SERVICE CAMPAIGN BULLETIN

CAMPAIGN REF: 01G

TITLE : Vehicle software update to platform 9.0. UPDATED 22/06/2012

DOCUMENT # : 11 M 039

AFFECTED VEHICLES : 12C Coupe

SITUATION : Quality Engineering at McLaren Automotive have released a new software platform for the MP4-12C.

The most noticeable customer benefits of this software are:
- o Remote key passenger door release strategy change
- o Exterior mirrors exit reverse dip when neutral or forward gears are selected.
- o General software updates throughout the vehicle systems.

PROCEDURE : It is necessary to update the software on all affected vehicles within your Aftersales car parc, both when carrying out Pre-Delivery Inspections (PDI) and at the next service centre visit.

MODULE	NEW SOFTWARE PART NUMBERS
Instrument Cluster (IC)	11M1180CP.16
Switch Control Unit Gateway (SCUG)	11M1290CP.04
Electronic Park Brake (EPB)	11M0935CP.04
Body Controller (BC)	11M1215CP.07
Security Body Controller (SBC)	11M1075CP.08
Heating Ventilation and Air-Conditioning (HVAC)	11A4742CP.12
Door Module Left (DML)	11M1071CP.07
Door Module Right (DMR)	11M1070CP.07
Electronic Stability Program (ESP)	11M1125CP.04
Steering Angle Sensor (SAS)	11M1099CP.04
Powertrain Chassis Control Unit (PCCU)	11M0938CP.16 European / ROW 11M2166CP.03 Federal 11M2370CP.02 Japan
Engine Control Module (ECM)	11M1399CP.06 European / ROW 11M1400CP.07 Federal 11M1401CP.04 Japan

Care point: This campaign supersedes 11 M 034 "Vehicle software platform update from 8.2.3 to 8.3" and 11 M 036 "Vehicle software platform update to 8.3".

Care point: The Platform 9.0 'Owner Manual Supplement' (1) must be placed in the vehicle once the campaign has been carried out, The customer must also be informed of the new drivers / passenger door opening functionality.

Care point: The Owner's Manual Supplement' (1) includes information relating to the new IEE OCS system functionality. This system is not fitted to vehicles built prior to 31st May 2012. The customer should refer to the main Owner's Manual should they require information relating to the OCS system on their vehicle.

'Owner Manual Supplements' (1) have been supplied directly to dealers.

Care point: The Steering Angle Sensor (SAS) update is only required on vehicles that have not had campaign 11 M 034 or 11 M 036 previously carried out.

REMOVAL:

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

Care point: In order to avoid personal injury and damage to the vehicle, do not connect the positive terminal (+) 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.

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: During the software download process, it is normal for the instrument cluster displays to extinguish temporarily.

IC SOFTWARE UPDATE

1. Connect the Mclaren Diagnostic System (MDS) to the vehicle.

2. Proceed to the Diagnostic Toolbox (1), select IC_02 (2), then Reprogramming (3), select the software level 11M1180CP.16 (4), then proceed to the software download by selecting the tick button (5), followed by the arrow button (6). Select 'YES' to initiate programming.
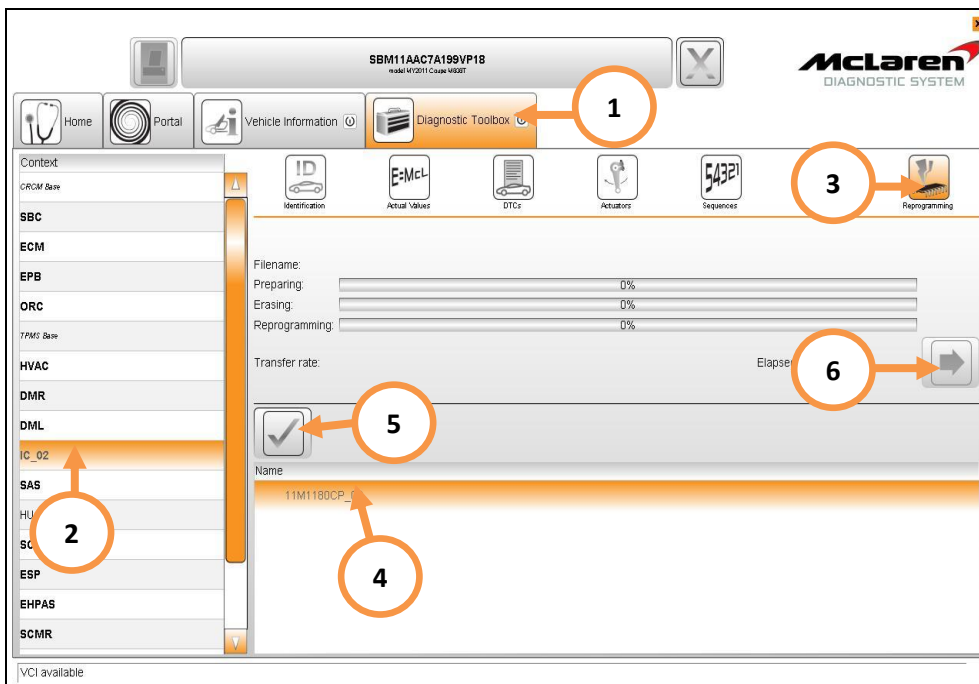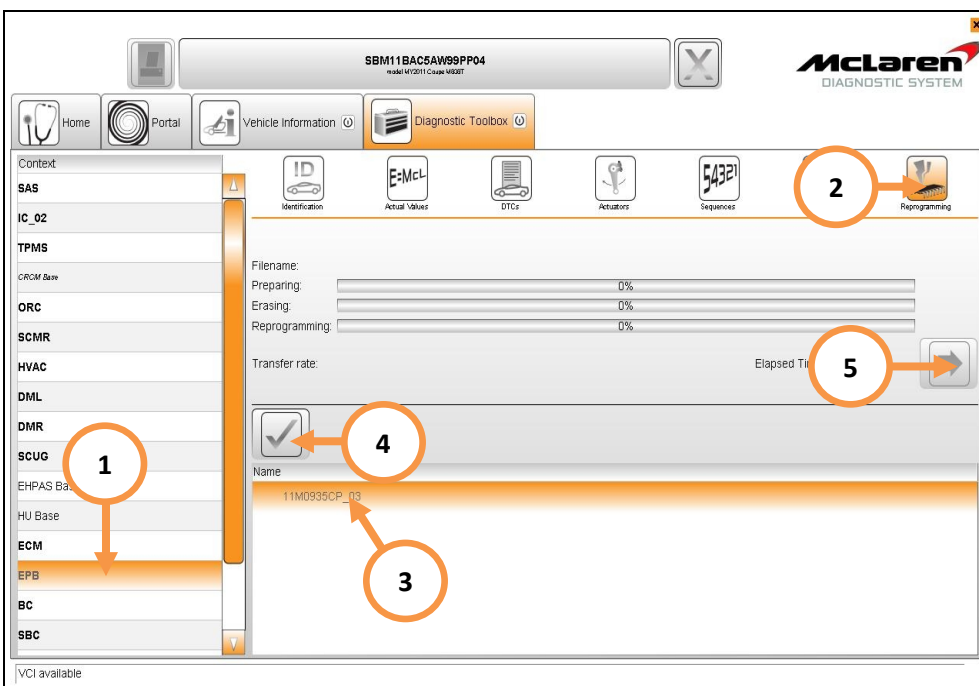
SCUG SOFTWARE UPDATE

