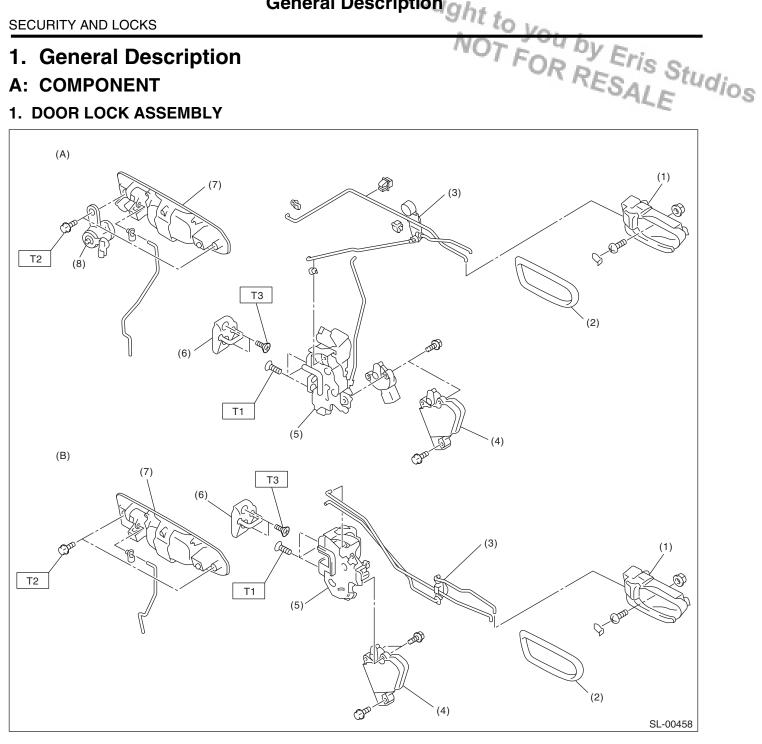


# **SECURITY AND LOCKS**

1. General Description

# A: COMPONENT

# 1. DOOR LOCK ASSEMBLY



General Description ght to ye

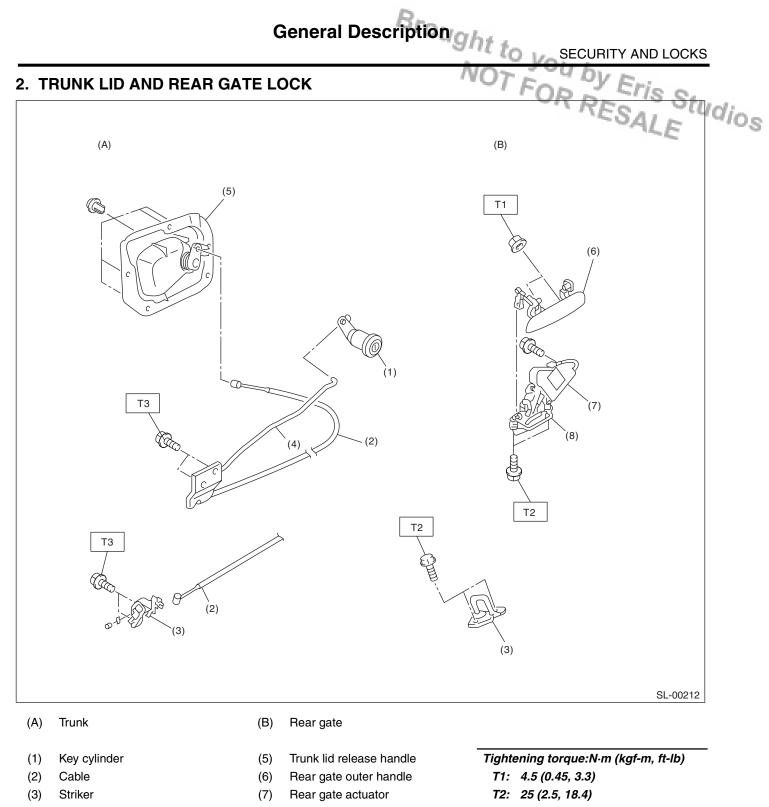
### (A) Front

(2)

### (B) Rear

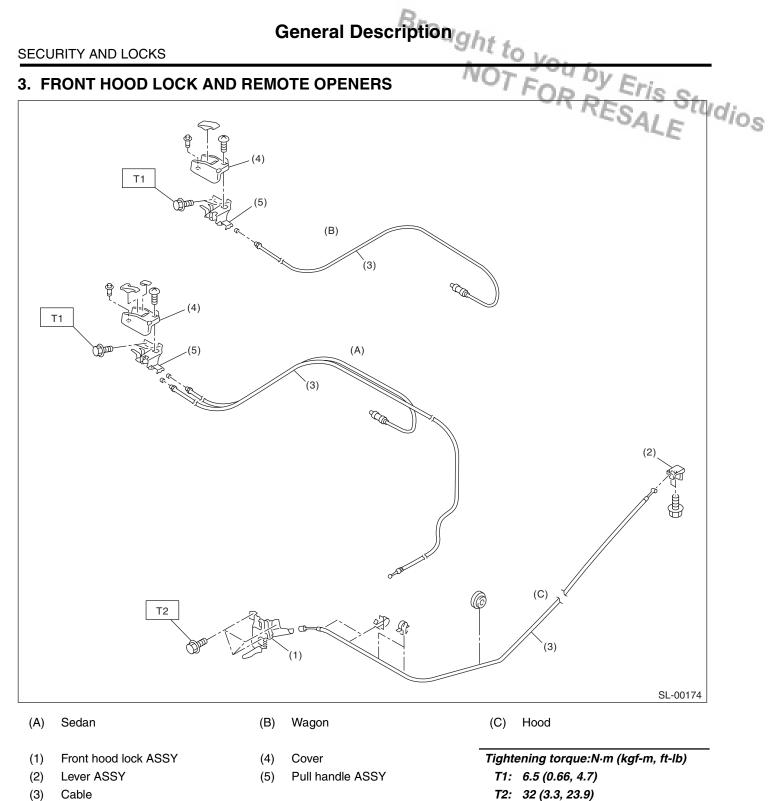
- (1) Inner remote ASSY
  - Inner remote cover
- (3) Bell crank
- (4) Door lock actuator
- (5) Door latch
- (6) Striker
- (7) Outer handle
- (8) Key cylinder

Tightening torque:N·m (kgf-m, ft-lb) T1: 6.4 (0.65, 4.7) T2: 7.4 (0.75, 5.5) T3: 17.6 (1.8, 13.0)

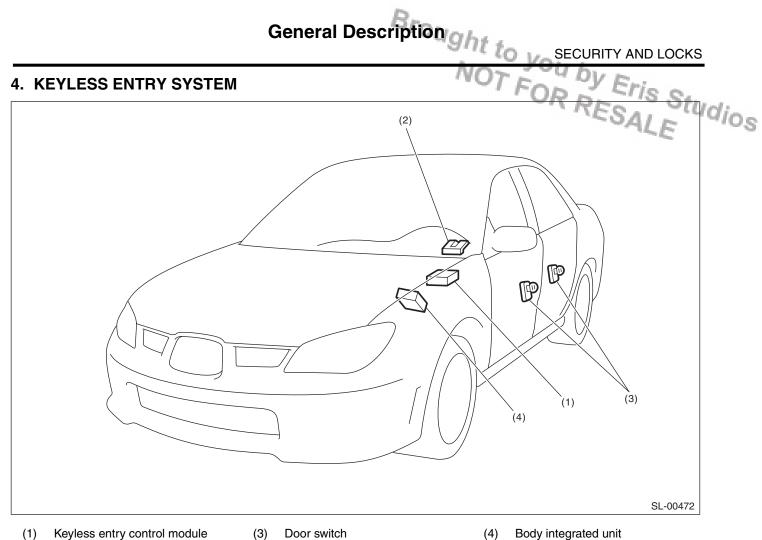


- (4) Trunk lid lock ASSY
- Rear gate latch (8)

T3: 18 (1.84, 13.3)



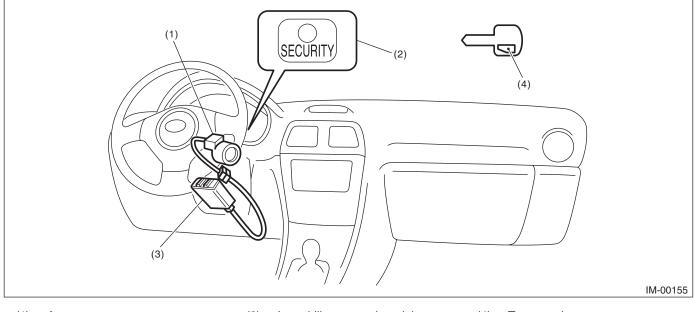
(3) Cable



- Door switch (3)
- (4)
  - Body integrated unit

Rear gate latch switch (2) (wagon model)

# 5. IMMOBILIZER SYSTEM



(1) Antenna

(2)

- Security indicator light (LED bulb)
- Immobilizer control module (3) (IMMCM)
- (4) Transponder

SL-5

# General Description ght to FOR RESALE SECURITY AND LOCKS 6. SECURITY SYSTEM (4)(3) (2) ò $\bigcirc$ P $\square$ $\bigcirc$ (5)(6) (7)(9) (1) (8) SL-00473

- (1) Horn
- (2) Security horn
- (3) Security indicator light (in combination meter)
- (4) Trunk room light switch (sedan), rear gate latch switch (wagon)

Keyless entry control module

Door switch

(5)

(6)

- (7) Security horn relay
- (8) Interrupt relay
- (9) Horn relay (in main fuse box)

# **B: CAUTION**

• Before disassembling or reassembling parts, always disconnect the battery ground cable from battery. When repairing the audio, control module, etc. which are provided with memory functions, record the memory contents before disconnecting the ground cable from battery. Otherwise, these contents are erased upon disconnection.

• Reassemble the parts in the reverse order of disassembly unless otherwise indicated.

• Adjust the parts to the specifications described in this manual if so designated.

• Connect the connectors securely during reassembly.

• After reassembly, make sure all the functional parts operate smoothly.

• The airbag system wiring harness is routed near electrical parts and switches.

• Do not use electrical test equipment on any airbag system wiring harnesses or connector circuits.

• Be careful not to damage the airbag system wiring harness when servicing the ignition key cylinder.

