

USER MANUAL
512200 LFP Battery

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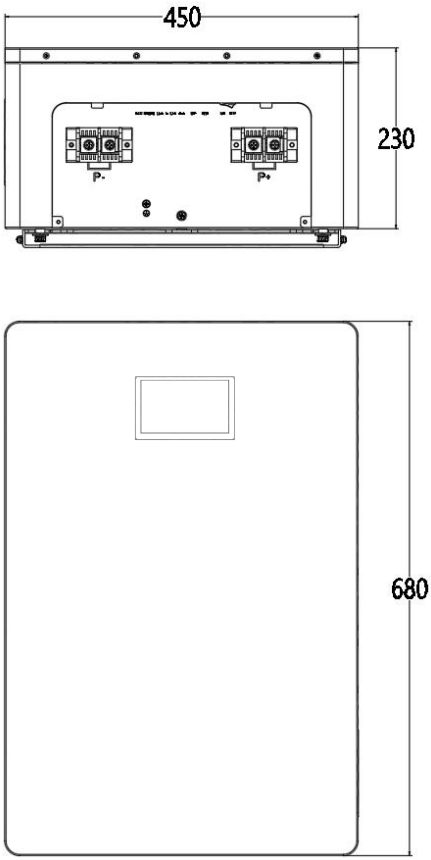
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1 Product Overview

512200 is a 51.2V 200Ah Lithium battery that can be wall mounted or floor mounted.

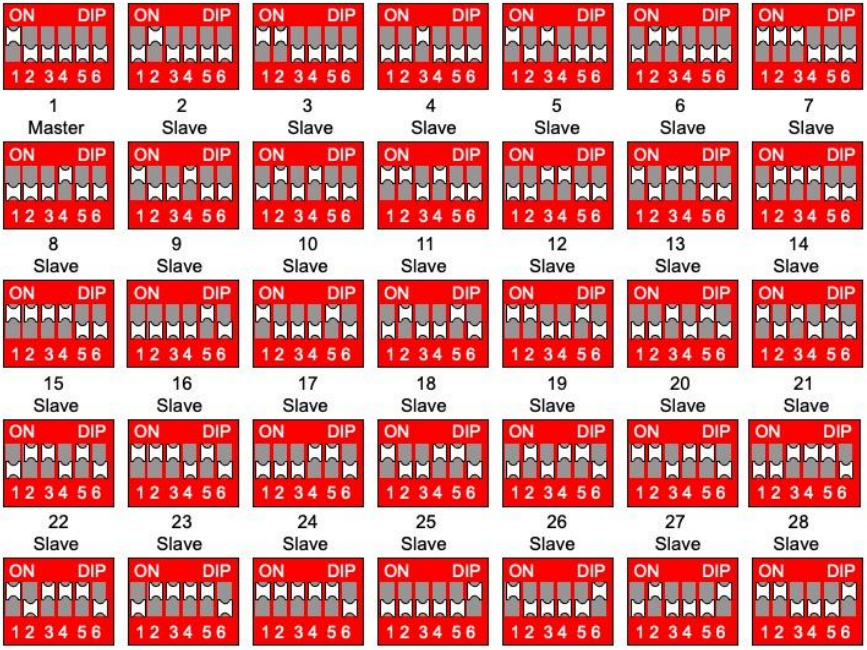
Note: 512200 **is NOT suitable for life-sustaining medical devices.**

