

V2.0.3

数字别墅门口机 (VTO6系列)

安装调试指南

Digital Villa VTO
(VTO6 Series)
Installation Guide

V2.0.3

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概述

本文档主要介绍数字别墅门口机的结构部件、WEB配置和基本功能。

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。 |
|  穿门 | 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。

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1 组网场景

本章主要介绍数字别墅门口机的使用场景，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。

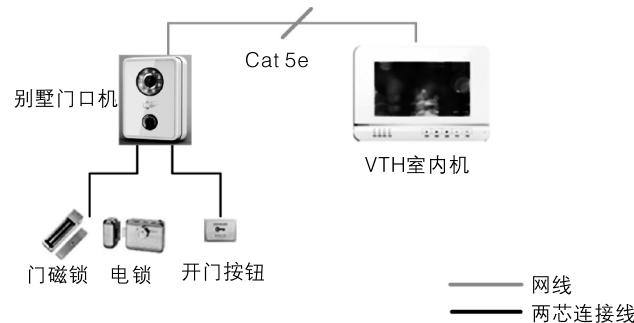
数字别墅门口机以下简称“别墅门口机”。

1.1 一对一场景

来访者按下【呼叫】按键，即可呼叫住户（即室内机）或者管理中心。

下图以数字别墅门口机VTO6110BW为例。

图1-1 一对一场景

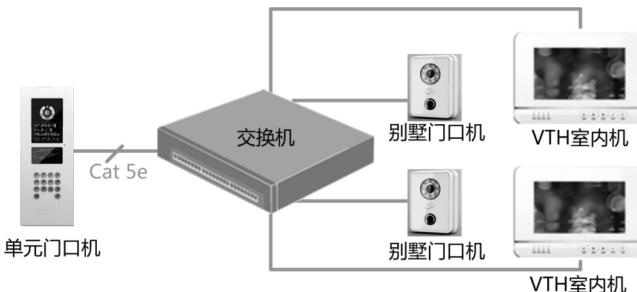


1.2 一对多场景

一般选用单元门口机安装在单元楼门口，别墅门口机安装在住户房间门口。

来访者通过单元门口机可以呼叫任意住户，则该住户的室内机将会振铃，开锁后，来访者即可进入单元楼。再通过别墅门口机呼叫住户，请求住户打开房间门锁。

图1-2 一对多场景



1.3 群呼场景

有关群呼场景的详细内容，请参见“4.3配置群呼功能”。

2 安装别墅门口机

2.1 型号列表

本文档适用于多个产品型号，请仔细核对您购买产品的型号及其功能特性。

| 产品型号 | 外壳材质 | 颜色 | IC卡开锁 | 按键类型 | 控锁模块 |
|-----------|--------|-----|-------|------|------|
| VTO6000A | 金属 | 金属灰 | 不支持 | 机械按键 | 外接 |
| VTO6110B | 防火 ABS | 黑色 | 支持 | 触摸按键 | 外接 |
| VTO6110BW | 防火 ABS | 白色 | 支持 | 触摸按键 | 外接 |
| VTO6210B | 防火 ABS | 黑色 | 支持 | 触摸按键 | 内置 |
| VTO6100C | 防火 ABS | 白色 | 支持 | 机械按键 | 内置 |
| VTO6000C | 防火 ABS | 白色 | 不支持 | 机械按键 | 内置 |
| VTO6000CM | 金属 | 金属灰 | 不支持 | 机械按键 | 内置 |

2.2 螺钉规格

安装别墅门口机之前，请先检查附件包中的螺钉，并参照下表熟悉螺钉的规格，根据说明书的指导进行安装。

表2-1 螺钉规格

| 部件名称 | VTO6000A | 作用 |
|-------------------------|----------|-------------|
| ST3×10 十字槽沉头尖尾自攻螺钉-镀锌黑色 | 1个 | 固定整机与预埋板金盒。 |

表2-2 螺钉规格

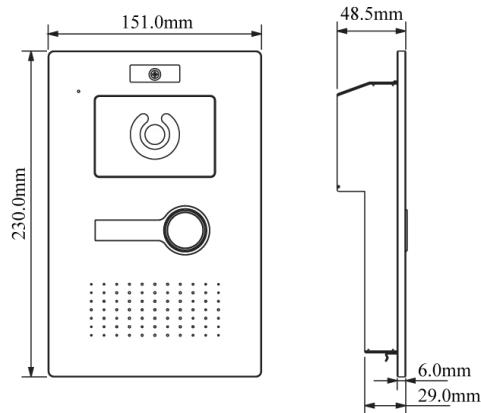
| 部件名称 | 示意图 | VTO6000C、 VTO6000CM VTO6100C | VTO6110B、 VTO6110BW |
|-------------------------|-----|------------------------------------|------------------------|
| M3×8 十字槽沉头平尾机牙螺钉-镀锌黑色 | | 1个 | 1个 |
| M4×30 十字槽盘头平尾机牙螺钉 | | 2个 | 2个 |
| ST3×18 十字槽盘头尖尾自攻螺钉-镀锌银白 | | 2个 | 4个 |
| 白色膨胀管 C 6×30mm | | 2个 | 4个 |

2.3 VTO6000A

2.3.1 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 VTO6000A结构示意图



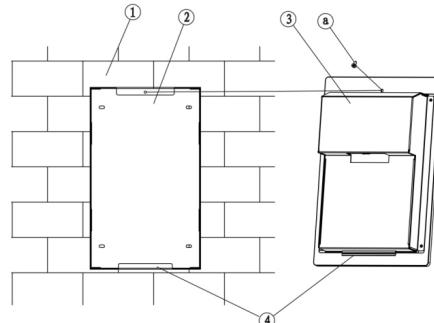
2.3.2 安装步骤

步骤1将钣金支架安装在墙壁凹槽内。

步骤2将整机③扣在钣金支架上, 沿整机底部和钣金支架底部扣紧, 如图④所示。

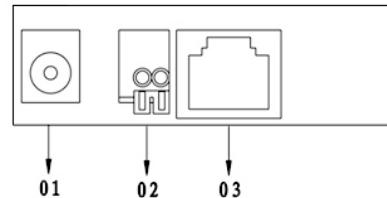
步骤3最后锁上a螺钉 (ST3 × 10十字槽沉头尖尾自攻螺钉), 固定整机到钣金支架上。

图2-2 安装示意图



2.3.3 线缆连接

图2-3 VTO6000A接口示意图



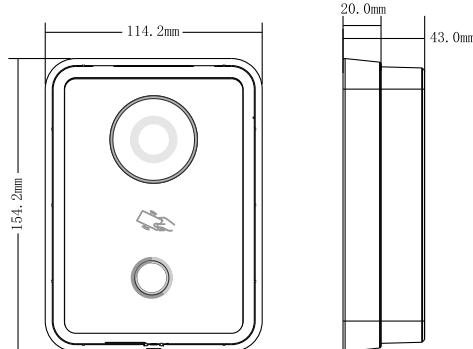
| 序号 | 接口名称 | 接口说明 |
|----|------|--------------------|
| 01 | 电源接口 | 输入 DC 12V 电源。 |
| 02 | 门锁接口 | 外接门禁扩展模块。 |
| 03 | 网口 1 | 插入网线 (RJ45 水晶头)。 |

