Introduction

The GLPAC-DIMFLV is a Crestron Green Light® integrated lighting system designed for use as a standalone lighting controller in classrooms, conference rooms, and offices. While able to control four or eight channels of dimmable fluorescent loads, each GLPAC-DIMFLV provides a link to a centralized Crestron® lighting control system via Cresnet® for control and monitoring of the system. Add optional real-time power monitoring and Crestron Fusion EM® Energy Management Software to help track and minimize energy usage throughout a facility.

The GLPAC-DIMFLV is available in the following models.

NOTE: The devices listed below are functionally identical. For simplicity within this guide, the term "GLPAC-DIMFLV" is used except where noted.

Available GPPAC-DIMFLV Models

NAME	DESCRIPTION
GLPAC-DIMFLV4	Green Light Integrated Lighting System, 4-Channel
GLPAC-DIMFLV4-CP	Green Light Integrated Lighting System, 4-Channel with Chicago Plenum Enclosure
GLPAC-DIMFLV4-PM	Green Light Integrated Lighting System, 4-Channel with Power Monitoring
GLPAC-DIMFLV4-PM-CP	Green Light Integrated Lighting System, 4-Channel with Power Monitoring and Chicago Plenum Enclosure
GLPAC-DIMFLV8	Green Light Integrated Lighting System, 8-Channel
GLPAC-DIMFLV8-CP	Green Light Integrated Lighting System, 8-Channel with Chicago Plenum Enclosure
GLPAC-DIMFLV8-PM	Green Light Integrated Lighting System, 8-Channel with Power Monitoring
GLPAC-DIMFLV8-PM-CP	Green Light Integrated Lighting System, 8-Channel with Power Monitoring and Chicago Plenum Enclosure

Regulatory Compliance

The cabinet and modules are Listed to applicable UL Standards and requirements by Underwriters Laboratories Inc.

As of the date of manufacture, the GLPAC-DIMFLV Series has been tested and found to comply with specifications for CE marking.

Crestron Electronics, Inc.
15 Volvo Drive   Rockleigh, NJ 07647
Tel: 888.CRESTRON
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www.crestron.com

Installation Guide – DOC. 7004D
(2027738)
12.14
Specifications subject to
change without notice.

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 readily 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 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.

Application

The following diagram shows a GLPAC-DIMFLV Series Crestron Green Light Integrated Lighting System in a lighting application.
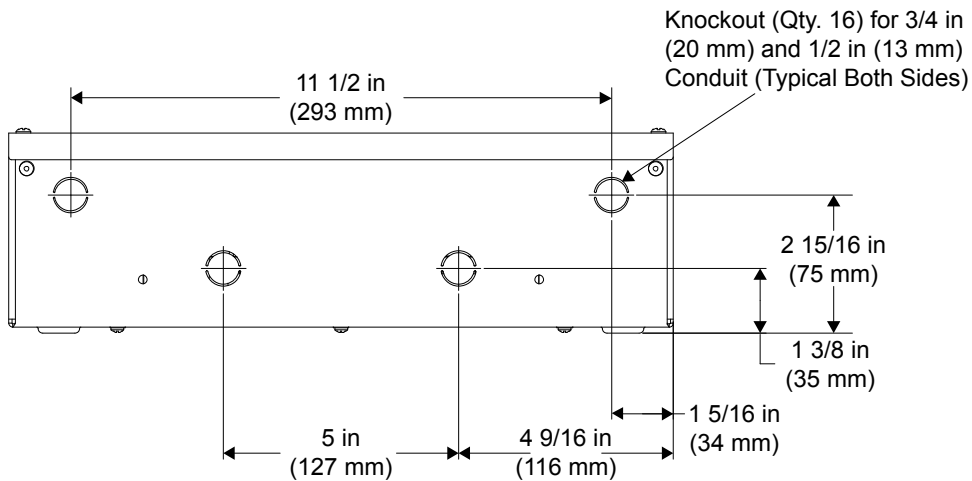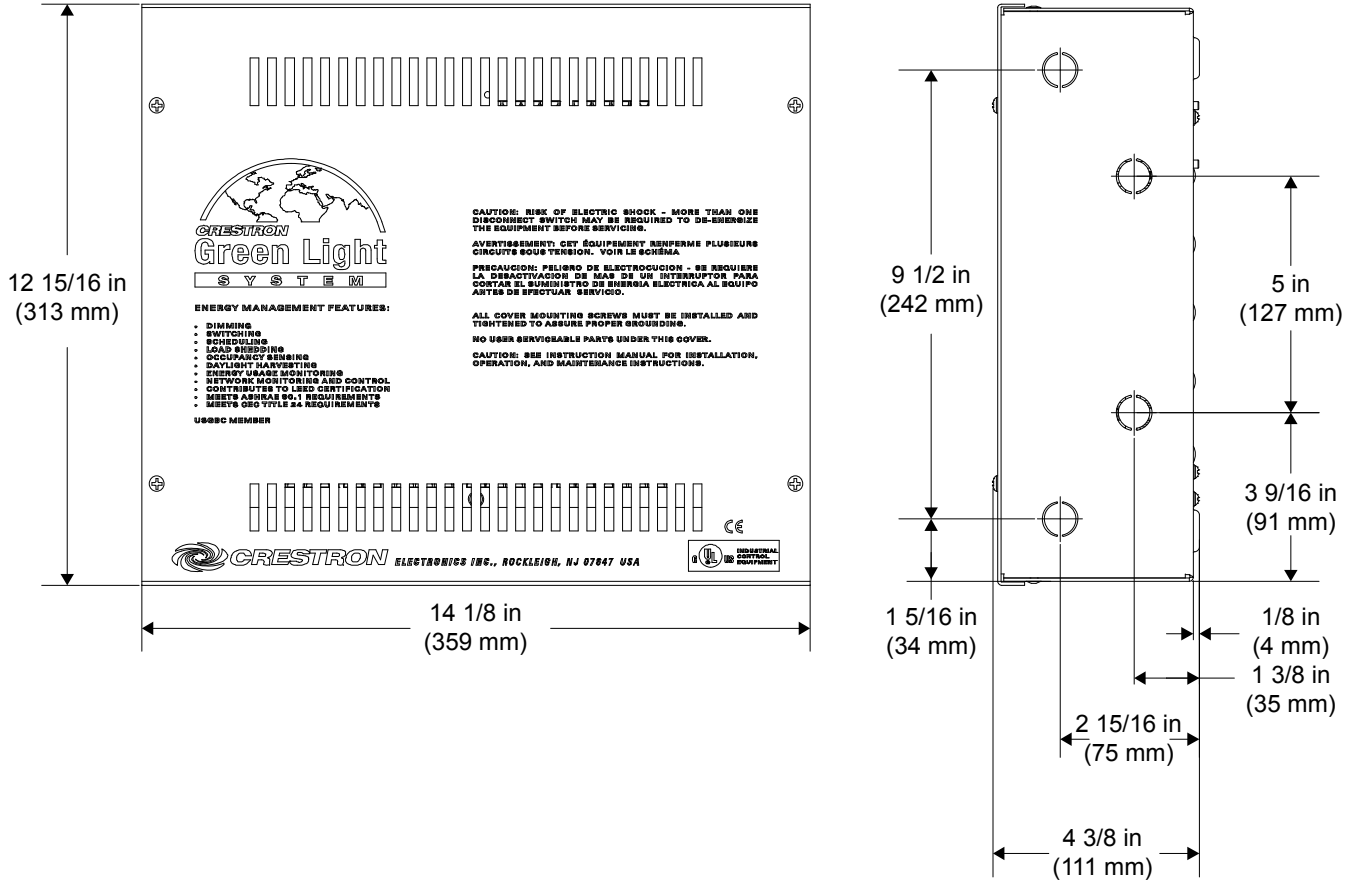
GLPAC-DIMFLV Series Crestron Green Light Integrated Lighting System in a Typical Lighting Application
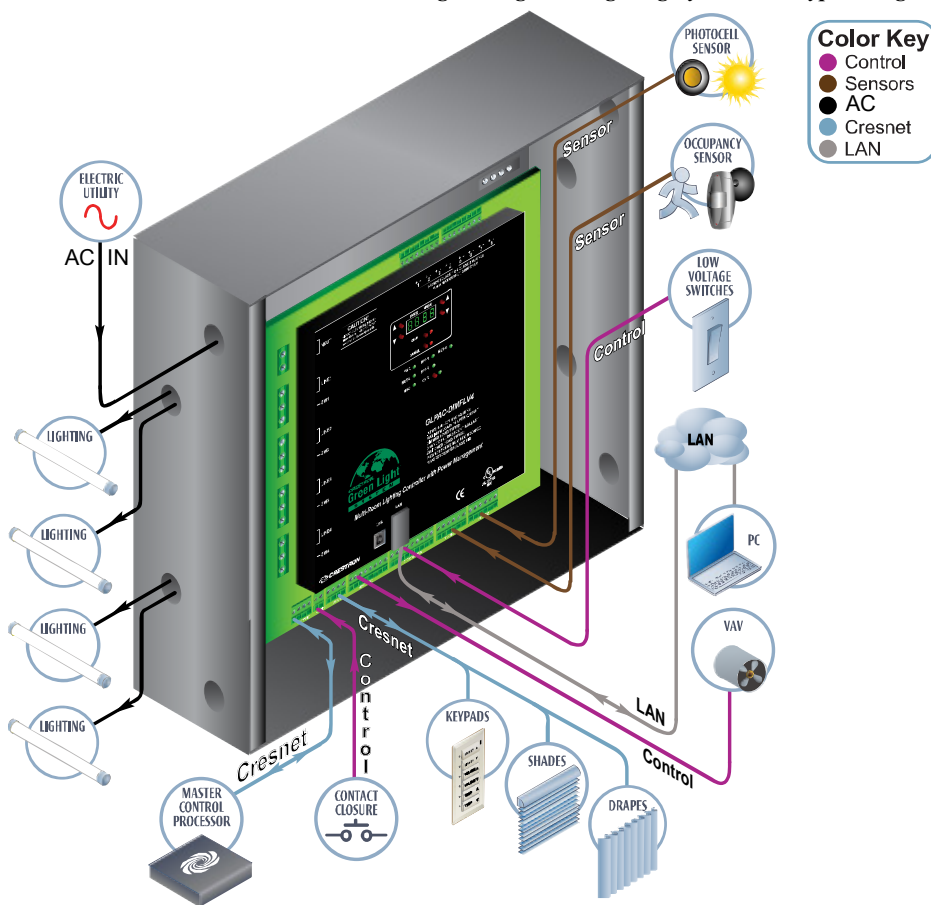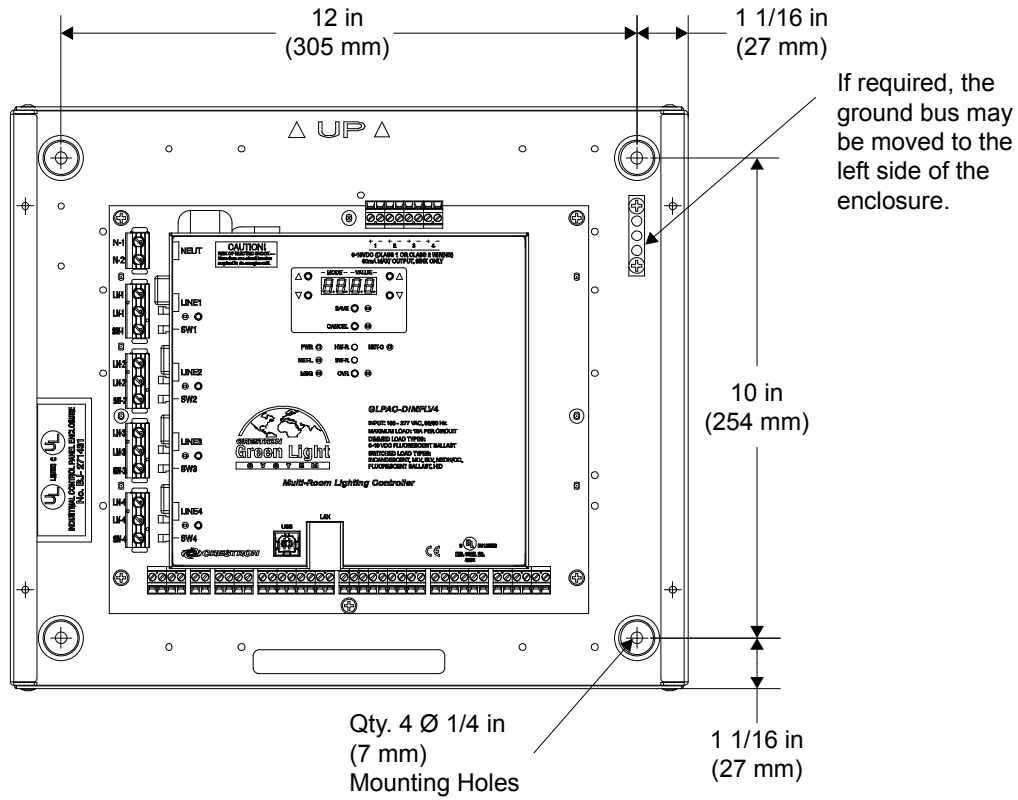
Physical Description

