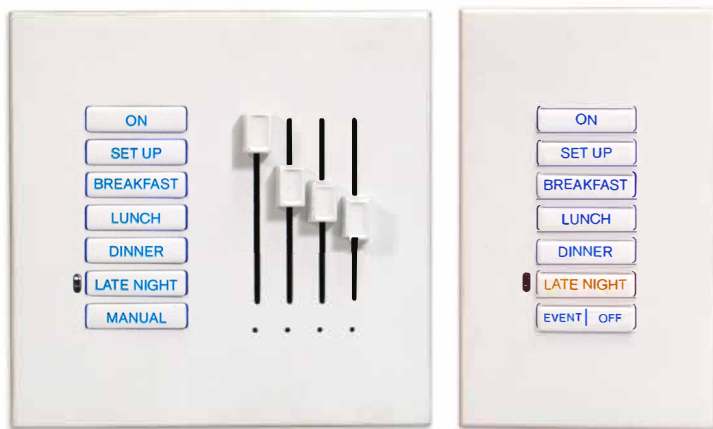




# Vision.net

## Control Stations



Slider Stations:

63303, 63306, 63309, 63312 and 63315

Button Stations:

63321, 63322, 63324 and 63328

For Portable Stations add "P" to above numbers

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Vision.net Station Installation & Operation Guide

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## Important Safeguards

When using electrical equipment, basic safety precautions should always be followed including the following:



- a. **READ AND FOLLOW ALL SAFETY INSTRUCTIONS.**
- b. Do not use outdoors.
- c. Do not mount near gas or electric heaters.
- d. The use of accessory equipment not recommended by the manufacturer may cause an unsafe condition.
- e. Do not use this equipment for other than intended use.
- f. Refer service to qualified personnel.

**SAVE THESE INSTRUCTIONS.**



**WARNING:** You must have access to a main circuit breaker or other power disconnect device before installing any wiring. Be sure that power is disconnected by removing fuses or turning the main circuit breaker off before installation. Installing the device with power on may expose you to dangerous voltage and damage the device. A qualified electrician must perform this installation.

**WARNING:** Refer to National Electrical Code® and local codes for cable specifications. Failure to use proper cable can result in damage to equipment or danger to persons.

**CAUTION:** Wire openings **MUST** have fittings or lining to protect wires/cables from damage.

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## PREFACE

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### About this Guide

The document provides installation instructions for the following Vision.net products:

- Slider Stations: 63303, 63306, 63309, 63312 and 63315
- Button Stations: 63321, 63322, 63324 and 63328
- Portable Stations: Any of the above models with a "P" added to the end of the part number (for example, 63303P).

Please read all instructions before installing or using these products. *Retain this guide for future reference.*

For Vision.net Station configuration instructions, please download the Vision.net Designer software and its accompanying manual from [www.strandlighting.com](http://www.strandlighting.com).



### **IMPORTANT INFORMATION. PLEASE READ!**

This unit is intended for installation in accordance with the National Electric Code® and local regulations. It is also intended for permanent installation in indoor applications only. Before any electrical work is performed, disconnect power at the circuit breaker or remove the fuse to avoid shock or damage to the control. It is recommended that a qualified electrician perform this installation.

### Vision.net System Overview

The Vision.net system is designed to control architectural lighting by distributing both power and intelligence. The system provides processing power and control at each respective station, eliminating the need for a central processor.

Vision.net stations provide individual control of up to 16 sliders or up to 35 buttons per station. Combinations of sliders and buttons can be configured as well. A single gang faceplate can have up to 8 buttons or 3 sliders (with a Grand Master). For more buttons or sliders, just expand the faceplate from a single gang up to a five gang faceplate.

Multiple stations may be linked together for control of up to 127 sliders.

Vision.net products are controlled by the Vision.net System protocol. All Vision.net control devices must be connected to the Vision.net system and given a unique ID (or address) in order to interact properly. The ID identifies the device on the network and allows the device to avoid network collisions when transmitting data.

## QUICK START

This section is designed for experienced technicians in order to get a standard Vision.net Station up and running quickly.

### Use the following checklist:

- Step 1. Install unit (refer to "Installation" on page 5).
- Step 2. Connect to Vision.net network (refer to **Figure 4** on page 7).
- Step 3. Set mode using Vision.net Designer software.

