



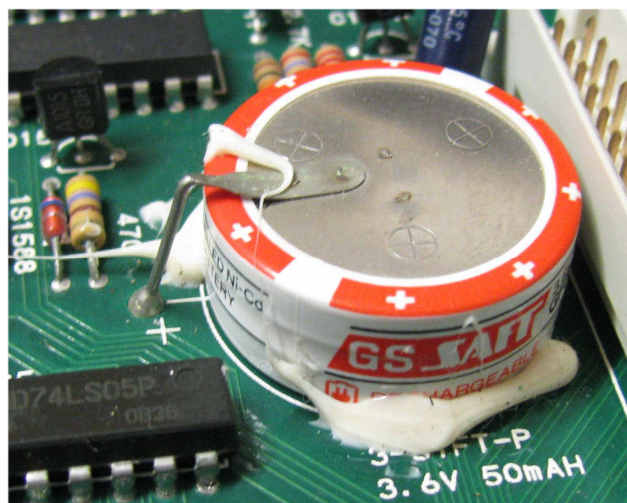
Neo Geo Battery Replacement

The Neo Geo games have been around many years and are at risk for battery damage from the NiCd batteries used store game settings and high scores. The batteries should be replaced and any damage cleaned up and repaired. This quick guide will show how to replace the battery on most Neo Geo boards.

It applies to the MV2, MV2F, MV4, MV4F, MV4FS2, and MV4FT2 boards. It will also apply to any 1 slot board that does NOT use a coin type rechargeable lithium battery.

It does NOT apply to the MV6. Sorry. The 4 slot boards have no DIP style chips mounted directly above the battery area where the 6 slot boards do. The pins from the DIP style chips prevents the type of battery shown in this guide from being used as they will pierce the insulation on the battery and short circuit it.

First, disassemble the system to get to the battery. On two and four slot boards this means removing the metal cover. On four slot boards you'll need to remove a series of long skinny screws that are holding the board interconnects together. Once these are removed then you will have access to the battery from the top.



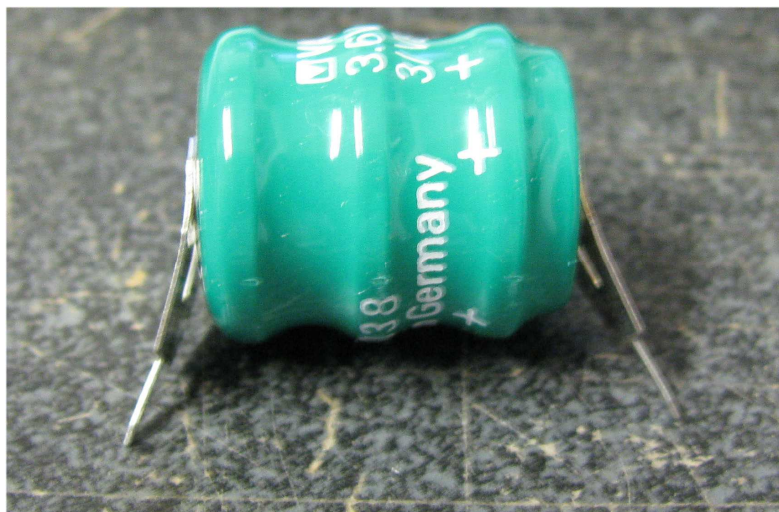
Next remove the red cardboard protecting the battery leads on the bottom from shorting out. You can either remove the whole piece or if you are careful enough, cut out a small section to expose the solder joints for the battery. Removing a small section is preferred as it can be easily put back in place with a bit of electrical tape covering it but you run a high risk of cutting circuit board traces under the cardboard.

Desolder the battery and clean up any hot glue or RTV silicone residue from the board.

The new battery will be a standard 3.6v PC type NiCd or NiMH type battery. Either will work fine as a replacement for the Neo Geo's battery.



The holes in the board are wider than the battery, but it will fit fine. Simply bend the leads out slightly to line them up with the holes on the game board.

