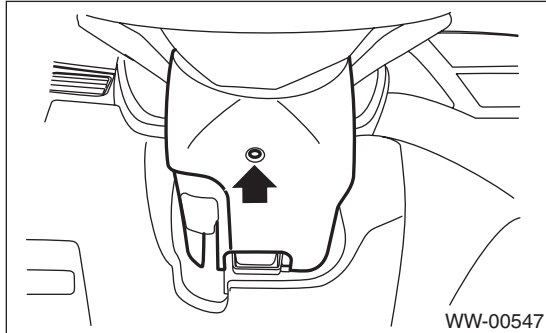


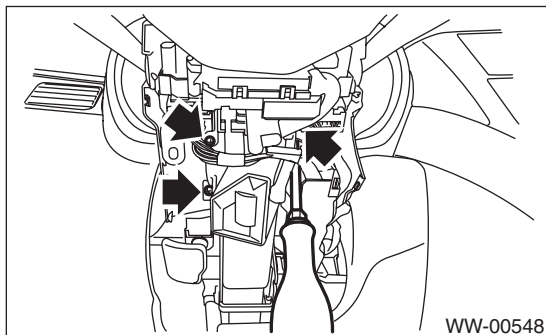
## 3. Combination Switch (Wiper)

### A: REMOVAL

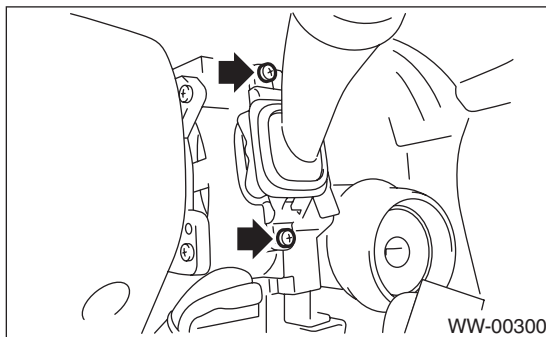
- 1) Disconnect the ground cable from battery.
- 2) Remove the screws and remove the steering column cover lower.



- 3) Remove the three mounting screws of steering column cover upper.



- 4) Disconnect the connector from wiper switch.
- 5) Remove the screws and then remove the wiper switch.

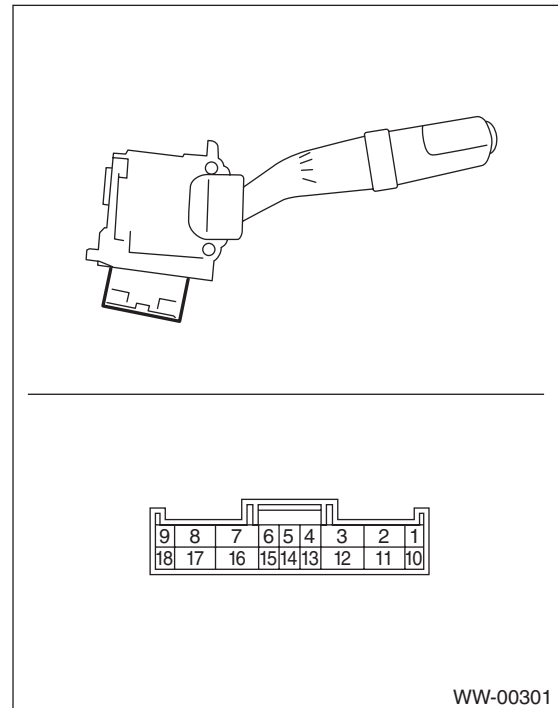


### B: INSTALLATION

Install in the reverse order of removal.

### C: INSPECTION

- Inspect the continuity between each connector terminal.



	Switch position	Terminal No.	Standard
Front	OFF	7 and 16	Less than 1 $\Omega$
	INT	7 and 16	Less than 1 $\Omega$
	LO	7 and 17	Less than 1 $\Omega$
	HI	8 and 17	Less than 1 $\Omega$
	Washer ON	2 and 11	Less than 1 $\Omega$
Rear	OFF	2 and 10 10 and 12 2 and 12	1 M $\Omega$ or more
	INT	2 and 13	Less than 1 $\Omega$
	ON	2 and 10	Less than 1 $\Omega$
	Washer ON	2 and 12	Less than 1 $\Omega$

If continuity is not at the standard value, replace the switch.

