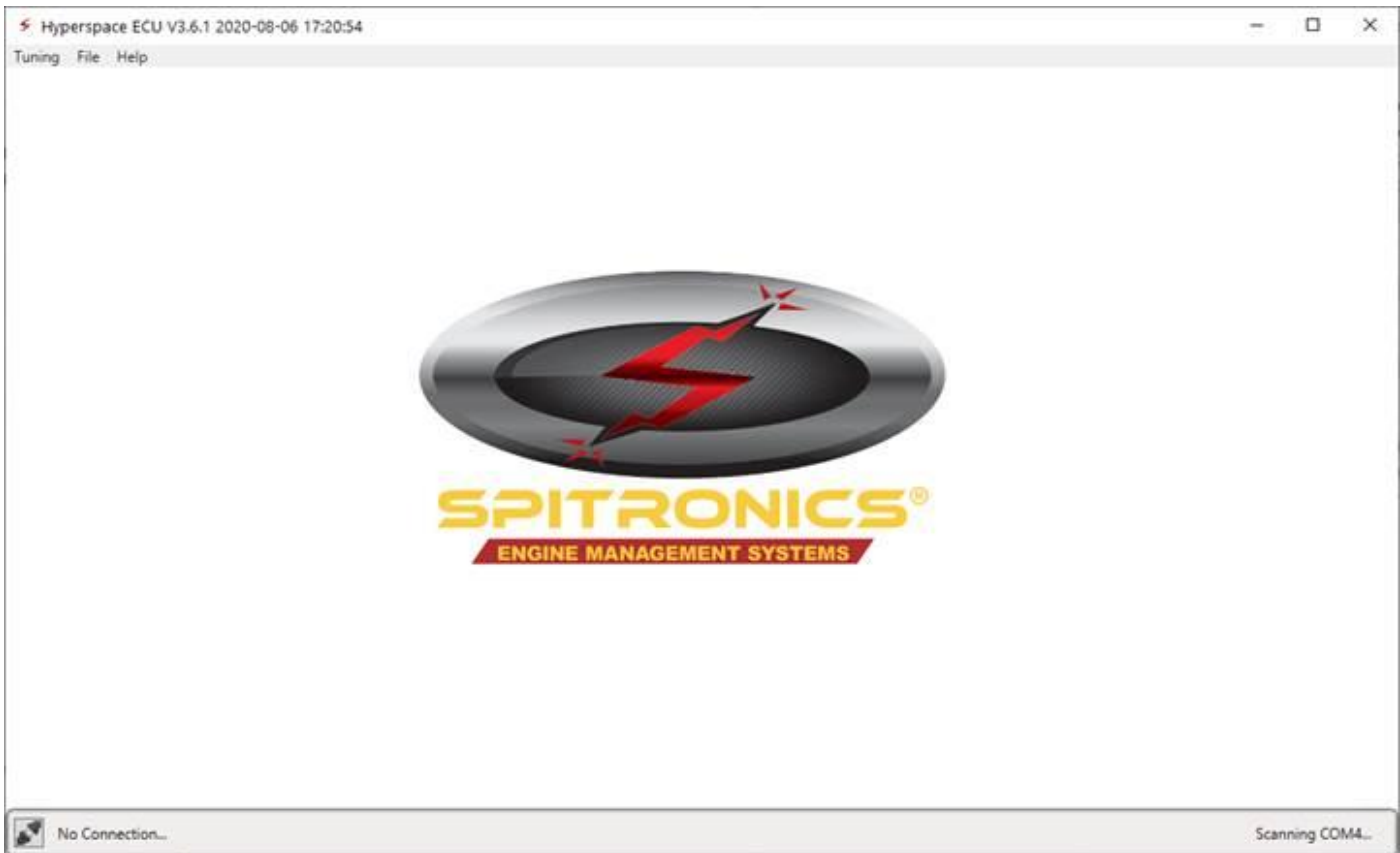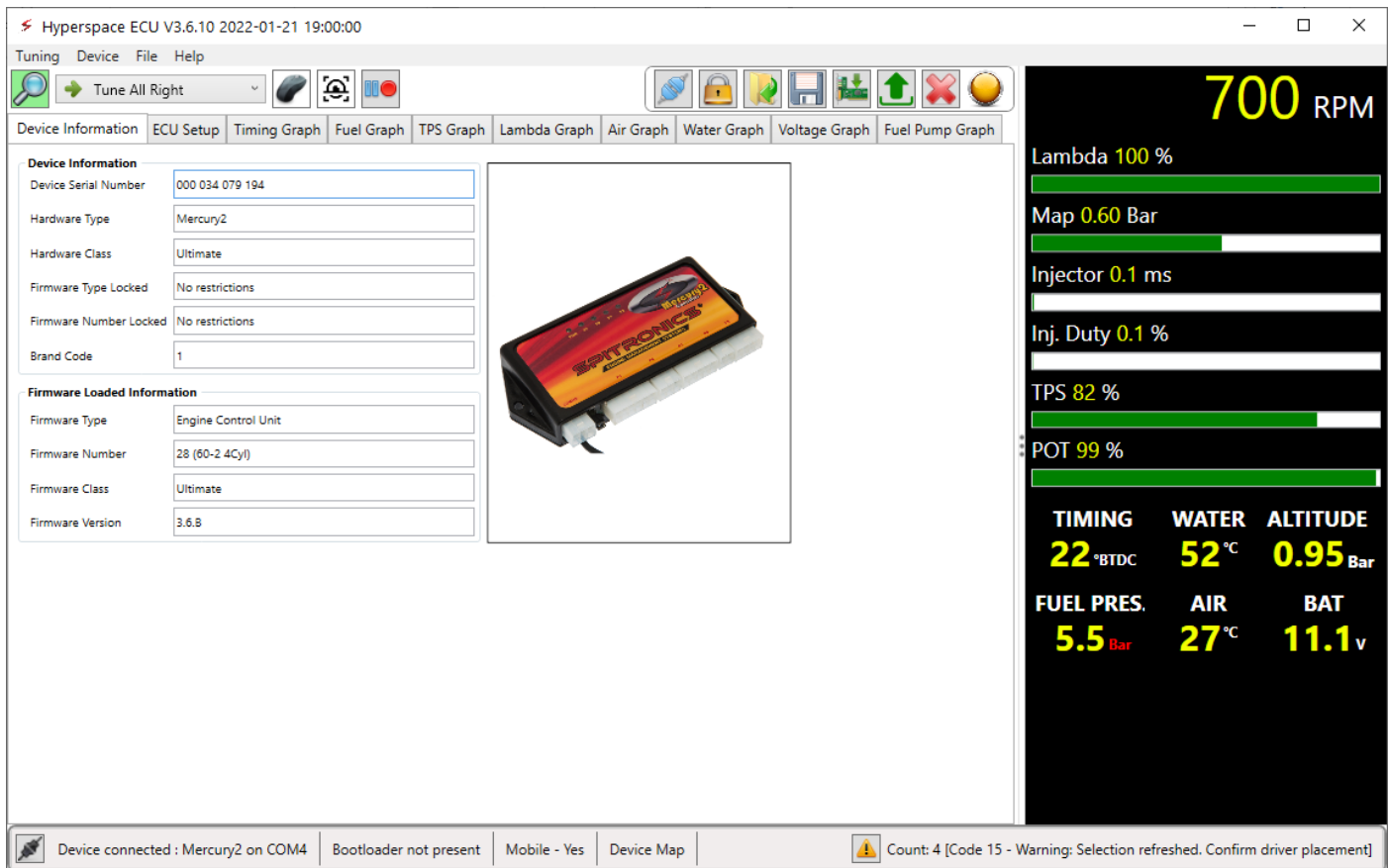# ECU Home Screen

Startup Screen

If you open the software without a live device connected, you will come to the main pallet or screen which forms the framework of the Hyperspace software. It looks the same for all the devices. From here you can open map files, connect to devices and set basic settings required for the software to operate.

Once you connected to a Device you will get a screen like this.

