

NWB-15/NWB-20/NWB-25/NWB-25A/NWB-30
12UNITS/24UNITS/30UNITS/36UNITS/60UNITS/
102UNITS/120UNITS/204UNITS
Portable charger and Charging rack

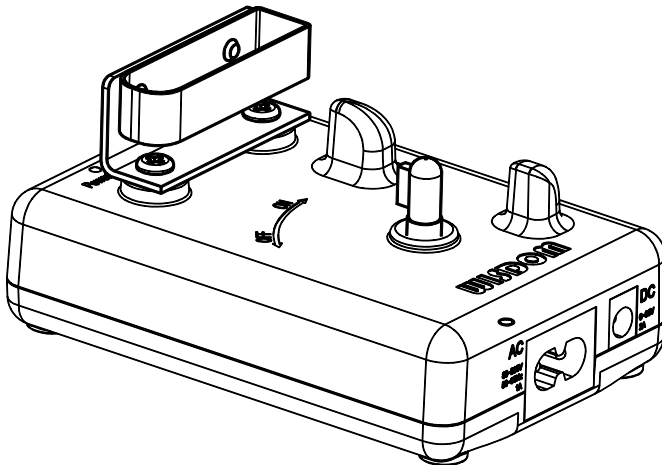


- Portable charger
- 单充
- Charging rack
- 充电架

Faster • Higher efficient

TABLE OF CONTENTS

1	Features Of Portable Charger	1
2	Battery Charging Principle Of NWB-15, NWB-20, NWB-25,NWB-25A And NWB-30.....	3
3	Technical Specifications	4
4	Schematic	5
5	User Guide.....	8
6	Troubles And Troubleshooting.....	13
7	Notes	14
8	Safety Warnings.....	14
9	Package.....	14
10	Product Patents And Certifications	15



Portable charger

1 Features of Portable Charger

NWB-15, NWB-20, NWB-25 and NWB-25A are innovative and effective charger designed for New Wisdom KL5M/KL8M/KL5M-C/KL12M and S series cap lamps with LED light source and li-ion battery power supply. NWB-30 is especially designed for multi-purpose lamps (not including KL5M-C). As new generation chargers, the significant features are as follows:

1.1 NWB-15, NWB-20, NWB-25, NWB-25A and NWB-30 Charging Time

These chargers apply the special fast-intelligent charging technology, which shorten the charging time to a large extent. As to KL5M, it is about 4 hours to get fully charged, and as to KL8M, it is about 5 hours.

Cap lamp model Charger model	KL4MS	KL5M/ KL5MS	KL5M MSHA	KL5M-C	KL8M /KL8MS	KL12M/ KL12MS	KL4LM (A)	KL5LM (A)	KL5LM (B)
NWB-15/NWB20	4 h	6 h	8 h	6 h	8 h	/	4 h	5 h	6 h
NWB-25/NWB-25A	2.5 h	4 h	5 h	/	5 h	6 h	3.5 h	4 h	4.5 h

Cap lamp model Charger model	WISDOM LAMP3/4A	WISDOM LAMP3/4B	WISDOM LAMP3/4C	WISDOM LAMP3/4D
NWB-30	5h	4h	4h	3h

1.2 NWB-30 Completely Matches with Wisdom Multi-purpose Lamps (not including KL5M-C)

NWB-30 portable chargers use the sliding groove design and high quality shrapnel. When in charging, it can ensure the cap lamp contact the charger well.

1.3 High Efficiency, Low Heat

The charging efficiency is very high; the releasing heat is very low although it charges with full power.

1.4 AC and AC+DC Power Supply

There are two power supply of NWB-15, NWB-20, NWB-25, NWB-25A and NWB-30 for option: AC and AC+DC. AC is for indoor use; DC allows users to charge from car cigarette lighter using the car charging cable.

1.5 Wide Voltage Range

Voltage range of the AC power supply is 100V~240V. Voltage range of the DC power supply is 7V~30V.

The wide voltage range makes the charger applicable to various voltage standards all over the world.

1.6 Small, Light and Portable

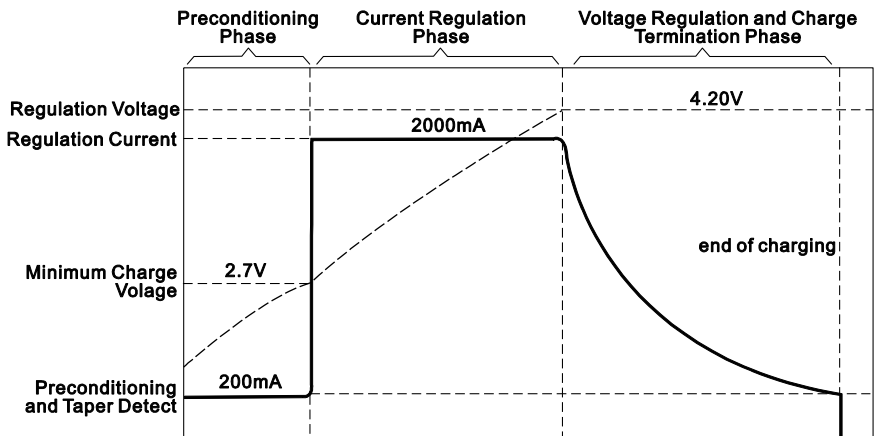
NWB-15, NWB-20, NWB-25, NWB-25A chargers are designed to be portable. A charger charges one cap lamp each time. The cases of NWB-15 and NWB-25 chargers are made of aluminum alloy with the dimension of only 116x73x55mm. Those of NWB-20, NWB-25A and NWB-30 chargers are made of Bayer PC plastic materials. The size of NWB-20 and NWB-25A is 116x73x56mm and that of NWB-30 is only 114x79x35mm. All the models are light and strong. It is very convenient to use them in working area, at home or in cars.

1.7 Environmentally Friendly

The charger is designed in accordance with RoHS, which is strictly followed during the whole process, from material selection to production craft design.

2 Battery Charging Principle of NWB-15, NWB-20, NWB-25, NWB-25A and NWB-30

The li-ion battery makes full use of both constant current and constant voltage charging principle. The constant current for NWB-15 is 1600mA, NWB-20 is 2000mA, NWB-25 and NWB-25A are 2400Ma, NWB-30 is 2000mA. The charging time is about 4-5 hours (charging time varies from different charger and miner's lamp, please refer to the table of product features for details). The circuit design enables a steady charging status controlled by a system, which automatically regulates the charging process. Working performance of the circuit is close to the charging theory of li-ion battery. For complete discharging battery, it charges with constant current. When the battery voltage reaches 4.20V, the battery switches to a constant voltage (at this moment the battery is approximately 80% charged) and the current gradually decreases. When the battery is fully charged, the control system automatically cuts off the circuit to protect the battery from over charge.



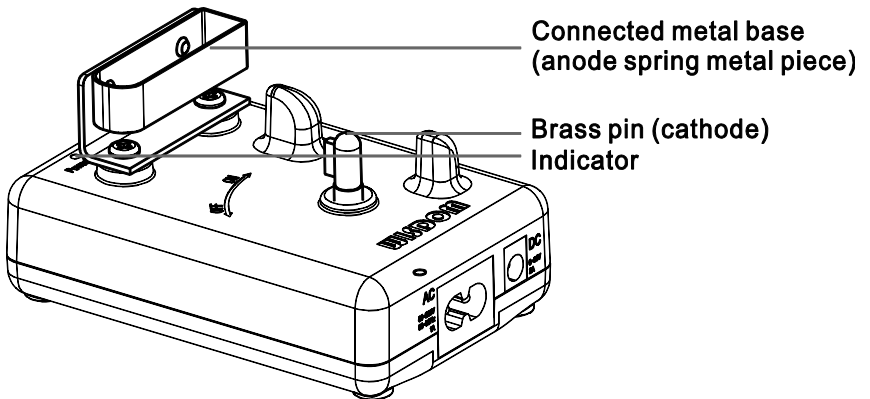
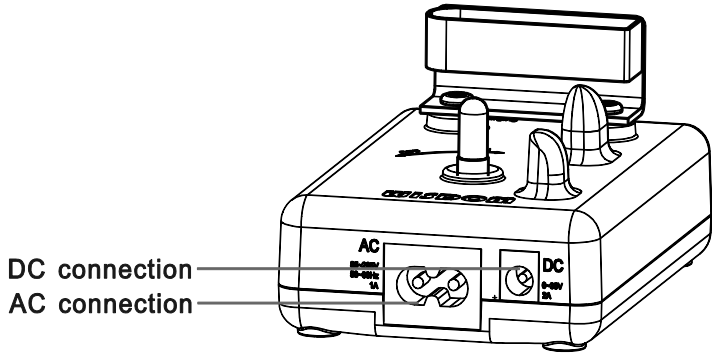
Note: It is not necessary to wait until the battery is completely discharged before charging. Charging can be conducted at any stage of battery capacity. Actually it prolongs the life span of the battery if charging is conducted before the battery is completely discharged.

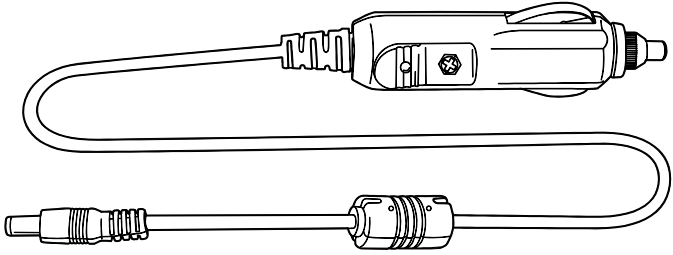
3 Technical Specifications

Feature	Technical specifications					
Model	NWB-15	NWB-20	NWB-25	NWB-25(for MSHA lamp)	NWB-25A	NWB-30
AC input	100~240V 9.6W 50~60Hz	100~240V 12W 50~60Hz	100~240V 14.5W 50~60Hz	100~240V 14.5W 50~60Hz	100~240V 14.5W 50~60Hz	100~240V 11.3W 50~60Hz
DC input	7~30V/ 9.5W	7~30V/ 12W	7~30V/ 12.2W	7~30V/ 12.2W	7~30V/ 12.2W	7~30V/ 11.3W
DC output voltage	4.20V	4.20V	4.56V	4.80V	4.56V	4.8V
DC output current	1600mA	2000mA	2400mA	2200mA	2400mA	2000mA
AC plug	US, EU, UK ,AU and other standard plug for the different needs worldwide					
Dimensions	116x73x55 mm	116×76×56 mm	116x73x55 mm	116x73x55 mm	116×76×56 mm	35x79x114 mm
Weight	230g	200g	235g	235g	215g	170g

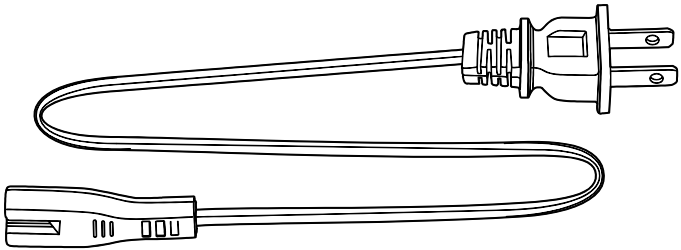
4 Schematic

4.1 NWB-15, NWB-20, NWB-25, NWB-25A Structural Parts



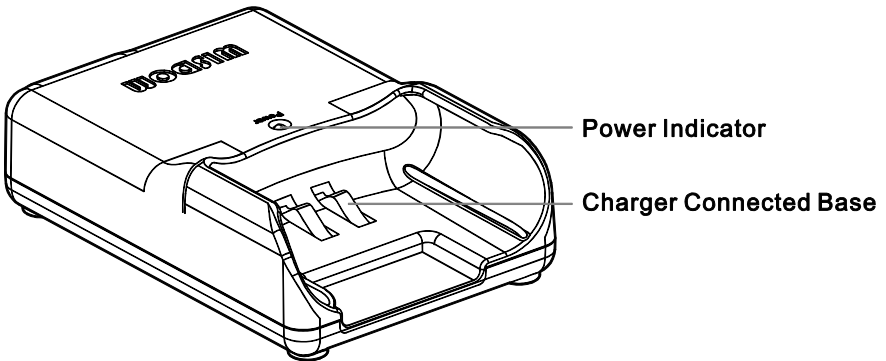


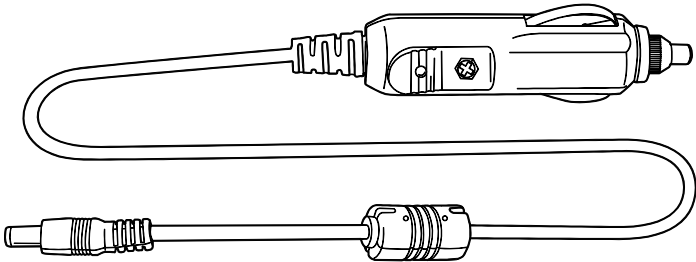
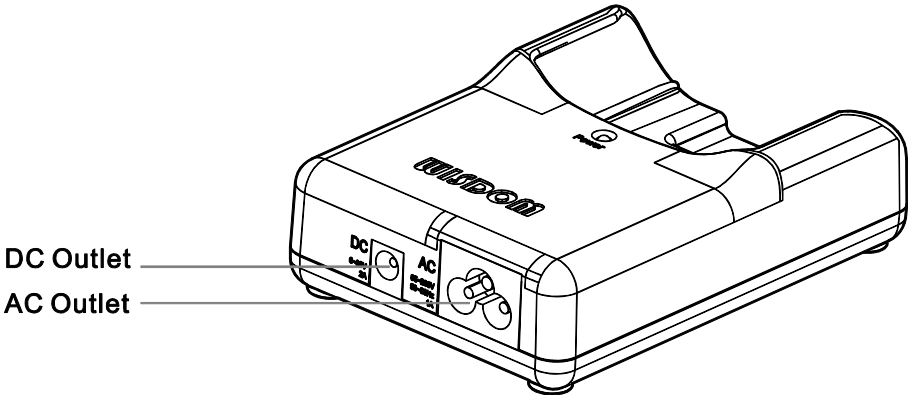
Vehicle power cable(DC)



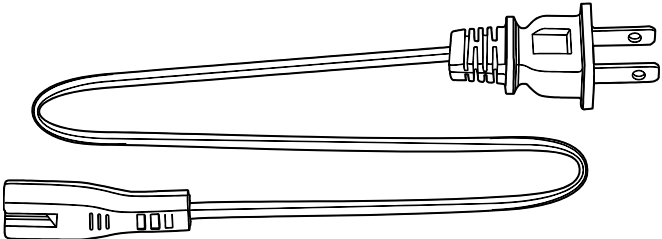
Power cable(AC)

4.2 NWB-30 Structural Parts





Vehicle power cable(DC)

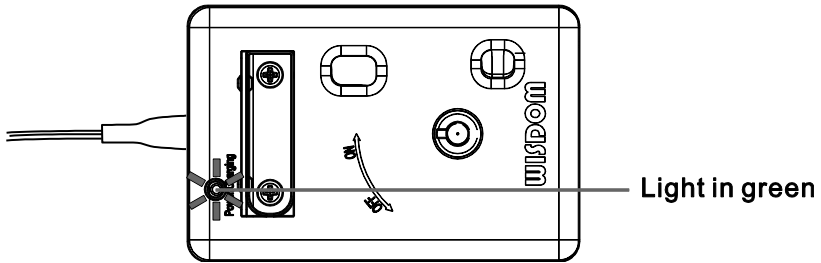


Power cable(AC)

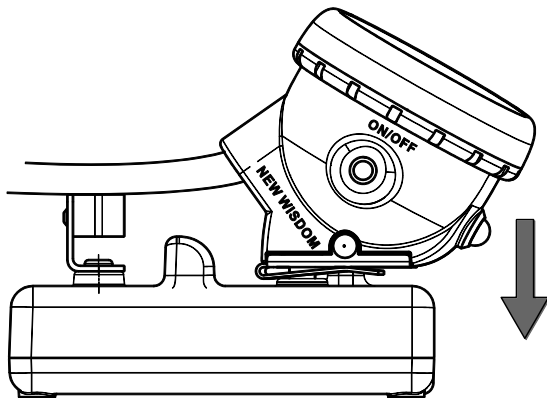
5 User Guide

5.1 NWB-15, NWB-20, NWB-25, NWB-25A User Guide

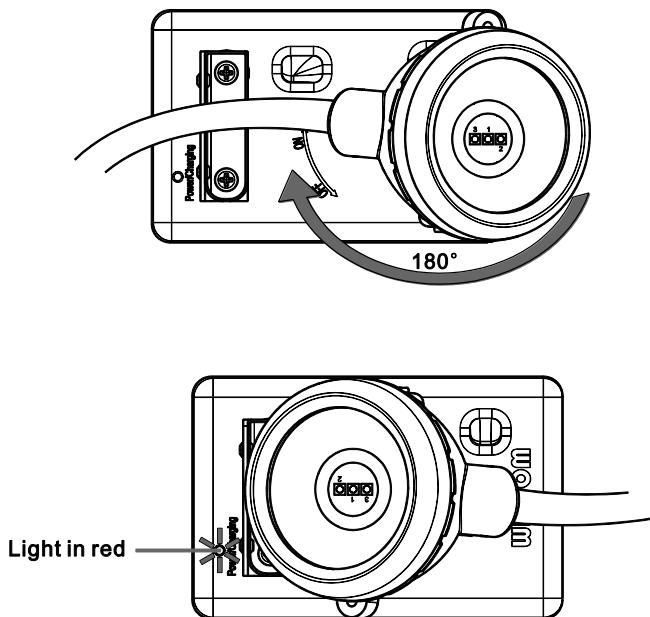
- (1) Connect the AC power cable to the AC outlet of the charger and put the plug into the socket on the wall. Then the charger is with power and under working condition, and the charger indicator light is green which means the charger is ready for charging.
- (2) Or connect the outlet of the vehicle power cable to the DC socket of the charger and the other end of the cable to the car cigarette lighter. Then the charger is with power and under working condition, and the charger indicator is green which means the charger is ready for charging.



- (3) Connect the cap lamp with the charger. Then fix the brass pin (cathode) of the charger into the hole of the cap lamp clip.

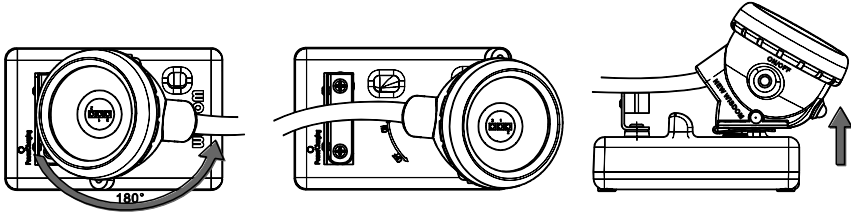


- (4) Rotate the head lamp 180 degrees clockwise to make sure the anode touch of the head lamp is closely connected to the connected metal base (anode). Then the indicator light turns red, which means the lamp is being charged.



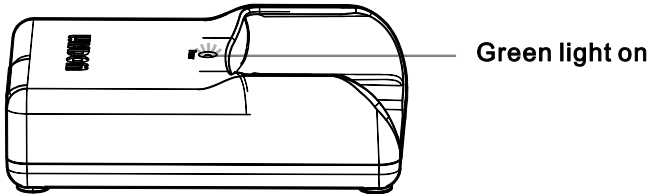
- (5) When it's charged by NWB-20 single portable charger, the battery has been fully charged if the indicator light of the charger turns green.
- (6) When it's charged by NWB-25A single portable charger, the indicator light of the charger keeps flashing from green to red, it means the battery has been charged at least 90%. The cap lamp can work more than 11h continuously if charging is stopped at this moment. If the indicator light of the charger flashes green only, then the battery has been fully charged.

(7) Rotate the head lamp 180 degrees anti-clockwise; take it away from the charger. Then, the indicator light of the charger returns green.

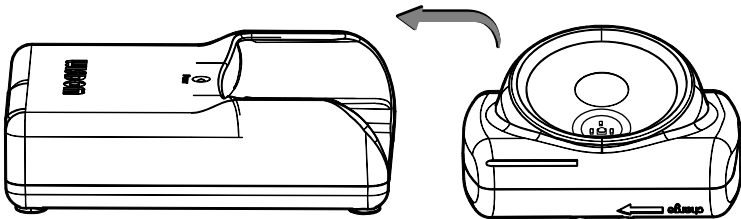


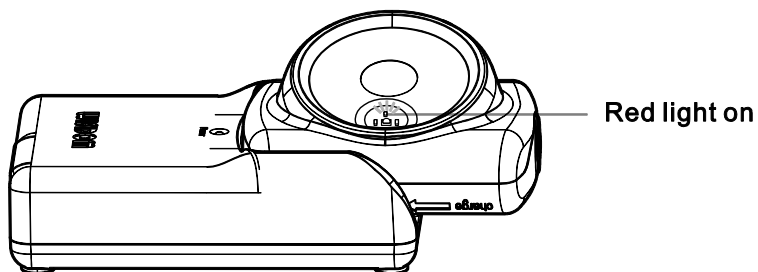
5.2 NWB-30 Usage Guide

(1) Connect the AC power cable to the AC outlet of the charger, or connect the outlet of the vehicle power cable to the DC socket of the charger. When portable charger connected to the power source, the indicator begins to work.

