

# **VTO6xxx**

IP door stations



User manual

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# 1 Product Appearance

Please wait about 10s for the indicators in touch button to turn on after you plug the device to power supply. It takes about 60s for all the indicators to turn on and then off. After the system boots up properly, you will see its front as shown in Figure 1- 1(black) and Figure 1- 2 (white).



Figure 1- 1



Figure 1- 2

**VTO is a signature for indoor monitors.**

**VTH is a signature for outdoor stations.**

**VTS is a signature for a management center.**

**For more than one monitor in the system please read the Group Call article about monitors compatible combinations.**

No.	Name	Function
1	Compensation	Light compensation will automatically turn on during connecting status if there is no enough light in environment.
2	Camera	It monitors corresponding door region.
3	Card Swiping Area	You can swipe card in this area.
4	Touch Button	You can touch this button (the blue indicator will be on) to call VTH or manager center.

## 2 Basic Function Introduction

### 2.1 Call Manager Center

Within the time that allows you to call manager center, you can touch the button to call manager center. Manager center's time can be set on management platform or VTO's web-end. Once manager center picks up the call, you can perform a visual bidirectional talk with the manager center. You can touch the button on VTO to end call at any time.

### 2.2 Call User

#### 2.2.1 Connecting Status

Within the time that allows you to call VTH, you can touch the button to call VTH. Excluding time to call manager center, all remaining time supports call to VTH. During connecting, you can touch the button on VTO to end call at any time.

#### 2.2.2 Calling Status

Under connecting status, if the call is picked up, you will enter calling status. You can perform a visual bidirectional talk with the VTH. During calling status, you can touch the button on VTO to end call at any time.

### 2.3 Monitor

Both VTS and VTH are able to monitor this VTO by enabling the camera to capture local circumstance.

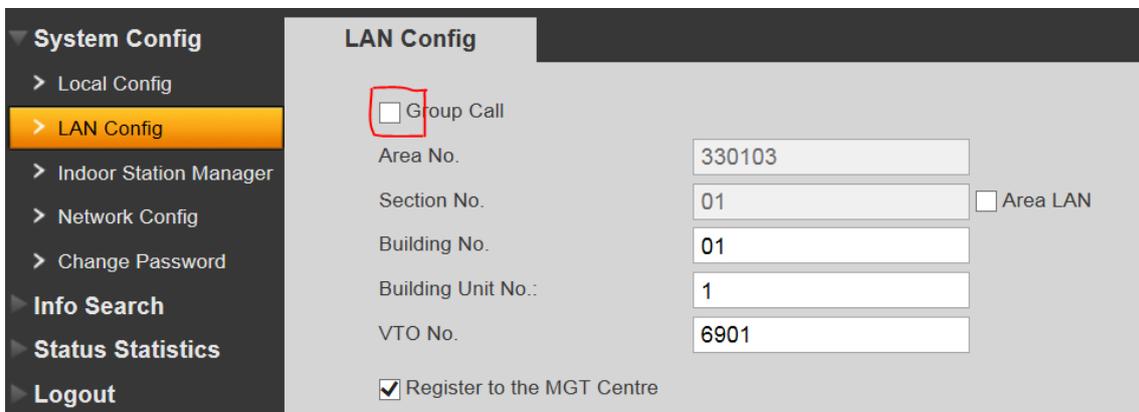
## 2.4 Web management

The door station has a web management for user-friendly settings. To go to the web management open Internet Explorer web browser and go to **192.168.1.110** (default) IP address. Default login is **admin/admin**.



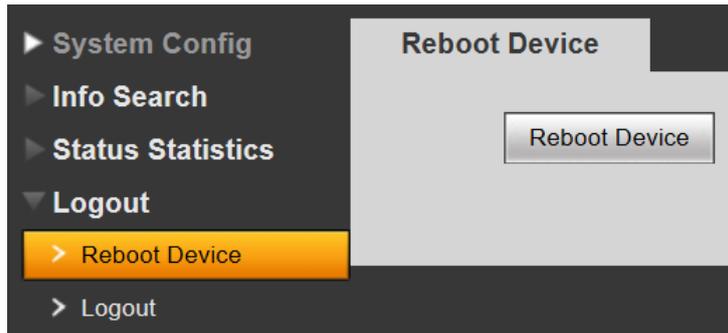
## 2.5 Single Call

Go to the web management. Be sure Group Call is off.



In the Indoor station manager input monitor data without IP address and reboot.





Be sure VTO is added in the monitor settings well and is enabled there.

## 2.6 Group Call

If you want to call via one button door station more than one monitor at the same time, you can use “group call” function. For group call you can’t connect every monitor models. This function you can use only for combination of **VTH-15xx**

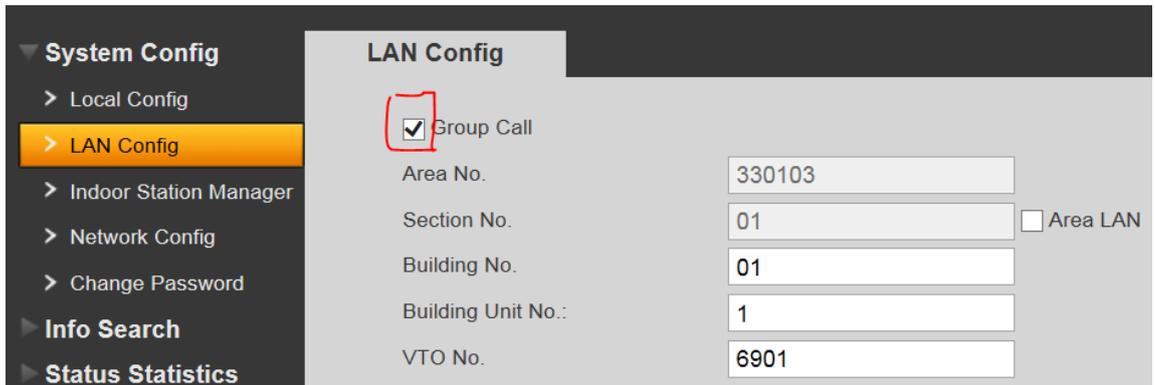
### 2.6.1. Settings for VTH-15xx connection

