

DISTRIBUTOR FAULT-FINDER

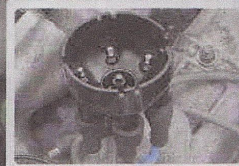
How to find ignition electrical faults quickly.

Most common faults

- No spark at spark plugs.
- Moisture in distributor cap.
- Faulty rotor arm.
- Condenser failed.
- Contact points worn or burnt.
- Carbon brush in distributor cap missing.
- Distributor cap arcing or becoming cracked.
- Fault with the aftermarket electronic ignition.

Emergency spares

- Distributor cap.
- Rotor arm.
- Condenser.
- At least one spare HT lead (longest).
- Electrical cable.
- Aluminium foil.
- Insulated pliers.



Distributor cap

Track lines and carbon build-up on the electrodes indicate it's time to replace the distributor cap. If the central carbon brush has fallen out, some tightly rolled aluminium foil can be used as a get-me-home repair.

Moisture in the form of condensation can short-circuit the system. Thoroughly dry the inside and outside of the cap using absorbent tissue or lint-free cloth.

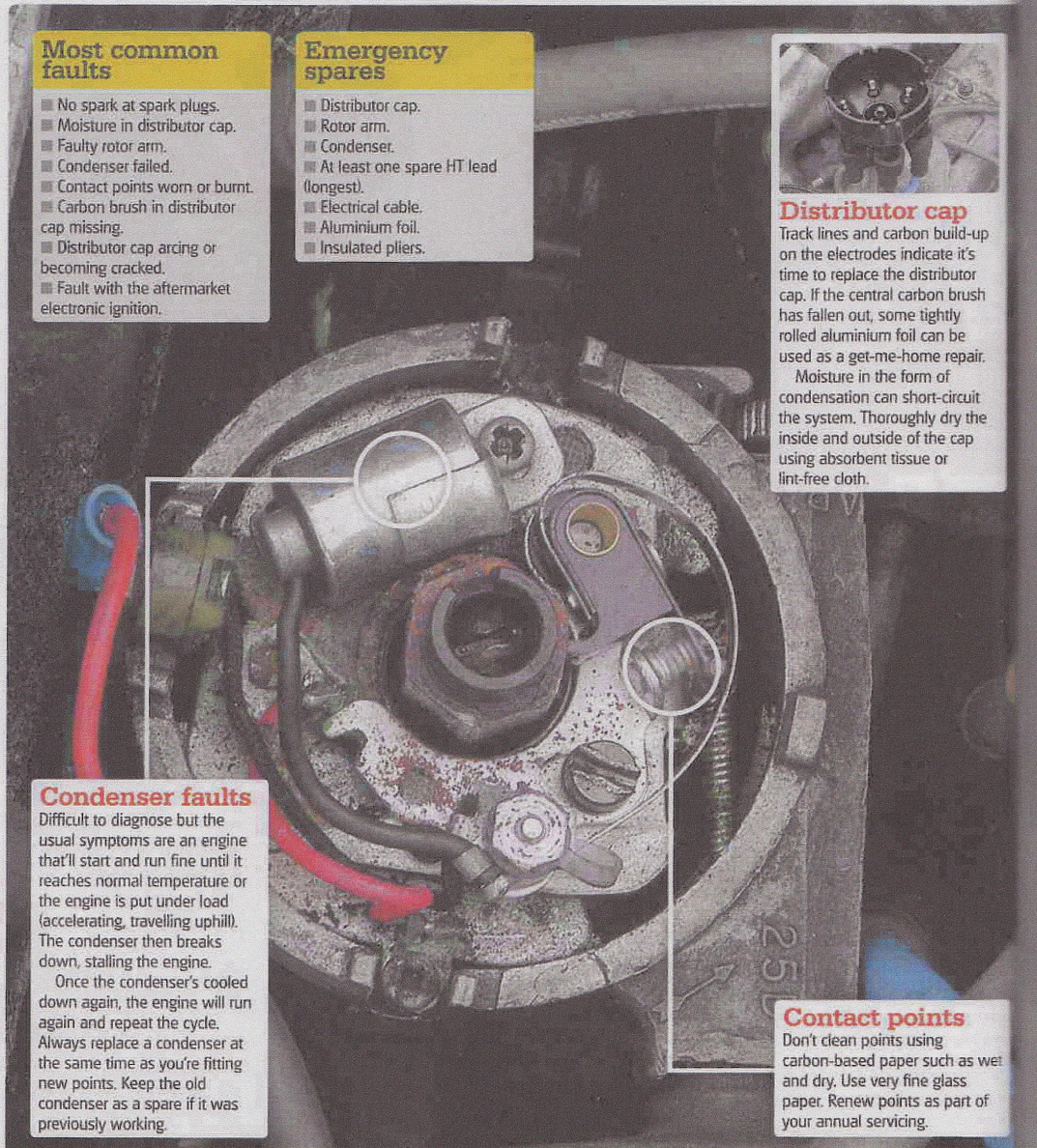
Condenser faults

Difficult to diagnose but the usual symptoms are an engine that'll start and run fine until it reaches normal temperature or the engine is put under load (accelerating, travelling uphill). The condenser then breaks down, stalling the engine.

Once the condenser's cooled down again, the engine will run again and repeat the cycle. Always replace a condenser at the same time as you're fitting new points. Keep the old condenser as a spare if it was previously working.

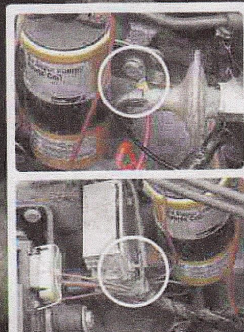
Contact points

Don't clean points using carbon-based paper such as wet and dry. Use very fine glass paper. Renew points as part of your annual servicing.



Rotor arm test

- Remove the coil-to-distributor-cap HT lead.
- Turn on the ignition.
- Using correctly insulated pliers, hold the end of the lead 6-8mm above the metal strip on the rotor arm.
- Have an assistant turn the engine over from the ignition switch.
- If a spark's present between the rotor arm and the HT lead, then the rotor arm insulation has failed. Replace the rotor arm.



Aftermarket electronic ignition faults

Most problems are due to bad connections and poor earthing (circled). Solder wires whenever possible and ensure earthing points are clean and protected from corrosion.

Lucas distributor earth fix

Regardless of whether standard or aftermarket electronic ignition is fitted, the base plate requires a solid earth. The old connection (red line circled) can dry out unnoticed or the wires fray, creating a short. This easy fix allows a more sturdy wire to be used...

1. Cut a length of 14/0.30mm, 1mm², 8.75-amp wire. Thicker is fine but flexibility is preferred from a thinner wire such as this.
2. Fit each end with suitable connectors. Soldered joints are preferred to just crimping.
3. Run the cable neatly around the outside of the distributor (black cable circled).