# **C: PREPARATION TOOL**

# 1. SPECIAL TOOL

General Description ght to security and LOCKS							
C: PREPARATION 1. SPECIAL TOOL	TOOL		NOT FOR RESALE	Idios			
ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS				
	925580000	PULLER	Used for removing trim clip				
ST-925580000							

# 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 NOT FOR RESALE

# 2. Door Lock Control System

# A: WIRING DIAGRAM

# 1. DOOR LOCK CONTROL

<Ref. to WI-168, 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. check="" fuse,<br="" sl-8,="" to="">INSPECTION, Door Lock Control System.&gt;</ref.>
	2. Check the power supply and ground circuit for body integrated unit.	<ref. check="" power<br="" sl-9,="" to="">SUPPLY AND GROUND CIRCUIT, INSPECTION, Door Lock Control System.&gt;</ref.>
	3. Check the door lock switch and the circuit.	<ref. check="" door="" lock<br="" sl-9,="" to="">SWITCH AND CIRCUIT, INSPEC- TION, Door Lock Control System.&gt;</ref.>
	4. Check the door lock actuator and the circuit.	<ref. check="" door<br="" sl-10,="" to="">LOCK ACTUATOR AND CIRCUIT, INSPECTION, Door Lock Control System.&gt;</ref.>
The door lock switch does not operate.	Check the door lock switch and circuit.	<ref. check="" door="" lock<br="" sl-9,="" to="">SWITCH AND CIRCUIT, INSPEC- TION, Door Lock Control System.&gt;</ref.>
A specific door lock actuator does not operate.	Check the door lock actuator and circuit.	<ref. check="" door<br="" sl-10,="" to="">LOCK ACTUATOR AND CIRCUIT, INSPECTION, Door Lock Control System.&gt;</ref.>

# 2. CHECK FUSE

	Step	Check	Yes	No
1	CHECK FUSE. Remove and visually check the fuses No. 2 (in the main fuse box) and No. 3 (in the fuse & relay box).	Is the fuse blown out?	Replace the fuse with a new part.	Check the power supply and ground circuit. <ref. sl-<br="" to="">9, CHECK POWER SUPPLY AND GROUND CIRCUIT, INSPECTION, Door Lock Control System.&gt;</ref.>

# Door Lock Control System

# SECURITY AND LOCKS

lo

# 3. CHECK POWER SUPPLY AND GROUND CIRCUIT

				- 10 N.L.	
	Step	Check	Yes	ES AND TH	dj
1	<ul> <li>CHECK POWER SUPPLY.</li> <li>1) Disconnect the harness connector of body integrated unit.</li> <li>2) Measure the voltage between harness connector terminal and chassis ground.</li> <li>Connector &amp; terminal (B280) No. 2 (+) — Chassis ground (-):</li> </ul>	ů,	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 con- nector terminal and chassis ground. Connector & terminal (B280) No. 4 — Chassis ground: (B280) No. 13 — Chassis ground:		The power supply and ground circuit are OK.	Repair the har- ness.	

# 4. CHECK DOOR LOCK SWITCH AND CIRCUIT

	Step	Check	Yes	No
1	<ul> <li>CHECK DOOR LOCK SWITCH CIRCUIT.</li> <li>1) Disconnect the harness connector of body integrated unit.</li> <li>2) Measure the resistance between the harness connector terminal and chassis ground when moving the door lock switch to LOCK.</li> <li>Connector &amp; terminal (B281) No. 12 — Chassis ground:</li> </ul>	Is the resistance less than 10 Ω?	Go to step 2.	Go to step 3.
2	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. <i>Connector &amp; terminal</i> (B281) No. 11 — Chassis ground:	Is the resistance less than 10 $\Omega$ ?	The door lock switch is OK.	Go to step <b>3</b> .
3	<ul> <li>CHECK DOOR LOCK SWITCH.</li> <li>1) Disconnect the door lock switch harness connector.</li> <li>2) Measure the resistance between the door lock switch terminals when moving the door lock switch to LOCK.</li> <li>Connector &amp; terminal Driver's side:     <ul> <li>(D7) No. 5 — No. 9:</li> <li>Passenger's side:     <ul> <li>(D62) No. 4 — No. 5:</li> </ul> </li> </ul></li></ul>	Is the resistance less than 10 Ω?	Go to step 4.	Replace the door lock switch.
4	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. 8: Passenger's side: (D62) No. 2 — No. 5:	Is the resistance less than 1 $\Omega?$	Check the harness for open circuits or shorts between the body integrated unit and the door lock switch.	Replace the door lock switch.

Door Lock Control System

# 5. CHECK DOOR LOCK ACTUATOR AND CIRCUIT

	Step	Check	Yes	ESANO _ "
1	CHECK OUTPUT SIGNAL. Measure the voltage between the harness con- nector terminal and chassis ground of body integrated unit when moving the door lock switch to LOCK. Connector & terminal (B280) No. 6 (+) — Chassis ground (–):	Is the voltage 10 V or more?	Go to step 2.	Replace the body integrated unit.
2	CHECK OUTPUT SIGNAL. Measure the voltage between the harness con- nector terminal and chassis ground of body integrated unit when moving the door lock switch to UNLOCK. Connector & terminal (B280) No. 7 (+) — Chassis ground (–): (B280) No. 8 (+) — Chassis ground (–):	Is the voltage 10 V or more?	Go to step 3.	Replace the body integrated unit.
3	CHECK DOOR LOCK ACTUATOR. Check the door lock actuator. Front door lock actuator: <ref. front<br="" sl-32,="" to="">Door Lock Actuator.&gt; Rear door lock actuator: <ref. rear<br="" sl-36,="" to="">Door Lock Actuator.&gt; Rear gate latch lock actuator: <ref. sl-39,<br="" to="">Rear Gate Latch Lock Actuator.&gt;</ref.></ref.></ref.>	Is the door lock actuator OK?	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**

n NOT FOR RESALE <Ref. to WI-168, WIRING DIAGRAM, Keyless Entry System.>

# **B: ELECTRICAL SPECIFICATION**

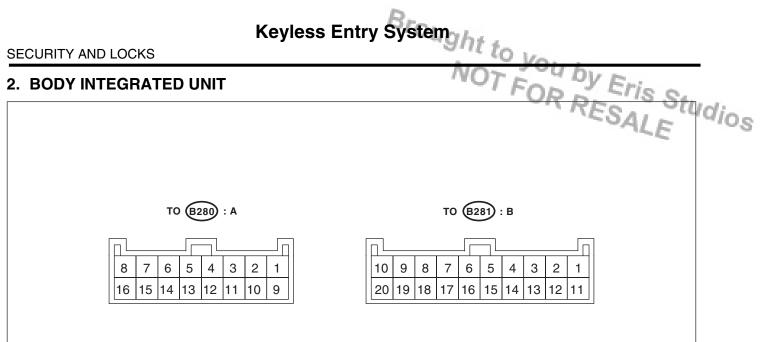
# 1. KEYLESS ENTRY CONTROL MODULE

Г													
	13	12	11	10	9	8	7	6	5	4	3	2	1
	26	25	24	23	22	21	20	19	18	17	16	15	14

SL-00478

Contents	Terminal No.	Measuring condition
Turn signal light LH	1 (OUTPUT)	Battery voltage is detected when the transmitter UNLOCK/DISARM button or the LOCK/ARM button is pressed.
Power supply (Backup)	2	Battery voltage is constantly present.
Keyless buzzer	3 (OUTPUT)	0 V is detected when the transmitter UNLOCK/DISARM button or the LOCK/ARM button is pressed.
Door unlock switch	4 (INPUT)	0 V is detected when the door lock switch is operated.
Door lock switch	5 (INPUT)	0 V is detected when the door lock switch is operated.
Door switch and rear gate latch switch	6 (INPUT)	0 V is detected when one of the doors or the rear gate is opened.
Trunk latch switch	7 (INPUT)	0 V is detected when the trunk is opened.
Key warning switch	9 (INPUT)	Battery voltage is present when the key is inserted into the ignition switch.
Ignition switch (ON)	10 (INPUT)	Battery voltage is present when the ignition switch is turned to ON.
Turn signal light RH	13 (OUTPUT)	Battery voltage is detected when the transmitter UNLOCK/DISARM button or the LOCK/ARM button is pressed.
Ground	14	0 V is constantly present.
Body integrated unit	18 (OUTPUT)	Battery voltage is detected when pressing the transmitter UNLOCK/DISARM button.
Body integrated unit	19 (OUTPUT)	Battery voltage is detected when pressing the transmitter LOCK/ARM button.
Horn relay	24 (OUTPUT)	When the transmitter LOCK/ARM button is pressed 3 times within 5 seconds, 0 V is detected.
Power supply (Backup)	26	Battery voltage is constantly present.

# 2. BODY INTEGRATED UNIT



SL-00220

Contents	Terminal No.	Measuring condition
Door switch (except for the driver's side)	B7 (INPUT)	0 V is detected when the door is opened (except for the driver's side door).
Door switch (driver's side)	B8 (INPUT)	0 V is detected when the driver's side door is opened.
Door unlock switch	B11 (INPUT)	0 V is detected when the door unlock switch is operated.
Door lock switch	B12 (INPUT)	0 V is detected when the door lock switch is operated.
Keyless entry control module	B13 (INPUT)	Battery voltage is detected when pressing the transmitter LOCK/ARM button.
Keyless entry control module	B14 (INPUT)	Battery voltage is detected when pressing the transmitter UNLOCK/DISARM button.
Ignition switch (ON)	B19 (INPUT)	Battery voltage is present when the ignition switch is turned to ON.
Key warning switch	B20 (INPUT)	Battery voltage is present when the key is inserted into the ignition switch.
Power supply	A2	Battery voltage is constantly present.
Ground	A4	0 V is constantly present.
Room light	A5 (OUTPUT)	0 V is detected when pressing the transmitter UNLOCK/DISARM button.
Door and rear gate lock actuator	A6 (OUTPUT)	Battery voltage is detected when pressing the transmitter LOCK/ARM button.
Door and rear gate lock actuator (except for the driver's side)	A7 (OUTPUT)	Battery voltage is detected when pressing the transmitter UNLOCK/DISARM button twice.
Door lock actuator (driver's side)	A8 (OUTPUT)	Battery voltage is detected when pressing the transmitter UNLOCK/DISARM button once.
Ground	A13	0 V is constantly present.

# **C: INSPECTION**

# **1. SYMPTOM CHART**

Keyless Entry System         SECURITY AND LOCKS         NOT FOR PSECURITY AND LOCKS         NOT FOR PSECURITY AND LOCKS         NOT FOR PSECURITY AND LOCKS         Symptom         Symptom         Symptom         Repair order								
C: INSPECTION	NO	T FOR BY Eric o						
I. SYMPTOM CHART		RESALE	Idic					
Symptom	Repair order	Reference	]					
None of the functions of the keyless entry system operate.	1. Check the keyless transmitter battery and func- tion.	<ref. check="" keyless<br="" sl-15,="" to="">TRANSMITTER BATTERY AND FUNCTION, INSPECTION, Keyless Entry System.&gt;</ref.>						
	2. Check the fuse.	<ref. check="" fuse,<br="" sl-16,="" to="">INSPECTION, Keyless Entry Sys- tem.&gt;</ref.>						
	3. Check the keyless entry control module power supply and ground circuit.	<ref. check="" power<br="" sl-16,="" to="">SUPPLY AND GROUND CIRCUIT, INSPECTION, Keyless Entry Sys- tem.&gt;</ref.>						
	4. Replace the keyless entry control module.	<ref. control="" entry="" keyless="" module.="" sl-55,="" to=""></ref.>						
The keyless transmitter cannot be registered.	1. Check the keyless transmitter battery and func- tion.	<ref. check="" keyless<br="" sl-15,="" to="">TRANSMITTER BATTERY AND FUNCTION, INSPECTION, Keyless Entry System.&gt;</ref.>						
	2. Check the ignition switch circuit.	<ref. check="" ignition<br="" sl-17,="" to="">SWITCH CIRCUIT, INSPECTION, Keyless Entry System.&gt;</ref.>						
	3. Check the door switch.	<ref. check="" door<br="" sl-17,="" to="">SWITCH, INSPECTION, Keyless Entry System.&gt;</ref.>						
	4. Replace the keyless entry control module.	<ref. control="" entry="" keyless="" module.="" sl-55,="" to=""></ref.>						
Door lock or unlock does not operate. NOTE: If the door lock control system does not operate when using the door lock	1. Check the keyless transmitter battery and func- tion.	<ref. check="" keyless<br="" sl-15,="" to="">TRANSMITTER BATTERY AND FUNCTION, INSPECTION, Keyless Entry System.&gt;</ref.>						
switch, check the door lock control system. <ref. inspection,<br="" sl-8,="" to="">Door Lock Control System.&gt;</ref.>	2. Check the key warning switch.	<ref. check="" key="" sl-18,="" to="" warn-<br="">ING SWITCH, INSPECTION, Keyless Entry System.&gt;</ref.>						
	3. Check the door switch.	<ref. check="" door<br="" sl-17,="" to="">SWITCH, INSPECTION, Keyless Entry System.&gt;</ref.>						
	4. Check the output signal to the body integrated unit.	<ref. check="" output<br="" sl-19,="" to="">SIGNAL TO BODY INTEGRATED UNIT, INSPECTION, Keyless Entry System.&gt;</ref.>						
	5. Replace the keyless entry control module.	<ref. control<br="" entry="" keyless="" sl-55,="" to="">Module.&gt;</ref.>						
The panic alarm does not operate.	1. Check the keyless transmitter battery and func- tion.	<ref. check="" keyless<br="" sl-15,="" to="">TRANSMITTER BATTERY AND FUNCTION, INSPECTION, Keyless Entry System.&gt;</ref.>						
	2. Check the horn operation.	<ref. check="" horn<br="" sl-19,="" to="">OPERATION, INSPECTION, Keyless Entry System.&gt;</ref.>						
	3. Replace the keyless entry control module.	<ref. control="" entry="" keyless="" module.="" sl-55,="" to=""></ref.>						

