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PROGRAMMING PROCEDURE FOR BLANK ECMs

APPLIED VEHICLES: All Infiniti vehicles using replacement "Blank" ECMs

SERVICE INFORMATION

Replacement Engine Control Modules (ECMs) for many newer Infiniti vehicles are now "Blank" ECMs.

Blank ECMs come without software and must be programmed (not reprogrammed) before they will function.

When ordering a replacement ECM, the electronic parts catalog (FAST or equivalent) will list the part number for a Blank ECM if it is available for the vehicle you are working on.

- All 2014 M/Y and newer vehicles, that use an ECM, have Blank ECMs available as replacements.
- Blank replacement ECMs are being phased in for 2013 to 2009 vehicles.

This bulletin contains details for:

- Saving / copying information from the old/current ECM and applying it to the new/replacement Blank ECM.
- Obtaining and installing program information into the new/replacement Blank ECM when it cannot be copied from the old/current ECM.

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 dealer to determine if this applies to your vehicle.

Blank ECM Programming Procedure (summary)

Below is a summary of the steps for Blank ECM programming. For details, go to page 3.

For vehicles where the ECM can be accessed (ECM P/N can be read) with C-III plus:

- a. Connect and launch C-III plus:
 - > From the C-III plus home page, Select **Re/Programming**, **Configuration**.
 - Proceed to Re/programming.
 - Select **Programming** (not reprogramming).
- b. Select Before ECM Replacement.
- c. Save the current ECM P/N and VIN.
- d. Replace the ECM with the new Blank ECM.
- e. Select Programming.
- f. Select After ECM Replacement.
- g. Select Program ECM.
- h. Once programming has completed, perform Throttle Valve Closed Position, Idle Air Volume Learn (IAVL), Accelerator Closed Position, and DTC erase.
- i. Verify the VIN is registered.
- j. Close C-III plus.

For vehicles where the old/current ECM cannot be accessed (ECM P/N cannot be read) with C-III plus:

- Obtain the ECM software P/N by using the VIN in the electronic parts catalog.
 When using the VIN, the parts catalog will display both the Blank ECM part number and the part number for the software program.
- b. Install the replacement Blank ECM in the vehicle.
- c. Connect C-III plus, and then get to the screen that shows the selection Programming and select **Programming**.
- d. Select After ECM Replacement.
- e. Type in the VIN.
- f. Select the P/N from the list that matches the one taken from the parts catalog.
 - > Double-check and make sure the correct P/N has been selected.
 - > Confirm that the description matches the vehicle's system applications i.e. ABS, CVT, ASCD, etc.
- g. Select Program ECM.
- h. Once programming has completed, perform Throttle Valve Closed Position, Idle Air Volume Learn (IAVL), Accelerator Closed Position, and DTC erase.
- i. Verify the VIN is registered.
- j. Close C-III plus.

Blank ECM Programming Procedure (details)

NOTE:

- <u>Always</u> enter the VIN into the Infiniti electronic parts catalog (FAST or equivalent), when ordering (looking up) a replacement ECM.
- The first five digits of a replacement Blank ECM's P/N will start with 23703-xxxxx.
- Do not replace/install the new ECM until told to do so in the Service Procedure.

Can the old/current ECM (the one that will be replaced) be accessed with C-III plus?

NOTE: To determine if the old/current ECM can be accessed with C-III plus: Select Diagnosis (One System) > Engine, and then read the ECM Part number. Can the ECM part number be accessed and read?

YES – go to Program Blank ECM (When ECM is Accessible With C-III plus) on the next page.

If the vehicle's old/current ECM can be accessed with C-III plus, its current internal Part Number (P/N) and Vehicle Identification Number (VIN) can be saved and then applied to the Blank ECM.

NO – go to Program Blank ECM (When ECM is not Accessible With C-III plus) on page 18.

If the vehicle's old/current ECM <u>cannot</u> be accessed with C-III plus, the software program P/N to be programmed into the Blank ECM will need to be determined by entering the VIN into the Electronic Parts Catalog (FAST or equivalent). When using the VIN, the parts catalog will display both the Blank ECM part number and the part number for the software program.

PROGRAM BLANK ECM (When ECM is Accessible With C-III plus)

NOTE:

- Do not replace/install the new ECM until told to do so in the Service Procedure.
- Use this procedure if the vehicle's old/current ECM <u>can be</u> accessed with CONSULT-III plus.

IMPORTANT: Before starting the program procedure, make sure:

- ASIST on the CONSULT PC has been freshly synchronized (updated).
- All C-III plus software updates (if any) have been installed.

NOTE: The CONSULT PC automatically gets applicable ECM programming data during ASIST synchronization.

- A screen print for Warranty documentation can be done from the CONSULT PC during this process while still connected to the vehicle.
- <u>If possible</u>, take the vehicle for a 10 minute drive in order to meet the following conditions:
 - Engine coolant temperature: 70 100°C (158 – 212°F)
 - ➤ Battery voltage: More than 12.9V (At idle)
 - > Transmission: Warmed up



Figure A

NOTE:

 After programming is complete, you will be required to perform Throttle Valve Closed Position, Idle Air Volume Learn (IAVL), Accelerator Closed Position, and DTC erase. The above conditions are required for the IAVL to complete.

- 1. Connect the C-III plus Vehicle Interface (plus VI) to the vehicle.
 - Make sure to use the correct VI for C-III plus (plus VI).

CAUTION: Make sure the plus VI is securly connected to the DLC. If the plus VI connection is loose during programming, the process will be interrupted and the ECM may be damaged.