3. Select SCUG (1), then Reprogramming (2), select the software level 11M1290CP.04 (3); then proceed to the software download by selecting the tick button (4) followed by the arrow button (5). Select 'YES' to initiate programming.
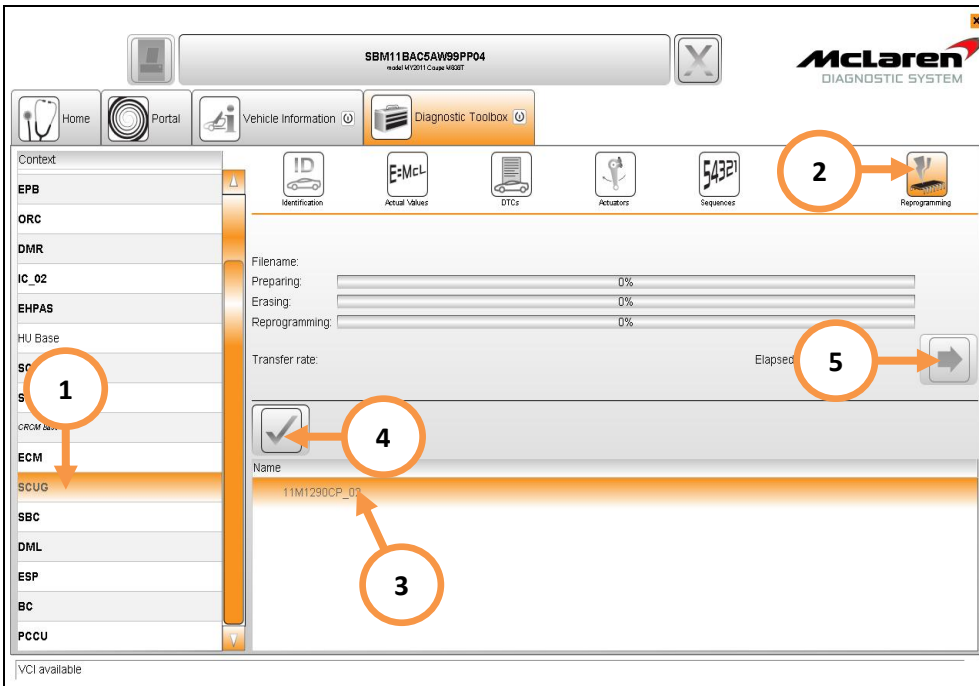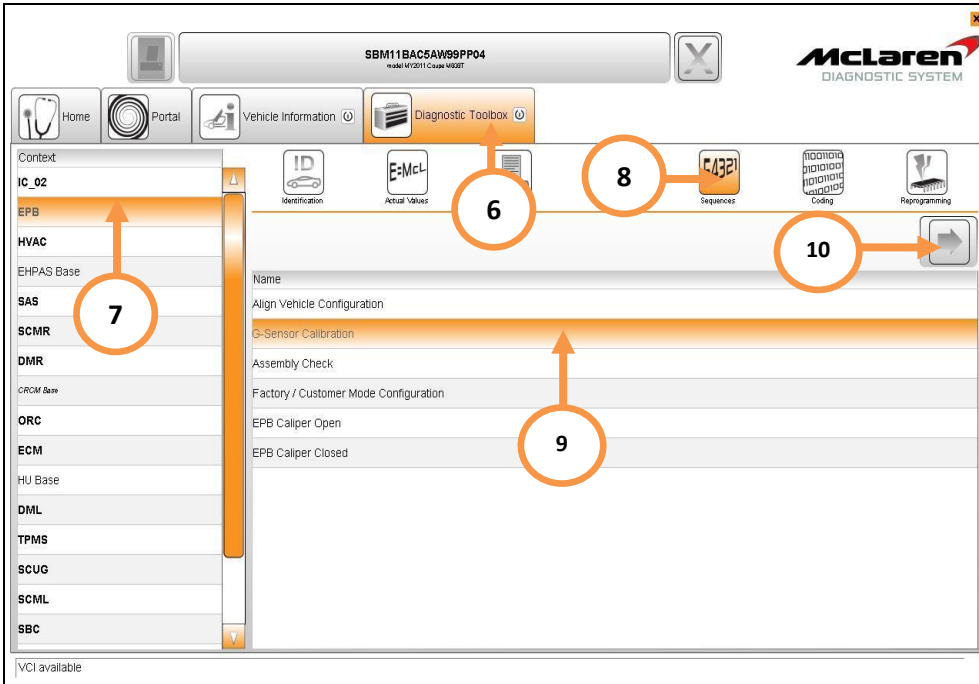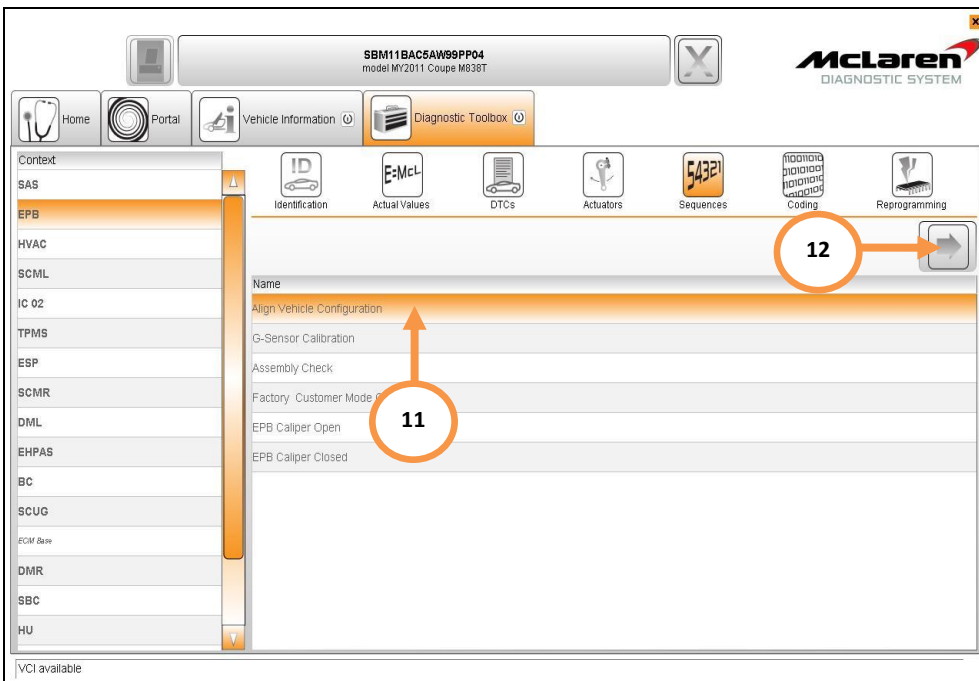

EPB SOFTWARE UPDATE

4. Select EPB (1), then Reprogramming (2), select the software level 11M0935CP.04 (3); then proceed to the software download by selecting the tick button (4), followed by the arrow button (5). Select 'YES' to initiate programming.

5. Within the McLaren Diagnostic System (MDS) proceed to the Diagnostic Toolbox (6). Select EPB (7), then Sequences (8) select G-Sensor Calibration (9); select the arrow button (10) to perform the G-Sensor calibration routine

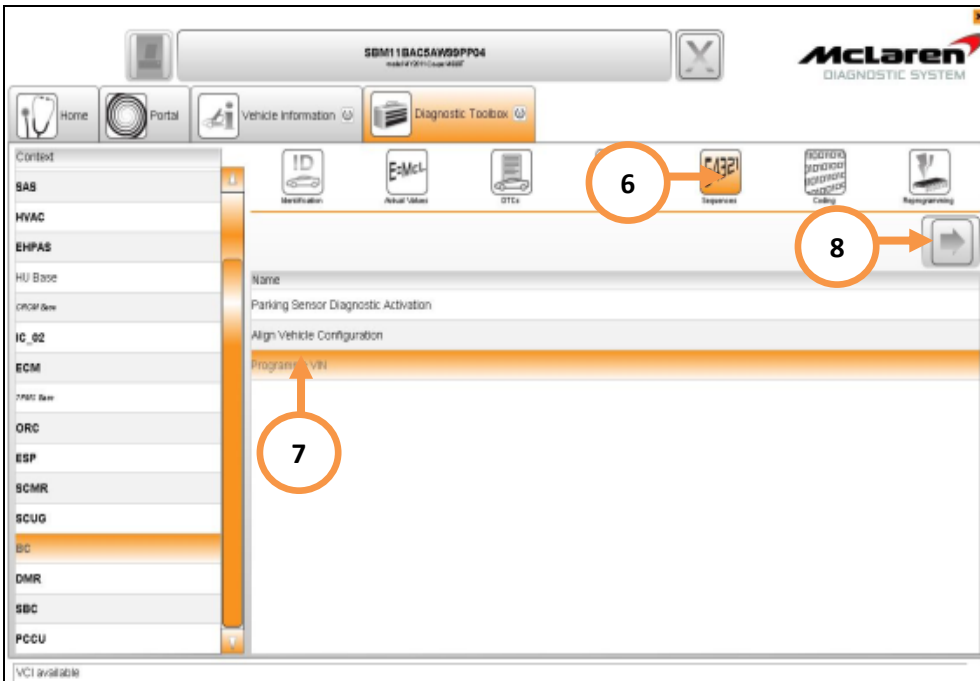6. Select Align Vehicle Configuration (11), followed by the arrow key (12).
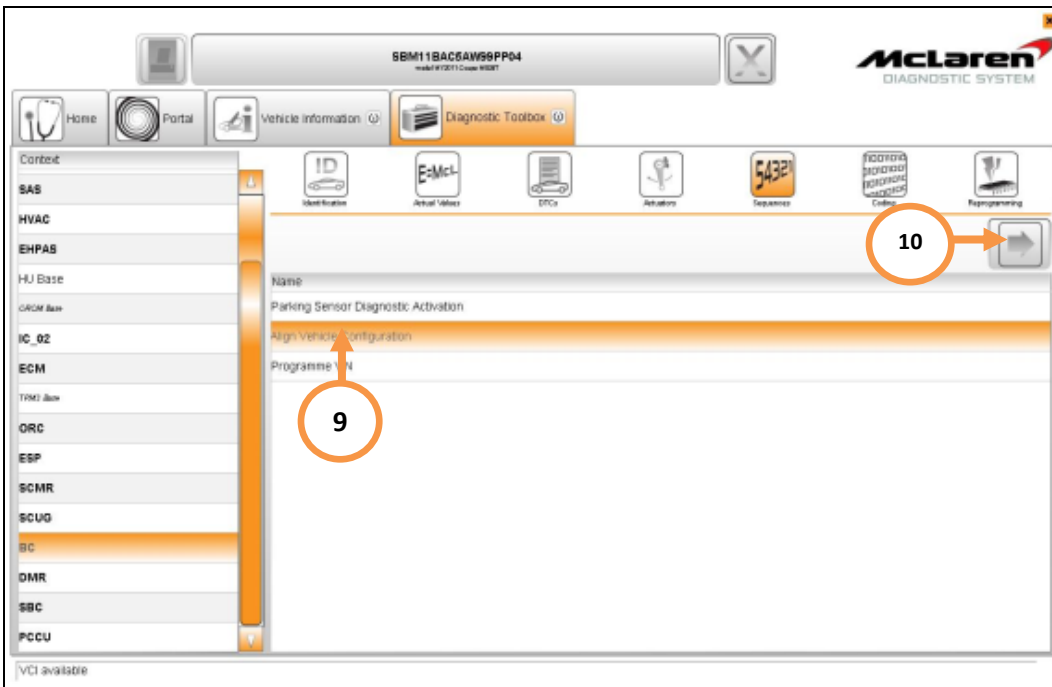
BC SOFTWARE UPDATE

