TAKSTAR®得胜

ZS-8M

中控系统主机

Central Control System Host

使用手册 | User Manual

ZS-8M 中控系统主机

■ 前言

感谢您选购得胜ZS-8M中控系统主机，为了您能够更好地了解使用本产品，建议您在使用前仔细阅读本说明书。

若存在有疑问或者您有宝贵的建议，可通过拨打得胜官方服务热线400 6828 333或微信扫描二维码关注得胜官方公众号与我们联系。

■ 产品特性

- Web管理：内置物联网管理平台，无需安装客户端，浏览器登录即可运维；
- 物联建模：支持空间与设备的多层级管理；内置五类智能策略，提供三类运行日志；
- 移动端支持：配套ZS-20S，兼容安卓与鸿蒙双系统；
- 广泛设备接入：兼容网口、串口、I/O等各类设备，支持自定义通讯协议配置；
- 分级权限：支持APP用户分级管理，可细化至设备及控制策略的权限分配；
- 高效运维：支持故障设备一键替换；支持远程网页调试与手机端远程控制；
- 可视化监测：实时监测设备运行时长、CPU、内存、硬盘、温度；可视化展示在线/离线数量；具备异常告警与日志查阅功能；
- 远程升级：支持系统固件及终端设备的远程OTA升级。

■ 适用范围

适用于会议室、报告厅、多功能展厅等各类智能集中控制场景

■ 产品配置

中控系统主机 1台
国标三叉电源线 1条
机柜挂耳 2个
4P接线端子 1个
6P接线端子 2个
红外发射线1米 2条
红外发射线10米 1条
说明书 1份

ZS-8M 中控系统主机

■ 技术参数

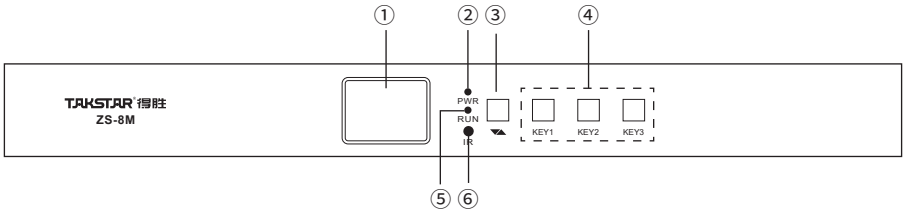
- 处理器：四核ARM Cortex-A55，主频2.0GHz
- 存储配置：运行内存4GB，板载存储32GB
- 网络接口：1000M RJ45以太网接口×2
- 串行接口：RS232×6，RS485×2
- I/O接口：干节点输入×2，湿节点输入×2（DC 5-30V），继电器输出×4（30V DC / 1A）
- USB接口：USB 2.0×1，USB 3.0×1
- 红外端口：IR输出×4
- 显示屏幕：2.0英寸彩色显示屏
- 自定义按键：可编程物理按键×3
- 安装规格：1U机架式
- 供电规格：支持AC 200～240V，50/60Hz
- 工作温度：-10~60°C
- 工作湿度：5~90%RH（无冷凝）
- 产品尺寸（宽*深*高）：443*200*53mm
- 产品净重（KG）：2.5KG

注：以上数据由得胜实验室测试得到，并拥有最终解释权！

ZS-8M 中控系统主机

■ 功能示意

前面板



① LED显示屏：显示设备状态，资源利用率，IP地址及软件版本等信息。

② PWR：电源指示灯，设备正常通电时红色常亮。

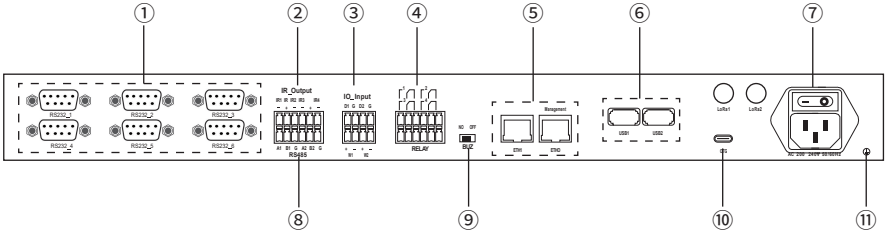
③ ▲▼：用于显示屏页面切换。

④ K1-K3：情景按键，可通过 WEB 后台启用并绑定一键场景执行指令。

⑤ RUN：运行指示灯，设备启动时绿色常亮，正常工作时绿色闪烁。

⑥ IR：红外接收窗口，用于接收红外遥控信号。

背面板



① RS232-1～RS232-6：6路标准RS232串口，用于连接支持串口协议的设备，实现双向数据通讯；DB9公座引脚 2-RX，引脚3-TX，引脚5-GND。

