Dear Sir,

I have just received my copy of the March issue. I have read in the letters page, the sad story of Mr Sadler of Somerset, regarding electric water de-scalers. I designed this circuit myself to de-scale my water supply efficiently. I am pleased to state that it works well, and the people I have made them for are more than delighted with its performance. The circuit produces about 400-425V DC, at several milliamps. It is installed by first insulating about 10-12in. of mains water pipe with waterproof tape. Two strips of self-adhesive copper foil, which can be purchased from craft shops, are then wrapped around the insulated pipe (NOT TOUCHING, of course). The output of the circuit is attached to the strips and the whole area is then covered with another layer or two of insulating tape so that no-one can touch the live strips of copper. For a standard 0·5in. pipe, the two strips of tape need to be about 10mm wide, so that about 33% of the circumference is covered. The circuit produces a strong electrical field in one direction only. This has the same effect as placing strong magnets around the pipe. The field alters the molecular structure of the insoluble chemicals in the water and renders them soluble again. The MOSFET transistor is available from Greenweld of Southampton for 80p at the moment. The 555 is a common enough component. The inductor is a 1mH axial type from Electrovalue, and is very critical. The part number is B78108S. The maximum voltage the circuit will work at is 9V. I would recommend an 8V 100mA regulator. The circuit consumes around 80-90mA when operating.

Thank you for sending in your water de-scaler design, which will be of considerable interest to many of our recent correspondents.