

IP Power 9823LT-RL

Ethernet-based Data Acquisition and Power Control Module

User Manual



Version : V1.01
Firmware Version: V1.04
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IMPORTANT NOTICE

- * The product was designed for indoor use, we carry no responsibility for possible damages caused by outdoor use, especially in the rain
- * Please use the power adapter provided by the dealer, we carry no responsibility for the possible damage from using power adapters not provided by us .
- * Please contact the dealer If IP Power 9823 is not working properly.

- * **Warning:** Any changes made to this equipment without permission may cause damages to the device! .

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IP9823 SERIES MODELS	錯誤! 尚未定義書籤。

1. Introduction

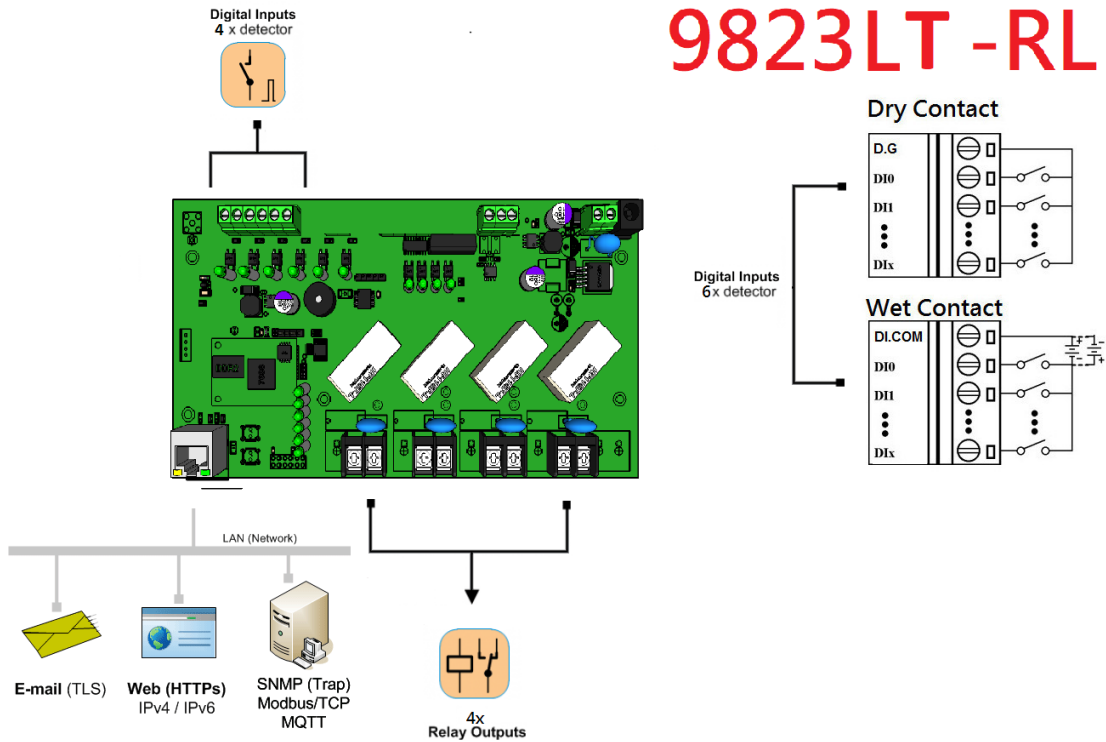
1.1 Overview

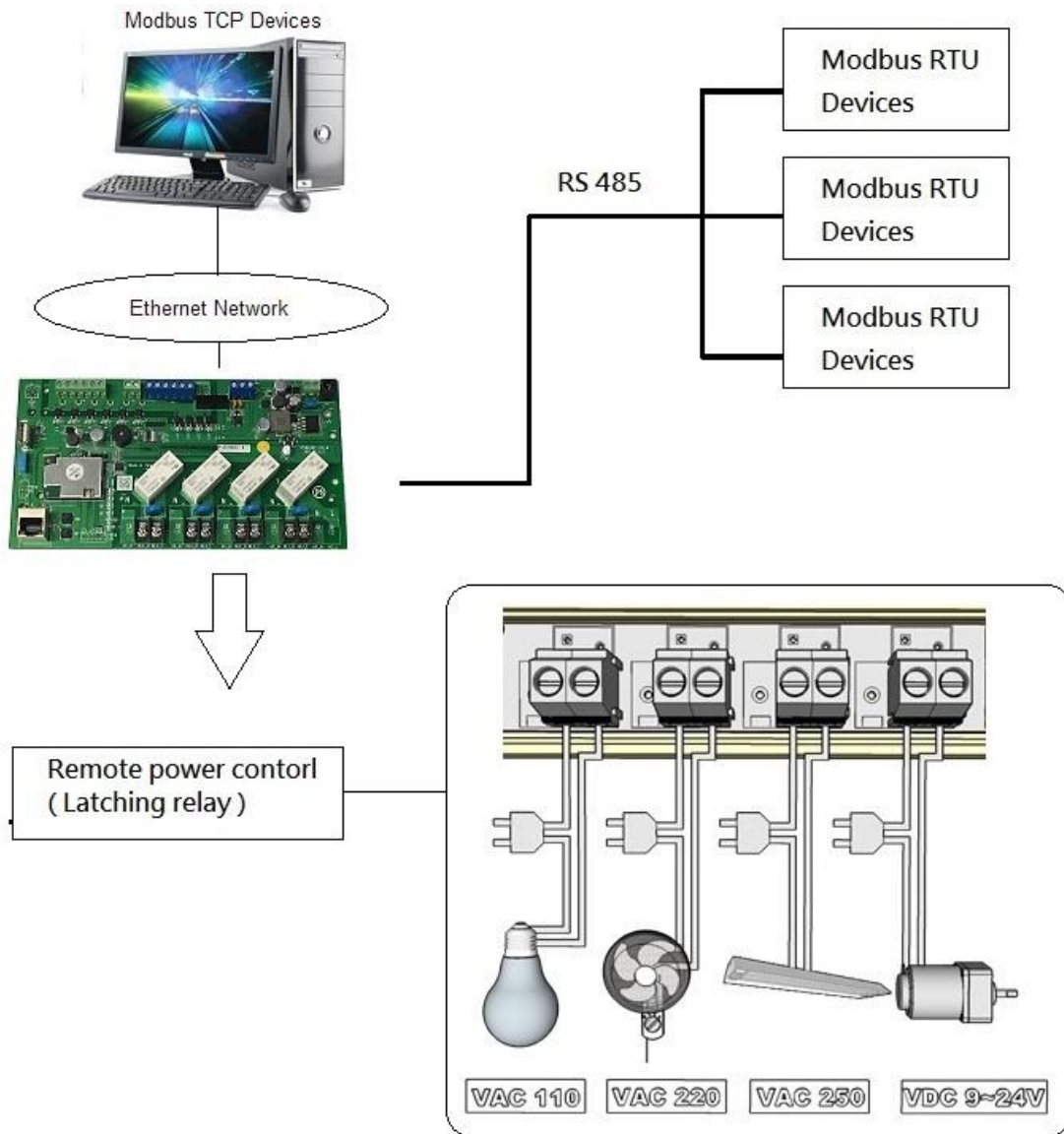
Ethernet-based Data Acquisition and Power Control Module / Ethernet Peripheral Digit IO controller

The IP9823LT-RL is a cost effective solution for data acquisition, monitoring and control through network. The module provide IO for data acquisition, Relay for power control module and embedded webserver for a wide application. IP9823 Series also provides an excellent web server and complete network and industry standard protocols. It is easily integrated with existing system and play a high performance network control.

With **latching type relay**, with RS485 interface to be MODBUS Gateway – 9823 is a stable and powerful bridge of Modbus /TCP Server on network and the Modbus devices

Please refer the following picture for the overview of IP9823LT-RL







1.2 Main Features

1.2.1 Hardware Features

	Item	Description
1	4 Latch Type Relay 16A/250V (memory relay)	Low power dispassion, lower spike, NO heat & More durable!
2	4 DI 4 General purpose digital input	Provide both type input 1. 500ohm Resistance dry contact input 2. detect (50V~4.5V)/(0~ 3V) logic High/Low bi-direction wet contact input
3	Thermal /Humidity sensor	Temperature: -20 ~ +60 °C / - 4 ~ +136 °F Humidity: 20-95% RH
4	RS485 bus	receive/send RS485 message to internet
5	PMOD connect (option)	option to I2C/SPI gas, temp/current ADC sensor
6	Antenna (option)	option to wireless LAN (FCC certificated only)
7	Notification	1. On board Beeper sound notification. 2. LED I/O indication 3. Network notification for Mail / SNMP / Syslog
8	Protection	Isolation Voltage 3,000 VDC . Power Reversal Protection detect self watch dog timeout reboot. ping network failure action

1.2.2 Firmware feature

	Item	Description
1	Network	Web server, UPNP , DDNS & Telnet Modbus to Modbus/TCP gateway NTP server & SMTP server Support most Ethernet protocol: DHCP, UDP/TCP/IP, HTTP
2	Security	SSL3.0 , HTTPS, SNMP V2. SMTP (Gmail , hotmail) Web server provide 3 levels authentication: Administrator, Operator, Guest Base64 password encrypt
3	Event, Alarm Notification	1. SMTP mail notification. 2. Syslog server notify 2. Ping failure event action. 4. Scheduler event action 5. I/O level change & Temperature, Frequency Change

4	SDK and Industrious Protocol	Provide HTTP CGI command , SNMP V2 & POP3 Mail control . Modbus/TCP & Bacnet/TCP.
5	IOT/ Device-to-Cloud Architecture	CNT (Aviosys server) Standard MQTT (Message Queue Telemetry Transport) protocol - Apply on Amazon, Baidu, Alibaba available
6	Windows AP	IP Power center (manager and control all Aviosys product), IPEdit (local/internet search) & Online webpage search www.myipedit.com (internet search)
7	Mobile APP	* All support APP for Android or iOS system : - Android APP -- name "IP Power free download in Google Play . - iOS APP -- name "IPPOWER+ " free download in Apple AppStore IPPower+ (iOS) & IPPower (Android)  
8	Wireless LAN(Optional)	(FCC certificated only, default disable) AP client mode support (extend wireless LAN range) & WPS

1.2-1 Ethernet I/O control board , Modbus TCP/IP & BacNet TCP/IP

IP9823LT-RL is a module with embedded webserver and based on standard ethernet networking 10/100 Mbps Ethernet and support popular Modbus /TCP or and BacNet /TCP protocols over TCP/IP for data connection .

1.3 Product Specification

1.3.1 Basic

- Network LAN 10/100Base-T(X)
- Power Input 12 ~ 30 VDC (Reversal Protection)
- Power Consumption : 2W @ 12 VDC (IP9823LT)
 - 2.16W @ 12 VDC (IP9823GP)
- Connectors 1 x RJ-45 (LAN), Plug-in screw terminal block (I/O and power)
- Watchdog Timer System (1.6 second) and Communication (programmable)

- Support Peer-to-Peer
- Support protocol:
 - Network : HTTP, UDP/TCP, DHCP, SMTP,
 - iot/cloud : MQTT, UPNP
 - industry : HTTP CGI, SNMP, Modbus/TCP, Bacnet/TCP,
Modbus RTU
- PING Call Timer System
- Build in RTC timer for schedule
- Option: Wireless LAN extendable

1.3.2 Latching Relay Output

4 pcs Latching type relay and each relay can switch power .

- max. 260 VAC @ 16 A . max. 10A 30VDC
- Relay On Time 15 ms . Relay Off Time 8 ms
- Max. Switching 20 operations/minutes

1.3.3 Digital Input (DI)

Provide 6 DI with both dry contact and wet contact. **IN ch5 and ch6. of DI can be assigned to a tally counter or Tachometer.**

DI	Logic Level 0	Logic Level 1	Notice
Dry	Below 500 Ohm resistance close to GND signal.	3 VDC	
Wet	Open	5-50 VDC	Connector +/- protection

1.3.4 RS-485

1-ch RS-485 ASCII command and Modbus RTU to Ethernet-based(Modbus TCP)

Baud-rate and address is configured from web page

1.3.6 Humidity Temperature Sensor

The Humidity Temperature Sensor on the board. Sensing range

- Temperature: -20 ~ +60 °C / - 4 ~ +136 °F
- Humidity: 20-95 % RH

1.3.7 Protection:

Isolation Voltage 3K VDC . & Power Reversal Protection

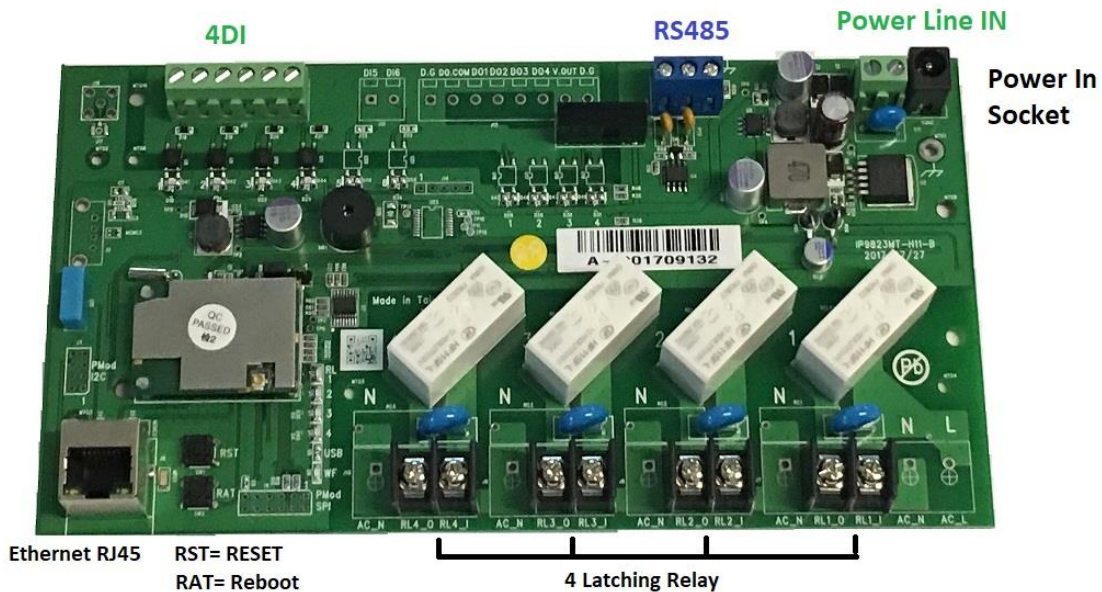
1.3.8 Environment:

- Operation: Temperature -10 ~ 70°C (14 ~ 158°F) .
Humidity 20 ~ 95% RH (non-condensing).
- Storage: Temperature -20 ~ 80°C (-4 ~ 176°F) .
Humidity 0 ~ 95% RH (non-condensing)

1.3.9Dimensions:

- 200 x 107x 20 mm (L/W/ H)
- 203x 122x 50 mm (L/W/ H) (w/ Din Rail Stand)

1.4 IO Interface



Upper : 4DI , RS485 , Power line in and power in socket .
 (Only select one power input)

Down : Ethernet (RJ 45) , Reset , Reboot and 4 Latching Relays

Description	Function
4DI General purpose digital input	Provide both type input 1. 500ohm Resistance dry contact input 2. detect (50V~4.5V)/(0~3V) logic High/Low bi-direction wet contact input
RS485	Receive/send RS485 message to internet
Power line in	Power input : for line input 12 ~ 30 VDC
Power in socket	Power input : for power adaptor 12V 1A VAC
Network	10/100 Mbps , Ethernet RJ 45connector
RST = Reset	Set back to manufactory default
RAT = Reboot	Reboot the device power
4 Latch Type Relay	16A/250V (memory relay) Low power dispassion, lower spike, no heat more durable!

2. Hardware installation

2.1 Before Starting

*Before setting up the device make sure of the following:

- 1.) All the package contents are all included if anything is missing please contact the dealer where the device was purchased from.
- 2.) Check the power input cable is working correctly.
- 3.) Check all cables to make sure there are no problems with it.

2.1.1 Package :

- Standard :
 - IP 9823LT-RL .
 - CD with manual and software
- Option :
 - Power adaptor (12V 1A) .
 - Network cable (RJ45 connector) .
 - Din Rail mount

2.1.2 Minimum system Requirements :

- Windows OS with network capacity & web browser .
Like Google Chrome , Safari , **IE 9.0 or above** .
- Ethernet Hub /Switch (at least 2 ports)
- Ethernet cable with RJ45 connector
- Power supply for IP9823LT-RL (12 ~ 30 VDC unregulated)

2.2 Hardware Connection

This section provides basic information on wiring the power supply, I/O units, network connection and LED display .

Power supply connection

There are two power source for IP9823LT-RL .

1. Power line in : 12 to 30 VDC (in Green socket)
2. Power adaptor : 12V 1A VAC (in Black socket)

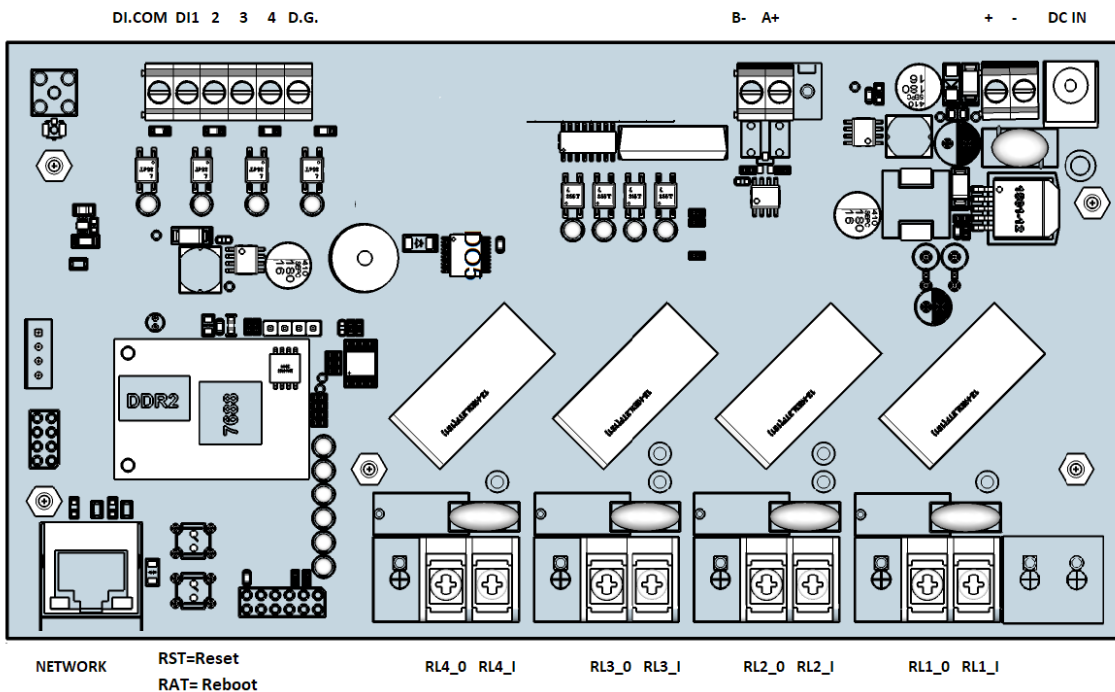
MUST only select one power input .

Either use
Power line in



Or use
Power socket .

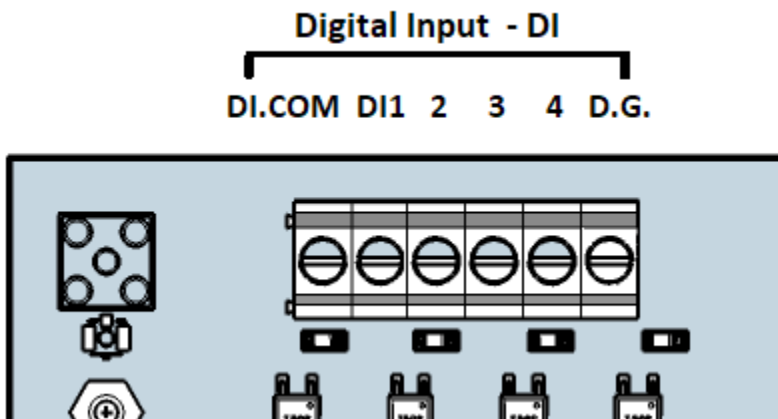
2.2.2 IO connection



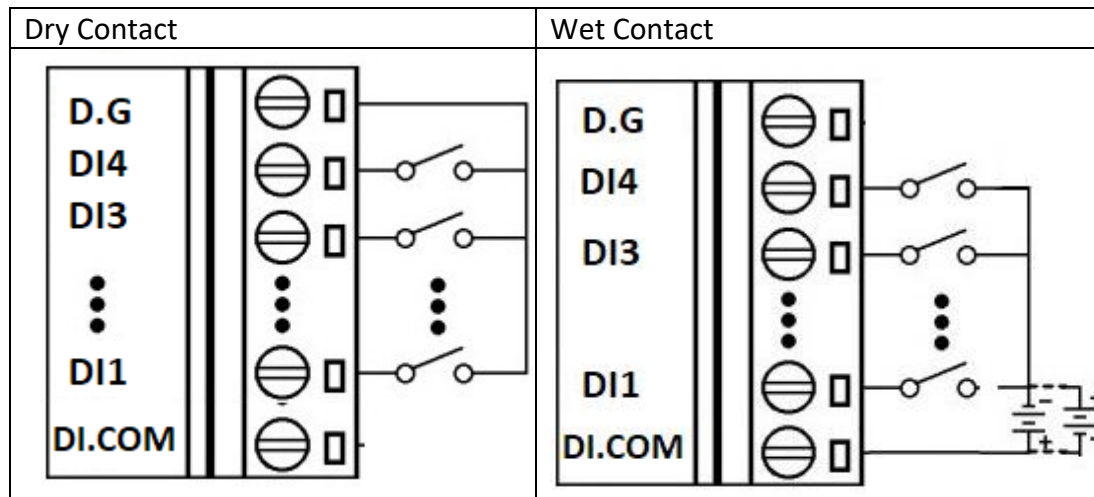
The system uses a plug-in screw terminal block for the interface between I/O modules and field devices. The following information must be considered when connecting electrical devices to I/O modules.

2.2.2.1 DI

1. Location :



2. Connection :



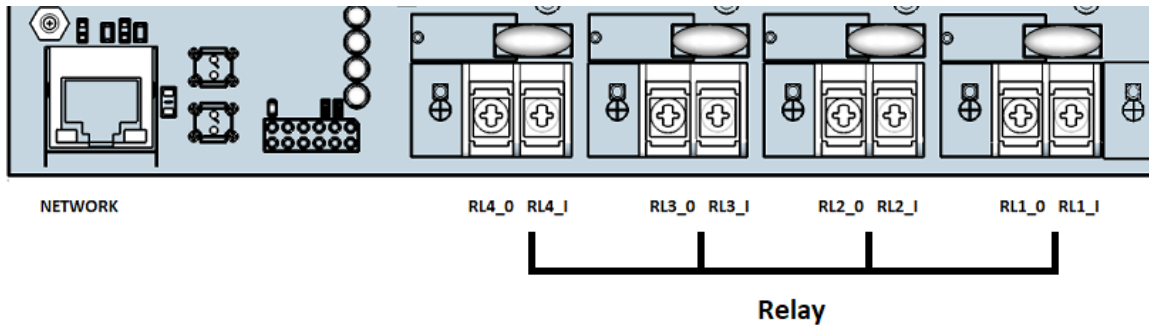
3. Specification :

Provide 4 DI with both dry contact and wet contact. General purpose digital input.
Provide both type input

- * 500ohm Resistance dry contact input
- * Detect (50V~4.5V) /(0~ 3V) logic High/Low bi-direction wet contact input

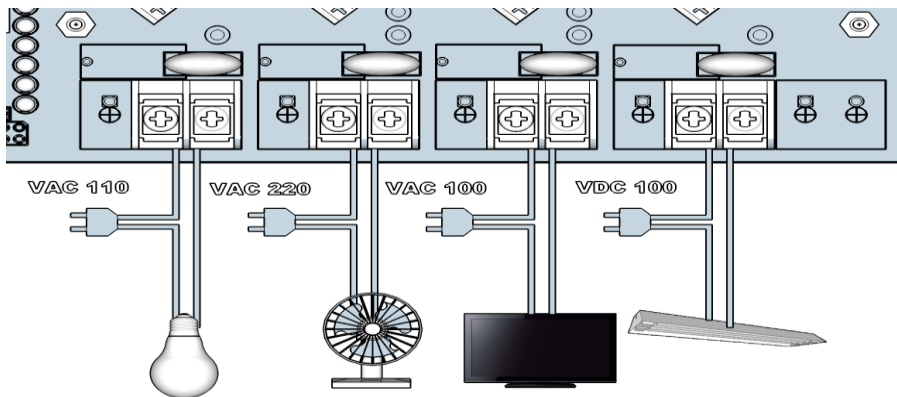
2.2.2.2 Relay

1. Location :



2. Connection :

Relay number from left to right : Relay # 4 , 3 , 2 & 1



3 . Specification :

4 Latch Type Relay: 16A/250V (**memory relay**) Low power dispassion, lower spike, no heat more durable!

Latching type relay and each relay can switch power .

* max. 260 VAC @ 16 A . max. 300 VDC @ 16 A

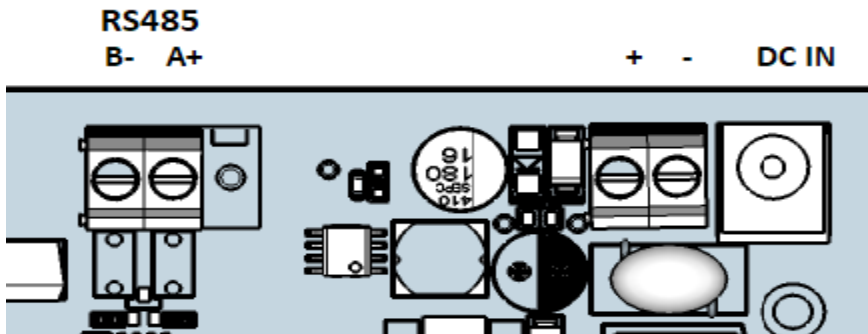
* Relay On Time 15 ms . Relay Off Time 8 ms

*Max. Switching 20 operations/minutes

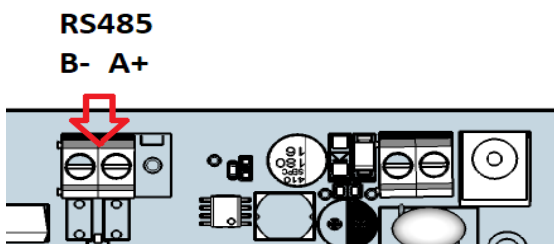
2.2.2.3 RS485

User can receive or send RS485 message to internet .

