

For more detailed installation, configuration, programming, file transfer, and operating instructions, refer to the NXD-CV5 Instruction Manual, available online at www.amx.com.



FIG. 1 5" Modero Widescreen WallMount Video Touch Panel

ATTENTION!

Verify you are using the latest NetLinX Master Firmware (available from www.amx.com) on your ME260/64 and NI-Series Controllers. Verify the TPDesign4 program being used is **Version 2.6** or higher.

Overview

The NXD-CV5 (FG2261) widescreen Color Video (CV) panel displays NTSC/MPAL/PAL/SECAM video formats within variable sized windows of up to 800 x 480. It includes a built-in microphone, speakers, audio/headphone connector, and six NetLinX programmable pushbuttons.

The NXD-CV5 supports Intercom functionality which allows two communicating CV5 panels (controlled by the NetLinX Master must control all intercom and paging) to transmit half-duplex audio signals over a network and be used as an Intercom system. Audio and Video is delivered to the panel via a CAT5 connection from an optional NXA-AVB/ETHERNET Breakout Box.

Specifications

NXD-CV5 (FG2261) Specifications	
Dimensions (HWD): NXA-RK5 (FG2904-55) NXD-CV5 (FG2261) CB-TP5 (FG038-10)	3 RKU (rack units) high (13.26 cm) 5.22" x 19.0" x 0.50" (13.26 cm x 48.26 cm x 1.27 cm) (<i>optional</i>) - Faceplate included: 4.15" x 5.59" x 3.23" (10.50 cm x 14.20 cm x 8.20 cm) - Conduit/wallbox: 4.27" x 5.14" x 3.40" (10.86 cm x 13.06 cm x 8.64 cm) (<i>optional</i>)
Power Requirements:	- Constant current draw: 650 mA @ 12 VDC - Startup current draw: 1.3 A @ 12 VDC
Memory:	64 MB SDRAM 64 MB flash chip (not-upgradeable - factory programmed)
Weight:	1.76 lbs (0.80 kg)
Certifications:	FCC Part 15 Class B, CE, and IEC 60950
Panel LCD Parameters:	- Aspect ratio: 16 x 9 - Brightness (luminance): 170 cd/m2 - Channel transparency: 8-bit Alpha blending - Contrast ratio: 250:1 - Display colors: 256 thousand colors (18-bit color depth) - Dot/pixel pitch: 0.14 mm - Panel type: TFT Color Active-Matrix - Screen Resolution: 800 x 480 pixels (HV) @ 60 Hz frame frequency - Video format: NTSC, MPAL, PAL, and SECAM - Viewing dimensions: 4.3" x 2.58" (109.2 mm x 65.2 mm)
Viewing Angles:	90° total horizontal viewing angle - Horizontal: ± 45° (left and right from center) 45° total vertical viewing angle - Vertical: + 15° (up from center) and -30° (down from center)
IR Reception Angle:	- Horizontal: ± 25° (left and right from center) - Vertical: ± 15° (up and down from center)
Motion Sensor (PIR) Activation:	- Horizontal: ± 25° (left and right from center) - Vertical: ± 15° (up and down from center)
Supported Audio Sample Rates:	48000Hz, 44100Hz, 32000Hz, 24000Hz, 22050Hz, 16000Hz, 12000Hz, 11025Hz, and 8000Hz.
Front Panel:	- Light Sensor: Photosensitive light detector for automatic adjustment of the panel brightness - Motion Sensor (PIR): Proximity Infrared Detector to wake the panel when panel is approached.

NXD-CV5 Specifications (Cont.)

