



*SECURING YOUR WORLD*

# **USER MANUAL**

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*POE SWITCH*

# INTRODUCTION

This manual is to be used for ensuring users use the product correctly through a manual, in order to avoid risks or damage of their property happens when they are operating. Before using the product, please read the product manual carefully and keep it safe for future reference.

## Overview

This document is applicable for the PoE switch instruction.

## Agreement

Symbols appearing in the document are instructed as follows:

Symbol	Illustration
○! Instruction	The Instruction Text indicates the supplement and explanation to the main text.
Δ! Caution	The Caution Text remind a user of some important operations or prevents a user from a potential injury and property loss. If it cannot be avoided, someone will suffer from the injury, the equipment will be damaged, and service will be interrupted.
Δ! Danger	The Danger Text indicates a high potential risk. If it cannot be avoided, it will cause a major hazard of personal death.

## Precautions for safety use

### Δ! DANGER

- ◆ In the processing of the installation and usage of this product, strictly abide by the regulations of the national and local electrical safety is necessary.
- ◆ The plug or socket of the device is the equipment that can disconnects from the power. DO NOT block it, for easy insertion and removal.
- ◆ The external conductors connecting the equipment to the hazardous live terminals need to be installed by professionals
- ◆ The protective grounding of the equipment should be connected to the protective grounding of the building equipment.
- ◆ Must cut off the power supply of the device, when it is connecting cables, disassembling, or installing devices. DO NOT operate with power on.
- ◆ The device is not suitable for the usage scenario where children may be present.
- ◆ This product contains button batteries, if that are swallowed, it will cause a serious internal burn to lead to DEATH. Children should stay away from new and used batteries.

### Δ! CAUTION

- ◆ Please use a power adapter which produced by the authorized manufacturer.
- ◆ Keep the device placed horizontally on the desktop when you are using
- ◆ The device should away from an exposed fire sources, for example a lit candle.
- ◆ The device shouldn't suffer from water droplets or splashes. Place any liquid (such as water cups) on the equipment is strictly prohibited.

# Chapter 1 Product introduction

Lite managed PoE switch, hereinafter referred to as the “device”, is a Layer 2 PoE network switch that provides advanced technology of Ethernet PoE power-supply based on meeting high-performance access requirements. The product supports Client Management and achieves such functions of the security network as visualized topology management and port management. With high reliability, easy to install, and easy to maintain, this PoE is equipped with multiple access ports to achieve fast switching, and also it is suitable for devices that have access to a small-scale LAN.

## 1.1 Install and Power up

Place the switch on a smooth table, connect the power cable, plug it, and turn on the power supply. After being powered on, the switch is initializing automatically while the port indicator is flicking then turns off, and the system initialization is completed.

### △! CAUTION:

1. DO NOT place heavy objects on the switch and ensure that the switch has good ventilation and heat dissipation.
2. Please power OFF before inserting or removing the adapter.
3. Please check the power supply. If the initialization does not comply with the above.

## 1.2 Appearance part instructions

This chapter describes the detailed instructions of the switch front and rear panels, and the LED indicators.

### 1.2.1 Front Panel



Diagram of front Panel

## 1. Indicator Light

Indicator	State	Description
PoE	Green light always on	PoE port power supply is normal
	Always off	PoE port is not powered
Link/Act	Yellow light always on	The device is connected with the port normally
	Yellow light is flicking	Data is transmitted by the port
	Always off	Device is not connected with the port
PoE-MAX	Light on	The gross power of the PoE port has reached or exceeded the alarm value
	Light off	The gross power of the PoE port is less than the alarm value or haven't been connected with a powered device

### ⚠ CAUTION:

The priority of the PoE port power supply is as follows: The larger the port number, the lower the priority. If the gross power of all powered PoE equipment is higher than the maximum output power of the device, the switch will cut off the power supply for the largest port on the connected device. For example, ports number 1,2,5,8 are in the progress of a 14W normal power supply, and the total power supply of the system is 56W. If now a powered equipment with 15W is connected to one of the ports, the system will cut off the power supply automatically for port 8, because the power supply is overloaded. That is means, ports 1, 2, and 5 are still supplied with 14W power, the new ports supplied with 15W, but Ports 8 will no longer be supplied with the power.

## 1. Reset Button

Reset hole	Long press for 3 seconds	The device password will be restored to default value
	Long press for 10 seconds	All device parameters are restored to default values

### Red Port

Red port is a port with a high priority for up-going forwarding, it is identified an area in red on the device, and has the below privileges:

- ◆ Under the circumstance of up-going congestion, data is transmitted firstly on the ports of this area.
- ◆ When the gross power of PoE has exceeded the limit, give priority to the output power of ports in the area.

