

SECURITY AND LOCKS

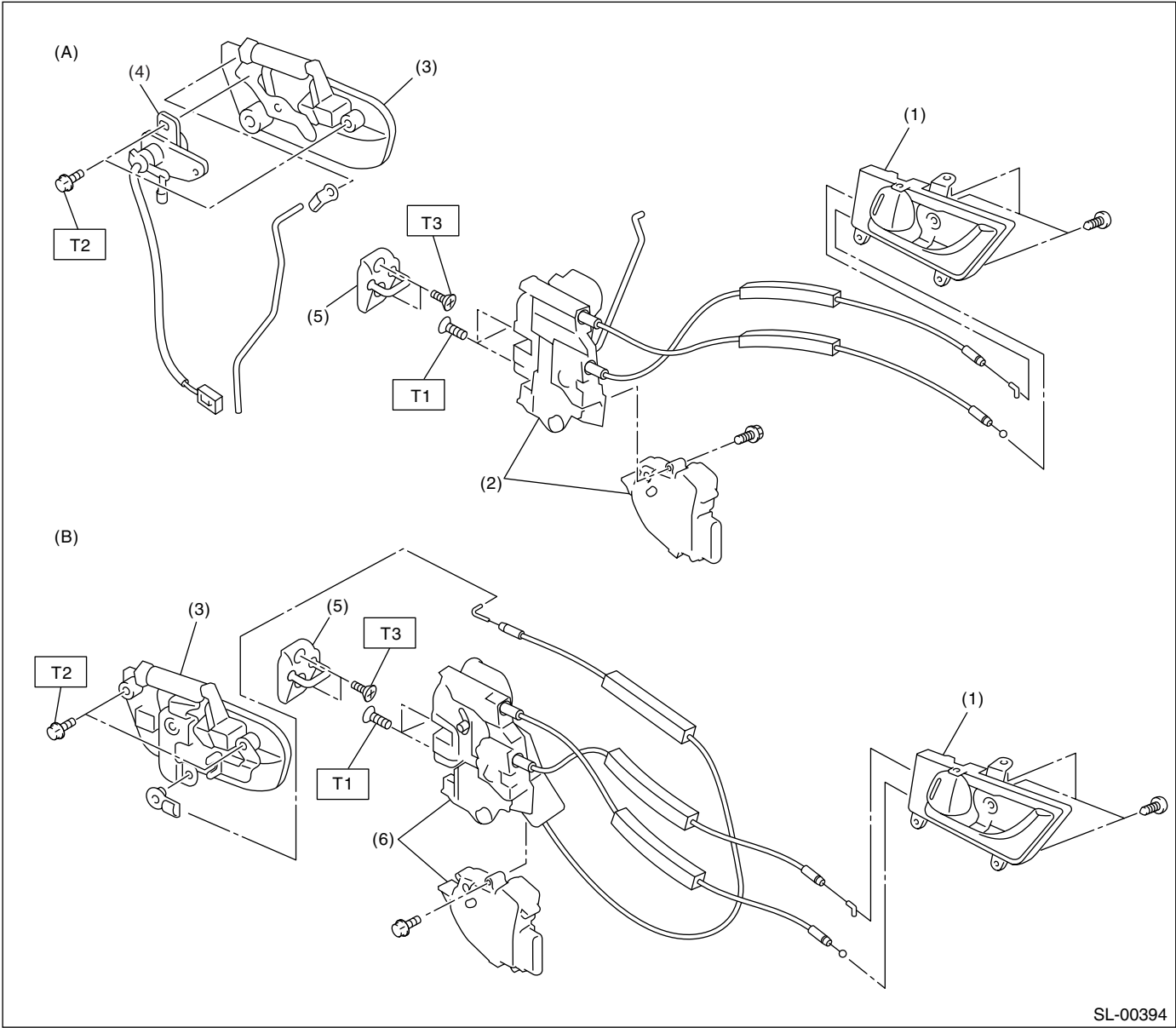
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1. General Description

A: COMPONENT

1. DOOR LOCK ASSEMBLY



SL-00394

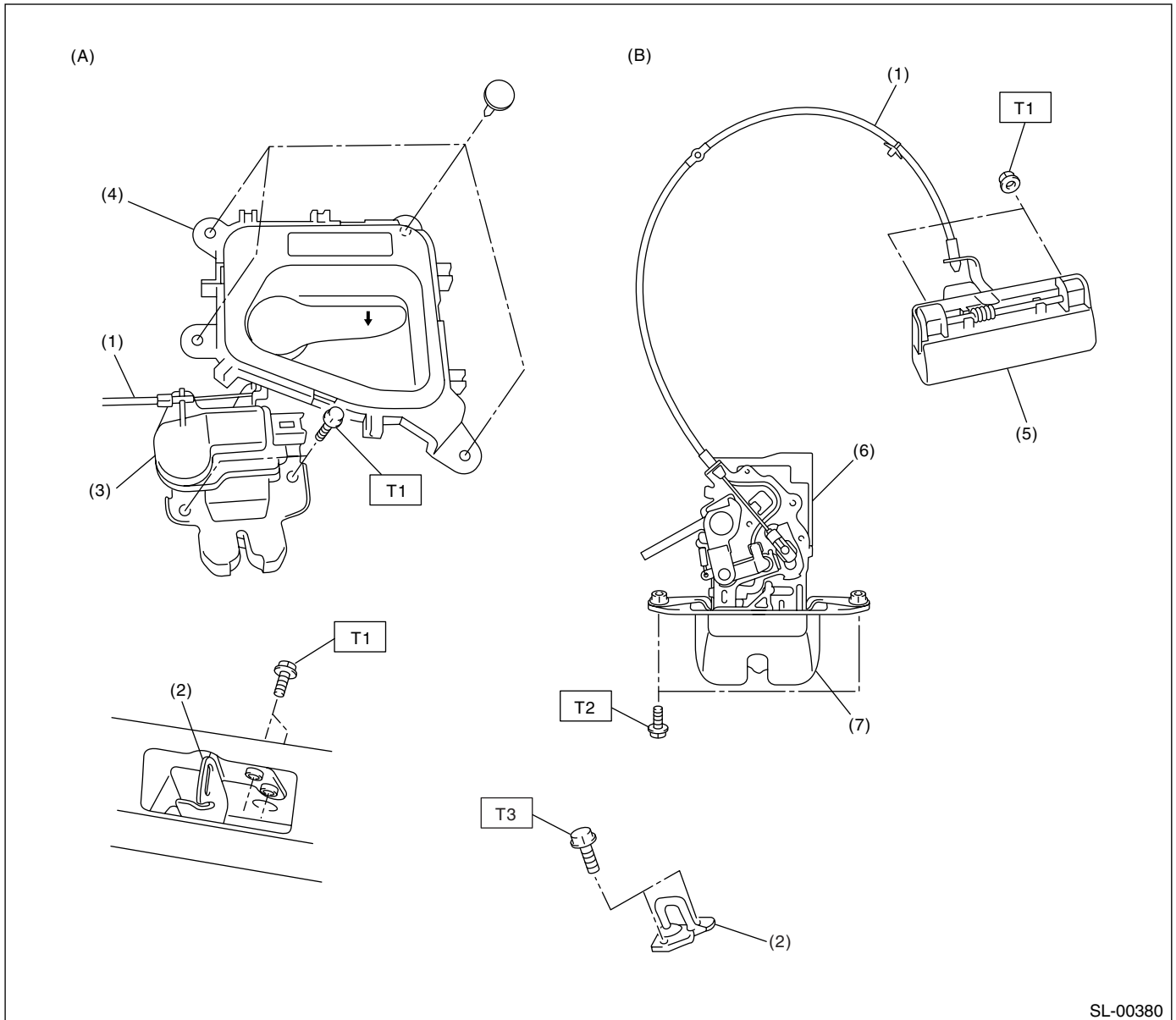
(A) Front

(B) Rear

- | | |
|--|---|
| (1) Inner remote ASSY | (4) Key cylinder (switch) |
| (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)

2. TRUNK LID AND REAR GATE LOCK



(A) Trunk

(B) Rear gate

- (1) Cable
- (2) Striker
- (3) Trunk lid lock ASSY
- (4) Trunk lid release handle

- (5) Rear gate outer handle
- (6) Rear gate actuator
- (7) Rear gate latch

Tightening torque: N·m (kgf·m, ft·lb)

T1: 7.5 (0.76, 5.5)

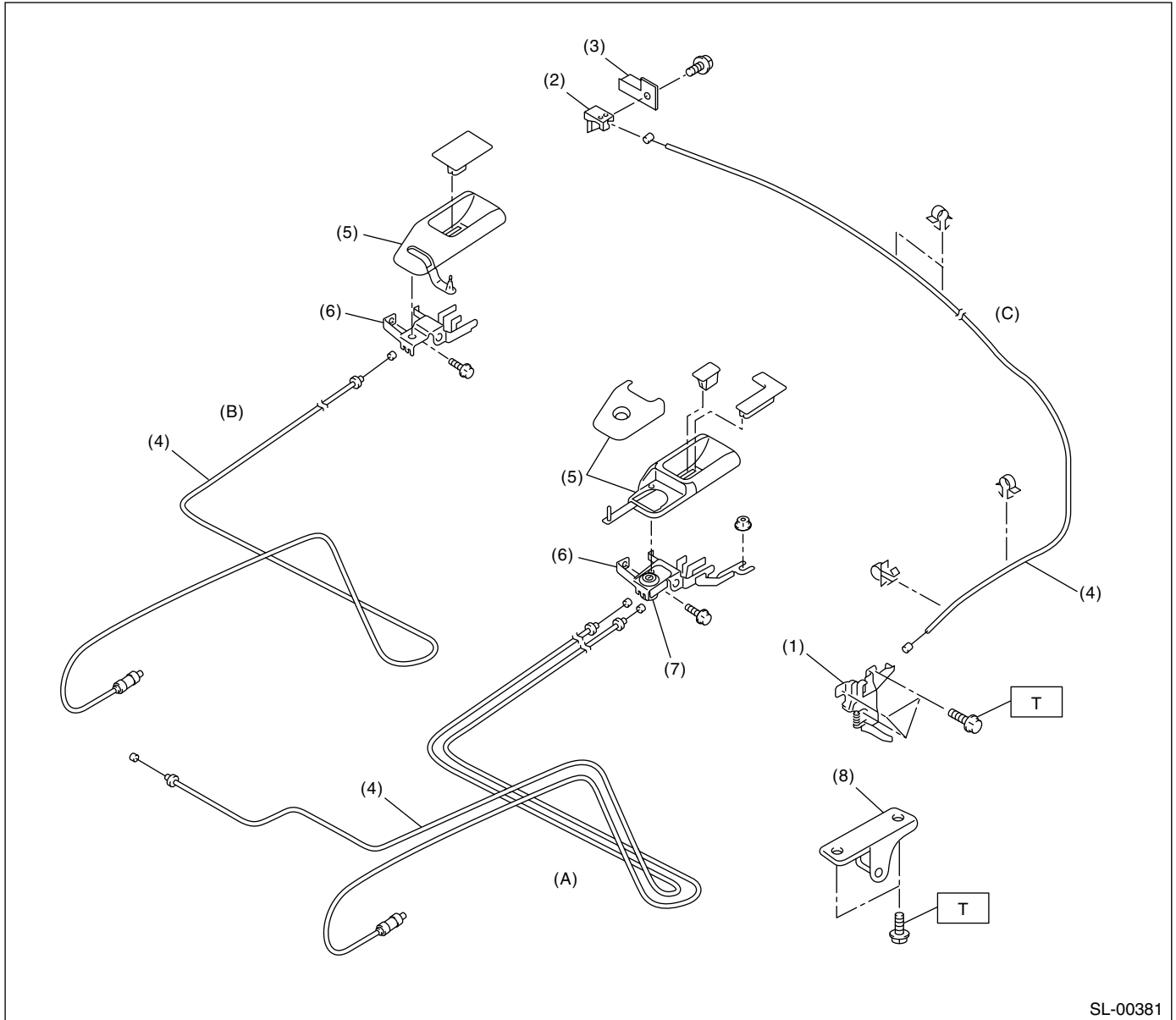
T2: 18 (1.8, 13.3)