② IR_Output：4路红外输出，用于连接红外发射棒，模拟遥控器控制空调、电视、投影机等红外设备。

③ I/O_Input：4路开关输入，用于采集外部设备状态（如门禁、人体感应等）。D1/D2为2路干接点输入；W1/W2为2路湿节点输入，支持DC 5-30V电源。干接点默认高电平，低电平触发，湿点接触默认低电平，高电平触发。

④ RELAY：4路继电器输出，用于控制外部弱电设备，如灯光、电控窗帘等。从左到右3个引脚依次是：端子1 = NO1（常开）、端子2 = COM1（公共端）、端子3 = NC1（常闭）；触点负载为30V DC / 1A。

⑤ ETH0：默认管理口，默认出厂 IP为10.10.10.251/24；ETH1：业务口，默认出厂IP为DHCP，可更换IP地址设置。

⑥ USB1、USB2：USB1（USB2.0接口）、USB2（USB3.0接口）：其中USB3.0接口可用于U盘重置密码/重置访问白名单/重置网口地址。

⑦ 电源插座：AC电源电源插座，支持AC 200～240V，50/60Hz电源。

⑧ RS485-1～RS485-2：2路 RS485 串口，用于长距离、多设备联网通讯，5P插座引脚1-A，引脚 2-B，引脚 3-G，引脚 4-A，引脚5-B。

⑨ 蜂鸣器：物理开关。

⑩ OTG：专用程序烧录口，仅用于程序烧录。

⑪ 外壳接地：主机外壳接地螺丝柱。

■ 使用说明

一、端口连接说明

串口连接RS232/485端口主要用于控制外部设备，各端口定义参照以下的“主机编程控制接口”。根据端口属性，设备之间通讯如下表。

中控端口	传输示意	受控设备
RS-232		
TXD 端口	— — — —	TXD 端口
RXD 端口	— — — —	RXD 端口
GND 公共地	— — — —	GND 公共地
RS-485		
A（正）	— — — —	A（正）
B（负）	— — — —	B（负）
GND	— — — —	GND

二、U盘重置操作说明

当您修改了主机密码或设置了访问白名单后导致无法登录WEB控制台时，可通过U盘进行重置，操作步骤如下：

1. 准备一个FAT32格式的U盘。

2. 在U盘的根目录下新建一个文本文件，文件名根据需要选择：

1）重置登录密码：reset-login_password.txt（内容为空）。

2）重置访问白名单：reset-access_whitelist.txt（内容为空）。

3. 将U盘插入主机的USB3.0接口。

4. 在登录页面点击对应的“重置”按钮。

5. 重置成功后，登录密码恢复为admin，或信任主机IP被清除。

三、红外输出（IR Output）

本机配备4路红外输出接口，需外接红外发射棒，并将发射头紧贴受控设备红外接收窗，避免遮挡。可通过WEB 控制台完成红外按键学习或调用内置红外码库，单路接口可存储多组红外指令，实现单台设备完整控制。

红外发射棒接线说明：红线（正极）接IR端口中心针，黑线（负极）接外层屏蔽层。若设备不受控，可尝试对调极性。

四、弱电继电器

I/O 输入（I/O_Input）

用于采集外部开关触点信号，常接入门磁、感应开关、开门按钮等外设，通过端口与GND通断变化采集现场状态，作为设备联动的触发条件。多用于门禁状态检测、人体感应触发、报警等信号采集。

