



SB-10055251-3310

Technical Service Bulletin

SUBJECT: ENGINE NOISE DURING STARTING			No: TSB-14-11-002
			DATE: February, 2014
			MODEL: 2014 Mirage
CIRCULATE TO:	<input type="checkbox"/> GENERAL MANAGER	<input checked="" type="checkbox"/> PARTS MANAGER	<input checked="" type="checkbox"/> TECHNICIAN
<input checked="" type="checkbox"/> SERVICE ADVISOR	<input checked="" type="checkbox"/> SERVICE MANAGER	<input checked="" type="checkbox"/> WARRANTY PROCESSOR	<input type="checkbox"/> SALES MANAGER

PURPOSE

Some customers of affected vehicles may report a noise when the engine is being started. This may be caused by improper meshing of the starter gear and ring gear due to incorrect backlash. This TSB provides instructions for dealers to replace the starter, drive plate (CVT) or flywheel (5M/T), bell housing cover (BHC) and knock bushings to resolve the condition.

AFFECTED VEHICLES

2014 Mirage

REPAIR PROCEDURE

- Record the customer's radio presets on the repair order and disconnect the battery.
- Refer to the appropriate transmission section (Group 22 or 23) of the 2014 Mirage service manual and remove the transmission.
- Remove the clutch and flywheel (5M/T) or the drive plate (CVT)
 - For vehicles with a manual transmission, refer to Group 21B – Clutch Overhaul for details on clutch removal and installation.

Refer to Group 11B – Engine Overhaul > Crankshaft and Cylinder Block for details on flywheel removal and installation. Clutch cover (pressure plate) locating dowel pins (p/n MF472403) should be reused unless damaged.

- For vehicles with a CVT, refer to Group 23A Transaxle Assembly Removal and installation for details on drive plate assembly removal and installation.
- After replacement of the flywheel or drive plate and transmission reinstallation, refer to the following instructions for installation and alignment of a new bell housing cover.

LOWER BELL HOUSING COVER AND STARTER INSTALLATION



- Before reinstalling the transmission, replace the knock pins (starter alignment pins).

- (1) Remove the old knock pins from the transmission case.

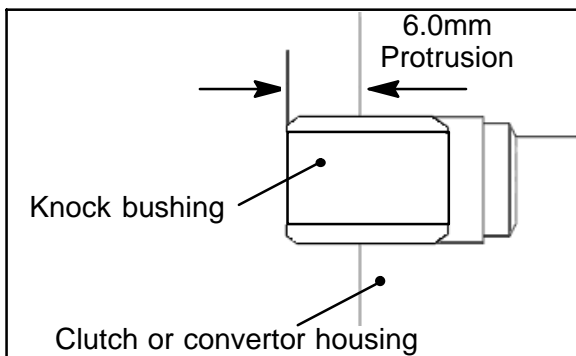
CAUTION

Make sure the clutch/convertor housing is not damaged during removal or installation.

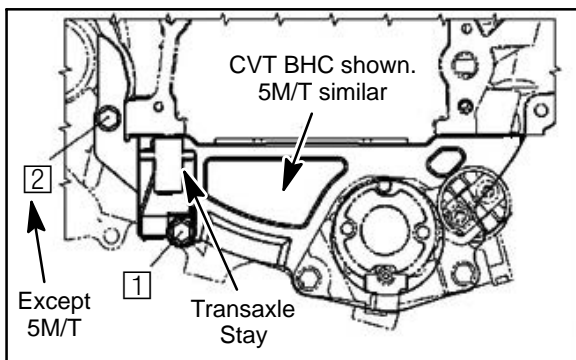
- (2) CAREFULLY install new knock pins.
Use a plastic mallet to tap them into place.

CAUTION

Damaged knock pins could keep the BHC from sitting flush to the transmission case and/or keep the starter from sitting flush to the BHC.



(3) The knock bushing should protrude 6.0 mm from the clutch/converter housing surface.

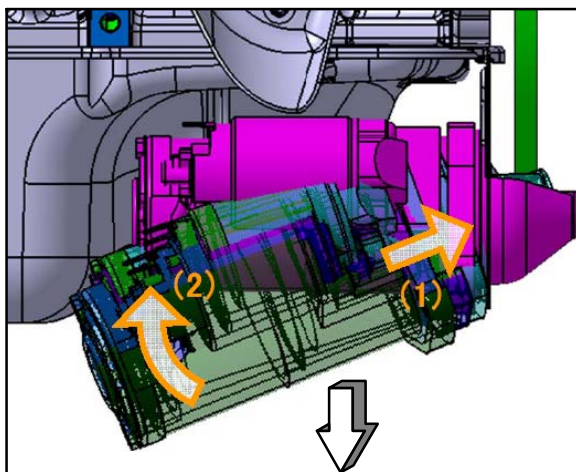


2. After securing the transmission to the engine, carefully position the BHC over the knock pins. Position the transaxle stay and install bolts 1 and 2 (CVT only for bolt 2) hand tight.

NOTE: Bolt 2 is NOT used on 5M/T vehicles.

CAUTION

Take care not to damage the edges of the knock pin holes. Damage could affect starter alignment.