2. Connect the AC Adapter to the CONSULT PC.

CAUTION: Be sure to connect the AC Adapter. If the CONSULT PC battery voltage drops during programming, the process will be interrupted and the **ECM may be damaged**.

3. Connect a battery charger to the vehicle battery:

Set the battery charger at a low charge rate.
 NOTE: The GR-8 (Battery and Electrical Diagnostic Station) set to "Power Supply" mode is recommended.

CAUTION: Be sure the battery charger is connected securely to the battery. Make sure the battery voltage stays between <u>12.0V and 15.5V</u> during programming. If the battery voltage goes out of this range during programming, the **ECM may be damaged**.

4. Turn off all external Bluetooth[®] devices (e.g., cell phones, printers, etc.) within range of the CONSULT PC and the VI.

CAUTION: Make sure to turn off all external Bluetooth[®] devices. If Bluetooth[®] signal waves are within range of the CONSULT PC and the plus VI during programming, programming may be interrupted and the **ECM may be damaged**.

- 5. Turn the ignition ON (engine OFF / Not Ready).
 - The engine must not start or run during the reprogramming procedure.
- 6. Turn OFF all vehicle electrical loads such as exterior lights, interior lights, HVAC, blower, rear defogger, audio, NAVI, seat heater, steering wheel heater, etc.

IMPORTANT: Make sure to turn OFF all vehicle electrical loads. Make sure the battery voltage stays between <u>12.0V and 15.5V</u> during programming. If the battery voltage goes out of this range during programming, the **ECM may be damaged**.

- 7. Open / start C-III plus.
 - You will be accessing the old/current ECM.
- 8. Wait for the plus VI to be recognized.
 - The serial number will display when the plus VI is recognized.

	CONSOLT-III plus Ver.V12	. 12.00 VIN	Venicie - Country . U.S.A.
	Back Home Print	Screen Capture Mode	Recorded Data
	Connection Status		Diagnosis Menu
plus VI is	Serial No.	Status	Diagnosis (One System)
recognized	2300727	Normal Mode/Wireless	
	MI		
No connection		No connection	Re/programming, Configuration
		ſ	Immobilizer
	Application Setting		
	Sub mode	ABC Language Setting	Maintenance
	VDR		
		F	Figure 1

9. Select Re/programming, Configuration.

Back	Home Print	Screen Capture Mode	corded Help Help Help Help Help Help Help Help
Conne	ction Status -		Diagnosis Menu
	Serial No.	Status	Diagnosis (One System)
VI	2300727		
		Normal Mode/Wireless connection	Diagnosis (All Systems)
м	-	\bigcirc	Sten
		No connection	Re/programming, Configuration
800	Select VI/M	I	Immobilizer
Applicat	tion Setting Sub mode	Language Setting	Maintenance
	VDR		

Figure 2

- 10. Use arrows (if needed) to view and read all precautions.
- 11. Check the box confirming the precautions have been read.
- 12. Select Next.

	Image: Back Image: Back	
	Re/programming, Configuration Vehicle Selection	
	Precaution	
	Operating suggestions for reprogramming, programming and C/U configration: Please review the all of precautions, and click the "Confirm" check box after confirming the its points. And touch "Next".	
	Caution: 1. Follow the operation guide displayed on screen. 2. "Back" and "Home" button may not be used on this flow. -For reprogramming and programming 1. Install the latest version of the CONSULT-III plus sortware, reprogramming/programming data to this CONSULT-III plus PC. 2. Preparation and read the service manual or reprogramming procedure sheet.	
	-For ECU Configuration 1. Need to write the configuration data to new ECU, after replace it. 2. If writing the wrong configuration data, ECU can not work. Please write the right data. Step	
Step 11	-For ECU Configuration using manual mode 1. Confirm the vehicle's spec and its configuration spec, following the service manual. If writing the wrong configuration data, ECU can not work. Please write the right data.	
	Next	Step
	Confirmed instructions	12

Figure 3

- 13. Select Infiniti, Vehicle Name, and then the correct Model Year.
 - If the screen in Figure 4 does not display, skip to step 14.

		10.12.00		204 Femore .		oounity . 0.0.11.
	Back Home	Print Screen Captu	n re Measurement Mode	Recorded Help	12.2V VI MI	-
	Re/programmi Configuratio	ng,	Precaution	Vehicle Selection	Vehicle Confirmation	
	Automatic S	election(VIN)	Manual Selec	ction(Vehicle Name)		
	Vehicle Name :				Model Year :	Sales Channel
Step	*INFINITI EX35 Camp:P8202	INFINITI G37 Coupe	INFINITI Q45			NISSAN
15	INFINITI EX35	INFINITI G37 Sedan	INFINITI QX4			INFINITI
	INFINITI FX35/FX45	INFINITI I30	INFINITI OX56		Step	
	INFINITI FX35/FX50	Ev	amplo			
	INFINITI G20		ampie			
	INFINITI G25/G37 Sedan	INFINITI M35/M45				
	INFINITI G35 Coupe	INFINITI M35h				
	INFINITI G35 Sedan	INFINITI M37/M56				CLEAR
	INFINITI G37 Convertible	INFINITI M45				Salaat
				1/1	0/0	

Figure 4

- 14. Make sure VIN or Chassis # matches the vehicle's VIN.
- 15. If the correct VIN is displayed, select Confirm.

