

## SERVICE CAMPAIGN BULLETIN

<b>TITLE:</b>	Vehicle Software Update to Platform 13
<b>CAMPAIGN REFERENCE</b>	02M
<b>DOCUMENT NUMBER:</b>	11 M 069
<b>AFFECTED VEHICLES:</b>	McLaren 12C Coupe and Spider
<b>SITUATION:</b>	<p>Quality Engineering at McLaren Automotive have released a new software platform for the 12C Coupe and Spider.</p> <p>The most noticeable changes of this software are;</p> <ul style="list-style-type: none"><li>• Fuel level full is now displayed when brimmed.</li><li>• Fuel Filler Actuator reset.</li><li>• HVAC flutter.</li><li>• Launch control improvement at altitude.</li><li>• Window Drop Ingress / Egress function included and only functional on vehicles with door buttons.</li><li>• Middle East Speed Warning - Tell-tale removal.</li><li>• DRS (Drag Reduction System) function included.</li><li>• Capability to retrofit Reverse Camera, DAB and SirrusXM to vehicles I installed with the model year 2014 IRIS.</li><li>• Intermittent loss of Meridian sound.</li><li>• Navigation day and night switching corrected.</li></ul> <p>In addition to this, to support our Customers McLaren Automotive have also created a 12C Technology Upgrade eBrochure.</p>
<b>PROCEDURE:</b>	<p>It is necessary to update the software on all vehicles within your Aftersales car parc, both when carrying out Pre-Delivery Inspections (PDI) and at the next service centre visit.</p>

Module	New software part numbers
Instrument Cluster (IC)	11M1180CP.28
Body Controller (BC)	11M1215CP.13
Security Body Controller (SBC)	11M1075CP.19
Door Module Left (DML)	11M1071CP.14
Door Module Right (DMR)	11M1070CP.14
Seat Control Module – Left (SCML)	11N2321CP.04
Seat Control Module – Right (SCMR)	11N2320CP.04
Heating Ventilation and Air-Conditioning (HVAC)	11A4742CP.17
Convertible Roof Control Module (CRCM)	11M2476SP.03
Powertrain Chassis Control Unit (PCCU)	11M0938CP.24
Engine Control Module (ECM)	11M2493CP.06 European/ROW 11M2502CP.05 Federal 11M2490CP.05 Federal
Head Unit / IRIS (HU)	11M2909CP.56 Europe 11M2910CP.61 Rest of World 11M2911CP.58 China/Hong Kong
Satellite Navigation	11M3056CP.01 North America 11M3058CP.01 Australia/New Zealand 11M3059CP.01 Singapore/Malaysia/Indonesia/Thailand 11M3057CP.01 Middle East 11M3060CP.01 South Africa 11M3061CP.01 West/East Europe 11M3062CP.01 West Europe

**Removal:**

1. Please refer to AA-RM-02A02-03-004 - Remove/Install luggage bin – rear.

**Requirements:**

**Care Point:** In order to avoid personal injury and damage to the vehicle, do not connect the positive terminal (+) of the charger to the negative terminal (-). Ensure that the connections are secure. Do not place any metal objects near the battery when charging and do not place the Deutronic battery charger directly onto the battery unit.

2. Keep the battery on charge, using a Deutronic battery charger during the software downloading procedure.  
3. Connect the McLaren Diagnostic System (MDS) to the vehicle.

**Care Point:** If the VCI is connected to the MDS via the USB cable please ensure the wireless interface is disabled in the VCI manager.

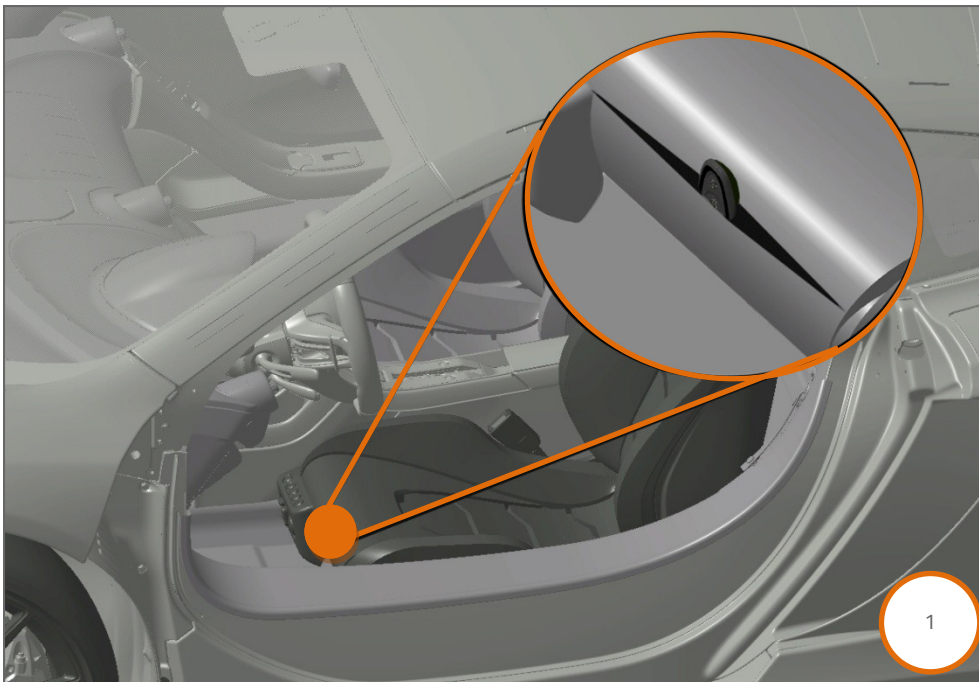
**Care Point:** Both the driver and passenger windows must be in the fully open position during software downloads.

**Care Point:** All software downloads require the vehicle to be in ignition state 5.

**Care Point:** Ensure vehicle lift is in the lowered position before reprogramming the PCCU. Suspension Displacement Sensor Calibration will fail to complete if the system is not fully lowered.

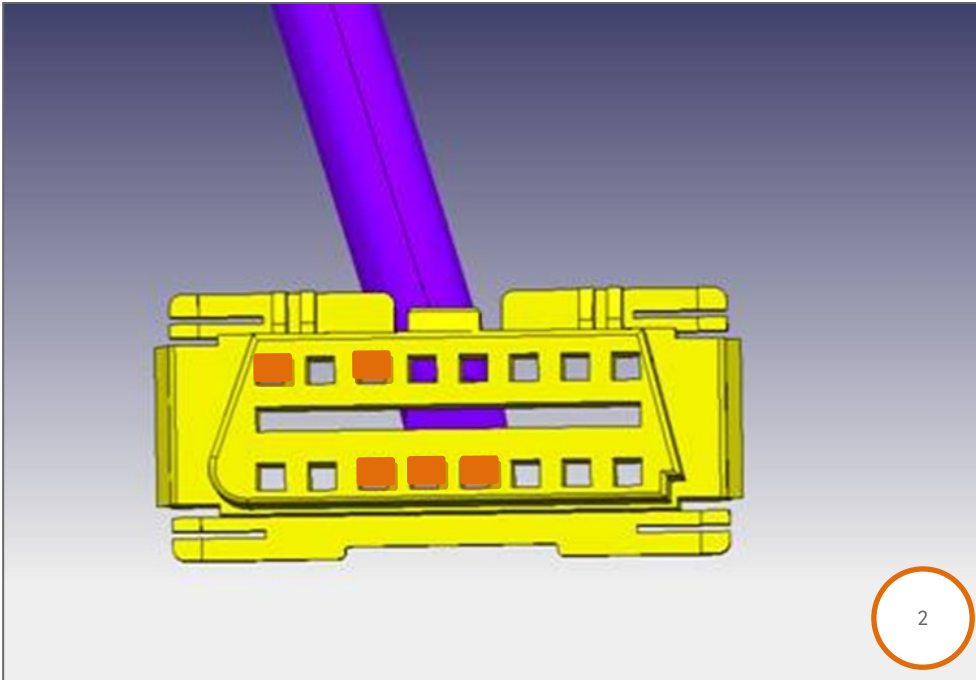
**Care Point:** The vehicle must be positioned on a two post ramp and in the fully lowered position.

**Care Point:** The key must be positioned in the driver's seat front pocket (1).



**Care Point:** Step 4 only needs to be carried out on vehicles before VIN SBM11XXXXXXXX1814.

4. Check OBD connector pins 4, 5, 6, 14 and 16, as highlighted below are secure. Loose pins can cause module software download errors. If any of the pins are found to be loose these should be closed up before module reprogramming is carried out (2).



**Care Point:** The IC, ORC and PCCU will display software update is still available after they have been reprogrammed, this should be ignored (3). Check that the Software-Version matches the table below (2) to confirm the modules are at the latest level.

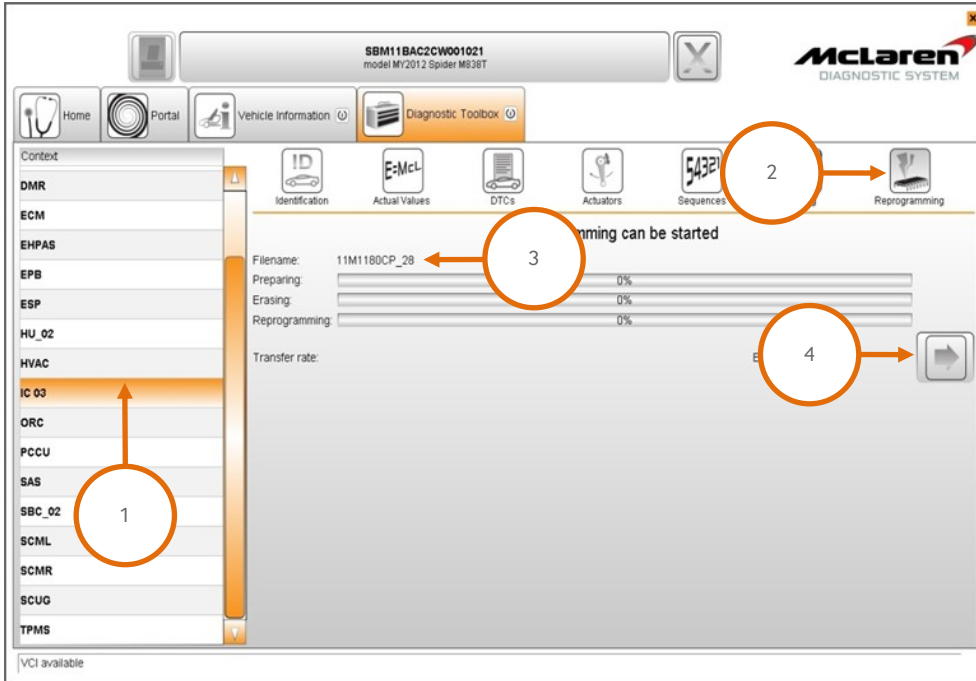
ECU	Hardware-Version	DTC count	Software-Version	Update Available
DML	1308	0	11M2984CP.02.	none
DMR	1308	0	11M2986CP.02.	none
ECM_02	11M1319CP.01.	0	11M3048CP.02.	none
EHPAS	1017	0	11M1034CP.03.	none
EPB	9999	0	11M0935CP.04.	none
ESP	1114	0	11M2974CP.01	none
HU_02	9999	0	11M2909CP.18.	none
HVAC	1711	0	11A4742CP.16.	none
IC_04	1224	0	11M2977CP.05.	available
ORC_02	923	2	11M2359CP.01.	available
PCCU_02	1113	0	11M3070CP.04.	available
SAS	1037	0	11M1099CP.04.	none
SBC_02	1301	0	11M2923CP.02.	none
JCMC_00				none

VCI available

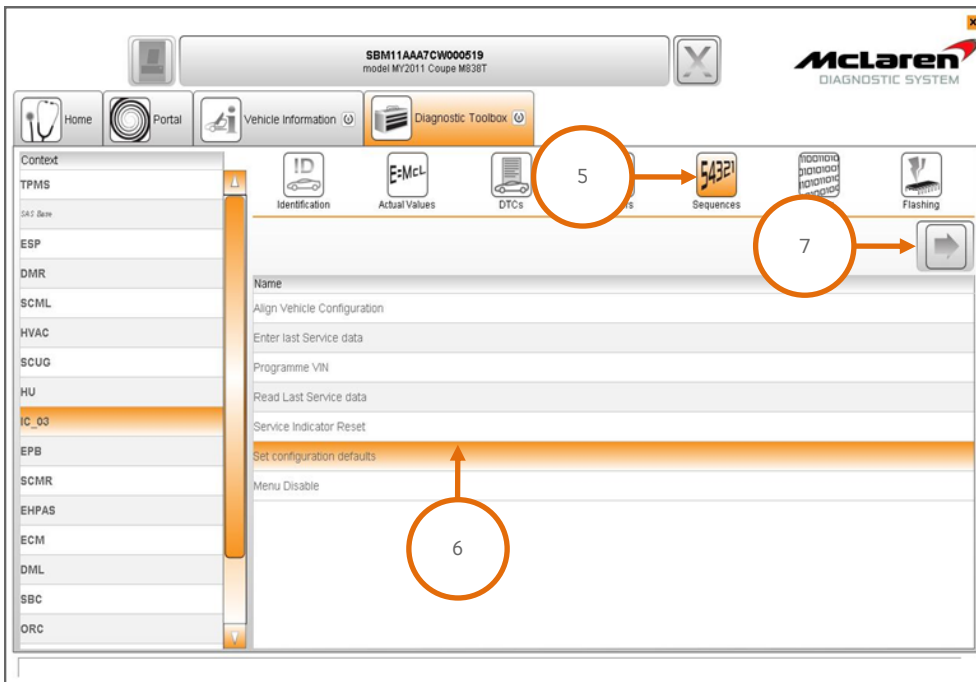
### IC Software Update:

**Care Point:** During the IC software reprogramming it is normal for the instrument cluster screens to display software numbers.

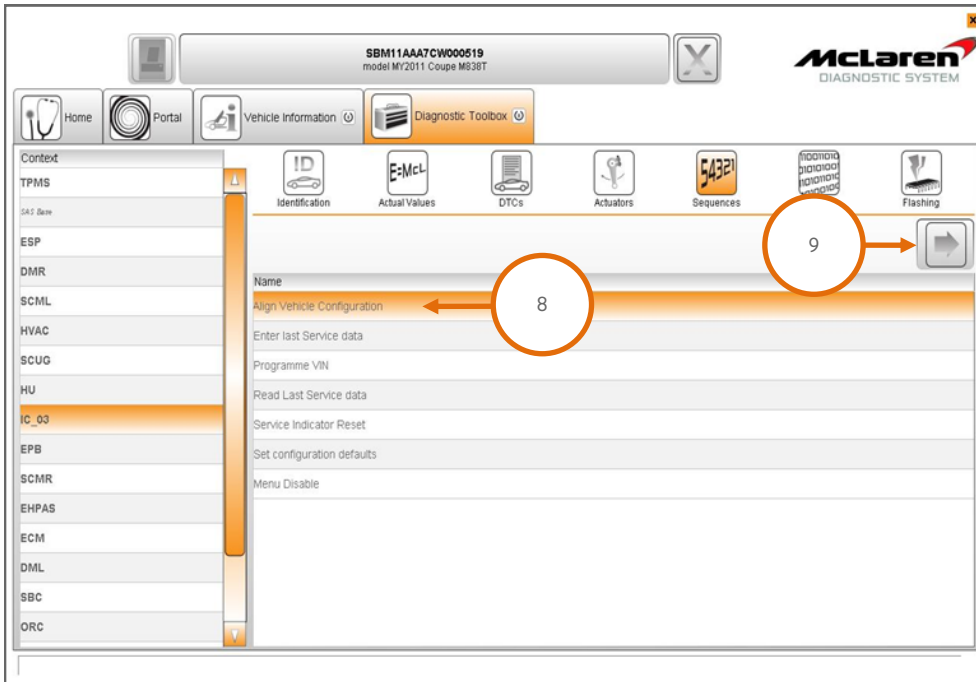
5. Select IC 03 (1), then Reprogramming (2), the relevant software variant applicable to your vehicle will be displayed (3). Proceed to the software download by selecting the arrow button (4).



