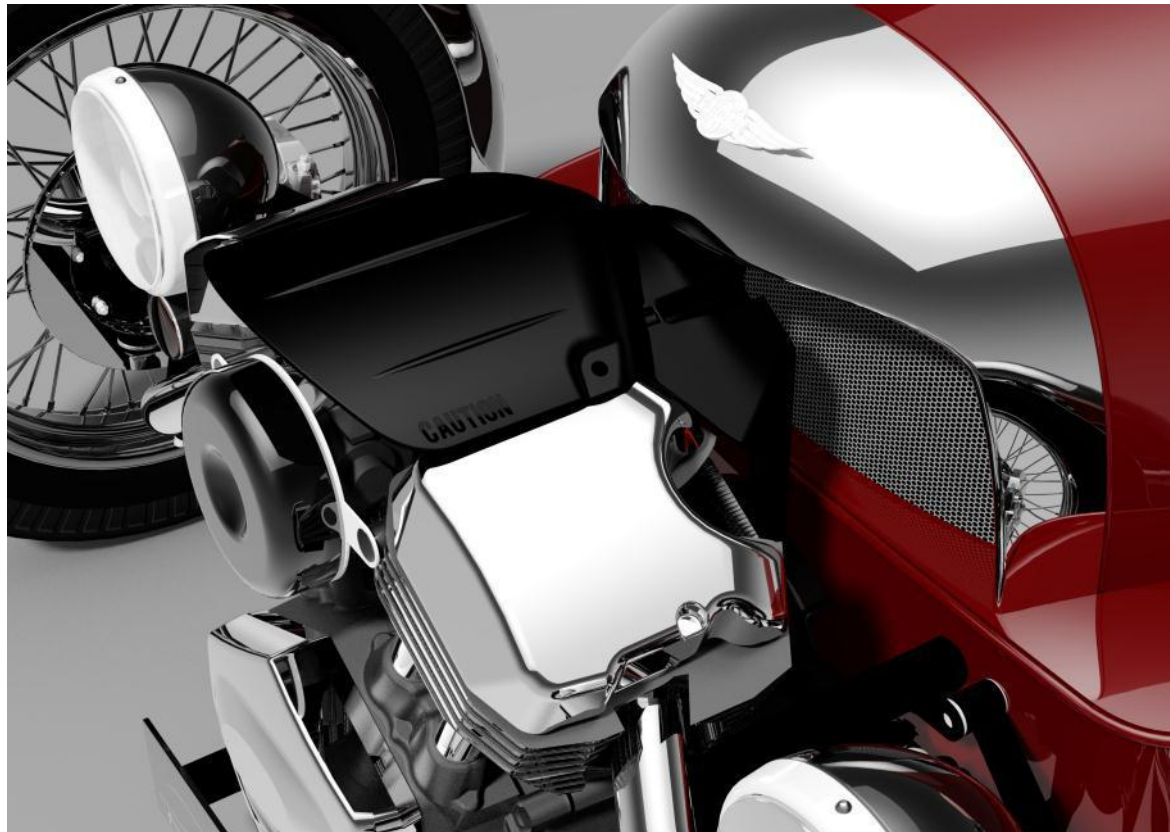
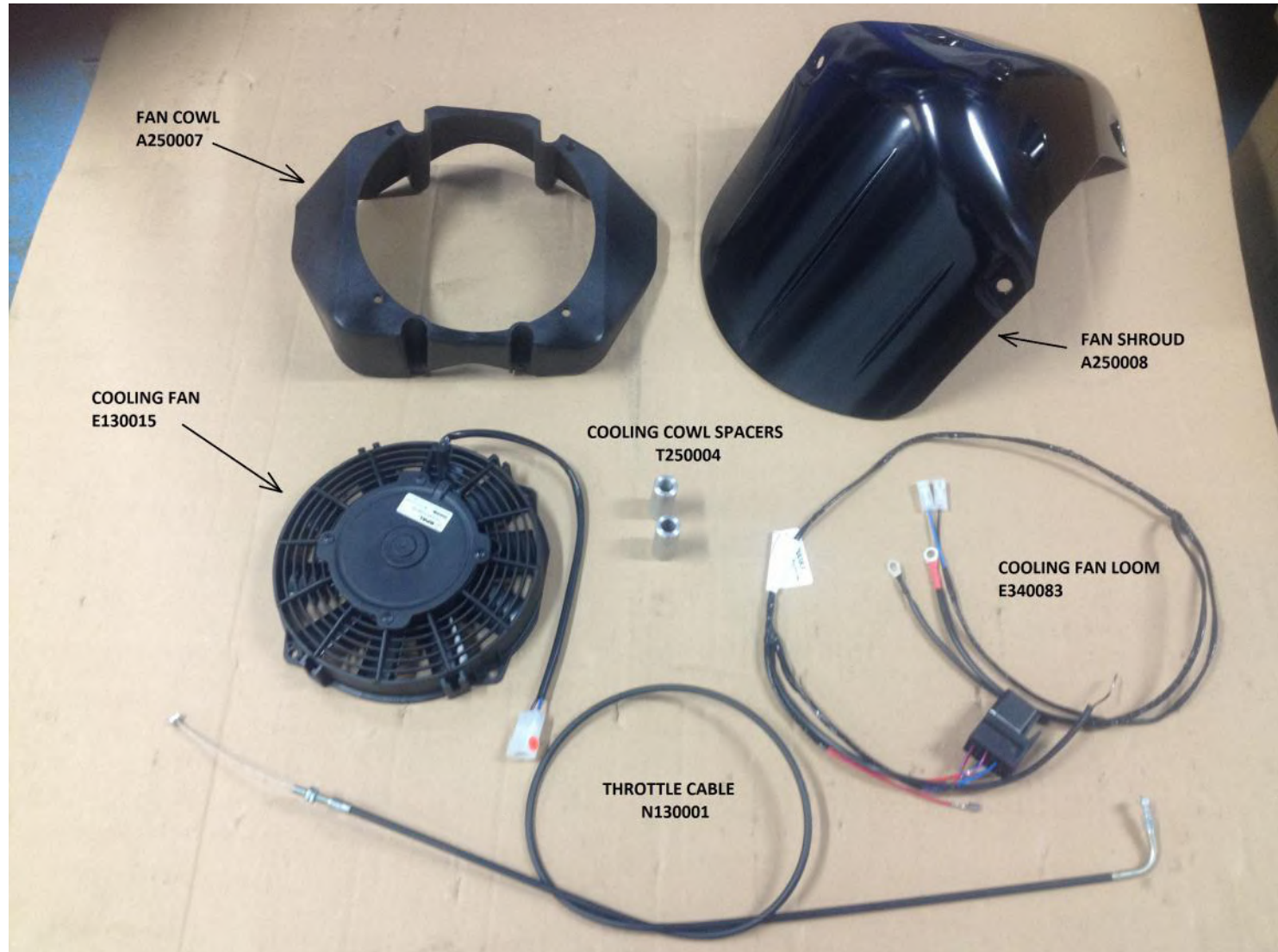


