Syvecs LTD

V1.1

VAG TSI E888 Plug in ECU

This document is intended for use by a technical audience and describes a number of procedures that are potentially hazardous. Installations should be carried out by competent persons only.

Syvecs and the author accept no liability for any damage caused by the incorrect installation or configuration of the equipment.

Please Note that due to frequent firmware changes certain windows might not be the same as the manual illustrates. If so please contact the Syvecs Tech Team for Assistance.

Support@Syvecs.com

TSI ECU

Thank you for choosing the Syvecs TFSI ECU

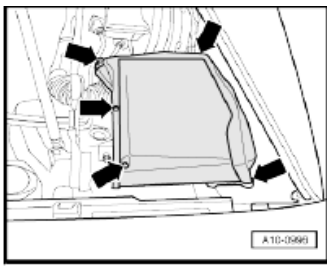
The kit includes the following:

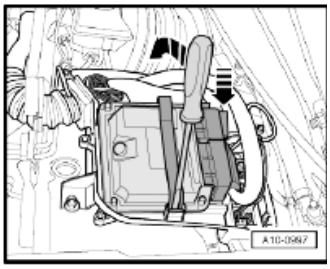
1 x Syvecs TSI Plug In ECU

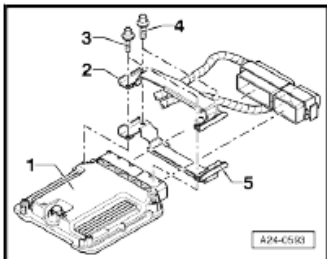
Installation

1.) Remove the Negative Terminal from the battery on the Vehicle

2.) Remove the OEM Engine control modules found under the front window compartment of the engine bay or under the Electronics Box.







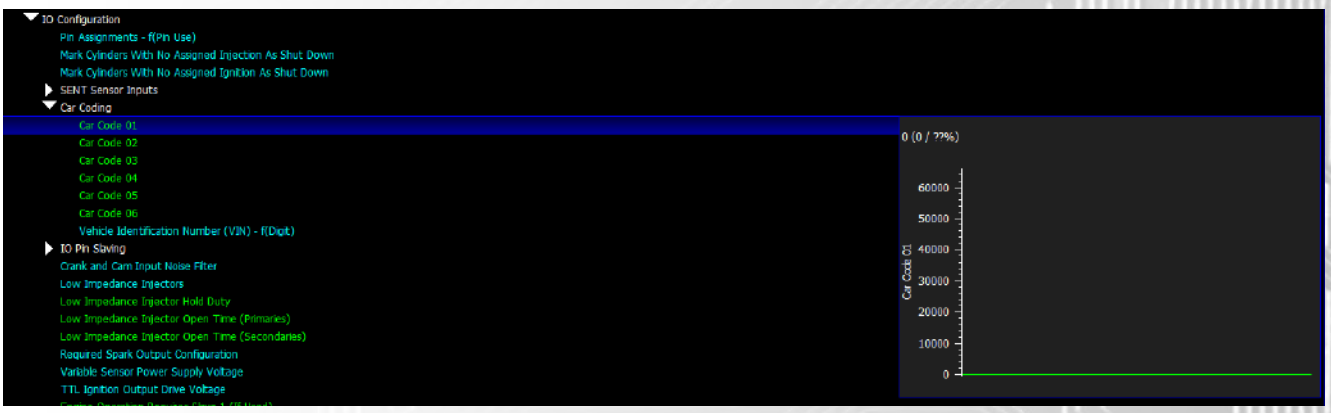
3.) If wanting to control additional injectors these can be wired into the 34way connector at the back of the Plug in ECU. See the last page for this information.

4.) Replace the battery terminal and engine covers and proceed to the Syvecs Manual for connecting to ECU

TSI Specific Software Options

Due to the huge number of Cars that the TSI Engine is fitted to, an ECU Coding setup needs adjusting in Scal to suit the model of your VAG

Group Car. This is found at the bottom under I/O Configuration



Car Coding1 Values

Audi - 0
Golf Mk5 - 84
Seat Leon - 168
Golf R - 248
Seat Leon DSG - 330
Skoda TSI Manual - 415
Audi TT DSG 2WD - 500
Golf R UK MK6 - 580
Skoda DSG - 690
Golf R MK6 China - 760
Polo WRC – 850
Golf 6 GTI - 940
Audi 8P S3 - 1024
Scirocco - 1100
CCTA TSI - 1184
KTM DSG - 1268

Car Coding2 Values

Audi - 0
Golf Mk5 - 84
Seat Leon - 168
Golf R - 248
Seat Leon DSG - 330
Skoda TSI Manual - 415
Audi TT DSG 2WD - 500
Golf R UK MK6 - 580
Skoda DSG - 690
Golf R MK6 China - 760
Polo WRC – 850
Golf 6 GTI - 940
Audi 8P S3 - 1024
Scirocco - 1100
CCTA TSI - 1184
KTM DSG - 1268

