

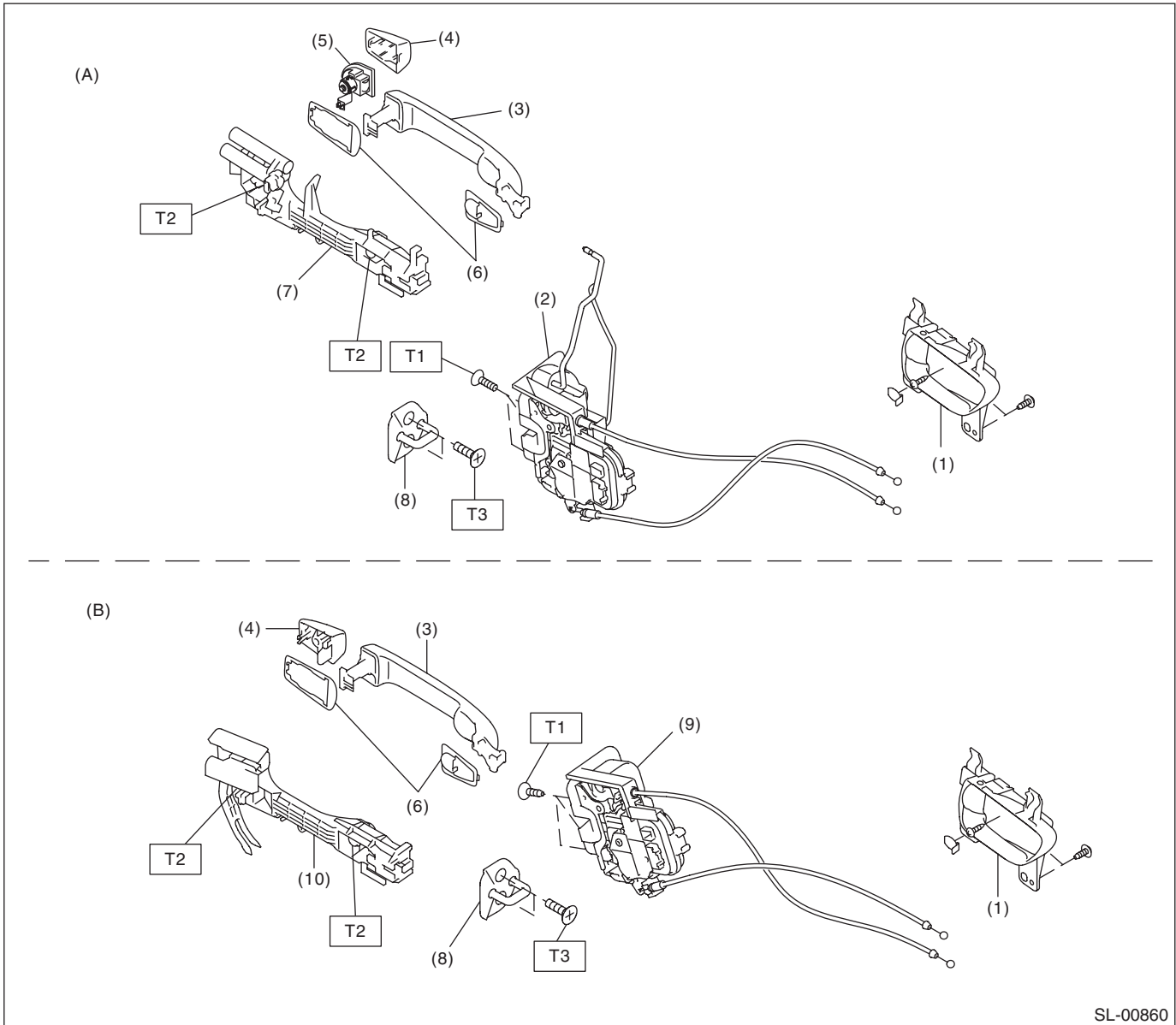
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# SECURITY AND LOCKS

## 1. General Description

### A: COMPONENT

#### 1. DOOR LOCK ASSEMBLY



SL-00860

(A) Front

(B) Rear

- |  |  |
|--|--|
| <ul style="list-style-type: none"> <li>(1) Inner remote ASSY</li> <li>(2) Front door latch and door lock actuator ASSY</li> <li>(3) Door outer handle</li> <li>(4) Door outer handle cover</li> <li>(5) Key cylinder (driver's side only)</li> <li>(6) Door outer handle spacer</li> </ul> | <ul style="list-style-type: none"> <li>(7) Front door outer handle frame ASSY</li> <li>(8) Striker</li> <li>(9) Rear door latch and door lock actuator ASSY</li> <li>(10) Rear door outer handle frame ASSY</li> </ul> |
|--|--|

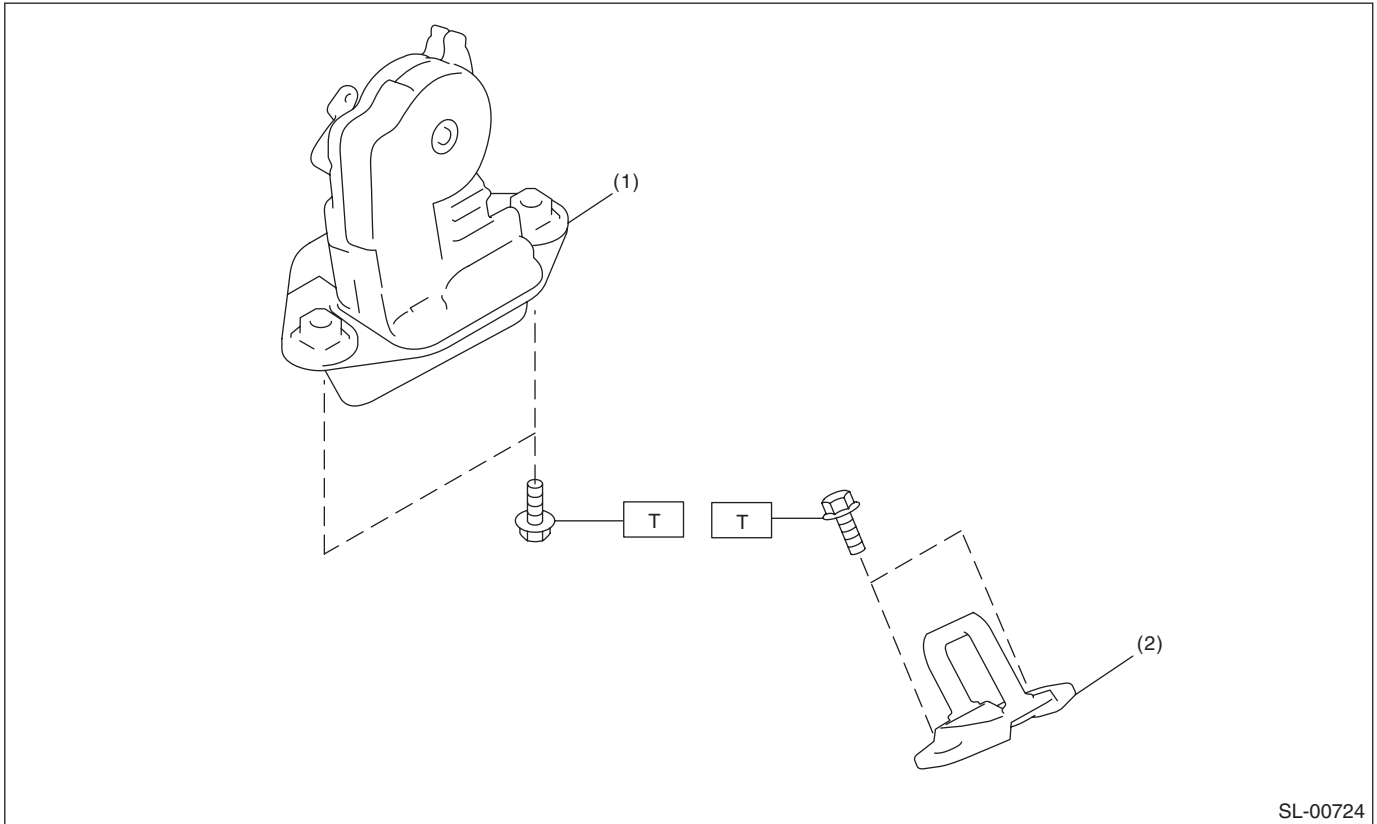
**Tightening torque: N·m (kgf·m, ft·lb)**

**T1: 6.5 (0.66, 4.8)**

**T2: 7.5 (0.76, 5.5)**

**T3: 18 (1.8, 13.3)**

## 2. REAR GATE LOCK



SL-00724

(1) Rear gate actuator and latch  
ASSY

(2) Rear gate striker

**Tightening torque: N-m (kgf-m, ft-lb)**

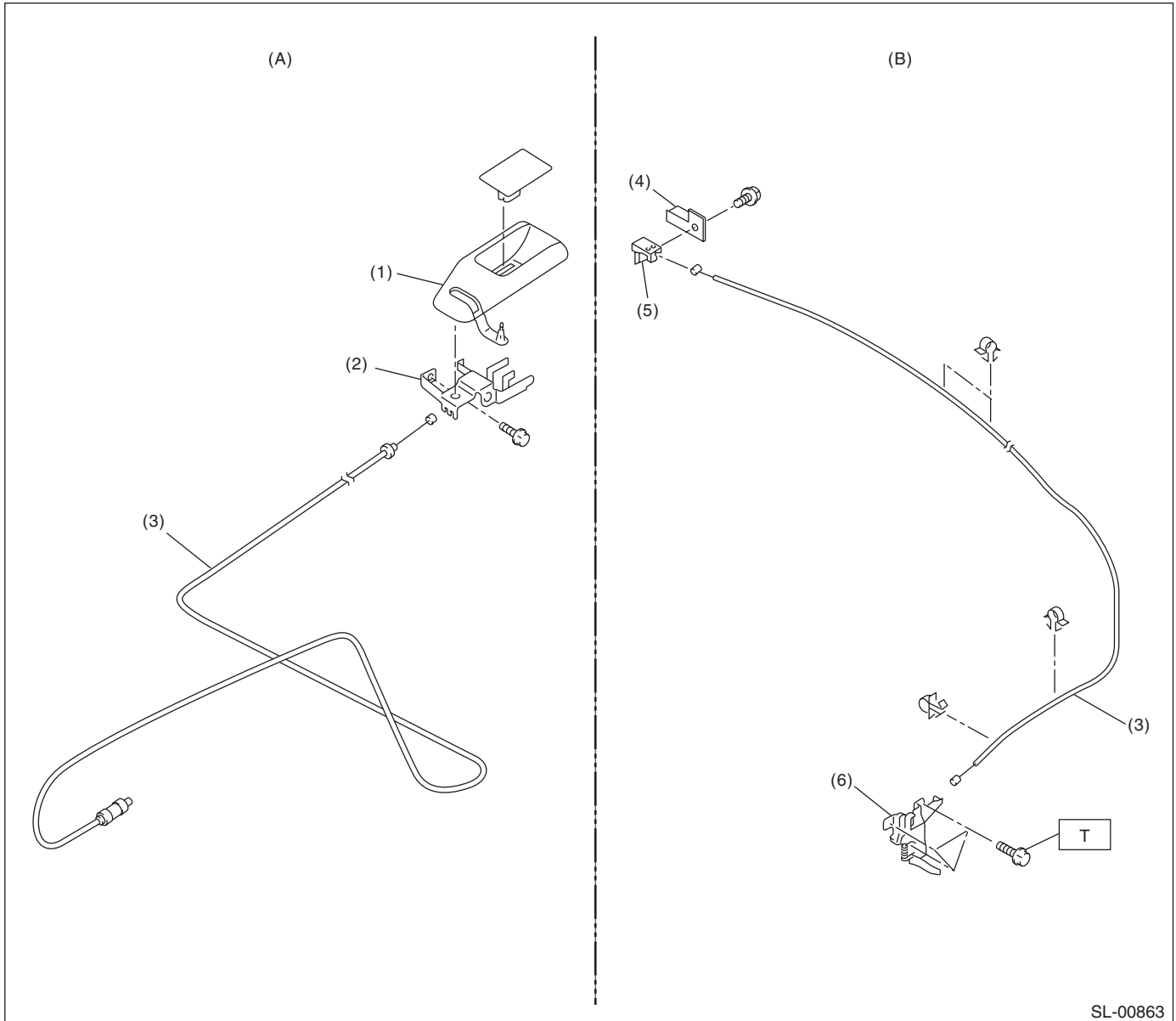
**T: 25 (2.5, 18.4)**

# General Description

## SECURITY AND LOCKS

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### 3. FRONT HOOD LOCK AND REMOTE OPENERS



