4. Security System

A: WIRING DIAGRAM

Refer to “Security System” in WI section. <Ref. to WI-150, WIRING DIAGRAM, Security System.>

B: ELECTRICAL SPECIFICATION

1. BODY INTEGRATED UNIT

Refer to the Control Module I/O Signal of the LAN SYSTEM (DIAGNOSTICS). <Ref. to LAN(diag)-10, ELECTRICAL SPECIFICATION, Control Module I/O Signal.>

C: INSPECTION

1. BASIC DIAGNOSTIC PROCEDURE

	Step	Check	Yes	No
1	**INITIAL CHECK.** Check keyless entry system.	Does the keyless entry system operate normally?	Go to step **2**.	Check keyless entry system. <Ref. to SL-14, INSPECTION, Keyless Entry System.>
2	**CHECK SECURITY ON/OFF SETTING.** 1) Remove the key from ignition switch or turn the ignition to OFF, and close all doors. 2) Press the UNLOCK button of the keyless transmitter. 3) Check the security indicator light blinking patterns.	Does the security indicator light blink at 3 second intervals?	Go to step **3**.	Check the security indicator light circuit. <Ref. to SL-29, CHECK SECURITY INDICATOR LIGHT CIRCUIT, INSPECTION, Security System.>
3	**CHECK SECURITY ON/OFF SETTING.** 1) Press the LOCK button of the keyless transmitter. 2) Check the security indicator light blinking patterns.	Is the security indicator light blinking patterns as follows? / When monitoring lag is set to 0 seconds: flashes twice within 0.5 seconds, in 2 second intervals / When monitoring lag is set to 30 seconds: flashes 3 times per second, in 0.4 second intervals.	Go to step **6**.	Go to step **4**.
4	**CHANGE SETTING OF SECURITY SYSTEM.** Change the setting of security system to ON. <Ref. to SL-27, SECURITY SYSTEM ON/OFF SETTING, INSPECTION, Security System.>	Is setting change completed correctly?	Go to step **5**.	• 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-23, CHECK DOOR LOCK SWITCH, INSPECTION, Keyless Entry System.>

	Step	Check	Yes	No
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 the keyless transmitter. 3) Check the security indicator light blinking patterns.	Is the security indicator light blinking patterns as follows? / When monitoring lag is set to 0 seconds: flashes twice within 0.5 seconds, in 2 second intervals / When monitoring lag is set to 30 seconds: flashes 3 times per second, in 0.4 second intervals.	Go to step **6**.	Replace the body integrated unit. <Ref. to SL-49, Body Integrated Unit.>
6	**CHECK SECURITY SYSTEM OPERATION.** Press the LOCK button of keyless transmitter, and wait for 30 seconds.	Is the blinking pattern of security indicator light blink twice within 0.5 seconds in 2 second cycles?	Go to step **7**.	Replace the body integrated unit. <Ref. to SL-49, Body Integrated Unit.>
7	**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 **8**.	Check the door switch, trunk lid switch or rear gate latch switch. <Ref. to SL-18, CHECK DOOR SWITCH, INSPECTION, Keyless Entry System.>
8	**CHECK SECURITY ALARM OPERATION.** Check the security alarm operation.	Do all security alarms operate? / Horn sound / Hazard lights flash / Security indicator light illuminates	Go to step **9**.	• Check the horn. <Ref. to SL-29, CHECK HORN, INSPECTION, Security System.> • Check the hazard light. <Ref. to SL-29, CHECK HAZARD LIGHT OPERATION, INSPECTION, Security System.>
9	**CHECK SECURITY ALARM CANCEL OPERATION.** Press any button of transmitter while the security alarm is operating. Or turn the ignition switch to ON.	Do all security alarms stop? / Horn / Hazard lights	Go to step **10**.	Check the ignition switch circuit. <Ref. to SL-30, CHECK IGNITION SWITCH CIRCUIT, INSPECTION, Security System.>
10	**CHECK SECURITY SYSTEM CONDITION MEMORY.** Check that the system functions properly even when the battery is not connected temporarily. <Ref. to SL-27, CHECK SECURITY SYSTEM CONDITION MEMORY, INSPECTION, Security System.>	Does the system function properly when the battery is not connected temporarily?	Go to step **11**.	Replace the body integrated unit. <Ref. to SL-49, Body Integrated Unit.>
11	**CHECK IMPACT SENSOR (DEALER OPTION).** Check the sensibility of impact sensor. <Ref. to SL-46, CHECK IMPACT SENSOR, ADJUSTMENT, Impact Sensor.>	Is the sensibility set properly?	Press the UNLOCK button of keyless transmitter, and finish the diagnosis.	Adjust the sensitivity. <Ref. to SL-46, IMPACT SENSITIVITY ADJUSTMENT, ADJUSTMENT, Impact Sensor.>

