SYVECS LTD

V1.1

Audi RS3 8Y Plug in kit

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

syvecs
POWERTRAIN CONTROL

Parts Supplied:

Syvecs S7Plus ECU

8Y Loom Adaptor

Syvecs GDI12

Mounting Brackets and bolts

Double Side Tape

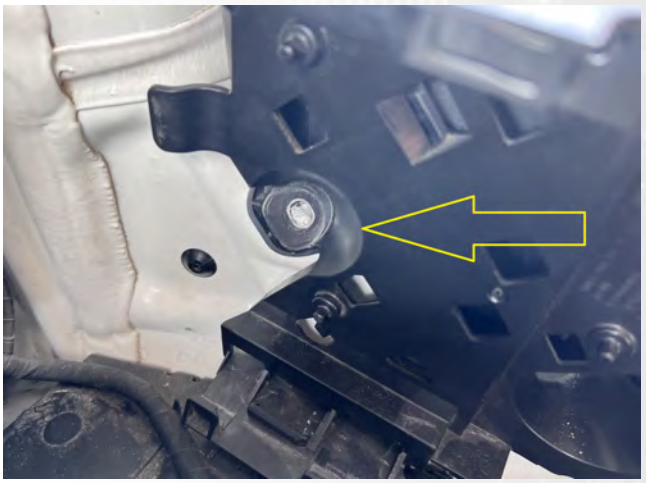
Installation

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.

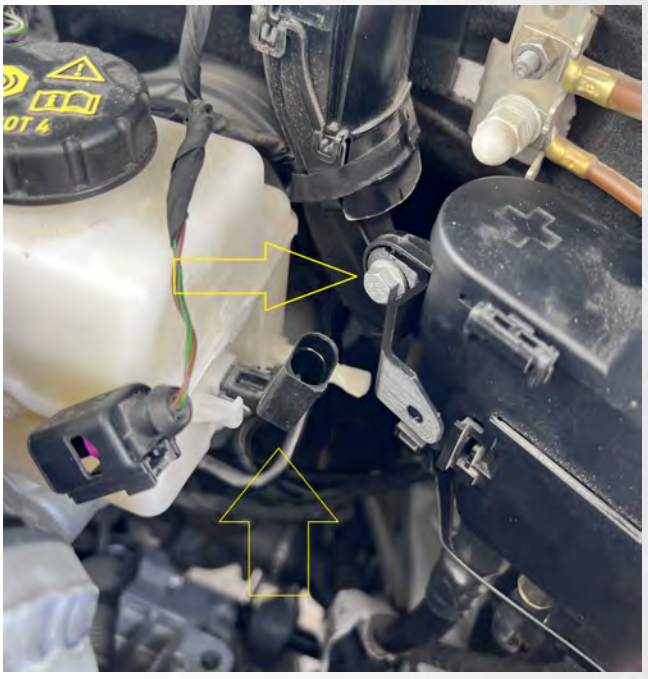
2 Unplug the Current Sense connector on the battery and leave this disconnected. (Allows Maximum Charging)