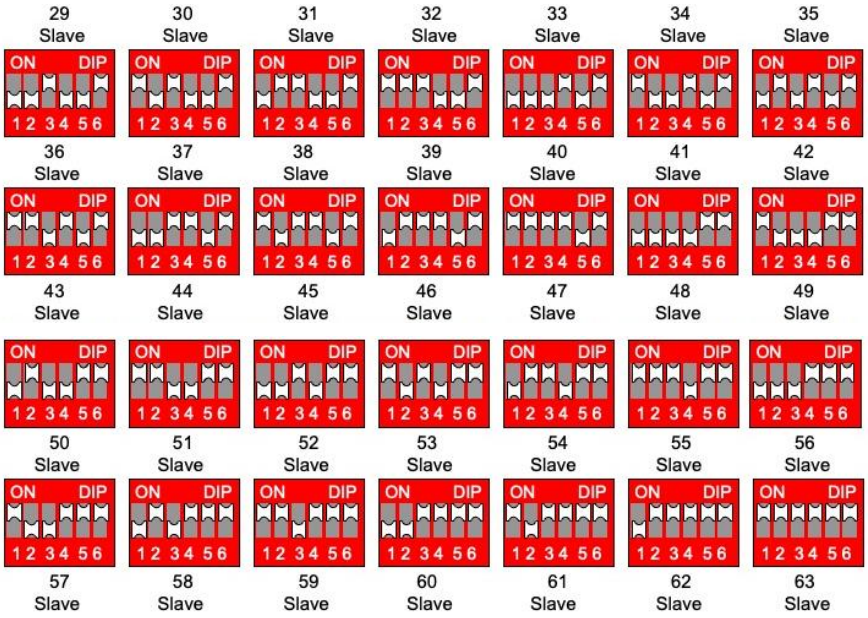
1.1 Appearance



1.2 Switch, LCD, LED & Communication Port

1.2.1 DIP Switch





1.2.2 Switch ON/OFF

1、Switch ON

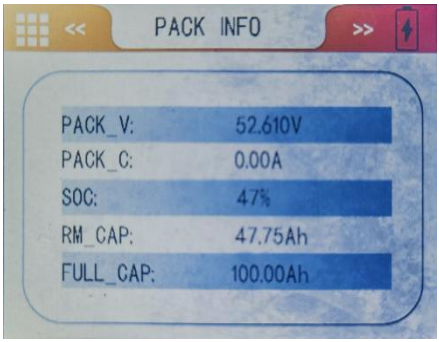
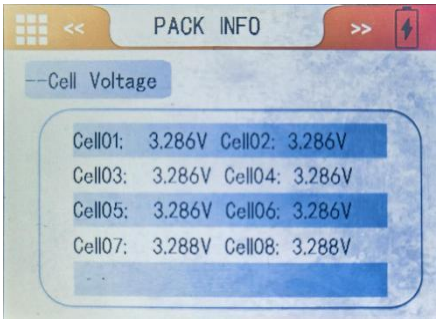
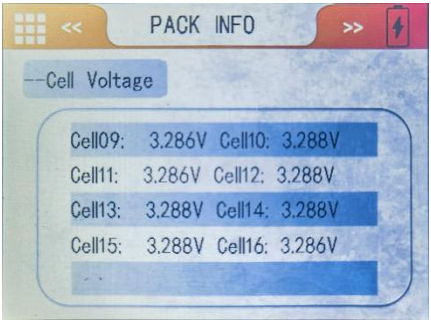
For single 512200, set DIP switch to 1, then switch ON POWER button.

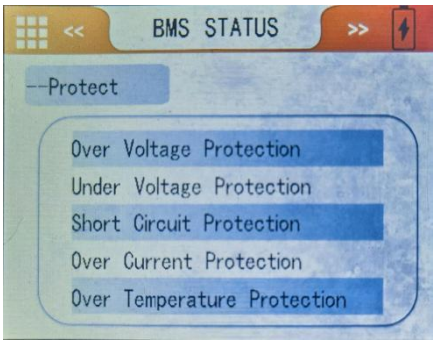
For multiple 512200 connected in parallel,set DIP switch according to 1.2.1, then switch ON POWER buttons of all batteries.

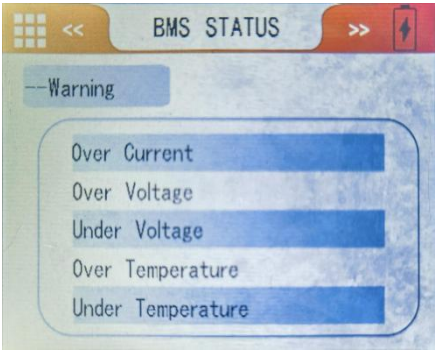
2、Switch OFF

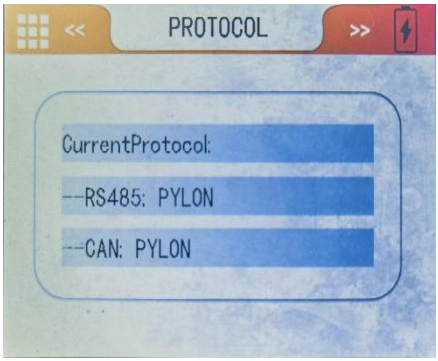
Switch OFF POWER button(s) of all batteries.