This section shows the dimensions of the GLPAC-DIMFLV Series Crestron Green Light Integrated Lighting System.

Dimensions of GLPAC-DIMFLV4, 4-PM, 8, and 8-PM Integrated Lighting System Cabinet (Front, Side, and Bottom Views)
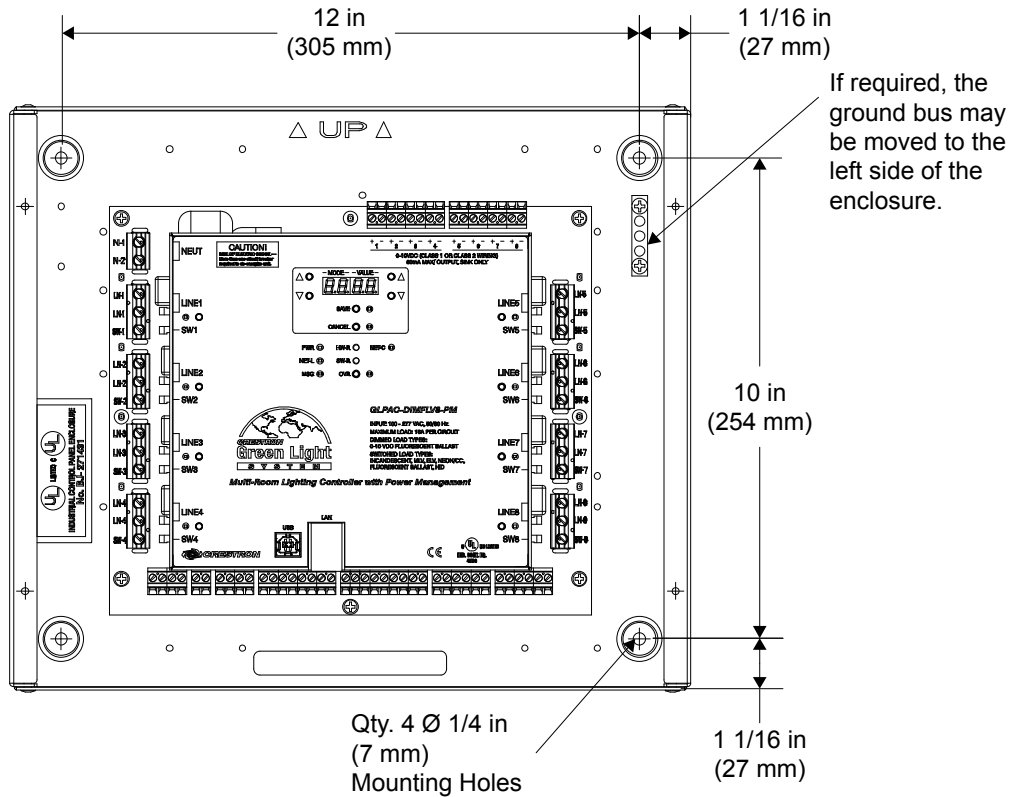
*Dimensions of GLPAC-DIMFLV4 and 4-PM Integrated Lighting System Cabinet
(Internal View, GLPAC-DIMFLV4 Shown Below)*

NOTE: For module specifications, refer to "Appendix A: Specifications" on page 22.

Dimensions of GLPAC-DIMFLV8 and 8-PM Integrated Lighting System Cabinet
*(Internal View, GLPAC-DIMFLV8-PM Shown Below)*

NOTE: For module specifications, refer to "Appendix A: Specifications" on page 22.

Installation

Observe the following when installing the cabinet:

- The cabinet must be mounted by a licensed electrician in accordance with all national and local codes. Refer to the diagram below for specific requirements.

- Allow adequate clearance in front of the cover for servicing.

- The cabinet is designed for surface mounting on a wall.

- Cabinets are intended for indoor use only.

- The ambient temperature range should be 32° F to 104° F (0° C to 40° C). The relative humidity should range from 10% to 90% (non-condensing).

