# operation instructions

| Change log | | | |
|---|---|---|---|
| Date | Content | Edition | Handling personnel |
| 2022-07-20 | Draft | V1.0 | xjn |

## Catalogue

# 1 Brief introduction

## 1.1 Summary

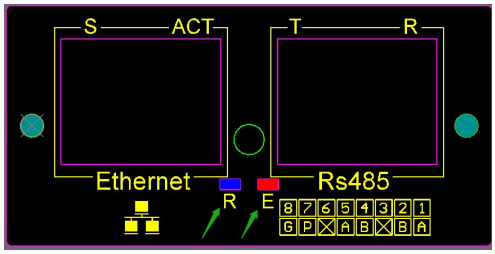
This manual is applicable to the ups network management card produced by our company

## 1.2 Product appearance

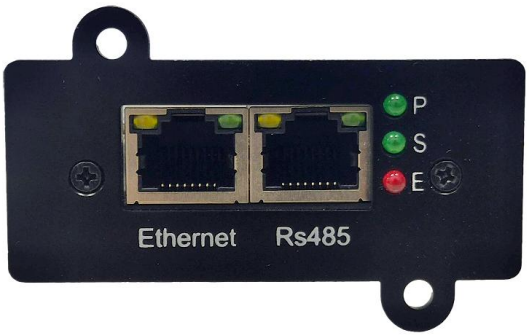
JD24P21

JD23P21/JD23P28

## 1.3 Product interface definition and indicator light




JD24P21




JD23P21/JD23P28

- **RS232/Device** : It is used to connect ups and place the built-in card in the card slot of UPS equipment
- **Power :** Used to connect the matching 12V power adapter
- **Ethernet :** Used to connect to the network (used when configuring the device address)
- **RS485 :** It is used to connect the supporting temperature and humidity sensors and other equipment
- **P :** Power indicator, green, always on during normal operation
- **S :** The system indicator light is green and flashes once a second during normal operation; Flash when the network connection is abnormal
- **E :** The status indicator light is red. If it is always on, it indicates that the communication between the monitoring card and the device is normal, and the flash indicates that the communication is disconnected
- **Default** : No.1 refers to the recovery of IP address dialing, and No.2 refers to the serial port configuration dialing. In normal use, both dials should be at the non on end

❖ **Requirements for users** : installers need to have a certain network foundation;

- **Preliminary preparations** : 1 computer; 1 direct network cable; 1 serial port cable of UPS; The customer first provides a valid network IP address, subnet mask and gateway; Check whether the monitoring module is consistent with the ups brand and model used (that is, whether the brand and model provided above are consistent);

