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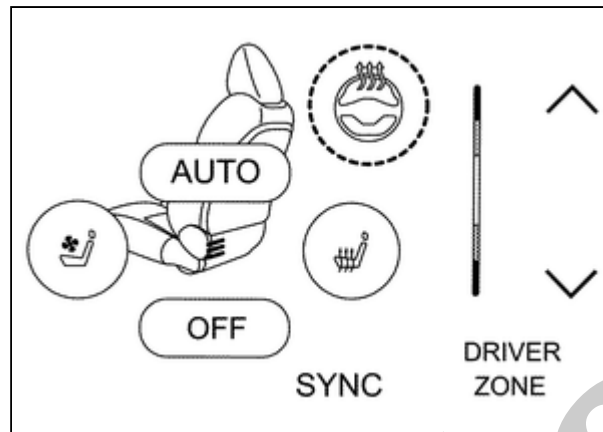
FactoryManuals.net is a great resource for anyone who wants to save money on repairs by doing their own work. The manuals provide detailed instructions and diagrams that make it easy to understand how to fix a vehicle.

2004 NISSAN Almera / Pulsar 3 Doors OEM Service and Repair Workshop Manual

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FUNCTIONS WITHIN THE SYSTEM

- The heated steering switch is integrated in the integrated interface display and is used to active heated steering wheel.



SIEMD-7204237-01-000347696

Indicator lamp ON when the system is activated.

INDIVIDUAL FUNCTION WITHIN THE SYSTEM

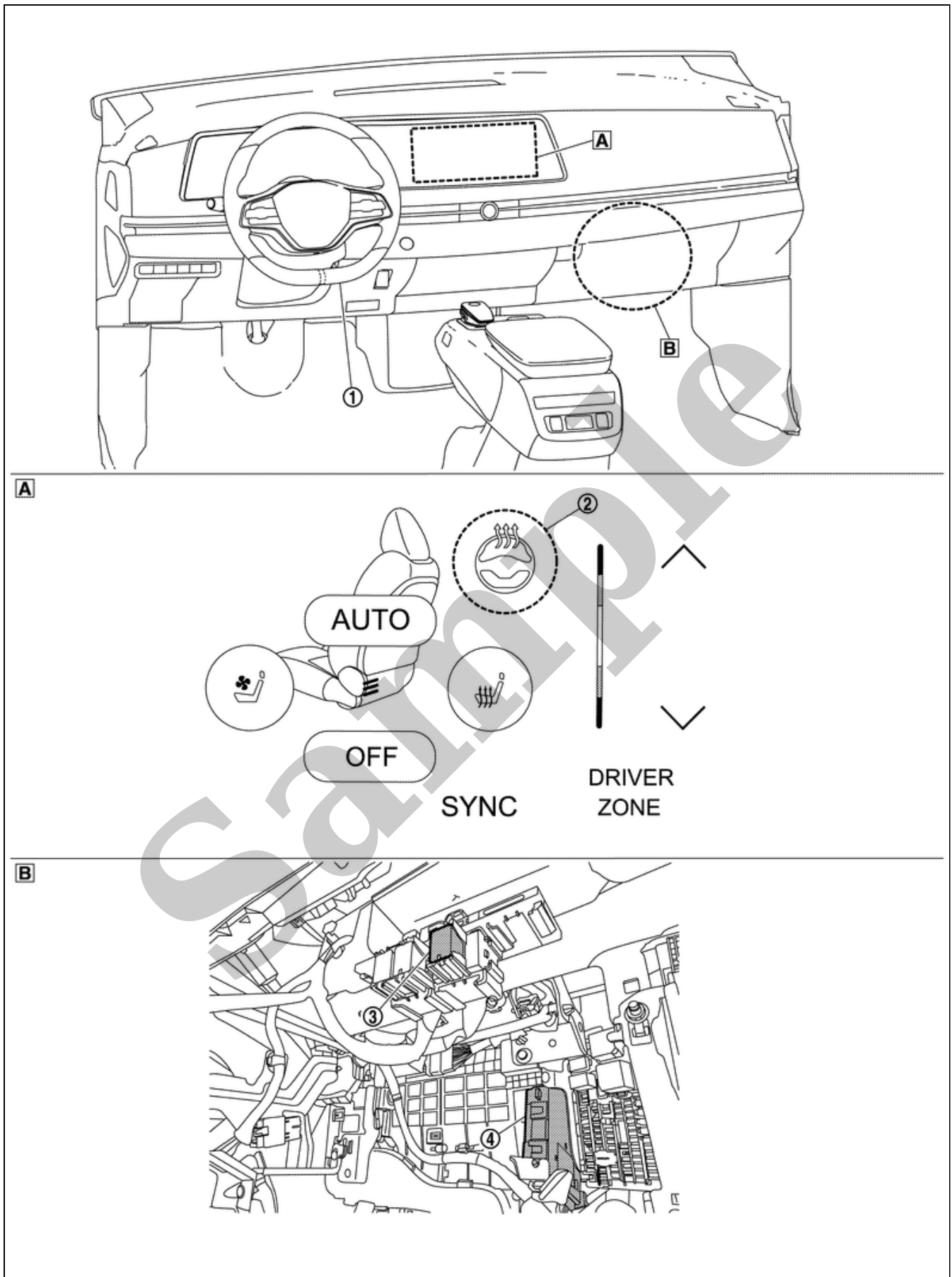
The integrated interface display transmits the heated steering wheel switch signal to the A/C auto amp. via LIN communication line.

