

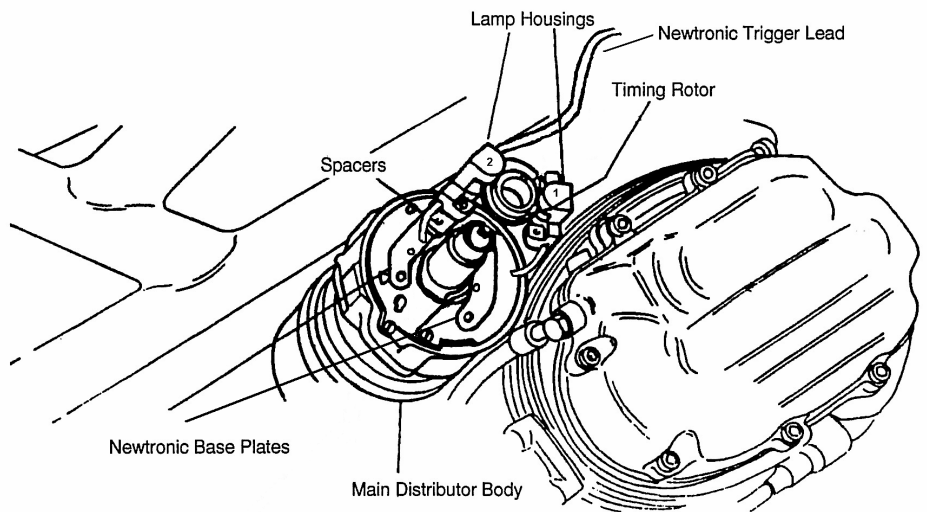
## FITTING INSTRUCTIONS

Thank you for choosing a Newtronic contactless optical ignition system. For a speedy and successful installation, it is recommended that you first read all the way through the fitting instructions and familiarise yourself with the parts provided in the kit.

### ON MODELS WHERE COILS ARE FITTED UNDER THE LEFT-HAND SIDE COVER THE FOLLOWING APPLIES

The Basic Fitting Instructions remain the same with the following exceptions.

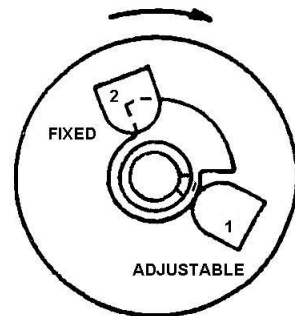
1. Switching Unit to be fitted under Right-hand side cover, or in front of battery.
2. The red and green leads from switching unit to be connected to corresponding colours on main wiring loom previously occupied by wires from points.
3. The white feed wire should still be connected to spare feed terminal on coil as in instructions.



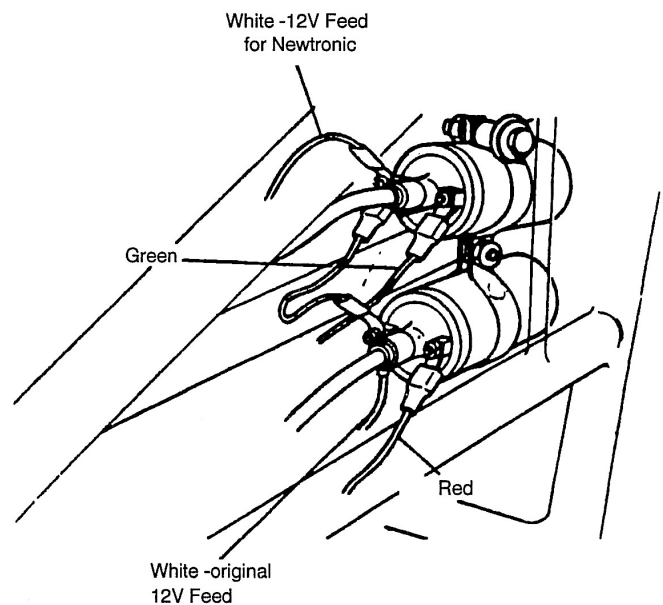
### General Instruction

1. Raise the seat and disconnect the battery earth.
2. Remove the petrol tank.
3. Remove the cover from the distributor.
4. Remove both contact breaker assemblies together with the clips holding the connecting wire grommets. Trace the wires back to the coils noting that the green lead corresponds to the LH cylinder, the red to the RH cylinder and disconnect. The condensers may be left screwed to the distributor body but it should be noted that these will not be required in the installation.
5. Line up mark on the rotor with the slot in the end of cam. Press the rotor gently into engagement assuring it is fully down. Do not exert undue force. If play is detected between rotor and cam form, apply a drop of "Loctite" or similar adhesive.
6. Fit the Newtronic baseplates using the original contact breaker mounting holes. The end lamp (1) is fitted in the adjustable contact breaker position with the second lamp (2) in the fixed location. (See image for correct orientation). The wire will usually exit towards the **front** of the engine.
7. The adaptor plate mounting holes are elongated to allow some adjustment. It is recommended that the initial position is such that the lamps are pushed towards the wire exit side of the distributor before the screws are tightened.
8. Thread the lamp cable through the supplied grommet and distributor cover gasket.
9. Remove the LH side cover (near side) and carefully thread the Newtronic trigger lead through the frame past the air cleaner box to appear under the LH side cover. Ensure that the cable is kept away from the cylinder heads and other sources of heat.
10. Connect the trigger lead to the switching unit as shown in the diagram and seal the plug with the waterproof sealant provided.
11. Run the coil connecting harness along the LH top frame tube to the coils and secure to the frame with the ty-raps provided. Connect the green lead to the -ve terminal on the LH coil, the red lead to the -ve terminal on the RH coil and the white lead (the 12V supply for the Newtronic) to the one spare +ve terminal.

