2. Door Lock Control System

A: WIRING DIAGRAM

1. DOOR LOCK CONTROL

<Ref. to WI-158, WIRING DIAGRAM, Keyless Entry System.>

B: ELECTRICAL SPECIFICATION

1. BODY INTEGRATED UNIT

Refer to Control Module I/O Signal in the LAN SYSTEM (DIAGNOSTICS). <Ref. to LAN(diag)-9, 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 check fuse No. 3 (in the fuse & relay box), No. 7 (in the fuse & relay box) and No. 8 (in the 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-9, CHECK POWER SUPPLY & GROUND CIRCUIT, INSPECTION, Door Lock Control System.>
	2. Check the power supply and ground circuit for body integrated unit.	<Ref. to SL-9, CHECK POWER SUPPLY & GROUND CIRCUIT, INSPECTION, Door Lock Control System.>
	3. Check the door lock switch and the circuit.	<Ref. to SL-9, CHECK DOOR LOCK SWITCH, INSPECTION, Door Lock Control System.>
	4. Check the rear gate release switch and the circuit.	<Ref. to SL-10, CHECK REAR GATE RELEASE SWITCH CIRCUIT, INSPECTION, Door Lock Control System.>
	5. Check the door lock actuator and the circuit.	<Ref. to SL-11, CHECK DOOR LOCK ACTUATOR & CIRCUIT, INSPECTION, Door Lock Control System.>
A specific door lock actuator does not operate.	Check the door lock actuator and circuit.	<Ref. to SL-11, CHECK DOOR LOCK ACTUATOR & CIRCUIT, INSPECTION, Door Lock Control System.>

2. CHECK POWER SUPPLY & GROUND CIRCUIT

	Step	Check	Yes	No
1	**CHECK POWER SUPPLY.** 1) Disconnect the harness connector of body integrated unit. 2) Measure the voltage between harness connector terminal and chassis ground. ***Connector & terminal*** ***(i84) No. 34 (+) — Chassis ground (–):*** ***(B281) No. 2 (+) — Chassis ground (–):*** ***(B280) No. 7 (+) — Chassis ground (–):***	Is the voltage 10 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 harness connector terminal and chassis ground. ***Connector & terminal*** ***(i84) No. 21 — Chassis ground:*** ***(B280) No. 22 — Chassis ground:*** ***(B281) No. 8 — Chassis ground:*** ***(B281) No. 9 — Chassis ground:***	Is the resistance less than 10 Ω?	The power supply and ground circuit are OK.	Repair the harness.

3. CHECK DOOR LOCK SWITCH

	Step	Check	Yes	No
1	**CHECK DOOR LOCK SWITCH.** Check the input from door lock switch to body integrated unit using Subaru Select Monitor. 1) 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) On «System Selection Menu» display, select {Integ. unit mode}. Select the {Current Data Display & Save}. 5) On «System Selection Menu» display, select {Integ. unit mode}. Select the {Current Data Display & Save}. Operate the door lock switches (driver’s seat and passenger’s seat) in the LOCK direction, and check the input of {Manual lock SW input}.	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), check the {Manual unlock SW input} input by operating each door lock switch (driver’s and passenger’s) in the UNLOCK direction.	Does the display switch between OFF ⇔ ON when each door lock switch is moved to UNLOCK direction?	The door lock switch is OK.	Go to step **4**.
3	**CHECK DOOR LOCK SWITCH.** 1) Disconnect the door lock switch harness connector. 2) Use a tester and check the continuity when the door lock switch is operated to the LOCK side. ***Connector & terminal*** ***Driver’s side:*** ***(D7) No. 9 — (D7) No. 5:*** ***Passenger’s side:*** ***(D125) No. 4 — (D125) 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.

	Step	Check	Yes	No
4	**CHECK DOOR LOCK SWITCH.** Use a tester and check the continuity when the door lock switch is operated to the UNLOCK side. ***Connector & terminal*** ***Driver's side:*** ***(D7) No. 8 — (D7) No. 5:*** ***Passenger's side:*** ***(D125) No. 2 — (D125) 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.** Use a tester to measure the resistance between the door lock switch harness connector and chassis ground. ***Connector & terminal*** ***Driver's side:*** ***(D7) No. 5 — 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.** 1) Disconnect the harness connector of body integrated unit. 2) Measure the resistance between the body integrated unit and door lock switch. ***Connector & terminal*** ***Driver's side:*** ***(D7) No. 9 — (i84) No. 15:*** ***(D7) No. 8 — (i84) No. 29:*** ***Passenger's side:*** ***(D125) No. 4 — (i84) No. 15:*** ***(D125) No. 2 — (i84) No. 29:***	Is the resistance less than 10 Ω?	Replace the body integrated unit. <Ref. to SL-52, Body Integrated Unit.>	Repair or replace the harness.

4. CHECK REAR GATE RELEASE SWITCH CIRCUIT

	Step	Check	Yes	No
1	**CHECK REAR GATE RELEASE SWITCH.** Check the input from rear gate release switch to body integrated unit using Subaru Select Monitor. 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) On «System Selection Menu» display, select {Integ. unit mode}. Select the {Current Data Display & Save}. 5) On «System Selection Menu» display, select {Integ. unit mode}. Select the {Current Data Display & Save}. Check the {R Gate Release SW input} input by operating the rear gate release switch.	Is the display change to OFF ⇔ ON, when the rear gate release switch is operated?	Rear gate release switch is normal.	Go to step **2**.
2	**CHECK HARNESS.** Measure the resistance between the body integrated unit and rear gate release switch. ***Connector & terminal*** ***(B281) No. 22 — (D135) No. 2:***	Is the resistance less than 10 Ω?	Go to step **3**.	Repair or replace the harness.

