

FUEL CORRECTIONS: 13 July 2015

Multipliers/Adders/Lambda/Overrun/Starting/Banked Inj/Transient/Individual Cylinder Trim

Groups/STANDARD MAPPING/FUEL CORRECTIONS

Injection Angle Control Method: **END_ANGLE**

Injection Angle Rate of Change (deg/Cylinder): **719.75**

Base Cal Select Enable: **DISABLED** (see below)

This parameter allows the user to decide if they wish to use a single parameter, irrespective of the current base cal, or whether individual calibrations are used.
A number of maps are duplicated and selectable according to the base calibration currently being used.
Select **ENABLE** to use the Cal based fuel maps.

MULTIPLIERS/THROTTLE MULTIPLIERS

Throttle Multiplier: Correction for TPS Angle

The screenshot shows a software window titled "Matrix: Throttle Multiplier". The window contains a table with TPS (degrees) on the vertical axis and RPM (rpm) on the horizontal axis. The TPS values range from 100.0 to 20.0 in increments of 0.5. The RPM values are 875, 1250, 1625, 2000, 2375, 2750, 3125, 3500, 3875, 4250, 4625, 5000, 5375, 5750, 6125, and 6500. All cells in the table contain the value 1.000.

TPS (°)	875	1250	1625	2000	2375	2750	3125	3500	3875	4250	4625	5000	5375	5750	6125	6500
100.0	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
99.4	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
98.8	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
98.1	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
97.5	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
95.0	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
90.0	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
80.0	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
70.0	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
60.0	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
51.0	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
42.5	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
35.0	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
30.0	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
25.0	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
20.0	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

Enable Fuel Map Throttle Multimaps: **DISABLED** (Six Throttle Multimap Multipliers...not used)

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ENGINE COOLANT MULTIPLIERS/SINGLE CALIBRATION:

Engine Coolant Temperature Multiplier: % enrichment...time & temperature

This multiplier is used to correct the base fuel time for changes in Engine Coolant Temperature. It is used to give enrichment as the engine warms up.

Example values: 1.050 - gives 5% increase
1.000 - gives no change

The current value can be viewed as "inj_m_T_water" on the dashboard.

Matrix: Engine Coolant Temperature Multiplier													
ECT (°C)		-20.0	0.0	10.0	20.0	30.0	40.0	50.0	60.0	70.0	80.0	100.0	120.0
TRUN (s)	2	1.324	1.324	1.324	1.324	1.324	1.324	1.125	1.121	1.121	1.117	1.063	1.004
	5	1.320	1.320	1.320	1.320	1.320	1.320	1.121	1.121	1.121	1.109	1.055	1.000
	10	1.313	1.313	1.313	1.313	1.313	1.313	1.113	1.113	1.109	1.063	1.031	1.000
	20	1.305	1.305	1.305	1.305	1.305	1.305	1.105	1.102	1.102	1.055	1.027	1.000
	40	1.273	1.273	1.273	1.273	1.273	1.273	1.074	1.070	1.066	1.031	1.016	1.000
	60	1.223	1.223	1.223	1.223	1.223	1.223	1.023	1.016	1.008	1.000	1.000	1.000

Air Charge Multiplier: Post Intercooler

Matrix: Air Charge Temperature Multiplier																		
ACT (°C)		-30.0	-20.0	-10.0	0.0	10.0	20.0	30.0	40.0	50.0	60.0	70.0	80.0	90.0	100.0	110.0	120.0	130.0
MAP (mbar)	1000	1.267	1.221	1.179	1.127	1.076	1.026	0.984	0.957	0.952	0.972	1.013	1.046	1.081	1.142	1.165	1.194	1.223
	1100	1.267	1.221	1.179	1.127	1.076	1.026	0.984	0.957	0.945	0.954	0.988	1.010	1.047	1.104	1.134	1.168	1.202
	1200	1.267	1.221	1.179	1.127	1.076	1.026	0.984	0.957	0.937	0.936	0.962	0.979	1.013	1.065	1.104	1.142	1.181
	1300	1.267	1.221	1.179	1.127	1.076	1.026	0.984	0.957	0.929	0.917	0.936	0.949	0.980	1.027	1.073	1.116	1.159
	1400	1.267	1.221	1.179	1.127	1.076	1.026	0.984	0.957	0.922	0.899	0.910	0.918	0.946	0.989	1.043	1.090	1.138

