Lideo

Lideo VM-2 NDI

Video mixer

USER MANUAL

Contents

1.Quick Start

1.1 Overview.....2

2.Local Panel Operations

2.1 Image Section.....3

2.2 Audio Section.....4

3.Menu Functions

3.1 Input.....6

3.2 Output.....6

3.3 Layer.....6

3.4 Effects.....7

3.5 Chroma Key.....7

3.6 Audio.....7

3.7 Scene.....8

3.8 Media.....8

3.9 Image.....9

3.10 PTZ Control.....10

3.11 System Settings.....11

1.Quick Start

1.1 Overview

The VM-2 NDI series is a professional live streaming switcher equipped with a 5.5-inch monitoring screen.

For signal input, the VM-2 NDI supports 8 input channels with 4 inputs as options, including 4 SDI and 4 HDMI inputs. The VM-2 NDI, on the other hand, features 4 HDMI inputs. Both models support 4K resolution on the first two HDMI inputs and provide 2 configurable HDMI output channels along with a Multiview output interface. Additionally, the VM-2 NDI includes an SDI output interface. The VM-2 NDI series also supports NDI input (NDI is optional).

The VM-2 NDI series supports two external audio inputs, allowing real-time monitoring of mixed audio output or a specific audio channel. Through the UVC interface, the processed audio and video signals can be transmitted to a computer for live streaming. Alternatively, users can input a stream key for network streaming via the Ethernet port.

When using the UVC interface, the VM-2 NDI series is recognized by the computer as an HD webcam, automatically adapting to MJPEG and YUY2 formats (defaulting to MJPEG under USB 2.0 and YUY2 under USB 3.0). The YUY2 format offers superior image quality and more efficient decoding performance, making it the recommended format for use.

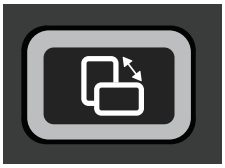
Additionally, the VM-2 NDI series offers convenient features such as PTZ camera control, scene presets, one-click chroma keying, effects transitions, mixed audio monitoring, and recording. This device is designed to handle a variety of live streaming scenarios, making it a professional-grade product built specifically for live streaming.

Front panel of VM-2 NDI Series

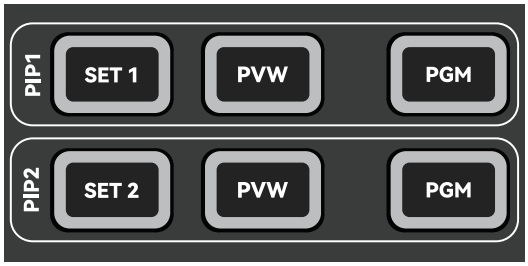
2.Local Panel Operations

2.1 Image Section

2.1.1 This button is used to switch the horizontal and vertical screen mode of the broadcasting station with one click.

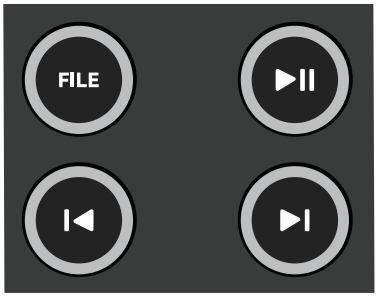


2.1.2 The section shown below is the function area for setting PIP (Picture-in-Picture) layers. The VM-2 NDI series provides two PIP layers. When you need to preview a PIP layer in PST, press the "PVW" button and then click the "SET" button to activate the PIP layer setup switch. At this point, you can change the input source of the PIP layer and adjust the size of the PIP layer. When you want to synchronize the PIP layer in PST with PGM, simply press the "PGM" button for the corresponding layer.



2.1.3The image below shows the LOGO function area. The VM-2 NDI series allows for the simultaneous addition of two logos.
When LOGO1 and LOGO2 are steadily lit, the logos appear in PST. When LOGO1 and LOGO2 are flashing, the left and right direction keys can be used to switch between logos. The joystick allows for repositioning of the logo, while the rotary knob adjusts its size (refer to the menu for specific scaling details).
To synchronize the logo with the PGM output, simply click "ON AIR."

