Nissan Ireland
Cedar House
Park West Business Park
Nangor Road, Dublin 12

Product Campaign Bulletin

REFERENCE: PCB-NES-16-050

MODEL: Qashqai (J11) Juke (F15) Pulsar (C13)

SUBJECT: PCB J11 - PG6BP PS6B8 PR6B6 - Oil Usage ECU Reprogram

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ISSUE

A potential concern affecting the Engine Control Module (ECM) of some Nissan Pulsar (C13), Nissan Juke (F15) and Nissan Qashqai (J11) vehicles equipped with 1.2 litre petrol turbocharged engine (HRA2DDT) has been identified.
Piston ring flutter and accelerated wear can occur due to engine software control logic and insufficient hardness of the piston rings. With prolonged usage the piston ring can become worn and together with low cylinder pressure result in an increasing oil quantity reaching the combustion chamber. This oil is then burned by the combustion process and the engine oil level is reduced more quickly than normal. This engine does not feature an automated oil level detection system and the customer may not be aware if the quantity of oil falls below the minimum level. If the oil falls below the minimum level and the vehicle continues to be used in this condition the engine may be damaged due to poor lubrication.

PRODUCTION COUNTERMEASURE

Root Cause

Due to incorrect software control logic there is a low pressure differential across the piston rings in the 1.2 litre petrol turbocharged engine (HRA2DDT). Under certain limited conditions piston ring flutter may occur. This ring flutter allows increased reverse blowby gas and causes an increased wear rate on the oil scraper rings, reducing their performance. Worn piston rings together with low cylinder pressures results in increased oil quantity reaching the combustion chamber, which is then burned by the combustion process and the oil level is reduced.

Countermeasure

The engine software control logic is updated to increase cylinder pressures, reducing piston ring flutter. In production as a quality up hardened chromed piston rings are adopted.

COUNTERMEASURE VIN DETAILS

Plant	Countermeasure	Model	VIN	Adoption Date
NMISA	Production	C13	VSKDDAC13U0065235	13-Jan-16
NMUK	Production	F15	SJNFEAF15U7210012	08-Feb-16
NMUK	Production	J11	SJNFEAJ11U1632040	12-Feb-16
NMGR	Production	J11	Z8NFEAJ11ES006667	11-Feb-16

SOFTWARE AVAILABILITY

The reprogramming data will be available in the NFIT campaign reprogramming data section from 19/12/2016. The filename will be as follows: **Reprogramming_J11_C13_F15_ECM_HRA2DDT**
Consult IIIplus Version 64.1 or later is required to reprogram all affected vehicles.

Ken Ward

PROBLÈME

Un problème potentiel affectant le module de commande du moteur (ECU > Unité de Calcul Moteur) a été identifié.

Le réglage du logiciel moteur et une dureté insuffisante des segments de piston peuvent provoquer un flottement et une usure accélérée des segments de piston.

Avec une utilisation prolongée, le segment de piston peut s'user et, associé à une pression de cylindre basse, une quantité d'huile croissante atteint la chambre de combustion.

Cette huile est ensuite brûlée par le processus de combustion et le niveau d'huile moteur se réduit plus rapidement que la normale. Ce moteur ne comporte pas de système automatisé de détection du niveau d'huile et le client peut ne pas savoir si la quantité d'huile chute en dessous du niveau minimum. Si l'huile tombe en dessous du niveau minimum et que le véhicule continue à être utilisé dans cette condition, le moteur peut être endommagé en raison d'une lubrification insuffisante.

CONTRE-MESURE EN PRODUCTION

Cause initiale

En raison d'une logique de commande logicielle incorrecte (défaillance du calculateur), il existe un différentiel de basse pression entre les segments du piston dans le moteur à essence turbo de 1,2 litre (HRA2DDT). Dans certaines conditions limitées, les segments de piston peuvent bouger.

Ce flottement des segments produit un phénomène d'aspiration et provoque une augmentation du taux d'usure des segments racleur d'huile, ce qui réduit leurs performances.

Les segments de piston usés ainsi que les pressions de cylindre basses entraînent une augmentation de la quantité d'huile atteignant la chambre de combustion, qui est ensuite brûlée par le processus de combustion et le niveau d'huile est réduit.

Contre-mesure

La logique de contrôle du logiciel du moteur (ECU > Unité de Calcul Moteur) est mise à jour pour augmenter la pression des cylindres, réduisant ainsi le flottement des segments. En production, une qualité supérieure du chromage des segments de piston est adoptée.

Pulsar (C13), Juke (F15), Qashqai (J11)

NMUK > Nissan Motor UK

NMISA > Nissan Motor Iberica SA

NMGR > Nissan Motor Manufacturing Russia

IDENTIFICATION OF AFFECTED MODELS

A full list of affected vehicles is contained within this bulletin release. The identification of these vehicles has been done based on the specifications below:

	IS	IS NOT
Model	J11 F15 C13	Any other Model.
Engine	1.2 litre petrol turbocharged engine (HRA2DDT)	Any other Engine.
Production Plant	NMUK NMISA NMGR	Any other Production Plant.