Mounting Location
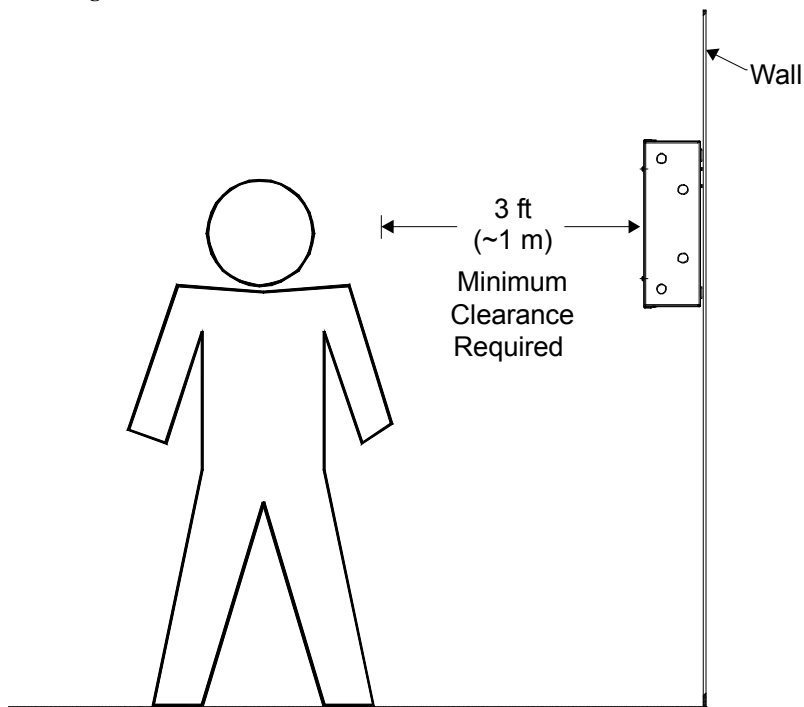
Wiring

GLPAC-DIMFLV Wiring Diagram (Rotate 90 Degrees to View)
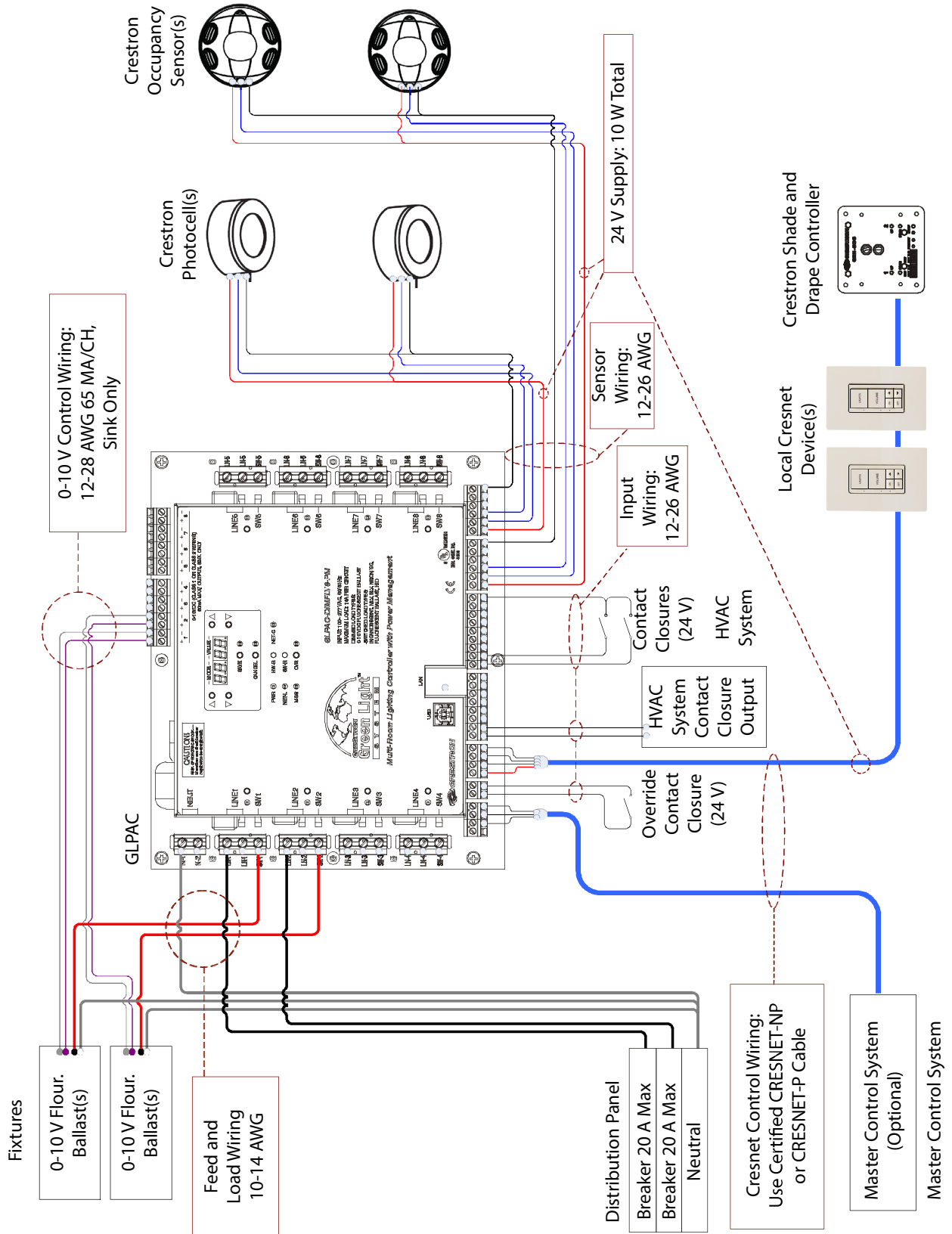
NOTE: All wiring must be installed in accordance with all local and national electrical codes.

NOTE: Refer to the torque settings specified on pages 9, 10, and 12.

Crestron Green Light Integrated Lighting System cabinets are shipped with GLPAC-DIMFLV dimming modules installed. The following must be performed after mounting the cabinet.

- Connect incoming feed conductors to the breaker panel.

- Connect load wiring (section **A** of the following diagram).

- Connect control wiring (section **B** of the following diagram).

- Connect input wiring (sections **C** of the following diagram).

Feed Wiring Diagram
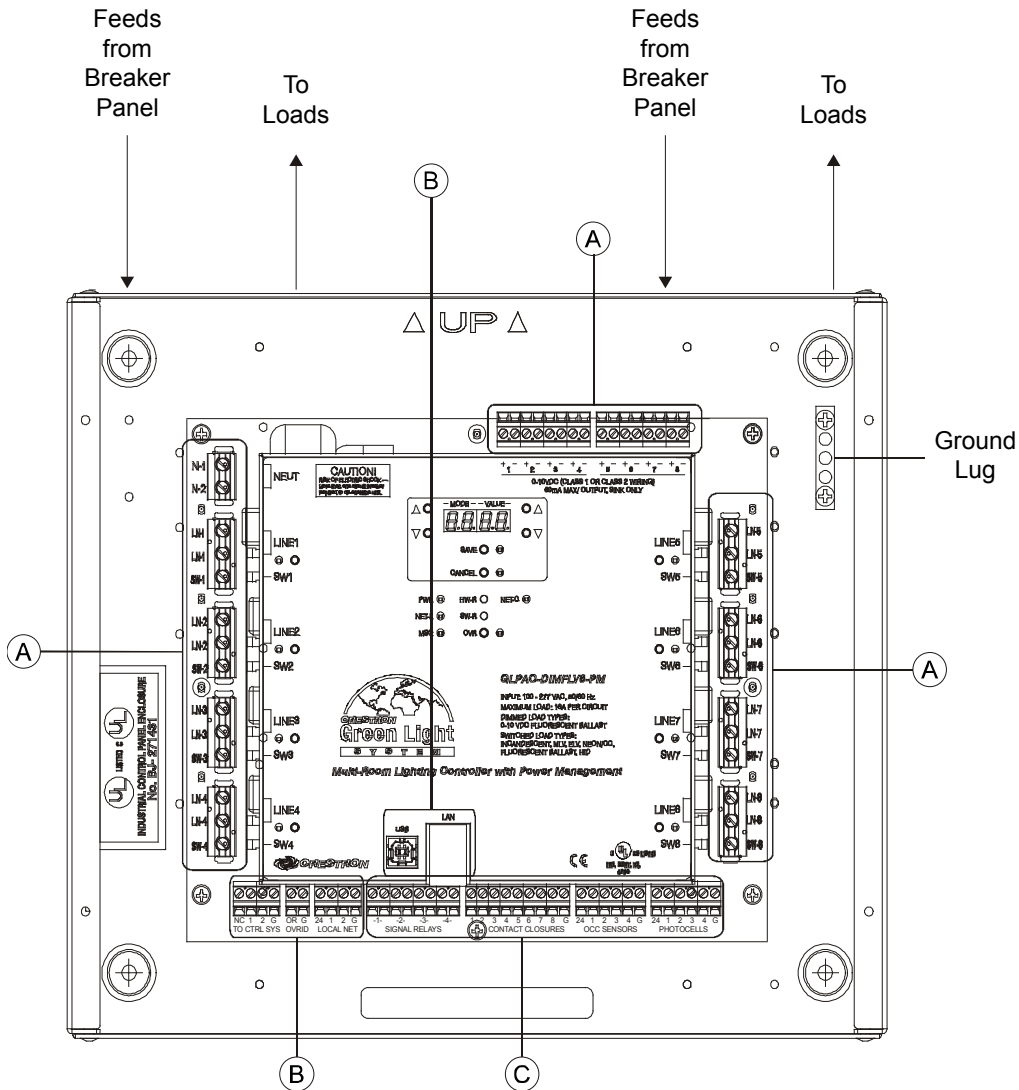
Load Wiring (Section A)

Make connections for the load wiring. Refer to the illustrations that follow for guidance.

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

Wire Gauge and Torque Values

TERMINAL	CONNECTOR MAX WIRE RANGE	TORQUE	STRIP LENGTH
LN Inputs	14-10 AWG	4.42 lb-in (0.5 Nm)	5/16 in (8 mm)
SW Outputs	14-10 AWG	4.42 lb-in (0.5 Nm)	5/16 in (8 mm)
N1, N1 Neutral Bus	14-10 AWG	4.42 lb-in (0.5 Nm)	5/16 in (8 mm)
0-10V Outputs*	28-12 AWG	4.42 lb-in (0.5 Nm)	5/16 in (8 mm)
Ground Lug	14-4 AWG	25-45 lb-in (2.8-5.1 Nm)	3/4 in (19 mm)

* May be wired as Class 1 or Class 2.

1. Turn off all circuit breakers.

2. Connect the neutral bus and ground lugs.

3. Connect incoming feed conductors to the LINE and N input terminals and connect loads to the SW output terminals (refer to the following diagram).

   NOTE: Additional line terminals are provided as a convenience to allow daisy chaining channels when the device is fed from a single branch circuit.

   NOTE: The unit requires LINE1 and neutral to be connected to power up.