(A) Fuel lock release

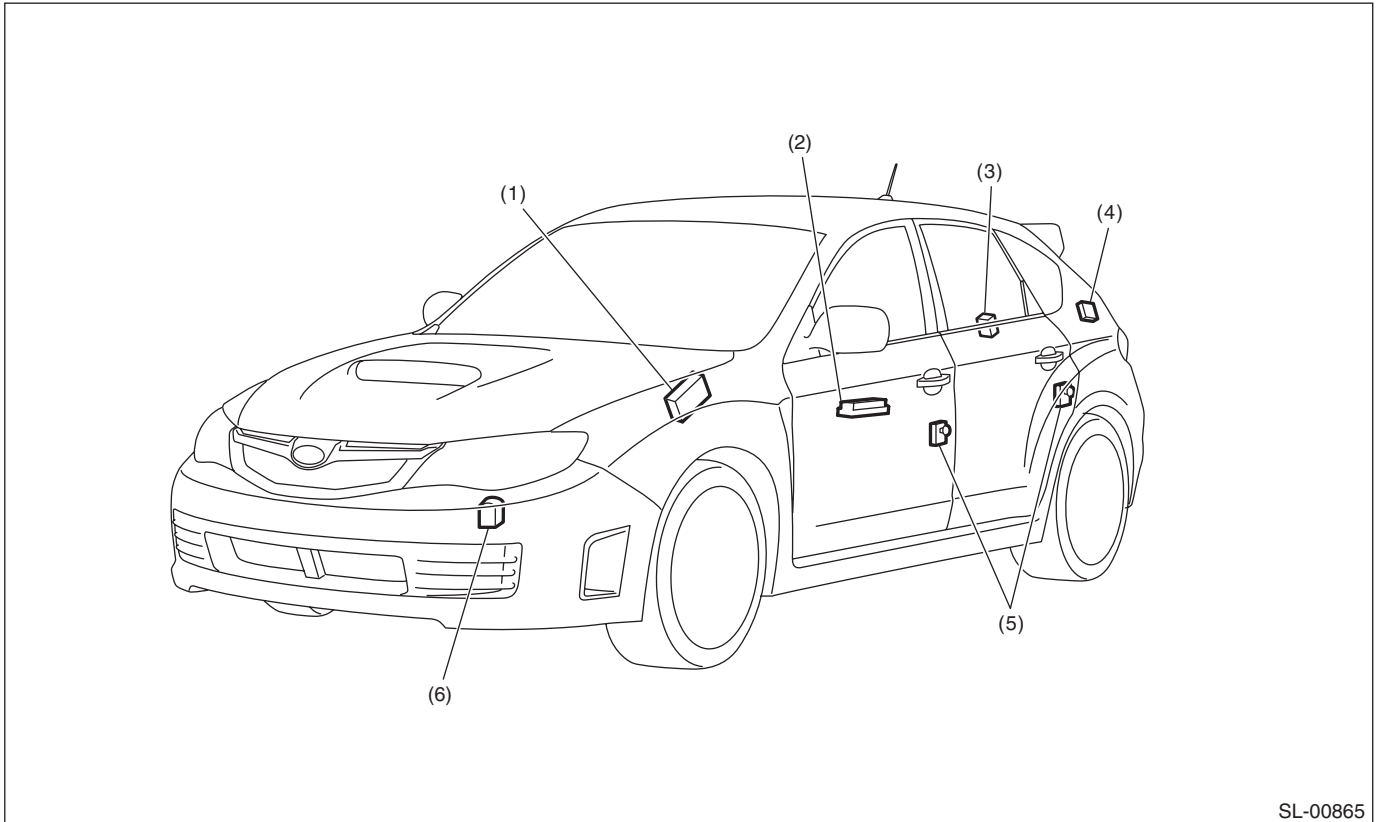
(B) Hood lock release

- (1) Cover
- (2) Pull handle ASSY
- (3) Cable

- (4) Lever ASSY bracket
- (5) Lever ASSY
- (6) Front hood lock ASSY

**Tightening torque: N·m (kgf·m, ft·lb)**  
**T: 33 (3.36, 24.2)**

### 4. KEYLESS ENTRY SYSTEM



SL-00865

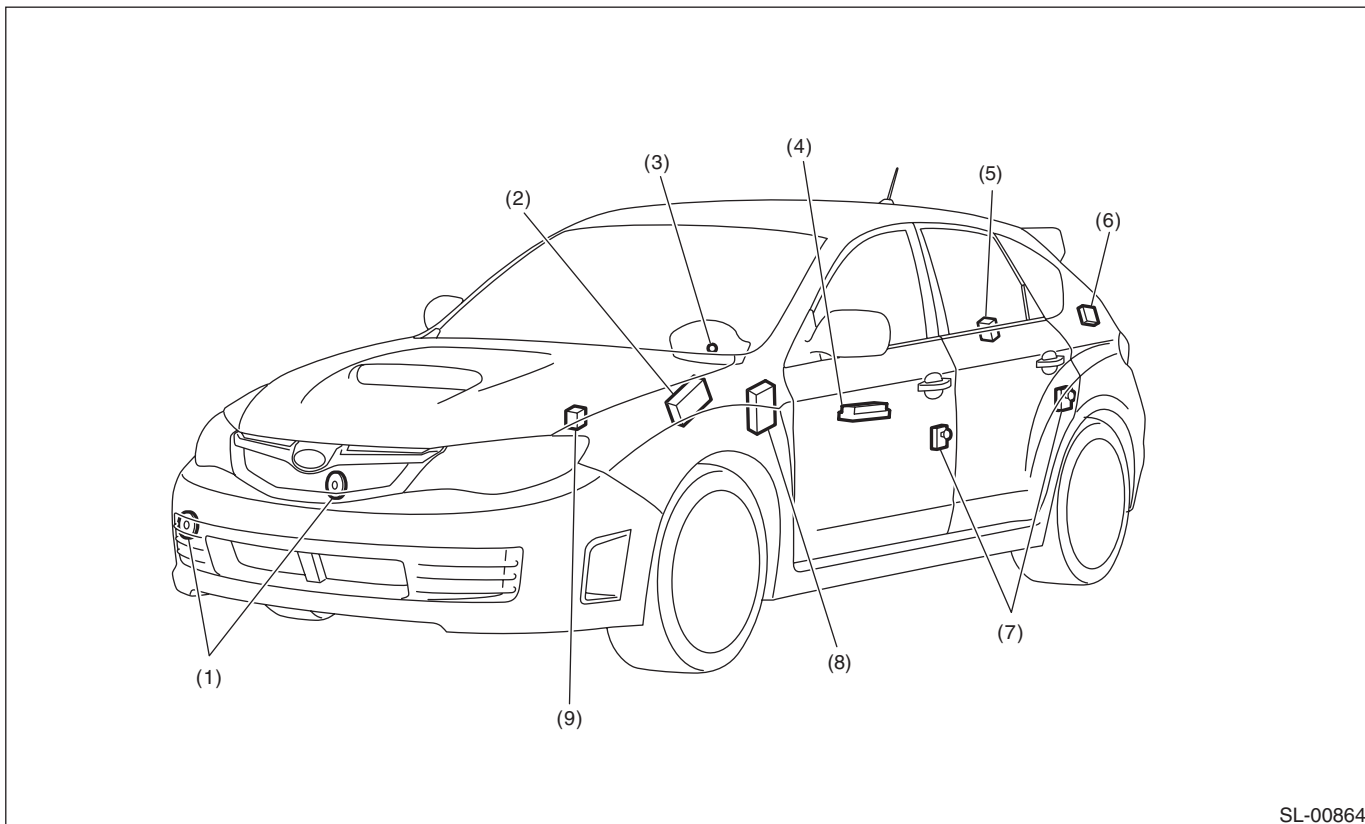
- |                              |                                  |                    |
|------------------------------|----------------------------------|--------------------|
| (1) Body integrated unit     | (3) Rear gate latch switch       | (5) Door switch    |
| (2) Power window main switch | (4) Keyless entry control module | (6) Keyless buzzer |

# General Description

## SECURITY AND LOCKS

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### 5. SECURITY SYSTEM



SL-00864

- |  |                                  |   |
|--|----------------------------------|---|
| (1) Horn   | (4) Power window main switch     | (8) Impact sensor<br>(driver's seat instrument panel side)<br>(dealer option) |
| (2) Body integrated unit                               | (5) Rear gate latch switch       | (9) Horn relay (in main fuse box)   |
| (3) Security indicator light<br>(in combination meter) | (6) Keyless entry control module |   |
|  | (7) Door switch                  |   |

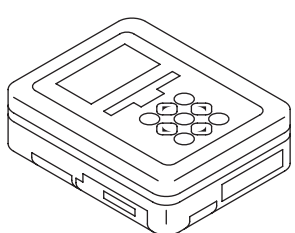
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## B: CAUTION

- Before disassembling or reassembling parts, always disconnect the battery ground cable from battery. When repairing the audio, control module, etc. which are provided with memory functions, record the memory contents before disconnecting the ground cable from battery. Otherwise, these contents are erased upon disconnection.
- After disconnecting the battery or after restoring from a dead battery condition, turn the ignition to ON and OFF, and perform after opening and closing the driver's side door a few times.
- Reassemble the parts in the reverse order of disassembly unless otherwise indicated.
- Adjust the parts to the specifications described in this manual if so designated.
- Connect the connectors securely during reassembly.
- After reassembly, make sure all the functional parts operate smoothly.
- The airbag system wiring harness is routed near electrical parts and switches.
- Do not use the electrical test equipment on the airbag system wiring harnesses and connector circuits.
- Be careful not to damage the airbag system wiring harness when servicing the ignition key cylinder and steering lock CM.

## C: PREPARATION TOOL

### 1. SPECIAL TOOL

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 <small>ST1B021XU0</small>	1B021XU0	SUBARU SELECT MONITOR III KIT	Used for diagnosis of the electrical system.

### 2. GENERAL TOOL

TOOL NAME	REMARKS
Circuit tester	Used for measuring resistance and voltage.
Drill	Used for replacing the ignition key lock or steering lock CM.
Clip remover	Used for removing trim clip.

## 2. Door Lock Control System

### A: WIRING DIAGRAM

For the door lock control system wiring diagram, refer to the keyless entry system of the WI section. <Ref. to WI-120, WIRING DIAGRAM, Keyless Entry System.>

### B: INSPECTION

#### 1. SYMPTOM CHART

Symptoms	Repair order	Reference
The door lock control system does not operate.	1. Remove the following fuses and inspect visually. <ul style="list-style-type: none"> <li>• No. 3 (In fuse &amp; relay box)</li> <li>• No. 7 (In fuse &amp; relay box)</li> <li>• No. 8 (in main fuse box)</li> </ul>	If the fuse is blown out, replace the fuse with a new part. If there is no abnormal condition at the fuse, check the power supply and ground circuit. <Ref. to SL-8, CHECK POWER SUPPLY AND GROUND CIRCUIT, INSPECTION, Door Lock Control System.>
	2. Check the power supply and ground circuit for body integrated unit.	<Ref. to SL-8, CHECK POWER SUPPLY AND GROUND CIRCUIT, INSPECTION, Door Lock Control System.>
	3. Check the door lock switch and the circuit.	<Ref. to SL-9, CHECK DOOR LOCK SWITCH, INSPECTION, Door Lock Control System.>
	4. Check the door lock actuator and the circuit.	<Ref. to SL-10, CHECK DOOR LOCK ACTUATOR AND CIRCUIT, INSPECTION, Door Lock Control System.>
	5. Check the rear gate opener switch and the circuit.	<Ref. to SL-11, CHECK REAR GATE OPENER SWITCH CIRCUIT, INSPECTION, Door Lock Control System.>
Cannot lock/unlock with the door lock switch.	Check the door lock switch.	<Ref. to SL-9, CHECK DOOR LOCK SWITCH, INSPECTION, Door Lock Control System.>
A specific door lock actuator does not operate.	Check the door lock actuator and circuit.	<Ref. to SL-10, CHECK DOOR LOCK ACTUATOR AND CIRCUIT, INSPECTION, Door Lock Control System.>

#### 2. CHECK POWER SUPPLY AND GROUND CIRCUIT

Step	Check	Yes	No
<b>1 CHECK POWER SUPPLY.</b> 1) Disconnect the harness connector of body integrated unit. 2) Measure the voltage between harness connector terminal and chassis ground. <b>Connector &amp; terminal</b> <i>(i84) No. 34 (+) — Chassis ground (-):</i> <i>(B280) No. 6 (+) — Chassis ground (-):</i> <i>(B281) No. 2 (+) — Chassis ground (-):</i>	Is the voltage 10 V or more?	Go to step 2.	Check the harness for open or short circuit between body integrated unit and fuse.
<b>2 CHECK GROUND CIRCUIT.</b> Measure the resistance between harness connector terminal and chassis ground. <b>Connector &amp; terminal</b> <i>(i84) No. 28 — Chassis ground:</i> <i>(B280) No. 17 — Chassis ground:</i> <i>(B281) No. 20 — Chassis ground:</i> <i>(B279) No. 27 — Chassis ground:</i>	Is resistance less than 10 Ω?	The power supply and ground circuit are OK.	Repair the harness.



## 3. CHECK DOOR LOCK SWITCH

Step	Check	Yes	No	
1	<p><b>CHECK DOOR LOCK SWITCH.</b> Check the input from door lock switch to body integrated unit using Subaru Select Monitor.</p> <p>1) Prepare the Subaru Select Monitor kit. 2) Turn the ignition switch to ON (engine OFF) and run the "PC application for Subaru Select Monitor". 3) On the "System Selection Menu", select {Integ. unit mode}. 4) On the "System Selection Menu", select {Integ. unit mode}. Select the {Current Data Display &amp; Save}. 5) On the "System Selection Menu", select {Integ. unit mode}. Select the {Current Data Display &amp; Save}. Operate the door lock switches (driver's seat and passenger's seat) in the LOCK direction, and check the input of {Manual lock SW input}.</p>	Is ON displayed when each door lock switches are moved to LOCK?	Go to step 2.	Go to step 3.
2	<p><b>CHECK DOOR LOCK SWITCH.</b> From the condition in step 1), check the input of {Manual unlock SW input} by operating each door lock switches in the UNLOCK direction.</p>	Is ON displayed when each door lock switches are moved to UNLOCK?	The door lock switch is OK.	Go to step 4.
3	<p><b>CHECK DOOR LOCK SWITCH.</b> 1) Disconnect the door lock switch harness connector. 2) Using a tester, check the continuity when the door lock switch is operated to the lock position.</p> <p><b>Connector &amp; terminal</b> <b>Driver's side:</b> (D102) No. 2 — (D102) No. 3: <b>Passenger's side:</b> (D125) No. 4 — (D125) No. 5:</p>	Did the indication change from "No continuity" (1 MΩ or higher) to "Continuity exists" (less than 10 Ω)?	Go to step 4.	Replace the power window main switch or door lock switch.
4	<p><b>CHECK DOOR LOCK SWITCH.</b> Using a tester, check the continuity when the door lock switch is operated to the unlock position.</p> <p><b>Connector &amp; terminal</b> <b>Driver's side:</b> (D102) No. 1 — (D102) No. 3: <b>Passenger's side:</b> (D125) No. 2 — (D125) No. 5:</p>	Did the indication change from "No continuity" (1 MΩ or higher) to "Continuity exists" (less than 10 Ω)?	Go to step 5.	Replace the power window main switch or door lock switch.
5	<p><b>CHECK HARNESS.</b> Use a tester to measure the resistance between the door lock switch harness connector and chassis ground.</p> <p><b>Connector &amp; terminal</b> <b>Driver's side:</b> (D102) No. 3 — Chassis ground: <b>Passenger's side:</b> (D125) No. 5 — Chassis ground:</p>	Is resistance less than 10 Ω?	Go to step 6.	Repair or replace the harness.

# Door Lock Control System

## SECURITY AND LOCKS

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Step	Check	Yes	No
<b>6</b> <b>CHECK HARNESS.</b> 1) Disconnect the harness connector of body integrated unit. 2) Measure the resistance between the body integrated unit and door lock switch. <b>Connector &amp; terminal</b> <b>Driver's side:</b> (D102) No. 2 — (i84) No. 15: (D102) No. 1 — (i84) No. 29: <b>Passenger's side:</b> (D125) No. 4 — (i84) No. 15: (D125) No. 2 — (i84) No. 29:	Is resistance less than 10 Ω?	Replace the body integrated unit. <Ref. to SL-47, Body Integrated Unit.>	Repair or replace the harness.

