Syvecs LTD

V1.2

Porsche 997.2

Contents:

1 x Syvecs S7Plus Ecu

1 x Syvecs GDi12 Driver

1 x S997.2 Loom

Installation

1 .) Remove the Negative Terminal from the battery on the Vehicle which is found in the front trunk of the car as shown below

2.)   Pull down the back seats in the rear of the cabin

3.) If a subwoofer is present, pull off the Bose speak cover clips and using a torque fitting unscrew each bolt on both sides. Then lift out the Subwoofer and unclip the electrical connector

4.) Lift the carpet to reveal the Ecu Cradle which is removed by 3 x M6 nuts

5.) Remove the OEM Ecu by unplugging the 2 x Connectors and unscrewing the 4 x M6 Bolts in each corner

6.) Next Mount the Syvecs Ecu is the same Location as the OEM and Secure with brackets or Zip ties.

7.) Plug in the Syvecs S997.2 Loom adaptor

8.) Refit the Ecu Cradle, Carpet and route the Syvecs Ethernet Cable via down the side of the carpet.

9.) Re-Connect the Negative terminal of the Battery

10.) Contact Support@Syvecs.co.uk for a base map and Software basic Manual

S997.2 – Notes

Adjusting the torque values sent to the Transmission ecu for handling clutch control. This table is called the MBT Torque Estimate table and is based on Primary Load vs RPM. The table can be adjusted live to cater for shifting smoothness and clutch clamping. The Values in the MBT Torque Estimate table are not the final values sent to the TCM as friction loses and other multipliers for airtemp etc are applied so to view the actual value sent, Open up a Gauge for engTrqEstOutputTrans.
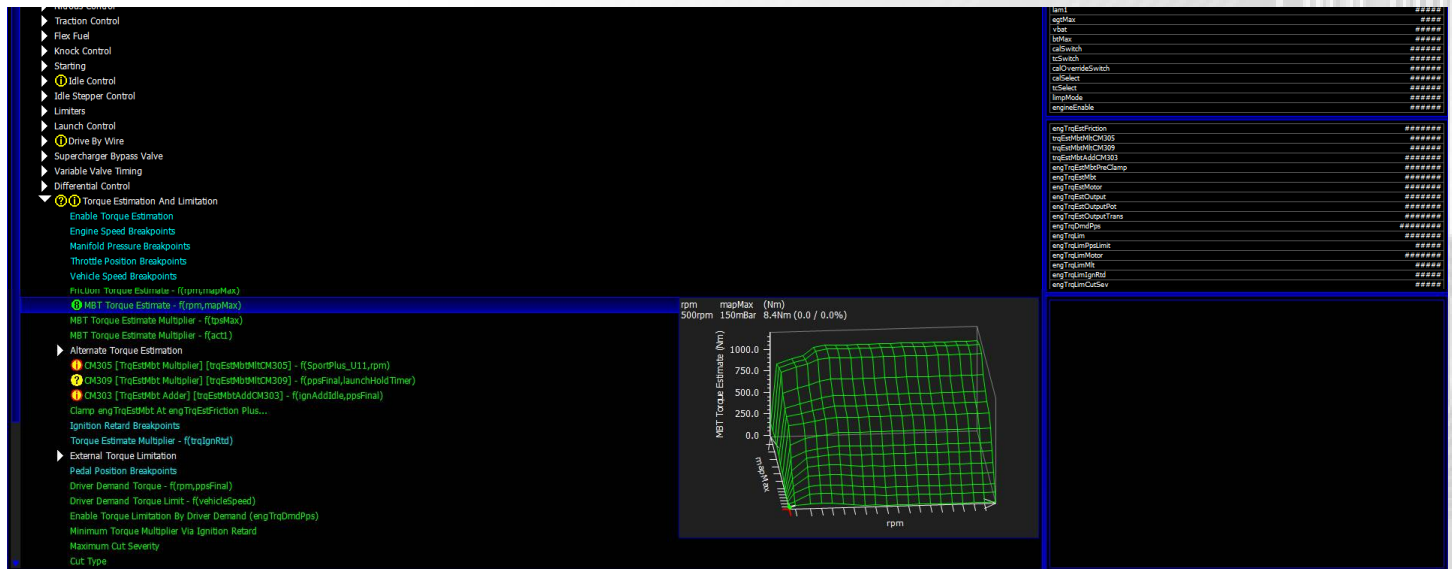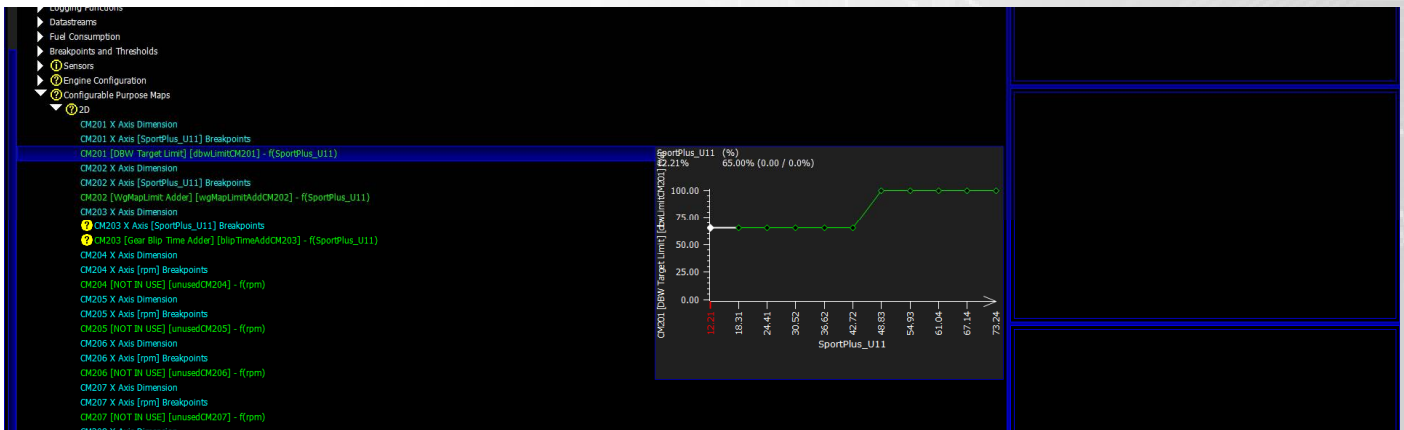