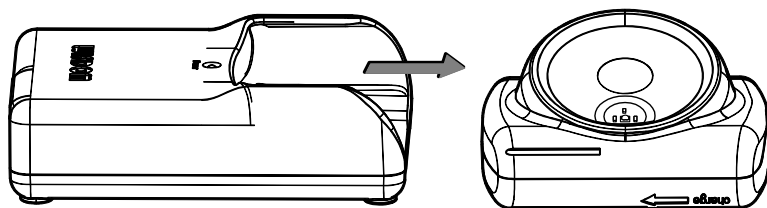
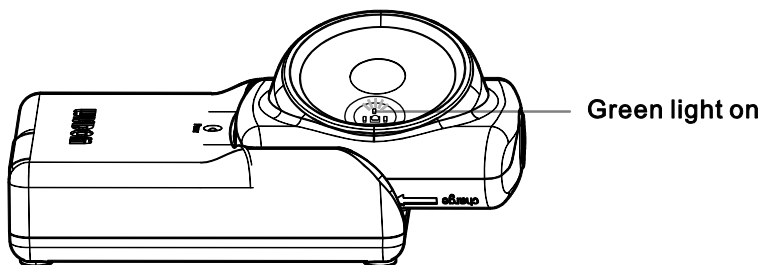


(2) Put the miner's cap lamp as the following picture shows, the charging indicator in the miner's cap lamp turns red.





- (3) WISDOM cordless lamps (not including KL5M-C) have special charging condition indicator light. The charging indicator becomes red showing the lamp is in charging; the indicator becomes green showing the lamp is fully charged. In the process of charging, the main light source and two Auxiliary light source will have weak light to show the charging process instructions. When the indicator of the charger turns green from red, it means the battery is fully charged. Then main light and Auxiliary light will turn off.
- (4) Take the miner's cap lamp away from the charger during the process of charging or when batteries have been fully charged, then the lamp can be normally used.



5.3 The Indicator Light Description of NWB-15, NWB-20, NWB-25 , NWB-25A and NWB-30

Status	Description		
	NWB-15 / NWB-20	NWB-25 / NWB-25A	NWB-30
Off	Charger is off		
Green light on	Charger is not working or finishes charging	Charger is not working	Charger is not working or finishes charging
Red light on	Charger is working	Charger is working (fast charging)	N/A
Green and red light flash	There is some troubles on the charger	Charger is working and the battery is more than 90% charged	N/A
Green light flashes	There is some troubles on the charger	The charging is finished	There is some troubles on the charger
Red light flashes	There is some troubles on the charger	There is some troubles on the charger	N/A

6 Troubles and Troubleshooting

Trouble description	Trouble analysis	Troubleshooting
Indicator light doesn't work	Power switch is not well connected to the power supply	Connect with the power supply again, make sure the plug is well connected
	Charger is damaged	Send back to the dealer for repairing
Connect the cap lamp to the charger, but the indicator is still in green (not including NWB-30)	Bad connection between the cap lamp and the charger	Clean the connected metal base (anode metal spring piece) and the brass pin (cathode) to make sure that they are well connected
Connect the cap lamp to the charger, but the indicator flashes in red (only for NWB-25)	Charger is out of work	Send it back to the dealer for repairing
Connect the cap lamp to the charger, and the indicator flashes in green (only for NWB-25)	Nothing wrong and the battery is fully charged	Take away the lamp from the charger for use
Connect the cap lamp to the charger, and the indicator is not on (only for NWB-30)	Bad connection between the charging contact of the cap lamp and the metal spring piece of the charger	Clean the charging contact and the metal spring piece to make sure that they are well connected
	Charger is damaged	Send back to the dealer for repairing

7 Notes

- (1) Strictly follow the voltage range during use.
- (2) NWB-15, NWB-20, NWB-25, NWB-25A are specially designed for New Wisdom KL-series cap lamp, NWB-30 is especially designed for multi-purpose lamps (not including KL5M-C). So please don't charge other lamps, otherwise the battery may be damaged.
- (3) Turn off the cap lamp when charging.
- (4) AC and DC power cable cannot be used at the same time.
- (5) Regularly clean the connected metal base (anode spring metal piece) and the brass pin (cathode) to make sure they can be connected well.
- (6) Please disconnect the charger when the charging is finished.

8 Safety Warnings

- (1) Prohibited to pour water on the charger and use it in humid environment such as in the bathroom, or it will run into short circuit.
- (2) Prohibited to crash or strike the charger, it may cause the loosening of nut and the damaging of the inside circuit board.

9 Package

Dimension of paper box for each charger: $138 \times 100 \times 70$ mm/ US,EU standard: 30pcs/carton.

Dimension of paper box for each charger: $175 \times 100 \times 83$ mm/ ZA,AU,UK standard:20pcs/carton.

Dimension of master carton: $38 \times 22.5 \times 44$ cm.

WISDOM

Telephone: 0086-755-83911841

www.wisdom.hk

Mailbox: info@wisdom.hk

Address: 4-306, xianglixincuen, Hongli West Road, shenzhen, China

Zip code: 518172

10 Product patents and certifications

For more information, please visit our website.



Chargers—CE certificate



NWB-15—CE certificate



NWB-15—CE certificate



NWB-15—CE certificate



NWB-15—CE certificate



NWB-30—CE certificate



NWB-30—CE certificate



NWB-20—CE certificate



NWB-20—CE certificate



NWB-30—CE certificate



NWB-30—CE certificate



NWB-25A—CE certificate



NWB-25A—CE certificate



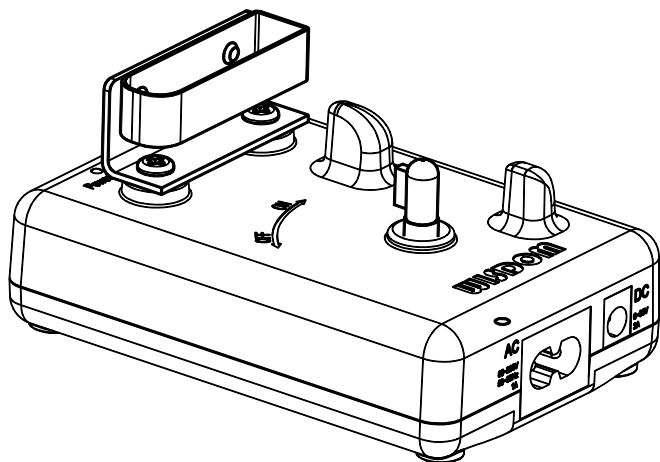
Computer software copyright



Patent for utility model

目录

1	便携充电器的特点	1
2	NWB-15、NWB-20、NWB-25、NWB-25A 和 NWB-30 充电原理	2
3	技术参数	3
4	结构示意图	4
5	使用方法	6
6	故障和检修	10
7	注意事项	11
8	安全警示	11
9	包装规格	11
10	产品认证和专利	13



1 便携充电器的特点

NWB-15、NWB-20、NWB-25 和 NWB-25A 是为 New Wisdom 品牌 KL8M/KL5M/KL5M-C/KL12M 及 S 系列和 MA 认证 LED 光源锂电池矿灯设计的高效充电器和快速智能充电器；NWB-30 便携充电器是和无绳矿灯（KL5M-C 除外）配套使用的专用充电器。作为 New Wisdom 精心设计的新一代充电器，其具有如下的产品特点：

1.1 NWB-15、NWB20、NWB-25、NWB-25A 和 NWB-30 快速充电

充电器采用了独特的智能快速充电技术，大大缩短了充电时间。对于 KL5M 矿灯，完全充满所需时间约 4 小时。对于 KL8M 矿灯，完全充满所需时间约 5 小时

矿灯类别 充电器型号	KL4MS	KL5M/ KL5MS	KL5M MSHA	KL5M-C	KL8M/ KL8MS	KL12M/ KL12MS	KL4LM(A)	KL5LM(A)	KL5LM(B)
NWB-15/NWB20	4 小时	6 小时	8 小时	6 小时	8 小时	不适用	4 小时	5 小时	6 小时
NWB-25/NWB-25A	2.5 小时	4 小时	5 小时	不适用	5 小时	6 小时	3.5 小时	4 小时	4.5 小时

矿灯类别 充电器型号	WISDOM LAMP3/4A	WISDOM LAMP3/4B	WISDOM LAMP3/4C	WISDOM LAMP3/4D
NWB-30	5 小时	4 小时	4 小时	3 小时

1.2 NWB-30 和一体化矿灯（KL5M-C 除外）完全匹配

NWB-30 便携充电器采用滑槽式设计，采用高质量弹片，在充电时能确保矿灯和充电器接触良好。

1.3 效率高，发热量小

充电器效率高，即使是满功率充电时，也只是散发少量的热量。

1.4 交流/直流两用

NWB-15、NWB-20、NWB-25、NWB-25A 和 NWB-30 充电器标准配置就是交流、直流两用的。既可以在室内采用 AC 电源，也可以利用车充线从汽车点烟器取电。

1.5 广泛的电压范围

AC 电压范围为：100V~240V，DC 电压范围：7V~30V。
充电器广泛的电压范围使得其能适应各国不同的电压标准。

1.6 体积小、重量轻，方便携带

充电器采用了便携式的设计，每个充电器能为一个矿灯充电。NWB-15 和 NWB-25 采用铝合金外壳，坚固轻便，尺寸只有 116x73x55 mm；NWB-20、NWB-25A 和 NWB-30 采用 PC 材料外

壳 坚固轻便 ,NWB-20和NWB-25A尺寸只有 116×76×56mm ,NWB-30尺寸只有 114×79×35mm ;产品适合在工作场所、家庭或汽车内使用。

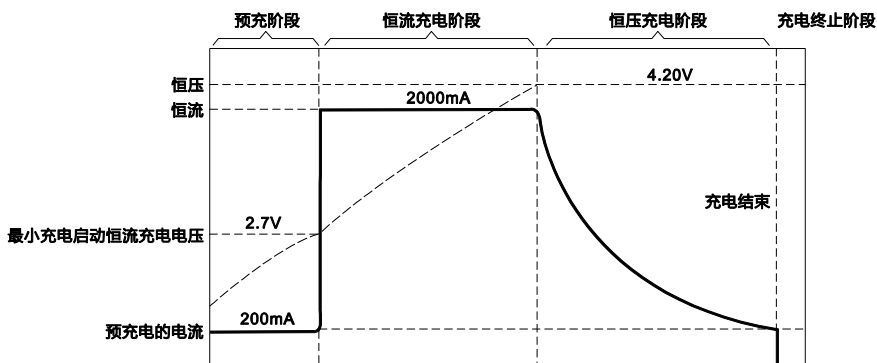
1.7 环保安全

充电器的设计完全遵守《有害物质限制指令》(RoHS)。有害物质限制指令的执行贯穿于整个流程，从原材料的挑选到制造工艺的设计都严格遵照该指令。

2 NWB-15、NWB-20、NWB-25、NWB-25A 和 NWB-30

充电原理

对锂离子电池充电时应用了恒定电流和恒定电压的充电方法。NWB-15 的充电电流为 1600mA，NWB-20 的充电电流为 2000mA，NWB-25 和 NWB-25A 的充电电流约为 2400mA；NWB-30 的充电电流为 2000mA；充电时间约为 4~5 个小时（充电时间因充电器及矿灯的不同而不同，详细请见产品特点中的表格）。电路板采用了稳态充电和自动调节的控制系统来调控充电过程。电路板的设计接近锂电池理论充电原理。对于放电完全的电池，充电时恒流充电。当电压达到 4.20V 时，电池转换为恒定电压充电（这时电池约有 80% 充满）。同时电流不断减小。当电池完全充满时，电路板会自动断电以保护电池，避免过度充电。



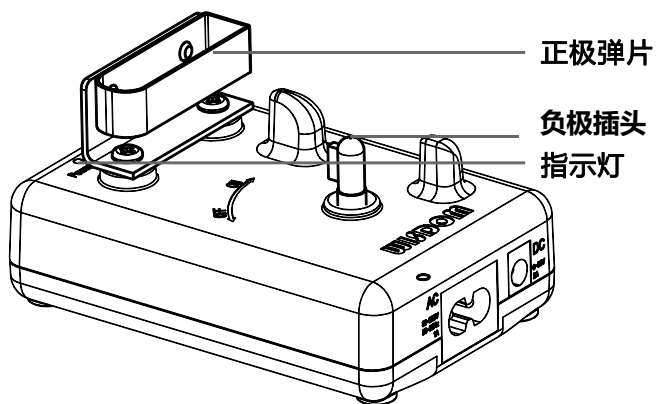
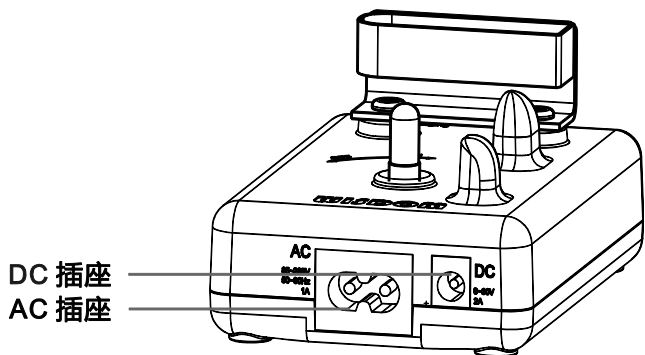
注意：不需要等到电池放电完全时再进行充电，可以在电池电量的任何阶段对其进行充电。在放电之前对电池进行充电事实上能延长电池的寿命。

3 技术参数

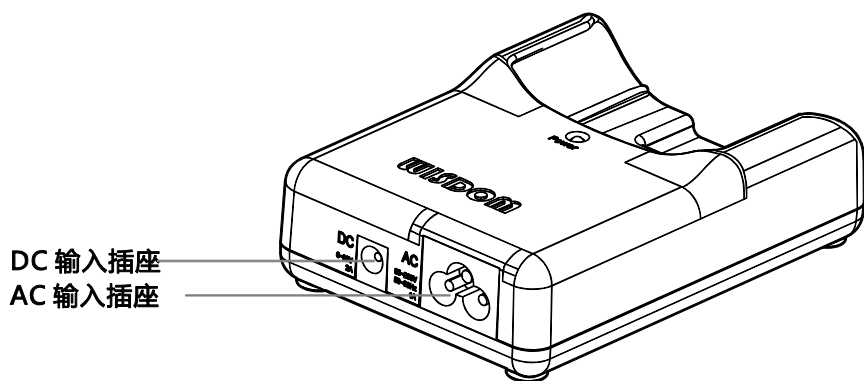
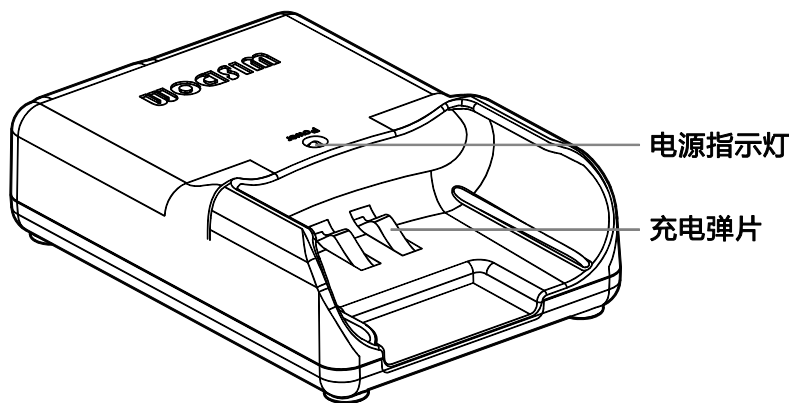
特性	技术规格					
产品名称	NWB-15	NWB-20	NWB-25	NWB-25(MS HA 灯专用)	NWB-25A	NWB-30
AC 输入	100~240V 9.6W 50~60Hz	100~240V 12W 50~60Hz	100~240V 14.5W 50~60Hz	100~240V 14.5W 50~60Hz	100~240V 14.5W 50~60Hz	100~240V 11.3W 50~60Hz
DC 输入	7~30V/ 9.5W	7~30V/ 12W	7~30V/ 12.2W	7~30V/ 12.2W	7~30V/ 12.2W	7~30V/ 11.3W
DC 输出电压	4.20V	4.20V	4.56V	4.8V	4.56V	4.8V
DC 输出电流	1600mA	2000mA	2400mA	2200mA	2400mA	2000mA
AC 插头	根据不同市场有美标, 英标, 欧标或澳标等不同标准					
尺寸	116x73x55 mm	116x76x56 mm	116x73x55 mm	116x73x55 mm	116x76x56 mm	114x79x35 mm
重量	230g	200g	235g	235g	215g	170g

4 结构示意图

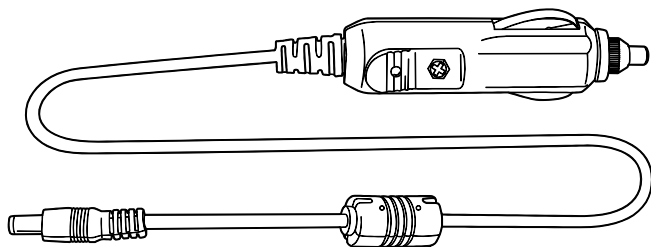
4.1 NWB-15、NWB-20、NWB-25 和 NWB-25A 便携充电器结构



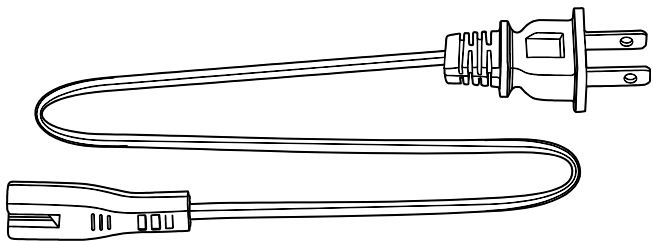
4.2 NWB-30 便携充电器结构



4.3 电源线



DC 电源线(车载电源线)

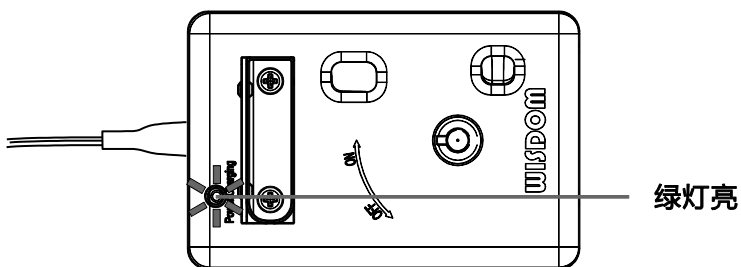


AC 电源线

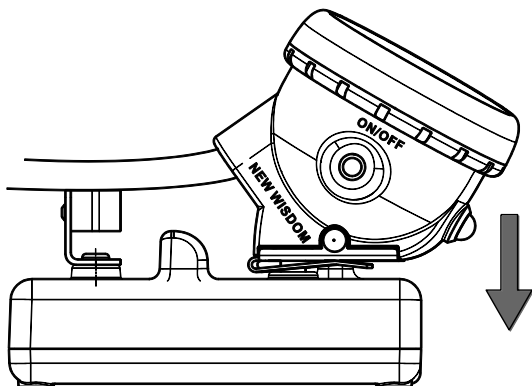
5 使用方法

5.1 NWB-15、NWB-20、NWB-25 和 NWB-25A 便携充电器使用方法

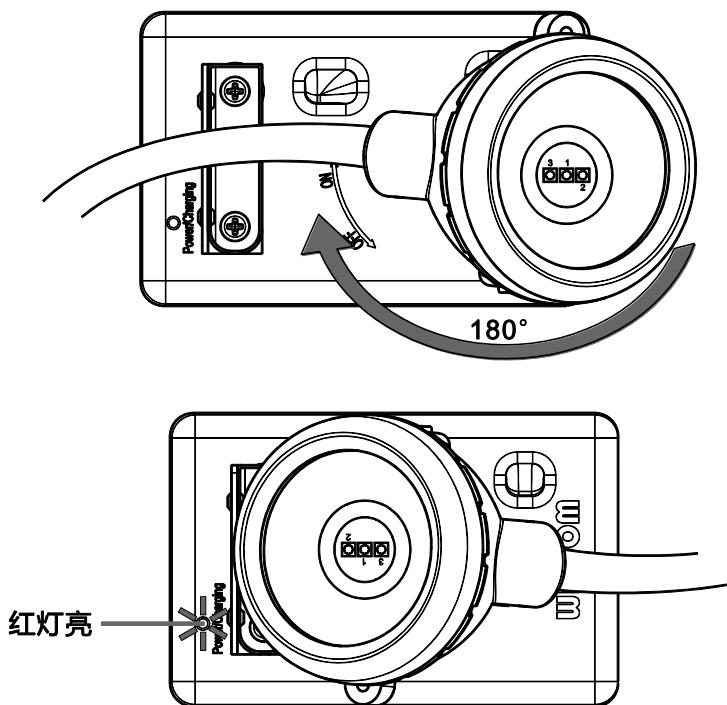
- (1) 把 AC 电源线插入充电器的 AC 插座，再把电源线的插头插到（电源）插座；或把车载电源线的插座插入充电器的 DC 插座，再把车载电源线的另一端插入汽车点烟器插座。充电器通电工作，指示灯为绿色，表示充电器在空闲状态。



