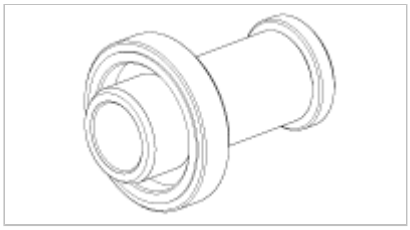
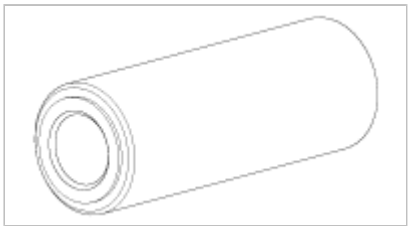
Specifications

Transmission type		M6VR1
Engine type		Gasoline 2.0 TCI
Gear ratio	1st	4.229
	2nd	2.467
	3rd	1.671
	4th	1.233
	5th	1.000
	6th	0.794
	Reverse	3.985
Final gear ratio		3.909

Lubricants

Items	Recommnend lubricant	Quantity
Transmission gear oil	SAE 75W/85 API GL-4	2.0ℓ(2.1US qt, 1.76lmp qt)
Transmission housing	MS721-40	As requried

Special Service Tools

Tool (Number and Name)	Illustration	Use
09452-25100 Oil seal installer		Installation of extension housing oil seal
09452-25400 Oil seal installer		Installation of control shaft oil seal

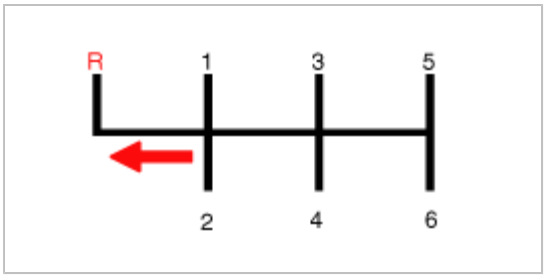
Main Characteristics

- Optimized configuration design through intense analysis of all systems resulted in compact shape and less weight.
- This 6 speed transmission provides a 1:1 gear ratio in 5th gear for improved power and increased fuel efficiency.
- Multi-cone synchronizers are used to improve the shift feel while minimizing the shifting force required.

- 1st, 2nd, and 3rd gears utilize a triple-cone synchronizer
- 4th gear utilizes a double-cone synchronizer
- 5th and 6th gears use a single-cone synchronizer

- The reverse gear has a High-Force Stage Structure which provides;

- Quality/Sport feeling engagement
- Improved engagement
- Reduced reverse gear vibrations
- Audio reverse indicator
- How to shift 'R' : swiftly pull the lever to the left and shift to 'R'



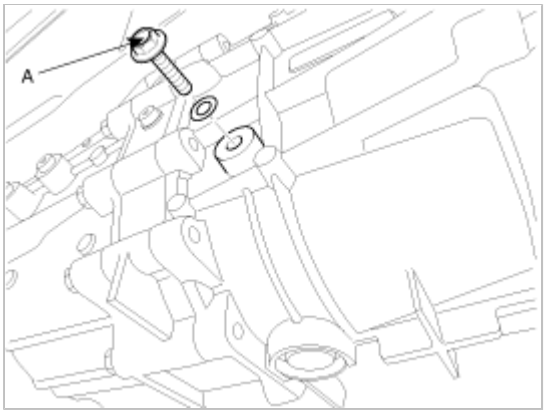
- The gear teeth surfaces have been ground to reduce noise.
- The use of permanent, low-viscosity oil has reduced operational costs.

Service Adjustment Procedure

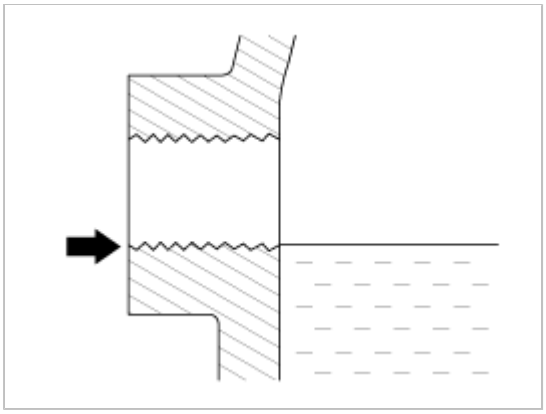
Transmission Gear Oil Level

Inspection

1. Remove oil filler plug(A).



2. Check level with finger.
   Oil level must be up to fill the hole, if not, add oil until it runs over.

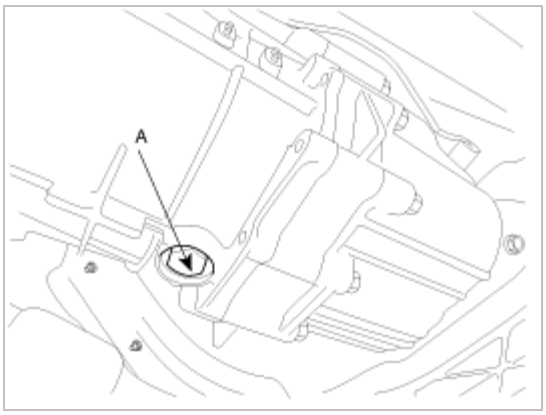


3. Install filler plug with a new gasket.

Tightening torque :
60~80 Nm (6.0~8.0 kgf.m, 43.4~57.8 lb-ft)

Replacement

1. With the vehicle parked on a level surface, remove the drain plug.
2. Drain the transmission oil after loosening the drain plug (A).



3. Install the drain plug with new gasket.

Tightening torque :
60~80 Nm (6.0~8.0 kgf.m, 43.4~57.8 lb-ft)

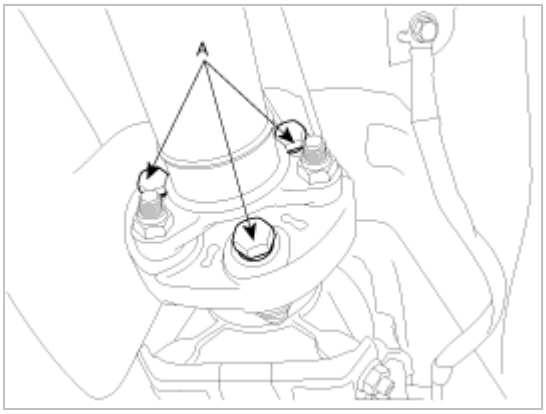
4. Add new oil through the filler plug hole and, fill it just below the plug opening.