T3: 25 (2.5, 18.4)

General Description

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3. FRONT HOOD LOCK AND REMOTE OPENERS



(A) Sedan model

(B) Wagon model

(C) Hood

(1) Front hood lock ASSY

(2) Lever ASSY

(3) Lever ASSY bracket

(4) Cable

(5) Cover

(6) Pull handle ASSY

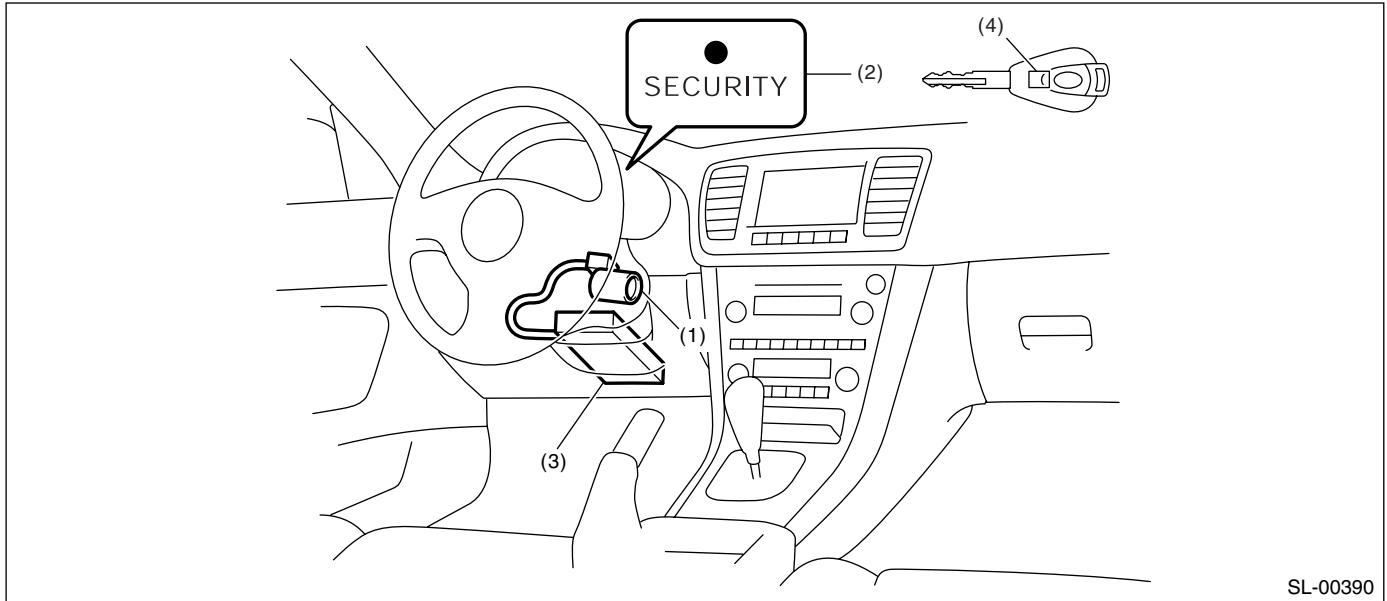
(7) Key cylinder

(8) Striker

Tightening torque: N·m (kgf-m, ft-lb)

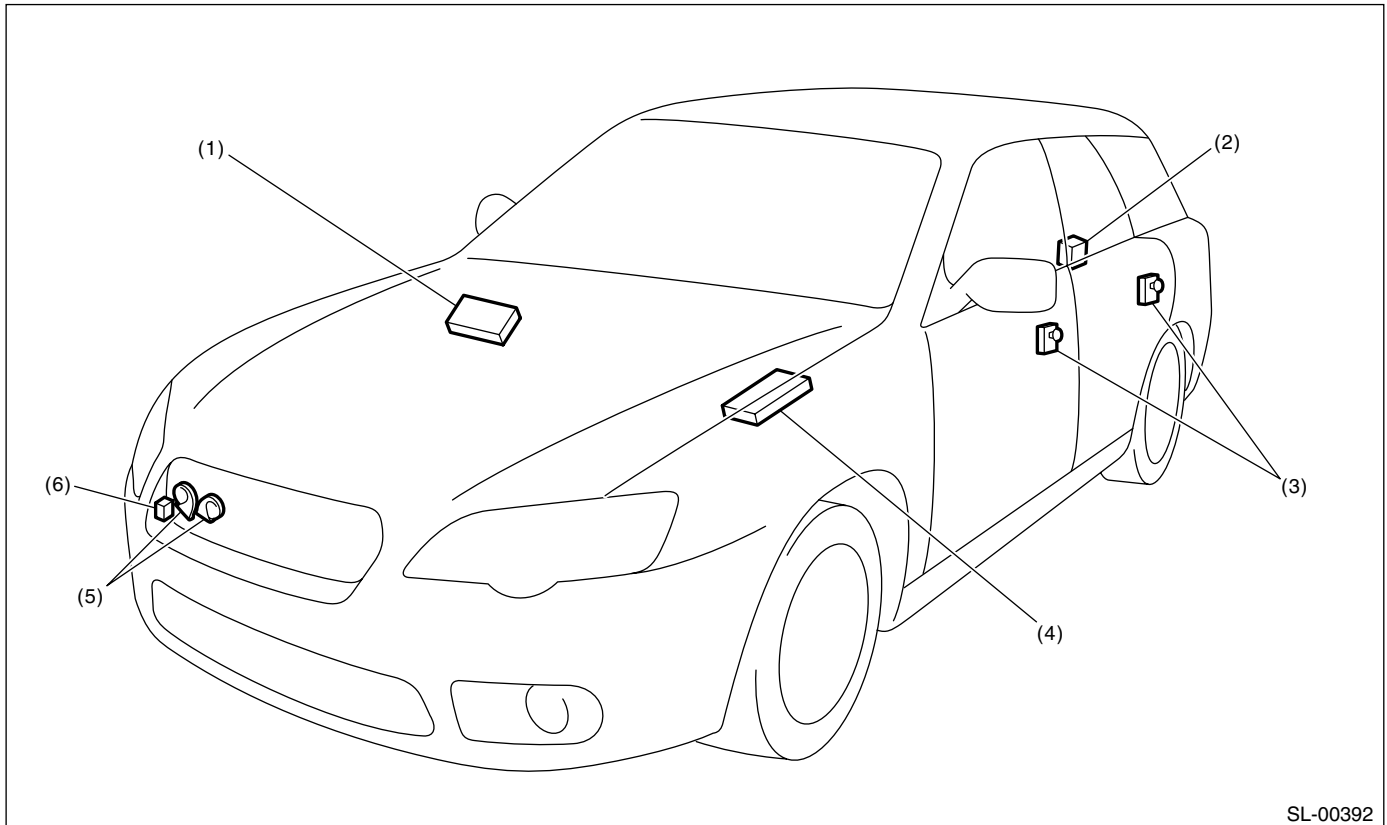
T: 33 (3.36, 24.2)

4. IMMOBILIZER SYSTEM



- | | | |
|---|--------------------------|-----------------|
| (1) Antenna | (3) Body integrated unit | (4) Transponder |
| (2) Security indicator light (LED bulb) | | |

5. KEYLESS ENTRY SYSTEM



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

General Description

SECURITY AND LOCKS

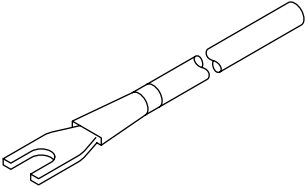
B: CAUTION

- 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.
- 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
 ST-925580000	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.
Clip remover	Used for removal of trim.
Clip clamp pliers	Used for removal of various clips and clamps.

2. Door Lock Control System

A: WIRING DIAGRAM

1. DOOR LOCK CONTROL

<Ref. to WI-182, 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-7, CHECK FUSE, 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 circuit.	<Ref. to SL-8, CHECK DOOR LOCK SWITCH, INSPECTION, Door Lock Control System.>
	4. Check the door lock actuator and circuit.	<Ref. to SL-9, 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-8, 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-9, CHECK DOOR LOCK ACTUATOR 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-8, CHECK POWER SUPPLY AND GROUND CIRCUIT, INSPECTION, Door Lock Control System.>

Door Lock Control System

SECURITY AND LOCKS

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. Connector & terminal <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. Connector & terminal <i>(B280) No. 22 — Chassis ground:</i> <i>(B281) No. 8, 9 — 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. Connector & terminal <i>(i84) No. 15 — Chassis ground:</i>	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 <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 Driver's side: <i>(D7) No. 4 — No. 7:</i> Passenger's side: <i>(D125) No. 4 — No. 3:</i>	Is the resistance less than 1 Ω ?	Go to step 5.	Replace the door lock switch.

Step	Check	Yes	No
5 CHECK DOOR LOCK SWITCH. Measure the resistance between the door lock switch terminals when moving the door lock switch to UNLOCK. <i>Connector & terminal</i> <i>Driver's side:</i> <i>(D7) No. 5 — No. 7:</i> <i>Passenger's side:</i> <i>(D125) No. 1 — No. 3:</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. <i>Connector & terminal</i> <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-54, 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. <i>Connector & terminal</i> <i>Driver's side:</i> <i>(i84) No. 23 (+) — Chassis ground (-):</i> <i>Except for driver's side:</i> <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-54, 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. <i>Connector & terminal</i> <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.>
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. • Front Door Lock Actuator <Ref. to SL-36, Front Door Lock Actuator.> • Rear Door Lock Actuator <Ref. to SL-40, Rear Door Lock Actuator.> • Rear Gate Latch Lock Actuator <Ref. to SL-42, 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.

