CRESTRON

Description

The Crestron® 4-Feed, 4-High Switch Terminal Block and Module (CLT-4HSW4 and CLX-4HSW4, respectively), are considered a single entity and must be used together. They ship separately to permit termination of the field wiring to the CLT-4HSW4 prior to installation of the CLX-4HSW4, as described in this guide. They can be mounted in CAEN or CAEN-MLO enclosure (both not included).

The terminal block is designed to terminate four circuit feeds (LINE and NEUTRAL) and distribute the controlled circuits (LOAD) to the fixtures. The module connects to the terminal block and performs switching control of four lighting or motor loads.

The maximum load is 16 amps (1/2 HP) for each controlled circuit (64 amps total per module). The unit requires 120 Vac 60 Hz input voltage. An oversize heat sink dissipates heat efficiently. There are LEDs on the module to indicate communication to a Cresnet® network, input power to the module, and output power to the load.

The CLT-4HSW4 terminal block has a color-coded DIN rail design, complete with printed label strips and mounting hardware, that provides for a clean and simple installation. Electrical bypass jumpers on each terminal facilitate testing of each circuit and protect the module during installation.

Specifications for the CLT-4HSW4 and CLX-4HSW4 are listed in the table below.

SPECIFICATION	DETAILS
Load Control	
Switch Channels	4
Switched Load Types	LED, incandescent, fluorescent, magnetic low-voltage, electronic low-voltage, neon/cold cathode, high-intensity discharge (HID), motor
Per Channel Load Rating	16 A, 1/2 HP
Module Total Load Rating	64 A
Line/Load Voltage	120 Vac, 60Hz; requires up to four single-phase feeds (may be same or different phases)
Environmental	
Temperature	32º to 104 °F (0º to 40 °C)
Humidity	10% to 90% RH (noncondensing)
Heat Dissipation	16 Btu/hr + (0.41 Btu/hr x Load Current in Amps); 42 Btu/hr at maximum load

Additional Resources

Visit the product page on the Crestron website (www.crestron.com) for additional information and the latest firmware updates. Use a QR reader application on your mobile device to scan the QR image.

CLT-4HSW4   CLX-4HSW4
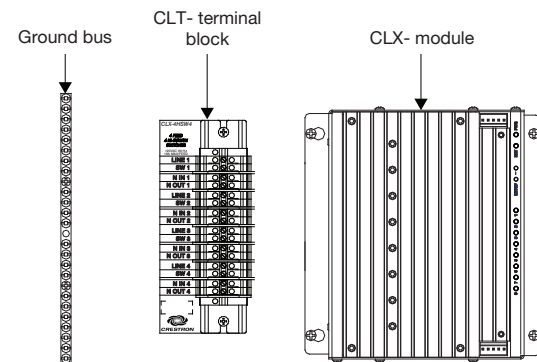
Terminal Block and Module Installation

The terminal block and module must be mounted into an enclosure by a licensed electrician and in accordance with all national and local codes.

CAUTION: This equipment is for indoor use only and needs to be air-cooled. Mount in a well-ventilated area. The ambient temperature must be 32º to 104 °F (0º to 40 °C). The relative humidity must be 0% to 90% (noncondensing).

Terminal blocks are installed along the left side of single-wide enclosures and along the outside edges (left and right sides) of double-wide enclosures. Modules are installed along the right side of single-wide enclosures and side-by-side in the center of double-wide enclosures. When installing modules and terminal blocks in a double-wide enclosure, be sure to invert units on the right side so that they can be properly wired. Refer to the following illustrations for details

NOTE: Install the modules and terminal blocks into the lowest available spaces and continue toward the top of the enclosure.

