

5. Mechanical Assembly

5.1 Description

To prevent loosening of screws, all screws are fixed with LOCKTITE 222 thread lock. It is strongly recommended to re-apply LOCKTITE 222 whenever screws are remounted.

Do not apply unnecessary force when tightening screws, as the stand-offs in the front panel may come loose.

The EML224 system is mounted in a SKIPPER melamin cabinet. The Power and Terminal board is fixed in the bottom of the cabinet to provide easy access through the cable glands to the terminal block.

The Power and Terminal board is fixed with 6 stand-offs and M3 screws through the cabinet bottom and 6 screws through the board.

The remaining electronics and the display is supported by the front panel, and a single 20 wire flat cable connects the front panel assembly and the Power board. The flat cable header is fixed (soldered) at the Controller board, but may be disconnected at the Power board and may be considered a component of the former.

The Front panel has 10 pressed-in stand-offs to support the boards. The 4 short ones (4 mm) hold the keyboard. The 4 medium ones (7 mm) hold the display and are extended behind the display circuit board by 4 M3 stud-hole stand-offs.

Since the two upper fixing holes in the display circuit board has the EL lamp fixing holes as "washers", it is necessary to fit two extra nylon washers for the two lower display fixing holes to level the display relative to the front panel.

The 4 extensions plus the two long (22 mm) press-studs then support the Controller Board. Be careful about mating the 3 contacts when mounting the controller board onto the assembly.

Two foam rubber pieces are fixed on the display bezel to provide a firm yet flexible support from the rear side of the protection glass.