The first (MASTER) monitor must be set to **101** address and next monitors (SLAVES) must be set to Extension mode with **101-1/101-2/101-3/101-4/101-5** address. Eventually as on the table below:

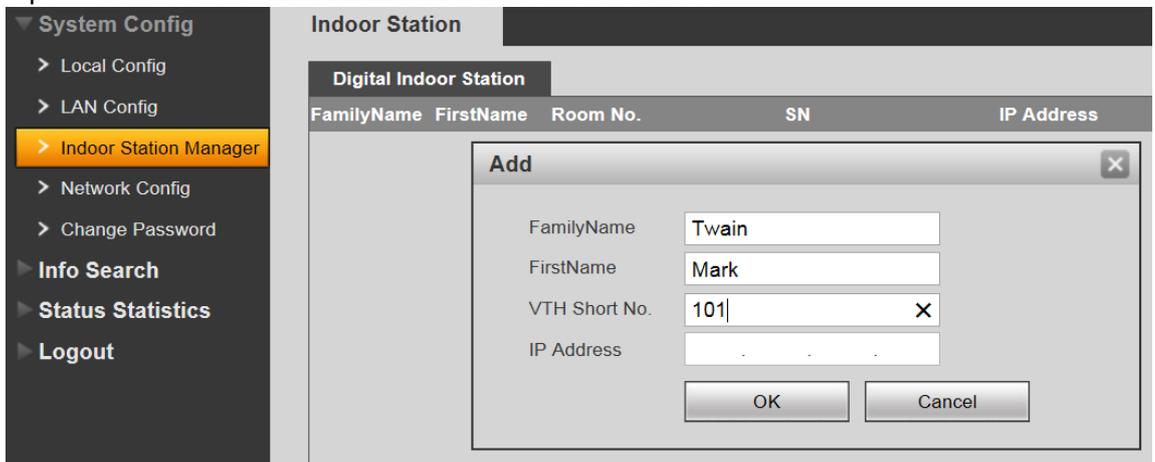
101	101-1	199
	101-2	198
	101-3	197
	101-4	196
	101-5	195
102	102-1	194
	102-2	193
	102-3	192
	102-4	191
	102-5	190
.	.	.
.	.	.
.	.	.
116	116-1	124
	116-2	123
	116-3	122
	116-4	121
	116-5	120

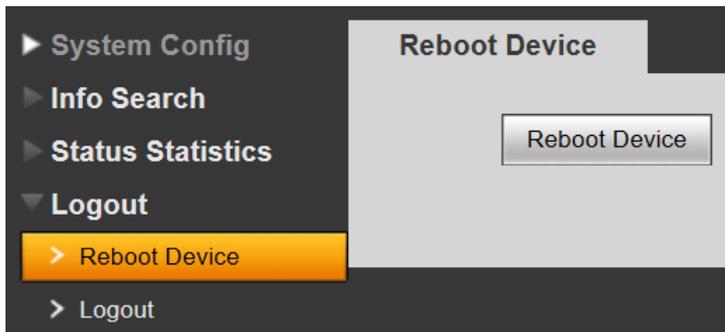


## 2.6.2. VTO web management settings

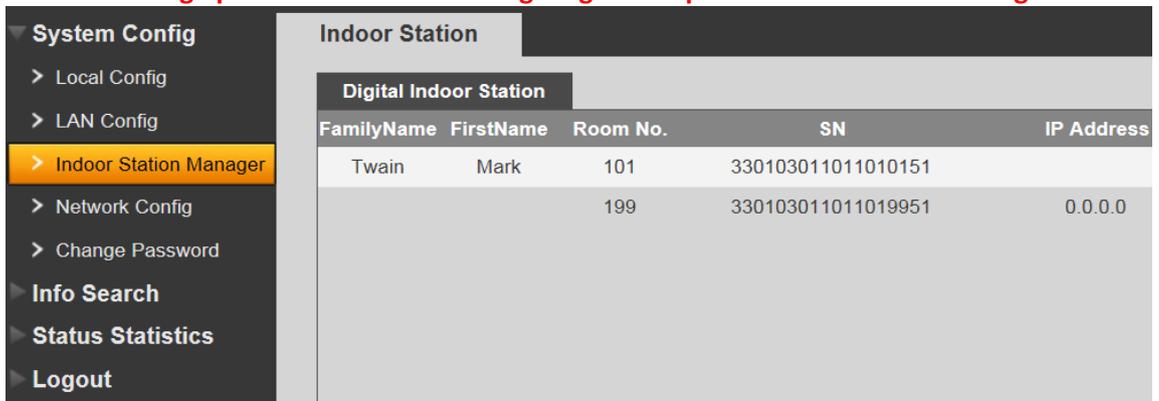


Input master monitor data **WITHOUT** IP address and reboot.





**After rebooting open Indoor Station Manager again to upload slave monitors settings.**



## 2.7 Unlock

### 2.7.1 Unlock under Connecting Status (access control module required)

Under connecting status, VTS or VTH can remotely unlock door. VTO will return to standby interface after call ends or countdown stops.

### 2.7.2 Unlock under Calling Status (access control module required)

Under calling status, VTS or VTH can remotely unlock door. VTO will return to standby interface after call ends or countdown stops.

### **2.7.3 Unlock under Monitoring Status (access control module required)**

Under monitoring status, VTS or VTH can remotely unlock door. VTO will return to standby interface after call ends or countdown stops.

### **2.7.4 Unlock via IC Card (access control module required)**

By swiping authorized IC card, you can unlock door after local verification.

## **2.8 Compensation of Light**

In dark environment or at night, the VTO adopts auto photoreception technology which achieves light compensation in connecting status.

