

SERVICE CAMPAIGN BULLETIN

CAMPAIGN REF: 01Z
TITLE : Federal Engine control module (ECM) software update
DOCUMENT # : 11 M 058
AFFECTED VEHICLES : 12C Coupe and Spider

SITUATION : Quality Engineering at McLaren Automotive have identified an issue with the last release of ECM software calibration.

PROCEDURE : It is necessary to update the software on all affected vehicles prior to release. Vehicles that have previously been updated and released to customers must be returned to the workshop to be updated with the correct software.

MODULE	NEW SOFTWARE PART NUMBERS
Engine Control Module (ECM)	11M2490CP.03 Federal 11M2502CP.03 Federal

REMOVAL:

1. Please refer to AA-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.

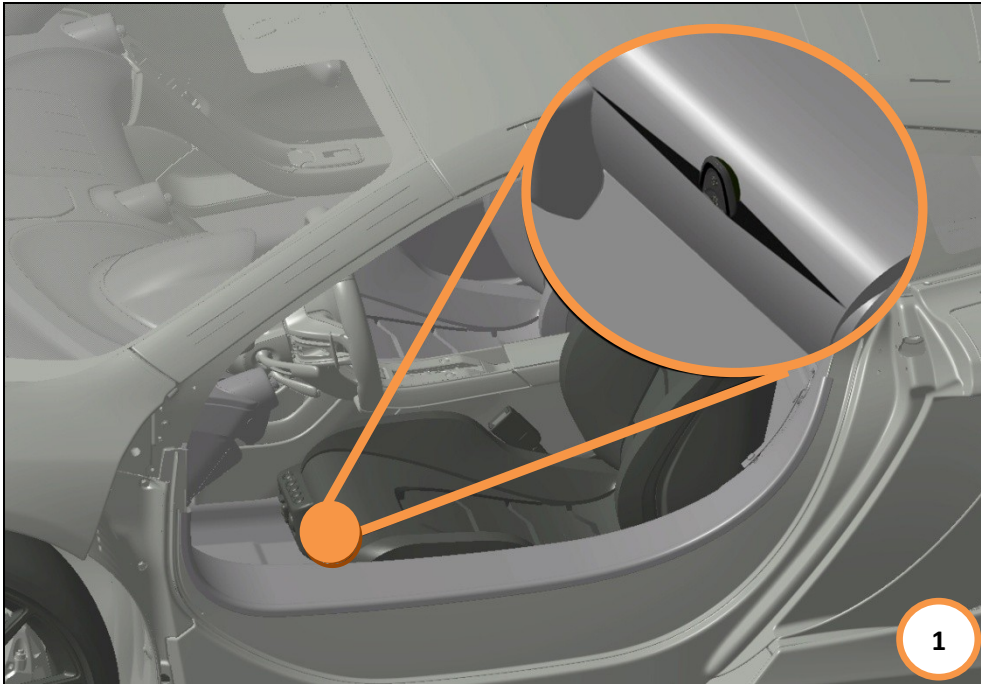
2. Keep the battery on charge, using a Deutronic battery charger during the software downloading procedure.

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.

Care point: The key must be positioned in the driver's seat front pocket, picture below (1).



1. Switch the MDS off and on again to allow the Update Manager to process to start.

Care point: Dealers that have more than one MDS must carry out this update on each tool before it is used.

2. Login into the MDS to allow the MDS to update, check the MDS build number has now changed from 2.0.3.0010 to 2.0.4.0010 TBC before proceeding with next steps.
3. Connect the McLaren Diagnostic System (MDS) to the vehicle.

- Compare the software levels in the chart below to what the MDS actual values displays. Each ECM software level has a unique Calibration identification and Calibration Verification Number, if all three match then the ECM has been updated successfully. If incorrect confirm the MDS build number is 2.0.4.0010 and contact Technical Support. If the MDS build number is incorrect switch the MDS off and on again for the update to install.

