SECTION 9T1
REMOTE KEYLESS ENTRY AND ANTI-THEFT SYSTEM

CAUTION: Disconnect the negative battery cable before removing or installing any electrical unit or when a tool or equipment could easily come in contact with exposed electrical terminals. Disconnecting this cable will help prevent personal injury and damage to the vehicle. The ignition must also be in LOCK unless otherwise noted.

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REMOTE KEYLESS ENTRY AND ANTI-THEFT SYSTEM

The remote keyless entry and anti-theft system can perform the following functions:

• Remotely lock and unlock the vehicle doors by means of a hand-held, high-frequency transmitter.
• Sense intrusion into the vehicle through the doors or the hood.
• Activate a warning if an intrusion is detected.
• Automatically relock the doors if the door or the tailgate is not opened within 30 seconds after the vehicle has been unlocked by remote keyless entry.
• Help the driver find the vehicle in a parking area.

The remote keyless entry system consists of the following components:

• STICS.
• Remote keyless entry system receiver.
• Hand-held transmitter.
• Tailgate open switch.
• Door contact switch.
• Siren.
• Hood open switch.
• Key reminder switch.
• Antenna.

STICS can perform the following functions:

1. Wiper/INT sensing vehicle speed.
   • By operating INT time control volume, variable time will be changed within 1.5-20 seconds.
2. Washer relating wiper.
3. Dimming room lamp.
   • When room lamp is coupled with door, it turns on if door is opened. After closing the door it maintains 2 seconds of lighting and dims off within 3 seconds.
4. Time delayed power window control.
   • Power window can be operated within 30 seconds after turning the IGN 1 switch from ON to OFF. If driver/passenger’s door is opened within the 30 seconds from that moment.
5. Rear defogger timer.
   • The rear defogger will be operated for 12 min. by turning ON the defogger switch while engine is running.
   • Defogger will be stopped by pushing the switch again.
   • The defogger will be operated 6 min. if push ON the switch within 10 min. after 12 min. of operation.

   • The warning lamp will be turned on for about 6 sec. With an intermittent chime bell when the IGN. Switch is ON unless fastening the seat belt.
7. Parking brake warning.
   • The indicator lamp will flash if drive while the parking brake is applied.
8. Tail lamp lighting warning.
   • When the driver’s door is opened while the tail lamp is still ON, the buzzer operates intermittently. In this condition, the door will be automatically unlock when it locked.
9. Door ajar warning.
   • The indicator lamp will be blinking when the door is not closed completely and driving.
10. IGN key reminder.
    • The chime will be operated intermittently if the driver’s door is opened while the IGN key is still remaining in the ignition switch. In this condition, the door will be automatically unlocked when it locked.
11. Central door lock.
    • All doors will be locked/unlocked by locking/unlocking the driver’s or passenger’s door.
12. Coupled with REKES.
    • Being coupled with REKES (remote keyless entry system), all doors will be locked/unlocked according to signals of transmitter when the ignition key is not inserted.
13. Ignition key hole illumination.
    • Coupled with door switch, ignition key hole illumination lamp will turn on when the driver’s door is opened and will dim off after 10 sec. After closing the door.
    • All doors will be locked automatically if the vehicle speed reaches 50 km/h though the doors are in unlock.
15. Auto door unlock.
    • All doors will be automatically unlock if the vehicle crashes while driving (over 15km/h).

Operate the burglar alarm.

1. Burglar alarm must operate immediately when the door, tailgate or hood is opened with improper ways after all doors and hood were closed and continued this status for 1 seconds.
2. If the tailgate is opened by key when the system is on the burglar alarm condition, the system must be changed to the second burglar alarm condition from normal condition.
COMPONENTS LOCATOR
REKES & STICS

1. Remote Keyless Entry System Receiver
2. Antenna
3. STICS
### Introduction

Using the service connector, possible defects in power section, input output section of internal STICS unit can be detected and each normal status and defect mode can be checked.

