GE **Total Lighting Control**

TLC

Remote Control Smart Sweeper

DESCRIPTION

The Remote Control Smart Sweeper is an intelligent component for simple lighting control. It provides 12 individual switch inputs and one Master input for a group of 12 relays. Each input will accept any 2- or 3-wire switch. The RSP12 converts any switch input to a momentary output to drive the corresponding relay(s). Each output can drive up to three relays in parallel.

The RSP12 also provides several advanced functions for basic lighting automation. Besides the Master ON/OFF function, it allows options for Time Delay and Flick Warning for individual overrides, as well as Automatic ON for all lights.

The RSP12 should be installed in a lighting automation panel or an accessory cabinet as detailed on the following page.

FEATURES

- 12 individual relay outputs, with up to 3 relays wired in parallel per output.
- 12 individual switch inputs (one per relay) and one Master input.
- Inputs accept any 2- or 3-wire switch (dry contact).
- Master ON/OFF control for group of relays while retaining individual switch override.
- Additional control of subgroups by tying any combination of inputs together.
- "Occupied" contact to indicate normal working hours.
- Option to turn lights on automatically at start of normal working hours.
- Time delay in 15-minute increments up to 2 hours.
- Option to "flick warn" occupants 5 minutes before lights go off.

Before starting, read the installation instructions inside. If you have questions call GE Service at:

1-877-584-2685 (USA) or 1-800-661-6619 (Canada)

FEATURE SUMMARY

24 Volt Power Inputs
The RSP12 can be powered through the 24 volt rectified terminals on the Lighting Automation Panel motherboard*

Master Switch Input
Master ON/OFF control for all connected relays

12 Individual Relay Outputs
Connect up to 3 relays wired in parallel per output

12 Individual Switch Inputs
Accept any 2- or 3-wire momentary or maintained dry-contact switch

"Occupied" Contact
Connected to a timeclock or BAS, indicates when a building is operating under normal working hours (closed contact) or after hours (open contact). Connection and scheduling determine when other functions will be enabled
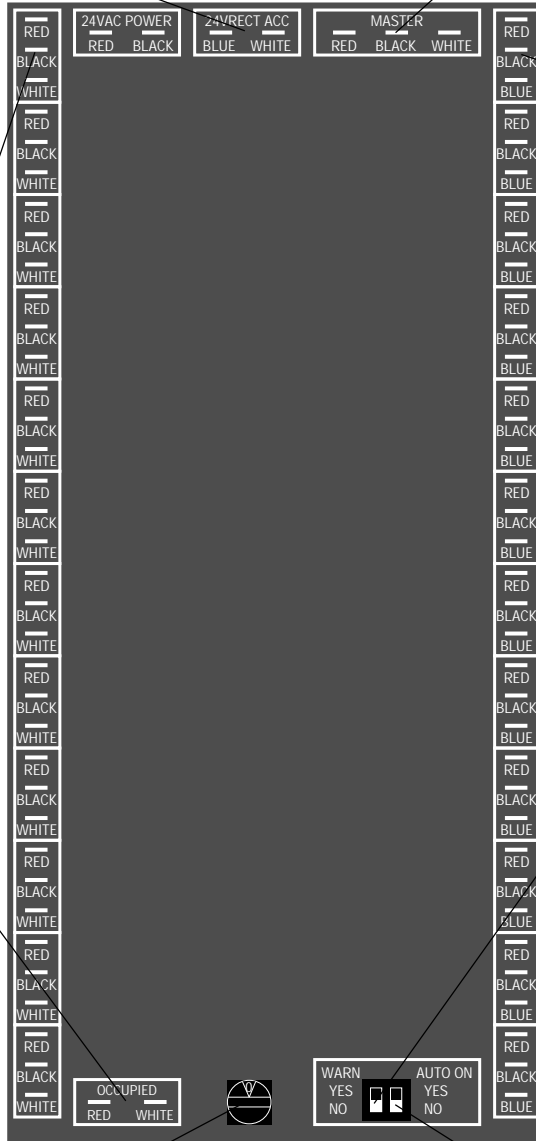
"Warn" Function
Five minutes before the RSP12 is about to turn relays OFF at the end of normal working hours or at the end of a time delay, warns occupants by blinking the lights

