

Figure 5

- Start the ends of the four input terminal sleeves into their case holes and carefully insert the hex shaft into its hole.
 - Press down on the circuit board corners until the circuit board fits fully into the case top.
6. Reassemble the case as explained under "Battery Replacement."

NOTE: Make sure the three small O-rings are inside their screw posts.

CALIBRATION

We recommend that you calibrate the Multimeter once each year. Perform the calibration at an ambient temperature of $23^{\circ}\text{C} \pm 2^{\circ}\text{C}$ ($73^{\circ}\text{F} \pm 4^{\circ}\text{F}$) and a relative humidity of 75% or less. You will need an accurate AC and DC calibration standard to perform this function.

1. Open the case as described under "Battery Replacement."
2. Set the function switch to V and make sure "AC" is not shown in the display.
3. Set the DC calibration source for $190 \text{ mV} \pm 0.05\%$ and connect it to the V- Ω - and COM terminals on the Multimeter.
4. Use a small-bladed insulated screwdriver and adjust control VR1 (see inset drawing #1 of Figure 6) on the left side of the circuit board next to the RANGE pushbutton for a display of 190.0 ± 1 digit.
5. Disconnect the DC calibration source from the Multimeter and turn it off.
6. Press the AC/DC pushbutton so that "AC" is shown on the display.

7. Set the output of the AC calibration source for $1.9\text{ V} \pm 0.1\%$ at 500 Hz and connect it to the V- Ω \rightarrow and COM terminals on the Multimeter.
8. Use a small-bladed insulated screwdriver and adjust control VR2 (see inset drawing #2 in Figure 6) on the right side of the Meter case for a display of 1.900 ± 1 digit.
9. Disconnect the AC calibration source from the Multimeter and turn it off.

10. Turn the Multimeter off.

11. Reassemble the Multimeter as described under "Battery Replacement."

This completes the "Calibration."