Step 14 Verify	Back Image: Configuration Image: Configuration Image: Configuration Please confirm selected information and to touch "Change". Vehic	Messerenet Mode Website Messerenet Mode Webicle Confirmation Webicle Confirmation Multiple Messerenet Nucle Selection Webicle Confirmation Multiple Multipl	
2	VIN or Chassis #		
	Vehicle Name :	■37 ■ Z	
	Model Year	2000	
		1/1	
		Step 15	Change Confirm

Figure 5

16. Select Confirm.



Figure 6

17. Select ENGINE.

Back Print Screen Screen Capture	Measurement Mode Recorded Help	
Configuration	Input VIN System Selection	Operation Selection 5/6
System Selection		
Touch "system". In case ECU you want to operate is not list	ed below, the vehicle or model year might l	be selected wrong.
	Step 17	
ENGINE	METER/M&A	HVAC
MULTI AV	ВСМ	TRANSMISSION
ABS	CAN GATEWAY	
IPDM E/R	EV/HEV	
HEAD LAMP LEVELIZER	AIR BAG	
		1/1

Figure 7

NOTE: If the old/current ECM <u>cannot</u> be accessed with C-III plus, go to <u>Program Blank ECM (When</u> <u>ECM is not Accessible With C-III plus)</u> on page 18.

18. Select Programming. (Do not select Reprogramming.)

open	ation Selection		
Tou In c In c	ch "Operation". ase over write current ECU, touc ase replacement of ECU, select an	h "Reprogramming". operation in REPLACE ECU category.	i.
RE	PROGRAMMING	In case you want to reprogrammi	ng ECU, touch "Reprogramming".
	Reprogramming		
Re	placement OF ECU		
P	placement OF ECU regramming (Blank ECU) Programming	In case you want to replace ECU Before replace ECU, ECU data is After replace ECU, CONSULT wri	J, you should operate followings. : saved to CONSULT. tes ECU data and programming data.
	placement OF ECU regramming (Blank ECU) Programming EHICLE CONFIGURATION	In case you want to replace ECU Before replace ECU, ECU data is After replace ECU, CONSULT wri	J, you should operate followings. saved to CONSULT. tes ECU data and programming data.

Figure 8

19. Select Before Replace ECU.

		Ver.CSP17.10		Concernant of	-					
Back	Home	Print Screen	Screen Capture	Moasurement	Recorded Data	6 Help	13.1V	Y,	Х	
S.	Re/program Configurat	ming.	Ope	eration Log election	Conf	firmation of place ECU	1			
Confirm	nation of Rep	lace ECU								
	Before R EC	eplace U	In case E Service Touch "E	CU has NOT Manual. Sefore Replac	been replace	ed yet, back t	o Home Scre Screen.	en and	i repla	ce ECU with
	fter Repl	ace ECU	In case E operation	CU has alrea 1.	dy replaced,	touch "After	Replace ECI	J". COI	NSULT	۲ shows next

Figure 9

20. Select Save.

Ver.CSP16.11		Common
Back Borne Print Screen Capture	Messurement Mode Data	-
Configuration	firmation of place ECU	9/9
Save ECU Data		
Touch "Save" to save operation log and th Operation log helps to restart next operation after operation has completely finished.	e current part number as listed below to CONSULT. n by selecting suitable operation log. Operation log is erased	
File Label	i ₽ 1 6	
Operation	Programming (Blank ECU)	
System	ENGINE	
Part Number	207 19-19 AUC	
Vehicle	F # 5J8K 2 (2 1 /D 7	
VIN	I # ■ 5■	
Date	20 1 /2/105/2011 108:201 201 201 201 201 201 201 201 201 201	Save
		Cave

Figure 10

21. Select Next.

Back Image: Drink Screen Image: Drin Screen I
Re/programming, Configuration Confirmation of Replace ECU Save ECU Data Save ECU Data 9/9 Operation log and ECU data (Some of ECU need to be saved, not all) have been saved to CONSULT. Touch "Next" and replace ECU. After replacement of ECU, operation can start from suitable operation by selecting this operation log.
Save ECU Data Operation log and ECU data (Some of ECU need to be saved, not all) have been saved to CONSULT. Touch "Next" and replace ECU. After replacement of ECU, operation can start from suitable operation by selecting this operation log.
Operation log and ECU data (Some of ECU need to be saved, not all) have been saved to CONSULT. Touch "Next" and replace ECU. After replacement of ECU, operation can start from suitable operation by selecting this operation log.
File Label
Operation Programming (Blank ECU)
System ENGINE
Part Number
Vehicle
Date D100022019D5870 Step 21 Next

Figure 11

- 22. Make sure the VIN in the Saved Data List (Figure 12) matches the vehicle's VIN.
 - If the VIN is not correct, select Delete and then start over from the C-III plus Home screen.
- 23. If the VIN is correct, select Confirm.
 - This step will save the vehicle's existing ECM information.



Figure 12

24. After **Confirm** is selected in step 23, the screen in Figure 13 will display.

Ver GJF 17.10			
Back Bome Print Screen	creen apture Moseurement Mode Recorded Data	PHelp	х 🖿 📃
Re/programming, Configuration	System Selection Operation	on Selection	6
eration Selection			
ouch "Operation". n case over write current ECU, touch n case replacement of ECU, select an) "Reprogramming". operation in REPLACE ECU cate	igory.	
REPROGRAMMING	In case you want to reprogr	amming ECI Ltouch "Reprogra	mmin d"
Reprogramming	in case you want to reprogr	anining 200, toton "Reprogra	anning .
Programming (Blank ECU)			
Programming	In case you want to replace Before replace ECU, ECU d After replace ECU, CONSUL	ECU, you should operate fol ata is saved to CONSULT. T writes ECU data and program	lowings. mming data.
	-		
VEHICLE CONFIGURATION			

Figure 13

25. Replace the ECM now:

- Leave C-III plus turned on (it should continue to display the screen in Figure 13 while replacing the ECM).
- Make sure the CONSULT PC A/C power supply is connected.
- Turn the ignition OFF.
- Refer to the appropriate Service Manual for ECM replacement information.
- 26. After the ECM has been replaced (Blank ECM is now installed).
 - a. Turn the ignition ON (engine OFF / Not Ready).
 - The engine must not start during the programming procedure.
 - b. Make sure the GR8 / battery charger is connected.

