# Quick Start Guide

# N50/N60 Converter

## NDI High Bandwidth+NDI|HX
## Full Functional Codec
## (Version 2023-2)

## Contents

■ Packing List

■ Device interfaces and functions

■ Device connection, login and use guide

■ Device upgrade and restore to factory settings

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.

# 1 Packing List
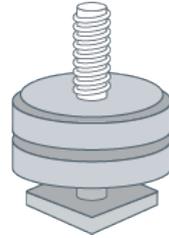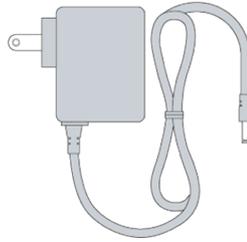
| | | |
|---|---|---|
| (1) **N50/N60×1** | (2) **Power Supply ×1** | (3) **Cold Shoe ×1** |
| (4) **Warranty Card ×1** | (5) **Quick Start Guide ×1** | (6) **V-mount ×1** |
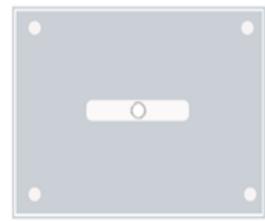
# 2 Device Interface

The following is the interface diagram of N60 as example:
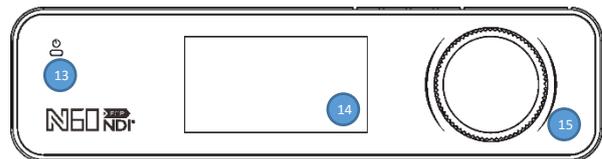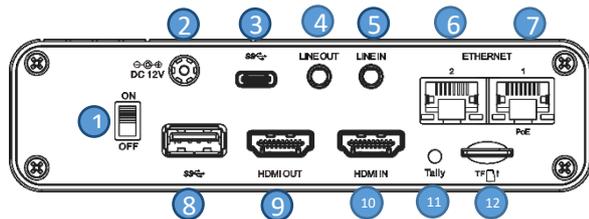
| (1) Power ON/OFF | (9) HDMI OUT （Note: SDI OUT for N50) |
|---|---|
| (2) Power Port | (10) HDMI IN （Note: SDI IN for N50) |
| (3) Type-C Extension | (11) Tally |
| (4) LINE OUT | (12) Micro SD/TF slot |
| (5) LINE IN | (13) Power Indicator |
| (6) 1GbE Port | (14) LCD Screen |
| (7) 1GbE Port with PoE | (15) Scroll Wheel |
| (8) USB Extension | |

**Note**
- In this manual, the interface diagram of N60 is used for demonstration. The device interface difference between N50 and N60 is HDMI and SDI. The label (9) of N50 is SDI OUT, and the label (10) is SDI IN.

# 3  Device Indicators

| Tally/LCD Screen | Video status under encoding mode | | | |
|---|---|---|---|---|
| | Green Light | PVW | | |
| | Red Light | PGM | | |
| Power lights | **Name** | **Color** | **Status** | **Description** |
| | Power | White | ON | Power connected |
| | | | OFF | Power off or failure |

> ⚠️ **Note**
> - When the N50/N60 under encoding mode and receives the TALLY signal of NDI, the LCD screen will indicate PGM or PVW (red or green) accordingly.

# 4  Application Scenario

> **POE Note**
> - N50/N60 only supports PoE on "ETHERNET 1" port, "ETHERNET 2" port is not available.
> - Please use PoE+ (802.11AT) standard switcher, other switchers may cause abnormality or damage due to output power mismatch.

> ⚠️ **Note**
> - The following example diagrams all take N60 as an example, and N50 is the SDI interface.
> - The encoding mode and decoding mode of the same device cannot be used at the same time.
> - In encoder mode, make sure that the video signal output by the camera is connected to the HDMI IN/SDI IN interface.
> - In decoder mode, make sure that the video signal cable is connected to the HDMI/SDI output port.