CLAIMING INSTRUCTIONS / PART DETAILS

SUBJECT:	Engine Control Module (ECM) 1.2 litre petrol turbocharged engine	
AFFECTED MODEL:	Pulsar (C13), Juke (F15) and Qashqai (J11)	
WARRANTY CODES	PFP	PG6BP PS6B8 PR6B6
	CS	ZZ
	CT	99
	CC	1

OPERATIONS:		
DESCRIPTION:	CODE:	FRT:
Reprogram ECM	PG6BP0	0.4
Reprogram ECM	PR6B60	0.4
Reprogram ECM	PS6B80	0.4

WARRANTY CLAIM BLOCKER

WARRANTY CLAIM BLOCKER IS ENABLED

IMPORTANT INFORMATION:

The warranty claim blocker will be enabled from your dealer display date for this Campaign. All warranty claims will be returned (status 1) until outstanding Campaigns and Pre-Delivery Modifications (Recall , S1, S2 and DM) have been completed.

DEALER RESPONSIBILITY

The dealer shall identify all outstanding vehicles using the eNEWS campaign enquiry function and perform the repair according to the procedure provided within this bulletin.

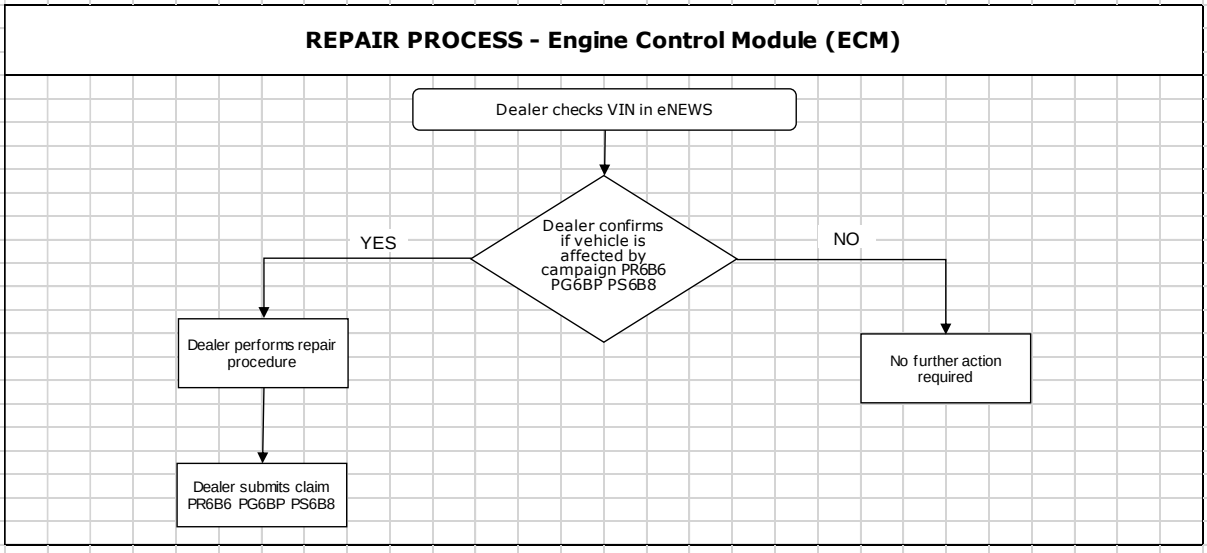
Mandatory Requirements

- Confirm all outstanding campaigns on the affected vehicles irrespective of the reason the vehicle has entered the dealership using the eNEWS campaign VIN enquiry function.
- Ensure all outstanding recall and service campaigns (excluding warranty extensions) are completed on a vehicle's first visit to the dealer.
- Rectify any vehicles identified as outstanding that are in inventory stock.
- This campaign includes vehicles purchased from private parties or presented by transient (tourist) owners.

IMPORTANT INFORMATION

Ensure that adequate personal protection is used during the repair activities.
No special tooling is required for this repair operation
This procedure is relevant to left hand drive and right hand drive vehicles.

REPAIR PROCESS



Ken Ward

Precautions

<Condition of the vehicle>
• Erase all recorded DTC in the vehicle before reprogramming.

• Turn off all the electric loads.

• Do NOT use mobile phone or devices that emit electromagnetic waves, such as radio transceivers etc., near the vehicle.

• Connect battery charger/stabilizer to the 12V battery and control the output to maintain the voltage always within 12V to 13.5V.

• Ensure all doors are closed and the driver's window is in the fully down position.

• During the reprogramming do not switch OFF the ignition.

• If the engine has been running, ensure the ignition is OFF for at least 30 seconds to allow time for the ECM to reset before conducting the rework.

<Condition of Consult IIIplus>
• Be sure to have the AC Adapter to your Consult IIIplus connected, during the reprogramming.

• Switch off screen saver of your Consult IIIplus

• Connect VI with USB cable, and do not disconnect during the reprogramming.

• If further reprogram is to be conducted for another vehicle after completion of the reprogram, turn off Consult IIIplus completely before continuing.

• Make sure to use Ver.64.1 or later version of Consult IIIplus software.

