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Description

The Crestron Green Light® Power Pack is a standalone room controller designed to communicate with photocells, occupancy sensors, and control stations to automatically control lighting in any room. The entire Crestron Green Light Power Pack (GLPP) family provides cost-effective and powerful lighting control for classrooms, small offices, and open-plan offices. Ideal for new construction as well as retrofitting existing buildings, Crestron® GLPPs are designed to install and commission quickly and easily. Additionally, the GLPP can be connected to a central control system, enabling it to become an integral part of the building energy management system.
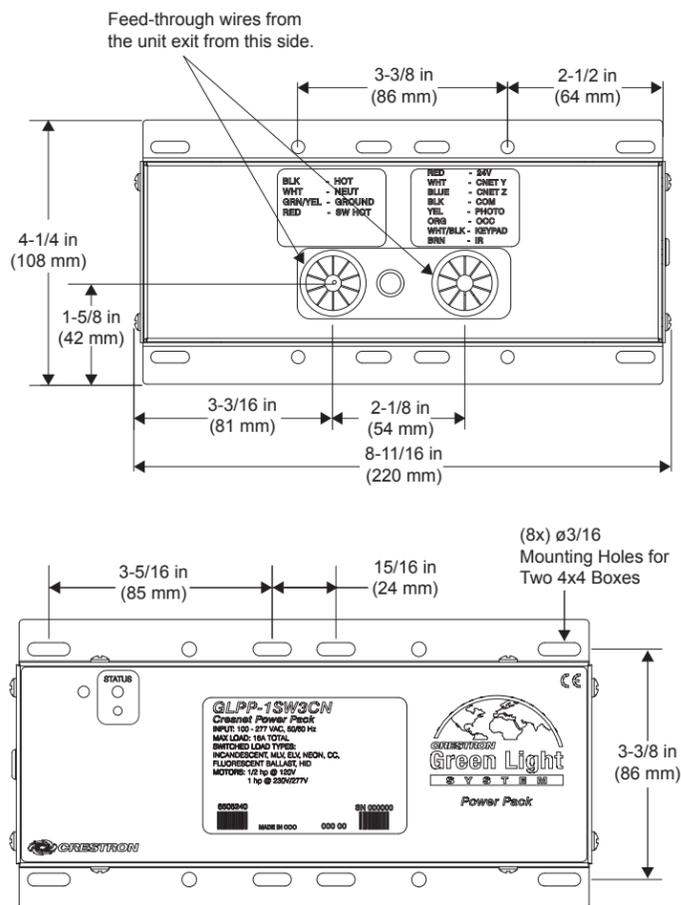
Models

MODEL	DESCRIPTION
GLPP-SWCN	Crestron Green Light Power Pack, 1-Channel Switch with Cresnet
GLPP-1SW2CN	Crestron Green Light Power Pack, 2-Channel Switch with Cresnet
GLPP-1SW3CN	Crestron Green Light Power Pack, 3-Channel Switch with Cresnet

NOTE: These models meet the requirements of UL® 2043 for installation in an environmental air-handling (plenum) space.

Physical Description
This section provides information on the GLPP-SWCN series dimmers.

GLPP-SWCN Overall Dimensions (Flying Leads Not Shown)

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.

Available Accessories

The GLPP-SWCN can be used with a variety of equipment.

ACCESSORY	DESCRIPTION
GLPPA-KP	In-Wall Master Scene Keypad for GLPP
GLPPA-KP1	In-Wall Zone Keypad for GLPP, Channel 1 Control
GLPPA-KP2	In-Wall Zone Keypad for GLPP, Channel 2 Control
GLPPA-KP3	In-Wall Zone Keypad for GLPP, Channel 3 Control
GLPPA-KP4	In-Wall Zone Master Keypad for GLPP
GLS-OIR-C-NS	Passive Infrared Ceiling Mount Occupancy Sensor
GLS-ODT-C-NS	Dual-Technology Ceiling Mount Occupancy Sensor
GLS-LOL	Crestron Green Light Photosensor, Open-Loop
GLS-LCL	Crestron Green Light Photosensor, Closed-Loop
GLS-LEXT	Crestron Green Light Photosensor, Outdoor

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

NOTES: Observe the following points.

