

## Technical data "123ignition\UNI"

operating voltage range	4,0 to 15,0 Volts
temperature	100 - 7000 rpm
coil	-30 to 85 Celsius
engines	black coil ( 6 Volt type for 6 Volt battery, and 12 Volt type for 12 Volt battery )
	all STANDARD '2CV' A-modell engines, selectable by mode-switch see table below

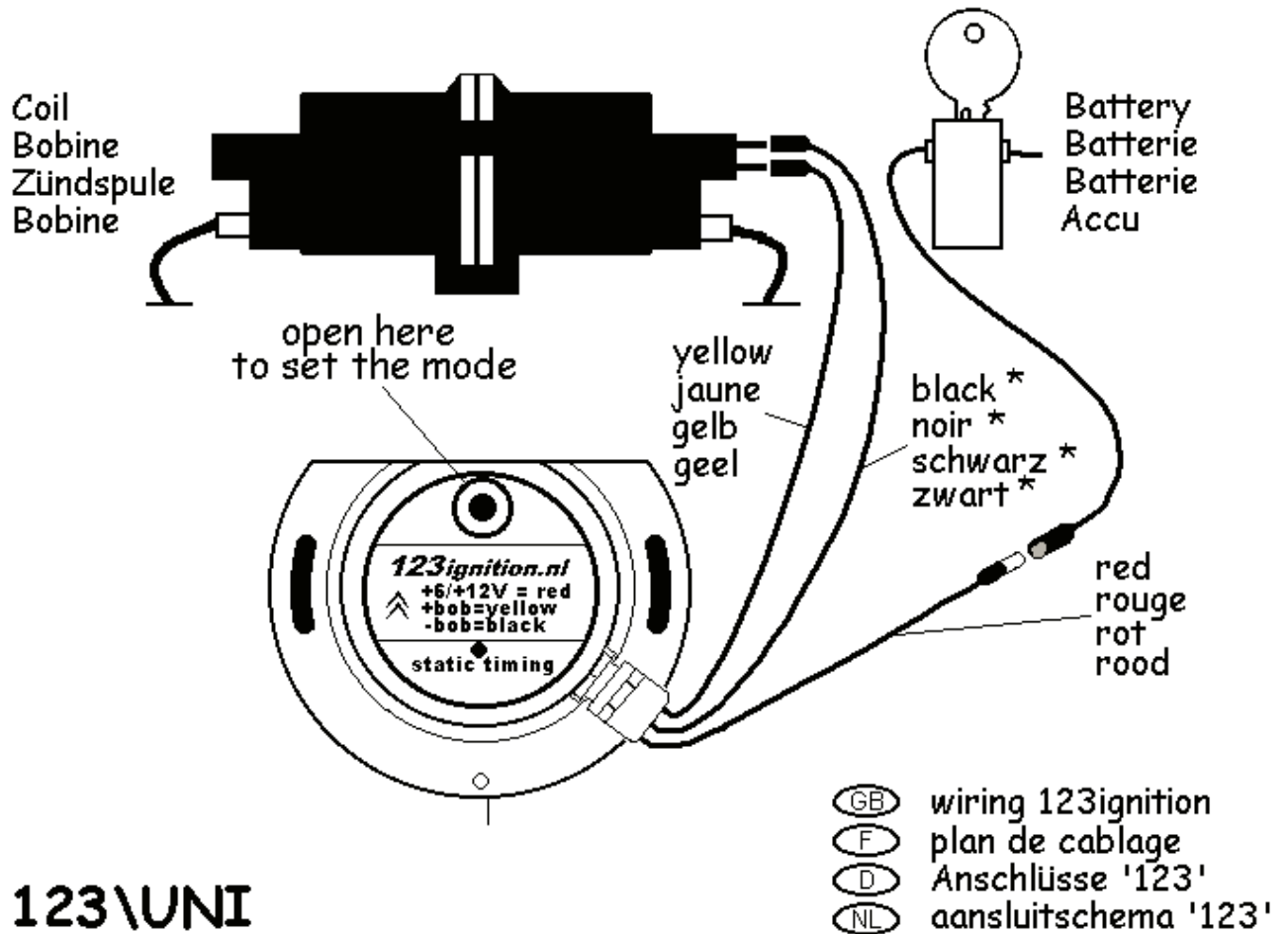
mode	engine plate	engine-type	static timing
'1'	"A"	9 hp, 375cc	12° bdp.
'2'	"AZ"	A53	12° bdp.
'3'	"AM"	M4	12° bdp.
'4'	"AYA"	A79/0	12° bdp.
'5'	"AM2"	M28	8° bdp.
'6'	"AYA2"	A79/1	12° bdp.
'7'	"AK2"	M28/1	8° bdp.
'8'	"A06/635"	M28/1	8° bdp.
'9'	"A06/642"	M28/1	8° bdp.
'A'	"AM2A"	M28/1	8° bdp.
'B'	"A06/664"	M28/1	8° bdp.
'C'	--	-	
'D'	--	-	
'E'	--	-	
'F'	see remark	M28/1	8° bdp.
'0'	timing mode (No advance , for easy stroboscope setting )		

remark :

