

BODY SECTION

This service manual has been prepared to provide SUBARU service personnel with the necessary information and data for the correct maintenance and repair of SUBARU vehicles.

This manual includes the procedures for maintenance, disassembling, reassembling, inspection and adjustment of components and diagnostics for guidance of experienced mechanics.

Please peruse and utilize this manual fully to ensure complete repair work for satisfying our customers by keeping their vehicle in optimum condition. When replacement of parts during repair work is needed, be sure to use SUBARU genuine parts.

All information, illustration and specifications contained in this manual are based on the latest product information available at the time of publication approval.

HVAC SYSTEM (HEATER, VENTILATOR AND A/C)	AC
HVAC SYSTEM (AUTO A/C) (DIAGNOSTICS)	AC(diag)
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LIGHTING SYSTEM	LI
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BODY SECTION

CRUISE CONTROL SYSTEM CC

CRUISE CONTROL SYSTEM (DIAGNOSTICS) CC(diag)

IMMOBILIZER (DIAGNOSTICS) IM(diag)

LAN SYSTEM (DIAGNOSTICS) LAN(diag)

SECURITY AND LOCKS

SL

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General Description

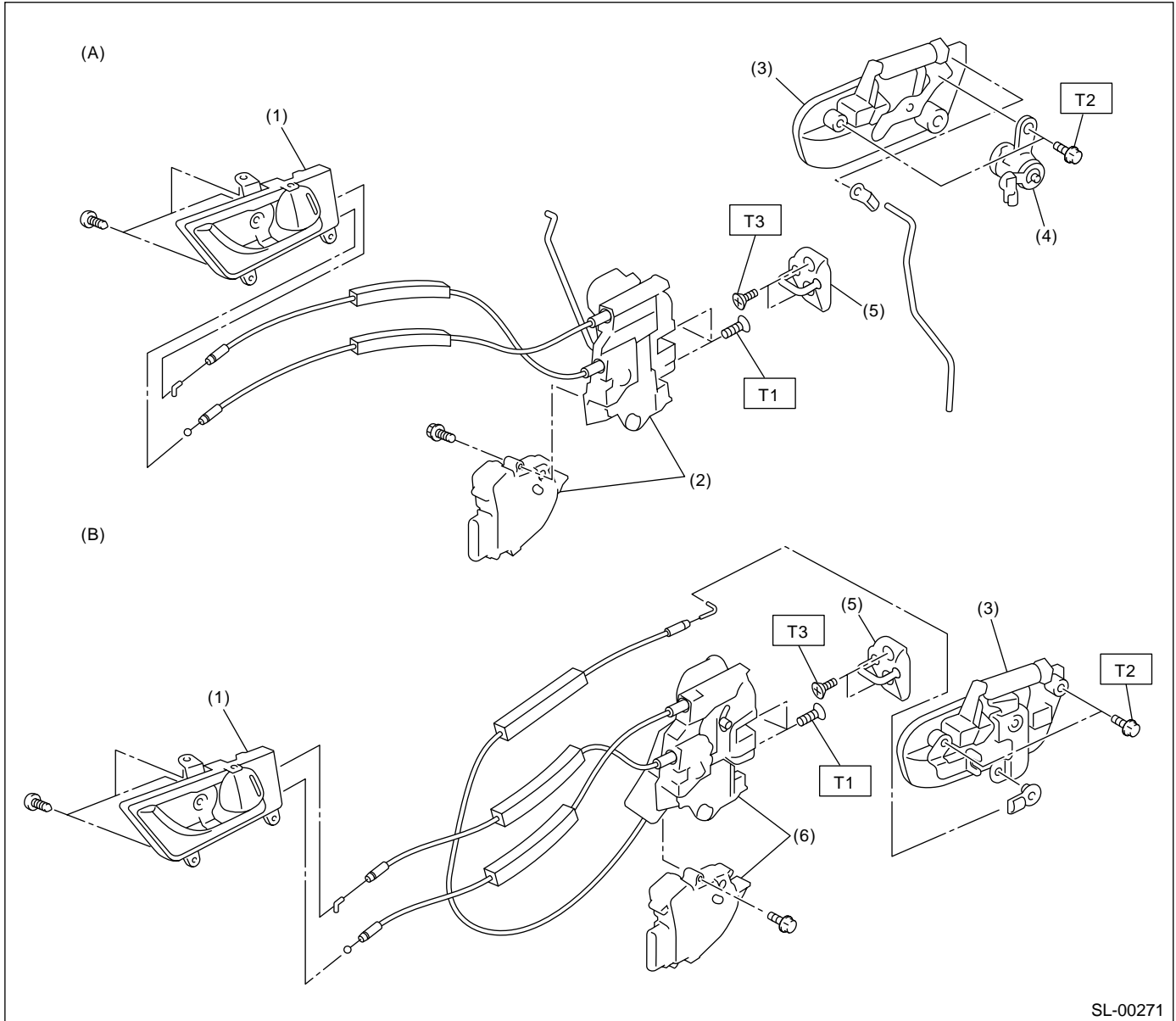
SECURITY AND LOCKS

1. General Description

A: COMPONENT

1. DOOR LOCK ASSEMBLY

- Model without double lock



SL-00271

(A) Front

(B) Rear

- | | |
|--|---|
| (1) Inner remote ASSY | (4) Key cylinder |
| (2) Front door latch & door lock actuator ASSY | (5) Striker |
| (3) Door outer handle | (6) Rear door latch & door lock actuator ASSY |

Tightening torque: N·m (kgf·m, ft·lb)

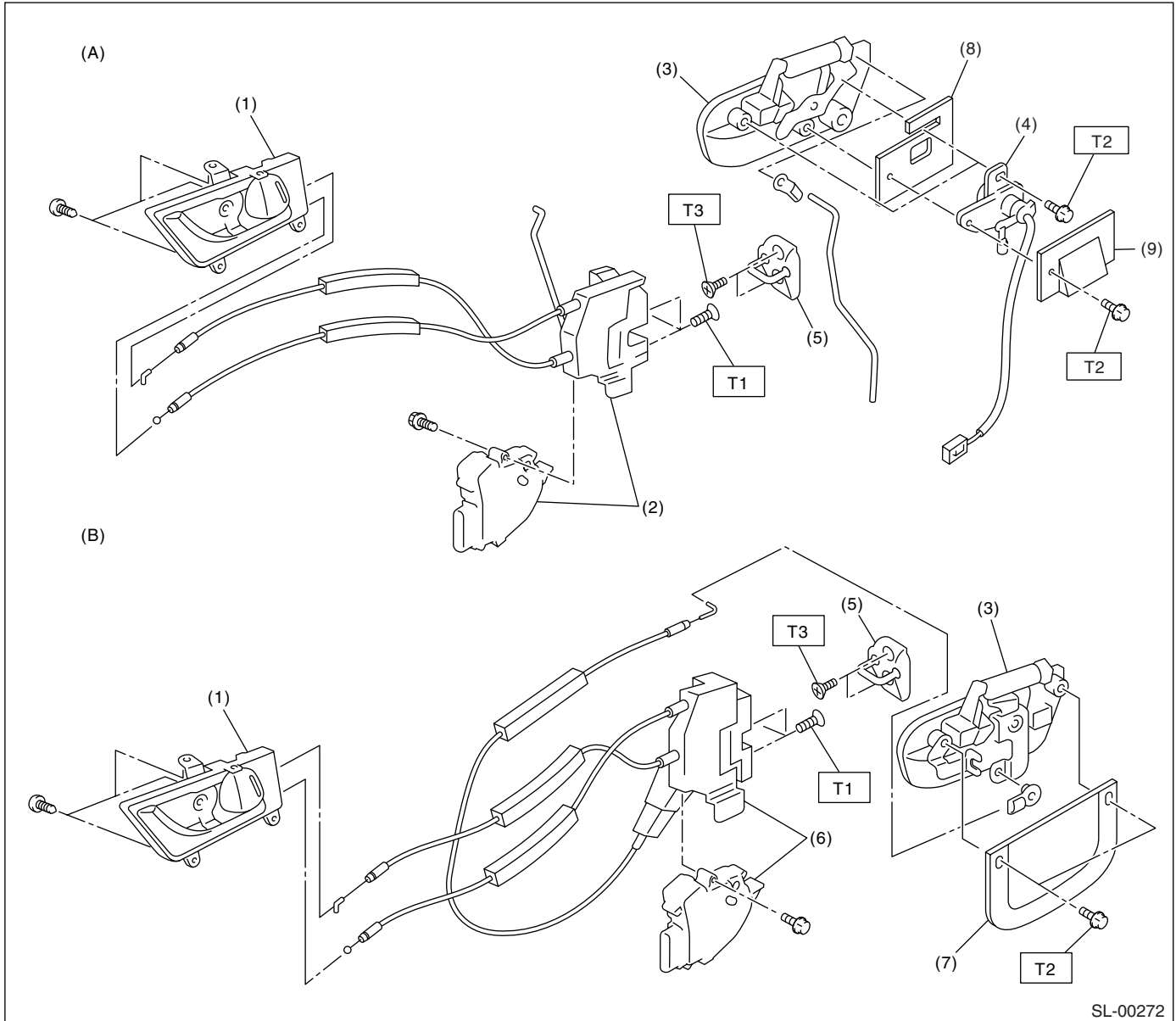
T1: 6.5 (0.66, 4.8)

T2: 7.5 (0.76, 5.5)

T3: 18 (1.8, 13.3)

General Description

- Model with double lock



SL-00272

(A) Front

(B) Rear

- (1) Inner remote ASSY
- (2) Front door latch & door lock actuator ASSY
- (3) Door outer handle
- (4) Key cylinder (switch)
- (5) Striker

- (6) Rear door latch & door lock actuator ASSY
- (7) Outer handle bracket
- (8) Key cylinder cover A
- (9) Key cylinder cover B

Tightening torque: N·m (kgf·m, ft·lb)

T1: 6.5 (0.66, 4.8)

T2: 7.5 (0.76, 5.5)

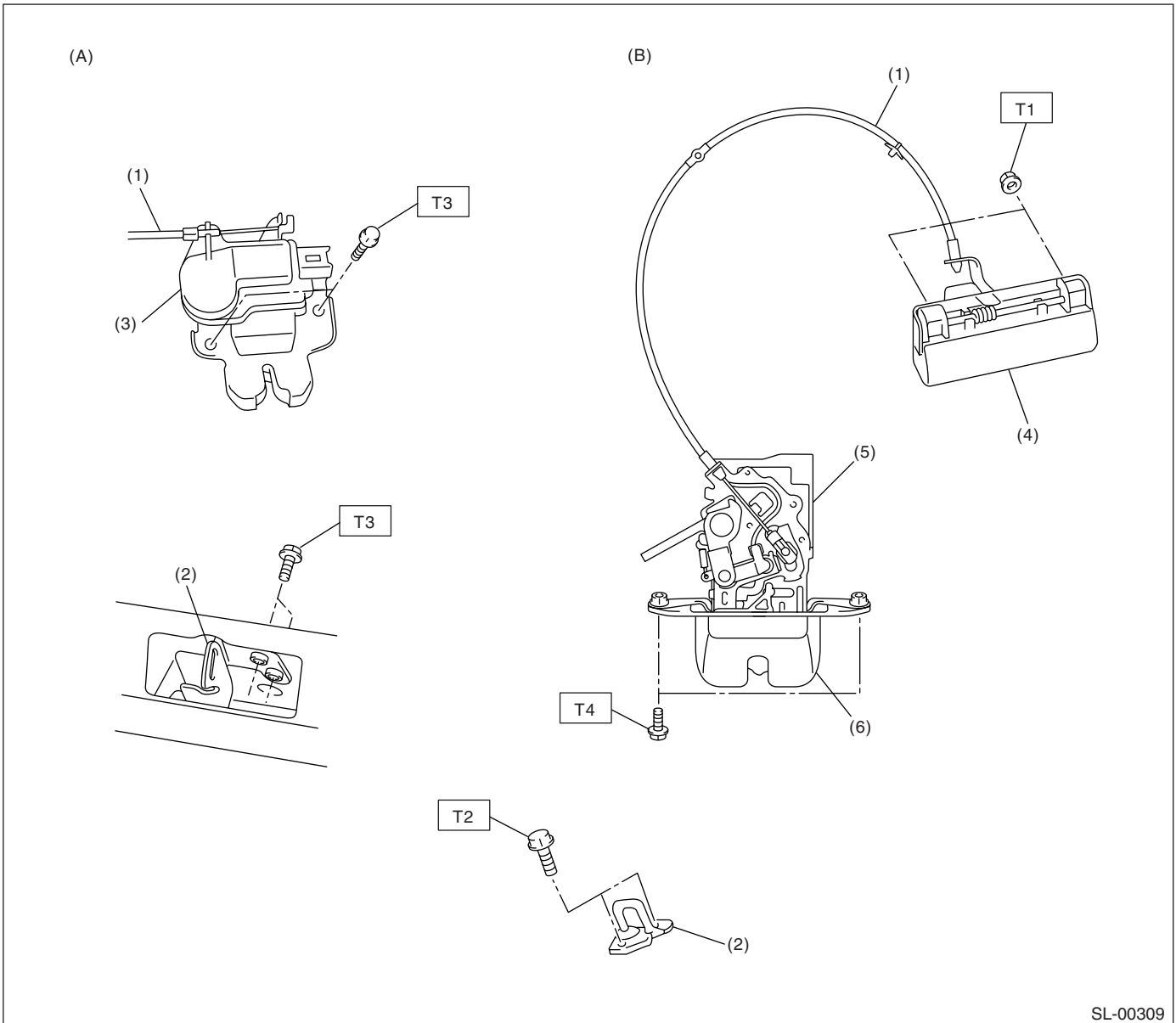
T3: 18 (1.8, 13.3)

General Description

SECURITY AND LOCKS

2. TRUNK LID AND REAR GATE LOCK

- Model without double lock



(A) Trunk

(B) Rear gate

- (1) Cable
- (2) Striker
- (3) Trunk lid lock ASSY
- (4) Rear gate outer handle
- (5) Rear gate actuator

- (6) Rear gate latch

Tightening torque: N·m (kgf·m, ft·lb)

T1: 7.5 (0.76, 5.5)