### 1. FRONT WIPER

- 1) Check with Subaru Select Monitor

When the front wiper switch is operated, check the input signal using the Subaru Select Monitor.

- (1) Prepare the Subaru Select Monitor kit.
- (2) Turn the ignition switch to ON.
- (3) On «System Selection Menu» display, select {Integ. unit mode}.
- (4) Display the {Current Data Display & Save}, and select {Fr wiper input}.
- (5) Check the input signal when the front wiper switch is set to LO or HI.

Does the input signal change between ON $\longleftrightarrow$ OFF correctly?

## Combination Switch (Wiper)

### WIPER AND WASHER SYSTEMS

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- Yes → Finish the diagnosis.
- No →
  1. Check the harness.
  2. Check the wiper motor.
  3. Check ACC input voltage of body integrated unit.

#### **Connector & terminal**

##### **(B281) No. 5 (+) — Chassis ground (-):**

4. Replace the body integrated unit. <Ref. to SL-49, Body Integrated Unit.>

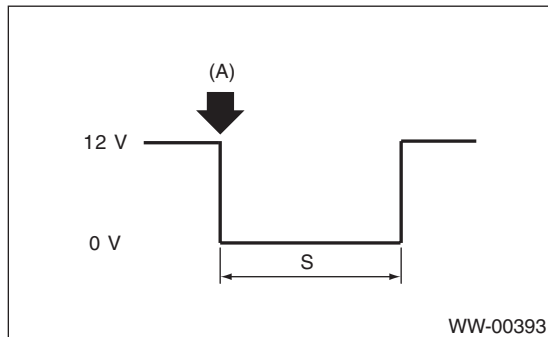
#### 2) Check the intermittent operation (inspection of the wiper switch alone)

- (1) Set the voltage meter between terminal No. 7 (+) and No. 2 (-).
- (2) Connect the battery to connector. (Terminal No. 17 (+), terminal No. 2 & 16 (-))
- (3) Turn the front wiper switch to INT.
- (4) Connect the battery (+) to the terminal No. 16 for 5 seconds.
- (5) Connect the battery (-) to the terminal No. 16, and check the voltage between terminal No. 7 — No. 2 when performing the intermittent operation.
- (6) Perform step (1) to (5) above when intermittent control switch is in MIN or MAX, and replace the switch if the operation is not as specified.

#### **Intermittent stationary time**

**MIN: Approx. 4 seconds**

**MAX: Approx. 19 seconds**



(A): Connect the battery (-) to the terminal No. 16.

S: Intermittent downtime (sec.)

# Combination Switch (Wiper)

## WIPER AND WASHER SYSTEMS

### 2. REAR WIPER

#### 1) Check with Subaru Select Monitor

Step	Check	Yes	No
<b>1 CHECK INPUT OF REAR WIPER SWITCH.</b> Check the input from body integrated unit using the Subaru Select Monitor. 1) Prepare the Subaru Select Monitor kit. 2) Turn the ignition switch to ON. 3) On «System Selection Menu» display, select {Integ. unit mode}. 4) Select the {Current Data Display & Save}. 5) Check the input of the rear wiper switch.	Is the input normal?	Go to step 4.	Go to step 2.
<b>2 CHECK HARNESS.</b> 1) Turn the ignition switch to OFF, disconnect the ground cable from battery. 2) Disconnect the connector of body integrated unit. 3) Disconnect the connector from wiper switch. 4) Measure the resistance between body integrated unit and wiper switch, and between wiper switch and chassis ground. <b>Connector &amp; terminal</b> <b>(B281) No. 18 — (B70) No. 10:</b> <b>(B281) No. 27 — (B70) No. 13:</b> <b>(B281) No. 28 — (B70) No. 12:</b> <b>(B70) No. 8 — Chassis ground:</b>	Is the resistance less than 10 Ω?	Go to step 3.	Repair the harness between the body integrated unit and wiper switch, and between wiper switch and chassis ground.
<b>3 CHECK INPUT VOLTAGE OF BODY INTEGRATED UNIT.</b> 1) Connect the ground cable to battery. 2) Turn the ignition switch to ACC. 3) Check the input voltage of body integrated unit. <b>Connector &amp; terminal</b> <b>(B280) No. 7 (+) — Chassis ground (-):</b>	Is the voltage 10 V or more?	Go to step 4.	Check the harness and fuse.
<b>4 CHECK OUTPUT OF BODY INTEGRATED UNIT.</b> When the rear wiper switch is operated, check the output using the Subaru Select Monitor. 1) Turn the ignition switch to ON. 2) Operate the rear wiper switch and set to each position of ON and INT. 3) At this time, check the body integrated unit output.	When set to ON, is ON output continuous? When set to INT, is ON/OFF output repeated? (INT OFF time (when vehicle parked): 12 seconds)	Check the rear wiper motor circuit.	Replace the body integrated unit. <Ref. to SL-49, Body Integrated Unit.>

