

CRUISE CONTROL

8530-00

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CRUISE CONTROL

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دیجیتال خودرو

شرکت دیجیتال خودرو سامانه (مسئولیت محدود)

اولین سامانه دیجیتال تعمیرکاران خودرو در ایران



CRUISE CONTROL**0000-00****OVERVIEW AND OPERATING PROCESS****1. OVERVIEW****1) System Description**

The cruise control is an automatic speed control system that maintains a desired driving speed without using the accelerator pedal. The cruise control switch is under the right side of steering wheel and "AUTO CRUISE" indicator comes on according to the working conditions.

The vehicle speed must be greater than 38 km/h to engage the cruise control. This feature is especially useful for motorway driving.

⚠ CAUTION

The cruise control system is a supplementary system, which helps the driver to drive the vehicle at a desired speed without using the accelerator pedal under the traffic condition where the vehicle-to-vehicle distance meets the legal requirement.

Modification basis	
Application basis	
Affected VIN	

2) Traffic Conditions for Using Cruise Control

Use the cruise control system only when the traffic is not jammed, driving on motorways or highways where there is no sudden change in the driving condition due to traffic lights, pedestrian, etc.

WARNING

Improper use of the cruise control could be dangerous.

- Do not use on winding roads.
- Do not use in heavy traffic.
- Do not use on slippery, wet roads.

This could result in a loss of control, collision, and/or personal injuries.

NOTE

The described speed value may vary slightly depending on the road conditions.

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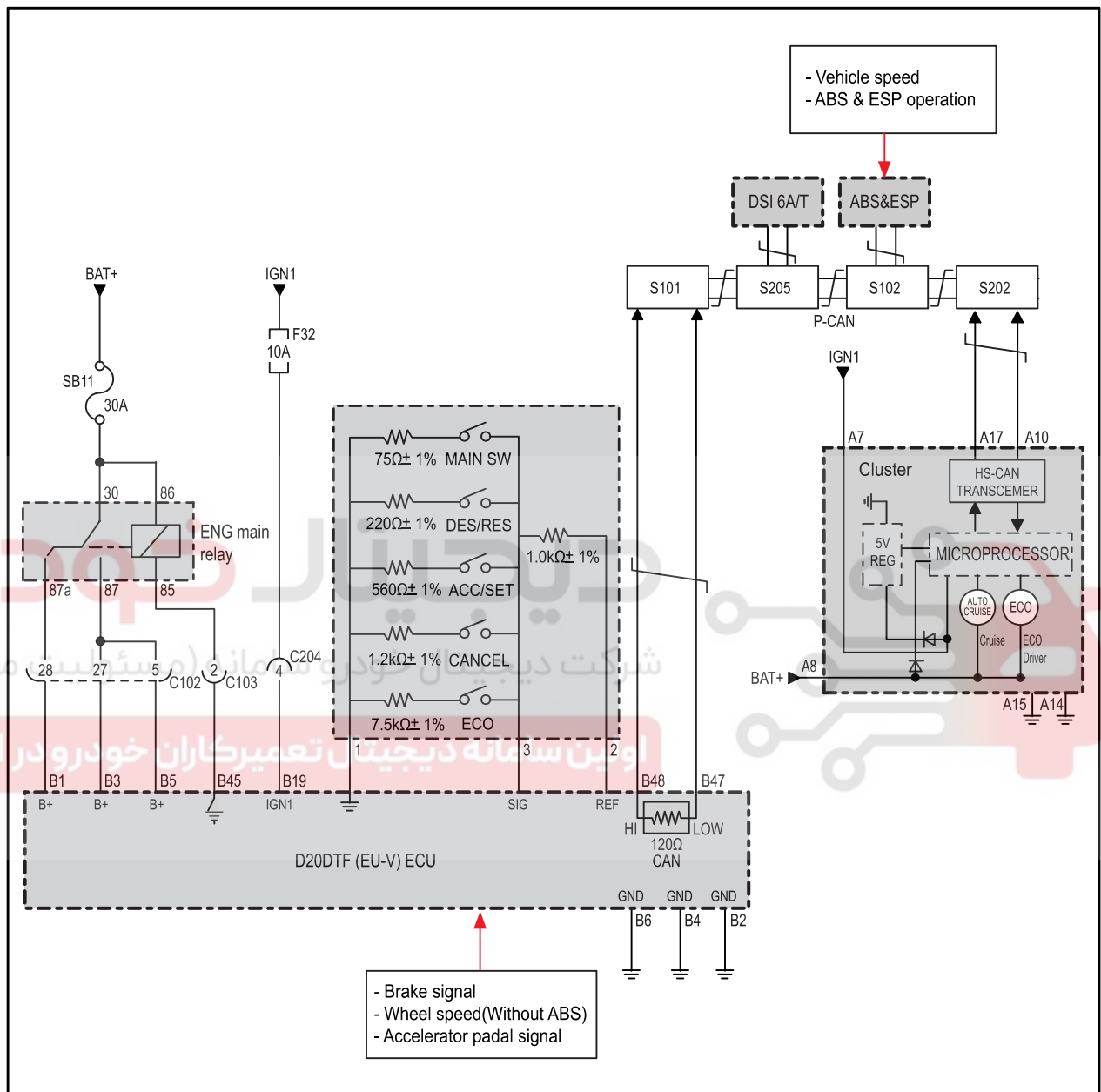
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2. CONFIGURATION

