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2010 NISSAN NV200 OEM Service and Repair Workshop Manual

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Monitor item	Unit	Function
		• Current demand request • Stop request • Welding detection request • Charge stop
High voltage battery maximum voltage (Vehicle)	V	Displays maximum voltage of high voltage battery of vehicle, which vehicle informs charger upon charge start
High voltage battery maximum current (Vehicle)	A	Displays maximum current value allowed by the vehicle, which vehicle informs charger upon charge start
High voltage battery target voltage (Vehicle)	V	Displays target voltage of high voltage battery of vehicle, which vehicle informs charger upon charge start
Quick charge relay (-) command	—	Displays operation command of quick charger relay (-) • During quick charge: True (Close) • Except the above: False (Open)
CCS normal charge permit switch (Backup)	—	Displays operation command of switch (backup) which vehicle indicates charge permission to charger is in AC/CCS charge, • OFF: Except charge ongoing • ON: Charge ongoing
Quick charge relay (+) command	—	Displays operation command of quick charger relay (+) • During quick charge: True (Close) • Except the above: False (Open)
CCS normal charge permit switch	—	Displays operation command of switch which vehicle indicates charge permission to charger is in AC/CCS charge, • Open Request • Close Request
Charge connector status	—	Displays charge connector status • Connect • No connect • Connector lock • 2 connect
CCS quick charge terminal temperature	°C	Displays high power terminal temperature of quick charge port in CCS charge,
DC box temperature	°C	This item is displayed but not used.
Possible charge maximum power (Charger)	W	Displays chargeable maximum voltage which charger informs vehicle upon charge start
CCS quick charge communication	—	Displays communication established status with charger in CCS charge • Not detect • Detect

Monitor item	Unit	Function
Possible charge maximum voltage (Charger)	V	Displays maximum voltage value allowed by charger, which charger informs vehicle upon charge start
Possible charge minimum current (Charger)	A	Displays minimum current value allowed by charger, which charger informs vehicle upon charge start
Possible charge maximum current (Charger)	A	Displays maximum current value allowed by charger, which charger informs vehicle upon charge start
Vehicle compatible normal charger	—	Displays type of AC charger applicable to vehicle. • One phase • Two phases • Three phases • Unavailable value
Normal charge input current	A	Displays AC input current
AC charge available power	kW	Displays AC chargeable power
Vehicle states	—	This item is displayed but not used.
Engine drying has timed out	—	This item is displayed but not used.
Engine drying request	—	This item is displayed but not used.
Rear traction motor inverter permission regenerative torque 2	N·m	Displays permitted regeneration torque 2 to inverter (rear)
Rear traction motor inverter permission regenerative torque 1	N·m	Displays permitted regeneration torque 1 to inverter (rear)
Insulation resistance (high voltage battery)	Ohm	Displays insulation resistance value of high voltage battery
High voltage battery temperature	°C	Displays high voltage battery temperature
High voltage battery external available power	kW	Displays externally available power of high voltage battery
High voltage connection request	—	Displays high voltage connection request • Emergency disconnections • Not used • Normal connection • Normal disconnection
System main relay 2 operation request	—	Displays rotation command status to system main relay 2 (-) • no request • Request
Insulation check for charge feedback	—	This item is displayed but not used.
Front traction motor speed	rpm	Displays front traction motor speed
Rear traction motor speed	rpm	Displays rear traction motor speed
Rear traction motor inverter permission power torque	N·m	Displays powering torque permitted to inverter (rear).
Front traction motor inverter permission power torque	N·m	Displays powering torque permitted to inverter (front).
Charge duration memorized 01	min	This item is displayed but not used.

