

Manual Transaxle System > General Information > Specifications

Specifications

Manual transaxle type		M6GF2
Engine type		Gasoline 2.4
Gear ratio	1st	3.267
	2nd	1.794
	3rd	1.542
	4th	1.176
	5th	0.974
	6th	0.829
	Reverse	3.416
Final gear ratio		5.071(1,2,R)
		3.737(3,4,5,6)
T/M oil capacity		1.8L (0.48 U.S.gal., 1.90 U.S.qt., 1.58 Imp.qt.)

Tightening Torques

Item	Nm	kgf.m	lb-ft
Concentric sleeve cylinder assembly	11.8~14.7	1.2~1.5	8.7~10.8
Magnetic plug	19.2~118.9	6.0~8.0	43.6~58.2
Shift control shaft fork and shaft guide	19.6~26.5	2.0~2.7	14.5~19.5
Oil filler plug	29.4~34.3	3.0~3.5	21.7~25.3
Idler shaft bolt	24.5~29.4	2.5~3.0	18.1~21.7
Back up lamp switch	29.4~34.3	3.0~3.5	21.7~25.3
Vehicle speed sensor	7.8~9.8	0.8~1.0	5.8~7.2
Transaxle mounting bracket assembly	59.2~78.9	6.0~8.0	43.6~58.2
Transaxle and engine mounting bolt	42.2~53.9	4.3~5.5	31.1~39.8
Transaxle lower mounting bolt	42.2~48.1	4.3~4.9	31.1~35.4

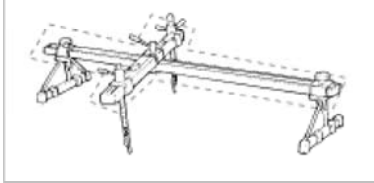
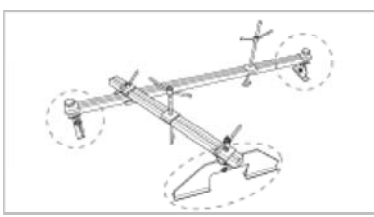
Lubricants

Item	Lubricant	Quantity
Transaxle input shaft spline	CASMOLY L9508	0.2 gr.
Concentric sleeve cylinder assembly	KLUBER 9R100	As required
Transaxle case gasket	LOCTITE 587	As required

Manual Transaxle System > General Information > Special Service Tools

Special Service Tools

Tool (Number and name)	Illustration	Use
09200-38001 Engine support fixture		Removal and installation of the transaxle. Except lower supporter, use beam only with

		No.:09200-2S000)
09200 - 2S000 Engine support fixture (Supporter)		Removal and installation of the transaxle. Use this supporter with the upper beam of the engine support fixture(SST No.:09200-38001)

Manual Transaxle System > General Information > Troubleshooting

Troubleshooting

Symptom	Probable cause	Remedy
Vibration, noise	Loose or damaged transaxle and engine mounts	Tighten or replace mounts
	Inadequate shaft end play	Correct end play
	Worn or damaged gears	Replace gears
	Inadequate grade of oil	Replace with specified oil
	Low oil level	Replenish
	Inadequate engine idle speed	Adjust idle speed
Oil leakage	Broken or damaged, oil seal or O-ring	Replace control cable oil seal or O-ring
Hard shift	Faulty control cable	Replace control cable
	Poor contact or wear of synchronizer ring and gear cone	Correct or replace
	Inadequate grade of oil	Replace with specified oil
Jumps out of gear	Worn gear shift fork or broken poppet spring	Replace shift fork or poppet spring
	Synchronizer hub-to-sleeve spline clearance too large	Replace synchronizer hub and sleeve

Manual Transaxle System > Manual Transaxle System > Repair procedures

Service Adjustment Procedure

Transmission Oil Inspection And Replacement

1. Park the vehicle on a level ground and stop the engine.
2. Remove the oil filler plug and washer. Inspect the manual transaxle fluid condition and quantity.
3. If the manual transaxle fluid is contaminated, drain it out by removing the oil drain plug.
4. Tighten the new oil drain plug and fill manual transaxle fluid to a proper level.