Keyless Entry System

SECURITY AND LOCKS

3. Keyless Entry System

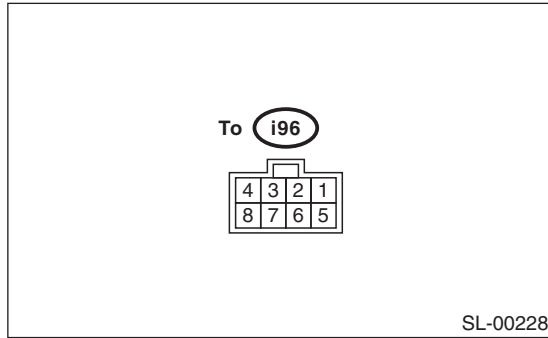
A: WIRING DIAGRAM

1. KEYLESS ENTRY

<Ref. to WI-182, WIRING DIAGRAM, Keyless Entry System.>

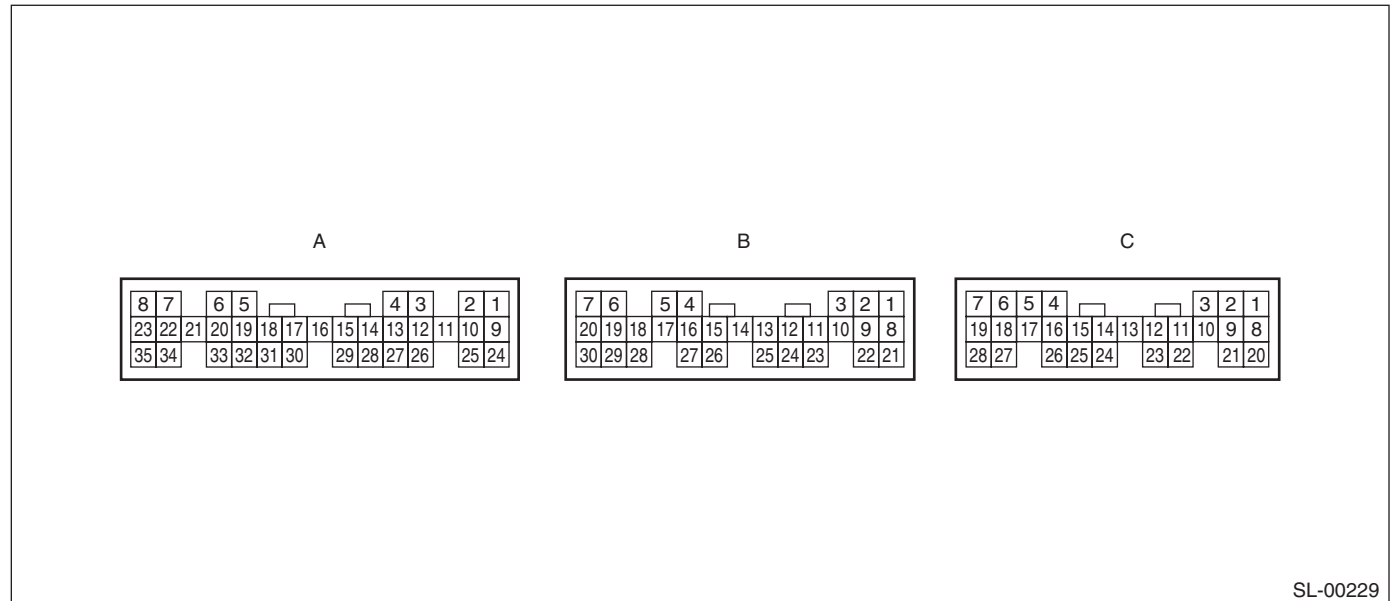
B: ELECTRICAL SPECIFICATION

1. KEYLESS ENTRY CONTROL MODULE



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.

2. BODY INTEGRATED UNIT



Remarks	Terminal No.	Measuring conditions
Ignition switch (ON)	A1 (INPUT)	Battery voltage is present when ignition switch is turned ON.
Keyless Buzzer	A6 (INPUT)	0 V is present when pressing the LOCK or UNLOCK button of transmitter.
Driver's side front door lock actuator	A7 (OUTPUT)	Battery voltage is present when pressing the LOCK button of transmitter.
Door and rear gate lock actuator	A8 (OUTPUT)	Battery voltage is present when pressing the UNLOCK button of transmitter.
Keyless entry control module	A9 (INPUT)	Communication line (Cannot be measured because of digital signal)

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Remarks	Terminal No.	Measuring conditions
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 transmitter.
Front door actuator driver's side	A23 (OUTPUT)	Battery voltage is present when pressing the UNLOCK button of transmitter.
Driver's side power window main switch (door lock switch)	A15	0 V is present when pressing the door lock switch to LOCK side.
Passenger's side door lock switch	A29	0 V is present when pressing the door lock switch to UNLOCK side.
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.
Room light	B3 (INPUT)	0 V is present when pressing the UNLOCK button of transmitter. 0 V is present when opening the door.
Power supply	B7	Battery voltage is constantly present.
Horn circuit	B11 (INPUT)	0 V is present when pressing the panic button of transmitter.
Turn signal & hazard circuit	B12 (OUTPUT)	0 V is present when pressing the LOCK button or UNLOCK button of transmitter.
Ground	B22	0 V is constantly present.
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.

Keyless Entry System

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C: INSPECTION

1. SYMPTOM CHART

Symptom	Repair order	Reference
None of the functions of keyless entry system operate.	1. Check the transmitter battery.	<Ref. to SL-14, CHECK TRANSMITTER BATTERY AND FUNCTION, INSPECTION, Keyless Entry System.>
	2. Check the fuse.	<Ref. to SL-15, CHECK FUSE, INSPECTION, Keyless Entry 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, ground circuit and registration connector circuit for the body integrated unit.	<Ref. to SL-16, CHECK BODY INTEGRATED UNIT POWER SUPPLY, GROUND CIRCUIT AND REGISTERED CONNECTOR 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-17, CHECK DOOR SWITCH, INSPECTION, Keyless Entry System.>
	7. Check the body integrated unit.	<Ref. to LAN(diag)-2, Basic Diagnostic Procedure.>
The transmitter cannot be registered.	1. Check the key warning switch.	<Ref. to SL-18, CHECK KEY WARNING SWITCH, INSPECTION, Keyless Entry System.>
	2. Check the door lock switch signal.	<Ref. to SL-20, CHECK DOOR LOCK SWITCH, INSPECTION, Keyless Entry System.>
	3. Check ignition switch.	<Ref. to SL-23, CHECK IGNITION SWITCH, INSPECTION, Keyless Entry System.>
	4. Check door switch.	<Ref. to SL-17, CHECK DOOR SWITCH, INSPECTION, Keyless Entry System.>
	5. Check the body integrated unit.	<Ref. to LAN(diag)-2, Basic Diagnostic Procedure.>

Keyless Entry System

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Symptom	Repair order	Reference
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-7, INSPECTION, Door Lock Control System.>	1. Check the transmitter battery.	<Ref. to SL-14, CHECK 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-17, CHECK DOOR SWITCH, INSPECTION, Keyless Entry System.>
	5. Check the body integrated unit.	<Ref. to LAN(diag)-2, Basic Diagnostic Procedure.>
The panic alarm does not operate.	1. Check the transmitter battery and function.	<Ref. to SL-14, CHECK TRANSMITTER BATTERY AND FUNCTION, INSPECTION, Keyless Entry System.>
	2. Check the horn operation.	<Ref. to SL-22, CHECK HORN OPERATION, INSPECTION, Keyless Entry System.>
	3. Check the body integrated unit.	<Ref. to LAN(diag)-2, Basic Diagnostic Procedure.>
Trunk lid unlock does not operate. (Sedan model)	1. Check the transmitter battery.	<Ref. to SL-14, CHECK 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 trunk lid lock actuator.	<Ref. to SL-20, CHECK TRUNK LID LOCK ACTUATOR, INSPECTION, Keyless Entry System.>
	5. Check the body integrated unit.	<Ref. to LAN(diag)-2, Basic Diagnostic Procedure.>
The buzzer chirp and hazard light do not operate.	1. Check the buzzer operation.	<Ref. to SL-22, 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.>

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Symptom	Repair order	Reference
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.>

2. CHECK TRANSMITTER BATTERY AND FUNCTION

Step	Check	Yes	No
1 CHECK TRANSMITTER BATTERY. 1) Remove the battery from transmitter. <Ref. to SL-55, REMOVAL, Transmitter.> 2) Check the battery voltage. <Ref. to SL-55, INSPECTION, Transmitter.>	Is the voltage more than 2.5 V?	Go to step 2.	Replace the transmitter battery. <Ref. to SL-55, Transmitter.>
2 CHECK TRANSMITTER. Register the transmitter which operates normally on other vehicles to inspection target vehicle. <Ref. to SL-55, REGISTRATION OF TRANSMITTER WITH SUBARU SELECT MONITOR, REPLACEMENT, Transmitter.> 1) Close all the doors and rear gate of inspection target vehicle. 2) Using 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 TRANSMITTER. Register the transmitter of inspection target vehicle to another vehicle which operates keyless system normally. <Ref. to SL-55, REGISTRATION OF TRANSMITTER WITH SUBARU SELECT MONITOR, REPLACEMENT, Transmitter.>	Is the transmitter registered correctly?	Go to step 4.	Replace the transmitter. <Ref. to SL-55, REGISTRATION OF TRANSMITTER WITH SUBARU SELECT MONITOR, REPLACEMENT, Transmitter.>
4 CHECK TRANSMITTER. Check the registered transmitter. 1) Close all the doors and rear gate of the vehicle which operates keyless system normally. 2) Using transmitter, lock and unlock the doors and rear gate of vehicle.	Is the vehicle operates lock and unlock normally?	Transmitter is normal.	Replace the transmitter. <Ref. to SL-55, REGISTRATION OF TRANSMITTER WITH SUBARU SELECT MONITOR, REPLACEMENT, Transmitter.>

CAUTION:

Be sure to reset the transmitter, which is registered from other vehicle to inspection target vehicle, and the vehicle, to which is registered transmitter, to the condition of before inspection. (Register the 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-16, CHECK BODY INTEGRATED UNIT POWER SUPPLY, GROUND CIRCUIT AND REGISTERED CONNECTOR 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. Connector & terminal <i>(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. Connector & terminal <i>(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. Connector & terminal <i>(i84) No. 9 — (i96) No. 3:</i>	Is the resistance less than 10 Ω ?	Replace the keyless entry control module. <Ref. to SL-52, Keyless Entry Control Unit.>	Repair the harness.

Keyless Entry System

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5. CHECK BODY INTEGRATED UNIT POWER SUPPLY, GROUND CIRCUIT AND REGISTERED CONNECTOR CIRCUIT

Step	Check	Yes	No
1 CHECK REGISTRATION CONNECTOR INPUT VOLTAGE. Measure the voltage between the body integrated unit harness connector and chassis ground. Connector & terminal (B281) No. 22 (+) — Chassis ground (-):	Is the voltage more than 10 V?	Go to step 2.	Check the registration connector for disconnection, and the harness for short.
2 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. Connector & terminal (B280) No. 7 (+) — Chassis ground (-): (B281) No. 2 (+) — Chassis ground (-):	Is the voltage more than 10 V?	Go to step 3.	Check the harness for open or short between body integrated unit and fuse.
3 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. Connector & terminal (B280) No. 22 — Chassis ground: (B281) No. 8 — Chassis ground: (B281) No. 9 — Chassis ground:	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 DOOR SWITCH

Step	Check	Yes	No
1 CHECK DOOR SWITCH CIRCUIT. Measure the voltage between the body integrated unit harness connector terminal and chassis ground. Connector & terminal Front door RH: (i84) No. 32 (+) — Chassis ground (-): Front door LH: (i84) No. 19 (+) — 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 (-):	Is the voltage 0 V when each door or rear gate is opened?	Go to step 2.	Go to step 3.
2 CHECK DOOR SWITCH CIRCUIT. Measure the voltage between the body integrated unit harness connector terminal and chassis ground. Connector & terminal Front door RH: (i84) No. 32 (+) — Chassis ground (-): Front door LH: (i84) No. 19 (+) — 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 (-):	Is the voltage more than 10 V when each door or rear gate is closed?	The door switch is OK.	Go to step 3.
3 CHECK DOOR SWITCH. 1) Disconnect the door switch harness connector. 2) Measure the resistance between door switch terminals. 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:	Is the resistance more than 1 MΩ when door switch is pushed?	Go to step 4.	Replace the door switch.
4 CHECK DOOR SWITCH. Measure the resistance between door switch terminals. 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:	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

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7. 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.

8. 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.

9. 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 transmitter, check the hazard output signal of 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 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.

Keyless Entry System

SECURITY AND LOCKS

10.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 transmitter, check the trunk unlock output signal of body integrated unit.	Is output signal present when operating the 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.
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-43, Trunk Lid Lock Assembly.>	Repair the harness.

11.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.

