SABRE
TECHNOLOGY

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CE Controller rechargeable battery modification

Parts needed:
VARTA NiMh battery V1140H (3.6V, 150mAh) - Farnell code 279-353
1N4001 diode - Farnell code 365-117 (order multiple 10)
270 ohm resistor - Farnell code 337-080 (order multiple 10)

Note: The memory of the controller will be lost during this procedure. If you need to keep it, back up the memory using system exclusive dump to another controller or a sequencer. This is described on page 50 of the CE Controller manual.

1. Turn off the controller and open the case. You need to remove the 4 dome nuts in the rackmount ears, the 2 screws in the back face of the connections panel, and the 4 screws at the front and back edges of the controller base.
2. Remove the main board by taking out the four screws in each corner and lifting off vertically.
3. Desolder and remove the lithium coin cell battery, D15 and D16.
4. Solder in the new NiMh battery.
5. Solder in the 1N4001 diode in place of D15. Observe correct polarity.
6. Solder in the 270 ohm resistor in place of D16.
7. Replace the board (ensure the jumpers to the front panel connect properly).
8. Close the case and power up the controller. It will display "Initialising memory". Leave the controller powered for 24 hours to ensure the new battery is fully charged.

The battery takes about 18 hours to charge from flat. It will power the controller memory for at least 2 years if the controller is left without mains power. If the controller is rarely used you should run it for 12 hours about once every 6 months to keep the battery charged. In normal use the battery will top up every time the controller is used and will remain charged.

If the controller displays a battery warning on power-up, leave it on for 24 hours to recharge the battery.