Top Toolbar

Like any Windows program you will find standard menus and buttons which relate to program settings and preferences. Offline Map files could also be selected and edited with the file button.

Notice the Version and Date in the name. this will help dealers to see if you have the latest software installed. Make sure from time to time that you have the latest version which is free from our website. Especially if you find something in the software that may function incorrectly. We fix these errors immediately and replace the version on our website.

This software is Version 3.6.1 The last 1 is a sub release as fixes etc. are made.
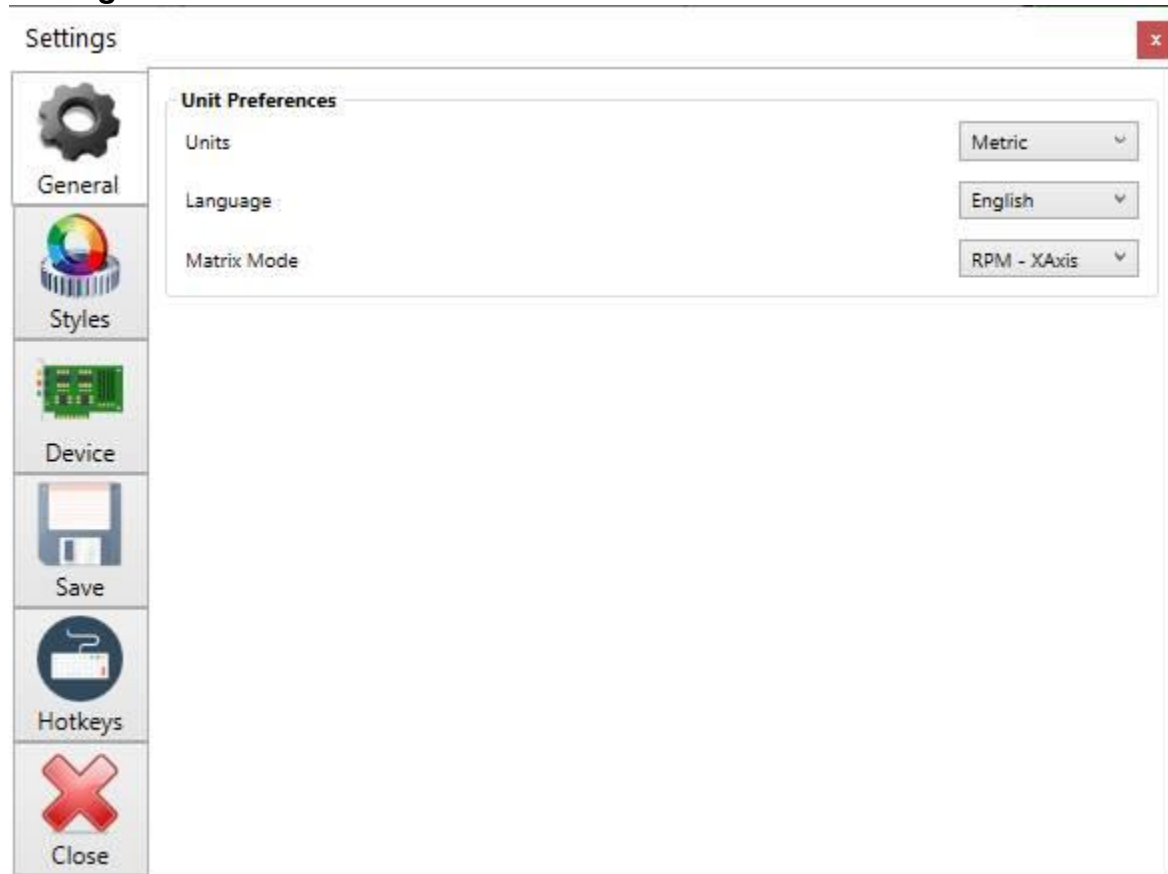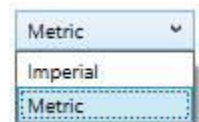2020-08-06 17:20:54 is the date and time this version was released

Tuning Menu
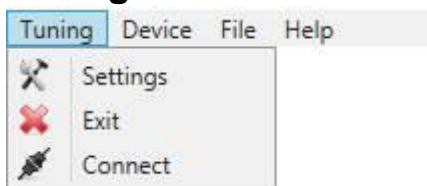
Settings is to set up units, software and device communications and auto map save settings.
Exit is to quit the software.

Connect is to connect or dis-connect to the ECU,

Settings

Unit selection

Select Metric or Imperial units.

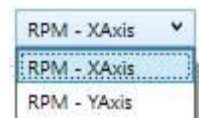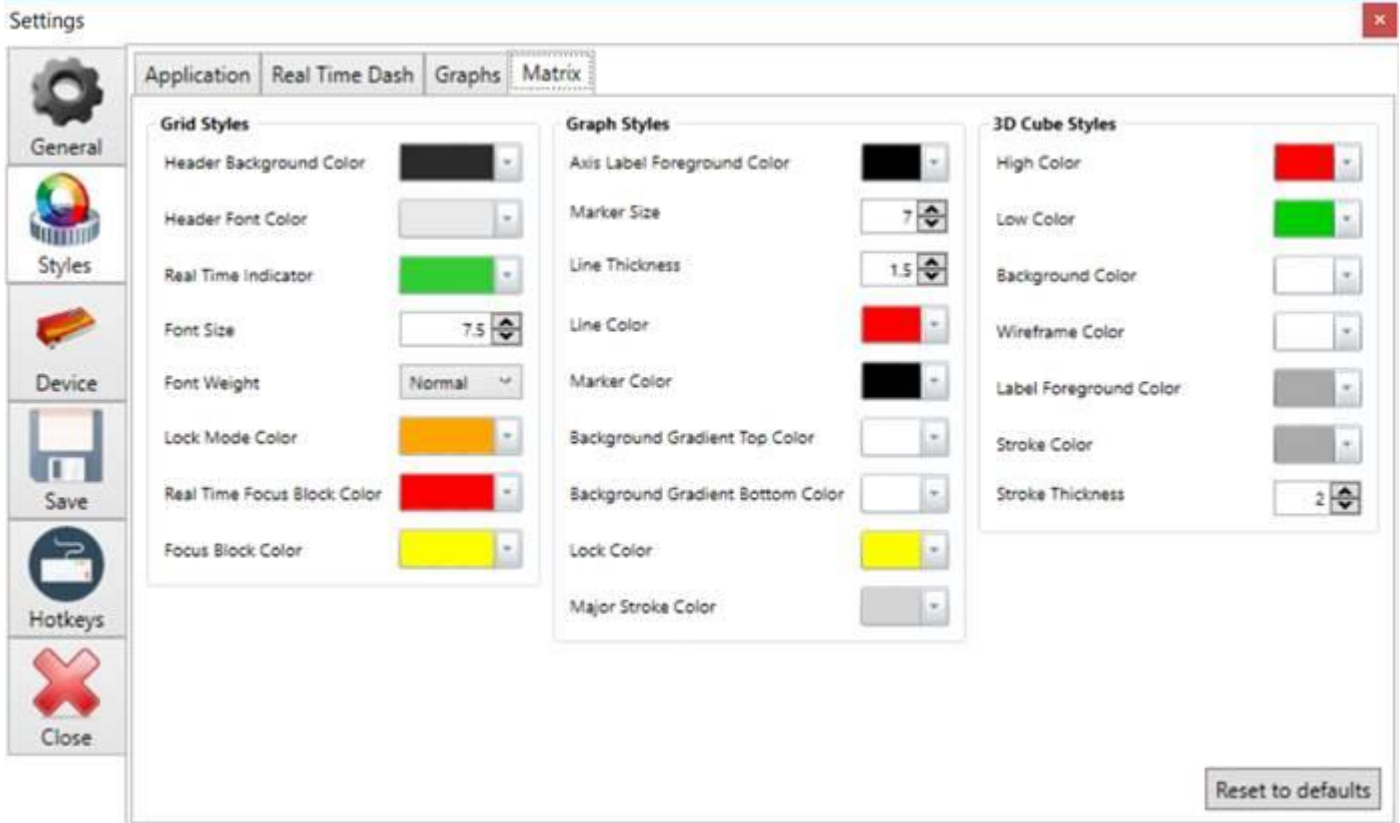### Language
Select Language if it is available.
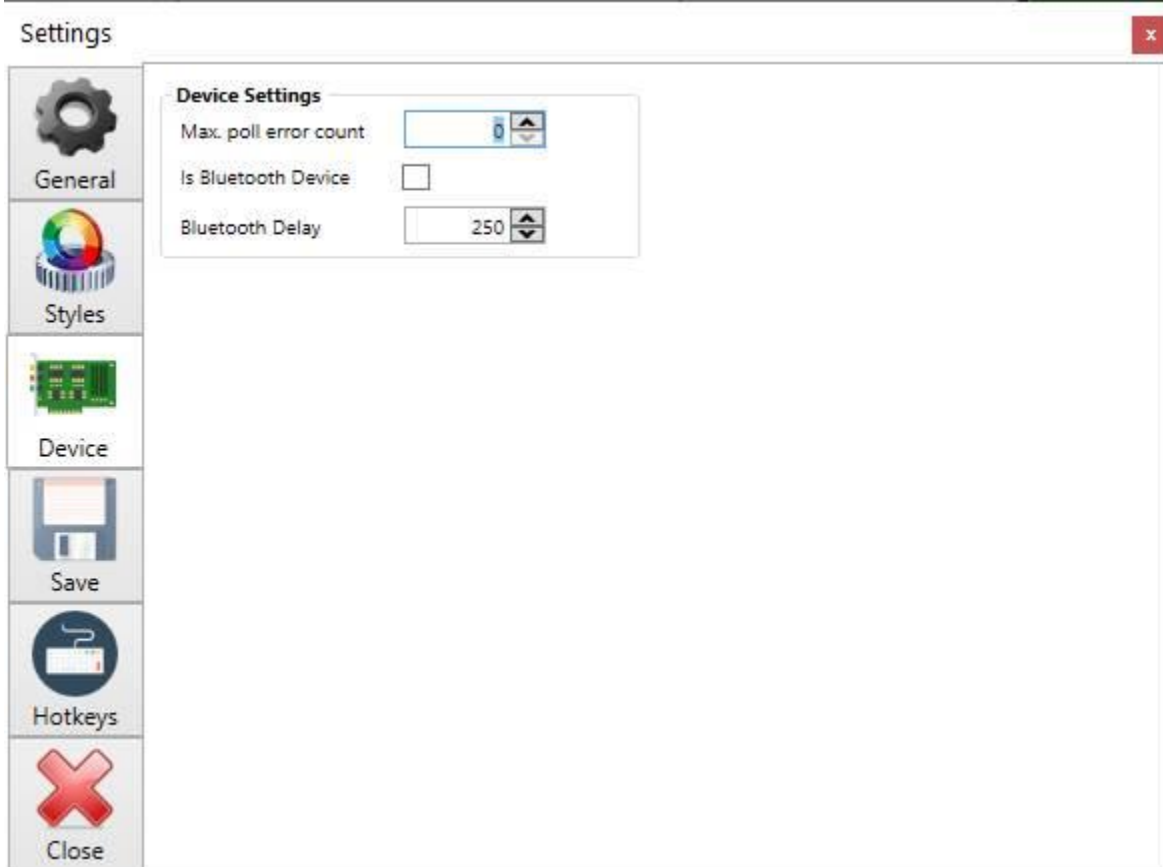
Matrix Mode

