Mega128 board notes.

1: Port A is a buss going to 4 x 74HC574 output latches and one 74HC245 input latch.
3 x 74HC574 output latches control LEDS 2 to 23 excluding 16 & 17.
One 74HC574 output latch is wired to screw terminal block JP10 pins 12 to 17.
The LEDs could be wired to a connector for motor direction control if there are not enough pins on the edge connector.
The single 74HC245 input latch is connected to screw terminal block JP19 pins 1 to 6.
These inputs could be used for limit switches or emergency stop buttons.

2: U3 was a socketed ATF16V8B PAL but is used as a strapping matrix for port G & C pins to the clock/latches of the buss chips on the port A. (above). *See modification sheet for strapping of U3 that I use.*

3: The existing ADC wiring is not suitable for our use and a proposed modification is included in the modification diagrams (the top ADC diagram is the original) . This will allow the use of standard RJ telephone cords (including curly retractable ones) to connect to feedback pots.

4: PE3,PE4 & PB7 are easy to access with just the removal of LEDs. Access to PB5 and PB6 requires the removal of hex inverter U4, this chip doesn't do much and won't be used in our situation.

5:**Programming** : To switch the UART no1 from the MAX232 & DB9 to the programming header JP17 , pin3 of JP17 must be grounded. (I put a strap in my programmer)

6: There are only two units with LCD's installed and they have other modifications as well. The installation of the LCD is quite easy but requires the removal of LED 1 and then the LCD display sits over the top of the top board. The left hand three bridge rectifiers (BD2,3 &4) are visible and *could possibly be a location for trim pots that would be adjustable through holes drilled in the case.*

7: There are two relays, one that outputs the +5v and is controlled by PE7 and another that is designed to switch +12v and is controlled by PE6.

8: This board is 5v powered there is no regulator on the board. *But this could be installed under the top PCB without much difficulty and then the input could be then taken from the 12v relay input.*