

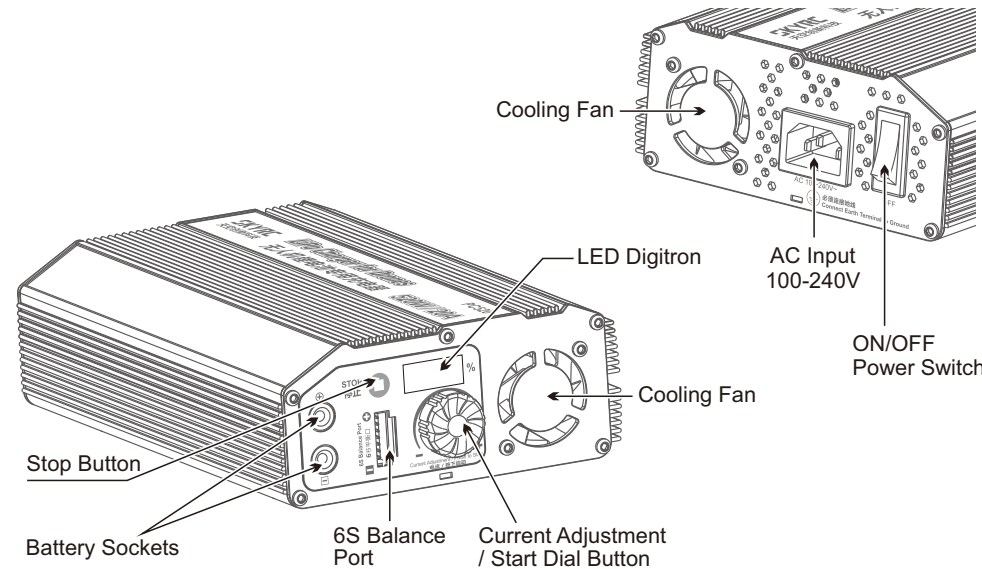
INSTRUCTION MANUAL

LiPo Charger for Drones SK-100105

SKYRC

INTRODUCTION

SkyRC PC520 is an AC input LiPo charger for drones which can charge LiPo/LiHV batteries with balance charge mode and storage mode. It has short-circuit protection and reverse polarity protection for maximum safety. There is an LED digitron to indicate realtime data.



FEATURES

- Supports LiPo/LiHV battery
- Adjustable charge current from 1.0 to 20.0A
- The charger can store the charge current of last charge program
- LED digitron indicates charge/discharge status
- Two working mode: balance charge mode and storage mode
- Maximum safety: short-circuit protection and reverse polarity protection

SPECIFICATION

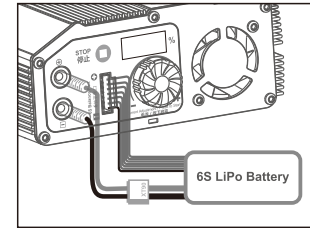
- | | |
|-------------------------------|-------------------------------------|
| ● Input Voltage: 100-240V | ● Working Mode: Balance Charge Mode |
| ● Output Power: 520W | ● Storage Mode |
| ● Charger Current: 1.0-20.0A | ● Size: 200x132x59mm |
| ● LiPo Battery Cell Count: 6S | ● Weight: 1.6kg |

OPERATION PROCEDURE

- 1) Insert the AC power cord into the charger then connect the power cord to a wall socket (100-240V). Switch on the charger, and the charger will sound "Bi---" and the LED digitron will display "CHA" (Balance charging)
- 2) Connect the battery and charger as follows,

Note: 1) It can ONLY charge 6S battery.

2) Both the charging cable and balance cable of the battery should be connected to the charger when charging.



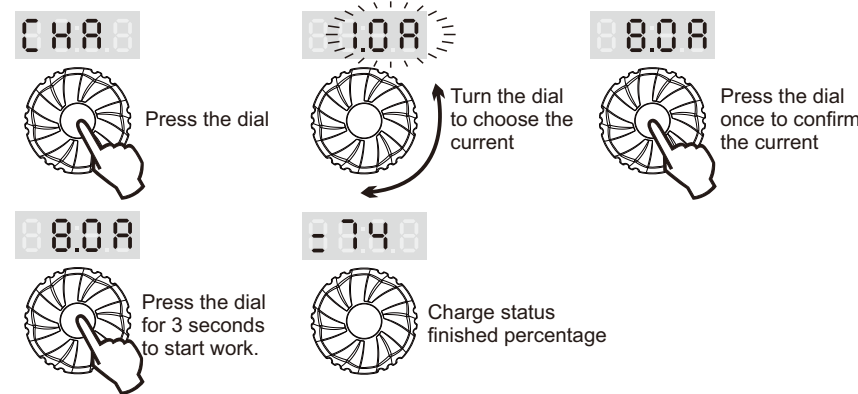
- 3) Choose Mode: Turn the dial to choose the working mode – Balance Charge Mode(CHA) and Storage Mode(STO) .

