Krober Ignition Installation

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Mounting the stator and rotor

Mounting the Krober MC ignition is usually done in the normal place on the crankcase. On 4 stroke engines in certain conditions the system may be mounted on the camshaft area if the minimum open space is available.

A hard aluminum alloy plate at least 5mm thick should be used to mount the stator assembly to the crankcase. The stator assembly mount plate should be drilled so that the crankshaft is centered in the stator assembly. It is important that the crankshaft shaft not extend into the stator more than 20mm. Any further will destroy the magnetic field.

The rotor should be mounted on a stainless sleeve. The rotor sleeve should be made out of anti-magnetic type WN4305 cold pressed steel. The sleeve should be machined so that it fits the crankshaft correctly. If the sleeve is not machined properly you will experience problems keeping the rotor in the correct position and it can damage the stator and impulse donors if it comes adrift. The rotor position determines correct timing so its fit is very important..

When the stator, rotor sleeve and rotor are finally mounted there should be a clearance of .024 to .028 (.6mm- .7mm) between the rotor and the top surface of the magnets in the stator.. Check the clearance on all of the magnets in the stator. If the mount plate is not perfectly flat you will find a variation in the clearance. Shims are supplied which help adjust this clearance. The clearance should also be checked periodically when running the machine. As the crankshaft bearings loosen up clearance changes. Check that the rotor is not scratching the surface of the stator magnets. If you run less clearance you run the risk of damage to the stator or donors. It has been my experience that you can usually run more clearance than that specified.

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Krober ignitions can be set up for right or left rotation. It is very important that the impulse donor which times the ignition is set up properly. The rotor should pass over the donor and then the correct (closest) magnetic core of the stator.

Krober ignitions are really independent systems on twin and triple set ups. Make sure that the magnet in the stator is paired up with the proper impulse donor. If this is not done correctly, you may have a weak spark.

The impulse donor with the yellow wire is what triggers the ignition spark. The donor mounts with an allen bolt and can be pivoted to provide the correct timing.

Timing older systems with small **non-ribbed** rubber mounted transistor boxes:

Type 1. Stator with **solid** Ferrite magnets through the center and transistor boxes with **gray** resin. Ignition will occur when the leading edge of the steel blade is level with the inside edge of the outer casing of the impulse donor.

Type 2. Stator with **solid** Ferrite magnets through the center and transistor boxes with **red** resin. Ignition will occur when the leading edge of the steel blade is .028 (.7mm) before the inside edge of the outer casing of the impulse donor.

Type 3. Stator with **brass** sleeve though the center and transistor boxes with gray resin. Ignition will occur when the leading edge of the steel blade is .028 (.7mm) after the inside edge of the outer casing of the impulse donor.