1. Location :



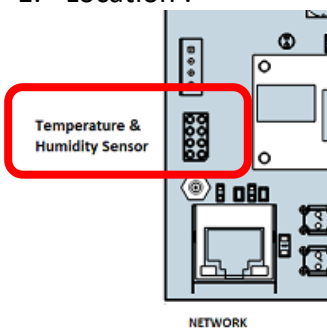
2. Connection :



3. Specification : Standard RS485 interface .

2.2.2.4 Thermal / Humidity sensor

1. Location :



2. Specification :

The Humidity Temperature Sensor on the board. Sensing range

- Temperature: -20 ~ +60 C
- Humidity: 20 ~ 95 RH%

2.2.2.5 LED Indicators

There are LED lights near the IO to indicate the IO status

Led lights for DI ,Relay and Power

Location :

- 4 DI : in RED
- 4 Relay + 1 WF (power) : in Yellow



2.2.2.6 Network connection

Please refer following procedure :

- 1.) Connect the Ethernet cable (RJ45) to the 9823 to user HUB/Switch .
- 2.) Then connect the power cable into the power input port of the 9823.
- 3.) Connect the device that user would like to control to the IO of the 9823.
- 4.) After power in for around **60 seconds** , there is a short beep sound for 9823 which means the system reboot successfully

2.2.2.7 Reset & Reboot

- RST : Means Reset , set the device back to manufactory default . Like IP, password, schedule , ping setting and IO setting .

Keep pressing the RST button for 5 seconds and then release, user will get 4 short beeps soon as release the RST button , 4 beeps means the device start setting back to default .

After reset , the device will reboot it selves . So customer will get another short beep (keep pressing for 5 seconds)

The total time of RESET plus reboot procedure is around 65 seconds

- RAT : Means Reboot , device power reboot .It will take 60 seconds to boot up the system

3. System configuration

3.1 Hardware configuration

As mentioned in Page 12 , user will need following items to complete user system hardware configuration.

Minimum system Requirements :

- Windows OS with network capacity & web browser .
Like Google Chrome , Safari , **IE 9.0 or above** .
- Ethernet Hub /Switch (at least 2 ports)
- Ethernet cable with RJ45 connector
- Power supply for IP9823LT-RL (12 ~ 30 VDC unregulated)

3.2 Network Connection :

We suggest to connect 9823LT-RL to user router /switch in the beginning.
For quick log in, we set the default network connect ion for 9823LT-RL as DHCP .

If connect 9823LT-RL to PC directly , the 9823LT-RL will change to our assigned default FIX IP and will not be back to DHCP as power reboot . User will need know the IP of user PC and then change the IP of 9823LT-RL .

Please refer the two connection way to get different IP address :

- **Connection 9823LT-RL with Router / Switch : strongly suggest**

➔ IP 9823LT-RL ---- Router /Switch ----- PC

Please use IPEDIT to get the IP address and 9823LT-RL should get the IP at the same segment with user PC system .

For example : PC IP address is 192.168.100.123
 9823 IP address is 192.168.100.125

As under same segment of user PC and 9823LT-RL , user can login 9823LT-RL by the web browser.

Note : Segment is the first 3 set (192.168.100) IP of full IP address
(192.168.100.123)

- **For connection 9823LT-RL to PC directly :**

➔ IP 9823LT-RL ----- PC

The IP will be change to fixed IP .

Default FIXED IP: 192.168.1.168 (While this is no DHCP apparently)

Default Login: admin

Default Password: 12345678

After power on , It will take around 60 seconds to boot up the system . There is a long beep sound means boot up successfully.

3.2 Software configuration

As an embedded web server system , 9823LT-RL work as power on and do no need to install the driver . There is no driver to initial the system. User only need to install the IP address searching software “ IPEDIT “ to find out the IP address of 9823LT-RL in the beginning .

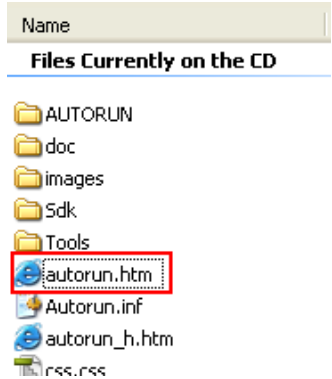
3.2.1 Software installation

The **IP Family CD** comes with the device , it has all the necessary software to run and setup the device.

- IPedit : for search IP address of LAN /WAN in Windows system
- **IP Power Center : for multiple IP Power devices control in one software .**
-

Please refer the following procedure :

1. Place the **IP Family CD** into the CD/DVD Rom drive. The CD will auto run , but if it does not go to the CD/DVD Rom drive and select the “**autorun.html**” file.). If the IE / Google chrome / user default web browser do not auto run , please go to the CD and select the file “ autorun.htm” and open it by user web browser .



2. Please select the model IP9823LT-RL
3. There are software , manual and QI in this area for download .

Download the software – IP Family and the software shortcut will be on the top of user pc desktop . Click “ ipedit.exe “ .

IP Edit is a search tool designed to search, configure, or access the IP Power device from a local networked computer. Then user can select searched IP address to log in the webpage of IP Power device.

3.2.2 Software overview

IPEDIT is a free search software developed by Aviosys for searing IP address of all IP Power series . User can change the name , gateway , IP address , netmask and two HTTP ports and read the MAC address in this software .

For IP9823LT-RL , please use the version of IPEDIT in package CD .



Note : If there is no IP list in the window of local devices area of IPEDIT , please refer the following situation of user connection :

- **The IP 9823 should be under same segment and same router with the PC with IPEDIT program.**
- **Please disable the Firewall and Anti Virus software temporarily in the PC and try again.**
- **There might be two Network working on the PC system , like two LAN cards , please disable one for IPEDIT to search the 9823LT-RL .**

Double click the IP address of 9823LT-RL in IPEDIT and the PC will execute web browser like IE or Google Chrome and there is wizard pop up to enquire the Username and Password .

Username : admin

Password : 12345678

Use can change the IP address information of 9823 .

- 1.) In the local devices section user will see user device show up if connection correctly.
- 2.) Select the 9823 device and the device information will pop up on the right.
- 3.) Check to see that the gateway IP and the IP Address (9823) match user current network.

If not, type in the correct information, then hit the submit button to save changes.

For example:

If user have the following information regarding the 9823 and user network

User PC Network :

Computer IP Address:	192.168.1.122	Gateway:	192.168.1.1
Sub Net mask:	255.255.255.0	Port:	80

User 9823 in IPEDIT :

9823 IP Address:	192.168.100.34	Gateway:	192.168.100.1
Sub Net mask:	255.255.0.0	Port:	80

[Since the IP Address of the 9823 is : 192.168.100.34

User will need to make sure that the first 3 segments of user 9823 IP Address must match the first 3 segments of user gateway IP.

First 3 Segment of Gateway Address: 192.168.1.X

So user new IP Address for the 9823 should be: 192.168.1.XXX

New Network Information

9823 IP Address: 192.168.1.26

Gateway Address: 192.168.1.1

Local Computer IP Address: 192.168.1.122

Sub Net mask: 255.255.255.0

Port: 80

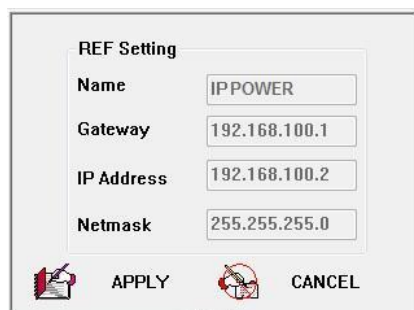
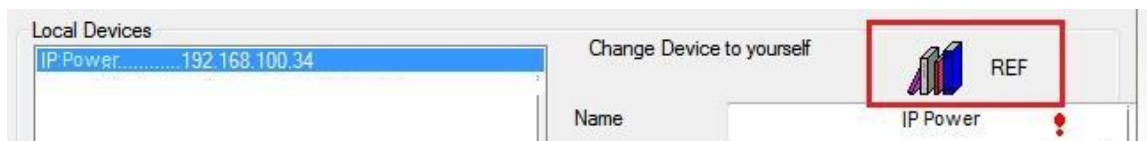
- 4.) Press the " Rescan " button to see if changes have been made.
- 5.) Double click on the device in the local device section and an IE web browser with the device login will pop up.
- 6.) Type in the default Login and IP Address to enter the device.

Default Login : admin

Default : 12345678

Notice : User can click " REF " in IEPDIT to auto search proper IP setting for 9823.

It will take few minutes to show the suggest wizard.



Please click "APPLY" as seeing the suggest wizard , click "yes" to ignore the remind message of IP being used and then type the Username and Password to change the IP setting. Username : admin Password : 12345678

Notice :

Segment : The first 9 digits of the IP Address .

EX: The IP of user PC is 192.168.100.122. If the "Local IP Address" at WiFi Info is 192.168.100. x (X can the value of 1~252) , user PC can get into the webpage of 9823 .

Please press "Rescan" to search the router near by again if can not see user router in the list.

3.2.3 Using IP Service (& CNT)

IP Service is a function which allows user to search for the device easily without having to remember long complicated IP address. Instead, if user know the device's name of user IP Power device and user can easily find IP Address with IP Service. **To log in the webpage of 9823 on Internet , user still need to do the "Port Forwarding" in own router.**

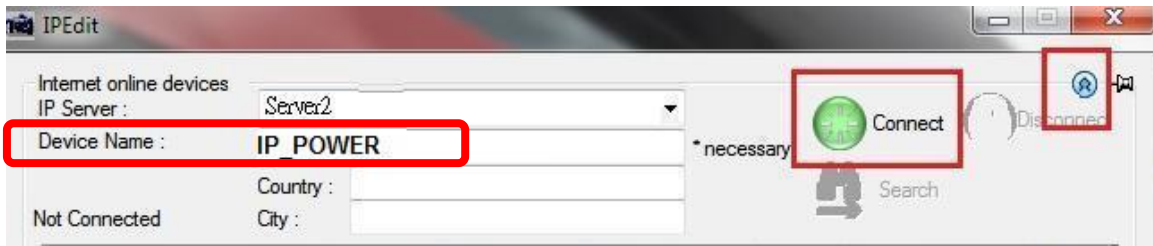
Before using "IP Service" , please change the device name of user 9823 to avoid similar name in Host Server.

The screenshot shows the AVIOS web interface. On the left sidebar, the 'IP Service' menu item is highlighted with a red box. The main content area displays the 'IP Service & CNT Setting' configuration page. In this page, the 'Device Name' field is set to 'Office-A' and is also highlighted with a red box. Below this, there is a link to 'Find Office-A device on <http://www.mypedit.com>' and an 'Apply' button. Below the IP Service settings, the 'CNT2(MQTT)' settings are visible, including fields for 'Server', 'Port', 'User', and 'Password', with an 'Apply' button at the bottom.

1.) Open software "IPedit" and select the server that user's 9823 is designated to.

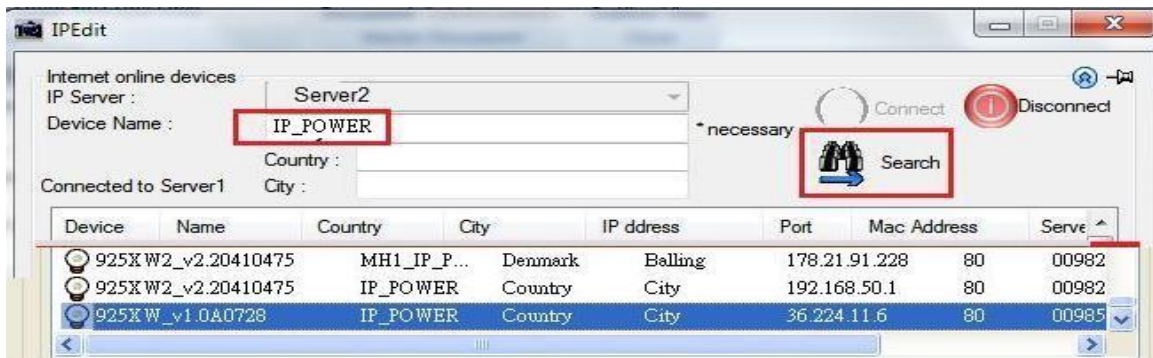


2.) Hit the Green Connect button on the top of IP Edit.



- 3.) Then type in the 9823 Name that user have selected for the device and press the Search button.
- 4.) Find user device and double click on the screen and a IE window will pop up connecting to user device.
**User device must be Port Forwarded for the login screen to appear.*

EX: The 9823 device name as IP_POWER , and user can search the device easily :



- 5.) After user have connected to user device, type in the Login and Password for user device

3.3 Internet Setup

To connect the IP Power 9823 on Internet, there are two ways

- Setup Port Mapping / Port Forwarding in user router. Please check user Router owner's manual .
- Use our own software " IP Power Center " : Please refer to the "IP Power Center " manual in the CD
- Use "UPNP " : User can enable or disable the function .



4 Webpage Interface overview

The 9823LT-RL webpage offers a graphical interface that helps user configuration . It is also very convenient to test and monitor user remote data acquisition and control system. The following guidelines will give user some brief instructions on how to use this device . The configuration column at the left side of the Web Interface are the functionality and setup of the IP Power 9823LT-RL .

