Syvecs LTD

V1.2

Nissan 370z

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

Contents

Designed for the Manual Transmission and Auto Transmission.

The kit comes with the following:

1 x Syvecs S7Plus

1 x Loom adaptor

Installation

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

2.) Unplug the OEM Engine control module which is found behind the glove box inside the cabin

3.) Remove the OEM Ecu from the holder by removing the 4 x M6 Bolts found at top and bottom

4.) Carefully Fit the S7Plus ECU in the same orientation as the OEM Ecu was fitted and secure

5.) Next plug the Syvecs 370z loom adaptor into the OEM connectors and into the S7Plus

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

370Z Software Options

Transmission Option Select

The Transmission Type is set in I/O Configuration – Car Code 2

Auto = 0
Manual = 1
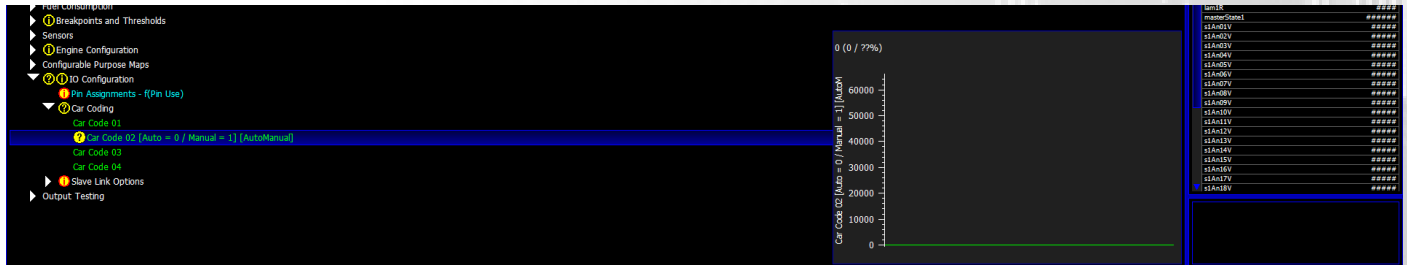
Auto Transmission – Torque Control

The Torque Calculation for the Auto Transmission Gearbox are done using the MBT Torque Estimate Table, This table effects the Clutch clamping and some of the base map values are up at 1000nm to get more than OEM Clutch Pressures
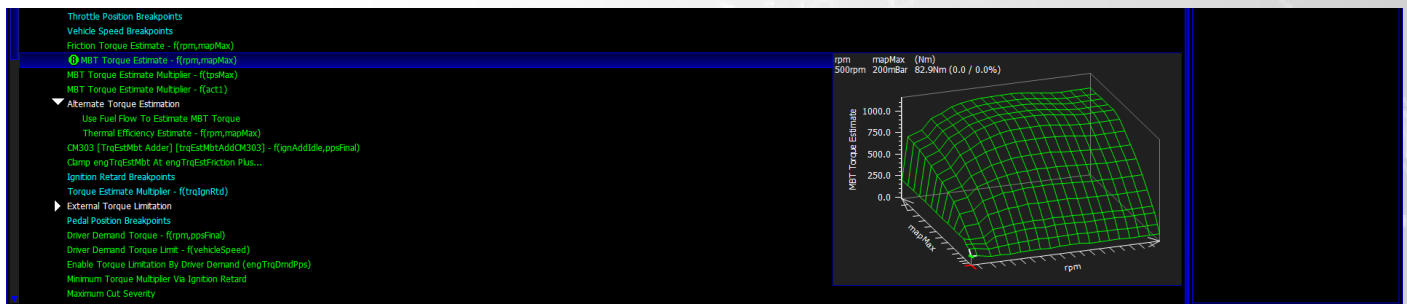
Options and Notes

Cruise up and Down change Cal Position, Cancel button is for Cal Overide which activate rolling antilag
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Cruise Is On and will hold speed when Cruise On button is pressed
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Gear Lever X and Y Position is setup to send in Gear position on Slave an26

Gear Blip Request on Slave AN21 is sent in when Clutch is pressed and Gear lever is going down a gear. In S - Mode on Manual Trans car it activates Blip like Stock
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Gear Cut request set based on Clutch Switch which is assigned and setup for Flat Shift
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Launch Control is done based on Clutch Switch and Timer after clutch is released
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ESP Switch sets TCSelect to 12 which has gain of 0 to Turn off Traction control

