Powerdynamo brings new ignition & light to your vintage motorcycle

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Assembly instructions for magdyno:

71 97 999 20 (Lucas twin)
71 97 999 10 (Lucas single)
71 95 999 20 (Bosch twin)
71 95 999 10 (Bosch Single)

Version 11.09.2017

IMPORTANT:	Please read these instructions fully before starting work on your bike or any modification on the supplied system. Also, please note the remarks on the information page for this system.
	If you have no expertise for the installation have it done by an expert or at a specialist's workshop. Improper installation may damage the new system and your motorcycle.
Powerdynamo can not monitor the compliance to those instructions, nor the conditions and methods of installation, operation, usage and maintenance of the system. Improper installation may result in damage to property and possibly even bodily injury. Therefore we assume no responsibility for loss, damage or cost which result from, or are in any way related to, incorrect installation, improper operation, or incorrect use and maintenance. We reserve the right to make changes to the product, technical data or assembly and operating instructions without prior notice.	
Internet	If you have access to the Internet, see those instructions online. You get larger and better pictures by clicking onto them and possibly updated information. System list at http://www.powerdynamo.biz
Check packing and rotor!	The magdyno is sensible to blows during transport. We therefore double pack the material (box inside box). Should the system have been despatched to you via a reseller and arrive not packed like this, please inform us. **The charging system is only suitable for use with rechargable 12V lead-acid batteries** with liquide electrolyte or sealed lead-acid batteries, AGM, Gel. It is not suitable for use with nickel-cadmium, nickel-metal-hydride, lithium-ion or any other types of recharchable or non rechargable batteries.

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First of all, make sure that the unit is suitable for your application. You should consider the following points:

- unit is driven at camshaft speed (half crank speed)
- Lucas Version: shaft height is 44.6mm (without the adapter steel base 38mm)
  Bosch Version: shaft height is 38mm
- shaft taper is 5°42'38'' (1:5), this is normal for most Magdynos
- fastening is by band clamp or screws on an even platform (no flange mount)
- if a battery is used, it must be 12V and must be connected with its negative terminal to ground (Never with the positive, even if the original system was!)
- single cylinder or (if equipped with a twin coil) parallel or flat twin engine (not V)

	Important safety and operating information
#	Safety first! Please observe the general health and safety regulations motor vehicle repair (MVR) as well as the safety information and obligations indicated by the manufacturer of your motorcycle.
#	Ignition systems generate high tension! With our material right up to 40.000 Volts! This may, if handled carelessly, not only be painful, but outrightly dangerous. Please do keep a safe distance to the electrode of your spark plug and open high tension cables. Should you need to test spark firing, hold the spark plug socket securely with some well insulating material and push it firmly to solid ground of the engine block to earth the output.
#	After installation, please check tightness of all screws. If parts get loose during run, there will be inevitably damage to the material. We pre-assemble screws only loosely.
#	Give the newly installed system a chance to work, before you start to check and test values, or what is worse is to apply changes to customize the firing point before running the system. Our parts have been checked before delivery to you. You will not be able to check much anyway. At any rate do refrain from measuring the electronic components (such as ignition coil, regulator and advance unit). You risk severe damage to the inner electronics there. You will not get any tangible results from the operation anyway. Bear in mind that also your carburettor and your spark plugs and spark plug sockets might be the reason for malfunction. The general experience with our systems is that the carburettor will have to be re-adjusted to lower settings. Should the system not start after assembly, first disconnect the blue cut-off wire directly at the ignition coil (or in some cases advance unit) to eliminate any mistake in the cut-off circuitry. Check ground connections carefully and, to be on the safe side and for testing, put an additional ground wire from the regulator directly to the engine block.
#	The spark of classical, points based ignition systems has with about 10,000 Volts with little energy and looks therefore yellow and fat (hence it's visible). The spark from our system is a high energy spark with up to 40,000 Volts and therefore very sharp (needle thin focused) in form and blue in colour, which makes it not so well visible. Furthermore you get spark only at kickstart operated speeds and not by pushing the kicklever down slow with your hand (as you might get on classic systems).
#	Systems using a twin outlet ignition coils have a few percularities. Please observe that during tests on one side, the other has either to be connected to an fitted spark plug or securely earthed. Otherwise there will be no spark on either side.
#	Never do electric arc welding on the bike without completely disconnecting all parts containing semiconductors (ignition coil, regulator, advance). Never use copper putty on spark plugs.
#	Electronics are very sensitive to wrong polarity. After work on the system, do check correct polarity of the battery and the regulator. Wrong polarity creates short circuits and will destroy the regulator, the ignition coil and the advance unit. As a rule, wiring will always be colour to colour. Instances, where colour differs between wires are expressly mentioned in our instructions.
#	Do not use spark plug sockets with a resistance of more than 5kOhm. Better use 1 or 2kOhm ones. Bear in mind that spark plug sockets do age and thereby increase their internal resistance. Should an engine start up only when cold, a defectice spark plug socket and/or spark plug is very probably the cause. In case of problems check high tension cables too. Never use carbon fibre HT-cables.
#	Should the motorcycle not be in use for some longer period, please disconnect the battery (so existing) to prevent current bleeding through the diodes of the regulator. Though, even a disconnected battery will empty itself after a while.
#	Please do observe these remarks, but at the same time, don't be afraid of the installation process. Remember, before you, that thousands of other customers have successfully installed the system.

Enjoy driving your bike with its new electric heart!