

叉车电池使用说明书

USER MANUAL
LITHIUM ION TRACTION BATTERY
(LiFePO4)



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电池使用说明 Battery instructions

为了保证您的电池系统长期安全可靠的运行，请您仔细阅读并遵守以下使用说明：

To ensure the long-term safe and reliable operation of your battery system, please read and follow the following instructions carefully:

1.1 电池温度特性

■ Battery temperature characteristics

- 工作环境温度：-20°C~55°C
- 储存环境温度：0°C~45°C
- 充电环境温度：0°C~45°C
- Working environment temperature: -20°C ~55°C
- Storage temperature: 0°C ~ 45°C
- Charging environment temperature: 0°C ~45°C

1.2 出车前检查

■ Check before leaving the car

- 观察车辆仪表盘 (电池配套显示屏)，确认电池系统状态正常，无任何报警信息。
- 当SOC值大于50%时，出车较好；若条件允许，建议充满后出车。
- 当SOC值小于30%时，电量较低，应充电至50%以上方可出车。
- Observe the vehicle dashboard (display with battery) to confirm that the battery system is in normal state without any alarm information.
- When the SOC value is more than 50%, the battery is better; if conditions permit, it is recommended to drive the vehicle after a full charge.
- When the SOC value is less than 30%, the power is low, and the vehicle should be charged to 50% or higher before leaving the car.

1.3 正常运营车辆的使用要求

■ Requirements for the use of battery in normal operation

- 叉车电池每三日（每周）至少做一次自动满充电；
- 每日机会充电时，请按照机会充电操作规范进行；
- 显示器提示电池电量低时；请尽快进行“充电”使电池系统恢复到正常状态；
- 若夏季高温天气；请注意电池系统的高温报警，关注电池温度；高温环境使用后，请不要立即拉去充电；
- 当气温在0度及以下，运行车辆收车后尽快充电，以防止电池温度过低不能充电或者充电时间延长，影响运营；
- The battery shall be fully charged automatically at least once every three days or weekly;
- While daily opportunity charging ,please follow the operation specifications of the opportunity charging;
- When the display prompts that the SOC is low, please "charge" as soon as possible to restore the battery system to a normal state;
- If the weather is hot in summer; please pay attention to the high temperature alarm of the battery system and pay attention to the battery temperature; after using in a high temperature environment, please do not pull it to charge immediately;

- When the temperature is 0°C and below, charge the running vehicle as soon as possible after powering off the car to prevent the battery from being too cold to be charged or the charging time is prolonged, which will affect the operation.

1.4 久放不用车辆的使用要求

■ Requirements for batteries on idle vehicles

- 电池存放的最佳SOC区间：40%~60%；
- 电池系统的存放环境要求通风，干燥，不受阳光直射，不受雨淋，远离热源；
- 车辆必须每三个月做一次“电池保养”防止造成电池损伤。**具体操作方法参见1.6节**
- 久放车辆首次使用前，为激活电池系统至少需要做一次“电池保养”以恢复电池的性能到最佳状态。
- The best SOC range for battery storage: 40%~60%;
- The storage environment of the battery system must be ventilatory, dry, free from direct sunlight, rain, and heat sources;
- The vehicle must do "battery maintenance" a time every three months to prevent battery damage. **Refer to section 1.6 for the specific operation method;**
- Before using the vehicle for the first time, in order to activate the battery system, you need to do at least one "battery maintenance" to restore the battery's performance to the best condition.

1.5 首次使用要求

■ Requirements for first use

由于海运时间较长，第一次使用前，必须使用充电器充满一次，激活电池。

Due to the long shipping time, the battery must be fully charged once before the first use to activate the battery.

1.6 充电操作说明（常规充电，全程电池显示器处于关闭状态）

- Charging operation instructions (regular charging, the battery display is turned off during the whole process)



1 充电机总开关拨到OFF档
Turn charger switch to OFF position



2 连接上充电机上AC端线束
Connect the AC terminal harness on the charger



3 连接上充电机与电池之间的充电接插件
Connect the charging connector between the charger and the battery



4 AC端总开关拨至ON档
Turn the AC terminal main switch to ON position



5 充电机总开关拨至ON档
Turn the main switch of the charger to ON position



6 观察显示器上有电压与电流，指示灯亮绿灯；表示充电正常
Observe that there is voltage and current on the display, the indicator light is green; it means that the charging is normal position

