CLT-1FAN4/CLX-1FAN4
Terminal Block and Module
Installation Guide

Description

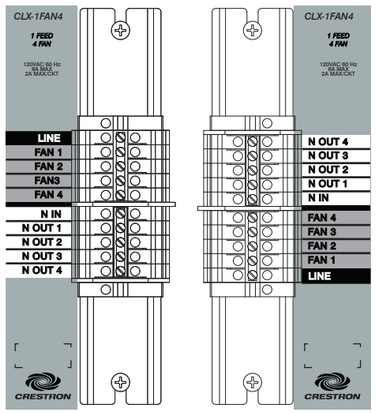
The Crestron® 1-Feed, 4-Fan Terminal Block and Module (CLT-1FAN4 and CLX-1FAN4, respectively), are considered a single entity and must be used together. They ship separately to permit termination of the field wiring to the CLT-1FAN4 prior to installation of the CLX-1FAN4, as described in this guide. The module is a capacitive–type, fan–speed control that connects to the terminal block and controls four ceiling fan motors. The maximum load is 2 amps for any controlled circuit. The module requires 120 Vac 60 Hz, 1 phase input voltage. The terminal block and module can be mounted in any Crestron Automation Enclosure (CAEN-Series Enclosures). The terminal block is designed to terminate the circuit feed (**LINE** and **NEUTRAL**) and distribute the controlled circuit to the fan(s) (**LOAD**). 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 ceiling fan motors.

NOTE: This module is for speed control of a ceiling fan (paddle fan) only. The CLX-1FAN4 cannot change the fan direction. The module provides four speed settings as well as turning the fan off.

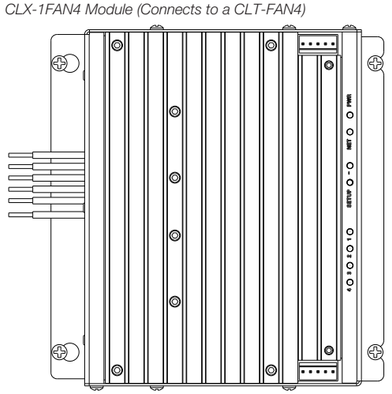
NOTE: This module cannot control fans with remote-controlled integrated speed controls.

The CLT-1FAN4 terminal and CLX-1FAN4 module are shown in the following illustrations.

CLT-1FAN4 Terminal Block with Left- and Right-Side CLX-1FAN4 Labels



CLX-1FAN4 Module (Connects to a CLT-FAN4)



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-1FAN4 *CLX-1FAN4*

Installation

WARNING: To avoid fire, shock, or death, turn off the power at the circuit breaker or fuse, and test that the power is off before wiring!

NOTES: Observe the following points:

- This product must be installed and used in accordance with appropriate electrical codes and regulations.
- This product must be installed by a licensed electrician.
- Sensors must be mounted on a vibration-free surface.

NOTE: Before using the CLX-1FAN4, ensure the device is using the latest firmware. Check for the latest firmware for the CLX-1FAN4 at www.crestron.com/firmware. Firmware is loaded onto the device using Crestron Toolbox™.

The terminal block and module must be mounted into a Crestron Automation Enclosure by a licensed electrician, 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 32°F to 104°F (0°C to 40°C). The relative humidity must be 0% to 90% (non-condensing).

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 illustrations below when considering the location of terminal blocks and modules within an enclosure.

NOTE: Modules and terminal blocks must be installed into the lowest available spaces and continue toward the top of the enclosure.

IMPORTANT SAFEGUARDS

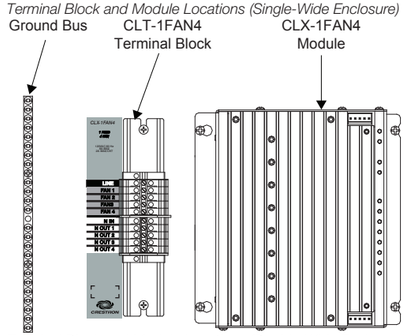
When using electrical equipment, basic safety precautions should always be followed including the following:

READ AND FOLLOW ALL SAFETY INSTRUCTIONS.

