

Your Ultimate Source for OEM Repair Manuals

FactoryManuals.net is a great resource for anyone who wants to save money on repairs by doing their own work. The manuals provide detailed instructions and diagrams that make it easy to understand how to fix a vehicle.

2017 NISSAN Sentra SE-R OEM Service and Repair Workshop Manual

Go to manual page

The vehicle causes hunting when the ProPILOT Assist system is active.

1. PERFORM SELF-DIAGNOSIS OF VCM

- 1. Perform "All DTC Reading" with CONSULT.
- 2. Check if the DTC is detected in self-diagnosis results of "EV/HEV". Refer to DTC Index.

Is any DTC detected?

YES>>

GO TO 4.

NO>>

GO TO 2.

2. CHECK DISTANCE SENSOR

- 1. Check the vehicle driving conditions. Refer to <u>Diagnosis Procedure</u>.
- 2. Check the distance sensor for contamination, foreign materials, or cracks.

>>

GO TO 3.

3. CHECK FRONT CAMERA UNIT

- 1. Check the vehicle driving conditions. Refer to Diagnosis Procedure.
- 2. Check the front camera unit or contamination, foreign materials, or cracks.

>>

INSPECTION END

4. REPAIR OR REPLACE MALFUNCTIONING PARTS

Repair or replace malfunctioning parts identified by the self-diagnosis result.

>>

GO TO 5.

5. CHECK ProPILOT ASSIST SYSTEM

- 1. Erase the self-diagnosis results, and then perform "All DTC Reading" again after performing the action test. Refer to Work Procedure(7 inch Information Display) or Work Procedure(FULL TFT METER).
- 2. Check that the ProPILOT Assist system is normal.

>>

INSPECTION END

PRECAUTIONS FOR ProPILOT ASSIST

Refer to Precautions for ProPILOT Assist.



Symptoms		Inspection item/Reference page
Operation	System setting cannot be turned ON/OFF	Refer to <u>Diagnosis Procedure</u>
	System cannot be set (ProPILOT Assist switch turns ON/OFF)	Refer to <u>Diagnosis Procedure</u>
	CANCEL switch does not function	
	Resume does not function	VCM
	Set speed does not increase	Refer to <u>DTC Index</u>
	Set distance to a vehicle ahead cannot be changed	
	System does not cancel when selector lever sets ON "N"	VCM
		Refer to DTC Index
Chime	Chime does not sound	Combination meter Refer to <u>DTC Index</u>
Control	Driving force is hunting	Refer to Diagnosis Procedure
Function to detect a vehicle ahead	System frequently cannot detect a vehicle ahead	Defeat Diverse Develop
	Distance to detect a vehicle ahead is short	- Refer to <u>Diagnosis Procedure</u>
	System misidentifies a vehicle even though there is no vehicle ahead	Perform radar alignment: Work Procedure Camera aiming adjustment: Work Procedure Profession Reput OT Assistance action.
	System misidentifies a vehicle in the next lane	Perform ProPILOT Assist system action test: Work Procedure
	The system does not detect the vehicle ahead at all	Refer to <u>Diagnosis Procedure</u>
Operation	Turn signal operates even using turn signal	Refer to <u>Diagnosis Procedure</u>

- The ProPILOT Assist display does not appear on the vehicle information display when the ProPILOT Assist switch is pressed.
- When the ProPILOT Assist display is displayed on the vehicle information display, the display does not disappear when the ProPILOT Assist switch is pressed.

1. ProPILOT ASSIST SWITCH INSPECTION

- 1. Set the vehicle to READY.
- 2. Check that "MAIN SW" operate normally in "DATA MONITOR" of "ICC/ADAS 2" with CONSULT.

Is the inspection result normal?

YES>>

Check combination meter self-diagnosis results ans perform diagnosis on the detected DTC. Refer to DTC Index.

NO>>

Check VCM self-diagnosis results and perform diagnosis on the detected DTC. Refer to DTC Index.



ProPILOT Assist steering assist function operates even when the turn signals are active.



For the operational conditions of steering wheel assistance function. Refer to **System Description**.

1. CHECK TURN SIGNAL OPERATION

Check that both right and left turn signals are normal.

Is the inspection result normal?

