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2004 NISSAN 350Z OEM Service and Repair Workshop Manual

[Go to manual page](#)

NO>>

Replace heated steering wheel. Refer to [STEERING WHEEL : Removal & Installation](#).

4. CHECK GROUND CIRCUIT

Check continuity between steering wheel harness connector terminal and ground.

Steering wheel		Ground	Continuity
Connector	Terminal		
M304	43		Existed

Is the inspection result normal?

YES>>

[GO TO 4.](#)

NO>>

Repair or replace damaged parts.

5. CHECK HARNESS BETWEEN HEATED STEERING WHEEL RELAY AND STEERING WHEEL

1. Power switch OFF.
2. Disconnect heated steering wheel relay connector. Refer to [Component Parts Location](#).
3. Disconnect steering wheel connector.
4. Check continuity between heated steering wheel relay harness connector terminal and steering wheel harness connector terminal.

Heated steering wheel relay		Steering wheel		Continuity
Connector	Terminal	Connector	Terminal	
M118	5	M304	44	Existed

5. Check continuity between heated steering wheel relay harness connector terminal and ground.

Heated steering wheel relay		Ground	Continuity
Connector	Terminal		
M118	5		Not existed

Is the inspection result normal?

YES>>

[GO TO 5.](#)

NO>>

Repair or replace damaged parts.

6. CHECK HEATED STEERING WHEEL RELAY

Check heated steering wheel relay. Refer to [Component Inspection](#).

Is the inspection result normal?

YES>>

[GO TO 7.](#)

NO>>

Replace heated steering wheel relay. Refer to [Component Parts Location](#).

7. DETECT MALFUNCTIONING ITEM

Check the following.

- Battery
- Harness for short or open between battery and 10A fuse (No. 70).
- Harness for short or open between battery and 10A fuse (No. 82).
- 10A fuse (No. 70).
- 10A fuse (No. 82).

Is the inspection result normal?

YES>>

[GO TO 7.](#)

NO>>

Repair or replace damaged parts.

8. CHECK HARNESS BETWEEN HEATED STEERING WHEEL RELAY AND A/C AMP.

1. Check continuity between heated steering wheel relay harness connector terminal and A/C amp. harness connector terminal.

Heated steering wheel relay		A/C amp.		Continuity
Connector	Terminal	Connector	Terminal	
M118	2	M1	56	Existed

2. Check continuity between heated steering wheel relay harness connector terminal and ground.

Heated steering wheel relay		Ground	Continuity
Connector	Terminal		
M118	2		Not existed

Is the inspection result normal?

YES>>

[GO TO 8.](#)

NO>>

Repair or replace damaged parts.

9. CHECK HARNESS BETWEEN HEATED STEERING RELAY AND FUSE BLOCK (J/B)

1. Check continuity between heated steering wheel relay harness connector terminal and fuse block (J/B) connector terminal.

Heated steering wheel relay		Fuse block (J/B)		Continuity
Connector	Terminal	Connector	Terminal	
M118	1	M74	81	Existed

2. Check continuity between heated steering wheel relay harness connector terminal and ground.

Heated steering wheel relay		Ground	Continuity
Connector	Terminal		
M118	1		Not existed

Is the inspection result normal?

YES>>

Replace A/C amp. Refer to [Removal and Installation](#).

NO>>

Replace integrated interface display. Refer to [Removal and Installation](#).

