

---

# **Solar controller APP and PC monitoring instruction manual**

## **Ethernet monitoring mode**

**File No:**  
**Version: V1.0**

**Description: This app is currently only available for device clients such  
as Android phones.**

---

## Content

1. Description.....	3
2. Software installation and hardware connection.....	3
2.1 Software installation.....	3
2.2 Hardware connection.....	3
2.3 Device and Ethernet module connection.....	3
3. APP account login.....	4
4. GPRS mode connected device.....	4
5. Viewing device.....	5
5.1 Viewing the running status of the device.....	5
5.2 Viewing Device Alarm Information.....	6
5.3 View battery parameters.....	6
5.4 Viewing Load Parameters.....	6
5.5Parameter setting.....	7
6. Chinese and English switching.....	7
7. PC monitoring device.....	8
7.1 Photovoltaic background management system login.....	8
7.2 Equipment parameter viewing.....	8
7.3 Parameter settings.....	10
7.4 Restore factory setting.....	10
Appendix 1:.....	10

## 1. Description

This instruction manual guides users how to use APP operation and PC monitoring operation in WIFI mode, and view or set device parameters.

## 2. Software installation and hardware connection

### 2.1 Software installation

First put the CD-ROM attached to the controller into the CD-ROM drive of the computer, then open the CD-ROM and copy the APP software installation package to the Android system phone for installation (or the installation package provided by the relevant personnel of our company)

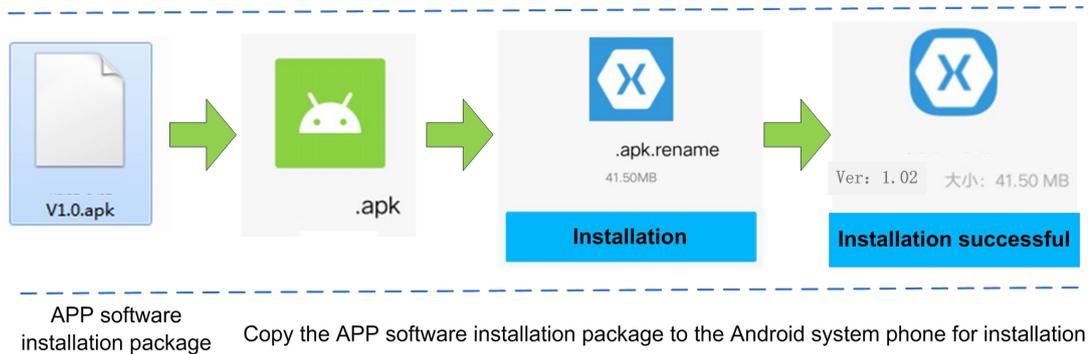


Figure 2-1 APP installation interface

Note: At present, the APP is only installed and used on electronic devices such as mobile phones of the Android operating system;

### 2.2 Hardware connection

Controller interface: using RJ45 interface (RS485 communication protocol):



Figure 2-2 RJ45 interface of the controller (RS485 communication protocol)

The controller device is connected to the WIFI module through a dedicated network cable accessory to achieve WIFI mode communication;

### 2.3 Device and Ethernet module connection

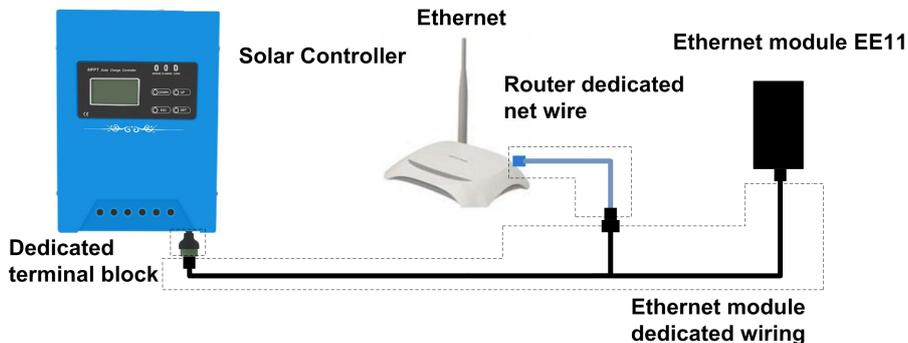


Figure 2-3 Device and WIFI module connection

Note: After the Ethernet module and the dedicated wiring are connected, the two outer two ends are respectively connected to the dedicated terminal of the controller and the dedicated network cable of the Ethernet router.

Note: Router dedicated net wiring Crystal head blue sheath terminates the Ethernet router equipment, black sheath terminates the dedicated wiring network port of the Ethernet module

Note: Refer to Appendix 1 for Network Cable Fabrication;

### 3. APP account login

After the device wiring is completed, connect the battery terminal of the device to the power supply. The green light of the power indicator of the Ethernet module lights up. After opening the mobile phone APP, in the main interface of the device, click "My" in the lower right corner to enter the account login interface. The account number and password are both provided by the company.

