SERVICE CAMPAIGN BULLETIN

TITLE: Vehicle Software Update to Platform 6

CAMPAIGN REFERENCE: 048

DOCUMENT NUMBER: 13 M 008

AFFECTED VEHICLES: Sports Series

SITUATION:

Quality Engineering at McLaren Automotive have released a new software platform for the Sports Series

The customer improvements included in this software are:

- Loss of seat calibration
- Trip reset after an ignition cycle
- HVAC calibration change for Coupe
- HVAC logic changed for the different AC refrigerants
- HVAC LO cooling improvements
- FM radio reception improvements

PROCEDURE:

This software update must be completed on all vehicles within your Aftersales car parc, when carrying out Pre-Delivery Inspections (PDI) or at the next service centre visit.

Please refer to the table below to identify the software required, by cross referencing the MDS quick test page.

Software Part Numbers				
Module	Platform 4.2 - 6.0	Platform 5.0 - 6.0	Platform 5.1 - 6.0	Platform 5.2 - 6.0
BC	13M1276CP.07	13M1276CP.07	13M1276CP.07	13M1276CP.07
DML	13M0778CP.05	13M0778CP.05	13M0778CP.05	13M0778CP.05
DMR	13M0779CP.05	13M0779CP.05	13M0779CP.05	13M0779CP.05
ECM	13M1465CP.04 570S European/ROW 13M1340CP.04 570S Federal 13M1470CP.04 540C European/ROW 13M1469CP.04 540C Federal	13M1465CP.04 570S European/ROW 13M1340CP.04 570S Federal 13M1470CP.04 540C European/ROW 13M1469CP.04 540C Federal	13M1465CP.04 570S European/ROW 13M1340CP.04 570S Federal 13M1470CP.04 540C European/ROW 13M1469CP.04 540C Federal	13M1465CP.04 570S European/ROW 13M1340CP.04 570S Federal 13M1470CP.04 540C European/ROW 13M1469CP.04 540C Federal
EPB				
EHPAS				
ESP	13M0932CP.08	13M0932CP.08	13M0932CP.08	13M0932CP.08
FWM	13A6451CP.02 LHD 13A6452CP.02 RHD			
HU_02	13MA053CP.01 Europe 13MA054CP.01 ROW 13MA055CP.01 China 13MA056CP.01 Japan	13MA053CP.01 Europe 13MA054CP.01 ROW 13MA055CP.01 China 13MA056CP.01 Japan	13MA053CP.01 Europe 13MA054CP.01 ROW 13MA055CP.01 China 13MA056CP.01 Japan	13MA053CP.01 Europe 13MA054CP.01 ROW 13MA055CP.01 China 13MA056CP.01 Japan
HVAC	13M0489CP.09 13M0489GP.04 570GT	13M0489CP.09 13M0489GP.04 570GT	13M0489CP.09 13M0489GP.04 570GT	13M0489CP.09 13M0489GP.04 570GT
IC	13M1646CP.04	13M1646CP.04	13M1646CP.04	
IBS	13M1080CP.13	13M1080CP.13	13M1080CP.13	13M1080CP.13
ORC				
PCCU	13M0829CP.07	13M0829CP.07	13M0829CP.07	13M0829CP.07
SAS				
SBC	13M1275CP.09	13M1275CP.09	13M1275CP.09	13M1275CP.09
SCUG	13M0487CP.04			
SCML	13N2632CP.10	13N2632CP.10		
SCMR	13N2632CP.10	13N2632CP.10		
TPMS				

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.

Care Point: Ensure your Deutronic battery charger settings have been updated as per Service Information Bulletin 11 M 001 - Battery and Charging Information (Version 3).

Care Point: Prior to reprogramming the IBS, the 12V battery must be fully charged. This is confirmed when the Deutronic battery charger displays >14.2 Volts and < 5 Amps current.

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 the software reprogramming procedure.

Care Point: The vehicle must be in ignition state 5 during reprogramming of all modules .

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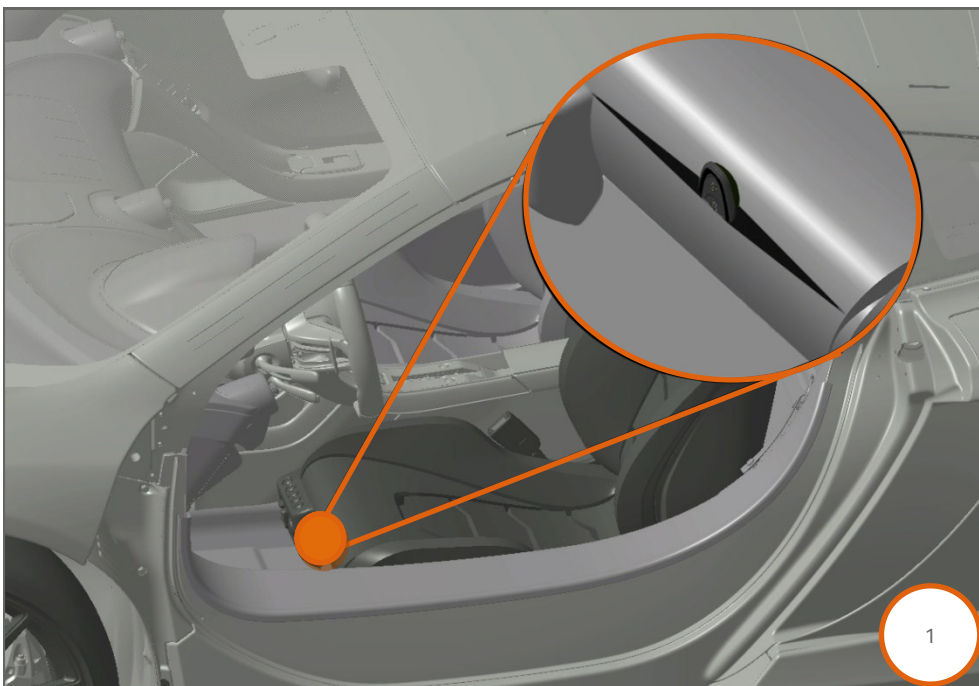
FWM Software Update:

1. Connect the Deutronic battery charger to the 12V battery and leave it connected during software reprogramming procedure.
2. Connect the McLaren Diagnostic System (MDS) to the vehicle.
3. Select FWM (1), then Reprogramming (2), the correct software level for the vehicle will be displayed (3). Proceed to the software download by selecting the arrow button (4).
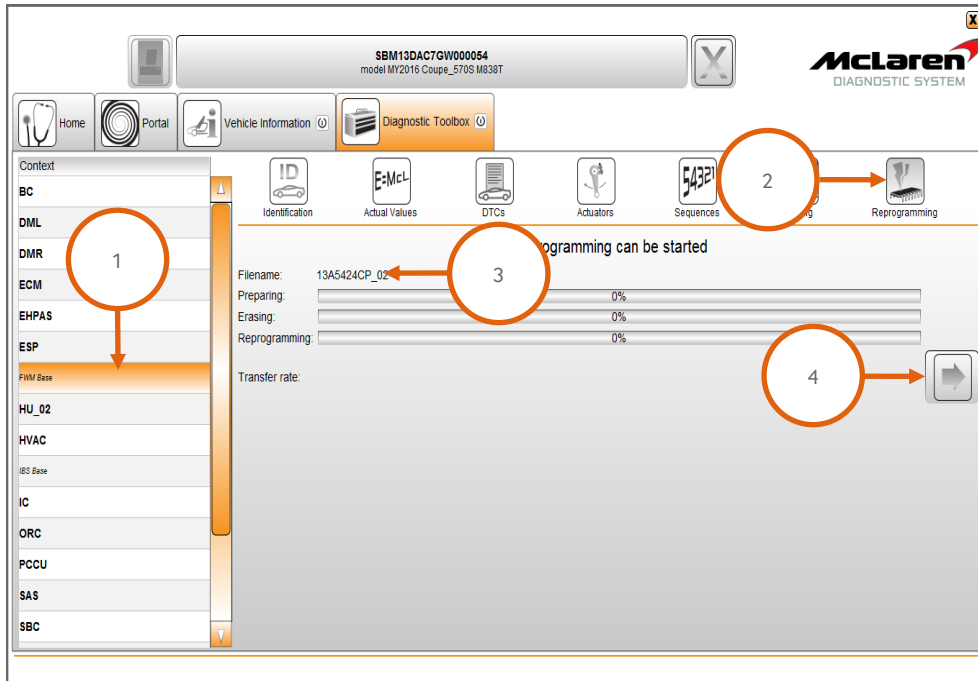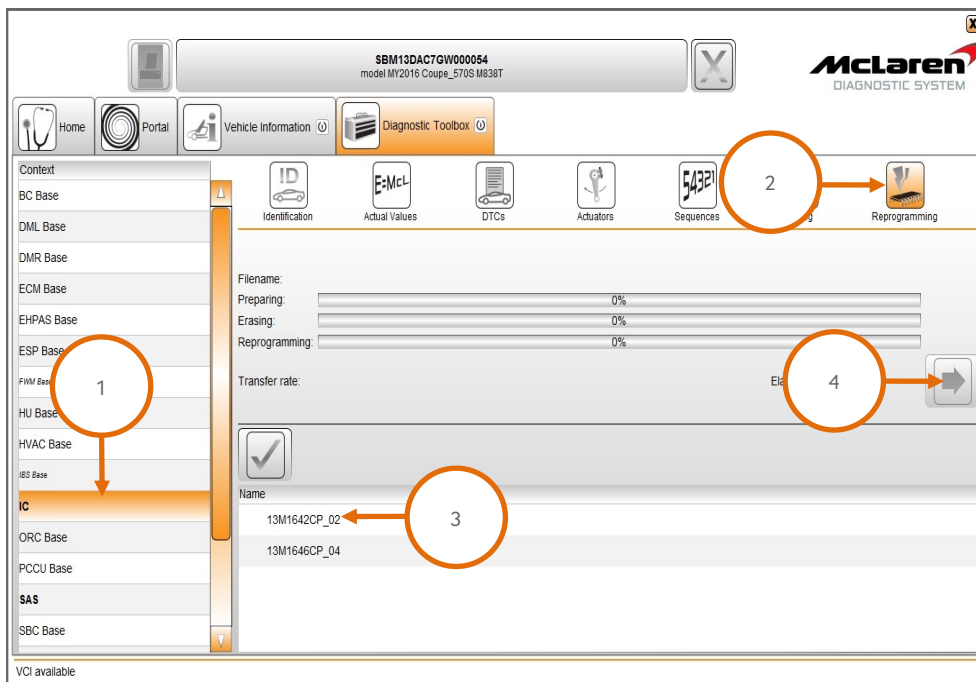

IBS Software Update:

4. Select IBS (1), then Reprogramming (2), the software level 13M1080CP.13 will be displayed (3). Proceed to the software download by selecting the arrow button (4).
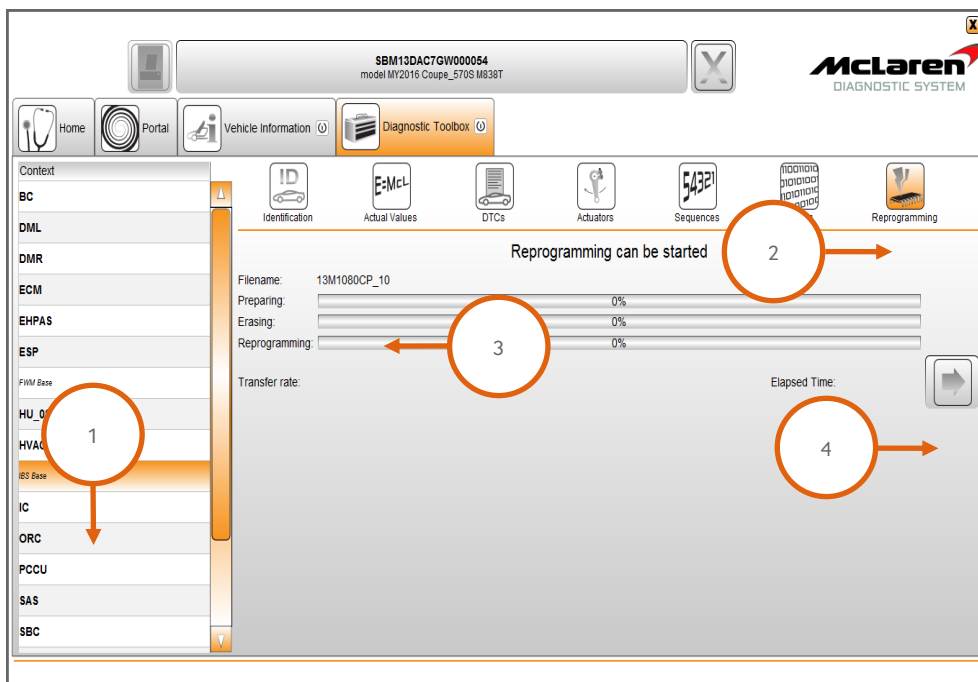
IC Software Update:

Care Point: Ensure that you have read 13S001 Instrument Cluster (IC) reprogramming via USB method. **The IC must not be reprogrammed via CAN.**

Care Point: The IC will need to be reprogrammed twice during this update.

Care Point: "Post Condition Failed" message will be displayed once the first software programming is completed. This message can be ignored and it does not affect the programming of the module.

5. Select IC (1), then Reprogramming (2), select software level 13M1642CP.02 (3). Proceed to the software download by selecting the arrow button (4).

