# CANONE110NO20

12V 110AH SLIMLINE BATTERY WITH DC-DC CHARGER

## FEATURES

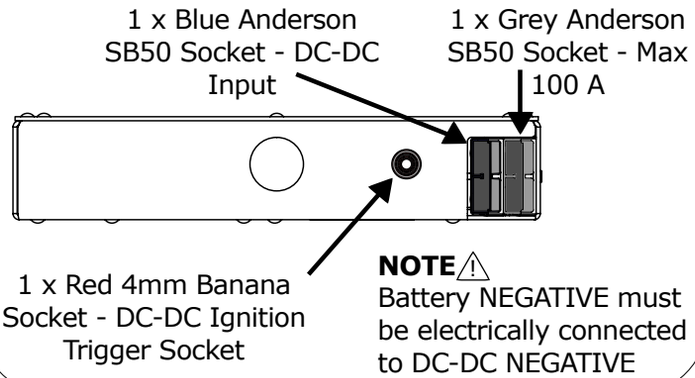
Constructed with Lithium Ferrous Phosphate cells, these prismatic cells are encased in a sturdy metal housing. The battery features a built-in Battery Management System (BMS) developed locally within Australia. Its slimline design makes it perfect for space-conscious installations—slide it behind a seat, bolt it to a wall, or discreetly place behind cabinetry in your camper or caravan.

With up to 120A of continuous discharge or charge, the battery can be parallel-connected to increase its capacity. Charging and discharging are easily managed via the grey Anderson plug and access to the DC-DC charger through the blue Anderson plug. This solution delivers a secure, lightweight and powerful solution for your battery system.

## SPECIFICATIONS

| | |
|---|---|
| **Cell Type** | **Lithium Ferrous Phosphate $LiFePO_4$** |
| **Total Capcity** | 110Ah |
| **Nominal Voltage** | 12.8V |
| **Charge Voltage** | 13.8V - 14.6V |
| **Float Voltage** | 13.8V |
| **Charge Current** | 120A |
| **Discharge Current** | 120A Continuous<br>240A Surge (1 sec) |
| **DC-DC Charger** | 20A |
| **Operating Temp.** | 0°C - 45°C |
| **Dimensions (LxWxD)** | 636mm x 256mm 50mm |

## CONNECTION DIAGRAM




**NOTE** ⚠
Battery NEGATIVE must be electrically connected to DC-DC NEGATIVE

## ⚠ SAFETY PRECAUTIONS ⚠

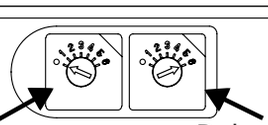
The battery incorporates Lithium Ferrous Phosphate ($LiFePO_4$) cells, known for their safety in comparison to other Lithium-ion chemistries. Given the substantial stored energy, exercise caution and adhere to appropriate safety measures for secure usage and operation.

- Avoid mechanical schock.
- Avoid direct sunlight exposure.
- Do not store or mount batteries in incorrect orientations.
- Do not transport the battery unsecured.
- Do not expose the battery to water.
- Do not expose the battery to fire.
- Do not pierce the battery.
- Do not disassemble.
- Do not drill into the battery enclosure.
- Do not short the battery terminals.
- Only use pre-drilled holes and supplied screws to mount brackets.
- Do not connect multiple batteries in a series configuration.
- Do not charge the battery outside the range of 0°C - 45°C.
- Do not store below -20°C or above 60°C .
- Risk of burns if misused.
- Always follow safe working practices.
- Installation of device my be carried out by appropriately qualified competent person(s).
- All connections must be fused at recommended fuse ratings to avoid damage to components.
- Only use Lithium Battery Chargers for charging

## DC-DC Charger

The DC-DC charger in the Power Node allows the battery to charge from a vehicle engine/alternator/start battery. However, to prevent the depletion of the start battery, charging should be limited to when the engine in running.

