Solar street light controller remote control user manuel

SZ-SOL120W-RC



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1. Product description

The PRLCD remote control can read parameters from the machine, or set parameters to the machine. This remote control uses 2 AA dry batteries for power supply, and communicates with the controller by infrared/2.4G.

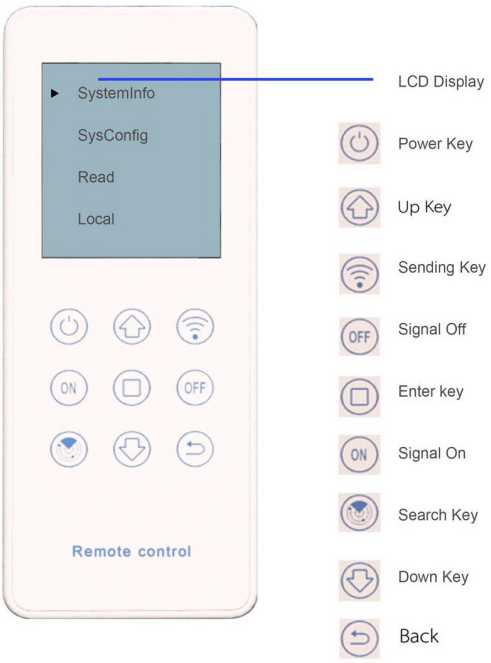
Note:

①This remote control is only applicable to our seventh generation and later solar street light control and charging and discharging integrated machines. Please confirm the controller version before use! ! !

②In order to avoid mutual interference between remote controls, please ensure that only one remote control is turned on in the same area! ! !

③To avoid sending wrong parameters due to misoperation, the send button is only valid in the sending parameter interface! ! !

2. Key Description



LCD display: display all data interface.

Power Key: Press once, the power is turned on, and the LCD starts to display data. Long press for 2 seconds to release, the remote control will turn off the power.

Up Key: Press once, the cursor moves up or the number increases. When changing the value, long press this key, the number will increase rapidly.

Sending Key: When the parameters are set, press this button, the remote control sends wireless data for parameter setting.

Signal OFF Key: make the controller enter sleep state.

Enter key: When modifying data, press this key to form a modification shadow and enter the modification mode. When the modification is completed, press again, the modification shadow disappears, and the modification mode is exited.

Signal ON Key: wake up the controller and make the controller enter working state.

Search Key: In the main interface, enter the search interface of real-time data, send parameters, and read parameters to press the search button to be effective, and the remote control starts to search for the ID of the 2.4G controller that is running.

Down Key: Press once, the cursor moves down or the number decreases. When changing the value, long press this key, the number will decrease rapidly.

Back key: Press once to exit this interface and return to the previous interface.

3. Instructions

3.1 System setting

In the main interface, move the cursor to "System Settings" and press "□" to enter the system settings interface.

1) Language options: You can select the language, switch between Chinese and English.

2) Model options: Choose the corresponding model according to the controller model. After turning on the remote control, please perform model selection operations before proceeding.

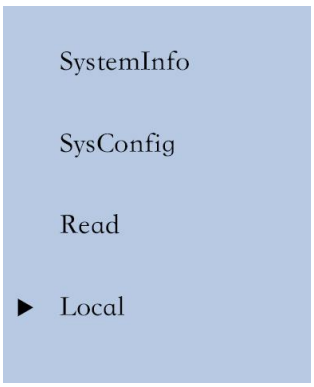
M6 series: M660 / M660S;

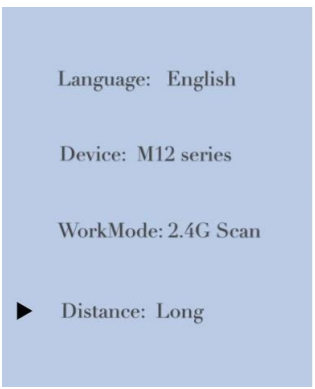
P3 series: P315 / P320 / P330;

M3 series: M340 / M340S / M360;

P12 series: P1220 / P1230 / P1240 / P2410 / P2410S;

M12 series: M1280 / M2410 / M2415.