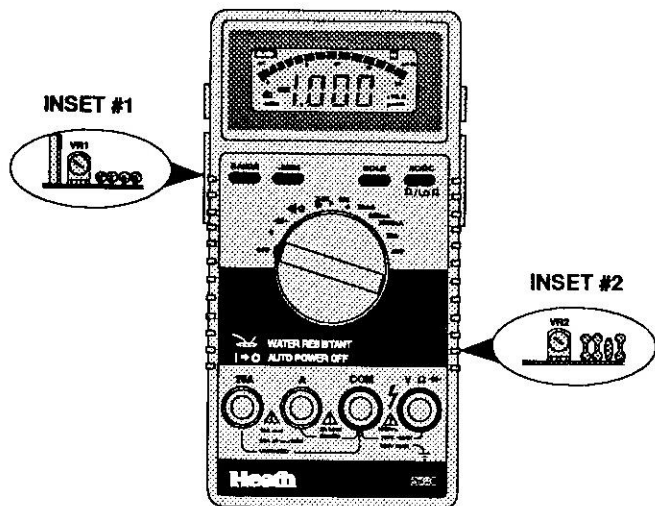
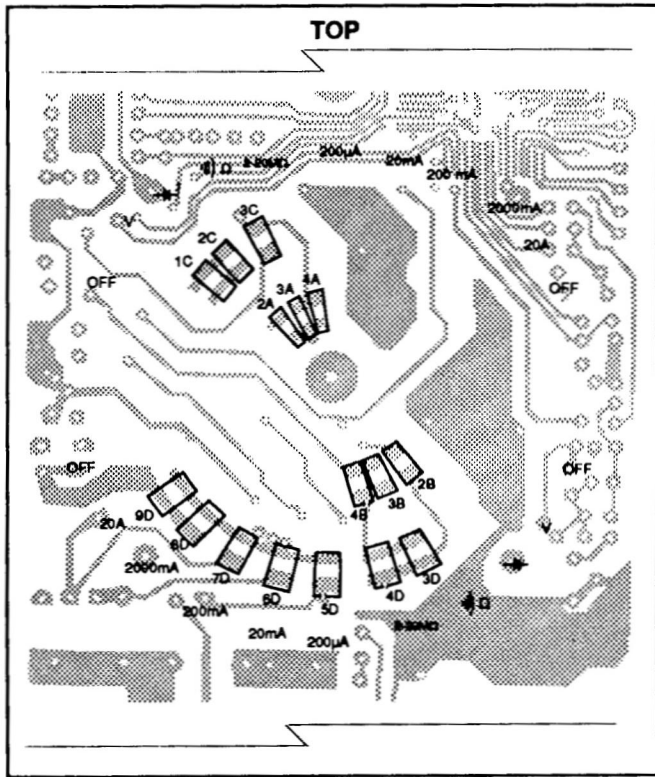
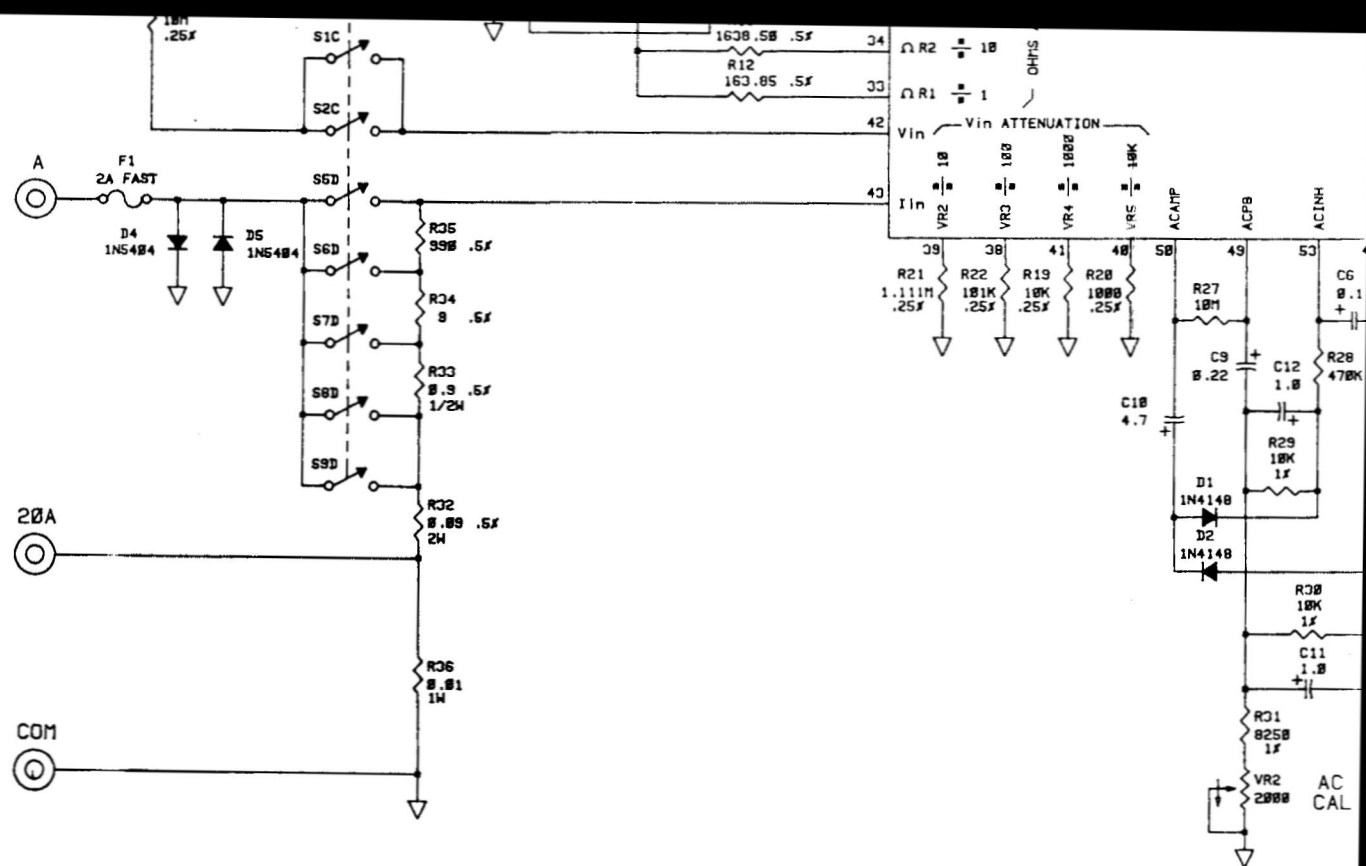