### 4. CHECK DOOR LOCK ACTUATOR AND CIRCUIT

Step	Check	Yes	No
<b>1</b> <b>CHECK HARNESS (DOOR LOCK).</b> Measure the resistance between the body integrated unit and each door lock actuator. <b>Connector &amp; terminal</b> (i84) No. 7 — (D72) No. 1: (front door LH) (i84) No. 7 — (D18) No. 1: (front door RH) (i84) No. 7 — (D26) No. 1: (rear door LH) (i84) No. 7 — (D32) No. 1: (rear door RH)	Is resistance less than 10 Ω?	Go to step 2.	Repair or replace the harness.
<b>2</b> <b>CHECK HARNESS (DOOR UNLOCK).</b> Measure the resistance between the body integrated unit and each door lock actuator. <b>Connector &amp; terminal</b> (i84) No. 23 — (D72) No. 2: (front door LH) (i84) No. 8 — (D18) No. 2: (front door RH) (i84) No. 8 — (D26) No. 2: (rear door LH) (i84) No. 8 — (D32) No. 2: (rear door RH)	Is resistance less than 10 Ω?	Go to step 3.	Repair or replace the harness.
<b>3</b> <b>CHECK HARNESS (REAR GATE UNLOCK).</b> Measure the resistance between the body integrated unit and rear gate lock actuator. <b>Connector &amp; terminal</b> (i84) No. 22 — (D46) No. 1:	Is resistance less than 10 Ω?	Go to step 4.	Repair or replace the harness.
<b>4</b> <b>CHECK HARNESS (REAR GATE UNLOCK).</b> Measure the resistance between the rear gate lock actuator and chassis ground. <b>Connector &amp; terminal</b> (D46) No. 2 — Chassis ground:	Is resistance less than 10 Ω?	Go to step 5.	Repair or replace the harness.
<b>5</b> <b>CHECK POWER WINDOW MAIN SWITCH OUTPUT SIGNAL.</b> Measure the voltage between the harness connector terminals of the body integrated unit when moving the door lock switch to LOCK. <b>Connector &amp; terminal</b> <b>Other than front door LH</b> (i84) No. 7 (+) — (i84) No. 8 (-): <b>Front door LH</b> (i84) No. 7 (+) — (i84) No. 23 (-):	Does the voltage change from less than 1.5 V to 10 V or higher? (During lock output)	Go to step 6.	Replace the body integrated unit. <Ref. to SL-47, Body Integrated Unit.>

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Step	Check	Yes	No
<b>6</b> <b>CHECK POWER WINDOW MAIN SWITCH OUTPUT SIGNAL.</b> Measure the voltage between the harness connector terminals of the body integrated unit when moving the door lock switch to UNLOCK. <i>Connector &amp; terminal</i> <i>Other than front door LH</i> <i>(i84) No. 8 (+) — (i84) No. 7 (-):</i> <i>Front door LH</i> <i>(i84) No. 23 (+) — (i84) No. 7 (-):</i>	Does the voltage change from less than 1.5 V to 10 V or higher? (During unlock output)	Go to step 7.	Replace the body integrated unit. <Ref. to SL-47, Body Integrated Unit.>
<b>7</b> <b>CHECK REAR GATE OPENER SWITCH OUTPUT SIGNAL.</b> Measure the voltage between the body integrated unit and chassis ground when the rear gate opener switch is moved. <i>Connector &amp; terminal</i> <i>(i84) No. 22 (+) — Chassis ground (-):</i>	Does the voltage change from less than 1.5 V to 10 V or higher? (During unlock output)	Go to step 8.	Replace the body integrated unit. <Ref. to SL-47, Body Integrated Unit.>
<b>8</b> <b>CHECK DOOR LOCK ACTUATOR.</b> Check the door lock actuator. <ul style="list-style-type: none"> <li>• Front door lock actuator &lt;Ref. to SL-33, INSPECTION, Front Door Latch and Door Lock Actuator Assembly.&gt;</li> <li>• Rear door lock actuator &lt;Ref. to SL-36, INSPECTION, Rear Door Latch and Door Lock Actuator Assembly.&gt;</li> </ul>	Is the door lock actuator OK?	Go to step 9.	Replace the door latch and door lock actuator assembly.
<b>9</b> <b>CHECK REAR GATE LOCK ACTUATOR.</b> Check the rear gate lock actuator. <Ref. to SL-38, Rear Gate Latch Assembly.>	Is the rear gate lock actuator OK?	Check the harness for open or short circuits between the body integrated unit and rear gate lock actuator.	Replace the rear gate lock actuator and latch assembly.

## 5. CHECK REAR GATE OPENER SWITCH CIRCUIT

Step	Check	Yes	No
<b>1</b> <b>CHECK HARNESS.</b> Measure the resistance between the body integrated unit and rear gate opener switch. <i>Connector &amp; terminal</i> <i>(B281) No. 24 — (D47) No. 2:</i>	Is resistance less than 10 Ω?	Go to step 2.	Repair or replace the harness.
<b>2</b> <b>CHECK HARNESS.</b> Measure the resistance between the rear gate opener switch and chassis ground. <i>Connector &amp; terminal</i> <i>(D47) No. 1 — Chassis ground</i>	Is resistance less than 10 Ω?	Go to step 3.	Repair or replace the harness.
<b>3</b> <b>CHECK REAR GATE OPENER SWITCH.</b> Measure the resistance between connector terminals with the rear gate opener switch pressed and not pressed. <i>Connector &amp; terminal</i> <i>(D47) No. 2 — (D47) No. 1:</i>	Is the resistance less than 10 Ω when the switch is pressed, and 1 MΩ or more when not pressed?	Go to step 4.	Replace the rear gate opener switch. <Ref. to SL-37, Rear Gate Opener Button.>
<b>4</b> <b>CHECK OUTPUT SIGNAL.</b> Measure the voltage between body integrated unit and chassis ground. <i>Connector &amp; terminal</i> <i>(B281) No. 24 (+) — Chassis ground (-):</i>	Is the voltage 10 V or more?	Temporary poor contact. Check the harness between the body integrated unit and rear gate opener switch.	Replace the body integrated unit. <Ref. to SL-47, Body Integrated Unit.>

## 3. Keyless Entry System

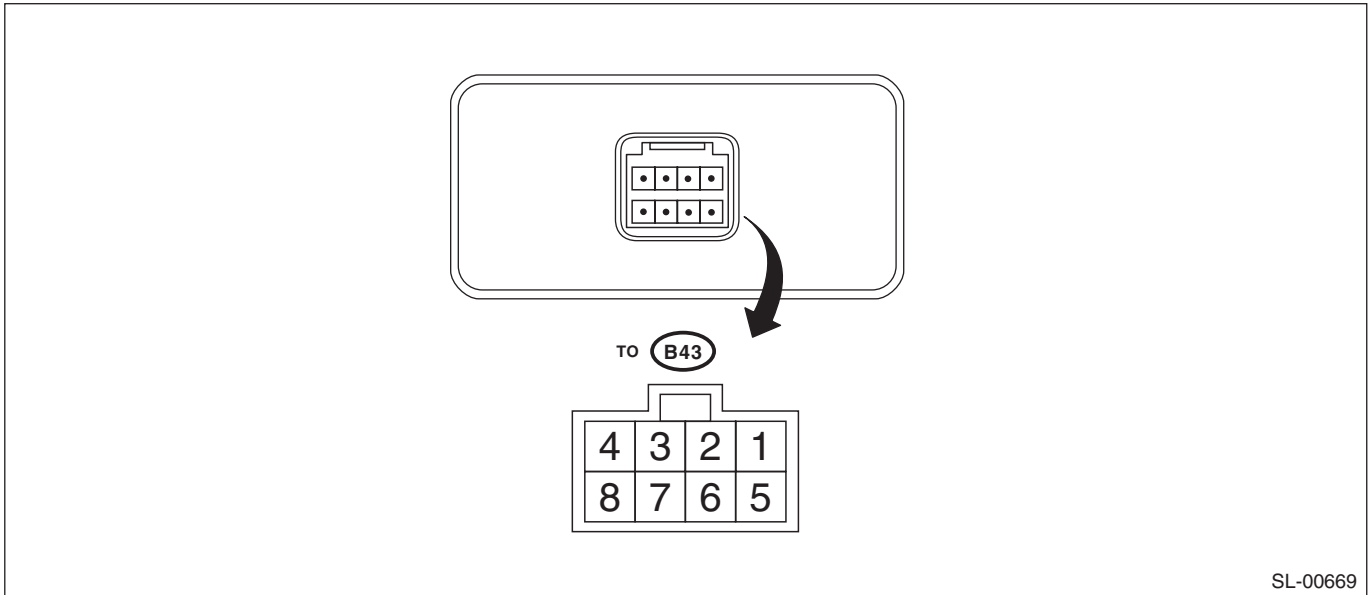
### A: WIRING DIAGRAM

#### 1. KEYLESS ENTRY

<Ref. to WI-120, WIRING DIAGRAM, Keyless Entry System.>

### B: ELECTRICAL SPECIFICATION

#### 1. KEYLESS ENTRY CONTROL MODULE



Remarks	Terminal No.	Measuring condition
—	1	—
—	2	—
Body integrated unit	3 (OUTPUT)	Battery voltage cannot be measured because of digital signal.
Power supply (Backup)	4	Battery voltage is constantly present.
—	5	—
—	6	—
Ground	7	0 V is constantly present.

#### 2. BODY INTEGRATED UNIT

Refer to the control unit I/O signal for the LAN system. <Ref. to LAN(diag)-10, ELECTRICAL SPECIFICATION, Control Module I/O Signal.>

## C: INSPECTION

### 1. SYMPTOM CHART

Symptoms	Repair order	Reference
None of the functions of the keyless entry system operate.	1. Check the keyless transmitter battery.	<Ref. to SL-14, CHECK KEYLESS TRANSMITTER BATTERY AND FUNCTION, INSPECTION, Keyless Entry System.>
	2. Remove and visually check the fuse No. 31 (in the fuse & relay box) and No. 7 (in the fuse & relay box).	If the fuse is blown out, replace the fuse with a new part. If there is no abnormal condition at the fuse, check the power supply and ground circuit. <Ref. to SL-8, CHECK POWER SUPPLY AND GROUND CIRCUIT, INSPECTION, Door Lock Control System.>
	3. Check the keyless entry control module.	<Ref. to SL-15, CHECK KEYLESS ENTRY CONTROL MODULE, INSPECTION, Keyless Entry System.>
	4. Check the power supply and ground circuit for body integrated unit.	<Ref. to SL-15, CHECK BODY INTEGRATED UNIT POWER SUPPLY AND GROUND CIRCUIT, INSPECTION, Keyless Entry System.>
	5. Check the key warning switch.	<Ref. to SL-18, CHECK KEY WARNING SWITCH, INSPECTION, Keyless Entry System.>
	6. Check the door switch.	<Ref. to SL-16, CHECK DOOR SWITCH, INSPECTION, Keyless Entry System.>
	7. Check the body integrated unit.	<Ref. to LAN(diag)-2, Basic Diagnostic Procedure.>
The keyless transmitter cannot be registered.	1. Check the keyless transmitter battery.	<Ref. to SL-14, CHECK KEYLESS TRANSMITTER BATTERY AND FUNCTION, INSPECTION, Keyless Entry System.>
	2. Check the key warning switch.	<Ref. to SL-18, CHECK KEY WARNING SWITCH, INSPECTION, Keyless Entry System.>
	3. Check the door lock switch signal.	<Ref. to SL-20, CHECK DOOR LOCK SWITCH, INSPECTION, Keyless Entry System.>
	4. Check the body integrated unit.	<Ref. to LAN(diag)-2, Basic Diagnostic Procedure.>
Door lock or unlock does not operate. NOTE: If the door lock control system does not operate even when using the door lock switch, check the door lock control system. <Ref. to SL-8, INSPECTION, Door Lock Control System.>	1. Check the keyless transmitter battery.	<Ref. to SL-14, CHECK KEYLESS TRANSMITTER BATTERY AND FUNCTION, INSPECTION, Keyless Entry System.>
	2. Check the keyless entry control module.	<Ref. to SL-15, CHECK KEYLESS ENTRY CONTROL MODULE, INSPECTION, Keyless Entry System.>
	3. Check the key warning switch.	<Ref. to SL-18, CHECK KEY WARNING SWITCH, INSPECTION, Keyless Entry System.>
	4. Check the door switch.	<Ref. to SL-16, CHECK DOOR SWITCH, INSPECTION, Keyless Entry System.>
	5. Check the body integrated unit.	<Ref. to LAN(diag)-2, Basic Diagnostic Procedure.>
Buzzer and hazard light do not operate.	1. Check the buzzer operation.	<Ref. to SL-20, CHECK KEYLESS BUZZER, INSPECTION, Keyless Entry System.>
	2. Check the hazard light operation.	<Ref. to SL-19, CHECK HAZARD LIGHT OPERATION, INSPECTION, Keyless Entry System.>
	3. Check the body integrated unit.	<Ref. to LAN(diag)-2, Basic Diagnostic Procedure.>
Room light does not operate.	1. Check the room light operation.	<Ref. to SL-19, CHECK ROOM LIGHT OPERATION, INSPECTION, Keyless Entry System.>
	2. Check the body integrated unit.	<Ref. to LAN(diag)-2, Basic Diagnostic Procedure.>
Ignition switch illumination does not operate.	1. Check the ignition switch illumination.	<Ref. to SL-21, CHECK IGNITION SWITCH ILLUMINATION, INSPECTION, Keyless Entry System.>
	2. Check the body integrated unit.	<Ref. to LAN(diag)-2, Basic Diagnostic Procedure.>

# Keyless Entry System

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### 2. CHECK KEYLESS TRANSMITTER BATTERY AND FUNCTION

	Step	Check	Yes	No
1	<b>CHECK KEYLESS TRANSMITTER BATTERY.</b> 1) Remove the battery from the keyless transmitter. <Ref. to SL-48, REMOVAL, Transmitter.> 2) Check the battery voltage. <Ref. to SL-48, INSPECTION, Transmitter.>	Is the voltage 2.5 V or more?	Go to step 2.	Replace the keyless transmitter battery. <Ref. to SL-48, Transmitter.>
2	<b>CHECK KEYLESS TRANSMITTER.</b> Register a keyless transmitter which operates normally on other vehicles to the inspection target vehicle. <Ref. to SL-48, REGISTRATION OF KEYLESS TRANSMITTER WITH SUBARU SELECT MONITOR, REPLACEMENT, Transmitter.> 1) Close all doors and the rear gate on the inspection target vehicle. 2) Using the keyless transmitter, lock and unlock the doors and rear gate of the vehicle.	Can the inspection target vehicle be locked and unlocked normally?	Go to step 3.	Due to vehicle malfunction, continue the keyless entry system diagnosis.
3	<b>CHECK KEYLESS TRANSMITTER.</b> Register the keyless transmitter of the inspection target vehicle to the another vehicle on which the keyless system is operating properly. <Ref. to SL-48, REGISTRATION OF KEYLESS TRANSMITTER WITH SUBARU SELECT MONITOR, REPLACEMENT, Transmitter.>	Is the keyless transmitter registered correctly?	Go to step 4.	Replace the keyless transmitter. <Ref. to SL-48, REGISTRATION OF KEYLESS TRANSMITTER WITH SUBARU SELECT MONITOR, REPLACEMENT, Transmitter.>
4	<b>CHECK KEYLESS TRANSMITTER.</b> Check the registered keyless transmitter. 1) Close all the doors and rear gate of the vehicle which operates keyless system normally. 2) Using the keyless transmitter, lock and unlock the doors and rear gate of the vehicle.	Can the vehicle be properly locked and unlocked?	The keyless transmitter is working properly.	Replace the keyless transmitter. <Ref. to SL-48, REGISTRATION OF KEYLESS TRANSMITTER WITH SUBARU SELECT MONITOR, REPLACEMENT, Transmitter.>

#### CAUTION:

**Be sure to reset keyless transmitters from other vehicles that were registered to the inspection target vehicle, and the vehicle to which keyless transmitters were registered for the inspection, to the condition before performing the inspection. (Register the keyless transmitters again.)**

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## 3. CHECK KEYLESS ENTRY CONTROL MODULE

Step	Check	Yes	No
<b>1</b> <b>CHECK DIAGNOSTIC TROUBLE CODE (DTC).</b> 1) Prepare the Subaru Select Monitor kit. 2) Turn the ignition switch to ON (engine OFF), and run the "PC application for Subaru Select Monitor". 3) On the "System Selection Menu", select {Integ. unit mode}. 4) Select the {Diagnostic Trouble Code}. 5) Check if the DTC is displayed.	Is DTC B1500 "Keyless UART com. Malfunction" displayed?	Go to step 2.	Keyless entry control module is normal.
<b>2</b> <b>CHECK POWER SUPPLY.</b> 1) Disconnect the keyless entry control module harness connector. 2) Measure the voltage between harness connector terminal and chassis ground. <i>Connector &amp; terminal</i> <i>(R80) No. 4 (+) — Chassis ground (-):</i>	Is the voltage 10 V or more?	Go to step 3.	Check the harness for open circuits and shorts between the keyless entry control module and fuse.
<b>3</b> <b>CHECK GROUND CIRCUIT.</b> Measure the resistance between harness connector terminal and chassis ground. <i>Connector &amp; terminal</i> <i>(iR80) No. 7 — Chassis ground:</i>	Is the resistance less than 10 Ω?	Go to step 4.	Repair the harness.
<b>4</b> <b>CHECK KEYLESS ENTRY CONTROL MODULE CIRCUIT.</b> 1) Disconnect the harness connector of body integrated unit. 2) Measure the resistance between harness connector terminals. <i>Connector &amp; terminal</i> <i>(i84) No. 24 — (R80) No. 3:</i>	Is the resistance less than 10 Ω?	Replace the keyless entry control module. <Ref. to SL-45, Keyless Entry Control Module.>	Repair the harness.

