

Your Ultimate Source for OEM Repair Manuals

FactoryManuals.net is a great resource for anyone who wants to save money on repairs by doing their own work. The manuals provide detailed instructions and diagrams that make it easy to understand how to fix a vehicle.

2020 NISSAN Frontier/Navara King Cab Service and Repair Manual

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DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	DTC detection condition	
C1F03	23	OPERATION SW CIRC (Operation switch circuit)	Diagnosis condition	<ul style="list-style-type: none"> When vehicle is READY When ProPILOT Assist MAIN switch is ON
			Signal (terminal)	Steering switch signal
			Threshold	Any switch of the ProPILOT Assist steering switch is detected as "ON"
			Diagnosis delay time	Continuously 60 seconds

POSSIBLE CAUSE

- ProPILOT Assist steering switch circuit
- ProPILOT Assist steering switch
- VCM

FAIL-SAFE

The following systems are canceled.

- Vehicle-to-vehicle distance control mode
- Conventional (fixed speed) cruise control mode
- Steering wheel assistance function

CONFIRMATION PROCEDURE

1. CHECK DTC PRIORITY

If DTC "C1F03-23" is displayed with Network-DTC, first diagnose the Network-DTC.

Is applicable DTC detected?

YES >>

Perform diagnosis of applicable. Refer to [DTC Index](#).

NO >>

[GO TO 2.](#)

2. PERFORM DTC CONFIRMATION PROCEDURE

- Set the vehicle to READY.
- Wait for approximately 5 minutes after turning the ProPILOT Assist MAIN switch ON.

3. Perform “All DTC Reading” with CONSULT.

4. Check if the “C1F03-23” is detected as the current malfunction in “Self Diagnostic Result” of “ICC/ADAS 2”.

Is “C1F03-23” 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 DTC PRIORITY

If DTC “C1F03-23” is displayed with Network-DTC, first diagnose the Network-DTC.

Is applicable DTC detected?

YES >>

Perform diagnosis of applicable. Refer to [DTC Index](#).

NO >>

[GO TO 2.](#)

2. CHECK ProPILOT ASSIST STEERING SWITCH

1. Disconnect the ProPILOT Assist steering switch connector.
2. Check the ProPILOT Assist steering switch. Refer to [Component Inspection](#).

Is the inspection result normal?

YES >>

[GO TO 3.](#)

NO >>

Replace the ProPILOT Assist steering switch.

3. CHECK HARNESS BETWEEN SPIRAL CABLE AND VCM

1. Disconnect the VCM connector.
2. Check for continuity between the spiral cable harness connector and VCM harness connector.

Spiral cable		VCM		Continuity
Connector	Terminal	Connector	Terminal	
M150*1	8	E46	14	Existed
M153*2	15		15	

*1: With electrical tilt & telescopic steering

*2: Without electrical tilt & telescopic steering

3. Check for continuity between spiral cable harness connector and ground.

Spiral cable		Ground	Continuity
Connector	Terminal		
M150*1	8	Ground	Not existed
M153*2	15		

*1: With electrical tilt & telescopic steering

*2: Without electrical tilt & telescopic steering

Is the inspection result normal?

YES >>

[GO TO 4.](#)

NO >>

Repair the harnesses or connectors.

4. CHECK SPIRAL CABLE

Check for continuity between spiral cable terminals.

Spiral cable		Continuity
Terminal		
21	8	Existed
29	15	

Is the inspection result normal?

YES >>

[GO TO 5.](#)

NO >>

Replace the spiral cable.

5. PERFORM SELF-DIAGNOSIS OF VCM

Check if any DTC is detected in “Self Diagnostic Result” of “EV/HEV”.

Is any DTC detected?

YES >>

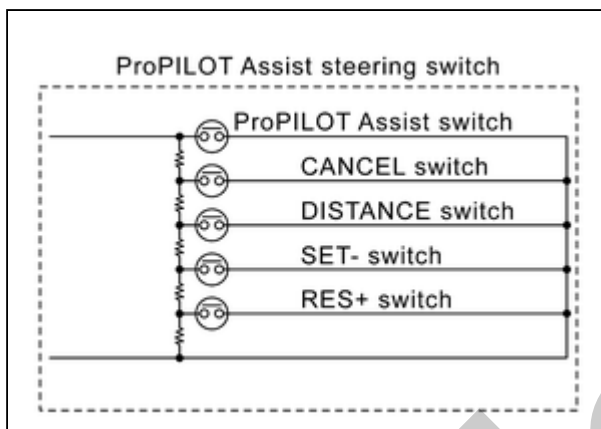
Perform self-diagnosis on the detected DTC and repair or replace the malfunctioning parts. Refer to [DTC Index](#) .

