Overview

The Modero NXV-300 is an ideal solution when you need the intelligence and ease of use that only a touch panel can offer but from remote locations - the back of the room, across the campus or anywhere over the Internet. This small rack-mountable device (similar in size to an NI-700 NetLinx Controller) allows users to access their system via any PC or Mac via Virtual Network Connection (VNC). Users simply navigate to the device using a browser (Internet Explorer, Firefox and Safari for PCs and Firefox and Safari for Macs) and login with a username/password. Except for viewing the device in a browser window and interacting with a mouse, everything looks and works similar to using an Modero Touch Panel. And the NXV-300 is easily configured for viewing. It is viewable in two resolutions, 800x480 and 480x272, which allows the use of many existing touch panel page files.

Common Application

Ideal for simplified room control, convenient back-up in case a touch panel is inaccessible, cost-effective secondary control, or enhanced help desk support.
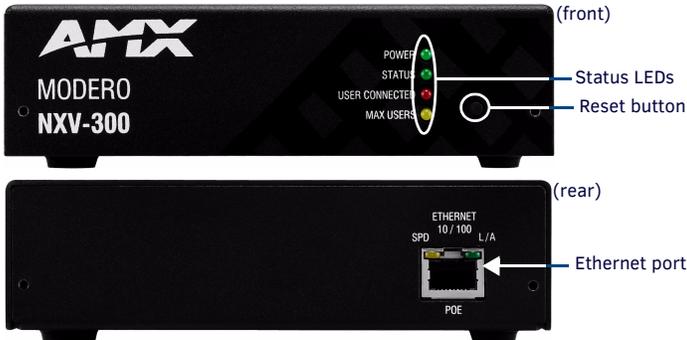

FIG. 1 NXV-300 MODERO VIRTUAL TOUCH PANEL

Product Specifications

NXV-300 SPECIFICATIONS	
Dimensions (HWD):	1.63" x 5.50" x 4.06" (4.13 cm x 13.97 cm x 10.32 cm)
Weight:	1.40 lbs. (0.64 kg)
Front Panel Components:	• Power LED (green): Lights to indicate that the unit has powered up. Any state other than on indicates the unit is either not powered, or has not completed boot up. Status LED (green): Lights to show the status of the connection between the NXV-300 and the Master. • User Connected LED (red): Lights to indicate a user remotely accessing the device. • Maximum User LED (yellow): Lights to indicate that the device has the maximum number of users (3) connected to it. • Reset Button: Holding reset button for 5 seconds will access the Setup pages. Holding button for 30 seconds will reset the device to factory defaults.
Rear Panel Connectors:	• Ethernet Port - 10/100 Ethernet with PoE. LEDs show communication activity, connection status, speeds, and mode information: SPD (speed) - Yellow LED lights On when the connection speed is 100 Mbps and turns Off when the speed is 10 Mbps. L/A (link/activity) - Green LED lights On when the Ethernet cables are connected and terminated correctly, and blinks when receiving Ethernet data packets.
Power Requirements:	• Maximum power draw: 2.2W • PoE powered – no local Power Supply needed • IEEE 802.3af Compliant
Memory:	• 64 Mbytes of RAM • 256 Mbytes of FLASH
Output Resolution:	• 480 x 272 pixels • 800 x 480 pixels
Operating Environment:	• Operating Temperature: 32°F - 104°F (0°C - 40°C) • Relative Humidity: 5% to 85% non-condensing • Intended for indoor use only
Other AMX Equipment:	• PS-POE-AF PoE Injector (FG423-80) • AC-DIN-CS3 DIN Rail Mounting Bracket (FG532-01) • AC-RK Accessory Rack Kit (FG515)
Certifications:	• FCC Class B • CE • IEC60950 • RoHS

Wiring and Connections

The NXV-300 connects to the NetLinx Master via an Ethernet switch, as indicated in FIG. 2:
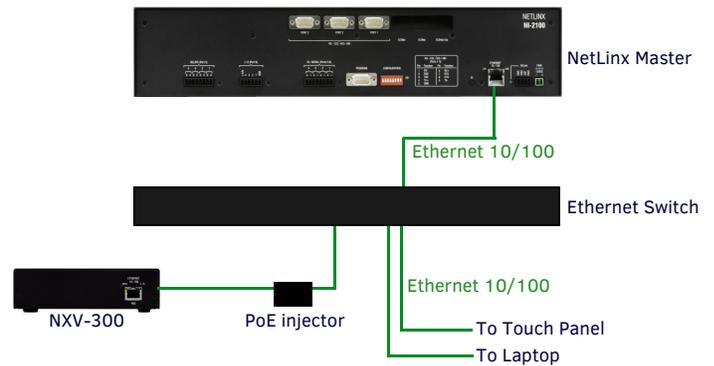

FIG. 2 NXV-300 INSTALLATION

After completing the installation, consult the *Setup Pages and Descriptions* section of the *NXV-300 Operation/Reference Guide*, available at **www.amx.com**, for instructions on specifying IP and Security settings.

Ethernet 10/100 Base-T RJ-45 Wiring Configuration

The table below describes the pinouts, signals, and pairing for the Ethernet 10/100 Base-T connector and cable.

