Total Contents

Overview

Engine Accessories

Transmission

Drive System

Suspension System

Steering System

Brake System

Vehicle Body

Interior trim/Exterior trim

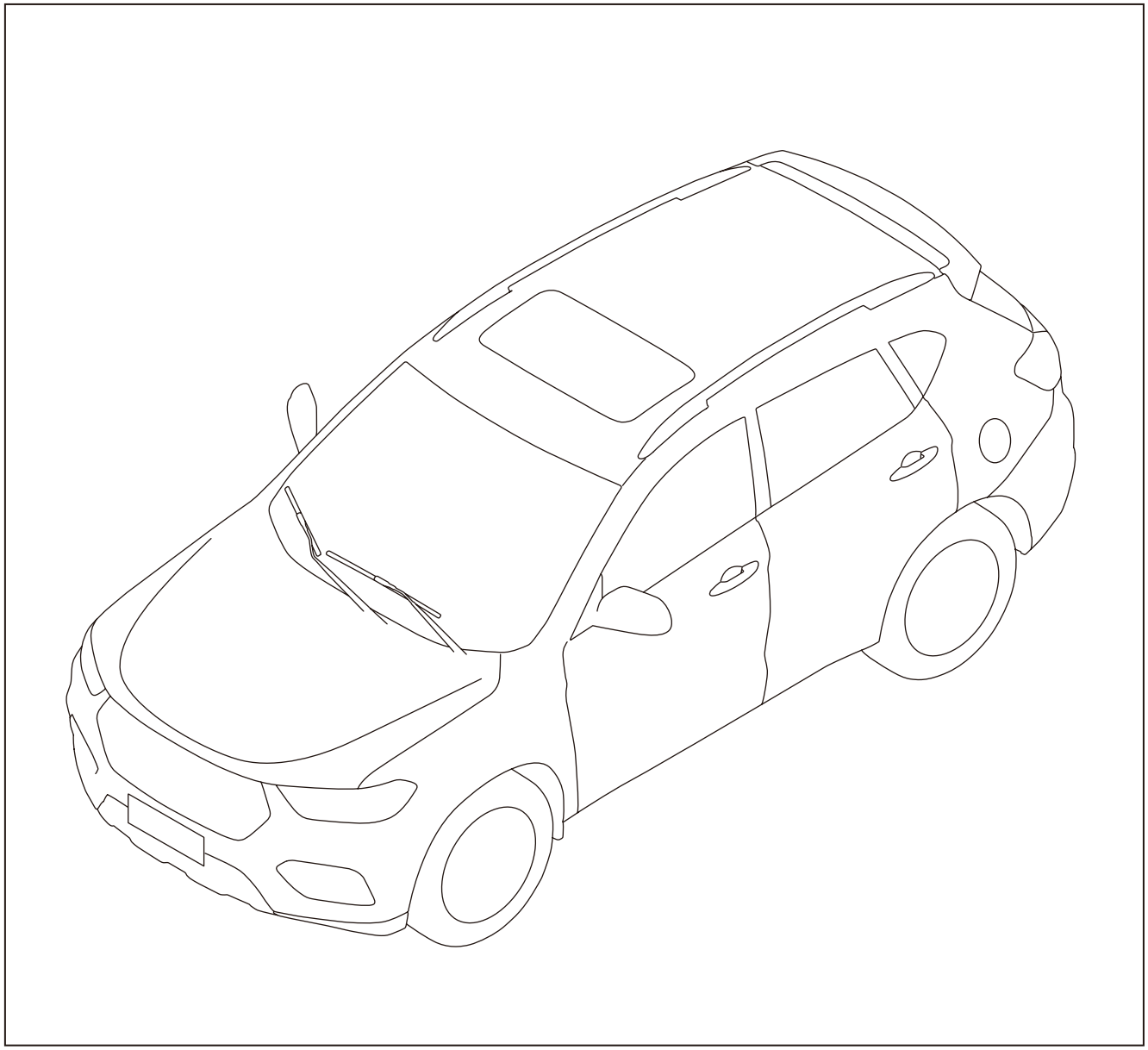
Heating, Ventilation and A/C System

Safety Protection Device

Electrical Devices and Accessories

Vehicle Body Control System

VEHICLE MODEL 2



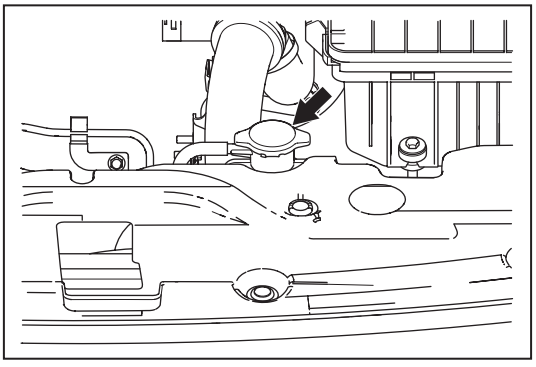
REPAIR PROCEDURES

ENGINE COOLANT

DRAINAGE AND FILLING

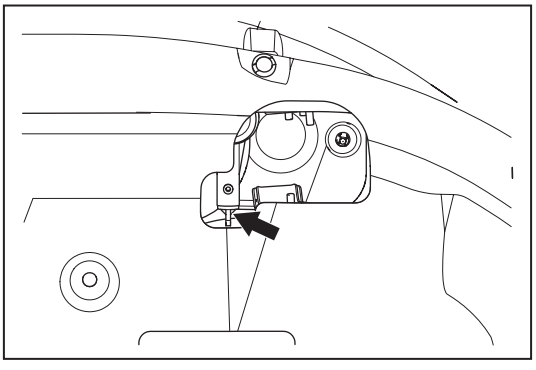
Warning

- **Do not remove radiator water filler cap when engine and radiator are hot. Thermal expansion may cause spill of hot engine coolant and steam from radiator that leads to scald.**



1. Drain engine coolant

(a) Remove radiator cover.

