SYVECS LTD

V1.1

Audi RS3 8Y2 Plug in kit- S7D

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

Parts Supplied:

- Syvecs S7D

- ECU Acc Connector

Installation

1 Remove the Negative Terminal from the battery on the Vehicle to be extra safe with electrical components. This is found in the rear boot under the carpet.

2 Unplug the Current Sense connector on the battery and leave this disconnected. (Allows Maximum Charging)

3 Unplug and Remove the Factory ECU

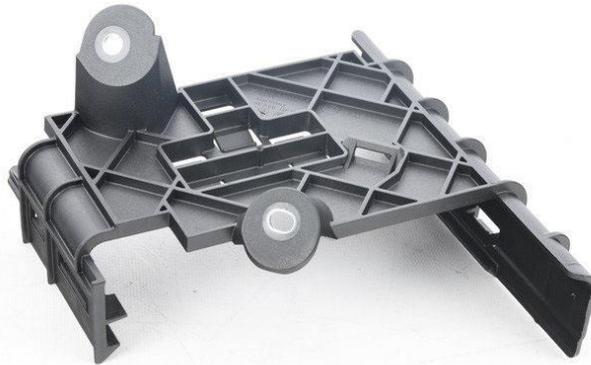
4 Remove the front and rear ECU bracket nut

5 Remove the original ECU Bracket.

6 Replace the Original ECU bracket with VAG Part 5Q0906507F

7 Mount the S7D into the new bracket and plug in the provided 26 way acc connector and run the ethernet cable into the Cabin

8 Reconnect the battery Negative Terminal and proceed to loading a base calibration to the Ecu.
- https://www.youtube.com/watch?v=jqDPKCQYzo0&t=195s

Calibration Switching

The Cruise lever on the RS3 8Y is used to do calibration switching on the Syvecs Ecu.

Cruise Down = Cal Down
Cruise Up = Cal Up
Cruise On - Cruise Switch
Cruise Back - Cal Overide (Rolling Antilag)

The Rpm Gauge will show the active CalSelect selection when changing is preformed via cruise levers. The HP Gauge will also show Ethanol Content

Custom Features

FlexFuel Content - The original dash displays the Ethanol content (FuelComp) in the Power Gauge on the dash when changing calibration switch position. It is displayed for 1 Second.

Map Sensor Selection - The OEM Map sensor is SENT Protocol on the RS3 and its limited with its range. Some owners decide they wish to fit increased pressure which are 0-5v output instead of SENT.

This is possible by changing the Input Configuration of the Map Sensor under sensors.

5V Bipolar = SENT Protocol

5v = 0-5v ADC

Support / Training

Dealer Support can be obtained from Support@Syvecs.com
End Users Support from Syvecs Forum

A getting started help video is found here for plug in kits
https://www.youtube.com/watch?v=jqDPKCQYzo0&t=1498s

