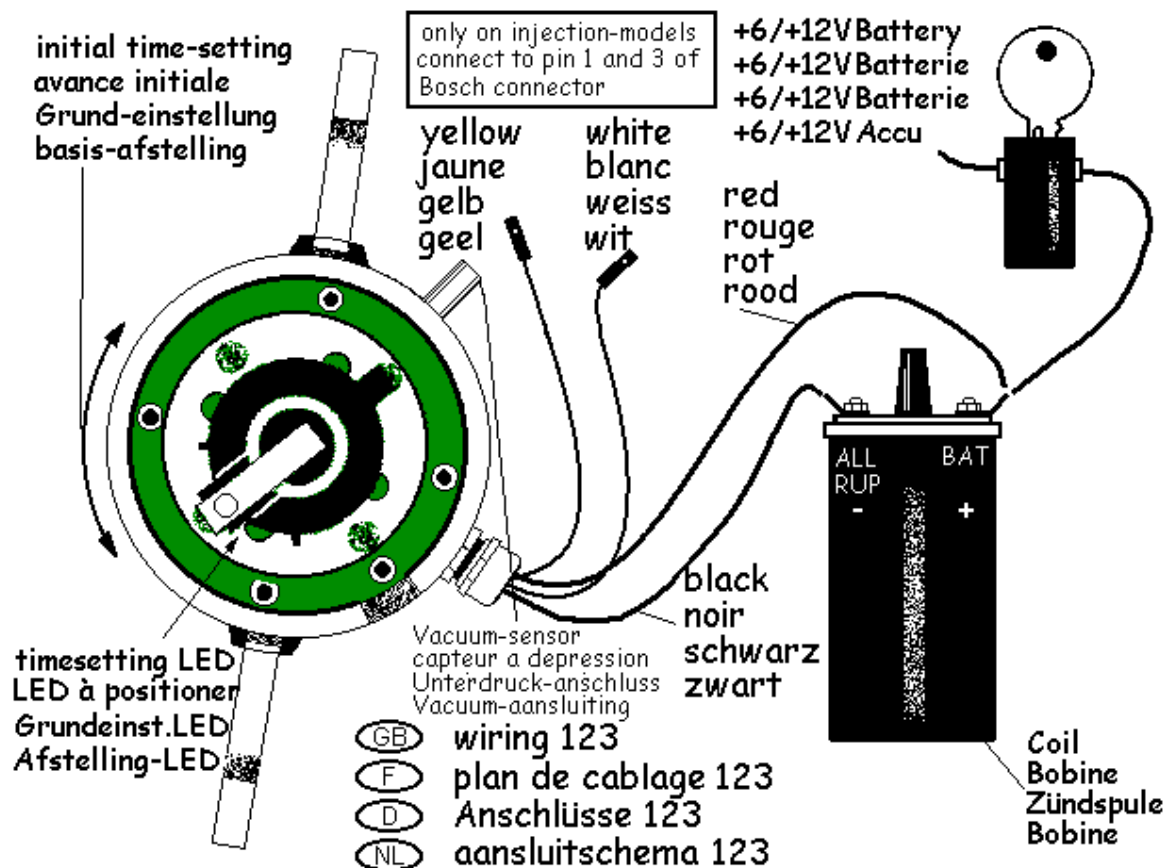


Mounting instructions for the '123ignition'

type : 123\LARO-4-R-V
 replaces : LUCAS 45D4
 for : Landrover 4 cyl. petrol, (6 or 12 Volt ; negative earth only)



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 in its normal direction so that the rotor almost points to the number one cylinder position. Now carefully turn the engine further until the static timing point is indicated on the pulley. The engine is now at the static timing point, near the end of the compression stroke for the number one cylinder.

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

Now remove the distributor-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 re-assemble at an angle more suitable to your needs.

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' in a clockwise direction, 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 clockwise direction, to remove any free play in the drive gear. Finally, tighten the '123' 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.

Connect the spark plug leads in the 1-3-4-2 sequence to the cap, starting with the wire for the number one cylinder at the position pointed to by the rotor of the '123'.

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 well away from the high voltage leads and away from moving parts, using tie-wraps or other suitable means.

Connect the vacuum-tube to the ignition.

STEP 5: Start and test drive

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 should be performed. (check the dynamic timing data in you workshop-manual) Don't forget to disconnect the vacuum-tube whilst fine-tuning.

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 then 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 will not be overheated anymore...
- Replace the cap and rotor every 30.000 km. Here is the ordering info :

Bosch cap ref. nrs. : 1.235.522.050 / 1.235.522.058 / 1.235.522.059 /
1.235.522.145 /1.235.522.167

Bosch rotor ref. nr. : 1.234.332.024

Technical data

operating voltage	4,0 to 15,0 Volts
range	600 to 7000 rpm
temperature	-30 to 85 degrees Celsius
coil	stock coil, or "High Energy"-coil, primary resistance not below 1 ohm.
engines	all standard engines
vacuum-advance	as specified for the original distributor
dwll	microprocessor controlled, depending on 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 = +6 resp. +12 Volt black = '-' of the coil