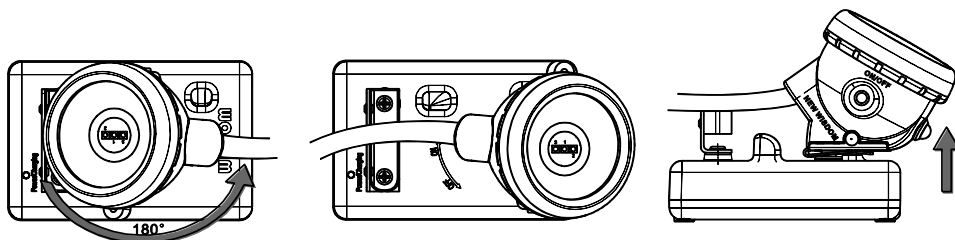
- (2) 顺着帽钩组件中的限位装置把矿灯放置在充电器的负极插头上。



- (3) 把灯头顺时针转动 180 度，确保灯头的正极触点和充电器的正极弹片紧密接触。此时充电器的指示灯变成红色，表示正在充电。

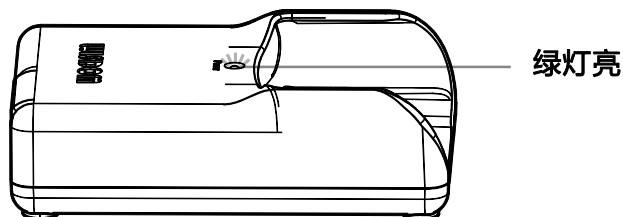


- (4) 如果使用 NWB-20 便携式充电器，当充电器的指示灯变成绿色时，表示电池已经完全充满。
- (5) 如果使用 NWB-25A 便携式充电器，当充电器的指示灯红、绿相间地闪烁时，表示电池已经充至 >90%。如果此时把矿灯从充电器上取下来使用，也能连续工作超过 11 个小时。当充电器的指示灯为绿灯闪烁时，表示电池已经完全充满。
- (6) 把灯头逆时针旋转 180 度，再取出灯头，使矿灯和充电器完全分离，充电器指示灯恢复至绿灯常亮。

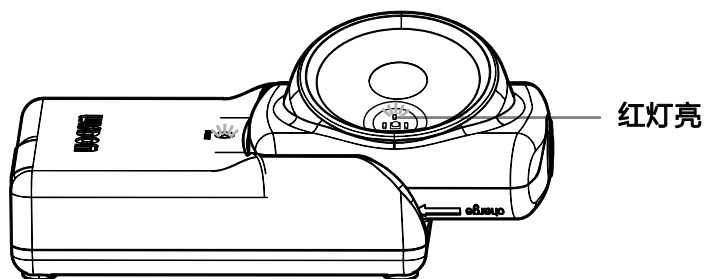
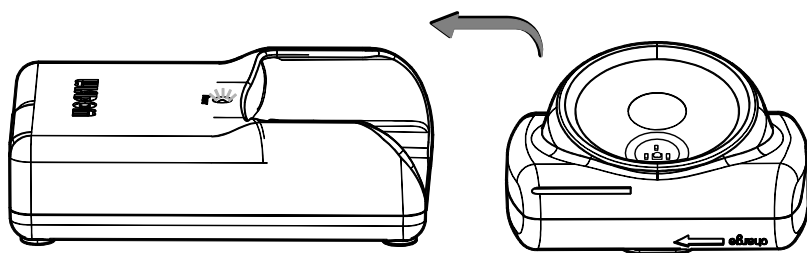


5.2 NWB-30 便携充电器使用方法

- (1) 将 AC 电源线插入便携充电器的 AC 输入插座, 或将车载电源线插入便携充电器的 DC 输入插座。将便携充电器接上电源, 便携充电器的指示灯会点亮。

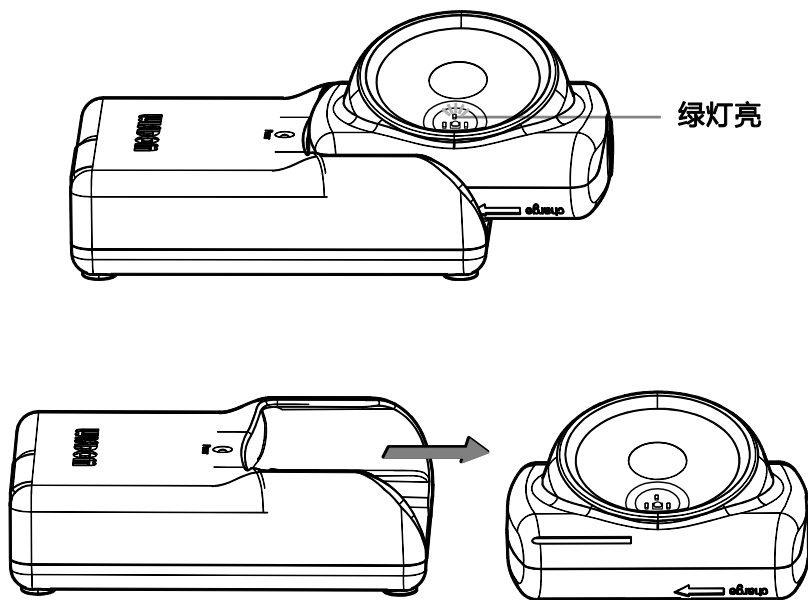


- (2) 将矿灯按图示的方向插入充电器中。矿灯里的充电指示灯会变红。



- (3) 无绳矿灯 (KL5M-C 除外) 有专门的充电状态指示灯。充电指示灯为红色时表示正在充电; 充电指示灯为绿色时表示电池已经充满。在充电的过程中, 主光源和两个副光源会发出弱光, 作为充电进程指示。待矿灯电池完全充满后, 充电指示灯会由红色变为绿色。主、副光源都熄灭。

(4) 在矿灯充电过程中，或矿灯电池充满后，把矿灯从充电器中拔出，即可正常使用矿灯。



5.3 NWB-15、NWB-20、NWB-25、NWB-25A 和 NWB-30 指示灯说明

指示灯状态	说明		
	NWB-15 / NWB-20	NWB-25 / NWB-25A	NWB-30
熄灭	充电器关闭		
绿灯常亮	充电器处于空闲状态或者已经完成充电	充电器处于空闲状态	充电器处于空闲状态或充电状态或者已经完成充电
红灯常亮	充电器处于充电状态	充电器处于充电状态(快速充电)	N/A
红、绿相间闪烁	充电器故障	充电器处于充电状态，而且电池充满至 90%以上	N/A
绿灯闪烁	充电器故障	电池已经充满	充电器故障
红灯闪烁	充电器故障	充电器故障	N/A

6 故障和检修

现象描述	现象分析	处理方法
充电器指示灯不亮	电源线没连接好，有接触不良	重新连接电源线，确保电源线连接好并通电
	充电器损坏	寄回厂家维修
拧上矿灯后，指示灯仍是绿色（NWB-30 除外）	矿灯满电状态或矿灯和充电器接触不良	检查矿灯是否满电；清洁充电器的正极弹片和负极探头，确保矿灯和充电器接触良好
拧上矿灯后，指示灯红灯闪烁	充电器异常	寄回厂家维修
矿灯插入滑槽后，矿灯充电指示灯不亮（仅 NWB-30）	矿灯的充电触点和充电器的弹片接触不良	清洁矿灯的充电触点和充电器的弹片，确保矿灯和充电器接触良好
	充电器损坏	寄回厂家维修

7 注意事项

- (1) 严格按照充电器允许的电压范围使用。
- (2) NWB-15、NWB-20、NWB-25 和 NWB-25A 充电器是针对 New Wisdom KL 系列矿灯矿灯专门设计的，不能用于其他矿灯的充电，强行使用有损坏电池的危险；NWB-30 充电器是针对无绳矿灯(KL5M-C 除外)专门设计的，不能用于其他矿灯的充电，强行使用有损坏电池的危险。
- (3) 充电时，保持矿灯处于关闭状态。
- (4) AC 电源线和 DC 电源线不能同时使用。
- (5) 注意清洁正极弹片和负极探头，确保充电器和矿灯可靠接触。
- (6) 当完成充电后，最好把充电器关闭。

8 安全警示

- (1) 不能往充电器上淋水，不能在浴室等潮湿环境下使用充电器，否则容易引起电器短路故障。
- (2) 切勿对充电器重摔、重压，以免造成充电器内部螺丝松脱或电路板损坏。

9 包装规格

充电器纸盒包装尺寸：138×100×70mm	美标、欧标：30pcs/箱
充电器纸盒包装尺寸：175×100×83mm	南非标、澳标、英标：20pcs/箱
外箱包装尺寸：38×22.5×44cm	

WISDOM

电话：+86-755-28990261

邮编：518172

工厂地址：深圳市龙岗区龙城街道嶂背路9号1楼、4楼

www.wisdom.hk

邮箱：info@wisdom.hk

10 产品认证和专利

更多信息请登录公司网站查询



充电器 CE 证书



NWB-15—CE 证书



NWB-15—CE 证书



NWB-15—CE 证书



NWB-15—CE 证书



NWB-30—CE 证书



NWB-30—CE 证书



NWB-20—CE 证书



NWB-20—CE 证书



NWB-30—CE 证书



NWB-30—CE 证书



NWB-25A—CE 证书



NWB-25A—CE 证书



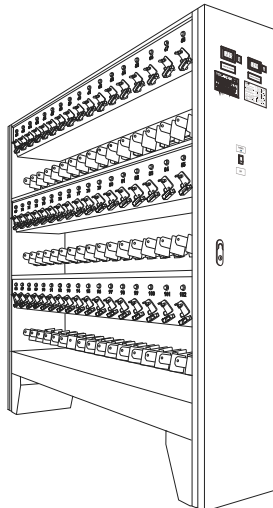
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实用新型专利

TABLE OF CONTENTS

1	Features	1
2	Technical Parameters	3
3	Structural Parts	4
4	Package.....	22
5	Installation Instructions	22
6	User Guide	23
7	Meaning of the Indicator Signal	26
8	Trouble and Troubleshooting	26
9	Notes	27
10	Safety Warnings	27



Charging rack

1 Features

NWCR series charging racks are lithium battery charging racks containing many charging ports. Each charging port is specially designed for LED light source and lithium battery miner's lamp. As the new generation charging rack of NEW WISDOM, the features are as follows:

1.1 Different sizes for option

NEW WISDOM provides 12, 24, 36, 102, 120 and 204 units NWCR series cordless lamp charging racks, which is convenient for users to choose according to the amount of miner cap lamps and the size of the venue.

Charging rack model	Charging ports quantity	Double / single side
NWCR-12/NWCR-12A/NWCR-12B	12 units	Double
NWCR-24/NWCR-24A/NWCR-24B	24 units	Double
NWCR-30/NWCR-30A	30 units	Single
NWCR-36/NWCR36A/NWCR-36B	36 units	Double
NWCR-60/NWCR-60A	60 units	Double
NWCR-102/NWCR-102A	102 units	Double
NWCR-120B	120 units	Double
NWCR-204B	204 units	Double

1.2 Variety versions charger rack for option

According to the different series of miner's lamp charging time to design a variety of charger rack for option, as the below flow shows:

Charger rack version	charger rack model	chargeable mining cap lamp category	charging time
standard charger rack	NWCR-12/NWCR-24/ NWCR-30/NWCR-36/ NWCR-60/NWCR-102	KL series lamp with cable (like KL5M/KL4LM (A) /KL4MS)	slow

Fast intelligent charger rack	NWCR-12A/NWCR-24A/ NWCR-30A/NWCR-36A/ NWCR-60A/NWCR-102A	KL series lamp with cable (like KL5M/KL4LM(A)/KL4MS)	fast
charger rack for all-in-one lamp	NWCR-12B/NWCR-24B/ /NWCR-36B/NWCR-120B NWCR-204B	All-in-one mining cap lamp (like WISDOM LAMP3A)	fast

1.3 Separate charging port with high efficient and easy maintenance

Each separate unit of the fast intelligent charging rack is a separate charger and there is no influence between each point, thus it greatly improves the efficiency and it's very convenient for daily maintenance. Meanwhile, each charging point is automatic control type with characteristics of constant current and limit voltage, which greatly improves the charging quality of the miner's cap lamps to ensure the life span and safety.

1.4 High efficiency, low heat

1.5 Wide voltage range

Voltage range of the AC power supply is: 100-240V, 50-60Hz.

The wide range makes the charger applicable to specific voltage standard in all countries.

1.6 Environmentally-friendly

The charging rack is designed in accordance with the Restriction of Hazardous Substances Directive (RoHS). RoHS standard is strictly followed in the whole process, from choosing the material to designing the production technique.

2 Technical Parameters

2.1 Standard version technical parameters

Features	Standard charging rack technical parameters					
Charging rack version	NWCR-12	NWCR-24	NWCR-30	NWCR-36	NWCR-60	NWCR-102
Quantity of charging ports	12	24	30	36	60	102
AC input voltage	100-240V, 50-60Hz					
AC input power	115W	231W	289W	346W	576W	980W
DC output voltage (Each charging port)	4.2V					
DC output current (Each charging port)	1600mA					
Size	30x21x95.3cm	58x21.5x95.3cm	115.7x17.3x171.8cm	86x21.5x95.3cm	115.7x35.5x171.8cm	185.7x35.5x171.8cm
Net weight	24kg	39kg	47kg	90kg	125kg	175kg

2.2 Fast intelligent charger rack technical parameters

Features	Fast intelligent charger rack technical parameters					
Charging rack version	NWCR-12 A	NWCR-24 A	NWCR-30 A	NWCR-36 A	NWCR-60A	NWCR-102 A
Quantity of charging ports	12	24	30	36	60	102
AC input voltage	100~240V , 50~60Hz					
AC input power	174W	346W	432W	518W	864W	1470W
DC output voltage (Each charging port)	4.56V (Standard) 4.80V±0.05V (MSHA)					

DC output current (Each charging port)	2400mA (Standard)					
	2200mA (MSHA)					
Size	30x21x95.3	58x21.5x95	115.7x17.3	86x21.5x95	115.7x35.5	185.7x35.5
	cm	.3cm	x171.8cm	.3cm	x171.8cm	x171.8cm
Net weight	24kg	39kg	47kg	90kg	125kg	175kg

2.3 Cordless charger rack technical parameters

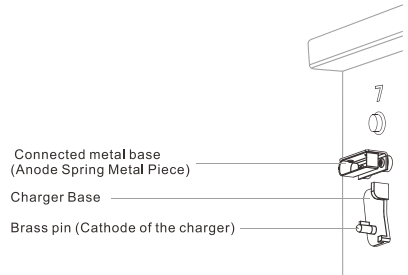
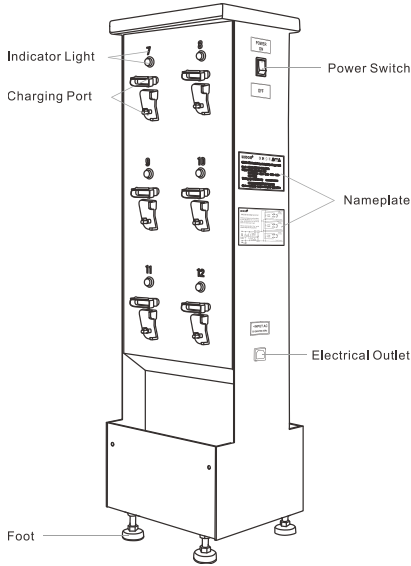
Features	Cordless charger rack technical parameters				
Charging rack version	NWCR-12B	NWCR-24B	NWCR-36B	NWCR-120B	NWCR-204B
Quantity of charging ports	12	24	36	120	204
AC input voltage	100-240V, 50-60Hz				
AC input power	137W	272W	407W	1356W	2305W
DC output voltage (Each charging port)	4.80V				
DC output current (Each charging port)	2000mA				
Size	30×23.2×100	57.9×23.2×	86×23.2×100	114×172×36	184×172×36
	cm	100cm	cm	cm	cm
Net weight	24kg	39kg	55kg	230kg	290kg

3 Structural Parts

The following lists all versions of each type structure components according to the three version of the charger rack.

3.1 Structure components of common charger rack

3.1.1 NWCR-12 structure components

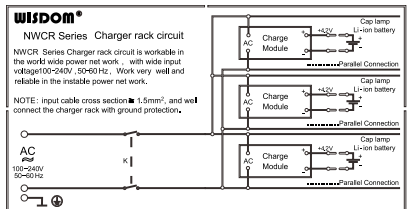


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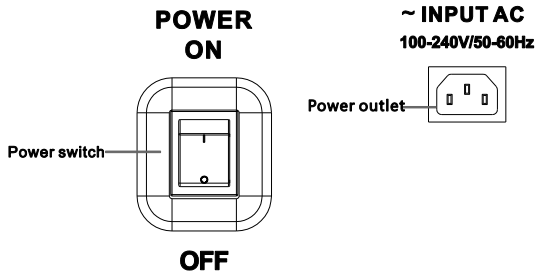
NWCR - 12 Li-ion battery mining lamp charger rack

Input: AC100V-240V ± 10%, 50-60Hz, 2.3A
 Output: Voltage DC 4.20V ± 0.05V
 Current 1.6A
 Unit 12 Units
 Working style: continuously

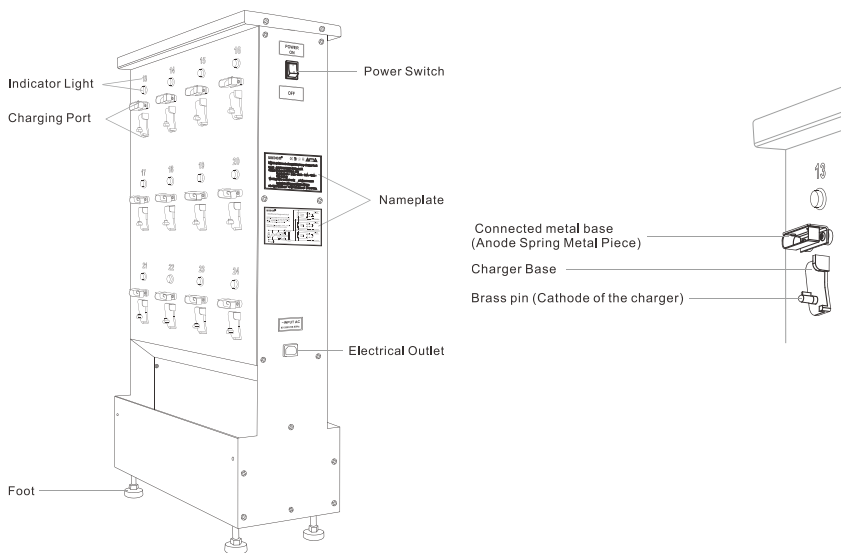
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3.1.2 NWCR-24 structure components

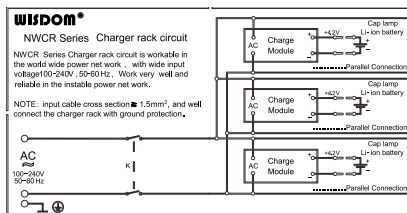


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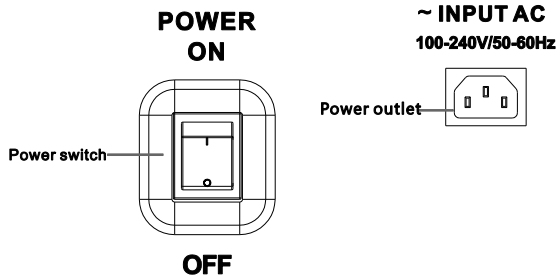
NWCR-24 Li-ion battery mining lamp charger rack

Input: AC100V-240V ± 10%, 50-60Hz, 4.6A
 Output: Voltage DC 4.20V ± 0.05V
 Current 1.6A
 Unit 24 Units
 Working style: continuously

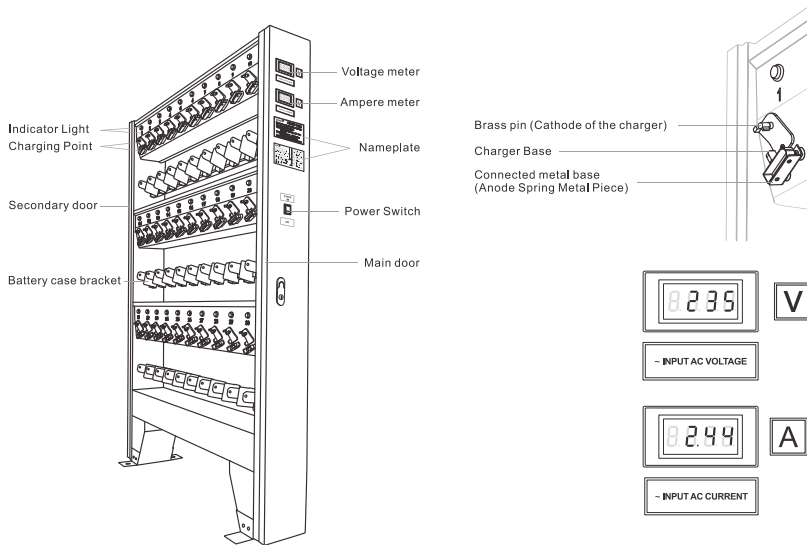
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3.1.3 NWCR-30 structure components

