



Anglian Lepidopterist Supplies

**Specialising in
moth traps and
related equipment**

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THE ALS WHAT BATTERY GUIDE

With a continued interest in moth trapping away from 240V mains power supply via 12 volt batteries, ALS have produced this 'what battery guide' intended for guidance to help the enthusiast.

When moth trapping with 12 volt batteries it is considered the default practice to use an actinic light source and the 15w actinic portable unit with built in photo cell seems the most popular system resulting in fairly good catch results. It also has the added option of having all parts of the electrical system to the control box and end caps to the bulb waterproof (IP56), unlike other actinic systems on the market.

ALS only use lithium-ion batteries (see below). These batteries are fully sealed, so if toppled over acid does not leak, they also allow the operative to charge/discharge the unit more times than a Gel/Lead-acid battery.

Lithium-ion batteries: At only a fraction of the weight of Gel/Lead-acid batteries, the advantages of this type of battery are much greater. The dimensions are also much smaller allowing you to simply pop it in your pocket! Other advantages are a built in fuel gauge allowing you to see what charge you have left and a flat discharge rate meaning the light stays brighter for longer.

When operating 12 volt batteries with moth traps running times can vary significantly depending on weather conditions, for example wet and cold weather will draw more from the battery than dry warm conditions. We always recommend placing the battery on a piece of dry material such as wood for optimum results.

The use of **leisure batteries** (like used in caravans, etc) can be used for powering portable actinic set ups. These units come fairly cheap from high street traders often around £80.00. They have a high amp/hour rating (usually 30Ah and above) and most will power the 15w/20w actinic for around 20+ hours (not quite enough for two nights depending on time of year) As most people have a car charger, the extra cost of this item is then cancelled out. A number of considerations must be remembered with this type of battery, fundamentally the weight will usually be around 9/12kg plus, in addition they are not a sealed unit like the ALS range of batteries, if toppled over acid leakage will occur. If you are not intending walking the trap far from the car this is a very good alternative option.

Additional tips:

- Do not store batteries in cold outhouses over winter, bring them indoors. **Cold kills batteries.**
- When batteries are not in use, always re-charge every three/four months to keep in good condition.
- Never try and run batteries for two nights, even if it has only been used for several hours, always re-charge immediately after use.
- Do not use batteries if you know the temperature will be below 5c, it could result in serious damage occurring. **DO NOT USE BATTERIES DURING COLD WINTER MONTHS.**
- If the bulb blackens at one end this is a classic sign of a voltage problem, check your battery.

All prices of the above batteries and chargers are listed in our price list under the batteries section.

Customer Tip: One customer in Lancashire places his batteries in a simple insulated bag on a piece of 4 by 1 inch timber and then places a charcoal hand warmer inside the bag whilst the hand warmer is still burning (about 5 hours) its brings the temperature inside the bag to approximately 20c during the winter months.

*Note: The battery must **NOT** be left in the bag when charging takes place. Refer to your charging manual.*

Jon Clifton
ALS