

MT-2

Manual Transaxle System

General Information

Specifications

Manual transaxle type		M6GF2		
Engine type		Gasoline 2.0	Gasoline 2.4 MPI	Gasoline 2.4 GDI
Gear ratio	1st	3.267	3.267	3.267
	2nd	1.794	1.794	1.931
	3rd	1.542	1.542	1.696
	4th	1.176	1.176	1.276
	5th	0.974	0.974	1.027
	6th	0.829	0.829	0.829
	Reverse	3.416	3.416	3.588
Final gear ratio		5.071(1,2,R)/3.737(3~6)	4.643(1,2,R)/3.421(3~6)	4.333(1,2,R)/3.250(3~6)

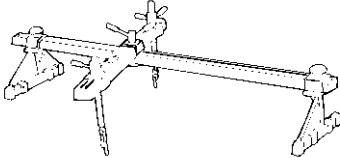
Tightening Torques

Item	N.m	kgf.m	lb-ft
Oil drain plug bolt	58.9 ~ 78.5	6.0 ~ 8.0	43.4 ~ 57.9
Oil filler plug bolt	29.4 ~ 34.3	3.0 ~ 3.5	21.7 ~ 25.3
Shift lever assembly	9.8 ~ 14.7	1.0 ~ 1.5	7.2 ~ 10.8
Back up lamp switch	29.4 ~ 34.3	3.0 ~ 3.5	21.7 ~ 25.3
Starter motor mounting bolt	42.2 ~ 53.9	4.3 ~ 5.5	31.3 ~ 39.8
Transaxle mounting support bracket bolt	58.9 ~ 78.5	6.0 ~ 8.0	43.4 ~ 57.9
Manual transaxle upper mounting bolt	42.2 ~ 53.9	4.3 ~ 5.5	31.3 ~ 39.8
Manual transaxle lower mounting bolt	42.2 ~ 48.1	4.3 ~ 4.9	31.1 ~ 35.4
	42.2 ~ 53.9	4.3 ~ 5.5	31.3 ~ 39.8

Lubricants

Items	Recommended lubricant	Quantity
Transaxle gear oil	SAE 75W/85, API GL-4	1.8L(0.48 U.S.gal., 1.90 U.S. qt., 1.58 Imp.qt.)

Special Service Tools

Tools (Number and Name)	Illustration	Use
09200-38001 Engine support fixture	 D0038001	Removal and installation of the transaxle.

Manual Transaxle System

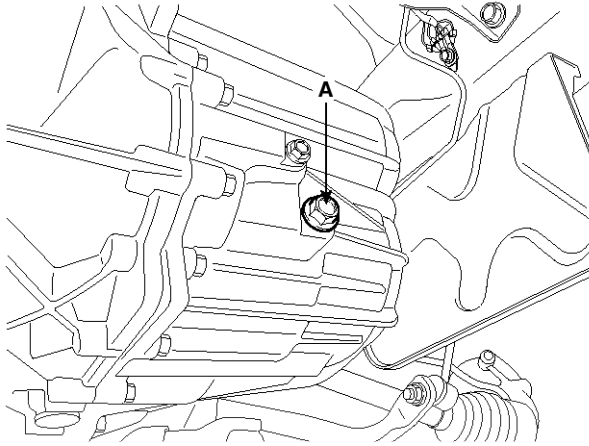
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Manual Transaxle System

Inspection

Manual Transaxle Oil Inspection

1. Park the vehicle on a level ground and stop the engine.
2. Loosen the oil filler plug (A).

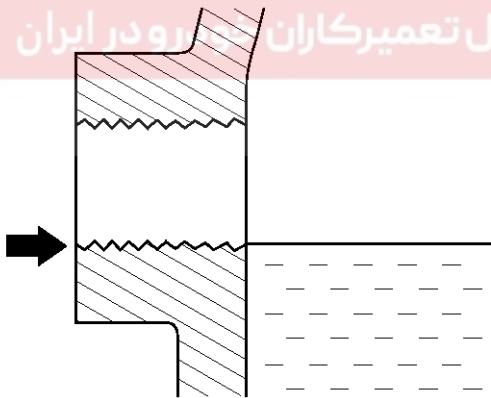


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3. Check level with finger.

NOTICE

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



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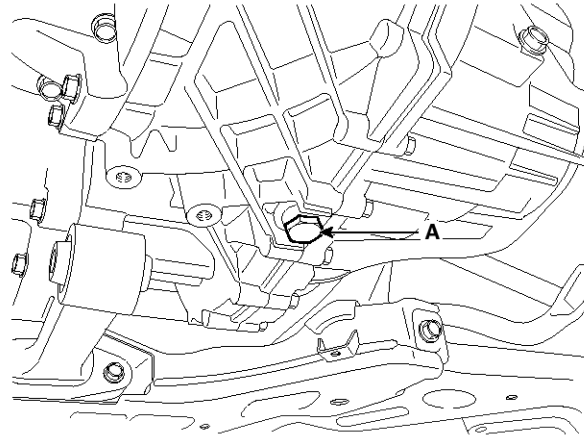
4. Retighten the oil filler plug (A) with a new washer.

Tightening torque:

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

Manual Transaxle Oil Replacement

1. Park the vehicle on a level ground and stop the engine.
2. Drain the manual transaxle oil after loosening the drain plug (A).



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3. Install the drain plug with new gasket.