### 3. Uplink Port

4 Port switches support 10/100Mbps full-duplex communication, and 8 Port switches support 10/100/1000Mbps full-duplex communication, but do not provide PoE function.

#### 1.2.2 Rear Panel



Diagram of Rear Panel

##### 1. Power Interface

Please use a 48V power supply to connect the powered adapter, if the power supply does not match, the switch will be damaged.

##### 2. Lightning protection grounding pole

Located on the left of the power interface, it must be connected to a lightning protection to prevent the device from a lightning damage.


## Chapter 2 ADD DEVICE

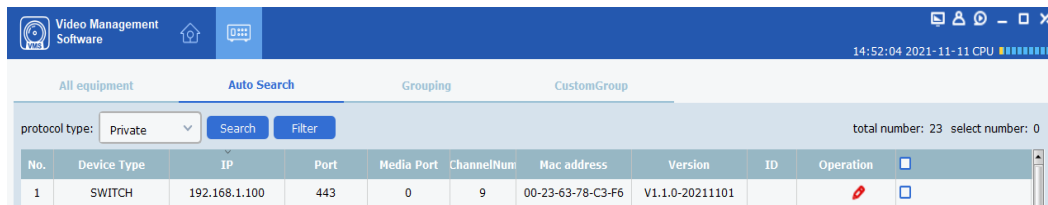
The device can be configured and managed through the VMS Pro client software, including network parameter configuration, port configuration, and network topology display and searching.

The device used for the first time must be activated first, set up the login password.



Please install the VMS Pro client first and follow the instructions.

Operating steps

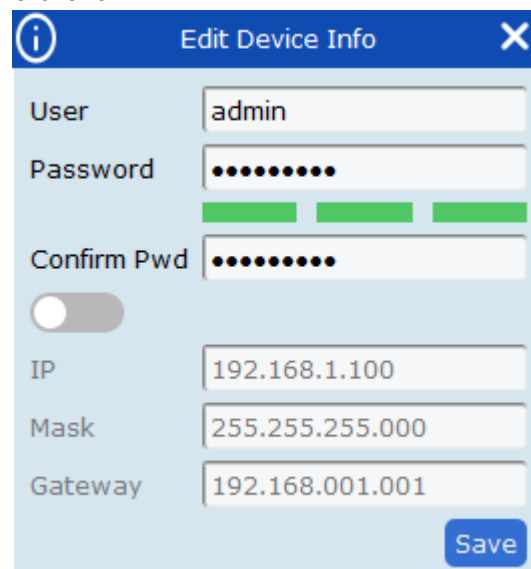
1. In the interface of **Video Management** ---> **Auto Search**, select the device, Click  **for activation**.



The screenshot shows the 'Video Management Software' interface. At the top, there's a header with the software name and some icons. Below that, there are tabs for 'All equipment', 'Auto Search', 'Grouping', and 'CustomGroup'. Under 'Auto Search', there's a 'protocol type' dropdown set to 'Private', and 'Search' and 'Filter' buttons. A status bar indicates 'total number: 23 select number: 0'. Below this is a table with the following data:

No.	Device Type	IP	Port	Media Port	ChannelNum	Mac address	Version	ID	Operation
1	SWITCH	192.168.1.100	443	0	9	00-23-63-78-C3-F6	V1.1.0-20211101		 

- Set up and confirm the login password for the device on the pop up menu page, then edit the network information to let it have same network segment as the PC which installs VMS Pro client.



The 'Edit Device Info' dialog box contains the following fields and controls:

- User:** Text input field with 'admin' entered.
- Password:** Password input field with masked characters (dots).
- Confirm Pwd:** Password input field with masked characters (dots).
- Toggle Switch:** A toggle switch currently turned off.
- IP:** Text input field with '192.168.1.100' entered.
- Mask:** Text input field with '255.255.255.000' entered.
- Gateway:** Text input field with '192.168.001.001' entered.
- Save:** A blue button at the bottom right.

- Click "Save", the device is activated and add successfully.

#### ❶ Explanation:

Before activating the device, please ensure the device IP address, subnet mask and gateway are under same network segment as the PC which installs VMS Pro client. So that the device can be added to the client for management.

## Chapter 3 Remote Configuration

### 3.1 System Configuration

#### 3.1.1 Device Information

Select **Remote configuration** ---> **Configuration** ---> **Information**, basic device information will be displayed, including the device name, model, number of ports, firmware version, MAC address, and port information, etc.