ECM software level	Calibration identifications	Calibration Verification Number
11M2502CP.03	11M2572CP.02	2048131483
11M2490CP.03	11M2566CP.02	749832297

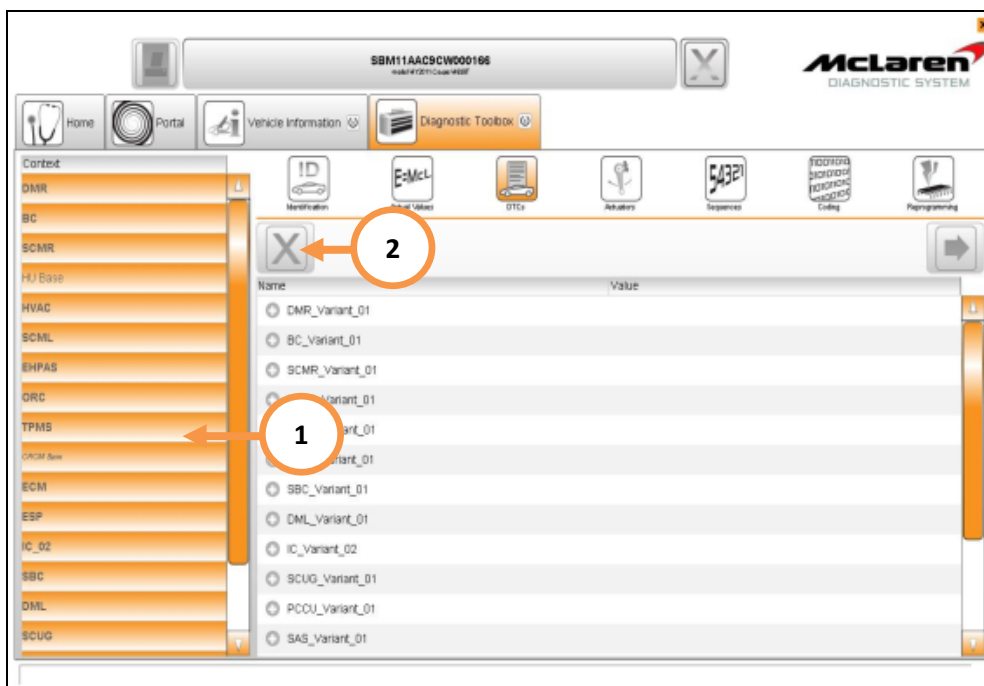
Care Point: HVAC DTC's U015500 CAN Missing IC and B1A3700 Kept Awake may not delete these can be ignored.

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

- 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.

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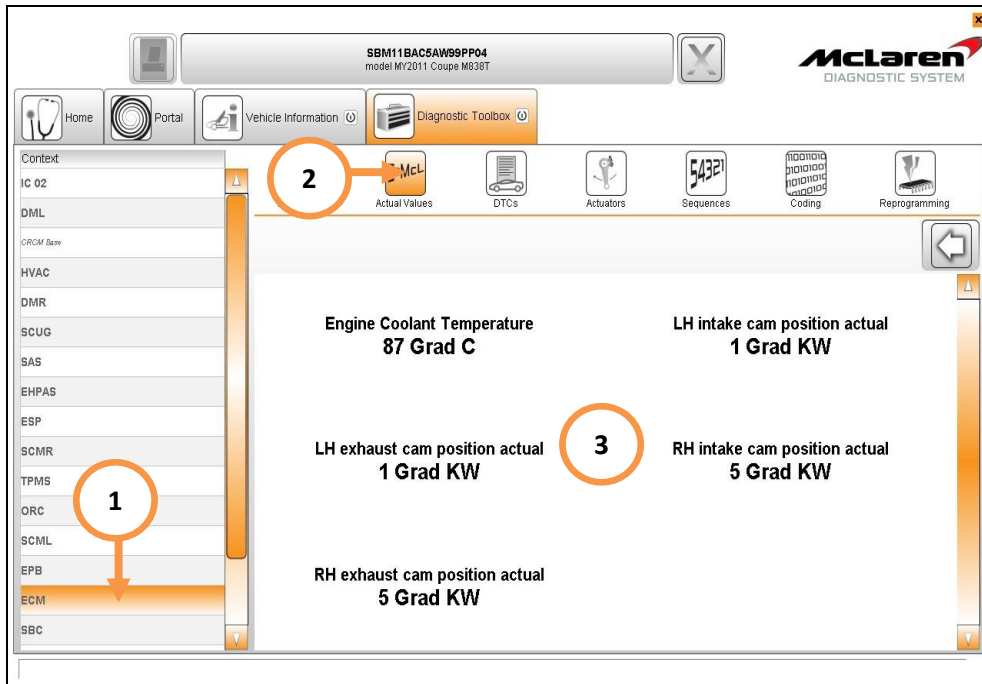
- Select and highlight all items within the context fields (1) and perform a global clear of all DTC's (2).



