

Lumenition

OPTRONIC[®] IGNITION

INFRA-RED SOLID STATE BREAKERLESS IGNITION SYSTEM

POWER MODULE

FITTING INSTRUCTIONS

Read carefully all sections before proceeding with any fitting

A BRITISH INVENTION

Lumenition

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1410782, 1417857, 1420814, 1437770

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How it works

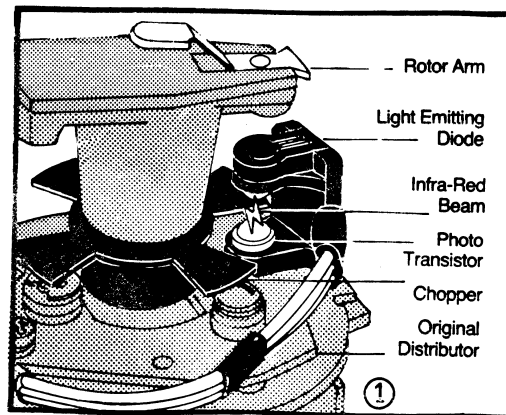
Lumenition Optronic Ignition is an electronic ignition conversion principally for cars originally fitted with mechanical distributors using contact breaker points.

The advantage of the Lumenition system is that it contains no wearing parts, requires no adjustment or maintenance during service and once ignition timing is set it will remain permanently in tune.

The engine will run better, more economically through improved efficiency, last longer and start better.

There are only three components, very compact and simple to fit.

1. First is the optical switch, this contains a light emitting diode (LED) which sits in the switch bracket opposite a matching silicon phototransistor. When the ignition is switched on, the LED emits an invisible infra red beam towards the silicon phototransistor which receives or 'sees' the beam.
2. Secondly an interruptor called a chopper (which generally is fitted over the cam) rotates interrupting the beam of light causing a pulse. It has one blade for each cylinder of the engine.
3. Thirdly a power module receives this pulse via its internal electronic device which switches the ignition coil on and off. The coil produces a high tension spark when switched off and is recharged when switched on.



Typical Distributor Installation

SPECIFICATION

The important performance parameters of Lumenition are given below as a guide to its correct use:—

Power Supply -Ve earth only
+12 volt supply
withstand 28 volts for 1 min
withstand -13.5 for 1 hour
(reversed connection)

Maximum permissible ignition current
7 Amps

Operating -40 to +125°C optical switch

Temperature -40 to +85°C power module

Ignition Timing Dwell angle 65° on 4 cylinder
45° on 6 cylinder
35° on 8 cylinder

Accuracy ±1° crank at 3000 rpm

Note: Dwell angle refers to "coil on" (recovery) time and may differ from the recommended dwell with contact breakers.

Environment Humidity to BS2011
Vibration to BS2011.

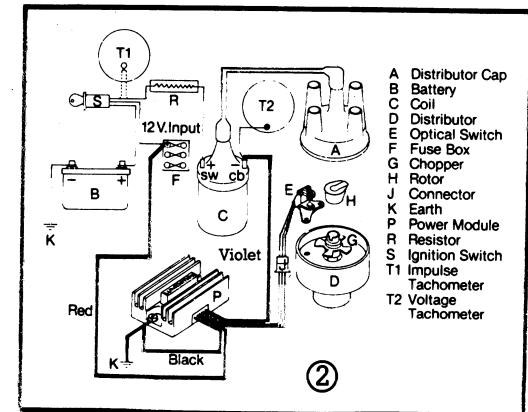
PRECAUTIONS

NEVER: connect violet coil -ve lead to 12v +ve supply.

SUITABLE: for coils or coil/ballast combinations of not less than 3 ohms.

NOT SUITABLE: for use with low resistance (ie less than 1 ohm) electronic ignition coils.

ALWAYS: keep connectors clean, tight fitting and free from grease.



Typical Circuit Diagram

FITTING PROCEDURE

1. POWER MODULE

Disconnect the battery negative terminal.

Drill 2 holes, 3.5mm diameter (9/64"), to fit power module to a flat surface on wheel arch or bulkhead, away from the battery, aerial and exhaust but as close to distributor as possible (see illustration 3).