Overview

The SVSI N2315 Decor Style Wallplate Encoder is part of the N2300 Series and used in conjunction with N2322 Series Decoders for transmission of HDMI or analog video over Ethernet. All Encoders and Decoders of the N2300 Series feature balanced audio, HDMI video connection, and Power-over-Ethernet (PoE). The N2322 Decoder supports output scaling and limited output downscaling options.

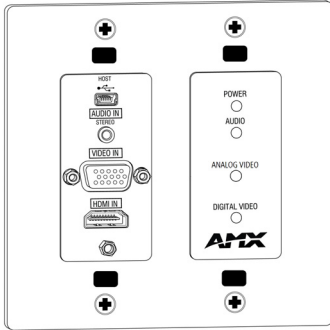Wallplate is available in white (WH) and black (BL)

FIG. 1 N2315 WALLPLATE ENCODER

Installing the N2315 Wallplate Encoder:

Follow the steps below to mount your new N2315 4K Encoder into an existing dual gang electrical box.The instructions given assume the box is already installed with Ethernet access running to it.

1. Connect the PoE-enabled Ethernet cable to the rear connector of the N2315 4K Encoder. This provides both network and power connection to the Encoder.
2. Place the N2315 4K Encoder display into the box and secure it with four screws (included in shipment).
3. Check LEDs for normal display (see the LED table at right).
4. Attach the (customer-provided) front cover plate to the unit to complete installation.
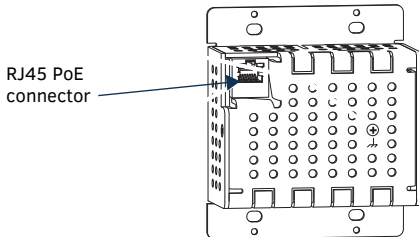

RJ45 PoE connector

FIG. 2 CONNECT ETHERNET TO ENCODER

Attaching Signal and Control Cables

The following table explains how to attach cables to the front of the Encoder.

IMPORTANT: *Encoders must be securely mounted and connected to the switch before attaching the remaining cables.*

NOTE: Any switch handling the N2315 4K Encoder video streams must be configured to support jumbo frames.Disable the wireless adapter on your computer (it must be hard-wired to the switch).

Basic Cabling Guidelines

Connector	Description
HDMI IN	Digital Video Connection For video encoding of a *digital* source, connect from the source to the Encoder's **HDMI IN** connector using a video cable with an HDMI connector (or adapter).
VIDEO IN	Analog Video Connection For video encoding of an *analog* source, connect the source to the Encoder's **VIDEO IN** VGA port using a video cable with a VGA connector (or component adapter).
AUDIO IN - STEREO	Audio Encoding Insert an analog audio cable from the source into the **AUDIO IN STEREO** jack (optional), OR use the embedded audio from the video source.
HOST	USB Control (optional) Attach a USB cable from the PC to the Encoder's USB mini-B port.

This table shows LED states on initial power up. If not normal, check connections.

Indicator LEDs	Normal power up	Indicates
Front-Right LEDs		
POWER	Green	PoE power is applied.
AUDIO*	Green	Configured to pass analog audio (coupled with digital or analog video path).
ANALOG VIDEO*	Green	Configured to pass analog video:
DIGITAL VIDEO*	Green	Configured to pass HDMI with embedded audio.
Front-Center LEDs (located under customer-provided cover plate, if installed)		
HDCP	Yellow	On when HDCP is active.
STREAM	Green	On when the unit is streaming video to the network.
STATUS	Green	On flashing (green) when there is software activity.
LINK/ACT	Green	On when there is Ethernet activity.

* The LEDs for **DIGITAL VIDEO**, **ANALOG VIDEO**, and **AUDIO** each indicate the configured state of the connectors (not necessarily the presence of signals through the Encoder).