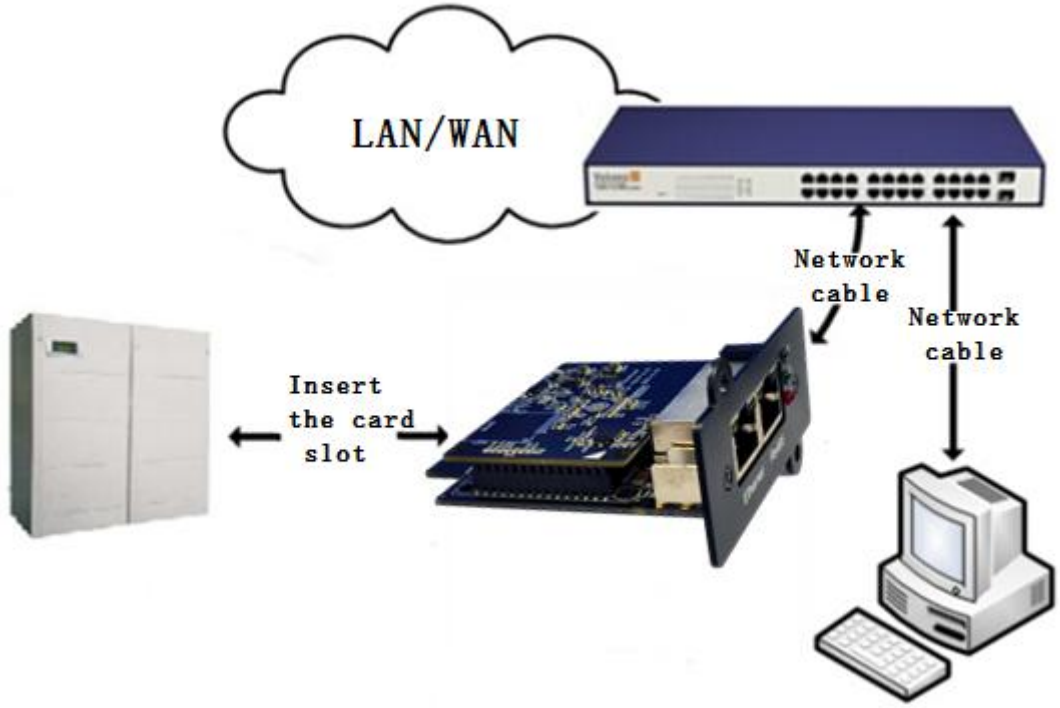
# 2 Installation instructions

## 2.1 Specific installation steps

（1）First connect according to the installation diagram. When the device can communicate normally and there is data on the web page, enter the specific function settings;

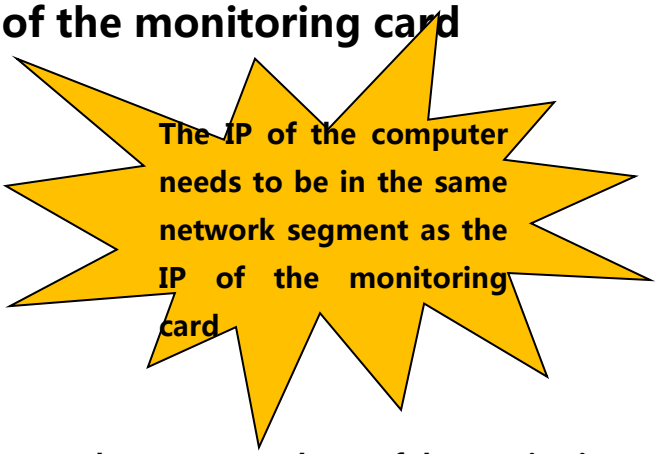
（2）SNMP centralized management settings: you need to add information in the "SNMP settings" interface on the web page. For details, please refer to "SNMP centralized management";