干接点输入：D1/D2/为无源干触点；湿节点输入：W1/W2 电压支持DC 5–30V。

I/O 输出（RELAY继电器）

接收主机联动指令，依靠继电器常开/常闭触点通断外接回路，实现负载通断控制，多用于灯光启停、电控锁、空调、外设电源开关等受控设备的驱动管控。

每路输出为无源干触点，触点参数：30V DC / 1A。

【警告】：此为弱电控制信号，严禁接入超过额定参数的负载（如220V强电），否则将烧毁主机并引发安全事故！

五、常见故障及解决方法

故障问题	解决方法
红外控制设备不受控	• 检查是否进行过红外学习 • 红外学习是否成功 • 红外发射棒是否接到相应的主机红外发射端口 • 红外发射棒是否紧贴设备红外接收窗口
触屏或面板上的所有控制按键不能控制设备	• 检查触屏网络 IP 和端口是否与主机一致 • 使用 ping 测试网络通讯 • 使用专业测试软件检查中控各接口功能
触屏或面板上的一部分按键不能控制某个设备	• 检查网络连接线是否接触不良 • 用串口助手测试中控串口是否有代码输出，若无则可能接口损坏，需维修
串行通讯设备不受控制	• 检查接线脚位（RS232 的 TX 与 TX 一致，RS485 的 A+ 接 A+，B- 接 B-） • 检查波特率、停止位、校验位是否一致 • 检查控制代码是否匹配 • 用电脑测试串口是否有代码输出，若无则更换串口或送修
网口不通，无法访问 Web 后台	• 检查网线、水晶头是否完好 • 电脑与主机设置为同一 IP 网段 • 临时关闭电脑防火墙重试
Web后台提示“IP被拒绝”或忘记密码	• 参照本手册“U 盘重置操作说明”章节，通过 U 盘重置白名单或登录密码

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■ 安全警示

为避免电击、高温、着火、辐射、爆炸、机械危险以及使用不当等可能造成的人身伤害或财产损失，使用本产品前，请仔细阅读并遵守以下事项：

1. 使用产品时请确认所连设备与本产品是否匹配以及合理调整音量大小，不要在超过产品功率及大音量下长时间使用，以免造成产品异常；

2. 使用中若发现有异常（如冒烟、异味等），请立即关闭电源开关并拔掉电源插头，然后将产品送售后服务网点检修；

3. 消费者若使用电源适配器供电，则应购买配套使用获得CCC认证并满足标准要求的电源适配器；

4. 本产品及附件都应放置在室内干燥通风处，请勿长期存放在潮湿、灰尘多的环境，使用中避免靠近火源、雨淋、进水、过度碰撞、抛掷、振动本机及覆盖通风孔，以免损坏其功能；

5. 若产品需要固定于墙壁或天花板时，请确保固定到位，防止因固定强度不足导致产品发生跌落危险；

6. 使用该产品时需遵守相关安全规定，法律法规明确禁止使用场合请勿使用本产品，以免导致意外事故；

7. 请不要自行拆机改装或维修，以防止出现人身伤害，如有问题或服务需求请联系当地售后服务网点跟进处理。

■ 环保说明

产品中有毒有害物质或元素的名称及含量标识表

部件名称	有毒有害物质或元素									
	铅 (Pb)	汞 (Hg)	镉 (Cd)	六价铬 (Cr(VI))	多溴联苯 (PBB)	多溴二苯醚 (PBDE)	邻苯二甲酸二正丁酯 (DBP)	邻苯二甲酸二异丁酯 (DIBP)	邻苯二甲酸丁基苄酯 (BBP)	邻苯二甲酸二(2-乙基)己酯 (DEHP)
塑料部件	○	○	○	○	○	○	○	○	○	○
金属部件	×	○	○	○	○	○	○	○	○	○
电路板组件	×	○	○	○	○	○	○	○	○	○
线缆	×	○	○	○	○	○	○	○	○	○

注1：○：表示该有害物质在该部件所有均质材料中的含量均不超出电器电子产品有害物质限制使用国家标准要求。
×：表示该有害物质至少在该部件的某一均质材料中的含量超出电器电子产品有害物质限制使用国家标准要求。
注2：以上未列出的部件，表明其有害物质含量均不超出电器电子产品有害物质限制使用国家标准要求。

此标志为产品的环保使用期限标志，
且此标保使用期限只适用于产品正常工作的温度和湿度等条件。

■ 关于图标含义解释

此符号表示，根据WEEE指令(2012/19/EU)和国家法律，由于这种类型的废弃物会有潜在的有害物质，可能对环境和人类健康产生负面影响，所以本产品不应与您的家庭垃圾一起处置，应将本产品应交由授权的电气和电子设备（WEEE）回收站回收。同时，您在正确处理本产品的同时将有助于自然资源的有效利用。如需了解更多有关您可以在何处放置废物回收设备的信息，请联系您当地的城市办事处、废物管理局或家庭废物处理服务部门。

■ 关于本说明书

本说明书中内容符合截止印刷之日的技术规格。由于得胜公司会不断改进产品，本说明书可能不符合您的特定产品的技术规格。要获取最新版说明书，请访问得胜官网，然后下载说明书文件。技术规格、设备或另售的附件在各个地区可能有所不同，如有问题请与当地得胜销售网点确认。如需更多支持和深层产品信息，请浏览得胜官方网站：https://www.takstar.com

ZS-8M Central Control System Host

■ Preface

Dear Customer,

Thanks for purchasing our product. Read this manual thoroughly for proper use.

