

## MT-2

## Manual Transaxle System

## General Information

## SPECIFICATION

Manual transaxle type		M6GF2
Engine type		2.0 Diesel
Gear ratio	1st	3.615
	2nd	1.794
	3rd	1.542
	4th	1.176
	5th	0.974
	6th	0.829
	Reverse	3.416
Final gear ratio		4.063/2.955
T/M oil capacity(ℓ)※		1.9 liter

※ The quantity in the chart above is for the reference.  
The actual filling quantity of the automatic transaxle fluid must be set according to 'INSPECTION' or 'REPLACEMENT' procedure of the automatic transaxle fluid.

Recommended transaxle oil			SAE75W/85 or API GL-4
Check & Replenishment			Every 20,000 Km
Replacement	Private use	Normal use	No service required
		Severe use(※)	Every 100,000 Km
Business use			

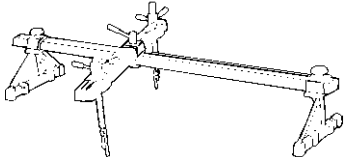
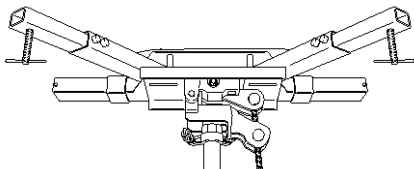
※ Severe use(marked '※') is defined as:

1. Driving on rough road(bumpy road, gravel road, snowy road, unpaved road etc.).
2. Driving on mountain road, ascent/descent.
3. Repetition of short distance driving.
4. More than 50% operation in heavy city traffic during hot weather above 32°C(89.6°F).
5. Police car, Taxi, Commercial type operation or trailer towing, etc.

## General Information

## MT-3

## SPECIAL TOOL

TOOL (Number and Name)	Illustration	Use
09200-38001 Engine support fixture		Removal and installation of the transaxle
09624-38000 Crossmember supporter		Supporting of the crossmember.

# دیجیتال خودرو

شرکت دیجیتال خودرو سامانه (مسئولیت محدود)

اولین سامانه دیجیتال تعمیرکاران خودرو در ایران



# MT-4

# Manual Transaxle System

## Manual Transaxle System

### SERVICE ADJUSTMENT PROCEDURE

#### Transmission oil inspection and replacement

1. After parking the vehicle on a plain, stop the engine.
2. After removing 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 feed manual transaxle fluid to a proper level.

#### TORQUE:

29.4~34.4 Nm(300~350Kgf.cm, 21.7~25.3lb-ft)

Oil type: SAE75W/85

Oil quantity:

1.9 liter(2.0077 US qt, 1.6718 Imp qt)

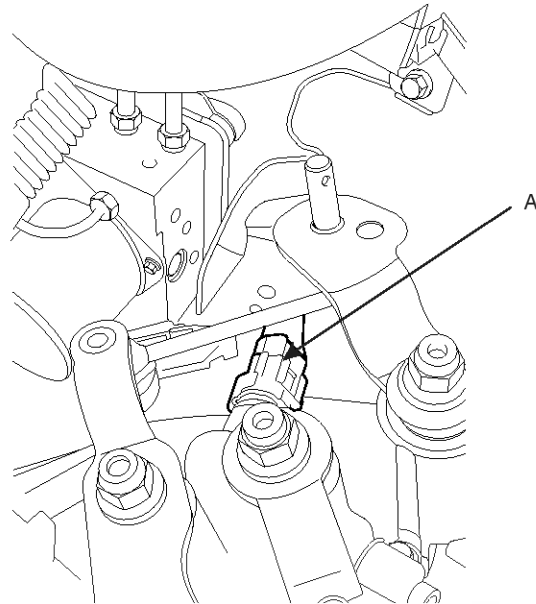
5. Retighten the oil filler plug with a new washer.

#### TORQUE:

29.4~34.4 Nm(300~350Kgf.cm, 21.7~25.3lb-ft)

#### Back up lamp switch inspection

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



KMRE009E

2. Inspect the continuity of the switch. When the shift lever is located in reverse range, it should be applied an electric current.
3. Replace the back up lamp switch, if necessary.

#### TORQUE:

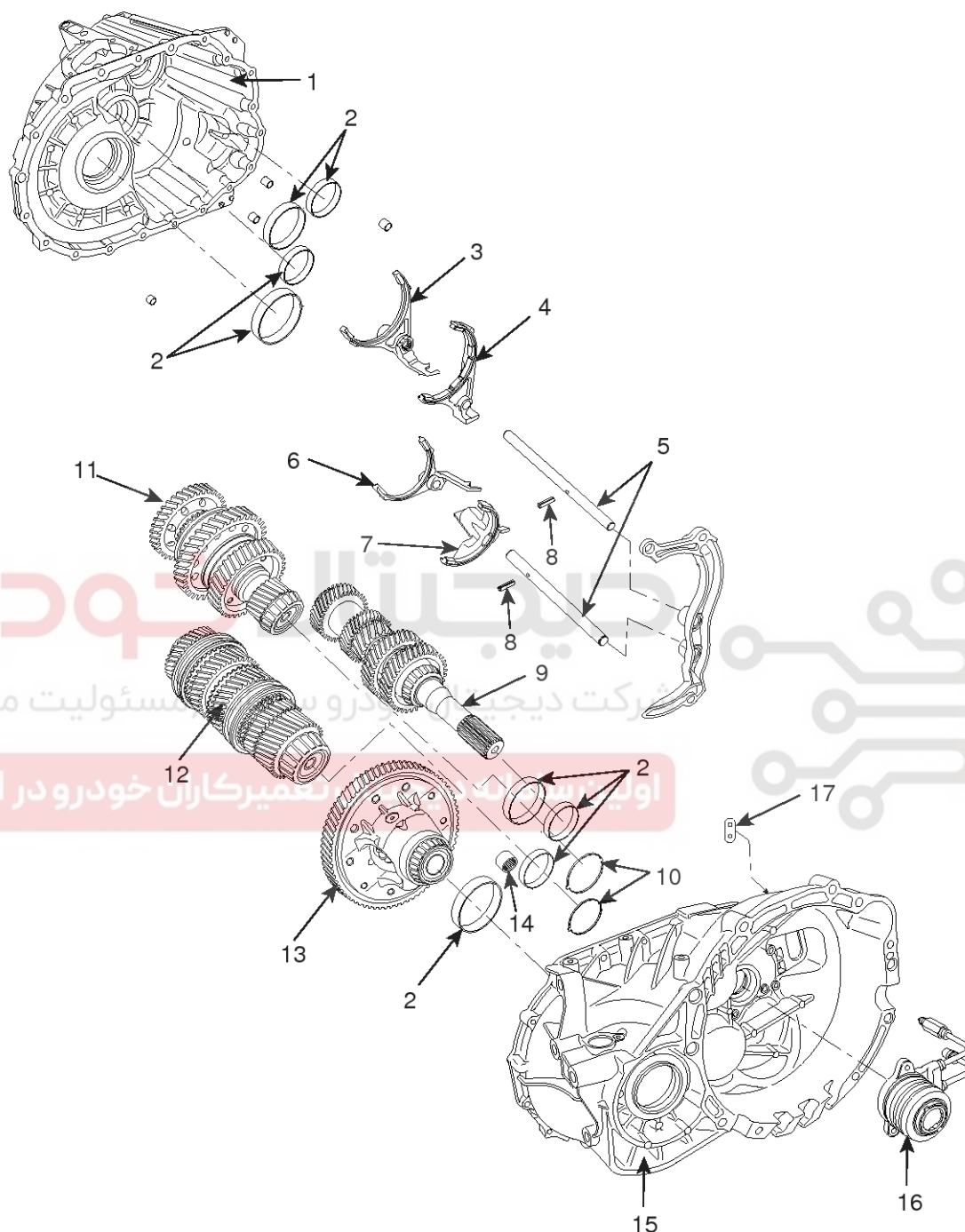
29.4~34.4 Nm(300~350Kgf.cm, 21.7~25.3lb-ft)