1.7 充电操作说明（充电暂停/机会充电）

- Charging operation instructions (charging pause/opportunity charging)



1 参见1.6节完成充电对接
See section 1.6 to complete the charging and docking



2 长按暂停键3-5秒
Long press the pause button for 3-5 seconds



3 电流降为0A，此时LED等闪烁绿灯，等待10秒
The current drops to 0A, at this time the LED flashes green, wait for 10 seconds



4 若恢复充电，则需按下开始键，便可恢复（无需继续充电则跳过）
If you resume charging, you need to press the start button to resume (skip if you don't need to)



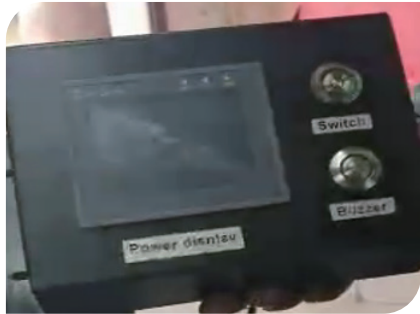
5 续第三步，关闭充电机总开关
Continue to the third step, turn off the main switch of the charger



6 拨开电池与充电机的插头
Unplug the battery and charger

1.8 放电使用说明

■ Discharge operation instructions



1 确保电池处于关机状态

Make sure the battery is on off condition



2 连接电池放电接头与叉车接头

Connect battery discharging connector with lift connector



3 接头安装好，请开机电池

After the discharge plug is installed, turn on the monitor display



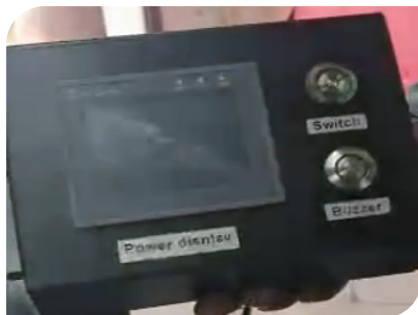
4 打开叉车按钮，等待几秒钟

Turn the key shift ON and wait a few seconds before it is ready to use



5 叉车停车，关闭钥匙

After parking, turn the key to OFF first



6 关闭电池，离开

Turn off the battery and operator can leave first

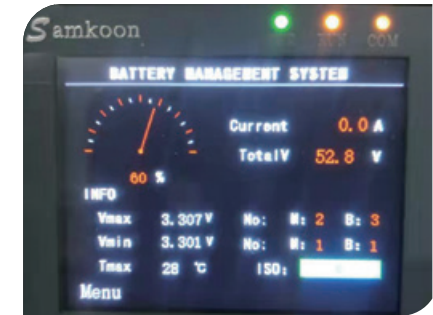
1.9 显示器界面说明

■ Display interface description



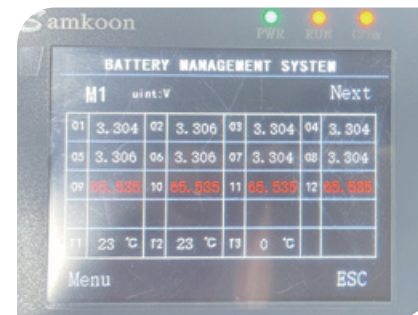
1 启动开关用于电池启动，蜂鸣器用于报警提示

The start switch is used to start the battery buzzer for low SOC alarm & errors warning



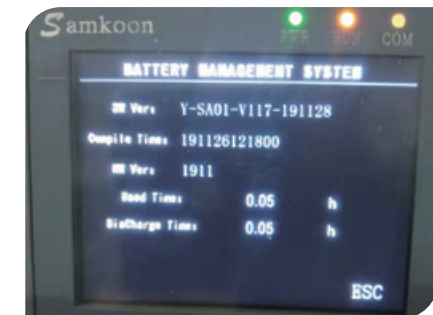
2 点击“Menu”，进入主菜单界面。此界面为操作通道，可进入‘设置’，‘单体信息’，‘版本信息’几个界面。

Main menu interface Click "Menu" to enter the main menu interface. This interface is the operation channel. You can enter 'Settings', 'Individual Information' and 'Version Information'.



3 点击“CELL INF”进入界面（不可修改）。本界面可查看1, 2模块所有单只电芯实时电压及温度（每个模块包含最大12串电芯电压采集点及2个温度采集点）。

Click on the main menu, then click on "CELL INF" to enter the interface (not modifiable). This interface can view the real-time voltage and temperature of all the individual cells in modules 1 and 2 (each module contains a maximum of 12 strings of cell voltage collection points and 2 temperature collection points).