Standard oil : SAE 75W/85, API GL-4
Oil capacity : 2.0ℓ(2.1US qt, 1.76Imp qt)

Extension Housing Oil Seal

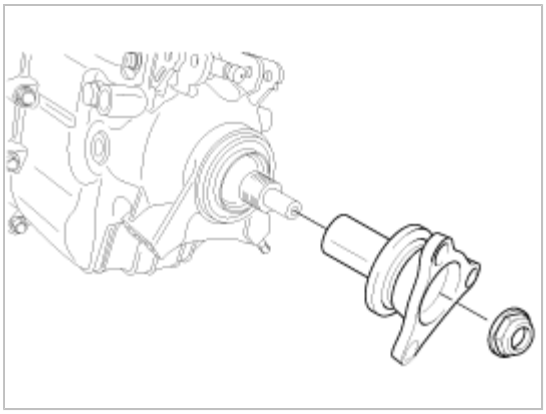
Replacement

1. Remove the propellar shaft from the transmission by removing the bolts(A-3ea).

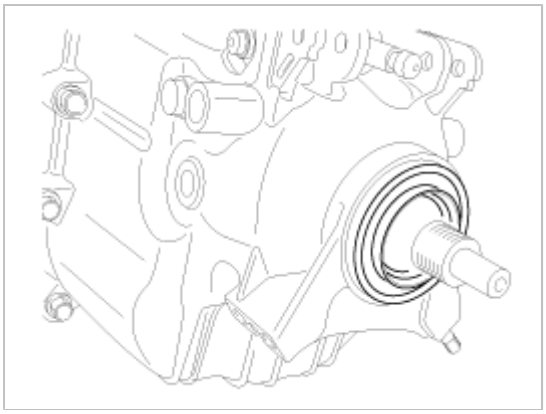


2. After releasing the caulking, remove the flange assembly by removing the locking nut(35mm) and O-ring.

> CAUTION
>
> Do not reuse locking nut and O-ring.

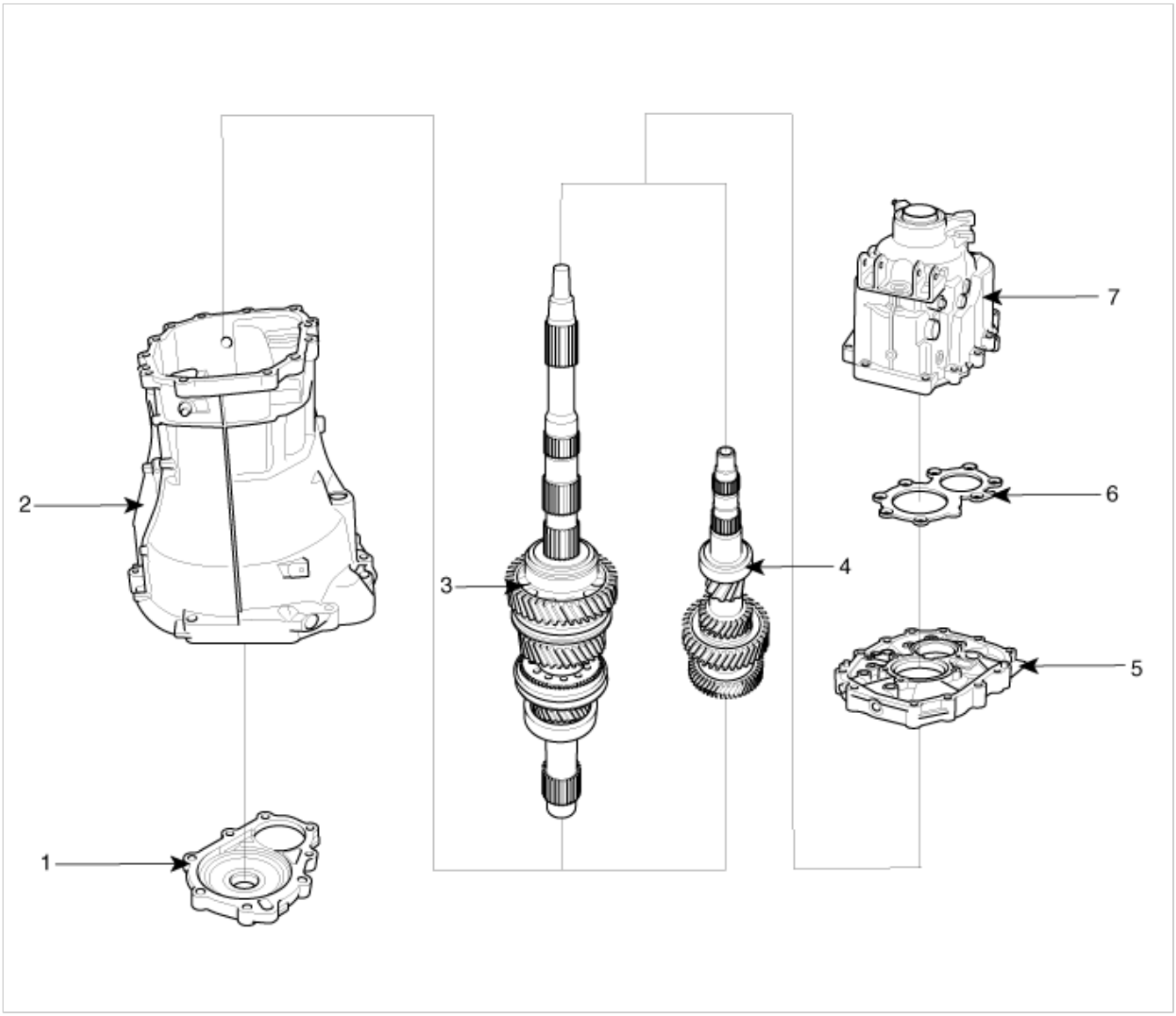


3. Remove the oil seal by using a screw driver.



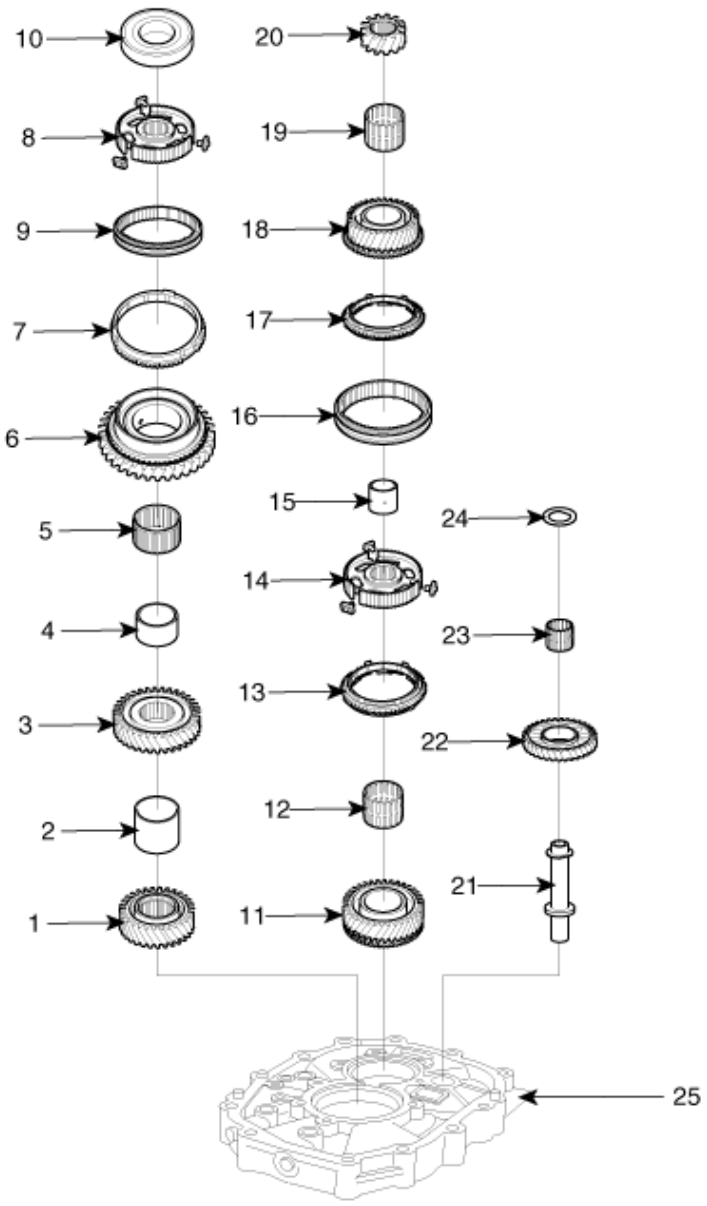
4. Replace the oil seal with a new one using the Special Service Tool(09452-25100).
5. Apply the lithium grease (0.2~0.5g) to lip of the oil seal.
6. Install the removed parts in reverse order of removal.

