

快速入门手册

E3 双接口视频编码器

3G-SDI + 4K HDMI H.265 视频编码器

(V2.9)



通过本手册，您可以了解到

- 设备清单
- 设备接口和功能
- 设备连接、登录和基本应用
- 设备升级和恢复出厂设置

在您正式使用本产品之前，建议您仔细阅读本产品使用说明书。为确保您的人身安全及避免设备受到物理或电气损伤，请严格遵照本说明书的指导或在专业人员指导下进行安装使用本产品。不正确的电气连接或物理安装方式将有可能造成设备的永久损伤，甚至威胁人身安全。

1 设备清单



(1) 主机×1



(2) 电源适配器×1



(3) 冷靴螺丝×1

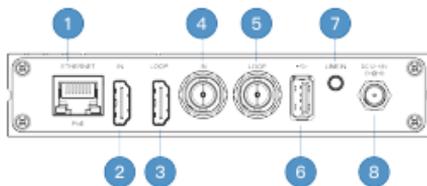


(4) 合格证/保修卡×1

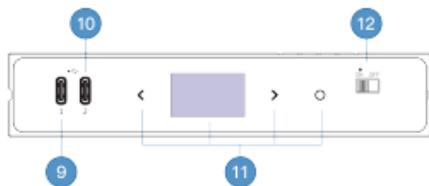


(5) 《快速入门》手册×1

2 设备接口



- (1) 以太网口(1000M BASE-T PoE)
- (2) HDMI IN
- (3) HDMI LOOP
- (4) SDI IN
- (5) SDI LOOP
- (6) USB (TYPE-A)

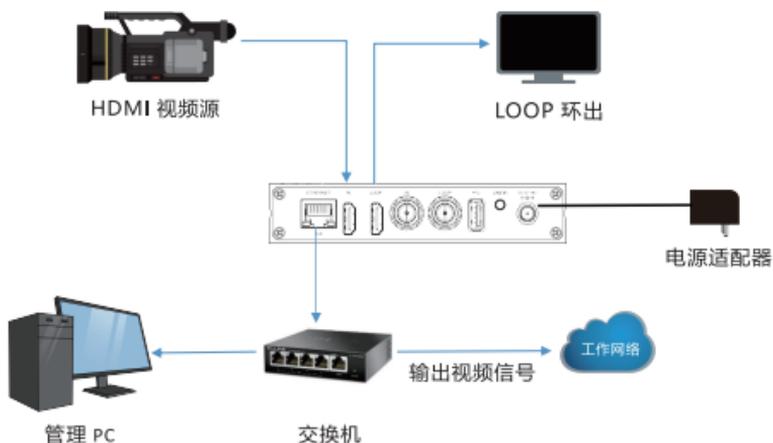


- (7) LINE IN (3.5mm)
- (8) 电源接口 (DC 12V/1A)
- (9) USB (TYPE-C)
- (10) USB (TYPE-C)
- (11) LCD 显示屏及触摸按钮
- (12) 电源开关

3 设备指示灯

LCD显示屏	编码模式下用于指示当前视频的状态			
	绿色常亮	指示当前视频处于PVW预览状态		
	红色常亮	指示当前视频处于PGM输出状态		
电源指示灯	名称	颜色	状态	说明
	Power	白色	常亮	电源已连接
			熄灭	电源关闭或故障

4 应用场景



注意

- 请使用设备标配电源适配器给设备供电，其它不合格电源可能会损坏设备；
- 设备支持 HDMI 和 SDI 同时输入进行单独或混合编码，此处以单独输入 HDMI 信号为例；
- 需确保摄像机输出的 HDMI 线缆连接 HDMI IN 口；
- Loop 不是必须的，当需要环出时连接 HDMI OUT 接口。

