

LitePak Panels

Available in 4, 8, 16 and 24 Relay Configurations:
Includes a Time/Photo Controller and a transformer power supply.
8 and 16 models shown.

LitePak



LitePak-16



- Use to control any type of lighting load
- Multi-feature time/photo controller
- Heavy Duty, HID, latching relays with indicator and manual override
- Available in 4 panel configurations
- Remote switch options
- Photo sensor options
- 14,000A Short Circuit Current Rated Relays
- California Energy Commission Title 24 approved

Remote Photo Sensor



- Specialized photo-electric controls are possible when the remote light sensor is connected.
- Sensor part number: WPS-5527K. Sensor optional and is ordered separately from LitePak panels.

Remote Switches

- The controller also has 1 group input which accepts a standard Douglas 2-wire switch. The group input can be set to switch some or all of the outputs.
- LitePak relays can be controlled by all standard Douglas hardwire low voltage 2-wire switches. A wall switch can be connected in parallel with the controller output to the relay.



- Switches are ordered separately from the LitePak panels.



to Expansion Panel

LitePak Time/Photo Controller (WTP-4418)

- Electronic, 365-day astronomic time/photo controller for switching Douglas 2-wire relays.
- 4-line graphical display with built in prompts to guide viewing and editing programs.
- Up to 900 events can be programmed into the LitePak controller.
- The controller has 8 outputs. Each can be operated by a unique program and with unique photo settings. Up to 4 relays can be connected to an output.

Features:

- Time control: 7-day SMTWTFs schedules and holiday DATE schedules
- Astronomic Control: calculates sunset and sunrise with the astronomic function. An offset of ± 180 minutes can be set from the calculated time.
- Photo Sensor Control: set unique light level set points for each output. Requires optional WPS-5527K Photo Sensor. Sensor range is 0-6500 foot candles.
- Switching Options: outputs can be set to switch ON, OFF, OFF with flick warn and can do Sentry Switch OFF commands.
- Time-out Option: the controller outputs can be set to monitor connected relays. Should the relay be switched ON, the output will switch it OFF after a pre-set time. This feature can be scheduled to function during unoccupied periods.
- Group Override Switch: a switch input is supplied that can be set to switch all or some of the outputs ON or OFF.
- Daylight Savings & Leap Year: the controller automatically adjusts for leap years and Daylight Savings. Daylight savings option can be switched OFF if not required.
- Memory & Time: when power is lost, the controller's programs are held indefinitely, and the time is maintained for 72 hours.



LitePak Time/Photo Controller Module

LitePak Expansion Panels

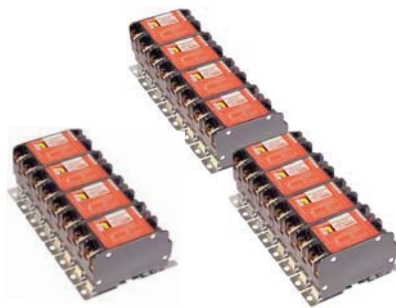
Expansion panels are available for custom orders. Please contact Douglas head office for details.



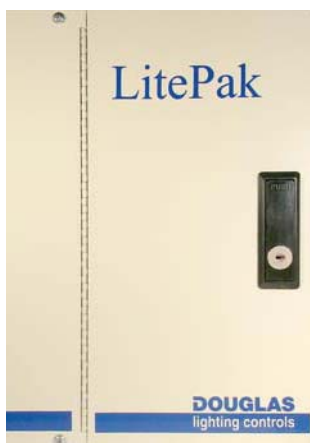
8 or 16 HID, 1-pole Lighting Relays (Standard Configurations)

2-Wire HID Relays

- Suitable for all types of lighting loads including capacitor corrected HID ballasts.
- Manual override lever & ON/OFF indicator built into relay.
- Operable with remote switches.
- Lighting load rated for 20A branch circuits. Voltage ratings: 120/277/347V 1-pole relay. 208/480V 2-pole relay.
- 480V applications use a 2-pole relay to switch the two 277V hots that supply the load fixture.
- Approvals: UL/CSA

