

Tips for Board Construction

To mount a TO-220 style heat sink to the board, use a #6 machine screw.

To mount an RS-232 connector to the board, use #4 machine screws.

The corner standoffs have a 6-32 (#6) thread.

To mount the power jack, use a 5/16" drill.

Screw Size	Drill Diameter
#2	3/32"
#4	1/8"
#6	9/64"

There are two styles of power switches in the lab kits. If you have the power switch with the flat lever, use a 1/4" drill. If you have the power switch with the round lever, use a slightly smaller 15/64" drill.

You have many options for connecting the LCD to the perf board. You can attach it directly, or you can use some type of cable interface. Consider whether you would like to be able to remove the LCD or whether it is acceptable to have it permanently attached to your board. One suggestion is to use a 14-pin SIP wire wrap connector. Another suggestion is to use a flat insulation displacement cable with a DIP connector which can be plugged into a wire wrap socket on your board. Many LCDs will utilize a 14-pin connector. LCDs with an LED backlight may require 16 wires.

To mount the LCD directly to the board, use #2 machine screws. If you use long screws with standoffs, you may be able to fit additional circuitry on your board underneath the LCD. However, you must plan carefully, if you want the 14 signal holes in the LCD board to line up with the holes in the perf board. Note that the 14 signal holes at the top of the LCD are in a straight line with the two mounting holes at the top of the LCD board. Therefore, when you drill the mounting holes for the LCD, make sure the top two holes are in line with a row of holes on your perf board. The center of the top left mounting hole on the LCD is exactly 0.3" from the center of the signal hole labeled '1' on the LCD, so your mounting hole for the top left corner of the LCD should be centered in one of the holes in the perf board. Be careful not to tighten the mounting screws for the LCD too hard. Make sure the LCD board is not flexed.