4. Connect 0-10 V control wires for the dimmed loads to the appropriate output terminals (1 through 8).

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

Load Wiring Diagram (Section A)
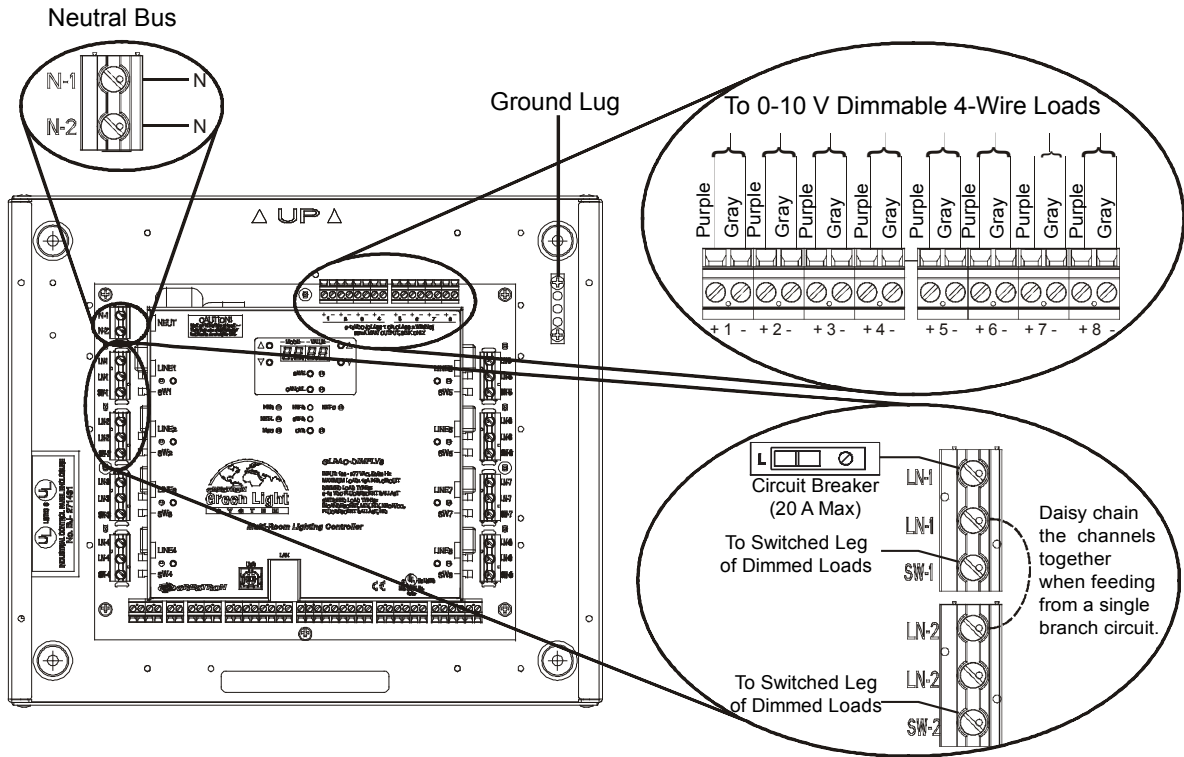
Control Wiring (Section B)

Use Crestron certified wire such as CRESNET-NP or CRESNET-P. To ensure optimum performance over the full range of the installation topology, use Crestron certified wire. Failure to do so may incur additional charges if support is required to identify performance deficiencies because of using improper wire.

Wire Gauge and Torque Values

CONNECTOR MAX WIRE RANGE	TORQUE	STRIP LENGTH
26-12 AWG	4.43 lb-in (0.5 Nm)	1/4 in (6 mm)

TO CTRL SYS Wiring

This terminal block allows a master control system to communicate with the GLPAC-DIMFLV. When this connection is made, the GLPAC-DIMFLV continues to operate as a control processor that runs a Crestron Studio™ or SIMPL Windows program. It also continues to communicate with devices on its local Cresnet® bus.

OVRID Wiring

This terminal block accepts input from external contact closure to trigger a preset override state.

LOCAL NET Wiring

This terminal block can be used to connect to local Cresnet devices such as keypads, shade controllers, and touch screens.

NOTE: A maximum of two keypads can be installed in each room.

USB Port

A USB Type B female computer console port is provided for communication with Crestron Toolbox™.

LAN Port

A 10/100BASE-T Ethernet to LAN port is provided to allow communication with Cresnet slave Ethernet devices and Crestron control processors over Ethernet Inter System Communications (EISC). The LAN port also provides web server and console access to the GLPAC-DIMFLV.

Control Wiring Diagram (Section B)
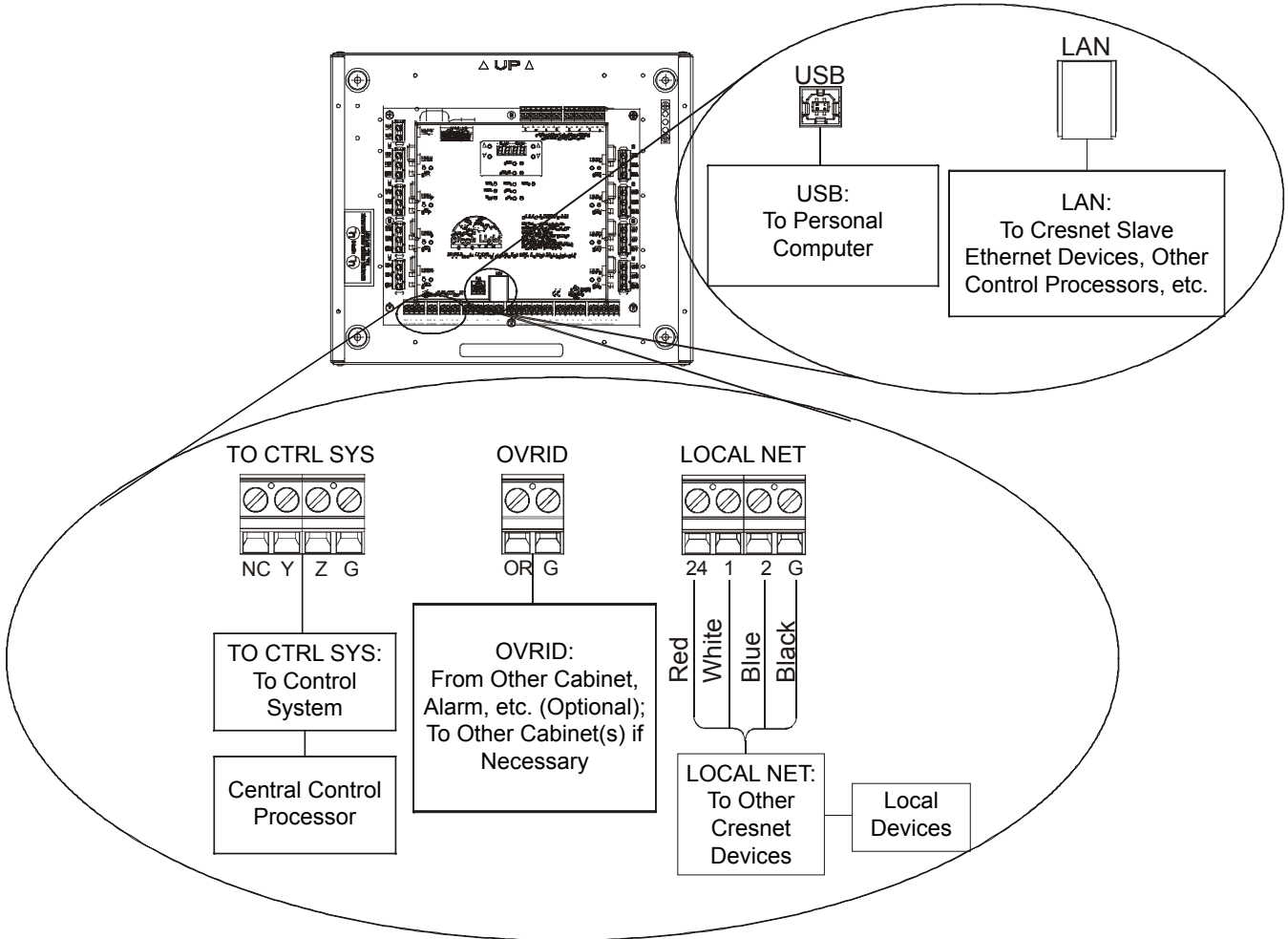
NOTE: For instructions on network wiring, refer to "Appendix B: Crestron Network Interconnect" on page 23.

Input Wiring (Section C)

To ensure optimum performance over the full range of the installation topology, use Crestron certified wire (e.g., CRESNET-NP or CRESNET-P). Failure to do so may incur additional charges if support is required to identify performance deficiencies because of using improper wire.

Wire Gauge and Torque Values

CONNECTOR MAX WIRE RANGE	TORQUE	STRIP LENGTH
26-12 AWG	4.43 lb-in (0.5 Nm)	1/4 in (6 mm)

SIGNAL RELAYS Wiring

This terminal block provides four low-voltage (30 Vdc max) programmable relays. These non-latching relays are designed to send a signal to a variable air volume (VAV) box to indicate room occupancy status.

CONTACT CLOSURES Wiring

This terminal block can be used to connect up to eight general-purpose contact closure inputs.

OCC SENSORS Wiring

This terminal block can be used to connect up to four room occupancy sensors, such as the Crestron GLS-ODT or Crestron GLS-OIR (sold separately). Up to four sensors can be powered with 24 Vdc.

PHOTOCELLS Wiring

This terminal block can be used to connect up to four photocells, such as the Crestron GLS-LOL and Crestron GLS-LCL (sold separately). Up to four sensors can be powered with 24 Vdc.

