

ELECRAFT[®] K3

Installing the KXV3 RXA Board

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The KXV3 RXA Board mounts on the KXV3 board assembly using double-sticky tape. Electrical connections are made by soldering wires to existing terminals.

Contents

The RXA board is supplied with the mounting tape and wires already attached.

Tools Needed

1. Temperature-controlled ESD-safe soldering station with 700 to 800°F tip (370-430°C).
 2. IC-grade, small-diameter (.031") solder (Kester #44 or equivalent).
- ⚠ DO NOT use acid-core solder, water-soluble flux solder, additional flux or solvents of any kind. Use of any of these will void your warranty.**
3. #0 and #1 size Phillips screwdrivers. Use the screwdriver that best fits the screw in each step.
 4. Soft cloth or other surface to lay cabinet panels on to avoid scratching. A clean static-dissipating mat is ideal (see below). *If using cloth, do not lay circuit boards on it.*
 5. Pliers or wrenches for removing the 3/16" (4.8 mm) rear panel jack screw nuts and 1/4" (6.4 mm) #4 nuts.
 6. Long nose pliers.
 7. Diagonal cutters.

The following tools are strongly recommended:

1. ESD wrist strap.
2. Static dissipating work mat.

Installation Procedure

- Disconnect power and all cables from your K3.
- Remove the top cover as shown in Figure 1. After the cover is open, lift it gently to reach the speaker wire connector. Unplug the speaker then set the top cover aside in a safe place.

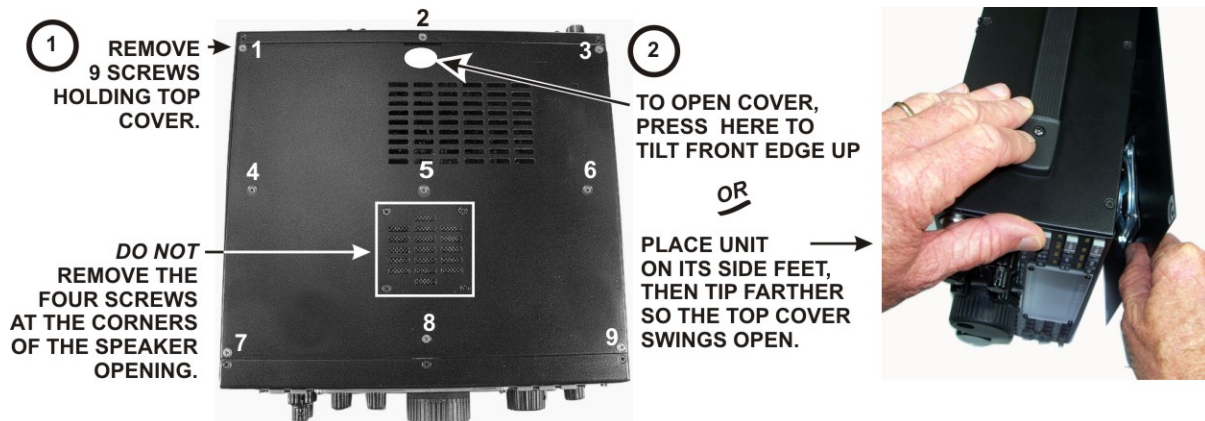


Figure 1. Removing the Top Cover

- ☐ Remove the two black pan head screws from the KIO3 rear panel as shown in Figure 2.



Figure 2. Removing the KIO3 Rear Panel.

- ☐ Remove the KIO3 main board as shown in Figure 3.

⚠ CAUTION: The pc boards are ESD sensitive. Put them in a safe place until you reinstall them.