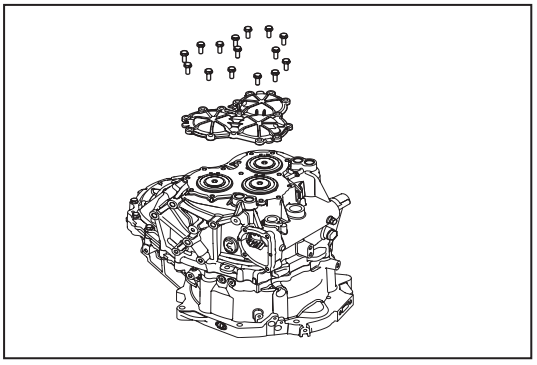


(b) Loose drain plug and drain coolant.

2. Fill engine coolant

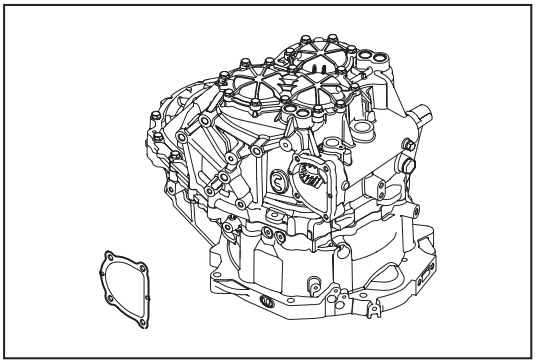
(a) Fasten radiator drain switch.
(b) Fill coolant into overflow tank to reach the line “F”.
(c) Fasten overflow tank cover.
(d) Warm up the engine to the extent thermostat valve opens.
(e) Shut down the engine and wait for coolant to cool.
(f) Remove overflow tank cover and fill coolant to line “F”.
(g) Repeat steps (a) to (f) to the extent liquid is in the middle of “L” and “F”.

3. Inspect whether engine coolant leaks

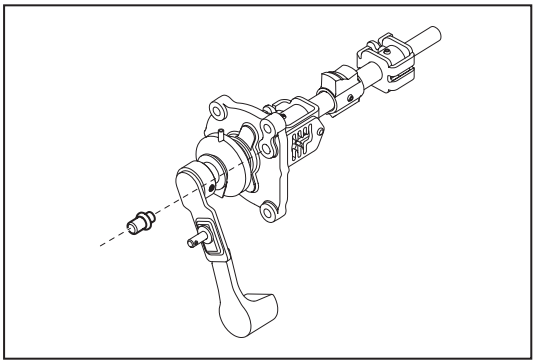


(b) Install the rear cover onto the transmission housing.
(c) Install and tighten up the 15 rear cover bolts.

9. Install the gear shift mechanism assembly



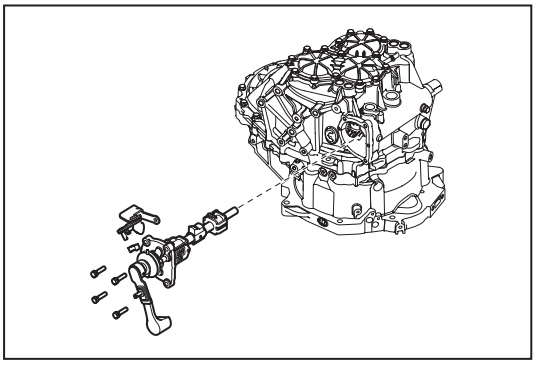
(a) Install the paper gasket of gear shift cover onto the corresponding locating pin on transmission housing.



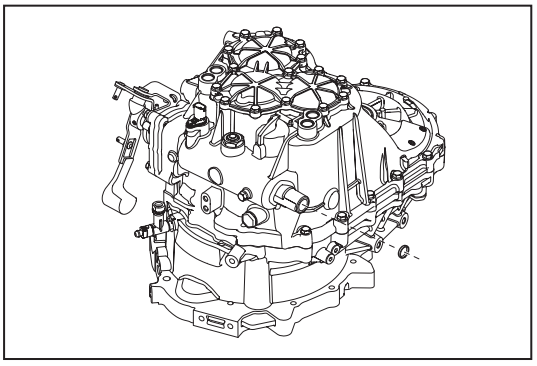
(b) Install the breather plug onto the gear shift mechanism assembly.

Note:

- **After the breather plug is dismantled, it shall be replaced with a new one.**

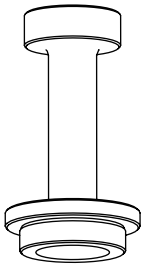
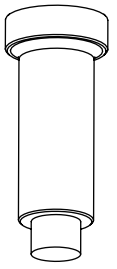
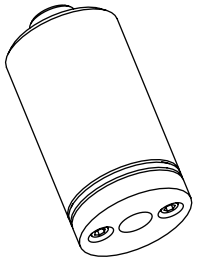
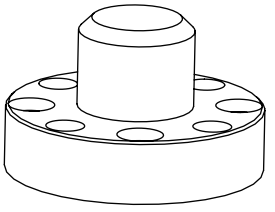
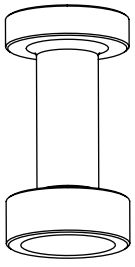
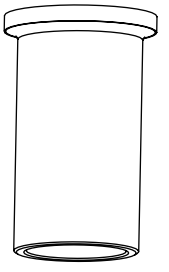
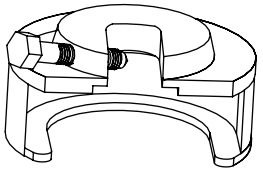
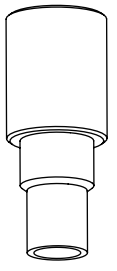
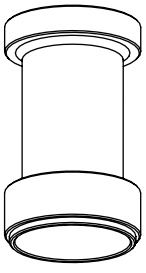
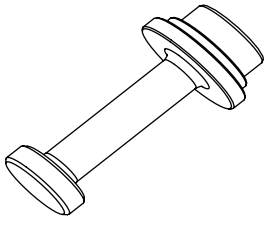
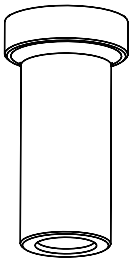
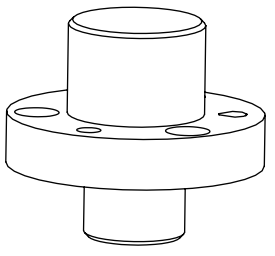


(c) Install the gear shift mechanism assembly onto the transmission housing.



