



Texas Instruments CC-40 6K TO 18K UPGRADE

DISCLAIMER: You assume sole responsibility for attempting this upgrade.

BEFORE ATTEMPTING THIS UPGRADE, BE ADVISED THAT THE COMPONENTS IN THE CC-40 ARE SUBJECT TO DAMAGE FROM STATIC ELECTRICITY DISCHARGE. OBSERVE PROPER ESD PRECAUTIONS.

I don't remember where these instructions came from, but I acquired them about 5 years ago. Had no problems upgrading my CC-40, and was even able to re-use the memory removed from the CC-40. Follow the instructions and all should work out fine. Have fun!

Willy

You'll need:

- 2 8K CMOS STATIC RAM i.e., HM6264LP-15
- 2 1/2" buss wire
- 1 Spool solder wick (solder remover)
- Soldering iron and solder
- Common electronic type tools

READ ALL INSTRUCTIONS THOROUGHLY BEFORE STARTING

1....Take out batteries, cartridges, or any other connections to the CC40. Turn the CC40 upside down and carefully remove the phillips head screws from the CC40 and put in a secure place to keep from losing them.

2....With the CC40 still face down. Turn the CC40 until the words CC\$) are correctly facing you. This way there will be a common direction between these instructions and the computer. Carefully and very slowly remove the back cover. Make sure the keyboard is still flat on the table, otherwise later the keys may fall out of place (this would be bad).

3....Make sure you are statically discharged before touching the board. Do this by touching any grounded metal object. With pliers gently pull up the battery connectors by swaying the tabs back and forth as you pull them up. Just do the ones with the wires attached.

4....Now remove all the black oxide screws from the circuit board, there should be a total of 11 screws. Store these in a safe place where they won't get lost. Carefully lift up the board side next to the battery holder and pull back making sure the keyboard doesn't come up. If the top PC board will not come up then gently press down over the contrast knob (on the right hand side) while lifting up in the middle of the board. This will give more room for the knob to slide out of the case.

5....Now remove the plastic insert that lies between the 2 PC boards. To do this you start by lifting up on the right hand side of the plastic insert, when it is out of all the screw holes then slide the plastic out. This will leave the 2 PC boards which you will take out next. Caution when taking out the boards try not to bend the connectors too much as they will get brittle and break.

6....Remove the PC boards by lifting up on the ends nearest to the connector ribbons and lift up both boards at the same time, but leave the keyboard down so the keys stay put. After successfully removing the PC boards put the case in a safe area where the keys won't get knocked out.

7....Turn the PC board so that the two long chips are at the top, with the ribbon connectors also at the top. Move the two jumpers over one slot to the right. 1 to 2 and 3 to 4.

8....Remove the two top chips by removing the solder with the solder wick, making sure not to get the board too hot. Carefully remove the two chips and insert the two new chips in, making sure the new chips are inserted in the same direction as the old chips. Pin 1 on the far left.

NOTE: IF YOU HAVE NEVER USED SOLDER WICK, OR HAVE HAD TROUBLE USING IT WITH INSTALLED COMPONENTS. IT MAY BE BETTER TO CLIP ALL THE LEADS TO THE TWO IC'S WITH SHARP DIAG. CUTTERS. THEN HEAT THE SOLDER ON EACH LEAD AND REMOVE EACH LEAD (WHILE HEATED), FROM THE BOARD, WITH A PAIR OF NEEDLE NOSE PLIERS. AFTER ALL THE LEADS HAVE BEEN REMOVED IN THIS MANNER, USE THE SOLDER WICK TO REMOVE THE LEFT OVER SOLDER IN THE IC MOUNTING HOLES. OF COURSE THER ISN'T MUCH CHANCE OF SALVAGING THE OLD MEMORY USING THIS METHOD. Willy

9....Solder in the new memory IC's and reassemble the CC40 in the reverse manner of it's disassembly, making sure not to fatigue the connector ribbons that connect the two boards together. After reassembly is complete turn on the C40 and check the amount of memory using the FRE(0) command. It should return a value of at least 18K.

THATS ALL FOLKS.