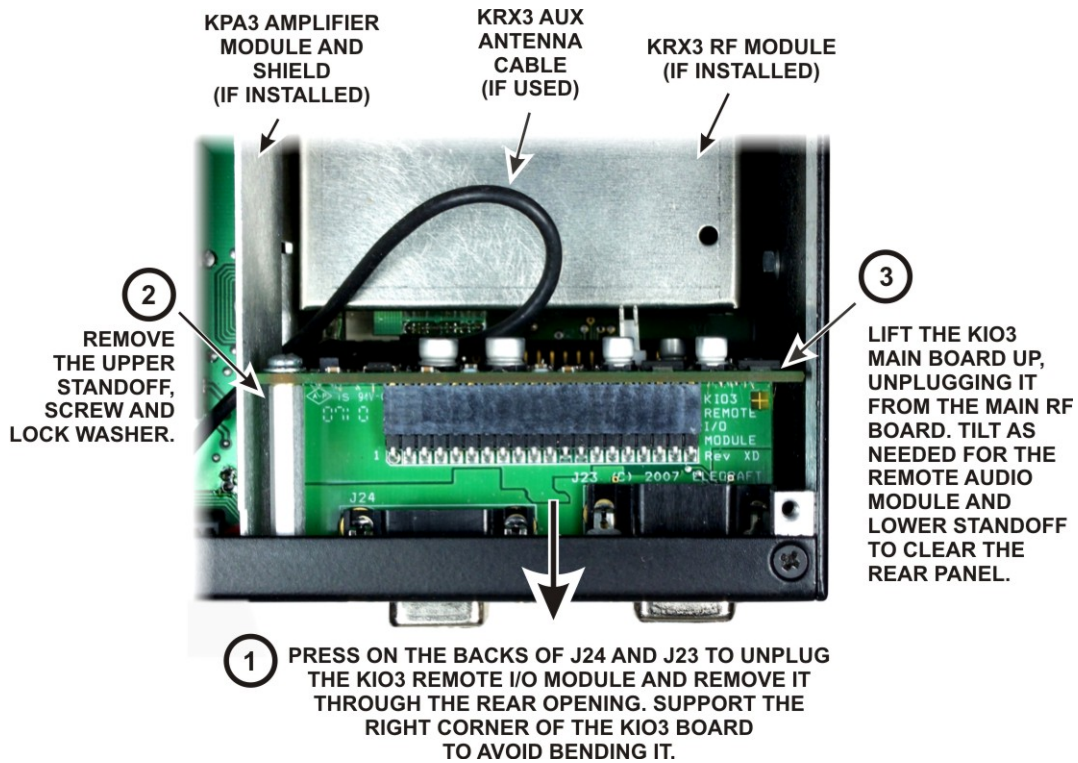


Figure 3. Removing the KIO3 Main Board.

If you do **not** have the KRX3 subreceiver installed, skip this step. If you **do** have the KRX3 subreceiver installed, stand the K3 on its side feet and remove the left side cover as shown in Figure 4.

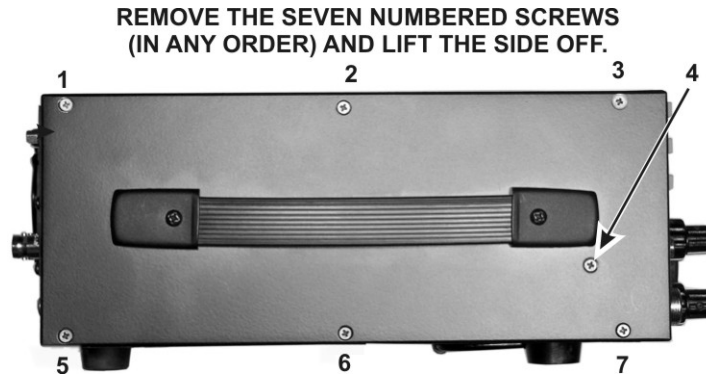


Figure 4. Removing the Left Side Cover.

Remove the KXV3 board as shown in Figure 5. For clarity, the KRX3 RF module has been removed. If you have the KRX3 subreceiver installed, it will be easiest to first unplug the KXV3 module then slide it out through the left side.