Components (1)



1. Front bearing retainer assembly	5. Intermediate plate
2. Transmission case assembly	6. Rear bearing retainer
3. Main shaft assembly and main drive assembly	7. Extension housing assembly
4. Counter shaft assembly	

Components (2)

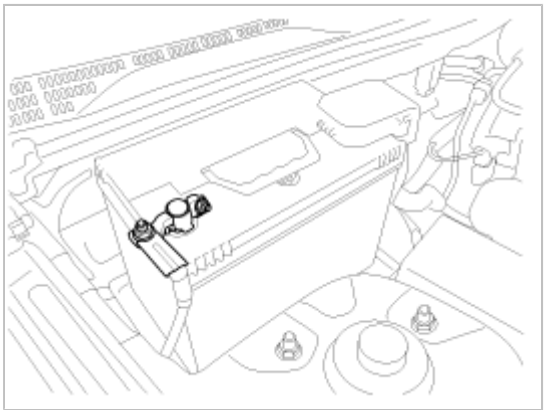


1. 4th gear	10. Ball bearing	19. Needle roller bearing
2. Spacer	11. 4th speed gear	20. Counter reverse gear
3. 3rd gear	12. Needle roller bearing	21. Reverse idler shaft
4. Reverse gear sleeve	13. Synchronizer ring assembly	22. Reverse idler gear
5. Needle roller bearing	14. 3&4th synchronizer hub	23. Needle roller bearing
6. Reverse speed gear	15. 3rd gear sleeve	24. Reverse spacer
7. Synchronizer ring	16. 3&4th synchronizer sleeve	25. Intermediate plate
8. Reverse synchronizer hub	17. Synchronizer ring assembly	
9. Reverse synchronizer sleeve	18. 3rd speed gear	

Removal

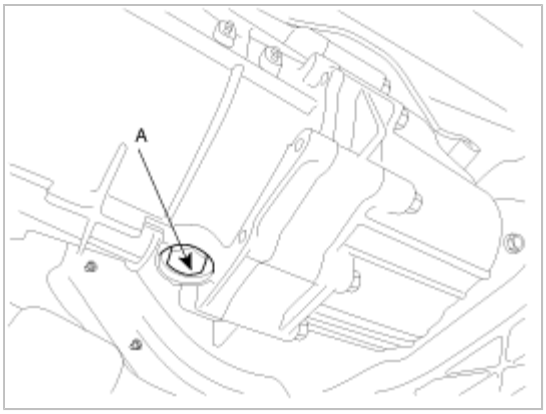
- Use fender covers to avoid damaging painted surfaces.
- To avoid damage, unplug the wiring connectors carefully while holding the connector portion.
- Mark all wiring and hoses to avoid misconnection.

1. Disconnect the (-) terminal from the battery in order to prevent current flow through wire.

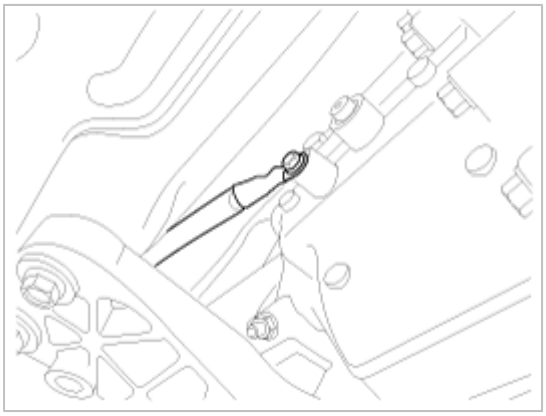


2. Drain the transmission fluid by removing the drain plug (A).

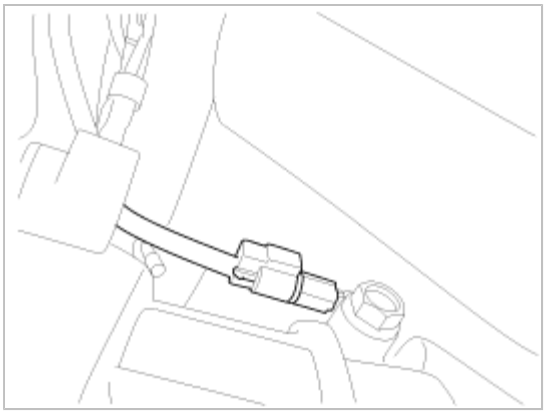
Tightening torque :
60~80 Nm (6.0~8.0 kgf.m, 43.4~57.8 lb-ft)



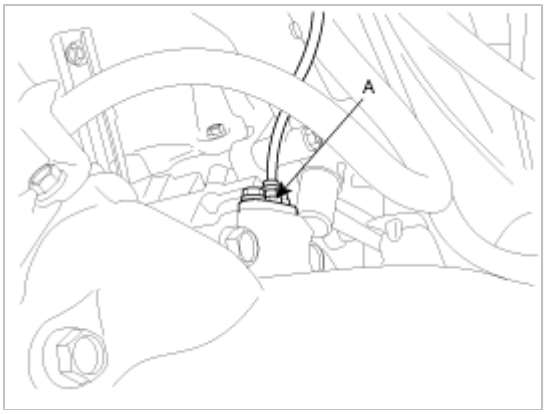
3. Remove the gound wire by removing a bolt.



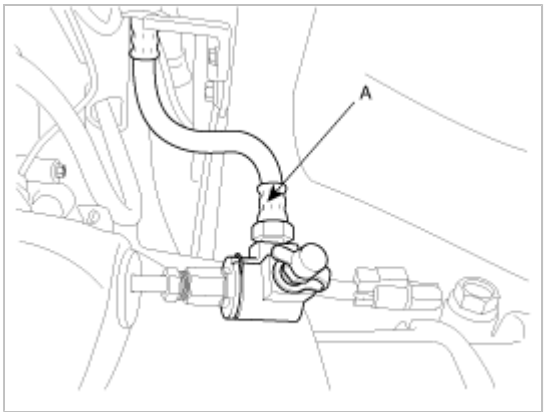
4. Disconnect the back up lamp switch connector.



