

Door Lock Control System

SECURITY AND LOCKS

3. Door Lock Control System

A: WIRING DIAGRAM

Refer to “Keyless Entry System” in the wiring diagram. <Ref. to WI-104, WIRING DIAGRAM, Keyless Entry System.>

B: ELECTRICAL SPECIFICATION

1. BODY INTEGRATED UNIT

Refer to “Control Module I/O Signal” of “BODY CONTROL SYSTEM (DIAGNOSTICS)” section. <Ref. to BC(diag)-6, ELECTRICAL SPECIFICATION, Control Module I/O Signal.>

C: INSPECTION

1. SYMPTOM CHART

Symptoms	Repair order	Reference
The door lock control system does not operate.	1. Remove and visually inspect the following fuses. <ul style="list-style-type: none">• No. 3 (in fuse & relay box)• No. 7 (in fuse & relay box)• No. 8 (in main fuse box)	If the fuse is blown out, replace the fuse with a new part. When there is no defective with the fuse, check the power supply and ground circuit. <Ref. to SL-10, CHECK POWER SUPPLY AND GROUND CIRCUIT, INSPECTION, Door Lock Control System.>
	2. Check the power supply and ground circuit for body integrated unit.	<Ref. to SL-10, CHECK POWER SUPPLY AND GROUND CIRCUIT, INSPECTION, Door Lock Control System.>
	3. Check the door lock switch and the circuit.	<Ref. to SL-11, CHECK DOOR LOCK SWITCH, INSPECTION, Door Lock Control System.>
	4. Check the rear gate opener button and the circuit.	<Ref. to SL-12, CHECK REAR GATE OPENER BUTTON CIRCUIT, INSPECTION, Door Lock Control System.>
	5. Check the door lock actuator and the circuit.	<Ref. to SL-13, CHECK DOOR LOCK ACTUATOR AND CIRCUIT, INSPECTION, Door Lock Control System.>
A specific door lock actuator does not operate.	Check the door lock actuator and circuit.	<Ref. to SL-13, CHECK DOOR LOCK ACTUATOR AND CIRCUIT, INSPECTION, Door Lock Control System.>

2. CHECK POWER SUPPLY AND GROUND CIRCUIT

Step	Check	Yes	No
1 CHECK POWER SUPPLY. 1) Disconnect the connector of body integrated unit. 2) Measure the voltage between the body integrated unit connector and chassis ground. Connector & terminal (i84) No. 6 (+) — Chassis ground (–): (i171) No. 1 (+) — Chassis ground (–): (B281) No. 7 (+) — Chassis ground (–):	Is the voltage 9 V or more?	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 the body integrated unit connector and chassis ground. Connector & terminal (i84) No. 1 — Chassis ground: (i171) No. 29 — Chassis ground: (B280) No. 1 — Chassis ground: (B281) No. 31 — Chassis ground:	Is the resistance less than 10 Ω?	The power supply and ground circuit are OK.	Repair or replace the harness.

