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- We welcome all questions, comments, and suggestions

Installation Overview

- Identifying your inventory
  - What's in the Box
  - Install Manual
- Install per your design
  - Allocate your space
  - Cable management
  - Denoting your install
  - Dips and Switches
  - Functional test

| Battery*1 | Cardboard*1 | User Manual |

| Warranty | Battery link*2 | Data Cable*1 |

What's in the box

- Enclosures supplied with:
    - 1 to 2 sets of battery cables (w/lug adapters)
    - Installation Manual
    - Mounting hardware
    - Data cables (RJ-45), recommended Cat 6 (Shielded)

- All Batteries are supplied with an Installation manual
    - Technical Specs
    - Installation Instructional
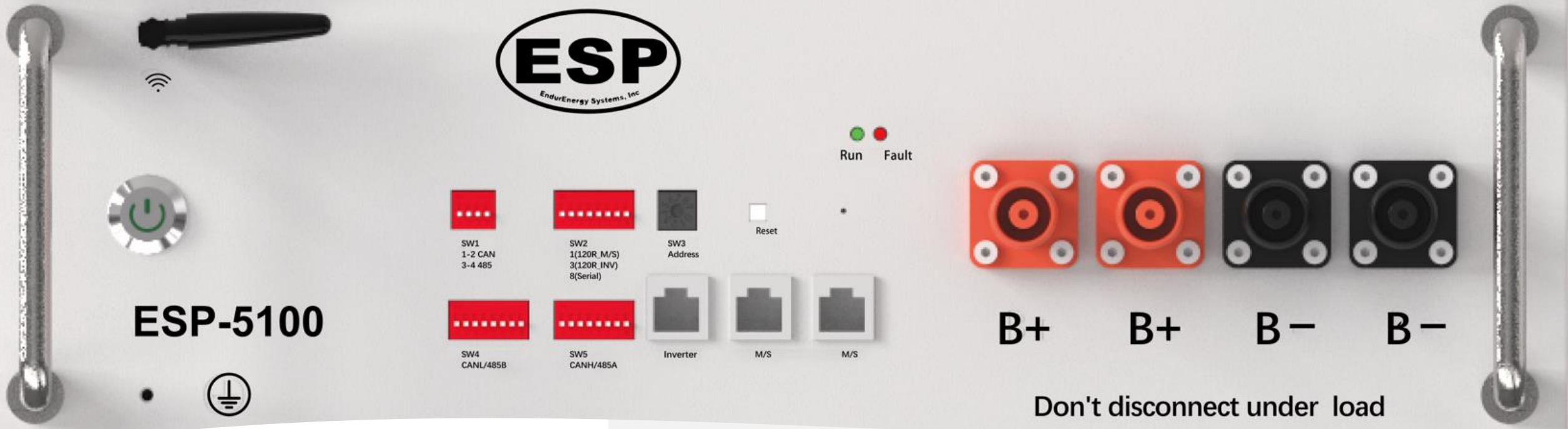   - Dip and Switch settings

Enclosures

Denote and measure to your needs, understand the need for customized cable lengths

Installation hardware for battery and surface mounting

ESP-5100
Battery

- Power Button (Hold 3 Secs)
- SW2 & SW3 (Main) concerning installation
- 2 x Positive (Red) & 2 x Negative (Black)
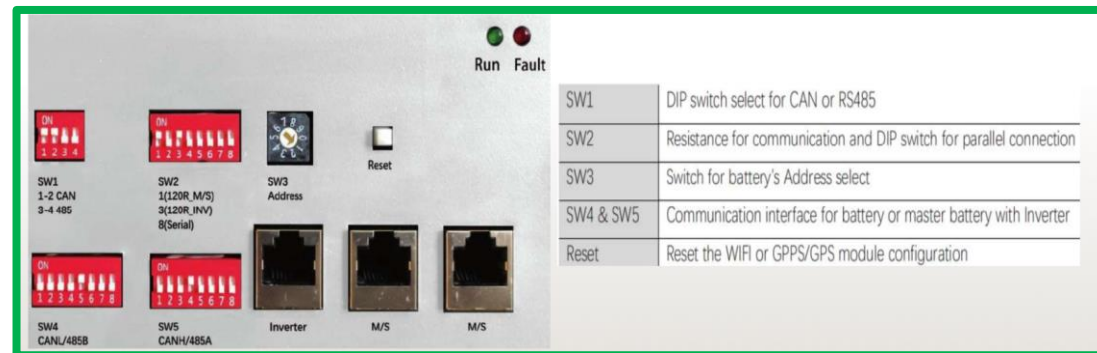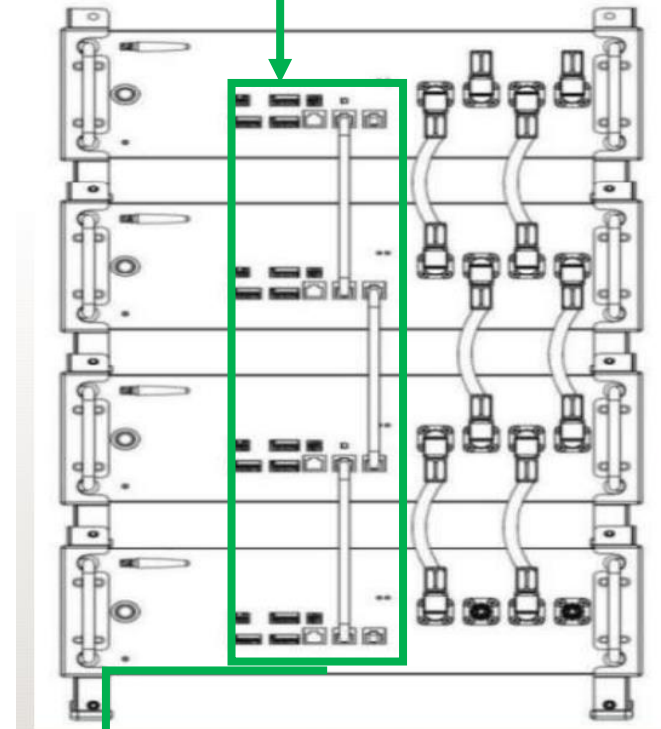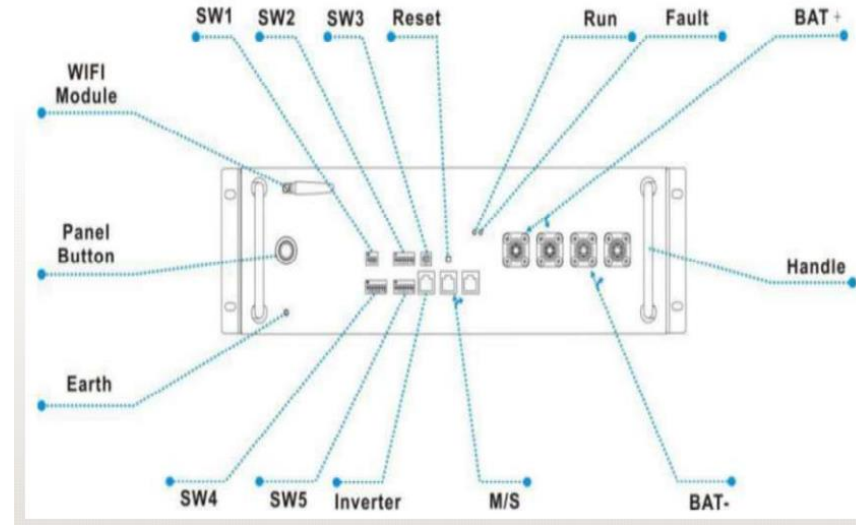- 2 x M/S Data Ports, 1 Inverter Data port
- WIFI Antennae

Basic Installation

- Positive to Positive, Negative to Negative (Dependent on enclosure and kWh battery solution)

- SW2 = Master/Slave number

- 2 x Positive (Red) & 2 x Negative (Black)

- 2 x M/S Data Ports, 1 Inverter Data port

- WIFI Antenna

Basic Installation

Connected battery number	Group	Set of SW2				Address Set (SW3)	
		Series connect		Parallel connect			
1	—		13		13		1
2	Master		138		13		2
	Slave		18		1		1
3	Master		138		13		3
	Slave 1		8		0		1
	Slave 2		18		1		2
4	Master		138		13		4
	Slave 1		8		0		1
	Slave 2		8		0		2
	Slave 3		18		1		3

SW1 SW2 SW3 Reset   Run   Fault   BAT +

WIFI Module

Panel Button

Earth

SW4   SW5   Inverter   M/S   BAT-

Handle

Run Fault

SW1 1-2 CAN 3-4 485

SW2 1(120R_M/S) 3(120R_INV) 8(Serial)

SW3 Address

Reset

SW4 CANL/485B

SW5 CANH/485A

Inverter   M/S   M/S

SW1	DIP switch select for CAN or RS485
SW2	Resistance for communication and DIP switch for parallel connection
SW3	Switch for battery's Address select
SW4 & SW5	Communication interface for battery or master battery with Inverter
Reset	Reset the WIFI or GPPS/GPS module configuration

Product Features

1. Support big power whole home backup
- 0.7C rating.
- 1C continuous application supported.

Competition: 0.5C

2. Superior "effective" capacity
- 6000 cycles at 90% DOD.
- 10 years warranty ≥ 70% capacity remaining.

Competition: 6000 cycles at 80% DoD, 2000 cycles at 100% DoD

3. Safety & Quality
- Only grade 'A' LiFePO4 cells.
- 100% End-Of-Line battery testing.
- Very low self discharge rate in storage.

Competition: Various grade cells. Up to 20% random EOL testing. Recharge at the end of 6 months in storage.

4. Proprietary Battery Management System (BMS):
- Active balancing: improve "effective" capacity by 20%
- Monitor and protection with proprietary algorithm.

Competition: passive balancing.

Product Features

ESP-5100

5. Remote firmware update
- BMS firmware updated remotely.

6. Versatility
- One SKU operation in series (400+ v) or in parallel (50 v).

Competition: can only do series or parallel, not both

7. Data and Cyber security
- All data in AWS.
- Control and communication by workstation in the US.

Competition: data, control and communication location not clear

8. Support
- 7 Days a week technical support provided by Sol-Ark in the US.

Competition: only workdays. Some support from overseas