



Banner Batteries information

Q) Why does RoadPro only sell Banner batteries?

A) We have looked at most of the popular wet lead-acid “leisure batteries” commonly available to motorhomers, caravanners and boaters. **Banner “Energy Bull” batteries are the only ones which are not simply starter batteries with fancy labels.**

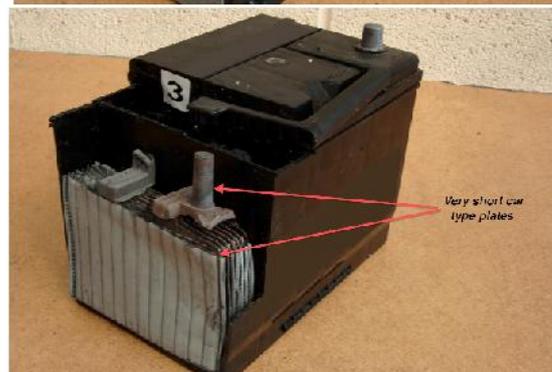
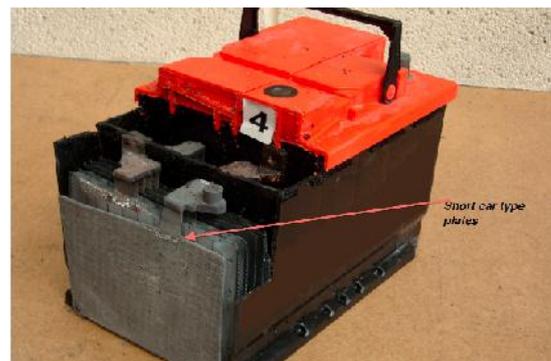
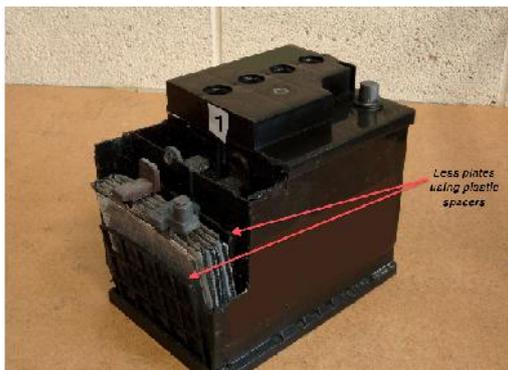
“Energy Bull” batteries are of the “semi-traction” type and were originally designed for operating machinery and equipment such as electric motors. The plates are larger and thicker than those found in starter batteries, incorporate antimony (as opposed to the calcium used in starter batteries) which increases plate life (although at the expense of quicker self-discharge) and have fibreglass separators which help to keep the lead-oxide paste on the plates intact.

These factors mean that “Energy Bull” batteries react much better to “cycling” (charging and discharging) than ordinary “leisure” batteries, typically giving at least four times as many cycles. They may cost a little more to buy but they will last a lot longer and work a lot better.

The batteries shown below are three popular “leisure batteries” and a Banner “Energy Bull”. We have removed the labels from all except the Banner in order to avoid embarrassment. You can clearly see the differences between the plates in the Banner and those in the other batteries: they are bigger, thicker and have glass-mat separators. This is also why “Energy Bull” batteries are usually heavier than others.

The “Energy Bull” is the only one whose design and construction is suitable for heavy cycling and it’s these features that make them ideal for use in caravans (especially when a motor-mover is being used), motorhomes and boats.

There’s nothing wrong with the other batteries but their design shows that they are made purely for use as starter batteries. If they are used in a vehicle which is usually hooked up to mains power, they will probably be just fine but, if used regularly for domestic purposes or for powering a motor-mover, they won’t perform very well and won’t last very long.



Q) How many times will I be able to discharge to 50% and then charge my “Energy Bull” battery?

