

## Low distortion oscillator

I feel I may be able to shed some light on the problems experienced with the "Ultra Low Distortion Oscillator" by correspondents in the September and November 1987 issues. Both these peo-

# editor

ple found it impossible to obtain operation of the frequency control potentiometer in accordance with the printed scales supplied in their Altronics kits. I am certain the cause is very simple and relates to the ambiguous labelling of potentiometers supplied by various stores in the last several years.

There are two distinct and **CONFLICTING** systems of coding potentiometers as to their taper. Many store staff, as well as customers, are unaware of this and regularly supply the wrong types. I feel this has occurred with the Altronics kits purchased by your two correspondents.

Many years ago there was only one standard usually found in Australia. Let me call this the **OLD** system. More recently potentiometers started appearing at your "Friendly Parts Grocers" with a new set of codes. This caused much confusion at the time and one store (DSE) even went as far as to place signs over the potentiometer bins explaining the new codes. I understand these codes are a metric standard and so are used in Asia as well as Europe.

The codes, based on my experience, are as follows:

**OLD system:**

A = linear

C = logarithmic

**Metric system:**

A = semi-log (also known as audio taper)

B = linear

C = anti-log

D = logarithmic

With the codes A and C having very different meanings in the two systems it is obvious that Murphy's Law will apply. If your two correspondents check their pots with an ohm meter they will probably quickly find they are not linear but most likely semi-log types confusingly labelled with the letter A.

Note carefully, a potentiometer does **NOT** have to be metric size (6mm shaft etc) to be labelled with metric codes, however ones stamped "AUST" use the **OLD** system.

When in doubt reach for the multimeter, set the potentiometer to the centre of its travel and measure the two halves. A linear will have equal halves and the others unequal – logarithmic

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will be in the ratio of 9:1 and semi-log 5:1.

I hope this will help your two correspondents as well as any others who have suffered at the hands of Murphy in this way.

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