Select the RPM Axis you prefer for matrix tuning.

Styles
Custom your own tuning pallet to suit the collars and font size that works for you. Remember these settings is saved in the Config file. If you upgrade versions, then rename your Config file to carry your settings over.
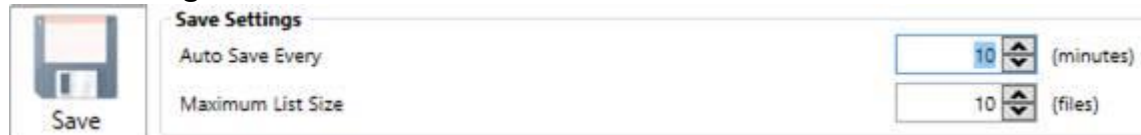
Device Settings

Max Poll error count:

This is the time it takes to read the real time values from the device via the Blue Tooth serial port. Blue tooth communication is not as smooth and fast as USB communication. It requires a tolerance setting to ignore short intervals of no communication. Increase this value till the flashing LED stops flashing RED. For USB cables keep this value at 0.

Blue Tooth Delay
This setup will add a delay that some blue tooth modules will require to operate. Leave it at zero if not used.
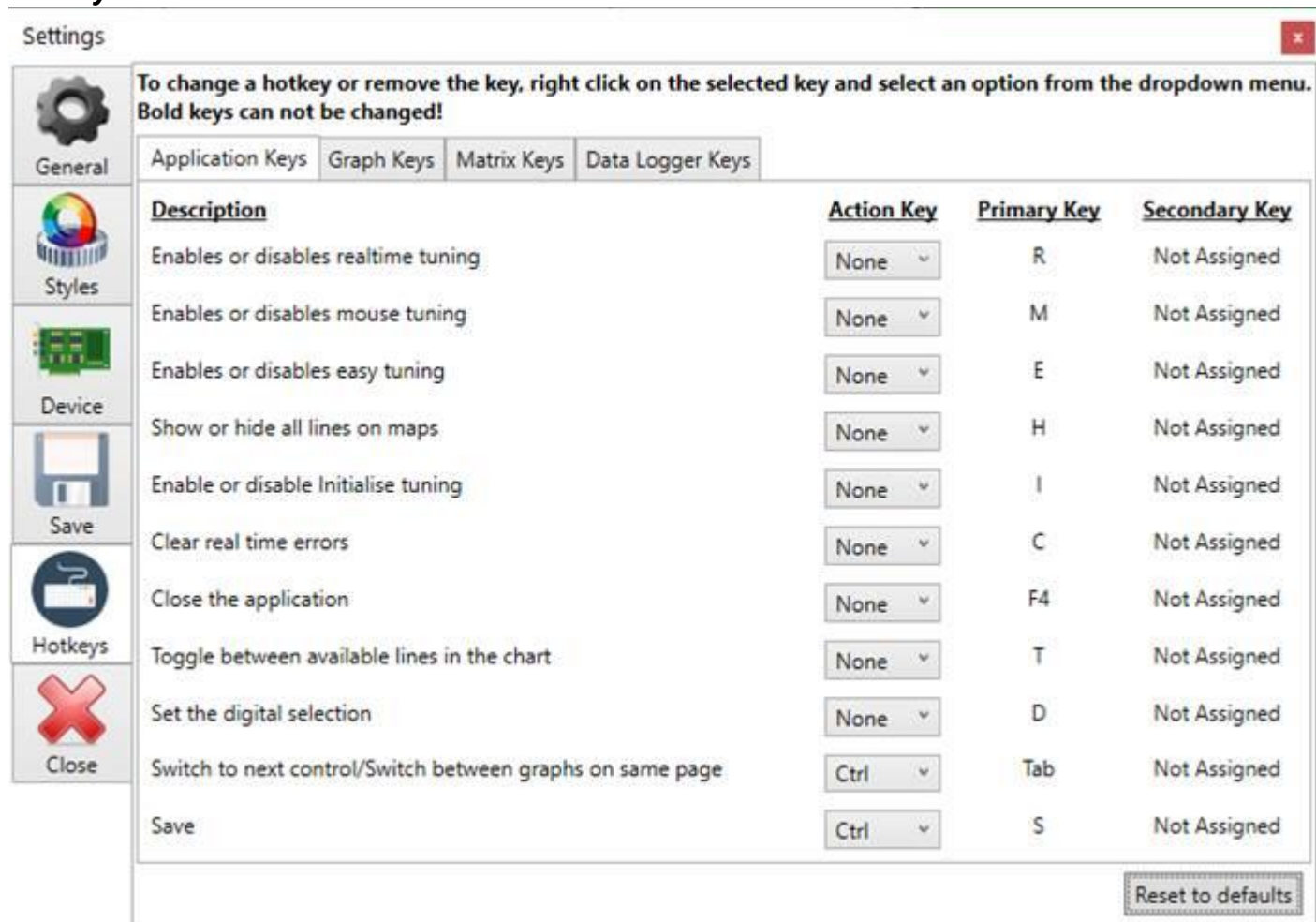
Save Settings

Save Settings		
Auto Save Every	10	(minutes)
Maximum List Size	10	(files)

Save

The software will do **Auto saves** at time intervals. The intervals can be adjusted here. It will also have a max display list on the open file menu. Then the software will also make a backup copy of each download to ECU and it is called **Device Saves**. File location for these maps is in the folder where the Hyperspace is saved on the hard disk.

