# Telemetry Bluetooth Module



Syvecs Telemetry Bluetooth Module is designed for use with Apple and Android Devices. Enabling users to view custom configurable data on there portable devices. This data can then be viewed in a series of gauges which can be setup based on the customers personal preference all done via the mobile device.

Designed to work with any Syvecs package, the Syvecs App allows users full control of the RS232/Can Stream selection to suit any CAN or RS232 Layout used.

The Applications to work with the Device are free to download from the devices App stores and will only work with the Syvecs Bluetooth Module and a Syvecs Engine Management System.

# Installation

The Bluetooth Module will work with any Syvecs engine management unit, It important to check the pinout's of the Syvecs ECU which you are connecting to before installation which can be found in the below link.

Please Note: For the app to Function, only Pins 4, 5, 6 and 7 need to be connected. For Map switching Pins 2 and 3 need to be connected

http://www.syvecs.co.uk/support/product-manuals-and-pinouts/

## Wiring Information:

PIN1 – Available On/Off Switch Output
PIN2 - PWM2 – Traction Sw – Connect to a Spare input on your Ecu
PIN3 - PWM1 – Calibration Sw – Connect to a Spare Input on your Ecu
Pin4 – Ground ( MUST connect to Ecu Power Ground)
Pin5 – RS232 TX (connect to ECU RX)
Pin6 – RS232 RX (connect to ECU TX)
Pin7 – 12v (connect to vehicle power or Ecu Power)

Strip 5mm of Insulation back from 20-24awg cable and push firmly into the appropriate circular slot. To release cable inset a small flat blade screw driver to lift the tab found in the rectangular slot shown here.
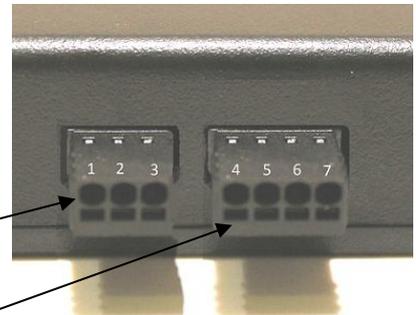
## Status LED Information:

The status LED are located inside the unit and are for installation assistance.
LED1 Red – Application Loaded
LED2 Blue – Paired and Authenticated
LED3 Green – Power
LED4 Green – RS232 On / Off

Once wired in you will need to connect to you Syvecs ECU via the Ethernet cable part of your kit and to download the Syvecs Software suite. Link below

http://www.syvecs.com/downloads/SyvecsSetup-Generic-2013-08-23.exe

Install the SSuite package onto your computer and 6 Programs will appear:

- **SCal** - Used to adjust the maps in the ECU (Calibrate it)

- **SCfg** - Used to setup the datalogging (Configure which channels and events to log, and how frequently)

- **SData** - Used to read datalogs from the ECU

- **SView** - Used to view and interpret datalogs

- **SMon** - Used to monitor live ECU parameters

- **SMsg** - Used to monitor ECU status and debug messages

Please note: New releases of software and firmware are often released to apply new features and upgrades, be sure to check the website to ensure you have the latest Ssuite installed

Now that the Syvecs software is installed double click on the program SCAL which will be placed in the Start Menu or via a shortcut which will be placed on your desktop if you selected this option in the installation of SSuite.



In the sub menu for **Device** you find the option **Connect**. Select this and Scal should find your Device. Once this device is found it will ask you how you want to access this File. Select **OK.**

The Offline Box shown in the Screenshot above should now change to Connected and a Green light will be present.