Tightening torque:

58.9 ~ 78.5 N.m (6.0 ~ 8.0 kgf.m, 43.4 ~ 57.9 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

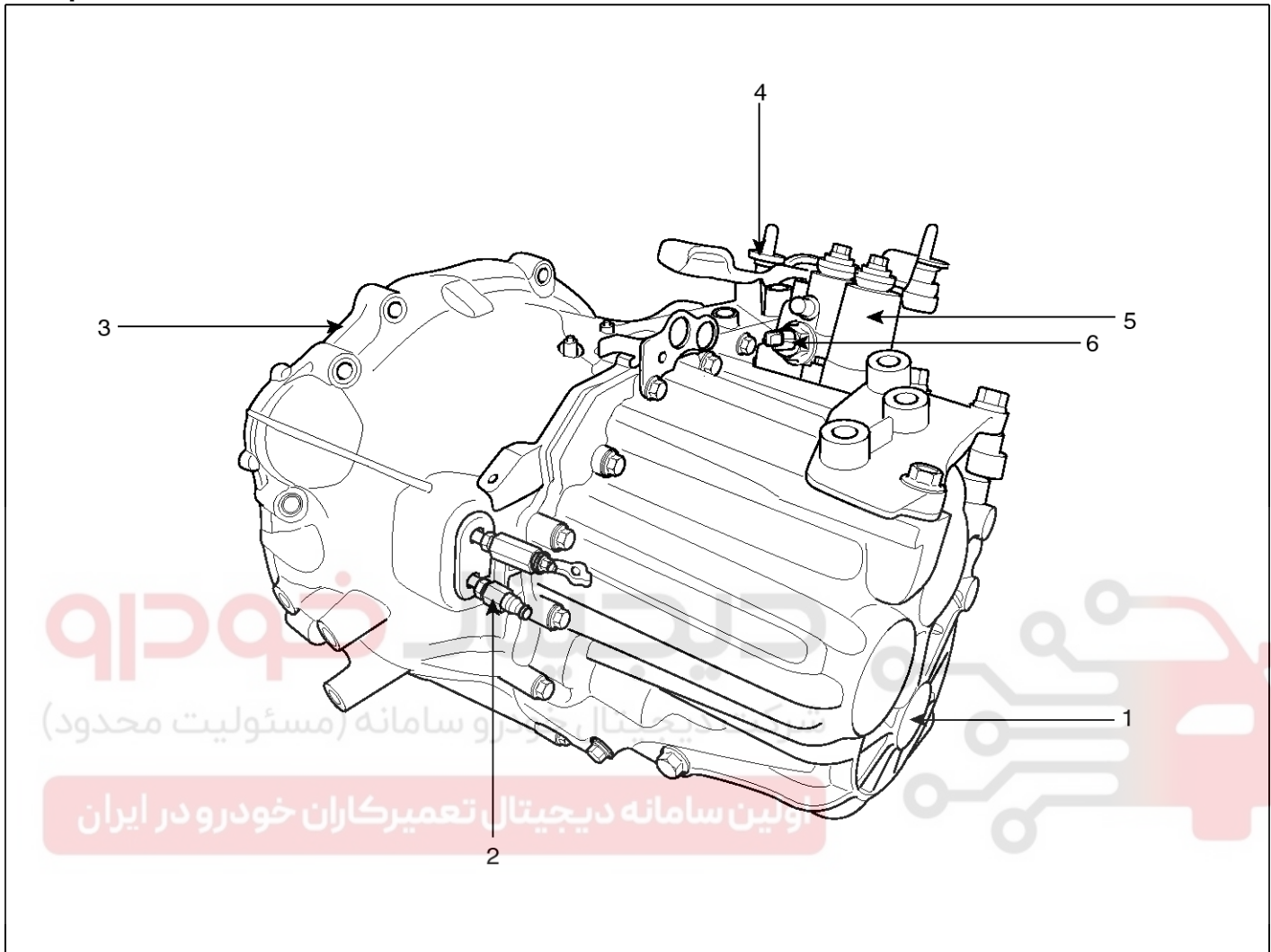
Oil capacity: 1.8L (0.48 U.S. gal., 1.90 U.S. qt., 1.58 Imp. qt.)

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Manual Transaxle System

Manual Transaxle

Components



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1. Manual transaxle case
2. Concentric slave cylinder
3. Clutch housing

4. Shift cable bracket assembly
5. Control complete shaft
6. Back-up lamp switch

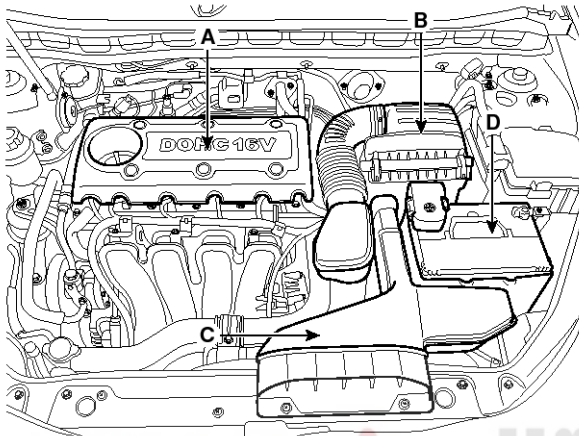
Manual Transaxle System

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Removal

1. Remove the following items;

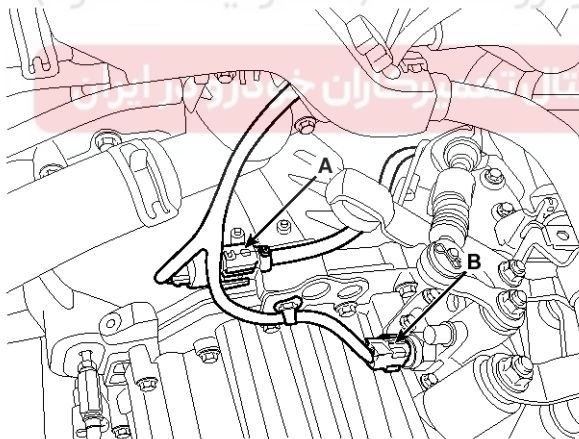
- Engine cover (A). (Refer to "Intake and Exhaust system" in EM group.)
- Air cleaner assembly (B) and air duct (C). (Refer to "Intake and Exhaust system" in EM group.)
- Battery and battery tray (D). (Refer to "Charging system" in EE group.)



