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1. 产品介绍/Product introduction

VDB1616 是蓝牙心率测温手表，可以把心率、体温等信息广播推送到手机或者网关平台上。其主控芯片采用 nRF52832 以实现低功耗的长时间待机。

VDB1616 is a Bluetooth temperature and heart rate measuring watch, which can push the heart rate ,temperature and other information to other mobile phones or BLE gateways.The MCU uses nRF52832, in order to achieve low power and long time standby.

VDB1616 可以作为 iBeacon 信标，然后用网关配合收集手表信息并上报后台服务器解析 RSSI 实现定位。可以实现 3~5m 精度的室内定位或存在性检测，推荐用于敬老院、工地、工厂、矿道、医院、监狱、疫情隔离等安全监护场合的人员定位。

VDB1616 can be used as iBeacon. With the help of the BLE gateway, the watch's information including RSSI can be collected and reported to the background server for RSSI positioning. It can achieve 3~ 5 meters accuracy indoor positioning or existence detection. It is recommended for personnel positioning in security monitoring situations such as nursing homes, construction sites, factories, mines, hospitals, prisons and epidemic isolation.

手表带有 SOS 按键求救功能，可及时通知后台监护人员紧急救援；表内配置心率传感器和体温传感器，可以周期性回传被监护人员的心率、体温数据，方便后台设置心率报警范围，监测人员健康状况。

The watch is equipped with SOS button, which can inform the monitoring personnel for emergency rescue.The watch is equipped with heart rate sensor and body temperature sensor, which can periodically send back the heart rate and body temperature data of the monitored person. The server can set the heart rate and temperature alarm and monitoring the health status.

表体使用 2.5D 玻璃镜片+锌合金+IML 塑料，表带使用硅胶，柔软耐用，防水等级可达 IP68。

The watch is made of 2.5D glass lenses + zinc alloy +IML plastic, and the band is made of silicone rubber, which is soft and durable and IP68 waterproof .

手表内置一块 1.3 寸带触摸功能的彩色显示屏，分辨率 240*240，可以接收并显示后台通知数据，另外可对手表不同功能的工作状态进行显示（如时间、心率、体温、计步）

The watch has a 1.3-inch colorful display screen with touch function, resolution 240*240, which can receive and display the background notification data. In addition, it can display the working status of different functions of the watch (such as time, heart rate, body temperature and step counting).

手表使用接触式充电接口，使用 USB 转接线接到 USB 5V 电源上即可正常充电：手表内置 200mAh 可充电锂电池，可实现 24 小时连续体温监测。

The watch uses a contact charging interface, and can be charged normally by connecting it to a USB 5V power supply with a USB adapter. The watch has a built-in 200mAh rechargeable lithium battery, which enables 24-hour continuous temperature monitoring.



图 1-1 VDB1616 正视图/Top view

2. 基本参数/Basic parameters

表 2-1 产品参数 Product Parameter

外观规格 Facade Specifications		
产品尺寸 Product dimension	L41.6*W35.6*H10.2mm	
外观工艺 Appearance finish technology	2.5D glass lens+Zinc Alloy +IML plastic + Silicone strap	
包装尺寸 Packing dimension	Inner gift box: 15.5*8.1*3.2cm	Outer carton box:33.5*32.5*18.7cm
产品重量 Product weight	N.W.: 55g	G.W.: 140g
卡通箱 Carton box	Packing quantity: 80pcs/ctn	Weigth: 11.8kg/ctn
硬件规格 Hardware Specifications		
主控芯片 CPU	nRF52832	
内置存储 Memory	RAM 64KB+ ROM 512KB	
外扩存储 Extended SPI ROM	64Mb	
显示屏 Display	1.3 inch IPS TFT resolution: 240*240 Connection: BTB	

