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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.

2019 NISSAN Patrol Service and Repair Manual

Go to manual page

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

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

DTC Diagnosis Procedure

1. CHECK CONSULT DISPLAY DISTANCE SENSOR

1. Perform "All DTC Reading" with CONSULT.

2. Check if the item of "LASER/RADAR" is displayed in "All DTC Reading".

Is "LASER/RADAR" displayed?

YES>>

GO TO 2.

NO>>

Check power supply and ground circuit of distance sensor. Refer to Diagnosis Procedure.

2. PERFORM SELF-DIAGNOSIS OF DISTANCE SENSOR

Check if any DTC is detected in "Self Diagnostic Result" of "LASER/RADAR".

Is any DTC detected?

YES>>

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

NO>>

GO TO 3.

3. CHECK ETHERNET CABLE

1. Turn the power switch OFF.

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

Is the inspection result normal?

YES>>

Replace distance sensor. Refer to Removal and Installation.

NO>>

Replace ethernet cable.

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	DTC detection condition		
U19C2	87	Ethernet circuit ERROR(AVM) [Ethernet circuit error (Around view monitor)]	Diagnosis condition	When vehicle is READY	
			Signal (terminal)	Ethernet communication	
			Threshold	If ADAS control unit 2 is not receiving ethernet communication signal	
			Diagnosis delay time	3 seconds or more	

POSSIBLE CAUSE

- Ethernet harness

- ADAS control unit 2

- Around view monitor control unit

FAIL-SAFE

The following systems are canceled.

- Vehicle speed & vehicle-to-vehicle control function

CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

1. Set the vehicle to READY, and then wait for 3 seconds.

2. Perform "All DTC Reading" with CONSULT.

3. Check if the DTC "U19C2-87" is detected as the current malfunction in "Self Diagnostic Result" of "ICC/ADAS 2".

Is DTC "U19C2-87" 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

DTC Diagnosis Procedure

1. CHECK CONSULT DISPLAY AROUND VIEW MONITOR CONTROL UNIT

1. Perform "All DTC Reading" with CONSULT.

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

Is "AVM" displayed?

YES>>

GO TO 2.

NO>>

Check power supply and ground circuit of around view monitor control unit. Refer to Diagnosis Procedure.

2. PERFORM SELF-DIAGNOSIS OF AROUND VIEW MONITOR CONTROL UNIT

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

Is any DTC detected?

YES>>

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

NO>>

GO TO 3.

3. CHECK ETHERNET CABLE

1. Turn the power switch OFF.

2. Check the Ethernet cable of ADAS control unit 2 and around view monitor control unit for disconnection, bending, and poor fitting.

Is the inspection result normal?

YES>>

Replace around view monitor control unit. Refer to Removal and Installation.

NO>>

Replace ethernet cable.

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	DTC detection condition	
U19C3	87	Ethernet comm err (Distance sensor) [Ethernet communication error (Distance sensor)]	Diagnosis condition	When vehicle is READY
			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

- Distance sensor

FAIL-SAFE

The following systems are canceled.

- Vehicle speed & vehicle-to-vehicle control function

- Lane keep function[*1]

- Lane keep function[*2]

- Lane change support function

- Overtaking support function

- Route driving support function

- AEB

- I-FCW

- 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 "U19C3-87" is detected as the current malfunction in "Self Diagnostic Result" of "ICC/ADAS 2".

Is "U19C3-87" 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

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 DISTANCE SENSOR

1. Perform "All DTC Reading" with CONSULT.

2. Check if the item of "LASER/RADAR" is displayed in "All DTC Reading".

Is "LASER/RADAR" displayed?

YES>>

GO TO 2.

NO>>

Check power supply and ground circuit of distance sensor. Refer to Diagnosis Procedure.

2. PERFORM SELF-DIAGNOSIS OF DISTANCE SENSOR

Check if any DTC is detected in "Self Diagnostic Result" of "LASER/RADAR".

Is any DTC detected?

YES>>

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

NO>>

GO TO 3.

3. CHECK ETHERNET CABLE

1. Turn the power switch OFF.

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

Is the inspection result normal?

YES>>

Replace distance sensor. Refer to Removal and Installation.

NO>>

Replace ethernet cable.

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	DTC detection condition	
U19C5	87	Ethernet comm err (HD map module) [Ethernet communication error (HD map module)]	Diagnosis condition	When vehicle is READY
			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 module

FAIL-SAFE

None

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 "U19C5-87" is detected as the current malfunction in "Self Diagnostic Result" of "ICC/ADAS 2".

Is "U19C5-87" 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

DTC Diagnosis Procedure

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>>

GO TO 2.

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 Diagnosis Procedure .

NO>>

GO TO 3.

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 Removal and Installation.

NO>>

Replace ethernet cable.