

Standard C508A Backup Battery Replacement



Tools and supplies needed:

- Small Phillips screwdriver
- Small needle nosed pliers
- Precision Tweezers
- Precision sidecutters
- Xacto knife
- Hemostat
- Soldering station with a fine tip
- Fine solder
- CR-1632-1HE battery



Procedure

1. Remove the batteries.
2. Remove the knob from the top of the radio. It pulls straight off.
3. Use a small screwdriver or a pair of small needle nose pliers to spin the nut off the knob shaft.



4. Remove the four screws from the case (Red arrows). You do not need to remove the two screws (Blue arrows) in the battery compartment.



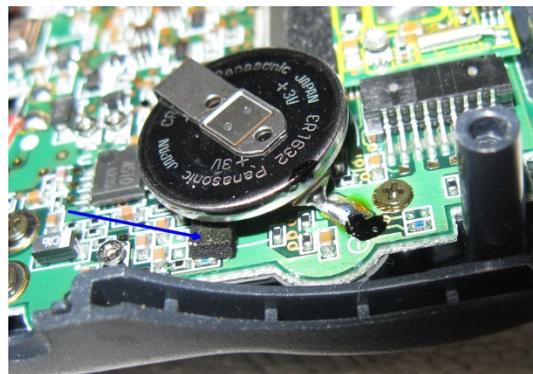
5. Gently pull the two case halves apart, starting from the bottom end. Locate the ribbon cable inside the case. It can tear, so be very careful with it.



6. Lay the halves next to each other on a soft surface. Locate the battery.



7. Using a fine soldering tip, touch it to each battery solder pad while lifting the contacts gently with a pair of tweezers. Do this as quickly as possible. The battery is sitting on a foam pad that will melt if you are not careful. The pad is stuck to the battery with adhesive, so you will have to pull it off.



8. Per the service manual, the battery is a CR-1632-1HE . The CR-1632 battery is readily available, but the 1HE variation with the solder tabs does not seem to be available. I suggest that you do a web search for the CR-1632-1HE, since one may be available from a source I couldn't find. It would be much easier to mount than the following procedure.

9. Put the battery on a padded surface. Mark the top contact with a marking pen and let the ink dry.

10. Using a sharp edge like an Xacto knife, pry the top solder tab back so it bends at the weld. Using a small pair of sidecutters, clip it off. Do the same for the bottom contact.



11. Flatten the solder tabs, and lightly tin them with solder.
12. Lightly scratch the battery on the top and bottom so solder will grip better. The battery is hard to solder to – it tends to slide all over the place. I tamed it with surgical hemostats. Solder the tabs to the battery. The top of the battery is positive, and the bottom is negative. Make sure the solder tabs do not short it! Make sure the battery part number shows.



13. Using a sharp edge, gently clean the solder pads on the radio.
14. Solder the tabs to the solder pads.



15. Gently put the two halves of the radio back together, insert the four screws, screw the nut onto the knob shaft and install the knob. You are done!
16. Test it by setting a frequency in the radio. Shut it off, remove the batteries and let it sit for an hour. If the frequency is retained you are good to go!

Please contact me if you have any questions or comments!
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