- Injector Scaling for MPG Counter is done via Car Code 3 under Pin Assignments

The Sport mode settings from the TCM also come into the Syvecs which can be used for altering DBW Limit, Wastegate Targets etc. The Base map already has a DBW Limit of 60% when in Normal Mode but uses can set up other Comp maps for the Input SportPlus_U11

Normal = 0%
Sport = 50%
Sport plus = 100%

S911 - 997 Map/Calibration Switching

Map/Calibration Switching on the S997.2 Syvecs kit is done via the OEM Cruise control Switches, when the ignition is switched on it will always default to CalSwitch = 1 in Scal which is found in the parameters list on the right hand side when connected to the Ecu.

First pressing the cruise cruise button the end of the stalk will put the car into map switching mode which flashes the cruise control light on the dash. When in this mode pushing the Resume button on the steering wheel up and holding for 2 seconds will make the calibration switch go up by one value each time its pressed and held. As default there are 8 calibration switch options and the user can then assign many tasks to each calibration switch under the Calibration switches section of Scal.

Pushing the stalk button down towards the Off Symbol and holding is used to go back down the Calibration switch positions.

The Boost gauge will display the Calibration Switch Change in Bar format i.e 0.1bar is Cal1, 0.2bar is Cal2

Pulling the lever towards the driver (Speed/Set) activates the Calibration Override Switch in Scal which as default in the base maps jumps to Calibration Switch 9 for activating Rolling Antilag. By pulling back the stalk and going full throttle in manual mode a Antilag strategy will be activated which holds the car back from accelerating but builds boost. Upon releasing the switch the Antilag is disabled and the engine will gain torque instantly to accelerate.

Limp Modes

The Syvecs S911 kit is geared around safety and many Limp become present if certain parameters are not within a set value. The Ecu Light and Gauges present the level of Limp. Levels below:

Cycling the Ignition on the 911 Resets the Limp

Warnings :
Limp Level 1 (no key on -off) is Solid CEL
Limp Level 2 (Key on-Off) is Flashing CEL
Limp Level 3 - Reduce Engine Power Message on Dash

--Level1 Activations--
Limp Switch
Engine Oil Cold Temperature Limp
Engine Coolant Cold Temperature Limp
Sensor Warning Level 1
Limp Switch Actuve
ABS FAULT (Disables Vehcile Speeds and Traction Control)
Sensor Warning
Air Charge
Vbat Too low

