

Lumention
MTK005

MAGNETRONIC IGNITION SYSTEM
6 Cylinder Lucas 20-series Distributors
(For Negative Earth Vehicles Only)
Anti-clockwise Rotation

CAUTION 1
DISCONNECT THE BATTERY BEFORE ATTEMPTING TO FIT THIS UNIT

The wire from the ignition switch to the positive terminal of the ignition coil might not be fused. If this wire touches vehicle earth with the battery connected and the ignition on it will short out the battery and might cause a fire or vehicle wiring damage.

Autocar Electrical Equipment Co., Ltd. accepts no liability for damage caused from mis-installation or any vehicle wiring faults.

INSTALLATION INSTRUCTIONS

Please read the fitting instructions fully before starting installation.

Check the sealed bag in this kit contains all of the following:

- | | | |
|-------------------------------|---------------------------|-------------------------------------|
| 1x Magnetronic Module | 1 X M4 Split-ring Washer | 1x Distributor Wire Plastic Grommet |
| 1x Magnetic Timing Disc (414) | 1x Countersunk Screw 2BA | 2x Connectors |
| 1x Adapter Plate (20417) | 1x M4 x 8 Cheeshead Screw | 1x Cable Tie |

Please note: This ignition system must be used with an ignition coil having a resistance of at least 2. Ohms including the ballast resistor (where one is fitted). 3.0 Ohms is recommended.

Please note the drawing on page 4 of this leaflet

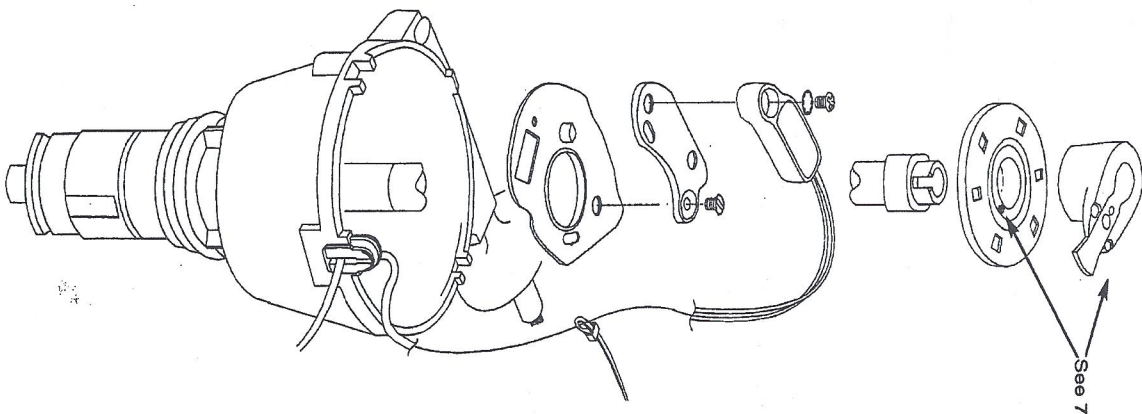
1. Disconnect battery and ensure hand brake is applied.
2. Remove Distributor Cap, Rotor Arm, Points and Condenser. It is important to MAGNETRONIC operation that the distributor earth strap is still securely attached to the base plate.
3. Secure the flattened hole in the adaptor plate over the distributor base plate pivot pin and secure the adaptor plate with the supplied countersunk screw.

NOTE:

- On recently manufactured distributors the hole in the base plate for the countersunk screw might not have the 2BA thread used on the original distributors in which case a 4mm countersunk metric screw must be fitted instead.
 - In addition please note that on some distributors the pivot pin might have to be shortened down to the base plate
4. Install the MAGNETRONIC Module making sure the post on the bottom of the module locates in the hole on the adaptor plate. Secure using the M4 cheeshead screw and split ring washer. Make sure the screw is tightened effectively.
 5. Feed the MAGNETRONIC wires around the distributor body making sure there is sufficient slack in the wires to allow the advance mechanism to move freely. Make sure the wires will not foul or touch the MAGNETRONIC rotor or cam and secure using the cable tie provided.
 6. Place wires in the split plastic grommet and insert the grommet into the slot in the distributor body.
 7. Fit the magnetic disc over the cam.

NOTE

- On new manufactured replacement distributors the cams may be wider than the original models and material may have to be removed from inside of the trigger disc collar to allow the disc to fit.
- With the peaks of the distributor cam located between the internal ribs of the disc it will only fit in one of 6 positions. The upper surface of the disc has a depression to match the shape of the rotor arm. Approximately line up the indicator dot with tip if the rotor arm. Ensure that the disc is pushed fully home, Gentle heating of the disc by immersion in hot water prior to fitting may ease assembly.