6. Select Sequences (5), select Set configuration defaults (6) and then select the arrow button to proceed (7).

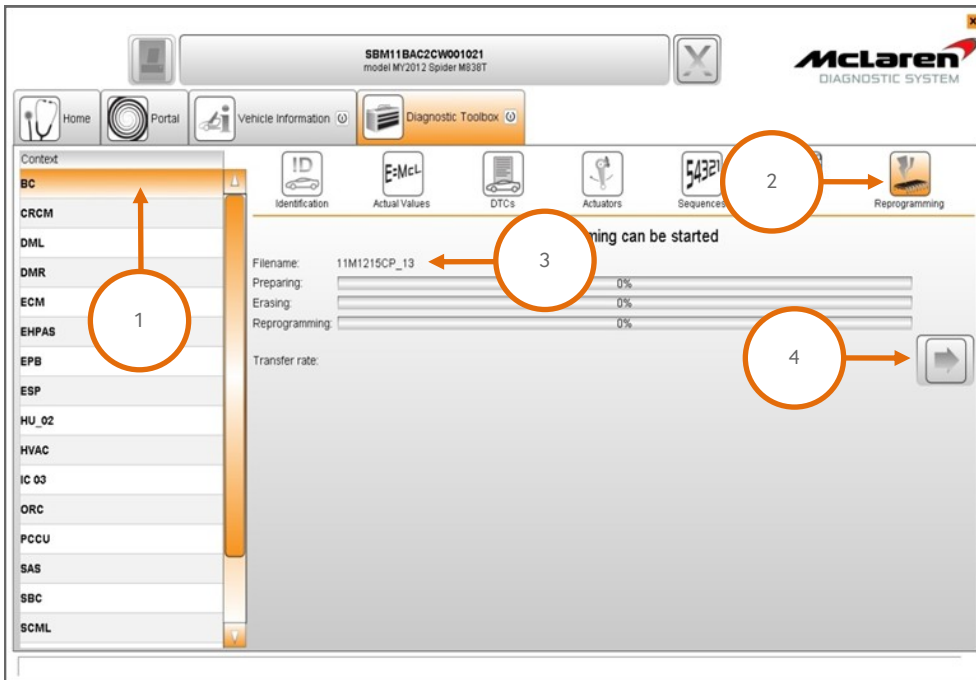


7. Select Align Vehicle Configuration (8), followed by the arrow key to proceed (9).

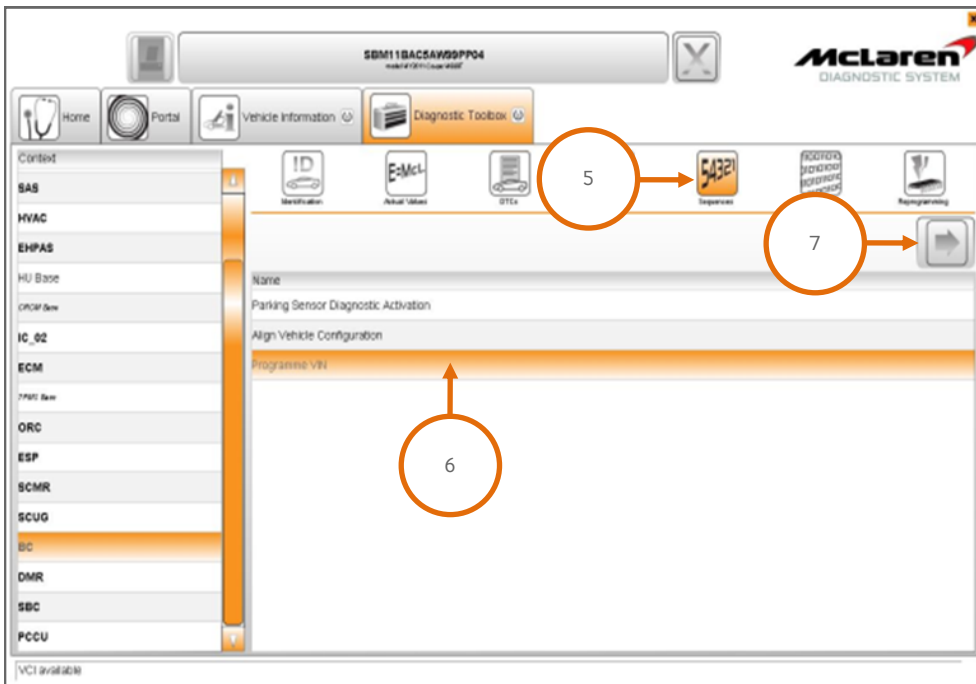


**BC Software Update:**

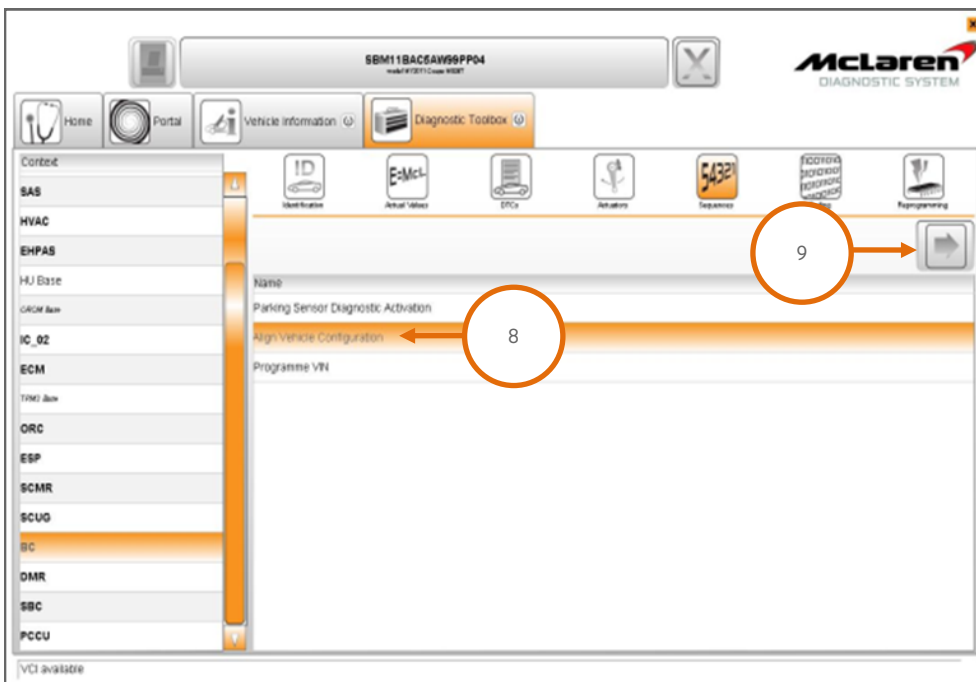
8. Select BC (1), then Reprogramming (2), the software level 11M1215CP.13 will be displayed (3). Proceed to the software download by selecting the arrow button (4).



9. Select Sequences (5), then Programme VIN (6), then select the arrow button to proceed (7).



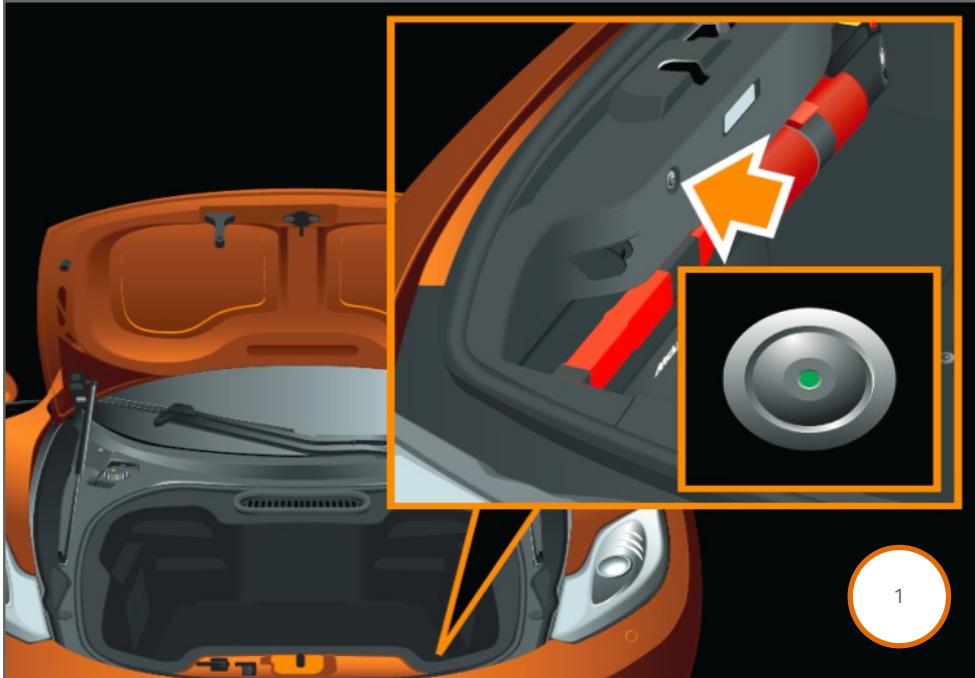
10. Select Align Vehicle Configuration (8), followed by the arrow key (9).



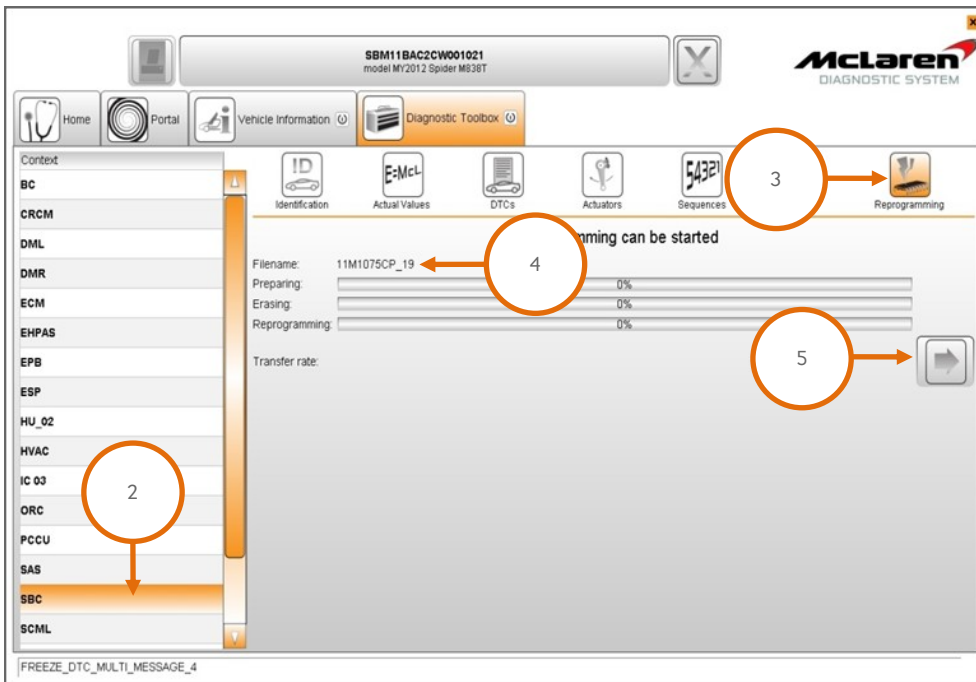
**SBC Software Update:**

**Care Point:** Step 11 must be carried out to Federal specification vehicles only.

11. Press the internal luggage compartment switch twice and then latch the primary latch closed manually (1).



12. Select SBC (2), then Reprogramming (3), the software level 11M1075CP.19 will be displayed (4). Proceed to the software download by selecting the arrow button (5).

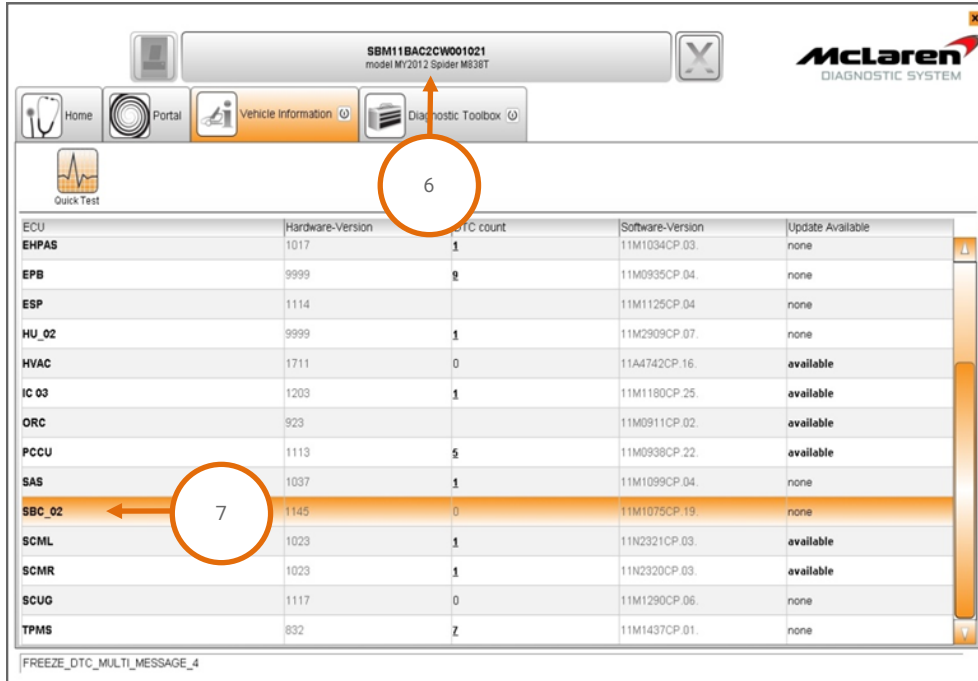


13. When the software download has been successfully completed, programming will force a sleep cycle to occur.

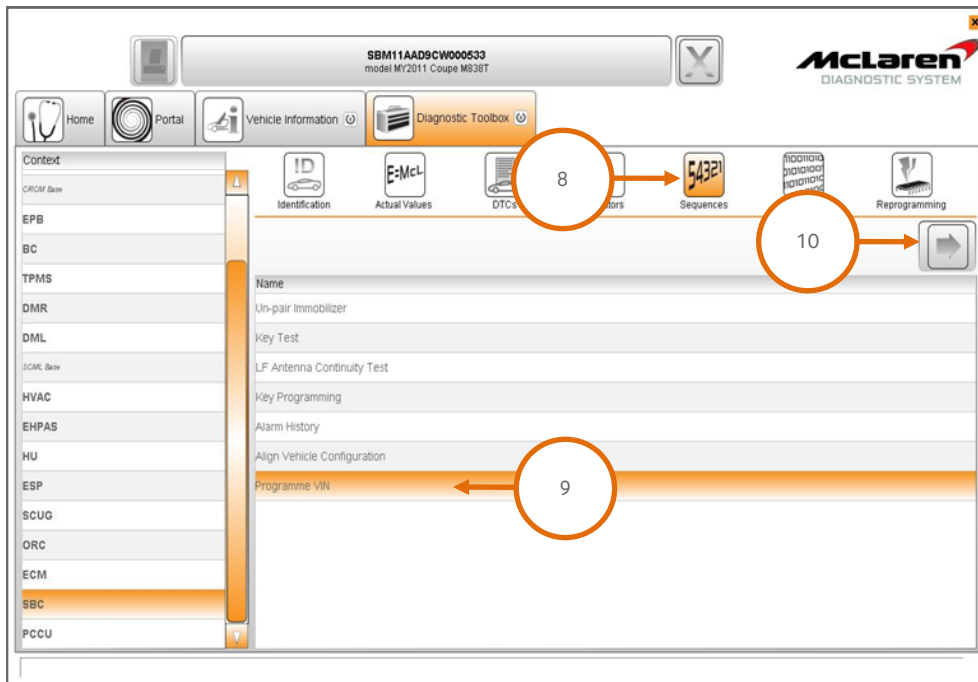
**Care Point:** The primary and secondary latch may operate at step 14 on Federal specification vehicles only.

14. After one minute, press the unlock, lock and the unlock button on the key and then establish the vehicle into ignition state 5 before following the next steps.

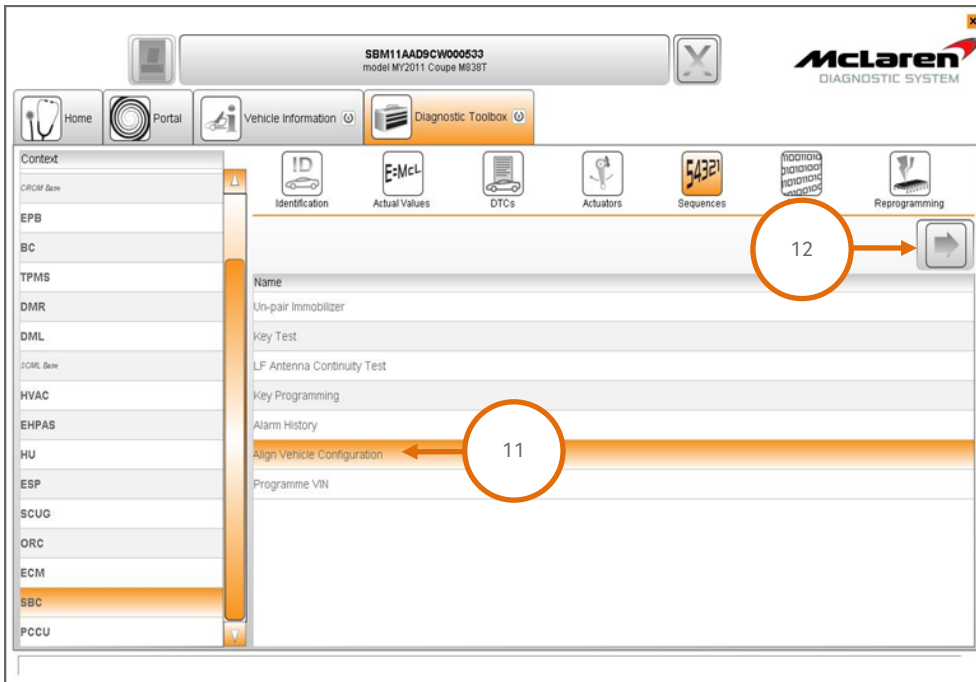
15. Once the download is successfully completed select the chassis button (6) to re-enter the scan now page. It is necessary to re-scan the vehicle and SBC\_02 will now be displayed (7) in the list of modules.



16. Select Sequences (8), then Programme VIN (9) and then select the arrow button (10) to proceed. The programme VIN sequence will force a sleep cycle to occur after the programming is complete.



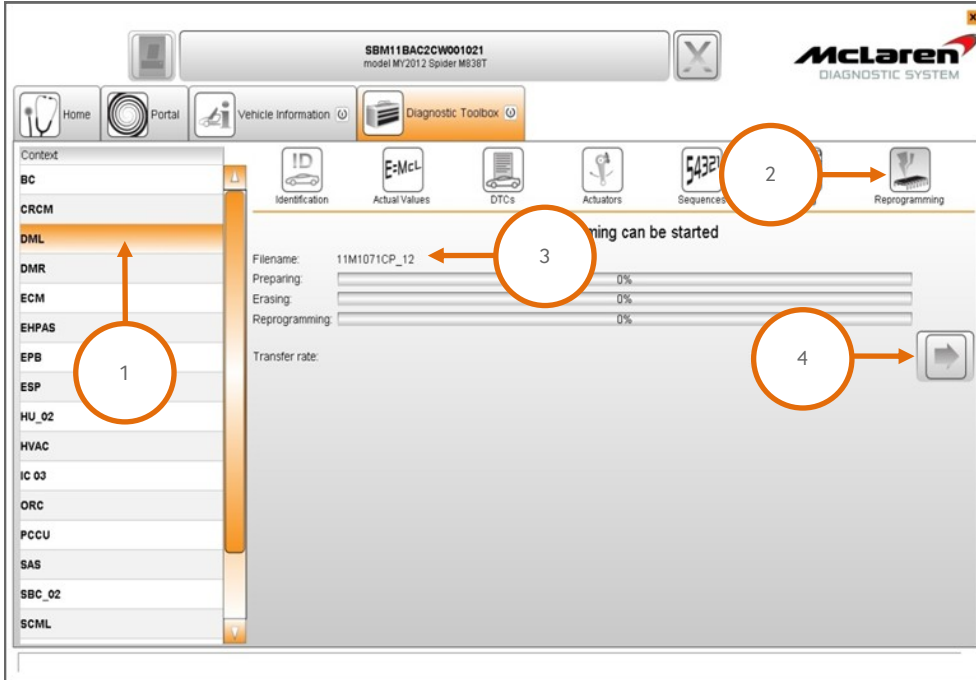
- 17. Press the unlock button on the key and then establish the vehicle into ignition state 5 before following the next steps.
- 18. Select Align Vehicle Configuration (11), followed by the arrow key (12).



