

Component Procedures: Keyless Start / Stop Module

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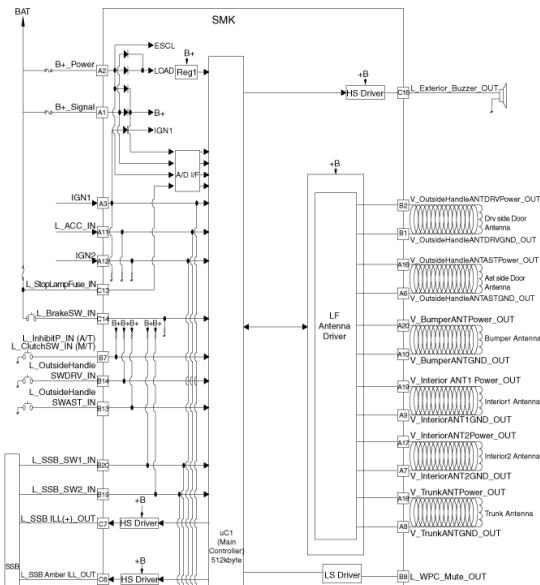
Component Procedures: Keyless Start / Stop Module

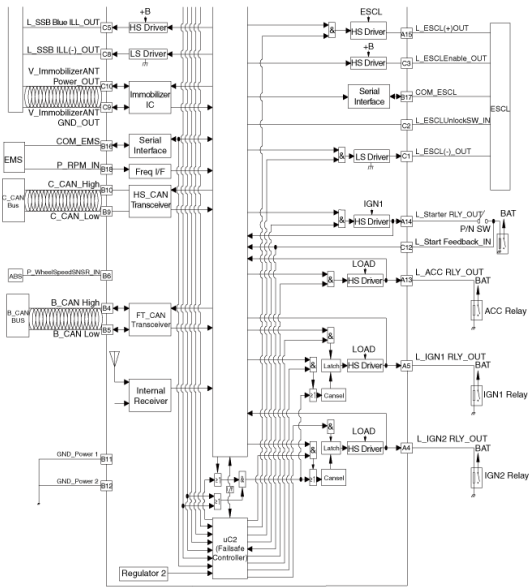
Smart Key Module System - Service Tips (Article 42558)

Smart Key Module System	Service Tips (1)
<p>Circuit Description</p> <p>The SMART KEY system allows the driver to access and operate a vehicle in a very convenient way. To access the vehicle, no traditional key or remote control unit is needed.</p> <p>The driver carries a SMART KEY FOB which does not require any conscious actions by the driver (e.g. operate a RKE button). The SMART KEY system is triggered by pressing a push button in the door handle.</p>	<p>4. Instrument Cluster : Immobilizer Indicator, Warning Buzzer Output, Warning Message.</p>
<p>■ Role of Main Components</p>	<p>5. Smart Key Antenna (Interior) : Detects Smart Key in interior area.</p>
<p>1. Smart Key Control Module :</p>	<p>6. Smart Key Trunk Antenna : Detects Smart Key in trunk area.</p>
<p>1) Controls Power Supply Relay (ACC, IG1, IG2, Start).</p>	<p>7. Start Stop Button (SSB) : Is used for the Engine Start Stop and Power transfer.</p>
<p>2) Transmits Passive Lock/Unlock signal to BCM via B-CAN.</p>	<p>8. Power Distribution Relay : SMK's power distribution control relay (ACC, IG1, IG2, Start).</p>
<p>3) Transmits Authorization information through serial communication with ECMP/PCM (Engine Start Permission).</p>	<p>9. Smart Key : It transmits Unique ID and Remote Control Signal in wireless.</p>
<p>4) Antenna operation & Smart Key Authorization.</p>	<p>10. External Buzzer : It generates various warning alerts or confirmation alerts when passive lock / unlock operate.</p>
<p>5) Diagnosis Function (Communicate with Diagnosis Tool through K-Line).</p>	<p>11. ECMP/PCM :</p>
<p>6) Sets Engine status & Transmission specification automatically using C-CAN information.</p>	<p>1) It transmits Information (Engine OFF/ Cranking/ Engine Start/ ETC..) of Engine Status via C-CAN.</p>
<p>7) Verifies Immobilizer communication data and Authorize.</p>	<p>2) It communicates Engine Start Authorization related information with Smart Key Control Module.</p>
<p>2. Smart Key Outside Handle :</p>	<p>12. Trunk Lid Handle Switch : It inputs Switch Signal for Passive Trunk Open Control.</p>
<p>1) Detects Smart Key on the outside of door area (LF Antenna Built-in).</p>	
<p>2) Passive Lock / Unlock (Button Type).</p>	
<p>3. Smart Key Bumper Antenna : Detects Smart Key on the outside of trunk area (LF Antenna Built-in).</p>	