## 2.2 Installation diagram



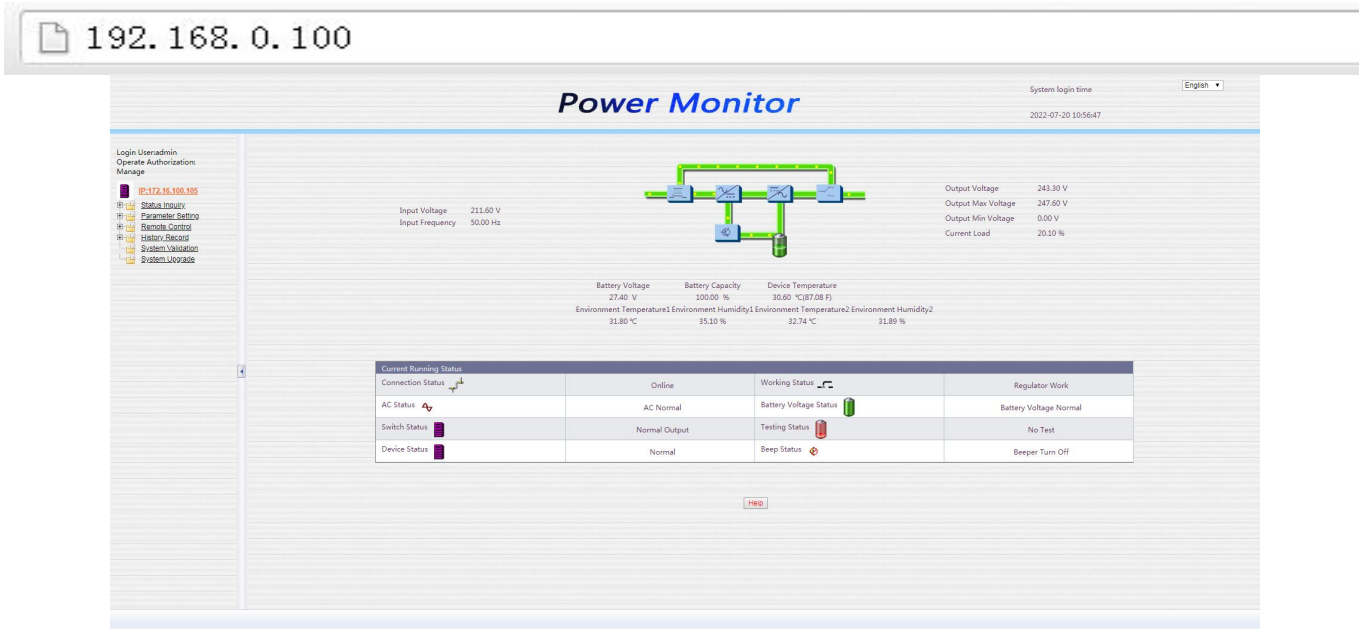

- [Communication line connection]：Place the built-in card in the card slot of the UPS device ;
- [Network connections]: Please connect the network interface Ethernet of the monitoring module to the LAN with a through network cable.（**When configuring the IP of the module, connect the module network interface Ethernet and the computer network interface directly through the network cable**）
- During normal connection, the status of the indicator light: the P light is always on, and the R light flashes. If the e light flashes quickly, that is, the module cannot communicate with the UPS equipment, see the common problems

# 3 Log in to the background page of the monitoring card



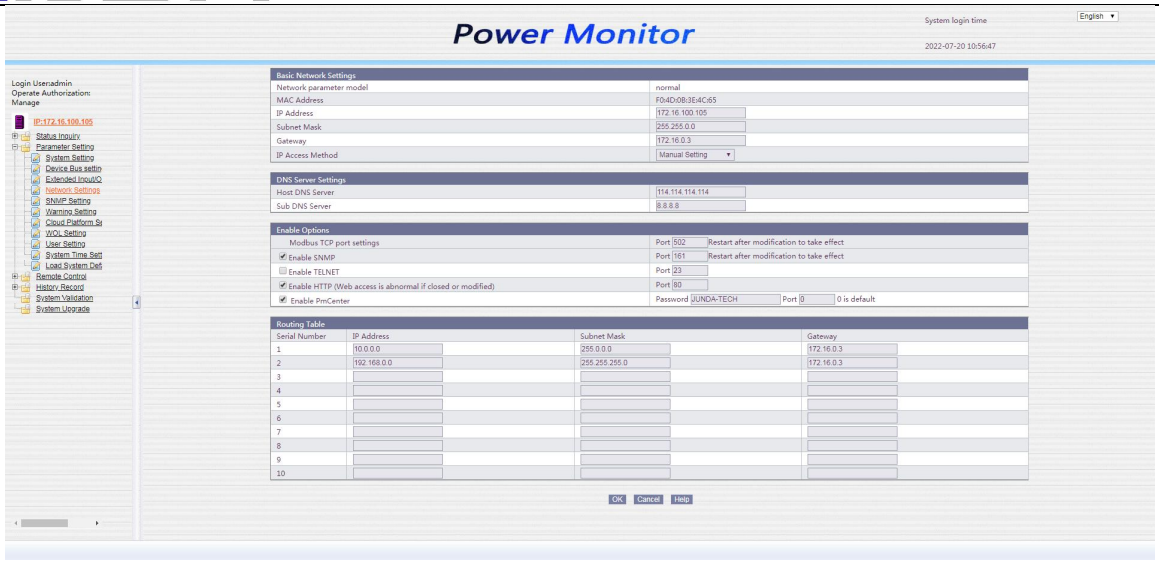

**The IP of the computer needs to be in the same network segment as the IP of the monitoring card** to enter the monitoring interface normally**.** It is recommended to modify the IP of the computer to 192.168.0.200, enter the IP of the monitoring card in the web browser: 192.168.0.100, click enter, enter the user name admin password admin in the pop-up window to enter the monitoring page of the monitoring