Terminal Block and Module Locations in a Single-wide Enclosure

Ground bus   CLT- terminal block   CLX- module

Terminal Block and Module Locations in a Double-wide Enclosure

CLT- terminal block   CLX- module   CLT- terminal block

Ground bus
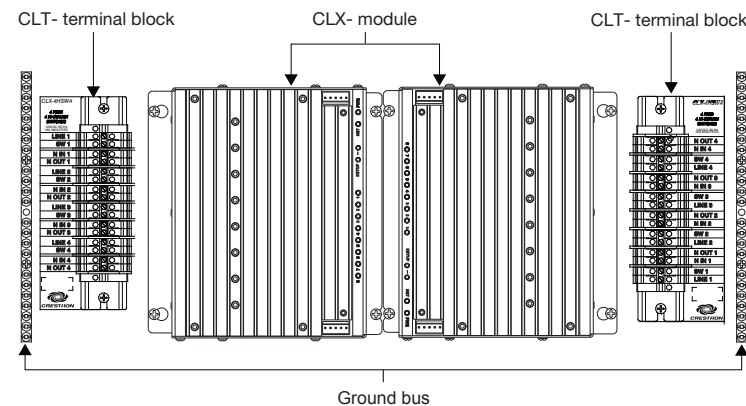
NOTE: Unless otherwise indicated, the lighting system specified in this guide is modular, requiring assembly in the field by a licensed electrician, in accordance with all national and local codes.

If you require an assembled UL Listed panel, Crestron offers this service through its UL Listed panel shop. This includes complete in-factory system configuration and assembly by Crestron for an additional fee.

Terminal Block Installation and Field Wiring

NOTE: Both left-side and right-side adhesive wiring labels are provided. The left-side labels are used in both single-wide and double-wide enclosures. The right-side labels are only used in double-wide enclosures.

1. Remove the backing from the left or right adhesive wiring label.

2. Apply the adhesive label by aligning the holes in the label with the holes on the enclosure where the terminal block is to be mounted. The wiring label lies beneath the terminal block as shown in the illustrations that follow.

3. Use the two supplied self-tapping pan Phillips screws (8B x 1/4") to secure the terminal block to the Crestron Automation Enclosure.

CAUTION: Bypass jumpers are provided to allow testing of circuits and to protect the module during installation. When properly secured by two screws, each of the four jumpers on the black and red sections of the terminal block shorts the line in to the switch out so that the circuit is energized. Do not remove any bypass jumpers until all feed and load wiring has been completed, the circuit has been tested for electrical faults, and the module has been installed. Refer to "Module Installation" section for details.

Furthermore, the four jumpers on the white sections of the terminal block tie the neutral ins to the neutral outs. These jumpers should never be removed.

NOTE: Use copper conductors only – rated 75 °C

4. With the circuit breaker turned off, connect the circuit feed (LINE and NEUTRAL) and controlled circuit (LOAD) wires to the terminal block per the markings provided on the wiring label (as shown in the diagrams on this page). Terminal blocks accept one 14 - 10 AWG wire. Wires should be stripped to ½ inch. Tighten terminal blocks to 9 in-lbs.

5. Grounding terminal blocks are available in the cabinet for termination of ground wires. Tighten the ground wires to 35 in-lbs. (14 – 10 AWG), 40 in-lbs. (8 AWG), or 45 in-lbs. (6 – 4 AWG).

6. Test each circuit for electrical faults by turning on each of the circuit breakers, checking that the breakers do not trip, and that power is delivered to the proper loads.