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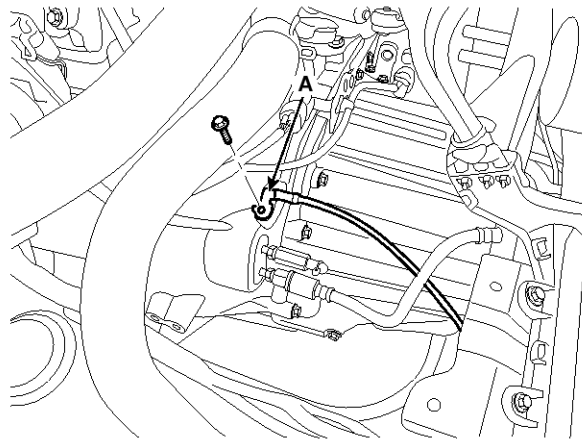
2. Disconnect the speed sensor connector (A).

3. Disconnect the back up lamp switch connector (B).



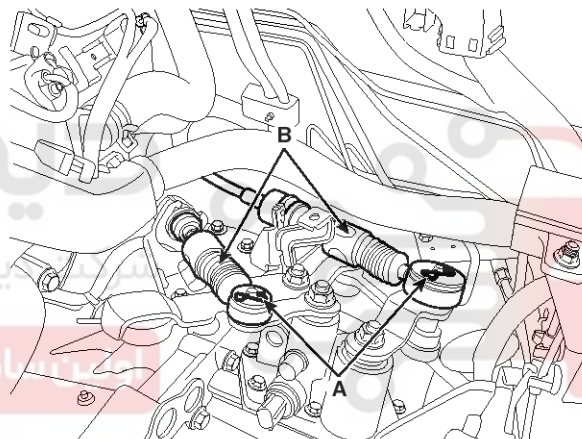
STFMT1002D

4. Remove the ground (A).



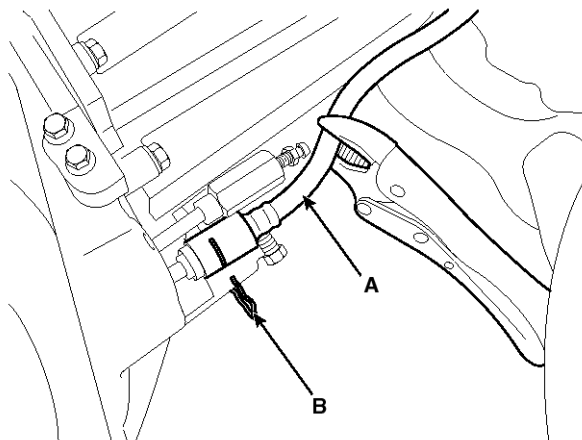
STFMT1006D

5. Disconnect the cable assembly (B) after removing the washer and pin (A).



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6. Disconnect the concentric slave cylinder tube (A) after removing the pins (B).

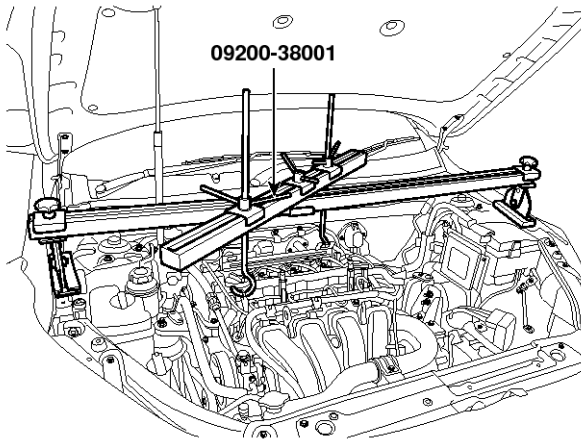


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Manual Transaxle System

7. Using the SST (09200-38001), hold the engine and transaxle assembly safely.

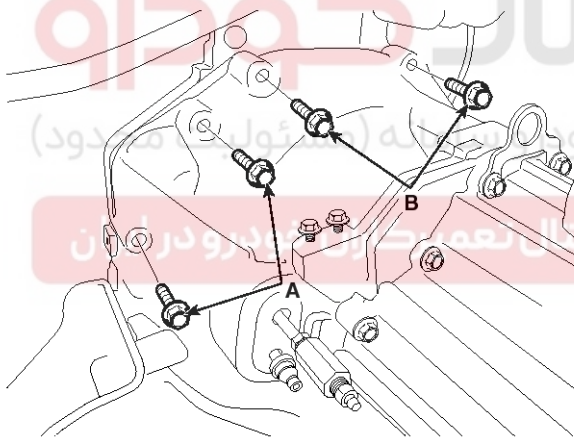


STFMT1004D

8. Remove the manual transaxle upper mounting bolt (B-2ea) and the starter motor mounting bolt (A-2ea).

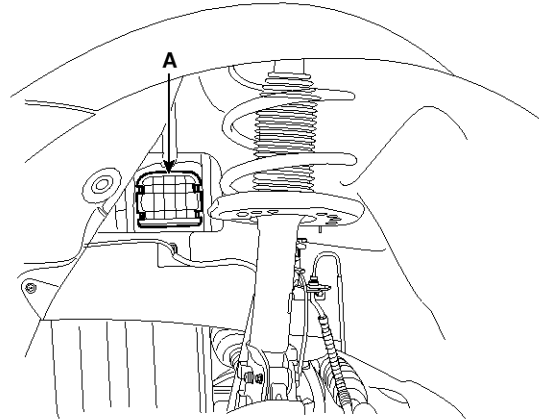
Tightening torque:

42.2 ~ 54.0 N.m (4.3 ~ 5.5 kgf.m, 31.1 ~ 39.8 lb-ft)



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9. Remove the cover (A).

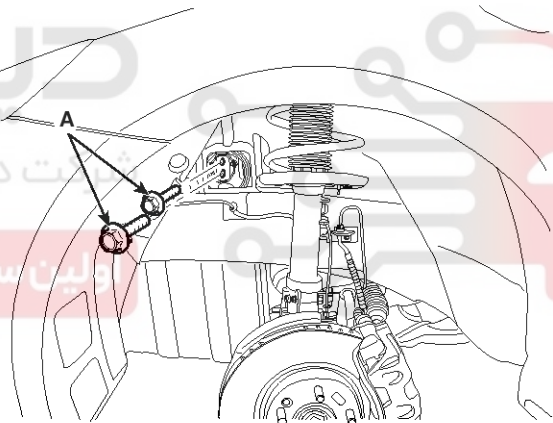


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10. Remove the manual transaxle mounting support bracket bolts (A-2ea).

Tightening torque:

88.3 ~ 107.9 N.m (9.0 ~ 11.0 kgf.m, 65.1 ~ 79.8 lb-ft)



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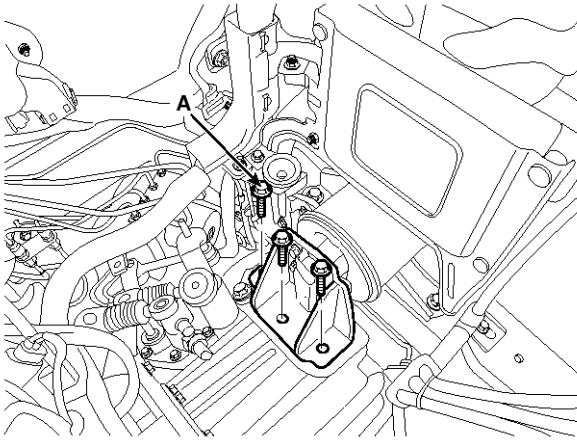
Manual Transaxle System

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11. Remove the support mounting bracket bolts (A-3ea).

Tightening torque:

58.9 ~ 78.5 N.m (6.0 ~ 8.0 kgf.m, 43.4 ~ 57.9 lb-ft)

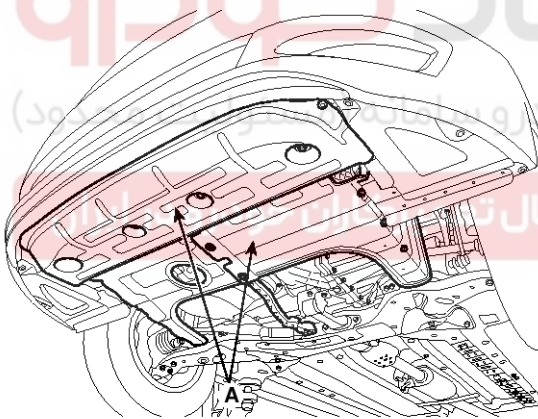


STFMT1005D

12. Remove the under cover (A).

Tightening torque:

7.8 ~ 11.8 N.m (0.8 ~ 1.2 kgf.m, 5.8 ~ 8.7 lb-ft)

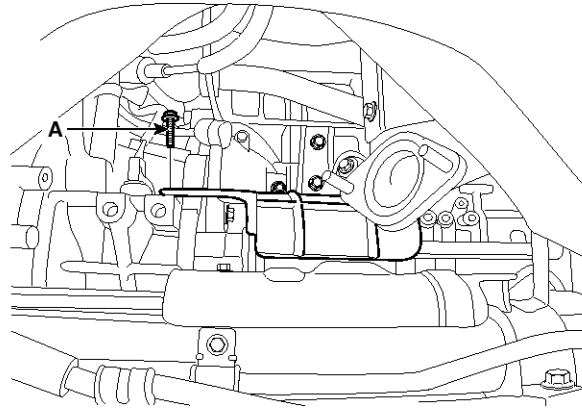


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13. Remove the following items;

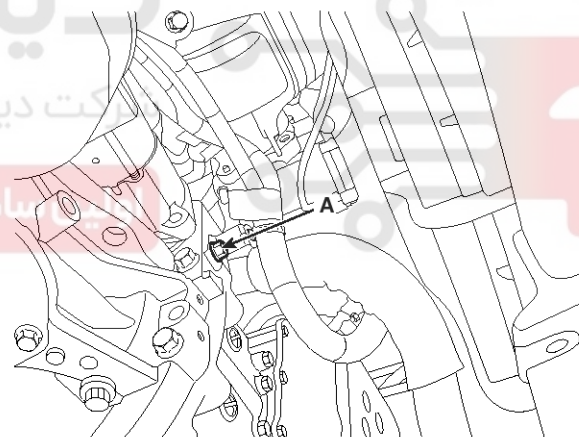
- Drive shaft assembly. (Refer to "Drive shaft assembly" in DS group.)
- Sub frame assembly. (Refer to "Front suspension system" in SS group)

14. Remove the drive shaft cover mounting bolt (A).



STFMT1007D

15. Remove the wiring bracket installation bolt (A).



SSLAT0043D

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Manual Transaxle System

16. Remove the mounting bolts (A-4ea, B-2ea) of lower part of the transaxle, and the left side cover and remove the transaxle assembly by supporting it with a jack.

