

# Your Ultimate Source for OEM Repair Manuals

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## 2014 NISSAN 370z Nismo OEM Service and Repair Workshop Manual

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## 5. INSPECTION OF THE FRONT TRACTION MOTOR OIL PUMP POWER SUPPLY

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1. Turn ON the power switch, or set to READY.
2. Check the voltage between the harness connector of the front traction motor oil pump and the body ground.

+		-	Voltage
Front traction motor oil pump			
Connector	Terminal		
F17	4	Body ground	9 - 16 V

Is the inspection result normal?

YES >>

[GO TO 14.](#)

NO >>

[GO TO 6.](#)

## 6. INSPECTION OF THE OIL PUMP POWER SUPPLY CIRCUIT IN THE FRONT TRACTION MOTOR 1

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1. Inspect the 15A fuse (#97).
2. Remove the traction motor oil pump relay.
3. Check the continuity between the wiring harness connector for the traction motor oil pump relay and the wiring harness connector for the front traction oil pump.

Traction motor oil pump relay		Front traction motor oil pump		Continuity
Connector	Terminal	Connector	Terminal	
E128	5	F17	4	Existed

Is the inspection result normal?

YES >>

[GO TO 7.](#)

NO >>

Repair or replace the malfunctioning parts.

## 7. INSPECTION OF THE OIL PUMP POWER SUPPLY CIRCUIT IN THE FRONT TRACTION MOTOR 2

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Check the continuity between the harness connector of the traction motor oil pump and the body ground.

Front traction motor oil pump		-	Continuity
Connector	Terminal		
F17	4	Body ground	Not existed

Is the inspection result normal?

YES >>

[GO TO 8.](#)

NO>>

Repair or replace the malfunctioning parts.

## 8. INSPECTION OF THE TRACTION MOTOR OIL PUMP RELAY 1

---

Check the voltage between the harness connector of the traction motor oil pump relay and the body ground.

+		-	Voltage
Traction motor oil pump relay			
Connector	Terminal		
E128	2	Body ground	9 – 16 V
	3		

Is the inspection result normal?

YES>>

[GO TO 10.](#)

NO>>

[GO TO 9.](#)

## 9. INSPECTION OF THE TRACTION MOTOR OIL PUMP RELAY 2

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Inspect the following items:

- Disconnection or short circuit between the 12V battery and the traction motor oil pump relay
- 10A fuse (#90)
- 30A fusible link (#P)

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Repair or replace the malfunctioning parts.

## 10. INSPECTION OF THE TRACTION MOTOR OIL PUMP RELAY

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Inspect the traction motor oil pump relay. Refer to [Component Inspection](#).

Is the inspection result normal?

YES>>

[GO TO 11.](#)

NO>>

Repair or replace the malfunctioning parts.

## 11. INSPECTION OF ACTIVATION SIGNAL FOR THE TRACTION MOTOR OIL PUMP RELAY

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1. Install the traction motor oil pump relay.
2. Check the output signal of VCM connector terminal No. 97. Refer to [Physical Values](#).

Is the inspection result normal?

YES>>

[GO TO 12.](#)

NO>>

Repair or replace the malfunctioning parts.

## 12. INSPECTION OF THE ACTIVATION SIGNAL CIRCUIT FOR THE TRACTION MOTOR OIL PUMP RELAY 1

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1. Remove the traction motor oil pump relay.
2. Disconnect the VCM wiring harness connector.
3. Check the continuity between the harness connector of the traction motor oil pump relay and the VCM harness connector.

Traction motor oil pump relay		VCM		Continuity
Connector	Terminal	Connector	Terminal	
E128	1	E48	97	Existed

YES>>

[GO TO 13.](#)

NO>>

Repair or replace the malfunctioning parts.

## 13. INSPECTION OF THE ACTIVATION SIGNAL CIRCUIT FOR THE TRACTION MOTOR OIL PUMP RELAY 2

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Check the continuity between the harness connector of the traction motor oil pump relay and the body ground.

Traction motor oil pump relay		-	Continuity
Connector	Terminal		
E128	1	Body ground	Not existed

Is the inspection result normal?

YES>>

Replace the VCM. Refer to [VCM : Removal & Installation.](#)

NO>>

Repair or replace the malfunctioning parts.

## 14. INSPECTION OF THE OIL PUMP GROUND CIRCUIT FOR THE FRONT TRACTION MOTOR

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Check the continuity between the harness connector of the front traction motor oil pump and the body ground.

Front traction motor oil pump		-	Continuity
Connector	Terminal		
F17	1	Body ground	Existed

Is the inspection result normal?

YES>>

[GO TO 15.](#)

NO>>

Repair or replace the malfunctioning parts.

## 15. INSPECTION OF THE OIL PUMP COMMUNICATION CIRCUIT FOR THE FRONT TRACTION MOTOR 1

Check the resistance between the harness connector of the front traction motor oil pump and the body ground.

Front traction motor oil pump		-	Resistance
Connector	Terminal		
F17	2	Body ground	200 kΩ or more
	3		

Is the inspection result normal?