(d) Install the bowl-shaped tabular plug on bottom of gear shift shaft.

SPECIAL TOOL

Schematic diagram	Name/purpose	Schematic diagram	Name/purpose
	Half axle bearing bush pressing tool (used to press and fit the half axle bearing bush)		Driven wheel pressing tool (used to press and fit the driven wheel)
	Locating pin mounting tool (used to press and fit the locating pin)		Output shaft locating base (used to fix the output shaft)
	Input right bearing inner race pressing tool (used to press and fit the inner race of right bearing of input shaft)		Input left bearing outer race pressing tool (used to press and fit the inner race of left bearing of input shaft)
	Locking nut riveting fixture (used to rivet the locking nut)		Breather plug mounting tool (used to press and fit the breather plug)
	Driving bevel gear pressing tool (used to press and fit the driving bevel gear)		Left oil seal mounting tool (used to press and fit the left oil seal)
	Driven wheel pressing tool (used to press and fit the driven wheel & double row angular contact bearing subassembly)		Guide pole (used to fix the input shaft)

THE SPEED IS ASYNCHRONOUS

The value of input speed sensor shall be consistent with the value of output speed sensor.For example, when the output speed is 1000rpm, the 1st gear is engaged, and the speed ratio is 4. 212, then the input speed shall be 4212rpm.

	SS-A	SS-B	OD N-H	35R N-H	UD N-H	26 N-L
P,N	○			○	○	
1st gear	○		△	○		
2nd gear			○	○		○
3rd gear		○	○			
4th gear				○		
5th gear		○			○	
6th gear				○	○	○
REV	○	○			○	

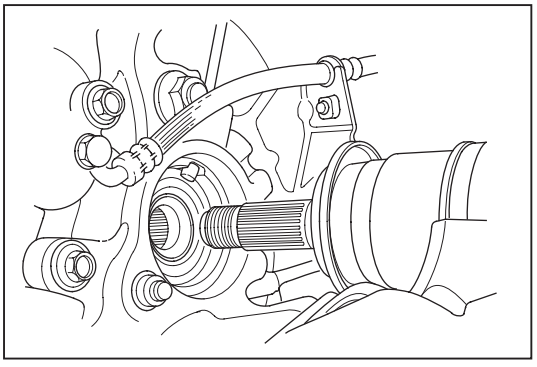
	Clutch		Brake			
	35R	OD C	26 B	UD B	LR B	O.W.
P,N					●	
1st gear				●	○	●
2nd gear			●	●		
3rd gear	●			●		
4th gear		●		●		
5th gear	●	●				
6th gear		●	●			
REV	●				●	

DTC	Instructions	Failure conditions	Diagnosis time	Failure protection
P0731	The 1st gear speed is asynchronous	Output speed<(input speed-200rpm)/1st.gear ratio	More than 1 second	The transmission is locked at 4th gear
P0732	The 2nd gear speed is asynchronous	Output speed>(input speed+200rpm)/gear ratio Output speed<(input speed-200rpm)/1st.gear ratio		
P0733	The 3rd gear speed is asynchronous			
P0734	The 4th gear speed is asynchronous			
P0735	The 5th gear speed is asynchronous			
P0729	The 6th gear speed is asynchronous.			

INSTALLATION

Remarks:

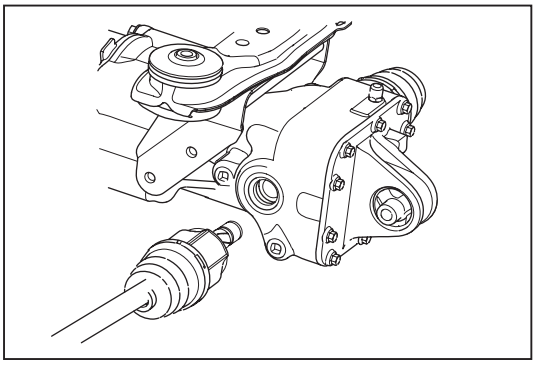
- Before the installation, make sure that the mating face of connector and the connected portion of spline are clean and free from dust.
- Prevent the spline from getting scratched.



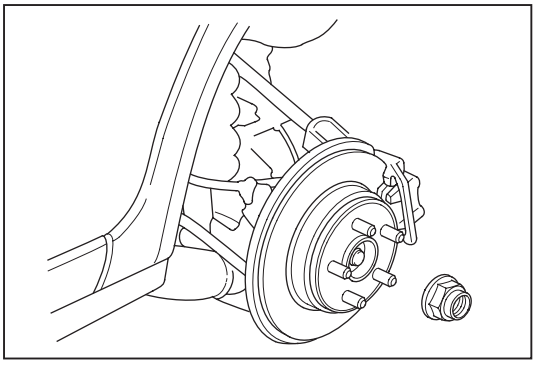
1. In the rear wheel hub, install the outside connector

Note:

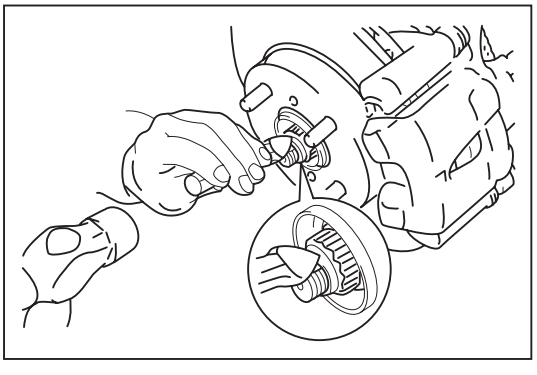
- **Don't damage the wheel speed sensor.**



2. In the rear main retarder assembly, install the rear drive shaft



3. Apply a little of engine oil onto the supporting face of new drive shaft nut



4. Install the drive shaft nut

(a) Install a new drive shaft nut, and then tighten it up. Thereafter, use a punch to knock the shoulder edge of drive shaft nut towards the drive shaft.