NOTE:
Check the function settings of the body integrated unit if any of the following symptoms appear. <Ref. to LAN(diag)-2, Basic Diagnostic Procedure.>
• The horn does not sound even when the security alarm is triggered and operating. As a cause, it is possible that the siren ON/OFF setting is set to ON in the customization function.
• The horn sounds when setting the security to ON (Monitoring condition) using the keyless transmitter. As a cause, it is possible that the impact sensor present (ON) / not present (OFF) setting is set to ON in the customization function though there is no impact sensor.

2. CHECK SECURITY SYSTEM CONDITION MEMORY

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

NOTE:
Wait until the security indicator light blinks twice within 0.5 seconds at 2 second intervals.
If the 30 second monitoring lag has been set, wait 30 seconds.
5) Disconnect the ground cable from the battery.
6) Connect the ground cable to the battery.
7) Check that the security indicator light blinks twice within 0.5 seconds at 2 second intervals. When it does not blink, replace the body integrated unit.

3. SECURITY SYSTEM ON/OFF SETTING

1) Close all doors, 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) Push the centralized door lock switch down and open the driver's side door at the same time, and hold in this condition for 10 seconds.
4) If the security system is ON, it will turn OFF. If OFF, it will turn ON.

4. CHECK DOOR SWITCH

For operation procedure, refer to the door switch inspection of the keyless entry system. <Ref. to SL-18, CHECK DOOR SWITCH, INSPECTION, Keyless Entry System.>

5. CHECK TRUNK LID SWITCH (4 DOOR MODEL) OR REAR GATE LATCH SWITCH (5 DOOR MODEL)

	Step	Check	Yes	No
1	**CHECK INPUT FROM TRUNK LID SWITCH OR REAR GATE LATCH SWITCH.** 1) Prepare the Subaru Select Monitor kit. 2) Turn the ignition switch to ON (engine OFF) and run the “PC application for Subaru Select Monitor”. 3) On «System Selection Menu» display, select {Integ. unit mode}. 4) Select the {Current Data Display & Save}. 5) Select the {R Gate SW input}.	Is the input signal present when opening the trunk lid or rear gate?	The trunk lid switch or rear gate latch switch circuit 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 the trunk lid switch or the rear gate latch switch. 4) Measure the resistance between harness connector terminals. ***Connector & terminal*** ***(i84) No. 33 — (D46) No. 3: (5 door model)*** ***(i84) No. 33 — (R186) No. 3: (4 door model)***	Is the resistance less than 10 Ω?	Go to step **3**.	Repair or replace the harness.
3	**CHECK GROUND CIRCUIT OF TRUNK LID SWITCH OR REAR GATE LATCH SWITCH.** 1) Disconnect the harness connector of the trunk lid switch or the rear gate latch switch. 2) Measure the resistance between harness connector terminal and chassis ground. ***Connector & terminal*** ***(D46) No. 4 — Chassis ground: (5 door model)*** ***(R186) No. 1 — Chassis ground: (4 door model)***	Is the resistance less than 10 Ω?	Go to step **4**.	Repair or replace the harness.
4	**CHECK TRUNK LID SWITCH OR REAR GATE LATCH SWITCH.** 1) Disconnect the harness connector of the trunk lid switch or the rear gate latch switch. 2) Measure the resistance between switch terminals. ***Terminals*** ***No. 4 — No. 3: (5 door model)*** ***No. 1 — No. 3: (4 door model)***	Is the resistance 1 MΩ or more when switch is pushed?	Go to step **5**.	Replace the trunk lid latch and actuator assembly or rear gate latch and actuator assembly.
5	**CHECK TRUNK LID SWITCH OR REAR GATE LATCH SWITCH.** Measure the resistance between switch terminals. ***Terminals*** ***No. 4 — No. 3: (5 door model)*** ***No. 1 — No. 3: (4 door model)***	Is the resistance less than 1 Ω when switch is released?	Check body integrated unit. <Ref. to LAN(diag)-2, Basic Diagnostic Procedure.>	Replace the trunk lid latch and actuator assembly or rear gate latch and actuator assembly.