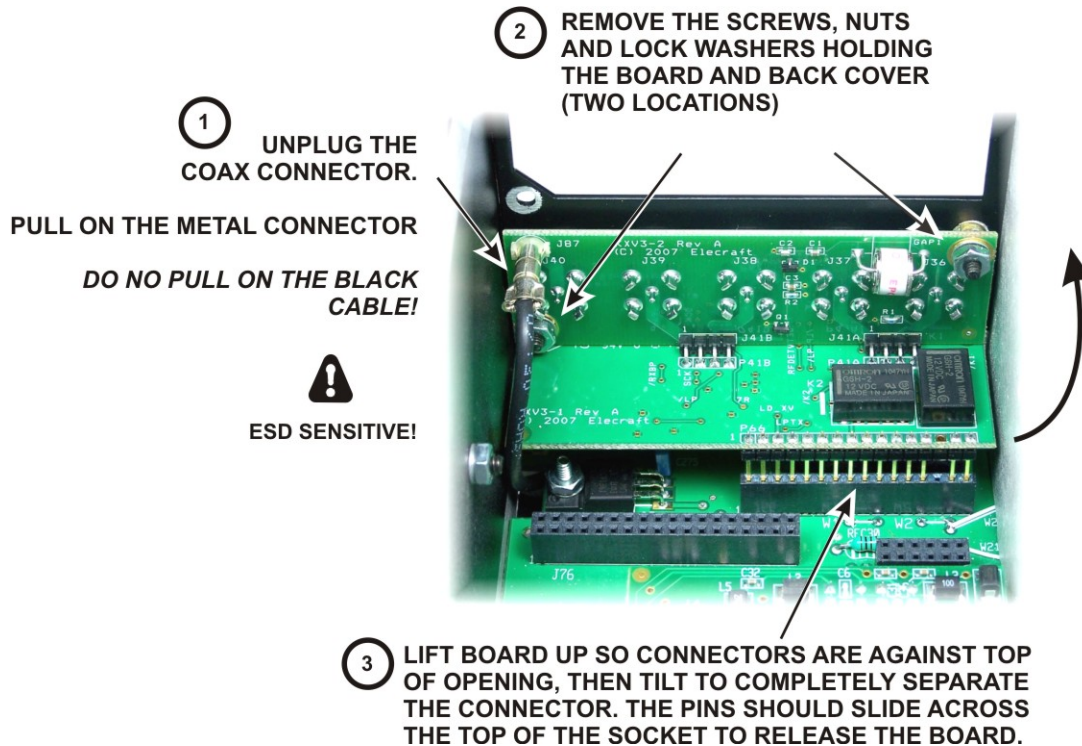


Figure 5. Removing the KXV3 Board.

- Install the RXA board on the KXV3 board as shown in Figure 6.

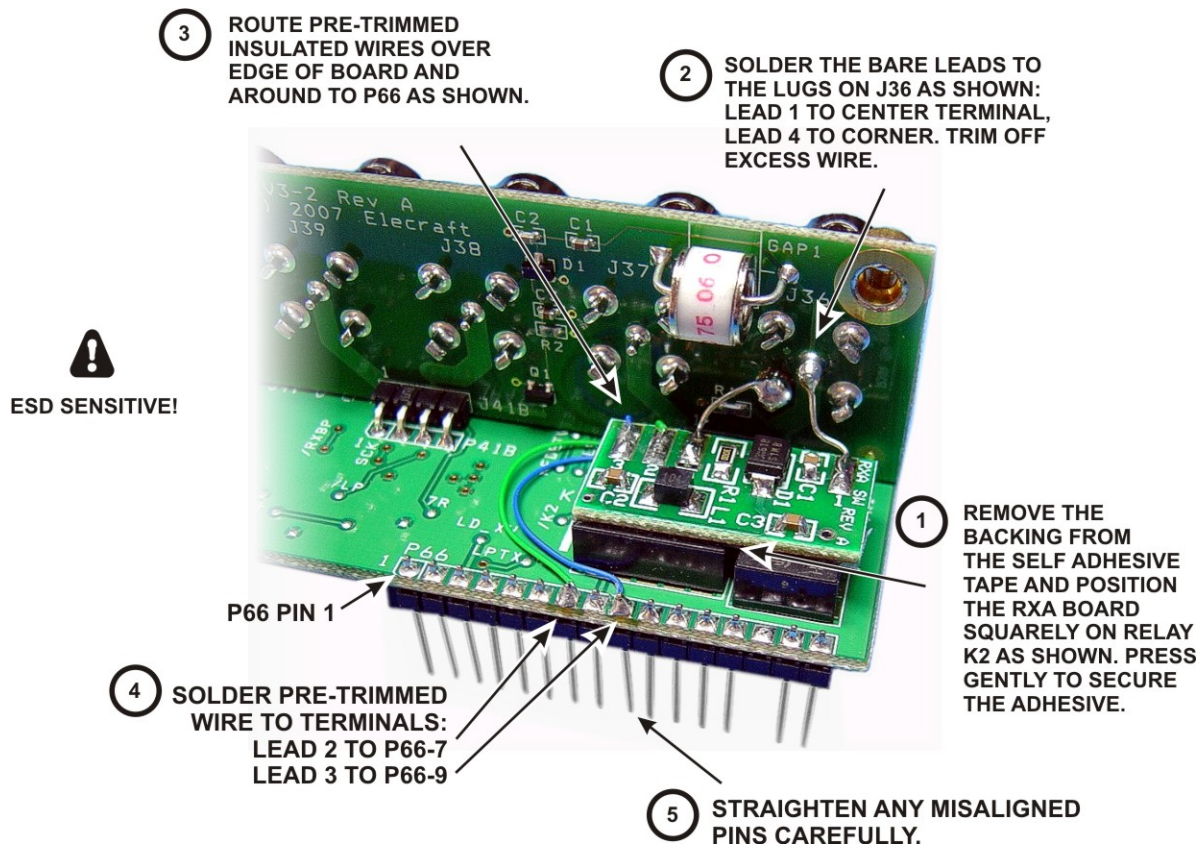


Figure 6. Installing the RXA Board.