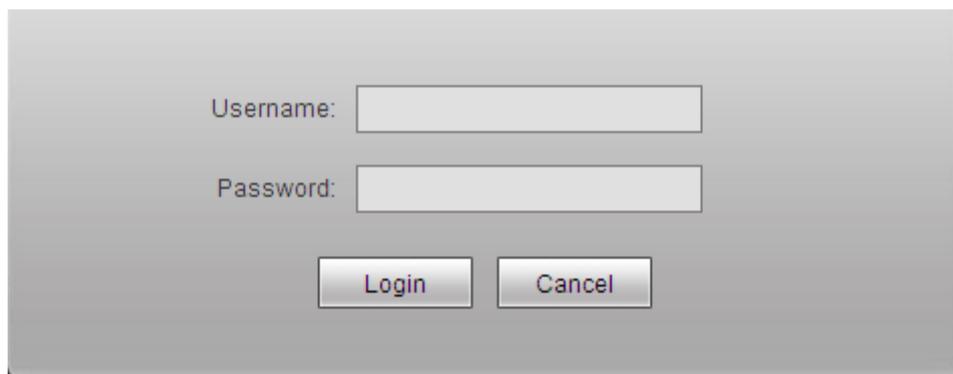
## **2.9 Vandal Proof**

There is one channel of vandal proof which will generate alarm sound and report to the manager center once VTO is forced to leave the wall.

## 3 Deeper introduction to Web

### 3.1 Login Interface

In Internet Explorer, input the IP address of VTO, a webpage pops up as in Figure 3-1.



The image shows a login interface with a light gray background. It features two input fields: 'Username:' and 'Password:'. Below these fields are two buttons: 'Login' and 'Cancel'.

Figure 3- 1

Default username: admin

Default password: admin.

Click login to enter WEB interface.

The WEB config interface consists of the following:

No.	Name	Function
1	System Config	Here you can config device parameter and LAN info.
2	Info Search	Here you can search call records.
3	Status Statistics	Here you can video VTH status statistics.
4	Logout	Here you can reboot VTO and logout WEB-end.

### 3.2 System Config

System config consist of: local config, indoor station manager (VTH), LAN config, network config and change password.

### 3.2.1 Local Config

#### Local Config

Local config includes issuing card, unlock and time setup. See Figure 3- 2.

The screenshot shows the 'Local Config' tab selected in the 'System Config' menu. The interface includes the following fields and controls:

Unit Layer Amount:	10
Room Amount in One Layer:	4
Device Type:	Villa Station
Video Format:	D1
Reboot Date:	Tuesday
Volume Config:	80
Frame Rate:	25
Version Info:	2013-05-08 V1.101.0.0
Restore Backup:	<input type="checkbox"/> Card Info <input type="checkbox"/> Vth Info

Buttons at the bottom: Default, Refresh, OK, Default All, and Restore Backup.

Figure 3- 2

Please note:

- 1) Frame rate: set 30 as frame rate for NTSC and 25 as frame rate for PAL standard.
- 2) Delete all: Click this button and then confirm. VTO will restore default settings. Be cautious!
- 3) Video format: select D1

#### A&C Manager

A&C manager interface is shown in Figure 3- 3.

The screenshot shows the 'A&C Manager' tab selected in the 'System Config' menu. The interface includes the following fields and controls:

Old Password:	
New Password:	
Confirm:	
Unlock Responding Interval:	15
Unlock Period:	2
Door Version:	V0.00.0
Door ID:	0
Check Door Sensor Signal Before:	<input type="checkbox"/>
Lock:	
FTP IP:	10 . 36 . 45 . 136
FTP Port:	21
FTP User:	test
FTP Password:	

Buttons at the bottom: Issue Card, Default, Refresh, and OK.

Figure 3- 3

Under local config interface, click on A&C manager. The initial VTO password is

123456 and to unlock, input #123456#. Here you can change password, set unlock responding interval and unlock period.

**FTP IP:** FTP IP is used in storing snapshot taken by the VTO while user can view them by logging in this FTP IP.

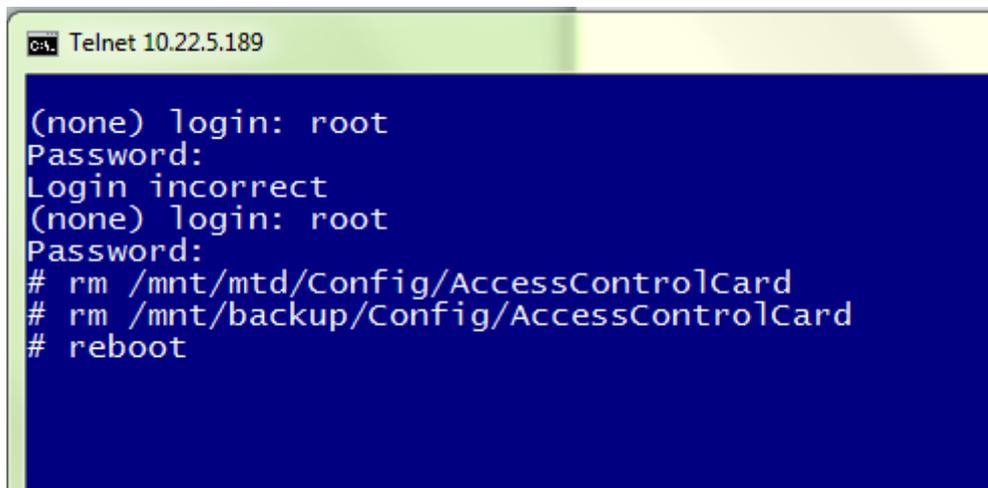
**Issue card:** On web-end, click on issue card button and put the IC card on the card swiping area. When you hear beep sound, you have successfully issued card. You can use this new card to unlock door. (Access control module required)

**Delete cards:** You can delete all saved cards (it is not possible to delete only one). Open *command line*, type **telnet 10.22.5.189** (with the right door station IP). User: **root**, password: **vizxv**. Then

**rm /mnt/mtd/Config/AccessControlCard**

**rm /mnt/backup/Config/AccessControlCard**

**reboot**



```

C:\> Telnet 10.22.5.189

(none) login: root
Password:
Login incorrect
(none) login: root
Password:
# rm /mnt/mtd/Config/AccessControlCard
# rm /mnt/backup/Config/AccessControlCard
# reboot
```

## System Time

System time interface is shown in Figure 3- 4.

