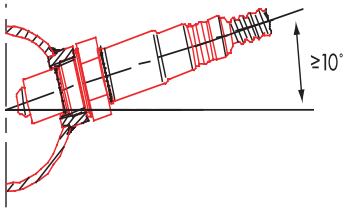
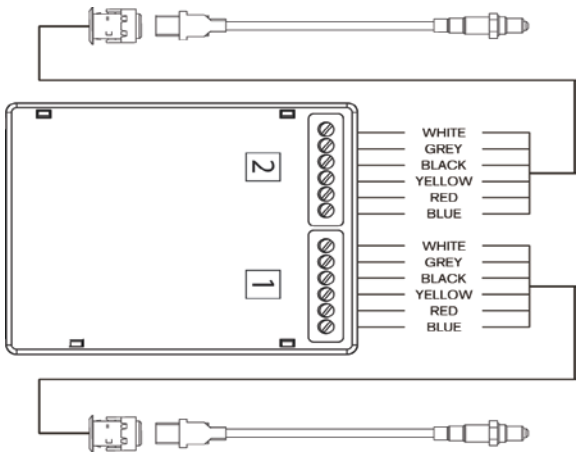
The Auto tune kit is a universal product that can be utilized on any model using the PCV and which has a 12v power source.

- Some stock and aftermarket exhausts come equipped with O2 sensor bungs. If your system uses a M18x1.5mm thread then you can simply use this location for the Auto tune sensors. If you have to drill a hole for a new bung (mild steel bung included), we recommend doing so before the catalytic converter (if applicable). It is recommended to position the weld bung /sensor approximately 6"-18" from the exhaust port of the cylinder.
- Mount the weld boss in a manner that reduces the risk of moisture contamination on the sensor. Condensation can build up in the exhaust pipes and potentially damage the sensor. Ideally, you should orient the weld boss so the sensor is between the 9 o'clock and 3 o'clock position. A 10° inclination off the horizontal plane should be considered a minimum.

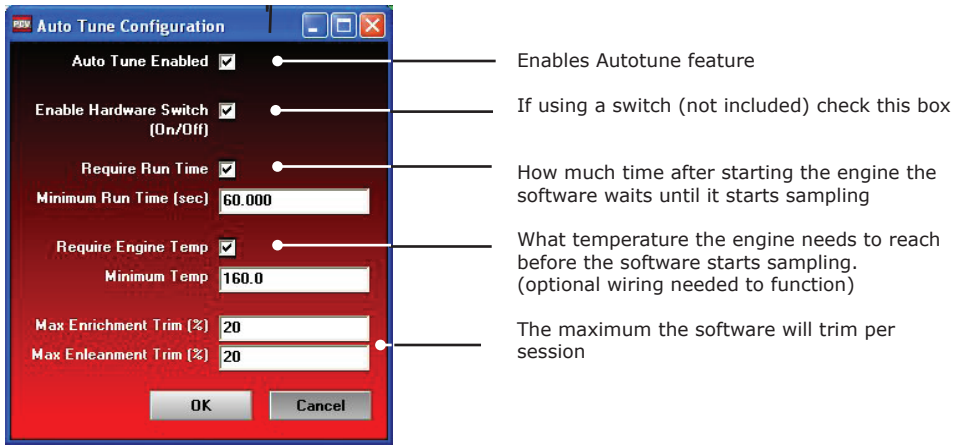
  Note: *Verify you have adequate clearance for the sensor and wiring harness. Make sure the O2 sensor harness is as straight as possible. If you must secure the harness to keep away from danger make sure you do not squeeze the sheathing of the harness.*



- Install the Auto tune module near the PCV.
- Connect the Auto tune module to the PCV using the supplied CAN cable. It does not matter what port the cable is connected to.
- Install the CAN termination plug into the open port of the Autotune module. ***This is the small BLACK plastic connector in the kit.***
- Connect the O2 sensor cable to the O2 sensor and route the cable to the Auto tune module ensuring the cable will not get pinched or damaged by the exhaust. The cable can be trimmed shorter if desired.
- Connect the O2 sensor cable to the Auto Module. Repeat for other cylinder. #1 on the back of the Auto tune module refers to the front cylinder and FUEL TABLE 1 in the PCV software.
- Connect the BLACK wire from the AT300 to a good chassis ground using either one of the supplied Posi-taps or ring lug. The negative side of the battery is a good location.
- Connect the RED wire of the AT300 to a switched 12v source using the supplied posi-tap. The power for the tail light is a good location. Most PCV install guides will tell you the wire color for this location. The Auto tune can pull up to 5amps while the sensors are warming up.



- Block or disable the clean air injection system if applicable (see tech tips).
- The Autotune kit when used in conjunction with the PCV allows the bike to be automatically tuned to a target air/fuel ratio. To use this feature you must first enable Auto Tune in the PCV. Go to PowerCommander Tools - Configure - Autotune.



- Most maps from Dynojet will include a base Target AFR table. These settings are intended to deliver optimal performance while still maintaining decent fuel mileage in the cruise area (for most models).

