Quick Start Guide

Multi-Party Video Collaboration System

+2020
REV. 1

- Thank you for purchasing. Before installing our product, please read this start guide carefully. Please strictly follow our guide to install and use our decoder, or install and use under guiding by professional person, to protect your body safety and to avoid the decoder damage from physical and electrical. The decoder may be damaged if incorrect electrical connection or the physical installation, even threaten the operator safety.

01 Packing list

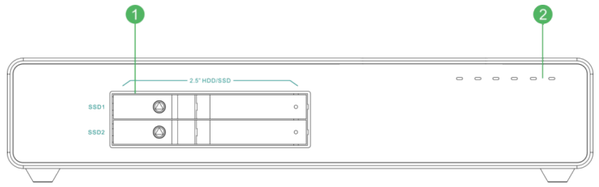
Packing list

One unit, quick start guide, DC 12V/3A power adapter, warranty card/certificate

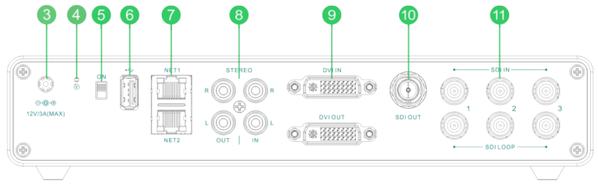
Note:
Packing list may be different due to product upgrade.

This guide is suitable for this unit.

02 Device interface



1 Disk slot (custom) 2 Indicators



3 Power 4 Reset 5 Power switch
6 USB expansion port 7 100/1000M Ethernet 8 Analog audio In/Out
9 DVI In/Out 10 SDI Out 11 SDI In/Out

Note:
Terminal device is 3 channel SDI and 1 channel input
Main control device is 1 channel SDI and 1 channel DVI input

03 Installation and connection

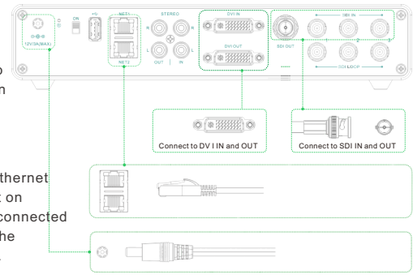
Connect SDI/DVI signal

Connect the SDI/DVI signal to the SDI/DVI port of the device. SDI input signal could be monitored via Loop port as well.

Note: DVI port is compatible with HDMI.

Connect SDI/DVI output

Connect SDI/DVI cable to SDI/DVI monitor based on your requests.



Connect network

Connect one end of the ethernet cable to the Ethernet port on device. The other end is connected to the network switch or the computer's Ethernet port.

Note: The device is with dual port, either one is working.

Connect analog audio

If you wish, connect audio input and output port of the device via audio cable to audio device.

Connect power supply

Connect the power adapter to the device, and turn on the power switch, then the device starts working.

04 Login and network configuration

Default IP address

The device has 2 Ethernet ports, each of which is configured with 2 IP addresses. Generally, you only need to configure the IP address 1 of Network port 1 to work normally. This IP is used for management and live streaming.

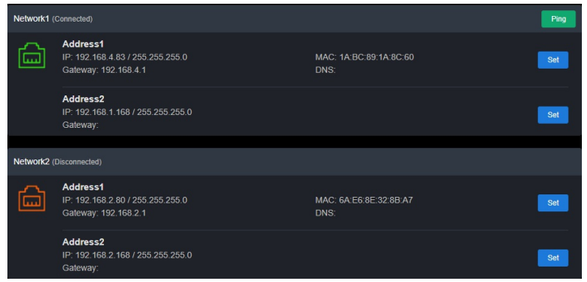
Port 1 default IP address is 192.168.1.168, subnet mask is 255.255.255.0
ort 1 default IP address is 192.168.2.168, subnet mask is 255.255.255.0.

Login the WEB console

Locate the device through http://<IP address of the device>
By default, if Port 1 connected, your computer is equipped with the same segment
Open WEB to visist: http://192.168.1.168, poping up a request to enter login credentials.
Deafult user name/password is **admin**

IP address configuration

After login, click the "Network" menu to configure the network based on your actual network. It can be configured as "DHCP" or "Manually set the IP"(Default is "DHCP").