There are 5 areas :

- **Information** : Device Name , Display , Time and Humidity & Temperature status
- **IO Control** : DI-DO , Schedule & Ping.
- **Network** : Setting
- **Application** : Email , DDNS, Communication & IP Service
- **System** : Management, Information, SysLog & Firmware
- **Logout**

4.1 Information

4.1.1 Device Name :

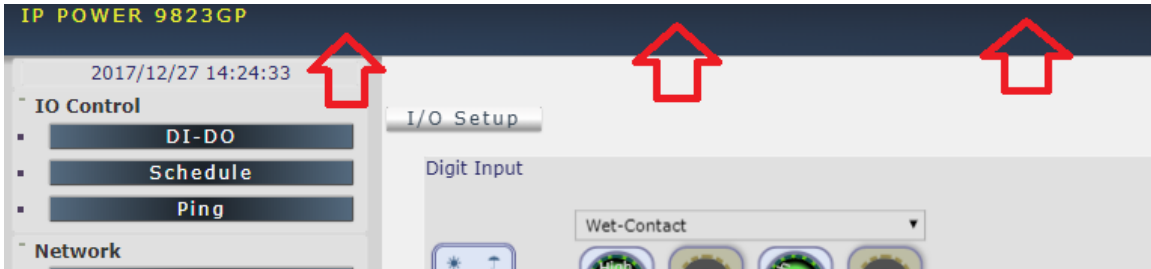
The device name show in yellow at the left side of webpage . User can change the name in Application → IP Service → Device name

Please change the name in English only and do not use other symbols like !@#%\$%^&*()_+

The screenshot displays the web interface for a device named 'New-9823GP-RL'. The left sidebar shows a navigation menu with categories: IO Control, Network, Application, and System. Under 'Application', 'IP Service' is selected and highlighted with a red arrow. The main content area is titled 'IP Service & CNT Setting' and contains several configuration fields. The 'Device Name' field is highlighted in yellow and contains the text 'New-9823GP-RL', with a red arrow pointing to it. Other fields include 'Enable', 'IP Service Server', 'CNT Server List', 'Country', and 'City'. Below these fields is a link to find the device on the manufacturer's website and an 'Apply' button. The bottom section is titled 'CNT2(MQTT)' and includes 'Enable' and 'Server' fields.

4.1.2 Display

Click any part of the deep blue column can hide or display the configuration column. This design is for small display like smart phone .



Normal - with full display / Without configuration column



4.1.3 Time

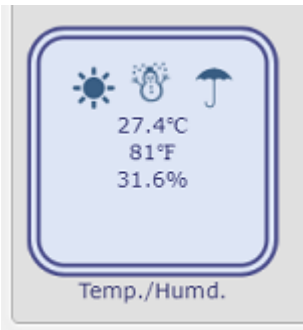
User can get Time at Year – Month – Date Hours : Minutes : Seconds here .



To setup the Time , Please go to “ System → Management → NTP Settings “ , there are several ways to setup the time .

NTP Settings	
Date	02 / 09 / 2018 (MM/DD/YY)
Time	13 : 12 : 20 (HH:MM:SS) <input type="button" value="Apply"/>
Current Time	Fri Feb 9 13:12:19 GMT 2018 <input type="button" value="Sync with local time"/>
Time Zone	(GMT+0800)ChinaCoast,HongKong
NTP Server	pool.ntp.org ex: time.nist.gov
Sync with NTP	Every 1 hours <input type="button" value="Apply"/> <input type="button" value="Cancel"/>

4.1.4 Humidity & Temperature status



There is a Humidity & Temperature sensor on 9823LT-RL board shows the temperature value in Celsius (°C) and Fahrenheit (°F) and the Relative humidity (%)

Sensor Range :

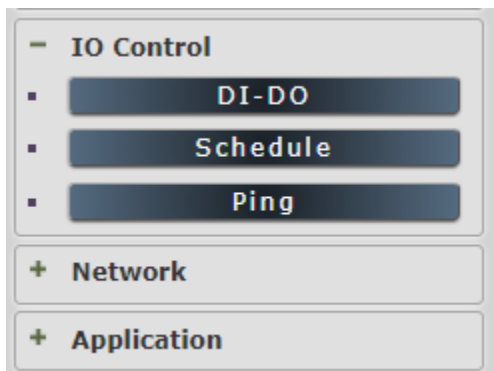
Temperature : -20 ~ +60 °C or -4 ~ +136 °F

Humidity : : 20 ~ 95 % RH

4.2 IO Control

The IO Control Section allows user to directly or automatically get the status of DI , control the Relay or the DO , setup the Schedule for the Relay or the DO , setup the Ping function of Relay outlets .

There are 3 sections : DI-DO , Schedule & Ping .



4.2.1 DI-DO

In this area , user can control& setup the IO - Relay , DI and , DO by select the button “ IO Control “ or “ IO Setup “

4.2.1.1 IO Control

Here user can get the status of DI Sensors and control the DO-Relay and the DO .

A. Relay

There are 4 Latching Relay outputs in IP Power 9823LT-RL . Each relay can be controlled ON , OFF or Reboot individually .

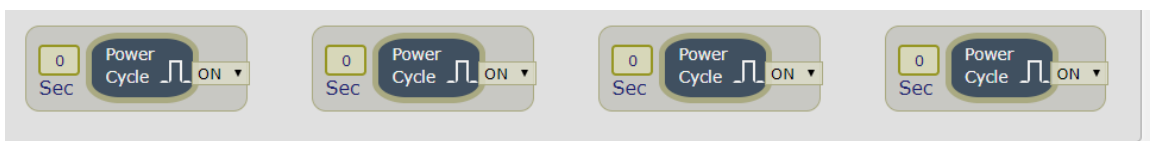
Latching relay is Low power dissipation, lower spike and no heat. It is more durable than other normal relay . Latching relay is also a memorable relay . As the device power turn off , the relay status will keep as it is at ON or at OFF.



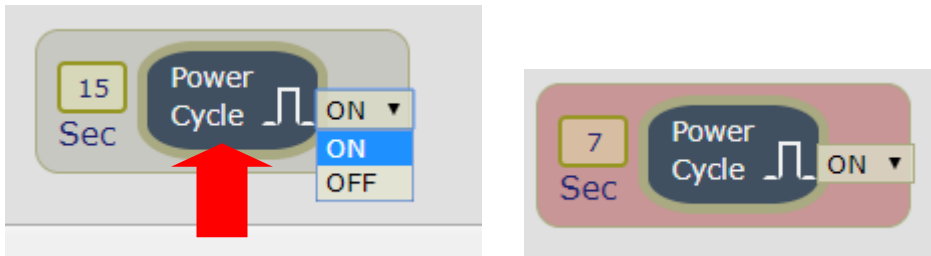
There are two operations for controlling the relay :

A-1 Manual control : Control each port ON or OFF directly by pressing the power button.

A-2 Power Cycle control : Manually Control the relay delay to turn ON / OFF . The relay cycle time can be set from 1 to 9999 seconds



User can setup the time and the final status in power cycle as ON / OFF



For example : (sec = seconds)

- Original Outlet as " OFF " , select final status as " ON " & fill 15sec :
After press power cycle button, the outlet will turn OFF for 15 seconds and then turn ON .

OFF (15 sec) → ON

- Original Outlet as " ON " , select final status as " ON " & fill 10sec :
After press power cycle button, the outlet will turn OFF for 10 seconds and then turn ON .

ON -- > OFF (10 sec) → ON

- Original Outlet as " OFF " , select final status as " OFF " & fill 8 sec :
After press power cycle button, the outlet will turn ON for 8 seconds and then turn OFF .

OFF → ON (8 sec) → OFF

- Original Outlet as " ON " , select final status as " OFF " & fill 5 sec :
After press power cycle button, the outlet will be ON for 5 seconds and then turn OFF .

ON (5 sec) → OFF

Notice :

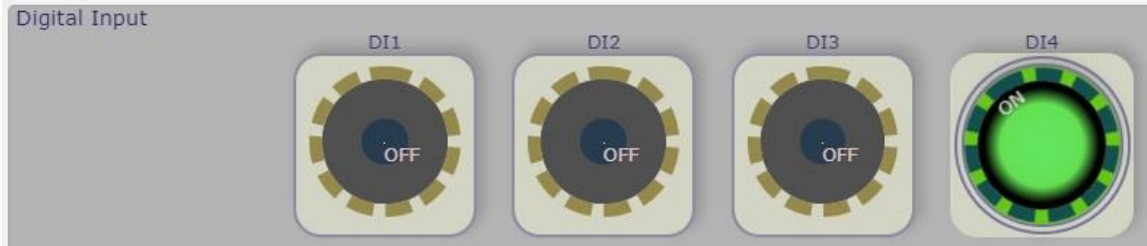
As use Latching Relay in IP 9823 , there is no difference of **Normal Closed Relay** (NC) or **Normal Open Relay** (NO) . As there is no power for 9823 device , **the relay status will keep as it is at ON or at OFF .**

B. Digit Input (DI)

There are 4 normal DI for Dry Contact or for Wet Contact

Dry contact means normal contact (shorting link) .

WET contact means the sensor is providing or passing some voltage or current to .



Note : We design the 4 standard DI for 9823 to use as all DRY contact or all Wet contact .

4.2.1.2 IO Setup :

User can do the advance setup in Relay , DI , setup “ Wake on Lan “ or “ Shutdown on Lan “ :

- In Relay : Name , mode , Alarm (Email / Beep) and Default Power status .
- IN DI : Name , mode , Alarm (Email / Beep) , Event Action and Notice .
- Wake On Lan
- Shutdown On Lan

A. In Relay :

	Relay1	Relay2	Relay3	Relay4
Name	power1	power2	power3	power4
Mode	Toggle ON/OFF	Toggle ON/OFF	Toggle ON/OFF	Toggle ON/OFF
Beep Notice	<input type="button" value="OFF ▼"/>	<input type="button" value="OFF ▼"/>	<input type="button" value="OFF ▼"/>	<input type="button" value="OFF ▼"/>
Email Notice	<input type="button" value="OFF ▼"/>	<input type="button" value="OFF ▼"/>	<input type="button" value="OFF ▼"/>	<input type="button" value="OFF ▼"/>
Power ON	<input type="button" value="OFF ▼"/>	<input type="button" value="OFF ▼"/>	<input type="button" value="OFF ▼"/>	<input type="button" value="OFF ▼"/>
<input type="button" value="Apply"/>				

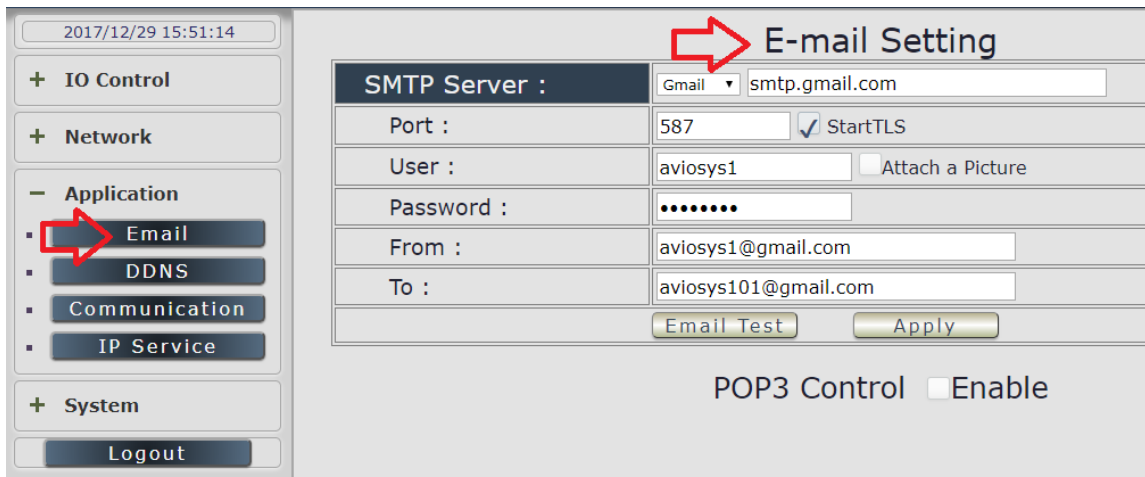
A-1 Name : Please change the name in English only and do not use symbol like !@#\$\$%^&*()_+



A-2 Mode : Show the status of the IO

A-3 Beep Notice : As the relay turn on or turn off , the beeper will alarm.

A-4 Email Notice : To use this function , please fill email information in “ Email “ area under “ Application “ Please refer the setting information in page #56



A-5 Power ON

Here is to setup the default power status as device power reboot .

The control section allow user to set the power status on ON or OFF or LAST when the device power Rebooted . The output will be same status as choose LAST before the device power turn off. To save the setting here , please click “Apply “ button .

Notice :

As use Latching Relay in IP 9823LT-RL , there is no difference of **Normal Closed Relay** (NC) or **Normal Open Relay** (NO) . As there is no power for 9823 device , **the relay status will keep as it is (ON / OFF)** .

B. In DI :

DI 1 , 2 , 3 & 4 : The 4 DI are stand . Support Dry / Wet Contact .

	DI1	DI2	DI3	DI4
Name	DI1	DI2	DI3	DI4
Mode	Edge Triggered	Edge Triggered	Edge Triggered	Edge Triggered
Beep Notice	OFF ▾	OFF ▾	OFF ▾	OFF ▾
Email Notice	OFF ▾	OFF ▾	OFF ▾	OFF ▾
Event Action	Undo ▾	Undo ▾	Undo ▾	Undo ▾
Notice	Event Repeat: None ▾	Event Repeat: None ▾	Event Repeat: None ▾	Event Repeat: None ▾

Apply

B-1 Name : Please change the name in English only and do not use symbol like !@#%\$^&*()_+

The screenshot shows a web interface with a dialog box titled "192.168.100.136 顯示 :". The dialog box contains the text "Please enter DI1 name:" and a text input field with "DI2" entered. There are "確定" (OK) and "取消" (Cancel) buttons. Below the dialog box is a button labeled "I/O Control". Underneath is a table with 7 columns (DI1 to DI6) and 2 rows (Name and Mode). A red arrow points to the "Name" cell for DI1, which contains "DI1".

