

GETTING THE MOST OUT OF YOUR BATTERIES

- 'House' batteries last best with a regular shallow discharge and full (3-stage) recharging. A good AGM battery can be discharged by 50% for over 1500 cycles, BUT, that same battery if discharged regularly by 95% (or till it's flat!) will only last 100 cycles or so. Let's do the maths, assuming the battery is 100Amp Hours...
 $50\% \text{ of } 100 \text{ Amp Hrs} = 50 \text{ Amp Hrs} \times 1500 \text{ cycles} = 75,000 \text{ Amp Hours over its life}$
 $\text{Compared with } 95\% \text{ of } 100 \text{ Amp Hrs} = 95 \text{ Amp Hrs} \times 100 \text{ cycles} = 9,500 \text{ Amp Hrs.}$
The battery discharged to 50% offers 8 times the cumulative power and 8 times the life expectancy
- Wet batteries need to be checked and topped up every 4 weeks in summer and every 8-12 weeks in winter, preferably with distilled water. Insufficient water will cause a wet battery to overheat and release harmful gases and corrosive acids. These are a health hazard and can damage equipment in the same compartment or area. If you're looking for an easier maintenance option go for AGM or Gel batteries.
- Do you have a mixed battery bank – either mixed battery types or mixed ages? Old batteries readily drag the performance of new batteries down to their level. The old battery, likely weakened by age will become a 'slave' – discharging first and recharging more readily. All the while the new battery 'sits', doing little and losing its own potential to hold a charge. Also, different battery types require charging at different voltage levels (e.g. Gels require a lower voltage than AGMs) so mixing battery types compromises not only performance but also safety.
- Does your battery still charge to its original level? Think about whether you've noticed symptoms of power loss. Does your battery go flat in a shorter time than expected? Does your fridge turn itself off? Does your battery charger seem to run and on? Does the resting voltage seem too low? It's probably time for a new battery.
- 3-stage charging is a must but take care if charging an old battery with a new 3-stage charger? The battery may not be able to reach the voltage that indicates to the charger it's time to turn off or 'float', so the charger keeps pumping in power.

Check out our website for more useful information and please call us at Absolute Power on 09 2929103 or 021 750 706 if we can be of assistance with any area of your mobile home power system – from solar to batteries to equipment. We'll be happy to hear from you and even happier to help you.

Absolute Power Ltd

Solar electrical systems
for mobile homes

Got a motorhome..

Want more power, free-camping
& improved electrical reliability?

Call us!



Clevedon, Sth Auckland
Ph (09) 2929 103
021 750 706
absolutepower@xtra.co.nz



**SOLAR
SPECIALIST:**
system design,
equipment
& installation



solar panels
solar regulators
AGM batteries
tank gauges
LED lighting
fault finding
energy audits
system design
electrical wiring
electric fridges
battery monitors
battery chargers
custom systems
alternator charging
petrol generators
inverters
satellite tv
power use savings

www.absolutepowerltd.co.nz

021 750706 / (09) 2929103