Hotkeys

Settings   [x]

To change a hotkey or remove the key, right click on the selected key and select an option from the dropdown menu. **Bold keys can not be changed!**

General | Application Keys | Graph Keys | Matrix Keys | Data Logger Keys

Styles
Device
Save
Hotkeys
Close

Description	Action Key	Primary Key	Secondary Key
Enables or disables realtime tuning	None	R	Not Assigned
Enables or disables mouse tuning	None	M	Not Assigned
Enables or disables easy tuning	None	E	Not Assigned
Show or hide all lines on maps	None	H	Not Assigned
Enable or disable Initialise tuning	None	I	Not Assigned
Clear real time errors	None	C	Not Assigned
Close the application	None	F4	Not Assigned
Toggle between available lines in the chart	None	T	Not Assigned
Set the digital selection	None	D	Not Assigned
Switch to next control/Switch between graphs on same page	Ctrl	Tab	Not Assigned
Save	Ctrl	S	Not Assigned

Reset to defaults

These settings let you customise quick keyboard keys to fast track moving between screens and functions. They are completely customisable. In the factory we will set up basic keys for your

convenience. You may restore to default when you chose to. Remember these settings is saved in the Config file. If you upgrade versions, then rename your Config file to carry your settings over.

Close Button

Close will save your selections in the Config file and go back to the tuning pallet.

Device

Assign Device

For your convenience Assign Device is built into the Hyperspace Tuning Software. If a system is upgraded or activated on the Portal, the customer only need to have internet connection to activate his system. When you click Assig and there is an active allocation on the Portal, this message will appear:
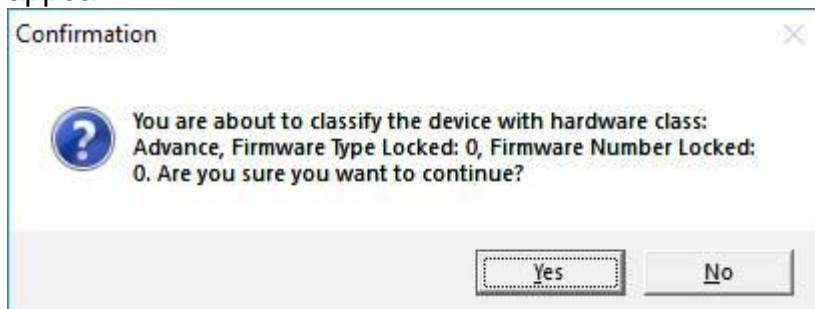
Click Yes and the device will be activated.

If there is no allocation change on the Portal, then the following message will appear:
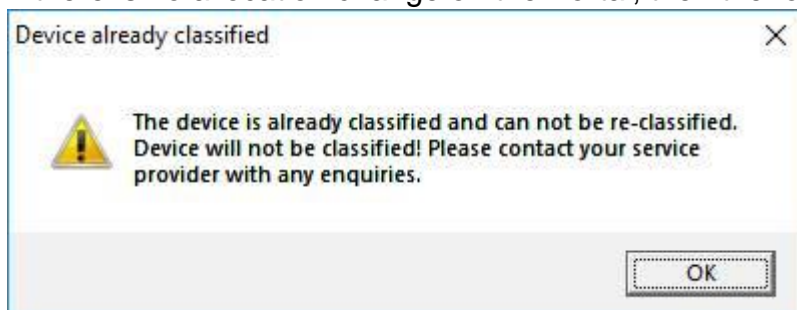
Load Device Firmware

Mercury2 still use the USB Debug Adapter to load firmware. This message will not be visible. See that section in another document.

Orion2 and Venus3 have a built in bootloader and you may load firmware from the Hyperspace tuning software. This firmware is only saved on the Internet so you will have to have a live internet

connection. Click on Load Device Firmware and a browser will come up. Select your firmware file to load and click open. First the Type of firmware then the Version of firmware then the Firmware number that is required.

Firmware

Please select the relevant firmware that you want to load to the unit in the list below.

Hardware Type	ECU
Version	3.6
Firmware	Orion2 ECU Combo 28 60-2 4Cyl Ver 3.6B 18_06_2021.OTfirm

❌ Cancel   ✔ Ok

Press OK and this warning will come up.

Confirmation   ✕

❓ You are about to write the file (Orion2 ECU Combo 28 60-2 4Cyl Ver 3.6B 18_06_2021.OTfirm) to the connected device.

PLEASE DO NOT TURN THE POWER OFF UNTIL THE BOOTLOADER IS FINISHED! CLOSE ALL SPITRONICS AND ECU/TCU PROGRAMS THAT MAY INTERFERE WITH THE COMPORT. THEY MAY CORRUPT THE DOWNLOAD ROTINE.

Are you sure you want to continue?

Yes   No

Press Yes and do not switch the power off until the next 2 messages appear.

Now you have successfully loaded new firmware in the device. You can now reset all the settings according to the new engine.

Note: Should there be any bug fixes it will be loaded under the same name. So always start with the latest firmware loaded from the web and see if your issue has not been fixed already. Jyst load the same file in again.

Pin Layouts
This feature will allow you to export the setup of Orion2 connection to an Excel spreadsheet. It will ask you to enter a File name and folder in a browser where to save. Below is an example of such a layout.

Output Name	Pin Name			Pin Name	Output Name
	Orion2 In/Out Layout				
	P1 - 12 Way Input				
	Water Temp	7	1	Air Temp	
	Lambda	8	2	TPS	
	.+5 Volt Out	9	3	MAP	
	.+12 Volt Ign	10	4	GND	
	TDC Sensor	11	5	TDC Power	
	Crank Sensor	12	6	Crank Power	
		Internal		3Bar Alt Sensor	
	P2 - 10 Way Output				
Coil Driver 1	Coil Negative 1	6	1	Coil Negative 2	Coil Driver 2
GP 5 Output	Coil Negative 3	7	2	Coil Negative 4	GP 6 Output
Injector Driver 2	Negative 2	8	3	Negative 1	Injector Driver 1
RPM Output	Negative 4	9	4	Negative 3	Relay Out
GP 2 Output	Negative 6	10	5	Negative 5	GP 1 Output
	P3 - 8 Way Output				
	Positive 1	5	1	Positive 2	
GP 7 Output	Positive 3	6	2	Positive 4	GP 8 Output
	.+12 Volt In	7	3	.+12 Volt In	
GP 9 Output	Coil Negative 5	8	4	Coil Negative 6	
	P4 - 4 Way Serial				
	SDA	3	1	SCL	
	.+5 Volt Out	4	2	GND	
	6 Way USB/Input				
	Tuning POT	4	1	Dual Map Switch	
	Receive	5	2	Transmit	
	.+5 Volt Out	6	3	GND	

This will tell the customer where all his connections are on the Orion2. Note that this is still Phases and not actual firing order. For that you must fill in the blocks on the respective drawings. This Layout can then be pasted in a wiring Template that look like below.

