

正面

## 使用说明书

### 安全使用建议

1. 本控制器分为12V/24V、36V/48V、36V/48V/60V款式，根据所选择充电电压值上电自动适应，首次安装时请确保电池有足够的电压，使控制器能够识别为正确的电池类型。
2. 控制器尽量靠近电池安装，以避免电线过长造成压降，影响正常电压判断。
3. 本控制器适用于各种铅酸电池(包括开口、密封、胶体等电池)，若充其它电池，必须熟悉其电池特性，必须设置到合适的充电参数才能使用，**未设置好不****能充锂电池！**例如：充12V锂电池，禁止输出保护设置9.5V，充满保护12.2V，电池下降时启动充电11.5V。
4. 本控制器只能使用光伏板作为充电源，请勿使用直流或其他电源作为充电源。
5. 本控制器运行的时候会发热，请注意将控制器安装在平整、通风良好的表面。
- 6**充锂电池时必须带电池保护板，务必选用有认证符合国家要求的锂电池厂产。严禁没有保护板直接充电，严禁私自改造锂电池组充电。**

### 产品特点

1. 采用工业级主控芯片。
2. 大屏幕LCD显示，充放电参数可调。
3. 完整的确3阶段PWM 充电管理。
4. 内置防雷击、过热、过流、短路保护，开路保护，反接保护，均为自动恢复型，不会损伤控制器。
5. 双MOS 防倒灌电路，超低发热量。
6. 稳压型大电流边充边放，在满载情况下稳定给负载供电，适用于太阳能路灯、逆变器或监控设备使用。

### 图标定义/按键

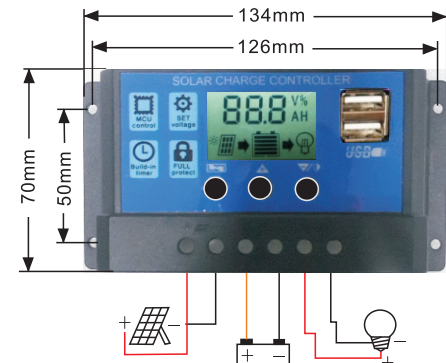


菜单键:用来切换查看参数或修改参数，短按一下进入菜单，闪烁时按  $\Delta$  或  $\nabla$  修改，修改完成后过3秒自动回到电压显示主界面。  
上翻:在参数设置界面，轻按一次使参数往上加一档。  
下翻:在参数设置界面，轻按一次使用参数往下减一档。

### 系统连接

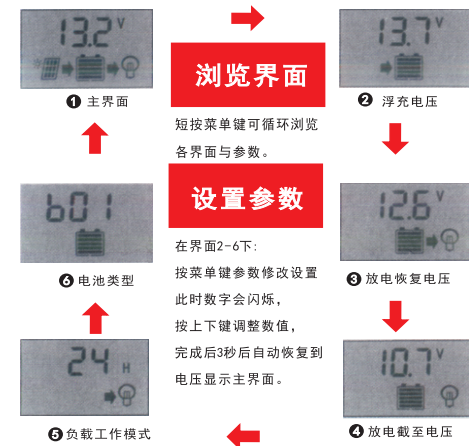
1. 将蓄电池正极按图示接入控制器，控制器将会自动检测蓄电池电压。
2. 将负载正负极按图示接入控制器，注意不要反接。
3. 将太阳能板按图示接入控制器。

注意:请严格按照以上顺序进行接入,否则可能会损坏控制器  
拆卸顺序与接线顺序相反。



- 注意: 1. 主界面 ① 单独按下下翻键可以找打/关闭负载  
2. 载面 ⑤ 负载工作模式: [24H] 负载常开模式  
[-23H] 光控制1-23H定时关闭 [0H] 纯光控制模式

### 显示界面/参数设置



故障指南

| 异常现象     | 可能原因      | 解决办法       |
|----------|-----------|------------|
| 阳光充足但不充电 | 光伏板开路或反接  | 重新连接好光伏板   |
| 负载标识不亮   | 模式设置错误    | 重新设置       |
| 负载标识慢闪   | 电池电压太低    | 重新充电       |
| 负载标识快闪   | 负载过流      | 减小负载功率     |
| 负载标识快闪   | 短路保护      | 移除短路, 自动恢复 |
| 控制器不亮    | 电池电压太低/反接 | 更换电池/检查反   |

技术参数

| 型 号       | BL915A                          | BL915B | BL915C      | BL915D | BL915E      | BL915F |
|-----------|---------------------------------|--------|-------------|--------|-------------|--------|
| 额定充电电流    | 10A                             | 20A    | 30A         | 40A    | 50A         | 60A    |
| 额定放电电流    | 10A                             | 10A    | 20A         | 20A    | 25A         | 25A    |
| 快速设置充电池   | B01锂电池                          |        | B02胶体型      |        | B03开口型      |        |
| 12V/24V   | 12.2V/24.4V                     |        | 14.2V/28.4V |        | 14.6V/29.2V |        |
| 最高光伏电压    | 12V电池用18V太阳能板, 24V用36V太阳能板 <40V |        |             |        |             |        |
| 快速设置充电池   | B01锂电池                          |        | B02胶体型      |        | B03开口型      |        |
| 36V/48V   | 37V/49V                         |        | 42V/56V     |        | 44V/58V     |        |
| 最高光伏电压    | 36V电池用54V太阳能板, 48V用72V太阳能板 <80V |        |             |        |             |        |
| 快速设置充电池   | B01锂电池                          |        | B02胶体型      |        | B03开口型      |        |
| 60V       | 61V                             |        | 71V         |        | 73V         |        |
| 最高光伏电压    | 60V电池用90V太阳能板充电, 电压小于100V       |        |             |        |             |        |
| 12V浮充电压   | 14.2V (默认值, 可调) 12.0--15.0V     |        |             |        |             |        |
| 12V放电截止电压 | 10.7V (默认值, 可调) 9.0--11.5V      |        |             |        |             |        |
| 12V放电恢复电压 | 12.5V (默认值, 可调) 11.0--13.0V     |        |             |        |             |        |
| 24V浮充电压   | 28.4V (默认值, 可调) 24.0--29.0V     |        |             |        |             |        |
| 24V放电截止电压 | 19.0V (默认值, 可调) 18.0--22.0V     |        |             |        |             |        |
| 24V放电恢复电压 | 22.0V (默认值, 可调) 22.0--26.0V     |        |             |        |             |        |
| 36V浮充电压   | 42.0V (默认值, 可调) 36.0--45.0V     |        |             |        |             |        |
| 36V放电截止电压 | 30.0V (默认值, 可调) 27.0--33.0V     |        |             |        |             |        |
| 36V放电恢复电压 | 38.0V (默认值, 可调) 36.0--42.0V     |        |             |        |             |        |
| 48V浮充电压   | 56.0V (默认值, 可调) 48.0--60.0V     |        |             |        |             |        |
| 48V放电截止电压 | 40.0V (默认值, 可调) 36.0--44.0V     |        |             |        |             |        |
| 48V放电恢复电压 | 50.0V (默认值, 可调) 48.0--56.0V     |        |             |        |             |        |
| 60V浮充电压   | 71.0V (默认值, 可调) 60.0--75.0V     |        |             |        |             |        |
| 60V放电截止电压 | 60.0V (默认值, 可调) 45.0--55.0V     |        |             |        |             |        |
| 60V放电恢复电压 | 63.0V (默认值, 可调) 60.0--70.0V     |        |             |        |             |        |
| 待机电流      | <10mA                           |        |             |        |             |        |
| USB输出     | 5V/2A Max                       |        |             |        |             |        |
| 工作温度      | -35+60℃                         |        |             |        |             |        |
| 尺寸/重量     | 134*70*35mm/150g                |        |             |        |             |        |

\*产品规格如有升级更改, 恕不另行通知。

## User's Manual

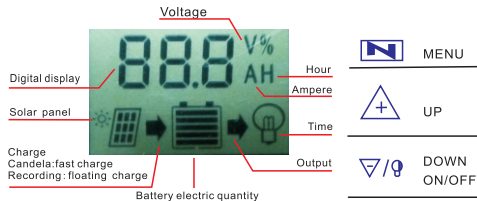
### SAFETY INSTRUCTIONS

1. The controller is divided into 12V/24V, 36V/48V, 36V/48V/60V models, which are automatically adapted according to the selected charging voltage. When installing for the first time make sure the battery has enough voltage to allow the controller to recognize the correct battery type.
2. The battery cable should be as short as possible to minimize loss.
3. This controller is suitable for all kinds of lead-acid batteries (including open, sealed, colloidal and other batteries). If you charge other batteries, you must be familiar with the battery characteristics, and you must set the appropriate charging parameters before you can use it. **You can't charge lithium batteries if they are not set!** For example: charge 12V lithium battery, prohibit output protection setting 9.5V, full protection 12.2V, start charging voltage 11.5V, when the battery drops.
4. The charge regulator is only suitable for regulating solar modules. Never connect another charging source to the charge regulator.
5. The controller will heat up when it is running. Please pay attention to the controller on a flat, well-ventilated surface.
6. The battery protection board must be provided when charging the lithium battery, and the products of the lithium battery manufacturer with certification and meeting the national requirements must be selected. It is strictly forbidden to charge directly without a protective plate, and it is strictly forbidden to recharge the lithium battery pack without permission.

### PRODUCT FEATURES

1. Built-in industrial micro controller.
2. Big LCD display, all adjustable parameter.
3. Full 4-stage PWM charge management.
4. Built-in lightning protection, overheating, overcurrent, short circuit protection, open circuit protection, reverse connection protection, all automatic recovery type, will not damage the controller.
5. Dual mosfet Reverse current protection, low heat production.
6. The regulated high-current side is charged and placed, and the load is stably supplied to the load under full load conditions, and is suitable for Solar street lamp, use in an inverter or a monitoring device.

### LCD DISPLAY/KEY

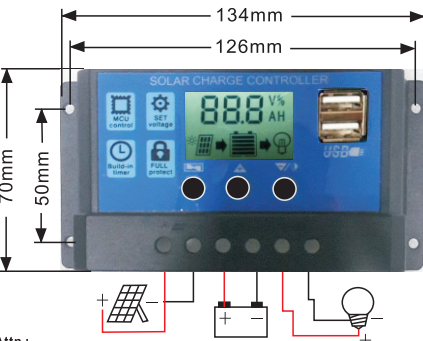


MENU: Used to switch between viewing parameters or modifying parameters. Short press to enter the menu. Press the up or down button when the flashing is completed. After the modification is completed, it will automatically return to the voltage display main interface after 3 seconds.  
UP: press to increase value.  
DOWN: Press to decrease value

### SYSTEM CONNECTION

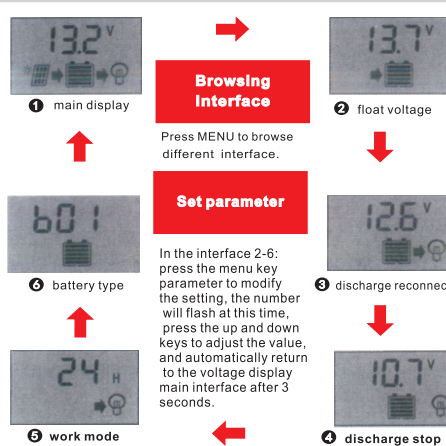
1. Connect the battery to the charge regulator-plus and minus.
2. Connect the photovoltaic module to the regulator-plus and minus.
3. Connect the consumer to the charge regulator-plus and minus.

The reverse order applies when deinstalling!  
An improper sequence order can damage the controller!