CHA Balance Charge Mode

STO Storage Mode

Storage Mode: If the battery is not used for a long time, please use the storage mode to charge or discharge the battery voltage to 3.8V/cell for long life of the battery.

- 4) Choose Current: Press the dial once, the LED digitron will display current "1.0A" and the value is blinking. Turn the dial left or right to choose the current and press the dial again for confirmation after you reach the desired current. The adjustable range of current is 1.0A-20.0A and the increment is 0.1A. And turning the dial left is to decrease the current and right is to increase the current.



- 5) Start: Press the dial for 3 seconds, the charger will start working. The LED digitron will indicate charge/discharge status and battery capacity.
- 6) Stop: Press the STOP button once to stop the working process.
- 7) Finish: In balance charge mode, the charger will beep 5 times and the LED digitron will display "FULL" to indicate the working process is finished; in storage mode, the charger will beep 5 times and the LED digitron will display "dONE" to indicate the working process is finished.

SWITCH BETWEEN LIPO AND LIHV

PC520 support lipo battery, terminal voltage is 4.20V for every count battery, also support LiHV battery, terminal voltage of every count LiHV battery is 4.35V.

How to transfer LiPo battery and LiHV battery?

Press the STOP button for 3 seconds, until the LED digitron will display LiHV to indicate the battery type.

Note: PC520 default battery type is LiPo.

- ❗ Please operate this function carefully, use wrong type battery would damage to battery, even cause a fire, or explosion.

ERROR MESSAGE

Err1 Incorrect Connection When Powered ON

Err2 Over Current Protection

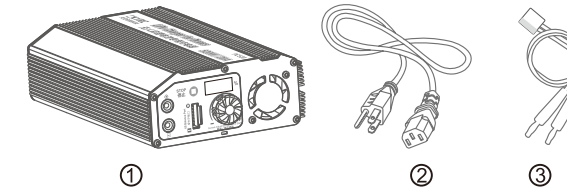
Err5 Connection Failure When Charging

Err3 Balance Port Malfunction

Err4 AC Power Failure

SET CONTENTS

- ① SkyRC PC520 Charger
- ② Power Cord
- ③ XT90 with Banana connector Charging Cable



WARNING AND SAFETY NOTES

These warnings and safety notes are particularly important. Please follow the instructions for maximum safety; otherwise the charger and the battery can be damaged or at worst it can cause a fire.

- ❗ Never leave the charger unattended when it is connected to its power supply. If any malfunction is found, TERMINATE THE PROCESS AT ONCE and refer to the operation manual.
- ❗ Keep the charger away from dust, moist, rain, heat, direct sunshine and vibration. Never drop it.
- ❗ The allowable AC input voltage is 100~240V
- ❗ This charger and the battery should be put on a heat-resistant, nonflammable and nonconductive surface. Never place them on a car seat, carpet or the like. Keep all the inflammable and volatile materials away from operating area.
- ❗ Make sure you know the specifications of the battery to be charged or discharged to ensure it meets the requirements of this charger. If the program is set up incorrectly, the battery and charger may be damaged. It can cause fire or explosion due to overcharging.
- ❗ **Never attempt to charge the following types of batteries.**
 - A battery pack which consists of different types of cells (including different manufacturers)
 - A battery that is already fully charged or just slightly discharged.
 - Non-rechargeable batteries (Explosion hazard).
 - Batteries that require a different charge technique from NiCd, NiMH, LiPo or Gel cell (Pb, Lead acid).
 - A faulty or damaged battery.
 - A battery fitted with an integral charge circuit or a protection circuit.
 - Batteries installed in a device or electrically linked to other components.
 - Batteries that are not expressly stated by the manufacturer to be suitable for the currents the charger delivers during the charge process.

Charging

During charge process, a specific quantity of electrical energy is fed into the battery. The charge quantity is

calculated by multiplying charge current by charge time. The maximum permissible charge current varies depending on the battery type or its performance, and can be found in the information by the battery manufacturer. Only batteries that are expressly stated to be capable of quick-charge are allowed to be charged at rates higher than the standard charge current.