If you have any questions or suggestions, please contact our local sales service.

■ Features

• Web Management: Built-in IoT management platform; no client installation required, accessible via browser for operation and maintenance.

• IoT Modeling: Supports multi-level management of spaces and devices; built-in 5 intelligent strategies and 3 types of operation logs.

• Mobile Support: Works with ZS-20S, compatible with Android and HarmonyOS.

• Wide Device Access: Compatible with Ethernet, serial port, I/O and other devices; supports custom communication protocol configuration.

• Hierarchical Permission: Supports tiered management of APP users, with permissions assignable to specific devices and control strategies.

• Efficient O&M: One-click replacement for faulty devices; supports remote web debugging and mobile remote control.

• Visual Monitoring: Real-time monitoring of device runtime, CPU, memory, hard disk and temperature; visual display of online/offline device count; with anomaly alarm and log query functions.

• Remote Upgrade: Supports remote OTA upgrade for system firmware and terminal devices.

■ Applications

Suitable for meeting rooms, lecture halls, multi-function exhibition halls and various intelligent centralized control scenarios.

■ Package Contents

1 x Central Control System Host

1 x GB 3-prong Power Cord

2 x Rack Mount Ears

1 x 4-Pin Terminal Block

2 x 6-Pin Terminal Blocks

2 x 1m IR Emitter Cables

1 x 10m IR Emitter Cable

1 x User Manual

ZS-8M Central Control System Host

■ Specifications

• Processor: Quad-core ARM Cortex-A55 @ 2.0GHz

• Memory & Storage: 4GB RAM, 32GB onboard storage

• Network: 2 × 1000M RJ45 Ethernet ports

• Serial Ports: 6 × RS232, 2 × RS485

• I/O Ports: 2 × dry contact inputs; 2 × wet contact inputs (DC 5-30V); 4 × relay outputs (30V DC/1A)

• USB Ports: 1 × USB 2.0, 1 × USB 3.0

• IR Ports: 4 × IR outputs

• Display: 2.0-inch color screen

• Control Keys: 3 × programmable physical keys

• Mounting: 1U rack-mount

• Power Supply: AC 200–240V, 50/60Hz

• Operating Temperature: -10°C to 60°C

• Operating Humidity: 5%–90% RH (non-condensing)

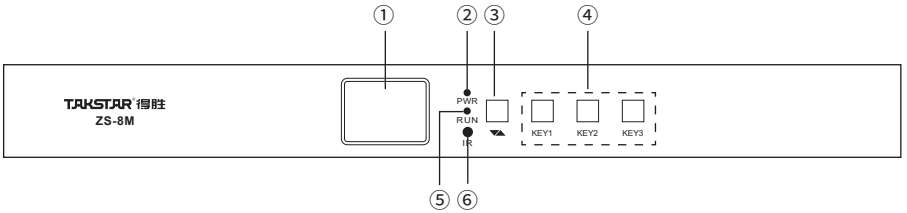
• Dimensions (W × D × H): 443 × 200 × 53mm

• Net Weight: 2.5kg

Note: The above data are measured by Takstar laboratory which has the final interpretation right!

■ Function Descriptions

Front Panel



① LED Display: Displays device status, resource usage, IP address, firmware version and other information.

② PWR (Power Indicator): Steady red when the device is properly powered.

③ ▲▼: For display page switching.

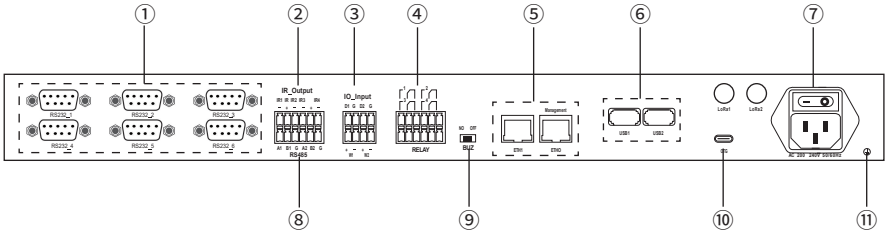
④ K1-K3 Scene Keys: Enable and bind one-touch scene execution commands via the web management backend.

