Syvecs LTD

V1.2

Suzuki Jimny 2018+

Contents:

Designed for the Manual Transmission and Auto Transmission.

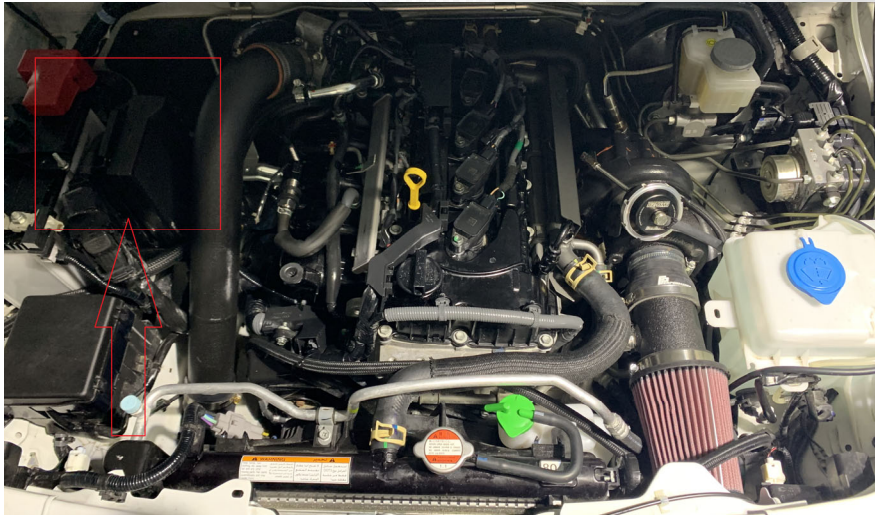The kit comes with the following:

1 x Syvecs S7-I

1 x Suzuki Loom adaptor

1 x NTK Lambda Sensor (Optional, Extra Charge)

Installation

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

2.)   Unplug the OEM Engine control module which is found on the Left hand side in the engine bay and highlighted below in Red

3.)   Remove the OEM Ecu from the holder by removing the 2 x M6 Bolts found at top and bottom

4.)   Carefully Fit the S7-I ECU in the same orientation as the OEM Ecu was fitted and secure

5.)   Next plug the Syvecs Jimny loom adaptor into the OEM connectors and into the S7-I

6.)   Contact Support@Syvecs.com for a Base Calibration. Mention the Spec of the Car… Injectors, Map Sensor Etc

7.)   Open Base calibration in Scal Software and type the Vin Number of the Car found on the Lower Wind Screen Area into the Vin Area found under IO Configuration – Car Coding – VIN
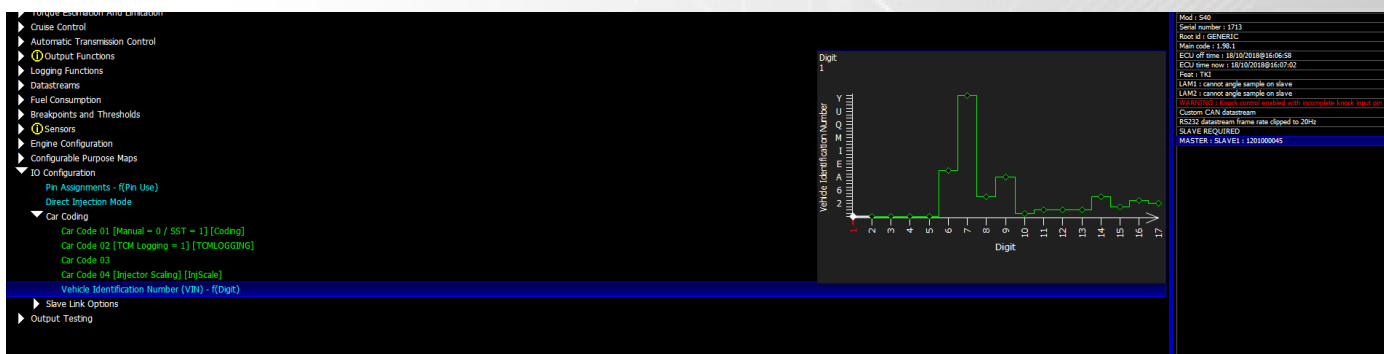
Must make sure any Spaces or – are included in the Vin Number
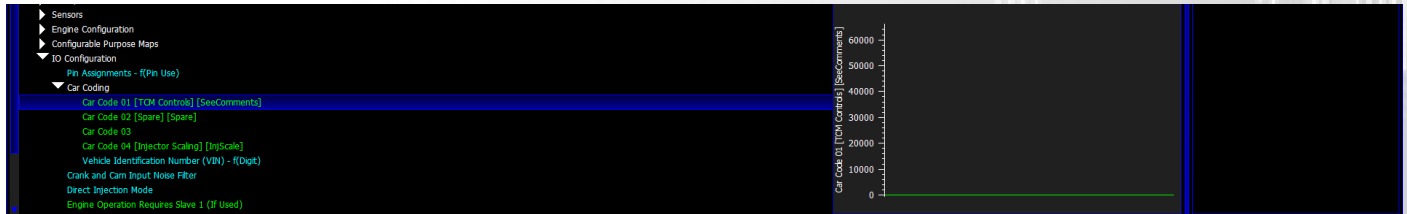
Jimny Software Options