Information

Management

Basic Information

Device Model

RS-SW08

Port Number

9

Version

V1.1.0-20211101

MAC Address

00-23-63-78-C3-F6

Device Name

RS-SW08

Port Information

index	Port name	bandwidth	Port type
1	Eth1	100M	Electrical interface
2	Eth2	100M	Electrical interface
3	Eth3	100M	Electrical interface
4	Eth4	100M	Electrical interface
5	Eth5	100M	Electrical interface
6	Eth6	100M	Electrical interface
7	Eth7	100M	Electrical interface
8	Eth8	100M	Electrical interface
9	Ge1	1000M	Electrical interface

Save

Refresh

### 3.1.2 Device Maintenance

You can reboot the device, restore the default Settings, download logs, and upgrade.

#### Operating Steps

1. Select **Remote config** ---> **Management** ---> **System management**, have access to the Maintenance page.

Remote config

Information

Management

System Management

System Default

Syetem Reboot

DownLoad Log


System Upgrade

Select a File

Upgrade progress

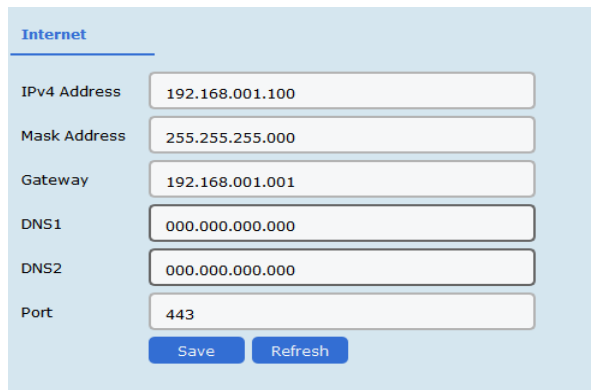
Upgrade

2. Select function buttons to achieve different functions

<b>System default</b>	All parameters are restored to factory Settings. After the restoration, the device needs to be reactivated.
<b>System Reboot</b>	Remote reboot device.
<b>Download Log</b>	The serial port logs from the switch can be downloaded, you can check the problems through analyzing the error types of the switch.
<b>Upgrade</b>	Click  , Select upgrade documents, click upgrade, the device upgrade. Current Progress shows the upgrade progress.

### 3.2 Network Configuration

Select **Remote config** ---> **Internet**, Network parameters can be configured for different clients. Network parameters include IPv4 address, subnet mask, gateway address, and port.



#### ○iExplanation:

After IPv4 addressed is reset, it will cause the device IP and the PC IP that are not in the same network segment, so the device management and configuration do not work. Planning the device's IP address at first is suggested when the device being used for the first time.

### 3.3 Port Configuration

Select **Remote Configuration** ---> **Port** to proceed with the related configuration.

#### ○iExplanation:

The supported functions of the device itself exists difference, details is subjected to the actual interface.

#### 3.3.1 Attributes Configuration

In **Attributes Configuration** interface, you can configure the port rate, duplex mode, stream control, and on-off.

<b>Rate</b>	Include automatic negotiation 10Mbps, 100Mbps, 1000Mbps rates, etc. auto-negotiated is default
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<b>Duplex</b>	This version only support auto-negotiated mode
<b>Stream Control</b>	When in the processing of the function of the port stream control, after the stream control is opened, it can avoid packet loss effectively. The function is the default open.
<b>On-off</b>	Port on-off, after turn off, the port haven't transmitted data, other device is still supplied by power.

### 3.3.2 Remote Configuration

Devices that support the remote function, turn on or turn off the switch, the port of the remote function can be turned on or off.

When the remote function has been turned on, the transmission distance can reach 250m.

After the remote function has been turned on, the port rate will be matched to 10Mbps; after it has been turned off, the port rate will be restored to auto-negotiated.

### 3.3.3 PoE Port Configuration

For the devices that support the PoE function, the PoE function can be turned on for providing the power to other PD devices.

Turn on or off the PoE, data transmission is not influenced.

## 3.4 Log management

If the device is abnormal or need to check the operation records, the log of device can be checked at the interface of log searching.