2.1.4 Media Source Settings (Channel 5)
The section below allows users to set the fifth media source, which can be a video or an image.
• Press and hold the "FILE" button to switch between video mode and image mode.
oVideo Mode: Plays video files from the video_rec folder.
oImage Mode: Plays images stored in the images folder. Images can be switched in sequence according to file naming rules (refer to PC file naming conventions).
• Press "FILE" briefly to open the menu for selecting different storage devices to play media sources.



2.2 Auxiliary Function Section

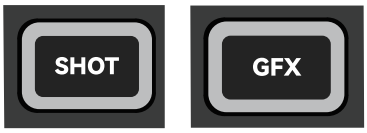
2.2.1 The following picture shows the switch button; When the guide station is powered on, click the power button to turn it on. After starting up, short press the power button for about 2 seconds to lock the keyboard, and short press again to unlock. Long press for about 5 seconds to shut down;

2.2.2 The section shown below contains quick output function buttons for PGM and AUX. After pressing the PGM output button or AUX output button, select the desired output source, and the PGM and AUX output interfaces will output the selected signal source. To switch back to MV output, press the "MV" button again.

2.2.3 The section shown below contains quick scene menu buttons and PTZ control switch. Press the scene shortcut button to quickly access scene settings. When the PTZ control button is flashing, use the joystick to control PTZ movement, and use the knob to select the camera position.

2.2.4 The section shown below contains KEY buttons, which can quickly turn on the chroma key, LUMA key and DSK.

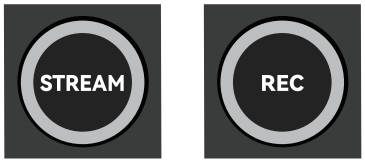
2.2.5 The section shown below contains the screenshot button and background image button. Press "SHOT" to take a screenshot of the current PGM screen. Short press "GFX" to switch the background image to PST or PGM.



2.2.6 The section shown below contains the PST preview button and still button. "PREV" is the preview transition button, which displays the transition effect in the PST window of the Multiview. To ensure the accuracy of the transition, you can simulate the transition effect between PGM and PST signals through preview and then switch to PGM output. "STILL" is the image still button; short press to freeze the PGM screen.

2.2.7 The following figure shows the shortcut key of super source, also known as gallery mode. Click the button to open or close the gallery mode with one click. The specific parameters of the gallery mode can be set in the scene menu.

2.2.8 The section shown below contains the streaming and recording buttons. Press briefly to turn on or turn off the streaming and recording (When turning off recording, make sure the REC light is off before removing the recording device.)



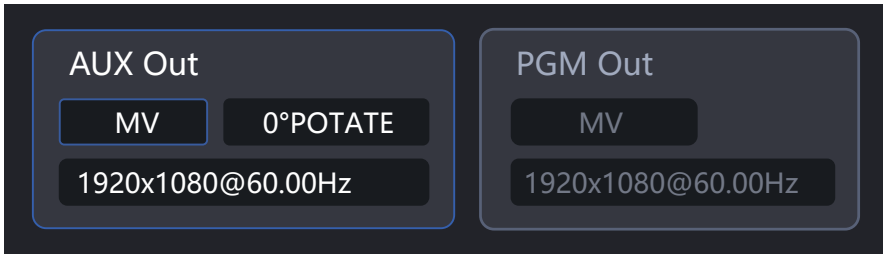
3.Menu Functions

3.1 Input

3.1.1 The input settings mainly include configuration for the four input signal sources and the fifth input source selection and retrieval. When an input source is connected, the system will detect and display its current input resolution. In the fifth input settings, users can choose between a USB camera signal, a stream-pulled signal, or a MEDIA source. Additionally, the input settings allow for horizontal or vertical flipping of the selected signal source.