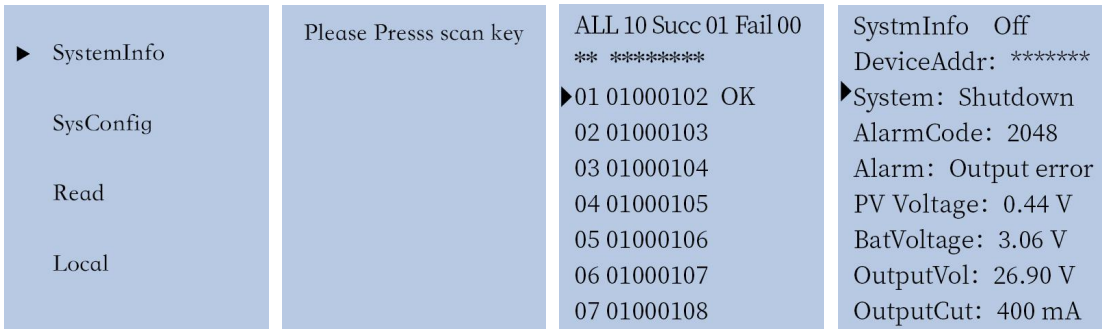
3) Communication mode: There are currently three communication modes, infrared communication, 2.4G scanning and 2.4G broadcasting. The corresponding mode should be selected according to the communication mode of the controller.

Communication distance: only valid for 2.4G scan mode and 2.4G broadcast mode, super far (48 meters), far (33 meters), normal (24 meters), near (15 meters), super near (3 meters) (Note: The above distance is tested when there is no obstruction between the controller and the remote control, and there will be some deviation from the actual use distance)

3.2. Check system info

3.2.1 2.4G Scanning:

In the main interface, move the cursor to "real-time data" and press "□" to enter the real-time data search interface. If the interface prompts, press the search button, and press the search button to search for the controller ID (if some controllers are currently searched) ID, you can also search again), after searching the controller ID, select the controller ID that needs to view the operating information, press the "□" key to enter the real-time data interface, and view the current controller's real-time data and alarm information.



main menu | Search interface | Search success interface | SystmInfo interface

Note:

1) In the real-time data search interface, the ******* option is invalid, so the cursor will not jump to the ******* option.

2) View real-time data can only be viewed one by one.

3) "Success" is displayed behind the controller ID, which means that the operating information of the controller has been checked.

4) If the communication is successful, the upper right corner will now **(**)on, the first number is the number where the ID is located, and the number in brackets is the last two digits of the ID

5) The model of the current controller is automatically recognized by the remote control, and there is no need to select the model on the remote control.

3.2.2. Infrared communication：

Point the remote control at the controller's infrared emitting tube and receiving tube. On the main interface, move the cursor to "real-time data" and press the "☐" key to enter the real-time data interface to view real-time data and alarm information.

3.2.3. 2.4G broadcast：

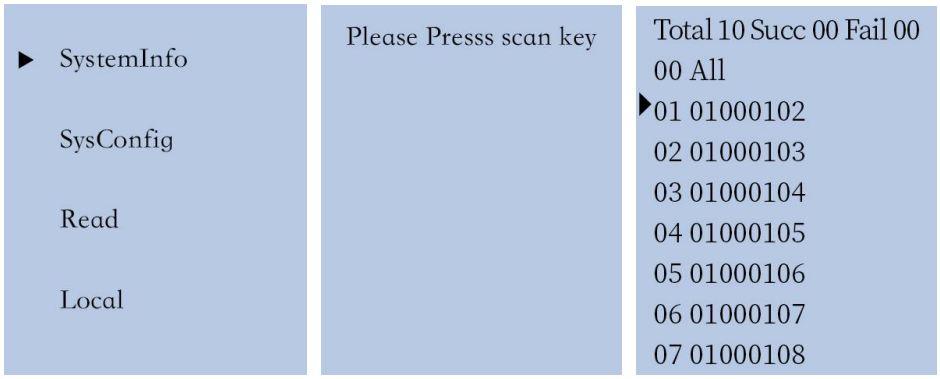
1) When there is only one controller within the communication range of the remote control, you can use the "View real-time data" function in 2.4G broadcast mode. On the main interface, move the cursor to "Real-time data" and press the "☐" key to enter the real-time data Interface to view real-time data and alarm information.。

2) When there are two or more controllers within the communication range of the remote control, the "View real-time data" function of 2.4G broadcast mode cannot be used, please switch to 2.4G scan mode.