Tightening torque :

29.4~34.3N.m (3.0~3.5kgf.m, 21.7~25.3lb-ft)

Oil type: SAE75W/85

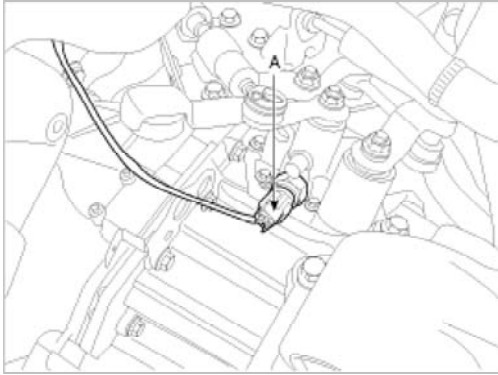
Oil quantity:

1.8L (0.48 U.S.gal., 1.90 U.S.qt., 1.58 Imp.qt.)

Tightening torque :
29.4~34.3N.m (3.0~3.5kgf.m, 21.7~25.3lb-ft)

Back Up Lamp Switch Inspection

1. Disconnect the back up lamp switch connector (A).

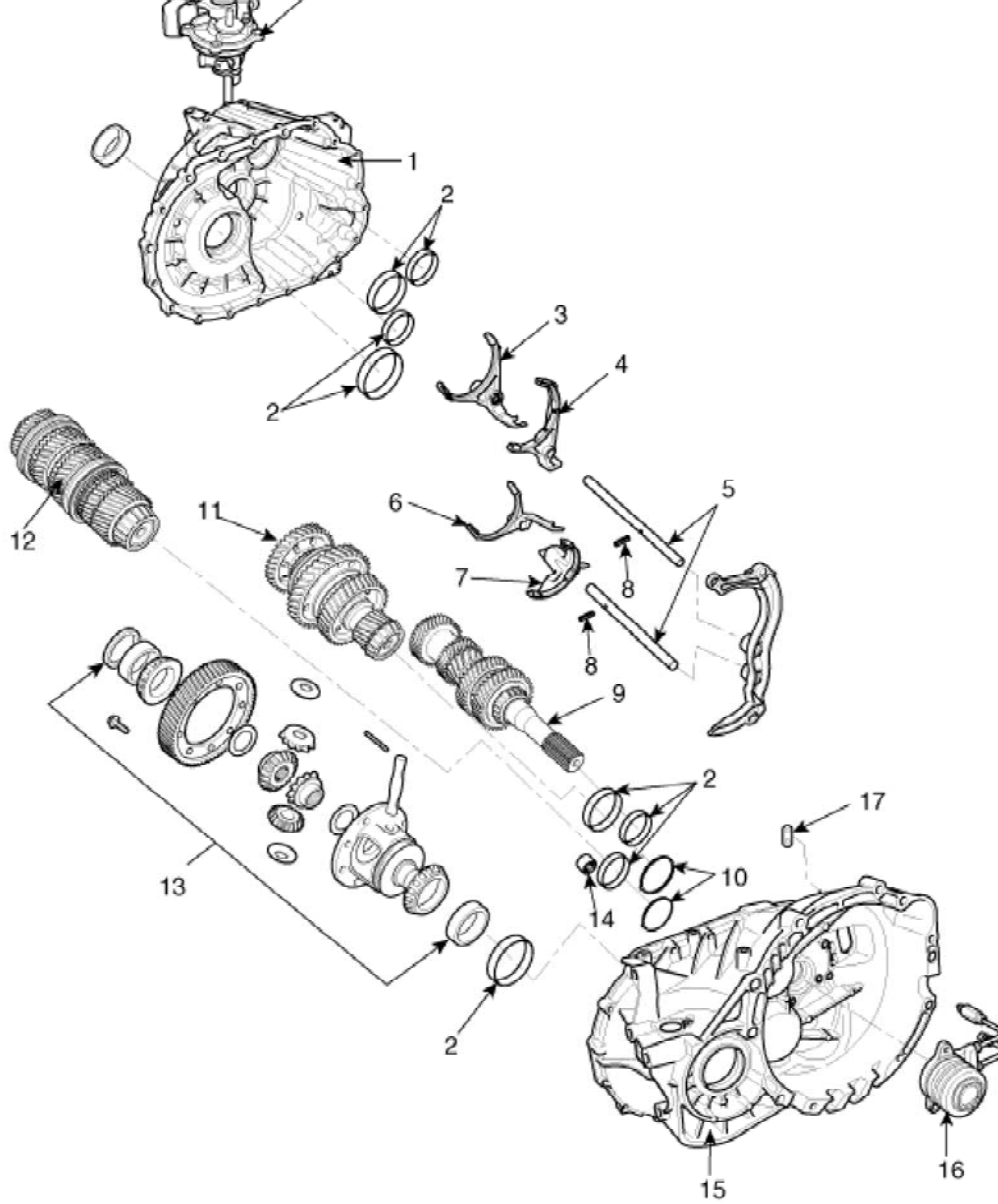


2. Inspect the continuity of the switch. When the shift lever is in reverse range, it should have continuity.
3. Replace the back up lamp switch, if necessary.

Tightening torque :
29.4~34.4 N.m (3.0~3.5Kgf.m, 21.7~25.3lb-ft)

Manual Transaxle System > Manual Transaxle System > Manual Transaxle > Components and Components Location

Components

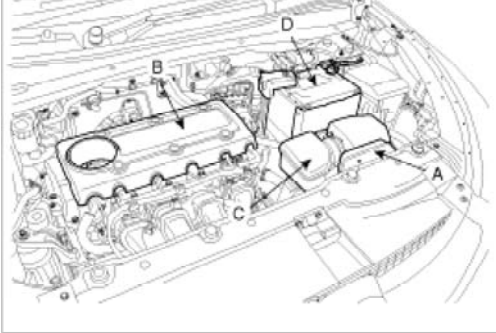


1. Transaxle case	7. 5th/6th shift fork	13. Differential assembly