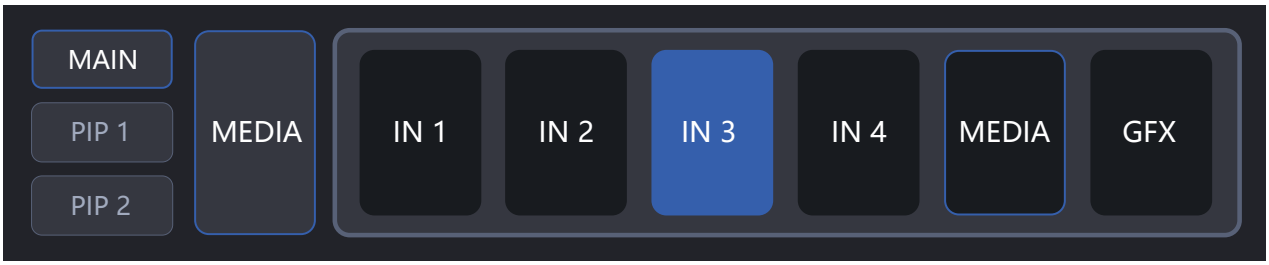
3.2 Output

3.2.1 In the output setting, you can configure the AUX output and PGM output. The AUX OUT or PGM OUT output interfaces can be set to Multiview output or a specific signal source output. You can also select the frame rate for the output or rotate the output image.

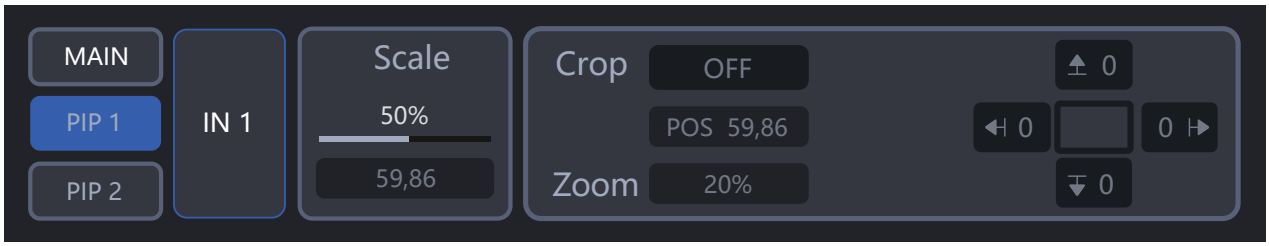


3.3 Layer

3.3.1 In the Layer menu, you can select the input sources corresponding to the MAIN layer and the two PIP layers.

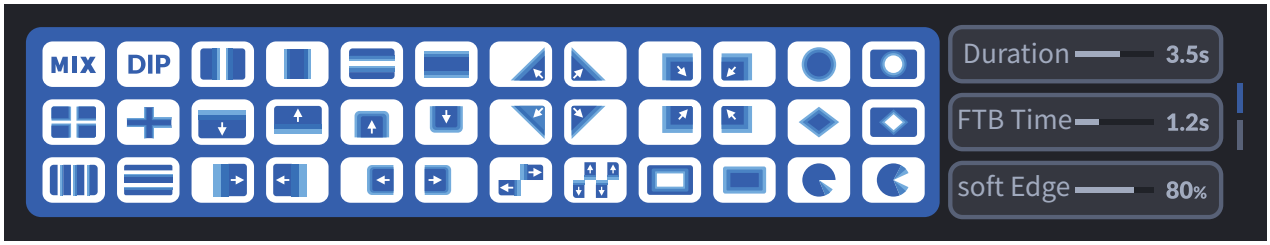


3.3.2 The Layer menu also allows adjustments to the scaling size and cropping of the PIP layers. In the menu, you can choose the edges of the PIP layers to be cropped and control the cropping size by rotate knob controls.