You are connected and the Calibration list should be presented as shown in the below screen shot
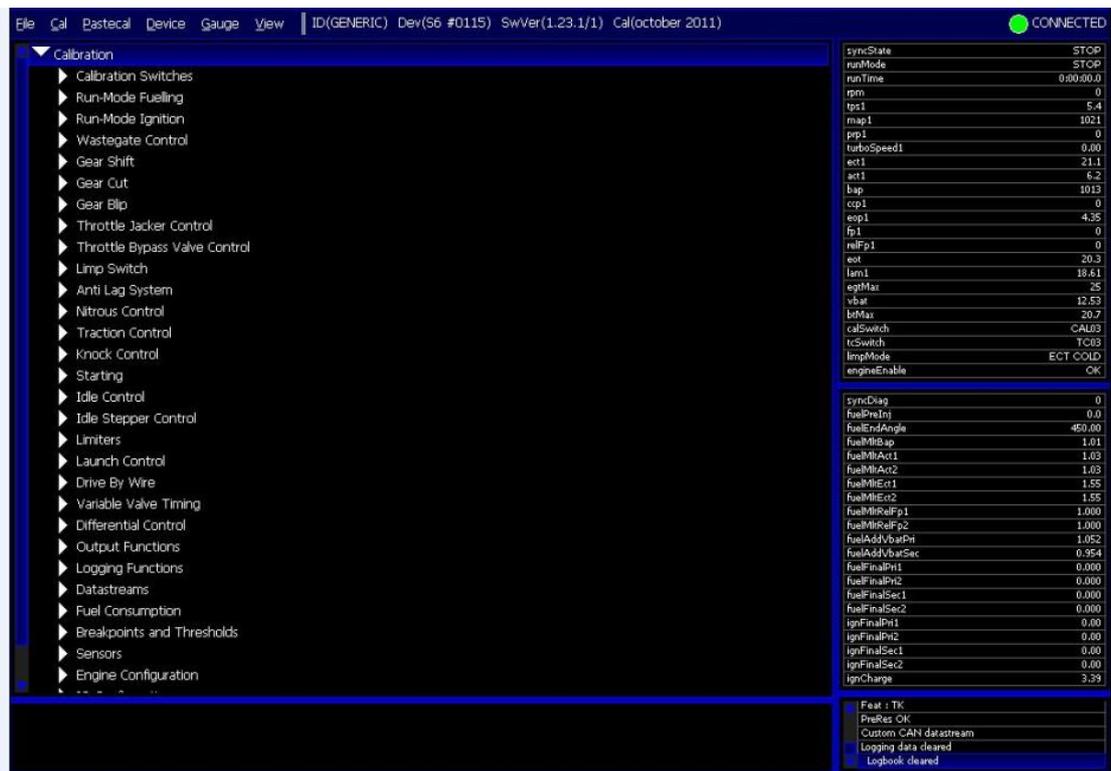


If you are having problems connecting to the Device speak to the Syvecs tech team on Support@Syvecs.co.uk or Tech@syvecs.us

The Area which is required next, is the Datastream section found ¾ of the way down the calibration list



Now in the Datastream section go to the Datasteam Select
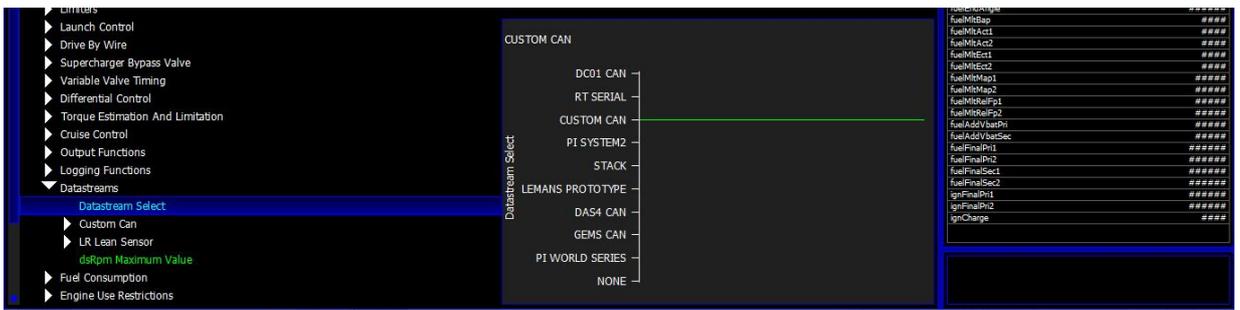


Select Custom Can, 95% of our customers will be using this already in our kits. So no change is required here if already on Custom Can… If Set to NONE change to Custom Can

An other stream set please contact support@syvecs.co.uk or Tech@syvecs.us for more help here.