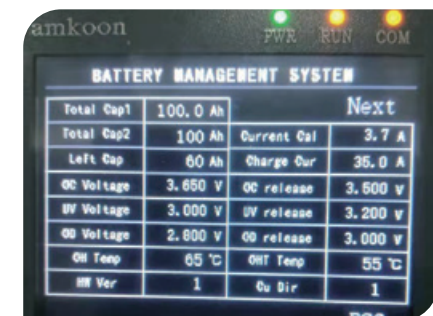
4 版本界面 先点击“主菜单”，再点击“VERION”，进入版本信息界面（不可修改）。显示程序版本信息及放电时间统计数据。

Version interface Click "Main Menu" first, then click "VERION" to enter the version information interface (cannot be modified). The program version information and discharge time statistics are displayed.



5 点击“主菜单”，再点击“SETWP”，进入屏保密码界面，输入密码“8888”可进入参数设置界面。本界面可以修改内部参数设定。即实际容量值，充放电保护触发电压，报警触发电压，检测电流校正值，最大充电电流，报警温度，模块串口数等。

Data setting interface Click "Main Menu", then click "SETWP" to enter the screen saver password interface, enter the password "8888" to enter the parameter setting interface. This interface can modify the internal parameter settings. That is, the actual capacity value, charge/discharge protection trigger voltage, alarm trigger voltage, detection current correction value, maximum charge current, alarm temperature, module serial number, etc.

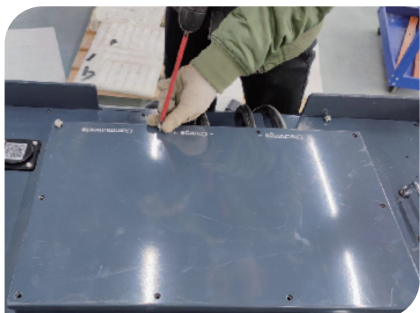


6 注：此界面均为可调数值，此数值为出厂特定设定。如现场使用中需要对个别参数做匹配调整，请联系厂家专业技术人员确认。

Note: This interface are adjustable values, this value is factory specific settings. If you need to make matching adjustments to individual parameters in field use, please contact the factory professional technicians for confirmation.

1.10 如何紧固叉车电池内部螺丝

■ How to tighten the internal screws of the forklift battery



1 拿掉螺丝，打开检修窗
Remove the screws and open the access window



2 拆除BMS上面的连接线束
Remove the wiring harness above the BMS



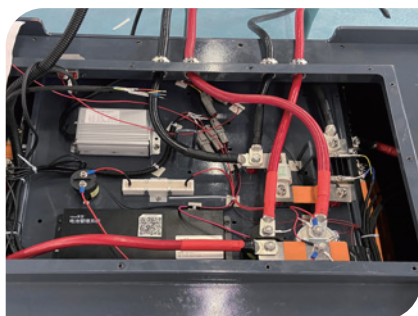
3 拆除动力线并缠上绝缘胶布，移除上盖
Remove power line and wrap insulation tape, remove top cover



2 拆掉PDU的螺丝并移走PDU
Remove the screws on the PDU and remove the PDU



5 用13N*m紧固模组上的螺丝和螺杆
Tighten the screws and bolts on the module with 13N*m



6 复位PDU与线束，并用10N*m紧固PDU上的螺丝，盖上盖子，用7N*m紧固盖子上的螺丝。
Reset the PDU and cable harness, tighten the screws on the PDU with 10N*m, and close the cover with 7N*m.

各种型号螺钉（全直径） Screws Of Various Model (Full Diameter Of Thread)