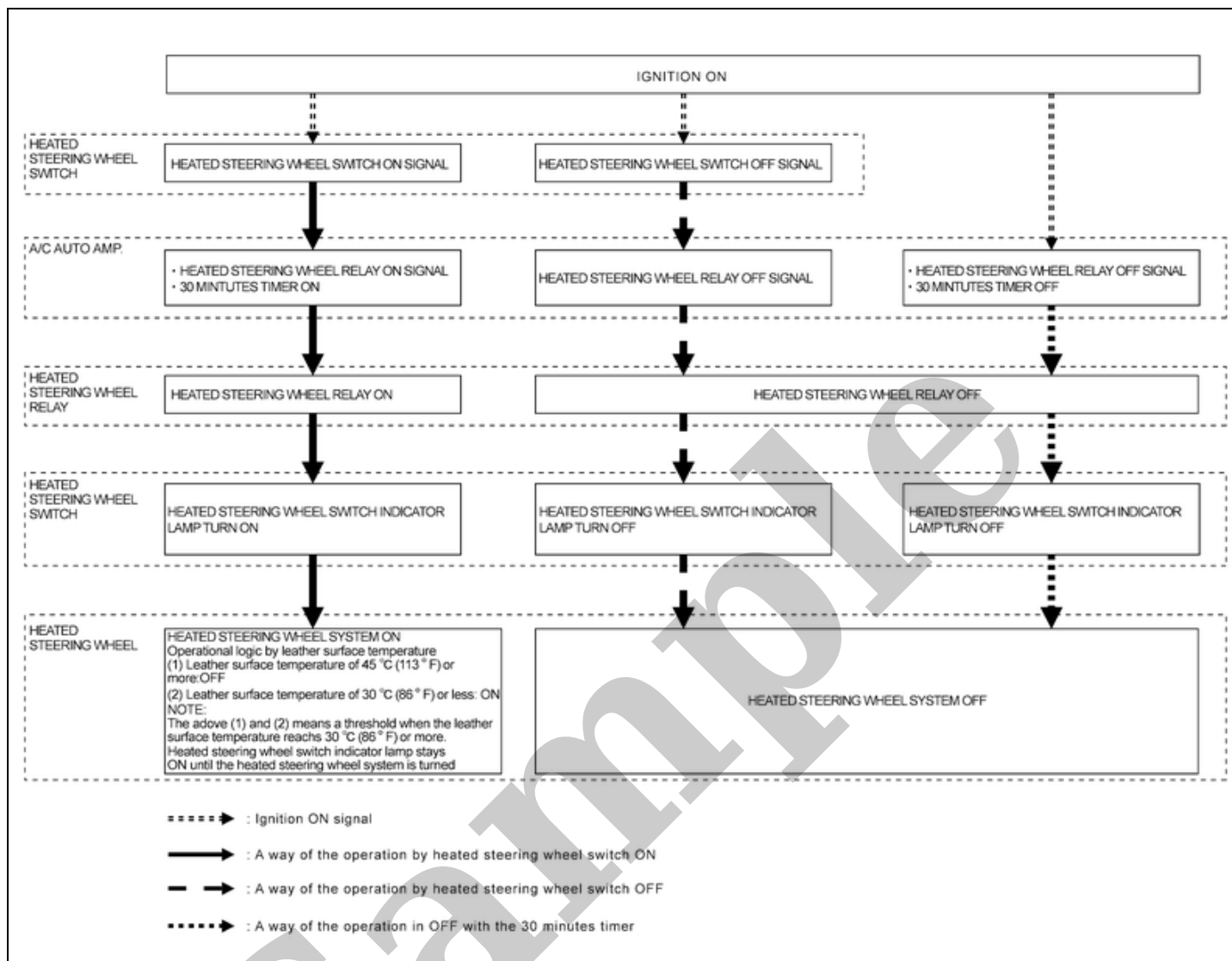
Sample

NVH Troubleshooting Chart

Use the chart below to find the cause of the symptom. If necessary, repair or replace these parts.

Possible cause and suspected parts	Symptom					Reference
	Steering					
	Noise	Shake	Vibration	Shimmy	Judder	
Outer/inner socket ball joint rotating torque	x	-	-	-	-	-
Outer/ inner socket ball joint swinging force	x	-	-	-	-	Refer to STEERING GEAR AND LINKAGE : Inspection.
Outer/inner socket ball joint end play	x	-	-	-	-	
Steering wheel play	x	-	-	-	-	Refer to STEERING WHEEL : Periodic Maintenance Operation.
Improper steering wheel	-	x	x	x	-	-
Mounting looseness	-	x	x	x	x	<ul style="list-style-type: none"> Refer to STEERING WHEEL : Exploded View Refer to STEERING COLUMN : Exploded View. Refer to STEERING GEAR AND LINKAGE : Exploded View.
Steering column deformation or damage	x	-	x	-	-	Refer to STEERING COLUMN : Inspection.
Improper installation or looseness of steering column	x	-	x	-	-	Refer to STEERING COLUMN : Exploded View.
Steering gear and linkage looseness	-	-	-	x	x	Refer to STEERING GEAR AND LINKAGE : Exploded View.
Front axle	x	x	x	x	x	Refer to NVH Troubleshooting Chart.
Front drive Shaft	x	x	x	-	-	
Rear axle	x	x	x	x	x	Refer to NVH Troubleshooting Chart.
Front suspension	x	x	x	x	x	Refer to NVH Troubleshooting Chart.
Rear suspension	x	x	x	x	x	Refer to NVH Troubleshooting Chart.
Tire	x	x	x	x	x	Refer to NVH Troubleshooting Chart.
Road Wheel	x	x	-	x	x	
Brake	x	x	-	x	x	Refer to NVH Troubleshooting Chart.

