

UNIVERSAL METER RECTIFIER

This circuit can be built for about £1 but could save pounds in multimeter repair costs.

The meter movement is removed from the meter circuit, its place being filled by the input (terminals A and B) of the circuit shown. Pin 2 of the 741 remains at the same potential as pin 3, so the input signal "sees" R1 as its load. However, the current which flows through R1 does not flow into pin 2, but through D1-D4, the original meter movement M1 and RMS correction resistors R2, to pin 6. Hence the circuit is current controlled, and so unaffected by the non-linearity of the rectifier, D1-D4.

R2 should only be in the circuit if it is desired to measure RMS AC values, all measurements are made on

the DC ranges of the instrument.

R1 and R2 should be close

tolerance types for accuracy; the circuit is accurate up to 100kHz.