## Combination Switch (Wiper)

### WIPER AND WASHER SYSTEMS

#### 2) Check rear wiper motor circuit

Step	Check	Yes	No
<b>1 CHECK POWER SUPPLY CIRCUIT OF THE REAR WIPER MOTOR.</b> 1) Disconnect the harness connector of the rear wiper motor. 2) Turn the ignition switch to ACC. 3) Measure the voltage between the rear wiper motor harness connector terminal and chassis ground. <b>Connector &amp; terminal</b> <b>(D43) No. 3 (+) — Chassis ground (-):</b>	Is the voltage 10 V or more?	Go to step 2.	<ul style="list-style-type: none"> <li>Check the fuse (No. 23 in fuse &amp; relay box).</li> <li>Check the fusible link (No. 7 in main fuse box).</li> </ul>
<b>2 CHECK GROUND CIRCUIT OF REAR WIPER MOTOR.</b> 1) Turn the ignition switch to OFF. 2) Measure the resistance between the rear wiper motor harness connector terminal and chassis ground. <b>Connector &amp; terminal</b> <b>(D43) No. 4 — Chassis ground:</b>	Is the resistance less than 10 $\Omega$ ?	Go to step 3.	Repair the open circuit of the rear wiper motor ground circuit.
<b>3 CHECK HARNESS BETWEEN BODY INTEGRATED UNIT AND REAR WIPER MOTOR.</b> 1) Turn the ignition switch to OFF. 2) Disconnect the harness connector of body integrated unit. 3) Disconnect the harness connector of the rear wiper motor. 4) Measure the resistance between the harness connector terminals of the body integrated unit and rear wiper motor. <b>Connector &amp; terminal</b> <b>(B279) No. 8 — (D43) No. 1:</b> <b>(B279) No. 9 — (D43) No. 2:</b>	Is the resistance less than 10 $\Omega$ ?	Go to step 4.	Repair the open circuit of the harness between body integrated unit and rear wiper motor.
<b>4 CHECK INPUT VOLTAGE OF BODY INTEGRATED UNIT.</b> 1) Turn the ignition switch to ACC. 2) Check the input voltage of body integrated unit. <b>Connector &amp; terminal</b> <b>(B279) No. 21 (+) — Chassis ground (-):</b>	Is the voltage 10 V or more?	Go to step 5.	Check the harness and fuse.
<b>5 CHECK OUTPUT OF BODY INTEGRATED UNIT.</b> 1) Connect the harness connector of body integrated unit. 2) Disconnect the connector of the rear wiper motor. 3) Turn the ignition switch to ACC. 4) Measure the voltage between rear wiper motor connector and chassis ground. <b>Connector &amp; terminal</b> <b>(D43) No. 2 (+) — Chassis ground (-):</b>	Is the voltage less than 1.5 V when rear wiper switch is OFF, and is the voltage 10 V or more when rear wiper switch is ON?	Go to step 6.	Replace the body integrated unit. <Ref. to SL-49, Body Integrated Unit.>
<b>6 CHECK OPERATION OF REAR WIPER MOTOR.</b> 1) Remove the rear wiper motor. 2) Check the rear wiper motor. <Ref. to WW-19, INSPECTION, Rear Wiper Motor.>	Does the rear wiper motor rotate normally?	End.	Replace the rear wiper motor.