Tightening torque: (300±20)N·m.

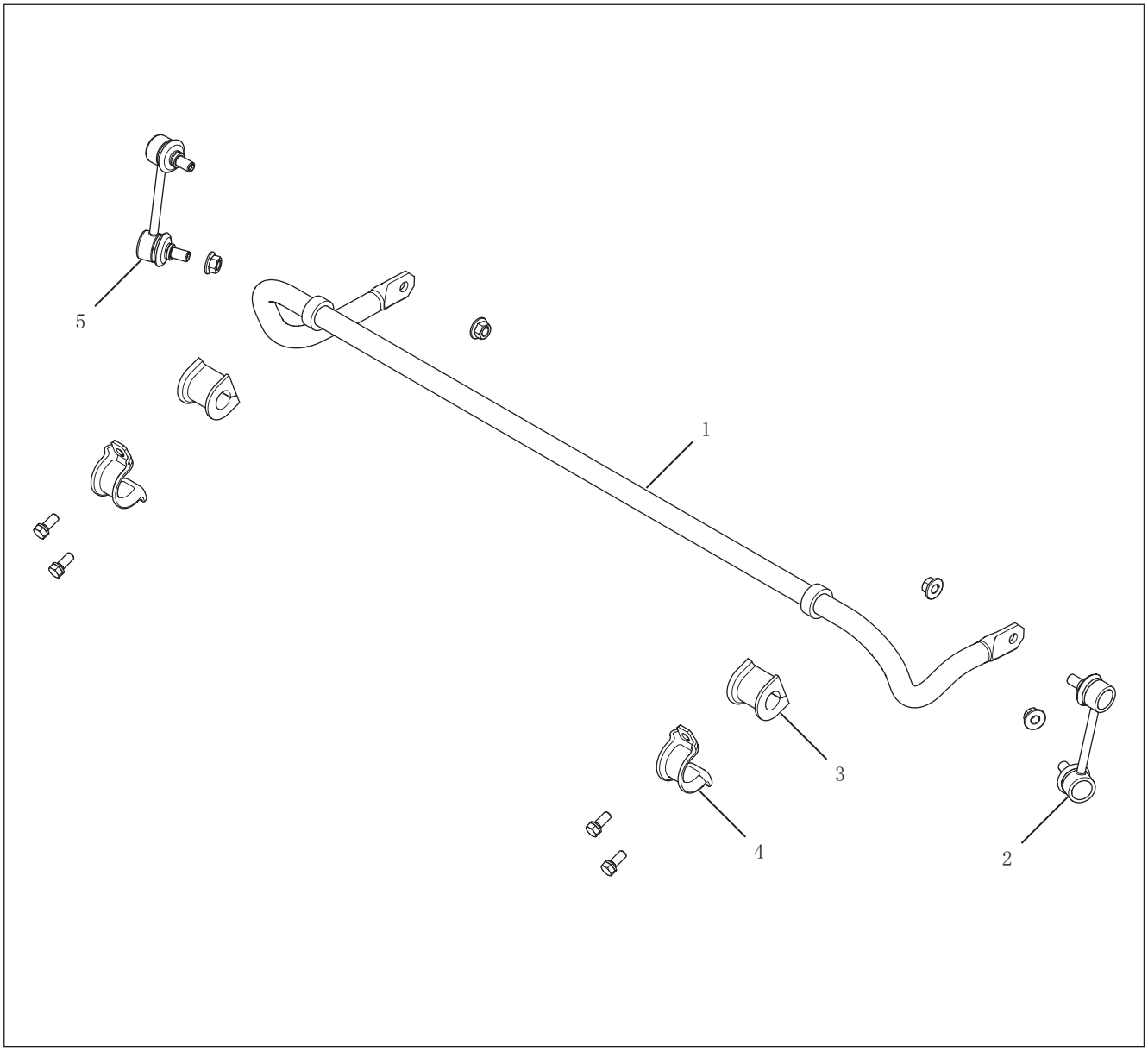
(b) Use the punch and hammer to lock up the drive shaft nut.

5. Clean up the mating surface between brake disc and rear wheel, and then use the wheel nut to fix the rear wheel

6. Turn the rear wheel with hand, and make sure that there is no interference between drive shaft and surrounding parts

7. Re-add the rear main retarder lubricating oil

REAR STABILIZER BAR ASSEMBLY



1. Rear stabilizer bar assembly
2. Left rear stabilizer bar connecting rod assembly
3. Rear stabilizer bar bush
4. Rear stabilizer bar mounting bracket
5. Right rear stabilizer bar connecting rod assembly

REPAIR PROCEDURE

INTERNAL AND EXTERNAL FRICTION DISKS

INSPECTION

1. **Lift up the vehicle to an appropriate position**
2. **Dismantle the front wheels**
3. **Inspect the thickness of internal and external friction disks**

   On the basis of the wear of indicator in observation hole on caliper body, inspect the thickness of internal and external friction disks.

   Thickness of internal and external friction disks:

   Standard thickness: 12.0mm

   Minimum thickness: 2.0mm

   If the thickness of internal and external friction disk is less than the minimum thickness, just replace the pair of internal and external friction disks.

REMOVAL

1. **Lift up the vehicle to an appropriate position**
2. **Dismantle the front wheels**
3. **Apart the caliper body assembly**

(a) Dismount the bolt used to connect the caliper body and lower portion of caliper bracket.

