

**IGNITION/ELECTRICAL**

Ignition: B18/B20 engine ..... 1  
Electronic Ignition ..... 1  
Dynamo Problems & Faultfinding..... 1  
Dynamo Polarity..... 2

**Ignition: B18/B20 engine**

Running unleaded fuel, we have found that **9.5° BTDC** was the best idle timing for power, and avoids pinking on all except high-compression heads; this coincidentally gives about 32°max advance, which is generally the optimum power.

**Electronic Ignition**

With a redline of 6500rpm, there's not a huge advantage in performance to be had from electronic ignition, however the reduced maintenance of this easily reversible mod is bonus enough for me. Using Lumenition, the control box can be mounted neatly inside the car, above the passengers parcel tray, leaving the engine bay apparently standard (except for the 3 wires emanating from the dizzie).

The +ve feed for the system can be had by...  
"breaking" the armouring from ignition switch to coil  
*or* using our special cable that attaches to 2 of the ignition switch poles

**Dynamo Problems & Faultfinding**

Possibly the quickest route to find whether it's your dynamo or control box that is faulty when the Amp light burns continuously (or fails to glow with ignition "on" engine "off")...

Engine & ignition "off".

Disconnect the dynamo red wire at the control box

Disconnect the dynamo green wire at the control box, and earth it.

Connect the voltmeter to dynamo red wire, scale 0-40v DC.

Start the engine.

## Technical Tips

You should observe the following test conditions...

**At idle:** around **5-11v**, depending on idle speed

**At higher revs** the voltage should climb rapidly above **20v**

If 0v is read in all conditions, it may well be that the dynamo polarity has been lost

If the voltage remains below 12v under both conditions, your dynamo is almost certainly faulty.

If the two test conditions are met, then it is probably your control box that is faulty.

### **Dynamo Polarity**

To ensure this is healthy (and a good gross check of the dynamo): remove fanbelt, earth the green (field) wire, then disconnect the red wire from the regulator and apply 12v. The motor should spin briskly, and this will also ensure the correct polarity.

Amazon Cars, UK

Tel: (+44) 01379 388400 Fax: (+44) 01379 388424

[volvo@amazoncars.co.uk](mailto:volvo@amazoncars.co.uk)