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2019 NISSAN Primera Sedan Service and Repair Manual

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DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	DTC detection condition		
			Diagnosis condition	When vehicle is READY	
U19C6	87	[Ethernet communication error (Front camera)]	Signal (terminal)	Ethernet communication	
			Threshold	If ADAS control unit 2 is not receiving ethernet communication signal	
			Diagnosis delay time	1 second or less	

POSSIBLE CAUSE

- Ethernet harness
- ADAS control unit 2
- Front camera unit

FAIL-SAFE

The following systems are canceled.

- Lane keep function^{*1}
- Lane keep function^{*2}
- Lane change support function
- Overtaking support function
- Route driving support function
- AEB
- RAB
- I-FCW
- I-LI
- I-BSI
- TSR

*1: ProPILOT Assist 2.0 display is green

*2: ProPILOT Assist 2.0 display is blue

CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- 1. Set the vehicle to READY.
- 2. Perform "All DTC Reading" with CONSULT.

3. Check if the "U19C6-87" is detected as the current malfunction in "Self Diagnostic Result" of "ICC/ADAS 2".

Is "U19C6-87" detected as the current malfunction?

YES>>

Refer to DTC Diagnosis Procedure.

NO-1>>

To check malfunction symptom before repair: Refer to Intermittent Incident.

NO-2>>

Confirmation after repair: INSPECTION END

SIEMD-7250821

1. CHECK CONSULT DISPLAY FRONT CAMERA UNIT

1. Perform "All DTC Reading" with CONSULT.

2. Check if the item of "LANE CAMERA" is displayed in "All DTC Reading".

Is "LANE CAMERA" displayed?

YES>>

<u>GO TO 2</u>.

NO>>

Check power supply and ground circuit of front camera unit. Refer to Diagnosis Procedure.

2. PERFORM SELF-DIAGNOSIS OF FRONT CAMERA UNIT

Check if any DTC is detected in "Self Diagnostic Result" of "LANE CAMERA".

Is any DTC detected?

YES>>

Perform diagnosis on the detected DTC and repair or replace the malfunctioning parts. Refer to DTC Index .

NO>>

<u>GO TO 3</u>.

3. CHECK ETHERNET CABLE

1. Turn the power switch OFF.

2. Check the Ethernet cable of ADAS control unit 2 and front camera unit for disconnection, bending, and poor fitting.

Is the inspection result normal?

YES>>

Replace front camera unit. Refer to <u>Removal and Installation</u>(without ProPILOT ASSIST 2.0) or <u>Removal and Installation</u>(with ProPILOT ASSIST 2.0).

NO>>

Replace ethernet cable.

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	DTC detection condition		
			Diagnosis condition	When vehicle is READY	
U19C7	87	Ethernet comm err (HD map module) [Ethernet communication error (HD map module)]	Signal (terminal)	Ethernet communication	
			Threshold	If ADAS control unit 2 is not receiving ethernet communication signal	
			Diagnosis delay time	2 seconds or more	

POSSIBLE CAUSE

- Ethernet harness
- ADAS control unit 2
- HD map modele

FAIL-SAFE

The following systems are canceled.

- Lane keep function*
- Lane change support function
- Overtaking support function
- Route driving support function
- *: ProPILOT Assist 2.0 display is blue

CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- 1. Set the vehicle to READY, and then wait for 2 seconds or more.
- 2. Perform "All DTC Reading" with CONSULT.
- 3. Check if the "U19C7-87" is detected as the current malfunction in "Self Diagnostic Result" of "ICC/ADAS 2".

Is "U19C7-87" detected as the current malfunction?

YES>>

Refer to DTC Diagnosis Procedure.

NO-1>>

To check malfunction symptom before repair: Refer to Intermittent Incident.

NO-2>>

Confirmation after repair: INSPECTION END

1. CHECK CONSULT DISPLAY HD MAP MODULE

1. Perform "All DTC Reading" with CONSULT.

2. Check if the item of "HD MAP" is displayed in "All DTC Reading".

Is "HD MAP" displayed?

YES>>

<u>GO TO 2</u>.

NO>>

Check power supply and ground circuit of HD map module. Refer to Diagnosis Procedure.

2. PERFORM SELF-DIAGNOSIS OF HD MAP MODULE

Check if any DTC is detected in "Self Diagnostic Result" of "HD MAP".

Is any DTC detected?

YES>>

Perform diagnosis on the detected DTC and repair or replace the malfunctioning parts. Refer to DTC Index.