card



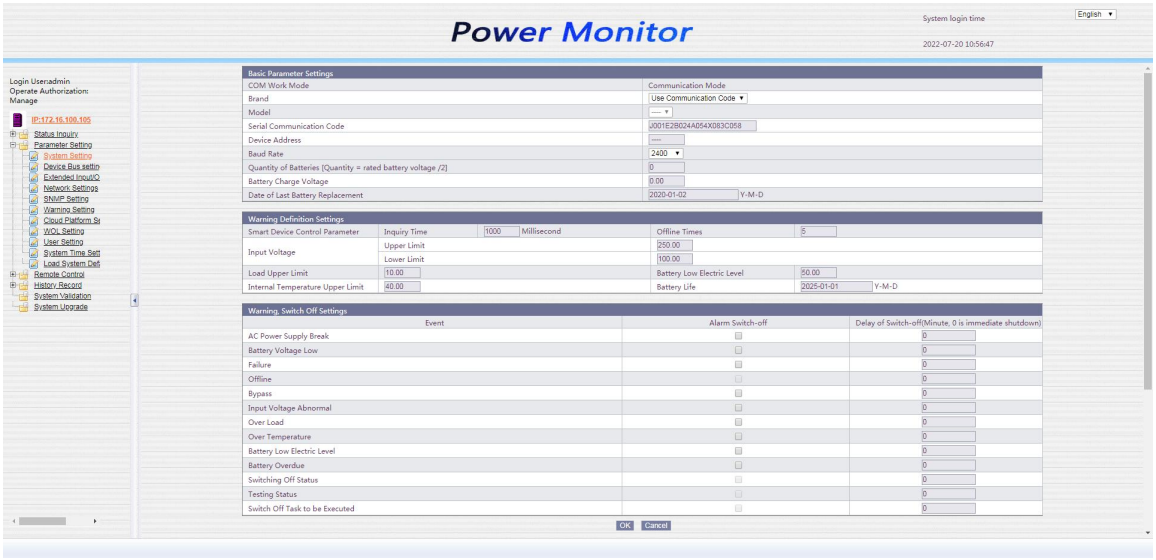

# 4 Modification of IP address

After setting the network segment of the computer to the same network segment as the monitoring card, enter the default ip:192.168.0.100 in the browser, enter the monitoring page with user name: admin and password: admin, and click the network setting (basic network setting) in the parameters to modify the IP, subnet mask, gateway, etc. after the setting is completed, the newly set IP will take effect after the device is restarted. Search again to display the new IP address




# 5 Background web page

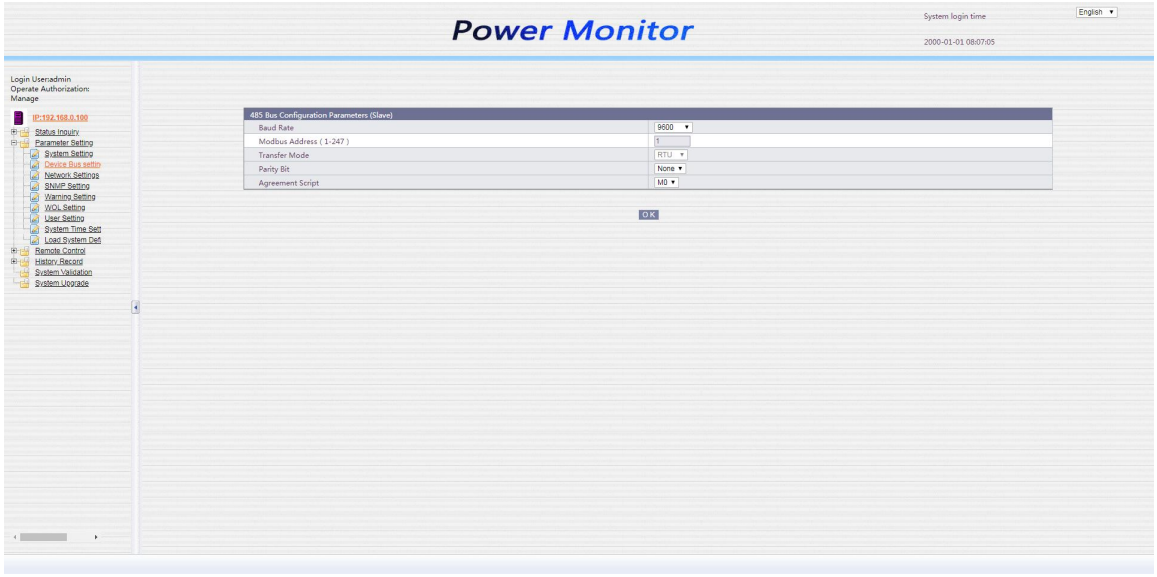
## 5.1 System setting




- In this interface: single-phase and three-phase protocols can be switched, and the equipment model column 1p: Standard single-phase protocol; 3P: Dingjian three-phase agreement; Click OK after switching, and it will take effect after automatic restart.