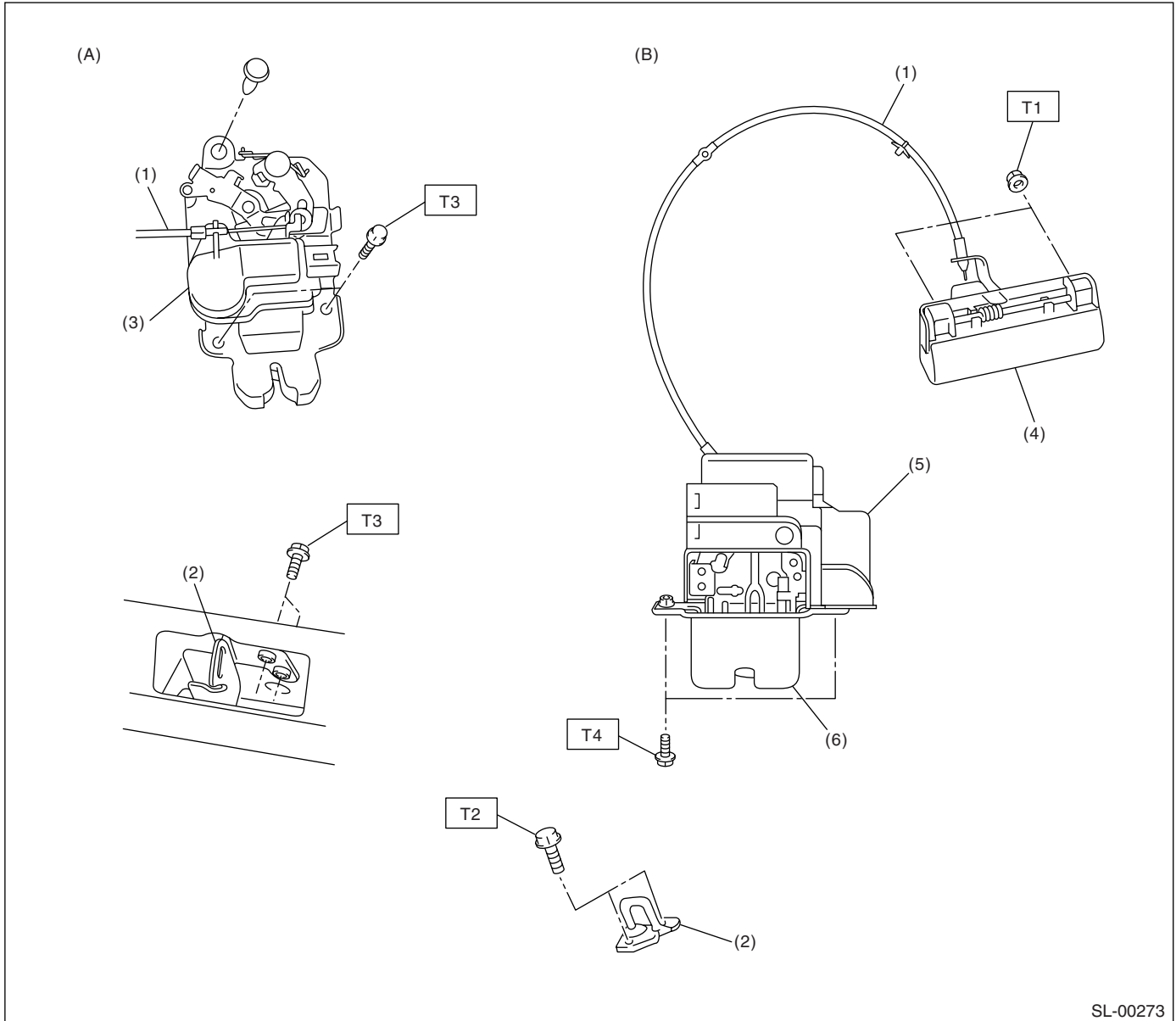
T2: 25 (2.5, 18.4)

T3: 7.35 (0.75, 5.39)

T4: 18 (1.8, 13.3)

General Description

• Model with double lock



SL-00273

(A) Trunk

(B) Rear gate

- (1) Cable
- (2) Striker
- (3) Trunk lid lock ASSY
- (4) Rear gate outer handle
- (5) Rear gate actuator

- (6) Rear gate latch ASSY

Tightening torque: N·m (kgf·m, ft·lb)

T1: 7.5 (0.76, 5.5)

T2: 25 (2.5, 18.4)

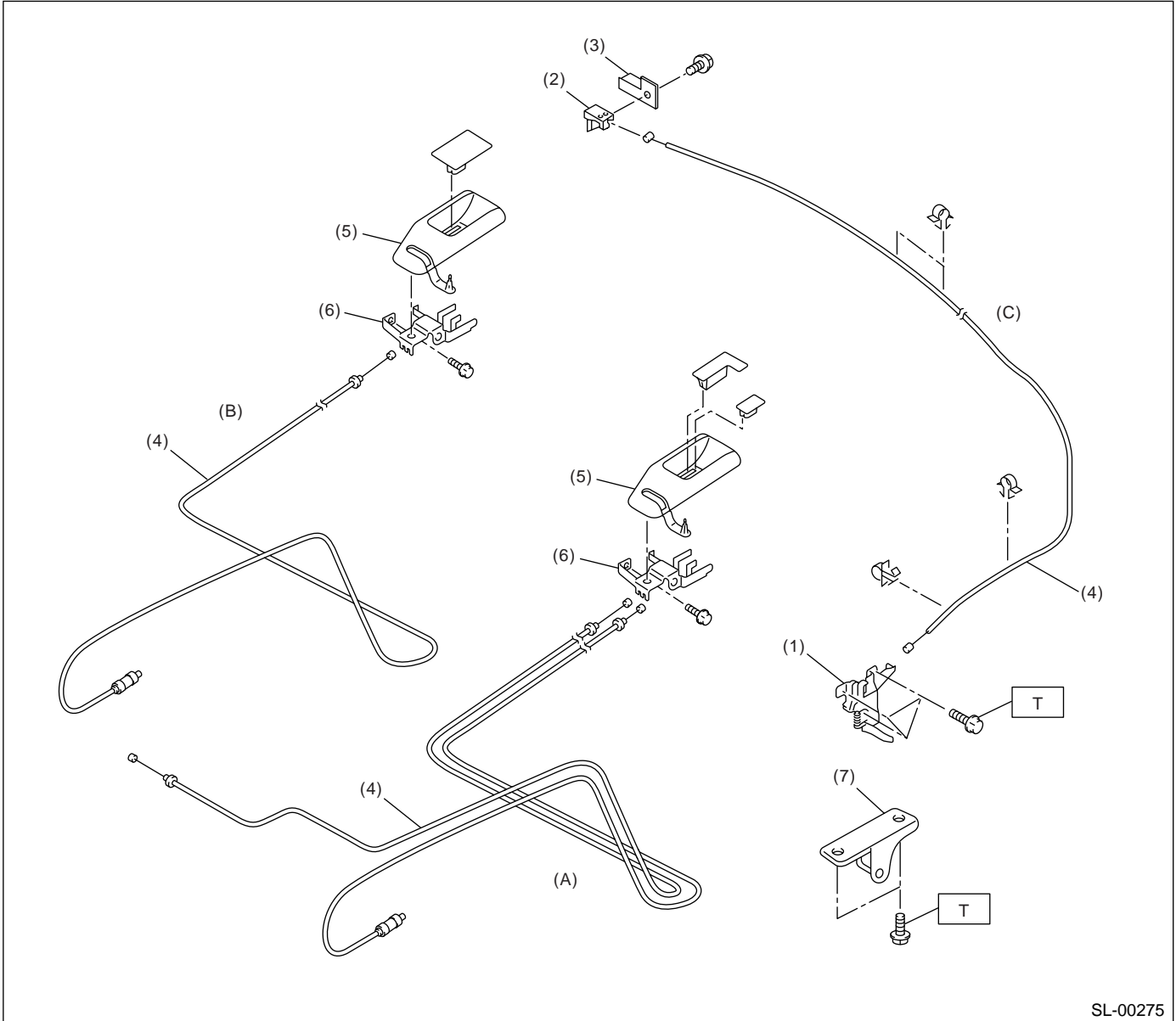
T3: 7.35 (0.75, 5.39)

T4: 18 (1.8, 13.3)

General Description

SECURITY AND LOCKS

3. FRONT HOOD LOCK AND REMOTE OPENERS



SL-00275

(A) Sedan model

(B) Wagon model

(C) Hood

(1) Front hood lock ASSY

(5) Cover

(2) Lever ASSY

(6) Pull handle ASSY

(3) Lever ASSY bracket

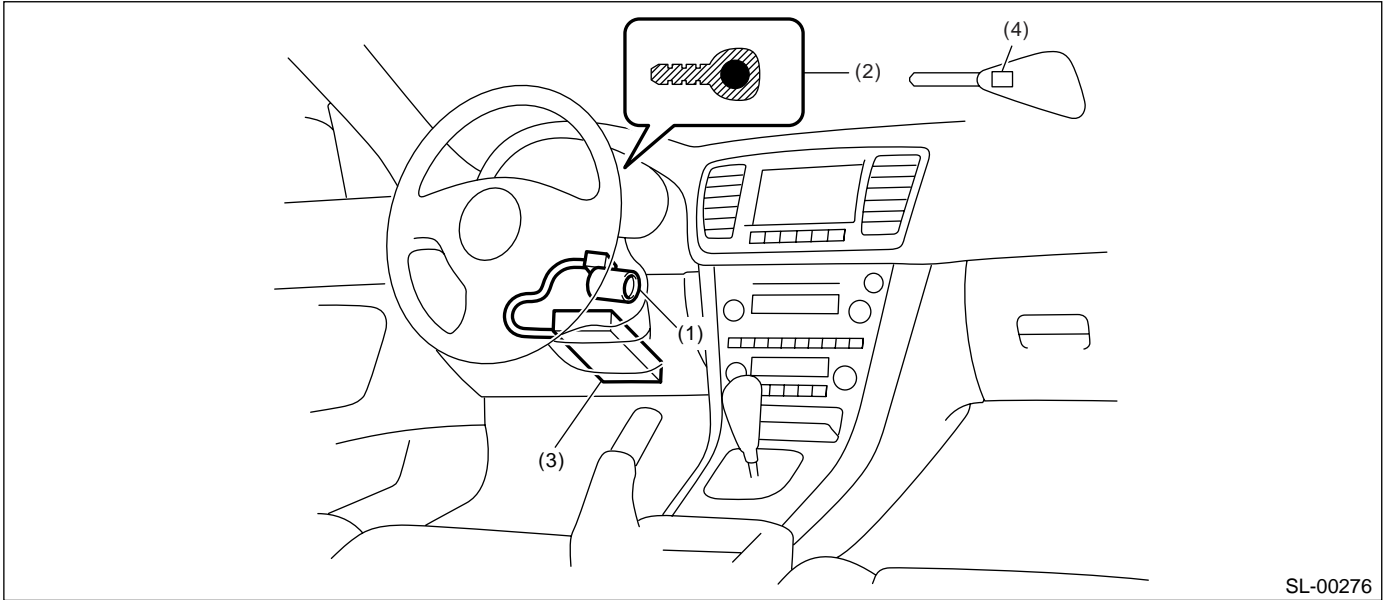
(7) Striker

(4) Cable

Tightening torque: N·m (kgf·m, ft·lb)

T: 33 (3.36, 24.2)

4. IMMOBILIZER SYSTEM



(1) Antenna

(2) Immobilizer indicator light (LED bulb)

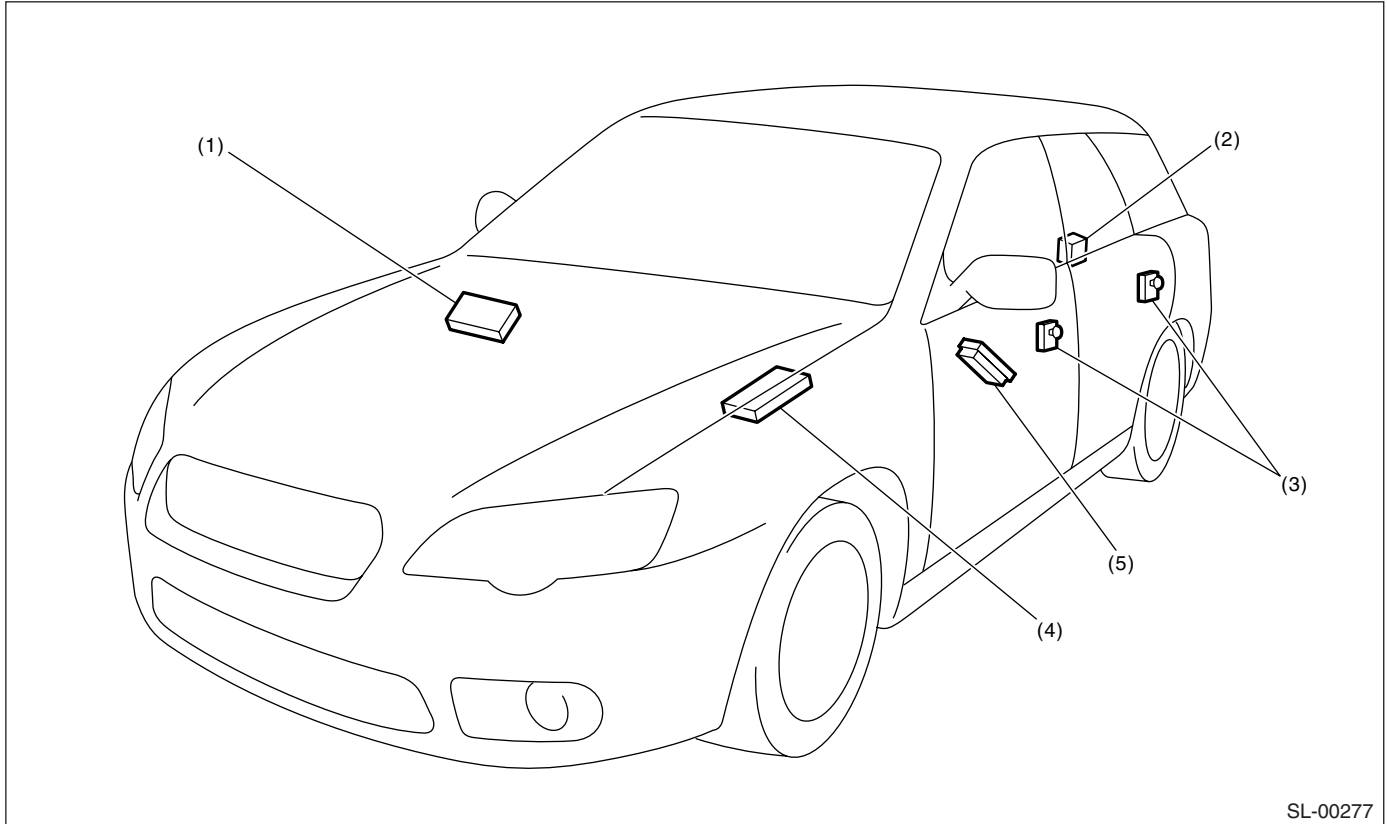
(3) Body integrated unit

(4) Transponder

NOTE:

Body integrated unit location for RHD model is symmetrically opposite.

