

ADAPTOR PLATE KIT FOR HOLDEN COMMODORE 6 SPEED TREMEC T56 TO INJECTED WINDSOR V8

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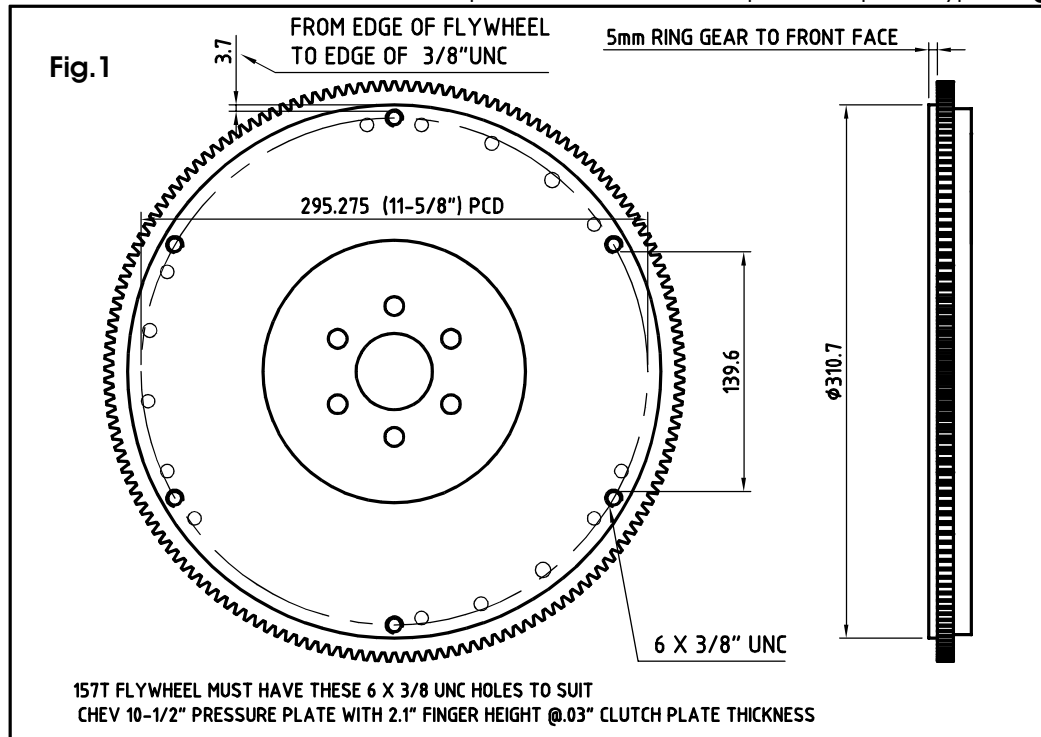
This adaptor allows fitting the commodore T56 gearbox to the Injected Windsor 302 using the Commodore bell housing and clutch slave cylinder. It should also work with the early carbureted Windsors. The starter motor is on the RH side with the solenoid rotated down towards the sump, this is to give clearance when fitting to the Austin Healy BN1 which has narrow chassis rails. The Starter motor used is from the AU Falcon V8 AUTO and has some minor modifications as described below. The Windsor block also has to have one of the mounting holes drilled to 10mm as described below. **Fig.2** The gearbox hell housing holes have to be drilled to 12mm with the supplied step drill as described below

Pressure plate is 10.5" with Finger height of 2.1" @ 0.300, bolt circle 11 5/8" e.g. (McLeod #360700)

The Clutch plate is 10.5" GM 1-1/8" x 26 spline (eg. McLeod #260170)

Centerforce part number **DF161830** (dual friction) 1-1/8" x 26 spline also fits, pressure plate bolts are 6 x 5/16 unc on 290 PCD equal spacing. (1/4" dowels need to be fitted for this one)

The flywheel needed is a 157 tooth, with multiple holes for different pressure plate types **Fig.1**

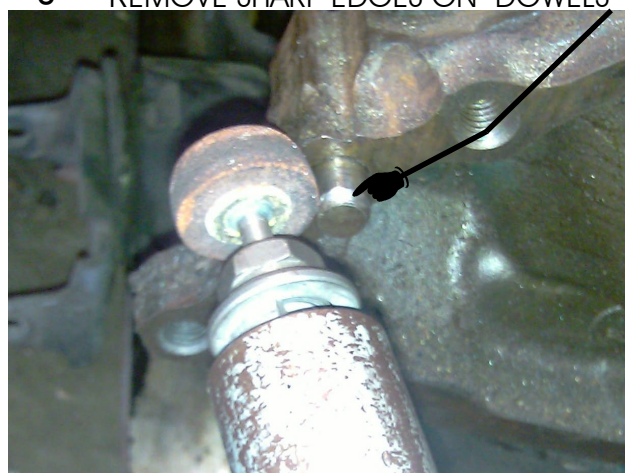


MODIFYING ENGINE

Fig.2



Fig.3 REMOVE SHARP EDGES ON DOWELS



Because this holes in the gearbox bell housing is close to this 7/16" unc hole (ID 9.6mm) an M10 thread is tapped into the adaptor plate and a M10 x 31.8 cap head is fitted from the front edge. Note! The tip of the bolt must not protrude past the rear face of the adaptor plate, adjust length of bolt if necessary. **Fig.2**