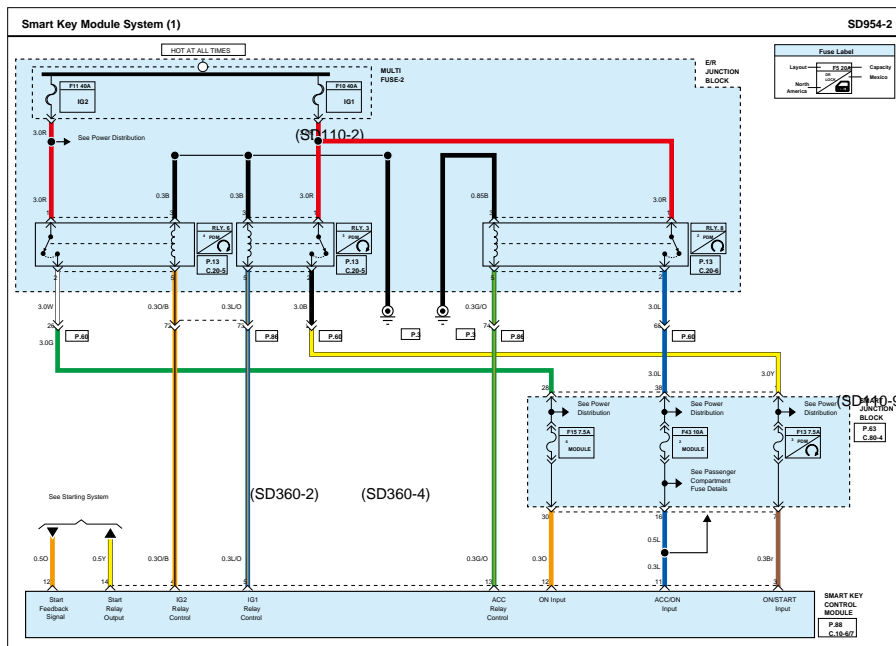
Smart Key Unit - Schematic Diagrams (Article 44785)