Keyless Entry 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 (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 Driver's side: (D7) No. 4 — No. 7: Passenger's side: (D125) No. 4 — No. 3:	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 Driver's side: (D7) No. 5 — No. 7: Passenger's side: (D125) No. 1 — No. 3:	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.

12.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. Connector & terminal (B224) No. 2 (+) — Chassis ground (-):	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. Connector & terminal (B280) No. 4 — (B224) No. 1:	Is the resistance less than 10 Ω ?	Replace the ignition switch illumination bulb with a new one. <Ref. to LI-35, REMOVAL, Ignition Switch Illumination.>	Check the harness for open circuits and shorts between the body integrated unit and ignition switch illumination.

Keyless Entry System

SECURITY AND LOCKS

13.CHECK HORN OPERATION

Step	Check	Yes	No
1 CHECK HORN OPERATION. Make sure the horn sounds when the horn switch is pushed.	Does the horn sound?	Go to step 2.	Check the horn circuit.
2 CHECK HORN OPERATION. 1) Disconnect the body integrated unit harness connector. 2) Ground the harness connector terminal with a suitable wire. Connector & terminal (B280) No. 11 — Chassis ground:	Does the horn sound?	Check the body integrated unit. <Ref. to LAN(diag)-2, Basic Diagnostic Procedure.>	Check the harness for open circuits and/or shorts between the body integrated unit and horn relay.

14.CHECK KEYLESS BUZZER

Step	Check	Yes	No
1 CHECK KEYLESS BUZZER ON/OFF SWITCH. 1) Press the UNLOCK button of transmitter once. 2) Press the LOCK/UNLOCK button of transmitter for more than 2 seconds at the same time. 3) When the keyless buzzer is set to ON, buzzer beeps twice, and once when the keyless buzzer is set to OFF. 4) Set the keyless buzzer to ON, and check if the buzzer beeps while operating LOCK/UNLOCK button.	Does the buzzer beep?	Keyless buzzer is normal.	Go to step 2.
2 CHECK FOR POWER SUPPLY OF KEYLESS BUZZER. 1) Turn the ignition switch to OFF. 2) Disconnect the keyless buzzer harness connector. 3) Measure the voltage between the harness connector terminal and chassis ground. Connector & terminal (F102) No. 1 (+) — Chassis ground (-):	Is the voltage more than 10 V?	Go to step 3.	Check the harness for open circuits and shorts between the keyless buzzer and fuse.
3 CHECK FOR GROUND CIRCUIT OF KEYLESS BUZZER. 1) Disconnect the body integrated unit harness connector. 2) Measure the resistance between harness connector terminals. Connector & terminal (i84) No. 6 — (F102) No. 2:	Is the resistance less than 10 Ω ?	Go to step 4.	Repair the harness.
4 CHECK KEYLESS BUZZER. 1) Remove the keyless buzzer. 2) Install the keyless buzzer to another vehicle which operates keyless buzzer normally, check the buzzer sounds.	Does the keyless buzzer sound?	Check the body integrated unit. <Ref. to LAN(diag)-2, Basic Diagnostic Procedure.>	Replace the key buzzer.

15.CHECK IGNITION SWITCH

Step	Check	Yes	No
1 CHECK FUSIBLE LINK. Remove the fusible link main SBF and SBF-6 (in main fuse box), and visually check.	Is the fusible link blown out?	Replace the fusible link main SBF or SBF-6. If the replace fusible link blown out easily, repair short circuit in harness between fusible link and ignition switch.	Go to step 2.
2 CHECK FOR POWER SUPPLY OF IGNITION SWITCH. 1) Disconnect the ignition switch harness connector. 2) Measure the voltage between harness connector terminal and body ground. Connector & terminal (B72) No. 3 (+) — Chassis ground (-):	Is the voltage more than 10 V?	Go to step 3.	Check the harness for open circuits and shorts between the ignition switch and fusible link.
3 CHECK IGNITION SWITCH. 1) Insert the ignition key into ignition switch, and turn the each position. 2) Measure the resistance between ignition switch terminals. Connector & terminal No. 3 — No. 4 (ACC position): No. 3 — No. 4 — No. 6 — No. 1 (ON position): No. 3 — No. 6 — No. 1 — No. 2 (ST position):	Is the resistance less than 1 Ω when ignition key turn the each position?	Ignition switch is normal.	Replace the ignition switch with a new one. <Ref. to SL-48, REPLACEMENT, Ignition Key Lock.>

CAUTION:

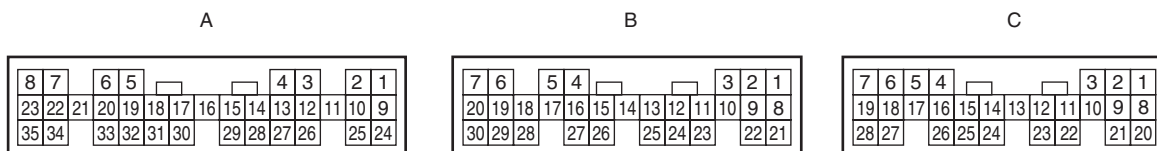
When the ignition key lock is replaced, all ignition keys also must be registered. <Refer to “IMMOBILIZER TEACHING OPERATION MANUAL”>

4. Security System

A: WIRING DIAGRAM

<Ref. to WI-186, WIRING DIAGRAM, Security System.>

B: ELECTRICAL SPECIFICATION



SL-00229

Remarks	Terminal No.	Measuring conditions
Ignition switch	A1 (INPUT)	Battery voltage is present when ignition switch is turned to ON.
Door key cylinder switch	A3	0 V is present when door key cylinder is moved to LOCK side.
Keyless entry control module	A9 (INPUT)	Communication line (Cannot be measured because of digital signal)
Door key cylinder switch	A12	0 V is present when door key cylinder is moved to UNLOCK side.
Trunk lid switch or rear gate latch switch	A17 (INPUT)	0 V is present when the trunk lid or rear gate is opened.
Rear door switch RH	A18 (INPUT)	0 V is present when the rear door RH is opened.
Front door switch LH	A19 (INPUT)	0 V is present when the front door LH is opened.
Rear door switch LH	A31 (INPUT)	0 V is present when the rear door LH is opened.
Front door switch RH	A32	0 V is present when the front door RH is opened.
Security indicator light	A33(INPUT)	Battery voltage is present when the alarm operation is activated.
Horn relay	B11 (OUTPUT)	Battery voltage is present when the alarm operation is activated.
Turn signal & hazard circuit	B12 (OUTPUT)	Battery voltage is present when the alarm operation is activated.
Ground	B22	0 V is constantly present.
Power supply	C2	Battery voltage is constantly present.
Impact sensor	C5	When not applying vibration to impact sensor, it repeat the 0 V and battery voltage in every 45 milliseconds.
Ground	C8	0 V is constantly present.
Ground	C9	0 V is constantly present.

C: INSPECTION

1. BASIC DIAGNOSTICS PROCEDURE

Step	Check	Yes	No
1 INITIAL CHECK. Check the keyless entry system.	Does the keyless entry system operate normally?	Go to step 2.	Check the keyless entry system. <Ref. to SL-12, INSPECTION, Keyless Entry System.>
2 CHECK SECURITY ON/OFF SETTING. 1) Remove the key from ignition switch, and then close all doors. 2) Press the UNLOCK button of transmitter. 3) Check the security indicator light blinking patterns.	Are the security indicator light blinking patterns as follows? • Model with immobilizer: Blinks in every 3 seconds • Model without immobilizer: Always off	Go to step 3.	Check the security indicator light circuit. <Ref. to SL-30, CHECK SECURITY INDICATOR LIGHT CIRCUIT, INSPECTION, Security System.>
3 CHECK SECURITY ON/OFF SETTING. 1) Press the LOCK button of transmitter. 2) Check the security indicator light blinking patterns.	Are the security indicator light blinking patterns as follows? • When the setting of checking lag 0 seconds: Blink twice within 0.5 second in 2 seconds cycle • When the setting of checking lag 30 seconds: Blink three times within 1 second in 0.4 seconds cycle	Go to step 6.	Go to step 4.
4 CHANGE SETTING OF SECURITY SYSTEM. Change the setting of security system to ON. <Ref. to SL-27, SECURITY SYSTEM ON/OFF SETTING, INSPECTION, Security System.>	Is the setting change completed correctly?	Go to step 5.	- Check the ignition switch circuit. <Ref. to SL-31, CHECK IGNITION SWITCH CIRCUIT, INSPECTION, Security System.> - Check the door lock switch circuit. <Ref. to SL-20, CHECK DOOR LOCK SWITCH, INSPECTION, Keyless Entry System.>
5 CHECK SETTING CHANGE OF SECURITY SYSTEM. 1) Remove the key from ignition switch, and then close all doors. 2) Press the LOCK button of transmitter. 3) Check the security indicator light blinking patterns.	Are the security indicator light blinking patterns as follows? • When the setting of checking lag 0 seconds: Blink twice within 0.5 second in 2 seconds cycle • When the setting of checking lag 30 seconds: Blink three times within 1 second in 0.4 seconds cycle	Go to step 6.	Replace the body integrated unit. <Ref. to SL-54, Body Integrated Unit.>
6 CHECK SECURITY SYSTEM OPERATION. Press the LOCK button on the transmitter and wait for 30 seconds.	Is the blinking pattern of security indicator light "blink twice within 0.5 second in 2 seconds cycle"?	Go to step 7.	Replace the body integrated unit. <Ref. to SL-54, Body Integrated Unit.>

Security System

SECURITY AND LOCKS

Step	Check	Yes	No
7 CHECK SECURITY SYSTEM CANCEL OPERATION. Insert the key to door key cylinder to unlock.	Is the blinking pattern of security indicator light as follows? • Model with immobilizer: Blinking in 3-seconds interval • Model without immobilizer: OFF all the time	Press the LOCK button of transmitter, and wait for 30 seconds. Go to step 8.	Check door key cylinder circuit. <Ref. to SL-32, CHECK DOOR KEY CYLINDER SWITCH AND CIRCUIT, INSPECTION, Security System.>
8 CHECK SECURITY ALARM OPERATION. 1) Unlock all doors using the door lock switch on driver's door. 2) Open any door, trunk or rear gate.	Does the security alarm operate when opening any door, trunk or rear gate?	Go to step 9.	• Check the door switch. <Ref. to SL-28, CHECK DOOR SWITCH, INSPECTION, Security System.> • Check the trunk lid switch or rear gate latch switch. <Ref. to SL-29, CHECK TRUNK LID SWITCH (SEDAN) OR REAR GATE LATCH SWITCH (WAGON), INSPECTION, Security System.>
9 CHECK SECURITY ALARM OPERATION. Check the security alarm operation.	Does all security alarm operate? • Horn sounds • Hazard light blinks • Security indicator light on	Go to step 10.	• Check the horn. <Ref. to SL-30, CHECK HORN, INSPECTION, Security System.> • Check the hazard light. <Ref. to SL-31, CHECK HAZARD LIGHT OPERATION, INSPECTION, Security System.>
10 CHECK SECURITY ALARM CANCEL OPERATION. Press any button of transmitter while operating security alarm. Or turn the ignition switch OFF/ON three times.	Does all security alarm stop? • Horn • Hazard light	Go to step 11.	Check the ignition switch circuit. <Ref. to SL-31, CHECK IGNITION SWITCH CIRCUIT, INSPECTION, Security System.>
11 CHECK SECURITY SYSTEM CONDITION MEMORY. Check if the system function properly when the battery is not connected temporarily. <Ref. to SL-27, CHECK SECURITY SYSTEM CONDITION MEMORY, INSPECTION, Security System.>	Does the system function properly when the battery is not connected temporarily?	Go to step 12.	Replace the body integrated unit. <Ref. to SL-54, Body Integrated Unit.>

Step	Check	Yes	No
12 CHECK IMPACT SENSOR. Check the impact sensor. <Ref. to SL-51, CHECK IMPACT SENSOR, ADJUSTMENT, Impact Sensor.>	Is the sensibility set properly?	Press the UNLOCK button of transmitter, and finish the diagnosis.	Adjust the sensibility. <Ref. to SL-51, IMPACT SENSITIVITY ADJUSTMENT, ADJUSTMENT, Impact Sensor.>

CAUTION:

- **Security alarm ON/OFF setting**

At the time of shipping from the plant, the security alarm is set to “ON”. However, when {Security setting initialization} is performed with the Subaru select monitor, the security alarm automatically is set to “OFF”. When security initialization has been performed, always return the ON/OFF setting for the security alarm to “ON”.