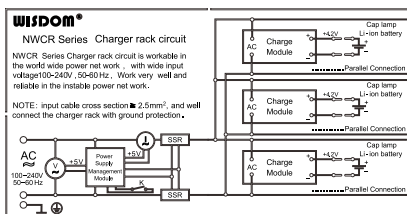


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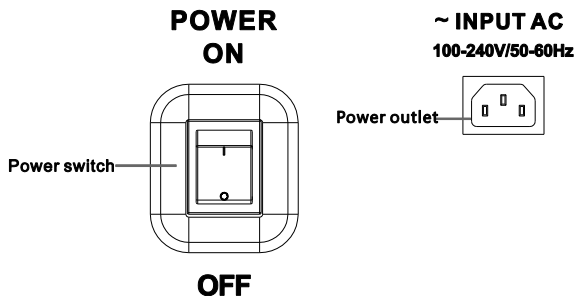
NWCR-30 Li-ion battery mining lamp charger rack

Input: AC100V-240V ± 10%, 50-60Hz, 5.8A
 Output: Voltage DC 4.20V ± 0.05V
 Current 1.6A
 Unit 30 Units
 Working style: continuously

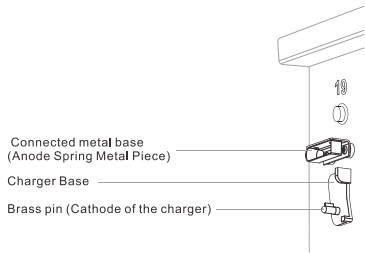
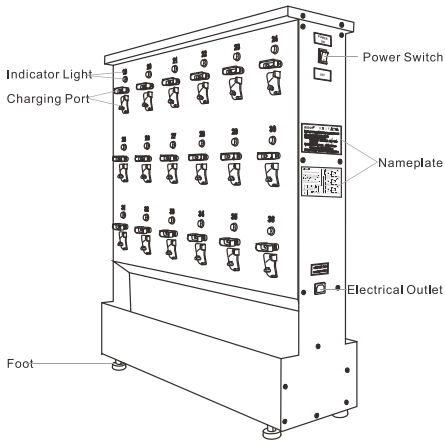
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3.1.4 NWCR-36 structure components

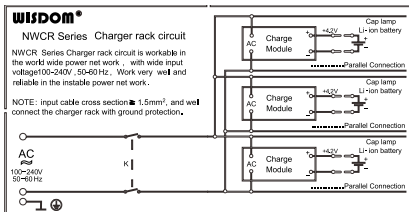


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NWCR -36 Li-ion battery mining lamp charger rack

Input: AC100V-240V ± 10%, 50-60Hz, 6.9A
 Output: Voltage DC 4.20V ± 0.05V
 Current 1.6A
 Unit 36 Units
 Working style: continuously

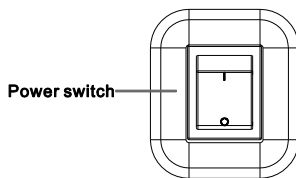
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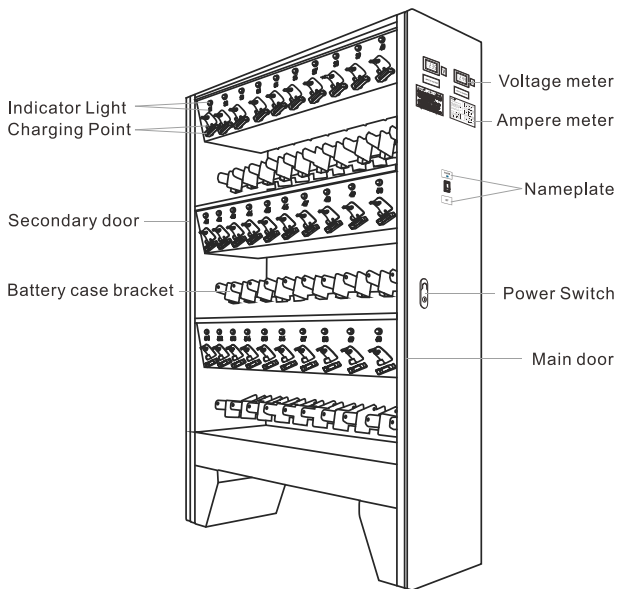
POWER ON

**~ INPUT AC
100-240V/50-60Hz**



OFF

3.1.5 NWCR-60 structure components

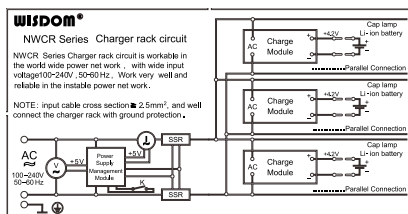


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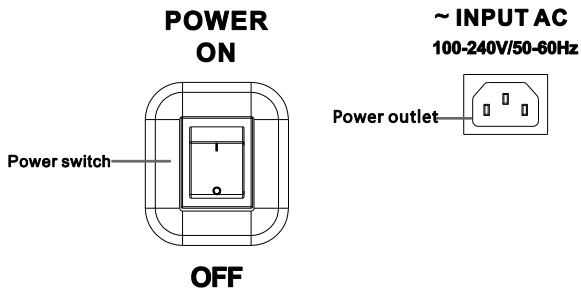
NWCR-60 Li-ion battery mining lamp charger rack

Input: AC100V-240V ± 10%, 50-60Hz, 11.4A
 Output: Voltage DC 4.20V ± 0.05V
 Current 1.6A
 Unit 60 Units
 Working style: continuously

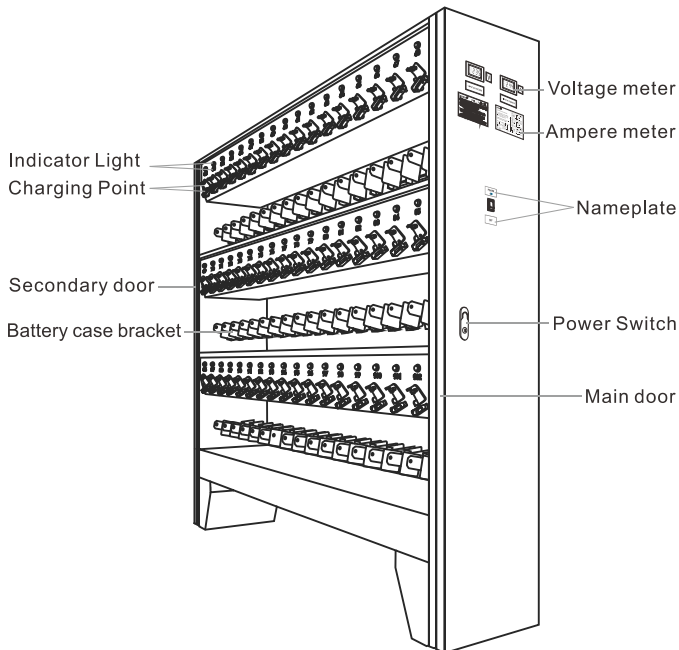
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3.1.6 NWCR-102 structure components

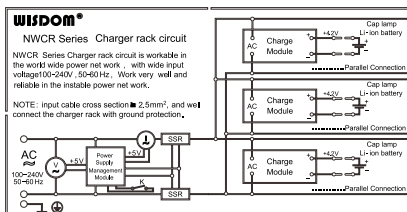


WISDOM® CE RoHS REACH CAUTION

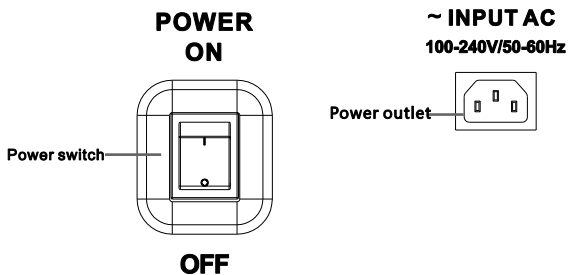
NWCR-102 Li-ion battery mining lamp charger rack

Input: AC100V-240V ± 10%, 50-60Hz, 19.5A
 Output: Voltage DC 4.20V ± 0.05V
 Current 1.6A
 Unit 102 Units
 Working style: continuously

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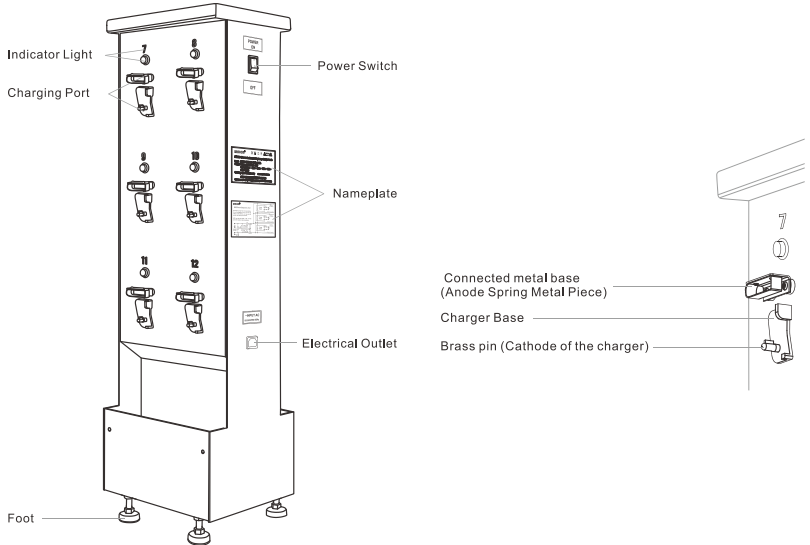


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3.2 structure components of fast and intelligent charger rack

3.2.1 NWCR-12A structure components

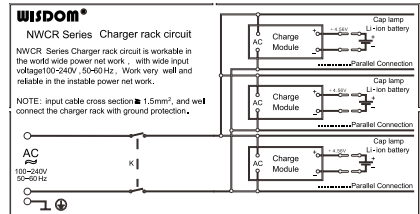


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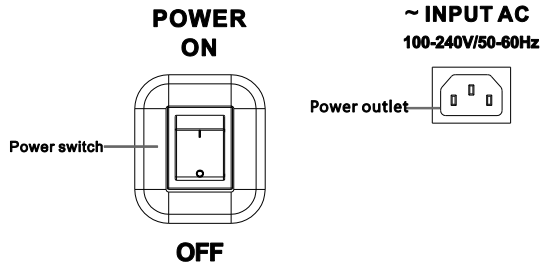
NWCR-12A Li-ion battery mining lamp charger rack

Input: AC100V-240V $\pm 10\%$, 50-60Hz, 3.5A
 Output: Voltage DC 4.56V ± 0.05 V
 Current 2.4A
 Unit 12 Units
 Working style: continuously

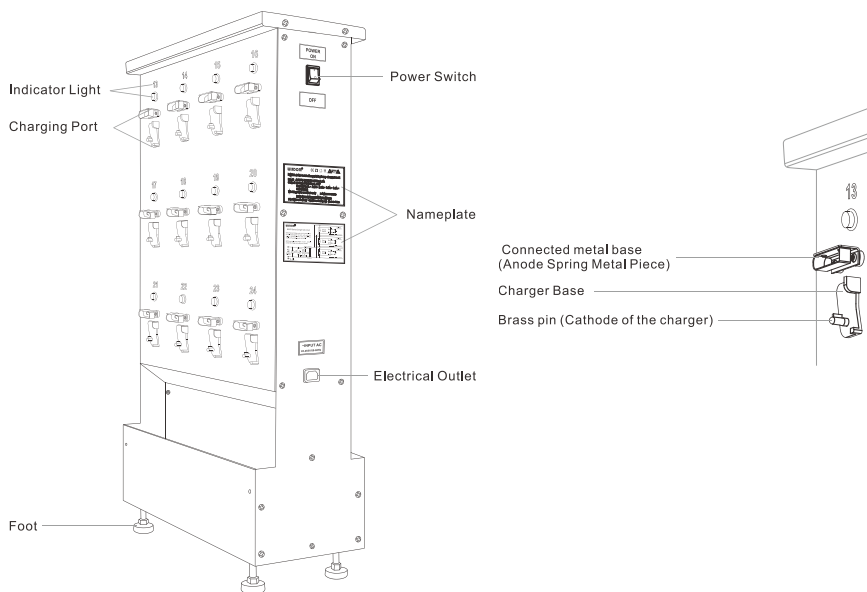
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The nameplate



3.2.2 NWCR-24A structure components

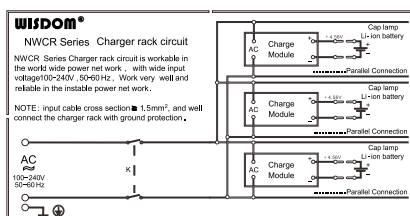


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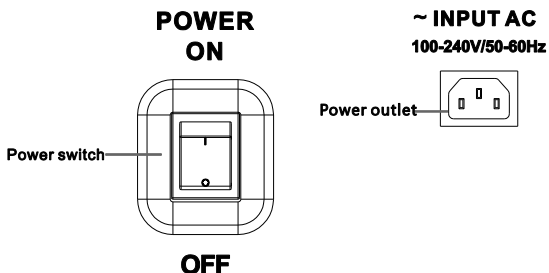
NWCR-24A Li-ion battery mining lamp charger rack

Input: AC100V-240V ± 10%, 50-60Hz, 6.9A
 Output: Voltage DC 4.56V ± 0.05V
 Current 2.4A
 Unit 24 Units
 Working style: continuously

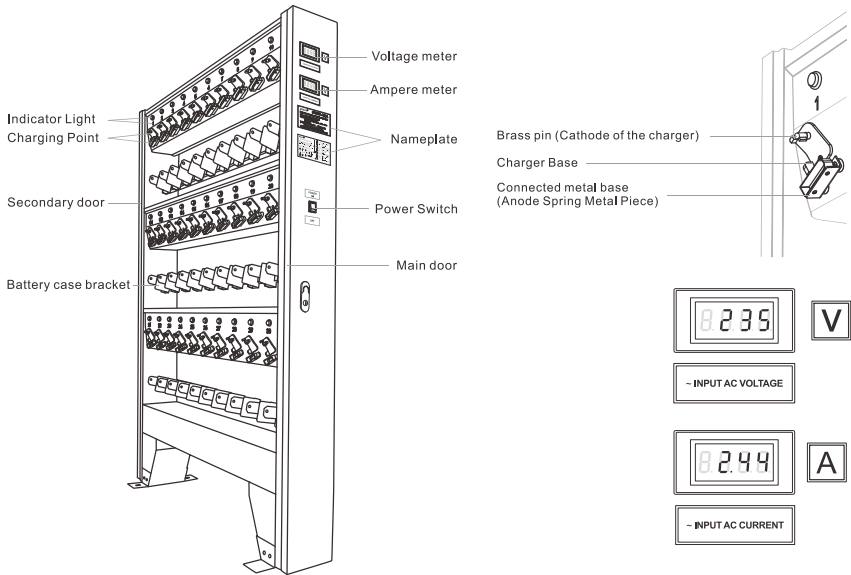
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3.2.3 NWCR-30A structure components

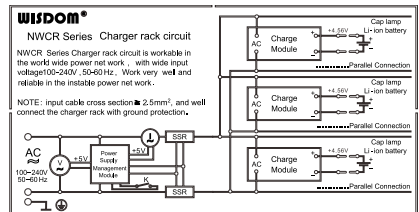


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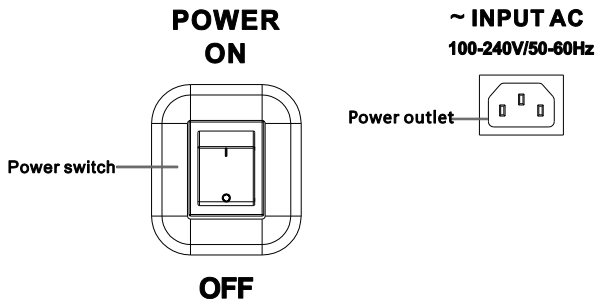
NWCR-30A Li-ion battery mining lamp charger rack

Input: AC100V-240V±10%, 50-60Hz, 8.6A
 Output: Voltage DC 4.56V±0.05V
 Current 2.4A
 Unit 30 Units
 Working style: continuously

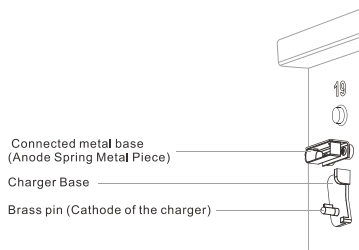
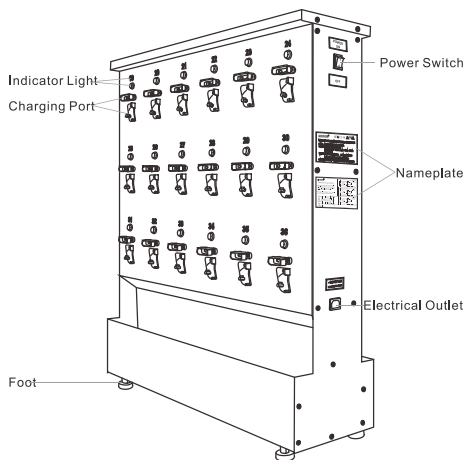
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3.2.4 NWCR-36A structure components

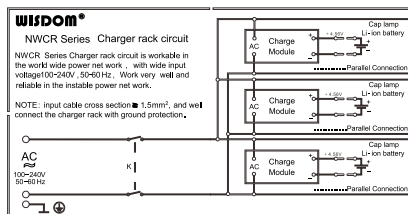


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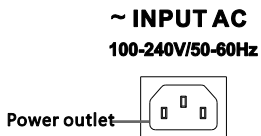
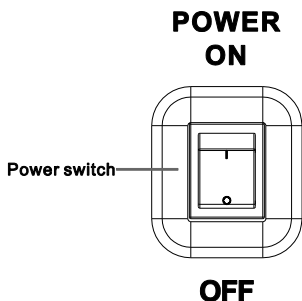
NWCR-36A Li-ion battery mining lamp charger rack

Input: AC100V-240V ±10%, 50-60Hz, 10.3A
 Output: Voltage DC 4.56V ±0.05V
 Current 2.4A
 Unit 36 Units
 Working style: continuously

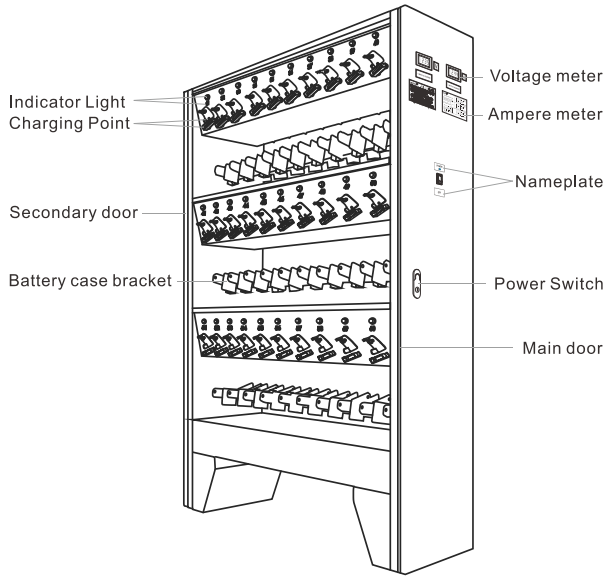
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3.2.5 NWCR-60A structure components

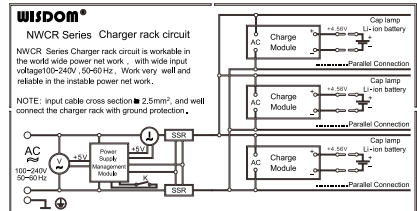


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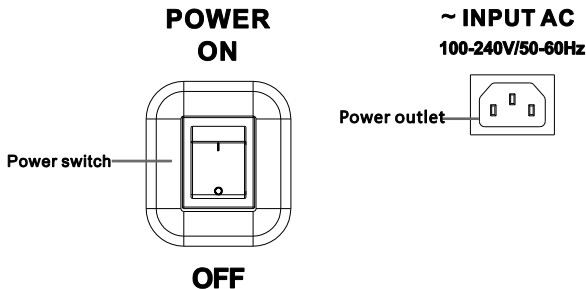
NWCR-60A Li-ion battery mining lamp charger rack

Input: AC100V-240V ± 10%, 50-60Hz, 17.2A
 Output: Voltage DC 4.56V ± 0.05V
 Current 2.4A
 Unit 60 Units
 Working style: continuously

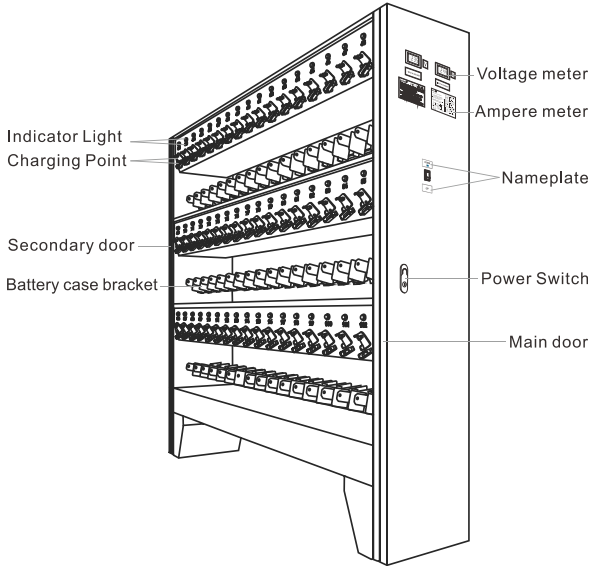
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3.2.6 NWCR-102A structure components