Connect the battery to the terminal of the charger: red is positive and black is negative. Due to the difference between resistance of cable and connector, the charger can not detect resistance of the battery pack, the essential requirement for the charger to work properly is that the charge lead should be of adequate conductor cross-section, and high quality connectors which are normally gold-plated should be fitted to both ends.

Always refer to the manual by battery manufacturer about charging methods, recommended charging current and charging time. Especially, the lithium battery should be charged according the charging instruction provided by the manufacturer strictly.

Special attention should be paid to the connection of lithium battery. Do not attempt to disassemble the battery pack arbitrarily. Be aware that lithium battery packs can be wired in parallel or in series. When the battery is connected in parallel, its capacity is calculated by multiplying the single battery capacity by the number of cells with the total voltage staying the same. Voltage imbalance may cause fire or explosion. Lithium battery is recommended for charging in series.

- ❗ This appliance can be used by children aged from 14 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved. Children shall not play with the appliance. Cleaning and user maintenance shall not be made by children without supervision.

- ❗ If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.

Correct Disposal of this product

❗ This marking indicates that this product should not be disposed with other household wastes throughout the EU. To prevent possible harm to the environment or human health from uncontrolled waste disposal, recycle it responsibly to promote the sustainable reuse of material resources. To return your used device, please use the return and collection systems or contact the retailer where the product was purchased. They can take this product for environmental safe recycling.

Liability exclusion

This charger is designed and approved exclusively for use with the types of battery stated in this Instruction Manual. SkyRC accepts no liability of any kind if the charger is used for any purpose other than that stated.

We are unable to ensure that you follow the instructions supplied with the charger, and we have no control over the methods you employ for using, operating and maintaining the device. For this reason we are obliged to deny all liability for loss, damage or costs which are incurred due to the incompetent or incorrect use and operation of our products, or which are connected with such operation in any way. Unless otherwise prescribed by law, our obligation to pay compensation, regardless of the legal argument employed, is limited to the invoice value of those SkyRC products which were immediately and directly involved in the event in which the damage occurred.

Warranty and service

We guarantee this product to be free of manufacturing and assembly defects for a period of one year from the time of purchase. The warranty only applies to material or operational defects, which are present at the time of purchase. During that period, we will repair or replace free of service charge for products deemed defective due to those causes.

This warranty is not valid for any damage or subsequent damage arising as a result of misuse, modification or as a result of failure to observe the procedures outlined in this manual.

Note:

1. The warranty service is valid in China only.
2. If you need warranty service overseas, please contact your dealer in the first instance, who is responsible for processing guarantee claims overseas. Due to high shipping cost, complicated custom clearance procedures to send back to China. Please understand SkyRC can't provide warranty service to overseas end user directly.
3. If you have any questions which are not mentioned in the manual, please feel free to send email to info@skycrc.cn

Manufactured by
SKYRC TECHNOLOGY CO., LTD.
www.skycrc.com

All specifications and figures are subject to change without notice.
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操作说明