3.3. Send Parameters

3.3.1. 2.4G Scanning：

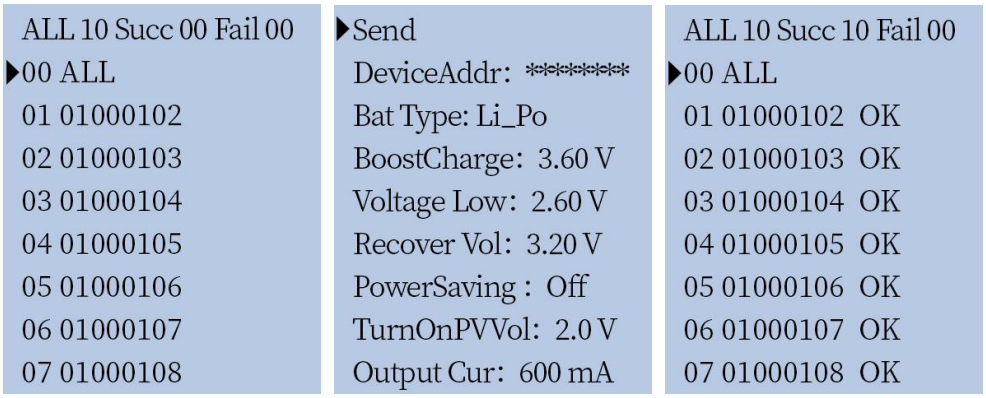
In the main interface, move the cursor to "Send Parameters" and press "☐" to enter the search interface of sending parameters. If the interface prompts, press the search key, and press the search key to search for the ID of the controller (if some controllers are currently searched) ID, you can also search again), after searching for the controller ID, select the controller ID or all sending options that need to set parameters, and press the "☐" key to enter the corresponding sending parameter interface.



main menu　　Search interface　　Search success interface

①. Send all: In the search interface, move the cursor to "00 Send all", press the "☐" key to enter the all-send interface, move the cursor to the corresponding parameter position, and press the "☐" key, when the option is shaded , Press "↓ ↑" key to adjust the value, press "☐" key to

confirm after setting.



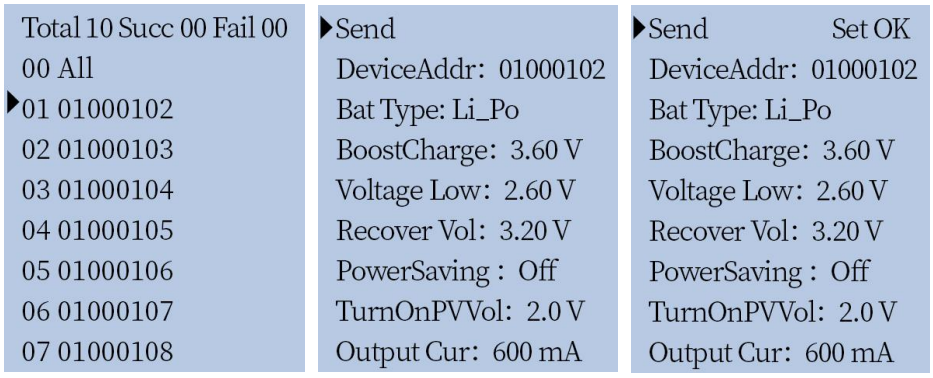
Search success interface Parameter setting interface Setup complete interface

1) Press the send button to set the parameters of the searched controllers one by one. During the setting process, pressing any key at this time is invalid until the setting is completed, the success of the setting will be displayed behind the ID.