A) As long as you charge the battery correctly and don't allow it to remain in a discharged condition, you should get more than 400 cycles. The deeper you discharge it, the fewer the cycles that the battery will tolerate. The number of cycles also depends to a great extent on what sort of charger you use to charge the battery

Q) Will the batteries supplied be manufactured within 6 months of the date I receive them. I understand that batteries older than 6 months could be less efficient because of the longer storage involved

A) Usually, the batteries we supply were made within the previous 6 months but we cannot definitely guarantee this. However, it is not correct to say that a battery older than 6 months will be less efficient. As long as the battery has not been allowed to sulphate (and this will normally only happen if a battery is less than 25% charged) an unused battery that's 12-months old will perform just as well as one that's 12-weeks old.

We check every battery before we send it out and, if it's not in perfect condition with a voltage of 12.6 - 12.7V (in the case of a wet lead-acid battery), we don't send it.

Q) Do I need to put a venting tube on my battery?

A) A vent pipe is used to clear gases away from a battery so that they vent externally. “Energy Bull” batteries don't need to do this as they are “recombination batteries” and gas internally.

A normally operated battery has no need to be vented under normal circumstances. If however there is an electrical fault or an imbalance on the charging system some manufacturers prefer to have the battery ' vented ' as an extra safety feature and vent pipes are available from RoadPro to fit the “Energy Bull” range. The boiling / gassing point of a Banner Energy Bull battery is 14.5V.

Q) Is it safe to put wet lead-acid batteries inside a vehicle – under the front seats for example?

A) As long as the batteries are in good condition and held securely in place and the vehicle's charging system is working correctly, there's no reason why you shouldn't have batteries under the seats. However, if you want to avoid any possibility of unforeseen problems caused by leakage of acid or gas, use AGM or gel batteries.

Q) What are AGM batteries?

A) AGM stands for Absorbed Glass Mat and these batteries have some distinct advantages and disadvantages over wet lead-acid batteries.

Here are some of the advantages of AGM batteries.

- They are totally sealed against any type of leakage and are classed as spill proof.
- Fluid level never needs to be checked.
- They can be mounted on their side or end (but not upside down).
- They can be mounted anywhere inside your caravan, motorhome or boat.
- They do not need to be in a sealed box vented to the outside.
- Because they have low internal resistance, they can be fully recharged at a lower voltage.
- Wet lead-acid batteries should only be discharged to a maximum of 50% whereas AGM batteries can be discharged to 80%. However, this is not recommended – a greater than 50% discharge can damage even an AGM battery.
- When left unattended, an AGM battery will discharge at a much slower rate than a wet cell battery.
- AGM batteries are able to withstand vibration and knocks much better than a wet-lead acid battery.

And here are some of the disadvantages of AGM batteries.

- AGM batteries are much more expensive than wet lead-acid batteries.
- If an AGM battery is overcharged it will drastically shorten its life. Extra care must be taken when charging these batteries to ensure they are not charged at more than 14.8V.

Q) What's the best way to charge a Banner AGM battery?

A) We recommend using an "intelligent" charger such as those from CTEK or Sterling. Some chargers may have a special AGM setting but, if they don't, use the setting which gives a maximum voltage of 14.7V during the "bulk" and "absorption" stages and 13.6V during "float". Don't leave an AGM battery on charge indefinitely as it could be damaged.

Q) Why do you not sell gel batteries?

A) The biggest advantage of gel batteries is that they can be safely used in absolutely any position, even upside down. They are also completely maintenance-free, will recover from deep discharging and can last longer than wet batteries if charged correctly. Disadvantages are that they can be easily damaged by overcharging, they must be charged at a lower voltage than wet batteries and they are very expensive. In almost every case, an AGM battery is a better bet than a gel model.

Q) Why do you not sell maintenance-free leisure batteries?

A) Most modern batteries will be maintenance free if they're used as recommended by the manufacturer. Because a "leisure" battery is often discharged much more than is recommended and much more often as well, you simply cannot have a "maintenance-free" "leisure" battery unless it's an AGM or gel model.