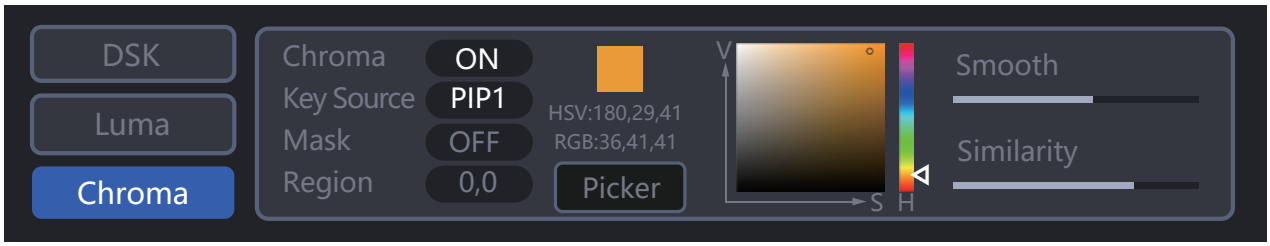
3.4 Effects

In the transition effects setting, you can choose different transition effects. The VM-2 NDI has 36 built-in transition effects. In this setting, you can also set the duration for transitions and FTB (Fade to Black), as well as the edge blending degree. Additionally, you can use rotary knob and the joystick to select the colors for DIP and FTB.



3.5 Chroma Key

In the KEY menu, you can separately configure the DSK, luma key, and chroma key. When chroma key is needed, select the HDMI signal of the PIP and turn on it to perform chroma key. There are two keying methods: one is color picking and another one is manual selection. When color picking is selected, a color picking box will appear in the input source image of the PIP layer, and the joystick can control the box to choose the corresponding color for keying. Manual color selection is supported through the knob and joystick. The bottom layer can be added as needed.



3.6 Audio

3.6.1 In the audio setting, each audio channel can be individually adjusted. Short-pressing any audio channel allows access to the audio menu.

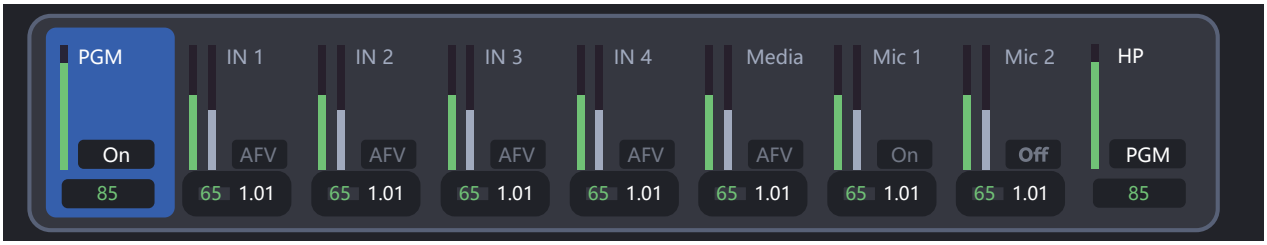
3.6.2 Knob 1 is the VOLUME knob, it adjusts the master output volume. Short press means mute the volume.

3.6.3 Knob 2 is the DELAY knob, which controls the delay of the current output volume.

3.6.4 Knob 3 is the HP (Headphone) knob, which adjusts the monitoring volume.

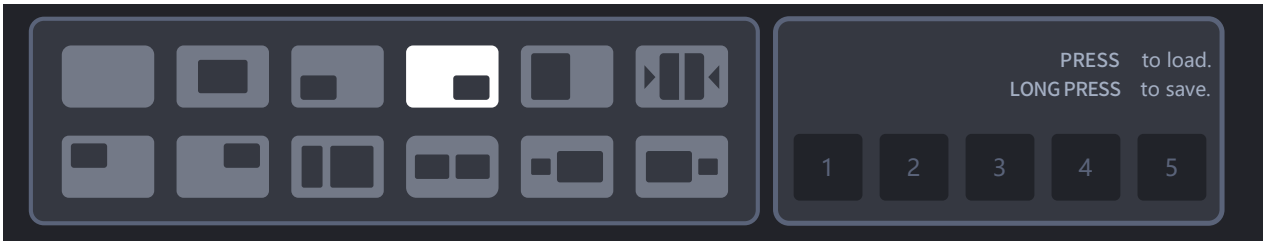
3.6.5 The menu includes the PGM master output volume, four input source volumes (IN1/IN2/IN3/IN4), two external audio input volumes (MIC1/MIC2), and one monitoring volume (HP).

