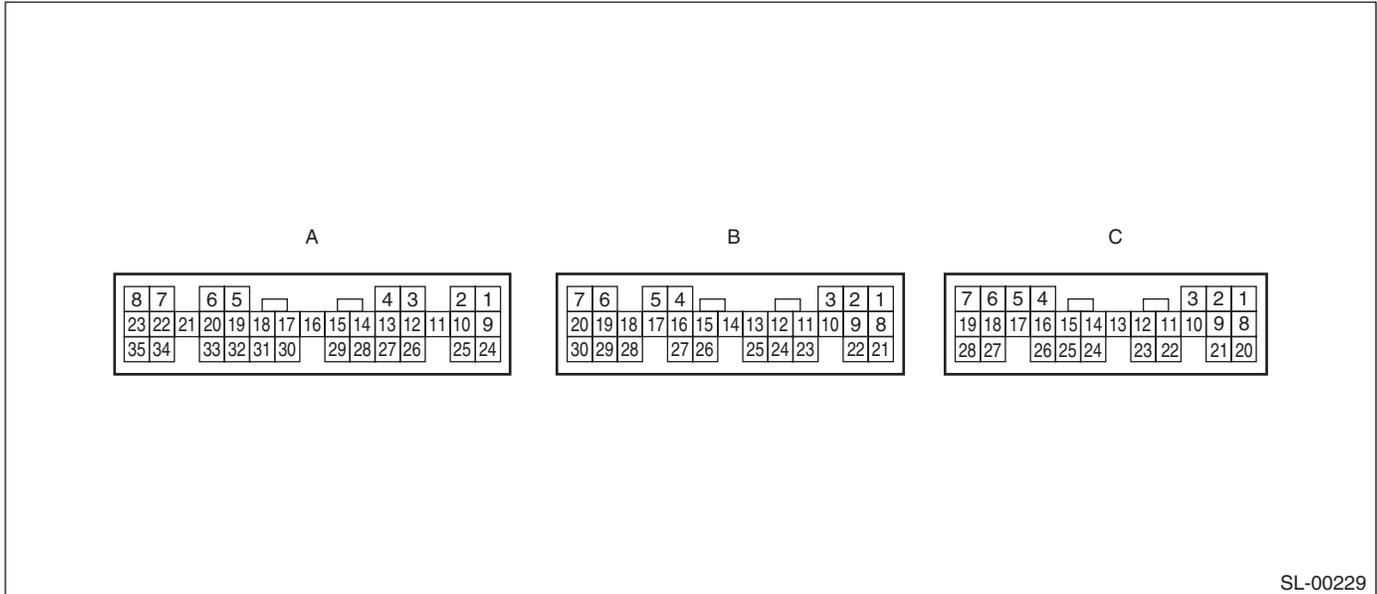


4. Security System

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.

Security System

SECURITY AND LOCKS

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-11, 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-29, 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-26, SECURITY SYSTEM ON/OFF SETTING, INSPECTION, Security System.>	Is the setting change completed correctly?	Go to step 5.	<ul style="list-style-type: none"> • Check the ignition switch circuit. <Ref. to SL-30, CHECK IGNITION SWITCH CIRCUIT, INSPECTION, Security System.> • Check the door lock switch circuit. <Ref. to SL-19, 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-53, 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-53, 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? <ul style="list-style-type: none"> • 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-31, 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 .	<ul style="list-style-type: none"> • Check the door switch. <Ref. to SL-27, CHECK DOOR SWITCH, INSPECTION, Security System.> • Check the trunk lid switch or rear gate latch switch. <Ref. to SL-28, 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? <ul style="list-style-type: none"> • Horn sounds • Hazard light blinks • Security indicator light on 	Go to step 10 .	<ul style="list-style-type: none"> • Check the horn. <Ref. to SL-29, CHECK HORN, INSPECTION, Security System.> • Check the hazard light. <Ref. to SL-30, 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? <ul style="list-style-type: none"> • Horn • Hazard light 	Go to step 11 .	Check the ignition switch circuit. <Ref. to SL-30, 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-26, 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-53, Body Integrated Unit.>

Security System

SECURITY AND LOCKS

Step	Check	Yes	No
12 CHECK IMPACT SENSOR. Check the impact sensor. <Ref. to SL-50, 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-50, 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 MΩ 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.

Security System

SECURITY AND LOCKS

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.

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. <i>Connector & terminal (i84) No. 33 — Chassis ground:</i>	Does the security indicator light illuminate?	Check the body integrated unit. <Ref. to LAN(diag)-2, Basic Diagnostic Procedure.>	Go to step 2.
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. <i>Connector & terminal (i10) No. 1, 2 (+) — Chassis ground (-):</i>	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. <i>Connector & terminal (i10) No. 17 — (i84) No. 33:</i>	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. <i>Connector & terminal (B280) No. 11 — (B186) No. 1:</i>	Is the resistance less than 10 Ω?	Check the body integrated unit. <Ref. to LAN(diag)-2, Basic Diagnostic Procedure.>	Repair the harness.

Security System

SECURITY AND LOCKS

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.

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 <i>(i84) No. 12 — Chassis ground:</i>	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.