- Circuit Diagram





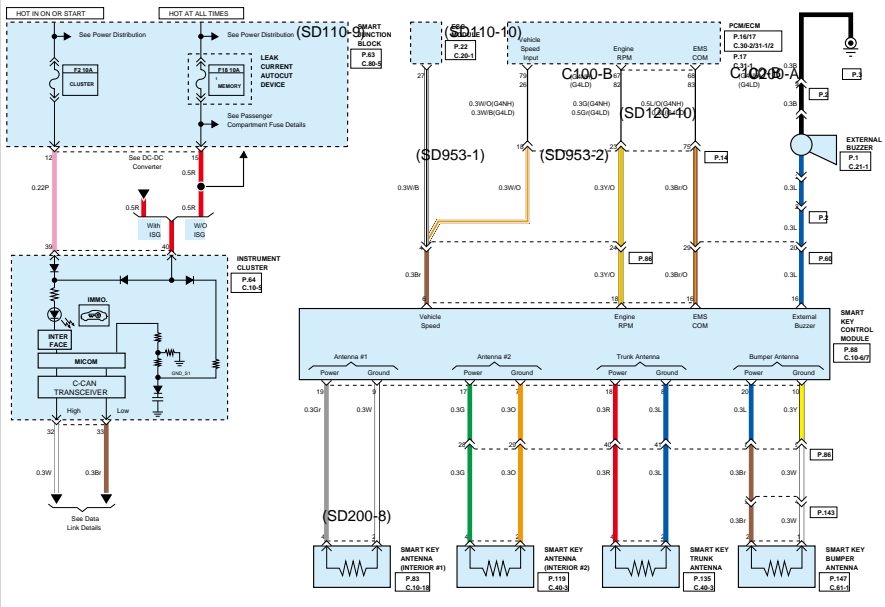
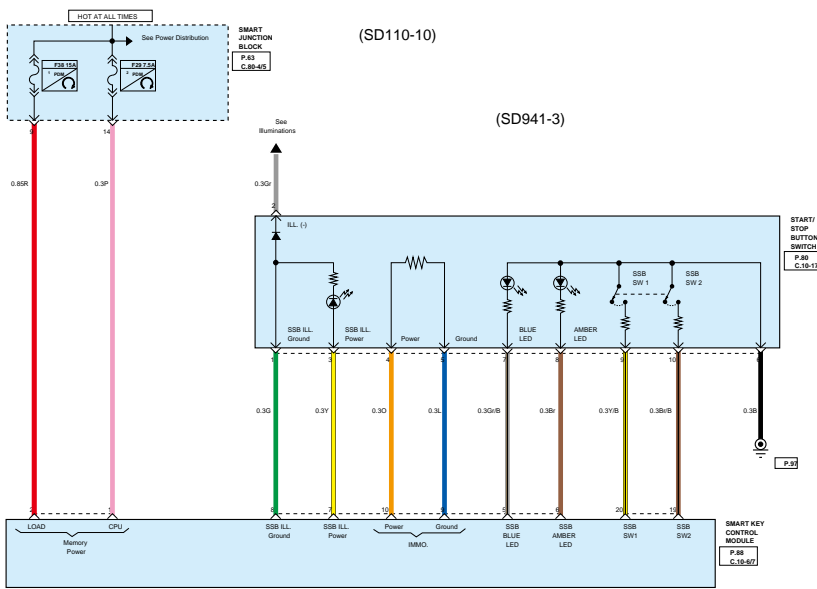
Smart Key Module System - Schematic Diagrams (Article 42551)



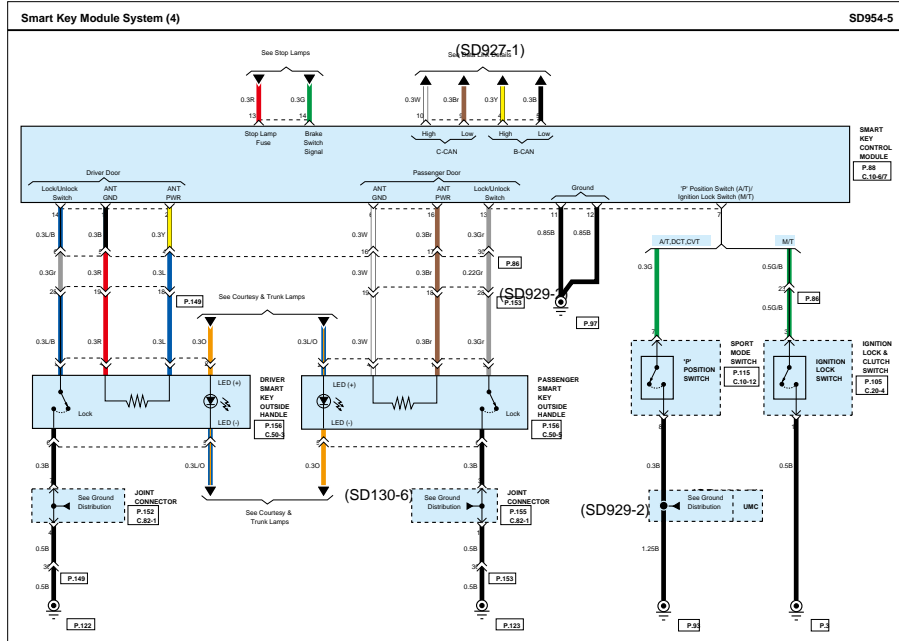
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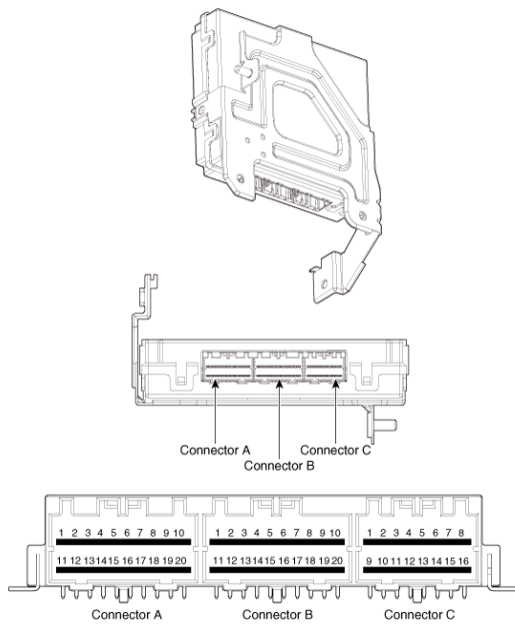


