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2023 NISSAN Leaf Service and Repair Manual

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1. CHECK DTC PRIORITY

If DTC "U215B-82" is displayed with Network-DTC, first diagnose the Network-DTC.

Is applicable DTC detected?

YES>>

Perform diagnosis of applicable. Refer to <u>DTC Index</u>.

NO>>

GO TO 2.

2. PERFORM SELF-DIAGNOSIS OF IPDM E/R

Check if any DTC is detected in "Self Diagnostic Result" of "IPDM E/R".

Is any DTC detected?

YES>>

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

NO>>

Replace the side radar front RH. Refer to Removal and Installation.

DTC DETECTION LOGIC

DTC N	lo.	CONSULT screen terms (Trouble diagnosis content)		DTC detection condition
	CAN communication error (IPDM E/R)	Diagnosis condition	When power switch is ON.	
U215B			Signal (terminal)	CAN communication signal
			Threshold	Side radar front RH detects that IPDM E/R has a malfunction
			Diagnosis delay time	1 second or less

POSSIBLE CAUSE

IPDM E/R

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

*1: ProPILOT Assist 2.0 display is green

*2 : ProPILOT Assist 2.0 display is blue

CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION

- 1. Turn power switch ON.
- 2. Perform "All DTC Reading" with CONSULT.
- 3. Check if the "U215B-83" is detected as the current malfunction in "Self Diagnostic Result" of "Side radar (Front right)".

Is the "U215B-83" 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 DTC PRIORITY

If DTC "U215B-83" is displayed with Network-DTC, first diagnose the Network-DTC.

Is applicable DTC detected?

YES>>

Perform diagnosis of applicable. Refer to <u>DTC Index</u>.

NO>>

GO TO 2.

2. PERFORM SELF-DIAGNOSIS OF IPDM E/R

Check if any DTC is detected in "Self Diagnostic Result" of "IPDM E/R".

Is any DTC detected?

YES>>

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

NO>>

Replace the side radar front RH. Refer to Removal and Installation.

DTC DETECTION LOGIC

DTC N	No.	CONSULT screen terms (Trouble diagnosis content)		DTC detection condition
	CAN communication error (IPDM E/R)	Diagnosis condition	When power switch is ON.	
U215B			Signal (terminal)	CAN communication signal
			Threshold	Side radar front RH detects that IPDM E/R has a malfunction
			Diagnosis delay time	1 second or less

POSSIBLE CAUSE

IPDM E/R

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

*1: ProPILOT Assist 2.0 display is green

*2 : ProPILOT Assist 2.0 display is blue

CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- 1. Turn power switch ON.
- 2. Perform "All DTC Reading" with CONSULT.
- 3. Check if the "U215B-86" is detected as the current malfunction in "Self Diagnostic Result" of "Side radar (Front right)".

Is the "U215B-86" 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 DTC PRIORITY

If DTC "U215B-86" is displayed with Network-DTC, first diagnose the Network-DTC.

Is applicable DTC detected?

YES>>

Perform diagnosis of applicable. Refer to <u>DTC Index</u>.

NO>>

GO TO 2.

2. PERFORM SELF-DIAGNOSIS OF IPDM E/R

Check if any DTC is detected in "Self Diagnostic Result" of "IPDM E/R".

Is any DTC detected?

YES>>

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

NO>>

Replace the side radar front RH. Refer to Removal and Installation.

CAN COMMUNICATION

- CAN communication is a multiplex communication system. This enables the system to transmit and receive large quantities of data at high speed by connecting control units with 2 communication lines.
- CAN communication lines adopt twisted-pair line style (two lines twisted) for noise immunity. Refer to <u>CAN Communication Signal Chart.</u>

DTC DETECTION LOGIC

DTC No.		CONSULT screen terms (Trouble diagnosis content)	DTC detection condition		
	87	CAN communication error (IPDM E/R)	Diagnosis condition	When vehicle is READY	
U215B			Signal (terminal)	CAN communication signal	
			Threshold	If side radar front RH is not transmitting or receiving CAN communication signal	
			Diagnosis delay time	2 seconds or more	



If "U215B-87" is detected, first diagnose the CAN communication system.

POSSIBLE CAUSE

CAN communication system

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
- *1: ProPILOT Assist 2.0 display is green
- *2: ProPILOT Assist 2.0 display is blue



With the detection of "U215B-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 side radar front RH becomes inoperable.

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 "U215B-87" is detected as the current malfunction in "Self Diagnostic Result" of "Side radar (Front right)".

Is the "U215B-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