

Telemetry Bluetooth Module

😵 Bluetooth



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/download-area/

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 on IOS LED2 Blue – Paired and Authenticated on IOS 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 from the Syvecs website.

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 <u>Device</u> you find the option <u>Connect</u>. 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

Ele	⊆al	Pastecal	Device	Gauge	⊻iew	ID(GENER)	C) Dev(S6 #0	115)	SwVer(1.23.1/1	1) Cal	(october 2011)			CONNECTED
	Cal	bration											syncState	STOP
		bradon											runMode	STOP
		Calibration	Switches										runTime	0:00:00:0
		Run-Mode	Fuelling										rpm .	0
		D Made	T-mailtinen										tps1	5.4
		Run-Moue	1grilluri										map1	1021
		Wastegate	e Control										prp1 turboSpeed1	0.00
		Gear Shift											ect1	21.1
		Come Cut											att1	6.2
		Gear Cut											bap	1013
		Gear Blip											ccp1	0
		Throttle 1:	arkor Con	trol									eop1	4.35
		Throttle Ja	auker curi	urui									fp1	0
		Throttle B	ypass Val	ve Contro	bl								relFp1	0
		Limp Swite	-h										eot	20.3
	ĸ	camp connec	Barnest										lam1	18.61
		Anti Lag S	ystem										eyimai vhv	12 52
		Nitrous Co	ntrol										btMax	20.7
		Traction C	ontrol										calSwitch	CAL03
		maction o	Untrui										tcSwitch	TC03
		Knock Con	ntrol										limpMode	ECT COLD
		Starting											engineEnable	OK
		Idle Contro	ol											
		Tale conditi											SyncDiag Europe	0
		Idle Stepp	er Contro)l									fuelFodAode	450.00
		Limiters											fuelMitBan	450.00
		Laurah Ca	- the set										fuelMltAct1	1.03
		Launch Co	introl										fuelMltAct2	1.03
		Drive By W	√ire										fuelMltEct1	1.55
		Variable Va	ako Timin	a									fuelMltEct2	1.55
				9									fuelMltRelFp1	1.000
		Differentia	l Control										fuelMltRelFp2	1.000
		Output Fu	Inctions										fuelAddVbatPrt	1.052
		Logging Fr	motions										FuelFinalDist	0.954
		LUGGING PC	ancours										fuelFinalPri2	0.000
		Datastrean	ns										fuelFinalSec1	0.000
		Fuel Consu	imption										fuelFinalSec2	0.000
	- 14		1.001										ignFinalPri1	0.00
		Breakpoint	ts and Th	resholds									ignFinalPri2	0.00
		Sensors											ignFinalSec1	0.00
		Engine Cou	ofice motion										ignFinalSec2	00.0
-		^											IgnCharge	3.39
													Feat : TK	
													PreRes OK	
													Custom CAN datastrear	n
													Logging data cleared	
													Logbook cleared	

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

Scroll down to the Datastream - RS232 (If this option is not available, upgrade ECU Firmware to latest on www.syvecs.com/forum)

Datastreams	
CAN1 Bus Speed	
CAN2 Bus Speed	
Modified Values	
Generic CAN Transmit	
Generic CAN Receive	
Action Codes	
LR PDU CAN Receive	
LR GPS/ACC CAN Receive	
Basic GPS CAN Receive	
Bosch Accelerometer CAN Receive	
Bosch ABS CAN Receive	
Texense IB6C CAN Receive	
Syvecs CAN Receive	
Lotus CAN Transmit	
Megaline CAN Receive	
▼ r5232	NONE
R5232 Datastream Select	CENERIC .
RS232 Generic Transmit Number Of Frames	OENERIC -
RS232 Generic Transmit Content - f(Slot,Frame)	
RS232 Generic Transmit Frame Rate	B C C C C C C C C C C C C C C C C C C C
Slave 1 CAN Bus	B PI SYSTEM2 -
Slave 2 CAN Bus	E
Fuel Consumption	0 5 9
Engine Use Restrictions	2 Contraction of the second seco
Breakpoints and Thresholds	STACK -
▶ Sensors	Q
Engine Configuration	
Conferentia Duman Man	
Computable Pulpose Maps	
IO Configuration	

The Default content set in the map and shown below is to match the S7 Stream, its best to leave this to make it easy for App setup.



Set the Transmit Frame Rate to 10hz for stable data, if you need it faster the option for 20hz is available but some mobile devices wont support it.