Alarm definitions can be set, that is, the upper and lower limits of input voltage, the upper limit of load, the upper limit of internal temperature, the low potential of battery and the service life of battery

## 5.2 Protocol Converter Extension




Baud can be set：2400-4800-9600

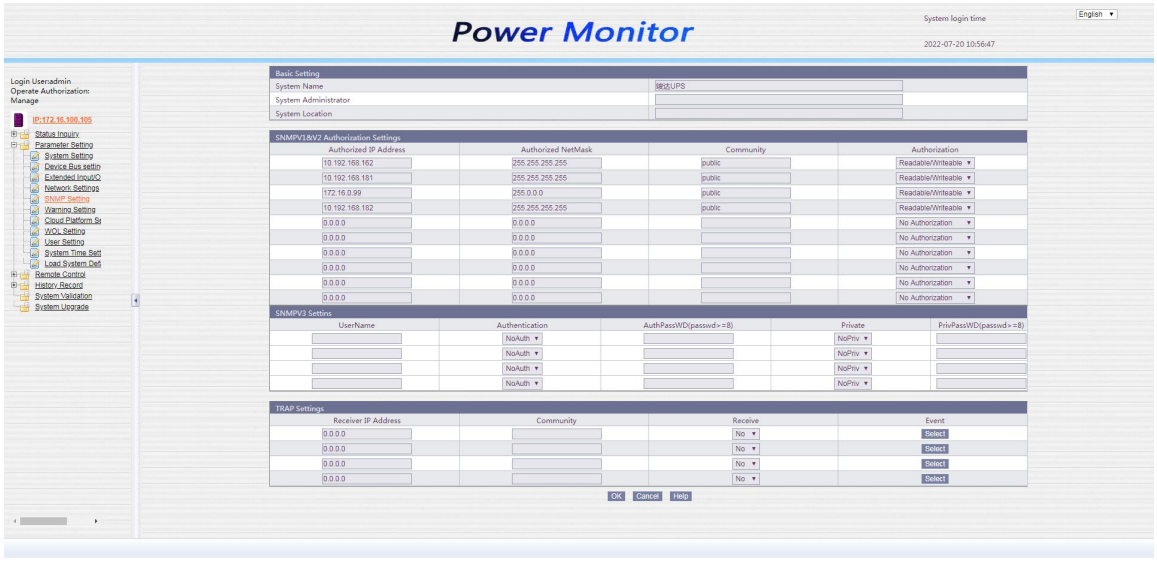
Can set modbus address： 1 - 247 ( Default integer )

Fixed communication mode to RTU

The parity bit can be set toNone,Odd,Even

Protocol scripts can be set to M0 and M1

## 5.3 SNMP port settings



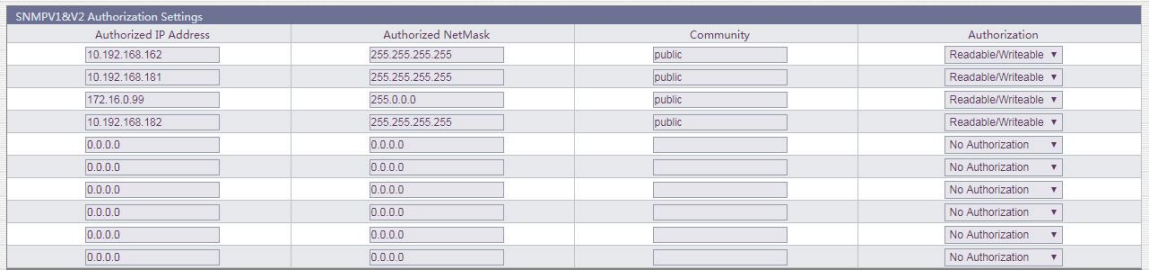
# 5.4 SNMP centralized management

## 5.4.1 Basic settings


①System Name：Name displayed in case of email alarm；

②System Name,System administrator, system installation location: support length of 64 bits (numbers, letters: 64 bits, Chinese: 21 bits)