Now please ESC and Double click on the option under Datastreams – Duplicate Output on RS232



Press Enter then and select Yes
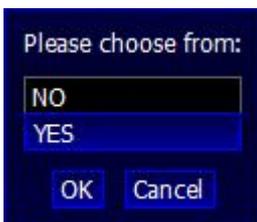
After this press Esc again and then Select the option – RS232 Transmit Frequency Limit Per Frame



Press Enter and Select 5hz
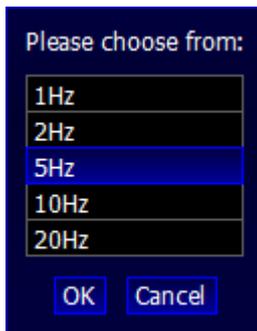


If you do not require the ability to do Map Switching then you need to save all the changed settings onto the Ecu...Click DEVICE at the top of the Screen and then PROGRAM

The ecu will then reset and say calibration flash passed OK

If you do Require Map Switching then you need to press Esc Twice and scroll down to the Pin Assignment Section found at the bottom of the list.

After selecting **IO Configuration**, Select **Pin Assignments** the Full Input and output table will be brought up.



## Assigning Calibration and Traction Switch

When viewing the IO Configuration table you are presented firstly with all the input availabilities. You firstly need to select the appropriate item which you want to use, in this case it is the Calibration Switch and Traction Switch. Double Click on the Item and then Select the Analogue (AN) input you used when wiring in the Cal and Traction signals from the Bluetooth adaptor to the Syvecs Ecu Connector.
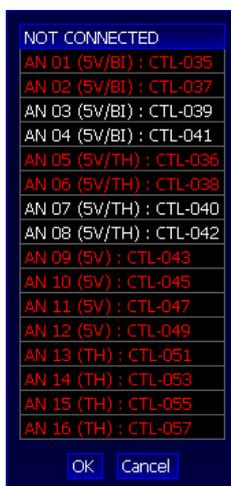


If the desired input pinout is currently allocated then it will be displayed in RED. The WHITE items show free spaces

You Must Program the ECU again at this point to save the changes made! If you encounter any problems in this stage please contact your calibrator or nearest Syvecs Branch

## Making a Connection on Mobile Device

Open the settings tab of you mobile device and select Bluetooth options





The mobile device will then find the Syvecs Bluetooth
Module which will appear as "Syvecs-BT – XXXX"
XXXX is the Serial number of the device…. Connect to the unit

Proceed then to the App store for your device

Search for Syvecs and install it once found.

If you are then connected to the Bluetooth unit and the Syvecs Ecu is powered up, open up the App on your mobile device... The following screen should appear if you are holding the device in a landscape position.

The Important bit to note is that the Status is Green here
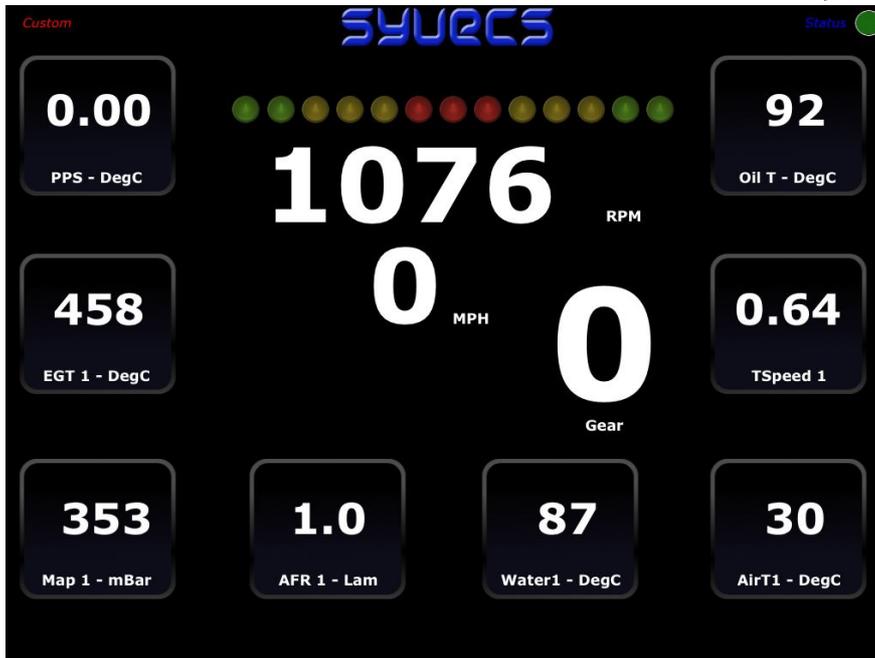