2.4 VTO6110B、VTO6210B、VTO6110BW

2.4.1 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2-4 VTO6110B、VTO6210B、VTO6110BW结构示意图



2.4.2 安装步骤

以VTO6210B别墅门口机为例介绍安装方法。VTO6110B、VTO6110BW的安装方法可以参考VTO6210B的安装方法。

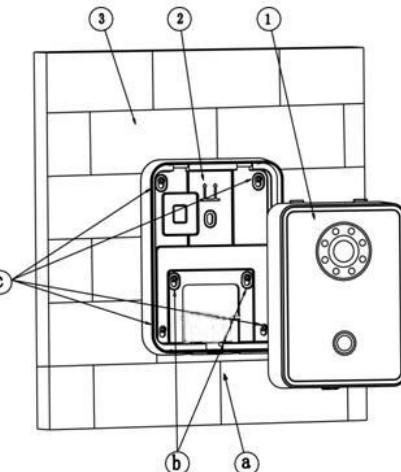
步骤1将安装支架固定在墙体上。

- 1.用配件中的M4螺丝, 将支架固定到86盒上(如b所在位置)。
- 2.为增强产品的牢固性, 86盒锁好之后, 再用配件中的ST3.0螺钉固定到墙体上(如c所在位置)。

步骤2将整机①扣到安装支架上, 先扣上边沿, 再轻推整机下边沿。

步骤3用配件中的固定螺钉M3, 将整机与支架固定。

图2-5 固定到预埋盒

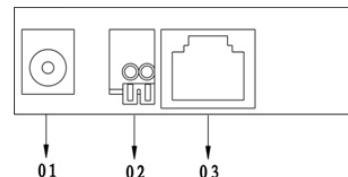


2.4.3 线缆连接

介绍别墅门口机预埋盒内的线缆与别墅门口机接口之间如何进行连接。

- VTO6110B、VTO6110BW

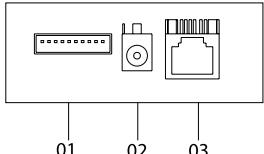
图2-6 VTO6110B、VTO6110BW接口示意图



| 序号 | 接口名称 | 接口说明 |
|----|------|------------------|
| 01 | 电源接口 | 输入 DC 12V 电源。 |
| 02 | 门锁接口 | 外接门禁扩展模块。 |
| 03 | 网口 1 | 插入网线 (RJ45 水晶头)。 |

● VTO6210B

图2-7 VTO6210B接口示意图



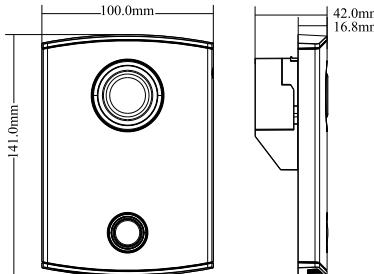
| 序号 | 接口名称 | 接口说明 |
|----|-------|---|
| 01 | 10芯接口 | 接入门锁、门磁反馈和开门按钮。并且提供预留接口用于对接其他设备，例如外接门禁扩展模块。 |
| 02 | 电源接口 | 输入 DC 12V 电源。 |
| 03 | 网口 1 | 插入网线 (RJ45 水晶头)。 |

2.5 VTO6000C、VTO6000CM、VTO6100C

2.5.1 结构尺寸

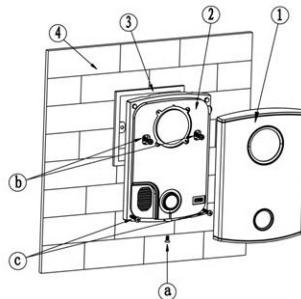
安装设备前，请先了解设备的结构尺寸，根据结构尺寸选择合适的安装方式。

图2-8 VTO6000C、VTO6000CM、VTO6100C结构示意图



2.5.2 安装步骤

图2-9 安装示意图



步骤1 拆除别墅门口机底部的螺钉M3，取下装饰盖①。

步骤2 将别墅门口机机体固定在墙体上，用配件中的M4螺丝，将支架固定到86盒上（如③所在位置）。

步骤3 b为增强产品的牢固性，86盒锁好之后，再用配件中的ST3.0螺钉固定到墙体上（如c所在位置）。

步骤4 将装饰盖①安装于整机②上，用螺钉M3固定。



注意

避免VTO6100C直接安装在铁门上，否则导致信号被屏蔽，刷卡感应差。

2.5.3 线缆连接

以VTO6100C别墅门口机为例介绍线缆连接，VTO6000C、VTO6000CM与VTO6100C的后面板接口一样，因此请参考以下内容进行连接。

图2-10 VTO6100C后面板接口示意图

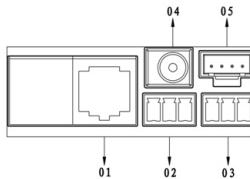


图2-3 VTO6100C后面板接口示意图

| 序号 | 接口名称 | 接口说明 |
|----|----------|-----------------|
| 01 | 网络接口 | 插入网线 (RJ45水晶头)。 |
| 02 | 三芯绿插接口 1 | 接入门锁。 |
| 03 | 三芯绿插接口 2 | 接入门磁反馈和开门按钮。 |
| 04 | 电源接口 | 接入 12V 直流电源。 |
| 05 | 调试接口 | 供工程人员调试使用。 |

2.6 电控锁与电磁锁

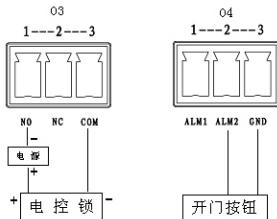
2.6.1 电控锁

- 介绍VTO6100C别墅门口机的电控锁连接方法。VTO6000C、VTO6000CM与VTO6100C的后面板接口一样，因此请参考VTO6100C别墅门口机连接方法连接。

别墅门口机连接电锁时，电锁正极连接别墅门口机 (03.三芯绿插1) NO端，电锁负极连接别墅门口机 (03.三芯绿插3) COM端。

别墅门口机连接开门按钮时，开门按钮一端连接别墅门口机 (04.三芯绿插2) ALM2端，开门按钮另一端连接别墅门口机 (04.三芯绿插3) GND端。

图2-11 VTO6100C电控锁安装

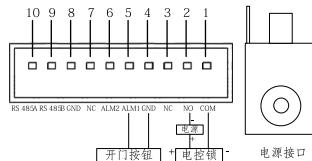


- 介绍VTO6210B别墅门口机电控锁连接方法。

别墅门口机连接电锁时，电锁正极连接别墅门口机 (RS485接口2) NO端，电锁负极连接别墅门口机 (RS485接口1) COM端。

别墅门口机连接开门按钮时，开门按钮一端连接别墅门口机 (RS485接口5) ALM1端，开门按钮另一端连接别墅门口机 (RS485接口4) GND端。

图2-12 VTO6210B电控锁安装



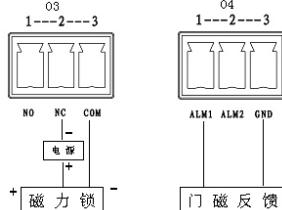
2.6.2 电磁锁

- 介绍VTO6100C别墅门口机电控锁和电磁锁连接方法。VTO6000C、VTO6000CM与VTO6100C的后面板接口一样，因此请参考VTO6100C别墅门口机连接方法连接。