5. KEYLESS ENTRY SYSTEM



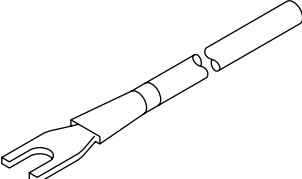
- | | | |
|------------------------------------|--------------------------|------------------------------|
| (1) Keyless Entry Control Module | (3) Door switch | (5) Power window main switch |
| (2) Rear gate latch switch (Wagon) | (4) Body integrated unit | |

B: CAUTION

- Before disassembling or reassembling parts, always disconnect the battery ground cable. 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.
- 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, ensure the functional parts operate smoothly.
- The air bag system wiring harness is routed near electrical parts and switches.
- All air bag system wiring harnesses and connectors are yellow. Do not use the electrical test equipment on these circuits.
- Be careful not to damage the airbag system wiring harness when servicing the ignition key cylinder.

C: PREPARATION TOOL

1. SPECIAL TOOL

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 <p style="text-align: center; margin-top: 10px;">ST-925580000</p>	925580000	PULLER	Used for removing trim clip.

2. GENERAL TOOL

TOOL NAME	REMARKS
Circuit tester	Used for measuring resistance and voltage.
Drill	Used for replacing ignition key lock.

Door Lock Control System

SECURITY AND LOCKS

2. Door Lock Control System

A: WIRING DIAGRAM

1. DOOR LOCK CONTROL

<Ref. to WI-248, WIRING DIAGRAM, Keyless Entry System.>

B: INSPECTION

1. SYMPTOM CHART

Symptom	Repair order	Reference
The door lock control system does not operate.	1. Check the fuse.	<Ref. to SL-11, CHECK FUSE, INSPECTION, Door Lock Control System.>
	2. Check the power supply and ground circuit for body integrated unit.	<Ref. to SL-11, CHECK POWER SUPPLY AND GROUND CIRCUIT, INSPECTION, Door Lock Control System.>
	3. Check the door lock switch and circuit.	<Ref. to SL-11, CHECK DOOR LOCK SWITCH, INSPECTION, Door Lock Control System.>
	4. Check the door lock actuator and circuit.	<Ref. to SL-12, CHECK DOOR LOCK ACTUATOR AND CIRCUIT, INSPECTION, Door Lock Control System.>
The door lock switch does not operate.	Check the door lock switch.	<Ref. to SL-11, 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-12, CHECK DOOR LOCK ACTUATOR AND CIRCUIT, INSPECTION, Door Lock Control System.>
The key cylinder lock switch does not operate. (Model with double lock)	Check the key cylinder lock switch and circuit.	<Ref. to SL-13, CHECK KEY CYLINDER LOCK SWITCH AND CIRCUIT, INSPECTION, Door Lock Control System.>
The double lock does not operate. (Model with double lock)	Check the door lock actuator (double lock) and circuit.	<Ref. to SL-14, CHECK DOOR LOCK ACTUATOR (DOUBLE LOCK) AND CIRCUIT, INSPECTION, Door Lock Control System.>

2. CHECK FUSE

Step	Check	Yes	No
1 CHECK FUSE. Remove and visually check the fuse No. 3 (in the fuse and relay box) and No. 7 (in the fuse and relay box).	Is the fuse blown out?	Replace the fuse with a new one.	Check the power supply and ground circuit. <Ref. to SL-11, CHECK POWER SUPPLY AND GROUND CIRCUIT, INSPECTION, Door Lock Control System.>

3. CHECK POWER SUPPLY AND GROUND CIRCUIT

Step	Check	Yes	No
1 CHECK POWER SUPPLY. 1) Disconnect the harness connector of body integrated unit. 2) Measure the voltage between harness connector terminal and chassis ground. <i>Connector & terminal</i> <i>(i84) No. 34 (+) — Chassis ground (-):</i> <i>(B281) No. 2 (+) — Chassis ground (-):</i>	Is the voltage more than 10 V?	Go to step 2.	Check the harness for open or short circuit between body integrated unit and fuse.
2 CHECK GROUND CIRCUIT. Measure the resistance between harness connector terminal and chassis ground. <i>Connector & terminal</i> <i>(B280) No. 22 — Chassis ground:</i> <i>(B281) No. 8, 9, 22 — Chassis ground:</i>	Is the resistance less than 10 Ω ?	The power supply and ground circuit are OK.	Repair the harness.

4. CHECK DOOR LOCK SWITCH

Step	Check	Yes	No
1 CHECK DOOR LOCK SWITCH. Check the input from door lock switch to body integrated unit using Subaru Select Monitor. 1) Connect the Subaru Select Monitor to data link connector. 2) Turn the ignition switch to ON. 3) Select {body integrated unit} from main menu. 4) Select {Current Data Display & Save}. 5) Check the input to body integrated unit by operating the door lock switch.	Is the normal input signal displayed when the door lock switch is moved to LOCK/UNLOCK?	The door lock switch is OK.	Go to step 2.
2 CHECK DOOR LOCK SWITCH CIRCUIT. 1) Disconnect the body integrated unit harness connector. 2) Measure the resistance between the harness connector terminal and chassis ground when moving the door lock switch to LOCK. <i>Connector & terminal</i> <i>(i84) No. 15 — Chassis ground:</i>	Is the resistance less than 10 Ω ?	Go to step 3.	Go to step 4.

Door Lock Control System

SECURITY AND LOCKS

Step	Check	Yes	No
3 CHECK DOOR LOCK SWITCH CIRCUIT. Measure the resistance between the harness connector terminal and chassis ground when the door lock switch is moved to UNLOCK. Connector & terminal <i>(i84) No. 29 — Chassis ground:</i>	Is the resistance less than 10 Ω ?	The door lock switch is OK.	Go to step 4.
4 CHECK DOOR LOCK SWITCH. 1) Disconnect the door lock switch harness connector. 2) Measure the resistance between the door lock switch terminals when moving the door lock switch to LOCK. Connector & terminal LHD model: <i>(D7) No. 4 — No. 7:</i> RHD model: <i>(D7) No. 4 — No. 14:</i>	Is the resistance less than 1 Ω ?	Go to step 5.	Replace the door lock switch.
5 CHECK DOOR LOCK SWITCH. Measure the resistance between the door lock switch terminals when moving the door lock switch to UNLOCK. Connector & terminal LHD model: <i>(D7) No. 5 — No. 7:</i> RHD model: <i>(D7) No. 5 — No. 14:</i>	Is the resistance less than 1 Ω ?	Check the harness for open circuits or shorts between the body integrated unit and the door lock switch.	Replace the door lock switch.

5. CHECK DOOR LOCK ACTUATOR AND CIRCUIT

Step	Check	Yes	No
1 CHECK OUTPUT SIGNAL. Measure the voltage between the harness connector terminal and chassis ground of body integrated unit when moving the door lock switch to LOCK. Connector & terminal <i>(i84) No. 7 (+) — Chassis ground (-):</i>	Is the voltage more than 10 V?	Go to step 2.	Replace the body integrated unit. <Ref. to SL-46, Body Integrated Unit.>
2 CHECK OUTPUT SIGNAL. Measure the voltage between the harness connector terminal and chassis ground of body integrated unit when moving the door lock switch to UNLOCK. Connector & terminal <i>(i84) No. 8 (+) — Chassis ground (-):</i>	Is the voltage more than 10 V?	Go to step 3.	Replace the body integrated unit. <Ref. to SL-46, Body Integrated Unit.>
3 CHECK POWER WINDOW MAIN SWITCH OUTPUT SIGNAL. Measure the voltage between the harness connector terminal of power window main switch and chassis ground when moving the door lock switch to LOCK. Connector & terminal <i>(D7) No. 4 (+) — Chassis ground (-):</i>	Is the voltage more than 10 V?	Go to step 4.	Replace the power window main switch. <Ref. to GW-9, Power Window Control Switch.>

Step	Check	Yes	No
4 CHECK POWER WINDOW MAIN SWITCH OUTPUT SIGNAL. Measure the voltage between the harness connector terminal of power window main switch and chassis ground when moving the door lock switch to UNLOCK. <i>Connector & terminal</i> <i>(D7) No. 5 (+) — Chassis ground (-):</i>	Is the voltage more than 10 V?	Go to step 5.	Replace the power window main switch. <Ref. to GW-9, Power Window Control Switch.>
5 CHECK DOOR LOCK ACTUATOR. Check the door lock actuator. <ul style="list-style-type: none"> • Front Door Lock Actuator <Ref. to SL-31, Front Door Lock Actuator.> • Rear Door Lock Actuator <Ref. to SL-35, Rear Door Lock Actuator.> • Rear Gate Latch Lock Actuator <Ref. to SL-37, Rear Gate Latch Assembly.> 	Is the door lock actuator OK?	Check the harness for open or short circuit between body integrated unit and door lock actuator.	Replace the door lock actuator.

6. CHECK KEY CYLINDER LOCK SWITCH AND CIRCUIT

Step	Check	Yes	No
1 CHECK KEY CYLINDER LOCK SWITCH CIRCUIT. 1) Disconnect the body integrated unit harness connector. 2) Measure the resistance between harness connector terminal and chassis ground when turning the key cylinder lock switch to LOCK. <i>Connector & terminal</i> <i>(i84) No. 3 — Chassis ground:</i>	Is the resistance less than 10 Ω ?	Go to step 2.	Go to step 3.
2 CHECK KEY CYLINDER LOCK SWITCH CIRCUIT. Measure the resistance between harness connector terminal and chassis ground when turning the key cylinder lock switch to UNLOCK. <i>Connector & terminal</i> <i>(i84) No. 12 — Chassis ground:</i>	Is the resistance less than 10 Ω ?	Key cylinder lock switch is OK.	Go to step 3.
3 CHECK KEY CYLINDER LOCK SWITCH. 1) Disconnect the key cylinder lock switch connector. 2) Measure the resistance between key cylinder lock switch terminals when turning the key cylinder lock switch to LOCK. <i>Terminals</i> <i>No. 1 — No. 2</i>	Is the resistance less than 1 Ω ?	Go to step 4.	Replace the key cylinder lock switch.
4 CHECK KEY CYLINDER LOCK SWITCH. Measure the resistance between key cylinder lock switch terminals when turning the key cylinder lock switch to UNLOCK. <i>Terminals</i> <i>No. 2 — No. 3</i>	Is the resistance less than 1 Ω ?	Check the harness for open or short circuits between body integrated unit and key cylinder lock switch.	Replace the key cylinder lock switch.

Door Lock Control System

SECURITY AND LOCKS

7. CHECK DOOR LOCK ACTUATOR (DOUBLE LOCK) AND CIRCUIT

Step	Check	Yes	No
1 CHECK OUTPUT SIGNAL. Measure the resistance between body integrated unit harness connector terminal and chassis ground when turning the key cylinder lock switch to LOCK. <i>Connector & terminal</i> <i>(i84) No. 35 (+) — Chassis ground (-):</i>	Is the voltage more than 10 V?	Go to step 2.	Replace the body integrated unit.
2 CHECK OUTPUT SIGNAL. Measure the resistance between body integrated unit harness connector terminal and chassis ground when turning the key cylinder lock switch to UNLOCK. <i>Connector & terminal</i> <i>(i84) No. 35 (+) — Chassis ground (-):</i>	Is the voltage more than 10 V?	Go to step 3.	Replace the body integrated unit.
3 CHECK DOOR LOCK ACTUATOR. Check the door lock actuator. Front door lock actuator: <Ref. to SL-31, Front Door Lock Actuator.> Rear door lock actuator: <Ref. to SL-35, Rear Door Lock Actuator.>	Is the door lock actuator normal?	Check the harness for open or short circuits between body integrated unit and door lock actuator.	Replace the door lock actuator.

3. Keyless Entry System

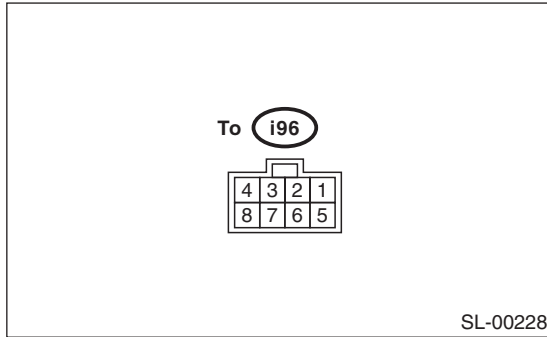
A: WIRING DIAGRAM

1. KEYLESS ENTRY

<Ref. to WI-248, WIRING DIAGRAM, Keyless Entry System.>

B: ELECTRICAL SPECIFICATION

1. KEYLESS ENTRY CONTROL UNIT

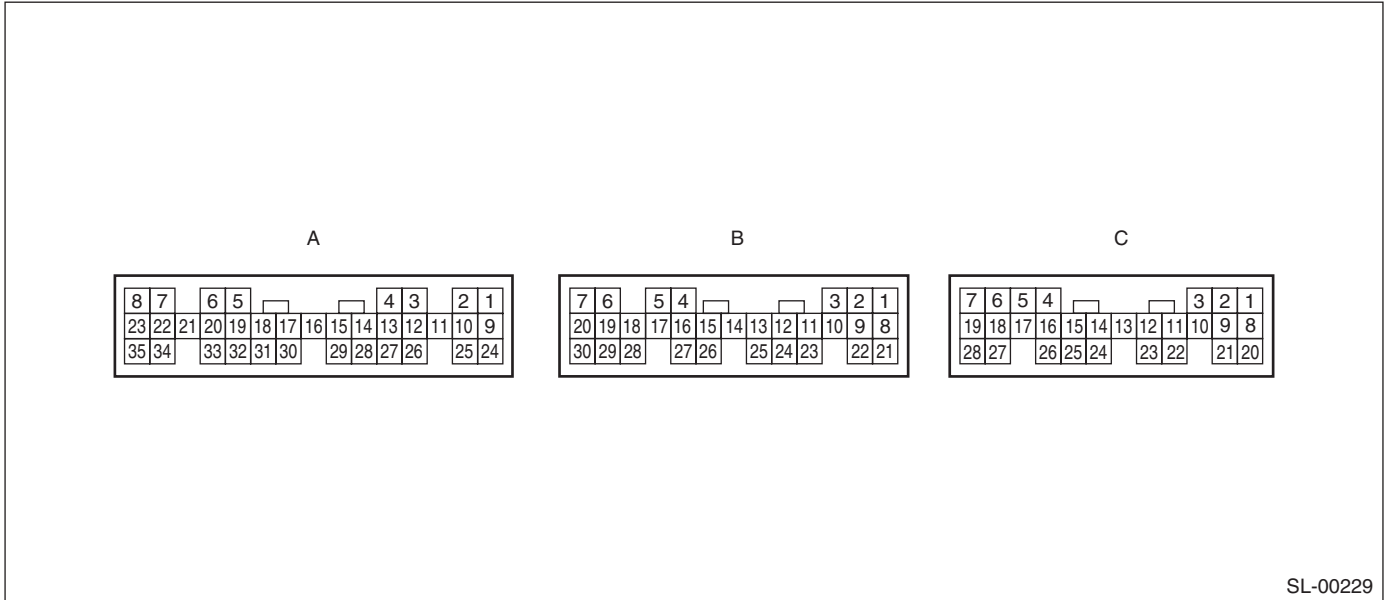


Remarks	Terminal No.	Measuring conditions
Body integrated unit	3 (OUTPUT)	Battery voltage cannot be measured because of digital signal.
Power supply (Backup)	4	Battery voltage is constantly present.
Ground	7	0 V is constantly present.