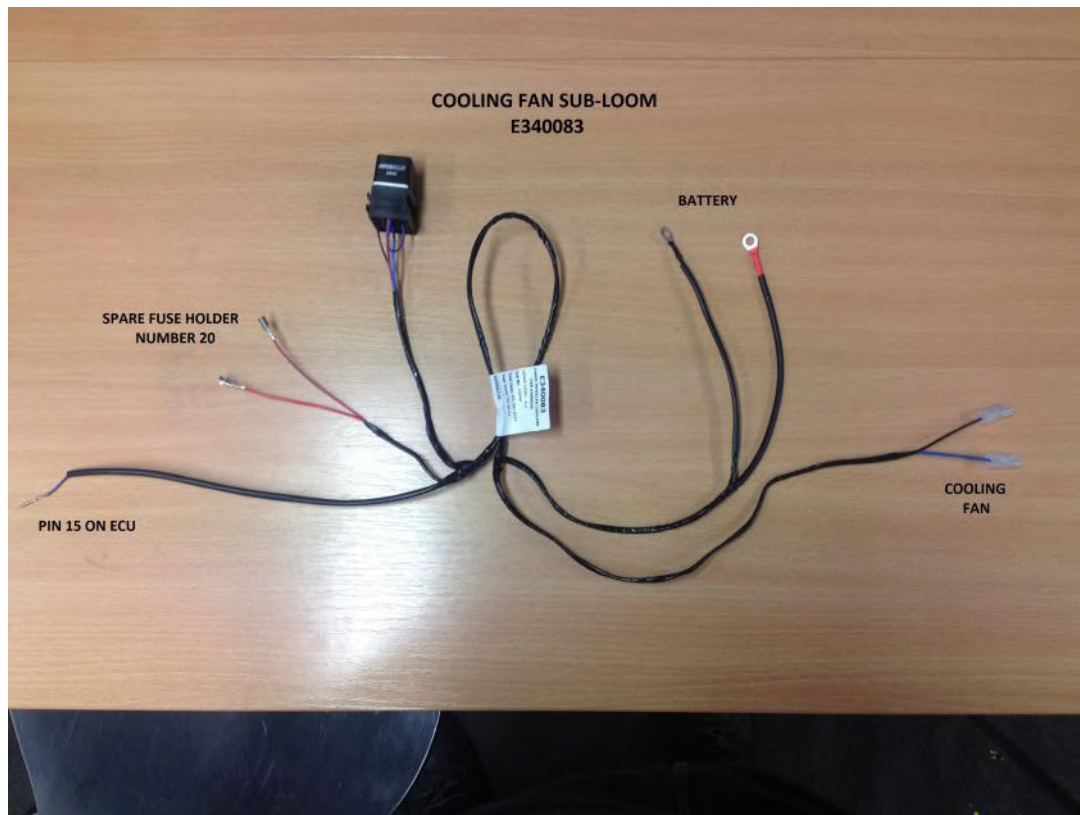
INSTRUCTIONS ON HOW TO FIT THE MORGAN 3W “URBAN COOLING PACK”



