

I changed the batteries on a RaceMaster. It's a pain in the ass getting at them and they really should be designed for easy replacement 'cos they don't last indefinitely - anyone remember the early Apple iPods ?

They really should be designed with an external supply. If **tacktick** are that paranoid about having a completely sealed case then a little induction loop would allow for an external ac power supply.

To change the cells follow the following steps:

1. Place unit face down and wedge to be horizontal with the solar panel away from you.
2. Peel off the sticky cover that runs round the back of the instrument. Underneath this are 14 small screws which must be removed.
3. Gently lift up the plastic cover.
4. Remove the 4 screws at the corners of the circuit board.
5. Carefully slide the two ribbon cables out of the headers at the bottom of the circuit board. It's best to remove the two small jumpers at the top right of the circuit to disconnect the solar panel.
6. Lift the circuit board out being careful to not displace the solar and display panels. Use the finger hole to help this.
7. Turn the board over and you will be able to see 4 cells. Remove the outer two using a desoldering pump or ribbon. These are pretty easy to get at. Now remove the inner cells in the same way but these are a bear to get at.
8. Solder in replacement cells. I used Sanyo 2430's and you need to make sure you buy the ones with the solder tabs already crimped on. From memory this is the HZ1 package.
9. Reassemble in reverse order to disassembly. Remember the charging jumpers.
10. Seal up the screw heads on the out cover with some varnish.
11. Scrounge a new sticky cover from **tacktick**.
12. Leave in the sun to charge up for a few days.
- 13 Do not leave unit lying on garage floor.

like the idea of a alternate electronic compass. And will buy one the next time, however I have a **tacktick** microcompass. The battery died at the end of the season and I figured what the hey, I will try to replace the battery. I have done it. I actually replaced the single battery with one of double capacity.

The replacement battery is a 3 Volt Rechargeable Lithium Battery SANYO ML2430-HS1 it has soldered tabs on it. I put a double battery in ML2430-2HI1 - Two ML2430 coin cell batteries with tabs

these are available at <http://www.batteryvalues.com/>

There are no screws to remove, a small screwdriver is all you need to gently pry the back off.

Desolder the battery out using solder wick and install the new one in pretty straight forward. With the double battery the ground comes off the middle tab so you have to put a couple short pieces of wire on the battery, tape and float the battery in there. I used small guage 22 single strand wire joined the two positive sides together and added some length to the negitive pole. Just make sure you have 3 volts between the two wires you solder to the board. There is a jumper that should be removed that de energizes a capactor and isolates the battery from the circuit, it has a blue jumper like on a hard drive.

Be careful of the polarity it is not marked on the board but you can reestablish it by holding the solar cell in the sun and measuring the voltage on the holes. I believe the little hole is negative.