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2013 NISSAN 370Z Coupe OEM Service and Repair Workshop Manual

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+			-		Continuity
Accelerator pedal position sensor			VCM		
Sensor	Connector	Terminal	Connector	Terminal	
1	E8	3	E46	26	Existing
2		2		22	

4. Also check harness for short to power supply and ground.

Is the inspection result normal?

YES>>

Perform VCM power supply and ground inspection. Refer to [Diagnosis Procedure](#).

NO>>

Repair or replace error-detected parts.

4. CHECK ACCELERATOR PEDAL POSITION SENSOR GROUND CIRCUIT

1. Power switch OFF.
2. Disconnect VCM harness connector.
3. Check for continuation between the accelerator pedal position sensor harness connector and the VCM harness connector.

+			-		Continuity
Accelerator pedal position sensor			VCM		
Sensor	Connector	Terminal	Connector	Terminal	
1	E8	5	E46	31	Existing
2		6		24	

4. Also check harness for short to power supply.

Is the inspection result normal?

YES>>

[GO TO 5.](#)

NO>>

Repair or replace error-detected parts.

5. CHECK VCM GROUND CIRCUIT

Check for continuation between the VCM harness connector and ground.

+		-	Continuity
VCM			
Connector	Terminal		
E46	28	Ground	Existing
	29		
	32		

Is the inspection result normal?

YES>>

INSPECTION END

NO>>

Repair or replace error-detected parts.

6. CHECK ACCELERATOR PEDAL POSITION SENSOR SIGNAL CIRCUIT

1. Power switch OFF.
2. Disconnect VCM harness connector.
3. Check for continuation between the accelerator pedal position sensor harness connector and the VCM harness connector.

+			-		Continuity
Accelerator pedal position sensor			VCM		
Sensor	Connector	Terminal	Connector	Terminal	
1	E8	4	E46	30	Existing
2		1		23	

4. Also check harness for short to power supply and ground.

Is the inspection result normal?

YES>>

[GO TO 7.](#)

NO>>

Repair or replace error-detected parts.

7. CHECK ACCELERATOR PEDAL POSITION SENSOR

Check accelerator pedal position sensor. Refer to [Component Inspection](#).

Is the inspection result normal?

YES>>

INSPECTION END

NO>>

Repair or replace error-detected parts.

1. CHECK ACCELERATOR PEDAL POSITION SENSOR

1. Power switch OFF.
2. Reconnect all disconnected harness connectors.
3. Power switch ON.
4. Check voltage between the VCM harness connector terminals.

VCM			Condition	Voltage (V)
Connector	+ Terminal	- Terminal		
E46	30 (Accelerator pedal position sensor 1)	31	Fully closed	0.6 – 0.9
			Fully open	3.9 – 4.8
	23 (Accelerator pedal position sensor 2)	24	Fully closed	0.3 – 0.45
			Fully open	1.95 – 2.4

Is the inspection result normal?

YES>>

INSPECTION END

NO>>

Replace accelerator pedal assembly. Refer to [ACCELERATOR CONTROL SYSTEM : Removal & Installation](#).

1. CHECK FUSE

Check that the fuses below are not blown.

Power supply	Fuse number
12 V battery power supply	93
	103
Power switch ON power supply	140

Is the inspection result normal?

YES>>

[GO TO 2.](#)

NO>>

Replace the fuse after repairing the applicable circuit.

2. CHECK VCM GROUND CIRCUIT

1. Power switch OFF.
2. Disconnect VCM harness connector.
3. Check for continuation between the VCM harness connector and ground.

+		-	Continuity
VCM			
Connector	Terminal	Ground	Existing
E46	28		
	29		
	32		

Is the inspection result normal?

YES>>

[GO TO 3.](#)

NO>>

Repair or replace error-detected parts.

3. CHECK 12 V BATTERY POWER SUPPLY-1

1. Install any removed fuses.
2. Check voltage between the VCM harness connector and ground.

+		-	Voltage
VCM			
Connector	Terminal		
E48	153	Ground	12 V battery power supply voltage

Is the inspection result normal?