别墅门口机连接门磁锁时，门磁锁正极连接别墅门口机 (03.三芯绿插2) NC端，门磁锁负极连接别墅门口机 (03.三芯绿插3) COM端。

别墅门口机连接门磁锁内的门磁反馈时，门磁反馈一端连接别墅门口机 (04.三芯绿插1) ALM1端，门磁反馈另一端连接别墅门口机 (04.三芯绿插3) GND端。

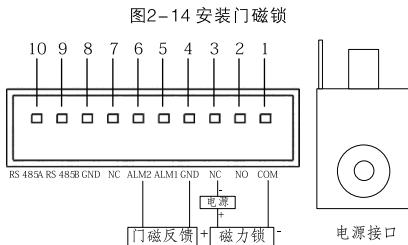
图2-13 安装门磁锁



- 介绍VTO6210B别墅门口机电控锁和电磁锁连接方法。

别墅门口机连接门磁锁时，门磁锁正极连接别墅门口机 (RS485接口3) NC端，门磁锁负极连接别墅门口机 (RS485接口1) COM端。

别墅门口机连接门磁锁内的门磁反馈时，门磁反馈一端连接别墅门口机 (RS485接口6) ALM2端，门磁反馈另一端连接别墅门口机 (RS485接口4) GND端。



3 安装调试

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

别墅门口机接通电源后即开机。

- VTO6110B、VTO6110BW、VTO6210B
接通电源后，按键区指示灯顺时针依次亮起，约60s后正常熄灭，系统启动完毕进入工作状态。
- VTO6000C、VTO6000CM、VTO6100C
接通电源后，按键区指示灯显示蓝色，约60s后正常熄灭，系统启动完毕进入工作状态，按键区指示灯蓝色常亮。

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别墅门口机的IP地址，如果能成功登录WEB界面，如图3-1所示，则说明网络已经连通。

说明

别墅门口机出厂默认的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3-1 登录界面



4 基础操作

4.1 WEB基本配置

如果您是首次使用别墅门口机，可能需要执行以下操作，以使设备能正常工作。

登录WEB

首先，确保电脑与别墅门口机之间网络互通，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别墅门口机的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2单击“登录”。

说明

别墅门口机出厂默认的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”，设置别墅

步骤4 别墅门口机的IP地址、子网掩码、默认网关等参数。

图4-3 网络设置



步骤5（可选）如果别墅门口机要接入VTMS平台，则选择“系统设置>联网配置”，配置区号、楼号、楼内单元号、VTO编号（例如：6901）等，且这些参数必须和VTMS客户端的配置保持一致。如图4-5所示。详情请参加“附录2 VTMS服务器”和“附录3 VTMS客户端”。

图4-4 联网配置



图4-5 VTMS添加别墅门口机



4.2 发卡

WEB发卡

在WEB界面上单击“发卡”，将IC卡放置在别墅机刷卡区，听到“滴”的一声即为发卡成功。成功后IC卡可以直接刷卡开门（VTO6000A/6110B/6110BW需配套接入门禁控制模块）。

VTMS发卡

有关如何发卡的详细内容，请参见VTMS平台的使用说明书。

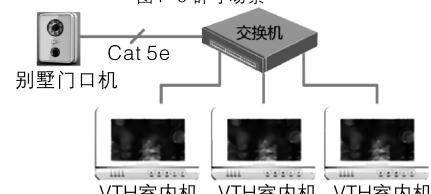
4.3 配置群呼功能

当来访者按下别墅门口机的【呼叫】键时，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4-6 群呼场景



设置别墅门口机

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。

图4-7 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，重新启动别墅门口机。

图4-8 启用群呼功能

**配置主室内机**

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4-9示。

说明

“房间号”必须同图4-7中的“VTH短号”保持一致。

图4-9 本机信息



步骤3 轻按“网络终端”，填入别墅门口机的IP地址。

图4-10 网络终端

**设置从室内机**

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：102-1），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4-11 本机信息（分室内机）



5 常见问题

| 常见问题 | 解决方法 |
|-------------------|--|
| 设备无法启动 | <ul style="list-style-type: none"> 检查别墅机设备是否通电，别墅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。 |
| 别墅机呼叫不了室内机 | 检查室内机是否有注册上别墅门口机。 |
| 声音太轻 | 根据实际情况调节别墅门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。 | <ul style="list-style-type: none"> 在别墅门口机 WEB 界面切换视频格式为 WVGA。 避免将别墅门口机放置在光线不理想或阳光直射的位置。 |
| 无法开锁 | <ul style="list-style-type: none"> 需要确认 C 款别墅机型支持刷卡开锁功能。 检查别墅门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（仅针对带刷卡功能的型号） | <ul style="list-style-type: none"> 别墅门口机必须支持发卡刷卡功能。 卡必须为 IC 卡。 |

附录1 技术规格

附录1.1 网线规格

根据别墅门口机和室内机之间的布线长度LN，合理选择网线规格。

| 网线规格 | 0<Ln≤50 米 | 50<Ln≤100 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LN不超过100米。

附录1.2 电源延长线规格

根据适配器和别墅机之间的距离LC，选择合适的电源延长线。

| 电源延长线规格 | 0<Lc≤30 米 | 30<Lc≤100 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1.3 预埋盒规格

附录表1-1 预埋盒规格

| 门口机型号 | 预埋盒规格 |
|-----------------------------|------------|
| VTO6000C、VTO6100C、VTO6000CM | 86 盒 |
| VTO6110B、VTO6210B、VTO6110BW | 86 盒、120 盒 |

附录2 VTMS服务端

检查安装环境

本文以Windows XP系统为例，介绍查看并修改PC的IP地址的操作步骤，以保证VTMS与监控系统网络互通。

步骤1 选择“开始>控制面板>网络连接>本地连接”，鼠标右键单击本地连接图标，选择“属性”，如附录图2-1所示。

附录图2-1 本地连接



步骤2 查看并修改PC的IP地址，使之与别墅门口机的IP地址在同一网段，以实现PC和别墅门口机之间网络互通。

附录图2-2 TCP/IP属性



步骤3 完成修改后，选择“开始>运行”，输入cmd，单击“确定”进入命令界面。输入“ping+别墅门口机IP”。如果有通讯数据，则说明书网络互通。

附录图2-3 Ping命令

```
C:\>ping 10.33.10.17 -t
Pinging 10.33.10.17 with 32 bytes of data:
Reply from 10.33.10.17: bytes=32 time<1ms TTL=128

Ping statistics for 10.33.10.17:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milliseconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>
```