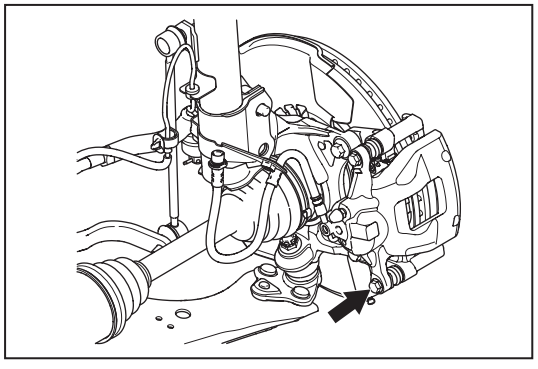
(b) Lift up the caliper body assembly, and hand it up with a rope, so as to protect the brake oil pipe.

Remarks:

- Don't loosen the brake oil pipe and bleed screw.

Note:

- **Don't damage the dust boot of pin.**

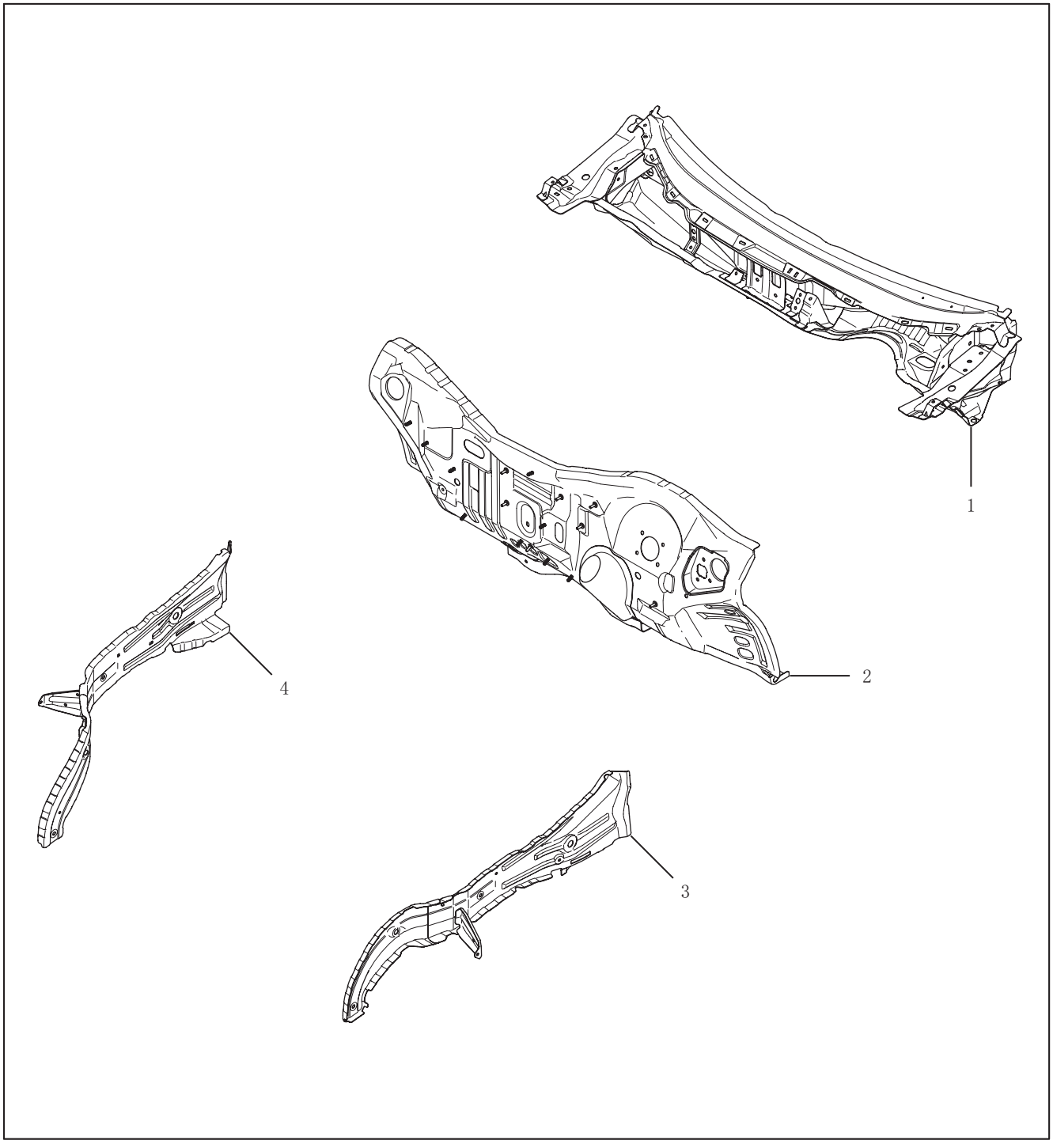


4. **Dismount the friction disk spring**
5. **Dismount the internal and external friction disks**

INSTALLATION

Carry out the installation in the reversed procedure of dismantlement.

