Quick Start Guide

NXD-435P 4.3" Modero® Portrait Wall/Flush Mount Touch Panel

Overview

The NXD-435P Modero® Portrait Wall/Flush Mount Touch Panel includes a mini-USB port for programming, and five NetLinx-programmable buttons. All power is supplied via Power Over Ethernet (PoE), utilizing a PS-POE-AF PoE Injector (**FG423-80**) or equivalent PoE device.The NXD-435P comes in black (**FG2262-14**) and white (**FG2262-15**).

For more detailed installation, configuration, programming, file transfer, and operating instructions, refer to the *NXD-430/435 Operation/Reference Guide*, available online at **www.amx.com**.

FIG. 1 NXD-435P-BL 4.3" Modero Wall/Flush Mount Touch Panel - Black

Specifications

NXD-435P (FG2262-14/15) Specifications	
Dimensions (HWD):	• NXD-435P: 4.13" x 5.5" x 2.13" (10.48 cm x 13.97 cm x 5.40 cm)
Weight:	• 0.65 lbs (0.29 kg)
Power Requirements:	• PoE Powered - No local Power Supply needed • Max power draw: 5.5W.
Memory (Factory default):	• 128 MB SDRAM • 256 MB integrated Flash Memory (not upgradeable - factory programmed)
Certifications:	• FCC Part 15 Class B • CE • IEC 60950 • RoHS
Panel LCD Parameters:	• Aspect ratio: 9 x 16 • Minimum brightness (luminance): 280 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: WQVGA • Screen resolution: 272 x 480 pixels (HV) @ 60 Hz frame frequency • Viewing dimensions: 3 13/16" x 2 3/16" (9.68 cm x 5.56 cm)
Active Screen Area:	• 3 3/4" x 2 1/8" (9.53 cm x 5.40 cm)
Viewing Angles:	• Left/Right/Up/Down: 60/80/80/80
Front Panel Components:	• *Center Button:* Capacitive touch button provides both access to the *Setup* and *Calibration* pages and toggles the panel between a "sleep" or "wake" state. This button is also user-programmable. • *Capacitive Touch Buttons:* four user-programmable buttons, two each above and below the Center Button.

NXD-435P Specifications (Cont.)	
Side Panel Connectors:	• Ethernet 10/100 Port: RJ-45 port for 10/100 Mbps communication. The Ethernet port automatically negotiates the connection speed (10 Mbps or 100 Mbps), and whether to use half duplex or full duplex mode. Power is supplied through Power Over Internet (PoE). NXD-435P panels communicate with the NetLinx Master using the ICSP protocol over Ethernet. LEDs show communication activity, connections, speeds, and mode information: *L/A-link/activity* - Yellow LED lights On when the Ethernet cables are connected and terminated correctly and then blinks when receiving Ethernet data packets. *SPD-speed* - Green LED lights On when the connection speed is 100 Mbps and turns Off when the speed is 10 Mbps. • 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.
Operating /Storage Environments:	• Operating Temperature: 0° C (32° F) to 40° C (104° F) • Operating Humidity: 5% - 85% relative humidity (non-condensing) • Storage Temperature: -20° C (-4° F) to 60° C (140° F) • Storage Humidity: 5% - 85% RH
Other AMX Equipment:	• PS-POE-AF PoE Injector (**FG423-80**) • CC-USB Type-A to Mini-B 5-wire programming cable (**FG10-5965**)

Panel Connectors and Wiring

FIG. 2 shows the connectors located on the bottom of the NXD-435P Modero panel. The mini-USB port is used for programming the touch panel.

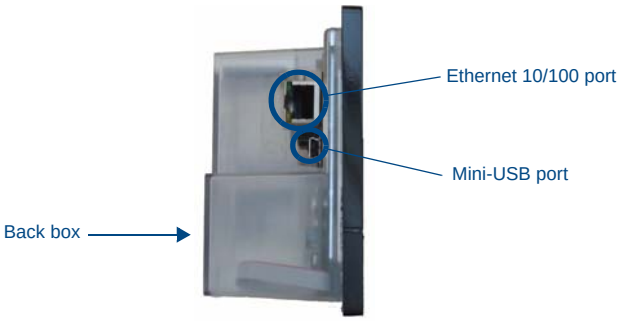

FIG. 2 Connector layout on the NXD-435P Modero Wall/Flush Touch Panel

For more information on connection and use of the Panel Connectors, as well as information on programming, please refer to the *NXD-430/435 Operation/Reference Guide*, available at **www.amx.com**.