### Operating Steps

1. Select **Remote Configuration ---> Log**, enter the page of the log.

2. Setting Search Conditions

<b>Main Type</b>	When searched by the type, the system, operating, account, warn, that can be selected in the main type, a total of 4.
<b>Start Time</b>	Searching Start Time for log
<b>End Time</b>	Searching End Time for log
<b>Sub Type</b>	Sub Type can select the related type according the different type of Main Type
<b>Port</b>	Searching the log in corresponding port

1. Searching Log, click "Search", the specific log can be viewed.

**Log**

Main Type:

Start Time:   End Time:

Sub Type:  Port:

Export path:

index	Operating time	Main type	Sub type	Port	ip
1	12/07/2021 15:15:08	Operate	Search Log		172.20.57.5
2	12/07/2021 15:15:08	Operate	Search Log		172.20.57.5
3	12/07/2021 15:15:08	Operate	Search Log		172.20.57.5
4	12/07/2021 15:15:07	Operate	Search Log		172.20.57.5
5	12/07/2021 15:15:07	Operate	Search Log		172.20.57.5
6	12/07/2021 15:15:07	Operate	Search Log		172.20.57.5
7	12/07/2021 15:15:03	Operate	Search Log		172.20.57.5
8	12/07/2021 15:13:05	Operate	Search Log		172.20.57.5
9	12/07/2021 15:12:45	Operate	Search Dev		172.20.57.5
10	12/07/2021 15:12:34	Account	Login		172.20.57.5
11	12/07/2021 14:19:46	Alarm	Port net link	Eth2	
12	12/07/2021 14:19:44	Alarm	Port net off	Eth2	
13	12/07/2021 07:23:07	Alarm	Port net link	Eth2	
14	12/07/2021 07:23:05	Alarm	Port net off	Eth2	

1. Click **Export**, select Export path.
2. Give the exported document a name, format is stored by .xlsx, log back-up has been finished.

### 3.5 User management

Device only support one admin user, can't add or delete, but can change the password.

#### Operating Steps

Select **Remote Configuration** ---> **User**, enter the edit interface of user

**User**

User Information

User:

Password:  Confirm Password:

#### Password

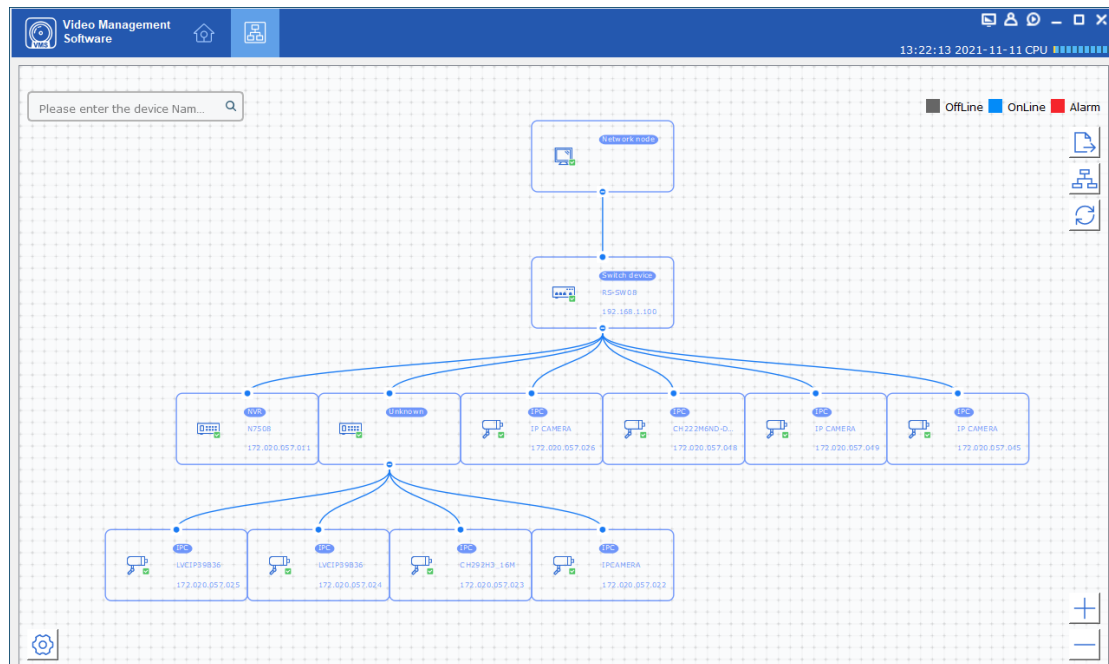
It consists of two or more combinations of 8-16 digits, lowercase letters, uppercase letters or special characters. Passwords are divided into three levels: weak, medium, and strong. To protect your personal privacy and corporate data, and avoid network security issues on your device, it is recommended that you set a strong password that complies with security standards.