FRONT WALL



1. Front windshield lower cross beam assembly
2. Ventilation cover plate mounting plate assembly
3. Left side wall front connecting plate assembly
4. Right side wall front connecting plate assembly

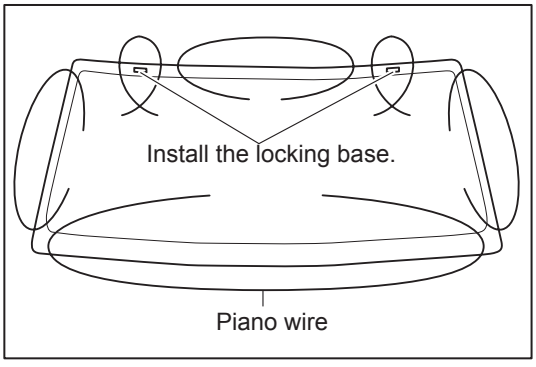
WINDSHIELD

REPAIR PROCEDURE

FRONT WINDSHIELD

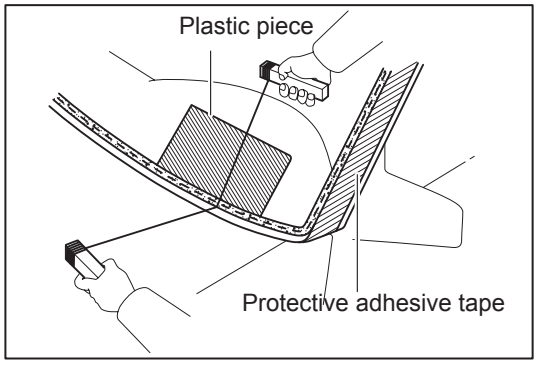
REMOVAL

1. **Dismantle the ceiling**
2. **Dismantle the interior rear view mirror assembly**
3. **Dismantle the left ventilation window cover plate body and right ventilation window cover plate body**
4. **Dismantle the left right decorative strips of front windshield**
5. **Dismantle the windshield**



(a) From inside, insert the steel wire between vehicle body and glass.

(b) Tie the articles which can be used as handle (such as wooden block) onto both ends of steel wire.



Remarks:

- In order to prevent the external surface of vehicle body from being scratched, please paste the high-grade adhesive tape onto the external surface.

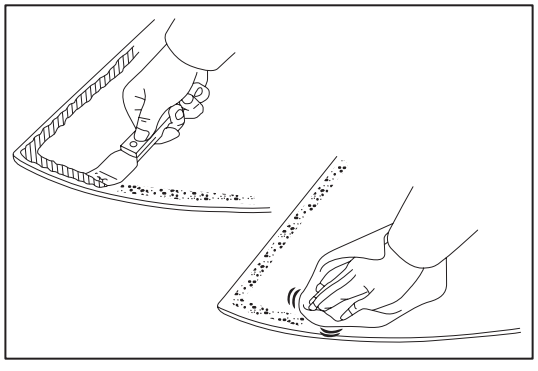
Note:

- **When dismounting the glass from vehicle, be careful not to damage the paint on vehicle body or any interior/exterior decorative part.**
- **When dismantling the glass, in order to prevent the safety pad of instrument panel from being scratched, be sure to place a plastic piece between piano wire and safety pad.**

(c) Pull the piano wire around the glass, so as to cut the glass.

(d) Apart the locating block.

(e) Use a sucker disc to dismount the glass.



6. **Clean up the windshield**

(a) Use a scraper to dismount the damaged block, sealing strip and adhesive on glass.

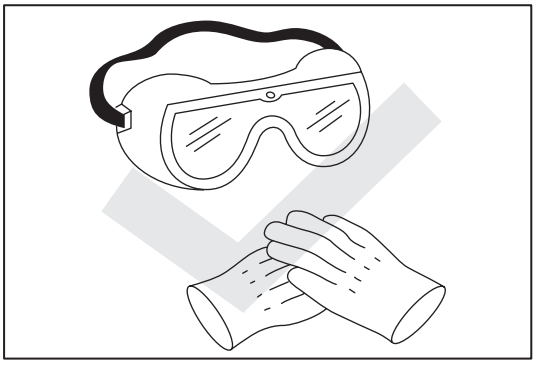
(b) Use the gasoline to clean up the perimeter of glass.

Note:

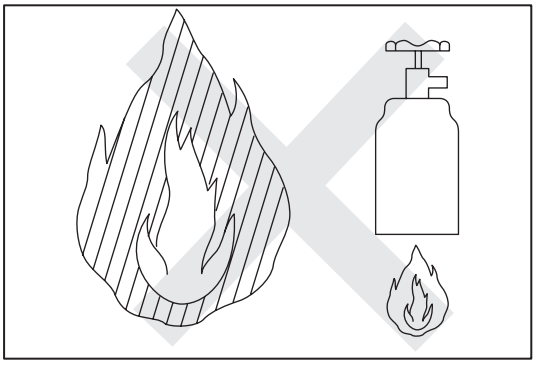
- **After cleaning, don't touch the glass surface.**
- **Be careful not to damage the glass.**
- **Even if the new glass is used, please also use the gasoline to clean up the glass.**

NOTICES FOR REFRIGERANT

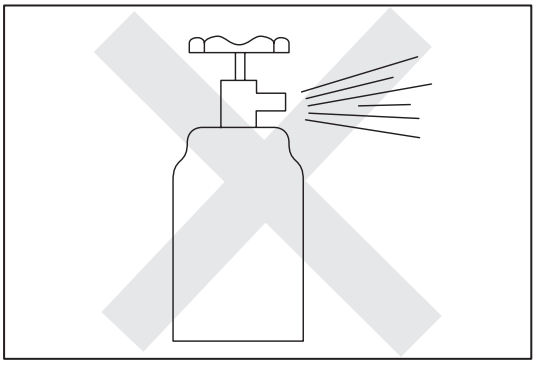
1. **Don't place the refrigerant reservoir on engine or radiator, otherwise serious accident may occur**
2. **Place store the refrigerant reservoir in a place which is inaccessible to children and is free from collision with other hard or iron articles, so as to avoid serious accident**
3. **Don't handle the refrigerant in any enclosed space or close to open flame**



4. **The boiling point of refrigerant is about -30 ℃. When handling the refrigerant, be sure to wear the goggles and protective gloves. The direct contact between skin and refrigerant may lead to serious frostbite. Be sure to wear the goggles**
5. **If the liquid refrigerant is splashed into eyes or onto skin, please wash such portions with a lot of cold water; don't rub eyes or skin, but apply the Vaseline onto skin and immediately get professional medical treatment in hospital**