Capacitive Touch Buttons

The NXD-435P has one main button on the front of the device, in the center of the bezel. This button has several uses:

- Press the button once to start a previously programmed function, or to turn off the display if not previously programmed.
- Press and hold the button for 6 seconds to put the device into *Setup Mode*.
- Press and hold the button for 9 seconds to enter *Calibration Mode*.
- Press and hold the button for 20 seconds to reboot the panel.

The NXD-435 also has four smaller buttons, two above and two below the front button, that may be programmed for individual functions.

All five buttons on the NXD-435P utilize capacitive touch, which detects the electrical conductivity of human skin and reacts directly to touch. This allows the button to resist wear and dirt, as the button does not have any actual physical button to depress.

NXD-435P Setup and System Connection

1. Carefully remove the panel from the shipping box, peel the protective plastic cover from the LCD, and apply power to the panel via the PoE Injector.
2. From the right side of the LCD, press the front button for 9 seconds (passing over the *Setup* page) to access the *Calibration* setup page and follow the on-screen instructions to return to the main *Setup* page.
3. Press the on-screen **Protected Setup** button on the *Setup* page.

4. Enter the panel password into the on-screen keypad (default is ***1988)***.
5. Press the *Device Number* field to open the on-screen Device Number keypad and enter a value for the panel (*default is 32001*).
6. Press the **System Settings** button to open the *System Settings* page.
7. From the **IP** tab, toggle the *DHCP Static* field to **DHCP** if it is not already set to DHCP.
8. From the **Master** tab, toggle the *Type* field to **Ethernet**.
   - Toggle the *Mode* field to **URL**.
   - Enter both the System Number and IP Address of the target Master.
9. Enter a valid Username and Password if the target Master is secured.
10. Press the **Back** button and then press the on-screen **Reboot** button to save any changes and cycle power to the panel.

Installation of the NXD-435P

The NXD-435P can be installed either directly into the solid surface environment, using either solid surface screws or the included locking tabs for different mounting options. For more information, please refer to the *NXD-430/435 Operation/Reference Guide*, available at **www.amx.com**. The NXD-435P is contained within a clear outer housing known as the back box (FIG. 3). This back box is not removed when installing the device into a wall.

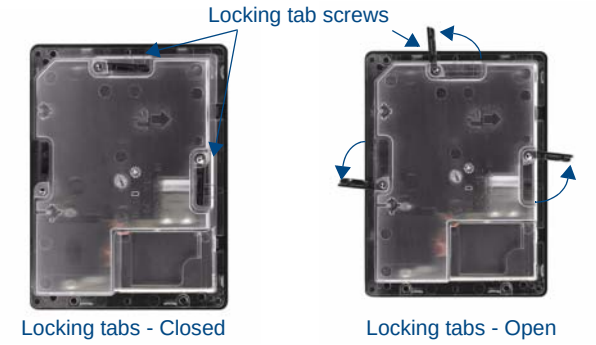

FIG. 3 NXD-435P backbox with closed and open locking tabs

Installing the NXD-435P into a wall

The NXD-435P comes with a clear plastic backbox (FIG. 3) designed to attach the panel to most standard wall materials. This backbox has a locking tab on three of the four faces (missing only on the face containing the space for the connections) to help lock the backbox to the wall. These locking tabs are only extended AFTER the backbox is inserted into the wall.