	DI1	DI2	DI3	DI4	DI5	DI6
Name	DI1	DI2	DI3	DI4	DI5	DI6
Mode	Edge Triggered	Edge Triggered	Edge Triggered	Edge Triggered	DI Disable	DI Disable

B-2 Mode : Show the status of the IO

B-3 Beep Notice : As the DI statu change , the beeper will alarm.

B-4 Email Notice : To use this function , please fill email information in “ Email “ area under “ Application “ Please refer the setting information in page # 56

2017/12/29 15:51:14

E-mail Setting

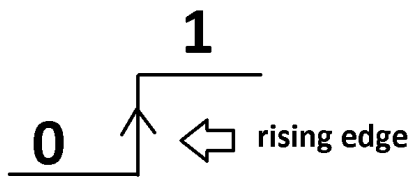
SMTP Server :	Gmail smtp.gmail.com
Port :	587 <input checked="" type="checkbox"/> StartTLS
User :	aviosys1 <input type="checkbox"/> Attach a Picture
Password :
From :	aviosys1@gmail.com
To :	aviosys101@gmail.com

Email Test Apply

POP3 Control Enable

B-5 Event Action : One DI can trigger one Relay .

Use can trigger Relay ON /OFF /Cycle as the assigned DI Rising edge .
Like Relay Disconnect , connect or cycle (from Off →On , Or from On→Off→On)



Event Action	Undo
Notice	Event
	<ul style="list-style-type: none"> Undo RL1 RL1 Disconnect RL1 Connect RL1 Cycle RL2 RL2 Disconnect RL2 Connect RL2 Cycle RL3 RL3 Disconnect RL3 Connect RL3 Cycle RL4
Name	
Mode	

B-6 Notice : For DI 1 , 2 , 3 & 4 only . The event action can set as one time or always .

Event Repeat:	None
	<ul style="list-style-type: none"> None 1 times 2 times 3 times always

B-7 Bounce filter : only In DI #5 & 6 , User can Enable or disable the filter

C. Wake On Lan :

Remote Wake up PC by MAC address in Ethernet (LAN) . Use Network port (RJ45), you can wake PC on WAN by PC `s MAC address.

Wake on LAN (WOL) premise:

(1) First the PC mother board needs to have Wake on LAN support and enable this WOL function in the BIOS setting.

(2) User`s network card must also support “WOL”, remember to connect your connect cable to Mother board or the network card cannot send the “power on” message to the motherboard.

After both the motherboard and network card have been setup, you can use WOL function by following the steps below:

Step 1: Log in 9258 web page and go to “Network Wakeup”

Step 2: Type in your MAC address then press “send” – the PC will be power ON.

Wakeup On LAN	MAC	Wakeup
WOL1	<input type="text" value="000000000000"/>	<input type="button" value="Send"/>
WOL2	<input type="text" value="000000000000"/>	<input type="button" value="Send"/>
WOL3	<input type="text" value="000000000000"/>	<input type="button" value="Send"/>
WOL4	<input type="text" value="000000000000"/>	<input type="button" value="Send"/>
WOL5	<input type="text" value="000000000000"/>	<input type="button" value="Send"/>
WOL6	<input type="text" value="000000000000"/>	<input type="button" value="Send"/>
WOL7	<input type="text" value="000000000000"/>	<input type="button" value="Send"/>
WOL8	<input type="text" value="000000000000"/>	<input type="button" value="Send"/>

D. Shut down On Lan

Setting of software shut down controlled PC/ Server

Shut Down On Lan : Support Windows or Linux version

IP9823GP-LT can be used to safely turn off the PC/Server through Network. With this feature user can remotely shutdown any PC/ Server which that is connected to the IP 9823LT-RL through normal Windows shut down procedure.

Documents created in programs like Microsoft office will not be automatically saved. The IP9823LT-RL will still shutdown the controlled PC/server without saving the file. The controlled PC/Server must be in the same ETHERNET and the same SUBNET as the 9823LT-RL .

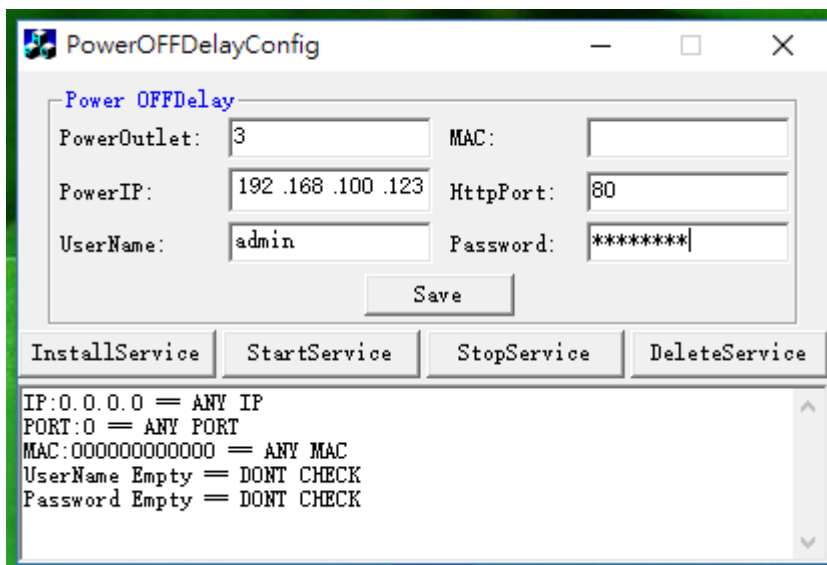
User can setup the delay time for the Relay to turn OFF after SOL command place by 9823LT-RL . The delay time is working for SOL1 ~ 4 (Relay 1 ~ 4) only .

Shutdown On LAN	DelayTime
SOL1	<input type="text" value="60"/> Seconds
SOL2	<input type="text" value="60"/> Seconds
SOL3	<input type="text" value="60"/> Seconds
SOL4	<input type="text" value="60"/> Seconds
SOL5	<input type="text" value="60"/> Seconds
SOL6	<input type="text" value="60"/> Seconds
SOL7	<input type="text" value="60"/> Seconds
SOL8	<input type="text" value="60"/> Seconds

Before operating the software shutdown function it is essential to install our software:

Installing and Setup of the “PowerOFFDelayConfig .exe”:

1. Insert the CD that came with the device into the PC that you want to turn off.
2. Please download the software in our attached CD : SDK → Shut Down On Lan → PowerOFFDelayService.zip and unzip the software and install program “PowerOFFDelayConfig.exe “ into the PC that will be controlled.
3. Execute and fill correct information in each section :



-PowerOutlet : Enter the power number in the 9823LT-RL that user want to control

-MAC : Enter the MAC address of the 9823LT-RL

-Power IP : Enter the IP address of the 9823LT-RL.

-HttpPort: Fill the port of 9823LT-RL , default value is 80, if amend the port in 9258 please correct.

-UserName: admin

-**Password:** 12345678 (password can amend in web page)

- a.) Click **“Save “** to save the settings.
- b.) Then Click **“InstallService”** to install.
- c.) Then **“StartService”** then please shutdown the PC/Server.
After the PC has been restarted, the function will be in effect.

4.2.2 Schedule

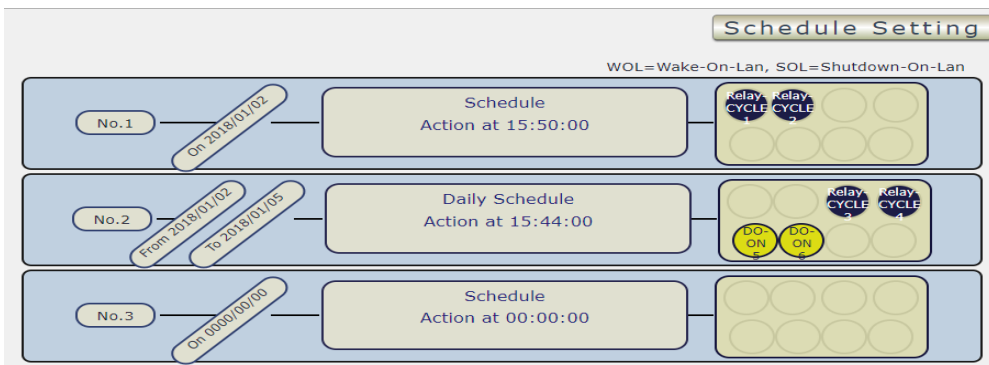
In this section , user can see the setting schedule list first up to 29 rules . To setup each schedule , please press **“ Schedule Setting “** , then user can get the **“ Schedule List “** page as following :



After setup the first schedule , the second schedule will pop up automatically in the Schedule list for user to setup new one . Use can add 29 rules one by one . Each rules can control 1 pc to 4 pcs Relay and 1pc to 4pcs DO .

4.2.2.1 In **“ Schedule list”**

User can see the schedule user apply and the information .



4.2.2.2 In **“ Schedule Setting “**

Schedule List

1 Duration Mode Once Every Week Every Day

Date 0000/00/00
 Time 00 : 00 : 00 (Hr:Min:Sec)

Schedule power action

power1 power2 power3 power4

Apply No.1 Sch Delete

Scheduler 1

WOL=Wake-On-Lan, SOL=Shutdown-On-Lan

No.1 → On 0000/00/00 → Schedule Action at 00:00:00 → [] [] [] []

A. Action :

The schedule allows user to control the Relay outlet or turn ON , OFF , Cycle (Off to ON) at assigned time

-In Relay : ON, OFF , CYCLE , WOL (Wake on Lan) or SOL (Shutdown on Lan)

- **WOL (Wake on Lan)** : Please refer the page 34 . WOL is for 9823GP-ERL to send WOL command to WIN /LINUX OS to boot up **as that OS is power OFF status** (not freeze status) The OS mother board need to support WOL function .

Relay Outlet #	WOL #
1	1
2	2
3	3
4	4

Wakeup On LAN	MAC	Wakeup
WOL1	<input type="text" value="000000000000"/>	<input type="button" value="Send"/>
WOL2	<input type="text" value="000000000000"/>	<input type="button" value="Send"/>
WOL3	<input type="text" value="000000000000"/>	<input type="button" value="Send"/>
WOL4	<input type="text" value="000000000000"/>	<input type="button" value="Send"/>
WOL5	<input type="text" value="000000000000"/>	<input type="button" value="Send"/>
WOL6	<input type="text" value="000000000000"/>	<input type="button" value="Send"/>
WOL7	<input type="text" value="000000000000"/>	<input type="button" value="Send"/>
WOL8	<input type="text" value="000000000000"/>	<input type="button" value="Send"/>

- **SOL (Shutdown on Lan)** : Please refer the page 35. SOL is for 9823GP-ERL to send SOL command to the WIN OS which execute our software " **PowerOFFDelayConfig.exe**

“ to shut down up **as that OS is On status** (not freeze status) The OS mother board need to support WOL function .

Note : There is LINUX version software for Shutdown on Lan

Relay Outlet #	SOL #
1	1
2	2
3	3
4	4

Shutdown On LAN	DelayTime
SOL1	<input type="text" value="60"/> Seconds
SOL2	<input type="text" value="60"/> Seconds
SOL3	<input type="text" value="60"/> Seconds
SOL4	<input type="text" value="60"/> Seconds
SOL5	<input type="text" value="60"/> Seconds
SOL6	<input type="text" value="60"/> Seconds
SOL7	<input type="text" value="60"/> Seconds
SOL8	<input type="text" value="60"/> Seconds

B. Adding a Scheduled Event

First , Select the Action Duration : There are 3 setting - Once , Every Day . Every Week

Second ,Select a Specific Date Range where the device will repeat the desired actions during the time specified.

Clear		Today																												Close	
<Prev		November 2013							December 2013							January 2014							Next>								
Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa				
3	4	5	6	7	8	9	8	9	10	11	12	13	14	5	6	7	8	9	10	11	10	11	12	13	14	15	16	17	18		
17	18	19	20	21	22	23	22	23	24	25	26	27	28	19	20	21	22	23	24	25	24	25	26	27	28	29	30	31			

Third , Select the Time Period.

Forth , Choose the Action : Enable # by clicking in the small square to mark “ v “ , and select one from the power action of OFF/ON/RESET / WOL /SOL as user need . .

Once the scheduler has been Set Up , hit the “ Apply No.X Sch “ button and user will see user setting located on the bottom of the Action section .

C. Edit a Schedule Event :

Step1 : Please select the Rule user want to edit in Scheduler List .

Step2 : Change the setting like Duration , Date , Time and Action.

Step3 : Press “ Apply NO. X Sch “ button to save the setting and user will see the page refresh and new setting display in Scheduler list

D. Delete - Click “ Delete “ button to remove a rule form the list .

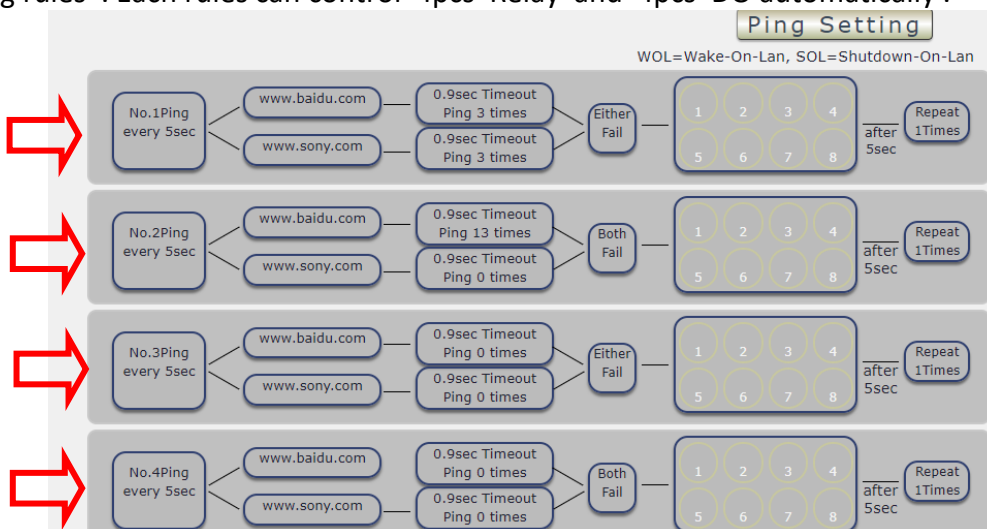
4.2.3 Ping

The Ping function allows the device to Ping an IP Address automatically to act as a watchdog to make sure the device getting Ping and working properly. Please Click the button to switch between “ Ping Setting “ & “ Ping List “ .



