M731959900

System 73 19 599 00
=> €/$

Generator/electronic ignition for ISH Jupiter 5 replaces stock 6V system (stock 3-phase generator mounted with 3 screws)

Needs original 3-phase generator as base!
Fully electronic, solid state ignition. Replaces points or other electronic ignition.
There is no need for changes on engine casing. You need a **working battery**.

Advantage over original system

- all parts are new
- very stable ignition with solid spark
- better starting, better fuel burning

Documentation

- assembly instructions
- wiring diagram
- parts in the pack (photo)

Assembly instructions for ignition 73 19 599 00

Version 08.11.2016

If you can install and time a stock ignition and possess basic mechanical skills, you can install a VAPE system!
If you never have worked on your ignition, better have it done by someone who knows.

VAPE 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.

IMPORTANT:

Please read these instructions fully and carefully before starting work on your motorcycle. Please bear in mind that any **modification of the material as well as own repair attempts** which have not been agreed with VAPE may result in a loss of warranty. Do not cut off wires. This leads to a loss of reverse polarity protection and often results in damage to electronics. Also, please take note of the information provided on the information page for this system. Check that what you have bought really corresponds to the motorcycle you have. Wrong ignition settings may damage your engine and even hurt you during kickstart (violent kickbacks). Be careful during the first test runs. If needed change settings to safer values (less advance).

Designated use

This system is designated to replace stock ignition systems in vintage and classic motorcycles whose engine characteristics have not been modified aftermarket. This system is not a tuning system and it will not bring significant increases in engine output. It does however significantly enhance roadworthiness and road safety by offering increased reliability compared with the aging stock systems . As our systems do not tamper with engine characteristics they do not increase emission of gassous pollutants and noise. In most cases emission of pullutants should be even reduced due to better combustion.
If used as designated the system therefore will not normally infringe the existing legal status of the motorcycle (this statement is valid for Germany, as this situation might be different in other countries, please consult your local road licencing regulations). This system is not suitable for use in competition events. If used other than designated warranty is voided and it might well be that you do not obtain the desired results. In worst cases use not in accordance with designated use might entail legal roadunworthiness.

During assembly imperatively start with assy of engine based parts to see that those really fit before you start fitting the external parts. In many cases customers assemble those first and thereby often modify them in breach of warranty which renders them unfit for renewed

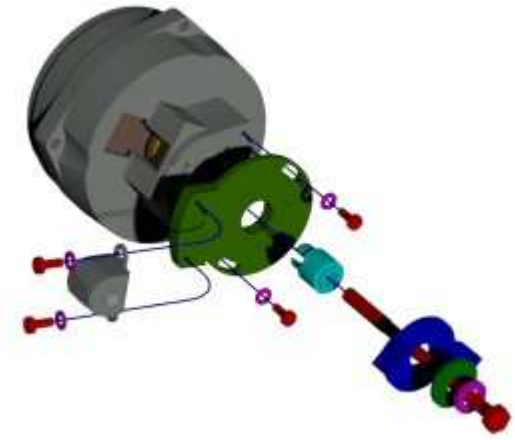
	sale. Replacing old ignition systems is not a matter of taking something from a supermarket shelf as there have been very many types, versions and possibly unknown aftermarket modifications which harbour plenty of room for error.
	Our systems are NOT tested for use with other electronic devices (such as GPS, mobile phones, other 3rd party material.) and may cause damage to such parts. Possibly existing electronic tachometers will not work with the new system. Possibly existing safety switches and electronic valve controls are not supported. It might be that your motorcycle was originally equipped with an ignition that did limit top speed for legal reasons. The new system does not have such a facility, so check your legal situation beforehand
	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.
Internet	If you have access to the Internet, best view those instructions online. You get larger and better pictures by clicking onto them and possibly updated information. System list at http://www.powerdynamo.biz

You should have received those parts

Note, that the sensor module is only loosely fixed at the base plate, as it has to be adjusted by you.
Disconnect the battery and better take it off the bike for the time of work to prevent shortcircuits.

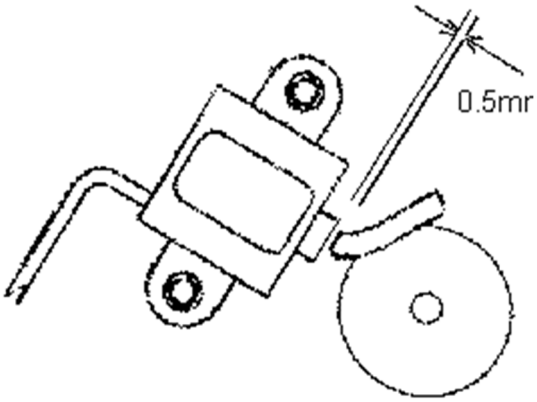
Disconnect the wires from the old dynamo.Remove the original ignition coils.

Unscrew the rotor bolt and take this long screw M7 off. Rotor ans stator housing however remain in place.
Take the cam (or whatever rotor arrangement for any electronic ignition you might have there) off.
Take the points plate and the condenser off. From the parts taken off, you will only need the long screw M7.