1.2.3 Color touchscreen

<table>
<tr>
<td>1) Click the screen to view “PACK LNFO”, “STATUS”, “PROTOCOL”, “SYSTEM”。
2) If current protocol is incorrect, tap “PROTOCOL” checkbox and select correct protocol。</td>
<td>
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BMS STATUS
--Protect
Over Voltage Protection
Under Voltage Protection
Short Circuit Protection
Over Current Protection
Over Temperature Protection

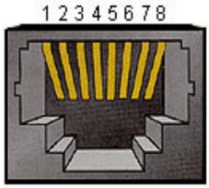
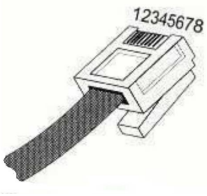

BMS STATUS
--Warning
Over Current
Over Voltage
Under Voltage
Over Temperature
Under Temperature


PROTOCOL
CurrentProtocol:
--RS485: PYLON
--CAN: PYLON

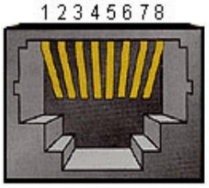

SYSTEM SET
PACK_SN: TS052B020025100001
SFT_VER: 50567-V1.00
--Language

1.2.4 Communication Port Definition

1.2.4.1 CAN/RS485 to PCS

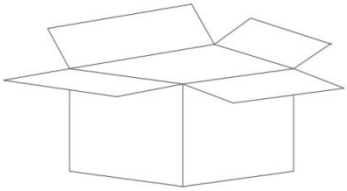
Port definitions	RJ45 Pin	Function
 	1	RS485-B
	2	RS485-A
	3	GND
	4	CAN-H
	5	CAN-L
	6	NC
	7	RS485-A
	8	RS485-B

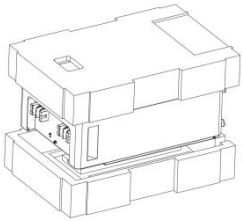
1.2.4.2 RS232 to PC

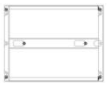
Port definitions	RJ45 Pin	Function
 	1	RS232-TX
	2	GND
	3	RS232-RX
	4	NC
	5	NC
	6	NC
	7	NC
	8	NC

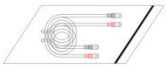
2 Installation Guide

2.1 Checking Deliverables

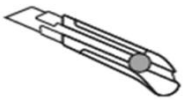
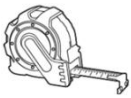
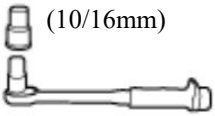


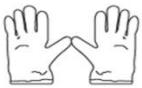


NO.	Pictures	Quantity	Description
1		1 pcs	Battery
2		6 pcs	Battery hanging bolt
3		6 pcs	Battery hanger
4		1 pcs	Wall Mount
5		2 pcs	Wall Mount Bottom Bolt
6		6 pcs	M8*60mm Expansion Bolt
7		1 pcs	cover

8		2 pcs	Cover bolt
9		1 pair	Power cable
10		1 pcs	Comm cable
11		1 pcs	Wall Connector
12		1 pcs	Battery hanging bolt
13		1 pcs	M6*60mm Expansion Bolt

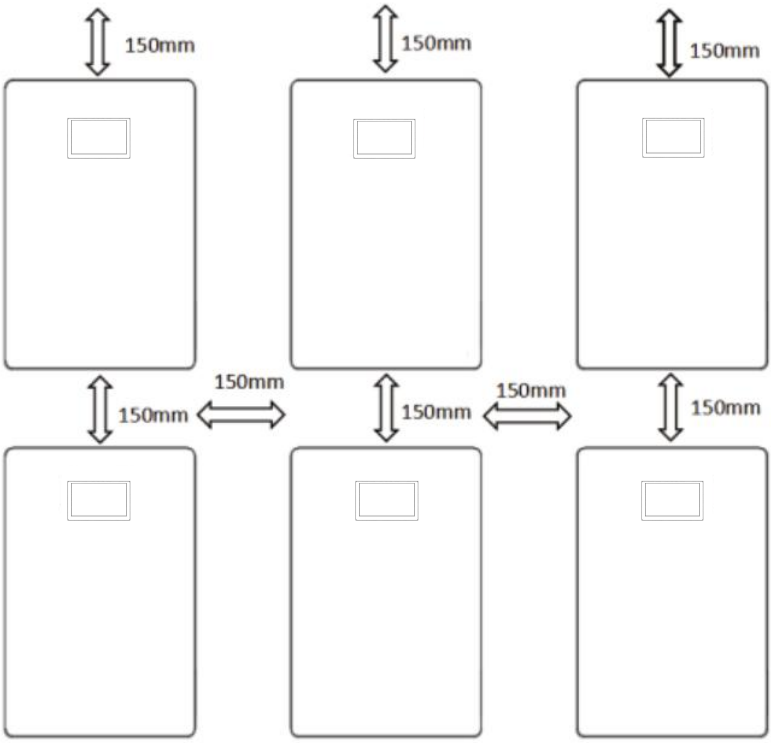
2.2 Tools

Tools			
Installation	Knife 	Measuring tape 	Socket wrench (10/16mm) 
	Hammer 	Cross Screwdriver 	Hammer drill 

