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2019 Nissan Versa Service and Repair Manual

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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		
U244F	87	CAN comm err (BCM) [Controller area network communication error (Body control module)]	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	9 seconds or more	

NOTE:
If "U244F-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

- AEB

- RAB

- I-FCW

- I-LI

- I-BSI

- TSR

- I-DA

*1: ProPILOT Assist 2.0 display is green

*2: ProPILOT Assist 2.0 display is blue

> 💡 **NOTE:**
> **With the detection of "U244F-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

1. PERFORM DTC CONFIRMATION PROCEDURE

1. Set the vehicle to READY, and then wait for 9 seconds or more.

2. Perform "All DTC Reading" with CONSULT.

3. Check if the "U244F-87" is detected as the current malfunction in "Self Diagnostic Result" of "ICC/ADAS 2".

Is "U244F-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. PERFORM DIAGNOSIS OF CAN COMMUNICATION CIRCUIT

Perform diagnosis of CAN communication circuit. Refer to Trouble Diagnosis Flow Chart.

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INSPECTION END

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		
U244F	87	CAN comm err (BCM) [Controller area network communication error (Body control module)]	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	9 seconds or more	

NOTE:
If "U244F-87" is detected, first diagnose the CAN communication system.

POSSIBLE CAUSE

CAN communication system

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

> 💡 **NOTE:**
> **With the detection of "U244F-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

1. PERFORM DTC CONFIRMATION PROCEDURE

1. Set the vehicle to READY, and then wait for 9 seconds or more.

2. Perform "All DTC Reading" with CONSULT.

3. Check if the "U244F-87" is detected as the current malfunction in "Self Diagnostic Result" of "ICC/ADAS 2".

Is "U244F-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

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		
U2454	87	CAN comm err (MIU) [Controller area network communication error (Multimedia interface unit)]	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	30 seconds or more	

💡**NOTE:**
If "U2454-87" is detected, first diagnose the CAN communication system.

POSSIBLE CAUSE

CAN communication system

FAIL-SAFE

- Lane keep function[*]

- Lane change support function

- Overtaking support function

- Route driving support function

*: ProPILOT Assist 2.0 display is blue

💡**NOTE:**
With the detection of "U2454-87" 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

1. PERFORM DTC CONFIRMATION PROCEDURE

1. Set the vehicle to READY, and then wait for 30 seconds or more.

2. Perform "All DTC Reading" with CONSULT.

3. Check if the "U2454-87" is detected as the current malfunction in "Self Diagnostic Result" of "ICC/ADAS 2".

Is "U2454-87" 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. PERFORM DIAGNOSIS OF CAN COMMUNICATION CIRCUIT

Perform diagnosis of CAN communication circuit. Refer to Trouble Diagnosis Flow Chart.

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INSPECTION END

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		
U2454	87	CAN comm err (MIU) [Controller area network communication error (Multimedia interface unit)]	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	30 seconds or more	

NOTE:
If "U2454-87" is detected, first diagnose the CAN communication system.

POSSIBLE CAUSE

CAN communication system

FAIL-SAFE

The following systems are canceled.

- Vehicle-to-vehicle distance control mode

- Conventional (fixed speed) cruise control mode

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