Additional Buttons

The front-center section of the unit is shown in FIG. 3. This section is covered by the cover plate once it has been installed.
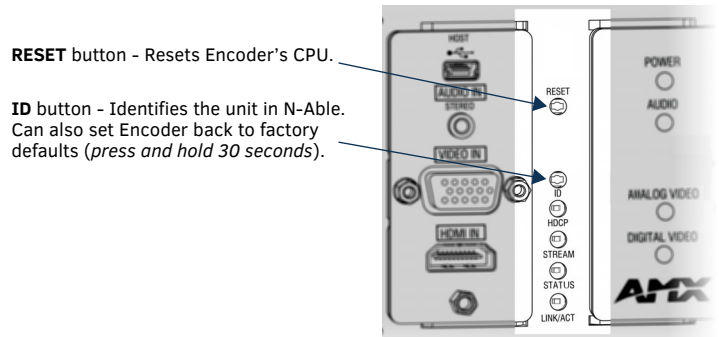

RESET button - Resets Encoder's CPU.

ID button - Identifies the unit in N-Able. Can also set Encoder back to factory defaults (*press and hold 30 seconds*).

FIG. 3 BUTTONS LOCATED ON FRONT-CENTER OF UNIT

Establishing Connection

N2315 4K Encoders are shipped with **DHCP** as their default IP mode. The IP address is assigned automatically based on the network DHCP server. If no DHCP server is found, the unit will use **Auto IP** mode instead (with a default IP address of 169.254.xxx.xxx).

Before using your N2315 4K Encoder unit, it must be configured using the free N-Able device management software. However, you will not be able to configure units until they are in the same subnet as the host computer. The sample steps below show how the required changes (to the host computer's IP settings) are made in a Windows environment.

Steps for IP address configuration:

1. From the **Control Panel > Network and Internet** dialog box, select **Network and Sharing Center**.
2. Select **Change adapter settings**.
3. Select the wired interface connected to your AV network.
4. Click the **Properties** button.
5. Scroll down in the list to the **Internet Protocol Version 4 (TCP/IPv4)** option. Highlight it and click the **Properties** button.
6. Enable the **Use the following IP address** option, and enter the static IP address *provided to you by your network administrator*.

NOTE: If the computer does not need Internet access, you can simply enter a unique 169.254.xxx.xxx IP address with a 255.255.0.0 Subnet mask. Please contact your network administrator if you are unsure of how to configure the existing interface. If the computer has a statically-assigned IP address, click on the Advanced button. Then click Add to enter a unique 169.254.xxx.xxx address with a subnet of 255.255.0.0.

Steps for auto discovering devices on the network:

1. Use the host computer to download and install the latest version of N-Able:
   PC version - *http://www.amx.com/products/N-ABLE-PC.asp*
   Mac version - *http://www.amx.com/products/N-ABLE-MAC.asp*
2. Attach your N2315 4K Encoder unit(s) to the layer-3 network switch.
3. Connect the host computer to the layer-3 network switch.
4. Open the N-Able application.

If all devices do not appear automatically, click the **Auto Discover** button on the **Unit Management** tab. This issues a broadcast command that will discover all units even if they are not in the same IP subnet.

Logging in Using N-Able Software

Once the host IP address is configured properly, you can view all discovered units using the N-Able software. Access the N2315 4K Encoder units from the following tabs:

- **Unit Management** tab - **N2300 Encoder/Decoder** is listed in the **Type** field.
- **Video Matrix** tab - N2315 4K Encoder units are found on the **N2300** sub-tab of this screen.

Double-click the unit's name (in one of the lists mentioned above) to view its **Settings** page. If prompted, enter **admin** and **password** for the default username and password. Once logged in, you can change the username and password (using the options on the unit's **Settings** page). From this page, you can access any of the main pages of the unit's GUI.

NOTE: If you would like for N-Able to support auto-login to your units, make sure N-Able's Device Auto-login settings match the unit's username and password (by selecting N-Able > Settings from the N-Able tool bar).

NOTE: N2315 4K Encoder units can be configured to force HTTPS connections, so your web browser may give you a security warning. N-Able on Windows will ask you to download OpenSSL for Windows to connect HTTPS.

Basic KVM Setup

The N2315 Wallplate Encoders and N2322 Decoders are KVM-capable. By default, USB connections are enabled and configured to follow video switching. Follow these steps for basic KVM setup.