# SECURITY AND LOCKS

# Keyless Entry Systemght to ye

		Trouble	1	
Symptom	Repair or	der	Reference Concerne	
Buzzer and hazard light do not oper- ate.	1. Check the buzzer function	n.	<ref. buzzer<br="" check="" sl-16,="" to="">SOUND SETTING, INSPECTION, Keyless Entry System.&gt;</ref.>	dios
	2. Check the buzzer and hazard light operation.	Buzzer	<ref. check="" keyless<br="" sl-20,="" to="">BUZZER, INSPECTION, Keyless Entry System.&gt;</ref.>	
		Hazard light	<ref. check="" hazard<br="" sl-20,="" to="">LIGHT OPERATION, INSPECTION, Keyless Entry System.&gt;</ref.>	
	3. Replace the keyless entry	y control module.	<ref. control="" entry="" keyless="" module.="" sl-55,="" to=""></ref.>	
Room light does not operate.	1. Check the room light ope	ration.	<ref. check="" room<br="" sl-19,="" to="">LIGHT OPERATION, INSPECTION, Keyless Entry System.&gt;</ref.>	
	2. Replace the keyless entry	y control module.	<ref. control="" entry="" keyless="" module.="" sl-55,="" to=""></ref.>	
The door warning does not operate.	1. Check the door switch.		<ref. check="" door<br="" sl-17,="" to="">SWITCH, INSPECTION, Keyless Entry System.&gt;</ref.>	
	2. Check the buzzer operati	on.	<ref. check="" keyless<br="" sl-20,="" to="">BUZZER, INSPECTION, Keyless Entry System.&gt;</ref.>	
	3. Replace the keyless entry	y control module.	<ref. control<br="" entry="" keyless="" sl-55,="" to="">Module.&gt;</ref.>	

# Keyless Entry Systemght to

# SECURITY AND LOCKS

# 2. CHECK KEYLESS TRANSMITTER BATTERY AND FUNCTION

	Step	Check	Yes	ESANO	ldi-
1	CHECK KEYLESS TRANSMITTER BAT- TERY. 1) Remove the battery from the transmitter. <ref. removal,="" sl-57,="" to="" transmitter.=""> 2) Check the battery voltage. <ref. sl-57,<br="" to="">INSPECTION, Transmitter.&gt;</ref.></ref.>	Is the voltage 2.5 V or more?	Go to step 2.	Replace the trans- mitter battery. <ref. sl-57,<br="" to="">Transmitter.&gt;</ref.>	<sup>Id</sup> ios
2	<ul> <li>CHECK KEYLESS TRANSMITTER.</li> <li>Register the keyless transmitter which operates normally on other vehicles to the inspection target vehicle. <ref. li="" registration<="" sl-57,="" to=""> <li>OF KEYLESS TRANSMITTER WITH SUBARU</li> <li>SELECT MONITOR, REPLACEMENT, Transmitter.&gt;</li> <li>1) Close all the doors and rear gate of inspection target vehicle.</li> <li>2) Using the keyless transmitter, lock and unlock the doors and rear gate of vehicle.</li> </ref.></li></ul>	Is the inspection target vehicle operates lock and unlock nor- mally?	Go to step <b>3</b> .	Due to vehicle mal- function, continue the keyless entry system diagnosis.	
3	CHECK KEYLESS TRANSMITTER. Register the keyless transmitter of inspection target vehicle to the another vehicle which the keyless system operates normally. <ref. sl-<br="" to="">57, REGISTRATION OF KEYLESS TRANS- MITTER WITH SUBARU SELECT MONITOR, REPLACEMENT, Transmitter.&gt;</ref.>	Is the keyless transmitter regis- tered correctly?	Go to step 4.	Replace the key- less transmitter. <ref. sl-57,<br="" to="">REGISTRATION OF KEYLESS TRANSMITTER WITH SUBARU SELECT MONI- TOR, REPLACE- MENT, Transmitter.&gt;</ref.>	
4	<ul> <li>CHECK KEYLESS TRANSMITTER.</li> <li>Check the registered keyless transmitter.</li> <li>1) Close all the doors and rear gate of the vehicle which operates keyless system normally.</li> <li>2) Using the keyless transmitter, lock and unlock the doors and rear gate of vehicle.</li> </ul>	Does the vehicle operates lock and unlock normally?	The transmitter is OK.	Replace the key- less transmitter. <ref. sl-57,<br="" to="">REGISTRATION OF KEYLESS TRANSMITTER WITH SUBARU SELECT MONI- TOR, REPLACE- MENT, Transmitter.&gt;</ref.>	

### CAUTION:

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

# 3. CHECK BUZZER SOUND SETTING

SE	SECURITY AND LOCKS						
3.	CHECK BUZZER SOUND SETTING	7	OTFORD	Eris St.			
	Step	Check	Yes	ES No	dina		
1	<ul> <li>CHECK BUZZER SOUND SETTING.</li> <li>1) Check the current setting for the buzzer.</li> <li>2) Remove the key from ignition switch.</li> <li>3) Close all the doors and the rear gate.</li> <li>4) Press the LOCK/ARM or UNLOCK/DIS-ARM button.</li> </ul>	Does the buzzer sound?	The buzzer func- tion is normal.	Go to step 2.	.03		
2	<ul> <li>CHECK BUZZER SOUND SETTING.</li> <li>1) Open the driver's side door and pull the key out from the ignition switch.</li> <li>2) With the vehicle side manual UNLOCK switch ON, insert the key in the ignition switch.</li> <li>3) Within 10 seconds from 2), repeatedly pull out and insert the key 5 times.</li> <li>4) Open and close the door within 5 seconds from the fifth time in 3).</li> <li>5) The answer back buzzer setting is switched (ON ←→ OFF) and the hazard light flashes 3 times.</li> <li>NOTE:</li> <li>If the door is not opened and closed within 10 seconds, the hazard light will flash once. In this case, start over from the beginning.</li> <li>6) Press the LOCK/ARM or UNLOCK/DIS-ARM button.</li> </ul>		The buzzer func- tion is normal.	Check the function of the transmitter. <ref. sl-15,<br="" to="">CHECK KEY- LESS TRANSMIT- TER BATTERY AND FUNCTION, INSPECTION, Keyless Entry Sys- tem.&gt;</ref.>			

# 4. CHECK FUSE

	Step	Check	Yes	No
1	CHECK FUSE. Remove and visually check the fuses No. 6 (in the main fuse box) and No. 3 (in the fuse & relay box).	Is the fuse blown out?	Replace the fuse with a new part.	Check the power supply and ground circuit. <ref. sl-<br="" to="">16, CHECK POWER SUPPLY AND GROUND CIRCUIT, INSPECTION, Keyless Entry Sys- tem.&gt;</ref.>

# 5. CHECK POWER SUPPLY AND GROUND CIRCUIT

	Step	Check	Yes	No
1	<ul> <li>CHECK POWER SUPPLY.</li> <li>1) Disconnect the keyless entry control module harness connector.</li> <li>2) Measure the voltage between harness connector terminal and chassis ground.</li> <li>Connector &amp; terminal <ul> <li>(B176) No. 2 (+) — Chassis ground (-):</li> <li>(B176) No. 26 (+) — Chassis ground (-):</li> </ul> </li> </ul>	Is the voltage 10 V or more?	Go to step 2.	Check the harness for open circuits and shorts between the key- less entry control module and fuse.
2	CHECK GROUND CIRCUIT. Measure the resistance between harness con- nector terminal and chassis ground. Connector & terminal (B176) No. 14 — Chassis ground:	Is the resistance less than 10 $\Omega$ ?		Repair the har- ness.

# Keyless Entry Systemght to y

# SECURITY AND LOCKS

# 6. CHECK IGNITION SWITCH CIRCUIT

6.	CHECK IGNITION SWITCH CIRCUIT		FORD	Eris St.	5702m
	Step	Check	Yes	SANO _	dios
1	<ul> <li>CHECK IGNITION SWITCH CIRCUIT.</li> <li>1) Disconnect the harness connector of the keyless entry control module.</li> <li>2) Turn the ignition switch to ON.</li> <li>3) Measure the voltage between harness connector terminal and chassis ground.</li> <li>Connector &amp; terminal (B176) No. 10 (+) — Chassis ground (-):</li> </ul>	Is the voltage 10 V or more?		Check the harness for open circuits or shorts between the keyless entry con- trol module and the ignition relay.	

# 7. CHECK DOOR SWITCH

	Step	Check	Yes	No
1	CHECK DOOR SWITCH CIRCUIT. Measure the voltage between the keyless entry control module harness connector terminal and the body ground. NOTE: If there is electrical noise, it may not be at 0 V. Connector & terminal Front, rear door and rear gate (wagon model): (B176) No. 6 (+) — Chassis ground (–): Trunk lid (sedan model): (B176) No. 7 (+) — Chassis ground (–):	Is the voltage 0 V when any door or rear gate is opened?	Go to step 2.	Go to step 3.
2	CHECK DOOR SWITCH CIRCUIT. Measure the voltage between the keyless entry control module harness connector terminal and the body ground. <i>Connector &amp; terminal</i> <i>Front, rear door and rear gate (wagon</i> <i>model):</i> <i>(B176) No. 6 (+) — Chassis ground (–):</i> <i>Trunk lid (sedan model):</i> <i>(B176) No. 7 (+) — Chassis ground (–):</i>	Is the voltage 10 V or more when any door or rear gate is closed?	The door switch is OK.	Go to step 3.
3	<ul> <li>CHECK DOOR SWITCH.</li> <li>1) Disconnect the door switch harness connector.</li> <li>2) Measure the resistance between door switch terminals.</li> <li>Terminals</li> <li>Door switch No. 1 — No. 3: Rear gate latch switch (wagon model) No. 1 — No. 2: Trunk room light switch (sedan model) No. 1 — No. 2:</li> </ul>	Is the resistance 1 $M\Omega$ or more when door switch is pushed?	Go to step 4.	Replace the door switch.
4	CHECK DOOR SWITCH. Measure the resistance between door switch terminals. <i>Terminals</i> Door switch No. 1 — No. 3: Rear gate latch switch (wagon model) No. 1 — No. 2: Trunk room light switch (sedan model) No. 1 — No. 2:	Is the resistance less than 1 $\Omega$ when door switch is released?	Check the harness for open circuits and shorts between the key- less entry control module and door switch.	Replace the door switch.

