts to pass through, then install the transmission to the adapter plate. If you are unsure which holes to drill through, test fit the transmission to determine the locations. Using the five M10x1.5 55mm long hex bolts and five M10 flat washers, attach the transmission to the engine. Note: If retaining the factory vent tube, DO NOT install a flat washer in this location. You will also use one M10x1.5 30mm Low-Profile Socket Head Bolt to fasten the transmission to the engine. This is on the LH side of the bellhousing. The lower two transmission to adapter plate bolts will be the two M10x1.5 35mm Hex Head Bolts with M10 Lock and Flat washers and will pass through the holes you drilled at the beginning of this step.







- 8) Now you can install your starter. Using the two M10x1.5 45mm long flange head bolts, attach the starter to the adapter/transmission.



- 9) If installing adapter onto an engine with an aftermarket oil pan, install the supplied dust shield with the four M6x1.0 12mm Flange Head Bolts as shown below.



- 10) Your installation is complete, enjoy!!!