Input Wiring Diagram (Section C)
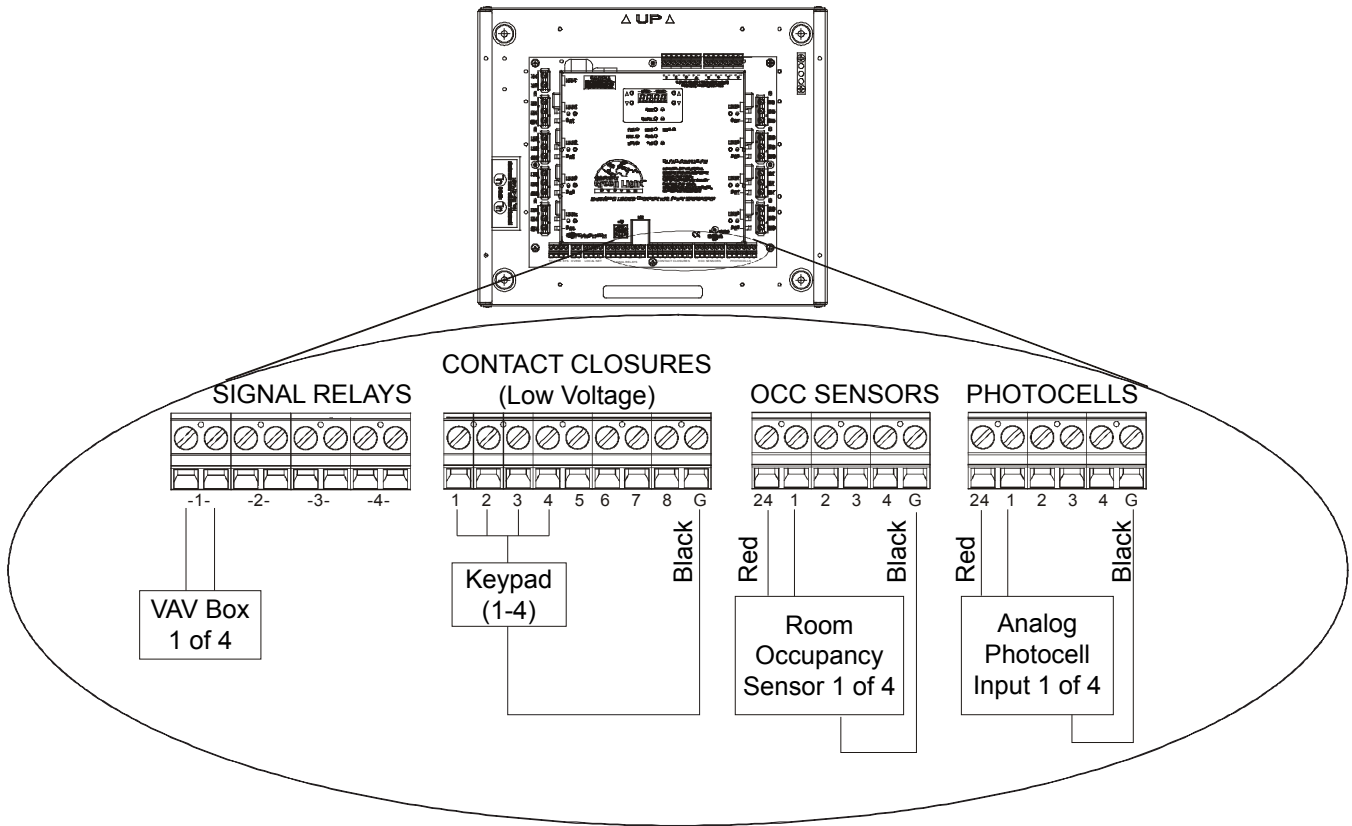
Front Panel Setup

The following procedures are normally performed by an authorized Crestron representative as part of the System Commissioning phase.

NOTE: For advanced configuration options, refer to the GLPAC-DIMFLV Series Setup Guide (Doc. 7005) at www.crestron.com/manuals.

To enter Setup mode using the front panel, do the following:

1. Press and hold the **SAVE** and **CANCEL** buttons for 5 seconds to enter Setup mode. The display shows the first mode that can be modified, denoted by "r".

    NOTE: Setup mode times out and exits after 5 minutes of inactivity.

2. As shown in the following diagram, press the left up or down buttons to select the appropriate mode to configure.

    Front Panel Configuration Buttons
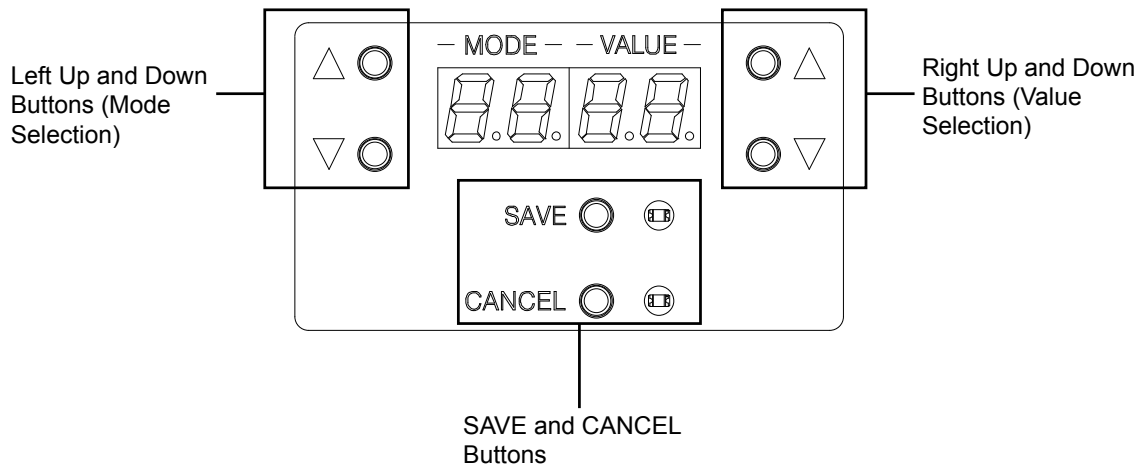
3. Press the right up or down buttons to select the appropriate value for the mode being configured. The SAVE and CANCEL LEDs illuminate.

    NOTE: Once a value has been selected, the user is unable to go back to select a different mode.

4. Press the **SAVE** button to save the change and return to setup**,** or press the **CANCEL** button to exit Setup mode.

Setup mode offers the ability to modify the following parameters:

- Room Count (refer to page 15)
- Learnable Buttons (refer to page 16)
- Cresnet ID (refer to page 16)
- Occupancy Sensor (refer to page 16)
- Photocell Setup (refer to page 16)
- Auto Discovery (refer to page 16)
- Ethernet Setting (refer to page 17)

Room Count Mode (r)

The Room Count mode defines the number of rooms in the system.

- **01**: 1 Room

- **02**: 2 Rooms

- **03**: 3 Rooms

- **04**: 4 Rooms

Based on the number of rooms defined, loads and devices are assigned automatically as per the following table:

Automatic Load and Device Assignments

	1 ROOM	**2 ROOMS (PER ROOM)**	**3 ROOMS**		**4 ROOMS (PER ROOM)**
			1ST ROOM (PER ROOM)	**2ND AND 3RD ROOM (PER ROOM)**	
Loads	4 (or 8 for GLPAC-DIMFLV-8)	2	2 (or 4 for GLPAC-DIMFLV-8)	1 (or 2 for GLPAC-DIMFLV-8)	1 (or 2 for GLPAC-DIMFLV-8)
Photocell	1	1	1	1	1
Occupancy Sensor	1	1	1	1	1
Contact Closures	8	4	2	2	2
Scenes	8	8	8	8	8

Based on the number of rooms defined, the contact closures are assigned the following functions by default:

Automatic Contact Closure Assignments

	INPUT #1	**INPUT #2**	**INPUT #3**	**INPUT #4**	**INPUT #5**	**INPUT #6**	**INPUT #7**	**INPUT #8**
1 Room	Room 1 Auto On	Room 1 Off	Room 1 Master Raise	Room 1 Master Lower	Room 1 Scene 1	Room 1 Scene 2	Room 1 Scene 3	Room 1 Scene 4
2 Rooms	Room 1 Auto On	Room 1 Off	Room 1 Master Raise	Room 1 Master Lower	Room 2 Auto On	Room 2 Off	Room 2 Master Raise	Room 2 Master Lower
3 Rooms	Room 1 Auto On	Room 1 Off	Room 2 Auto On	Room 2 Off	Room 3 Auto On	Room 3 Off		
4 Rooms	Room 1 Auto On	Room 1 Off	Room 2 Auto On	Room 2 Off	Room 3 Auto On	Room 3 Off	Room 4 Auto On	Room 4 Off

NOTE: The Auto or On function works with both a momentary switch and a sustained switch.

NOTE: For the Auto or On function, when a signal is detected on the contact closure, the Auto or On function is executed. In the event that the signal is held high for longer than 1 second, the loads perform an "off" function on the falling edge of the signal.

Learnable Buttons Mode (Lb)

The Learnable Buttons mode defines whether or not keypads can save scene levels.

- **n**: Buttons recall scenes only (default).

- **y**: Scene buttons save levels when held for 5 seconds. Buttons return to default levels when held for 10 seconds.

> **NOTE:** Saving scene levels also allows target levels to be saved for photocell controlled loads (Scenes 1 through 4 only).

Cresnet ID Mode (id)

The Cresnet ID mode sets the internal Cresnet ID of the GLPAC when communicating with a master control processor. Press the right up button to cycle the first digit and press the right down button to cycle the second digit. Available values are 03 to FE.

Occupancy Sensor Mode (1.0, 2.0, 3.0, 4.0)

The Occupancy Sensor mode defines a scene when occupancy is detected. Depending on configuration, up to four rooms can be defined (1.0, 2.0, 3.0, 4.0).

- **Au**: Recall auto level (only if photocell is defined, otherwise loads go full on)

- **--**: No action (default)

- **1-8**: Recall scene (1 through 8)

NOTE: The Vacant scene turns off all lights in the room.