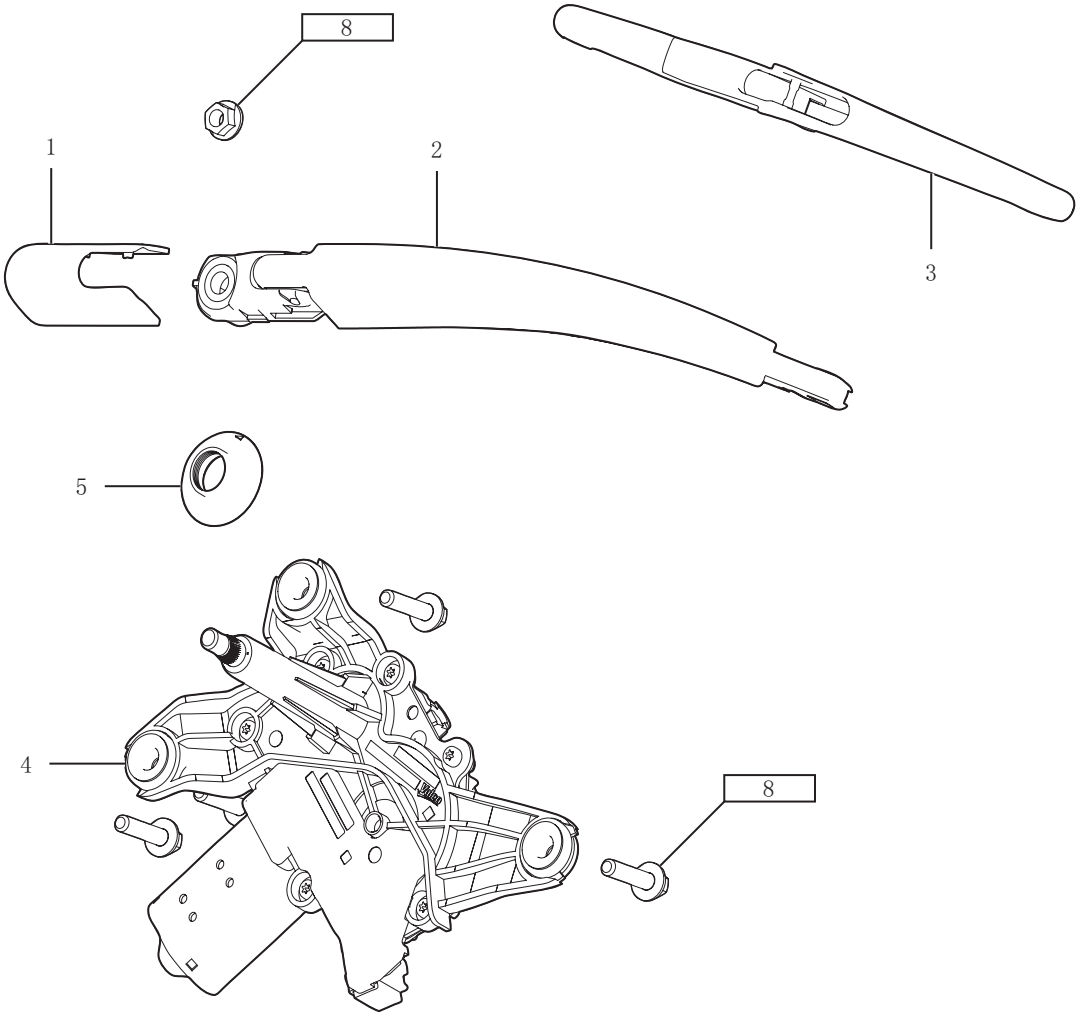


6. **Be sure not to heat up the refrigerant reservoir or close it to open flame**



7. **Don't drop the refrigerant reservoir or subject it to physical collision, otherwise the refrigerant may be released into the atmosphere**
8. **If the system emits refrigerant unexpectedly, then before carrying out repair, be sure to ventilate the workplace**
9. **When draining the system, don't drain the refrigerant too quickly, otherwise the A/C compressor oil in system will be sucked out**
10. **Don't add excessive refrigerant into the system. If too much refrigerant is filled, the troubles such as poor cooling effect, low fuel economy and overheated engine may occur**
11. **Don't operate the engine and coolant compressor assembly when there is no refrigerant. This may damage the inside of cooler compressor assembly**

REAR WIPER ASSEMBLY

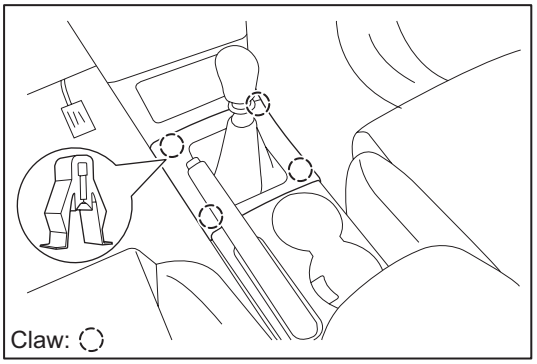


N • m Specified torque

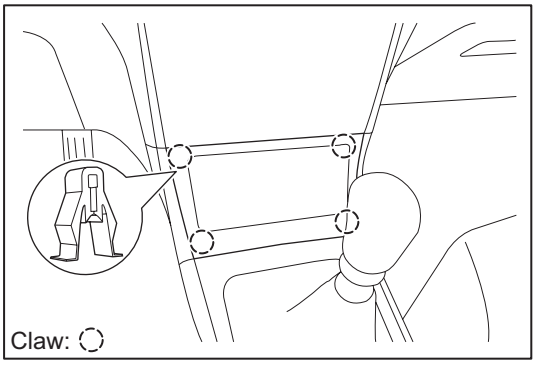
1. Rear wiper decorative cap
2. Rear wiper arm
3. Rear wiper blade
4. Rear wiper motor assembly
5. Rear wiper sealant plug