NO>>

<u>GO TO 3</u>.

3. CHECK ETHERNET CABLE

1. Turn the power switch OFF.

2. Check the Ethernet cable of ADAS control unit 2 and HD map module for disconnection, bending, and poor fitting.

Is the inspection result normal?

YES>>

Replace HD map module. Refer to <u>Removal and Installation</u>.

NO>>

Replace ethernet cable.

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	DTC detection condition		
			Diagnosis condition	When vehicle is READY	
U19C8	87	[Ethernet communication error (Front camera)]	Signal (terminal)	Ethernet communication	
			Threshold	If ADAS control unit 2 is not receiving ethernet communication signal	
			Diagnosis delay time	2 seconds or more	

POSSIBLE CAUSE

- Ethernet harness
- ADAS control unit 2
- Front camera unit

FAIL-SAFE

The following systems are canceled.

- Lane keep function^{*1}
- Lane keep function^{*2}
- Lane change support function
- Overtaking support function
- Route driving support function
- AEB
- RAB
- I-FCW
- I-LI
- I-BSI
- TSR

*1: ProPILOT Assist 2.0 display is green

*2: ProPILOT Assist 2.0 display is blue

CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- 1. Set the vehicle to READY, and then wait for 2 seconds or more.
- 2. Perform "All DTC Reading" with CONSULT.

3. Check if the "U19C8-87" is detected as the current malfunction in "Self Diagnostic Result" of "ICC/ADAS 2".

Is "U19C8-87" detected as the current malfunction?

YES>>

Refer to DTC Diagnosis Procedure.

NO-1>>

To check malfunction symptom before repair: Refer to Intermittent Incident.

NO-2>>

Confirmation after repair: INSPECTION END

SIEMD-7250813

1. CHECK CONSULT DISPLAY FRONT CAMERA UNIT

1. Perform "All DTC Reading" with CONSULT.

2. Check if the item of "LANE CAMERA" is displayed in "All DTC Reading".

Is "LANE CAMERA" displayed?

YES>>

<u>GO TO 2</u>.

NO>>

Check power supply and ground circuit of front camera unit. Refer to Diagnosis Procedure.

2. PERFORM SELF-DIAGNOSIS OF FRONT CAMERA UNIT

Check if any DTC is detected in "Self Diagnostic Result" of "LANE CAMERA".

Is any DTC detected?

YES>>

Perform diagnosis on the detected DTC and repair or replace the malfunctioning parts. Refer to DTC Index.

NO>>

<u>GO TO 3</u>.

3. CHECK ETHERNET CABLE

1. Turn the power switch OFF.

2. Check the Ethernet cable of ADAS control unit 2 and front camera unit for disconnection, bending, and poor fitting.

Is the inspection result normal?

YES>>

Replace front camera unit. Refer to <u>Removal and Installation</u>(without ProPILOT ASSIST 2.0) or <u>Removal and Installation</u>(with ProPILOT ASSIST 2.0).

NO>>

Replace ethernet cable.

CAN COMMUNICATION

CAN (Controller Area Network) is a serial communication line for real time applications. It is an on-vehicle multiplex communication line with high data communication speed and excellent error detection ability. Modern vehicle is equipped with many electronic control units, and each control unit shares information and links with other control units during operation (not independent). In CAN communication, control units are connected with 2 communication lines (CAN-H, CAN-L) allowing a high rate of information transmission with less wiring. Each control unit transmits/receives data but selectively reads the required data only.

CAN communication signal chart. Refer to CAN Communication Signal Chart.

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	DTC detection condition		
	87	CAN comm err (Side radar front LH) [Controller area network communication error (Side radar front left hand)]	Diagnosis condition	When vehicle is READY	
U19C9			Signal (terminal)	CAN communication signal	
			Threshold	If ADAS control unit 2 is not transmitting or receiving CAN communication signal	
			Diagnosis delay time	1 second or less	

WNOTE:

If "U19C9-87" is detected, first diagnose the CAN communication system.

POSSIBLE CAUSE

CAN communication system

FAIL-SAFE

The following systems are canceled.

- Lane keep function^{*}
- Lane change support function
- Overtaking support function
- Route driving support function

*: ProPILOT Assist 2.0 display is blue

PNOTE:

- With the detection of "U19C9-87" some systems do not perform the fail-safe operation.
- A system controlling based on a signal received from the control unit performs fail-safe operation when the communication with the ADAS control unit 2 becomes inoperable.

CONFIRMATION PROCEDURE