

Figure 1.

### 2835 CALIBRATION PROCEDURE

The procedure should be performed at an ambient temperature of  $23^{\circ}\text{C} \pm 5^{\circ}\text{C}$ , and at a relative humidity of less than 80%. Allow the instrument to stabilize at this temperature for a minimum of 30 minutes.

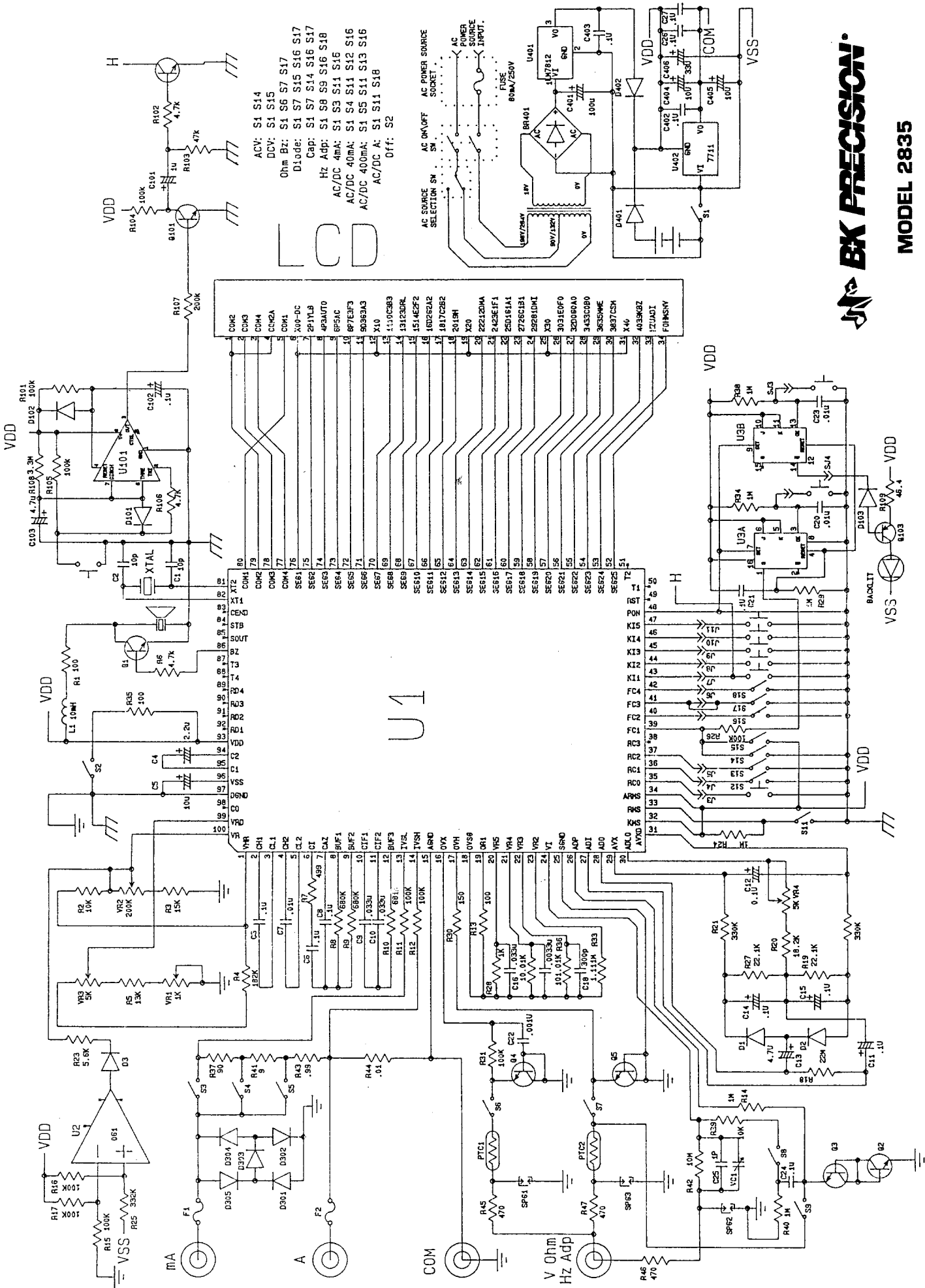
1. Remove the bottom case hardware, and remove the top case and lift front panel assembly from bottom case.

