

Audi RS3 / TTRS 8V1

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



Designed for use with the CZGB Engines Only

Content

The kit should come with the following:

- 1 x Syvecs S7Plus
- 1 x GDI12 Driver
- 1 x Wiring Adaptor

Installation

- 1.) Remove the Negative Terminal from the battery on the Vehicle
- 2.) Remove the OEM Engine control modules found in the engine bay next to the battery

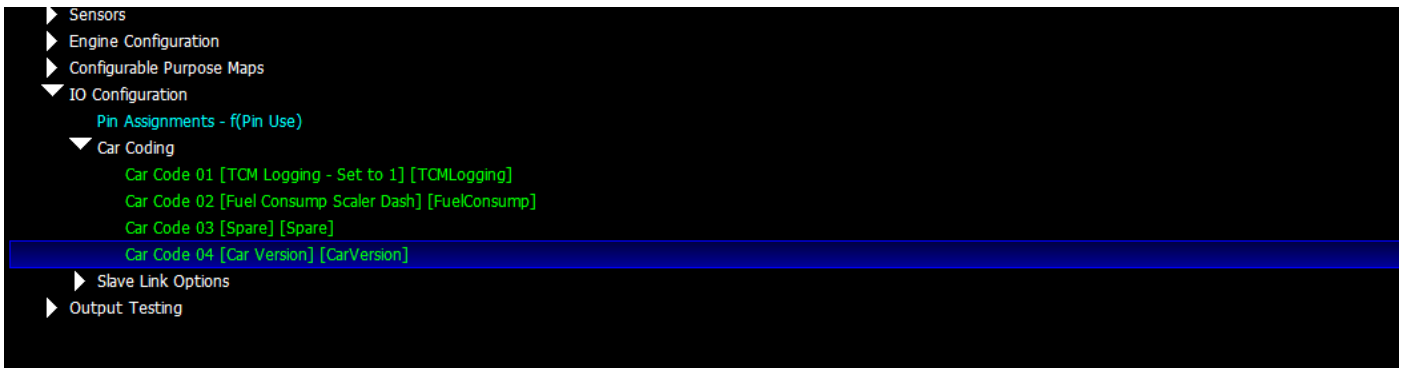


- 3.) Remove the OEM Ecu Holder which is held in place with 2xM6 nuts
- 4.) Replace with the Syvecs kit

Specific Software Options

Due to the number of Cars that the DAZA 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 Code 4 Values

- 0 = RS3
- 1 = TTRS
- 2 = RS3 China
- 3 = RS3 USA

DSG TCM Logging

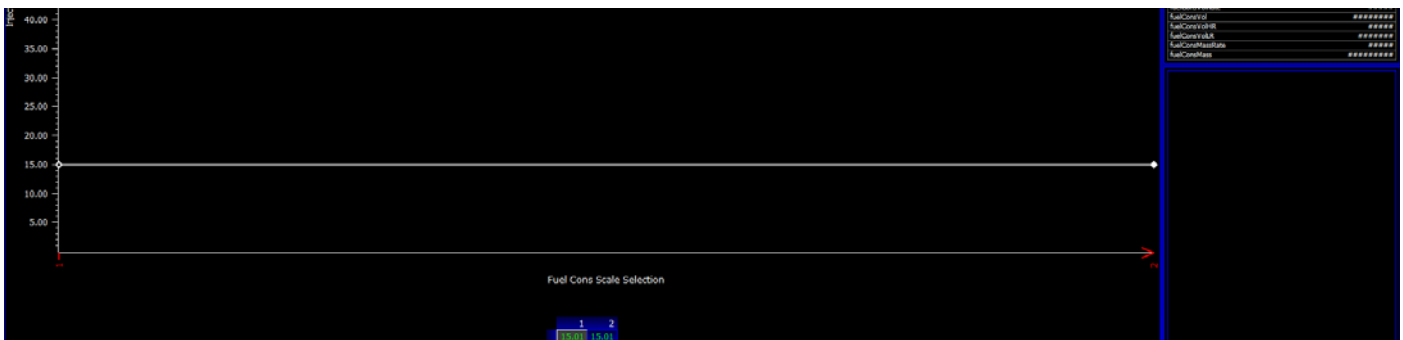
The Syvecs kit allows logging of the Clutch pressures from the DSG Gearbox. To enable this Set Car Code1 = 1

IMPORTANT – WHEN DOING GEAR RELEARNS OR COMMUNICATIONS WITH THE DSG ECU VIA VAGCOM SET THIS CARCODE1 = 0

Injector Size is set in Fuel Consumption – Injector Consumption Scaling for MPG Gauge

Injector Size / 60 = ml/s value

OEM DI Injectors are set in the Base map @ 18ml/s



FAQ and Help

Q) Do you control the OEM Intake Flaps

A) Yes, This is set in Output Functions – Variable Intake Control

Q) Do you control the OEM Exhaust Valves

A) Yes, This is set in Output Functions – Fan8 (Exhaust Flap Control), Its controlled Based on Load vs DriveMode so you can open only in Dynamics mode

Q) Do you control the OEM Fan Speed

A) Yes, This is adjustable in Output Function – Fan3 Duty

Q) How is the OEM Coolant Switch Pump Controlled

A) This is found in Output Functions – Fan2 (Coolant Switch Pump), Its controlled Based on Engine speed and Coolant Temp

Q) How is the Electronic Blow of Valve controlled

A) This is found in Output Functions – Fan5 (Turbo Recirc) , Its controlled via Throttle Angle, Manifold Pressure and RPM

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. This is found in Output Function – Basic PWM 2 – (Intake Fuel Pump)

Q) What of the original features will now work?