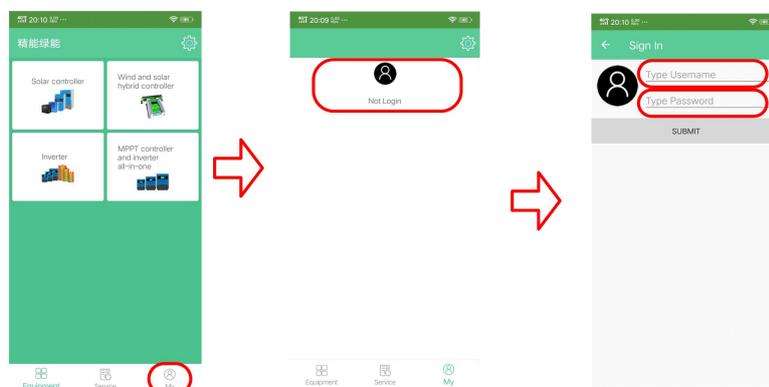


Figure 3-1 Account login interface

### 4. GPRS mode connected device

After login, click the setting icon in the upper right corner of the main interface of the app to enter the "System Settings" interface. Click "Communication Mode" to enter the "Communication Settings" interface (Figure 4-1). "Management mode" means GPRS mode. The default communication of APP is GPRS mode.

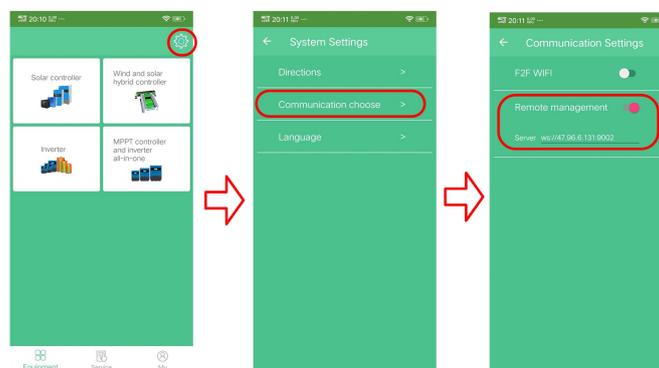


Figure 4-1 GPRS communication setting interface

After the communication method is set, exit to the APP main interface, select the type of device to view, and enter the device list. At this time, the device list will display the status of the added device and display the device online status in real time. When there

are a large number of managed devices, choose to look only at the online devices or directly enter the device number to search (refer to Figure 4-3). For detailed viewing and setting methods, please refer to below "Viewing Devices" .



Figure 4-2 Solar controller in GPRS mode as an example

## 5.Viewing device

When the device status in the device list is online, click to view the device details after entering.

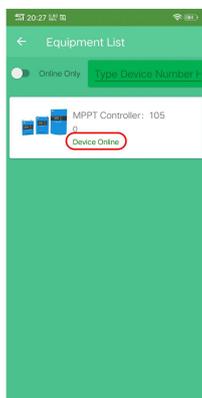


Figure 5 Device List

### 5.1 Viewing the running status of the device

Select any online device in the device list to enter the device details interface. The device details interface displays the "Run Status" tab by default, including "Charging Parameters", "Load Parameters", and "Device Parameters". Viewing more" To view the above three parameters and other information, you can also control the "Charge Switching Machine" and "Load Switching Machine" through the above switches, and refresh the data by the pull-down operation in the parameter area below.

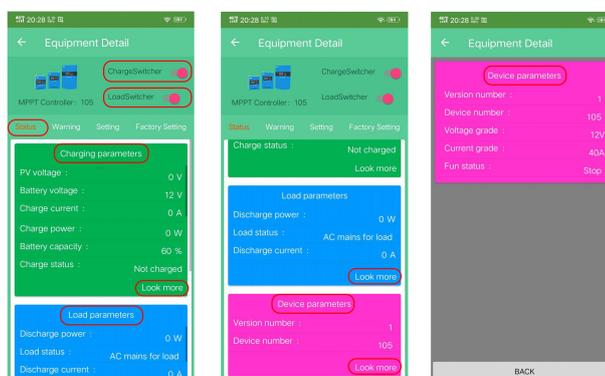


Figure 5-1 Device Details - Running Status

## 5.2 Viewing Device Alarm Information

Click the “Alarm Information” tab to view the real-time alarm information of the device. When the green circle after the alarm message turns red, it indicates an alarm. In the parameter area below, the data is refreshed by the pull-down operation.