6. In the next screen you will be asked to select between CAN or USB. **The IC must not be reprogrammed via CAN.**
7. Select USB to reprogram the IC via USB to proceed (5).
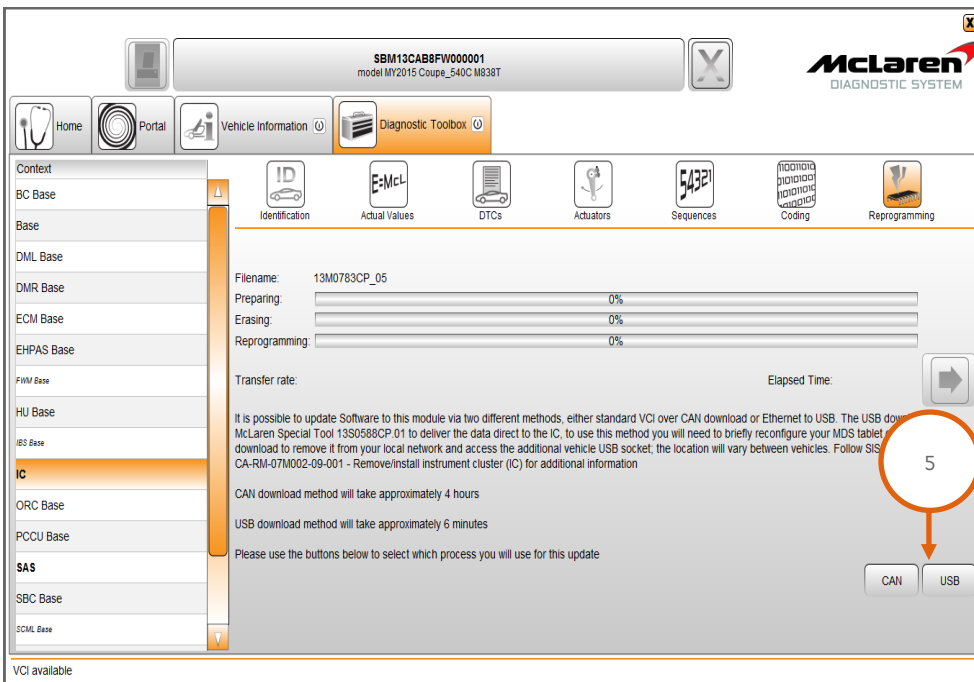
8. Once reprogramming has completed Programming failed will be displayed (6). This message can be ignored.
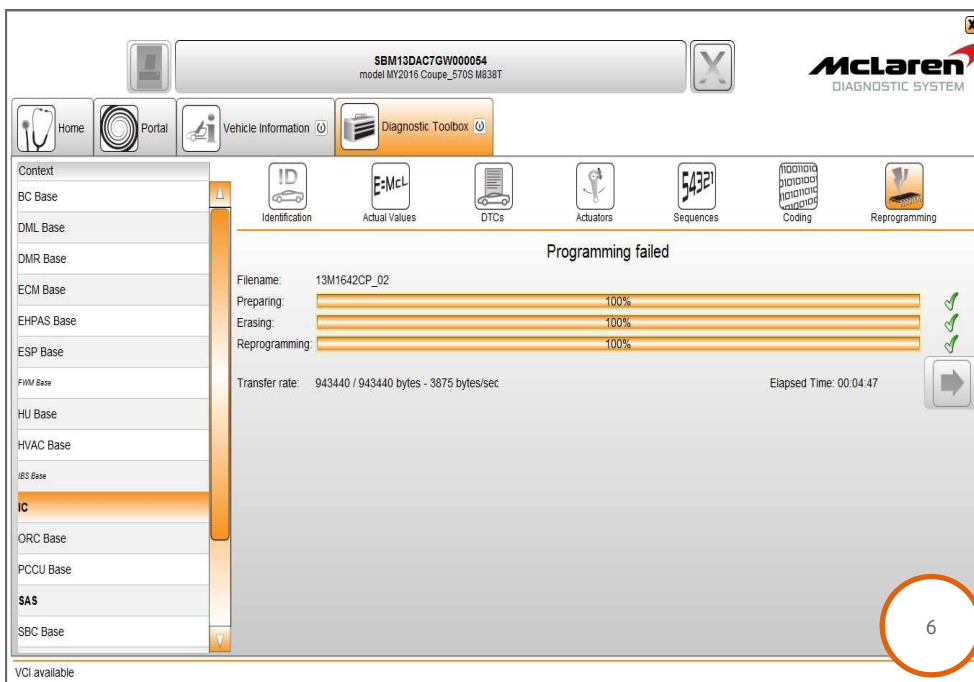
9. Rescan the vehicle and return to IC - Reprogramming (7). Now select software level 13M1646CP.04 (8). Proceed to the software download by selecting the arrow button (9) and then select the USB option again. **The IC must not be reprogrammed via CAN.**
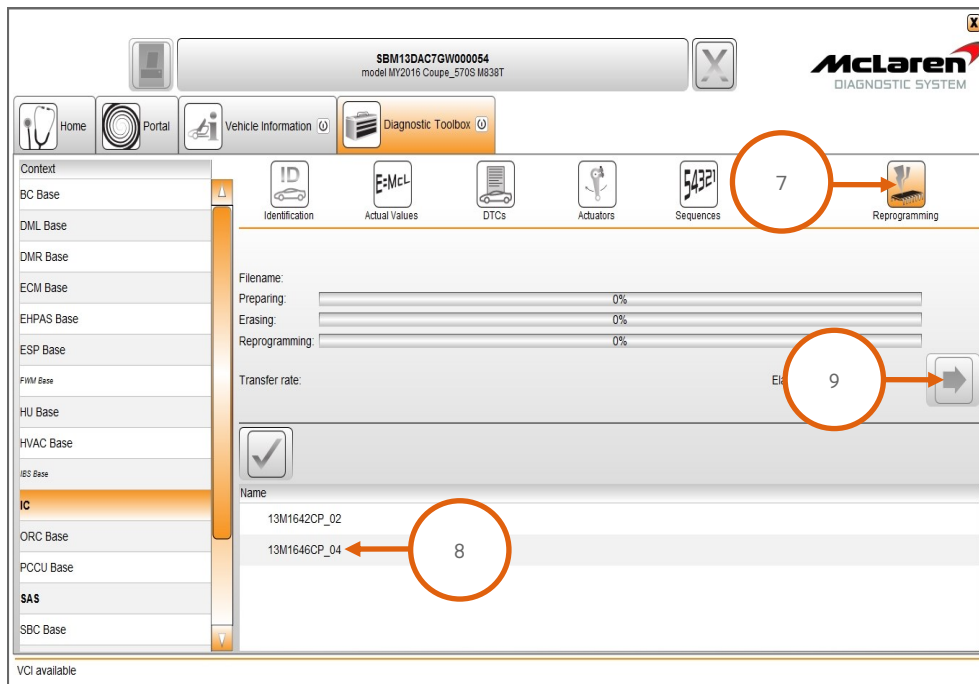
10. This time **Programming Finished** will be displayed once reprogramming has completed.

Post Reprogramming requirements:

11. IC software level confirmation needs to be performed. Confirm the IC software levels are the same as the screenshot below (10). If they are the same proceed to step 12. If they are incorrect raise a Technical Request with IC software level information.
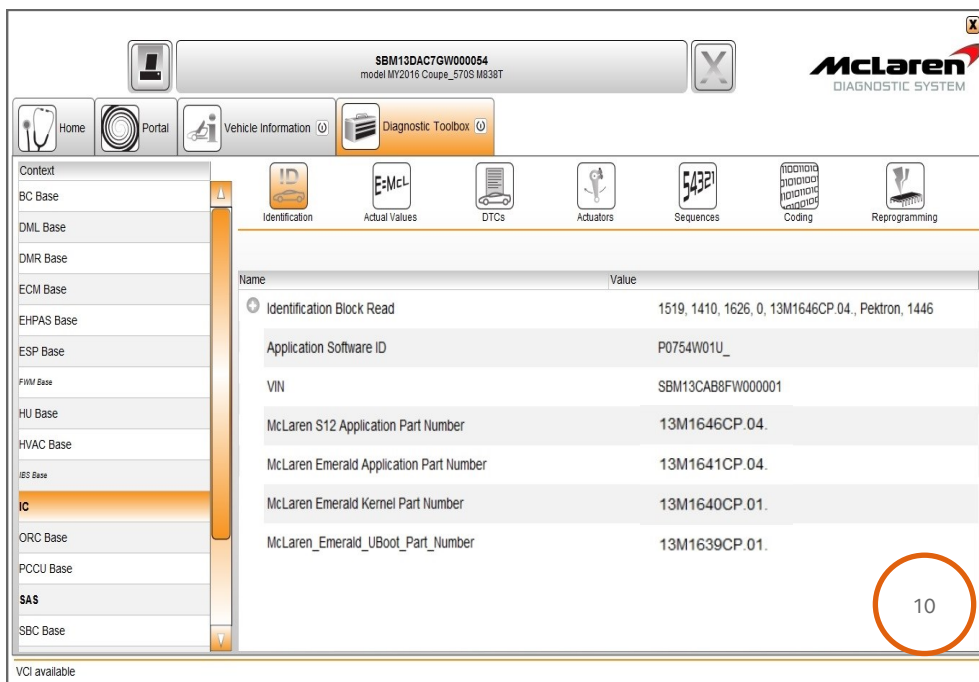
12. Once the reprogramming has been completed successfully the wireless function must be enabled once again if the VCI is used wirelessly.

13. Disconnect all the cables from the vehicle and keep them in a safe place.

14. Install components in reverse order before proceeding to next step.

15. Select Coding (11), followed by the arrow key (12) to write the new IC coding string.
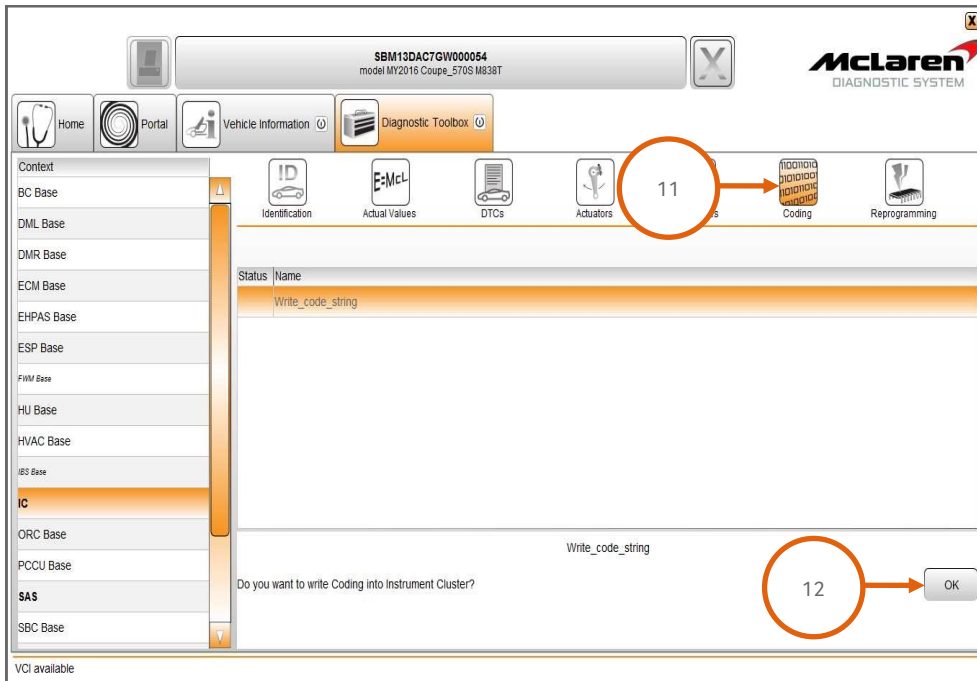
16. Select Sequences (13), select Set configuration defaults (14) and then select the arrow button to proceed (15).

17. Select Align Vehicle Configuration (16), followed by the arrow key (15).
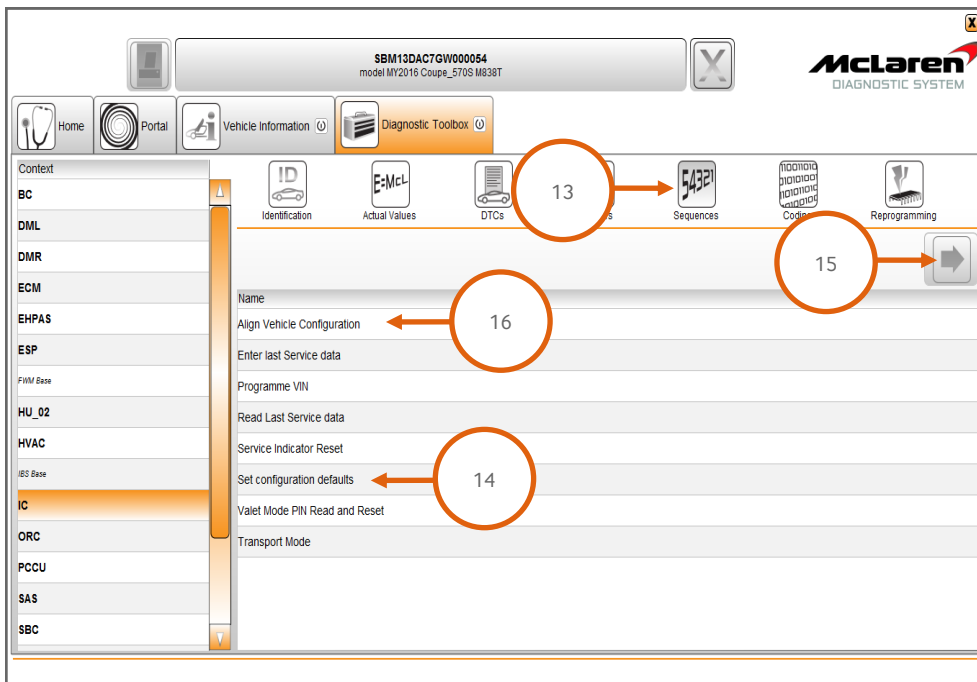
BC Software Update:

18. Select BC (1), then Reprogramming (2), the software level 13M1276CP.07 will be displayed (3). Proceed to the software download by selecting the arrow button (4).
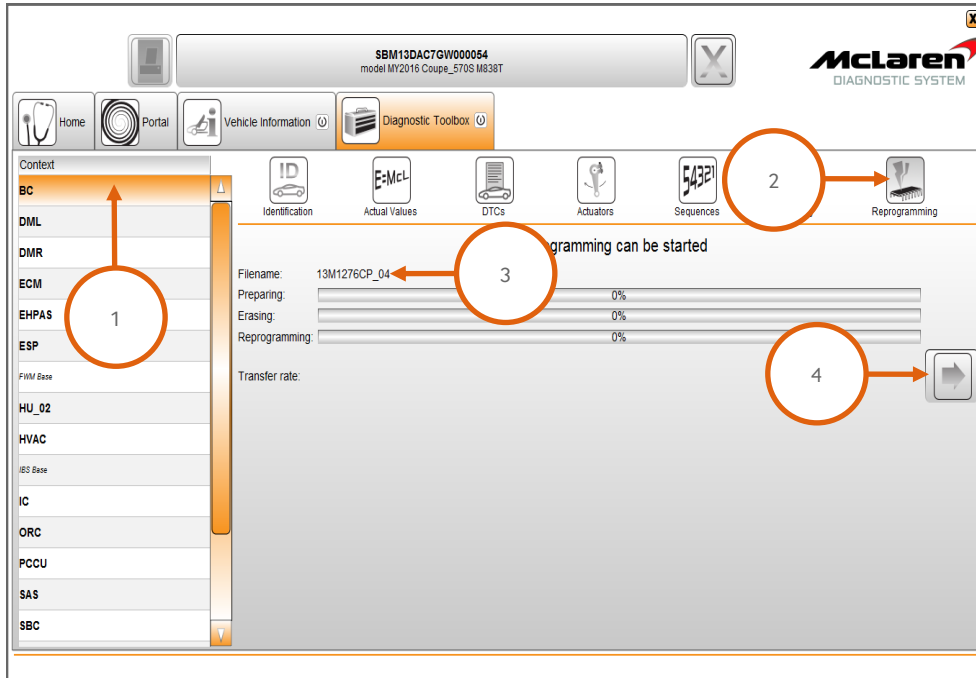

19. Select Sequences (5), then Programme VIN (6), then select the arrow button to proceed (7).
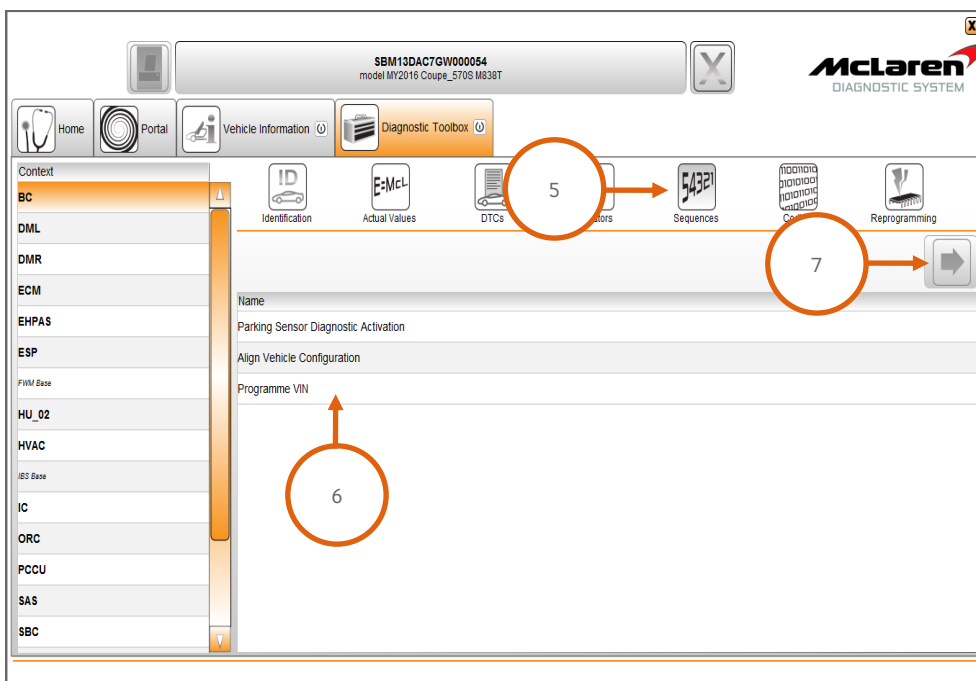
20. Select Align Vehicle Configuration (8), followed by the arrow key (9).
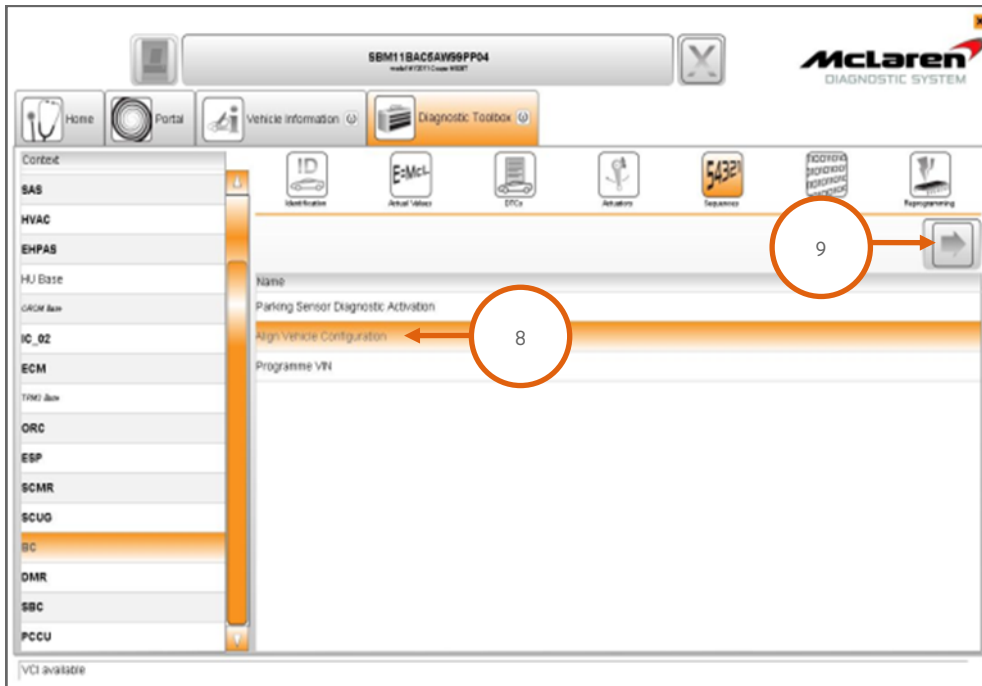
SBC Software Update:

21. Select SBC (1), then Reprogramming (2), the software level 13M1275CP.09 will be displayed (3). Proceed to the software download by selecting the arrow button (4).
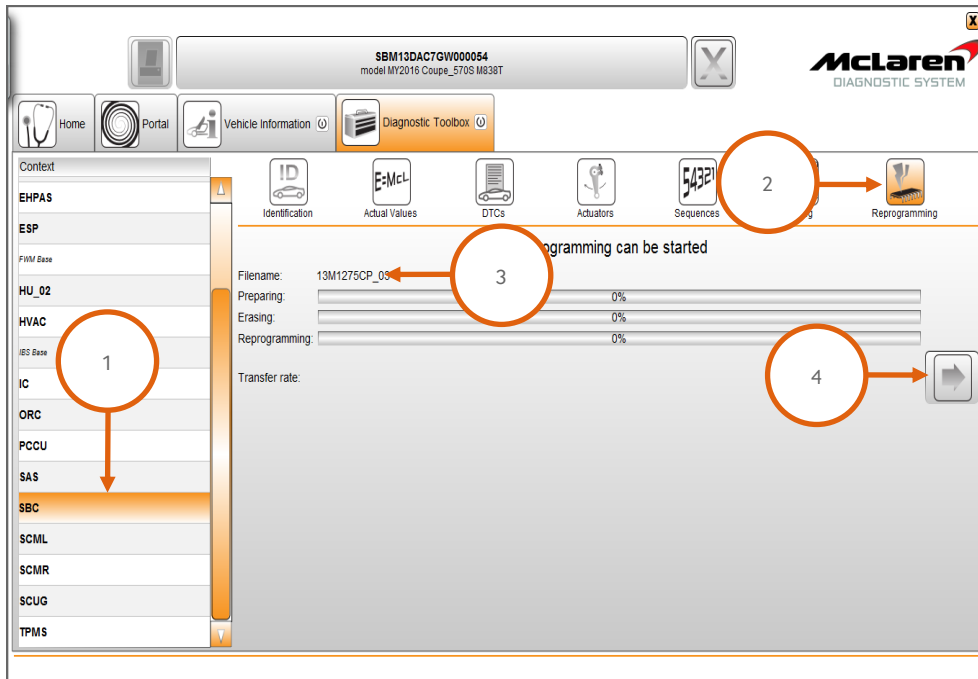
22. When the software download has been successfully completed, programming will force a sleep cycle to occur.
23. After one minute, press the unlock, lock and the unlock button on the key and then establish the vehicle into ignition state 5 before following the next steps.
24. Select Sequences (5), then Programme VIN (6) then select the arrow button to proceed (7). The programme VIN procedure will force a sleep cycle to occur after the programming is complete.
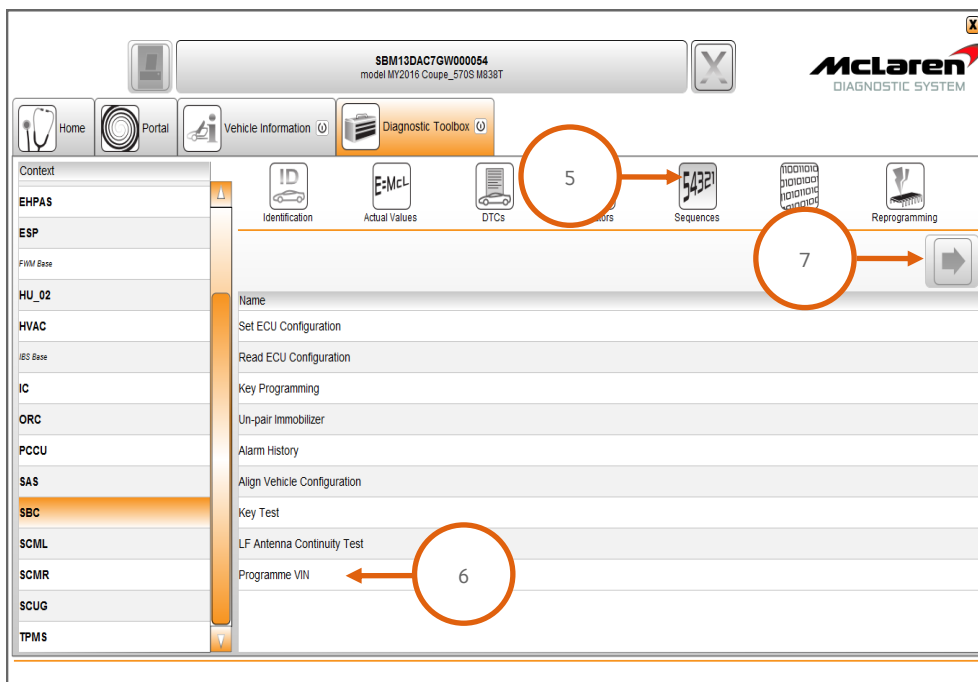
25. Press the unlock button on the key and then establish the vehicle into ignition state 5 before following the next steps.

26. Select Align Vehicle Configuration (8), followed by the arrow key (9).
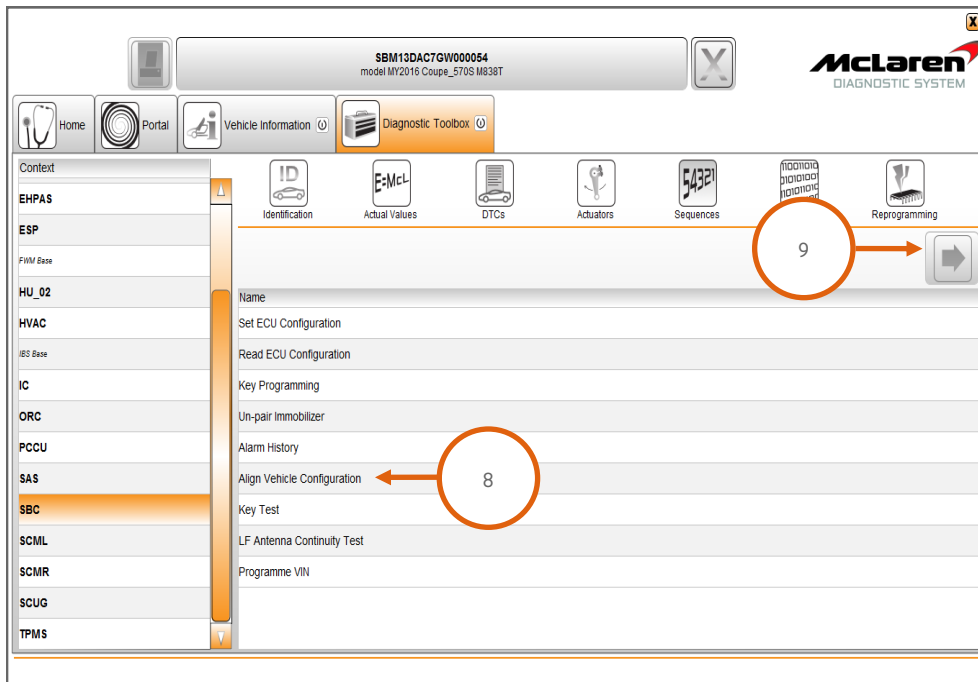
27. Press the unlock button on the key and then establish the vehicle into ignition state 5 before following the next steps.

Care Point: Step 29 must be completed on all vehicles even if the SCUG software does not require reprogramming.

SCUG Software Update:

28. Select SCUG (1), then Reprogramming (2), the software level 13M0487CP.04 will be displayed (3). Proceed to the software download by selecting the arrow button (4).
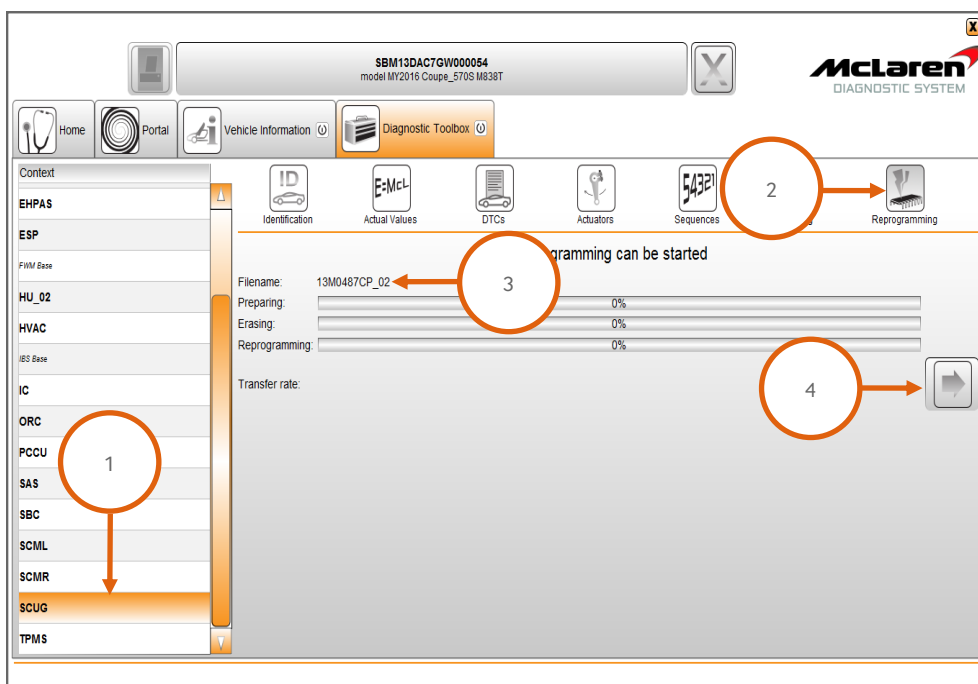
29. Select Coding (5), then Write_code_string (6), then select the arrow button to proceed even if the SCUG was not reprogrammed.
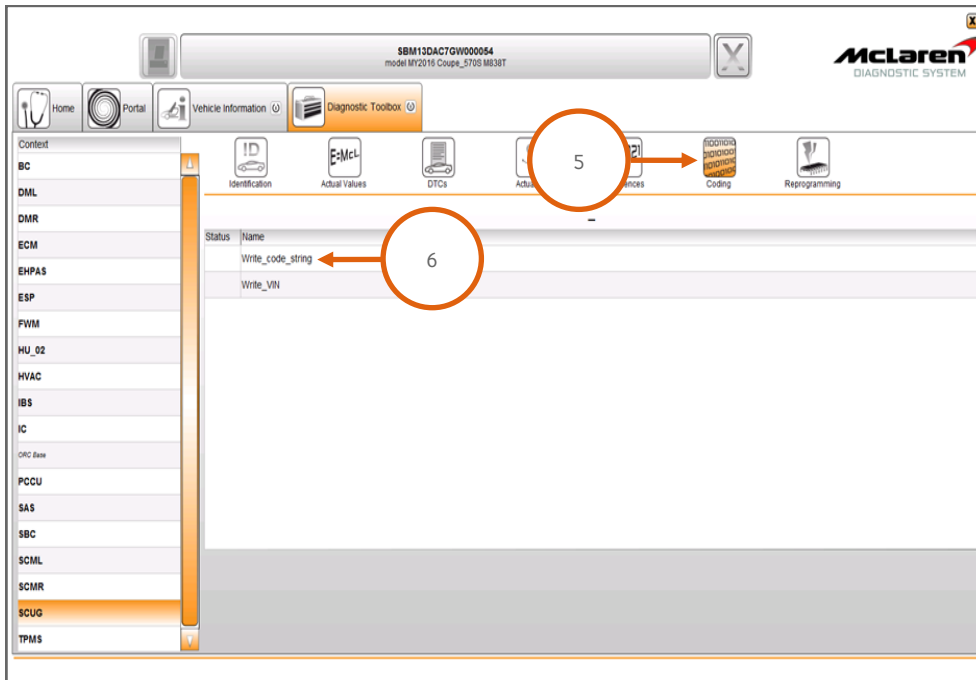
Care Point: The Deutronic battery charger **must** be switched OFF when performing the Steering Column Calibration and can be switched back ON once the calibration has been completed.