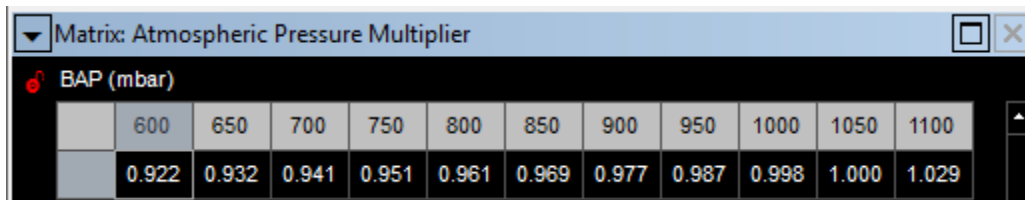
Ambient Air Temperature Multiplier:

Matrix: Ambient Air Temperature Multiplier																		
AAT (°C)		-30.0	-20.0	-10.0	0.0	10.0	20.0	30.0	40.0	50.0	60.0	70.0	80.0	90.0	100.0	110.0	120.0	130.0
		1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

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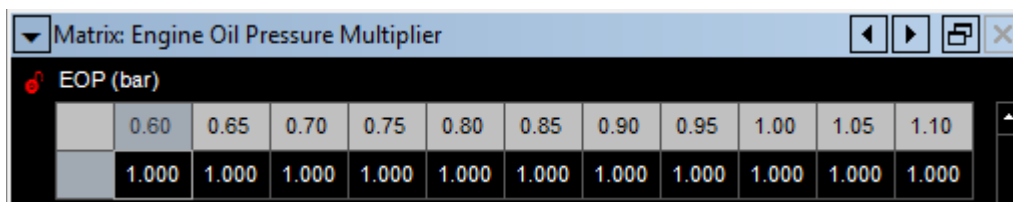
Multipliers/Adders/Lambda/Overrun/Starting/Banked Inj/Transient/Individual Cylinder Trim

Atmospheric Pressure Multiplier:



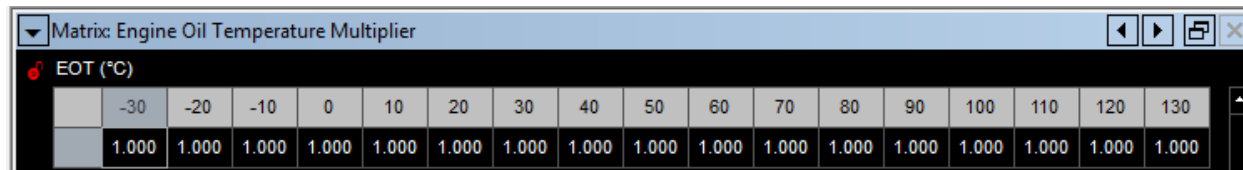
	600	650	700	750	800	850	900	950	1000	1050	1100
BAP (mbar)	0.922	0.932	0.941	0.951	0.961	0.969	0.977	0.987	0.998	1.000	1.029

Engine Oil Pressure Multiplier:



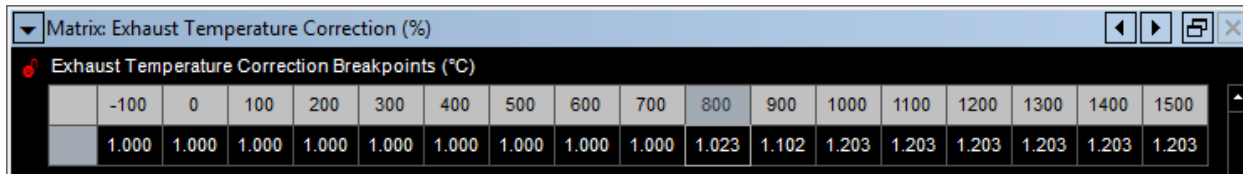
	0.60	0.65	0.70	0.75	0.80	0.85	0.90	0.95	1.00	1.05	1.10
EOP (bar)	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

Engine Oil Temperature Multiplier:



	-30	-20	-10	0	10	20	30	40	50	60	70	80	90	100	110	120	130
EOT (°C)	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

Exhaust Temperature Correction



	-100	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500
Exhaust Temperature Correction Breakpoints (°C)	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.023	1.102	1.203	1.203	1.203	1.203	1.203	1.203

Fuel Pressure Modifier

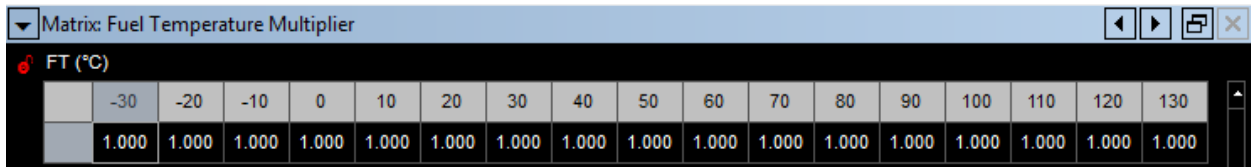


	7.00	7.20	7.40	7.60	7.80	8.00	8.20	8.40	8.60	8.80	9.00	9.20	9.40	9.60	9.80	10.00	10.20
FP (bar)	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