3. CHECK DOOR LOCK SWITCH

Step	Check	Yes	No
1 CHECK CURRENT DATA. Using the Subaru Select Monitor, display the data of «Manual lock SW input». NOTE: For detailed procedures, refer to “PC application help for Subaru Select Monitor”.	Does the display switch between OFF ↔ ON when each door lock switch is moved to LOCK?	Go to step 2.	Go to step 3.
2 CHECK DOOR LOCK SWITCH. From the condition in step 1), operate each door lock switch (driver's and passenger's) in the UNLOCK direction.	Does the display switch between OFF ↔ ON?	The door lock switch is OK.	Go to step 4.
3 CHECK DOOR LOCK SWITCH. 1) Disconnect the door lock switch connector. 2) Measure the continuity between terminals when moving the door lock switch in LOCK direction. Terminals Driver's side No. A10 — No. B3: Passenger's side No. 4 — No. 5:	Did the indicator change from “No continuity” (1 MΩ or more) to “Continuity exists” (less than 10 Ω)?	Go to step 4.	Replace the power window main switch or door lock switch.
4 CHECK DOOR LOCK SWITCH. Measure the continuity between terminals when moving the door lock switch in UNLOCK direction. Terminals Driver's side No. A2 — No. B3: Passenger's side No. 2 — No. 5:	Did the indicator change from “No continuity” (1 MΩ or more) to “Continuity exists” (less than 10 Ω)?	Go to step 5.	Replace the power window main switch or door lock switch.
5 CHECK HARNESS. Measure the resistance between the door lock switch connector and chassis ground. Connector & terminal Driver's side (D102) No. 3 — Chassis ground: Passenger's side (D125) No. 5 — Chassis ground:	Is the resistance less than 10 Ω?	Go to step 6.	Repair or replace the harness.
6 CHECK HARNESS. Check the harness between body integrated unit and door lock switch. Connector & terminal Driver's side (D7) No. 10 — (i84) No. 9: (D7) No. 2 — (i84) No. 20: Passenger's side (D125) No. 4 — (i84) No. 9: (D125) No. 2 — (i84) No. 20:	Is harness normal?	Replace the body integrated unit. <Ref. to SL-78, Body Integrated Unit.>	Repair or replace the harness.

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4. CHECK REAR GATE OPENER BUTTON CIRCUIT

Step	Check	Yes	No
1 CHECK CURRENT DATA. Using the Subaru Select Monitor, display the data of «R Gate Release SW input». NOTE: For detailed procedures, refer to “PC application help for Subaru Select Monitor”.	Does the display change to OFF ←→ ON, when the rear gate opener button is operated?	Rear gate opener button is normal.	Go to step 2.
2 CHECK HARNESS. 1) Disconnect the connectors of body integrated unit and rear gate opener button. 2) Check the harness between the body integrated unit and rear gate opener button. Connector & terminal (i84) No. 10 — (D47) No. 1:	Is harness normal?	Go to step 3.	Repair or replace the harness.
3 CHECK HARNESS. Measure the resistance between the rear gate opener button connector and chassis ground. Connector & terminal (D47) No. 2 — Chassis ground:	Is the resistance less than 10 Ω?	Go to step 4.	Repair or replace the harness.
4 CHECK REAR GATE OPENER BUTTON. Measure the resistance between terminals both when the rear gate opener button is pressed and when not pressed. Terminals No. 1 — No. 2:	Is the resistance less than 10 Ω when the switch is pressed and 1 MΩ or more when not pressed?	Replace the body integrated unit. <Ref. to SL-78, Body Integrated Unit.>	Replace the rear gate opener button.

