

## MTK007

### MAGNETRONIC IGNITION SYSTEM

For Lucas distributor model 45D4,  
4 cylinder, anti-clockwise rotation

### For Negative Earth Vehicles Only

#### **CAUTION !**

MAKE SURE THE VEHICLE IGNITION IS SWITCHED OFF BEFORE ATTEMPTING TO FIT THIS UNIT

On many vehicles the wire from the ignition\_switch to the ignition coil primary terminal is NOT fused. If this wire is allowed to touch the vehicle bodywork or the engine when the ignition is switched on it can short out the battery, possibly causing a fire or permanent damage to the vehicle wiring.

Autocar Electrical Equipment Co., Ltd. assumes no liability for damage caused from this occurrence or due to any faults in the existing vehicle wiring.

### INSTALLATION INSTRUCTIONS

Please read the fitting Instructions fully,

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

1x Magnetronic Module	1 X M4 Split-ring Washer	1x Brass Spigot	1x Grommet
1x Magnetic Timing Disc (415)	1x Countersunk Screw 2BA	2x Connectors	1x Cable Tie
1x Adapter Plate (20418)	1x M4 x 8 Cheesehead Screw		

### FITTING INSTRUCTIONS

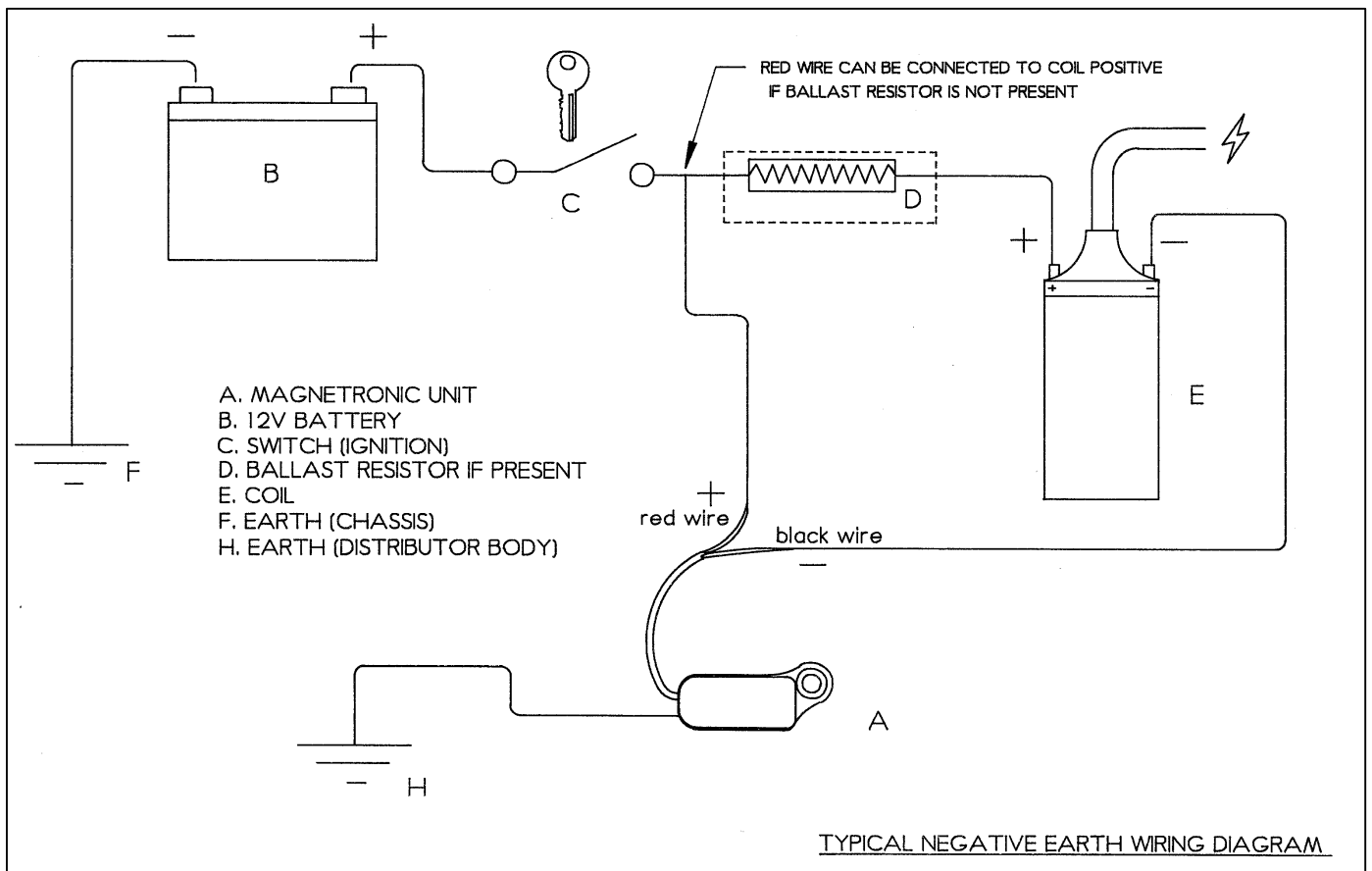
*Please note the drawing on page 4 of this leaflet*

1. Disconnect battery and ensure hand brake is applied.
2. Remove Distributor Cap, Rotor Arm, Points and Condenser. It is important to the operation of the unit that the earth strap is re-attached to the baseplate. Use the screw that held the condenser in place.
3. Fit adaptor plate, locating the flattened hole over the pivot pin and secure with countersunk screw.  
**Note:** On some distributors the pivot pin may require shortening. Other distributors may have a small hole which will require the supplied brass spigot to be fitted into the flattened hole of the adaptor 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 cheesehead screw and split ring washer. Make sure the screw is tight.
5. Feed the wires around the distributor body allowing sufficient slack to ensure the advance mechanism is free to move and that the wires will not foul or touch the rotor/cam. then feed the wire through the hole in the distributor body. A cable tie is provided to allow you to secure the wire in place on the advance plate.
6. Slide the rubber grommet over the cable and locate it in the cutout or hole in the distributor casing.

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- Fit the magnetic disc over the cam. The disc will only fit in one of 4 positions with the peaks of the cam located between the internal ribs. The upper surface of the disc has a depression to match the shape of the rotor arm. For the best positioning the indicator dot should be approximately aligned with the rotor arm tip. Ensure that the disc is pushed fully home, Gentle heating of the disc by immersion in hot water prior to fitting may ease assembly.
  - 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.
  - Fit the spade connectors to the module wires. Use an appropriate electrical connector crimping tool for this work (not supplied).
  - Connect the Red wire to the ignition feed (+ or SW) coil terminal. 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 (- or CB) coil terminal. This is the terminal that the contact breaker was originally connected to. Discard the original wire connected to the condenser.
- Note:** If your vehicle has been converted from Positive Earth you must ensure that the Magnetronic wires are connected to the correct terminals as the ignition coil markings (+ and -) may not be correct for the new voltage polarity (see diagram).
- Refit the Rotor Arm and Distributor cap.
  - 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 to 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.