### Diagnosis method

1. Use buzzer for diagnosis check status output.
2. Following function outputs should not act when diagnosis switch is ON (STICS in the diagnosis socket box : connection of No. 7 and ground No. 1)
   - Tail lamp ON warning (buzzer output stop, door lock/unlock output stop)
   - Seat belt warning (chime bell output stop)
   - Central door lock (door lock/unlock output stop)
3. Functions in No. 2 should be restored when diagnosis switch is OFF.
4. Check output should be made once while the diagnosis switch is ON.
5. When inputs are made by operating each different switches more than 2 continuously, make output according to input order (buzzer ON) and trun off the buzzer for 1 second and than make other remaining outputs for input switch.
6. Buzzer output is as follows.
   - T1 : 0.3 ± 0.1 sec.
   - T2 : 0.3 ± 0.1 sec.
   - T : 0.6 ± 0.2 sec.

### Note:
- In case of checking related devices, there will be buzzer sound if it is normal and no buzzer sound if it is defective.

<table>
<thead>
<tr>
<th>Step</th>
<th>Required Condition</th>
<th>Action</th>
<th>Valve(s)</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Diagnosis switch ON</td>
<td>Confirm the diagnosis function start</td>
<td>Buzzer once</td>
<td>Diagnosis switch ON</td>
</tr>
<tr>
<td>2</td>
<td>Battery voltage supply</td>
<td>Check the battery</td>
<td>Buzzer twice</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Operation of battery and related devices</td>
<td>Tailgate, rear door lock switch</td>
<td>Buzzer once</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
<td>Driver’s door lock switch</td>
<td>Buzzer once</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td></td>
<td>Passenger’s door lock switch</td>
<td>Buzzer once</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
<td>Driver’s door switch</td>
<td>Buzzer once</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td></td>
<td>Passenger and rear door switch</td>
<td>Buzzer once</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>REKES input</td>
<td></td>
<td>Buzzer once</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>IGN key insertion</td>
<td>Key reminder switch</td>
<td>Buzzer once</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td></td>
<td>IGN and power window relay</td>
<td>IGN 1 buzzer twice, IGN 2 buzzer once, Power window buzzer 3 times</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Operation of IGN and related devices</td>
<td>Parking brake switch</td>
<td>Buzzer once</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td></td>
<td>Seat belt switch</td>
<td>Buzzer once</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td></td>
<td>Washer switch</td>
<td>Wiper motor parking 3 times, washer switch once, wiper relay twice</td>
<td></td>
</tr>
</tbody>
</table>
INPUT MEMORY

- When the REKES transmitter is lost
  1. Connect the battery terminal No. 3 and REKES terminal No. 4 which are on the diagnosis socket under the dash board with service lead wire.
  2. push the lock or unlock button on the REKES transmitter.
  3. Input memory and close all doors.
  4. Check the operation of door locking system by pushing the lock or unlock button on the REKES transmitter.

- When the transmitter is faulty
  1. Connect the battery terminal No. 3 and REKES terminal No. 4 which are on the diagnosis socket under the dash board with service lead wire.
  2. Set the input switch of the REKES receiver onto the No. 1 or No. 2 position and push the lock or unlock button on the REKES transmitter.
  3. Set the input switch of the REKES receiver onto the central position and close all doors.
  4. Check the operation of door locking system by pushing the lock or unlock button on the REKES transmitter.
REPAIR INSTRUCTIONS

ON-VEHICLE SERVICE
UNIT REPAIR

RECEIVER
Removal and Installation Procedure
1. Remove the bolts with the receiver.
   - Dissimilar metals in direct contact with each other may corrode rapidly. Make sure to use the correct fasteners to prevent premature corrosion.
2. Installation should follow the removal procedure in the reverse order.

ANTENNA
Removal and Installation Procedure
1. Disconnect the antenna cable from the receiver.
2. Remove the REKES antenna.
3. Installation should follow the removal procedure in the reverse order.

STICS
Removal and Installation Procedure
1. Disconnect the negative battery cable.
2. Remove the floor console. Refer to Section 9G, Interior Trim.
3. Disconnect the electrical connector.
4. Remove the bolts with the STICS.
   - Dissimilar metals in direct contact with each other may corrode rapidly. Make sure to use the correct fasteners to prevent premature corrosion.
5. Installation should follow the removal procedure in the reverse order.
STICS - DOOR CONTACT SWITCH

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