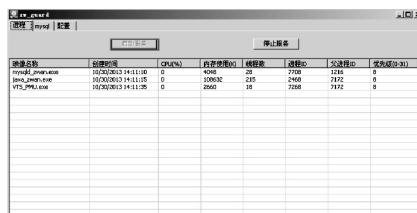
启动VTMS服务

下文主要介绍如何配置VTMS服务端，以实现正常登录和使用VTMS客户端。

步骤1 在PC上安装VTMS服务端软件。

步骤2 单击“启动服务”，VTMS服务端即处于启动状态。

附录图2-4 启动服务



附录3 VTMS客户端

下文主要介绍如何配置VTMS客户端，以实现正常登录和使用VTMS客户端。

附录3.1 配置网络地址

步骤1 在PC上安装VTMS客户端软件。



步骤2 双击 **VTMS.exe**，步骤1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”。

说明

出厂默认的用户名和密码分别是admin和123，首次登录成功后，请及时修改密码。

附录图3-1 登录对话框



步骤3 在主界面单击“设备管理”。

附录图3-2 设备管理



步骤4 双击“VTS”参数栏，系统弹出“编辑设备”对话框，在“网络地址”栏输入PC的IP地址。

附录图3-3 编辑设备



步骤5 单击“保存”，输入工程密码（系统默认的工程密码为：123）。

步骤6 重新登录VTMS，看到以下提示说明VTMS已经配置成功。

附录图3-4 配置成功提示



附录3.2 创建组织结构

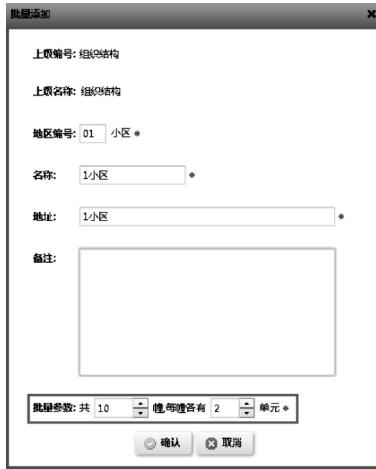
首先，需要完成环境的搭建和VTMS服务端的基本配置。详情请参见“附录2 VTMS服务端”。

本节以1小区有10幢楼，每幢楼有2个单元为例子进行介绍。

创建小区组织结构

步骤1 在VTMS客户端主界面选择“数据配置>组织结构”，单击“批量添加”，系统弹出批量添加提示框。

附录图3-5 批量添加



步骤2 单击“确认”保存设置。创建的组织结构如附录3-6所示。

附录图3-6 组织结构



添加别墅门口机

步骤1 在VTMS客户端主界面选择“数据配置>设备管理”，单击“添加”，系统弹出批量添加设备提示框。

步骤2 根据实际情况填入必要信息后，单击“保存”。

附录图3-7 添加别墅门口机



添加室内机

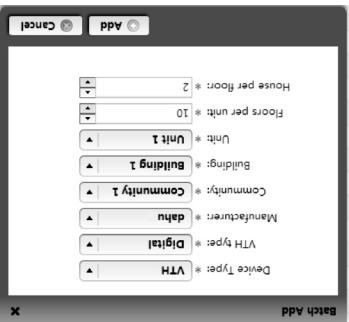
步骤1 在VTMS客户端主界面选择“数据配置>设备管理”，单击“批量添加”，系统弹出批量添加设备提示框。

步骤2 根据实际情况填写，然后单击“添加”保存配置。

附录图3-8 添加室内机



Appendix 3-8



See Appendix 3-8.

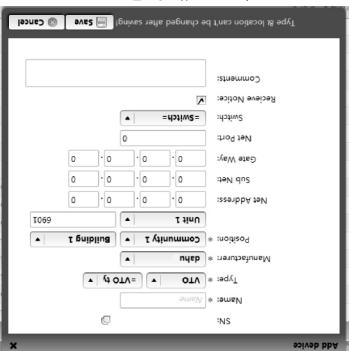
Step 2. Fill in info according to your actual condition, and click on Save.

System pops up Batch Add box.

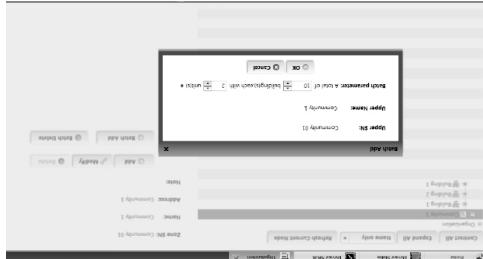
Step 1. In VTHM main interface, select Device MGR, click on Batch Add,

- Add VTH

Appendix 3-7

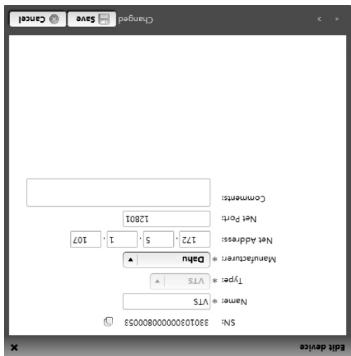


Step 1. In VTM5 main interface, select Organization, click on Add, system pops up Batch Add box. See Appendix 3-5.



● Create Residence Organization

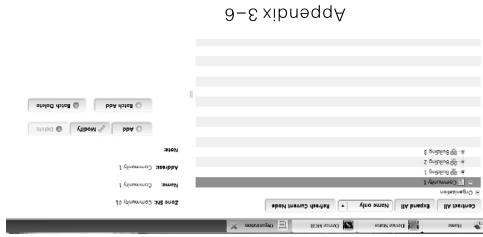
Step 4. Double click on VTS parameter column, system pops up Edit device box, input IP, see Appendix 3-3.



Step 4. Double click on VTS parameter column, system pops up Edit device box, input IP, see Appendix 3-3.

Step 1. Click on OK to save. The created organization is as in Appendix 3-6.

Appendix 3-5

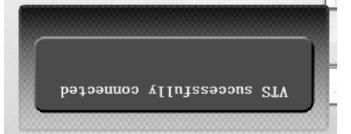


Appendix 3-6

Step 1. In VTM5 main interface, select Device MGR, click on Add, system pops up Batch Add box. See Appendix 3-7.

● Add VTO

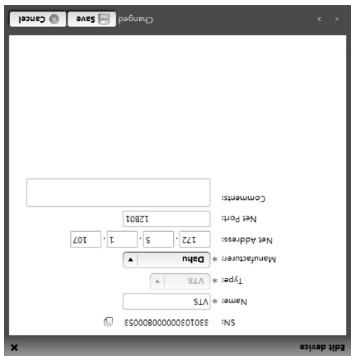
Appendix 3-4



Step 2. Re-login VTM5, you can see VTM5 is successfully configured as in Appendix 3-4.

Step 1. Click on Save, input project password (default project password is 123).

Appendix 3-3



First you must build up environment and set VTM5 server, please refer to Appendix 3-2.

Appendix 3.2 Create Organization

This chapter takes example of a residence with 10 buildings and 2 units.

Step 2. Fill in into according to your actual condition, and click on Save.

First you must build up environment and set VTM5 server, please refer to Appendix 3-1.

Step 1. In VTM5 main interface, select Device MGR, click on Add, system

pops up Batch Add box.

