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2020 NISSAN Sentra SE-R Service and Repair Manual

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DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	DTC detection condition	
U2176	57	CAN comm err (CCM/ST angle sensor)	Diagnosis condition	_
			Signal (terminal)	—
		[Controller area network communication error (Chassis control module/Steering angle sensor)]	Threshold	MAC communication error
			Diagnosis delay time	—

POSSIBLE CAUSE

- MAC communication error
- ADAS control unit 2used in other vehicles is installed in the vehicle
- ADAS control unit 2
- Steering angle sensor

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. CHECK DTC PRIORITY

If DTC "U2176-57" is displayed with DTC "U1327-52" or "U1327-54", first perform the trouble diagnosis for DTC "U1327-52" or "U1327-54".

Is DTC "U1327-52" or "U1327-54" detected?

Perform diagnosis of applicable. Refer to the following.

- U1327-52: DTC Description
- U1327-54: DTC Description

NO>>

<u>GO TO 2.</u>

2. CHECK MAC DIAGNOSIS

(I) With CONSULT

1. Power switch ON.

2. Perform "MAC Diagnosis" mode of "ICC/ADAS 2" using CONSULT.

Is DTC "U2176-57" detected?

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 Description

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	DTC detection condition	
C1F48	16	ABS/TCS/VDC CIRC (Anti-lock braking system/Traction control system/Vehicle dynamics control system circuit)	Diagnosis condition	When vehicle is READYWhen AEB system is ON
			Signal (terminal)	VDC/TCS/ABS malfunction signal
			Threshold	ABS actuator and electric unit (control unit) power supply voltage is excessively low
			Diagnosis delay time	60 seconds or more

POSSIBLE CAUSE

ABS actuator and electric unit (control 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
- TSR

CONFIRMATION PROCEDURE

1. CHECK DTC PRIORITY

If DTC "C1F48-16" is displayed with Network-DTC, DTC "C1F48-82" or "C1F48-83", first perform the trouble diagnosis for Network-DTC, DTC "C1F48-82" or "C1F48-83".

Is applicable DTC detected?

YES>>

Perform diagnosis of applicable. Refer to the following.

- Network-DTC: Refer to <u>DTC Index</u>.
- C1F48-82: Refer to DTC Description.
- C1F48-83: Refer to DTC Description.

2. PERFORM DTC CONFIRMATION PROCEDURE

- 1. Set the vehicle to READY.
- 2. Turn the AEB system ON and wait at least 60 seconds.
- 3. Perform "All DTC Reading" with CONSULT.
- 4. Check if the "C1F48–16" is detected as the current malfunction in "Self Diagnostic Result" of "ICC/ADAS 2".

Is "C1F48–16" 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 "C1F48-16" is displayed with Network-DTC, DTC "C1F48-82" or "C1F48-83", first perform the trouble diagnosis for Network-DTC, DTC "C1F48-82" or "C1F48-83".

Is applicable DTC detected?

YES>>

Perform diagnosis of applicable. Refer to the following.

- Network-DTC: Refer to <u>DTC Index</u>.
- C1F48-82: Refer to DTC Description.
- C1F48-83: Refer to DTC Description.

NO>>

<u>GO TO 2.</u>

2. CHECK POWER SUPPLY CIRCUIT OF ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT)

Check power supply circuit of ABS actuator and electric unit (control unit).

Is the inspection result normal?

YES>>

Perform self-diagnosis of ABS actuator and electric unit (control unit). Refer to DTC Index.

NO>>

Repair the harnesses or connectors.

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	DTC detection condition		
			Diagnosis condition	When vehicle is READY	
C1F80	11	11 Steering wheel touch sensor (Steering wheel touch sensor)	Signal (terminal)	Steering wheel touch sensor status signal (LIN communication signal)	
			Threshold	Receiving voltage error of steering wheel touch sensor	
			Diagnosis delay time	2 seconds or more	

POSSIBLE CAUSE

- Steering wheel touch sensor power supply or ground circuit
- Steering wheel touch sensor
- ADAS control unit 2

FAIL-SAFE

The following system are cancelled.

- 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. Set the vehicle to READY, and then wait for 2 seconds or more.
- 2. Perform "All DTC Reading" with CONSULT.
- 3. Check if the "C1F80-11" is detected as the current malfunction in self-diagnosis results of "ICC/ADAS 2".

Is "C1F80-11" 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. REPLACE STEERING WHEEL

- 1. Replace steering wheel. Refer to <u>STEERING WHEEL</u> : Removal & Installation.
- 2. Perform confirmation procedure again. Refer to <u>DTC Description</u> (Without ProPILOT Assist 2.0) or <u>DTC Description</u> (With ProPILOT Assist 2.0).

Is "C1F80-11" detected as the current malfunction?

YES>>

Replace the ADAS control unit 2. Refer to <u>Removal and Installation</u> (Without ProPILOT Assist 2.0) or <u>Removal and Installation</u> (With ProPILOT Assist 2.0).

NO>>

INSPECTION END



DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	DTC detection condition		
	11	Steering wheel touch sensor (Steering wheel touch sensor)	Diagnosis condition	When vehicle is READY	
C1F80			Signal (terminal)	Steering wheel touch sensor status signal (LIN communication signal)	
			Threshold	Receiving voltage error of steering wheel touch sensor	
			Diagnosis delay time	2 seconds or more	

POSSIBLE CAUSE

- Steering wheel touch sensor power supply or ground circuit
- Steering wheel touch sensor
- ADAS control unit 2

FAIL-SAFE

The following system are cancelled.

- Vehicle-to-vehicle distance control mode
- Steering wheel assistance function
- Conventional (fixed speed) cruise control mode
- 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 "C1F80-11" is detected as the current malfunction in self-diagnosis results of "ICC/ADAS 2".

Is "C1F80-11" detected as the current malfunction?