

# SEALS MEMORY MODIFICATION

You Too Can Go Above 32K!

There are many Seals 68 KSC memory boards in use due to the fact that it was one of the first to offer 8K of memory all on one board. There are some minor problems with the board, but it still does a fine job at adding some more RAM into a system.

One of the things that makes the board a little hard to work with is the fact that it only switches in 8K blocks. That can cause a little problem to those who have 4K memory boards in groups of one or three.

The other problem is more serious, but can be "fixed" with just a little time and the old soldering pencil, and you can take care of it. The board has DIP switches for addressing the memory and all goes well until you try to address anything above 32K. The board just will not work above 32K unless the modifications are done to the board. The modification given here is not the only way to get the board to work in the higher range of memory, but the fix will not hinder addressing in the lower range either so you will be able to address all the way up to 64K as stated in the manual.

The first thing to do is to locate the proper corner of the board to do the work on. This is shown in the pictorial and can be located by the words "Seals Electronics" near the bottom right-hand corner of the board (foil side). The three foils shown with the "X" on each side should be carefully cut.

The pictorial shows the proper places which are as follows: IC # 68 - cut the path between pin 6 and the thru-board connector (which winds up at IC #66 - pin 2). IC #66 - cut the foil between pin 1 and ground. And on IC #65 - cut the foil going to pin 4 from the DIP switch. Again, make sure the cuts are clean and be very careful so you do not cut the paths nearby.

The next part of the fix involves jumpering in the three places as shown in the pictorial. They are as follows: IC #68 - Jumper from pin 6 to pin 16. IC #66 - Jumper from pin 1 to the path coming from DIP switch #7. (This is the pad located between pins 2 & 3 on IC 65.) And on IC #65 - Jumper from pin 4 to pin 8. Again, be very careful so you do not bridge any places with solder.

Now, if everything went well and you did the proper things, you just need to test out the board. *The one thing to remember after making this modification is that DIP switch number eight should remain in the off position no matter what switch settings in the manual are assigned.* All other switches should be set as instructed in the manual. We found that this change worked very well for placing an 8 K block up high enough for FLEX 2.0 to boot (40 to 48K). We hope that this fix will help some of you to get the full address range out of your 68-KSC. [SS-50]

