

# Tex's

## Tips & Topics

Hello and welcome to 'Tips & Topics', an occasional column of tips, tricks and ideas. This column is for you the reader, to show some of the ideas you use to make this hobby easier or more fun!

For our first outing of the 'Tips&Topics' column we turn to a letter from **Jim Brown G0KZV** who sent in the following tips and ideas. Jim's first idea, is an ideal one for those of us who have an old (but very useful still) AVO Model 8 or 9 multimeter.

Jim started his letter with the question "Do you have an old AVO?" Then went on to answer it by saying: "I have a Model 8MkII from circa 1961. It is heavy and not very portable, but is still a good bench instrument. The 1.5V battery for the Ohms range is easily available, but the 15V battery for the Ohmsx100 range costs an 'arm-and-a-leg' (when you can find them).

"There's plenty of room on the battery cover to mount a bridge rectifier and capacitor over the 15V battery compartment. I used four diodes and a 470µF 63V electrolytic capacitor out of the 'junk-box'. The a.c. input is from a surplus 9V a.c. plug-top p.s.u. I replaced the original p.s.u. plug with a 'Phono' plug to mate with a suitable socket on the AVO body. The circuit, as shown in **Fig. 1**, works perfectly and is only needed on that one range".

### Mono-Stereo

The second idea from Jim's letter concerns making a 'mono-stereo' change-over switch. Jim's idea is to add a small adapter cable to the set-up as shown in **Fig. 2**. The two resistors are of the same value and

should be around the same value as the individual headphone ear-pieces. And Jim suggests around 5-20Ω for the normal (cassette player?) headphones that are around 16-32Ω each, although he has used 100Ω resistors for his own headphones that are 300Ω impedance.

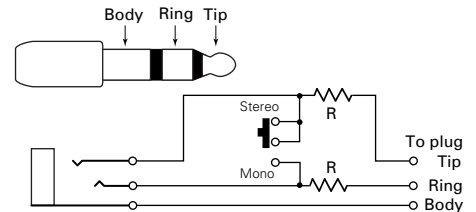
Now to look at a couple of feeder ideas from Jim. The first idea is for spreaders and retaining them in place on twin open wires. The basic idea is shown in the illustration **Fig. 3**. A short section of 'off-

den variety) with no noticeable losses". You will need a suitable length of 10mm internal diameter garden hose, a longer length of nylon monofilament, a large magnet and a small length of smooth iron bolt with a hole through the end! Baffled - well read on!

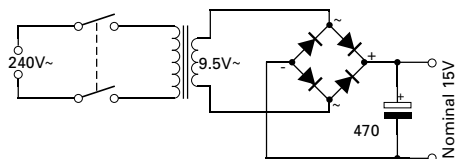
The trick that Jim uses is to feed the feeder through a length of garden hose, that is long enough to pass through the bush with a little to spare at each end. But trying to get the 450Ω ribbon through an equally reluctant length of hosepipe can take quite a long time. The solution according to Jim is explained below.

Take the nylon monofilament and tie one end to the short section of bolt, then feed it into one end of the pipe. Secure the other end of the nylon at the same end, so that it cannot be pulled into the hosepipe. Using the magnet on the outside of the hose, draw the bolt through to the other end of the pipe.

The monofilament can be attached to the twin feeder which can then be pulled back through the hosepipe. Then pass the



● Fig. 2: A very simple stereo/mono switching adapter that can be used with any stereo headphones. The unit should be mounted in a small box if used as an 'in-line' adapter.



● Fig. 1: A simple low current p.s.u. can replace the difficult-to-find 15V battery used for the high resistance range of the AVO Model 8 (or 9) multimeter. For correct operation the off-load voltage should be between 12.5 and 15.5V.

cut' plastic material has two 1.5mm holes (spaced apart by the separation needed) drilled in the ends.

The 'clamp' for these spacers is a 'hairpin' of thin (0.7mm or 22s.w.g.) enamelled copper wire. The clamp has legs about 50-60mm long. This is slipped over the feeder wire and both legs are passed through the hole, each leg is secured to one 'run' of the feeder wire.

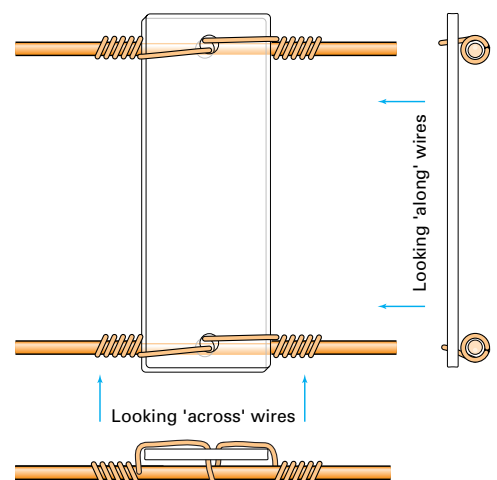
Jim says that "My spacers have never slipped along the feeders, but if you're worried that it might happen, you can always put a dab of adhesive on the twists to lock them in place". A nice simple idea that one!

Jim's second feeder related trick is when using 450Ω slotted feeder to "take it through bushes (the gar-

hosepipe through the bush in an inclined path. seal the upper end on the hosepipe with a waterproof adhesive and leave the lower end open to breathe. If the weight of the pipe is a strain on the feeder, the pipe can be tied in place to support points, using a none metallic rope or twine.

Well, there you have the ideas from Jim Brown G0KZV, who wins all of this month's vouchers. Now it's your turn to explain all those tips you've used (perhaps for years) and haven't thought about. So what are you waiting for? Get writing!

PW



● Fig. 3: An 'easy-to-fit' open-wire feeder spacer, see text for dimensions and fitting instructions.

As an incentive, each published 'Tip' gets a £5 Book service voucher for the author. The best idea each month gets an additional £5 voucher as well. So, get writing! G1TEX