Monitor item	Unit	Function
Charge duration memorized 02	min	This item is displayed but not used.
Charge duration memorized 03	min	This item is displayed but not used.
Charge duration memorized 04	min	This item is displayed but not used.
Charge duration memorized 05	min	This item is displayed but not used.
Charge duration memorized 06	min	This item is displayed but not used.
Charge duration memorized 07	min	This item is displayed but not used.
Charge duration memorized 08	min	This item is displayed but not used.
Charge duration memorized 09	min	This item is displayed but not used.
Charge duration memorized 10	min	This item is displayed but not used.
Control pilot frequency	Hz	Displays frequency of control pilot signal used for normal charge or quick charge (CCS).
Control pilot duty	%	Displays duty value of control pilot voltage used for normal charge or quick charge (CCS).
Control pilot voltage	V	Displays control pilot voltage used for normal charge or quick charge (CCS).
Charge connector connection detecting voltage	V	Displays charge connector lock detection line normal charger
AC charge test	—	This item is displayed but not used.
DC charge test	—	This item is displayed but not used.
Insulation failure status	—	Displays insulation resistance decreasing status • No insulation failure state • Insulation failure state level 1 • Insulation failure state level 2 • Insulation failure state level 3
Connection detecting 1	—	Displays interlock Open/Close status
Connection detecting 2	—	Displays interlock Open/Close status
Power consumption (PTC)	W	Displays electric consumption of PTC heater
HV1-CAN clock error (BMS)	—	Displays CAN communication status
PT-FD frame loss (HFM)	—	Displays CAN communication status
Water pump 2 status	—	Displays status of water pump 2 (high voltage battery cooling system) • Life beat status • Insufficient speed status • Over temperature status • Over temp warning status • Internal error over and under voltage status • Dry run state • No pump feed back status
Pump1 cooling flow rate	—	This item is displayed but not used.
Driver seat belt status	—	Displays driver's seat belt status • Not monitored

Monitor item	Unit	Function
		• OK • NG
Driver seat belt buckle status	—	Displays driver's seat buckle status • Not monitored • Not fastened • Fastened
PT-FD frame loss (AIRB)	—	Displays CAN communication status
PT-FD clock error (AIRB)	—	Displays CAN communication status
PT-FD frame loss (CCU)	—	Displays CAN communication status
PT-FD frame loss (ADAS)	—	Displays CAN communication status
PT-FD clock error (ADAS)	—	Displays CAN communication status
PT-FD CRC error (ADAS)	—	Displays CAN communication status
PT-CAN frame loss (ADAS)	—	Displays CAN communication status
HV2-CAN frame loss (BCB)	—	Displays CAN communication status
HV2-CAN clock error (BCB)	—	Displays CAN communication status
HV2-CAN CRC error (BCB)	—	Displays CAN communication status
HV1-CAN frame loss (BMS)	—	Displays CAN communication status
HV1-CAN CRC error (BMS)	—	Displays CAN communication status
HV1-CAN frame loss (BMS2)	—	Displays CAN communication status
HV1-CAN clock error (BMS2)	—	Displays CAN communication status
HV1-CAN CRC error (BMS2)	—	Displays CAN communication status
PT-FD CRC error (CDM)	—	Displays CAN communication status
PT-CAN frame loss (CDM)	—	Displays CAN communication status
PT-FD frame loss (CGW)	—	Displays CAN communication status
PT-FD clock error (CDM)	—	Displays CAN communication status
PT-FD frame loss (CDM)	—	Displays CAN communication status
PT-FD CRC error (CCU)	—	Displays CAN communication status
PT-FD clock error (CCU)	—	Displays CAN communication status
PT-FD CRC error (CPLC)	—	Displays CAN communication status
PT-FD frame loss (IP)	—	Displays CAN communication status
PT-FD frame loss (HVAC)	—	Displays CAN communication status
PT-CAN CRC error (SCU)	—	Displays CAN communication status
PT-CAN clock error (SCU)	—	Displays CAN communication status
PT-CAN frame loss (HBA)	—	Displays CAN communication status
PT-FD clock error (CPLC)	—	Displays CAN communication status
PT-F frame loss (CPLC)	—	Displays CAN communication status
PT-FD frame loss (CCM)	—	Displays CAN communication status
HV2-CAN frame loss (DCDC)	—	Displays CAN communication status