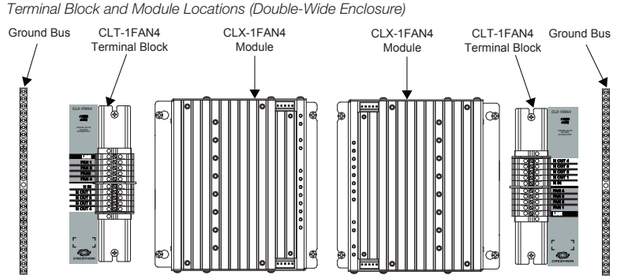
- Do not use outdoors.
- Do not mount near gas or electric heaters.
- Equipment should be mounted in locations and at heights where it will not be subjected to tampering by unauthorized personnel.
- The use of accessory equipment not recommended by the manufacturer may cause an unsafe condition.
- Do not use this equipment for other than its intended use.
- All servicing should be performed by qualified service personnel.
- If any Emergency Circuits are fed or controlled from this panel, it must be located electrically where fed from a UPS, generator, or other guaranteed source of power during emergency and power outage situations.

SAVE THESE INSTRUCTIONS.

Terminal Block and Module Locations (Single-Wide Enclosure)



Terminal Block and Module Locations (Double-Wide Enclosure)



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 an assembled UL Listed panel is required, it can be obtained through Crestron's 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

Apply the supplied adhesive label before installing the terminal block. The adhesive label provides the labeling for each terminal in the terminal block and is designed to accomodate installation into the left or right side of a cabinet.

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

1. Remove the backing from the left- or right-side adhesive wiring label.
2. Apply the adhesive label by aligning the holes in the label with the holes on the Crestron Automation Enclosure where the terminal block is to be mounted. The wiring label lies beneath the terminal block as shown in the following diagrams.
3. Use the two supplied self-tapping Phillips pan head screws (8B x 1/4 inch length) to secure the terminal block to the Crestron Automation Enclosure.

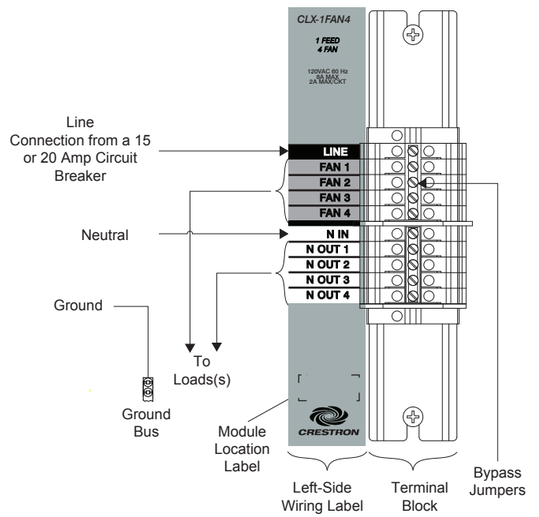
CAUTION: Bypass jumpers are provided to test circuits and to protect the module during installation. When properly secured by the five screws, the jumper on the black and red section of the terminal block shorts the LINE to FAN so that the circuit is energized. Do not remove any bypass jumpers until 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."

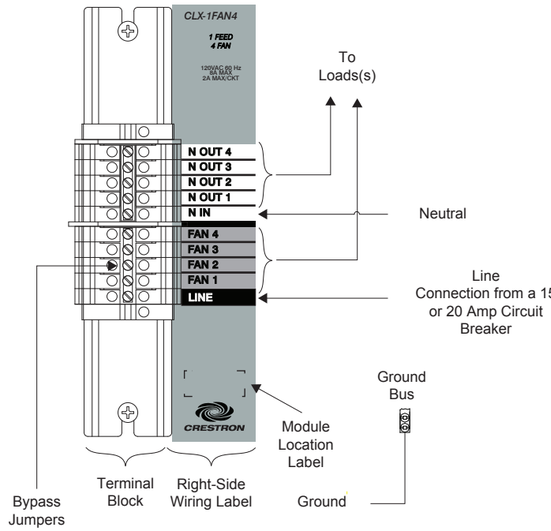
Furthermore, the jumper on the white section of the terminal block ties the neutral in to the neutral out. These jumpers should never be removed.

NOTE: Use copper conductors only—rated 75° C or greater.