27. Select Programming.

Ope			
a statement	ration Selection		
To In In	uch "Operation". case over write current ECU, touch case replacement of ECU, select an	n "Reprogramming". operation in REPLACE ECU category.	
R	EPROGRAMMING	[011 to
	Reprogramming	in case you want to reprogramming E	CU, touch "Reprogramming".
R	eplacement OF ECU		
r i	Programming (Blank ECU)	In case you want to replace ECU yo	u should operate followings
⇒	Programming	Before replace ECU, ECU data is say After replace ECU, CONSULT writes E	ed to CONSULT. CU data and programming data.
	EHICLE CONFIGURATION		
	Deed (Maite		In case you has already replaced ECI touch "Manual Configuration".

Figure 14

28. Select After Replace ECU.

CH C	ONSULT-III plu	Ver.23.13 Ver.CSP17.10	VIN:-		Vehicle : VE	RSA Sedan N17 2013	3 Country : U.S.A.
Bac	:k Borne	Print Screen	Screen Capture	ment Recorded Data	0 Help	13.1V VI	× = _ ×
S	Re/program	nming, ation	Operation Lo Selection	g Confi Rep	rmation of lace ECU		5/5
Confi	rmation of Re	place ECU					
	Before F	Replace CU	In case ECU has I Service Manual. Touch "Before Re	NOT been replace place ECU'' to ba	d yet, back to ck to Home S	Home Screen and creen.	replace ECU with
Step 28	After Rep	lace ECU	In case ECU has a operation.	liready replaced, i	touch "After F	teplace ECU". CON	ISULT shows next

Figure 15

- 29. Use arrows to view and read all precautions.
- 30. Check the box confirming the precautions have been read.
- 31. Select Next.

	CONSOL IMIT	nus ver.v13.12.00	VINGOR DADALTI ANN	venicie	. 57 02 234 2010	country . c.s.x.	
	Back Hor	me Print Screen	Screen Capture	Recorded Help	12.1V VI	× 🖿 📃 🔀	
	Configu	amming, uration	Save ECU Data	Precaution	Select Program	Data	j
	Precaution						
	Operating sugg If the reprogram	jestions: ming/programmin	g is unsuccessful, ECL	J software may be dam	aged and ECU is no lon	iger	
	usable. Please review th	he all of precautio	ns, and click the "Confi	irm" check box after co	onfirming the its points.		
	4. DO NOT set	the A/C timer or A	/C remote control syst	em.		()	
	<during reprog<="" td=""><td>ramming></td><td></td><td></td><td></td><td></td><td></td></during>	ramming>					
	Never touch the Never depress	e CONSULT-III plu the brake pedal o	s components to prevent turn the steering whe	ent cable disconnectio el.	n.		
	Never open eac	n door or trunk na	•				
Cton					Ste	p	
					29		
30							
						7	Step
	Confirm	ned instruction	5		2/2	Next	31
			-				
			F	iaure 16			

- 32. Make sure **OK** is highlighted green (battery voltage must be between **12.0 and 15.5 Volts**).
- 33. Select Next.

IMPORTANT: Battery voltage must stay between **12.0 and 15.5 Volts** during programming or ECM programming may be interrupted and the <u>ECM may be damaged</u>.



NOTE: In the next step, the programming process will begin when Start is selected.

CAUTION: DO NOT stop programming after selecting Start, doing so may damage the ECM. Allow programming to complete.

34. Select Start.



Figure 18

35. Wait for both progress bars to complete.



Figure 19

36. When the screen in Figure 20 displays, programming is complete.

NOTE: If the screen in Figure 20 does <u>not</u> display (programming does <u>not</u> complete), refer to the information on the next page.

- 37. Disconnect the GR8 / battery charger from the vehicle.
- 38. Select Next.

			ovanity : 0.5.A.
Back Home Print Sc	reen Screen Messurement Mode	Image: Weight of the second	<u>м</u> П
Re/programming, Configuration	Transfer Data	onfirm Result	12/12
Confirm Result			
Reprogramming or program Touch "Next" to continue op	iming is completed. eration.		
		00	
		Step 38	Next
	Figure	20	

39. Go to After Programming has Completed on page 33.

NOTE: Additional steps / operations are required before C-III plus will provide the final programming confirmation report. Go to **After Programming has Completed** on page 33.

If programming does not complete and the "!?" symbol displays as shown in Figure 21:

- Check battery voltage (12.0 15.5V).
- The ignition is ON and the engine is OFF.
- External Bluetooth[®] devices are OFF.
- All electrical loads are OFF.
- Select <u>Retry</u> and follow the on screen instructions.

NOTE: Retry may not go through on the first attempt. It can be selected more than once.