Monitor item	Unit	Function
HV2-CAN clock error (DCDC)	—	Displays CAN communication status
HV2-CAN CRC error (DCDC)	—	Displays CAN communication status
HV2-CAN frame loss (HECM)	—	Displays CAN communication status
HV1-CAN frame loss (INV)	—	Displays CAN communication status
HV1-CAN clock error (INV)	—	Displays CAN communication status
HV1-CAN CRC error (INV)	—	Displays CAN communication status
PT-FD CRC error (VDC)	—	Displays CAN communication status
PT-CAN frame loss (VDC)	—	Displays CAN communication status
PT-FD frame loss (UPA)	—	Displays CAN communication status
PT-FD CRC error (UPA)	—	Displays CAN communication status
PT-FD frame loss (VDC)	—	Displays CAN communication status
PT-FD clock error (VDC)	—	Displays CAN communication status
HVB sensor 1 pressure delay	mbar	This item is displayed but not used.
HVB sensor 2 pressure delay	mbar	This item is displayed but not used.
HSG Inverter current	A	This item is displayed but not used.
HVAC power supply relay	—	Displays power (week) supply relay status to A/C auto amp • OFF: No supply • ON: Supply
READY status	—	Displays drivability status • READY OFF • READY ON
Front traction motor inverter cooling pump	—	Displays ON/OFF request status of water pump for inverter (front) cooling • OFF: No request • ON: Request
Grille shutter 2 set position	%	Displays active grill shutter 2 opening angle
Quick charge port temperature (Sensor 1)	°C	Displays temperature of quick charge port temperature sensor 1
Quick charge port temperature (Sensor 2)	°C	Displays temperature of quick charge port temperature sensor 2
CCS charge control status (Quick charge)	—	Displays DC CCS charge control status • Displays numbers from 0 to 26
GB/T control status request (Quick charge)	—	Displays CAN communication signal transmission request that vehicle sends to charger in GB/T standard charge control • Displays numbers from 0 to 9
Normal charge control status	—	Displays normal charge control status • Displays numbers from 0 to 11
Charge connector lock status	—	Displays feedback status of charge connector status of charge connector lock.

Monitor item	Unit	Function
		• Unlock • Lock
Quick charge connector (CHAdeMO)	—	Displays CHAdEMO quick charge connector connection status • Connect • No connect
GB/T connection detecting voltage (Quick charge)	V	Displays GB/T charge connector (quick charge) lock detecting line voltage
CHAdeMO charger d1 switch	—	Displays CHAdeMO d1switch (charge start stop 2) status • ON • OFF
CHAdeMO charger d2 switch	—	Displays CHAdeMO d2switch (charge start stop 2) status • ON • OFF

ACTIVE TEST MODE

Test Item

TEST ITEM	CONDITION	JUDGMENT	CHECK ITEM (REMEDY)
ELECTRIC WATER PUMP 1	• Power switch ON • Duty ration is changed with active test	Check that electric water pump 1 speed is changed.	• Harness & connector • Electric water pump 1 • VCM
ELECTRIC WATER PUMP 1	**NOTE:** **Initial position learning is required every time the key switch is turned off.** **1. READY status** **2. Select "INITIAL POSITION ADJUSTMENT" and perform initial position learning.** **3. Touch "OPEN" or "CLOSE" then operate active grill shutter 1.**	Active grill shutter 1 is fully open or fully closed.	• Harness & connector • Active grill shutter 1 actuator • Active grill shutter 1

TEST ITEM	CONDITION	JUDGMENT	CHECK ITEM (REMEDY)
ELECTRIC WATER PUMP 2	• Power switch ON • Duty ration is changed with active test	Check that electric water pump 2 speed is changed.	• Harness & connector • Electric water pump 2 • VCM
FAN DUTY CONTROL	• Power switch ON • Duty ration is changed with active test	Check that cooling fan speed is changed.	• Harness & connector • Cooling fan system • VCM
DC/DC CONVERTER	• Power switch ON • Duty ration is changed with active test	Check that 12 volt battery power supply voltage is changed.	• Harness & connector • DC/DC converter • VCM
ACTIVE GRILLE SHUTTER 2	**NOTE:** **Initial position learning is required every time the key switch is turned off.** **1. READY status** **2. Select "INITIAL POSITION ADJUSTMENT" and perform initial position learning.** **3. Touch "OPEN" or "CLOSE" then operate active grill shutter 2.**	Active grill shutter 2 is fully open or fully closed.	• Harness & connector • Active grill shutter 2 actuator • Active grill shutter 2

WORK SUPPORT MODE

Work Item

WORK ITEM	CONDITION	USAGE
WRITE VIN DATA (MANUAL)	VIN (Chassis No.) is registered to VCM	When VCM is replaced
MAC key writing	MAC key can be written in VCM	When VCM is replaced
FOTA status reset	NOTE: This item is displayed but not used.	
CANCEL AUTOMATIC PARK FUNCTION	Change automatic parking function cancellation status	When DTC P18A5 is detected