See Appendix 3-7.

First you must build up environment and set VTM5 server, please refer to Appendix 3-1.

Step 1. In VTM5 main interface, select Device MGR, click on Add, system

pops up Batch Add box.

See Appendix 3-7.

Appendix 3 VTM Client

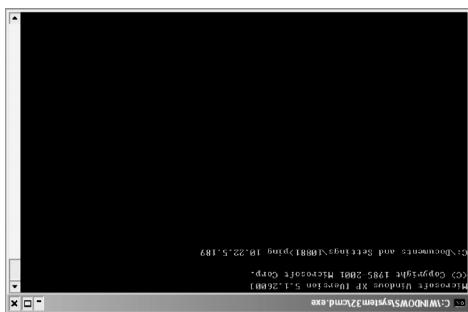


Appendix 3-1

The following mainly introduces how to config VTM for you to login VTO and use VTM.

● Enable VTM

Step 1. Install VTM on PC, double click on , click on Start service, and VTM will boot up.



Appendix 2-3

Step 2. After complete installation, select Start>Run, input "cmd", click

communcication data, then VTO and the PC are connected. See Appendix 2-3.

This following mainly introduces how to config VTM Client.

Appendix 3.1 Config Network Address

Note: Default username and password is admin and 123, respectively.

After first successful login, please change password.

IP address, port and etc. in pop-up box input username, password, Step 1. Install VTM Client on PC.

Step 2. Double click on in pop-up box input username, password,

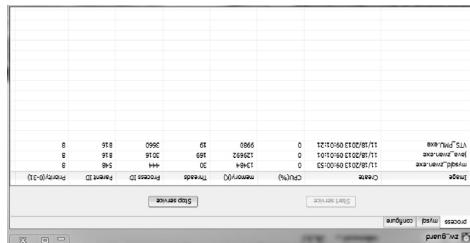
IP address, port and etc. Click on .

Step 3. After complete installation, select Start>Run, input "cmd", click



Appendix 3-2

Appendix 2-4



Step 3. In main interface, click on Device MGR. See Appendix 3-2.



Appendix 3-2

Appendix 1

| | | | |
|----------------------------------|-----------------------|-------------------------|--------------|
| Cable Specification | $0 \leq L_n \leq 50m$ | 50 $\leq L_n \leq 100m$ | Not optional |
| UTP Category/Cat6: 10 ohm/100m | Optional | Optional | Not optional |
| UTP Category/Cat6: 18.8 ohm/100m | Optional | Optional | Not optional |

of wiring is:

| | |
|--------|---|
| Notes: | Please do not let LN be over 100m. |
| | The writing length between VTO and VTH is LN, so reasonable specification |

Appendix 1.1 Cable Specification

| | | | |
|-------------------------------|--------------------|----------------------|--------------|
| Extensioin Line Specification | $0 < L_c \leq 30m$ | $30 < L_c \leq 100m$ | Not optional |
| 18AWG | Optional | Optional | Optional |
| 20AWG | Not optional | Not optional | Not optional |
| 17AWG | Optional | Optional | Optional |

specification of extensioin line is:

The writing length between VTO and adaptor is LC, so reasonable

Appendix 1.2 Power Extension Line Specification

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

| | | | |
|-------------------------------|--------------|-----------------|-------------------------------|
| VTO Model | Embedded Box | 86 box, 120 box | VTO6110B, VTO6210B, VTO6110BW |
| VTO6000C, VTO6100C, VTO6000CM | 86 box | 86 box | VTO6000C, VTO6100C, VTO6000CM |

Appendix 1.3 Embedded Box

| | | | |
|-------------------------------|--------------|-----------------|-------------------------------|
| VTO Model | Embedded Box | 86 box, 120 box | VTO6110B, VTO6210B, VTO6110BW |
| VTO6000C, VTO6100C, VTO6000CM | 86 box | 86 box | VTO6000C, VTO6100C, VTO6000CM |

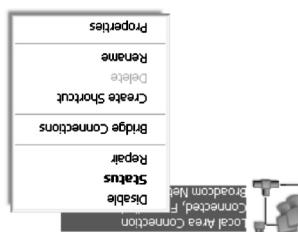
Note:

VTO

See Appendix 2-2.

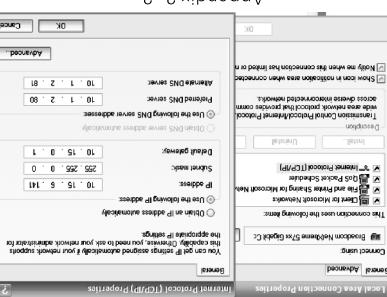
Appendix 2

Step 2. View and modify IP address, make it in the same segment with



Appendix 2-1

VTO. See Appendix 2-2.



Appendix 2-2

Step 1. Select Start>Control Panel>Network Connections>Local Area Connection, right click on Local Area Connection>Local Area Connection, right click on Local Area Connection>Properties, select Properties, see Appendix 2-1.

Step 1. Select Start>Control Panel>Network Connections>Local Area Connection, right click on Local Area Connection>Properties, see Appendix 2-1.

This manual makes Window XP as example to introduce how to modify IP of PC in order to connect VTM and monitoring system.

Check installation Environment

Appendix 2 VTMs

Figure 4-11



Figure 4-10



- Set Extension (default is 002236) to enter Project Settings, input password (default is 002236) to enter Project Settings interface.
- Step 1. On VTH screen, press System Settings>Project Settings, input Step 2. Press Product Info. Press Master, Master icon becomes Extension 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 competition, extension will automatically sync with main VTH into configured by user. See Figure 4-11.

| FAQ | Solution | VTO cannot call VTH. | Check if VTH has been registered on VTO. Based on actual condition, adjust VTO and VTH volume. |
|---------------------|---|--|---|
| VTO cannot unlock. | ● Make sure VTO supports unlock by swiping card. ● Slant light. | VTH does not have video Sound is too low. | ● In VTO WEB interface, switch VTO and VTH volume. ● Avoid exposing VTO to place of poor light or direct or video frame is poor. |
| VTO cannot unlock. | ● Cannot unlock. | VTH does not have video Sound is too low. | ● In VTO WEB interface, switch VTO and VTH volume. ● Avoid exposing VTO to place of poor light or direct or video frame is poor. |
| Door Sensor Alarm. | ● Please check if door is stuck. no voltage output or low voltage. | ● Check electric control lock is normal. (wiring is wrong, ● Check electric control lock is loose. | ● Check electric control lock is normal. (wiring is wrong, ● Check electric control lock is loose. |
| Door Scanner Alarm. | ● Cannot issue card. (For model with this function only) | ● Cannot issue card. (For model with this function only) | ● The card must support card issuing function |

5 FAQ

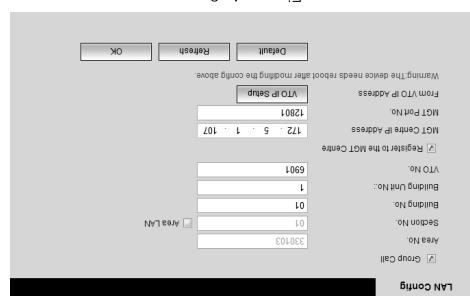


Figure 4-8

Step 1. On VTH screen, press System Settings>Project Settings, input Password (default is 00236) to enter Project Settings interface.