## Changing Calibration and Traction positions

Select to the outputs Section at the bottom of the Screen of the app. Use this Area to Change positions of the calibration switch and traction switch by touching Each box. You will see the numbers count up which will alter the voltage sent out of the Bluetooth module to the Syvecs and change the Calibration position.

## Customizing the App

Data should be now present in the gauges on the Screen

To change the gauge layout around and Setup the Calibration switch and Traction Switch turn the Device back to a portrait position and select the Settings tab at the bottom.
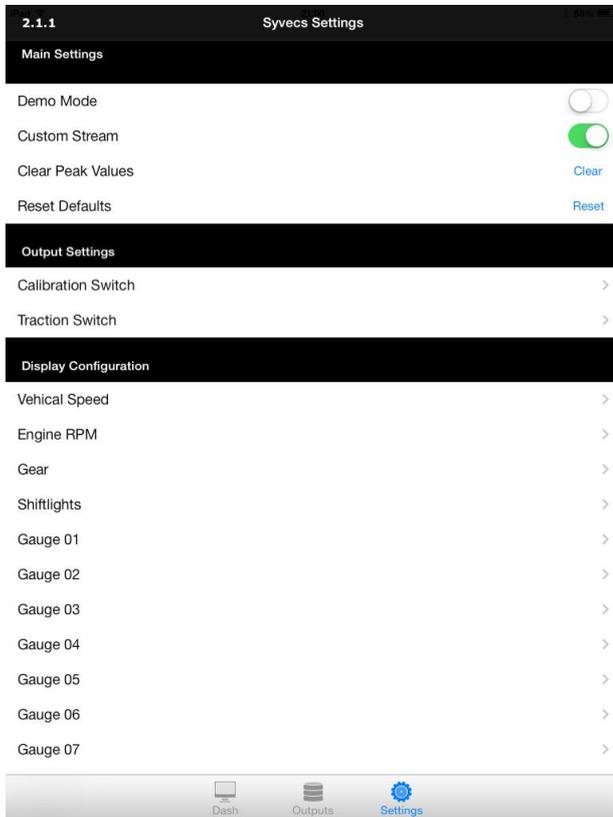


First of all head to the Output Settings area to label all your Calibration and Traction Switch Positions
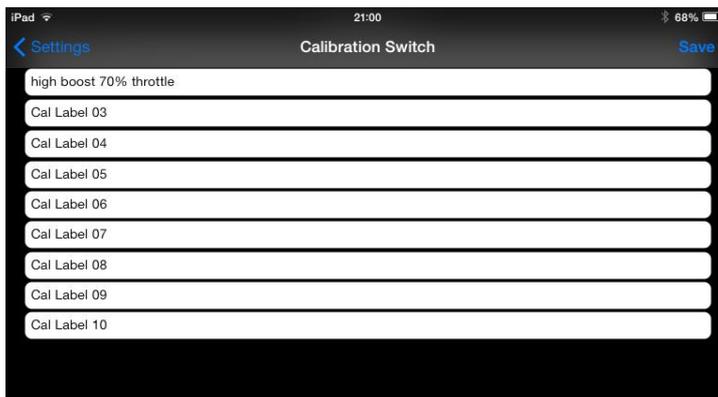


Select the Cal position you wish to Edit and then using the Keyboard remove the previous text and replace it as you wish.

