



## installation guide

### breaker-contact less ignition system BMW R50, R50/2, R50S, R51/3, R60, R60/2, R67, R67/2, R69S part-no.: **1091144**

Dear customer,

you have purchased a high quality product from Ulis Motorradladen GmbH.

Please follow the installation instructions carefully.

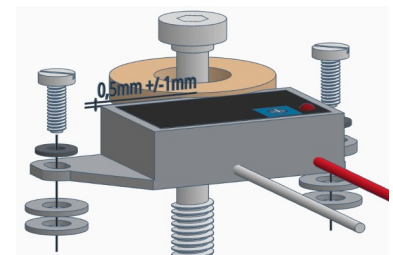
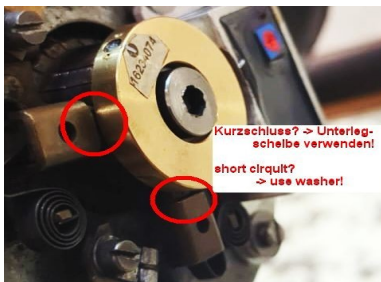
Your Ulis Motorradladen GmbH team wishes you a safe journey at all times and lots of fun driving

#### Scope of delivery:

1 pc. ignition module, 1 pc. Ignition coil unit, 1 pc. sensor disc, 1 pc. distance gauge, 1 pc. special screw M8 for dynamo rotor, 2 pcs. screws M3,5 x 10, 1 pc. shaft seal, 2 pcs. insulating cap, 2 pcs. ignition cable end plugs, 1 pc. Washer M8, 4 pcs. washers M4, 2 pcs. washers M3,5, 1 pc. installation guide

#### Installation:

- Disconnect the battery before installing! Before reconnecting the battery, carefully check all connections!
- Remove old ignition system, replace the old shaft seal with the new one supplied.
- Mount the new ignition coil unit. The connectors must be at the top.
- Connect the ignition wires to the ignition coil by using insulation caps and end plugs for ignition cables.
- If present: mount the voltage regulator resistor at a different place because the ignition module will be mounted at this point.
- Remove the old screw of dynamo rotor, add the sensor disc and replace it with special screw M8. Do not tighten the screw so far.
- Check that the brush holder and brushes do not touch the sensor disk, otherwise there is a risk of short circuit!  
If necessary: place M8 washer underneath.
- Place the ignition module on the alternator housing and measure the protrusion of the sensor disc from the ignition module housing. The encoder ring must protrude by 0.5mm +/-1mm (i.e. protrusion = -0.5mm to 1.5mm). The position of the alternator rotor may vary, so spacing must be adjusted with washers. Screw in the screws and tighten only slightly. Then put the distance gauge on the sensor ring and shift the ignition module towards the sensor ring gauge and tighten the screws. Secure the screws with medium-strength screw adhesive. Finally remove the distance gauge from the encoder ring.



- Insert the connector into the ignition coil until the lug engages. Connect the red wire to terminal 15 ("+" ignition).

#### Adjustment:

- Turn the crankshaft exactly into the "S" position (= retarded ignition). If necessary, unscrew the spark plug before.
- Connect the battery and switch on the ignition voltage.
- Slowly turn the encoder disc **clockwise** until just to the point where the red LED starts to light up.  
Note: while the LED is lit, ignition sparks are continuously generated 4x per second.
- Hold the sensor disc in this position while firmly tightening the special screw.
- Check the setting by turning the flywheel slightly: if you turn it clockwise, it must be exactly on the "S" mark the LED will start to light up.
- Advice: with the engine running, position "S" (= retarded ignition) can be checked at approx. 1000rpm and position "F" (= advanced ignition) at approx. 3000rpm. The maximum deviation should not be greater than 3°

#### Test ignition cables and spark plugs:

- The red LED lights up when the flywheel is slightly above "S" in the direction of "TDC". At this position, when switched on Ignition, generates an ignition spark 4x per second, which allows wiring and spark plugs to be checked.