## 5.4.2 SNMP V1&V2　Authorization Settings



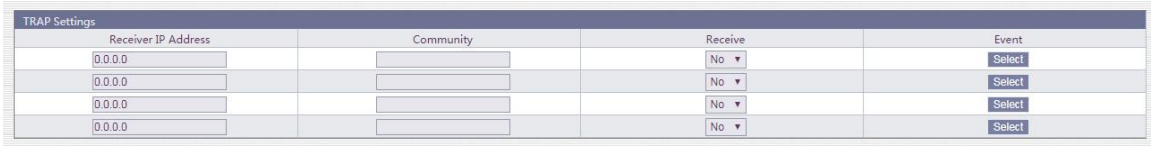

- Authorized IP Address：That is, the IP address of the monitoring computer，IP：0.0.0.0（default）;
- Authorized NetMask :The mask is 0.0.0.0 (default), and the authorization of network disconnection can be realized by modifying the mask;
- Community：The community setting SNMP system is generally public；
- Authorization：No Authorization、Readable、Readable/Writeable；

Note：When the authorized IP address is 0.0.0.0 and the authorized mask is 0.0.0.0, all IPS are accessible by default; SNMP adds temperature and humidity walk and trap;

## 5.4.3 SNMP V3 Settings


- UserName：customize
- Authentication：NoAuth\MD5\SHA
- AuthPassWD(passwd>=8)：Passwords support uppercase and lowercase letters, numbers, and special symbols
- Private：NoPriv\AES\DES
- PrivPassWD(passwd>=8)：Passwords support uppercase and lowercase letters, numbers, and special symbols

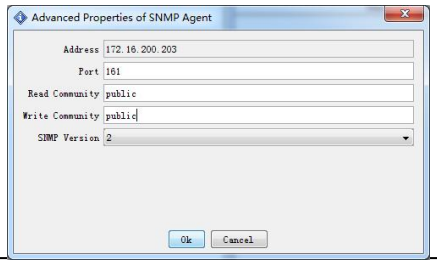
### 5.4.4 TRAP Settings




- Receiver IP Address：Set the trap receiver IP, that is, the IP of the monitoring computer
- Community：Set the trap community, and generally fill in public
- Receive select whether to receive trap
- Event：Click the "select" button to select the required trap events. Generally, all equipment alarm events are selected by default

After configuring SNMP v1&v2 permission settings, open the software iReasoning MIB Browser , Import the corresponding MIB Library (single-phase / three-phase)


Configure the corresponding IP and port information to walk through the data

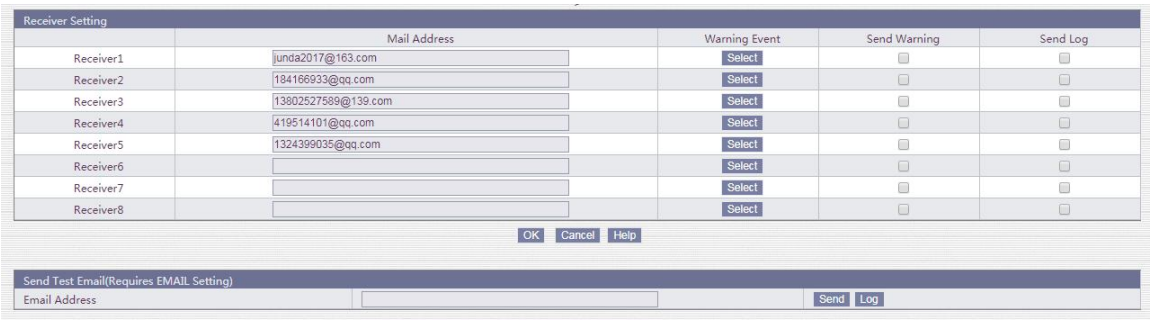



## 5.5 Alarm setting

### 5.5.1 Email setting

- STMP Server：Set SMTP service for sending mailbox（For example, take mailbox 163 as an example：smtp.163.com）
- Port(SSL:465/994　UNSSL:25)
- Sender Mailbox：Set sending mailbox
- Encryption methods：Not SSL/TLS,SSL/TLS,STARTTLS
- User Name：Set the user name of the sending mailbox
- Authorization：Set the authorization code of the sending mailbox