4.2.3.1 Ping List

Here list out the 8 Ping List for user to check . As click any part of the gray column , user can go to the setting of that Ping number . **There are 8 rules in Ping list** User can setup 8 Ping rules . Each rules can control 4pcs Relay and 4pcs DO automatically .



4.2.3.2 Ping Setting

User can click to select different rules numbers at the right side button “ Rule No: X “ as following pictures . There are 8 rules available.

There are 3 sections of the area :

A. Global Ping Base setting :

Global Ping Base Setting			
Ping Interval	5 Sec.	Response Time Out	900 ms.
Ping After Action Delay	5 Sec.	Action Max repeat times	1 (0=non stop)

- Ping Interval (Sec): The number of seconds between each ping .
- Response Time Out : It is the milliseconds (ms .) of the device will wait for a response from the Pinged device if no ping is detected within this time it will be considered a Ping failure.
- Ping After Action Delay : It is the seconds it take AFTER the action .

- Action max. repeat Times : It is the times to execute the Ping Failure action .Set “ 0 “ means action non stop - Keep action & no limit times.

As finish setting , please click “ Apply “ to save the setting in this area , the webpage will refresh and user can see the final setting result.

B. Conditional Mode :

Conditional Mode			
<input type="radio"/> Single <input checked="" type="radio"/> OR <input type="radio"/> And			
IP & Host Name	Failed times then action	Repeat	Rule No1
www.baidu.com <input type="button" value="Check"/>	03	Stop ▼	
www.sony.com <input type="button" value="Check"/>	03		

B-1 Basic setting :

-IP & Host Name : Input the IP Address (ex: 122.116.123.138) or Host - web address (ex: www.google.com) user would like to Ping.

User can use the “ **ping test** “ bottom to check the address valid or not

-Failed times then action : Setup the ping failure times for 9823 to execute the setup ON/OFF / Reset action of setting .

-Repeat : After the ON/OFF/Reset action , user can setup the Ping action to keep ping (Continue) or to Stop Ping (Stop) .

B-2 Three Modes

User can select the action activate by one / two IP Host failure or either one fail

- Single Mode : Execute Action by one IP Host failure . 9823 will Ping one IP address. As the IP fail times reach to the setting times . Action (ON/OFF/RESET) will be activated .

Conditional Mode			
<input checked="" type="radio"/> Single <input type="radio"/> OR <input type="radio"/> And			
IP & Host Name	Failed times then action	Repeat	Rule No1
www.baidu.com <input type="button" value="Check"/>	03	Stop ▼	
Ping failure action <input type="checkbox"/>			

- OR Mode : Execute Action by either one IP Host failure as setting 2 pcs IP Host .

9823 will Ping 2 IP address. Either one IP fail times reach to the setting times. Action (ON/OFF/RESET) will be activated .

Conditional Mode			
<input type="radio"/> Single		<input checked="" type="radio"/> OR	<input type="radio"/> And
IP & Host Name	Failed times then action	Repeat	Rule No1
www.baidu.com <input type="button" value="Check"/>	03	Stop ▼	
www.sony.com <input type="button" value="Check"/>	03		

- And Mode : Execute Action by both IP Host failure as setting 2 pcs IP Host 9823 will Ping 2 IP address. Both IP fail reach to the setting times. Action (ON/OFF/RESET) will be activated.

Conditional Mode			
<input type="radio"/> Single		<input type="radio"/> OR	<input checked="" type="radio"/> And
IP & Host Name	Failed times then action	Repeat	Rule No1
www.baidu.com <input type="button" value="Check"/>	03	Stop ▼	
www.sony.com <input type="button" value="Check"/>	00		

C. Ping failure action :

In the selected Rules number , please select the outlet number power to activate as ping fails and then press “ Apply Rule Action “ button to confirm the setting .

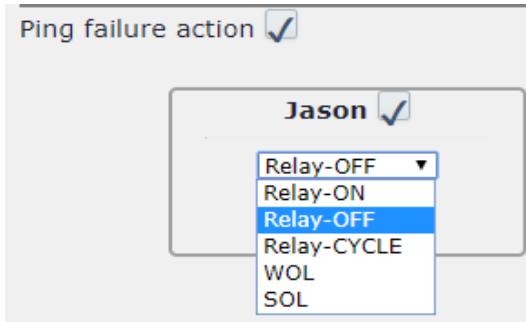
Global Ping Base Setting			
Ping Interval	5 Sec.	Response Time Out	900 ms.
Ping After Action Delay	5 Sec.	Action Max repeat times	1 (0=non stop)

Conditional Mode			
<input type="radio"/> Single		<input type="radio"/> OR	<input checked="" type="radio"/> And
IP & Host Name	Failed times then action	Repeat	Rule No1
www.aviosys.com <input type="button" value="Check"/>	00	Stop ▼	
www.google.com <input type="button" value="Check"/>	00		

Ping failure action

<input checked="" type="checkbox"/> power1 <input type="button" value="Relay-OFF"/> <input type="button" value="Relay-ON"/> Relay-OFF <input type="button" value="Relay-CYCLE"/> <input type="button" value="WOL"/> <input type="button" value="SOL"/>	<input type="checkbox"/> power2	<input type="checkbox"/> power3	<input type="checkbox"/> power4
--	---------------------------------	---------------------------------	---------------------------------

Ping 1



When the number of Ping Failures times have been reached. The device can be set to “ ON , OFF , Reset-Cycle , WOL (Wake on Lan) & SOL (Shut On Lan) ” function

- **Relay ON** or **Relay OFF**: Turn ON or OFF the outlet
- **Reset -Cycle** : Can set up the time gap from OFF to ON. The “ Sec “ section is for action as Reset only.
- **WOL** (Wake on Lan) : Please refer the page 34 . WOL is for 9823GP-ERL to send WOL command to WIN /LINUX OS to boot up **as that OS is power OFF status** (not freeze status) The OS mother board need to support WOL function .
- **SOL** (Shutdown on Lan) : Please refer the page 5. SOL is for 9823GP-ERL to send SOL command to the WIN OS which execute our software “ **PowerOFFDelayConfig .exe** “ to shut down up **as that OS is On status** (not freeze status) The OS mother board need to support WOL function .

Relay Outlet #	WOL # or SOL #
1	1
2	2
3	3
4	4

Wakeup On LAN	MAC	Wakeup	Shutdown On LAN	DelayTime
WOL1	<input type="text" value="000000000000"/>	<input type="button" value="Send"/>	SOL1	<input type="text" value="60"/> Seconds
WOL2	<input type="text" value="000000000000"/>	<input type="button" value="Send"/>	SOL2	<input type="text" value="60"/> Seconds
WOL3	<input type="text" value="000000000000"/>	<input type="button" value="Send"/>	SOL3	<input type="text" value="60"/> Seconds
WOL4	<input type="text" value="000000000000"/>	<input type="button" value="Send"/>	SOL4	<input type="text" value="60"/> Seconds
WOL5	<input type="text" value="000000000000"/>	<input type="button" value="Send"/>	SOL5	<input type="text" value="60"/> Seconds
WOL6	<input type="text" value="000000000000"/>	<input type="button" value="Send"/>	SOL6	<input type="text" value="60"/> Seconds
WOL7	<input type="text" value="000000000000"/>	<input type="button" value="Send"/>	SOL7	<input type="text" value="60"/> Seconds
WOL8	<input type="text" value="000000000000"/>	<input type="button" value="Send"/>	SOL8	<input type="text" value="60"/> Seconds

4.3 Network :

The Network Section allows user to setup LAN –Ethernet . There are Static Mode (fixed IP) or DHCP for elect .

Network Setting

LAN IP Select DHCP (Auto Config) ▾
Static Mode(fixed IP)
DHCP (Auto Config)

Get LAN IP from DHCP	
IP Address	192.168.100.115
Subnet Mask	255.255.255.0
Default Gateway	192.168.100.1

Secondary IP Enable Disable

Get DNS from DHCP Server	
Primary DNS Server	127.0.0.1
Secondary DNS Server	168.95.1.1

Port Setting	
Port(80~65535)	<input type="text" value="80"/>
WAN IP Address	0.0.0.0
Port Assigned	80

LAN (Ethernet) Settings :

A. STATIC (fixed IP) :

For users who need to control through Internet. Setup IP address manually.

This allows the 9823 to obtain an IP Address automatically from user`s server connected to Internet.

Please fill up the IP address , subnet mask and gateway correctly for login from Internet .

B. DHCP Mode :

Recommended for non advance users. This allows the 9823 to obtain an IP information automatically from user`s server connected to Internet. User can only revise PORT which is 80 as default .

As the IP from DHCP Service of user`s router will be changed by router . 9823 will remember last IP of 9823 assigned by user`s router in “Last DHCP state “ for information

Notice :

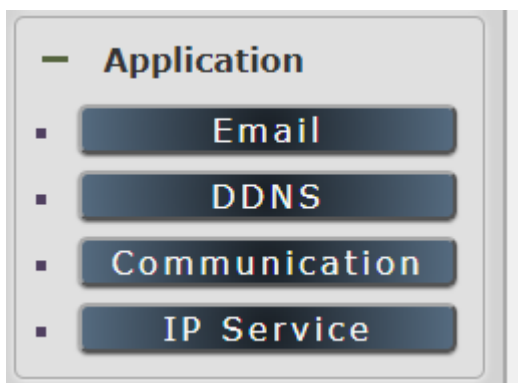
**Without network connection , the IP address of users Windows PC is 192.168.1.168
So the IP is for user to connect 9823 to PC directly and user do not need to change the IP of WIN PC connect to 9823 by network cable.**

C. Secondary IP : Enable or disable

This is for advances setting the DNS Server - primary / secondary

4.4 Application Settings

The Application Section allows user to setup email , DDNS , Communication and IP Service .



4.4.1 Email

There are 2 sections in this part -- E-mail setting and POP3 Control :

A. Email Setting :

User can get e-mail advice as one of the following situation happen :

- 4 Receive E-mail with IP information & MAC Address as 9823 device boot up.
- 5 Receive E-mail as DI Rising (Low to High) , relay status change in each output .

**Notice : To send out the e-mail successfully , please double check the setting of DNS .
(Network → DNS setting)**

The 9823 allows user to send from public e-mail account , such as Gmail or Hotmail or other public email address.

- **SMTP Server:** This is the mail server of sender . If user select “ Gmail “ or “ Hotmail “ account as SMTP Server , 9823 will fill the SSL & Port automatically . If user select “Other “ as SMTP Server , please fill the SMTP server information manually .
- **Port :** This is the port of SMTP Server. Most common port to send out e-mail is port 25
- **Start TLS: Enable or disable**
- **User :** Login for the e-mail address . Ex: 9823@gmail.com
- **Password:** Password for the e-mail address. EX : 12345678
- **From :** Mail sender address to send the E-Mail out . Ex: 9823@gmail.com
- **To :** Mail receiver address to get the E-Mail in Ex: 9223@hotmail.com
- **E-mail test :** Can help to check if the e-mail setting works.
- **Apply :** To store the setting in this section .

B. POP3 Control

User can control each port turn ON or turn OFF by e-mail. The command format is limited . Please enable the function first .

POP3 Control Enable

POP3 Server :	Gmail <input type="text" value="pop.gmail.com"/>
From :	<input type="text" value="aviosys@gmail.com"/>
Port :	<input type="text" value="110"/>
User :	<input type="text" value="aviosys1"/>
Password :	<input type="password" value="....."/>
Tag :	<input type="text" value="Test"/>
Interval(Minute) :	<input type="text" value="2"/>
Mail Number :	<input type="text" value="100"/>
CTRL Format :	<input checked="" type="radio"/> Subject <input type="radio"/> Body

Example:

E-Mail Test:

Subject:

Body:

Settings Section :

To set up 9823 be controlled by e-mail , user need to know the both **sender`s e-mail address and receiver`s e-mail account Name and Password.**

- POP3 Server:** This is receiver`s mail server
- From :** Sender`s email address . Ex: aviosys@gmail.com
- Port :** This is the port of POP3 Server.

If user select @gmail or @hotmail account as SMTP Server , 9823 will fill the SSL & Port automatically.

- User :** Psername to login the receiver`s e-mail Ex: aviosys1 or aviosys1@gmail.com
- Password:** Password for the e-mail address. EX : 12345678
- Tag :** User can use any message for 9823 to recognize this mail as 9823 command mail .

