

FK.110

Lumenition

OPTRONIC[®] IGNITION

INFRA-RED SOLID STATE BREAKERLESS IGNITION SYSTEM

A BRITISH INVENTION

Lumenition

Division of **Autocar** Equipment Ltd

77-85 NEWINGTON CAUSEWAY

LONDON SE1 6BJ. ENGLAND

Patent Nos. 1219833, 1252324, 1252559, 1279385, 1330453,
1410782, 1417857, 1420814, 1437770.

® Registered Trade Mark.

USE WITH PMA.50

INSTRUCTION 1

See Illustration 1

LUCAS ELECTRONIC DISTRIBUTORS 4 & 6 CYLINDER — D.E. Types only.

Disconnect: *Negative Battery Terminal*

- Remove:**
- Distributor cap (9)
 - Distributor from engine first making sure engine is at top dead centre and rotor (1) is in line with No. 1 spark plug lead.
 - Rotor (1)
 - Circlip Washer and 'O' Ring (18)
 - Use small screwdriver to remove 'O' ring.
 - White timing rotor (31)
 - from distributor shaft.
 - Magnetic pick-up assembly (32)
 - with two screws and separate the vacuum advance housing from distributor body (3 screws-40) and lower vacuum lever to release from distributor base pin.
 - Cut off the wires from the magnetic pick-up assembly (32) and the three feed wires to the distributor as close as possible to the encapsulant in the vacuum advance housing.

INSTALLATION OF OPTICAL SWITCH (4)

- 1 Fit adaptor plate (6) to distributor using countersunk screws (26) supplied into original pick-up fixing holes.
- 2 Fit optical switch (4) to adaptor plate (6) using screws and washers (11) supplied.
- 3 Slide long grommet (3A) over optical switch wires followed by short grommet (3B).
- 4 With long grommet (3A) 38 mm from optical switch sleeving fit into existing slot in distributor body. This is important to allow wires to move during vacuum advance.
- 5 Locate short grommet (3B) into slot of vacuum advance housing. Ensure optical switch wires are routed away from vacuum advance lever (14a).
- 6 Refit vacuum advance housing (14) to distributor body checking advance lever (14a) is located over pin on distributor plate, ensuring that screws 40 pass through distributor cap clips (29).
- 7 Fit optical switch wires into connector (13) until pins 'click' into position. Ensure wire colours correspond with power module connector:

- 1 Red
- 2 Black
- 3 Blue

- To remove terminals use small probe to close tags and withdraw wires. **DO NOT CUT WIRES.**
- 8 Fit 'P' clip (21) over optical switch wires and secure to distributor base plate fixing screw.
 - 9 Select correct chopper (2) — four blades for four cylinders or six blades for six cylinders — and slide over distributor shaft locating wide lug in wide slot at base of distributor shaft.
 - 10 Replace 'O' ring, washer and circlip (18).
 - 11 Check all wires are clear from revolving chopper blades.
 - 12 Fit rotor (1) to distributor.
 - 13 Refit distributor to engine with rotor in line with No. 1 spark plug lead.
 - 14 Set distributor with leading edge of chopper (2) blade just between lensed units.
 - 15 Replace distributor cover (9), reconnect battery negative terminal and check ignition timing to conform to manufacturer's specification when complete system fitted.

INSTRUCTION 2

See Illustration 2

LUCAS ELECTRONIC DISTRIBUTORS 8 CYLINDER. C. & A. CLOCK. — D.E. Types only.

