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2017 NISSAN Sentra OEM Service and Repair Workshop Manual

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Wiring Diagram

Click link to [Wiring Diagram](#)

Sample

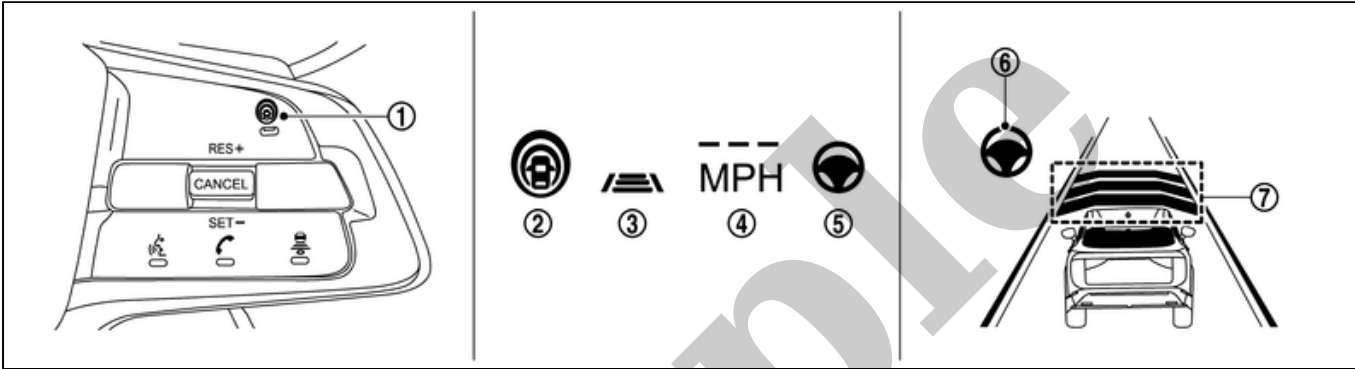
After the front camera unit or distance sensor are replaced or a problem with ProPILOT Assist is corrected, perform a test of ProPILOT Assist operation and check that ProPILOT Assist operates correctly.

CAUTION:

Always drive safely when performing the action test.

1. CHECK FOR ProPILOT ASSIST SWITCH

- 1. Set the vehicle to READY.
- 2. Press the ProPILOT Assist switch ① (less than 1.5 seconds).



SIEMD-7106207-03-000430621

Information display status		
ProPILOT Assist status indicator②	:	ON (Gray)
Speed control status indicator/warning③	:	ON (Gray)
Set vehicle speed indicator④	:	“_____” “km/h” (“MPH”)
Steering assist status indicator/warning⑤	:	ON (Gray)
Steering assist status indicator⑥	:	ON (Gray)
Set distance indicator⑦	:	Long mode

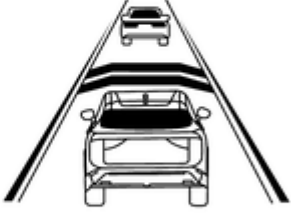
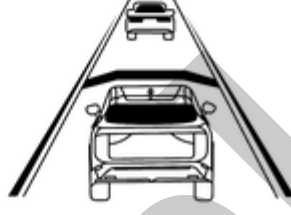
- 3. Check that the vehicle information display on the combination meter indicates the set standby mode.
- 4. Press the ProPILOT Assist switch and check that the ProPILOT Assist indicator turns off when ProPILOT Assist is set to OFF.
- 5. Check that the ProPILOT Assist indicator is OFF after the vehicle set to READY again.

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[GO TO 2.](#)

2. CHECK FOR DISTANCE SWITCH

- 1. Set the vehicle to READY.
- 2. Press the ProPILOT Assist switch (less than 1.5 seconds).
- 3. Press the DISTANCE switch.
- 4. Check that the set distance indicator changes display in order of: (Long) → (Middle) → (Short).