3 Unplug and Remove the Factory ECU

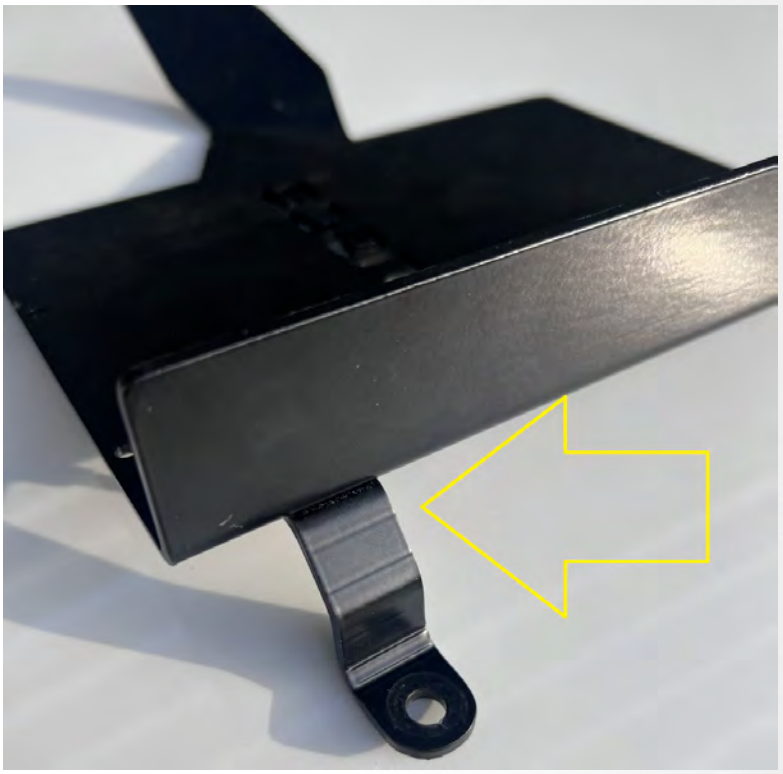
4 Remove the rear ECU bracket nut



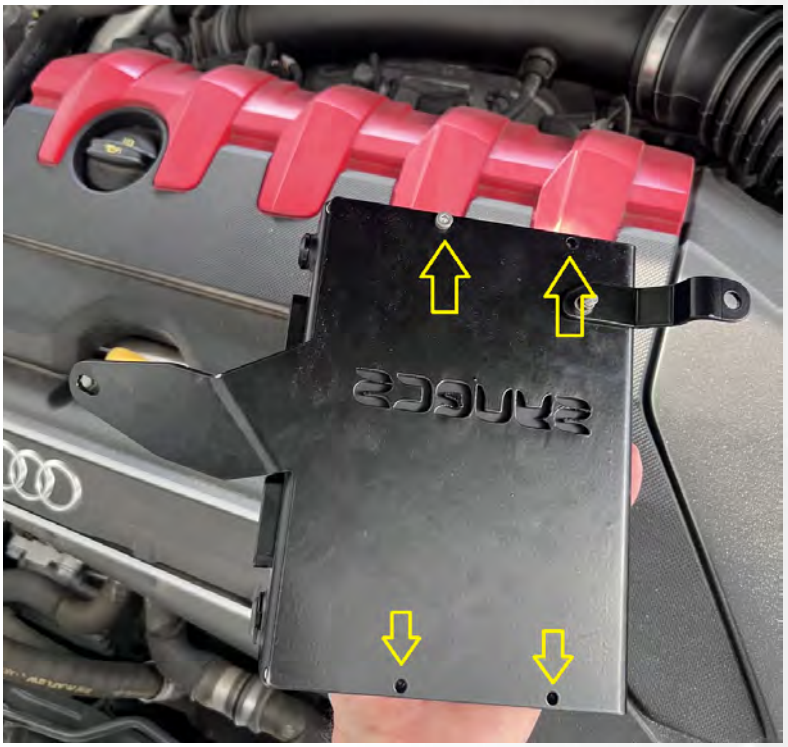
5 Unplug the brake level switch and remove the M6 bolt shown below.



6 Bolt the provided S bracket onto the main adapter plate provided using a M4 x 12 Countersunk bolt.



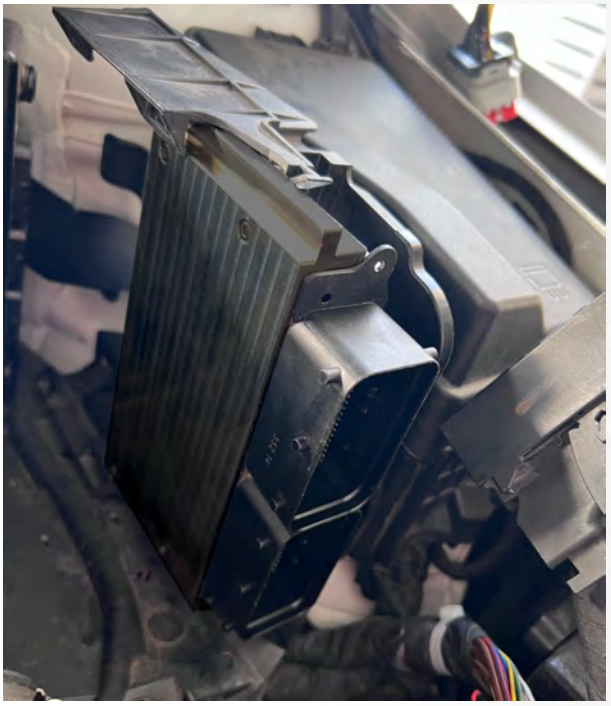
7 Mount the S7Plus Ecu onto the Syvecs bracket and secure with the provided 4 x M4 X 8mm bolts



