V1.1.3

数字梯口机
（VTO15系列）

安装调测指南

Digital VTO
(VTO15 Series)
Installation Guide

1.2.51.18.10169-000

V1.1.2

概述

本文档主要介绍数字梯口机的安装调测和基本操作。

符号约定

在本文档中可能出现下列标志，它们所代表的含义如下。

符号	说明
危险	表示有高度潜在危险，如果不能避免，会导致人员伤亡或严重伤害。
警告	表示有中度或低度潜在危险，如果不能避免，可能导致人员轻微或中等伤害。
注意	表示有潜在风险，如果忽视这些文本，可能导致设备损坏、数据丢失、设备性能降低或不可预知的结果。
防静电	表示静电敏感的设备。
电击防护	表示高压危险。
激光辐射	表示强激光辐射。
窍门	表示能帮助您解决某个问题或节省您的时间。
说明	表示是正文的附加信息，是对正文的强调和补充。

重要安全须知

下面是关于产品的正确使用方法、为预防危险、防止财产受到损失等内容，使用设备前请仔细阅读本说明书并在使用时严格遵守，阅读后请妥善保存说明书。

⚠ 注意

- 请在设备布控后及时修改用户的默认密码，以免被人盗用。
- 请不要将设备放置和安装在阳光直射的地方或发热设备附近。
- 请不要将设备安装在潮湿、有灰尘或煤烟的场所。
- 请保持设备的水平安装，或安装在稳定的场所，注意防止本产品坠落。
- 请勿将液体滴到或溅到设备上，并确保设备上不能放置装满液体的物品，防止液体流入设备。
- 请安装在通风良好的场所，切勿堵塞设备的通风口。
- 仅可在额定输入输出范围内使用设备。
- 请不要随意拆卸设备。

⚠ 警告

- 产品必须使用本地区推荐使用的电线组件（电源线），并在其额定规格内使用。
- 请使用满足SELV（安全超低电压）要求的电源，并按照IEC60950-1符合Limited Power Source（受限制电源）的额定电压供电，具体供电要求以设备标签为准。
- 如果使用电源插头或器具耦合器等作为断开装置，请保持断开装置可以方便的操作。

特别声明

- 产品请以实物为准，说明书仅供参考。
- 说明书和程序将根据产品实时更新，如有升级不再另行通知。
- 如不按照说明书中的指导进行操作，因此造成的任何损失由使用方自己承担。
- 说明书可能包含技术上不准确的地方、或与产品功能及操作不相符的地方、或印刷错误，以公司最终解释为准。
- 在本文档中可能提及的其他商标或公司的名称，由其各自所有者拥有。

目 录

前言.....01

重要安全须知.....02

1 组网场景.....05

2 安装梯口机.....06

2.1 VTO1520C.....06

2.1.1 结构尺寸.....06

2.1.2 安装步骤.....07

2.1.3 线缆连接.....08

2.2 电控锁与电磁锁.....09

3 安装调测.....11

3.1 电源要求.....11

3.2 开机与关机.....11

3.3 调试网络.....11

4 配置操作.....12

4.1 配置WEB.....12

4.2 注册管理中心.....13

4.3 配置群呼.....14

4.4 配置围墙机.....18

4.5 发卡.....20

5 常见问题.....21

附录1 技术规格.....22
附录1.1 网线规格.....22
附录1.2 电源延长线规格.....22
附录2 ICMS服务端.....23
附录2.1 创建组织结构.....23
附录2.2 添加门口机.....24
附录2.3 添加围墙机.....25
附录3 ICMS客户端.....26

1 组网场景

本章主要介绍梯口机的使用场景，请先了解以下内容，根据实际需求进行合理规划后再进行安装。

群呼场景

有关群呼场景的详细内容，请参见“4.2 注册管理中心”

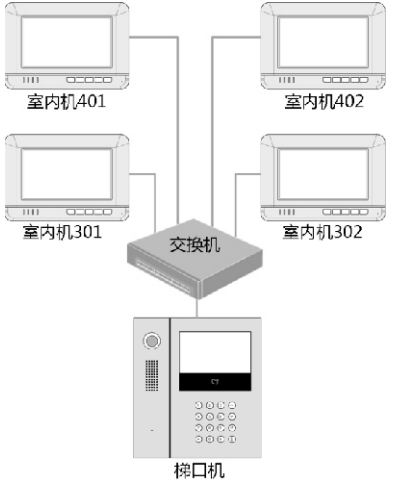
围墙机场景

有关围墙机场景的详细内容，请参见“4.4 配置围墙机”。

一对多场景

一般选用梯口机安装在单元楼门口。来访者通过梯口机呼叫住户，则住户的室内机开始振铃。住户在室内机上按【开锁键】开门，来访者即可进入单元楼。

图1-1 一对多场景



2 安装梯口机

本文档适用于多个产品型号，请您仔细核对所购买的产品型号及其功能特性。

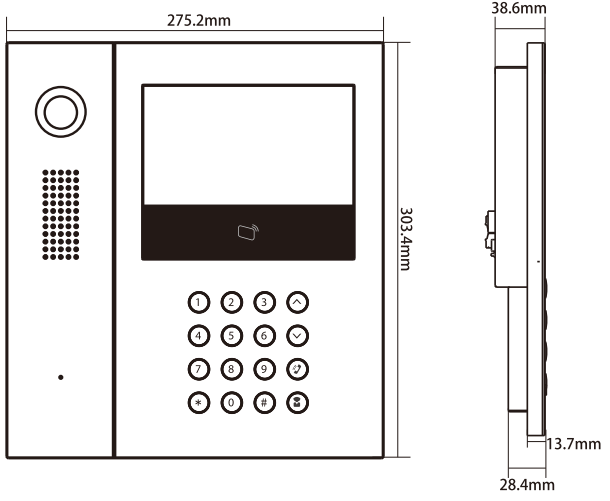
产品型号	外壳材质	颜色	IC卡开锁	按键类型	控锁模块
VTO1520C	金属	金属灰	支持	机械按键	内置