Back Bome Print Screen Capture	Monsurement Mode	12.4V VI	× = _ X
Configuration	nsfer Data Confirm Result		9/9
Confirm Result			
Reprogramming or programming is not con operation on this ECU. Touch "Retry" to retry reprogramming or pr	pleted properly, but you can retry regramming.	prog/programming	R
Part number after Reprog/programming	£36100		
Current Part Number	29380		
Vehicle	ZEOLEA	Fm I	
VIN	u]ii1#.30@P5;97	0000	
System	THEFMAT	CS.	
Date	1/26/20 xx 4:34	:55 PM	Retry
Other Information	6.26=>6.2	7	
Error Code	RNDS_CAN_ALL_S	C003-5=NR	Print
L			

Figure 21

If programming does <u>not</u> complete and the "X" symbol displays as shown in Figure 22:

- Do not disconnect the plus VI or shut down C-III plus if reprogramming does not complete.
- Check battery voltage (12.0 15.5V).
- The CONSULT A/C adapter is plugged in.
- The ignition is ON and the engine is OFF.
- The transmission is in Park.
- All C-III plus / plus VI cables are securely connected.
- All C-III plus updates are installed.
- Select <u>Home</u>, and then restart the program procedure from the beginning.

CONSULT-III plus Ver.V14.21.00	VIN:-	Vehicle : -		Country : U.S.A.
Back Rome Print Screen	reen pture	Recorded Data	🚗 퉫 🗙 12.3V VI MI	🔀
Configuration	Transfer Data	Confirm Result		2/2
Confirm Result				
Reprogramming or programming is no reuse anymore. Touch "Home" to back to Home Screen	t completed prope h, replace ECU with	rly. ECU has been broken, i i Service Manual.	and impossible to	
Part number after Reprog/programming		28380		
Current Part Number		280B0		
Vehicle		ZEOLEAN		
VIN		UNI AZO OPEBITEXE	xo	
System		X2000000000	x x	
Date		1/26/20XX 4:29:18	РМ	
Other Information		6.26=>6.27		
Error Code				Print

Figure 22

PROGRAM BLANK ECM (When ECM is not Accessible With C-III plus)

NOTE: Use this procedure if the vehicle's old/current ECM <u>cannot be</u> accessed with CONSULT-III plus.

IMPORTANT: Before starting the program procedure, make sure:

- ASIST on the CONSULT PC has been freshly synchronized (updated).
- All C-III plus software updates (if any) have been installed.

NOTE: The CONSULT PC automatically gets applicable ECM programming data during ASIST synchronization.

- A screen print for Warranty documentation can be done from the CONSULT PC during this process while still connected to the vehicle.
- <u>If possible</u>, take the vehicle for a 10 minute drive in order to meet the following conditions:
 - Engine coolant temperature: 70 100°C (158 – 212°F)
 - Battery voltage: More than 12.9V (At idle)
 - > Transmission: Warmed up



Figure B

NOTE: After programming is complete, you will be required to perform Throttle Valve Closed Position, Idle Air Volume Learn (IAVL), Accelerator Closed Position, and DTC erase. The above conditions are required for the IAVL to complete.

- 1. Install the new "Blank" ECM now.
 - Refer to the appropriate Service Manual for ESM replacement information.
- 2. Determine the <u>software program part number</u> that will be used during the programming operation as follows:
 - a. Go to your Infiniti electronic parts catalog (FAST or equivalent).

NOTE: FAST sample screens are shown in the next few steps. Other brand electronic catalogs may view and operate differently.

- b. Enter the VIN of the vehicle being repaired.
 - Always enter the VIN.
- c. Select OK.

IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	
VIN-Code Step	US
Model Series Prod. M/Y Color :# Int.Color 2c	OK
	_
Part Code Qty Part No New Delete	1
No Part Code Qty Part Number Description Per	- Veh
Sec. Alternate Part I/C Memo Spec SUP APS. TSB	
Items 0	

Figure 1a

d. Select SEC.

NFA010 Nissan FAST for Windows [1] 2d	- 🗆 🗙					
VIN-Code 5N1ATENTEEC750666 Model TBBALPETEEEUg	US					
Model Series T32U Prod.M/Y 1013 Color :# K23 Int.Color G						
BODY 2ROW ENGINE QR25DE DRIVE FWD AREA FED GRADE S TRANS CVT Image: Signal Signa	_					
Part Code Qty Part No New Delete						
No Part Code Qty Part Number Description Per Vel	h					
Sec. Alternate Part I/C Memo Spec SUP APS. TSB-NO						
Items						
ENTER AT LEAST 3 DIGITS FOR PARTCODE OR PARTNUMBER SEARCH 1/3/2014 10:31	AM //					

Figure 2a

- e. Scroll down the list and select Sec-No 226, Description ENGINE CONTROL MODULE.
- f. Select the down arrow.
- g. Select OK.



Figure 3a

- h. Click twice on the 23701 number.
 - After clicking twice the number should highlight in red. If another P/N is clicked, the first will change to green. <u>Green or Red</u> will make the P/N display in the P/N search in the next step.
- i. Select the P/No (part number) search button.



Figure 4a

- j. From the screen show in Figure 5a, write down the ECM software P/N listed for **ROM-DATA ID**, **ID NO FOR PROGRAMMING**.
 - The first five digits of this number are 23701-xxxxx.

NOTE: The last five digits are specific to the vehicle you are working on (based on the VIN), and are used to select the correct program in C-III plus later in this procedure.