- Install and use this product in accordance with appropriate electrical codes and regulations.
- A licensed electrician should install this product.

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

GLPP-SWCN Series Specifications

SPECIFICATION	DETAILS
Load Ratings	
Switched Channels	1, 2, or 3 switched loads (depending on model)
Per Unit	16 A at 100–277 Vac, 50/60 Hz (20 A, de-rated to 80%)
Switch Load Types	Fluorescent ballast, incandescent, magnetic low-voltage, electronic low-voltage, neon/cold cathode, high-intensity discharge
Power Requirements	
Main Power	100–277 Vac, 50/60 Hz
Available Sensor Power	2.5 W at 24 Vdc (sufficient for powering both the occupancy sensor and photocell)
Enclosure	20-gauge galvanized steel enclosure, designed for mounting to two (2) adjacent standard 4" square electrical junction boxes (some models may need a box extension to meed code requirements); 3-channel versions require a box depth of 2.125 in (54 mm)

Wiring

WARNING: Turn off the power to the GLPP-SWCN before wiring. Wiring with the power on can result in serious personal injury and damage to the device.

CAUTION: This product must be installed with 14 AWG (2.5 mm²) and 18 AWG (0.75 mm²) wires that comply with local electrical codes.

Typical Wiring Diagram
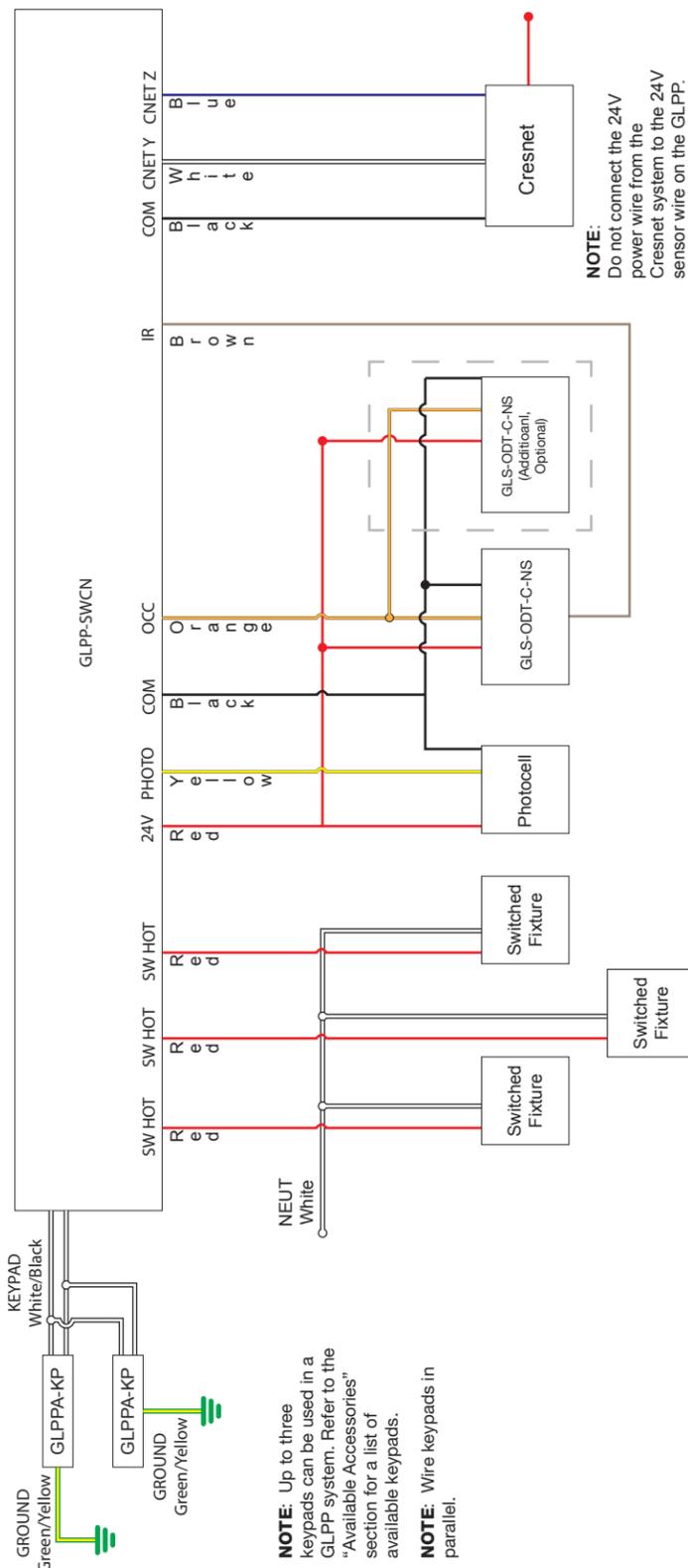
Commissioning

The GLPP-SWCN must be commissioned before it can be used. During commissioning, the scene selections are configured along with the daylighting levels. The actions of the occupancy sensors are also configured.

Scene Settings
The following table shows the default scene settings.

Default Scene Settings

SCENE	LOAD STATE (LOADS 1/2/3)
1	On/On/On
2	On/Off/On
3	Off/On/Off
4	On/Off/Off
5	Off/Off/On
6	Off/On/On
7	On/On/Off
8	Off/Off/Off

Change Scene Settings
The scene settings can be changed to accommodate the needs of the room or occupants. The scenes are changed using the GLPPA-REMOTE-PROG, the GLPPA-REMOTE-USER, or the GLPPA-KP (all sold separately).