7. Select BC (1) then Reprogramming (2), select the software level 11M1215CP.07 (3), then proceed to the software download by selecting the tick button (4), followed by the arrow button (5). Select 'YES' to initiate programming.
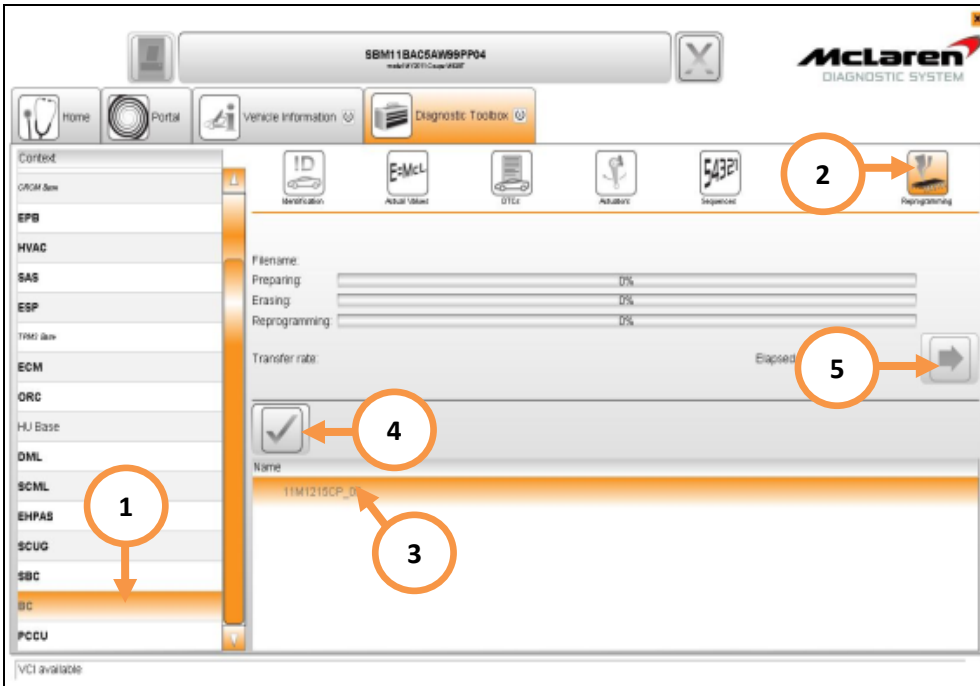
8. Select Sequences (6), then Programme VIN (7), select the arrow button to proceed (8).
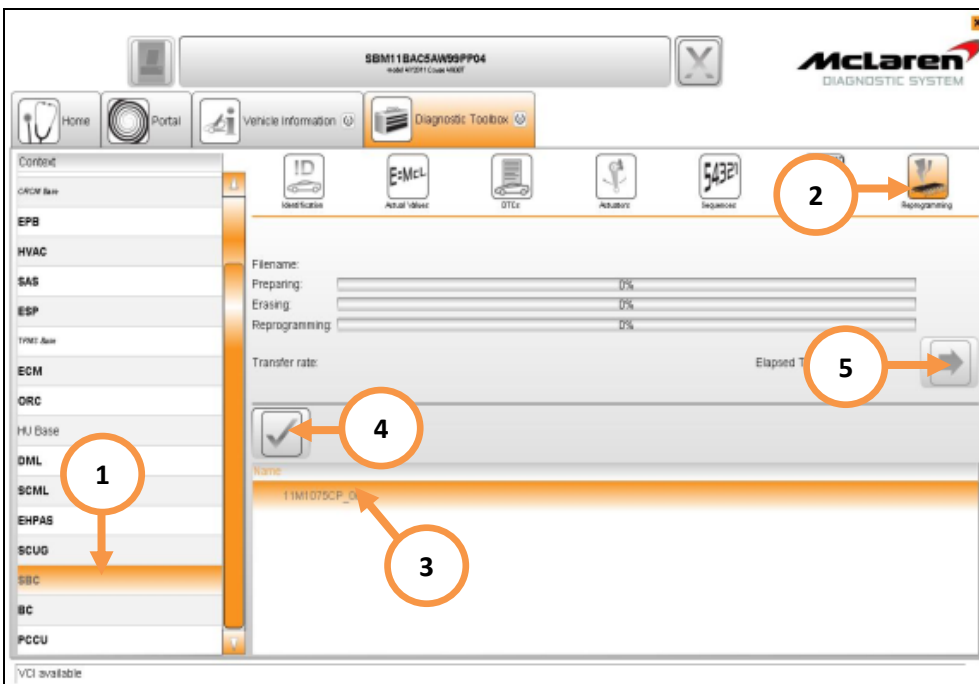
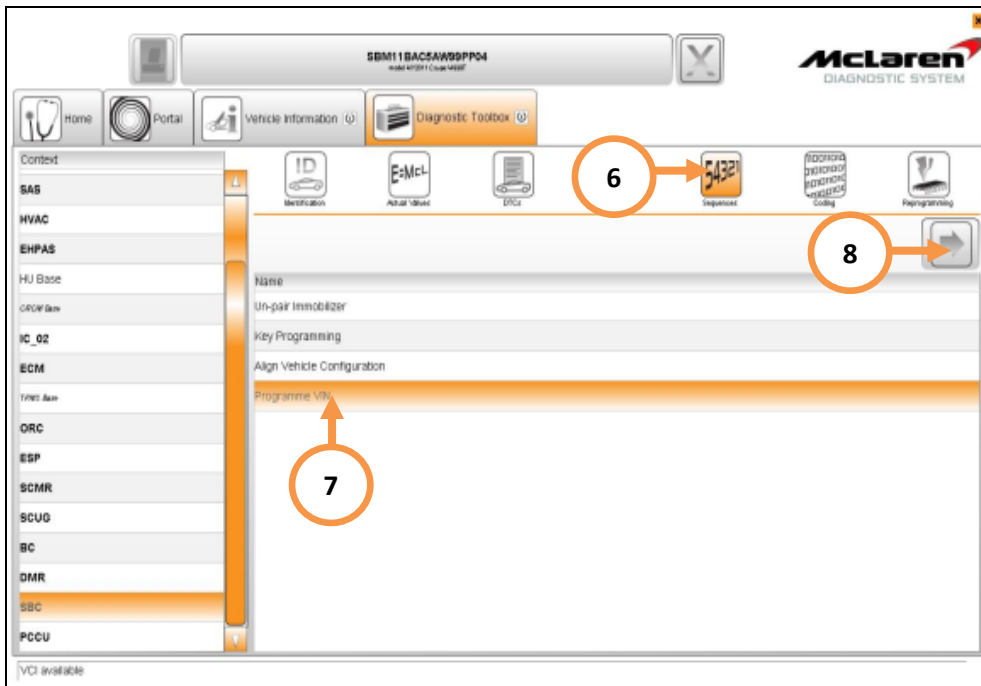9. Select Align Vehicle Configuration (9), followed by the arrow key (10).

SBC SOFTWARE UPDATE

10. Select SBC (1), then Reprogramming (2), select the software level 11M1075CP.08 (3); then proceed to the software download by selecting the tick button (4), followed by the arrow button (5). Select 'YES' to initiate programming.


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

13. After one minute, press the unlock button on the key and then establish the vehicle into ignition state 5 before following the next steps.
14. Select Sequences (6), then Programme VIN (7), select the arrow button to proceed (8). The programme VIN procedure will force a sleep cycle to occur after the programming is complete.

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


16. Select Align Vehicle Configuration (9), followed by the arrow key (10).
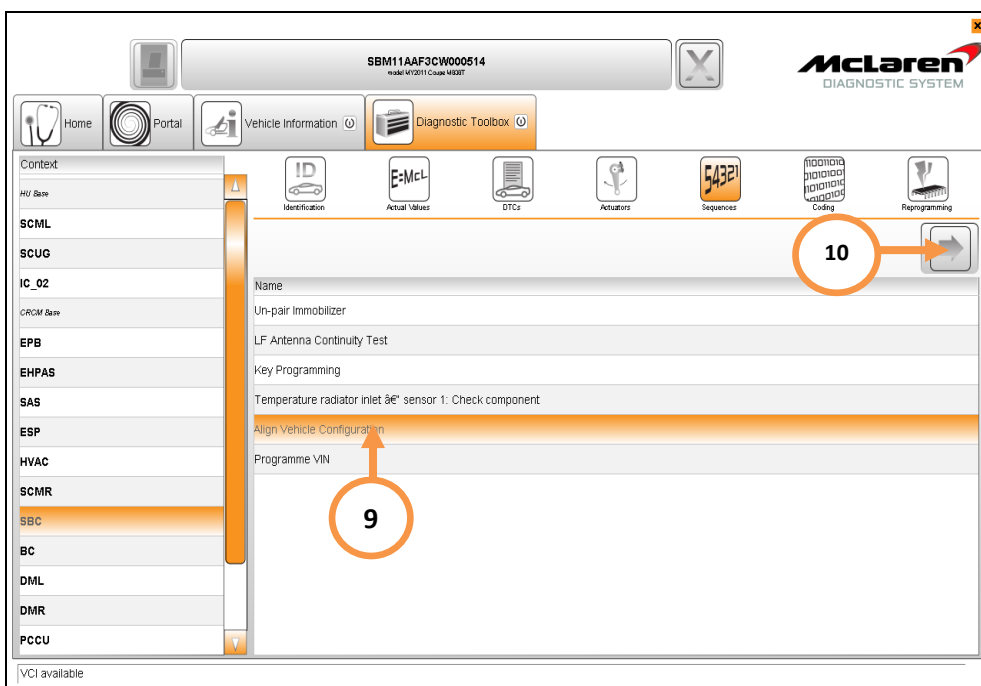
17. Press the unlock button on the key and then establish the vehicle into ignition state 5 before following the next steps.
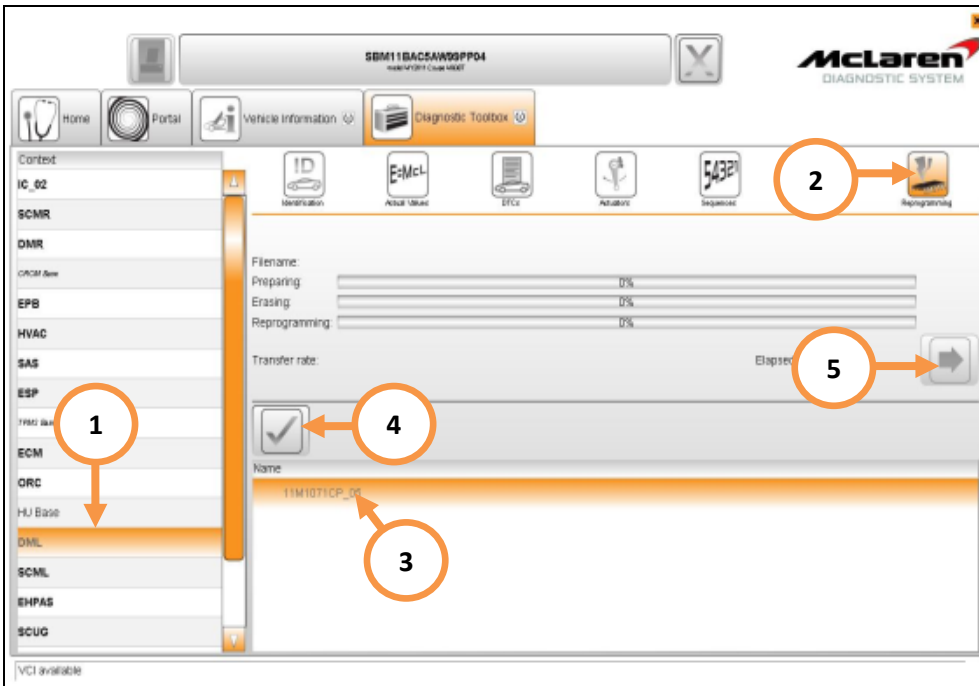
HVAC SOFTWARE UPDATE

