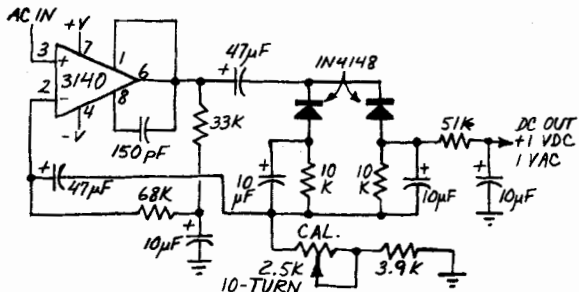


IRONING OUT LINEARITY

I built the ac converter circuit featured in "Build A Multiple-Choice Digital Multimeter" (February 1979) to use as the front end of a dedicated digital panel meter. Linearity was too poor for use with a 3½-digit meter, however. After much experimenting, I came up with the revised circuit shown.



The 47- μ F capacitors are not critical, but they should be fairly large and equal in value. The 1- μ F capacitor on the output can be considerably reduced in value, especially at higher frequencies. This will help the output to settle faster. The CAL potentiometer should be a 10-turn precision device.

This circuit gives accurate ac conversions through a range of 10 mV to 2.0 volts, correct to three decimal places, verified by a calibrated 5-digit DMM. —Joe Sharp, Orange, VA.