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Fuel Temperature Modifier

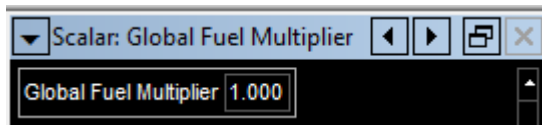


Matrix: Fuel Temperature Multiplier

FT (°C)

	-30	-20	-10	0	10	20	30	40	50	60	70	80	90	100	110	120	130
	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

Global Fuel Modifier



Scalar: Global Fuel Multiplier

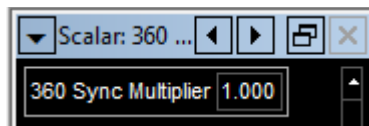
Global Fuel Multiplier 1.000

360 Sync Modifier

When the ECU has a valid cam sensor signal it will be in 720 sync mode and will inject a fuel pulse on each cylinder every 2 engine revolutions.

This multiplier is used to correct the base fuel time whilst the ECU is running in 360 synchronization mode (no valid signal from the camshaft sensor). In this mode the ECU injects fuel every rev rather every two revs. A typical value for this multiplier is 0.56 which gives 56% of the normal fuel pulse injected every rev.

The current ECU operating mode can be viewed as "sync_mode" on the dashboard.



Scalar: 360 ...

360 Sync Multiplier 1.000

Groups/SRANDARD MAPPING/FUEL CORRECTIONS/ADDERS:

Battery Adder: ID1000 in Road Glide; ID1300 in Bullett

Battery Adder:

This adder is used to correct the base fuel time for changes in battery voltage. This is needed as the opening speed of a fuel injector varies with voltage.

The current value can be viewed as "inj_a_v_bat" on the dashboard.



Matrix: Battery Adder (ms)

VBAT (V)

	8.00	8.50	9.00	9.50	10.00	10.50	11.00	11.50	12.00	12.50	13.00	13.50	14.00	14.50	15.00	15.50	16.00
	2.480	2.268	2.056	1.844	1.632	1.528	1.420	1.316	1.212	1.152	1.088	1.028	0.968	0.928	0.884	0.844	0.800

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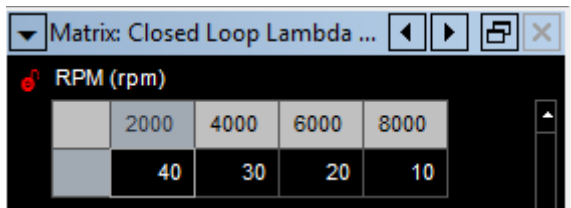
Multipliers/Adders/Lambda/Overrun/Starting/Banked Inj/Transient/Individual Cylinder Trim

Groups/STANDARD MAPPING/FUEL CORRECTIONS/CLOSED LOOP LAMBDA:

Closed Loop Lambda Update Rate:

Specifies the rate at which proportional and integral terms are calculated and the lambda multiplier (inj_m_lambda) is calculated for each sensor.

Note that the integral term is scaled by this map so that the integrator has the same effect on the output irrespective of the update rate.



Matrix: Closed Loop Lambda ...

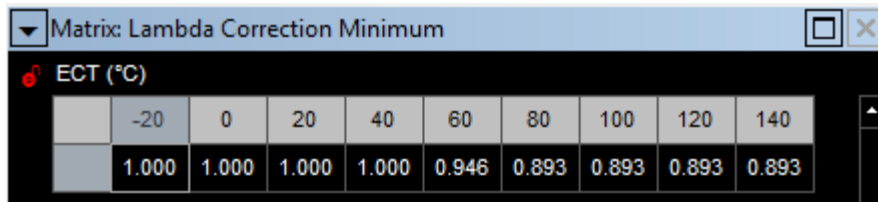
RPM (rpm)

	2000	4000	6000	8000
	40	30	20	10

Closed Loop Lambda Minimum

The closed loop lambda injection multiplier is clipped if its value is less than the LAMBDA CORRECTION MINIMUM. This allows the amount of enrichment to be limited as a function of water temperature.

