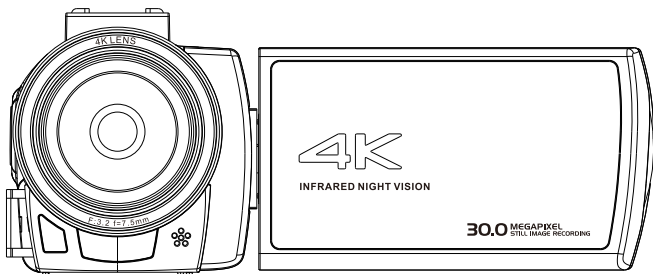


使用手册

User's Manual



开始使用前，请仔细阅读本说明书，并保留下来以便将来参考
Read this manual before using the camera and keep it

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危害、安全和警告

错误的使用相机及配件可能造成危险，并且可能损坏相机或者造成严重事故。

因此我们要求您必须阅读并且遵守以下关于危害、安全和警告的注意事项。

对儿童及无能力操作相机的人群的危害

◇ 相机及配件不是儿童玩具。禁止儿童和无能力的人接触相机及附件。这些有可能造成触电，中毒以及窒息的危险。请确保这些远离儿童和无能力的人。

◇ 相机禁止给儿童或无能力的人使用，只能由生理上和心理上都能安全操作的人使用。

电源及触电危险

◇ 如果有液体或异物侵入相机，请立即关机并取出电池，否则有起火或爆炸的危险。

◇ 如果相机被摔坏或外壳破损，请关机并取出电池，否则有起火或爆炸的危险。

◇ 插上电源适配器可以持续给相机供电，但也可能造成触电危险。使用电源适配器时，禁止任何物品覆盖，保持通风，否则会有起火的危险。

◇ 打雷或闪电期间不能使用外接电源，否则会有触电的危险。

关于液晶屏幕

◇ 液晶屏是玻璃制品，容易破碎，请小心保护。

◇ 如果液晶屏破裂，禁止接触流出的液体。如果皮肤接触到液体，立即使用大量清水冲洗。

◇ 如果液体入眼，请立即以大量清水冲洗，立即就医。

◇ 如果不小心吞食液体，请以清水漱口，然后喝下大量清水稀释，立即就医。

使用安全警告

◇ 禁止摔落、撞击或穿刺相机，这样会造成相机损坏。

◇ 禁止使用腐蚀性的化学物品清洁相机，这样会损坏相机。

◇ 相机没有用户可自己维修的部件，禁止开启外壳或自己维修。如遇故障，请找专业人士修理，或者联系经销商。

使用和储存环境

本相机可用于拍摄照片和视频片段。是为私人用途设计的，并不适用于商业目的。

本产品适应于温度-10°C-45°C之间，湿度 $\leq 70\%$ 环境使用。禁止在以下环境下使用或存放相机：

潮湿或灰尘较多的地方

高温或阳光暴晒的地方

低温的地方

有强烈震动的地方

废弃物处理

禁止随意丢弃相机、附件和包装。

电子设备不能按家庭垃圾处理。请按照当地法律要求，根据不同环境的要求，分开类型做不同的处理。

电池不能按家庭垃圾处理。请根据当地法律要求将使用过的电池退回到公共的收集点或者电池零售商。

请利用回收点和你当地的市政收集点或者联系你购买产品的贸易商。这样可以阻止由于不妥当处理给环境和健康带来的潜在有害影响。更详细的信息请联系你当地的相关市政机关。

使用前检查

为确保您的利益，在任何重要场合使用本相机之前，必须请先装上存储卡进行试拍。我们不承担任何由于使用不当或相机故障造成的额外损失。

关于本手册

本手册仅作为产品的一般使用指南。本手册中所有图片仅供参考，请以最终产品实物为准。

我们努力确保本手册内容正确并维持最新，若因产品更新或软件升级导致本手册内容与机器有不符之处，请以机器实物为准，恕不另行通知。

版权与商标信息

我们保留本手册的版权及最终解释权。

任何单位或个人如未获得我们书面同意，不得以任何形式复制、传播和发布。

Microsoft和 windows是Microsoft公司注册的商标。

Pentium是Intel公司注册的商标。

Macintosh是Apple公司注册的商标。

其他名字可能是商标或者是相关所有者注册的商标。

欢迎选用本产品，我们将热忱为您服务!

在使用前，请仔细阅读本说明书。请妥善保管本说明书，以备查阅。

这一款支持4K高清分辨率和WIFI无线功能的高清摄像机，具有以下功能特点：

4K高清影像

800万CMOS感应器

循环录影

红外夜视灯

网络摄像头

支持H.264

60帧高速摄影

人脸识别

3.0英寸IPS高清屏

红外遥控操作

WIFI无线，手机操作

最大128G存储卡

运动检测

可拆卸可充电外挂电池

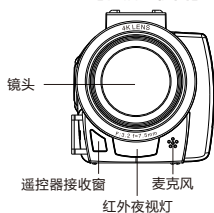
1.1 系统要求

相机可以与计算机连接使用，实现文件拷贝、回看、播放及电脑摄像头等功能，也可以将相机当做U盘使用。与计算机连接时，计算机至少需要具备以下规格：

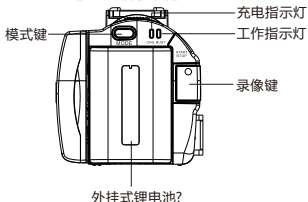
奔腾2.0GHz或以上处理器/Windows xp或以上系统/2GB内存/80GB以上可用磁盘空间/标准USB2.0或以上接口/1GB或以上的显卡/1024x768像素或更高之屏幕分辨率。若计算机配置较低，连接相机时可能不能正常使用或播放卡顿。

1.2 机器图示

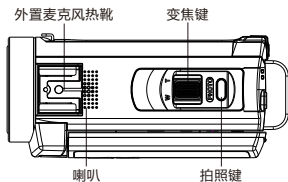
【机器前视图】



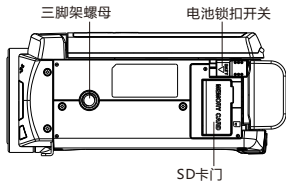
【机器后视图】



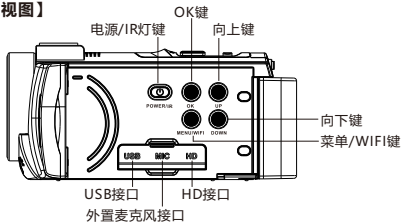
【机器顶视图】














【机器底视图】



【机器左视图】



1.3 按键功能说明

图示	按键名称	功能说明
	电源键	短按开启电源/长按关闭电源，开机后短按开启/关闭IR红外灯
	模式键	切换摄像/拍照/回放/：  代表摄像模式，  代表拍照模式， ▶ 代表回放模式
	菜单键	在各模式下：按此键调出控制菜单，长按3秒开启WIFI
	OK键	Ok键确认操作
	向上键	向上移动方向
	向下键	向下移动方向
	变焦键	在拍照与摄像模式，左右拨动实现变焦；在回放模式，进入九宫格；在视频播放模式，调节音量大小；在菜单设置时，左右拨动选择菜单
	拍照键	在拍照模式下拍照，录影回放时暂停/播放
	录像/停止键	在录影模式下录影/停止录影；视频回放时播放/停止播放

2.开始使用

本章将帮助您了解相机的各种基本功能

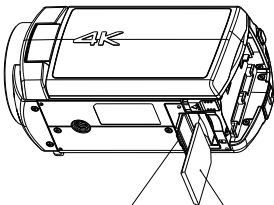
2.1 装入存储卡

本机可装入存储卡以储存更多照片、视频或其它文件。当电池电量低或者更换电池时，存储卡内的媒体文件不会丢失。请按以下步骤装入存储卡。

1.向外翻转打开SD卡盖门。

2.如图所示确定存储卡的SD卡缺口朝下插入并推进，听到“咔嚓”声，存储卡被正确装入。

3.将SD卡盖门向里翻转并卡紧直至听到“咔嚓”声。



1.打开SD卡门（向外拨动开启SD卡门,向里翻转关闭SD卡门）

2.按图示方式(SD卡缺口朝下)插入SD卡

注意：

存储卡速度必须达到Class 10或以上，请使用正规品牌的存储卡。

使用新的存储卡时，请先用相机格式化功能格式化存储卡。

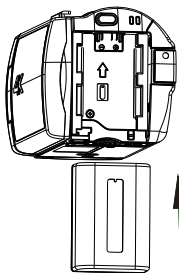
在工作中禁止插拔存储卡，这样会损坏存储卡或丢失数据！

某些存储卡可能导致相机死机或工作不正常，请装机适用，注意是否兼容。

2.2 装入电池

本机使用的是外置锂电池，在使用前请正确安装电池，方法如下，请参考图示。

- 1.将电池按此方向装入电池槽，
- 2.将电池向内推并卡紧，直到听到“咔嗒”声，安装完成。



2.将电池向内推并卡紧，
直到听到“咔嗒”声

1.将电池按此方向装入电池槽，

注意：



- 1:请正确安装电池，错误安装将不能开机或损坏相机，并可能造成意外事件!
- 2:不要使用非相机标配的锂电池和电源适配器。
- 3:电源适配器规格：输入 AC 100~240V/50~60Hz，输出DC 5V/1A。

2.3 为电池充电

- 1.装入电池，用USB线连接相机和电源适配器，将电源适配器接入市电。相机充电指示灯亮起，表示正在充电中，充电完成，该指示灯熄灭。
- 2.也可连接计算机为相机充电。装入电池，用USB线连接相机，USB线另一端连接计算机USB接口。相机指示灯亮起，表示正在充电中，充电完成，该指示灯熄灭。
- 3.相机电源适配器规格为：输入 AC 100~240V/50~60Hz，输出DC 5V/1A。请确认当地电源规格后使用。
- 4.边充电边拍摄，为适应长时间拍摄，相机支持在充电的同时拍摄照片或视频。使用此功能时，请使用电源适配器接市电为相机供电。