Diagnosis Description

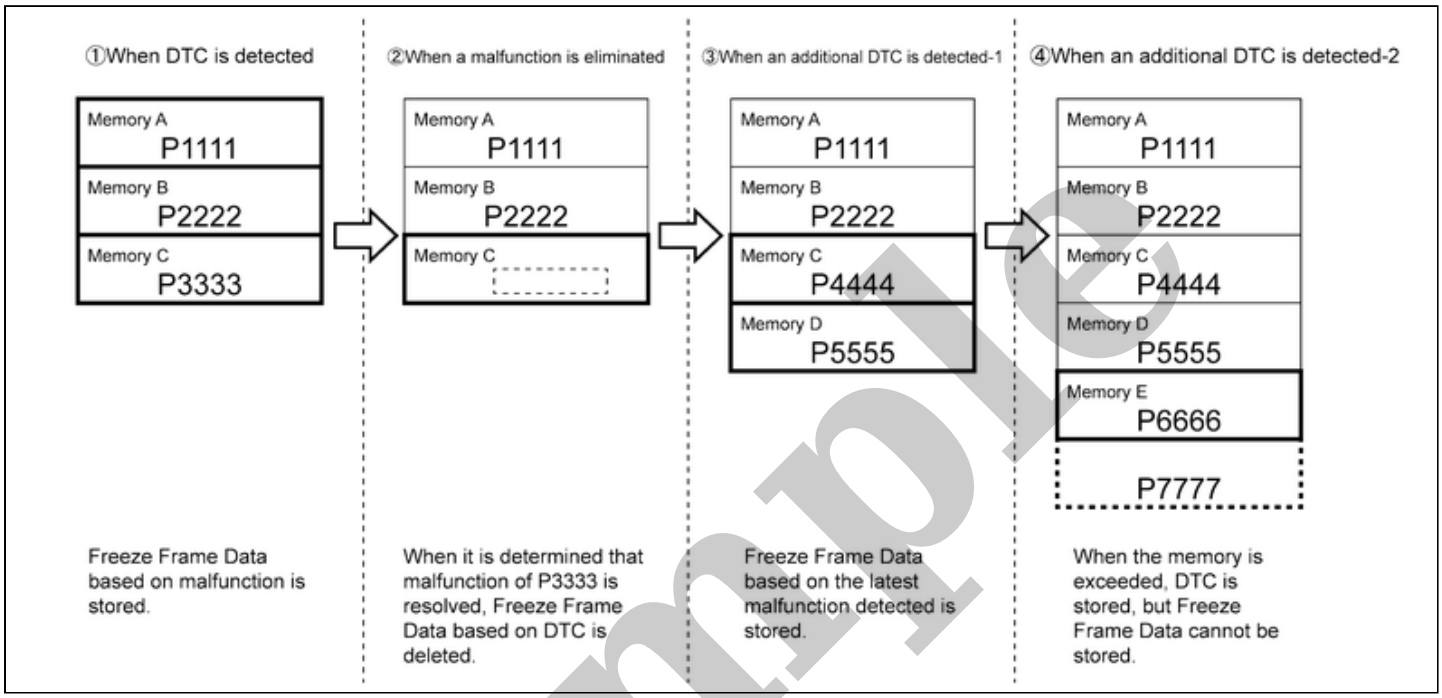
SIEMD-7196746

VCM can store multiple DTCs and Freeze Frame data.

After the detection of a malfunction and storing of DTC and Freeze Frame data by VCM, if a different malfunction is detected, multiple DTCs can be identified. In contrast, multiple Freeze Frame Data are stored according to the preset priority. If detected malfunction too many, some FREEZE FRAME DATA may not stored.

The DTC and freeze frame data are deleted when the self-diagnostic is deleted.

FREEZE FRAME DATA MEMORY IMAGE



SIEMD-16212168389330-01-000384995

Diagnosis Description

SIEMD-7196747

VCM is compatible with on-board diagnosis systems, and when malfunction occurs in the system, it automatically is detected. A malfunction information is stored in the memory of VCM as DTC and can be obtained with CONSULT.