30. Select Sequences (7), select Steering Column Calibration (8) then select the arrow button to proceed (9).
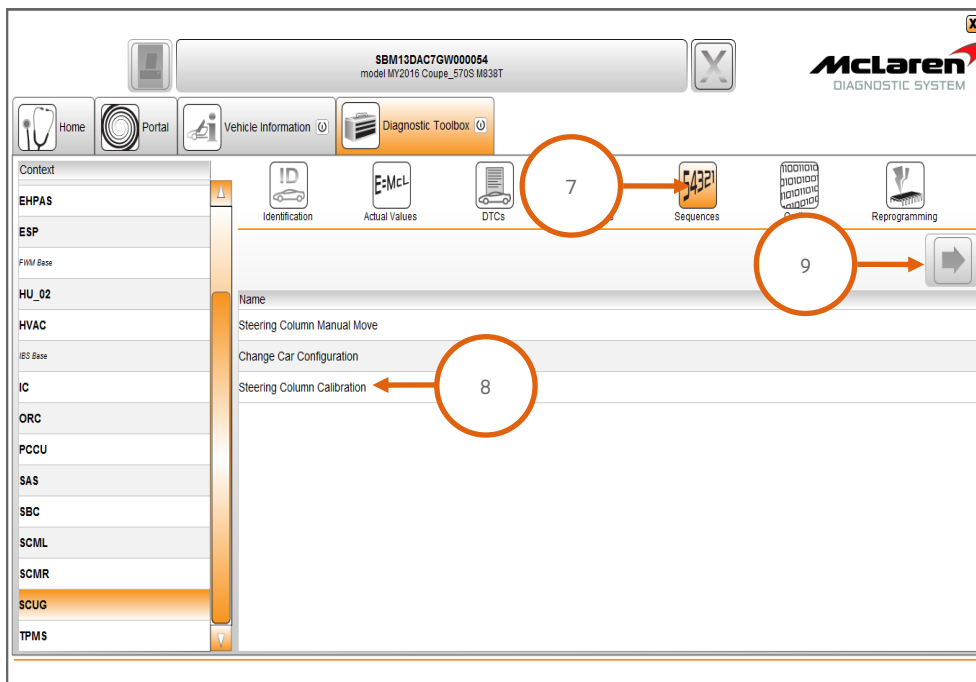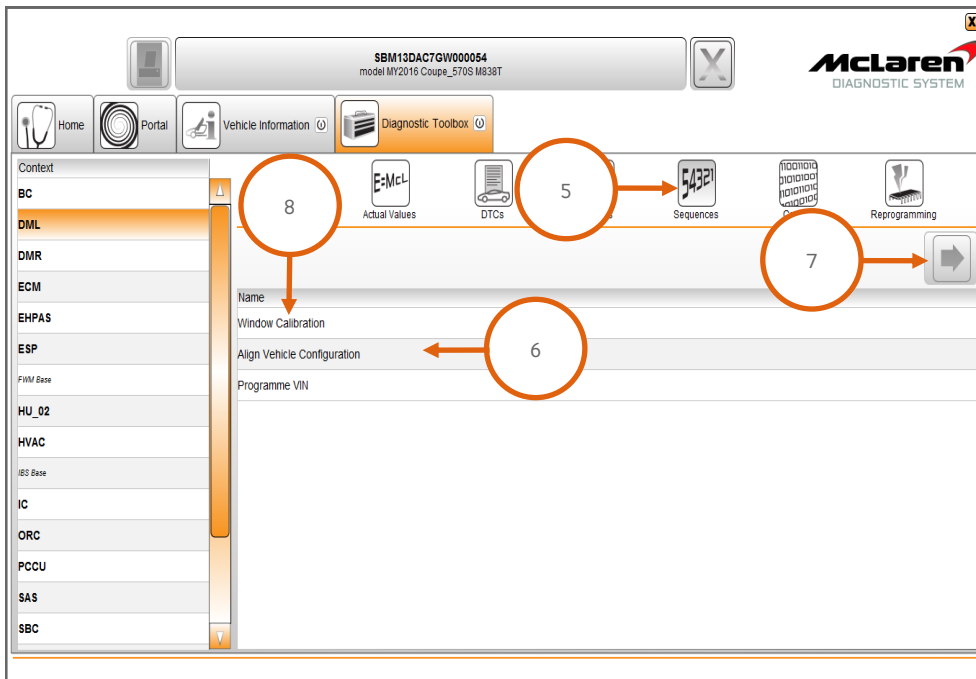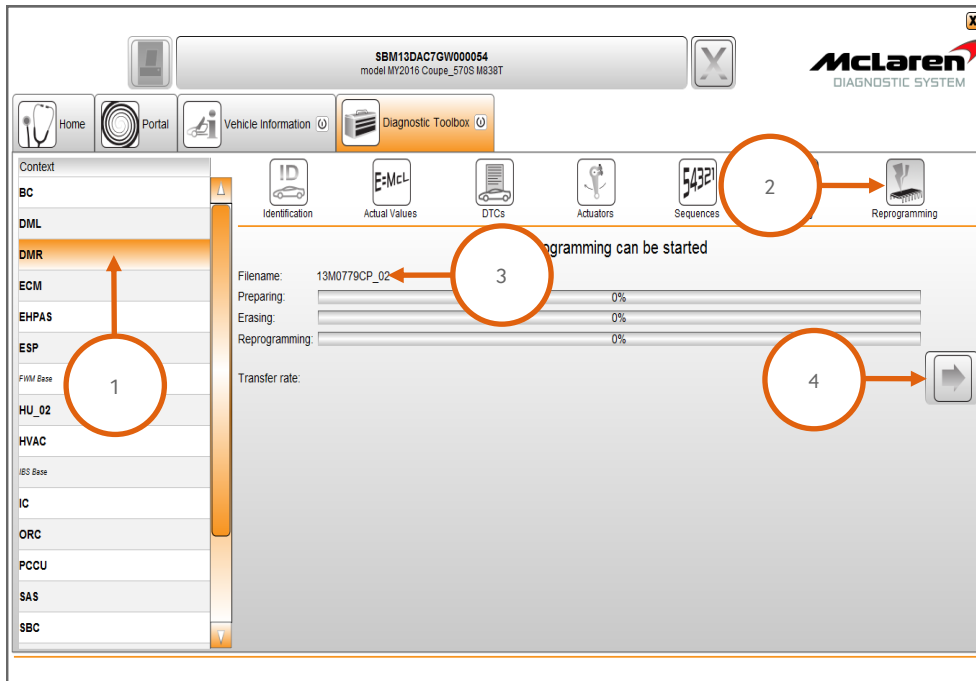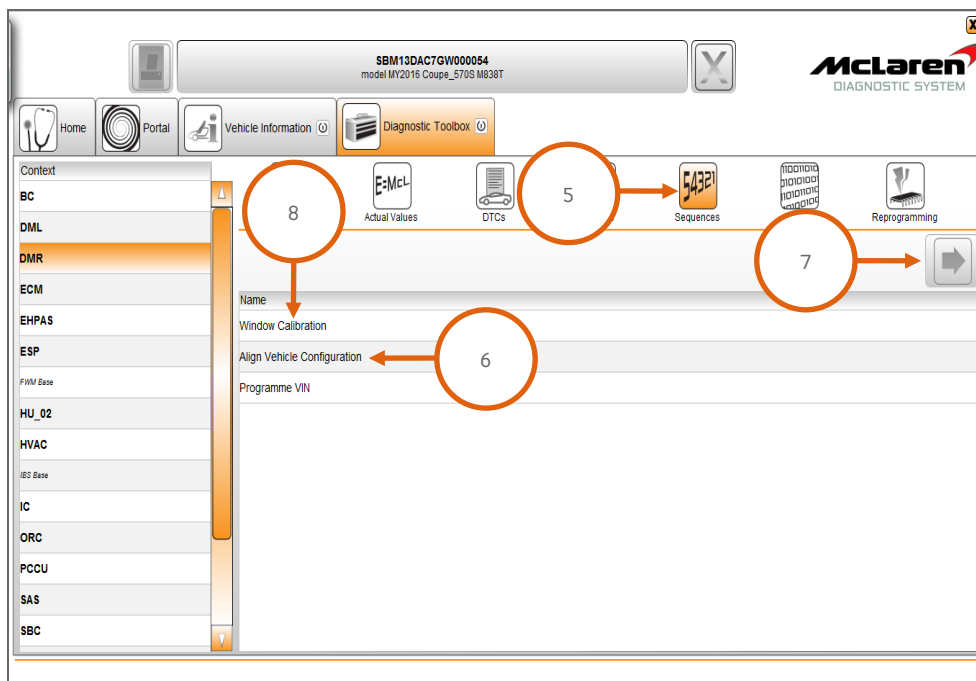
DML Software Update:

31. Select DML (1), then Reprogramming (2), the software level 13M0778CP.05 will be displayed (3). Proceed to the software download by selecting the arrow button (4).
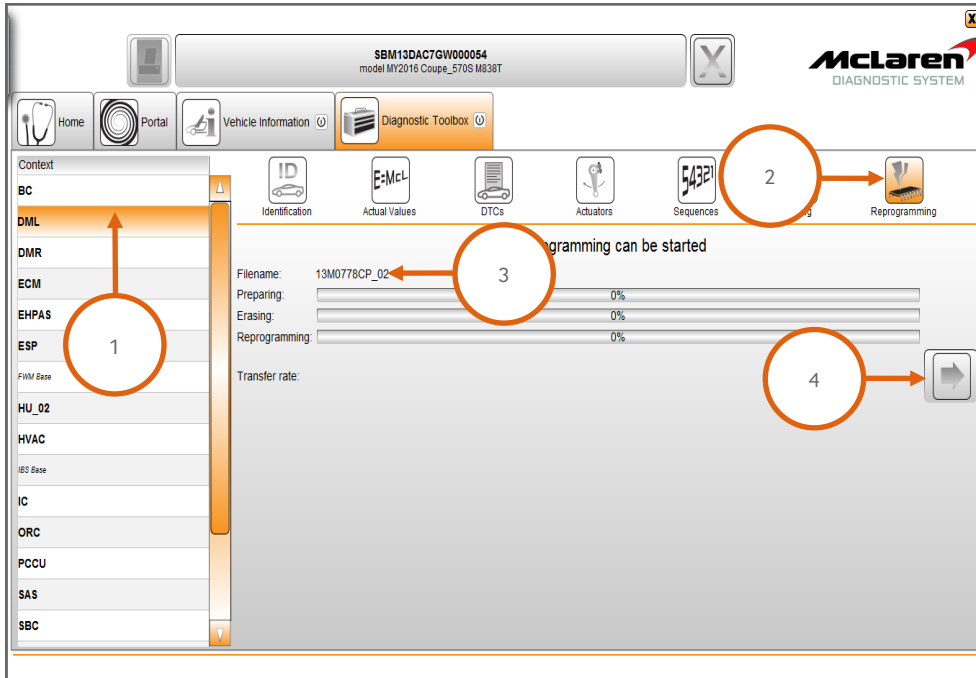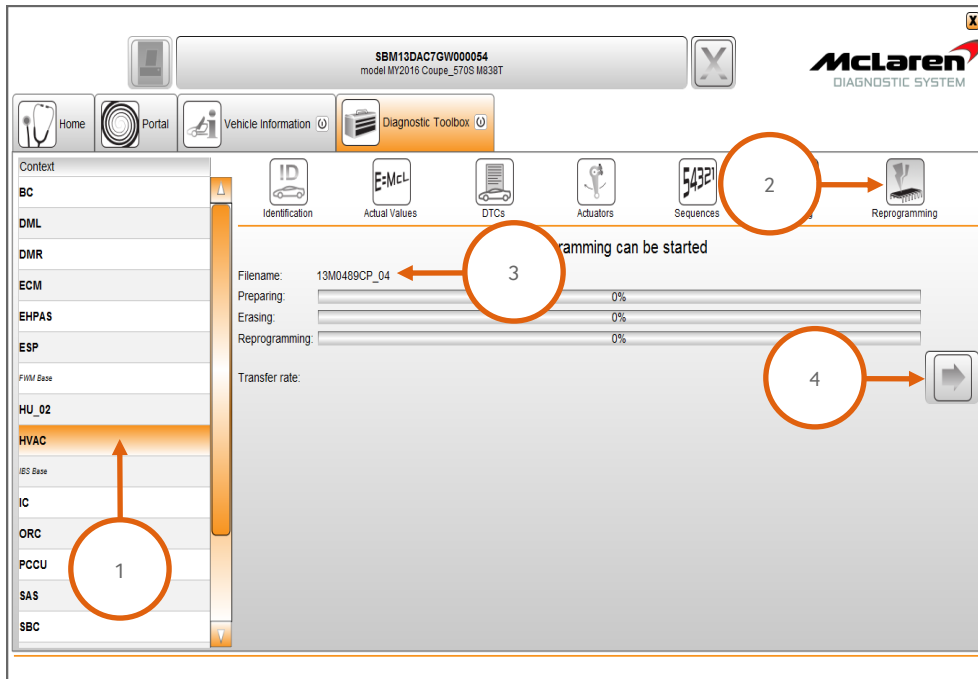

32. Select Sequences (5), select Align Vehicle Configuration (6), followed by the arrow key (7).
33. Select Window Calibration (8), followed again by the arrow key (7).

DMR Software Update:

34. Select DMR (1), then Reprogramming (2), the software level 13M0779CP.05 will be displayed (3). Proceed to the software download by selecting the arrow button (4).

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

HVAC Software Update:

37. Select HVAC (1) then Reprogramming (2), the software level applicable to the vehicle model will be displayed (3). Proceed to the software download by selecting the arrow button (4).

ESP Software Update:

38. Select ESP (1), then Reprogramming (2), the software level 13M0932CP.08 will be displayed (3). Proceed to the software download by selecting the arrow button (4).
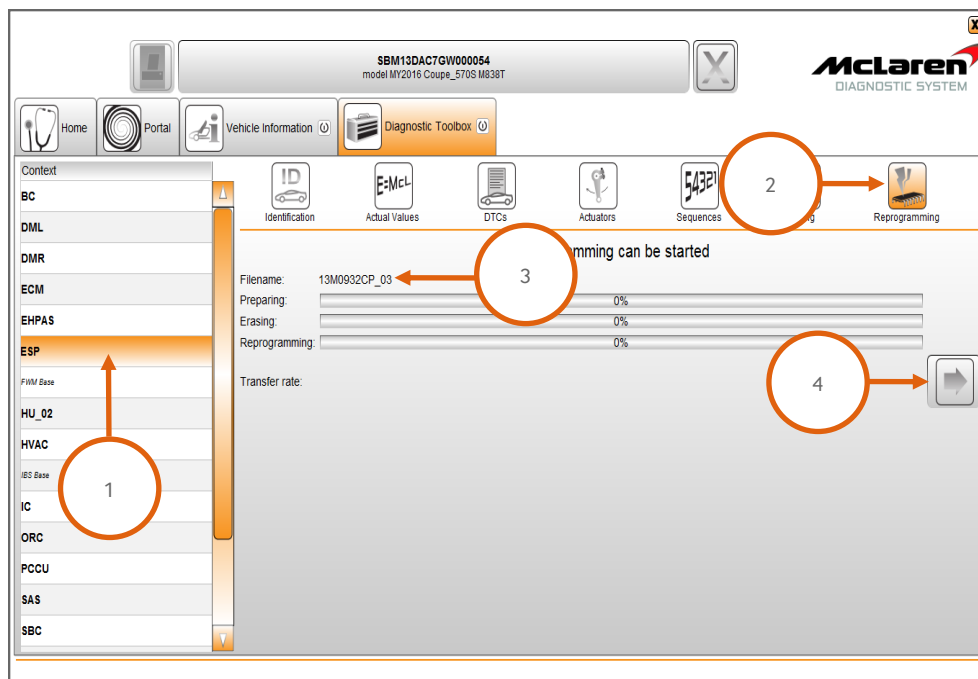
39. Select Sequences (5), select Align Vehicle Configuration (6), followed by the arrow key (7).
40. Select Yaw Rate Sensor Calibration (8), followed by the arrow key (7).
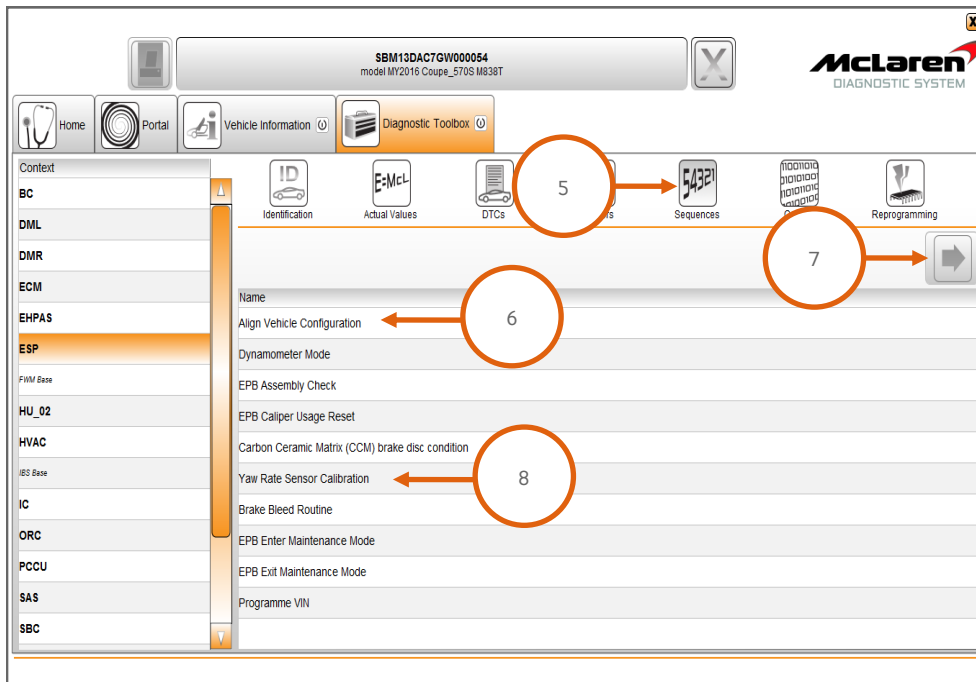
Care Point: Only vehicles installed with fully electric seats require the SCML and SCMR to be updated.