注意：




- 使用市电充电前，必须确认当地电源规格符合要求！
充电过程请确保通风，禁止任何物体覆盖。充电完成后，尽快取下电源！
边充电边拍摄时，禁止使用计算机为相机供电，否则可能损坏计算机！


2.4 开启和关闭相机

1. 装入电池，短按【电源键】可以开启相机。
2. 在开机的状态下，长按【电源键】可以关闭相机电源。
3. 相机支持开屏开/关机功能，打开屏幕可自动开机，闭合屏幕自动关机。
4. 相机支持自动开/关机功能，当较长时间不使用时，将会自动关机以节省电量。当电量不足时，屏幕会显示“电量不足”，并在稍后自动关机。

2.5 切换工作模式

2.5.1 相机支持三种工作模式和一种设置模式：

录影模式：屏幕左上角显示“”图标，这时可以录制视频，以及设置相关参数。

拍照模式：屏幕左上角显示“”图标，这时可以拍摄照片，以及设置相关参数。

回放模式：屏幕左上角显示“”图标，这时可以回放照片或视频，也可进行相关操作。

设置模式：在屏幕左上方有“”图标，该模式可以设置相机的系统参数。

2.5.2 切换工作模式

按【模式键】可以切换工作模式：拍照模式/录影模式/回放模式，各模式图标相应显示在屏幕左上角。

2.6 遥控器的使用说明

相机也可以使用遥控器来进行操作，遥控器各按键功能作用如下：

1. 录像键：在录像模式下录像/停止录像
2. 拍照键：在拍照模式下拍照
3. 暂停键：回放视频时暂停/播放视频
4. IR灯键：在录像/拍照模式下，打开/关闭夜视灯
5. 放大变焦键：在录像模式/拍照模式下，放大功能
6. 缩小变焦键：在录像模式/拍照模式下，缩小功能
7. 模式键：在录像模式/拍照模式/回放模式之间切换
8. 删除键：在回放模式下快速删除文件
9. 音量加键：回放视频时加大音量
10. 音量减键：回放视频时减小音量
11. 上选项键：在回放模式下，向上翻文件
12. 下选项键：在回放模式下，向下翻文件
13. 播放/停止键：回放视频时播放/停止播放
14. 快进键：回放视频时快进
15. 快退键：回放视频时快退

遥控接收窗示意图



遥控器接收窗



注意：

在使用遥控器前，请先取下遥控器电池保护片。

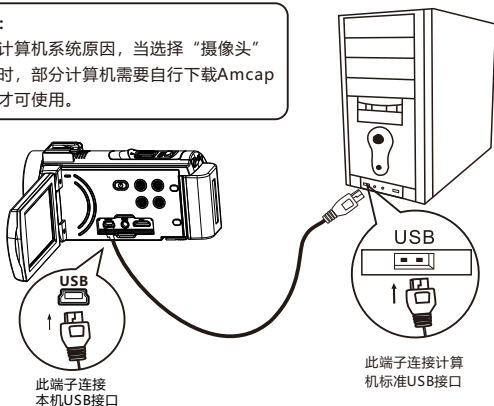
使用遥控器时，请将遥控器对准相机遥控接收窗，中间不可以有物体遮挡。

2.7 连接计算机

相机可以连接计算机以传输文件、观看和编辑视频及照片。
与计算机连接后，开机选择“存储器”选项，相机可以当做U盘使用。选择“摄像头”选项时，相机可做摄像头使用。如下图所示：

注意：

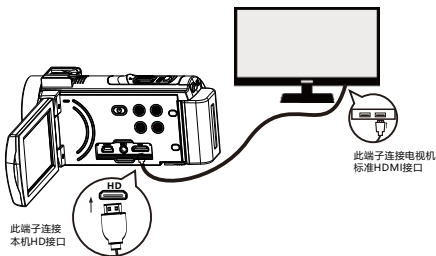
由于计算机系统原因，当选择“摄像头”选项时，部分计算机需要自行下载Amcap软件才可使用。



2.8 连接电视机

相机除了可以连接电脑之外，还可以连接电视机的，方法如下：

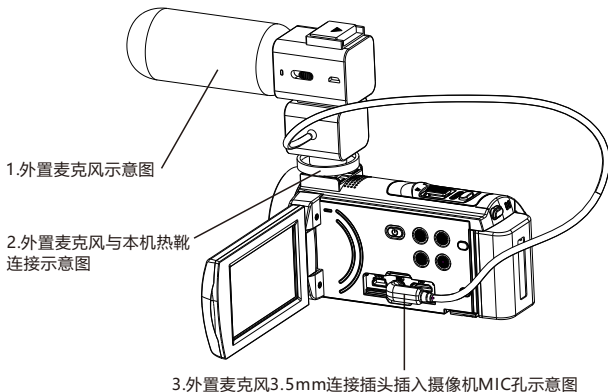
- 1.用高清线缆连接相机的高清接口和电视机的高清接口。
- 2.将电视机的信号模式调至HDMI，注意HDMI的插线接口和信号模式是否一致(例:HDMI 1接口对应信号是HDMI 1)。
- 3.开启并操作相机，所有的内容会显示在电视机上，如图所示。



2.9 使用外置麦克风 (麦克风为可选配件)

本机支持外置麦克风，能有效的降低周围环境噪音被拾取，提升录影质量给予用户更好的音质体验。

- 1.使用前请仔细阅读外置麦克风产品特点，技术参数，功能操作，使用说明和注意事项，避免损坏本机。
- 2.按此方向装外置麦克风于摄像机上，并锁紧卡片螺母。
- 3.将外置麦克风3.5mm连接插头插入摄像机MIC孔内，并打开麦克风开关。



2.10 使用变焦功能

本机具备数码变焦功能，以实现拍摄时的变焦。向右拨动【变焦键】可以拉近与物体的距离(即放大景物)，向左拨动【变焦键】可以拉远与物体的距离(即缩小景物)。

2.11 使用红外夜视模式

本机内置红外夜视模式，可以在黑暗环境下进行摄像或拍照。

在摄像或拍照模式下，短按一下【电源键】红外夜视灯开启，夜视灯图标显示在屏幕左方。机器进入夜视模式。此时，画面为黑白显示，所拍摄的图片或视频也是黑白的。再次轻按一下【电源键】，可恢复到正常拍摄模式。

注意：

红外夜视模式在拍照/摄像模式下均可打开/关闭，在摄像过程中红外灯可以开启/关闭。

夜视模式下，只能拍摄黑白照片或视频，不能拍摄彩色文件。

变焦功能在拍照及摄影模式下均可使用，使用方法相同。

3.使用本机

本章节帮助您了解如何使用相机的各种高级功能


3.1 录影模式

相机开机后自动进入录影模式，进入录影模式后，屏幕会显示一些图标，其含义如下表：

1 录影模式指示器	6 变焦指示器	11 菜单指示器
2 分辨率帧率指示器	7 电池电量指示器	12 红外夜视灯指示器
3 运动检测指示器	8 时间指示器	13 曝光补偿指示器
4 外置麦克风指示器	9 日期指示器	
5 可录制时间指示器	10 SD卡指示器	



3.1.1 录影功能操作

1. 正确插入存储卡，装入电池，按【电源键】开机（本机有开屏自动开机功能）。
2. 相机开机后自动进入录影模式，也可以按【模式键】从其它模式切换到录影模式，此时“”图标出现在显示屏的左上角。
3. 参照屏幕显示的图像选择和调整所拍摄目标，握稳本机，按下【录影键】开始拍摄。
4. 录影过程中，屏幕右上方出现红色图标闪烁，指示灯闪烁。此时按下【拍照键】可暂停/继续录影，再次按下【录影键】可以停止拍摄。
5. 所拍摄的文件将自动保存到本机的存储卡内，如果存储卡装满，屏幕会显示“存储卡已满”提示，同时会自动结束录影。此时需要更换一张新的存储卡，或者删除此存储卡内的文件才能继续录影。

3.1.2 分辨率

此功能可以设置录影视频的分辨率，分辨率越高录影文件越大，所占空间越多，反之分辨率越低文件越小所占空间越小。

- 1.在录影模式下，按【菜单键】调出菜单，按【向上/向下键】选择“分辨率”菜单。
- 2.按【OK键】进入“分辨率”子菜单。
- 3.按【向上/向下键】选择所需的录影视频分辨率：2880x2160 24fps, 2560x1440 30fps, 1920x1080P 60fps, 1920x1080P 30fps, 1280x720 60fps, 1280x720 30fps。
- 4.按【OK键】保存，并返回到录影菜单模式。

3.1.3 循环录影

设置此功能可循环录制视频，即录满规定时间后自动开始录制下一个视频。

- 1.在录影模式下，按【菜单键】调出菜单，按【向上/向下键】选择“循环录影”菜单。
- 2.按【OK键】进入“循环录影”子菜单。
- 3.按【向上/向下键】选择所需循环录影的模式：关/3分钟/5分钟/10分钟。
- 4.按【OK键】保存，并返回到录影菜单模式。

3.1.4 曝光补偿

此功能可以依据环境亮度调节所拍摄视频的亮度，EV值越大，所拍摄视频文件亮度越高，EV值越小，所拍摄视频越暗。在环境亮度较低时，调节此项功能无效。

- 1.在录影模式下，按【菜单键】调出菜单，按【向上/向下键】选择“曝光补偿”菜单。
- 2.按【OK键】进入“曝光补偿”子菜单。
- 3.按【向上/向下键】选择所需要的曝光值选项：-3.0EV/-2.0EV/-1.0EV/0EV/+1.0EV/+2.0EV/+3.0EV。
- 4.按【OK键】保存，并返回到录影菜单模式。

3.1.5 白平衡

此功能可根据不同的光源环境来调整拍摄画面的颜色偏差。推荐使用自动模式。

- 1.在录影模式下，按【菜单键】调出菜单，按【向上/向下键】选择“白平衡”菜单。
- 2.按【OK键】进入“白平衡”子菜单。
- 3.按【向上/向下键】选择所需的白平衡项：自动/日光/阴天/钨丝灯/荧光灯。
- 4.按【OK键】保存，并返回到录影菜单模式。