ETHERNET PINOUTS AND SIGNALS				
Pin	Signals	Connections	Pairing	Color
1	TX +	1 --------- 1	1 --------- 2	White-Orange
2	TX -	2 --------- 2		Orange
3	RX +	3 --------- 3	3 --------- 6	White-Green
4	no connection	4 --------- 4		Blue
5	no connection	5 --------- 5		White-Blue
6	RX -	6 --------- 6		Green
7	no connection	7 --------- 7		White-Brown
8	no connection	8 --------- 8		Brown

FIG. 3 diagrams the RJ-45 pinouts and signals for the Ethernet RJ-45 connector and cable.
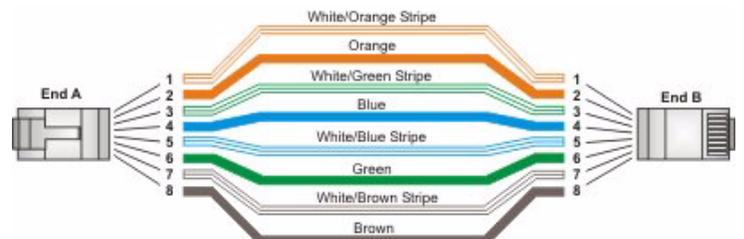

FIG. 3 STRAIGHT-THROUGH WIRING

PoE (Power Over Ethernet)

The NXV-300 uses CAT5/CAT6 wire via the Ethernet port for PoE power. The maximum power draw for the NXV-300 is 2.2 watts.

Use the PS-POE-AF Power over Ethernet Injector (FG423-80) to simplify wiring and installation by eliminating the need for an AC outlet at each point of installation.

Note: The NXV-300 can be placed up to approximately 330' (100 meters) from the nearest PoE Injector.

- If used with a non PoE-capable Ethernet switch, then an optional PS-POE-AF Power-over-Ethernet (PoE) power supply is required to provide power to the NXV-300.
- If the NXV-300 is used with a PoE-capable Ethernet switch, then no PoE Injectors are required.

Configuration

Accessing the NXV-300 via Zero-Config Networking

A user does not need to know the device IP address. That is purpose of having Bonjour. Anyone with a zero-config network plugin (i.e. Bonjour) can access the device.

The default state of the NXV-300 allows anyone with the device IP address to access the device via a Bonjour-enabled Web browser, up to the maximum of three users at a time. This may be changed by setting a password through the *G4 Web Control* page, which then prompts the user to enter the password when accessing the device.

The NXV-300 may also be accessed via a standard VNC client, making it accessible from smartphones and computers with VNC viewer software.

NOTE: The NXV-300 should not be accessed by a smartphone via a browser, as this may affect the screen appearance. Smartphone access should always be done through VNC viewers.

Changing Screen Resolution

Because the NXV-300 may be accessed from computers and smartphones of varying screen sizes, the screen resolution of the touch panel interface may be modified to fit available screens. The resolutions available are 480 x 272 pixels and 800 x 480 pixels. To change the resolution for the display:

1. From the *Setup* page, click the **Display** icon.
2. In the *Display* page (FIG. 4), click the **Resolution** button until it displays the desired resolution for the display.
3. Click the **Back** button to return to the *Setup* page.
4. Click the **Protected Setup** icon.
5. In the *Protected Setup* page, click the **Reboot** button and wait for the device to finish rebooting.
6. The device should now display the new resolution.

FIG. 4 DISPLAY PAGE (WITH RESOLUTION BUTTON)

NOTE: The NXV-300 MUST be rebooted after changing the display resolution.

In the case of smartphone access, many VNC viewers for smartphones will automatically scale images for the best available display on the screen.

Determining the IP Address of the NXV-300

NXV-300 units feature a built-in zero-configuration networking client that allows you to determine the unit's IP address via Bonjour or a similar zero-configuration client. Zeroconf (also known as "Bonjour") technology provides a general method to discover services on a local area network.

Zero-Configuration (Bonjour) Client

Many zero-configuration clients are available for use, but for the purposes of this document, we will refer to the Bonjour plugin for Internet Explorer. It is free and widely available for download. If you don't already have it installed on your PC, download and install *Bonjour for Windows* before you begin.

If working from a Macintosh, use a zero-configuration plug-in for your Web browser. The Bonjour plug-in is already installed in Safari, but other plug-ins may be used as well.

Note: The NXV-300 is set to DHCP by default.

1. With *Bonjour for Windows* running on a PC that has access to the LAN that the NXV-300 resides on, connect the NXV-300 to the network (see the *Wiring and Connections* section).
2. Select the device from the Bonjour list of devices on the browser.
3. The browser will bring up the main touch panel page. To open the *Setup* pages, press and hold the **Reset** Button on the front of the device for 5 seconds.
4. Access the Protected Setup pages, using your password if necessary. The unit's IP Address is displayed in the System Settings - *IP* page in the *Protected Setup* pages.

At this point, you can assign a static IP Address if necessary.

If no DHCP server can be detected by the device, then the device will default to the IP address **169.254.2.2**.

Additional Documentation

Refer to the *NXV-300 Operation/Reference Guide* (available at www.amx.com) for complete configuration information.

93-2263-01   REV: F

3000 RESEARCH DRIVE, RICHARDSON, TX 75082 AMX.com | 800.222.0193 | 469.624.8000 | +1.469.624.7400 | fax 469.624.7153
AMX (UK) LTD, AMX by HARMAN - Unit C, Auster Road, Clifton Moor, York, YO30 4GD United Kingdom • +44 1904-343-100 • www.amx.com/eu/

9 3 - 2 2 6 3 - 0 1

Last Revised: 7/29/2015