

LEAD CRYSTAL[®] BATTERIES

POWERED BY **Betta Batteries**



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WHAT CAN HAPPEN IF UNDERCHARGED

If Betta Batteries Lead Crystal[®] Batteries are not charged with the correct amount of charge current the Batteries can reduce in capacity and performance. There is a small amount of moisture (Electrolyte) contained within the battery that moves between the positive and negative plates during charge and discharge. If insufficient charge current is used this moisture can eventually be held within the plate. Effectively reducing the electrolyte and therefore the capacity of the battery.

DETERMINING THE LEVEL OF UNDERCHARGE

How soon this moisture gets held within the plate will vary greatly depending on factors such as the size of the charger, the numbers of cycles, the depth of discharge and the temperature. Often, simply cycling the batteries a few times with the CORRECT SIZE CHARGER will see the battery recover in capacity. The first warning sign that things are more serious is that the voltages will climb rapidly during charging. This tends to exacerbate the undercharging as the charger will move quickly through Bulk and Absorption resulting in very little amperage going into the battery. But don't worry, here at Betta Batteries our world leading engineering team have developed a RESET procedure.

Keep in mind that unlike many batteries a Betta Batteries Lead Crystal Battery will operate from a partial state of charge. Therefore, it is perfectly fine to undercharge the batteries periodically but occasionally you will need to apply the correct charge current. If you live in an RV or caravan you can operate off solar for weeks on end but occasionally you will need to connect to power WITH THE RIGHT SIZE CHARGER and give the batteries a good cycle. It is basic maintenance.

WHAT YOU CAN DO

If you are not charging at the correct charge current, we recommend you take steps to rectify this as soon as possible. You simply need to charge the battery at the correct charge current.

CARAVAN, CAMPER, RV & MARINE USERS

It is not uncommon in these environments to experience undercharging. 2 x CNFJ 100AH Lead Crystal Batteries will need a charge current of 60 Amps in the Boost or Bulk stage of charge. This can be impossible with limited roof space for solar. Caravans are often fitted with 30 Amp chargers that are more suited in size to traditional Lead acid batteries. If this is you, and you have a 30 Amp charger, then we recommend that you simply charge the batteries individually. Disconnect each battery and charge individually. Just run each battery down to about 10.5V and charge with the 30% charge current and the battery will maintain its capacity and performance.

On behalf of the Technical team here at Betta Batteries we thank you for taking the time to read and circulate this Technical Bulletin. If you have any questions at all in relation to any of the above, then we encourage you to contact our local technical teams on any of the numbers listed below.

Regards
Tech Team

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