3.1.6 色彩

此功能可根据个人喜好在录制视频文件时设置各种特殊效果。

- 1.在录影模式下，按【菜单键】调出菜单，按【向上/向下键】选择“色彩”菜单。
- 2.按【OK键】进入“色彩”子菜单。
- 3.按【向上/向下键】选择所需要的特殊效果：色彩/黑白/棕褐色。
- 4.按【OK键】保存，并返回到录影菜单模式。

3.1.7 测光

此项设置可以依据所拍摄的不同的场景来调节所需的模式。

- 1.在录影模式下，按【菜单键】调出菜单，按【向上/向下键】选择“测光”菜单。
- 2.按【OK键】进入“测光”子菜单。
- 3.按【向上/向下键】选择所需的测光模式：中央重点测光/定点/平均测光。
- 4.按【OK键】保存，并返回到录影菜单模式。

3.1.8 运动检测

开启此功能后可自动侦测到移动的行人或物体并自行录制视频。

- 1.在录影模式下，按【菜单键】调出菜单，按【向上/向下键】选择“运动检测”菜单。
- 2.按【OK键】进入“运动检测”子菜单。
- 3.按【向上/向下键】选择所需的功能模式：关/开。
- 4.按【OK键】保存，并返回到录影菜单模式。

3.1.9 录影音频

此功能可开启或关闭录影时的声音，用户可根据自己喜好开启或关闭。

- 1.在录影模式下，按【菜单键】调出菜单，按【向上/向下键】选择“录影音频”菜单。
- 2.按【OK键】进入“录影音频”子菜单。
- 3.按【向上/向下键】选择所需的功能：关/开。
- 4.按【OK键】保存，并返回到录影菜单模式。

3.1.10 日期标签

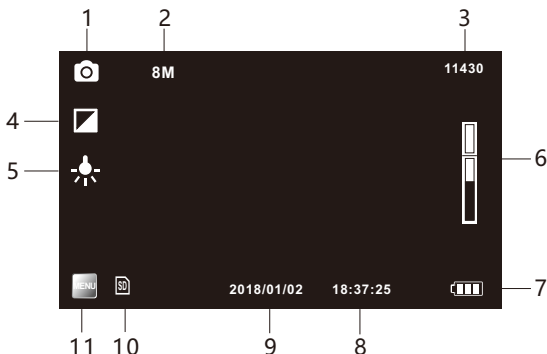
此功能可以设置所拍摄的视频上显示时间和日期，以区分视频所拍摄的时间。

- 1.在录影模式下，按【菜单键】调出菜单，按【向上/向下键】选择“日期标签”菜单。
- 2.按【OK键】进入“日期标签”子菜单。
- 3.按【向上/向下键】选择是否在视频文件上显示日期时间：关/开。
- 4.按【OK键】保存，并返回到录影菜单模式。

3.2 拍照模式


按【模式键】切换到拍照模式。进入拍照模式后，屏幕会显示一些图标，其含义如下表：

1 拍照模式指示器	5 红外补光灯指示器	9 日期指示器
2 分辨率指示器	6 变焦指示器	10 SD卡指示器
3 可拍照张数指示器	7 电池电量指示器	11 菜单指示器
4 曝光补偿指示器	8 时间指示器	



3.2.1 拍照功能操作

在拍照模式下，可以通过对各项菜单的设置，帮助拍出优美的照片，具体操作如下：

- 1.正确插入存储卡，装入电池，短按【电源键】开机（本机有开屏自动开机功能）。
- 2.按【模式键】从其它模式切换到拍照模式，此时“”图标出现在显示屏的左上角。
- 3.将相机镜头对准需要拍照的景物，调整角度和方位，紧握并保持相机平稳。
- 4.轻按下【拍照键】听到“咔嚓”声表示拍照已完成。
- 5.所拍摄的文件会自动保存到本机的存储卡内，如果存储卡满后，屏幕显示“存储器已满”，此时需要更换一张新的存储卡，或者删除此卡内的文件才能继续拍照。

在拍照模式下，用户可以先设置拍照菜单的各项参数，然后再进行拍照，拍照菜单下的各项菜单，具体操作如下。如果你不熟悉这台相机，也可以使用相机的默认设置。

3.2.2 拍摄方式

此功能可以设置照片的各种拍摄方式，用户可根据喜好自行设置。

- 1.在拍照模式下，按【菜单键】调出菜单，按【向上/向下键】选择“拍摄方式”菜单。
- 2.按【OK键】进入“拍摄方式”子菜单。
- 3.按【向上/向下键】选择所需的模式：单拍/2秒定时/5秒定时/10秒定时。
- 4.按【OK键】保存，并返回到拍照菜单模式。

3.2.3 分辨率

本机可以设置图像分辨率大小，图像分辨率越高，照片质量越好，尺寸越大。

- 1.在拍照模式下，按【菜单键】调出菜单，按【向上/向下键】选择“分辨率”菜单。
- 2.按【OK键】进入“分辨率”子菜单。
- 3.按【向上/向下键】选择拍照照片模式：5M/8M/12M/16M/20M/24M/30M。
- 4.按【OK键】保存，并返回到拍照菜单模式。

3.2.4 连拍

此功能可以设置相机是否连续拍照(设置开启后，可以5连拍)。

- 1.在拍照模式下，按【菜单键】调出菜单，按【向上/向下键】选择“连拍”菜单。
- 2.按【OK键】进入“连拍”子菜单。
- 3.按【向上/向下键】选择连拍选项：关/开。
- 4.按【OK键】保存，并返回到拍照菜单模式。

3.2.5 图像质量

此项功能允许用户调节照片的质量，用户可根据喜好自行设定。

- 1.在拍照模式下，按【菜单键】调出菜单，按【向上/向下键】选择“图像质量”菜单。
- 2.按【OK键】进入“图像质量”子菜单。
- 3.按【向上/向下键】选择所需的照片质量：优质/标准/经济。
- 4.按【OK键】保存，并返回到拍照菜单模式。

3.2.6 锐度

此项功能允许用户调节照片的锐度，使照片边缘更加清晰或柔和。

- 1.在拍照模式下，按【菜单键】调出菜单，按【向上/向下键】选择“锐度”菜单。
- 2.按【OK键】进入“锐度”子菜单。
- 3.按【向上/向下键】选择所需的照片锐利度：强烈/标准/柔和。
- 4.按【OK键】确认，并返回到拍照菜单模式。

3.2.7 白平衡

此功能可根据不同的光源环境来调整拍摄画面的颜色偏差。

- 1.在拍照模式下，按【菜单键】调出菜单。按【向上/向下键】选择“白平衡”菜单。
- 2.按【OK键】进入“白平衡”子菜单。
- 3.按【向上/向下键】选择所需的模式：自动/日光/阴天/钨丝灯/荧光灯。
- 4.按【OK键】保存，并返回拍照菜单模式。

注意：

在环境亮度较低时，调节此功能无效。

3.2.8 色彩

此功能可设置照片的特殊效果，拍摄出一些特别的照片。

- 1.在拍照模式下，按【菜单键】调出菜单，按【向上/向下键】选择“色彩”菜单。
- 2.按【OK键】进入“色彩”子菜单。
- 3.按【向上/向下键】选择所需要的特殊效果：色彩/黑白/棕褐色。
- 4.按【OK键】保存，并返回到拍照菜单模式。

3.2.9 ISO

此功能可调节感光度，推荐使用自动模式。

- 1.在拍照模式下，按【菜单键】调出菜单。按【向上/向下键】选择“ISO”菜单。
- 2.按【OK键】进入“ISO”子菜单
- 3.按【向上/向下键】选择所需的ISO值：自动/100/200/400。
- 4.按【OK键】保存，并返回到拍照菜单模式。

3.2.10 曝光补偿

此项设置允许用户依据环境亮度调节所拍照片亮度，请注意在环境亮度较低时，调节此项功能无效。

- 1.在拍照模式下，按【菜单键】调出菜单。按【向上/向下键】选择“曝光补偿”菜单。
- 2.按【OK键】进入“曝光补偿”子菜单。
- 3.按【向上/向下键】选择所需的EV值：-3.0/-2.0/-1.0/0/+1.0/+2.0/+3.0。
- 4.按【OK键】确认保存，并返回到拍照菜单模式。

3.2.11 人脸识别

开启此功能相机在拍摄照片时可自动识别到人脸。

- 1.在拍照模式下，按【菜单键】调出菜单，按【向上/向下键】选择“人脸识别”菜单。
- 2.按【OK键】进入“人脸识别”子菜单。
- 3.按【向上/向下键】选择所需的功能：关/人脸识别。
- 4.按【OK键】保存，并返回到拍照菜单模式。

3.2.12 防手震

此菜单可以开启或关闭相机电子防抖动功能，开启这个功能拍照时，可以减少因手抖动而造成所拍照片的模糊。

- 1.在拍照模式下，按【菜单键】调出菜单，按【向上/向下键】选择“防手震”菜单。
- 2.按【OK键】进入“防手震”子菜单。
- 3.按【向上/向下键】选择是否开启防手震动功能：关/开。
- 4.按【OK键】保存，并返回到拍照菜单模式。

3.2.13 日期标签

此功能可以设置所拍摄的照片上显示或关闭显示时间和日期水印。

- 1.在拍照模式下，按【菜单键】调出菜单，按【向上/向下键】选择“日期标签”菜单。
- 2.按【OK键】进入“日期标签”子菜单。
- 3.按【向上/向下键】选择是否在拍照照片文件上显示日期时间：关/日期/日期时间。
- 4.按【OK键】保存，并返回到拍照菜单模式。

3.3 回放模式

本机所拍视频/照片，可以回放观看。并可对其进行保护、删除、幻灯片播放等操作。

3.3.1 删除：

此功能可以对相机录制的视频/照片文件进行删除操作。

- 1.在回放模式下，按【菜单键】调出菜单，按【向上/向下键】选择“删除”菜单。
- 2.按【OK键】进入“删除”子菜单。
- 3.按【向上/向下键】选择所需的操作模式：删除当前/全部删除。
- 4.按【OK键】确认进入子菜单，选择“取消/确认”删除当前文件或全部删除文件。
- 5.按【OK键】保存，并返回到回放菜单模式。