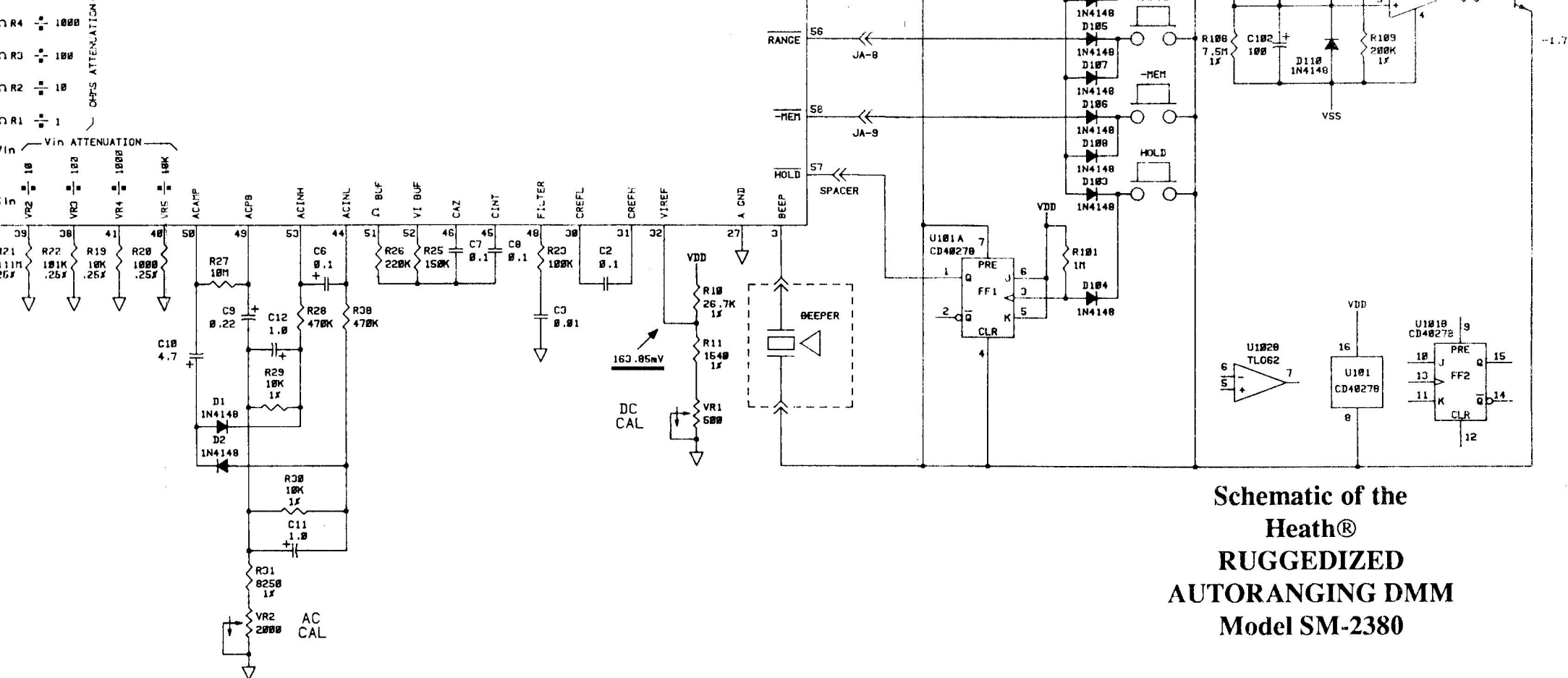
FIGURE 6



REAR BOARD
(COMPONENT SIDE)



