

Installation instructions for upgrading your K3/K3s with GEMS Products SIDE KX panels

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Please read these instructions carefully **ALL THE WAY TO THE END** before you start work. As noted several times in this narrative, any shortcuts may result in SIGNIFICANT damage to your K3 or K3S. The author is not affiliated in any way with Your Elecraft K3 or K3S may or may not have additional options installed, that may require additional installation steps on the part of the installer. It is not possible for the author to anticipate all of the potential variations in equipment configurations. If you are not 110% comfortable working on a K3 or K3s...seek qualified assistance from a knowledgeable acquaintance or from AK6Q at GemProducts.COM. The author performed the installation of the K-Line K3/K3s Side KX Panels (hereafter referred to as SideKX Panels) (SKU K3e) on his Elecraft K3 S/N 6150.

If you see any room for improvement or there's something I missed, please drop me an e-mail: ray.fallen@gmail.com

Here we go:

1. Looking at the front panel of your K3, first remove the side panel with the carrying handle. There are seven screws on my K3...there are three extra holes on the SideKX panel. I assume those are for the K3S or some internal K3 upgrades that I was too cheap to buy. **DO NOT remove the handle while the side panel is still attached to the radio.** Pieces-parts from the handle fasteners will fall into the guts of your K3 and if you are lucky...you will be able to shake them out. If you are not...well...have fun. You just turned a relatively simple 30 minute project into a couple of hours of work. You've been warned. :)

2. Reattach the carrying handle to the SideKX and replace the panel with the 7 or 10 screws you removed in step one. **Do NOT "gorilla tighten" the screws.**

They are black anodized 4-40 fine thread screws, rather fragile, easily stripped and they do not sell the matching screws at Lowe's or even Harbor Freight.

Don't ask me how I know. But snug is just fine. If you don't understand the concept of "snug", drop me an e-mail.

OK...that was the easy part.

3. For the next steps, assemble the following tools: one of those high intensity LED nerd lights you wear on your head, a pair of long needle nose pliers or forceps that can tightly grip a 4-40 nut (I used a rubber band) , a scraper to remove a little paint, a dab of thermal grease (nice, but not absolutely necessary) and a little liquid soap.

Oh yes, and some patience. If you are prone to using inappropriate modifying adjectives in stressful situations...keep children and pets clear of your work area.

4. HERE'S THE REALLY IMPORTANT PART: IF YOU ATTEMPT TO REMOVE THE RIGHT SIDE PANEL WITHOUT FOLLOWING THESE STEPS IN ORDER, YOU RUN THE ALMOST CERTAIN RISK OF A SIGNIFICANT FUBAR (Google it) INVOLVING TWO VERY IMPORTANT LOOKING COMPONENTS REFERRED TO AS U12 AND U13 ON ONE OF THE MAIN CIRCUIT BOARDS.

I DON'T KNOW WHAT THEY ARE OR WHAT THEY DO...BUT I'II BET THEY ARE MPORTANT. :)

5. First, remove the top cover of the K3. There are a total of eight screws near the edges of the top cover that should be removed first. There are four screws in a square pattern around the speaker. Do NOT remove these screws. There are, however, two additional screws at the six and twelve o'clock position close to the speaker grille. These will require removal. Carefully lift the top cover and disconnect the speaker cable from the audio board at the rear of the radio. Take note of the location of the connection to the audio board and the routing of the speaker wire. Maybe take a picture?

6. Here's the tricky part: Looking at the side panel, there are two screws located two and four inches respectively from the front panel...approximately one inch from the bottom edge of the panel. These screws and nuts attach the heat sinks of U12 and U13 to the side panel. **Attempting to remove the right panel without removing these fasteners will not be a Good Thing!** I magnetized the long-nose pliers so that, hopefully, I would not drop the 4-40 nut or the star washer while backing out the screws. I batted .500 on this attempt. After removing them, I segregated these two fasteners, star washers and nuts for reassembly in Step 11.

7. Remove the screw at the upper right rear side of the panel and set it aside for a minute. Then remove the five remaining screws attaching the panel to the K3 and remove the panel. Just so you don't forget where it goes...the first screw you removed should be reinserted into the threaded block it came from. It not only attaches the right side panel to the radio, but also secures another circuit board to the case... that looks like it might be pretty important. Also remove the rubber feet from the original side panel. I found they twisted off rather easily...but be gentle.

8. It's probably belt and suspenders, but OCD-me scraped off the black paint on the inside of the SideKX around the two screw holes securing our friends U12 and U13 to the side panel. If you have some, put a small dab of thermal conductivity paste on inside of the panel.

9. Take a deep breath and say "OMMMMMMMMMMM." Whew! You're almost done!!

10. Put a small dab of liquid soap on each of the rubber feet and twist into the SideKX board. Wipe off any excess soap.

11. Loosely attach the SideKX panel starting with the first screw you removed (the longer one), followed by the additional five screws. Then *partially* insert the first of the two screws removed in step 6 through the hole in the heat sink nearest the front panel. With your pliers, place the star washer over

the screw and then attach and thread the first nut. Then do the same for the rear heat sink (by now, you're a Pro!) Then snug up the screws attaching the right side panel. Once that's done...tighten up the screws attaching U12 and U13 a bit more to your new side panel and "Bob's your uncle!!" The tricky part is behind you.

12. Reposition the top cover...re-route the speaker wire the way you found it and attach it to the audio board. Carefully position the top cover and loosely reattach the eight screws around the edge of the top cover and the two near the speaker grill. Make sure the top cover is exactly the way you found it and then snug up the screws.

And as my VE2 friends say, "C'est tout."

You can Google that, too!

73 de Ray - ND8L/4