5. CHECK DOOR LOCK ACTUATOR AND CIRCUIT

Step	Check	Yes	No
1 CHECK HARNESS (DOOR LOCK). 1) Disconnect the body integrated unit and each door lock actuator connector. 2) Check the harness between body integrated unit and each door lock actuator. Connector & terminal Front door LH <i>(i171) No. 2 — (D72) No. 4:</i> Front door RH <i>(i171) No. 2 — (D18) No. 4:</i> Rear door LH <i>(i171) No. 2 — (D26) No. 4:</i> Rear door RH <i>(i171) No. 2 — (D32) No. 4:</i>	Is harness normal?	Go to step 2.	Repair or replace the harness.
2 CHECK HARNESS (DOOR UNLOCK). Check the harness between body integrated unit and each door lock actuator. Connector & terminal Front door LH <i>(i171) No. 4 — (D72) No. 1:</i> Front door RH <i>(i171) No. 3 — (D18) No. 1:</i> Rear door LH <i>(i171) No. 3 — (D26) No. 1:</i> Rear door RH <i>(i171) No. 3 — (D32) No. 1:</i>	Is harness normal?	4 door model: Go to step 5. 5 door model/XV model: Go to step 3.	Repair or replace the harness.
3 CHECK HARNESS (REAR GATE UNLOCK). Check the harness between the body integrated unit and rear gate lock actuator. Connector & terminal <i>(i171) No. 7 — (D46) No. 1:</i>	Is harness normal?	Go to step 4.	Repair or replace the harness.
4 CHECK HARNESS (REAR GATE UNLOCK). Measure the resistance between the rear gate lock actuator connector and chassis ground. Connector & terminal <i>(D46) No. 2 — Chassis ground:</i>	Is the resistance less than 10 Ω ?	Go to step 7.	Repair or replace the harness.
5 CHECK HARNESS (TRUNK UNLOCK). Check the harness between the body integrated unit and trunk lid lock actuator. Connector & terminal <i>(i171) No. 7 — (R186) No. 1:</i>	Is harness normal?	Go to step 6.	Repair or replace the harness.
6 CHECK HARNESS (TRUNK UNLOCK). Measure the resistance between the trunk lid lock actuator connector and chassis ground. Connector & terminal <i>(R186) No. 2 — Chassis ground:</i>	Is the resistance less than 10 Ω ?	Go to step 7.	Repair or replace the harness.
7 CHECK BODY INTEGRATED UNIT OUTPUT SIGNAL. 1) Connect the body integrated unit connector. 2) Measure the voltage between terminals of the body integrated unit when operating the door lock switch to LOCK direction. Connector & terminal Except for front door LH <i>(i171) No. 2 (+) — (i171) No. 3 (-):</i> Front door LH <i>(i171) No. 2 (+) — (i171) No. 4 (-):</i>	Does the voltage change from less than 1 V \rightarrow 9 V or more? (During lock output)	Go to step 8.	Replace the body integrated unit. <Ref. to SL-78, Body Integrated Unit.>

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Step	Check	Yes	No
8 CHECK BODY INTEGRATED UNIT OUTPUT SIGNAL. Measure the voltage between terminals of the body integrated unit when operating the door lock switch to UNLOCK direction. Connector & terminal Except for front door LH <i>(i171) No. 3 (+) — (i171) No. 2 (-):</i> Front door LH <i>(i171) No. 4 (+) — (i171) No. 2 (-):</i>	Does the voltage change from less than 1 V → 9 V or more? (During unlock output)	Go to step 9.	Replace the body integrated unit. <Ref. to SL-78, Body Integrated Unit.>
9 CHECK BODY INTEGRATED UNIT OUTPUT SIGNAL. Measure the voltage between body integrated unit and chassis ground when operating the rear gate opener button. Connector & terminal <i>(i171) No. 7 (+) — Chassis ground (-):</i>	Does the voltage change from less than 1 V → 9 V or more? (During unlock output)	Go to step 10.	Replace the body integrated unit. <Ref. to SL-78, Body Integrated Unit.>
10 CHECK DOOR LOCK ACTUATOR. Check the door lock actuator. <ul style="list-style-type: none"> • Front door lock actuator: <Ref. to SL-38, INSPECTION, Front Door Latch and Door Lock Actuator Assembly.> • Rear door lock actuator: <Ref. to SL-45, INSPECTION, Rear Door Latch and Door Lock Actuator Assembly.> 	Is the door lock actuator OK?	<ul style="list-style-type: none"> • 4 door model: Go to step 12. • 5 door model/XV model: Go to step 11. 	Replace the door latch and door lock actuator assembly.
11 CHECK REAR GATE LOCK ACTUATOR. Check the rear gate lock actuator. <Ref. to SL-48, Rear Gate Latch and Actuator Assembly.>	Is the rear gate lock actuator normal?	Check the connection status of the harness and connector that may have a temporary poor contact.	Replace the rear gate latch and actuator assembly.
12 CHECK TRUNK LID LOCK ACTUATOR. Check the trunk lid lock actuator. <Ref. to SL-50, Trunk Lid Latch and Actuator Assembly.>	Is trunk lid lock actuator normal?	Check the connection status of the harness and connector that may have a temporary poor contact.	Replace the trunk lid latch & actuator assembly.