18. Select HVAC (1) then Reprogramming (2), select the software level 11A4742CP.12 (3) then proceed to the software download by selecting the tick button (4) followed by the arrow button (5). Select 'YES' to initiate programming.
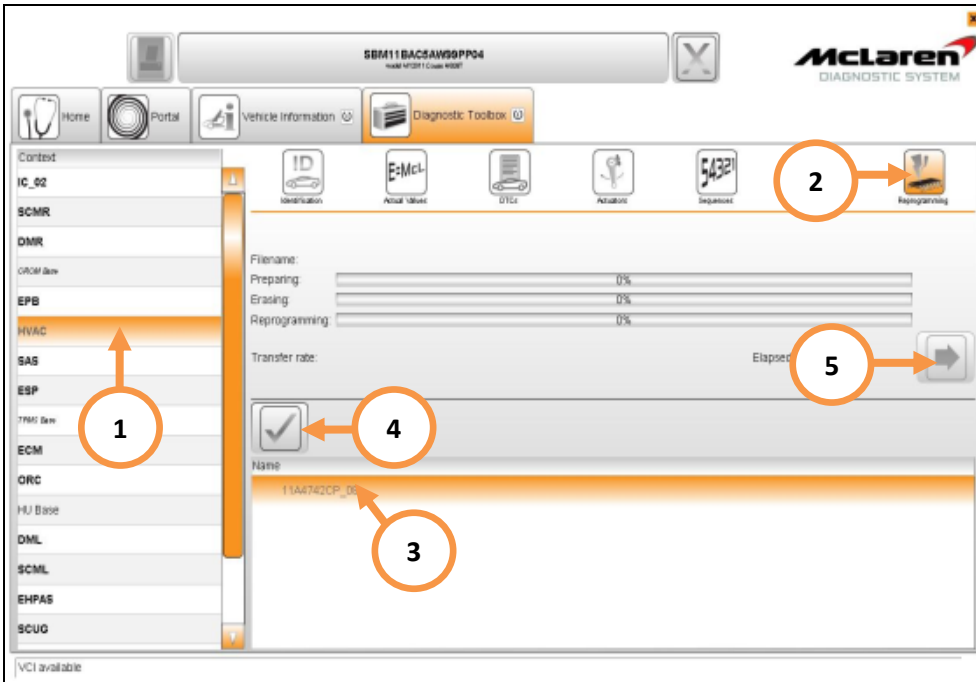

19. After the HVAC has been updated the HVAC display panel may show the CAL symbol while the system performs a self calibration. When completed, the CAL symbol will disappear from the display.

DML SOFTWARE UPDATE

20. Select DML (1) then Reprogramming (2) select the software level 11M1071CP.07 (3); then proceed to the software download by selecting the tick button (4), followed by the arrow button (5). Select 'YES' to initiate programming.
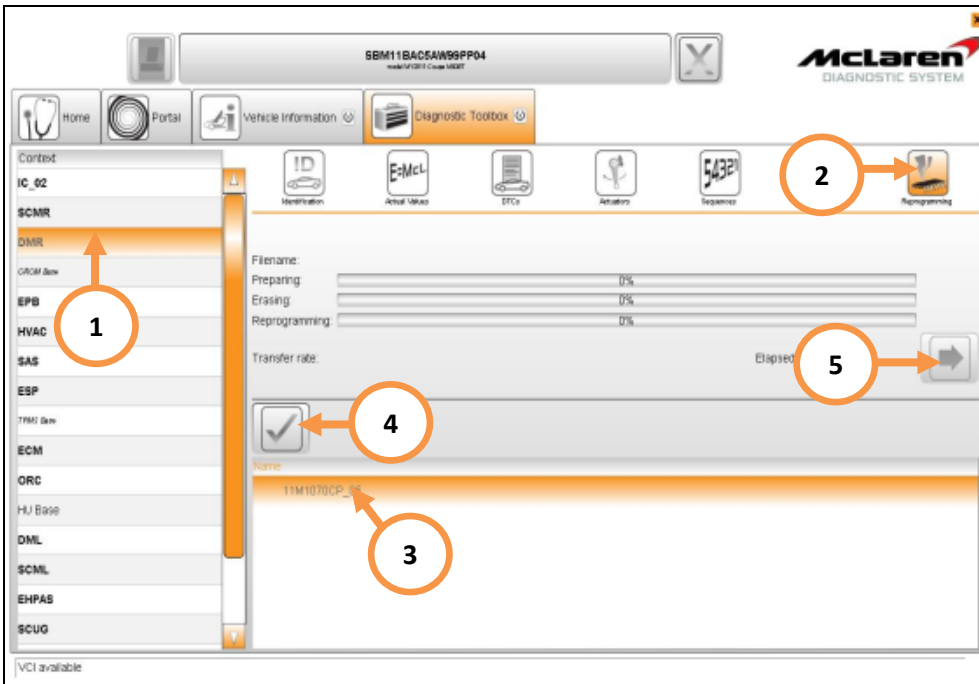

21. Select Sequences (6), select Align Vehicle Configuration (7), followed by the arrow key (8).
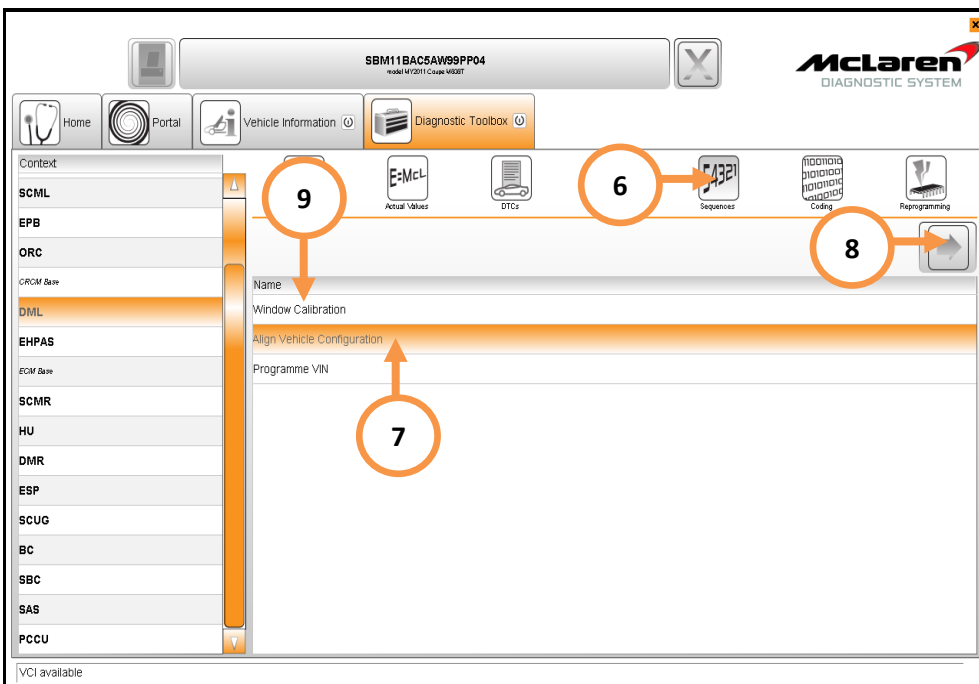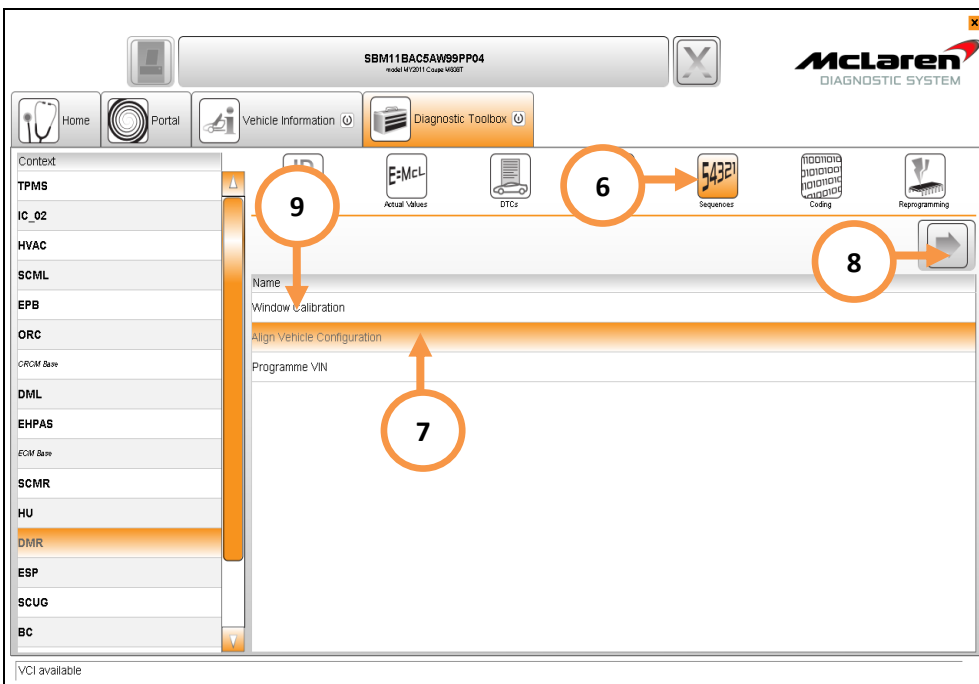

22. Select Window Calibration (9), followed by the arrow key (8).

DMR SOFTWARE UPDATE

23. Select DMR (1) then Reprogramming (2), select the software level 11M1070CP.07 (3) then proceed to the software download by selecting the tick button (4) followed by the arrow button (5). Select 'YES' to initiate programming.