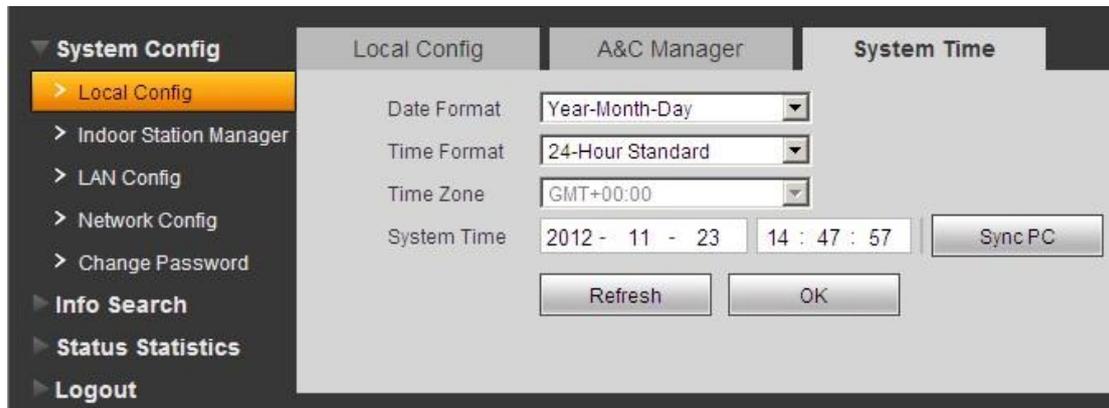


Figure 3- 4

Under local config interface, click on system time where you can set time and sync it with PC.

## 3.2.2 Indoor Station (VTH) Manager

Indoor station manager interface of VTO consists of add VTH, delete VTH and modify VTH user.

### Digital Indoor Station

Digital indoor station interface is shown in Figure 3- 5.

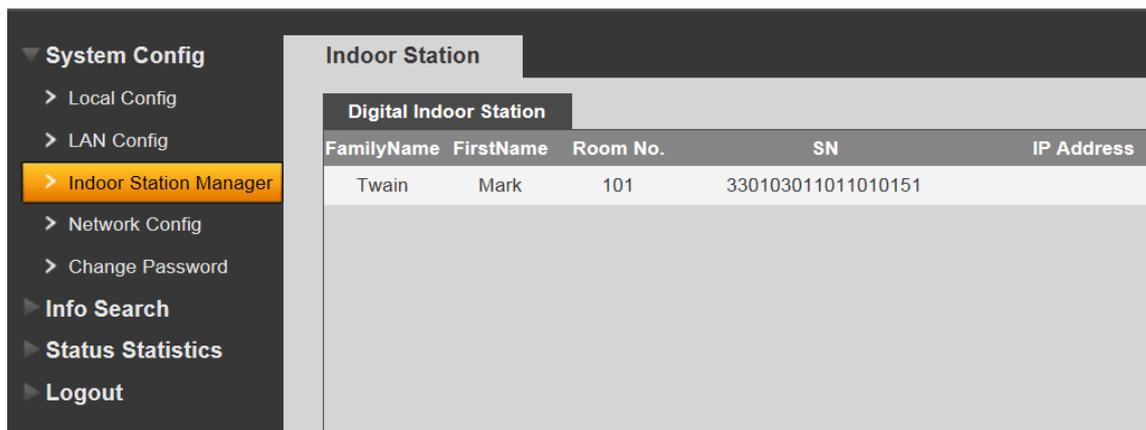


Figure 3- 5

Under digital indoor station interface, check display residence info enable to show existing VTH info. Click add button at lower left, and input user info in the prompt box. In default, only VTH short no. is mandatory.

### 3.2.3 LAN Config

LAN config interface is shown in Figure 3- 6.

The screenshot shows the LAN configuration interface. On the left, a sidebar lists navigation options: System Config (Local Config, LAN Config, Indoor Station Manager, Network Config, Change Password), Info Search, Status Statistics, and Logout. The LAN Config section is active. The main configuration area includes:

- Group Call
- Area No.: 330103
- Section No.: 01
- Building No.: 01
- Building Unit No.: 1
- VTO No.: 6901
- Register to the MGT Centre
- MGT Centre IP Address: 10 . 22 . 5 . 254
- MGT Port No.: 12801
- Call vts time: 00 : 00 To 00 : 00
- Call vts or not
- From VTO IP Address:
- note:The Device needs reboot after modifying the config above.
- Buttons: Default, Refresh, OK

Figure 3- 6

Default config is OK if you merely want to ensure the LAN connection between VTO and VTH. If you want to config manager center, the config here must match info of the manager center, and you need to check box of register to the MGT center.

Furthermore, if you would like to call manager center within configured period, you have to set call VTS time. During this period, the VTO can only call VTS.

### 3.2.4 Network Config

Network config interface is shown in Figure 3- 7.

The screenshot shows the Network configuration interface. On the left, a sidebar lists navigation options: System Config (Local Config, LAN Config, Indoor Station Manager, Network Config, Change Password), Info Search, Status Statistics, and Logout. The Network Config section is active. The main configuration area includes:

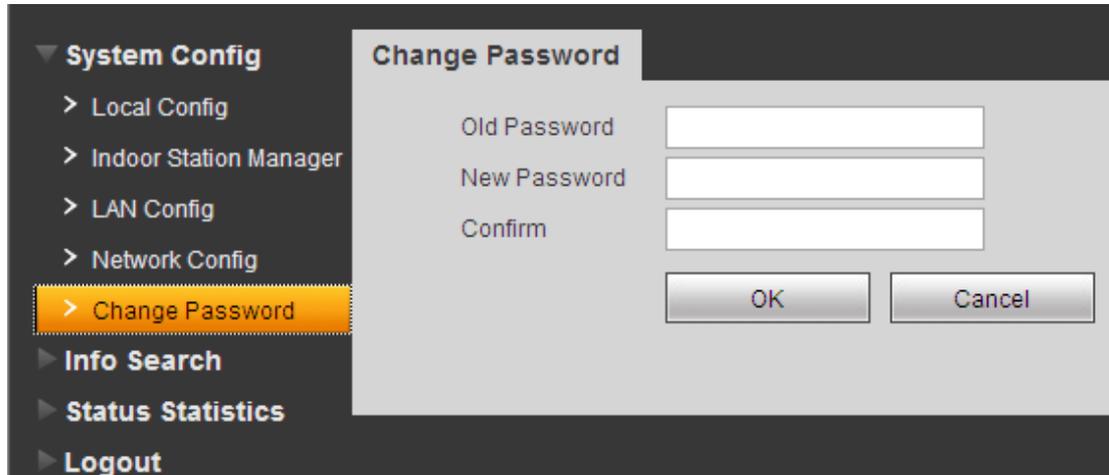
- IP Address: 10 . 22 . 5 . 189
- Subnet Mask: 255 . 255 . 255 . 0
- Default Gateway: 10 . 22 . 5 . 1
- MAC Address: 90 - 02 - a9 - 9c - 2b - 06
- Buttons: Default, Refresh, OK

Figure 3- 7

Here you can set IP info of VTO which includes IP address, subnet mask and default gateway. After you modified the IP address, the web interface will reboot and you will be transferred to the new IP address.

### 3.2.5 Change Password

Change password interface is shown in Figure 3- 8.



The screenshot shows a web interface for changing a password. On the left is a sidebar menu with the following items: System Config, Local Config, Indoor Station Manager, LAN Config, Network Config, Change Password (highlighted), Info Search, Status Statistics, and Logout. The main content area is titled 'Change Password' and contains three text input fields labeled 'Old Password', 'New Password', and 'Confirm'. Below the input fields are two buttons: 'OK' and 'Cancel'.

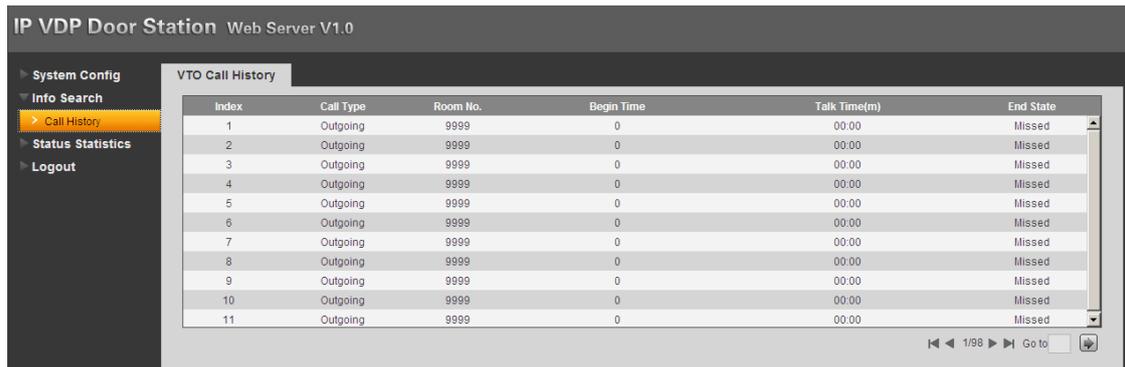
Figure 3- 8

Here you can change the web login password of VTO. You need to input old password and new password and confirm new password. Click on OK to save.

## 3.3 Info Search

### 3.3.1 Call History

Call history interface is shown in Figure 3- 9.



The screenshot shows the 'VTO Call History' interface. The title bar reads 'IP VDP Door Station Web Server V1.0'. The sidebar menu includes System Config, Info Search (with 'Call History' highlighted), Status Statistics, and Logout. The main area displays a table with the following data:

Index	Call Type	Room No.	Begin Time	Talk Time(m)	End State
1	Outgoing	9999	0	00:00	Missed
2	Outgoing	9999	0	00:00	Missed
3	Outgoing	9999	0	00:00	Missed
4	Outgoing	9999	0	00:00	Missed
5	Outgoing	9999	0	00:00	Missed
6	Outgoing	9999	0	00:00	Missed
7	Outgoing	9999	0	00:00	Missed
8	Outgoing	9999	0	00:00	Missed
9	Outgoing	9999	0	00:00	Missed
10	Outgoing	9999	0	00:00	Missed
11	Outgoing	9999	0	00:00	Missed

At the bottom right of the table, there are navigation controls: a left arrow, '1/98', a right arrow, and a 'Go to' button with a search icon.

Figure 3- 9

Under info search interface, click on call history. Here you can search call history of the VTO with up to 1124 records.

## 3.4 Status Statistics

### 3.4.1 VTH status

VTH status interface is shown in Figure 3- 10.

Under status statistics interface, click on VTH status. Here you can view connection state of VTH.



The screenshot shows the VTH Status interface with a table of connections. The table has columns for VTH ID, Status, MON, IP-PORT, REG\_TIME, and OFFTIME. The VTH IDs listed are 101, 103, 106, 501, 502, 503, 603, 604, 605, and 9999. The status of each VTH is either Online or Offline. The MON column indicates the monitoring status (Unmon or Online). The IP-PORT column shows the IP address and port number. The REG\_TIME and OFFTIME columns show the registration and offline times respectively.

VTH	Status	MON	IP-PORT	REG_TIME	OFFTIME
101	Online	Unmon	10.45.1.149:16802	2012:11:23 14:50:17	2012:11:23 14:50:17
103	Online	Unmon	10.45.1.104:16801	2012:11:23 14:50:16	2012:11:23 14:50:16
106	Online	Unmon	10.45.1.98:16802	2012:11:23 14:50:17	2012:11:23 14:50:17
501	Offline	Unmon	:0	0	0
502	Offline	Unmon	:0	0	0
503	Offline	Unmon	:0	0	0
603	Online	Unmon	10.45.1.50:16802	2012:11:23 14:50:16	2012:11:23 14:50:16
604	Online	Unmon	10.45.1.49:16803	2012:11:23 14:50:16	2012:11:23 14:50:16
605	Online	Unmon	10.45.1.48:16802	2012:11:23 14:50:17	2012:11:23 14:50:17
9999	Online	Unmon	10.45.2.34:16802	2012:11:23 14:26:39	0

Figure 3- 10

## 3.5 Logout

### 3.5.1 Reboot Device

Reboot device interface is shown in Figure 3- 11.