More Syvecs Help videos can be found on our YouTube Page

www.youtube.com/SyvecsHelp
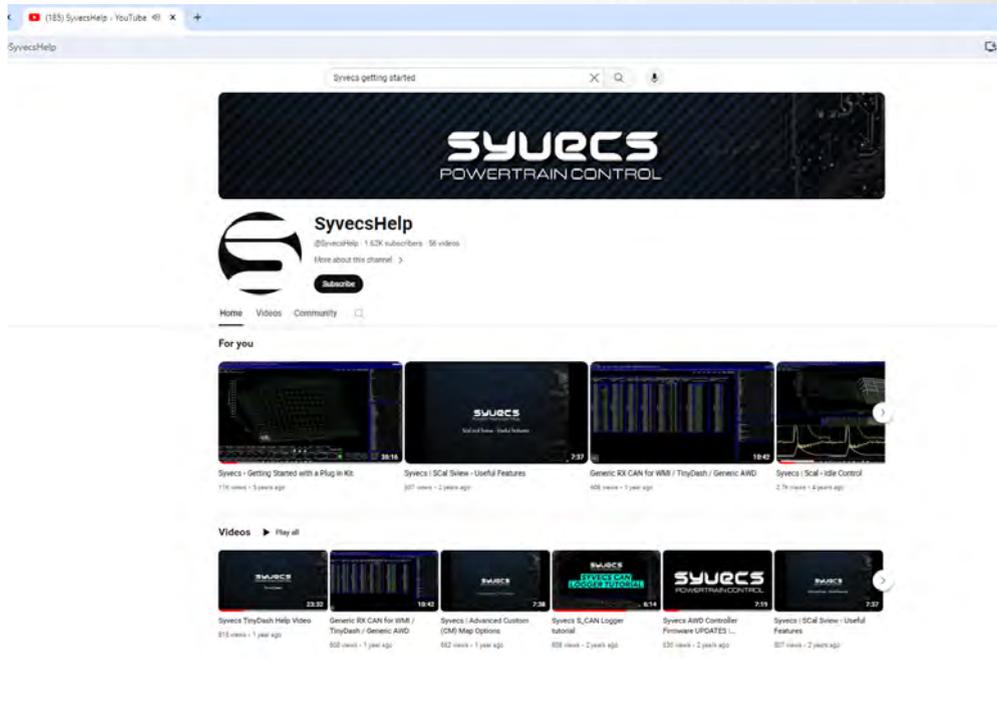
Pinouts

Syvecs Description	Syvecs S7D Pinout	Function	OEM Function
A	DESCRIPTION	CONNECTOR A	
	PART NUMBER	4-1437290-0	
	NOTES:	34 Way - Key1	
PWR CTR OUT	A1	MAIN RELAY OUTPUT	
H-Bridge1	A2	H-Bridge1	DBW +
H-Bridge2	A3	H-Bridge2	DBW -
H-Bridge3	A4	H-Bridge3	WG Solenoid
H-Bridge4	A5	H-Bridge4	Evap
H-Bridge5	A6	H-Bridge5	Spare Output
H-Bridge6	A7	H-Bridge6	Starter Relay
H-Bridge7	A8	H-Bridge7	Intake Manifold Flap (N316)
H-Bridge8	A9	H-Bridge8	Coolant Switch Pump
GDI LS1	A10	Fuel 1 / Low Side GDI 1	Spare Output
GDI LS2	A11	Low Side GDI 2	Injector 4 -
GDI LS3	A12	Fuel 3 / Low Side GDI 3	Port Injector 1 (N532)
GDI LS4	A13	Low Side GDI 4	Injector 2 -
GDI LS5	A14	Fuel 5 / Low Side GDI 5	Port Injector 2 (N533)
GDI LS6	A15	Low Side GDI 6	Injector 5 -
GDI LS7	A16	Fuel 7 / Low Side GDI 7	Port Injector 3 (N534)
GDI LS8	A17	Low Side GDI 8	Injector 3 -
GDI HS1/2	A18	GDI Hi Side 1-2	Injector 4 +
GDI HS3/4	A19	GDI Hi Side 3-4	Injector 2 +
GDI Pump 1 HS	A20	GDI Pump 1 Hi Side	GDI Pump HS
GDI HS5/6	A21	GDI Hi Side 5-6	Injector 5 +
GDI HS7/8	A22	GDI Hi Side 7-8	Injector 3+
GDI Pump 2 HS	A23	GDI Pump 2 Hi Side	Injector 1+
GDI Pump 1 LowSide	A24	GDI Pump 1 Lo Side / Fuel15 Output	GDI Pump LS
GDI Pump 2 LowSide / Injector LS	A25	GDI Pump 2 Lo Side / Fuel16 Output	Injector 1 -
IGN1	A26	CYL 1 IGNITION OUTPUT	IGN1 (N70)
IGN2	A27	CYL 2 IGNITION OUTPUT	IGN2 (N127)
IGN3	A28	CYL 3 IGNITION OUTPUT	IGN3 (N291)
IGN4	A29	CYL 4 IGNITION OUTPUT	IGN4 (N292)
IGN5	A30	CYL 5 IGNITION OUTPUT	IGN5 (N292)
IGN6	A31	CYL 6 IGNITION OUTPUT	Tacho Sync
PWRGND	A32	POWER GROUND	PwrGnd
PWRGND	A33	POWER GROUND	PwrGNd
PWRGND	A34	POWER GROUND	PwrGNd

Syvecs Description	Syvecs S7D Pinout	Function	OEM Function
B	DESCRIPTION	CONNECTOR B	
	PART NUMBER	3-1437290-7	
	NOTES:	26 Way - Key1	
PWRGND	B1	POWER GROUND	PwrGNd
CAN2 L	B2	Can 2	
CAN2 H	B3	Can 2	
KNOCK 1	B4	KNOCK 1	
KNOCK 2	B5	KNOCK 2	
PVBAT	B6	CONSTANT 12V	
IVBAT	B7	12v	
LAM1A	B8	Lamv / LamD1+/ LamLun1	
LAM1B	B9	Lami / LamD1- /LamIP1	
LAM1C	B10	LamLIA1	
LAM1D	B11	LamGND / LamLVM1	
LAM1HEATER	B12	LAMBDA HEATER	
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	KLINE	
RS232RX	B21	RS232RX	
RS232TX	B22	RS232TX	
LANRX-	B23	Cat5 Pin2	
LANRX+	B24	Cat5 Pin1	
LANTX-	B25	Cat5 Pin6	
LANTX+	B26	Cat5 Pin3	