Auto Transmission Line Pressure Solenoid Monitor

If an Auto Transmission is used then users can log the Auto Trans Main Line Pressure Solenoid Current. This is Enabled in I/O Config – Car Code 1

When connecting any Scan tools you need to ensure this feature is turned off.

Logging Off= 0
Logging On = 1

Auto Transmission – Torque Control

The Torque Calculation for the Auto Transmission Gearbox are done using a Fuel flow torque model, In order for this strategy to work accurately a user needs to input a Fuel Consumption amount in the map below.
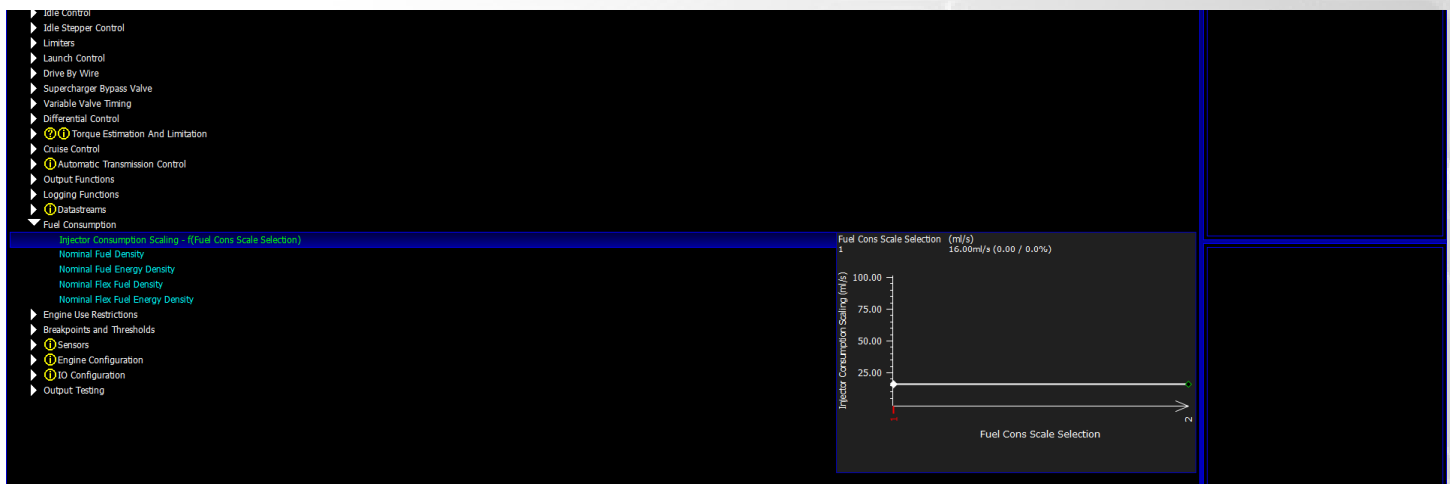
This map is set in ml/s

Generally a good calculation for this is Injector Size in CC / 60 but base fuel pressure has a large effect also so ask you injector manufacture for Torque Control Flow Values if not below.

