LX Switch Stations

Installation Instructions

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Overview
These instructions provide guidelines for setting up, installing, and programming the LX Switch Station.

Precautions
• RISK OF ELECTRICAL SHOCK. Turn power off at service panel before beginning installation. Never wire energized electrical components.
• For installation by a licensed electrician in accordance with National and/or local Electrical Codes and the following instructions.
• For indoor use only.
• Read and understand all instructions before beginning installation.
• USE COPPER CONDUCTOR ONLY.
• NOTICE: Do not install if any damage to product is noticed.

Installation
1. Prepare the installation site as necessary. Rough-in wall switch boxes and route power supply and LON Network leads as necessary. Reference Open System Architecture Communication Network Section for additional information on the communication network requirements.
2. Assign Network Address as described in the Assigning Switch Station Network Address Section.
3. With power off, connect power supply leads (FT Version only) and LON Network leads to the Switch Station as shown in the Wiring Diagram.
4. Apply power to the system and verify that the Switch Station's Power Indicator LED (reference Switch Station Controls Diagram) is lit.
5. Program Switch Station button controls and lighting system functionality as described in the Programming Switch Station Functions Section.
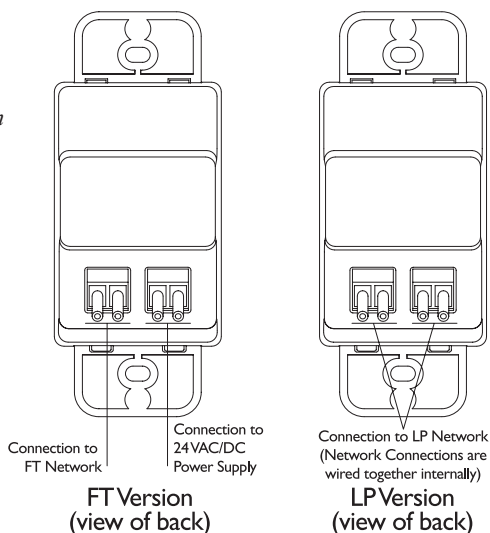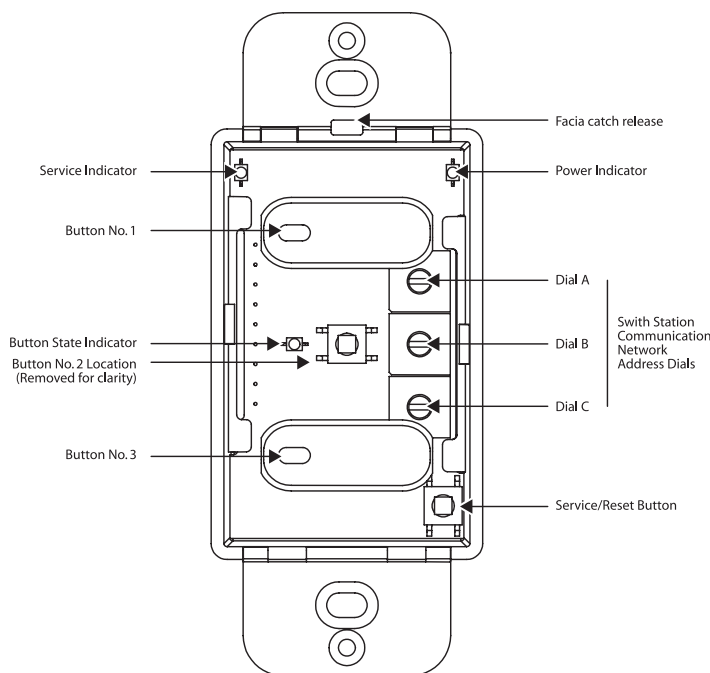
Figure 1:
Wiring Diagram

Connection to FT Network

Connection to 24 VAC/DC Power Supply

Connection to LP Network (Network Connections are wired together internally)

FT Version
(view of back)

LP Version
(view of back)