# Manual Transaxle System

**MT-5**

## Manual Transaxle

### 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  |  |

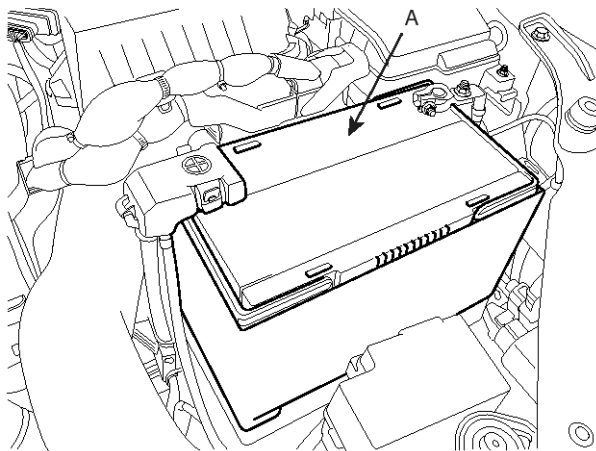
LMIG001A

## MT-6

## Manual Transaxle System

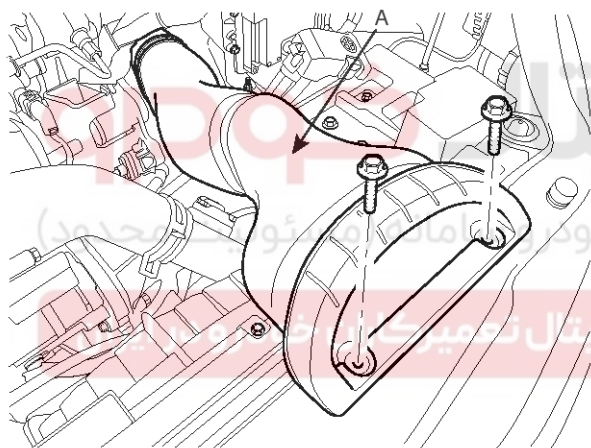
### REMOVAL

1. Remove the battery (A) with the mounting plate and a bolt.



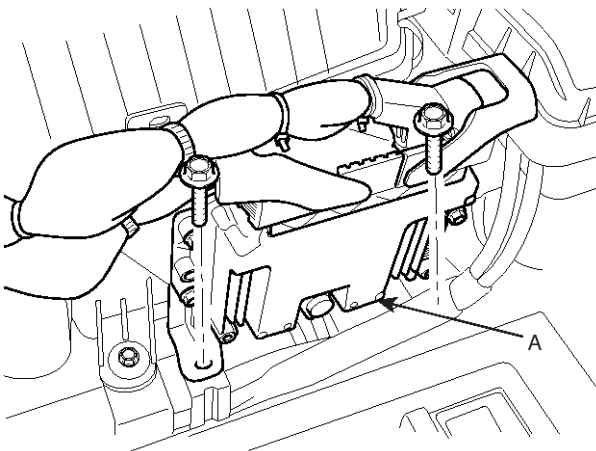
SMGMT6100D

2. Remove the air duct(A).



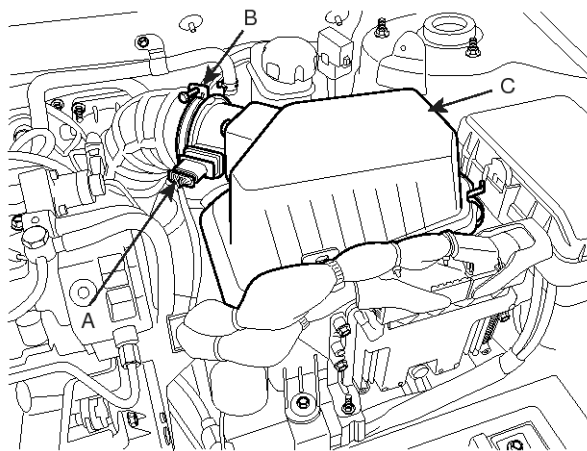
SMGMT6101D

3. Remove the ECM (A).



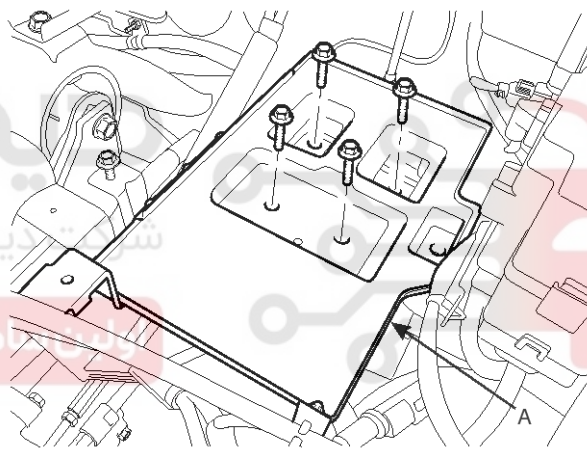
SMGMT6103D

4. Remove the air cleaner assembly (C) after disconnecting the air flow sensor connector (A) and loosening the clamp (B).