# 8. CHECK KEY WARNING SWITCH

	JRITY AND LOCKS	No	Your	
8. C	HECK KEY WARNING SWITCH	s Entry System NO Check Is the fuse blown out?	TFORD	Eris St
	Step	Check	Yes	ESANO _
1	<b>CHECK FUSE.</b> Remove and visually check the fuse No. 6 (in the main fuse box).	Is the fuse blown out?	Replace the fuse with a new part.	Go to step 2.
2	<ul> <li>CHECK KEY WARNING SWITCH CIRCUIT.</li> <li>1) Disconnect the keyless entry control module harness connector.</li> <li>2) Insert the key into ignition switch. (LOCK position)</li> <li>3) Measure the voltage between harness connector terminal and chassis ground.</li> <li>Connector &amp; terminal (B176) No. 9 (+) — Chassis ground (-):</li> </ul>	Is the voltage 10 V or more?	Go to step 3.	Go to step <b>4</b> .
3	<ul> <li>CHECK KEY WARNING SWITCH CIRCUIT.</li> <li>1) Remove the key from ignition switch.</li> <li>2) Measure the voltage between harness connector terminal and chassis ground.</li> <li>NOTE:</li> <li>If there is electrical noise, it may not be at 0 V.</li> <li>Connector &amp; terminal</li> <li>(B176) No. 9 (+) — Chassis ground (-):</li> </ul>	Is the voltage 0 V?	The key warning switch is OK.	Go to step 4.
4	<ul> <li>CHECK KEY WARNING SWITCH.</li> <li>1) Disconnect the key warning switch harness connector.</li> <li>2) Insert the key into ignition switch. (LOCK position)</li> <li>3) Measure the resistance between key warning switch terminals.</li> <li>Terminals</li> <li>No. 1 - No. 2:</li> </ul>	Is the resistance less than 1 $\Omega$ ?	Go to step 5.	Replace the key warning switch.
5	<ul> <li>CHECK KEY WARNING SWITCH.</li> <li>1) Remove the key from ignition switch.</li> <li>2) Measure the resistance between key warning switch terminals.</li> <li><i>Terminals</i></li> <li><i>No. 1 — No. 2:</i></li> </ul>	Is the resistance 1 MΩ or more?	Check the follow- ing: • Harness for open circuits and shorts between the key warning switch and fuse • Harness for open circuits and shorts between the keyless entry con- trol module and the key warning switch.	

# Keyless Entry Systemght to

# SECURITY AND LOCKS

# 9. CHECK ROOM LIGHT OPERATION

9.	CHECK ROOM LIGHT OPERATION		FORD	Eris St.	
	Step	Check	Yes	ES ANO	Idion
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?		Check the room light circuit.	
2	<ul> <li>CHECK HARNESS BETWEEN ROOM LIGHT AND BODY INTEGRATED UNIT.</li> <li>1) Disconnect the body integrated unit harness connector and room light harness connector.</li> <li>2) Measure the resistance between the body integrated unit harness connector terminal and room light harness connector terminal.</li> <li>Connector &amp; terminal (B280) No. 5 — (R52) No. 2:</li> </ul>		operation circuit is OK.	Check the harness for open or short between body inte- grated unit and room light.	

# **10.CHECK OUTPUT SIGNAL TO BODY INTEGRATED UNIT**

	Step	Check	Yes	No
1	CHECK OUTPUT SIGNAL. Measure the voltage between the keyless entry control module harness connector terminal and the chassis ground when the UNLOCK/DIS- ARM button of the transmitter is pressed. Connector & terminal (B176) No. 18 (+) — Chassis ground (-):	Is the voltage 10 V or more?	Go to step <b>2</b> .	Replace the key- less entry control module.
2	CHECK OUTPUT SIGNAL. Measure the voltage between the keyless entry control module harness connector terminal and the chassis ground when the LOCK/ARM but- ton of the transmitter is pressed. Connector & terminal (B176) No. 19 (+) — Chassis ground (-):	Is the voltage 10 V or more?	Go to step <b>3</b> .	Replace the key- less entry control module.
3	<ul> <li>CHECK HARNESS BETWEEN KEYLESS ENTRY CONTROL MODULE AND BODY INTE-GRATED UNIT.</li> <li>1) Disconnect the keyless entry control module harness connector and body integrated unit harness connector.</li> <li>2) Measure the resistance between the keyless entry control module harness connector and body integrated unit harness connector and body integrated unit harness connector terminals.</li> <li>Connector &amp; terminal <ul> <li>(B176) No. 18 — (B281) No. 14:</li> <li>(B176) No. 19 — (B281) No. 13:</li> </ul> </li> </ul>	Is the resistance less than 10 Ω?	Replace the body integrated unit.	Check the harness for open or short circuits between the keyless entry control module and body integrated unit.

# **11.CHECK HORN OPERATION**

	Step	Check	Yes	No
1	CHECK HORN OPERATION. Make sure that the horn sounds when the horn switch is pushed.	Does the horn sound?	Go to step 2.	Check the horn cir- cuit.
2	<ul> <li>CHECK HORN OPERATION.</li> <li>1) Disconnect the harness connector of the keyless entry control module.</li> <li>2) Connect the harness connector terminal to ground using a suitable lead wire.</li> <li>Connector &amp; terminal</li> <li>(B176) No. 24 — Chassis ground:</li> </ul>	Does the horn sound?	Replace the key- less entry control module.	Check the harness for open circuits or shorts between the keyless entry con- trol module and the horn relay.

# **12.CHECK HAZARD LIGHT OPERATION**

SECU	SECURITY AND LOCKS					
12.C	HECK HAZARD LIGHT OPERATION	140	TFORD	Eris St.		
	Step	Check	Yes	ES No	Idion	
1	CHECK HAZARD LIGHT OPERATION. Make sure that the hazard light blinks when hazard switch is turned ON.	Does the hazard light blink?		Check the hazard light circuit.	.05	
2	<ul> <li>CHECK OUTPUT SIGNAL.</li> <li>1) Remove the key from ignition switch.</li> <li>2) Close all the doors and the rear gate.</li> <li>3) Measure the voltage between the keyless entry control module harness connector termi- nal and the chassis ground when the LOCK/ ARM button of the transmitter is pressed.</li> <li>Connector &amp; terminal (B176) No. 1 (+) — Chassis ground (-): (B176) No. 13 (+) — Chassis ground (-):</li> </ul>	Is the voltage 10 V or more?	Check the harness for open circuits or shorts between the keyless entry con- trol module and the turn signal lights.	less entry control module.		

# **13.CHECK KEYLESS BUZZER**

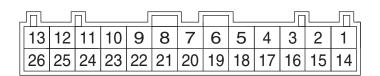
	Step	Check	Yes	No
1	CHECK FUSE. Remove and check fuse No. 2 (in the main fuse box).	Is the fuse blown out?	Replace the fuse with a new part.	Go to step <b>2</b> .
2	<ul> <li>CHECK POWER SUPPLY TO THE KEYLESS BUZZER.</li> <li>1) Disconnect the connector from the keyless buzzer.</li> <li>2) Measure the voltage between the keyless buzzer harness connector and the chassis ground.</li> <li>Connector &amp; terminal (F102) No. 2 (+) — Chassis ground (-):</li> </ul>	Is the voltage 10 V or more?	Go to step 3.	Check for open or short circuit in the harness between the fuse and key- less buzzer.
3	<ul> <li>CHECK HARNESS BETWEEN KEYLESS BUZZER AND KEYLESS ENTRY CONTROL MODULE.</li> <li>1) Disconnect the connector from the keyless entry control module.</li> <li>2) Measure the resistance in the harness between the keyless buzzer and keyless entry control module.</li> <li>Connector &amp; terminal (F102) No. 1 — (B176) No. 3:</li> </ul>	Is the resistance less than 10 Ω?	Go to step 4.	Repair the harness between the key- less buzzer and keyless entry con- trol module.
4	CHECK KEYLESS BUZZER. Connect the battery positive (+) lead to terminal No. 2 of the keyless buzzer connector, and the negative (–) lead to terminal No. 1, and check whether or not the buzzer will sound.	Does the buzzer sound?	Replace the key- less entry control module.	Replace the key- less buzzer.

# 4. Security System

# **A: WIRING DIAGRAM**

Security System ught to verify and Locks NOT FOR RESALE <Ref. to WI-171, WIRING DIAGRAM, Security System.>

# **B: ELECTRICAL SPECIFICATION**



SL-00478

Contents	Terminal No.	Measuring condition
Power supply (Backup)	2	Battery voltage is constantly present.
Door switch & rear gate latch switch (wagon model)	6 (INPUT)	Less than 1 V is detected when one of the doors or the rear gate is opened.
Trunk room light switch (sedan model)	7 (INPUT)	Less than 1 V is detected when the trunk lid is opened.
Impact sensor	8	_
Ignition switch (ON)	10 (INPUT)	Battery voltage is present when the ignition switch is turned to ON.
Security horn relay	11 (INPUT)	Battery voltage is detected when the alarm operation is activated.
Interrupt relay	12 (OUTPUT)	Battery voltage is detected when the alarm is activated.
Ground	14	Less than 10 $\Omega$ is continually detected.
Impact sensor	15	_
Security indicator light	15 (OUTPUT)	Less than 1 V is detected when the alarm is activated.
Impact sensor	17	_

# **C: INSPECTION**

# **1. BASIC DIAGNOSTIC PROCEDURE**

NOTE:

- Turbo models are equipped with an immobilizer.
- Security System ugnt to you by Eris Studios • Non-turbo models are not equipped with immobilizers.

	Step	Check	Yes	No
1	SECURITY SYSTEM SETTINGS. Turn the security system setting to ON. <ref. to<br="">SL-24, SYMPTOM CHART, INSPECTION, Security System.&gt;</ref.>	Is the setting process completed correctly?	Go to step 2.	<ul> <li>Check the ignition switch circuit.</li> <li>Ref. to SL-28,</li> <li>CHECK IGNITION</li> <li>SWITCH CIRCUIT,</li> <li>INSPECTION,</li> <li>Security System.&gt;</li> <li>Check the door</li> <li>lock switch circuit.</li> <li>Ref. to SL-9,</li> <li>CHECK DOOR</li> <li>LOCK SWITCH</li> <li>AND CIRCUIT,</li> <li>INSPECTION,</li> <li>Door Lock Control</li> <li>System.&gt;</li> </ul>
2	<ul> <li>CHECK SECURITY SYSTEM SETTING OPERATION.</li> <li>1) Before starting this check, open all doors.</li> <li>2) Pull out the key from the ignition key cylinder, and close all doors and the rear gate.</li> <li>3) Press the LOCK/ARM button of the transmitter.</li> </ul>	Can the security system be set?	Go to step <b>3</b> .	Go to symptom 1. <ref. sl-24,<br="" to="">SYMPTOM CHART, INSPEC- TION, Security System.&gt;</ref.>
3	CHECK SECURITY INDICATOR AND HAZ- ARD LIGHT FLASHING CONDITION. Check the security indicator and hazard light flashing condition. NOTE: Models with the immobilizer will flash twice, and those without will flash once.	Does the security indicator and hazard light flash?	Go to step <b>4</b> .	Go to symptom 2. <ref. sl-24,<br="" to="">SYMPTOM CHART, INSPEC- TION, Security System.&gt;</ref.>
4	<b>CHECK SECURITY SYSTEM OPERATION.</b> Press the LOCK button of keyless transmitter, and wait for 30 seconds.	Does the security indicator light flash twice within 0.5 seconds in two second intervals?	Go to step 5.	Replace the key- less control mod- ule.
5	<ul> <li>CHECK SECURITY ALARM OPERATION.</li> <li>1) Unlock all doors using the door lock switch on the front door.</li> <li>2) Open any door or rear gate.</li> </ul>	Does the security alarm oper- ate when opening any door or rear gate?	Go to step <b>6</b> .	Go to symptom 3. <ref. sl-24,<br="" to="">SYMPTOM CHART, INSPEC- TION, Security System.&gt;</ref.>
6	CHECK SECURITY ALARM OPERATION. Check the security alarm operation.	Do all security alarms (horn, hazard light and security indica- tor light) operate, and the starter motor stop operation?	Go to step 7.	Go to symptom 4. <ref. sl-24,<br="" to="">SYMPTOM CHART, INSPEC- TION, Security System.&gt;</ref.>
7	ATION.	Do all security alarms (horn and hazard light) stop opera- tion, and does the starter motor operate?	Go to step 8.	Go to symptom 5. <ref. sl-24,<br="" to="">SYMPTOM CHART, INSPEC- TION, Security System.&gt;</ref.>