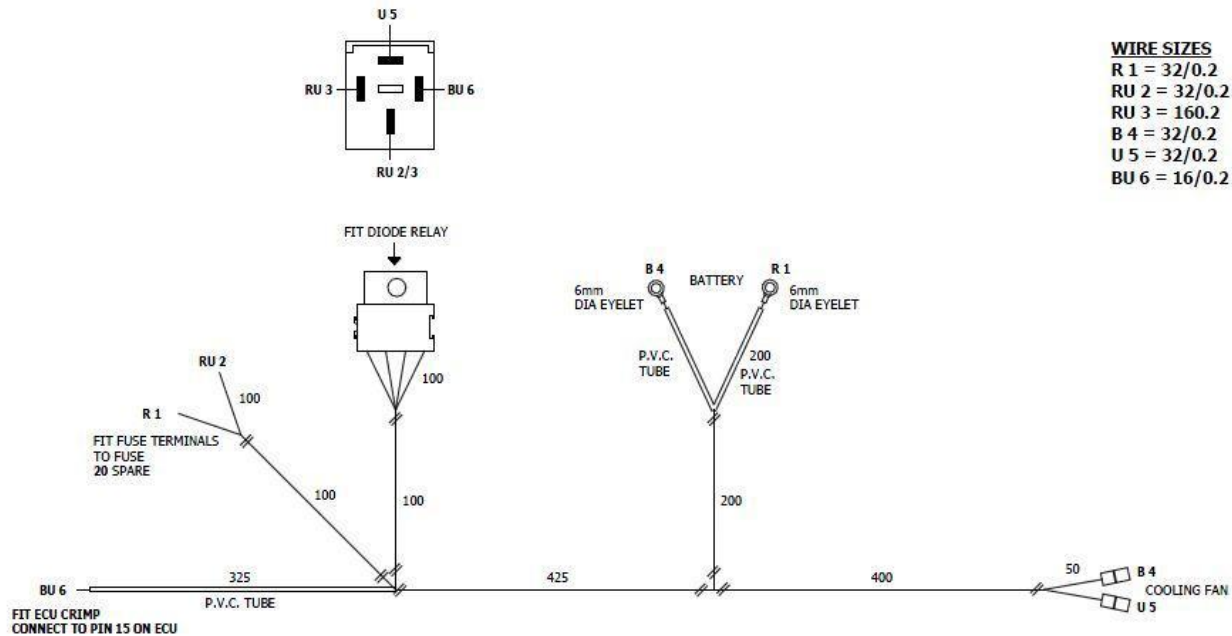
Cooling Fan Components



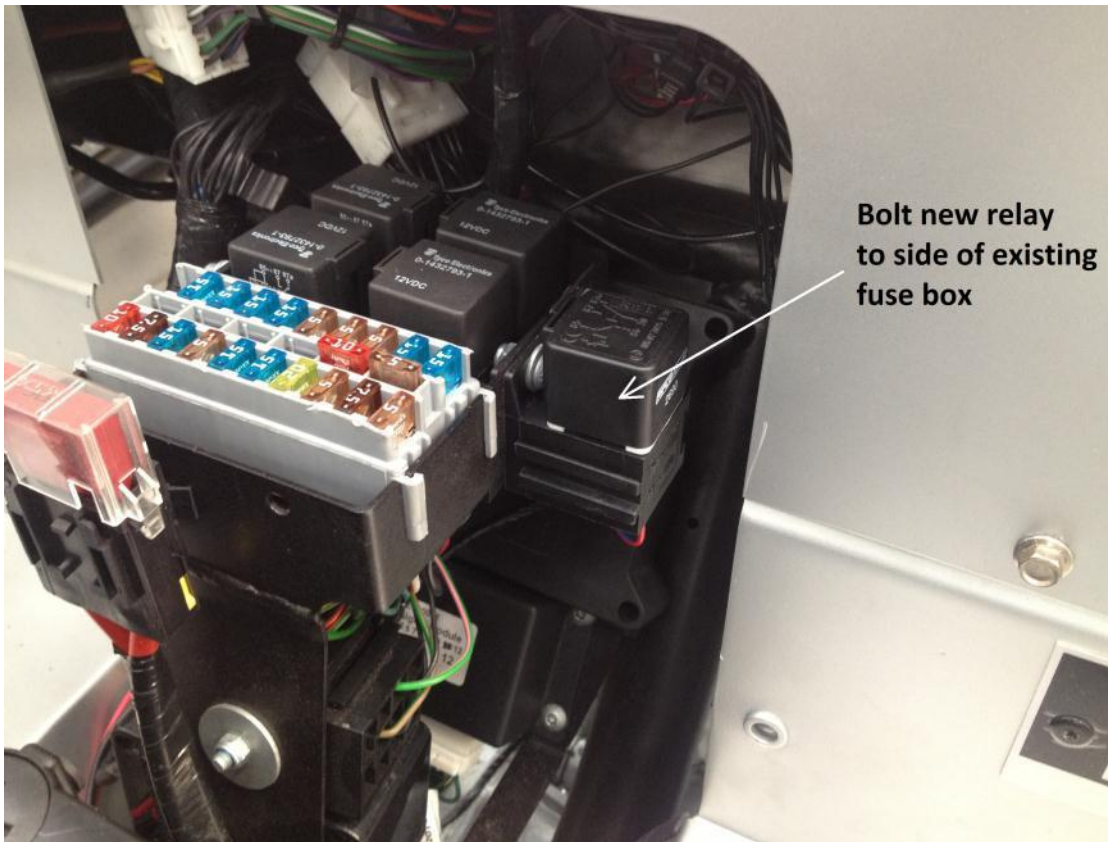
Cooling fan sub-loom and wire destinations



Cooling fan sub-loom diagram



Fit sub-loom to vehicle following the destinations from the wiring loom diagram



Bolt new relay
to side of existing
fuse box

Location of new cooling
Fan relay

Fit the new throttle cable

The original engine top cover can be removed and will not be re-fitted.