注意：

- 1.删除当前：是指删除当前相机所浏览的视频/照片文件。
- 2.全部删除：是指删除所有相机录制的文件。
- 3.删除操作不能删除已锁定的文件。
- 4.删除文件后不能恢复，请谨慎操作。

3.3.2 保护

此功能可以对视频/照片文件进行锁定和解锁等保护功能。

- 1.在回放模式下，按【菜单键】调出菜单，按【向上/向下键】选择“保护”菜单。
- 2.按【OK键】进入“保护”子菜单。
- 3.按【向上/向下键】选择所需的操作模式：加锁当前/解锁当前/全部加锁/全部解锁。
- 4.按【OK键】保存，并返回到回放菜单模式。

- 1.加锁当前：是指加锁当前所浏览的视频/照片文件。
- 2.解锁当前：是指解锁当前所浏览的视频/照片文件。
- 3.全部加锁：是指加锁相机的全部视频/照片文件。
- 4.全部解锁：是指解锁相机的全部视频/照片文件。


3.3.3 幻灯片播放

开启此功能后所拍摄的照片可按顺序进行依次浏览播放。

- 1.在回放模式下，按【菜单键】调出菜单，按【向上/向下键】选择“幻灯片播放”菜单。
- 2.按【OK键】进入“幻灯片播放”子菜单。
- 3.按【向上/向下键】选择所需的操作模式：2秒/5秒/8秒。
- 4.按【OK键】确认，并开始播放幻灯片。
- 5.在播放过程中，按【拍照键】可暂停当前幻灯片播放。按【录影键】可取消当前幻灯片播放。

3.4 设置模式下操作

本功能可以设置相机的系统参数，在此模式下可以对相机的语言，按键声音，光源频率等进行设置，具体操作如下。

- 1.在拍照模式/录影模式/回放模式下，按【菜单键】调出菜单。
- 2.拨动【变焦键】可在当前模式与设置模式之间切换，切换到设置模式后，在屏幕左上方有“”图标。

在此菜单内用户可以根据选择进行相应的设置。具体操作如下：

3.4.1 WIFI

此功能可开启本机WIFI功能，也可通过快捷键直接开启（长按【菜单键】3秒）。

- 1.在设置模式下，按【向上/向下键】选择“WIFI”菜单。
- 2.按【OK键】进入“WIFI”子菜单。
- 3.按【向上/向下键】选择所需的模式：关/开。
- 4.按【OK键】确定操作，并返回到设置模式菜单。

3.4.2 日期/时间

此功能可以设置本机日期和时间。

- 1.在设置模式下，按【向上/向下键】选择“日期/时间”菜单。
- 2.按【OK键】进入“日期/时间”子菜单。
- 3.拨动【变焦键】移动要设置的光标，并按【向上/向下键】对“年/月/日/时/分/秒”进行调整设置。
- 4.按【OK键】确定操作，并返回到设置模式菜单。

3.4.3 自动关机

此功能可设置相机在一定时间内无操作的情况下自动关机，以达到节省电量的目的。

- 1.在设置模式下，拨动【向上/向下键】选择“自动关机”菜单。
- 2.按【OK键】进入“自动关机”子菜单。
- 3.按【向上/向下键】选择省电模式的间隔时间：关/3分钟/5分钟/10分钟。
- 4.按【OK键】确定操作，并返回到设置模式菜单。

3.4.4 按键声音

此功能可以根据用户需求，开启或关闭相机的按键声音。

- 1.在设置模式下，按【向上/向下键】选择“按键声音”菜单。
- 2.按【OK键】进入“按键声音”子菜单。
- 3.按【向上/向下键】选择所需要的要求：关/开。
- 4.按【OK键】确定操作，并返回到设置模式菜单

3.4.5 语言设置

此功能可以根据用户需求，为相机设置相应的操作语言。

- 1.在设置模式下，按【向上/向下键】选择“语言设置”菜单。
- 2.按【OK键】进入“语言设置”子菜单。
- 3.按【向上/向下键】选择所需要的语言：English/Francais/Espanol/Portugues/
Deutsch/Italiano/简体中文/繁體中文/Pyckknn/日本語
- 4.按【OK键】确定操作，并返回到设置模式菜单。

3.4.6 光源频率

此功能可以设置相机与用户环境的光源频率同步，以避免在灯光环境下的画面闪烁，用户环境的光源频率请参见当地电源标准。

- 1.在设置模式下，按【向上/向下键】选择“光源频率”菜单。
- 2.按【OK键】进入“光源频率”子菜单。
- 3.按【向上/向下键】选择正确的光频频率：50Hz/60Hz。
- 4.按【OK键】确定操作，并返回到设置模式菜单。

3.4.7 格式化

本功能可以对相机存储卡进行格式化，格式化后存储卡上的所有文件都会被删除，且不能恢复，请谨慎使用此功能。

- 1.在设置模式下，按【向上/向下键】选择“格式化”菜单。
- 2.按【OK键】进入“格式化”子菜单；
- 3.按【向上/向下键】选择是否对存储卡进行格式化操作：取消/确认
- 4.选择“取消”时，不执行格式化功能选择。
- 5.选择“确认”时，按【OK键】执行，格式化完成后，自动返回到设置菜单模式。

3.4.8 默认设置

当用户因菜单设置错误造成相机无法正常工作，可通过此功能恢复到出厂时的默认设置。

- 1.在设置模式下，按【向上/向下键】选择“默认设置”菜单。
- 2.按【OK键】进入“默认设置”子菜单。
- 3.按【向上/向下键】选择是否恢复默认设置操作：取消/确认。
- 4.选择“取消”时，不执行恢复默认设置功能。
- 5.选择“确认”时，按【OK键】执行此功能，执行完毕后，自动返回到设置菜单模式。

3.4.9 版本

此功能可以查看相机操作系统的软件版本。

- 1.在设置模式下，按【向上/向下键】选择“版本”菜单。
- 2.按【OK键】进入“版本”子菜单，此时可查看相机当前版本信息。
- 3.再次按【OK键】可返回到设置菜单模式。

注意：

设置菜单操作

- 1.此设置菜单可以进行基本设定：如时间、语言，光频，自动关机模式等。
- 在录影模式，拍照模式和回放模式下均可操作，操作方法相同。后面不做重复介绍。

3.5 设置WIFI连接

本机在WIFI模式下可用手机进行远程操作，以下将详细介绍连接WIFI后的功能及相关应用。

- 1.在录影模式或拍照模式下，长按【菜单键】3秒，开启WIFI功能，此时本机屏幕左上角显示“AP mode”，屏幕中间显示“SSID:HDV，PWA2:12345678”，屏幕下方显示“Refresh”及“WIFI_OFF”字符。
- 2.拨动【变焦键】可在“Refresh”与“WIFI OFF”之间切换。切至“Refresh”时，按【OK键】，会重新刷新WIFI信号。切至“WIFI_OFF”时，按【OK键】，可关闭WIFI功能，并返回到预览主界面。
- 3.安卓系统手机及平板，进入Google Play 应用商店搜索APP“Roadcam”文件下载安装。
- 4.IOS系统手机及平板，进入APP Store 应用商店搜索APP“Roadcam”文件下载安装。
- 5.通过扫描以下二维码亦可下载安装APP“Roadcam”文件。



- 6.打开手机“设置”功能，点击“WIFI”进入子菜单，搜索本机设备WIFI名“HDV”点击连接设备，按提示输入设备连接密码“12345678”点击确认连接成功即可。
- 7.打开手机安装好的的APP“Roadcam”进入即可对相机进行远程拍照、录影、回放等相关操作。

注：因应用设备品牌及操作系统不同，操作方法可能存在一定差异，但WIFI连接方法一致，不影响用户操作和使用本机。

4.1 技术规格

影像感应器	CMOS 800万像素感应器
存储媒体	支持Class10 以上的SD/SDHC卡, 可扩展最大内存至128GB
感光度	自动, ISO100, ISO200, ISO400
镜头	固定镜头F:3.2, f=7.5mm
对焦范围	正常:1.0m~无限远
静态影像	格式:JPEG分辨率:5M, 8M, 12M, 16M, 20M, 24M, 30M (插值)
视频片段	格式: MP4, 支持H.264 分辨率: 2880x2160 24fps, 2560x1440 30fps, 1920x1080 60fps, 1920x1080 30fps, 1280x720 60fps, 1280x720 30fps
防抖功能	支持, EIS电子防抖
红外夜视灯	< 3m范围
白平衡	自动/日光/阴天/钨丝灯/荧光灯
曝光补偿	-3.0EV ~ +3.0EV
自动关机	关、3分钟、5分钟、10分钟
计算机接口	USB2.0 (高速)
液晶屏幕	3.0英寸IPS高清显示屏
变焦	16X数码变焦
内置麦克风	支持
扬声器	内置
高清输出	支持
无线WIFI	支持, 手机互联
红外遥控	支持, 6米信号无卡顿
电源适配器	支持
语言	English/ Francais /Espanol/Portugues/Deutsch/Italiano/ 简体中文/繁體中文/Русский/日本語
尺寸(不含电池)	120 (长) ×57 (宽) ×61 (高) mm
重量(不含电池)	约265±5g(不含电池)

4.2 常见故障与解决

出现问题	可能原因	解决办法
无法开机	未正确安装电池/电池电量不足	按手册正确装入电池/为电池充电
突然黑屏	已启用省电功能/电池电量不足	重新开机/为电池充电
无法摄像或拍照	存储卡未格式化	将存储卡格式化
	存储卡速度太低	更换Class 10或以上速度的存储卡
	存储卡写保护	解除存储卡写保护
正常拍照不清晰	镜片脏污或有异物	用专用软布清理镜头并保持清洁
提示存储卡错误	存储卡保护	解除存储卡保护
	存储卡格式不对/存储卡损坏	格式化存储卡或更换合格的存储卡
工作中死机	存储卡不合格	更换合格的存储卡
照片/影像颜色错乱	相机白平衡/特效/曝光等参数设置错误	正确设置参数。 如果不知道设置, 请恢复出厂设置
遥控器不能操作	相机接收窗口被遮挡	解除遮挡物
	遥控器电池无电	更换电池
	距离太远	靠近使用
外置麦克风工作异常	外置麦克风电量不足	请为麦克风充电
	外置麦克风未正确连接	正确连接
	外置麦克风参数不正确	选用正确参数的麦克风
连接计算机异常	错误连接或USB线缆损坏	重新连接或更换USB线缆
用计算机播放卡顿	计算机配置太低	使用符合要求的计算机

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Hazard, safety and warning

Improper use of the camera and accessories can be dangerous and can damage the camera or cause serious accidents.