Protection	ESD gloves 	Safety goggles 	Safety Shoes 

2.3 Installation Instructions

Minimum mounting distance requirement: (Wall Mounted)

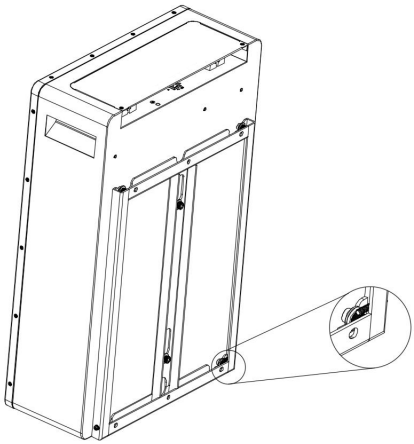


2.3.1 Installation Step (Floor Mounted)

Step 1

put 512200 on floor then start from Step 7

2.3.2 Installation Step (Wall Mounted)



Step 1

Remove 2 pcs wall mount bottom bolts,
remove wall mount from battery.

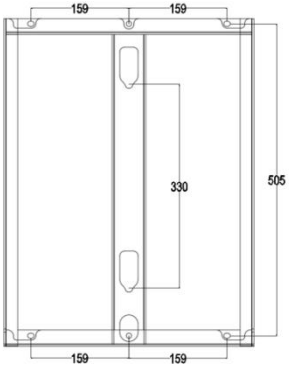
Step 2

Drill holes in the wall
according to wall mount.



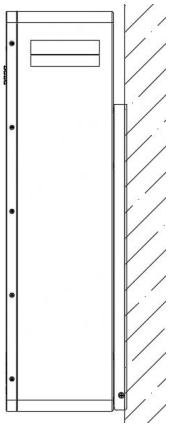
Step 3

Fix wall mount to the wall using expansion bolt.



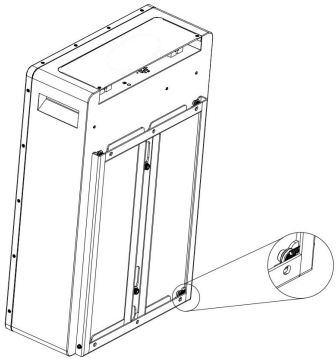
Step 4

Hang 512200 battery on wall mount.



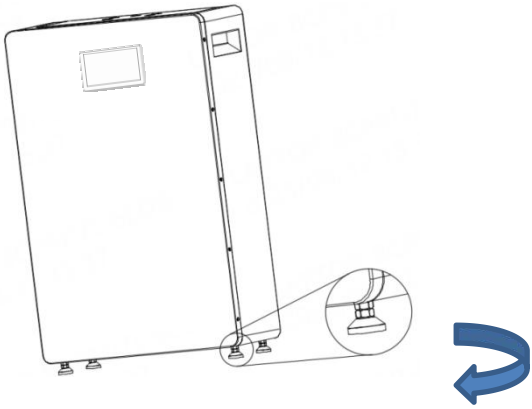
Step 5

Install 2 pcs wall mount bottom bolts.

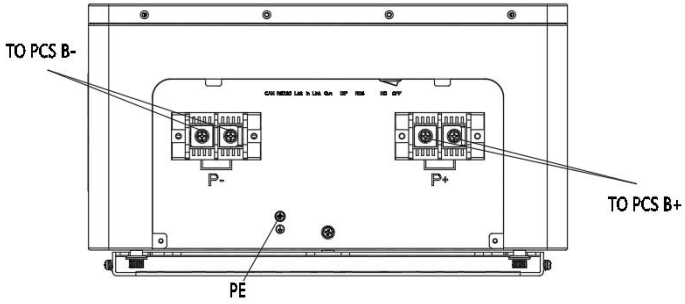


Step 6

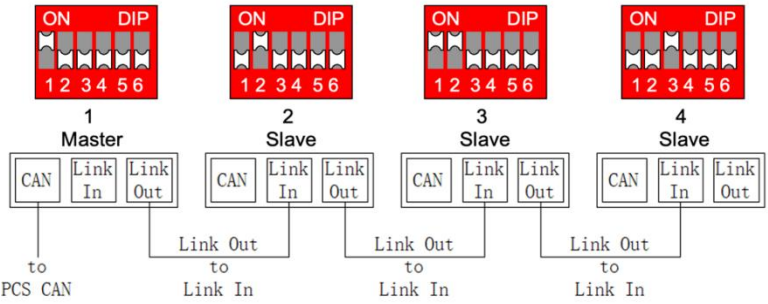
remove levelling feet.