C200-K



Smart Key Unit - Components and Components Location (Article 44782)

- Components (1)



No Connector A Connector B Connector C

- 1 BAT (+)_Signal Driver's door antenna_GND -
- 2 BAT (+)_Power Driver's door antenna_Power -
- 3 IGN 1 - -
- 4 IGN 2_ Relay output B- CAN (High) -
- 5 IGN 1_ Relay output B-CAN (Low) SSB LED (Blue)
- 6 Assist door antenna_GND Wheel speed sensor SSB LED (Amber)
- 7 Interior antenna 2_GND AT : 'P' signal input MT : Clutch switch signal input SSB Illumination (+)
- 8 Trunk antenna_GND WPC Mute SSB Illumination (-)
- 9 Interior antenna 1_GND C-CAN (Low) Immobilizer antenna_GND
- 10 Bumper antenna_GND C-CAN (High) Immobilizer antenna_Power
- 11 ACC GND 1 -
- 12 IGN2 GND 2 Start signal feedback
- 13 ACC_Relay output Assist door switch_signal Stop lamp fuse
- 14 Starter_Relay output Driver's door switch_signal Brake switch

15 - - -

16 Assist door antenna_Power EMS CAN Exterior buzzer

17 Interior antenna 2_Power -

18 Trunk antenna_Power RPM_Input

19 Interior antenna 1_Power SSB switch2

20 Bumper antenna_Power SSB switch1

Smart Key Unit - Repair Procedures (Article 44791)