Crive bus speed		19-30(2)	*****
Modified Values		alsSelectSwitch	*****
Connect CAN Transmit		launchSelectSwitch	
Generic Own Hanshit		calOverndeActive	
Generic CAN Receive		trielet	
Action Codes		alsSelect	
LB PDU CAN Receive		launchSelect	*****
IB GDE/ACC CAM Parabas		ImpMode mains Facility	
Ex drance chiracterie		ediaciana.	
Base GPS CAN Receive		fuelFinalPrit	******
Bosch Accelerometer CAN Receive		fuelFinalPri2	******
Bosch ABS CAN Receive		fueFinalSect	******
Tayansa IBAC CAN Receive		in Final Did	
Super GAU Backing		ignFinalPri2	******
Syred CAI Receive			
Lotus CAN Transmit			
Megaline CAN Receive			
▼ R5232	10HZ		
RS232 Datastream Select			
R5232 Generic Transmit Number Of Frames	25HZ -1		
RS232 Generic Transmit Content - f(Slot,Frame)	8		
RS232 Generic Transmit Frame Rate	20HZ -		
Slave 1 CAN Bus	E e a a a a a a a a a a a a a a a a a a		
Slave 2 CAN Bus	₩ 10HZ		
Fuel Consumption			
Engine Use Restrictions	2 I		
Breakpoints and Thresholds	물 SHZ =		
Sensors	8		
Engine Configuration	8 2HZ -		

If any changes have been made, make sure you Program the ECU by clicking Device - Program at the top of Scal



If Calibration Switching is required then select the IO Configuration - Pin Assignments



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

Fie <u>Cal P</u> astecal <u>D</u> evice USB- <u>T</u> ools <u>G</u> auge <u>W</u> orks	sheet View Dov(S7 #XXXX)	SwVer(1.752.X/10)			OFFLINE
ALL Auto Outputs Auto Selector Auto Trans BOYA	N Centre Diff Custom Dampers Datastream DB	W pos DBW SETUP DI Opening Time Dyno Fan Control GCUDatastream GenericRX H Bridge Testing Injector Pulse Lam2CAN	Lambda Lin Nissan Fan ReIFPR	DI SBV Correction Test TMAF Setup	
Configuration / Pin Assignments		ESC Edit Options Select	Math Learn Nearisation	syncState	****
n Use				runMode	*****
Inputs : caloration switch wor connected				rpm	*****
A) Inputs : ALS Enable Switch	NOT CONNECTED			ppsFinal	
A) Inputs : ALS Select Switch	NOT CONNECTED			map1	***
A) Inputs : Action Code (Clear)	NOT CONNECTED			prp1	****
A) Inputs : Action Code (Set)	NOT CONNECTED			turboSpeed1 wrt1	
A) Inputs : Air Charge Temperature 1A	NOT CONNECTED			acti	*****
A) Inputs : Air Charge Temperature 1B	NOT CONNECTED			bap	
A) Inputs : Air Charge Temperature 2A	NOT CONNECTED			ecp1	
A) Inputs : Air Charge Temperature 2B	NOT CONNECTED			fpl	****
A) Inputs : Air Con Switch	NOT CONNECTED			relFp1	
A) Inputs : Ambient Air Temperature	NOT CONNECTED			lami	
A) Inputs : Auto Trans Accumulator Pressure	NOT CONNECTED			egtMax	
A) Inputs : Auto Trans Input Shaft Speed	NOT CONNECTED			vDat heMev	
A) Inputs : Auto Trans Line Pressure	NOT CONNECTED			calSwitch	0.000
A) Inputs : Auto Trans Lockup Clutch Pressure	NOT CONNECTED			tcSwitch	
A) Inputs : Auto Trans Low Ratio Switch	NOT CONNECTED			assentswitch launchSelectSwitch	
A) Inputs : Auto Trans Manual Down Switch	NOT CONNECTED			calOverrideActive	****
A) Inputs : Auto Trans Manual Up Switch	NOT CONNECTED			calSelect	
A) Inputs : Auto Trans Oil Temperature	NOT CONNECTED			alsSelect	4444
A) Inputs : Auto Trans Output Shaft Speed	NOT CONNECTED			launchSelect	****
A) Inputs : Auto Trans Select 1	NOT CONNECTED			ImpMode	
A) Inputs : Auto Trans Select 2	NOT CONNECTED				
A) Inputs : Auto Trans Select 3	NOT CONNECTED			btAn	****
A) Inputs : Auto Trans Select 4	NOT CONNECTED			btPwr1 hrDar7	
A) Inputs : Barometric Pressure	NOT CONNECTED			btMax	
A) Inputs : Beacon	NOT CONNECTED			astPeak	*****
A) Inputs : Brake Pressure (Front)	NOT CONNECTED			astheakidx	
A) Inputs : Brake Pressure (Rear)	NOT CONNECTED			an01V	
A) Inputs : Cal Down Switch	NOT CONNECTED			an02V	
A) Inputs : Cal Up Switch	NOT CONNECTED			an04V	****
A) Inputs : Calibration Override Switch A	NOT CONNECTED			an05V	0.000
A) Inputs : Calibration Override Switch B	NOT CONNECTED			an06V an07V	
A) Inputs : Calibration Switch	NOT CONNECTED			an06V	
A) Inputs : Cam (Exhaust 1 Variable Valve Timing)	NOT CONNECTED			an09V	
A) Inputs : Cam (Exhaust 2 Variable Valve Timing)	NOT CONNECTED			anity	****
A) Inputs : Cam (Inlet 1 Variable Valve Timing)	NOT CONNECTED			an12V	a # # # #
A) Inputs : Cam (Inlet 2 Variable Valve Timing)	NOT CONNECTED			anlav	
A) Inputs : Cam (Phase) A	NOT CONNECTED			an15V	
A) Inputs : Cam (Phase) B	NOT CONNECTED			an16V	
A) Inputs : Clutch Depressed Switch	NOT CONNECTED			errorFlags	
A) Inputs : Clutch Paddle Position A	NOT CONNECTED			error FlagsH	****
A) Inputs : Clutch Paddle Position B	NOT CONNECTED			sensorWarningLevel	
A) Inputs : Clutch Position	NOT CONNECTED			and a managed a	
A) Inputs : Clutch Pressure	NOT CONNECTED				
A) Inputs : Crank Case Pressure 1	NOT CONNECTED				
A) Inputs : Crank Case Pressure 2	NOT CONNECTED				
A) Inputs : Crank Case Pressure 3	NOT CONNECTED				
A) Inputs : Crank Case Pressure 4	NOT CONNECTED				
A) Inputs : Crank Position A	NOT CONNECTED				
A) Inputs : Crank Position B	NOT CONNECTED				
A) Inputs : Cruise Control Nudge Down Switch	NOT CONNECTED				