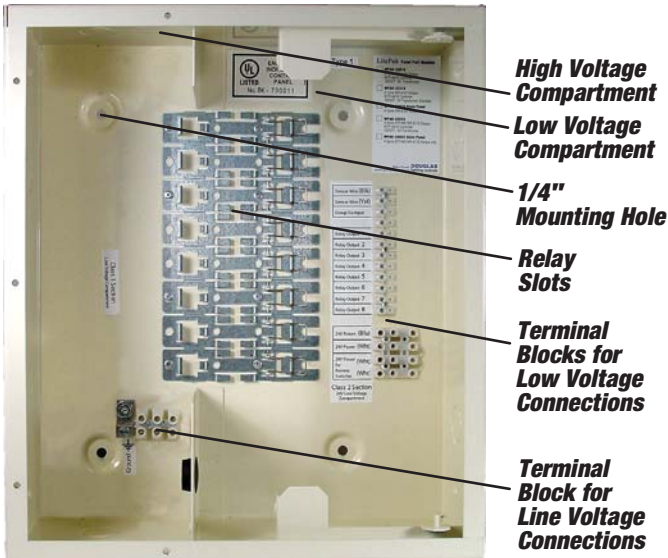


4 or 8 HID, 2-pole Lighting Relays (480V Option)



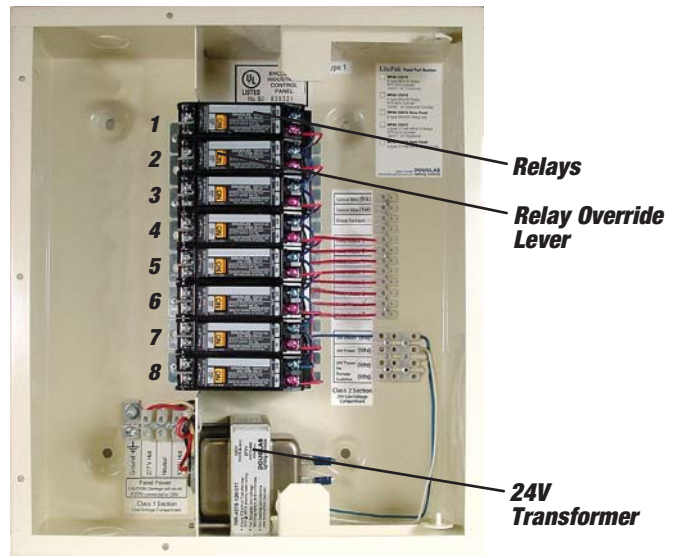
to LitePak Panel

Components/Safety Considerations

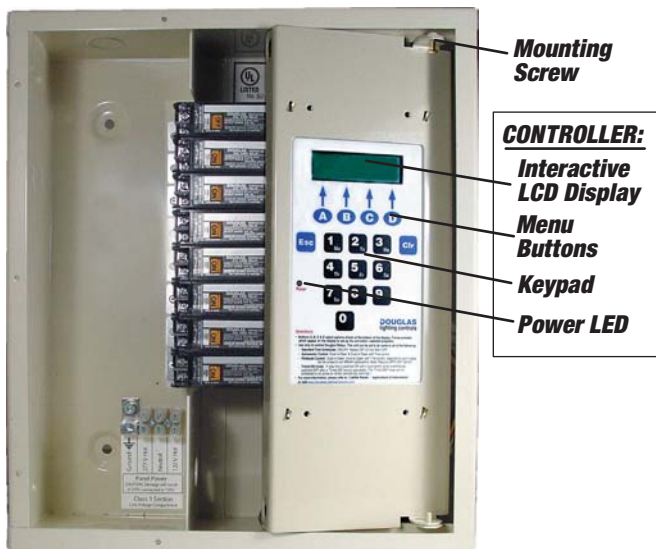


LitePak Panel - Box Only

8-relay LitePak model shown



LitePak Panel - Box with Components mounted & connected



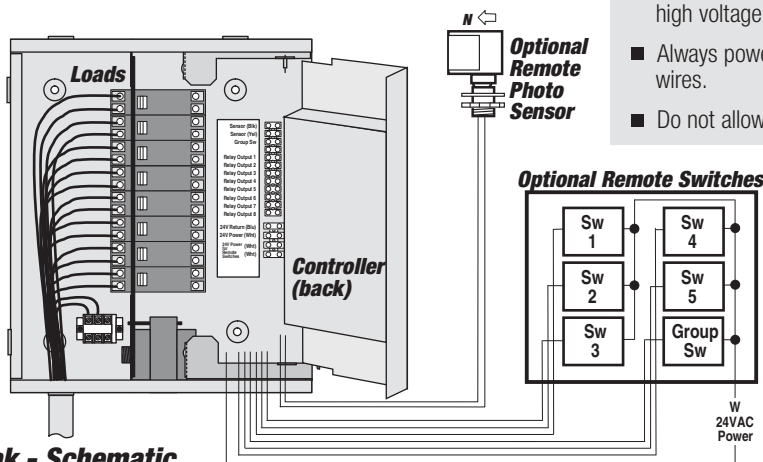
LitePak Panel - Controller Module Mounted

General Description

- Each LitePak Panel has an 8-output controller and, depending on model, 4, 8, 16 or 24 single-pole HID relays. Or 4, 8 or 12 or 2-pole HID relays. The LitePak Panel has a separate high voltage and low voltage compartment.
- Each controller output can control up to 4 relays. The controller is programmed using the menu buttons and keypad following prompts shown on the LCD display. Programming options include: time scheduling, astronomic, photo control, flick warn, sentry and time-out.
- An optional WPS-5527K Photo Sensor can connect to a LitePak Panel to provide photo control. Each output can then be programmed to have precise light level switching points.
- Remote switch stations can be connected to permit easy user override. Connect switches directly to the relays for individual control or connect to the group switch input to switch groups of relays.

Safety Considerations

- Unless the LitePak Panel is powered down, do not touch anything in the high voltage compartment.
- Always power down the LitePak Panel before replacing or terminating wires.
- Do not allow the LitePak Panel to get wet.



LitePak - Schematic

Mounting and Installation

refer to 'External Connections' & 'Internal Connections' on pp. 32-33 for more details.

1. Select the location(s) for mounting the LitePak Panel and, if used, the Expansion Panel(s).