Step 2. Press Product Info, input Room No., Local IP and etc as in Figure 4-9. Note: Room No. Must match setting in VTH Short No. in Figure 4-7.



Figure 4-9

Step 4. After config is complete, enter Logout interface to reboot VTO. Figure 4-8

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

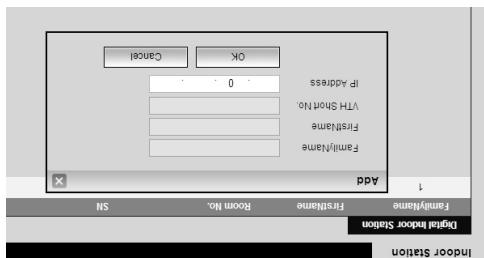


Figure 4-7

Note: Indoor Station interface, you only need to add main VTH, and you do not need to add extensions.

In Indoor Station interface, you only need to add main VTH, and you do not need to add extensions.

VTH. See Figure 4-7.

Step 2. Click on Add, input VTH Short No., IP Address (optional) to add a

Indoor Station interface.

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

VTH.

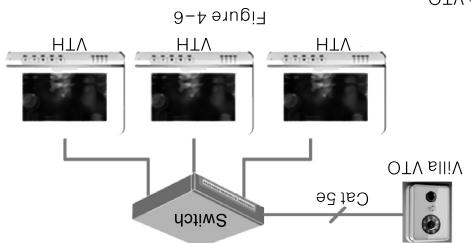


Figure 4-6

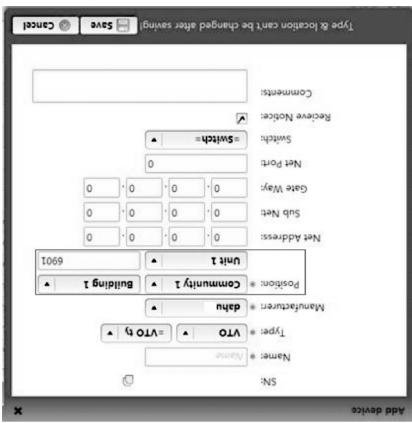


Figure 4-5

- In WEB interface, click on Issue Card, and when you hear a "D1" sound, it means you have successfully issued card. Then, you can swipe this card to unlock.

4.2 Issue Card

In WEB interface, click on Issue Card, and when you hear a "D1" sound, it means you have successfully issued card. Then, you can swipe this card to unlock.

- Issue Card by VMS control module
- Issue Card on WEB

4.3 Group Call

Please refer to VMS user's manual.

When you press Call button on VTO, multiple VTHs will ring. Besides, can accept call, hang up or unlock on any of these VTHs.

Note: VTH includes main VTH and 5 extensions. See Figure 4-6.

Figure 4-4

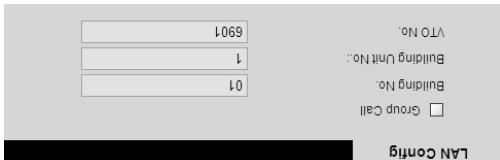


Figure 4-5

Step 4.(Optional) If VTO connects to VMS platform, System Config>LAN Config, set Area No., Section No., Building No. And etc. These parameters must match settings on VTO as in Figure 4-4. Please refer to Appendix 2 and 3. See Figure 4-5.

Figure 4-3

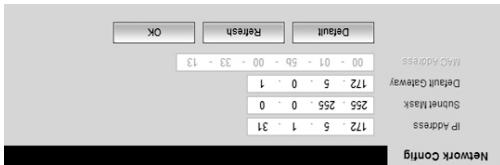
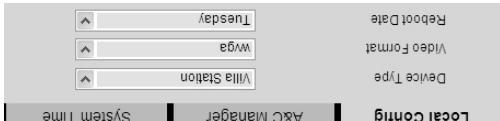


Figure 4-3

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

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

Figure 4-2



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

●

Figure 4-1



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.
- 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.

4.1 WEB SETUP

4 Operation

Figure 3-1



3 Installation Debugging

- Before debugging, wiring and usage.
- When staff find each circuit is normal, plug the device to power.
- After debugging, clear the site.
- After plugging device to power, you can turn on the device.
- After installation is complete, first make sure device power, current, wiring

3.2 On and Off

- After power is plugging in, indicators in button area light up and about 60s later they turn off. Now system enters normal working status.
- VT06000C, VT06000CM and VT06100C
- After power is plugging in, indicators in button area light up and about 60s later they turn off. Now system enters normal working status.
- VT06110B/VT06110BW/VT06210B
- After plugging device to power, you can turn on the device.
- After power is plugging in, indicators normal working status.
- VT06000C, VT06000CM and VT06100C
- After power is plugging in, indicators in button area light up and about 60s later they turn off. Now system enters normal working status.
- VT06110B/VT06110BW/VT06210B
- After power is plugging device to power, you can turn on the device.
- After plugging device to power, you can turn on the device.

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 as in Figure 3-1, it means the network works properly.
- Default IP address of VTO is 10.22.5.189 or 192.168.1.110. Default user name and password is admin/admin. After first login, please change Note:

When VTO connects to ALM2 of VTO (RS485 port 1), it means that the positive end of electromechanical lock connects to NC of VTO (RS485 port 3) while its negative end connects to COM of VTO (RS485 port 1). When VTO connects to door sensor in electromechanical lock, one end of door sensor connects to ALM2 of VTO (RS485 port 6) while the end of door sensor connects to GND of VTO (RS485 port 4). See Figure 2-14.

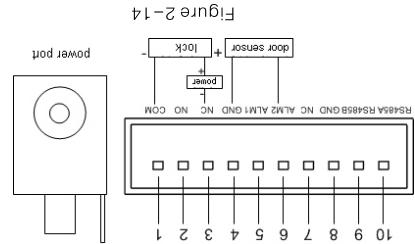


Figure 2-14

Digital Villa VTO (VT06 Series)

| No. | Port Name | Note | For installer use |
|-----|--------------------|-------------------------------------|-------------------|
| 1 | Network Port | Plug in RJ45 | |
| 2 | 3-pin Green Port 1 | Inster lock | |
| 3 | 3-pin Green Port 2 | Inser door sensor and unlock button | |
| 4 | Power Port | DC 12V | |
| 5 | Debug Port | For installer use | |

● Here makes VTO6210B as an example.
When VTO connects to electric control lock, it means that the positive end of electronic control lock connects to NO of VTO (RS485 port 2) while its negative end connects to COM of VTO (RS485 port 1). When VTO connects to COM of VTO (RS485 port 5) while the end connects to GND of VTO (RS485 port 4). See Figure 2-12.

● Here makes VTO6100C as an example. For VTO6000C, VTO6000CM and VTO6100C you can refer to this chapter.
Here introduces VTO connects to electronic control lock and electromagnetic lock. This chapter introduces VTO connection to electronic control lock and electromagnetic lock.