## 4.1 Encoding Mode
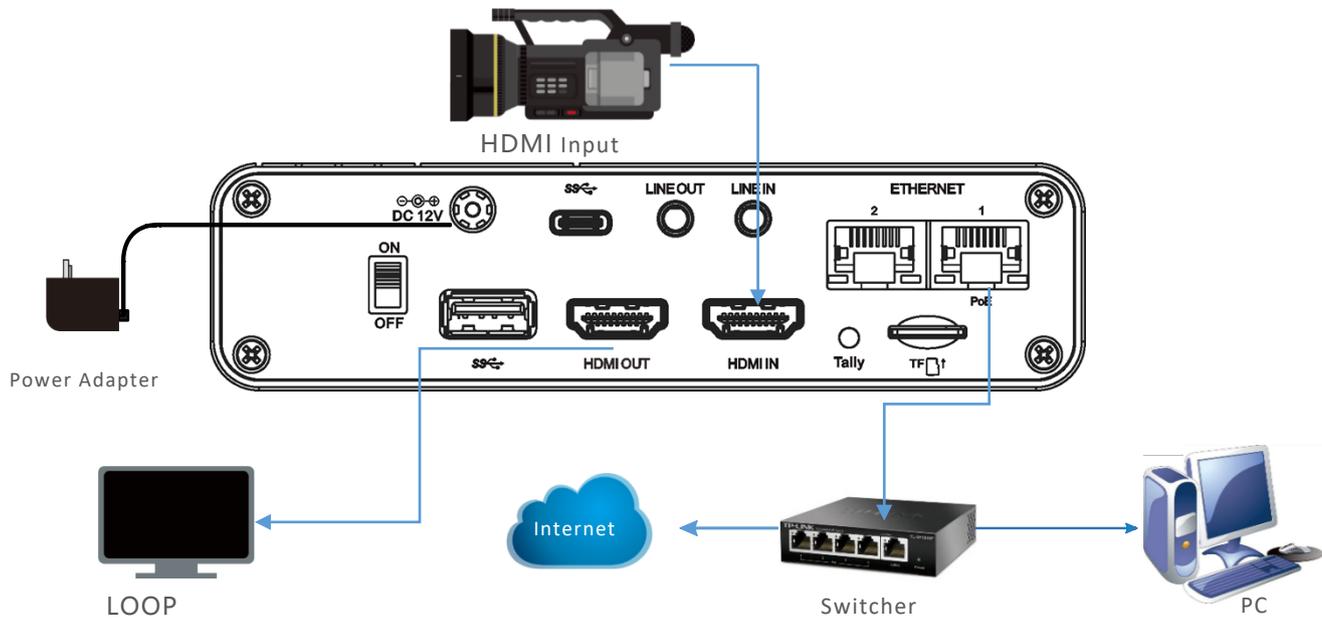


Encoding mode application system connection diagram

## 4.2 Decoding Mode
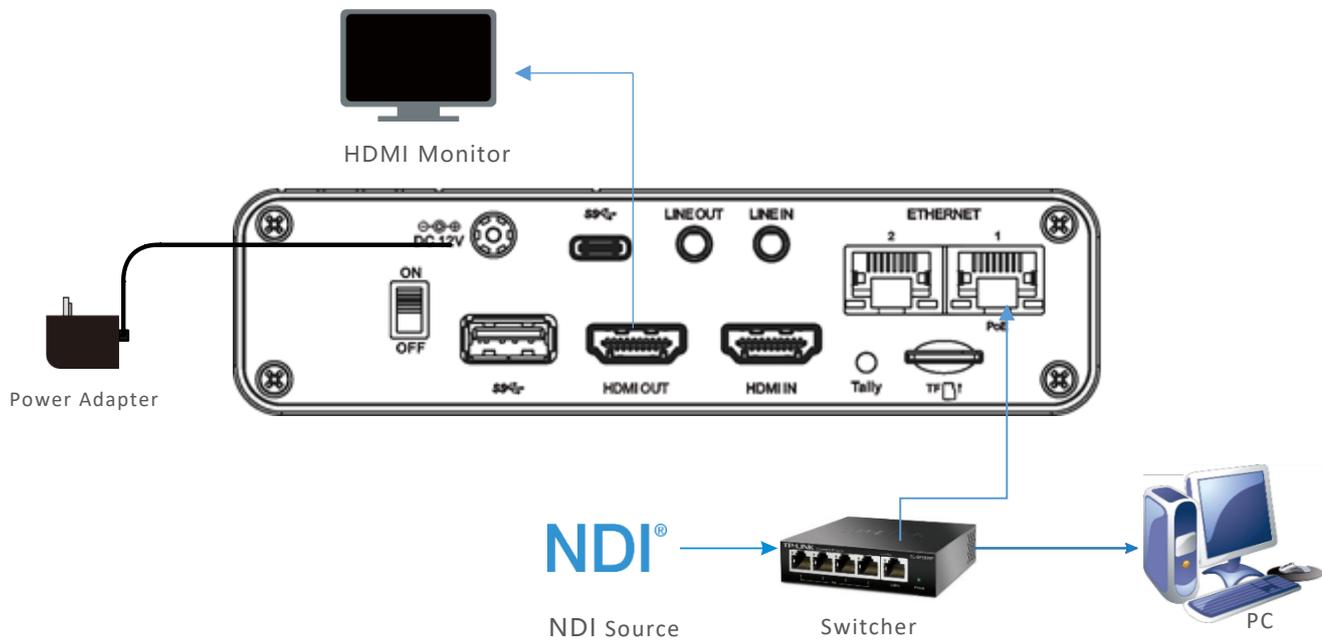


Decoding mode application system connection diagram

# 5  LCD Screen and Scroll Wheel

The N50/N60 has a big color LCD screen and a scroll wheel on the front panel.

With the screen, it is easy to check the device status, to get configuration parameters, to switch working mode and configure IP address, etc. Also, the LCD screen is a large Tally status indicator.

With the scroll wheel, it allows you to switch the display module. Press the wheel to enter the current display module and check detailed parameters, change the basic configurations or the working mode of the N50/N60. For more detailed operations, please refer to the user manual.

Take N60 as an example：