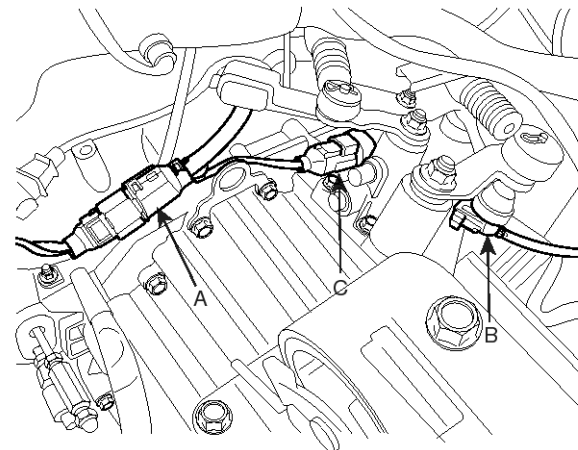
SMGMT6102D

5. Remove the battery tray (A).



SMGMT6104D

6. Disconnect the vehicle speed sensor connector (A), the back up lamp switch (B) and the neutral position switch (C).

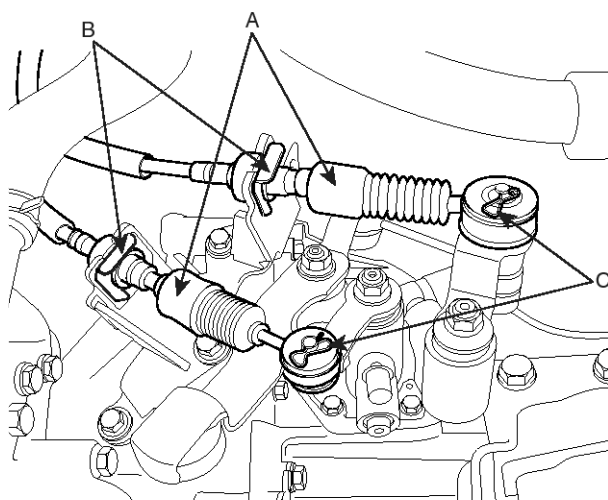


# Manual Transaxle System

## MT-7

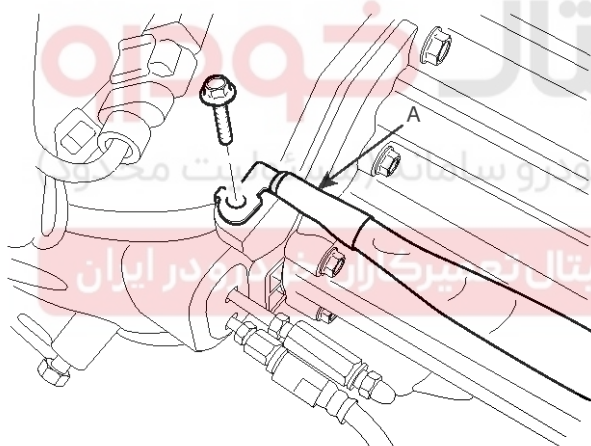
SNFMT6006D

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



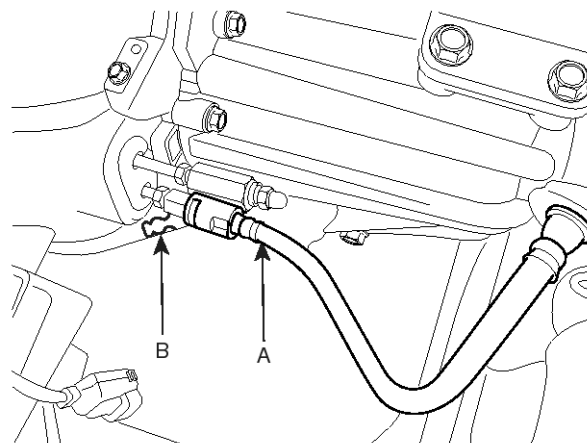
LMIG002G

8. Remove the ground (A).



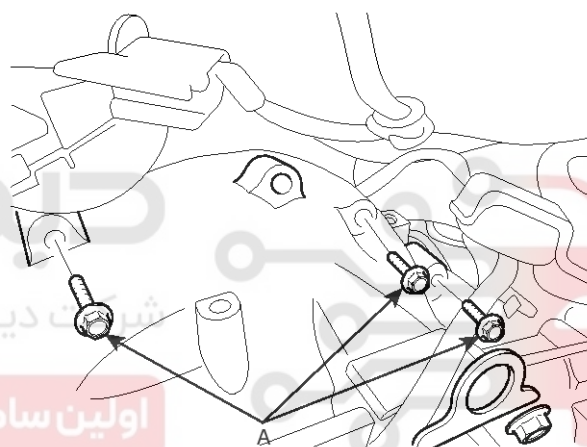
SMGMT6106D

9. After removing the clip(B) with clamping the concentric slave cylinder tube, disconnect the tube(A).

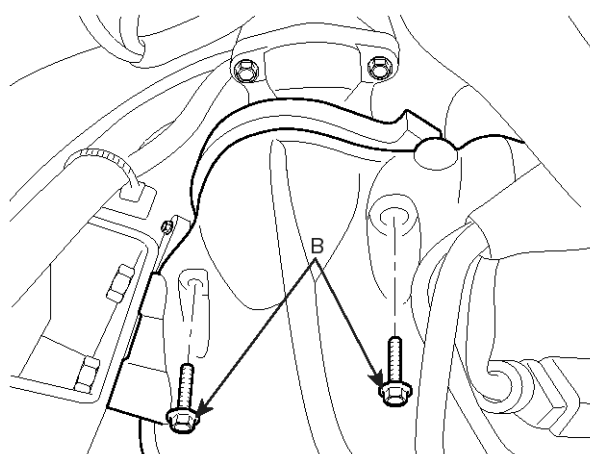


SMGMT6107D

10. Remove the transaxle upper mounting bolts (A-3ea, B-2ea).



SMGMT6109D



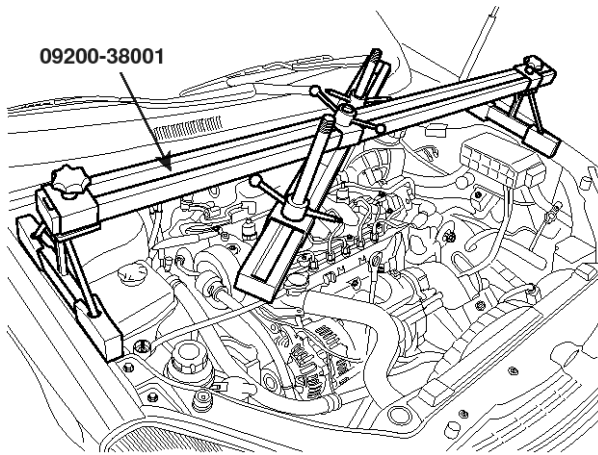
SMGMT6110D

11. Using the special tool(09200-38001), support the engine transaxle assembly safely.



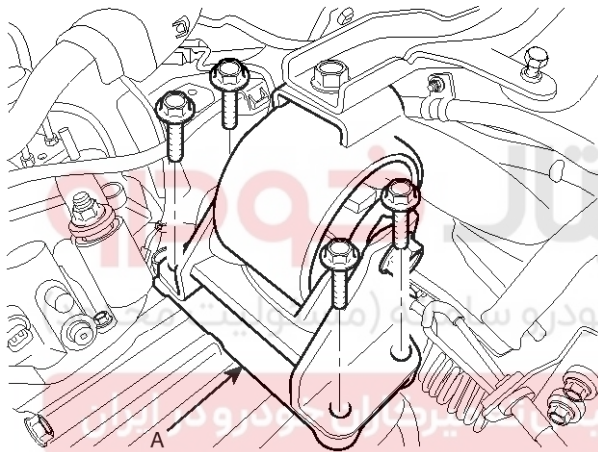
## MT-8

## Manual Transaxle System



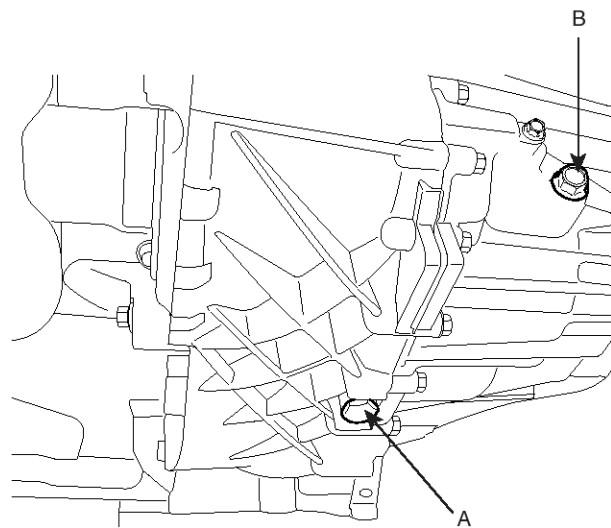