Security System ught to ve

SECURITY AND LOCKS

		NC	12 - 40	1	
	Step	Check	Yes	STNO C.	
8	CHECK BATTERY OPEN CIRCUIT PROTEC- TION FEATURE. Check that the system functions properly even if the battery is not connected temporally. <ref. to SL-23, CHECK BATTERY OPEN CIRCUIT PROTECTION FEATURE, INSPECTION, Security System.&gt;</ref. 	Does the system function prop- erly when the battery is not con- nected temporarily?		Replace the key- less control mod- ule.	dio.
9	CHECK IMPACT SENSOR. Check the sensitivity of impact sensor. <ref. to<br="">SL-53, CHECK IMPACT SENSOR, ADJUST- MENT, Impact Sensor.&gt;</ref.>		Press the UNLOCK/DIS- ARM button of the transmitter, and finish the diagno- sis.	Adjust the sensibil- ity. <ref. sl-53,<br="" to="">IMPACT SENSI- TIVITY ADJUST- MENT, ADJUSTMENT, Impact Sensor.&gt;</ref.>	

# 2. CHECK BATTERY OPEN CIRCUIT PROTECTION FEATURE

- 1) Remove the key from ignition switch.
- 2) Open the front hood.
- 3) Close all the doors and the rear gate.
- 4) Press the LOCK/ARM button of the transmitter.
- 5) Disconnect the ground cable from the battery.
- 6) Connect the ground cable to the battery.

7) After connecting the battery negative terminal, check whether or not the security indicator light flashes.

If it does not flash, replace the keyless entry control module.

### 3. SECURITY SYSTEM ON/OFF SETTING

1) Close all doors, trunk lid and rear gate, and sit down on the driver seat. Press the UNLOCK button of the keyless transmitter.

2) Turn the ignition switch to ON.

3) At the same time as pushing the UNLOCK side of the central door lock switch, open the driver's side door, and maintain this condition for 10 seconds.

4) The security system setting is switched (ON  $\leftarrow \rightarrow$  OFF) and the horn sounds.

Setting	Notice
$OFF \to ON$	The horn sounds once.
$ON \rightarrow OFF$	The horn sounds twice.

### NOTE:

For information on setting ON/OFF of the security system through the Subaru Select Monitor, refer to the following:<Ref. to SL-49, PROCEDURE, Security Control Unit.>

# 4. SYMPTOM CHART

. SY	MPTOM CHART		/VO	TFOP Dy Eris e
	Symptom		Repair order	Reference
I Th	ne security system cannot be so	et.	1. Check the transmitter func- tion.	Reference <ref. check="" keyless<br="" sl-15,="" to="">TRANSMITTER BATTERY AND FUNCTION, INSPECTION, Keyless Entry System.&gt;</ref.>
			2. Check the fuse.	<ref. check="" fuse,<br="" sl-25,="" to="">INSPECTION, Security System.&gt;</ref.>
			3. Check the keyless entry con- trol module power supply and ground circuit.	<ref. check="" power<br="" sl-25,="" to="">SUPPLY AND GROUND CIRCUIT, INSPECTION, Security System.&gt;</ref.>
			4. Check the door switch.	<ref. check="" door<br="" sl-26,="" to="">SWITCH, INSPECTION, Security System.&gt;</ref.>
			5. Replace the keyless entry control module.	<ref. control="" security="" sl-49,="" to="" unit.=""></ref.>
bu	ne security system can be set ut the security indicator or azard light does not flash.	Security indicator light	Check the security indicator light circuit.	<ref. check="" security<br="" sl-27,="" to="">INDICATOR LIGHT CIRCUIT, INSPECTION, Security System.&gt;</ref.>
		Hazard light	Check the hazard light opera- tion.	<ref. check="" hazard<br="" sl-28,="" to="">LIGHT OPERATION, INSPEC- TION, Security System.&gt;</ref.>
ор	hen one of the doors, trunk lid bened, the security system alar bund.		Check the door switch.	<ref. check="" door<br="" sl-26,="" to="">SWITCH, INSPECTION, Security System.&gt;</ref.>
	ne security alarm does not berate.	All functions	Check the door switch.	<ref. check="" door<br="" sl-26,="" to="">SWITCH, INSPECTION, Security System.&gt;</ref.>
		Security indicator light	Check the security indicator light circuit.	<ref. check="" security<br="" sl-27,="" to="">INDICATOR LIGHT CIRCUIT, INSPECTION, Security System.&gt;</ref.>
		Security horn	Check the security horn.	<ref. check="" security<br="" sl-27,="" to="">HORN, INSPECTION, Security Sys- tem.&gt;</ref.>
		Hazard light	Check the hazard light opera- tion.	<ref. check="" hazard<br="" sl-28,="" to="">LIGHT OPERATION, INSPEC- TION, Security System.&gt;</ref.>
		Starter motor does not operate.	Check the interrupt relay circuit.	<ref. check="" inter-<br="" sl-28,="" to="">RUPT RELAY CIRCUIT, INSPEC- TION, Security System.&gt;</ref.>
	ne security system cannot be ancelled.	Transmitter	Check the function of the trans- mitter.	<ref. check="" keyless<br="" sl-15,="" to="">TRANSMITTER BATTERY AND FUNCTION, INSPECTION, Keyless Entry System.&gt;</ref.>
		Ignition switch	Check the ignition switch circuit.	<ref. check="" ignition<br="" sl-28,="" to="">SWITCH CIRCUIT, INSPECTION, Security System.&gt;</ref.>

### CHECK FUSE 5

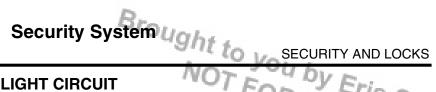
	Security System ught to vesecurity and Locks						
5.	CHECK FUSE NOT FOR DY Eris Store						
	Step Check Yes SANO 9000						
1	CHECK FUSE. Remove and visually check the fuse No. 2 (in the main fuse box).	Is the fuse blown out?	Replace the fuse with a new part.	Check the power supply and ground circuit. <ref. sl-<br="" to="">25, CHECK POWER SUPPLY AND GROUND CIRCUIT, INSPECTION, Security System.&gt;</ref.>	6		

# 6. CHECK POWER SUPPLY AND GROUND CIRCUIT

	Step	Check	Yes	No
1	<ul> <li>CHECK POWER SUPPLY.</li> <li>1) Disconnect the harness connector of the keyless entry control module.</li> <li>2) Measure the voltage between harness connector terminal and chassis ground.</li> <li>Connector &amp; terminal (B176) No. 2 (+) — Chassis ground (-):</li> </ul>	Is the voltage 10 V or more?		Check the harness for open circuits or shorts between the keyless entry con- trol module and fuse.
2	CHECK GROUND CIRCUIT. Measure the resistance between harness con- nector terminal and chassis ground. Connector & terminal (B176) No. 14 — Chassis ground:	Is the resistance less than 10 $\Omega$ ?		Repair the har- ness.

# 7. CHECK DOOR SWITCH

SE	Secu ECURITY AND LOCKS	urity System ught NO Check Is the voltage 0 V?	to vo		
7.	CHECK DOOR SWITCH	NO	TFORD	V Eris St	
	Step	Check	Yes	ESANO	Idion
1	opened, measure the voltage between the key- less entry control module harness connector terminal and chassis ground. NOTE: If there is electrical noise, it may not be at 0 V. <i>Connector &amp; terminal</i> <i>Front, rear door and rear gate (wagon model):</i> <i>(B176) No. 6 (+) — Chassis ground (–):</i> <i>Trunk lid (sedan model):</i> <i>(B176) No. 7 (+) — Chassis ground (–):</i>		Go to step 2.	Go to step 3.	
2		Is the voltage 10 V or more?	The door switch is OK.	Go to step 3.	
3		Is the resistance 1 MΩ or more when door switch is pushed?	Go to step 4.	Replace the door switch.	
4		when door switch is released?	Check the harness for open circuits or shorts between the keyless entry con- trol module and the door switch.	switch.	



# 8. CHECK SECURITY INDICATOR LIGHT CIRCUIT

UR DE 18 St.					
	Step	Check	Yes	ES ANO _	Idic
1	<ul> <li>CHECK SECURITY INDICATOR LIGHT.</li> <li>1) Disconnect the harness connector of the keyless entry control module.</li> <li>2) Connect the harness connector terminal to ground using a suitable lead wire.</li> <li>Connector &amp; terminal</li> <li>(B176) No. 15 — Chassis ground:</li> </ul>	Does the security indicator light illuminate?	Replace the key- less entry control module.	Go to step 2.	
2	<ul> <li>CHECK POWER SUPPLY FOR SECURITY INDICATOR LIGHT.</li> <li>1) Disconnect the connector from the combination meter.</li> <li>2) Measure the voltage between the combination meter harness connector terminal and chassis ground.</li> <li>Connector &amp; terminal (i11) No. 10 (+) — Chassis ground (-):</li> </ul>	Is the voltage 10 V or more?	Go to step <b>3</b> .	Check the harness for open or short circuits between combination meter and fuse.	
3	CHECK SECURITY INDICATOR LIGHT CIR- CUIT. Measure the resistance between the combina- tion meter harness connector terminal and the keyless entry control module harness connec- tor terminal. Connector & terminal (i10) No. 6 — (B176) No. 15:	Is the resistance less than 10 $\Omega$ ?	Replace the com- bination meter.	Check the harness for open or short circuits between the combination meter and keyless entry control mod- ule.	

# 9. CHECK SECURITY HORN

	Step	Check	Yes	No
1	CHECK SECURITY HORN RELAY. Remove and check the security horn relay. <ref. horn="" relay.="" security="" sl-52,="" to=""></ref.>	Is the security horn operating normally?	Go to step 2.	Replace the secu- rity horn relay.
2	CHECK POWER SUPPLY FOR SECURITY HORN RELAY. Measure the voltage between the security horn relay harness connector terminal and chassis ground. Connector & terminal (B243) No. 1 (+) — Chassis ground (–):	Is the voltage 10 V or more?	Go to step 3.	Check the harness for open circuits or shorts between the security horn relay and the horn relay.
3	CHECK POWER SUPPLY FOR SECURITY HORN RELAY. Measure the voltage between the security horn relay harness connector terminal and chassis ground. Connector & terminal (B243) No. 2 (+) — Chassis ground (–):	Is the voltage 10 V or more?	Go to step 4.	Check the harness for open or short circuits between the security horn relay and the fuse.
4	CHECK HARNESS BETWEEN SECURITY HORN RELAY AND KEYLESS ENTRY CON- TROL MODULE. Measure the resistance between the security horn relay harness connector terminal and the keyless entry control module harness connec- tor terminal. <i>Connector &amp; terminal</i> (B243) No. 4 — (B176) No. 11:	Is the resistance less than 10 Ω?	Go to step 5.	Check the harness for open or short circuits between the security horn relay and the key- less entry control module.
5	CHECK SECURITY HORN. Remove and check the security horn. <ref. to<br="">SL-51, Security Horn.&gt;</ref.>	Is the security horn operating normally?	Replace the key- less entry control module.	Replace the secu- rity horn.

