

CDI Ignition System

STK-980 - AJS Stormer 370cc, 410cc

STK-982 - AJS Stormer / Starmaker 250cc



Contents:

Inner Flywheel	M6x12 c/sunk x6
Outer flywheel 250cc weight 10oz - STK-982	M6x20 Cap x2
Outer flywheel 370cc, 410cc weight 41oz - STK980	M6x10 c/sunk x3
Stator	M5x16 Cap x 2
Crank nut	Nut Retaining plate
HT-CDI + Cap + Bracket	Nut M6 x2,
Stop switch	



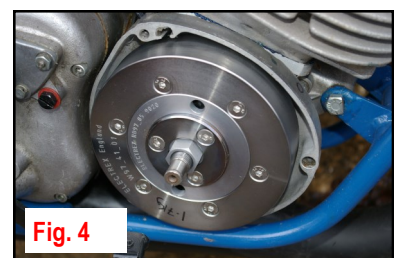
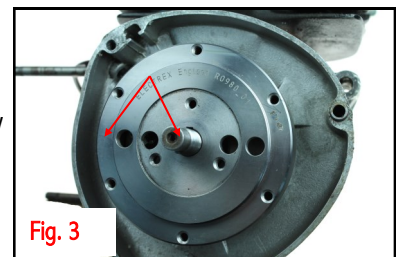
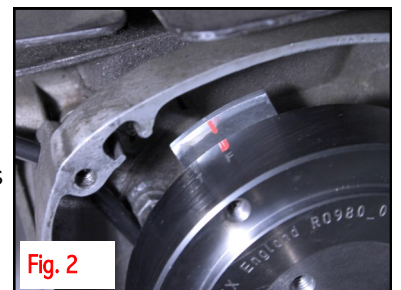
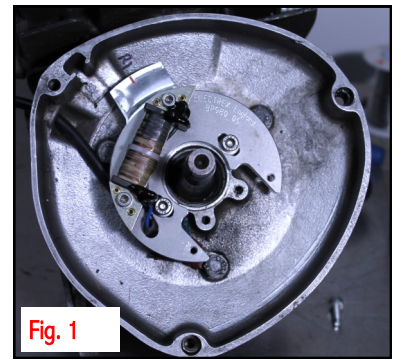
PRODUCT FEATURES

- CDI ignition system for strong spark starting at only 150 rpm.
- Automatic variable ignition advance curve.
- Flywheel is a 2 piece solid alloy steel construction + magnet ring with perfect balance 'by design'. It has a self extracting/retaining nut as per the Villiers original. With the outer flywheel removed initial timing set up and adjustment is easily achieved.
- High quality electroplating and stainless steel fittings are used for maximum corrosion protection.
- Optional lighting version available.

Installation Instructions

This kit must be fitted by a suitably qualified technician.

- Step 1** Remove LH cover and remove original rotor/flywheel , HT coil & stator assembly.
- Step 2** The new inner rotor R0980 is supplied without the nut retaining plate fitted, this is so the location on the crankshaft can easily be checked. It's recommended that the woodruff key is removed for test purposes and then the rotor can be pushed on the taper by hand - it should 'lock' onto the shaft. If not check for crankshaft damage or debris. Make sure the keyway doesn't have any raised burrs. If the fit is good replace the woodruff in the slot - a little Loctite retainer is recommended to retain the key. **Warning: Do not apply Loctite to the taper section.** If a new key is fitted make sure it is not sitting too high stopping correct rotor location.
- Step 3** **Fitting the stator:** Feed stator cable harness through the crankcase hole. Locate the stator in the position shown in **Fig.1.** midway on the 2 slotted holes using x2 of the original screws **note:** extra washers / spacers may be required. Alternatively tap the x2 holes M5 and use M5x16 screws supplied. Ensure the cable harness runs underneath the stator - see **Fig.1.**
- Step 4** Check the rotor magnet ring is free from any attracted metal particles and refit. Apply some grease to both sides of the nut flange (as it is used for both retaining and extracting the rotor), screw on the nut.
- Step 5** **Setting the ignition timing:** Remove the spark plug and with a dial gauge set the piston to 'full advance', see below, and without moving the rotor rotate the stator base plate so that the punch mark highlighted in 'red' aligns with the 'F' mark highlighted 'red' on the rotor. **see fig. 2.** The stator screws are accessible through the 2 inner holes in the rotor, (**see fig.3.**) allowing adjustment without removing the rotor. Take care not to damage stator when adjusting it.
- Full advance ignition setting - 250cc engine is 2.5mm BTDC**
Full advance ignition setting - 370cc & 410cc engine is 3.2-3.5mm BTDC.





Step 6 Fit the rotor nut retaining plate with the x3 M6 counter sink screws, use a little Loctite on the screws (not retainer). Fully tighten the nut to original specified torque, **see fig. 4.**
NOTE: Don't use longer screws as they may protrude through the rotor and damage the stator coils.

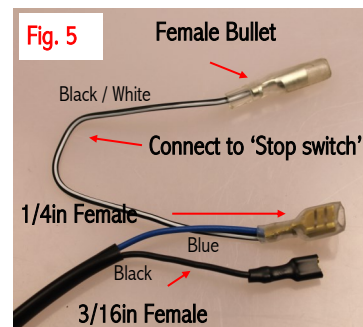
Step 7 Connect the black/white cable to the blue cable—twist the cables together push on the clear cover then crimp and solder the ¼ terminal and solder. Crimp the small 3/16" terminal to the black cable. Position the sleeving twice over the terminal and apply hot air to shrink.

