

Tamper-proof Metal Villa VTO

Guide Start Guide V1.0.1



Please scan the QR code to view the user's manual.

1.2.51.32.13693-000

Foreword

General

This document mainly introduces structure, mounting process, debugging and operation process of tamper-proof metal villa VTO.

Models

VTQ2101E-P Series

Safety Instructions

The following categorized signal words with defined meaning might appear in the Manual.

Signal Words	Meaning
DANGER	Indicates a high potential hazard which, if not avoided, will result in death or serious injury.
WARNING	Indicates a medium or low potential hazard which, if not avoided, could result in slight or moderate injury.
CAUTION	Indicates a potential risk which, if not avoided, could result in property damage, data loss, lower performance, or unpredictable result.
TIPS	Provides methods to help you solve a problem or save you time.
NOTE	Provides additional information as the emphasis and supplement to the text.

Privacy Protection Notice

As the device user or data controller, you might collect personal data of others, such as face, fingerprints, car plate number, Email address, phone number, GPS and so on. You need to be in compliance with the local privacy protection laws and regulations to protect the legitimate rights and interests of other people by implementing measures, including but not limited to: providing clear and visible identification to inform data subject the existence of surveillance area and providing related contact.

About the Manual

- The Manual is for reference only. If there is inconsistency between the Manual and the actual product, the actual product shall prevail.
- We are not liable for any loss caused by the operations that do not comply with the Manual.
- The Manual would be updated according to the latest laws and regulations of related regions. For detailed information, see the paper User's Manual, CD-ROM, QR code or our official website. If there is inconsistency between paper User's Manual and the electronic version, the electronic version shall prevail.
- All the designs and software are subject to change without prior written notice. The product updates might cause some differences between the actual product and the Manual. Please contact the customer service for the latest program and supplementary documentation.
- There still might be deviation in technical data, functions and operations description, or errors in print. If there is any doubt or dispute, please refer to our final explanation.
- Upgrade the reader software or try other mainstream reader software if the Guide (in PDF format) cannot be opened.
- All trademarks, registered trademarks and the company names in the Manual are the properties of their respective owners.
- Please visit our website, contact the supplier or customer service if there is any problem occurred when using the device.
- If there is any uncertainty or controversy, please refer to our final explanation.

Important Safeguards and Warnings

The following description is the correct application method of the device. Please read the manual carefully before use, in order to prevent danger and property loss. Strictly conform to the manual during application and keep it properly after reading.

Operating Requirement

- Please modify default password timely after device deployment, in order to prevent embezzlement.
- Please don't place and install the device in an area exposed to direct sunlight or near heat generating device.
- Please don't install the device in a humid, dusty or fuliginous area.
- Please keep its horizontal installation, or install it at stable places, and prevent it from falling.

- Please don't drip or splash liquids onto the device; don't put on the device anything filled with liquids, in order to prevent liquids from flowing into the device.
- Please install the device at well-ventilated places; don't block its ventilation opening.
- Use the device only within rated input and output range.
- Please don't dismantle the device arbitrarily.

Power Requirement

- The product shall use electric wires (power wires) recommended by this area, which shall be used within its rated specification!
- Please use power supply that meets SELV (safety extra low voltage) requirements, and supply power with rated voltage that conforms to Limited Power Source in IEC60950-1. For specific power supply requirements, please refer to device labels.
- Appliance coupler is a disconnecting device. During normal use, please keep an angle that facilitates operation.

1 Product Overview

1.1 Product Feature

Tamper-proof metal villa VTO boasts simple operation and convenient installation, and supports the following functions:

- Real-time surveillance with mobile phone.
- Realize call and visual intercom with VTH.
- Tamper alarm.

1.2 Network Diagram

Network diagram of tamper-proof metal villa VTO is shown in Figure 1-1.

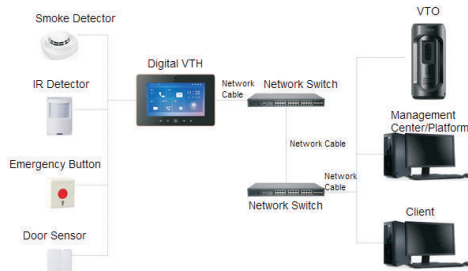


Figure 1-1

2 Product Structure

2.1 Front Panel

Front panel of the device is shown in Figure 2-1. Please refer to Table 2-1 for description about all components of front panel.