SYSTEM DIAGRAM



SIEMD-7031437-01-000377256

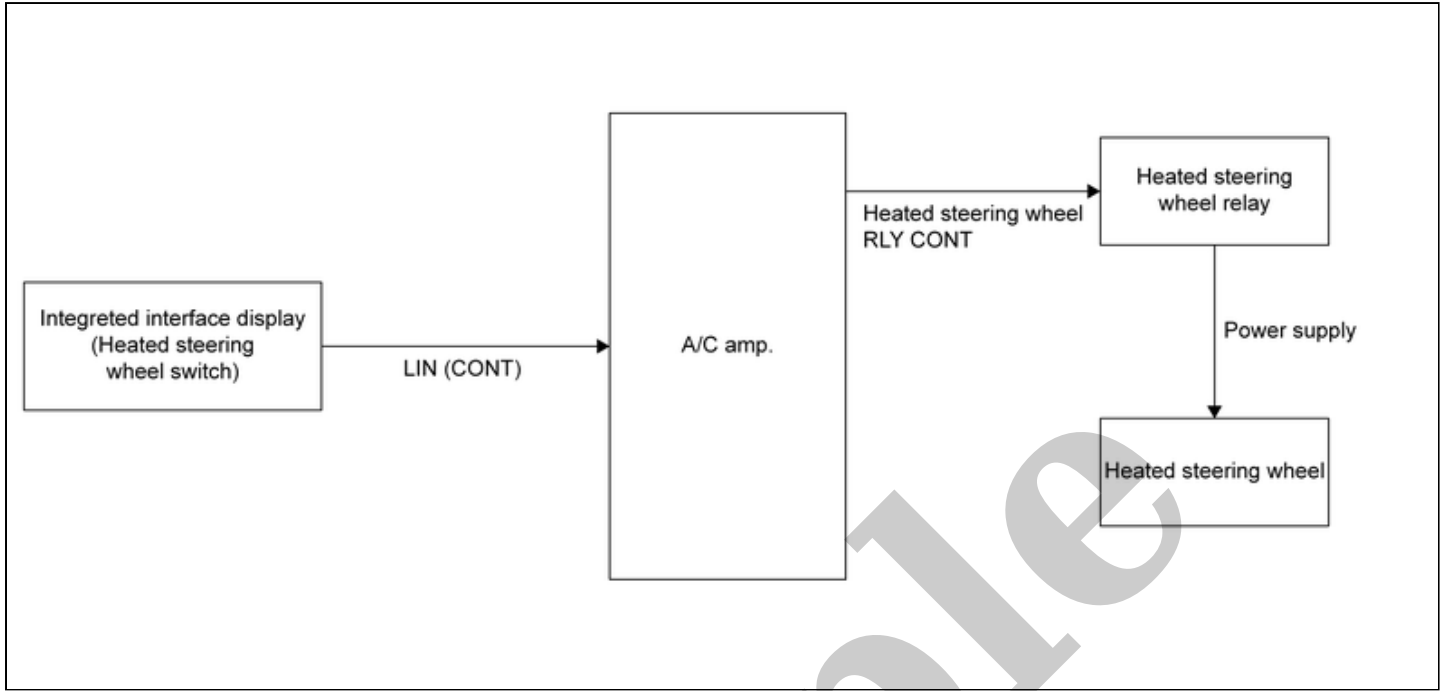
- The steering heater system operates to keep the steering wheel surface temperature between 30°C (86° F) and 40°C (104° F).
- When the steering heater switch is pressed, the A/C auto amp. turns on the steering heater relay, the indicator light in the steering heater switch lights up, and the heat element built into the steering wheel is energized to heat the steering wheel.
- When the steering heater switch is pressed again, the A/C auto amp. turns off the steering heater relay, stops energizing the heat element built into the steering wheel, and turns off the indicator light inside the steering heater switch.
- When the surface temperature of the steering wheel exceeds about 45°C (113° F), the thermostat built into the steering wheel turns off and the heat element is stopped energized. When the surface temperature becomes less than about 30°C (86° F), the thermostat turns on and the heat element is energized.
- The A/C auto amp. has a built-in timer, and after the steering heater switch is turned on, the steering heater relay is turned OFF and heating is stopped when the specified operating time (30 minutes) elapses.
- The operating time during auto does not depend on the specified time (30 minutes).



NOTE:

If the surface temperature of the steering wheel is below 30° C (86° F), the system will heat the steering wheel and cycle off and on to maintain a temperature above 30° C (86° F). The indicator light will remain on as long as the system is on. Push the switch again to turn the heated steering wheel system off manually. The indicator light will go off.

