Quick Start Guide

NDI® Converter
HD HDMI/NDI Bi-directional Converter

+2020
REV. 1

NDI® is a registered trademark of NewTek,Inc

- Before you use this product, we recommend that you read the instruction manual of this product carefully. To ensure your personal safety and to protect your equipment from physical or electrical damage, please follow the instructions in this manual or use the product under the guidance of a professional. Improper electrical connections or physical installations can cause permanent damage to the equipment and even threaten personal safety.

This guide is intended to guide you to use this NDI® Converter device.
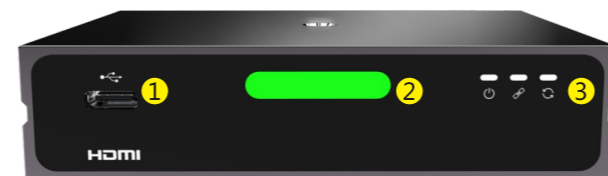
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01 Packing list

Name	Unit	Quantity
NDI® Converter	PCS	1
TYPE-C power cable	PCS	1
TYPE-C to TYPE-A cable	PCS	1
Certificate/ Warranty card	PCS	1
Power adapter	PCS	1
Hot shoe	PCS	1
Quick start guide	PCS	1

Note:

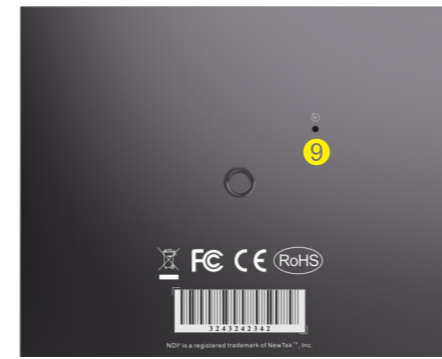The items in the packing list may be different due to product upgrade.

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02 Device Interface Description

❶ TYPE-C extension port
❷ Tally
❸ Working indicator

❹ 1000M Ethernet (PoE)
❺ HDMI input
❻ HDMI output
❼ Audio port
❽ TYPE-C power port

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❾ Reset button

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03 Device Installation and Connection

Connect video signal
Connect the HDMI signal from a source (such as a camera) to the HDMI input port of the device through a cable. The HDMI output is connected to the display device via a HDMI cable.
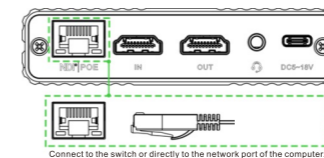
Note:
The output interface can be loop for encoding or output for decoding but cannot be used at the same time.

IN connects to HDMI video source, OUT connects to HDMI display device.
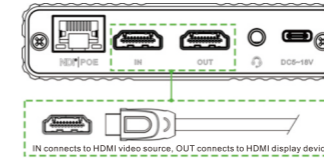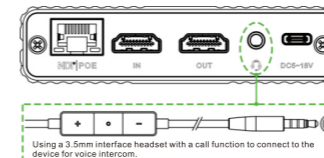
Connect network
Connect the network cable to the Ethernet port of the device. The other end of the network cable is connected to the switch. You can also connect directly to the network port of the computer.

Connect to the switch or directly to the network port of the computer.

Connect audio
Using a 3.5mm interface headset with a Microphone to connect to the device for voice intercom.

Using a 3.5mm interface headset with a call function to connect to the device for voice intercom.

Connect power supply
After connected with the power adapter(DC 5v),the power light will be on and the device starts working.

Note:
When network switch provides PoE, there is no need to connect to the power supply.

It is packed with one USB charging cable, which can power the device by a DC5~18V power supply.

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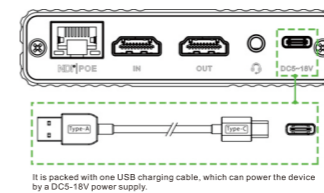
04 LED Indicator

①Power on
After connected with the power adapter, the device starts to boot. Power light is always on till the device working. It lasts about 30-40s.

②POWER/LINK/RUN light

LED indicator

Icon	Color	Status	Descriptions
POWER	White	Always on	Power connected
		Flashing	Power failure
		Off	No power supplied or power failure
LINK	White	Quick flashing	Network connected
		Slow flashing	Network connection abnormal or when restore device to factory settings (RUN light will be flashing as well)
		Off	Network abnormal or disconnected
RUN	White	Flashing	Device works properly
		Off	The device is abnormal or not started

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05 Device Management

Device default IP address
The default IP of the device is **192.168.1.168** and the subnet mask is **255.255.255.0.**
This IP address is the Failsafe address.
Normally you don't need to modify this IP address.

Login the WEB Console
First set your PC's IP address to 192.168.1.0/24 subnet, and then log in using the default IP address.
You can access http://192.168.1.168, to login the web console.

Login username: **admin**; Password: **admin**.

Note: For the first login or after restoring the factory settings, you need to agree to the popping up "End User License Agreement". Otherwise, the device cannot work normally.