	Step	Check	Yes	No
3	**CHECK HARNESS.** Measure the resistance between the rear gate release switch and chassis ground. ***Connector & terminal*** ***(D135) No. 1 — Chassis ground:***	Is the resistance less than 10 Ω?	Go to step **4**.	Repair or replace the harness.
4	**CHECK REAR GATE RELEASE SWITCH.** Measure the resistance between connector terminals when the rear gate release switch is pressed, and when it is released. ***Connector & terminal*** ***(D135) No. 2 — (135) No. 1:***	Is the resistance when the switch is pressed less than 10 Ω, and 1 MΩ or more when released?	Replace the body integrated unit. <Ref. to SL-52, Body Integrated Unit.>	Replace the rear gate release switch. <Ref. to SL-41, Rear Gate Release Switch.>

5. CHECK DOOR LOCK ACTUATOR & CIRCUIT

	Step	Check	Yes	No
1	**CHECK HARNESS (DOOR LOCK).** Measure the resistance between body integrated unit and each door lock actuator. ***Connector & terminal*** ***(i84) No. 7 — (D72) No. 2: (front door LH)*** ***(i84) No. 7 — (D18) No. 2: (front door RH)*** ***(i84) No. 7 — (D26) No. 2: (rear door LH)*** ***(i84) No. 7 — (D32) No. 2: (rear door RH)***	Is the resistance less than 10 Ω?	Go to step **2**.	Repair or replace the harness.
2	**CHECK HARNESS (DOOR UNLOCK).** Measure the resistance between body integrated unit and each door lock actuator. ***Connector & terminal*** ***(i84) No. 23 — (D72) No. 4: (front door LH)*** ***(i84) No. 8 — (D18) No. 4: (front door RH)*** ***(i84) No. 8 — (D26) No. 4: (rear door LH)*** ***(i84) No. 8 — (D32) No. 4: (rear door RH)***	Is the resistance less than 10 Ω?	Go to step **3**.	Repair or replace the harness.
3	**CHECK HARNESS (REAR GATE UNLOCK).** Measure the resistance between the body integrated unit and rear gate lock actuator. ***Connector & terminal*** ***(i84) No. 22 — (D140) No. 1:***	Is the resistance less than 10 Ω?	Go to step **4**.	Repair or replace the harness.
4	**CHECK HARNESS (REAR GATE UNLOCK).** Measure the resistance between the rear gate lock actuator and chassis ground. ***Connector & terminal*** ***(D140) No. 2 — Chassis ground:***	Is the resistance less than 10 Ω?	Go to step **5**.	Repair or replace the harness.
5	**CHECK BODY INTEGRATED UNIT.** Measure the voltage between the connector terminals of the body integrated unit when moving the door lock switch to LOCK. ***Connector & terminal*** ***Except for front door LH*** ***(i84) No. 7 (+) — (i84) No. 8 (–):*** ***Front door LH*** ***(i84) No. 7 (+) — (i84) No. 23 (–):***	Does the voltage change from less than 1.0 V → 9 V or more? (During lock output)	Go to step **6**.	Replace the body integrated unit. <Ref. to SL-52, Body Integrated Unit.>
6	**CHECK BODY INTEGRATED UNIT.** Measure the voltage between the connector terminals of the body integrated unit when moving the door lock switch to UNLOCK. ***Connector & terminal*** ***Except for front door LH*** ***(i84) No. 8 (+) — (i84) No. 7 (–):*** ***Front door LH*** ***(i84) No. 23 (+) — (i84) No. 7 (–):***	Does the voltage change from less than 1.0 V → 9 V or more? (During unlock output)	Go to step **7**.	Replace the body integrated unit. <Ref. to SL-52, Body Integrated Unit.>

	Step	Check	Yes	No
7	**CHECK BODY INTEGRATED UNIT.** Measure the voltage between body integrated unit and chassis ground when moving the rear gate opener button. ***Connector & terminal*** ***(i84) No. 22 (+) — Chassis ground (–):***	Does the voltage change from less than 1.0 V → 9 V or more? (During unlock output)	Go to step **8**.	Replace the body integrated unit. <Ref. to SL-52, Body Integrated Unit.>
8	**CHECK DOOR LOCK ACTUATOR.** Check the door lock actuator. • Front door lock actuator <Ref. to SL-35, INSPECTION, Front Door Latch and Door Lock Actuator Assembly.> • Rear door lock actuator <Ref. to SL-39, INSPECTION, Rear Door Latch and Door Lock Actuator Assembly.>	Is the door lock actuator OK?	Go to step **9**.	Replace the door latch and door lock actuator assembly.
9	**CHECK REAR GATE LOCK ACTUATOR.** Check the rear gate lock actuator. <Ref. to SL-42, Rear Gate Latch Assembly.>	Is the rear gate lock actuator normal?	Check the harness for open or short circuits between the body integrated unit and rear gate lock actuator.	Replace the rear gate latch assembly.