YES>>

[GO TO 5.](#)

NO>>

[GO TO 4.](#)

4. CHECK 12 V BATTERY POWER SUPPLY CIRCUIT

1. Remove fuse #93.
2. Check for continuation between fuse #93 and the VCM harness connector.

+	-		Continuity
	VCM		
	Connector	Terminal	
Fuse #93 terminal	E48	153	Existing

3. Also check harness for short to ground.

Is the inspection result normal?

YES>>

Check 12 V battery power supply circuit.

NO>>

Repair or replace error-detected parts.

5. CHECK 12 V BATTERY POWER SUPPLY-2

Check voltage between the VCM harness connector and ground.

+		-	Voltage
VCM			
Connector	Terminal		
E48	158	Ground	12 V battery power supply voltage

Is the inspection result normal?

YES>>

[GO TO 7.](#)

NO>>

[GO TO 6.](#)

6. CHECK 12 V BATTERY POWER SUPPLY CIRCUIT

1. Remove fuse #103.

2. Check for continuation between fuse #103 and the VCM harness connector.

+	-		Continuity
	VCM		
	Connector	Terminal	
Fuse #103 terminal	E48	158	Existing

3. Also check harness for short to ground.

Is the inspection result normal?

YES>>

Check 12 V main relay and 12 V battery power supply circuit.

NO>>

Repair or replace error-detected parts.

7. CHECK POWER SWITCH ON POWER SUPPLY

1. Power switch ON.

2. Check voltage between the VCM harness connector and ground.

+		-	Voltage
VCM			
Connector	Terminal		
E46	13	Ground	12 V battery power supply voltage

Is the inspection result normal?

YES>>

INSPECTION END

NO>>

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8. CHECK POWER SWITCH ON POWER SUPPLY CIRCUIT

1. Power switch OFF.

2. Disconnect IPDM E/R harness connector.

3. Check for continuation between the VCM harness connector and the IPDM E/R harness connector.

+		-		Continuity
IPDM E/R		VCM		
Connector	Terminal	Connector	Terminal	
E39	70	E46	13	Existing

4. Also check harness for short to ground.

Is the inspection result normal?

YES>>

Check IGN relay and power switch ON power supply circuit.

NO>>

Repair or replace error-detected parts.

Sample

1. CHECK HIGH VOLTAGE JUNCTION BOX TEMPERATURE SENSOR

1. Power switch OFF.
2. Disconnect high voltage junction box harness connector.
3. Perform high voltage junction box temperature sensor inspection. Refer to [Component Inspection](#).

Is the inspection result normal?

YES>>

[GO TO 2.](#)

NO>>

Repair or replace error-detected parts.

2. CHECK HIGH VOLTAGE JUNCTION BOX TEMPERATURE SENSOR CIRCUIT

1. Disconnect VCM harness connector.
2. Check for continuation between the high voltage junction box harness connector and the VCM harness connector.

+		-		Continuity
High voltage junction box		VCM		
Connector	Terminal	Connector	Terminal	
E1	1	E47	52	Existing
	12		68	

3. Also check harness for short to power supply and ground.

Is the inspection result normal?

YES>>

INSPECTION END

NO>>

Repair or replace error-detected parts.

1. CHECK HIGH VOLTAGE JUNCTION BOX TEMPERATURE SENSOR

1. Power switch OFF.
2. Disconnect high voltage junction box harness connector.
3. Check resistance between the high voltage junction box terminals.

High voltage junction box		Condition	Resistance (Approx.)
+	-		
Terminal			
1	12	Temperature: 0 °C	25 – 31 kΩ
		Temperature: 25 °C	9 – 11 kΩ

Is the inspection result normal?

YES>>

INSPECTION END

NO>>

Replace high voltage junction box. Refer to [HIGH VOLTAGE JUNCTION BOX : Disassembly & Assembly](#). (Built-in high voltage junction box temperature sensor)