2. Taper roller bearing outer race	8. Spring pin	14. Needle bearing
3. 1st/2nd shift fork	9. Input shaft	15. Clutch housing
4. Reverse shift fork	10. Oil guide	16. Concentric slave cylinder assembly
5. Shift rail	11. 1st output shaft	17. Boot
6. 3rd/4th shift fork	12. 2nd output shaft	18. Control shaft complete

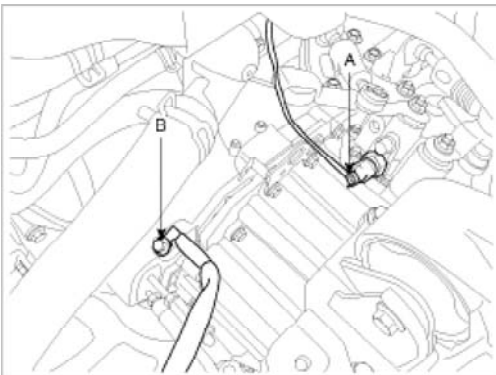
Manual Transaxle System > Manual Transaxle System > Manual Transaxle > Repair procedures

Removal

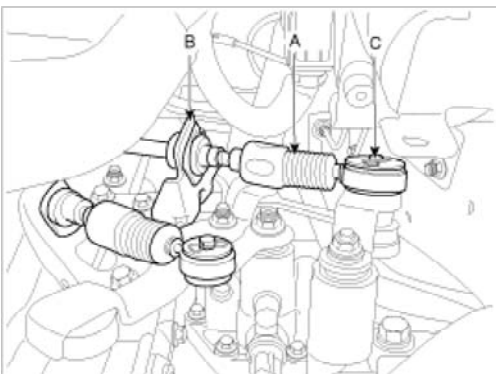
- Remove the following items ;
 - Air duct(A) and engine cover (B). (Refer to "Intake and Exhaust System" in EM group)
 - Air cleaner assembly (C). (Refer to "Intake and Exhaust System" in EM group)
 - Battery and battery tray (D). (Refer to "Charging System" in EE group)



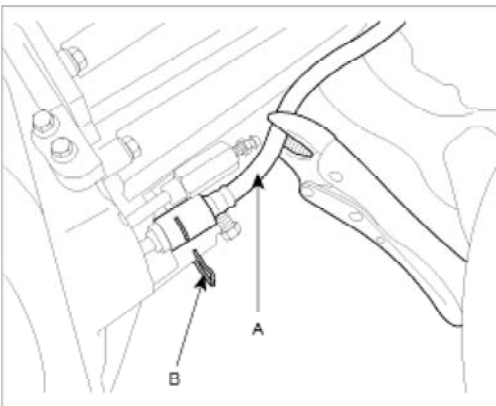
2. Disconnect the back up lamp switch connector (A).
3. Remove the ground (B).