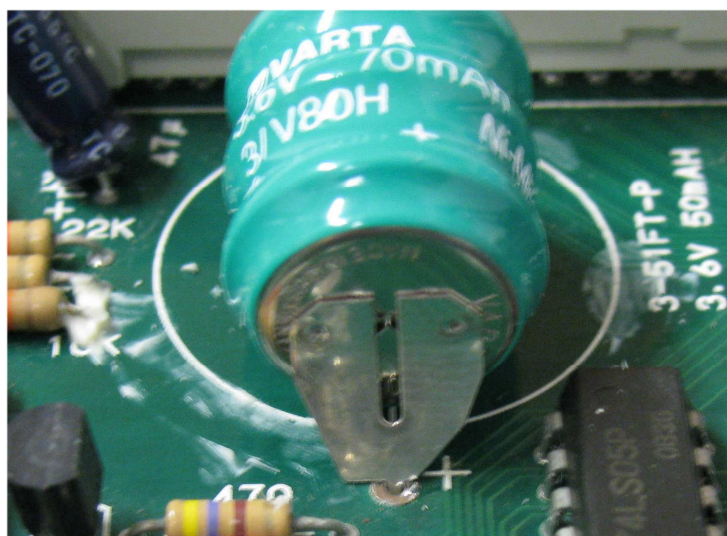


Test fit the battery and look for any possible short circuits. The 4 slot board has traces that run close to the positive terminal on the battery. The lead from the battery could cut through the protective coating on the traces and short circuit them which would result in a board failure.



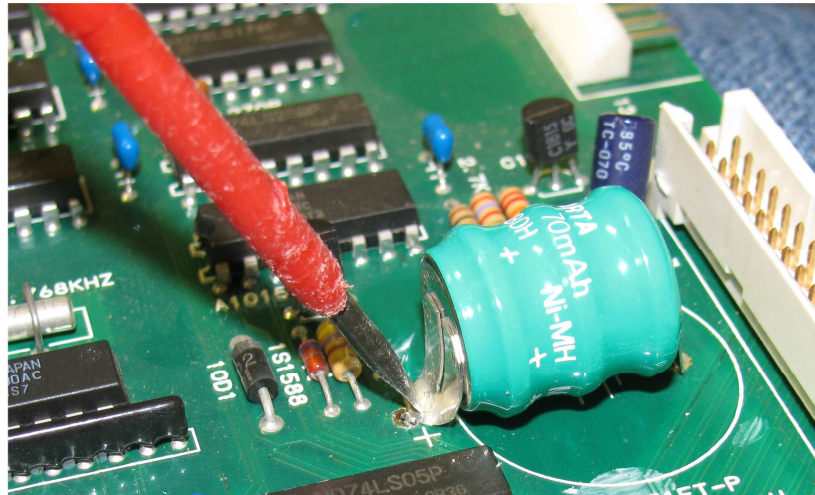
If there is no interference between the battery and the traces then solder the battery in and reassemble the system. Don't forget to reset the Backup RAM and set the clock. You are done UNLESS it's a 4 slot board! These will need further modification.

All of the 4 slot boards will require extra steps. For the early 4 slot boards, the trace interference problem is simple to solve with a set of diagonal cutters. Simply trim the side from the battery to give clearance to the traces.

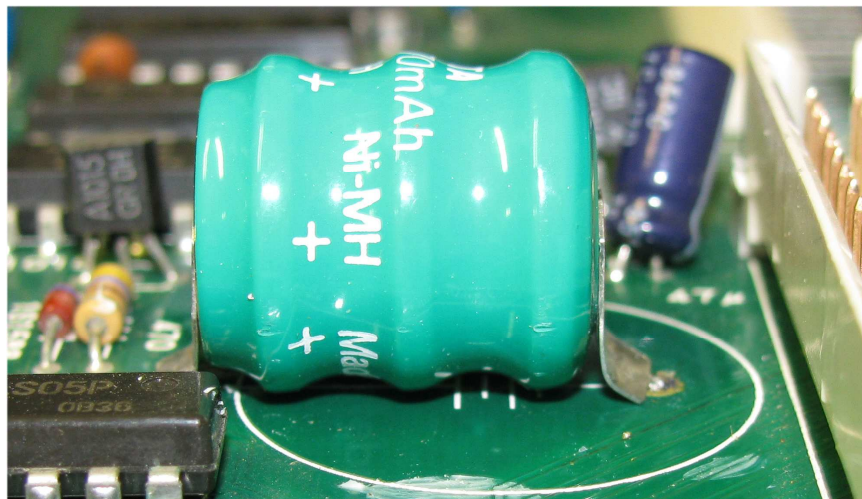


At this point the battery can be soldered in place on the 4 slot boards. After this there is still something else to do. The battery sits too tall on the board and will interfere with the fit of the top board. The legs will need to be bent on the battery to snug it to the bottom board and give the clearance needed for the top board to properly fit.

Take a small flathead screwdriver and push down on the battery leg at an angle to it. The purpose is to bend the battery legs so the bottom of the battery is touching the PC board.



Do the same thing to the other battery leg and the result should look like this:



At this point, you are finished! Reassemble the system, reset the Backup RAM, and play a few games.

NOTE: Keep in mind that this battery is rechargeable. It does require periodic charging to maintain the clock, system settings, and high scores intact. Run the system for 24 hours every month to help maintain a good charge on the battery.