

---

# Syvecs LTD

---

V1.2

---

## Volkswagon R32 Mk4/Mk5

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](mailto:Support@Syvecs.com)



### Contents

This Kit is Designed for Vw R32 and Audi 32 using the VR6 Engine

The kit come with the following:

1 x Syvecs S7Plus or S7-I

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 under the Window Panel



- 3.) Replace with the Syvecs kit
- 4.) Wire in Map Sensor and connect to the following pins:
  - C3** - Map Sensor Ground
  - C6** - Map Sensor 5v
  - C19** - Map Sensor Signal

## Specific Software Options

### Car Coding Setup

I/O Configuration - Pin Assignments – Car Code 1

DSG = 0  
Manual = 1

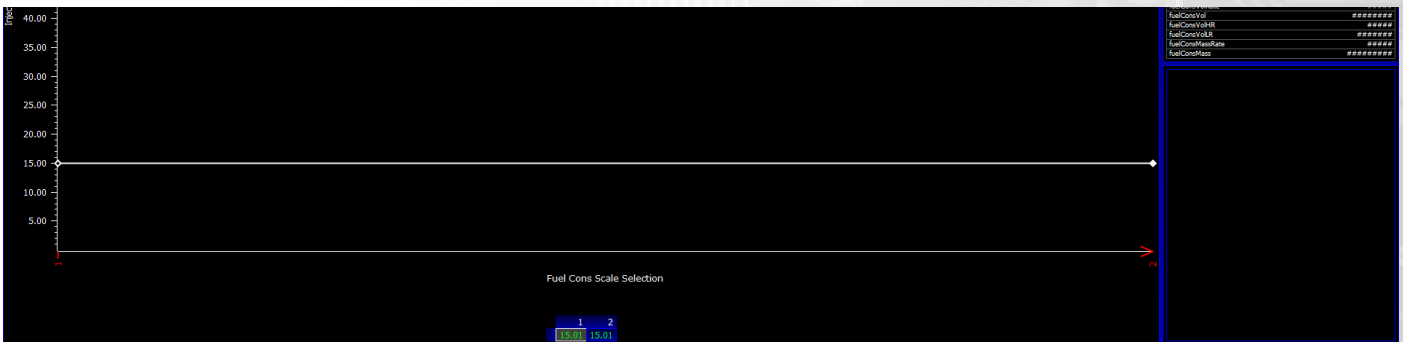
### IMPORTANT:

The Mk4/Mk5 come with two different types of Lambda sensor. Some use the LSU4.2 and others use the LSU4.9. We suggest to always check which sensor you have fitted and to externally check the reading is correct to ensure the correct linearisation is used in scal.

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

Injector Size / 60 = ml/s value

OEM Injectors is 5.5



### FAQ and Help

#### Q) Do you control the OEM Intake Flap

A) Yes, This is set in Output Functions – Engine Speed Controlled Output

As default in the strategy, Valve is turned on at 1500rpm and then off at 4000rpm

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

A) All original features will function properly

Cruise Control switch is present on Slave AN28

#### Q) Can you change Calibration Switch Position from inside the car

A) If the car comes with Cruise Control then the Cal up and Cal Down can be assigned to Slave AN26,

#### 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/>

Email [Support@syvecs.co.uk](mailto:Support@syvecs.co.uk) for a base map to suit your setup