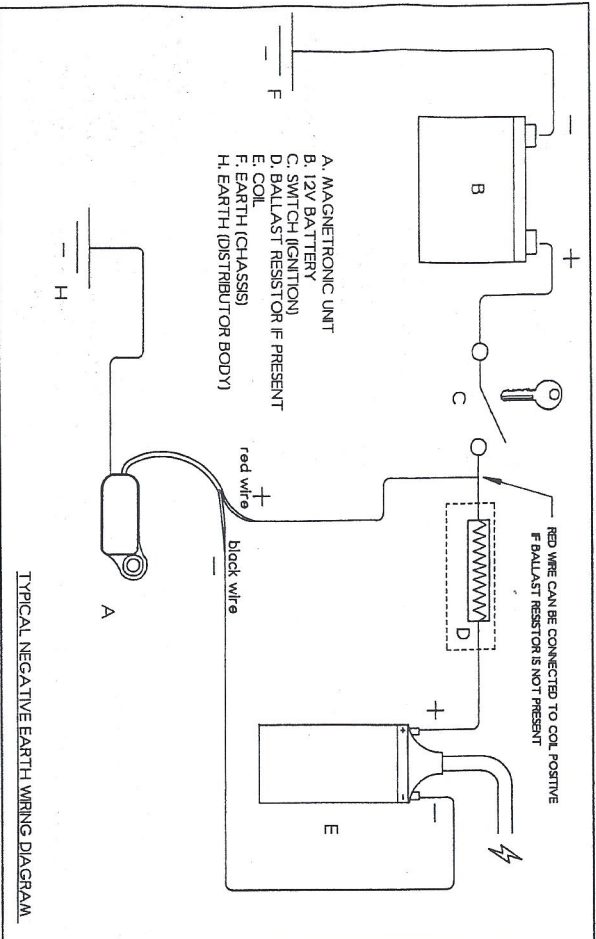
8. The clearance between the underside of the disc and the top of the module should be approximately 1.5mm. If necessary the two small lugs on the trigger disc can be removed and the disc fitted in a lower position.
9. Fit the spade connectors to the module wires. Use an appropriate electrical connector crimping tool (not supplied).

Note:

- If your vehicle has been converted from Positive Earth the ignition coil connections might not have been changed over for the new Earth polarity. You must ensure the Magnetric wires are attached to correctly connected coil terminals (see diagram).

10. Connect the Red wire to the coil terminal connected to the ignition feed (+ or SW). If a ballast resistor is fitted to the vehicle the Red wire must be connected to the Ignition switch side of that resistor. Connect the Black wire to the Negative coil terminal (- or CB). This is the terminal that the contact breaker was originally connected to. The original wire connected to the condenser is not required.
11. Refit the Rotor Arm and Distributor cap.
12. Check timing as per the vehicle manufacturers instructions.

WIRING DIAGRAM



TROUBLE SHOOTING

If there is no spark from the coil when cranking the engine, switch on the ignition and check for 12 Volts on Red supply wire for the module.
Check the terminals on the Red and Black wires to verify that they are crimped properly and attached to the correct terminals.

With the ignition switched off remove the distributor cap and check the air gap between the MAGNETRONIC module and disc. The gap should be approximately 1.5mm (.060") and must be between 0.75 mm (.030") and 2.55 mm (.100").

If this is all correct then check the operation of the module.

CHECKING MODULE OPERATION

With THE TRANSMISSION IN NEUTRAL AND THE HAND BRAKE SET.

Disconnect tachometer sense lead from ignition coil if applicable.

1. Set a voltmeter on a DC volts range between 15 and 60 volts.
2. Connect the positive meter lead to the minus (-) ignition coil primary terminal.
3. Connect the negative meter lead 10 engine ground.
4. Crank engine.

If the needle jumps back and forth between approximately 1 volt and 13 volts the ignition system is working properly and the coil is bad or the rotor is bad.

If the needle stays at about 13 volts either the Red or Black wire is not making connection to the coil primary terminals.

If the needle stays at about 1 volt, there may be an excessive air gap [greater than 3.2mm (.125")] between the magnetic trigger disc and the ignition module preventing it from switching or the ignition module has been damaged by connecting the Red and Black wires to the wrong terminals on the ignition coil.

WARRANTY

Autocar Electrical Equipment Co., Ltd. products are guaranteed against defects in material and workmanship for a period of 12 months from the date of purchase.

During the 12 month period and provided that Autocar is given notice of any such defect within 7 days from the date of appearance, Autocar may in its sole discretion repair or replace the defective Goods manufactured at its own cost and expense PROVIDED HOWEVER that this warranty shall not apply:

1. If the customer has not fully paid for all such Goods under this or any prior contract.
2. If the customer has without Autocar's approval attempted to repair, dismantle or in any other way interfere with such Goods.
3. If Goods rendered defective as a result of the acts or omissions of the Customer including where they have been used or installed by the Customer in a manner contrary to the manufacturer's originator's manual or other instructions.