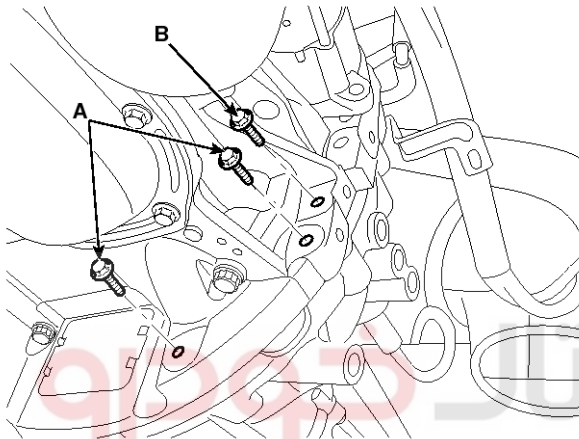
Tightening torque:

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

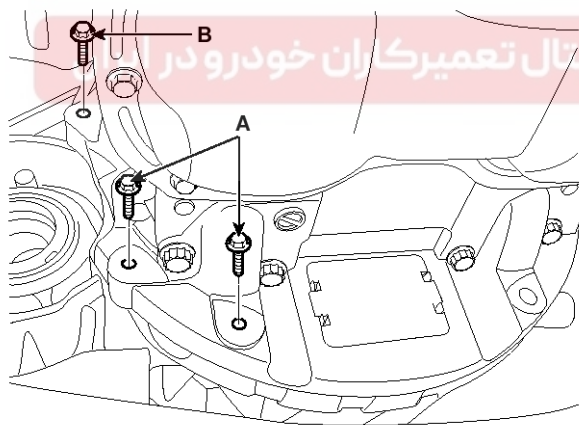
(B) 42.2 ~ 53.9 N.m (4.3 ~ 5.5 kgf.m, 31.1 ~ 39.8 lb-ft)

CAUTION

Be careful not to damage other system or parts near by when removing the engine and transaxle assembly.



STFMT1008D



STFMT1009D

Installation

1. Installation is the reverse of removal.

- Adding Manual transaxle fluid. (Refer to "Manual transaxle system" in this group.)
- Perform bleeding air procedure in concentric slave cylinder after pouring the brake fluid. (Refer to "Concentric slave cylinder" in CH group.)