The settings for when the DC-DC Charger activates and deactivates are controlled by two 7-position (0-6) rotary switches. The default settings for most applications are 0 on the voltage switch and 6 on the delay switch. This enables the DC-DC charging operation to be ON whenever the ignition is on




| Voltage Switch Position | ON Level | OFF Level |
|---|---|---|
| 0 | 11.0 | 10.0 |
| 1 | 12.0 | 11.0 |
| 2 | 13.0 | 12.0 |
| 3 | 13.3 | 12.3 |
| 4 | 13.5 | 12.5 |
| 5 | 13.7 | 12.7 |
| 6 | 14.0 | 13.0 |

| Delay Switch Position | Delay of Time |
|---|---|
| 0 | 0 sec |
| 1 | 30 sec |
| 2 | 1 min |
| 3 | 1.5 min |
| 4 | 3 min |
| 5 | 5 min |
| 6 | 0 sec |

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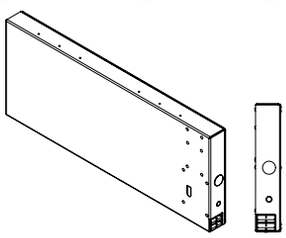
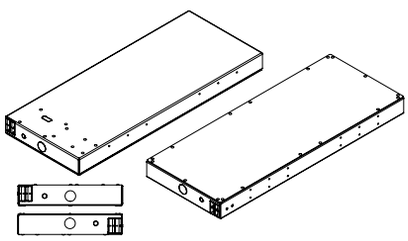
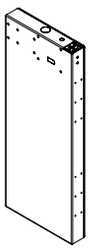
## CORRECT MOUNTING ORIENTATIONS



Vertical on long edge with Anderson connections closest to the ground

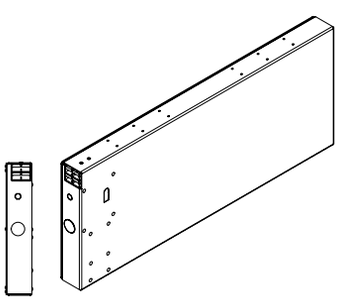


Flat mounting orientation

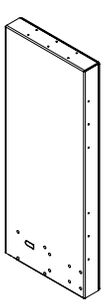


Vertical on short edge with Anderson connections furthest from the ground

## INCORRECT MOUNTING ORIENTATIONS

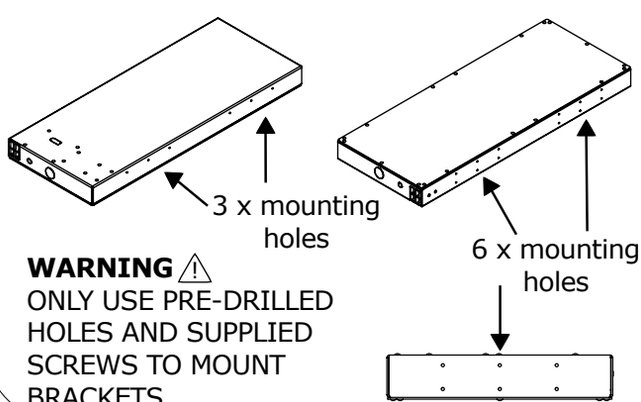


Vertical on long edge with Anderson connections furthest from the ground



Vertical on short edge with Anderson connections closest to the ground

## MOUNTING HOLE LOCATIONS




**WARNING** ⚠
ONLY USE PRE-DRILLED HOLES AND SUPPLIED SCREWS TO MOUNT BRACKETS

## TIPS FOR USAGE

◙ Batteries of the same voltage may be placed in parallel to increase storage capacity. However, each battery should be independently fused, and the battery must be from CANGOEE.
◙ If the battery is potentially <0°C it is essential to allow the battery to warm to ambient temperature before connecting power to the battery.

## LONGEVITY TIPS

Factors that mainly affect the lifespan of the battery are depth of discharge and operating temperature. To ensure longevity and use of the battery:
◙ Do not fully discharge the battery to zero. Each time the battery is discharged to zero, either intentionally or unintentionally, it reduces the lifespan of the battery.
◙ Do not discharge the battery below 80% depth of discharge (i.e., 20% full).
The cells are designed to last 2,000 cycles at 80% DOD (Depth of Discharge) and 5,000 cycles at 50% DOD.

## MAINTENANCE TIPS

If not using the battery for a prolonged period (months at a time), then store the battery as follows:
◙ Disconnect all loads from the battery so that there is no external current draw.
◙ Store the battery close to full capacity (the battery does not need to be at 100%).
◙ There is no need to keep the battery on trickle charge. The battery will self-discharge slowly over time. Within every two months, give the battery a quick recharge to ensure battery longevity.