Arrange fuel lines and wiring loom to go beneath the chassis cross member



The right-angled end fits to the throttle body

COOLING FAN FIXINGS



MGB0027

MGW0106

Four M6X20 Bolts & washers
Fan shroud to Fan cowl
Blue loctite



MGB0026

MGN 0018

MGN0027

Four M6X15 Bolts
washers and nylocs
Fan to Fan cowl



F500002

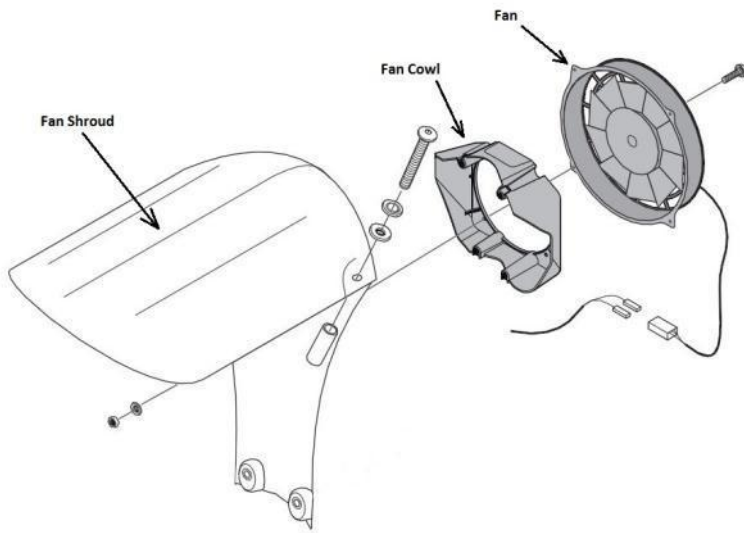


MGW0215

MGW0026

Two 3/8 UNC Bolts
Cowl / Shroud to
Engine

ASSEMBLY



1. Bolt fan to Fan cowl with four M6 X 15 bolts with washers and nylocs
2. Then bolt fan shroud to fan cowl with four M6 X 20 bolts, use Blue loctite .
3. With fan connector connected the whole assembly can be bolted to the engine using the two 3/8 UNC bolts.

Calibration Change

The following information and screen shots detail on how to update the Calibration in the Three Wheeler Engine ECM (Electronic Control Module).

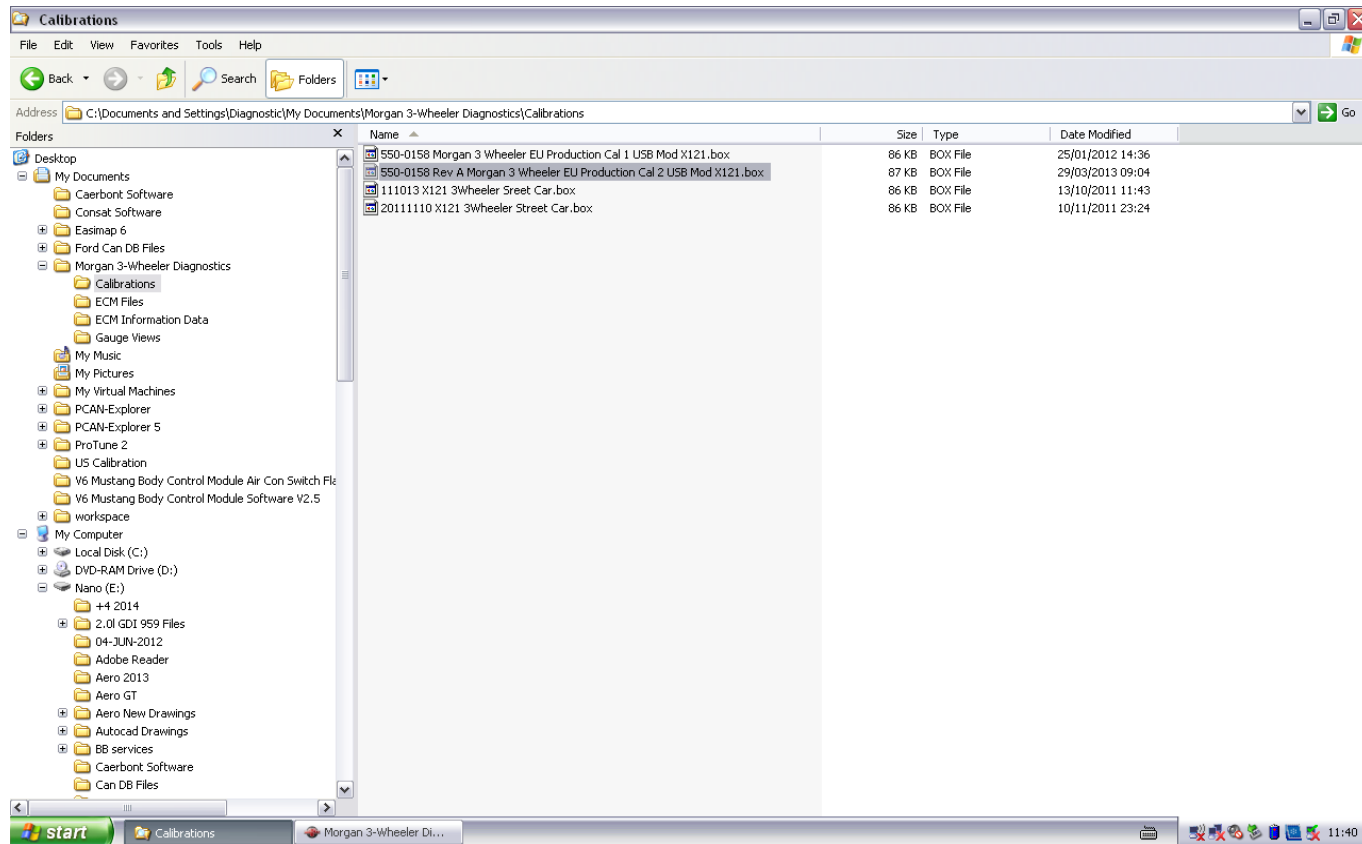
You will receive by email a new calibration file this is to update the one currently in the ECM to control the cooling fan.