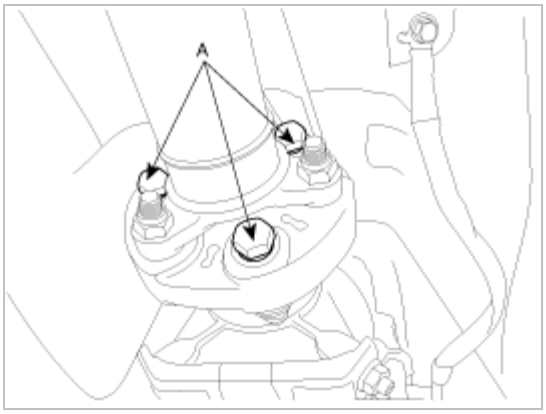
5. Remove the CKP sensor (A) by removing a bolt.



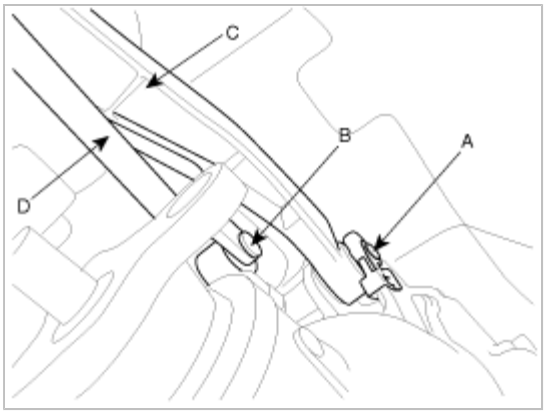
6. Remove the clutch hose from the C.S.C assembly.

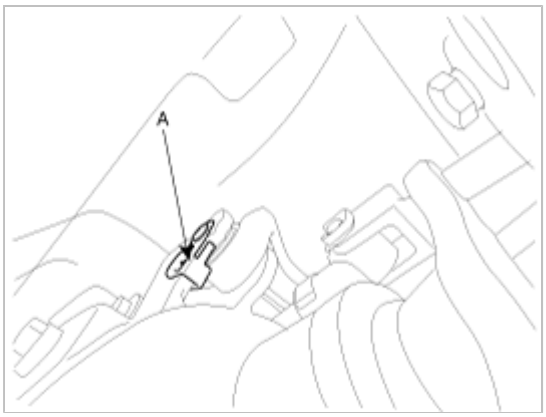


7. Remove the propellar shaft from the transmission by removing the bolts (A-3ea).

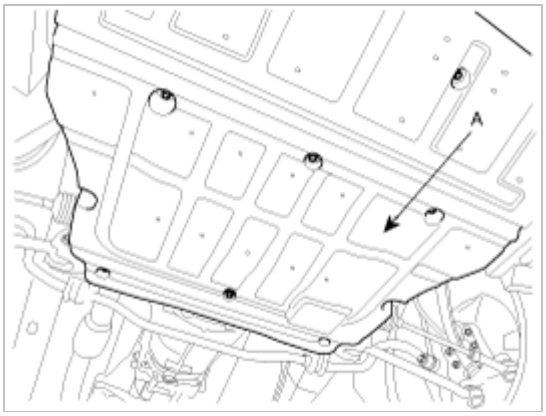


8. Remove the base bracket (C) and select rod (D) from the transmission by removing the clips (A-2ea) and snap pin (B).

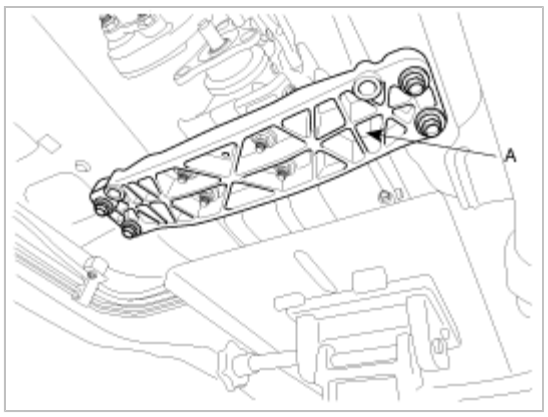




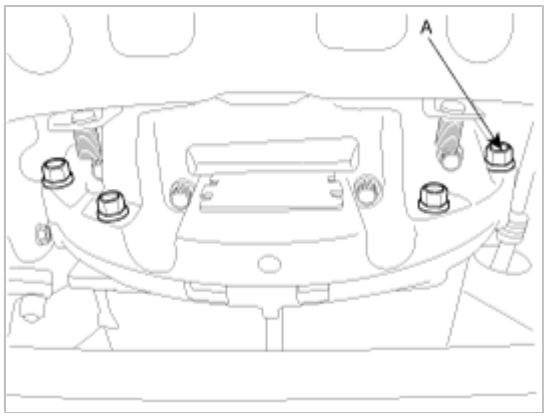
9. Remove the under shield cover (A).



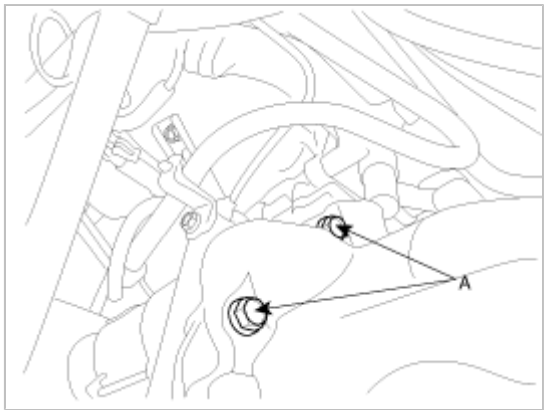
10. After supporting the transmission assembly with a jack, remove the crossmember (A) by removing the bolts(4ea).



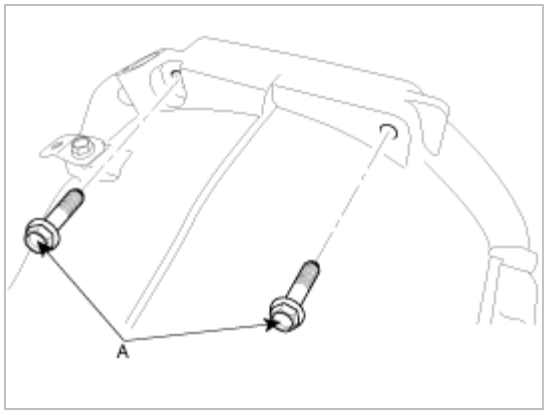
11. Remove the mounting bolts (A-4ea) from the engine side.



12. Remove the mounting bolts(2ea) on both sides from the engine side.
13. Remove the starter motor mounting bolts (A-2ea).



14. Remove the mounting bolts (A-2ea) on the transmission.



15. Lowering the jack slowly, remove the transmission assembly.

> CAUTION
>
> Be careful not to damage to wire, tubes or suspension parts.

