CASTLEMAINE



# Bellhousing Installation Guide bh078a

# Kit Limitations

- 1. Thrust Bearing Carrier Needs to be Modified
- 2. MUST Be the Factory Gearbox from either the ZD30, TB42, TB45 or TD42 Engines
- 3. The Firewall MAY Need to be Modified for Ease of Fitment
- 4. A New Factory Nissan Thrust Bearing is Required (Not Supplied)

### Suitable for Below Gearbox & Engine Combinations

Gearboxes	Engines
Nissan GQ & GU Factory 5 Speed (Manual)	Chev Small Block
	Holden 253, 308 & 5Ltr EFI

## Kit Includes

Part	Part Description / Number	CRS #	Qty
Bellhousing	bh078a		1
Spigot Bush	sb60		1
Thrust Extension	te02	crs0440	1
Washers	washer02	crs0615	4

Part	Part Description / Number		Qty
Bolt Kit	bh078a-bolt-kit		1
	Description	Qty	
	3/8" UNC x 1 ½" Bolts	6	
	3/8" Spring Washers	6	
	3/8" Flat Washers	6	
	¼" UNC x ½" Bolts	4	
	¼" Flat Washers	4	

# **Optional Parts**

The Below Optional Parts are Recommended for Ease of Installation

- 1. Dust Cover Part # dust24 (Can be Purchased Separately)
- 2. Pressure Plate Part # 1000-509 (Do Not Stock)
- 3. Clutch Plate Part # R12063W (Can be Purchased Separately)

## Installation Steps

Step 1: Remove the Thrust Bearing from the Carrier



Step 2: Shorten the Thrust Bearing Carrier by 5mm, this will Need to be done by a Machine Shop



**Step 3:** Completely Fit the Thrust Extension to the Shortened Thrust Bearing Carrier using Loctite Metal Adhesive



**Step 4:** Fit the New Factory Nissan Thrust Bearing to the Thrust Bearing Carrier, DO NOT Use Loctite Metal Adhesive to do this



Step 5: Remove Original Engine and Gearbox from Vehicle

**Step 6:** Remove Original Gearbox from Engine

Step 7: Remove Original Bellhousing from Gearbox

Step 8: Remove Original Clutch Slave Cylinder from Bellhousing

Step 9: Ensure the Face of the Gearbox is Clean where the Bellhousing Bolts onto

**Step 10:** Bolt the New Bellhousing to the Gearbox using the Bolts from the Original Bellhousing

- **Step 11:** Bolt the Original Clutch Slave Cylinder to the New Bellhousing
- Step 12: Clean the Back of the Engine where the New Bellhousing will Bolt onto
- **Step 13:** Remove the Original Spigot Bush from the Crankshaft
- Step 14: Fit the Supplied Spigot Bush to the Crankshaft

**Step 15:** Bolt the Original Flywheel to the Engine using the Original Bolts and Torque Seating

Specifications. If you have a Holden 253 V8 with a Large Diameter Flywheel refer to Appendix A

- **Step 16:** Use a Clutch Plate Aligning Tool to Bolt the Clutch Plate and Pressure Plate onto the Flywheel
- **Step 17:** Fit the Original Throwout Fork and Throwout Bearing to the Gearbox

The Clutch Setup is as Close to the Original as Possible. If there is a Need for Further Adjustment to Improve the Travel of the Clutch Fork 2 3/8" or 10mm Flat Washers can be Fitted under the Head of the Pivot Ball as shown below. In Some Cases it may be Necessary to Shorten the Slave Cylinder Push Rod Slightly, Do So Carefully



Step 18:	With Previous Steps all Completed you can now fit the Gearbox to the Engine Carefully. Use
the 6 3/	'8" UNC x 1 ½" Bolts with Flat and Spring Washers to Bolt the Bellhousing to the Engine
Step 19:	The Starter Motor can now be bolted to the Engine
Step 20:	The Entire Assembly is now ready to be Fitted to Your Vehicle

## Appendix A

Applicable when you have a Holden 253 V8 with a Large Diameter Flywheel

Step 1: On the Flywheel 1 Hole will need to be Elongated

- **Step 2:** When fitting the Pressure Plate 4 of the Holes will line up but you will need to Drill and Tap an Additional 2 holes for it to Bolt On
- **Step 3:** It is Recommended that you put the 2 Washers on the Pivot Ball as Shown Above for Good Travle of the Clutch
- Step 4: The Standard Holden V8 Accelerator Cable will fit on both the Carburettor and Pedal
- **Step 5:** You will need to Remove 5mm from the End of the Input Shaft Spigot as it May Bottom Out on the V8 Crank. Measure Carefully before Doing This
- **Step 6:** The Starter Motor will Need to be Shifted to Mesh Properly with the Flywheel, this can be done with a Plate Bolted to the Block with Countersunk Unbrako Bolts. The Starter can then be Positioned on the Plate and Held in Place with 2 Holes Drilled and Tapped into the New Plate