24. Select Sequences (6), select Align Vehicle Configuration (7), followed by the arrow key (8).

25. Select Window Calibration (9), followed by the arrow key (8).

ESP SOFTWARE UPDATE

26. Select ESP (1) then Reprogramming (2), select the software level 11M1125CP.04 (3) then proceed to the software download by selecting the tick button (4), followed by the arrow button (5). Select 'YES' to initiate programming.
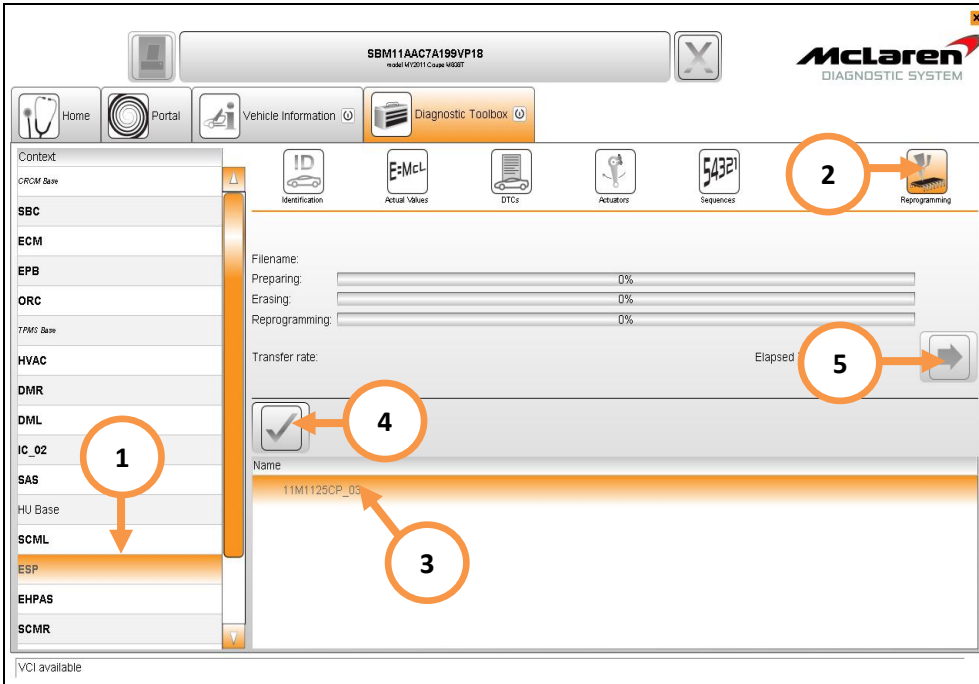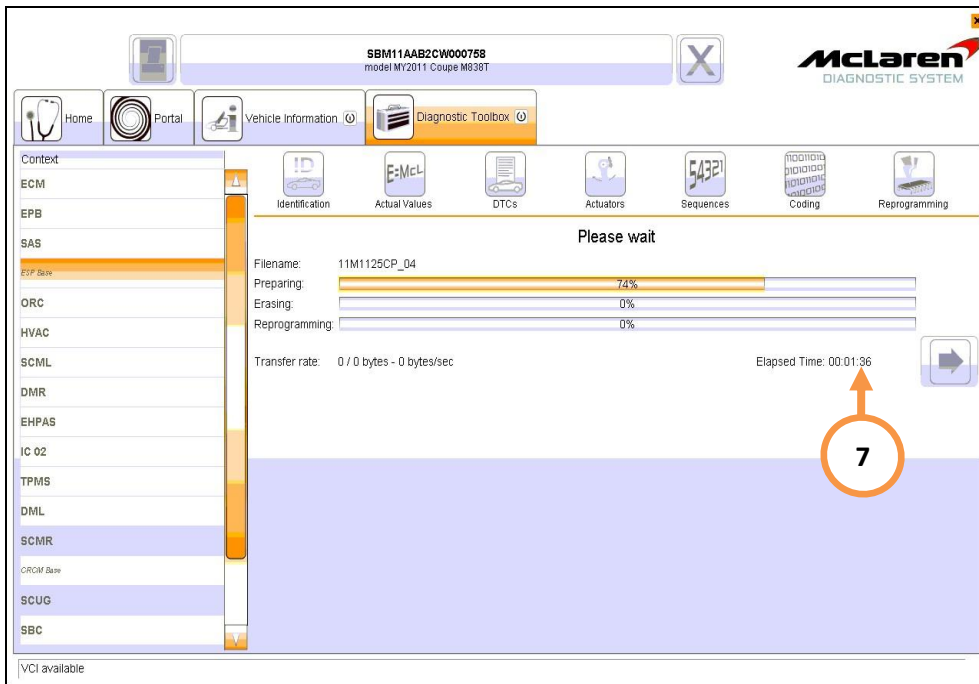

27. If the download is successful proceed to step 33.

28. After the preparation phase of the download the system may inform the operator that the Erase of the ECU Flash Memory Failed". In this circumstance the ESP control unit will require a power cycle (6).
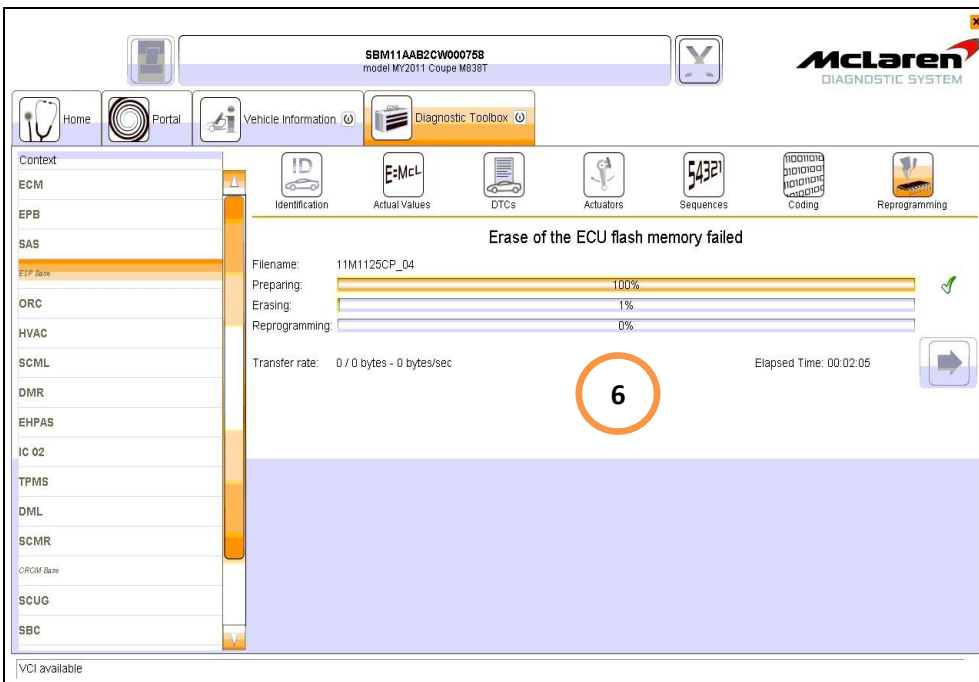
29. Proceed and reflash the ESP module, when the Elapsed Time is between 1.20 to 1.28 seconds (7), disconnect the ESP connector (9) wait for 5 seconds and then reconnect it. The "Preconditions failed" will now be displayed. Proceed to step 31.