Orion2 4Cyl Layout

P1 - 12 Way Input

Wire Colors (E24 CR-Only)	Wire Colors (E22 CR+TDC)	Pin Name	#	#	Pin Name	Wire Colors (E24 CR+TDC)	Wire Colors (E24 CR-Only)
Green	Green	Water Temp	7	1	Air Temp	Yellow	Yellow
Red	Red	Lambda	8	2	TPS	Blue	Blue
Red	Red	+5 Volt Out	9	3	MAP	Blue	Blue
Red	Red	+12 Volt Ign	10	4	GND	Black	Black
N/C	Yellow	TDC Sensor	11	5	TDC Power	Blue	Blue
Blue	Green	Crank Sensor	12	6	Crank Power	Red	Red
		Internal			3Bar Alt Sensor		

P2 - 10 Way Output

E33 Adv	E32 Std	Sim leds (E31 No Rel)	Pin Name	#	#	Pin Name	Sim leds (E31 No Rel)	E32 Std	E33 Adv
Black/Red	Black/Red	N5	Coil Negative 1	6	1	Coil Negative 2	N6 Black/Purple	N/C	Black/Purple
N/C	Black/Brown	N7	Coil Negative 3	7	2	Coil Negative 4	N8 Black/Orange	N/C	Black/Orange
Black/Yellow	Black/Yellow	N2	Negative 2	8	3	Negative 1	N1 Black/White	Black/White	Black/White
Green	Green	RPM	Negative 4	9	4	Negative 3	Relay Blue/Black	Blue	Blue
Blue/White	Blue/White	N4	Negative 6	10	5	Negative 5	N3 Blue/Orange	Blue/Orange	Blue/Orange

P3 - 8 Way Output

E36 (Sim leds / Wire Colors)	Pin Name	#	#	Pin Name	E36 (Sim leds / Wire Colors)
P1 Red/White	Positive 1	5	1	Positive 2	P2 Red/Yellow N/C
P3 Red/Orange	Positive 3	6	2	Positive 4	P4 Red/Green
Red	+12 Volt In	7	3	+12 Volt In	Red
GP1 White	Coil Negative 5	8	4	Coil Negative 6	GP2 Blue

P4 - 4 Way Serial

Pin Name	#	#	Pin Name
SDA	3	1	SCL
+5 Volt Out	4	2	GND

6 Way USB

P05-P3 (USB)	Pin Name	#	#	Pin Name	USB (P05-P3)
Green N/C	Tuning Pot	4	1	Dual Map Sw	N/C Yellow
Yellow Yellow	Receive	5	2	Transmit	Green Green
Red Red	+5 Volt Out	6	3	GND	Blue Blue

(Paste Here)

This Pin-Out can then be pasted in the wiring Template that look like below.

Orion2 In/Out Layout

P1 - 12 Way Input

Right half (pins 1–6):

Pin	Pin Name	Wire E24 CR+TDC	Wire E24 CR-Only
1	Air Temp	Yellow	Yellow
2	TPS	Blue	Blue
3	MAP	Black	Black
4	GND	Blue	N/C
5	TDC Power		
6	Crank Power	Red	Red

Left half (pins 7–12):

Wire E24 CR-Only	Wire E22 CR+TDC	Pin	Pin Name
Green	Green	7	Water Temp
Red	Red	8	Lambda
Red	Red	9	+5 Volt Out
Red	Red	10	+12 Volt Ign
N/C	Yellow	11	TDC Sensor
Blue	Green	12	Crank Sensor
		Internal	3Bar Alt Sensor

P2 - 10 Way Output

Left half:

Wire E33 Adv	Wire E32 Std	Wire E31 No Rel	Sim leds	Output Name	Pin Name	Pin
Black/Red	Black/Red	Black/Red	N5	Coil Driver 1	Coil Negative 1	6
N/C	Black/Brown	Black/Brown	N7	GP 5 Output	Coil Negative 3	7
Black/Yellow	Black/Yellow	Black/Yellow	N2	Injector Driver 2	Negative 2	8
Green	Green	Green	RPM	RPM Output	Negative 4	9
Blue/White	Blue/White	Blue/White	N4	GP 2 Output	Negative 6	10

Pin	Pin Name	Output Name	Sim leds	Wire E36	Wire E31 No Rel	Wire E32 Std	Wire E33 Adv
1	Coil Negative 2	Coil Driver 2	N6	Black/Purple	N/C	Black/Purple	Black/Purple
2	Coil Negative 4	GP 6 Output	N8	Black/Orange	N/C	Black/Orange	Black/Orange
3	Negative 1	Injector Driver 1	N1	Black/White	Black/White	Black/White	Black/White
4	Negative 3	Relay Out	Relay	Blue/Black	Blue	Blue	Blue
5	Negative 5	GP 1 Output	N3	Blue/Orange	Blue/Orange	Blue/Orange	Blue/Orange

P3 - 8 Way Output

Left half:

Wire E36	Sim leds	Output Name	Pin Name	Pin
Red/White	P1		Positive 1	5
Red/Orange	P3	GP 7 Output	Positive 3	6
Red			+12 Volt In	7
White	GP1	GP 9 Output	Coil Negative 5	8

Right half:

Pin	Pin Name	Output Name	Sim leds	Wire E36
1	Positive 2		P2	Red/Yellow
2	Positive 4	GP 8 Output	P4	Red/Green
3	+12 Volt In			Red
4	Coil Negative 6		GP2	Blue

P4 - 4 Way Serial

Pin	Pin Name	Pin Name	Pin
3	SDA	SCL	1
4	+5 Volt Out	GND	2

6 Way USB/Input

Left half:

Wire P05-P3	Wire USB	Pin Name	Pin
Green	N/C	Tuning POT	4
Yellow	Yellow	Receive	5
Red	Red	+5 Volt Out	6

Right half:

Pin	Pin Name	Wire USB	Wire P05-P3
1	Dual Map Switch	N/C	Yellow
2	Transmit	Green	Green
3	GND	Blue	Blue

You will select the block in Excel and paste it where the Red letters indicate *Paste Here*.

File Menu

This menu is to open the different saved maps or to save a map from a device onto the pc. The software will save periodic files in Auto Saves folder and also when you do a Device save it will make a copy in the *Device Save folder.*

Open is to open Map files offline
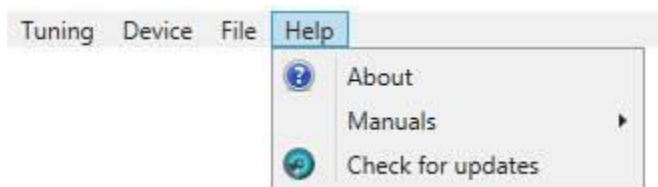**Open** Recent is to open the last previous map files
Auto Saves is to open the last auto saved files
Device Saves is to open the last device saved files
Save is to save Map files on the PC
Save As is rename Map files on the PC

Help Menu

This menu holds information.

About
About will indicate all the release fixes and changes between versions released.

Manuals
It also unlocks the embedded manual and will save a copy of it in the Hyperspace folder where the software was saved initially.

Check for Updates
You may also update the software from this menu. If it up to date then this message will appear.

Information ✕

ℹ Your software is up to date!

OK
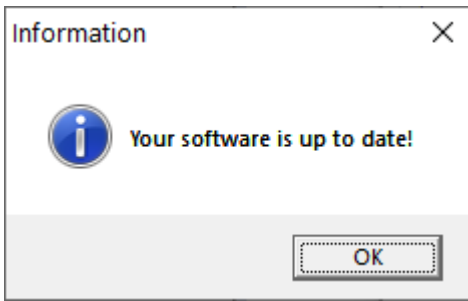
ECU Toolbar

ECU Toolbar Shortcut Buttons guide you to basic operations. Some buttons have a keyboard hotkey to make it easy to activate them. The hotkey is in the title block of each button description. Green background means activated on some of them.

Hide button - H

This button is used to show all lines on a graph or hide the ones that is not selected. It is handy if graphs are on top of each other to see each one separately.

Easy tune - E

➡ Tune All Right ▼

This is a very handy feature if you have to lift graph dots simultaneously. There are different algorithms. That will only move dots from the tuning bar.