INDIVIDUAL OPERATION

When the driver presses the button, the internal circuit conducts, and when the driver presses the button, the internal circuit is cut off.

COMPONENT PARTS LOCATION

The heated steering wheel switch is included in integral interface display. Refer to [Component Parts Location](#).



SIEMD-7031436-01-000373807

①	Heated steering wheel	②	Heated steering wheel switch	③	Heated steering wheel relay
④	A/C auto amp.				
A	Integrated interface display	B	Grove box removed condition		

STEERING WHEEL AXIAL END PLAY

1 Check installation conditions of steering gear assembly, front suspension assembly, axle and steering column assembly.

2 Check if movement exists when steering wheel is moved up and down, to the left and right and to the axial direction.

[Steering wheel axial end play](#)

: Refer to [STEERING WHEEL : Service Data](#).

3 Check the following items when steering wheel axial end play is out of the standard.

- Check the steering column assembly mounting condition. Refer to [STEERING COLUMN : Exploded View](#).
- Check steering gear assembly mounting condition for looseness. Refer to [STEERING GEAR AND LINKAGE : Exploded View](#)

STEERING WHEEL PLAY

1 Turn steering wheel so that front wheels come to the straight-ahead position.

2 Start the engine and lightly turn steering wheel to the left and right until front wheels start to move.

3 Measure steering wheel movement on the outer circumference.

[Steering wheel play](#)

: Refer to [STEERING WHEEL : Service Data](#).

4 Check the following items when steering wheel play is out of the standard.

- Check backlash for each joint of steering column assembly.
- Check installation condition of steering gear assembly.

1. CHECK HEATED STEERING WHEEL CONTINUITY

1. Power switch OFF.
2. Remove steering wheel. Refer to [STEERING WHEEL : Removal & Installation](#).
3. Check continuity between spiral cable connector terminals.

Spiral cable	Condition	Continuity
Terminal		
44 - 43	Leather surface temperature of 30°C (86°F) or less	Existed
	Leather surface temperature of 45°C (113°F) or more	Not existed

Is the inspection result normal?

YES>>

[GO TO 2.](#)

NO>>

Replace heated steering wheel.

2. CHECK HEATED STEERING WHEEL RESISTANCE

Check resistance between spiral cable connector terminals.

Spiral cable	Condition	Resistance
Terminal		
44 - 43	Leather surface temperature of 30°C (86°F)	1.61 - 1.91 Ω

Is the inspection result normal?

YES>>

INSPECTION END

NO>>

Replace heated steering wheel.

1. CHECK HEATED STEERING WHEEL RELAY CONTINUITY

Check continuity between heated steering wheel relay terminals.

CAUTION:

Connect the fuse between the terminals when applying the voltage.

Heated steering wheel relay	Condition	Continuity
Terminal		
3 – 5	Apply 12 V direct current between terminals 1 and 2.	Existed
	Other conditions.	Not existed

Is the inspection result normal?

YES>>

INSPECTION END

NO>>

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

1. CHECK HEATED STEERING WHEEL SYSTEM

Check operate heated steering wheel system. Refer to [System Description](#).

Is the inspection result normal?

YES>>

Go to [Diagnosis Procedure](#)

NO>>

INSPECTION END

Sample

1. CHECK POWER SOURCE AND GROUND CIRCUIT

1. Power switch OFF.
2. Remove the heated steering wheel. Refer to [STEERING WHEEL : Removal & Installation](#).
3. Power switch ON.
4. Turn heated steering wheel switch ON.
5. Check voltage between steering wheel harness connector terminals.

Steering wheel		Condition	Voltage (Approx.)
Connector	Terminal		
M304	44 - 43	Within 30 seconds after turning ON the heated steering switch.	Battery voltage
		Other conditions.	0 V

Is the inspection result normal?

YES>>

[GO TO 2.](#)

NO>>

[GO TO 3.](#)

2. CHECK HEATED STEERING WHEEL

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

Is the inspection result normal?

YES>>

INSPECTION END

NO>>

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

3. 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.

4. 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.

5. CHECK HEATED STEERING WHEEL RELAY

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

Is the inspection result normal?

YES>>

[GO TO 6.](#)

NO>>

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

6. 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.

7. 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.

8. CHECK HARNESS BETWEEN HEATED STEERING WHEEL 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 & Installation](#)

NO>>

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