

DEFOGGER - REAR WINDOW

1992 Infiniti G20

1992 SAFETY EQUIPMENT
Infiniti Rear Window Defoggers

G20, M30, Q45

WARNING: M30 and Q45 models are equipped with Supplemental Restraint System (SRS). Observe following precautions before performing any repair. Disconnect and shield battery ground. WAIT for at least 10 minutes. Disconnect SRS connector at control unit located behind center console. All SRS wiring harnesses and connectors are identified with Yellow markings. DO NOT use electrical test equipment on these circuits. Use caution when working around steering column to avoid deploying air bag. To avoid injury from accidental air bag deployment, read and carefully follow all WARNINGS and SERVICE PRECAUTIONS.

TESTING

NOTE: On G20, defogger relay is Brown and located under left side of instrument panel, to the right of fuse block. On M30 and Q45, defogger relay is Brown and located behind left kick panel. Before performing test, ensure defogger fuse is not blown.

DEFOGGER GRID TEST

1) Turn ignition switch to ON position. Turn rear defogger control switch to ON position. If grid is okay, 12 volts should be present on one side of grid and approximately 6 volts should be present on other side of grid. If voltage is not as specified, check harness circuit between grid, switch and control unit.

2) To test whether a grid is burned out, touch voltmeter positive lead to right (positive) bus bar. See Fig. 1. Touch voltmeter negative lead to center of grid. If a grid is burned out, voltmeter will show zero or 12 volts. To locate burned out point, move voltmeter lead to left and right along grid to determine point where tester needle swings abruptly.

DEFOGGER SWITCH TEST

With defogger switch on, continuity should be present between defogger switch terminals No. 1 (G20 - Blue/Green wire, M30 - White/Red wire, Q45 - Yellow/Blue) and No. 2 (Black wire).

TIME CONTROL UNIT TESTS

NOTE: On G20, time control unit is located under left side of instrument panel, near steering column. On M30 and Q45, time control unit is located behind left kick panel. For terminal wire color identification, see TIME CONTROL UNIT CONNECTOR WIRE COLOR IDENTIFICATION table.

Ground Circuit Check

Turn ignition to OFF position. On all models from harness side there should be continuity between terminal No. 15 and ground.

Main Power Supply

1) Measure from harness side of connector. Turn ignition to

OFF position. Battery voltage should be present between time control unit connector terminals No. 9 and 15. There should be no battery voltage measured between terminals No. 5 and 15 or between terminals No. 2 and 15.

2) Turn ignition switch to ACC position. Battery voltage should be present between time control unit connector terminals No. 9 and 15 and between terminals No. 2 and 15. There should be no battery voltage measured between terminals No. 5 and 15.

3) Turn ignition switch to ON position. Battery voltage should be present between time control unit connector terminals No. 9 and 15, between terminals No. 5 and 15 and between terminals No. 2 and 15.

TIME CONTROL UNIT CONNECTOR WIRE COLOR IDENTIFICATION TABLE

Application	Wire Color
Terminal No. 2	
G20	Green/White
M30	Light Green
Q45	Light Green
Terminal No. 3	
G20	Blue/Green
M30	White/Red
Q45	Yellow/Blue
Terminal No. 4	
G20	Green/Yellow
M30	Orange/Black
Q45	Blue/Black
Terminal No. 5	
G20	Pink
M30	Yellow
Q45	Brown
Terminal No. 9	
G20	Red/Black
M30	Red
Q45	Yellow
Terminal No. 15	
All Models	Black

TROUBLE SHOOTING

REAR DEFOGGER DOES NOT ACTIVATE OR DOES NOT GO OFF AFTER ACTIVATING

1) Turn ignition switch to ON position. Turn defogger switch to OFF position. Measure voltage between time control unit harness connector terminals No. 4 and 15. Approximately 12 volts should be present.

2) Turn defogger switch to ON position and repeat step 1). Zero voltage should be present. If voltage is as specified, check rear window defogger wiring and relay. If voltage is not as specified, go to next step.

3) Turn ignition switch to OFF position. Disconnect time control unit connector. Check continuity between control unit harness connector terminals No. 3 and 15. With defogger switch in OFF position, no continuity should be present. With defogger switch in ON position, continuity should be present.

4) If continuity is as specified, replace control unit. If continuity is not as specified, check rear window defogger switch and harness continuity between time control unit and rear window defogger

switch.