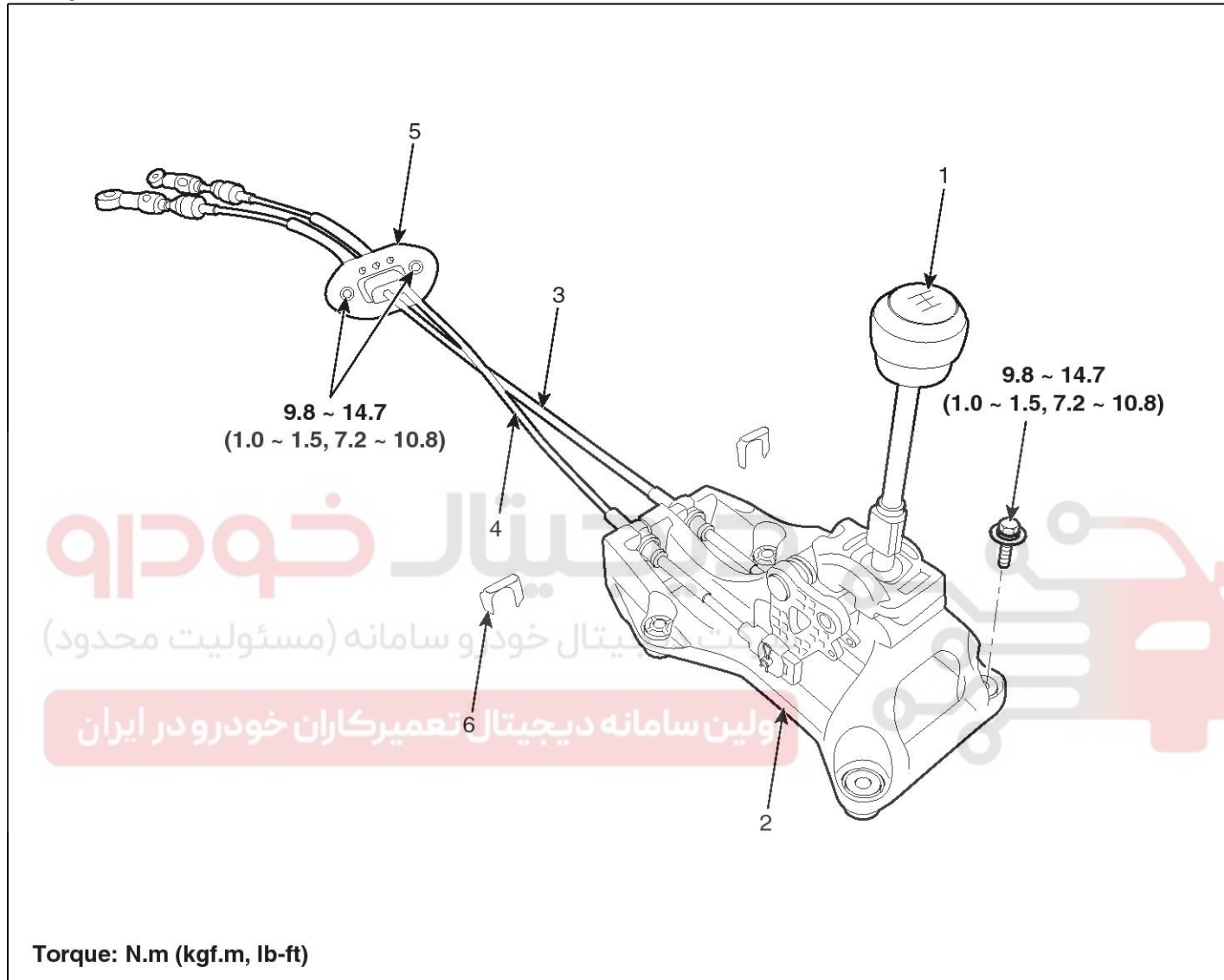
Manual Transaxle Control System

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Manual Transaxle Control System

Shift Lever

Components



STFMT1050L

- | | |
|-------------------------|--------------------------|
| 1. Shift lever knob | 4. Select cable assembly |
| 2. Shift lever assembly | 5. Retainer |
| 3. Shift cable assembly | 6. Clips |

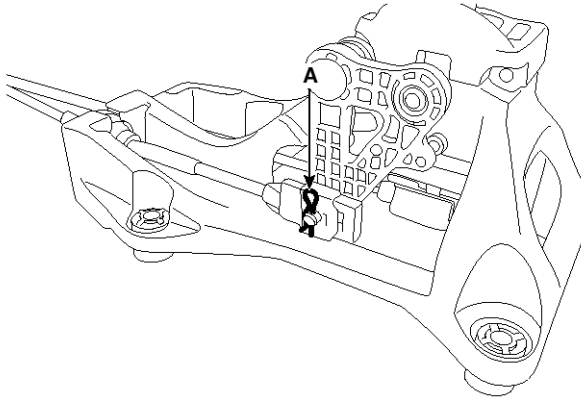
MT-10

Manual Transaxle System

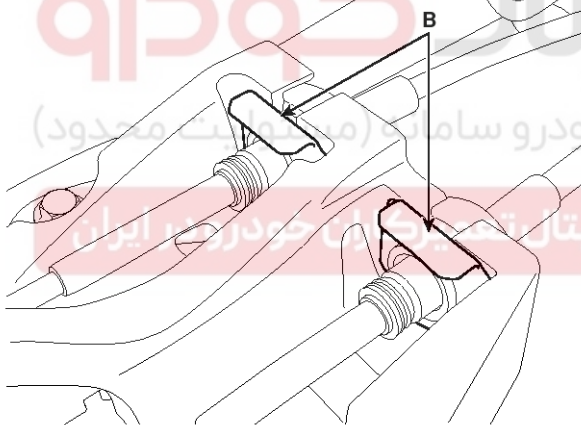
Removal

Shift Lever Assembly Replacement

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



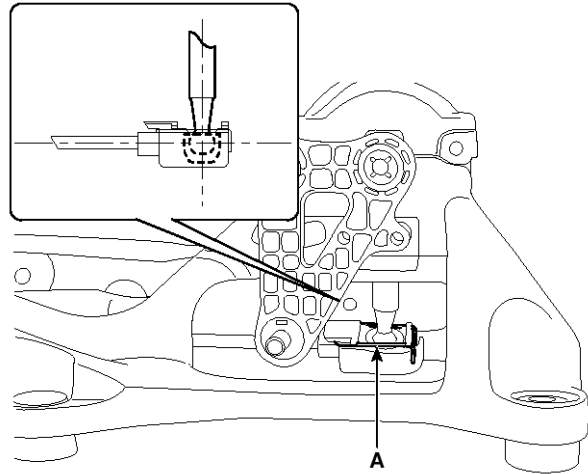
STFMT1013D



STFMT1012D

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

CAUTION
Set securely.

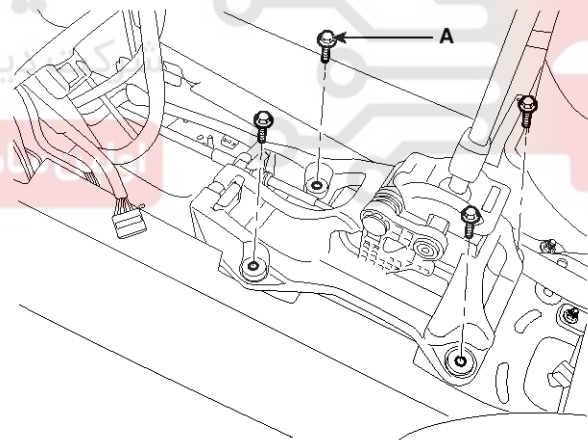


STFMT1014L

4. Remove the shift lever assembly (B) after removing shift lever assembly installation bolt (A).

Tightening torque:

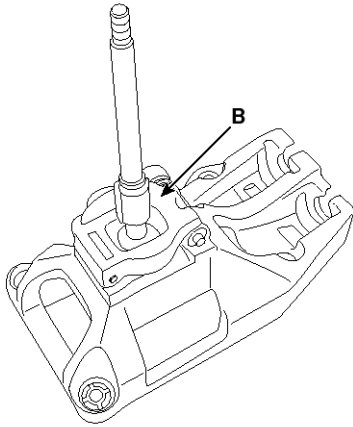
9.8 ~ 14.7 N.m (1.0 ~ 1.5 kgf.m, 7.2 ~ 10.8 lb-ft)



