

# 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.

## 2018 NISSAN X-Trail (T32) OEM Service and Repair Workshop Manual

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## DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	DTC detection condition	
U1327	54	MAC key update (Message Authentication Code key update)	Diagnosis condition	—
			Signal (terminal)	—
			Threshold	MAC key is not written after ADAS control unit 2 replacement
			Diagnosis delay time	—

## POSSIBLE CAUSE

- Writing of MAC key has not been executed
- ADAS control unit 2

## FAIL-SAFE

None

## CONFIRMATION PROCEDURE

### 1. PERFORM DTC CONFIRMATION PROCEDURE

 With CONSULT

1. Power switch ON.
2. Perform “MAC Diagnosis” of “ICC/ADAS 2” using CONSULT.

Is DTC “U1327-54” 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 MAC KEY WRITING

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 With CONSULT

1. Perform “MAC key writing”. Refer to [Work Procedure](#).
2. Perform “MAC Diagnosis” of “ICC/ADAS 2” using CONSULT.

Is DTC “U1327-54” detected as the current malfunction?

YES>>

[GO TO 2.](#)

NO>>

INSPECTION END.

## 2. PERFORM MAC KEY WRITING AGAIN (SECOND TIMES)

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 With CONSULT

1. Perform “MAC Key writing” again. Refer to [Work Procedure](#).
2. Perform “MAC Diagnosis” of “ICC/ADAS 2” using CONSULT.

Is DTC “U1327-54” detected as the current malfunction?

YES>>

[GO TO 3.](#)

NO>>

INSPECTION END

## 3. PERFORM MAC KEY WRITING AGAIN (THIRD TIMES)

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 With CONSULT

1. Perform “MAC Key writing” again. Refer to [Work Procedure](#).
2. Perform “MAC Diagnosis” of “ICC/ADAS 2” using CONSULT.

Is DTC “U1327-54” detected as the current malfunction?

YES>>

Replace the ADAS control unit 2. Refer to [Removal and Installation](#) (Without ProPILOT Assist 2.0) or [Removal and Installation](#) (With ProPILOT Assist 2.0).

NO>>

INSPECTION END

## DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	DTC detection condition	
U1327	54	MAC key update (Message Authentication Code key update)	Diagnosis condition	—
			Signal (terminal)	—
			Threshold	MAC key is not written after ADAS control unit 2 replacement
			Diagnosis delay time	—

## POSSIBLE CAUSE

- Writing of MAC key has not been executed
- ADAS control unit 2

## 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

 With CONSULT

1. Power switch ON.
2. Perform “MAC Diagnosis” of “ICC/ADAS 2” using CONSULT.

Is DTC “U1327-54” 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

## DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	DTC detection condition	
C1F46	04	VCM/HPCM (Vehicle control module/Hybrid power train control module)	Diagnosis condition	<ul style="list-style-type: none"> <li>When vehicle is READY</li> <li>When AEB system is ON</li> </ul>
			Signal (terminal)	—
			Threshold	If VCM is malfunctioning
			Diagnosis delay time	1 second or less

## POSSIBLE CAUSE

- VCM
- ADAS control unit 2

## FAIL-SAFE

The following system are cancelled.

- Vehicle speed & vehicle-to-vehicle control function
- Lane keep function\*<sup>1</sup>
- Lane keep function\*<sup>2</sup>
- 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 “C1F46-04” 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**

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1. Set the vehicle to READY.
2. Turn the AEB system ON.
3. Perform “All DTC Reading” with CONSULT.
4. Check if the “C1F46-04” is detected as the current malfunction in “Self Diagnostic Result” of “ICC/ADAS 2”.

Is “C1F46-04” 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

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If DTC “C1F46-04” is displayed with Network-DTC, first diagnose the Network-DTC.

Is applicable DTC detected?

YES>>

Perform diagnosis of applicable. Refer to [DTC Index](#)(Without ProPILOT Assist 2.0) or [DTC Index](#)(With ProPILOT Assist 2.0).

NO>>

[GO TO 2.](#)

## 2. PERFORM SELF-DIAGNOSIS OF VCM

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

Is any DTC detected?

YES>>

Perform 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](#)(Without ProPILOT Assist 2.0) or [Removal and Installation](#)(With ProPILOT Assist 2.0).



## DTC DETECTION LOGIC

DTC		CONSULT screen terms (Trouble diagnosis content)	DTC detection condition	
C1F46	04	VCM/HPCM (Vehicle control module/Hybrid power train control module)	Diagnosis condition	<ul style="list-style-type: none"> <li>When vehicle is READY</li> <li>When AEB system is ON</li> </ul>
			Signal (terminal)	—
			Threshold	If VCM is malfunctioning
			Diagnosis delay time	1 second or less

## POSSIBLE CAUSE

- VCM
- 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. CHECK DTC PRIORITY

If DTC “C1F46-04” is displayed with Network-DTC, first diagnose the Network-DTC.

Is applicable DTC detected?

YES>>

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

NO>>

## 2. PERFORM DTC CONFIRMATION PROCEDURE

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1. Set the vehicle to READY.
2. Turn the AEB system ON.
3. Perform “All DTC Reading” with CONSULT.
4. Check if the “C1F46-04” is detected as the current malfunction in “Self Diagnostic Result” of “ICC/ADAS 2”.

Is “C1F46-04” 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