🚫 Easy Tune Off ▼

🚫 Easy Tune Off
☐ Tune All
⬅ Tune All Left
➡ Tune All Right
⬆ Tune All Up
⬇ Tune All Down
🟩 Tune Selected
💔 Initialise
↗ Tune Up and Right
↙ Tune Down and Left
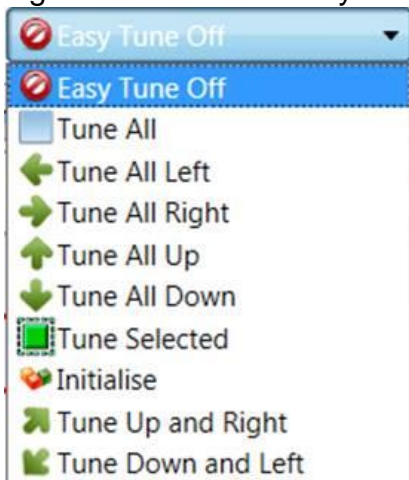
Initialise will make the whole line the same value as where the green tune bar cross
When easy tune is on then SHIF-Z will initialise every dot with the same selection to the same value as the bar.

Mouse on - M

This is handy to use mouse tuning on the graphs or disable it for arrow tuning.

Real-Time tracking - R

This is a very handy tool to move the green tuning bar with the real time bar of a graph. It is used with or without Easy Tune to adjust the same value that the device use at that time.

Data Logger

This feature is used for logging signal and tuning on the road.

Connect Button

This indicates if the unit is connected. If you click on it then it will toggle to the other option.

Map Lock Option

This is handy to lock tuning maps so that the customer cannot change parameters. It is also a feature to clone the device with calibrations from another device. *See the sub folder for explanation on its operation.*

Open Map file

This is to load a Map file from the hard disk into the device.

Save Map file

This is to save a Map file from the device onto the hard disk.

Save to device

If you made changes you can save them permanently in the flash with these buttons. You can also press CTRL-S for save or click on the yellow flashing LED.

Upload device memory

This is used with the simulator and when firmware is flashed to the device. It will refresh the software with restarting it.

Quit button

Enough said

Communication LED

This indicates the status of the device.
Flashing green means the device flash memory and PC memory are the same. No save is required.
Flashing yellow means you have changed parameters in the device but you have not made them permanent by saving to the flash memory.
Flashing red means no communication to the device.

__Device Information__
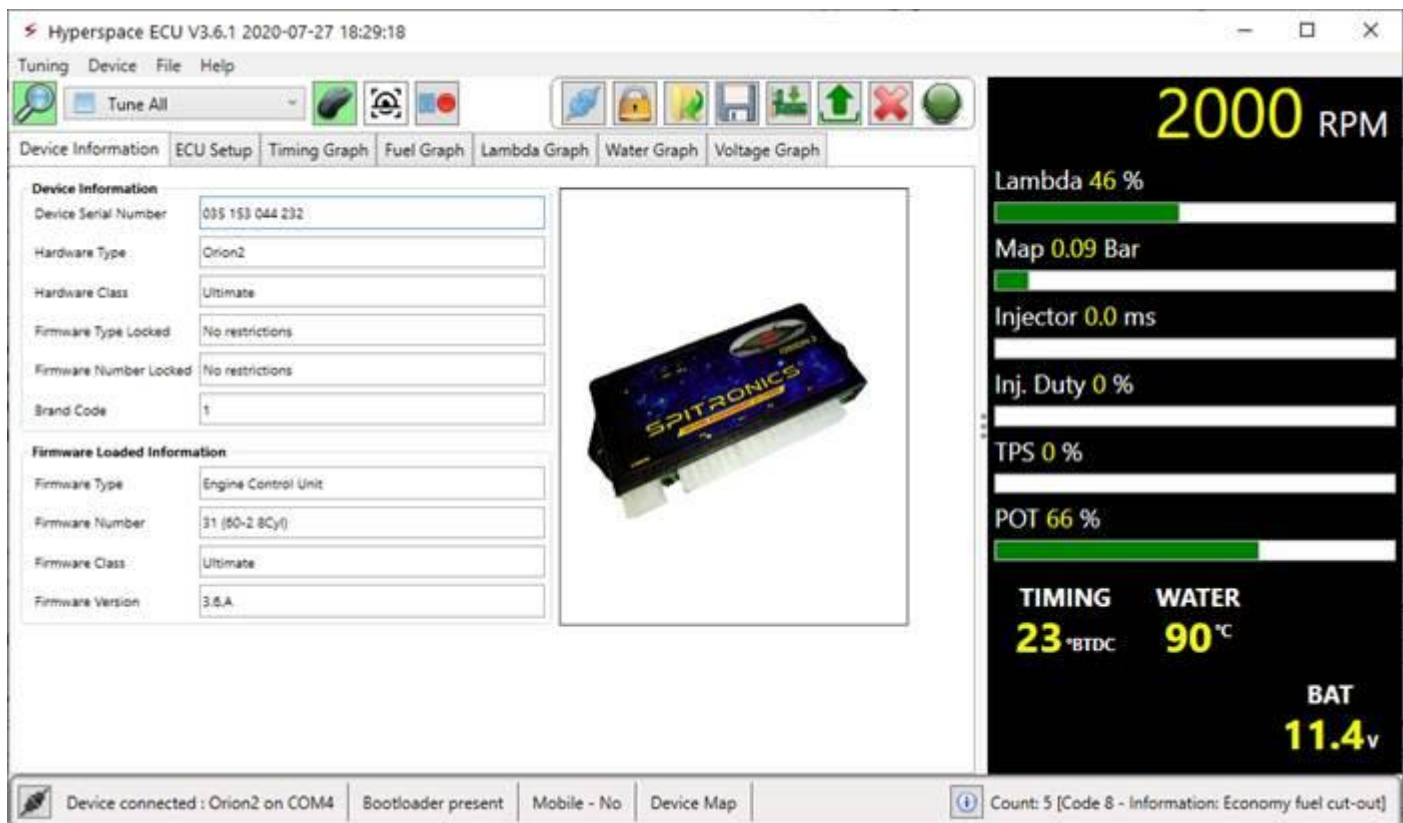
The device information screen displays vital information regarding the Spitronics ECU that has been connected. Note: Firmware is the program that is loaded into the ECU to make the electronics operate in a specific way. This is normally Firmware file which is loaded into the product by a USB

debug programmer or BootLoader. Software is the tuning interface that runs on the computer and it is used to tune the product's parameters.

Device Information

Device Serial Number
There is a unique number assigned to each product. It is saved on maps and recognized by the database on its status etc.

Hardware Type
Displays which type of device has been connected to the software. In this case and an Orion2 Engine Control Unit.

Hardware class
Displays the Hardware class of the product that has been connected to the software. The hardware class will determine which firmware can be uploaded onto the product. This feature allows the unit to open certain or all functions of the electronics. The amount of features determines the price of the unit. This feature can be changed over on the internet to allow for remote upgrades of the unit. The hardware classes are as follows:

1. Micro
2. Basic
3. Standard
4. Intermediate
5. Advance
6. Ultimate
7. Commercial
8. Racing

Firmware Type Locked
This block will indicate which type of firmware are allowed on the unit. If it indicates **No Restriction,** it means that any Type of Firmware for Orion2 can be programmed into the unit like ECU, TCU TxW etc. This feature is for sponsored units or specials which was approved by the manufacturer.

Firmware Number Locked
This block will indicate which firmware number in the firmware range are allowed on the unit. If it indicates **No Restriction,** it means that any firmware number for Orion2 can be programmed into the unit. This feature is for sponsored units or specials which was approved by the manufacturer.

Brand Code
This represent a specific brand like Spitronics which is 1. Orion2 may also be rebranded to large distributors which means this code will change. Once a brand is changed the unit will only connect to the software of that brand. This will bring exclusivity to that brands customers.

Firmware Loaded Information

Firmware Type
This block will indicate which type of firmware are loaded on the unit like ECU, TCU TxW etc.

