

## PROCESSOR TECHNOLOGY CORPORATION

Sol KEYBOARD

SECTION V

<u>LOCATION</u>	<u>VALUE (ohms)</u>	<u>COLOR CODE</u>
(✓) R30	1.5K	brown-green-red
(✓) R31	1.5K	" " "
(✓) R32	68 K	blue-gray-orange
(✓) R33	1.5K	brown-green-red
(✓) R34	2.2K	red-red-red

(✓) Step 4. Install Zener diode D1 (1N5221B) in its location to the left of R17. Position D1 with its dark band (cathode) at the bottom.

(✓) Step 5. Install Q1, Q2 and Q9 (2N4274) and Q3 through Q8 (2N3640) in their respective locations at the top center of the board. The emitter lead (closest to flat side of case) is oriented toward the right of the board and the base is oriented toward the top. Insert leads until transistor is approximately 3/16" above surface of circuit board, solder and trim.

(✓) Step 6. Install resistor networks RX1 and RX3 (2.2K ohms) and RX2 and RX4 (33K ohms) in their respective locations just above the keyboard pads. Install each network so that the dot on its package is positioned next to the dot on the circuit board. Recheck values before soldering.

CAUTION

THESE RESISTOR NETWORKS ARE DELICATE.  
HANDLE WITH CARE.

(✓) Step 7. Install light emitting diodes LED1, 2 and 3 (MV5752) in their respective locations in the lower left corner of the circuit board. Insert leads through fiber spacer, position each diode with its cathode lead (longer lead and/or the lead next to flat edge of LED package) at the bottom, insert leads into mounting holes in circuit board, pull down so that spacer and LED are snug to board, solder and trim. (If fiber spacers are not supplied with your kit, install LED's so they are approximately 3/16" above surface of circuit board.)

(✓) Step 8. Install 20-pin header in location J1 (upper left corner of board). Position header so pin 1 is in the lower left corner. (An arrow on the header points to pin 1.)

(✓) Step 9. Using an ohmmeter, measure between GND and +5V pads in upper left corner of the board. You should measure some resistance. Zero resistance indicates a short. If required, find and correct the problem before proceeding to Step 10.