

**System 777599900****Advantages over the old system:****Alternator / electronic ignition Honda CB 125 T**

- Magneto lighting system with integrated fully electronic ignition. Light output 12V/150W DC (direct current). Electronic ignition with its own power supply within the system. Replaces the old alternator, breaker (or previous electronic ignition) and ignition coil.

- You will need to make a small modification to the casing. You will need to drill a 12 mm hole to route a cable outwards.

- You can run the system entirely without a battery

- All parts are new
- significantly brighter light
- Very reliable ignition with high-energy sparks
- better starting and better combustion
- No more wear on the breaker and centrifugal governor



<b>Installation instructions for system 777599900</b>	<b>15 May 2026</b>
<p><b>- If you are able to fit and adjust the original ignition system and have general mechanical skills, you can also fit a VAPE system. If you have never dealt with this before, it is better to have the system fitted by someone who is familiar with it.</b></p>	
<p>- VAPE is unable to monitor compliance with these instructions, or the conditions and methods relating to the installation, operation, use and maintenance of this system. Incorrect installation may result in damage to property or even personal injury. We accept no responsibility or liability for any loss, damage or costs arising from, or in any way related to, faulty installation, improper operation, or incorrect use and maintenance. We reserve the right to make changes to the product, technical specifications or installation and operating instructions without prior notice.</p>	
<p><b><u>IMPORTANT</u></b></p>	
<p><b><u>Please make sure you read the entire manual carefully before you begin installation</u></b>  Please note that unauthorised modifications, including attempts at repair, to the components may result in the loss of warranty rights. This also applies to cutting cables, which very often leads to the loss of reverse-polarity-protected connectors and, consequently, to short circuits or reverse polarity that can damage the equipment.  Please note the <b>information on the system information page</b>. Ensure that the system configuration shown actually meets the requirements of your engine. Incorrect ignition settings, for example, can certainly damage the engine and/or cause injury when starting (kickback from the kickstarter). Particular care is required during the first start-up after installation. If you notice any malfunction, check and adjust the ignition timing! During installation, check very carefully that the rotor is not rubbing against the stator coil or anywhere else, as this can occur for various reasons and lead to serious damage.</p>	
<p><b><u>Intended use</u></b>  - This is a <b>replacement system and not a copy of the original equipment</b>. The components of the system therefore look different from the original parts, and in particular the ignition coil and regulator may have different mounting points, requiring you to make adjustments. This system is intended <b>exclusively</b> as a replacement for original lighting/ignition systems in classic and modern classic motorcycles <b>whose engine characteristics have not been subsequently altered by design modifications</b>. It is not a tuning system; it does not alter the original engine characteristics and does not result in significantly higher engine power. However, it does improve the roadworthiness and safety of the vehicle through better lighting, clearer indicators, a consistently loud horn and, compared to the ageing original systems, greater overall reliability. As our systems do not cause any significant change to the engine characteristics, exhaust and noise emissions are not adversely affected. In most cases, exhaust emissions are likely to improve, as combustion is more complete.</p>	
	<p>- VAPE guarantees that its products are type-approved and marked with the letter 'E' (specifically 'E8' for the Czech Republic), ensuring that the product specifications consistently comply with the relevant ECE type-approval regulations (in particular ECE R10.05). Inspections are carried out regularly by the competent authority</p>
<p>- The charging system is strictly <b>intended for use only with rechargeable 12V (6V systems 6V) lead-acid batteries with liquid electrolyte or sealed lead-acid batteries, AGM, and gel</b>. It is not suitable for use with nickel-cadmium, nickel-metal hydride, lithium-ion or other types of rechargeable or non-rechargeable batteries.</p>	
<p>- The system is <b>not suitable for use at sporting events</b>.  The warranty will be void if the system is used for purposes other than those for which it is intended. Furthermore, the system may not perform as you require, and we will be unable to assist you via our support service as we will not be aware of the situation. In the worst-case scenario, improper use may even result in the withdrawal of the operating licence.</p>	

- **When fitting the parts, be sure to start with the engine-side components** (adapter, stator, rotor) to check that they actually fit before fitting the parts that are to be mounted outside the engine. Unfortunately, it is often the case that people start by fitting the regulator, ignition coil and, where applicable, the control unit, and these parts are very often modified (incorrectly!) in the process, which makes it impossible for us to resell them later. Unfortunately, replacing the lighting and ignition systems on old motorcycles is not like picking something off the shelf in a supermarket; given the wide variety of models and the possible changes to the parts since they were manufactured many years ago, it is always a complex matter that can, regrettably, also involve errors.