# 6  Device Discovery

## 6.1  Check IP address

On the LCD Screen, it is easily to check the IP address of your device.

After the N50/N60 powered on, you can turn the scroll wheel to switch the images to your currently connected network port, "ETHERNET 1" (network 1) or "ETHERNET 2" (network 2), to check the current IP address of the device.
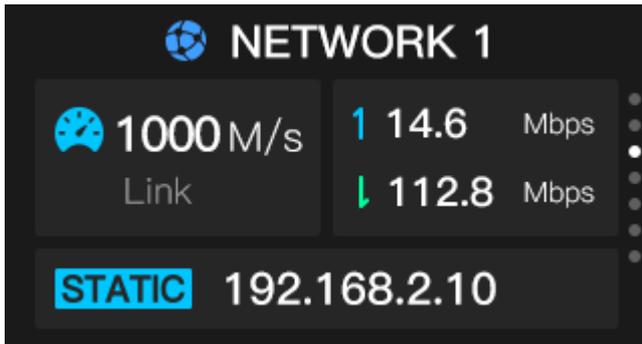


ETHERNET 1 （Network 1）
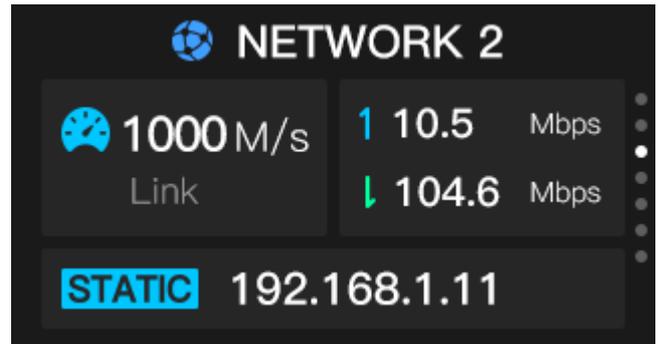


ETHERNET 2 （Network 2）

## 6.2  Install Kiloview Multiview NDI player for free



**Download Kiloview Multiview for free**
Visit the website https://www.kiloview.com/en/ndi/multiview, click the [Get it Now] to install the software step by step.
Kiloview Multiview is a free software for NDI video discovery, management and multi-view, which is popular and highly praised all over the world.