Keyless Entry System

SECURITY AND LOCKS

2. BODY INTEGRATED UNIT



SL-00229

Remarks	Terminal No.	Measuring conditions
Ignition switch (ON)	A1 (INPUT)	Battery voltage is present when ignition switch is turned ON.
Door and rear gate lock actuator (Model without double lock) Front double lock actuator RH, door and rear gate lock actuator (Model with double lock)	A7 (OUTPUT)	Battery voltage is present when pressing the LOCK button of keyless transmitter.
Door and rear gate lock actuator	A8 (OUTPUT)	Battery voltage is present when pressing the UNLOCK button of keyless transmitter.
Keyless entry control module	A9 (INPUT)	Communication line (Cannot be measured because of digital signal)
Double lock condition detecting switch (Model with double lock)	A16 (OUTPUT)	Battery voltage is present when pressing the LOCK button of keyless transmitter.
Trunk lid switch or rear gate latch switch	A17 (INPUT)	0 V is present when opening the trunk lid or rear gate.
Rear door switch RH	A18 (INPUT)	0 V is present when opening the rear door RH.
Front door switch RH	A19 (INPUT)	0 V is present when opening the front door RH.
Ground	A21	0 V is constantly present.
Trunk lid actuator	A22 (OUTPUT)	Battery voltage is present when pressing the TRUNK button of keyless transmitter.
Front door actuator driver's side (Model without double lock)	A23 (OUTPUT)	Battery voltage is present when pressing the UNLOCK button of keyless transmitter.
Power window main switch (door lock switch)	A26	CAN communication line (Cannot be measured because of digital signal)
	A27	
Rear door switch LH	A31 (INPUT)	0 V is present when opening the rear door LH.
Front door switch LH	A32 (INPUT)	0 V is present when opening the front door LH.
Power supply	A34	Battery voltage is constantly present.
Front double lock actuator RH (Model with double lock)	A35 (OUTPUT)	Battery voltage is present when pressing the LOCK button of keyless transmitter.
Room light	B3 (INPUT)	<ul style="list-style-type: none"> 0 V is present when pressing the UNLOCK button of keyless transmitter. 0 V is present when opening the door.
Power supply	B7	Battery voltage is constantly present.
Turn signal & hazard circuit	B12 (OUTPUT)	Battery voltage is present when pressing the LOCK button or UNLOCK button of keyless transmitter.
Ground	B22	0 V is constantly present.

Keyless Entry System

Remarks	Terminal No.	Measuring conditions
Power supply	C1	Battery voltage is constantly present.
Power supply	C2	Battery voltage is constantly present.
Key warning switch	C7 (INPUT)	Battery voltage is present when inserting the key into ignition switch.
Ground	C8	0 V is constantly present.
Ground	C9	0 V is constantly present.
Registration connector	C22	0 V is present when connecting the registration connector.

Keyless Entry System

SECURITY AND LOCKS

C: INSPECTION

1. SYMPTOM CHART

Symptom	Repair order	Reference
None of the functions of keyless entry system operate.	1. Check the keyless transmitter battery.	<Ref. to SL-20, CHECK KEYLESS TRANSMITTER BATTERY AND FUNCTION, INSPECTION, Keyless Entry System.>
	2. Check the fuse.	<Ref. to SL-21, CHECK FUSE, INSPECTION, Keyless Entry System.>
	3. Check the keyless entry control module.	<Ref. to SL-21, CHECK KEYLESS ENTRY CONTROL MODULE, INSPECTION, Keyless Entry System.>
	4. Check the power supply and ground circuit for the body integrated unit.	<Ref. to SL-22, CHECK BODY INTEGRATED UNIT POWER SUPPLY AND GROUND CIRCUIT, INSPECTION, Keyless Entry System.>
	5. Check the key warning switch.	<Ref. to SL-24, CHECK KEY WARNING SWITCH, INSPECTION, Keyless Entry System.>
	6. Check the door switch.	<Ref. to SL-23, 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-20, CHECK KEYLESS TRANSMITTER BATTERY AND FUNCTION, INSPECTION, Keyless Entry System.>
	2. Check registration connector circuit.	<Ref. to SL-22, CHECK REGISTRATION CONNECTOR., INSPECTION, Keyless Entry System.>
	3. Check the key warning switch.	<Ref. to SL-24, CHECK KEY WARNING SWITCH, INSPECTION, Keyless Entry System.>
	4. Check the door lock switch signal.	<Ref. to SL-26, CHECK DOOR LOCK SWITCH, INSPECTION, Keyless Entry System.>
	5. 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 when using the door lock switch, check the door lock control system. <Ref. to SL-10, INSPECTION, Door Lock Control System.>	1. Check the keyless transmitter battery.	<Ref. to SL-20, CHECK KEYLESS TRANSMITTER BATTERY AND FUNCTION, INSPECTION, Keyless Entry System.>
	2. Check the keyless entry control module.	<Ref. to SL-21, CHECK KEYLESS ENTRY CONTROL MODULE, INSPECTION, Keyless Entry System.>
	3. Check the key warning switch.	<Ref. to SL-24, CHECK KEY WARNING SWITCH, INSPECTION, Keyless Entry System.>
	4. Check the door switch.	<Ref. to SL-23, CHECK DOOR SWITCH, INSPECTION, Keyless Entry System.>
	5. Check the body integrated unit.	<Ref. to LAN(diag)-2, Basic Diagnostic Procedure.>

Keyless Entry System

SECURITY AND LOCKS

Symptom	Repair order	Reference
Trunk lid unlock does not operate. (Sedan model)	1. Check the keyless transmitter battery.	<Ref. to SL-20, CHECK KEYLESS TRANSMITTER BATTERY AND FUNCTION, INSPECTION, Keyless Entry System.>
	2. Check the keyless entry control module.	<Ref. to SL-21, CHECK KEYLESS ENTRY CONTROL MODULE, INSPECTION, Keyless Entry System.>
	3. Check the key warning switch.	<Ref. to SL-24, CHECK KEY WARNING SWITCH, INSPECTION, Keyless Entry System.>
	4. Check the trunk lid lock actuator.	<Ref. to SL-25, CHECK TRUNK LID LOCK ACTUATOR, INSPECTION, Keyless Entry System.>
	5. Check the body integrated unit.	<Ref. to LAN(diag)-2, Basic Diagnostic Procedure.>
Hazard light does not operate.	1. Check the hazard light operation.	<Ref. to SL-25, CHECK HAZARD LIGHT OPERATION, INSPECTION, Keyless Entry System.>
	2. 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-24, 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-27, 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

SECURITY AND LOCKS

2. CHECK KEYLESS TRANSMITTER BATTERY AND FUNCTION

Step	Check	Yes	No
1 CHECK KEYLESS TRANSMITTER BATTERY. 1) Remove the battery from keyless transmitter. <Ref. to SL-47, REMOVAL, Keyless Transmitter.> 2) Check the battery voltage. <Ref. to SL-47, INSPECTION, Keyless Transmitter.>	Is the voltage more than 2 V?	Go to step 2.	Replace the keyless transmitter battery. <Ref. to SL-47, Keyless Transmitter.>
2 CHECK KEYLESS TRANSMITTER. Register the keyless transmitter which operates normally on other vehicles to inspection target vehicle. <Ref. to SL-47, REGISTRATION OF KEYLESS TRANSMITTER, REPLACEMENT, Keyless Transmitter.> 1) Close all the doors and rear gate of inspection target vehicle. 2) Using keyless transmitter, lock and unlock the doors and rear gate of inspection target vehicle.	Is the inspection target vehicle operates lock and unlock normally?	Go to step 3.	Due to vehicle malfunction, continue the keyless entry system diagnosis.
3 CHECK KEYLESS TRANSMITTER. Register the keyless transmitter of inspection target vehicle to another vehicle which operates keyless system normally. <Ref. to SL-47, REGISTRATION OF KEYLESS TRANSMITTER, REPLACEMENT, Keyless Transmitter.>	Is the keyless transmitter registered correctly?	Go to step 4.	Replace the keyless transmitter. <Ref. to SL-47, REGISTRATION OF KEYLESS TRANSMITTER, REPLACEMENT, Keyless Transmitter.>
4 CHECK KEYLESS TRANSMITTER. Check the registered keyless transmitter. 1) Close all the doors and rear gate of the vehicle which operates keyless system normally. 2) Using keyless transmitter, lock and unlock the doors and rear gate of vehicle.	Is the vehicle operates lock and unlock normally?	Keyless transmitter is normal.	Replace the keyless transmitter. <Ref. to SL-47, REGISTRATION OF KEYLESS TRANSMITTER, REPLACEMENT, Keyless Transmitter.>

CAUTION:

Be sure to reset the keyless transmitter, which is registered from other vehicle to inspection target vehicle, and the vehicle, to which is registered keyless transmitter, to the condition of before inspection. (Register the keyless transmitter to original condition.)

3. CHECK FUSE

Step	Check	Yes	No
1 CHECK FUSE. Remove and visually check the fuse No. 3 (in the fuse and relay box) and No. 7 (in the fuse and relay box).	Is the fuse blown out?	Replace the fuse with a new one.	Check the power supply and ground circuit. <Ref. to SL-22, CHECK BODY INTEGRATED UNIT POWER SUPPLY AND GROUND CIRCUIT, INSPECTION, Keyless Entry System.>

4. CHECK KEYLESS ENTRY CONTROL MODULE

Step	Check	Yes	No
1 CHECK DIAGNOSTIC TROUBLE CODE (DTC) 1) Connect the Subaru Select Monitor to data link connector. 2) Turn the ignition switch to ON. 3) Select {Body integrated unit} from main menu. 4) Select the {Diagnostic Trouble Code}. 5) Check that the DTC is displayed.	Is DTC B0500 "Keyless UART com. Malfunction" displayed?	Go to step 2.	Keyless entry control module is normal.
2 CHECK POWER SUPPLY. 1) Disconnect the keyless entry control module harness connector. 2) Measure the voltage between the harness connector terminal and chassis ground. <i>Connector & terminal (i96) No. 4 (+) — Chassis ground (-):</i>	Is the voltage more than 10 V?	Go to step 3.	Check the harness for open circuits and shorts between the keyless entry control module and fuse.
3 CHECK GROUND CIRCUIT. Measure the resistance between the harness connector terminal and chassis ground. <i>Connector & terminal (i96) No. 7 — Chassis ground:</i>	Is the resistance less than 10 Ω ?	Go to step 4.	Repair the harness.
4 CHECK KEYLESS ENTRY CONTROL MODULE CIRCUIT. 1) Disconnect harness connector of body integrated unit. 2) Measure the resistance between harness connector terminals. <i>Connector & terminal (i84) No. 9 — (i96) No. 3:</i>	Is the resistance less than 10 Ω ?	Replace the keyless entry control module. <Ref. to SL-45, Keyless Entry Control Unit.>	Repair the harness.

Keyless Entry System

SECURITY AND LOCKS

5. CHECK BODY INTEGRATED UNIT POWER SUPPLY AND GROUND CIRCUIT

Step	Check	Yes	No
1 CHECK POWER SUPPLY OF BODY INTEGRATED UNIT. 1) Disconnect the harness connector of body integrated unit. 2) Measure the voltage between the harness connector terminal and chassis ground. <i>Connector & terminal</i> <i>(B280) No. 7 (+) — Chassis ground (-):</i> <i>(B281) No. 2 (+) — Chassis ground (-):</i>	Is the voltage more than 10 V?	Go to step 2.	Check the harness for open or short between body integrated unit and fuse.
2 CHECK BODY INTEGRATED UNIT GROUND CIRCUIT. 1) Disconnect the harness connector of body integrated unit. 2) Measure the resistance between the harness connector terminal and chassis ground. <i>Connector & terminal</i> <i>(B280) No. 22 — Chassis ground:</i> <i>(B281) No. 8 — Chassis ground:</i> <i>(B281) No. 9 — Chassis ground:</i>	Is the resistance less than 10 Ω ?	Check the body integrated unit. <Ref. to LAN(diag)-2, Basic Diagnostic Procedure.>	Repair the harness.

6. CHECK REGISTRATION CONNECTOR.

Step	Check	Yes	No
1 CHECK REGISTRATION CONNECTOR INPUT VOLTAGE. 1) Disconnect the registration connector. 2) Measure the voltage between the body integrated unit harness connector and chassis ground. <i>Connector & terminal</i> <i>(B281) No. 22 (+) — Chassis ground (-):</i>	Is the voltage more than 10 V?	Go to step 2.	Repair the harness.
2 CHECK REGISTRATION CONNECTOR INPUT VOLTAGE. 1) Connect the registration connector. 2) Measure the voltage between the body integrated unit harness connector and chassis ground. <i>Connector & terminal</i> <i>(B281) No. 22 (+) — Chassis ground (-):</i>	Is the voltage 0 V?	Registration connector circuit is OK.	Repair the harness.