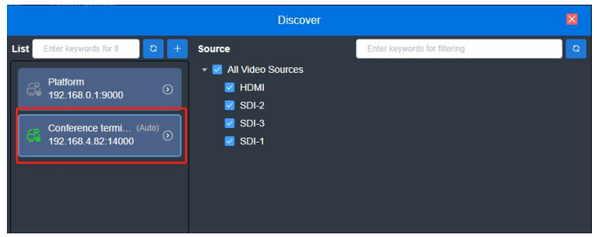
05 Basic Settings for two-way audio-video interaction

1.Check local video source

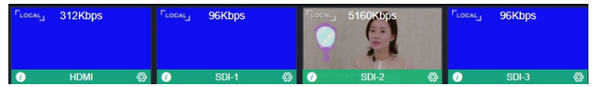
Following the step 3 and 4 to install two devices respectively. Connect the devices to the switch, and configure the IP addresses of the same network segment to ensure that the devices communicate normally. The computer is also connected to the same switch, configure the IP address of the same network segment. Log in to the WEB page and check if the input image of connected local source is normal (displayed as LOCAL in the upper left corner) in"Video Source" of "Media". The window with video input will display image every 5 s; the window without video input will display a blue screen, please check whether the video source and connection cable are normal.

2.Self discovery and adding video source

Click "Discover" to see if other devices can be discovered automatically. It will be displayed in the list on the left, and the device icon is in green (It cannot be displayed after the device is offline). Click on the device, select and add "All Video Sources".

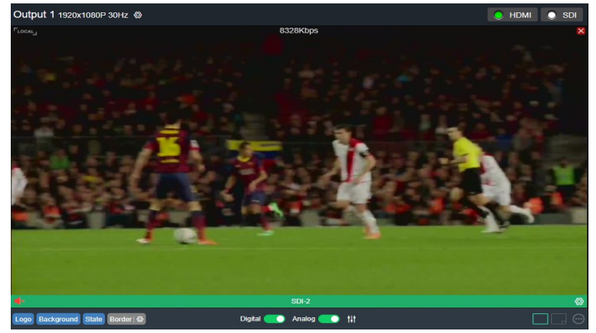


After adding sources, you can see that it is displayed as REMOTE in the source list. The window with video input will display the video, and updated every 5s, otherwise it displayed as a blue screen. (At this time, the bitrate will be displayed as 0Kbps, only when it is selected for decoding and output, the real-time bitrate will be displayed).



3.Decoding the opposite video source and output to the screen

In the "Media", drag the video sources of the added REMOTE device to the output window as a decoded output (Note: the output window 1/2 should be corresponding with HDMI/SDI output, and check whether the audio switch in the lower leftcorner is turned on), so that the audio and video of the opposite end can betransmitted to the local for decoding and display.



4.Two-way audio and video interaction

Both devices are configured as above, that is, both the audio and video of the opposite end are transmitted to the local decoding, and output to the screen, so that two-way audio and video interaction is realized.

06 LCD screen and function buttons

1:LCD screen: display operation images of function buttons

2:Function buttons

Four buttons:
From left to right they are "Left", "Right", "Ok", "Back".
Press "Ok" to enter the main menu, and it contains: video, network, encoding, platform, disk, and video.

Video：display video format of local source, such as HDMI: 1080P 60Hz

Network：Display Address 1 of Network 1 and Network 2

Encoding：Display encoding bitrate, resolutions, H.264 of local source

Platform：Display platform address, port number, and connection status（√,×）

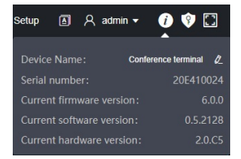
Disk：Display (disk used size/total size), check SATA1/SATA2 with left and right keyboard;Press "Ok" to open disk management, after opening, the "Left" button controls the initialization; the "Right" controls the pop-up; the "Ok" controls the recording; the "Back" is used to exit the disk management.

Recording：Check current recording status, "Ok" controls the recording, "Back" exits

07 Device name and authorization code

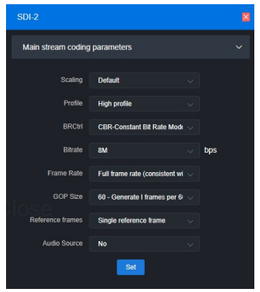
Device name is displayed when it is auto discovered You can click the icon in the upper right corner to set the device name to better identify the device

Authorization code is a check code found between the host and terminal. You could click the icon in the upper right corner to set. The authorization code is verified when the device is restarted or the host and the terminal are reconnected.



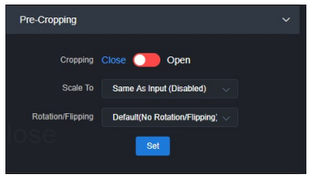
08 Encoding parameter settings of local source

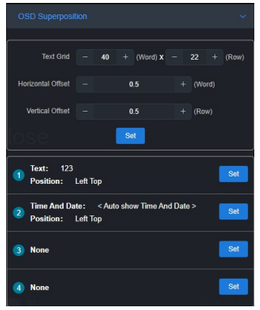
Video input after encoding will display on the local source list as “LOCAL” on the left corner. Each local source has main stream and sub stream. Click the set button in the right corner to set for parameters, and OSD overlay, pre-cropping (Default value is adoptable)



Note:

Encoding parameter including: scaling, color, profile, bitrate control mode, bitrate, framerate, GOP size; OSD overlay for text, date and time; Pre-cropping optional for scale to, rotation/ flipping.



