

Kenwood TS-450SAT Lithium Battery Removal and Replacement

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Parts List

1. Removed, Kenwood P/N BA 2430 Lithium 3 Volt Battery. CR 2430 Battery with Solder Tabs Added.
2. Added, CR 2430 Lithium 3 Volt Battery

Note: Also see an alternate procedure that uses a CR2430-FT1 solder tab coin cell at the end of this paper.

Procedure

1. Remove all power from the unit and all cables.
2. Remove all screws holding the top and bottom covers from the TS-450SAT.
3. Remove the top right and left screws (Make special note that these 2 flat head screws are different from the cover screws) holding the front panel in place.
4. Loosen the 2, bottom right and left, screws of the front cover.
5. Drop the front cover down as shown in Figure 1.

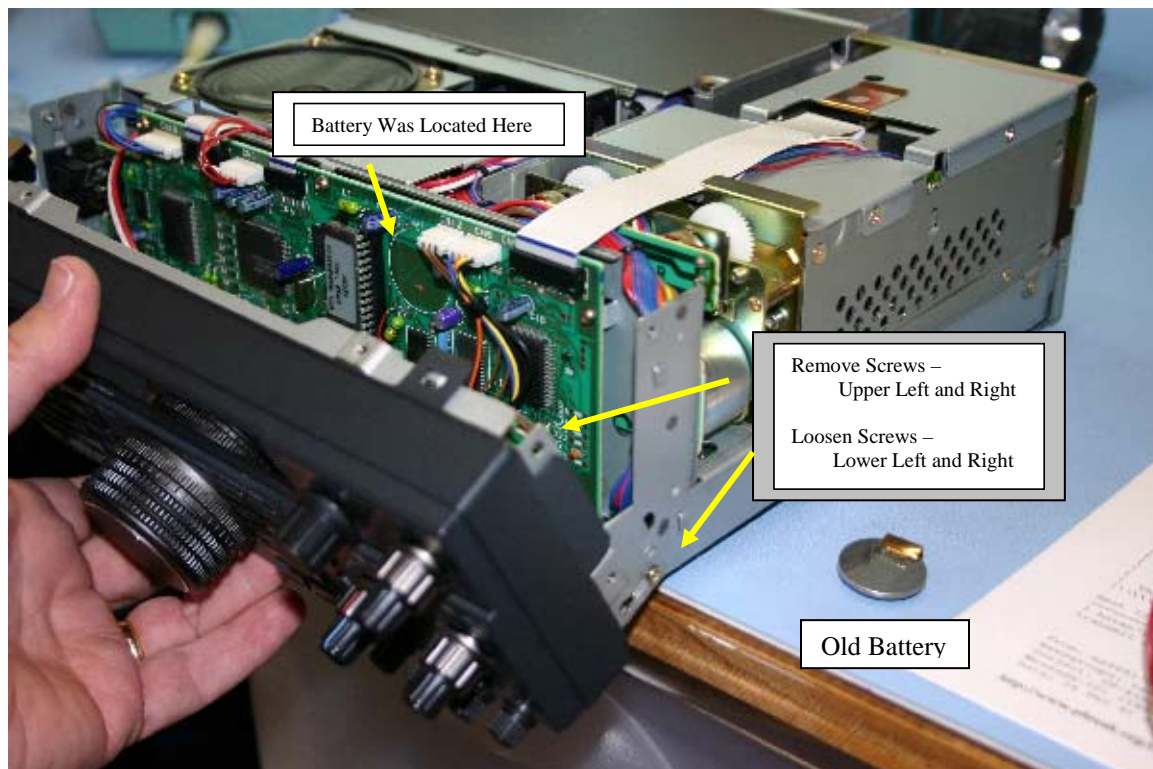


Figure 1 - Gaining Access to the Circuit Card Assembly

6. The old battery was removed by gently adding heat to the two upper-battery case mounted tabs and then pulling the assembly away from the circuit card. The under-battery solder tab was flexed until it broke away from the circuit board.

7. Prepare two wires to be carefully soldered to the new battery. Use minimal heat!
8. Heat-shrink the assembly as shown in Figure 2.