SMGMT6111D

12. After removing the four bolts, take the transaxle insulator mounting bracket(A) off.



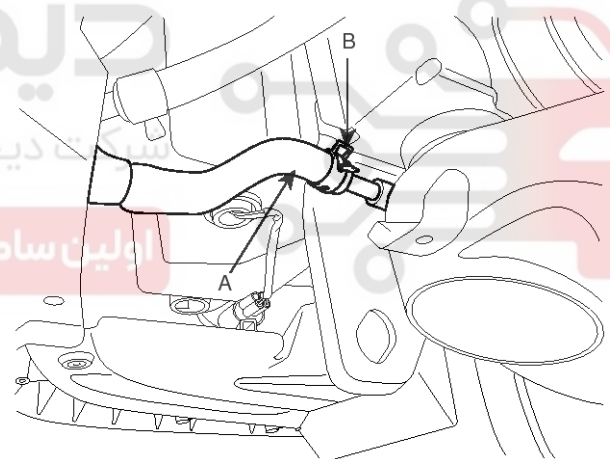
SMGMT6108D

13. Remove the front wheels & tires. (see SS group)  
 14. Remove the steering joint assembly bolt. (see ST group)  
 15. Lifting up the vehicle, remove the under shield cover.  
 16. Drain the manual transaxle fluid after removing the transaxle drain plug(A). It can be easier when the oil filler plug(B) is removed.



KMRE009I

17. Loosening the clamp(B), disconnect the the power steering return hose(A) and drain the power steering fluid.



SMGMT6112D

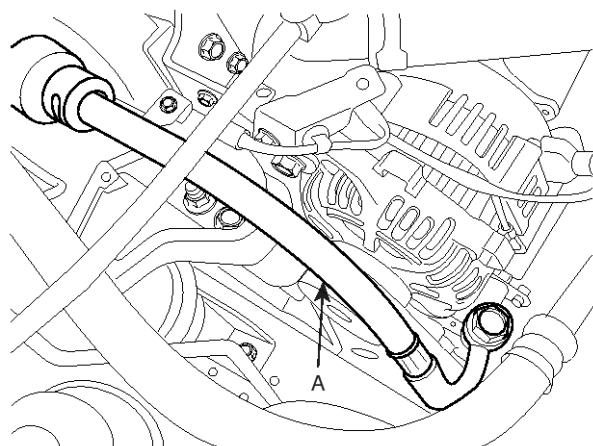
18. Disconnect the power steering pressure hose(A) bolt(B). (see ST group)

**⚠ CAUTION**

Be careful not to lose the washers.

# Manual Transaxle System

## MT-9



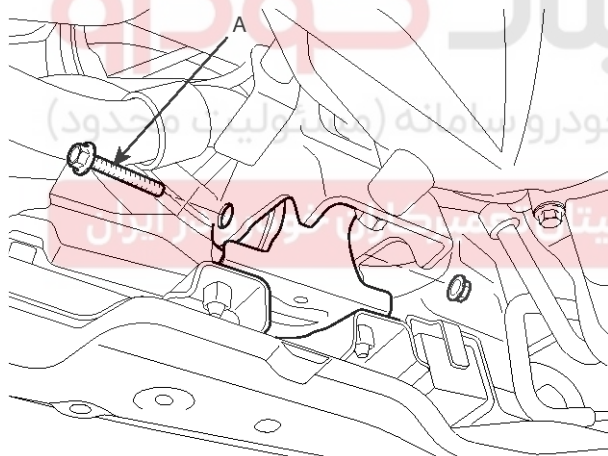
SMGMT6120D

19. Remove the lower arm ball joint assembly mounting bolts. (see SS-group)

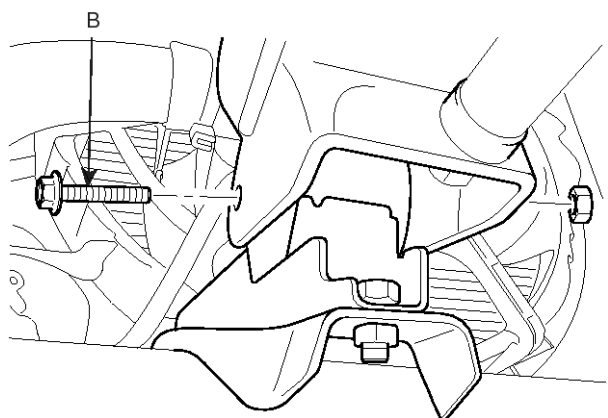
20. Remove the stabilizer link mounting bolt. (see SS group)

