

WINDSHIELD DEICER SYSTEM

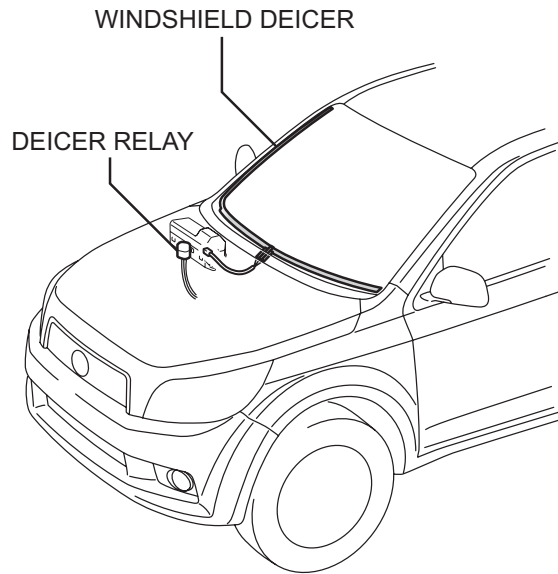
OPERATION CHECK

1. CHECK WINDSHIELD DEICER OPERATION

- (a) Turn the ignition switch to the ON position.
- (b) Check that when the windshield deicer switch located at the lower right side of the driver's seat is pressed, the indicator illuminates and the windshield deicer starts to warm up.
- (c) Check that the indicator light turns off after about 15 minutes, and that the deicer stops operation.

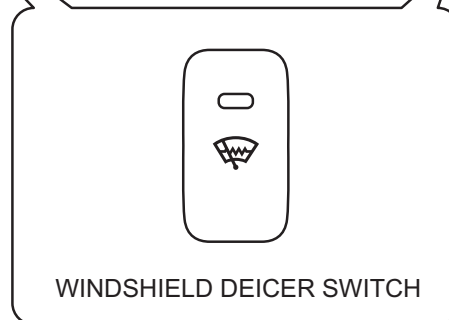
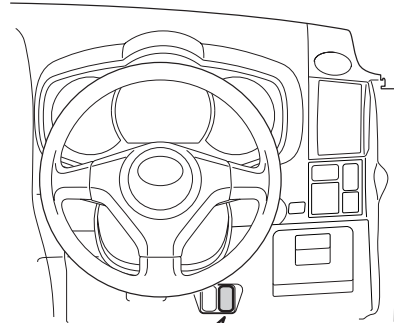
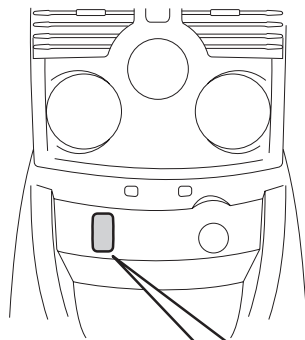
WS

LOCATION



LEFT-HAND DRIVE

RIGHT-HAND DRIVE



WS

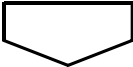
PROBLEM SYMPTOMS TABLE

Symptom	Suspected Area	See Page
Windshield deicer does not operate	Go to the relevant flowchart (DEICER DOES NOT OPERATE)	WS-34

HOW TO PROCEED WITH TROUBLE-SHOOTING

1

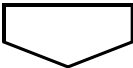
VEHICLE BROUGHT TO WORKSHOP



2

CONDUCT CUSTOMER PROBLEM ANALYSIS AND CHECK SYMPTOMS

HINT:
(See page WS-33)



WS

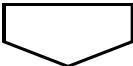
3

PROBLEM SYMPTOMS TABLE

HINT:
(See page WS-32)



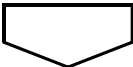
RELATED TO PROBLEM SYMPTOM (GO TO STEP 5)



4

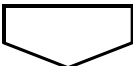
TROUBLESHOOT BASED ON THE SYMPTOM

(a) CHECK FUNCTION (See page WS-30.)