5 显示屏和触摸按钮

E3 在正面面板上提供了彩色 LCD 显示屏和触摸按钮。

在显示屏上，您可以便捷地查看设备状态、输入信号源状态，以及网络状态等信息。LCD 显示屏同时也是一个超大的 Tally 状态显示器。

通过点击触摸按钮“<”“>”可进行显示模块的切换，按下○表示“确定”，可进入当前显示模块，更加详细的操作步骤，请见用户手册。

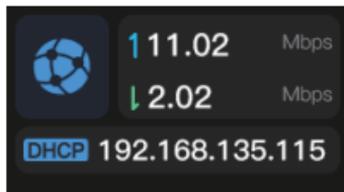


6 查看 IP 地址

在 LCD 显示屏上，您可以便捷地查看设备的 IP 地址。

LCD 显示屏的第四页内容为：设备当前的网络状态。上下箭头表示实时网络上下行速率。

DHCP：表示设备获取的动态 IP 地址。



7 登录设备管理页面

启动设备之后，设备会通过以太网 DHCP 自动获取 IP 地址。在 LCD 显示屏上，您可以便捷地查看设备的 IP 地址。

打开 Web 浏览器，在地址栏输入：<http://设备 IP 地址/>登录设备管理界面。



注意

- 缺省登录设备的用户名是 admin，密码是 admin
- 为保证信息安全，建议您初次登录后，立即修改密码！
- 考虑浏览器的兼容性问题，建议使用 Chrome 或 Edge。

8 使用设备进行工作

8.1 视频接入检查

视频源接入后，E3 允许您通过浏览器实时预览视频。



说明

视频预览窗口默认为“图片”模式，画面每 3 秒刷新一帧；如果维护电脑的 CPU 性能较强，可以点击按钮切换为“视频”模式，您将看到流畅的实时视频。



获取更多关于 E3 编码器的使用帮助，请访问 Kiloview 官方网站地址
<https://www.kiloview.com/cn/encoder/e3>

8.2 流服务

登录 E3 设备的 web 页面之后，可以看到设备功能主要分为三个模块：HDMI 编码、SDI 编码、Mix 混合编码，E3 还支持 SDI 编码和 HDMI 编码同时进行。点击 WEB 最左侧的导航栏 HDMI/SDI/Mix 即可实现不同视频源编码参数的设定。

HDMI 编码模块与 SDI 编码模块功能一致，默认选择 HDMI 输入进行编码，以 HDMI 进行编码为例：

连接 HDMI 输入之后可在 WEB 设置分辨率、帧率、码流、以及音频等参数，设置完成后点击 web 右侧的编码输出即可，如下图：



如需要切换 HDMI/SDI 视频源，只需要点击 WEB 最左侧的导航栏，单击 SDI 选择 SDI 视频源编码，单击 Mix 进入混合编码模式。



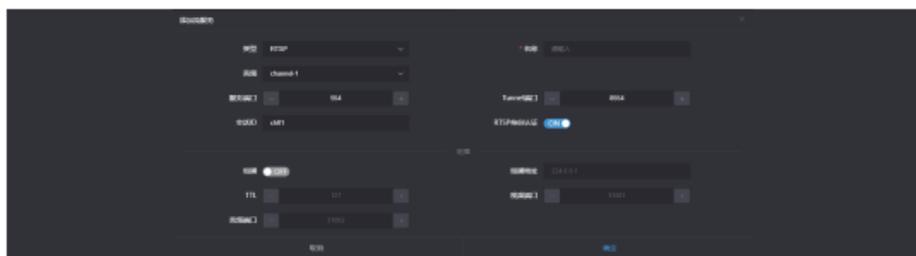
说明

- HDMI 接口支持输入和环出：
3840x2160p30fps/1920x1080p60fps/1920x1080i 50/59.94/60fps 等且向下兼容。
- SDI 接口支持输入和环出：
1920x1080p60fps/1920x1080i50/59.94/60fps/1280x720p25/29.97/30/50/59.94/60fps 等向下兼容。