3.6.6 HP offers selective monitoring, such as during entertainment live stream or video conferences, allowing you to monitor the content by selecting the relevant input source.

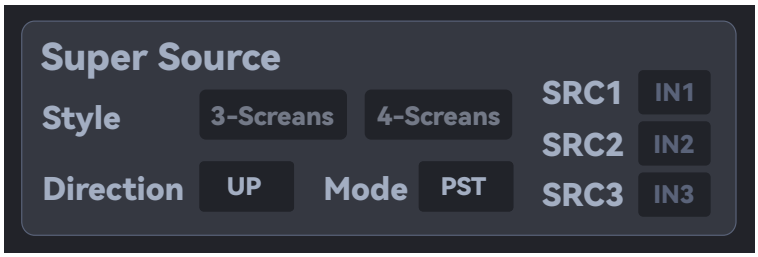


3.7 Scene

3.7.1 The scene menu provides 12 preset scenes, and you can also access the scene menu directly by pressing the "SCENE" button and selecting the desired scene. You can save and load scenes by knob. Long-press means to save the current "PST" scene, and short-press to load preset scene.



3.7.2 You can also set the gallery mode under the scene menu; You can select the number of pictures in gallery mode, the position of the picture and the position of the picture, and you can choose a different signal source for each picture.



3.8 Media

3.8.1 Media Pool Settings

The media pool allows configuring the fifth input source. In this menu, users can select different storage devices for video sources and enable or disable loop playback.

3.8.2 Media Import and Playback

① Video Playback Settings

The fifth source media files can be imported via a USB drive or SD card.

Insert an empty storage device into the switcher, and the system will automatically generate three folders: images, logos, and video-rec.

Video files should be placed in the video-rec folder and must be in MP4, FLV, TS, or other H.264-encoded formats. The maximum supported resolution is 2560x1440.

Press and hold the video shortcut button to bring up the video progress bar, then use the rotary knob to select a playback time point. Press the knob to start playback from the selected point.

② Image Playback Settings

· Image files should be placed in the images folder.

· The maximum supported image resolution is 1920x1080, and the format must be JPG.

· The naming sequence follows standard computer file naming conventions.

· In image mode, users can choose between manual playback and automatic playback.

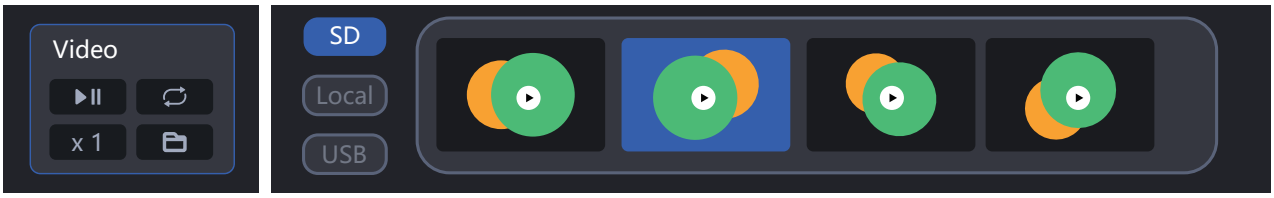
· When the single loop icon is displayed, images must be manually switched. When the loop playback icon is displayed, images will automatically switch every 5 seconds.

③ Logo Import

· Logos should be placed in the logos folder.

· Maximum supported size: 960x540

· Format: PNG



3.8.3 UVC Camera and Streaming Sources

· The VM-2 NDI series supports direct connection to UVC cameras.

· When a UVC camera is connected to the USB port of the switcher, click the magnifying glass icon to search for available UVC resolutions and frame rates. Use the rotary knob to select and confirm.

· The fifth input source can also be an NDI signal or stream-pulled source.

3.8.4 Entering Stream Pulling URL

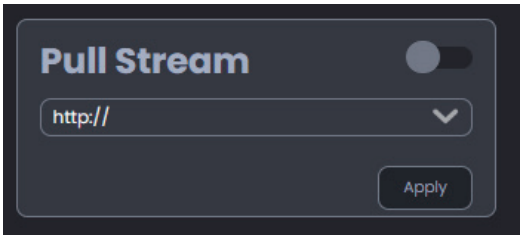
① Web Interface Setup

· The switcher and the computer must be on the same local network.