Front Panel (Cont.)	- IR Receiver: 38 KHz and 455 KHz AMX IR frequencies - Sleep Button: Pushbutton (grey) provides both access to the Setup and Calibration page and toggles the panel between a "sleep" or "wake" state - Microphone: Used for intercom applications (<i>requires the NXA-AVB/ETHERNET Breakout Box for analog communication</i>) - Speakers: Stereo output with a frequency response of 500 Hz - 7 KHz - Buttons: 6 programmable pushbuttons
Side Panel Connectors:	- Power: 2-pin 3.5 mm mini-Phoenix connector - Ethernet 10/100 Port: Single RJ-45 port for 10/100 Mbps communication. LEDs show communication activity, connections, speeds, and mode information: <i>L/A-link/activity</i> - Green LED lights On when the Ethernet cables are connected and terminated correctly and then blinks when receiving Ethernet data packets. <i>SPD-speed</i> - Yellow LED lights On when the connection speed is 100 Mbps and turns Off when the speed is 10 Mbps. - Stereo Output Connector: Stereo output through a 3.5mm mini-jack (for use with external speakers or headphones) - Mini-USB Connector: 5-pin Mini-USB connector used for programming, firmware update, and touch panel file transfer between the PC and the target panel - USB Connector: Type A USB port connects an external keyboard or mouse device for use with Virtual PC applications - Audio/Video Connector: RJ-45 connection for A/V signals (via CAT5) between the NXA-AVB/ETHERNET Breakout Box and the panel
Operating /Storage Environments:	- Operating Temperature: 0° C (32° F) to 40° C (104° F) - Operating Humidity: 20% - 85% RH - Storage Temperature: -20° C (-4° F) to 60° C (140° F) - Storage Humidity: 5% - 85% RH
Included Accessories:	- Installation Kit for NXD-CV5 panels (KA2261-01): 2-pin 3.5 mm mini-Phoenix connector - Three Drywall clips (62-5924-05) and #6 - sheet metal screws - Three Phillips-head screws (#4-40 x 0.250 Black) - Mounting Template - Flush Mount Drywall Installation - Trim Ring with button openings (60-2261-04) (<i>factory installed</i>) - Trim Ring without button openings (60-2261-05)
Other AMX Equipment:	- CB-TP5 Conduit/Wallbox (FG038-10) - NXA-AVB/ETHERNET Breakout Box (FG2254-10) - Provides video/audio distribution to the A/V panel over CAT5 cable (up to 200'/60.96 m) and accepts either Composite or S-Video - NXA-RK5 Rack Mount Kit for 5" Wall Mount panels (FG2904-55): 5" Rackmount - Four Screws, #10-32 x.625, PH Truss, BLK - Four Washers, #10, Black Nylon - Three Screws, #4-40 x.250, PPH, BLK - NXA-CV5AM, Modero 5" Angle Mount Kit (FG2904-56): - Wedge for 5" WallMount - Wedge Mounting Template - Flush Mount Drywall Installation - Three 1/8" diameter by 3" length Toggle Bolts - Three 4-20 x.375 LG screws, PPH, Plastite, Black Zinc

Panel Connectors and Wiring

FIG. 2 shows the connectors located on the CV5 Modero Video panels. The Audio/Video RJ-45 connector provides differential audio/video signals between the touch panel and the NXA-AVB/ETHERNET. This connector routes Composite video, Stereo (left/right) audio, and microphone audio.

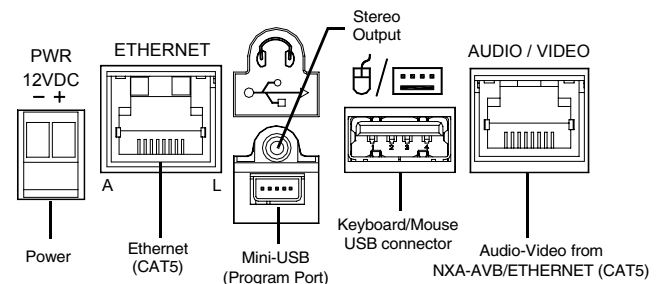


FIG. 2 Connector layout on the CV5 Touch Panels

Wiring a power connection

Use a 12 VDC-compliant power supply to provide power to the CV5 through the 2-pin 3.5 mm mini-Phoenix connector (FIG. 2). Use the power requirements information listed in the Specifications table to determine the power draw. The incoming PWR and GND cable from the power supply must be connected to their corresponding locations within the PWR connector.

NXA-AVB/ETHERNET Breakout Box

FIG. 3 shows the front and rear connectors on the optional NXA-AVB/ETHERNET breakout box. This breakout box can be mounted on either a horizontal flat surface or in an equipment rack by removing the front faceplate and securing it to an optional AC-RK Rack Kit.

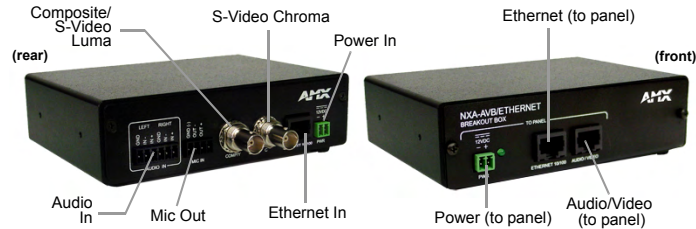


FIG. 3 Connector layouts on the NXA-AVB/ETHERNET Breakout Box

Wiring the NXA-AVB/ETHERNET Connectors and Cables

The inputs and outputs on the breakout box are separated into front and rear connectors. The rear connectors are used to input external signals. The front connectors are used to communicate signals between the NXA-AVB/ETHERNET and a target Modero panel. FIG. 4 provides a layout of the wiring connection both into and from the breakout box. **Power should be applied to the NXA-AVB/ETHERNET only after all connections have been secured onto both the breakout box and the target panel.**