NOTE: Press the **SAVE** button to save any newly discovered devices and exit Setup mode or press the **CANCEL** button to exit Setup mode.

NOTE: The low voltage relays mirror the occupancy sensor input value (i.e., when the occupancy input goes high, the low voltage relay output goes high).

Photocell Setup Mode (1.P, 2.P, 3.P, 4.P)

The Photocell Setup mode defines the photocell type connected to one of the four inputs (1.P, 2.P, 3.P, 4.P).

- **OL**: Open loop

- **CL**: Closed loop

NOTE: Photocell Setup mode affects all loads in the room in the same way.

Auto Discovery Mode (1.d, 2.d, 3.d, 4.d)

The Auto Discovery mode finds devices in the selected room (1.d, 2.d, 3.d, 4.d). Press the right up or down button to begin the process of auto discovery.

When initiated, all devices on the network enter Light and Poll mode (including devices previously discovered). A device is assigned to the currently selected room when any button on the device is pressed.

NOTE: Once two keypads have been identified, all other keypads exit Light and Poll mode. Once two shade controllers have been identified, all other shade controllers exit Light and Poll mode.

NOTE: Auto Discovery mode times out and exits after 5 minutes of inactivity.

Ethernet Setting Mode (E, F)

The Ethernet Setting mode defines the GLPAC-DIMFLV Ethernet setting.

- **D**: Dynamic addressing (DHCP On)
- **F**: Static IP address

NOTE: The GLPAC-DIMFLV reboots after pressing the **SAVE** button.

Keypad Configuration

The following functions are available for keypad buttons when the keypad is connected to the GLPAC-DIMFLV:

- **Lights Auto**: Light level controlled by photocell. When the photocell is not installed, the default function becomes Lights On.

- **Lights Auto or Off**: Toggles between auto mode and full off.

- **Lights Off**: All off.

- **Master Shades Open**: Momentary press fully opens all shades.

- **Master Shades Close**: Momentary press fully closes all shades.

- **Master Shades Cycle**: Alternately opens or closes the shades.

- **Recall Scene #**: Recalls scene number.

- **Shade Group (1 and 2) Open**: Open shades in shade group (1 and 2).

- **Shade Group (1 and 2) Close**: Close shades in shade group (1 and 2).

- **Group (1 and 2) Shade Cycle**: Cycle between open or close momentary.

- **Shades Preset (1 to 4)**: Recalls shade preset (1 to 4).

- **Master Raise**: Raise the light level of all lights.

- **Master Lower**: Lower the light level of all lights.

- **Scene Save**: Allows scenes and target levels for photocell-controlled loads (Scenes 1 to 4 only) to be saved. Refer to "Learnable Buttons Mode (Lb)" on page 16 for more information.

NOTE: The GLPAC-DIMFLV allocates two Cresnet IDs for each keypad model by default.

Keypad Programming

Keypads can be programmed to use one of three pre-defined templates available in the GLPAC-DIMFLV:

- **A**: Lights only

- **B**: Shades only

- **C**: Lights and shades

NOTE: Refer to "Appendix C: Keypad Templates" on page 25 for keypad-specific button layouts.

Select a template by pressing and holding any two buttons on the keypad for 10 seconds. The keypad cycles through the available templates (A, B, and C). After cycling, the top LED indicates the selected template by blinking once for template A, twice for template B, or three times for template C. The top LED then extinguishes for 2 seconds. This pattern repeats twice (for a total of three times).

Configuring Keypads with Adjustable Button Layouts

Keypads with adjustable button layouts (C2N-* Series) can be programmed to use one of three pre-defined templates available in the GLPAC-DIMFLV. Additional templates are available for keypads with specific button layouts via Button Layout mode.

Use the following procedure to program a keypad for a specific button layout.

1. To place the keypad into the Button Layout mode, tap the lowest button (button 6 or, for split button configurations, 8) on the keypad three times rapidly, and then press and hold until all LEDs extinguish. The LEDs corresponding to the currently recognized layout blink on and off.

    NOTE: For multiheight buttons, the blinking LED corresponds to the lowest adjacent LED (associated with the button press).

    NOTE: If split buttons are used, the eight button layout must be used. Program the buttons that are not present as "not used" in the XPanel interface.

2. Starting from the top and moving down, press each button. Once a button has been pressed, all blinking LEDs turn off and the LED corresponding to the pressed button illuminates. Button Layout mode exits 2 seconds after the last button has been pressed or after 2 seconds of inactivity.

    NOTE: If Button Layout mode is exited without a valid button layout, or if all buttons have not been pressed, the keypad reverts to its previous layout.

Testing

Manual Control

Lighting loads can be manually controlled from the front panel.

Override **Mode**

The Override mode overrides the control system program and sets all of the output states to the stored override values. For instructions on saving override settings, refer to "Save Override Settings" below.

To enable Override mode, press and release the **OVR** button. The OVR LED flashes slowly.

NOTE: If the Override mode was enabled from an external device (i.e., a contact closure is present on the OVRID terminals), the OVR LED flashes quickly. Pressing the **OVR** button has no effect.

To disable Override mode, press the **OVR** button again. The OVR LED extinguishes and the outputs return to the states set by the control system program.

NOTE: If override states have not been stored, the factory default override state turns all loads on.

Save the Override Settings

The state of all of the outputs can be saved as an override setting that can be automatically recalled when the Override mode is enabled.

NOTE: The control system program has a setting that can prevent locally saving the override state. If this setting is enabled, the display shows "Er" when trying to save the override states. For more information, refer to the Crestron Studio or SIMPL Windows help file.

To save the states of all of the outputs as the override setting, press and hold the **OVR** button for 3 seconds until the LED blinks once.

System Operation and Commissioning

This cabinet has been designed as a component of a programmed Crestron system. System commissioning by an authorized Crestron representative **must** be performed to ensure system operation.

Once the cabinet has been wired and the modules have been tested, contact Crestron at 1-888-CRESTRON [1-888-273-7876] to schedule commissioning.

Problem Solving

Troubleshooting

The following table provides corrective action for possible trouble situations. If further assistance is required, please contact a Crestron customer service representative.

Troubleshooting

TROUBLE	POSSIBLE CAUSE(S)	CORRECTIVE ACTION
The module does not function.	The device is not receiving power on LINE1 input.	Verify that the LINE1 and neutral connections are properly made.
		Turn the breaker on.
	System commissioning is not complete.	Arrange to have system commissioning.
The unit cannot be taken out of Override mode.	A short (contact closure) exists between G and OVR terminals on any of the OVERRIDE terminals present at bottom of the cabinet.	Correct the short (e.g., GLS-PLS-120/277 phase-loss sensor was installed improperly or actual phase-loss has been detected).

Further Inquiries

To locate specific information or resolve questions after reviewing this guide, contact Crestron's True Blue Support at 1-888-CRESTRON [1-888-273-7876] or, for assistance within a particular geographic region, refer to the listing of Crestron worldwide offices at www.crestron.com/offices.

To post a question about Crestron products, log onto Crestron's Online Help at www.crestron.com/onlinehelp. First-time users must establish a user account to fully benefit from all available features.

Future Updates

As Crestron improves functions, adds new features, and extends the capabilities of the GLPAC-DIMFLV, additional information may be made available as manual updates. These updates are solely electronic and serve as intermediary supplements prior to the release of a complete technical documentation revision.

Check the Crestron website periodically for manual update availability and its relevance. Updates are identified as an "Addendum" in the Download column.

Appendix A: Specifications

Specifications for the GLPAC-DIMFLV modules are listed in the following table.

GLPAC-DIMFLV Module Specifications

SPECIFICATION	DETAILS
Load Ratings	
Dimmer Channels	GLPAC-DIMFLV4(-PM): 4, GLPAC-DIMFLV8(-PM): 8
Per Channel	16 amps at 100 to 277 Vac, 50/60 Hz
Dim Load Types	0-10 volt fluorescent ballast (4-wire); 0-10 V LED drivers; 60 mA max current sink
Switch Load Types	Fluorescent Ballast, Incandescent, Magnetic Low-Voltage, Electronic Low-Voltage, Neon/Cold Cathode, High-Intensity Discharge, LED, Motor
Relay Lifetime	Resistive rating: 100,000 on or off operations, 50 A @ 277 Vac General rating: 50,000 on or off operations, 16 A @ 120/277 Vac
Power Requirements	
Main Power	100-277 Vac, 50/60 Hz, supplied via channel 1 (LINE 1, NEUT)
Available Cresnet Power	10 watts @ 24 Vdc, shared with occupancy and photocell sensor ports
Enclosure	Surface mount metal box enclosure, suitable for mounting in plenum airspace
Environmental	
Temperature	32° to 104°F (0° to 40°C)
Humidity	10% to 90% RH (non-condensing)