Pinouts

C		DESCRIPTION	CONNECTOR C	
		PART NUMBER	4-1437290-1	
		NOTES:	34 Way - Key2	
KNOCKGND	C1	KNOCKGND	Knock -	
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		
CAN1 L	C8	Can 1 Low	Powertrain Can	
CAN1 H	C9	Can 1 High	Powertrain Can	
AN01	C10	BI-POLAR INPUTS	Start Request	
AN02	C11	BI-POLAR INPUTS	Di Pressure	
AN03	C12	BI-POLAR INPUTS	Spare Input	
AN04	C13	BI-POLAR INPUTS	Spare Input	
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	Map	
AN12	C21	VOLT-INPUTS	Spare Input	
AN13	C22	RESISTIVE INPUTS	Coolant Temp (G62)	
AN14	C23	RESISTIVE INPUTS	Intake Air Temp	
AN15	C24	RESISTIVE INPUTS	EGT1	
AN16	C25	RESISTIVE INPUTS	EGT2	
EGT1-	C26	EGT1 -		
EGT1+	C27	EGT1 +		
PWR CTR IN	C28	MAIN RELAY INPUT SW	Key On sig (15)	
AN S1	C29	UNI-POLAR INPUTS	Intake Pos Flap	
AN S2	C30	UNI-POLAR INPUTS	Fuel Pressure Low Side	
AN S3	C31	UNI-POLAR INPUTS	PPSA	
AN S4	C32	UNI-POLAR INPUTS	PPSB	
AN S5	C33	UNI-POLAR INPUTS	Pre Throttle Map	
AN S6	C34	UNI-POLAR INPUTS	InterMediate Shaft Speed	

Syvecs Description	Syvecs S7D Pinout	Function	OEM Function	
D		DESCRIPTION	CONNECTOR D	
		PART NUMBER	3-1437290-8	
		NOTES:	26 Way - Key2	
DVBAT1	D1	GDI Power Supply		
DVBAT2	D2	GDI Power Supply		
DVBAT3	D3	GDI Power Supply		
DVBAT4	D4	GDI Power Supply		
FUEL9	D5	PWM / FUEL OUTPUT	Port Injector 4 (N535)	
FUEL10	D6	PWM / FUEL OUTPUT	Port Injector 5 (N536)	
FUEL11	D7	PWM / FUEL OUTPUT	Fuel Pump PWM	
FUEL12	D8	PWM / FUEL OUTPUT	Cooling Fan PWM	
FUEL13	D9	PWM / FUEL OUTPUT	Turbo Recirc (N249)	
FUEL14	D10	PWM / FUEL OUTPUT	Exhaust Cam Solenoids A	
LSO1	D11	PWM OUTPUT	VVT1 Int (N205)	
LSO2	D12	PWM OUTPUT	VVT1 Ex (N316)	
LSO3	D13	PWM OUTPUT	Oil Pressure Valve	
LSO4	D14	PWM OUTPUT	Crank Case Breather	
LSO5	D15	PWM OUTPUT	Coolant Shut Off Valve	
LSO6	D16	PWM OUTPUT	Coolant Pump PWM	
EGT2-	D17	EGT2 -		
EGT2+	D18	EGT2 +		
NC	D19	NC		
NC	D20	NC		
NC	D21	NC		
NC	D22	NC		
CAN3L	D23	CAN3L	CAN3L	
CAN3H	D24	CAN3H	CAN3H	
PWRGND	D25	POWER GROUND		
PWRGND	D26	POWER GROUND		

Acc Connector Pinouts

ACC	DESCRIPTION	
	PART NUMBER	3-1437290-7
	NOTES:	26 Way - Key1
B1	GND	Ground
B2	Fuel 1	Spare Output
B3	LSO3	Spare Output - Slave1 Out13
B4	LSO4	Spare Output - Slave1 Out14
B5	LSO5	Spare Output - Slave1 Out15
B6	LSO6	Spare Output - Slave1 Out16
B7	12v	
B8	H-Bridge 5	Spare Output - Slave1 Out5
B9	CAN2L	Spare CAN
B10	CAN2H	Spare CAN
B11	RS232RX	
B12	RS232TX	
B13	LAM2A	Spare Input - S1AN08
B14	EGT1-	K-Type EGT
B15	EGT1+	K-Type EGT
B16	AN03	Spare Input - BiPolar
B17	AN04	Spare Input - BiPolar
B18	AN15	Spare Input
B19	AN16	Spare Input
B20	S1AN4	Spare Input if NON SENT Map is used
B21	ANGround	Sensor Ground
B22	5V Out	5v Output for Sensors
B23	Cat5 Pin2	Ethernet
B24	Cat5 Pin1	Ethernet
B25	Cat5 Pin6	Ethernet
B26	Cat5 Pin3	Ethernet