型号/ Model	扭矩范围/Torque range
M2*8 self-drilling screws	0.8N·m
M3*5 philips bolts with nut and washer	2.0N·m
M3*12 inner hex pan head bolts	2.0N·m
M4*12 philips screws	3.0N·m
M4*25 self-drilling screws	2.0N·m
M5*8 inner hex pan head bolts	6.0N·m
M5*10 combination bolts (with nut and washer)	5.0N·m
M5*12 philips bolts	5.0N·m
M5*25 philips bolts	6.0N·m
M6*15 philips bolts	7.0N·m
M6*15 inner hex head bolts	7.0N·m
M6*15 stepped screws	8.0N·m
M6*45 inner hex half pan head bolts	8.0N·m
M8 flat bolts	10.0N·m
M8*15 inner hex pan head bolts (with 360° thread sealant)	10.0N·m
M8*15 inner hex pan head bolts (with 360° thread sealant)	13.0N·m
M8*15 inner hex pan head bolts (with 360° thread sealant)	13.0N·m
M8*20 inner hex pan head bolts (with 360° thread sealant)	10.0N·m
M8*20 inner hex pan head bolts	13.0N·m
M8*20 inner hex bolts (with 360° thread sealant)	13.0N·m
M8*100 inner hex pan head bolts (with 360° thread sealant)	15.0N·m
M8*200 inner hex pan head bolts (with 360° thread sealant)	15.0N·m

术语定义/产品介绍 Term Definition & Product Introduction

电芯

最小能量存储单元，电池模块的基本元素，由正极，负极，电解液，排气阀，外壳，隔离膜组成

电池包

电能存储系统，通常包括一个或多个的电池模块，电池管理系统，热管理，高低压线，连接器以及机构件

自放电

在没有使用或者是间隔使用时因各种原因造成的容量的损失。自放电的值由容量损失相对于标称容量的比率来表述

过充

电池在满充后继续充电并会导致物理和/或化学的不可逆反应，造成性能的衰减甚至是电池的损坏的情况

过放

电池在满放后继续放电并会导致物理和/或化学的不可逆反应，造成性能的衰减甚至是电池的损坏的情况

SOC

剩余电量相对于标称容量的比例。标准值为 0%-100%。0%表示的是电池满放。100%标识的是电池的满充

Battery cell

The smallest energy storage unit, the basic element of the battery module, is composed of positive electrode, negative electrode, electrolyte, exhaust valve, housing, and isolation membrane.

Battery pack

Electric energy storage system, usually including one or more battery modules, battery management system, thermal management, high and low voltage cables, connectors and mechanical parts

Self-discharge

The loss of capacity due to various reasons when it is not used or when it is used at intervals. The value of self-discharge is expressed by the ratio of the capacity loss to the nominal capacity.

Over-charge

If the battery continues to be charged after being fully charged, which will cause irreversible physical and/or chemical reactions, resulting in performance degradation or even battery damage.

Over-discharge

The battery continues to discharge after being fully discharged, which will cause irreversible physical and/or chemical reactions, resulting in performance degradation or even battery damage.

SOC

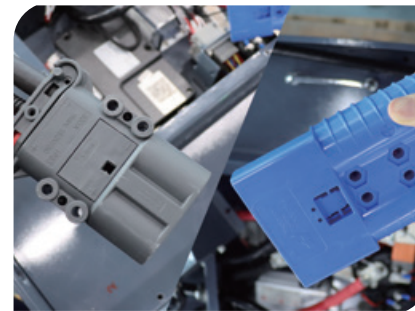
The ratio of the remaining power to the nominal capacity. The standard value is 0%-100%. 0% means the battery is fully discharged. 100% means the battery is fully charged.



■ 电池包主体
Battery Pack



■ 充电器
Charger



■ 接头
Anderson/Rema Connector



■ 显示屏
Display

充电常规型号

型号	适用电压平台	输出最大电流	输出功率	充电插头
24V-50A	25.6V	50A	1.2KW	RemaXX/可定制
24V-100A	25.6V	100A	2.4KW	RemaXX/可定制
24V-150A	25.6V	150A	3.6KW	RemaXX/可定制
24V-200A	25.6V	200A	4.8KW	RemaXX/可定制
48V-100A	38.6V/51.2V	100A	4.8KW	RemaXX/可定制
48V-150A	38.6V/51.2V	150A	7.2KW	RemaXX/可定制
48V-200A	38.6V/51.2V	200A	9.6KW	RemaXX/可定制
48V-250A	38.6V/51.2V	250A	12.0KW	RemaXX/可定制
80V-100A	76.8V/83.2V	100A	8KW	RemaXX/可定制
80V-150A	76.8V/83.2V	150A	12KW	RemaXX/可定制
80V-200A	76.8V/83.2V	200A	16KW	RemaXX/可定制
80V-250A	76.8V/83.2V	250A	20KW	RemaXX/可定制