2.1 VTO1520C

2.1.1 结构尺寸

安装设备前，请先了解设备的结构尺寸，根据结构尺寸选择合适的安装方式。

图2-1 VTO1520C结构示意图



2.1.2 安装设备

梯口机支持嵌墙式安装、台柱式安装以及门式安装，本文以门式安装为例进行介绍。安装梯口机之前，请先检查附件包中的螺钉，并根据说明书的指导进行安装。

2.1.2.1 螺钉规格

表2-1 螺钉规格

部件名称	螺钉序号	示意图	数量
M4×30十字槽盘头机螺钉	螺钉a		6个
M3×8十字槽盘头机螺钉	螺钉b		2个

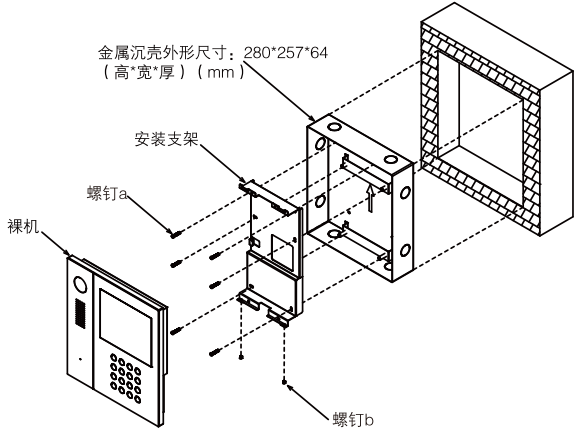
2.1.2.2 安装步骤

步骤1 将金属沉壳埋入墙内。

步骤2 把安装支架固定到金属沉壳上，通过螺钉a固定。

步骤3 把裸机固定到安装支架上，通过螺钉b固定。

图2-2 VTO1520C结构示意图



2.1.3 线缆连接

VTO1520C后面板接口示意图如下所示。

图2-3 VTO1520C后面板接口

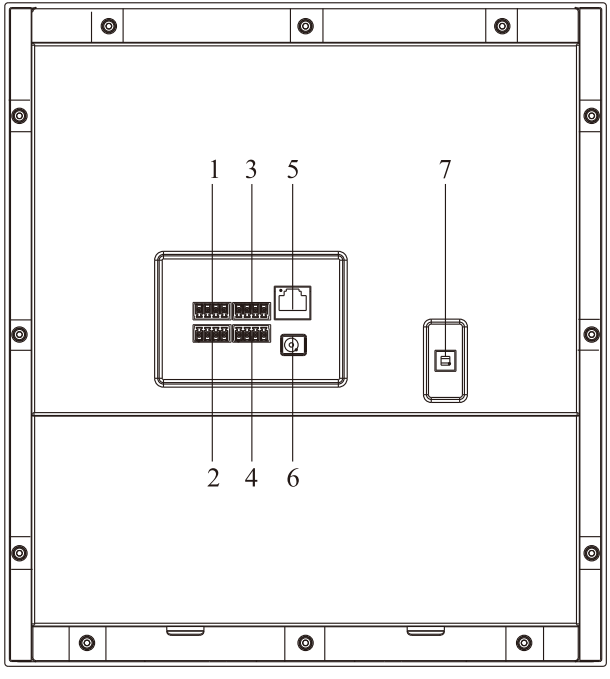
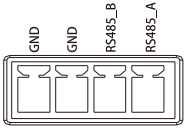
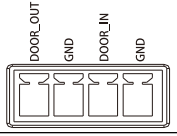
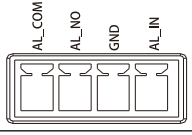
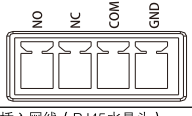


表2-2 VTO1520C后面板接口说明

序号	接口名称	接口说明
1	RS485接口	接入 RS485通讯设备。 
2	门磁锁接口	接入开门按钮（DOOR_IN）和门磁信号（DOOR_OUT）。 
3	报警输入输出接口	1路报警输入，1路报警输出。 
4	电控锁接口	控制常开/常闭型门锁的开启或关断。 
5	网络接口	插入网线（RJ45水晶头）。
6	电源接口	接入 12V 直流电源。
7	防拆开关	当梯口机被强行从墙体上拆离的时候，会发出报警声，并且有报警信息上传给管理中心。

2.2 电控锁与电磁锁

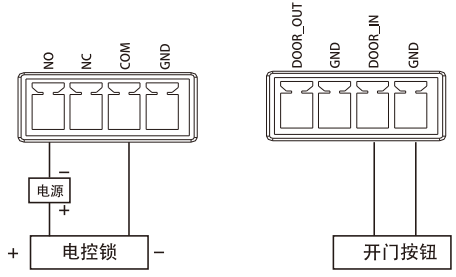
本章节以梯口机连接电控锁和电磁锁为例进行介绍。

电控锁

梯口机连接电锁时，电锁正极连接梯口机NO端，电锁负极连接梯口机COM端。

梯口机连接开门按钮时，开门按钮一端连接梯口机DOOR_IN端，开门按钮另一端连接梯口机GND端。

图2-4 安装电控锁

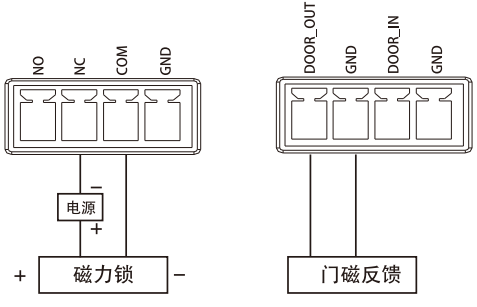


门磁锁

梯口机连接门磁锁时，门磁锁正极连接梯口机NC端，门磁锁负极连接梯口机COM端。

梯口机连接门磁锁内的门磁反馈时，门磁反馈一端连接梯口机DOOR_OUT端，门磁反馈另一端连接梯口机GND端。

图2-5 安装门磁锁



3 安装调测

注意事项

- 调试前，调试人员应熟悉各种相关资料，了解设备的安装，连线和使用。
- 调试前，检测线路是否存在短路或开路情况。
- 检查线路一切正常后，再给设备上电。
- 调试结束后，清理现场（包括接头处理、设备固定等）。

