

# Your Ultimate Source for OEM Repair Manuals

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2018 NISSAN Kicks OEM Service and Repair Workshop Manual

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# Work Procedure

Vehicle specification needs to be written with CONSULT because it is not written after replacing the chassis control module.

For details the operation, refer to "CONSULT Operation Manual".

# **1. WRITING VEHICLE SPECIFICATION**

#### With CONSULT

Perform writing vehicle specification to chassis control module according to "Replace ECU" in CONSULT Operation Manual.

>>

WORK END



# **Work Procedure**

Vehicle specification needs to be written with CONSULT because it is not written after replacing the chassis control module.

For details the operation, refer to "CONSULT Operation Manual".

# Work Procedure [After Replacing Chassis Control Module]

## **1. WRITING VEHICLE SPECIFICATION**

#### With CONSULT

Perform writing vehicle specification to chassis control module according to "Replace ECU" in CONSULT Operation Manual.

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#### <u>GO TO 2</u>.

#### 2. PERFORM NECESSARY WORK

1. Perform configuration. Refer to <u>Work Procedure</u>.

2. Perform MAC key writing. Refer to Work Procedure.

3. Perform self-diagnosis for "CHASSIS CONTROL".

4. Erase the memory of self-diagnosis results.

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WORK END

Perform self-diagnosis using CONSULT before the symptom diagnosis. Perform the trouble diagnosis if any DTC is detected. Refer to <u>DTC Index</u>.

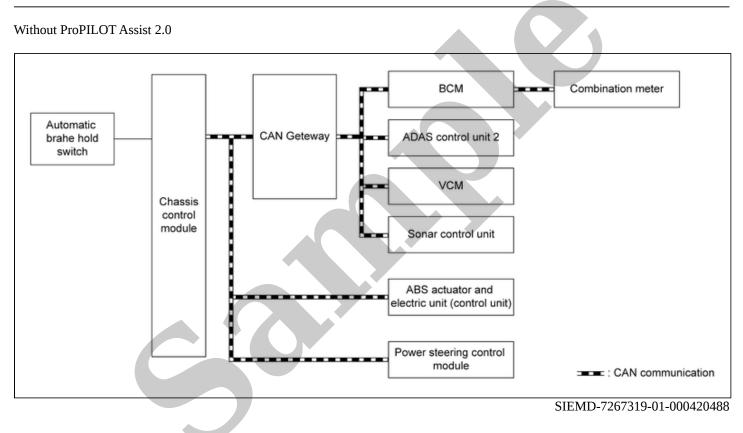
Symptom		Possible cause	Inspection item
	No intelligent trace control assist	Intelligent trace control selected OFF in the information display.	Change intelligent trace control selection in the information display to ON.
		VDC OFF setting is engaged.	VDC OFF setting to the OFF.
		Brake pad wear.	Check the brake pads and replace if necessary.
		Certain roads, inclement weather or driving conditions.	System is functioning normally, confirm the driving condition with the customer.
Intelligent trace control inoperative/ineffective		Wheel alignment.	Repair alignment malfunction.
	Excessive lag on turns	<ul> <li>Road wheel tire condition is abnormal.</li> <li>Road wheel tire size is abnormal.</li> </ul>	Check the road wheel tire.
		Certain roads, inclement weather or driving conditions.	System is functioning normally, confirm the driving condition with the customer.

# **System Description**

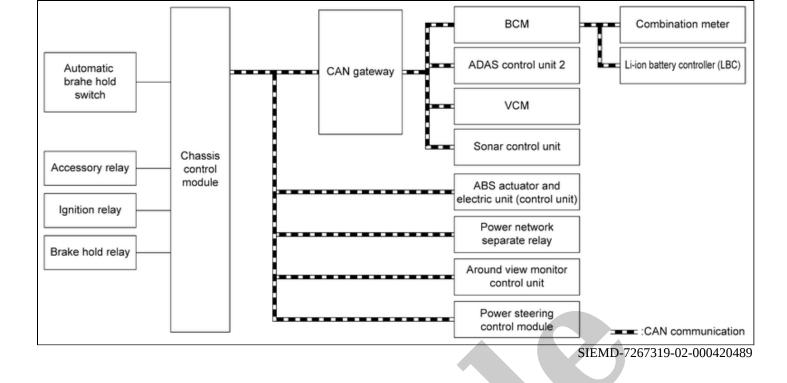
- Chassis control to integrally control the driving system was adopted.
- Chassis control module inputs the necessary information for control from CAN communication and each switch and integrally controls each system. Refer to the following table for systems controlled, input signal, and output signal.

Function	Reference page
Intelligent trace control function	Refer to <u>System Description</u> .
Automatic brake hold function	Refer to <u>System Description</u> .
e-Step function	Refer to <u>System Description</u> .
Drive mode selector function	Refer to <u>System Description</u> .

# SYSTEM DIAGRAM



With ProPILOT Assist 2.0



# INPUT SIGNAL AND OUTPUT SIGNAL

Major signal transmission between each unit via communication lines is shown in the following table.