触摸屏 Touch screen	OGS capacitive touch screen (COF) connection: BTB
蓝牙 Bluetooth	BLE Ver 5.0
心率/血压/血氧传感器 HR sensor	Yes
体温传感器 Body temperature sensor	Yes, support contact temperature monitoring
电池 Battery	200mAh large capacity polymer battery.
续航时间 Duration of endurance	Bluetooth connection Standby: about 10 days; Normal use: about 5 days.
重力加速度传感器 G-sensor	3-Axis
马达 Motor	Yes
按键 Button	Power button
充电方式 Charging mode	Magnetic adsorption interface, charging
防尘防水等级 Water and dust resistance	IP68
静电防护等级 ESD	Contact 4KV, Air 8KV

3. 产品功能/Product Function

主要功能 Main functions	
时钟显示 Clock display	Yes
多种表盘切换 Multiple dial	Yes
表盘推送 Dial update	Yes
手机 APP 消息通知 Mobile app message notification	Yes, Include message,QQ, Wechat, Twitter, Facebook ,linkedIn,Skype,Whatapp,Line,Viber,instagram and other instant messages

来电提醒 call reminder	Yes
体温监测 Body temperature monitoring	Yes
心率 HR/BP/BO monitor	Yes
计步器 Pedometer	Yes, Step records, Calories calculation, Distance calculation
睡眠分析 Sleep analysis	Yes
多种运动模式 Multi Sports mode	Walking, running, cycling, mountaineering, etc
久坐提醒 Sedentary alarm	Yes
固件多国语言 Firmware multilingual	Chinese, English, Japanese, French, Italian, German, Portuguese, Greek, Dutch, polish, Russian, Turkish
其他功能 Other functions	Alarm clock, Stopwatch, Do not disturb mode, Gesture awakening, Find your mobile phone, Music control, Photo control, etc
APP support	Youth health
智能手机系统支持 Smart phone OS supported	Android 5.1 or above, IOS 9.0 and above

4. 使用手册/User Manual

4.1 外观及功能介绍/Appearance and function introduction

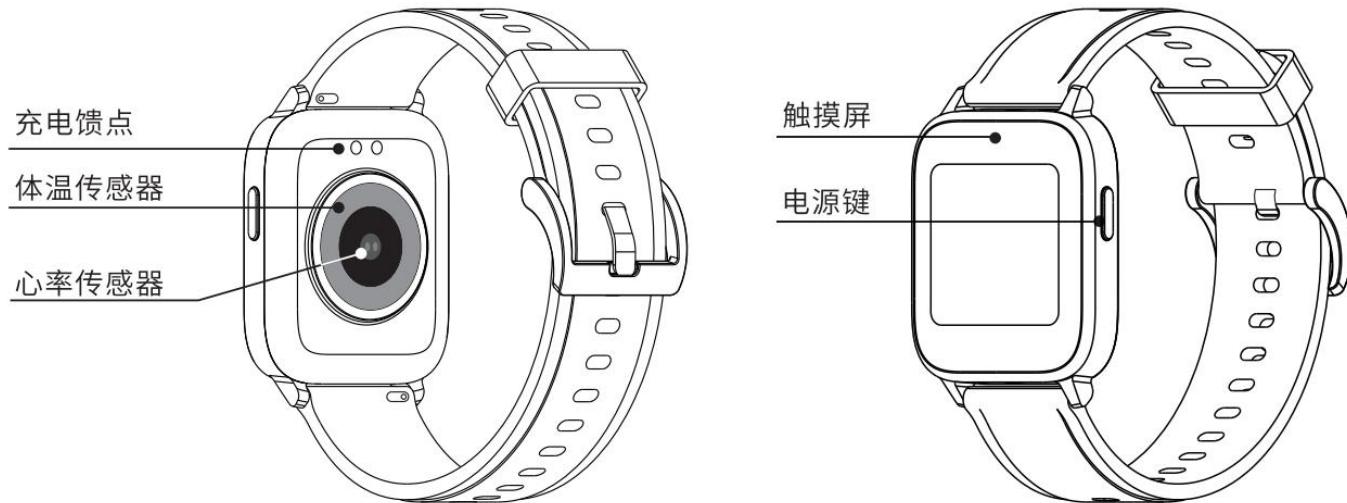


图 4-1 VDB1616 外观图

触 摸 屏 操 作 指 引 Touch instruction	长按 long-press	表盘界面下长按, 快捷更换表盘 long press the dial on the dial interface to switch the dial	点击 click	选择/确认 Choose&confirm
	下滑 slide down	表盘界面下滑查看快捷菜单 slide left the dial on the dial interface to browse the shortcut menu	上下滑 slide up&down	上下滑浏览功能菜单或者功能界面 slide up&down the dial to switch the function menu or function interface
	右滑 slide right	返回/表盘界面时右滑进入消息界面 Back/slide right the dial on the dial interface to switch the message interface	左滑 slide left	表盘界面时左滑进入功能菜单 slide left the dial on the dial interface to browse the function menu

