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2020 NISSAN Altima (Thailand) Service and Repair Manual

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DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	DTC detection condition	
U2852	87	Ethernet circuit (Ethernet circuit)	Diagnosis condition	When vehicle is READY
			Signal (terminal)	Ethernet communication
			Threshold	If ADAS control unit 2 is not receiving ethernet communication signal from front camera unit
			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.

- Vehicle-to-vehicle distance control mode
- Conventional (fixed speed) cruise control mode
- Steering wheel assistance function
- AEB
- RAB
- I-FCW
- I-LI
- I-BSI
- TSR
- I-DA

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 DTC “U2852-87” is detected as the current malfunction in “Self Diagnostic Result” of “ICC/ADAS 2”.

Is DTC “U2852-87” 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

Sample

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>>

[GO TO 2.](#)

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 >>

[GO TO 3.](#)

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>>

[GO TO 4.](#)

NO >>

Replace ethernet cable.

4. REPLACE ETHERNET CABLE

1. Replace ethernet cable.
2. Perform DTC confirmation procedure again. Refer to [DTC Description](#).

Is "U2852-87" detected as the current malfunction?

YES>>

[GO TO 5.](#)

NO >>

INSPECTION END

5. REPLACE FRONT CAMERA UNIT

1. Replace front camera unit. Refer to [Removal and Installation](#).
2. Perform DTC confirmation procedure again. Refer to [DTC Description](#).

Is “U2852-87” detected as the current malfunction?

YES>>

Replace the ADAS control unit 2. Refer to [Removal and Installation](#).

NO >>

INSPECTION END

Sample

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	DTC detection condition	
U2852	88	Ethernet circuit (Ethernet circuit)	Diagnosis condition	When vehicle is READY
			Signal (terminal)	Ethernet communication
			Threshold	If ADAS control unit 2 is not receiving ethernet communication signal from front camera unit
			Diagnosis delay time	42 seconds or more

POSSIBLE CAUSE

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

FAIL-SAFE

The following systems are canceled.

- Vehicle-to-vehicle distance control mode
- Conventional (fixed speed) cruise control mode
- Steering wheel assistance function
- AEB
- RAB
- I-FCW
- I-LI
- I-BSI
- TSR
- I-DA

CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

1. Set the vehicle to READY, and then wait for 42 seconds or more.
2. Perform “All DTC Reading” with CONSULT.
3. Check if the DTC “U2852-88” is detected as the current malfunction in “Self Diagnostic Result” of “ICC/ADAS 2”.

Is DTC “U2852-88” 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

Sample

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>>

[GO TO 2.](#)

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 >>

[GO TO 3.](#)

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>>

[GO TO 4.](#)

NO >>

Replace ethernet cable.

4. REPLACE ETHERNET CABLE

1. Replace ethernet cable.
2. Perform DTC confirmation procedure again. Refer to [DTC Description](#).

Is “U2852-88” detected as the current malfunction?

YES>>

[GO TO 5.](#)

NO >>

INSPECTION END

5. REPLACE FRONT CAMERA UNIT

1. Replace front camera unit. Refer to [Removal and Installation](#).
2. Perform DTC confirmation procedure again. Refer to [DTC Description](#).

Is “U2852-88” detected as the current malfunction?

YES>>

Replace the ADAS control unit 2. Refer to [Removal and Installation](#).

NO >>

INSPECTION END

Sample

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	
U2A04	88	Comm Bus Off ITS1-FD (Communication Bus Off Intelligent Transport System1-FD)	Diagnosis condition	When vehicle is READY
			Signal (terminal)	CAN communication signal
			Threshold	If ADAS control unit 2 is not transmitting or receiving CAN communication signal
			Diagnosis delay time	2 seconds or more



NOTE:

If "U2A04-88" 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
- AEB
- RAB
- I-FCW
- I-LI
- I-BSI