IP address configuration
After login, you can configure the IP address according to the network. It can be manually set or DHCP dynamic (Default set is DHCP dynamic).
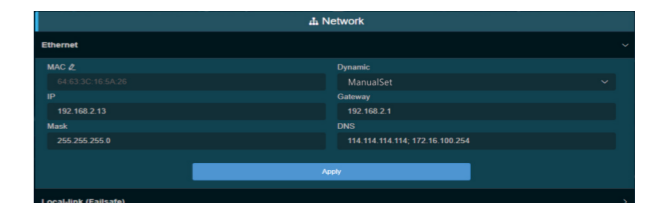
06 NDI Encoding

It is a Full NDI encoding transmission device, supporting up to 1080P60 input. When video resolution is 1080P60, the bitrate can be up to 125Mbps. Therefore, the device and the receiving port should be connected to gigabit network.

Status Column

1920x1080@50 Hz Resolution	50 Fps Frame Rate	114873 Kbps Bitrate	48000Hz/Stereo Audio Format
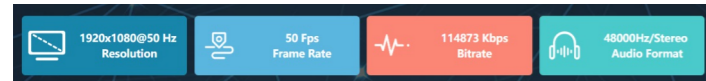
Here it will display the resolution, frame rate, bit rate and audio format parameters of the video source.
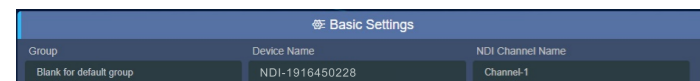
Coding quality settings

The encoding resolution is the resolution that output from the video source, which cannot be configured for scaled encoding.
Encoding bitrate can be appropriately lowered or increased by adjusting encoding quality. The default encoding quality is 100%.


75%   100%   120% 130%   150%
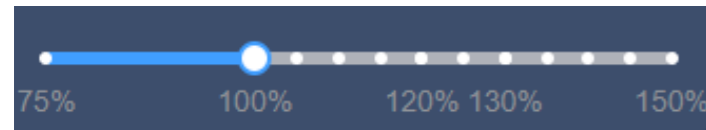
Encoder channel settings

When there are multi NDI sources in the same network, channel names need to be modified to identify different devices because the default channel names are the same.

⚙ Basic Settings		
Group	Device Name	NDI Channel Name
Blank for default group	NDI-1916450228	Channel-1

Note:
There is no need to save the parameters after modified, since the modification will take effect immediately if click other locations of the page.
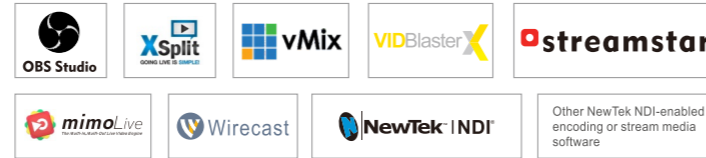
Advanced settings

| ⚌ Advanced Settings |
|---|
| NDI Connection |
| PTZ |
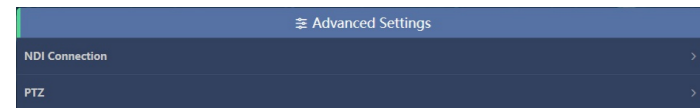
In advanced settings, you can set the connection mode of NDI stream, which can be unicast or multicast. Here you can also set the PTZ control function.

07 NDI Connection

Compatible Softwares:

OBS Studio, XSplit, vMix, VIDBlaster X, streamstar, mimoLive, Wirecast, NewTek NDI, Other NewTek NDI-enabled encoding or stream media software

It is compatible with NewTek NDI®. NDI stream service is enabled by default. When the device is in the same subnet with NewTek Studio Monitor software or others like OBS, vMix, etc. that supports NDI protocol, the device can be automatically discovered. Select the corresponding device and channel, then you can play the NDI video stream.
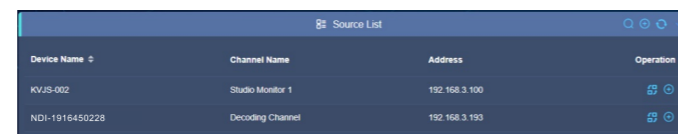

NDI Studio Monitor

NDI-1916450228 > Channel-1
✓ None
Settings >
ndi.tv
Exit
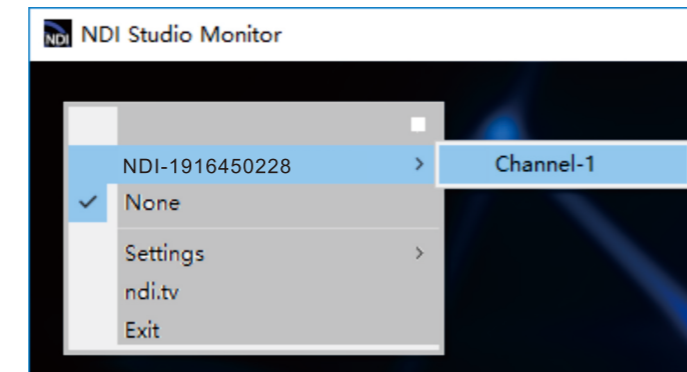
08 NDI Decoding

Discover NDI sources in the network

NDI sources can be detected automatically and will be listed at the same subnet , and you can renew the NDI sources by click

Add target NDI source

Click ⊕ to add the source to the decoding presupposition.