- Press the stop/start button with the brake pedal depressed to start the engine and allow to idle.
- 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 degrees C before proceeding with the camshaft adaption procedure.

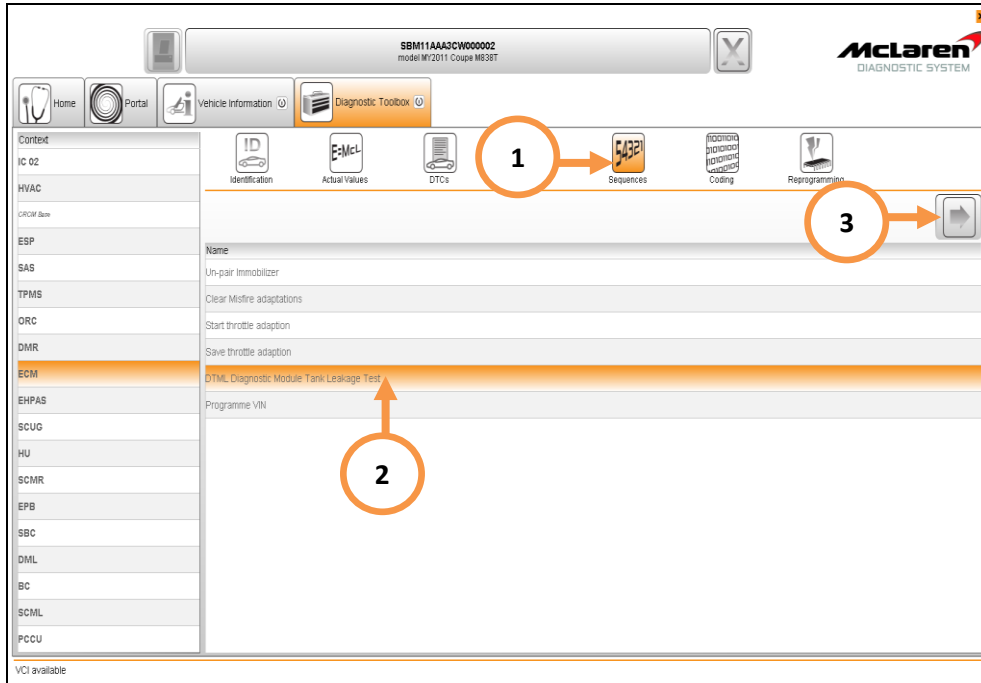
8. Select ECM (1), then Actual Values (2), select the following values as per the screenshot below (3), then select the play button to access the required data screen.
9. The inlet and exhaust camshaft values should be between 1 and 4, both values will fluctuate slightly. If all values are correct no further action is required proceed to step 11. If any values are incorrect proceed to step 10 to carry out the camshaft adaption.