- **Siren YES/NO setting**

The {Siren YES/NO} setting of the item {Unit customization} of the Subaru select monitor always shall be set “NO”. If it is set to “YES”, the horn of the security alarm will not sound.

NOTE:

When the following symptoms appear, inspect the function setting of body integrated unit. <Ref. to LAN(diag)-2, Basic Diagnostic Procedure.>

- The horn does not sound although security is operating.
- When the security is turned on by transmitter, the horn sounds.

2. CHECK SECURITY SYSTEM CONDITION MEMORY

- 1) Remove the key from ignition switch.
- 2) Close all the doors, trunk lid and rear gate.
- 3) Open the hood.
- 4) Press the LOCK button of transmitter, and then wait until the security indicator light flashes twice for 0.5 sec at intervals of 2 seconds.
- 5) Disconnect the ground cable from battery.
- 6) Connect the battery ground cable to battery.
- 7) Check that the security indicator light blinks twice within 0.5 seconds in 2 seconds cycle. When it does not blink, replace the body integrated unit.

3. SECURITY SYSTEM ON/OFF SETTING

- 1) Close all the doors and rear gate, sit down on the driver seat. Press the UNLOCK button of transmitter.
- 2) Repeat turning the ignition switch to ON → OFF three times within 10 seconds, and then stop at ON position.
- 3) Open the driver's door and close it within 10 seconds. At this time, horn and current setting is displayed on trip meter.
- 4) Operate the door lock switch as follows within 10 seconds. After the operation, horn.

Setting	Door lock switch operation	Meter display
OFF	Press three times to UNLOCK side	[AL_OF]
ON	Press three times to LOCK side	[AL_ON]

4. CHECK DOOR SWITCH

Step	Check	Yes	No
1 CHECK INPUT FROM EACH DOOR SWITCH. 1) Connect the Subaru Select Monitor to data link connector. 2) Turn the ignition switch to ON. 3) Select {body integrated module} from main menu. 4) Select {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 present when opening each door (front RH and LH, rear RH and LH)?	The door switch circuit is OK.	When the input signal cannot be detected in some door switch, Go to step 2.
2 CHECK DOOR SWITCH CIRCUIT. 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. Connector & terminal <i>(i84) No. 19 — (R12) No. 1: (front door LH)</i> <i>(i84) No. 32 — (R9) No. 1: (front door RH)</i> <i>(i84) No. 31 — (R22) No. 1: (rear door LH)</i> <i>(i84) No. 18 — (R16) No. 1: (rear door RH)</i>	Is the resistance less than 10 Ω ?	Go to step 3.	Repair the harness.
3 CHECK GROUND CIRCUIT OF DOOR SWITCH. 1) Disconnect the harness connector of faulty door switch. 2) Measure the resistance of harness connector and chassis ground. Connector & terminal <i>(R9) No. 3 — Chassis ground: (front door LH)</i> <i>(R12) No. 3 — Chassis ground: (front door RH)</i> <i>(R22) No. 3 — Chassis ground: (rear door LH)</i> <i>(R16) No. 3 — Chassis ground: (rear door RH)</i>	Is the resistance less than 10 Ω ?	Go to step 4.	Repair the harness.
4 CHECK DOOR SWITCH. 1) Disconnect the harness connector of faulty door switch. 2) Measure the resistance between the door switch terminals. Terminals No. 1 — No. 3:	Is the resistance more than 1 M Ω when door switch is pushed?	Go to step 5.	Replace the door switch.
5 CHECK DOOR SWITCH. Measure the resistance between the door switch terminals. Terminals No. 1 — No. 3:	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 TRUNK LID SWITCH (SEDAN) OR REAR GATE LATCH SWITCH (WAGON)

Step	Check	Yes	No
1 CHECK INPUT FROM TRUNK LID SWITCH OR REAR GATE LATCH SWITCH. 1) Connect the Subaru Select Monitor to data link connector. 2) Turn the ignition switch to ON. 3) Select {body integrated module} from main menu. 4) Select {Current Data Display & Save}. 5) Check the input signal to the body integrated unit when opening the trunk lid or rear gate.	Is the input signal present when opening the trunk lid or rear gate?	The trunk lid switch or rear gate latch switch is OK.	Go to step 2.
2 CHECK CIRCUIT FOR TRUNK LID SWITCH OR REAR GATE LATCH SWITCH. 1) Turn the ignition switch to OFF. 2) Disconnect the harness connector of body integrated unit. 3) Disconnect the harness connector of trunk lid switch or rear gate latch switch. 4) Measure the resistance between harness connector terminals. Connector & terminal <i>(i84) No. 17 — (D46) No. 2: (Wagon model)</i> <i>(i84) No. 17 — (R186) No. 3: (Sedan model)</i>	Is the resistance less than 10 Ω ?	Go to step 3.	Repair the harness.
3 CHECK GROUND CIRCUIT FOR TRUNK LID SWITCH OR REAR GATE LATCH SWITCH. 1) Disconnect the harness connector of trunk lid switch or rear gate latch switch. 2) Measure the resistance between the harness connector terminal and chassis ground. Connector & terminal <i>(D46) No. 1 — Chassis ground: (Wagon model)</i> <i>(R186) No. 1 — Chassis ground: (Sedan model)</i>	Is the resistance less than 10 Ω ?	Go to step 4.	Repair the harness.
4 CHECK TRUNK LID SWITCH OR REAR GATE LATCH SWITCH. 1) Disconnect the harness connector of trunk lid switch or rear gate latch switch. 2) Measure the resistance between switch terminals. Terminals <i>No. 1 — No. 2: (Wagon model)</i> <i>No. 1 — No. 3: (Sedan model)</i>	Is the resistance more than 1 M Ω when switch is pushed?	Go to step 5.	Replace the trunk lid switch or rear gate latch switch.
5 CHECK TRUNK LID SWITCH OR REAR GATE LATCH SWITCH. Measure the resistance between switch terminals. Terminals <i>No. 1 — No. 2: (Wagon model)</i> <i>No. 1 — No. 3: (Sedan model)</i>	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 trunk lid switch or rear gate latch switch.

Security System

SECURITY AND LOCKS

6. CHECK SECURITY INDICATOR LIGHT CIRCUIT

Step	Check	Yes	No
1 CHECK SECURITY INDICATOR LIGHT. 1) Turn the ignition switch to OFF. 2) Disconnect the harness connector of body integrated unit. 3) Connect the resistor (100 Ω) between body integrated unit harness connector terminal (i84) No. 33 and body ground. Connector & terminal (i84) No. 33 — Chassis ground:	Does the security indicator light illuminate?	Check the body integrated unit. <Ref. to LAN(diag)-2, Basic Diagnostic Procedure.>	Go to step 2.
2 CHECK POWER SUPPLY FOR SECURITY INDICATOR LIGHT. 1) Disconnect the connector from combination meter. 2) Measure the voltage between the combination meter harness connector terminal and chassis ground. Connector & terminal (i10) No. 1, 2 (+) — Chassis ground (-):	Is the voltage more than 10 V?	Go to step 3.	Check the harness for open or short circuit between combination meter and fuse.
3 CHECK SECURITY INDICATOR LIGHT CIRCUIT. Measure the resistance between the combination meter harness connector terminal and security control unit harness connector terminal. Connector & terminal (i10) No. 17 — (i84) No. 33:	Is the resistance less than 10 Ω ?	Replace the combination meter. <Ref. to IDI-15, Combination Meter.>	Check the harness for open or short circuit between combination meter and body integrated unit.

7. CHECK HORN

Step	Check	Yes	No
1 CHECK HORN OPERATION. Check the horn sounds when the horn switch is pushed.	Does the horn sound?	Go to step 2.	Check the horn circuit.
2 CHECK OUTPUT TO HORN RELAY. 1) Connect the Subaru Select Monitor to data link connector. 2) Turn the ignition switch to ON. 3) Select {body integrated module} from main menu. 4) Select {Function Check}. 5) Select {Horn Output} and perform.	Does the horn sound?	Horn circuit is OK.	Go to step 3.
3 CHECK HORN RELAY CIRCUIT. 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. Connector & terminal (B280) No. 11 — (B186) No. 1:	Is the resistance less than 10 Ω ?	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
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 module} from main menu. 6) Select the {ECM customizing}. 7) Check the {Hazard answer-back setup}, and then switch to ON setting. 8) Select {Current Data Display & Save}. 9) When operating the LOCK/UNLOCK button of transmitter, check the hazard output signal of body integrated unit.	Is output signal is 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 CHECK CIRCUIT OF HAZARD LIGHT. 1) Turn the ignition switch to OFF. 2) Disconnect the harness connector of body integrated unit. 3) Disconnect the turn signal& hazard unit harness connector. 4) 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.

9. CHECK IGNITION SWITCH CIRCUIT

Step	Check	Yes	No
1 CHECK IGNITION SWITCH VOLTAGE. 1) Connect the Subaru Select Monitor to data link connector. 2) Turn the ignition switch to ON. 3) Select {body integrated module} from main menu. 4) Select {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.
2 CHECK IGNITION SWITCH CIRCUIT. 1) Turn the ignition switch to OFF. 2) Disconnect harness connector of body integrated unit. 3) Turn the ignition switch to ON. 4) Measure the voltage between the harness connector terminal and chassis ground. Connector & terminal (i84) No. 1 (+) — Chassis ground (-):	Is the voltage more than 10 V?	Check the body integrated unit. <Ref. to LAN(diag)-2, Basic Diagnostic Procedure.>	Check harness for open or short circuit between body integrated unit and fuse.

Security System

SECURITY AND LOCKS

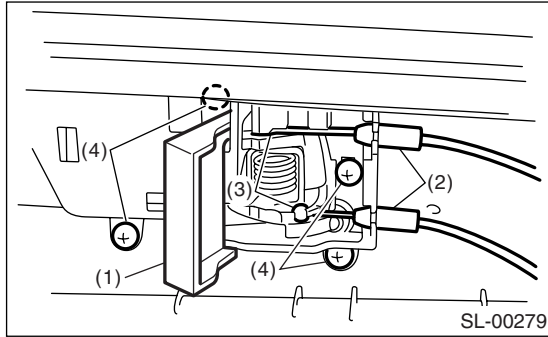
10.CHECK DOOR KEY CYLINDER SWITCH AND CIRCUIT

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

5. 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 cable (2).
- 4) Remove the cable end ball (3).
- 5) Remove the screws (4), and detach the inner remote.



B: INSTALLATION

Install in the reverse order of removal.

NOTE:

Make sure the inner remote works correctly after installation.