## 4. CHECK BODY INTEGRATED UNIT POWER SUPPLY AND GROUND CIRCUIT

Step	Check	Yes	No
<b>1</b> <b>CHECK POWER SUPPLY OF BODY INTEGRATED UNIT.</b> 1) Disconnect the harness connector of body integrated unit. 2) Measure the voltage between harness connector terminal and chassis ground. <i>Connector &amp; terminal</i> <i>(i84) No. 34 (+) — Chassis ground (-):</i> <i>(B280) No. 6 (+) — Chassis ground (-):</i> <i>(B281) No. 2 (+) — Chassis ground (-):</i>	Is the voltage 10 V or more?	Go to step 2.	Check the harness between the body integrated unit and fuse for open or short circuits.
<b>2</b> <b>CHECK BODY INTEGRATED UNIT GROUND CIRCUIT.</b> 1) Disconnect the harness connector of body integrated unit. 2) Measure the resistance between harness connector terminal and chassis ground. <i>Connector &amp; terminal</i> <i>(i84) No. 28 — Chassis ground:</i> <i>(B280) No. 17 — Chassis ground:</i> <i>(B281) No. 20 — Chassis ground:</i> <i>(B279) No. 27 — Chassis ground:</i>	Is resistance less than 10 Ω?	Check the body integrated unit. <Ref. to LAN(diag)-2, Basic Diagnostic Procedure.>	Repair the harness.

# Keyless Entry System

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### 5. CHECK DOOR SWITCH

	Step	Check	Yes	No
1	<p><b>CHECK DOOR SWITCH.</b> Check the input signal from the door switch to the body integrated unit using the Subaru Select Monitor.</p> <ol style="list-style-type: none"> <li>1) Prepare the Subaru Select Monitor kit.</li> <li>2) Turn the ignition switch to ON (engine OFF) and run the "PC application for Subaru Select Monitor".</li> <li>3) On the "System Selection Menu", select {Integ. unit mode}.</li> <li>4) Select the {Current Data Display &amp; Save}.</li> <li>5) Check the input signal to the body integrated unit by operating the door switch.</li> </ol>	When the door switch is turned ON/OFF, is a proper input signal displayed?	The door switch is OK.	Go to step 2.
2	<p><b>CHECK DOOR SWITCH CIRCUIT.</b> Measure the voltage between the body integrated unit harness connector terminal and chassis ground.</p> <p><b>Connector &amp; terminal</b> <b>Front door RH:</b> (i84) No. 32 (+) — Chassis ground (-): <b>Front door LH:</b> (i84) No. 19 (+) — Chassis ground (-): <b>Rear door RH:</b> (i84) No. 6 (+) — Chassis ground (-): <b>Rear door LH:</b> (i84) No. 20 (+) — Chassis ground (-): <b>Rear gate:</b> (i84) No. 33 (+) — Chassis ground (-):</p>	Is the voltage 0 V when each door or rear gate is opened?	Go to step 3.	Go to step 4.
3	<p><b>CHECK DOOR SWITCH CIRCUIT.</b> Measure the voltage between the body integrated unit harness connector terminal and chassis ground.</p> <p><b>Connector &amp; terminal</b> <b>Front door RH:</b> (i84) No. 32 (+) — Chassis ground (-): <b>Front door LH:</b> (i84) No. 19 (+) — Chassis ground (-): <b>Rear door RH:</b> (i84) No. 6 (+) — Chassis ground (-): <b>Rear door LH:</b> (i84) No. 20 (+) — Chassis ground (-): <b>Rear gate:</b> (i84) No. 33 (+) — Chassis ground (-):</p>	Is the voltage 10 V or more when each door or the rear gate is closed?	The door switch is OK.	Go to step 4.
4	<p><b>CHECK DOOR SWITCH.</b> <ol style="list-style-type: none"> <li>1) Disconnect the door switch harness connector.</li> <li>2) Measure the resistance between door switch terminals.</li> </ol></p> <p><b>Connector &amp; terminal</b> <b>(R12) Front RH door switch:</b> <b>(R9) Front LH door switch:</b> <b>(R16) Rear RH door switch:</b> <b>(R22) Rear LH door switch:</b> <b>No. 1 — No. 3:</b> <b>Rear gate latch switch:</b> <b>(D46) No. 3 — No. 4:</b></p>	Is the resistance 1 M $\Omega$ or more when door switch is pushed?	Go to step 5.	Replace the door switch or rear gate latch assembly.



# Keyless Entry System

## SECURITY AND LOCKS

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	Step	Check	Yes	No
5	<b>CHECK DOOR SWITCH.</b> Measure the resistance between door switch terminals. <b>Connector &amp; terminal</b> <b>(R12) Front RH door switch:</b> <b>(R9) Front LH door switch:</b> <b>(R16) Rear RH door switch:</b> <b>(R22) Rear LH door switch:</b> <b>No. 1 — No. 3:</b> <b>Rear gate latch switch:</b> <b>(D46) No. 3 — No. 4:</b>	Is the resistance less than 1 $\Omega$ when door switch is released?	Check the harness for open or shorts between the body integrated unit and door switch, and the door switch and chassis ground.	Replace the door switch or rear gate latch assembly.

# Keyless Entry System

## SECURITY AND LOCKS

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### 6. CHECK KEY WARNING SWITCH

	Step	Check	Yes	No
1	<p><b>CHECK KEY WARNING SWITCH.</b> Check the input signal from the key warning switch to the body integrated unit using the Subaru Select Monitor.</p> <ol style="list-style-type: none"> <li>1) Prepare the Subaru Select Monitor kit.</li> <li>2) On the "System Selection Menu", select {Integ. unit mode}.</li> <li>3) Select the {Current Data Display &amp; Save}.</li> <li>4) Check the input signal to body integrated unit by operating the ignition switch.</li> </ol>	Is a proper input signal displayed when the key is inserted and removed from the ignition switch?	The key warning switch is OK.	Go to step 2.
2	<p><b>CHECK FUSE.</b> Remove and visually check the fuse No. 14 (in the main fuse box).</p>	Is the fuse blown?	Replace the fuse with a new part.	Go to step 3.
3	<p><b>CHECK KEY WARNING SWITCH CIRCUIT.</b> 1) Disconnect the harness connector of body integrated unit. 2) Insert the key into ignition switch. (LOCK position) 3) Measure the voltage between harness connector terminal and chassis ground.</p> <p><b>Connector &amp; terminal</b> <b>(B279) No. 2 (+) — Chassis ground (-):</b></p>	Is the voltage 10 V or more?	Go to step 4.	Go to step 5.
4	<p><b>CHECK KEY WARNING SWITCH CIRCUIT.</b> 1) Remove the key from ignition switch. 2) Measure the voltage between harness connector terminal and chassis ground.</p> <p><b>Connector &amp; terminal</b> <b>(B279) No. 2 (+) — Chassis ground (-):</b></p>	Is the voltage 0 V?	The key warning switch is OK.	Go to step 5.
5	<p><b>CHECK KEY WARNING SWITCH.</b> 1) Disconnect the key warning switch harness connector. 2) Insert the key into ignition switch. (LOCK position) 3) Measure the resistance between key warning switch terminals.</p> <p><b>Connector &amp; terminal</b> <b>(B350) No. 3 — No. 4:</b></p>	Is resistance less than 1 Ω?	Go to step 6.	Replace the key warning switch.
6	<p><b>CHECK KEY WARNING SWITCH.</b> 1) Remove the key from ignition switch. 2) Measure the resistance between key warning switch terminals.</p> <p><b>Connector &amp; terminal</b> <b>(B350) No. 3 — No. 4:</b></p>	Is the resistance 1 MΩ or more?	Check the following: <ul style="list-style-type: none"> <li>• Harness for open circuits and shorts between the key warning switch and fuse</li> <li>• Harness for open or short between the body integrated unit and key warning switch</li> </ul>	Replace the key warning switch.

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## 7. CHECK ROOM LIGHT OPERATION

	Step	Check	Yes	No
1	<b>CHECK ROOM LIGHT OPERATION.</b> Make sure the room light illuminates when the room light switch is turned to ON.	Does the room light illuminate?	Go to step 2.	Check the room light circuit.
2	<b>CHECK HARNESS BETWEEN ROOM LIGHT AND BODY INTEGRATED UNIT.</b> 1) Disconnect the body integrated unit harness connector and room light harness connector. 2) Measure the resistance between the body integrated unit harness connector terminal and room light harness connector terminal.  <b>Connector &amp; terminal</b> <b>(B279) No. 5 — (R52) No. 2:</b>	Is the resistance less than 10 Ω?	The room light operation circuit is OK.	Check the harness for open or short between body integrated unit and room light.

## 8. CHECK HAZARD LIGHT OPERATION

	Step	Check	Yes	No
1	<b>CHECK HAZARD LIGHT OPERATION.</b> Make sure the hazard light blinks when hazard switch is turned to ON.	Does the hazard light blink?	Go to step 2.	Check the hazard light circuit.
2	<b>CHECK OUTPUT TO HAZARD LIGHT.</b> 1) Turn the ignition switch to OFF. 2) Disconnect the key warning switch harness connector. 3) Prepare the Subaru Select Monitor kit. 4) Turn the ignition switch to ON (engine OFF) and run the "PC application for Subaru Select Monitor". 5) On the "System Selection Menu", select {Integ. unit mode}. 6) Select {ECM customizing}. 7) Check {Hazard answer-back setup}, and then switch to ON setting if necessary. 8) Select the {Current Data Display & Save}. 9) Remove the key from ignition switch. 10) When operating the LOCK/UNLOCK button of the transmitter, check the hazard output signal of the body integrated unit.	Is output signal present when operating the transmitter LOCK/UNLOCK button?	Go to step 3.	Check the body integrated unit. <Ref. to LAN(diag)-2, Basic Diagnostic Procedure.>
3	<b>CHECK CIRCUIT OF HAZARD LIGHT.</b> 1) Disconnect the harness connector of body integrated unit. 2) Disconnect the turn signal and hazard unit harness connector. 3) Measure the resistance between harness connector terminals.  <b>Connector &amp; terminal</b> <b>(B281) No. 22 — (B32) No. 8:</b>	Is resistance less than 10 Ω?	Check the body integrated unit. <Ref. to LAN(diag)-2, Basic Diagnostic Procedure.>	Repair the harness.

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### 9. CHECK KEYLESS BUZZER

	Step	Check	Yes	No
1	<b>CHECK FUNCTION.</b> Using the Subaru Select Monitor, check the {Answer-back buzzer setup}. <Ref. to LAN(diag)-21, CONFIRMATION OF CURRENT SETTING, OPERATION, Subaru Select Monitor.>	Is it ON?	Go to step 2.	Change the setting to ON. <Ref. to LAN(diag)-25, USER CUSTOMIZING, OPERATION, Subaru Select Monitor.>
2	<b>CHECK OUTPUT TO KEYLESS BUZZER.</b> 1) Remove the key from ignition switch. 2) Display the {Keyless Buzzer Output} of the body integrated unit using the Subaru Select Monitor. <Ref. to LAN(diag)-15, READ DIAGNOSTIC TROUBLE CODE (DTC), OPERATION, Subaru Select Monitor.> 3) Press the LOCK/UNLOCK button of the keyless transmitter.  NOTE: Depending on the screen update timing of the Subaru Select Monitor, it may not change from OFF to ON, so operate a few times to check.	Does the display change from OFF to ON?	Go to step 3.	Replace the body integrated unit. <Ref. to SL-47, Body Integrated Unit.>
3	<b>CHECK KEYLESS BUZZER.</b> 1) Remove the keyless buzzer. 2) Install to a different vehicle where the keyless buzzer is sounding normally, to check whether the buzzer can be sounded.	Does the keyless buzzer sound?	Go to step 4.	Replace the keyless buzzer.
4	<b>CHECK HARNESS.</b> 1) Disconnect the harness connector of body integrated unit. 2) Disconnect the keyless buzzer harness connector. 3) Measure the resistance between harness connector terminals.  <b>Connector &amp; terminal</b> <b>(B279) No. 24 — (B164) No. 1:</b>	Is resistance less than 10 Ω?	Go to step 5.	Repair or replace the harness.
5	<b>CHECK HARNESS.</b> Measure the resistance between the keyless buzzer harness connector and chassis ground.  <b>Connector &amp; terminal</b> <b>(B164) No. 2 — Chassis ground:</b>	Is resistance less than 10 Ω?	Replace the body integrated unit. <Ref. to SL-47, Body Integrated Unit.>	Repair or replace the harness.

### 10. CHECK DOOR LOCK SWITCH

Refer to the door lock switch inspection of the door lock control system. <Ref. to SL-9, CHECK DOOR LOCK SWITCH, INSPECTION, Door Lock Control System.>

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## 11.CHECK IGNITION SWITCH ILLUMINATION

Step	Check	Yes	No	
1	<b>CHECK FUSE.</b> Remove and visually check the fuse No. 14 (in the main fuse box).	Is the fuse blown?	Replace the fuse with a new part.	Go to step 2.
2	<b>CHECK POWER SUPPLY.</b> 1) Disconnect the ignition switch illumination harness connector. 2) Measure the voltage between harness connector terminal and chassis ground. <i>Connector &amp; terminal (B224) No. 2 (+) — Chassis ground (-):</i>	Is the voltage 10 V or more?	Go to step 3.	Check the harness for open circuits and shorts between the ignition switch illumination and fuse.
3	<b>CHECK IGNITION SWITCH ILLUMINATION CIRCUIT.</b> 1) Disconnect the harness connector of body integrated unit and ignition switch illumination harness connector. 2) Measure the resistance between body integrated unit harness connector terminal and ignition switch illumination harness connector terminal. <i>Connector &amp; terminal (B281) No. 23 — (B224) No. 1:</i>	Is resistance less than 10 Ω?	Replace the ignition switch illumination bulb with a new bulb. <Ref. to LI-34, REMOVAL, Ignition Switch Illumination.>	Check the harness for open circuits and shorts between the body integrated unit and ignition switch illumination.