VIN-Code Model Dige BUR US
Model Series N50 Prod.M/Y 1113 Color :# Int.Color OK
BODY W ENGINE VQ40DE GRADE PRO-4X TRANS SAT EMISSION FED DRIVE 4WD Image: Constraint of the second se
Part Code Qty Part No New Delete
No Part Step Qty Part Number Description Per Veh
Sec. Alter: 2j I/C Memo Spec SUP APS. TSB-NO
1 23701 1 23701-90,35A- ROM-DATA ID, ID NO FOR PROGROMMING E 01 226 Image: Comparison of the second sec
2 22611N 1 23703-9CFUA- BLANK ENGINE CONTROL MODULE 01 226 #82
Example Items 2

Figure 5a

- 3. Connect the C-III plus Vehicle Interface (plus VI) to the vehicle.
 - Make sure to use the correct VI for C-III plus (plus VI).

CAUTION: Make sure the plus VI is securly connected to the DLC. If the plus VI connection is loose during programming, the process will be interrupted and the **ECM may be damaged**.

4. Connect the AC Adapter to the CONSULT PC.

CAUTION: Be sure to connect the AC Adapter. If the CONSULT PC battery voltage drops during programming, the process will be interrupted and the **ECM may be damaged**.

5. Connect a battery charger to the vehicle battery:

• Set the battery charger at a low charge rate.

NOTE: The GR-8 (Battery and Electrical Diagnostic Station) set to "Power Supply" mode is recommended.

CAUTION: Be sure the battery charger is connected securely to the battery. Make sure the battery voltage stays between <u>12.0V and 15.5V</u> during programming. If the battery voltage goes out of this range during programming, the **ECM may be damaged**.

6. Turn off all external Bluetooth[®] devices (e.g., cell phones, printers, etc.) within range of the CONSULT PC and the VI.

CAUTION: Make sure to turn off all external Bluetooth[®] devices. If Bluetooth[®] signal waves are within range of the CONSULT PC and the plus VI during programming, programming may be interrupted and the **ECM may be damaged**.

- 7. Turn the ignition ON (engine OFF / Not Ready).
 - The engine must not start or run during the reprogramming procedure.
- 8. Turn OFF all vehicle electrical loads such as exterior lights, interior lights, HVAC, blower, rear defogger, audio, NAVI, seat heater, steering wheel heater, etc.

IMPORTANT: Make sure to turn OFF all vehicle electrical loads. Make sure the battery voltage stays between <u>12.0V and 15.5V</u> during programming. If the battery voltage goes out of this range during programming, the **ECM may be damaged**.

9. Open / start C-III plus.

10. Wait for the plus VI to be recognized.

• The serial number will display when the plus VI is recognized.

	CONSULT-III plus Ver.V12	.12.00 VIN:-	Vehicle : -	Country : U.S.A.
	Back Home Print	Screen Capture Mode	Recorded Help 11.8V	
	Connection Status		Diagnosis Menu	
	Serial No.	Status	Diagnosis (O	ne System)
plus VI is recognized	2300727	للا الله الله الله الله الله الله الله	Diagnosis (A	II Systems)
	мі -	\bigotimes		
		No connection	Re/programm	ning, Configuration
	Select VI/M		Immobilizer	
	Application Setting	Language Setting	Maintenance	
	VDR]	
1		Fig	jure 6a	

11. Select **Re/programming**, **Configuration**.

💽 CONSU	LT-III plus Ver.V12	2.12.00 VIN:	Vehicle : -	Country : U.S.A.	
e Back	Home Print	Screen Capture	Recorded Help 11.8V V		
Connee	ction Status -		Diagnosis Menu		
	Serial No.	Status	Diagnosis (One	e System)	
VI	2300727	Normal Mode/Wireless connection	Diagnosis (All	Systems)	
MI	-				Step
		No connection	Re/programmir	ng, Configuration	<mark>→</mark> 11 [′]
8.00	Select VI/M	1			
Applicat	t <mark>ion Setting</mark>	ABC Language Setting	Maintenance		
	VDR				

Figure 7a

- 12. Use arrows to view and read <u>all</u> precautions.
- 13. Check the box confirming the precautions have been read.
- 14. Select Next.



15. Select Infiniti, Vehicle Name, and then the correct Model Year.

	1		vel.v15.12.00 v	IN ON INCOMENTATION	001204	venicie		Country . O.S.A.
		Back Home	Print Screen Captu	n re Measurement Mode	Recorded Data	? Help	12.2V VI MI	-
	5	Re/programmi Configuratio	ng,	Precaution	Vehicle	e Selection	Vehicle Confirmation	
	[Automatic S	election(VIN)	Manual Se	election(Vehio	cle Name)		
		Vehicle Name :					Model Year :	Sales Channel
Step		*INFINITI EX35 Camp:P8202	INFINITI G37 Coupe	INFINITI Q45				NISSAN
15	-1	INFINITI EX35	INFINITI G37 Sedan	INFINITI QX4				INFINITI
		INFINITI FX35/FX45	INFINITI I30	INFINITI QX56	;		Step	
		INFINITI FX35/FX50		I-				
		INFINITI G20	EX	ampie				
		INFINITI G25/G37 Sedan	INFINITI M35/M45					
		INFINITI G35 Coupe	INFINITI M35h					
		INFINITI G35 Sedan	INFINITI M37/M56					CLEAR
		INFINITI G37 Convertible	INFINITI M45					Select
					1/1		0/0	

