

Dear Members,



*'It's the new tracing app.
It tells me if I'm near
anyone who understands
the latest rules'*

I am sure that you are maxed out with Coronavirus news and Lockdown regulations so instead here are some tests to carry out on your car's electrics:

Testing Electrics on an Historic Car

One of the handiest tools to have at the roadside is a means of checking electrical circuits and components so that you can quickly diagnose unlit lights, non-wiping wipers or sparkless plugs. This note introduces a few of the options for your toolkit, and helps you choose them. It is intentionally very basic, because that is all most old cars need !

The vast majority of roadside fixes need just a very basic means of answering two questions.

1. "Is there any power at this point?" and
2. "Is there anywhere for the power to go?"

This needs an electrical indicator of some kind :

1. The bulb.



Using nothing more than a bulb on two bits of wire, (fitted with clips for convenience), more than 90% of your roadside diagnostics can be performed. It has a 12V bulb for working on 6V circuits (deliberately).

Very simply, it is used to decide if there is power (it lights up!), there is something connected in series between it and the battery (it is not so bright) or there is either no power or it can flow around the bulb through a circuit (It doesn't light up), or a connection is intermittent (it flickers).

Also, it doesn't matter which way round it is, unlike a meter which must be the correct polarity with respect to Earth. Whilst you can't use it to check a fuse or a bulb without a power source, you're standing next to your Seven, and that has a battery.

2. The Analogue (or moving) meter.

Cheap, simple and plenty accurate. The one drawback is they are a bit more fragile. Even so, a cheap meter will be good enough for any Seven task, including more complex activities such as ignition timing and setting the gap on the points.



The speed at which the meter can respond means that you will see an intermittent connection as a flick of the needle, which can be very handy. Be aware though, that all meters that have a resistance (or "Ohms") range have a battery in them, which will go flat when left for years under the back seat.

A word of caution: these meters have Current (mA) ranges as well as Voltage ranges. Unless you have very good reason to need to know the magnitude of a current, and you know in advance roughly how big the current will be, stay clear of the current ranges. If you try to measure how much current your headlights take on a milliamp range, (or worse still, you accidentally connect the meter to the car battery), the brief outpouring of smoke will inform you that a replacement meter will be necessary.

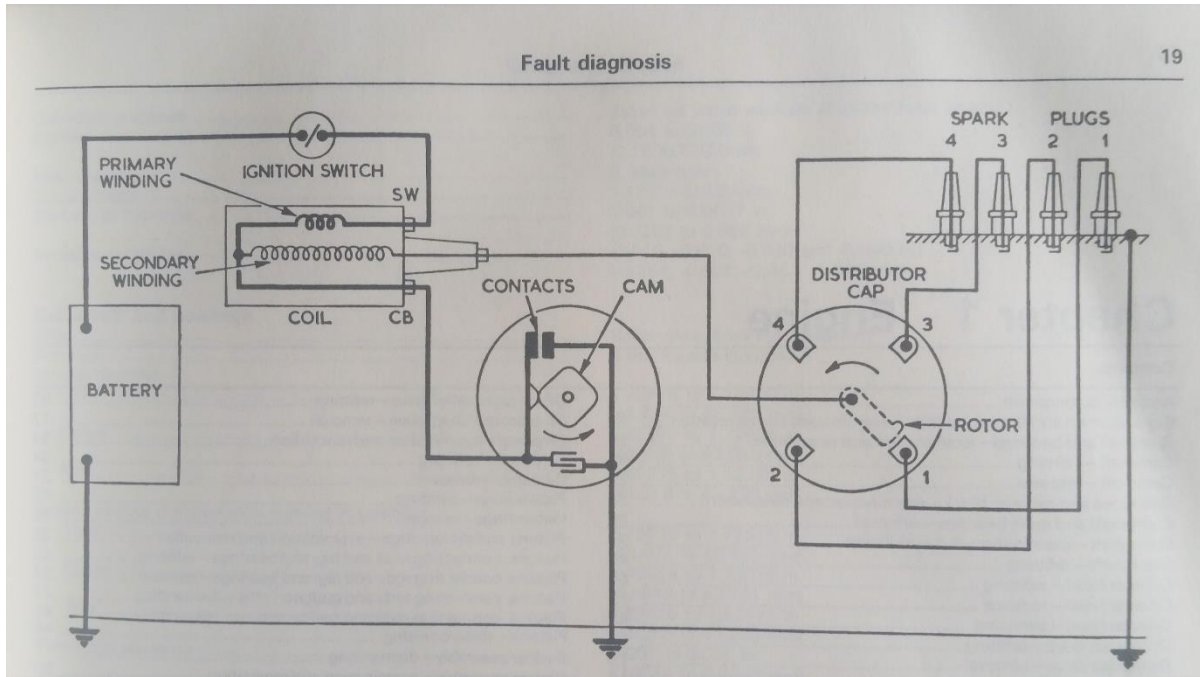
3. The Digital Multimeter.