Appendix B: Crestron Network Interconnect

Crestron Network Interconnect Diagram
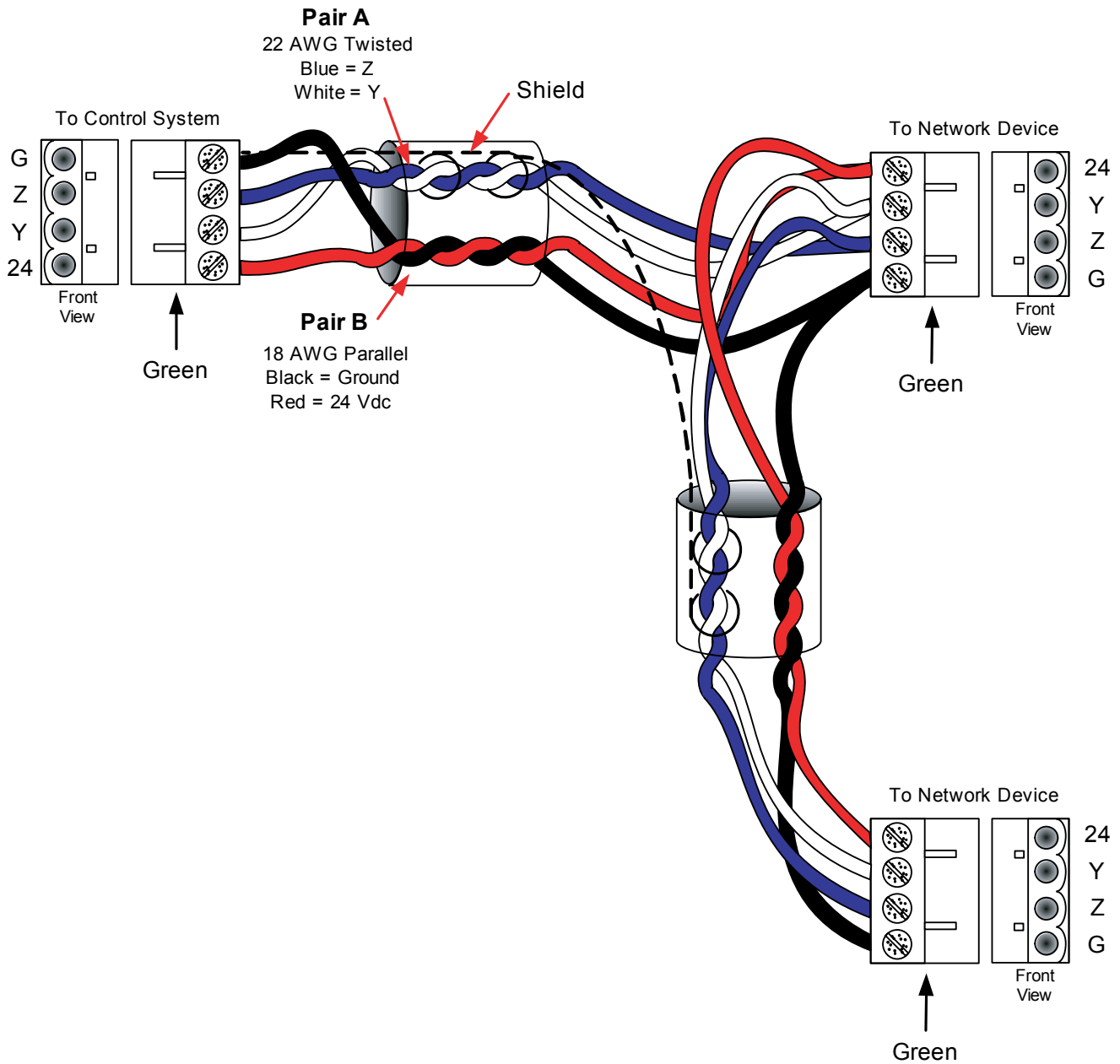
CAUTION: Possible equipment damage if it is miswired.

- Do not power up the system until all wiring is verified. Care should be taken to ensure Data (Y and Z), and Power (24 and G) connections are not crossed.

- Ground shield at the control system end only.

- Model CNTBLOCK network terminal expander and diagnostic tool for the Cresnet system is recommended for testing purposes and wiring convenience.

NOTE: Crestron recommends the use of C2N-HBLOCK or CNTBLOCK as the preferred method to daisy chain or expand the Cresnet network. If the blocks are not available, use the method shown.

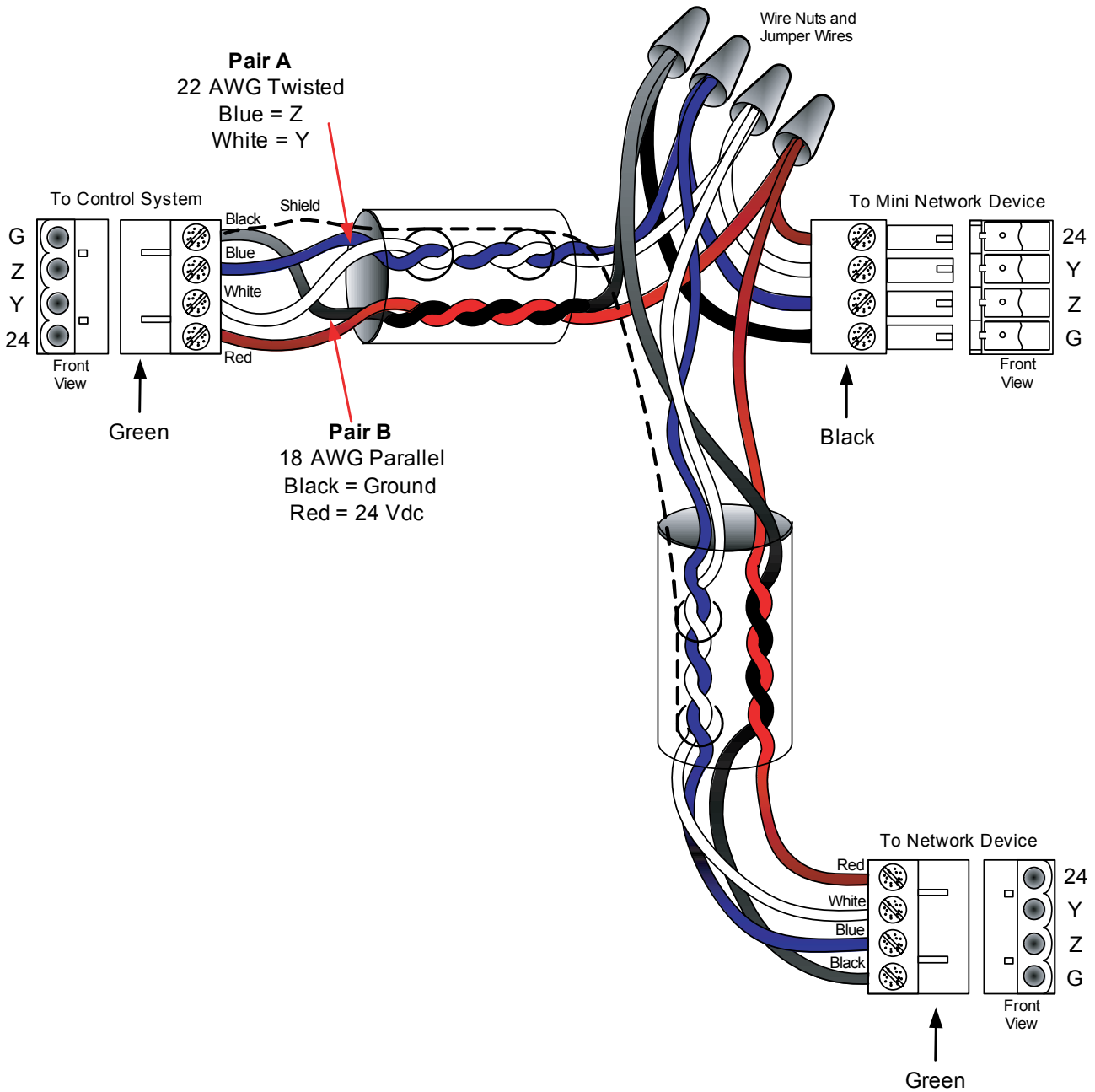## Crestron Network to Mini Network Interconnect Diagram

CAUTION: Possible equipment damage if it is miswired.

- Do not power up the system until all wiring is verified. Care should be taken to ensure Data (Y and Z), and Power (24 and G) connections are not crossed.

- Ground shield at the control system end only.

- Model CNTBLOCK network terminal expander and diagnostic tool for the Cresnet system is recommended for testing purposes and wiring convenience.

- Use #18 AWG jumper wires. Use a wire nut that accommodates all three wires.

NOTE: Crestron recommends the use of C2N-HBLOCK or CNTBLOCK as the preferred method to daisy chain or expand the Cresnet network. If the blocks are not available, use the method shown.

Appendix C: Keypad Templates

The following keypads are supported by the GLPAC-DIMFLV. The GLPAC-DIMFLV allows the user to select from one of three pre-defined templates (Lights Only, Shades Only, or Lights and Shades).