Step 8 Fit the combined HT-CDI unit, use bracket if required - see Fig.6. for examples. Plug in the 2 terminals from the stator, the smaller terminal has a black lead connected, The larger terminal has a blue lead with a black/white cable, this cable is the kill switch lead. If this is connected to the earth, engine or chassis, this will cut the ignition.

Step 9 Replace the plug, fit the HT cap on the lead after cutting to the length required.

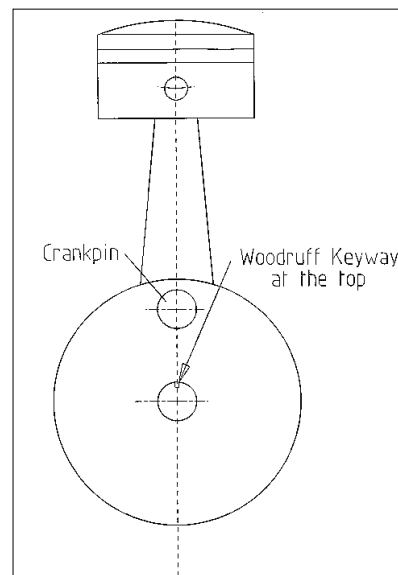
Step 10 Testing - Suggestions

- Use new fuel/mix as modern petrol will go off within a few months.
- Don't look for a spark at the plug as you may not see it. CDI ignition systems produce a 'thin' very high voltage spark. If you want to see it or hear it remove HT cap and create a large gap 8 - 10mm with end of plug lead and cylinder head.



IMPORTANT NOTE:

The timing may require adjusting for different engines, the set-up shown above is approximate and fine tuning may be needed for best performance, depending on engine size and state of tune.



Examples of using the HTCDI bracket to aid fitting— does not have to be used.

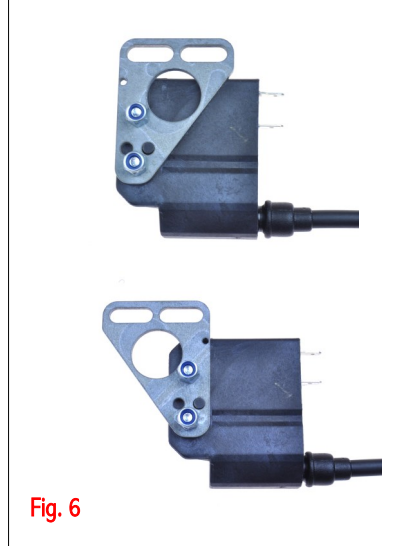
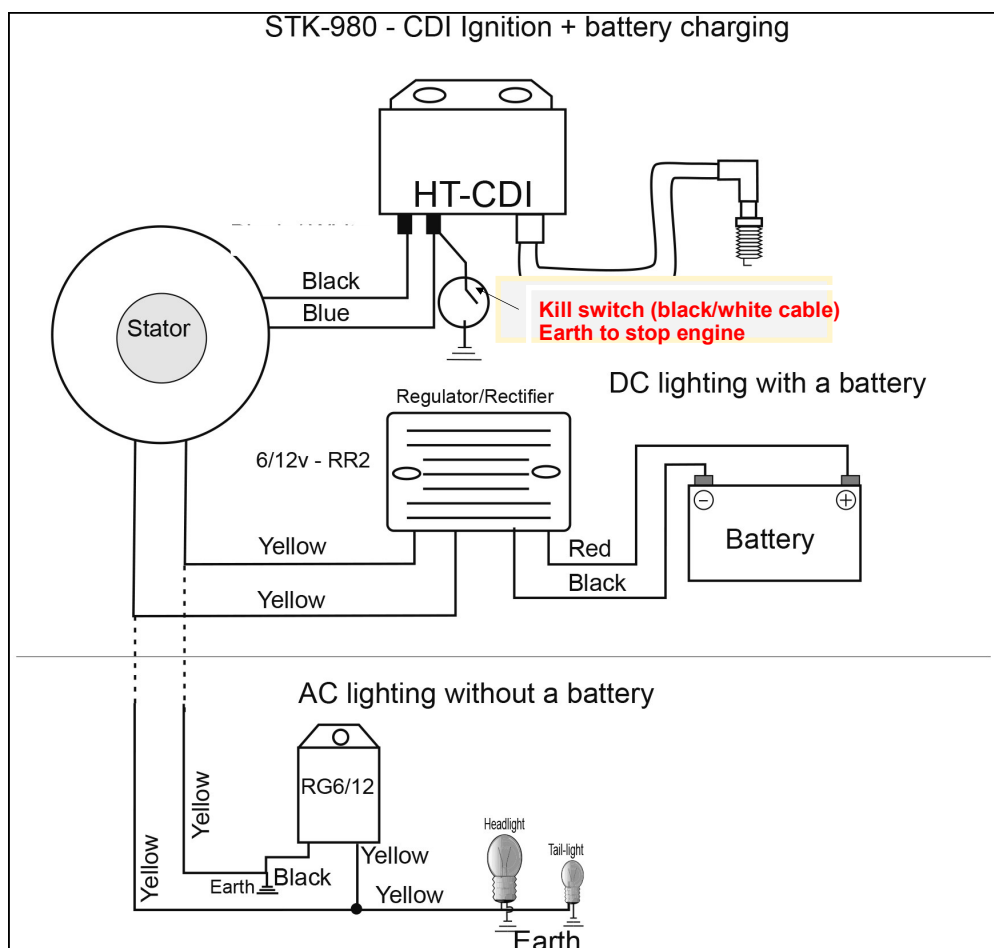


Fig. 6