30. After the preparation phase of the download the system may inform the operator that the "Preconditions failed". In this circumstance the ESP control unit will require a power cycle (8).
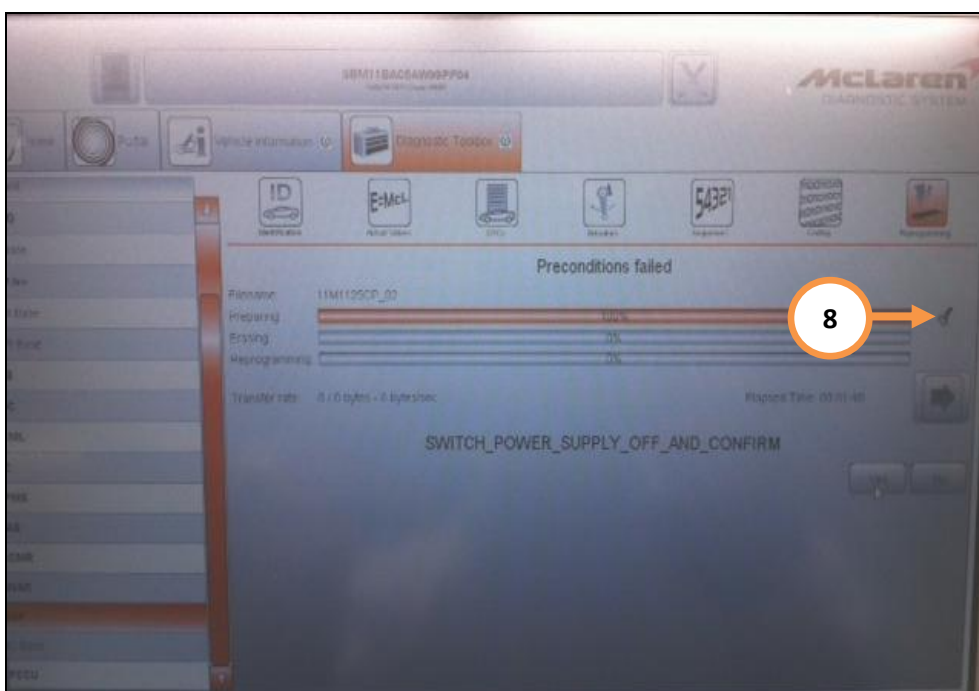
31. Disconnect the ESP connector (9) and wait for 5 seconds before reconnecting.
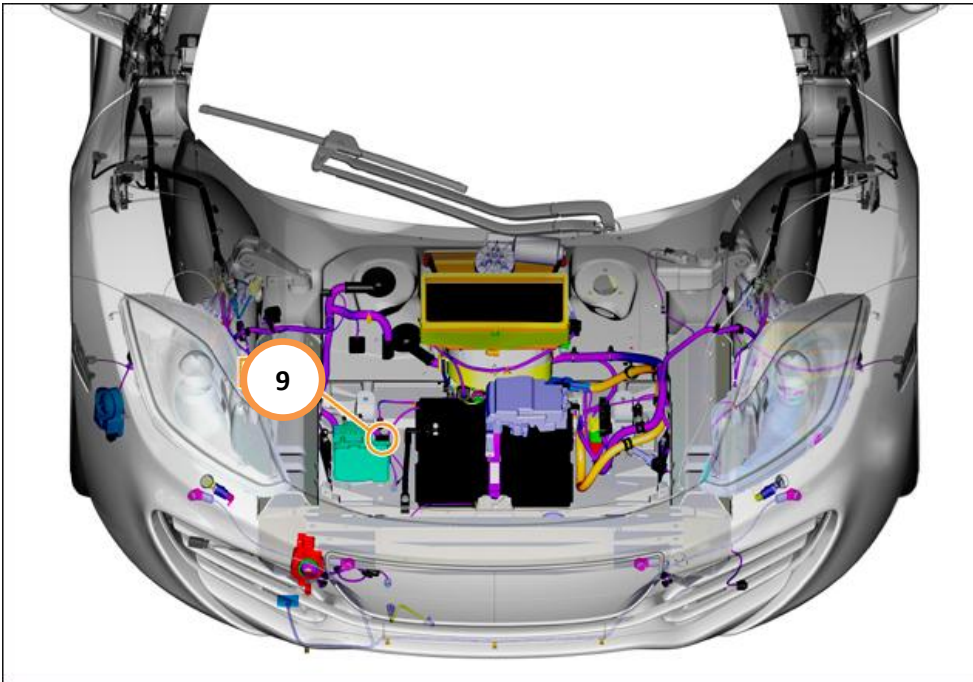
32. Press the YES button within 5 seconds of reconnecting the ESP connector in order to complete the software download (10).
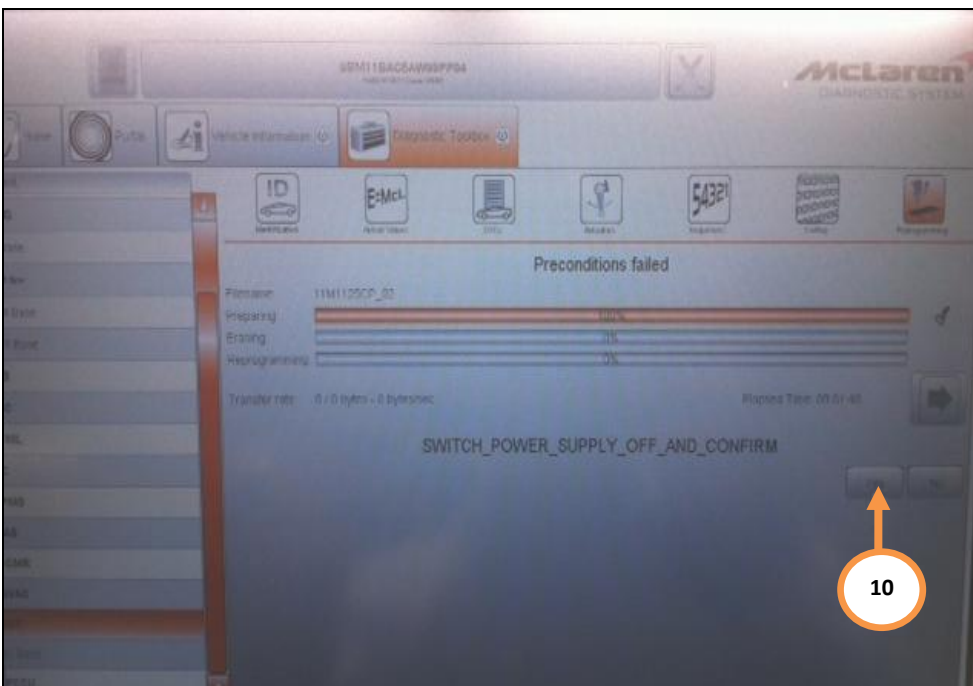
SAS SOFTWARE UPDATE

Care point: The Steering Angle Sensor (SAS) update is only required on vehicles that have not had campaign 11 M 034 or 11 M 036 previously carried out.

33. Select SAS (1), then Reprogramming (2), select the software level 11M1099CP.04 (3) then proceed to the software download by selecting the tick button (4) followed by the arrow button (5). Select 'YES' to initiate programming.
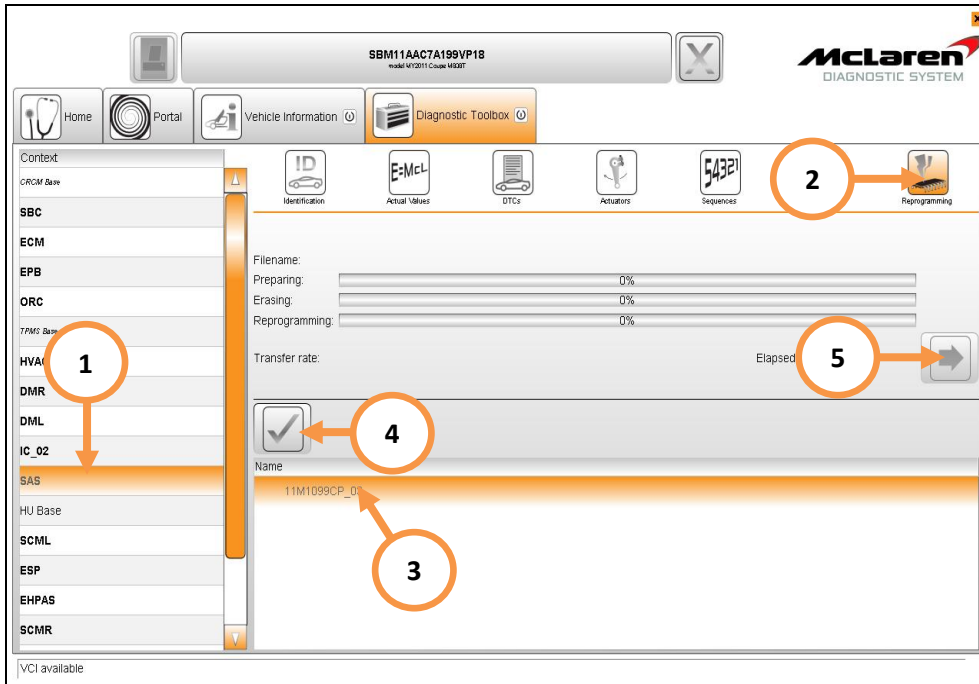

Care point: Ensure that the front wheels are pointing in the straight ahead position before continuing.

34. Once the software has been installed you will be required to fine tune the zero position. Within the SAS section select Sequences (6), select Fine Tune Zero Position (7), and then press the arrow button (8).
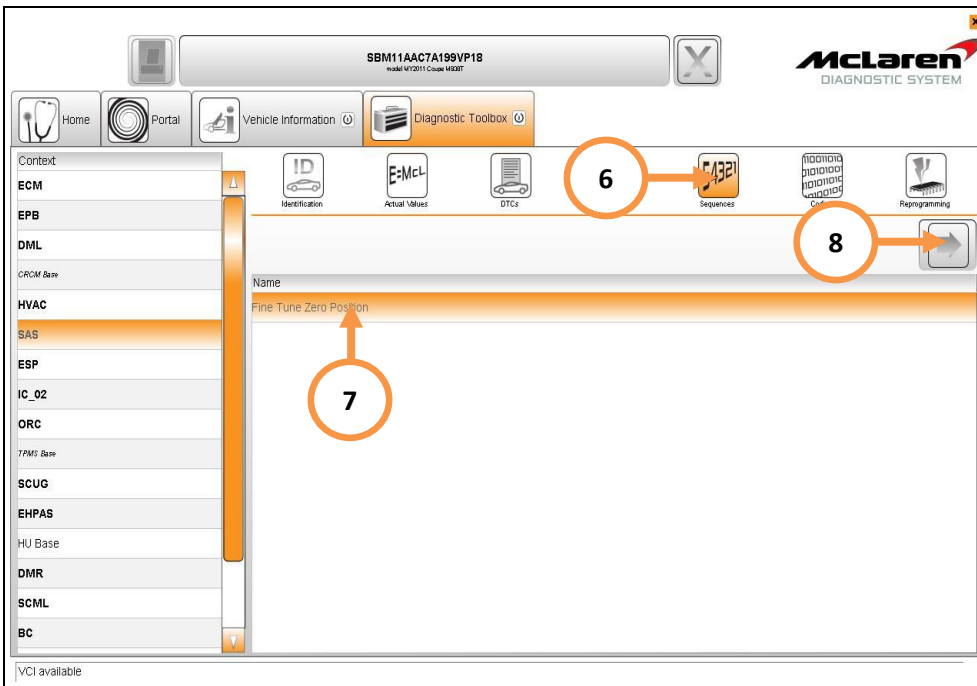
35. Check for any stored Diagnostic Trouble Codes (DTC's) within the DTC's section. If there are any stored codes, proceed to clear them from the memory.