Wiring Diagram of the Terminal Block to the Feed and Load(s) (Single-wide and Left Side Double-wide Enclosures)
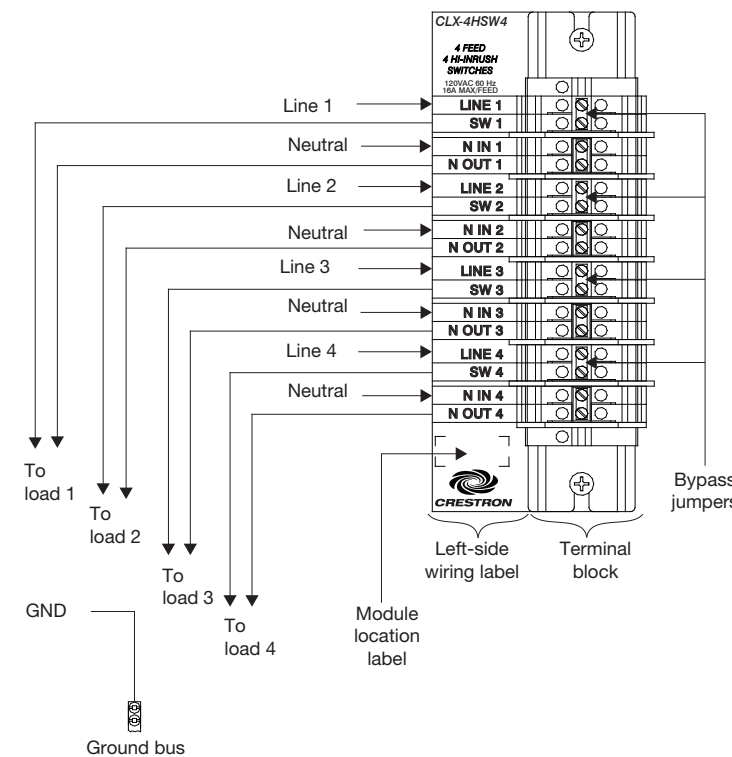
Wiring Diagram of the Terminal Block to the Feed and Load(s) (Right Side Double-wide Enclosures)
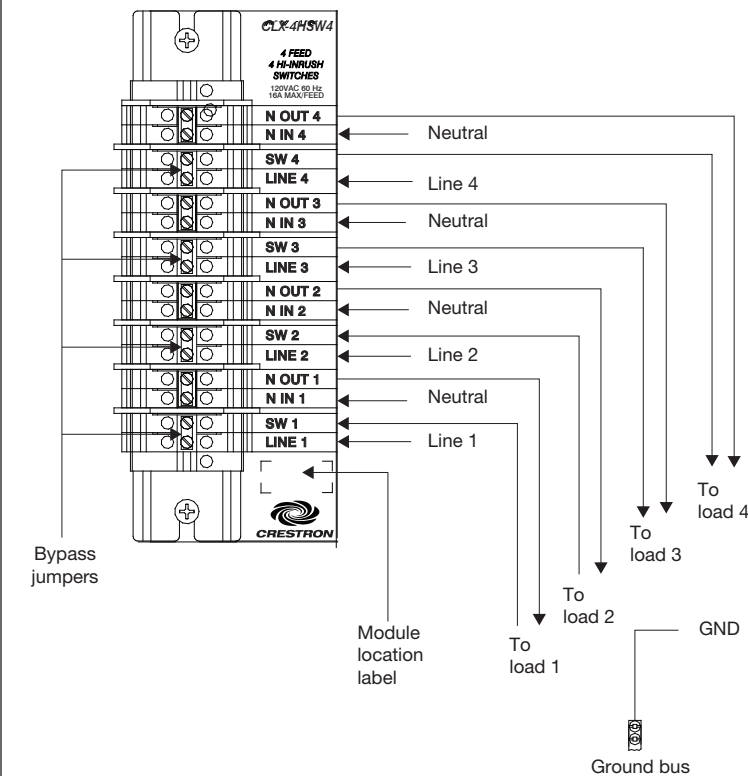
Module Installation

CAUTION: The module contains electrostatic sensitive devices (ESDs); the unit must be handled from the metal chassis – do not touch the PC board or components.

NOTE: Install the modules after the enclosure has been completely wired. Refer to the terminal block installation procedure in the previous section for details.

1. Use the four supplied self-tapping pan Phillips screws (8B x 1/4") to secure the module to the enclosure.
2. As shown in the wiring diagrams, connect the wires from the module to the terminal block. Each wire exits the module directly in line with, and is the same color as, the terminal to which it should be connected. Wires are prestripped to 1/2 inch. Tighten to 9 in-lbs.
3. If the module is being installed above another module within the enclosure, attach the supplied module interconnect cable between the two modules. The illustration below depicts the area within a double-wide enclosure where the corners of four modules meet.

NOTE: One wire on the module interconnect cable may be a different color from the rest. The color has no bearing on its orientation during installation.