Distance	Display
Long	
Middle	
Short	

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NOTE:

When the ProPILOT Assist switch is turned ON, initial setting set to (Long).

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3. CHECK FOR RES+, SET-, AND CANCEL SWITCHES

1. Check that RES+, SET-, CANCEL switches are operated smoothly.
2. Check that switches come up as hand is released from the switches.

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[GO TO 4.](#)

4. SET CHECKING (1)

1. Set the vehicle to READY.
2. Press the ProPILOT Assist switch (less than 1.5 seconds) and turn the ProPILOT Assist system ON.
3. Drive the vehicle at 30 km/h (20 MPH) or more.
4. Push down the SET- switch.
5. Check that the desired speed is set and ProPILOT Assist control starts when releasing SET- switch.



NOTE:

The set vehicle speed is indicated on the set vehicle speed indicator in the ProPILOT Assist system display on the information display.

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[GO TO 5.](#)

5. CHECK FOR INCREASE OF CRUISING SPEED (1)

1. Set the ProPILOT Assist at desired speed.
2. Check that the set speed increases by 1 km/h (1 MPH) as RES+ switch is pushed up.



NOTE:

The maximum set speed of the ProPILOT is 144 km/h (90 MPH).

CAUTION:

Never set the cruise speed exceeding the posted speed limit.

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[GO TO 6.](#)

6. CHECK FOR DECREASE OF CRUISING SPEED (1)

1. Set the ProPILOT Assist at desired speed.
2. Check that the set speed decreases by 1 km/h (1 MPH) as SET- switch is pushed down.



NOTE:

- The minimum set speed is approximately 30 km/h (20 MPH).
- Cancel the control automatically when the system does not detect any vehicle ahead.

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7. SET CHECKING (2)

1. Stop the vehicle.
2. Drive the vehicle at less than approximately 30 km/h (20 MPH).
3. Push down the SET- switch when the system detects a vehicle ahead.
4. Check that the ProPILOT Assist is performed so that the vehicle maintains a proper distance according to the vehicle speed [maximum: approximately 30 km/h (20 MPH)] when releasing SET- switch.



NOTE:

- The ProPILOT Assist cannot be set when the vehicle speed is less than 30 km/h (20 MPH) and when a vehicle ahead is not detected.
- Cancel the control automatically when the system does not detect any vehicle ahead.
- The set vehicle speed indicator in the ProPILOT Assist system display on the information display is set to 30 km/h (20 MPH).

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8. CHECK FOR INCREASE OF CRUISING SPEED (2)

1. Set the ProPILOT Assist when the vehicle speed is less than approximately 30 km/h (20 MPH) and when a vehicle ahead is detected.
2. Check that the set speed increases by 1 km/h (1 MPH) as RES+ switch is pushed up.



NOTE:

The maximum set speed of the ProPILOT is 144 km/h (90 MPH).

CAUTION:

Never set the cruise speed exceeding the posted speed limit.

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9. CHECK FOR DECREASE OF CRUISING SPEED (2)

1. Set the ProPILOT Assist when the vehicle speed is less than approximately 30 km/h (20 MPH) and when a vehicle ahead is detected.
2. Set the set vehicle speed to the desired vehicle speed according to “check for increase of cruising speed”.
3. Check that the set speed decreases by 1 km/h (1 MPH) as SET- switch is pushed down.



NOTE:

The minimum the set speed is approximately 30 km/h (20 MPH).

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10. CHECK FOR CANCELLATION OF ProPILOT ASSIST

Check that the ProPILOT Assist is canceled when performing the following operations.

- When the brake pedal is depressed after ProPILOT Assist is set and the vehicle is driven.
- When the selector lever is in the “N” position after ProPILOT Assist is set and the vehicle is driven.
- When the ProPILOT Assist switch is turned OFF after ProPILOT Assist is set and the vehicle is driven.
- When the CANCEL switch is pressed after ProPILOT Assist is set and the vehicle is driven.