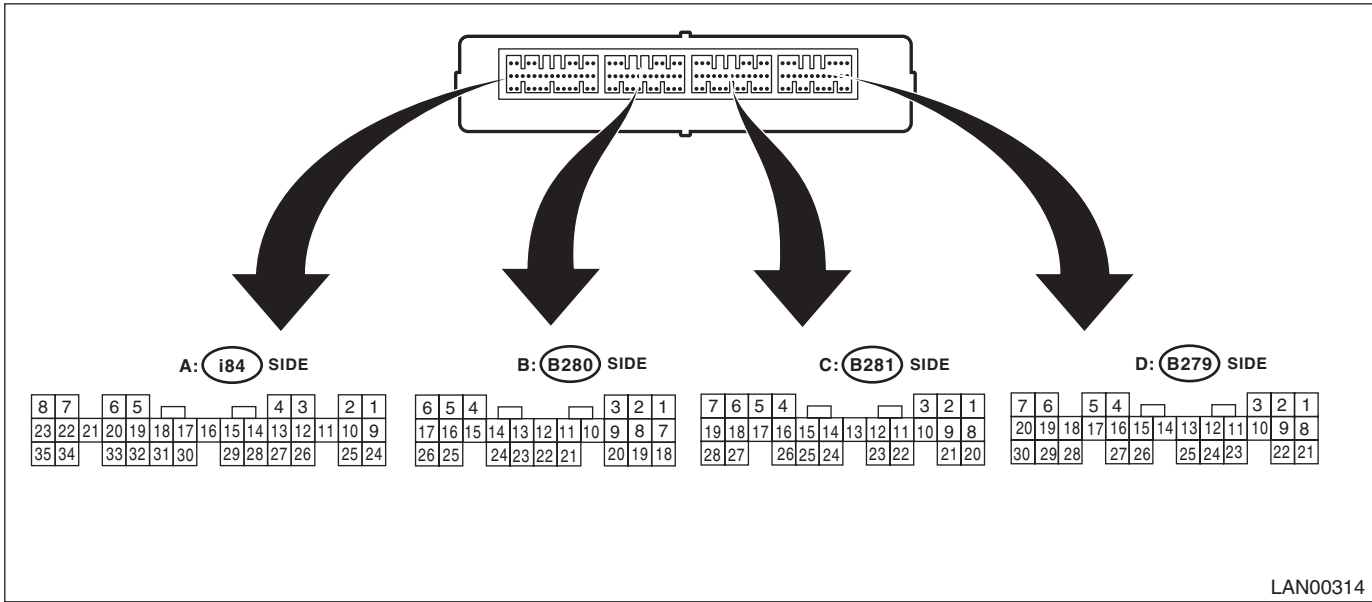
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4. Security System

A: WIRING DIAGRAM

<Ref. to WI-116, WIRING DIAGRAM, Security System.>

B: ELECTRICAL SPECIFICATION



# Security System

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Contents	Terminal No.	Standard	Measuring condition
BAT (control)	B6 ← → chassis ground	10 — 14 V	Always
BAT (backup)	C2 ← → chassis ground	10 — 14 V	Always
BAT (door lock)	A34 ← → chassis ground	10 — 14 V	Always
Ground	A28 ← → chassis ground	Less than 1.5 V	Always
	B17 ← → chassis ground	Less than 1.5 V	Always
	C20 ← → chassis ground	Less than 1.5 V	Always
	D27 ← → chassis ground	Less than 1.5 V	Always
IGN	B1 ← → chassis ground	Less than 1.5 V → 10 — 15 V	IGN OFF → IGN ON
Door switch, driver's seat	A19 ← → chassis ground	8 V or higher → less than 1.5 V	With driver's door closed → opened
Door switch, passenger's seat	A32 ← → chassis ground	8 V or higher → less than 1.5 V	With passenger's door closed → opened
Door switch, rear RH seat	A6 ← → chassis ground	8 V or higher → less than 1.5 V	With rear RH seat door closed → opened
Door switch, rear LH seat	A20 ← → chassis ground	8 V or higher → less than 1.5 V	With rear LH seat door closed → opened
Door switch R gate	A33 ← → chassis ground	8 V or higher → less than 1.5 V	With R gate closed → opened
Impact sensor	B8 ← → chassis ground	Less than 1.5 V ↔ 8 V or more → 8 V or more	When an impact force is applied
Turn & hazard output	C22 ← → chassis ground	8 V or higher → less than 1.5 V	Door lock or unlock with keyless entry system
Horn relay output	D29 ← → chassis ground	8 V or higher → less than 1.5 V	While security alarm operates
Security indicator output	A10 ← → chassis ground	8 V or higher → less than 1.5 V	While indicator in combination meter is flashing
Keyless entry module communi- cation	A24	Because this is digital commu- nication, cannot be measured.	Serial communication line
SSM communication (K line)	B20	Because this is digital commu- nication, cannot be measured.	Serial communication line
Body system CAN_Hi	A1 ← → chassis ground	Because this is digital commu- nication, cannot be measured.	Serial communication line
Body system CAN_Lo	A9 ← → chassis ground	Because this is digital commu- nication, cannot be measured.	Serial communication line

## C: INSPECTION

### 1. BASIC DIAGNOSTIC PROCEDURE

Step	Check	Yes	No
<b>1 INITIAL CHECK.</b> Check keyless entry system.	Does the keyless entry system operate normally?	Go to step 2.	Check keyless entry system. <Ref. to SL-13, INSPECTION, Keyless Entry System.>
<b>2 CHECK SECURITY ON/OFF SETTING.</b> 1) Remove the key from ignition switch or turn the ignition to OFF, and close all doors. 2) Press the UNLOCK button of the keyless transmitter. 3) Check the security indicator light flashing pattern.	Does the security indicator light flash in 3 second intervals?	Go to step 3.	Check the security indicator light circuit. <Ref. to SL-29, CHECK SECURITY INDICATOR LIGHT CIRCUIT, INSPECTION, Security System.>
<b>3 CHECK SECURITY ON/OFF SETTING.</b> 1) Press the LOCK button of the keyless transmitter. 2) Check the security indicator light flashing pattern.	Is the flashing pattern of the security indicator light as follows? / When monitoring lag is set to 0 seconds: flashes twice within 0.5 seconds, in 2 second intervals / When monitoring lag is set to 30 seconds: flashes 3 times per second, in 0.4 second intervals.	Go to step 6.	Go to step 4.
<b>4 CHANGE THE SETTING OF SECURITY SYSTEM.</b> Change the setting of the security system to ON. <Ref. to SL-26, SECURITY SYSTEM ON/OFF SETTING, INSPECTION, Security System.>	Is setting change completed correctly?	Go to step 5.	<ul style="list-style-type: none"> <li>• Check the ignition switch circuit. &lt;Ref. to SL-30, CHECK IGNITION SWITCH CIRCUIT, INSPECTION, Security System.&gt;</li> <li>• Check the door lock switch circuit. &lt;Ref. to SL-20, CHECK DOOR LOCK SWITCH, INSPECTION, Keyless Entry System.&gt;</li> </ul>
<b>5 CHECK THE SETTING CHANGE OF SECURITY SYSTEM.</b> 1) Remove the key from ignition switch, and then close all doors. 2) Press the LOCK button of the keyless transmitter. 3) Check the security indicator light flashing pattern.	Is the flashing pattern of the security indicator light as follows? / When monitoring lag is set to 0 seconds: flashes twice within 0.5 seconds, in 2 second intervals / When monitoring lag is set to 30 seconds: flashes 3 times per second, in 0.4 second intervals.	Go to step 6.	Replace the body integrated unit. <Ref. to SL-47, Body Integrated Unit.>
<b>6 CHECK SECURITY SYSTEM OPERATION.</b> Press the LOCK button of keyless transmitter, and wait for 30 seconds.	Is the blinking pattern of security indicator light blink twice within 0.5 seconds in 2 second cycles?	Go to step 7.	Replace the body integrated unit. <Ref. to SL-47, Body Integrated Unit.>



# Security System

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Step	Check	Yes	No
<b>7</b> <b>CHECK SECURITY ALARM OPERATION.</b> 1) Unlock all doors using the door lock switch on driver's door. 2) Open any door or rear gate.	Does the security alarm operate when opening any door or rear gate?	Go to step 8.	<ul style="list-style-type: none"> <li>• Check the door switch. &lt;Ref. to SL-27, CHECK DOOR SWITCH, INSPECTION, Security System.&gt;</li> <li>• Check the rear gate latch switch. &lt;Ref. to SL-28, CHECK REAR GATE LATCH SWITCH, INSPECTION, Security System.&gt;</li> </ul>
<b>8</b> <b>CHECK SECURITY ALARM OPERATION.</b> Check the security alarm operation.	Do all security alarms operate? / horn sounds / hazard light flashes / security indicator light illuminates	Go to step 9.	<ul style="list-style-type: none"> <li>• Check the horn. &lt;Ref. to SL-29, CHECK HORN, INSPECTION, Security System.&gt;</li> <li>• Check the hazard light. &lt;Ref. to SL-30, CHECK HAZARD LIGHT OPERATION, INSPECTION, Security System.&gt;</li> </ul>
<b>9</b> <b>CHECK SECURITY ALARM CANCEL OPERATION.</b> Press any button of transmitter while the security alarm is operating. Or turn the ignition switch to ON.	Do all security alarms stop? / horn / hazard light	Go to step 10.	Check the ignition switch circuit. <Ref. to SL-30, CHECK IGNITION SWITCH CIRCUIT, INSPECTION, Security System.>
<b>10</b> <b>CHECK SECURITY SYSTEM CONDITION MEMORY.</b> Check that the system functions properly even when the battery is not connected temporarily. <Ref. to SL-26, CHECK SECURITY SYSTEM CONDITION MEMORY, INSPECTION, Security System.>	Does the system function properly when the battery is not connected temporarily?	Go to step 11.	Replace the body integrated unit. <Ref. to SL-47, Body Integrated Unit.>
<b>11</b> <b>CHECK IMPACT SENSOR (DEALER OPTION).</b> Check the sensitivity of the impact sensor. <Ref. to SL-44, CHECK IMPACT SENSOR, ADJUSTMENT, Impact Sensor.>	Is the sensitivity set properly?	Press the UNLOCK button of keyless transmitter, and finish the diagnosis.	Adjust the sensitivity. <Ref. to SL-44, IMPACT SENSITIVITY ADJUSTMENT, ADJUSTMENT, Impact Sensor.>

### NOTE:

Check the function settings of the body integrated unit if any of the following symptoms appear. <Ref. to LAN(diag)-2, Basic Diagnostic Procedure.>

- The horn does not sound even when the security alarm is triggered and operating. As a cause, it is possible that the siren ON/OFF setting is set to ON in the customization function.
- The horn sounds when setting the security to ON (Monitoring condition) using the keyless transmitter. As a cause, it is possible that the impact sensor present (ON) / not present (OFF) setting is set to ON in the customization function though there is no impact sensor.

### **2. CHECK SECURITY SYSTEM CONDITION MEMORY**

- 1) Pull out the key from the ignition switch, or turn the ignition to OFF.
- 2) Close all the doors and the rear gate.
- 3) Open the front hood.
- 4) Press the LOCK button of the keyless transmitter.

#### **NOTE:**

Wait until the security indicator light blinks twice within 0.5 seconds at 2 second intervals.

If the 30 second monitoring lag has been set, wait 30 seconds.

- 5) Disconnect the ground cable from the battery.
- 6) Connect the ground cable to the battery.
- 7) Check that the security indicator light blinks twice within 0.5 seconds at 2 second intervals. When it does not blink, replace the body integrated unit.

### **3. SECURITY SYSTEM ON/OFF SETTING**

- 1) Close all doors and rear gate, and sit in the driver's seat. Press the UNLOCK button of the keyless transmitter.
- 2) Turn the ignition switch to ON.
- 3) Push the centralized door lock switch down and open the driver's side door at the same time, and hold in this condition for 10 seconds.
- 4) If the security system is ON, it will turn OFF. If OFF, it will turn ON.

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## 4. CHECK DOOR SWITCH

Step	Check	Yes	No
<b>1</b> <b>CHECK INPUT FROM EACH DOOR SWITCH.</b> 1) Prepare the Subaru Select Monitor kit. 2) Turn the ignition switch to ON (engine OFF) and run the "PC application for Subaru Select Monitor". 3) On the "System Selection Menu", select {Integ. unit mode}. 4) Select the {Current Data Display & Save}. 5) Check the door switch input to the body integrated unit when opening the each door (front RH and LH, rear RH and LH).	Is the input signal detected when opening the each door (front RH and LH, rear RH and LH)?	The door switch circuit is OK.	When there is a door switch in which the input signal cannot be detected, Go to step 2.
<b>2</b> <b>CHECK DOOR SWITCH CIRCUIT.</b> 1) Turn the ignition switch to OFF. 2) Disconnect the harness connector of body integrated unit. 3) Disconnect the harness connector of faulty door switch. 4) Measure the resistance between harness connector terminals. <b>Connector &amp; terminal</b> <i>(i84) No. 32 — (R12) No. 1: (front door RH)</i> <i>(i84) No. 19 — (R9) No. 1: (front door LH)</i> <i>(i84) No. 6 — (R16) No. 1: (rear door RH)</i> <i>(i84) No. 20 — (R22) No. 1: (rear door LH)</i>	Is resistance less than 10 Ω?	Go to step 3.	Repair the harness.
<b>3</b> <b>CHECK GROUND CIRCUIT OF DOOR SWITCH.</b> 1) Disconnect the harness connector of faulty door switch. 2) Measure the resistance of harness connector and chassis ground. <b>Connector &amp; terminal</b> <i>(R12) No. 3 — Chassis ground: (front door RH)</i> <i>(R9) No. 3 — Chassis ground: (front door LH)</i> <i>(R16) No. 3 — Chassis ground: (rear door RH)</i> <i>(R22) No. 3 — Chassis ground: (rear door LH)</i>	Is resistance less than 10 Ω?	Go to step 4.	Repair the harness.
<b>4</b> <b>CHECK DOOR SWITCH.</b> 1) Disconnect the harness connector of faulty door switch. 2) Measure the resistance between door switch terminals. <b>Terminals</b> <i>No. 1 — No. 3:</i>	Is the resistance 1 MΩ or more when door switch is pushed?	Go to step 5.	Replace the door switch.
<b>5</b> <b>CHECK DOOR SWITCH.</b> Measure the resistance between door switch terminals. <b>Terminals</b> <i>No. 1 — No. 3:</i>	Is the resistance less than 1 Ω when door switch is released?	Check the body integrated unit. <Ref. to LAN(diag)-2, Basic Diagnostic Procedure.>	Replace the door switch.

## 5. CHECK REAR GATE LATCH SWITCH

Step	Check	Yes	No
<b>1 CHECK INPUT FROM REAR GATE LATCH SWITCH.</b> 1) Prepare the Subaru Select Monitor kit. 2) Turn the ignition switch to ON (engine OFF) and run the "PC application for Subaru Select Monitor". 3) On the "System Selection Menu", select {Integ. unit mode}. 4) Select the {Current Data Display & Save}. 5) Check the switch input signal to the body integrated unit when opening the rear gate.	Is an input signal detected when opening the rear gate?	The rear gate latch switch circuit is OK.	Go to step 2.
<b>2 CHECK REAR GATE LATCH SWITCH CIRCUIT.</b> 1) Turn the ignition switch to OFF. 2) Disconnect the harness connector of body integrated unit. 3) Disconnect the harness connector of the rear gate latch switch. 4) Measure the resistance between harness connector terminals. <b>Connector &amp; terminal</b> <b>(i84) No. 33 — (D46) No. 3:</b>	Is resistance less than 10 Ω?	Go to step 3.	Repair the harness.
<b>3 CHECK REAR GATE LATCH SWITCH GROUND CIRCUIT.</b> 1) Disconnect the harness connector of the rear gate latch switch. 2) Measure the resistance between harness connector terminal and chassis ground. <b>Connector &amp; terminal</b> <b>(D46) No. 4 — Chassis ground:</b>	Is resistance less than 10 Ω?	Go to step 4.	Repair the harness.
<b>4 CHECK REAR GATE LATCH SWITCH.</b> 1) Disconnect the harness connector of the rear gate latch switch. 2) Measure the resistance between switch terminals. <b>Terminals</b> <b>No. 4 — No. 3:</b>	Is the resistance 1 MΩ or more when switch is pushed?	Go to step 5.	Replace the rear gate latch assembly.
<b>5 CHECK REAR GATE LATCH SWITCH.</b> Measure the resistance between switch terminals. <b>Terminals</b> <b>No. 4 — No. 3:</b>	Is the resistance less than 1 Ω when switch is released?	Check the body integrated unit. <Ref. to LAN(diag)-2, Basic Diagnostic Procedure.>	Replace the rear gate latch assembly.

