

Installation manual 123ignition PRV V6

Preparations

1. Leave the distributor cap on the 123ignition. Make a clearly visible mark on the housing of the 123ignition where cylinder 1 is. For example, with a black marker. Draw a line from cylinder 1 on the cap to the housing.
2. Remove the original distributor from the engine. Also remove the two ignition coils.
The order on the original distributor cap is different from the 123ignition's order, so you cannot leave anything from the original distributor in place.



Mounting of the 123ignition

1. Place a jack under the front right of the car and jack it up, so that the front right wheel comes off the ground. **Put the car in its highest gear.** This is necessary to turn the engine position via the front wheel.
2. Rotate the right front wheel until the TDC mark can be seen on the flywheel. Cylinder 1 is now at TDC. However, this could be either the compression stroke or the exhaust stroke. Check that the piston is in the compression position. The piston should now be at the top.

A trick to determine this is to remove the spark plug from cylinder 1. Place a fuel hose of outer diameter 10mm on the spark plug hole. Blow with your mouth on the other side of the hose. Is there a lot of resistance? That means the piston is in the compression position, and you can move on to the next step. Is there little to no resistance? That means the engine is on the exhaust stroke. Turn the wheel until the piston is at TDC again. Measure again by blowing to see if there is resistance. When the piston is at TDC and the cylinder is on compression stroke, you have found the right point. This point is marked on the flywheel.

3. Turn the wheel **counterclockwise** until the mark on the engine block near the flywheel is at the desired number of degrees before TDC (this is the static advance).
4. Remove the distributor cap from the 123ignition.
5. Place the 123ignition in the engine block, with the rotor pointing to your made mark on the casing. For this mark, see "preparations - step 1".

Don't fully tighten the ignition yet; make sure you can still turn the ignition housing. The wires will now point roughly forward and will not get in the way.

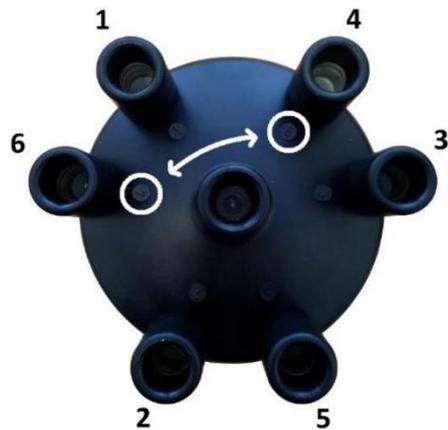
6. Fit the supplied ignition coil. This is a high-performance ignition coil, specially selected for the operation of the 123ignition with the PRV V6.



7. Connect the blue wire from the 123ignition to chassis ground / battery negative and the red wire to the plus (+) of the ignition coil (+12V from the ignition switch). Do not connect any of the other wires yet.

Adjusting the static timing

1. Turn on the ignition switch. The 123ignition is now powered on.
2. Slowly turn the housing of the 123ignition counterclockwise until the green LED lights up.
3. Now turn the housing slowly clockwise again. The green LED now turns off. **Continue turning slowly until the moment the LED lights up again. Stop exactly at this point.**
4. The rotor will again be pointing towards the cylinder 1 mark on the housing you made earlier.
5. Secure the housing. Make sure the housing can no longer rotate.
6. Turn the ignition switch off and connect the black wire to the other terminal of the coil (minus (-) of coil or RUP).
7. Mount the distributor cap to the 123ignition.
8. Fit the spark plug lead from cylinder 1 to connection 1. Fit the rest of the cables counterclockwise with the ignition sequence: 1 – 6 – 3 – 5 – 2 – 4.
Note: only use the number 1 on the distributor cap. The numbers on the cap of cylinder 6 and 4 are reversed.
9. Fit the coil cable from the coil to the centre terminal of the distributor cap.
10. Connect the green wire from the 123ignition to the car's tachometer wire. Ensure that no other wires are connected to this wire (like a wire for the fuel pump, for example). The signal could be disturbed to the extent that the tachometer no longer functions properly.
11. Put the car in neutral.
12. Turn the ignition switch back on. Do not start the engine yet.
13. Download the 123 Tune+ app if you haven't already, and connect to the 123ignition. Use the app to program the desired curve. In the app, press **Done** and then **Write** to write the curve to the 123ignition.
14. Start the engine.
15. Use a timing light and check the timing.



Tips

- Do not disconnect any wires from the 123ignition when the engine is running. This will damage the sensitive electronics.
- Make sure the ground connection (blue wire) of the 123ignition is good.
- Carbon core ignition cables are preferred to copper core ignition cables.

Technical data

Operating voltage:	8,0 – 15,0 Volt
RPM:	550 – 8000 RPM
Temperature:	-30 – 95 degrees Celsius
Coil:	A "High Energy" coil, primary resistance not lower than 1 Ohm.
Engine:	123ignition SM can be used in Citroen SM & Merak engines
Rotation direction:	Counterclockwise
Coil contact angle:	Adaptive angle; controlled by electronics
Coil current turn off:	After ± 1 second, to prevent coil overheating
Spark balancing:	Max 0,5 degrees crankshaft offset; controlled by microcontroller
Wiring:	Red = +12V Blue = power supply negative to chassis earth or battery negative Black = minus (-) of coil White = Bosch D-Jetronic injection output (pin 1) Yellow = Bosch D-Jetronic injection output (pin 3) Green = rev counter output
Vacuum connection:	When not needed, leave unconnected or add protective cap.

