# **Green Marine Lithium Battery Guide**

The Green Marine Lithium battery chemistry is lithium iron phosphate (LiFePO4 or LFP) is the safest and most stable of commonly used lithium battery. All Green Marine Lithium Battery's come with BMS (battery management systems).

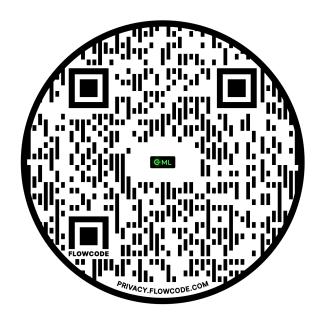
#### **BMS**

The BMS protects Lithium Battery cells against over-charge, under-charge, low and high temperatures surges and short circuiting. The BMS also provides integrated cell balancing, Temperature and Voltage control system. The BMS will turn off loads or chargers accordingly to any breach in the pre set parameters within the BMS. Each Green Marine Lithium battery has bluetooth connectivity to allow customers to monitor and control the battery performance and to ensure the battery has the stated capacity.

Before Use.

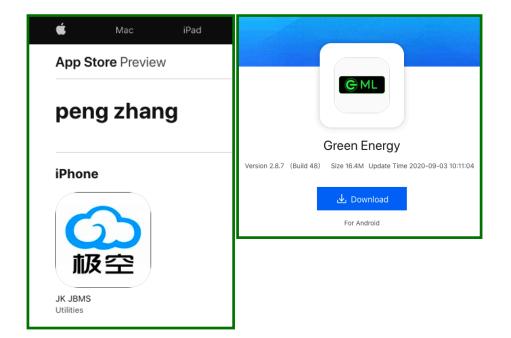
Step1. Download the Green Marine Lithium app via these QR codes

IOS (Apple) ANDROID





Android site warning are not harmful



9:00 Device List

\$\int 12

\$\int 24\v50ah

\$\int JK-BD6A20S10P

APPLE IOS.

**ANDROID** 

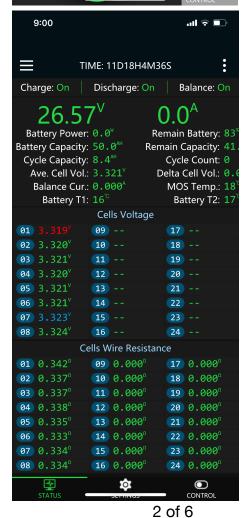
Step 2. Scan for Green Marine Lithium Battery

Step 3. Select the Green Marine Lithium Battery

Step 4. To pair with the Green Marine Lithium Battery. Password to pair. 1234

Step 5. Connect Black lead to the negative (-) battery terminal and the red to the positive (+) battery terminal. Plug the charger into the power socket and switch on the power supply. The battery will commence charging and switch off when fully charged. Please Note: The charge can stay connected to the battery switch on and this will not damage the battery.

Step 6. Open the Green Marine Lithium Battery App to





check the battery level and if the battery is charging. Please fully charge the Green Marine Lithium Battery before use.

For Information please visit the <a href="https://greenmarinelithium.com/support/">www.greenmarinelithium.com/support/</a> support page <a href="https://greenmarinelithium.com/support/">https://greenmarinelithium.com/support/</a>

#### Please Note:

- When in use, if the battery drops to 0% the BMS will switch off. To restart BMS commence charging. Please Note: If battery is left over a long time without charging the battery cells can fail below the BMS startup voltage. The BMS will use power to balance and manage the battery whilst in storage. Please Ensure the battery charge levels are maintained at all times.
- The Green Marine Lithium Battery can not be over charged as the BMS will switch the charging function off when 1 cell has reached the maximum voltage limit. At this stage the BMS will read 100%. Please Note: the cells can balance overtime which will create additional space for more charging, however once all cells reach 3.4V the battery is at full capacity. When the cell balances even and there is more available space in the battery the BMS percentage read may drop. This does not mean the battery as lost power. It means there is now more space in the battery now the cells have balanced.
- Please ensure the correct cables rating is used when using Green Marine Lithium Battery's to ensure safe power supply to appliances. Please Note: Under size cable, loose exposed connections can cause cable heat, fire and

- loss of voltage and loss of battery capacity. Please refer to the appliance manufactures specifications.
- Please Note: The BMS measures the battery cells which drives the BMS to switch off the battery and all battery total information is based on formulas calculated by the cells.

#### **CAUTION:**

- Please ensure the Green Marine Lithium battery stays charged during period of non use or storage.
- Ensure not to flatten battery cells below 2.6v or the BMS may not restart via charging. BMS required 40V @ 30 sec to restart and may need resetting. Please contact Green Marine Lithium if this occurs.
- Keep batteries away from fire or high temperatures
- Avoid short circuiting
- Do not disassemble the battery. Battery warranty will be voided if the case is opened.
   Do not drop, impact or puncture the battery.
- Do not allow the battery to sit in a discharged state.
- Do not use the deep cycle batteries for cranking or starting.
- Do not connect the batteries in series.
- Do not use DSVR or VSR or dual battery devices.
- Do not connect Lead Acid and Lithium batteries is parallel or series.
- Only 1 device can connect to the BMS app at a time

Green Marine Lithium has no obligation under the limited warranty herein in the event the battery is damaged or destroyed as a result of one or more of the following:

- Willful abuse, misuse, physical damage, neglect or if the decorative cover has been removed.
   Natural forces such as wind, lightning, hail; damage due to fire, collision, explosion, vandalism, theft, penetration or opening of the battery case in any manner.
- Overcharging, undercharging, charging or installing in reverse polarity, improper maintenance, allowing the battery to be deeply discharged via a parasitic load or mishandling of the battery such as but not limited to using the terminals for lifting or carrying the battery.
- Repair or attempted repair of the battery by anyone other than an authorized Green Marine Lithium representative shall void this warranty.
- Normal or accelerated deterioration in the electrical qualities due to operating
  or application conditions.
   If the battery is used for an application that requires
  high cranking power or a greater reserve rating than the battery is designed to
  deliver, or the battery capacity is less than the battery capacity specified by the
  manufacturer, or the battery is otherwise used in applications for which it was
  not designed.

 Prolonged storage of Lithium battery with either no charge or a parasitic consumption load applied lowering battery voltage with no periodic charging or disconnecting the battery to prevent irreversible damage to the battery.

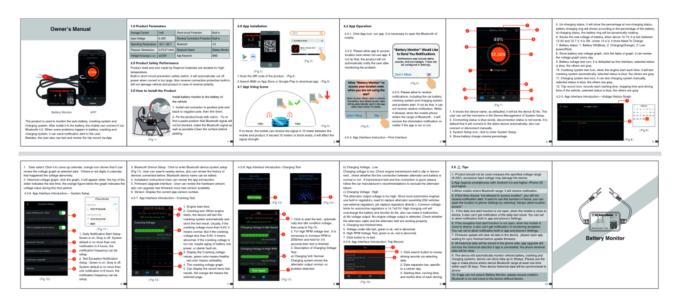
## **CRANKING BATTERY APP (external)**

#### Android

https://play.google.com/store/apps/details?id=com.dc.battery.monitor2&hl=en\_AU&gl=US

### **Apple IOS**

https://apps.apple.com/us/app/id1115492033



Cranking Battery Manual

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