Also remove the sharp edges on the 1/2" engine dowels with a grinder to stop dowels binding when fitting the adaptor plate to engine **Fig.3**, the dowels may need to be knocked in a bit deeper so they don't protrude past the plate face.

Use a nylon hammer to knock the adaptor plate all the way home as the dowels can be tight.

MODIFYING GEARBOX

The bolt holes in the bell housing must be drilled to 12mm using the supplied step drill, this is to ease assembly of the gearbox to the engine.

Also countersink the gearbox holes to accommodate the protruding splines on the plate studs **Fig.4 & 5**
Fit the two supplied 5/8" dowels to the gearbox, ensure the yellow painted end go into the gearbox, this end of the dowel has been resized to 15.85mm, the dowels are a tight fit, use aluminium drift to drive them in so that only 10 to 11mm protrude.

Fit the supplied spacer between the standard clutch slave cylinder and gearbox using the supplied M6 bolts.

Fig.4



Fig.5



MODIFYING AU FALCON V8 AUTOMATIC STARTER MOTOR

The starter is mounted with 2 x M10 x 30 capheads and 1 M8 nut from the front face.

Two of the mounting holes in the starter motor must be drilled to 10.5mm and one hole made into a slot.

Before drilling the starter, mount the starter motor in a vice and attach the 1.2mm thick starter location plate using the supplied M10 capheads, **Fig.6**. Note the starter hole next to the solenoid is not aligned, scribe the hole position.

This hole will need to be slotted to align with the 8mm stud
. After slotting the hole drill the other 2 holes to 10.5mm

Fig.6

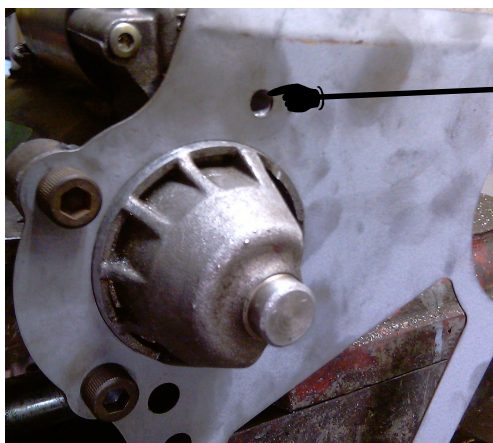
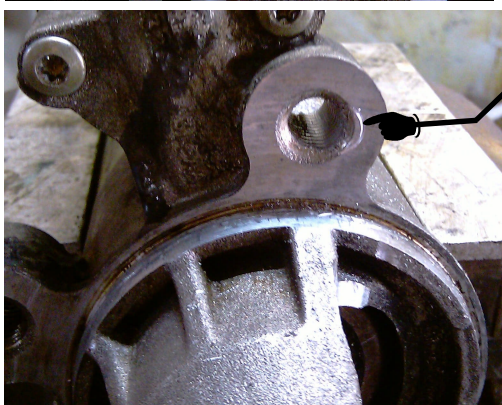


Fig.7

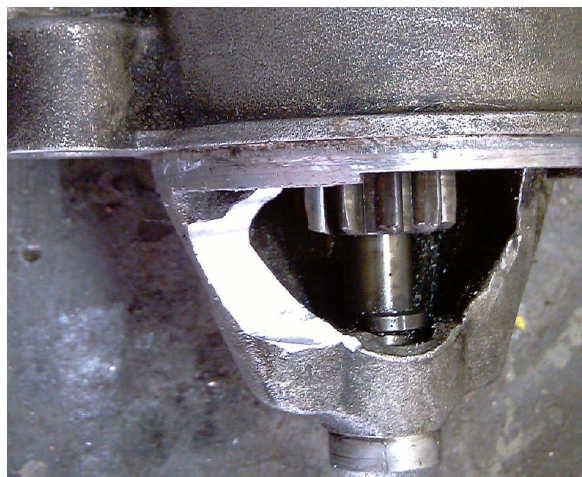


Fig.6



Scribe mark

Fig.7



Because the starter motor is rotated so that the solenoid is close to the sump the starter nose housing needs to be ground as per **Fig.7**, this is to give clearance between flywheel ring gear and starter, aim for about 1mm of clearance when trial fitting. (about 4mm of material is removed)

Check the condition of your slave cylinder before assembling, if your T56 gearbox has been sitting for some time there is a good chance the aluminium bore has some corrosion. To check, remove the throw out bearing by twisting the plastic 90degrees from the stop then squeeze the 2 grooves, push the plastic sideways and pull. Use compressed air to blow out the seal paying attention to its orientation, give it a good hose and check the internal walls.