**Step 1: Start the Kiloview Multiview software to configure the parameters.**
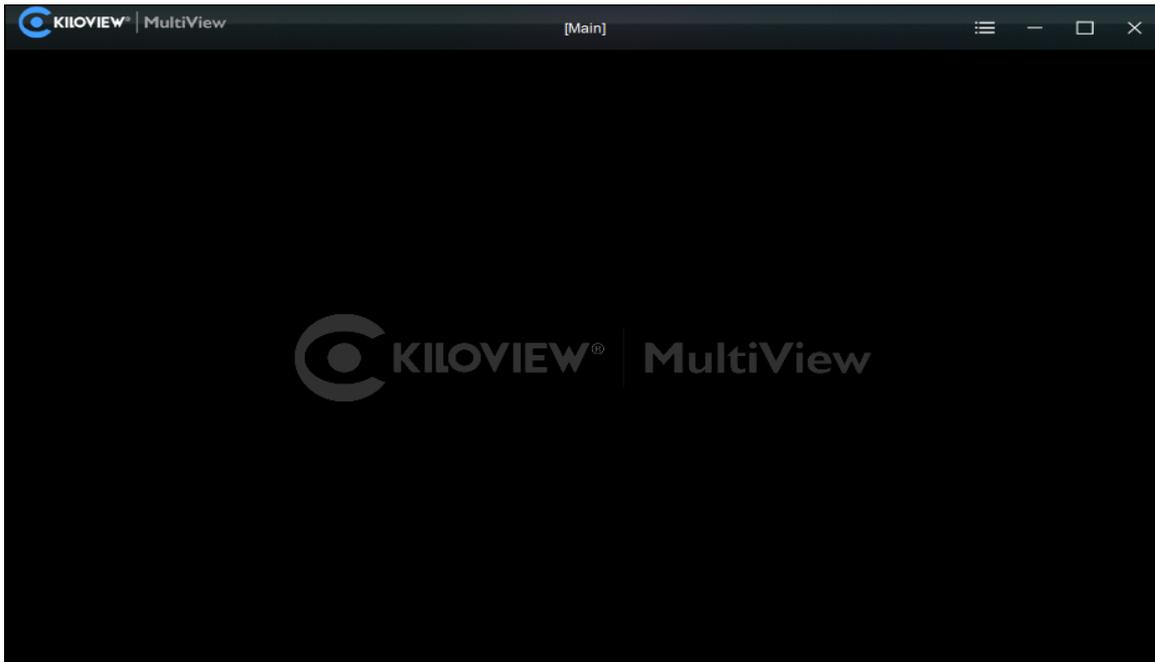


**Step 2: Find the device in the discovery list and enter to the device web page through browser.**
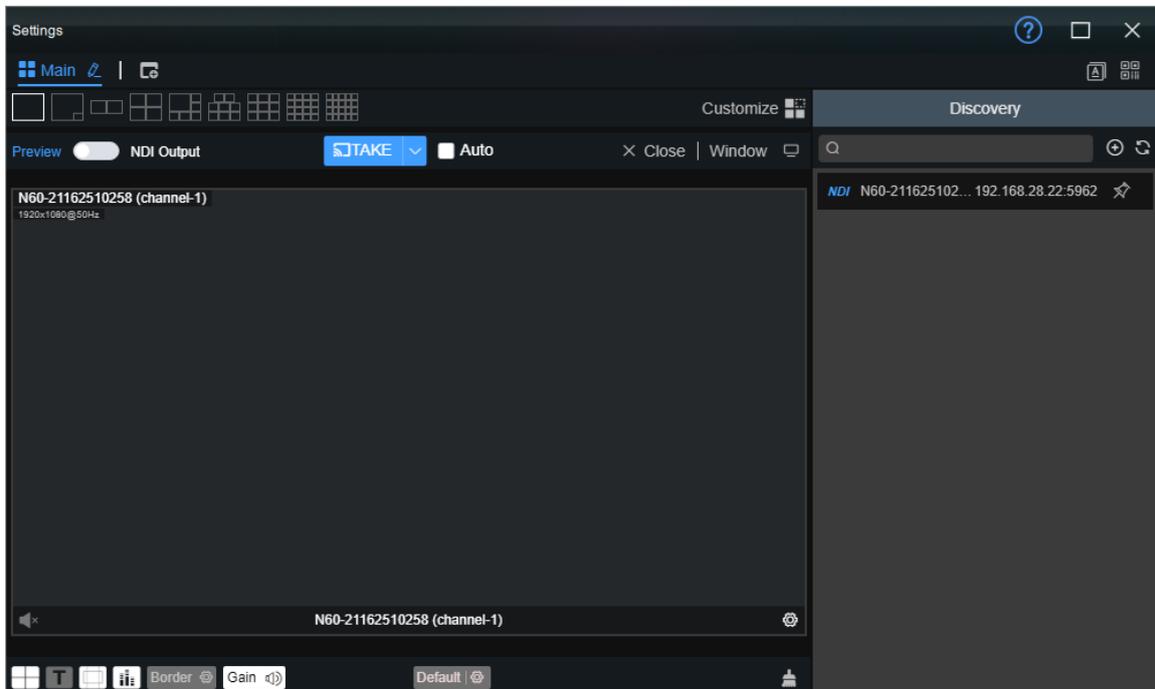