CIRCUIT DIAGRAM



SIEMD-7031438-01-000377514

Sample

FUNCTIONS WITHIN THE SYSTEM

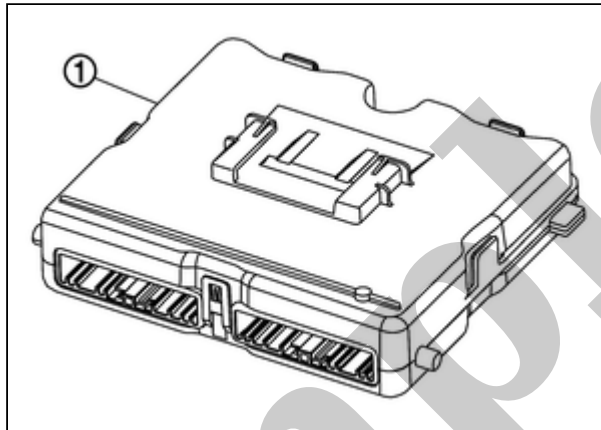
The heated steering wheel relay is turned ON/OFF by the signal from the heated steering wheel switch.

INDIVIDUAL FUNCTION WITHIN THE SYSTEM

Timer: Turn ON/OFF the heated steering wheel relay for a specified time.

INDIVIDUAL OPERATION

The A/C amp. ① has a built-in timer that turns OFF the heated steering wheel relay when the operating time reaches 30 minutes.



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COMPONENT PARTS LOCATION

Refer to [Component Parts Location](#).

FUNCTIONS WITHIN THE SYSTEM

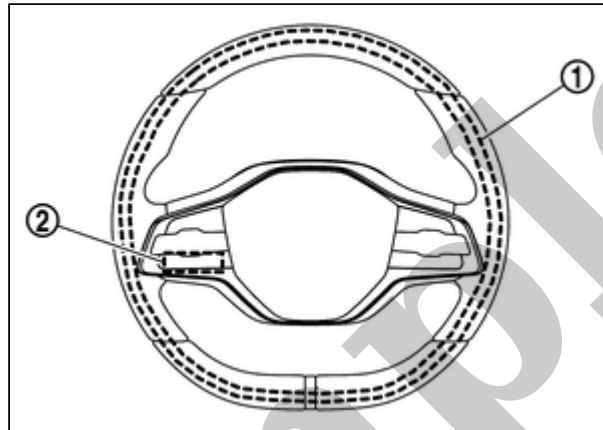
Maintains the surface temperature of the steering wheel between 30°C (86°F) and 40°C (104°F).

INDIVIDUAL FUNCTION WITHIN THE SYSTEM

Heat is generated by the heating element built in the steering wheel, and the temperature is controlled with the thermostat.

INDIVIDUAL OPERATION

Heating element ① and thermostat ② built into the steering wheel.



SIEMD-7031432-01-000347691

- Heating element: Generates heat by energization.
- Thermostat: Turns ON/OFF power supply according to the specified temperature.

COMPONENT PARTS LOCATION

The heated steering wheel is installed steering column.

FUNCTIONS WITHIN THE SYSTEM

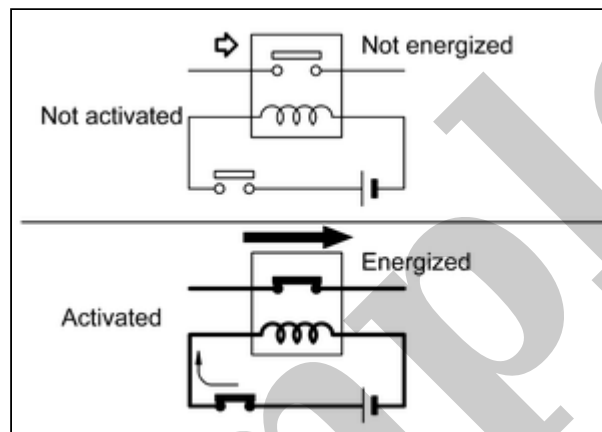
Through the control of the A/C amp., the heated steering wheel relay turns ON/OFF electricity to the heating element built-in the steering wheel and turns ON/OFF the indicator lamp mounted on the heated steering wheel switch.

INDIVIDUAL FUNCTION WITHIN THE SYSTEM

Turn ON / OFF the electricity to the heating element and the heated steering wheel switch.

INDIVIDUAL OPERATION

The relays used in the heated steering wheel relay are normal open relays.



SIEMD-7204239-02-000109873

COMPONENT PARTS LOCATION

The heated steering wheel relay is installed near the back side of A/C switch assembly. Refer to [Component Parts Location](#).