Component parts	Signal description	
ВСМ	<ul> <li>Mainly transmits the following signals to chassis control module via CAN communication.</li> <li>Drive mode select switch signal</li> <li>Stop lamp malfunction signal</li> <li>Brake pedal status signal</li> <li>Stop lamp switch malfunction signal</li> <li>Seat belt buckle switch (driver side) signal</li> <li>Power switch ON signal</li> <li>Mainly receives the following signals from ABS actuator and electric unit (control unit) via CAN communication.</li> <li>Stop lamp request signal</li> </ul>	
Combination meter	<ul> <li>Mainly transmits the following signals to chassis control module via CAN communication.</li> <li>Intelligent trace control setting signal</li> <li>Mainly transmits the following signals to VCM via CAN communication.</li> <li>e-Step mode memory setting signal</li> <li>Mainly receives the following signals from chassis control module via CAN communication.</li> <li>Drive mode signal</li> <li>Meter display setting signal</li> <li>Meter display signal</li> <li>Automatic brake hold indicator lamp signal</li> <li>Chassis control module malfunction signal</li> </ul>	

Component parts	Signal description	
	Mainly receives the following signals from VCM via CAN communication.	
	e-Step mode display signal	
	e-Step malfunction display signal	
	e-Step memory status signal	
	Mainly receives the following signals from BCM via CAN communication.	
	Stop lamp ON status signal	
	Mainly transmits the following signals to chassis control module via CAN communication.	
	Brake torque request signal	
	Yaw moment request signal	
	ProPILOT status signal	
ADAS control unit 2	Steering angle request signal	
	Mainly receives the following signals from chassis control module via CAN communication.	
	Drive mode signal	
	ProPILOT status signal	
VCM	Mainly transmits the following signals to chassis control module via CAN communication.	
	Accelerator pedal position signal	
	<ul> <li>Front wheel torque signal<sup>*</sup></li> </ul>	
	Rear wheel torque signal <sup>*</sup>	
	Estimate drive torque signal	
	Shift position signal	
	Traction motor torque signal	
	Request drive torque signal	
	• e-Step status signal	
	VCM malfunction signal	
	Motor speed signal	
	Estimate slop signal	
	Accelerator pedal position signal	
	Estimate drive torque signal	
	Coast deceleration torque signal	
	Brake torque request signal	
	Mainly receives the following signals from ABS actuator and electric unit (control unit) via CAN communication.	
	Brake torque signal	
	<ul> <li>Torque down request signal<sup>*</sup></li> </ul>	

Component parts	Signal description	
	• Rear wheel torque correction request signal <sup>*</sup>	
	Mainly receives the following signals from chassis control module via CAN communication.	
	Drive mode signal	
	Chassis control module malfunction signal	
	Slop estimate permission signal	
	Coast limit torque signal	
	Mainly receives the following signals from ADAS control unit 2 via CAN communication.	
	Intelligent cruise control signal	
	ProPILOT status signal	
	Mainly transmits the following signals to chassis control module via CAN	
Conce control unit	communication.	
Sonar control unit	ProPILOT park status signal	
ABS actuator and electric unit (control unit)	Mainly transmits the following signals to chassis control module via CAN communication.	
	Vehicle speed signal	
	Rear LH wheel speed signal	
	Front LH wheel speed signal	
	Rear RH wheel speed signal	
	Front RH wheel speed signal	
	Steering angle sensor signal	
	• Side G sensor signal	
	• Decel G sensor signal	
	Brake fluid pressure signal	
	Regenerative brake signal	
	• VDC status signal	
	Driver brake signal	
	VDC OFF signal	
	ABS operation signal	
	ABS malfunction signal	
	TCS operation signal	
	TCS malfunction signal	
	VDC operation signal	
	VDC malfunction signal	
	Brake hold status signal	
	Electric parking brake operation signal (switch)	

Component parts	Signal description	
	Electric parking brake status signal	
	Electric parking brake malfunction signal	
	Deceleration control permission status signal	
	Target brake force signal	
	Mainly transmits the following signals to VCM via CAN communication.	
	Electric parking brake operation status signal	
	Regenerative request torque signal	
	Mainly receives the following signals from chassis control module via CAN communication.	
	Brake torque request signal	
	Yaw moment request signal	
	Stop lamp OFF request signal	
	Stop lamp ON request signal	
	Mainly receives the following signals from VCM via CAN communication.	
	Coast deceleration torque signal	
	Accelerator pedal position signal	
	Motor speed signal	
	Shift position signal	
	Estimate drive torque signal	
	Regenerative possible torque signal	
	Mainly receives the following signals from chassis control module via CAN communication.	
Power steering control module	Drive mode signal	
Power steering control module	Steering angle request signal	
	Steering status signal	
	Mainly transmits the following signals to chassis control module via CAN communication.	
Li-ion battery controller (LBC)	• Li-ion battery status signal	
Power network separate relay	Mainly transmits the following signals to chassis control module via CAN communication.	
	• Power network separate relay status signal	
	Mainly receives the following signals from chassis control module via CAN communication.	
	• Power network separate relay open request signal	
Around view monitor control unit	Mainly transmits the following signals to chassis control module via CAN communication.	
	Brake torque request signal	

Component parts	Signal description
	Steering angle request signal
	ProPilot assist status signal

\*: AWD models