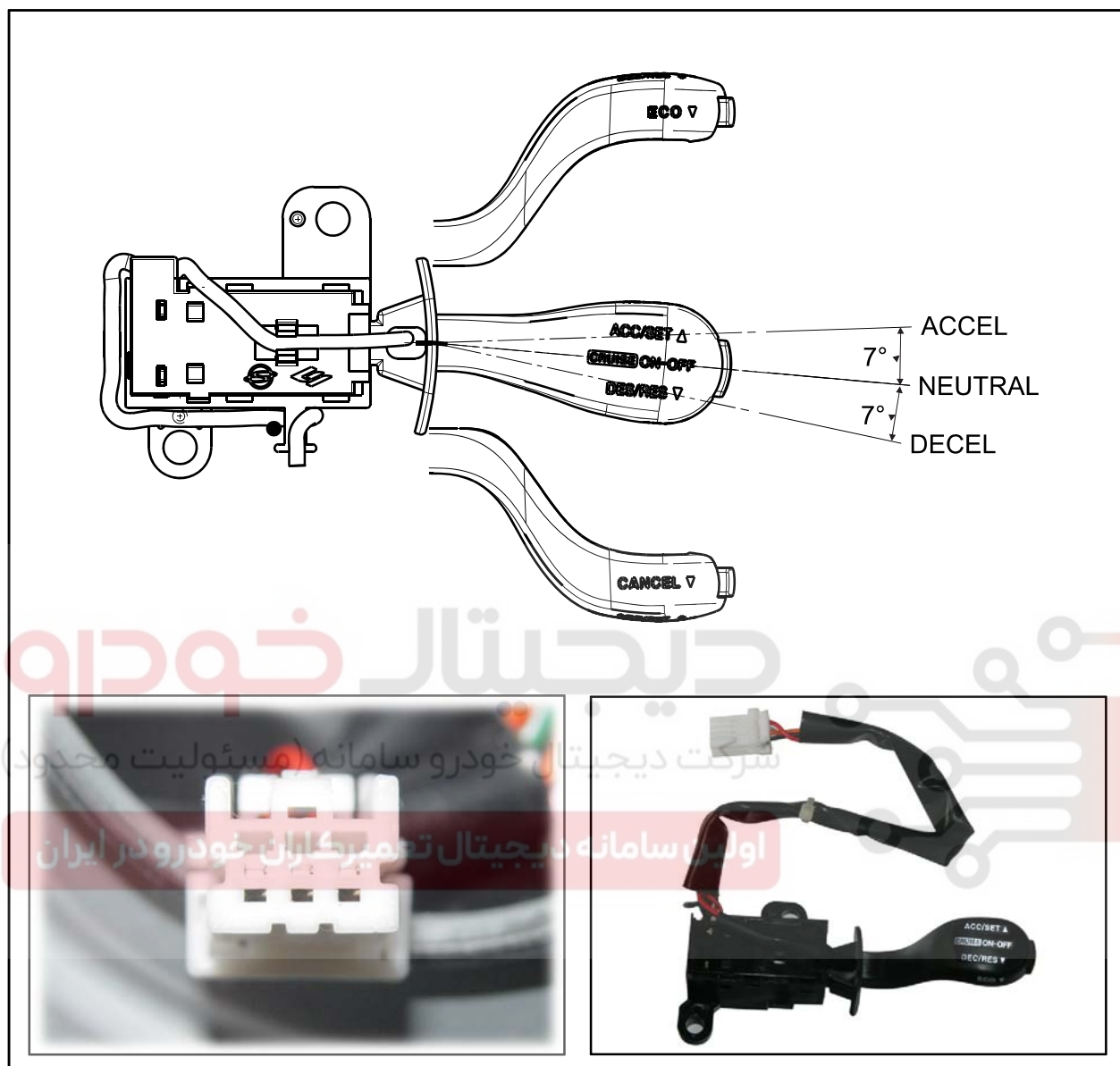
1) Circuit Diagram



The engine ECU detects the operating conditions of cruise control system, and monitors the braking performance, vehicle speed, road conditions and ESP system operation. If the engine ECU determines that there are not any problem to drive in cruise control mode, the vehicle can be operated by cruise switch signals (decelerating, accelerating, cruising).

Modification basis	
Application basis	
Affected VIN	

2) Components



Test voltage(VCC 5V)

FUNCTION	KEY VOLUE	REMARK
MAIN	0.15 ~ 0.55V	-
DES/RES	0.7 ~ 1.1V	-
ACC/SET	1.6 ~ 2.0V	-
CANCEL	2.52 ~ 2.92V	-
ECO	4.22 ~ 4.82V	-

3. OPERATION

1) Setting a Desired Speed



1. To operate the cruise control, accelerate to the desired speed, which must be more than 38 km/h (24 MPH) and less than 150 km/h (90 MPH). In the vehicle equipped with manual transaxle, the gear shift lever should be in 3rd (GSL: 2nd) or higher gear position.
2. Diesel engine equipped vehicle: When the desired speed is reached, press CRUISE ON (3) switch of cruise control lever.
Gasoline engine equipped vehicle: When the desired speed is reached, press CRUISE ON (3) switch of cruise control lever. The system is ready to activate the cruise control function. To activate the cruise control function, push up (1) the ACCEL switch of the cruise control lever.
Now, the vehicle is cruised by this system with the set speed.
3. And you can set to other vehicle speeds again with above steps after an accelerator pedal intervention
4. during the cruise control running.

CAUTION

Never use the cruise control system until you get used to it.

Improper use or not fully aware of this function could result in collision and/or personal injuries.

Modification basis	
Application basis	
Affected VIN	

2) Accelerating with the Cruise Control System



(1) While the cruise control system is running

1. Push up the ACCEL switch of the cruise control lever and hold it until the desired speed is reached without an accelerator pedal intervention.
2. When the desired speed is reached, release the lever.

(2) While the cruise control system is not running

1. Accelerate using the accelerator pedal over 38 km/h.
2. Push up the ACCEL switch of the cruise control lever and hold it.
3. And then release the accelerator pedal slowly.
4. When the desired speed is reached, release the lever.

(3) Tap-up while the cruise control system is running

1. Push up the ACCEL switch of the cruise control lever less than 0.5 second per one switching while the cruise control system is running. This is a tap-up switching.
2. When you operate a tap-up switching, the vehicle is accelerated by 1.0 km/h over the previous set speed.
3. If you want to accelerate to 10 km/h, operate the tap-up switching ten times without accelerating with the cruise control system.