# Security System ught to

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# **10.CHECK HAZARD LIGHT OPERATION**

**10.CHECK HAZARD LIGHT OPERATION** Refer to the procedures for the keyless entry system. <Ref. to SL-20, CHECK HAZARD LIGHT OPERA-TION, INSPECTION, Keyless Entry System.>

# **11.CHECK INTERRUPT RELAY CIRCUIT**

	Step	Check	Yes	No
1	CHECK INTERRUPT RELAY. Remove and check the interrupt relay. <ref. to<br="">SL-54, Interrupt Relay.&gt;</ref.>	Is the interrupt relay operating properly?	Go to step 2.	Replace the inter- rupt relay.
2	CHECK INTERRUPT RELAY POWER SUP- PLY. Measure the voltage between the interrupt relay harness connector terminal and chassis ground. Connector & terminal (B422) No. 5 (+) — Chassis ground (-):	to START, is the voltage 10 V or	Go to step <b>3</b> .	Check the harness for open circuits or shorts between the interrupt relay and the ignition switch.
3	<ul> <li>CHECK HARNESS BETWEEN INTERRUPT RELAY AND KEYLESS ENTRY CONTROL MODULE.</li> <li>1) Turn the ignition switch to OFF.</li> <li>2) Disconnect the harness connector of the keyless entry control module.</li> <li>3) Measure the voltage between the interrupt relay harness connector terminal and the key- less entry control module harness connector. <i>Connector &amp; terminal</i> (B422) No. 1 – (B176) No. 12:</li> </ul>	Is the resistance less than 10 Ω?	Replace the key- less entry control module.	Check the harness for open circuits or shorts between the interrupt relay and the keyless entry control module.

# **12.CHECK IGNITION SWITCH CIRCUIT**

	Step	Check	Yes	No
1	<ol> <li>CHECK IGNITION SWITCH SIGNAL.</li> <li>1) Disconnect the harness connector of the keyless entry control module.</li> <li>2) Turn the ignition switch to ON.</li> <li>3) Measure the voltage between harness connector terminal and chassis ground.</li> <li>Connector &amp; terminal</li> <li>(B176) No. 10 (+) — Chassis ground (-):</li> </ol>	Is the voltage 10 V or more?		Check the harness for open circuits or shorts between the keyless entry con- trol module and the ignition switch.

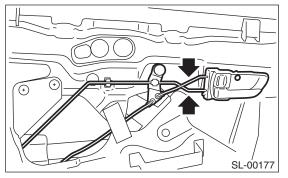
# 5. Front Inner Remote

# A: REMOVAL

1) Remove the door trim. <Ref. to EI-41, REMOV-AL, Front Door Trim.>

2) Remove the sealing cover. <Ref. to EB-17, RE-MOVAL, Front Sealing Cover.>

- 3) Remove the one screw and two rod joints.
- 4) Remove the front inner remote.



# **B: INSTALLATION**

Install in the reverse order of removal.

### NOTE:

Make sure that the front inner remote works properly after installation.

# **C: INSPECTION**

- 1) Make sure the rod is not deformed.
- 2) Make sure the lever and rod move smoothly.

Front Inner Remoteght to very security and Locks

ht to you by Eris Studios

Front Outer Handle Ight to you by Eris Studios

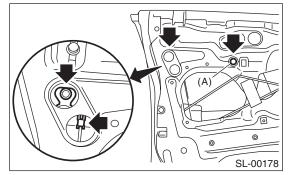
# 6. Front Outer Handle

# A: REMOVAL

1) Remove the door trim. <Ref. to EI-41, REMOV-AL, Front Door Trim.>

2) Remove the sealing cover. <Ref. to EB-17, RE-MOVAL, Front Sealing Cover.>

- 3) Remove the bolt (A).
- 4) Fully close the front door glass. Remove the bolt
- and rod clamp.
- 5) Remove the front outer handle.



### CAUTION:

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

# **B: INSTALLATION**

Install in the reverse order of removal.

NOTE:

Make sure that the front outer handle works properly after installation.

# **C: INSPECTION**

- 1) Make sure the rod is not deformed.
- 2) Make sure the lever and rod move smoothly.

Front Door Latch and Door Lock Actuator Assembly

# FOR RESALE

# 7. Front Door Latch and Door Lock Actuator Assembly

# A: REMOVAL

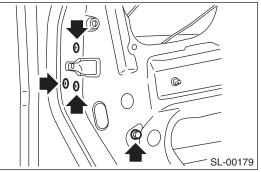
1) Disconnect the ground cable from the battery.

2) Remove the front door trim. <Ref. to EI-41, RE-MOVAL, Front Door Trim.>

3) Remove the sealing cover. <Ref. to EB-17, RE-MOVAL, Front Sealing Cover.>

4) Remove the front inner remote. <Ref. to SL-29, REMOVAL, Front Inner Remote.>

5) Remove the three screws and one bolt.



6) 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 properly after installation.

# **C: INSPECTION**

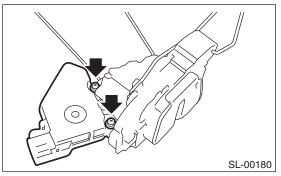
- 1) Make sure the rod is not deformed.
- 2) Make sure the lever and rod move smoothly.

Front Door Lock Actuator NOT FOR RESALE

# 8. Front Door Lock Actuator

# A: REMOVAL

Remove the front door latch and door lock actuator assembly. <Ref. to SL-31, REMOVAL, Front Door Latch and Door Lock Actuator Assembly.>
 Remove two screws to remove the front door lock actuator.



# **B: INSTALLATION**

Install in the reverse order of removal.

NOTE:

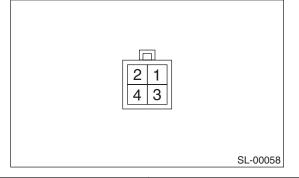
Make sure the lock works properly after installation.

# **C: INSPECTION**

1) Disconnect the front door lock actuator harness connector.

2) Connect the battery to the front door lock actuator terminal.

If defective, replace the door lock actuator.



Terminal No.	Actuator operation
No. 3 (+) and No. 1 (-)	$Unlock \to Lock$
No. 1 (+) and No. 3 (-)	$Lock \to Unlock$

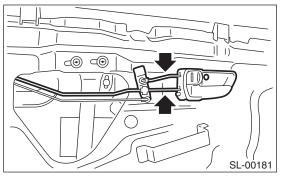
# 9. Rear Inner Remote

# A: REMOVAL

Rear Inner Remote ight to versecurity and Locks NOT FOR RESALE 1) Remove the rear door trim. <Ref. to EI-42, RE-MOVAL, Rear Door Trim.>

2) Remove the sealing cover. <Ref. to EB-20, RE-MOVAL, Rear Sealing Cover.>

- 3) Remove the one screw and two rod joints.
- 4) Remove the rear inner remote.



# **B: INSTALLATION**

Install in the reverse order of removal.

NOTE:

Make sure that the rear inner remote works properly after installation.

# **C: INSPECTION**

1) Make sure the rod is not deformed.

2) Make sure the lever and rod move smoothly.

3) Make sure that the child safety locks operate properly.

Rear Outer Handle ight to you by Eris Studios

# **10.Rear Outer Handle**

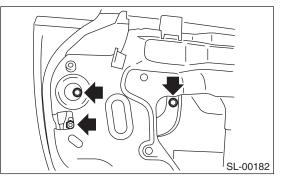
# A: REMOVAL

1) Remove the rear door trim. <Ref. to EI-42, RE-MOVAL, Rear Door Trim.>

2) Remove the sealing cover. <Ref. to EB-20, RE-MOVAL, Rear Sealing Cover.>

3) Remove the rear inner remote. <Ref. to SL-33, REMOVAL, Rear Inner Remote.>

4) Remove the rear door latch and door lock actuator assembly. <Ref. to SL-35, REMOVAL, Rear Door Latch and Door Lock Actuator Assembly.>
5) Loosen the two bolts and one nut to remove the rear outer handle.



### CAUTION:

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

# **B: INSTALLATION**

Install in the reverse order of removal.

NOTE:

Make sure that the rear outer handle works properly after installation.

# **C: INSPECTION**

1) Make sure the rod is not deformed.

2) Make sure that the outer handle and rod move smoothly.

FOR RESALE

# 11.Rear Door Latch and Door Lock Actuator Assembly

# A: REMOVAL

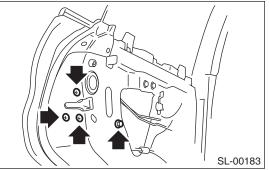
1) Disconnect the ground cable from the battery.

2) Remove the rear door trim. <Ref. to EI-42, RE-MOVAL, Rear Door Trim.>

3) Remove the sealing cover. <Ref. to EB-20, RE-MOVAL, Rear Sealing Cover.>

4) Remove the rear inner remote. <Ref. to SL-33, REMOVAL, Rear Inner Remote.>

5) Remove the three screws and one bolt.



6) Disconnect the connectors, and then remove the rear door latch and door lock actuator assembly.

# **B: INSTALLATION**

Install in the reverse order of removal.

NOTE:

Make sure the lock works properly after installation.

# **C: INSPECTION**

1) Make sure the rod is not deformed.

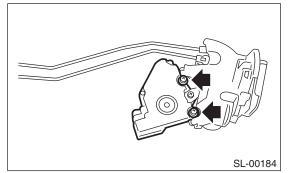
2) Make sure that the outer handle, rear remote handle and rod move smoothly.

Rear Door Lock Actuator<sub>ht to you by Eris Studios</sub> NOT FOR RESALE

# **12.Rear Door Lock Actuator**

# A: REMOVAL

Remove the rear door latch and door lock actuator assembly. <Ref. to SL-35, REMOVAL, Rear Door Latch and Door Lock Actuator Assembly.>
 Loosen the two screws to remove the rear door lock actuator.



# **B: INSTALLATION**

Install in the reverse order of removal.

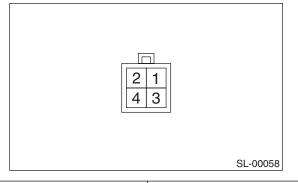
NOTE:

Make sure the lock works properly after installation.

# **C: INSPECTION**

1) Disconnect the rear door lock actuator harness connector.

2) Connect the battery to the rear door lock actuator terminal.



Terminal No.	Actuator operation
No. 3 (+) and No. 1 (-)	$Unlock \to Lock$
No. 1 (+) and No. 3 (-)	$Lock \to Unlock$

If defective, replace the door lock actuator.

# Rear Gate Outer Handle to vosecurity and Locks

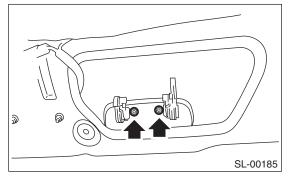
to you by Eris Studios

# **13.Rear Gate Outer Handle**

# A: REMOVAL

1) Remove the rear gate trim. <Ref. to EI-57, RE-MOVAL, Rear Gate Trim.>

2) Remove the rear gate latch assembly. <Ref. to SL-38, REMOVAL, Rear Gate Latch Assembly.>3) Remove the two nuts to remove the rear gate outer handle.



# **B: INSTALLATION**

Install in the reverse order of removal.

NOTE:

Make sure that the rear gate outer handle works properly after installation.

# **C: INSPECTION**

1) Check the rod for deformation.

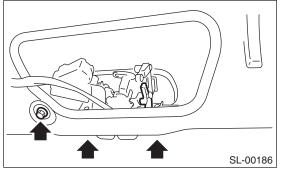
2) Make sure that the outer handle and cable move smoothly.