4. Disconnect the cable assemblies (A) after removing the clips (B) and pins (C).



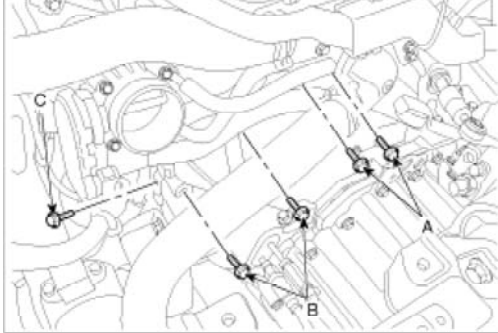
5. Remove C.S.C (Concentric Slave Cylinder) tube(A) which is being clamped by disconnecting the clip(B).



6. Remove the mounting bracket bolt (C).
7. Remove the transaxle upper mounting bolts (A-2ea) and the starter motor mounting bolts (B-2ea).

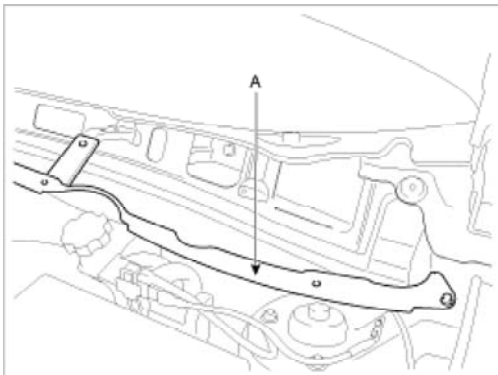
Tightening torque :

42.2~53.9N.m(4.3~5.5kgf.m, 31.1~39.8lb-ft)

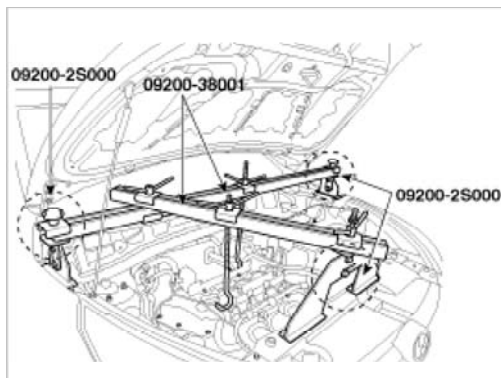


8. Remove the cowl top cover or wiper motor. (Refer to "Windshield Wiper/Washer" in BE group.)

9. Remove the cowl complete assembly panel(A).



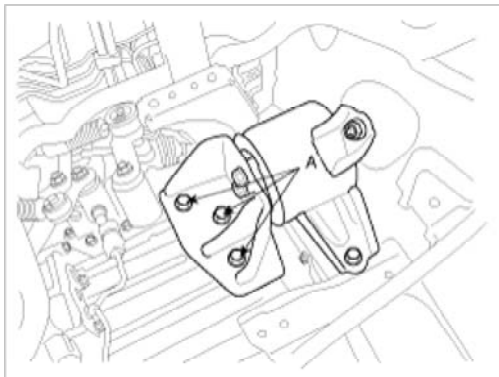
10. Using the engine support fixture (Support SST No.: 09200-2S000, Beam SST No.: 09200-38001), hold the engine and transaxle assembly safely.



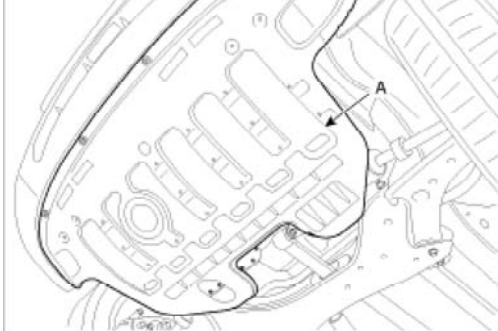
11. Remove the insulator bracket bolts (A).