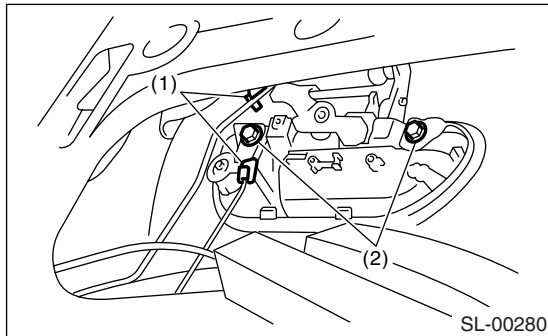
C: INSPECTION

- 1) Check the 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 & door lock actuator assembly.
- 2) Check the handle and cable 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-48, REMOVAL, Door Trim.>
- 3) Remove the cable from front inner remote. <Ref. to SL-33, 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.



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.

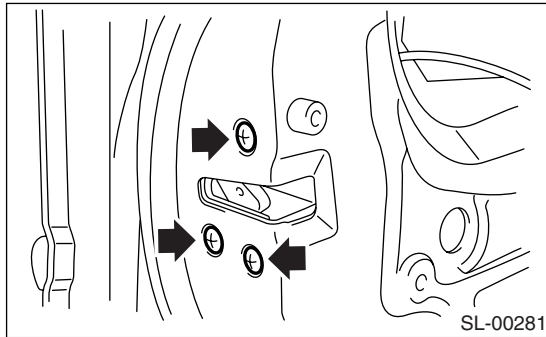
C: INSPECTION

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

7. Front Door Latch & 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 cable from front inner remote. <Ref. to SL-33, 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-11, REMOVAL, Front Door Glass.>
- 6) Remove the rear sash. <Ref. to GW-16, REMOVAL, Front Regulator and Motor Assembly.>
- 7) Open the handle rod cover of latch assembly.
- 8) Remove the three screws.



- 9) 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.

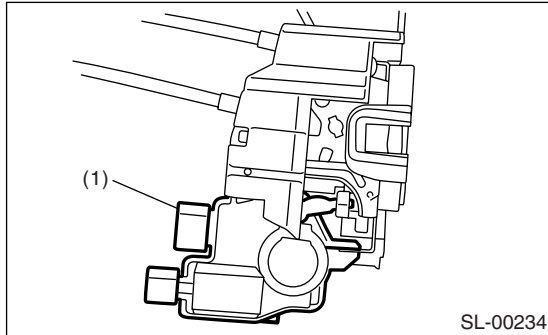
C: INSPECTION

- 1) Check the rod and cable 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 cable for smooth operation.

8. Front Door Lock Actuator

A: REMOVAL

- 1) Remove the front door latch & door lock actuator assembly. <Ref. to SL-35, REMOVAL, Front Door Latch & Door Lock Actuator Assembly.>
- 2) Remove the pawl of front door latch security cover, and then remove the cover.
- 3) Remove the screw from the front door latch and door lock actuator, and then remove the door lock actuator.



(1) Front door lock actuator

B: INSTALLATION

Install in the reverse order of removal.

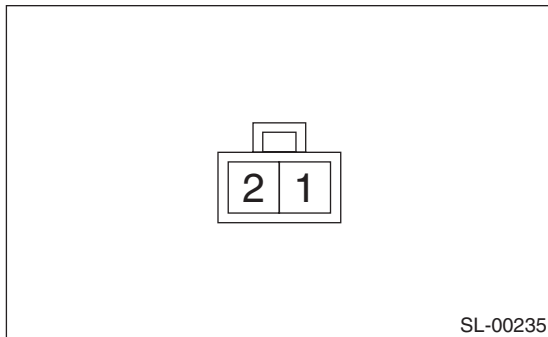
NOTE:

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.

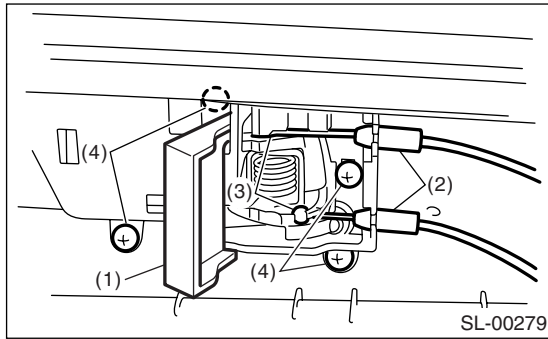


Terminal No.	Actuator operation
No. 2 (+) and No. 1 (-)	Unlocked → Locked
No. 1 (+) and No. 2 (-)	Locked → Unlocked

9. 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 cable (2).
- 4) Remove the cable 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.

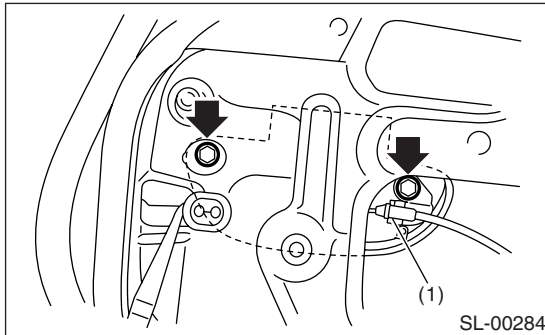
C: INSPECTION

- 1) Check the 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 rear door latch & door lock actuator assembly.
- 2) Check the handle and cable for smooth operation.
- 3) Check the child safety lock for correct operations.

10.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-39, REMOVAL, Rear Door Latch & Door Lock Actuator Assembly.>
- 5) Remove the cable from cable clamp (1) of outer handle.
- 6) Remove the two bolts.



- 7) 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.

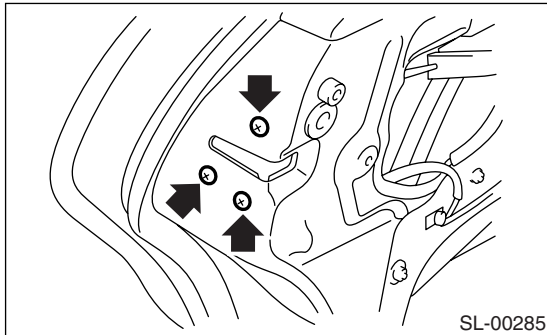
C: INSPECTION

- 1) Check the cable 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 handle and cable for smooth operation.

11. Rear Door Latch & 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 cable from rear inner remote. <Ref. to SL-37, 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-24, REMOVAL, Rear Door Glass.>
- 6) Remove the rear sash. <Ref. to GW-26, REMOVAL, Rear Regulator and Motor Assembly.>
- 7) Take out the cable from cable clamp of outer handle.
- 8) Remove the three screws.



- 9) 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.

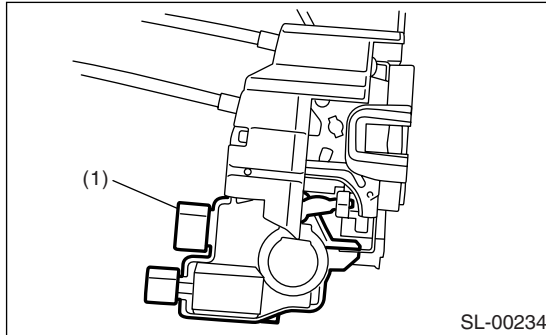
C: INSPECTION

- 1) Check the cable 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 cable for smooth operation.

12.Rear Door Lock Actuator

A: REMOVAL

- 1) Remove the rear door latch & door lock actuator assembly. <Ref. to SL-39, REMOVAL, Rear Door Latch & Door Lock Actuator Assembly.>
- 2) Remove the pawl of rear door latch security cover, and then remove the cover.
- 3) Remove the screw from the rear door latch and door lock actuator, and then remove the door lock actuator.



(1) Rear door lock actuator

B: INSTALLATION

Install in the reverse order of removal.

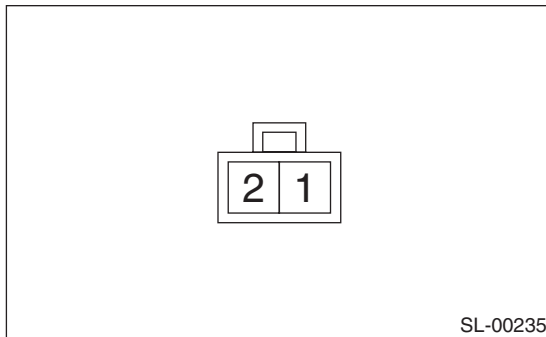
NOTE:

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.

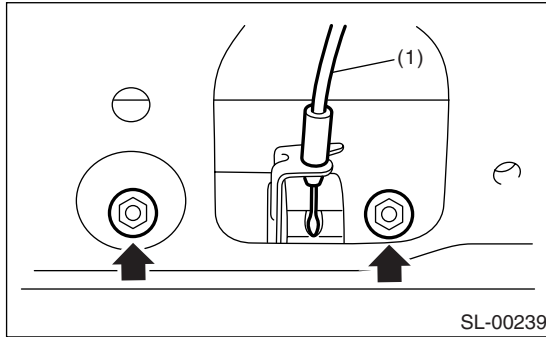


Terminal No.	Actuator operation
No. 2 (+) and No. 1 (-)	Unlocked → Locked
No. 1 (+) and No. 2 (-)	Locked → Unlocked

13.Rear Gate Outer Handle

A: REMOVAL

- 1) Remove the rear gate trim. <Ref. to EI-68, REMOVAL, Rear Gate Trim.>
- 2) Remove the rear gate garnish. <Ref. to EI-75, REMOVAL, Rear Gate Garnish.>
- 3) Remove the two nuts to take out the rear gate outer handle.
- 4) Remove the cable (1) or rear gate outer handle.



B: INSTALLATION

Install in the reverse order of removal.

NOTE:

Make sure the outer handle works correctly after installation.

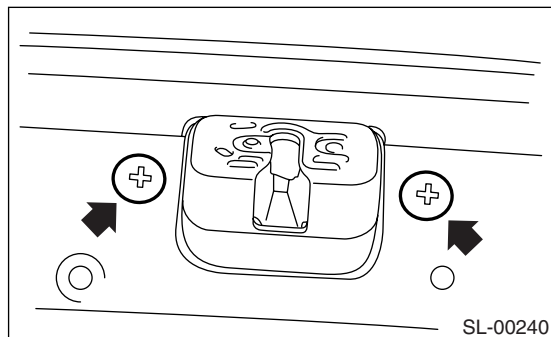
C: INSPECTION

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

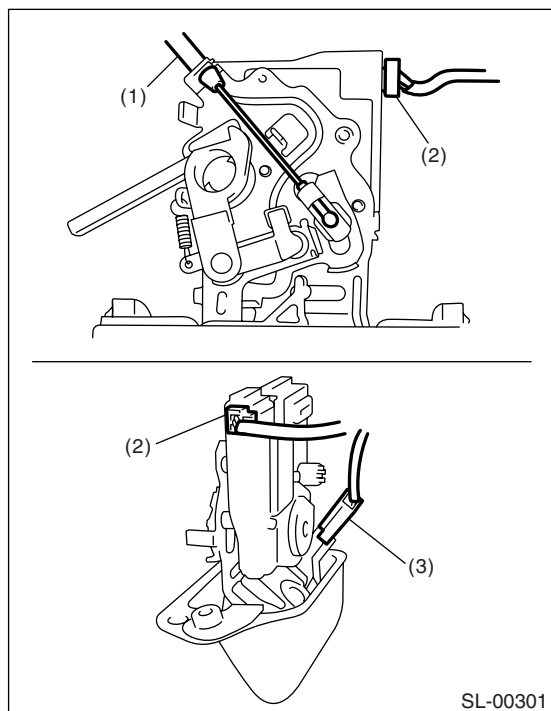
14.Rear Gate Latch Assembly

A: REMOVAL

- 1) Disconnect the ground cable from battery.
- 2) Remove the rear gate trim. <Ref. to EI-68, REMOVAL, Rear Gate Trim.>
- 3) Remove the two screws.