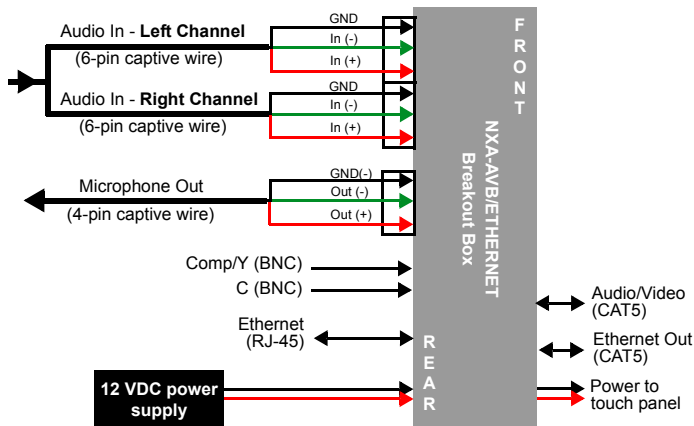


FIG. 4 NXA-AVB/ETHERNET Breakout Box connector wiring diagram

Use a standard CAT5 Ethernet cable (connected to the side of the Wall Panel) to provide both communication and 10/100 network connectivity between the panel, breakout box, NetLinX Master, and the network. The rear-panel wiring connections are described below (from left to right):

- AUDIO IN:** 6-pin mini-Phoenix connector, divided into left and right audio channels. Each channel is divided into GND, IN+, and IN- terminal cable connectors (2 sets of 3 for each channel).
- MIC OUT:** 4-pin mini-Phoenix connector, divided into GND, OUT-, and OUT+ terminal connectors.
- Video In BNCs:** Feeds either Composite/S-Video Luma or S-Video Chroma signals into the NXA-AVB/ETHERNET. This feed is then redirected out to a Modero panel through the front Audio/Video CAT5 port.
- ETHERNET:** RJ-45 connector routes data to the G4 touch panel through the front Ethernet port. These connections use a standard CAT5 Ethernet cable to provide communication between the target touch panel, Breakout Box, and NetLinX Master.
- PWR** 2-pin mini-Phoenix connector that connects to a 12 VDC-compliant power supply. This port can be used to provide power to a Modero panel by sending it through the NXA-AVB/ETHERNET (rear power connector through to the front power connector).

Wiring for Unbalanced Audio

Use FIG. 5 to configure an unbalanced audio connection.

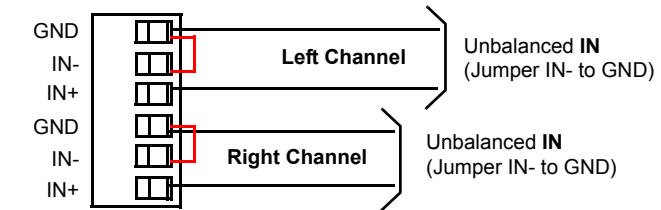


FIG. 5 Wiring the rear AUDIO IN and MIC OUT for use with Unbalanced Audio

Wiring for Balanced Audio

Use FIG. 6 to configure a balanced audio connection.

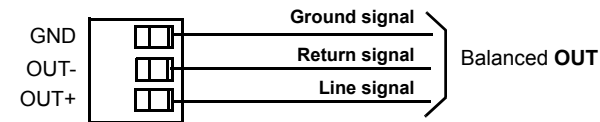


FIG. 6 Wiring the rear AUDIO IN and MIC OUT for use with Balanced Audio

Modero Setup and System Connection

- Carefully remove the panel from the shipping box, peel the protective plastic cover from the LCD and apply power to the panel.
- From below the LCD, press the grey Front Setup Access button for 6 seconds (passing-over the Setup page) to access the Calibration setup page and follow the on-screen instructions.
- Press the on-screen **Protected Setup** button on the Setup page.
- Enter the panel password into the on-screen keypad (default is **1988**).
- Press the **Device Number** field to open the on-screen Device Number keypad and enter a value for the panel (default is **10001**).
- Press **Done** when finished and press the on-screen **Reboot** button to save any changes and cycle power to the panel.
- Press the grey Firmware Setup Access button for 3 seconds to open the Setup page and touch the on-screen **Protected Setup** button.
- Repeat step 4 to continue to the Protected Setup page.
- Press the **System Connection** button to open the System Connection page (FIG. 7).

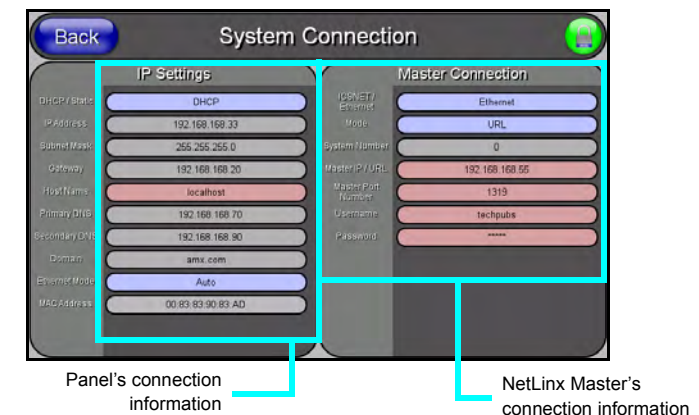


FIG. 7 Sample System Connection page

- Toggle the **DHCP Static** field to **DHCP**.
- Toggle the **Type** field to **Ethernet**.
- Toggle the **Mode** field to **URL**.
- Enter both the System Number and IP Address of the target Master.
- Enter a valid Username and Password if the target Master is secured.
- Press the **Back** button and then press the on-screen **Reboot** button to save any changes and cycle power to the panel.