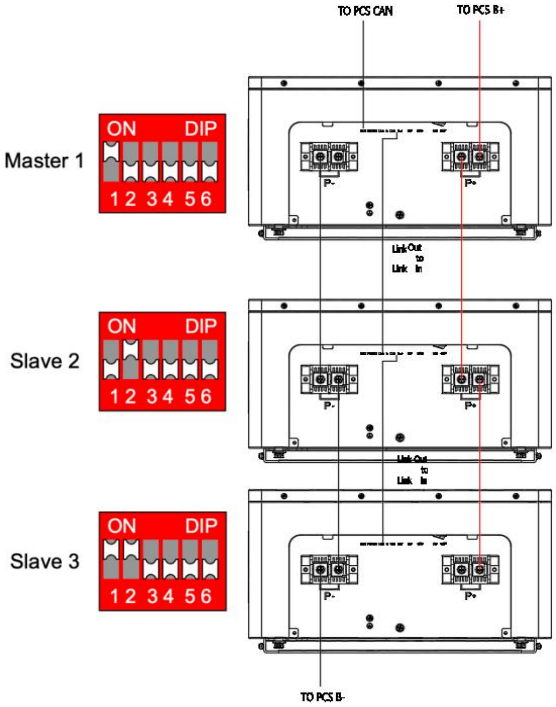
Step 7 Connect PE cable & power cable.



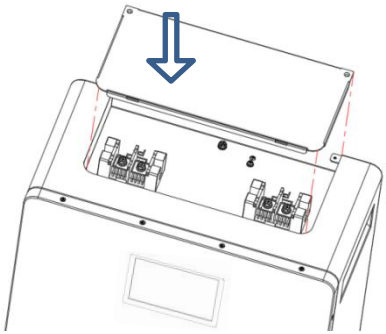
Step 8 Connect communication cable.



Step 9 Refer to the following diagram when multiple batteries are connected in parallel:



Step 10 Install cover using cover bolts.



3 Technical Specifications

Basic Project		Parameter
Nominal Voltage		51.2V
Nominal Capacity		200Ah
Nominal Energy		10240Wh
Charge Voltage		56.16V
Charge Current		100A
Discharge Voltage Range		45.6V～56.16V
Discharge Current		160A
Communication Mode		CAN/RS485
Working Temperature	Charge	0℃～45℃
	Discharge	-20℃～60℃
Storage Temperature	Short Term (within 1 month)	-10℃～45℃
	Long Term (within 1 year)	0℃～35℃
Storage Humidity		＜95% RH
Cell Type		$LiFePO_4$, Lithium Iron Phosphate
Size		H695*W465*D186(mm)
Weight		92KG (Wall Bracket Included)
IP Level		IP20

4 Maintenance

4.1 Recharge Requirements During Storage

Batteries should be stored in temperature between -10℃～ +45℃, and recharged regularly according to the following table with 0.2C (40A) current to 50% SOC after long time storage.

Recharge requirement during storage

Storage Temperature	Storage Relative Humidity	Storage Time	SOC
Below -10℃	/	Not Allowed	/
-10~0℃	5%~70%	≤1 months	30%≤SOC≤60%
0~25℃	5%~70%	≤12 months	30%≤SOC≤60%
25~35℃	5%~70%	≤6 months	30%≤SOC≤60%
35~45℃	5%~70%	≤1 months	30%≤SOC≤60%
Above 45℃	/	Not Allowed	/

4.2 Recharge Requirements When Over Discharged

Please recharge over discharged (90% DOD) batteries according to the following table, otherwise over discharged battery will be damaged.

Recharge requirement when battery is over discharged

Storage Temperature	Storage Time	Note
-10~25℃	≤15 days	Battery disconnected from PCS
25~45℃	≤7 days	
-10~45℃	< 12 hours	Battery connected to PCS

Attention：Disposal of batteries should follow local regulations.