**Introduction**
- N60 naming rules: N60-<serial number>. Serial number refers to the numbers on the device label.
- Two ways of accessing to the device web page:

Method 1: Drag the device directly in the discovery list to the left window, wait and click the icon ⓔ appeared in the upper right to access Web page directly.

● Method 2: Open web browser, enter: http://device IP address/ （Kindly note the device IP address is the one of N60 in the discovery list).

# 7  Login to the device Web page

Enter to the web page of the N50/N60 and both the username and the password are "admin" by default.

> **Note**
> ● To ensure information security, it is recommended to change your password immediately after your first login.
> ● For the first login or upgrading the firmware, you need to agree the "End User License Agreement (EULA)". Please read carefully.

# 8  Work with your device

> **Note**
> ● N50/N60 CANNOT be an encoder and a decoder simultaneously, but you can switch freely.

## 8.1  Encoding Mode

The device is under encoding mode by default. There are icons for switching between encoding mode and decoding mode on the left of the N50/N60 Web page. When the device work under "Decoder" mode, click icon "Encoder"to switch back to encoding mode.

The video preview is in "Image" mode by default, and will be refreshed every 3 seconds. If your computer's CPU performance is well, you can click the button to switch to "Video" mode, which will improve the smoothness of the preview.
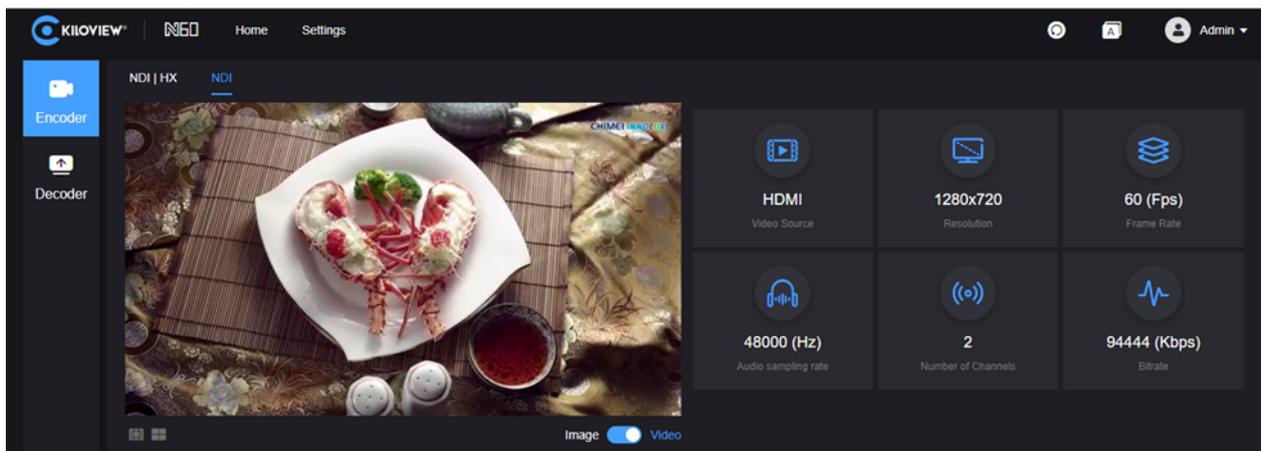
## 8.2 Decoding mode