3.1 电源要求

安装完成后，首先应保证电源电压、电流正确，电源线正确连接，然后再给设备上电。

3.2 开机与关机

梯口机接通电源后即开机。

3.3 调试网络

首先检测网络是否连通。在浏览器地址栏中输入梯口机的IP地址，如果能成功登录WEB界面如图4-1所示，则说明网络已经连通。

说明

梯口机出厂默认的IP地址是10.22.5.189或192.168.1.110，默认的用户名和密码是admin和admin。首次登录成功后，请及时修改密码。

4 配置操作

4.1 配置WEB

如果您是首次使用梯口机，可能需要执行以下操作，以使设备能正常工作。

登录WEB

首先，确保电脑与梯口机之间网络互通，然后参照以下步骤登录WEB管理界面。

步骤1 在电脑的浏览器地址栏中输入梯口机的IP地址，按【回车】键，系统显示登录界面如图4-1所示。

步骤2 输入“用户名”和“密码”。

步骤3 单击“登录”。

说明

梯口机出厂默认的IP地址是10.22.5.189或192.168.1.110，默认的用户名和密码是admin和admin，首次登录成功后，请及时修改密码。

图4-1 登录界面

基本配置

步骤1 在WEB主界面选择“系统设置> 本机设置”，设置系统类型为“数字系统”，设置视频格式参数为“WVGA”，如图4-2所示。

图4-2 本机设置

步骤2 在“系统时间”页签中单击“同步PC”，使系统时间与本地PC的时间一致。

步骤3 选择“系统设置> 网络设置”，设置梯口机的IP地址、子网掩码、默认网关等参数。

图4-3 网络设置

步骤4 （可选）如果梯口机要接入ICMS管理中心。详情请参见“4.2 注册管理中心”。

步骤5 （可选）如果梯口机要配置群呼功能。详情请参见“4.3 配置群呼”。

4.2 注册管理中心

管理中心即智能小区综合管理平台，简称“ICMS管理中心”。

操作步骤

按下梯口机前面板的【管理中心键】，直接呼叫管理中心。

配置步骤

有关如何注册到管理中心的具体内容，请见如下操作步骤。

步骤1 根据管理中心中配置的梯口机信息，填写“楼号”、“楼内单元号”和“VTO编号”，并且这些参数必须和ICMS管理中心的配置保持一致。

步骤2 在联网配置中勾选“注册到管理中心”，如所示。

步骤3 填写“管理中心IP地址”、“管理机端口号”。

步骤4 检查配置无误后，单击“确定”，然后进入“退出系统> 重启设备”，手动重新启动设备。

图4-4 联网配置

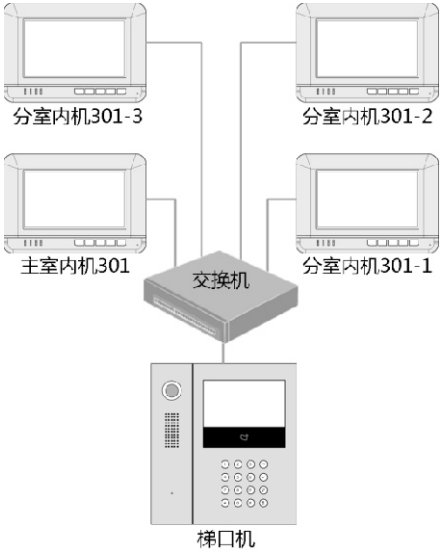
4.3 配置群呼

当来访者在梯口机上输入住户的房间号，按【呼叫键】，多台室内机同时振铃，住户可以在任意一台室内机上进行接听、挂断、开锁等操作。

说明

室内机可以分为主室内机（主机）和分室内机（分机）。其中主机最多1台，分机最多5台。

图4-5 群呼场景



设置梯口机

步骤1 选择“系统设置>室内机管理”，系统显示“室内机管理”界面。

步骤2 单击“添加”，输入“VTH短号”，输入“IP地址”（可选步骤），添加一台主室内机。

说明

在“室内机管理”界面只需要添加主室内机，从室内机不需要添加。

有*识的参数必须设置参数值，其他参数可以不设置。

图4-6 添加室内机

步骤3 在“联网配置”界面，勾选“群呼”，单击“确定”。

步骤4 配置完成后，进入“退出系统”界面，重新启动梯口机。

图4-7 启用群呼功能

设置主室内机

步骤1 在室内机屏幕上，轻按“系统设置”，再按“工程设置”，输入密码（默认为002236）后进入工程设置界面。

步骤2 轻按“本机信息”，输入房间号、本机IP、子网掩码、网关，如图4-8所示。

说明

“房间号”必须同中的“VTH短号”保持一致。

图4-8 本机信息

步骤3 轻按“网络终端”，填入梯口机的IP地址。

图4-9 网络终端

设置分室内机

步骤1 在室内机屏幕上，轻按“系统设置”，再按“工程设置”，输入密码（默认为002236）后进入工程设置界面。

步骤2 轻按“本机信息”。轻按“主机”图标后变为“分机”。

步骤3 设置房间号（例如：主室内机房间号为102，则分机房间号可以为102-1、102-2、102-3、102-4、102-5），填写本机IP、子网掩码、网关。

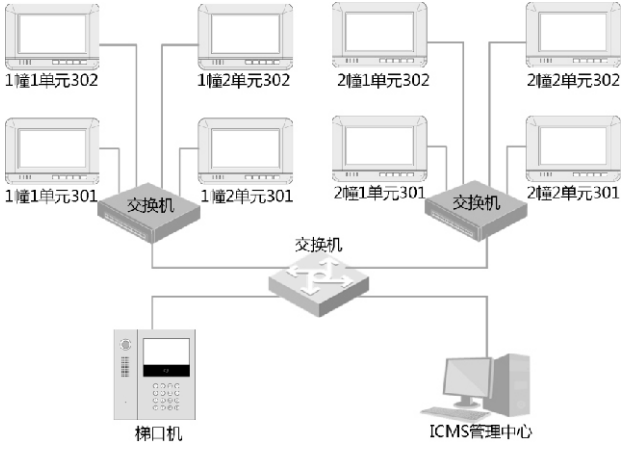
步骤4 在“主机IP”中填写主室内机IP。设置完成后，分室内机会自动同步主室内机的用户配置等信息。

图4-10 本机信息（分室内机）

4.4 配置围墙机

梯口机既可以作为单元门口机安装在单元楼门口，也可以作为围墙机安装在小区大门口。

图4-11 围墙机场景



围墙机主要安装在小区大门口，方便管理小区内所有住户的进出等。进行如下简单的配置后，您才能使用围墙机。

步骤1 首先，在ICMS服务端添加围墙机，详情请参见“附录2.3 添加围墙机”。

步骤2 登录梯口机的WEB管理界面。选择“系统设置> 本机设置”，设置系统类型为“数字系统”，设置设备类型为“围墙机”，设置视频格式为“WVGA”。单击“确定”保存设置。

图4-12 配置围墙机

步骤3 选择“系统设置> 联网配置”，设置楼号为“0”，设置楼内单元号为“0”，根据ICMS管理中心侧的值填写VTO编号。将围墙机注册到管理中心，详情请参见“”。

步骤4 选择“退出系统> 重启设备”，将设备重新启动。

4.5 发卡

WEB发卡

在WEB界面上单击“发卡”，将IC卡放置在梯口机刷卡区，听到“滴”的一声即为发卡成功。成功后可以用IC卡直接刷卡开门。

ICMS发卡

首先准备一个发卡器并正确连接线缆，然后参见“附录3 ICMS客户端”进入ICMS客户端导航主页，选择“门禁授权> 门禁发卡”，配置持卡人、住址、有效期等信息后，单击“开始读卡”完成发卡。