NO >>

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

1. CHECK ProPILOT ASSIST STEERING SWITCH

Check resistance between ProPILOT Assist steering switch terminals.



SIEMD-7109255-02-000430595

Terminal		Switch operation	Resistance [Ω]
21	29	When pressing ProPILOT Assist MAIN switch	Approx. 0
		When pressing CANCEL switch	Approx. 309
		When pressing DISTANCE switch	Approx. 741
		When pressing SET- switch	Approx. 1406
		When pressing RES+ switch	Approx. 2586
		When all switches are not pressed	Approx. 5456

Is the inspection result normal?

YES>>

INSPECTION END

NO>>

Replace the ProPILOT Assist steering switch.

DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	DTC detection condition	
C1F03	62	OPERATION SW CIRC (Operation switch circuit)	Diagnosis condition	<ul style="list-style-type: none"> When vehicle is READY When ProPILOT Assist 2.0 MAIN switch is ON
			Signal (terminal)	Steering switch signal
			Threshold	An ON/OFF state judgment of the ProPILOT Assist 2.0 differs between ECM and ADAS control unit 2
			Diagnosis delay time	2 seconds or more

POSSIBLE CAUSE

- ProPILOT Assist 2.0 steering switch circuit
- ProPILOT Assist 2.0 steering switch
- VCM

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

*1: ProPILOT Assist 2.0 display is green

*2: ProPILOT Assist 2.0 display is blue

CONFIRMATION PROCEDURE

1. CHECK DTC PRIORITY

If DTC “C1F03-62” is displayed with Network-DTC, first diagnose the Network-DTC.

Is applicable DTC detected?

YES >>

Perform diagnosis of applicable. Refer to .

NO >>

[GO TO 2.](#)

2. PERFORM DTC CONFIRMATION PROCEDURE

1. Set the vehicle to READY.
2. Wait for approximately 2 seconds after turning the ProPILOT Assist 2.0 MAIN switch ON.
3. Perform “All DTC Reading” with CONSULT.
4. Check if the “C1F03-62” is detected as the current malfunction in “Self Diagnostic Result” of “ICC/ADAS 2”.

Is “C1F03-62” 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 “C1F03-62” is displayed with Network-DTC, first diagnose the Network-DTC.

Is applicable DTC detected?

YES >>

Perform diagnosis of applicable. Refer to [DTC Index](#).

NO >>

[GO TO 2.](#)

2. CHECK ProPILOT ASSIST 2.0 STEERING SWITCH

1. Disconnect the ProPILOT Assist 2.0 steering switch connector.
2. Check the ProPILOT Assist 2.0 steering switch. Refer to [Component Inspection](#).

Is the inspection result normal?

YES >>

[GO TO 3.](#)

NO >>

Replace the ProPILOT Assist 2.0 steering switch.

3. CHECK HARNESS BETWEEN SPIRAL CABLE AND VCM

1. Disconnect the VCM connector.
2. Check for continuity between the spiral cable harness connector and VCM harness connector.

Spiral cable		VCM		Continuity
Connector	Terminal	Connector	Terminal	
M150*1	8	E46	14	Existed
M153*2	15		15	

*1: With electrical tilt & telescopic steering

*2: Without electrical tilt & telescopic steering

3. Check for continuity between spiral cable harness connector and ground.

Spiral cable		Ground	Continuity
Connector	Terminal		
M150*1	8	Ground	Not existed
M153*2	15		

*1: With electrical tilt & telescopic steering

*2: Without electrical tilt & telescopic steering

Is the inspection result normal?

YES >>

[GO TO 4.](#)

NO >>

Repair the harnesses or connectors.

4. CHECK SPIRAL CABLE

Check for continuity between spiral cable terminals.

Spiral cable		Continuity
Terminal		
21	8	Existed
29	15	

Is the inspection result normal?

YES >>

[GO TO 5.](#)

NO >>

Replace the spiral cable.

5. PERFORM SELF-DIAGNOSIS OF VCM

Check if any DTC is detected in “Self Diagnostic Result” of “EV/HEV”.

Is any DTC detected?

YES >>

Perform self-diagnosis on the detected DTC and repair or replace the malfunctioning parts. Refer to [DTC Index](#).

NO >>

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