2) Press the shutdown button, and the searched controllers will be shut down one by one. During the setting process, pressing any key at this time is invalid until the setting is completed, the success or failure of the setting will be displayed behind the ID.

3) Press the power button, and the searched controllers will be set to power on one by one. During the setting process, pressing any key at this time is invalid until the setting is completed, the success of the setting will be displayed behind the ID.

②. Single setting: In the search interface, move the cursor to the ID of the parameter that needs to be set, press the "□" key to enter the single setting interface, move the cursor to the corresponding parameter position, and press the "□" key, when the option is shaded Time, press "↓ ↑" key to adjust the value, press "□" key to confirm after setting.



Search success interface Parameter setting interface Setup complete interface

1) Press the send button to set the parameters of the controller with the current ID. When you hear a long beep from the controller, the LCD screen of the remote control will also display the sending success, which means that the parameters have been written successfully.

2) Press the shutdown button to set the shutdown settings for the controller with the current ID. When you hear a long beep from the controller, the LCD screen of the remote control will also display the transmission success, which means that the parameters have been written successfully.。

3) Press the power button to set up the controller with the current ID. When you hear a long beep from the controller, the LCD screen of the remote control will also display the sending success, which means that the parameters have been written successfully.

3.3.2. Infrared communication：

Aim the remote control at the controller's infrared emitting tube and receiving tube, on the main interface, move the cursor to "Send parameter", press the "☐" key to enter the sending parameter interface, move the cursor to the corresponding parameter, and press "☐" When the option is shaded, press the "↓ ↑" key to edit the value, press the "☐" key to confirm after setting, and press the send key to send the parameter after editing.

3.3.3 2.4G broadcast

In the main interface, move the cursor to "Send parameter", press the "□" key to enter the transmission parameter interface, move the cursor to the corresponding parameter, press the "□" key, when the option is shaded, press "↓↑" ”Key to edit the value, press the “□” key to confirm after setting, and press the send key to send the parameter after editing. The 2.4G broadcast mode will synchronously send parameters to all the nearby controllers that are searched. The speed is faster than the 2.4G search mode. The 2.4G broadcast mode does not display the controller ID.

1) Press the send button to set the parameters of all the controllers in the current communication range. If the parameters are set successfully, all the indicators of the controller will flash and the controller in the driving state will control the street lights to go out and then turn on again, not in the state of driving lights The lower controller will control the street light to turn on and then off, which means that the parameter has been written successfully.

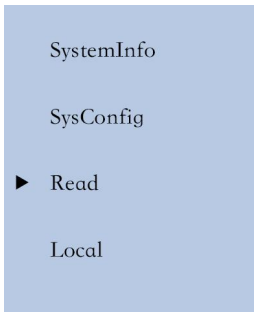
2) Press the shutdown button to perform shutdown settings for all controllers within the current communication range. When the controller indicator is off, it means the shutdown is successful.

3) Press the power button to set up all the controllers in the current communication range. When the controller indicator lights or flashes, it means the power on is successful.

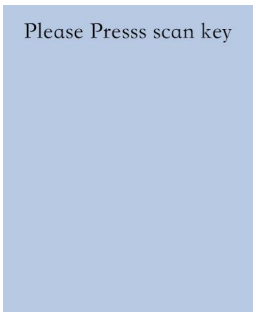
3.4. View current parameters

3.4.1. 2.4G Scanning:

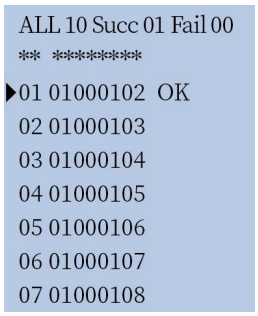
In the main interface, move the cursor to "Read Parameters" and press the "□" key to enter the search interface for reading parameters. If the interface prompts, press the search key, and press the search key to search for the controller ID (if part of the current search is found) Controller ID, you can also search again), after searching the controller ID, select the controller ID that needs to read the parameters, press the "□" key to enter the corresponding read parameter interface, and you can view the current controller at this time Parameters under。



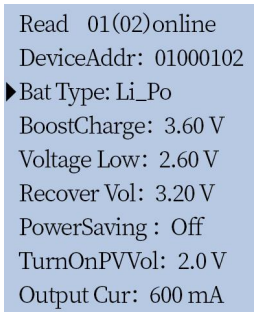
main menu



Search interface



Search success interface



current parameters

3.4.2. Infrared communication:

Aim the remote control at the controller's infrared emitting tube and receiving tube, on the main interface, move the cursor to "read parameters", press the "□" key to enter the read parameter interface, and view the street lamp parameters.