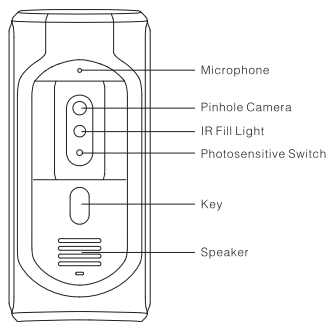


Figure 2-1

Name	Description
Microphone	Audio input.
Pinhole Camera	Monitor the door area.
IR Fill Light	Provide fill light for camera in dark environment.
Photosensitive Switch	Measure light intensity automatically.
Key	Make a call.
Speaker	Audio output.

Table 2-1

2.2 Rear Panel

Rear panel of the device is shown in Figure 2-2, cable port is shown in Figure 2-3 and port description is shown in Table 2-2.

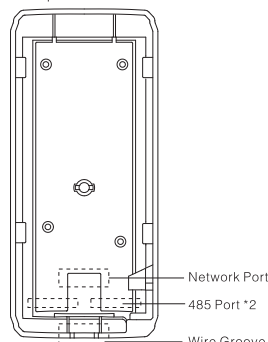


Figure 2-2

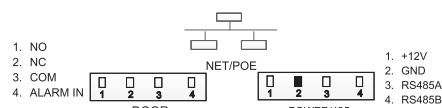


Figure 2-3

Pin Mark	Description
NO	Normally open port of lock
NC	Normally closed port of lock
COM	Public port of lock
ALARM IN	Ground
+12V	DC12V power port
GND	Door sensor feedback
RS485A	RS485 communication port
RS485B	

Table 2-2

3 Mounting and Debugging

3.1 Device Wiring

Connect cables according to Figure 3-1.

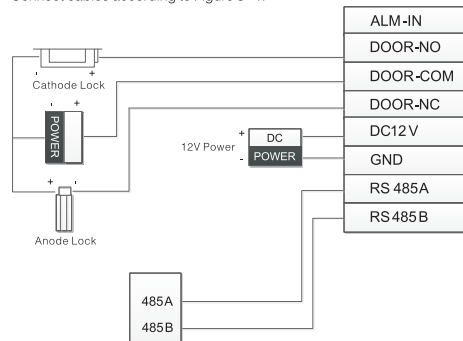


Figure 3-1

3.2 Mounting

CAUTION

- Don't install VTO in bad environment, such as condensation, high temperature, stained, dusty, chemically corrosive or direct sunshine environment.
- Engineering mounting and debugging shall be done by professional teams. Please don't dismantle or repair arbitrarily in case of device failure.

3.2.1 Screw Specification

Mounting screw specification is shown in Table 3-1.

Name	Schematic Diagram	Quantity
ST3 x 18 self-tapping screw		4↑
M4 x 30 screw		1↑

Table 3-1

3.2.2 Dimensional Drawing

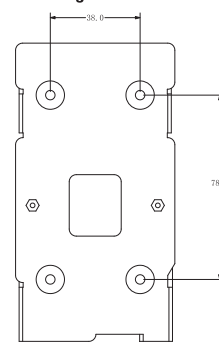


Figure 3-2

3.2.3 Mounting Steps

Its mounting is shown in Figure 3-3.

- Drill holes in mounting surface (such as wall) according to hole positions around mounting bracket.
- Fix the mounting bracket with four ST3*18 screws.
- Match front and rear panel components with metal protective cover, and pre-assemble them onto the mounting bracket.
- Adjust the angle of front and rear panel components.
- Press down front and rear panel components, as well as mounting bracket.
- Fix the metal protective cover and mounting bracket with H-type M4 x 18 screws.

NOTE

During mounting, it is recommended that center point of the device should be 1.4m~1.6m above the ground.

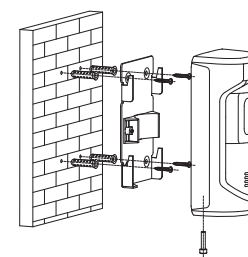


Figure 3-3

After installation, you can see Figure 3-4.

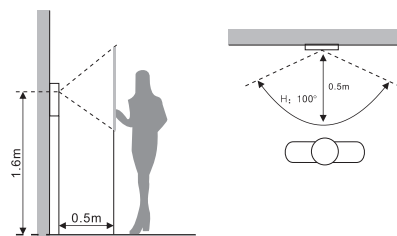


Figure 3-4

3.3 Debugging

3.3.1 Preparation before Debugging

Take "Connect VTH5221D 7-inch digital VTH" for example. Before debugging, please check whether the following work has been completed.