充放电插头型号

充电插头型号	可压接线缆	输出最大电流	峰值过流
Rema320 公头 (带辅助触点)	50~95 方	185A~270A	400A-600A@25S
放电插头型号	可压接线缆	最大持续电流	峰值过流
Rema320母头	50~95方	185A~270A	400A-600A@25S
Rema160母头	50~35方	148A-185A	300A-500A@25S
Rema80 母头	35方	148A	300A@25S
ANDERSON SB350	70~95方	225A-270A	400A-600A@25S
ANDERSON SB175	50~35方	148A-185A	300A-500A@25S
ANDERSON SBE320	70方	225A	600A@25S
ANDERSON SBE160	50方	148A	400A@25S



Regular Charger Models

Model	Applicable voltage platform	Maximum output current	Output power	Charging plug
24V-50A	25.6V	50A	1.2KW	RemaXX/customizable
24V-100A	25.6V	100A	2.4KW	RemaXX/customizable
24V-150A	25.6V	150A	3.6KW	RemaXX/customizable
24V-200A	25.6V	200A	4.8KW	RemaXX/customizable
48V-100A	38.6V/51.2V	100A	4.8KW	RemaXX/customizable
48V-150A	38.6V/51.2V	150A	7.2KW	RemaXX/customizable
48V-200A	38.6V/51.2V	200A	9.6KW	RemaXX/customizable
48V-250A	38.6V/51.2V	250A	12.0KW	RemaXX/customizable
80V-100A	76.8V/83.2V	100A	8KW	RemaXX/customizable
80V-150A	76.8V/83.2V	150A	12KW	RemaXX/customizable
80V-200A	76.8V/83.2V	200A	16KW	RemaXX/customizable
80V-250A	76.8V/83.2V	250A	20KW	RemaXX/customizable

Model of charge and discharge plug

Charging plug model	Connection cable	Max. sustained current	Peak passing current
Rema320 MALE (With auxiliary contact)	50~95 square	185A~270A	400A-600A@25S
Type of discharge plug	Connection cable	Max. sustained current	Peak passing current
Rema320 FEMALE	50~95 square	185A~270A	400A-600A@25S
Rema160 FEMALE	50~35 square	148A~185A	300A-500A@25S
Rema80 FEMALE	35 square	148A	300A@25S
ANDERSON SB350	70~95 square	225A~270A	400A-600A@25S
ANDERSON SB175	50~35 square	148A~185A	300A-500A@25S
ANDERSON SBE320	70 square	225A	600A@25S
ANDERSON SBE160	50~95 square	148A	400A@25S

电池保养说明 Battery maintenance instructions

3.1 首次使用

■ First time using

- 装有电池的车辆若静置不用超过15天，再次启用车辆前必须进行一次激活维护，提供以下两种激活方案：
 - 维护方式一：持续充电，直至充电机自动断电；（推荐：久放未用，首次激活）
 - 维护方式二：保持剩余电量在70%以上，累计满充12次以上；（推荐：电池使用一年以后；若有电池有轻微的压差）
- If a battery-equipped vehicle is left to stand for more than 15 days, it must be activated and maintained once before being activated again. The following two activation schemes are provided:
 - Maintenance method 1: Continue to charge until the charger is automatically powered off; (Recommendation: first activation after unused for a long time)
 - Maintenance method 2: Keep the remaining power above 70%, and accumulatively charge more than 12 times; (Recommendation: After the battery is used for one year; if there is a battery, there is a slight voltage difference)

3.2 日常维护

■ Daily/Routine Maintenance

最好需要保证每三天/每周至少又一次充满后的均衡维护
(即让充电机自动结束充电，切不可手动提前终止，否则维护失败，每次自动维护的时长由BMS自动计算和控制)

It is best to ensure balanced maintenance after being fully charged at least three days or weekly (that is, let the charger automatically end the charging, and must not manually terminate it in advance, otherwise the maintenance will fail, and the duration of each automatic maintenance will be automatically calculated and controlled by the BMS)

3.3 储存建议

■ Storage Suggestions

- 若SOC≤10%；立即充电；
 - 若10%<SOC≤40%；1个月定期充电一次；
 - 若40%<SOC≤80%；3个月定期充电一次；
 - 若80%<SOC≤100%；6个月定期充电一次；
- If SOC≤10%；charge immediately；
 - If 10%<SOC≤40%；charge once a month；
 - If 40%<SOC≤80%；charge once every 3 months；
 - If 80%<SOC≤100%；charge once every 6 months；