Tightening torque :

59.2~78.9N.m (6.0~8.0kgf.m, 43.6~58.2lb-ft)



12. Remove the under cover (A).

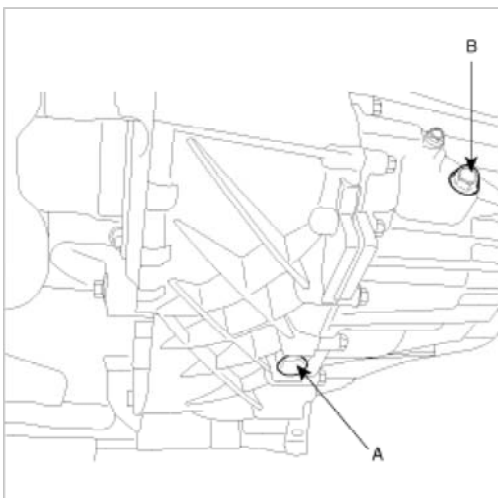


13. Drain the manual transaxle fluid after removing the transaxle drain plug(A). It can be easier when the oil filler plug(B) is removed.

Tightening torque :

(A) 58.5~78.5N.m (6.0~8.0kgf.m, 43.4~57.9lb-ft)

(B) 29.4~34.3N.m (3.0~3.5kgf.m, 21.7~25.3lb-ft)



14. Remove the following items;
- A. Drive shaft assembly. (Refer to "Drive shaft assembly " in DS group.)
 - B. Sub frame assembly. (Refer to "Front suspension system" in SS group)
 - C. In the case of 4WD vehicle, remove the transfer assembly. (Refer to "Transfer assembly" in WD group)

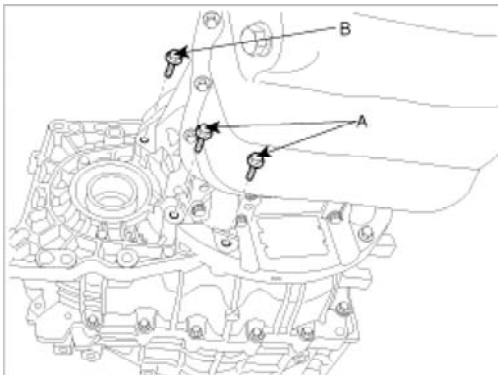
NOTE

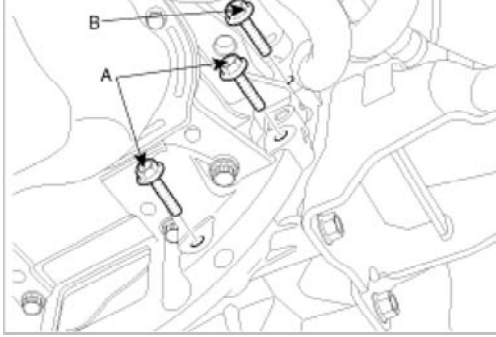
In the case of 2WD vehicle, not remove the transfer assembly.

15. Remove the transaxle lower mounting bolts (A-3ea, B-3ea)

Tightening torque :

42.2~48.1N.m (4.3~4.9kgf.m, 31.1~35.4lb-ft)





16. Lowering the jack slowly, remove the transaxle.

CAUTION

When removing the transaxle assembly, be careful not to damage any surrounding parts or body components.

