Robot Forum

Electronics => Electronics => Topic started by: Admin on February 11, 2009, 08:53:29 AM

Title: **remove solder resin residue from PCB method?**
Post by: **Admin** on **February 11, 2009, 08:53:29 AM**

I'm trying to find a better way to clean my Axons after manufacture. They have a lot of resin residue left from the soldering process.

Normally I just do it by hand, flaking off most of it by scraping. But I'm trying to find a faster method and/or more effective method.

I heard about using rubbing alcohol but that didn't even remotely work.

Google didn't find anything obvious . . .

ideas?

Title: **Re: remove solder resin residue from PCB method?**
Post by: **pomprocker** on **February 11, 2009, 10:50:48 AM**

Admin, I just went through this. You can find more on this in my topic called 'alcohol'

I ended up following the directions of this one site and everything came out clean as a whistle (if whistles were clean):

http://nuxx.net/wiki/Flux_Removal (http://nuxx.net/wiki/Flux_Removal)

Basically follow the instructions under Kester 285, requires 99.9% isopropyl alchohol, a spare new toothbrush, and distilled water.

I would personally recommend getting a water pik like dentists use to spray out the distilled water to hose away all the flux littered alcohol:

http://www.google.com/products?hl=en&q=water%20pik&um=1&ie=UTF-8&sa=N&tab=wf (http://www.google.com/products?hl=en&q=water%20pik&um=1&ie=UTF-8&sa=N&tab=wf)

EDIT: if you don't rinse with the distilled water the alcohol will dry white and sticky

Title: **Re: remove solder resin residue from PCB method?**
Post by: **Admin** on **February 11, 2009, 11:33:44 AM**

darnit, now I know why it didn't work:
Quote

> Bottle of 99% Isopropyl Alcohol (Do not use 'rubbing alcohol', as it is only about 70% alcohol. It won't work as well and will leave residue behind.)

Anyway, that process is too complex and time-consuming. It needs to be no more than a 15 second process since I'm doing a very large number of boards.

The residue can be left on the Axon, its just a visual thing really.

I just tried a toothbrush without chemicals . . . didn't work :-\

Title: **Re: remove solder resin residue from PCB method?**
Post by: **Joesavage1** on **February 11, 2009, 11:51:38 AM**

depending on the solder sometimes water works well.

Title: **Re: remove solder resin residue from PCB method?**
Post by: **pomprocker** on **February 11, 2009, 11:54:41 AM**

Well I read something about putting PCBs in dishwashers..lol

Quote

> 1) Pick a dirty, filthy board that somehow seems to work, and is worth very
> little to you
> 2) Make sure it doesn't have:
>
>   a) relays
>   b) large capacitors
>   c) transformers
>   d) iron-core inductors
>   e) fragile labels or core memory
>
> 3) put it in your dishwasher by itself, with no detergent (just for
> testing), and turn off the plate warmer and dryer
> 4) wash it!
> 5) shake off excess water after cycle finishes
> 6) clean - isn't it?
> 6) hang up to dry indoors for several days
> 7) plug it in. Works, doesn't it?!! And clean, too !!!!!
>
> Don't take our words for it. Try it!!!! You'll be amazed at how clean the
> boards get, with so little effort on your part.

Title: **Re: remove solder resin residue from PCB method?**
Post by: **Jdog** on **February 11, 2009, 12:05:34 PM**

Quote from: pomprocker on February 11, 2009, 11:54:41 AM

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>
> Quote
>
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>> boards get, with so little effort on your part.

Axons have large capacitors.

Title: **Re: remove solder resin residue from PCB method?**
Post by: **Soeren** on **February 12, 2009, 02:56:14 PM**

Hi,

Just use solder with water solulable flux, then wash it off.

Title: **Re: remove solder resin residue from PCB method?**
Post by: **pomprocker** on **February 12, 2009, 03:34:44 PM**

Yes with Kester 331, you can skip the alcohol step and go straight for shooting distilled water at it.

Title: **Re: remove solder resin residue from PCB method?**
Post by: **Admin** on **August 04, 2009, 08:32:32 AM**

I've been playing around with other methods of removing non-solulable flux.

Using a sharp blade, like a chisel, I've found can quickly remove flux without scratching a PCB.

Title: **Re: remove solder resin residue from PCB method?**
Post by: **Truckstop** on **August 04, 2009, 08:38:55 AM**

I run all my boards through the dishwasher, minus the dry cycle then hit it with a hair dryer, works great, I used to work at a Electronics Manufacturing company called Suntron located in newberg Or area code 97132 (you can Google it) and the cleaning machine's there were two types, one was heated water and the other was for the lead free stuff and used a chemical called su-pon-i-fi-er ? cant spell it, but yeah dishwasher works pretty good, especially if you hit it with a tooth brush and a drop of dawn first

Edit: spell check, added the word dawn

Title: **Re: remove solder resin residue from PCB method?**
Post by: **GearMotion** on **August 04, 2009, 08:50:33 AM**

> Quote from: Admin on August 04, 2009, 08:32:32 AM
> I've been playing around with other methods of removing non-solulable flux.
>
> Using a sharp blade, like a chisel, I've found can quickly remove flux without scratching a PCB.

I use a mix that includes ammonia and isopropyl alcohol. Recommended to me by a chemist for the solder's flux removal and general board cleaning. The boards can be soaked as long as overnight, if convenient. Scrubbing with a brush takes seconds. Follow up with a very hot tap water rinse, and an optional distilled water rinse (if needed).

In a pinch mix rubbing alcohol with Windex 50%/50%, use a toothbrush. If I consult for a lab that doesn't have a decent board cleaning process set up, I make a 10 minute run to a drug store and get this stuff.

Title: **Re: remove solder resin residue from PCB method?**
Post by: **Admin** on **August 04, 2009, 09:01:04 AM**

Truckstop, interesting! Did any of those electronics include through-hole capacitors or MOSFETs?

I'm a bit worried water will seep in those components. Especially any component that normally heats up, causing internal water evaporation, and exploding the component . . .

I've been reading around about ultrasonic cleaners . . . only ~$100 and under ~10 minutes of waiting per batch. Not sure about the drying process though . . . (interesting article (http://www.icsmag.com/Articles/Feature_Article /dd6416d69fd88010VgnVCM100000f932a8c0_____))

Since I plan to clean multiple thousands of boards over the next 2 years, manual cleaning is entirely undesired . . . my time is more valuable than $100 ;D

also, found some flux cleaners:
http://store.sra-solder.com/section.php/98/1
and even a spray on:
http://store.sra-solder.com/product.php/6442/98

Title: **Re: remove solder resin residue from PCB method?**
Post by: **Truckstop** on **August 04, 2009, 09:11:19 AM**

Mosfets yes, through hole caps sorry i am not familiar with those?, i had with the reg surface mounted caps with the plastic skin on then that the info is printed on. i suppose i should mention i clean them in the dish washer before i add heat sinks to the Mosfets, Other components include Pic chips and the parallax basic stamp, i did a lens assembly once but wouldn't recommend it. iv never had problems from running things in the dish washer, from tools to boards, It piss's the wife off if i do it when dish's are in there tho, it could also be my components don't amount to the amount of heat yours do? i don't know.

Edit: i remember what gave me the idea of using the dish washer was an item i saw on a website years ago, it was a rack that you could put into your clothes washer and wash boards in it....