

Relay substitution for Charge Controller

I have recently purchased the PCB to build your Universal Battery Charge Controller (December 2019; siliconchip.com.au/Article/12159). While awaiting its delivery, I managed to assemble almost all of the

other parts required, except the relay. Unfortunately, my local Altronics stockist shut down, so getting parts from them is now rather expensive in New Zealand.

In my collection, I have a relay identical in almost all respects except that it has a 3V, 44 Ω coil. My reading of the article and the schematic suggests that I can change the 56 Ω resistor between the relay coil and the collector of Q3 to 75 Ω or 82 Ω to maintain the coil current within a suitable range. I checked and found that this relay latches with 5V and an 82 Ω series resistor, drawing around 25-30mA.

Am I on the right track, or should I keep on searching for another relay? I built and used the Charge Controller for 12V SLAs (April 2008; siliconchip.com.au/Article/1796) very successfully and thought it was time for an update. Some parts may even get recycled! Thanks in advance for your assistance and great magazine content. (W. G., Dunedin, NZ)

- Your idea of using that relay with an 82 Ω series resistor seems fine. It's good that you've already checked that the relay remains latched under those conditions.