4. Turn off the circuit breakers.
5. 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 following diagrams). Terminal blocks accept one 14–10 AWG wire. Strip the wires to 1/2 inch (13 millimeters). Tighten terminal blocks to 9 in-lbs.
6. Terminate the ground wires at the grounding terminal blocks that are available in the cabinet. Tighten the grounding terminal blocks to 35 in-lbs (14–10 AWG), 40 in-lbs (8 AWG), or 45 in-lbs (6–4 AWG).
7. Test each circuit for electrical faults by turning on the circuit breaker and checking that the breaker does not trip and that power is delivered to the proper loads.

Wiring the Terminal Block to the Feed and Load(s)





Module Installation

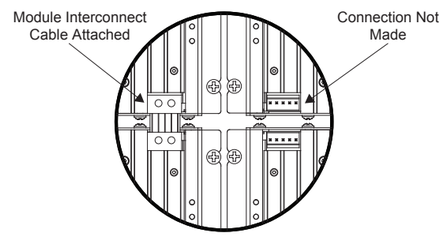
CAUTION: The module contains electrostatic sensitive devices (ESDs); the unit must be handled from the metal chassis. Do not touch the PC board or components.

Install the modules after the terminal blocks are installed and the enclosure has been completely wired.

1. Use the four supplied self-tapping Phillips pan head screws (8B x 1/4-inch length) to secure the module to the enclosure.
2. As shown in the previous wiring diagram, 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 (13 millimeters). Tighten to 9 in-lbs.
3. If the module is being installed above another module within the enclosure, attach the supplied module interconnect cable to the two modules. The illustration that follows shows 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

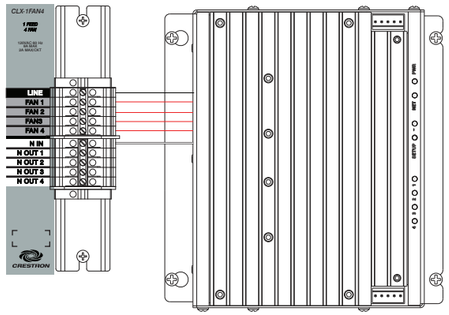


NOTE: Each controlled fan must be set to full speed. Refer to the fan's instruction manual for instructions on setting the fan to full speed.

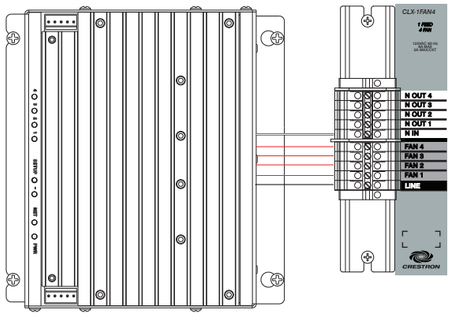
NOTE: If a light is included with the fan, it must be wired to a separate lighting control module (e.g., CLX-1DIM4). The CLX-1FAN4 canot be used to control lights. If the light and fan share a single neutral wire, the wire should be connected to the dimmer module.

4. Turn on the circuit breakers and verify that the green PWR LED on the module lights, the breakers do not trip, and that power is delivered to the loads.
5. Turn off the circuit breakers.

Wiring the Terminal Block to the Module



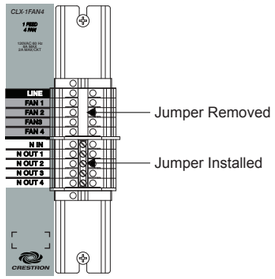
Wiring Diagram of the Terminal Block to the Module (Right Side Double-Wide Enclosures)



NOTE: Before the bypass jumpers are removed, the control system that provides functionality to the system should be properly connected and programmed.

6. Remove the bypass jumpers on the black and red sections of the terminal block. The jumpers on the white sections of the terminal block must remain installed. Refer to the figures that follow for reference.

Remove the Line Jumper after Testing.



7. Turn on the circuit breakers.

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

8. If the program is not running yet, loads can be tested by using Local mode.

Test the Loads

If the control system program is not running yet, use Local mode to test that each load is operating and connected to the proper output on the module.

1. Press the SETUP button (fewer than three seconds) to enter Local mode. The SETUP LED and output LED 1 illuminate. Power is applied to the devices connected to output 1.
2. Press the SETUP button again to turn off output 1 and turn on output 2.
3. Press the SETUP button again to test each of the remaining outputs.
4. After testing 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.

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