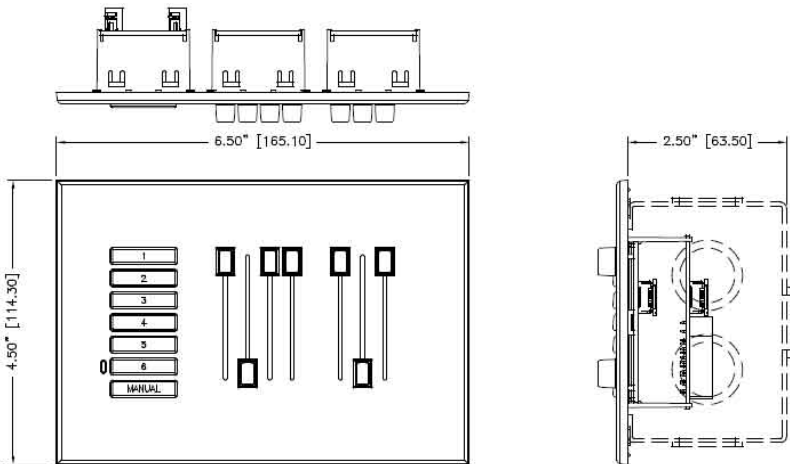
The unit should now be ready for operation.

---

**Note:** Stations are pre-configured at the factory with a Station ID of 1 and are set to activate Presets 1 to 7 in Room 1 of your Vision.net system.

---

The drawing below shows an example of a 3-gang station which is made up of one (1) button station and two (2) slider stations:



**Figure 1: Example 3-Gang Station**

Refer to **Figure 4** on page 7 for example wiring diagrams.

# INSTALLATION

---

This section provides installation instructions for all Vision.net button/slider stations.

## Overview

Electrical Specifications:

- Input Power: +18-26 VDC (powered from Vision.net network)
- Current: 20mA
- Temperature:
  - Storage: -25° to 85° C
  - Operating: 0° to 40° C
  - Relative Humidity: 30-90% (non-condensing)

Communications:

- Strand Vision.net protocol (SVN/485)
- Vision.net 4-Wire Digital LAN
- Contact Closure

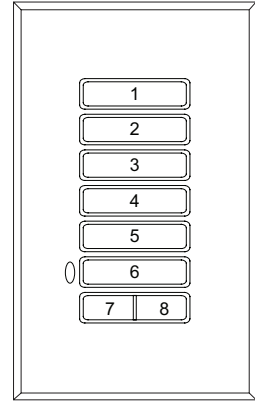
Network Wiring:

The Vision.net network consists of a single CAT5e cable connecting all modules in a daisy-chain manner. All units connect to the network using a 9-pin plug-in connector (included).

LED Indications:

There are three (3) LEDs on the Control PCB. The following is a description of each LED's status when flashing:

- RED - Will blink whenever there is any activity from the front buttons or slider modules.
- GREEN - Will blink whenever the unit receives or transmits network SVN/485 traffic.
- AMBER - Will blink whenever the unit receives or transmits sensor 4-wire digital LAN traffic.



**Figure 2: 8-Button Station**

---

**Note:** Since button or slider activity will sometimes result in transmissions, it may appear to be a transmit status, but it is not (try moving a slider when not in Manual Mode).

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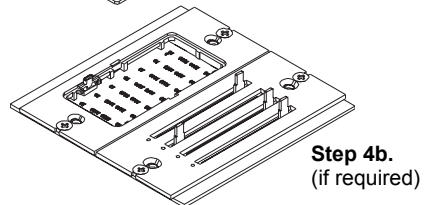
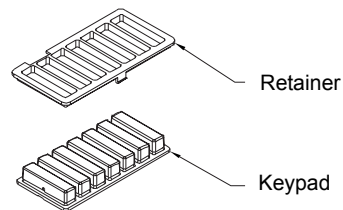
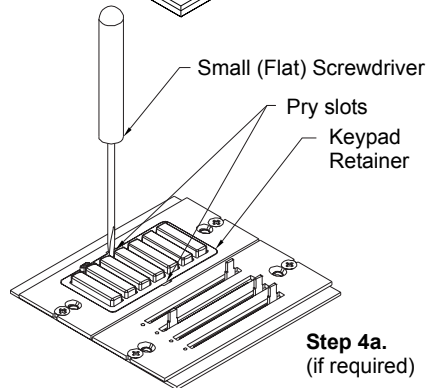
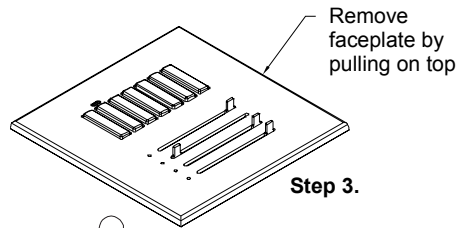
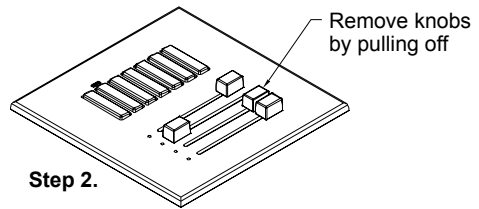
**Note:** Not all button or slider activity will result in network traffic. For example, moving a slider while *not* in Manual Mode will not generate LED activity from traffic.