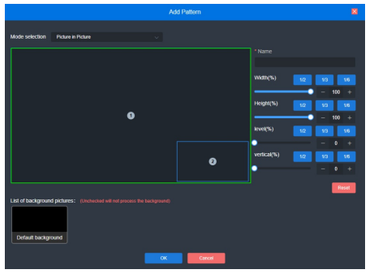


2) Decoding and output setting

There are two output windows on WEB page, corresponding to SDI/DVI physical interface. Dual interface output same or different video source or split screen image.

1.Set split screen image through  . It supports up to 9 split screen and each screen size is adjustable.

2.Specify the decoded video source for each split screen image. You can directly drag the video source to be decoded into the corresponding split screen, or click the split screen and then click the video source to decode and output.

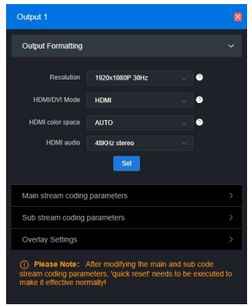


3.Set decoding output image such as Logo, background, state, Enable and Disable of Border. If icon is blue, it means “enable”, gray means “disable”. “Border” takes effective for all split image. Logo and background are set in decoding output column.

4.Decoding output window can display name, state and bitrate of video source. Green means normal connection, other color means abnormal connection. Manually added source could set audio output and close audio by speaker button, local source cannot.

5.Two output windows output directly to the monitor by SDI/DVI physical interfaces, or re-encode the entire image as a stream for output. Set decoding output format and encoding parameter by

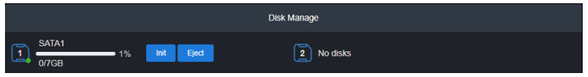
“Overlay” is to set Logo and background for the entire window image (Pictures are added in the "Picture Management" in advance. The logo is recommended to be small, otherwise it will cover most of the screen), after setting, it will work on the output screen and output stream screen of the SDI/DVI interface.



11 Disk and recording management

Disk manage

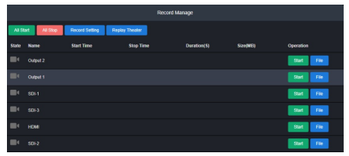
You can insert 2 SATA disks into the device, checking disk state on “Record manage” menu such as mount status, disk size, and space usage ratio. If the disk cannot be recognized, you can click "Init" to re-partition and format the disk, and the disk data will be cleared.



Disk indicator on the disk box:
After the disk is successfully mounted, it will show a steady green light;
The green light is off during initialization, and the light is always on after the initialization is successful;
When recording, the green light flashes;
When the disk space is 1G left, the red light is flashing, and recording will stop; when the disk is ejected, the green light is flashing;
The green light goes out after the disk is unplugged.

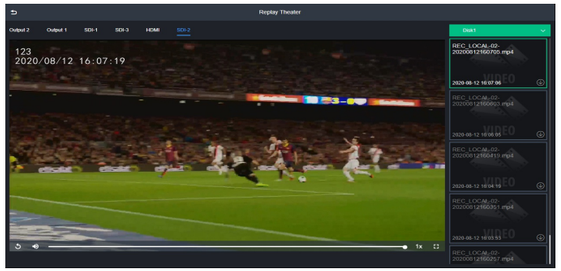
Recording management

It supports to record for local sources and output sources of two windows. You can select “All Start”, “All Stop” for all sources or a single one. The video playback and file storage are carried out with the interface, and click the corresponding files to operate.



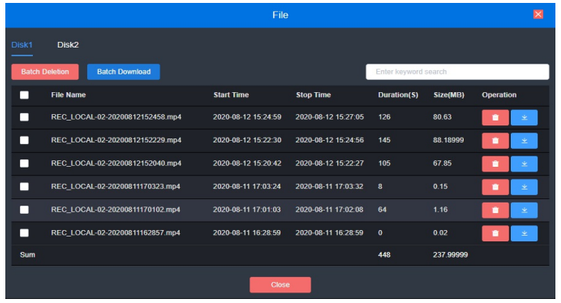
Recording playback:

It shows the recorded video. You could select to play it back on Web page, or you can “download” the file and watch it locally. The video being recorded cannot be played back.



Recording file:

It includes recorded files and files being recorded, you can delete and download files in batches in the recording files. The end time of the file being recorded is displayed as RECORDING and cannot be deleted.



09 Video source decoding and output setting

1) Add video sources

Click “Media” to add sources in three ways: Local sources, Manual sources, Remote sources. (The local source has preview screen, but manually added sources do not). The source of video displays in upper left corner, “Local”, “Manual” and “Remote”. You can click in the lower left corner to display the video source information, and click  in the upper right corner to delete video source (Local source cannot delete), and modify the parameters of video source.