The panel(s) must be mounted indoors in a stationary, non-vibrating, non-corrosive atmosphere and in non-condensing humidity. The ambient temperature must always be within the range of 32°F to 140°F (0°C to 60°C).

It is best to locate the LitePak Panel in an area that is easily accessible for programming and is relatively close to the voltage breaker.

The Expansion Panel(s), if used, should be located close enough to the LitePak Panel so that the maximum wire length (refer to table at lower right) will not be exceeded. If any Expansion Panels are used, the total number of relays in all panels should not exceed 24.

2. Remove the cover(s) to access the four 1/4" mounting holes and attach the panel(s) to the wall. Refer to the diagrams at the right for mounting dimensions.
3. Install conduit(s) and connect the load circuits to the relays. The largest wire size that can be used is 12 AWG. Make note of which circuits connect to each relay.

4. On the LitePak Panel, make note of which relay is connected, via its red control wire, to which controller output.

For 8-relay models, factory default is each controller output to the relay having the same number: controller output #1 to relay #1, etc. For 16-relay models, default is 2 adjacent relays connected to an output in numerical order. This can later be changed by rewiring the terminal block once the relay schedules are determined. Up to 4 relays can be connected to one controller output.

5. (optional) If an Expansion Pak is used, connect its relay inputs and 24V input to the LitePak Panel via an 11-conductor bus. Refer to "Internal Connections" on page 33 of this manual for connection details.

6. (optional) If a WPS-5527K Remote Photo is used, mount it and connect its wires to the 'Sensor Wire' terminals in the LitePak Panel.