#### NOTE

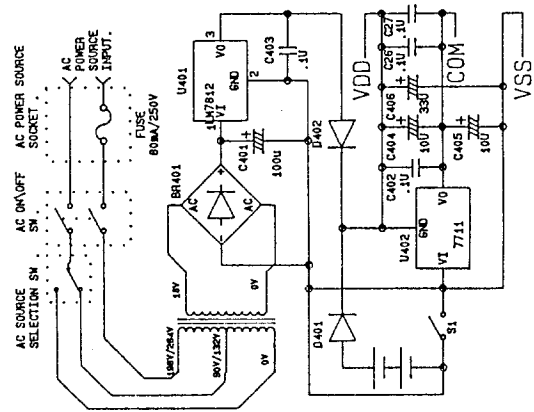
See Fig. 1 for the locations of VR1, VR2, VR3, and VR4. Fig. 1 does not show the locations of VC1 or R44 (steps 8 through 14). Calibration can often be performed without readjustment of VC1 or R44. If adjustment is required, further disassembly is required. First select the desired range, then remove the six screws shown in Fig. 1 and pull the circuit board away from the front panel plastic to gain access to VC1 and R44.

2. Set the Function Range switch to the "Adp Hz" position.
3. Set the output of the DC calibrator for  $390.0 \text{ mV} \pm 0.002\%$  and connect it to the "V- $\Omega$ " and "COM" input terminals.
4. Adjust VR3 and VR1 until the display reads  $390.0 \text{ mV} \pm 1$  digit. (VR1 is fine adj.)
5. Inspect the other DCV ranges. Readings should be within specifications.
6. Set the output of the AC calibrator for  $300.0 \text{ V} \pm 0.002\%$ , 50Hz; Set DMM to 400V, AC range; and connect to the "V- $\Omega$ " and "COM" input terminals.

7. Adjust VR4 until display reads  $300.0 - 300.1 \text{ V}$ .
8. Set the output of the AC calibrator for  $300 \text{ V} \pm 0.002\%$ , 1kHz.
9. Adjust VC1 until display reads  $300.4 - 300.5 \text{ V}$ .
10. Inspect the other ACV ranges. Readings should be within specifications.
11. Set the output of the DC calibrator for  $10.0 \text{ A} \pm 0.02\%$  and connect it to the "10A" and "COM" input terminals.
12. Adjust R44 (shunt resistor) until the display reads  $10.00 \text{ A} \pm 2$  digits.
13. If the reading is over 10 A, add solder to R44. If the reading is under 10 A, shave away lightly some of the solder and metal from R44.
14. Inspect the other DCA ranges. Readings should be within specifications.
15. Disconnect test leads from calibrator and DMM.
16. Set the Range switch to the " $4 \mu\text{F}$ " position.
17. Connect a standard capacitor of approximately  $1.900 \mu\text{F}$  to the Cx test socket on the DMM.
18. Adjust VR4 until the display reads within  $\pm 1$  count of the standard capacitor value.
19. Inspect the other capacitance ranges. Readings should be within specifications.



- ACV: S1 S14
- DCV: S1 S15
- Ohm Bz: S1 S6 S7 S17
- Diode: S1 S7 S15 S16 S17
- Hz Adp: S1 S9 S16 S18
- Cap: S1 S3 S11 S15
- AC/DC 40mA: S1 S4 S11 S12 S16
- AC/DC 400mA: S1 S5 S11 S13 S16
- AC/DC A: S1 S11 S18
- Off: S2



MODEL 2835

