

SERVICE BULLETIN

Classification: EC19-003a Reference:

ITB19-003a

COPYRIGHT[®] NISSAN NORTH AMERICA, INC. Date:

August 22, 2019

2019 QX50; SPARK KNOCK

This bulletin has been amended. See AMENDMENT HISTORY on the last page. Please discard previous versions of this bulletin.

APPLIED VEHICLE: 2019 QX50 (J55)

IF YOU CONFIRM:

A spark knock or knocking type noise is coming from the engine under a low RPM/high load driving pattern (alternatively, "at low speeds")

AND

There are no DTCs stored in the ECM or TCM.

ACTION

- 1. Reprogram the ECM and/or TCM, if applicable.
- 2. Inform the customer that premium gasoline, with an octane rating of at least 91 AKI (Anti-Knock Index) number, is recommended

IMPORTANT: The purpose of ACTION (above) is to give you a quick idea of the work you will be performing. You MUST closely follow the entire SERVICE PROCEDURE as it contains information that is essential to successfully completing this repair.

Infiniti Bulletins are intended for use by qualified technicians, not 'do-it-yourselfers'. Qualified technicians are properly trained individuals who have the equipment, tools, safety instruction, and know-how to do a job properly and safely. **NOTE:** If you believe that a described condition may apply to a particular vehicle, DO NOT assume that it does. See your Infiniti retailer to determine if this applies to your vehicle.

SERVICE PROCEDURE

IMPORTANT: Before starting the reprogramming procedure, make sure:

- ASIST on the CONSULT PC has been synchronized (updated) to the current date.
- All C-III plus software updates (if any) have been installed.
- The CONSULT PC is connected to the Internet (Wi-Fi or cable).

Reprogram the ECM

- 1. Using CONSULT- III plus (C-III plus), confirm the current ECM part number and write it on the repair order.
 - If it matches one of the part numbers in **Table A** on the next page, reprogram the ECM.
 - If it does not match any of the part numbers in Table A, skip to step Error! Reference source not found. to see if the TCM requires reprogramming.

NOTE:

- If you are not familiar with the reprogramming procedure, *click here*. This will link you to the "CONSULT- III plus (C-III plus) Reprogramming" general procedure.
- Take the vehicle for a 10 minute drive in order to meet the following Idle Air Volume Learn (IAVL) conditions:
 - Engine coolant temperature: 70-100°C (158-212°F)
 - Battery voltage: More than 12.9V (At idle)
 - Transmission: Warmed up
- After reprogramming is complete, it is required to perform Throttle Valve Closed Position, Idle Air Volume Learn, Accelerator Closed Position, and DTC Erase.



Figure 1

CAUTION:

- Connect a battery maintainer or smart charger set to reflash mode or a similar setting. If the vehicle battery voltage drops below <u>12.0V or above 15.5V</u> during reprogramming, <u>the ECM may</u> <u>be damaged</u>.
- Be sure to turn OFF all vehicle electrical loads. If a vehicle electrical load remains ON, <u>the ECM</u> <u>may be damaged</u>.
- Be sure to connect the AC Adapter. If the CONSULT PC battery voltage drops during reprogramming, the process will be interrupted and <u>the ECM may be damaged</u>.
- Turn OFF all external Bluetooth[®] devices (e.g., cell phones, printers, etc.) within range of the CONSULT PC and the plus VI. If Bluetooth[®] signal waves are within range of the CONSULT PC and the plus VI during reprogramming, reprogramming may be interrupted and <u>the ECM may be</u> <u>damaged</u>.