Now place the new holder plate with the sensor onto the generator, same place points had been sitting.
Fasten with the screws M4x10 for the points.
Place the new cam on the rotor.

Place the new rotor disc onto the rotor (in place of the cam).
Put the supplied socket on the long screw M7 and screw it back into the rotor. Fasten the screw only loosely



Position of rotor finger at moment of ignition.

Now, all is fixed and you may set timing. Note, that you cannot check with a simple light, as you did before on points. **Never use this light check on electronic ignitions, you kill the electronics.** He, who is not happy with the below described method should get himself a stroboscope to check.

Take the spark plug out and bring the piston into top dead center position (TDC). Turn the crank shaft anticlockwise, so that the pistons falls by nearly 3mm (2.75 to be precise). There are special tools to help you, but a simple pencil and good eyesight will equally do.

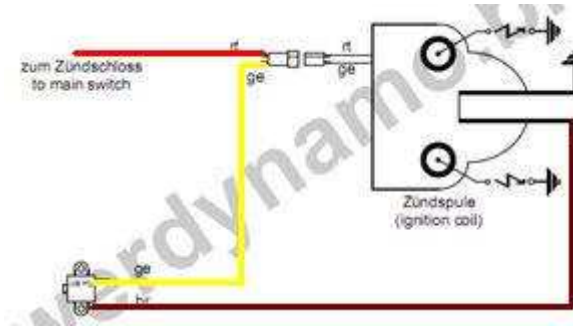
Hold that piston position and shift the sensor holder plate in such a way that the top left corner

of the finger of the new rotor aligns with the pin of the sensor. In that position fasten the sensor plate.

Check the gap between the sensor and the finger of the rotor. This has to be 0.4-0.6mm. To change that, loosen the 2 sensor screws and shift it. Tighten the screws afterwards carefully! Tighten, even if by chance the gap was correct from start.
Note: A loose sensor will come into contact with the rotor and get destroyed!

Fasten the new ignition coil on the rear right tube, directly in front of where the old coil had been fixed to the frame of the ISH

Do not forget to put the ground wire to the coils metal frame. **Without this ignition will not work.**



The red wire of the new coil will be conected to the red/black wire, that did run before to pin 15 of the old coil (arriving from the main switch).
Brown (ground) connects the ignition coil to the sensor.

NOTE: Any (even the briefest) confusion between the yellow and red wire of the coil will destroy it on the spot.
The same is true for any mixup in connecting the battery. Never connect the batterie's plus to the frame.

If the ignition is bad (stutter, do not turn up), please check the magnetic field direction of your ISH alternator.
To do that, you have to start the motorcycle - something that hopefully is still possible at that stage, switch on the headlight and run the engine at about half speed (stationary!).
Now hold a compass (any simple type will do) against the right side of the engine (the dynamo cover may stay in place).

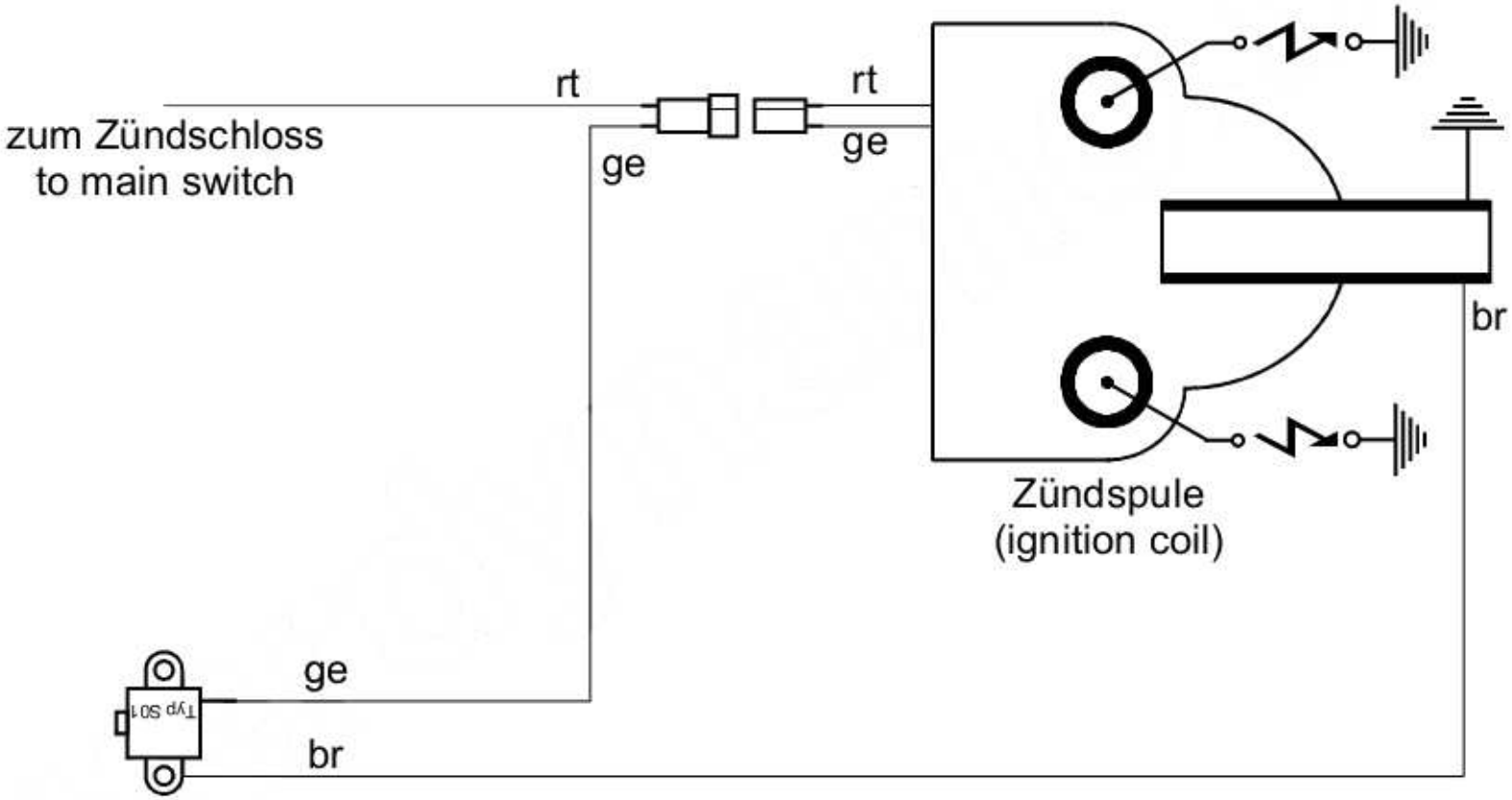
If the needle is pointing to the motor, the system is correct, the needle is away from the motor, the magnetic field is interchanged, and you need to exchange the two cables leading to the abrasive carbon of the rotor.

