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2014 NISSAN 370Z Coupe OEM Service and Repair Workshop Manual

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Monitor item	Condition	Value/Status
	During driving	The temperature changes depending on the vehicle running
Motor maximum power	READY state (vehicle is stopped)	Approx. 0.0 kw
	During driving	The value changes depending on the vehicle speed.
Motor power/regeneration status	READY state (vehicle is stopped)	Power mode
	During driving (accelerator pedal ON)	Power mode
	During driving (accelerator pedal OFF)	Regeneration mode
Inverter discharge status	Inverter (front) discharging	Discharging
	Except above	Not discharged
Inverter control status 2	READY state	OK
Motor estimated torque	READY state (vehicle is stopped)	Approx. 0.0 Nm
	During driving (accelerator pedal ON)	Changes depending on the vehicle speed.
Motor regeneration maximum torque	READY state (vehicle is stopped)	Approx. 0.0 Nm
	During driving (accelerator pedal OFF)	Changes depending on the vehicle speed.
Motor power maximum torque	READY state (vehicle is stopped)	Approx. 0.0 Nm
	During driving (accelerator pedal ON)	Changes depending on the vehicle speed.
Inverter sleep permission	Power switch ON	Prohibit
Motor normalization temperature	Power switch ON	0 - 100% (Changes depending on the front traction motor temperature.)
Inverter abnormality state	Power switch ON	OK
Inverter status (CAN)	READY state (vehicle is stopped)	Power on 2
Inverter normalization temperature	Power switch ON	0 - 100% [Changes depending on the inverter (front) temperature.]
Lamp lighting request 2	EV system warning (EV system stopped)When displayed	Request present
	Except above	No request
Lamp lighting request 1	EV system warning (EV system malfunction)When displayed	Request present
	Except above	No request
Inverter coolant temperature	READY state (vehicle is stopped)	Same as the cooling water temperature once the temperature is saturated
	During driving	The temperature changes depending on the vehicle running
U current sensor offset value	—	—
V current sensor offset value	—	—
W current sensor offset value	—	—
Rotor current sensor 1 offset value	—	—
Rotor current sensor 2 offset value	—	—

Fail-safe

Refer to Fail-safe.

Protection Function

SIEMD-7197123

Refer to Protection Function.

DTC Inspection Priority Chart

SIEMD-7197124

If some DTCs are displayed at the same time, perform inspections one by one based on the priority as per the following list. For DTC, Refer to DTC Index.

Priority	Detected items (DTC)
1	P0A8B-A2 14 Volt Power Module System Voltage
2	P030A-62 Ignition A Control Signal
	P0A2A-11 Drive Motor A Temperature Sensor
	P0A2A-13 Drive Motor A Temperature Sensor
	P0A2A-4B Drive Motor A Temperature Sensor
	P0CBC-11 Drive Motor A Coolant Temperature Sensor
	P0CBC-13 Drive Motor A Coolant Temperature Sensor
	P0CBC-4B Drive Motor A Coolant Temperature Sensor
	P0CC1-04 Drive Motor A Coolant Pump Control
	P0CC1-81 Drive Motor A Coolant Pump Control
	P0CC1-87 Drive Motor A Coolant Pump Control
	P0D2D-17 Drive Motor A Inverter Voltage Sensor A
	P0DA8-00 Hybrid/EV Battery Voltage/Drive Motor A Inverter Voltage Correlation
	P161D-61 Immobilizer
	P161E-68 Immobilizer
	P161F-64 Immobilizer
	P0A78-48 Drive Motor A Inverter
	P0A78-62 Drive Motor A Inverter
	U2143-82 CAN communication error (VCM/HCM)
	U2143-83 CAN communication error (VCM/HCM)
	U2143-87 CAN communication error (VCM/HCM)
	U2144-82 CAN communication error (Li-ion battery)
	U2144-83 CAN communication error (Li-ion battery)
	U2144-87 CAN communication error (Li-ion battery)
	U2150-87 CAN communication error (AIRBAG)
3	P0A00-11 Motor Electronics Coolant Temperature Sensor A
	P0A00-13 Motor Electronics Coolant Temperature Sensor A
	P0A1B-01 Drive Motor A Control Module
	P0A1B-03 Drive Motor A Control Module
	P0A1B-04 Drive Motor A Control Module
	P0A1B-05 Drive Motor A Control Module
	P0A1B-44 Drive Motor A Control Module
	P0A3F-04 Drive Motor A Position Sensor
	P0A3F-1C Drive Motor A Position Sensor
	P0A51-01 Drive Motor A Current Sensor
	P0AED-11 Drive Motor Inverter Temperature Sensor A
	P0AED-13 Drive Motor Inverter Temperature Sensor A