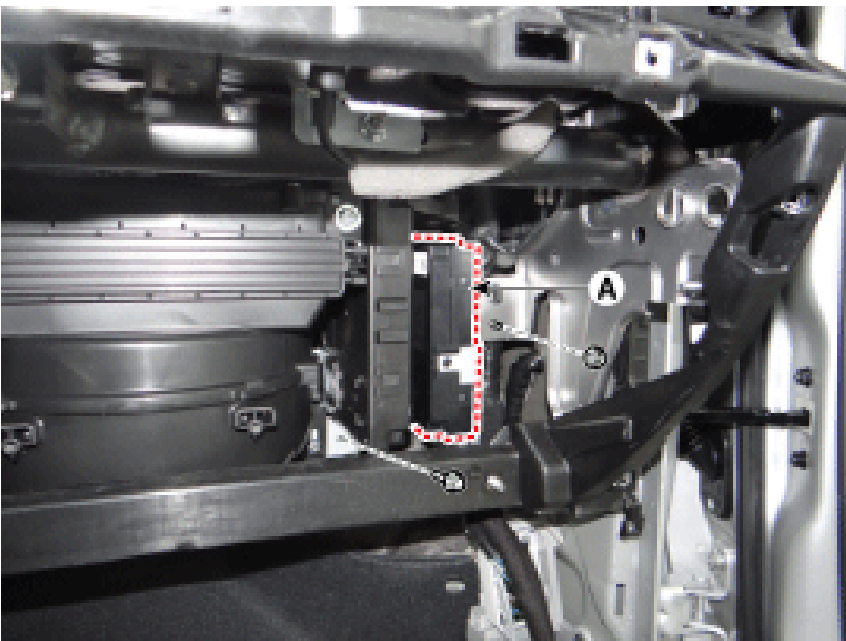
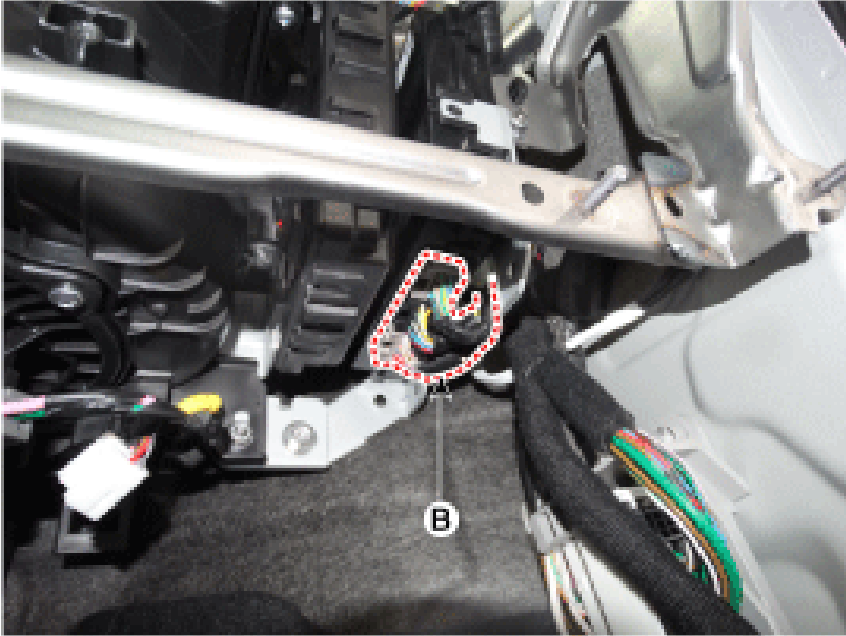
- Removal

Smart Key Unit

- Disconnect the negative (-) battery terminal.

- Remove the glove box. (Refer to Body - "Glove Box Upper Cover Assembly")

- Remove the smart key unit (A) after disconnecting the connectors (B) and loosening the bolt and nut.

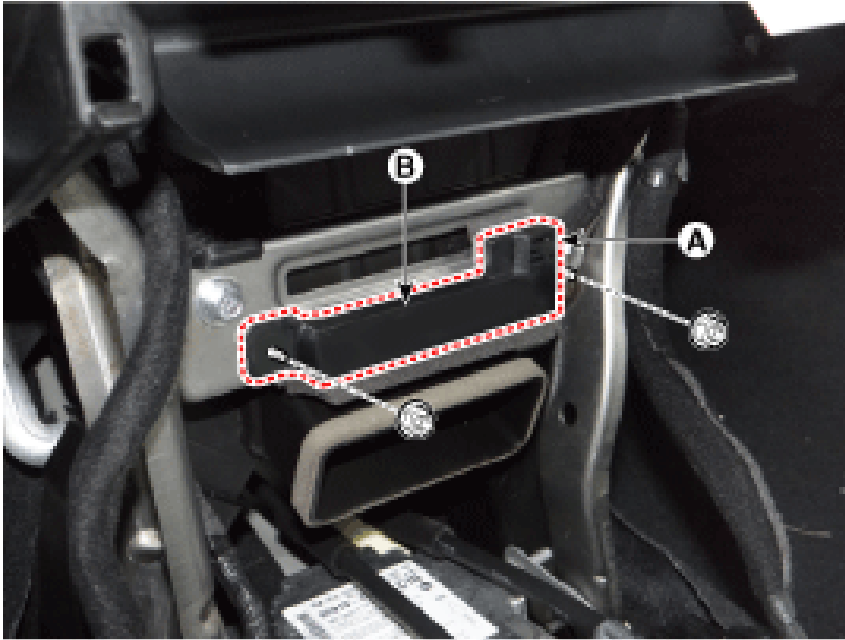


Interior 1 Antenna

Take care not to scratch the crash pad and related parts.

