

SM2 ECU Configuration Mode Flag Selection v1.49 & v1.49_2

(Only applicable to ECU firmware I.D.:-_AUTRONIC_t002v1.49 & v1.49_2)

17-Jun-2015

Mode Flag No.	Function	Value
0	Select 'Manifold Absolute Pressure' mapped calibration	0
	Select 'Throttle Position' mapped calibration	1
	Select 'Select 'Throttle Position' mapped Fuel calibration with Downstream Manifold Pressure corrected Fuel delivery (Ign calibration is 'Manifold Absolute Pressure' mapped)	8
	Select for 4 cycle engine	Add 0
	Select for 2 cycle engine (& rotary engine)	Add 4
	Disable Exhaust Back Pressure correction	Add 0
	Enable Exhaust Back Pressure correction ('Manifold Absolute Pressure' mapped applications only)	Add 2
1	1 coil ignition system	1
	2 coil ignition system	2
	3 coil ignition system	3
	4 coil ignition system	4
	Negative triggered ignition amplifier (module) e.g. Smart HEI	Add 0
	Positive triggered ignition amplifier (module) e.g. MSD	Add 32
	Cylinder Reference pulse input positive triggered	Add 0
2	Cylinder Reference pulse input negative triggered	Add 16
	Cylinder pulse input positive triggered	Add 0
	Cylinder pulse input negative triggered	Add 64
	Cylinder pulse input positive & negative triggered	Add 128
	Enable "1 coil ignition system" O/P Inhibit during SYNC loss. ("2,3&4 coil systems" always inhibit during SYNC loss)	Add 8
	No Air/fuel ratio sensor	0
	Proportional Air/fuel ratio I/P (0.0 - 1.0volt => 10:1 to 30:1 air/fuel ratio)	1
3	'Bosch' or 'Autronic' 4 wire O ₂ Sensor (for Narrow band 'Emissions control')	2
	Select NTC Air intake Temperature sensor (Requires Internal PCB link U15 pins 8 to 9)	Add 16
	Select 'Autronic' Air intake Temperature sensor	Add 0
	Enable Main cooling fan control to relay 3 O/P	32
	Disable Main cooling fan control	0
	Enable Auxiliary cooling fan control to relay 4 O/P (for alternate function:- Intercooler cooling fan and/or Water sprayer add 65 instead)	Add 64
	Disable Auxiliary cooling fan control	Add 0
4	Enable Fuel used O/P pulse control to Relay 2 O/P	131
	Enable Fuel used O/P pulse control to Relay 3 O/P	130
	Enable Fuel used O/P pulse control to Relay 4 O/P	129
	Enable Fuel used O/P pulse control to Solenoid 3 O/P	128
	Disable Fuel used O/P pulse	0
	Enable User defined ON/OFF O/P to relay 2 O/P	Add 76
	Enable User defined ON/OFF O/P to relay 3 O/P	Add 72
	Enable User defined ON/OFF O/P to relay 4 O/P	Add 68
	Enable User defined ON/OFF O/P to solenoid 3 O/P	Add 64
	Disable User defined ON/OFF O/P	Add 0
	Select 'Load' as calibration Variable for User Defined ON/OFF O/P	Add 32
	Select 'Throttle position' as Calibration variable for User defined ON/OFF O/P	Add 0
5	Enable User defined PWM O/P to Analog O/P	129
	Enable User defined PWM O/P to PWM 1 O/P	130
	Enable User defined PWM O/P to PWM 2 O/P	128
	Disable User defined O/P	0
	Select 'Load' as calibration variable for User defined PWM O/P	Add 8
	Select 'Throttle position' as calibration variable for User defined PWM O/P	Add 0
6	Enable Boost control to Analog O/P	129
	Enable Boost control to PWM2 O/P	128
	Disable Boost control	0
	PWM2 O/P frequency = 10Hz	Add 0
	PWM2 O/P frequency = 20Hz	Add 4
	PWM2 O/P frequency = 30Hz	Add 8
	PWM2 O/P frequency = 40Hz	Add 12
7	Enable Boost control setpoint table selection by Switch 2 I/P	Add 2
	Disable Boost control setpoint table selection by Switch 2 I/P	Add 0
7	Enable Idle speed control to Analog O/P (for Ford EECIV type valve)	129

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Mode Flag No.	Function	Value
0	Enable Idle speed control to PWM1 O/P (for Bosch 2 wire idle control Actuator)	128
	Disable Idle speed control	0
	Subaru Impreza trigger option (2 x 3 Crank & 3,1,2,1 Cam Pulse Wheels that require a Dual Channel Reluctor Interface)	Add 32
	Mitsubishi Lancer trigger option (4 / rev & 1 x wide, 1 x narrow / rev in Camshaft driven module only)	Add 64
8	Ignition triggering of all Cylinders 1 to 8 allowed	0
	Inhibit cylinder 1 ignition	Add 1
	Inhibit cylinder 2 ignition	Add 2
	Inhibit cylinder 3 ignition	Add 4
	Inhibit cylinder 4 ignition	Add 8
	Inhibit cylinder 5 ignition	Add 16
	Inhibit cylinder 6 ignition	Add 32
	Inhibit cylinder 7 ignition	Add 64
	Inhibit cylinder 8 ignition	Add 128
9	Ignition triggering of all Cylinders 9 to 16 allowed	0
	Inhibit cylinder 9 ignition	Add 1
	Inhibit cylinder 10 ignition	Add 2
	Inhibit cylinder 11 ignition	Add 4
	Inhibit cylinder 12 ignition	Add 8
	Inhibit cylinder 13 ignition	Add 16
	Inhibit cylinder 14 ignition	Add 32
10	Inhibit cylinder 15 ignition	Add 64
	Inhibit cylinder 16 ignition	Add 128
	Use Idle Ignition Timing Table @ Idle	0
	Use Main Ignition Timing Table @ Idle	1
	Ignition Timing Modifier 1 is Charge temperature dependent	Add 0
11	Ignition Timing Modifier 1 is Coolant temperature dependent	Add 2
	Enable Ignition Timing Split (Suits Rotary Engines) ¹	Add 128
	Enable 2 x Injection Pulses / Engine Cycle	Add 64
	No Functions Assigned	
12	Disable Soft Rev Limit Fuel Cut	0
	Enable Soft Rev Limit Fuel Cut	1
	Disable Soft Rev Limit Spark Cut	Add 0
	Enable Soft Rev Limit Spark Cut	Add 2
	Enable Dual Rev Limiting ²	Add 2
13	SYNC I/P Prescale Factor (1 = Disable prescaling)	1 to 20
	Enable Missing Teeth Mode (2 missing Crankshaft Teeth / Rev only)	Add 128
14	CYL I/P Prescale Factor (1 = Disable prescaling)	1 to 100
	CYL I/P Prescale Offset (Important. Must be < (CYL I/P Prescale Factor - 2) for missing teeth trigger, otherwise must be < CYL I/P Prescale Factor)	0 to 99
Notes	Idle Speed Control reset Engine Speed = Charge Cooling minimum RPM	
	CYL I/P Prescaling only supports 0 or 2 Missing Teeth Crank Triggers	
	Coolant Temperature Sensing limp-home threshold: v149 = 150°C, v149_2 = 195°C	
	¹ EBP Limp-home Table = Ignition Timing Split (10kPa = 1° Retard to Trailing Ignition)	
	² When Bidirectional I/P (Pin 42) is High, Rev Limit = Rev Limit Commerce Table Val + 10 x Rev Limit Range. When Bidirectional I/P is Low, Rev Limit = Rev Limit Commerce Table Val	