Rev Matching and Flat Shift on Manual Transmission

When the Clutch is pressed, S Mode is active, Gear Position is going down and 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.
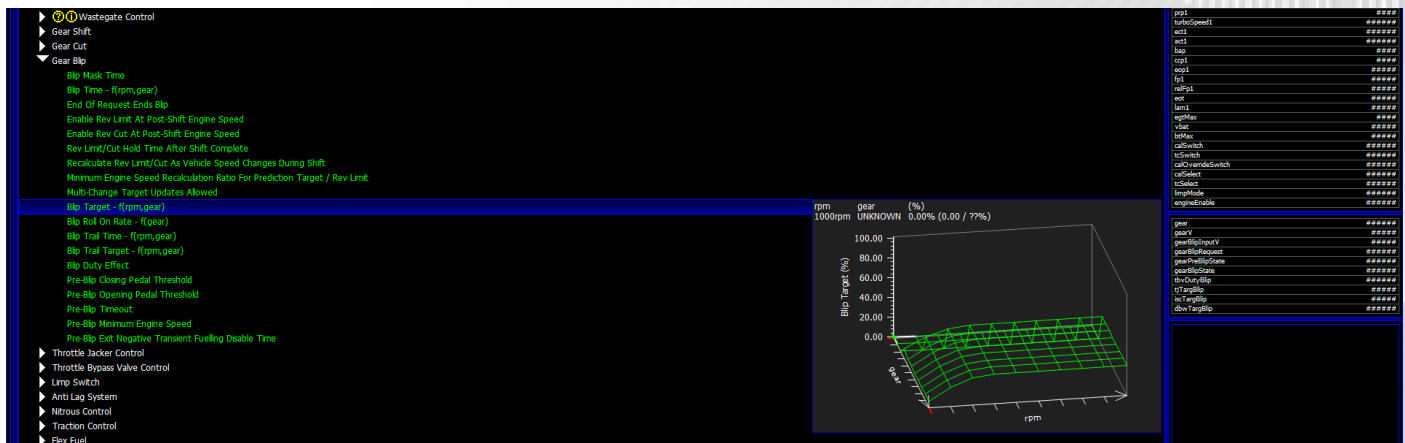
The Ecu calculates the correct rev matching Rpm based on the Drive Ratios. If you are using a different Ratio to Factory you can adjust these Drive Ratios here
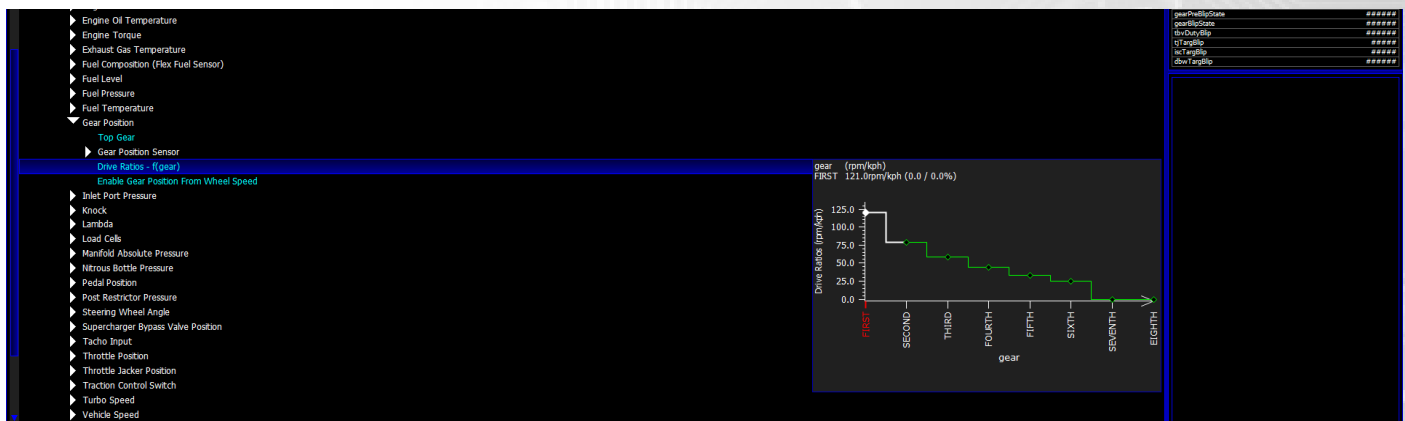
Flat Shifting - When the Clutch is pressed on it will send a GearCut Request into the ECU for Flat Shifting. This is Setup in Gearcut – Open Loop

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) Do you control the OEM VVEL

A) Yes, this is adjustable via Fan8 (VVEL Target)

Q) Do you support the Auto Transmission

A) Yes

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 and explained in the Manual

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.

