

## BM PRO DEFINITIONS | TIPS ON PROLONGING BATTERY LIFE

### DOES A BATTERY NEED ANY MAINTENANCE?

Although a Deep-Cycle Battery is designed to discharge energy at a slow rate for an extended period of time and gives the impression that it is extremely sustainable, ALL batteries require some level of maintenance at some point.

Often found in an RV application, the Deep-Cycle battery is used also to power the different accessories and appliances within an RV home. These appliances, such as a TV, lights and cooking appliances are used for long periods of time, hence the importance of power being discharged at a slow rate to prevent too much energy being exerted in a short period.

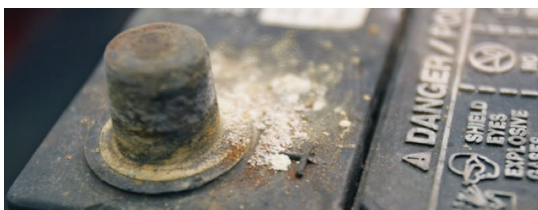
Some simple everyday maintenance tips for your battery include:

- Recharge the battery as soon as possible to assure a healthy, long life.
- Never allow electrolyte levels of the battery to be as high as splash barrels or as low as plate tops. Always make sure of this prior to the recharge of the battery.
- Make sure the battery is clean of dirt or moisture whenever possible. If the battery is kept in any kind of encasement, be sure that this is also clean.
- Always clean battery terminals, cable connectors and all accessory connectors on a regular basis.

### PROLONGING BATTERY LIFE

The two most common causes of battery failure are **undercharging** and **overcharging**.

'Undercharging' is the result of a battery being repeatedly discharged and then not fully recharged between cycles. This can also result in sulfation, where sulfur in the solution essentially leaches from the electrolyte and sticks to the lead plates as converted lead sulfuric crystals. These crystals coat the plates and prevent them from doing their job the next time you power up. At the same time, the electrolyte solution becomes weaker because it then lacks the sulfuric acid that has converted to crystals, which then interferes with the ability of the battery to accept, hold and deliver a charge.



'Overcharging' on the other hand results in severe water loss and plate corrosion. A good example of this is when an owner leaves automobile charger plugged-in when it is being stored and presume that the converter will keep the batteries topped off.

The problem with this is that the converter chargers provide a constant charge of roughly 14 volts, which is too high for a fully charged battery and the electrolyte becomes boiled off. This is a perfect way to end the life of your battery pre-maturely.

Here are some handy tips to prevent either of these problems occurring:

- Never let your battery discharge below 10.5 volts.
- Reducing the batteries depth of discharge will increase the life of the battery. A battery discharged to 50% every day will last twice as long as it would if it's discharged to 20%.
- During hot weather or high usage, check the batteries frequently. Checking the electrolyte levels is a **must** and adding distilled water as required can save them.
- Batteries should only be watered after charging.