	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. The timing marks on the material are for general guidance only during first installation. Please check after assembly by suitable means (stroboscope) that settings are correct to prevent damage to the engine or possibly even your health. You alone are responsible for the installation and the correctness of settings.
#	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. Never pull sparkplug caps when engine is running. Wash your vehicle only with engine at standstill and ignition off.
#	Should you have received in the kit HT cables with a fixed rubber boot(which does not contain a resistor) you might have to use spark plugs with an inbuilt resistor (or replace the cap with one containing a resistor) to comply with your local laws.
#	After installation, please check tightness of all screws, even those preinstalled. 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 apply changes to it. 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 carburetor, your

	spark plugs and spark plug sockets (even if completely new) might be the reason for malfunction. The general experience with our systems is that the carburetor will have to be re-adjusted to lower settings. Should the system not start after assembly, first disconnect the blue (or blue/white) cut-off wire directly at the ignition coil (or in some cases advance unit) to eliminate any malfunction in the cut-off circuitry. Check ground connections carefully, make sure there is a good electrical connection between frame and engine block. In case of troubles, please consult our Knowledge Base first before you send off the material to us for checking
#	The spark of classic, points based ignition systems has with about 10,000 Volts comparatively little energy and looks therefore yellow and fat (which however makes it highly visible). The spark from our system is a high energy spark with up to 40,000 Volts and therefore is needle thin focused in form, and blue in colour, which makes it not so visible. Furthermore you get spark only at kick-start operated speeds and not by pushing the kick-lever down slowly with your hand (as you might get with battery based ignitions).
#	Systems using a twin outlet ignition coils have a few peculiarities. Please observe that during tests on one side, the other has either to be connected to an fitted spark plug or securely earthed/grounded. Otherwise there will be no spark on either side. Also with such open exits long and dangerous sparks may fly all over the coil.
#	Never do electric arc welding on the bike without completely disconnecting all parts containing semiconductors (ignition coil, regulator, advance) stator and rotor need not be taken off. The same is true for soldering. Before touching electronics disconnect the soldering iron from mains! 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 jumps between wires are expressly mentioned in our instructions.
#	When you handle the new rotor, take care not to damage its magnets. Refrain from direct blows to the circumference of the rotor. **When transporting never put the rotor over the stator.** Observe our information relative to transport of the material.
#	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 defective 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, never use so called "hot wires" which promise to increase spark.
#	It is a good idea to cover the rotor in a thin layer of oil to reduce the risk of corrosion.
#	Never use a claw puller or a hammer to disengage the rotor. Its magnets might become loose in the event. We offer a special puller for disengaging the new rotor again (see assembly instruction)!

#	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, that before you, thousands of other customers have successfully installed the system. ***Enjoy driving your bike with its new electric heart!***

Schaltplan 7080
(wiring diagram)



Kabelfarben
(wiring colours):
bl = blau (blue)
br = braun (brown)
ge = gelb (yellow)
gn = grün (green)
gr = grau (grey)
rt = rot (red)
sw = schwarz (black)
ws = weiß (white)