1. On the N2315 Wallplate Encoder, connect the USB Mini-B port to the computer to be controlled.
2. Connect the computer's video output to the Encoder's **HDMI IN** port.
3. On the N2322 Decoder, connect the **HDMI OUT** to the display.
4. Connect a USB keyboard and mouse to the Decoder's USB Standard-A ports (they can be plugged into either port).
5. Using N-Able, click the **Unit Management** tab.
6. Click the **Auto Discover** button to discover your new devices (if you have not already done so).
7. Once discovery is complete (and you see the new units listed in N-Able), click the **Video Matrix** tab.
8. On the matrix, click the common cell for the desired Encoder/Decoder streaming combination. See the screen shot below for an example.
9. Click the **Take** button to make the change to your matrix. The radio button turns green to indicate the connection was successful.
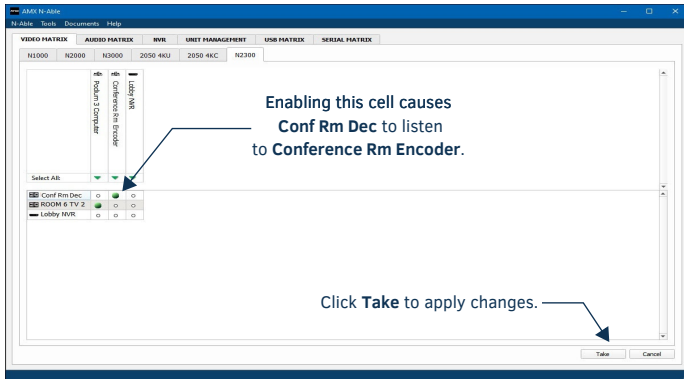

FIG. 4 CREATING STREAMING COMBINATIONS

Video/USB Switching Options

Switching Option	Description
USB Follows Video	By default, units can be switched using N-Able without modifying the configuration. When you switch video streams (using the matrix as shown above) the USB functionality will follow the video.
Independent USB Switching	Use N-Able's **USB Matrix** tab to switch USB control (without affecting video).
Independent Video Switching	To switch video streams *without* affecting USB control, first select **N-Able > Settings** from N-Able's main menu. When the **N-Able Settings** dialog box is displayed, disable the **USB follows Video switching for KVM units**. Now you can use the **Video Matrix** to switch video streams only.

Specifications

Product Specifications	
Models Available:	NMX-ENC-N2315-WP-BL (black) NMX-ENC-N2315-WP-WH (white)
Power Requirements:	Powered via a PoE switch or other equipment with a PoE source. Conforms to IEEE 802.3af Class 3 (802.3at Type 1).
Dimensions:	4 1/16" x 3 1/2" x 2 1/4" (10.31 cm x 8.84 cm x 5.72 cm)
Weight:	Approx. .75 lb (0.34 kg)
Certifications:	FCC, CE, and UL
Environmental:	**Temperature:** 32° to 104°F (0° to 40°C) **Humidity:** 10% to 90% RH (non-condensing)
Installation	Mounts onto standard 2 gang US back boxes Mounts into standard decor style wallplates (not included)

Troubleshooting Guidelines

Problem	Possible Solution
Video is not transmitting.	• Verify that the Encoder **TX Enable** setting is turned on.
Local Play graphic is displayed.	• Verify Decoder is assigned to view a valid stream of an active Encoder. • Verify that Encoder and Decoder are on the same subnet. • Verify Decoder is currently in live play mode (black text on matrix view). • Verify network is properly configured and set up. If needed, connect Encoder directly to Decoder to bypass network.
Host Play graphic is displayed.	• Verify Encoder is in live play mode (black text in matrix). • Verify source is attached and is outputting a valid signal (**HDMI** LED on Encoder is on).
Black screen/no graphic is displayed.	• Set Decoder to local play. If the local play graphic does not appear, check the display input settings and cabling. • If local play appears, set Decoder to live play and verify network is configured properly. • If screen is black with a slight sparkle effect, verify that your switch has Jumbo Frame support enabled.
No audio is detected.	• If there is no audio on <u>all</u> Decoders, verify audio settings are correct on Encoder. • If there is no audio on a <u>single</u> Decoder, verify audio settings are correct on Decoder.

Please contact technical support at svsisupport@harman.com or 256.461.7143 (x9900) for assistance with any installation issues.