Priority	Detected items (DTC)
	P0AED-1C Drive Motor Inverter Temperature Sensor A
	P0AED-4B Drive Motor Inverter Temperature Sensor A
	P0BE5-1C Drive Motor A Phase U Current Sensor
	P0BE9-1C Drive Motor A Phase V Current Sensor
	P0BED-1C Drive Motor A Phase W Current Sensor
	P0BFF-11 Drive Motor A Current
	P0BFF-12 Drive Motor A Current
	P0C0B-01 Drive Motor A Inverter Power Supply
	P0C0B-04 Drive Motor A Inverter Power Supply
	P0C0B-1C Drive Motor A Inverter Power Supply
	P0C0B-A2 Drive Motor A Inverter Power Supply
	P2E28-01 Drive Motor A Excitation Current Sensor
	P2E28-18 Drive Motor A Excitation Current Sensor
	P2E28-1D Drive Motor A Excitation Current Sensor
	P2E2B-11 Drive Motor A Excitation Current
	P2E2B-12 Drive Motor A Excitation Current
	P2E2B-1C Drive Motor A Excitation Current
	P3081-44 Resolver Offset Value Error
	P3082-44 Rotor Resistance Value Error
	P3083-44 Immobilizer
4	P0BFF-18 Drive Motor A Current
	P2D3B-92 Hybrid/EV Discharge System

DTC Index

SIEMD-7197119

NOTE:
If some DTCs are displayed at the same time, perform inspections one by one based on the priority as per the following list. Refer to DTC Inspection Priority Chart.

DTC*1		Items (CONSULT screen terms)	EV system warning lamp	Reference
P030A	62	Ignition A Control Signal	—	DTC Description
P0A00	11	Motor Electronics Coolant Temperature Sensor A	—	DTC Description
	13		—	DTC Description
P0A1B	01	Drive Motor A Control Module	ON	DTC Description
	03		ON	DTC Description
	04		ON	DTC Description
	05		ON	DTC Description
	44		—	DTC Description
P0A2A	11	Drive Motor A Temperature Sensor	ON	DTC Description
	13		ON	DTC Description
	4B		ON	DTC Description
P0A3F	04	Drive Motor A Position Sensor	ON	DTC Description
	1C		ON	DTC Description
P0A51	01	Drive Motor A Current Sensor	ON	DTC Description
P0A78	48	Drive Motor A Inverter	ON	DTC Description
	62		ON	DTC Description
P0A8B	A2	14 Volt Power Module System Voltage	ON	DTC Description
P0AED	11	Drive Motor Inverter Temperature Sensor A	—	DTC Description
	13		—	DTC Description
	1C		—	DTC Description
	4B		ON	DTC Description

DTC[*1]		Items (CONSULT screen terms)	EV system warning lamp	Reference
P0BE5	1C	Drive Motor A Phase U Current Sensor	ON	DTC Description
P0BE9	1C	Drive Motor A Phase V Current Sensor	ON	DTC Description
P0BED	1C	Drive Motor A Phase W Current Sensor	ON	DTC Description
P0BFF	11	Drive Motor A Current	ON	DTC Description
	12		ON	DTC Description
	18		ON	DTC Description
P0C0B	01	Drive Motor A Inverter Power Supply	ON	DTC Description
	04		ON	DTC Description
	1C		ON	DTC Description
	A2		ON	DTC Description
P0CBC	11	Drive Motor A Coolant Temperature Sensor	ON	DTC Description
	13		ON	DTC Description
	4B		ON	DTC Description
P0CC1	04	Drive Motor A Coolant Pump Control	ON	DTC Description
	81		ON	DTC Description
	87		ON	DTC Description
P0D2D	17	Drive Motor A Inverter Voltage Sensor A	ON	DTC Description
P0DA8	00	Hybrid/EV Battery Voltage/Drive Motor A Inverter Voltage Correlation	ON	DTC Description
P161D[*2]	61	Immobilizer	—	—
P161E[*2]	68	Immobilizer	—	—
P161F[*2]	64	Immobilizer	—	—
P2D3B	92	Hybrid/EV Discharge System	ON	DTC Description
P2E28	01	Drive Motor A Excitation Current Sensor	ON	DTC Description
	18		ON	DTC Description
	1D		ON	DTC Description

DTC*1		Items (CONSULT screen terms)	EV system warning lamp	Reference
P2E2B	11	Drive Motor A Excitation Current	ON	DTC Description
	12		ON	DTC Description
	1C		ON	DTC Description
P3081	44	Resolver Offset Value Error	ON	DTC Description
P3082	44	Rotor Resistance Value Error	ON	DTC Description
P3083	44	Immobilizer	—	DTC Description
U2143	82	CAN communication error (VCM/HCM)	May turn ON	DTC Description
	83		May turn ON	DTC Description
	87		May turn ON	DTC Description
U2144	82	CAN communication error (Li-ion battery)	May turn ON	DTC Description
	83		May turn ON	DTC Description
	87		May turn ON	DTC Description
U2150	87	CAN communication error (AIRBAG)	—	DTC Description

*1: These numbers are rescribed by SAE J2012/ISO 15031-6.

*2: These DTCs are the immobilizer-related DTCs.

SIEMD-7197795

1. INSPECTION OF THE HARNESS CONNECTOR 1

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

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

Is the inspection result normal?

YES>>

GO TO 3.

NO>>

Repair or replace the malfunctioning parts.

3. INSPECTION OF THE CONNECTOR TERMINALS 1

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

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

Is the inspection result normal?

YES>>

GO TO 5.

>>

Repair or replace the malfunctioning parts.