Therefore, We require that you read and follow the following precautions regarding hazards, safety and warnings.

Harm to children and people who are unable to operate the camera

◇The camera and accessories are not children's toys. Children and incompetent people are prohibited from accessing cameras and accessories. These may cause electric shock, poisoning and suffocation. Make sure to stay away from children and incapable people.

◇The camera is forbidden to be used by children or incapable people and can only be used by people who are physically and mentally safe to operate.

Power and electric shock hazard

◇If liquid or foreign matter has entered the camera, you should immediately turn off the camera and remove the battery, otherwise there is a danger of fire or explosion.

◇If the camera is damaged or the casing is damaged, you should turn off the camera and remove the battery, otherwise there is a danger of fire or explosion.

◇Plug in the power adapter to continue to power the camera, but it may also cause a risk of electric shock. When using the power adapter, you should not cover any items and keep them ventilated, otherwise there is a danger of fire.

◇Do not use an external power supply during thunder or lightning, otherwise there is a danger of electric shock.

About the LCD screen

?The LCD screen is made of glass and is easily broken. Please be careful.

?If the LCD screen breaks, you should not touch the liquid that is flowing out. If the skin comes into contact with liquid, you should rinse immediately with plenty of water.

?If liquid gets into your eyes, you should rinse immediately with plenty of water and seek medical attention immediately.

?If you accidentally swallow liquid, rinse your mouth with water, then dilute with plenty of water and seek medical attention immediately.

Use safety warning

?Do not drop, bump, or puncture the camera as this may result in damage to the camera.

?Do not use corrosive chemicals to clean the camera as this may damage the camera.

?There are no user-serviceable parts on the camera. Do not open the case or repair it yourself. In case of malfunction, please find a professional to repair, or contact the

Use and storage environment

This camera can be used to take photos and video clips. It is designed for private use and it is not suitable for commercial purposes.

This product is suitable for using in environments with temperatures between -10°C and 45°C and humidity $\leq 70\%$. Do not use or store the camera in the following environments:

Damp or dusty place

High temperature or sun exposure

Cold district

a place with strong vibration

Waste treatment

Do not discard cameras, accessories, and packaging at will.

Electronic equipment cannot be disposed of as household waste. Please follow the local legal requirements, according to the requirements of different environments, separate types to do different treatment.

The battery cannot be disposed of as household waste. Please return used batteries to a public collection point or battery retailer as required by local law.

Please use the collection point and your local municipal collection point or contact the trader who purchased the product. These will prevent potentially harmful effects on the environment and health due to improper handling. For more detailed information, please contact your local municipal authority.

Pre-use check

To ensure your benefit, you must first install a memory card for a test shot before using the camera in any important occasion. We do not burden any additional damage caused by improper use or camera malfunction.

About this manual

This manual is intended only as a general guide to use of the product. All pictures in this manual are for reference only, please refer to the final product.

We strive to ensure that the contents of this manual are correct and up to date. In the event of any inconsistency between the contents of this manual and the machine due to product updates or software upgrades, please refer to the real product as standard, the actual contents of the manual are subject to change without notice.

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Pentium is a registered trademark of Intel Corporation.

Macintosh is a registered trademark of Apple Inc.

Other names may be trademarks or trademarks of the respective owners.

Welcome to use this product, we will be happy to serve you!

Please read this manual carefully before using. Please keep this manual in a safe place for your reference.

This HD camera that supports 4K HD resolution and WIFI wireless features has the following features:

4K Resolution

8 MP CMOS sensor

Loop video

Infrared night vision light

Webcam

Support H.264

60 frames of high speed photography

Face recognition

3.0 inch IPS HD screen

Infrared remote control operation

WIFI wireless, mobile phone operation

Maximum 128G memory card

Motion detection

Removable rechargeable battery

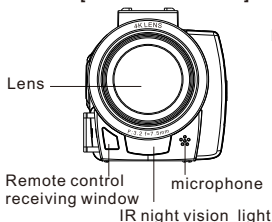
1.1 System Requirements

The camera can be connected to a computer for file copying, viewing, playback, and computer camera functions. The camera can also be used as a USB flash drive. When connecting to a computer, the computer must have at least the following specifications:

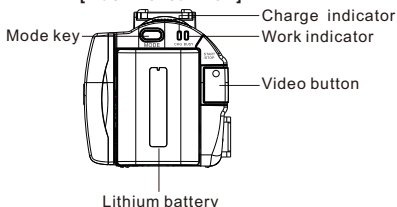
Pentium 2.0 GHz or above processor / Windows xp or above system / 2 GB memory / 80 GB or more free disk space / standard USB 2.0 or above / 1 GB or more graphics card / 1024x768 pixels or higher screen resolution. If the computer configuration is low, it may not work properly or play back when connected to the camera.

1.2 Camera introduction

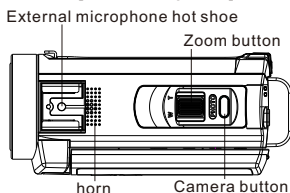
[machine front view]



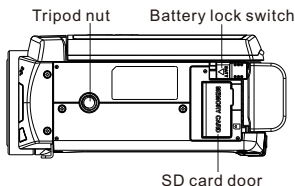
[machine rear view]



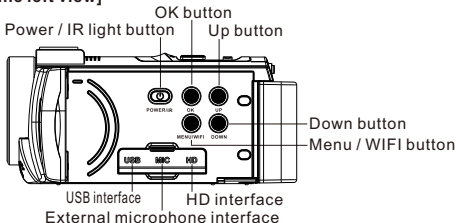
[machine top view]















[bottom view of the machine]



[machine left view]



1.3 Button function description

Icon	Button name	Function Description
	Power button	Short press to turn on the power / long press to turn off the power, short press to turn on/off IR light after power on
	Mode key	Switch video/photo/playback:  Representing the video mode,  representing the photo mode,  representing the playback mode
	Menu key	In each mode: press this button to call up the control menu, press and hold for 3 seconds to turn on WIFI
	OK button	OK button to confirm operation
	Up button	Move direction up
	Down button	Move direction down
	Zoom button	In the photo and video mode, the left and right toggle to achieve zoom; in the playback mode, enter the nine squares; in the video playback mode, adjust the volume; in menu, pull to select menu
	Photo button	Take a photo in the photo mode, pause/play in the video mode
	Video/stop button	Start/stop recording in video mode; play/stop playing in playback mode

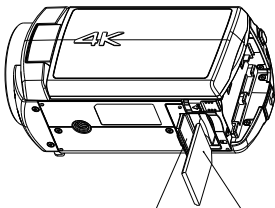
2. Start using

This chapter helps you understand the basic functions of the camera.

2.1 Loading a Memory Card

This camera can be loaded with a memory card to store more photos, videos or other files. When the battery power is low or the battery is replaced, the media files in the memory card are not lost. Please follow the steps below to load the memory card.

1. Flip up to open the SD memory card door.
2. As shown in the figure, make sure that the metal contacts of the memory card are inserted and pushed down. When you hear a click, the memory card is loaded correctly.
3. Push the SD memory card door inward and snap it until you hear a click.



1. Open the SD card door (Toggle outside to open the SD card door, flip inside to close the SD card door)

2. Insert the SD card as shown (SD card gap point down)

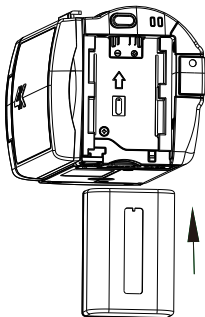
Note:

Memory card speed must be Class 10 or above, please use a regular brand of memory card. When using a new memory card, first format the memory card with the camera format function. Do not insert or remove the memory card during work, this will damage the memory card or lose data! Some memory cards may cause the camera to crash or work abnormally. Please install it and pay attention to compatibility.

2.2 Loading the battery

This camera uses an external lithium battery. Please install the battery correctly before using. Please refer to the illustration below.

1. Install the lithium battery into the battery compartment as shown.
2. Push the battery up and hear a click, and the installation is complete.



2. Push the battery up and hear a click, and the installation is complete.

1. Install the lithium battery into the battery compartment as shown.

Note:

1. Please install the battery correctly. If the installation is wrong, it will not turn on or damage the camera, and it may cause an accident!
2. Do not use lithium batteries and power adapters that are not standard with the camera.
3. Power adapter specification: input AC 100~240V/50~60Hz, output DC 5V/1A.

2.3 Charging the battery

1. Install the battery, connect the camera and the power adapter with a USB cable, and connect the power adapter to the mains. The camera charging indicator lights up, indicating that charging is in progress, charging is complete, and the indicator is off.
2. You can also connect your computer to charge the camera. Install the battery, connect the camera with a USB cable, and connect the other end of the USB cable to the computer's USB interface. The camera light is on, indicating that charging is in progress, charging is complete, and the indicator is off.
3. The camera power adapter specifications are: input AC 100~240V/50~60Hz, output DC 5V/1A. Please confirm the local power supply specifications and then use.
4. Shoot while charging. To accommodate long-time shooting, the camera supports taking photos or videos while charging. When using this feature, use the power adapter to connect to the mains to power the camera.

Note:

Before using the mains charging, you must confirm that the local power supply specifications meet the requirements!



Please ensure that the charging process is ventilated and that no objects are covered. After charging is complete, remove the power supply as soon as possible!

Do not use a computer to power the camera while shooting while charging, otherwise the computer may be damaged!

2.4 Turning the camera on and off

1. Install the battery and press [Power button] to turn on the camera.
2. With the power on, long press the [Power button] to turn off the camera.
3. The camera supports the on/off function of the on-screen. When the screen is opened, it can be turned on automatically, and the camera will be automatically turned off when the screen is closed.
4. The camera supports the automatic on/off function. When it is not used for a long time, it will automatically shut down to save power. When the battery power is low, the screen will display "Low Battery Power" and will automatically shut down later.

