

Following your recent enquiry regarding battery duration failure please see below answers to many frequently posed questions:

## Standard EMIN Battery Care

- Question: How long should the battery be on charge prior to carrying out its first duration test?  
Answer: A minimum of 24hours uninterrupted charge.
- Question: What should I do following the first test should the battery fail to obtain its full 3hour duration?  
Answer: Similar to the batteries that used to be used in many phones, to ensure the full potential of the battery is reached the battery may require 3x 24hr charges and full discharge cycles.
- Question: Can the batteries suffer from NiCD memory effect?  
Answer: Yes. If the batteries are nickel metal cadmium (NiCD). This is caused by repeated short discharge tests and results in reduced battery duration. It is possible in many circumstances to recover the lost memory by carrying out 3x 24hr charges and full discharge cycles. If the batteries do not recover then new batteries will have to be purchased.
- Question: How long are batteries covered under warranty?  
Answer: Batteries are covered within the first year of purchase.
- Question: Does heat adversely affect battery performance?  
Answer: Yes, if a NiCD battery temp exceeds 55°C within the luminaire it will have a detrimental effect on battery performance. For NiMH temps above 45°C and in some cases 40°C will reduce performance. Please contact our technical department if you require further information.
- Question: Does cooler temperatures affect battery performance?  
Answer: Yes, unless stated otherwise in the data sheets our luminaires will perform correctly in duration tests if the temperature is above 0°C.
- Question: What is the average life of a battery?  
Answer: Under ideal conditions where the battery has been conditioned correctly and testing of the luminaire had been in accordance with the requirements of BS EN 50172. The battery should then typically give an average life expectancy of 4/5 years.
- Question: When should I connect the batteries?  
Answer:

Nickel Metal Hydride (NiMH)	Nickel Metal Cadmium (NiCD)
Must be within 3months after receipt of goods and when the power is not subject to mains interruptions	Must be within 6months after receipt of goods and when the power is not subject to mains interruptions

- Question:** What is the difference between NiMH and NiCD rechargeable batteries?  
**Answer:** The main difference between the two is that NiMH battery (the newer technology of the two) offers higher energy density than NiCD. In other words, the capacity of a NiMH is approximately twice the capacity of its NiCD counterpart.
- Question:** Should sensors adversely affect battery performance?  
**Answer:** No, however it is not uncommon for the wiring to be incorrect at the sensor which will result in the luminaires switching to occupancy when the luminaires time out causing the batteries to fail prematurely.

## Easy Test Battery Care

- Question:** Do I need to carry out manual tests on self-test products?  
**Answer:** No. The self-test module is designed so that once energised it will commission itself ensuring that the light source has completed a 3hr duration. Test completion is indicated by a steady green LED indicator. The luminaire will then undertake the test required in BS EN 50172 on a continuing basis.
- Question:** What does a flashing red indicator mean?  
**Answer:** Action required to resolve one of the following failure modes:

LED Indicator	Reason
<b>Permanent Red LED</b>	The emergency light source has failed in emergency mode
<b>Slow flashing Red LED</b>	Battery capacity warning
<b>Fast flashing Red LED</b>	Battery charging failure

- Question:** What does a green indicator mean?  
**Answer:**

LED Indicator	Reason
<b>Permanent Green LED</b>	Healthy
<b>Flashing Green LED</b>	Commissioning mode

- Question:** Why does the LED constantly flash green?  
**Answer:** The luminaire is in commissioning mode which can take up to 72hrs to complete. If the power is interrupted during the 72hrs it will restart the clock and need a further 72hrs from the point of interruption before completing the commissioning mode.
- Question:** When should I connect the batteries?  
**Answer:**

Nickel Metal Hydride (NiMH)	Nickel Metal Cadmium (NiCD)
Must be within 3months after receipt of goods and when the power is not subject to mains interruptions	Must be within 6months after receipt of goods and when the power is not subject to mains interruptions

## Comeps

- Question:** What happens if I use my Comeps inverter without the Dali system being connected?  
**Answer:** All of the Comeps (Dali) inverters we supply are also self-test systems and therefore please refer to the Easy Test Q&A above.
- Question:** What is the most common cause of battery failure with the Comeps system?  
**Answer:** The most common cause is if programmed incorrectly so that the duration tests are too frequent and/or too long. Please ensure they are set in line with the BS EN 50172 requirements
- Question:** When should I connect the batteries?  
**Answer:**

Nickel Metal Hydride (NiMH)	Nickel Metal Cadmium (NiCD)
Must be within 3months after receipt of goods and when the power is not subject to mains interruptions	Must be within 6months after receipt of goods and when the power is not subject to mains interruptions