6. CHECK SECURITY INDICATOR LIGHT CIRCUIT

	Step	Check	Yes	No
1	**CHECK SECURITY INDICATOR LIGHT.** 1) Disconnect the harness connector of body integrated unit. 2) Place a 100 Ω resistance on the harness connector terminal using a suitable lead wire, and connect to ground through the resistance. ***Connector & terminal*** ***(i84) No. 10 — Chassis ground:***	Does the security indicator light illuminate?	Check 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 the combination meter. 2) Measure the voltage between the combination meter harness connector terminal and chassis ground. ***Connector & terminal*** ***(i10) No. 1 (+) — Chassis ground (–):***	Is the voltage 10 V or more?	Go to step **3**.	Check the harness for open or short circuits between combination meter and fuse.
3	**CHECK SECURITY INDICATOR LIGHT CIRCUIT.** Measure the resistance between the combination meter harness connector terminal and the security control unit harness connector terminal. ***Connector & terminal*** ***(i10) No. 39 — (i84) No. 10:***	Is the resistance less than 10 Ω?	Replace the combination meter. <Ref. to IDI-15, Combination Meter.>	Check the harness for open or short circuits between the combination meter and body integrated unit.

7. CHECK HORN

	Step	Check	Yes	No
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 Kit. 2) Turn the ignition switch to ON (engine OFF) and run the “PC application for Subaru Select Monitor”. 3) On «System Selection Menu» display, select {Integ. unit mode}. 4) Select {Function check}. 5) Select {Horn Output} and execute.	Does the horn sound?	Horn circuit is OK.	Go to step **3**.
3	**CHECK HORN RELAY CIRCUIT.** 1) Turn the ignition switch to OFF. 2) Disconnect the harness connector of body integrated unit. 3) Disconnect the main fuse box harness connector (B186). 4) Measure the resistance between harness connector terminals. ***Connector & terminal*** ***(B279) No. 29 — (B186) No. 1:***	Is the resistance less than 10 Ω?	Check body integrated unit. <Ref. to LAN(diag)-2, Basic Diagnostic Procedure.>	Repair or replace the harness.

8. CHECK HAZARD LIGHT OPERATION

For operation procedure, refer to the hazard light inspection of the keyless entry system. <Ref. to SL-22, CHECK KEYLESS BUZZER, INSPECTION, Keyless Entry System.>

9. CHECK IGNITION SWITCH CIRCUIT

	Step	Check	Yes	No
1	**CHECK IGNITION SWITCH VOLTAGE.** 1) Prepare the Subaru Select Monitor kit. 2) Turn the ignition switch to ON (engine OFF) and run the “PC application for Subaru Select Monitor”. 3) On «System Selection Menu» display, select {Integ. unit mode}. 4) Select the {Current Data Display & Save}. 5) Select the {BATT voltage} and {IG power supply}.	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 the harness connector of body integrated unit. 3) Turn the ignition switch to ON. 4) Measure the voltage between harness connector terminal and chassis ground. ***Connector & terminal*** ***(B280) No. 1 (+) — Chassis ground (–):***	Is the voltage 10 V or more?	Check body integrated unit. <Ref. to LAN(diag)-2, Basic Diagnostic Procedure.>	Check the harness for open or short circuit between the body integrated unit and fuse.