• Make sure the relevant Consult IIIplus patch for this activity is installed.

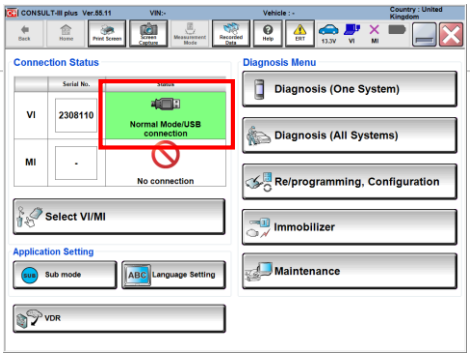
REPAIR PROCEDURE

1 Connect 12V battery charger/stabilizer to the vehicle battery.
NOTE: Make sure all the key points in the precautions section are followed.

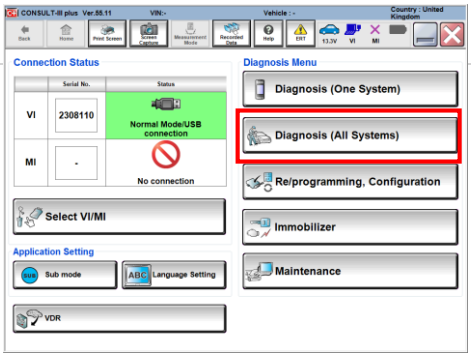
2 Connect the VI Unit to the vehicle OBD port and to Consult IIIplus using USB connection.

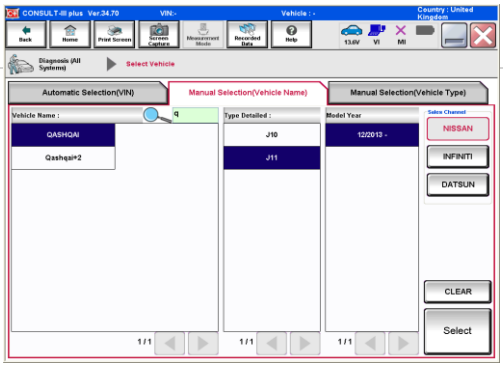
3 Change the vehicle condition to "ON", by operating the ignition switch or using the key.

4 Start up Consult IIIplus and confirm that the VI is connected to the vehicle and to Consult IIIplus by USB connection.

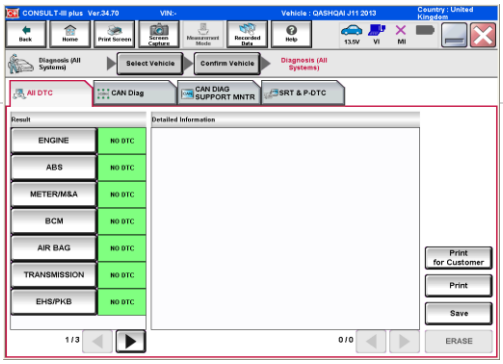


5 Click on "Diagnosis (All Systems)" and select the appropriate vehicle to be reprogrammed.

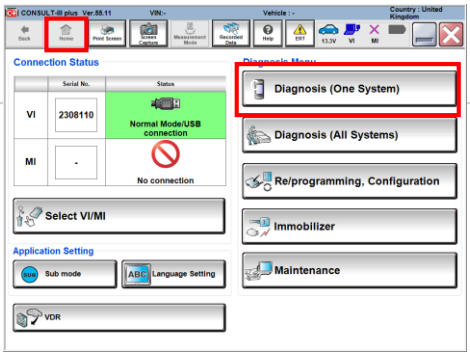




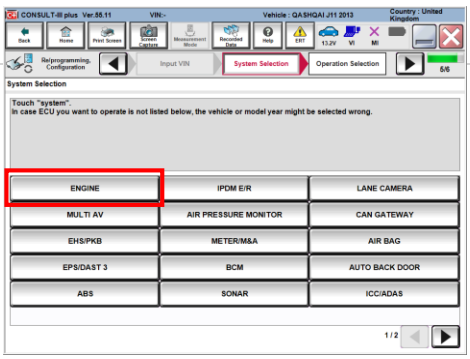
6 Check that there are no DTCs recorded or solve/erase all recorded DTCs before continuing.

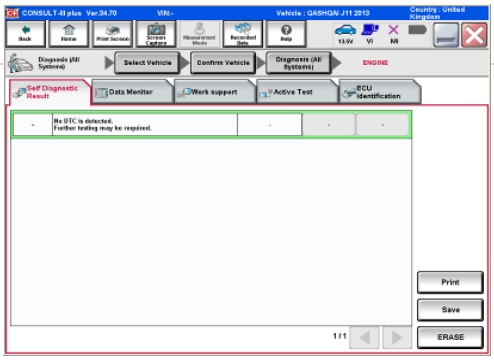


7 Click on "Home" button and then "Diagnosis (One System)"



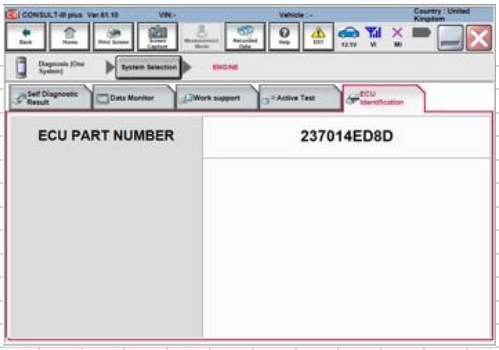
8 Click on "Engine" button and check there are no DTCs recorded.