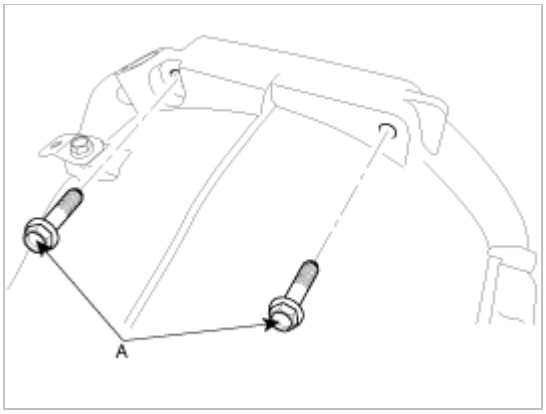
> NOTE
>
> In case remove the transmission mounting bracket assembly from the transmission assembly.

Tightening torque :
50~65 Nm (5.0~6.5 kgf.m, 36.2~47.0 lb-ft)

Installation

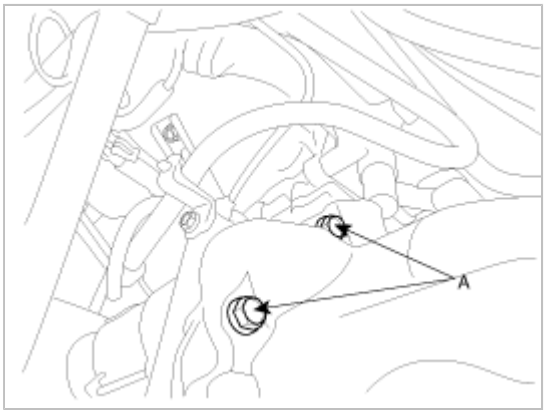
1. Temporarily install the transmission assembly to the engine assembly.
2. Install the mounting bolts (A-2ea) on the transmission.

Tightening torque :
35~47 Nm (3.5~4.7 kgf.m, 25.3~34.0 lb-ft)



3. Install the starter motor mounting bolts (A-2ea).

Tightening torque :
43~55 Nm (4.3~5.5 kgf.m, 31.1~39.8 lb-ft)

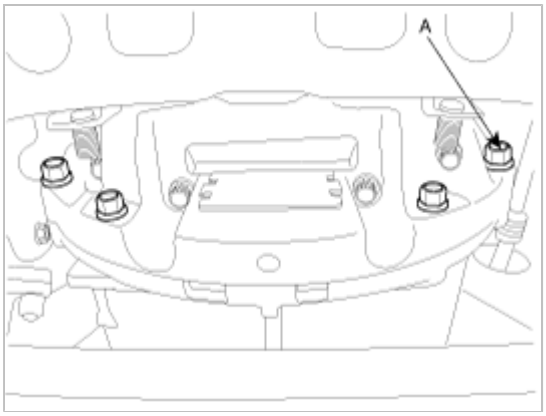


4. Install the mounting bolts(2ea) on both sides from the engine side.

Tightening torque :
35~47 Nm (3.5~4.7 kgf.m, 25.3~34.0 lb-ft)

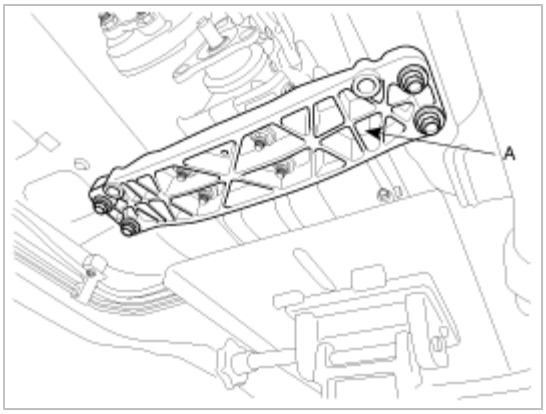
5. Install the mounting bolts (A-4ea) from the engine side.

Tightening torque :
43~49 Nm (4.3~4.9 kgf.m, 31.1~35.4 lb-ft)

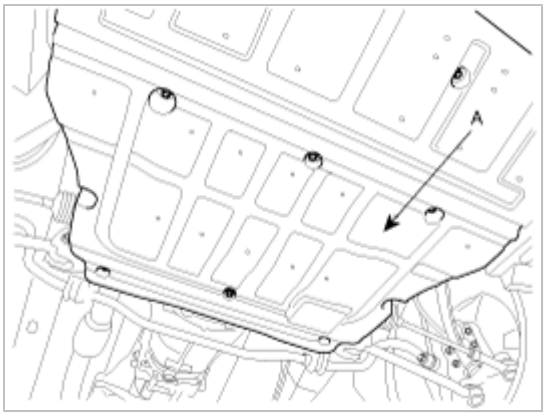


6. Install the crossmember (A) by installing the bolts(4ea) and put aside the supporting jack.

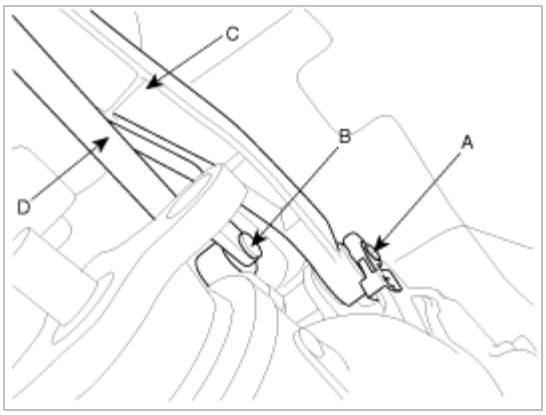
Tightening torque :
50~65 Nm (5.0~6.5 kgf.m, 36.2~47.0 lb-ft)

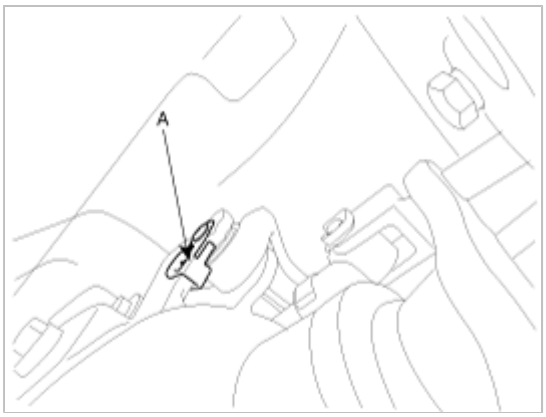


7. Install the under shield cover (A).



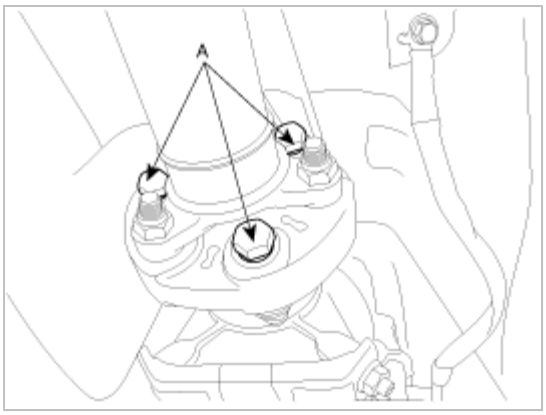
8. Install the base bracket (C) and select rod (D) to the transmission with clips (A-2ea) and snap pin (B).





