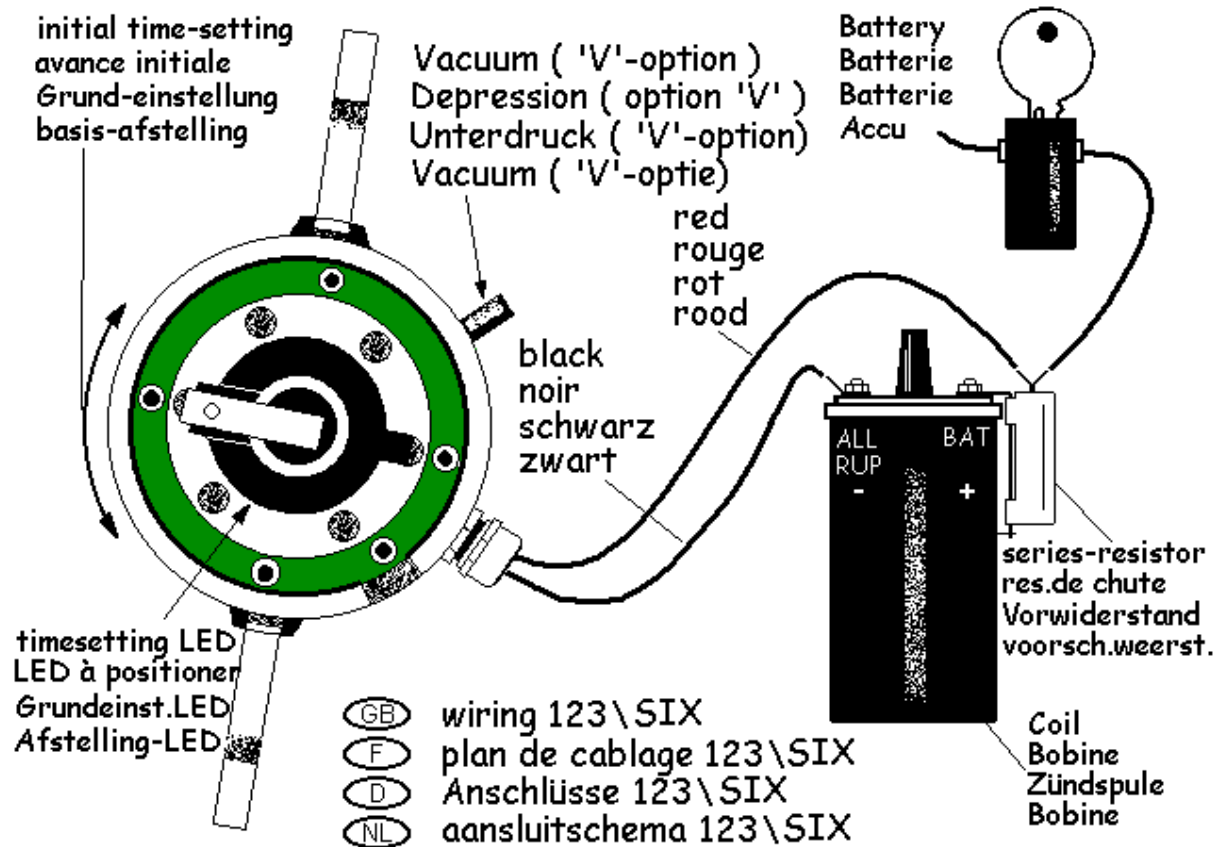


## Mounting instructions for the '123ignition'

type : 123\DS-R, 123\DS-A, 123\DS-R-V and the 123\DS-A-V  
 for : Citroen 4-cyl. injection engines in the ID/DS, HY and Traction



### IMPORTANT

Please read the entire instructions before you begin installation. If after reading you are unsure of the procedure to be followed, please ask someone who knows. Remember to work safely.

### STEP 1: Find the static timing point

On the old distributor, note the position of the ignition wire to the number one cylinder. Remove the distributor cap and turn the engine so that the rotor points to the number one cylinder position, as previously noted. Insert a 6mm (15/64 inch) pin or drill bit into the timing hole. Now carefully turn the engine until the pin engages the hole in the flywheel. The engine is now at the static timing point, near the end of the compression stroke for the number one cylinder. This point corresponds to 12 degrees before Top Dead Center. Make a direct connection between the 'minus' of the battery, and the housing of the 123\SIX, using one of the M5-trheaded holes in the 123\SIX. ( This is a MUST )  
REMOVE THE 6mm LOCATING PIN !!!