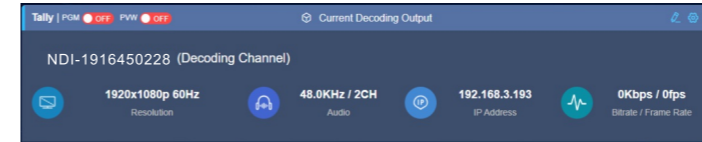| ⚋ Source List			
Device Name	Channel Name	Address	Operation
KVJS-002	Studio Monitor 1	192.168.3.100	
NDI-1916450228	Decoding Channel	192.168.3.193	

Switch output NDI source

You can add up to 9 NDI sources in the decoding preset and click the corresponding source to decode. Decoding output can be quickly switched by clicking different NDI sources.

Decoding Preset

NDI-1916450228
(Decoding Channel)
192.168.3.193
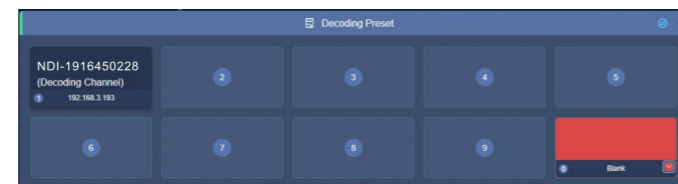
Decoding Parameter Settings

Some information such as resolution, audio parameters, IP address and bit rate of the decoding source will be displayed in "Current Decoding" zone. Please enter into Web page and set the decoding resolution & framerate by clicking ⚙
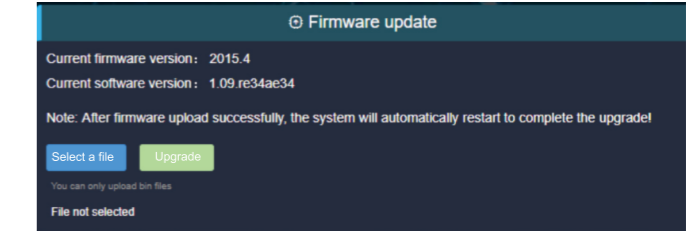

Tally | PGM ● OFF   PVW ● OFF   ⚙ Current Decoding Output

NDI-1916450228 (Decoding Channel)

1920x1080p 60Hz Resolution	48.0KHz / 2CH Audio	192.168.3.193 IP Address	0Kbps / 0fps Bitrate / Frame Rate

Note:
This NDI Converter cannot conduct encoding and decoding at the same time, encoding will stop if you enable the decoding function.

09 Restore Factory Settings

Restore Factory Settings

If the parameters are changed that lead the converter couldn't work (The typical situation is that the network address was changed, so it couldn't visit the device by network), users could restore factory setting to default value.

Two methods for restoring factory settings:

①Click "System Settings>Restore factory settings" on the web console.
②Press "Reset" button at the bottom of the device

There is a reset button at the bottom of the device, hold the button for more than 5 seconds, the device will restore to factory settings. Restoring factory settings will lead to the restarting of the device. The restarting process takes about 30s.

Note:
These parameters will be restored to default value after restoring factory setting:
● Login username and password will be "**admin**";
● IP address will be restored as **192.168.1.168**, subnet mask will be **255.255.255.0**;
● All encoding and decoding parameters of video and audio will be restored to default value;
● Media transmission parameters will be restored as default value.

10 Firmware Upgrading

Firmware upgrading

This device supports online firmware upgrading to upgrade software.
Click "System Settings>" Firmware Upgrade" on Web management interface for upgrading. Click "Select a file" to upload the firmware file to upgrade the device.

⊕ Firmware update

Current firmware version: 2015.4
Current software version: 1.09.re34ae34

Note: After firmware upload successfully, the system will automatically restart to complete the upgrade!

Select a file   Upgrade

You can only upload bin files
File not selected

Note:
After uploading firmware file successfully, the device will automatically restart, this process will take about 30s-60s (the time will be different according to upgrade content), and please be patient.

After the upgrade is complete, please click ⓘ to check whether the latest version information is as expected to confirm if the upgrade is succeeded.

11 Quick Reset and Reboot

Quick Reset and Reboot

"Quick Reset" function is to reset encoding and decoding service, normally it's used for changing parameters to effect immediately. Quick Reset process lasts around 3s.

"Reboot" function is used for encoder reboot. Device rebooting lasts around 20s.

Note:
Select "Quick Reset", current encoding and decoding service will be suspended for a while;
Select "Reboot", the encoder will 'warm' reboot.
Under some circumstances, reboot might be realized with the help of cold restart, that is by turning on/off the power.