有关如何发卡的详细内容，请参见智能小区综合管理平台（ICMS）的使用说明书。

图4-13 ICMS发卡

5 常见问题

常见问题	解决方法
设备无法启动	● 检查梯口机设备是否通电，梯口机的电源正常电压在10V~15V。若室内机由两芯绿插供电，检查室内机供电是否正常，电源正常电压在 10V~15V。 ● 室内机由交换机直接供电，检查交换机开关是否打开，网线是否松动， ● 交换机工作电压需要在22V~26V。
梯口机呼叫不了室内机	检查室内机是否注册成功。
声音太轻	根据实际情况调节梯口机的音量和室内机的通话音量
室内机没有视频或视频质量差。	● 在梯口机WEB 界面切换视频格式为WVGA。 ● 避免将梯口机放置在光线不理想或阳光直射的位置
无法开锁	● 检查梯口机门禁模块的连接线是否松动。 ● 检查电控锁是否有问题（没有正确连线，无电压输出或电压输出低）。
门磁检测报警	请检查门是否卡住，无法关上。
无法发卡	卡必须为 IC卡。

附录1 技术规格

附录1.1 网线规格

根据梯口机和室内机之间的布线长度L_N，合理选择网线规格。

网线规格	$0<L_N\leq50$米	$50<L_N\leq100$米
UTP Cat5e/Cat6；10 欧姆/100米	可选	可选
UTP Cat5e/Cat6；18.8欧姆/100米	可选	不选

注意

请尽量保证布线长度L_N不超过100米。

附录1.2 电源延长线规格

根据适配器和梯口机之间的距离L_C，选择合适的电源延长线。

电源延长线规格	$0<L_C\leq30$米	$30<L_C\leq100$米
20AWG	可选	不选
18AWG	可选	可选
17AWG	可选	可选

注意

设备上电前，请先确认电源延长线正负极接线是否正确，切勿接反。

附录2 ICMS服务端

附录2.1 创建组织结构

首先，完成环境的搭建和ICMS服务端的基本配置。

步骤1 在浏览器地址栏中输入IP地址（即安装ICMS服务端电脑的IP地址），按【回车】键，系统显示登录界面如所示。

步骤2 输入“用户名”和“密码”。

步骤3 单击“登录”。

说明

ICMS服务端出厂默认的用户名和密码是admin和123，首次登录成功后，请及时修改密码。

附录图2-1 智能小区综合管理平台

步骤4 在主界面选择“基础管理> 组织结构”，单击“批量添加”，根据实际情况添加。

附录图2-2 设置组织结构

附录2.2 添加门口机

步骤1 在主界面选择“基础管理> 设备管理”，单击“添加”，选择“对讲设备”。

附录图2-3 添加设备

步骤2 设置设备类型为“对讲门口机”，设置设备地址（单击左侧组织结构即可）。

附录图2-4 设置设备类型

附录2.3 添加围墙机

梯口机即可以做单元门口机，也可以做围墙机。

添加围墙机的操作步骤与添加门口机类似，不同的地方如下图所示。

附录图2-5 添加围墙机

附录3 ICMS客户端

下文主要介绍如何配置ICMS客户端，以实现正常登录和使用。

步骤1 在PC上安装ICMS客户端软件。

步骤2 双击 Icmc.exe，在弹出的登录对话框中输入用户名、密码、IP地址、端口等参数，再单击“登录”。

附录图3-1 登录界面

步骤3 成功登录后，ICMS导航主页如下图所示。

附录图3-2 导航主页

Appendix 3 ICMS Client

This following mainly introducts how to config ICMS Client.

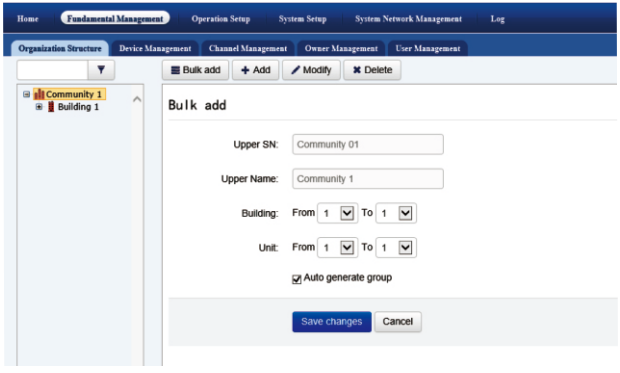
Step 1. On PC, install ICMS Client.

Step 2. Double click on Icmc.exe , in pop-up login box input username, password, IP address, port and etc. Click on login. See Appendix 3-1.

Appendix 3-1

Step 3. After successful login, ICMS homepage is shown in Appendix 3-2.

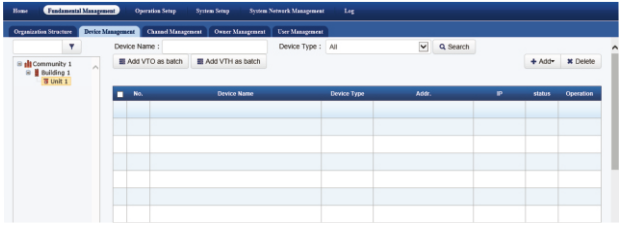
Appendix 3-2



Appendix 2–2

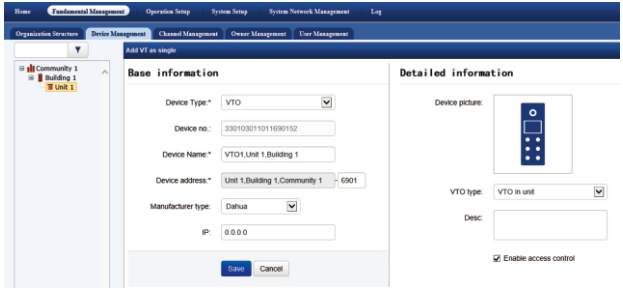
5.1 Appendix 2.2 Add VTO

Step 1. In homepage, select Basic Management>Device Management, click on add and select device. See Appendix 2–3.



Appendix 2–3

Step 2. Set device type to talk VTO and set device address (click on organizational structure on the left). See Appendix 2–4.

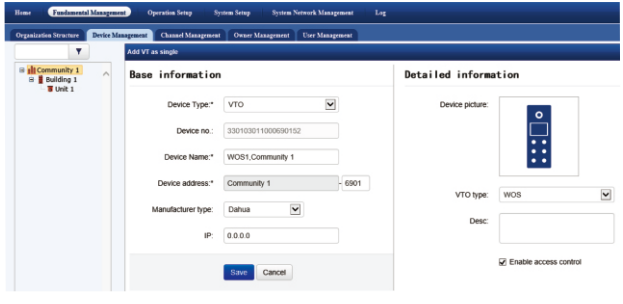


Appendix 2–4

5.5 Appendix 2.3 Add Fence Station

VTO can be used as either unit VTO or fence station.