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.

AN 01 (SV/BI) + CTL-035
AN 01 (5V/BI) : CTL-035
AN 03 (5V/BI) : CTL-039
AN 04 (5V/BI) : CTL-041
AN 05 (5V/TH) : CTL-036
AN 06 (5V/TH) : CTL-038
AN 07 (5V/TH) : CTL-040
AN 08 (5V/TH) : CTL-042
AN 09 (5V) : CTL-043
AN 10 (5V) : CTL-045
AN 11 (5V) : CTL-047
AN 12 (5V) : CTL-049
AN 13 (TH) : CTL-051
AN 14 (TH) : CTL-053
AN 15 (TH) : CTL-055
AN 16 (TH) : CTL-057
OK Cancel

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

02-UK 🗢	15:23	63% 🔳	iPad ≑ Settir	igs	^{16:30} Bluet	ooth
5	Settings		> Airplane Mod	e 🔵	Bluetooth	
			🛜 Wi-Fi	BTHub3-XZTK	DEVICES	
			Bluetooth	On	Samsung Home Audio	Not Con
					Syvecs-BT-48FF	Con
		\bigcirc	Notification C	Center	Now Discoverable	
Airplane N	/lode		Control Cente	ər		
			C Do Not Distu	rb		
	DTUU	62 VZTK	-			
VVI-F1	DIHU	DO-AZIR /	General	0		
			Sounds			
Bluetooth		Off >	Wallpapers &	Brightness		
Diactootii		011 7	Privacy			
			_			
Cellular		>	iCloud			
			Mail, Contact	s, Calendars		
Davaarali	Laters at		Notes			
Personal	lotspot	2	Reminders			
			Messages			
			FaceTime			
			Maps			

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 SyvecsPro and install it once found.

Q syvecs	Cancel
Syvecs Pro Syvecs Bluetooth Module App	OPEN
★★★★☆ 6	Utilities

Learn more about search results.