"Time Delay" Function
After hours, any individual switch override will automatically be turned off if time delay is set from 15 minutes to 2 hours

"Auto On" Function
Can turn on all lights automatically at the start of normal working hours

Panel labels:
24VAC POWER — RED BLACK
24VRECT ACC — BLUE WHITE
MASTER — RED BLACK WHITE
OCCUPIED — RED WHITE
WARN YES NO
AUTO ON YES NO

Left terminals: RED BLACK WHITE (repeated)
Right terminals: RED BLACK BLUE (repeated)

*The 24 volt AC inputs can be used if connecting directly to a transformer.

CAUTION: The power supply must be OFF when inserting or removing components. These instructions assume the panel has a standard cover which exposes both line-voltage and low-voltage sections. The line-voltage sections must be covered to avoid exposure to live high-voltage wiring.

INSTALLATION

There are two recommended ways to install the RSP12 Remote Control Smart Sweeper — in a Lighting Automation Panel (LAP) or in an Accessory Cabinet near a Lighting Automation Panel

Installation in a Lighting Automation Panel

A complete LAP assembly includes the following TLC components:

Tub	**RTUB12, -24 or -48**
Cover	**RCOV12xx, -24xxx or -48xxx**
Interior	**RINTER0012RC, -0024RC or -0048RC***
Power Supply	**RPWRxxx**
Relays	**RR7P or RR9P**

* RINTER0012RC and -0024RC accept one RSP12, RINTER0048RC accepts one or two

Details for assembling a complete Lighting Automation Panel are outlined separately in the RINTER installation instructions. Once the panel is assembled and relays are connected to the motherboard, the RSP12 may be installed.
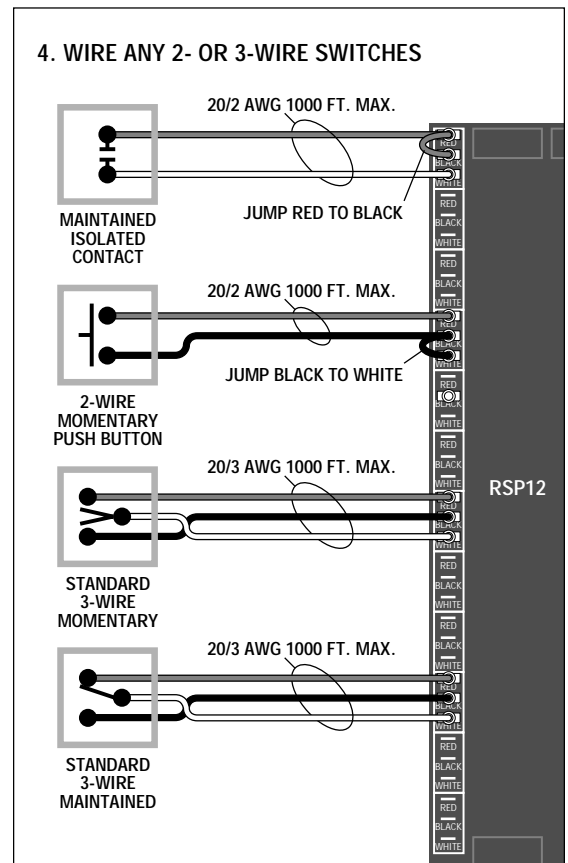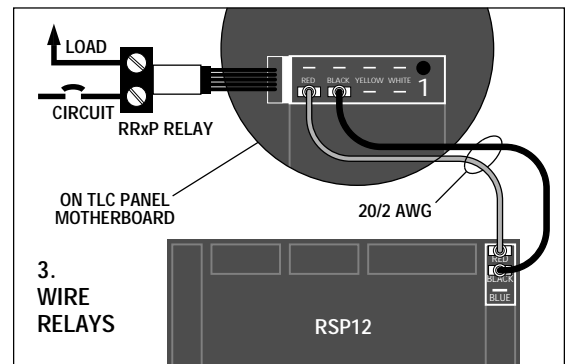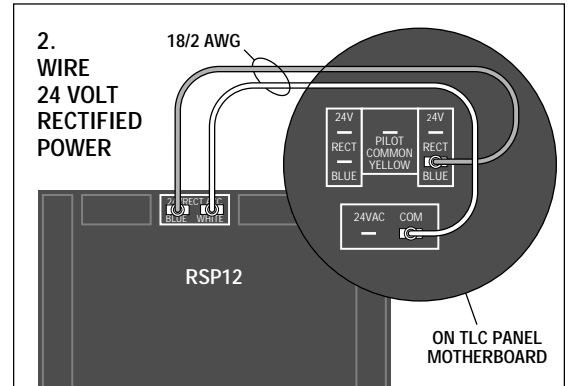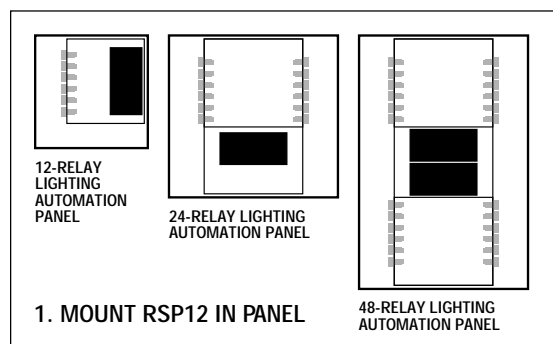
Basic Installation Steps