- Debugging personnel shall get familiar with relevant documents in advance, and get to know device mounting, wiring and use.
- Check whether there is short circuit or open circuit. Power on the device only after the circuit is confirmed to be normal.
- Ensure that VTH is able to work normally.

3.3.2 VTO Settings

For the first time, please initialize login password.

NOTE

Please ensure that default IP addresses of PC and VTO are in the same network segment. Default IP address of VTO is 192.168.1.110.

Step 1 Power on the device, and enter default IP address of VTO at the address bar of PC browser. The system displays "Setting" interface, as shown in Figure 3-5.

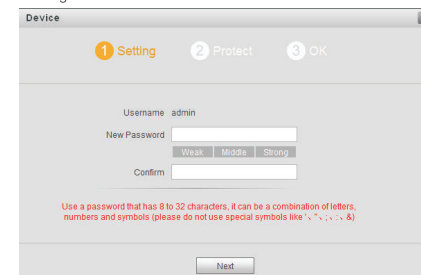


Figure 3-5

Step 2 According to interface prompt, enter "New Password" and "Confirm", and click "Next". Select "Email" and enter your Email address.

This Email address is used to reset the password, so it is recommended that it should be set.

Step 3 Login WEB interface.

NOTE

Default user name is admin.

Password is the new one set during initialization.

Step 4 Select "System Config > Network Config > TCP/IP".

The system displays "TCP/IP" interface, as shown in Figure 3-6.

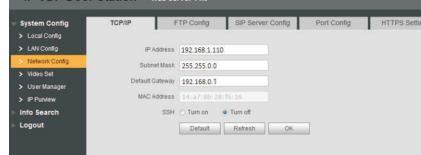


Figure 3-6

Step 5 Enter the planned "IP Address", "Subnet Mask" and "Default Gateway", and click "OK". After modification is completed, VTO reboots automatically, while the following two cases occur at WEB interface.

- If PC is in the planned network segment, WEB interface jumps to new IP login interface automatically.
- If PC is not in the planned network segment, login will be failed. Please add PC to the planned network segment and login WEB interface again.

Step 6 Login WEB interface again; select "System Config > LAN Config". The system displays "LAN Config" interface, as shown in Figure 3-7.

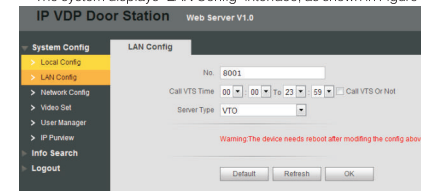


Figure 3-7

1. Select server type.

- NOTE
- Select "Server Type" to be "VTO".

2. Click "OK".

Step 7 Set SIP server info.

Select "System Config > Network Config > SIP Server Config". The system displays "SIP Server Config" interface, as shown in Figure 3-8.



Figure 3-8

Configure SIP server.

- At the interface, IP address shall be the one in "System Config > Network Config > TCP/IP".
- Tick "SIP Server Enable" and click "OK" to save the settings. VTO reboots automatically, and WEB interface jumps to login interface.

Step 8 Select "System Config > Device Manager > 8001-Digital Indoor Station Manager". The system displays "8001-Digital Indoor Station Manager" interface, as shown in Figure 3-9.

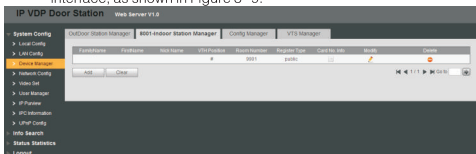


Figure 3-9

- Click "Add".
- Enter VTH "Family Name", "First Name", "Nick Name", "VTH Short No." (VTH room no.) and "IP Address".

NOTE

It is OK if IP address is not filled in. After VTH is registered to VTO successfully, VTO will obtain IP address of VTH.

3. Click "OK".

3.3.3 VTH Settings

For the first time, please initialize the password and bind Email. Password is used to enter project setting interface, while Email is used to retrieve your password when you forget it.

Step 1 Power on the device.

The system displays "Welcome" and enters "Device Initialization" interface, as shown in Figure 3-10.

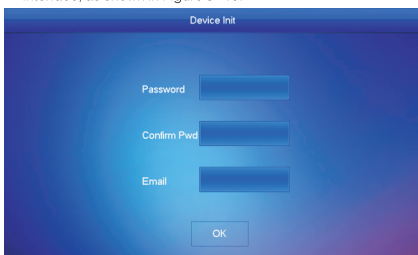


Figure 3-10

Step 2 Enter "Password", "Confirm Pwd" and "Email". Click [OK].