8 Secure the bracket/Ecu by refitting the M6 bolt and M6 nuts as shown below in yellow

9 Using the double sided tape provided secure the DI12 module as shown below

10 Fit the Syvecs 8Y Adapter block by sliding into the OEM ECU Bracket



11 Connect up all the wiring loom and pay ATTENTION to the marking on the connectors for which go to the ECU

12 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

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POWERTRAIN CONTROL

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

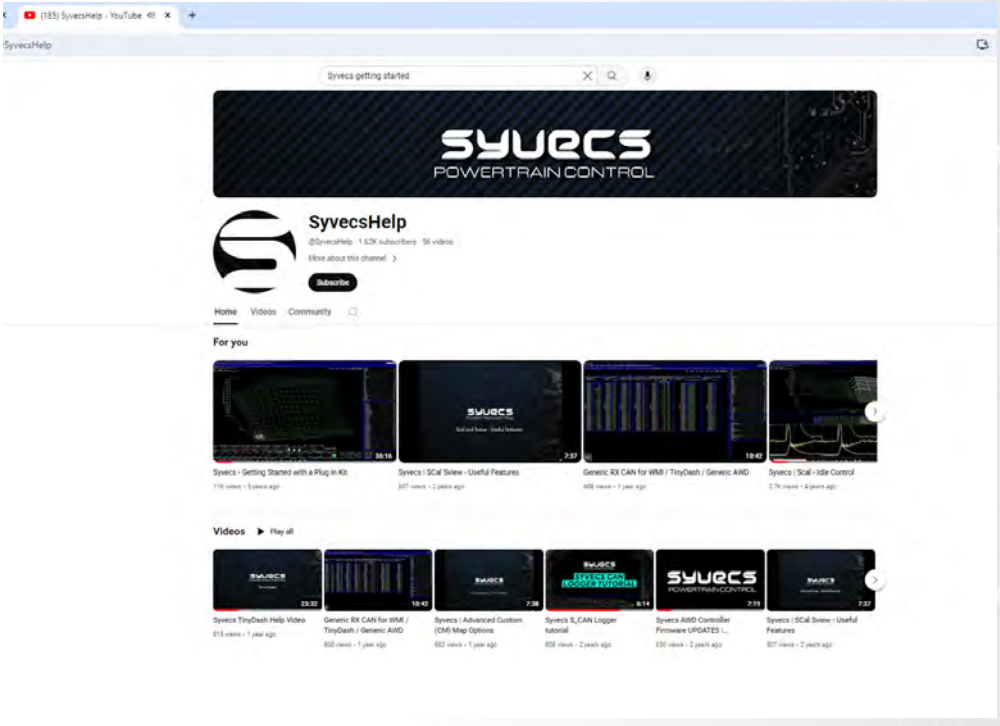
5v = 0-5v ADC

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



SYVECS
POWERTRAIN CONTROL

Pinouts

A	DESCRIPTION			
	PART NUMBER			
	NOTES:			

Syvecs Description	*Syvecs Pinout*	*105*	*91*	
PWR CTR OUT	A1		T91/58 & 75 & 87 (Diodes)	Main Relay
H-Bridge1 / SlaveOut1	A2	T105/4		DBW +
H-Bridge2 / SlaveOut2	A3	T105/25		DBW -
H-Bridge3 / SlaveOut3	A4	T105 /63		WG Solenoid
H-Bridge4 / SlaveOut4	A5	T105 /29		Evap
H-Bridge5 / SlaveOut5	A6			DI Pump Signal to DI12
H-Bridge6 / SlaveOut6	A7		T91 - 76	Starter Relay
H-Bridge7 / SlaveOut7	A8	T105/38		Intake Manifold Flap (N316)
H-Bridge8 / SlaveOut8	A9	T105/35		Coolant Switch Pump
FUEL1	A10	DI Box 1 - Pin 13	DI Box 1 - Pin 13	Primary Injector 1
FUEL2	A11	DI Box 1 - Pin 19	DI Box 1 - Pin 19	Primary Injector 2
FUEL3	A12	DI Box 1 - Pin 23	DI Box 1 - Pin 23	Primary Injector 3
FUEL4	A13	DI Box 1 - Pin 29	DI Box 1 - Pin 29	Primary Injector 4
FUEL5	A14	DI Box 1 - Pin 15	DI Box 1 - Pin 15	Primary Injector 5
FUEL6	A15	T105/103		Port Injector 1 (N532)
FUEL7	A16	T105/104		Port Injector 2 (N533)
FUEL8	A17	T105/105		Port Injector 3 (N534)
PWM1 / *FUEL9	A18	T105/82		Port Injector 4 (N535)
PWM2 / *FUEL10	A19	T105/83		Port Injector 5 (N536)
PWM3 / *FUEL11	A20		T91/42	Fuel Pump PWM
PWM4 / *FUEL12	A21		T91/73	Cooling Fan PWM
PWM5 / *FUEL13	A22	T105/70		Turbo Recirc (N249)
PWM6 / * FUEL14	A23	T105/ 77, 76, 79, 14, 13		Exhaust Cam Solenoids A
PWM7 / * FUEL15	A24	T105/92		VVT1 Int (N205)
PWM8 / *FUEL16	A25	T105/91		VVT1 Ex (N316)
IGN1	A26	T105/40		IGN1 (N70)
IGN2	A27	T105/41		IGN2 (N127)
IGN3	A28	T105/42		IGN3 (N291)
IGN4	A29	T105/19		IGN4 (N292)
IGN5	A30	T105/20		IGN5 (N292)
IGN6	A31		T91/41	Tacho Sync
PWRGND	A32		T91/1	PwrGnd
PWRGND	A33			PwrGNd
PWRGND	A34			PwrGNd