- Our systems have **NOT been tested for use with other electronic components (such as third-party ignition systems, sat-navs, mobile phones, LED lights, etc.)** and may cause damage to such components under certain circumstances. Any existing rev counters are not supported by the system. However, we do offer a rev counter solution. Similarly, any circuit breakers or ignition-controlled exhaust control systems are not supported. It may also be the case that your original ignition system had a speed-limiting device fitted for legal reasons. The new system does not have such a device. You should therefore check the legal situation beforehand.

- If you do not have the necessary expertise to carry out the installation, please have it done by a qualified professional or a specialist workshop. Incorrect installation may damage both the new system and the motorcycle, or could even result in injury to the rider.

- Before ordering a system, please check whether the **rotor puller** we recommend is included in the scope of delivery. If not, it is best to order it at the same time! If the rotor is damaged by the use of other tools or aids, the warranty claim will be void!

- The rotor is extremely sensitive to impact (e.g. including during transport). You must always check the rotor for any damage before installation. If the rotor has magnets that are not encapsulated, check that the magnets are securely in place by trying to push them sideways with your fingers. Following an impact, some of the glued-in magnets may have become loose and are now held in place solely by their magnetic force. This would cause serious damage to the system during operation. At the same time, please check the rotor's magnets for foreign objects (e.g. screws or other metallic objects).

- **If you have internet access, it is best to view this documentation online.** You can click on most of the images to enlarge them, and you will find more detailed and possibly more up-to-date information. System list available at: <http://www.powerdynamo.biz>



**You should have received this remote control:**

- Rotor
- Pre-assembled stator unit
- Regulator / rectifier
- Twin ignition coil
- Control unit
- Ignition cable
- Rotor screw / small parts
- Blue cut-off cable
- Rotor puller



- You can remove the new rotor using a puller M27x1.25 (order no.: 72 98 799 99). - **Included in the scope of delivery!!!**  
**It is important that you insert the supplied M6x65 screw into the shaft beforehand, as otherwise you will damage it. You will find a detailed description below**

- **CAUTION:** If you use a claw puller, the magnets in the rotor will come loose

- Ensure that your motorbike is stable and secure and that you have good access to the alternator.

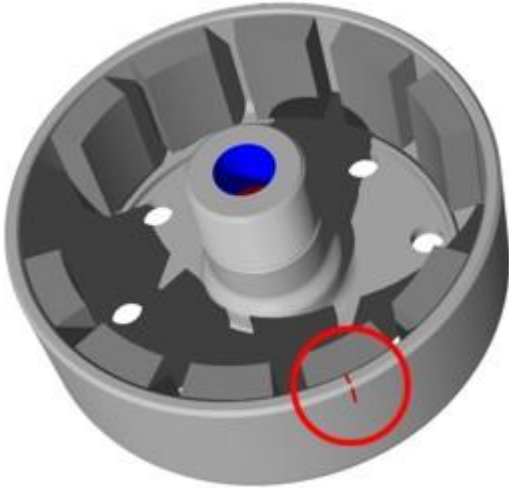


- Remove the old alternator. Pull off the old rotor.

- Remove the cables from the old alternator. They are no longer needed. Remove all parts of the old alternator from the engine cover.



- Remove the key from the crankshaft that fitted into the groove of the old alternator rotor. Don't worry, it has no retaining function; it is only intended to aid ignition timing. If you forget to remove the key, the rotor will not fit onto the shaft later and you will have to remove the stator again to access the key.  
**Don't worry:** provided the cone is correct, there is no risk of the rotor becoming loose or twisted unintentionally, as it is always held in place by the cone and never by the dowel pin.



- Take a look at the new rotor. You will find a laser-etched line around its circumference, which continues on the top in red. This is an ignition mark.