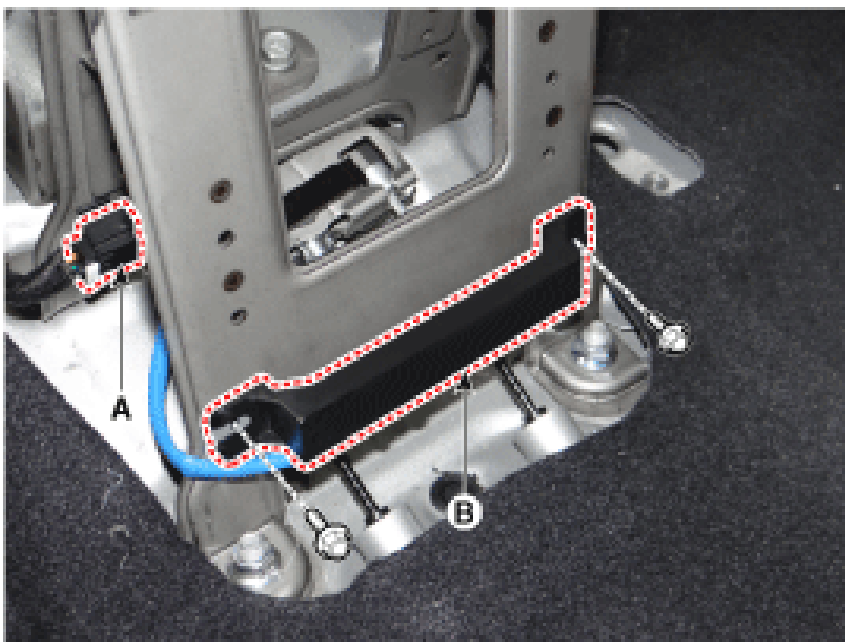
NOTICE

- Take care not to scratch the crash pad and related parts.
- Remove the console upper cover. (Refer to Body - "Floor Console Assembly")
- Remove the interior 1 antenna (B) after loosening the mounting nuts and disconnect the connector (A).



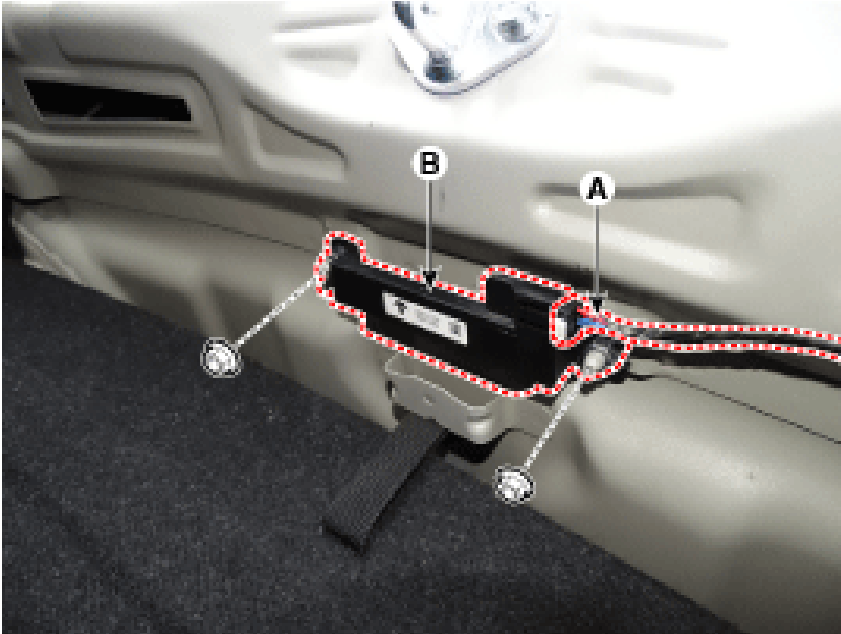
Interior 2 Antenna

- Remove the console upper cover (Refer to Body - "Floor Console Assembly")
- Remove the interior 2 antenna (B) after loosening the mounting nuts (2EA) and disconnecting the connector (A).