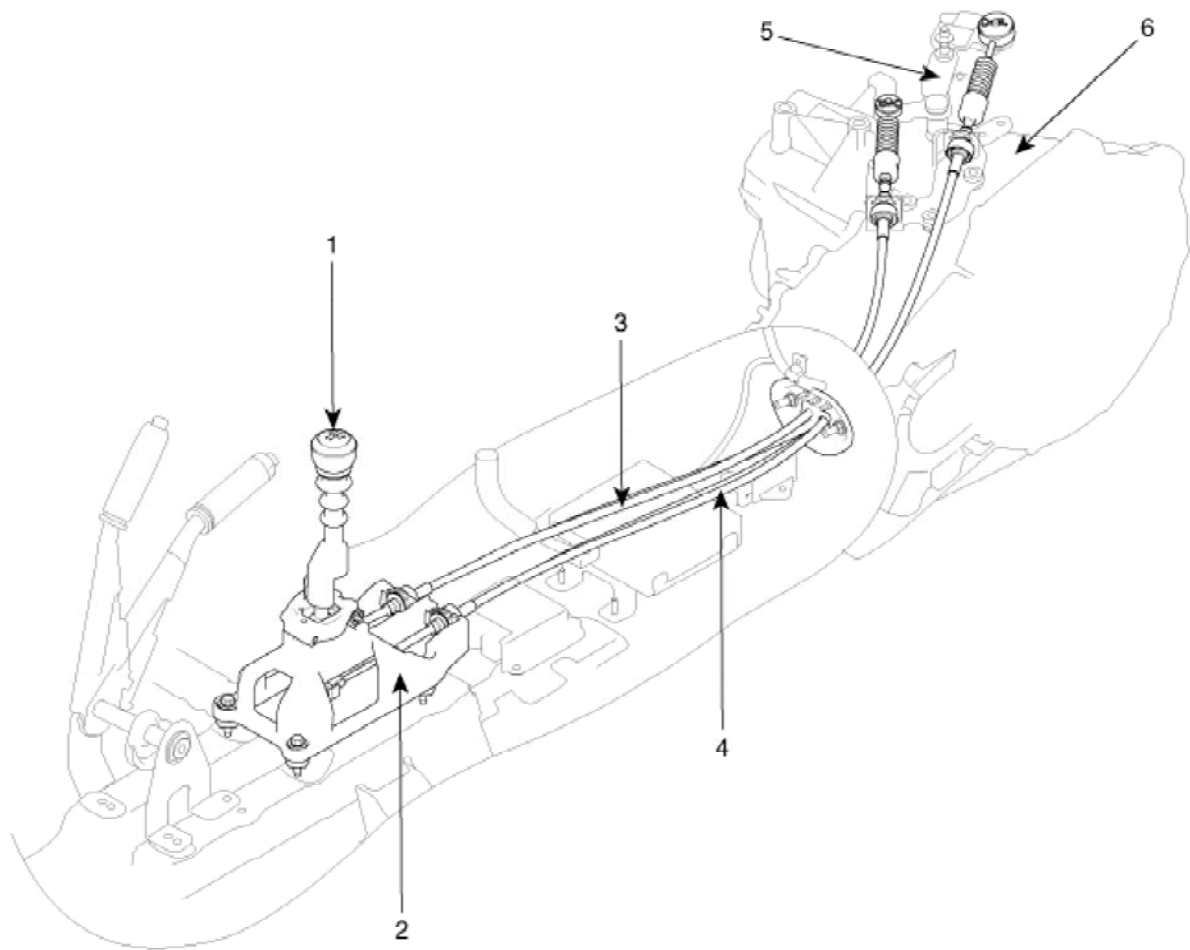
Installation

1. Installation is the reverse of removal.

- A. Refill the transaxle fluid. (Refer to "Manual transaxle system" in this group)
- B. Refill the power steering fluid and bleed the air. (Refer to "General information" in ST group)
- C. Refill the brake fluid and bleed the clutch hydraulic system. (Refer to "Clutch system" in CH group)

Manual Transaxle System > Manual Transaxle Control System > Shift Lever > Components and Components Location

Components



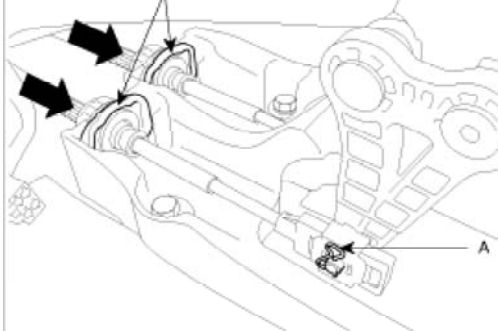
1. Shift lever knob
2. Shift lever assembly
3. Select cable assembly

4. Shift cable assembly
5. Shift lever assembly(MT side)
6. Manual transaxle assembly

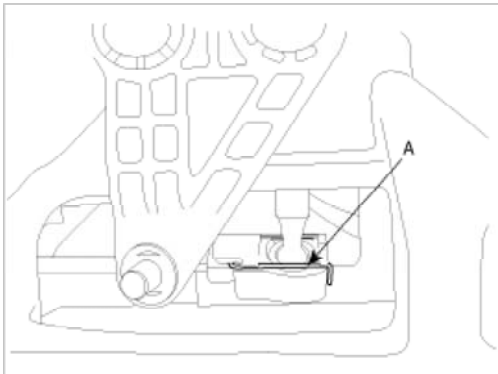
Manual Transaxle System > Manual Transaxle Control System > Shift Lever > Repair procedures

Removal

1. Remove the center console. (Refer to "Console" in BD group)
2. Remove the snap pin (A) and the clip (B) from the select cable assembly.