· In Settings → Network, enable DHCP and click Apply to obtain an IP address.

· Open a web browser, enter the switcher' s IP address, and access the web control interface.

· In the web Media Settings, enter the stream pulling URL and click APPLY to sync it to the switcher.

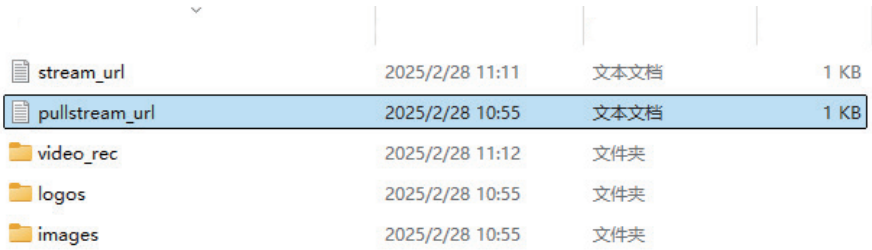


② USB Drive or SD Card Import

· Create a text document on the storage device and name it pullstream_url.

· Copy the stream pulling URL into the document and save it.

· Insert the storage device into the switcher to read the URL.



stream_url	2025/2/28 11:11	文本文档	1 KB
pullstream_url	2025/2/28 10:55	文本文档	1 KB
video_rec	2025/2/28 11:12	文件夹	
logos	2025/2/28 10:55	文件夹	
images	2025/2/28 10:55	文件夹	

3.9 Image Settings

3.9.1 Importing Logos and Background Images

· Users can import and apply logos and background images from the image menu.

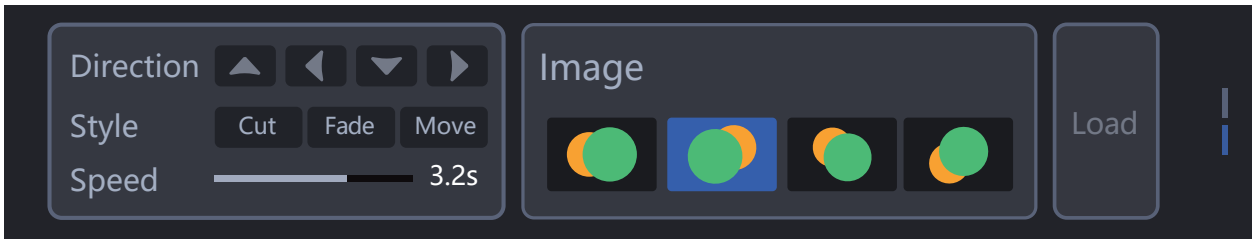
· Select a logo or background image and press the rotary knob to apply or delete it.

· Users can resize the logo accordingly.

· To import new logos or backgrounds, insert a USB drive or SD card, and the switcher will automatically create the necessary folders. Place the files in the correct folder and select them for loading. (Refer to 3.8.2 for details.)

3.9.2 Logo Transition Effects

· The VM-2 NDI series provides various logo transition effects,
including: oCut transition
oFade transition
oMotion transition (move in four directions: up, down, left, right)
· Users can adjust transition speed with three options: slow, medium, and fast.



3.10 PTZ Camera Control

3.10.1 Connecting a PTZ Camera

· To add a PTZ camera, connect the VM-2 NDI series switcher and the PTZ camera to the same router or switch.

· Ensure the first three segments of the PTZ camera's IP address match the switcher’ s IP (e.g., 192.168.5.163).

3.10.2 PTZ Camera Control

· The VM-2 NDI series supports up to 4 PTZ cameras.
· After connecting, click the magnifying glass icon to search for available PTZ cameras on the network.
· Select the corresponding camera IP to add it.