21. After removing a split pin and nut from the tie rod end, disconnect it. (see ST group)

22. Disconnect the roll stopper bracket bolts(A,B).

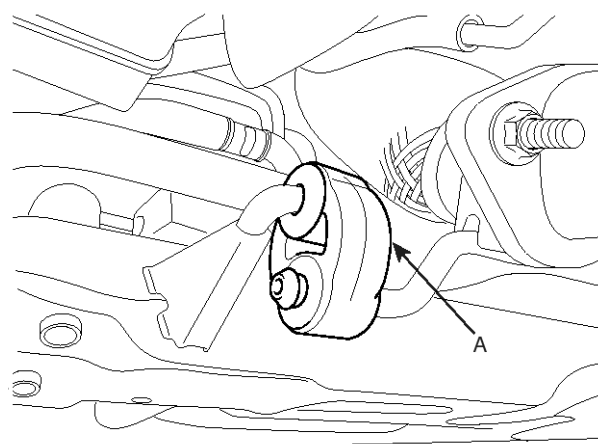


SMGMT6121D



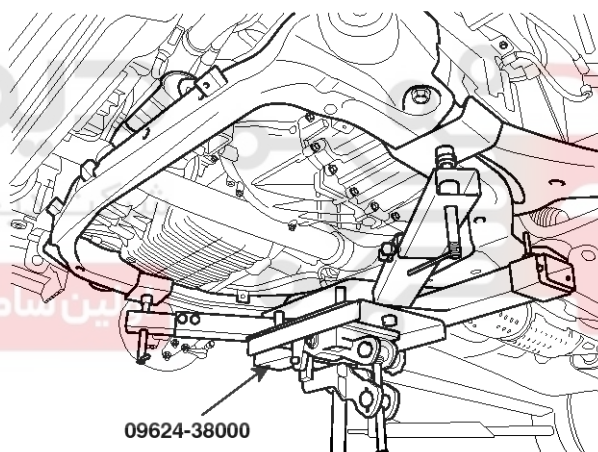
SMGMT6122D

23. Disconnect the muffler hanger rubber (A).



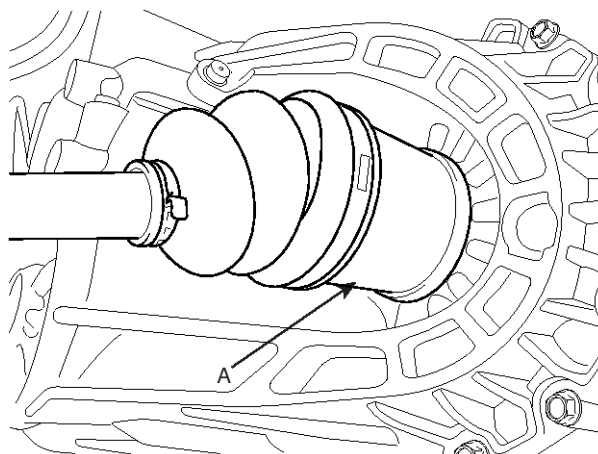
SMGMT6115D

24. Supporting the sub frame with a jack and the Special tool(09624-38000), remove the mounting bolts. (see SS group)



SMGMT6114D

25. Disconnect the driveshafts(A,B) from the transaxle. (see DS group).

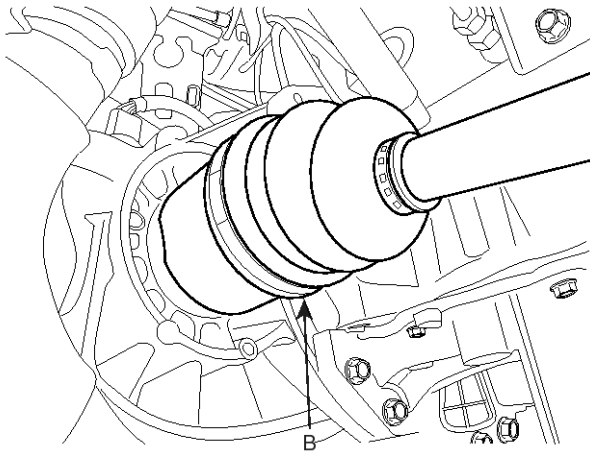




## MT-10

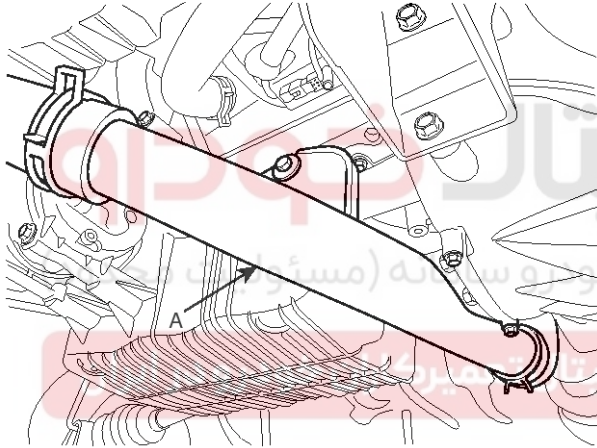
## Manual Transaxle System

SMGMT6118D



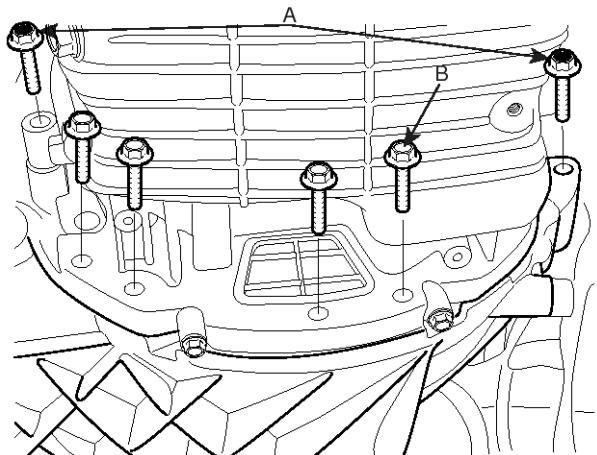
SMGMT6117D

26. Remove the intercooler tube (A) by removing the two bolts and loosening the clamps.



SMGMT6119D

27. Supporting the transaxle with a jack, remove the transaxle lower mounting bolts (A-2ea, B-4ea).



SNFMT6007D

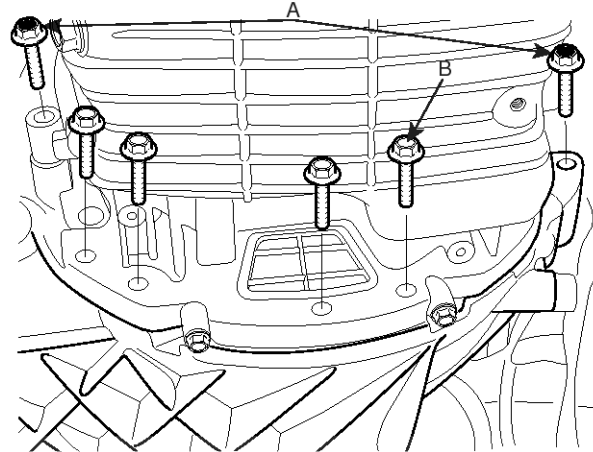
28. Lowering the jack slowly, remove the transaxle.

## INSTALLATION

1. Install the transaxle lower mounting bolts (A-2ea, B-4ea) after fitting the transaxle assembly into the engine assembly.

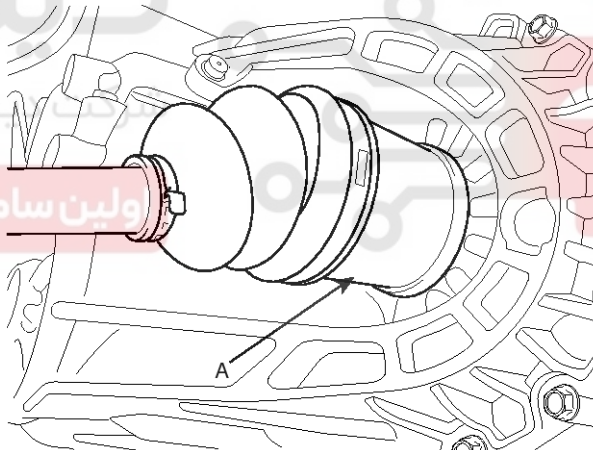
Torque : [A]80-100Nm (8.0-10.0kgf.m, 57.9-72.3 lb-ft)

[B]30-42Nm (3.0-4.2kgf.m, 21.7-30.4 lb-ft)



SNFMT6007D

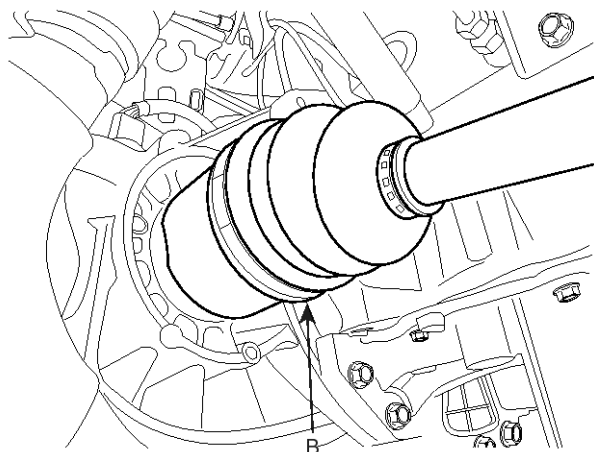
2. Connect the driveshafts (A,B) to the transaxle.