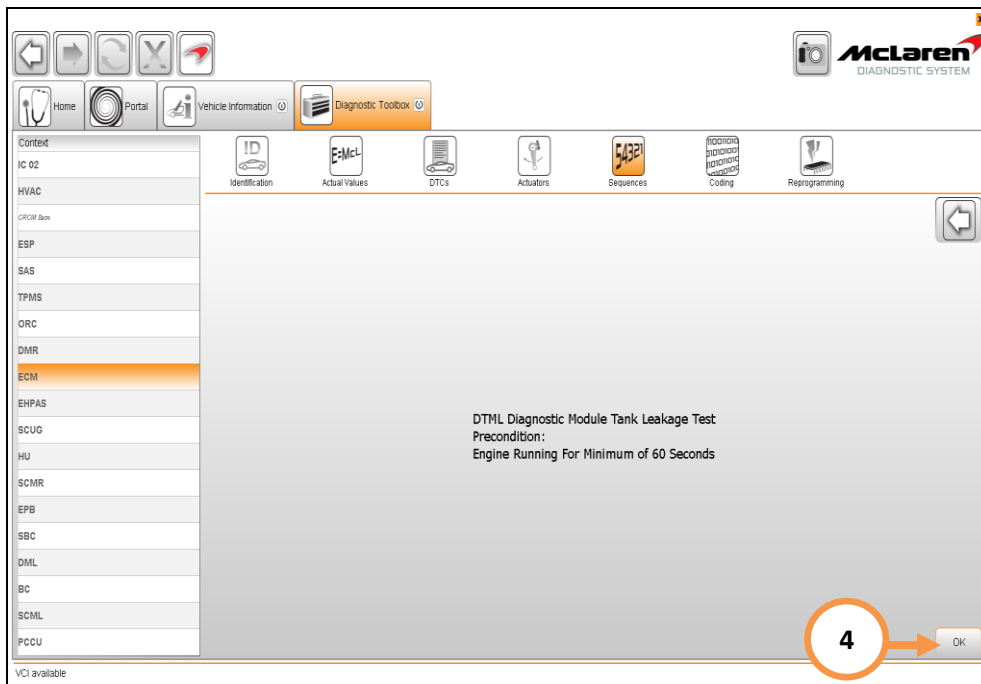
10. Switch the engine off, wait 30 seconds, restart the engine and recheck the values. Repeat this procedure until the target values are achieved.

Care point: The fuel level must be above ¼ before you proceed to the Diagnostic Module Leakage Test (DMTL).

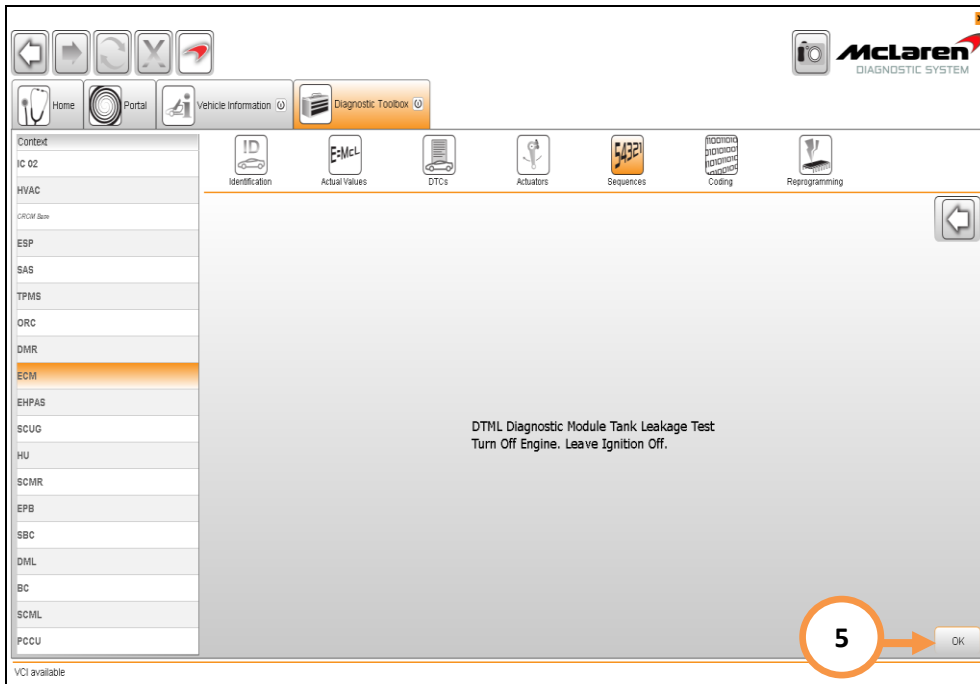
11. Select Sequences (1), then DMTL-Diagnostic Module Leakage Test (2), followed by the arrow button to proceed (3).