When you have done this select Save in the top right hand corner

## Assigning Parameters to Gauges

Setting the parameters assigned to each gauge could not be easier! Select the gauge you wish to change under the Settings area – Display Configuration
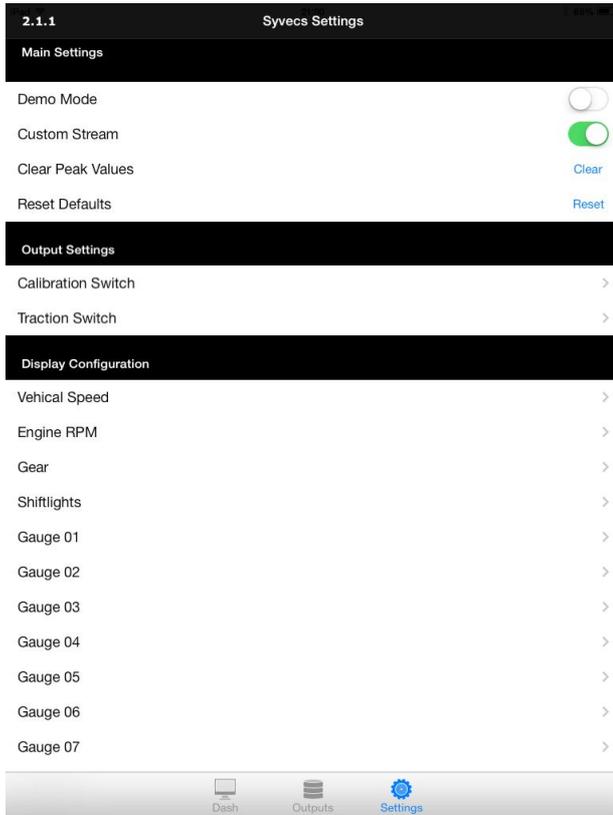


A long list of Parameters which are available to view are then presented for you to choose.

Scroll down the list by pressing the screen and Dragging your finger up the Screen.. Select the parameter you wish to use

If the desired parameter is not available in the list then you need to make sure it is being sent out of the Syvecs Custom Can Stream. To do this reconnect to the Syvecs unit as explained in the first part of this manual and head back to DataStream – Custom Can – Frame Content

Take a screenshot of this table and speak to your Calibrator or Nearest Syvecs branch about where you are able to add the item required.



In the unlikely event that the Gauges are displaying the wrong values on the App. Head to the Custom Stream Config under the Settings tab. Here you are able to change the Stream Config to match your Syvecs output stream.
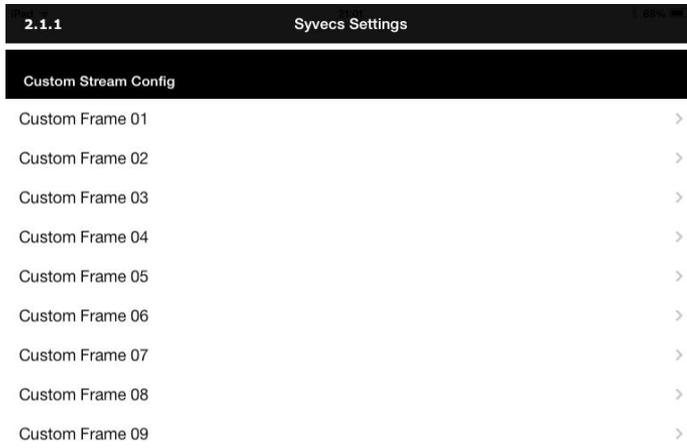


Select each Frame and adjust the item in each slot to match your screenshot taken from Scal.
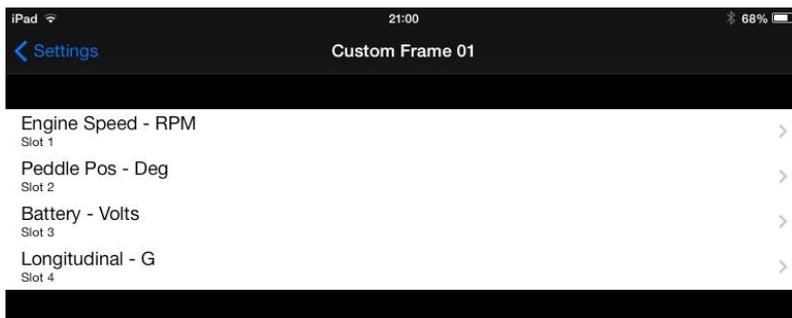


For Further help or Support please contact Support@Syvecs.co.uk or Tech@Syvecs.us