3) Decelerating with the Cruise Control System



(1) While the cruise control system is running

1. Push down the DECEL switch of the cruise control lever and hold it until the desired speed is reached without a brake pedal intervention. But the cruise control system cannot maintain the cruise function at less than 38 km/h.
2. When the desired speed is reached, release the lever.

(2) When the cruise control system is not running

1. Push down the DECEL switch of the cruise control lever and hold it.
2. And then release the accelerator pedal slowly.
3. When the desired speed is reached, release the lever. But the cruise control system cannot maintain the cruise function at less than 38 km/h.
4. When you push down the cruise control switch, "RESUME" function starts (GSL only).

(3) Tap-down while the cruise control system is running

1. Push down the DECEL switch of the cruise control lever less than 0.5 second per one switching while the cruise control system is running. This is a tap-down switching.
2. When you operate a tap-down switching, the vehicle is decelerated by 1 km/h below the previous set speed.
3. If you want to decelerate to 10 km/h, operate the tap-down switching ten times without the brake pedal intervention.

Modification basis	
Application basis	
Affected VIN	

4) Recovery of Set Speed (RESUME)



To cancel the cruise control function, pull the cruise switch toward you.



CAUTION

The resume position should only be used if the driver is fully aware of this speed and wishes to resume this particular speed.

Modification basis	
Application basis	
Affected VIN	

5) Normal Cancellation of the Cruise Control



The cruise control system will be canceled when one or more items of the following conditions are applied;

1. When the brake pedal is depressed.
2. When the cruising speed is decreased less than 38 km/h.
3. When pushing the ON-OFF switch of the cruise control lever.
4. When ESP is activated.
5. When applying the parking brake while driving.
6. When using the clutch in order to shift (M/T only).
7. To cancel the cruise control function, pull the cruise switch toward you. (GSL only).

And the cruise control system can be operated again in driving state.



CAUTION

Keep the main cruise control switch in the neutral position when not using the cruise control.

Modification basis	
Application basis	
Affected VIN	

(1) Abnormal Cancellation of the Cruise Control

1. When the rapid deceleration is applied without braking.
2. When the rapid acceleration is applied without acceleration pedal intervention (DSL only).
3. When the cruise control lever is failed (DSL only).
4. When the brake switch and the brake light switch input signal are implausible.

And the cruise control system cannot be operated again in driving state. In this case, you should stop the vehicle, and turn off the ignition switch and then turn it on again. After you do that, you can use the cruise control system again. But if the cruise control system isn't recovered, you should contact a Ssangyong Dealer for diagnosis of the cruise control system.

CAUTION

1. Abnormal changes of the gear selector lever can damage the engine. Do not move the gear shift lever to Neutral while driving at the set speed. Automatic transaxle damage may result.
2. The speed that has been set may not be maintained on uphill or downhill slopes.
3. The speed may drop to less than the set speed on a steep uphill grade. The accelerator must be used if you want to maintain that speed.
4. The speed may increase to more than the set speed on a steep downhill grade. When the speed increases too much, turn off the cruise control.