Q) What about "sealed for life" batteries?

A) The term SFL (Sealed For Life) is sometimes used and associated with so-called "leisure batteries". All it actually means is that you cannot get inside the battery if you should need to – for topping up or checking. Battery 3 in the photos above is an SFL type battery and this is probably simply to hide the true nature of the battery and the height of the plates. This type of battery still gasses, still leaks if tipped over and still loses water if overcharged but can't be topped up. So, what's the benefit? The only batteries which can genuinely be called "sealed for life" are gel and AGM batteries.

Q) Do I need to check my Banner batteries?

A) Banner "Running Bull" AGM batteries are completely maintenance free. "Energy Bull" batteries don't require maintenance in normal use; however, ideally you should check the electrolyte levels a couple of times during the first year in order to ensure that they are being charged correctly. From then on, it's a good idea to check them once a year. "Energy Bull" batteries are designed so that you can check the electrolyte levels by simply looking through the transparent case. If the plates are covered by electrolyte, no topping up is required.

Q) Can I just add a new battery to my old one?

A) You can but it's a complete waste of money: the old one will drag the new one down to its own level and stop it from working to its full potential. There is one situation in which this does not apply. If you have an iManager system, you can use two batteries of any type, capacity or age.

Q) What are the advantages of having two batteries?

A) If you have a 100Ah battery and use 30 Amps, unless you are using an advanced charging system on your vehicle, you'll probably end up with a battery that's only half full. This is because most chargers built into vehicles will only charge the battery to 80% – 85% of its maximum capacity.

Discharging the battery to 50% on a regular basis will not do it any good but, if you had two batteries, with a combined capacity of 200Ah, discharging them by 30 Amps means that you have only discharged the batteries by 30% - 35% or so. The result is that the two batteries will last a lot longer and work much better than a single battery.

Q) Is there any reason not to buy an "Energy Bull" battery?

A) If you always use mains hook-up and don't operate equipment on 12V, a basic starter battery will probably work well for you. It's when you rely on your "leisure" battery to provide power and you can't easily charge it up again straight away that a battery such as an "Energy Bull" is unbeatable.

It's easy to check your battery's voltage, preferably using a volt-meter as the vehicle's built-in meter may not be accurate. When you check, this table will give you an idea of what condition it's in. Always wait for 3 – 4 hours after charging or turning off the vehicle or boat's engine before checking the voltage.

In this table:

| 12 Volt Battery | State of Charge |
|-----------------|-----------------|
| 12.7V | 100% |
| 12.6V | 90% |
| 12.5V | 80% |
| 12.4V | 70% |
| 12.3V | 60% |
| 12.2V | 50% |
| 12.0V | 40% |
| 11.9V | 30% |
| 11.8V | 20% |
| 11.3V | 10% |
| 10.5V | 0% |

Blue = GOOD: the battery is in good condition and not in need of charging.

Green = OK: nothing to worry about but put the battery on charge as soon as you can.

Yellow = WARNING: get the battery on charge as soon as you can. Leave it and the battery will be damaged, possibly beyond repair.

Red = PANIC!! If the battery isn't already damaged, it will be unless you get it charged up straight away, preferably by using an "intelligent" charger.

To ensure that your battery lasts as long as possible, make sure that it is never left in a discharged state. As soon as it has been discharged it should be charged up again; using the vehicle's charging system, an advanced charging system such as those from CTEK or Sterling Power, a suitable solar panel as long as conditions are favourable or a 230V battery charger. It's not necessary to remove the batteries from the vehicle or boat as long as a suitable "intelligent" charger is used and the instructions are adhered to.

RoadPro is Banner Batteries' specialist distributor in the Caravan and Motorhome sector. We keep Energy Bull and Running Bull models in stock and can deliver to most parts of the U.K.

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