Step 3 Press [Setting] for more than 6 seconds.

The system pops up "Password" prompt box.

Step 4 Enter the password set during initialization, and click [OK].

Step 5 Click [Network].

The system displays "Network" interface, as shown in Figure 3-11 or Figure 3-12. Please set according to network access mode in actual application.

NOTE

IP addresses of VTH and VTO shall be in the same network segment. Otherwise, VTH will fail to obtain VTO info after configuration.

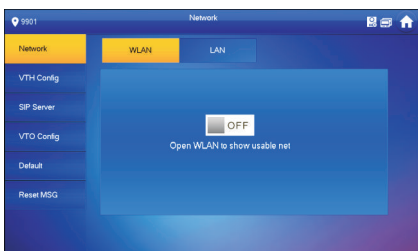


Figure 3-11



Figure 3-12

• Wired IP

Enter "Local IP", "Subnet Mask" and "Gateway", press [OK]. Or press OFF to enable DHCP function and obtain IP info automatically.

NOTE

If the device has wireless function, please click "Wired IP" tab to set it.

• WLAN

1. Press OFF to enable Wi-Fi function.

The system displays available Wi-Fi list, as shown in Figure 3-13.

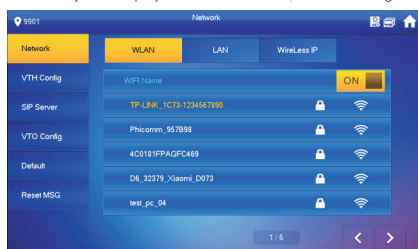


Figure 3-13

2. Connect Wi-Fi.

The system has 2 access ways as follows.

◇ At "WLAN" interface, select Wi-Fi, click "Wireless IP" tab to enter "Local IP", "Subnet Mask" and "Gateway", and press [OK].

◇ At "WLAN" interface, select Wi-Fi, click "Wireless IP" tab, press OFF to enable DHCP function and obtain IP info automatically, as shown in Figure 3-14.

NOTE

To obtain IP info with DHCP function, use a router with DHCP function.



Figure 3-14

Step 6 Click [VTH Config].

The system displays "VTH Config" interface, as shown in Figure 3-15.



Figure 3-15

• Be used as a master VTH.

Enter "Room No." (such as 9901 or 101#0) and click "OK".

NOTE

"Room no." shall be the same with "VTH Short No.", which is set when adding VTH at WEB interface. Otherwise, it will fail to connect VTO.

• Be used as an extension VTH.

1. Press [Master] and switch to "Extension".

2. Enter "Room No." (such as 101#1) and "Master IP" (IP address of master VTH).

NOTE

"Master Name" and "Master Pwd" are the user name and password of master VTH. Default user name is admin, and the password is the one set during device initialization.

3. (Optional) Press OFF to enable SSH.

After SSH is enabled, debugging terminal connects VTH through SSH protocol, so as to operate and debug VTH.

4. Press [OK] to save settings.

Step 7 Set SIP server.

Set SIP server info on VTH, and connect.

1. Press [Setting] for more than 6 seconds.

The system pops up "Password" prompt box.

2. Enter the password set during initialization, and click [OK].

3. Press [SIP Server].

The system displays "SIP Server" interface, as shown in Figure 3-16.

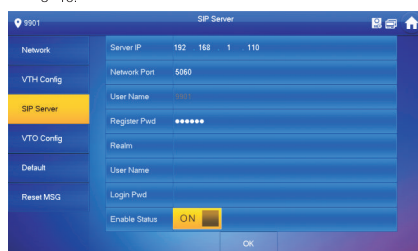


Figure 3-16

4. Set parameters of SIP server. Please refer to Table 3-2 for details.

Parameter	Description
Server IP	<ul style="list-style-type: none"> When the platform works as SIP server, server IP is IP address of the platform. When VTO works as SIP server, server IP is IP address of the VTO.
Network Port	<ul style="list-style-type: none"> When the platform works as SIP server, network port no. is 5080. When VTO works as SIP server, network port no. is 5060.
User Name	Use default value.
Register Password	Use default value.
Realm	Registration domain of SIP server, which can be null. When VTO works as SIP server, registration domain of SIP server shall be VDP.
Username	Username and password to login SIP server.

Table 3-2

5. Switch the "Enable Status" to be ON. Enable SIP server function.

Press [OK] to save the configuration.