9. Install the propellar shaft to the transmission by installing the bolts (A-3ea).

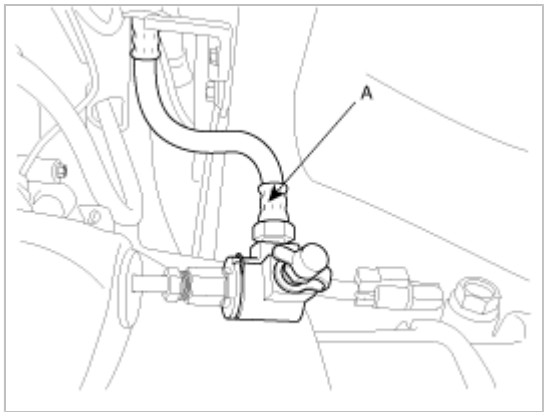
Tightening torque :
90~110 Nm (9~11 kgf.m, 65.1~79.5 lb-ft)



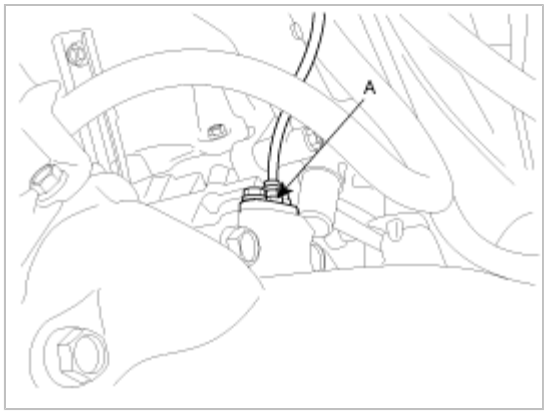
10. Install the clutch hose (A) to the C.S.C assembly.

NOTE

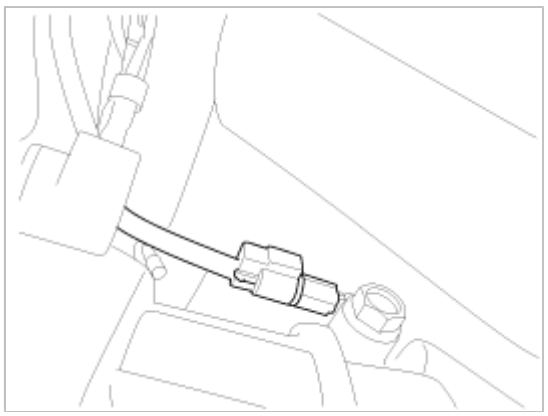
In case of loss of clutch fluid , refill the fluid. (refer to Bleeding in CH group)



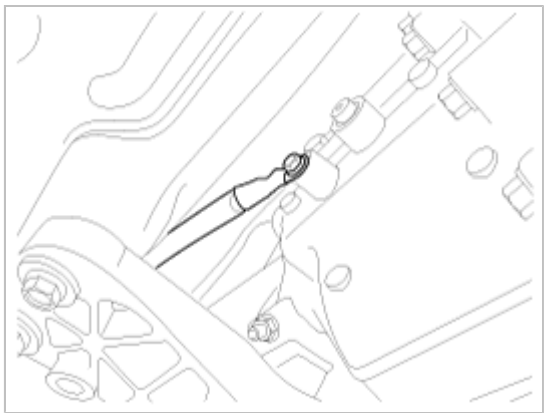
11. Install the CKP sensor (A) by installing a bolt.



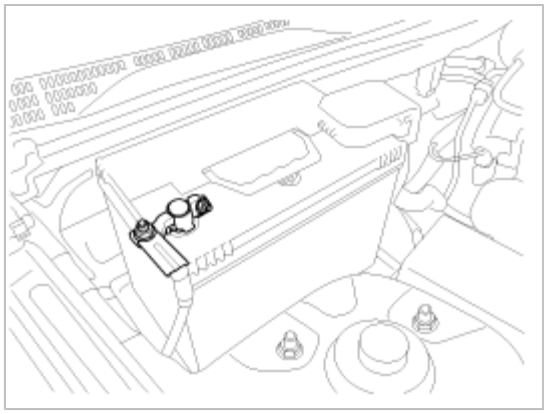
12. Connect the back up lamp switch connector.