Do not mount the sensor where artificial light shines directly on it. For best results, mount it facing the northern sky. The sensor should be mounted, whenever possible, either indoors or in a sheltered area.

7. (optional) Mount and connect any remote override switches, if override switches will be used. An override switch can control individual relays or groups of relays.

Low voltage switches controlling relay(s) should have their red control wire connected directly to the red terminal of the relay(s), in parallel to the controller output.

A group switch for controlling some or all of the Litepak controller outputs may be connected directly to the 'Group Switch Inp' terminal in the LitePak Panel.

Refer to "External Connections" and "Internal Connections" on pages 32-33 of this manual for connection details.

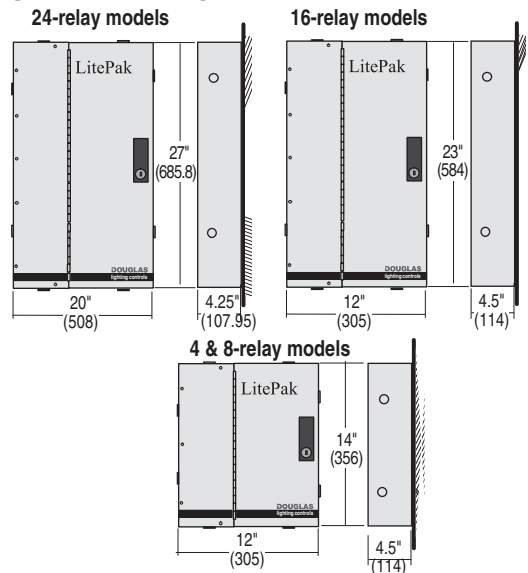
8. Install the controller module in the panel. Plug the wire control harness into the terminals, position the module onto the top and bottom hinges, then secure by inserting the top hinge screw. After the controller is mounted, re-install the cover (by securing screws at edges) on each panel used.

9. Supply power to the transformer.

CAUTION: Do not connect 277V to the 120V wire (black) of the transformer as the overvoltage will permanently damage the LitePak controller.

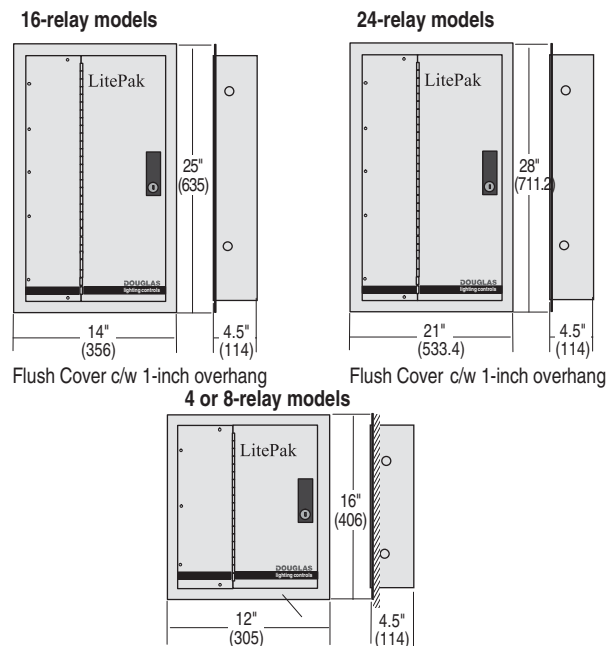
10. By using the manual override lever on the relays, verify that the correct loads are connected to each relay.

DIMENSIONS & MOUNTING (surface mount)



DIMENSIONS & MOUNTING (flush mount)

Note: A flush mount panel has similar dimensions as a surface mount panel, except the flush mount panel has an additional 1" extended trim at the front cover



Number of Relays per LitePak Relay Output	Allowable Wire Length to LitePak Expansion Panel Relay
1	2000' (600m)
2	1500' (450m)
3	1000' (300m)
4	500' (150m)

Maximum Wire Length to Expansion Panel (#18 ga. Solid)

DOUGLAS
lighting controls