Step 8 Press [VTO Config].

The system displays "VTO Config" interface, as shown in Figure 3-17.

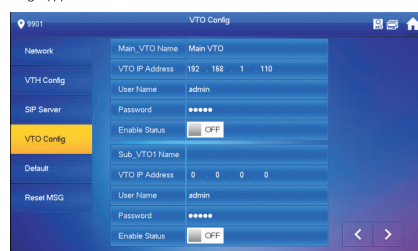


Figure 3-17

• Add main VTO.

1. In Figure 3-16, enter main VTO name, VTO IP, "User Name" and "Password".

2. Switch the "Enable Status" to be ON.

NOTE

Default device type is "Door". VTO middle no. will be obtained automatically. The format is "1+building no.+ unit no. + VTO no." Building no. has 2 digits, unit no. has 1 digit, and no. has 4 digits, so middle no. has 8 digits in total.

"User Name" and "Password" shall be consistent with WEB login user name and password of VTO. Otherwise, it will fail to connect.

"Enable Status" of main VTO is "ON" by default. After setting VTO info, please turn it off and then reboot, in order to put it into effect.

• Add sub VTO.

1. Press to switch to sub VTO setting interface.

2. Enter sub VTO name, IP address, "User Name" and "Password".

3. Switch the "Enable Status" to be ON.

• Add fence station.

1. Press to switch to sub VTO setting interface.

2. Select device type to be "Fence Station", enter sub VTO name (fence station name), VTO middle no. (fence station middle no.), "User Name" and "Password".

NOTE

Fence station middle no. consists of "1+00+0+fence station no."; building no. is 00, unit no. is 0 and VTO no. has 4 digits, so middle no. has 8 digits in total. For example, 10006901.

3. Switch the "Enable Status" to be ON.

4 Functional Operation

NOTE

For special operations, please refer to "User's Manual of Tamper-proof Metal Villa VTO".

On the VTO, press the key of the bound VTH to call the VTH. VTH pops up monitoring image and operating keys, as shown in Figure 4-1. It represents successful debugging.



Figure 4-1

5 Cell Phone Setting

Step 1 Scan the QR code to download the APP. See Figure 5-1.



APP for iPhone OS



APP for Android OS

Step 2 Use the cell phone to scan the QR code of VTO on the device's label or Web.

Go to System Config > Network > P2P Config interface, select to enable P2P server, and view info by scanning the two-dimension code at bottom of interface. See Figure 5-2 and Figure 5-3.



Figure 5-2

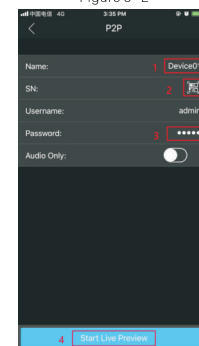


Figure 5-3

Step 3 Give a name to VTO first. Click the detect VTO. You can view the corresponding video from the VTO after it detects the device.

Step 4 Enable Subscription.

Go to Alarm Manager > Subscribe > Choose the VTO, select to enable subscription, see Figure 5-4.

Then when the VTO is calling the VTH, you can see a push message on your cell phone. Open the message, you can see the video from the VTO, see Figure 5-5.

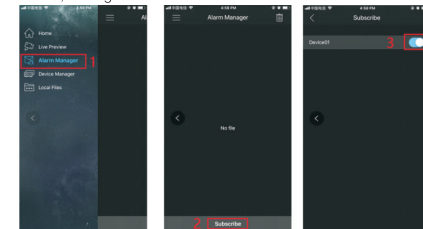


Figure 5-4



Figure 5-5

Appendix 1 Technical Parameters

Model	VTO2101E-P	
System	Main Processor	Embedded processor
	Operating System	Embedded LINUX
Video	Video Compression Standard	H.264
	Audio Standard	G.711
Audio	Input	Omnidirectional microphone
	Output	Built-in speaker
Operating Mode	Talk	Support two-way audio talk
	Input	Mechanical button
Alarm	Input	1-channel exit button or 1-channel alarm input
	Output	1-channel relay output
Network	Front Camera	2 megapixels
	Ethernet	10M/100Mbps self-adaptive
Other Hardware	485 Bus	1-channel
	External TF Card Extension	Support max. 64G
Environment	Power Supply	DC 12V or standard POE
	Tamper-proof	IK10
	Waterproof	IP65
	Power Consumption Dimension	Standby ≤1W, working ≤7W 163mm × 73mm × 55mm