NOTE: Closed loop enrichment can be disabled at low water temperatures by setting the LAMBDA CORRECTION MINIMUM to 1.0 at these points



Matrix: Lambda Correction Minimum

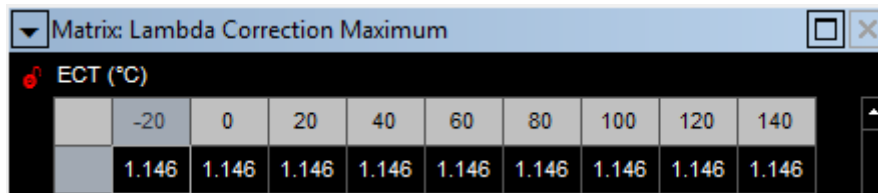
ECT (°C)

	-20	0	20	40	60	80	100	120	140
	1.000	1.000	1.000	1.000	0.946	0.893	0.893	0.893	0.893

Lambda Correction Maximum

The closed loop lambda injection multiplier is clipped if its value is greater than the LAMBDA CORRECTION MAXIMUM. This allows the amount of enrichment to be limited as a function of water temperature.

NOTE: Closed loop enrichment can be disabled at low water temperatures by setting the LAMBDA CORRECTION MAXIMUM to 1.0 at these points



Matrix: Lambda Correction Maximum

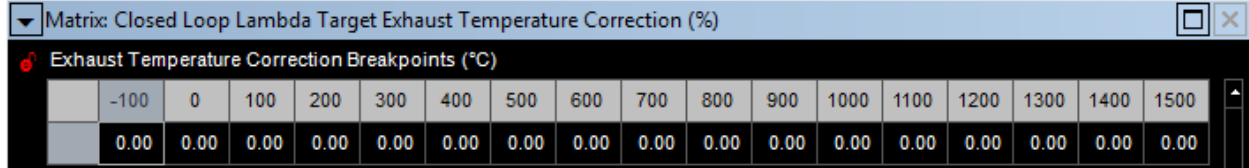
ECT (°C)

	-20	0	20	40	60	80	100	120	140
	1.146	1.146	1.146	1.146	1.146	1.146	1.146	1.146	1.146

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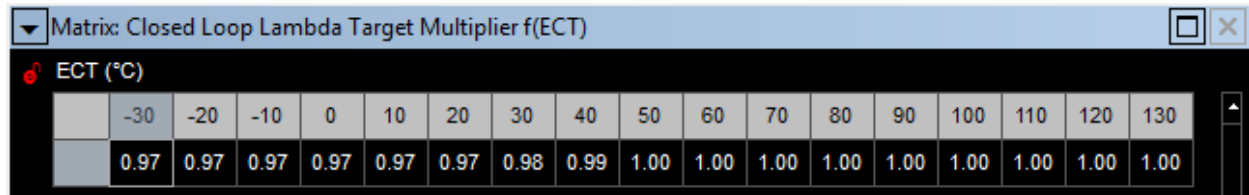
Multipliers/Adders/Lambda/Overrun/Starting/Banked Inj/Transient/Individual Cylinder Trim

Closed Loop Lambda Target Exhaust Temperature Correction



	-100	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Closed Loop Lambda Target Multiplier f(ECT): Engine Coolant Correction

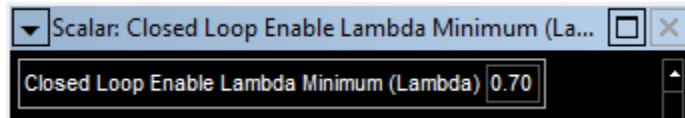


	-30	-20	-10	0	10	20	30	40	50	60	70	80	90	100	110	120	130
	0.97	0.97	0.97	0.97	0.97	0.97	0.98	0.99	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

CLOSED LOOP LAMBDA: ENABLE DISABLE

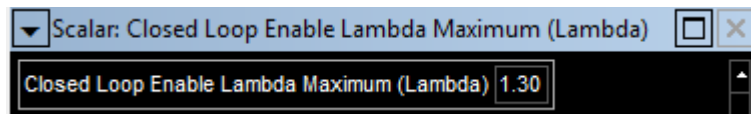
Closed Loop Lambda Enable: ENABLED / **DISABLED (must be disabled when editing a fuel map).**

Closed Loop Enable Lambda Minimum



Closed Loop Enable Lambda Minimum (Lambda)	0.70
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Closed Loop Enable Lambda Maximum



Closed Loop Enable Lambda Maximum (Lambda)	1.30
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CLOSED LOOP LAMBDA: PID PARAMETERS

SIMPLE LAMBDA: Not used

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Closed Loop Lambda Proportional Gain