Care Point: If either seat modules does not flash successfully do not attempt to reflash again, raise a Technical Request detailing which module has failed to reprogram.
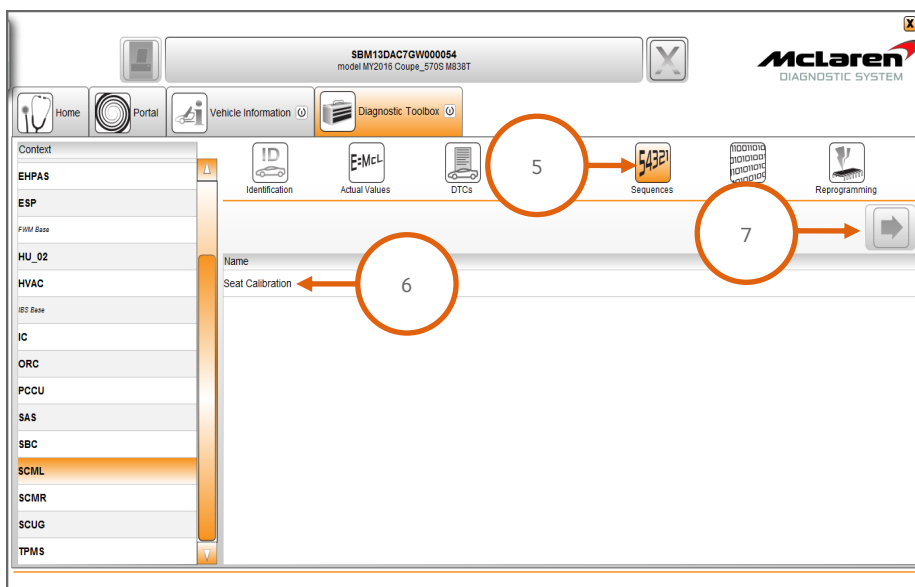
SCML Software Update:

Care Point: Both doors must be closed and the seat must not be operated during reprogramming, failure to do this will cause the seat to no longer function.

Care Point: Vehicle with manual seats cannot be updated.

41. Select SCML (1), then Reprogramming (2), the software level 13N2632CP.10 will be displayed (3). Proceed to the software download by selecting the arrow button (4).
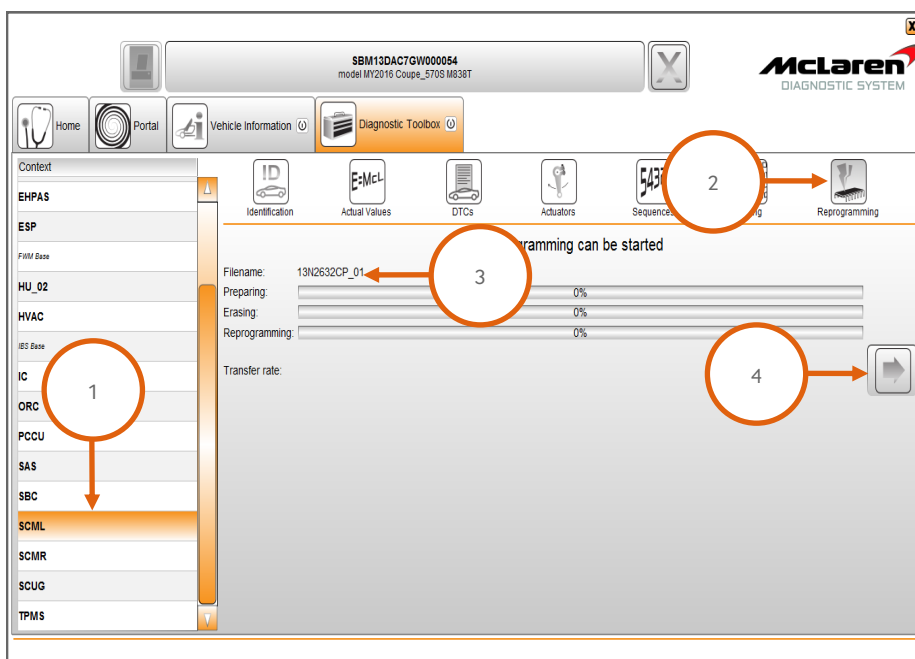
42. Select Sequences (5), select Seat Calibration (6), followed by the arrow key (7).

SCMR Software Update:

Care Point: Both doors must be closed and the seat must not be operated during reprogramming, failure to do this will cause the seat to no longer function.

43. Select SCMR (1), then Reprogramming (2), the software level 13N2632CP.10 will be displayed (3). Proceed to the software download by selecting the arrow button (4).
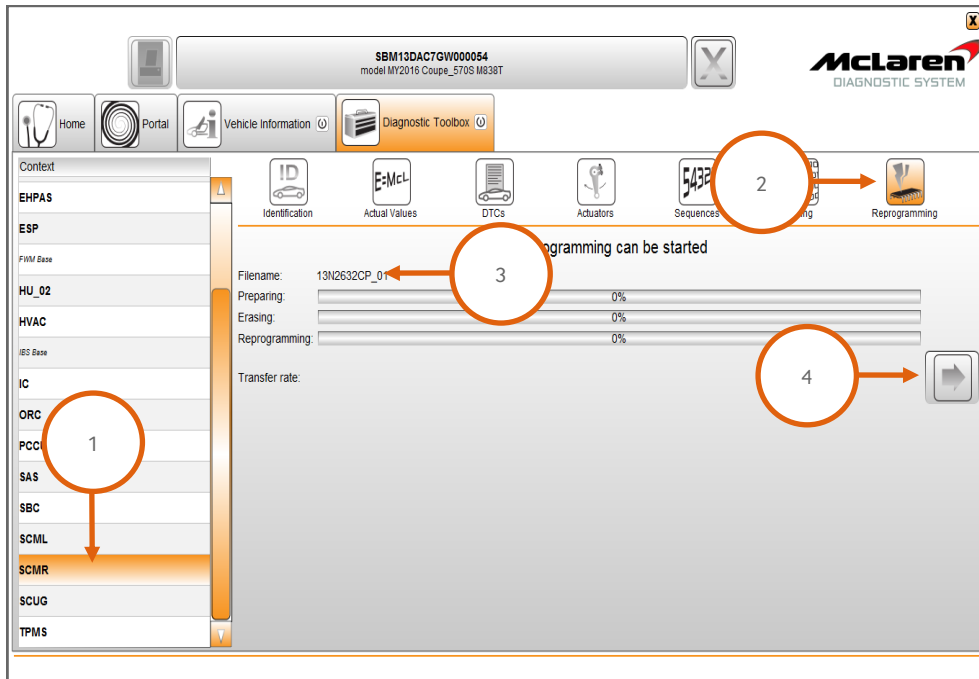

44. Select Sequences (5), select Seat Calibration (6), followed by the arrow key (7).
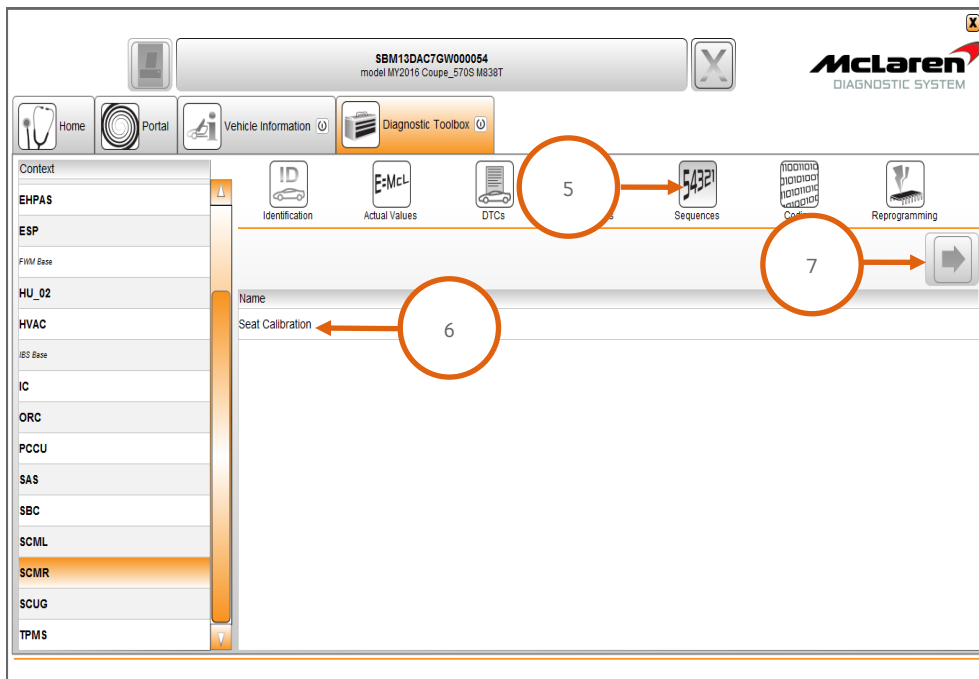
45. Switch the ignition off and put the vehicle into sleep mode, and then establish the vehicle back into ignition state 5.
46. Perform a DTC read and clear from all modules.

PCCU Software Update:

Care Point: During the reprogramming of the PCCU 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.

47. Select PCCU (1), then Reprogramming (2), the software level 13M0829CP.07 will be displayed (3). Proceed to the software download by selecting the arrow button (4).
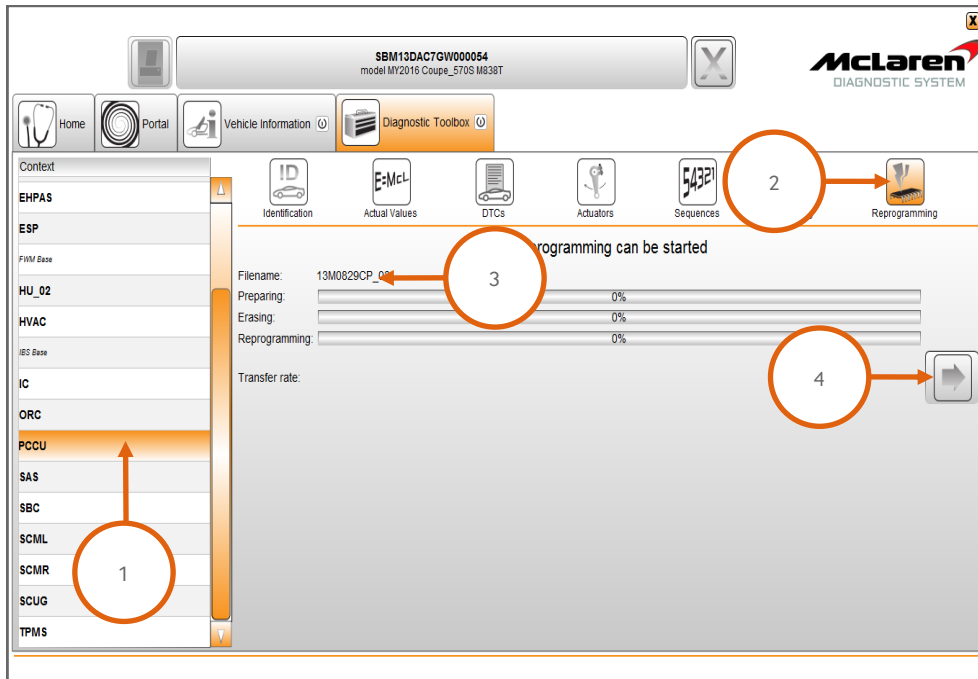
48. Cycle the ignition (off/on/off/on) and wait for 30 seconds. Place the vehicle into a sleep mode, and then establish the vehicle back into ignition state 5. Clear any DTC's before continuing with the procedure.
49. Select PCCU_02 (5), then Sequences (6), select Align Vehicle Configuration (7), followed by the arrow key (8).
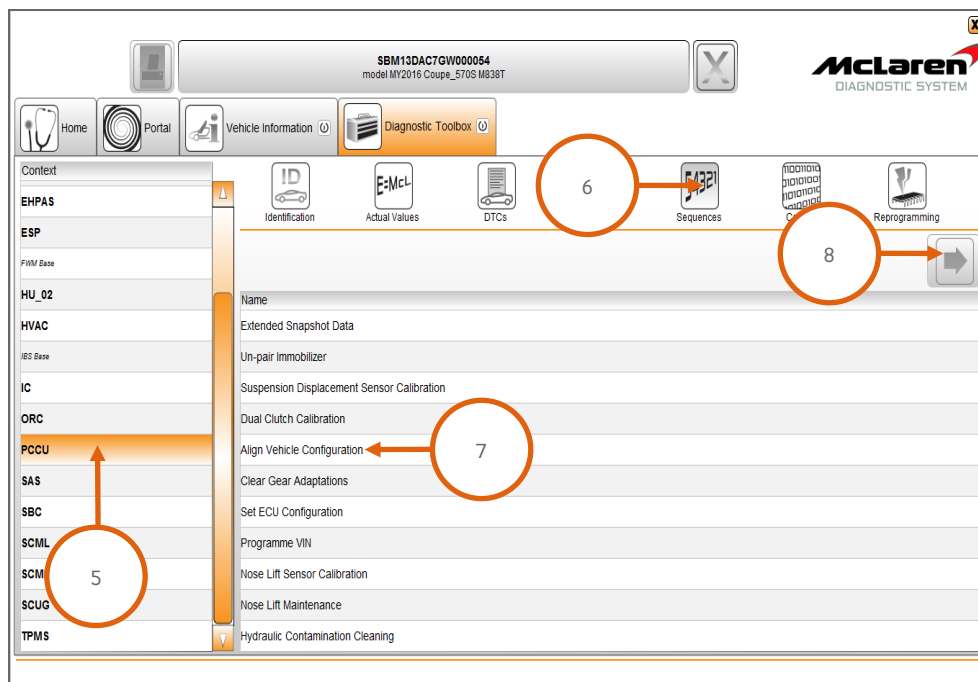
50. Select Programme VIN (9), followed by the arrow key (10).
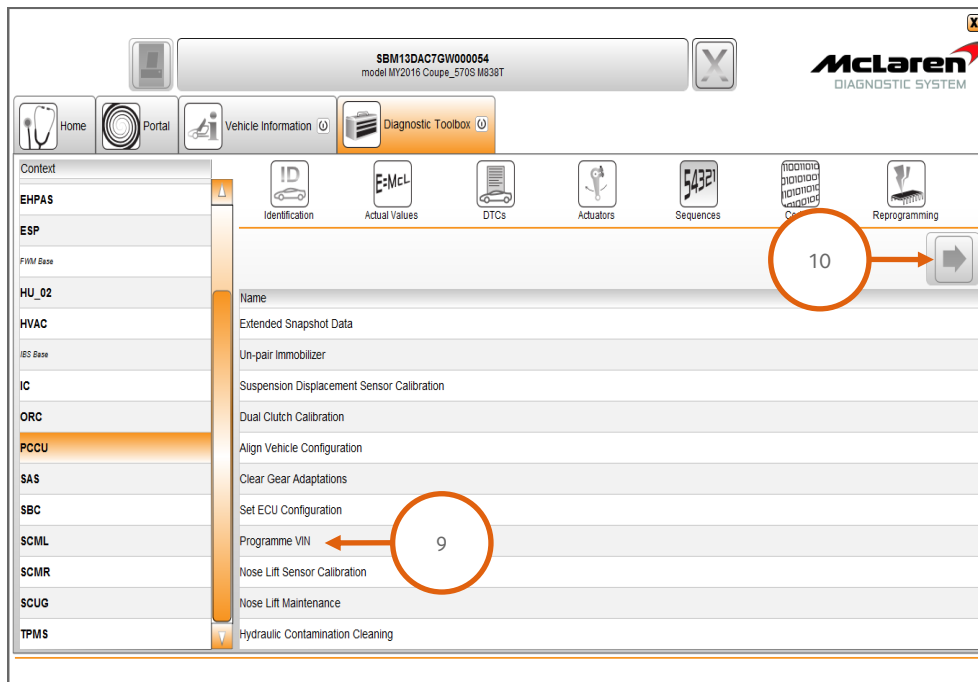

51. Select Dual Clutch Calibration (11), followed by the arrow key (12) and the clutch calibration will be performed.
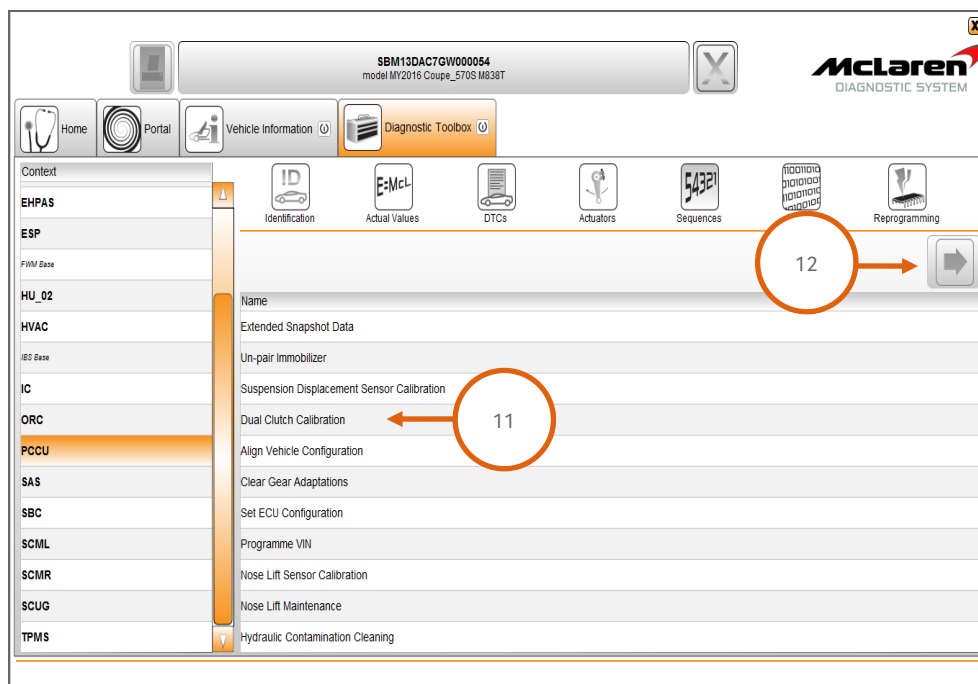
52. Allow vehicle to sleep fully, then switch the ignition back on and perform a DTC read and clear for all modules.