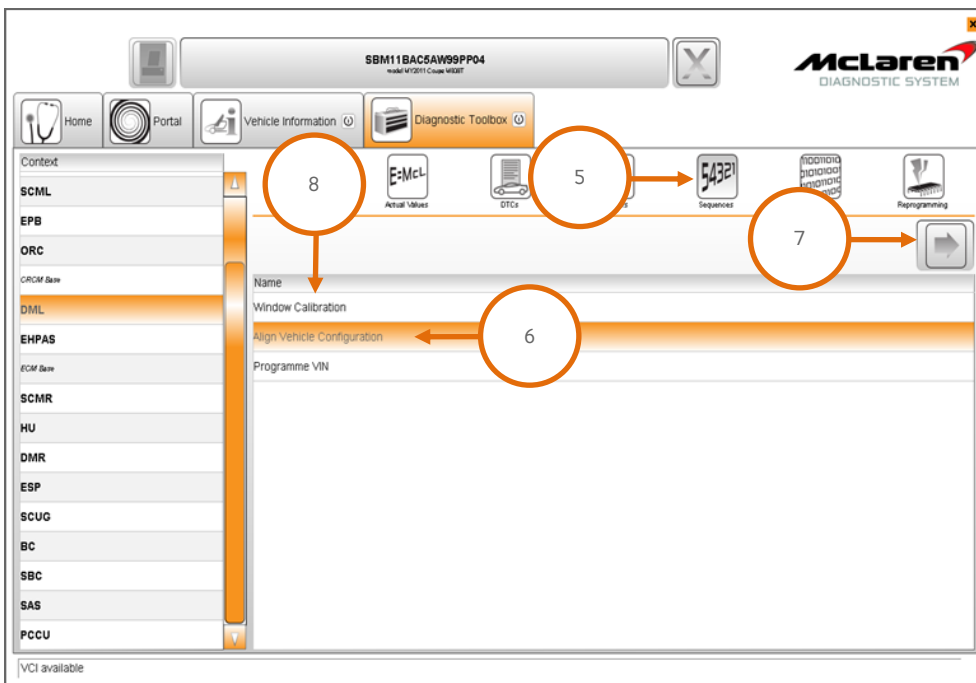
- 19. Press the unlock button on the key and then establish the vehicle into ignition state 5 before following the next steps.

### DML Software Update:

20. Select DML (1), then Reprogramming (2), the software level 11M1071CP.14 will be displayed (3). Proceed to the software download by selecting the arrow button (4).

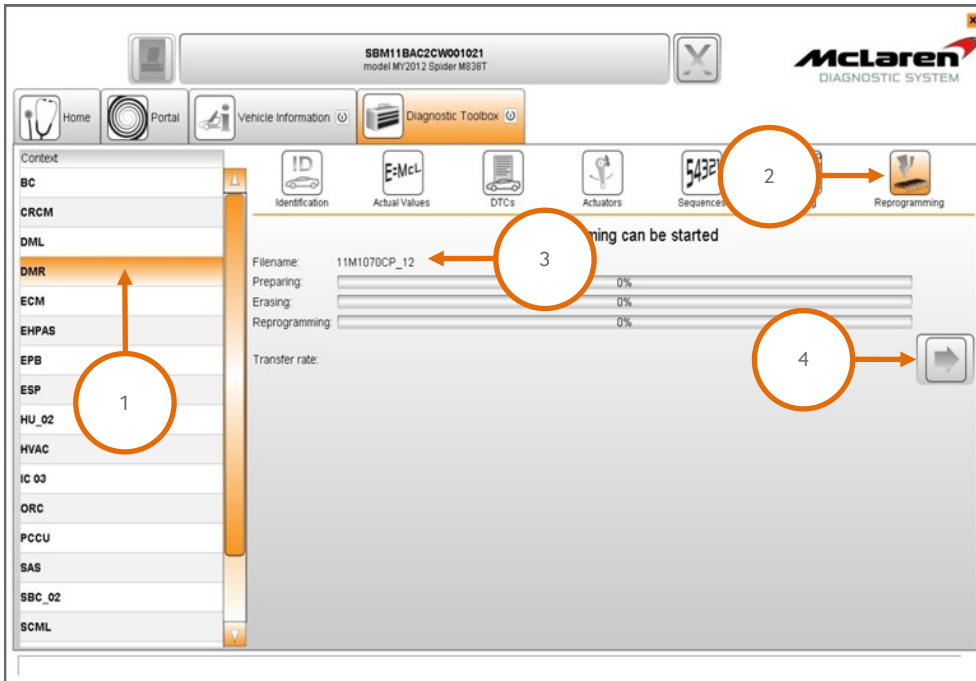


21. Select Sequences (5), select Align Vehicle Configuration (6), followed by the arrow key (7).  
 22. Select Window Calibration (8), followed again by the arrow key (7).

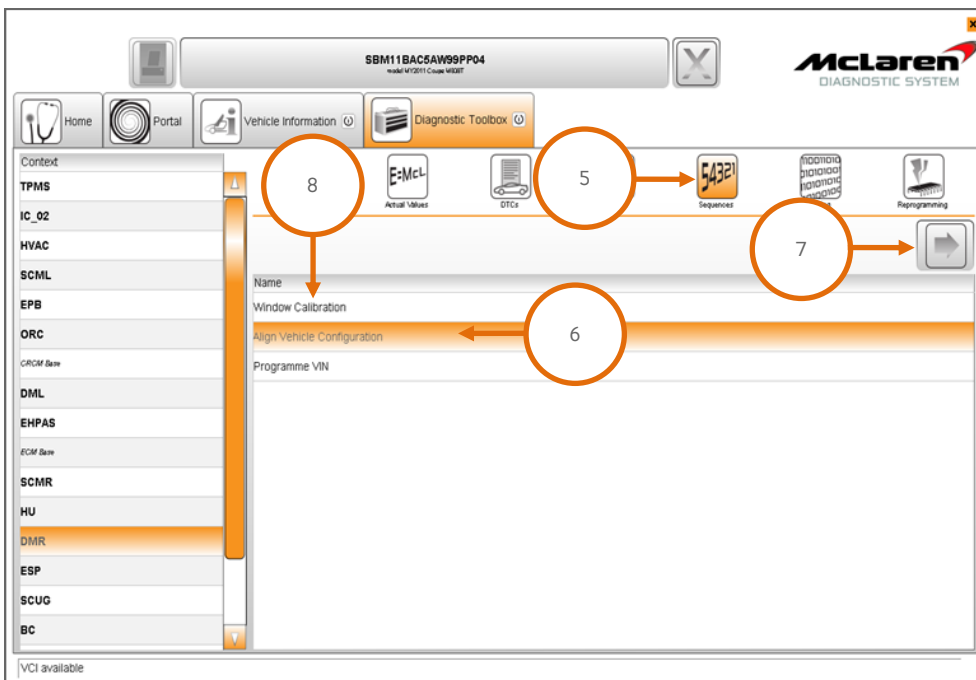


**DMR Software Update:**

23. Select DML (1), then Reprogramming (2), the software level 11M1070CP.14 will be displayed (3). Proceed to the software download by selecting the arrow button (4).

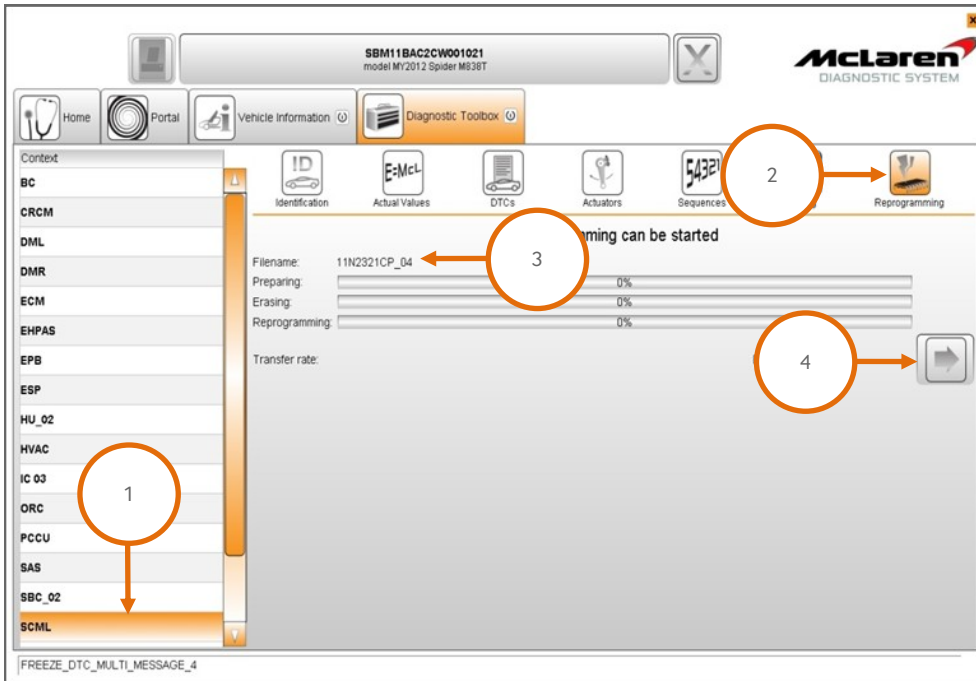


24. Select Sequences (5), select Align Vehicle Configuration (6), followed by the arrow key (7).  
 25. Select Window Calibration (8), followed again by the arrow key (7).



### SCML Software Update:

26. Select SCML (1), then Reprogramming (2), the software level 11M2321CP.04 will be displayed (3). Proceed to the software download by selecting the arrow button (4).

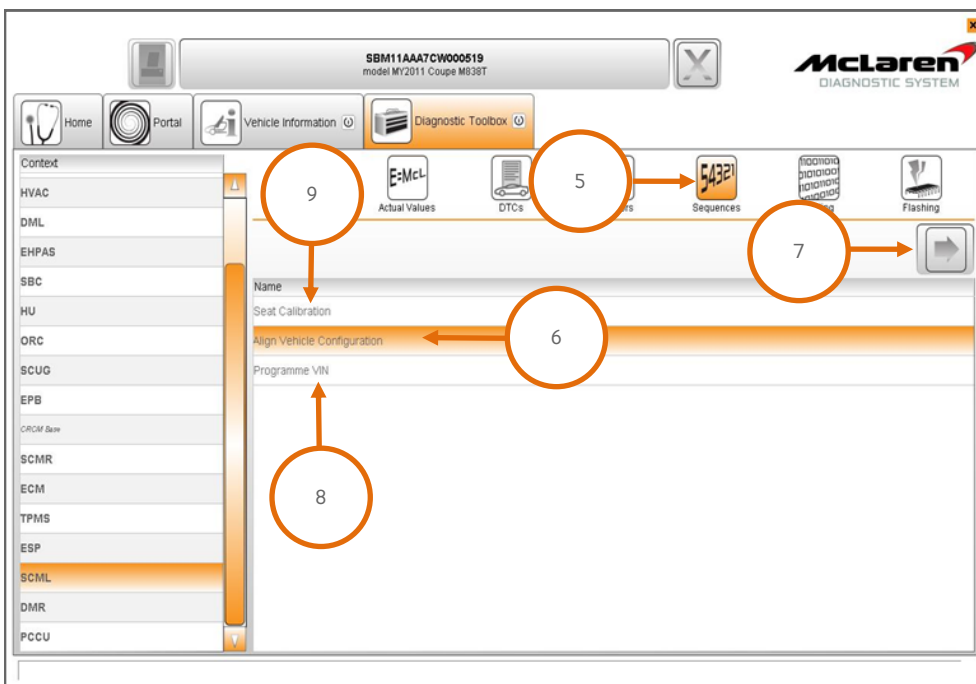


27. Select Sequences (5), select Align Vehicle Configuration (6), followed by the arrow key (7).

28. Select Programme VIN (8), followed by the arrow key (7).

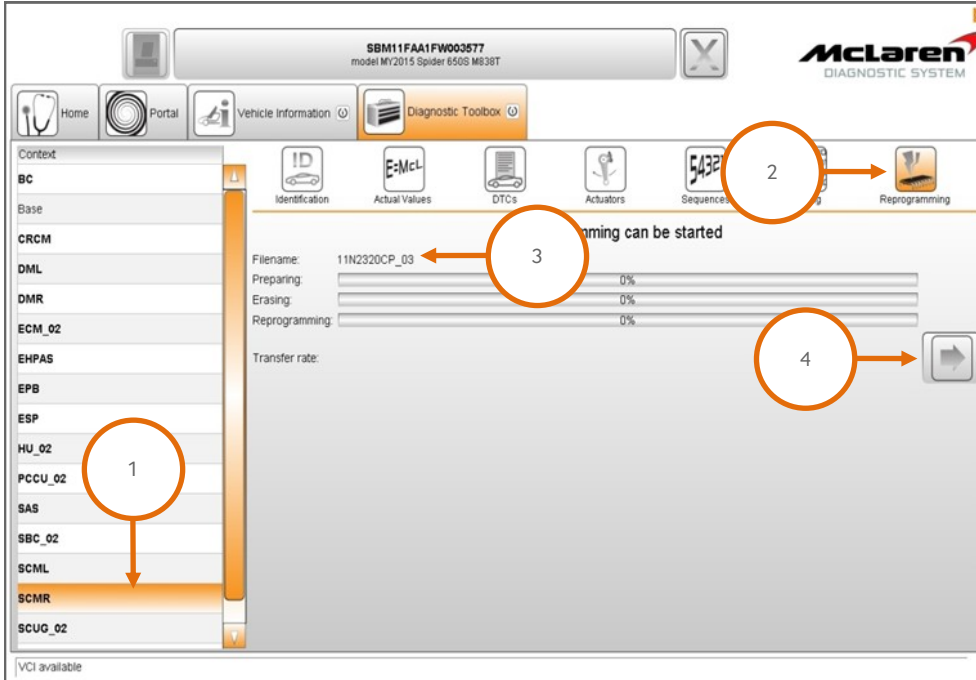
**Care Point:** Step 29 can only be carried out to Spider variant. Coupe seat calibration will be carried out after the SCMR has been reprogrammed.

29. Select Seat Calibration (9), followed by the arrow key (7).



**SCMR Software Update:**

30. Select SCML (1), then Reprogramming (2), the software level 11M2320CP.04 will be displayed (3). Proceed to the software download by selecting the arrow button (4).

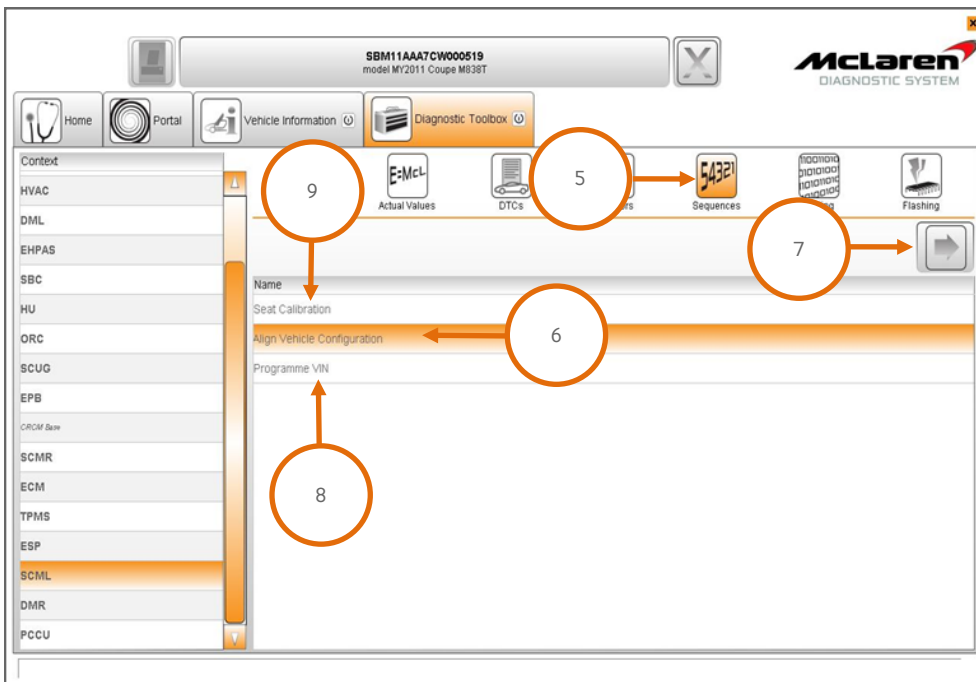


31. Select Sequences (5), select Align Vehicle Configuration (6), followed by the arrow key (7).

32. Select Programme VIN (8), followed by the arrow key (7).

**Care Point:** Step 33 can only be carried out to Spider variant, for Coupe seat calibration proceed to step 35.

33. Select Seat Calibration (9), followed by the arrow key (7).



**Care Point:** Ensure the vehicle is in ignition state 5 before calibrating seats on Coupe.

**Care Point:** It is necessary that the seat gauge 11S4089CP is used to perform the seat calibration process.

34. Ensure the seat is positioned in approximately a mid-mid position and the seatback is vertical.
35. Move the seat into its most rearward position.
36. Move the seat forwards by approximately 50mm.
37. Move the seat until it is again in its most rearward position.
38. Move the seat into its most downward position.
39. Move the seat into its most upward position.
40. Move the seat until it is again in its most downward position.

**Care Point:** The seatback angle can be adjusted backwards and forwards any number of times as long as the seat remains in its rearmost lowest position.

**Care Point:** The seat calibration gauge **must** be placed in the smallest gap between the seatback and the B-Pillar trim in order for the calibration to be performed correctly.

41. Adjust the backrest angle until the desired gap between the seatback and the B-Pillar has been achieved using the seat gauge. The gap **must not** be narrower than the smaller end of the calibration tool (10). The tool should move freely between the seatback and the B-Pillar.



42. The gap **must not** be wider than the widest end of the calibration tool (11). If the seat is in the correct position the tool should not be able to fit between the seatback and the B-Pillar.