7. CHECK DOOR SWITCH

Step	Check	Yes	No
<p>1 CHECK DOOR SWITCH CIRCUIT. Measure the voltage between the body integrated unit harness connector terminal and chassis ground.</p> <p>Connector & terminal Front door RH: (i84) No. 19 (+) — Chassis ground (-): Front door LH: (i84) No. 32 (+) — Chassis ground (-): Rear door RH: (i84) No. 18 (+) — Chassis ground (-): Rear door LH: (i84) No. 31 (+) — Chassis ground (-): Rear gate: (i84) No. 17 (+) — Chassis ground (-):</p>	Is the voltage 0 V when each door or rear gate is opened?	Go to step 2.	Go to step 3.
<p>2 CHECK DOOR SWITCH CIRCUIT. Measure the voltage between the body integrated unit harness connector terminal and chassis ground.</p> <p>Connector & terminal Front door RH: (i84) No. 19 (+) — Chassis ground (-): Front door LH: (i84) No. 32 (+) — Chassis ground (-): Rear door RH: (i84) No. 18 (+) — Chassis ground (-): Rear door LH: (i84) No. 31 (+) — Chassis ground (-): Rear gate: (i84) No. 17 (+) — Chassis ground (-):</p>	Is the voltage more than 10 V when each door or rear gate is closed?	The door switch is OK.	Go to step 3.
<p>3 CHECK DOOR SWITCH. 1) Disconnect the door switch harness connector. 2) Measure the resistance between door switch terminals.</p> <p>Connector & terminal (R12) Front RH door switch: (R9) Front LH door switch: (R16) Rear RH door switch: (R22) Rear LH door switch: No. 1 — No. 3: Rear gate latch switch (Wagon model): (D46) No. 1 — No. 2:</p>	Is the resistance more than 1 M Ω when door switch is pushed?	Go to step 4.	Replace the door switch.
<p>4 CHECK DOOR SWITCH. Measure the resistance between door switch terminals.</p> <p>Connector & terminal (R12) Front RH door switch: (R9) Front LH door switch: (R16) Rear RH door switch: (R22) Rear LH door switch: No. 1 — No. 3: Rear gate latch switch (Wagon model): (D46) No. 1 — No. 2:</p>	Is the resistance less than 1 Ω when door switch is released?	Check the harness for open or short between body integrated unit and door switch.	Replace the door switch.

Keyless Entry System

SECURITY AND LOCKS

8. CHECK KEY WARNING SWITCH

Step	Check	Yes	No
1 CHECK FUSE. Remove and visually check the fuse No. 14 (in the main fuse box).	Is the fuse blown out?	Replace the fuse with a new one.	Go to step 2.
2 CHECK KEY WARNING SWITCH CIRCUIT. 1) Disconnect the harness connector of body integrated unit. 2) Insert the key into ignition switch. (LOCK position) 3) Measure the voltage between the harness connector terminal and chassis ground. Connector & terminal (B281) No. 7 (+) — Chassis ground (-):	Is the voltage more than 10 V?	Go to step 3.	Go to step 4.
3 CHECK KEY WARNING SWITCH CIRCUIT. 1) Remove the key from ignition switch. 2) Measure the voltage between the harness connector terminal and chassis ground. Connector & terminal (B281) No. 7 (+) — Chassis ground (-):	Is the voltage 0 V?	The key warning switch is OK.	Go to step 4.
4 CHECK KEY WARNING SWITCH. 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. Connector & terminal (B350) No. 3 — No. 4:	Is the resistance less than 1 Ω ?	Go to step 5.	Replace the key warning switch.
5 CHECK KEY WARNING SWITCH. 1) Remove the key from ignition switch. 2) Measure the resistance between key warning switch terminals. Connector & terminal (B350) No. 3 — No. 4:	Is the resistance more than 1 M Ω ?	Check the following: • Harness for open circuits and shorts between the key warning switch and fuse • Harness for open or short between the body integrated unit and key warning switch	Replace the key warning switch.

9. CHECK ROOM LIGHT OPERATION

Step	Check	Yes	No
1 CHECK ROOM LIGHT OPERATION. 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 CHECK HARNESS BETWEEN ROOM LIGHT AND BODY INTEGRATED UNIT. 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. Connector & terminal (B280) No. 3 — (R52) No. 2:	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.

10. CHECK HAZARD LIGHT OPERATION

Step	Check	Yes	No
1 CHECK HAZARD LIGHT OPERATION. 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 CHECK OUTPUT TO HAZARD LIGHT. 1) Turn the ignition switch to OFF. 2) Disconnect the key warning switch harness connector. 3) Connect the Subaru Select Monitor to data link connector. 4) Turn the ignition switch to ON. 5) Select {Body integrated unit} from main menu. 6) Select {ECM customizing}. 7) Check {Hazard answer-back setup}, and then switch to ON setting if necessary. 8) Select {Current Data Display & Save}. 9) When operating the LOCK/UNLOCK button of keyless transmitter, check the hazard output signal of body integrated unit.	Is output signal present when operating the keyless transmitter LOCK/UNLOCK button?	Go to step 3.	Check the body integrated unit. <Ref. to LAN(diag)-2, Basic Diagnostic Procedure.>
3 CHECK CIRCUIT OF HAZARD LIGHT. 1) Disconnect the harness connector of body integrated unit. 2) Disconnect the turn signal & hazard unit harness connector. 3) Measure the resistance between harness connector terminals. Connector & terminal (B280) No. 12 — (B32) No. 8:	Is the resistance less than 10 Ω ?	Check the body integrated unit. <Ref. to LAN(diag)-2, Basic Diagnostic Procedure.>	Repair the harness.

11. CHECK TRUNK LID LOCK ACTUATOR

Step	Check	Yes	No
1 CHECK TRUNK LID LOCK ACTUATOR. 1) Turn the ignition switch to OFF. 2) Disconnect the key warning switch harness connector. 3) Connect the Subaru Select Monitor to data link connector. 4) Turn the ignition switch to ON. 5) Select {Body integrated unit} from main menu. 6) Select {Current Data Display & Save}. 7) When operating the TRUNK button of keyless transmitter, check the trunk unlock output signal of body integrated unit.	Is output signal present when operating the keyless transmitter TRUNK button?	Go to step 2.	Check the body integrated unit. <Ref. to LAN(diag)-2, Basic Diagnostic Procedure.>
2 CHECK THE CIRCUIT OF TRUNK LID ACTUATOR. 1) Disconnect harness connector of body integrated unit. 2) Disconnect the trunk lid actuator harness connector. 3) Measure the resistance between harness connectors. Connector & terminal (i84) No. 22 — (R186) No. 2:	Is the resistance less than 10 Ω ?	Go to step 3.	Repair the harness.

Keyless Entry System

SECURITY AND LOCKS

Step	Check	Yes	No
3 CHECK THE GROUND CIRCUIT OF TRUNK LID ACTUATOR. 1) Disconnect the trunk lid actuator harness connector. 2) Measure the resistance between the harness connector terminal and chassis ground. Connector & terminal (R186) No. 1 — Chassis ground:	Is the resistance less than 10 Ω ?	Check the trunk lid lock actuator. <Ref. to SL-39, Trunk Lid Lock Assembly.>	Repair the harness.

12.CHECK DOOR LOCK SWITCH

Step	Check	Yes	No
1 CHECK DOOR LOCK SWITCH. Check the input signal from door lock switch to body integrated module using Subaru Select Monitor. 1) Connect the Subaru Select Monitor to data link connector. 2) Turn the ignition switch to ON. 3) Select {Body integrated unit} from main menu. 4) Select {Current Data Display & Save}. 5) Check the input signal to body integrated unit by operating the door lock switch.	Is the normal input signal displayed when the door lock switch is moved to LOCK/UNLOCK?	The door lock switch is OK.	Go to step 2.
2 CHECK DOOR LOCK SWITCH CIRCUIT. 1) Disconnect the body integrated unit harness connector. 2) Measure the resistance between the harness connector terminal and chassis ground when moving the door lock switch to LOCK. Connector & terminal (i84) No. 15 — Chassis ground:	Is the resistance less than 10 Ω ?	Go to step 3.	Go to step 4.
3 CHECK DOOR LOCK SWITCH CIRCUIT. Measure the resistance between the harness connector terminal and chassis ground when the door lock switch is moved to UNLOCK. Connector & terminal (i84) No. 29 — Chassis ground:	Is the resistance less than 10 Ω ?	The door lock switch is OK.	Go to step 4.
4 CHECK DOOR LOCK SWITCH. 1) Disconnect the door lock switch harness connector. 2) Measure the resistance between the door lock switch terminals when moving the door lock switch to LOCK. Connector & terminal LHD model: (D7) No. 4 — No. 7: RHD model: (D7) No. 4 — No. 14:	Is the resistance less than 1 Ω ?	Go to step 5.	Replace the door lock switch.
5 CHECK DOOR LOCK SWITCH. Measure the resistance between the door lock switch terminals when moving the door lock switch to UNLOCK. Connector & terminal LHD model: (D7) No. 5 — No. 7: RHD model: (D7) No. 5 — No. 14:	Is the resistance less than 1 Ω ?	Check the harness for open circuits or shorts between the body integrated unit and the door lock switch.	Replace the door lock switch.

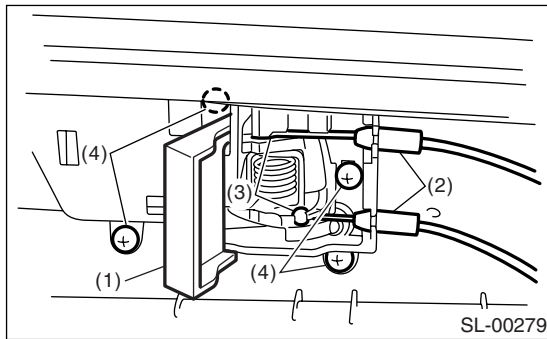
13.CHECK IGNITION SWITCH ILLUMINATION

Step	Check	Yes	No
1 CHECK FUSE. Remove and visually check the fuse No. 14 (in the main fuse box).	Is the fuse blown out?	Replace the fuse with a new one.	Go to step 2.
2 CHECK POWER SUPPLY. 1) Disconnect the ignition switch illumination harness connector. 2) Measure the voltage between the harness connector terminal and chassis ground. <i>Connector & terminal</i> <i>(B224) No. 2 (+) — Chassis ground (-):</i>	Is the voltage more than 10 V?	Go to step 3.	Check the harness for open circuits and shorts between the ignition switch illumination and fuse.
3 CHECK IGNITION SWITCH ILLUMINATION CIRCUIT. 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 & terminal</i> <i>(B280) No. 4 — (B224) No. 1:</i>	Is the resistance less than 10 Ω ?	Replace the ignition switch illumination bulb with a new one. <Ref. to LI-40, REMOVAL, Ignition Switch Illumination.>	Check the harness for open circuits and shorts between the body integrated unit and ignition switch illumination.

4. Front Inner Remote

A: REMOVAL

- 1) Remove the door trim. <Ref. to EI-48, REMOVAL, Door Trim.>
- 2) Remove the back cover (1) of inner remote.
- 3) Remove the outer cable (2).
- 4) Remove the wire end ball (3).
- 5) Remove the screws (4), and detach 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

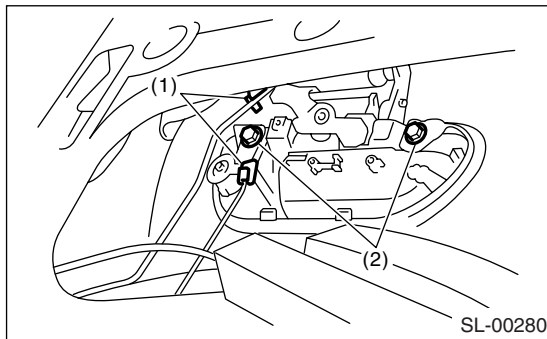
- 1) Check the outer wire and inner wire for deformation. When it is deformed, straighten it because failure operations may occur. When it is unrepairable, replace the front door latch & door lock actuator assembly.
- 2) Check the lever, rod and wire for smooth operation.

5. Front Outer Handle

A: REMOVAL

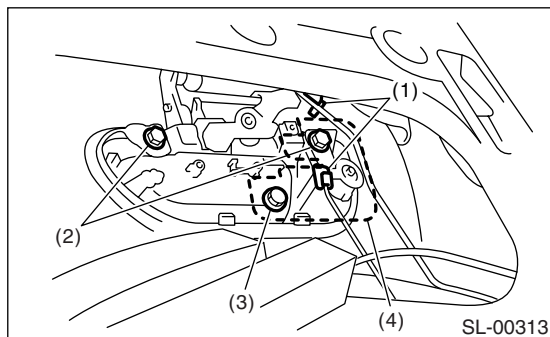
1. MODEL WITHOUT DOUBLE LOCK

- 1) Raise the front door glass to the top position.
- 2) Remove the door trim. <Ref. to EI-48, REMOVAL, Door Trim.>
- 3) Remove the wire from front inner remote. <Ref. to SL-28, REMOVAL, Front Inner Remote.>
- 4) Remove the sealing cover. <Ref. to EB-20, REMOVAL, Front Sealing Cover.>
- 5) Remove the rod clamps (1).
- 6) Remove the bolts (2), and then detach the front outer handle.



2. MODEL WITH DOUBLE LOCK

- 1) Raise the front door glass to the top position.
- 2) Remove the door trim. <Ref. to EI-48, REMOVAL, Door Trim.>
- 3) Remove the wire from front inner remote. <Ref. to SL-28, REMOVAL, Front Inner Remote.>
- 4) Remove the sealing cover. <Ref. to EB-20, REMOVAL, Front Sealing Cover.>
- 5) Remove the bolt (3), and then remove the key cylinder cover B (4).
- 6) Remove the rod clamps (1).
- 7) Remove the bolt (2), and then remove the key cylinder.
- 8) Remove the key cylinder cover A, and then detach the front outer handle.



CAUTION:

Do not apply excessive force to remove the handle from door panel. Otherwise door panel may be deformed.

B: INSTALLATION

Install in the reverse order of removal.

NOTE:

Make sure the outer handle works correctly after installation.

