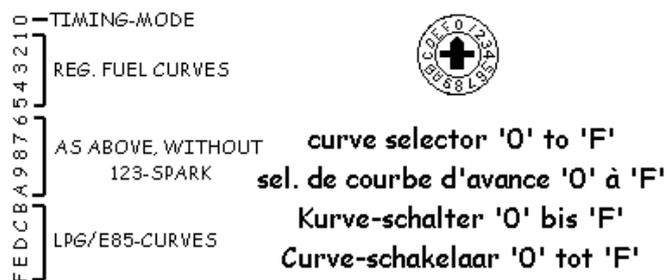


## Tuning instructions for the '123\DAKAR'

type : 123\DAKAR  
for : 2 cylinder 2CV-engines ( 6 or 12 Volt ; negative earth only )

The 123\DAKAR was used in the 2CV from Mehariclub-Cassis , that participated the Barcelona-Dakar 2005-ralley.

It is layed out in such a way, that you can tune your engine, to produce maximum power, and adapt it to the available fuel. For people driving on Ethanol ( E85 ) or LPG a full set of advance-curves is added too.



You can select the required curve, by opening the nut in the front of the 123-housing. Inside you will see a little switch, with 16 different positions. ( see figure above )

To further enhance the performance, the unit is equipped with a multispark-feature, called **123-Spark**, yet another innovation by 123-ignition ! Each revolution a series of sparks are generated, rather than just one. This improves combustion and lowers CO-levels at the same time. The engine will run much better at idle.

To top it off, the unit has idle-speed-control at 800 rpm and : idle-speed is automatically increased as long as the engine is cold.

For best performance, a brown 'VISA'-coil is recommended.

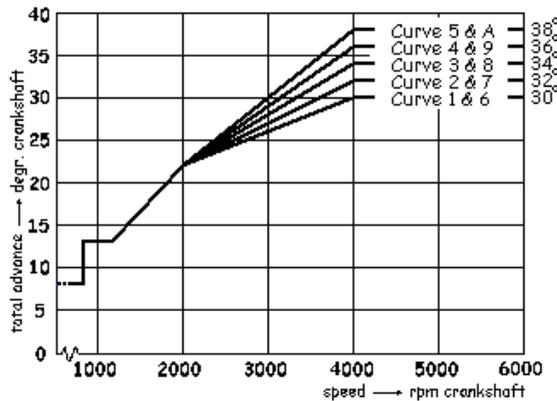
## **Installation**

You can follow the instructions for the standard 123\2CV in the booklet. Leave the curve-selector in position '0', during static time-setting. **In this mode the 123 does not produce advance at all, so you cannot drive your car with it.**

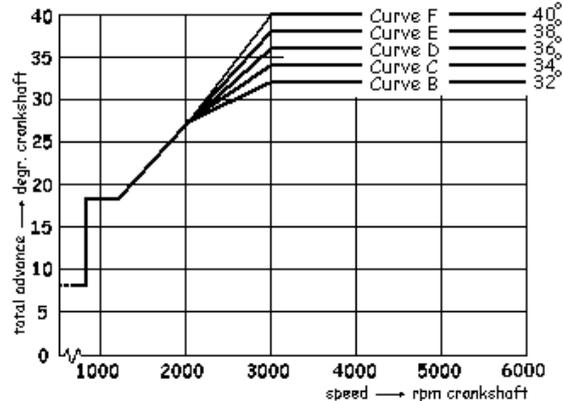
If you have installed the unit and the coil, you can start the engine, and you will notice that the **LED is flashing in mode '0' only**. This is done, to ease the setting of the switch : if you turn it with a little screw-driver, you can start counting in a clockwise direction.

## Tuning

Once the unit is installed properly, you can start tuning it for maximum power. Below you see the curves for regular-fuel and curves for LPG / ethanol(E85).



Regular-fuel-curves



LPG- & E85-curves

The procedure is as follows :

- Select curve 1, presumed you tune a car on regular fuel. ( For LPG/E85 you should start with curve 'B' )
- Drive it, until the engine is warm, and measure maximum speed at full throttle. Listen for any evidence of knocking. ( this is the easiest way to ruin your engine )
- Select curve 2, and measure maximum speed at full throttle again. If the maximum speed increases, select the next curve. If the maximum speed does not increase, return to the previous curve.

## Tips

- The **123-Spark** feature may sometimes interfere with rpm-counters. For this reason, the curves 6 to A are added : the are the same as curve 1 to 5 but without 123-Spark.

- Using a VISA-coil, results in much higher currents then with the stock black coil. Check for power loss over the ignition-key, and check ( **very important!!** ) the quality of the mass-cable. We recommend to run a separate wire from the 123-housing, to the minus of the battery.

- Ignition-leads are often tie-wrapped to the body of car. This is bad practice, certainly with this much improved spark-power. Keep the cables well away from mass or , even better , isolate them with a rubber hose around them.

- Be aware, that using other quality fuels then what you have used in the tuning process, may cause knocking. Keep your foot off the throttle when you detect this!

- Don't make the idle-setting of the carburetor too lean : with 123-Spark you are tempted to do so, as the engine keeps running on much leaner fuel.