Continuity

Resistance
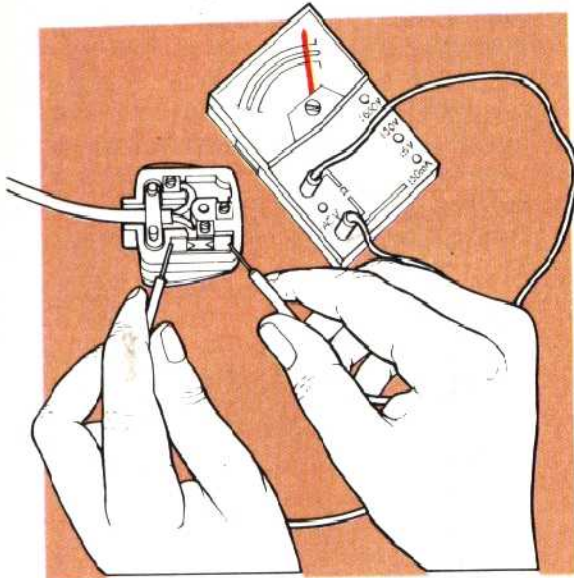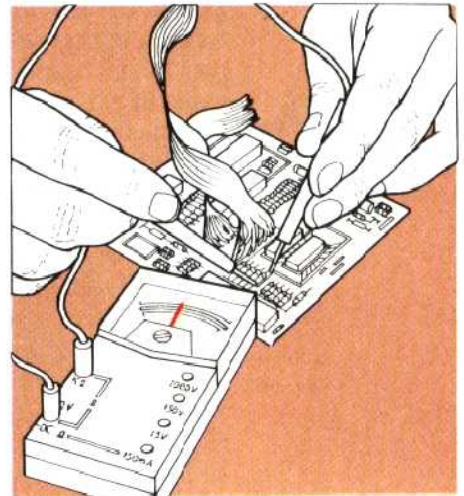

Continuity And Resistance
One of the most common examples of induced deliberate continuity failure is in the fuse found in all our three-pin 13 amp plugs. The fuse is designed to burn through and break the circuit if it gets overloaded, and in the absence of a continuity tester of some description the usual remedy for an appliance's failure to operate is to swop the old fuse for a new one. But what if it wasn't the fuse? The continuity tester will soon tell us. In addition, we can use a multimeter to measure the value of a resistor
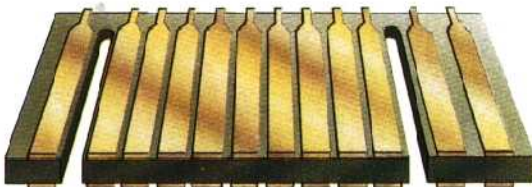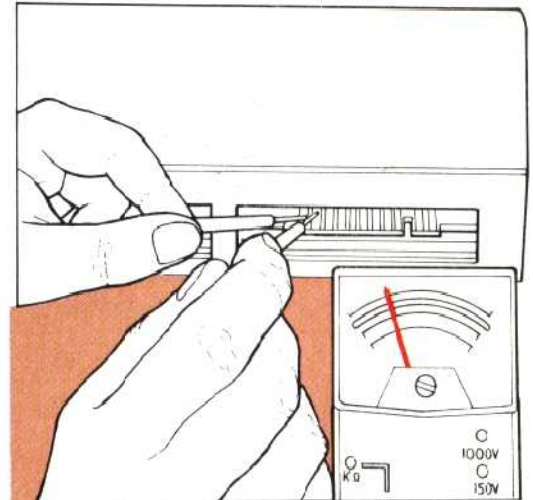
Leading Edge
Edge connectors of the sort shown here are the physical medium by which the computer is connected to its peripherals. Some machines, such as the Spectrum and ZX81, have only this one port. Others, like the BBC Microcomputer, have many. Edge connectors are only one type of I/O port, but are popular because they are an integral part of the PCB

Crocodile Clip
The rather imprecise crocodile clip can be converted to a finer probe by taping a spare soldering iron bit between its jaws
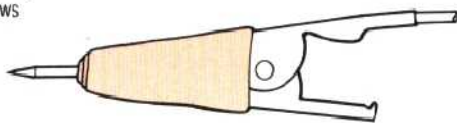

Voltage
A good example of the use of the multimeter as a voltage tester is to locate the power source of your computer's edge connector. Refer to your manual, and locate the 0 volts and +5 or +9 volts pins. Touch the negative probe of the meter to 0 volts and the positive to +5 or +9 volts. The resultant reading will tell you how accurate is the voltage regulation and control circuitry inside your computer and its power supply
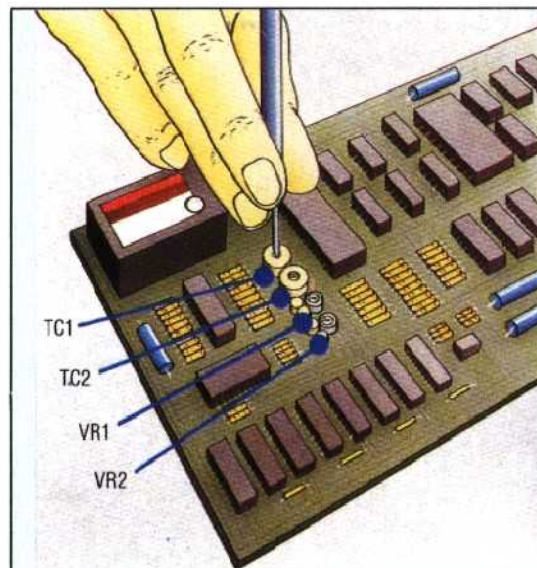

Tuning Your Spectrum
As we noted on page 50, owners of early Spectrums can improve the quality of a deteriorating TV image. The two variable resistors shown (VR1 and VR2) control the red-green and blue-yellow balance respectively. TC1 (a trimming capacitor) and its companion TC2 control character clarity and colour strength.

The Spectrum case is held together by the five visible cross-head screws on the underside — note the warning about guarantee nullification — and exposing the PCB is simply a matter of removing them.

Version 3 Spectrum owners cannot make this adjustment — or any other. A Version 3 Spectrum can be identified by the heatsink, visible as a thick aluminium plate to the left of the edge connector

WARNING
Your home computer's guarantee — if still in force — may be rendered null and void if anyone other than the manufacturer or his appointed agent opens the case