The file sent over will be either.

550-0158 Rev C Morgan 3 Wheeler EU Production Cal 3 USB Mod X121.box

550-0198 Rev B Morgan 3 Wheeler US Production Cal 2 USB Mod X121.box

We recommend that this file is saved to the following location.

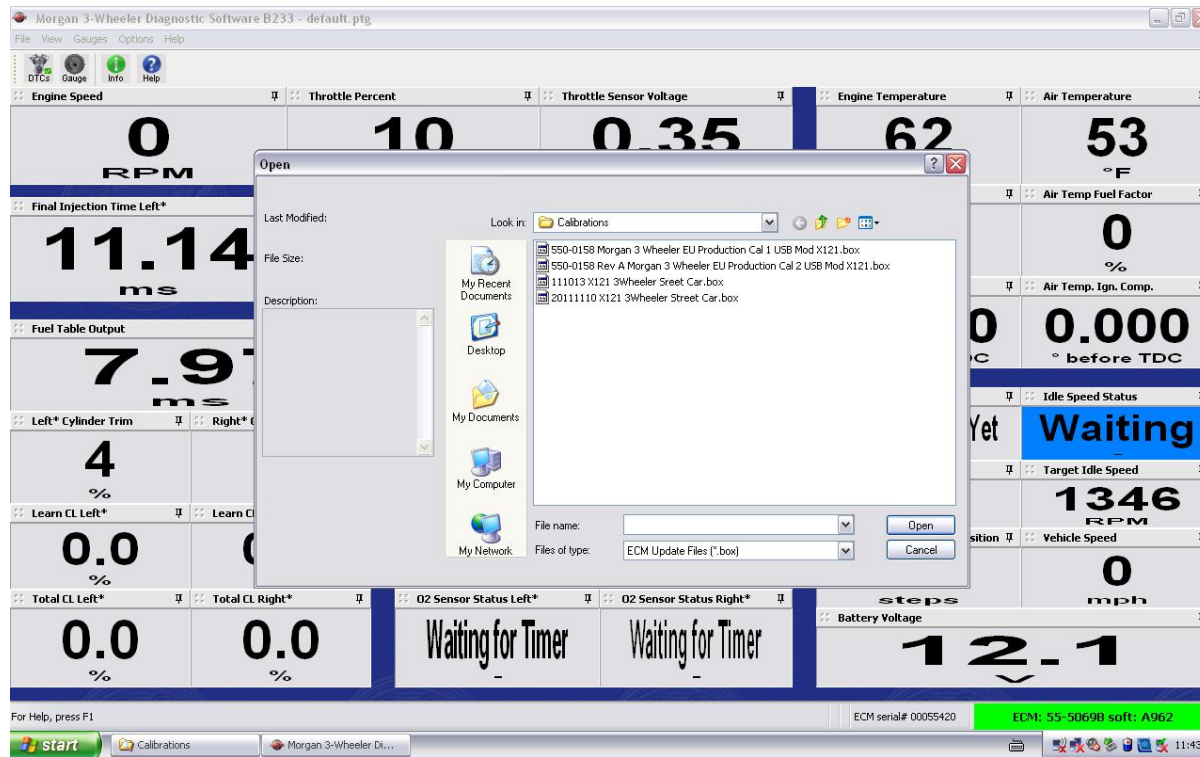


Once this has been done it will be easy to find the calibration from the Three Wheeler Diagnostic Software.

Next Open up the Three Wheeler Diagnostics and Select File and then Send all data to EMC as below.