ON-VEHICLE SERVICE

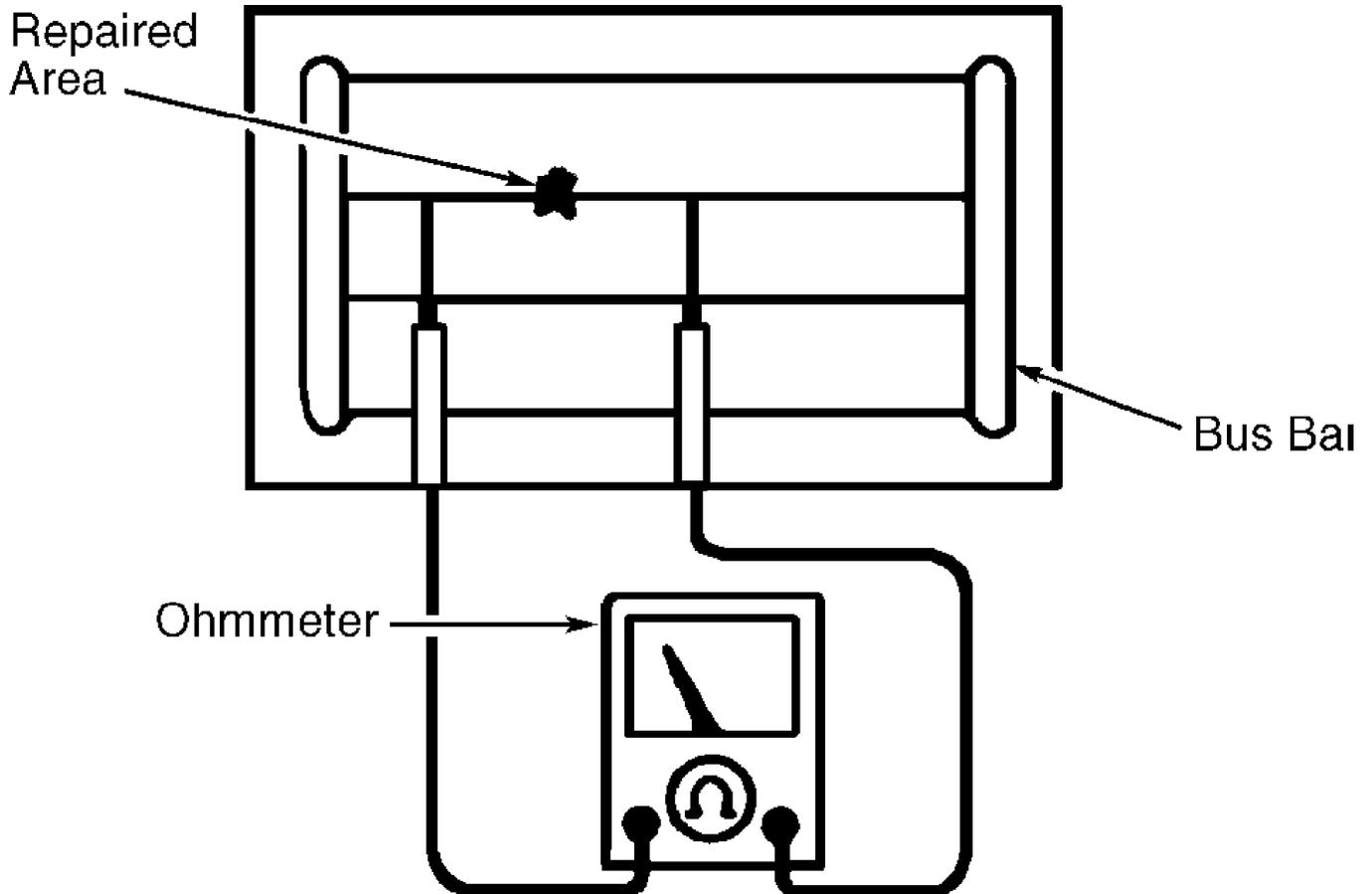
DEFOGGER GRID REPAIR

1) Using a cloth, dampened with alcohol, wipe broken grid wire and surrounding area clean. Apply a small amount of conductive silver paint to the tip of small brush.

2) Place a ruler on glass along broken line. Place conductive silver paint on break using brush. Slightly overlap existing grid on both sides approximately .20" (5 mm).

3) After repair, wait 10 minutes and check grid for continuity. See Fig. 1. DO NOT touch repaired area during test. If no continuity is present, repeat repair procedure.

4) Using a heat gun held at least 1.2" from grid, apply a constant stream of hot air directly to repaired area for approximately 20 minutes. If a heat gun is not available, allow repaired area to dry for 24 hours.



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Fig. 1: Checking Repaired Grid For Continuity
Courtesy of Nissan Motor Co., U.S.A.

WIRING DIAGRAMS

See appropriate chassis wiring diagram in the WIRING DIAGRAMS

Section.