

## Lighting Controls

### LightSweep Retrofit Kit For 48 Relay Legacy Panels CLCRET48



## DESCRIPTION

This instruction sheet is intended to guide an installer through the process of converting a GE Lighting Control panel from its original configuration to use the new GE LightSweep modular control components.

The RINTERxx48 series of interiors is the component that provides functionality for up to 48 relays to be controlled in the Centralized Lighting Control System Relay Panel. The complete relay panel assembly will include the following:

1. Tub (RTUB48)
2. Interior (RINTERxx48)
3. Power Supply (RPWRxxx)
4. Cover (RCOV48xx)

This instruction sheet will describe:

1. Removal of existing panel control components
2. Installation of new interface hardware
3. Reconnection of relays and low voltage wiring



## BEFORE YOU BEGIN

Read these instructions completely and carefully.

### WARNING

#### RISK OF ELECTRIC SHOCK

**TURN OFF POWER BEFORE SERVICING  
INSTALL IN ACCORDANCE WITH NATIONAL  
ELECTRIC CODE**

**CAUTION:** Make sure all power is off before wiring.  
Do not energize wiring until the unit is fully  
assembled. Conform to all applicable codes.



imagination at work

If you have questions, call GE Lighting Control Service  
at: 1-877-584-2685 (LTG-CNTL) in the USA and Canada.

# Installation Instructions

## PREPARATION

### Typical items required to complete retrofit

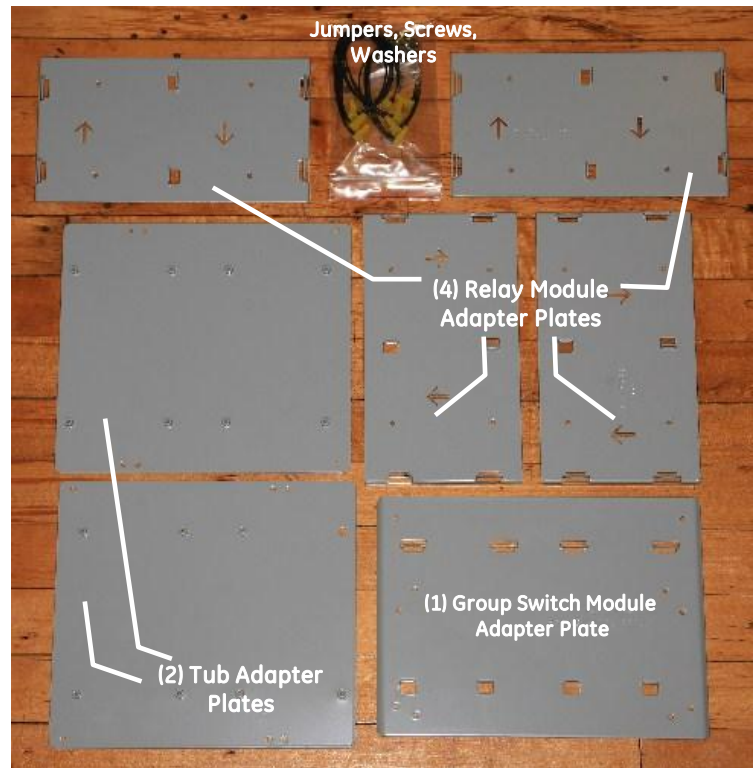
- Philips head screwdriver
- Flathead screwdriver
- Small flathead screwdriver (1/8")
- Hex nut driver – 5/16"
- Hex nut driver – 1/4"
- Wire cutter
- Wire stripper (small gauge wire)
- Small gauge signal wire (18 – 22 AWG, 300V)
- Pliers
- Wire nuts
- Electrical tape
- Wire markers
- Work light

### Assure that your kit is complete

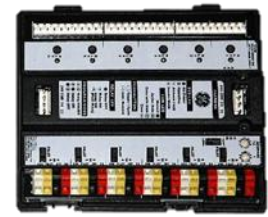
- (4) Relay Module adapter plates,
- (1) Group Switch Module adapter plate,
- (2) Tub adapter plates,
- (28) screws,
- (28) lock washers,
- (4) long jumpers

### Assure that you have all required modules

- (1) Group Switch Module,
- One Relay Module for every six relays,
- And optionally, either (1) Network Scheduler or (1) BACnet module



Group Switch Module



Relay Module

## NOTICE! Before Disconnecting Power

Using your lighting control panel, turn on any and all lighting circuits that may be needed immediately following the installation. During the installation, all panel functionality will be lost. Latching relays switched to the ON position will be maintained throughout the installation process. Therefore, when panel power is restored, these lights will turn back on immediately.