Steps to add fence station are similar as adding VTO, the different steps are listed below. See Appendix 2–5.



Appendix 2–5

Appendix 1 Techinical Specification

Appendix 1.1 Cable Specification

The wiring length between VTO and VTH is L_N, so the reasonable specification of wiring is:

Cable Specification	$0<L_N \leqslant 50m$	$50<L_N \leqslant 100m$
UTP Cat5e/Cat6：10 ohm/100m	Optional	Optional
UTP Cat5e/Cat6：18.8 ohm/100m	Optional	Not Optional

Note:

Please do not let L_N be over 100m.

Appendix 1.2 Power Extension Line Specification

The wiring length between VTO and adaptor isL_C, so reasonable specification of extnsion line is:

Extension Line Specification	$0<L_C \leqslant 30m$	$30<L_C \leqslant 100m$
20AWG	Optional	Not Optional
18AWG	Optional	Optional
17AWG	Optional	Optional

Note:

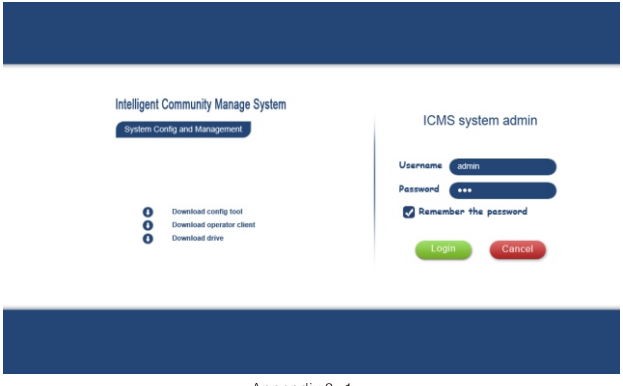
Before plugging extension line to power, make sure its positive and negative end are correctly wired.

Appendix 2 ICMS Server

Appendix 2.1 Config Network Address

First, please complete setup of device and ICMS server config.

Step 1. In Internet Explorer, input IP address (IP address of PC where ICMS is installed), press Enter. System shows Appendix 2–1.



Appendix 2–1

Step 2. Input username and password.

Step 3. Click on Login.

Note:

Default username and password is admin and 123, respectively. After first successful login, please change password.

Step4. In homepage, select Basic Management>Organizational Structure. Click on batch add and add according to actual condition. See Appendix 2–2.

Step 3. Select System Config>LAN Config, set section no. to 0, according to value in ICMS center fill VTO no. Register fence station to management center. Please refer to Ch 4.2.

Step 4. Select Logout>Reboot, to reboot the device.

4.5 Issue Card

Issue Card on WEB

In WEB interface, click on Issue Card, and when you hear a "DI" sound, it means you have successfully issued card. Then, you can swipe this card to unlock.

Issue Card by ICMS

First you need a card issuer and you shall properly wire it. Please then refer to Appendix 3 to enter ICMS Client. Select A&C authorization> Issue Card, and configure card holder, address, validity and etc. Click on Issue to issue card.

Please refer to ICMS user's manual.

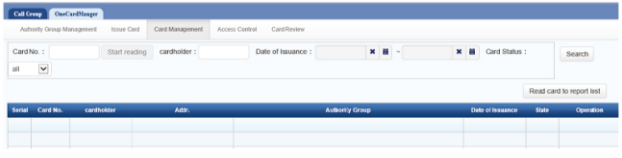


Figure 4-13

5 FAQ

FAQ	Solution
Device cannot boot up.	● Check if VTO is plugged to power. Its normal power range is 10V~15V. ● If VTH is powered by 2-pin green plug, check if the power supply is normal. Power voltage is normally 10V~15V. ● If VTH is powered by switch, check if switch is on and cable is loose. Switch voltage is normally 22V~26V.
VTO cannot call VTH.	Check if VTH has not been registered on VTO.
Sound is too low.	Based on actual condition, adjust VTO and VTH volume.
VTH does not have video or video frame is poor.	● In VTO WEB interface, switch video format to WVGA. ● Avoid expose VTO to place of poor light or direct sunlight.
I cannot unlock.	● Check if VTO access control module is loose. ● Check electric control lock is normal. (wiring is wrong, no voltage output or low voltage)
Door Sensor Alarm	Please check if door is stuck.
I cannot issue card.	The card must be IC card.

Set Extension

Step 1. On VTH screen, press System Settings>Project Settings, input password (default is 002236) to enter Project Settings interface.

Step 2. Press Product Info. Press Master, Master icon becomes Extention icon.

Step 3. Set Room No. (i.e. 102–1), input IP Address, Subnet Mask and Gateway.

Step 4. In Master IP, input IP of the main VTH. After competion, extension will automatically sync with main VTH info configured by user. See Figure 4–10.

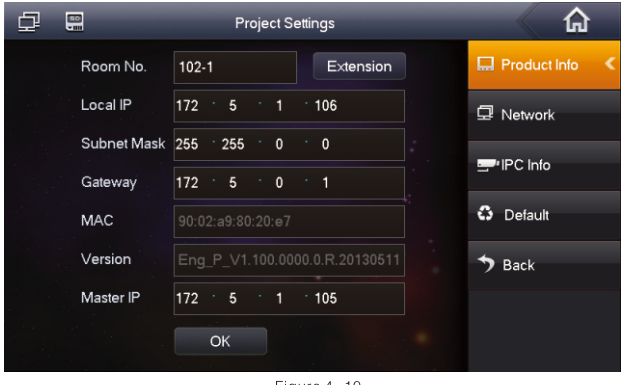


Figure 4–10

4.4 Fence Station

VTO can be installed either as unit VTO or as fence station. See Figure 4–11.

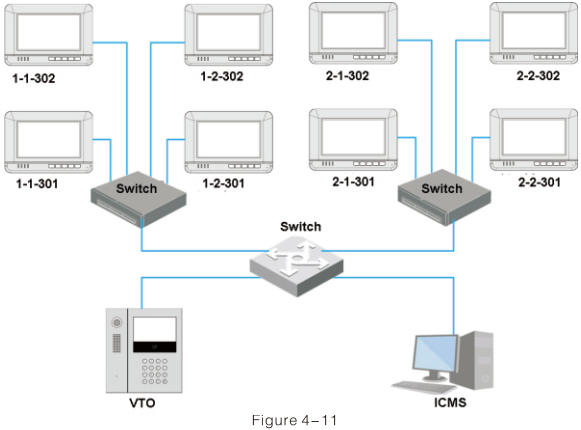


Figure 4–11

Fence station is mainly installed at entrance/exit of residence. Please configure as follows before using fence station.

