



**LIGHTING CONTROL  
PANEL**

## **Lighting Control Panel**

The lighting control panel is designed to switch the various lighting circuits on and off automatically. Inside the panel is an Outdoor Lighting Control module. Refer to the attached specifications for more information on this controller.

The controller is switched on via the A1 and A2 contacts of the Dining A/C unit thermostats. It is very important to set this thermostat to the exact hours the restaurant is open, i.e. the occupied hours. Confirm on site which Dining A/C thermostat is being used if used at all.

If the Dining A/C thermostat is not being used then the Digi 42 time clock, Channel 2 Option is being used to turn lighting panel on and off. Refer to Digi 42 programming for how to set.

The following settings should be set on the controller:

Security 3

Parking 3

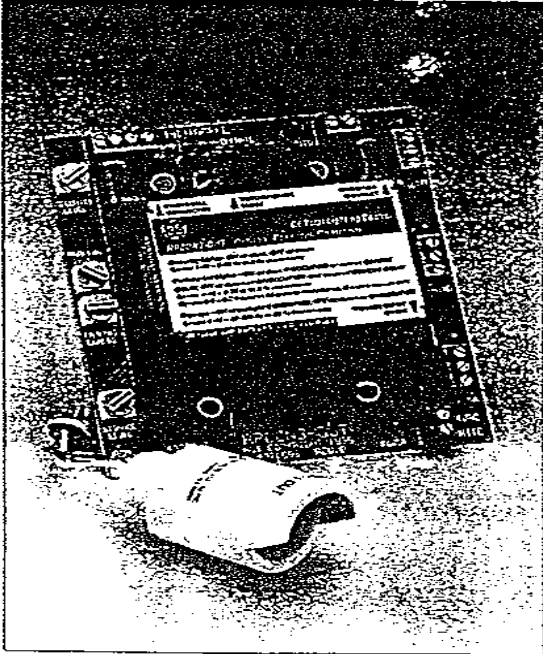
Egress 2

Signage 2

These settings are only a guide and may require adjustment in the field for the on site conditions.

# TOTAL LIGHTING CONTROL

## Outdoor Lighting Controller



### FEATURES

- Built-in intelligent scenarios for outdoor lighting
- Three intelligent outputs for three types of outdoor lighting
- User-selectable ranges for three independent light levels
- Built in "deadband" to avoid nuisance switching
- Optional "Egress Delay" for parking lot lighting
- "Occupied" contact to indicate normal working hours

### DESCRIPTION

The **RPCON3-OUT Outdoor Photocell Controller** is an intelligent component for simple control of exterior lighting. It must be used in conjunction with the **RPSEN3-OUT Photosensor**. **RPHOTO3-OUT** is a package combining both controller and sensor.

The **RPCON3-OUT** accepts two inputs: the **RPSEN3-OUT** photosensor, which provides exterior daylight levels, and an additional dry contact input which indicates normal building occupancy. The controller also provides three intelligent outputs, each dedicated to one type of outdoor lighting: Security, Parking and Signage. Each output can drive up to three relays in parallel.

The **RPCON3-OUT** provides built-in intelligent scenarios for each type of outdoor lighting. Each output has its own adjustable set point to indicate what level of daylight (or darkness) should trip the lighting ON.

The **RPCON3-OUT** is designed for use with **GE RR-series relays** installed in a lighting automation panel or accessory cabinet on the following page.

### BASIC INSTALLATION STEPS

Detailed installation instructions as follows.

- Install photocell on the roof
- Mount the control unit in the lighting automation panel or accessory cabinet
- Wire photocell input
- Wire 24 VAC power to power unit
- Wire intelligent outputs to relays to be controlled
- Connect timeclock, switch, or other input to "Occupied" contact
- Select lighting levels and parking lot egress delay
- Test operation

Before proceeding, read the enclosed installation instructions. For GE TLC Service, call: 1-888-852-2778 (USA) or 1-800-661-6619 Canada)

