



LEISURE BATTERIES



Energy Bull Dual Power



Running Bull AGM



Running Bull EFB



ENERGY BULL DUAL POWER

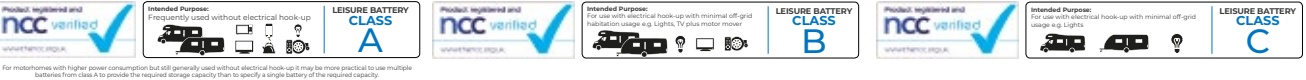
Genuine Dual Purpose Leisure Batteries



Power as a starter and supply battery for all leisure activities

- The Energy Bull offers up to 4 times the cyclical resistance of standard starter batteries and is extremely durable.
- MIN/MAX markings on the transparent battery casing and easy opening make the battery maintenance-friendly.
- Backfire protection is integrated into the battery cover and surge protectors.
- Low maintenance is secured by minimum water consumption and self-discharge.
- The suitability of any standard charger makes charging straightforward.
- High classification V3 vibration resistance rating pursuant to EN 50342-1 is secured by plate bonding to the battery bottom and pocket separators with a glass web layer.
- Optimum capacity that is perfect to dealing with cyclical loads.
- Delivery in a filled and charged condition is both user and environment-friendly.

Banner Model	NCC Class	UK Number	Ah Capacity 20hr/100hr	Dimensions (mm) LxWxH	Weight Kgs
95501 / 12v	Class C	95501 027 box	60ah / 70ah	241 x 175 x 190	16.6
95601 / 12v	Class C	95601 678 lowbox	80ah / 90ah	278 x 175 x 190	19.9
95751 / 12v	Class B	95751 110 lowbox	100ah / 110ah	354 x 175 x 190	24.1
96051 / 12v	Class B	96051 627 box	130ah / 140ah	514 x 189 x 195	36.4
96351 / 12v	Class B	96351 629 box	180ah / 195ah	514 x 223 x 195	46.8
96801 / 12v	Class B	96801 625 box	230ah / 250ah	517 x 273 x 212	63.2



RUNNING BULL AGM

Genuine Absorbed Glass Mat OE Batteries



Power for start/stop technology

- Running Bull AGM batteries have greater amp powers and cycle resistance.
- Be aware of the risks of fitting budget batteries, as they will invariably have a much shorter working life and low capability of powering vehicles during extreme weather conditions or short trip usage.
- Never fit a replacement battery with a lower Ah rating than the OE specification. The result could be a very unhappy customer and a warranty claim that is not covered by the battery manufacturer.
- Fit only AGM or EFB batteries to vehicles with start/stop function. Reported start/stop problems are primarily the result of incorrect battery specification.
- Ideally fit premium batteries from an OEM supplier. They may cost slightly more in the short term but they embody advanced technology to meet the specific demands of modern vehicles, ensuring the delivery of reliable performance and longer life.

Banner Model	NCC Class	UK Number	Ah Capacity 20hr/100hr	Dimensions (mm) LxWxH	Weight Kgs
55001 / 12v	Class C	12 AGM	50ah / 105ah	210 x 175 x 190	15
56001 / 12v	Class C	027 AGM	60ah / 72ah	242 x 175 x 190	17
57001 / 12v	Class C	096 AGM	70ah / 88ah	278 x 175 x 190	21
58001 / 12v	Class C	115 AGM	80ah / 90ah	315 x 175 x 190	24
59201 / 12v	Class A	019 AGM	92ah / 110ah	354 x 175 x 190	28
60501 / 12v	Class A	020 AGM	105ah / 120ah	394 x 175 x 190	29.8



RUNNING BULL EFB

Genuine Enhanced Flooded Batteries with OE Pedigree

GUIDANCE FOR BATTERY USE

in caravans and motorhomes



Power for start/stop applications without energy recuperation

- Range of 5 popular types with capacities from 38-95 Ah.
- Up to 270,000 engine starts.
- Glass fleece cover on the separator and special active mass composition.
- The key to the durability of the battery is provided by twice the cyclical life of conventional starter batteries and its robust design: M2 classification pursuant to EN 50342-1.
- Top V3 vibration resistance rating pursuant to EN 50342-1.
- "Carbon loaded": The carbon additives lead to a marked reduction of the charging time!
- Double Top for maximum protection against leaks and operational safety.
- Zero maintenance due to modern calcium/calcium mesh technology.