This will then open up the following

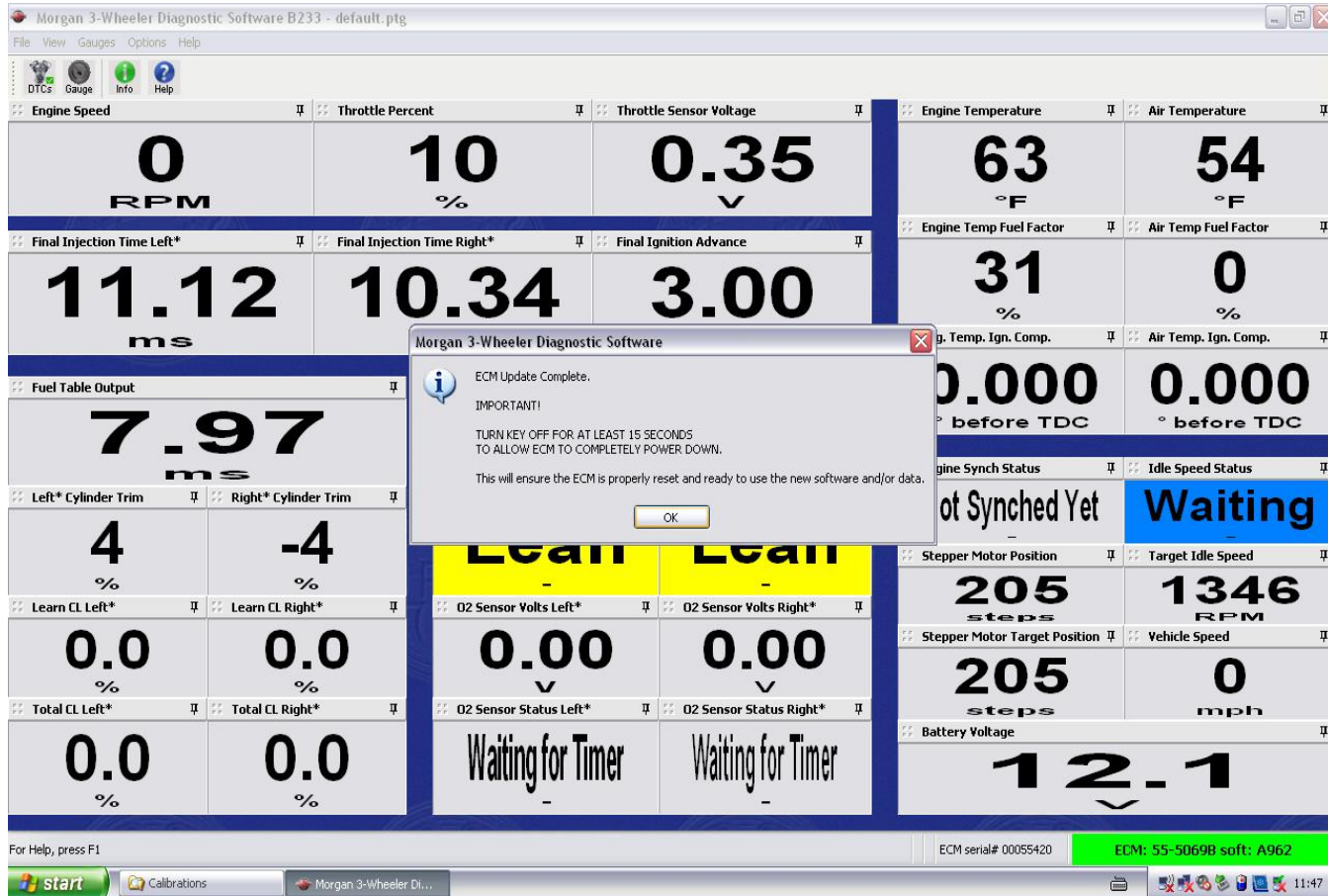


You will need to select the new calibration file
550-0158 Rev C Morgan 3 Wheeler EU Production Cal 3 USB Mod X121.box
or
550-0198 Rev B Morgan 3 Wheeler US Production Cal 2 USB Mod X121.box
Depending on what calibration you have been sent
and then click Open.

Once you have clicked open you will see the following Screen let the software fully down load whilst it is downloading **do not turn off the power to the car or the laptop as this will corrupt the software inside the ECM.**



Once the download is complete you will be asked to turn off the Ignition of the car for a least 15 seconds to make sure the ECM powers down completely. Click OK and then turn off the ignition.



Turn the ignition back on and wait for the Laptop to connect to the ECM then select View / Comment field as below.

The screenshot displays the 'Morgan 3-Wheeler Diagnostic Software B233 - default.ptg' application window. A menu is open under the 'View' tab, showing options like 'Diagnostic Trouble Codes', 'ECM Gauges', and 'Comment Field...'. The main interface is a grid of gauges and status indicators. A central red box indicates 'No Closed Loop'. The bottom status bar shows 'ECM serial# 00055420' and 'ECM: 55-5069B soft: A962'.

