

## Settings before Tuning

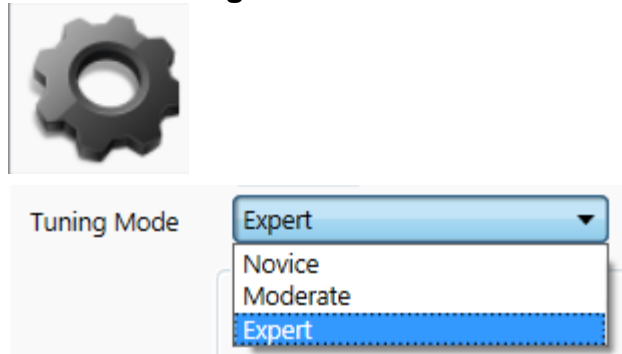
When you get to this point your engine should start and idle easily and the basic settings in the startup procedure should be set. Start with a warm engine at working temperature. Remembering you have a start-up map loaded from a running vehicle.

All the sensors such as TPS, MAP sensor, water temperature etc. should be calibrated.

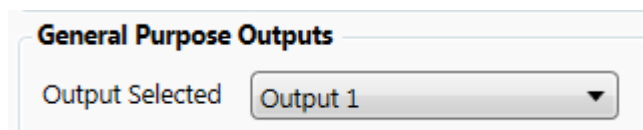
If you are on dyno tuning, then certain graphs must be set to zero.

Disable or set the following features so that it does not influence your basic tuning.

### General Settings

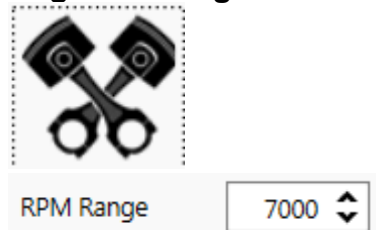


Make sure you are in the right tune mode.



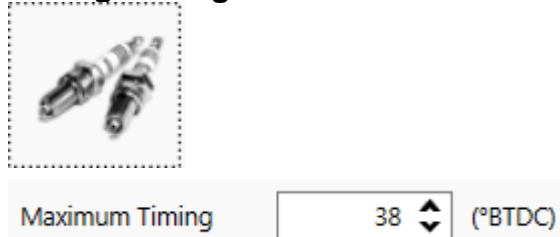
Your outputs should be set to ensure that cooling fans etc. operate correctly.

### Engine Settings



Set this value 500 RPM higher than your max tuning RPM.

### Timing Settings



Set the Maximum timing and trailing degrees to a safe level. It will protect against too much timing on the graphs while tuning.

Minimum Coil Time	<input type="text" value="2.5"/>	(ms)
Maximum Coil Time	<input type="text" value="3.5"/>	(ms)

Set these values to a min. if you are not sure use 2 and 2.5 rather. Later when the engine miss you can increase them to see if it improves the miss. Too higher values may heat the Coil drivers to a critical level.

Altitude Comp	<input type="text" value="3"/>	(DEG)
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If you installed an altitude sensor these values must be set before tuning.

#### Timing Calculation

Graph MAP

Graph MAP

Graph MAP &TPS

Matrix MAP

Matrix TPS

Graph MAP & Matrix TPS

Select the right tuning method. Usually the same as fuel.

#### Fuel Settings



Maximum Fuelling	<input type="text" value="25.0"/>	(ms)
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This setting will prevent over fuelling while tuning the graphs.

Vacuum fuel cut off	<input type="text" value="0.08"/>	(BAR)
RPM fuel cut off	<input type="text" value="1500"/>	(RPM)

These settings will prevent the engine from cutting unexpectedly. For a rotary use 2000 RPM.

#### Accelerator Pump

MAP & TPS

The accelerator pump sometimes influences your fueling. Especially the MAP sensor compensation if the vacuum is erratic. Always start with minimum values. If you see erratic injecting time put it on TPS only.

#### Fuel Calculation

Graph MAP

Graph MAP

Graph MAP &TPS

Matrix MAP

Matrix TPS

Graph MAP & Matrix TPS

Select the right tuning method. Usually the same as timing.

## Sensor Settings



☒ Altitude

☒ Compensate

Altitude 0.99 BAR

If you plan to use the Lambda sensor and one is installed, then these settings must be on and the sensor must show your altitude pressure.



☒ Fuel Pressure

☒ Show Graph

If you are doing fuel pressure control you should have set this up already. See the fuel pressure control adjustment section. If not, put the Show Graph or the sensor off if it is not connected.

☒ Battery

☐ Show Graph

☒ Lambda

☐ Show Graph

☐ Tuning Pot.

Disable the battery, Lambda and POT till the tuning is done. The sensor will indicate though. If the lambda is not connected, then put the sensor off as well.

### Idle Control Type

Idle Valve

Not Used

Idle Valve

Dual Idle Valve

Stepper Motor

If you can tune without idle control on it will be good. Then select Not Used. You will need to ensure enough idle air to maintain engine RPM. Or you could do this tuning beforehand. But if you adjust Fuel Offset and timing, you may need to adjust the idle control again. See the idle control adjustment section.

## Turbo Settings













Boost Limiter

1.5



(BAR)

Set a maximum value 0.1 bar above your planned maximum boost to protect the engine during tuning.

Engine Limiter		
Boost Limiter	<input type="text" value="1.5"/>	  (Bar)
Over Temp. Limit	<input type="text" value="105"/>	  (°C)
Temp. RPM Limit	<input type="text" value="2000"/>	  (RPM)
RPM Limit ( $\geq 60$ °C)	<input type="text" value="6500"/>	  (RPM)
RPM Limit ( $< 60$ )	<input type="text" value="5000"/>	  (RPM)

Set you engine limiters to safe values.