YES >>

Replace the ADAS control unit 2. Refer to Removal and Installation.

NO>>

Repair or replace malfunctioning parts. Refer to **Symptom Table**.



When ProPILOT Assist system is active, the ProPILOT Assist system does not perform any control even through there is a vehicle ahead.

1. CHECK ProPILOT ASSIST SYSTEM DISPLAY ON INFORMATION DISPLAY

- 1. Start the self-diagnosis mode of combination meter. Refer to On Board Diagnosis Function.
- 2. Check that the information display turns ON normally.

Is the inspection result normal?

YES>>

GO TO 2.

NO>>

Replace the combination meter.

2. VISUAL CHECK (1)

Check the contamination and foreign matter on the distance sensor area of the front grill.

Do foreign materials adhere?

YES>>

GO TO 4.

NO>>

GO TO 3.

3. VISUAL CHECK (2)

- 1. Remove the front grill. Refer to Removal & Installation.
- 2. Check distance sensor for contamination and foreign matter.

Do foreign matter adhere?

YES>>

GO TO 4.

NO>>

GO TO 5.

4. WIPE OUT DIRT AND FOREIGN MATERIALS

Wipe out the contamination and foreign matter in the area around the distance sensor.

>>

GO TO 9.

5. VISUAL CHECK (3)

Check distance sensor for cracks and/or scratches.

<u>GO TO 7.</u>		
NO>>		
<u>GO TO 6.</u>		
6. PERFORM RADAR ALIGNMENT		
1. Install the front grill. Refer to <u>Removal & Installation</u> .		
2. Perform the radar alignment. Refer to <u>Work Procedure</u> .		
3. Perform ProPILOT Assist system action test. Refer to <u>Work Procedure</u> (7 inch Information Display) or <u>Work Procedure</u> (FULL TFT METER).		
4. Check that the vehicle ahead detection performance improves.		
Does it improve?		
YES>>		
INSPECTION END		
NO>>		
<u>GO TO 8.</u>		
7. REPLACE DISTANCE SENSOR		
1. Replace the distance sensor. Refer to <u>Removal and Installation</u> .		
2. Install the front grill. Refer to <u>Removal & Installation</u> .		
3. Perform the radar alignment. Refer to Work Procedure.		
4. Perform ProPILOT Assist system action test. Refer to <u>Work Procedure</u> (7 inch Information Display) or <u>Work Procedure</u> (FULL TFT METER).		
5. Check that the vehicle ahead detection performance improves.		
Does it improve?		
YES>>		
INSPECTION END		
NO>>		
GO TO 8.		
8. REPLACE ADAS CONTROL UNIT 2		
Replace ADAS control unit 2 Refer to Removal and Installation		

Are there cracks?

YES>>

GO TO 9.

9. CHECK ProPILOT ASSIST SYSTEM

1. Erase the self-diagnosis results, and then perform "All DTC Reading" again after performing the action test. Refer to Work Procedure(FULL TFT METER).

2. Check that the ProPILOT Assist system is normal.

>>

INSPECTION END



The ProPILOT Assist switch can be turned ON/OFF; however, ProPILOT Assist cannot be set by pressing the SET- switch.



The system cannot be set in the following cases.

- When traveling below 30 km/h (20 MPH) and a vehicle ahead is not detected
- When the shift lever is moved out of the D (Drive) position or into the manual shift mode
- When the parking brake is applied
- · When the brakes are operated by the driver
- When the VDC system is OFF
- When the VDC system (including the traction control system) is activated
- When the SNOW mode or OFF-ROAD mode is selected (AWD models)
- · When a wheel is slipping
- · When any door is open
- · When the driver's seat belt is not fastened

1. CHECK EACH SWITCH AND VEHICLE SPEED SIGNAL

- 1. Set the vehicle to READY.
- 2. Check that the following items operate normally in "DATA MONITOR" of "ICC/ADAS 2".
 - "Vehicle speed"
 - "SET/COAST SW"
 - "BRAKE SW"

<u>Is there a malfunctioning item?</u>

"Vehicle speed">>

Refer to **DTC** Description.

"SET/ COAST SW">>

Refer to DTC Diagnosis Procedure.

"BRAKE SW">>

Refer to **DTC** Description.