	DESCRIPTION	
A	PART NUMBER	
	NOTES:	

Syvecs Description	*Syvecs Pinout*	*370z notes*
PWR CTR OUT	A1	Throttle and Main Relay; pin (25 ->l- 24) Diode
H-Bridge1 / SlaveOut1	A2	DBW
H-Bridge2 / SlaveOut2	A3	DBW
H-Bridge3 / SlaveOut3	A4	DBW
H-Bridge4 / SlaveOut4	A5	DBW
H-Bridge5 / SlaveOut5	A6	SPARE
H-Bridge6 / SlaveOut6	A7	Fuel Pump Relay
H-Bridge7 / SlaveOut7	A8	Evap
H-Bridge8 / SlaveOut8	A9	VVEL Signal
FUEL1	A10	Primary Injector 1
FUEL2	A11	Primary Injector 2
FUEL3	A12	Primary Injector 3
FUEL4	A13	Primary Injector 4
FUEL5	A14	Primary Injector 5
FUEL6	A15	Primary Injector 6
FUEL7	A16	Secondary Injector 1 Or Spare Ouput
FUEL8	A17	Secondary Injector 2 Or Spare Ouput
PWM1 /*FUEL9	A18	Secondary Injector 3 Or Spare Ouput
PWM2 / *FUEL10	A19	Secondary Injector 4 Or Spare Ouput
PWM3 / *FUEL11	A20	Spare
PWM4 / *FUEL12	A21	Secondary Injector 5 Or Spare Ouput
PWM5	A22	Secondary Injector 6 Or Spare Ouput
PWM6	A23	Tacho
PWM7	A24	VVT1
PWM8	A25	VVT2
IGN1	A26	Ignition 1
IGN2	A27	Ignition 2
IGN3	A28	Ignition 3
IGN4	A29	Ignition 4
IGN5	A30	Ignition 5
IGN6	A31	Ignition 6
PWRGND	A32	
PWRGND	A33	
PWRGND	A34	

B	DESCRIPTION	
	PART NUMBER	
	NOTES:	
PWRGND	B1	
CAN2L	B2	
CAN2H	B3	
KNOCK	B4	
KNOCK 2	B5	
PVBAT	B6	
IVBAT	B7	
LAM1A	B8	2.2v
LAM1B	B9	1.8v
LAM1C	B10	
LAM1D	B11	
LAM1HEATER	B12	
IVBAT	B13	
LAM2A	B14	2.2v
LAM2B	B15	1.8v
LAM2C	B16	
LAM2D	B17	
LAM2HEATER	B18	
IVBAT	B19	
KLINE	B20	
RS232RX	B21	
RS232TX	B22	
LANRX-	B23	
LANRX+	B24	
LANTX-	B25	
LANTX+	B26	

C		DESCRIPTION	
		PART NUMBER	
		NOTES:	
KNOCKGND		C1	Knock Ground
ANGND		C2	Brake Booster, TPS, Gear Lever
ANGND		C3	Crank, ACT
ANGND		C4	ECT
5V OUT		C5	TPS, Brake Booster, Gear lever
5V OUT		C6	Crank
5V OUT		C7	PPS
CAN L		C8	Can Low
CAN H		C9	Can High
AN01		C10	TPS 1A
AN02		C11	TPS 1B
AN03		C12	TPS 2A
AN04		C13	TPS2B
AN05		C14	Cam Position Sensor
AN06		C15	Crank Position Sensor
AN07		C16	Cam2 Position Sensor
AN08		C17	Oil Temp
AN09		C18	MAP Absolute Sensor
AN10		C19	PPS1
AN11		C20	PPS2
AN12		C21	Brake Switch
AN13		C22	Clutch Sw
AN14		C23	Air Charge Temp
AN15		C24	Coolant Temp
AN16		C25	Cruise Control SW
EGT1-		C26	Flying TC Lead
EGT1+		C27	Flying TC Lead
PWR CTR IN		C28	Ignition Switch
AN S1 / Slave An01		C29	Power Steering Pressure
AN S2 / Slave An02		C30	Maf 1 / Spare Input /
AN S3 / Slave An03		C31	Maf2 / Spare Input/
AN S4 / Slave An04		C32	Brake Booster /
AN S5 / Slave An05		C33	Gear Lever Position X / DONT REMOVE ON MANUAL
AN S6 / Slave An06		C34	Gear Lever Position Y / DONT REMOVE ON MANUAL