- Check the inside of the rotor for foreign objects (screws or other metal parts) that could damage the rotor and stator during operation!

- Note: the two missing magnets are used to trigger the ignition!



- Remove the spark plugs and move one (either one) of the pistons to top dead centre (TDC). As adjustment via the kickstarter is difficult, place the new rotor on the crankshaft (do not screw it tight) and use it as a handle to turn the crankshaft.

- Then place the casing back onto the motor and screw it on loosely. Now turn the rotor so that the ignition mark is roughly in the middle of the opening in the casing. Make sure that the piston remains at TDC!

- You must now remove the housing again and secure the rotor using the supplied M8 bolt and washer.



- Unfortunately, you will now need to remove the housing from the motor again in order to fit the new stator. To do this, loosen the three screws on the pre-assembled stator unit and lift the stator off the mounting plate.

- This allows you to thread the stator through the motor housing, as shown on the left of the picture. You can then screw the mounting plate into place from the other side.

- Please also take a look at the next three pictures!



- When screwing the stator back onto the mounting plate, please take care not to trap any cables between the stator and the stator seat!

- Also ensure that you screw the stator back onto the support plate in the same position (otherwise the ignition timing would be off by 120 degrees!).



- Loosely secure the mounting plate to the motor housing using the 3 M5x10 screws supplied. Then reattach the housing to the motor.

- By rotating the plate, you can now align the pointed tab on the plate (which also serves as a firing mark) precisely with the mark on the rotor. Tighten the mounting plate in this position.

- Finally, please check once more that the piston is at TDC and that the markings line up!

- This completes the basic ignition adjustment.



- There is only one way to route the cable from the stator to the outside.

- This is the only mechanical modification you need to make. It is best to do this before installing the stator unit.

- We recommend drilling a 12 mm hole in the underside and routing the cable outwards using the cable grommet supplied. Drill the hole as close to the outer edge as possible. This will prevent the stator cable from coming into contact with the rotor.

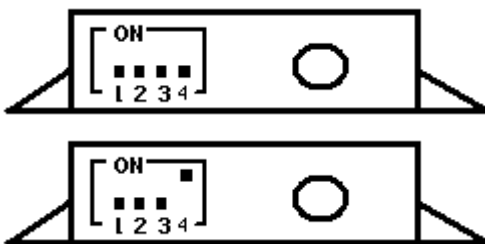


- To remove the new rotor, please use the puller supplied (item no. 72 98 799 99).

- It is important that you fit the M6x65 screw onto the shaft before attaching the puller.

**- Without this, you will strip the thread in the shaft!**

- Before installing the control unit, please check the four small switches. These are used to set the various ignition curves. The following ignition curves are suitable for the CB125:



**- Recommended curve:**

- from start-up to 1,200 rpm: 9 degrees advance, then linear up to 38 degrees at 3,000 rpm

**Alternative curve:**

- from start-up to 1,200 rpm: 8 degrees advance, then linear up to 34 degrees at 3,000 rpm



- This is what the engine looks like with the system fitted.

- The cable routing is clearly visible!



- Now secure the new ignition coil and the new regulator in a suitable position. It is best to attach them to the ignition coil's mounting bracket. Leave one of the ignition coil's retaining screws loose for now; a ground cable will be attached here later. Route the new alternator cable along the frame using the cable ties provided so that it ends at the same level as the regulator and ignition coil, alongside all the other cables. Ensure that nothing can rub against it.