If you need to replace you can use the slave cylinder from the 1996-2002 Camaro V6 & V8 ACDELCO part number #386433 (ebay usa \$69.99) **Fig.10**

This is exactly the same as the commodore but it has a different connection, use a pin punch to remove roll pin and swap the fitting from the Commodore unit to the Camaro unit.

Fit the aluminium spacer between g/box and slave cylinder. **Fig.13**

Use 2mm spacer under main spacer if installing Centerforce DF161830

Fig.10



slave piston area
731 mm2

Spigot Bearing

Press in untill face of bearing is flush with end of taper **Fig.11**

Fig.11

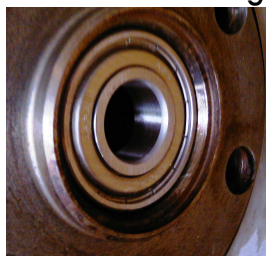


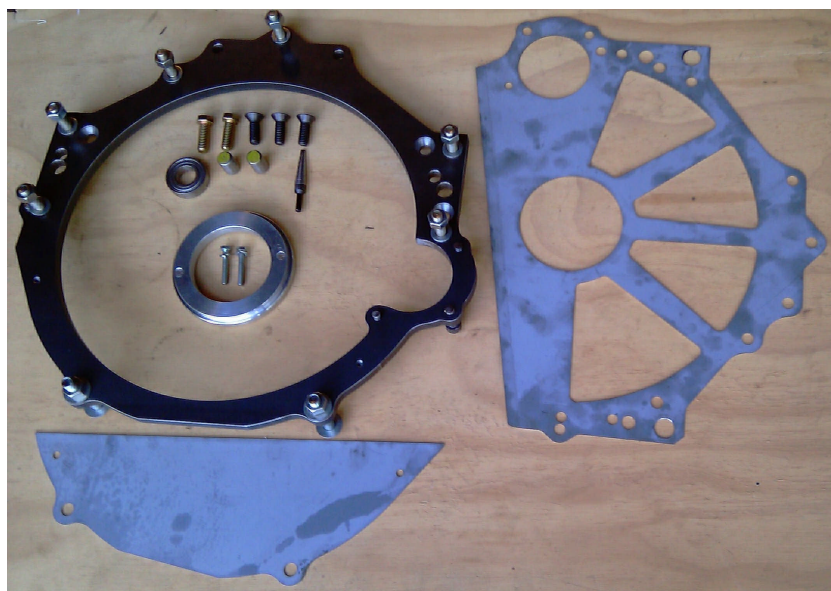
Fig.13



Fitting Adaptor Plate

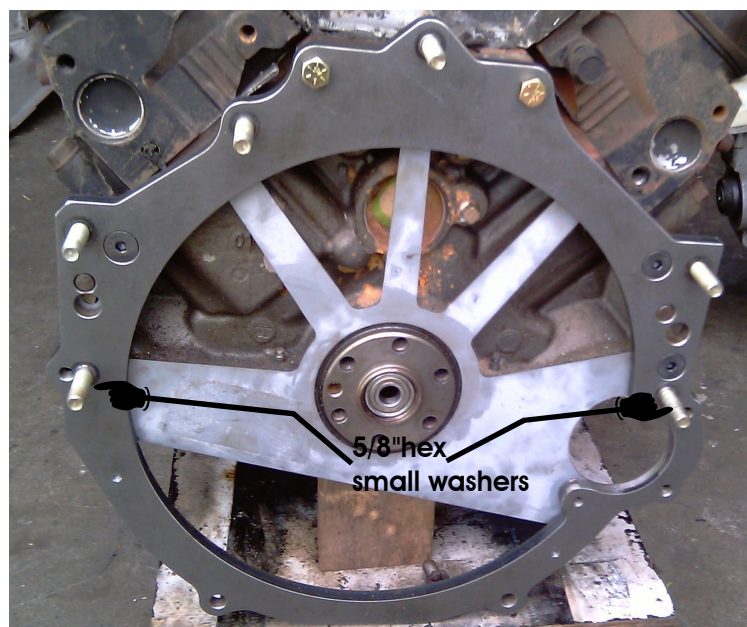
- # Clean all contact surfaces.
- # Clean and oil all the 7/16 unc threads in block.
- # Fit the starter location plate then the adaptor plate, use a nylon hammer to knock adaptor plate onto dowels
- # Torque the 3 countersunk cap heads to 70ft/lbs (dry) using a quality allen key socket **Fig.12** (normal allen key won't do)
- # Torque the 2 top 7/16 hex bolts to 70ft/lbs. (do not use washers)
- # Attach gearbox with the 4x1 1/16 hex nuts and 2x5/8" hex nuts, use the 5/8"hex nuts on the studs below the dowels