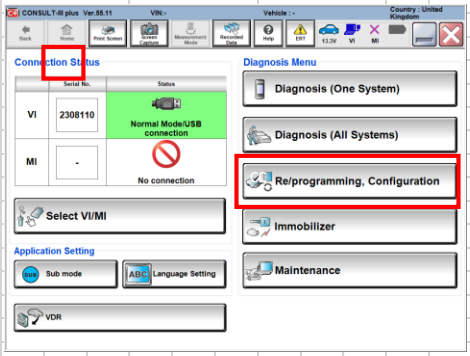
9 Select "ECU Identification" tab.

NOTE: find below table with affected ECU IDs, if the vehicle is within the affected VIN list but the ECU Identification is not included in this table, contact Technical Support Department.



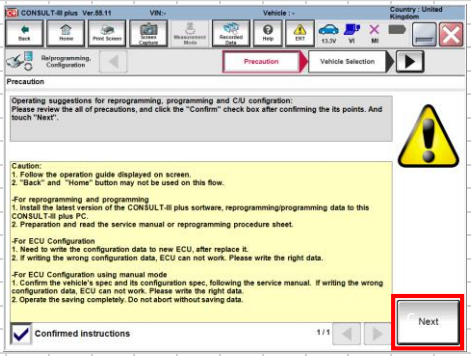
Affected ECU Part Numbers										
J11				C13				F15		
23701	4ED7E	23701	4ED2D	23701	3ZL1D	23701	3ZU3B	23701	BV87C
23701	4ED8B	23701	4ED2E	23701	3ZL1E	23701	HX54A	23701	BV87D
23701	4ED8C	23701	4ED4D	23701	3ZL3A	23701	HX54E	23701	BV87E
23701	4ED8D	23701	4ED5B	23701	3ZL3B	23701	HX55A	23701	BV89C
23701	4ED1D	23701	4ED5E	23701	3ZL0D	23701	HX55D	23701	BV89D
23701	4ED1E	23701	4ED0E	23701	3ZL0E	23701	HX53E	23701	BV89E
23701	4ED4A	23701	4ED3D	23701	3ZL2A	23701	HX54D	23701	HY04C
23701	4ED4B	23701	4ED3E	23701	3ZL2B	23701	HX55B	23701	HY06C
23701	4ED4C	23701	4ED4E	23701	3ZU2D	23701	HX55E	23701	HY00D
23701	4ED5A	23701	4ED5C	23701	3ZU2E	23701	HX54C	23701	HY05C
23701	4ED5D	23701	4ED7E	23701	3ZU4A	23701	HX55C	23701	HY07C
23701	4ED0D	23701	4ED9B	23701	3ZU4B	23701	HX56E	23701	HY01D
23701	HX45D	23701	4ED9C	23701	3ZU1D	23701	HX54B		
23701	HX46D	23701	4ED9D	23701	3ZU1E	23701	HX56B		
23701	HX49E	23701	4ED8E	23701	3ZU3A	23701	HX57A		
23701	HX45C	23701	4ED9E						
23701	HX48C								

10 Click on "Home" button and then "Re/programming, Configuration"

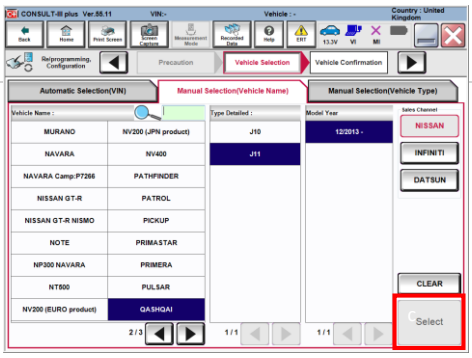


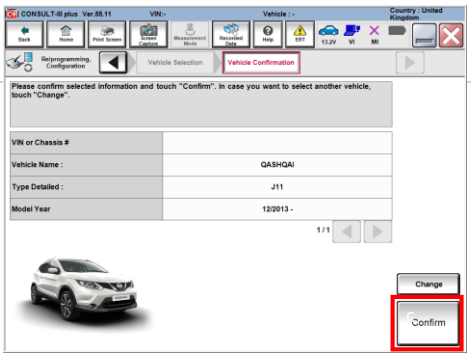
11 Read and follow the precautions and tick the confirmation check box, then click on "Next".

NOTE: Any precautions added in Consult IIIplus after the release of this bulletin must also be followed.