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11. CHECK FOR RESTORING SPEED THAT IS SET BY ProPILOT ASSIST BEFORE CANCELLATION

Check that the vehicle restores the previous speed kept before the system deactivation when performing the following operations.

- Drive the vehicle when the ProPILOT Assist is set and depress the brake pedal to cancel the control. Check that the vehicle restores the previous vehicle speed kept before the system deactivation when pushing up the RES+ switch.

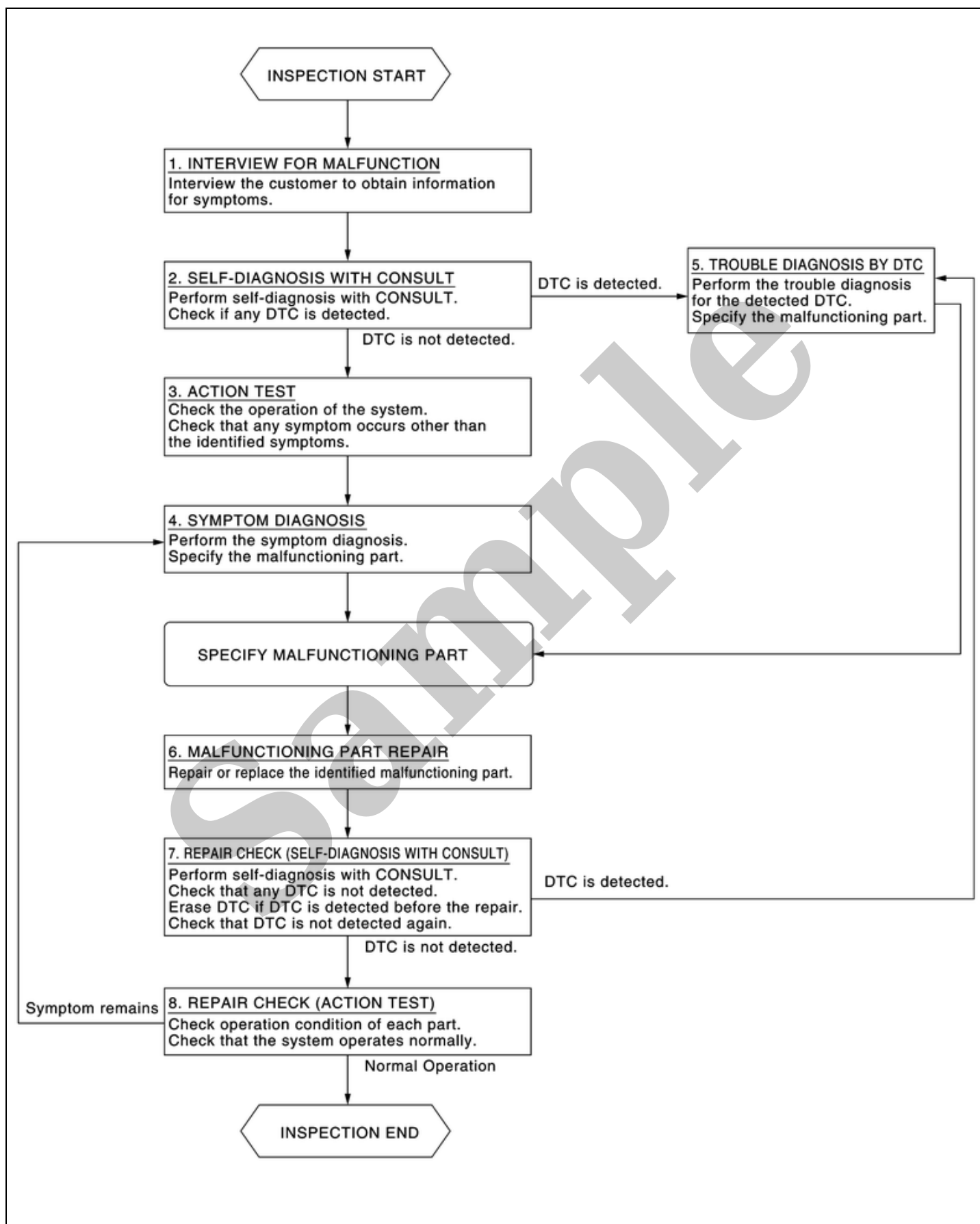
- Drive the vehicle when the ProPILOT Assist is set and shift the selector lever to the “N” position to cancel the control. Check that the vehicle restores the previous vehicle speed kept before the system deactivation when shifting the selector lever to the “D” position and pushing up the RES+ switch.
- Drive the vehicle when the ProPILOT Assist is set and press the CANCEL switch to cancel the control. Check that the vehicle restores the previous vehicle speed kept before the system deactivation when pushing up the RES+ switch.