Use Module Interconnect Cable to Wire Module to Module

Module interconnect cable attached — Connection not made
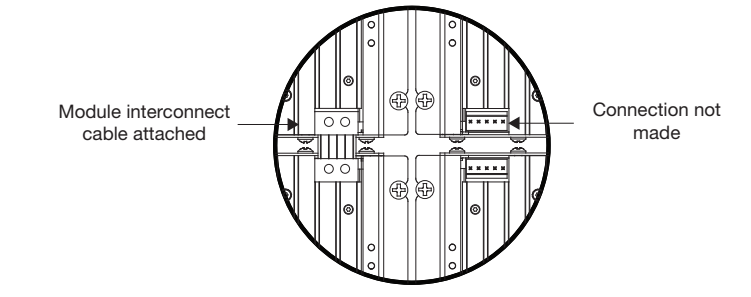
4. Turn on the circuit breakers and verify that the green PWR LED on the module lights, the breakers do not trip, and power is delivered to the proper loads.
5. Turn off the circuit breakers and remove the two-position bypass jumpers on the black and red sections of the terminal block. The jumpers on the white sections of the terminal block remain installed.

NOTE: Before the two-position bypass jumpers are removed, the control system should be properly connected and contain a valid program to provide control of the module.

Wiring Diagram of the Terminal Block to the Module (Single-wide and Left-Side Double-wide Enclosures)

Jumpers on black and red sections of the terminal block have been removed.

Jumpers on white sections remain installed.
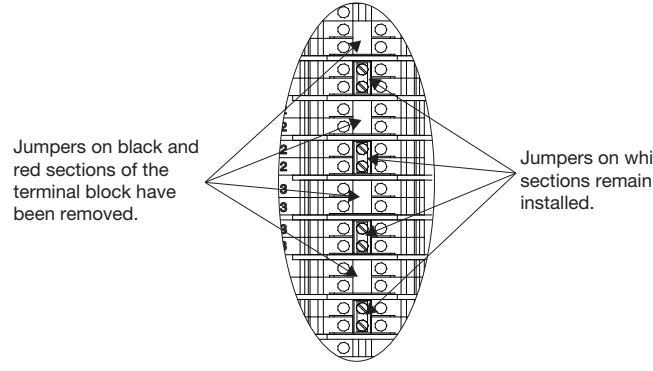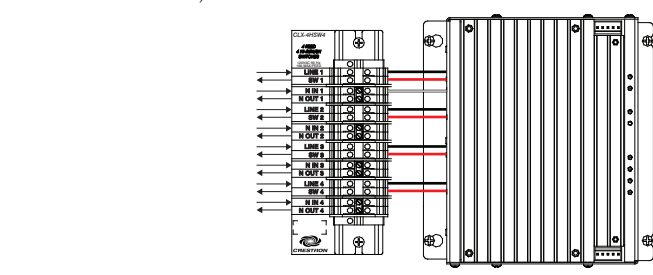
TERMINAL LABEL	WIRE COLOR
LINE 1-4	Black
SW 1-4	Red
N IN 1-4	White
N OUT 1-4	White

6. Turn on the circuit breakers.

NOTE: Power must be supplied to LINE 1 for the module to communicate with the control system or for any of the circuits to operate.

Local Mode

NOTE: Before using the CLX-4HSW4, ensure the device is using the latest firmware. Check for the latest firmware for the CLX-4HSW4 at www.crestron.com/firmware. Load the firmware onto the device using Crestron Toolbox™ software.

To test the loads before a control system is running, use Local mode to verify that each load is connected to the proper output on the modules.

1. Press the **SETUP** button momentarily (less than three seconds) to enter Local Mode. The SETUP LED and output LED 1 illuminate and power is applied to the load connected to the SW1 output.
2. Press the **SETUP** button again to turn off output SW1 and turn on output SW2.
3. Press the **SETUP** button again for each output that needs to be tested.
4. After turning on the last output, press the **SETUP** button again to turn on all outputs.
5. Press the **SETUP** button once more to turn off all outputs and LEDs and exit Local mode.