B	DESCRIPTION			
	PART NUMBER			
	NOTES:			
PWRGND	B1		T91/4 (30th)	PWRGROUND
EGT2 +	B2			
EGT2 -	B3			
KNOCK	B4	T105/94		Knock +
KNOCK 2	B5	T105/73		
PVBAT	B6		T91/86	
IVBAT	B7	T105 / 34		12v for Exhaust Solenoid Valves
LAM1A	B8		T91/15	
LAM1B	B9		T91/33	
LAM1C	B10	T105/47		Oil Level / Temp
LAM1D	B11		T91/16	
LAM1HEATER	B12		T91/90	
IVBAT	B13		T91/5	
LAM2A	B14			
LAM2B	B15			
LAM2C	B16	T105/10		Oil Pressure Sensor - SENT
LAM2D	B17			
LAM2HEATER	B18		T91/77, 56	Exhaust Flap Control PWM
IVBAT	B19			
KLINE	B20			
RS232RX	B21			
RS232TX	B22			
LANRX-	B23	Orange/White	Orange/White	
LANRX+	B24	White/Orange	White/Orange	
LANTX-	B25	Green/White	Green/White	
LANTX+	B26	White/Green	White/Green	

Pinouts

C	DESCRIPTION			
	PART NUMBER			
	NOTES:			
KNOCKGND	C1	T105/ 95, 74		Knock -
ANGND	C2	T105/ 55, 60, 48, 6, 59		
ANGND	C3		T91 / 44, 54, 64, 67, 84	
ANGND	C4	T105/ 11		
5V OUT	C5	T105/ 54, 69, 32, 7		
5V OUT	C6			
5V OUT	C7			
CAN L	C8		T91/62	Powertrain Can
CAN H	C9		T91/63	Powertrain Can
AN01	C10		T91/71	Start Request
AN02	C11	T105/56		Di Pressure
AN03	C12			
AN04	C13			
AN05	C14	T105/ 89		VVT1In Pos
AN06	C15	T105/68		VVT1Ex Pos
AN07	C16	T105/61		Crank Sensor
AN08	C17		T91/68	Brake Lt Sw
AN09	C18	T105/28		TPS1A
AN10	C19	T105/27		TPS1B
AN11	C20		T91/83	PPSA
AN12	C21		T91/66	PPSB
AN13	C22	T105/57		Coolant Temp (G62)
AN14	C23	T105/39		Intake Air Temp
AN15	C24		T91/81	EGT1
AN16	C25		T91/34	EGT2
CAN3	C26		T91/80	CAN3L
CAN3	C27		T91/79	CAN3H
PWR CTR IN	C28		T91/50	Key On sig (15)
AN S1 / Slave An01	C29	T105/52		Intake Pos Flap
AN S2 / Slave An02	C30	T105/33		Fuel Pressure Low Side
AN S3 / Slave An03	C31	T105/75		SENT MAP
AN S4 / Slave An04	C32			SENT ACT
AN S5 / Slave An05	C33	T105 / 31		Pre Throttle Map
AN S6 / Slave An06	C34		T91 - 38	InterMediate Shaft Speed

GDI12

Pin	Name	T105 Pins	T60 Pins	Notes
1	LS1	T105/87		Injector 1 -
2	LS2			
3	LS3	T105/85		Injector 5 -
4	LS4			
5	LS5			
6	LS6	T105/66		Injector 4 -
7	LS12			
8	LS11	T105/64		Injector 2 -
9	LS10	T105/43		DI Pump Low Signal
10	LS9			
11	LS8			
12	LS7	T105/86		Injector 3 -
13	Input 1	Syvecs A10	Syvecs A10	Injector 1 Signal
14	Input 2			
15	Input 3	Syvecs A14	Syvecs A14	Injector 5 Signal
16	Input 4			
17	Input 5			
18	KLINE			
19	Input 11	Syvecs A11	Syvecs A11	Injector 2 Signal
20	Input 10			DI Pump Signal
21	Input 9			
22	Input 8			
23	Input 7	Syvecs A12	Syvecs A12	Injector 3 Signal
24	VBAT1		T91/6	12V
25	HS1,2	T105/24 (90th)		Injector 1 +
26	PWRGND		T91/2	GROUND
27	HS3,4	T105/22		Injector 5 +
28	HS5,6	T105/2		Injector 4 +
29	Input 6	Syvecs A13	Syvecs A13	Injector 4 Signal
30	Input 12			
31	HS11,12	T105/1		Injector 2 +
32	HS9,10	T105/44		DI Pump High Side
33	PWRGND		T91/2	GROUND
34	HS7,8	T105/23		Injector 3+
35	VBAT2		T91/6 (98th)	12V