2.5 Switching mode of operation

2.5.1 The camera supports three working modes and one setting mode:

Video mode: The "📹" icon is displayed in the upper left corner of the screen, where you can record videos and set related parameters.

Photo mode: The "📷" icon is displayed in the upper left corner of the screen, where you can take photos and set related parameters.

Playback mode: The "▶" icon is displayed in the upper left corner of the screen, and you can play back photos or videos, and you can also perform related operations.

Setting mode: There is a "⚙️" icon at the top left of the screen, which sets the camera's system parameters.

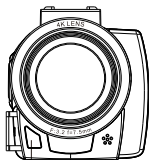
2.5.2 Switching the working mode

Press [Mode button] to switch the working mode: photo mode/video mode/playback mode, and each mode icon is displayed in the upper left corner of the screen.

2.6 Instructions for using the remote control

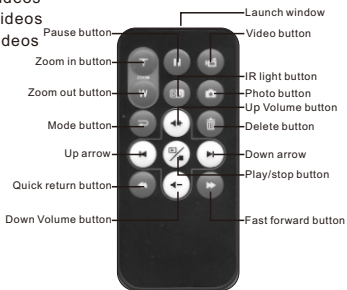
The camera can also be operated using the remote control. The function of each button of the remote control is as follows:

- 1.Video button: Record/stop recording in video mode
- 2.Photo button: take a photo in the photo mode
- 3.Pause button: Pause/play video in playing video
- 4.IR light button: Turn on/off night vision light in video/photo mode
- 5.Zoom in button: zoom in in video mode/photo mode
- 6.Zoom out button: Zoom out in video mode/photo mode
- 7.Mode button: switch among video mode、photo mode and playback mode
- 8.Delete button: Quickly delete files in playback mode
- 9.Up Volume button: add Volume in playing videos
- 10.Down Volume button: decrease Volume in playing videos
- 11.Up arrow: in playback mode, flip the file up
- 12.Down arrow: in playback mode, scroll down the file
- 13.Play/stop button: Play/stop video in playing videos
- 14.Fast forward button: Fast forward in playing videos
- 15.Quick return button: Quick return in playing videos



Remote control receiving window

Remote control drawing



Note:

Remove the remote battery protector before using the remote control. When using the remote control, point the remote control at the remote control receiving window of the camera, and there should be no object between the remote and the camera.

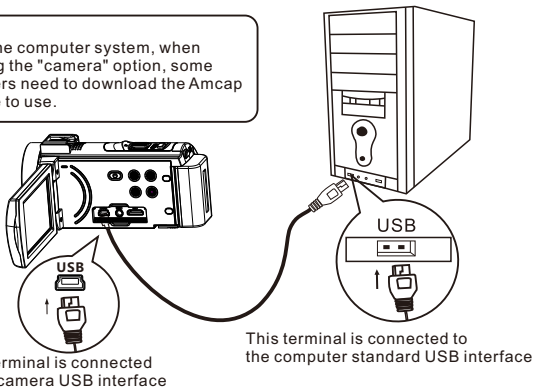
2.7 Connecting to a computer

The camera can be connected to a computer to transfer files, view and edit videos and photos.

After connecting to the computer, select the "Removable Disk" option and the camera can be used as a USB flash drive. When the "Camera" option is selected, the camera can be used as a camera. As shown below:

Note:

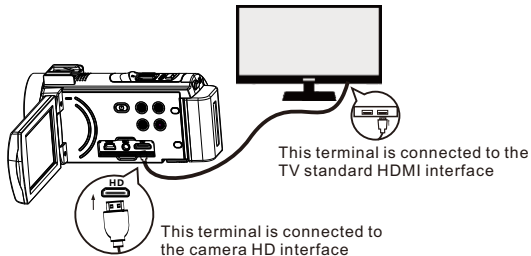
Due to the computer system, when selecting the "camera" option, some computers need to download the Amcap software to use.



2.8 Connecting to a TV

In addition to being connected to a computer, the camera can also be connected to a TV as follows:

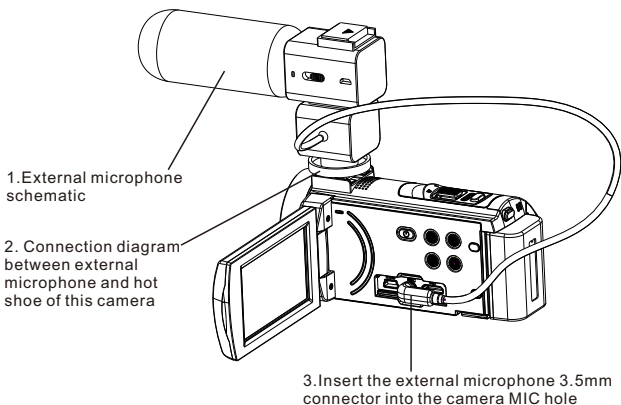
1. Connect the camera's HD interface to the HD interface of the TV with a high-definition cable.
2. Adjust the signal mode of the TV to HDMI, and pay attention to whether the HDMI plug-in interface and signal mode are consistent (example: HDMI 1 interface corresponding signal is HDMI 1).
3. Turn on and operate the camera and images will be displayed on the TV as shows.



2.9 Using an external microphone (microphone is optional)

This camera supports external microphones, which can effectively reduce the noise of surrounding environment and improve the quality of the video to give users a better sound quality experience.

1. Please carefully read the external microphone product features, technical parameters, function operation, instructions for use and precautions before use so as to avoid damage to the camera.
2. Install the external microphone on the camera in this direction on the hot shoe.
3. Insert the external microphone 3.5mm connector into the camera's MIC hole and turn on the microphone switch.



2.10 Using the zoom function

This camera is equipped with a digital zoom function for zooming during shooting. Move the [Zoom button] to the right to zoom in closer to the subject (zoom in on the subject), and to the left [Zoom button] to zoom away from the subject (zoom out).

2.11 Using infrared night vision mode

This camera has set infrared night vision mode for taking pictures or taking video in dark environments.

In the camera or camera mode, short press the [Power button] to turn on the infrared night vision light, and the night vision light icon is displayed on the left side of the screen. The machine enters night vision mode. At this time, the screen is displayed in black and white, and the captured picture or video is also black and white. Press [Power Button] again to return to normal shooting mode.

Note:

The infrared night vision mode can be turned on/off in the video/photo mode, and the infrared light can be turned on/off during the recording process.

In night vision mode, only black and white photos or videos can be taken, and color files cannot be taken.

The zoom function can be used in both the photo and shooting modes, using the same method.

3. Using the camera

This chapter helps you learn how to use the camera.

3.1 Video mode

After the camera is turned on, it automatically enters the video mode. After entering the video mode, some icons will be displayed on the screen. The meanings are as follows:

1 Video mode indicator	6 Zoom indicator	11 Menu indicator
2 Resolution & frame rate indicator	7 Battery power indicator	12 Infrared night vision indicator
3 Motion detection indicator	8 Time indicator	13 Exposure compensation indicator
4 External microphone schematic indicator	9 Date indicator	
5 Recordable time indicator	10 SD card indicator	



3.1.1 Video function operation

1. Insert the memory card correctly, install the battery, press [Power button] to turn it on (this camera has the function of turning on automatically when screen is opened).

2. When the camera is turned on, it will automatically enter the video mode. You can also press [Mode] to switch from other modes to the video mode. At this time, the " " icon appears in the upper left corner of the display screen.

3. Refer to the image displayed on the screen to select and adjust the subject, hold the camera steady, and press the [Video button] to start shooting.

4. During the recording, the red icon flashes at the top right of the screen and the indicator flashes. At this time, press [Photo button] to pause/continue recording, press [Video button] again to stop shooting.

5. The captured file will be automatically reserved to the memory card of this camera. If the memory card is full, the screen will display the "Memory Full" prompt and the recording will end automatically. You need to replace a new memory card or delete the files on this memory card to continue recording.

3.1.2 Resolution

This function can set the resolution of the video. The higher the resolution, the larger the video file, and the more space is occupied. On the contrary, the lower the resolution, the smaller the file size.

1. In the video mode, press the [Menu] key to show the menu and press the [Up-down key] to select the "Resolution" menu.

2. Press [OK key] to enter the "Resolution" submenu.

3. Press [Up-down key] to select the desired video and video resolution:
2880*2160*24fps, 2560*1440*30fps, 1920*1080*60fps, 1920*1080*30fps,
1280*720*60fps, 1280*720*30fps.

4. Press [OK key] to confirm and return to the video menu mode.

3.1.3 Loop recording

Set this function to record video in a loop, that is, automatically start recording the next video when it is full.

1. In the video mode, press [Menu] to show the menu, and press [Up-down key] to select the "Loop recording" menu.
2. Press [OK key] to enter the "Loop recording" submenu.
3. Press [Up-down key] to select the mode for the desired loop recording: Off / 3 minutes / 5 minutes / 10 minutes.
4. Press [OK key] to confirm and return to the video menu mode.

3.1.4 Exposure

This function can adjust the brightness of the captured video according to the ambient brightness. The higher the EV value, the higher the brightness of the captured video file, the smaller the EV value, and the darker the captured video. Adjusting this function is not effective when the ambient brightness is low.

1. In the video mode, press the [Menu] to show the menu and press the [Up-down key] to select the "Exposure" menu.
2. Press [OK key] to enter the "Exposure" submenu.
3. Press [Up-down key] to select the desired exposure value option: -3.0EV/-2.0EV/-1.0EV/0EV/+1.0EV/+2.0EV/+3.0EV.
4. Press [OK key] to confirm and return to the video menu mode.

3.1.5 White balance

This can adjust the color deviation of the shooting picture according to different light source environments. Automatic mode is recommended.

1. In the video mode, press the [Menu] to show the menu, and press the [Up-down key] button to select the "White Balance" menu.
2. Press [OK key] to enter the "White Balance" submenu.
3. Press [Up-down key] to select the desired white balance: Auto / Daylight / Cloudy / Tungsten / Fluorescent.
4. Press [OK key] to confirm and return to the video menu mode.

