

## Replacing a SunRunr Battery



The inability to hold a charge is indicative of a tired or older or well-used battery (~8 years usage). The battery can also die from sulfation after being left uncharged in freezing weather.

Battery replacement requires a very specific battery. The "DEKA" 8A8D 12 volt 245 amp hr AGM absorbed glass mat battery with SAE round "automotive style top post terminals" can be special ordered at most all battery stores. DO NOT use any other substitute for this battery. We find them around \$600.00 depending upon location. You might check with them to see if they would be interested in performing the replacement. An electrician would also be able to perform the swap. Remember the battery weighs 160lbs. so usually two techs are required for the actual removal and placement of the battery. Standard SAE tools are required, nothing specialized required. Simple safety procedures ensure a smooth change. I suspect 3 hrs labor to change it out. The unit needs to be disassembled, as the battery is on the bottom of everything. You cannot replace the AGM with Li-ion, entirely different wiring and the charge controller is different. Once done, they should be able to take and recycle the older battery.

Other issues to consider. Make sure all switches are off and solar panels are unplugged. Take pictures as you go for reference. Note the direction and position of handles prior to removal. Remove handle bolts and small bolts on bottom of side covers. The top cover fits tightly, once handle bolts are removed you can push in on the top of the chassis to facilitate removal of the top cover. Remove and cover the Negative battery terminal and battery post with plastic and tape. Even old discharged batteries can have dangerous levels of power existing. You can now prepare the spine for removal by disconnecting the inverter battery connections at the opposite end of the cables from the inverter. Remove bolts on each end of the chassis position and hold the spine. Hold the inverter/spine assembly as those bolts are removed. Note any wooden shims in place. You likely will want to buy two new 5/16 X 3-4" J-hooks as they have been trimmed for fit. Note battery rope handles knots and tie down attachments orientation. Remove nuts on bottom of chassis to loosen and remove old j-hooks. Note wood block position and orientation for reuse. Battery should be ready for removal and

installation is reversed. Safety is priority! Be sure new battery negative post is covered until time for installation.

It is a very large battery and it takes a long time to fill it up. Also best life is achieved by continuous connection to solar panels to maintain battery charge levels. The AC/DC charger is intended only for temporary charging intervals. The death of lead acid batteries is sulfation due to inactivity. Also to really determine battery health you need to check voltage levels after 24 hrs of absolute inactivity (no charging or discharging). Voltage should indicate 12.7-12.9 on a fully charged healthy battery.

Scott will be glad to guide you or your technician through this change and will help with any SunRunr issues via this email address (valid through end of 2019) or by phone, even after SunRunr discontinues operations. Please leave a voicemail if he is unable to take your call at the time.

Sunny Regards, thank you for your investment, and we hope your SunRunr keeps offering you renewable energy for many years to come,

Scott 540-271-3403                      scott@sunrunr.com