13. Install the ground wire by installing a bolt.

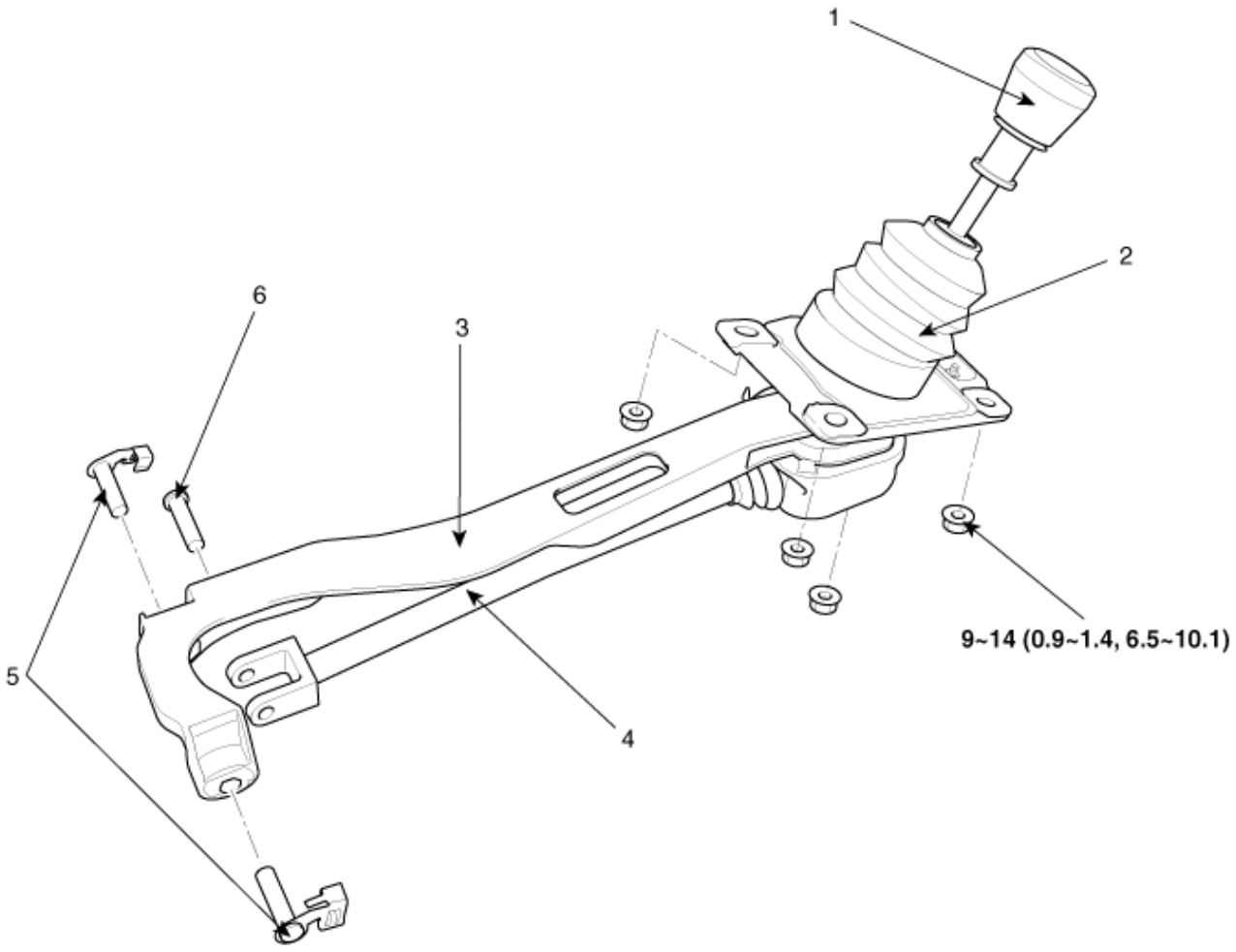


14. Connect (-) terminal to the battery.



15. Refill the transmission fluid. (refer to Service Adjustment Procedure)

Components

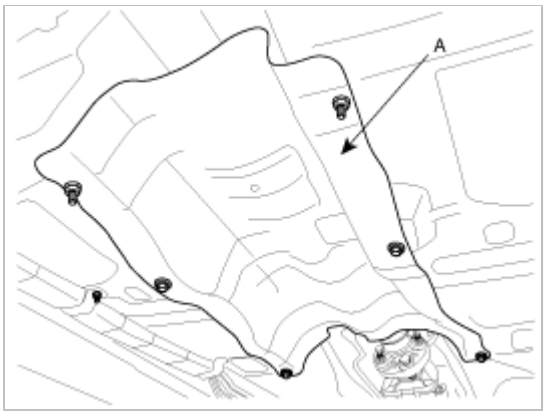


Torque : Nm (kgf.m, lb-ft)

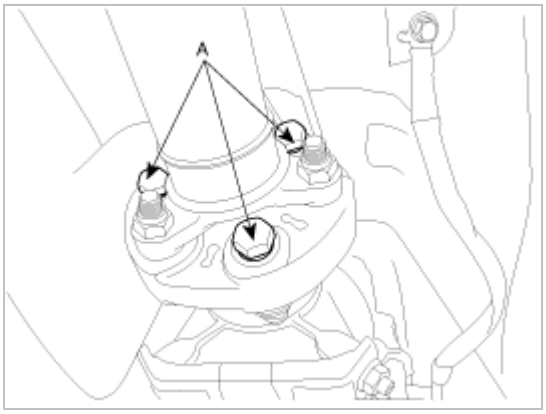
1. Shift lever knob	4. Select rod
2. Shift lever assembly	5. Clip
3. Base bracket	6. Pin

Removal

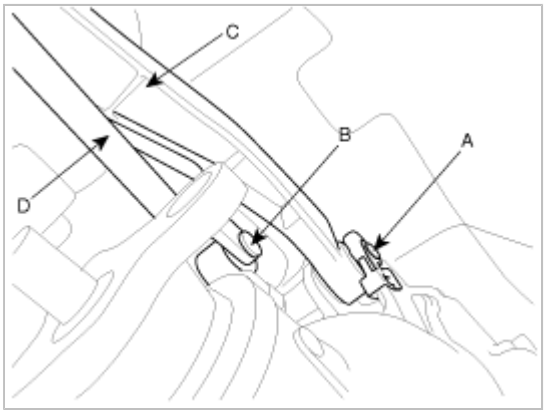
1. Unzip the leather cover of shift lever.
2. Remove the muffler assembly. (refer to Muffler in EM group)
3. Remove the heat shield cover (A).

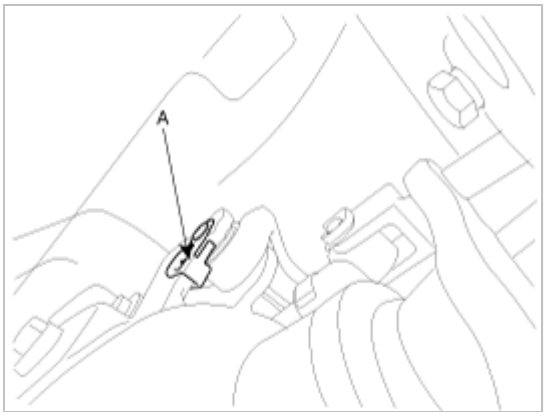


4. Disassemble the propellar shaft from the transmission by removing the bolts (A-3ea).

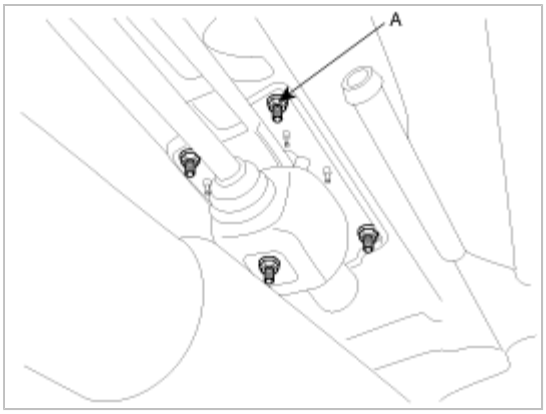


5. Remove the base bracket (C) and select rod (D) from the transmission by removing the clips (A-2ea) and snap pin (B).





6. Remove the mounting nuts (A-4ea) of shift lever assembly.



7. Pull out the shift lever assembly with the base bracket and select rod.

> CAUTION
>
> Be careful not to damage to the shift lever assembly.

Inspection

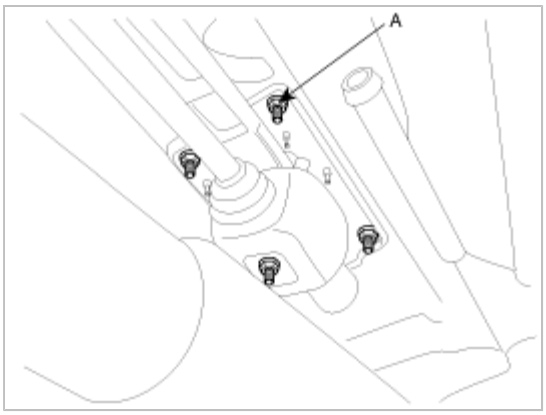
1. Check the shift lever assembly for proper operation and for damage.
2. Check the select rod for damage.
3. Check the base bracket for damage.
4. Check the boots for damage.

Installation

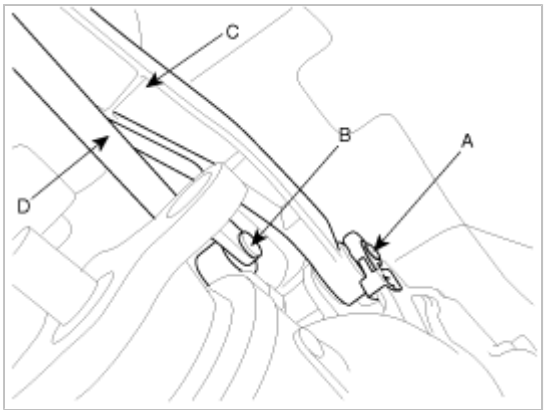
1. Temporarily install the shift lever assembly with the base bracket and select rod.