在 E3-Web 管理界面的下面，流服务栏右侧点击“+添加”图标，添加一个流服务。这里以 RTSP 协议为例：



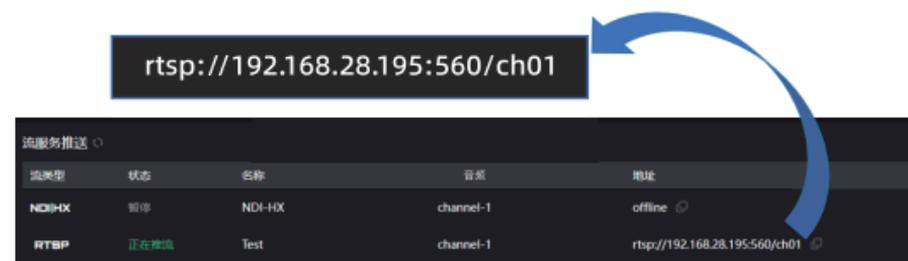
类型选“RTSP”，填写名称、服务端口和会话 ID，其他参数可保持默认配置，点击“确定”保存配置。



注意

- RTSP 端口默认为 554，当使用 HDMI 输入和 SDI 输入同时添加 RTSP 服务时，需要使用不同的端口号。
- 会话 ID 可以由数字、字母和符号任意组合。

保存配置后，添加的 RTSP 服务将展示在流服务下方，默认为关闭状态，点击开关开启流服务，对应的地址栏将生成 RTSP 流地址。



点击流地址后面的□图标，复制这个地址，可以通过 VLC 拉流检查编码后的视频流。



下载 VLC 工具

通过 VLC 官方地址 <https://www.videolan.org/vlc/> 下载并安装 VLC 工具。下载的方法/安装的过程请遵照 VLC 官方的指引。

VLC 是一款自由、开源的跨平台多媒体播放器及框架，可播放大多数多媒体文件，以及 DVD、音频 CD、VCD 及各类流媒体协议。

打开 VLC 的“媒体”-“打开网络串流”，在网络中输入 RTSP 的 URL 地址，按右下角的[播放]按钮开始拉流播放。



8.3Mix 混合编码功能

E3 支持 3G-SDI 和 HDMI 双接口输入/环出，同时支持 Mix 混合编码功能。

进入 Web 页面后，点击 Mix 进入混合编码模块，可将 HDMI 和 SDI 输入的视频进行画中画合成，然后进行编码输出，实现多画面显示的效果。点击“视频源切换”可以进行画面的主副切换。



9 固件升级

9.1 下载升级固件



Kiloview 将持续为 E3 设备提供更新功能、修复 Bug 的固件。访问：
<https://www.kiloview.com/cn/support/download/>
在筛选列表中，选择“视频编码器”>“E3”，并在“程序”标签中找到最新的固件下载。

9.2 升级设备固件

方法一：从 Web 页面进行升级。

登录 E3 管理后台，点击“设置”>“系统设置”>“固件升级”，进入固件升级页面。检查下载的最新软件版本是否高于当前软件版本，如果版本一致或更低，则无需升级。若要升级，上传从官网下载的固件文件，然后点击“固件升级”。

上传固件成功后，系统将提示重启，点击确认后设备将重新启动，请耐心等待，设备重启后，刷新 WEB 管理界面，可重新进入后台。



方法二：进入 Recovery 模式进行刷机。

当设备不能正常登录 Web 管理页面时，可进入 Recovery 模式刷机。

第一步：准备好一个 U 盘，把从官网下载好的固件文件拷贝到 U 盘。

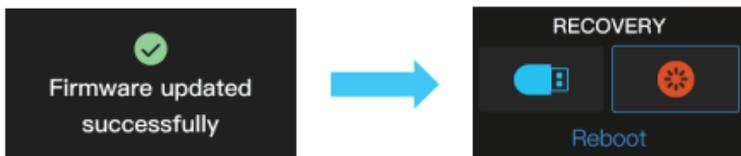
第二步：将 U 盘插入 E3 的任意 USB 接口，设备开机后，长按住  键直至设备进入 Recovery 模式。