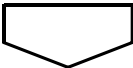
5

ADJUST, REPAIR OR REPLACE



6

CONFIRMATION TEST



END

CUSTOMER PROBLEM ANALYSIS CHECK

Windshield Deicer System		Date Vehicle Brought In / /	
Customer's Name	License Plate No.	First Registered Year 20__ / /	
	Model	VIN	
Written By	Inspector's Name	Engine Type	Odometer Reading km/mile
Description Of Symptoms			
Date Problem First Occured		Date Time	
Frequency Problem Occurs		Constant Occasional (__times per day, __times per month)	
Conditions (Method of use and results)			
Weather	Clear Cloudy Rainy Snowy Others()	Temperature	Approx. ()°C/°F
Road	City Suburbs Highway Others ()	Paved Unpaved	
Problem Symptoms	☐ Windshield deicer does not operate		
	☐ Others		
Condition Returns To Normal		☐ IG ON ☐ Engine starting ☐ () SW operation	
Conditions When Problem Occurs	Present Not present	☐ IG OFF ON ☐ () SW operation ☐ Others ()	

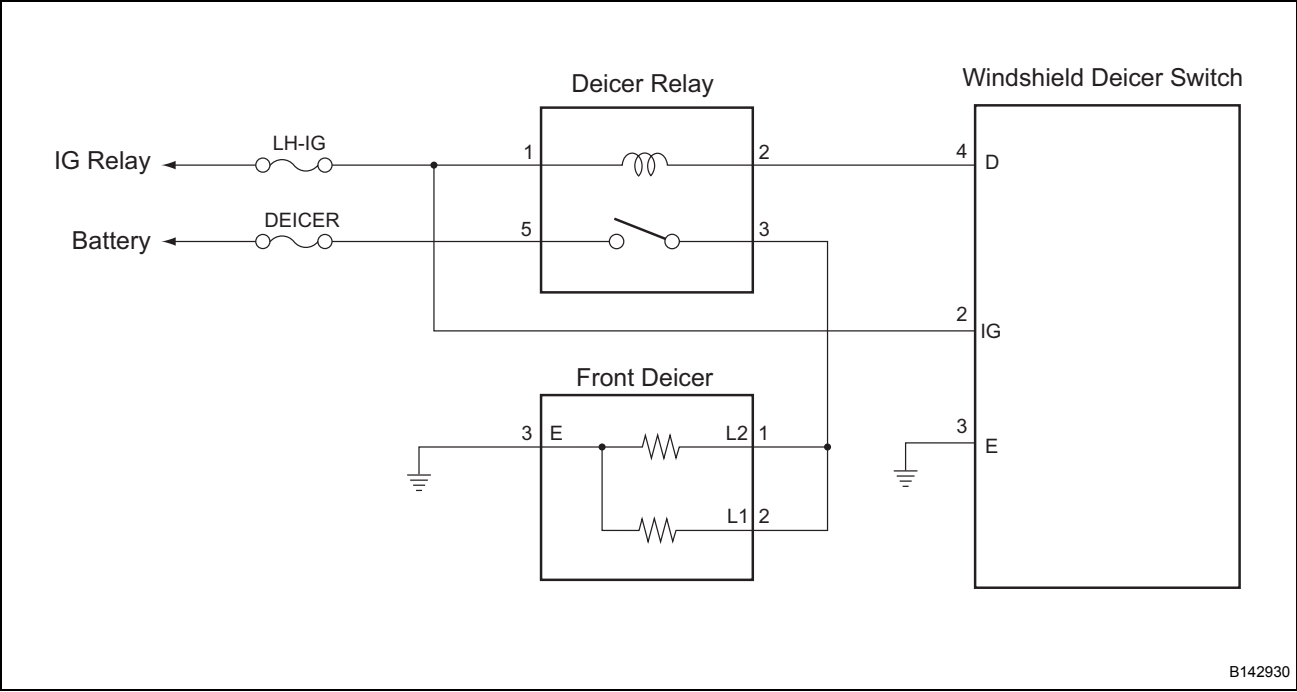
WS

Windshield deicer does not operate

DESCRIPTION

The front deicer is activated by operating the windshield deicer switch while the ignition switch is in the ON position. The windshield deicer is controlled by the windshield deicer switch, and when the switch ON signal is received, the DEICER relay operates for 15 minutes. Also, the operation of the DEICER relay stops if the switch OFF signal is received within 15 minutes.

CIRCUIT DIAGRAM



INSPECTION PROCEDURE

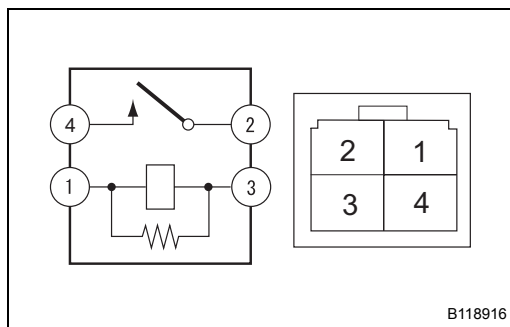
1 CHECK FUSE (DEICER, LH-IG)

NG REPLACE FUSES

OK

2 CHECK DEICER RELAY

(a) Remove the DEICER relay.