注意：为保证体温测量准确，请确保手表底部紧贴皮肤佩戴

Note: please ensure the bottom of the watch is worn against the skin to ensure the temperature measurement accurately

4.2 开关机说明/Power on/off

4.2.1 开机/Power on

- ◆ 关机状态下，长按电源键开机。Long press the power button to start the watch in shutdown state.
- ◆ 关机状态下，连接充电器进行充电时，手表自动开机。The watch starts automatically when it is charged in shutdown state.
- ◆ 超低电量开机时，须先连接充电器为手表充电 30s 左右方可正常开机。When starting with ultra-low power ,connect the charger to charge the watch for 30 seconds before starting Power off

4.2.2 关机/Power off

- ◆ 开机状态下长按电源关机。Long press the power button to shut of the watch in power-on state.
- ◆ 开机状态下，进入功能菜单，选择设置>关机。Long press the power button to enter the function menu and select settings> Power off in power-on state.
- ◆ 超低电量振动提醒后手表自动关机。After ultra-low battery vibration reminder, the watch will automatically shut down.

4.2.3 恢复出厂/Reset

- ◆ 开机状态下，进入功能菜单，选择设置>恢复出厂。
In the power-on state, enter the function menu and select Settings> Reset.
- ◆ 恢复出厂设置后，手表会自动重启，重启后手表会自动与手机解绑，且所有用户数据清零。
After resetting, the watch will automatically restart After restarting, the watch will be unbound from the phone and all user data will be cleared.

4.2.4 重新启动设备/Reboot

- ◆ 开机状态下，进入功能菜单，选择设置>重启。
In the power-on state, enter the function menu and select Settings> Reboot

4.3 产品主要功能介绍/main function instruction

- ◆ 表盘推送 Dial update
- ◆ 找手机 Find phone
- ◆ 秒表 Stopwatches
- ◆ 闹钟 Alarm clock
- ◆ 消息推送 Notification
- ◆ 体温监测 Body temperature monitoring
- ◆ 睡眠监测 Sleep monitoring
- ◆ 心率监测 Heart rate
- ◆ 久坐提醒 Sedentary reminder
- ◆ 勿扰模式 Do not disturb
- ◆ 抬手亮屏 Wake-up gesture
- ◆ 多国语言 Multilingual
- ◆ 来电提醒 Incoming call alert
- ◆ 音乐控制 Music control
- ◆ 日常活动追踪: 步数、距离、卡路里 Daily activity tracking: Step count, Distance, Calorie
- ◆ 多种运动模式: 健走、跑步、骑行、登山 Multiple sport modes: Brisk walking, Running, Cycling, Mountaineering

4.4 安装 APP/ APP download

Android 用户/Android users:

1、在手机应用市场搜索“**Youth health**”，下载并安装 Youth health APP。

Searching for “**Youth health**” in the mobile application market. download and install the Youth health APP.

2、手机扫描右方二维码或者手表软件内二维码即可下载并安装 Youth health APP。

Scan the QR code below or the QR code of the watch to download and install the off the watch Youth health APP .

IOS 用户/IOS users:

1、在手机端登录 APP Store 搜索“**Youth health**”下载并安装 Youth health APP。

log into the App Store on the mobile phone and search for “**Youth health**” to download and install the Youth health APP.