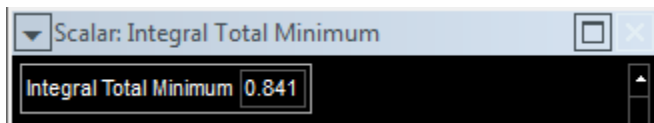
		RPM (rpm)			
MAP (mbar)		2000	4000	6000	8000
800		2.000	6.000	8.000	8.000
600		2.000	6.000	8.000	8.000
400		2.000	6.000	8.000	8.000
200		2.000	6.000	8.000	8.000

Closed Loop Lambda Integral Gain



		RPM (rpm)			
MAP (mbar)		2000	4000	6000	8000
800		0.375	0.375	0.375	0.375
600		0.375	0.375	0.375	0.375
400		0.375	0.375	0.375	0.375
200		0.375	0.375	0.375	0.375

Integral Total Minimum: 0.000 to 1.000



Scalar: Integral Total Minimum
Integral Total Minimum 0.841

Integral Total Maximum: 1.000 to 2.000



Scalar: Integral Total Maximum
Integral Total Maximum 1.100

CLOSED LOOP LAMBDA: DISABLE TIMERS

Closed Loop Disable Time Sensor Warmup: Seconds 0.00 to 655.35

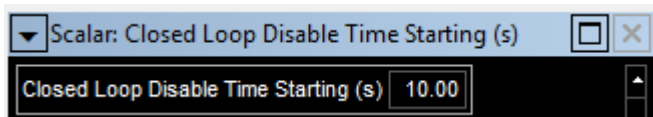


Scalar: Closed Loop Disable Time Sensor Warmup
Closed Loop Disable Time Sensor Warmup (s) 60.00

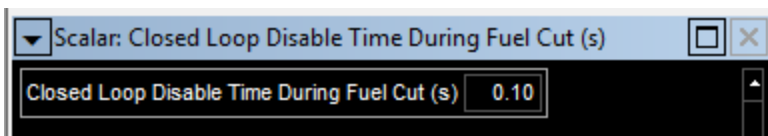
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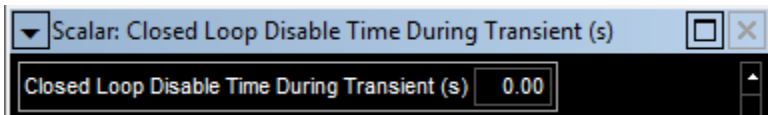
Closed Loop Disable Time Starting: Seconds 0.00 to 655.35



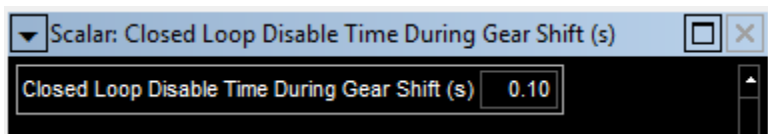
Closed Loop Disable Time During Fuel Cut: Seconds 0.00 to 655.35



Closed Loop Time During Transient: Seconds 0.00 to 666.35

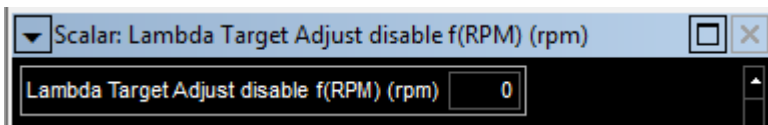


Closed Loop Disable Time During Gear Shift: Seconds 0.00 to 655.35

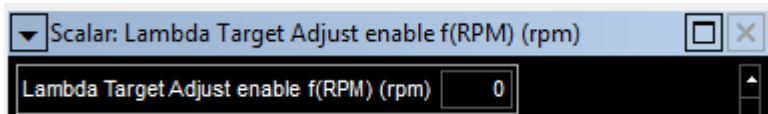


CLOSED LOOP LAMBDA: CATALYST ADJUSTMENT

Lambda Target Adjust disable f(RPM)



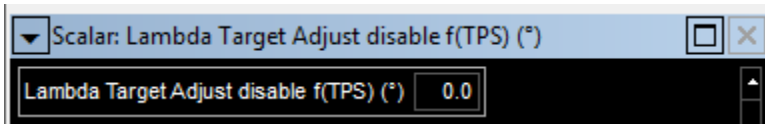
Lambda Target Adjust enable f(RPM)



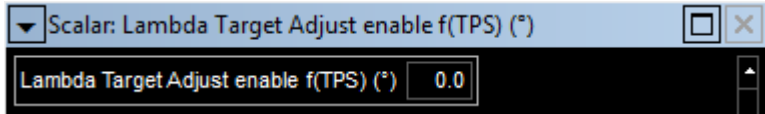
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Lambda Target Adjust disable f(TPS)