  To alter the AFR target click on Target AFR in the tree view. Expand each cylinder and/or gear if necessary to view the corresponding table. If necessary type in different values in the cells. Multiple cells can be highlighted by using click/drag with the mouse.

Shows current table being altered

	0%	2%	5%	10%	15%	20%	40%	60%
500	0	0	0	0	0	0	0	0
750	0	13.2	13.2	13.2	13.2	0	0	0
1000	0	13.2	13.2	13.2	13.2	0	0	0
1250	0	13.2	13.2	13.2	13.2	13.2	13.2	13.2
1500	0	13.2	13.2	13.2	13.2	13.2	13.2	13.2
1750	0	13.2	13.2	13.2	13.2	13.2	13.2	13.2
2000	0	13.2	13.2	13.2	13.2	13.2	13.2	13.2
2250	0	13.2	13.5	13.5	13.5	13.5	13.2	13.2
2500	0	13.2	13.7	13.7	13.7	13.7	13.2	13.2
2750	0	13.2	13.7	13.7	13.7	13.7	13.2	13.2
3000	0	13.2	13.7	13.7	13.7	13.7	13.2	13.2
3250	0	13.2	13.7	13.7	13.7	13.7	13.2	13.2

- It is recommended to load a base map into the PCV that best corresponds to your bikes current configuration. This will decrease the time in which it takes for the Autotune module to achieve its target air/fuel.
- A switch can be wired into the PCV to be used to toggle between your base map and learning mode. Any SPST (open/close) type switch can be used. When the switch is OPEN the PCV will be running on the base map. When the switch is CLOSED the PCV will go into learn mode and Autotune will start making fuel trim adjustments.

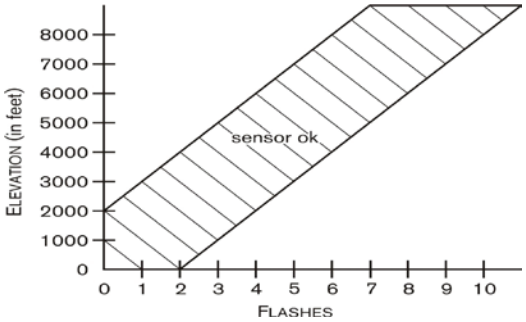
  You can toggle between these modes at any time. The values learned for the fuel trims will be saved if you toggle back to the base map.
- After a riding session you can view the Trim table by clicking on the respective table in the tree view and clicking GET TABLE. To accept these trims and transfer them into the Fuel map click on Auto Tune - accept trims. This will zero out the trim table(s) and add the trim values to the base map(s).

  The PCV is configured to only allow the software to trim +/- 20% until you manually accept the trims. You can alter these limits in the Auto Tune configuration. The more the PCV learns the lower you can make this value. By lowering this value it will work as a safety net so if something should go wrong in the unit or bike it will not cause the bike to run poorly.

TECH TIPS

- If you should see abnormally high values in the trim tables then check the following:
  - Intake leaks
  - Exhaust leaks - check at all exhaust junctions
  - Sensor condition - (see sensor test)
  - Make sure the clean air system is blocked (if applicable). Also called the PAIR valve, the clean air system draws fresh air out of the air box and dumps into into the exhaust port to help ignite any unburnt fuel in the exhaust. This extra air will skew the AFR readings of the Auto tune module.
- Dynojet does not recommend inputting values in the 0% column of the Target AFR tables. If you shoud need to tune the 0% column to combat popping on deceleration input values directly in the Fuel tables.
- If fuel mileage is a concern then you can alter the Target AFR values in the cruise range. Dynojet considers the cruise range to be around 5-20% throttle. Dynojet does not recommend making the bike any leaner than 14.7 in the Target AFR cells.
  - Dynojet has found that for the best compromise of fuel mileage and throttle response to set the cruise range to 13.7-14.0.
  - For all other ranges 12.8-13.4 seems to work best. For the best results it is recommended to bring the bike to an Authorized Tuning Center to have them verify the AFR values.
- Make sure the sensor is not dropped or subjected to wet conditions. The O2 sensors used in this kit are a Bosch unit and do not come with any warranty.
- To verify that Auto tune is working you should see a real time AFR reading in the lower right hand corner of the software.
  A value of 9.99 could indicate a faulty sensor or the sensor wired incorrectly to the module.
  A value of 0.00 could indicate that the CAN termination plugs have not been installed or Autotune has not been enabled in the software.

O2 SENSOR TEST

- The Autotune kit has a built in circuit which allows you to test the sensor accuracy and condition.
- Remove the sensor from the exhaust system and hold in ambient air.
- Verify the Autotune kit has been powered up for at least 1 minute.
- Press and hold the function button on the front of the corresponding

  Auto tune kit for 3 seconds and release the button.
- The LED light will blink rapidly, pause for a moment, and then begin to flash.
- Count the number of flashes and refer to the chart.
- Retest the sensor if there is any question as to the purity of the air during the test.