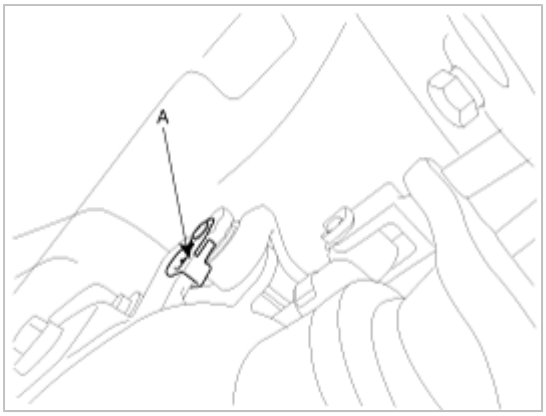
> CAUTION
>
> Be careful not to damage to the shift lever assembly.

2. Install the mounting nuts (A-4ea) of shift lever assembly.

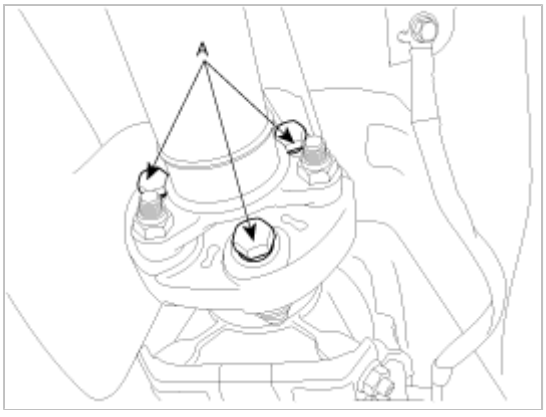


3. Install the base bracket (C) and select rod (D) to the transmission with clips (A-2ea) and snap pin (B).

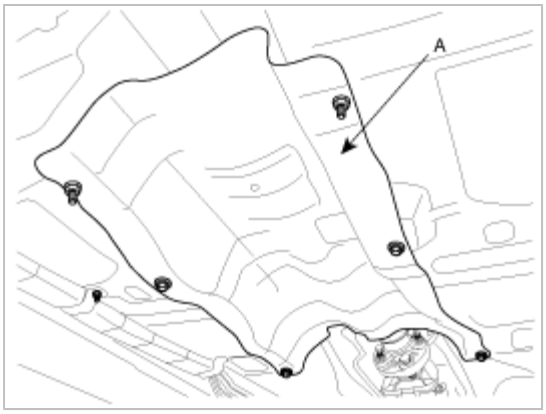




4. Reassemble the propellar shaft to the transmission by installing the bolts (A-3ea).



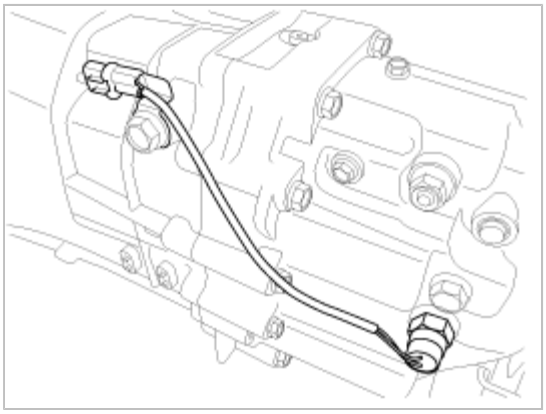
5. Install the heat shield cover (A).



6. Install the muffler assembly. (refer to Muffler in EM group)
7. Zip the leather cover of shift lever.

GENESIS COUPE(BK) >2010 > G 2.0 DOHC > Manual Transmission System > Manual Transmission Control System > Back-up Lamp Switch > Components and Components Location

Components



Description

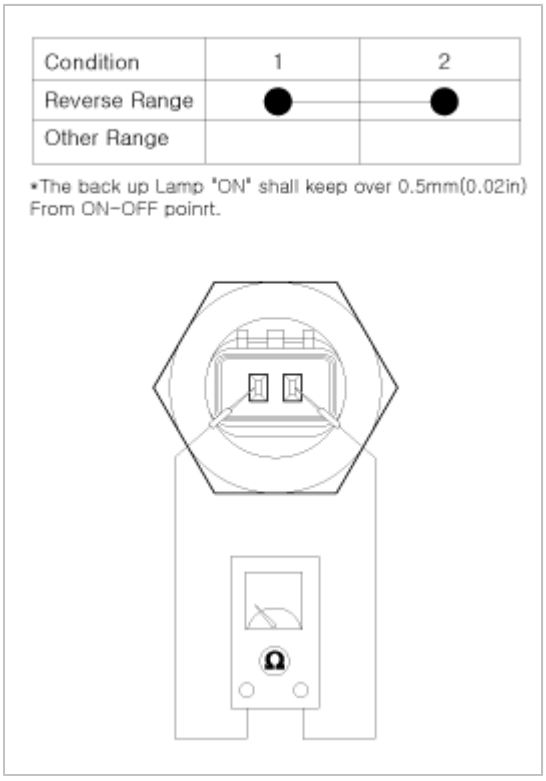
Back up lamp switch is depressed, turning on the back up lamps, when the reverse lug contacts it while it is shifted into reverse.

Specificaitons

1. Current voltage : 12V
2. Working voltage : 10~15V
3. Operating force : 1.0 kg +0.2kg Max. (at 2mm stroke position)
4. Voltage drop : Max 0.15V with rated load before test, Max 0.24V with rated load after test
5. Working temperature : -30°C ~ 80°C

Inspection

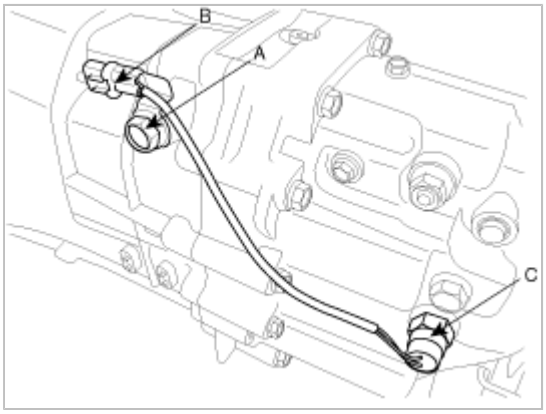
1. Disconnect the back up lamp switch connector.
2. Check the continuity between no. 1 and 2 terminals of backup lamp switch.
   When the shift lever is in reverse, there should be contunuity.
3. If necessary, repair or replace the backup lamp switch.



Replacement

1. Disconnect the back up lamp switch connector.
2. Remove the connector bracket (B) by removing the hinge bolt (A).

Tightening torque :
55~69 Nm (5.5~6.9 kgf.m, 39.8~49.9 lb-ft)



3. Remove the back up lamp switch (C) with gasket.
4. Replace a new one with a new gasket and install the back up lamp switch.

Tightening torque :
30~35 Nm (3.0~3.5 kgf.m, 21.7~25.3 lb-ft)

5. Install the removed parts in reverse order of removal.

> CAUTION
>
> Be sure to use a new gasket.