3.1.6 Color

This feature allows you to set various special effects when recording video files according to your personal preferences.

1. In the video mode, press the [Menu] to show the menu and press the [Up-down key] to select the "Color" menu.
2. Press [OK key] to enter the "Color" submenu.
3. Press [Up-down key] to select the special effect you want: Color/Black & White/Sepia.
4. Press [OK key] to confirm and return to the video menu mode.

3.1.7 Metering

This setting adjusts the desired mode depending on the scene you are shooting.

1. In the video mode, press [Menu] to show the menu, and press [Up-down key] to select the "Metering" menu.
2. Press [OK key] to enter the "Metering" submenu.
3. Press [Up-down key] to select the desired metering mode: Center-weighted/ Spot/ Average.
4. Press [OK key] to confirm and return to the video menu mode.

3.1.8 Motion Detection

When this function is turned on, it can automatically detect moving pedestrians or objects and record video.

1. In the video mode, press the [Menu] key to show the menu, and press the [Four Directions] to select the "Motion Detection" menu.
2. Press [OK key] to enter the "Motion Detection" submenu.
3. Press [Up-down key] to select the desired function mode: Off / On.
4. Press [OK key] to confirm and return to the video menu mode.

3.1.9 Record Audio

This function turns the sound of the recording on or off, and the user can turn it on or off according to his or her preference.

1. In the video mode, press the [Menu] to show the menu and press the [Up-down key] button to select the "Record Audio" menu.
2. Press [OK key] to enter the "Record Audio" submenu.
3. Press the [Up-down key] to select the desired function: Off / On.
4. Press [OK key] to confirm and return to the video menu mode.

3.1.10 Date Stamp

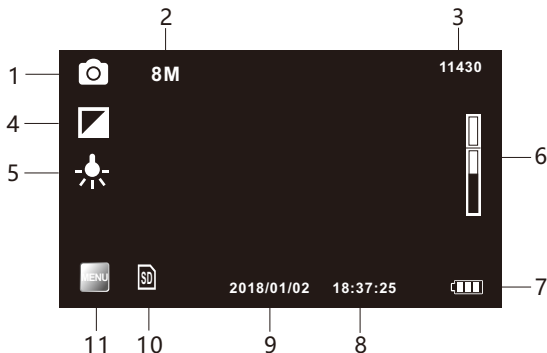
This function sets the time and date displayed on the captured video to distinguish the time the video was taken.

1. In the video mode, press [Menu] to show the menu and press [Up-down key] to select the "Date Stamp" menu.
2. Press [OK key] to enter the "Date Stamp" submenu.
3. Press [Up-down key] to select whether to display the date and time on the video file: Off / On.
4. Press [OK key] to confirm and return to the video menu mode.

3.2 Photo mode

Press [Mode button] to switch to the photo mode. After entering the photo mode, the screen will display some icons, the meaning of which is as follows:

1 Photo mode indicator	5 Infrared light indicator	9 Date indicator
2 Resolution indicator	6 Zoom indicator	10 SD card indicator
3 Remaining number of photos	7 Battery power indicator	11 Menu indicator
4 Exposure compensation indicator	8 Time indicator	



3.2.1 Photo function

In the photo mode, it can help you take a very beautiful photo by setting the menus. The details are as follows:

1. Insert the memory card correctly, install the battery, and press [Power button] to turn it on (this camera has the function of turning on automatically when screen is opened).
2. Press the [Mode button] to switch from the other mode to the photo mode. At this time, the "📷" icon appears in the upper left corner of the display.
3. Point the camera lens at the subject you want to take, adjust the angle and orientation, and hold and keep the camera steady.
4. Press [Photo button] lightly to hear the "beep" sound indicating that the photo has been completed.
5. The recorded file will be automatically saved to the memory card of this camera. If the memory card is full, the screen will display "Memory Full", then you need to replace a new memory card or delete the files in this card then can continue to take pictures. In the photo mode, the user can first set the parameters of the photo menu, and then take the photo, the various menus under the photo menu, the specific operation is as follows. If you are not familiar with this camera, you can also use the camera's default settings.

3.2.2 Capture Mode

This function can set various shooting modes of photos, and users can set them according to their preferences.

1. In the photo mode, press [Menu] to show the menu, and press [Up-down key] to select the "Capture Mode" menu.
2. Press [OK key] to enter the "Capture Mode" submenu.
3. Press the [Up-down key] to select the desired mode: Single / 2S Timer / 5 S Timer / 10 S Timer.
4. Press [OK key] to confirm and return to the photo menu mode.

3.2.3 Resolution

This unit can set the image resolution size. The higher the image resolution, the better the photo quality and the larger the size.

1. In the photo mode, press [Menu] to show the menu and press [Up-down key] to select the "Resolution" menu.
2. Press [OK key] to enter the "Resolution" submenu.
3. Press [Up-down key] to select the photo mode: 5M/8M/12M/16M/20M/24M/30M.
4. Press [OK key] to confirm and return to the photo menu mode.

3.2.4 Sequence

This function sets the number of consecutive shots of the camera.

1. In the photo mode, press [Menu] to show the menu and press [Up-down key] to select the "Sequence" menu.
2. Press [OK key] to enter the "Sequence" submenu.
3. Press [Up-down key] to select the continuous camera option: Off / On.
4. Press [OK key] to confirm and return to the photo menu mode.

3.2.5 Quality

This feature allows the user to adjust the quality of the photo, which the user can set according to their preferences.

1. In the photo mode, press [Menu] to show the menu and press [Up-down key] to select the "Quality" menu.
2. Press [OK key] to enter the "Quality" submenu.
3. Press [Up-down key] to select the desired photo quality: Fine / Normal / Economy.
4. Press [OK key] to confirm and return to the photo menu mode.

3.2.6 Sharpness

This feature allows the user to adjust the sharpness of the photo to make the edges of the photo sharper or softer.

1. In the photo mode, press [Menu] to show the menu and press [Up-down key] to select the "Sharpness" menu.
2. Press [OK key] to enter the "Sharpness" submenu.
3. Press the [Up-down key] to select the desired photo sharpness: Strong/Normal/Soft.
4. Press [OK key] to confirm and return to the photo menu mode.

3.2.7 White Balance

This function adjusts the color deviation of the picture according to different light source environments.

1. In the photo mode, press the [Menu] to show the menu. Press the [Up-down key] to select the "White Balance" menu.
2. Press [OK key] to enter the "White Balance" submenu.
3. Press [Up-down key] to select the desired mode: Auto / Daylight / Cloudy / Tungsten / Fluorescent.
4. Press [OK key] to confirm and return to the photo menu mode.

Note:

This function does not work when the ambient brightness is low.

3.2.8 Color

This feature allows you to set various special effects when taking photo files according to your personal preference.

1. In the photo mode, press the [Menu] to show the menu and press the [Up-down key] button to select the "Color" menu.
2. Press [OK key] to enter the "Color" submenu.
3. Press [Up-down key] to select the special effect you want: Color/Black & White /Sepia.
4. Press [OK key] to confirm and return to the photo menu mode.

3.2.9 ISO

This function adjusts the sensitivity and it is recommended to use the automatic mode.

1. In the photo mode, press the [Menu] to show the menu. Press [Up-down key] to select the "ISO" menu.
2. Press [OK key] to enter the "ISO" submenu
3. Press [4] to select the desired ISO value: Auto /100/200/400.
4. Press [OK key] to confirm and return to the photo menu mode.

3.2.10 Exposure

This setting allows the user to adjust the brightness of the picture taken according to the ambient brightness. Please note that this function is not effective when the ambient brightness is low.

1. In the photo mode, press the [Menu] to show the menu. Press [Up-down key] to select the "Exposure" menu.
2. Press [OK key] to enter the "Exposure" submenu.
3. Press [Up-down key] to select the desired exposure value: EV value (from +3.0 EV to -3.0 EV).
4. Press [OK key] to confirm and return to the photo menu mode.

3.2.11 Face Detection

Turn this on of the camera can automatically recognize faces when taking pictures.

1. In the photo mode, press the [Menu] key to show the menu, and press the [Up-down key] to select the "Face Detection" menu.
2. Press [OK key] to enter the "Face Detection" submenu.
3. Press the [Up-down key] to select the desired function: Off / Face Detection.
4. Press [OK key] to confirm and return to the photo menu mode.

3.2.12 Anti-Shaking

This function can turn the camera's electronic anti-shake function on or off. When this function is enabled, it can reduce the blurring of the photos taken due to hand shake.

1. In the photo mode, press [Menu] to show the menu, and press [Up-down key] to select the "Anti-Shaking" menu.
2. Press [OK key] to enter the "Anti-Shaking" submenu.
3. Press [Up-down key] to select whether to turn on the anti-shake function: Off / On.
4. Press [OK key] to confirm and return to the photo menu mode.

3.2.13 Date Stamp

This function allows you to set the time and date displayed on the pictures taken to distinguish the time of the picture was taken.

1. In the photo mode, press [Menu] to show the menu and press [Up-down key] to select the "Date Stamp" menu.
2. Press [OK key] to enter the "Date Stamp" submenu.
3. Press [Up-down key] to select whether to display the date and time on the photo file: Off/Date/Date & Time.
4. Press [OK key] to confirm and return to the photo menu mode.

3.3 Playback mode

The video/photo taken by this camera can be played back for viewing. It can be protected, deleted, and played in slideshows.

3.3.1 Delete

This feature allows you to delete video/photo files recorded by the camera.

1. In playback mode, press [Menu] to show the menu and press [Up-down key] to select the "Delete" menu.
2. Press [OK key] to enter the "Delete" submenu.
3. Press [Up-down key] to select the desired operating mode: Delete Current/Delete All.
4. Press [OK key] to confirm entering the submenu and select "Cancel/OK" to delete the current file or delete all files.
5. Press [OK key] to confirm and return to the playback menu mode.

Note:

1. Delete current: refers to deleting the video/photo file viewed by the current camera.
2. Delete all: It means to delete all the files recorded by the camera.
3. The delete operation cannot delete the locked file.