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INSPECTION END

Sample

OVERALL SEQUENCE



SIEMD-7106233-01-SOIA0485GB

DETAILED FLOW

1. INTERVIEW FOR MALFUNCTION

It is also important to clarify the customer concerns before starting the inspection. Interview the customer about the concerns carefully and understand the symptoms fully.



NOTE:

The customers are not professionals. Never assume that “maybe the customer means…” or “maybe the customer mentioned this symptom”.

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[GO TO 2.](#)

2. SELF-DIAGNOSIS WITH CONSULT

1. Perform “All DTC Reading” with CONSULT.
2. Check if any DTC is detected in self-diagnosis results of “LASER/RADAR”, “LANE CAMERA” and “ICC/ADAS 2”.

Is any DTC detected?

YES>>

Record or print self-diagnosis results and freeze frame data (FFD). [GO TO 5.](#)

NO>>

[GO TO 3.](#)

3. ACTION TEST

Perform the ProPILOT Assist system action test to check the operation status. Refer to [Work Procedure](#).

Check if any other malfunctions occur.

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[GO TO 4.](#)

4. SYMPTOM DIAGNOSIS

Perform the applicable diagnosis according to the diagnosis chart by symptom. Refer to [Symptom Table](#).

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[GO TO 6.](#)

5. TROUBLE DIAGNOSIS BY DTC

1. Erase self-diagnostic results.
2. Power switch OFF → ON.

CAUTION:

Be sure to wait of 10 seconds after turning power switch OFF or ON.

3. Check the DTC in the self-diagnosis results.
4. Perform trouble diagnosis for the detected.

- LASER/RADAR: Refer to [DTC Index](#).
- LANE CAMERA: Refer to [DTC Index](#).

- ICC/ADAS 2: Refer to [DTC Index](#).



NOTE:

If Network-DTC is detected, first diagnose the CAN communication system.

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[GO TO 6.](#)

6. MALFUNCTIONING PART REPAIR

Repair or replace the identified malfunctioning parts.

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[GO TO 7.](#)

7. REPAIR CHECK (SELF-DIAGNOSIS WITH CONSULT)

1. Erases self-diagnosis results.
2. Perform “All DTC Reading” again after repairing or replacing the malfunctioning parts.
3. Check if any DTC is detected in self-diagnosis results of “LASER/RADAR”, “LANE CAMERA” and “ICC/ADAS 2”.
 - LASER/RADAR: Refer to [DTC Index](#).
 - LANE CAMERA: Refer to [DTC Index](#).
 - ICC/ADAS 2: Refer to [DTC Index](#).

Is any DTC detected?

YES>>

[GO TO 5.](#)

NO>>

[GO TO 8.](#)

8. REPAIR CHECK (ACTION TEST)

Perform the ProPILOT Assist system action test. Check if the malfunction symptom is solved or no other symptoms occur.

Is there any malfunction symptom?

YES>>

[GO TO 4.](#)

NO>>

INSPECTION END