## Chapter 4 Topology presentation

In the interface of topology presentation, the relation of topology in different added devices can be viewed by the client, and related configuration can be operated.

### 4.1 Related operating

Select the device which needs checked, selected Control Panel ---> **Topology presentation**, enter the interface of topology.






### Interface Description

- Inputting the alias or IP of the device at the top left corner, corresponding topology graph can be viewed.
- The upper right corner show the meaning of different icon color, and icons of export, refresh topology graph and path.
- Zoom in and zoom out the topology at the bottom of right corner, or zoom in and out directly through scrolling the muse wheel.
- The level of the display layer of topology graph can be set up at the bottom left corner.

#### Explanation:

Enter the interface of topology graph for the first time, if no topology graph is displayed, please click refresh and try again.

### Related Operating/Icons description

Action/Icon	Operating	Details
Double-click Device	Look over the details of device	The type of the device and the information of IP, Panel status, and Port are displayed.
Right-click Device	Look over the device status	Skip to the interface of device status, and see details at <b>device status</b> .
	Run alarm processing	The information of alarm and event is displayed, and perform alarm elimination operation
	Run remote configuration	Skip to the interface of remote configuration, and see details at <b>Remote Configuration</b> .
	Modify the device name	Modify the name on the interface of topology
	Set as root node	Set the current device to the root node in the topology
	Upgrade device	Supports the connected NVR, DVR, and IPC upgrades
	Export topology graph	Select the export path, and export the current topology graph
	Show Path	Select IPC and current device, the path between the selected device can be displayed
	Refresh topology graph	Refresh the interface of topology and display it

## 4.2 Topology Setting


### Operating steps

Click  which at the interface of the bottom of the left corner to proceed with the basic setting of the topology.

- Set the display level: 1~10;
- Click "OK", save the setting.



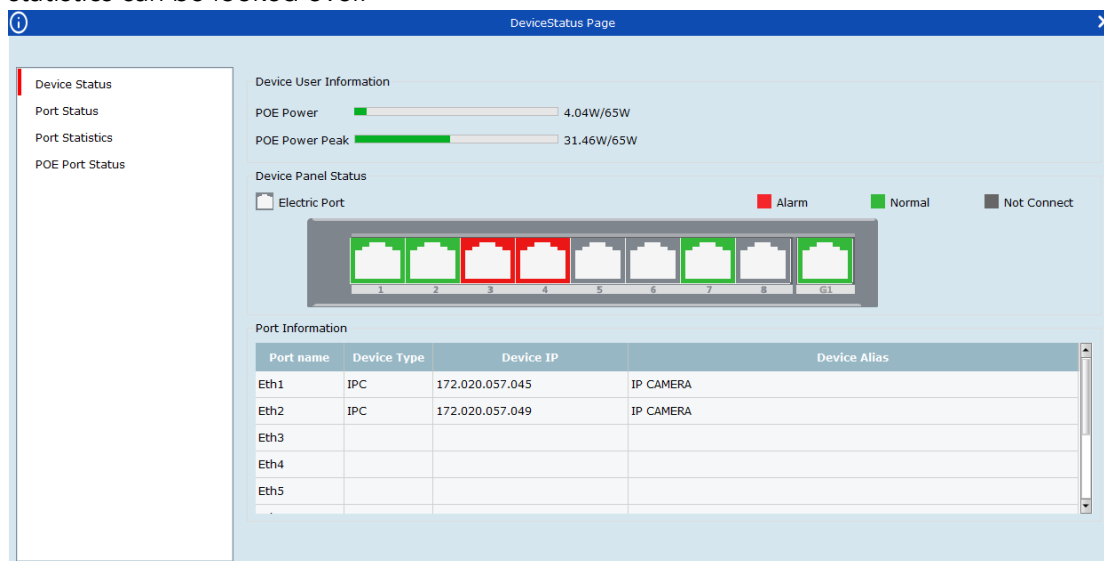
### ❗Explanation:

After the setting changed,  needs to be clicked to refresh for displaying the latest

topology.

## Chapter 5 Device Status

In the interface of topology graph, right-click the device, then click the Device Status, the device using condition, panel status, port status, PoE port status, and the port statistics can be looked over.



- **Port Status:** Check the condition of the port rate, the duplex mode, and the stream control
- **Port Statistics:** Check the Bytes that sent/received by the port, the packets count, the rate, and the peak rate. Set an interval of refresh automatically, and run Refreshing or Clearing data statistics by hand.
- **PoE Port Status:** Check the port switch and output power corresponding to the port number.



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