CarCode 5 = MDNorm Value - Maximum Torque

Enter the max Torque, generally 416nm on TFSI kits unless the TCM is Flashed

Sensors - LoadCell3 - Default Value - is Gearbox Type

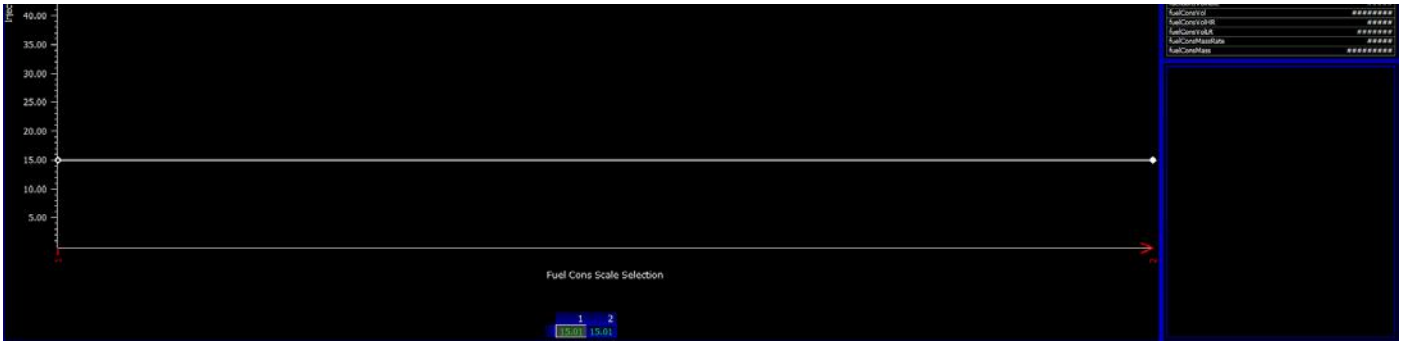
Manual - 0
DSG - 1

Injector Size is set in Fuel Consumption – Injector Consumption Scaling

This value is important. Must be set correct for Torque Estimation on DSG Cars

Injector Size / 60 = ml/s value

OEM DI Injectors are set in the Base map @ 15ml/s



TSI Kit FAQ and Help

Q) Does the TSI kit come with 4 External injector loom?

A) The Ecu has a 34way connector at the rear for wiring additional Injectors onto

Q) Can I install different in tank pump?

A) Yes, the Syvecs communicates with the OEM Fuel Pump Ecu to allow PWM Control of the Pump so it can be adjusted to suit your new pump.

Q) What of the original features will no longer work?

A) All original features will function properly

Q) Can we use the OBD port still to Log, Read Codes and Clear them on other ecus on the car like ABS?

A) Yes via the Use on VagCom - https://www.ross-tech.com/vag-com/

Q) How is the Fuel Mapping done in Scal

A) On the Secondary injection map – The base map is 4D tuned as MAP1 is before the TPS as default on engine. Uses Secondary Multipler Under Run-Mode Fueling and Simple Manifold Pressure under Run-Mode Fueling – Corrections

Q) How do I setup Additional Port Injectors

A) You first need to assign them in the I/O Config Pin assignment and Program ecu.

After you need to set the Secondary multipler difference between the DI and Port under Run mode fueling – Correction – Secondary Multipler

OEM DI Injectors flow around 650cc.. So do 650 / (Port Injectors cc) to give a good starting point on Secondary multiplier

Ensure that the Secondary Injection Opening Time values are correct from your manufacture.

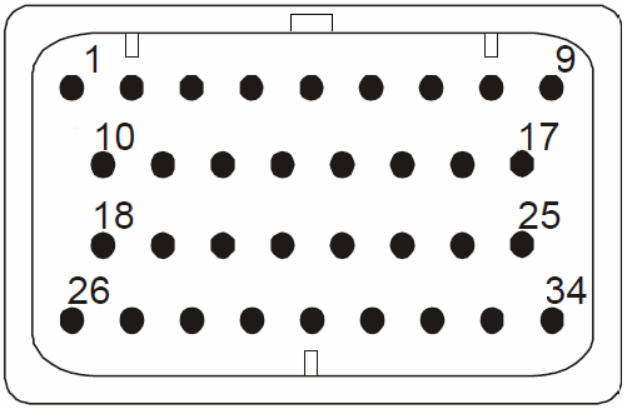
After Start the engine up and monitor the Lambda1 Value and FuelMltCll1 Value. Now go to Injector Split1 and increase the values up to 50% in the area and around that the tracer is showing the engine is current at.

As the Ports start to blend in and you have the Split at 50% you need to be monitoring the Lambda1 and FuelmltCll1. If the values are different compared to before when split was at 0% then adjust the Secondary multiplier live until they are the same with the split present.. Once that is good, set the Split back to 0%,

When the OEM DI Injectors now reach their limit the Syvecs ecu will automatically bring the ports in to maintain the desired fuel requirements, If you wish to bring the port injectors in sooner then set the split table as required.

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

External Connector Pinouts



Mating Connector - 4-1437290-0

1 - Ground
2 - EGT K-type -
3 - EGT K-type +
4 - Fuel7 Output ----- Port Injector
5 - Fuel11 Output ----- Port Injector
6 - Fuel14 Output ----- Port Injector
7 - Fuel15 Output ----- Port Injector
8 - Spare
9 - 12v
10 - 5v
11 - ANGnd
12 - AN04 Input
13 - AN08 Input
14 - AN09 Input
15 - AN15 Input
16 - AN17 Input
17 - AN22 Input
18 - RS232RX
19 - RS232TX
20 - CAN2L
21 - CAN2H
22 - CAN3L
23 - CAN3H
24 - Variable Power Out
25 - 12v
26 - Spare
27 - Fuel8
28 - AN21
29 - H-Bridge 5
30 - H-Bridge 6
31 - LANRX -
32 - LANRX +
33 - LANTX -
34 - LANTX +