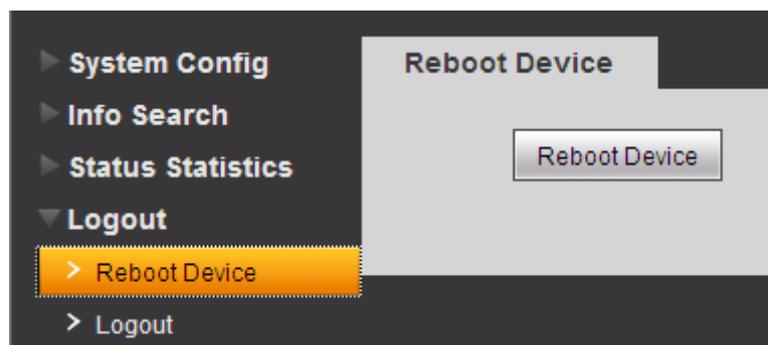


Figure 3- 11

Here you can reboot the device.

### 3.5.2 Logout

Logout interface is shown in Figure 3- 12.

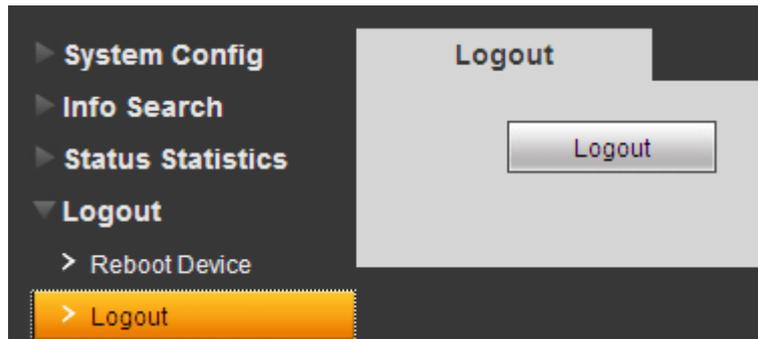


Figure 3- 12

Here you can logout the device.

## 4 Technical Specifications

<b>Video</b>	
Main processor	Embedded microcontroller
OS	Embedded LINUX OS
Video compression standard	H.264
Input/Approaching Induction	1.3 mega pixels CMOS HD camera
Night vision	Support
<b>Audio</b>	
Input	Omnidirectional microphone
Output	Built-in loudspeaker
Bidirectional talk	Support bidirectional talk
<b>Operation Mode</b>	
Input	One-key input ( with backlight )
Swipe card	Built-in IC card sensor (VTO6000CM not)
<b>Alarm</b>	
Vandal proof	Support
<b>Network</b>	
Ethernet	10M/100Mbps self-adaptation
Internet protocol	TCP/IP
<b>Storage</b>	
Memory	128MB
<b>General</b>	

Power supply	DC 10~15V
Power consumption	Standby ≤1W ; working ≤10W
Environment	-10°C~+60°C 、 10~95%RH
Dimensions	115mm*45mm*155mm ( L*W*H )
Weight	0.5kg

## 5 Device Port Illustration

Ports of VTO are illustrated in Figure 5- 1.

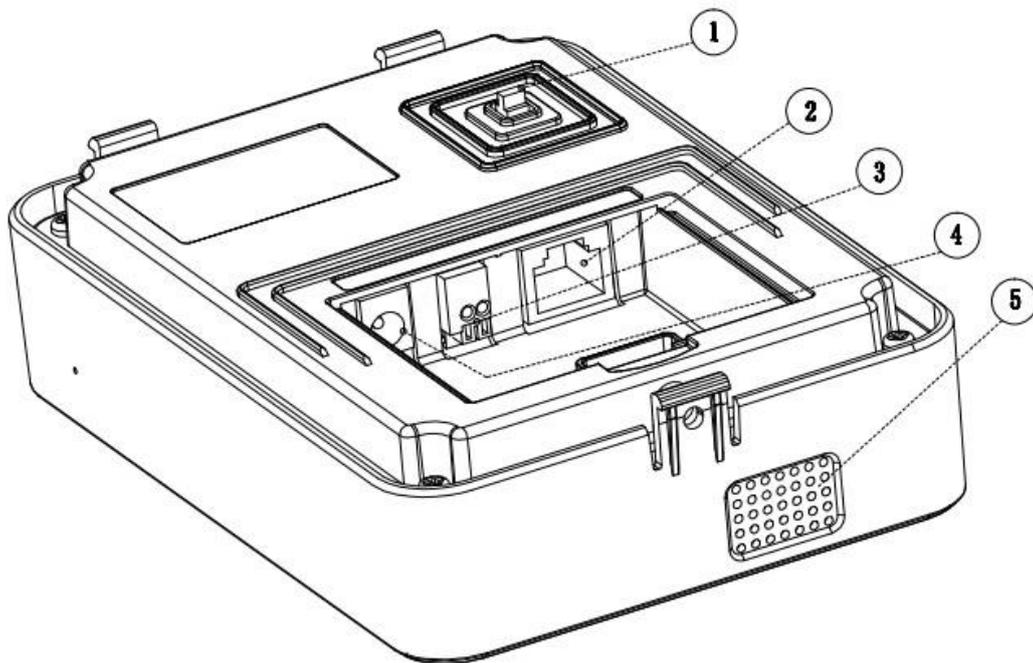
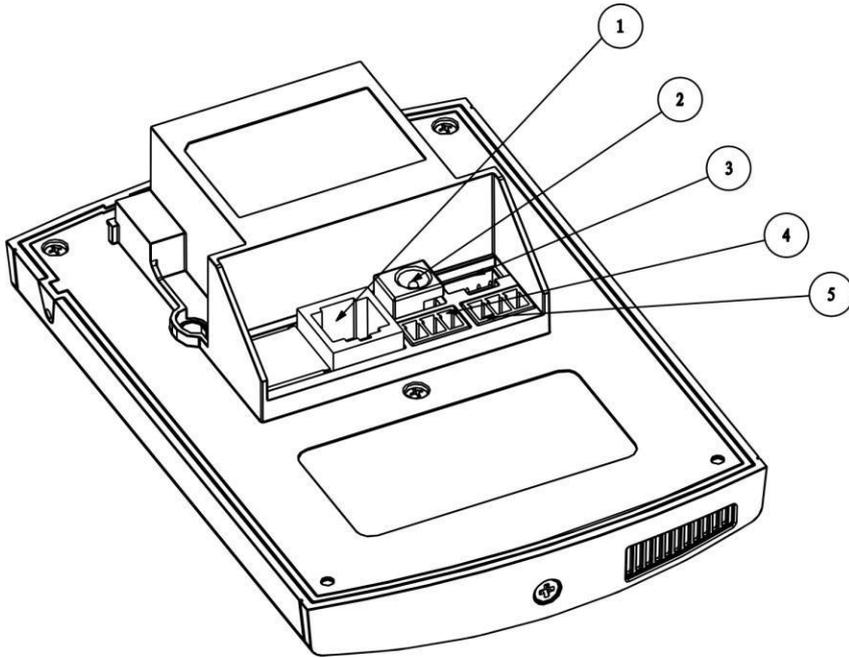