### 5.5.2 Receiver setting and sending test email




- Correctly fill in the recipient's email and select the corresponding alarm event (all alarms are checked by default), and select whether to "send alarm" and "send log"

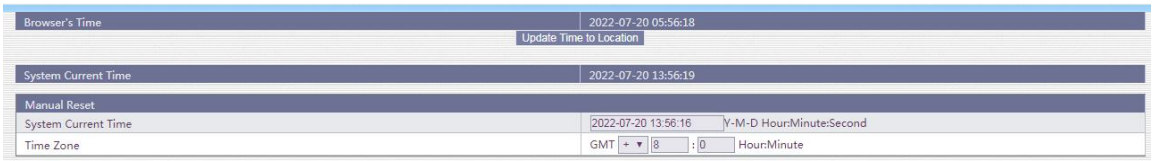
①When the alarm is triggered, the alarm information received in the mailbox is as shown in Figure 1;

②Test email information: as shown in Figure 2;


Figure 1


Figure 2

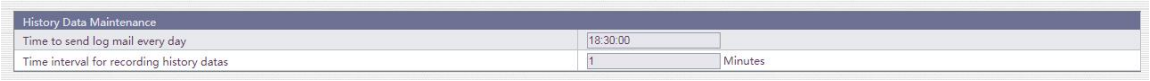
## 5.6 System time setting




①In the case of no network (intranet), if the current time of the system is not synchronized to the current time of the browser, you need to click "update browser time to local" on this interface;

②Time Zone：The current time of the system can be set according to the current time zone, and the default is the East eight zones;

## 5.7 Send logs regularly




- You can set the time of sending mail regularly every day:Send the historical events to the "recipient's mailbox" regularly;
- You can set the time interval of "historical data record". If it is set to 0 minutes, the "historical data record" interface is empty;
- All historical event records and all historical data records can be downloaded

# 6 Common problem

## 6.1 Troubleshooting method of UPS communication failure

①First, confirm whether the UPS device port and the computer can communicate normally, that is, connect the RS232 serial port of the UPS device to the computer, use the software of the UPS device to collect the data of the UPS device, see whether the data can be collected normally, and confirm whether the serial port is normal;

②Connect the monitoring module with UPS equipment：

（1）Observe the status of the monitoring module indicator lights：Observe the status of the indicator light of the monitoring module: if the indicator light e is always on, it means that the communication between ups and equipment is normal

（2）Check the dialing of the monitoring module: whether the dialing switches 1 and 2 are in the normal state (that is, they are both above. If not, turn them back and power on again;

③Check the connection method between the monitoring module and the UPS equipment: that is, whether the card slot of the UPS equipment is normally connected with the RS232 of the monitoring module

④ Check baud rate: monitoring module (baud rate in the "system setting" interface on the web page): whether the brand and model of UPS provided above correspond to the brand and model of UPS equipment currently used

## 6.2 Forget the IP address: you can use the following two methods to solve it

### 6.2.1 Using Assistant Tools to Set IP

Since this product is a network monitoring adapter, you must assign an independent IP address to this product before it can be used normally on the network. The default IP address is 192.168.0.100 (note that the IP address of the computer cannot be the same, and the computer should have a valid IP address).

After correctly installing and connecting ups ipguard, install and run the setting assistant software

configassist in the supporting CD Exe (included in the windows folder of the CD, or double-click to open the CD to select the installation configuration tool).The operation interface is shown in Figure 1:

② Click the search button  to search the currently connected device. (search automatically after software startup) the IP address, physical address, subnet mask, gateway, hardware version, firmware version and other information of the currently searched device will be displayed in the "found device" column, as shown in Figure 1:

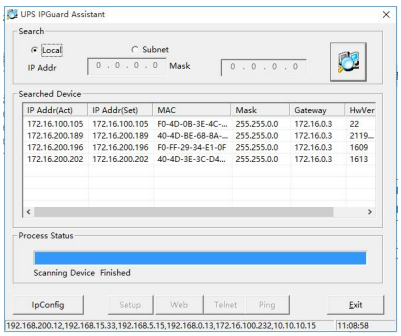



Figure 1

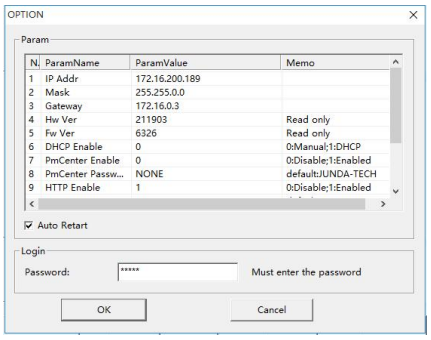



Figure 2

③Select the device to be modified in the list (the default IP is 192.168.0.100), and click "set"; Or double-click the device you want to modify. The option dialog box pops up, as shown in Figure 2:

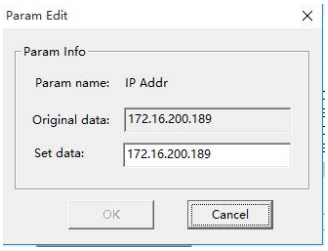



Figure 3

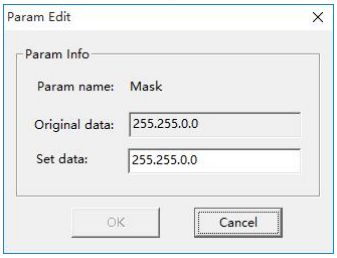



Figure 4

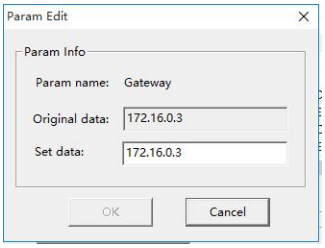



Figure 5

④ In the option dialog box, double-click the IP address item to pop up the IP address parameter modification dialog box, enter the IP address to be set in the new data, and click OK to confirm. The modification of subnet mask is the same as that of gateway. As shown in figures 3, 4 and 5:

⑤ After setting, return to the option dialog box, and the modified parameters (not effective) are displayed at this time; Select the automatic restart device item, enter the management password (admin by default), as shown in Figure 6, and click OK.

⑥ As shown in Figure 7, the newly set IP will take effect after the device is restarted. Re search displays the new IP address.

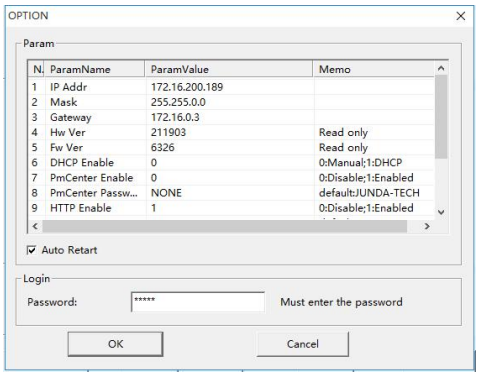



Figure 6

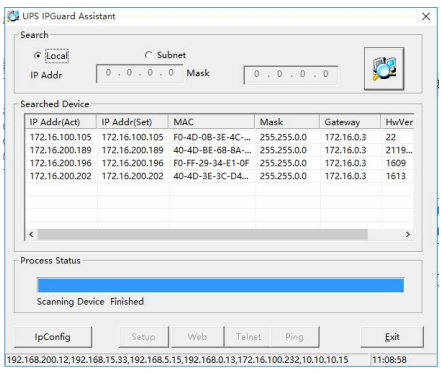



Figure 7

### 6.2.2 Set dial 1 to the ON end

Set dial 1 to the on end (that is, restore the default IP:192.168.0.100), power on the monitoring module again, set the network segment of the computer to the same network segment as the default IP of the monitoring card, enter the default ip:192.168.0.100 in the browser, and you can normally enter the monitoring card web page to view the IP address set before the current monitoring card


## 6.3 The display of "battery voltage" in the current operation status interface is incorrect

"Battery voltage" value display：In alarm definition，The number of battery cells can be set according to the formula "number of battery cells [number of cells = rated battery voltage /2]", that is, the value of "battery voltage" can be normally displayed in the "current operating state" on the web page