OEM Injectors are set at 5 ml/s = 300cc Injectors

MPG Scaling on Dash
Injector Size is set in Pin Assignments – Car Code 4 (Injector Scaling)

Stock 300cc Injector = 4

Options and Notes

- Traction turns off with TC Switch on Dash
- Ecu Light will come on Solid if Limp Mode or Sensor Error
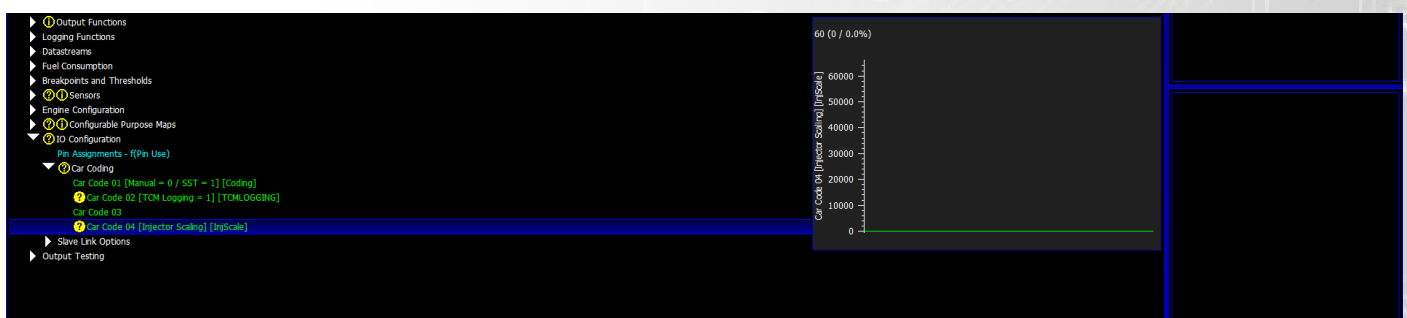- 4WD Switch is present in custom sensors to use for having high boost only active in 4wd if wanted
- Evap Solenoid is controlled by Fan7 (Evap) - CM 203 Adjusts fueling when Evap PWM Active
- OD Switch on Auto Trans is Cal Overide which jumps to Cal2
- Tacho Displays Cal Position so when going to OverDrive on Automatic Trans RPM will go to 2000

Rev Matching and Flat Shift on Manual Transmission

When the Clutch and Brake Pressed are pressed as well as the RPM being above 2000rpm a GearBlip Request will be sent into the Ecu to enable Rev Matching, the amount of Blip can be adjusted here.
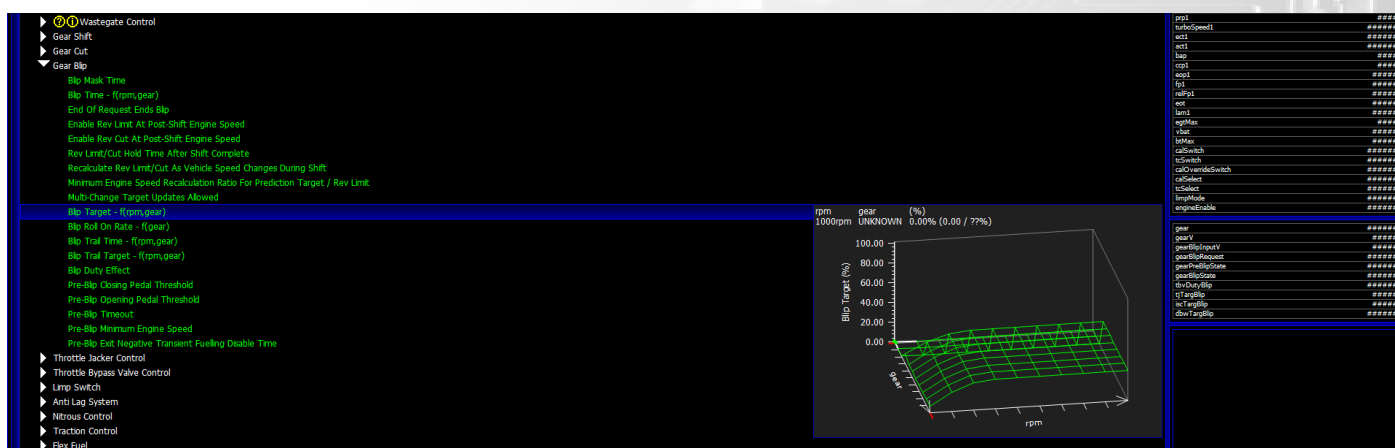
The Ecu calculates the correct rev matching Rpm based on the Drive Ratios. If you are using a different Ratio to Factory you can adjust these Drive Ratios here