2.6 Electric Control Lock and Electromagnetic Lock

2.6.1 Electric Control Lock

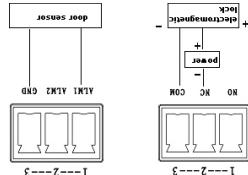
● Here makes VTO6100C as an example. For VTO6000C, VTO6000CM and VTO6100C you can refer to this chapter.

When VTO connects to electric control lock, it means that the positive end of electromechanical lock connects to NO of VTO (03.3-pin green 1) while its negative end connects to COM of VTO (03.3-pin green 3). When VTO connects to COM of VTO (04.3-pin green 2) while the end connects to GND of VTO (04.3-pin green 4). See Figure 2-11.

2.6.2 Electromagnetic Lock

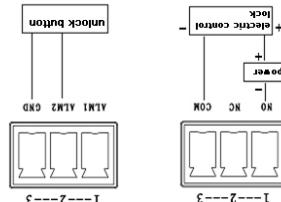
● Here makes VTO6100C as an example. For VTO6000C, VTO6000CM and VTO6100C you can refer to this chapter.
When VTO connects to electromechanical lock, it means that the positive end of electromechanical lock connects to NO of VTO (03.3-pin green 1) while its negative end connects to COM of VTO (03.3-pin green 3). When VTO connects to COM of VTO (04.3-pin green 2) while the end connects to GND of VTO (04.3-pin green 4). See Figure 2-12.

Figure 2-13



● Here makes VTO6100C as an example. For VTO6000C, VTO6000CM and VTO6100C you can refer to this chapter.
When VTO connects to electromechanical lock, it means that the positive end of electromechanical lock connects to NO of VTO (03.3-pin green 1) while its negative end connects to COM of VTO (03.3-pin green 3). When VTO connects to COM of VTO (04.3-pin green 2) while the end connects to GND of VTO (04.3-pin green 4). See Figure 2-13. See Figure 2-13 .

Figure 2-11



When VTO connects to unlock button, one end of unlock button connects to GND of VTO to ALM2 of VTO (04.3-pin green 2) while the end connects to COM of VTO (04.3-pin green 3). When VTO connects to electric control lock, it means that the positive end of electromechanical lock connects to NO of VTO (03.3-pin green 1) while its negative end connects to COM of VTO (03.3-pin green 3).

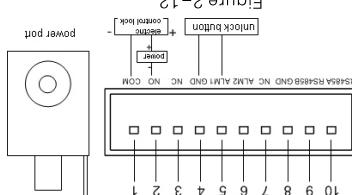
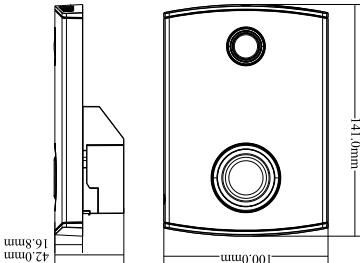


Figure 2-12

● Here makes VTO6210B as an example.
When VTO connects to electric control lock, it means that the positive end of electronic control lock connects to NO of VTO (RS485 port 2) while its negative end connects to COM of VTO (RS485 port 1). When VTO connects to COM of VTO (RS485 port 5) while the end connects to GND of VTO (RS485 port 4). See Figure 2-12.

Figure 2-8



Before you install the device, please make sure you know the dimension of device and select appropriate installation method. See Figure 2-8.

2.5 VTO6000C/VTO6000CM/VTO6100C

2.5.1 Dimension

| No. | Port Name | Note |
|-----|----------------|--|
| 03 | Network Port 1 | Plug in RJ45 cable |
| 02 | Power | Input DC 12V |
| 01 | 10-Pin Port | Connect to door lock, door sensor and unlock button. It provides preserved 485 port for other devices. |

Figure 2-7

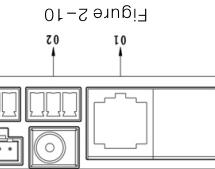
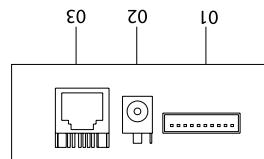
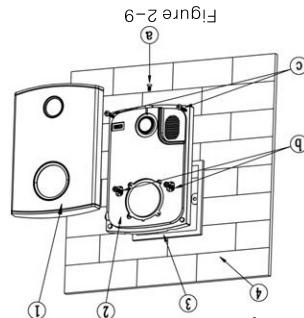


Figure 2-10

- Step 1. Remove M3 screw at the bottom of VTO, take down decoration cover (①).
- Step 2. Fix the VTO onto wall, use M4 screw in accessories to fix the bracket onto 86 box (③) in Figure 2-9).
- Step 3. b. Is designed to fasten the product. After 86 box is locked, Fix Step 4. Place decoration cover (②) on to device unit (②), fix with MS screw.
- Note: Do not install VTO6100C on iron gate, otherwise the signal may be masked.
- This chapter takes VTO6100C as example since VTO6000C, VTO6000CM and VTO6100C's rear ports are the same. See Figure 2-10.

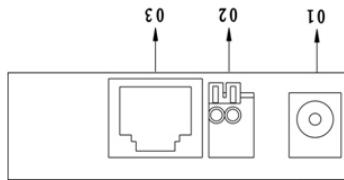
2.5.3 Wiring



2.5.2 Installation Step

| No. | Port Name | Note |
|-----|----------------|---|
| 03 | Network Port 1 | Plug in RJ45 cable |
| 02 | Lock Port | Connect access control extension module |
| 01 | Power | Input DC 12V |

Figure 2-6



2.4.3 Wiring

Figure 2-5

Figure 2-5

This chapter introduces wiring between VTO embedded box and port.
See Figure 2-6.

● VTO6110B, VTO6110BW

Figure 2-6

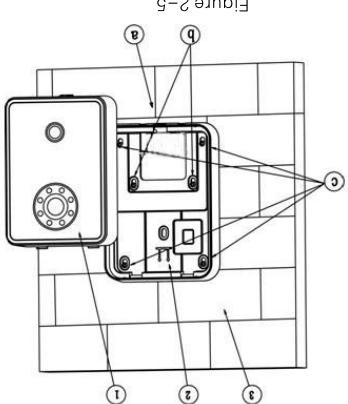
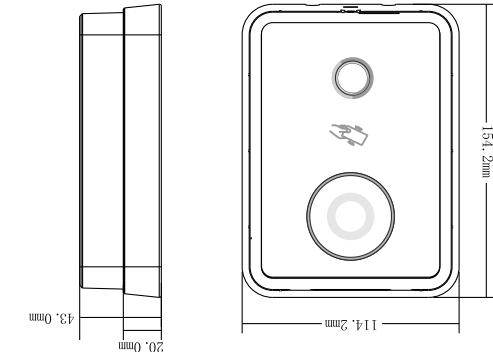


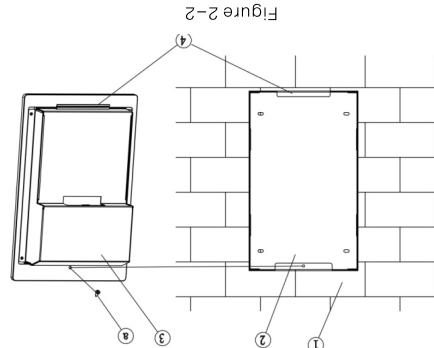
Figure 2-4 VTO6110B/VTO6210B/VTO6110BW



- a) Use M4 screw in accessories, to fix bracket onto 86 box (b) in Step 1. Fix installation bracket on wall.
- b) After 86 box is locked, fix ST3.0 screw in accessories onto wall.
- c) After 86 box is locked, fix ST3.0 screw in accessories onto wall.
- d) After 86 box is locked, fix device onto 86 box (d) in Step 2. Fix device unit (e) onto installation bracket, fasten top edge and lightly push bottom edge.
- e) Use M3 screw to fix device and bracket.