- Inspect the board carefully to confirm all four leads go to the proper terminals, any excess is trimmed off, there and the RXA board is securely adhered to the top of relay K2. Use a magnifier to ensure there are no solder bridges.

- Replace the KXV3 board in your K3 (see Figure 5) as follows:

- Holding the KXV3 board so the BNC connectors against the top of the rear cover opening, carefully slide the pins into the corresponding holes on the connector.
- Carefully inspect the pins to be sure each one has dropped into its respective socket and no pins are caught out of position alongside the connector. If you have the KRX3 installed, inspect the pins from both the top and the side. Note that pin 14 (third from the end) is missing. That is normal.
- Press down on the KXV3 board to mate the connector only far enough to align the screw holes with the holes in the back panel. Remember that a portion of the pins will still be visible when it is in position (See Figure 5).
- Replace the 4-40, 1/2" (13 mm) pan head screws through the KXV3 rear cover, the K3 back panel and the KXV3 pc board and secure them with the inside tooth lock washers and 4-40 nuts you removed earlier. Be sure the rear panel is oriented so the connector labels are right side up.
- Replace the coaxial connector into J87 in the KXV3 board. Note that P66 does not fully engage the connector in the K3 RF board. A portion of the pins are visible above the connector when the board is in the correct position.

- Replace the KIO3 main board by reversing the procedure shown in Figure 3:
 1. Install the KIO3 main board in the K3.
 2. Replace the KIO3 Remote I/O module, supporting the main KIO3 board with your fingers as you mate the connector. Be sure the connectors on the Audio I/O module line up with the holes in the rear cover.
 3. Replace the upper standoff using the 1/4" 4-40 screw and inside tooth lock washer you removed.
- Replace the KIO3 rear panel screws shown in Figure 2.
- If you removed it earlier, replace the left side panel as shown in Figure 4. Be sure the coaxial cable connected to KXV3 board passes through the notch in the RF board so it is not pinched between the side cover and the board.
- Hold the top cover above the K3, route the speaker wire under the stiffener bar and plug it into P25 on the KIO3 board at the left rear of the K3 as shown in Figure 7.

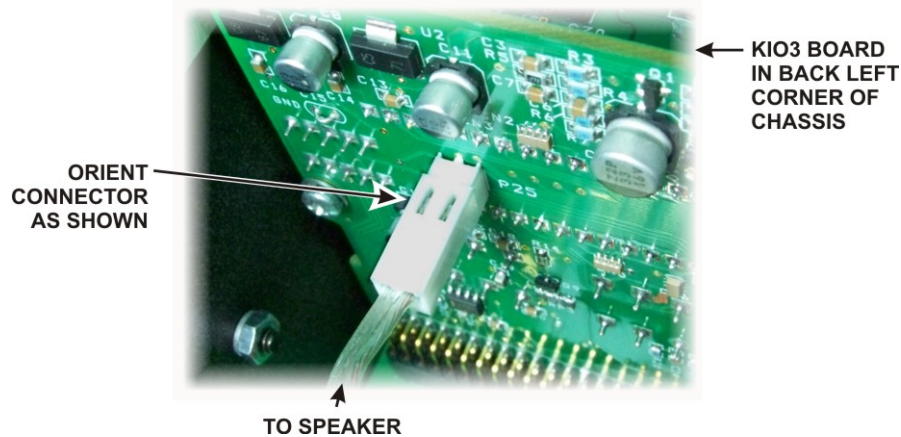


Figure 7. Connecting the Speaker Cable.

- Position the top cover on the K3. Note that the tab on the back center goes under the rear lip of the K3 rear panel. Secure the top cover with the nine 4-40 3/16" (4.8 mm) black flat head screws you removed earlier (see Figure 1).

⚠ REPLACE ALL THE SCREWS!

The K3's chassis has excellent rigidity despite its light weight. The screws that hold the top cover in place are an important part of the structural design. Please be sure to replace all the screws and verify they are tight whenever you replace the cover or other panels

That completes the installation of your KXV3 RXA board.