1. *Mount the RSP12(s) on the panel accessory bracket.*
2. *Wire 24V rectified power from the panel motherboard to the blue and white power input tabs on the RSP12.*
3. *Wire red and black connections for each relay from the panel motherboard to relay outputs on the RSP12.*
4. *Wire any 2- or 3-wire switch to the individual switch inputs and/or the Master switch input on the RSP12 (not on the panel motherboard).*
5. *Select additional control functions.*

Installation in an Accessory Cabinet near the LAP

Accessory cabinets with covers include:

RBS1   *Accepts one (1) RSP12*
RBS2   *Accepts two (2) RSP12s*

Mount the RSP12 in the accessory cabinet and wire the same as above.

**2.
WIRE
24 VOLT
RECTIFIED
POWER**

18/2 AWG

ON TLC PANEL MOTHERBOARD

RSP12

LOAD

CIRCUIT

RRxP RELAY

ON TLC PANEL MOTHERBOARD

20/2 AWG

**3.
WIRE
RELAYS**

RSP12

4. WIRE ANY 2- OR 3-WIRE SWITCHES

20/2 AWG 1000 FT. MAX.

MAINTAINED ISOLATED CONTACT

JUMP RED TO BLACK

20/2 AWG 1000 FT. MAX.

2-WIRE MOMENTARY PUSH BUTTON

JUMP BLACK TO WHITE

20/3 AWG 1000 FT. MAX.

STANDARD 3-WIRE MOMENTARY

20/3 AWG 1000 FT. MAX.