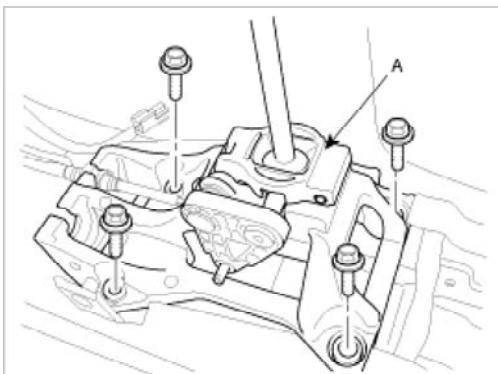
3. Remove the clip (A) from the shift cable assembly.



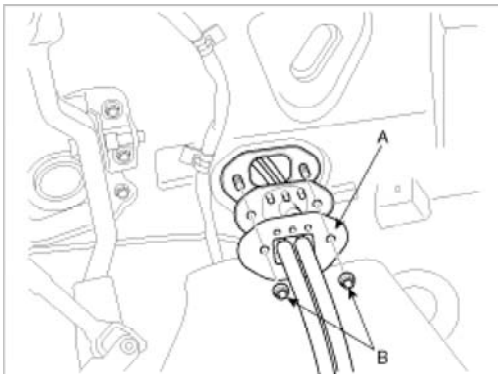
4. Remove the shift lever assembly(A).

Tightening torque :

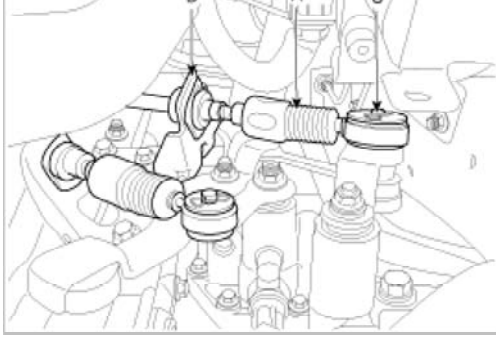
8.8~13.7N.m(0.9~1.4kgf.m, 6.5~10.1lb-ft)



5. Remove the retainer(A) and nuts(B).



6. Disconnect the cable assemblies(A) after removing clips(B) and pins(C).



Inspection

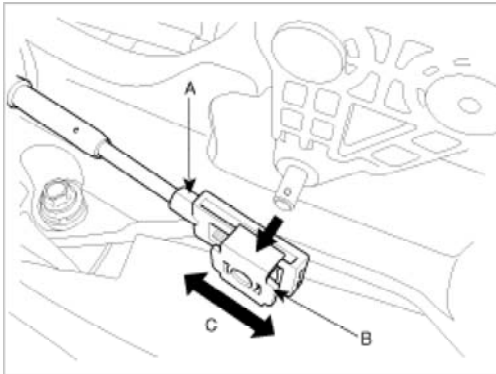
1. Check the select cable for proper operation and for damage.
2. Check the shift cable for proper operation and for damage.
3. Check the boots for damage.
4. Check the boots for wear abrasion sticking, restricted movement or damage.
5. Check for the weak or damaged spring.

Installation

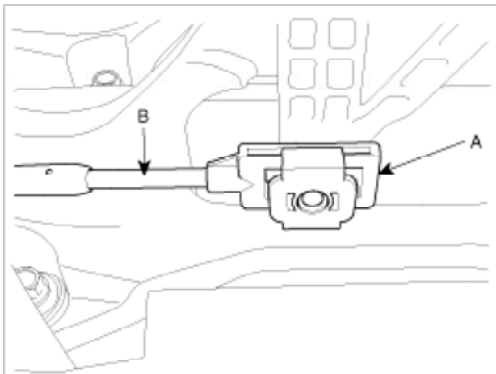
1. Installation is the reverse of removal.
2. Move the slide clip (B) of guide member (A) in the direction as shown in the illustration.

NOTE

Adjust the slide clip fit into the select lever moving the slide clip in the direction (C).



3. Install the guide member (A) of the select cable (B).



4. Adjust the slide clip (B) to fit it into the select lever pin (A) and install the snap pin (C).

NOTE

Insert the slide clip in the direction as shown in the illustration.