# INSTALLATION

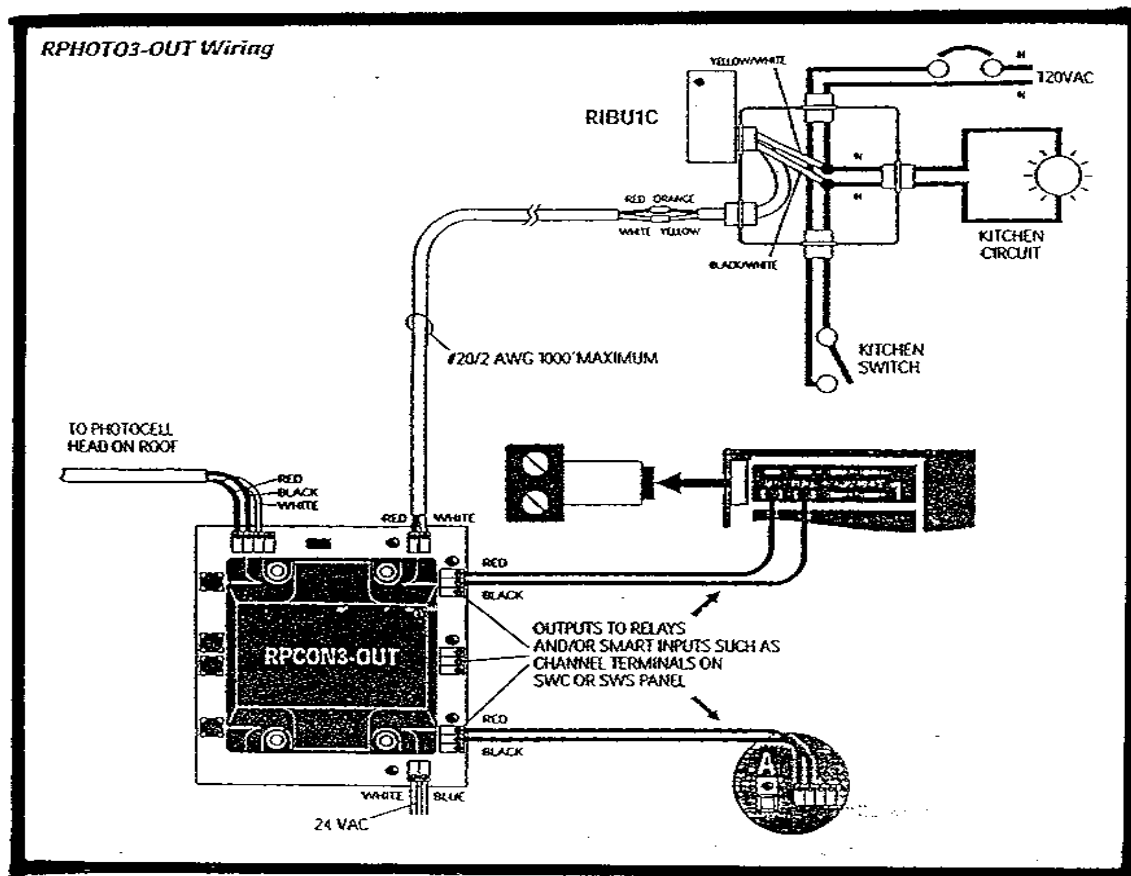


Figure 1

Determine which relays or intelligent inputs are to be controlled by each output. Wire from RED, BLACK and WHITE. Connectors to the corresponding connectors in the lighting automation panel as shown above.

### Connect timeclock, switch or other input to "Occupied" contact.

The Occupied contact accepts a dry contact input to indicate when the building is operating under normal working hours (closed contact) or after hours (open contact). It may be wired to a wall switch, a timeclock or another building automation system. Wire RED and WHITE as shown above.

### Select Lighting Levels and Parking Lot Egress Delay.

Each output has an associated dial to set the desired lighting level at which the lighting group should be switched ON or OFF. (There is a "deadband" of 000 to avoid nuisance switching)> As the label on the unit indicates, the light levels for Security and Parking may be set on the dial from 1 (2fc) to 10 (20fc) on 2 footcandle increments. Signage levels may be set from 1 (20fc) to 10 (200fc) to 20 footcandle increments. Recommended settings are:

Security	6fc (Setting 3)
Parking	6fc (Setting 3)
Signage	40fc (Setting 2)

The Parking output has an additional dial to set the “Egress Delay.” This time delay allows building occupants to get to their cars in a lighted parking lot after the building goes “unoccupied.” The Egress Delay dial may be set from 0 (15 minutes) to 8 (2 hours) in 15 minute increments. Setting 9 on the dial provides a 1-minute test.

### **Test Operation.**

When all wiring and settings are complete, restore power to the lighting panel.

Test the expected sequence of operations in the building to ensure that all controls are operating as intended. An example as follows. This example assumes you are testing during daylight hours. If testing at night, provide a light to shine at the photocell head.

Begin with the occupied contact in the open position (building is “unoccupied”). Set the Parking Lot Egress Delay dial for 9 for 1-minute test.

Test photocell responsiveness by sliding the PHOTOCELL switch on the RPCON3-OUT unit to TEST. Cover the photocell head to simulate darkness. Security lighting should be turned ON.