--Level2 Activations--
Fuel Pressure Limp
Time Limit
Engine Oil Hot Temperature Limp
Engine Coolant Hot Temperature Limp
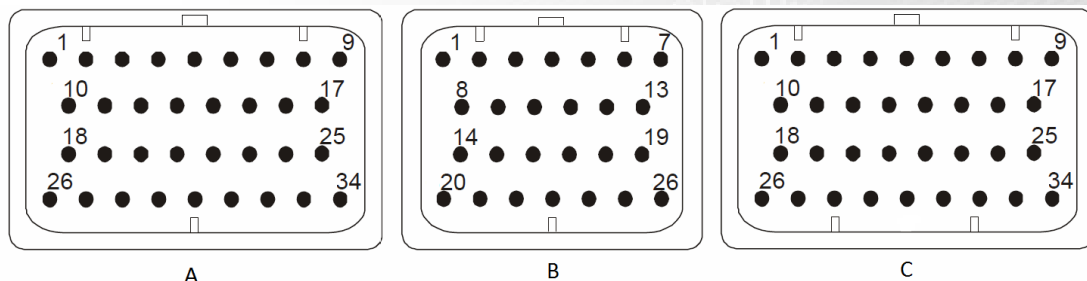Fuel Pressure Limp
Time On Load Limp

Torque Limit Limp
VVT Faliture
Lambda Lean Trip
Sensor Warning Level 2

--Level3 Activations--
Engine Oil Pressure Limp
Crank Case Pressure Limp
Knock Limp
Knock Preignition Limit

Ecu Pin Assignments

A	DESCRIPTION	CONNECTOR A	
	PART NUMBER	4-1437290-0	
	NOTES:	34 Way - Key1	
Syvecs Description	**Syvecs Pinout**	**Function**	
PWR CTR OUT	A1	MAIN RELAY OUTPUT	
H-Bridge1 / SlaveOut1	A2	H-Bridge1	DBW
H-Bridge2 / SlaveOut2	A3	H-Bridge2	DBW
H-Bridge3 / SlaveOut3	A4	H-Bridge3	ThermoStat
H-Bridge4 / SlaveOut4	A5	H-Bridge4	Oil Pump Control
H-Bridge5 / SlaveOut5	A6	H-Bridge5	Di Pump
H-Bridge6 / SlaveOut6	A7	H-Bridge6	Rad Fans
H-Bridge7 / SlaveOut7	A8	H-Bridge7	Valve Lift
H-Bridge8 / SlaveOut8	A9	H-Bridge8	Starter Motor Relay
FUEL1	A10	INJECTOR or PWM OUTPUT	Primary Injector 1
FUEL2	A11	INJECTOR or PWM OUTPUT	Primary Injector 2
FUEL3	A12	INJECTOR or PWM OUTPUT	Primary Injector 3
FUEL4	A13	INJECTOR or PWM OUTPUT	Primary Injector 4
FUEL5	A14	INJECTOR or PWM OUTPUT	Primary Injector 5
FUEL6	A15	INJECTOR or PWM OUTPUT	Primary Injector 6
FUEL7	A16	INJECTOR or PWM OUTPUT	Secondary Injector 1 / Boost Pressure Adjuster 1
FUEL8	A17	INJECTOR or PWM OUTPUT	Secondary Injector 2 / Boost Pressure Adjuster 2
PWM1 /*FUEL9	A18	PWM OUTPUT	Secondary Injector 3 / Fuel Pump2 on 997.2
PWM2 / *FUEL10	A19	PWM OUTPUT	Secondary Injector 4 / Fuel pump1 on 997.2
PWM3 / *FUEL11	A20	PWM OUTPUT	Secondary Injector 5 / Tank Vent
PWM4 / *FUEL12	A21	PWM OUTPUT	Secondary Injector 6 / Engine Bay Fan
PWM5	A22	PWM OUTPUT	Divertor Valve
PWM6	A23	PWM OUTPUT	Fuel Pump Low pressure on 991
PWM7	A24	PWM OUTPUT	VVT1
PWM8	A25	PWM OUTPUT	VVT2
IGN1	A26	CYL 1 IGNITION OUTPUT	
IGN2	A27	CYL 2 IGNITION OUTPUT	
IGN3	A28	CYL 3 IGNITION OUTPUT	
IGN4	A29	CYL 4 IGNITION OUTPUT	
IGN5	A30	CYL 5 IGNITION OUTPUT	
IGN6	A31	CYL 6 IGNITION OUTPUT	
PWRGND	A32	POWER GROUND	