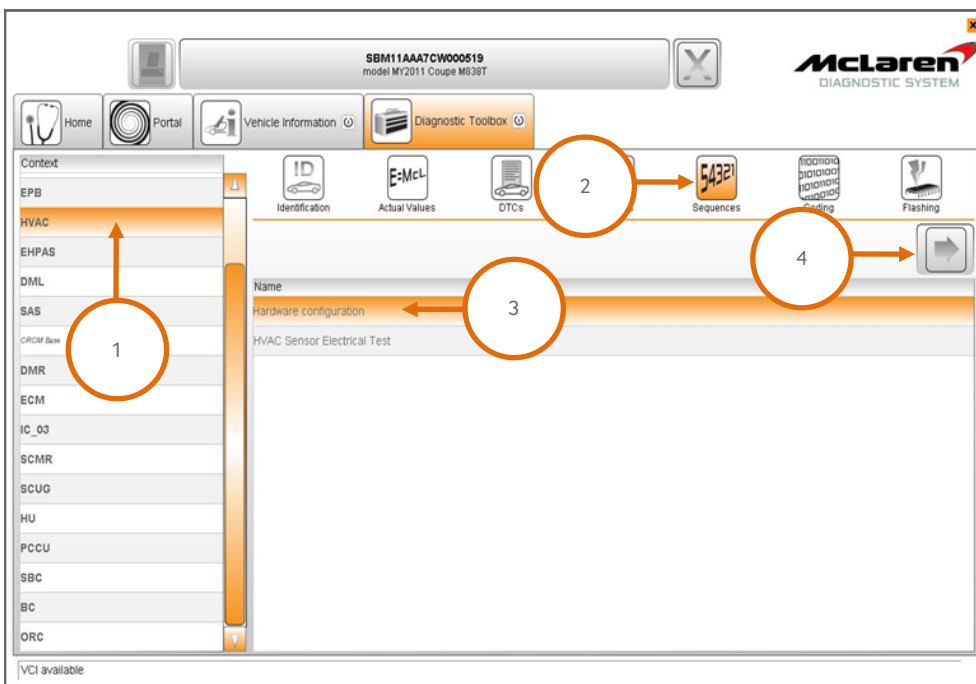


43. Press and hold down the heater and memory buttons on the seat switch pack simultaneously for approximately 5 seconds until a cluster sound is heard. Then move the seat to the mid-mid position and switch the ignition off for 5 minutes and then switch the ignition back on.

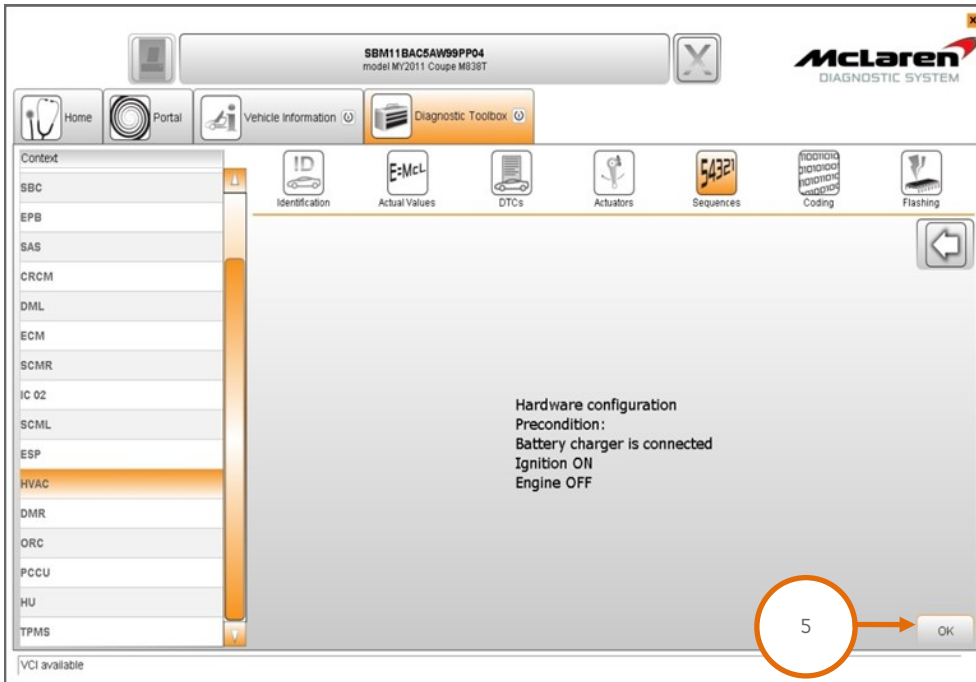
44. If the cluster sound is heard no further action is required. If no cluster sound is audible repeat the calibration process from steps 35 to 44.

### HVAC Software Update:

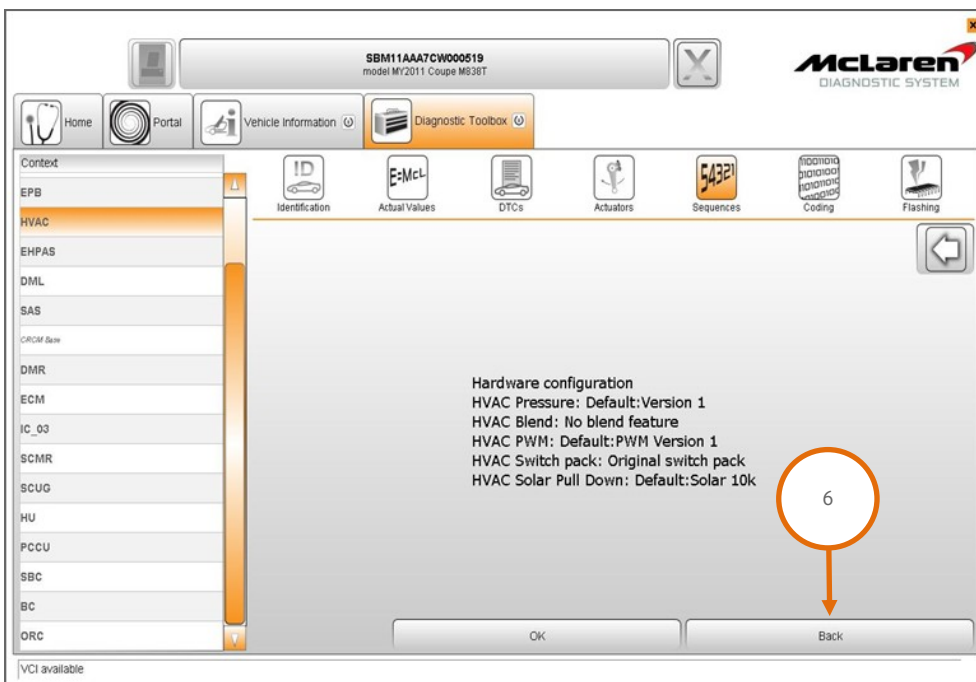
45. Select HVAC (1), then select Sequences (2), then Hardware configuration (3), followed by the arrow button (4) to proceed.



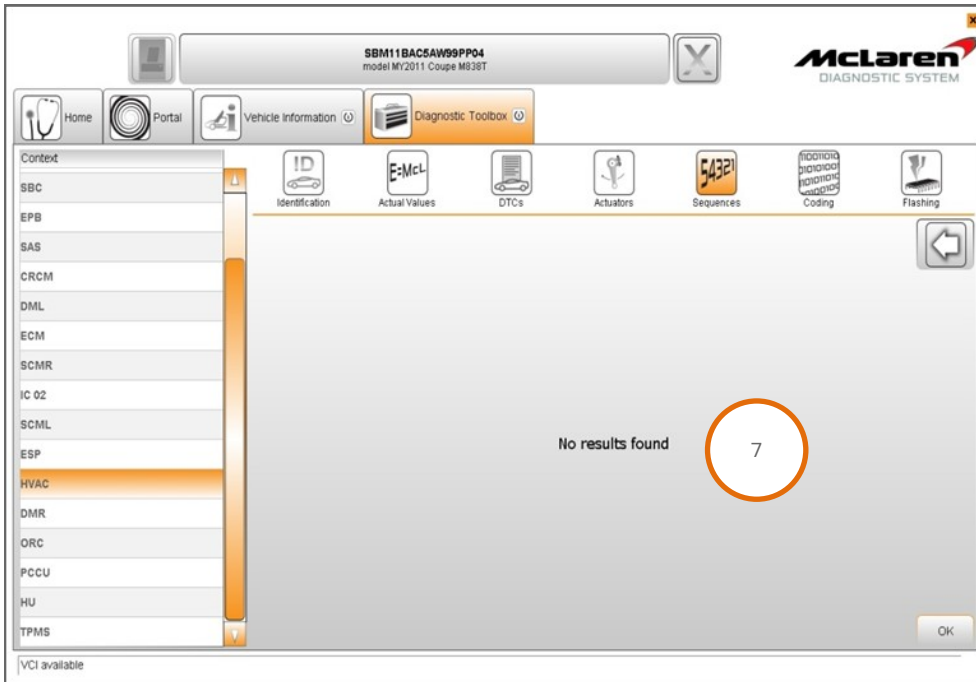
46. The following screen will appear, select OK (5).



47. HVAC Hardware configuration will be displayed. Make a note of the module configuration. Select Back (6) to abort the sequence and proceed to the next step.

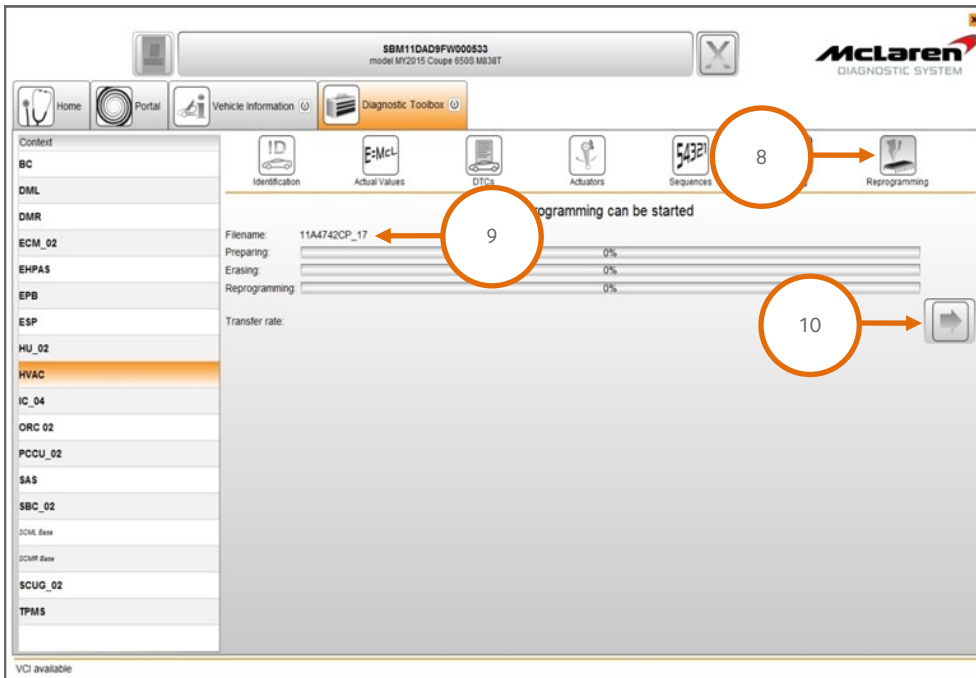


48. If No results found (7) is displayed proceed to reprogram the HVAC module.



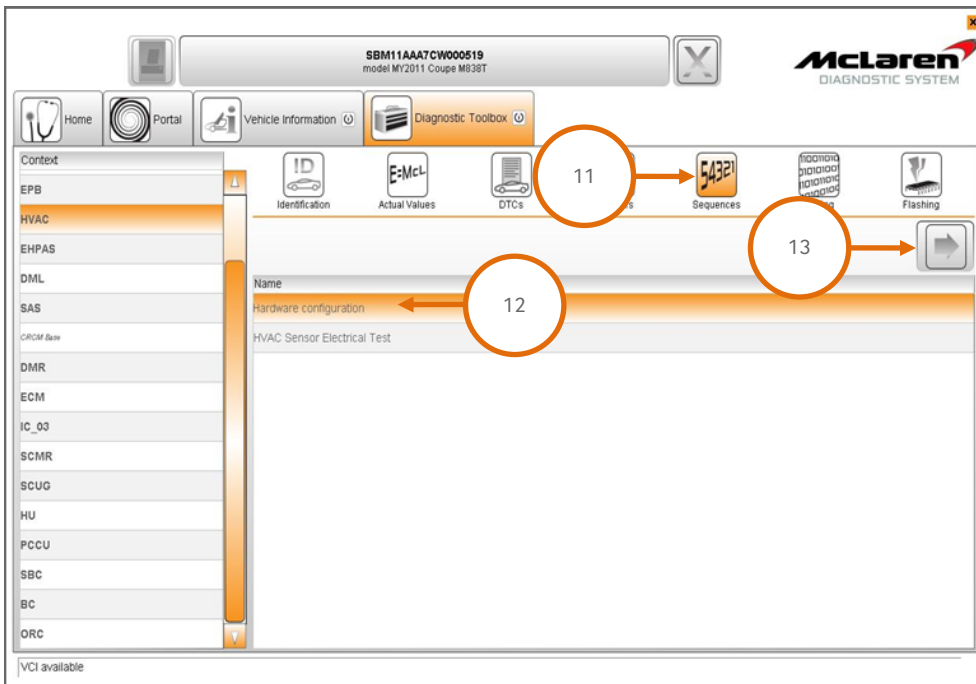
**Care Point:** DTC B1A3A00 HVAC: Config Reset can be ignored.

49. Select Reprogramming (8), the software level 11A4742CP.17 will be displayed (9). Proceed to the software download by selecting the arrow button (10).

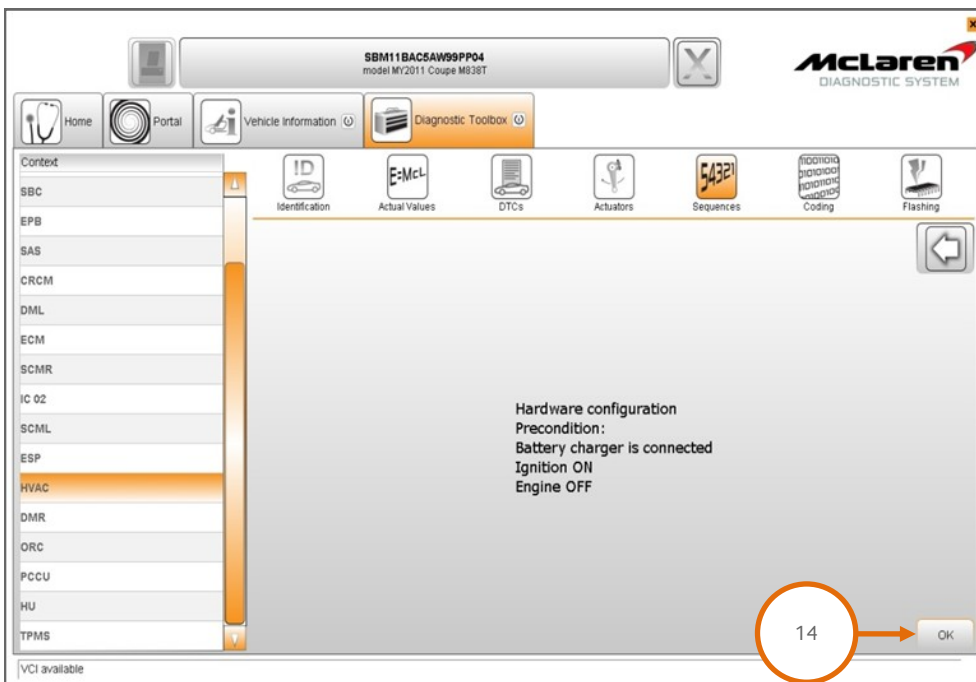


50. After the HVAC has been updated, the HVAC display panel may show the CAL symbol while the system performs a self calibration. When completed, the CAL symbol will disappear from the display.

51. Select Sequences (11), then Hardware configuration (12), then select the arrow button (13) to proceed.



52. The following screen will appear, select OK (14).

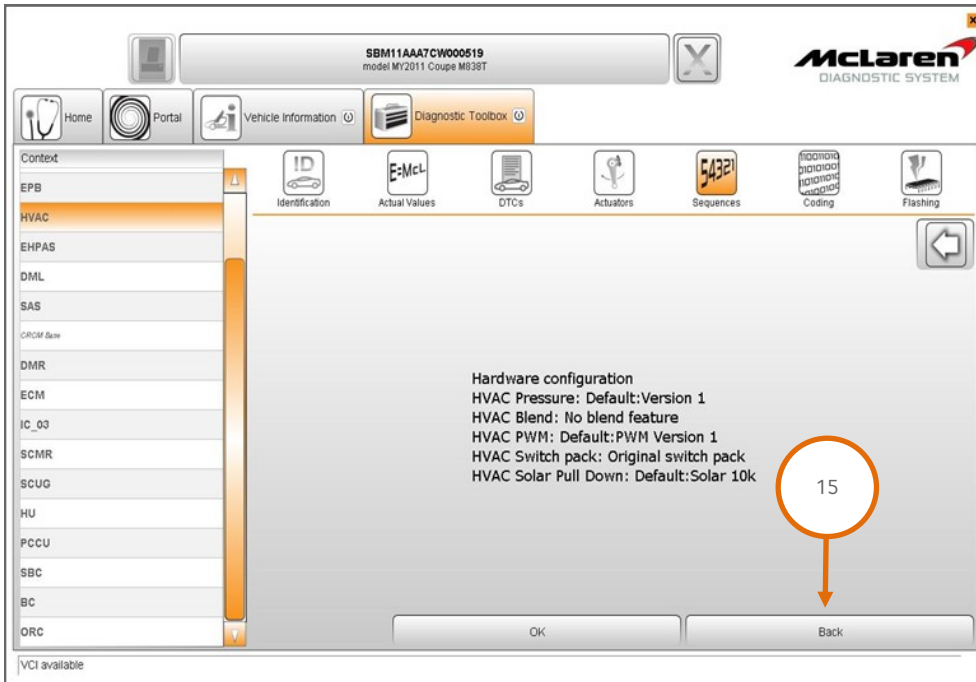


**Care Point:** No results found may be displayed after an HVAC module has been reprogrammed.

53. Proceed and configure the HVAC module with the information recorded at step 48.

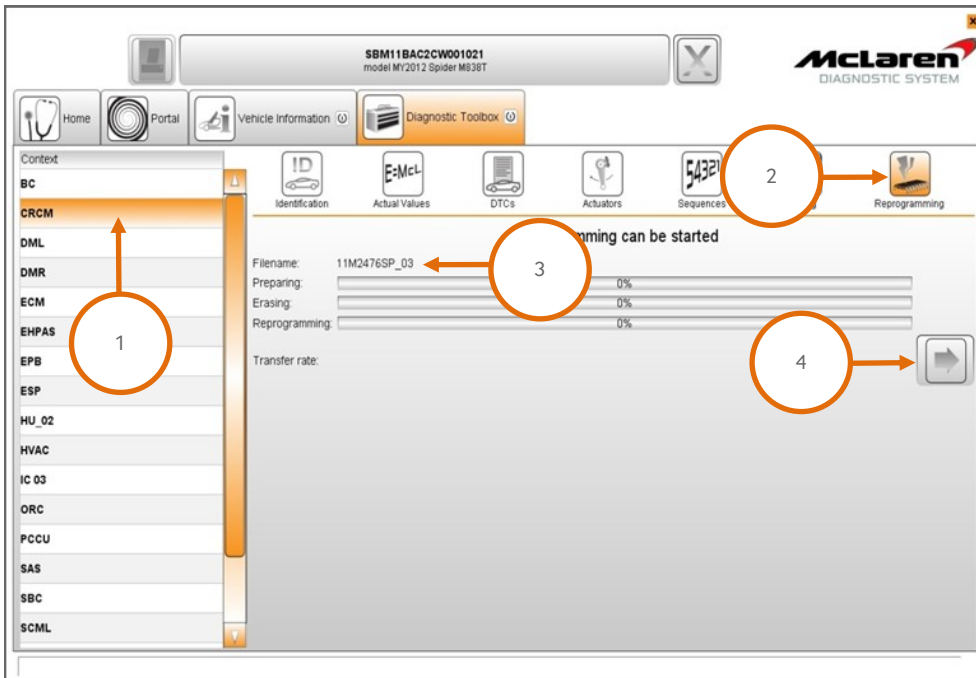
54. If No results found was displayed at step 49, refer to Service Information Bulletin 11 M 054 - Heating Ventilation and Air Conditioning module configuration procedure for the relevant default values.

