SOLDERING REPAIRS / WORKSHOP



The Right Screwdriver

There are two varieties of screwdriver: straight and crosshead, though in the latter case it is necessary to differentiate between Philips and Pozidriv. However, in the size range used on most home computers, the two standards are interchangeable. You will probably find you need both straight and cross-head, in perhaps a range of sizes

Coming To Grips

For the beginner two types of pliers are sufficient — heavy duty bull-nose pliers, which will probably double as wire cutters for the heavier jobs, and much lighter, point-nose pliers for jobs that require a lighter touch

Cut-off Point

Wire cutters come in two main types, known as side cutters, like the pair shown here, and end cutters, whose cutting jaws are at 90° to the plane of the handles. In an emergency, a pair of nail clippers might do the job — but don't rely on being able to cut your nails with them afterwards!

Soldering A Plug



Baring And Tinning

The first stage in the process of making up a lead is to bare the wires in the cable by stripping off the insulation. Be generous. Strip more wire than you need, and trim it back later. Hold the cable in the vice and heat it with the iron. Apply the solder to the cable, and when it starts to run use the iron to lead it neatly down the whole exposed length of the cable. This process, known as tinning, makes the later soldering process considerably simpler — by then, the solder is on the component.

Repeat this same procedure on the plug. While the terminal is still hot enough to run the solder, apply the tinned cable, remove the heat source when the solder on both component and cable have fused and run together, blow on them to cool them below melting point, and the joint is made



Keeping In Trim

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The last stage of the job is to trim off waste material. Trim cables short, and also the terminal pins on components — but not until the very last moment, and that means after the job has been tested. The reason for trimming is simple — a long end of waste cable, or a protruding terminal pin, can brush up against something else, causing a short circuit or, worst of all, one of those infuriating intermittent faults