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## 6. CHECK SECURITY INDICATOR LIGHT CIRCUIT

Step	Check	Yes	No
<b>1</b> <b>CHECK SECURITY INDICATOR LIGHT.</b> 1) Disconnect the harness connector of body integrated unit. 2) Place a 100 $\Omega$ resistance on the harness connector terminal using a suitable lead wire, and connect to ground through the resistance. <i>Connector &amp; terminal (i84) No. 10 — Chassis ground:</i>	Does the security indicator light illuminate?	Check the body integrated unit. <Ref. to LAN(diag)-2, Basic Diagnostic Procedure.>	Go to step 2.
<b>2</b> <b>CHECK POWER SUPPLY FOR SECURITY INDICATOR LIGHT.</b> 1) Disconnect the connector from the combination meter. 2) Measure the voltage between the combination meter harness connector terminal and chassis ground. <i>Connector &amp; terminal (i10) No. 1 (+) — Chassis ground (-):</i>	Is the voltage 10 V or more?	Go to step 3.	Check the harness for open or short circuits between combination meter and fuse.
<b>3</b> <b>CHECK SECURITY INDICATOR LIGHT CIRCUIT.</b> Measure the resistance between the combination meter harness connector terminal and the security control unit harness connector terminal. <i>Connector &amp; terminal (i10) No. 39 — (i84) No. 10:</i>	Is the resistance less than 10 $\Omega$ ?	Replace the combination meter. <Ref. to IDI-13, Combination Meter.>	Check the harness for open or short circuits between the combination meter and body integrated unit.

## 7. CHECK HORN

Step	Check	Yes	No
<b>1</b> <b>CHECK HORN OPERATION.</b> Check the horn sounds when the horn switch is pushed.	Does the horn sound?	Go to step 2.	Check the horn circuit.
<b>2</b> <b>CHECK OUTPUT TO HORN RELAY.</b> 1) Connect the Subaru Select Monitor Kit. 2) Turn the ignition switch to ON (engine OFF), and run the "PC application for Subaru Select Monitor". 3) On the "System Selection Menu", select {Integ. unit mode}. 4) Select {Function check}. 5) Select {Horn Output} and execute	Does the horn sound?	Horn circuit is OK.	Go to step 3.
<b>3</b> <b>CHECK HORN RELAY CIRCUIT.</b> 1) Turn the ignition switch to OFF. 2) Disconnect the harness connector of body integrated unit. 3) Disconnect the main fuse box harness connector (B186). 4) Measure the resistance between harness connector terminals. <i>Connector &amp; terminal (B279) No. 29 — (B186) No. 1:</i>	Is the resistance less than 10 $\Omega$ ?	Check the body integrated unit. <Ref. to LAN(diag)-2, Basic Diagnostic Procedure.>	Repair the harness.

## 8. CHECK HAZARD LIGHT OPERATION

Step	Check	Yes	No
<b>1</b> <b>CHECK HAZARD LIGHT OPERATION.</b> Make sure the hazard light blinks when hazard switch is turned to ON.	Does the hazard light blink?	Go to step 2.	Check the hazard light circuit.
<b>2</b> <b>CHECK OUTPUT TO HAZARD LIGHT.</b> 1) Turn the ignition switch to OFF. 2) Disconnect the key warning switch harness connector. 3) Prepare the Subaru Select Monitor kit. 4) Turn the ignition switch to ON (engine OFF), and run the "PC application for Subaru Select Monitor". 5) On the "System Selection Menu", select {Integ. unit mode}. 6) Select {ECM customizing}. 7) Check {Hazard answer-back setup}, and then switch to ON setting if necessary. 8) Select the {Current Data Display & Save}. 9) When operating the LOCK/UNLOCK button of the transmitter, check the hazard output signal of the body integrated unit.	Is output signal present when operating the transmitter LOCK/UNLOCK button?	Go to step 3.	Check the body integrated unit. <Ref. to LAN(diag)-2, Basic Diagnostic Procedure.>
<b>3</b> <b>CHECK CIRCUIT OF HAZARD LIGHT.</b> 1) Turn the ignition switch to OFF. 2) Disconnect the harness connector of body integrated unit. 3) Disconnect the turn signal and hazard unit harness connector. 4) Measure the resistance between harness connector terminals. <b>Connector &amp; terminal</b> <b>(B281) No. 22 — (B32) No. 8:</b>	Is the resistance less than 10 Ω?	Check the body integrated unit. <Ref. to LAN(diag)-2, Basic Diagnostic Procedure.>	Repair the harness.

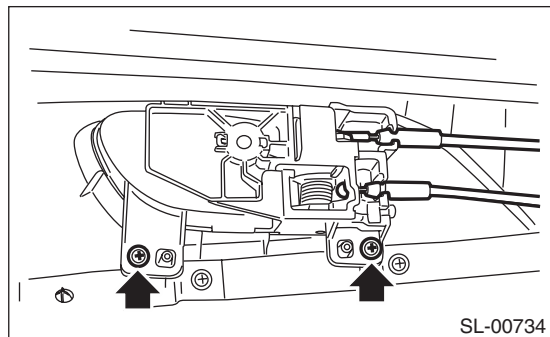
## 9. CHECK IGNITION SWITCH CIRCUIT

Step	Check	Yes	No
<b>1</b> <b>CHECK IGNITION SWITCH VOLTAGE.</b> 1) Prepare the Subaru Select Monitor kit. 2) Turn the ignition switch to ON (engine OFF), and run the "PC application for Subaru Select Monitor". 3) On the "System Selection Menu", select {Integ. unit mode}. 4) Select the {Current Data Display & Save}. 5) Check the {BATT voltage} and {IG power supply voltage}.	Is the {IG power supply voltage} within ±1 V against {BATT voltage}?	The ignition switch input circuit is OK.	Go to step 2.
<b>2</b> <b>CHECK IGNITION SWITCH CIRCUIT.</b> 1) Turn the ignition switch to OFF. 2) Disconnect the harness connector of body integrated unit. 3) Turn the ignition switch to ON. 4) Measure the voltage between harness connector terminal and chassis ground. <b>Connector &amp; terminal</b> <b>(B280) No. 1 (+) — Chassis ground (-):</b>	Is the voltage 10 V or more?	Check the body integrated unit. <Ref. to LAN(diag)-2, Basic Diagnostic Procedure.>	Check the harness for open or short circuit between the body integrated unit and fuse.

## 5. Front Inner Remote

### A: REMOVAL

- 1) Remove the door trim. <Ref. to EI-39, REMOVAL, Door Trim.>
- 2) Remove the cable from the cable holder.
- 3) Remove the screws, and remove the inner remote handle.



### B: INSTALLATION

Install in the reverse order of removal.

#### NOTE:

Make sure the inner remote works correctly after installation.

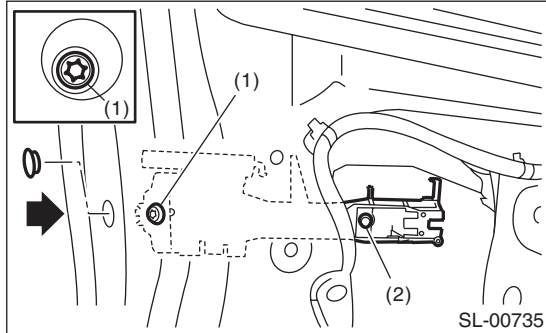
### C: INSPECTION

- 1) Check the cable of the door opener and door lock for deformation. When it is deformed, straighten it because failure operations may occur. When it is unrepairable, replace the front door latch and door lock actuator assembly.
- 2) Check the lever, rod and wire for smooth operation.

## 6. Front Outer Handle

### A: REMOVAL

- 1) Raise the front door glass to the top position.
- 2) Remove the door trim. <Ref. to EI-39, REMOVAL, Door Trim.>
- 3) Remove the sealing cover. <Ref. to EB-17, REMOVAL, Front Sealing Cover.>
- 4) Remove the rod clamp.
- 5) Remove the plug towards the rear of the door panel, and loosen the TORX® bolt (1).



- 6) Remove the door outer handle cover.
- 7) Move the front outer handle towards the rear, and remove the front outer handle.

### CAUTION:

**Do not apply excessive force to remove the handle from the door panel. The door panel may become deformed.**

- 8) Remove the outer side spacer.
- 9) Loosen TORX® bolt (2).
- 10) Remove the frame assembly from inside the door panel.

### B: INSTALLATION

Install in the reverse order of removal.

#### **Tightening torque:**

<Ref. to SL-2, DOOR LOCK ASSEMBLY, COMPONENT, General Description.>

#### NOTE:

Make sure that the outer handle works correctly after installation.

### C: INSPECTION

- 1) Check the rod for deformation.
- 2) Check the lever and rod for smooth operation.

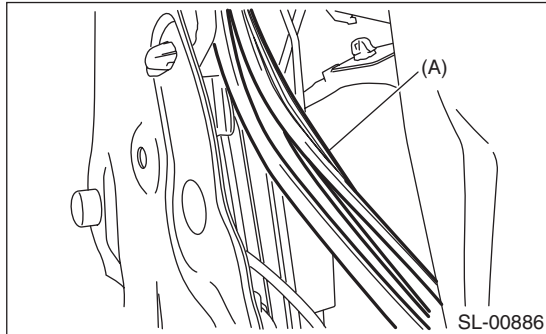


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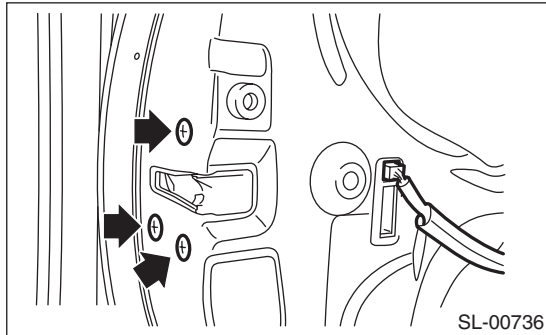
## 7. Front Door Latch and Door Lock Actuator Assembly

### A: REMOVAL

- 1) Raise the front door glass to the top position.
- 2) Disconnect the ground cable from the battery.
- 3) Remove the front door trim. <Ref. to EI-39, REMOVAL, Door Trim.>
- 4) Remove the sealing cover. <Ref. to EB-17, REMOVAL, Front Sealing Cover.>
- 5) Remove a part of the glass run rubber (A).



- 6) Remove the rear sash.
- 7) Remove the rod from the rod clamp of the outer handle.
- 8) Disconnect the connector.
- 9) Remove the 3 screws, and then remove the front door latch and door lock actuator assembly.



### B: INSTALLATION

Install in the reverse order of removal.

#### Tightening torque:

<Ref. to SL-2, DOOR LOCK ASSEMBLY, COMPONENT, General Description.>

#### NOTE:

Make sure the lock works correctly after installation.

### C: INSPECTION

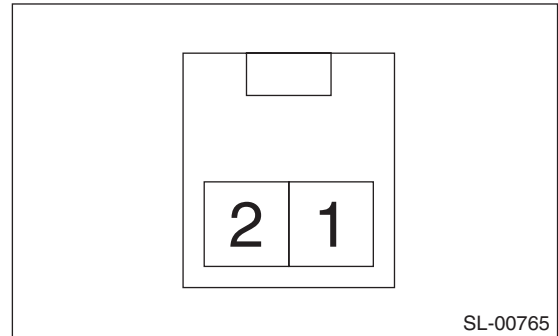
#### 1. DOOR LATCH

- 1) Check the rod, door opener and door lock cable for deformation. When it is deformed, straighten it because failure operations may occur. When it is unrepairable, replace the front door latch and door lock actuator assembly.
- 2) Check the lever, rod and wire for smooth operation.

#### 2. LOCK ACTUATOR

- 1) Disconnect the door lock actuator harness connector.
- 2) Connect the battery to door lock actuator terminals.

If defective, replace the front door latch and door lock actuator assembly.



Terminal No.	Actuator operation
No. 2 (+) and No. 1 (-)	Lock → Unlock
No. 1 (+) and No. 2 (-)	Unlock → Lock

## 8. Rear Inner Remote

### A: REMOVAL

Refer to “Front Inner Remote” for the removal procedure. <Ref. to SL-31, REMOVAL, Front Inner Remote.>

### B: INSTALLATION

Install in the reverse order of removal.

#### NOTE:

Make sure the inner remote works correctly after installation.

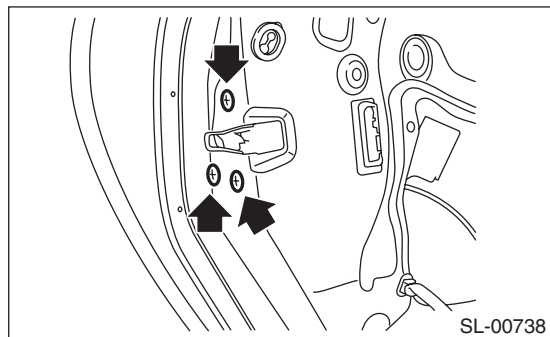
### C: INSPECTION

- 1) Check the cable of the door opener and door lock for deformation. When it is deformed, straighten it because failure operations may occur. When it is unrepairable, replace the rear door latch and door lock actuator assembly.
- 2) Check the lever, rod and wire for smooth operation.
- 3) Check the child safety lock for correct operations.

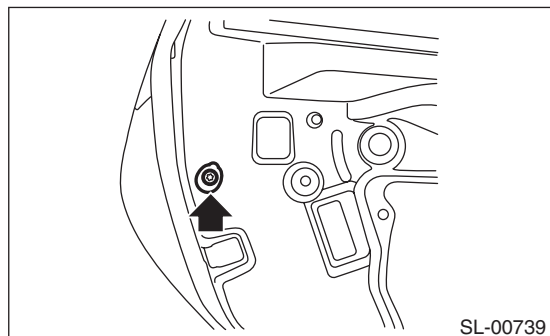
## 9. Rear Outer Handle

### A: REMOVAL

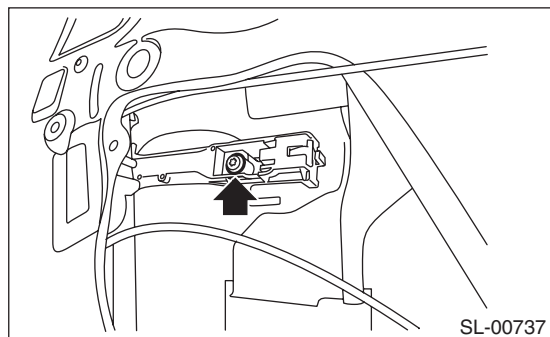
- 1) Raise the rear door glass to the top position.
- 2) Remove the rear door trim. <Ref. to EI-39, REMOVAL, Door Trim.>
- 3) Remove the sealing cover. <Ref. to EB-20, REMOVAL, Rear Sealing Cover.>
- 4) Remove the three screws, and move aside the rear door latch and door lock actuator assembly.



- 5) Remove the child protector cover, and loosen the TORX® bolt.



- 6) Remove the outer handle cover.
- 7) Move the rear outer handle towards the rear, and remove the rear outer handle.
- 8) Remove the outer side spacer.
- 9) Remove the TORX® bolt.



- 10) Remove the frame assembly from inside the door panel.

### CAUTION:

Do not apply excessive force to remove the handle from the door panel. The door panel may become deformed.