PWRGND	A33	POWER GROUND	**Ground**
PWRGND	A34	POWER GROUND	
B	**DESCRIPTION**	CONNECTOR B	
	PART NUMBER	3-1437290-7	
	NOTES:	26 Way - Key1	
PWRGND	B1	POWER GROUND	
CAN2L	B2		
CAN2H	B3		
KNOCK	B4	KNOCK	
KNOCK 2	B5	KNOCK 2	
PVBAT	B6	CONSTANT 12V	
IVBAT	B7	12v	
LAM1A	B8	Lamv / LamD1+/ LamLun1	Pin6 on LSU4.9 Connector
LAM1B	B9	Lami / LamD1- /LamIP1	Pin1 on LSU4.9 Connector
LAM1C	B10	LamLIA1	Pin5 on LSU4.9 Connector
LAM1D	B11	LamGND / LamLVM1	Pin2 on LSU4.9 Connector
LAM1HEATER	B12	LAMBDA HEATER	Pin3 on LSU4.9 Connector
IVBAT	B13	12V	
LAM2A	B14	Lamv / LamD1+/ LamLun1	Pin6 on LSU4.9 Connector
LAM2B	B15	Lami / LamD1- /LamIP1	Pin1 on LSU4.9 Connector
LAM2C	B16	LamLIA1	Pin5 on LSU4.9 Connector
LAM2D	B17	LamGND / LamLVM1	Pin2 on LSU4.9 Connector
LAM2HEATER	B18	LAMBDA HEATER	Pin3 on LSU4.9 Connector
IVBAT	B19	12V	Oil Pressure 12v
KLINE	B20	Kline	
RS232RX	B21	RS232RX	SET AS CAN L FOR TB with CAN BRIDGE
RS232TX	B22	RS232TX	SET AS CAN H FOR TB with CAN BRIDGE
LANRX-	B23	Cat5 Pin2	
LANRX+	B24	Cat5 Pin1	
LANTX-	B25	Cat5 Pin6	
LANTX+	B26	Cat5 Pin3	
C	**DESCRIPTION**	CONNECTOR C	
	PART NUMBER	4-1437290-1	
	NOTES:	34 Way - Key2	
KNOCKGND	C1	KNOCKGND	
ANGND	C2	SENSOR GND	
ANGND	C3	SENSOR GND	
ANGND	C4	SENSOR GND	
5V OUT	C5	5V OUT	
5V OUT	C6	5V OUT	
5V OUT	C7	5V OUT	
CAN L	C8	Can Low	
CAN H	C9	Can High	
AN01	C10	BI-POLAR INPUTS	Crank Sensor
AN02	C11	BI-POLAR INPUTS	VVt1IN
AN03	C12	BI-POLAR INPUTS	VVT2IN
AN04	C13	BI-POLAR INPUTS	

AN05	C14	UNI-POLAR INPUTS	Pre Throttle Pressure
AN06	C15	UNI-POLAR INPUTS	Map Sensor
AN07	C16	UNI-POLAR INPUTS	Oil Temp
AN08	C17	UNI-POLAR INPUTS	PPS1
AN09	C18	VOLT-INPUTS	DI Pressure
AN10	C19	VOLT-INPUTS	Engine Oil Pressure
AN11	C20	VOLT-INPUTS	TPS1A
AN12	C21	VOLT-INPUTS	TPS1B
AN13	C22	RESISTIVE INPUTS	Air temp
AN14	C23	RESISTIVE INPUTS	Coolant temp
AN15	C24	RESISTIVE INPUTS	Brake
AN16	C25	RESISTIVE INPUTS	Clutch
EGT1-	C26	EGT1 -	
EGT1+	C27	EGT1 +	
PWR CTR IN	C28	MAIN RELAY INPUT SW	12v Ignition
AN S1 / Slave An01	C29	UNI-POLAR INPUTS	EGT1
AN S2 / Slave An02	C30	UNI-POLAR INPUTS	EGT2
AN S3 / Slave An03	C31	UNI-POLAR INPUTS	Boost Feedback1
AN S4 / Slave An04	C32	UNI-POLAR INPUTS	Boost Feedback2
AN S5 / Slave An05	C33	UNI-POLAR INPUTS	PPS2
AN S6 / Slave An06	C34	UNI-POLAR INPUTS	Oil Level

Email Support@syvecs.co.uk for a base map to suit your setup.