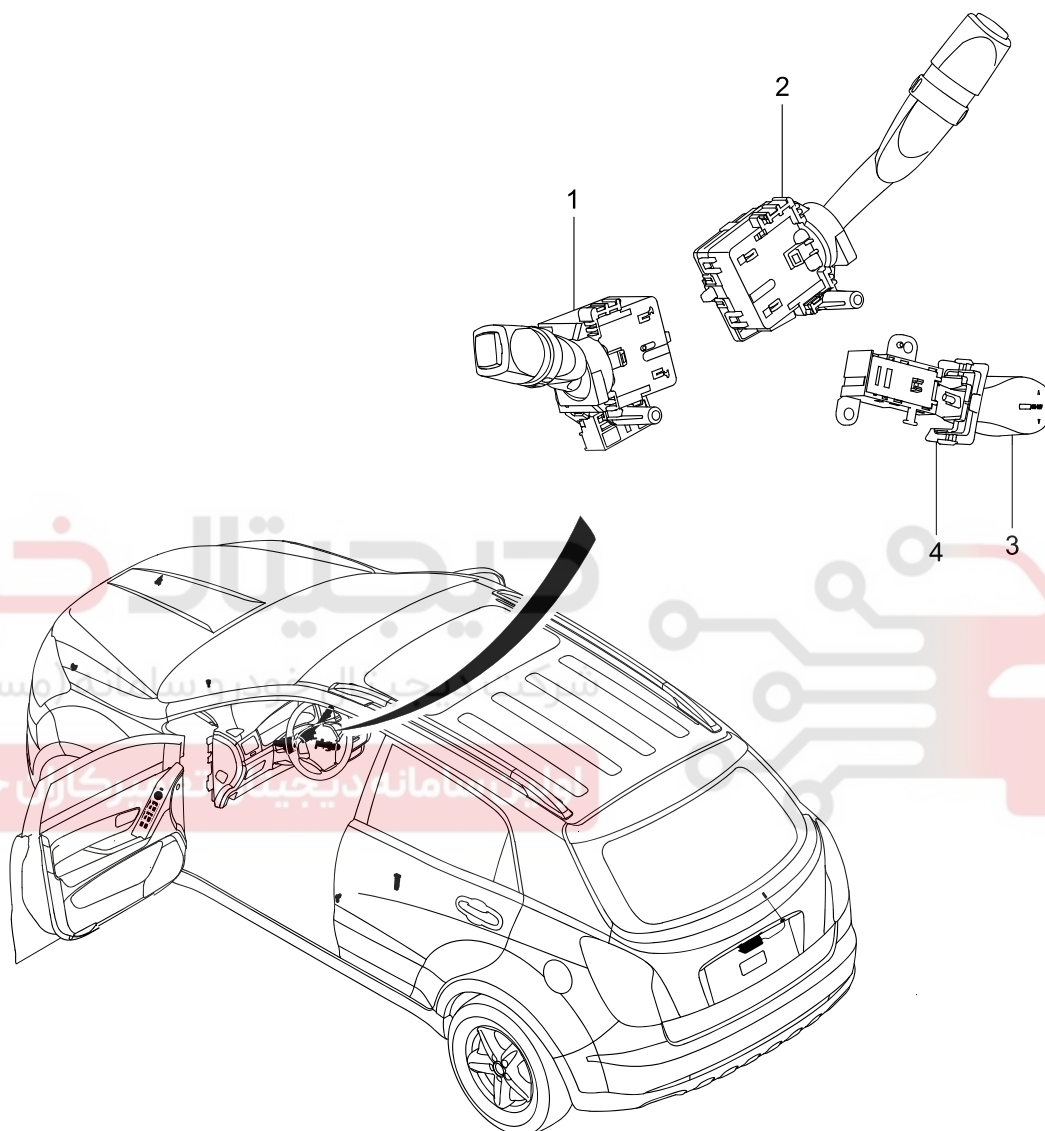
(2) Using the Cruise Control on Hills

How well the cruise control works on hills depends on the speed, load, and the steepness of the hill. When going up steep hills, you may have to depress the accelerator pedal to maintain your speed. When going downhill, you may have to brake or shift to a lower gear to keep your speed down. Applying the brake takes you out of the cruise control.

REMOVAL AND INSTALLATION

S.G.N.

0000-00 COMPONENT



1. Multifunction - Turn right assembly
2. Multifunction - Wiper assembly
3. Switch assembly - Cruise control
4. Cover - Cruise switch

Modification basis	
Application basis	
Affected VIN	

CRUISE CONTROL

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CRUISE CONTROL SWITCH ASSEMBLY

Preceding work

- Disconnect the negative cable from the battery.
- Remove the steering wheel body complete.