Figure 2:
Switch Station Controls Diagram

Facia catch release
Service Indicator
Power Indicator
Button No. 1
Dial A
Swith Station Communication Network Address Dials
Button State Indicator
Dial B
Button No. 2 Location (Removed for clarity)
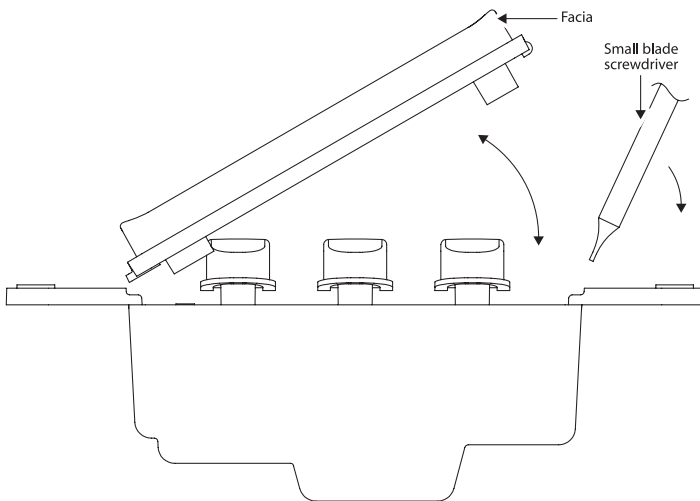Dial C
Button No. 3
Service/Reset Button

Assigning Switch Station Network Address
The Switch Station network address is set via three rotary dials located under the Switch Station facia (face cover) as shown in the Switch Station Controls Diagram. Each Switch Station is factory set to address 001 prior to shipping. For LX-only networks, each Switch Station on the network will need to be assigned a unique network address. Addresses must be assigned in sequential order starting with address 001. For LonWorks Open System Networks, each Switch Station on the network should be assigned address 000. This will place the Switch Station(s) into LonMark compatible mode.

To set the Switch Station Address, carefully remove the Switch Station facia (front cover) to gain access to the address controls. Insert a small blade screwdriver into the facia catch release as shown in the Facia Removal Diagram and gently snap it loose at the top edge. Remove the facia along with any buttons that obscure the three rotary dials as shown in the Switch Station Controls Diagram. Rotate the appropriate dial(s) with the small, blade screwdriver till the indicator points to the appropriate number. Assign each Switch Station its address as delineated in the project plans as applicable. Dial "A" sets the most significant digit of the network address and Dial "C" sets the least significant digit of the network address. For example, address 001 is set by Dial A = "0", Dial B = "0" and Dial C = "1".

After setting the address, reinstall buttons as necessary, noting proper orientation of the button light pipe and button LED indicator. Reattach the Switch Station facia.

Figure 3:
Facia Removal Diagram

Programming Switch Station Functions
For LX-only Mode (Address 001-999), refer to the LX Lighting Controls User's Manual to assign the Switch Station button(s) to the lighting circuit(s) and setup schedules and system functionality using the Touch Tablet Graphical User Interface. For LonMARK Mode (Address 000), use the LX Switch Station plug-in available from Hubbell Building Automation, Inc at www.hubbell-automation.com to assign the Switch Station button(s) to the lighting circuit(s) and setup schedules and system functionality.

Resetting the Switch Station
If needed, the Switch Station can be reset to an unconfigured state or to factory default settings (except network address) by pressing and holding the Service/Reset button. For LX-only Mode (address 001-999), press and hold the Service/Reset button for 3 seconds. For LonMARK Mode (address 000), press and hold the Service/Reset button for 20 seconds. Reference Switch Station Controls Diagram.

Replacing Pilot Buttons with Solid Buttons
If necessary, remove the Switch Station facia as described above. Select and remove the appropriate buttons as described in the project plans or as desired. Install solid buttons (provided with the Switch Station) on the momentary switches as shown in the Switch Station Controls Diagram. Reattach the Switch Station facia.

LX Communications Network

The LX network is a 2-wire communication network. It can operate using any topology (layout) or combination of topologies including Star and T-configurations.

Network cable shall be Belden 8471 or approved equal. Contact HBA for alternate cable types. Maximum total wire length per network segment (without requiring the use of the lLX Router/Repeater Module, p/n LXRRM) shall not exceed 1500 feet. Up to 56 devices can be supported per segment.

NOTE: Do not use shielded cable.

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LONMARK 3.3

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