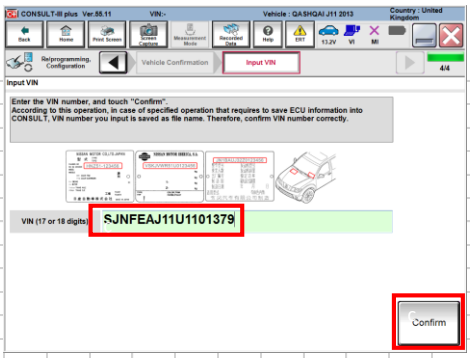


12 Select the appropriate vehicle to be reprogrammed, click on "Select" and then click "Confirm".

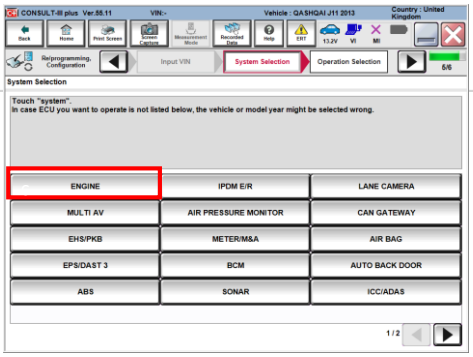


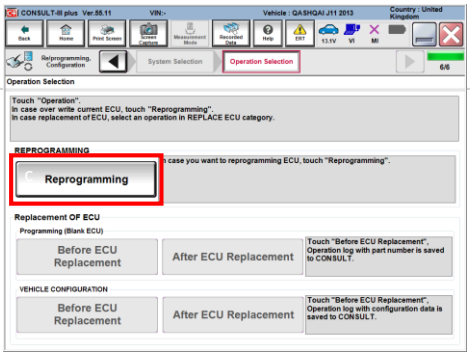


13 Enter the VIN number and click on "Confirm".
NOTE: VIN should be automatically identified, insert it manually otherwise.

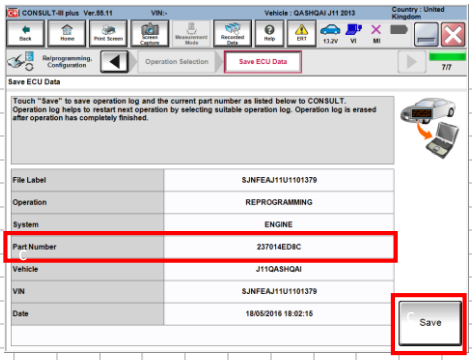


14 Click on "Engine" button. Then click on the "Reprogramming" button.



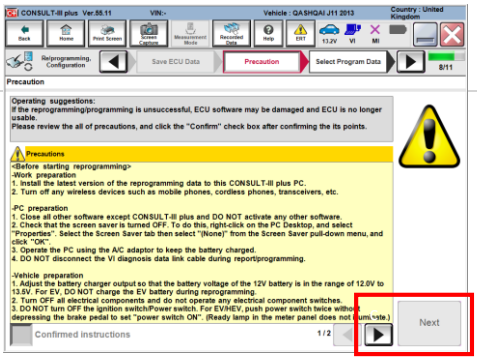


15 Check that the part number shown is included in the table in step 9 and touch the "Save" button. Then click on "Next" button.



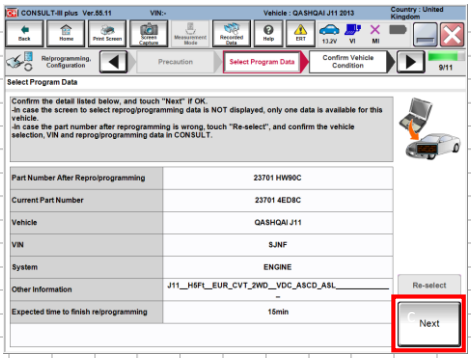
16 Read both precaution pages, tick the confirmation check box and click on "Next".

NOTE: Any precautions added in Consult IIIplus after the release of this bulletin must also be followed.



17 Confirm that the Part number after reprogramming is according to the table below and click "Next".

NOTE: table below shows compatibility at the release of the campaign, any later ECM Part Number update (unrelated to the campaign) will not be included in this table.