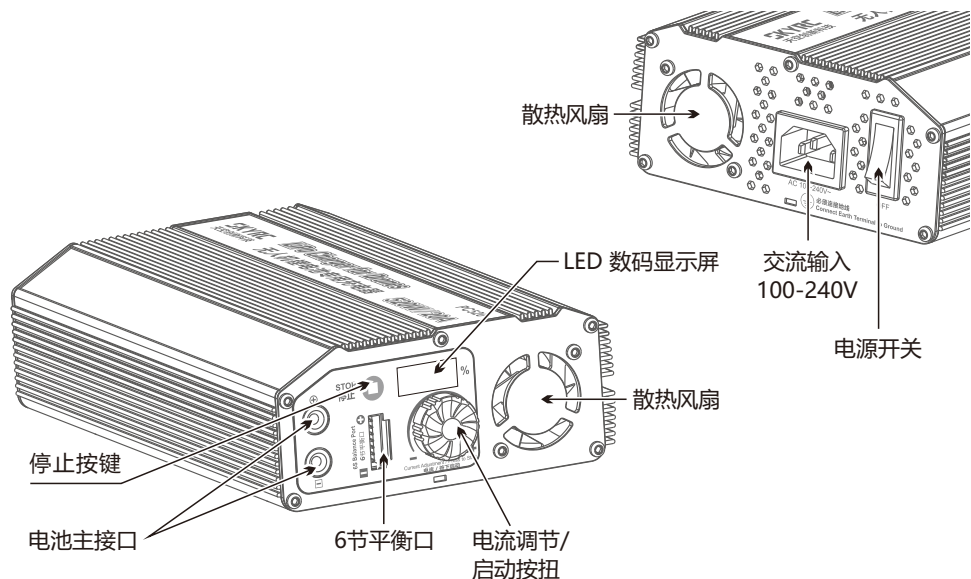
无人机锂电池专用充电器

SK-100105

SKYRC

产品介绍

PC520是一款为无人机使用者设计的用于充锂聚合物电池/高压锂聚合物电池的AC输入充电器，有平衡充电和电池存储两种工作模式，操作简单。且有短路以及反接保护功能。



特点

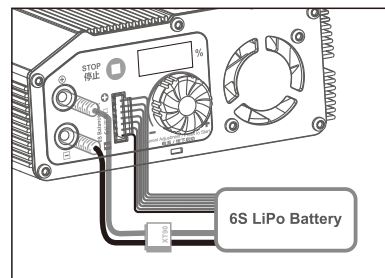
- 支持锂聚合物电池/高压锂聚合物电池充电
- 可记忆上一次充电电流
- 平衡充电和电池存储两种工作模式
- 充电电流可调节
- LED显示实时充电/放电状态
- 多重保护功能：短路保护，反接保护

参数

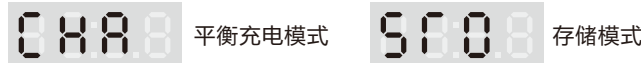
- 输入电压 100-240V
- 输出功率 520W
- 充电电流范围 1.0-20.0A
- 锂电池节数 6节
- 充电模式 平衡充电模式/存储模式
- 尺寸 200x132x59mm
- 重量 1.6kg

操作步骤

- 1) 通电：连接AC电源，打开电源开关，充电器“嘀”长叫一声，LED数码管显示CHA。
- 2) 连接电池：请按照下图连接方式连接电池以及充电器，（注意：支持充电的锂电池节数为6节；必须将电池充电线以及平衡口同时与充电器连接。）

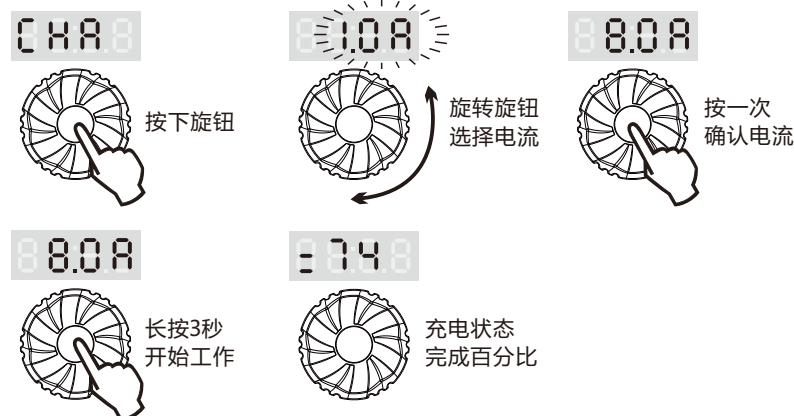


- 3) 选择模式：拨动旋钮，选择工作模式：平衡充电模式(CHA)或者存储模式 (STO)。



存储模式
如锂电池长时间不使用，建议使用存储模式，将锂电池电压充/放电至3.8V，以延长电池使用寿命。当电池电压高于

- 4) 选择电流：按下旋钮，LED数码管显示1.0A电流，且数值跳动闪烁，此时转动旋钮，调节电流。调节完成后，再次按下旋钮确认选择。电流增量为0.1A，可调节范围1.0A-20A。顺时针转动旋钮，电流增大；逆时针转动旋钮，电流减小。



- 5) 开始：长按旋钮3秒，充电器开始充电。LED数码管显示充电/放电状态以及电池容量。
- 6) 停止：充电器工作过程中，如需要停止充电，请按红色停止按钮。
- 7) 完成：充电模式下，充电完成，充电器鸣5声，LED数码管显示FULL；存储模式，充/放电完成，充电器鸣5声，LED数码管显示dONE。

锂电池(LiPo)和高压锂电池(LiHV)切换

本充电器支持锂电池，单节充电截止电压是4.20V，并支持高压锂电池，高压锂电池单节充电截止电压是4.35V。

如何切换锂电池(LiPo)和高压锂电池(LiHV)?