55. Repeat steps 45 to 47 to confirm the hardware configuration is correct for the vehicle. Select Back (15) to abort the sequence.



**CRCM Software Update:**

56. Select CRCM (1), then Reprogramming (2), the software level 11M2476SP.03 will be displayed (3). Proceed to the software download by selecting the arrow button (4).



### PCCU Software Update:

**Care Point:** During the downloading sequence the system may state preconditions or post conditions failed. These are erroneous messages and can be ignored. Only a programming failed message should be noted as a legitimate failure.

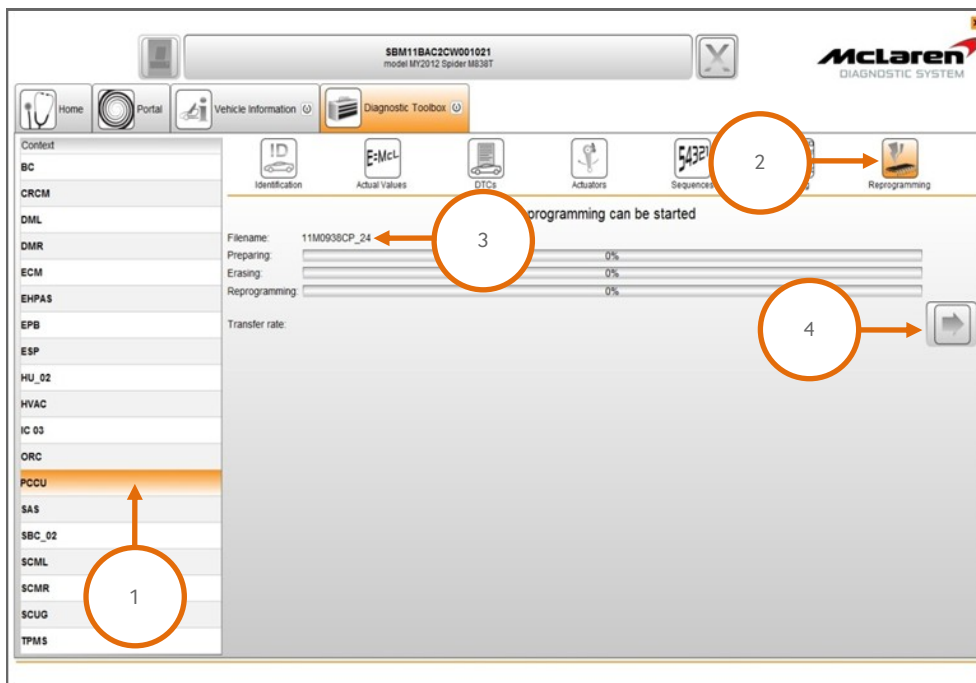
**Care Point:** Ensure vehicle lift is in the lowered position before reprogramming the PCCU. Suspension Displacement Sensor Calibration will fail to complete if the system is not fully lowered.

**Care Point:** PCCU Degrade will appear after the update on the IC, this can be ignored.

**Care Point:** The vehicle must NOT be started until steps 62 to 65 have been completed.

**Care Point:** The vehicle must be positioned on a two post ramp and in the fully lowered position.

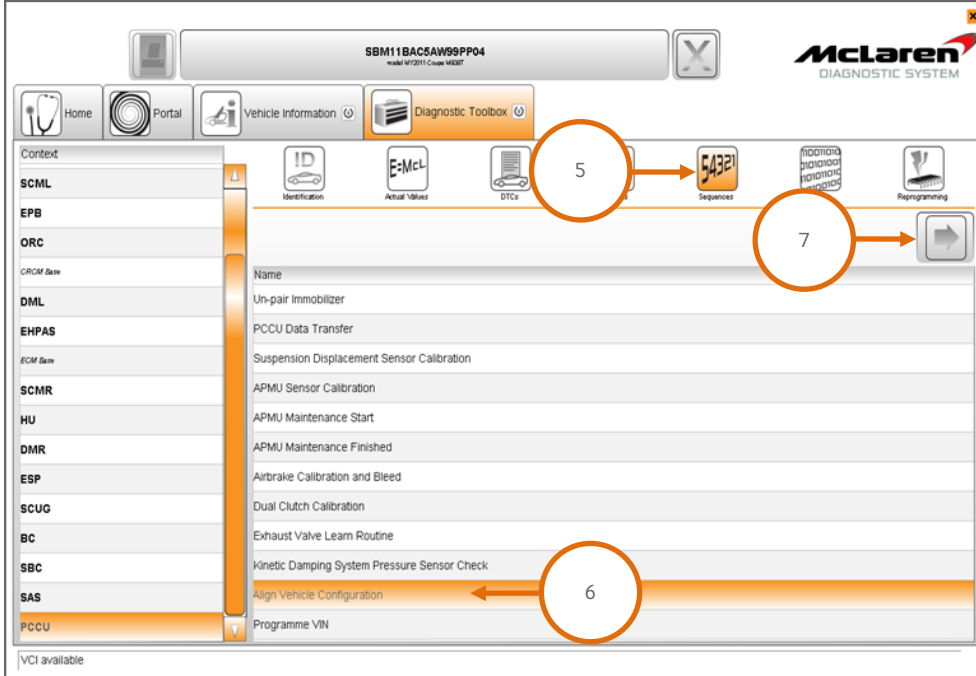
57. Select PCCU (1), then Reprogramming (2), the software level 11M0938CP.24 will be displayed (3). Proceed to the software download by selecting the arrow button (4).



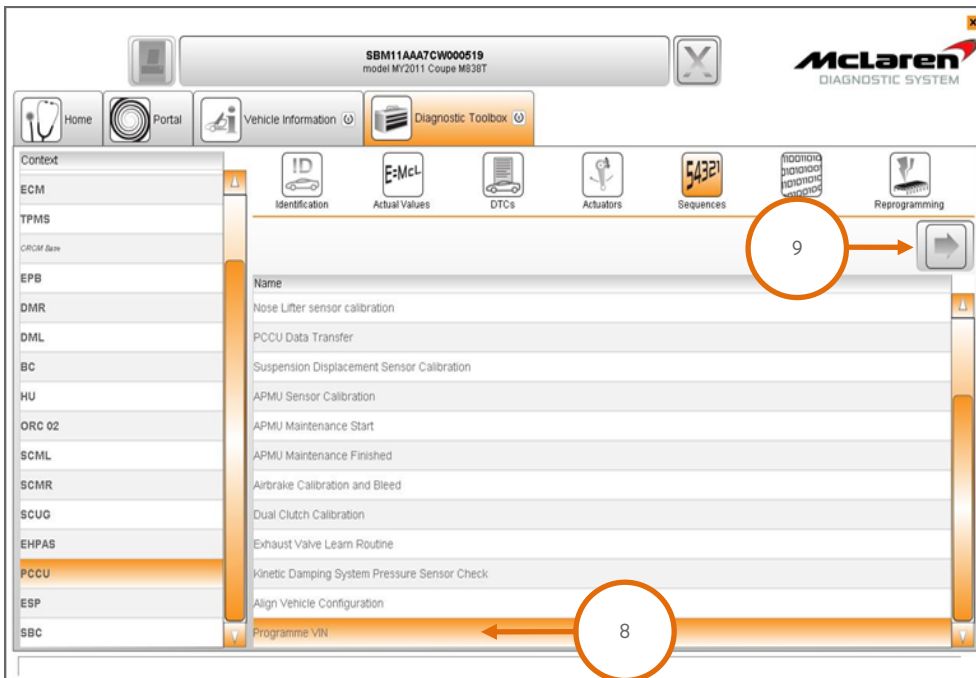
**Care Point:** HVAC DTC's U015500 CAN Missing IC and B1A3700 Kept Awake may not delete these can be ignored.

58. Cycle the ignition (off on off on) and wait for 30 seconds. Place the vehicle into a sleep mode, and then establish the vehicle back into ignition state 5. Clear any DTC's before continuing on with the procedure.

59. Select Sequences (5), select Align Vehicle Configuration (6), followed by the arrow key (7).



60. Select Programme VIN (8), followed by the arrow key (9).

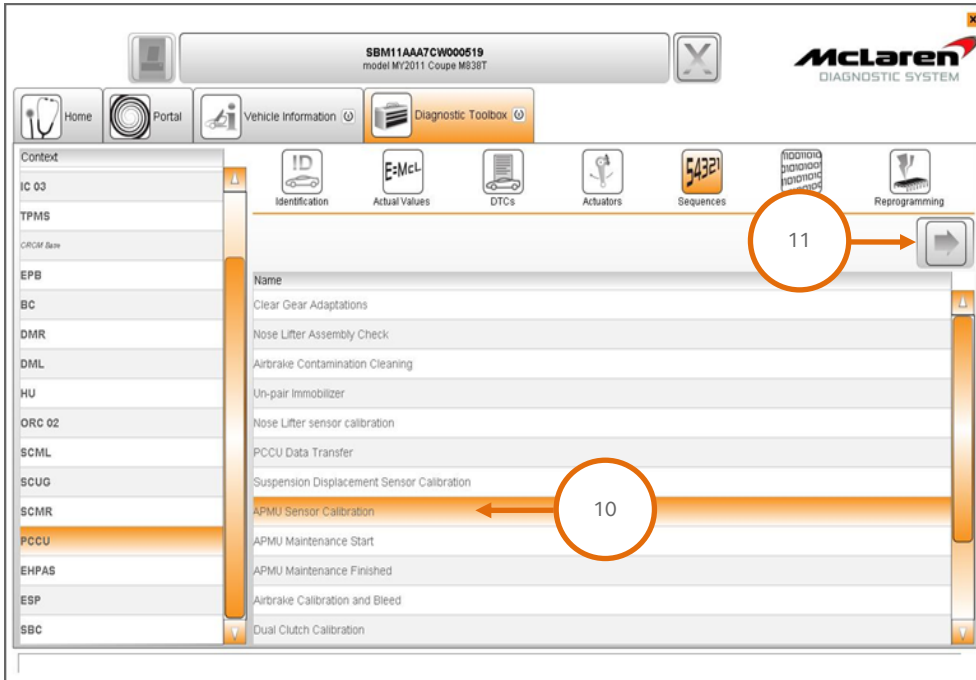


61. Cycle the ignition (off on off on) and wait for 30 seconds.

**Care Point:** The vehicle must be positioned on a two post ramp fully lowered whilst performing APMU sensor and Nose Lifter sensor calibrations.

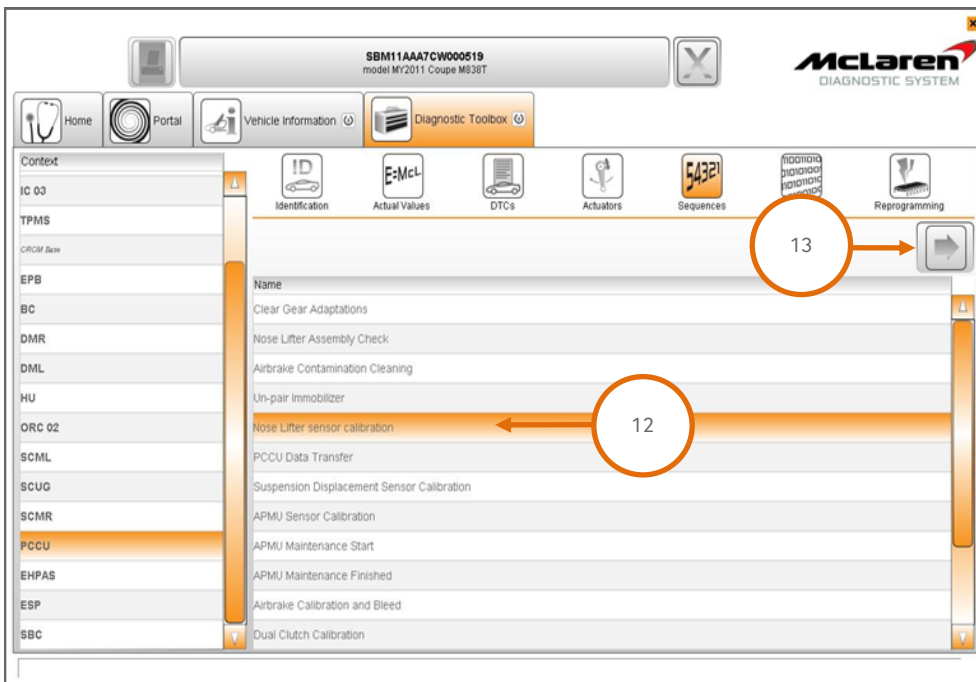
**Care Point:** Steps 62 to 65 only applies to vehicles that have PCCU software level 11M0938CP.20 or earlier installed.

62. Select APMU Sensor Calibration (10), followed by the arrow key (11).

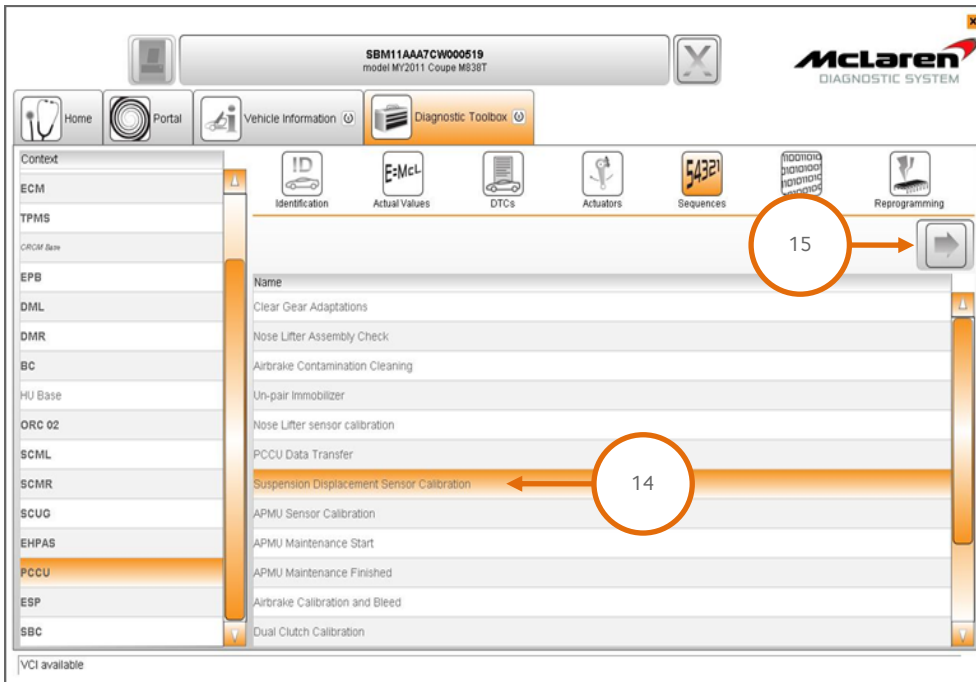


**Care Point:** Step 63 is only required for vehicles fitted with Nose Lift.

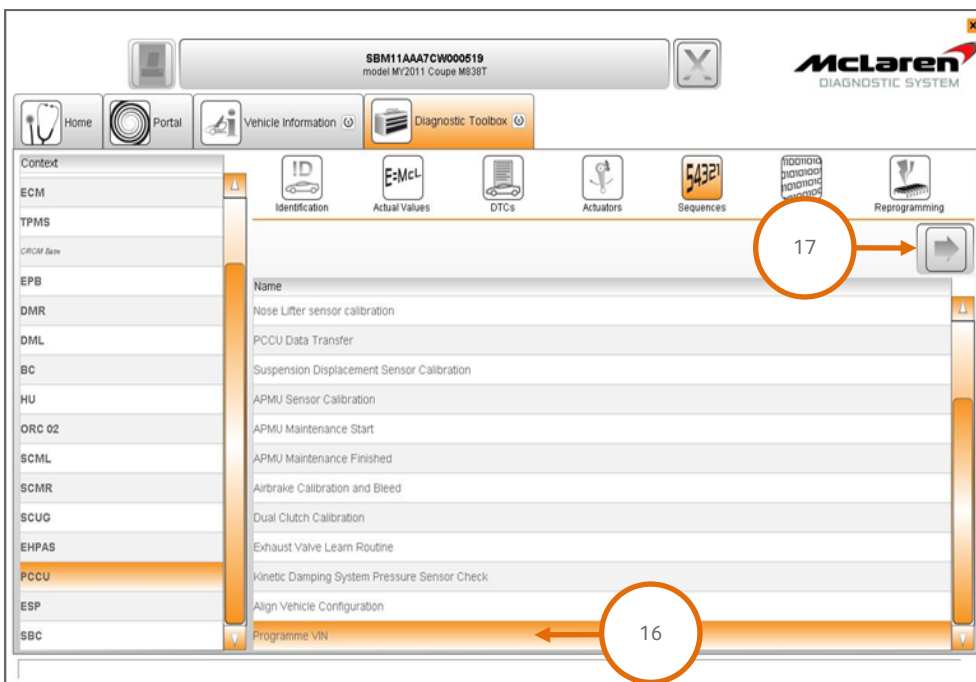
63. Select Nose Lifter sensor calibration (12), followed by the arrow key (13).