C: INSPECTION

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

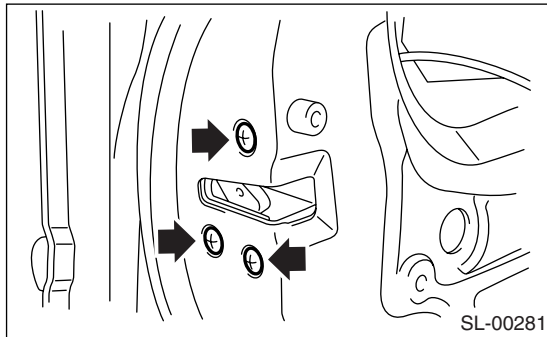
Front Door Latch and Door Lock Actuator Assembly

SECURITY AND LOCKS

6. Front Door Latch and Door Lock Actuator Assembly

A: REMOVAL

- 1) Disconnect the ground cable from battery.
- 2) Remove the front door trim. <Ref. to EI-48, REMOVAL, Door Trim.>
- 3) Remove the wires from front inner remote. <Ref. to SL-28, REMOVAL, Front Inner Remote.>
- 4) Remove the sealing cover. <Ref. to EB-20, REMOVAL, Front Sealing Cover.>
- 5) Remove the front door glass. <Ref. to GW-10, REMOVAL, Front Door Glass.>
- 6) Remove the rear sash. <Ref. to GW-15, REMOVAL, Front Regulator and Motor Assembly.>
- 7) Remove the key cylinder cover B, and remove the key rod from key cylinder. (Model with double lock)
- 8) Open the handle rod cover of latch assembly.
- 9) Remove the three screws.



- 10) Remove the front door latch & door lock actuator assembly, and disconnect the connector.

B: INSTALLATION

Install in the reverse order of removal.

NOTE:

Make sure the lock works correctly after installation.

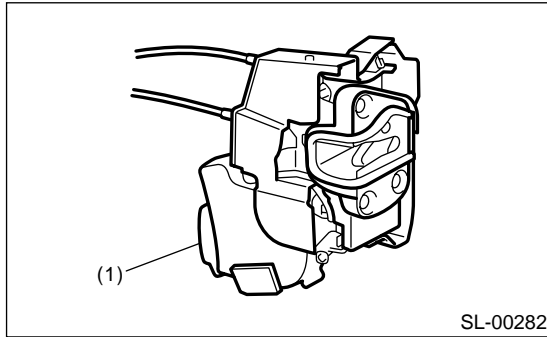
C: INSPECTION

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

7. Front Door Lock Actuator

A: REMOVAL

- 1) Remove the front door latch & door lock actuator assembly. <Ref. to SL-30, REMOVAL, Front Door Latch and Door Lock Actuator Assembly.>
- 2) Remove the pawl of front door latch security cover, and then remove the cover. (Model without double lock)
- 3) Remove the screw from the front door latch and door lock actuator, and then remove the door lock actuator. (Model without double lock)



(1) Front door lock actuator

B: INSTALLATION

Install in the reverse order of removal.

NOTE:

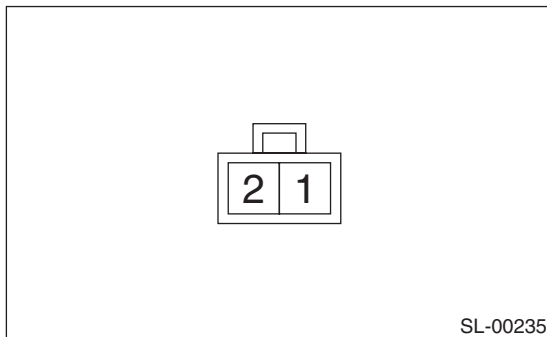
Make sure the lock works correctly after installation.

C: INSPECTION

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

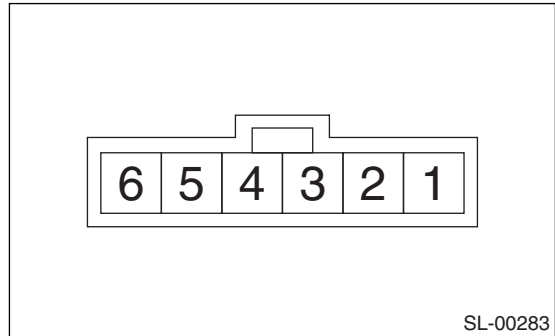
If defective, replace the door lock actuator.

1. Model without double lock



Terminal No.	Actuator operation
No. 2 (+) and No. 1 (-)	Unlocked → Locked
No. 1 (+) and No. 2 (-)	Locked → Unlocked

2. Model with double lock



DOOR ACTUATOR RH:

Terminal No.	Actuator operation
No. 5 (+) and No. 1 (-)	Unlocked → Locked
No. 1 (+) and No. 5 (-)	Locked → Unlocked
No. 6 (+) and No. 1 (-)	Double lock released → Double lock set
No. 1 (+) and No. 6 (-)	Double lock set → Double lock released

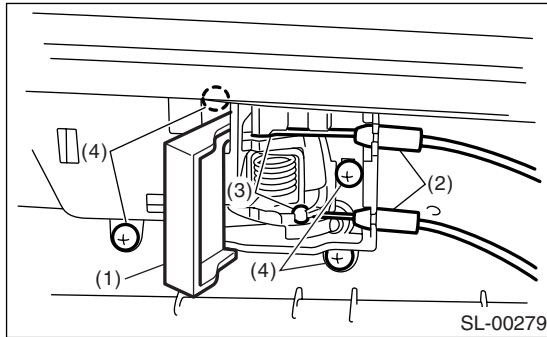
DOOR ACTUATOR LH:

Terminal No.	Actuator operation
No. 2 (+) and No. 6 (-)	Unlocked → Locked
No. 6 (+) and No. 2 (-)	Locked → Unlocked
No. 1 (+) and No. 6 (-)	Double lock released → Double lock set
No. 6 (+) and No. 1 (-)	Double lock set → Double lock released

8. Rear Inner Remote

A: REMOVAL

- 1) Remove the rear door trim. <Ref. to EI-48, REMOVAL, Door Trim.>
- 2) Remove the back cover (1) of inner remote.
- 3) Remove the outer cable (2).
- 4) Remove the wire end ball (3).
- 5) Remove the screws (4), and detach the inner remote handle.



B: INSTALLATION

Install in the reverse order of removal.

NOTE:

Make sure the inner remote works correctly after installation.

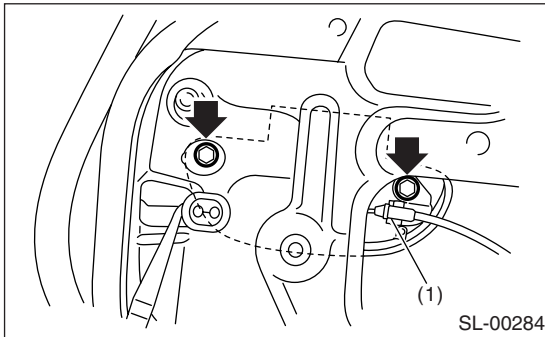
C: INSPECTION

- 1) Check the outer wire and inner wire for deformation. When it is deformed, straighten it because failure operations may occur. When it is unrepairable, replace the rear door latch & 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-48, REMOVAL, Door Trim.>
- 3) Remove the sealing cover. <Ref. to EB-24, REMOVAL, Rear Sealing Cover.>
- 4) Remove the rear door latch assembly. <Ref. to SL-34, REMOVAL, Rear Door Latch and Door Lock Actuator Assembly.>
- 5) Remove the wire from wire clamp (1) of outer handle.
- 6) Remove the two bolts.



- 7) Detach the outer handle bracket. (Model with double lock)
- 8) Detach the rear outer handle.

CAUTION:

Do not apply excessive force to remove the handle from door panel. Otherwise door panel may be deformed.

B: INSTALLATION

Install in the reverse order of removal.

NOTE:

Make sure the outer handle works correctly after installation.

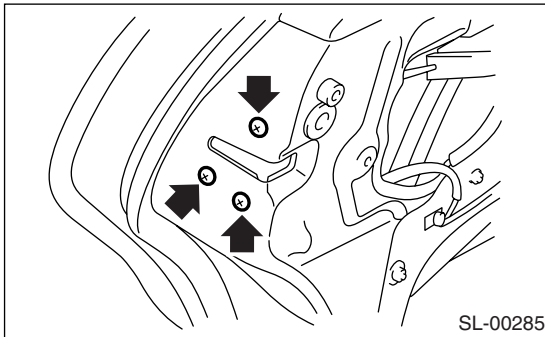
C: INSPECTION

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

10. Rear Door Latch and Door Lock Actuator Assembly

A: REMOVAL

- 1) Disconnect the ground cable from battery.
- 2) Remove the rear door trim. <Ref. to EI-48, REMOVAL, Door Trim.>
- 3) Remove the wires from rear inner remote. <Ref. to SL-32, REMOVAL, Rear Inner Remote.>
- 4) Remove the sealing cover. <Ref. to EB-24, REMOVAL, Rear Sealing Cover.>
- 5) Remove the rear door glass. <Ref. to GW-22, REMOVAL, Rear Door Glass.>
- 6) Remove the rear sash. <Ref. to GW-24, REMOVAL, Rear Regulator and Motor Assembly.>
- 7) Take out the wire from wire clamp of outer handle.
- 8) Detach the outer handle bracket. (Model with double lock)
- 9) Remove the three screws.



- 10) Disconnect the connectors, and then remove the rear door latch & door lock actuator assembly.

B: INSTALLATION

Install in the reverse order of removal.

NOTE:

Make sure the lock works correctly after installation.

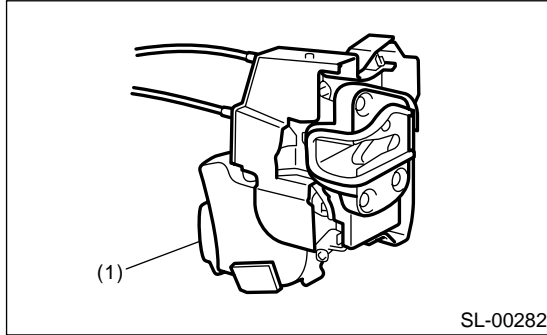
C: INSPECTION

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

11. Rear Door Lock Actuator

A: REMOVAL

- 1) Remove the rear door latch & door lock actuator assembly. <Ref. to SL-34, REMOVAL, Rear Door Latch and Door Lock Actuator Assembly.>
- 2) Remove the pawl of rear door latch security cover, and then remove the cover. (Except for EK model)
- 3) Remove the screw from the rear door latch and door lock actuator, and then remove the door lock actuator. (Except for EK model)



(1) Rear door lock actuator

B: INSTALLATION

Install in the reverse order of removal.

NOTE:

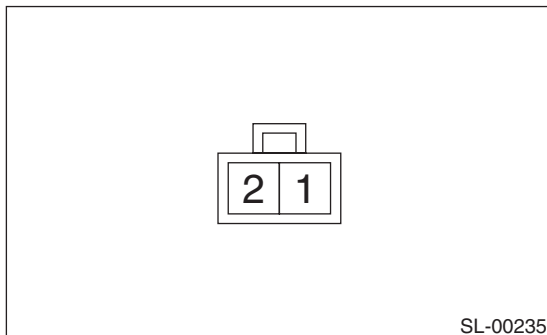
Make sure the lock works correctly after installation.

C: INSPECTION

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

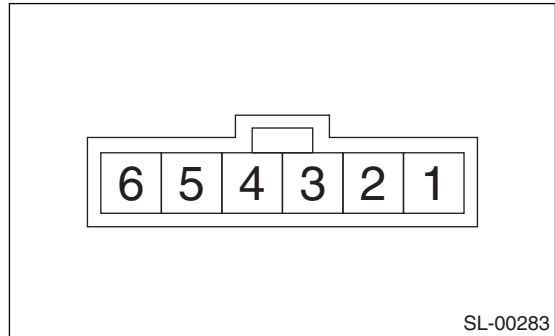
If defective, replace the door lock actuator.

1. Model without double lock



Terminal No.	Actuator operation
No. 2 (+) and No. 1 (-)	Unlocked → Locked
No. 1 (+) and No. 2 (-)	Locked → Unlocked

2. Model with double lock



DOOR ACTUATOR RH:

Terminal No.	Actuator operation
No. 5 (+) and No. 1 (-)	Unlocked → Locked
No. 1 (+) and No. 5 (-)	Locked → Unlocked
No. 6 (+) and No. 1 (-)	Double lock released → Double lock set
No. 1 (+) and No. 6 (-)	Double lock set → Double lock released

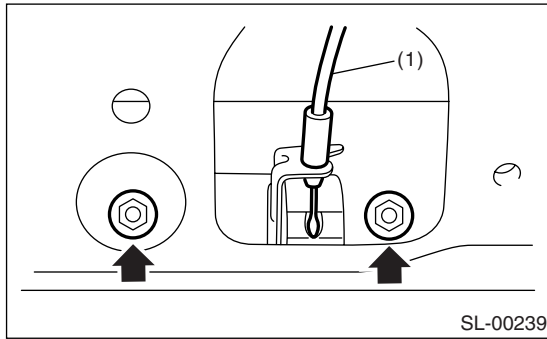
DOOR ACTUATOR LH:

Terminal No.	Actuator operation
No. 2 (+) and No. 6 (-)	Unlocked → Locked
No. 6 (+) and No. 2 (-)	Locked → Unlocked
No. 1 (+) and No. 6 (-)	Double lock released → Double lock set
No. 6 (+) and No. 1 (-)	Double lock set → Double lock released

12.Rear Gate Outer Handle

A: REMOVAL

- 1) Remove the rear gate trim. <Ref. to EI-69, REMOVAL, Rear Gate Trim.>
- 2) Remove the rear gate garnish. <Ref. to EI-76, REMOVAL, Rear Gate Garnish.>
- 3) Remove the two nuts to take out the rear gate outer handle.
- 4) Remove the rear gate outer handle cable.



(1) Rear gate handle cable

B: INSTALLATION

Install in the reverse order of removal.

NOTE:

Make sure the outer handle works correctly after installation.

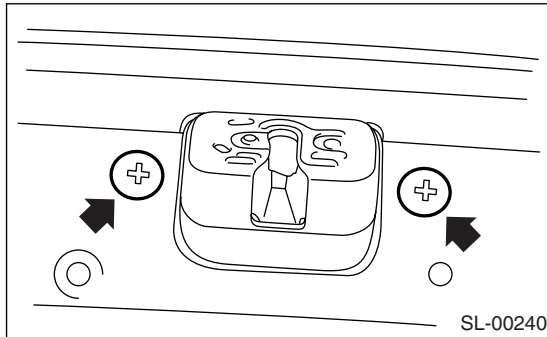
C: INSPECTION

- 1) Check the rear gate handle cable for deformation.
- 2) Check the rear gate outer handle and rear gate handle cable for smooth operation.