ECM Software Update:

53. 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).
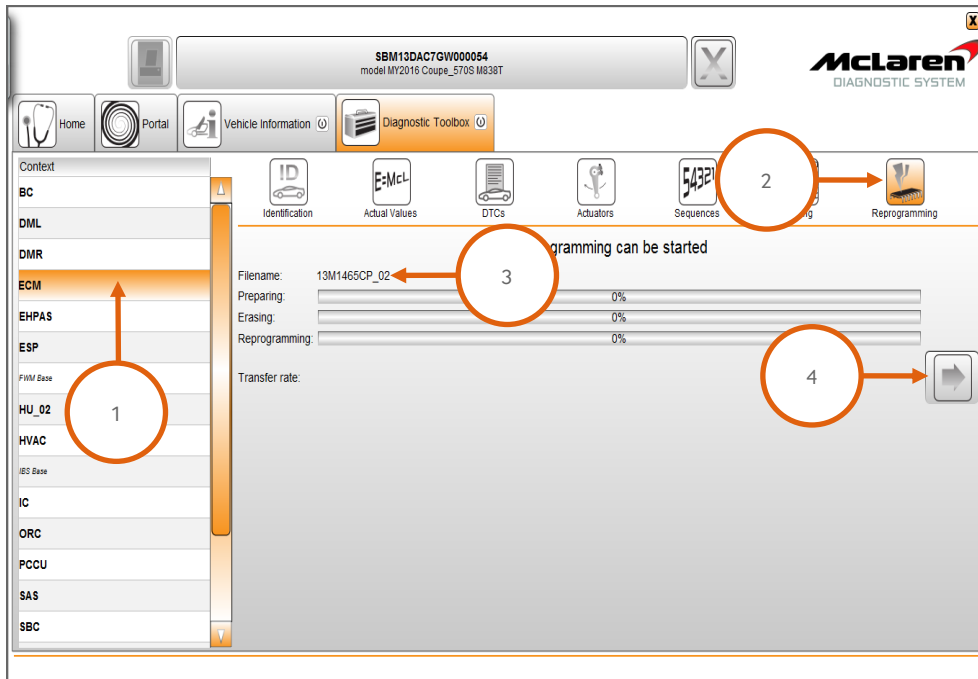
Care Point: Un-Pair immobilizer takes up to 8 minutes to complete.

54. Select Sequences (6), Un-Pair immobilizer (7), followed by the arrow key (8) once completed cycle the ignition (off on off on) and wait for 30 seconds.
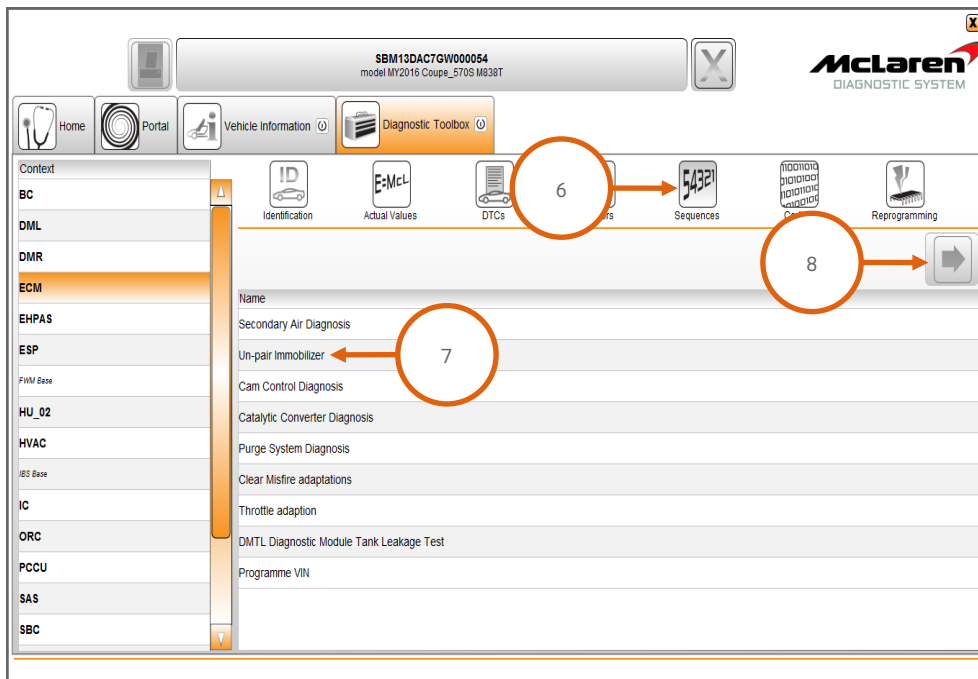
55. Press the stop/start button with the brake pedal depressed to start the engine and allow it to idle until fully warm.

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

56. Select ECM (9), then Actual Values (10), select the following values as per the screenshot below (11), then select the play button to access the required data screen.
57. The inlet camshaft values should be between 9 and 12 and exhaust values should be between -9 and -12 both values will fluctuate slightly. If all values are correct no further action is required proceed to step 59. If any values are incorrect proceed to step 58 to carry out the camshaft adaption.
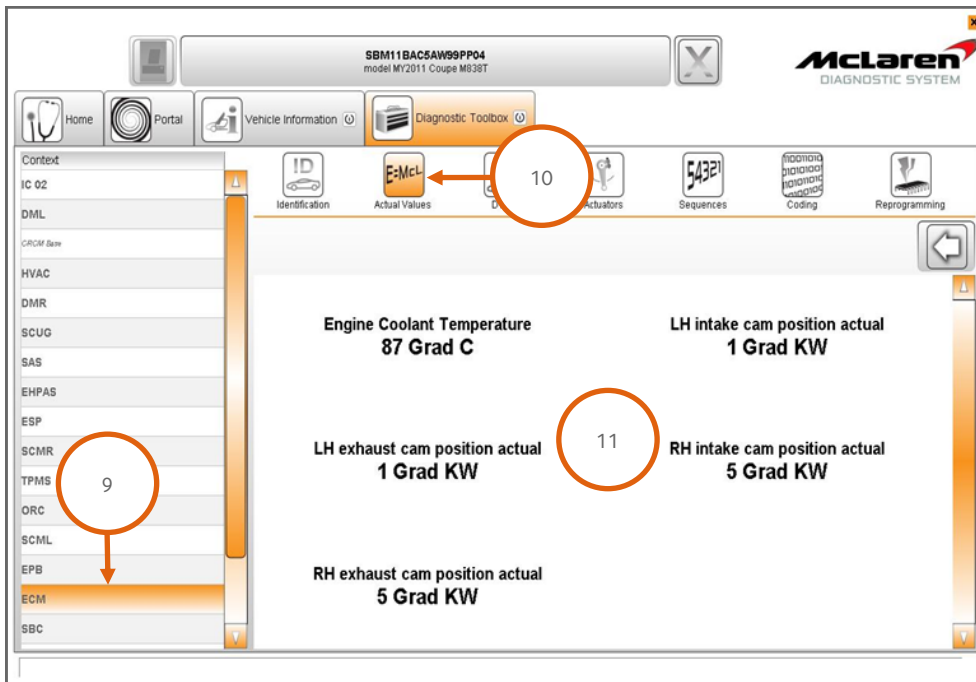
58. Switch the engine off, wait 30 seconds, restart the engine and recheck the values. Repeat this procedure until the target values are achieved.

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

59. Select Sequences (12), then DMTL Diagnostic Module Leakage Test (13), followed by the arrow button to proceed (14).
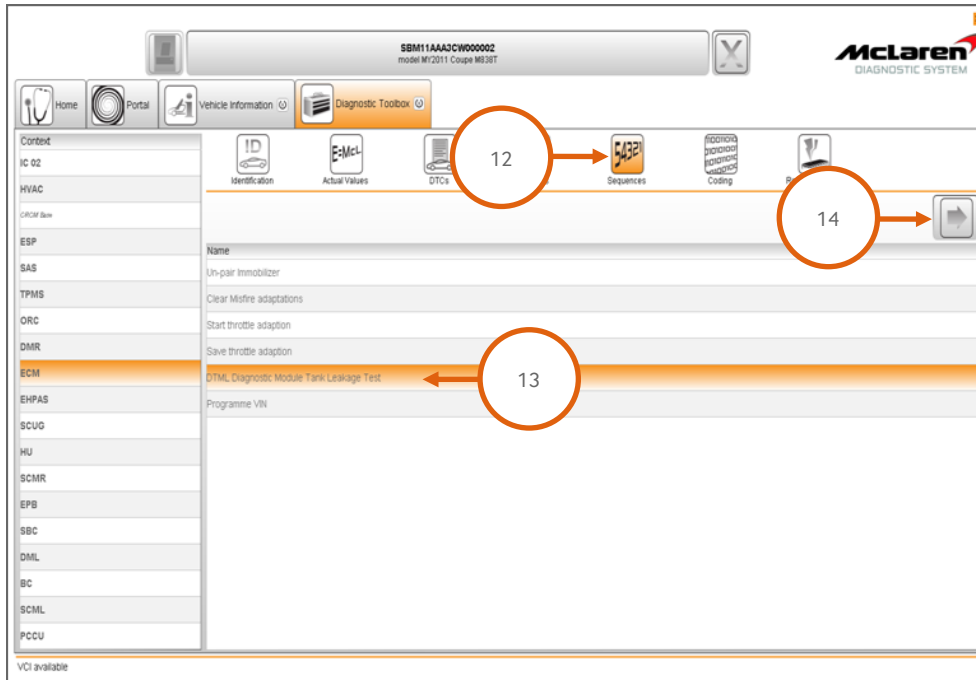
60. Perform a DTC read and clear from all modules.
61. End the current MDS session to allow session feedback to be sent and stored at McLaren.

IRIS AIS Application Software:

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

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

62. Switch the ignition on to ignition state 5 and start the engine.
63. Make a note of the options displayed on the Home Screen as this information will be required to configure the head unit.
64. Insert the USB drive with the application software into the USB socket (1).

65. Once the USB has been inserted, the system should provide a message stating that a USB device has been detected.
66. Press the settings hard button on the IRIS console.
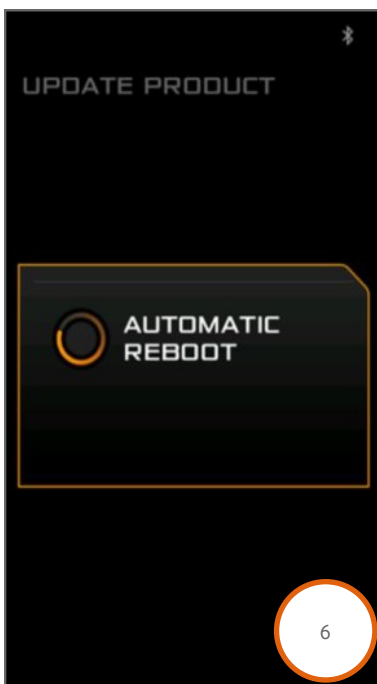67. Select About (2) and then Update Product (3).
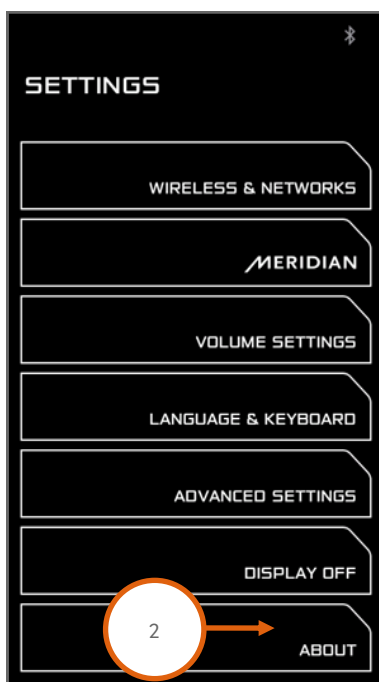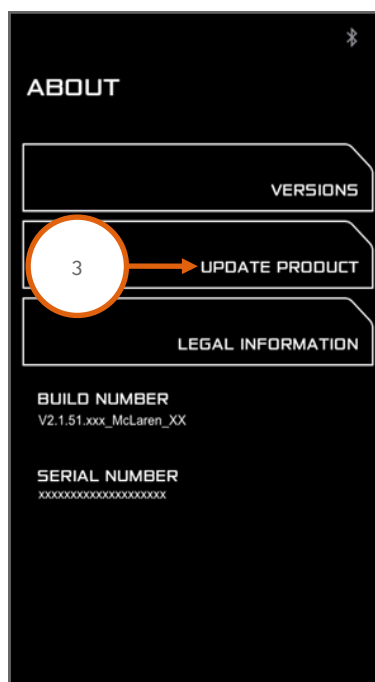
68. On the following screen select Update by USB Stick (4). A pop up message will be displayed. Press OK (5) to start the loading operation.
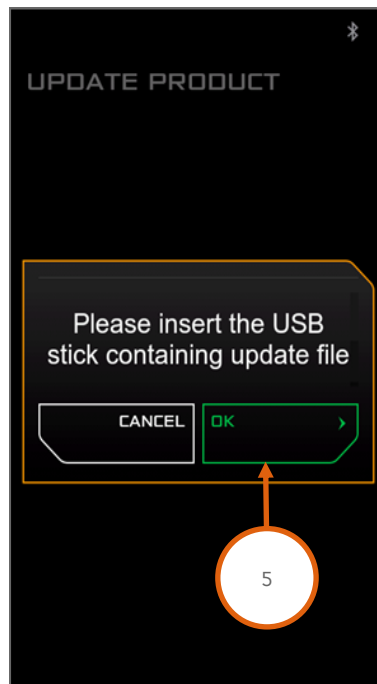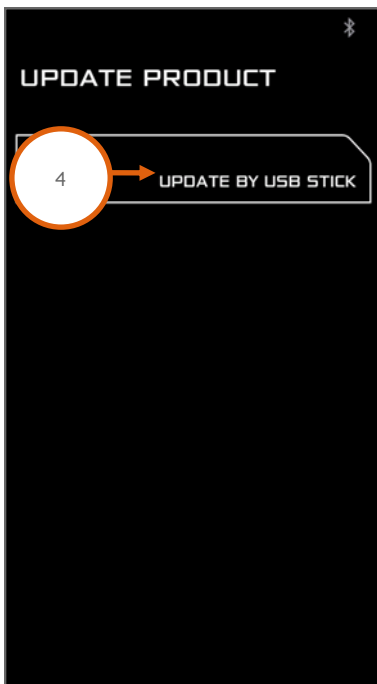

69. The following screen will be displayed (6) and the system will reboot.

70. After the system has rebooted it will search for and check the update file (7). Once the installation has finished the following screen will be displayed (8) and the system will reboot.
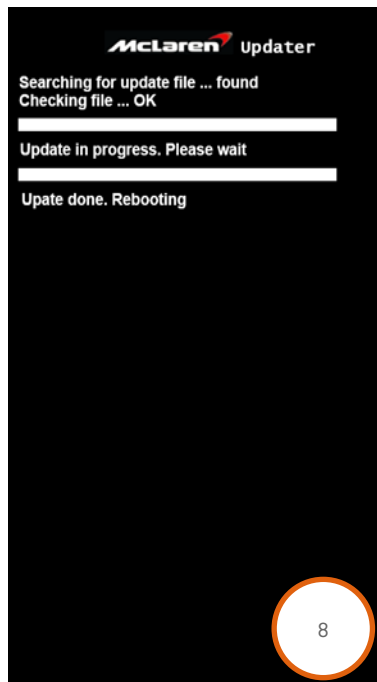

71. Following the reboot, the system will start to update the individual system components (9), (10). During the update the system may reboot multiple times. This is normal, **do not attempt a manual reset.**
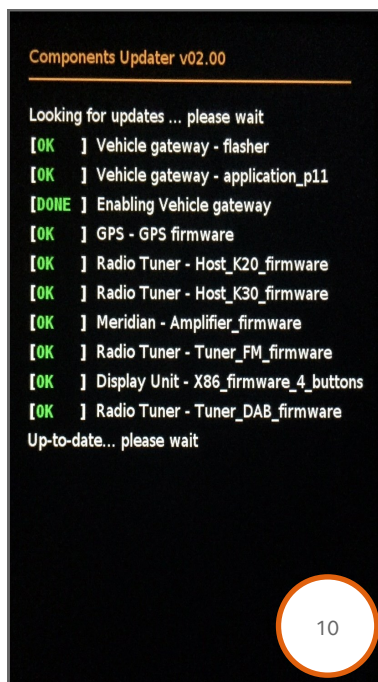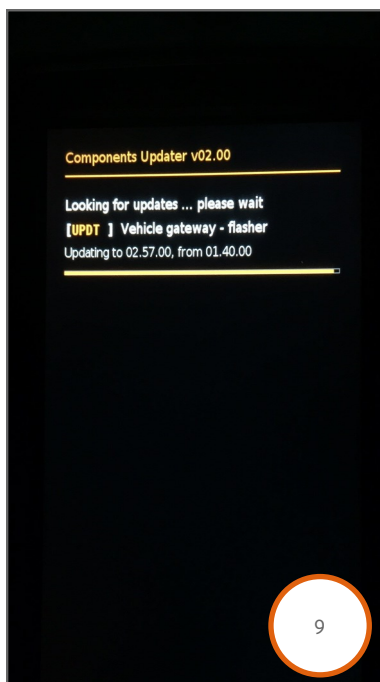
Care Point: In case the system should get stuck on the update screen if one of the component updates has failed, press and hold the home button for 45s to force the system to reboot.