64. Select Suspension Displacement Sensor Calibration (14), followed by the arrow key (15) and then refer to Service Information Bulletin 11 B 007.

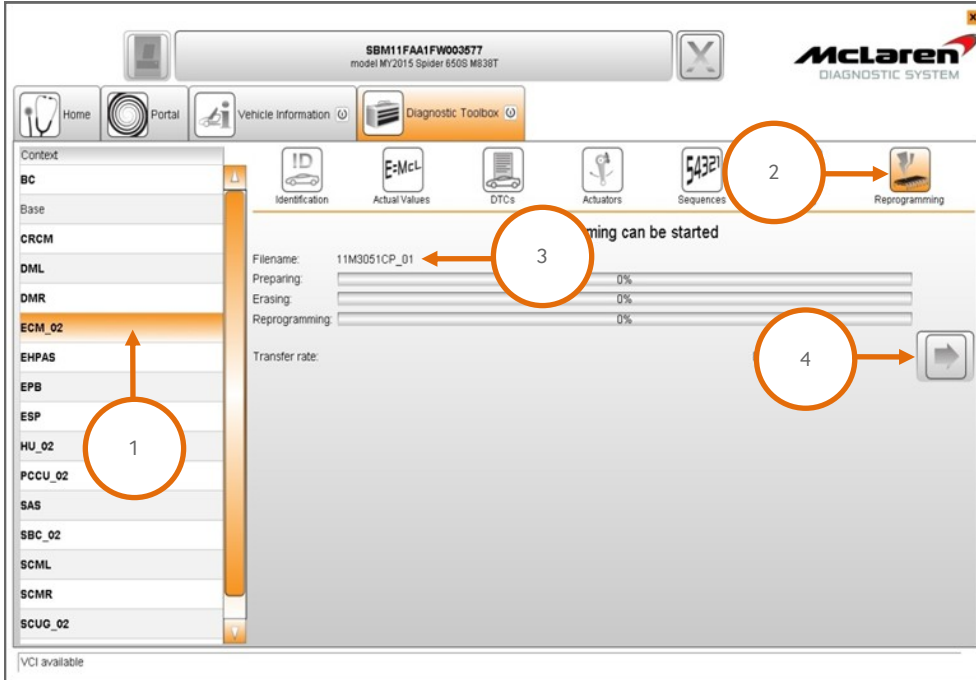


65. Select Programme VIN (16), followed by the arrow key (17).



**ECM Software Update:**

66. Select ECM (1), then Reprogramming (2), the software variant applicable to your market will be displayed (3). Proceed to the software download by selecting the arrow button (4).

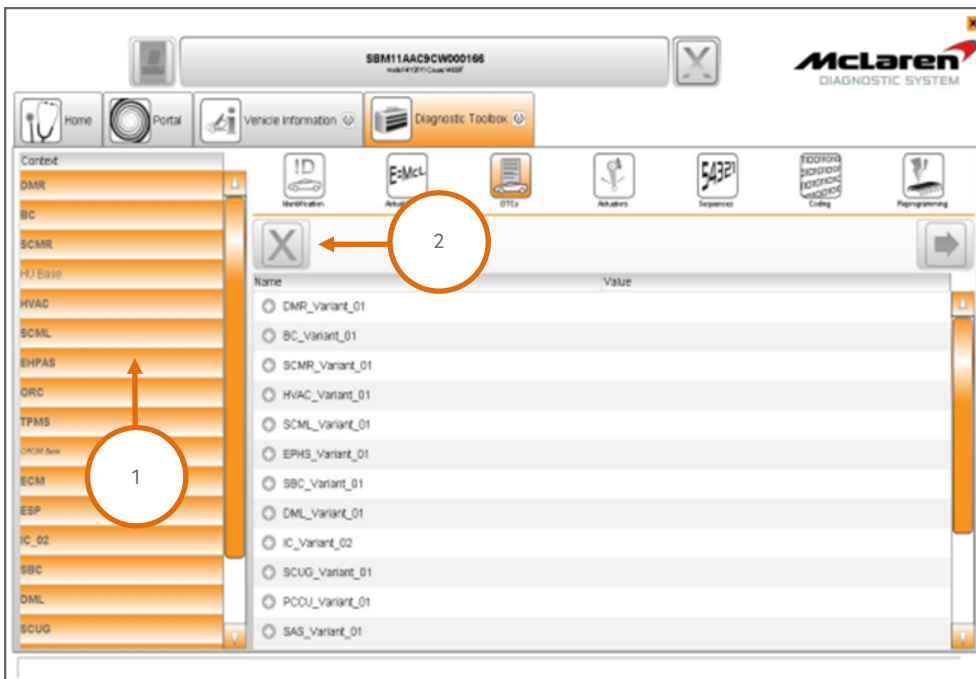


**Care Point:** ECM DTC's must only be cleared in ignition state 5.

67. Cycle the ignition (off on off on) and wait for 30 seconds. Place the vehicle into a sleep mode, and then establish the vehicle back into ignition state 5.

**Care Point:** HVAC DTC's U015500 CAN Missing IC and B1A3700 Kept Awake may not delete these can be ignored.

68. Select and highlight all items within the context fields (1) and perform a global clear of all DTC's (2).

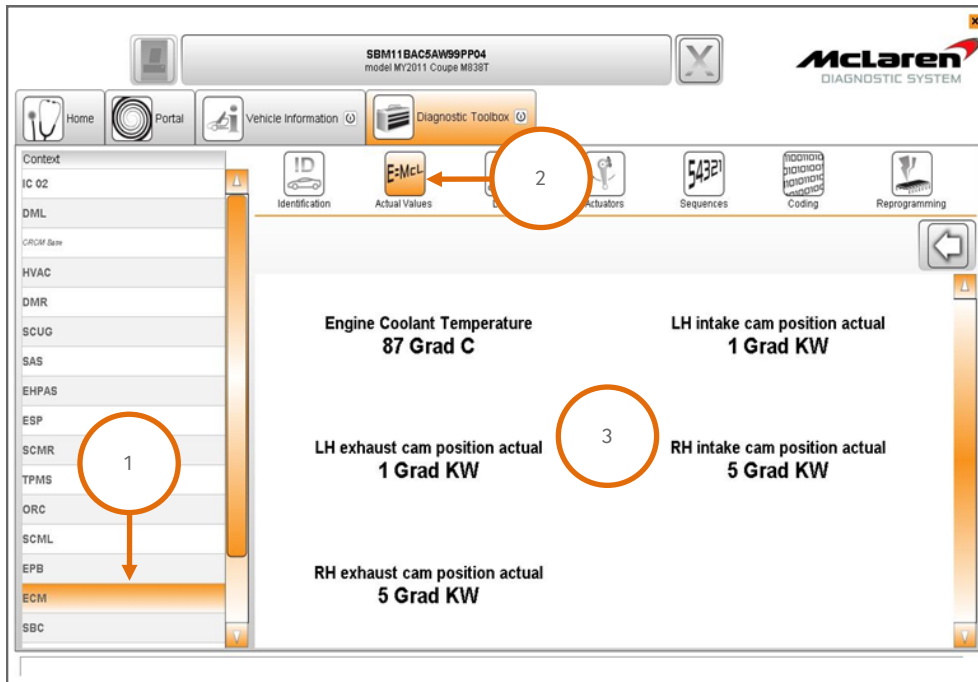


69. Press the stop/start button with the brake pedal depressed to start the engine and allow it to idle until fully warm.

**Care Point:** The Air conditioning must be switched on and the engine coolant temperature must be above 80°C before proceeding with the camshaft adaption procedure.

70. Select ECM (1), then Actual Values (2), select the following values as per the screenshot below (3), then select the play button to access the required data screen.

71. The inlet and exhaust camshaft values should be between 1 and 4, both values will fluctuate slightly. If all values are correct no further action is required proceed to step 73. If any values are incorrect proceed to step 72 to carry out the camshaft adaption.

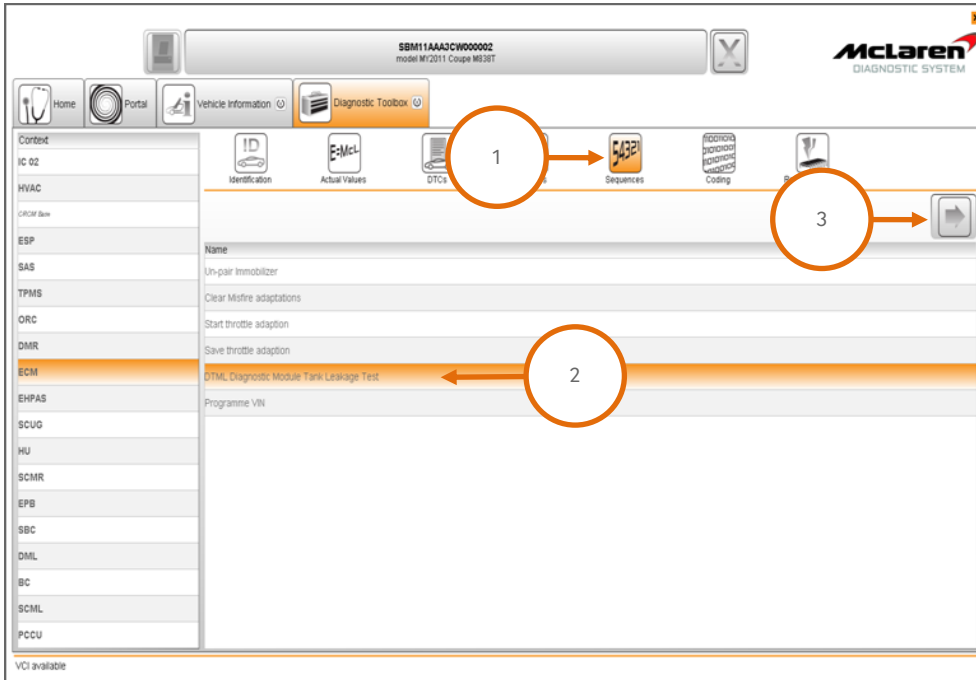


72. Switch the engine off, wait 30 seconds, restart the engine and recheck the values. Repeat this procedure until the target values are achieved.

**Care point:** The fuel level must be above 1/4 before you proceed to the Diagnostic Module Leakage Test (DMTL).

**Care point:** The DMTL test can take up to eight minutes to complete the 20 thou and 40 thou leak test

73. Select Sequences (1), then DMTL-Diagnostic Module Leakage Test (2), followed by the arrow button to proceed (3).



74. End the current MDS session to allow session feedback to be sent and stored at McLaren.

**Care Point:** IRIS AIS software update only applicable to vehicles installed with the model year 2014 IRIS.

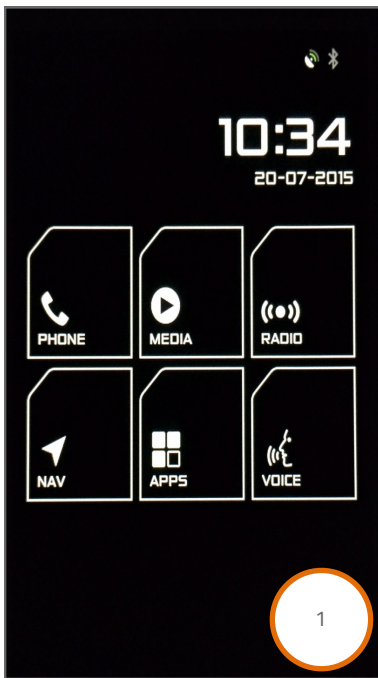
**IRIS AIS Application Software:**

**Care Point:** The Application Software will be supplied via USB to dealers.

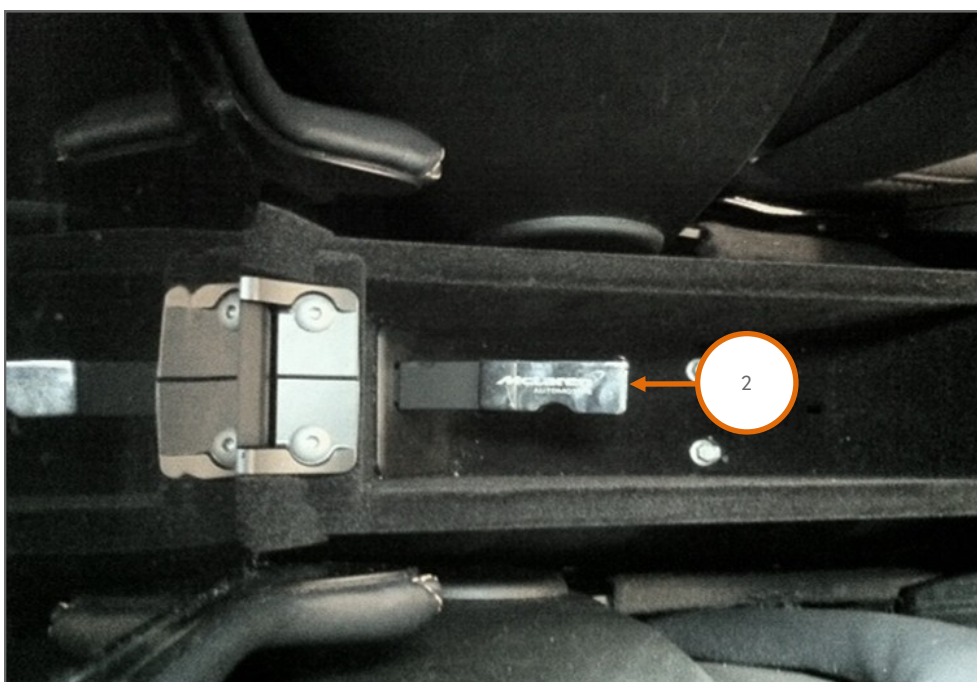
**Care Point:** Do not turn off the engine or change the ignition state during the update process unless stated within this update procedure.

75. Switch the ignition ON to ignition state 5 and start the engine.

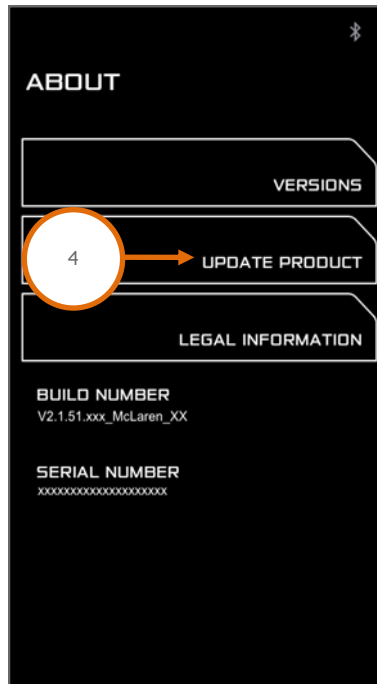
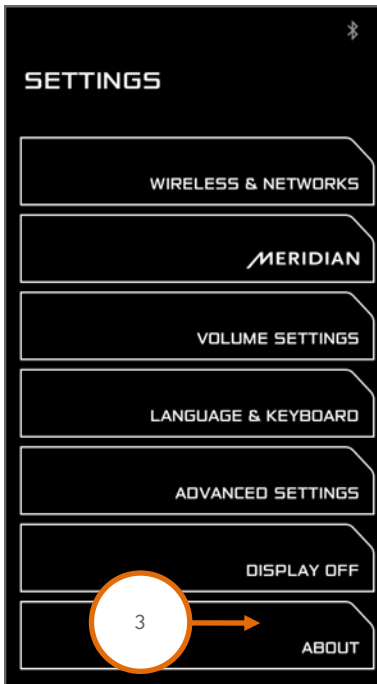
76. Make a note of the options displayed on the Home Screen as this information will be required to configure the head unit. Example screen below of the home page (1).



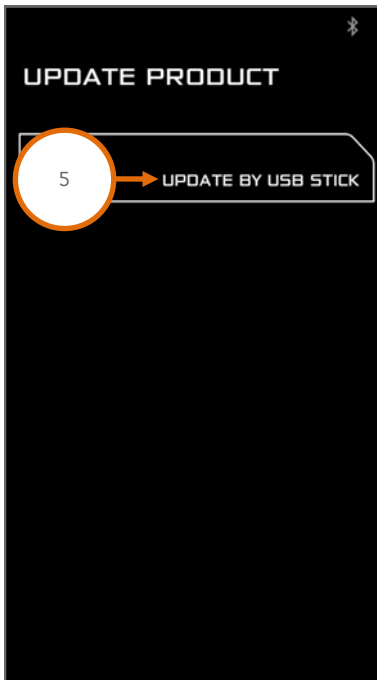
77. Insert the USB drive with the application software into the USB socket (2).



- 78. Once the USB has been inserted, the system should provide a message stating a USB device has been detected.
- 79. Press the Settings hard button on the IRIS console.
- 80. Select About (3) and then Update Product (4).



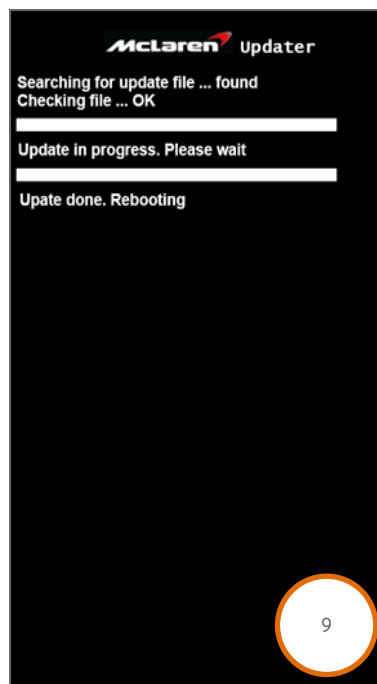
- 81. On the following screen select Update by USB Stick (5). A pop up message will be displayed. Press OK (6) to start the loading operation.