Flat Shifting - When the Clutch is pressed on it will send a GearCut Request into the ECU for Flat Shifting. This is Setup in Gearcut – Open Loop
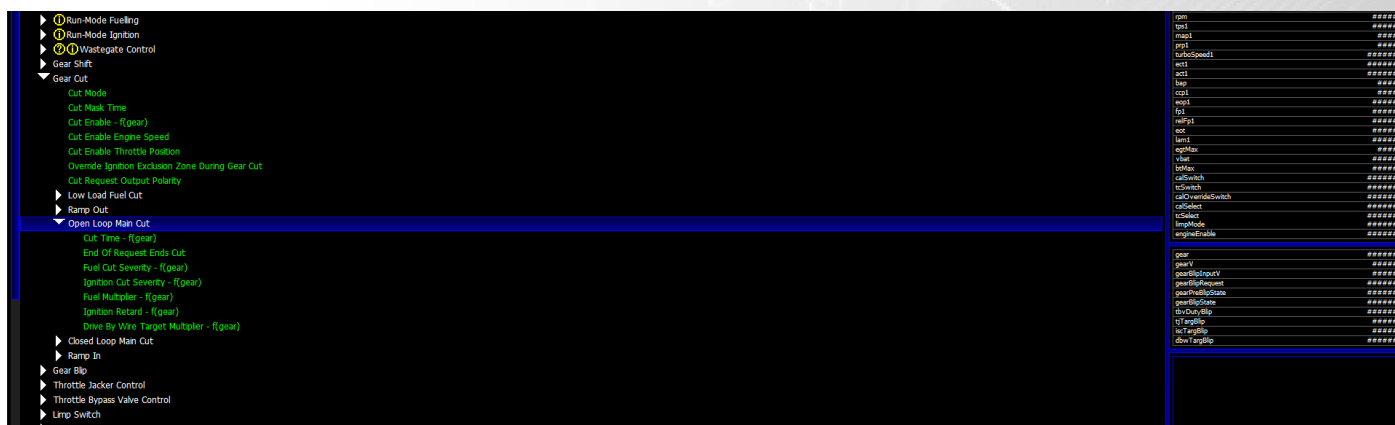
FAQ and Help

Q) Do you control the OEM VVT

A) Yes, this is adjustable via Variable Valve timing calibrations, Can Change Intake and Exhaust Cam Targets

Q) Can we Flat Foot Shift

A) Yes, The gearcut strategy takes full care of the Torque Reductions on shifts and allows you to change gear while fully on throttle

Q) Can you make the Manual Cars Rev Match on Downshifts

A) Yes, this is enabled when the RPM is above 2000rpm and the Brake-Clutch are pressed together, Its fully closed loop

Q) Can you Adjust the Launch

A) Yes, its fully adjustable in stage and after also where a Limiter can be set based on Time or Speed