3.4 定期检测

■ Periodic Test

新电池上线运营的第一个月为磨合期，磨合期过后进行1次全面检查，之后每一年检查一次，但在第四年之后应视情况加大检查频率；

The first month of the new battery's online operation is the run-in period. After the run-in period, a comprehensive examination will be conducted, and then once a year, but after the fourth year, the frequency of examination should be increased according to the situation;

序号	可压接线缆	检验方法	判断标准
NO	Item	Examination Method	Standard
1	电池箱体清洁	目测	箱体应无明显灰尘堵塞
	Battery box cleaning	Visual inspection	The box body should be free from obvious dust blockage
2	箱体连接线/显示器接插件检查	目测	箱体上连接线及接插件应连接牢固且表皮绝缘层无破损
	Box connection line/display connector inspection	Visual inspection	The connecting wires and connectors on the box should be firmly connected and the skin insulation layer should not be damaged
3	箱体固定螺丝	目测	铁箱上的螺栓应固定无松动脱落
	Box fixing screws	Visual inspection	The bolts on the iron box should be fixed without loosening or falling off
4	显示器检查	目测	显示器外观检查
	Display Inspection	Visual inspection	Display appearance inspection
5	箱体可靠性	目测	1.箱体不存在裂缝，变形，极柱松动，膨胀等异常情况 2.所有外漏的固定螺栓，螺母未出现松动，缺失，变形等不良现象
	Box reliability	Visual inspection	1. There are no abnormalities such as cracks, deformation, loose poles, expansion, etc. in the cabinet 2. All leaking fixing bolts and nuts are not loose, missing, deformed, etc.
6	单只电池温度检测	BMS数据读取	静态时单只电芯表面温度与当前，环境温度相符
	Single battery temperature detection	From BMS	The surface temperature of a single cell in static state is consistent with the current and ambient temperature
7	系统温差	BMS数据读取	静态的电池温差小于8度
	System temperature difference	From BMS	The static battery temperature difference is less than 8 degrees
8	电池一致性	BMS数据读取	静态压差应在许可范围内（50mv以内）
	Battery consistency	From BMS	The static voltage difference should be within the allowable range (within 50mv)
9	SOC偏差	BMS数据读取	SOC偏差应在许可范围内 (显示SOC与静态平均电压SOC的差值小于20%)
	SOC deviation	From BMS	The SOC deviation should be within the allowable range (the difference between the displayed SOC and the static average voltage SOC is less than 20%)
10	充电机外观清洁	目测	外箱体无明显灰尘堵塞
	Appearance of the charger cleaning	Visual inspection	No obvious dust blockage in the outer box
11	充电机线束检查	目测	箱体上连接线及接插件应连接牢固且表皮绝缘层无破损
	Check the charger harness	Visual inspection	The connecting wires and connectors on the box should be firmly connected and the skin insulation layer should not be damaged

安全须知/紧急事故处理 Safety Instructions/Emergency Handling

4.1 安全须知

■ Safety Instructions

为了安全使用和保养产品，相关人员必需经过专业培训合格才能上岗，无关人员禁止打开电池箱。有关人员一定要遵守如下安全说明：

In order to use and maintain the product safely, relevant personnel must be professionally trained and qualified before they can take up their posts. Irrelevant personnel are prohibited from opening the battery box. The personnel concerned must observe the following safety instructions:

- 1 禁止将电池丢弃到垃圾中；
- 2 严禁拆开、挤压、刺穿或者燃烧；
- 3 在装卸和运输过程中避免剧烈震动；
- 4 严禁将电池暴露在 40 °C 以上的温度中；
- 5 禁止将其它类型的电池与锂电池串联或并联使用；
- 6 在操作和维护电动叉车时，请不要佩戴金银首饰或手表等金属饰品；
- 7 严禁在没有充电保护线路或者使用非电池生产厂家认可的设备充电；
- 8 对系统线缆进行连接和拆卸作业时，请断开显示器开关；
- 9 时刻谨记系统内部存在高电流，即使系统没有运行，当系统断开服务开关后，需用万用表确认高压端无电压后，才能进行下一步动作；
- 10 使用环境要求电池组的工作环境应无腐蚀性、爆炸性和破坏绝缘的气体及导电尘埃，并远离热源；
- 11 维护保养时，请使用绝缘工具，穿戴绝缘手套、绝缘鞋，维护中使用的绝缘工具（六角扳手、螺栓刀等）需要用绝缘胶布缠绕较少裸露面积；
- 12 维护作业结束后，请及时清理工具和物料，不要将金属物品放在设备内部或顶部；
- 13 灭火方式：使用二氧化碳或者干粉灭火器灭火，或者用沙土、泥土掩埋；
- 14 更换电池箱时，请务必断开高压电和低压电，同时卸下服务开关；
- 15 客户发现电池供电时间大大缩短或频繁发生故障时，应及时请专业人员对系统进行诊断和维护；
- 16 作业人员装备：指导文件、万用表、灭火器、安全帽、防护目镜、棉质工作服、棉质劳保手套、高压手套工具、高压绝缘鞋等；