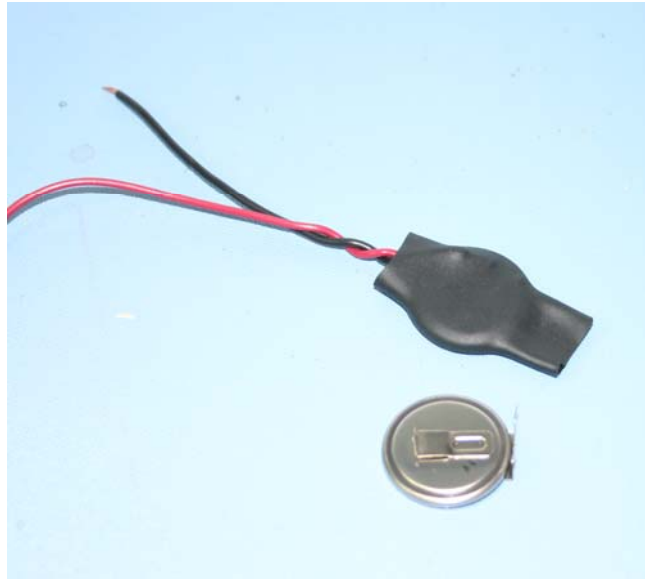
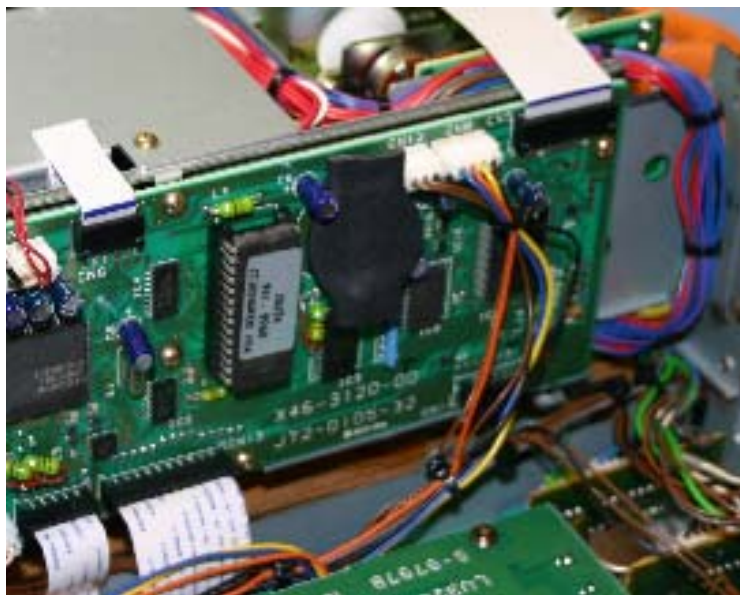


Figure 2 - New battery with red/black leads attached and old battery below.

9. Carefully solder the new battery to the solder points where the old battery was located. Pay attention to the polarity of the battery. See Figure 3 for final placement. Secure the battery assembly to the circuit board.



Final assembly was tie-wrapped in place

Figure 3 - Battery Inside Heat Shrink Tubing

10. Re-assemble the front, top, and bottom covers. Pay attention to use the 2 flat head screws that held the front cover in place. All other screws are the same.
11. Reconnect the radio and reprogram any frequency memories that may have been erased.

Alternate CR2430-FT1 Battery Installation

(Thanks to Rodger, N3MSL, for the following information.)

The standard designation for the solder tab coin cell used in the kenwood has a suffix of "FT1", as in Sanyo P/N CR2430-FT1. It can be found at www.mouser.com, or www.digikey.com and even some local electronics suppliers. The Mouser URL is:

<http://www.mouser.com/catalog/catalogUSD/642/2126.pdf>

Mouse Stock Number: 639-CR2430-FT1

An outline drawing of the coin cell is shown below.

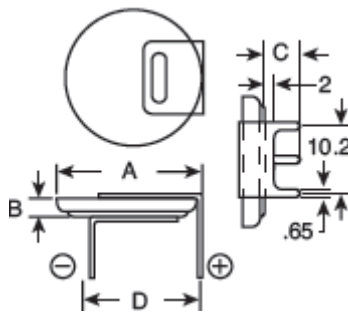


Figure 4 - CR2430-FT1 Outline Drawing

It does take a little longer to install, as the processor board must be unmounted (6 screws and the top 5 connectors disconnected) and folded over. But once the front panel is folded down, it takes less than 10 minutes to remove and replace the original battery, and remount the processor board.

Admittedly, it was a little more work, and does require a greater skill level, but it produces a much more professional job.

Thanks Rodger for your helpful information!