CNX-B2

CNX-B2 Keypad Template A (Lights Only)

BUTTON JOINS	FUNCTION	LABEL
1	Lights Auto	ON
2	Lights Off	OFF

CNX-B2 Keypad Template B (Shades Only)

BUTTON JOINS	FUNCTION	LABEL
1	Master Shades Open	OPEN/SHADES
2	Master Shades Close	CLOSE/SHADES

CNX-B2 Keypad Template C (Lights and Shades)

BUTTON JOINS	FUNCTION	LABEL
1	Lights Auto or Off	LIGHTS
2	Master Shades Cycle	SHADES

CNX-B4

CNX-B4 Keypad Template A (Lights Only)

BUTTON JOINS	FUNCTION	LABEL
1	Lights Auto	ON
2	Recall Scene 1	SCENE 1
3	Recall Scene 2	SCENE 2
4	Lights Off	OFF

CNX-B4 Keypad Template B (Shades Only)

BUTTON JOINS	FUNCTION	LABEL
1	Shades Group 1 Open	SHADES 1 OPEN
2	Shades Group 1 Close	SHADES 1 CLOSE
3	Shades Group 2 Open	SHADES 2 CLOSE
4	Shades Group 2 Close	SHADES 2 CLOSE

CNX-B4 Keypad Template C (Lights and Shades)

BUTTON JOINS	FUNCTION	LABEL
1	Lights Auto or Off	LIGHTS
2	Master Shades Cycle	SHADES
3	Recall Scene 1	SCENE 1
4	Recall Scene 2	SCENE 2

CNX-B6

CNX-B6 Keypad Template A (Lights Only)

BUTTON JOINS	FUNCTION	LABEL
1 (Top Left)	Lights Auto	ON
2 (Top Right)	Lights Off	OFF
3	Recall Scene 1	SCENE 1
4	Recall Scene 2	SCENE 2
5	Recall Scene 3	SCENE 3
6	Recall Scene 4	SCENE 4

CNX-B6 Keypad Template B (Shades Only)

BUTTON JOINS	FUNCTION	LABEL
1 (Top Left)	Group 1 Shade Cycle	SHADES 1
2 (Top Right)	Group 2 Shade Cycle	SHADES 2
3	Shades Preset 1	PRESET 1
4	Shades Preset 2	PRESET 2
5	Shades Preset 3	PRESET 3
6	Shades Preset 4	PRESET 4

CNX-B6 Keypad Template C (Lights and Shades)

BUTTON JOINS	FUNCTION	LABEL
1 (Top Left)	Lights Auto	LIGHTS ON
2 (Top Right)	Lights Off	LIGHTS OFF
3	Shade Group 1 Cycle	SHADES 1
4	Shade Group 2 Cycle	SHADES 2
5	Recall Scene 1	SCENE 1
6	Recall Scene 2	SCENE 2

CNX-B8

CNX-B8 Keypad Template A (Lights Only)

BUTTON JOINS	FUNCTION	LABEL
1 (Top Left)	Lights Auto	ON
2 (Top Right)	Lights Off	OFF
3	Scene 1	SCENE 1
4	Scene 2	SCENE 2
5	Scene 3	SCENE 3
6	Scene 4	SCENE 4
7	Master Lower	LOWER
8	Master Raise	RAISE

CNX-B8 Keypad Template B (Shades Only)

BUTTON JOINS	FUNCTION	LABEL
1 (Top Left)	Shades Group 1 Open	SHADES 1 OPEN
2 (Top Right)	Shades Group 2 Close	SHADES 2 OPEN
3	Shades Group 1 Close	SHADES 1 CLOSE
4	Shades Group 2 Close	SHADES 2 CLOSE
5	Shades Preset 1	PRESET 1
6	Shades Preset 2	PRESET 2
7	Shades Preset 3	PRESET 3
8	Shades Preset 4	PRESET 4

CNX-B8 Keypad Template C (Lights and Shades)

BUTTON JOINS	FUNCTION	LABEL
1 (Top Left)	Lights Auto	LIGHTS ON
2 (Top Right)	Lights Off	LIGHTS OFF
3	Shade Group 1 Cycle	SHADES 1
4	Shade Group 2 Cycle	SHADES 2
5	Scene 1	SCENE 1
6	Scene 2	SCENE 2
7	Scene 3	SCENE 3
8	Scene 4	SCENE 4

CNX-B12

CNX-B12 Keypad Template A (Lights Only)

BUTTON JOINS	FUNCTION	LABEL
1 (Top Left)	Lights Auto	ON
2 (Top Right)	Lights Off	OFF
3	Scene 1	SCENE 1
4	Scene 2	SCENE 2
5	Scene 3	SCENE 3
6	Scene 4	SCENE 4
7	Scene 5	SCENE 5
8	Scene 6	SCENE 6
9	Scene 7	SCENE 7
10	Scene 8	SCENE8
11	Master Lower	LOWER
12	Master Raise	RAISE

CNX-B12 Keypad Template B (Shades Only)

BUTTON JOINS	FUNCTION	LABEL
1 (Top Left)	All Shades Open	SHADES OPEN
2 (Top Right)	All Shades Close	SHADES CLOSE
3	Shades Group 1 Open	SHADES 1 OPEN
4	Shades Group 2 Open	SHADES 2 OPEN
5	Shades Group 1 Close	SHADES 1 CLOSE
6	Shades Group 2 Close	SHADES 2 CLOSE
7	Shade Group 1 Cycle	SHADES 1 OPEN/CLOSE
8	Shade Group 2 Cycle	SHADES 2 OPEN/CLOSE
9	Shades Preset 1	PRESET 1
10	Shades Preset 2	PRESET 2
11	Shades Preset 3	PRESET 3
12	Shades Preset 4	PRESET 4

CNX-B12 Keypad Template C (Lights and Shades)

BUTTON JOINS	FUNCTION	LABEL
1 (Top Left)	Lights Auto	ON
2 (Top Right)	Lights Off	OFF
3	Master Shades Open	SHADES OPEN
4	Master Shades Close	SHADES CLOSE
5	Shade Group 1 Cycle	SHADES 1 OPEN/CLOSE
6	Shade Group 2 Cycle	SHADES 2 OPEN/CLOSE
7	Scene 1	SCENE 1
8	Scene 2	SCENE 2
9	Scene 3	SCENE 3
10	Scene 4	SCENE 4
11	Master Lower	LOWER
12	Master Raise	RAISE

C2N-CB(D) (2-Button Join Mode)

Keypad Template A (Lights Only)

BUTTON JOINS	FUNCTION	LABEL
1	Lights Auto	ON
2	Lights Off	OFF

Keypad Template B (Shades Only)

BUTTON JOINS	FUNCTION	LABEL
1	Master Shades Open	OPEN/SHADES
2	Master Shades Close	CLOSE/SHADES

Keypad Template C (Lights and Shades)

BUTTON JOINS	FUNCTION	LABEL
1	Lights Auto or Off	LIGHTS
2	Shades Cycle	SHADES

C2N-CB(D) (3-Button Join Mode)

Keypad Template A (Lights Only)

BUTTON JOINS	FUNCTION	LABEL
1	Lights Auto or Off	ON/OFF
2	Recall Scene 1	SCENE 1
3	Recall Scene 2	SCENE 2

Keypad Template B (Shades Only)

BUTTON JOINS	FUNCTION	LABEL
1	Shades Group 1 Cycle	SHADES 1
2	Shades Group 2 Cycle	SHADES 2
3	Shades Preset 1	PRESET

Keypad Template C (Lights and Shades)

BUTTON JOINS	FUNCTION	LABEL
1	Lights Auto or Off	LIGHTS
2	Master Shades Cycle	SHADES
3	Recall Scene 1	SCENE 1

C2N-CB(D) (4-Button Join Mode, Any Combination)

Keypad Template A (Lights Only)

BUTTON JOINS	FUNCTION	LABEL
1	Lights Auto or Off	ON/OFF
2	Recall Scene 1	SCENE 1
3	Recall Scene 2	SCENE 2
4	Recall Scene 3	SCENE 3

Keypad Template B (Shades Only)

BUTTON JOINS	FUNCTION	LABEL
1	Master Shades Cycle	SHADES OPEN/CLOSE
2	Shades Preset 1	PRESET 1
3	Shades Preset 2	PRESET 2
4	Shades Preset 3	PRESET 3

Keypad Template C (Lights and Shades)

BUTTON JOINS	FUNCTION	LABEL
1	Lights Auto or Off	LIGHTS
2	Master Shades Cycle	SHADES
3	Recall Scene 1	SCENE 1
4	Recall Scene 2	SCENE 2

C2N-CB(D) (5-Button Join Mode, Any Combination)

Keypad Template A (Lights Only)

BUTTON JOINS	FUNCTION	LABEL
1	Lights Auto or Off	ON/OFF
2	Recall Scene 1	SCENE 1
3	Recall Scene 2	SCENE 2
4	Recall Scene 3	SCENE 3
5	Recall Scene 4	SCENE 4

Keypad Template B (Shades Only)

BUTTON JOINS	FUNCTION	LABEL
1	Master Shades Cycle	SHADES OPEN/CLOSE
2	Master Shades Preset 1	PRESET 1
3	Master Shades Preset 2	PRESET 2
4	Master Shades Preset 3	PRESET 3
5	Master Shades Preset 3	PRESET 4

Keypad Template C (Lights and Shades)

BUTTON JOINS	FUNCTION	LABEL
1	Lights Auto or Off	LIGHTS
2	Shades 1 Cycle	SHADES 1
3	Shades 2 Cycle	SHADES 2
4	Recall Scene 1	SCENE 1
5	Recall Scene 2	SCENE 2

C2N-CB(D) (6-Button Join Mode, Any Combination)

Keypad Template A (Lights Only)

BUTTON JOINS	FUNCTION	LABEL
1	Lights Auto	ON
2	Recall Scene 1	SCENE 1
3	Recall Scene 2	SCENE 2
4	Recall Scene 3	SCENE 3
5	Recall Scene 4	SCENE 4
6	Lights Off	OFF

Keypad Template B (Shades Only)

BUTTON JOINS	FUNCTION	LABEL
1	Shades 1 Cycle	SHADES 1 OPEN/CLOSE
2	Shades 2 Cycle	SHADES 2 OPEN/CLOSE
3	Master Shades Preset 1	PRESET 1
4	Master Shades Preset 2	PRESET 2
5	Master Shades Preset 3	PRESET 3
6	Master Shades Preset 4	PRESET 4

Keypad Template C (Lights and Shades)

BUTTON JOINS	FUNCTION	LABEL
1	Lights Auto or Off	LIGHTS
2	Shades 1 Cycle	SHADES 1
3	Shades 2 Cycle	SHADES 2
4	Recall Scene 1	SCENE 1
5	Recall Scene 2	SCENE 2
6	Recall Scene 3	SCENE 3

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