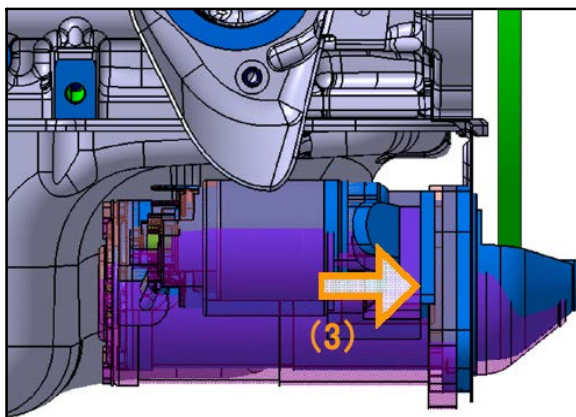


3. Position the starter

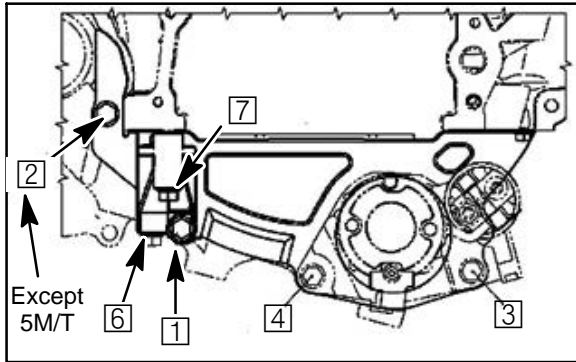
(1) Tilt the starter assembly as indicated and insert the nose of the starter into the bell housing opening.

(2) Pivot the starter body upwards until it is horizontal.

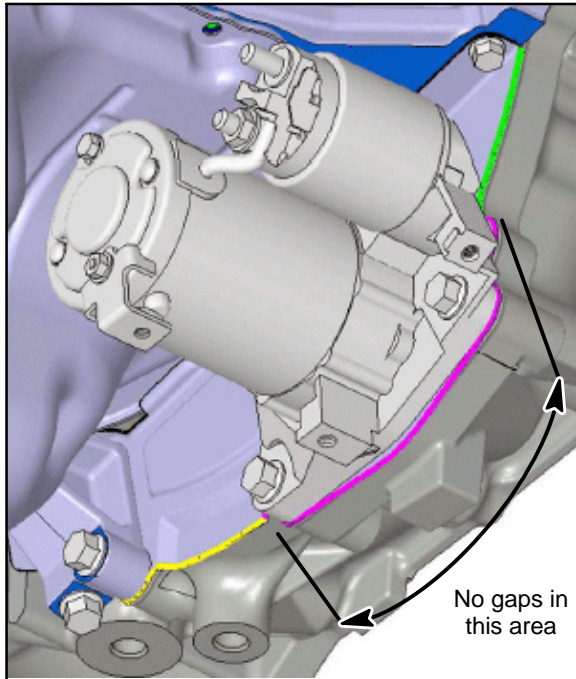
NOTE: The oil pan may interfere with the starter installation. Take care not to damage either part.



(3) Slide the starter into its final position, flush to the BHC and bell housing.

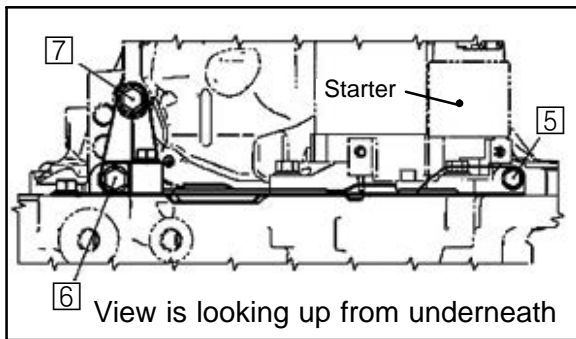


4. Hold the starter in place flush to the BHC and install bolts 3 and 4 (starter mounting bolts). Torque bolts 3 and 4 to $23 \pm 3\text{Nm}$ ($17 \pm 2\text{ ft-lb}$).
5. Loosely install bolts 6 and 7. Torque bolt 1 and 2 (CVT only for bolt 2) installed in step 2, to $26 \pm 6\text{ Nm}$ ($19 \pm 4\text{ ft-lb}$).



CAUTION

Make sure there are no gaps between the starter and BHC, and the BHC and transmission in the area indicated.



6. Install bolt 5. Torque bolts 5, 6 and 7 as follows:
Bolt 5 - $11 \pm 3\text{Nm}$ ($19 \pm 4\text{ ft-lb}$)
Bolt 6 & 7 - $26 \pm 6\text{Nm}$ ($97 \pm 26\text{ in-lb}$)
7. Install the starter cover. Torque bolts to $9.5 \pm 2.5\text{ Nm}$ ($84 \pm 22\text{ in-lb}$).
8. Complete the remainder of vehicle reassembly.
9. Start the vehicle several times and confirm there is no starter engagement noise due to misalignment.
10. Reset radio station presets and clock.

PARTS INFORMATION

Use the following Genuine Mitsubishi Parts

Part #	Description	Qty.
1810A333	Starter	1
2701A164	Drive Plate (CVT vehicles)	1
1120A266	Flywheel (5MT) Vehicles	1
1055A128	Bell Housing Cover (CVT vehicles)	1
1055A126	Bell Housing Cover (5MT vehicles)	1
MS471105	Knock Bushing	2

WARRANTY INFORMATION

This bulletin is supplied as technical information only and is not an authorization to repair. If an affected vehicle is reported with the described condition, diagnose the condition, repair as described in this TSB and submit a normal warranty claim.

Replace Starter, Drive Plate or Flywheel, Bell Housing Cover and Knock Bushings

Nature Code: 80A

Cause Code: 480

Labor Operation No.: 162110 FT (CVT) *Time Allowance:* 5.9 hr.

162110 FX (5MT) 5.6 hr.

Warranty Coverage: **BASIC** Coverage