Rear Gate Latch Assembly to you by Eris Studios

# 14.Rear Gate Latch Assembly

# A: REMOVAL

- 1) Disconnect the ground cable from the battery.
- 2) Remove the rear gate trim. <Ref. to EI-57, RE-
- MOVAL, Rear Gate Trim.>
- 3) Remove three bolts.



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

# **B: INSTALLATION**

Install in the reverse order of removal.

NOTE:

Make sure the lock works properly after installation.

# **C: INSPECTION**

1) Make sure the rod is not deformed.

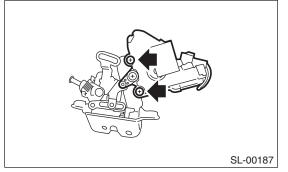
2) Make sure that the outer handle and cable move smoothly.

to you by Eris Studios

# 15.Rear Gate Latch Lock Actuator

# A: REMOVAL

 Remove the rear gate latch assembly. <Ref. to SL-38, REMOVAL, Rear Gate Latch Assembly.>
 Loosen the two screws to remove the rear gate lock actuator.



# **B: INSTALLATION**

Install in the reverse order of removal.

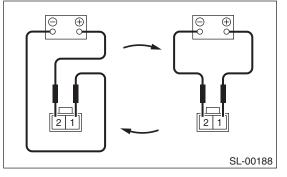
NOTE:

Make sure the lock works properly after installation.

# **C: INSPECTION**

1) Disconnect the rear gate latch lock actuator harness connector.

2) Connect the battery to the rear gate latch lock actuator terminal.



Terminal No.	Actuator operation
No. 1 (+) and No. 2 (-)	$Unlock \to Lock$
No. 2 (+) and No. 1 (-)	$Lock \to Unlock$

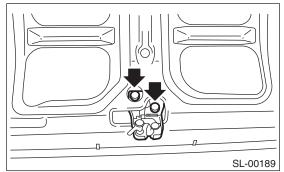
If defective, replace the rear gate latch lock actuator.

Trunk Lid Lock Assembly to you by Eris Studios

# 16.Trunk Lid Lock Assembly

# A: REMOVAL

Remove the trunk lid key cylinder rod clamp.
 Loosen the two bolts to remove the 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 properly after installation.

# **C: 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.

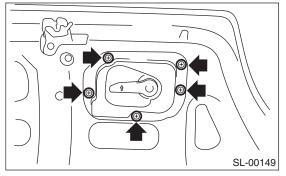
# Trunk Lid Release Handle

NOT FOR RESALE

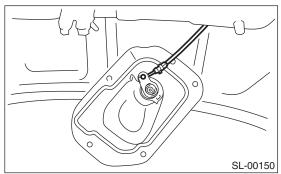
# **17.Trunk Lid Release Handle**

# A: REMOVAL

1) Remove 5 clips.



2) Remove the cable from the trunk lid release handle.



# **B: INSTALLATION**

Install in the reverse order of removal.

# **C: INSPECTION**

- 1) Make sure that the cable is not deformed.
- 2) Make sure that the lever moves smoothly.

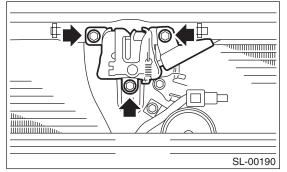
Front Hood Lock Assembly NOT FOR RESALE

# **18.Front Hood Lock Assembly**

# A: REMOVAL

1) Open the front hood.

2) Remove the bolt. Remove the front hood lock assembly.



3) Remove the release cable from the front hood lock assembly.

# **B: INSTALLATION**

Install in the reverse order of removal.

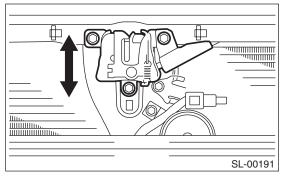
NOTE:

• Apply grease to the movable part.

• Make sure the release cable works properly after installation.

# **C: ADJUSTMENT**

Loosen the bolt, and adjust the front hood 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.

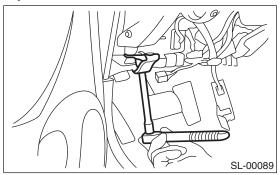
# **19.Remote Openers**

#### A: REMOVAL

#### 1. FRONT HOOD OPENER

1) Remove the release cable from the front hood lock assembly.

2) Remove the bolts, and then detach the lever assembly.

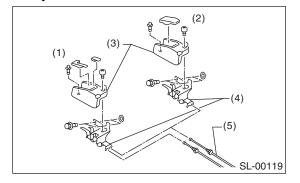


#### 2. TRUNK LID OPENER

1) Remove the rear seat. <Ref. to SE-13, REMOV-AL, Rear Seat.>

2) Remove the center pillar lower trim and the side sill cover on the passenger side. Remove the rear pillar lower trim. Remove the floor mat. Remove the clip holding the cable.

3) Remove the bolt, then remove the pull handle assembly.



- (1) Sedan
- (2) Wagon
- (3) Cover
- (4) Pull handle ASSY
- (5) Cable
- 4) Remove the cable from pull handle assembly.
- 5) Remove the striker from the trunk lid.

# SECURITY AND LOCKS S

(1) Striker

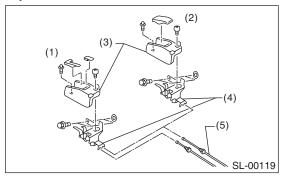
(2) Cable

#### 3. FUEL FLAP OPENER

1) Remove the rear seat. <Ref. to SE-13, REMOV-AL, Rear Seat.>

2) Remove the center pillar lower trim and the side sill cover on the passenger side. Remove the rear pillar lower trim. Remove the floor mat. Remove the clip holding the cable.

3) Remove the bolt. Remove the pull handle assembly.

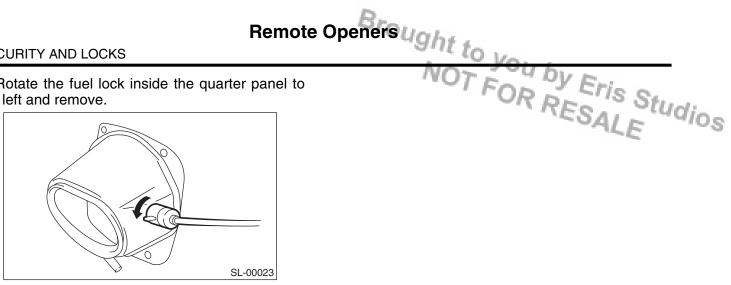


- (1) Sedan
- (2) Wagon
- (3) Cover
- (4) Pull handle ASSY
- (5) Cable

4) Remove the cable from pull handle assembly.

- 5) Remove the rear quarter trim RH. <Ref. to EI-52,
- REMOVAL, Rear Quarter Trim.>

6) Rotate the fuel lock inside the quarter panel to the left and remove.



# **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.

# **20.Ignition Key Lock**

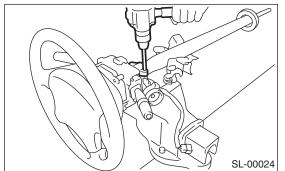
# A: REPLACEMENT

Ignition Key Lockught to volume Security and Locks NOT FOR RESALE 1) Disconnect the ground cable from the battery.

2) Remove the steering column. <Ref. to PS-21,

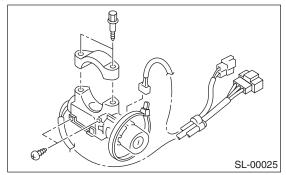
REMOVAL, Tilt Steering Column.>

3) Secure the steering column in a vise. Remove the bolt with a drill.



4) Remove the ignition key lock.

5) Use a new tone bolt. Tighten the tone bolt all the way.



# **B: INSPECTION**

1) Remove the instrument panel lower cover.

2) Remove the lower column cover.

3) Unfasten the fixing clip which secures harness, and then disconnect the connector of the ignition switch from body harness.

4) Turn the ignition key plate to each position and check the continuity between terminals of ignition connector.

Switch position	Terminal No.	Standard
LOCK	—	_
ACC	No. 1 and No. 2	Less than 1 $\Omega$
ON	No. 1 and No. 2 No. 1 and No. 4 No. 2 and No. 4	Less than 1 $\Omega$
ST	No. 1 and No. 3 No. 1 and No. 4 No. 3 and No. 4	Less than 1 $\Omega$

If NG, replace the ignition switch.

Key Lock Cylindersight to you by Eris Studios

# 21.Key Lock Cylinders A: REPLACEMENT

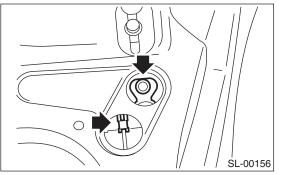
#### 1. FRONT DOOR

 Remove the door trim. <Ref. to EI-41, REMOV-AL, Front Door Trim.>
 Remove the sealing cover. <Ref. to EB-17, RE-</li>

MOVAL, Front Sealing Cover.>

3) Fully close the front door glass.

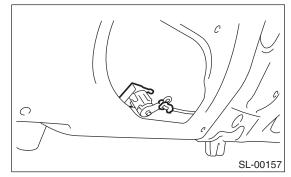
4) Remove the rod clamp. Remove the bolt. Replace the key cylinder.



#### 2. TRUNK LID

1) Remove the trunk lid release handle. <Ref. to SL-41, Trunk Lid Release Handle.>

2) Remove the rod clamp. Remove the lock plate. Replace the key cylinder.



to you by Eris Studios

# 22.Immobilizer Control Module

# A: REMOVAL

NOTE:

• On models equipped with an immobilizer, prepare all registered immobilizer keys.

• When replacing the immobilizer control module, perform immobilizer registration. At this time, a new immobilizer key is required. For detailed work procedures, refer to the "REGISTRATION MANUAL FOR IMMOBILIZER".

• When not replacing the immobilizer control module, it is not necessary to re-register the existing keys.

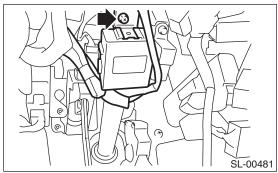
1) Disconnect the ground cable from the battery.

2) Remove the instrument panel lower cover. < Ref.

to EI-47, REMOVAL, Instrument Panel Assembly.> 3) Disconnect the connector from immobilizer con-

trol module.

4) Remove the immobilizer control module.



# **B: INSTALLATION**

Install in the reverse order of removal.

Immobilizer Antennaght to you by Eris Studios

# 23.Immobilizer Antenna

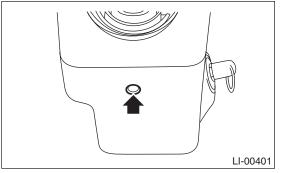
# A: REMOVAL

1) Disconnect the ground cable from the battery.

2) Remove the instrument panel lower cover. < Ref.

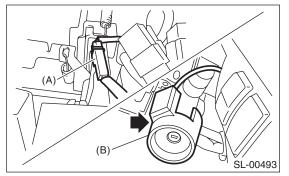
to EI-47, REMOVAL, Instrument Panel Assembly.>

3) Remove the screws, and detach the upper column cover and lower column cover.



4) Disconnect the immobilizer antenna connector (A) from immobilizer control module.

5) Remove the screws and detach the immobilizer antenna (B).



# **B: INSTALLATION**

Install in the reverse order of removal.

# 24.Security Control Unit

# A: NOTE

Security Control Unit ght to versecurity and Locks NOT FOR RESALE The control of the security system is performed by the keyless entry control module.