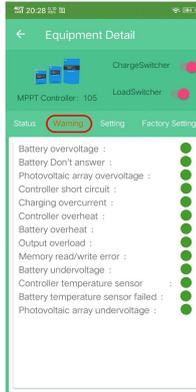


Figure 5-2 Device Details - Alarm Information

## 5.3 View battery parameters

Click the “Battery Parameters” tab to view the battery parameter setting information of the device. Click the “Restore Factory Settings” button at the bottom of the interface to restore the battery parameter settings of the controller to the factory state, and pull down the operation in the parameter area below. To refresh the data.

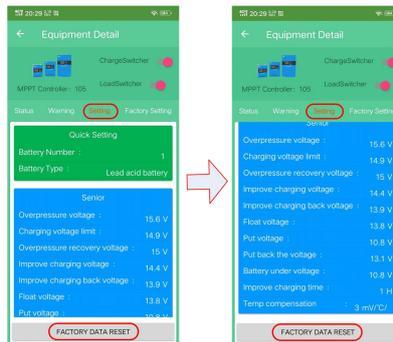


Figure 5-3 Device Details - Battery Parameters

## 5.4 Viewing Load Parameters

Click the “Load Parameters” tab to view the load parameter setting information of the device. Click the “Restore Factory Settings” button at the bottom of the interface to restore the controller's load parameter settings to the factory state, and pull down the operation in the parameter area below. To refresh the data



Figure 5-4 Device Details - Load Parameters

## 5.5 Parameter setting

The "battery parameter" and "load parameter" settings can be made in the device details interface;

“Quick Settings”: The default power-on of the device is the number of lead-acid batteries and the corresponding number of strings. To use other types of batteries, you need to reset the battery type and the corresponding number of strings.

“Advanced Settings”: Here is an example of setting “overvoltage voltage”. First enter the “Battery Parameters” interface, click on the “Overvoltage Voltage” line in the interface, open the “Parameter Settings” interface, and the “Overvoltage Voltage” parameter value. Enter the set value, such as "15", click the "Save Settings" button, automatically return to the "battery parameter" interface, the "overvoltage" parameter has been set to save to 15V, if the set value is not displayed, please refresh the view, if After the refresh, the parameters have not changed. Please re-set the parameters again. The other parameters are similar.



Figure 5-5 Parameter setting - overvoltage voltage setting

## 6. Chinese and English switching

Click the setting icon in the upper right corner of the APP homepage to enter the “System Settings” interface. Click “Language” in this interface to enter the language switching interface, select English or Simplified Chinese, and switch the interface to English or Chinese.

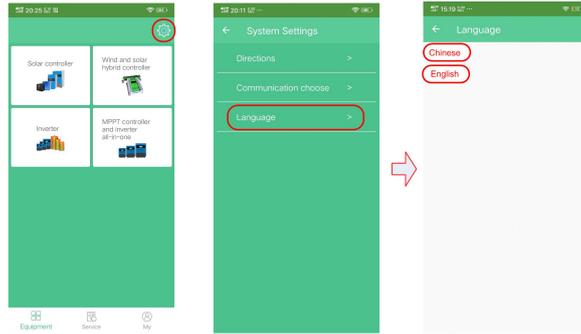


Figure 6-1 Chinese and English display switching

## 7. PC monitoring device

### 7.1 Photovoltaic background management system login

Open the browser, enter the URL: [http: 47.96.6.131: 8089](http://47.96.6.131:8089) to enter the photovoltaic background management system, enter the account number and password (the account number and password are provided by the manufacturer), and click login to enter the monitoring interface;

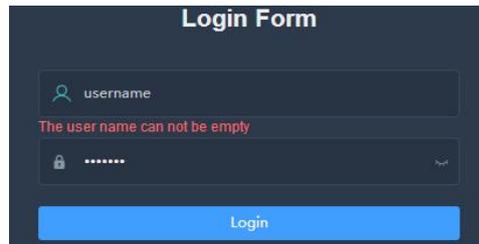


Figure 7-1 PC side login interface

### 7.2 Equipment parameter viewing

On the computer monitoring interface, click the device management on the right to pop up the device list, and display all the device information of the device on the right: including the device number, device address code, device type, belonging merchant, belonging project, device status, etc. You can monitor the operating status of the device.