- Attn :  
1. Press the [DOWN] button to ON/OFF load manually at main display.  
2. The work mode is working as below:  
[24H] load output 24 hours  
[1-23H] load on after sunset and closed after setting hours  
[0H] Dusk to dawn

### DISPLAY/SEETING



### TROUBLE SHOOTING

| Situation                     | Probable cause                 | Solution                 |
|-------------------------------|--------------------------------|--------------------------|
| Charge icon not on when sunny | Solar panel opened or reversed | Reconnect                |
| Load icon off                 | Mode setting wrong             | Set again                |
| Load icon slow flashing       | Battery low                    | Recharge                 |
| Load icon fast flashing       | Over load                      | Reduce load watt         |
| Power off                     | Short circuit protection       | Auto reconnect           |
|                               | Low Battery voltage /reverse   | Check battery/connection |

### TECHNICAL PARAMETER

| MODEL                   | BL915A                                                                 | BL915B | BL915C        | BL915D | BL915E        | BL915F |
|-------------------------|------------------------------------------------------------------------|--------|---------------|--------|---------------|--------|
| Charge current          | 10A                                                                    | 20A    | 30A           | 40A    | 50A           | 60A    |
| Discharge current       | 10A                                                                    | 10A    | 20A           | 20A    | 25A           | 25A    |
| Equalization            | B01 Lithium                                                            |        | B02 Gel       |        | B03 Flood     |        |
| 12V/24V                 | 12. 2V/24. 4V                                                          |        | 14. 2V/28. 4V |        | 14. 6V/29. 2V |        |
| Max Solar input         | 18V solar panel for 12V battery, 36V solar panel for 24V <40V          |        |               |        |               |        |
| Equalization            | B01 Lithium                                                            |        | B02 Gel       |        | B03 Flood     |        |
| 36V/48V                 | 37V/49V                                                                |        | 42V/56V       |        | 44V/58V       |        |
| Max Solar input         | 54V solar panel for 36V battery and 72V solar panel for 48V <80V       |        |               |        |               |        |
| Equalization            | B01 Lithium                                                            |        | B02 Gel       |        | B03 Flood     |        |
| 60V                     | 61V                                                                    |        | 71V           |        | 73V           |        |
| Max Solar input         | 60V battery is charged with 90V solar panel, voltage is less than 100V |        |               |        |               |        |
| 12V Float               | 14. 2V (default, adjus table) 12. 0--15. 0V                            |        |               |        |               |        |
| 12V Discharge stop      | 10. 7V (default, adjus table) 9. 0--11. 5V                             |        |               |        |               |        |
| 12V Discharge reconnect | 12. 5V (default, adjus table) 11. 0--13. 0V                            |        |               |        |               |        |
| 24V Float               | 28. 4V (default, adjus table) 24. 0--29. 0V                            |        |               |        |               |        |
| 24V Discharge stop      | 19. 0V (default, adjus table) 18. 0--22. 0V                            |        |               |        |               |        |
| 24V Discharge reconnect | 22. 0V (default, adjus table) 22. 0--26. 0V                            |        |               |        |               |        |
| 36V Float               | 42. 0V (default, adjus table) 36. 0--45. 0V                            |        |               |        |               |        |
| 36V Discharge stop      | 30. 0V (default, adjus table) 27. 0--33. 0V                            |        |               |        |               |        |
| 36V Discharge reconnect | 38. 0V (default, adjus table) 36. 0--42. 0V                            |        |               |        |               |        |
| 48V Float               | 56. 0V (default, adjus table) 48. 0--60. 0V                            |        |               |        |               |        |
| 48V Discharge stop      | 40. 0V (default, adjus table) 36. 0--44. 0V                            |        |               |        |               |        |
| 48V Discharge reconnect | 50. 0V (default, adjus table) 48. 0--56. 0V                            |        |               |        |               |        |
| 60V Float               | 71. 0V (default, adjus table) 60. 0--75. 0V                            |        |               |        |               |        |
| 60V Discharge stop      | 50. 0V (default, adjus table) 45. 0--55. 0V                            |        |               |        |               |        |
| 60V Discharge reconnect | 63. 0V (default, adjus table) 60. 0--70. 0V                            |        |               |        |               |        |
| Self-consume            | <10mA                                                                  |        |               |        |               |        |
| USB output              | 5V/ 2A Max                                                             |        |               |        |               |        |
| Operating temperature   | -35+60℃                                                                |        |               |        |               |        |
| Size/Weight             | 134*70*35mm/ 150g                                                      |        |               |        |               |        |

\*Product specifications are subject to change without prior notice.

风情折1万张足数