STANDARD 3-WIRE MAINTAINED

RSP12

12-RELAY LIGHTING AUTOMATION PANEL

24-RELAY LIGHTING AUTOMATION PANEL

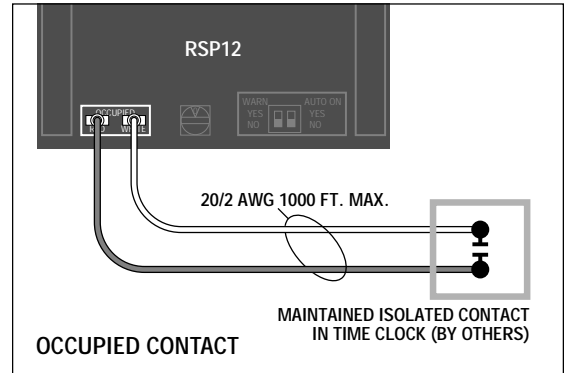**48-RELAY LIGHTING AUTOMATION PANEL**

1. MOUNT RSP12 IN PANEL

ADDITIONAL CONTROL FUNCTIONS

Four optional control functions are available at the bottom of the RSP12 board: Occupied, Time Delay, Warn and Auto Off. Set these functions for all relays connected to the RSP12 as a group, based on the needs at the site.

Occupied

The Occupied contact is available for connection with a timeclock or building automation system. It indicates when the building is operating under normal working hours (CLOSED contact) or after hours (OPEN contact). Properly connecting and scheduling the Occupied contact determines when other functions will be enabled.
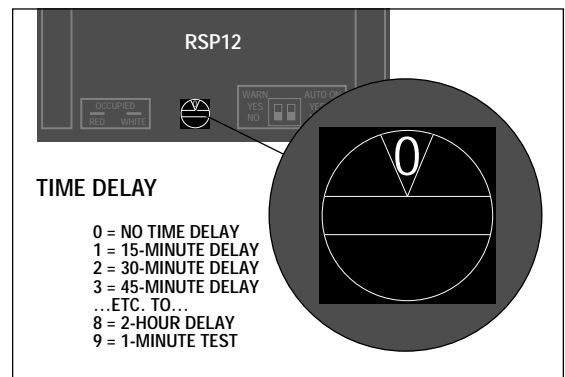
Time Delay

If the Time Delay function is set, when an occupant turns on a switch after hours (Occupied contact OPEN), the RSP12 will turn off the lights again after a predetermined amount of time. Each occupant override will have its own time delay.

Set the Time Delay dial as follows:

- **0** *No time delay (no automatic off; lights must be manually turned off)*
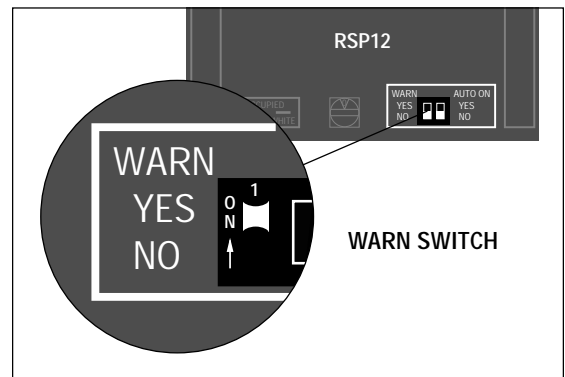- **1-8** *15-minute to 2-hour delay, in 15-minute increments*
- **9** *1-minute test*

Warn

When the RSP12 turns relays OFF (at the end of normal working hours, or at the end of a time delay), it will optionally warn the occupants by blinking the lights five minutes before they go off.

Set the WARN switch to YES or NO as follows:

- **YES** *Gives a 5-minute warning before lights turn off*
- **NO** *Turns lights off without giving the warning*

Auto On

When the Occupied contact closes at the start of normal working hours, the RSP12 can optionally turn all the relays ON automatically.

Set the AUTO ON switch to YES or NO as follows:

- **YES** *Automatically turns all relays ON at start of normal working hours*
- **NO** *Manual switch required to turn relays ON*

OCCUPIED CONTACT

20/2 AWG 1000 FT. MAX.

MAINTAINED ISOLATED CONTACT IN TIME CLOCK (BY OTHERS)

TIME DELAY

0 = NO TIME DELAY
1 = 15-MINUTE DELAY
2 = 30-MINUTE DELAY
3 = 45-MINUTE DELAY
…ETC. TO…
8 = 2-HOUR DELAY
9 = 1-MINUTE TEST

WARN SWITCH

AUTO ON SWITCH