Figure 2-5

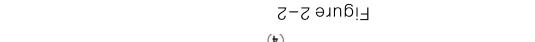
Figure 2-5



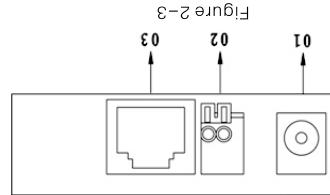
2.3.1 Dimensions

| | | | | | | | | |
|--|----------|----------|----------|----------|----------|----------|----------|--|
| Component Name | VTO6000C | VTO6100B | VTO6100C | VTO6100B | VTO6000M | VTO6100C | VTO6100B | White expansion tube 46×30 mm |
| M3×8 Cross recessed countersunk head tail machine screws---galvanizing black | 1 | 1 | 1 | 1 | 2 | 2 | 2 | M3×8 Cross recessed countersunk head tail machine screws---galvanizing black |
| M4×30 Cross recessed countersunk head tail machine screws---galvanizing black | | | | | 2 | 2 | 2 | M4×30 Cross recessed countersunk head tail machine screws---galvanizing black |
| ST3×18 Cross recessed countersunk head tail tapping screws | | | | | 2 | 2 | 2 | ST3×18 Cross recessed countersunk head tail tapping screws |
| White machine screws | | | | | 4 | 4 | 4 | White machine screws |

Before you install the device, please make sure you know the dimension of device and select appropriate installation method. See Figure 2-1.



2.3.2 Dimensions



2.3.3 Wiring

| No. | Port Name | Note | No. | Port Name | Note |
|-----|--------------|---|-----|--------------|---|
| 03 | Network Port | Plug in RJ45 cable | 03 | Network Port | Plug in RJ45 cable |
| 02 | LOCK Port | Connect access control extension module | 02 | LOCK Port | Connect access control extension module |
| 01 | Power | Input DC 12V | 01 | Power | Input DC 12V |

See Figure 2-3 .

Figure 2-3

2.4 VTO6110B/VTO6210B/VTO6110BW

2.4.1 Dimension

Before you install the device, please make sure you know the dimension of device and select appropriate installation method. See Figure 2-4.

Step 1. Install metal bracket into the groove on wall.

Step 2. Fasten ③ onto the metal bracket along device chassis and bracket chassis (④) in Figure 2-2).

Step 3. Lock screw a (ST3×10) cross recessed countersunk head tapping

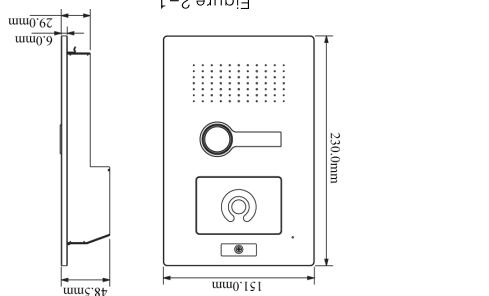


Figure 2-1

Step 4. Fix device unit onto the metal bracket.

screws (⑤), and fix device unit onto the metal bracket.

See Figure 2-4.

2 Install VTO

This manual is for the following models; please carefully check your product model and its function.

2.1 Model List

| Product Model | Enclosure | Color | IC Card | Button | Lock Control |
|---------------|------------|-------|-------------|------------|--------------|
| VTO6000A | Metal | Gray | Not support | Mechanical | Extreme |
| VTO6110B | Firerproof | Black | Support | Touch | Extreme |
| VTO6110BW | Firerproof | White | Support | Touch | Extreme |
| VTO6210B | Firerproof | Black | Support | Touch | Extreme |
| VTO6100C | Firerproof | White | Support | Mechanical | Built-in |
| VTO6000C | Firerproof | White | Not support | Mechanical | Built-in |
| VTO6000C | ABS | ABS | Not support | Mechanical | Built-in |
| VTO6000CM | Metal | Gray | Not support | Mechanical | Built-in |

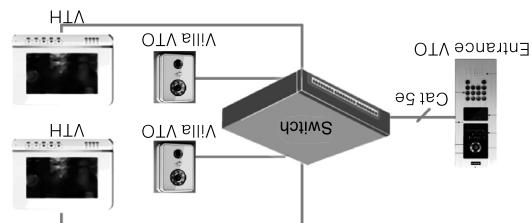
Before you install the VTO, please check screws in accessories bag and install according to this manual.

| Component Name | VTO6000A | Purpose |
|--|----------|---------------------------|
| ST3×10 Cross recessed countersunk head tapping screws—galvanizing black | 1 | Fix unit and embedded box |

2.2 Screw

About group call, please refer to Ch.3. See Figure 1-2.

Figure 1-2



1.1 Group Call Scene

System Networking

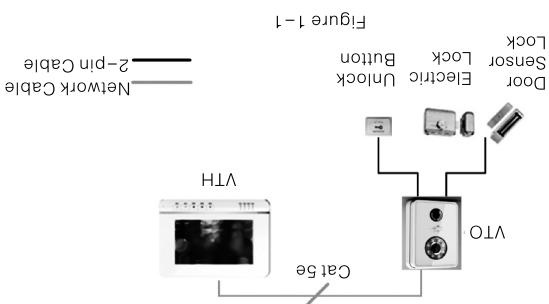
Appendix 2 VTMS

Appendix 3 VTMS Client

This chapter mainly introduces usage of digital VT0, please read the following content and install the device according to your actual condition.

Visitor press Call button to call residence (as VTH) or Center.

The following makes VT06110BW as example. See Figure 1-1.



1.2 One-Multiple Scenes

In general, user installs VT0 at entrance of building, and installs VTH in resident's room. Visitor can call any resident via VT0, and the resident being called can unlock to allow the visitor entering the building. Then, the visitor call the resident to unlock room door again via second-confirm VT0.

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Special Announcement

Digital Villa VTO (VTO6 Series)

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- 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.



Important Safeguards and Warnings

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

Note: Please read the following safeguards and warnings carefully before using

- Do not expose the device to humid environment. Otherwise it may cause fire. Temperature rise in device may cause fire.
- Do not expose the device to solid surface in order to guarantee safety under load and earthquake. Otherwise, it may cause device to fall off or tumber.
- 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 the device on carpet or quilt.
- 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.