长按红色停止按键3S，LED数码管会显示LiHV模式

注意：PC520的默认电池类型是LiPo。

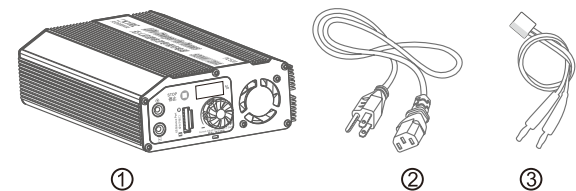
- ⚠ 请慎用此功能，用错误的电池类型充电会造成对电池的损害，并可能引起火灾、甚至爆炸。

错误提示

- Err 1 启动时连接错误
- Err 2 电流异常保护
- Err 5 充电时连接错误
- Err 3 平衡口故障
- Err 4 AC输入错误

配件图

- ① SkyRC PC520充电器
- ② AC电源线
- ③ XT90+香蕉头充电线



警告及安全提示

这些警告及安全提示非常重要，请严格按照说明书的指示操作以确保安全。操作不当，可能会对充电器及电池造成损害，严重的还会引起火灾。

- ⚠ 不要在无人照看的情况下使用充电器。如果有任何功能异常，请立刻中断充电并对照说明书查明原因。
- ⚠ 确保充电器远离灰尘，潮湿，雨，高温，避免阳光直射及强烈振动。不要碰撞充电器。
- ⚠ 充电器支持交流输入电压为AC100-240V
- ⚠ 请将充电器放置在耐热，不易燃及绝缘的表面。不要放置在车座，地毯等类似的地方。请确保易燃，易爆物品远离充电器的操作区域。
- ⚠ 确保您已经充分了解充电/放电的电池规格，并在充电器里面的设置同电池一致。如果程序设定不对，充电器及电池都可能损坏。过充可能引起火灾，甚至爆炸。
- ⚠ 以下种类电池，请不要进行充电/放电操作
 - 不同型号组成的电池组（包括不同生产厂家）。
 - 已经充满或者轻微放电的电池。
 - 不能再充的电池（可能引起爆炸）。
 - 对充电技术有特殊要求的电池。
 - 已经损坏或者有缺陷的电池。
 - 有内置组合电路或者保护电路的电池。
 - 安装在其他设备中或连接其他部件的电池。
 - 未经生产厂家确认的适合本充电器承载电流的可充电电池。

⚠ 着手充电之前，请务必检查以下3点，

- 是否选择了合适的程序设置？
- 是否设置了合适的充电电流？
- 是否所有的接线连接都牢固？保证线路连接不会有任何接触不良。

⚠ 充电

充电过程中，有一个充入电池的具体电量。充入电量的多少可以通过充电电流乘以充电时间计算得出。因电池种类及性能的不同，所允许的充电电流大小也不一样，这些信息一般由电池供应商提供。如果供应商未明确说明这款电池可以用高倍率充电，请您还是用正常的倍率。

电池及充电器终端的连接：红色线是正极，黑色线是负极。因电线及接头内阻的不同，充电器无法检测电池组的内阻。充电器正常工作的基本要求是充电器接线头有足够大的导体横截面以及两端有高质量的镀金接头。

参考有关电池厂商使用手册里面介绍的充电方法，依据他们推荐的充电电流及充电时间进行操作。

特别是锂电池，必须严格按照厂家的说明进行充电。

必须注意锂电池的接线。

不要随意拆卸电池组。

必须强调的是锂电池组可以串联也能并联。并联时，电池容量的计算式在总电压保持不变的情况下，用单节电池容量乘以电池节数得出。如果电压不平衡，可能引起火灾或者爆炸，所以我们一般建议用串联方式给锂电池充电。

- ⚠ 充电器适用于14岁及以上人群，行为、精神障碍人群及缺乏经验者需在监管或指导下使用。孩童请勿玩耍充电器。孩童在无人监管的条件下请勿清理和维护充电器。

- ⚠ 如电源线损坏，请退回制造厂、供应商或技术人员更换，以免引发危险。

免责声明

此款充电器的设计，仅仅适用于此说明书中所列出的电池类型。如用户将充电器用于说明书中所列的之外的用途，SKYRC不承担任何责任。我们无法确定你使用前是否仔细阅读过操作说明书，也无法控制你使用及储存该产品的方式。基于以上原因，我们拒绝承担任何因使用或操作不当导致或者与此相关的损坏/损失。法律规定范围内的，由于我公司产品造成的直接或者间接的损失，我公司的赔偿将以购买该产品上的发票金额为准。

保修及售后服务

自您购买产品之日起，我公司提供一年的保修。一年内，我公司将免费为您维修产品。如由于客户使用不当或者自行改装引起的任何损害，我公司将不提供免费维修服务。如果您的产品出现问题且在保修范围内，请在第一时间联系我公司，我们将协助您处理相关维修事宜。

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