2、手机扫描右方二维码或者手表软件内二维码即可下载并安装 Youth health APP。

Scan the QR code below or the QR code of the watch to download and install the Youth health APP



4.5 手表充电/Charging instructions

手表随附的配件有 USB 磁吸充电线，将磁吸充电线的 USB 头连接至正规厂商生产的电源充头或者电脑 USB 接口。将手表的充电馈点对准并贴合充电线的金属触点，直到手表屏幕出现充电电量指示。完全无电状态充电时需要持续充电 30 秒左右才会在屏幕显示充电状态。

The watch package has a magnetic charging line. Connect the USB plug of the charging line to USB charger or computer USB interface produced by a regular manufacturer. Align the charging feed point or the watch with the metal contacts of the charging line until the Charging instruction interface appears on the watch screen. When the watch is ultra low battery, it needs to continue charging for about 30 seconds to display the charging status on the screen.

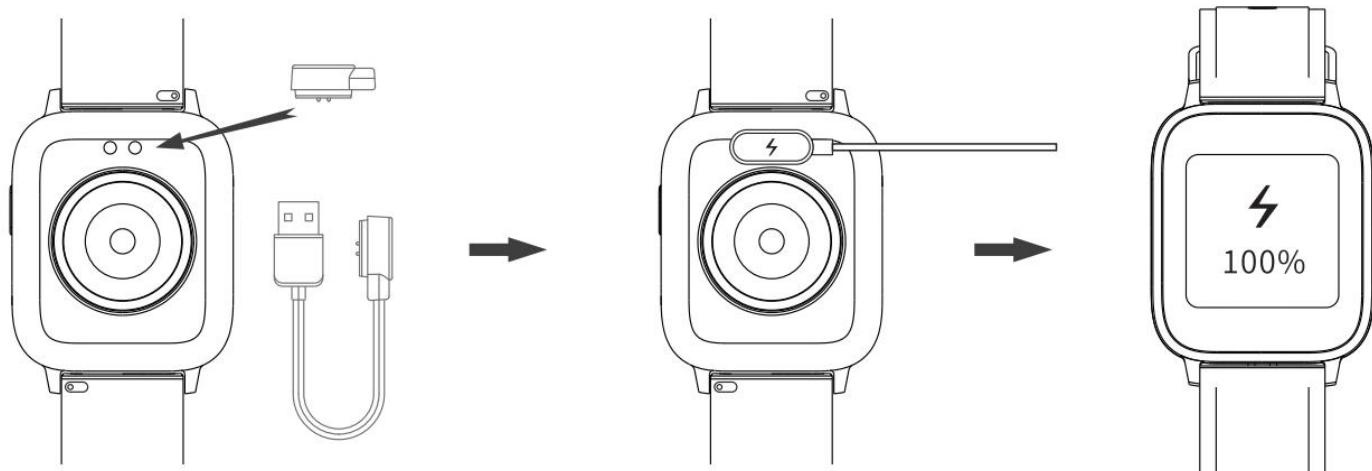


图 4-2 VDB1616 充电指导图/Charging Guide

◆ 请使用包装内自带专用充电线充电，充电前确认手表充电触点干净、完整。

Please use the special charging line included in the box to charge. Please make sure the charging contacts of the watch are clean and complete before charging.

◆ 请使用额定输出电压 5V/1A 及以上的正规厂商充电器或电脑 USB 接口为手表充电。

Please use a regular manufacturer's charger with a rated output voltage of 5v/1A or above or a computer USB port.

◆ 在两小时左右即可将手表充满电，当充电指示显示 100% 表示电已充满。

The watch will be fully charged about two hours. The screen shows 100% that means the battery is fully charged.

4.6 绑定手机/Connect to mobile phone

1、打开手机蓝牙开关。

Turn on the phone's Bluetooth

3、打开 App 根据弹框提示开启 App 的相关权限。点击右上角添加设备，在可选设备列表中选择并点击 GT01WATCH，随即手表和手机自动开始绑定配对并同步数据。

Open the app related permissions according to the prompts in the pop-up box. Click More>+ Add device> Add device, available select and click GT01.WATCH in the device list, and then the watch and mobile phone will automatically start binding and pairing and synchronize data.



图 4-3 VDB1616 绑定设备指导图/Binding device guide

5. 联系方式/Contact Information

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