Edit Scenes Using a Remote

Use the GLPPA-REMOTE-PROG or the GLPPA-REMOTE-USER to change the default settings for scenes 1 through 8.

1. Use LOAD 1 ON OFF buttons to set the load to the desired level. Repeat this process for the other connected loads. Alternatively, use the MASTER ON OFF buttons to set the levels of all the connected loads.
2. Press and hold the appropriate SCENE 1 through SCENE 8 button for 2 seconds to save the scene. The GLPP beeps when the scene is saved.

   NOTE: Only Scene 1 enables daylighting.

3. Repeat the steps above for all scenes that need to be configured.

Edit Scenes Using a 2-Wire Keypad

Use the GLPPA-KP as another means of editing the scenes if using the 4-button keypad setup. Follow the procedure below to edit the scenes using the keypad.

1. Press and hold the ALL ON and ALL OFF buttons on the keypad for 3 seconds to put the GLPP into Program mode. The LED on the keypad blinks to indicate that the device is in Program mode.

   - Program mode exits without saving after 30 seconds of button inactivity.
   - Program mode immediately exits without saving when the ALL OFF button is pressed.

2. Press the ALL ON, SCENE 1, or SCENE 2 buttons to toggle the loads between full on and full off (no fade time). The buttons are used to control loads 1 through 3; the ALL ON button toggles load 1, the SCENE 1 button toggles load 2, and the SCENE 2 button toggles load 3. When a button is pressed, the load turns full on if the load is currently off.

   NOTE: All connected loads must be assigned a load level for each scene.

3. To save the current light levels to a scene, press and hold the ALL OFF button while pressing the SCENE 1 or SCENE 2 button. The keypad exits Program mode immediately upon saving, resetting a scene, or after 1 minute.

To reset a scene to its factory default levels, press and hold the ALL OFF button while holding a desired scene button for 5 seconds.

