

## 16. Rear Window Defogger System

### A: WIRING DIAGRAM

Refer to “Rear Defogger System” in WI section.  
<Ref. to WI-117, WIRING DIAGRAM, Rear Defogger System.>

### B: INSPECTION

#### 1. SYSTEM INSPECTION

Symptoms	Repair order
Rear window defogger does not operate.	<ol style="list-style-type: none"> <li>1. Check the fuse.</li> <li>2. Check the rear defogger relay.</li> <li>3. Check the rear defogger switch.</li> <li>4. Check the heat wire.</li> <li>5. Check the wiring harness.</li> <li>6. Check body integrated unit.</li> </ol>

#### NOTE:

Rear window defogger system can be customized on the Subaru Select Monitor, when the body integrated unit customize setting {A/C ECM setting} is “support”. (Auto A/C model)

System name	Initial setting	Customize setting
Rr defogger op. mode	OFF after 15 min.	Repeat 15 min. operation and 2 min. stop.

#### 2. CHECK WITH SUBARU SELECT MONITOR

#### CAUTION:

**Check whether the “Rr defogger op. mode” setting is in initial setting or customize setting before performing inspection.**

1) Check the input signal when the rear window defogger switch is operated using Subaru Select Monitor.

(1) Prepare the Subaru Select Monitor. <Ref. to GW-7, PREPARATION TOOL, General Description.>

(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 {Rr Defogger Output} from the {Current Data Display & Save}.

(5) Operate the rear window defogger switch to check the displayed data (ON/OFF).

2) Check the operation when the rear window defogger switch is ON.

• When the customize setting is “Continuous”, the cycle of 15-minute operation then 2-minute stop is correct.

• When the customize setting is “Normal”, the cycle of 15-minute operation then OFF is correct.

3) If the correct operation as described in the above 2) is not carried out, replace the body integrated unit.

#### 3. HEAT WIRE INSPECTION

#### CAUTION:

**When wiping off the stain on glass with cloth, use a dry and soft cloth and move it in the direction of the heat wire extension to avoid damage to the heat wire.**

1) Prepare the following checking items.

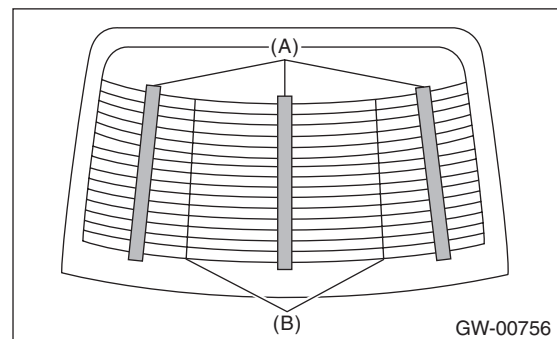
• Liquid crystal thermograph sheet (Approximate Size: 300 × 300 mm (11.8 × 11.8 in) and thermal temperature: 35 — 40°C (95 — 104°F))

• Aluminum foil

2) Turn the ignition switch to ON.

3) Turn the defogger switch to ON.

4) Push the liquid crystal thermograph sheet from the outside of the rear glass.



(A) Liquid crystal thermograph sheet

(B) Separate line

#### NOTE:

Use the liquid crystal thermograph sheet every range it is separated with the separate line.

5) Determine the faulty heat wire by checking the color of the liquid crystal thermograph sheet.

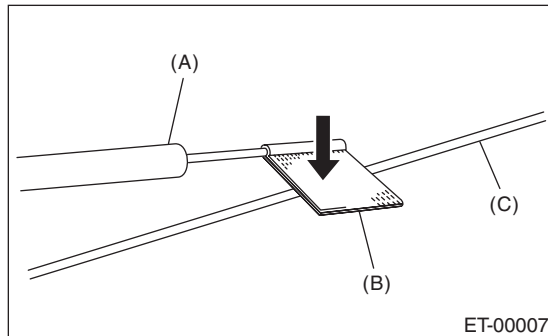
Liquid crystal thermograph sheet	Criteria
Change occurred (red → blue)	Normal
No change (black)	Open

#### NOTE:

• Check from the inside of the glass if the liquid crystal thermograph sheet does not change.

• The time for the color change may differ depends on the surface temperature of the glass.

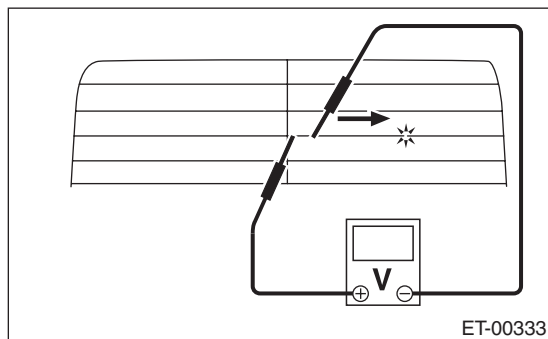
6) Wrap a piece of aluminum foil around the tip of tester probe and press it against the heat wire with your finger.



- (A) Tester probe
- (B) Aluminum foil
- (C) Heat wire

7) To both ends of the section that has been found to include an open in the step 5), apply the tester positive (+) probe and the negative (-) probe.

8) Move the tester probe on the negative (-) side slowly along the heat wire. If voltage changes from zero to several volts during movement of tester probe, heat wire is open at the voltage change point.

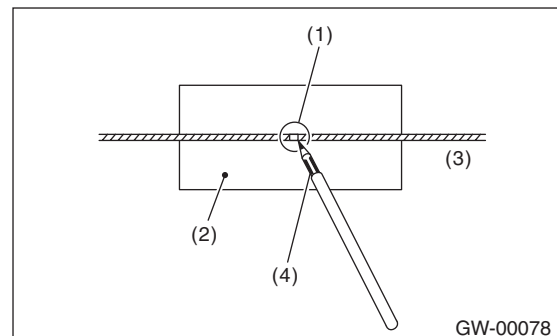


9) Repair the heat wire that determines the place of the open circuit. <Ref. to GW-31, REPAIR, Rear Window Defogger System.>

## C: REPAIR

- 1) Clean the broken portion with alcohol or white gasoline.
- 2) Mask both side of wire with masking tape.
- 3) Apply the conductive silver composition to the broken portion.

**Conductive silver composition:**  
**by Permatex**  
**QUICK GRID**



- (1) Broken portion
- (2) Masking tape
- (3) Broken wire
- (4) Conductive silver composition

- 4) Dry using a dryer after applying the composition.
- 5) After repair, check the wire.