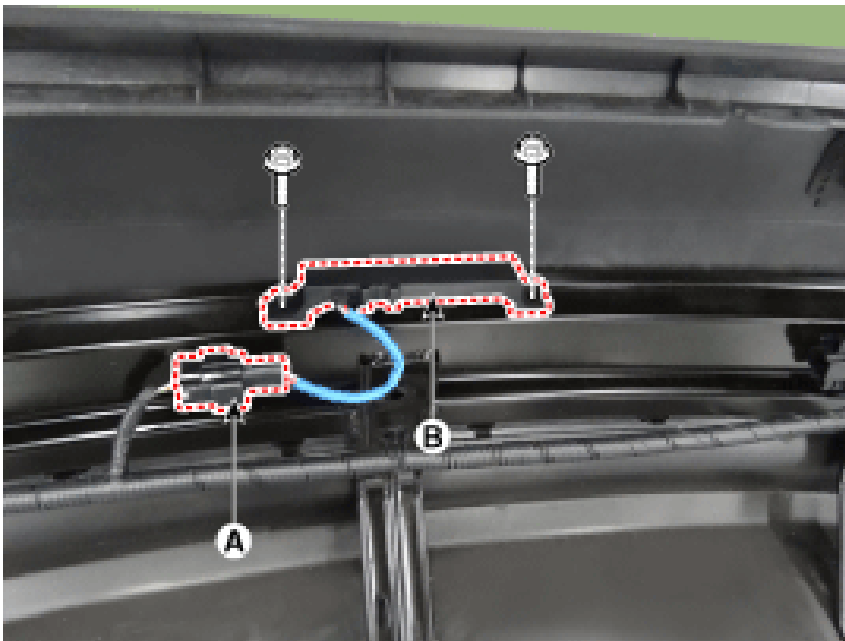
Trunk Antenna

- Disconnect the negative (-) battery terminal
- Remove the rear transverse trim.
- Remove the trunk antenna (B) after disconnect the connector (A) and loosening the mounting nuts.



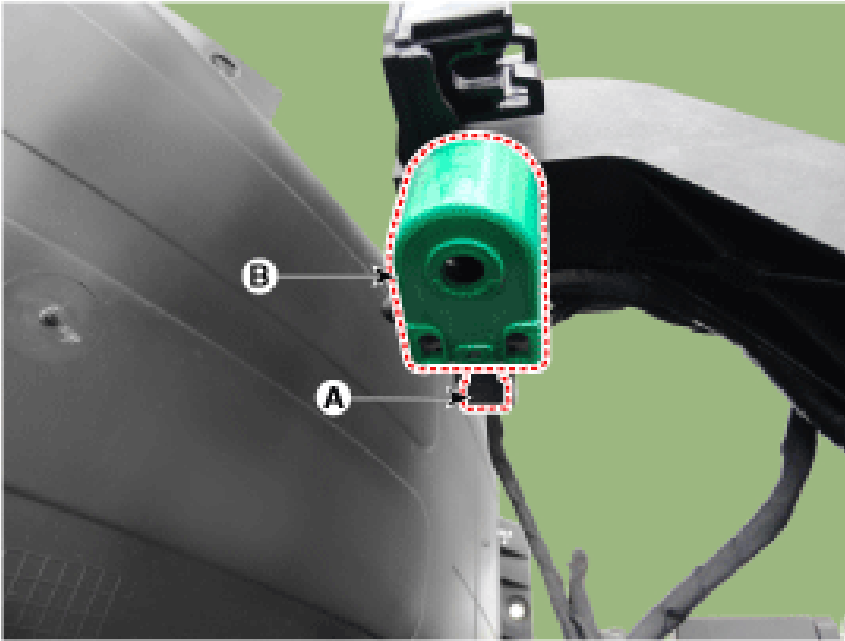
Rear Bumper Antenna

- Remove the rear bumper cover. (Refer to Body - "Rear Bumper Cover")
- Remove the rear bumper antenna (B) after disconnect the connector (A) and loosening the mounting nuts.