Step 1. First, on ICMS server, add fence station, please refer to Ch 2.3.

Step 2. Login VTO WEB. Select System Config>Local Config, set system type to TCP/IP, and set device type to fence station. Set video format to WVGA. Click on OK to save. See Figure 4–12.

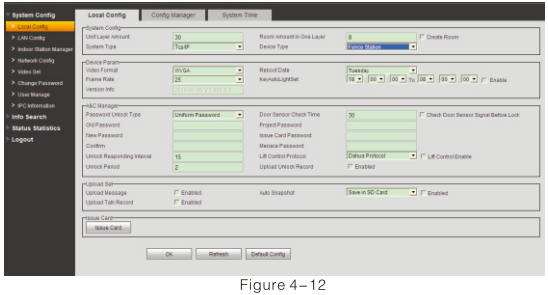


Figure 4–12

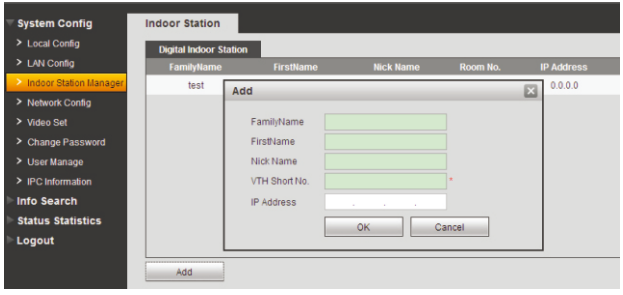


Figure 4-6

Step 3. In LAN Config interface, check Group Call, and click on OK. See Figure 4-7.

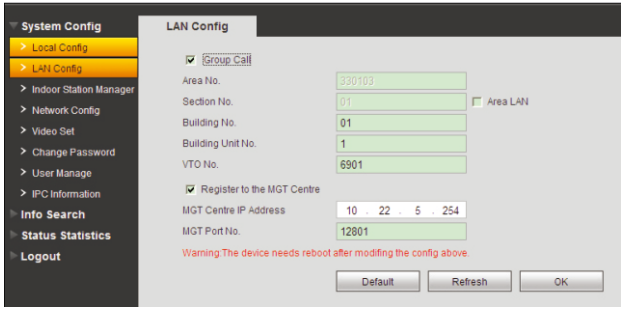


Figure 4-7

Step 4.After config is complete, enter Logout interface to reboot VTO.

Set Main VTH

Step 1. On VTH screen, press System Settings>Project Settings, input password (default is 002236) to enter Project Settings interface.

Step 2. Press Product Info, input Room No., Local IP and etc as in Figure 4-8.

Note:

Room No. Must match setting in VTH Short No. in Figure 4-6.

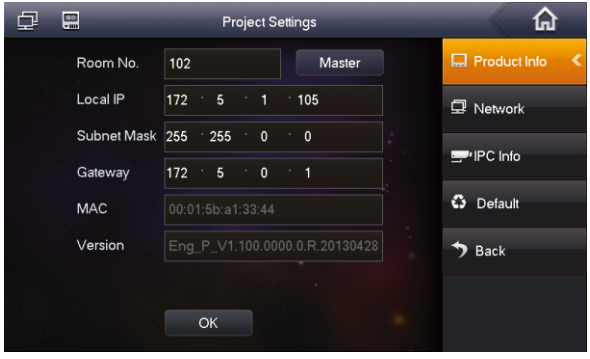


Figure 4-8

Step 3. Press Network, input VTO IP Address. See Figure 4-9.

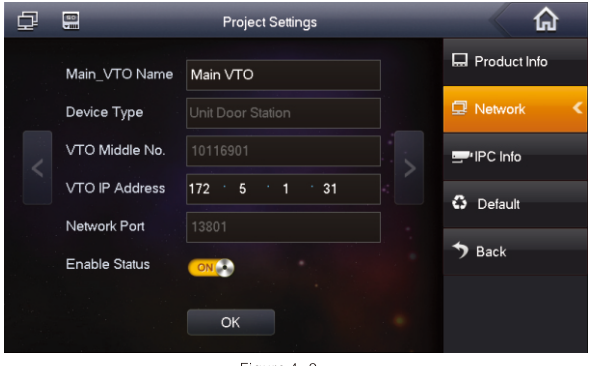


Figure 4-9

Configuration Steps

Step 1. According to VTO info in management center, fill in building no., unit no., and VTO no., and make sure these parameters match info in configuration in ICMS center.

Step 2. In LAN setting, check Register to the MGT center, see Figure 4–4.

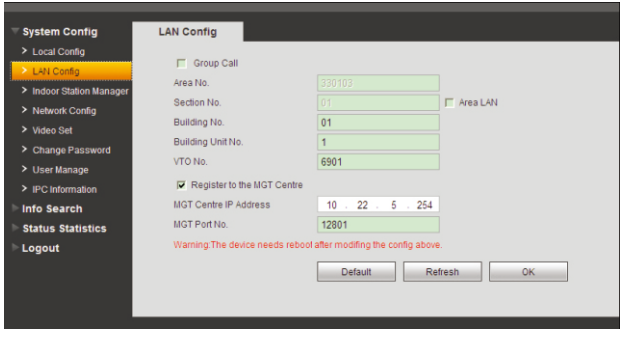


Figure 4–4

Step 3. Fill in MGT center IP address and port no.

Step 4. Confirm your configuration, click on OK, and enter Lougout> Reboot to manually reboot the device.

4.3 Group Call

When guest input resident’s room no. And press Call button on VTO, multiple VTHs will ring. Resident can accept call, hand up or unlock on any of these VTHs.

Note:

VTH includes main VTH and extension. In a system, there is no more than 1 main VTH and 5 extensions. See Figure 4–5.

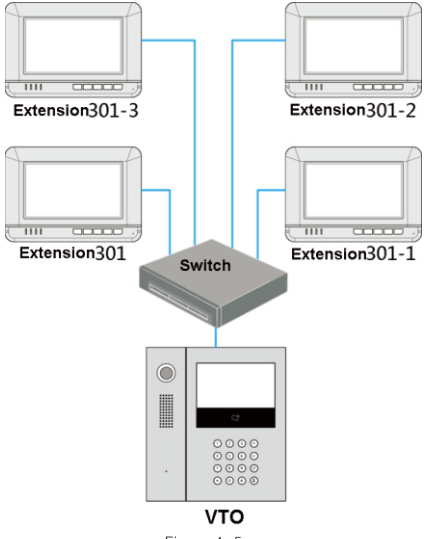


Figure 4–5

Set VTO

Step 1. Select System Config>Indoor Station Manager, system shows Indoor Station interface.