SMGMT6118D

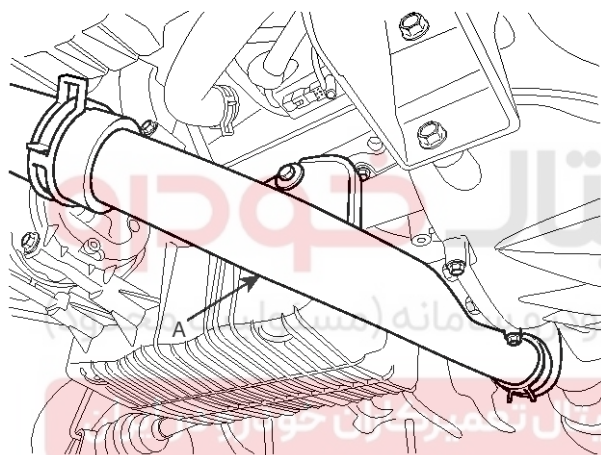
# Manual Transaxle System

## MT-11



SMGMT6117D

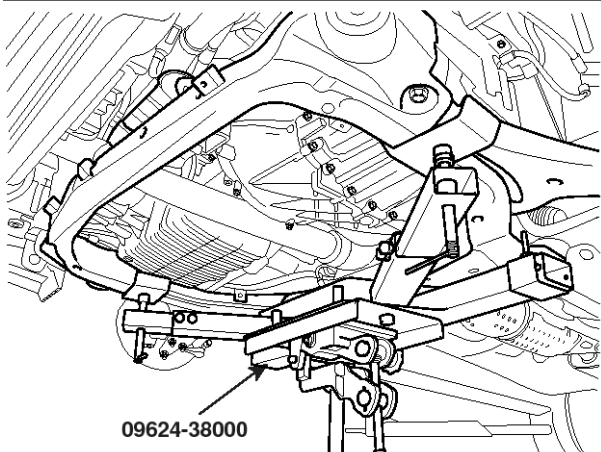
3. Install the intercooler tube (A) by installing the two bolts and tightening the clamps.



SMGMT6119D

4. Supporting the sub frame(A) with a jack and the Special tool(09624-38000), install the mounting bolts. (see SS group).

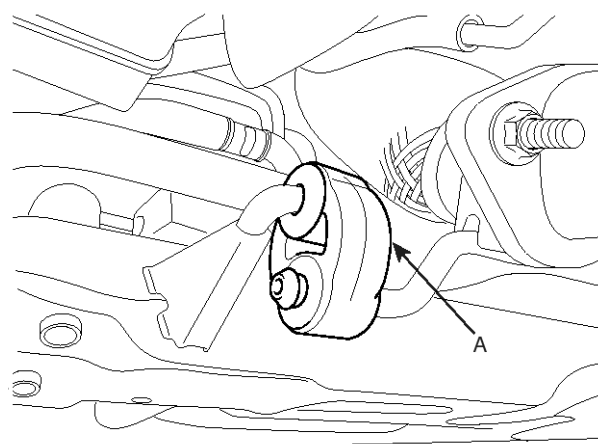
Torque : 140-160Nm(14-16kgf.m,101-118lb-ft)



09624-38000

SMGMT6114D

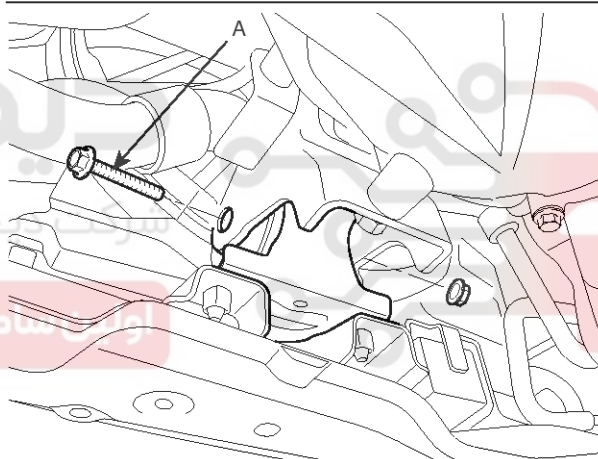
5. Install the muffler hanger rubber (A).



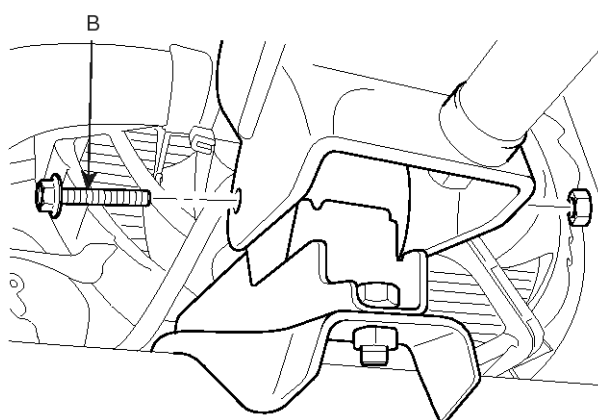
SMGMT6115D

6. Install the roll stopper bracket bolts(A,B).

Torque : 50-65Nm(5-6.5kgf.m, 36.2-47.0lb-ft)



SMGMT6121D

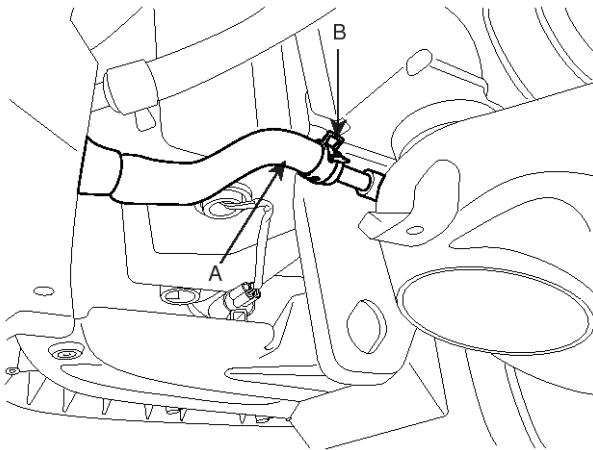


SMGMT6122D

7. Connect the the power steering return hose(A) by

## MT-12

tightening the clamp(B).



SMGMT6112D

8. Install the tie rod end to the knuckle. (see ST group)

Torque : 24-34Nm(2.4-3.4kgf.m, 17.4-24.6lb-ft)

9. Install the stabilizer link mounting bolt. (see SS group)

Torque : 100-120Nm(10-12kgf.m, 72.3-86.8lb-ft)

10. Install the lower arm ball joint assembly mounting bolts. (see SS-group)

Torque : 100-120Nm(10-12kgf.m, 72.3-86.8lb-ft)

11. Refill the manual transaxle fluid through the oil filler hole by removing the oil filler plug after installing the transaxle drain plug.