- (b) Using the electrical tester, check the continuity between each of the connector terminals.

Standard:

Inspection Terminal	Standard
Terminal 1 ↔ Terminal 3	Continuity
Terminal 2 ↔ Terminal 4	No continuity

- (c) Apply battery voltage between terminal 1 and 2 of the connector.
 (d) Using the electrical tester, check the continuity between terminal 3 and 5 of the connector.

Standard:

Continuity

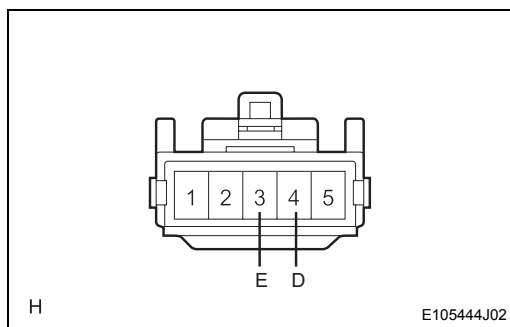
NG

REPLACE DEICER RELAY

OK

3

CHECK WIRE HARNESS AND CONNECTOR (BETWEEN POWER SOURCE SYSTEM AND WINDSHIELD DEICER SWITCH)



- (a) Connect the DEICER relay.
 (b) Disconnect the windshield deicer switch connector.
 (c) Turn the ignition switch to the ON position.
 (d) Using the electrical tester, check the voltage between the vehicle wire harness side connector of terminal 4 (D) and terminal 3 (E).

Standard:

10 to 14 V

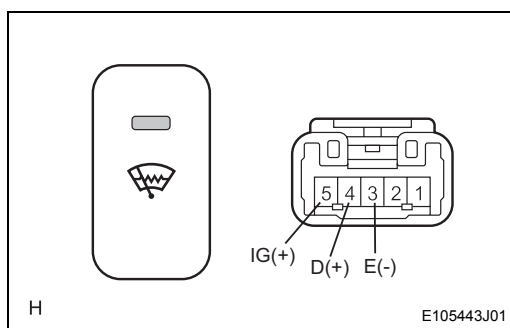
NG

REPAIR OR REPLACE WIRE HARNESS OR CONNECTOR

OK

4

CHECK WINDSHIELD DEICER (TERMINAL D)



- (a) Connect the windshield deicer switch connector.
 (b) Turn the ignition switch to the ON position.
 (c) Using the electrical tester, check the voltage of each terminal of the windshield deicer switch assembly.

Standard:

Terminal No. (Measurement Connection)	Item	Measurement Condition	Standard
4 (D) ↔ 3 (E)	Voltage	IG ON, windshield deicer switch OFF → ON	1 V or less → 10 to 14 V (15 ± after three minutes at 1 V or less)

WS

Terminal No. (Measurement Connection)	Item	Measurement Condition	Standard
Windshield deicer switch OFF → ON	10 to 14 V → 1 V or less	With the ignition switch in the ON position, wind- shield deicer switched ON → OFF (when pushed)	10 to 14 V → 1 V or less

NG

REPLACE WINDSHIELD DEICER

OK

5

CHECK WIRE HARNESS AND CONNECTOR (BETWEEN POWER SOURCE SYSTEM AND WINDSHIELD DEICER)

HINT:

For inspection procedures and precautions, See page IN-38.

- (a) Disconnect the connector of the windshield deicer.
- (b) Using the electrical tester, measure the voltage between terminals of the connector on the vehicle wire harness side.

Standard:

Inspection Terminal (Terminal symbol)	Standard
1 (L2) ↔ 3 (E)	10 to 14 V
2 (L1) ↔ 3 (E)	10 to 14 V

NG

REPAIR OR REPLACE WIRE HARNESS OR CONNECTOR

OK

6

CHECK WINDSHIELD DEICER UNIT

- (a) Using the electrical tester, check the continuity between the terminals of the connector of the windshield deicer.

Standard:

Inspection Terminal (Terminal symbol)	Standard
1 (L2) ↔ 3 (E)	Continuity
2 (L1) ↔ 3 (E)	Continuity

NG

REPAIR FRONT WINDOW DEICER OR REPLACE WINDSHIELD GLASS

OK

REPLACE WINDSHIELD DEICER