3.10.3 PTZ Camera Operation

① Basic PTZ Controls

· After adding a camera, press the PTZ shortcut button or select the PTZ camera number to control it.
· Use the rotary knob to switch between camera numbers.
· In PTZ control mode, users can adjust:
oPan & tilt
oZoom
oManual or auto focus

② Knob Functions in PTZ Control

· SPEED knob: Adjusts the PTZ movement speed.
· AE knob: Adjusts exposure. Press to switch between auto and manual exposure.
· AF knob: Adjusts focus. Press to switch between auto and manual focus.
· Directional keys next to the logo button adjust the zoom.

③ PTZ Presets

· Up to 10 PTZ presets can be saved.
· Long press a number key to save a preset, short press to recall it.

3.11 System Settings

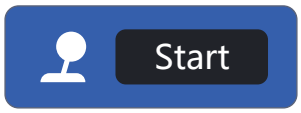
3.11.1 System Configuration

The system settings menu includes:

· Network settings
· Time settings
· Streaming frame rate & bitrate settings
· Video recording format, frame rate & bitrate settings
· Device parameters & system information
· System reset

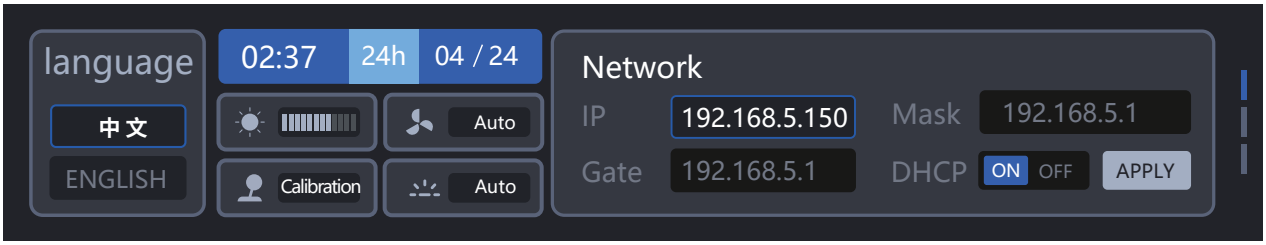
3.11.2 Five-Way Key Calibration

· The five-way key can be calibrated in system settings.
· Select the calibration menu using the rotary knob and press it to start calibration.



3.11.3 IP Address Configuration

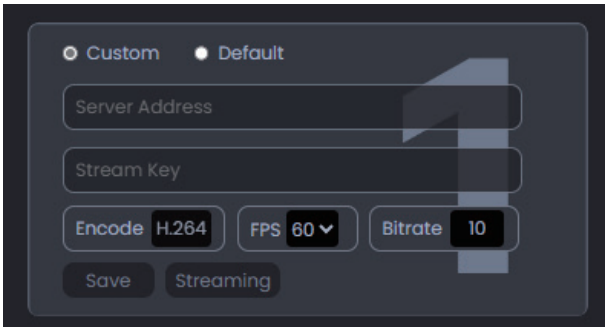
· The switcher can obtain an IP address via a wired connection.
· When connected to a local network, enable DHCP and click Apply to obtain an IP address.
· Alternatively, manually enter an IP address using the five-way key and rotary knob.
· After obtaining an IP, users can access the web interface (see 3.8.4 for details).



3.11.4 Streaming Settings

① Configuring Stream Settings

· The streaming frame rate and bitrate can be adjusted.
· Users can choose between landscape and portrait modes for streaming.
· A restart is required after switching the streaming orientation.
· The streaming URL can be entered in the web system settings (see 3.8.4).



② Importing Stream Settings via USB/SD

· Create a text document on a USB drive or SD card and name it stream_url.

· Enter the streaming URL and key on separate lines, then save the file.

· Insert the storage device into the switcher to read the stream settings.

The recording format, frame rate, and bitrate can be adjusted in this menu.

Storage devices can be formatted with one click.

名称	修改日期	类型	大小
stream_url	2025/2/28 11:11	文本文档	1 KB
pullstream_url	2025/2/28 10:55	文本文档	1 KB
video_rec	2025/2/28 11:12	文件夹	
logos	2025/2/28 10:55	文件夹	
images	2025/2/28 10:55	文件夹	