Step 2. Click on Add, input VTH Short No., IP Address (optional) to add a VTH. See Figure 4–6.

Note:

- In Indoor Station interface, you only need to add main VTH, and you do not need to add extension.
- Parameter with * are mandantory.

4 Operation

4.1 WEB Setup

If you first use VTO, you may need to operate according to the following steps:

Login WEB

First, make sure your PC and the VTO are well connected, and follow steps below to login WEB interface.

Step 1. In Internet Explorer, input IP address of the VTO, and press Enter. System shows Figure 4–1.

Step 2. Input Username and Password.

Step 3. Click on Login.

Note:

Default IP address of VTO is 10.22.5.189 or 192.168.1.110. Default username and password is admin/admin. After first login, please change your password.

Figure 4–1

Setup

Step 1. In WEB interface, select System Config>Local Config, set video format as WVGA as in Figure 4–2.

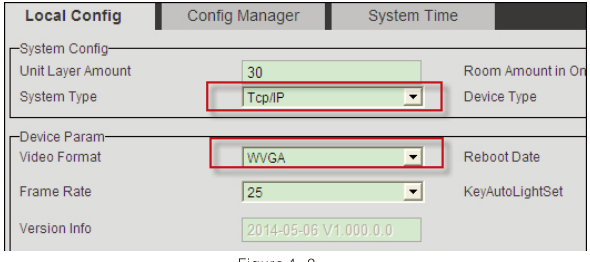


Figure 4–2

Step 2. In System Time tab, click on Sync PC to make VTO time the same with PC.

Step 3. Select System Config>Network Config, set VTO IP, Subnet Mask and Default Gateway. See Figure 4–3.

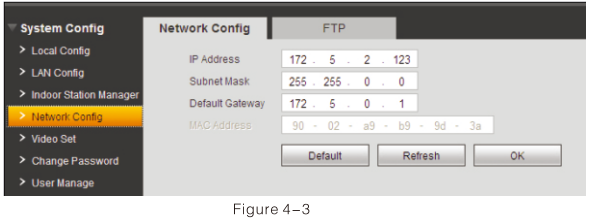


Figure 4–3

Step 4. (Optional) If VTO connects to ICMS center, please refer to Ch 4.2.

Step 5. (Optional) If VTO configures group call, please refer to Ch 4.2.

4.2 Register to Management Center

Management center is intelligent community manage system, known as ICMS.

Operation Steps

Press Center button on front panel of VTO to call management center.

Electric Lock

VTO connects to electric lock; electric lock's positive end connects to NO end of VTO and electric lock's negative end connects to COM end of VTO.

VTO connects to unlock buttons, unlock button's one end connects to DOOR_IN end of VTO and the other end connects to GND end of VTO. See Figure 2–4.

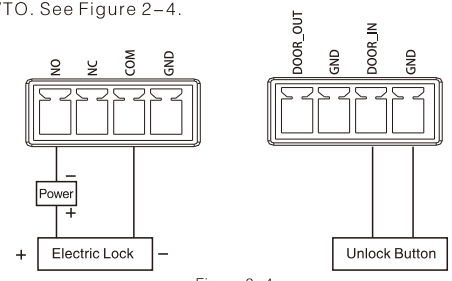


Figure 2–4

Door Sensor Lock

VTO connects to door sensor; door sensor's positive end connects to NC end of VTO and door sensor's negative end connects to COM end of VTO.

VTO connects to door sensor feedback in door sensor, feedback's one end connects to DOOR_OUT end of VTO and the other end connects to GND end of VTO. See Figure 2–5.

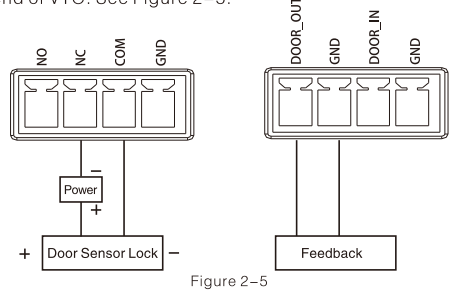


Figure 2–5

3 Installation Debugging

Warning:

- Before debugging, the staff shall be familiar with device's installation, wiring and usage.
- Beore debugging, check wiring for short or open circuit.
- When staff find each circuit is normal, plug the device to power.
- After debugging, clear the site.

3.1 Requirement for Power

After installation is complete, first make sure device voltage, current, wiring are right, then plug device to power.

3.2 On and Off

VTO boots up after being plugged to power.

3.3 Debug Network

First check if network is connected. In Internet Explorer's address field, input IP address of the VTO. If you can successfully login its WEB interface, it means the network works properly.

Note:

Default IP address of VTO is 10.22.5.189 or 192.168.1.110. Default username and password is admin/admin. After first login, please change your password.

2.1.3 Cable Connection

VTO1520C's rear panel is shown in Figure 2-3.

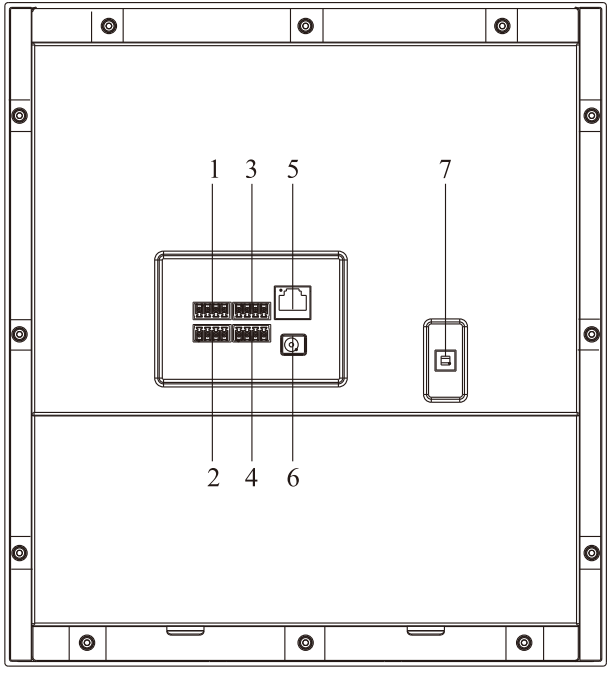
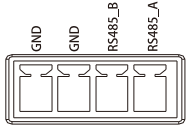
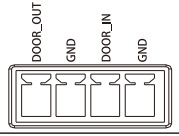
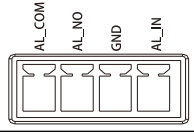
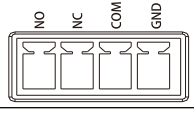


Figure 2-3

No.	Port Name	Note
1	RS485 port	Connect to RS485 communication device. 
2	Door sensor port	Connect to door sensor(DOOR_IN)and door sensor signal(DOOR_OUT). 
3	Alarm input and output port	1-ch alarm input, 1-ch alarm output. 
4	Electric lock port	Control NO/NC door lock. 
5	Network port	Plug in network cable(RJ45 crystal head).
6	Power port	Connect to 12V DC.
7	Vandal proof	When VTO is forced to leave wall, it will alarm and send alarm info to management center.