Figure 5- 1

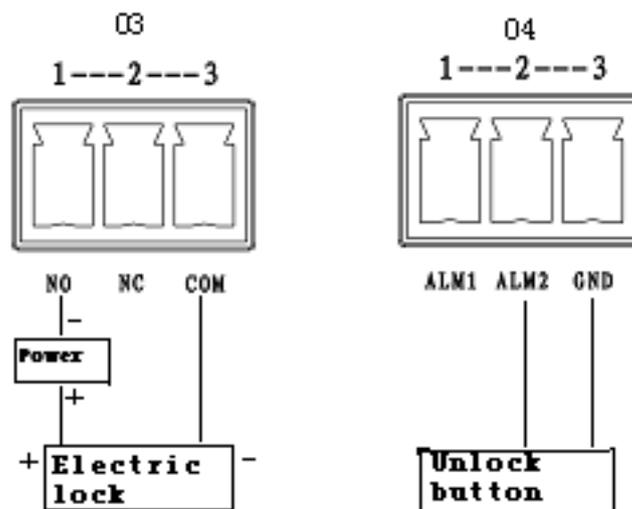
No.	Port Name	Description
1	Vandal proof switch	When this device is forced to leave wall, it will generate alarm sound and report to the manager center.
2	Network port	Connect to RJ45 port.
3	RS485	May connect to external module, such as access control extension module.
4	Power supply port	Connect to 12V DC.
5	Loudspeaker output	It is the sound output of local loudspeaker.



NO	Port Name	Description
1	Network port	Connect to RJ45 port.
2	Power supply port	Connect to 12V DC.
3	Debug Port	
4	Green Port 1	Connect Lock
5	Green Port 2	Connect to magnetic feedback or opening button

### A) Lock and Unlock Button.

To connect Electric lock and unlock button to outdoor unit please see figure 6.



1. As shown in figure connect one terminal of Electric Lock with “NO” and next with “COM” on port 3 of outdoor unit.
2. As shown in figure connect unlock button one terminal with “ALM1” and next terminal to “GND” on port 4 of outdoor unit.

## B) Door Sensor.

To connect door sensor with outdoor unit see figure 7.

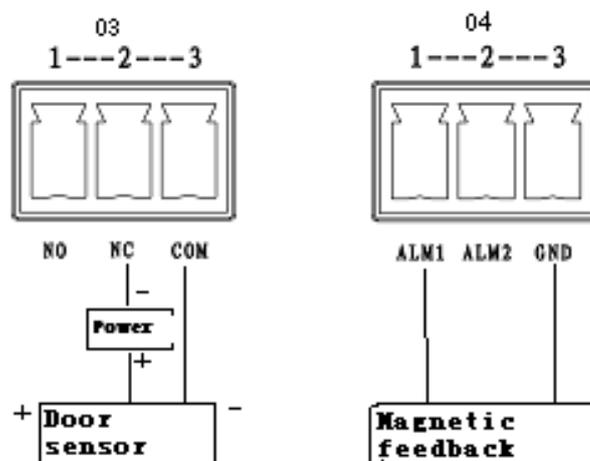


Figure 7

1. As shown in figure connect one terminal of door sensor with “NC” and next with “COM” on port 3 of outdoor unit.
2. When Outdoor unit is connected to door sensor for its magnetic feedback, connect magnetic feedback one terminal to “ALM 2” and connect next terminal with “GND” on Port4 of outdoor unit.

## 6. Installation Guide

Installation guide of VTO is illustrated in Figure 6- 1.