J11		C13		F15	
ECU part number **before** reprogramming	ECU part number **after** reprogramming	ECU part number **before** reprogramming	ECU part number **after** reprogramming	ECU part number **before** reprogramming	ECU part number **after** reprogramming
23701 4ED7E	23701 HW90C	23701 3ZL1D	23701 3ZL2E	23701 BV87C	23701 BV80C
23701 4ED8B	23701 HW90C	23701 3ZL1E	23701 3ZL2E	23701 BV87D	23701 BV80C
23701 4ED8C	23701 HW90C	23701 3ZL3A	23701 3ZL2E	23701 BV87E	23701 BV80C
23701 4ED8D	23701 HW90C	23701 3ZL3B	23701 3ZL2E	23701 BV89C	23701 BV80D
23701 4ED1D	23701 4ED1A	23701 3ZL0D	23701 3ZL3C	23701 BV89D	23701 BV80D
23701 4ED1E	23701 4ED1A	23701 3ZL0E	23701 3ZL3C	23701 BV89E	23701 BV80D
23701 4ED4A	23701 4ED1A	23701 3ZL2A	23701 3ZL3C	23701 HY04C	23701 HY07A
23701 4ED4B	23701 4ED1A	23701 3ZL2B	23701 3ZL3C	23701 HY06C	23701 HY07A
23701 4ED4C	23701 4ED1A	23701 3ZU2D	23701 3ZU4C	23701 HY00D	23701 HY07A
23701 4ED5A	23701 4ED1A	23701 3ZU2E	23701 3ZU4C	23701 HY05C	23701 HY07B
23701 4ED5D	23701 4ED1A	23701 3ZU4A	23701 3ZU4C	23701 HY07C	23701 HY07B
23701 4ED0D	23701 4ED1A	23701 3ZU4B	23701 3ZU4C	23701 HY01D	23701 HY07B
23701 HX45D	23701 HY90D	23701 3ZU1D	23701 3ZU3C		
23701 HX46D	23701 HY90D	23701 3ZU1E	23701 3ZU3C		
23701 HX49E	23701 HY90D	23701 3ZU3A	23701 3ZU3C		
23701 HX45C	23701 HY90E	23701 3ZU3B	23701 3ZU3C		
23701 HX48C	23701 HY90E	23701 HX54A	23701 HX58E		
23701 4ED7E	23701 4ED9A	23701 HX54E	23701 HX58E		
23701 4ED9B	23701 4ED9A	23701 HX55A	23701 HX58E		
23701 4ED9C	23701 4ED9A	23701 HX55D	23701 HX58E		
23701 4ED9D	23701 4ED9A	23701 HX53E	23701 HX59A		
23701 4ED2D	23701 4ED2A	23701 HX54D	23701 HX59A		
23701 4ED2E	23701 4ED2A	23701 HX55B	23701 HX59A		
23701 4ED4D	23701 4ED2A	23701 HX55E	23701 HX59A		
23701 4ED5B	23701 4ED2A	23701 HX54C	23701 HX58C		
23701 4ED5E	23701 4ED2A	23701 HX55C	23701 HX58C		
23701 4ED0E	23701 4ED2A	23701 HX56E	23701 HX58C		
23701 4ED3D	23701 4ED3A	23701 HX54B	23701 HX58D		
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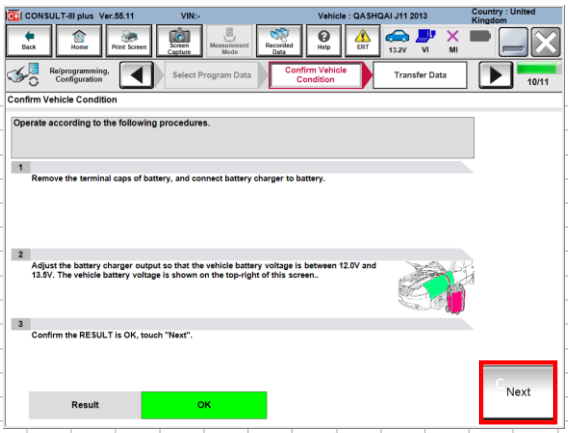
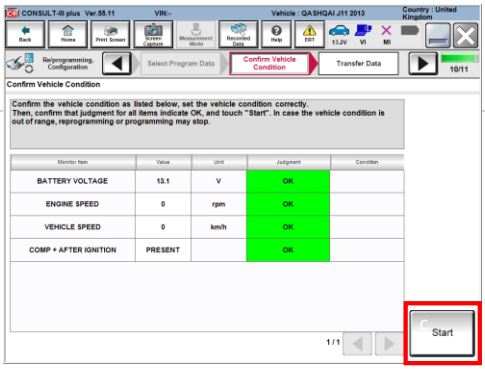
23701 4ED4E	23701 4ED3A	23701 HX57A	23701 HX58D		
23701 4ED5C	23701 4ED3A				
23701 4ED8E	23701 4ED3A				
23701 4ED9E	23701 4ED3A				

Important: Part number after reprogramming is correct at the time of bulletin release but may change as subsequent software versions are released.

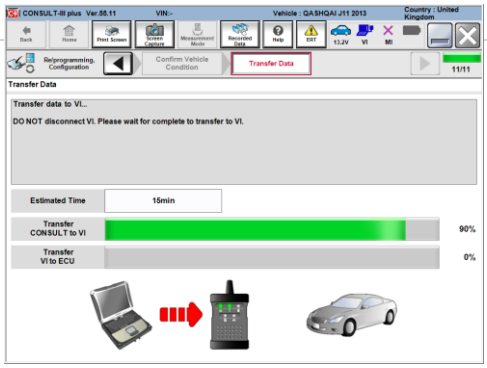
18 Confirm output of the charger/stabilizer result is OK and click on "Next".