Table A

MODEL	CURRENT ECM PART NUMBER: 23710-
	5NC0D, 5NC1D, 5NC2D, 5NC3D, 5NC4D, 5NC5D, 5NC6D, 5NC7D, 5NC8D
	5NC0E, 5NC1E, 5NC2E, 5NC3E, 5NC4E, 5NC5E, 5NC6E, 5NC7E, 5NC8E
	5NE0A, 5NE1A, 5NE2A, 5NE3A, 5NE4A, 5NE5A, 5NE6A, 5NE7A, 5NE8A
	5NE0B, 5NE1B, 5NE2B, 5NE3B, 5NE4B, 5NE5B, 5NE6B, 5NE7B, 5NE8B
	5NE0C, 5NE1C, 5NE2C, 5NE3C, 5NE4C, 5NE5C, 5NE6C, 5NE7C, 5NE8C
	5NE0D, 5NE1D, 5NE2D, 5NE3D, 5NE4D, 5NE5D, 5NE6D, 5NE7D, 5NE8D
2040 0 250	5NE0E, 5NE1E, 5NE2E, 5NE3E, 5NE4E, 5NE5E, 5NE6E, 5NE7E, 5NE8E
2019 QASU	5NF0B, 5NF1B, 5NF2B, 5NF3B, 5NF4B, 5NF5B, 5NF6B, 5NF7B, 5NF8B
	5NF0C, 5NF1C, 5NF2C, 5NF3C, 5NF4C, 5NF5C, 5NF6C, 5NF7C, 5NF8C
	5NL0A, 5NL1A, 5NL2A, 5NL3A, 5NL4A, 5NL5A, 5NL6A, 5NL7A, 5NL8A
	5NL0B, 5NL1B, 5NL2B, 5NL3B, 5NL4B, 5NL5B, 5NL6B, 5NL7B, 5NL8B
	5NL0C, 5NL1C, 5NL2C, 5NL3C, 5NL4C, 5NL5C, 5NL6C, 5NL7C, 5NL8C
	5NL0D, 5NL1D, 5NL2D, 5NL3D, 5NL4D, 5NL5D, 5NL6D, 5NL7D, 5NL8D
	5NL0E, 5NL1E, 5NL2E, 5NL3E, 5NL4E, 5NL5E, 5NL6E, 5NL7E, 5NL8E

2. After completing reprogramming and Erase ALL DTCs, print a copy of the C-III plus screen showing the before and after part numbers of the control unit and attach it to the repair order.

TCM Reprogramming

- 3. Start C-III plus.
- 4. Wait for the plus VI to be recognized.
 - The serial number will display when the plus VI is recognized.
- 5. Select **Re/programming**, **Configuration**.

Connection Status Diagnosis Menu Serial No. Status Plus VI is VI	E	Back Home P	int Screen Capture Mode	orded Help 11.8V VI MI
Serial No. Status Plus VI is VI	ſC	Connection Statu	;	Diagnosis Menu
Plus VI is vi 2300727		Serial No.	Status	Diagnosis (One System)
recognized Normal Mode/Wireless connection Diagnosis (All Systems)	Plus VI is recognized	l is zed VI 2300727 Normal Mode/Wireless connection	Diagnosis (All Systems)	
MI - No connection		MI - No connection		Re/programming, Configuration
Select VI/MI		Select VI/	ИІ	
Application Setting Sub mode Image Setting Maintenance		Sub mode	Language Setting	Maintenance
VDR		VDR		

Figure 2

6. Follow the on-screen instructions and navigate C-III plus to the screen shown in Figure 3 on the next page.

- 7. When you get to the screen shown in Figure 3, confirm reprogramming applies as follows:
 - A. Find the TCM **Part Number** and write it on the repair order.

NOTE: This is the <u>current</u> TCM Part Number (P/N).

🚰 CONSULT-III plus Ve	er VIN.		-	Vehicle :				Country : U.S.A.
Back Home	Print Screen Capture	Measurement Mode	Recorded Data	O Help	11.8V	Y. VI	× ^{MI}	-
Re/programming Configuration	, Opera	tion Selection	Save	ECU Data				717
Save ECU Data								
Touch "Save" to save Operation log helps to after operation has cor	operation log and th restart next operatio npletely finished.	e current par n by selectin	t number as g suitable op	listed below to e eration log. Ope	CONSULT ration log	is eras	ed	
File Label			XX	****				
Operation	Current TOM	∖/N I	RE	PROGRAMMING	9			
System		7/IN		ANSMISSION				
Part Number				31036	_			
Vehicle			x	****	×			
VIN			x		<]
Date		11/	1/201× 1:22:16 A	М			Save	
			E	^				

- Figure 3
- B. Compare the P/N you wrote down to the numbers in the Current TCM Part Number column in Table B
 - If there is a <u>match</u>, continue to step 8 on the next page.
 - If there is <u>not a match</u>, reprogramming is <u>not needed</u>, go back to ASIST for further diagnostic and repair information.

Table B

Model	Current TCM Part Number Before Reprogramming: 31036 -
2019 QX50	5NA0A, 5NA0B, 5NA0C, 5NA0D

8. Follow the on-screen instructions to navigate C-III plus and reprogram the TCM.

NOTE:

- In some cases, more than one new P/N for reprogramming is available.
 - ▶ If more than one new P/N is available, the screen in Figure 4 displays.
 - Select and use the reprogramming option that does <u>not</u> have the message "Caution! Use ONLY with NTBXX-XXX".
- If you get this screen and it is <u>blank</u> (no reprogramming listed), it means there is no reprogramming available for this vehicle.

CONSULT-III plus Ver.	VIN:	Vehicle :		Country : U.S.A.
Back Prir	t Screen Capture	Recorded Help	← ™ × 11.8V VI MI	-
Re/programming, Configuration	Precaution	Select Program Data	Confirm Vehicle Condition	9/11
Select Program Data				
Touch and select the rep In case no reprog/prograr reprog/programming data	rog/programming data listed be nming data is listed below, confi in CONSULT.	iow. rm the vehicle selection, VIN a	nd	
System	TRANSMISSION			
Current Part Number	Part Number After Repr	o/programming Ot	her Information	
X00000X-X00000X	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	00000000	000000000000000000000000000000000000000	
X00000X-X00000X	X00000X-X00000X	00000000	xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx	
			0/0	Next

Figure 4

- Before reprogramming will start, you will be required to enter your User Name and Password.
 - > The CONSULT PC must be connected to the Internet (Wi-Fi or cable).
 - ▶ If you do not know your User Name and Password, contact your Service Manager.

	Ver.CSP44.21	THT. 1147-2007 1110242100	Territore . ALTIN	A Sedan Loo zon	States
e Back	Home Print Screen	Screen Capture	Help A	12.6V VI MI	-
≪o '	Re/programming, Configuration	Confirm Vehicle Condition	Authentication	Transfer Data	11/12
User Authe	entication				
	SECUREAUTH				
D	aimler WS				
		Please enter your UserID below.			
		Usemame:			
		Password:			
		Submit			
	Restart Login				S Powered by SECUREAUTH
		Copyright 2015 SecureAuth Cor	p. All rights reserved.		

Figure 5

9. When the screen in Figure 6 displays, reprogramming is complete.

NOTE: If the screen in Figure 6 does <u>not</u> display (indicating that reprogramming did <u>not</u> complete), refer to **TCM Recovery** on the next page.

- 10. Disconnect the battery maintainer/smart charger from the vehicle.
- 11. Select Next.



Figure 6

NOTE:

- In the next step (page 9) you will perform **Erase All DTCs**.
- DTC erase is required before C-III plus will provide the final reprogramming confirmation report.

TCM Recovery:

Do not disconnect plus VI or shut down C-III plus if reprogramming does not complete.

If reprogramming does <u>not</u> complete and the "!?" icon displays as shown in Figure 7:

- Check battery voltage (12.0–15.5 V).
- Ignition is ON, engine OFF.
- External Bluetooth® devices are OFF.
- All electrical loads are OFF.
- Select retry and follow the on screen instructions.
- "Retry" may not go through on first attempt and can be selected more than once.