Connect the cables as shown in wiring diagram 92ik102!	
<p>- Please note that we do not necessarily supply cables with lengths precisely tailored to this system. In practical terms, this is impossible, as we are not aware of your specific installation conditions, nor can we afford (in the interests of keeping system prices reasonable) to stock hundreds of different versions of stators, ignition modules, etc. (which differ only in cable length).</p> <p>- To make it easier to feed the cable through narrow openings, or indeed to make this possible in the first place, the connector on the cable leading to the new control unit has not yet been fitted to the terminals at the end of the cable. You should only connect the connector once the cable has been fed through the engine opening. To do this ...</p>	
	<p>... take the female connector from the control unit with the red and white wires.</p> <p>- Fit the loose 2-pin connector sleeve supplied onto this plug and insert the loose alternator cables (red and white) with their terminals into the back of the plug. Ensure that the cable terminals click into place inside the plug housing. It is essential to ensure that these cables are positioned correctly within the plug:</p> <ul style="list-style-type: none"> <li>• white to white</li> <li>• red to red</li> </ul>
<p>- If you want (or need) to remove the cables from the connector housing, it is best to use a straightened paperclip to push the barbs on the contact tabs to one side, so that the connectors can be released.</p>	
<p>- The brown cables from the alternator and the control unit, fitted with ring terminals, are screwed onto the ignition coil's earth terminal (retaining clip). The system will not work without these connections! Please do not rely on the frame's earth connection. Paint, dirt and oil residues often prevent a good earth contact at the coil.</p>	
<p>- The blue/white cable from the control unit – the cut-off cable.</p> <p><b>- Note:</b> If you experience ignition problems, disconnect this cable first (pull the plug). In most cases, you will then be able to continue your journey</p>	<p><b>- If it is connected to earth, the ignition will cut out!</b></p> <p>- We use this circuit configuration in vehicles that were originally fitted with magneto ignition (magneto rotor) and therefore also shut down when short-circuited to earth.</p> <p>- These vehicles have a terminal on the ignition switch (on German vehicles: terminal 2) which is connected to earth when in the 'OFF' position. The blue/white cable is connected to this terminal. This ensures that the ignition is switched off in the same way as before.</p> <p>Alternatively, a separate short-circuit (kill) switch can be used.</p>
<p>- The green or grey cable from the control unit ...</p>	<p>... is connected to the plug on the new ignition coil.</p>

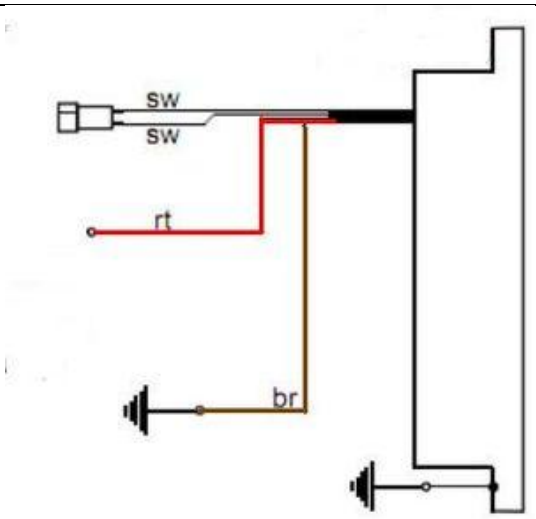
**- WARNING!** If possible, DO NOT extend the green cable from the control unit. This can lead to ignition faults.  
Under no circumstances should you route the ignition cable(s) and the control unit cable(s) together in a shared sheath or otherwise run them parallel to one another over a long distance. This leads to feedback and consequently to ignition faults, and in some cases may even destroy the control unit.

**Connecting the alternator to the lighting circuit:**


- The two black cables coming from the alternator supply power to the lights, horn, indicators, etc. They have nothing to do with the ignition.
- This voltage must be stabilised (regulated) and, for most applications, rectified, as it is initially alternating current.

**Warning:** Any **mix-up of positive and negative terminals** will result in **immediate destruction of the regulator, which is not covered by the warranty!** (You can clearly tell it has been destroyed by the smell of burning!)

**Regulator:** DC regulator with built-in smoothing capacitor (73 00 799 50):



- **The regulator of this system:** has a built-in smoothing capacitor which ensures that the indicators and horn work properly whether or not the battery is connected:

- the two black cables are connected to the black cables coming from the alternator
- the red cable is the 12V DC output
- the brown cable is the negative terminal and is connected internally to the regulator housing

- The high-voltage cable (ignition cable) ...

Please **do not use** 'Nology Super Cables' ('hot wire'). These cause interference in VAPE systems and can damage the electronics

... screw them into the ignition coil and fit the rubber cap over them. This is, of course, easier if you do this before fitting the coil to the bike. Please also use the ignition cable supplied and not an old, unknown cable.