Firmware Number
This block will indicate which firmware number is loaded and a short description.

Firmware Class

Displays the class of the firmware that has been downloaded onto the device. Each firmware program supplied will have a certain class according to the features used. You may load any firmware for a specific product into the unit as long as the firmware class does not outrank the hardware class of the Orion2. The firmware classes are as follows:

1. Micro
2. Basic
3. Standard
4. Intermediate
5. Advance
6. Ultimate
7. Commercial
8. Racing

Firmware Version

This block displays the software version as well as the firmware version that is loaded into the Orion2. In the example 3.6 is the software version which is required to communicate with the Orion2 and A is the firmware version.

The firmware version no effect on the software version. Always use the latest versions available.

Hyperspace Software Version

⚡ Hyperspace ECU V3.6.1 2020-07-27 18:29:18

On the top bar you will find the product software version. Note that version 3.6 will be standard with the Firmware version 3.6.

The first 3 is version 3 PC Software.

The second 6 is the protocol version between the PC software and the firmware. When new features are programmed into the unit, this protocol version will change in the PC software and in the Firmware.

The .1 at the end is a sub version and has no effect on the firmware. This version will indicate corrective or improved PC software. Always use the latest version available.

<u>Real-Time Display</u>
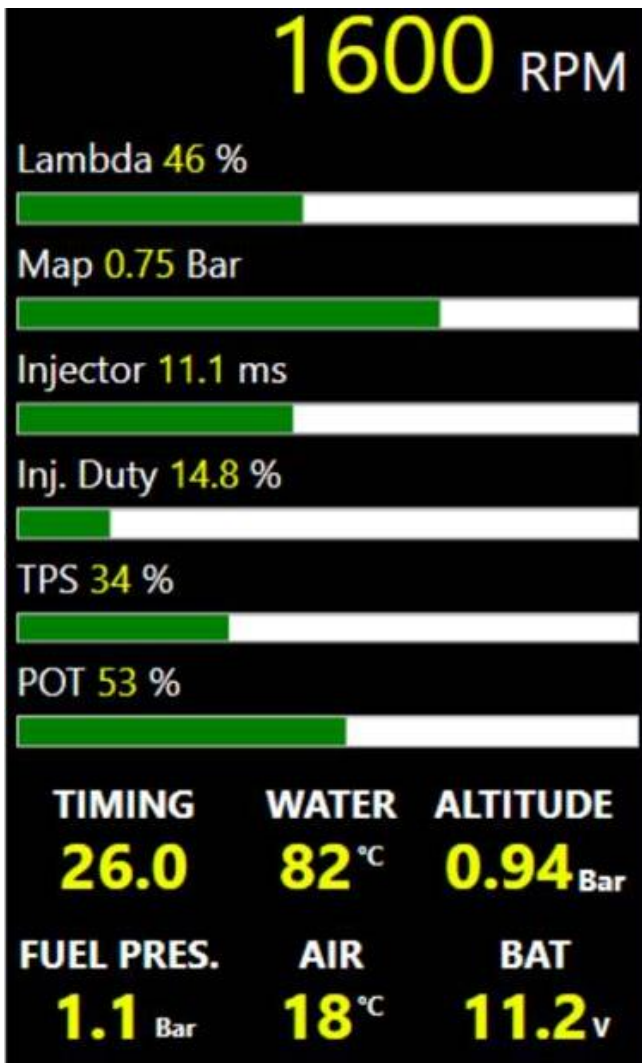
This block displays all the analogue sensor values as they change in the ECU. You may change the appearance of some of the signals as well as the colors in the settings tab. Double click on certain fields will toggle between 2 types of views. Below is a description of the meaning of each signal.

Lambda Sensor
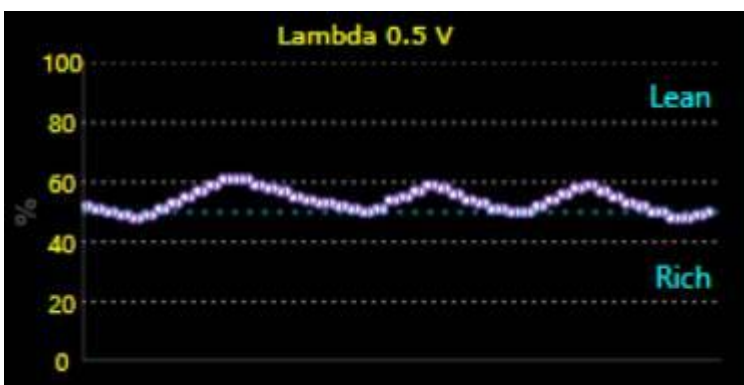
This is the Lambda sensor value displayed in %. Notice on the graph that the rich and lean is inverted between wideband and narrowband.

MAP Sensor

MAP 0.49 Bar

This value displays the manifold pressure and is scaled according to the MAP range setting.

Injection Time

Injector 10.4 ms

This value displays the total injection time that is applied after all calculations are done. It is in 0.1 milliseconds resolution.

Injection Duty

Injector Duty 13 %
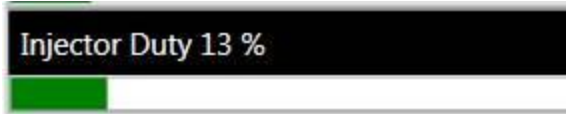
This value displays the ratio of injection time to revolution time in %.

TPS Sensor

TPS 15 %

This value displays the throttle position opening in %.

POT Sensor

POT 53 %

This input can be connected to a potentiometer or other connections to achieve functions like launch control etc.

RPM

1600 RPM

This value indicates engine revolutions per minute.

Ignition Timing

This value displays the total ignition timing that is applied after all calculations are done. It is in 1 degree's resolution.

Water Temperature Sensor

This value displays the current engine water temperature.

Altitude Sensor

This value displays the altitude pressure of your location.

Fuel Pressure Sensor

This value displays the fuel pressure in the header.

Air Temperature Sensor

This value displays the current air temperature at the air intake.

Battery Voltage

This value displays battery voltage that is connected to the ECU.

Status Bar Display
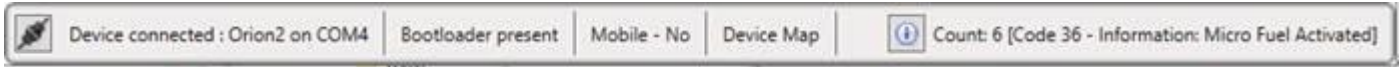
This block at the bottom of the software displays all kinds of status, information and fault codes. Below is a description on types of messages.
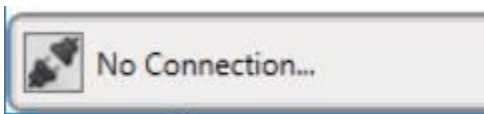
When no device is connected, the connection button may be open and an indication that no device is recognized. If you use a different USB cable, you may need to click on the connect button to tell the software to search other Comms ports as well. Once a port is found with a recognized device the software will lock onto that port to minimise start up times. It will then display the device type and COM port as below.
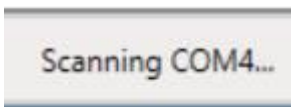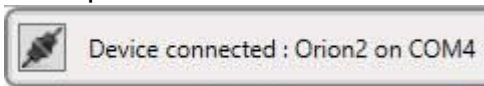
At bottom right corner is connection information. This will indicate which Comms Port is being polled for a device. If you have changed the USB cable to another one, then this Comms Port may not be the Port number that the software remembered. Click on the Connect button then the software will look on all the available Ports for a device. Once a device is found, this will be saved in the Config file to cut down on start time for the next connection.
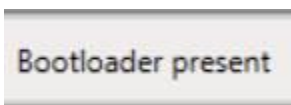
Orion2 has a BootLoader to load firmware. This indication will show if it is active on that device.

This message indicates if the unit is mobile software capable or not. Some mobile applications will run only if this is set. Contact your supplier for activation.

The software will also give occasional indications on tasks like if the map was saved successful or not.