CRUISE CONTROL

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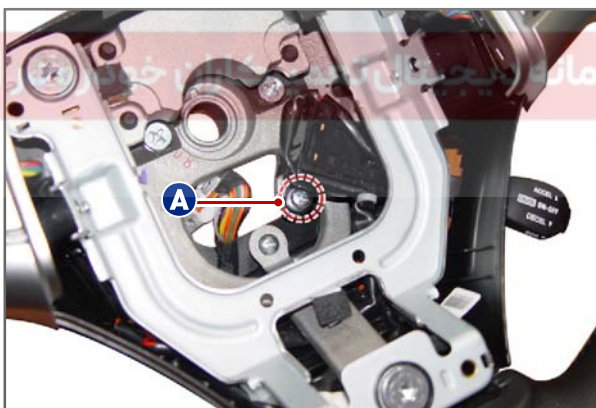
Modification basis	
Application basis	
Affected VIN	



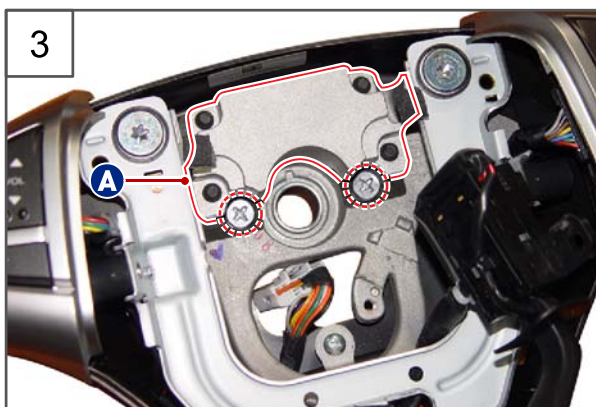
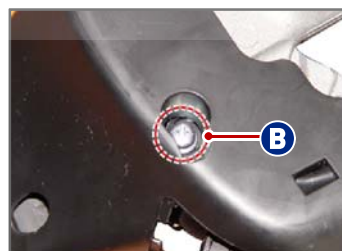
1. Remove the cruise control switch cover from the steering wheel.



2. Unscrew the screws (A, B) from the cruise control switch.

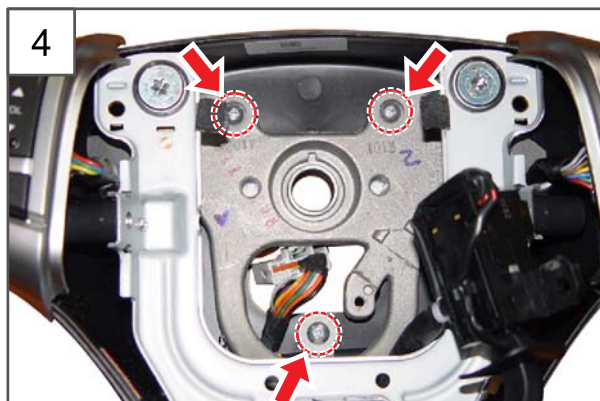


NOTE
The screws are located on the front side and rear side.

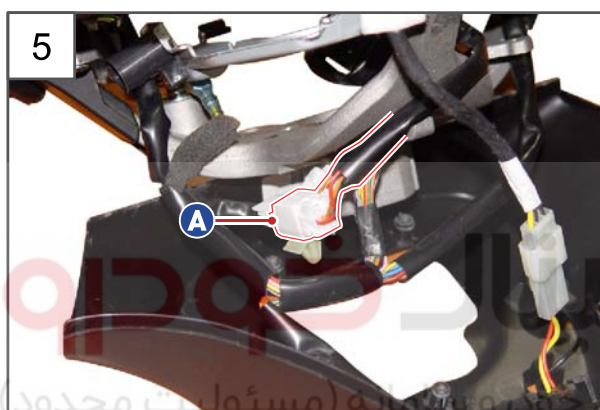


3. Separate the cruise control switch and unscrew two screws to remove the steering wheel damper (A).

Modification basis	
Application basis	
Affected VIN	



4. Unscrew three screws from the steering wheel lower cover.



5. Disconnect the cruise control switch connector (A).



6. Remove the cruise control switch assembly.

7. Install the cruise control switch assembly in the reverse order of removal.