⑤ RUN (Operation Indicator): Steady green during startup; flashing green in normal operation.

⑥ IR Receiver Window: Receives infrared remote control signals.

ZS-8M Central Control System Host

Rear Panel



① RS232-1 to RS232-6: 6-channel standard RS232 serial ports for bidirectional data communication with serial protocol devices. DB9 male pinout: Pin 2-RX, Pin 3-TX, Pin 5-GND.

② IR Output: 4-channel IR outputs for IR emitter connection. Emulates remote controls to operate IR devices such as AC units, TVs and projectors.

③ I/O Input: 4-channel digital inputs for external device status collection (access control, PIR sensors, etc.). D1/D2: 2-channel dry contact inputs; W1/W2: 2-channel wet contact inputs, DC 5-30V supported. Dry contact: default high level, triggered by low level; wet contact: default low level, triggered by high level.

④ RELAY: 4-channel relay outputs for low-voltage device control (lights, electric curtains, etc.). 3 pins from left to right: Terminal 1 = NO1 (Normally Open), Terminal 2 = COM1 (Common), Terminal 3 = NC1 (Normally Closed). Contact rating: 30V DC/1A.

⑤ ETH0 (Default Management Port): Factory default IP: 10.10.10.251/24. ETH1 (Service Port): Factory default DHCP IP configuration; IP address settings are customizable.

⑥ USB1/USB2: USB1 (USB 2.0 port), USB2 (USB 3.0 port). The USB 3.0 port supports password reset, access white list reset and network port address reset via USB flash drive.

⑦ Power Socket: AC power inlet, compatible with AC 200–240V, 50/60Hz power supply.

⑧ RS485-1 to RS485-2: 2-channel RS485 serial ports for long-distance multi-device network communication. 5-pin socket pinout: Pin 1-A, Pin 2-B, Pin 3-G, Pin 4-A, Pin 5-B.

⑨ Buzzer: Physical Switch

⑩ OTG: Dedicated firmware programming port, for firmware flashing only.

⑪ Chassis Ground: Screw terminal for host chassis grounding.

■ Operating Instructions

I. Port Connection Instructions

RS232/485 serial ports are used for external device control. For pin definitions, refer to Host Programming Control Interface. Device communication wiring is shown in the table below.

Central Control Port	Connection Diagram	Controlled Device
RS-232		
TXD Port	— — — —	TXD Port
RXD Port	— — — —	RXD Port
GND (Common Ground)	— — — —	GND (Common Ground)
RS-485		
A (+)	— — — —	A (+)
B (-)	— — — —	B (-)
GND	— — — —	GND

II. USB Flash Drive Reset Instructions

Use a USB drive to reset if you cannot log in to the web console after modifying the host password or access whitelist. Follow the steps below:

1. Prepare a FAT32-formatted USB drive.

2. Create a blank text file in the USB root directory, select the file name as required:

(1) Login password reset: reset-login_password.txt (blank content)

(2) Access whitelist reset: reset-access_whitelist.txt (blank content)

3. Insert the USB drive into the host's USB 3.0 port.

4. Click the corresponding "Reset" button on the login page.

5. After successful reset: the login password will be restored to admin, or all trusted host IPs will be cleared.

III. IR Output

This unit is equipped with 4-channel IR output ports for use with external IR emitters. Attach the emitter head closely to the IR receiving window of the controlled device without obstruction. IR key learning or built-in IR code library invocation can be performed via the web console. Each channel stores multiple sets of IR commands for complete control of a single device.

IR Emitter Wiring: Red wire (positive) connects to the center pin of the IR port; black wire (negative) connects to the outer shield. Reverse the polarity if the device fails to respond.

IV. Low-Voltage Relay

I/O Input

Collects external switch contact signals, commonly connected to door sensors, induction switches, door release buttons and other peripherals. It detects on-site status through the on/off state between the port and GND, serving as a trigger for device linkage. It is widely used for access status detection, PIR triggering, alarm signal collection and more.

Dry contact inputs: D1/D2, passive dry contacts

Wet contact inputs: W1/W2, supports DC 5–30V

I/O Output (RELAY)

Receives host linkage commands and controls the on/off state of external circuits via relay NO/NC contacts to switch loads. It is commonly used to drive and control lights, electric locks, air conditioners, peripheral power switches and other controlled devices.