Disconnect: *Negative Battery Terminal*

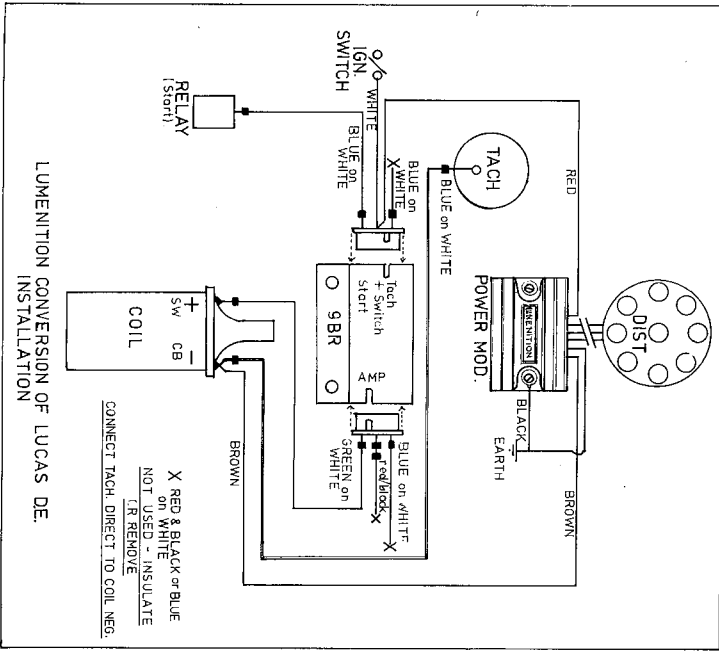
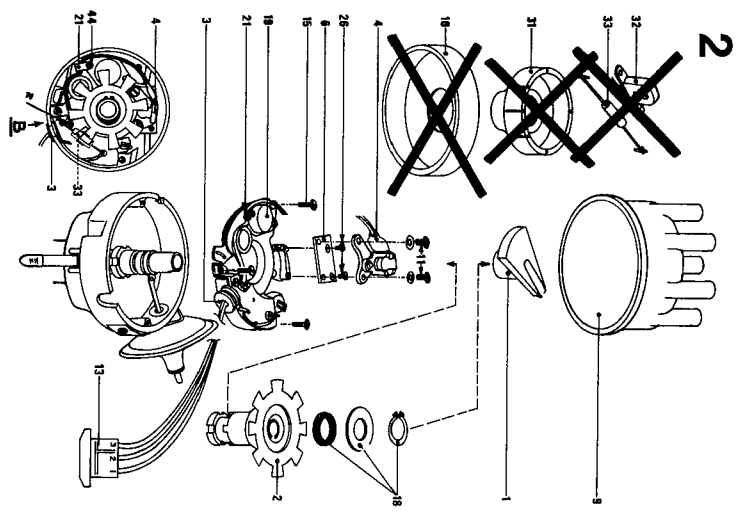
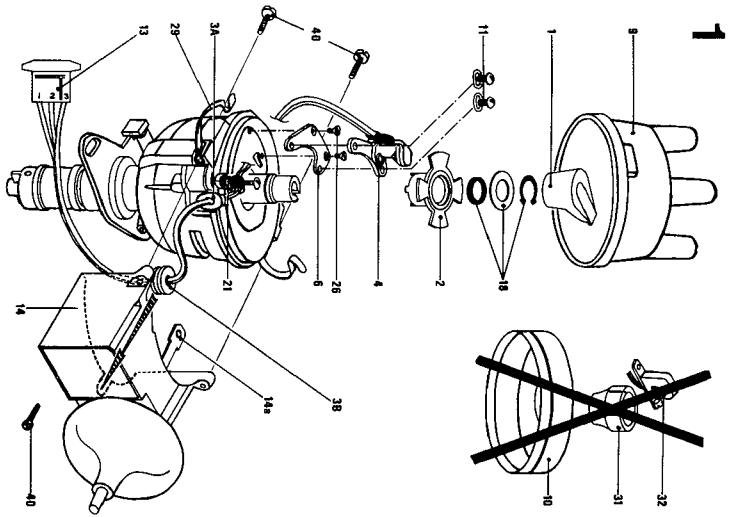
- Remove:**
- Distributor Cap (9)
 - Distributor from engine, first making sure engine is at top dead centre and rotor (1) is in line with No. 1 spark plug lead.
 - Rotor (1)
 - Dust Cover (if fitted). (10)
 - Circlip, washer and 'O' ring (18)
 - White timing rotor (31)
 - from distributor shaft.
 - Base plate (19)
 - complete with wires and grommet (3 screws).
 - Magnetic pick-up assembly (32)
 - with two screws and cut wires as close to base plate as possible.
 - Cut all remaining wires connected to base plate. Tape back cut wires to harness and replace harness as originally fitted to coil and ballast connections.
 - Remove green resistor (33)
 - complete with holder.

INSTALLATION OF OPTICAL SWITCH (4)

- 1 Fit adaptor plate (6) to base plate (19) using countersunk screws (26) supplied.
- 2 Fit optical switch (4) to adaptor plate (6) using screws and washers (11) supplied.
- 3 Route optical switch wires round base plate — see illustration B and fit 'P' clip (21) over wires securing under nut (44) as shown.
NOTE: At position * wires are fed between base and encapsulant.
- NOTE: Have sufficient length of wire between 'P' clip (21) and optical switch (4) to permit vacuum advance movement. Move optical switch from side to side to check.
- 4 Slide grommet (3) over optical switch wires and position close to base (19).
- 5 Reassemble complete base plate into distributor body sliding grommet (3) into position. Ensure that pivot pin is located in vacuum control arm.
- 6 Slide chopper (2) over distributor shaft and locate with wide lug in wide slot at base of distributor shaft.
- 7 Replace 'O' ring, washer and circlip (18).
- 8 Check all wires are clear of rotating chopper.
- 9 Fit optical switch wires into connector (13) until pins 'click' into position. Ensure wire colours correspond with power module connector:

- 1 Red
- 2 Black
- 3 Blue

- To remove terminals use small probe to close tags and withdraw wires. **DO NOT CUT WIRES.**
- 10 Fit rotor (1) to distributor.
 - 11 Refit distributor to engine with rotor in line with No. 1 spark plug lead.
 - 12 Refit distributor cover (9).
 - 13 Reconnect battery negative terminal and check ignition timing to conform to vehicle manufacturer's specification when complete system is fitted.



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8 cylinder Lucas
Electronic Distributor 35DE8
Clockwise rotation