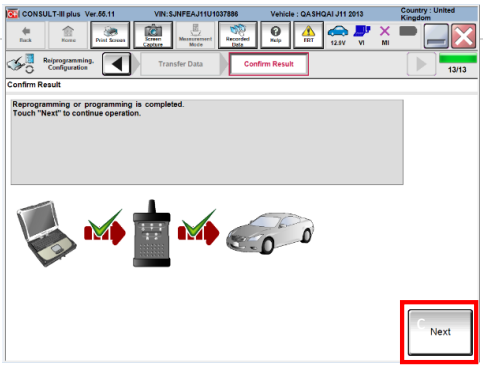


19 Confirm voltage of the 12V battery is OK, the reprogramming conditions are met and click on "Start".

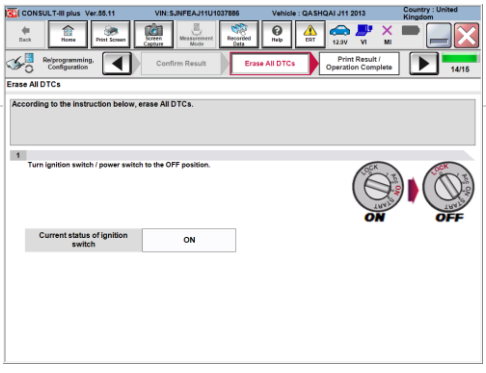


20 Wait until "Transfer VI to ECU" is 100% and then click "Next".
NOTE: follow all the indications in the precautions sections, failing to do so may result in damage to the vehicle. Refer to the "Troubleshooting" section at the end of this document.

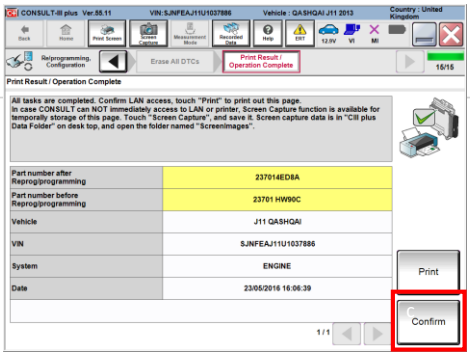




21 Operate the ignition switch to OFF status and wait for the system to update the status to OFF. Then operate the ignition switch to ON.



22 Confirm the performed reprogramming.



23 Erase all DTCs and check that no DTC are present. Quit Consult IIIplus and disconnect VI. Then disconnect the 12V battery charger/stabilizer.

Check that the keys work correctly, start the engine and that there is no warning light.

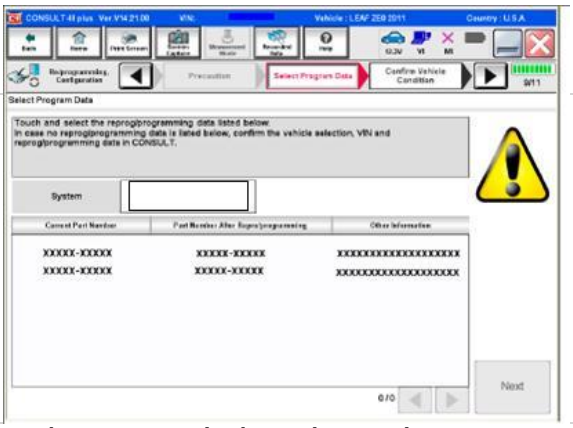
NOTE: It may be necessary to start the engine to erase some of the DTCs.

END OF REPAIR PROCEDURE

TROUBLESHOOTING

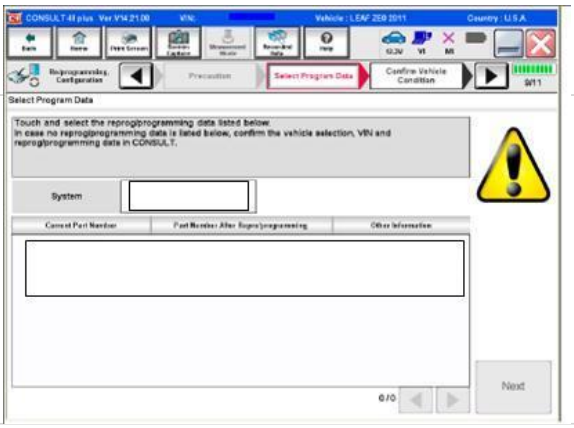
More than one Part Number option is shown for reprogramming

Use Part Number after reprogramming and Other information to select the correct option for the affected vehicle. Tables are given within the repair procedure to ensure PN information is available.



No option is shown for reprogramming or the reprogramming button is not active

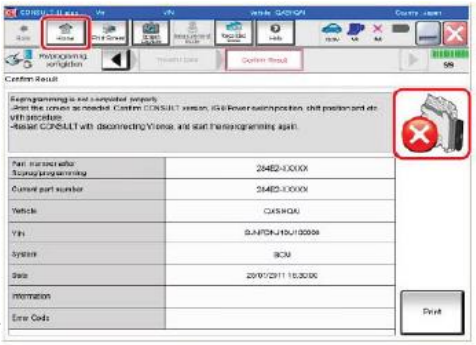
Make sure the reprogramming patch has been correctly installed following the instructions at the end of the procedure. Make sure the Part Number of the unit is affected by the activity.



An error message is shown when transfering data to the control unit

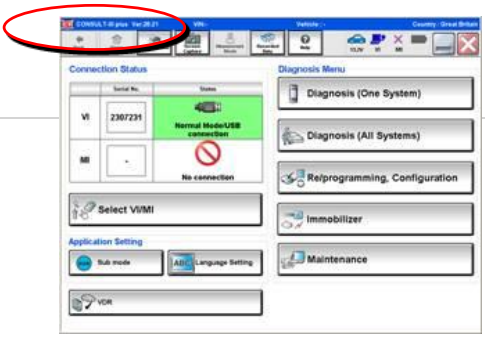
Make sure all items in the precaution section are followed. Failing to do so may result in permanent damage to the control unit. Contact your NSC Technical Assistance Department.