Unnecessarily accurate for nearly all jobs, plus they are very sensitive. This means that some diagnostics can be confused by very small currents. For example, a 6V supply through an incredibly bad connection will still look like 6V to a high sensitivity meter. They also get utterly bewildered by ignition noise when used on a Seven with its engine running.

Also slow to respond, rarely updating more than once per second, so very poor at testing dirty contacts or circuits where the connection might be very temporary. Can even be problematical when checking fuses, as your skin is probably moist enough to give a continuity reading. And of course when the battery goes flat, they are of no use whatsoever.

An example: checking the coil and the points in the ignition.



Typical circuit of ignition system, note that firing order may not apply to all vehicles.

When carrying out the following tests please observe safety precautions. HT voltages can be lethal and when the ignition is switched on, and the engine turned by the handle, it may unexpectedly start.

The fuel pump has been primed so we know there is fuel, but on cranking the engine it won't start ! This is a perfect job for the bulb or the analogue meter. The bulb has the advantage that it can just dangle out of the way and you have both hands free.

1. Connect one side of the bulb to a good earth. If not too hot, use a cylinder head stud.
2. Check that the ignition system as a whole is getting power when the ignition is switched on. Connect the bulb / meter to the SW terminal of the coil and it should light up / read 6V / 12V as appropriate. If not, that's the problem – look for a broken wire.
3. Connect the bulb / meter to the CB terminal of the coil, and SLOWLY turn the engine over on the handle, one of the following will happen:
 - a) The lamp goes on and off / the needle swings, all OK on the low tension side and through the points.
 - b) The lamp lights and dims but does not go out: clean the points and check the gap.
 - c) The lamp stays out – either the points have closed up or the coil is open circuit.

Check by disconnecting the wire on the CB terminal, if the bulb stays out, the coil has failed open circuit. If the bulb relights, then the points have closed or there is a short near the distributor.

- d) The lamp lights and stays lit, either there is no connection through the points, or the distributor has lost its earth connection (the baseplate screw is a prime candidate for this on Lucas distributors). Check the wire between the coil and the points for breaks, and clean the surface of the points.

Finally the capacitor in the distributor could be open circuit (indicated by the points burning out frequently) or more unlikely short circuit. A simple replacement is the best solution although be aware that many substitute capacitors are of poor quality nowadays.

WEST GREEN HOUSE

Classic Car Show

Sunday September 20th at West Green House in Hartley Wintney was the perfect summers day. It was the ideal setting for a picnic whilst listening to live Swing music, and admiring the large gathering of exotic and historic cars. Helga and I left the MGB GT at home, but NHAEG was ably represented by 2 club members and their cars.



Practical Motorist & Motor Cyclist



Editor : F. J. CAMM

SEPTEMBER, 1955

CAR TESTS DROPPED

WE are glad to note that the clause which would make the testing of cars compulsory has been dropped from the Road Traffic Bill. The Minister said that the public would not stand for it, and in this he is quite right. The clause was introduced because of the large number of old cars still on the road and giving faithful service. The age of a car is no indication of its mechanical efficiency. Had such a clause become law it would undoubtedly have been made the excuse for a large number of petty prosecutions. The Minister should be informed that there are a sufficient number of regulations controlling the construction and use of road vehicles and the present law is adequate to deal with any vehicle suspected of not being in a roadworthy condition.

In some ways, the Road Traffic Bill eliminates anomalies. A new Clause will be moved in the Committee Stage to distinguish between driving under the influence of drink and being drunk-in-charge. The Parliamentary Secretary, M.O.T., said that unreasonable court decisions encourage people to try to drive home instead of sleeping in their car until they regain their normal state—a point which has been made in this journal several times. The new Bill will abolish the Road Fund. It will, in reality, merely give effect to a position which is *de facto*, for the Road Fund established in 1920, has ceased to exist for many years. The whole of the Road Fund will go to the Exchequer and any expenditure incurred by the M.O.T. after April 1st next year will be paid from money provided by Parliament. The Road Fund was introduced with the pledge that it would be used for no other purpose except the making and repair of roads. In 1951, only £80 m. or so were spent out of revenue of £212 m. The revenue from motor taxation in 1954-5, however, brought in nearly double that sum, £405 m., out of which only £90 m. were spent. It is not possible to obtain statistics showing how much extra revenue has been extracted from motorists in the form of savage fines by unskilled magistrates for offences which motorists cannot help committing and which would not be committed had the Road Fund been spent for the purpose for which it was extracted. The usual Government method of arming the police with more power in an effort to solve our traffic problems by prosecutions is unacceptable to the motoring public.

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“THE PRACTICAL MOTORIST AND MOTOR CYCLIST”