## **STEP 2: Mark the static timing point**

Now remove the spark plug wires and coil wire from the old distributor cap and remove the old cap.

Disconnect the points wire from the coil. Unscrew the hold down nut at the base of the distributor and pull the old unit out. Transfer the clamp plate from the old distributor to your new '123', and tighten the clamp gently so that the distributor can still be turned with some effort. Now remove the cap from the '123' and carefully insert the '123' in the hole, turning the rotor until the drive-gears mate and the unit falls into place. Rotate the housing of the '123' so that the cables come out conveniently.

If necessary, the drive gear can be repositioned on the shaft to accommodate a different rotational position. To do this, remove the '123' and carefully remove the retaining spring from the drive gear, then use a small punch to tap out the pin and reassemble at an angle more suitable to your needs.

## **STEP 2: Out with the old, in with the new**

Connect the red wire to the BAT-terminal of the coil, according to the schematic. For now, do NOT connect the black wire. Turn on the ignition.

Slowly turn the housing of the '123' counter clockwise, until the green LED just lights up. The LED shines through one of the four holes in the aluminium disc below the rotor. While turning, also press the rotor in a CCW direction, to remove any free play in the drive gear. With the '123' in this position, adjust and tighten the collar of the clamp plate so that the hold down stud is in the middle of the adjusting slot of the clamp plate. Finally, tighten the hold down nut securely, as it is also the electrical ground of the '123'. Turn off the ignition.

## **STEP 3: Static timing the '123'**

Connect the red wire to the BAT-terminal of the coil, according to the schematic. For now, do NOT connect the black wire. Turn on the ignition.

Slowly turn the housing of the '123' counter clockwise, until the green LED just lights up. The LED shines through one of the four holes in the aluminium disc below the rotor. While turning, also press the rotor in a CCW direction, to remove any free play in the drive gear. With the '123' in this position, adjust and tighten the collar of the clamp plate so that the hold down stud is in the middle of the adjusting slot of the clamp plate. Finally, tighten the hold down nut securely, as it is also the electrical ground of the '123'. Turn off the ignition.

## **STEP 4: Finish the wiring**

Connect the black wire to the RUP-terminal of the coil, according to the schematic. Do NOT remove the series resistor, if fitted! Connect the spark plug leads to the cap, starting with the wire for the number one cylinder at the position pointed to by the rotor of the '123'. Turning clockwise, the cables should be attached in firing order: 1,4,2,6,3,5 ( models <D> en <H> ).

Also connect the high voltage wire from the coil to the center position of the cap. Attach the cap to the distributor.

Keep the red and black wire away from the high voltage leads and away from moving parts, using tie-wraps or other suitable means.

## **STEP 5: Start and test drive**

DID YOU REMOVE THE PIN IN STEP 2? Then you can now start your engine. If you have worked accurately, your ignition should be adjusted well enough to take a test drive. To achieve ultimate accuracy a fine adjustment using a stroboscope could be performed.

Enjoy your 123ignition!

### **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.
- Sparks are much stronger with a 123ignition : use good quality sparkplug leads, and a good coil. The primary resistance should **not** be lower than 1 ohm.
- Resistor-core silicone ignition-leads are the better choice!
- Mistrust old coils : they all look alike, but you can't see if they have been overheated many times! Buy a new one, now you know that this one will not be overheated anymore...
- Replace the cap and rotor every 30.000 km. Here is ordering info :  
Bosch straight cap : 1.235.522.051, 1.235.522.060, 1.235.522.103,  
1.235.522.109, 1.235.522.147  
Bosch rotor: 1.234.332.024

### **Technical data**

Operating voltage range	4,0 to 15,0 Volts, negative earth only.
temperature	600 to 7000 rpm
coil engines	-30 to 85 degrees Celsius
dwll	stock coil, or "High Energy"-coil, primary resistance <b>not</b> below 1 ohm.
current-timeout	standard Citroen 6-cyl. engines as used in the Traction Avant, model <D> en <H>.
spark balance wiring	microprocessor controlled, depending on coil current after +/- 1 second. If the engine is not running, the current is switched off to prevent overheating of the coil
	software controlled, better than half a degree crankshaft
	red = +6 resp. +12 Volt
	black = 'minus'-pole of the coil