36. Start the engine, select Actual Values (9), followed by SAS Data Read (10), select the play button to access the required data screen (11), turn the steering wheel left and right to full lock. Check that the value reading is zero when the steering is central. Check the fault memory to identify if the DTC's have repeated.
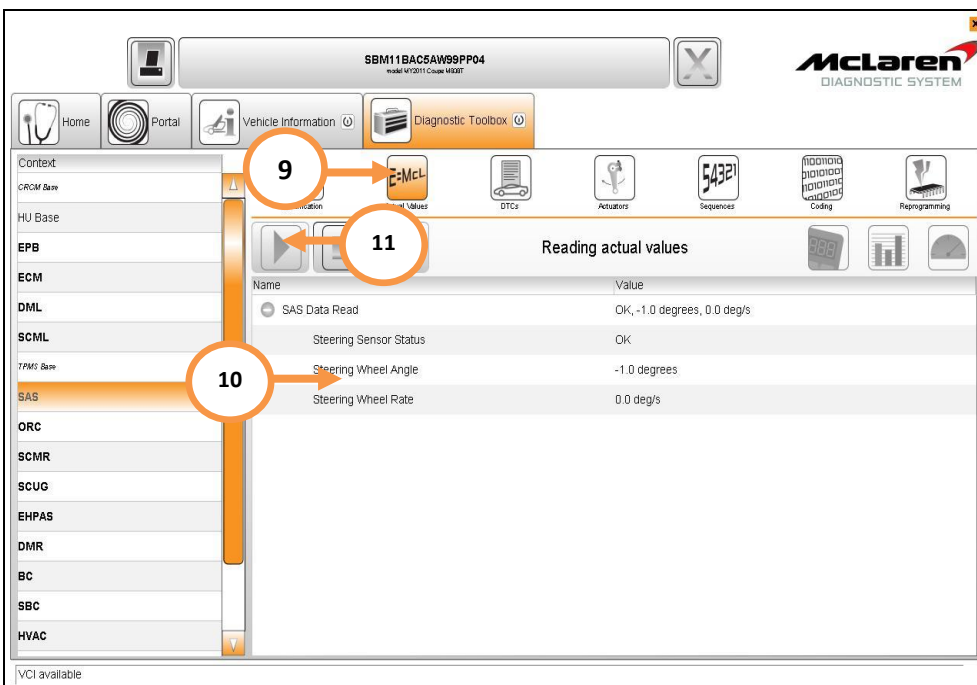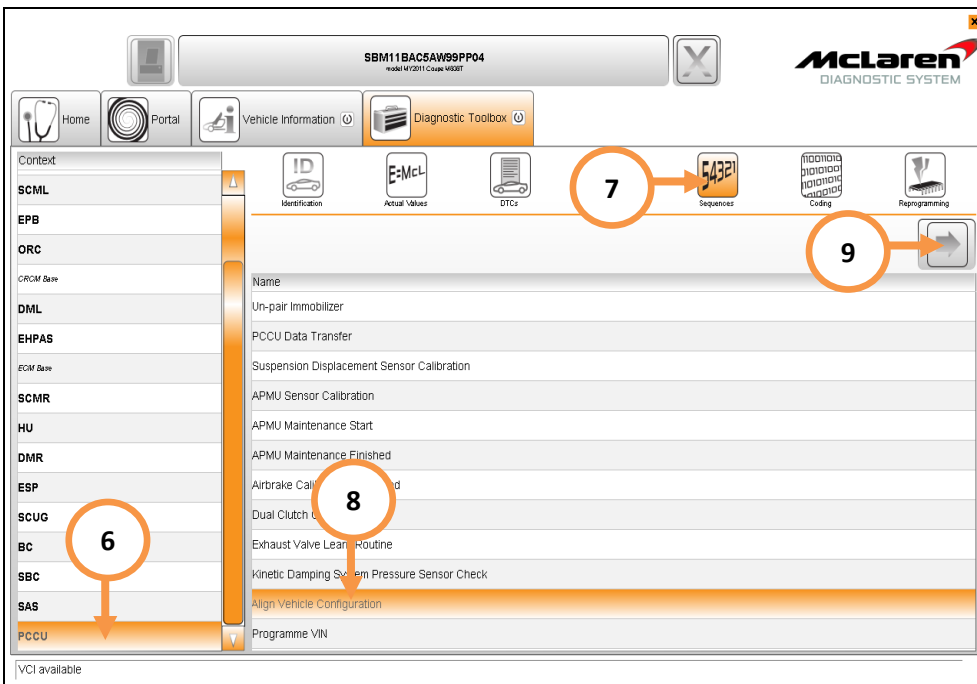
PCCU SOFTWARE UPDATE

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.

37. Select PCCU (1), then Reprogramming (2), select the software variant applicable to your market (3) (by referring to the software table on page 1), then proceed to the software download by selecting the tick button (4), followed by the arrow button (5). Select 'YES' to initiate programming.
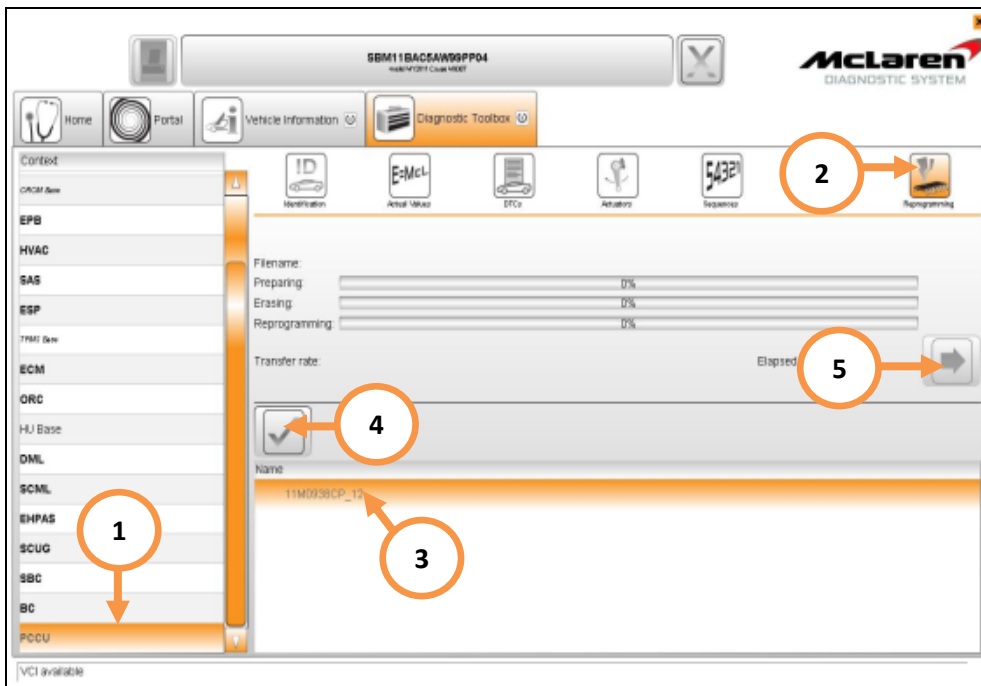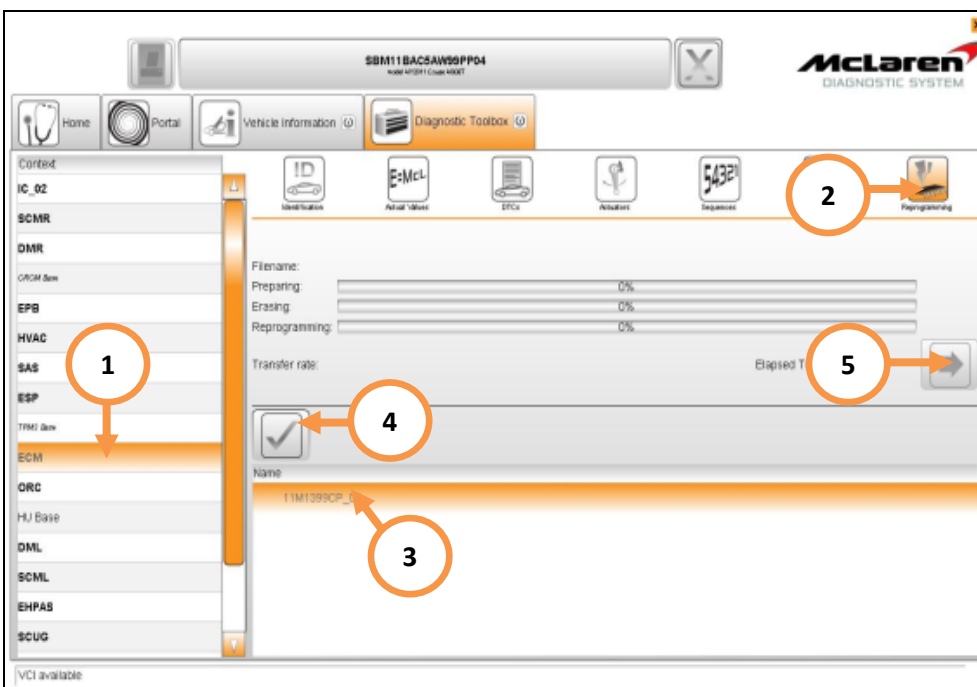

38. Cycle the ignition (on off on) and wait for 30 seconds. Place the vehicle into sleep mode, and then establish the vehicle back into ignition state 5. Clear any DTC's before continuing on with the procedure.

39.Select PCCU (6), then Sequences (7), select Align Vehicle Configuration (8), followed by the arrow key (9).


ECM SOFTWARE UPDATE

38. Select ECM (1), then Reprogramming (2), select the software variant applicable to your market (3) (by referring to the software table on page 1), then proceed to the software download by selecting the tick (4) followed by the arrow button (5). Select 'YES' to initiate programming.