### Direction of Rotation



### Showing Firing Point at LH Cylinder



COIL CONNECTIONS

12. Earth the blue lead on the Newtronic to the battery -ve terminal.
13. Wipe clean the inside of the cover, remove the protective backing from the self-adhesive panel on the back of the Newtronic switching unit and affix to the side cover.
14. Re-fit the petrol tank and the side cover.

All the necessary components are now fitted and a check should be made to ensure that the rotor does not foul the lamp housings before proceeding.

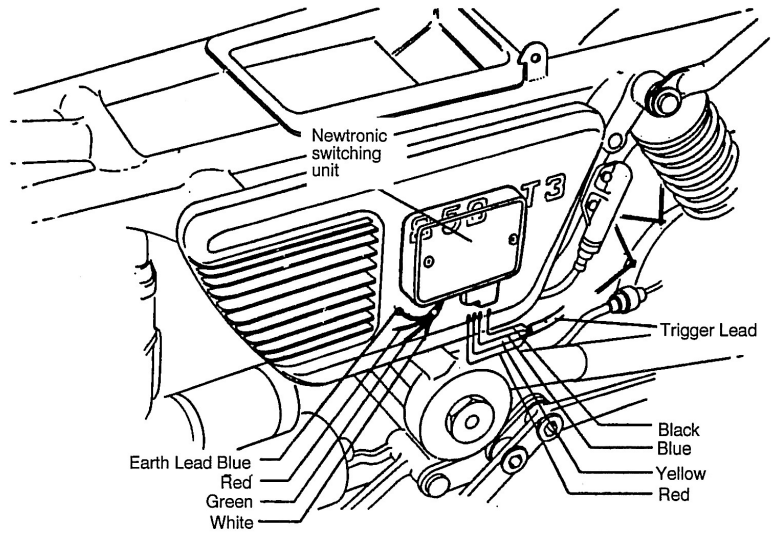
**TIMING THE ENGINE**

This should NOT be done in bright sunlight or the timing may be affected. It is recommended that a stroboscope timing light is used. It should be remembered that the engine fires as the timing rotor leaves the lamp housing (i.e., immediately the beam of light is re-made).

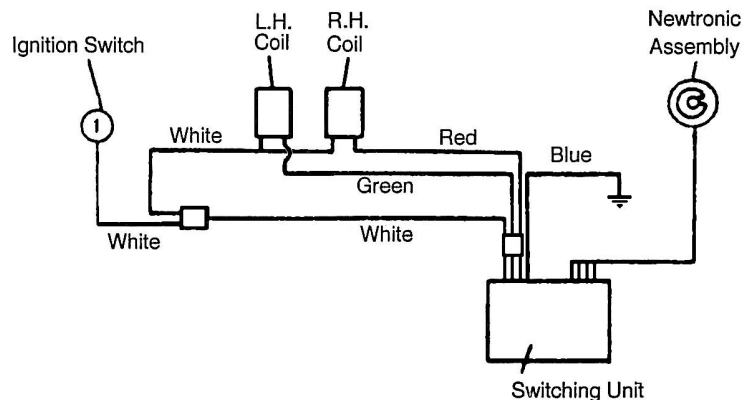
Static timing can be performed using the switching unit indicators. Care must be taken as leaving the ignition on, without running the engine, for a prolonged period can cause irreversible damage to the switching unit and/or coils.

**NOTE:** The design of the Newtronic system means that the manufacturers timing procedure should not be used. Initial position must be set on the LH cylinder with the final adjustment carried out on the RH cylinder.

1. Remove the rubber plug in the crankcase covering the timing marks. Connect the stroboscopic timing light to the LH (nearside or "S") cylinder and start the engine. Allow the engine to warm up for a few minutes and then align the fully advanced timing mark centrally in the hole by moving the whole distributor body at an engine speed of 5000 r.p.m. The fully advanced timing mark is a faint line scribed on the flywheel some 39° BTDC. It may be found advantageous to lightly paint this in with some white paint.
2. Repeat the above procedure for the RH (offside or "D") cylinder but adjusting the moveable baseplate inside the distributor.
3. It may be necessary to adjust the position of the lamps and their adaptor plates to achieve the correct timing on each cylinder. This can be done by loosening the screws mounting the plates and sliding the lamp and plate.
4. Check that all the screws and the distributor locking clamp are tight and replace the original distributor cover using the thick gasket, screws and washers provided.
5. Finally, replace the rubber plug in the crankcase.



NEWTRONIC SWITCHING UNIT IN L.H. SIDE PANEL



SCHEMATIC WIRING DIAGRAM