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

Manual transaxle fluid : SAE 75W/85

12. Install the steering joint assembly bolt. (see ST group)

Torque : 18-25Nm(1.8-2.5kgf.m, 13.0-18.1lb-ft)

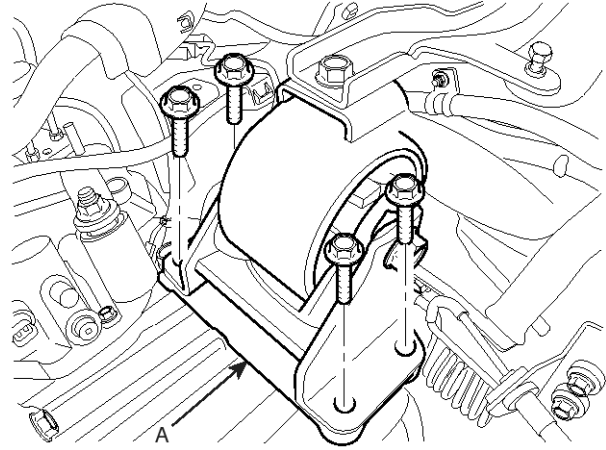
13. Lifting up the vehicle, install the under shield cover.

14. Install the front wheels & tires. (see SS group)

15. Install the transaxle insulator mounting bracket bolts (A).

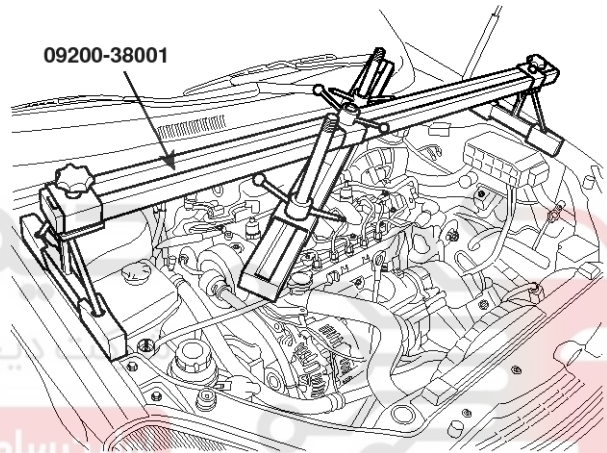
Torque : 60-80Nm(6.0-8.0kgf.m, 43.4-57.9lb-ft)

## Manual Transaxle System



SMGMT6108D

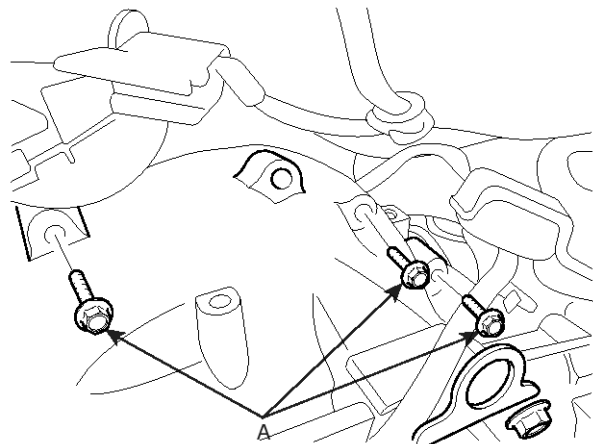
16. Remove the special tool(09200-38001).



SMGMT6111D

17. Install the transaxle upper mounting bolts (A-3ea, B-2ea).

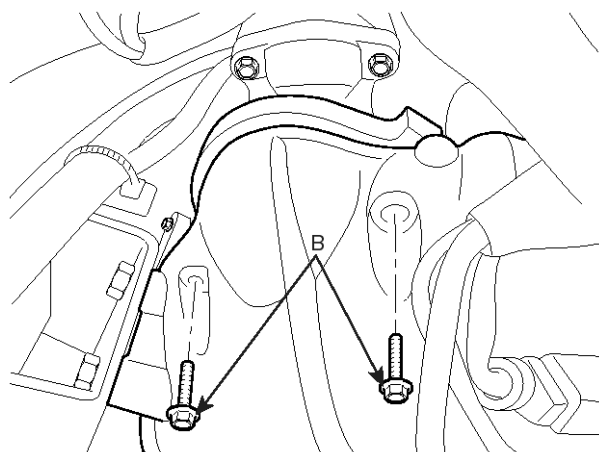
Torque : 43-55Nm(4.3-5.5kgf.m, 31.1-39.8lb-ft)



SMGMT6109D

# Manual Transaxle System

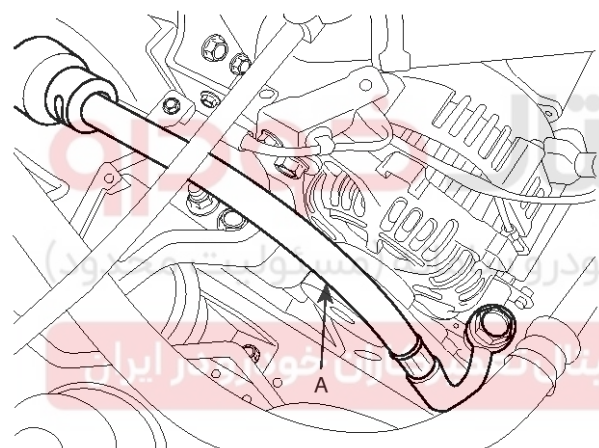
## MT-13



SMGMT6110D

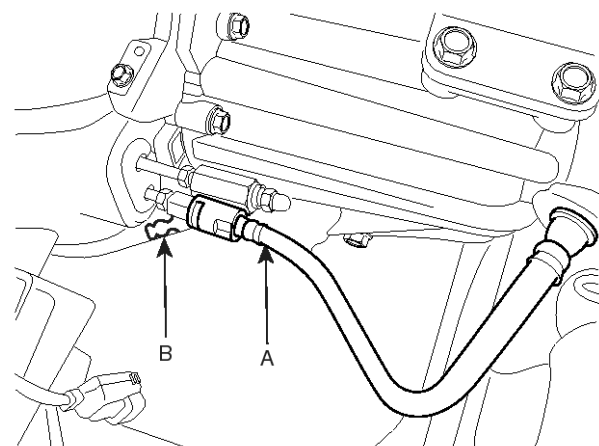
18. Connect the power steering pressure bolt(A). (see ST group)

Torque : 55-65Nm(5.5-6.5kgf.m,39.8-47.0lb-ft)