Care point: ECM DTCs must only be cleared in ignition state 5.

39. Cycle the ignition (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.

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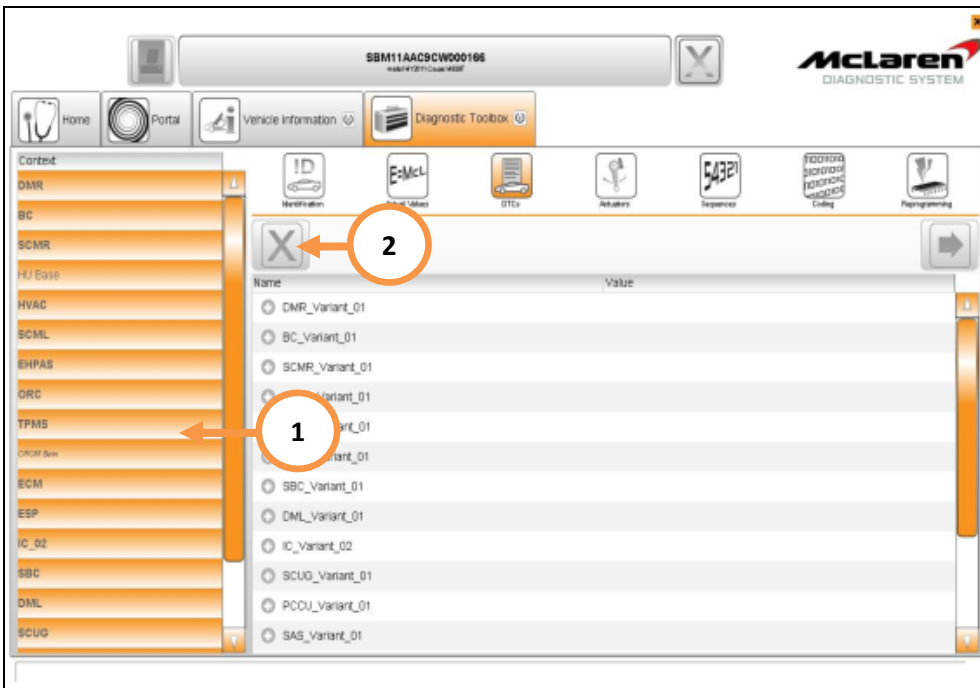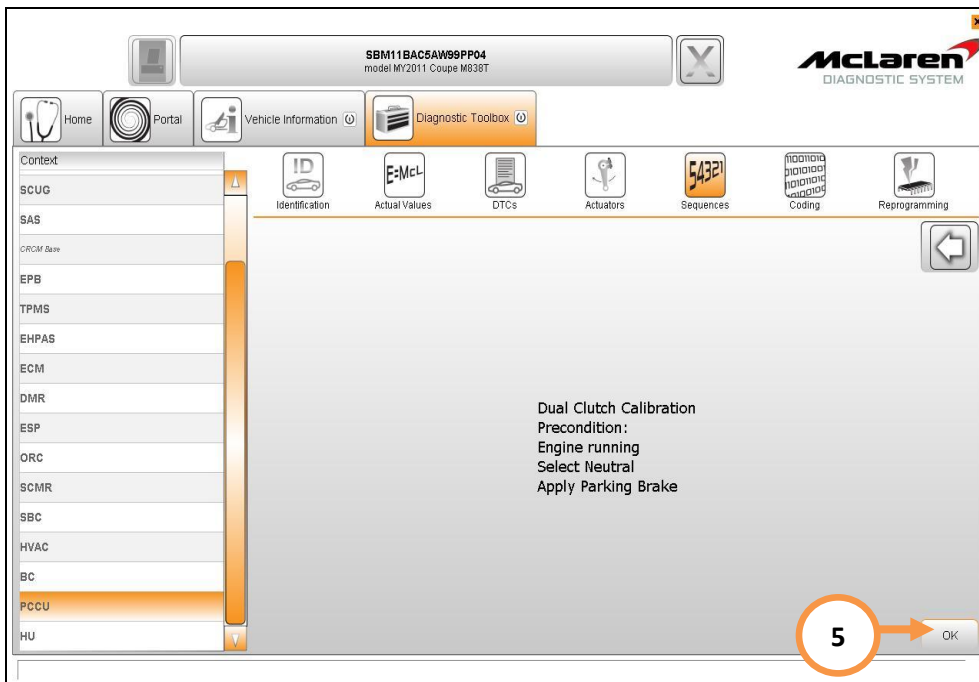

41. Press the stop/start button with the brake pedal depressed to start the engine and allow to idle.

42. Select PCCU (1), then Sequences (2), select Dual Clutch Calibration (3), followed by the arrow key (4).
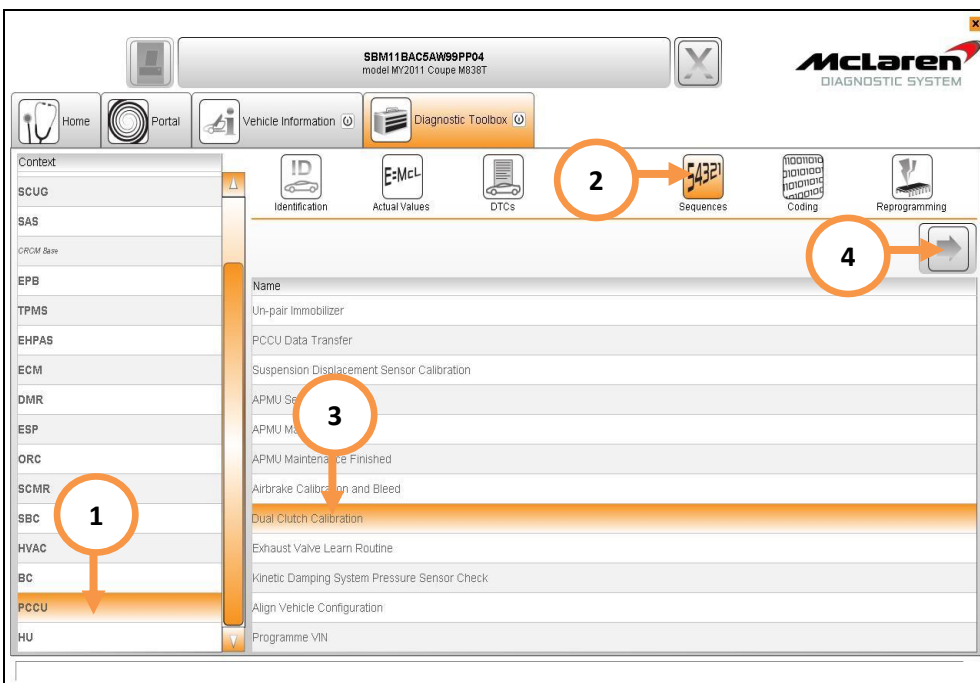
43. Ensure the preconditions are met and then select ok (5).

44. Dual Clutch Calibration will now be performed. When the procedure has completed, allow the car to go to sleep to save the new clutch kiss-point adaption values.

45. Press the stop/start button with the brake pedal depressed to start the engine and allow 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.

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

47. 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. If any values are incorrect proceed to step 48 to carry out the camshaft adaption.
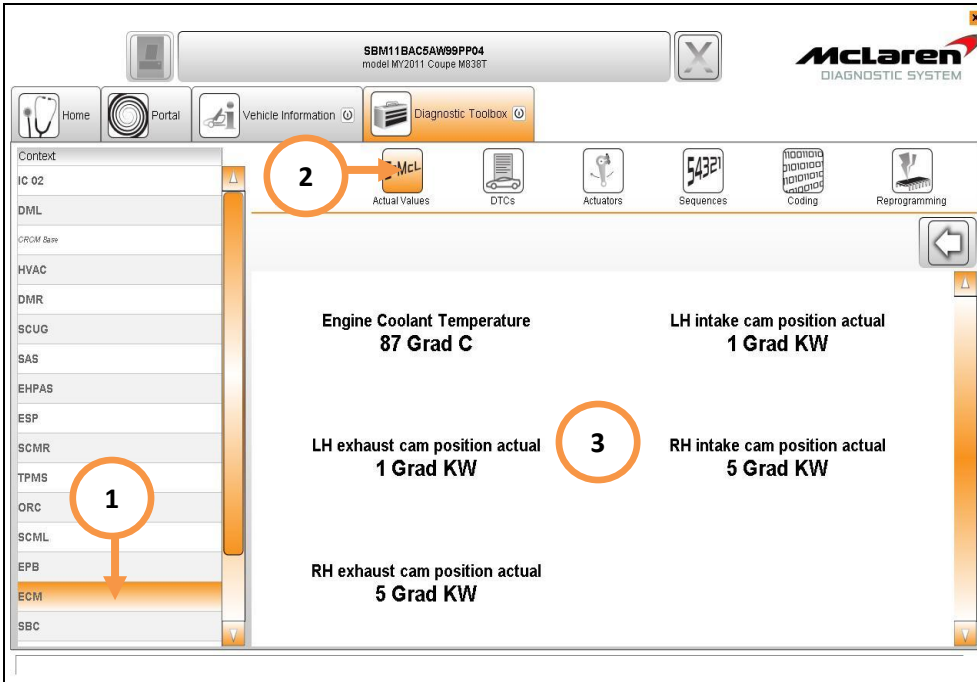
48. Switch the engine off, wait 30 seconds, restart the engine and recheck the values. Repeat this procedure until the target values are obtained.

49. Insert the Owner Manual Supplement (1) into the vehicles book set

Care point: The customer must be informed of the new drivers / passenger door opening functionality.

Care point: The Owner's Manual Supplement' includes information relating to the new IEE OCS system functionality. This system is not fitted to vehicles built prior to 31st May 2012. The customer should refer to the main Owner's Manual should they require information relating to the OCS system on their vehicle.

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

WARRANTY INFORMATION

DESCRIPTION	RESOLUTION CODE	TOTAL REPAIR TIME
Software platform update	M0M30126A33A4A07	2.5 hours

PARTS INFORMATION

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