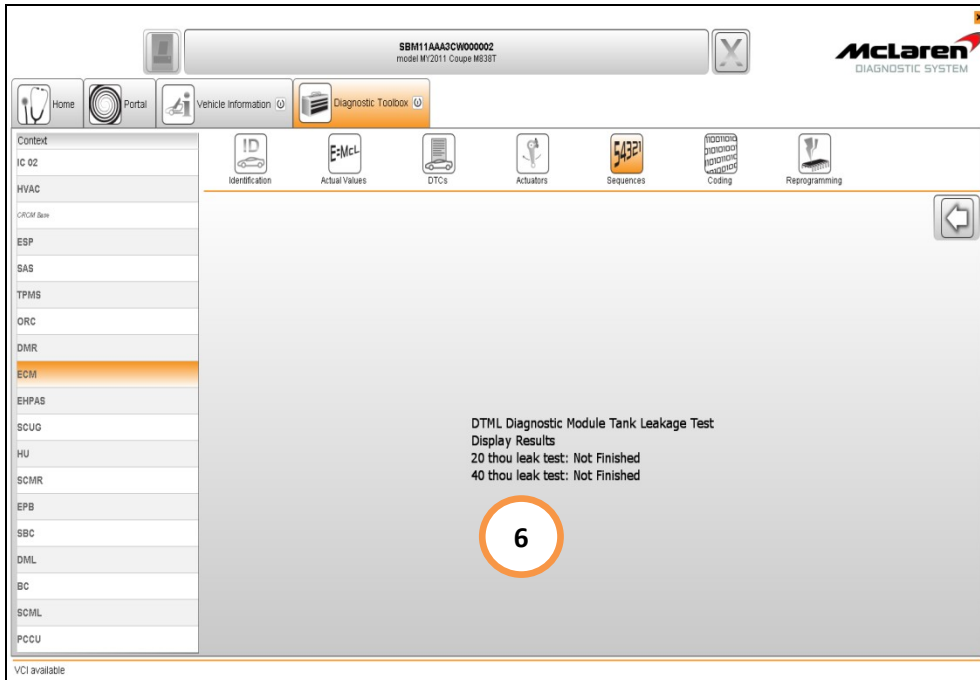
12. Follow the preconditions and run the engine for 60 seconds and then select Ok (4).