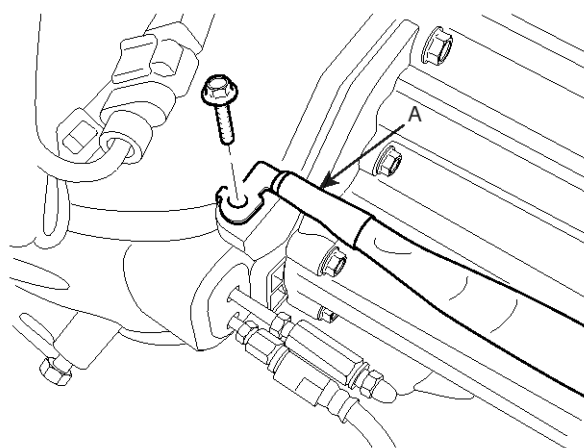
SMGMT6120D

19. Connecting the concentric slave cylinder tube(A) install the clip(B).



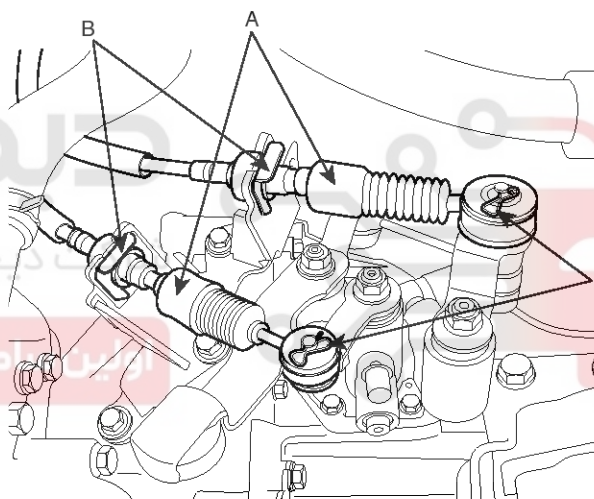
SMGMT6107D

20. Install the ground (A).



SMGMT6106D

21. Connect the cable assemblies(A) by installing the clips(B) and pins(C).



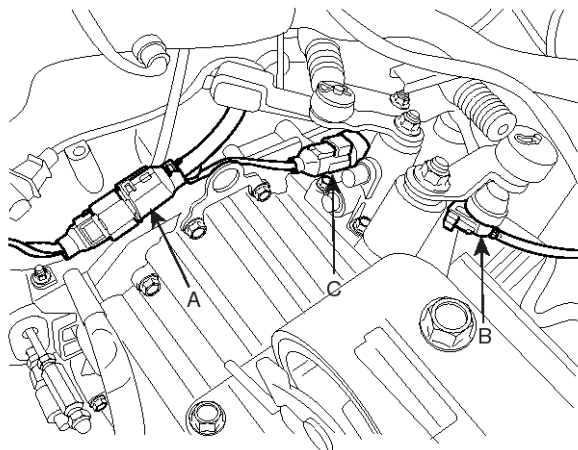
LMIG002G

22. Connect the vehicle speed sensor connector (A), the back up lamp switch (B) and the neutral position switch (C).



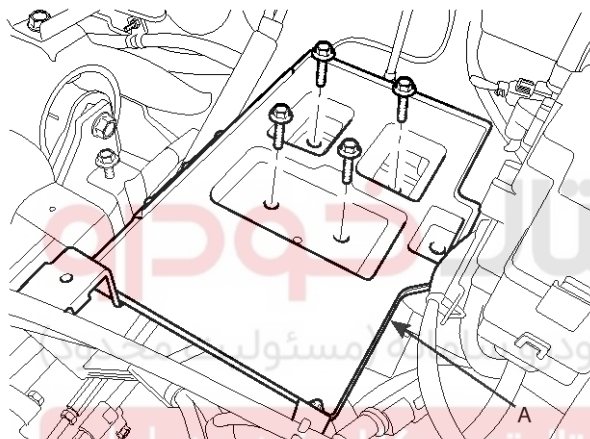
## MT-14

## Manual Transaxle System



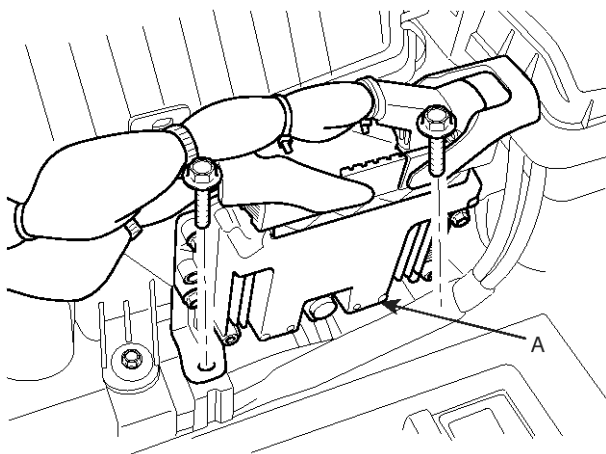
SNFMT6006D

23. Install the battery tray (A).



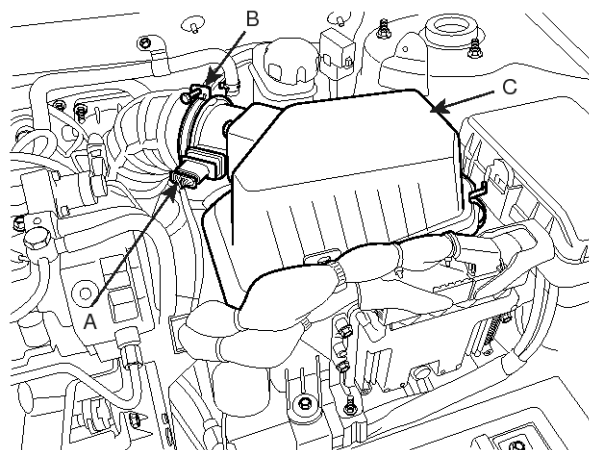
SMGMT6104D

24. Install the ECM (A).



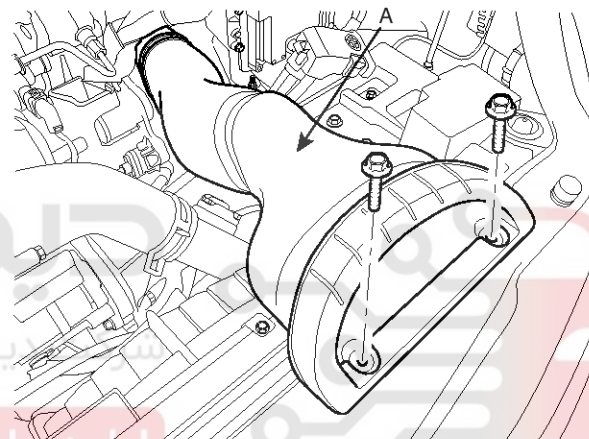
SMGMT6103D

25. Install the air cleaner assembly (C) and connect the air flow sensor connector (A) and tightening the clamp (B).



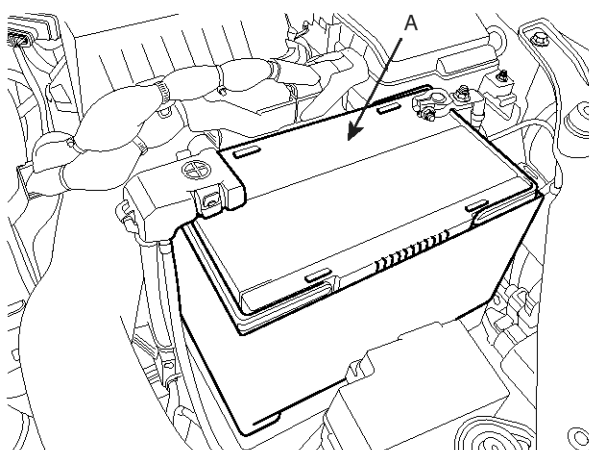
SMGMT6102D

26. Install the air duct(A).



SMGMT6101D

27. Install the battery (A) with the mounting plate and a bolt.



SMGMT6100D