Throttle		Temperature	
Throttle Percent	10 %	Engine Temperature	63 °F
Throttle Sensor Voltage	0.35 V	Air Temperature	55 °F

Injection & Ignition		Fuel Factors	
Final Injection Time Left*	11.12 ms	Engine Temp Fuel Factor	31 %
Final Injection Time Right*	10.34 ms	Air Temp Fuel Factor	0 %
Final Ignition Advance	3.00 ° before TDC	Eng. Temp. Ign. Comp.	0.000 ° before TDC
		Air Temp. Ign. Comp.	0.000 ° before TDC

Fuel & Trim		Closed-Loop Status	
Fuel Table Output	7.97 ms	Target Closed-Loop	No Closed Loop
Left* Cylinder Trim	4 %	Left* Cylinder Closed-Loop	Lean
Right* Cylinder Trim	-4 %	Right* Cylinder Closed-Loop	Lean

Learn & O2		O2 Sensor Status	
Learn CL Left*	0.0 %	O2 Sensor Volts Left*	0.00 V
Learn CL Right*	0.0 %	O2 Sensor Volts Right*	0.00 V
Total CL Left*	0.0 %	O2 Sensor Status Left*	Waiting for Timer
Total CL Right*	0.0 %	O2 Sensor Status Right*	Waiting for Timer

Stepper & Vehicle	
Engine Synch Status	Not Synched Yet
Idle Speed Status	Waiting
Stepper Motor Position	205 steps
Target Idle Speed	1346 RPM
Stepper Motor Target Position	205 steps
Vehicle Speed	0 mph

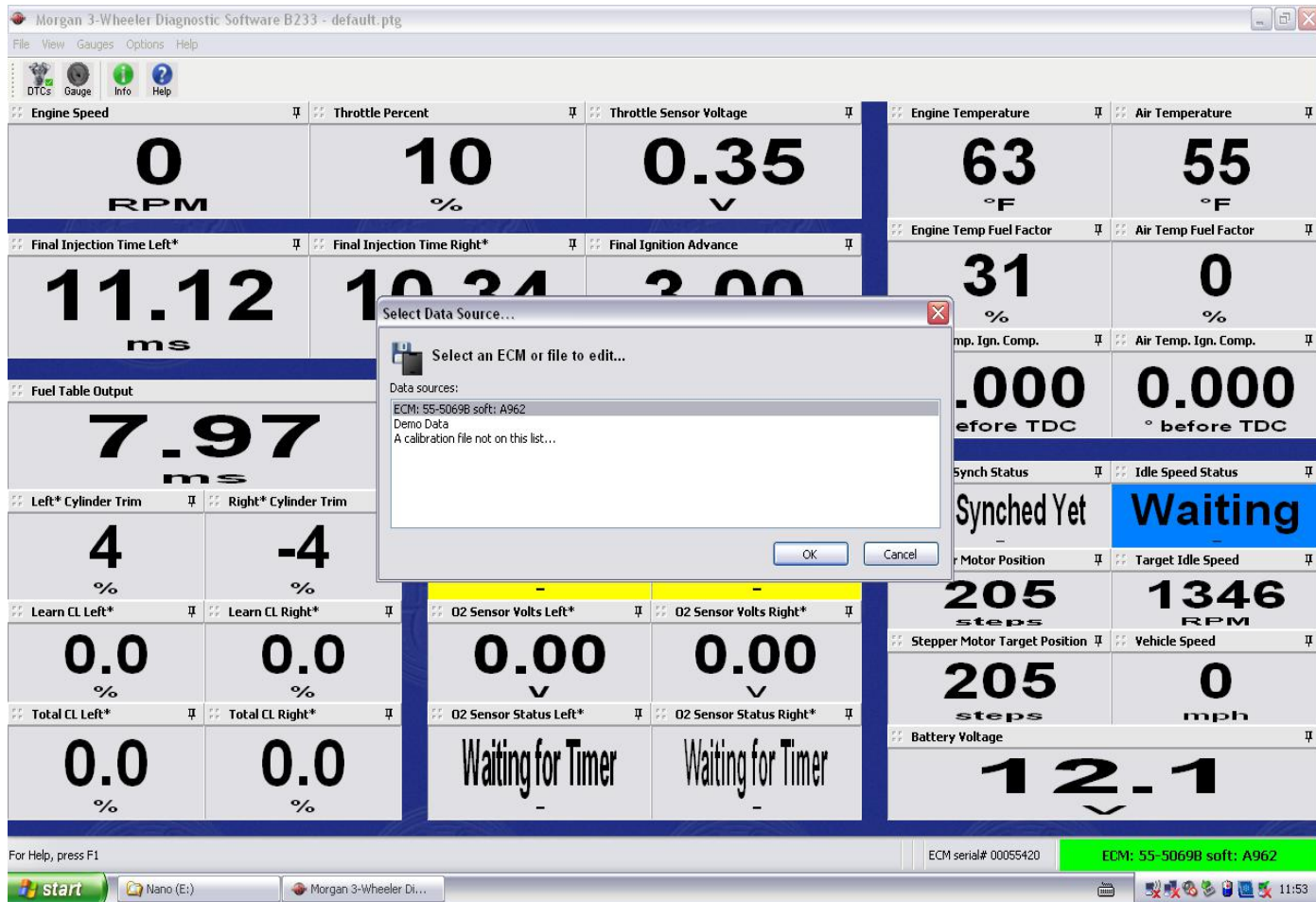
Battery	
Battery Voltage	12.1 V

ECM serial# 00055420 ECM: 55-5069B soft: A962

You will then be as for the source it is always the one highlighted as below.

ECM: 55-5069B: A962

Click OK



This will then show you the Calibration in the ECM to make sure the download has gone OK and you have the correct calibration in the ECM. The Main things to look for are.