"PUSH-TO-START" START SWITCH ASSEMBLY

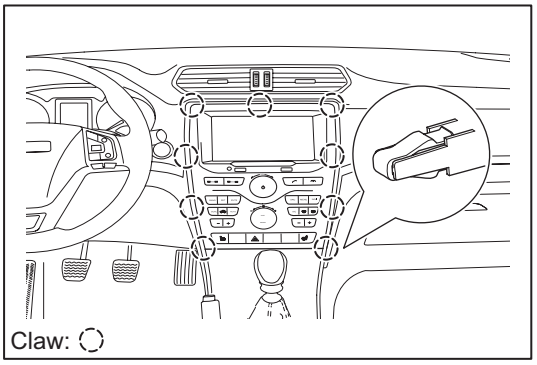
REMOVAL



1. **Disconnect the negative pole of battery**
2. **Dismount the decorative plate assembly of gear shift lever**

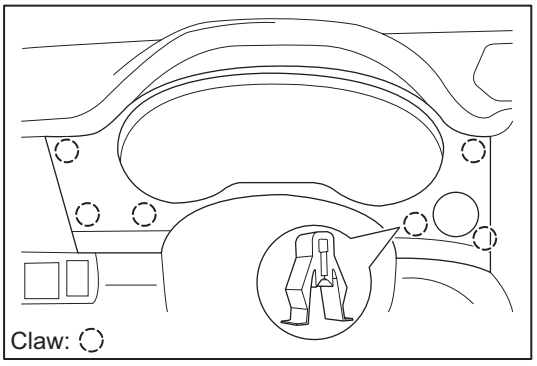


3. **Dismount the front glove box panel assembly of auxiliary instrument board**



4. **Dismount the CD player/multimedia player control panel**

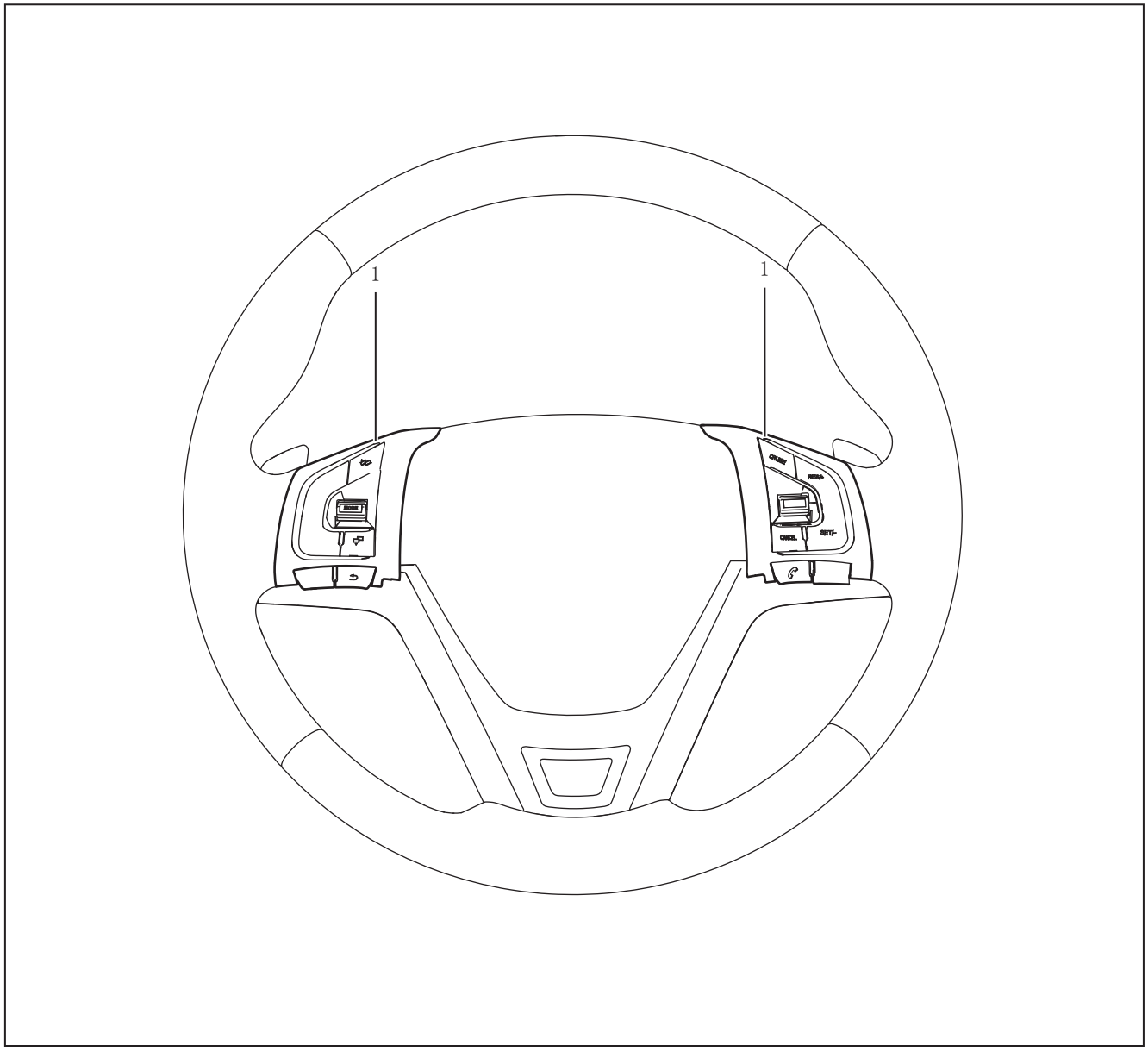
(a) Pry out the CD player/multimedia player control panel.
(b) Disconnect the harness plug-in connector of CD player/multimedia player control panel assembly.



5. **Dismantle the left decorative plate assembly of instrument board**

MULTI-FUNCTION STEERING WHEEL SWITCH

LOCATION DIAGRAM



1. Multi-function steering wheel switch