第三步：通过点击触摸按钮选择“Recover from USB”，选择完成后按下  确认即可开始升级。



第四步：E3 固件升级过程中，会提示“Updating! Please keep the power on.”。

第五步：当 E3 屏幕显示“Firmware updated successfully”（升级完成）时，则表示 E3 已完成固件升级。此时任意操作触摸按钮将帮助您返回 Recovery 菜单，请选择 Reboot 将设备重启。



注意

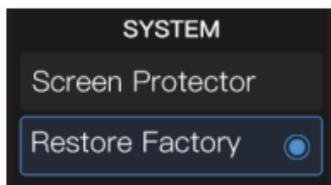
- 升级过程中，请勿断电，否则可能导致设备无法启动。
- 一般来说，升级的过程大约需要 3-5 分钟。如果超过 5 分钟升级仍未提示完成，请尝试刷新网页；如果仍然无法正常访问，请尝试联系技术支持。
- 如需使用 U 盘进行固件升级，建议 U 盘的文件系统格式为 FAT32。

10 恢复出厂设置

如因设备参数配置不当导致设备不能正常工作，可以尝试恢复设备的出厂设置。恢复出厂设置有两种方法：

方法一：当设备能正常登录 Web 管理页面时，通过 Web 界面的“设置”>“系统设置”>“恢复出厂设置”。

方法二：当设备不能正常登录 Web 管理页面时，进入 LCD 显示屏第一页，按下  进入系统设置，选择 Restore Factory，按下  键，可恢复出厂设置。



注意：恢复出厂设置后，以下参数将会改变至默认值

- 登录用户 admin 的密码将恢复为 admin；
- 所有视频编码参数、音频参数等将恢复到出厂的默认值。

11 其它

如设备长期不使用，为延长设备使用寿命，请拔掉电源，妥善保管设备。



Kiloview 官方技术支持网站，请访问

<https://www.kiloview.com/cn/support/>



长沙千视电子科技有限公司

<https://www.kiloview.com/>

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Quick Start Guide

E3 Dual-Channel Video Encoder

3G-SDI + 4K HDMI H.265 Video Encoder

(V2.9)



Contents

- Packing List
- Device interfaces and functions
- Device connection, login and use guide
- Device upgrade and restore factory setting

Before using this product, it is recommended that you read the guide carefully. To ensure your personal safety and avoid physical or electrical damage to the device, please strictly follow the instructions of this guide to install and use it under the guidance of professionals. Incorrect electrical connections or physical installation may cause permanent damage to the device and even threaten personal safety. Due to continuous product updates, the product you purchased may have undergone changes compared to the content in this manual.

Please refer to the actual product inside the packaging for accurate information.

1 Packing List



(1) E3 Encoder×1



(2) Power supply ×1



(3) Cold boot screw ×1

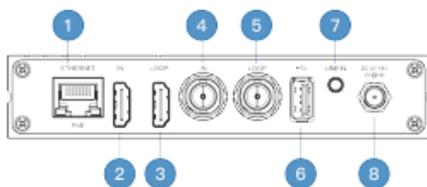


(4) Warranty Card ×1

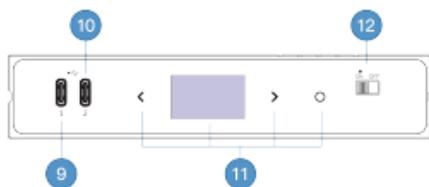


(5) Quick Start Guide ×1

2 Device Interface



- (1) 1000M Ethernet (PoE)
- (2) HDMI Input
- (3) HDMI Loop
- (4) SDI Input
- (5) SDI Loop
- (6) USB TYPE-A