WARNING: *When installing the backbox, make sure that the assembly is in the correct position and in the correct place. Once the locking tabs are extended and locked into place, removing the backbox may be difficult without having access to the back of the wall or causing damage to the wall.*

Note: *In order to guarantee a stable installation of the NXD-435P, the thickness of the wall material must be a minimum of .50 inches (1.27cm) and a maximum of .875 inches (2.22cm).*

WARNING: *The maximum recommended torque to screw in the locking tabs on the plastic back box is 5 IN-LB [56 N-CM]. Applying excessive torque while tightening the tab screws, such as with powered screwdrivers, can strip out the locking tabs or damage the plastic back box.*

1. Prepare the area by removing any screws or nails from the drywall before beginning the cutout process.
2. Cut out the surface for the back box. Refer to the dimensions in the *NXD-430/435 Operation/Reference Guide*, available from **www.amx.com**, for more information.

CAUTION: *Making sure that the actual cutout opening be slightly smaller than the provided dimensions is highly recommended. This action provides the installer with a margin for error if the opening needs to be expanded. Too little wall material removed is always better than too much.*

3. Remove the front bezel from the NXD-435P.
4. Disconnect the capacitive touch connector from the 10-pin plug on the bezel.
5. Insert both connectors into their corresponding locations along the bottom of the touch panel.
6. Test the incoming wiring by attaching the panel connections to their terminal locations and applying power via the PoE Injector. Verify that the panel is receiving power and functioning properly to prevent repetition of the installation.
7. Thread the incoming Ethernet and mini-USB wiring (if mini-USB access is desired) from their terminal locations through the surface opening. *Leave enough slack in the wiring to accommodate any re-positioning of the panel.*
8. Push the back box into the wall opening. Insure that the locking tabs lie flush against the back box.
9. Extend the locking tabs on the sides of the back box by tightening the screws inside the box until snug. Not all of the tabs must be extended to lock the back box in place, but extending a minimum of two tabs is highly recommended. Apply enough pressure to the screw head to keep the box flush with the wall: this ensures that the locking tabs will tighten up against the inside of the wall.

   The back box is clear to allow visual confirmation that the tabs have been extended and are gripping the wall, as well as in assisting with removal if necessary.

Note: *Do not disconnect the connectors from the touch panel. The unit must be installed with the attached connectors before being inserted into the drywall.*

10. Reconnect the capacitive touch connector to the 10-pin plug on the bezel.
11. Place the bezel back onto the device.
12. Reconnect the terminal Ethernet and USB to their respective locations on either the Ethernet port or NetLinx Master.

Installing the NXD-435P into a Flat Surface using #4 screws

Three #4 mounting screws (not included) are secured through circular holes located at the left and right sides of the NXD-435P.

The outer frame (Mounting Tabs) must be installed flush against the mounting surface.

- Refer to SP-2261-02 for detailed installation dimensions.
- Cutting out the surface slightly smaller than what is outlined in the installation drawings in order to make any necessary cutout adjustments, is highly recommended.

1. Prepare the area by removing any screws or nails from the surface before beginning the cutout process.
2. Cut out the surface for the NXD-435P.
3. Remove the bezel from the NXD-435P.
4. Disconnect the capacitive touch connector from the 10-pin plug on the bezel.
5. Thread the incoming Ethernet and USB wiring from their terminal sources through the surface opening. Leave enough slack in the wiring to accommodate any re-positioning of the panel.
6. Connect the Ethernet and USB connectors to their corresponding locations along the bottom of the un-powered NXD-435P touch panel. The USB connectors can be from either a USB extension cable or a wireless USB RF transmitter.

Note: *Do not disconnect the connectors from the touch panel. The unit must be installed with the necessary connectors before being inserted into the solid surface.*

7. Carefully slide the main unit into the cutout until the Mounting Tabs of the NXD-435P lie flush against the wall.
8. Insert and secure three #4 Mounting Screws (not included) into the corresponding holes located along the sides of the NXD-435P, using a grounded Phillips-head screwdriver, until the unit is secure and flush against the wall.
9. Reconnect the capacitive touch connector to the 10-pin plug on the bezel.
10. Place the bezel back onto the device.
11. Reconnect the terminal Ethernet and USB to their respective locations on either the Ethernet port or NetLinx Master.

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