

LET'S GET PHYSICAL INVICTA LITHIUM BATTERY

BM PRO
INVICTA
A BETTER BATTERY



EPISODE 2 PHYSICAL NATURE OF LITHIUM BATTERIES.

It's no secret that many of us struggle to pack strategically, or 'minimalist', when we head off for a weekend or school holidays.

Towing a caravan or camper means we tend to throw extra in 'just in case' as there is always heaps of space. But are we really being mindful of what all that extra gear weighs heaped onto the tow ball behind us? It is not just the holiday makers and explorers who need to be mindful of this, but also the manufacturers of RVs.

Conscious of the fact that consumers are expecting more and more features in their RVs, we find manufacturers adding in every possible option for the discerning customer who wants to pack everything, just in case. In fact, manufacturers are considering their prototype designs with weight minimisation at front of mind. RVs which are optioned up to include

everything, also include the ability to request Lithium batteries as part of a minimum setup. That means those of us who want to take everything on our trip have the van equipped with all the mod-cons, but we also want the power to last forever. The new Lithium batteries get closer to being able to provide this.

Lithium batteries now offer the dream setup with the ability to discharge a battery to 10-20% remaining capacity, discharge and recharge super-fast and they last seemingly forever compared to AGMs.

From a storage perspective the same rules apply for lead acid in that you keep your 'house' in order by having your electrical setup in a dedicated cupboard or compartment and not use it as a storage location. The added advantage with Lithium is that these batteries can be stored on any angle, there is no need to remain upright as there is not liquid electrolyte moving around between cathode and anode.



**WEIGH
50%
LESS**

The real bonus is that all that comes packaged in the same size as a normal lead acid battery but weighs half as much. So yes, with Lithium you can achieve 60% more power in the same size box but at only around 13kg!



**60%
MORE
POWER**

For manufacturers this offers flexibility in design options.

As with lead acid batteries, good electrical design principles apply, however we would recommend the batteries are as close to the charger as possible to reduce any voltage drop. Also installing a 30-40Amp fuse in the positive line.

It is not a coincidence that Lithium batteries were structurally designed such that their form, fit and function mapped that of a 12V lead acid battery as we know it in RV world. It then makes it an obvious choice.

The one big exception is that as Lithium batteries use electronics to manage and control their internal cells, the battery cannot tolerate the heat of being placed under the bonnet of a vehicle. It cannot be used in a dual battery setup for under-bonnet applications.

In summary - per battery - more than double the power, twice as fast at half the weight - all in the same sized lunchbox.

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