SWITCH CONTACT IDENTIFICATION






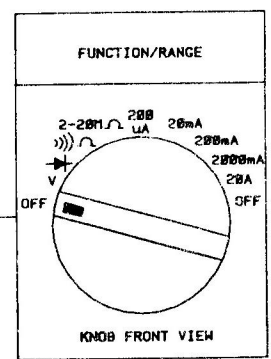
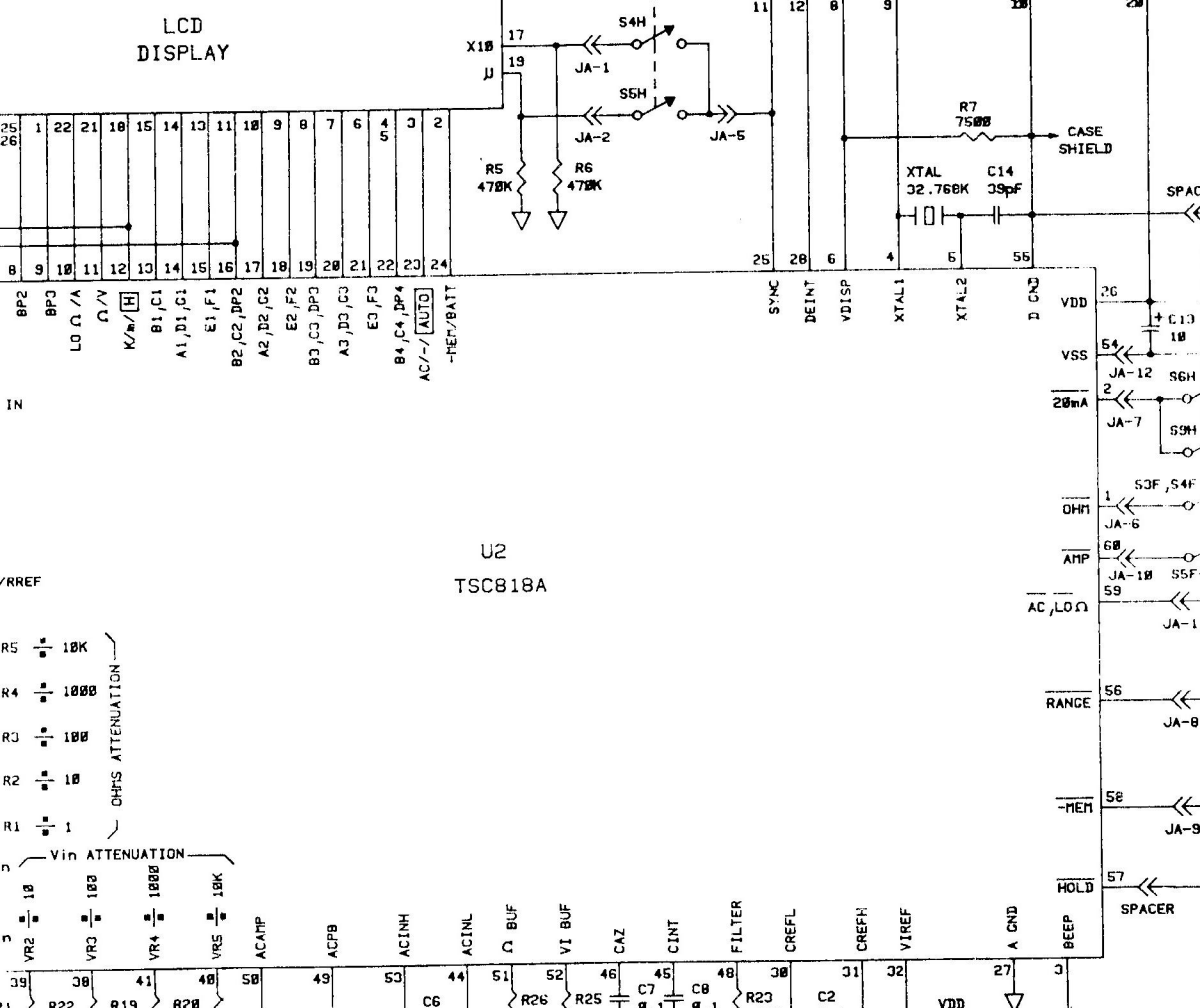
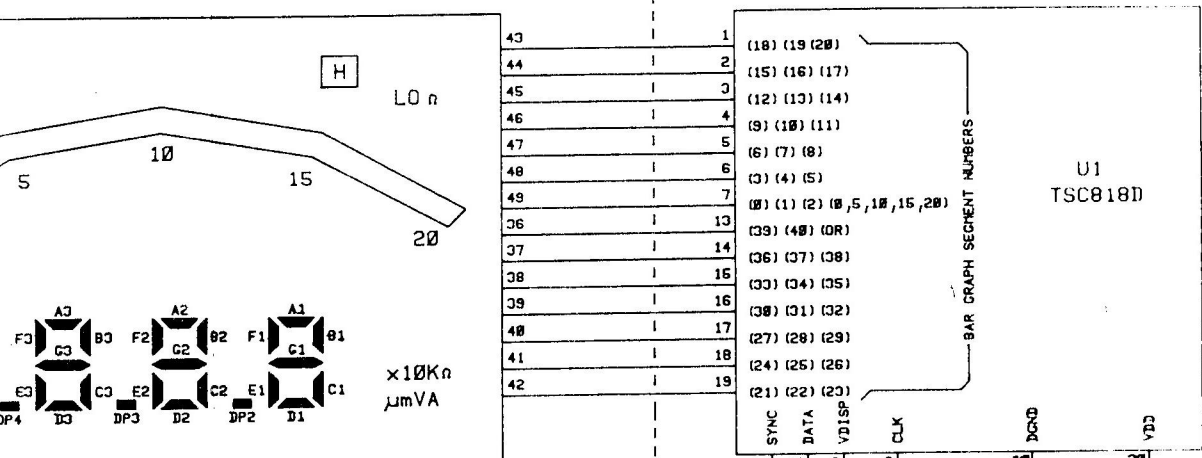
**Schematic of the
Heath®
RUGGEDIZED
AUTORANGING DMM
Model SM-2380**

NOTES:

1. All resistors are 1/4-watt, 5%, unless stated otherwise. Resistor values are in ohms (k=1000, M=1,000,000).
2. Capacitors are in microfarads unless stated in pF (picofarads).
3.  This indicates a connection point.
4.  This symbol indicates a circuit board ground (COM input).
5. All switches are shown in the "off" and "out" positions.
6. DC voltages were measured from the point indicated to the COM test lead terminal (ground) and in the V function. The voltage measurements were taken with a fresh battery installed in the Multimeter ($\pm 4V$ tolerance).

7. Transistor pinouts are:  (top view)

SWITCH CONTACT IDENTIFICATION



SWITCH	FUNCTION
S1	V
S2	+
S3	Ω
S4	2-20MΩ
S5	200μA
S6	20mA
S7	200mA
S8	2000mA
S9	20A