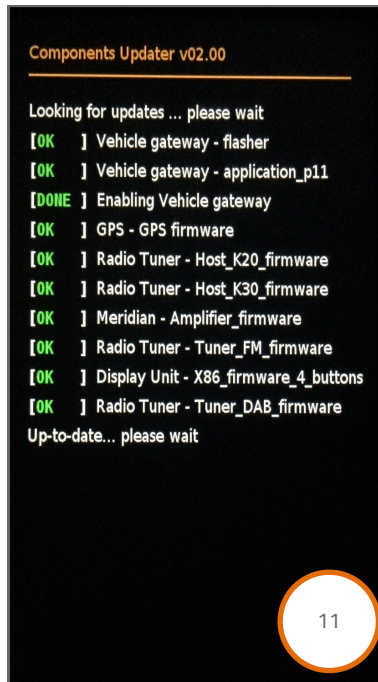
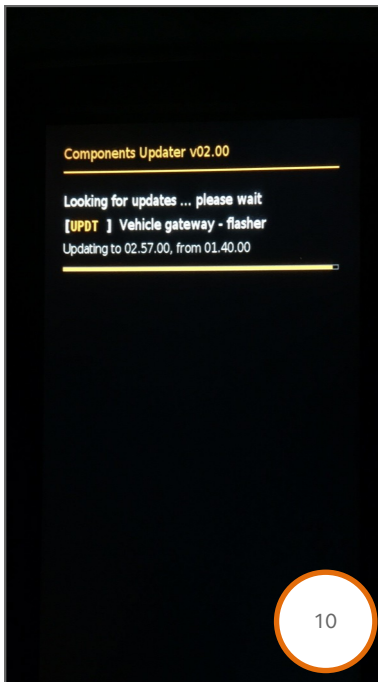
82. The following screen will be displayed (7) and the system will reboot.



83. After the system has rebooted it will search for and check the update file (8). Once the installation has finished the following screen will be displayed (9) and the system will reboot.



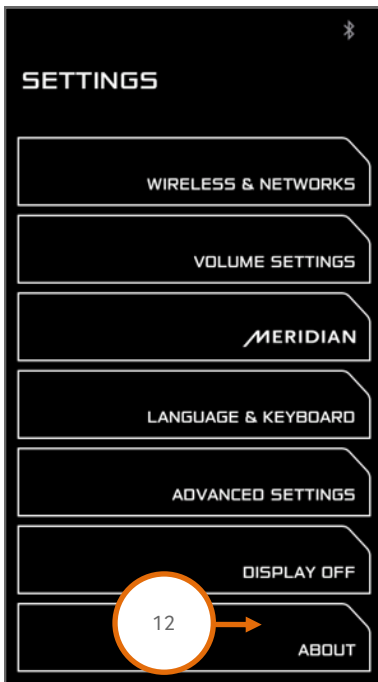
84. Following the reboot the system will start to update the individual system components (10) and (11). During the update the system may reboot multiple times. This is normal, **Do Not Attempt A Manual Reset.**



**Care Point:** In case the system should get stuck on the update screen if one of the component updates has failed, press and hold the home button for 45s to force the system to reboot.

85. Once all components have been updated and the system has fully rebooted, press the Settings hard button on the IRIS console.

86. Select About (12) and then select Versions (13).



- 87. Confirm that the McLaren Software Part Number matches the Part Number listed in Table at Page 2 of this document.
- 88. Press the Home button on the IRIS console to return to the Home screen if required and remove the USB drive.

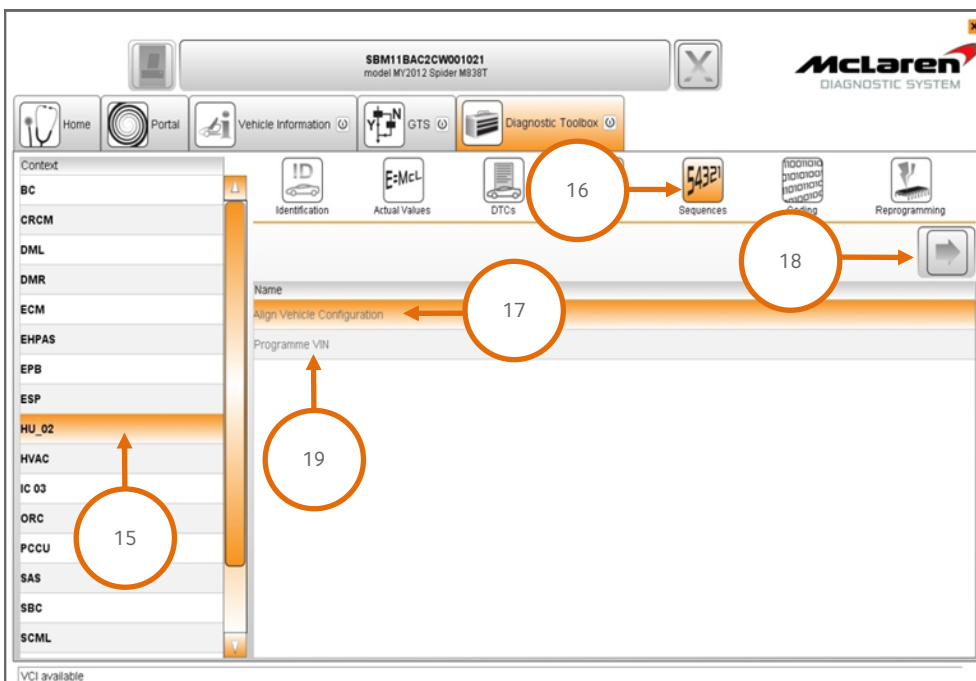
**Care Point:** For vehicles where the Learn Vehicle Model process has been completed previously the option will not be available on the Home screen. In this case go to step 90.

- 89. Select Learn Vehicle Model (14) from the Home Screen. The system will perform a configuration update and reboot. Wait until the system has fully booted to the Home screen before proceeding to the next step.

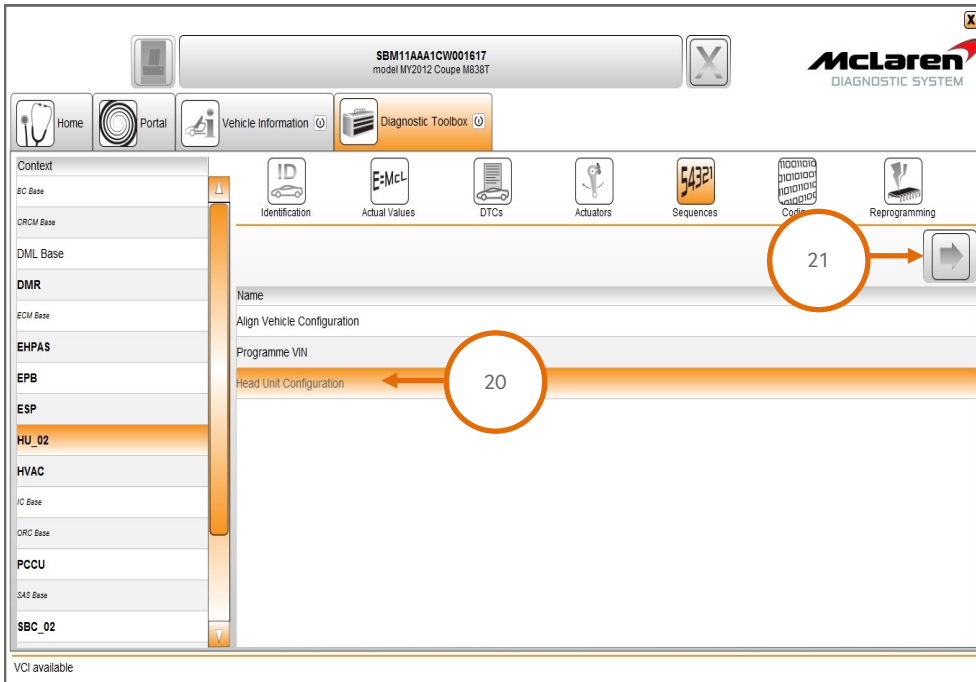


**Care Point:** The VCI must be connected to the MDS with the USB cable to perform the next steps.

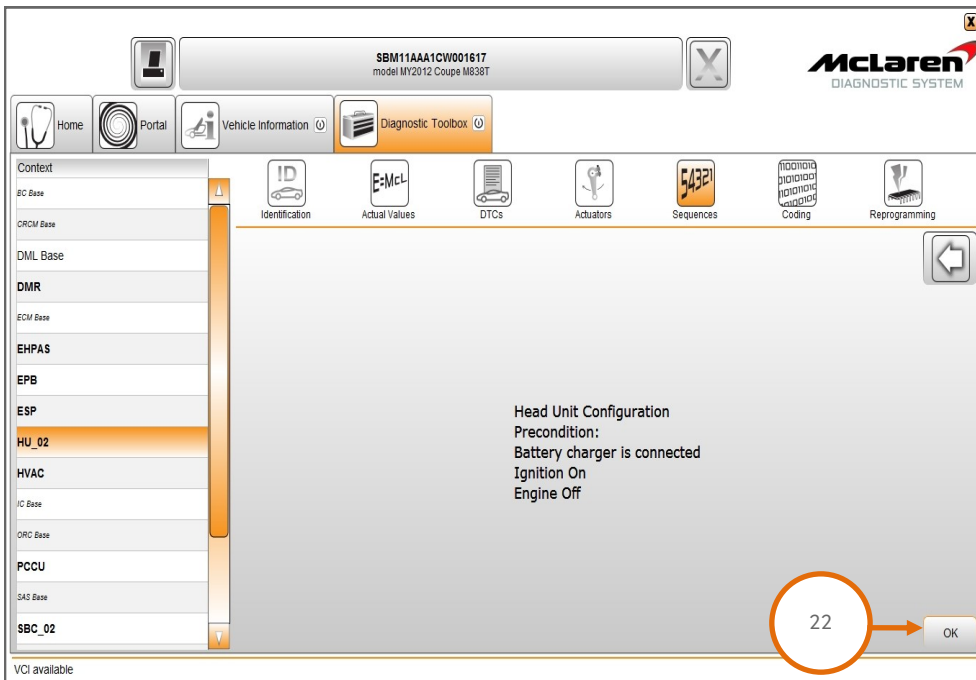
- 90. Start a New MDS session in the MDS Offline mode, refer to Service Information Bulletin 11 S 011 McLaren Diagnostic System (MDS) Offline and proceed to complete the remaining procedures.
- 91. Select HU\_02 (15), then select Sequences (16), select Align Vehicle Configuration (17), followed by the arrow key (18).
- 92. Select Programme VIN (19), followed by the arrow key (18).



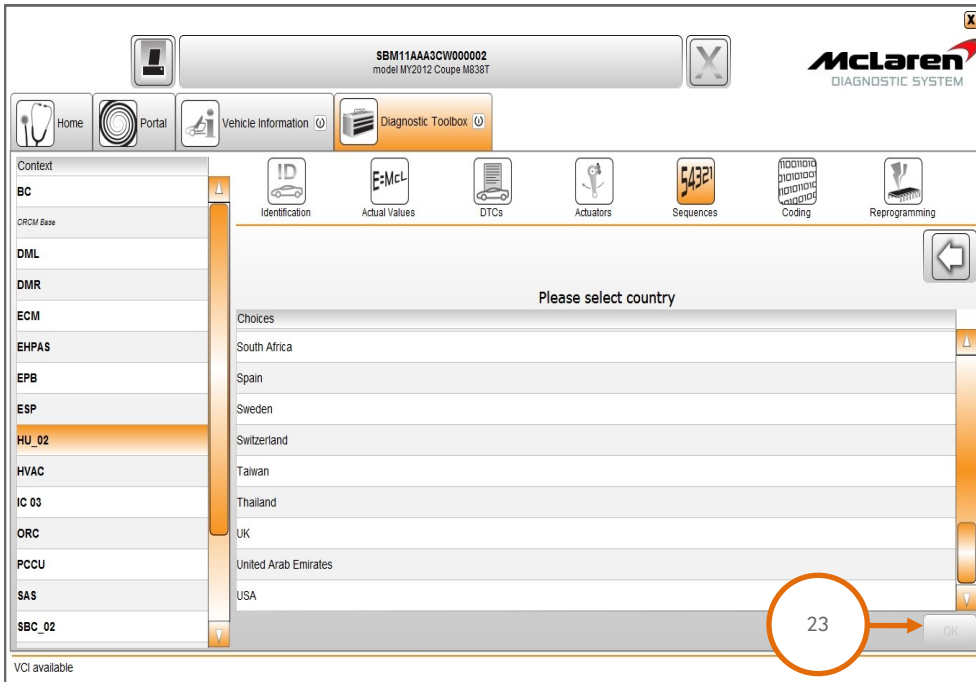
93. Select Head Unit Configuration (20), followed by the arrow key (21).



94. The following screen will appear, select OK ( 22).

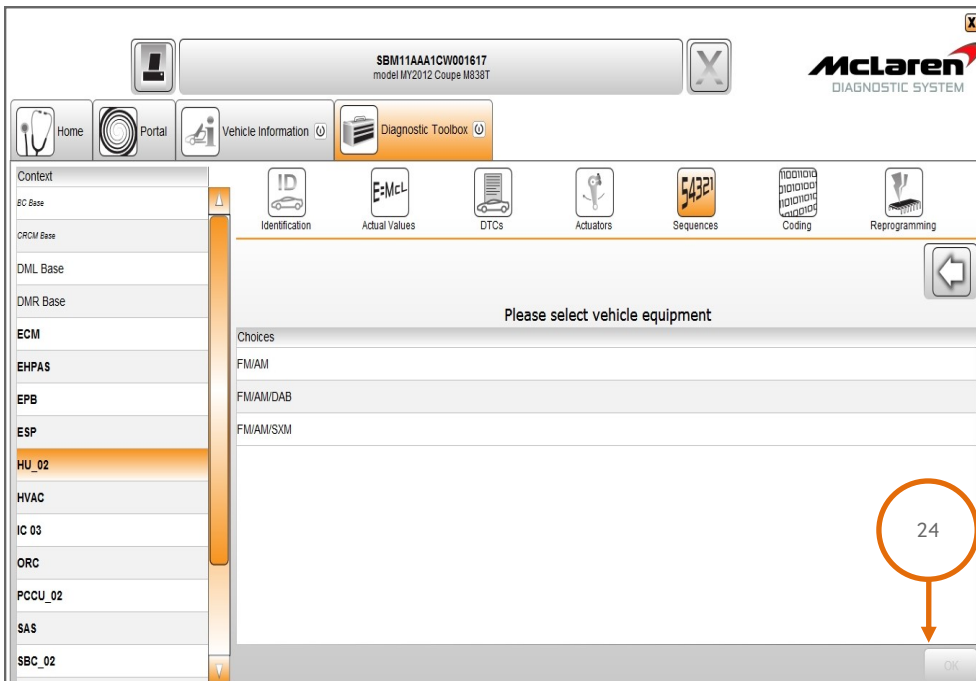


95. Select the relevant country followed by OK (23).

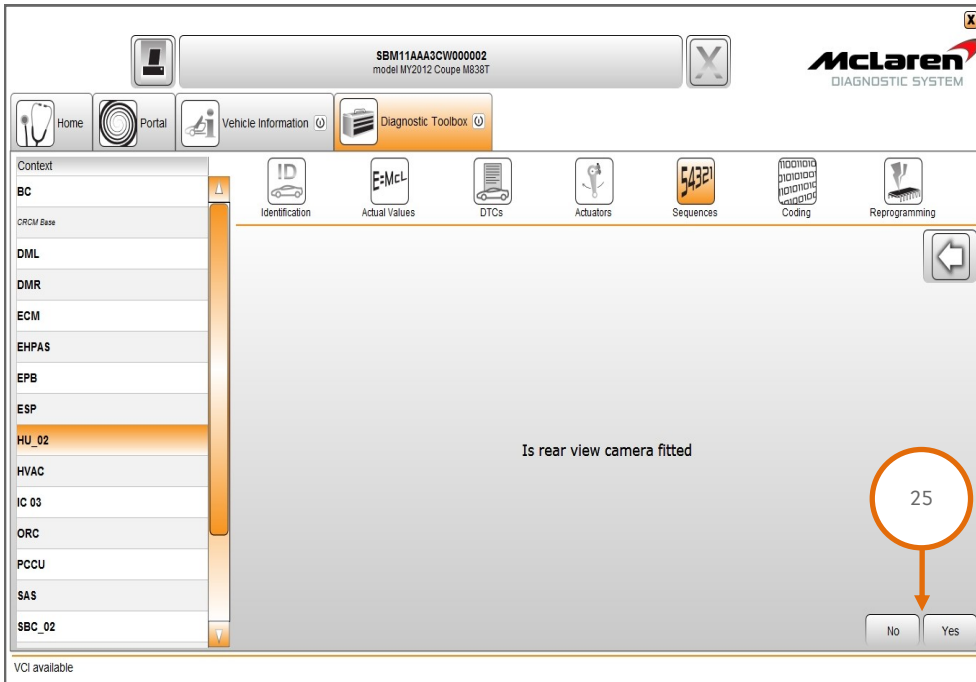


**Care Point:** The following screen may not appear due to your market has no applicable options, proceed to step 97.

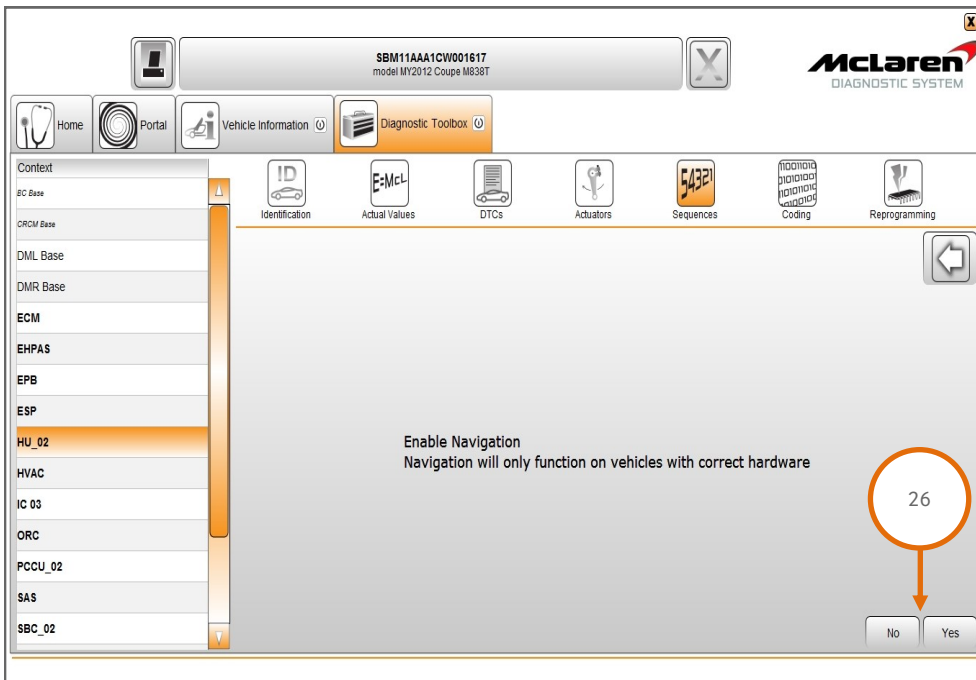
96. Select the relevant radio frequency option, followed by OK (24).