Set Up Daylighting

Daylighting, also known as daylight harvesting, continuously uses sunlight information from the photocell to control the electric artificial lighting level. Daylighting ensures adequate environment lighting while saving as much energy as possible. Set points, known as the "day" and "night" points, are used to determine when the load should be turned on.

> **NOTE**: Pay careful attention when commissioning open-loop daylighting. Accidentally pressing the wrong buttons on the GLPPA-REMOTE-PROG may clear set points and follow the wrong slope or curve (e.g., pressing day when setting up the night level).

For proper operation of daylighting, commission during the day while the outdoor conditions are constant. Avoid commissioning when clouds are rapidly exposing and then hiding the sun.

Set Up the Open-Loop Daylighting Levels

In open-loop daylighting, each channel is assigned a day and night set point and allows each channel to turn on independently.

To commission open-loop daylighting, follow the procedure outlined below.

1. Establish the day set point.
   a. Enter the room during a time when there is enough natural light and no artificial light is required.
   b. Turn load 1 off.
   b. Press and hold the LOAD 1 DAY button on the GLPPA-REMOTE-PROG for 2 seconds to start recording the levels for load 1. The GLPP beeps to indicate that the recording process has started. The lights turn on and then off. At this point, the GLPP calculates and saves the night set point. If daylighting was set up successfully, the GLPP emits one long beep. If there is an error, the GLPP emits three short beeps.
   c. Repeat for all connected loads.
2. Establish the night set point (optional).

   > **NOTE**: When the day set point is established, the night set point is automatically calculated and saved. However, a custom night set point can be saved.

   a. Return to the location at night, when the natural light is starting to decrease and when the artificial lights should be turned on.
   b. Turn load 1 on.

   > **NOTE**: For night night set point, the sensor must detect less light than the established day set point. If it detects more light, setting the night set point will fail.

   c. Press and hold the LOAD 1 NIGHT button on the GLPPA-REMOTE-PROG for 2 seconds to set the night level. The GLPP beeps to indicate that the recording process has started. The lights turn off and then on. The GLPP emits one long beep to confirm that the night set point is saved.
   d. Repeat for all connected loads.

Clear Daylighting

To remove daylighting for a particular channel, using the GLPPA-REMOTE-PROG, press and hold the Load 1, Load 2, or Load 3 DAY button until a short beep sounds. A long beep signifies process completion. Within 5 seconds, press and hold LOAD 1, LOAD 2, or LOAD 3 NITE button for the same channel until a short beep sounds. Daylighting has now been cleared for this channel.

Set Up the Occupancy Sensor

To set up the occupancy sensor and the desired recalled scene upon entry or exit of the room, follow the procedure below. The GLPP beeps once the scene selection is saved.

1. Press and hold the desired ENTRY button on the GLPPA-REMOTE-PROG.
   - ENTRY NONE: The loads are not turned on upon entering the room.
   - ENTRY SCENE 1: Scene 1 is recalled upon entering the room.
   - ENTRY SCENE 6: Scene 6 is recalled upon entering the room.
   - ENTRY SCENE 7: Scene 7 is recalled upon entering the room.
2. Press and hold the desired EXIT button on the GLPPA-REMOTE-PROG.
   - EXIT OFF: The loads are turned off upon exiting the room.
   - EXIT SCENE 8: Scene 8 is recalled upon exiting the room.

Troubleshooting

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

TROUBLE	POSSIBLE CAUSE(S)	CORRECTIVE ACTION
The device does not function.	The switch is not receiving line power.	Verify that the switch is properly connected to the HOT and NEU power lines and that the circuit breaker is closed.
The switch powers up, but the load does not turn on.	The lamps are burned out.	Check the lamp.
	There is an open circuit.	Check the wiring.
	A short circuit exists on the switch output, and the protection circuit has activated.	Check the wiring.
The device not operating as expected.	The 24V sensor line is connected to the 24V Cresnet line.	Check the wiring. Ensure that the 24V sensor and 24V Cresnet lines are not tied together.