- 1 It is forbidden to throw the battery into the trash;
- 2 It is strictly forbidden to disassemble, squeeze, puncture or burn;
- 3 Avoid severe vibration during loading, unloading and transportation;
- 4 It is strictly forbidden to expose the battery to a temperature above 40 °C;
- 5 It is forbidden to use other types of batteries in series or parallel with lithium batteries;
- 6 When operating and maintaining the electric forklift, please do not wear metal jewelry such as gold and silver jewelry or watches;
- 7 It is strictly forbidden to charge without charging protection circuit or using equipment not approved by the battery manufacturer;
- 8 When connecting and disassembling the system cable, please disconnect the display switch;
- 9 Always keep in mind that there is high current inside the system, even if the system is not running, after the system turns off the service switch, you need to use a multimeter to confirm that there is no voltage on the high-voltage side. In order to proceed to the next step;

- 10 The operating environment requires that the working environment of the battery pack should be free from corrosive, explosive and insulating gas and conductive dust, and be far away from heat sources;
- 11 During maintenance, please use insulated tools, wear insulated gloves, insulated shoes, and insulated tools used in maintenance (hexagonal wrenches, bolt cutters, etc.)
Need to wrap less exposed area with insulating tape;
- 12 After the maintenance operation is over, please clean up tools and materials in time, and do not put metal objects inside or on top of the equipment;
- 13 Fire extinguishing method: Use carbon dioxide or dry powder fire extinguisher to extinguish the fire, or bury it with sand or mud;
- 14 When replacing the battery box, be sure to disconnect the high voltage and low voltage, and remove the service switch at the same time;
- 15 When the customer finds that the battery power supply time is greatly shortened or frequently fails, they should promptly ask professionals to diagnose and maintain the system;
- 16 Operator equipment: guidance documents, multimeters, fire extinguishers, safety helmets, protective eyepieces, cotton overalls, cotton labor protection gloves, high-voltage gloves tools, high-voltage insulating shoes, etc.

紧急事故处理 Emergency handling

4.2.1 场景~交通事故

■ Scene ~ Traffic accident

- 车辆停稳，打开车门，疏散乘客后，拔出钥匙，关闭电源总开关，条件允许情况下，由专业人员操作，断开电池包内部电源回路；
- 根据当地国家或地区的道路交通安全法相关规定处理交通事故；
- 通知我司售后部门，在售后部门给出电池安全判定结果前禁止再次使用车辆。
- Stop the vehicle, open the door, and after the passengers are evacuated, pull out the key and turn off the main power switch. If conditions permit, a professional should operate it to disconnect the internal power circuit of the battery pack;
- Deal with traffic accidents in accordance with the relevant regulations of the road traffic safety law of the local country or region;
- Notify the after-sales department of our company that it is forbidden to use the vehicle again until the after-sales department gives the battery safety judgment result.

4.2.2 场景~冒烟/火灾

■ Scene ~ Smoke/Fire

人员迅速离开车辆，根据现场情况拨打报警电话；
保证人身安全的情况下，有条件的进行如下操作：

- 1) 如果电池线束冒烟起火，使用二氧化碳或者干粉灭火器喷射。
- 2) 如果电池起火，在远距离使用高压水枪灭火。
- 3) 如果不慎吸入浓烟，请尽快转移并就医。

通知所属经销商，获取进一步的车辆处理意见。

如果因充电异常引起的火灾，务必第一时间关闭充电电源，再执行下一步灭火动作

The personnel leave the vehicle quickly and call the police according to the on-site situation;
Under the condition of ensuring personal safety, perform the following operations conditionally:

- 1) If the battery harness emits smoke or fire, use carbon dioxide or dry powder fire extinguisher to spray it.
- 2) If the battery catches fire, use a high-pressure water gun at a long distance to extinguish the fire.
- 3) If you accidentally inhale heavy smoke, please transfer and seek medical attention as soon as possible.