Each output is a passive dry contact with a rating of 30V DC/1A.

Note: This is a low-voltage control signal. Connecting loads exceeding the rated parameters (such as 220V AC mains) is strictly prohibited, as it will damage the host and cause safety hazards.

V. Common Troubleshooting

Troubleshooting Issue	Solution
IR device control failure	• Check if IR learning has been performed. • Check if IR learning is successful. • Ensure the IR emitter is connected to the corresponding IR output port. • Confirm the IR emitter is placed closely against the device's IR receiving window.
All control buttons on touchscreen/panel fail to control devices	• Check if the touch panel's IP address and port match the host settings. • Test network communication via ping. • Check each control interface function with professional test software.
Some buttons on touchscreen/panel cannot control a specific device	• Check for loose network cable connections. • Test the control serial port output with a serial assistant; no output may indicate port damage and requires repair.
Serial communication devices not responding	• Check wiring pin assignments (RS232 TX to TX, RS485 A+ to A+, B- to B-). • Verify that baud rate, stop bits, and parity settings match. • Check if the control codes are correct. • Test serial port output with a computer; replace the port or send for repair if no output.
Ethernet port not working, unable to access web console	• Check if the Ethernet cable and RJ45 connector are intact. • Set the computer and host to the same IP subnet. • Temporarily disable the computer firewall and retry.
"IP denied" prompt on web console or forgotten password	• Refer to the "USB Flash Drive Reset Instructions" chapter in this manual to reset the white list or login password via USB drive.

Safety Instructions

To avoid electric shock, overheat, fire, radiation, explosion, mechanical risk and injury or property loss due to improper use, please read and observe the following items before use:

1. Please check if the power of the connected equipment matches with that of this product before operation. Adjust the volume to proper level during operation. Do not operate at over-power or high-volume level for extended time to avoid product malfunction.

2. If there is any abnormality during use (e.g., smoke, strange odor), please kill the power switch and unplug from power source, then send the product to the local after-sales service for repair.

3. Power adapter used, if any, should be approved by CCC certification or similar standards and comply with the power supply requirements.

4. Keep this product and its accessories in a dry and ventilated area. Do not store in a humid or dusty area for extended time. Keep away from fire, rain, liquid intrusion, bumping, throwing, vibrating, or from blocking any ventilation openings, to prevent malfunction.

5. The product must, when installed on walls or ceilings, be fixed firmly in place at adequate strength to prevent from falling.

6. Please abide by safety rules during operation. Do not use the product in places prohibited by laws or regulations to avoid accident.

7. Do not disassemble or repair the product unauthorized to avoid injury. If you have any questions or require any services, please contact our local after-sales service.

Label Meanings

This symbol indicates that this product should not be disposed of with your household waste, according to the WEEE directive (2012/19/EU) and your national law. This product should be handed over to an authorized collection site for recycling waste electrical and electronic equipment (WEEE). Improper handling of this type of waste could have a possible negative impact on the environment and human health due to potentially hazardous substances that are generally associated with WEEE. At the same time, your cooperation in the correct disposal of this product will contribute to the effective usage of natural resources. For more information about where you can drop off your waste equipment for recycling, please contact your local city office, waste authority, or your household waste disposal service.

About This Manual

This manual contains up-to-date technical specifications as of printing. However, specifications contained herein may not conform to your particular product since Takstar is constantly improving its products. Also, specifications, devices or accessories available may vary from region to region. If you have any questions, please contact our local sales outlet. For the latest version/more information, please visit our website: https://www.takstar.com/

注意事项：

1. 本单为保修凭证，请用户妥善保管，如有遗失，恕不保修或退换。
2. 保修期限制：购买之日起十二个月内。
3. 除了不可抗力事件损坏外，由本公司负责，免费维修。
4. 如属保管不善或使用不当造成的损坏，维修点将酌情收费。
5. 擅自拆卸维修者，不予保修。
6. 以上保修条款仅限于中国市场适用（不包含港澳台地区）。

产品服务保证书

姓名:_____电话:_____ 地址:_____

商品:_____型号:_____购买日期:_____ 年___月___日

维修记录栏（由维修员填写）	维修员签名	日期

♦广东得胜电声有限公司 ♦电话：400-6828-333 ♦地址：中国广东省惠州市博罗县龙溪街道夏寮村委会大门村夏照（得胜创业园）

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