Banner Model	NCC Class	UK Number	Ah Capacity 20hr/100hr	Dimensions (mm) LxWxH	Weight Kgs
56511	Class C	027EFB	65ah / 75ah	241 x 175 x 190	17
56512	Class C	100EFB	65ah / 75ah	238 x 175 x 175	17.2
57511	Class C	096EFB	75ah / 85ah	278 x 175 x 190	19.2
57512	Class C	110EFB	75ah / 85ah	315 x 175 x 175	19.2
58511	Class C	115EFB	85ah / 95ah	315 x 175 x 190	22.5



- 1 ALWAYS USE THE LARGEST, BEST QUALITY BATTERY POSSIBLE**
Doing so will deliver longer life and maximum performance.
- 2 BE AWARE OF DISCHARGE RATES IMPACTING ON PERFORMANCE**
A larger battery discharged by say 30% will last many times longer than a smaller battery discharged by 50%.
- 3 A STRONGER BATTERY IS PREFERABLE FOR 'OFF MAINS' APPLICATIONS**
This is particularly important when using big energy consumers, such as colour TVs and motor mover devices.
- 4 NEVER STORE A DISCHARGED, UNUSED BATTERY**
Particularly over the winter, as it will sulphate and require scrapping by springtime.
- 5 A DISCHARGED BATTERY SHOULD BE RECHARGED IMMEDIATELY**
Recharging should be at a rate of 10% of the battery's capacity. For example, an 80ah capacity battery should be charged with an 8-10 amp charger until the voltage reaches 12.7 volts and delivers an acid specific gravity of 1,270.

- 6 RECHARGING BEST PRACTICE WITHOUT USING A HYDROMETER**
For those wanting to recharge a battery without having access to a hydrometer, then a 3-stage automatic charger should be deployed, as this will prevent an overcharge. It can be left connected even after the charge is finished, as it will not harm the battery even when slipping into float mode @13 volts.

- 7 A LEISURE BATTERY CAN BE DISCHARGED AND RECHARGED DURING STORAGE**
Leisure batteries should not be confused with ni-cads, which should not be discharged and recharged during storage.

BATTERY GUARANTEES
All batteries typically carry a guarantee against manufacturing defects. Guarantees do not cover unfair wear and tear, such as discharged storage, or batteries that have been over used for the wrong application. Providing the correct battery is specified and used in accordance with the chart below, long and reliable performance will prevail.

Power Source	Ampage PH	X Hours	Example	Total Amps
LCD TV's	4 amps	x hours	eg 3	12
Single Axle M-Mover	20-60 amps	Use only Energy Bull 100ah minimum		
Twin Axle M-Mover	30-100 amps	Use only Energy Bull 100ah minimum		
Spotlights (2)	3 amps	x hours	eg 2	6
Fluorescents Single (3)	2 amps	x hours	eg 2	4
Fluorescents Double (3)	5 amps	x hours	eg 2	10
Blown Air Heating Fan	4 amps	x hours	eg 3	12
Water Pump (Shower)	5 amps	x hours	eg 1 1/2	2
CALCULATE AMPS USED x HOURS IN USE, then x 2 for a SAFETY MARGIN.		Total	eg 9 1/2	34
		x 2		68

THIS EXAMPLE NEEDS A MINIMUM 68 ah BATTERY
To calculate watts to amps divide by volts ie: 48 watts divided by 12 volts = 4 amps

BATTERY CARE & MAINTENANCE

✓ DO'S

- Ensure your battery is wired and installed in the correct manner.
- Charge your battery after purchase and prior to each use.
- Keep terminals and posts free from corrosion – lightly coat with petroleum jelly.
- Always keep your battery fully charged – even when not in use. When not in use, store in a cool environment connected to an intelligent, 3-stage auto charger.
- Always keep your battery upright and adequately secured.
- Always apply a charge to your battery at the end of the season and remove it from your caravan/motorhome. Or, where possible, use a permanent connected intelligent charger.
- Check your caravan/motorhome for systems that draw a constant charge – e.g tracker/alarm – as you will need to counter this draw with a constant re-charge to maintain the battery – e.g solar or mains.

✗ DON'TS

- Never over-charge your battery. Once disconnected from the charger and after 24hrs, a fully charged 12 V battery should have a voltage of 12.7 V, which can be checked with a multimeter.
- Never discharge your battery. A battery is fully discharged when the load voltage is 11.7 V. If this happens, recharge immediately.
- Never leave your battery in a discharged state – EVER! This causes sulphation and destroys your battery, and this is not covered under warranty.
- Never reverse the polarity on your battery charging leads, as this will damage the battery and charger.
- Never rely on the automotive alternator to charge your battery. They are not designed to do this, only top up a partially discharged battery. Doing so will damage the battery and reduce its working life.

POWER ON BOARD

The power of Banner Batteries has not only evolved through ongoing product innovation combined with world class manufacturing, but an unparalleled OE pedigree that is the backbone of the company's genetic make-up. Indeed Banner's battery technology is the preferred choice of many motorhome manufacturers, such as:



POWER **ORDINARY**