App DataStream Setup

In order to get as much data into the application, it's vital to ensure the datastream setup in the app matches what is set in the frame content in Scal, The default values are suitable for most but if custom items are needed then adjust in Scal and setup the SyvecsPro app frame content to match

Ele Cal Pastecal Device USB-Tools Gauge Worksheet View D(GENERIC)	Dev(S7 #XXXX) Sw	Ver(1.752.X/10)											OFFLINE 🔴
MENU 1 Auto Outputs Auto Selector Auto Trans BOYAN Centre Diff Custom Damp	ers Datastream DBW	pos DBW SETUP DI Oper	ing Time Dyno Fan Cor	trol GCUDatastream	GenericRX H Bridge Test	ting Injec	tor Pulse		I Lambda	a Lin Nise	san Fan RelFP	R DI SBV Correction Test TMAF Setup	Torque Control Torque Control NEV
Datastreams / RS232 / RS232 Generic Transmit Content													
					ESC	Edit	Options	Select	Math	Learn	I <u>N</u> eansation	syncoure	
Sot Frame												nullino.	*******
I i rpm convert using y=(1-x)+0 to engineering units in the range 01000	0 (Anguar Speed, Revs	per Minute, signed) Slot										1000	
												reafinal	
		-										tosi	
		ppsEinal	tpsMax	mapMax								map1	****
	engTrqEstOutputExt	engTrqEstOutputPotExt	engTrqDmdPpsExt	engTrqEstFrictionExt								prp1	****
	lamt	am2	fueMhClit	fueMitCl2								turboSpeed1	******
	monthing											ect1	*****
	Парнах											acti	
	veniciespeed	drivenspeed	gpsspeed	differentio								54p	
6	fiSpeed	frSpeed	rlSpeed	rrSpeed								ccpi	
	woFinaDuty1	bunchInStage	turboSneed1DeSniked	n2on								fol	
			E-shike?	6849,010								relFo1	
	19111	HI112										601	*****
	tuelFinalPril	tueHnalSec1	fueDutyPrl	fueDutySec1								lami	
后 10 日 日 日 日 日 日 日 日 日 日 日 日 日 日 日 日 日 日	longG											egtMax	****
£ 11	ect1	art1	too	ft1								vbet	*****
12												btMax	*****
12												calSwitch	*****
	trqFuelSev	trqIgnSev	trqlgnRtd	ignFinalPri1								tc)witch	
	launchRpm	revLimitRpm	revCutRpm	instFivi								and a sector with	
	(Jean	fuelComp	idle Target	n2oSwtrch								ralOverrideArtive	
	dim to the	dburt Terr										calSelect	*****
16												tcSelect	*****
	fuePump1Duty	fuePump1	tuePump2	tuelPump3								alsSelect	*****
18			with Targ	vvtExTarg								launchSelect	*****
19	cruiseActive	fant	fan?	akConCti								ImpMode	
	lime to a de	and a state of the second	annual la suit la	and the set								engineEnable	*****
												fuelFinaPri1	******
												fuel main and	
												End Final Sect	
												ionEralPri1	
												enFinalPr2	*****

In SyvecsPro select Quick Setup



If using the default values in Scal then select S7 from the Preset Datastreams section shown below

	FI	RAME CONTE	NT - WIZAR	D	
	1	Close /2	3	4	
1	RPM	S7 SPAR	TPSMAX	MAPMAX_BAR	
2	SPARE	S6 SPARE	SPARE	SPARE	
3	LAM1	991Porsche	FUELMLTCLL1	FUELMLTCLL2	
4	MAPMAX_BAR	996 Porsche	WGMAPLIMITI	SPARE	
5	VEHICLESPEED_KMH	997 Porsche	GPSSPEED_KMH	SPARE	
6	FLSPEED_MPH	Focus RS MK2	RLSPEED_MPH	RRSPEED_MPH	
7	WGFINALDUTY1	Focus RS MK3	SPARE	N2OP_BAR	∇
8	LAM1	Huracan	FUELMLTCLL1	FUELMLTCLL2	
		LP560-R8			Preset Datastreams
		RESETR			

If you have adjusted the content in scal then setup the Frame Content in the Syvecs Por App to match

	FRA	AME CONTE	NT - WIZARI	0	
	1	2	3	4	
1	RPM	SPARE	TPSMAX	MAPMAX_BAR	
2	SPARE	SPARE	SPARE	SPARE	
3	LAM1	LAM2	FUELMLTCLL1	FUELMLTCLL2	
4	MAPMAX_BAR	SPARE	WGMAPLIMIT1	SPARE	
5	VEHICLESPEED_KMH	DRIVENSPEED_KMH	GPSSPEED_KMH	SPARE	
6	FLSPEED_MPH	FRSPEED_MPH	RLSPEED_MPH	RRSPEED_MPH	
7	WGFINALDUTY1	SPARE	SPARE	N2OP_BAR	
8	LAM1	LAM2	FUELMLTCLL1	FUELMLTCLL2	
					Preset Datastre

Calibration Switching in the Syvecs Pro App

Select the Gear Cog found in all the Dash Layouts



Users can then adjust the Cal Select, Tc Select Outputs which alter the voltages to the Ecu inputs