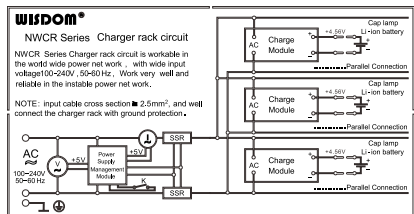


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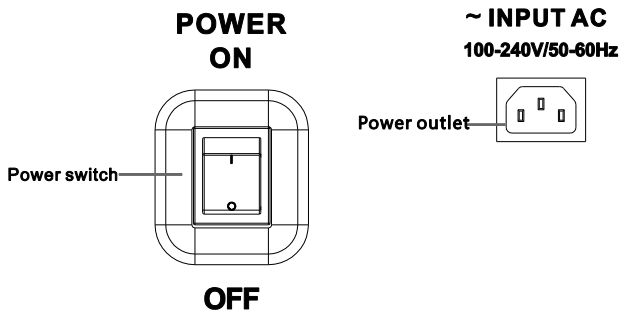
NWCR-102A Li-ion battery mining lamp charger rack

Input: AC100V-240V ± 10%, 50-60Hz, 29.2A
 Output: Voltage DC 4.56V ± 0.05V
 Current 2.4A
 Unit 102 Units
 Working style: continuously

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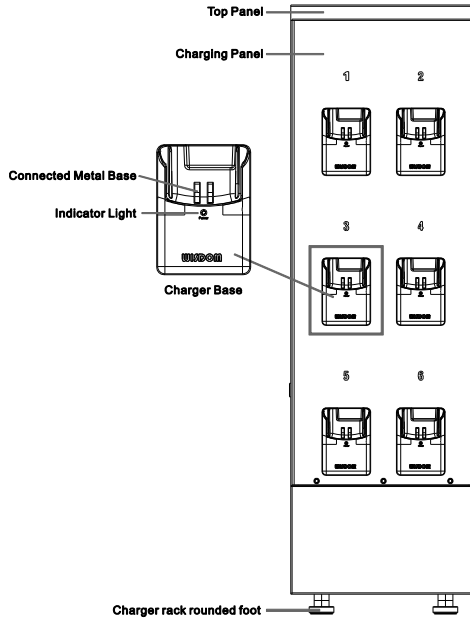


The nameplate



3.3 Structure components of charger rack for all-in-one lamp

3.1 NWCR-12B structural parts

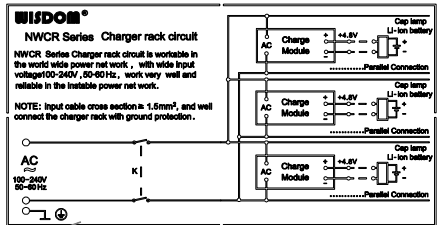


WISDOM® CE RoHS REACH CAUTION

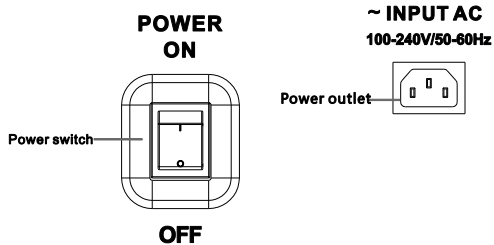
NWCR-12B LI-Ion battery mining lamp charger rack

Input: AC100V-240V±10%, 50-60Hz, 2.8A
 Output: Voltage DC 4.80V±0.05V
 Current 2.0A
 Unit 12 Units
 Working style: continuously

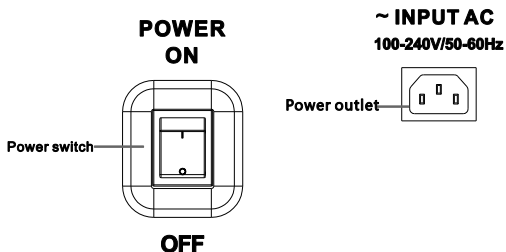
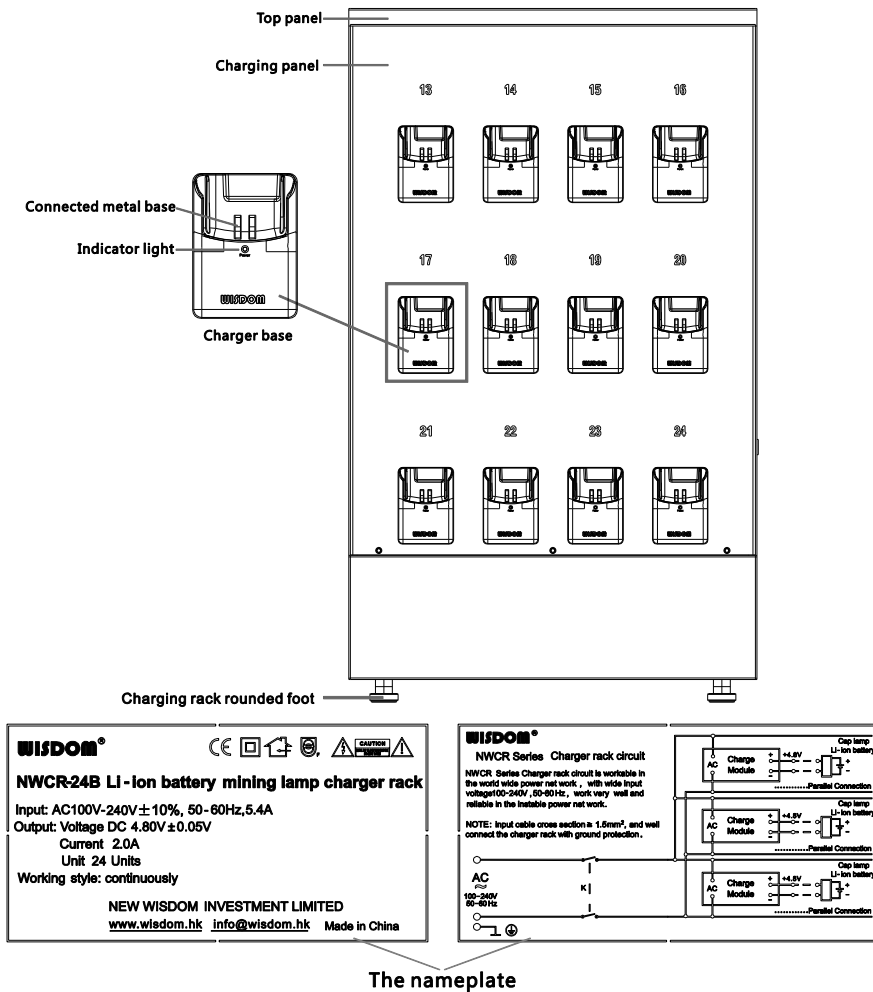
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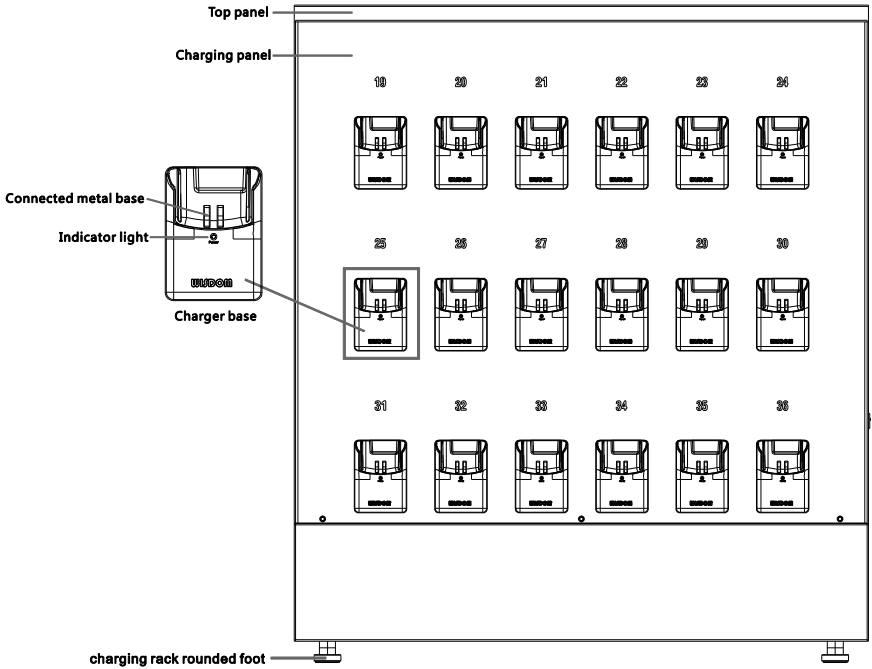
The nameplate



3.2 NWCR-24B structural parts



3.3 NWCR-36B structural parts

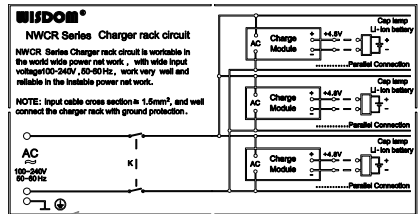


WISDOM® CE RoHS

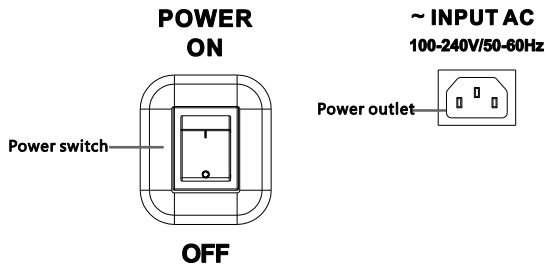
NWCR-36B Li-ion battery mining lamp charger rack

Input: AC100V-240V ± 10%, 50-60Hz, 8.1A
 Output: Voltage DC 4.80V ± 0.05V
 Current 2.0A
 Unit 36 Units
 Working style: continuously

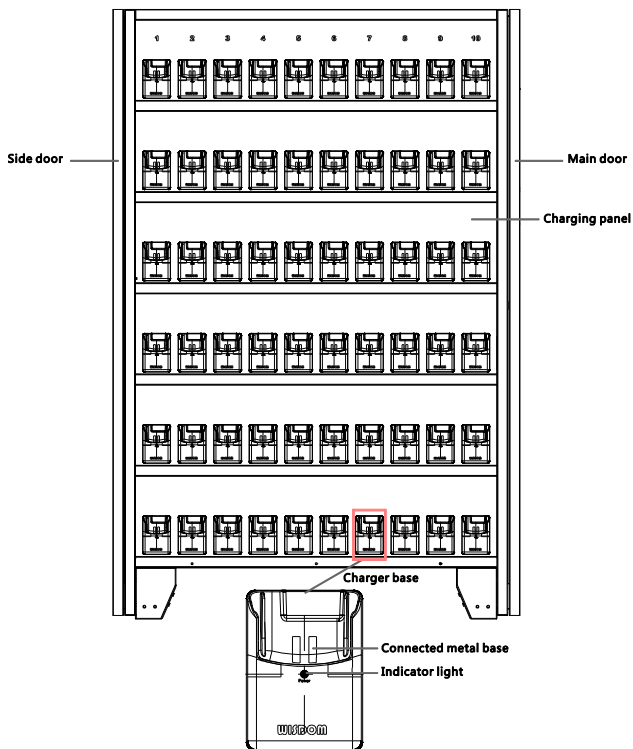
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3.4 NWCR-120B structural parts

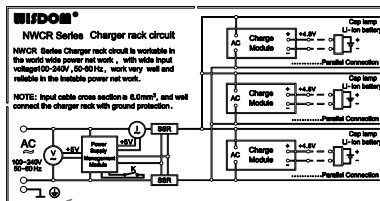


WISDOM® CE RoHS

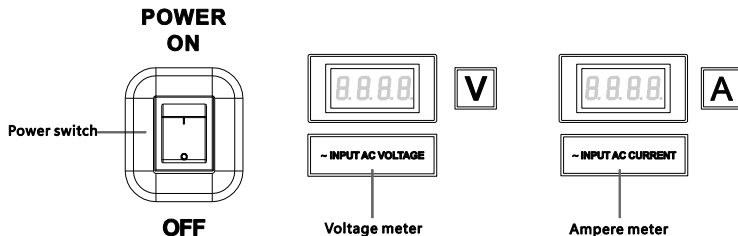
NWCR-120B LI-Ion battery mining lamp charger rack

Input: AC100V-240V±10%, 50-60Hz,26.9A
 Output: Voltage DC 4.80V±0.05V
 Current 2.0A
 Unit 120 Units
 Working style: continuously

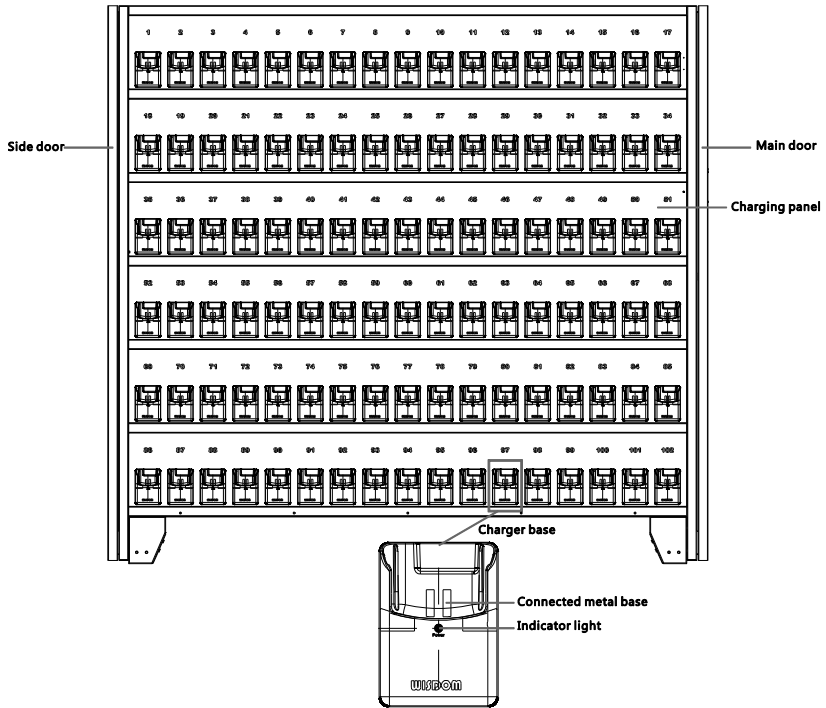
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3.5 NWCR-204B structural parts

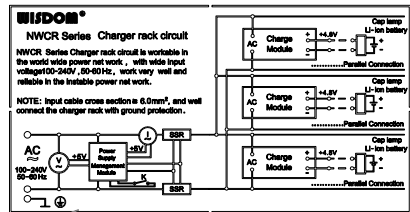


WISDOM®

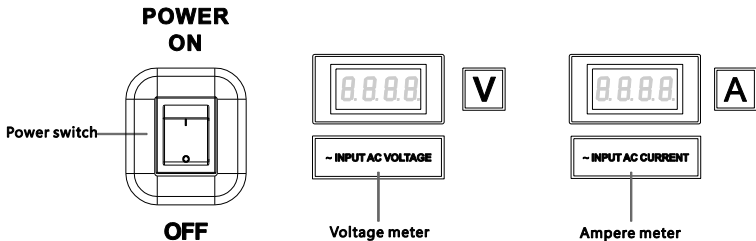
NWCR-204B Li-ion battery mining lamp charger rack

Input: AC100V-240V±10%, 50-60Hz,45.8A
 Output: Voltage DC 4.80V±0.05V
 Current 2.0A
 Unit 204 Units
 Working style: continuously

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The nameplate

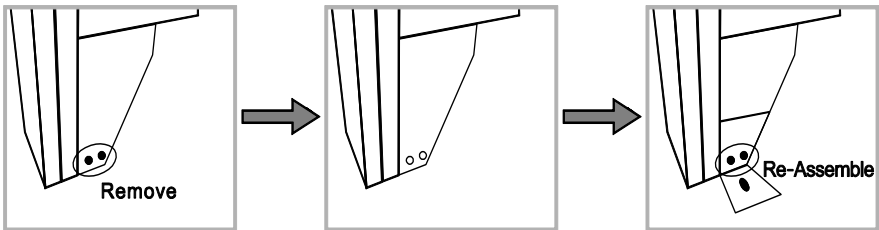


4 Package

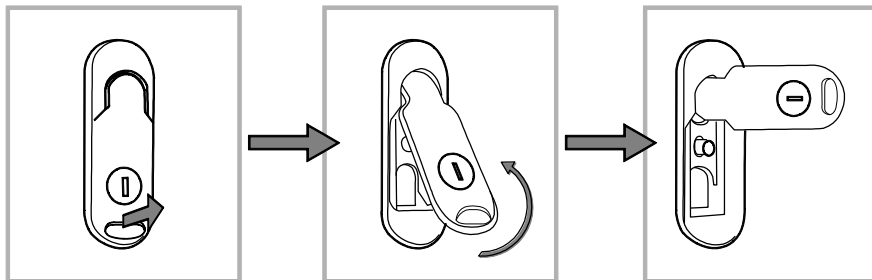
Model	Description	Size	GW	The way of packaging
NWCR-12/NWCR-12B	12 units cordless lamp charging rack	37.8×30×106 cm	31 kg	EVA protect corner+ Carton
NWCR-24/NWCR-24B	24 units cordless lamp charging rack	65×30×106 cm	49 kg	EVA protect corner+ Carton
NWCR-30/NWCR-30A	30 units cordless lamp charging rack	122 × 177.2 ×42.8 cm	221kg	EVA protect corner+ Carton
NWCR-36/NWCR-36B	36 units cordless lamp charging rack	93.1×30×106 cm	62 kg	EVA protect corner+ Carton
NWCR-60 /NWCR-60A	60 units cordless lamp charging rack	122 × 177.2 ×42.8 cm	180kg	Wooden box
NWCR-102/ NWCR-102A	102 units cordless lamp charging rack	192 × 177.2 ×42.8 cm	257kg	Wooden box
NWCR-120B	120 units cordless lamp charging rack	122 × 177.2 ×42.8 cm	188 kg	Wooden box
NWCR-204B	204 units cordless lamp charging rack	192 × 177.2 ×42.8 cm	296 kg	Wooden box

5 Installation Instructions (THIS INSTRUCTION APPLIES ONLY TO 30 UNITS, 60 UNITS, 102 UNITS, 120 UNITS AND 204 UNITS CHARGING RACK)

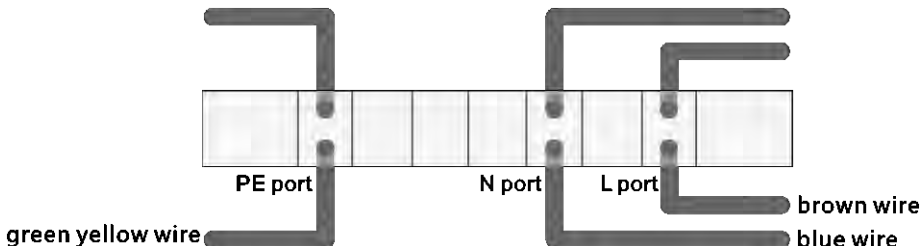
(1) Install the 4 foots of the charging rack.



- (2) Put the charging rack in the right place.
- (3) Unlock and open the main door.



- (4) Connect the AC cable into the junction box (connect the green yellow wire into PE port, blue wire into the N port, brown wire into the L port) .

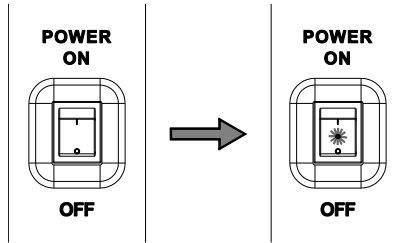


Warning: Make sure the cable is without electricity and switch off the power when connect the AC cable!

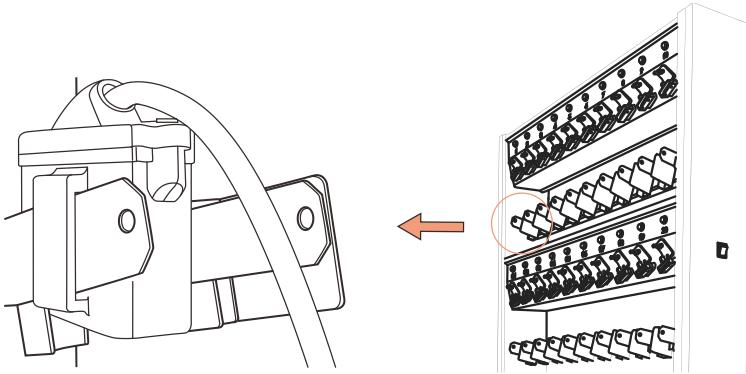
6 User Guide

6.1 The using guide of the Standard and the fast intelligent charger rack

- (1) Press the button “ON” to launch the charging rack and supply power to AC cable, the red indicator light is on and the indicator light of every charging port turns green, voltmeter shows voltage and ampere meter shows current.

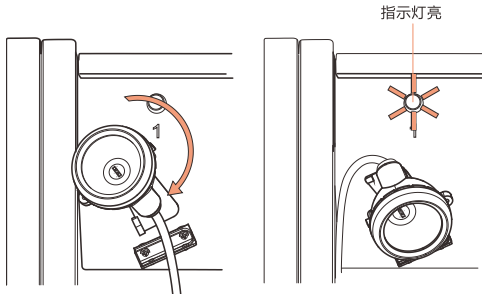


- (2) Block the battery shell of mining cap lamp to the related position of the charger rack, as below picture shows:



- (3) Connect the lamp with cable and the charger rack port: fix the brass pin (cathode) of the charger into the hole of the cap lamp clip.