Figure 9a

16. Select Programming. (Do not select Reprogramming.)



Figure 10a

17. Select After Replace ECU.

Capture Mole Data	ed Help	13.1V VI M	< -
Operation Log Selection	Confirmation of Replace ECU		6/
uch "Before Replace ECU" or "	After Replace ECU".		
In case ECU has NOT been re Service Manual	placed yet, back to H	ome Screen and rep	place ECU with
Touch "Before Replace ECU"	to back to Home Scre	en.	
In anos ECI I has already rank	and touch "After Per	Ines ECU . CONSI	II T about next
operation.	ced, touch Alter Rep	NACE ECO . CONSC	LT Shows next
Figure	<u>-</u> 11a		
	Operation Log Selection Uch "Before Replace ECU" or " In case ECU has NOT been re Service Manual. Touch "Before Replace ECU" In case ECU has already repla operation. Figure	Operation Log Selection Confirmation of Replace ECU uch "Before Replace ECU" or "After Replace ECU". In case ECU has NOT been replaced yet, back to Ho Service Manual. Touch "Before Replace ECU" to back to Home Screen Dependence ECU has already replaced, touch "After Replace ECU" In case ECU has already replaced, touch "After Replace ECU" Figure 11a	Operation Log Selection Confirmation of Replace ECU uch "Before Replace ECU" or "After Replace ECU". In case ECU has NOT been replaced yet, back to Home Screen and replace Service Manual. Touch "Before Replace ECU" to back to Home Screen. In case ECU has already replaced, touch "After Replace ECU". CONSL operation. Figure 11a

18. Type in the VIN, and then select **Confirm**.

Image Image <th< th=""><th>Ver.CSP17</th><th>10</th><th>Tentore. TENON</th><th>Je dailing the zono</th><th>country , o.o.n.</th></th<>	Ver.CSP17	10	Tentore. TENON	Je dailing the zono	country , o.o.n.
Referregramming, Configuration Vehicle Confirmation Input VIN System Selection Input VIN Input VIN Input VIN Input VIN Input VIN System Selection Input VIN Input VIN Enter the VIN number, and touch "Confirm". According to this operation, in case of specified operation that requires to save ECU information into CONSULT, VIN number you input is saved as file name. Therefore, confirm VIN number correctly. Image: Selection of the operation of the operati	Back Home Print Scre	en Screen Mode Recorded Data	() Help	(12.2V VI MI	
Input VIN Enter the VIN number, and touch "Confirm". According to this operation, in case of specified operation that requires to save ECU information into CONSULT, VIN number you input is saved as file name. Therefore, confirm VIN number correctly.	Configuration	Vehicle Confirmation	Input VIN	System Selection	4/6
Enter the VIN number, and touch "Confirm". According to this operation, in case of specified operation that requires to save ECU information into CONSULT, VIN number you input is saved as file name. Therefore, confirm VIN number correctly.	Input VIN				
VIN (17 or 18 digits) 391 10 107 APODL 00 2050	Enter the VIN number, and to According to this operation, in CONSULT, VIN number you in States wood co.rz. * * * *******************************	Ich "Confirm". case of specified operation that requiput is saved as file name. Therefore, c VM Var. Var	ires to save ECU infr confirm VIN number of	ormation into correctly.	
	VIN (17 or 18 digits)	11C107/APODL002050			
Step 18 Confirm				Step 18	Confirm

Figure 12a

19. Select the ECM software P/N that matches the last 5 digits of the P/N written down in step 2j on page 23, and then select Next.

	Back Home Pr	kt Screen Capture Mode	Recorded Delect Program Data	Confirm Vehicle Condition	
	Select Program Data				<u></u>
	Touch and select the re In case no reprog/progra reprog/programming data	orog/programming data listed b mming data is listed below, coni in CONSULT.	elow. firm the vehicle selection,	VIN and	
	System	ENGINE			
	Current Part Number	Part Number After Rep	pro/programming	Other Information	
Step 19	ххххх-ххххх	XXXXX-XXXXX XX	*****	хххх	
.,		XXXXX-XXXXX X	*****	хххх	
	L				
				Step 0 19	Next
		F	igure 13a		

- 20. Use arrows to view and read all precautions.
- 21. Check the box confirming the precautions have been read.
- 22. Select Next.



- 23. Make sure OK is highlighted green (battery voltage must be between 12.0 and 15.5 Volts).
- 24. Select Next.

IMPORTANT: Battery voltage must stay between **12.0 and 15.5 Volts** during programming or ECM programming may be interrupted and the ECM may be damaged.



NOTE: In the next step, the programming process will begin when Start is selected.

CAUTION: DO NOT stop programming after selecting Start. This may damage the ECM. Allow programming to complete.

25. Select Start.



Figure 16a

26. Wait for both progress bars to complete.



Figure 17a

27. When the screen in Figure 18a displays, programming is complete.

NOTE: If the screen in Figure 18a does <u>not</u> display (programming does <u>not</u> complete), refer to the information on the next page.

- 28. Disconnect the GR8 / battery charger from the vehicle.
- 29. Select Next.



Figure 18a

30. Go to After Programming has Completed on page 33.

NOTE: Additional steps / operations are required before C-III plus will provide the final programming confirmation report. Go to **After Programming has Completed** on page 33.

If programming does <u>not</u> complete and the "!?" symbol displays as shown in Figure 19a:

- Check battery voltage (12.0 15.5V).
- The ignition is ON and the engine is OFF.
- External Bluetooth[®] devices are OFF.
- All electrical loads are OFF.
- Select <u>Retry</u> and follow the on screen instructions.

NOTE: Retry may not go through on the first attempt. It can be selected more than once.