### B: INSTALLATION

Install in the reverse order of removal.

#### **Tightening torque:**

<Ref. to SL-2, DOOR LOCK ASSEMBLY, COMPONENT, General Description.>

#### NOTE:

Make sure that the outer handle works correctly after installation.

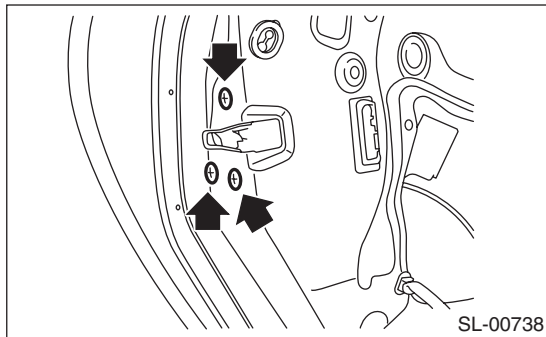
### C: INSPECTION

- 1) Check that the latch joins securely.
- 2) Check the handle and wire for smooth operation.

## 10. Rear Door Latch and Door Lock Actuator Assembly

### A: REMOVAL

- 1) Disconnect the ground cable from the battery.
- 2) Remove the rear door trim. <Ref. to EI-39, REMOVAL, Door Trim.>
- 3) Remove the wire from the rear inner remote. <Ref. to SL-34, REMOVAL, Rear Inner Remote.>
- 4) Remove the sealing cover. <Ref. to EB-20, REMOVAL, Rear Sealing Cover.>
- 5) Remove the rear door glass. <Ref. to GW-17, REMOVAL, Rear Door Glass.>
- 6) Disconnect the connector.
- 7) Remove the three screws, and remove the rear door latch and door lock actuator assembly.



### B: INSTALLATION

Install in the reverse order of removal.

#### Tightening torque:

<Ref. to SL-2, DOOR LOCK ASSEMBLY, COMPONENT, General Description.>

#### NOTE:

Make sure the lock works correctly after installation.

### C: INSPECTION

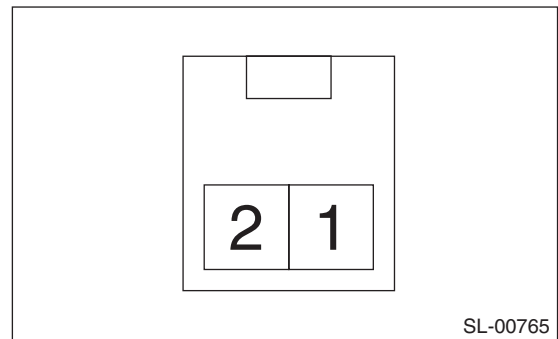
#### 1. DOOR LATCH

- 1) Check the cable for deformation. When it is deformed, straighten it because failure operations may occur. When it is unrepairable, replace the rear door latch and door lock actuator assembly.
- 2) Check the lever and wire for smooth operation.

#### 2. LOCK ACTUATOR

- 1) Disconnect the door lock actuator harness connector.
- 2) Connect the battery to door lock actuator terminals.

If defective, replace the rear door latch and door lock actuator assembly.

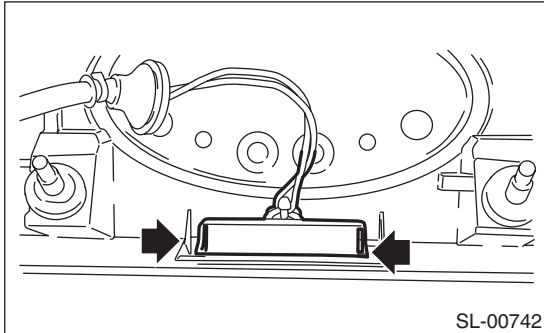


Terminal No.	Actuator operation
No. 2 (+) and No. 1 (-)	Lock → Unlock
No. 1 (+) and No. 2 (-)	Unlock → Lock

## 11. Rear Gate Opener Button

### A: REMOVAL

- 1) Remove the rear gate trim. <Ref. to EI-55, REMOVAL, Rear Gate Trim.>
- 2) Remove the rear gate garnish. <Ref. to EI-58, REMOVAL, Rear Gate Garnish.>
- 3) Disconnect the harness connector of the rear gate opener button.
- 4) Hold down the hook of the rear gate opener button, and remove the rear gate opener button.



### B: INSTALLATION

#### CAUTION:

**Make sure the harness grommet is securely installed.**

**If not properly installed, this may cause leaks.**

Install in the reverse order of removal.

#### NOTE:

Make sure that the rear gate latch assembly works properly after installation.

### C: INSPECTION

- 1) Disconnect the harness connector of the rear gate opener button.
- 2) Inspect the continuity between rear gate opener button connector terminals.

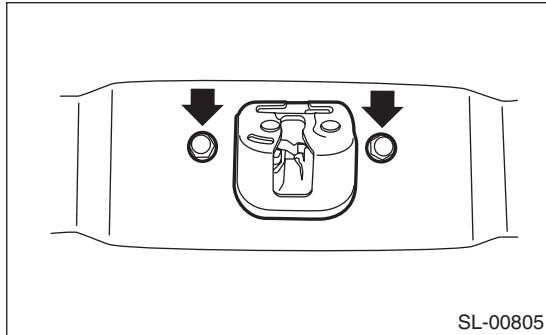
Switch	Terminals	Standard value
Open	No. 1 and No. 2	Less than 1 Ω
Close		1 MΩ or more

If there is a problem, replace the rear gate opener button.

## 12. Rear Gate Latch Assembly

### A: REMOVAL

- 1) Disconnect the ground cable from the battery.
- 2) Remove the rear gate trim. <Ref. to EI-55, REMOVAL, Rear Gate Trim.>
- 3) Remove two bolts.



- 4) Disconnect the connector, and then remove the rear gate latch assembly.

### B: INSTALLATION

Install in the reverse order of removal.

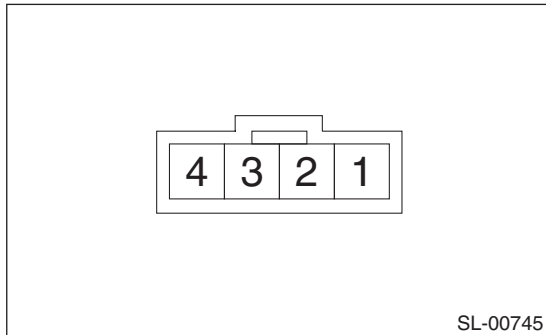
#### NOTE:

Make sure the lock works correctly after installation.

### C: INSPECTION

#### 1. CHECK LOCK ACTUATOR

- 1) Disconnect the rear gate latch lock actuator harness connector.
- 2) Connect the battery to the rear gate latch lock actuator terminals.



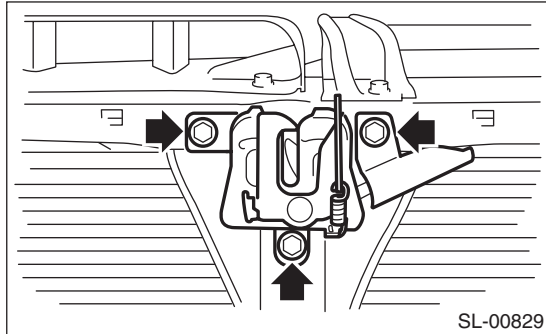
Terminal No.	Actuator operation
No. 1 (+) and No. 2 (-)	Lock → Unlock

Replace the rear gate latch assembly if faulty.

## 13. Front Hood Lock Assembly

### A: REMOVAL

- 1) Open the front hood.
- 2) Remove the front bumper. <Ref. to EI-26, REMOVAL, Front Bumper.>
- 3) Remove the bolts, and then detach the front hood lock assembly.
- 4) Remove the release cable from the lock assembly.



### B: INSTALLATION

Install in the reverse order of removal.

#### *Tightening torque:*

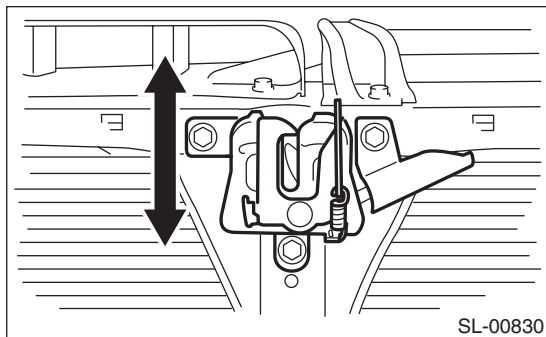
<Ref. to SL-4, FRONT HOOD LOCK AND REMOTE OPENERS, COMPONENT, General Description.>

#### NOTE:

- Apply grease to the movable part.
- Make sure the release cable operates correctly after installation.

### C: ADJUSTMENT

Loosen the bolt, and adjust the lock assembly while moving it up and down.



### D: INSPECTION

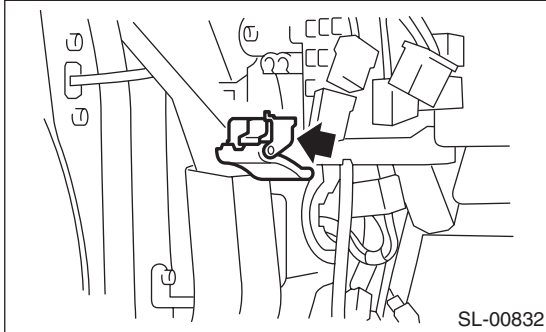
- 1) Check the striker for deformation or abnormal wear.
- 2) Check the safety lever for improper movement.
- 3) Check other levers and springs for rust formation or unsmooth movement.

## 14. Remote Openers

### A: REMOVAL

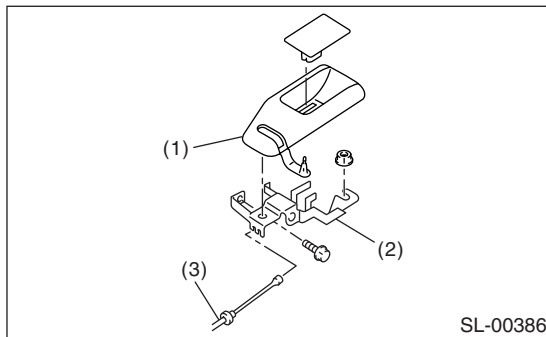
#### 1. FRONT HOOD OPENER

- 1) Remove the cable from the front hood lock.
- 2) Remove the bolt, and then detach the opener lever.



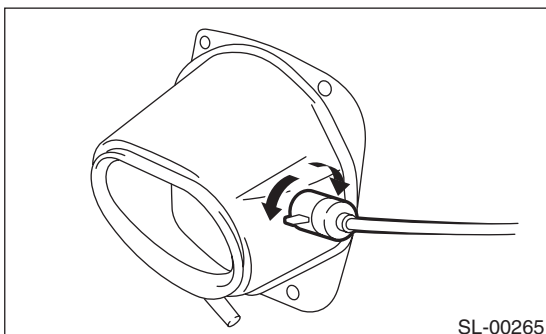
#### 2. FUEL FILLER LID OPENER

- 1) Remove the rear seat. <Ref. to SE-11, REMOVAL, Rear Seat.>
- 2) Remove the driver's side lower inner trim, rear quarter trim and floor mat.  
Remove the clip holding the cable.
- 3) Remove the bolt and nut, and then detach the pull handle assembly.



- (1) Cover
- (2) Pull handle ASSY
- (3) Cable

- 4) Remove the cable from pull handle assembly.
- 5) Remove the rear quarter trim RH. <Ref. to EI-51, REMOVAL, Rear Quarter Trim.>
- 6) Rotate the fuel lock inside the quarter panel to 90° and remove. (Either right or left turn)



### B: INSTALLATION

Install in the reverse order of removal.

### C: INSPECTION

Make sure that the front hood and fuel flap open and close smoothly.

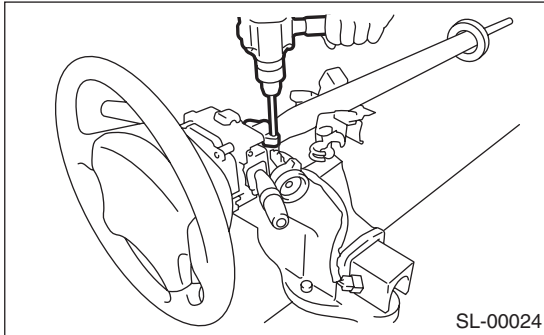


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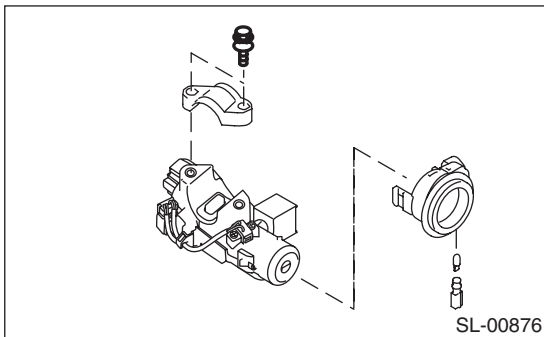
## 15. Ignition Key Lock

### A: REPLACEMENT

- 1) Disconnect the ground cable from the battery.
- 2) Remove the steering column. <Ref. to PS-15, REMOVAL, Steering Column.>
- 3) Secure the steering column in a vise. Remove the bolt with a drill.

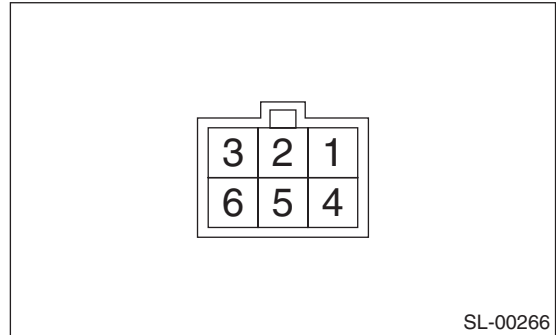


- 4) Remove the ignition key lock.
- 5) Using a new bolt, tighten until the bolt head is twisted off.



### B: INSPECTION

- 1) Remove the instrument panel lower cover.
- 2) Remove the lower column cover.
- 3) Unfasten the fixing clip which secures harness, and then disconnect the connector of the ignition switch from body harness.
- 4) Turn the ignition key plate to each position and check the continuity between terminals of ignition connector.



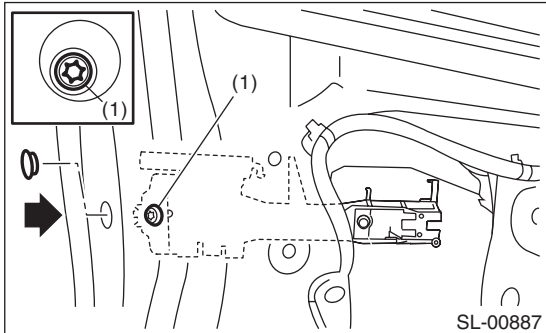
Switch position	Terminal No.	Standard
LOCK	—	—
ACC	No. 3 and No. 5	Less than 1 Ω
ON	No. 3 and No. 1 and No. 4 No. 3 and No. 5	Less than 1 Ω
ST	No. 3 and No. 2 No. 3 and No. 1 and No. 6	Less than 1 Ω

If NG, replace the ignition switch.