A) None, even cruise control works but it doesn't allow you to adjust speed on the stalk, only clamp a speed currently

Q) Can we use the OBD port still to Log, Read Codes and Clear codes

A) Yes via the Use on VagCom

Q) How do I adjust the Port Injector Sizing

First set the Secondary Injector Opening times in RunMode Fueling – Corrections

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

OEM DI Injectors flow around 650cc.. So do $650 / (\text{Port Injectors cc})$ 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 FuelMltCl1 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 FuelMltCl1. 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.

KNOCK 2	B5	KNOCK 2	
PVBAT	B6	CONSTANT 12V	
IVBAT	B7	12v	12v for Exhaust Solenoid Valves
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	
LAM2B	B15	Lami / LamD1- / LamIP1	
LAM2C	B16	LamLIA1	Fuel Pressure Low Side - SENT
LAM2D	B17	LamGND / LamLVM1	
LAM2HEATER	B18	Slave Out 10	Exhaust Cam Solenoids B
IVBAT	B19	12V	
KLINE	B20	Kline	
RS232RX	B21	RS232RX	
RS232TX	B22	RS232TX	
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	Knock -
ANGND	C2	SENSOR GND	Tested
ANGND	C3	SENSOR GND	Tested
ANGND	C4	SENSOR GND	
5V OUT	C5	5V OUT	Tested
5V OUT	C6	5V OUT	Tested
5V OUT	C7	5V OUT	
CAN L	C8	Can Low	Powertrain Can
CAN H	C9	Can High	Powertrain Can
AN01	C10	BI-POLAR INPUTS	Start Request
AN02	C11	BI-POLAR INPUTS	
AN03	C12	BI-POLAR INPUTS	Intake Pos Flap
AN04	C13	BI-POLAR INPUTS	
AN05	C14	UNI-POLAR INPUTS	VVT1In Pos
AN06	C15	UNI-POLAR INPUTS	VVT1Ex Pos
AN07	C16	UNI-POLAR INPUTS	Crank Sensor
AN08	C17	UNI-POLAR INPUTS	Brake Lt Sw
AN09	C18	VOLT-INPUTS	TPS1A
AN10	C19	VOLT-INPUTS	TPS1B
AN11	C20	VOLT-INPUTS	PPSA
AN12	C21	VOLT-INPUTS	PPSB
AN13	C22	RESISTIVE INPUTS	Coolant Temp (G62)
AN14	C23	RESISTIVE INPUTS	Intake Air Temp
AN15	C24	RESISTIVE INPUTS	

AN16	C25	RESISTIVE INPUTS	
EGT1-	C26	EGT1 -	
EGT1+	C27	EGT1 +	
PWR CTR IN	C28	MAIN RELAY INPUT SW	Key On sig (15)
AN S1 / Slave An01	C29	UNI-POLAR INPUTS	Oil Level / Temp
AN S2 / Slave An02	C30	UNI-POLAR INPUTS	Oil Pressure Sensor - SENT
AN S3 / Slave An03	C31	UNI-POLAR INPUTS	SENT MAP
AN S4 / Slave An04	C32	UNI-POLAR INPUTS	SENT ACT
AN S5 / Slave An05	C33	UNI-POLAR INPUTS	Di Pressure
AN S6 / Slave An06	C34	UNI-POLAR INPUTS	InterMediate Shaft Speed
Pin	Name	LENGTH Metre	Notes
1	LS1	0.5	Injector 1 -
2	LS2	0.5	
3	LS3	0.5	Injector 5 -
4	LS4	0.5	
5	LS5	0.5	
6	LS6	0.5	Injector 4 -
7	LS12	0.5	
8	LS11	0.5	Injector 2 -
9	LS10	0.5	DI Pump Low Signal
10	LS9	0.5	
11	LS8	0.5	
12	LS7	0.5	Injector 3 -
13	Input 1	0.5	Injector 1 Signal
14	Input 2	0.5	
15	Input 3	0.5	Injector 5 Signal
16	Input 4	0.5	
17	Input 5	0.5	
18	KLINE	0.5	
19	Input 11	0.5	Injector 2 Signal
20	Input 10	0.5	DI Pump Signal
21	Input 9	0.5	
22	Input 8	0.5	
23	Input 7	0.5	Injector 3 Signal
24	VBAT1	0.5	12V
25	HS1,2	0.5	Injector 1 +
26	PWRGND	0.5	GROUND
27	HS3,4	0.5	Injector 5 +
28	HS5,6	0.5	Injector 4 +
29	Input 6	0.5	Injector 4 Signal
30	Input 12	0.5	
31	HS11,12	0.5	Injector 2 +
32	HS9,10	0.5	DI Pump High Side
33	PWRGND	0.5	GROUND
34	HS7,8	0.5	Injector 3+
35	VBAT2	0.5	12V