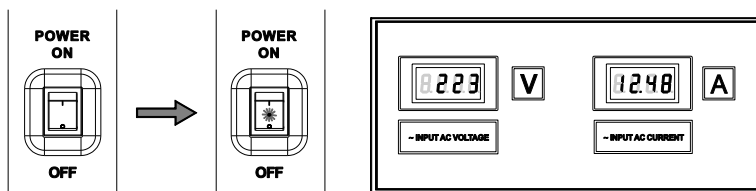
- (4) Rotate the head lamp 180 degrees clockwise to make sure the anode touch of the head lamp is closely connected to the connected metal base (anode). Then the indicator light turns red, which means the lamp is being charged, as the below picture shows.



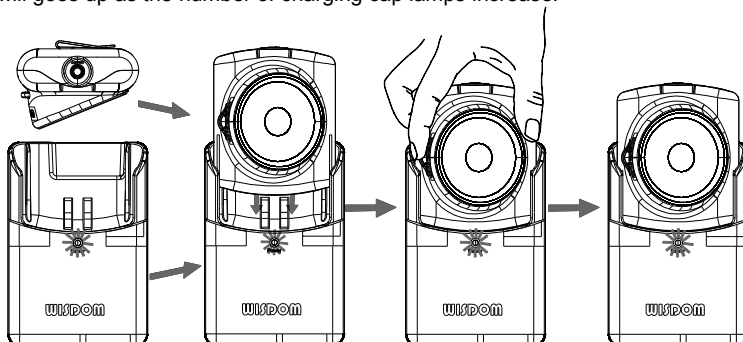
- (5) Standard charger rack, when the indicator light is from red to green which means the battery is fully charged.
- (6) Fast intelligent charger rack, when the indicator light of the charger rack keeps flashing from green to red, it means the battery has been charged at least 90%. The cap lamp can work more than 11h continuously if charging is stopped at this moment. If the indicator light flashes green only, then the battery has been fully charged.
- (7) Rotate the head lamp 180 degrees anti-clockwise and take it away from the charger rack for use.

6.2 Using guide of charger rack for all-in-one lamp

- (1) Press the button “ON” to launch the charging rack and supply power to AC cable. In this situation, the indicator lights of each charging port turns green, the voltmeter displays the voltage and ammeter displays the current.



- (2) Put the back of the cordless lamp with the cooper terminal down and fixed onto the charger base of the charging rack; make sure the anode touch point of the head lamp closely connect to the connected metal base (anode spring metal piece), and then the indicator turns red and 3 capacity indicator lights flash circularly, showing the lamp is in charge. The value of the ampere meter will goes up as the number of charging cap lamps increase.



- (3) During charging, the indicator light is green, miner cap lamp's charging indicator light turns red, and 3 capacity indicators are flashing circularly. When the miner cap lamp battery is charged to about 30%, the first battery indicator light is on, the other two battery indicator lights continue to flash circularly; when the miner cap lamp is charged to about 60%, the first and second battery indicators are on, the third battery indicator light continues to flash; when charging indicator light changes green from red, it means the battery is fully charged.
- (4) When charging completes, hold the cordless lamp and push the switch end up, and then remove the lamp.

7 Meaning of the Indicator Signal

States	Meaning
The Indicator off	Charger rack is out of power (switched off);
Indicator in green	Corded charger rack: Idle or full charge; Cordless charger rack: Idle or full charging ; Cordless charger rack with fast intelligent: Idle or full charge;
Indicator in red	Corded charger rack: charging; Cordless charger rack: N/A;
Indicator in green flashes	Fast intelligent corded charger rack: full charge; Standard corded charger rack/cordless charger rack: faulty;
Indicator in red flashes	corded charger rack: faulty; cordless charger rack: N/A;
Indicator in both green and red flashes	fast intelligent corded charger rack: Charge 90%; standard corded charger rack: faulty; cordless charger rack: N/A;

8 Trouble and Troubleshooting

States	Analysis	Solution
Indicator without lighting	Power line not connected;	Connect again;

	Charger port was damaged;	Replace the charger port circuit board;
"Not charging for the equipment"	Bad contact with Equipments; Charger port was Damaged;	Clean the charger port and reconnect that make sure have good contact with equipments; Replace the charger port circuit Board;
Indicator in green flashes (except fast intelligent corded charger rack)	Charger port was Damaged;	Replace the charger port circuit board;

9 Notes

- (1) Strictly follow the voltage range during using.
- (2) The NWCR series cordless lamp charging rack is specially designed for the New Wisdom cordless cap lamp (excluding KL5M-C); hence it's better not to charge other lamps. Otherwise, the battery may be damaged.
- (3) Turn off the cap lamp when charging.
- (4) Regularly clean the anode and cathode spring metal pieces to make sure the miner's cap lamp can be well connected to the charger.
- (5) It's better to turn off the charging rack when the charging is finished.

10 Safety Warnings

- (1) Before using, please check strictly whether the components are loosed or damaged in transit.
- (2) There is high voltage AC power in the charging rack, so it is prohibited to maintain with electricity and the non-professional staff is not allowed to remove the side panel, in order to avoid the risk of electric shock.
- (3) Charging rack ground wire must be securely installed. If the ground wire is not installed securely, it will cause the instability of the whole system, even worse to cause permanent damage to the products.
- (4) Charging rack should be used in the environment without intense vibration or flammable gases

or explosion dust.

- (5) Prohibited to pour water on the charging rack and use it in humid environment otherwise it will run into short circuit.
- (6) Prohibited to crash or strike the charging rack, it may cause loosening of the nut or damage of the inside circuit board.
- (7) The junction box must be covered well. It is forbidden to touch the junction box while the charging rack is working, otherwise, it will pose a risk of electric shock.

WISDOM

Telephone: +86-755-8391184

www.wisdom.hk

Mailbox: info@wisdom.hk

Address: 4-306, Xianglixincuen, Hongli West Road, Shenzhen, China

Zip code: 518034

11 Product patents and certifications

For more information, please visit our website.



NWCR-12/24/36/120-CE certificate



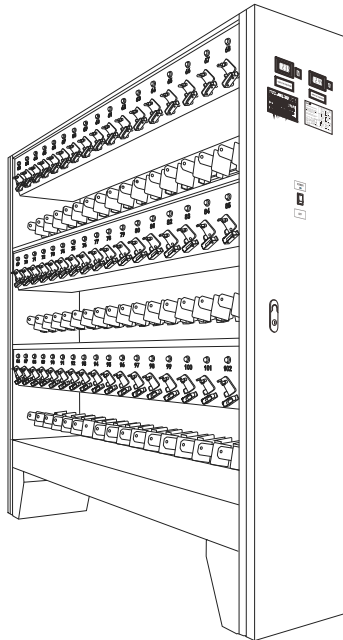
NWCR-12/24/36/120/204-CE certificate



Patent for utility model

目录

1	产品特点	1
2	技术参数	2
3	结构组件	4
4	包装	21
5	安装说明 (此项明仅适用于 30 位、60 位、102 位、120 位、204 位充电架)	21
6	使用指南	22
7	指示灯说明	24
8	故障和检修	25
9	注意事项	25
10	安全警示	25
11	产品认证和专利	27



充电架

1 产品特点

NWCR 系列充电架是含有多个充电端口的锂电池充电架，每一个充电端口都是为本公司无绳矿灯系列及有绳矿灯系列 LED 光源锂电池矿灯特殊设计的，作为 NEW WISDOM 的新一代充电架，其具有如以下的产品特点：

1.1 尺寸可供选择

NEW WISDOM 提供 12 个、24 个、30 个、36 个、102 个、120 个和 204 个充电端口规格的 NWCR 系列矿灯充电架，便于用户根据矿灯用数量和场地大小进行选择。

充电架型号	充电端口数量	双面/单面
NWCR-12/ NWCR-12A / NWCR-12B	12 个	双面
NWCR-24/ NWCR-24A / NWCR-24B	24 个	双面
NWCR-30/NWCR-30A	30 个	单面
NWCR-36/ NWCR-36A / NWCR-36B	36 个	双面
NWCR-60/ NWCR-60A	60 个	双面
NWCR-102/ NWCR-102A	102 个	双面
NWCR-120B	120 个	双面
NWCR-204B	204 个	双面

1.2 多种版本充电器可供选择

根据本公司不同系列矿灯的不同充电时长而设计出多种充电架可供选择，见下表：

充电架版本	充电架型号	可充电的矿灯类别	充电时长
普通版充电架	NWCR-12/NWCR-24/ NWCR-30/NWCR-36/ NWCR-60/NWCR-102	KL 系列有绳矿灯 (如 KL5M、KL4LM(A)、KL4MS)	较慢
智能快速版充电架	NWCR-12A/NWCR-24A/ NWCR-30A/NWCR-36A/ NWCR-60A/NWCR-102A	KL 系列有绳矿灯 (如 KL5M、KL4LM(A)、KL4MS)	较快
(一体灯)无绳灯专用 版充电架	NWCR-12B/NWCR-24B/ /NWCR-36B/NWCR-120B NWCR-204B	一体化矿灯 (如：WISDOM LAMP3A)	较快

1.3 单元独立充电器使用效率高，方便维护

该智能充电架的每一个独立单元均使用独立充电器，每个点间不存在相互影响的情况，从而大大提高了使用效率、并且方便了日常维护；每个充电点均为全自动控制型，具有恒流限压充电特点，显著提高了矿灯的充电质量，从而保证使用寿命及安全性。

1.4 效率高，发热量小

1.5 电压范围宽

AC 电压范围为：100-240V，50-60Hz。

充电架的宽电压范围使得其能适应各国不同的电压标准。

1.6 环保安全

充电架的设计完全遵守《危害性物质限制指令》(RoHS)。从原材料的挑选、制造工艺的设计到最终的生产都严格遵守该指令。

2 技术参数

2.1 普通版充电架技术参数

特性	普通版充电架技术参数					
充电架型号	NWCR-12	NWCR-24	NWCR-30	NWCR-36	NWCR-60	NWCR-102
充电端口数量	12	24	30	36	60	102
AC 输入电压	100~240V，50~60Hz					
AC 输入功率	115W	231W	289W	346W	576W	980W
DC 输出电压 (每个充电端口)	4.20V					
DC 输出电流 (每个充电端口)	1600mA					
尺寸	30x21.5x95.3 cm	58x21.5x95.3 cm	115.7x17.3x1 71.8cm	86x21.5x95.3 cm	115.7x35.5x1 71.8cm	185.7x35.5x 171.8cm
重量	24kg	39kg	47kg	90kg	125kg	175kg

2.2 智能快速版充电架技术参数

特性	智能快速版充电架技术参数					
充电架型号	NWCR-12A	NWCR-24A	NWCR-30A	NWCR-36A	NWCR-60A	NWCR-102A
充电端口数量	12	24	30	36	60	102
AC 输入电压	100~240V , 50~60Hz					
AC 输入功率	174W	346W	432W	518W	864W	1470W
DC 输出电压 (每个充电端口)	4.56V (标准) 4.80V (MSHA)					
DC 输出电流 (每个充电端口)	2400mA (标准) 2200mA (MSHA)					
尺寸	30x21.5x95.	58x21.5x95.	115.7x17.3x1	86x21.5x95.	115.7x35.5x1	185.7x35.5x
	3cm	3cm	71.8cm	3cm	71.8cm	171.8cm
重量	24kg	39kg	47kg	90kg	125kg	175kg

2.3 (一体灯) 无绳灯专用版充电架技术参数

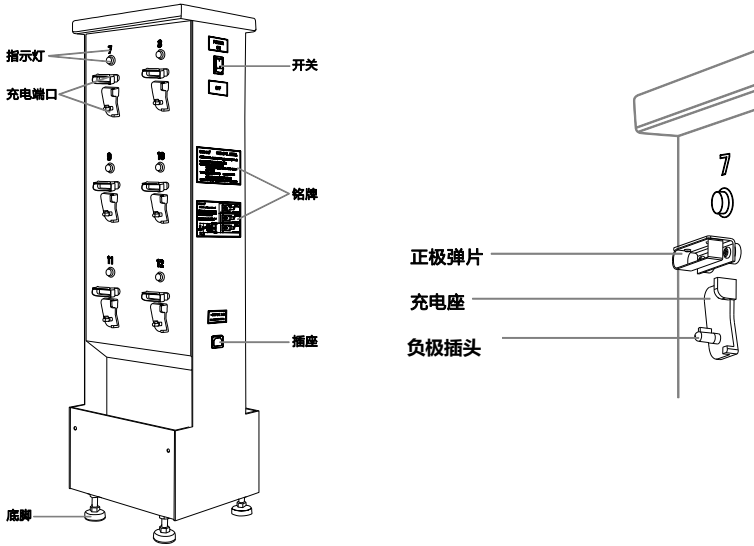
特性	(一体灯) 无绳灯专用版充电架的技术参数				
	NWCR-12B	NWCR-24B	NWCR-36B	NWCR-120B	NWCR-204B
充电端口数量	12	24	36	120	204
AC 输入电压	100-240V , 50-60Hz				
AC 输入功率	137W	272W	407W	1356W	2305W
DC 输出电压 (每个充电端口)	4.80V				
DC 输出电流 (每个充电端口)	2000mA				
尺寸	30×23.2×100	57.9×23.2×100	86×23.2×100	114×172×36cm	184×172×36cm
	cm	cm	cm		
净量	24kg	39kg	55kg	182kg	290kg

3 结构组件

根据充电架的三种版本类别，以下分别罗列了各个版本的各个型号结构组件。

3.1 普通版充电架结构组件

3.1.1 NWCR-12 结构组件

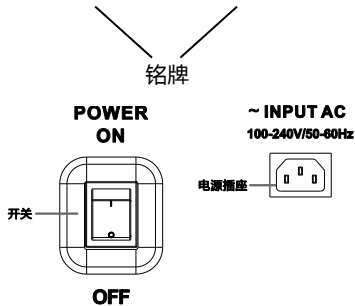
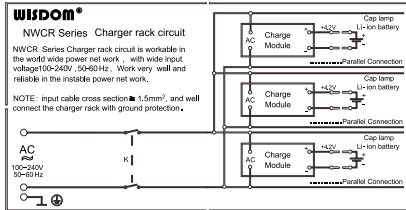


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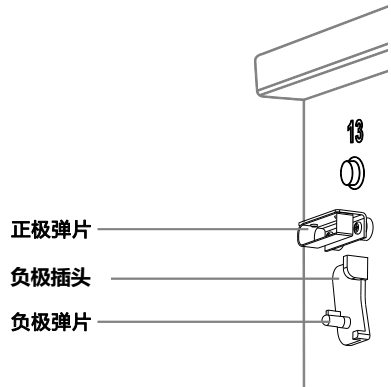
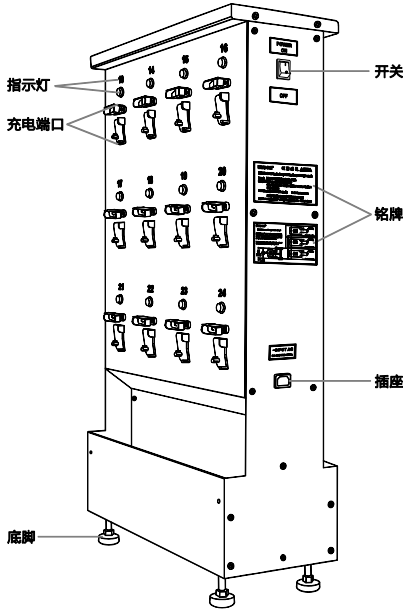
NWCR-12 Li-ion battery mining lamp charger rack

Input: AC100V-240V ± 10%, 50-60Hz, 2.3A
 Output: Voltage DC 4.20V ± 0.05V
 Current 1.6A
 Unit 12 Units
 Working style: continuously

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3.1.2 NWCR-24 结构组件

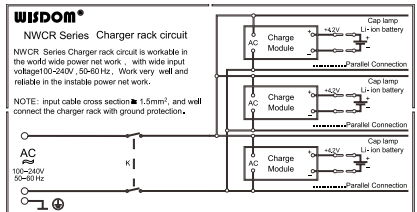


WISDOM® CE RoHS REACH CAUTION

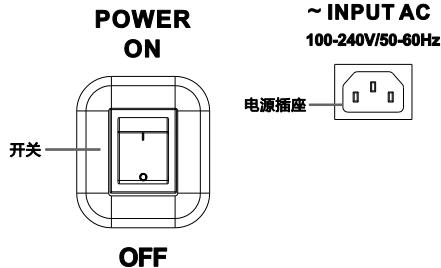
NWCR-24 Li-ion battery mining lamp charger rack

Input: AC100V-240V ± 10%, 50-60Hz, 4.6A
 Output: Voltage DC 4.20V ± 0.05V
 Current 1.6A
 Unit 24 Units
 Working style: continuously

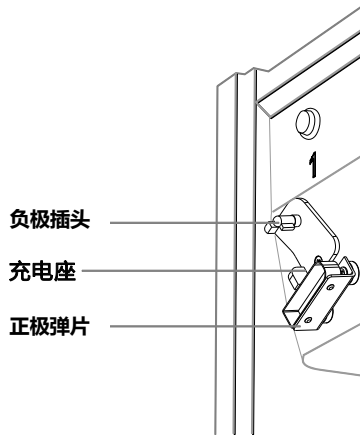
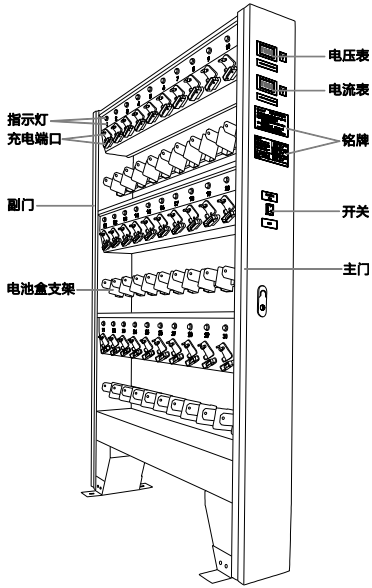
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3.1.3 NWCR-30 结构组件

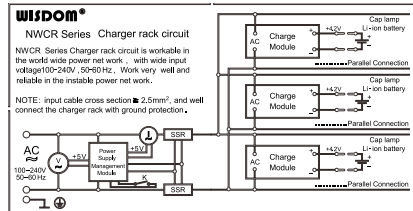


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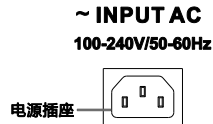
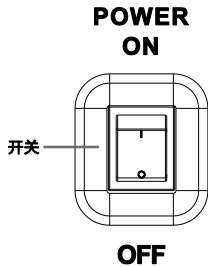
NWCR-30 Li-ion battery mining lamp charger rack

Input: AC100V-240V ± 10%, 50-60Hz, 5.8A
 Output: Voltage DC 4.20V ± 0.05V
 Current 1.6A
 Unit 30 Units
 Working style: continuously

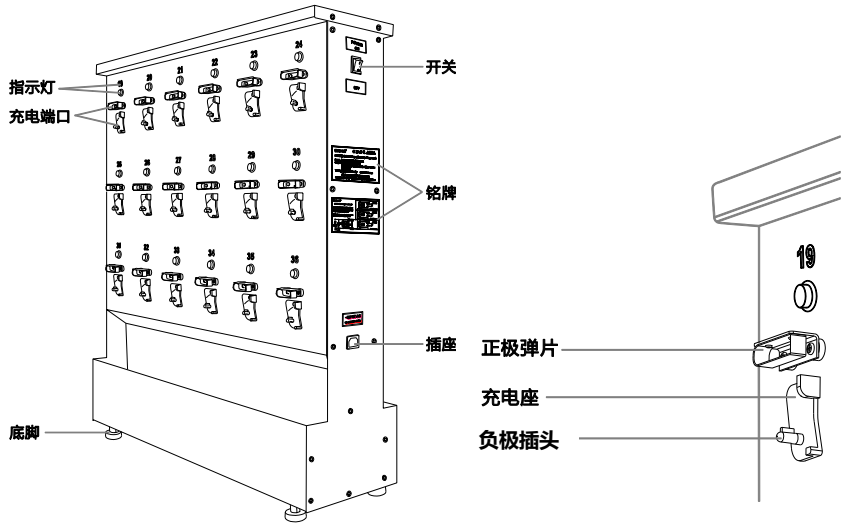
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3.1.4 NWCR-36 结构组件

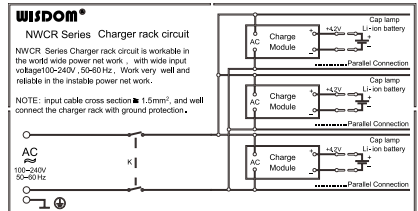


WISDOM® CE RoHS REACH CAUTION

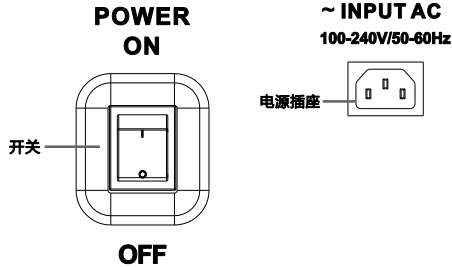
NWCR-36 Li-ion battery mining lamp charger rack