72. Once all components have been updated and the system has fully rebooted, press the settings hard button on the IRIS console.
73. Select About (11) and then select Versions (12).
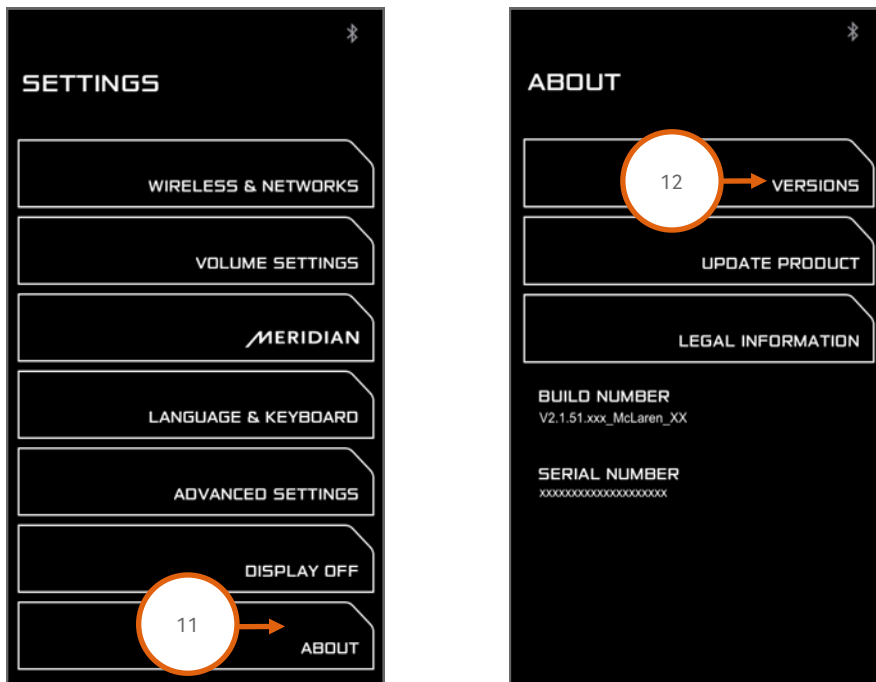
74. Confirm that the McLaren Software Part Number matches the Part Number listed in the table on Page 2 of this document.
75. Press the Home button on the IRIS console to return to the Home screen and remove the USB drive.

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 77.

76. Select Learn Vehicle Model (13) 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.
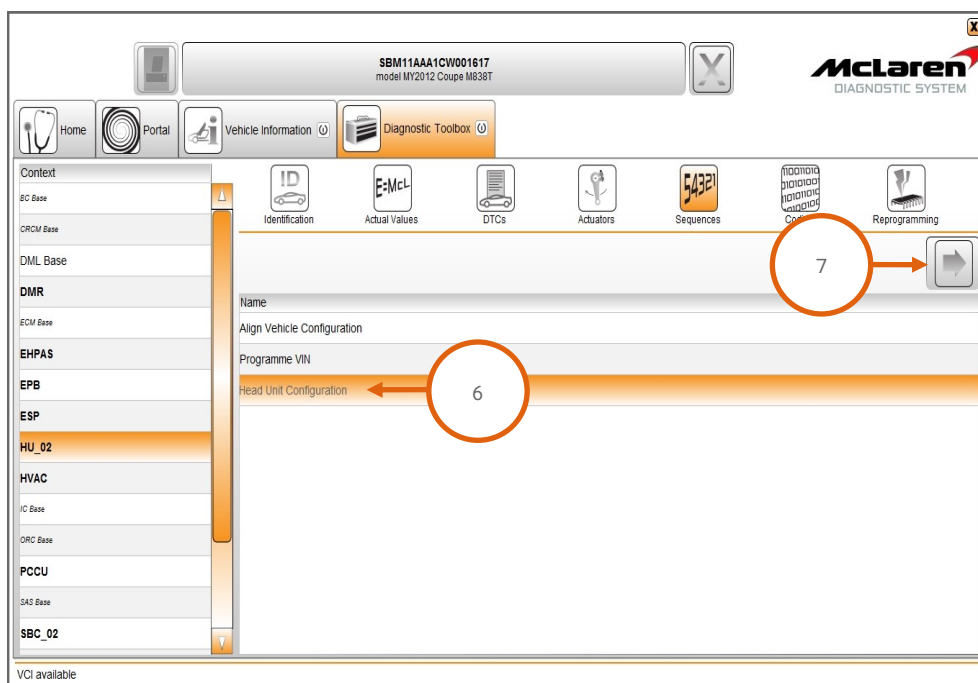
Care Point: The VCI must be connected to the MDS with the USB cable to perform the next steps.

77. Select HU_02 (1), then select Sequences (2), select Align Vehicle Configuration (3), followed by the arrow key (4).
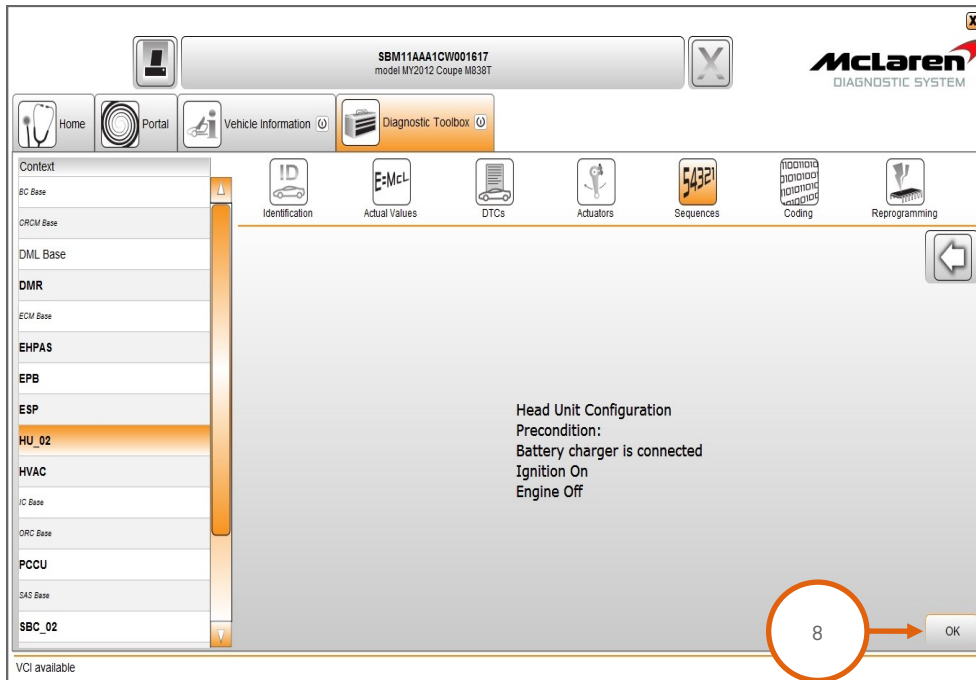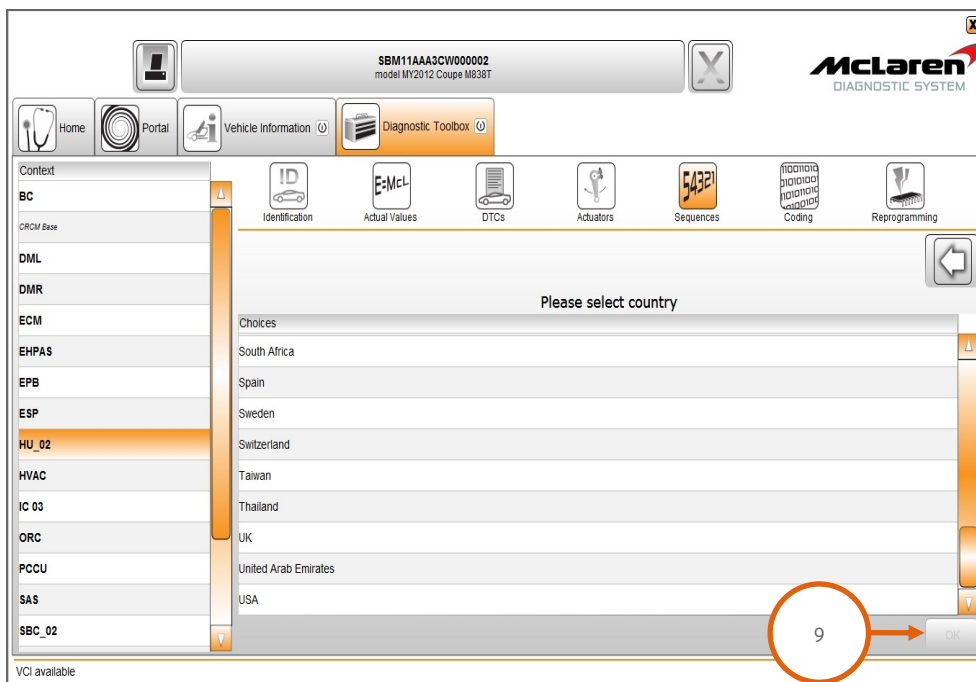78. Select Programme VIN (5), followed by the arrow key (4).
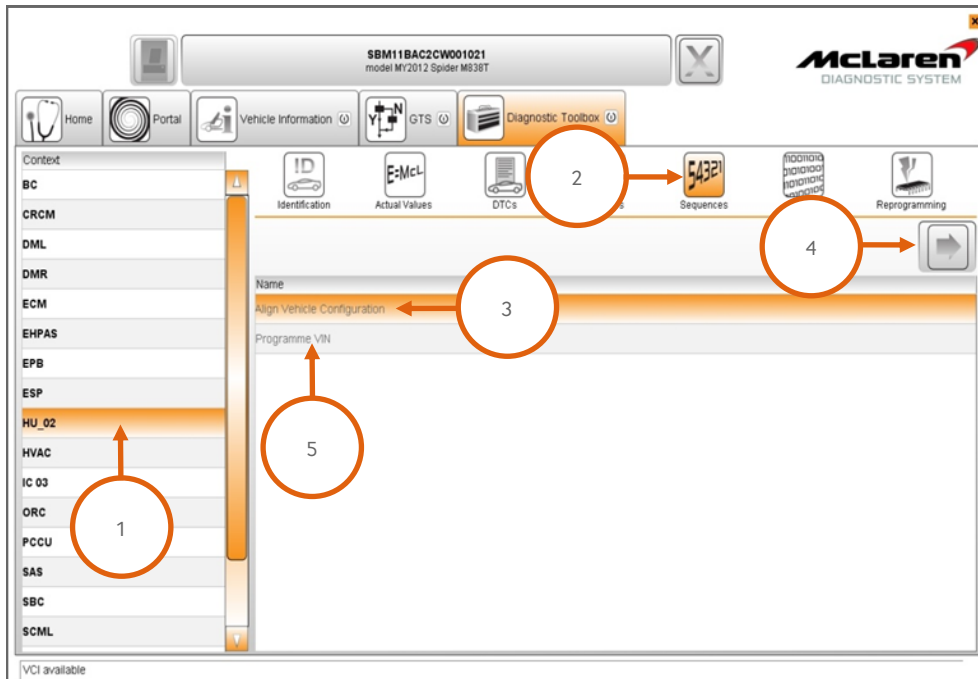
79. Select Head Unit Configuration (6), followed by the arrow key (7).
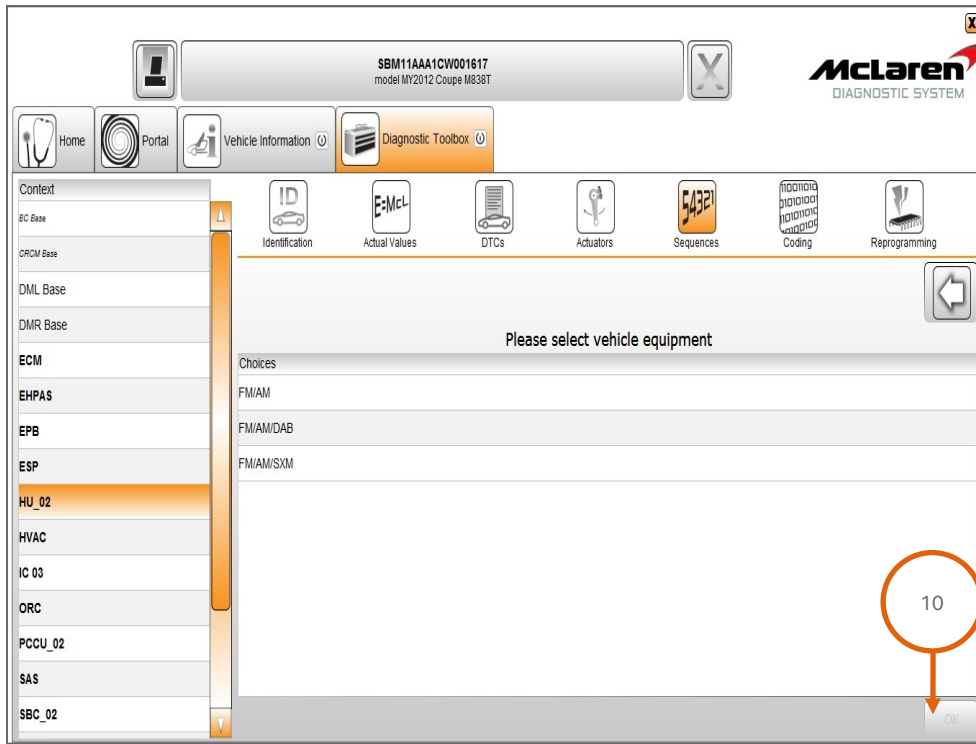
80. The following screen will appear, select OK (8).