- You'll be doing yourself a favour if, at this stage, you fit your motorbike with new spark plugs and new plug leads (preferably with 1–2 kiloohms, but no more than 5). More than enough faults can be traced back to 'seemingly good' cables, plugs and leads (including brand-new ones)!

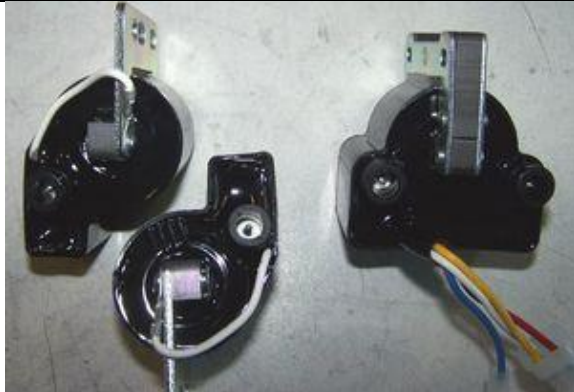
- **Do not use** spark plugs with an internal suppression resistor **in conjunction** with suppressed spark plug caps (this results in double the resistance). Always use only one suppression method.



- With our dual ignition coils, both outputs go to the spark plugs and only then to earth via them.

- The typical resistance between the two outputs is 6.2 k $\Omega$ . Both channels always fire simultaneously (which, incidentally, is the case with many ignition systems and poses no problem). However, the spark phases are offset by 180 degrees on each side, which must be taken into account when taking measurements with a stroboscope.

- The ignition will only work properly if both spark plugs are connected to the coils. This means you cannot even remove one spark plug to test it. This is because each output draws its ground via the spark plug of the other output. If you really only want to test one side, the other coil output must be connected to ground. The circuit then functions like a single-output ignition coil (see above). If the current flow on one side is interrupted, either nothing happens at all, or the system draws ground from the nearest point. This often results in sparks flying around the ignition coil. Anyone who genuinely requires two separate outputs must use two individual coils.



- Alternatively, we offer two individual coils that are operated in parallel. With this setup, it is possible to test just one cylinder at a time. The other coil is simply disconnected.

- Finally – **before fitting the battery and before the first start** – please take your time to check all fixings and wiring. Remember to replace all bulbs from 6 to 12 volts. Also remember that from now on you will need a 12V battery. The horn can remain on 6 volts.

- If the system does not work straight away, please consult our troubleshooting page. As a first step, disconnect the blue cable between the relay and the ignition coil (unplug the connector); most faults are hidden in the switch-off area.

- **IMPORTANT:** Please note that if **the crankshaft** has been (previously) **reconditioned**, its alternator journal may have been over-machined and is therefore shorter. This causes the rotor to sit lower, which can result in contact between the rotor (the rivets are the lowest point) and the stator coil. The result is a damaged stator and consequently a loss of ignition.

**Important safety and operating instructions – YOU MUST read and follow these in full!**

- Observe the safety instructions and requirements prescribed by the vehicle manufacturer and the automotive trade. Installation requires specialist knowledge.

The ignition markings applied to the material are for guidance only during installation. After installation, please check the correctness of your settings using suitable methods (stroboscope) to rule out damage to the engine or risks to your health. You are solely responsible for the installation and correct adjustment.

- Caution : Ignition systems generate high voltage – risk of fatal injury! Our ignition coils can reach up to 40,000 volts! If handled carelessly, this can not only cause severe pain but, more importantly, be harmful to the heart! People with pacemakers should not carry out any work on ignition systems. Always maintain a safe distance from the electrode and exposed high-voltage cables, and during testing, press the spark plug connector firmly to earth using an insulating object to safely discharge the voltage.

Never disconnect a spark plug cap to synchronise the carburettor! Never disconnect or touch the ignition cables whilst the engine is running or at starting speed. Only wash the vehicle when the engine is switched off.