3.4.3 2.4G broadcast:

1) When there is only one controller within the communication range of the remote control, you can use the "read parameters" function in 2.4G broadcast mode. On the main interface, move the cursor to "read parameters" and press the "□" key to enter the reading Parameter interface, view street lamp parameters.

2) When there are two or more controllers within the communication range of the remote control, the "read parameter" function of 2.4G broadcast mode cannot be used, please switch to 2.4G scan mode.

3.5. Remoter 2.4G ScanningTips

1)When setting parameters, in order to wake up the controller, it is best to press the send button after staying on the sending interface for 1-2 seconds.

2) When the controller is searched, the controller will be sorted according to the

controller ID from small to large.

3) The search interface for real-time data, sending parameters, and reading parameters are synchronized.

4) The real-time data, sending parameters, and reading parameter interfaces can all be individually set for startup and shutdown.

5) When setting up the controller, make sure that besides the controller that needs to be set up, no other controllers are working, to avoid incorrect or under-setup.

6) When some nearby controllers are damaged and cannot communicate, all nearby controllers can be shut down to find the damaged controller.

4. Related concepts

Battery undervoltage: When the battery voltage is lower than the set undervoltage protection voltage, the output will be prohibited

Recovery voltage: It means that the output is allowed only when the battery voltage needs to be higher than the set recovery voltage again after undervoltage

Light control voltage: when the photovoltaic voltage is lower than the set PV voltage for lighting, the light will automatically turn on; when the photovoltaic voltage is higher than the set lighting PV voltage, the light will be turned off.

Time control mode: refers to the entire lighting period can be divided into 5 time periods, the brightness of each time period (0-9H can be set) can be set according to actual needs to achieve the purpose of energy saving and power saving.

Induction mode: When the infrared or microwave probe senses a person, the brightness of the lamp will become brighter, and the brightness of the lamp will automatically dim after the person walks. The brightness of the person and the brightness of the person can be adjusted according to actual needs Adjustment.

Morning mode: refers to the light on during the time period before dawn.

Power saving mode: When power saving mode is turned on, the controller will adjust the output current according to the battery voltage, as shown in the following example：

11.1V Examples of ternary lithium batteries：

Assume that the 11.1V ternary battery is set as follows:

Charge voltage: 12.5V

Undervoltage protection: 9V

Recovery voltage: 11.1V

Power saving mode: On (if you choose to turn off, power saving and super power saving are not started)

Start to save power: 11V (adjustable)

Super power saving: 10V (adjustable)

It is divided into five sections at 10V-11V, and each section is derated by 15%

11-12.5V: 100% light on the original setting

10.8-11V: On the basis of the original setting *85%

10.6-10.8V: On the basis of the original setting *70%

10.4-10.6V: On the basis of the original setting *55%

10.2-10.4V: On the basis of the original setting *40%

10-10.2V: On the basis of the original setting *25%

9-10V: minimum power drive light

＜9V: Enter under-voltage protection without driving lights

The principle is as follows:

Battery voltage is at the beginning of power saving-equalizing charge voltage: drive the light normally according to the set current

Battery voltage is at the beginning of power saving-super power saving: reduce power in 5 equal parts

The battery voltage is in super power saving-battery undervoltage: the minimum power to drive the light

Battery voltage is lower than under-voltage protection: no drive light

5. Remoter Lock

Since there are many models of remote control that can be set, and the parameter modification is relatively simple, in order to prevent users from misoperation or set incorrectly set parameters to the controller, it is recommended that a unified batch of controllers correspond to one remote control. The remote control is locked. After all the settings of this batch of machines are completed, unlock it, and set up another batch of controllers after re-adjusting the parameters.