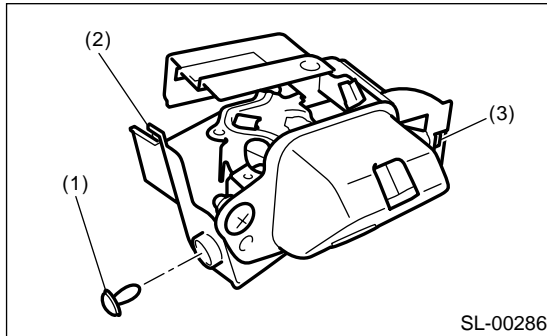
13. Rear Gate Latch Assembly

A: REMOVAL

- 1) Disconnect the ground cable from battery.
- 2) Remove the rear gate trim. <Ref. to EI-69, REMOVAL, Rear Gate Trim.>
- 3) Remove the two screws.

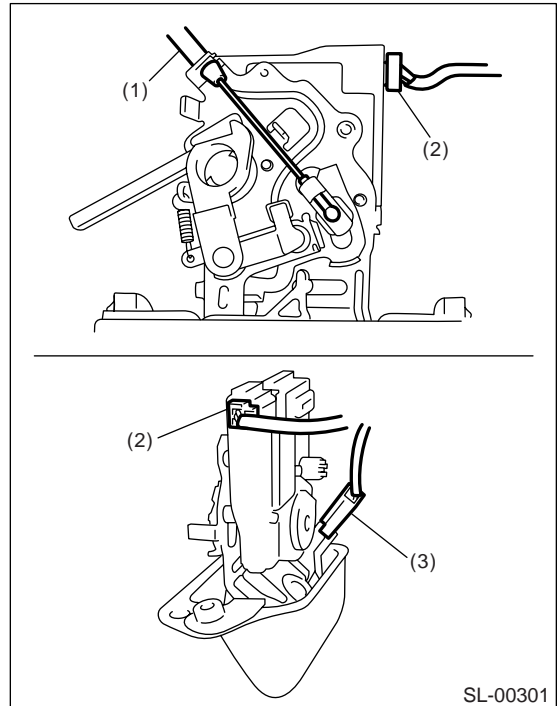


- 4) Remove the rear gate latch cover. (Model with double lock)



- (1) Clip
- (2) Claw
- (3) Hook

- 5) Disconnect the each connector and rear gate handle cable.



- (1) Rear gate handle cable
- (2) Rear gate lock actuator connector
- (3) Rear gate latch switch connector

- 6) Remove the rear gate latch assembly.

B: INSTALLATION

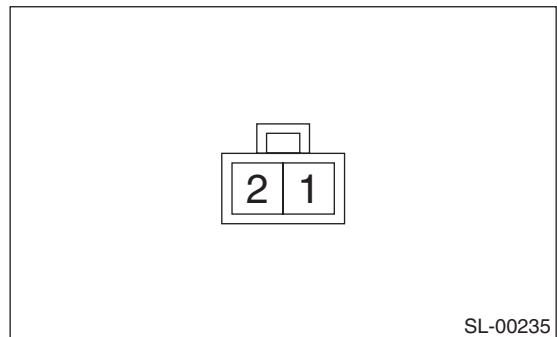
Install in the reverse order of removal.

NOTE:

Make sure the lock works correctly after installation.

C: INSPECTION

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



Terminal No.	Actuator operation
No. 2 (+) and No. 1 (-)	Unlocked → Locked
No. 1 (+) and No. 2 (-)	Locked → Unlocked

Rear Gate Latch Assembly

SECURITY AND LOCKS

Replace the rear gate latch assembly if faulty.

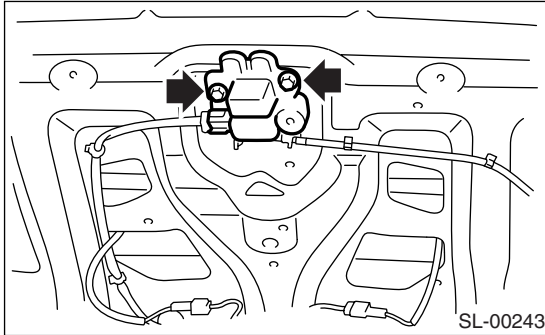
- 3) Check the rear gate handle cable for deformation.
- 4) Check the lever and rear gate handle cable for smooth operation.

14. Trunk Lid Lock Assembly

A: REMOVAL

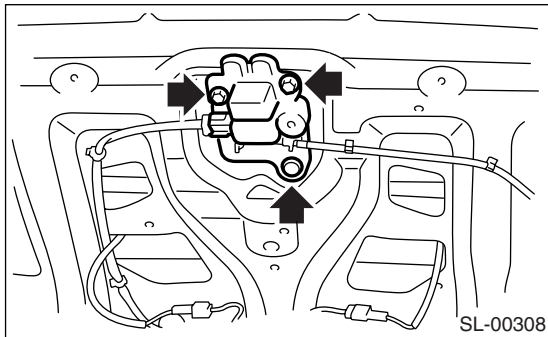
1. MODEL WITHOUT DOUBLE LOCK

- 1) Disconnect the connectors and detach the trunk opener cable.
- 2) Remove the two bolts to remove trunk lid lock assembly.

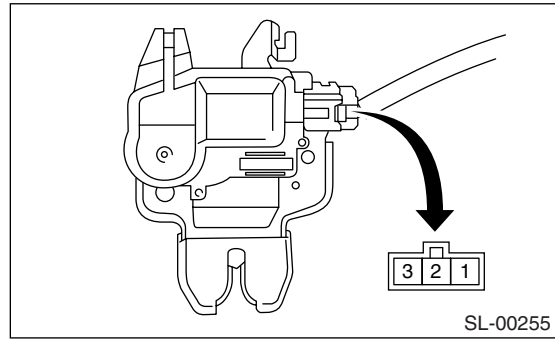


2. MODEL WITH DOUBLE LOCK

- 1) Disconnect the connectors and detach the trunk opener cable.
- 2) Remove the two bolts and clip to remove trunk lid lock assembly.



- 2) Connect the battery to trunk lid actuator terminals.



Terminal No.	Actuator operation
No. 2 (+) and No. 1 (-)	Locked → Unlocked

If defective, replace the trunk lid actuator.

- 3) Check the striker for deformation or abnormal wear.
- 4) Check the safety lever for improper movement.
- 5) Check other levers and the spring for rust formation and unsmooth movement.
- 6) Check the trunk opener cable for smooth operation.

B: INSTALLATION

Install in the reverse order of removal.

NOTE:

- Apply grease to the movable part.
- Make sure the lock works correctly after installation.

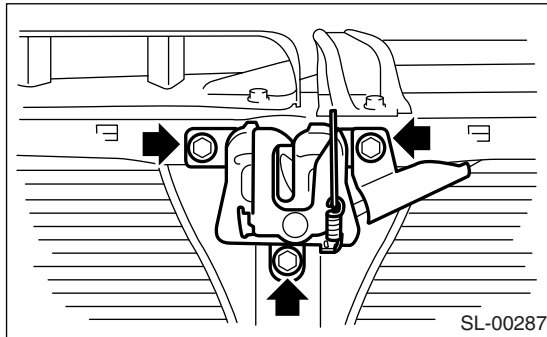
C: INSPECTION

- 1) Disconnect the trunk lid actuator harness connector.

15. Front Hood Lock Assembly

A: REMOVAL

- 1) Open the front hood.
- 2) Remove the bolts, and then detach the front hood lock assembly.
- 3) Remove the release cable from lock assembly.



B: INSTALLATION

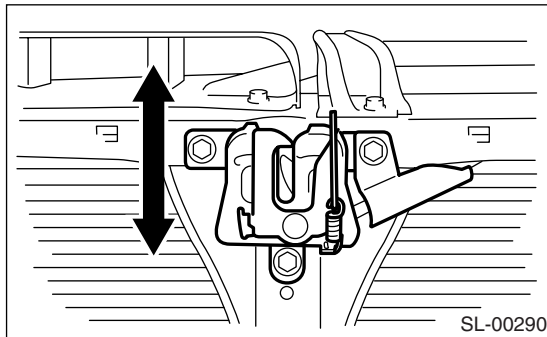
Install in the reverse order of removal.

NOTE:

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

C: ADJUSTMENT

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



D: INSPECTION

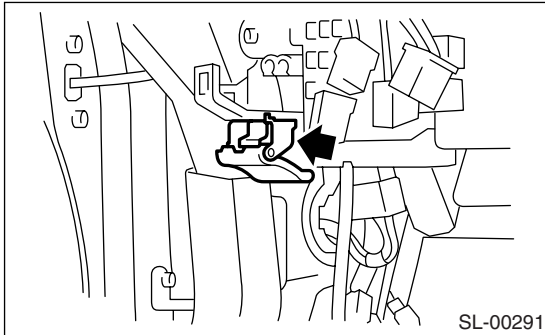
- 1) Check the striker for deformation or abnormal wear.
- 2) Check the safety lever for improper movement.
- 3) Check other levers and the spring for rust formation and unsmooth movement.

16. Remote Openers

A: REMOVAL

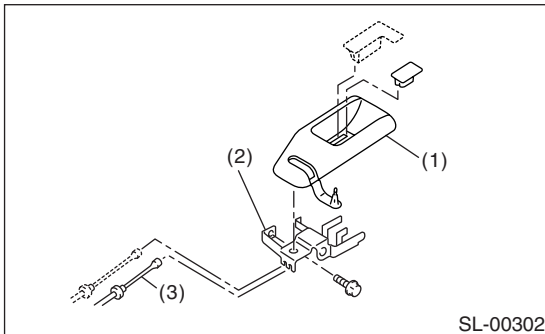
1. FRONT HOOD OPENER

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



2. TRUNK LID OPENER

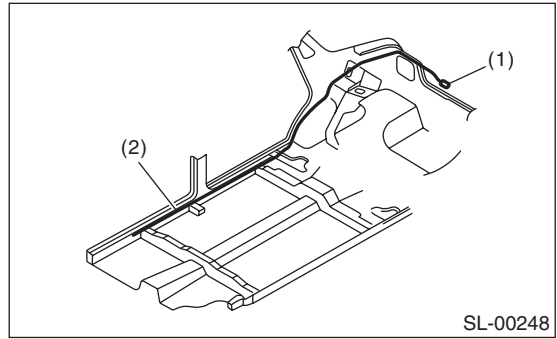
- 1) Remove the rear seat. <Ref. to SE-14, REMOVAL, Rear Seat.>
- 2) Remove the center pillar lower trim, side sill cover, rear pillar lower trim and floor mat on the driver's side. Remove the clip holding cable.
- 3) Remove the bolt, and then detach the opener pull handle.



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

- 4) Remove the cable from opener pull handle.
- 5) Remove the trunk lid lock assembly from trunk lid.

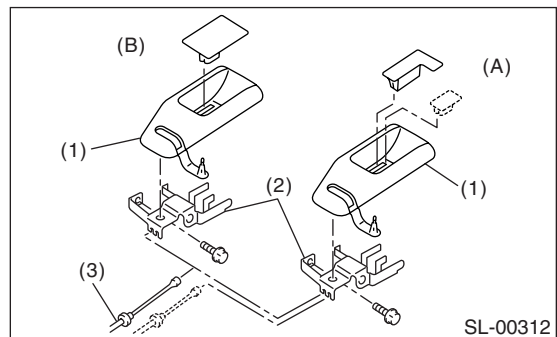
- 6) Remove the cable from trunk lid lock assembly.



- (1) Trunk lid lock ASSY
- (2) Cable

3. FUEL FLAP OPENER

- 1) Remove the rear seat. <Ref. to SE-14, REMOVAL, Rear Seat.>
- 2) Remove the center pillar lower trim, side sill cover, rear pillar lower trim and floor mat on the driver's side. Remove the clip holding cable.
- 3) Remove the bolt, and then detach the opener pull handle.



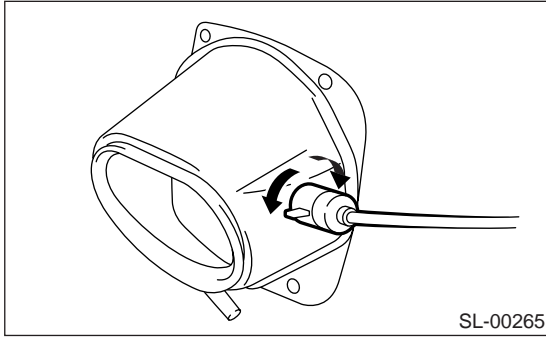
- (A) Sedan model
- (B) Wagon model
- (1) Cover
- (2) Pull handle ASSY
- (3) Cable

- 4) Remove the cable from opener pull handle.
- 5) Remove the rear quarter trim RH. <Ref. to EI-63, REMOVAL, Rear Quarter Trim.>

Remote Openers

SECURITY AND LOCKS

6) Rotate the fuel lock inside of the quarter panel to 90° and remove. (Either right or left turn)



B: INSTALLATION

1. FRONT HOOD OPENER

Install in the reverse order of removal.

2. TRUNK LID OPENER

Install in the reverse order of removal.

3. FUEL FLAP OPENER

Install in the reverse order of removal.

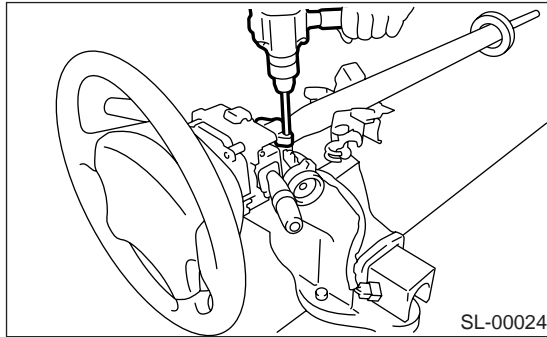
C: INSPECTION

Make sure the front hood, trunk lid and fuel flap open and close smoothly.

