

How to clean carbon residue from 12 gold fingers elements on the EkaPad circuit board.

If you use the EkaPad as your primary keyboard consistently, EkaPad maintenance is probably required every six months.

I use the EkaPad about 5 hours average every day and I find I need to clean the EkaPad's circuit board every six months or so. What I first notice is that certain two finger chords, usually the most common, start to show a single character when pressed and released.

For instance, I recently found that Space chord (P/R oe) often displayed **o** instead of a **space** -so then I must correct: P/R Delete, Space; then move on. I can live with it *Once in a while*, but when there's *three* in a short sentence, cleaning is required!

Technical note: Space and e chords combined make up about 20% of my chords, so the e 'gold fingers' on the circuit board get carbon coated (dirty) first.


The bottom part of each key's pad has a carbon pill which, when it touches a 'gold fingers', closes a contact and tells the EkaPad processor that it's been pressed.


At each press a tiny amount of carbon is left on the 'gold fingers'. Over many presses, the carbon builds up and stops the pill from making correct contact, so I get 'errors' in my typing. But it's not my fault! I just need to clean the circuit board.

Cleaning Process

Time required: about 20 minutes.

Tools needed:

A small Phillips head screw driver (size PH-1 works well), for screws like this , found on many EkaPads;

A small Torx driver (T-6 only size which fits), for screws like this , for some EkaPads;

6 to 10 cotton swabs;

Rubbing alcohol (10 ml, 1/2 oz);

Clean work surface;

Piece of cardboard.

Step 1



Get the correct screw driver.

Disconnect your EkaPad from its USB cable.

Set up on a clean surface. A piece of cardboard works well.

Step 2



Turn the EkaPad over on its pad side, black side up. In each corner is a screw.

Step 3



Fit the screw driver into a screw. Push fairly hard as you turn the screw counter clockwise. As the screw loosens, push less hard. When the screw is loose, move to another screw.

When all 4 screws are loose, gently lift off the black back and set aside. (Leave the screws in the holes so you don't lose them.)

Step 4



The circuit board (CB) is now exposed. The CB sits on four corner posts so it doesn't move around.

Gently lift the CB up off the silver plastic front, turn the CB over, look at the gold printing and the fingers elements.

Now set the CB down, gold printing up.

Step 5



Here are the four pieces of the EkaPad:

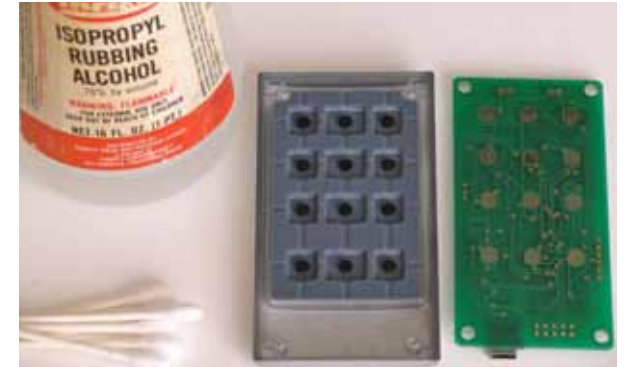
Black plastic back;

Silver plastic front;

Elastomer keypad fits in the silver plastic front;

Green circuit board, gold printing on one side, electronic components on the other side.

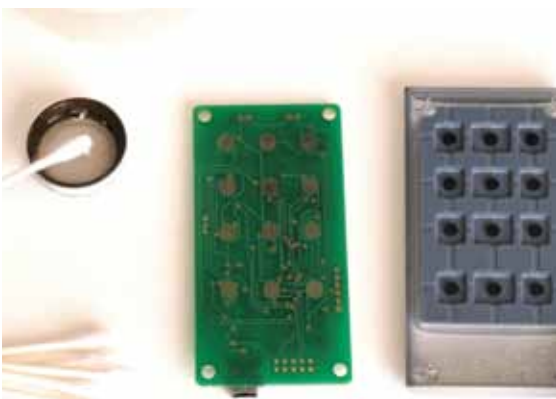
Step 6



Look at the gold finger elements. In this photo, the finger elements in the top row, and the center element in the second row, are discolored with black carbon. You need to clean away the black.

Lay out the cotton swabs and the Rubbing Alcohol.

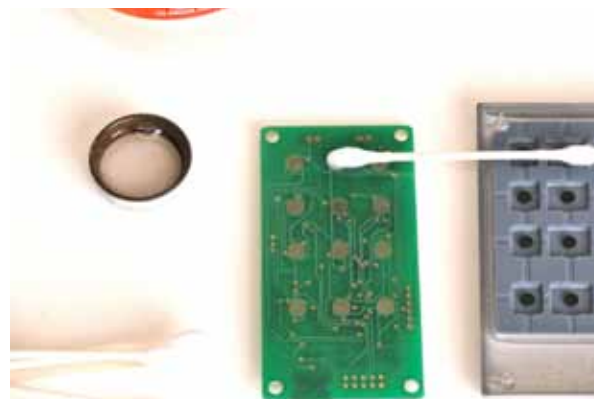
Step 7



Pour out some alcohol into a small container. In this picture the alcohol bottle cap is used.

Dampen one end of a cotton swab with the alcohol.

Step 8



Now rub the alcohol dampened tip of the swab on one of the finger elements. The element becomes wet.

Before the alcohol dries, wipe and rub the element with another DRY swab.

Step 9



Change swabs frequently, as they become even slightly blackened.

Clean all twelve of the gold finger elements, rubbing first with an alcohol wet swab and then with a dry swab.

Inspect each element to make sure all carbon has been removed.

Step 10



When the circuit board is clean, make sure the elastomer keypad is in its place.

Now turn the CB over, and, with the connector end and the non-elastomer area together, locate the CB on the silver plastic with the 4 corner pins inserted through the 4 corner holes in the CB.

Step 11



Now the EkaPad is ready to receive the black plastic back.

Step 12



Place the black plastic back in place. If the screws are not in the 4 holes, put one screw in each hole.

Step 13



Tighten each screw snugly, but not so tight the threads damage the plastic in the silver plastic front.

Final check

Check to make sure the two plastic parts, the silver front and the black back, are snugly together. Hold the EkaPad at a corner between thumb and forefinger, look at the joint, and squeeze. If the joint changes size, then the screw is not tight enough. Tighten the screw at that corner.

When the EkaPad is together, plug it in and start using it. Your Configs, Keeps and ShortCuts are all working properly. You should find you can chord more smoothly now.

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