---

## Installation Steps

### To install slider/button stations:

- Step 1. Unpack unit and inspect for any signs of shipping damage.
- Step 2. If this is a slider station, remove slider knobs by pulling off (**Figure 3**).
- Step 3. Remove faceplate by pulling on the top.
- Step 4. To replace standard keypad with custom (if required):
- Remove keypad retainer by inserting a small (flat) screwdriver in slots and prying up.
  - Lift retainer off and remove keypad. Install new keypad and snap retainer back in place.
- Step 5. At station's back panel, connect Vision.net Network Cable to 9-pin connector. (Refer to **Figure 4** on next page.)
- Step 6. Connect Occupancy/ Photocell Sensors and Contact Closures (if required) to 6-pin connector.
- Step 7. Attach station to backbox using the screws supplied with the backbox.
- Step 8. Re-install faceplate by snapping back into place.



## Replacing Standard Buttons with Engraved Buttons

The standard keypad buttons may be replaced with custom engraved buttons at any time.

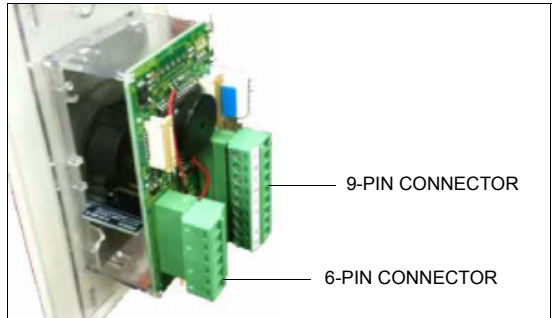
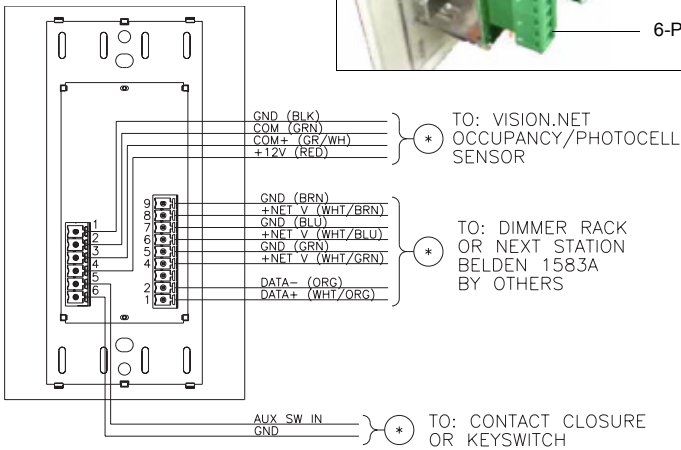
To replace, follow steps given above.

