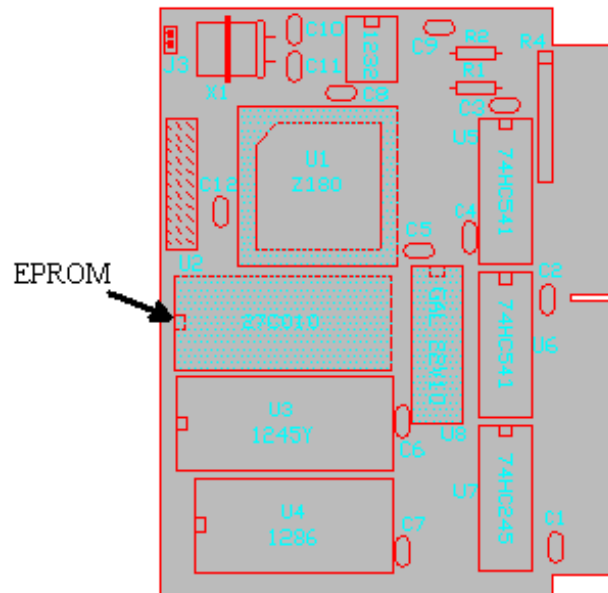


HOW DO I UPGRADE THE FIRMWARE ON A DUALPRO / MULTIPRO CPU BOARD?

The controller's CPU board is located behind the front display panel of the instrument.

1. To gain access, unscrew the front panel fastener at the lower center of the display panel. Carefully pull the panel forward to expose the circuit boards inside.
2. Turn instrument power off by pushing the toggle switch on the right hand board down. The display will go blank and digital power will be removed for the other circuit boards in the instrument.
3. Unplug the display panel from the interface board (second from the right).
4. Remove the CPU board (third from the right). This is a static sensitive board. Keep bare skin in contact with a ground point while removing or handling this board. The metal tie point for the front panel display is a good ground.
5. Review the diagram below. Note the notch mark on the board. This indicates the required orientation of the EPROM chip to the socket on the board. The chip has a similar notch that must match with the position of the notch on the socket. This indicates the pin 1 position of the chip.



6. Carefully pry the EPROM from its socket using a small screwdriver. It is better to work it out of its socket going back and forth on each end.

7. Remove the replacement chip from its shipping package and place it on the socket. DON'T PRESS DOWN YET! Verify that the notch is in the correct location. Verify that each pin is located in the corresponding pin socket and that each pin is straight.
8. Apply a steady even pressure to the center of the chip. If it does not move down into the socket DON'T FORCE IT. Make the same checks again in step 7 and try to reinsert the chip. The chip should seat evenly against the socket. Verify that no pins are bent out or under the chip.
9. Reinsert the CPU board back into the instrument. The back plane slot is keyed for the board so it may be necessary to rock the board up and down at the top and bottom corners of the board to locate the key and fully insert the board.
10. Reverse the initial steps by plugging the front display panel back into the interface board and turning on the instrument power.
11. As power is reapplied observe the front of the display. The new revision number should briefly be displayed and then the process display should appear.
12. Insert the display panel and tighten the mounting screw.