550-0158 Rev C Morgan 3 Wheeler Production Cal 3: X121, EU Calibration, 548 intake 545 exhaust CR Cams, SBTB, adjustable TPS, Morgan Air Cleaner, True Dual Exhaust, Closed Loop, Knock Control, Fan Control. For use with code version 55-5069ba986. Release date: January 16, 2014

Cal 2: Ignition timing update to reduce knock at high load.

Cal 3: Fan Control added.

ECU Application Code

Software Version: A986

for Model: 55-5069

for Hardware Revision 'B'

for the EU update and,

550-0198 Rev B Morgan 3 Wheeler Production Cal 2: X121, US Calibration, 548 intake 545 exhaust CR Cams, SBTB, adjustable TPS, Morgan Air Cleaner, True Dual Exhaust, Closed Loop, Knock Control, Fan Control. For use with code version 55-5069ba986. Release date: January 16, 2014

Cal 2: Modified knock control at high load. Fan Control added.

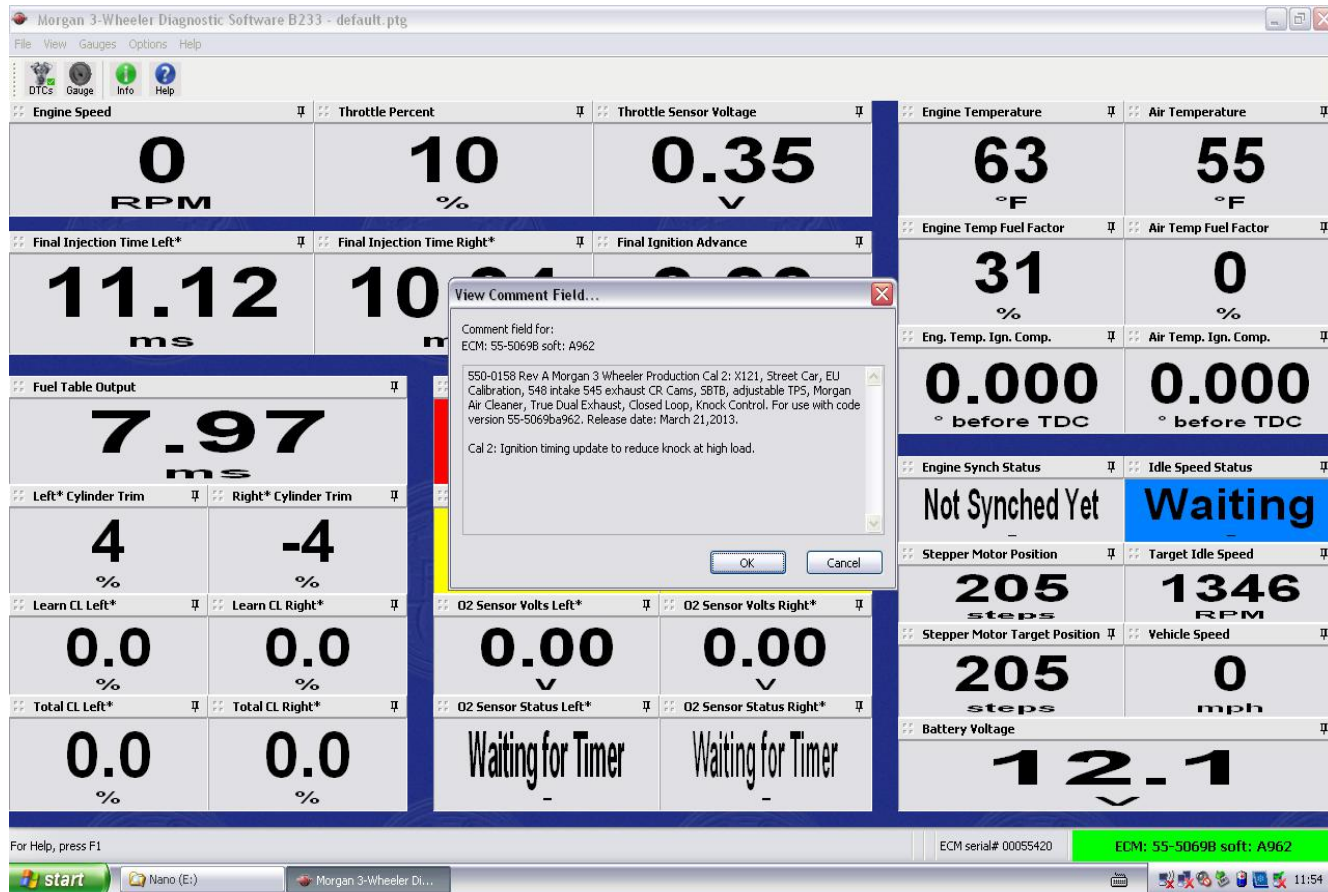
ECU Application Code

Software Version: A986

for Model: 55-5069

for Hardware Revision 'B'

for the US update



The update is now complete you can disconnect the laptop and power down the car.

FINALLY

ROAD TEST THE VEHICLE

THE NEW COOLING FAN WILL ONLY OPERATE
WHEN THE ENGINE TEMPERATURE IS 100 DEG
C AND THE VEHICLES SPEED IS BELOW 10 MPH

ALSO CHECK THAT THE FAN IS **BLOWING**
ACROSS THE
COOLING FANS WHEN OPERATING.