

Instructions for Changing MTA 100 and MAC 40 Keypads

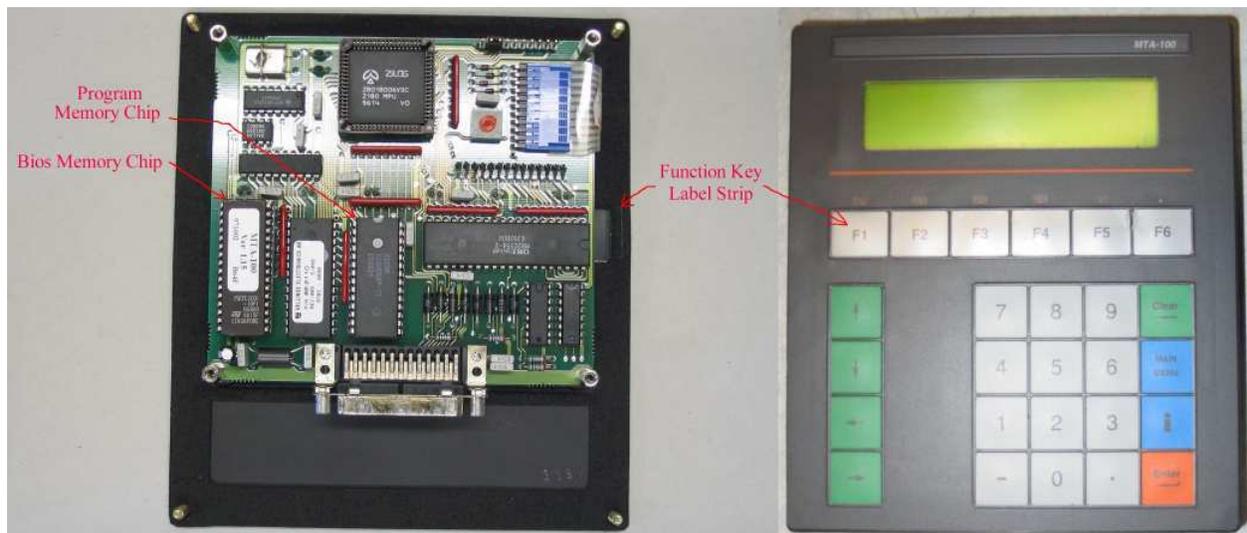
The MTA 100 and MAC 40 are actually the same physical keypad. The only difference is the language parameter setting, so to avoid confusion I will call it “Keypad” for the rest of these instructions.

Needed items: Philips head screw driver to fit screws on back of keypad, very fine sand paper a piece about one inch by two inch will do, small pry bar for removing memory chips or chip removal tool if you have one, tweezers, clean well lit work area with soft work surface, black electrical tape, something to cut a small piece of the electrical tape with.

After removing the old keypad from the machine, set both old and new side-by-side on a soft clean work area. I usually use a shop rag. To work on the inside of the keypad you should follow standard anti-static guidelines. If you are not sure on what that means, you can read about it online at:

http://www.peworld.com/article/82184/avoid_static_damage_to_your_pc.html

In the picture below I have labeled the parts we will be working with. Please familiarize yourself with the components.



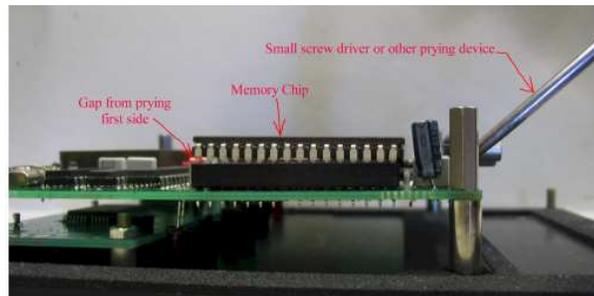
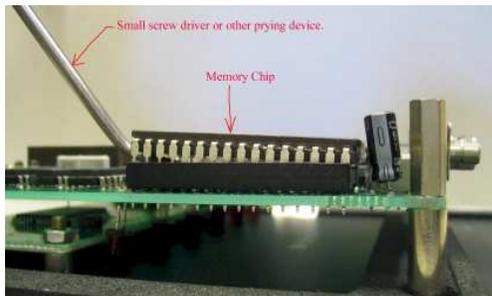
Since you have probably removed the back of the keypads to compare them to the picture above, lets start with changing the memory chips, so if you have not removed the backs from both keypads, please do so. The back pulls up at an angle to get it over the plug on the bottom.