<b>A</b>	<b>DESCRIPTION</b>	CONNECTOR A	
	PART NUMBER	4-1437290-0	
	NOTES:	34 Way - Key1	

<i>Syvecs Description</i>	<i>Syvecs Pinout</i>	<i>Function</i>	<i>R32 Golf</i>
PWR CTR OUT	A1	MAIN RELAY OUTPUT	Main Relay
H-Bridge1 / SlaveOut1	A2	H-Bridge1	DBW
H-Bridge2 / SlaveOut2	A3	H-Bridge2	DBW
H-Bridge3 / SlaveOut3	A4	H-Bridge3	
H-Bridge4 / SlaveOut4	A5	H-Bridge4	
H-Bridge5 / SlaveOut5	A6	H-Bridge5	
H-Bridge6 / SlaveOut6	A7	H-Bridge6	
H-Bridge7 / SlaveOut7	A8	H-Bridge7	
H-Bridge8 / SlaveOut8	A9	H-Bridge8	
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	
FUEL8	A17	INJECTOR or PWM OUTPUT	
PWM1 /*FUEL9	A18	PWM OUTPUT	Fuel Pump
PWM2 /*FUEL10	A19	PWM OUTPUT	FAN
PWM3 /*FUEL11	A20	PWM OUTPUT	Boost Solenoid
PWM4 /*FUEL12	A21	PWM OUTPUT	Intake Flap
PWM5	A22	PWM OUTPUT	
PWM6	A23	PWM OUTPUT	
PWM7	A24	PWM OUTPUT	VVT In
PWM8	A25	PWM OUTPUT	VVT Ex
IGN1	A26	CYL 1 IGNITION OUTPUT	CYL 1 IGNITION OUTPUT
IGN2	A27	CYL 2 IGNITION OUTPUT	CYL 2 IGNITION OUTPUT
IGN3	A28	CYL 3 IGNITION OUTPUT	CYL 3 IGNITION OUTPUT
IGN4	A29	CYL 4 IGNITION OUTPUT	CYL 4 IGNITION OUTPUT
IGN5	A30	CYL 5 IGNITION OUTPUT	CYL 5 IGNITION OUTPUT
IGN6	A31	CYL 6 IGNITION OUTPUT	CYL 6 IGNITION OUTPUT
PWRGND	A32	POWER GROUND	PwrGnd
PWRGND	A33	POWER GROUND	PwrGnd
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	LSU4.9 - PIN6
LAM1B	B9	Lami / LamD1- /LamIP1	LSU4.9 - PIN1
LAM1C	B10	LamLIA1	
LAM1D	B11	LamGND / LamLVM1	LSU4.9 - PIN2
LAM1HEATER	B12	LAMBDA HEATER	LSU4.9 - PIN3
IVBAT	B13	12V	
LAM2A	B14	Lamv / LamD1+ / LamLun1	
LAM2B	B15	Lami / LamD1- /LamIP1	
LAM2C	B16	LamLIA1	
LAM2D	B17	LamGND / LamLVM1	
LAM2HEATER	B18	LAMBDA HEATER	
IVBAT	B19	12V	
KLINE	B20	RS232RX	
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	
KNOCK GROUND	C1	KNOCK GROUND	
ANGND	C2	SENSOR GND	
ANGND	C3	SENSOR GND	Map Sensor Ground
ANGND	C4	SENSOR GND	
5V OUT	C5	5V OUT	
5V OUT	C6	5V OUT	Map Sensor 5v
5V OUT	C7	5V OUT	
CAN L	C8	Can Low	
CAN H	C9	Can High	

AN01	C10	BI-POLAR INPUTS	Crank Position Sensor
AN02	C11	BI-POLAR INPUTS	Brake Sw
AN03	C12	BI-POLAR INPUTS	
AN04	C13	BI-POLAR INPUTS	
AN05	C14	UNI-POLAR INPUTS	PPS1
AN06	C15	UNI-POLAR INPUTS	PPS2
AN07	C16	UNI-POLAR INPUTS	Inlet Cam
AN08	C17	UNI-POLAR INPUTS	Exh Cam
AN09	C18	VOLT-INPUTS	TPS1
AN10	C19	VOLT-INPUTS	Map Signal
AN11	C20	VOLT-INPUTS	Tps2
AN12	C21	VOLT-INPUTS	Clutch Sw
AN13	C22	RESISTIVE INPUTS	Water Temp
AN14	C23	RESISTIVE INPUTS	Air Temp
AN15	C24	RESISTIVE INPUTS	Cruise Sw
AN16	C25	RESISTIVE INPUTS	
EGT1-	C26	EGT1 -	
EGT1+	C27	EGT1 +	
PWR CTR IN	C28	MAIN RELAY INPUT SW	Ignition Sw
AN S1 / Slave An01	C29	UNI-POLAR INPUTS	
AN S2 / Slave An02	C30	UNI-POLAR INPUTS	
AN S3 / Slave An03	C31	UNI-POLAR INPUTS	
AN S4 / Slave An04	C32	UNI-POLAR INPUTS	
AN S5 / Slave An05	C33	UNI-POLAR INPUTS	
AN S6 / Slave An06	C34	UNI-POLAR INPUTS	