Input: AC100V-240V ± 10%, 50-60Hz, 6.9A
 Output: Voltage DC 4.20V ± 0.05V
 Current 1.6A
 Unit 36 Units
 Working style: continuously

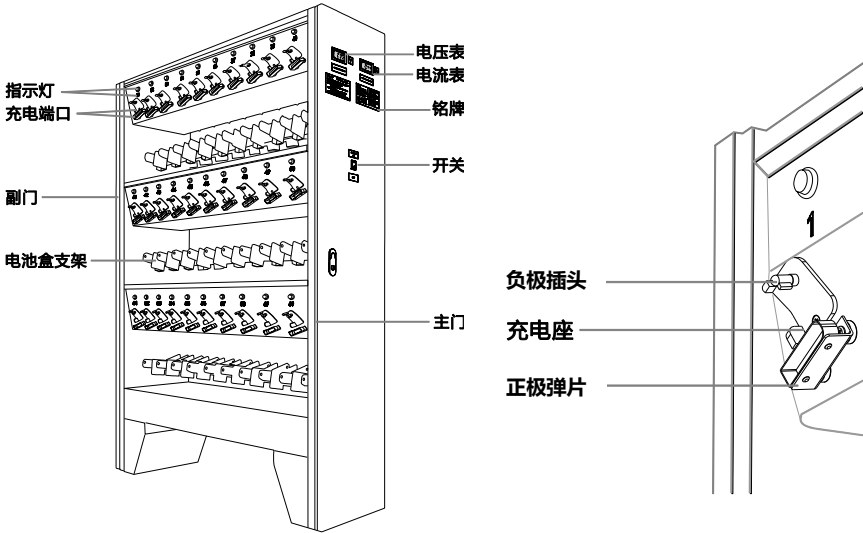
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3.1.5 NWCR-60 结构组件

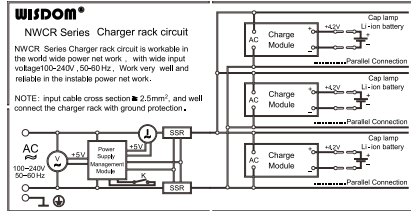


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NWCR-60 Li-ion battery mining lamp charger rack

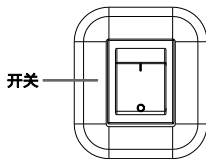
Input: AC100V-240V±10%, 50-60Hz, 11.4A
 Output: Voltage DC 4.20V±0.05V
 Current 1.6A
 Unit 60 Units
 Working style: continuously

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POWER ON

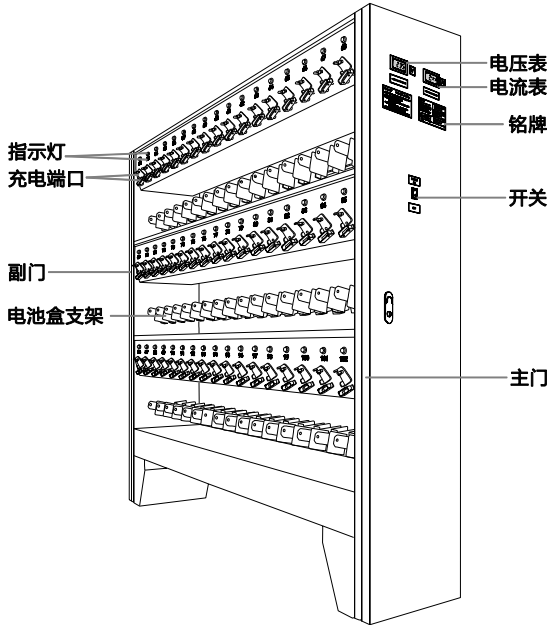


OFF

**~ INPUT AC
100-240V/50-60Hz**



3.1.6 NWCR-102 结构组件

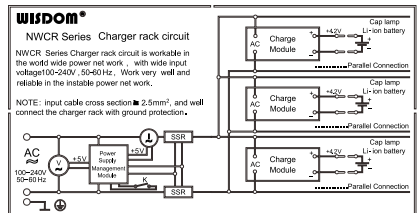


WISDOM® CE RoHS ISO9001 ISO14001 DANGER

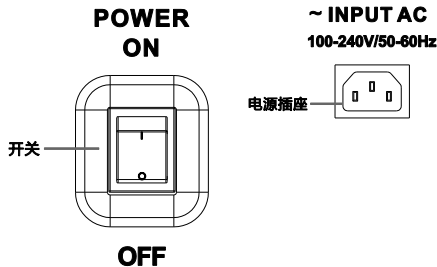
NWCR-102 Li-ion battery mining lamp charger rack

Input: AC100V-240V ±10%, 50-60Hz, 19.5A
 Output: Voltage DC 4.20V ±0.05V
 Current 1.6A
 Unit 102 Units
 Working style: continuously

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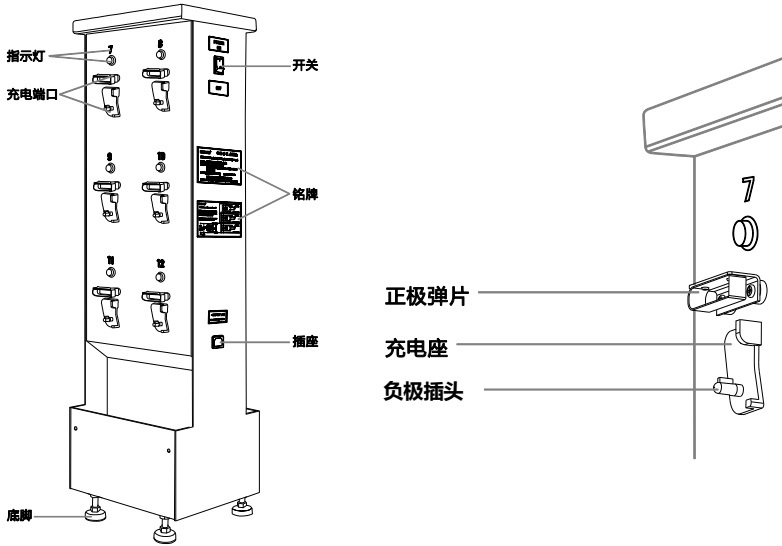


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3.2 智能快充版充电架结构组件

3.2.1 NWCR-12A 结构组件

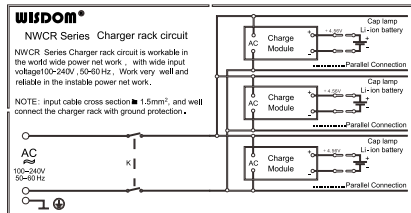


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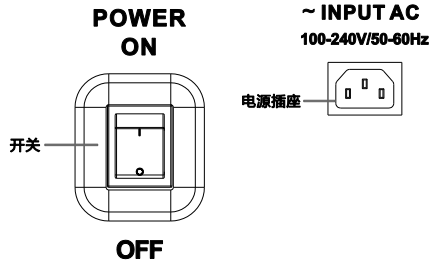
NWCR-12A Li-ion battery mining lamp charger rack

Input: AC100V-240V ±10%, 50-60Hz, 3.5A
 Output: Voltage DC 4.56V ±0.05V
 Current 2.4A
 Unit 12 Units
 Working style: continuously

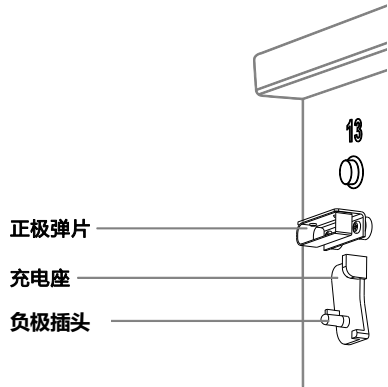
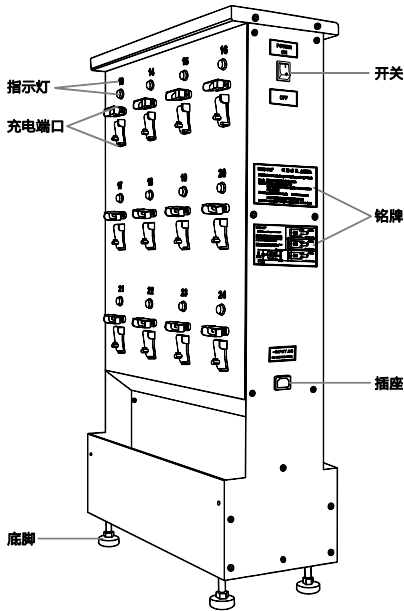
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3.2.2 NWCR-24A 结构组件

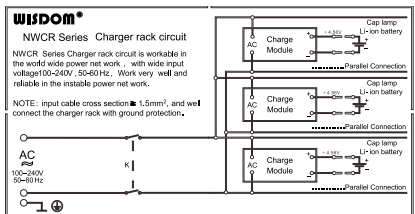


WISDOM® CE RoHS RECYCLING CAUTION

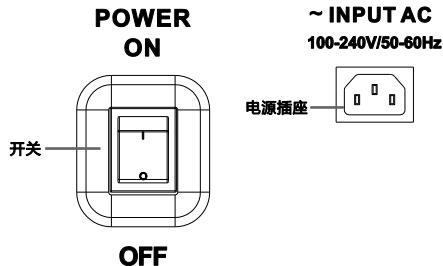
NWCR-24A Li-ion battery mining lamp charger rack

Input: AC100V-240V ± 10%, 50-60Hz, 6.9A
 Output: Voltage DC 4.56V ± 0.05V
 Current 2.4A
 Unit 24 Units
 Working style: continuously

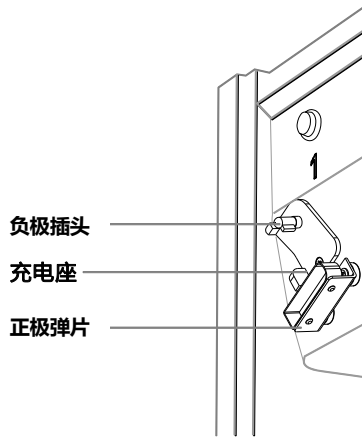
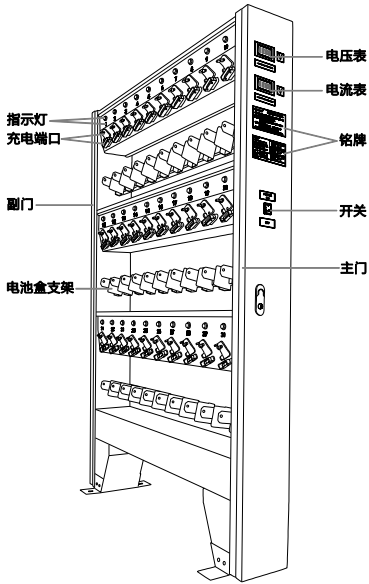
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3.2.3 NWCR-30A 结构组件

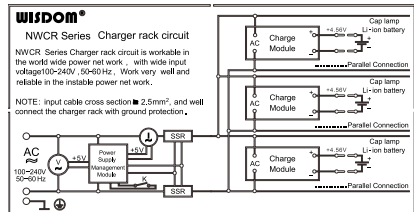


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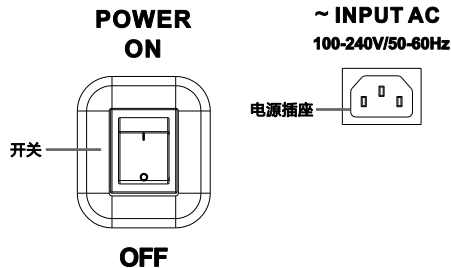
NWCR-30A Li-ion battery mining lamp charger rack

Input: AC100V-240V ± 10%, 50-60Hz, 8.6A
 Output: Voltage DC 4.56V ± 0.05V
 Current 2.4A
 Unit 30 Units
 Working style: continuously

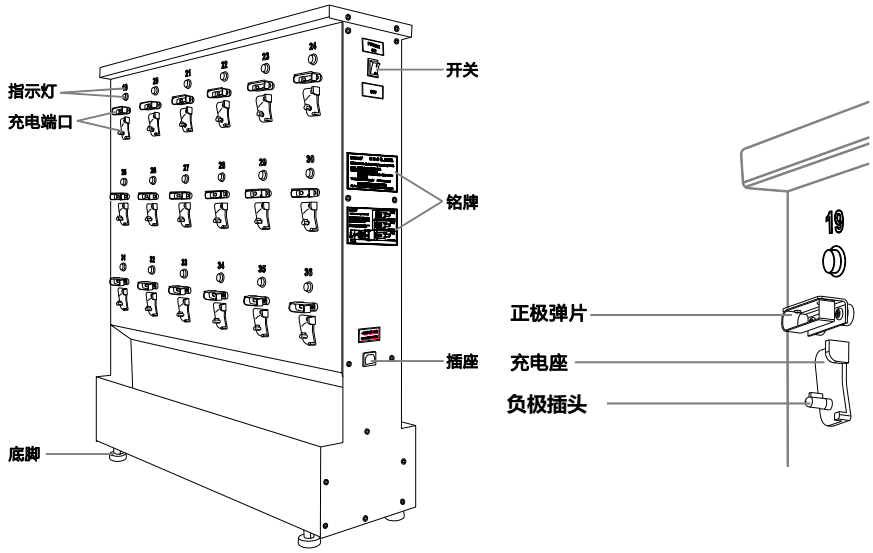
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3.2.4 NWCR-36A 结构组件

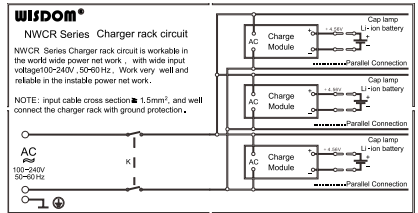


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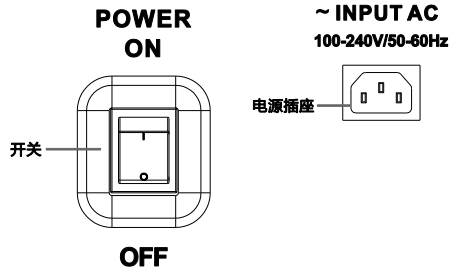
NWCR-36A Li-ion battery mining lamp charger rack

Input: AC100V-240V ± 10%, 50-60Hz, 10.3A
 Output: Voltage DC 4.56V ± 0.05V
 Current 2.4A
 Unit 36 Units
 Working style: continuously

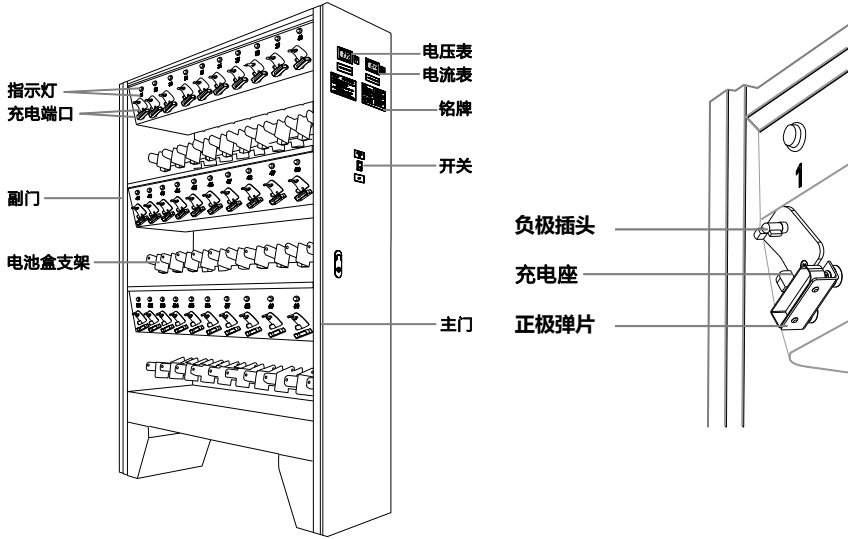
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3.2.5 NWCR-60A 结构组件

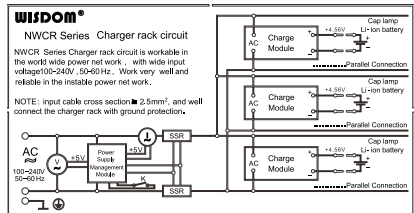


WISDOM® CE RoHS REACH

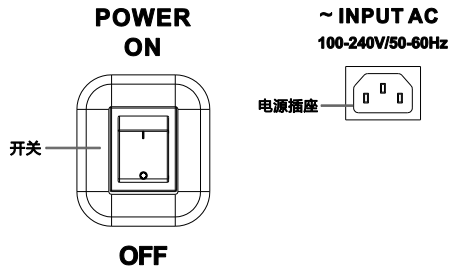
NWCR-60A Li-ion battery mining lamp charger rack

Input: AC100V-240V ± 10%, 50-60Hz, 17.2A
 Output: Voltage DC 4.56V ± 0.05V
 Current 2.4A
 Unit 60 Units
 Working style: continuously

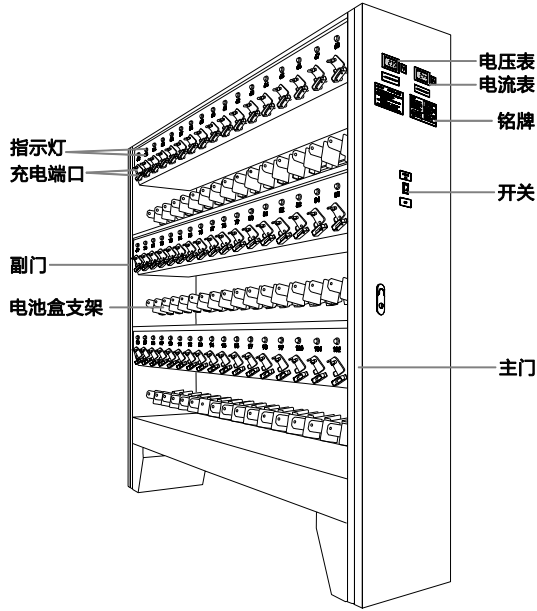
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3.2.6 NWCR-102A 结构组件

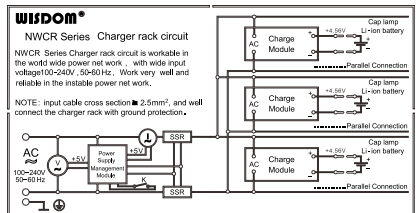


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NWCR-102A Li-ion battery mining lamp charger rack

Input: AC100V-240V $\pm 10\%$, 50-60Hz, 29.2A
 Output: Voltage DC 4.56V $\pm 0.05V$
 Current 2.4A
 Unit 102 Units
 Working style: continuously

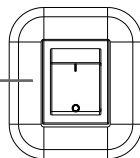
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POWER ON

**~ INPUT AC
100-240V/50-60Hz**

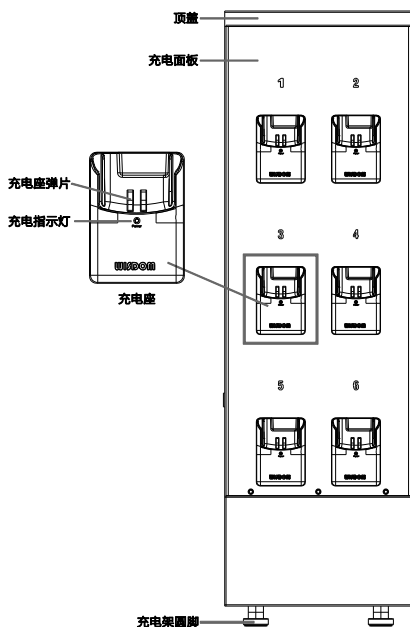


开关

OFF

3.3 一体灯充电架结构组件

3.3.1 NWCR-12B 结构组件

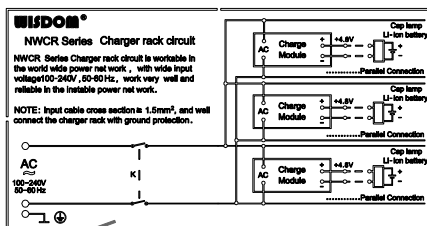


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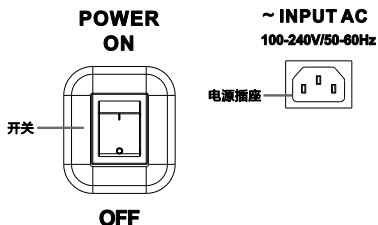
NWCR-12B Li-Ion battery mining lamp charger rack

Input: AC100V-240V±10%, 50-60Hz, 2.8A
 Output: Voltage DC 4.80V±0.05V
 Current 2.0A
 Unit 12 Units
 Working style: continuously

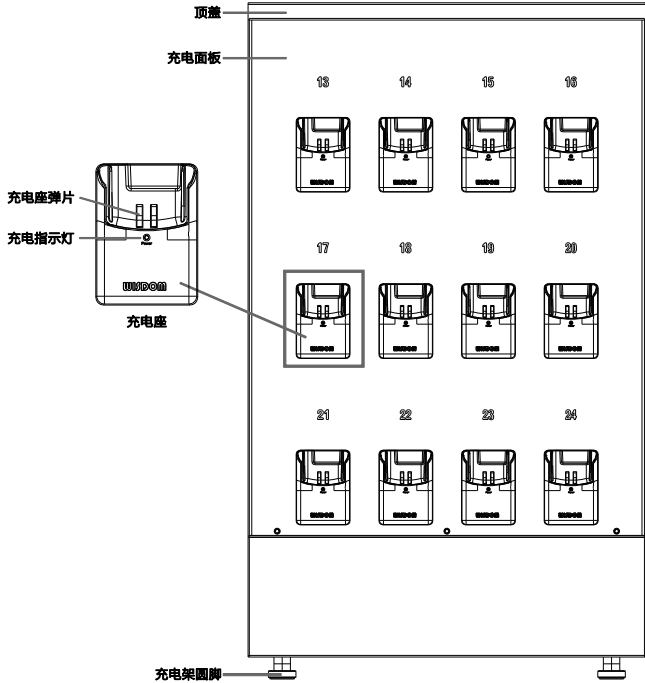
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3.3.2 NWCR-24B 结构组件