NOTE: if the control unit is no longer detected by Consult IIIplus permanent damage may have been caused to the control unit and replacement may be necessary.



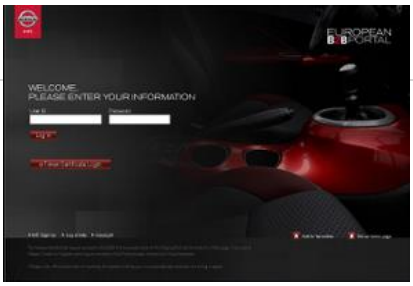
HOW TO CHECK Consult IIIplus VERSION

The software version can be checked on the top left corner of the screen of Consult IIIplus.

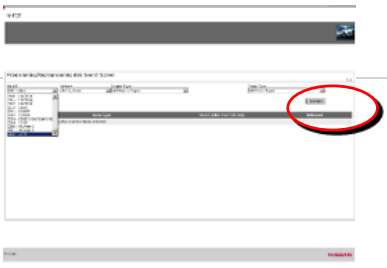


HOW TO DOWNLOAD & INSTALL THE REPROGRAMMING PATCH

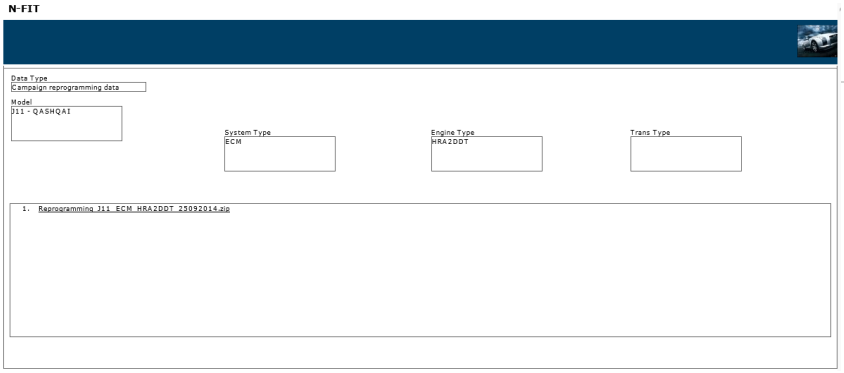
1 Log into N-FIT on the B2B portal, then select the Programming data search option in the left window pane .



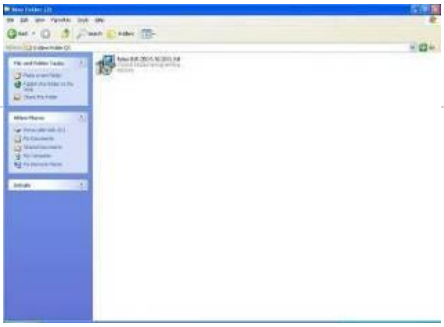
2 Select vehicle as appropriate and click on "Search"



3 Select **PG6BP_PR6B6_PS6B8_ECM_J11_F15_C13_HRA2DDT** and download the files within titled '**Reprogramming_J11_C13_F15_ECM_HRA2DDT**', or navigate to **Global Reprogramming patch version 12 or later.**



4 Save and execute the files with Consult IIIplus closed.



5 Select the preferred language then click OK, Next and Install.

6 Click on finish when installed.

COMMON ACRONYMS USED IN THE REPROGRAMMING PATCH

Acronym	Explanation	Acronym	Explanation
EU /EUR	Europe	BLNK	Blank
RUS	Russia	REPR	Reprogramming
UKR	Ukraine	wDPF	With DieselParticulateFilter
MOR	Morocco	w/oDPF	Without DieselParticulateFilter
GOM	General Overseas Market	STD	Standard version
SAF	South Africa	ECO	Eco version
JPN	Japan	AT	Automatic transmission
NAM	North America	M/T (MT)	Manual transmission
KOR	Koreea	SL	Speed limiter
ASR (AUS)	Australia	XXXkw	Engine power XXXKW
XXMY (MYXX)	Model year 20XX	2WD	2 wheels drive
E5	EURO 5 emission standard	4WD	4 wheels drive
LCV 4 /5	Light commercial vehicle	ASCD	With cruise control and with speed limiter
LT	Light Truck tire (e.g. D40 YD25 model)	oASCD	after)
ISS	Intelligent Start Stop	H/Usw	Heat up switch
3row/2row	7 seats /5 seats	T/C	Turbocharger
Inj.PumpDFP3.4/Inj. PumpDFP1.15	High pressure fuel pump type (3.4, 1.15)	Single mass/double mass F/W	Single mass/double mass flywheel
wVDC	With VDC (ESP) / VDCS	ICC	Intelligent cruise control
w/oVDC	Without VDC (ESP) / VDCS		