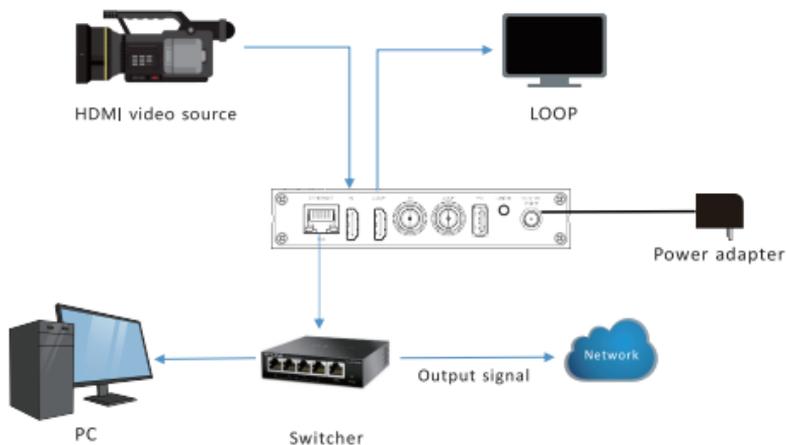


- (7) 3.5mm LINE IN
- (8) Power supply Interface
- (9) USB TYPE-C
- (10) USB TYPE-C
- (11) LCD screen and touch button
- (12) Power switch

3 Device Indicators

LCD screen	Status			
	Green Light	PVW		
	Red Light	PGM		
LED indicators	Name	Color	Status	Description
	Power	White	ON	Power connected
			OFF	Power off or failure

4 Application



Note

- Please use the equipped power adaptor or directly use PoE to power the device, other unqualified power supplies may damage the device.
- Device supports separate or mixed encoding from both HDMI and SDI simultaneously, in this quick start guide, we will only take HDMI input as an example;
- Please make sure the camera is connected with HDMI IN port.
- You can connect HDMI OUT for Loop function.

5 LCD screen and touch button

E3 is equipped with an LCD screen and touch button on the front panel. With the built-in LCD screen, you can easily check the device status, input source, and network, etc. The LCD screen is also a big-sized Tally to display the preview/program status.

Press the button “<” “>” to switch the display module and press  as “OK” to enter the current display module. For more details, please refer to the user manual.

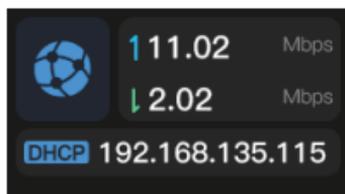


6 Check IP address

On the LCD screen, you can easily check the IP address of the device.

On the 4th page of LCD screen: Current network status. It indicates the real-time network uplink and downlink bitrates.

DHCP: Indicates the dynamic IP address obtained by the device.



7 Login to the device management page

After rebooting the device, the device will automatically obtain an IP address through DHCP.

On the LCD screen, you can easily view the IP address of the device.

Open a web browser and enter in the IP address: <http://device IP address/login> to the web UI.



Note

- The username and password are admin by default.
- To ensure information security, it is recommended to change your password immediately after logging in for the first time.
- Due to the browser compatibility issues, it is recommended to use Chrome or Edge.

8 Work with your device

8.1 Video source checking

After the video source is connected, E3 allows you to preview the real-time video through the browser.



Introduction

The video preview window is set to the "Image" mode by default, and the screen will be refreshed every 3 seconds; if the CPU performance of the computer is strong enough, you can click the button to switch to the "Video" mode, then you will see a smooth real-time video.



For more details of E3 encoder user guide, please visit

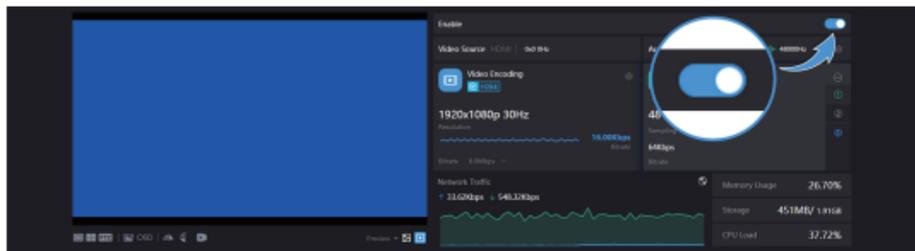
<https://www.kiloview.com/en/kiloview-e3>

8.2 Stream service

Login to the WEB UI, you will see 3 inputs including HDMI, SDI and Mix on the left navigation bar. E3 supports encoding both HDMI and SDI simultaneously. Click HDMI, SDI or Mix to set the parameters.