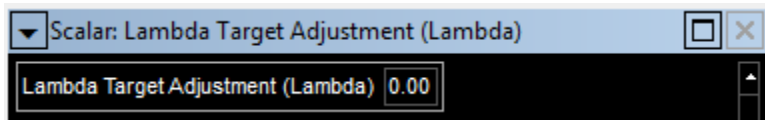


Lambda Target Adjust enable f(TPS)



Lambda Target Adjustment: 0.00 to 0.30

The lambda target will fluctuate either side of the closed loop lambda target by this amount if the TPS and RPM criteria have been met. Once the lambda target at one end of the fluctuation has been reached the target will be adjusted to the other extreme. This is so the fuelling will switch between running slightly rich and slightly lean around the target. This is primarily for lambda control at low rpms when using a catalyst.



Groups/ STANDARD MAPPING/FUEL CORRECTIONS/OVERRUN FUELING Overrun Fuel Cut Off Cal 1:

Angular velocity revs/minute 0 to 20000

This map is used to give an overrun fuel cut off threshold. If the throttle is closed and the engine speed is above this threshold, the fuel will be cut. Fuelling is reinstated if the throttle is pressed or the engine speed drops below the overrun fuel reinstate threshold.

A screenshot of a software window titled "Matrix: Overrun Fuel Cut Off Cal 1 (rpm)". The window displays a table with ECT (°C) on the y-axis and rpm on the x-axis. The table contains the value 7500 for all entries.

ECT (°C)	-30	-20	-10	0	10	20	30	40	50	60	70	80	90	100	110	120	130
	7500	7500	7500	7500	7500	7500	7500	7500	7500	7500	7500	7500	7500	7500	7500	7500	7500

Overrun Fuel Reinstatement Cal 1: Angular velocity revs/min 0 to 20000 (Entries also for Cal 2/3/4....)

This map is used to give a reinstatement threshold for the overrun fuel cut off. If the fuel is being cut and the engine speed drops below this threshold, the fuel will be reinstated.

A screenshot of a software window titled "Matrix: Overrun Fuel Reinstatement Cal 1 (rpm)". The window displays a table with ECT (°C) on the y-axis and rpm on the x-axis. The table contains the value 7500 for all entries.

ECT (°C)	-30	-20	-10	0	10	20	30	40	50	60	70	80	90	100	110	120	130
	7500	7500	7500	7500	7500	7500	7500	7500	7500	7500	7500	7500	7500	7500	7500	7500	7500

FUEL CORRECTIONS: 13 July 2015

Multipliers/Adders/Lambda/Overrun/Starting/Banked Inj/Transient/Individual Cylinder Trim

Cranking Multiplier:

This multiplier is used to correct the base fuel time whilst the engine is cranking. The Cylinder Count axis on the map is used to give a bigger correction when the engine initial starts to turn and to enable this correction to decay away as the inlet becomes wet.

Example values: 1.050 - gives 5% increase
1.000 - gives no change
0.950 - gives 5% decrease

The current value can be viewed as "inj_m_crank" on the dashboard.

Matrix: Cranking Multiplier

Cylinder Count Breakpoints

ECT (°C)	10	210	310	450	480	496	500	540
65.0	1.50	1.29	1.19	1.05	1.02	1.00	1.00	1.00
20.0	1.50	1.29	1.19	1.05	1.02	1.00	1.00	1.00
5.0	1.50	1.29	1.19	1.05	1.02	1.00	1.00	1.00
-5.0	1.50	1.29	1.19	1.05	1.02	1.00	1.00	1.00
-15.0	1.88	1.62	1.49	1.31	1.27	1.25	1.25	1.25
-20.0	2.25	1.94	1.79	1.57	1.52	1.50	1.50	1.50
-25.0	2.25	1.94	1.79	1.57	1.52	1.50	1.50	1.50
-30.0	2.25	1.94	1.79	1.57	1.52	1.50	1.50	1.50

Groups/STANDARD MAPPING/FUEL CORRECTIONS/BANKED INJECTION:

SECONDARY INJECTOR LEAN LIMIT

Enable Banked Injection: **DISABLED** (this category is for secondary Injectors)

Groups/STANDARD MAPPING/FUEL CORRECTIONS/TRANSIENT FUEL CORRECTION:

Maximum Engine Speed (rpm): **7000**

Start Cylinder Count Before TFC: 0 to 65535

Scalar: Start Cylinder Count Before TFC (Cylinder)

Start Cylinder Count Before TFC (Cylinder) 256

FUEL CORRECTIONS: 13 July 2015

Multipliers/Adders/Lambda/Overrun/Starting/Banked Inj/Transient/Individual Cylinder Trim

Enable Time Based Transients: **ENABLED**

This map enables/disables transient fuel corrections. These are triggered when the rate of change of throttle angle exceeds a predefined threshold.