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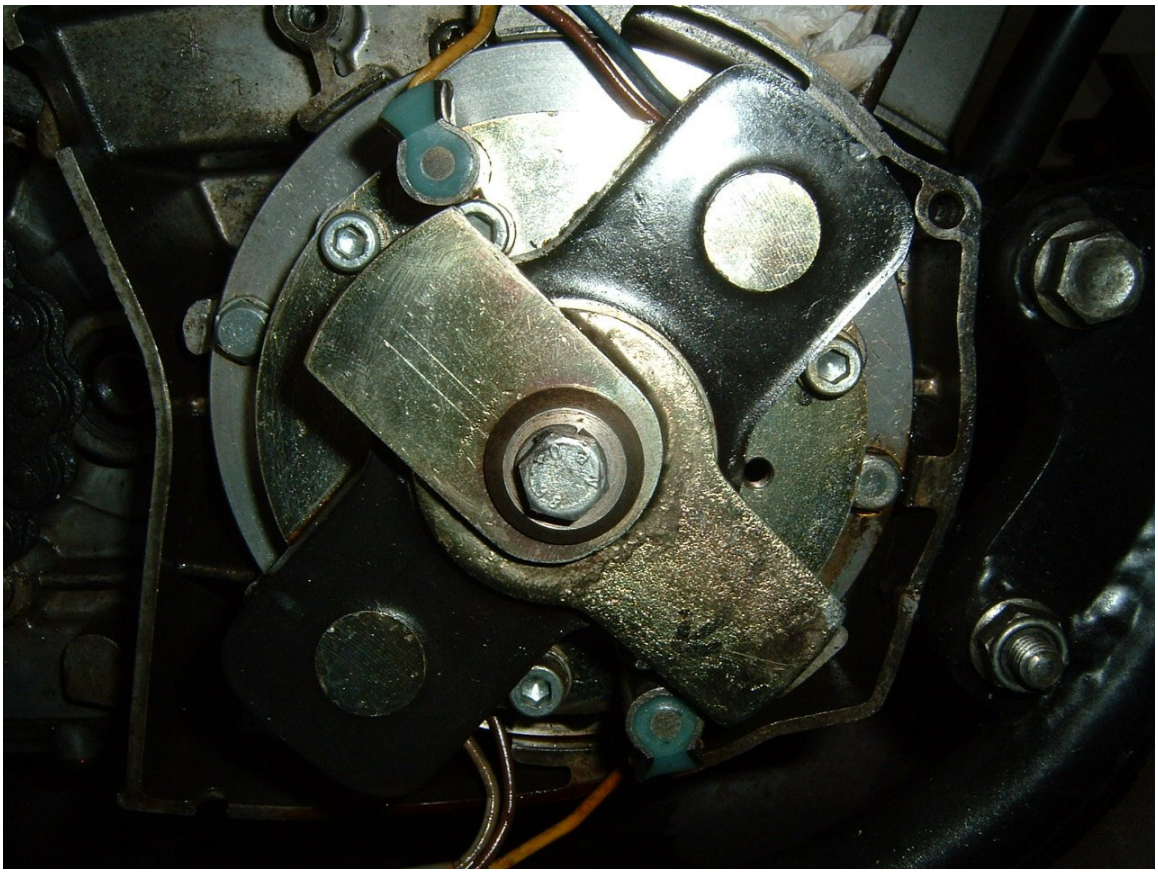
Type 4. Stator with **brass** sleeve though the center and transistor boxes with red resin. Ignition will occur when the leading edge of the steel blade is level with the inside edge of the outer casing of the impulse donor.

Timing systems with **solid state** transistor boxes.

Ignition will occur when the leading edge of the steel blade is level with the inside edge of the outer casing of the impulse donor.



If you have any questions about the proper timing use an inductive timing light to verify the actual firing position.

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Ignition boxes should be mounted no closer than 8 inches (20cm) from the coils.

Mounting Ignition Boxes with rubber mounts. (Old Style)

The box should always be mounted upright if possible and well grounded. Make sure it has plenty of clearance from any frame or engine parts.

Mounting solid state Ignition Boxes.

The ignition boxes can be mounted where space permits. Make sure it has plenty of clearance from any frame or engine parts.

Ignition Coils.

In my experience most modern coils will work. The system was originally designed for the older Bosch round coils, but later coils from more modern bikes and snowmobiles seem to work. Make sure that one side of the low tension side of the coil is properly grounded. I recommend that there are ground wires from all of the components to the stator or engine cases

Spark Plug caps.

The system was designed for low resistant plug caps. Most early competition machines used this type of cap. **Do not** use resistor caps if possible.

Kill Switch.

Because multi cylinder systems can't be directly connected there are a couple of alternatives. Krober supply a diode connector for this situation or use a kill switch with multiple separate switches.

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Electrical Connection of the system.

Do not use temporary connections. If something is not connected properly it could damage components of the system.

The brown lead (green on older systems) from the transistor box is connected to the brown lead (green on older systems) from the proper magnet on the stator.

The white lead from the transistor box is connected to the low tension side of the coil.

The yellow lead from the transistor box is connected to the yellow lead from the impulse donor.

The blue lead from the stator on newer systems is connected to ground. It is a good practice to connect good grounds to all of the components. Older systems grounded the stator through the base of the stator.

On older stators there is an additional black lead for the tachometer.

Some trouble shooting information for older systems

Resistance:
Stator lead to base = 7.5 Ohms
Donor lead to base = 95 Ohms
Old style CDI box :
Yellow to Blue = 45 Ohms
No other continuity

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