Count: 4 [Code 1 - Error: Missing crank pulses]

This message will indicate Errors, Warnings and Information. This is helpful to the user to find errors in the setting up of the device. If you click on the button left of the error, a list of the errors will appear with the last one on top. If you go out of the error list it will be cleared. See the list of errors in the sub folders.

Error List   ×

2018-12-14 15:52:30:409	🔴	6	Emergency engine shutdown
2018-12-14 15:52:24:896	⚠️	11	Water hot/cold temperature limiter reached
2018-12-14 15:52:12:127	ℹ️	8	Economy fuel cut-out
2018-12-14 15:52:08:508	ℹ️	9	RPM limiter reached
2018-12-14 15:52:07:049	🔴	3	Incorrect crank TDC slot
2018-12-14 15:52:07:037	🔴	1	Missing crank pulses
2018-12-14 15:52:05:261	🔴	1	Missing crank pulses
2018-12-14 15:52:05:232	🔴	1	Missing crank pulses
2018-12-14 15:51:56:132	🔴	1	Missing crank pulses

See the sub folders for the different error messages displayed on the Status bar:

Error Codes

The ECU software has Error, Warning and Information codes displayed in the Status tool bar at the bottom. These codes will help the tuner to find problems during startup and tuning, also to see if the ECU is functioning correctly. Some of the functions on the ECU will indicate to the tuner what is happening. He can then see if these functions are operating correctly.

ℹ️ Count: 17 [Code 12 - Information: Launch limiter reached]

The codes are displayed at the right hand bottom corner. The code list ℹ️ will display a list of accumulating codes so that the tuner can see what the codes were and in which order. The bottom indication will only show the last code. Also note that a code is only updated once, until it disappears and when it appears again the code will be logged again. This is to prevent the list from being too long. This does not apply to the angle sensor error codes during cranking. They will increment the counter as each one occurs.

Press the ''**C**'' key to clear the error codes. This is handy as you will not be able to see is the code is still present or if it was only listed once.

Note: If you crank an engine and it does not start, there will be one error code, error code 6 for *Emergency Engine Shutdown*. This is normal and not an actually an error. The ECU was expecting more trigger pulses but pulses were stopped. Therefore, the ECU goes into a safe shutdown of coils and injectors etc. A tip, press C then crank the engine. There should be no error and it will read 200 RPM's on the rev counter until the key is released.

The **blue** codes are for crank, cam and other sensor related errors. The **red** codes are warnings like over temperature etc. The **green** codes are for information of functions that were activated. The colors are only for explanation in this document.
The following list explain the different error codes

1 - Missing crank pulses – The crank sensor senses too little teeth per revolution
2 - Too many crank pulses or spikes – The crank sensor senses too many teeth per revolution
3 - Incorrect crank TDC slot – The crank sensor did not sense a TDC slot. (Maybe incorrect wiring)
4 - Missing TDC pulse – The TDC pulse is not present
5 - Missing home pulse – The Home pulse is not present
6 - Emergency engine shutdown – Safe shutdown of engine due to lack of or incorrect signals
7 - Fuel pressure safety cut-out – The fuel pressure sensor low limit has been reached
8 - Economy fuel cut-out – The fuel economy cut is implemented
9 - RPM limiter reached – The engine RPM limiter has been exceeded
10 - Max boost limiter reached – The boost pressure limit has been exceeded
11 - Water hot/cold temperature limiter reached – The water temperature limit has been exceeded
12 - Launch limiter reached – The launch limit RPM has been exceeded
13 - Lambda control limits reached – The lambda control limit has been reached
14 - Battery low voltage limit reached – The battery voltage falls below a critical limit
15 - Selection refreshed. Confirm driver placement – The ECU changed driver output configurations
16 - Timing retarded – Ignition timing is retarded during an automatic transmission shift procedure
17 - Flood control injector cut-out – Fuel is cut by injectors during cranking when the throttle is fully opened
18 - Flat-shift activated – Ignition or fuel is cut for a moment to enhance gearshift for racing engines
19 - Ignition power switched off – Ignition key power is switched off
20 - Sponsor counter depleted – The sponsor counter is depleted for sponsored ECU's
21 - Anti-Lag activated – Anti-Lag is activated on the Launch features
22 - Hardware Class don't support this feature – Incorrect firmware loaded
23 - Speed Limit Reached – Speed Limit was exceeded
24 - Bootloader Not Present – This indicate if the BootLoader firmware was not loaded in the newer products
25 - Overcharge Limit Reached – This error will come when the charge time plus graph times exceed the maximum charge times
26 - Test Mode is Selected – This is used for calibrating TxW firmware
27 - Map was Reloaded – This indicate that a Ma was reloaded from memory and installed in RAM to be used.
28 - Map Sensor Error – This indicate MAP Sensor failure
29 - TPS Sensor Failure – This indicate TPS Sensor failure
30 - Lambda Sensor Failure – This indicate Lambda Sensor failure

31 - Water Temperature Sensor Failure – This indicate Water Temperature Sensor failure
32 - Air Temperature Sensor Failure – This indicate Air Temperature Sensor failure
33 - Altitude Sensor Failure – This indicate Altitude Sensor failure
34 - Fuel Pressure Sensor Failure – This indicate Fuel Pressure Sensor failure
35 - Potentiometer Sensor Failure – This indicate Potentiometer Sensor failure
36 - Micro Fuel Activated – This indicate that the Micro Fuel or Dual injector control were activated.

Selection Refreshed

This feature is initiated by the firmware to force the software to refresh its database. It happens when the tuner makes selections that are not legal for that specific firmware or when GP outputs are re-arranged by the features. The software will refresh and change the setting of the tuner to a safe level or disable other features. The messages below will then appear:
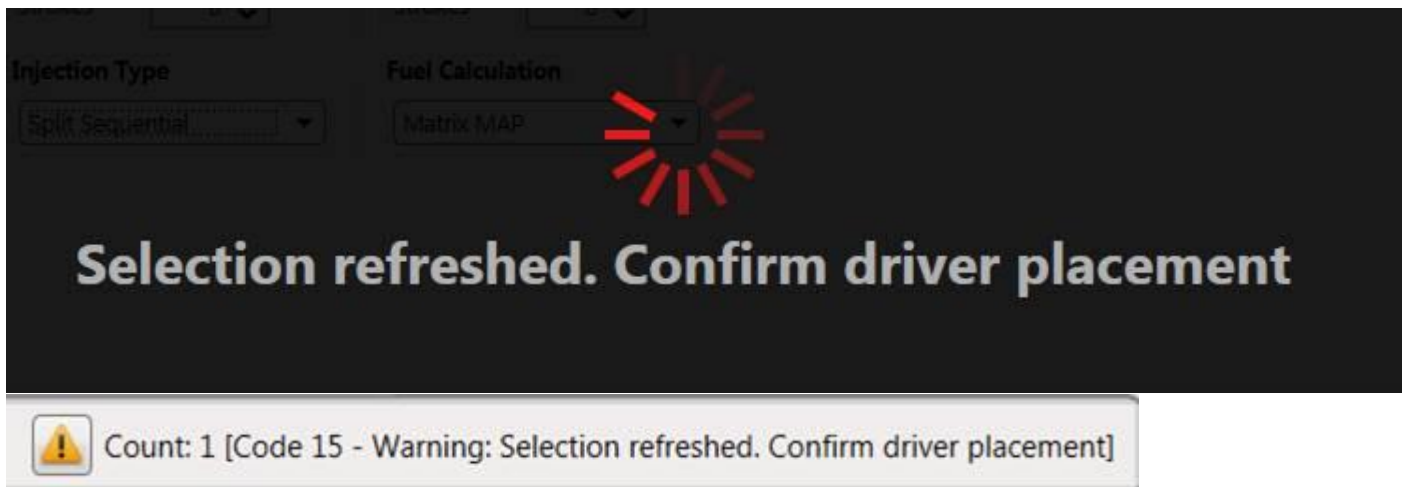
When you see this then you must go through the setup and see which devices have been changed and set them accordingly.