EX:

As type " Test " in TAG area, the command contents is as following:

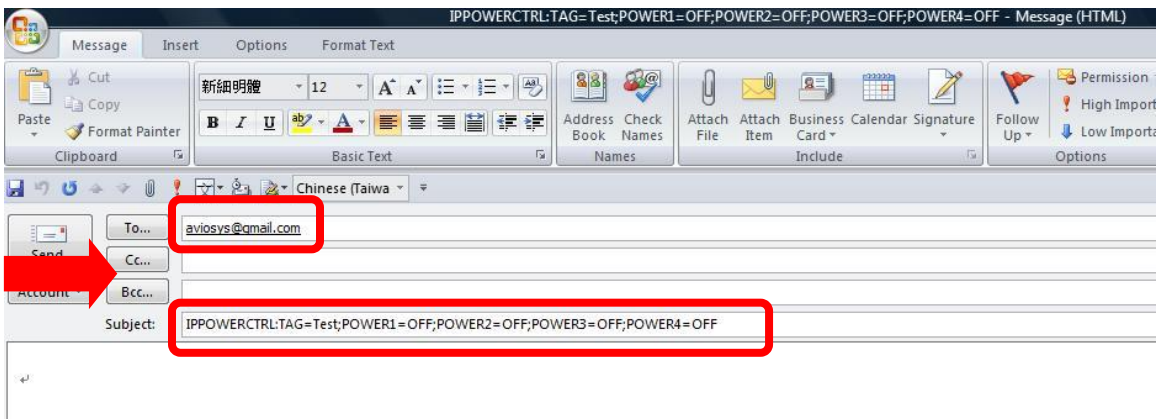
IPPOWERCTRL:TAG=Test;POWER1=OFF;POWER2=OFF;POWER3=OFF;POWER4=OFF

- Interval (minutes) :** The period of time between Send and Receive the command e-mail.
- Mail Number :** For 9823 to search as command mail in the number of user email receiver latest . EX : setup 20 that 9823 will check the latest 20pcs email in receivers mail box for the 9823 command mail
- CTRL format :** Control format by subject or by body (e-mail contents)

For example : Use Gmail as sender and receiver
 Sender`s e-mail : 123@gmail.com
 The Username to log in sender`s gmail : 123@gmail.com or abc@def.com
 The Password to log in sender`s gmail : 12345678

Command format & Example :

User can get the e-mail command contents in the section . And execute an e-mail as press “Submit “ if user has e-mail setting in the PC as following :



Command format :

IPPOWERCTRL:TAG=Test;POWER1=OFF;POWER2=OFF;POWER3=OFF;POWER4=OFF

There are 2 sections of the command

1. IPPOWERCTRL:TAG=Test

This is command part. Beside the tag message part (like Test on above example) user can change in setting section , the other command must be **CAPITAL** and are fixed content .

2. ;POWER1=OFF;POWER2=OFF;POWER3=OFF;POWER4=OFF

This is to set the outlet number (POWER1=) and action (ON/OFF) , user can only control 1~4 port ON/OFF by e-mail. Do each outlet command

EX: Put “ 14ON” in tag section and place the command as following : (at subject or body depends one user’s setting) :

IPPOWERCTRL:TAG=14ON;POWER1=OFF;POWER4=ON

E-mail example :

D. Execute e-mail command by " Subject "

The screenshot shows a web interface for configuring an e-mail command. At the top, there is a section labeled "CTRL Format :". To its right are two radio buttons: "Subject" (which is selected) and "Body". A red arrow points to the "Subject" radio button. Below these options is an "Apply" button. The main area of the form is titled "Example:" and contains three sections: "E-Mail Test:" with a text input field containing "yourmail"; "Subject:" with a text input field containing "IPPOWERCTRL:TAG=Test;POWER1=OFF;POWER2=OFF;POWER3=OFF;POWER4=OFF"; and "Body:" with an empty text area. A red arrow points to the "Subject:" input field. At the bottom of the form is a "Submit" button.

E. Execute e-mail command by " Body "

The screenshot shows the same web interface as above, but with the "Body" radio button selected. A red arrow points to the "Body" radio button. The "Apply" button is now highlighted with a red arrow pointing to it from the right. The "E-Mail Test:" field still contains "yourmail". The "Subject:" field is empty. The "Body:" field contains the text "IPPOWERCTRL:TAG=Test;POWER1=OFF;POWER2=OFF;POWER3=OFF;POWER4=OFF". A red arrow points to the "Body:" field. The "Submit" button at the bottom is also highlighted with a red arrow pointing to it from the left.

4.4.2 DDNS

The DDNS section allows user to setup the 9823 with a DDNS server (i.e. www.dyndns.com). After the server has been setup correctly, enter the necessary information into the 9823 DDNS settings.

Note : The DNS server will have extra change as apply new account.

DDNS

DDNS Setting	
Service Provider :	None ▼
Account :	None
Password :	freedns.afraid.org
Domain Name :	www.zoneedit.com
	www.no-ip.com
<input type="button" value="Apply"/> <input type="button" value="Cancel"/>	

Account : the Username / account name of DDNS account
 Password : the Password of DDNS account
 Domain Name : The DDNS name user apply . Ex: abc.dyndns.org

For Example :

DDNS

DDNS Setting	
Service Provider :	Dyndns.org ▼
Account :	user
Password :	*****
Domain Name :	abc.dyndns.org
<input type="button" value="Apply"/> <input type="button" value="Cancel"/>	

4.4.3 Communication

There are 4 different communication : SNMP , Telnet , ModBus TCP & BacNet (Beta)

A. SNMP : Enable or disable

SNMP:	
Enable	<input type="checkbox"/>
Community Authority :	N/A ▼
Community Name :	private
Trap type :	N/A ▼
Host(192.168.1.1:162) :	192.168.1.1:162
Trap Community :	private
MIB file	IPPOWER-MIB.txt
<input type="button" value="Apply"/>	


This section is for development of system integrator who familiar with SNMP knowledge.

B. Telnet : Enable or disable

TELNET:	
Enable	<input checked="" type="checkbox"/>
<input type="button" value="Apply"/>	


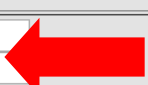

C. **Modbus** : We supply 3 models of ModBus control

C-1 ModBUS TCP : Just Enable or disable this function

TCP Modbus																	
Modbus Enable	<input checked="" type="checkbox"/> 																
Server IP	<input type="text" value="1.34.50.123"/>																
Port	<input type="text" value="502"/>																
Baud Rate	<input type="text" value="38400"/>																
SlaveID	<input type="text" value="1"/>																
Parity	<input type="text" value="None"/>																
Modbus ID	<table border="1"> <tr> <td>1.</td><td><input type="text"/></td> <td>2.</td><td><input type="text"/></td> <td>3.</td><td><input type="text"/></td> <td>4.</td><td><input type="text"/></td> </tr> <tr> <td>5.</td><td><input type="text"/></td> <td>6.</td><td><input type="text"/></td> <td>7.</td><td><input type="text"/></td> <td>8.</td><td><input type="text"/></td> </tr> </table>	1.	<input type="text"/>	2.	<input type="text"/>	3.	<input type="text"/>	4.	<input type="text"/>	5.	<input type="text"/>	6.	<input type="text"/>	7.	<input type="text"/>	8.	<input type="text"/>
1.	<input type="text"/>	2.	<input type="text"/>	3.	<input type="text"/>	4.	<input type="text"/>										
5.	<input type="text"/>	6.	<input type="text"/>	7.	<input type="text"/>	8.	<input type="text"/>										
RTU Enable	<input type="checkbox"/>																
<input type="button" value="Apply"/>																	

C-2 Modbus Gate way model : Need to Enable Modbus , Enable RTU & fill Modbus ID .

C-3 Modbus RTU : Need to Enable Modbus , Enable RTU & fill Modbus ID .

TCP Modbus																	
Modbus Enable	<input checked="" type="checkbox"/> 																
Server IP	<input type="text" value="1.34.50.123"/>																
Port	<input type="text" value="502"/>																
Baud Rate	<input type="text" value="38400"/>																
SlaveID	<input type="text" value="1"/>																
Parity	<input type="text" value="None"/>																
Modbus ID	<table border="1"> <tr> <td>1.</td><td><input type="text"/></td> <td>2.</td><td><input type="text"/></td> <td>3.</td><td><input type="text"/></td> <td>4.</td><td><input type="text"/></td> </tr> <tr> <td>5.</td><td><input type="text"/></td> <td>6.</td><td><input type="text"/></td> <td>7.</td><td><input type="text"/></td> <td>8.</td><td><input type="text"/></td> </tr> </table> 	1.	<input type="text"/>	2.	<input type="text"/>	3.	<input type="text"/>	4.	<input type="text"/>	5.	<input type="text"/>	6.	<input type="text"/>	7.	<input type="text"/>	8.	<input type="text"/>
1.	<input type="text"/>	2.	<input type="text"/>	3.	<input type="text"/>	4.	<input type="text"/>										
5.	<input type="text"/>	6.	<input type="text"/>	7.	<input type="text"/>	8.	<input type="text"/>										
RTU Enable	<input checked="" type="checkbox"/> 																
<input type="button" value="Apply"/>																	

D. **BACnet TCP - Beta** : Enable or disable

BACnet ^{Beta}	
Enable	<input type="checkbox"/>
Port	47808
<input type="button" value="Apply"/>	

4.4.4 IP Service

In this section , user can setup

- A. IP Service & CNT (Cross Network Technology) ,
- B. CNT 2 (MQTT)

IP Service & CNT Setting	
Enable	<input type="checkbox"/>
IP Service Server :	Server1 ▼
CNT Server List:	Server1 ▼
Device Name :	Cathy-9823GP-RL
Country :	Country
City :	City
Find Cathy-9823GP-RL device on http://www.myipedit.com	
<input type="button" value="Apply"/>	

CNT2(MQTT)	
Enable	<input type="checkbox"/>
Server :	www.myipedit.com
Port :	1883
User :	ipuser
Password :
<input type="button" value="Apply"/>	

IP Service & CNT Setting :

The IP SERVER allow 9823 to be easily accessed on the internet by our IP Power Center or IP EDIT. With this feature anyone can find there device with no problems.

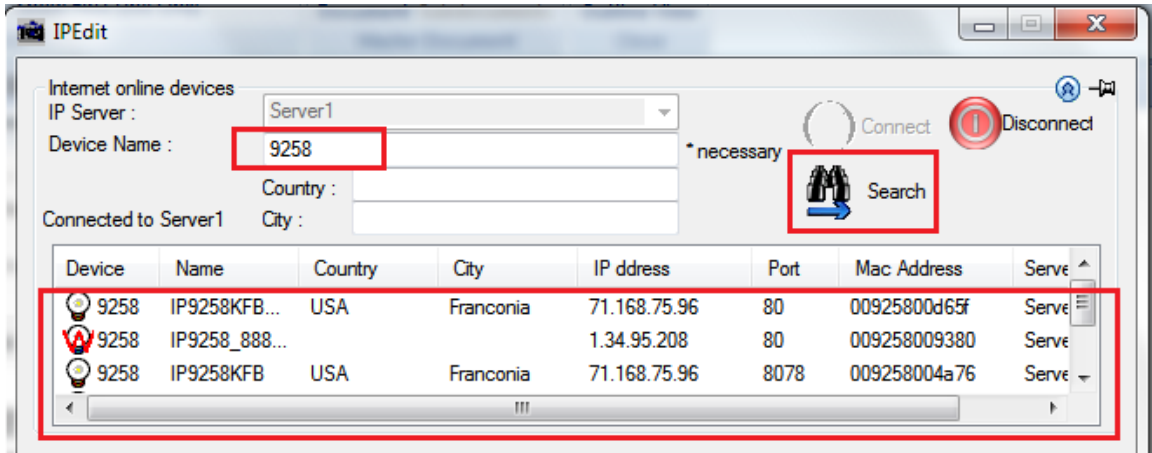
IP Server: Allows user can find user of 9823 on the internet without having to remember long IP Addresses. Instead user can just remember the name of user device.

- E. Enable IP Server : Enable or Disable this function click .
- F. IP Server & CNT Server : For easily setting , please select same server number for the 2 part.

User can search the 9823 by Device name , Country or City.

This allows the device to easily be accessed on the Internet, user no longer have to Port Forwarding , user device to be able to use it. Only some devices are CNT compatible.

Please refer page #26 for the function of IP Server

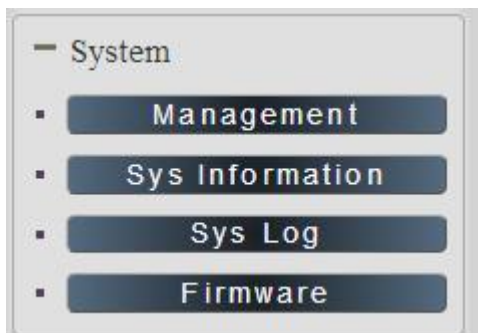


B. CNT2 (MQTT)

Please contact with distributor or us for the details information .

4.5 System Setting

The System Section allows user to do setting of management , system information , Setup SysLog , check firmware version / Update firmware online .



4.5.1 Management

In this section there are several setting :

Administrator setting, Host Connection Interval , NTP setting , Backup Setting , Load Factory Default , Restart System

The message show :

System Management	
You may configure administrator account and password, NTP settings, and Dynamic NTP settings here.	
Adminstrator Settings	
Account	<input type="text" value="admin"/> <input checked="" type="radio"/> Admin <input type="radio"/> Operator <input type="radio"/> Viewer
Password	<input type="password" value="*****"/> <input type="button" value="Apply"/>
Language Settings	
Language	<input type="text" value="English"/> <input type="button" value="Apply"/>
NTP Settings	
Date	<input type="text" value="01"/> / <input type="text" value="02"/> / <input type="text" value="2018"/> (MM/DD/YY)
Time	<input type="text" value="11"/> : <input type="text" value="45"/> : <input type="text" value="44"/> (HH:MM:SS) <input type="button" value="Apply"/>
Current Time	<input type="text" value="Tue Jan 2 11:45:43 GMT 2018"/> <input type="button" value="Sync with local time"/>
Time Zone	<input type="text" value="(GMT+0800)ChinaCoast,HongKong"/>
NTP Server	<input type="text" value="pool.ntp.org"/> ex: time.nist.gov
Sync with NTP	Every <input type="text" value="1"/> hours <input type="button" value="Apply"/> <input type="button" value="Cancel"/>
Import configuration files	
Location	<input type="button" value="選擇檔案"/> 未選擇任何檔案 <input type="button" value="Import"/> <input type="button" value="Cancel"/>
System reset	
Export configuration file	<input type="button" value="Apply"/>
Factory Reset	<input type="button" value="Apply"/>
Reboot	<input type="button" value="Apply"/>

Administrator settings

The User Management section allows user to create users that will be able to access user device.