Notify the dealer to obtain further advice on how to deal with the vehicle.

****If a fire is caused by abnormal charging, be sure to turn off the charging power supply at the first time, and then perform the next fire extinguishing action****

4.2.3 场景~车辆涉水

■ Scene ~ Vehicle Wading

车辆在积水路面行驶时，需注意如下：

When the vehicle is driving on the road with stagnant water, please pay attention to the following:

深度/Depth	速度/Speed	时间/Time
<=30cm	<=10km/h	<=10min

车辆因意外情况落水或遭积水浸泡，需注意如下：

- 1, 禁止通电
 - 2, 通知所属品牌经销商
- 因天气或特殊原因，车辆被积水浸泡时，禁止车辆通电，否则可能引发安全风险或造成车辆二次损伤。

If the vehicle falls into the water or is immersed in stagnant water due to accidents, please note the following:

1. No power on
2. Notify the brand dealers

****When the vehicle is soaked in stagnant water due to weather or special reasons, it is forbidden to energize the vehicle, otherwise it may cause safety risks or cause secondary damage to the vehicle.****

保修政策 The Warranty Policy

5.1 质量保修规定

■ Quality Warranty Provisions

- 1 本手册的所有规定适用于所有BSLBATT生产并销售的锂离子电池包（电池系统）。
- 2 在质量保修期内BSLBATT对其认可量产电池系统的质量缺陷引起的故障，由BSLBATT提供质量保修服务。
- 3 对于超过质量保修期的产品BSLBATT提供有偿服务。
- 4 任何不属于BSLBATT责任的故障，均不在质量保修的责任范围内。
- 5 在质量保修期内，由BSLBATT免费更换来的故障件产权归BSLBATT所有。
- 6 除中国法律的强制性规定外，本手册规定提供的质量保修服务是本公司对客户承担的唯一责任。

****BSLBATT在法律许可下拥有对本手册的最终解释权，保留修改本手册的权力，如有变动恕不另行通知。****

- 1 All provisions of this manual apply to all lithium ion battery packs (battery systems) manufactured and sold by BSLBATT.
- 2 BSLBATT shall provide quality warranty service for the failure caused by quality defects of the mass production battery system approved by BSLBATT during the quality warranty period.
- 3 BSLBATT provides paid service for products beyond the warranty period.
- 4 Any failure that is not the responsibility of BSLBATT is not covered by the quality warranty.
- 5 During the warranty period, the defective parts replaced by BSLBATT free of charge shall be owned by BSLBATT.
- 6 Except for the mandatory provisions of Chinese laws, the quality warranty service provided in this manual is the sole responsibility of the Company to customers.

****BSLBATT reserves the right of final interpretation of this manual and reserves the right to modify this manual without prior notice.****

5.2 质量保修责任豁免范围

■ Quality warranty liability exemption scope

BSLBATT对如下情况不提供质量保修服务：

- 1 未按本手册的规定进行正确使用、保养、检查产品而导致的损坏。
- 2 连接器、接插件等未安装到位而造成的损坏、进水、锈蚀等。
- 3 使用未经BSLBATT授权许可的充电设备或充电操作不规范而导致的损坏。
- 4 踩踏、重压、跌落、撞击等而导致的损坏。
- 5 未经BSLBATT授权，私自改装、加装、拆卸电池系统导致的损坏。
- 6 动力电池系统发生故障时，客户未经BSLBATT允许私自对故障处理而导致的损坏。
- 7 不可抗力因素，如地震、台风、洪水、化学污染、雷击、冰雹、泥沙、飞石、火灾或人为的故意损坏等因素导致的损坏。

BSLBATT does not provide quality warranty service for :

- 1 Damage caused by improper use, maintenance and inspection of the product in accordance with the provisions of this manual.
- 2 Damage, water inflow, and corrosion caused by improper installation of connectors and connectors.
- 3 Damage caused by using charging equipment not authorized by BSLBATT or non-standard charging operation.
- 4 Damage caused by trampling, heavy pressure, falling, impact, etc.
- 5 Damage caused by modification, addition and removal of battery system without authorization of BSLBATT.
- 6 When the power battery system fails, the customer deals with the failure without BSLBATT's permission and causes the damage.
- 7 Damage caused by force majeure factors, such as earthquake, typhoon, flood, chemical pollution, lightning strike, hail, sand, flying rock, fire or man-made intentional damage.