HDMI and SDI are with the same function, and HDMI encoding is by default. Take HDMI encoding as an example:

After connecting the HDMI input, you can set the resolution, frame rate, stream, and audio parameters on the UI. Once the settings are completed, make sure the HDMI Encoding is enabled (on the right as shown on the screenshot below):



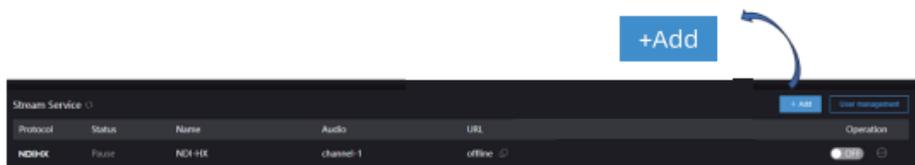
If you need to switch HDMI/SDI video source, just click the icon on the left. Click "SDI" for SDI source encoding and "Mix" for mixed encoding.



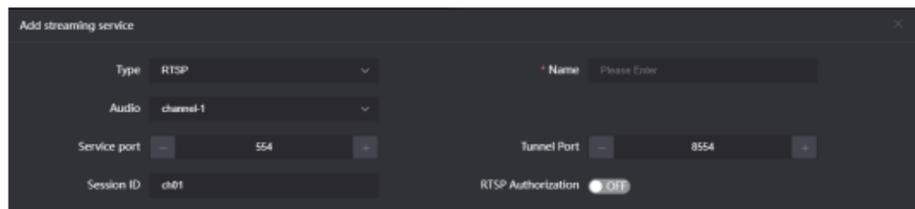
Introduction

- Resolutions supported with HDMI input and loop:
3840x2160p30fps/1920x1080p60fps/1920x1080i 50/59.94/60fps backward compatible
- Resolutions supported with SDI input and loop:
1920x1080p60fps/1920x1080i50/59.94/60fps/1280x720p25/29.97/30/50/59.94/60fpsbackward compatible.

On the WEB UI, click " Add " at the right side to add stream service. Take add RTSP as an example:



Select "RTSP" as stream type, fill in the name, service port and session ID, and keep the default configuration for other parameters, click "OK" to save it.



Note

- When using HDMI input and SDI input to add RTSP service at the same time, you need to use a different port number.
- Session ID is not a required field, if the Session ID is set in E3 , then the decoder also needs to fill in this field. And session ID can be any combination of numbers, letters, and symbols

After saving configurations, it will be displayed under the stream service, which is closed by default. Click on to start the stream service, it will come up a RTSP stream address in the corresponding address.



Click  to copy this address, you can check the encoded video stream by pulling the stream through VLC.

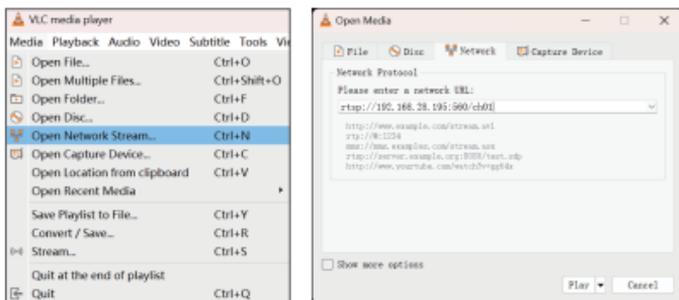


Download the VLC

Download and install the VLC through the official address <https://www.videolan.org/vlc/>. Please follow the official guidelines of VLC for the download /installation.

VLC is a free, open source, cross-platform multimedia player and framework that can play most multimedia files, as well as DVD, CD, VCD and various streaming protocols.

Click "Media" - "Open Network Stream" of VLC and enter the URL address of RTSP in the network and click the [Play] button in the lower right corner.



8.3 Mix encoding

E3 supports both 3G-SDI and HDMI input or loop, as well as mix encoding.