Local source:

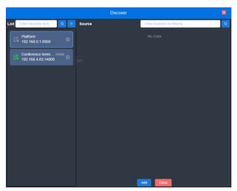
The video displays in the local source after encoding, you can set the encoding parameters (Please refer to the introduction above).

Manual source:

Click “add” to add video source, the protocols include RTSP/RTMP/RTMPS/RTP/UDP/HTTP.
You can configure the corresponding parameters based on different protocol requirements so that it can pull the network stream normally.

Remote source:

Devices can discover each other in the same network, and then they can add the other party’s local source to this device as a video source to realize audio and video interaction.
In addition to discovering the devices, the "discovery" function can also set the address, port, user name, and password of the platform, and then select "register" to a certain group. After the connection is successful, you can find the managed devices and the local source under the Group, and then drag the local source of the device to the local. (Platform connection is set through "System Settings"-"Platform Connection").



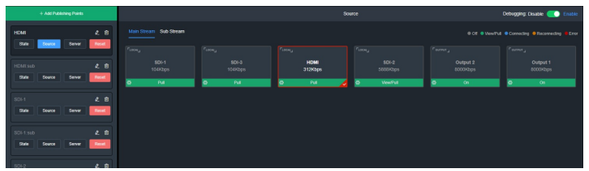
Note:

Only when fill in the correct platform address, port, user name and password (parameters is defined by the platform and should be same as the platform), it will automatically pop up the registration group for selection, otherwise it will show the authentication fails and cannot be registered.

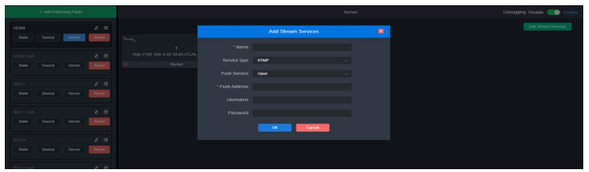
10 Stream service

The device converts media sources to RTSP/RTMP stream. Media sources include all sources in the video source list and video streams of 2 output windows.

“Add publishing points”-“name”
“Source”: Click “Source” to select the output source. Each source can select main stream or sub stream.



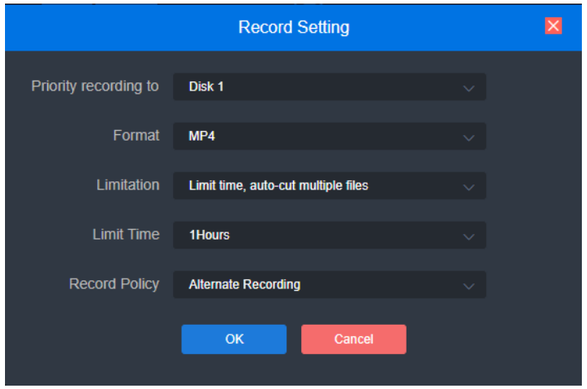
“ Server”: Click “Server-add stream service”. Select the added service type and make settings. It supports RTSP and RTMP. RTMP settings as below:



“ State”: After “source” and “server” configured, click “State to check the relevant statistics of publishing points.

Recording settings:

Click “Record Setting” to make settings.
Priority recording to Disk 1 or 2;
Format includes MP4 and TS;
Limitation has three options: unlimited size and time; Limit size, auto-cut multiple files.
Alternate Recording means when Disk 1 is full, it will auto switch to Disk 2, and when both disks are full, it will stop recording.



12 System setup

Restore factory settings

If you change parameters that lead decoder can’t work (The typical situation is network address changed, so that you cannot log into the device), you could restore factory settings.

Two ways:

1.Click “Basic setting-Restore factory setting” on Web page
2.Press “Reset” button

Hold the ‘RESET’ button more than 5 seconds, the device will restore factory settings. Restoring factory setting will lead to the device ‘cold’ reboot, and the whole process will last about one minute.

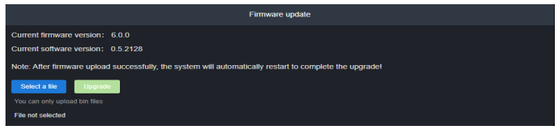
Quick Reset and Reboot

“Quick Reset” is suitable for resetting video decoding and decoding functions. When parameters modified, please try to do quick reset and it lasts about 3s.

“Reboot” is used for executing “warm reboot”. When “quick reset” couldn’ t solve problems, please try “Reboot”. The whole process will last around three minutes.

Firmware updating

The device supports online firmware updating. Select “System Setup”, pull downward and click “Firmware”. On the page, click “Select File” to select the updating file, and then click “Update”.



Note:

After uploading, the decoder will automatically restart, this process will take about 30s- 60s and you can check whether the latest version in accordance with the expected through “Firmware update” box.