Fit power module using self-tapping screws supplied and placing eyelet of short black wire beneath one screw head as earth, tighten down securely ensuring a good earth. With fibre glass bodied cars run a heavy duty earth wire or braid from mounting screw of power module direct to the battery negative terminal or good earth point.

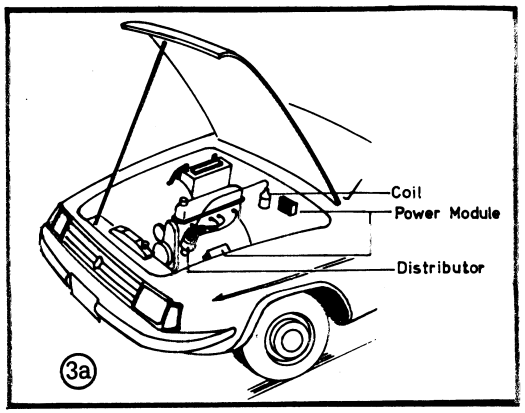
Referring to Illustration 2:
Connect red wire using extension supplied if necessary to either:

a) Feed side of ignition terminal (F) of fuse box

b) Ignition switch side of ballast resistor (R) (NOT COIL SIDE)

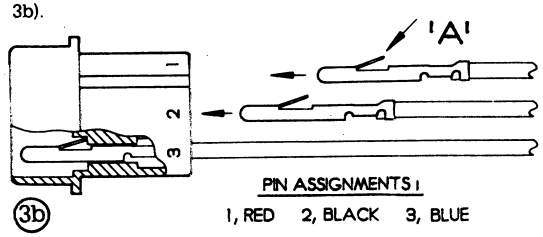
c) Ignition terminal of ignition switch (S) DO NOT connect to auxilliary terminals which switches "off" in start or cranking position.

Connect violet wire to the wire from which the contact breaker assembly was removed (D). This goes to the negative terminal of the coil, sometimes via the tachometer.



2. OPTICAL SWITCH
See fitting instructions supplied with fitting kit specified for your application.

Fitment of optical switch connector housing (see illustration 3b).



a) Ensure tags 'A' are opened out as illustrated.

b) Fit pins of optical switch wires into connector in accordance with pin assignments until tags click into position.

c) Pull back on wires to ensure that pins have locked into housing.

d) Check that wire colours correspond to power module connector.

Should removal of terminals from housing be necessary, depress tags 'A' using a small probe to withdraw. DO NOT CUT WIRES.

3. On completion of 1 and 2:
Join and lock connectors (13) of power module assembly and optical switch. A smear of silicon or petroleum jelly is recommended for terminal protection.

Neatly trace wires avoiding belts, pulleys, manifolds and hinges.

The vehicle is now ready for tuning to manufacturer's specification.

TUNING & PREPARATION

For ultimate efficiency, ignition timing should be set to vehicle manufacturer's specification only.

In some countries the lead content (anti-knock additive) has been considerably reduced and may cause pinking. It is then advisable to retard ignition timing 2° at a time until pinking is no longer evident.

Correct spark plug gaps are also important, preferably .025 (0.6mm).

STATIC IGNITION TIMING:

Use a voltmeter or 12V bulb not exceeding 6W wired between the ignition coil negative terminal and earth (see illustration 4).

Turn engine and align timing marks making sure the rotor tip is pointing to the H.T. pick-up segment in the distributor cap of the recommended firing plug, normally No. 1.

With distributor cap removed and leading edge of the chopper blade should be ⅔rds across the lensed units in the direction of rotation.

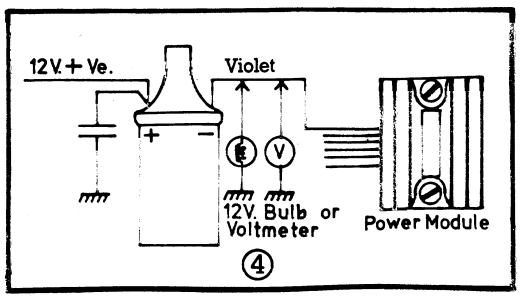
Slacken distributor clamp bolt and very slightly turn distributor in direction of rotor rotation. This is just enough to bring the chopper blade before the point of passing between the lensed units.

Switch on ignition taking care not to crank the engine.

Very gently return the distributor against the direction of rotation to the exact point that the voltmeter reads around 12V or the test bulb lights. If you overshoot return far enough to start again otherwise you will time on backlash.

When correct, tighten clamp, remove voltmeter/bulb, replace cap and the engine will be ready for starting.

It can be noted that the coil is switched off (spark occurs) when the leading edge of the chopper blade is ⅔rds through the lensed units.



FAULT FINDING

If the newly installed system appears not to work, first recheck all connections then carry out the following tests:–

All tests are carried out with the ignition switched on and the centre H.T. lead removed from the distributor and held approximately 6.5mm (¼ inch) from an earth point such as the engine, but away from the carburettor region.

1. To test the complete system:–
   With the distributor cap removed and out of strong sunlight, a piece of opaque material such as a piece of black card, is passed between the lenses of the optical switch. This should produce a spark from the H.T. lead to earth.

2. To test the power module (and coil):
   (a) unplug the 3-way connector leading to the distributor.
   (b) connect (by means of a small piece of wire) the blue wire to the black wire leading to the power module. As this connection is made, a spark is produced at the H.T. lead. If no spark is produced, the power module is suspect. If a weak spark is produced, the coil may be suspect.

3. To test the optical switch:–
   The optical switch must be connected to a good power module. With a sensitive voltmeter measure the voltage between the blue and black leads. When the infra-red beam is not interrupted, the voltage is approximately 2.7v. This drops to 1.0v when the beam is interrupted.
   N.B. The voltage on the red lead is approximately 7.5v.

4. Do not leave the ignition on for more than 15 minutes with the optical switch assembly disconnected.

NOTES

Under no circumstances should:–

(a) a full positive feed be applied to any connection other than the red positive wire of the power module supplied with a male lucar terminal.

(b) the coil terminals be short-circuited or the violet wire (coil –ve) of the power module be connected to full positive feed.

Failure to observe the notes will result in irreversible damage to the power module, invalidating the warranty.

CAUTION: H.T. can be dangerous and can jump 25mm (1 inch). Leads should be handled carefully.

SUPPRESSION can be fitted if necessary between coil positive (switch terminal) and earth, usually 1.5 to 2.0 Mfd.

THIS LUMENITION UNIT IS APPROVED
FOR ROAD AND MARINE USE ONLY
AND MUST NOT BE USED IN AIRCRAFT
OF ANY KIND