97. Is rear view camera fitted, select Yes or No (25).

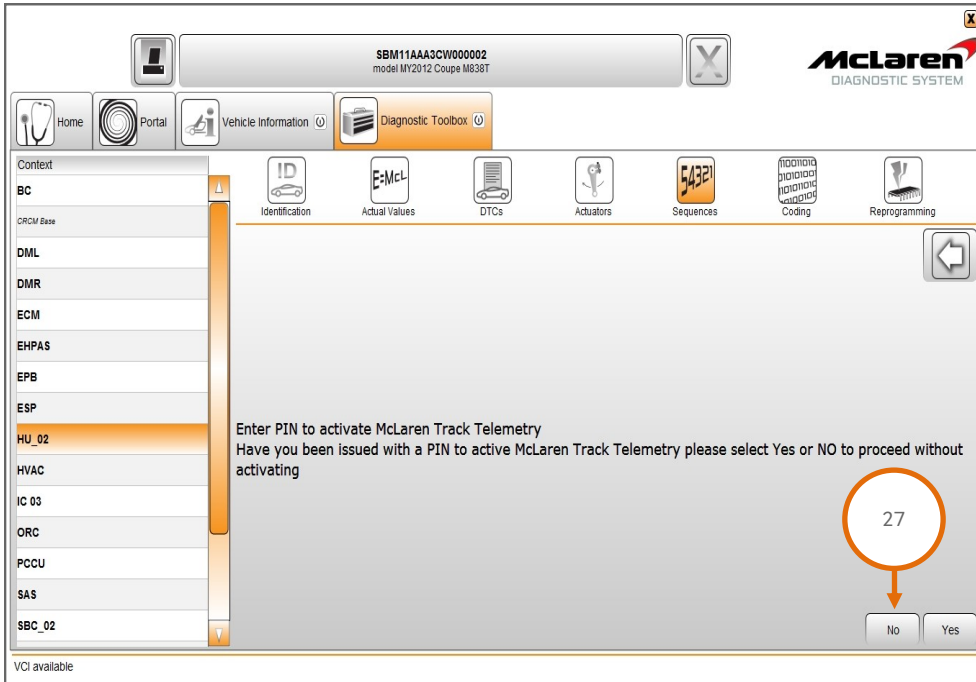


98. Is navigation fitted, select Yes or No (26).

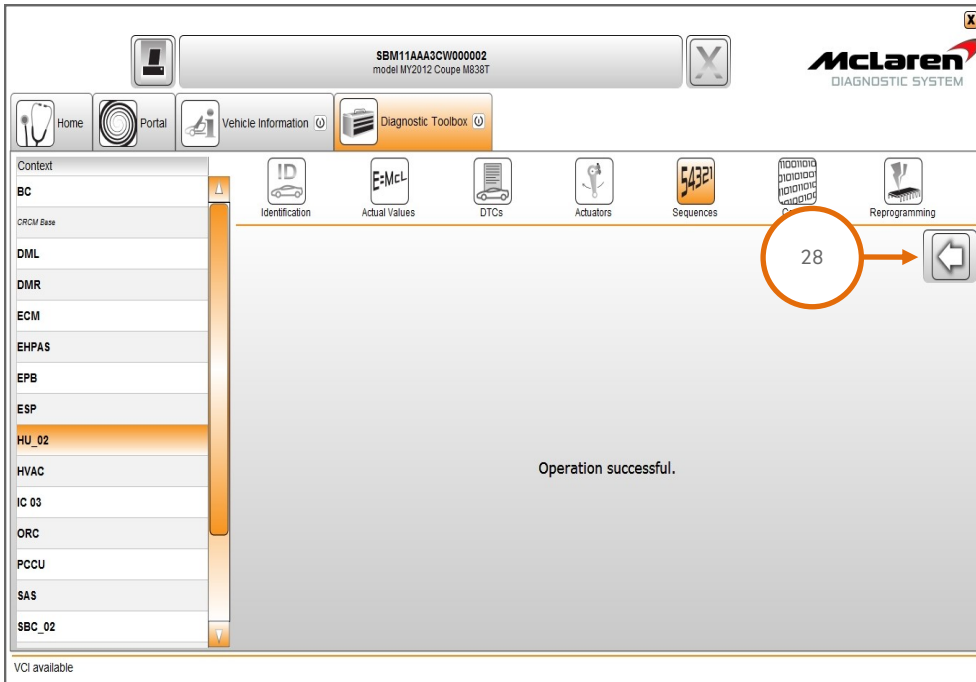


**Care Point:** McLaren Track Telemetry is not an available option for McLaren 12C.

99. Proceed and select No (27).



100. Operation successful will be displayed , then select the back arrow to exit the sequence (28).

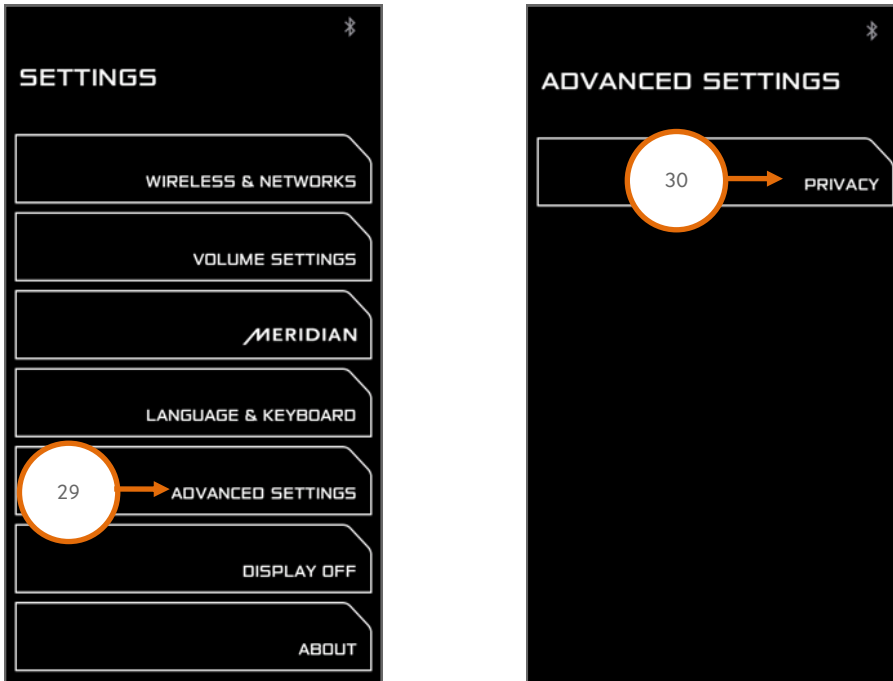


101. The system will reboot and will return to the Standby Screen.

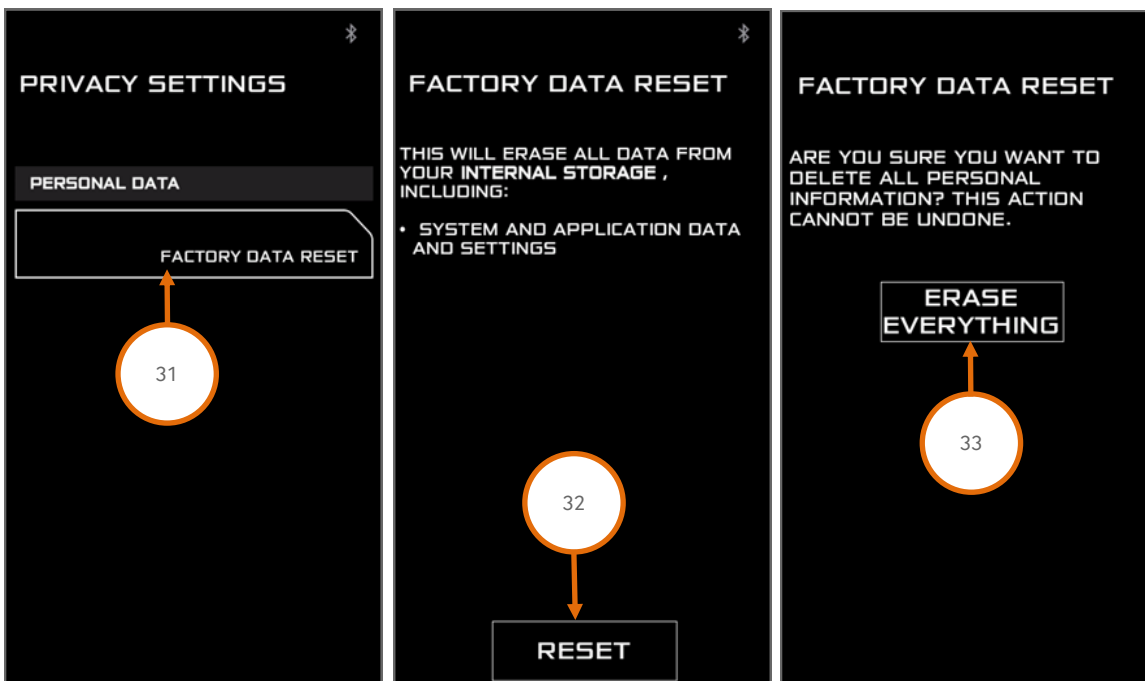
**Care Point:** Performing Factory Data Reset will delete the stored radio stations and paired phones.

102. Press the Settings hard button on the IRIS console.

103. Select Advanced Settings (29) and then Privacy (30) in order to access the Factory Data Reset.



104. Select Factory Data Reset (31) followed by Reset (32) and then Erase Everything (33).



105. The system will reboot. The Factory Data Reset will be completed once the system has returned to the Standby Screen.

106. Wait until the system has fully rebooted, then switch the engine off and ignition back on.

### Navigation Software Update:

**Care Point:** The Navigation maps have been provided via USB stick as part of a previous software update and should be reused.

**Care Point:** The Navigation map installation is only applicable for markets with navigation support.

**Care Point:** The Navigation map for China and Hong Kong has not been sent via a USB drive to the dealers and has not been installed at production. The installation and activation needs to be completed at the local dealer, please contact your regional office for further assistance.

**Care Point:** Do NOT turn off the engine or change the ignition state during the update process unless stated within this update procedure.

107. Switch the ignition ON to ignition state 5 and start the engine.

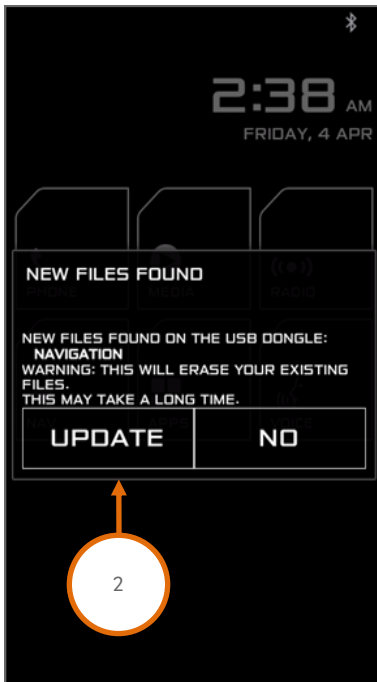
108. Insert the USB drive with the Navigation Maps into the USB socket (1).

109. Once the USB has been inserted, the system should provide a message indicating that a USB device has been detected.



110. After 1-2 minutes below screen will be displayed. Select Update (2).

111. The following screen (3) will appear when old files have been detected and need to be removed before new files are loaded.



112. The following screen (4) will be displayed, stating the number of files to be copied and the current progress. Depending on the map region to be installed, the number of files may differ from the example below.

113. Press Done to complete the installation (5) and remove the USB drive.

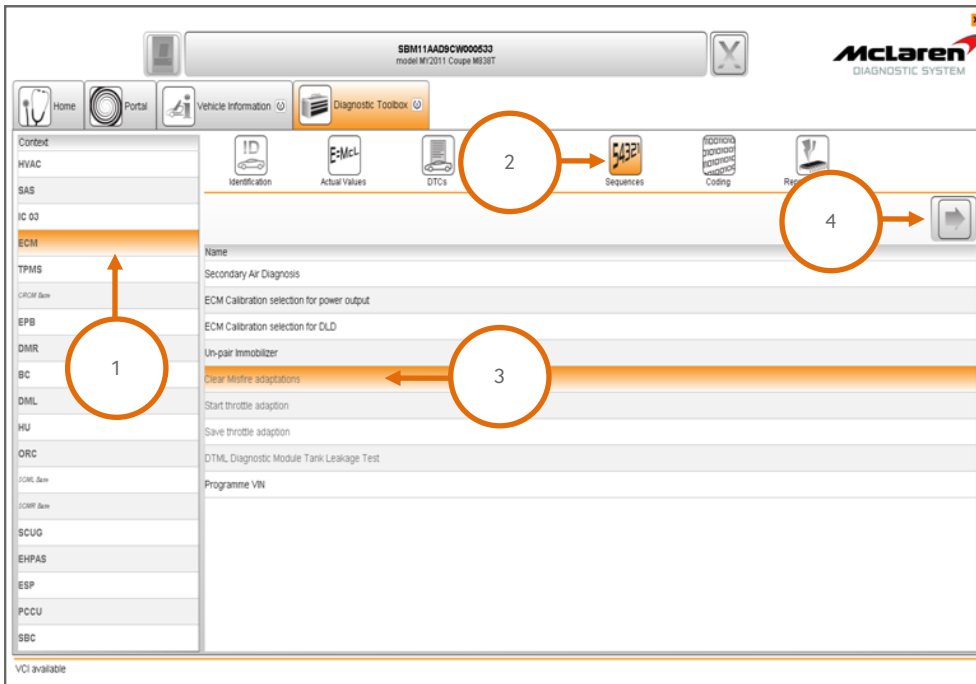


114. Complete a Factory Data Reset by following steps 101-105 in the IRIS AIS Application Software Installation section.

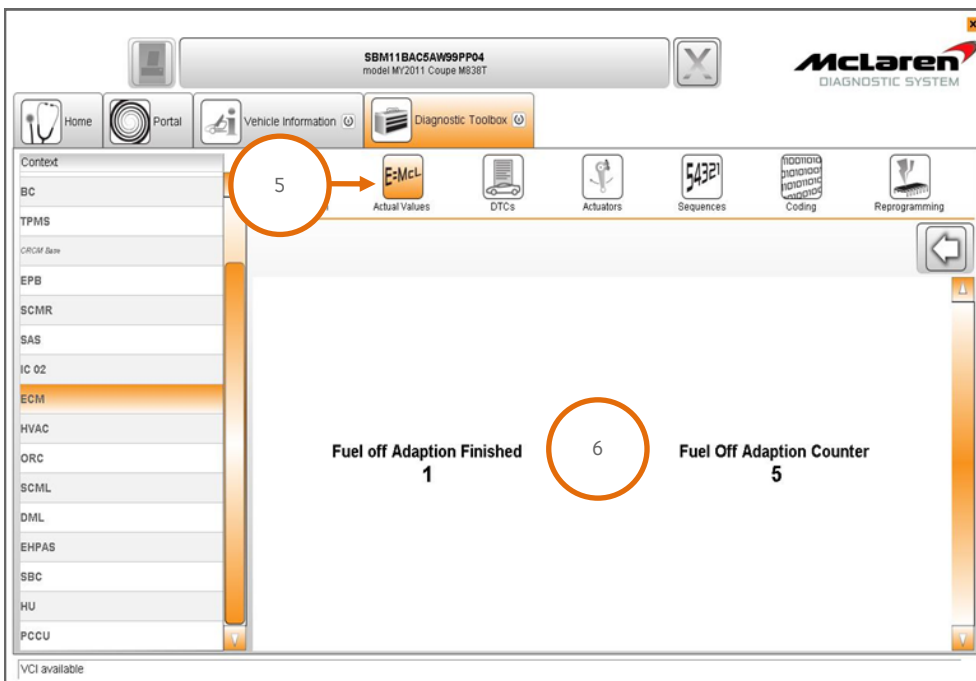
115. Wait until the system has fully rebooted, then turn the engine and ignition off.

### Adaptions Requirements:

116. Select ECM (1), then Sequences (2), then Clear Misfire adaptations (3), followed by the arrow button to proceed (4).



117. Select Actual Values (5), select the following values as per the screenshot below (6), then select the play button to access the required data screen.



118. Misfire adaptations are performed whilst the car is driven with the gearbox set to manual mode and with the A/C off. Perform eleven successive fuel cuts from above 4000rpm for a 5 second duration (a fuel cut off will occur when the accelerator pedal is fully released).

119. Once the Fuel off Adaption Counter reaches 11, the Fuel off Adaption Finished Counter will display 1; the misfire adaptations have been learned. The Fuel off Adaption Counter will display Zero and then start to count again when further fuel cut offs occur, this is correct operation and no further action is required.

Please contact your Regional Aftersales Manager should you have any questions relating to the information contained in this bulletin.

**Warranty Information:** Total repair time also includes the time for carrying out Service Information Bulletin 11 B 007 Suspension Displacement Sensor Calibration.

**Warranty Information:** An additional time of 0.75 hours to update the AIS software (if required) can only be claimed in the Additional Costs section of the warranty claim.

## WARRANTY INFORMATION

DESCRIPTION	RESOLUTION CODE	TOTAL REPAIR TIME
Software Platform Update to 13	M0M30110A33I4A07	1.50 hours

## PARTS INFORMATION

DESCRIPTION	PART NUMBER	QUANTITY	ORDER PROCESS
N/A	N/A	N/A	N/A