There are two main types of users:

System Management	
You may configure administrator account and password, NTP settings, and Dynamic NTP settings here.	
Adminstrator Settings	
Account	<input type="text" value="admin"/> <input checked="" type="radio"/> Admin <input type="radio"/> Operator <input type="radio"/> Viewer
Password	<input type="password" value="*****"/> <input type="button" value="Apply"/>

There are three Authorities in 9823. The account name and password can be changed by user , but each Authorities only support one Account name & one password.

- **Admin:** The *Administrator* has the authority to create other users, remove users, and control the device. 9823 will ask to log in again if change the Default Setting here.
- **Operator :** The operator can only control the setting of “ IO Control “ section but can not see other page of 9823 .
- **Viewer:** The viewer can only see the “ IO Control “ section , but can not see other page of 9823.

Default Setting of the Authorities :

Authority	Account name	Password
Admin	Admin	12345678
Operator	user	user
Viewer	guest	guest
Note	Please amend the password as number or English character from 1 to 8 characters. Do not use special symbol like “ ” ; : ~ ! @ # \$ % ^ & * ()	

Please click “Apply “ button after change the account name / password

Langrage settings

There are three display Language - 3 Language (English , Chinese , Simple Chinese) .

NTP setting

In this section , user can setup the date , time and NTP server to get the time synchronization .

NTP Settings	
Date	01 / 02 / 2018 (MM/DD/YY)
Time	11 : 45 : 44 (HH:MM:SS) <input type="button" value="Apply"/>
Current Time	Tue Jan 2 11:45:43 GMT 2018 <input type="button" value="Sync with local time"/>
Time Zone	(GMT+0800)ChinaCoast,HongKong ▼
NTP Server	pool.ntp.org ex: time.nist.gov
Sync with NTP	Every 1 hours <input type="button" value="Apply"/> <input type="button" value="Cancel"/>

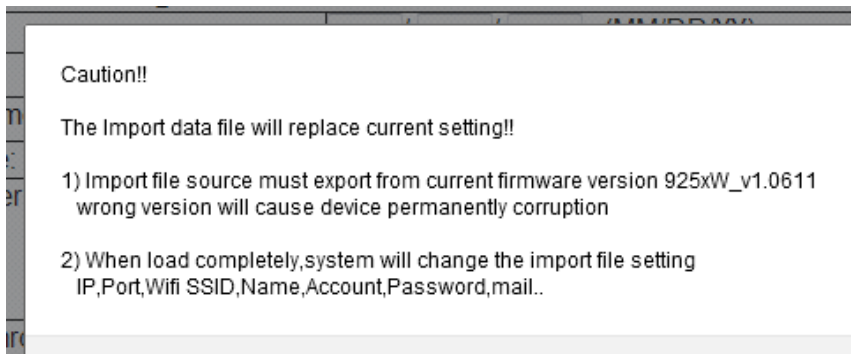
NTP synchronization : User can setup the time gap (1~300 hours) for 9823 to check the time with the NET server .

Import configuration files

Back up the setting and setup . User can export the setting of 9823 into a “ DAT “ format .

It will save most the setting in 9823 . User can import the file which is exported from 9823 as “ DAT “ format . It will help user to setup many 9823 device in a short time.

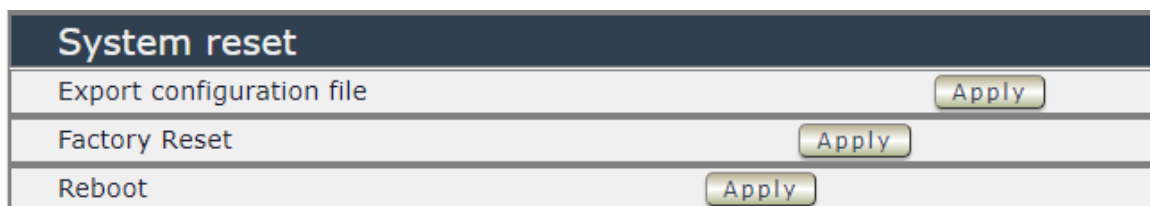
As press “ Import “, there is caution message show as following :



Before click “ Ok “ to import , please do read following notice :

- Do NOT import DAT file which is not export form 9823. The warranty will be invalidated if any wrongdoing from “ Import “ .
- Please do Import the file in LAN / Ethernet . To avoid Import fail , please do not Import file via Internet

System reset



In this section , user can click one button to set back the setting to default or restart the 9823 without device nearby user side.

- **Export configuration** : export the setup into a file for other 9823LT-RL device to import same setting . Like Schedule , Ping , name of power , Relay , DI and DO .
- **Factory Reset** : Set device back to factory default . factory default setting of 9823 IP is assigned by DHCP. It will change the IP if load factory defaults .

Factory Notice :

Caution!!

The system will replace current setting to factory default setting!!

1) if you just updated the newer firmware,please press button at first time.

The Default setting can ensure the newer function match the newer setting.

2) The IP,Port,SSID,Name,Account>Password,mail.. will change to default DHCP Port 80 and password..

- **Reboot** : Power reboot the device directly. It will take around 60seconds for boot up the 9823LT-RL

4.5.2 System Information

In this section , user can get the system information like System, LAN and others.

System			
System Up Time	13 hours, 12 mins, 23 secs	MAC Address	00:76:23:00:00:24
Firmware Version	v1.00_282_5	Hardware Version	(Dec 21 2017)
WAN			
WAN IP Address	0.0.0.0	Ethernet Port	80
Default Gateway	192.168.100.1	Internet Port	80
Primary DNS	127.0.0.1	Secondary DNS	168.95.1.1
LAN			
Connected Type	DHCP		
Local IP Address	192.168.100.136		
Local Netmask	255.255.255.0		
Other Information			
SNMP	Disable		
ModBusTCP	Disable		
BacnetIP	Disable		
Telnet	Enable		
UPNP	Disable		
IPSERVICE & CNT	Disable		
CNT2	Disable		

4.5.3 System Log

In this section , user can get the 9823 system operation information and send the information to assign Server IP address (not support name) . **The system information will be deleted after 9823 device power reboot.**

System Log

Syslog:
Syslog Server IP Address

System Log:

```

Jan  2 18:10:50 Cathy-9823GP-RL syslog.info syslogd started: BusyBox v1.12.1
Jan  2 18:10:50 Cathy-9823GP-RL kern.notice kernel: klogd started: BusyBox v1.12.1 (2017-12-07 01:17:44 PST)
Jan  2 18:10:50 Cathy-9823GP-RL kern.alert kernel: [  9.028000] PROC INIT OK!
Jan  2 18:10:50 Cathy-9823GP-RL kern.err kernel: [  9.788000] gre: can't add protocol
Jan  2 18:10:50 Cathy-9823GP-RL kern.err kernel: [ 18.396000] ### raeth: can not open udhcpc_eth.pid
Jan  2 18:10:50 Cathy-9823GP-RL user.info syslog: ### Link up!

```

Please click the IP and save by click “ Apply”

4.5.4 Firmware

The firmware update function only support in LAN connection . NOT support under WiFi connection . Before update , please DO **READ THE MESSAGE BLOW** :

Upgrade Firmware

Upgrade selected firmware to obtain new functionality. **Caution! A corrupted image will hang up the system.** It takes about 1 minute to upload & upgrade flash and be patient please.

Firmware	
Location	選擇檔案 未選擇任何檔案

Upgrade selected firmware to obtain new functionality.
Caution! A corrupted image will hang up the system.
It takes about 1 minute to upload & upgrade flash and be patient please.

To update the 9823 , please follow the instruction below to prevent anything happens like **update incomplete** or **hardware disable** which may be caused by wrongdoing of updating . Please also update the notice in webpage before update :

- 1) Turn off all chat programs including (Skype, FB, QQ, AIM, Yahoo messengeretc.)
- 2) Check to make sure that all devices are turned on safely and powered
- 3) While updating do not turn off the power
- 4) Make sure that the cable is connected firmly
- 5) Do not interrupt the update process, the update must be completely finished .
- 6) Turn off, any Spyware or antivirus software which may conflict with the update.
- 7) Update firmware in the Local Area Network (LAN)
- 8) Support update under 32bit Web Browser (32 bit version only) like IE, Google Chrome, Firefox . **Do not use browser at 64 bit version**
- 9) Please change the PORT as 80
- 10) **Reboot and Do the Hardware Reset (keep pressing RESET two buttons for 5 seconds and release) after update successfully. There are 4 beep show the reset successfully.**
- 11) **Clear the Cookies** to avoid get the old webpage .

5. Controlling the Device

5.1 CGI HTTP Commands

CGI Commands allow user to easily integrate the 9823 with other systems and programs. Please read the instructions carefully on how to use the Http:// Commands

To use http:// Commands open up a web browser and type in the command that user would like to use.

1. User authorization .There are 3 formats :

For example : IP address 192.168.1.18 , Username : admin. Password : 12345678

1.1 <http://admin:12345678@192.168.1.18/set.cmd?cmd=getpower>

1.2 <http://192.168.1.18/set.cmd?user=admin+pass=12345678+cmd=getpower>

The above 2 way also for HTTPS

2. Command

set.cmd?cmd=

All command do not separate capital / lower case , the connect symbol between commands can be “+” , “&” and “?”.

2.1 To get firmware version : getversion

<http://192.168.1.18/set.cmd?cmd=getversion>

System return :

CGI Command : Data follows

Version=9258W_N_v1.0.0.1

2.2 To get MACaddress: getmac

<http://192.168.1.18/set.cmd?cmd=getmac>

System return:

CGI Command : Data follows

mac=00929000008F

2.3 To get the status of power on/ off: getpower

<http://192.168.1.18/set.cmd?cmd=getpower>

System return:

CGI Command : Data follows

p61=0, p62=0, p63=0, p64=0

P61 to P64 means : POWER1 to POWER4

2.4 To set the power on / off : setpower&p6x=0 or 1

p6x=0 means off, p6x=1 means ON, x can be 1 to 4 (power1 to power 4)

Example : Turn on POWER1 and POWER2 and turn off POWER3:

<http://192.168.1.18/set.cmd?cmd=setpower&p61=1&p62=1&p63=0>

System return:

CGI Command : Data follows

p61=1,p62=1,p63=0

2.5 Setup power to reboot as RESET: setpowercycle& p6x=delayTime

X can be 1 to 4 (power 1 to power 4) , ; delayTime mean the time (second) waiting for reset

For example :

[http://192.168.1.18/set.cmd?cmd=setpowercycle &p61=5&p62=2&p63=4](http://192.168.1.18/set.cmd?cmd=setpowercycle&p61=5&p62=2&p63=4)

System return:

CGI Command : Data follows

p61 cycle ok,p62 cycle ok,p63 cycle ok

5.2 Telnet Control

```
CV Telnet 192.168.1.18
IP login: admin
Password:
```

```
CV Telnet 192.168.1.18
#
# ioctrl -h
**-----**
Usage: ioctrl
[-h : --help l.....: display this help
[-s : --setpower p6=0011 or p6x=1(x=1,2,3,4)l.....: turn on/off ports on the d
evice
[-p : --getpower l..: get the on/off status of the device
[-c : --current l.....: get the current value of the device
[-t : --temp l.....: get the temperature value of the device
[-v : --version l.....: display version information
-----
# ioctrl -s p6=1111
p61 ok,p62 ok,p63 ok,p64 ok.
# ioctrl -c
Current value: 0.000000, 0.000000, 0.000000, 0.000000
# ioctrl -t
Temperature value: 32.299999
# ioctrl -v
IO CONTROL Version: 1.0
Compilation Date....: May 14 2013
Compilation Time....: 10:44:47
# ioctrl -p
Power Status: 1, 1, 1, 1
#
```

Notice: The command “-C” & “-T” are for models 9823 only .

6.FAQ :

Q1: Why can't I see the 9823's IP address in IPEDIT.exe ?

Ans.: Please check the PC you use is under same LAN/ network / segment as 9823 .
Please turn off some Anti-Virus / online chatting software .
If there are more than 1 network card , include dynamic network card , please disable one and make sure the one you selected is
Under the same segment with IP9823.

Q2 : Why can't I see my 9823 after arrange the port forwarding in my router?

Ans. : Please make sure the Network Type (Gateway) is correct - LAN or WAN .

Q3 : Why can't I receive e-mail ?

Ans.: Please check the DNS and GATEWAY setting first (Check user router or ask user ISP company) .There is a test button for checking the setting success or fail to send e-mail.

Login From 192.168.100.26 connect to Ethernet 192.168.100.28



Notice :

Under DHCP mode - 9823 will get the Network type (Gateway) information automatically. But if under Static mode , please do fill up the correct Network type (gateway) .

Step 3 : Connect user PC and 9823 to a router by LAN. Then **reboot 9823 (MUST DO)** .
After 45 seconds with a long beep sound , user can find the LAN IP of 9823 by
IPEIDT.exe

Q5: How can I reset to default:

Ans : Keep pressing the button of "RESET for 5 seconds at least

To reset to original manufacture settings : press the reset button with a sharpen pin for 5- 6 seconds then RELEASE. There will be 3 beeps sound which means reset start and

9823 will be rebooted itself -there is one beep after reboot) and most information go back to default setting (LAN IP).