Check the white tag on the bios memory chip; it is covering a small round glass window on the memory chip. If you can see any part of that window, please immediately cover the window with a small piece of black electrical tape. It must be black tape, as any other color does not block the light well enough. If too much light gets in through the window, the bois memory chip will be damaged.

The chips must be kept in the same orientation, as they are to start with. If you look closely at the memory chips, you should see writing on them. Make sure to note which way the writing is facing before continuing.

Instructions for Changing MTA 100 and MAC 40 Keypads

Lets change the program memory chip first; Using a small tool, gentle pry up one end of the chip about 1/16 inch. **Do NOT try to pull the end all the way out of the socket at first, as doing so would bend the legs on the memory chip.** Then move the pry bar to the other end of the memory chip and pry it up about 1/8 inch (still not out of the socket). Then move the pry bar back to the first end of the memory chip and pry it another 1/8 inch. At this point it is starting to pull out of the socket, try to keep the memory chip as level as possible both end-to-end and side-to-side as you are slowly walking the memory chip out of the socket. See the pictures below.



Hold the memory chip by touching only the ends of the memory chip, not the legs.

Now that you have both program memory chips out (one from each keypad), gently plug the new memory chip into the old keypad and put it aside.



Before putting the old program memory chip in the new keypad, you should clean the dirt off the legs of the memory chip. You can use very fine sand paper to do this. **Do NOT use any chemicals on it.**

After the dirt is removed from the legs, gently plug the old memory chip into the new keypad. Try to keep the memory chip as level as you can while you are plugging it in, and make sure all the leads line up, and that the chip is turned the right way.

Bois memory chip next; if all the information on the white label on the bios memory chips is exactly the same between the two keypads, then you do not need to change the bios memory chip. If they are not the same or you are not sure, then change the bois memory chip following the same instructions as you did to change the program memory chip.

Now that both chips are changed, put the black cover on the back of the keypads.

The next thing to check is the function key label strip. Turn the keypads over, and compare the writing on the function keys. If they match, then you are ready to install the new keypad in your machine. If they are not the same, then you will need to change the function key label strip.

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Before trying to change it, take a picture of the function keys on the old keypad or draw a picture of them. This is because in the process of changing the function key labels they are sometimes damaged, and new labels will need to be made. It is easier to make new labels when you know what the old ones looked like.



Start with the new keypad; Turn the keypad over to see the backside again. You should see a small piece of clear plastic sticking up through the foam insulation on the right side of the keypad. Using your fingers (or tweezers if you can't reach it) gently pull the function key label strip out.

Now that you know how it should feel coming out try to pull the function key label strip out of the old keypad. Try not to twist or damage the label strip.

Gently slide the new function key label strip into the old keypad. If the old keypad is damaged on the face this may not be possible, in which case just ship both the new label strip and old keypad back to CNC Accessories to qualify to get your \$500.00 core charge back.

Check to see if there are any loose edges or nicks on the old function key label strip that may make it harder to slide the label strip into the new keypad. I have found that clear tape repairs these nicely.

If you do need to make a replacement label strip, get someone to print up a nice label strip on plain paper and then cover the paper on both sides with clear tape. You can use the label strip from the new keypad for sizing. Rounding the corners of the label strip will also help to make it slide into the slot easier.

Slide the old label strip into the new keypad slot. Check the position of the labels on the front.

This is much easier said than done, you will need to be very patient or find a patient person to do this. It will frequently try to jam side-to-side or just bend the label strip. However, being slow and careful it can be done.

You are now ready to install the new keypad in your machine.

Please return the old keypad to CNC Accessories at 22465 Covello Street, West Hills, CA 91307. Include a copy of the packing list or invoice for the keypad with a note on it saying returning for core charge to get your \$500.00 core charge back. If you do not have the packing list or invoice, then please include a note with enough information for me to know who to credit the core charge to.