When the remote control is locked, the parameters of the controller can be read and written through the remote control, but the parameters set in the remote control cannot be modified.

The lock/unlock operation method is as follows:

Press the "search key", "□" key and "return key" at the same time. When you hear a long beep, it means that the remote control has been locked; when it is locked, press the above three keys again at the same time and you hear A long beep means that the remote control has been unlocked

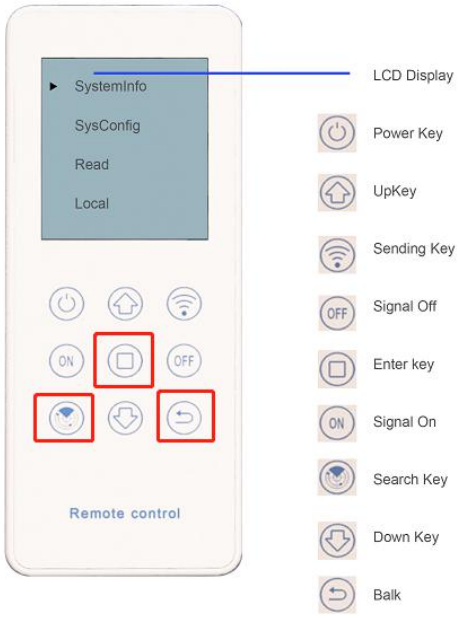


Figure 3-12 Schematic diagram of remote control lock/unlock

As shown in Figure 3-12 above, the user presses the three keys in the red box at the same time and hears a beep to lock the remote control; in the locked state, press these three keys at the same time, It can be unlocked after hearing the "di" sound.

6. Controller indicator status list

The following table is a list of indicator lights. Users can judge the system status according to the flashing conditions of the indicator lights. If the system is faulty, the problem can be locked and solved according to the indicator status.

Item	Machine state	Yellow Indicator (RUN)	Green Indicator (Charge/CHG)	Red Indicator (Discharge/DISCHG)
1	Start initialization	Flashing	Flashing	Flashing
2	Normally Charge	Always bright	Always bright	extinguish
3	Normally drive	Always bright	extinguish	Always bright
4	Machine standby	Always bright	extinguish	extinguish
5	Parameter setting error	Slow Flashing	Slow Flashing	extinguish
6	LED open or short	extinguish	extinguish	Quick Flashing
7	Reverse battery	extinguish	Quick Flashing	extinguish
8	Battery waiting to exit undervoltage	extinguish	Slow Flashing	extinguish
9	Drive time up	extinguish	extinguish	Slow Flashing
10	Battery voltage overvoltage	Slow Flashing	extinguish	extinguish
11	PV overpressure	Quick Flashing	extinguish	extinguish
12	PV reverse connection	Quick Flashing	Quick Flashing	extinguish

7. Battery parameter setting (for reference)

	Series	Rated Voltage	Charge voltage	Battery undervoltage	Clean undervoltage	Light control voltage	Start saving power	Super saving power
Lifepo4	1	3.2	3.6	2.6	3.1	1-3	3.2	3.0
	4	12.8	14.4	10.8	12	4-5	12.5	12
	8	25.6	28.8	21.6	24	8-10	25	24

	Series	Rated Voltage	Charge voltage	Battery undervoltage	Clean undervoltage	Light control voltage	Start saving power	Super saving power
Ternary lithium	1	3.7	4.15	3.0	3.5	1-3	3.7	3.5
	3	11.1	12.5	9	10.5	4-5	11.1	10.5
	6	22.2	25	18	21	8-10	22.2	21

	Series	Rated Voltage	Charge voltage	Float voltage	Battery undervoltage	Clean undervoltage	Light control voltage	Start saving power	Super saving power
Lead acid	6	12	14.4	13.6	11	12.5	4-5	12.5	12
	12	24	28.8	27.2	22	25	8-10	25	24

The above parameters are for reference only, users can make other settings according to the actual characteristics of the battery.