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Manual Transaxle Control System

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STFMT1016D

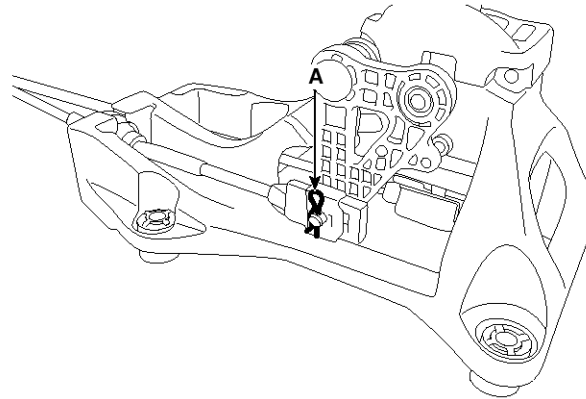
5. Installation is the reverse of removal.

NOTICE

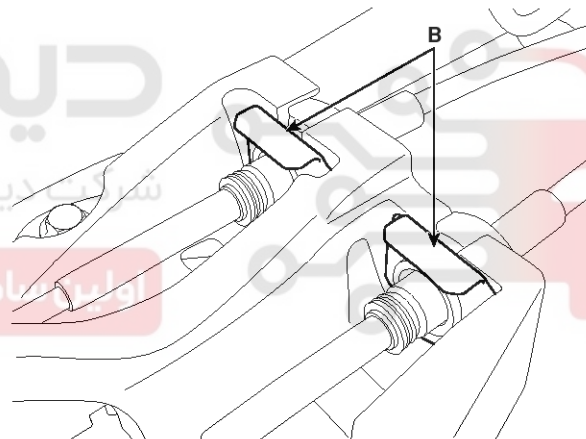
- Make sure vehicle does not roll before setting room side shift lever and T/M side manual control lever to "N" position.

Shift Cable Replacement

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



STFMT1013D

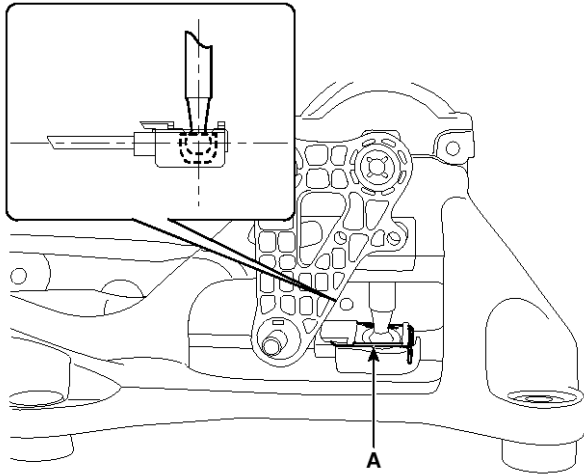


STFMT1012D

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

CAUTION
Set securely.

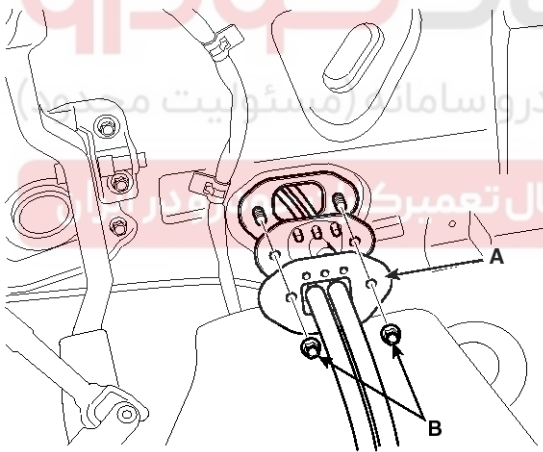


STFMT1014L

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

Tightening torque:

9.8 ~ 14.7 N.m (1.0 ~ 1.5 kgf.m, 7.2 ~ 10.8 lb-ft)

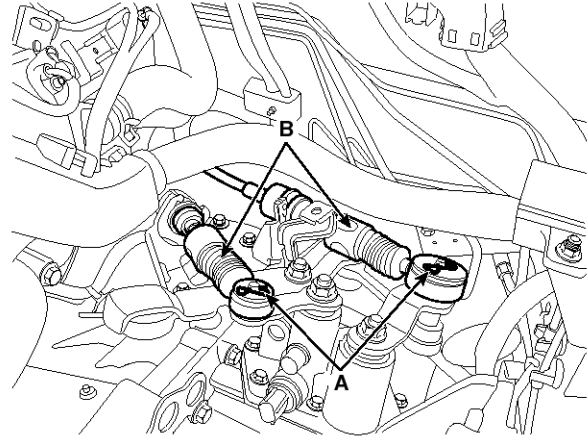


AMJF500A

5. Remove the SRS Control Module. (Refer to "SRSCM" in RT group)

Manual Transaxle System

6. Remove the pin and washer (A).
7. Remove the cable (B) from the cable bracket at manual transaxle assembly side.
8. Remove the shift cable and select cable at cabin room.



STFMT1003D

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.