Q) Do you Supply a Base map for the Kit

A) Yes as with all our kits we supply a very good base calibration to get everything working for you

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 OEM Tools

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

A		
	DESCRIPTION	
	PART NUMBER	
	NOTES:	

Syvecs Description	*Syvecs Pinout*	*Notes*
PWR CTR OUT	A1	Main Relay
H-Bridge1 / SlaveOut1	A2	DBW+
H-Bridge2 / SlaveOut2	A3	DBW-
H-Bridge3 / SlaveOut3	A4	
H-Bridge4 / SlaveOut4	A5	
H-Bridge5 / SlaveOut5	A6	
H-Bridge6 / SlaveOut6	A7	
H-Bridge7 / SlaveOut7	A8	
H-Bridge8 / SlaveOut8	A9	
FUEL1	A10	Primary Injector 1
FUEL2	A11	Primary Injector 2
FUEL3	A12	Primary Injector 3
FUEL4	A13	Primary Injector 4
FUEL5	A14	Wastegate Solenoid
FUEL6	A15	
FUEL7	A16	AirCon Comp Relay
FUEL8	A17	Lambda Heater Blue NTK
FUEL9	A18	Fuel Pump Relay
FUEL10	A19	RAD FAN 1
FUEL11	A20	RAD FAN 2
FUEL12	A21	Evap Solenoid
FUEL13	A22	
FUEL14	A23	
FUEL15	A24	VVT Intake
FUEL16	A25	
IGN1	A26	Ignition 1
IGN2	A27	Ignition 2
IGN3	A28	Ignition 3
IGN4	A29	Ignition 4
IGN5	A30	
IGN6	A31	
PWRGND	A32	
PWRGND	A33	TB SHEILD
PWRGND	A34	ECM Ground

B	DESCRIPTION	
	PART NUMBER	
	NOTES:	
PWRGND	B1	Ground
CAN2L	B2	
CAN2H	B3	
KNOCK	B4	
KNOCK2	B5	
PVBAT	B6	
IVBAT	B7	
LAM1A	B8	Grey NTK
LAM1B	B9	White NTK
LAM1C	B10	
LAM1D	B11	Black NTK
LAM1HEATER	B12	
IVBAT	B13	Yellow NTK
LAM2A	B14	2.2v
LAM2B	B15	1.8v
LAM2C	B16	
LAM2D	B17	
LAM2HEATER	B18	
IVBAT	B19	Power Supply
KLINE	B20	ALTERNATOR LIN
RS232RX	B21	
RS232TX	B22	
LANRX-	B23	
LANRX+	B24	
LANTX-	B25	
LANTX+	B26	

C		DESCRIPTION	
		PART NUMBER	
		NOTES:	
KNOCK GROUND	C1		
ANGND	C2	APP, BAT TEMP	
ANGND	C3	MAP, ECT, IAT	
ANGND	C4		
5V OUT	C5	APP	
5V OUT	C6	MAP	
5V OUT	C7		
CAN L	C8		
CAN H	C9		
AN01	C10	TPS1A	
AN02	C11	TPS1B	
AN03	C12	5Bar Map Sensor for Turbo	
AN04	C13	AIRCON PRESSURE	
AN05	C14	Brake Switch	
AN06	C15	Clutch Sw	
AN07	C16	Crank Sensor	
AN08	C17	Cam Sensor	
AN09	C18	MAP Absolute Sensor	
AN10	C19	PPS1	
AN11	C20	PPS2	
AN12	C21	ALTERNATOR LOAD	
AN13	C22	Air Charge Temp	
AN14	C23	ECT1	
AN15	C24	BATT TEMP	
AN16	C25	Cruise Switch	
EGT1-	C26		
EGT1+	C27		
PWR CTR IN	C28	Ignition Switch	
AN S1 / Slave An01	C29		
AN S2 / Slave An02	C30		
AN S3 / Slave An03	C31		
AN S4 / Slave An04	C32		
AN S5 / Slave An05	C33		
AN S6 / Slave An06	C34		