Reciprogramming. Transmit Confirm Result Transmit	Maggarent Register Data	9/9				
Reprogramming or programming is not completed properly, but you can retry reprog/programming operation on this ECU. Touch "Retry" to retry reprogramming or programming.						
Part number after Reprog/programming	£9680					
Current Part Number	29380					
Vehicle	∎ZEOLEAF'					
N INTERACTION INTERACTION						
System	THEFMATKES					
Date	1/26/20 xx 4:34:55 PM	Retry				
Other Information	6.26=>6.27					
Error Code	RNDS_CAN_ALL_SC003-5=NR	Print				

Figure 19a

If programming does <u>not</u> complete and the "X" symbol displays as shown in Figure 20a:

- Do not disconnect the plus VI or shut down C-III plus if reprogramming does not complete.
- Check battery voltage (12.0 15.5V).
- The CONSULT A/C adapter is plugged in.
- The ignition is ON and the engine is OFF.
- The transmission is in Park.
- All C-III plus / plus VI cables are securely connected.
- All C-III plus updates are installed.
- Select <u>Home</u>, and then restart the program procedure from the beginning.

CONSULT-III plus Ver.V14.21.00	VIN:-			Vehicle : -				Country : U.S.A.
Back Borne Print Screen	Screen Capture	Measurement Mode	Recorded Data	() Help	12.3V	VI	× I MI	🔀
Re/programming, Configuration	Trans	fer Data	Confi	rm Result				2/2
Confirm Result								
Reprogramming or programming is not completed property. ECU has been broken, and impossible to reuse anymore. Touch "Home" to back to Home Screen, replace ECU with Service Manual.								
Part number after Reprog/programming			ć	8680	_			
Current Part Number			1	8880]
Vehicle		(BODBA)]	
VIN			UNI	IZ8 OF R BIT RX8.2]
System			1		x			
Date			1/26	20XX 4:29:18 P	M			1
Other Information				6.26=>6.27				
Error Code								Print

Figure 20a

After Programming has Completed

After completing ECM programming, the following steps are required before C-III plus will provide the final programming confirmation report:

- 1. Follow the C-III plus on-screen instructions to perform the following:
 - Throttle Valve Closed Position
 - Idle Air Volume Learn (IAVL)

NOTE:

- Listed below are common conditions required for IAVL to complete.
- > If IAVL does not complete within a few minutes, a condition may be out of range.
- Refer to the appropriate Electronic Service Manual (ESM) for specific conditions required for the vehicle you are working on.
 - Engine coolant temperature: 70 -105° C (158 221°F)
 - Battery voltage: More than 12.9V (At idle)
 - o Selector lever: P or N
 - Electric load switch: OFF (Air conditioner, headlamp, rear window defogger)
 - o Steering wheel: Neutral (Straight-ahead position)
 - Vehicle speed: Stopped
 - o Transmission: Warmed up
- Accelerator Pedal Close Position Learning
- Erase DTCs

Continue to the next page.

- 2. Verify the before and after part numbers are different (see Figure 21a).
- 3. Print a copy of this screen (Figure 21a) and attach it to the repair order.
- 4. Select Confirm.

Ver.CSP17.10_		oountry : 0.5.8.					
Back Home Print Screen Capture	Messurement Mode						
Re/programming, Configuration	se All DTCs Print Result / Operation Complete	19/19					
Print Result / Operation Complete							
All tasks for programming have been completed. Confirm LAN access, touch "Print" to print out this page, or touch "Screen Capture" to storage of this page temporally. Touch "End" to back to Home Screen, and perform "Diagnosis (All Systems)" to confirm that no DTC is detected. Screen capture data is saved in "CIII plus Data Folder" on desk top, and open the folder named "Screenlmages".							
Part number after Reprog/programming	Step 23710-9k%.0B						
Part number before Reprog/programming	2 23710 RABOA						
Vehicle	₽\¶7¥ER\$ÆSēdar						
VIN	3N 11C 11714 F9 (J1L 082859						
System	ENGINE Step 3	Print					
Date	©/3129119:44:37 A.Na						
Step 4 Confirm							

Figure 21a

NOTE: If you cannot print the above screen:

- a. Select Screen Capture.
- b. Name the file.
- c. Save the file in My Documents.
 - A copy of the screen is now saved in the CONSULT PC. It can be retrieved and printed at a later time.
- 5. Select Home and return to the C-III plus home screen.
- 6. Go to <u>Verify VIN is Registered</u> on the next page.

Verify VIN is registered

- Select Diagnosis (One System)
 > ENGINE > Work support > VIN Registration (see Figure 22a).
- 2. Select Start.



3. Check the VIN (see Figure 23a):

- If the VIN matches the vehicle, the procedure is complete
- If the VIN is blank or incorrect, continue to the next step.
- Enter the vehicle's VIN in both the boxes: VIN(1ST TIME) and VIN (2ND TIME)
- 5. Select Start



- 6. When VIN registration is compete, COMMAND SUCCEEDED will display (see Figure 24a).
- 7. Turn the ignition OFF.
- 8. Wait 10 seconds.
- 9. Turn the ignition back ON.
- 10. Select "READ VIN" and confirm that the VIN is correct.

NOTE: If the VIN does not display, it can also be checked by selecting the "RE/programming, Configuration" on the Home screen.

- 11. Select Home and return to the C-III plus home screen.
- 12. Close C-III plus.
- 13. Turn the ignition OFF.
- 14. Disconnect the plus VI from the vehicle.
- 15. Test drive the vehicle to make sure it operates correctly.



Figure 24a