YES>>

[GO TO 16.](#)

NO>>

Repair or replace the malfunctioning parts.

## 16. INSPECTION OF THE OIL PUMP COMMUNICATION CIRCUIT FOR THE FRONT TRACTION MOTOR 2

1. Check the resistance between the wiring harness connector for the inverter (front) and the wiring harness connector for the front traction motor oil pump.

Inverter (front)		Front traction motor oil pump		Resistance
Connector	Terminal	Connector	Terminal	
F14	19	F17	2	1 Ω or less
	29		3	

2. Inspect the wiring harness for a short circuit.

Inverter (front)		Front Traction Motor Oil Pump		Resistance
Connector	Terminal	Connector	Terminal	
F14	19	F17	3	100 kΩ or more
	29		2	

Is the inspection result normal?

YES>>

[GO TO 17.](#)

NO>>

Repair or replace the malfunctioning parts.

## 17. REPLACEMENT OF THE FRONT TRACTION MOTOR

1. Replace the front traction motor. Refer to [FRONT TRACTION MOTOR : Removal & Installation](#).

2. Perform the DTC CONFIRMATION PROCEDURE.

Is a DTC related to the front traction motor oil pump detected?

YES>>

Replace the inverter (front). Refer to [INVERTER \(FRONT\) : Removal & Installation](#).

NO>>

INSPECTION END

Sample

## 1. INSPECTION OF THE HARNESS CONNECTOR 1

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1. Turn OFF the power switch.
2. Check mating conditions of the harness connector for the inverter (front).

Is the inspection result normal?

YES>>

[GO TO 2.](#)

NO>>

Repair or replace the malfunctioning parts.

## 2. INSPECTION OF THE HARNESS CONNECTOR 2

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Check mating conditions of the harness connector for the front traction motor.

Is the inspection result normal?

YES>>

[GO TO 3.](#)

NO>>

Repair or replace the malfunctioning parts.

## 3. INSPECTION OF THE CONNECTOR TERMINALS 1

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1. Disconnect the harness connector of the inverter (front).
2. Check the inverter (front) connector for water intrusion, or damage or corrosion of the terminals.

Is the inspection result normal?

YES>>

[GO TO 4.](#)

NO>>

Repair or replace the malfunctioning parts.

## 4. INSPECTION OF THE CONNECTOR TERMINALS 2

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1. Disconnect the harness connector of the front traction motor.
2. Check the wiring harness connector of the front traction motor for water intrusion, or damage or corrosion of the terminals.

Is the inspection result normal?

YES>>

[GO TO 5.](#)

NO >>

Repair or replace the malfunctioning parts.

## 5. INSPECTION OF THE FRONT TRACTION MOTOR RESOLVER CIRCUIT 1

Check the resistance between the harness connector of the inverter (front) and the body ground.

Inverter (front)		—	Resistance
Connector	Terminal		
F14	12	Body ground	100 kΩ or more
	13		
	21		
	22		
	23		
	24		

Is the inspection result normal?

YES>>

[GO TO 6.](#)

NO>>

Repair or replace the malfunctioning parts.

## 6. INSPECTION OF THE FRONT TRACTION MOTOR RESOLVER CIRCUIT 2

1. Inspect the resistance between the wiring harness connector for the inverter (front) and the wiring harness connector for the front traction motor.

Inverter (front)		Front traction motor		Resistance
Connector	Terminal	Connector	Terminal	
F14	12	F13	3	1 Ω or less
	13		2	
	21		5	
	22		4	
	23		1	
	24		6	

2. Inspect the wiring harness for a short circuit.

Inverter (front)			Resistance
Connector	Terminal		
F14	12	13	100 kΩ or more
		21	
		22	
		23	
		24	
	13	21	
		22	
		23	



Inverter (front)		Resistance
Connector	Terminal	
		24
	21	22
		23
		24
	22	23
		24
	23	24

Is the inspection result normal?

YES>>

[GO TO 7.](#)

NO>>

Repair or replace the malfunctioning parts.

## **7. INSPECTION OF THE FRONT TRACTION MOTOR RESOLVER**

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Inspect the front traction motor resolver. Refer to [Component Inspection](#).

Is the inspection result normal?

YES>>

Replace the inverter (front). Refer to [INVERTER \(FRONT\) : Removal & Installation](#).

NO>>

Repair or replace the malfunctioning parts.

## 1. INSPECTION OF THE FRONT TRACTION MOTOR RESOLVER

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1. Disconnect the harness connector of the front traction motor.
2. Check the resistance between terminals in the front traction motor connector.

Front traction motor		Resistance
Terminal		
2	3	34.6 - 42.4 $\Omega$
4	5	37.6 - 46.0 $\Omega$
1	6	8.5 - 12.7 $\Omega$

Is the inspection result normal?

YES>>

INSPECTION END

NO>>

The front traction motor resolver has malfunctioned. Replace the front traction motor. Refer to [FRONT TRACTION MOTOR : Removal & Installation](#).