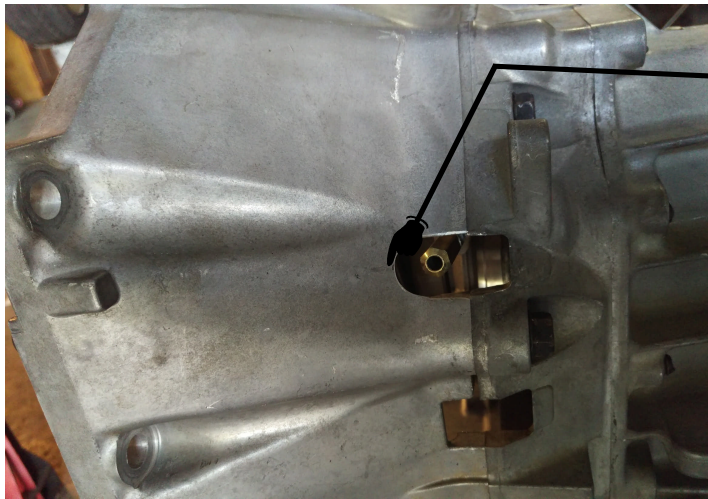
Fig.12



KIT CONTENTS

ADAPTOR PLATE WITH PRESSED IN STUDS	x 1
STARTER POSITION PLATE 1.2mm THICK	x 1
DUST COVER PLATE 1.2mm THICK	x 1
ALUMINIUM SPACER FOR SLAVE CYLINDER	x 1
SPIGOT BEARING 35 X 15 X 11 (6202 2RS)	x 1
7/16" X 1 1/4" UNC SOCKET COUNTERSUNK	x 3
7/16" X 1 1/4" UNC HEX HEAD BOLTS	x 2
7/16" X 2 1/4" UNF HT BOLT	x 2
7/16" UNF NUT (1 1/16" HEX)	x 6
7/16" FLAT WASHERS (large)	x 6
7/16" FLAT WASHERS (small)	x 2
7/16" UNF NUT (5/8" HEX) lower gearbox	x 2
M10 X 31.8 SOCKET CAP SCREW (block)	x 1
DOWEL 5/8" X 7/8"	x 2
M8 NUT (starter)	x 1
M8 X 40 STUD (starter)	x 1
M10 X 30 CAP SCREW (starter)	x 2
M6 x 40 HEX CAPSCREW, WASHERS (slave cyl.)	x 2
M6 X 12 HEX BOLTS AND WASHERS (dust plate)	x 2





Lengthen opening for bleeder
10mm

Note when using Centerforce DF161830 kit

Fit 2mm spacer to move slave cylinder towards flywheel

Pressure plate fingers may need to move up to 12mm to release clutch

Centerforce recommend about 7mm movement on their DF161830 kit

BELL HOUSING LENGTH

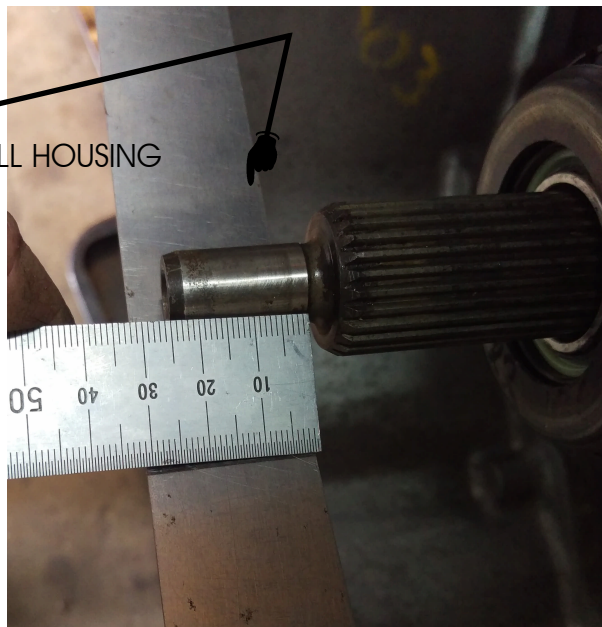


BELL HOUSING LENGTH 140mm



THROWOUT BEARING 50mm BACK

STRAIGHT EDGE
ACROSS FRONT OF BELL HOUSING



SHAFT EXTENDS 25mm FORWARD