# **B: REMOVAL**

<Ref. to SL-55, REMOVAL, Keyless Entry Control Module.>

# C: INSTALLATION

<Ref. to SL-55, INSTALLATION, Keyless Entry Control Module.>

#### D: PROCEDURE

#### 1. FUNCTION SETTING (ECM CUSTOMIZING)

1) Connect the Subaru Select Monitor to the data link connector.

- 2) Turn the ignition switch to ON.
- 3) On the «Main Menu» display screen, select {Each System Check}.

4) On the «System Selection Menu» display screen, select {Keyless Unit Mode}.

- 5) In the «Integ. unit mode failure diag» display screen, select {ECM customizing}.
- 6) Change the setting with the UP/DOWN keys and set with the [OK] key.

#### List of function setting item (ECM customizing)

No.	Data	Initial setting values	Customize setting	Remarks
1	Security alarm setup OFF		ON	Security alarm (hazard, horn) activates.
I	Security alarm setup	OFF	OFF	Security alarm in inactive condition
	2 Alarm monitor delay setting	ON		After the keyless lock operation, the alarm monitor starts after the following delay time has passed.
2			ON	Delay time is 30 seconds.
			OFF	Delay time is 0 seconds.
3	Impact concernation	OFF	ON	Enabled when the Impact Sensor Setup is set to "ON". Impact sensor function becomes activated.
3	3 Impact sensor setup		OFF	Impact sensor in inactive condition (Always set to OFF for vehicles not equipped with the sensor.)
4	Impact sensor setup	OFF	ON	Vehicle is controlled in impact sensor equipped mode. (Always set to "OFF" on vehicles that are not equipped with the impact sensor. When set to "ON", hazard, horn or siren will operate after doors are locked by the keyless entry sys- tem operation (Alarm monitor start).)
			OFF	Vehicle is controlled in no impact sensor mode.
5	Passive arming	OFF	ON	Disables the feature that automatically arms even when the user does not lock (arm) intentionally.
			OFF	Enabled when passive arming is set to "ON".

Security Control Unugnt to you by Eris Studios 7) After setting, make sure that vehicle equipment matches the changed settings in the {Current Data Display & Save}.

#### CAUTION:

 The above settings most match the actual vehicle equipment for proper operation.

 Do not change settings other than the above while setting the functions.

• Perform setup again when installing a new keyless unit.

• In the passive mode, the security alarm will automatically operate, but the doors will not be locked. In this case, it is very dangerous from a security viewpoint, so care must be taken to always lock the vehicle.

#### NOTE:

For details concerning the operation procedure, refer to the "SUBARU SELECT MONITOR OPERA-TION MANUAL".

8) Turn the ignition switch to OFF, and stop the Subaru Select Monitor.

#### 2. WARNING HISTORY NOTICE MODE

1) Turn the ignition switch to ON.

2) The security indicator light blinks.

Number of times that the security indicator light flashes	Vehicle condition
Once	Minor WARNING has been activated by the impact sensor (OP). This may indicate that your vehicle has been subject to a small shock from the outside, or tampered with by an unauthorized person.
Twice	Major warning (ALARM) has been activated by the impact sensor (OP). This may indicate that your vehicle has been subject to a large shock from the outside, or tampered with by an unauthorized person.
Three times	The ignition switch was turned to ON.
Four times	The rear gate was opened.
Five times	One of the doors was opened.

#### NOTE:

 If ALARM/WARNING occurs during the armed mode, the indicator light will flash at ignition OFF  $\rightarrow$ ON at the next DISARM.

• If ALARM/WARNING did not occur, there will be no flash.

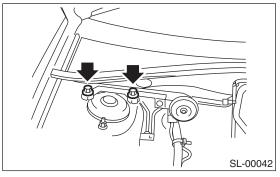
• If the warnings overlap, the warning with the largest number of flashing will have priority and will flash that many times.

 At the time of ignition switch ON during the DIS-ARM mode, flashing is always performed, and the memory is renewed at the next disarm mode.

# **25.Security Horn**

# A: REMOVAL

- 1) Disconnect the ground cable from the battery.
- Security Hornought to vosecurity and locks NOT FOR RESALE 2) Remove the nut, then disconnect the connector
- to remove the security horn.

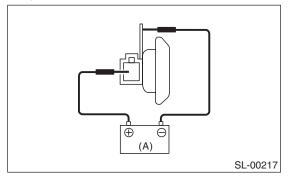


# **B: INSTALLATION**

Install in the reverse order of removal.

#### **C: INSPECTION**

Connect the battery to the security horn terminal and case ground, to check that the horn sounds correctly.



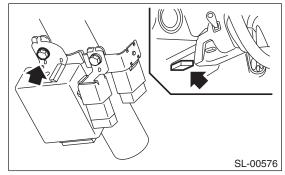
(A) Battery

If there is a problem, replace the security horn.

# **26.Security Horn Relay**

# A: REMOVAL

Security Horn Relagignt to you by Eris Studios 1) Disconnect the ground cable from the battery. 2) Remove the attachment bolt, and remove the security horn relay.



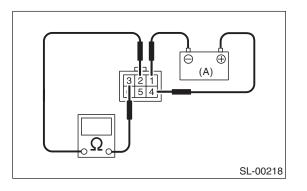
# **B: INSTALLATION**

Install in the reverse order of removal.

# **C: INSPECTION**

Measure the security horn relay resistance between terminals (indicated in the table below) when connecting terminal No. 4 to battery positive terminal and terminal No. 1 to battery ground terminal.

Current	Terminal No.	Standard
Powered	2 and 3	Less than 1 $\Omega$
No power		1 M $\Omega$ or more



(A) Battery

If there is a problem, replace the security horn relay.

SECURITY AND LOCKS

# 27.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 the keyless transmitter.

4) Change the setting of impact sensor using Subaru Select Monitor.

5) Disconnect the ground cable from the 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 the keyless transmitter.

4) Disconnect the ground cable from the battery.

5) Install the impact sensor.

6) Connect the ground cable to the battery.

7) Change the setting of impact sensor using Subaru Select Monitor.

# C: OPERATION

#### 1. IMPACT SENSOR SETTING USING SUB-**ARU SELECT MONITOR**

1) Connect the Subaru Select Monitor to the data link connector.

- 2) Turn the ignition switch to ON.
- 3) Select {keyless 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 stop the Subaru Select Monitor.

# **D: ADJUSTMENT**

Impact Sensorought to 1

# 1. CHECK IMPACT SENSORESAT

- Eris Studios 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 the keyless transmitter from outside of vehicle.

5) Check that the security indicator light blinks twice within 0.5 seconds in 2 second cycles after 30 seconds.

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

7) If NG, adjust the impact sensitivity.

#### 2. IMPACT SENSITIVITY ADJUSTMENT

1) Connect the Subaru Select Monitor to the data link connector.

- 2) Turn the ignition switch to ON.
- 3) 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 stop 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.

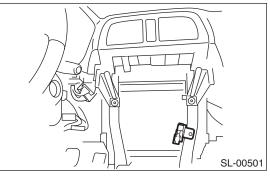
# 28.Interrupt Relay

# A: REMOVAL

1) Disconnect the ground cable from the battery.

Interrupt Rélay-ugnt to you by Eris Studios NOT FOR RESALE 2) Remove the audio. <Ref. to ET-6, REMOVAL, Audio.>

3) Remove the interrupt relay.



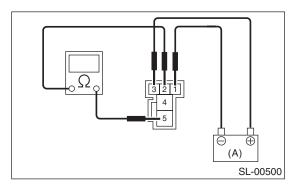
# **B: INSTALLATION**

Install in the reverse order of removal.

# C: INSPECTION

Connect terminal No. 3 to the battery positive terminal, and terminal No. 1 to the battery negative terminal, and measure the resistance between interrupt relay terminals (shown in the following table).

Current	Terminal No.	Standard
Powered	2 and 5	1 M $\Omega$ or more
No power		Less than 1 $\Omega$
Powered	4 and 5	Less than 1 $\Omega$
No power		1 M $\Omega$ or more



(A) Battery

Replace the interrupt relay if there is a problem.

#### CAUTION:

Make sure to connect the battery positive terminal and negative terminal correctly. If connected in error by accident, replace the interrupt relay.

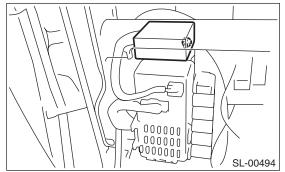
NO

to you by Eris Studios

# 29. Keyless Entry Control Module

# A: REMOVAL

- 1) Disconnect the ground cable from the battery.
- 2) Remove the instrument panel lower cover. < Ref.
- to EI-47, REMOVAL, Instrument Panel Assembly.>
- 3) Remove the nut, then disconnect the connector
- to remove the keyless entry control module.



# **B: INSTALLATION**

Install in the reverse order of removal.

Body Integrated Unit<sub>ght to you by Eris Studios</sub>

# **30.Body Integrated Unit**

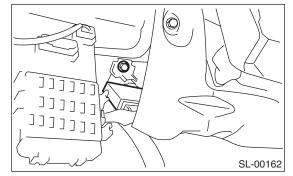
# A: REMOVAL

1) Disconnect the ground cable from the battery.

2) Remove the instrument panel lower cover. < Ref.

to EI-47, REMOVAL, Instrument Panel Assembly.>

3) Remove the nut, disconnect the connector and remove the body integrated unit.



# **B: INSTALLATION**

Install in the reverse order of removal.

# 31.Transmitter

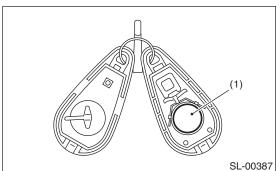
## A: REMOVAL

#### **1. TRANSMITTER BATTERY**

Remove the battery (1) from the transmitter.

#### NOTE:

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



# **B: INSTALLATION**

#### **1. TRANSMITTER BATTERY**

Install in the reverse order of removal.

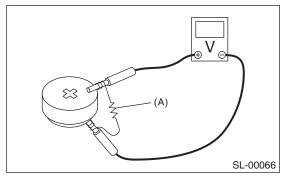
#### **C: INSPECTION**

#### **1. TRANSMITTER BATTERY**

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

#### NOTE:

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



(A) Resistance (47  $\Omega$ )

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

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

# D: REPLACEMENT

# 1. REGISTRATION OF KEYLESS TRANS-UCIOS MITTER WITH SUBARU SELECT MONITOR

#### NOTE:

Transmitter ought to\_

• A maximum of four keyless transmitter can be registered for each individual vehicle.

• When replacing or adding the keyless transmitter, new registration of transmitter is necessary.

1) Connect the Subaru Select Monitor to the vehicle.

2) Turn the ignition switch to ON.

3) From the «Main menu» of the Subaru Select Monitor, select {2. Check individual system}  $\rightarrow$  {Keyless unit mode}  $\rightarrow$  {1. Transmitter ID registration}.

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

#### NOTE:

Press the  $[\blacktriangle]$  key on the Subaru Select Monitor to increase the number, and the  $[\lor]$  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 on the plastic bag.

6) If the ID number matches, select [OK]. If the ID number is incorrect, select [NO] to return to the step 3) and reenter the ID number.

7) «ID registration in process…» is displayed and registration starts.

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

9) To exit, select «END: NO», to return to {1. Keyless transmitter ID registration}. If there are additional keyless transmitters to be registered, select «Next registration: OK» to return to the step 3).

#### NOTE:

• If the registration fails, «ID registration failed. Try again.» will be displayed. Select the [OK] to return to the {1. Transmitter ID registration}. And retry from the step 2).

• «END: NO» will be shown on the Subaru Select Monitor when the fourth keyless transmitter has been registered. Select the [NO] key to return to {1. Keyless transmitter ID registration}.

Transmitter ought to you by Eris Studios