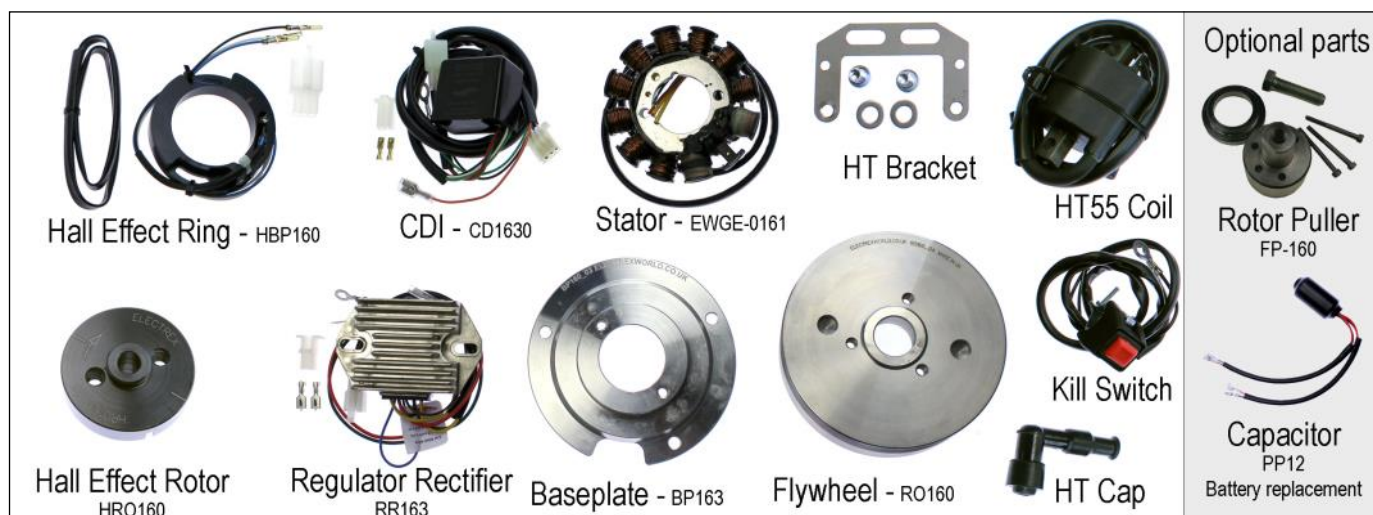


# Ducati alternator and cdi ignition self generating system

STK-161 (narrow case) | STK-164 (wide case)



## PRODUCT FEATURES

- Complete alternator and cdi ignition system. Suitable for 6v or 12v battery charging.
- 120w alternator, greatly improving on original 40w/60w systems.
- Self generating cdi ignition with digital cdi, providing electronic advance curve. No battery is required for ignition.
- Electronic pulser unit and rotor, replacing points plate and mechanical advance allows easy access for adjustment of ignition timing.

## Fitting Instructions

### Quick Installation Guide

- Step 1** Remove the original stator, rotor, regulator/rectifier, points plate advancer and HT coil.
- Step 2** Fit new stator, flywheel, pulser unit and pulser rotor, regulator/rectifier and HT coil.
- Step 3** Set piston to TDC. Align either mark on the pulser rotor with full advance setting for the model, see Fig.3, set to 28° for 450 Ducati

### Detailed Installation Guide

- Step 1** Remove LH engine cover. Remove the clutch and primary drive gear. Note: if the correct clutch basket holding tool is not available an air or electric impact driver will normally remove the nuts without holding the clutch basket.
- Step 2** Remove the original flywheel, to do this either use the original Ducati puller or purchase our puller (FP160), this is also designed to remove our flywheel (RO161). The stator can then be removed.
- Step 3** Remove original points plate and mechanical advance. If a grommet is fitted to the cable for the points plate this needs to be taken off and fitted to the new pulser ring lead, these are normally fitted on the 'wide case' engines.
- Step 4** The original regulator/rectifier and HT coil are not required and can be taken off.
- Step 5** **Fitting the new stator** - the cable feed through the crankcase can be tight, a pull cord may be used by taping to end of the stator harness. For narrow case engines (STK-161) the stator plate has x3 screws, for this type the plate needs fixing first, followed by the stator, as there is insufficient room for screw access. Use Loctite or similar when fitting the screws. Attach terminals and housing to the stator leads 3 way male 2.8 terminals for the cdi connectors. If the correct crimping tool is not available, also solder the terminals.



**Step 6 Important** - before fitting the rotor check inside that there is nothing attached to the magnet ring-washer, screws etc, also check the stator. Loose pieces will quickly damage the stator. Also check the crankshaft taper for damage, poor condition can result in the rotor moving relative to the crankshaft.

**NOTE: The degree markings on the rotor are not used for STK-161/164.**

**Step 7** Replace primary gear and clutch, tighten to factory specified torques, replace cover using new gasket.

**Step 8** Fit the pulser ring in the housing, then depending on the engine type either feed the 3 cables through the exit hole in the crankcase or attach the grommet from the original cable, then feed the wires through the sleeve one at a time. Use the M4x12 screws and washers to retain the pulser ring. Attach the 3mm glass sleeve to lead then crimp the 3 male terminals on to the brown, black and blue cables, push in to the 3 way terminal housing in position shown on the wiring diagram (also to match opposite connector on the wiring harness). Make sure lead is taped to the frame to avoid touching exhaust pipe.

**Step 9** Fit the pulser rotor, note this can be fitted in either 180° degree positions as there are identical timing marks at 180° and 2 magnets in the rotor. Fit the original M4 retaining screw. See fig. 3.

**Step 10** Fit the cdi & reg/rec in a convenient position, optional bracket (BR164) makes this easier. Fit the HT coil bracket under the tank. Plug in harness to the stator, cdi and reg/rec, feed lead up to the HT coil. Attach orange terminal to male spade on the HT coil and the green M6 ring to a mounting screw. The 3 plug connects to the pulser unit and the remaining black/white attaches to a stop or kill switch (not provided).

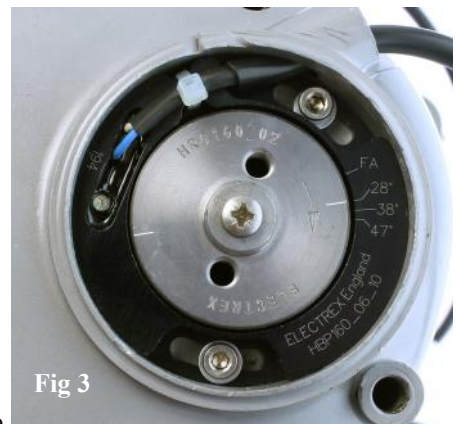


Fig 3

**Step 11** The timing can be easily set with the piston at TDC (Top Dead Centre), then by rotating the pulser ring, align the correct full advance setting, as engraved on the ring, with either line on the rotor. Example shown in Fig. 3 is set at 28° for a 450cc engine. This setting can be checked with a strobe light when the engine is running. The line on the rotor should be seen to align with the 'FA' engraved on the ring as rpm is increased.