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



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

- 5) Remove the rear gate latch assembly.

B: INSTALLATION

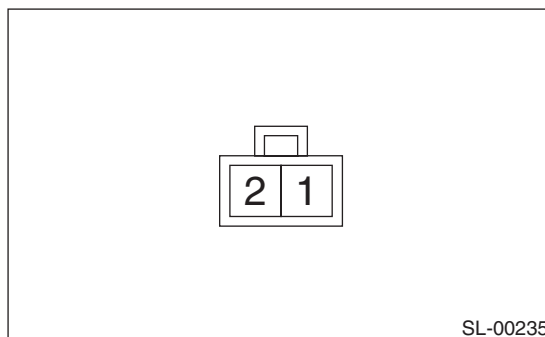
Install in the reverse order of removal.

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

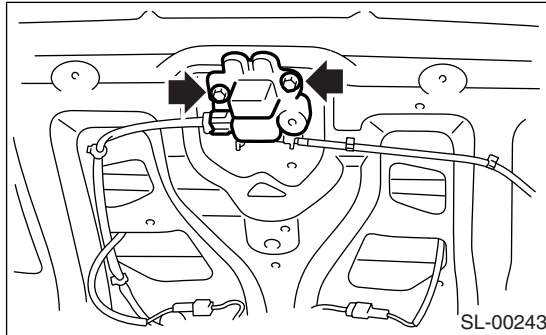
Replace the rear gate latch assembly if faulty.

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

15.Trunk Lid Lock Assembly

A: REMOVAL

- 1) Remove the trunk lid release handle. <Ref. to SL-44, REMOVAL, TrunkLid Release Handle.>
- 2) Disconnect the connectors and detach the cable of trunk opener.
- 3) Remove the two bolts to remove trunk lid lock assembly.



B: INSTALLATION

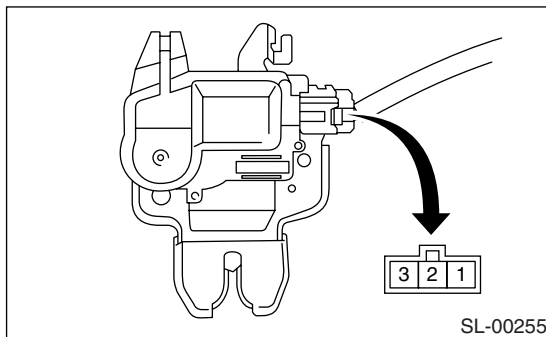
Install in the reverse order of removal.

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



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

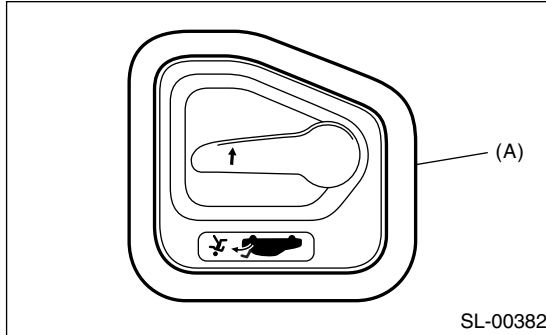
If defective, replace the trunk lid actuator.

- 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 cable of trunk opener for smooth operation.

16.TrunkLid Release Handle

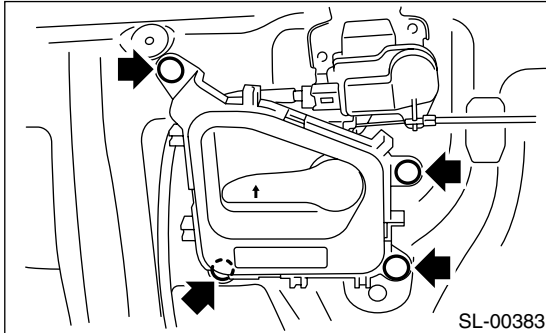
A: REMOVAL

1) Remove the cover (A).



2) Remove the trunk lid trim. <Ref. to EI-70, REMOVAL, Trunk Room Trim.>

3) Remove the four clips to remove trunk lid release handle.



B: INSTALLATION

Install in the reverse order of removal.

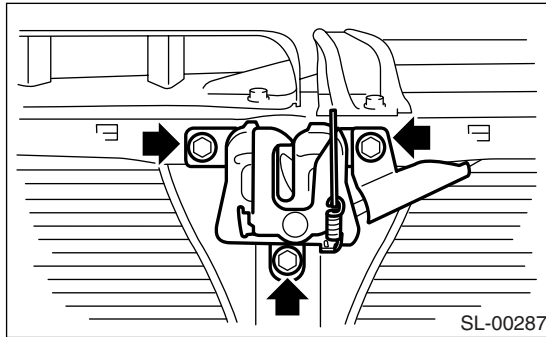
C: INSPECTION

Make sure the lever works smoothly.

17.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 cable from lock assembly.



B: INSTALLATION

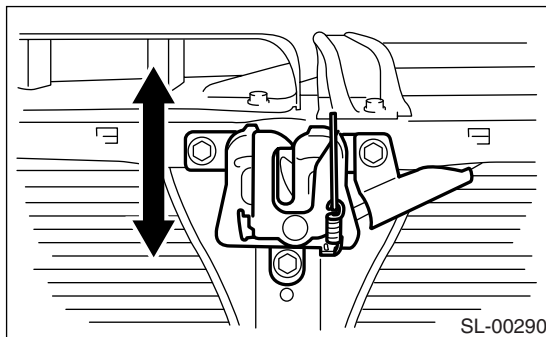
Install in the reverse order of removal.

NOTE:

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

C: ADJUSTMENT

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



D: INSPECTION

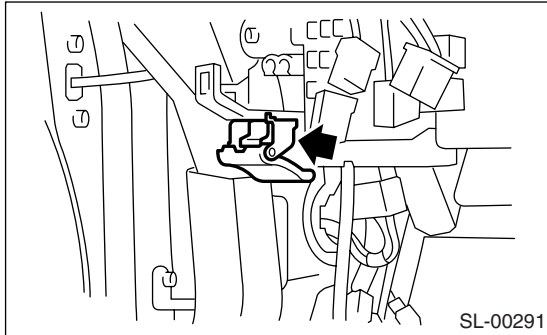
- 1) Check the striker for deformation or abnormal wear.
- 2) Check the safety lever for improper movement.
- 3) Check other levers and the spring for rust formation and unsmooth movement.

18.Remote Openers

A: REMOVAL

1. FRONT HOOD OPENER

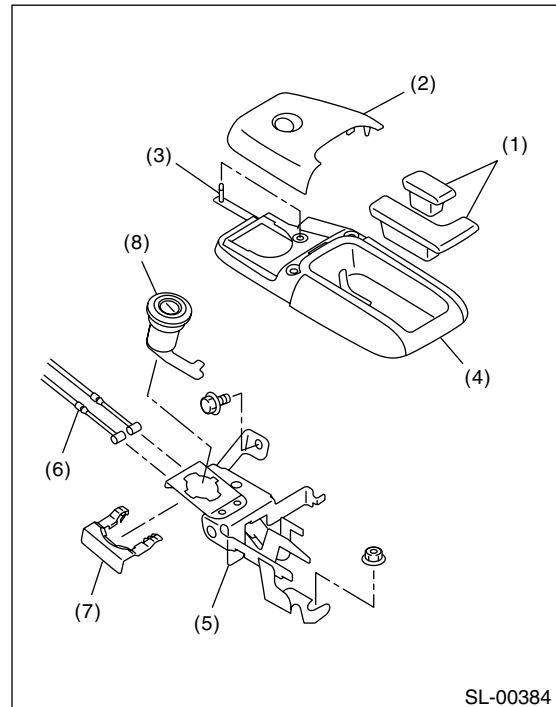
- 1) Remove the cable from hood lock.
- 2) Remove the bolt, and then detach the opener lever.



2. TRUNK LID OPENER

- 1) Remove the rear seat. <Ref. to SE-20, 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 opener lever (1) and rear cover (2).
- 4) Remove the pin (3) and remove front cover (4).

- 5) Remove the bolt and nut, and remove the pull handle assembly (5).



- (1) Opener lever
- (2) Rear cover
- (3) Pin
- (4) Front Cover
- (5) Pull handle ASSY
- (6) Cable
- (7) Clamp
- (8) Key cylinder

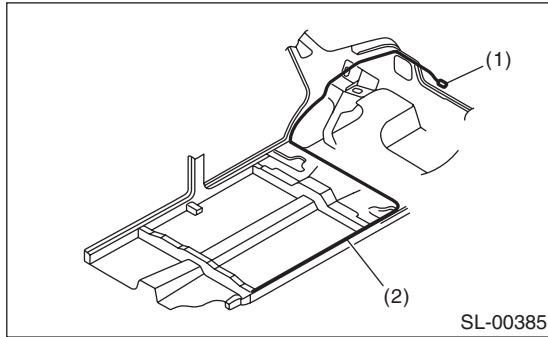
- 6) Remove the cable from pull handle assembly.
- 7) Remove the clamp (7) to remove key cylinder (8).

CAUTION:

Remove the key cylinder with its UNLOCK position.

- 8) Remove the trunk lid lock assembly from trunk lid.

9) Remove the cable from trunk lid lock assembly.



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

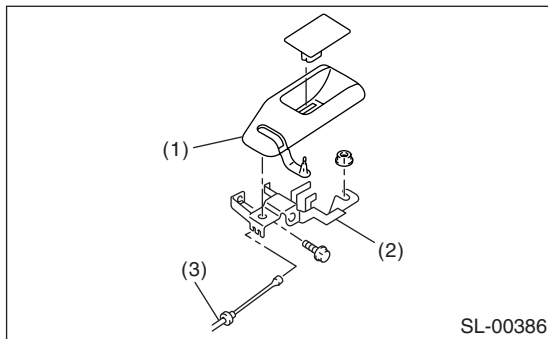
3. FUEL FILLER FLAP LID OPENER

• Sedan model

<Ref. to SL-46, TRUNK LID OPENER, REMOVAL, Remote Openers.>

• Wagon model

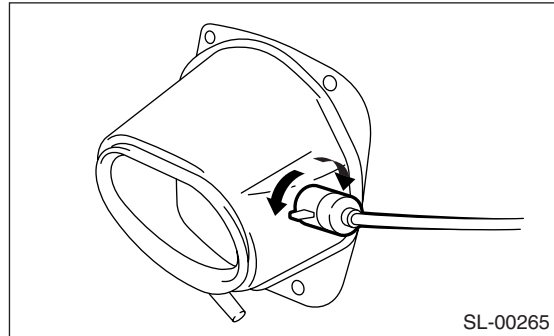
- 1) Remove the rear seat. <Ref. to SE-20, REMOVAL, Rear Seat.>
- 2) Remove the center pillar lower trim, side sill cover, rear pillar lower trim and floor mat on the driver's side. Remove the clip holding cable.
- 3) Remove the bolt and nut, and then detach the pull handle assembly.



- (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-62, REMOVAL, Rear Quarter Trim.>

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.

CAUTION:

Install the key cylinder with its **UNLOCK** position.

3. FUEL FILLER FLAP LID OPENER

Install in the reverse order of removal.