- If your VAPE ignition cable was supplied with rubber spark plug connectors attached (*which do not have a built-in suppression resistor*), please use spark plugs with a built-in resistor (*to comply with local laws regarding electromagnetic compatibility requirements*). Alternatively, replace the cable(s) with standard ones and use shielded spark plug connectors (*under no circumstances, however, should you use suppressed spark plugs AND suppressed spark plug connectors at the same time. This would lead to interference, particularly difficulty in starting the engine*). The total resistance of the spark plug-spark plug connector combination should not exceed 5 kΩ.

- Remember that spark plug caps age and their resistance increases as a result. If an engine only starts when cold, the cause is almost certainly a faulty spark plug cap or a faulty spark plug. Do not use so-called spark-boosting cables (e.g. Nology).

- After installation, please ensure you check that all retaining screws are tight. If the parts become loose, they will be damaged. We only tighten the screws loosely during pre-assembly!

- First of all, give the system you've just installed a chance to fire up before you start measuring and testing everything. Please also follow our instructions on how to check for a spark. All our parts are tested before dispatch. In any case, there is little you can measure on them. Under no circumstances should you attempt to measure the electronic components (including the ignition coil, except for its high-voltage output). You risk damaging them and will still not obtain any useful results!

Bear in mind that if the engine does not run straight away, this is often due to the carburettor, the intake rubber and, above all, the spark plug caps and spark plugs (unfortunately even brand new ones); usually, the settings need to be adjusted after installing a Lima alternator. If the system does not run straight away, check the earth connections first and foremost, particularly between the chassis earth and the engine block.

Before you remove the parts again and send them to us for testing, please check our knowledge base to see if there is already an answer to your problem there. If not, please use our service ticket system to request specific assistance.

- If you have a system with a dual ignition coil, please note a few specific features of this coil. The ignition will only work properly if both spark plugs are connected to the coil. This means you cannot simply remove one spark plug to test it, as each output is grounded via the other spark plug. If you really only want to test one side, the other coil output must be grounded.

- The spark produced by traditional breaker systems has a low energy level of around 10,000 volts and therefore appears thick and yellow. The spark produced by our systems is a high-energy spark of up to 40,000 volts and is therefore very sharply focused and blue, which makes it less visible. Furthermore, the spark is only generated once the engine has reached a certain speed following the kick-start. Simply pressing the kick-start lever by hand does not produce a spark.

- Most of our systems combine the ignition and alternator functions. You can tell this by the presence of a regulator. Apart from the voltage output by the regulator, there is little else you can measure on it. If you are not getting any power, check the earth connections and the wiring from the regulator to the ignition switch first and foremost. This important connection is often cut and overlooked during installation! Most PD systems have DC regulators/rectifiers. However, there are also AC regulators, which have specific features that need to be taken into account.

- Never carry out electrical welding on the vehicle without first completely disconnecting all electronic components containing semiconductors (regulator, ignition coil and control unit). The stator and rotor do not need to be removed. Only solder using equipment operated via series transformers, or unplug the soldering iron before soldering to prevent damage to the components caused by overvoltage. Never use copper paste on connectors or spark plugs.

- Electronic components are sensitive to reverse polarity. After carrying out any work on the system, always check that the battery is connected correctly and that the wiring is correct. Reverse polarity and short circuits will immediately destroy the control unit and the ignition coil! As a general rule, wires should always be connected colour-to-colour. Any exceptions are explicitly stated in the instructions. Damage caused by reverse polarity is not covered by the warranty.

- When assembling the rotor, please take care not to damage the magnets. Avoid applying direct mechanical force to the rotor. **Never place the stator inside the rotor when transporting the generator**; please follow our shipping instructions (packaging).

- Lightly oil the outside of the rotor; otherwise, it will rust quickly in the harsh environment (which is not harmful, but looks unsightly).

- Never use a claw puller or a hammer to remove the rotor. This may cause the magnets to come loose. Always use only a screw-in puller M27x1.25 (see installation instructions).

- If your vehicle is not going to be used for a prolonged period, you should disconnect the battery (if fitted) to prevent any slow discharge via the rectifier diodes. However, even with the battery disconnected, you will notice that it has discharged after a long period of time; this is normal.

- Please take note of these instructions, but don't let them unsettle you. Thousands of customers have already successfully installed our systems before you.

***Good luck and enjoy your drive!***