Enter the Web UI, click Mix to enter the mix encoding mode, which can combine HDMI and SDI input video into picture-in-picture, and then encode and output to achieve the effect of multi view display. Click "Video Sources Switching" to switch the images between the inputs. Click "Layout settings", you can adjust the layout of the mixed encoding.



9 Firmware update

9.1 Download firmware



Kiloview will continuously provide the firmware of updating functions, please visit

<https://www.kiloview.com/en/support/download/>

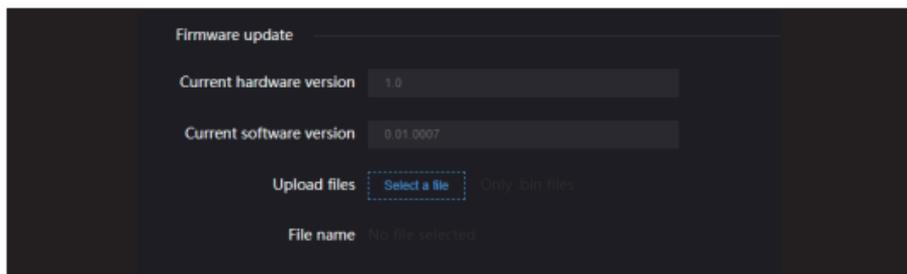
Select "video encoders" > "E3", find and download the latest firmware.

9.2 Update device firmware

Method 1: Update from the Web UI.

Login to the web page of E3, click "Settings">" System setting" >"Firmware Upgrade" to check if there is any latest firmware available to download. If yes, select the downloaded firmware and click "Firmware update" .

After uploading the firmware successfully, it needs to reboot the device. After clicking "OK", the device will be restarted, please be patient.



Method 2: Update in Recovery mode

If you cannot access the device Web UI, You can enter the Recovery mode for firmware update.

Step 1: Copy the firmware file downloaded from Kiloview website to a USB flash drive.

Step 2: Insert the USB flash drive into the E3, After the device starts up, long press and hold

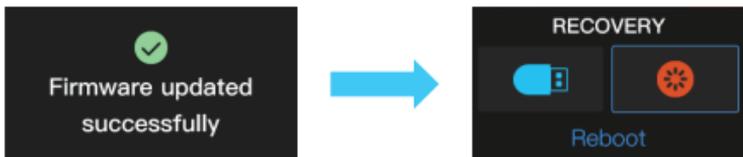
○ for more than 10s until the device enters recovery mode.

Step 3: Select "Recover from USB", press ○ to confirm to start the upgrade.



Step 4: During the upgrading, it will prompt "Updating! Please keep the power on." (Please do not power off).

Step 5: When the E3 screen displays "Firmware updated successfully", it has completed the firmware upgrade. At this time, any operation of the touch button will help you return to "RECOVERY", please select "Reboot" to restart the device.



Note

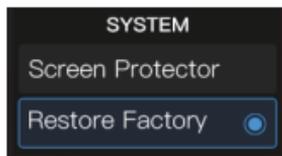
- Do not power off the device during the upgrade. Otherwise, the device may fail to start.
 - In general, the upgrade process takes about 3-5 minutes. If the upgrade is not complete within 5 minutes, try refreshing the page. If it still cannot be accessed, try contacting Kiloview or Kiloview authorized dealer for technical support.
 - If you need to use a USB flash drive to upgrade the firmware, it is recommended that the file system format of the USB flash drive is FAT32.
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10 Restore factory settings

If the device cannot work normally after modified the parameters, please restore factory settings.

1) If you can login to web UI, then click "Settings>System settings>Restore factory settings".

2) If you cannot login to web UI, press  on the first page of LCD to enter "System settings", select "Restore Factory", press  again, then restore factory settings will be done.



Note: The following parameters will be changed to default values after restore factory settings.

- Login user and password will be admin;
- All video encoding parameter, audio parameter will be restored to factory default settings.

11 Others

To prolong the device life, please unplug the power and keep it properly if you do not use it for a long time.

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