

"CALIBRATING A SIMPSON 260 VOM"

DISCLAIMERS

- I AM NOT A METROLOGIST!
- I DON'T HAVE "TRACEABLE" STANDARDS
- MY METHODS ARE NOT CERTIFIED
- I AM ONLY SHOWING THE VOLTAGE ADJUSTMENTS (NOT CURRENT SHUNTS)
- I AM NOT TAKING GREAT CARE ABOUT METER ORIENTATION

MY INTENTIONS

- EXPLAIN & DEMONSTRATE WHAT EACH ADJUSTMENT DOES
- APPLIES TO SERIES 4 AND UP

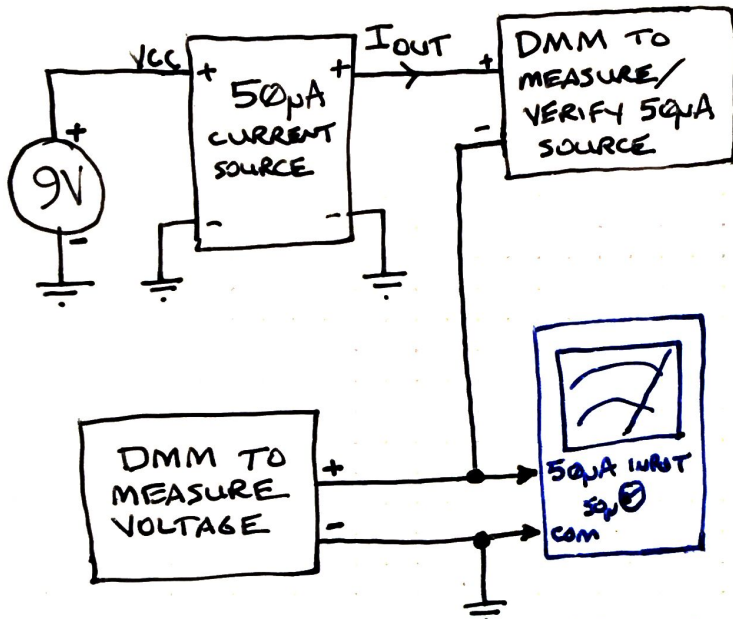
THE SIMPSON 260 RANGE ACCURACY
DEPENDS ON:

- THE METER MOVEMENT HAVING *1
FULL SCALE = $50\mu\text{A}$
- THE CORE METER CIRCUIT RESISTANCE *2
IN THE $50\mu\text{A}$ FULL SCALE RANGE
EQUAL TO 5000Ω
- PRECISION RESISTORS USED IN SERIES *3
TO ESTABLISH EACH VOLTAGE RANGE
- FOR AC RANGES, ADDITIONAL SHUNT *4
RESISTORS ARE USED

NOTES:

- 1) NOT ADJUSTABLE ON SERIES 3
- 2) ADJUSTABLE ON SERIES 3-8
- 3) NOT ADJUSTABLE
- 4) TWO ADJUSTMENTS (LOW \uparrow HIGH RANGE)

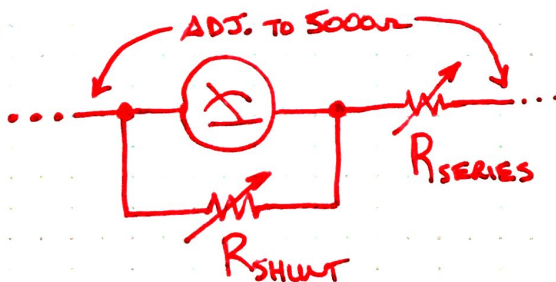
ADJUSTING 50nA FULL SCALE AND 5000Ω CORE RESISTANCE



→ 50nA RANGE
 → 50nA JACK
 → DC

BEFORE YOU START

-ZERO THE METER !!



STEPS

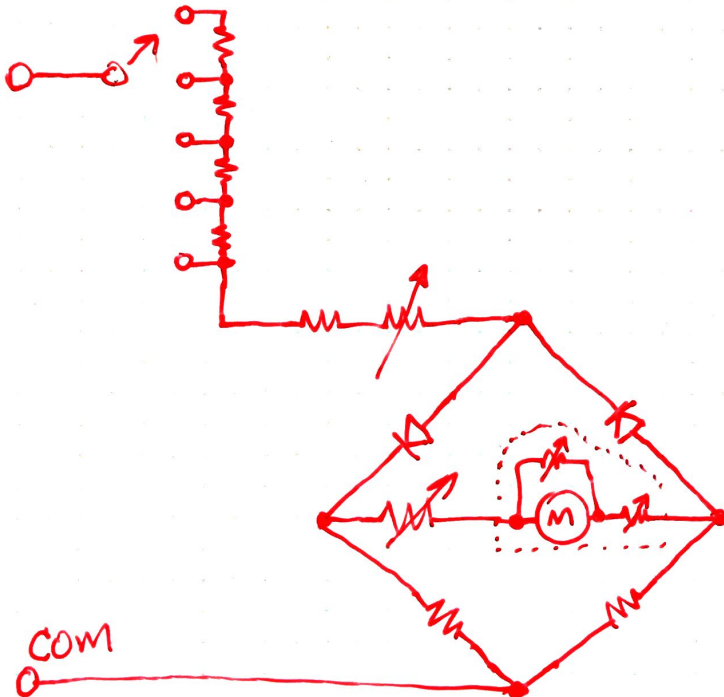
- 1) VERIFY 50nA CURRENT
- 2) ADJUST RSHUNT FOR FULL SCALE
- 3) ADJUST R SERIES FOR 250mV ON DMM

ADJUST AC VOLTAGE RANGES

(SEE DIAGRAM W "THEORY OF OPERATION")

1) ADJUST RESISTOR "INSIDE" THE BRIDGE ON 250 VAC RANGE

2) ADJUST SERIES MULTIPLIER RESISTOR ON 2.5VAC RANGE



MY 50 μ A CURRENT SOURCE

