

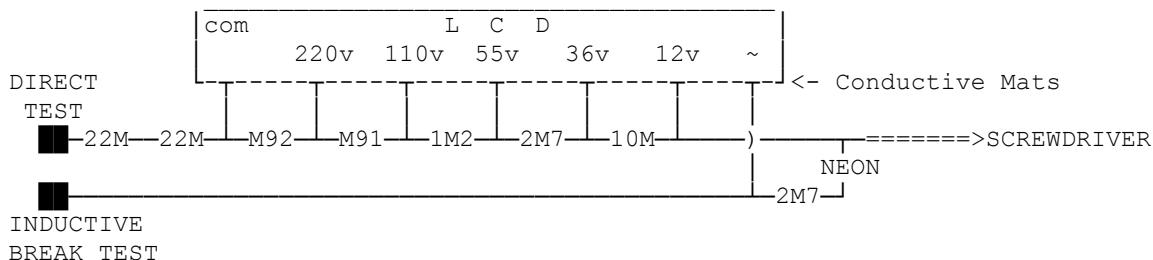
Subject: Volt Indicator Screwdriver

From: G8MNY@GB7CIP.#32.GBR.EU
 To : TECH@WW

By G8MNY (NEW Sept 2004)

This is the circuit of a £1 screwdriver voltage tester...

ROLSTON's ORIGINAL VOLTMETER SCREWDRIVER



DIRECT TEST

If you have not seen one of these, they have a small LCD panel in the flattened black handle that indicates if the voltage is greater than the displayed graphics. This occurs when any of the LCD sections sees greater than about 1V. As the LCD current required for any of the display sections is only the odd pA very high value resistors can be used to make up the multiplier chain. This means the return circuit can safely be made through ones finger to earth.

INDUCTIVE BREAK TEST

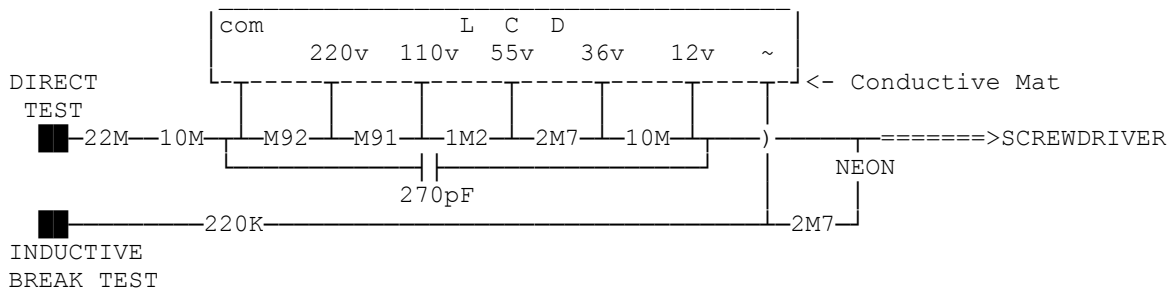
A neon is also fitted for a Inductive Break-point Test. (what ever that is) It lights when voltages are above 80V, above 2V you just see the ~ symbol.

N.B. this circuit this test is not too safe, as current COULD flow through the LCD to you! So I don't recommended you use the neon option as a mains tester!

G8MNY's MODIFIED VERSION

To open the unit to improve the calibration & modify etc, pop out the back panel cover & do...

- 1/ Change one of the 22M to 10M (100v) to increase the sensitivity on DC.
- 2/ Then add a 270pF (20v) cap to reduce the sensitivity on AC.
- 3/ Add a 220K (250v) into the inductive break test circuit.



Now test & you should find the accuracy better & from DC-50Hz. And there is no danger of electrocution if the neon indicator is used on Mains.

Why Don't U send an interesting bul?

73 De John G8MNY @ GB7CIP
/EX