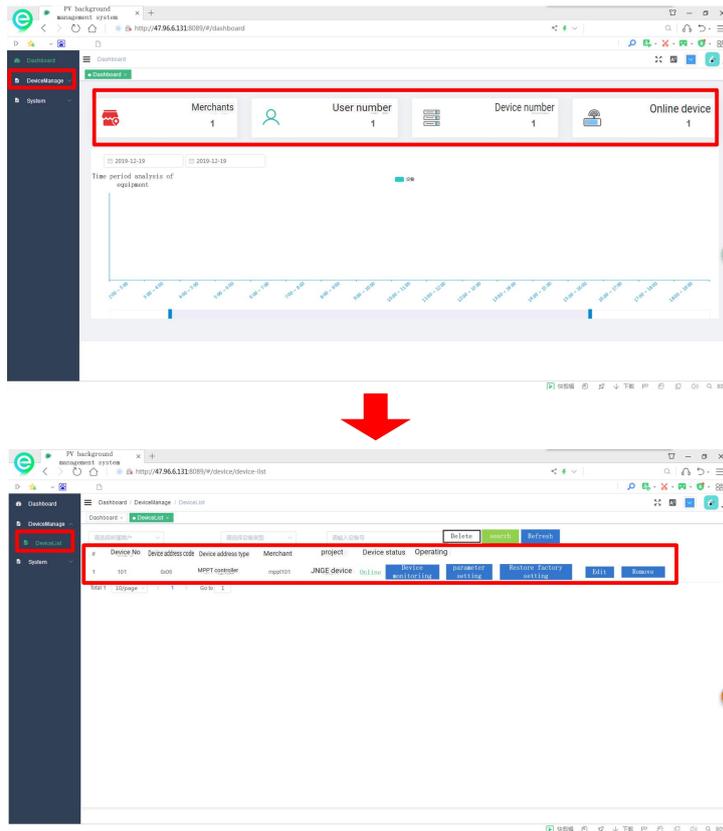


Figure 7-2 Device list interface

Click "device monitoring" on the right side of the information bar to enter the "real-time parameters" interface. In this interface, we can view the operating parameters and customer settings parameters. Only online devices can refer to their real-time parameters. Click the refresh button in the lower right corner. Update the latest parameter information of the device and click the back button to exit the real-time parameter interface.

Real-time parameter

Running parameter
parameter setting
Manufacturer parameter

Version	<input type="text" value="1"/>	PV voltage	<input type="text" value="0"/>	Battery voltage	<input type="text" value="12.2"/>
A Channel Current	<input type="text" value="0"/>	B Channel Current	<input type="text" value="0"/>	Charging total current	<input type="text" value="0"/>
Current temperature	<input type="text" value="15"/>	Charging power	<input type="text" value="0"/>	discharging power	<input type="text" value="0"/>
Storage capacity	<input type="text" value="68"/>	Charging state	<input type="text" value="Uncharged"/>	Loading state	<input type="text" value="loading"/>
Discharge current	<input type="text" value="0"/>	Overdischarge number	<input type="text" value="0"/>	charge total watt-hour	<input type="text" value="0.3"/>
Discharge total watt-hour	<input type="text" value="1671193.5"/>	Battery temperature	<input type="text" value="0"/>	Fault Code	<input type="text"/>
Voltage level	<input type="text" value="12V system"/>	PV Sampling voltage	<input type="text" value="11.4"/>	Current level	<input type="text" value="30A"/>
Battery number	<input type="text" value="1"/>	Battery type	<input type="text" value="Lead acid battery"/>	Charging turn on/off	<input type="text" value="on"/>
Fan running state	<input type="text" value="stop"/>	Temperature supplement voltage of battery	<input type="text" value="0"/>	Loading turn on/off	<input type="text" value="on"/>

Refresh
Go back

Figure 7-3 Operating parameters

Real-time parameter		Running parameter		parameter setting		Manufacturer parameter	
Overpressure voltage	15.6	Charging voltage limit	14.9	Overpressure recovery voltage	15		
Equalization charging voltage	14.8	Improve charging voltage	14.4	Improve charging back voltage	13.9		
Float voltage	13.8	Overdischarge voltage	10.8	Overdischarge return voltage	13.1		
Battery under voltage	10.8	Equalization charging time	2	Improve charging time	1		
Temperature compensation coefficient	3	Device address	6	Optically controlled on voltage	5		
Optically controlled opening time 2	0	Optically controlled off voltage	6	Optically controlled opening time 1	0		
charging turn on/off	on	Household and streetlight mode	Household	Time to turn off the lights	0		
Battery type	Lead acid battery	Buzzer enabled	on	Battery number	1		
		Loading turn on/off	on				

Figure 7-4 Customer setting parameters

### 7.3 Parameter settings

Click the setting parameter on the right side of the device list information bar. In the pop-up setting parameter interface, set the specific parameters by parameter type and setting parameters. After setting, click the setting in the lower right corner to save it. After finishing, click Back to exit the setting parameter interface ;

parameter setting

parameter type	参数类型
Set parameter	请选择要设置的参数

Figure 7-5 Parameter settings

### 7.4 Restore factory setting

On the right side of the device list information bar, click Restore leaving factory settings to restore the parameter settings at the factory.

Appendix 1:

WIFI communication method wire production:

