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2017 NISSAN Altima (Thailand) OEM Service and Repair Workshop Manual

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DTC DETECTION LOGIC

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	,	CONSULT screen terms		DTC detection condition
U2248	87	CAN communication error(brake control unit)	Diagnosis condition	Vehicle: READY
			Signal (terminal)	CAN communication signal
			Threshold	If around view monitor control unit is not transmitting or receiving CAN communication signal
			Diagnosis delay time	2 seconds or more



If "U2248-87" is detected, first diagnose the CAN communication system.

POSSIBLE CAUSE

CAN communication system

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



With the detection of "U2348-87" 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.



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 "U2248-87" is detected as the current malfunction in "Self Diagnostic Result" of "AROUND VIEW MONITOR".

<u>Is "U2248-87" detected as the current malfunction?</u>

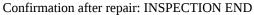
YES >>

Refer to DTC Diagnosis Procedure.

NO-1 >>

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

NO-2 >>





1. PERFORM DIAGNOSIS OF CAN COMMUNICATION CIRCUIT

Perform diagnosis of CAN communication circuit. Refer to <u>Trouble Diagnosis Flow Chart</u>.

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INSPECTION END



DTC DETECTION LOGIC

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	, ,	CONSULT screen terms		DTC detection condition
			Diagnosis condition Signal (terminal) Threshold	Vehicle: READY
U2259	87	CAN communication error(steering control unit)	_	CAN communication signal
			Threshold	If around view monitor control unit is not transmitting or receiving CAN communication signal
				2 seconds or more



If "U2259-87" is detected, first diagnose the CAN communication system.

POSSIBLE CAUSE

CAN communication system

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



- With the detection of "U2259-87" 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 around view monitor control unit becomes inoperable.



1. PERFORM DTC CONFIRMATION PROCEDURE

- 1. Set the vehicle to READY and wait at least 2 seconds.
- 2. Perform "All DTC Reading" with CONSULT.
- 3. Check if the "U2259-87" is detected as the current malfunction in "Self Diagnostic Result" of "AROUND VIEW MONITOR".

<u>Is "U2259-87" detected as the current malfunction?</u>

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. PERFORM DIAGNOSIS OF CAN COMMUNICATION CIRCUIT

Perform diagnosis of CAN communication circuit. Refer to <u>Trouble Diagnosis Flow Chart</u>.

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INSPECTION END



DTC DETECTION LOGIC

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		CONSULT screen terms	DTC detection condition		
	87	CAN comm error (sonar)	Diagnosis condition	When vehicle is READY	
			Signal (terminal)	CAN communication signal	
U2265			Threshold	If around view monitor control unit is not transmitting or receiving CAN communication signal	
			Diagnosis delay time	2 seconds or more	



If "U2265-87" is detected, first diagnose the CAN communication system.

POSSIBLE CAUSE

CAN communication system

FAIL-SAFE

None