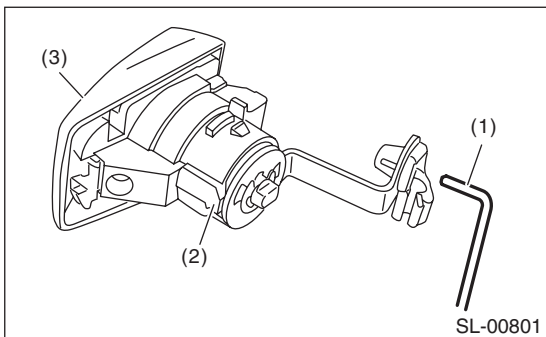
## 16. Key Lock Cylinders

### A: REPLACEMENT

- 1) Raise the front door glass to the top position.
- 2) Remove the door trim. <Ref. to EI-39, REMOVAL, Door Trim.>
- 3) Remove the sealing cover. <Ref. to EB-17, REMOVAL, Front Sealing Cover.>
- 4) Remove the rod clamp.
- 5) Remove the plug to the rear of the door panel.
- 6) Loosen TORX® bolt (1).



- 7) Remove the key cylinder along with the handle cover.
- 8) Remove the key cylinder from the cover, and replace the key cylinder.



- (1) Latch connection rod
- (2) Key cylinder
- (3) Door outer handle cover

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## 17. Security Control Module

### A: NOTE

The control of security system is carried out in body integrated unit.

<Ref. to SL-47, Body Integrated Unit.>

## 18. Impact Sensor

### A: REMOVAL

- 1) Remove the key from ignition switch.
- 2) Close all the doors and the rear gate.
- 3) Press the UNLOCK button of the keyless transmitter.
- 4) Disconnect the ground cable from the battery.
- 5) Remove the impact sensor.
- 6) Change the setting of impact sensor using Subaru Select Monitor.

### B: INSTALLATION

- 1) Remove the key from ignition switch.
- 2) Close all the doors and the rear gate.
- 3) Press the UNLOCK button of the keyless transmitter.
- 4) Disconnect the ground cable from the battery.
- 5) Install the impact sensor.
- 6) Change the setting of impact sensor using Subaru Select Monitor.

### C: OPERATION

#### 1. IMPACT SENSOR SETTING USING SUBARU SELECT MONITOR

- 1) Connect the Subaru Select Monitor to the data link connector.
- 2) Turn the ignition switch to ON.
- 3) On the "System Selection Menu", select {Integ. unit mode}.
- 4) Select {ECM customizing}.
- 5) Make a impact monitor setting.
  - When installing: ON
  - When removing: OFF
- 6) Make a impact monitor ON/OFF setting.
  - When installing: ON
  - When removing: OFF
- 7) Turn the ignition switch to OFF, and then remove the Subaru Select Monitor.

### D: ADJUSTMENT

#### 1. CHECK IMPACT SENSOR

- 1) Remove the key from ignition switch.
- 2) Close all the windows.
- 3) Close all the doors and the rear gate. Leave open the front hood.
- 4) Press the LOCK button of the keyless transmitter from outside of vehicle.
- 5) Check that the security indicator light blinks twice within 0.5 seconds in 2 second cycles after 30 seconds.

6) Hit all windows with the palm with force repeatedly, to check for whether the security alarm operates. Lift up the front hood approx. 12 cm (4.7 in) or more, and then drop it off to check the operation of security alarm.

7) If NG, adjust the impact sensitivity.

#### 2. IMPACT SENSITIVITY ADJUSTMENT

- 1) Connect the Subaru Select Monitor to the data link connector.
- 2) Turn the ignition switch to ON.
- 3) On the "System Selection Menu", select {Impact Sensor}.
- 4) Make a {Sensitivity Adjustment Mode}.
  - Sensitivity can be adjusted in 11 levels (0 to 10).
  - Initial setting is 5.
  - Smaller number means more sensitive.
  - Larger number means less sensitive.
- 5) Turn the ignition switch to OFF, and then remove the Subaru Select Monitor.

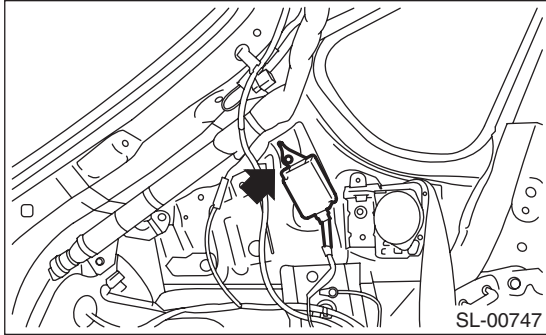
#### NOTE:

- Set the sensor so as not to let the alarm on normal vibration (reclining to the door, hit the ball and etc.).
- Set the sensor to operate the alarm with hitting the door or window glass, etc. continuously like a mayhem by robbery.
- Even if there is no burglary attempt, if there is vibration (road construction, elevated parking lots, passage of trains or boarding of ferries), the alarm can be triggered. Because of this, ask the customer about their parking conditions, and set an appropriate sensitivity level after discussion.
- The impact sensitivity can also be adjusted on the manufacturer's optional display, and it can be set in 11 levels from 0 to 10. The sensitivity is set to 5 by default. (Unlike the specification of the Subaru Select Monitor, the setting becomes duller as the setting value becomes smaller, and more sensitive as the number becomes larger.)
- If the sensitivity setting was not performed properly, a buzzer will sound four times. In this case, check the following:
  - Is there an error in CAN communication?
  - Is there an open circuit in the harness between the body integrated unit and the impact sensor?
  - Is there a malfunction in the display, body integrated unit or impact sensor?

## 19. Keyless Entry Control Module

### A: REMOVAL

- 1) Disconnect the ground cable from the battery.
- 2) Remove the left rear quarter trim. <Ref. to EI-51, REMOVAL, Rear Quarter Trim.>
- 3) Remove the bolt, disconnect the connector and remove the keyless entry control module.



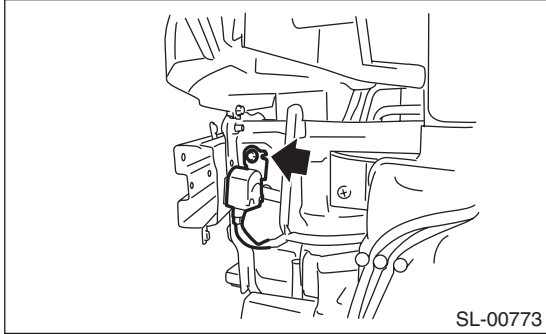
### B: INSTALLATION

Install in the reverse order of removal.

## 20. Keyless Buzzer

### A: REMOVAL

- 1) Disconnect the ground cable from the battery.
- 2) Turn over the left front mud guard.
- 3) Remove the bolt, and then remove the keyless buzzer.



### B: INSTALLATION

Install in the reverse order of removal.

### C: INSPECTION

Using the Subaru Select Monitor, perform forced operation of the keyless buzzer. <Ref. to LAN(di-ag)-26, FUNCTION CHECK, OPERATION, Subaru Select Monitor.>

#### NOTE:

If it does not sound, replace the buzzer.

## 21. Body Integrated Unit

### A: REMOVAL

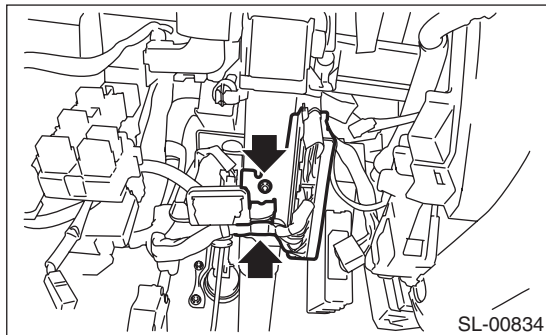
**NOTE:**

1. When replacing the body integrated unit
  - Prepare the security ID plate.
  - For models with immobilizers, prepare the required number of new immobilizer keys (unregistered).
  - When replacing the body integrated unit, confirm and record the current settings. <Ref. to LAN(diag)-21, CONFIRMATION OF CURRENT SETTING, OPERATION, Subaru Select Monitor.>
2. After replacing the body integrated unit with immobilizer
  - Register the immobilizer. For detailed operation procedures, refer to the “PC Application Help for Subaru Select Monitor”.
  - Set the current settings according to what was recorded.
- 1) Disconnect the ground cable from the battery.
- 2) Remove the driver’s side instrument panel lower cover. <Ref. to EI-47, REMOVAL, Instrument Panel Assembly.>
- 3) Remove the knee guard panel.
- 4) Disconnect the connector of body integrated unit.

**CAUTION:**

**Be careful to keep water and other foreign materials away from body integrated unit.**

- 5) Remove two mounting nuts for body integrated unit bracket, and remove the body integrated unit.



### B: INSTALLATION

Install in the reverse order of removal.

**NOTE:**

Make sure that there are no differences from the contents of the current settings after installation. <Ref. to LAN(diag)-21, CONFIRMATION OF CURRENT SETTING, OPERATION, Subaru Select Monitor.>

## 22. Transmitter

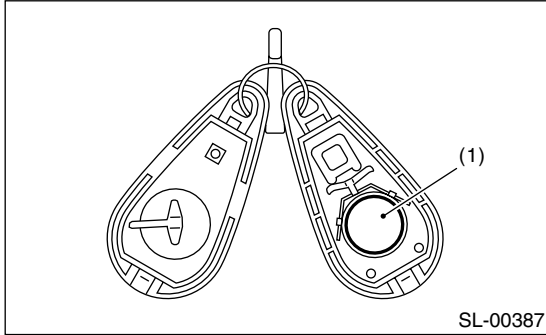
### A: REMOVAL

#### 1. TRANSMITTER BATTERY

Remove the battery (1) from the transmitter.

**NOTE:**

To prevent static electricity damage to the transmitter printed circuit board, touch the steel area of building with hand to discharge static electricity carried on body or clothes before disassembling the transmitter.



### B: INSTALLATION

#### 1. TRANSMITTER BATTERY

Install in the reverse order of removal.

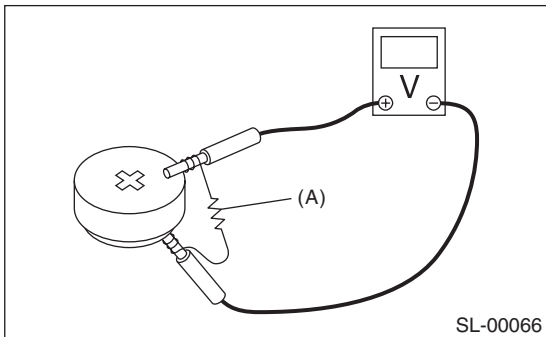
### C: INSPECTION

#### 1. TRANSMITTER BATTERY

Measure the voltage between the keyless transmitter battery (+) terminal and (-) terminal.

**NOTE:**

Battery discharge occurs during the measurement. Complete the measurement within 5 seconds.



(A) Resistance (47 Ω)

Tester connection		Standard
(+)	(-)	
Battery Positive terminal	Battery Ground terminal	2.5 — 3.0 V

If NG, replace the battery. (Use CR2025 or equivalent.)

### D: REPLACEMENT

#### 1. REGISTRATION OF KEYLESS TRANSMITTER WITH SUBARU SELECT MONITOR

**NOTE:**

- A maximum of four keyless transmitter can be registered for each individual vehicle.
- When replacing or adding the keyless transmitter, new registration of transmitter is necessary.

- 1) Connect the Subaru Select Monitor to the vehicle.
- 2) Turn the ignition switch to ON.
- 3) From the «System Selection Menu» of the Subaru Select Monitor, select {2. Each System Check} → {7. Integ. unit mode} → {8. Keyless ID registration}.

- 4) Input the 8-digit ID number attached to the plastic bag of the keyless transmitter or inside the transmitter, from left to right, then press the [Enter] key.

**NOTE:**

Press the [▲] key on the Subaru Select Monitor to increase the number, and the [▼] key to decrease. Press the [<] key to move to the digit in the left, and [>] to the right.

- 5) The ID number you have entered will be shown. Make sure that the ID number shown is the same as that of plastic bag or inside of transmitter.

- 6) Press the [OK] key if the ID number is correct. If the ID number is incorrect, select [NO] to return to the step 3) and reenter the ID number.

- 7) «ID is being registered...» is displayed and registration starts.

- 8) «ID registration completed» will be displayed when the registration process is done.

- 9) To exit, select «END: NO» to return to {8. Keyless ID registration}. If there are additional keyless transmitters to be registered, select «The following are registered: OK» to return to the step 4).

**NOTE:**

- If the registration fails, «ID cannot register. Please try again.» will be displayed. Select the [OK] key to return to the {8. Keyless ID registration}. Retry starting from the step 3).

- «END: NO» is shown on the Subaru Select Monitor when fourth keyless transmitter has been registered. Select the [NO] key to return to {8. Keyless ID registration}.



## 23. Immobilizer Control Module

### A: NOTE

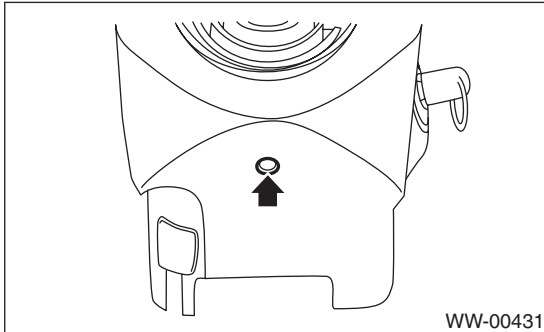
The control of immobilizer system is carried out in body integrated unit. Refer to the section of body integrated unit for work.

- Removal <Ref. to SL-47, REMOVAL, Body Integrated Unit.>
- Installation <Ref. to SL-47, INSTALLATION, Body Integrated Unit.>

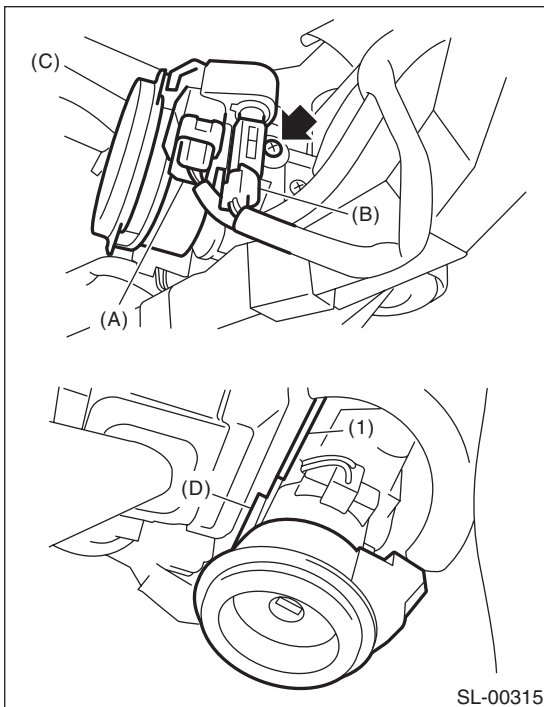
## 24. Immobilizer Antenna

### A: REMOVAL

- 1) Disconnect the ground cable from the battery.
- 2) Remove the screws, and detach the upper column cover and lower column cover.



- 3) Remove the instrument panel lower cover. <Ref. to EI-41, REMOVAL, Instrument Panel Lower Cover.>
- 4) Disconnect the immobilizer antenna connector (A) and ignition switch lighting connector (B).
- 5) Loosen the screw and release the lock (D) at opposite side using flat-tip screwdriver (1), and then detach the immobilizer antenna (C).



### CAUTION:

Do not apply excessive force to remove the immobilizer antenna and lock. Otherwise they may be broken because those parts are the products made of a plastic.

### B: INSTALLATION

Install in the reverse order of removal.