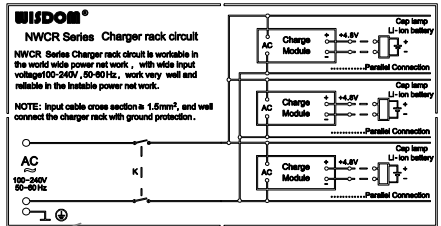


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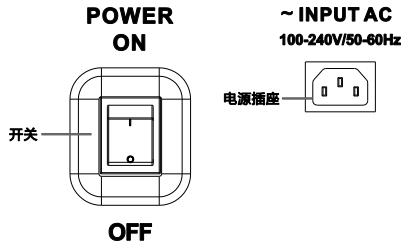
NWCR-24B Li-ion battery mining lamp charger rack

Input: AC100V-240V±10%, 50-60Hz, 5.4A
 Output: Voltage DC 4.80V±0.05V
 Current 2.0A
 Unit 24 Units
 Working style: continuously

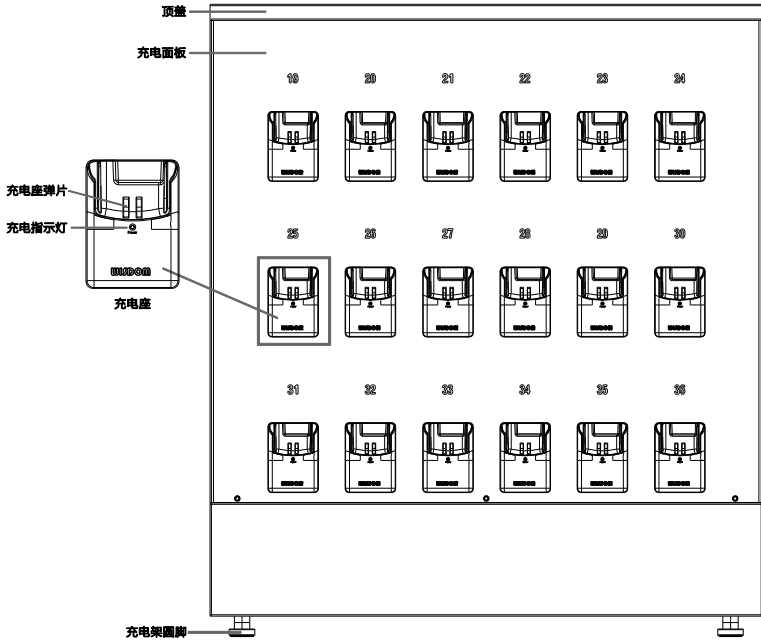
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3.3.3 NWCR-36B 结构组件

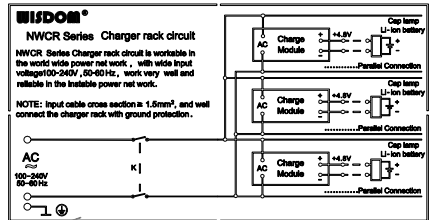


WISDOM® CE RoHS CAUTION

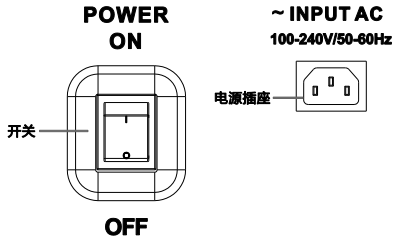
NWCR-36B Li-ion battery mining lamp charger rack

Input: AC100V-240V±10%, 50-60Hz, 8.1A
 Output: Voltage DC 4.80V±0.05V
 Current 2.0A
 Unit 36 Units
 Working style: continuously

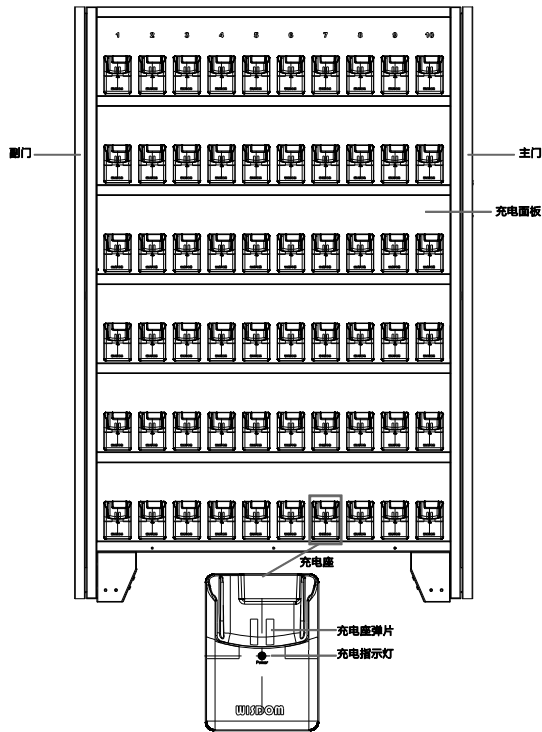
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铭牌



3.3.4 NWCR-120B 结构组件

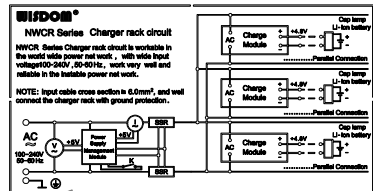


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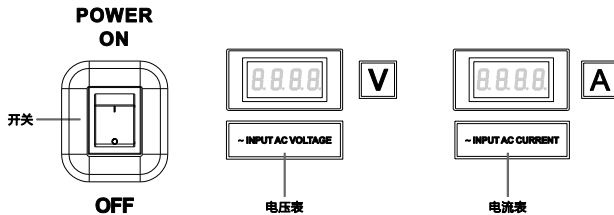
NWCR-120B Li-Ion battery mining lamp charger rack

Input: AC100V-240V ±10%, 50-60Hz, 26.9A
 Output: Voltage DC 4.80V ±0.05V
 Current 2.0A
 Unit 120 Units
 Working style: continuously

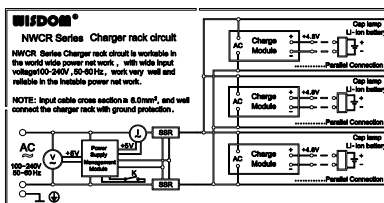
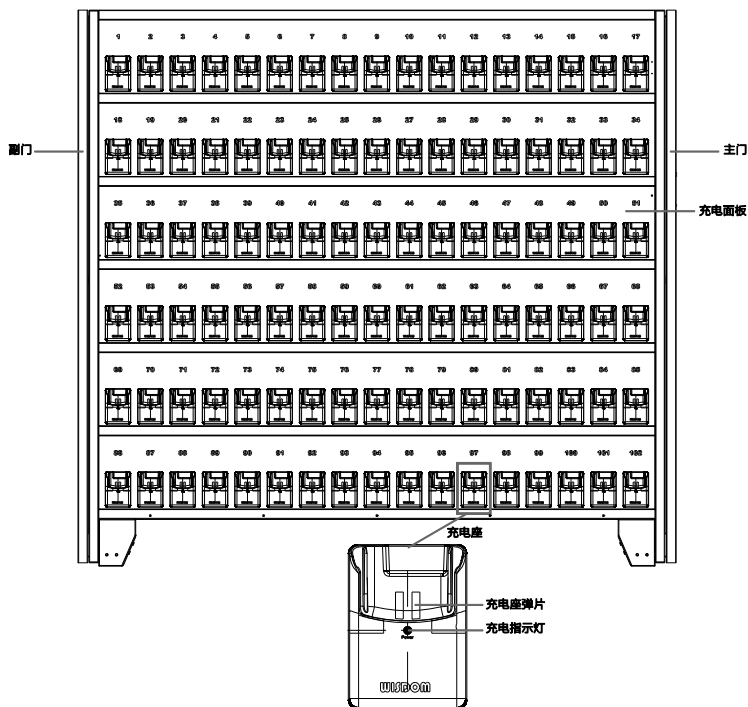
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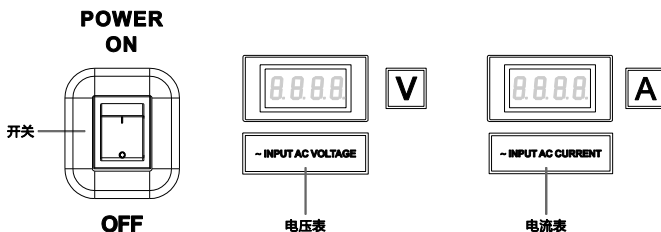
铭牌



3.3.5 NWCR-204B 结构组件



铭牌

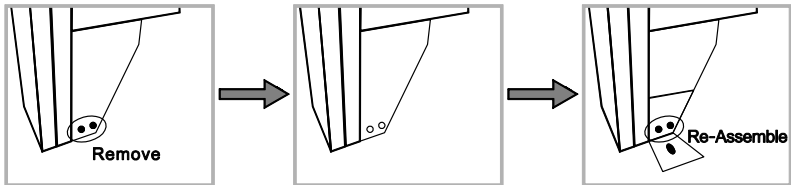


4 包装

型号	描述	尺寸	毛量	包装方式
NWCR-12/NWCR-12A/NWCR-12B	12 位充电架	37.8×30×106 cm	31 kg	EVA 护角+纸箱
NWCR-24/NWCR-24A/NWCR-24B	24 位充电架	65×30×106 cm	49 kg	EVA 护角+纸箱
NWCR-30/NWCR-30A	30 位充电架 (单面)	122 × 177.2 × 42.8 cm	221kg	木箱 (包含 2 台 NWCR-30/NWCR-30A 充电架)
NWCR-36/NWCR-36NWCR-36B	36 位充电架	93.1×30×106 cm	62 kg	EVA 护角+纸箱
NWCR-60 /NWCR-60A	60 位充电架	122 × 177.2 × 42.8 cm	180kg	木箱
NWCR-102/ NWCR-102A	102 位充电架	192 × 177.2 × 42.8 cm	257kg	木箱
NWCR-120B	120 位充电架	122 × 177.2 × 42.8 cm	188 kg	木箱
NWCR-204B	204 位充电架	192 × 177.2 × 42.8 cm	296 kg	木箱

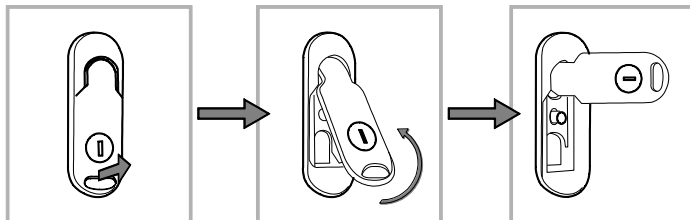
5 安装说明 (此项明仅适用于 30 位、60 位、102 位、120 位、204 位充电架)

(1) 将充电架底部的四个支脚装上。

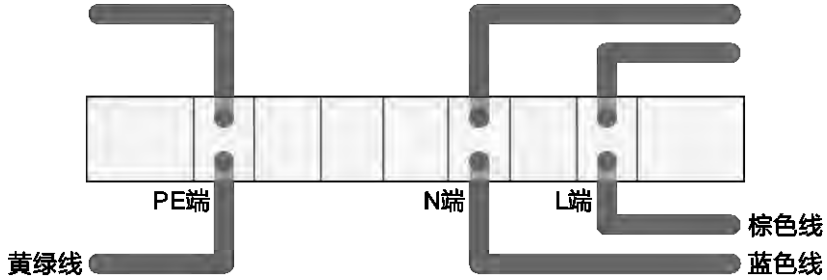


(2) 将充电架放置在正确的地方。

(3) 打开主门门锁。



(4) 将 AC 电缆线接入接线盒 (黄绿线接 PE 端、蓝色线接 N 端、棕色线接 L 端)

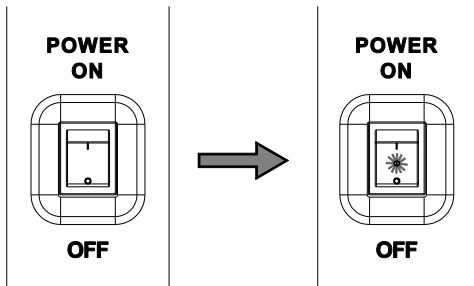


警告：在连接 AC 电缆线之前请确认电缆线不带电且关闭充电架电源。

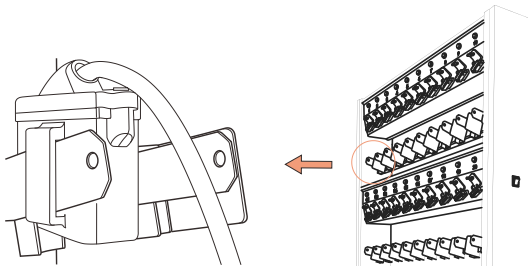
6 使用指南

6.1 普通版充电架和智能快充版充电架使用指南

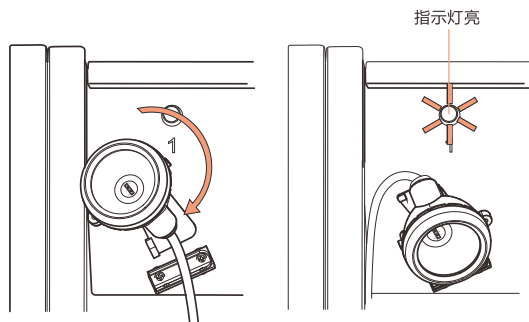
(1) 接通 AC 电源线，并将开关推到“ON”的位置以启动充电架。此时开关内的红色指示灯亮，充电架每个充电端口的指示灯显示为绿色，电压表显示电压，电流表显示电流。



(2) 将矿灯的电池盒卡入充电架的对应位置，如下图。



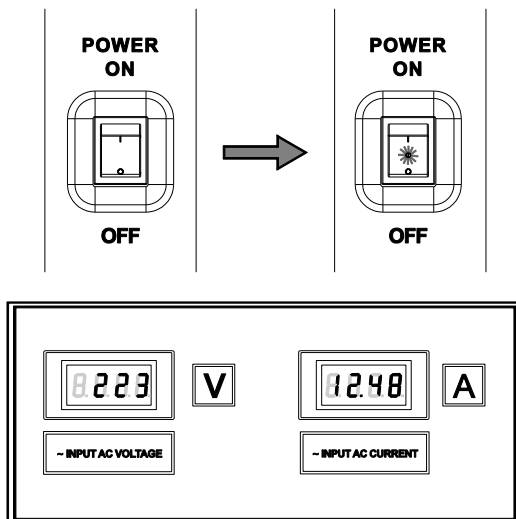
- (3) 连接有绳矿灯和充电架端口：顺着帽钩组件中的限位装置把矿灯放置在充电架端口的负极插头上。
- (4) 把灯头顺时针转动 180 度，确保灯头的正极触点和充电器的正极弹片紧密接触。此时充电架的指示灯为红色，表示正在充电，如下图示。



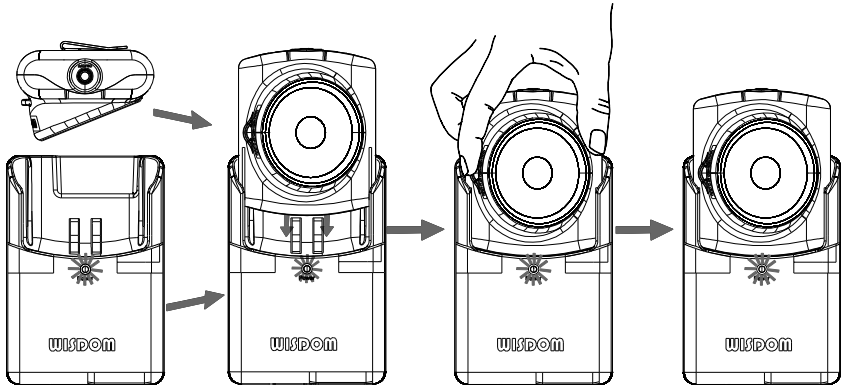
- (5) 智能快充版充电架，当充电器的指示灯在红绿间闪烁时表示电池已充电至 90%以上，如果在此时取下矿灯使用，矿灯可连续工作 11 个小时以上，当指示灯为绿灯闪烁时，表示电池已充满。
- (6) 普通版充电架，当充电指示灯由红色变为绿色时，表示电池已经充满。
- (7) 充电完成后，逆时针旋转矿灯 180 度，再取下使用。

6.2 一体灯（无绳灯）专用充电架使用指南

- (1) 接通 AC 电源线，并将开关推到“ON”的位置以启动充电架。此时开关内的红色指示灯亮，充电架每个充电端口的指示灯显示为绿色，电压表显示电压，电流表显示电流。



(2) 将无绳灯背面有铜柱端方向朝下，按入充电架的充电座上；矿灯的正、负极铜柱需与充电座的正、负极触点弹片紧密接触。此时充电器的指示灯仍为绿色，而矿灯上充电指示灯亮红色且 3 个电量指示灯循环闪烁，此时表示矿灯正在充电架上充电。当充电架上的充电矿灯数量不断增加时，充电架上的电流表的数值会不断上升。



(3) 充电架在充电过程中，其充电端口的指示灯一直常亮绿灯，矿灯的充电指示灯亮红色且 3 个电量指示灯循环闪烁；当矿灯的电池电量已充至 30%左右时，矿灯的第一个电量指示灯常亮灯，另外 2 个电量指示灯继续循环闪烁；当矿灯的电池电量已充至 60%左右时，矿灯的第一个和第二个电量指示灯常亮，第 3 个电量指示灯继续闪烁；矿灯的充电指示灯由亮红灯转变为常亮绿灯，说明矿灯电池已经完全充满。

(4) 充电完成后，用手拿着无绳系列矿灯有开关端向上推，再取出矿灯。

7 指示灯说明

指示灯状态	说明
熄灭	充电架总电源开关关闭
充电指示灯亮绿灯	有绳充电架慢充：空载或已充满电； 有绳充电架快充：空载或已充满电； 无绳充电架：充电架处于空闲状态或正在充电或充满
充电指示灯亮红灯	有绳充电架：充电架处于充电状态；无绳充电架：N/A
充电指示灯绿灯闪烁	有绳充电架快充：充满电；有绳充电架慢充及无绳充电架：故障
充电指示灯红灯闪烁	有绳充电架：故障；无绳充电架：N/A
充电指示灯红、绿灯闪烁	有绳充电架快充：充电满 90%；有绳充电架慢充：故障；无绳充电架：N/A

8 故障和检修

	现象分析	处理方法
充电器指示灯不亮	电源线没连接好，有接触不良	重新连接电源线
	充电端口损坏	更换充电端口的电路板
装上矿灯后不充电	矿灯和充电端口的弹片接触不良	清洁充电端口的正极和负极弹片，确保矿灯和充电器接触良好。
	充电端口异常	更换充电端口的电路板
绿色的充电器指示灯闪烁(快充除外)	充电端口电路板异常	更换充电端口的电路板

9 注意事项

- (1) 严格按照充电架允许的电压范围使用。
- (2) NWCR 系列充电架是针对本公司无绳矿灯专门设计的，不能用于其他矿灯的充电，强行使用，后果自负。
- (3) 充电时，保持矿灯处于关闭状态。
- (4) 注意清洁充电座的正、负极触点弹片，确保充电座和矿灯可靠接触。
- (5) 在完成充电后，不使用充电架时应及时关闭充电架电源。

10 安全警示

- (1) 在通电使用充电架前应该严格检查各部件格检查各部件有否在运输途中损坏或松动。
- (2) 充电架内接有高压交流电，严禁带电维护；非专业维护人员严禁拆卸侧板，否则将引发触电危险！
- (3) 充电架的地线必须稳固安装。若地线安装不稳固，将造成整个系统的不稳定性，重则将对产品造成永久性的损坏。
- (4) 充电架应在无激烈振动、无易燃气体、无爆炸粉尘的场所使用。
- (5) 避免在潮湿环境下使用充电架，否则容易引起电器短路故障。
- (6) 切勿对充电架重摔、重压，否则将造成充电架内部螺丝松脱或电路板损坏。
- (7) 接线盒必须保持关闭，在充电架工作过程中严禁触摸接线盒，否则会有触电的危险。

WISDOM

电话 :0755-28990261

www.wisdom.hk

邮编 : 518172

工厂地址 : 深圳市龙岗区龙城街道嶂背路9号1、4楼

邮箱 : info@wisdom.hk

11 产品认证和专利

更多信息请登录公司网站查询



NWCR-12/24/36/120-CE 证书



NWCR-12/24/36/120/204-CE 证书



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Telephone: +86-755-83911841

Mailbox: info@wisdom.hk

Address: 4-306, Xianglixincuen, Hongli West Road, Shenzhen, China

www.wisdom.hk

Zip code: 518034