CONSULT-II plus Ver	VN	Vanicia		Ecuntry : Jacon
Back Bane Print Screen	Screen Cather Cather	ecorded Holp	12.TV VI	× =
sonigition	Transfer Data	Confirm Resul		13/13
onfirm Result				
Reprogramming or progamming is i operation on his ECU. Touch "Retry" to letly reprogrammin	not completed propertly, bu	it you can retry reprogip	rogramming	
Part number after				
Reprog/programming				
Reprog/programming Part number before Reprog/programming				
Reprogriptogramming Part number before Reprogriptogramming Vehicle				
Reprog/programming Part number befare Reprog/programming Vehicle				
Reprograngsamming Part number before Beprograngsamming Vehicle VIN System				_
Reprog/programming Part number before Reprog/programming Vehicle VIN System Dote		25/07/2011 16.30	100	Retry
Reprog/programming Part number sefare Reprog/programming Vehicle VIN System Date Error Code		26/07/2011 16:30	100	Retry

Figure 7

If reprogramming does <u>not</u> complete and the "X" icon displays as shown in Figure 8:

- Check battery voltage (12.0 15.5 V).
- CONSULT A/C adapter is plugged in.
- Ignition is ON, engine OFF.
- Transmission is in Park.
- All C-III plus / VI cables are securely connected.
- All C-III plus updates are installed.
- Select <u>Home</u>, and restart the reprogram procedure from the beginning.

CONSULT-IL DUS	VIN	Vehicle : QASHQAI	County : Japan
Bark Hone Print Scree	Eccent Node	Recorded Helo	🗟 🌄 💥 🖿 🛄 🔀
Configlation	Travelir Data	Confirm Result	99
Confirm Result			
Reprogramming is not complete -Print this screen as needed. Co with precedure. -Restart CONSULT with disconn	d property infirm CONSULT version, K recting VI once, and start th	SN/Power switch position, shift pos e reprogramming again.	iñon and etc
Part number after Reprog/programming			
Current part number			
Vehicle			
VIN			
System			
Date		25/07/2011 16:30:00	
Information			
Error Code			Print



- 12. Follow the on-screen instructions to **Erase All DTCs**.
- 13. When the entire reprogramming process is complete, the screen in Figure 9 will display.
- 14. Verify the before and after part numbers are different.
- 15. Print a copy of this screen (Figure 9) and attach it to the repair order for warranty documentation.
- 16. Select **Confirm**.

CONSULT-III plus Ver VIN:	Vehicle :	Country : U.S.A.
Back Home Print Screen Capture	Messurement Mode Recorded Data	' 🗙 🖿 📃 🔀
Configuration	se All DTCs Print Result / Operation Complete	18/18
Print Result / Operation Complete		
All tasks are completed. Confirm LAN acce In case CONSULT can NOT immediately acc temporally storage of this page. Touch "Scr Data Folder" on desk top, and open the fold	ss, touch "Print" to print out this page. :ess to LAN or printer, Screen Capture function is availal een Capture", and save it. Screen capture data is in "CIII er named "ScreenImages".	ble for plus
Part number after Reprog/programming	31036	
Part number before Reprog/programming	31036	
Vehicle	*****	
VIN	*****	
System	TRANSMISSION	Print
Date	11/3/201× 2:10:21 AM	
	1/1	Confirm

Figure 9

17. Inform the customer that unleaded premium gasoline with an octane rating of at least 91 Anti Knock Index (AKI) is recommended. Refer to the owner's manual for additional fuel recommendations and cautions.

CLAIMS INFORMATION

Submit a Primary Part (PP) type line claim using the following claims coding:

DESCRIPTION	PFP	OP CODE	SYM	DIA	FRT
Reprogram ECM	(1)	DE97AA	ZE	32	(2)
Reprogram TCM	(3)	JE99AA	ZE	32	(4)

(1) Reference the electronic parts catalog, and use the Electronic Control Module (23703-****) as the Primary Failed Part (PFP).

(2) Reference the current Infiniti Warranty Flat Rate Manual and use the indicated Flat Rate Time (FRT).

(3) Refer to the Electronic Parts Catalog (EPS) or equivalent and use the TCM part number (31036 - *****) as the PFP.

(4) Reference the current Infiniti Warranty Flat Rate Manual and use the indicated Flat Rate Time. NOTE: FRT allows adequate time to access DTC codes. No other diagnostic procedures subsequently required. Do NOT claim any diagnostic OP Codes with this claim.

AMENDMENT HISTORY

PUBLISHED DATE	REFERENCE	DESCRIPTION
February 22, 2019	ITB19-003	Original bulletin published
August 22, 2019	ITB19-003a	Updated Table A and added the TCM reprogramming procedure.