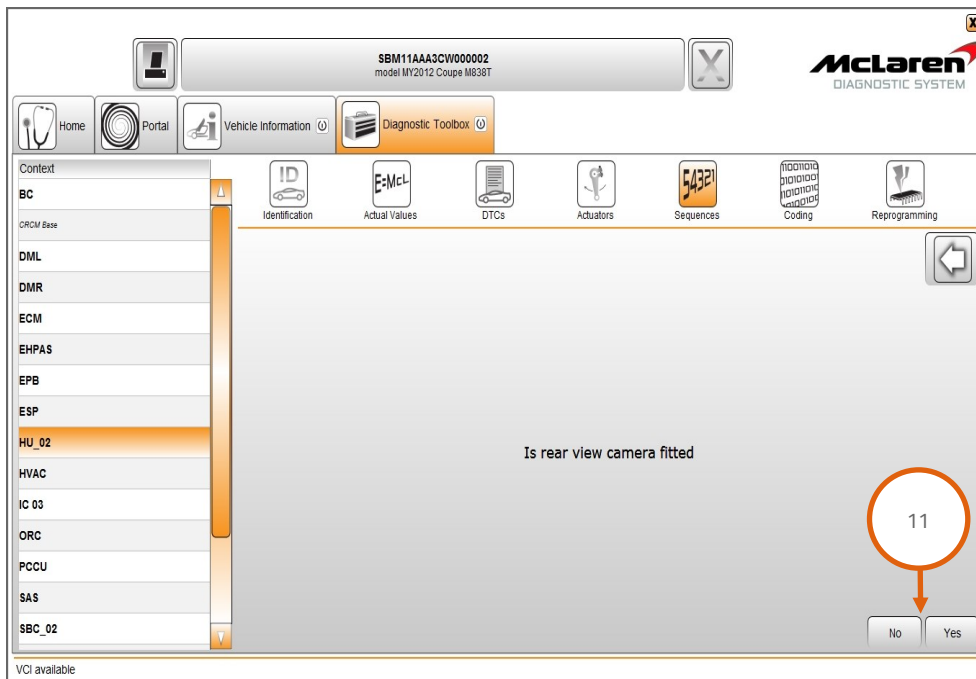

81. Select the relevant country, followed by OK (9).

Care Point: The following screen may not appear if your market has no applicable options, proceed to step 83.

82. Select the relevant radio frequency option, followed by OK (10).
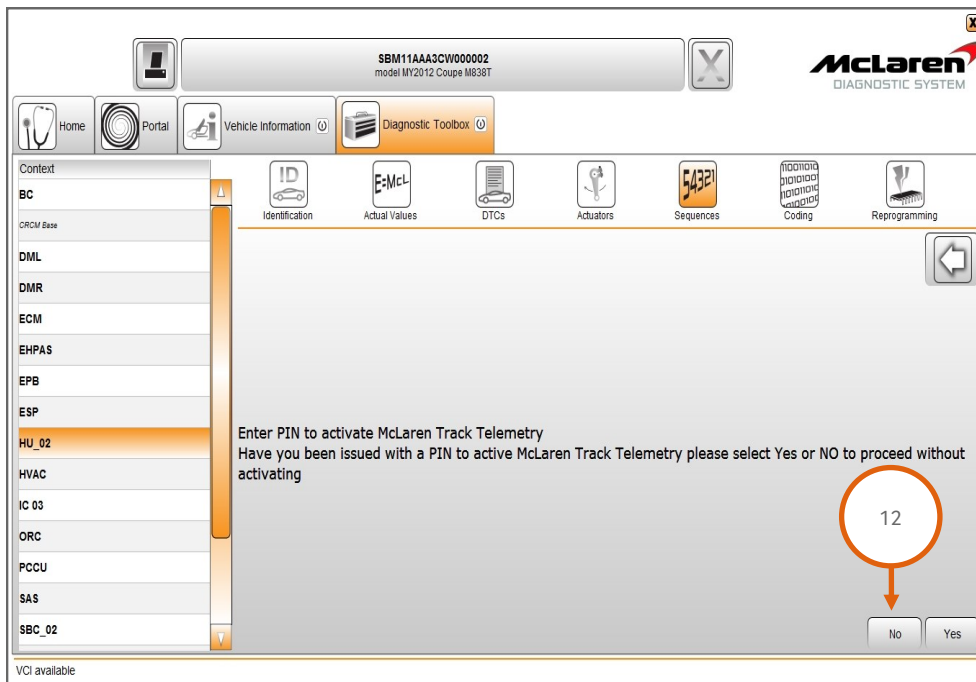

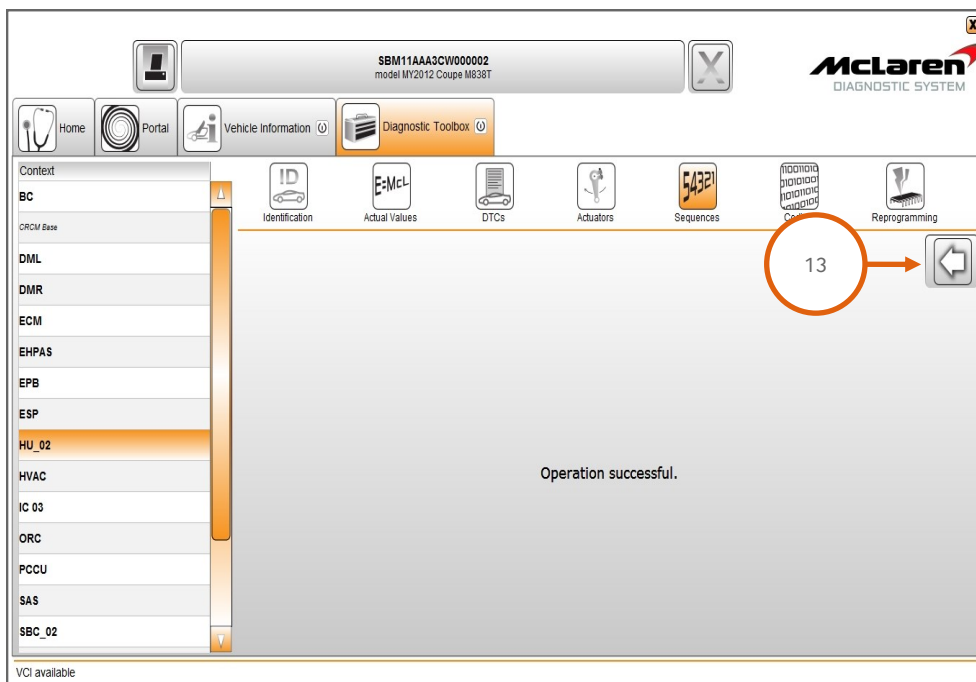83. Is rear view camera fitted, select Yes or No (11).

Care Point: The screenshot below may not appear as the database stored on the MDS may contain the VIN number.
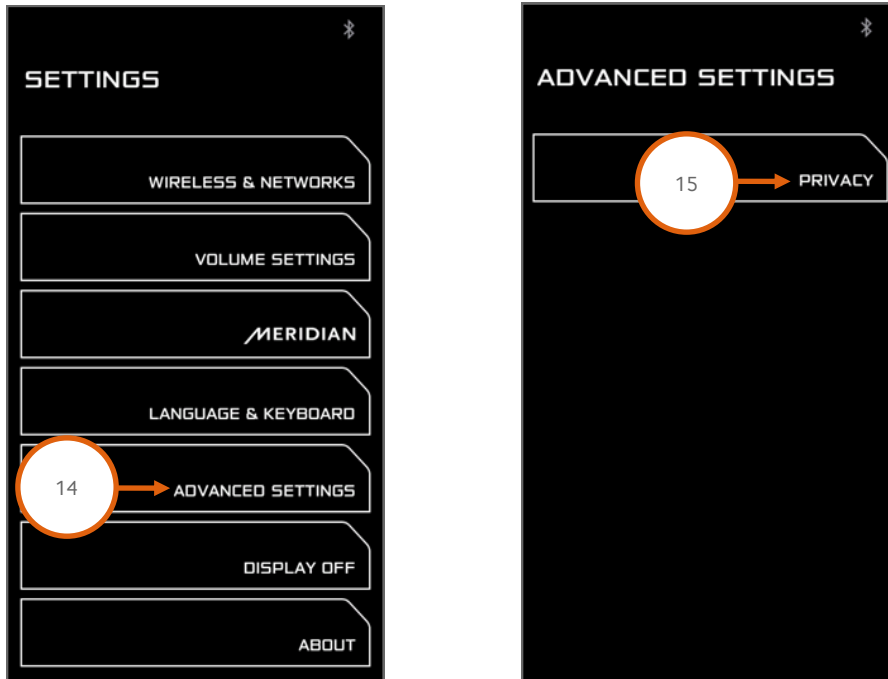
84. Proceed and select No (12).

85. Operation successful will be displayed. Select the back arrow to exit the sequence (13).
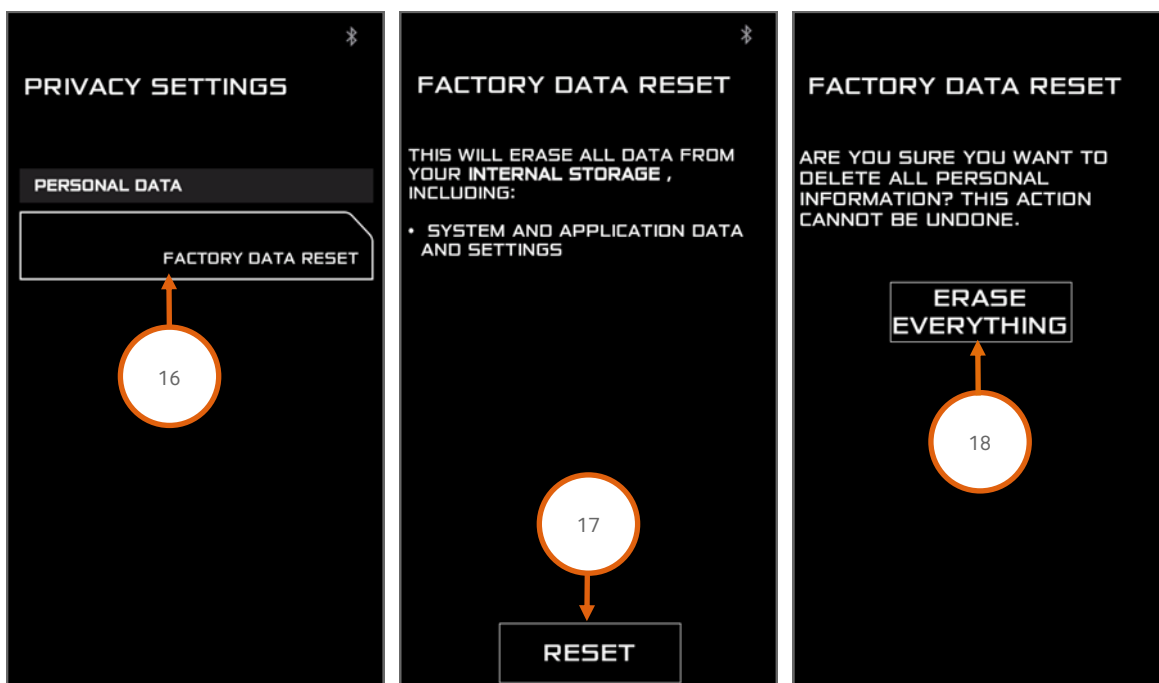
Care Point: Performing Factory Data Reset will delete the stored radio stations and paired phones.

86 Press the Settings hard button on the IRIS console.
87. Select Advanced Settings (14) and then Privacy (15) in order to access the Factory Data Reset.

88. Select Factory Data Reset (16) followed by Reset (17) and then Erase Everything (18).
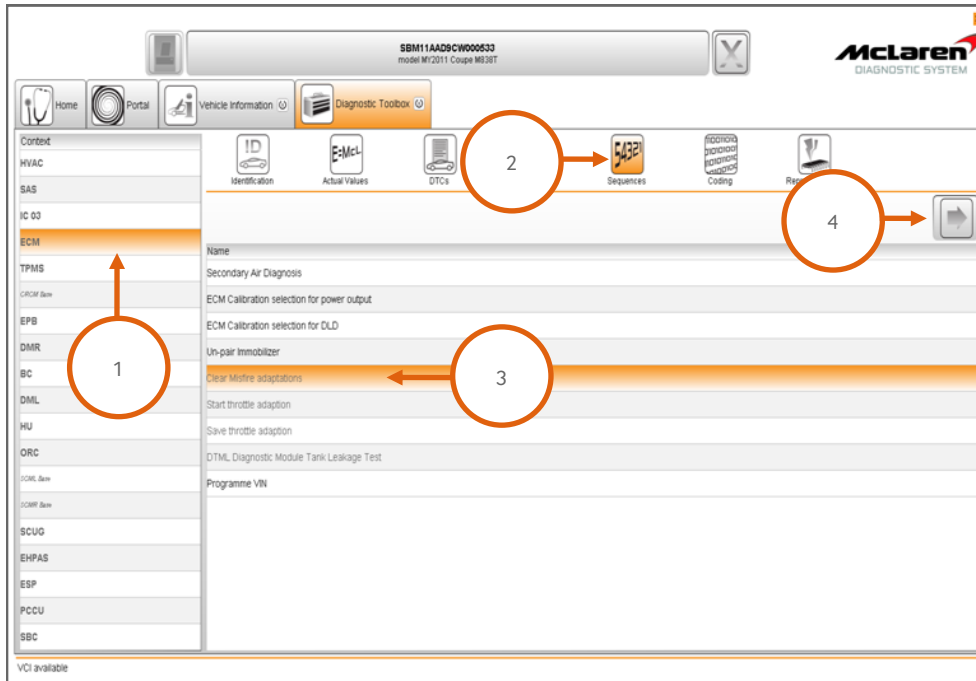

89. The system will reboot. The Factory Data Reset will be completed once the system has returned to the Standby screen.
90. Wait until the system has fully rebooted, then switch the engine off and ignition back on.

Adaptions Requirements:

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

92. 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.
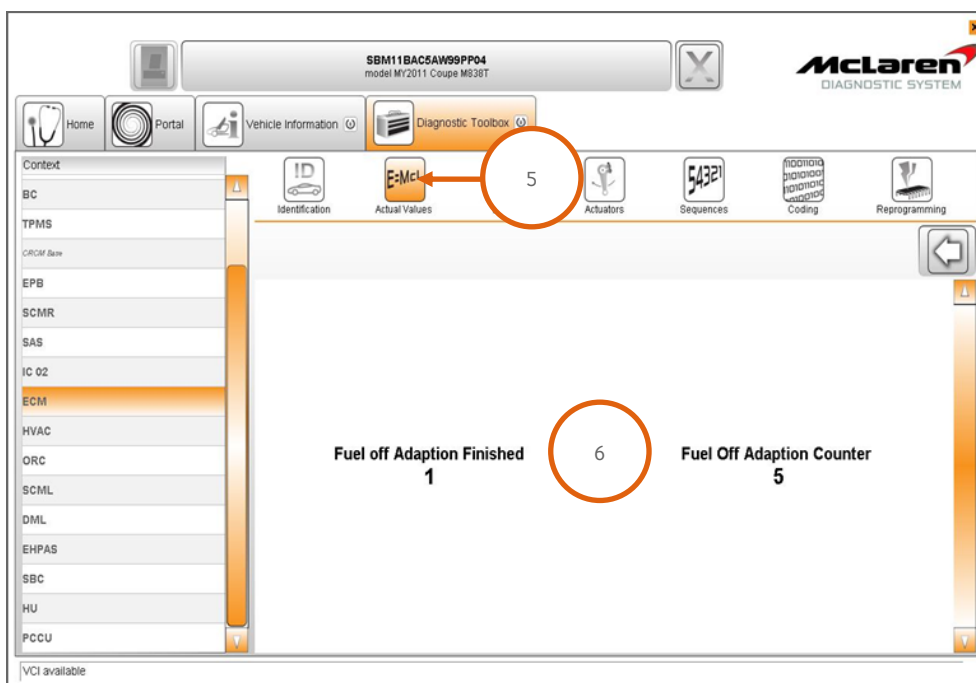
93. Misfire adaptations are performed whilst the car is driven with the gearbox set to manual mode and with the A/C off. Perform eleven successive fuel cuts from above 4000rpm for a 5 second duration (a fuel cut off will occur when the accelerator pedal is fully released).

94. 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 cutoffs occur, this is correct operation and no further action is required.

95. Perform a DTC read and clear from all modules.

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

Warranty Information: Claim an additional cost, depending on the software level you have had to reprogram onto the vehicle:-

Software level 4.2 to 6 claim an additional 1.45 hours
Software level 5 to 6 claim an additional 1.35 hours
Software level 5.1 to 6 claim an additional 1.15 hours
Software level 5.2 to 6 claim an additional 0.55 hours

WARRANTY INFORMATION

DESCRIPTION	RESOLUTION CODE	TOTAL REPAIR TIME
Software Platform Update from 5.2 to 6	CBAF0703A33B4E01	0.85 hours

PARTS INFORMATION

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