The current transient fuel value can be viewed as "inj_a_tps" on the dashboard.

Maximum Throttle Angle (degrees): **70.0**

The transient fuel calculations are only updated if the throttle angle is below this upper threshold.

Minimum Delta Throttle (degrees): 0.0 to 90.0

This is the minimum rate of change of throttle needed to trigger the transient fuel strategy.



Accel Positive Gain

This map is used to give the gain value for positive (throttle opening) transients. As the throttle opens, a correction is added to the base fuel quantity to compensate for manifold effects. The INITIAL size of this correction depends on the rate of change of throttle and the gain value. A larger gain will give a bigger correction.

```
transient correction = rate of change of throttle x gain

**
** gain = 2
**
0***** ***** TRANSIENT CORRECTION (ms)

**
** gain = 3
**
0***** ***** TRANSIENT CORRECTION (ms)
30 ***** THROTTLE (degrees)
0*****
0----1----2----3----4----5----6----7----8----9->TIME
```

The current value can be viewed as "acc_gain_pos" on the dashboard.
The current transient fuel value can be viewed as "inj_a_tps" on the dashboard.

A screenshot of a software interface showing a matrix parameter window. The title bar reads "Matrix: Accel Positive Gain". Below the title bar, there is a table with the following data:

RPM (rpm)	1000	1500	1900	2000	3000	4000	5000	6000
	0.000	0.200	0.200	5.000	5.000	5.000	1.000	1.000

FUEL CORRECTIONS: 13 July 2015

Multipliers/Adders/Lambda/Overrun/Starting/Banked Inj/Transient/Individual Cylinder Trim

Accel Positive Decay

This map is used to give the decay value for positive (throttle opening) transients. The decay value is a multiplier that reduces the transient correction each time it is updated. A decay value of 0.90 would reduce the correction by 10% each update. A smaller decay value gives a faster decay.

```

transient correction = transient correction x decay
5      ***
      * *
      * *      decay = 0.90 - 10%
      * *
0*****      ***** TRANSIENT CORRECTION (ms)

5      ***
      * *
      * *      decay = 0.95 - 5%
      * *
0*****      ***** TRANSIENT CORRECTION (ms)

0----1----2----3----4----5----6----7----8----9->TIME
    
```

The current value can be viewed as "acc_decay_pos" on the dashboard.
 The current transient fuel value can be viewed as "inj_a_tps" on the dashboard.

Matrix: Accel Positive Decay		1000	1500	1900	2000	3000	4000	5000	6000
ECT (°C)	RPM (rpm)								
	80.0	0.985	0.985	0.980	0.960	0.956	0.000	0.000	0.000
	50.0	0.990	0.990	0.990	0.980	0.980	0.000	0.000	0.000
	20.0	0.990	0.990	0.980	0.980	0.980	0.000	0.000	0.000
-20.0	0.990	0.990	0.980	0.980	0.980	0.000	0.000	0.000	

FUEL CORRECTIONS: 13 July 2015

Multipliers/Adders/Lambda/Overrun/Starting/Banked Inj/Transient/Individual Cylinder Trim

Accel Positive Clamp

This map is used to give the clamp value for positive (throttle opening) transients. The clamp value is used as an upper limit on the correction.

```

5      *
      **
      ** *
      *  *   clamp = 5.0 (ms)
      *  *
0***** ***** TRANSIENT CORRECTION (ms)

      .
      .
      .
      .
2      *
      **   clamp = 2.0 (ms)
      **
0***** ***** TRANSIENT CORRECTION (ms)

```

The current value can be viewed as "acc_clamp_pos" on the dashboard.
The current transient fuel value can be viewed as "inj_a_tps" on the dashboard.

Matrix: Accel Positive Clamp (ms)

RPM (rpm)	1000	1500	1900	2000	3000	4000	5000	6000
	0.00	0.00	5.00	5.00	5.00	5.00	5.00	5.00

Accel Negative Gain

This map is used to give the gain value for negative (throttle closing) transients. As the throttle closes, a correction is subtracted from the base fuel time to compensate for manifold effects. The INITIAL size of this correction depends on the rate of change of throttle and the gain value. A larger gain will give a bigger correction.

transient correction = rate of change of throttle x gain

```

0***** ***** TRANSIENT CORRECTION (ms)
      *
      **   gain = 2
      *

0***** ***** TRANSIENT CORRECTION (ms)
      *
      **   gain = 3
      **

30*****
      *
      *

0***** THROTTLE (degrees)
0----1----2----3----4----5----6----7----8----9->TIME

```

The current value can be viewed as "acc_gain_neg" on the dashboard.
The current transient fuel value can be viewed as "inj_a_tps" on the dashboard.