Manual Transaxle Control System

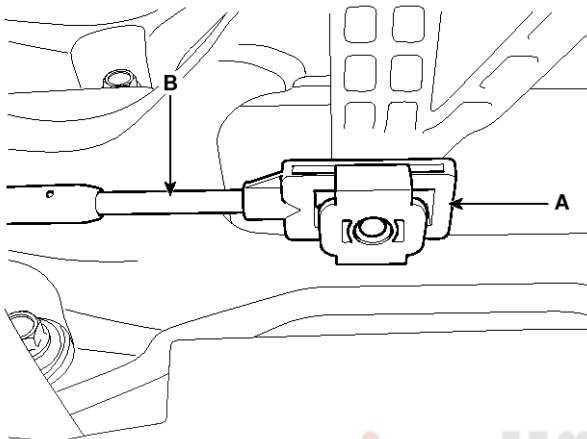
MT-13

Installation

1. Installation is the reverse of removal.

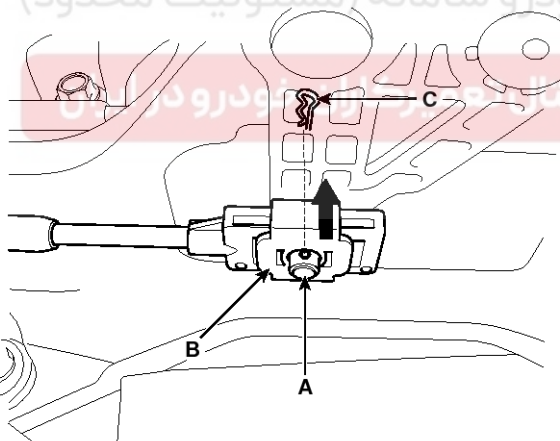
NOTICE

- Make sure vehicle does not roll before setting room side shift lever and T/M side manual control lever to "N" position.
- Install the guide member (A) of the select cable (B).



AMLF006A

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



AMLF007A

MT-14

Manual Transaxle System

Back-up Lamp Switch

Description

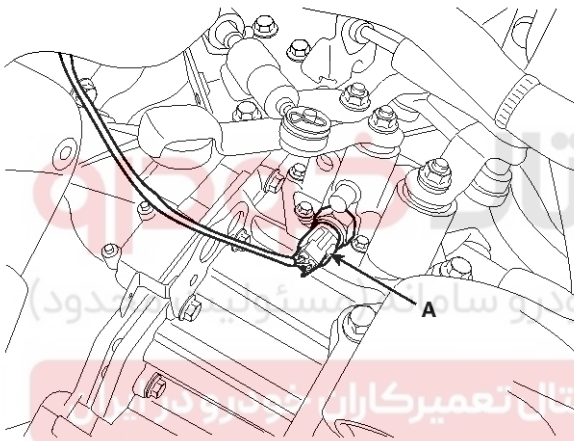
Back up lamp switch is pushed by the select arm when sliding into reverse. This switches the back up lamp.

Specifications

1. Working voltage: DC 10~15V
2. Operating force: 3.0kg Max.
3. Voltage drop: - 0.4V
4. Working temperature: -30°C ~ 100°C [-30°F ~ 212°F]

Inspection

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

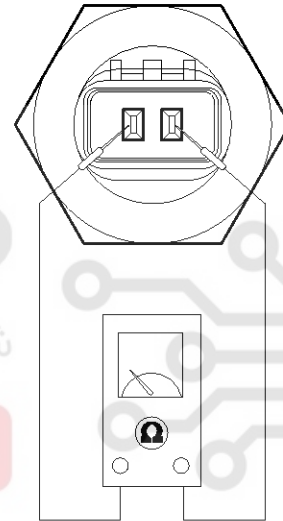


SXMMMA0001L

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

Condition	1	2
Reverse Range	●	●
Other Range		

*The back up Lamp "ON" shall keep over 0.5mm(0.02in) From ON-OFF point.



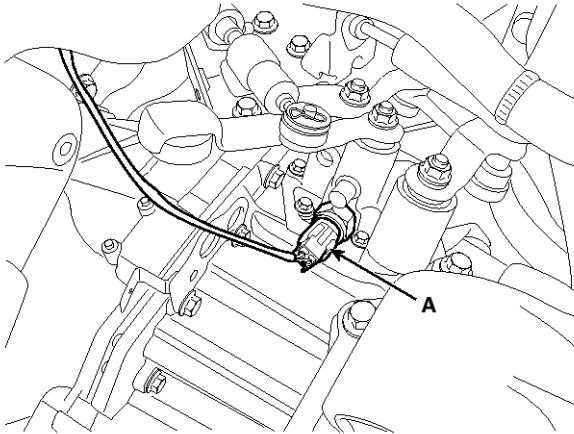
LMJF003B

Manual Transaxle Control System

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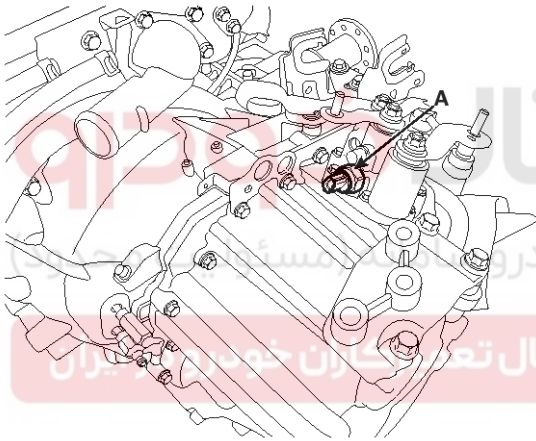
Replacement

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



SXMMMA0001L

2. Remove the back up lamp switch (A).



SSLMT1010D

3. Replace a new one and install the back up lamp switch.

Tightening torque:

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