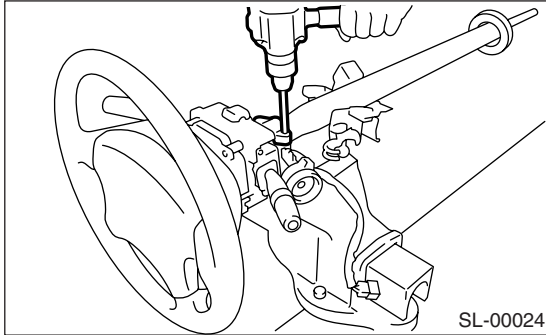
C: INSPECTION

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

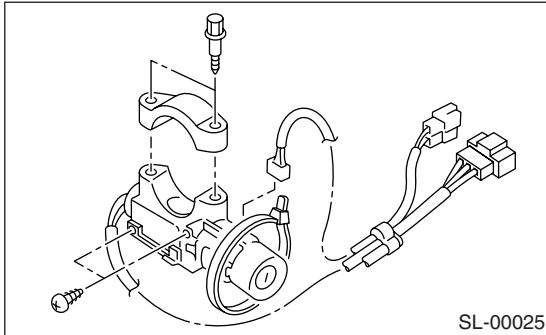
19. Ignition Key Lock

A: REPLACEMENT

- 1) Disconnect the ground cable from battery.
- 2) Remove the steering column. <Ref. to PS-17, REMOVAL, Tilt Steering Column.>
- 3) Secure the steering column in a vise. Remove the bolt with a drill.

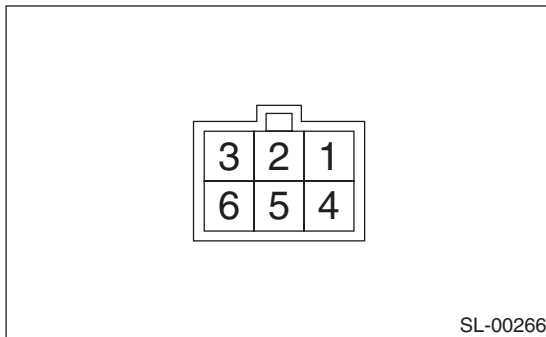


- 4) Remove the ignition key lock.
- 5) Using a new bolt, tighten the bolts all the way.



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.



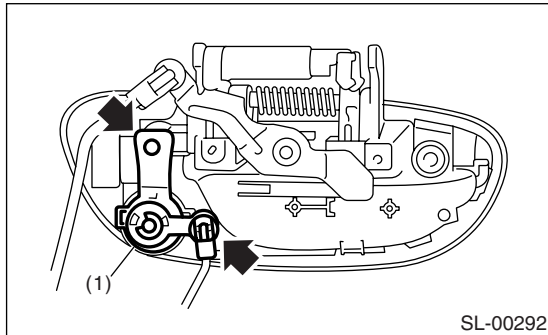
Switch position	Terminal No.	Standard
LOCK	—	—
ACC	No. 3 and No. 4	Less than 1 Ω
ON	No. 3 and No. 1 and No. 4 No. 3 and No. 6	Less than 1 Ω
ST	No. 3 and No. 1 No. 3 and No. 2 and No. 6	Less than 1 Ω

If NG, replace the ignition switch.

20.Key Lock Cylinders

A: REPLACEMENT

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



21.Security Control Unit

A: NOTE

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

B: REMOVAL

<Ref. to SL-54, REMOVAL, Body Integrated Unit.>

C: INSTALLATION

<Ref. to SL-54, INSTALLATION, Body Integrated Unit.>

22.Impact Sensor

A: REMOVAL

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

B: INSTALLATION

- 1) Remove the key from ignition switch.
- 2) Close all the doors, trunk lid and rear gate.
- 3) Press the UNLOCK button of transmitter.
- 4) Disconnect the ground cable from battery.
- 5) Install the impact sensor.
- 6) Connect the ground cable from battery.
- 7) 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 data link connector.
- 2) Turn the ignition switch to ON.
- 3) Select {Body Integrated Unit} from the main menu.
- 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, trunk lid and rear gate. Leave open the front hood.
- 4) Press the LOCK button of transmitter from outside of vehicle.
- 5) Check that the security indicator light blinks twice within 0.5 seconds in 2 seconds cycle after 30 seconds.
- 6) Hit the windshield with your palm continuously and check the security alarm operates. Lift up the front hood approx. 12 cm (4.7 in), 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 data link connector.
- 2) Turn the ignition switch to ON.
- 3) Select {Impact Sensor} from the main menu.
- 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.

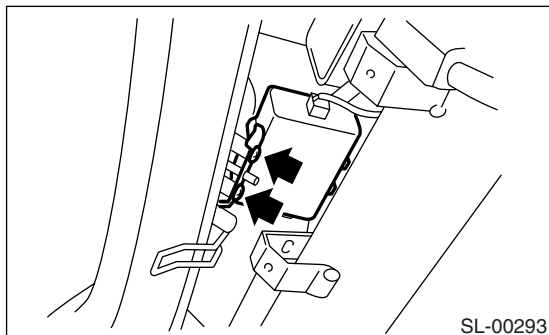
NOTE:

- 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.
- Ask the customer about parking situation for setting, because the alarm operate when the vibration not only the burglar but also the construction, etc.

23. 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 module while disconnecting the connector.



B: INSTALLATION

Install in the reverse order of removal.

24. Keyless Buzzer

A: REMOVAL

- 1) Disconnect the ground cable from battery.
- 2) Remove the front bumper. <Ref. to EI-30, REMOVAL, Front Bumper.>
- 3) Remove the keyless buzzer installed to the backside of horn bracket.

B: INSTALLATION

Install in the reverse order of removal.

C: INSPECTION

Install the keyless buzzer to another vehicle which operates keyless buzzer normally, check the buzzer sounds.

25. Body Integrated Unit

A: REMOVAL

NOTE:

- 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.>
- When replacing the body integrated unit, all immobilizer keys also must be replaced and registered again.

- 1) Disconnect the ground cable from battery.
- 2) Remove the instrument panel lower cover. <Ref. to EI-50, REMOVAL, Instrument Panel Lower Cover.>
- 3) Disconnect the connector of body integrated unit.

CAUTION:

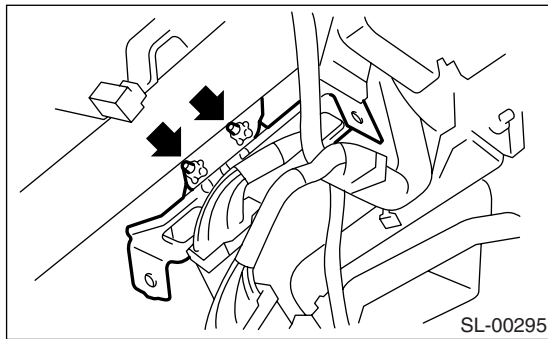
Be careful to keep water and other foreign materials away from body integrated unit.

- 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-21, 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:

- When the same body integrated unit is reinstalled in the same vehicle, it is not necessary to register the immobilizer again.
- Make sure it conforms to the current setting condition after installation. <Ref. to LAN(diag)-17, CONFIRMATION OF CURRENT SETTING, OPERATION, Subaru Select Monitor.>

26. Transmitter

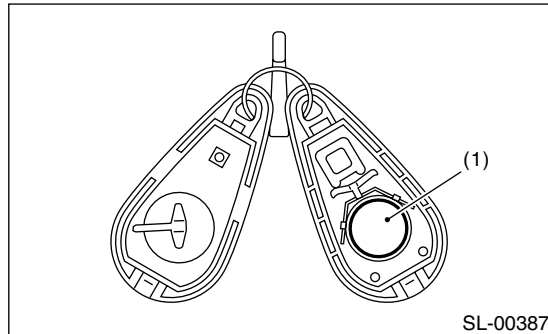
A: REMOVAL

1. TRANSMITTER BATTERY

Remove the battery (1) from 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.

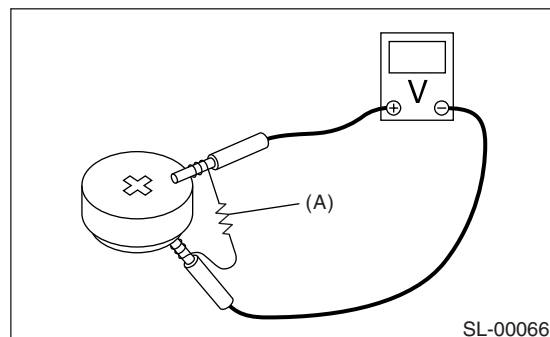
C: INSPECTION

1. TRANSMITTER BATTERY

Measure the voltage between the 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 TRANSMITTER WITH SUBARU SELECT MONITOR

NOTE:

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

- 1) Connect the Subaru Select Monitor to vehicle.
- 2) Turn the ignition switch to ON.
- 3) From the «Main menu» on the Subaru Select Monitor, select the {2. Check individual system} → {7. Integrated unit mode} → {8. Transmitter ID registration}, and press the [YES] key.
- 4) Input the 8-digit ID number from the left attached to the plastic bag of transmitter.

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.

6) Press the [YES] key if the ID number is correct. Press the [NO] key if incorrect, to return to the step 3) and try again.

7) «ID registration in process...» will be displayed and registration started.

8) «ID registration done» will be shown when the process is done.

9) To end, select the «END:NO», and press the [NO] key to return to {8. Transmitter ID registration}. If there are additional transmitters to be registered, select the «Next registration:YES», and press the [YES] key to return to the step 3).

NOTE:

- If the registration fails, «ID registration failed. Try again.» will be shown. Press the [YES] key to return to the {8. Transmitter ID registration} and retry from the step 2).
- «END: NO» is shown on the Subaru Select Monitor when four transmitters have been registered. Press the [NO] key to return to {8. Transmitter ID registration}.

27. Immobilizer Control Unit

A: NOTE

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

B: REMOVAL

<Ref. to SL-54, REMOVAL, Body Integrated Unit.>

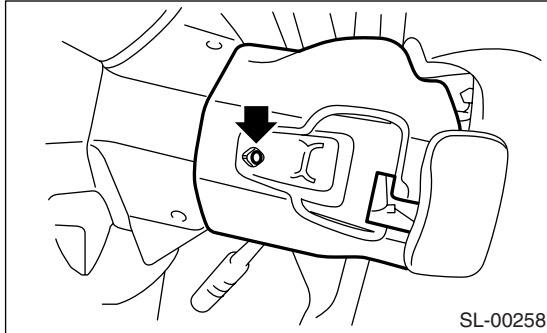
C: INSTALLATION

Install in the reverse order of removal.

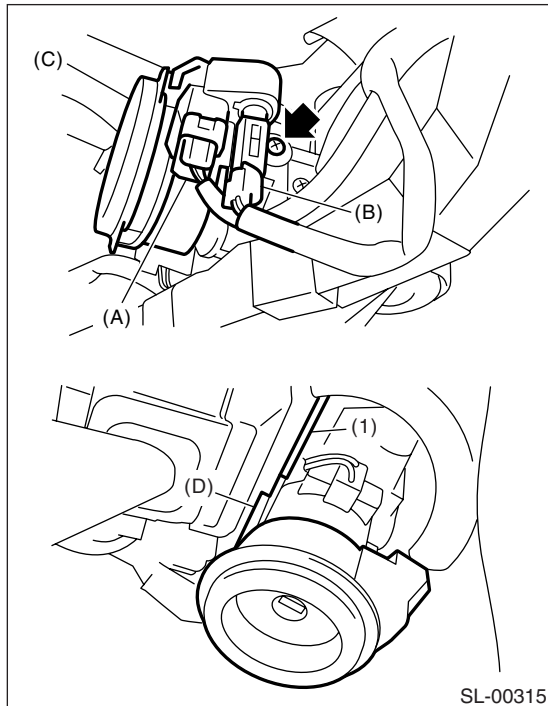
28. Immobilizer Antenna

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.