Close the occupied contact ( the building is now “Occupied”). If the photocell is still covered, both parking and signage lighting should be turned ON. Open the Occupied contact (the building is now “unoccupied”). Signage should be turned OFF. Parking lot lighting should stay on for an additional 1-minute testing period. Uncover the photocell head. All exterior lighting groups controlled by this unit should turn OFF.

Return to normal operation. Slide the PHOTOCELL switch back to the OPERATE position. Set the desired time (minimum of 15 minutes at the “O” setting). If the photocell head is not yet installed on the roof, install and wire it.

### **Install the Photocell on the roof.**

Mount the RPSEN3-OUT photocell head on the outside of the weather tight junction box on the building roof, facing toward the northern sky as illustrated. Make sure the sensor lens is not subject to shadows or directly aimed at parking lot lights. (You may wish to install the photocell head on the roof last, but wire the panel in the electrical closet for testing as described below.)

### **Mount the Control Unit in the Lighting Automation Panel**

There are two recommended ways to install the RPCON3-OUT:

1. In a Lighting Automation Panel. A complete panel assembly includes the following components:

- Tub (RTUB12, 24 or 48)
- Cover (ROV12xx, 24xx or 48xx)
- Interior \* (RINTER0012xx, 24xx or 48xx)
- Power supply (RPWRxxx)
- Relays (RR7P or RR9P)

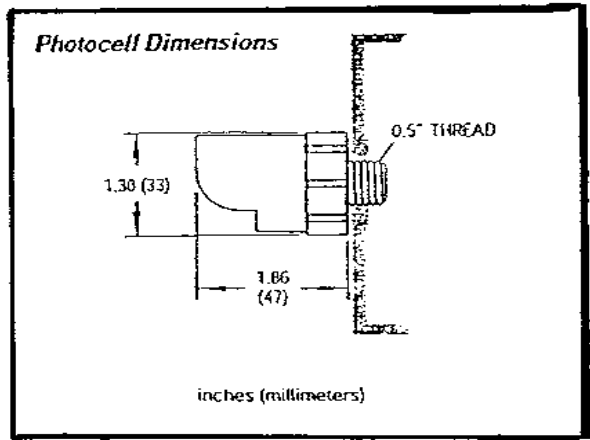


Figure 2

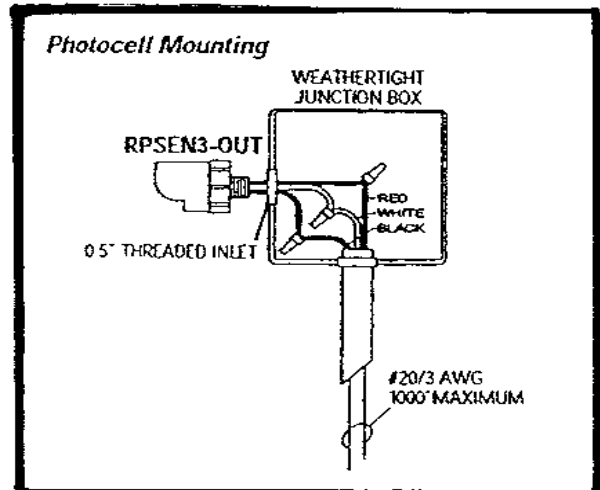


Figure 3

2. In an Accessory Cabinet next to the lighting automation panel. Accessory cabinets with covers include:

- RBS1 – Fits up to two (2) RPCON3-OUT control units.
- RBS2 – Fits up to four (4) RPCON3-OUT control units.

Details for the assembling a complete Lighting Automation Panel are outlined separately in **IMPRINTERxxx Insulation Instruction**. Once the panel is assembled and relays are connected the accessory cabinet, and wired as detailed below.

**Wire the Photocell to the Photocell Input on the Controller Unit.**

Run #20/3 AWG wire from the photocell back to panel (through the existing roof penetration) and terminate on the RPCON3-OUT controller as illustrated on the next page in **RPHOTO3-OUT** wiring.

**Wire 24vac Power to Power Input.**

Using #20/2 AWG wire, run 24vac power from BLUE and WHITE connectors for auxillary power on the lighting automation panel’s motherboard to the BLUE and WHITE Power Input Tabs on the RPCON3-OUT.

**Wire the Intelligent Outputs to the Relays to be Controlled.**

The RPCON3-OUT controller has three Intelligent Outputs labels Security, Parking and Signage. Each intelligent output may be wired to drive either:

1. A single relay in the lighting automation panel.
2. A group of relays hardwired in parallel in the panel.
3. An intelligent input in a lighting automation panel, such as a “Channel” in a SWC or SWC System panel. Channels allow grouping of relays using “softwiring.”  
See **IMPRINTER xxxxSC or IMPRINTERxxxxSWS (P) Installation Instructions**.