3.3.2 Protect

This feature protects video/photo files from locks and unlocks.

1. In playback mode, press [Menu] to show the menu and press [Up-down key] to select the "Protect" menu.
2. Press [OK key] to enter the "Protect" submenu.
3. Press [Up-down key] to select the desired operating mode: Lock Current/Unlock Current/ Lock All/ Unlock All.
4. Press [OK key] to confirm and return to the playback menu mode.

1. Lock current: refers to the video/photo file currently locked.
2. Unlock current: means to unlock the currently viewed video/photo file.
3. All lock: refers to all video/photo files of the camera locked.
4. Unlock all: It means to unlock all video/photo files of the camera.

3.3.3 Slide Show

When you turn this feature on, the photos you take can be viewed in sequence.

1. In playback mode, press [Menu] to show the menu, and press [Up-down key] to select the "Slide Show" menu.
2. Press [OK key] to enter the "Slide Show" submenu.
3. Press [Up-down key] to select the desired operating mode: 2 seconds/5 seconds / 8 seconds.
4. Press [OK key] to confirm and start the slide show.
5. During playback, press [Photo Key] to pause the current slide show. Press [Video Key] to cancel the current slide show.

3.4 Operation in setup mode

This function can set the camera's system parameters. In this mode, you can set the camera's language, button sound, light source frequency, etc., as follows.

1. In the photo mode/record mode/playback mode, press the [Menu] to show the menu.
 2. Press [Up-down key] to switch between the current mode and the setting mode. After switching to the setting mode, there is a "✂" icon at the top left of the screen.
- In this menu, the user can make the corresponding settings according to the selection. The specific operations are as follows:

3.4.1 WIFI

This function can turn on the WIFI function of this camera, or it can be directly opened by the shortcut key (press [MENU/WIFI key] and hold for 3 seconds).

1. In the setup mode, press the [Up-down key] to select the "WIFI" menu.
2. Press [OK key] to enter the "WIFI" submenu.
3. Press [Up-down key] to select the desired mode: Off / On.
4. Press [OK key] to confirm the operation and return to the setup mode menu.

3.4.2 Date/Time

This feature allows you to set the machine date and time.

1. In the setup mode, press the [Up-down key] to select the "Date/Time" menu.
2. Press [OK key] to enter the "Date/Time" submenu.
3. Turn the [Zoom button] to move the cursor, then press [Up-down key] to set "Year/Month/Day/Hour/Minute/ Second".
4. Press [OK key] to confirm the operation and return to the setup mode menu.

3.4.3 Auto Power Off

This function can set the camera to automatically shut down when there is no operation for a certain period of time to save power.

1. In the setup mode, dial the [Up-down key] to select the "Auto Power Off" menu.
2. Press [OK key] to enter the "Auto Power Off" submenu.
3. Press [Up-down key] to select the interval between power saving modes: Off / 3 minutes / 5 minutes / 10 minutes.
4. Press [OK key] to confirm the operation and return to the setup mode menu.

3.4.4 Beep sound

This function can turn the camera button sound on or off according to user needs.

1. In the setup mode, press [Up-down key] to select the "Beep Sound" menu.
2. Press [OK key] to enter the "Beep Sound" submenu.
3. Press [Up-down key] to select the desired requirement: Off / On.
4. Press [OK key] to confirm the operation and return to the setup mode menu.

3.4.5 Language

This function can set the corresponding operating language for the camera according to user needs.

1. In the setup mode, press the [Up-down key] to select the "Language" menu.
2. Press [OK key] to enter the "Language" submenu.
3. Press [Up-down key] to select the desired language: English/ Francais /Espanol/Portugues/Deutsch/Italiano/简体中文/繁體中文/Русский/日本語.
4. Press [OK key] to confirm the operation and return to the setup mode menu.

3.4.6 Frequency

This function can set to synchronize with the user's source frequency to avoid flickering in the lighting environment, according to local power standards.

1. In the setting mode, press the [Up-down key] to select the "Frequency" menu.
2. Press [OK key] to enter the "Frequency" submenu.
3. Press [Up-down key] to select the correct optical frequency: 50Hz/60Hz.
4. Press [OK key] to confirm the operation and return to the setup mode menu.

3.4.7 Format

This function can format the camera memory card. After formatting, all files on the memory card will be deleted and cannot be restored. Please use this function with caution.

1. In the setup mode, press the [Up-down key] key to select the "Format" menu.
2. Press [OK key] to enter the "Format" submenu;
3. Press [Up-down key] to select whether to format the memory card: Cancel / OK
4. When "Cancel" is selected, the formatting function selection is not performed.
5. When "OK" is selected, press [OK key] to execute. After the formatting is completed, it will automatically return to the setup menu mode.

3.4.8 Default Setting

When the user does not work properly due to a menu setting error, this function can be restored to the factory default settings.

1. In the setup mode, press [Up-down key] to select the "Default Setting" menu.
2. Press [OK key] to enter the "Default Setting" submenu.
3. Press [Up-down key] to select whether to restore the default setting operation: Cancel / OK.
4. When "Cancel" is selected, the restore default setting function is not executed.

3.4.9 Version

This feature allows you to view the software version of the camera's operating system.

1. In the setting mode, press the [Up-down key] to select the "Version" menu.
2. Press [OK key] to enter the "Version" submenu. At this time, you can view the current version information of the camera.
3. Press [OK key] again to return to the setup menu mode.

Note:

Setup menu operation

1. This setup menu allows you to make basic settings such as time, language, optical frequency, auto power off mode, and more.

It can be operated in the video mode, the shooting mode and the playback mode, and the operation method is the same.

3.5 WIFI connection

This camera can be operated remotely in WIFI mode. The functions and related applications after connecting WIFI will be described in detail below.

1. In video/photo mode, press and hold the [Menu] key for 3 seconds to turn on the WIFI function. At this time, the "AP mode" is displayed in the upper left corner of the screen. "SSID: HDV, PWA2: 12345678" is displayed in the center of the screen, and "Refresh" and "WIFI_OFF" are displayed at the bottom of the screen interface.
2. Turn the [Zoom button] to switch between "Refresh" and "WIFI_OFF". As switching to "Refresh" and press [OK key], WIFI signal will be refreshed; As switching to "WIFI OFF" and press [OK key], WIFI function will be turned off and return to the preview interface of video/photo mode.
3. Android mobile phone and tablet, enter the Google Play Store to download APP "Roadcam" file to install.
4. IOS system mobile phone and tablet, enter the APP Store application to download APP "Roadcam" file to install.
5. You can also download APP by scanning the QR code below:



6. Turn on the "Settings" function of the mobile phone, click "WIFI" to enter the submenu, search for the WIFI name "HDV" of the local device, click the connected device, and enter the device connection password "12345678" as prompted to confirm the connection is successful.
7. Open the mobile phone's installed APP "Roadcam" and go to remote and related operations.

Note: Due to different application equipment brands and operating systems, there may be some differences in operation methods, but the WIFI connection method is consistent, and does not affect the user's operation and use of the machine.

4.1 Technical Specifications

Image sensor	CMOS 8 megapixel sensor
Storage medium	Supports SD/SDHC cards above Class10, which can expand up to 128GB of memory
Sensitivity	Automatic, ISO100, ISO200, ISO400
Lens	Fixed lens F:3.2, f=7.5mm
Focus range	Normal: 1.0m~ infinity
Still image	Format: JPEG resolution: 5M, 8M, 12M, 16M, 20M, 24M, 30M (interpolation)
Video	Format: MP4, support H.264 resolution: 2880*2160*24fps, 2560*1440*30fps, 1920*1080*60fps, 1920*1080*30fps, 1280*720*60fps, 1280*720*30fps
Anti-shake function	Support, EIS electronic anti-shake
Infrared night vision light	<3m range
White balance	Automatic / daylight / cloudy / tungsten light / fluorescent light
Exposure compensation	-3.0EV ~ + 3.0EV
Automatic shut-down	Off, 3 minutes, 5 minutes, 10 minutes
Computer interface	USB2.0 (high speed)
LCD screen	3.0 inch IPS HD display screen
Zoom	16X digital zoom
Built-in microphone	stand by
Speaker	Built in
HD output	stand by
Wireless WIFI	Support, mobile internet
Infrared remote control	Support, within 6 meters
Power Adapter	stand by
Language	English/ Francais /Espanol/Portugues/Deutsch/Italiano/ 简体中文/繁體中文/Русский/日本語.
Size	120 (length) × 57 (width) × 61 (height) mm
Weight	About 265±5g (without battery)

4.2 Common Faults and Solutions

Problems appear	Possible reasons	Solutions
Can not power on	Battery is not installed correctly / battery power is low	Install the battery correctly / charge the battery according to this manual
Sudden black screen	Power saving function / low battery power	Reboot / charge the battery
Can't take photos or take pictures	Memory card is not formatted	Format the memory card
	Memory card speed is too low	Replace the memory card with Class 10 or higher speed
	Memory card write protection	Release memory card write protection
Normal photo is not clear	The lens is dirty or has foreign objects	Clean the lens with a special soft cloth and keep it clean
Prompt memory card error	Memory card protection	Unprotect the memory card
	Memory card format is incorrect / memory card is damaged	Format the memory card or replace a qualified memory card
Crash at work	Memory card failed	Replace a qualified memory card
Photo/image color disorder	Camera white balance /special effects / exposure and other parameter settings are wrong	Set the parameters correctly. If you don't know the settings, please restore the factory settings.
The remote control cannot be operated	Camera receive window is blocked	Unblocking
	Remote control battery is dead	Replacement battery
	distance is too far	Close to use
The external microphone works abnormally.	Battery power of the External microphone is low	Please charge the battery of the External microphone
	External microphone is not connected properly	Correct connection
	External microphone parameters are incorrect	Use the microphone with the correct parameters
Connection computer exception	Incorrect connection or USB cable damage	Reconnect or replace the USB cable
Video can not playback smoothly with a computer	Computer configuration is too low	Use a computer that meets the requirements

All photos in this manual are for reference only. Please in kind prevail.
We reserved the finally explanation right. In case of all data and parameters are modified,
please look the actual. No further information about the changed.

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