This mode is ment for M28/1-engines running on LPG or on Ethanol, like 'E85' as used in Sweden. ('E85' contains 85 percent ethanol, and 15 percent standard fuel )

dwell	microprocessor controlled, depending of coil current
current-timeout	after +/- 1 second. If the engine is not running, the current is switched off to prevent overheating of the coil.
spark-balance	software controlled, better then half a degree (!) crankshaft
wiring	red = +6V resp. +12V yellow = '+' coil black = '-' coil

## Installation instructions for the "123ignition\UNI"



## 123\UNI

The "123ignition\UNI" is designed for STANDARD "2CV" A-models-engines ONLY !!  
To choose between the different advance-curves, the user can open the front of the housing, and select the curve of his choice by turning a rotary-switch indicated '0' to 'F'. ( see 'engines' above )

Install the unit as follows :

### STEP1

Turn the ignition off. Remove the engine fan, and the rubber shield behind it to gain access to the points box.

Note the two wires coming out of the front of the fan shroud. One runs to the oil pressure sending unit, the other one runs from the negative terminal on the coil to the terminal on the points box. Disconnect this wire from the coil and also from the points box. Do not damage or cut this wire. It may come in useful sometime in the future.

### STEP2

Remove the points box along with the capacitor. Set aside the two M7 bolts and square washers. Remove the metal protector plate to gain access to the centrifugal advance

mechanism. Carefully remove the circlip ring from the end of the camshaft so that you can remove the thrust washer, the centrifugal weight pivots and cam assembly. Put these parts in a ZipLock bag and store in a safe place.

### **STEP3**

Thoroughly clean the area, inspect the point where the crankshaft comes out of the block. If the cavity is caked with an excessive amount of oil and dirt, you may have an engine problem. After cleaning everything, slide the two magnets onto the 5mm spindles at the end of the cam shaft. Install the "123ignition\UNI" with the two M7 bolts and square washers. Leave the bolts a little loose so that you can still rotate the ignition unit in the housing. Align the dimple at the bottom of the unit with the seam of the crankshaft.

### **STEP4**

Run the three wires, (yellow, black and red) along the bottom of the fanshroud, and out through the rubber grommet in the front. Tuck the wires securely under the metal tabs inside the fan housing, and make sure they can not come into contact with the fan! Now pull the second wire off the coil (i.e. the wire that connects the positive terminal on the battery, through the ignition key, to the positive terminal on the coil). Connect this wire to the red wire coming from the "123ignition\UNI", using the connectors supplied with the kit. **DO NOT HOOK UP THE WIRES TO THE COIL YET!**

### **STEP5**

Insert the 6 mm timing rod (or a 6 mm drill bit) through the hole in the crank case. Turn the engine over by hand (removing the spark plugs makes this easy) until the rod slides into the hole in the flywheel. Your engine is now set at 8 or 12 degrees before TDC (Top Dead Center), depending on the engine-type.

Clean one of the teeth of the starter ring gear, and a small area opposite it on the block. The area next to the starter motor works well. With a fresh bottle of Whiteout, accurately paint a timing mark on the tooth and engine block.

Remove the timing rod or drill bit!

### **STEP6**

Turn the ignition on. Make sure the engine is set at 8 resp. 12 degrees before TDC. Turn the "123ignition\UNI"-housing counter-clockwise until the LED goes out. Turn it clockwise very carefully until the LED just comes on again. Tighten the two M7 bolts.

### **STEP7**

Check your timing as follows: Put a wrench on the fan bolt and turn the engine over slowly (clockwise!). The LED should light up at the exact moment when the timing marks you made are aligned. If this is not the case, repeat step 6.

### **STEP8**

Turn the ignition off. Hook up the yellow wire to the positive terminal on the coil. Hook up the black wire to the negative terminal on the coil. Use the connectors supplied with the kit. Make sure all your electrical connections are secure, a bad connection can cause a major problem in the future! Tidy up everything carefully, e.g. use tie-wraps.

### **STEP9**

At this point you can start your engine. For the ultimate precision, the timing should be checked with a stroboscope. Mode '0' is ideal for this, as it

does not advance at all, meaning that in this mode you should see the two timing marks perfectly aligned at all engine speeds > 800 rpm.

The fact that, when the engine is running, the LED flashes in MODE '0' only, may come in handy : e.g. turn the switch, until the LED comes on, and then turn clockwise until you arrive at the required curve.

If you prefer to select the required curve BEFORE installing the "123ignition\UNI", and then fine-tune with the stroboscope : between 800 and 1000 rpm, the two timing marks should be aligned, no matter what curve you have selected.

Now : Re-install the rubber shield, fan ( and spark plugs if you removed them ).  
Double check to make sure the fan does not touch the wires!  
Fire it up and enjoy your "123ignition\UNI" !

#### TIPS

- Do NOT disconnect ANY electric wire, when the engine is running. This is bad practice when using high-tech electronic systems, such as the 123ignition.
- Keep moist and dirt away from the front of the 123ignition. Always mount the rubber shield. Be aware that the opening in the front is closed properly.
- Time-setting can be done with the LED-only. For optimum accuracy however, the use of a stroboscoped lamp is recommended.