2.2 Electric Lock and Electromagnetic Lock

The chapter makes VTO connection with electric lock and electromagnetic lock.

2 Install VTO

The installation guide is for multiple product models, please carefully confirm your product model and its features.

Product Model	Enclosure Material	Color	IC Card Unlock	Button Type	Control Module
VTO1520C	Metal	Metal-grey	Support	Mechanical button	Built-in

2.1 VTO1520C

2.1.1 Structure

Before installation, please check device structure and dimensions and select appropriate method of installation.

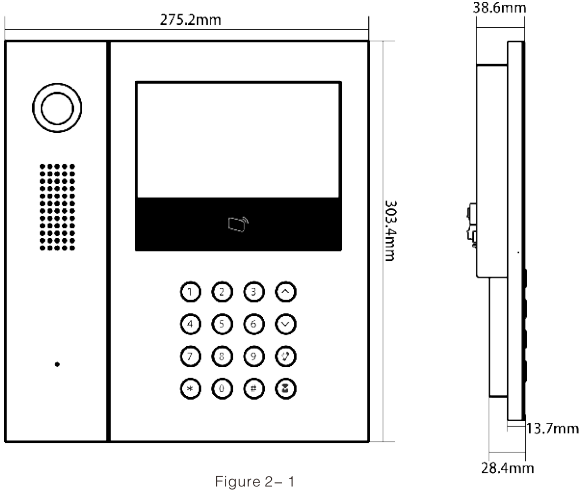


Figure 2-1

2.1.2 Device Installation

VTO supports built-in installation, stand type and door type installation. This manual introduces built-in installation. Before installing VTO, please check screws in accessories bag and follow instructions in manual.

2.1.2.1 Screw

Component Name	Screw No.	Diagran	Quantity
M4 × 30 cross recessed pan head screw	Screw a		6
M3 × 8 cross recessed pan head screw	Screw b		2

Chart 2-1

2.1.2.2 Installation Step

Step 1. Embed metal case into wall.

Step 2. Fix bracket onto metal case via Screw a.

Step 3. Fix device onto bracket via Screw b. See Figure 2-2.

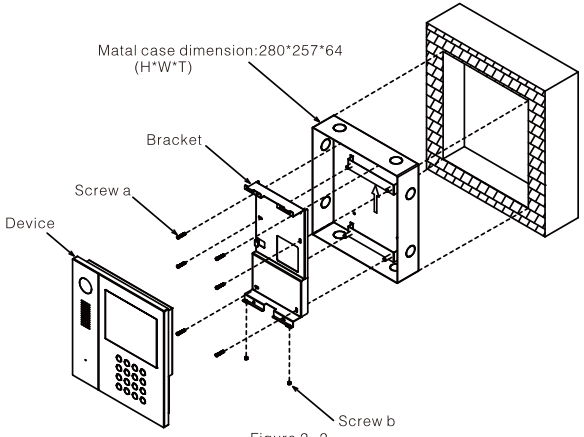


Figure 2-2

1 System Networking

This chapter mainly introduces usage of digital VTO, please read the following content and install the device according to your actual condition.

Group Call

Please refer to Ch 4.2.

Fence Station

Please refer to Ch 4.4.

One-Multiple Scenes

In general, user installs VTO at entrance of building, and installs VTH in resident's room. Guest can call any resident via the VTO, and the resident being called can unlock to allow the guest entering the building. See Figure 1-1.

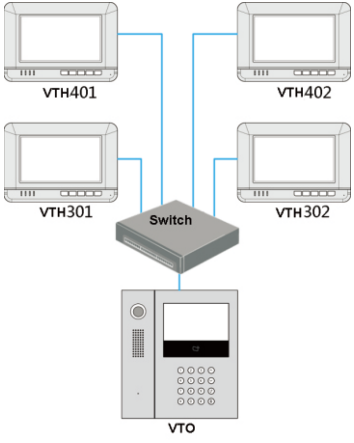


Figure 1-1

Table of Contents

1 System Networking.....05

2 Install VTO.....06

2.1 VTO1520C.....06

2.1.1 Structure.....06

2.1.2 Steps of Installation.....07

2.1.3 Cable Connection.....08

2.2 Electric Lock and Electromagnetic Lock.....09

3 Installation Debugging.....11

3.1 Requirement for Power.....11

3.2 On and Off.....11

3.3 Debug Network.....11

4 Operation.....12

4.1WEB Setup.....12

4.2 Register to Management Center.....13

4.3 Group Call.....14

4.4 Fence Station Config.....18

4.5 Issue Card.....20

5 FAQ.....21

Appendix 1 Technical Specifications.....22

Appendix 1.1 Cable Specification.....22

Appendix 1.2 Power Extension Line Specification.....22

Appendix 2 ICMS Server.....23

Appendix 2.1 Config Network Address.....23

Appendix 2.2 Add VTO.....24

Appendix 2.3 Add Fence Station.....25

Appendix 3 ICMS Client.....26

Important Safeguards and Warnings

Please read the following safeguards and warnings carefully before using the product in order to avoid damages and losses.
Note:

- Do not expose the device to lampblack, steam or dust. Otherwise it may cause fire or electric shock.
- Do not install the device at position exposed to sunlight or in high temperature. Temperature rise in device may cause fire.
- Do not expose the device to humid environment. Otherwise it may cause fire.
- The device must be installed on solid and flat surface in order to guarantee safety under load and earthquake. Otherwise, it may cause device to fall off or turnover.
- Do not place the device on carpet or quilt.
- Do not block air vent of the device or ventilation around the device. Otherwise, temperature in device will rise and may cause fire.
- Do not place any object on the device.
- Do not disassemble the device without professional instruction.

Warning:

- Please use battery properly to avoid fire, explosion and other dangers.
- Please replace used battery with battery of the same type.
- Do not use power line other than the one specified. Please use it properly. Otherwise, it may cause fire or electric shock.

Special Announcement

- This manual is for reference only.
- All the designs and software here are subject to change without prior written notice.
- All trademarks and registered trademarks are the properties of their respective owners.
- If there is any uncertainty or controversy, please refer to the final explanation of us.
- Please visit our website for more information.