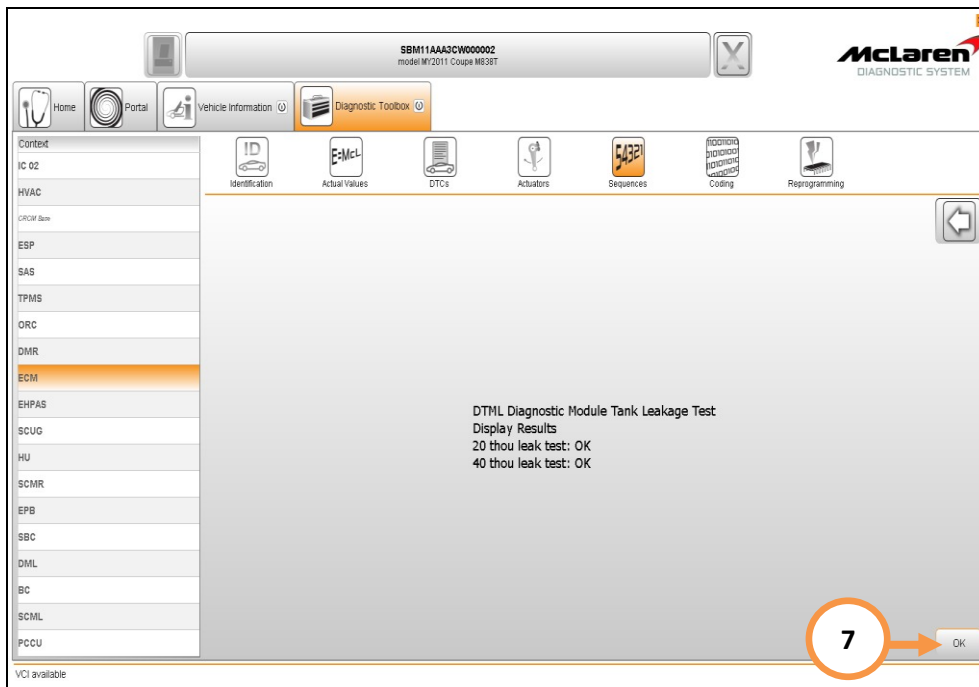
13. Follow the instructions on the next screen and then select Ok (5).



14. The DMTL test will now run and can take up to six minutes to complete the 20 thou and 40 thou leak test (6).



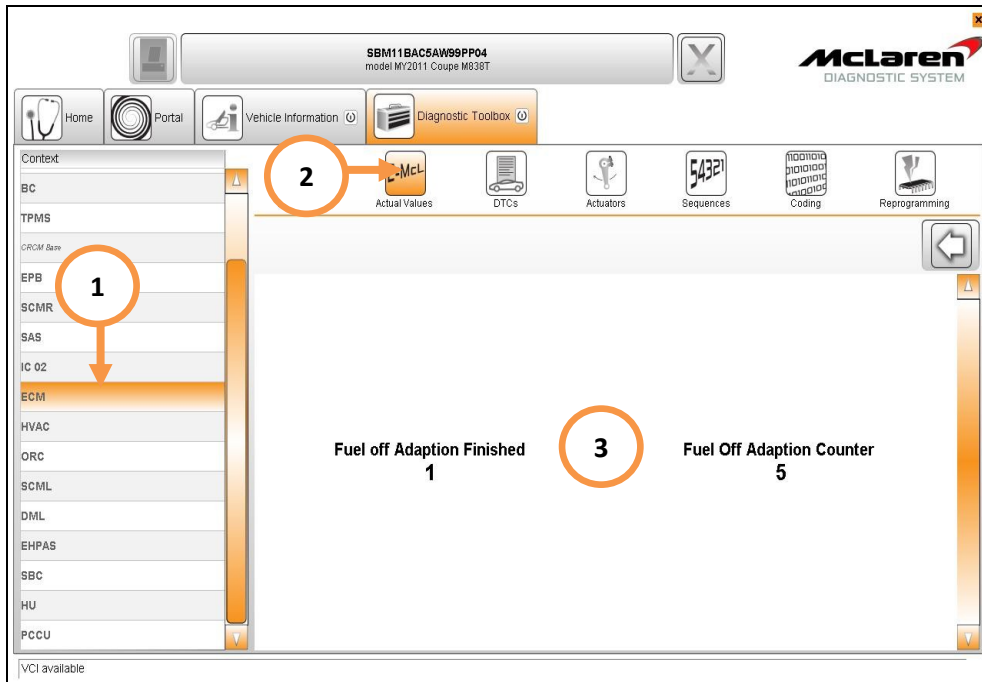
15. When the 20 thou and 40 thou leak tests have completed the screen below will be displayed, then select Ok (7).



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

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

17. 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.
18. 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.



19. Misfire adaptations are performed whilst the car is driven with the gearbox set to manual mode and with the A/C off.
20. 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).
21. 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

DESCRIPTION	RESOLUTION CODE	TOTAL REPAIR TIME
ECM software update	M0M30126A33A4A07	1.00

PARTS INFORMATION

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