There are icons for switching between encoding mode and decoding mode on the left of the N50/N60 web page. Click icon "Decoder" to switch back to decoding mode.
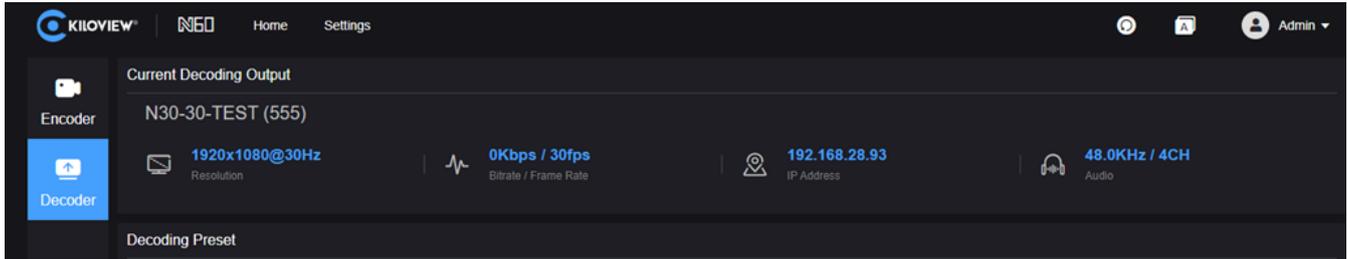


When the N50/N60 is in decoding mode, the NDI sources in the network will be displayed at the bottom of the decoder web page automatically. Find the NDI source to be decoded, click the icon[icon], on the right of it to decode and output.



Sources can be added to the Preset list by clicking "+" on the right of the NDI source. N60 supports up to 9 Presets, and you can save the frequently used NDI sources in the Preset list, which could ensure you quickly select Presets 1-9 at any time to decode and output.



**For more details of the N50/N60 in decoding mode, please visit at our website:**
https://www.kiloview.com/en/support/docs/N50/ or  https://www.kiloview.com/en/support/docs/N60/

# 9 Firmware upgrading

## 9.1 Download firmware

**Kiloview will keep update the new firmware of N50/N60. Please visit：**

https://www.kiloview.com/ensupport/download/

Select "NDI" list > "N50" to find the latest firmware to download. or

Select "NDI" list > "N60" to find the latest firmware to download.

## 9.2 Upgrade device firmware

Login to the web page of N50/N60, click "Settings">"Firmware Upgrade" to check if there is any latest firmware available to download. If yes, select the downloaded firmware and click "Firmware Upgrade".

After uploaded the firmware successfully, it needs to reboot the device. After clicking "ok", the device will restart, please be patient.
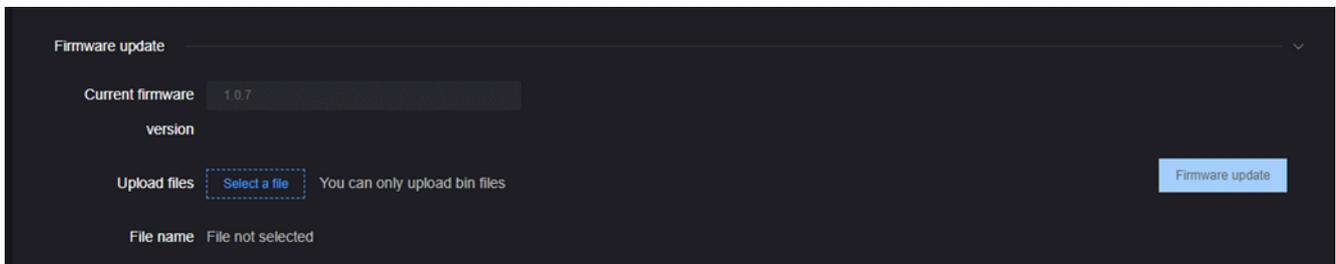


**Note**
- Google Chrome or Edge with Windows OS is recommended for upgrading.
- Please do not power off during the upgrade process, otherwise the device could not work.
- Generally, it will take 3-5 minutes to upgrade the device. If it is still not completed after 5 minutes, please try refreshing web page. If still cannot access it normally, please try to contact technical support for assistance.

## 9.3 Upgrade device firmware in recovery mode

If you cannot access the N50/N60 web page with the method described in 9.2, please use the Recovery mode to upgrade the firmware, as follows.

Step 1: Prepare a USB flash drive or SD card, copy the firmware file downloaded from Kiloview website to the USB flash drive/SD card.