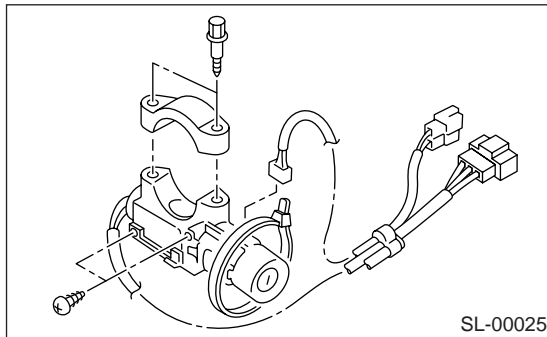
17. Ignition Key Lock

A: REPLACEMENT

- 1) Disconnect the ground cable from battery.
- 2) Remove the steering column. <Ref. to PS-23, REMOVAL, Tilt Steering Column.>
- 3) Secure the steering column in a vise. Remove the bolt with a drill.

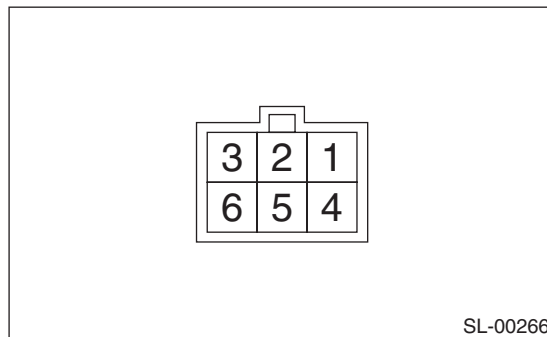


- 4) Remove the ignition key lock.
- 5) Using a new bolt, tighten the bolts all the way.



B: INSPECTION

- 1) Remove the instrument panel lower panel.
- 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. 4	Less than 1 Ω
ON	No. 3 and No. 1 and No. 4 No. 3 and No. 6	Less than 1 Ω
ST	No. 3 and No. 1 No. 3 and No. 2 and No. 6	Less than 1 Ω

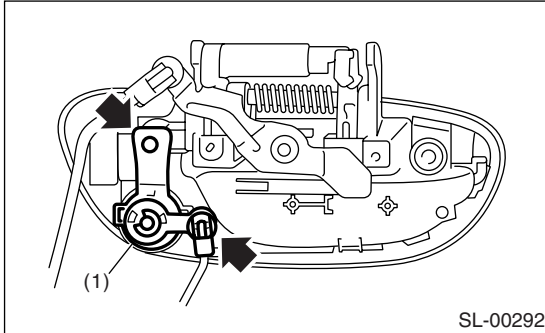
If NG, replace the ignition switch.

18. Key Lock Cylinders

A: REPLACEMENT

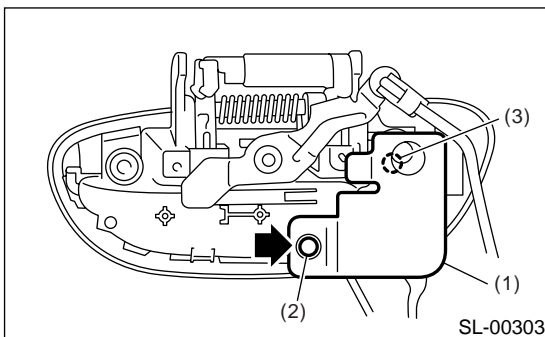
1. MODEL WITHOUT DOUBLE LOCK

- 1) Raise the front door glass to the top position.
- 2) Remove the door trim. <Ref. to EI-48, REMOVAL, Door Trim.>
- 3) Remove the sealing cover.
- 4) Remove the rod clamp. Remove the bolt. Replace the key cylinder (1).



2. MODEL WITH DOUBLE LOCK

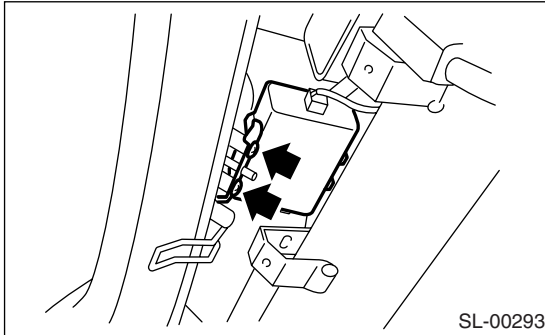
- 1) Raise the front door glass to the top position.
- 2) Remove the door trim. <Ref. to EI-48, REMOVAL, Door Trim.>
- 3) Remove the sealing cover.
- 4) Remove the bolt (2), and remove the key cylinder cover (1).
- 5) Remove the rod clamp. Remove the bolt (3). Replace the key cylinder.



19. Keyless Entry Control Unit

A: REMOVAL

- 1) Disconnect the ground cable from battery.
- 2) Remove the glove box. <Ref. to EI-51, REMOVAL, Glove Box.>
- 3) Remove the screw, then remove the keyless entry control unit while disconnecting the connector.



B: INSTALLATION

Install in the reverse order of removal.

20. Body Integrated Unit

A: REMOVAL

NOTE:

- Prepare the security ID plate.
- Prepare all registered immobilizer keys for the model with immobilizer.
- Make a registration of immobilizer for the model with immobilizer. For detailed operation procedure, refer to "IMMOBILIZER REGISTRATION MANUAL".
- If replacing the body integrated unit, check the current setting and note it. <Ref. to LAN(diag)-17, CONFIRMATION OF CURRENT SETTING, OPERATION, Subaru Select Monitor.>

- 1) Disconnect the ground cable from battery.
- 2) Remove the instrument panel lower panel on driver's side. <Ref. to EI-56, REMOVAL, Instrument Panel Assembly.>
- 3) Disconnect the connector of body integrated unit.

CAUTION:

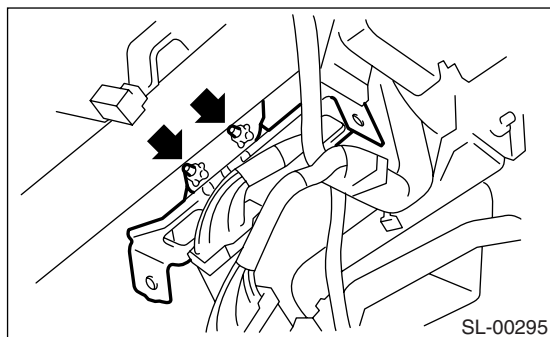
Be careful to keep water and other foreign materials away from body integrated unit.

- 4) Remove the body integrated unit from the body integrated unit mounting bracket using flat tip screwdriver.

CAUTION:

Be careful not to damage the unit when removing it forcibly from the bracket.

- 5) Remove the clutch pedal stopper arm. (MT model) <Ref. to CL-26, REMOVAL, Clutch Pedal.>
- 6) Remove two body integrated unit bracket mounting bolts, and remove the bracket.



B: INSTALLATION

Install in the reverse order of removal.

NOTE:

Make sure it conforms to the current setting condition after installation. <Ref. to LAN(diag)-17, CONFIRMATION OF CURRENT SETTING, OPERATION, Subaru Select Monitor.>

21. Keyless Transmitter

A: REMOVAL

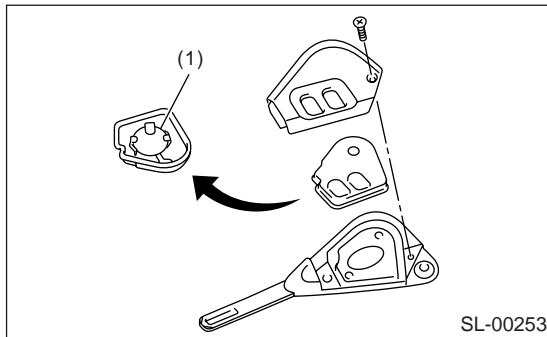
1. KEYLESS TRANSMITTER BATTERY

Remove the screw from keyless transmitter, and remove the keyless transmitter battery (1).

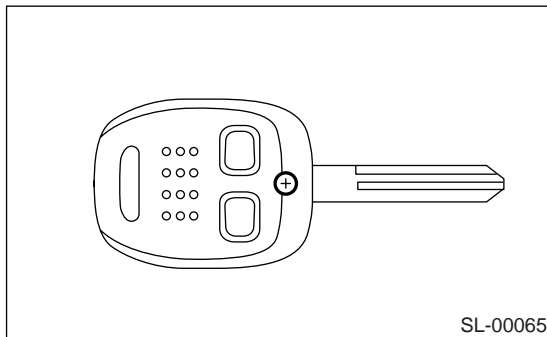
NOTE:

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

- Except for EK model



- EK model



B: INSTALLATION

1. KEYLESS TRANSMITTER BATTERY

Install in the reverse order of removal.

C: INSPECTION

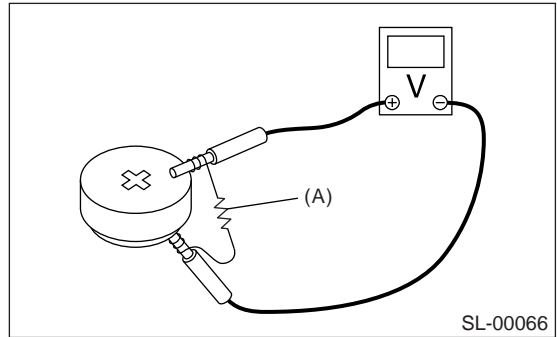
1. KEYLESS TRANSMITTER BATTERY

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

NOTE:

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

- During the battery voltage measurement, the voltage falls more than 1.8 volts in 3 seconds period.



(A) Resistance 47 Ω

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

If NG, replace the battery. (Use CR1620 or equivalent.)

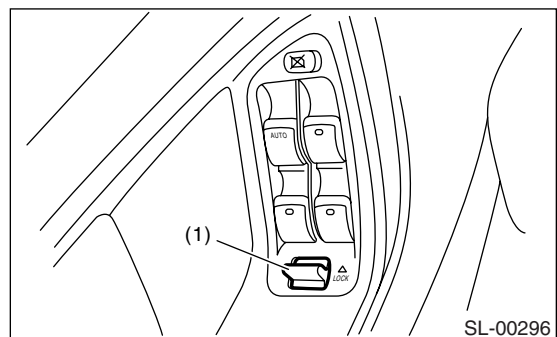
D: REPLACEMENT

1. REGISTRATION OF KEYLESS TRANSMITTER

NOTE:

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

- 1) Remove the keyless transmitter from the ignition switch.
- 2) Remove the lower trim cover at driver's side, then connect the registration connectors. (1 pole white connector)
- 3) Press the door lock switch (1) located under the power window main switch to UNLOCK. (Make sure the room light blinks and buzzer sounds, and then system is in registration mode.)



Keyless Transmitter

SECURITY AND LOCKS

4) While pressing the button of keyless transmitter to be registered twice with door lock switch pressed to UNLOCK. (Button for LOCK, UNLOCK and TRUNK are acceptable)

5) When the registration is completed normally, the door lock actuator will lock → unlock. If the lock → unlock operation is not carried out, repeat the procedure 4).

NOTE:

- When pressing the keyless transmitter button, slowly press for first and second (press longer for second) to check operation of door lock actuator.
- Do not press the button of keyless transmitter more than twice.
- Do not batter the button of keyless transmitter.

6) Repeat the steps 4) if there is an additional keyless transmitter to be registered.

7) Pull out the registration connector, and install the lower trim cover at driver's side.

NOTE:

- The transmitter can be registered only when the door lock switch is remain pushed to UNLOCK.
- Continuing to press the door lock switch to UNLOCK again allows to be registered although the door lock switch is released for once.
- When adding the keyless transmitter, re-registration of keyless transmitter which was already registered is necessary.

2. CLEAR OF KEYLESS TRANSMITTER

1) Remove the keyless transmitter from ignition switch.

2) Remove the lower trim cover at driver's side, then connect the registration connectors. (1 pole white connector)

3) Press the door lock switch located under the power window main switch to LOCK. (Make sure the room light blinks and buzzer sounds, and system becomes in clear mode.)

4) While pressing door lock switch to LOCK, insert and remove the key on ignition switch 10 times within 10 seconds.

5) When the clearing is completed normally, the door lock actuator will lock → unlock. If the lock → unlock operation is not carried out, repeat the procedure 4).

6) Pull out the registration connector, and install the lower trim cover at driver's side.

NOTE:

- The transmitter can be cleared only when the door lock switch is remain pushed to LOCK.
- Continuing to press the door lock switch to LOCK again allows to be cleared although the door lock switch is released for once.

- If changing from registration mode to clear mode, you cannot go to clear mode unless completing the registration mode. The reverse case is same as this.

22. Immobilizer Control Unit

A: NOTE

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

B: REMOVAL

<Ref. to SL-46, REMOVAL, Body Integrated Unit.>

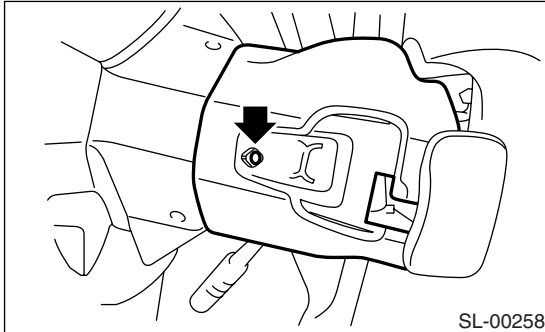
C: INSTALLATION

Install in the reverse order of removal.

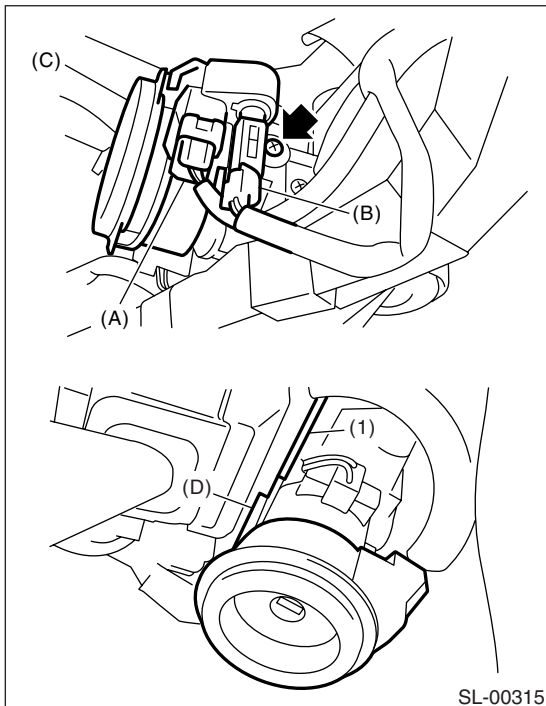
23. Immobilizer Antenna

A: REMOVAL

- 1) Disconnect the ground cable from 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-50, 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.