**Figure 3: Installing Slider/Button Station**



**IMPORTANT!** Use only the wire specified on your system drawings. All wiring *must be* daisy-chained.

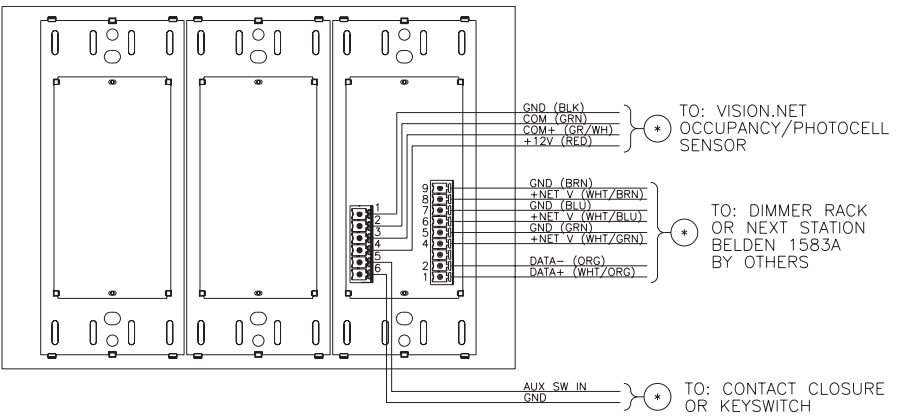
**EXAMPLE 1-GANG WIRING**



9-PIN CONNECTOR

6-PIN CONNECTOR

**EXAMPLE 3-GANG WIRING**



**Figure 4: Station Wiring Examples**

# VISION.NET STATION OPERATION MODES

---

## Overview

Vision.net stations can be set in either Standard Mode or Configurable Mode. The default setting for the unit is Station ID 1.

A station, configured in either Standard or Configurable Mode, can be reset to the factory default as follows:

- Step 1. Unplug station from network.
- Step 2. Re-plug station while pressing and holding any button for at least 3 seconds.

The station will beep several times when it enters Standard Mode. The station will be in Factory Test Mode for 30 seconds. During that time, it will allow all buttons and sliders to beep when pressed or moved. Unplug and re-plug to bypass the 30 second test.

## Standard Mode

In Standard Mode, the unit's Station ID can be changed.

### Assigning a Station's ID:

- Step 1. Reset station to factory default, Device ID 1, as described above.
- Step 2. Press and hold Buttons [3] and [6] for 3 or more seconds to enter Programming Mode. When in Programming Mode, all button LEDs are off, except for Button [1] which should be flashing. All other stations on the network will blink with either one or two quick blinks every 2 seconds.
- Step 3. Pressing Button [2] increases the assigned Station ID number by 1.
- Step 4. Stations with a single blink every 2 seconds are already set to this Station ID. Pressing and holding any button on a blinking station that has the 2-blink pattern for 3 or more seconds, will set it to the current ID. It will blink with the single blink pattern to confirm.
- Step 5. Exit Programming Mode by pressing and holding Button [1] on the first station.

## Configurable Mode

In Configurable Mode, Vision.net products are controlled by the Vision.net System protocol (VNS). All Vision.net devices must be given a Station ID (or address), which identifies the device on the network and allows it to avoid network collisions when transmitting data. Station IDs are in the range of 1 to 255. The Network ID for the panel will be pre-assigned at 1 by the factory and will need to be set to the required address and programmed as required for your installation. Vision.net stations are programmed and have their ID's set using the Vision.net Designer software.

## Operation

### Selecting a Scene:

Typically, a 7-button station provides access to seven Presets (1-7). To select a Preset, press and release the appropriate button on the keypad. The LED will change to its active state.

### Programming

For programming instructions when using Vision.net Designer, please proceed to the Vision.net software and its help files and/or manual.

## TROUBLESHOOTING

---

In order to determine if a Vision.net network device is communicating, a network test signal can be sent.

### Network Test Signal

While in Standard Mode, a network test signal can be sent as follows:

- Step 1. Press and hold Buttons [1], [3] and [6] for 3 or more seconds to enter Programming Mode, when in Programming Mode, Button [1] will blink once every 2 seconds and transmit a Set Station ID command on the SVN485 network.
- Step 2. Verify that all other stations on the network are also blinking. If they are not, look for a broken wire or a mis-wire between the previous blinking station.
- Step 3. Exit Programming Mode by tapping Button [1] two more times.

### Button Station Faceplate Alignment

When a button station is configured with less than a full complement of buttons, it is often specified that they are center-aligned to the station instead of in numerical order. An alignment image is available in the Vision.net Designer manual that - when printed and physically aligned to the station - can help in identifying the alignment between physical buttons and their configuration buttons. For example, a single button station will expose Button [4]. A 2-button station will expose Buttons [3] and [5].

Refer to the Vision.net Designer manual for the alignment image.



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