Step 2: Insert the USB flash drive or SD card into the N50/N60, after the device is turned on (about 2s), wait

for the Kiloview logo to appear on the screen, long press and hold the scroll wheel for more than 10s until the device enters recovery mode.
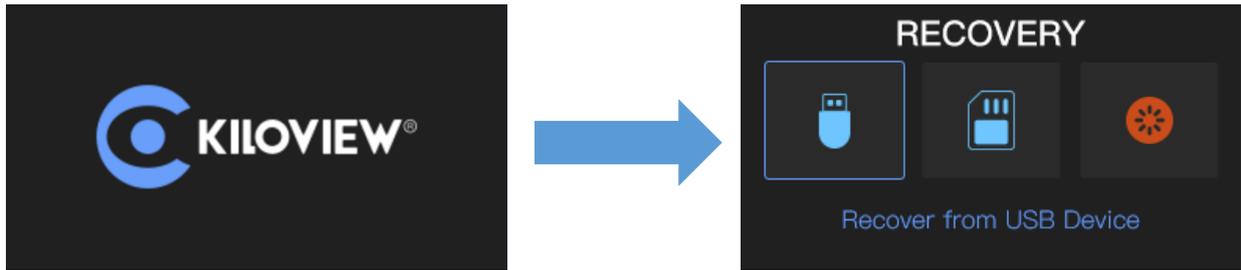


Step 3: Select "Recover from USB Device" or "Recover from SD Card" by turning the scroll wheel, press the wheel to confirm the selection to start the upgrade.



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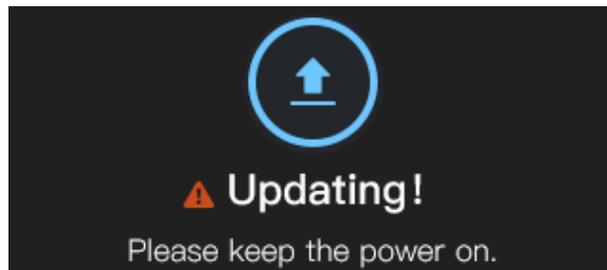


Step 5: When the N50/N60 screen displays "Firmware updated successfully", the N60 has completed the firmware upgrade. At this time, any operation of the scroll wheel will help you return to"RECOVERY", please select "Reboot" to restart the device.
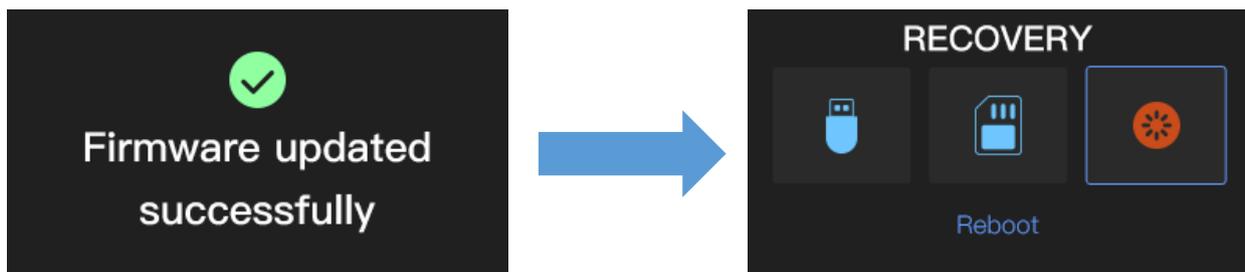


**Note**
- "Press and hold the scroll wheel for more than 10s to enter recovery mode" is only available when the device is starting.
- Upgrade firmware is available only in the root folder.
- If the firmware CANNOT be found, the pop-up window will show "No firmware found", please operate the scroll wheel to return to the selection screen.
- During the firmware upgrading, any operation is invalid.
- If the firmware upgrade fails, it will prompt "Failed to update the firmware", please contact technical support for help.

# 10 Restore factory settings

If the device cannot work normally after modified the parameters or forgot IP configuration and Couldn't search and find the device, please restore factory settings.

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

2) If you cannot login to web page, press the RESET button for 5 seconds in the bottom of device.

**Note: After restoring factory setting, below parameters will be turned to default value:**
- Login username and password will be "admin".
- Your device will be restored to obtain a DHCP-assigned IP address by default and the failover address 192.168.1.168 will be bound to the device.
- All encoding/decoding parameters of video and audio will be restored to default value.

# 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.