Matrix: Accel Negative Gain

RPM (rpm)	1000	1500	1900	2000	3000	4000	5000	6000
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

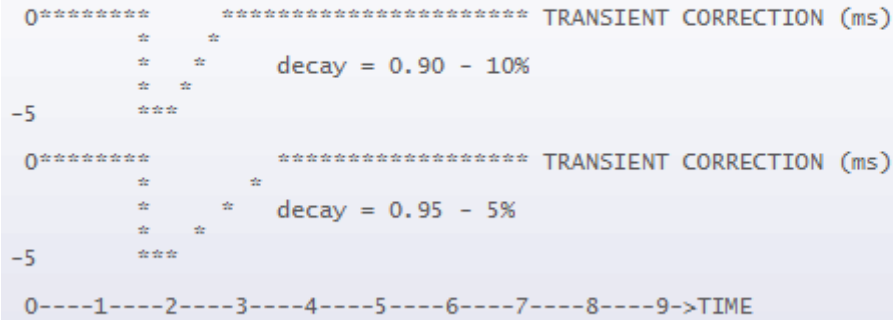
FUEL CORRECTIONS: 13 July 2015

Multipliers/Adders/Lambda/Overrun/Starting/Banked Inj/Transient/Individual Cylinder Trim

Accel Negative Decay

This map is used to give the decay value for negative (throttle closing) transients. The decay value is a multiplier that reduces the transient correction each time it is updated. A decay value of 0.90 would reduce the correction by 10% each update. A smaller decay value gives a faster decay.

$$\text{transient correction} = \text{transient correction} \times \text{decay}$$



The current value can be viewed as "acc_decay_neg" on the dashboard.
The current transient fuel value can be viewed as "inj_a_tps" on the dashboard.

Matrix: Accel Negative Decay									
RPM (rpm)	1000	1500	1900	2000	3000	4000	5000	6000	
ECT (°C)	80.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
50.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
20.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
-20.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

FUEL CORRECTIONS: 13 July 2015

Multipliers/Adders/Lambda/Overrun/Starting/Banked Inj/Transient/Individual Cylinder Trim

Accel Negative Clamp

```
This map is used to give the clamp value for positive (throttle closing)
transients. The clamp value is used as an upper limit on the correction.

0*****      ***** TRANSIENT CORRECTION (ms)
 *
 *
 * *
 * *      clamp = -5.0 (ms)
 **
-5
 *

0*****      ***** TRANSIENT CORRECTION (ms)
 *
 *
 * *
 * *      clamp = -2.0 (ms)
 **
-2
 *
 *
 *
 *
 *

The current value can be viewed as "acc_clamp_neg" on the dashboard.
The current transient fuel value can be viewed as "inj_a_tps" on the dashboard.
```

Matrix: Accel Negative Clamp (ms)

RPM (rpm)	1000	1500	1900	2000	3000	4000	5000	6000
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

FUEL CORRECTIONS: 13 July 2015

Multipliers/Adders/Lambda/Overrun/Starting/Banked Inj/Transient/Individual Cylinder Trim

Groups/STANDARD MAPPING/FUEL CORRECTIONS/INDIVIDUAL CYLINDER TRIM:

Enable Cylinder Fuel Trim: **DISABLED** (Best left disabled)

This maps enables/disables the individual cylinder trim functions for fuel. Individual cylinder trims should only be used to make MINOR changes to the base fuel time to compensate for differences in air intake distribution etc.

The current value can be viewed as "cyl_fuel" on the dashboard.

Matrix: Cylinder 1

RPM (rpm)		650	1300	1950	2600	3250	3900	4550	5200	5850	6500
MAP (mbar)	870	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	640	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	450	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	300	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	120	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	75	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

Matrix: Cylinder 2

RPM (rpm)		650	1300	1950	2600	3250	3900	4550	5200	5850	6500
MAP (mbar)	870	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	640	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	450	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	300	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	120	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	75	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

FUEL CORRECTIONS: 13 July 2015

Multipliers/Adders/Lambda/Overrun/Starting/Banked Inj/Transient/Individual Cylinder Trim