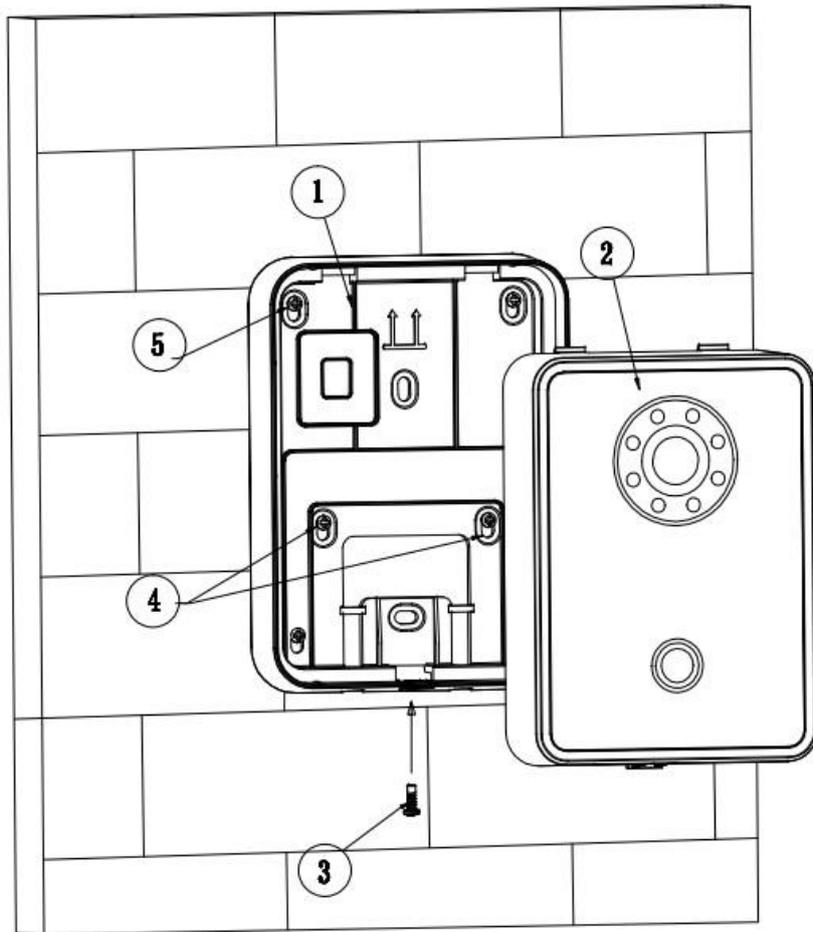
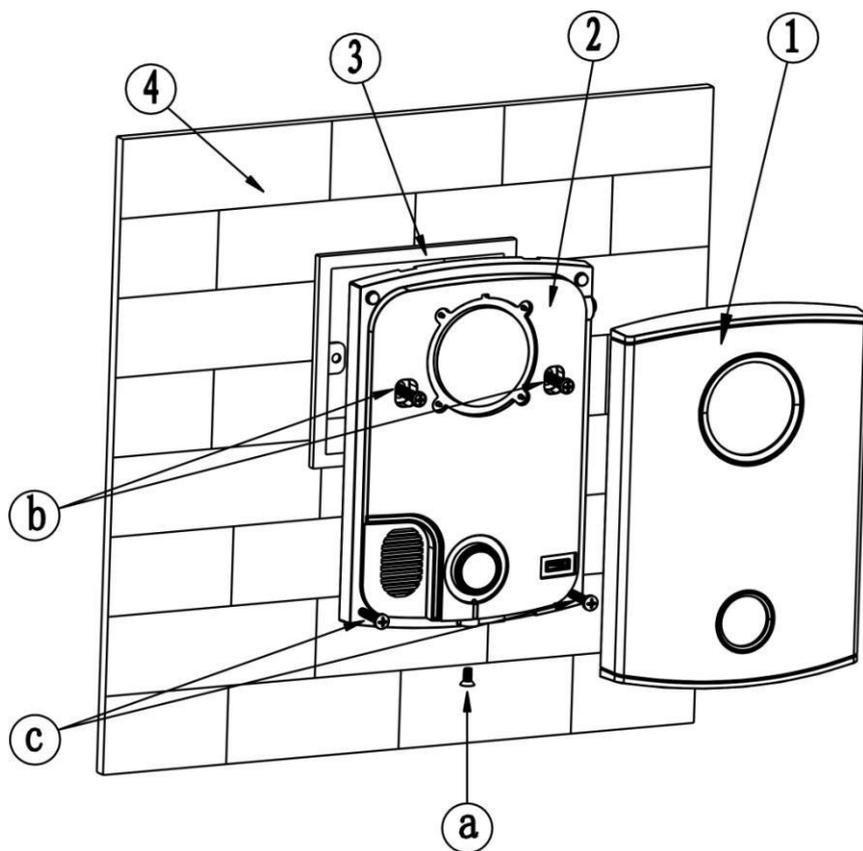


Figure 6- 1

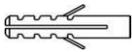
Installation step:

1. Fix installation holder onto wall:
  - a) Use the M4 screw accompanied with the VTO to fix holder onto the 86 box (as ④ in Figure 6- 1);
  - b) In order to firm the VTO, use the ST4.0 screw accompanied with VTO to fix the 86 box onto wall after locking the 86 box. (as ⑤ in Figure 6- 1);
2. Install ② in Figure 6- 1 onto the holder by pushing from top edge as ① in Figure 6- 1 to lower edge as ② in Figure 6- 1.
3. After you complete the installation between VTO and holder, use the set screw accompanied as ③ in Figure 6- 1 to fix the VTO and its holder.



Installation step:

1. Fix installation holder onto wall:  
Use the M4 screw accompanied with the VTO to fix holder onto the 86 box (as 3)
2. B is to strengthen firmness of VTO, use the ST3.0 screw accompanied with VTO to fix the 86 box onto wall after locking the 86 box. (as c)
3. Install decoration cover (as 1) onto 2, secure with screw a.

Screw Illustration		
No.	Name	Symbol
a	M3×8 cross recessed countersunk head horizontal screw - galvanized black	
b	M4×30 cross recess head horizontal screw	
c	ST3×18 cross recess top screw-nickel silver	
d	Expansion pipe $\phi$ 6*30mm white	

## 7 FAQ

1. Q: How do I know if the power supply to VTO is working normally?  
A: After you plug the device to power supply, wait about 10s for the indicators in touch button to turn on. Approximately 60s later, all indicators will turn on as the device works normally.
2. Q: You pressed the touch button, and the indicator turned on, but the VTO did not start a call?  
A: Please check your operation process.
3. Q: How to end a call when I am calling?  
A: You can end a call by touching the button on VTO lightly.
4. Q: The device could not boot up and there was no sound or light.  
A: Please check if power supply is well plugged.
5. Q: My call did not go though.  
A: It is network connection error; please check the cables of the device and its extension.
6. Q: The number I am calling does not exist.  
A: Please check if the number is correct.
7. Q: VTO did not respond after I swiped IC card.  
A: Please check if your card is authorized.
8. Q: I heard a beep sound when I swiped IC card, but the door did is still locked.  
A: Please check if your card is authorized.
9. Q: I have other problems not included above.  
A: Please contact technical staffs for assistance.