Buzzer

- Remove the front left wheel guide. (Refer to Body - "Front Wheel Guard")
- Remove the buzzer (B) after disconnect the connector (A)



Door Outside Handle

- Remove the front outside door handle. (Refer to Body - "Front Door Outside Handle")



- Inspection

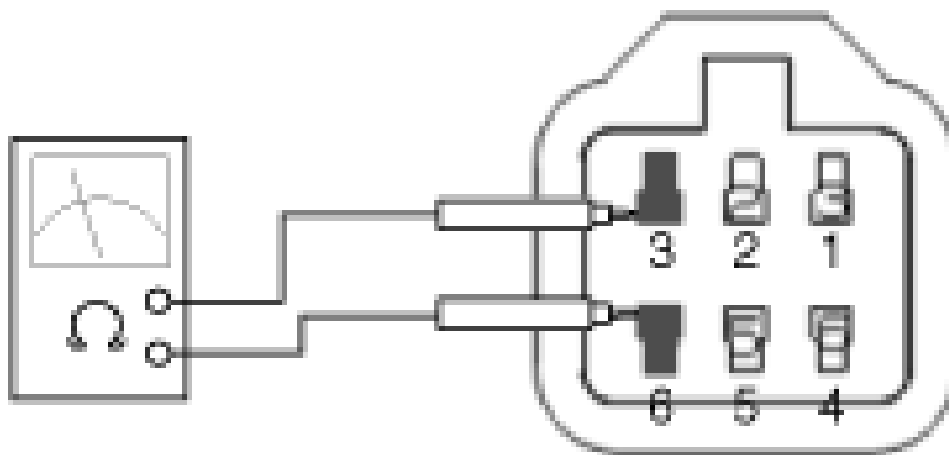
Smart Key Switch

Antenna

- Disconnect the front door outside handle connector (A).

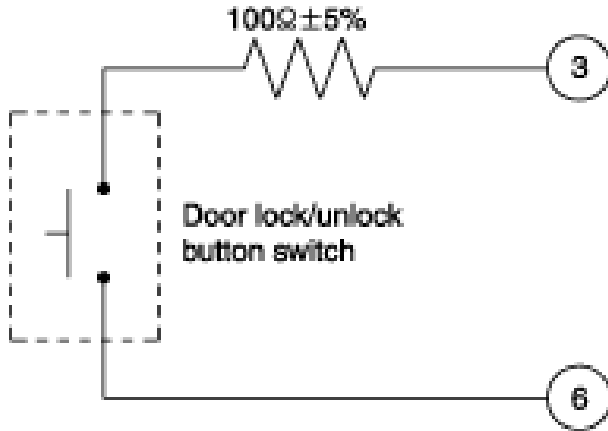


- Check for continuity between terminals No 3 and No 6. No Description 1 Door antenna (+) 2 Pocket lamp LED (+) 3 Door lock/unlock button switch 4 Door antenna (-) 5 Pocket lamp LED (-) 6 Door lock/unlock button switch ground



No Description

- 1 Door antenna (+)
- 2 Pocket lamp LED (+)
- 3 Door lock/unlock button switch
- 4 Door antenna (-)
- 5 Pocket lamp LED (-)
- 6 Door lock/unlock button switch ground



- Installation
- Install the smart key unit.
- Install the smart key unit mounting bolts and connect the connector.
- Install the glove box.
- Install the negative (-) battery terminal and check the smart key system.
- Install the interior 1 antenna.
- Install the crash pad center panel.
- Install the interior 2 antenna.
- Install the console rear complete assembly.
- Trunk mounted antenna.
- Install the rear transverse trim.
- Install the rear bumper antenna.
- Install the rear bumper cover.
- Install the negative (-) battery terminal and check the smart key system
- Install the outside handle.
- Install the front outside door handle.

All Technical Service Bulletins (itype_100)

Tsbs

- IDLE STOP & GO SYSTEM OPERATION, DIAGNOSTIC AND BATTERY SENSOR RECALIBRATION PROCEDURE (20-FL-004H, 2020/05/29)

Software Update Bulletins (itype_434)

Tsbs

- IDLE STOP & GO SYSTEM OPERATION, DIAGNOSTIC AND BATTERY SENSOR RECALIBRATION PROCEDURE (20-FL-004H, 2020/05/29)