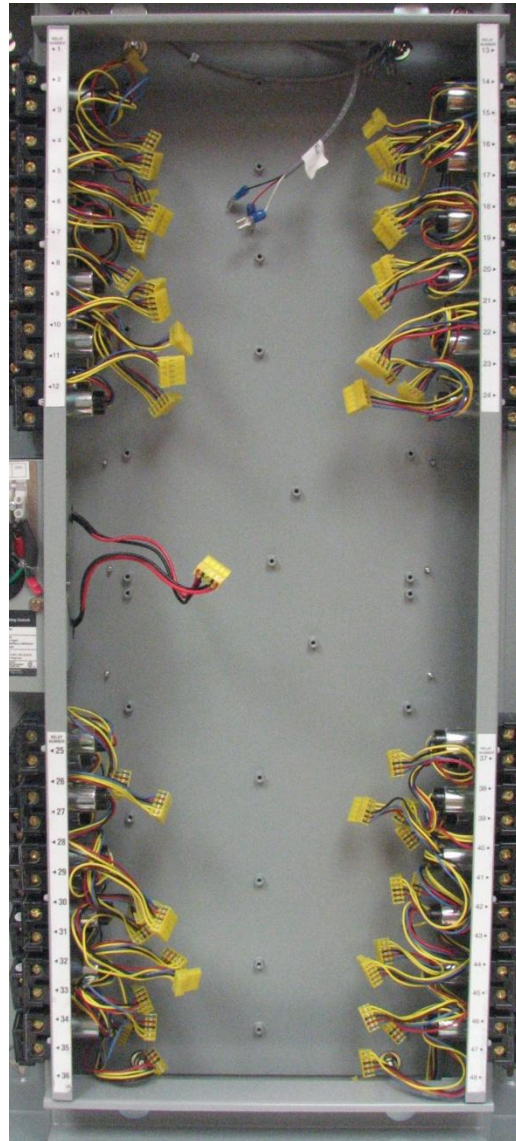
# Installation Instructions

## INSPECT TUB

The tub should be checked to make sure that it is in good condition, and free of debris or other obstructions before continuing with the retrofit.

If everything is in order, you are now ready to proceed with the installation of the retrofit kit.

**Skip to pg. 25**





# Installation Instructions

## 48 INTERIOR RETROFIT KIT

### WARNING

#### RISK OF ELECTRIC SHOCK

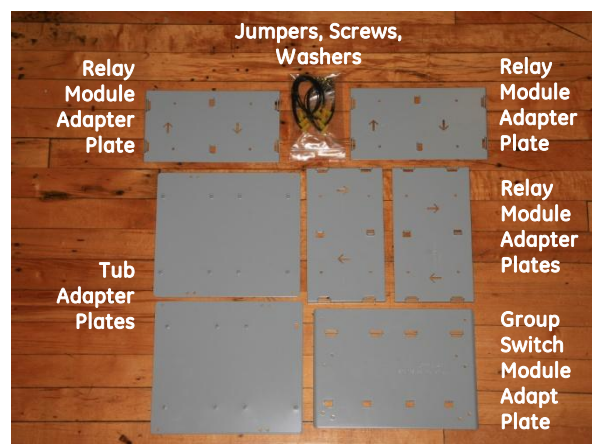
TURN OFF POWER BEFORE SERVICING  
INSTALL IN ACCORDANCE WITH NATIONAL  
ELECTRIC CODE

**Note: System Configurations May Vary by:**

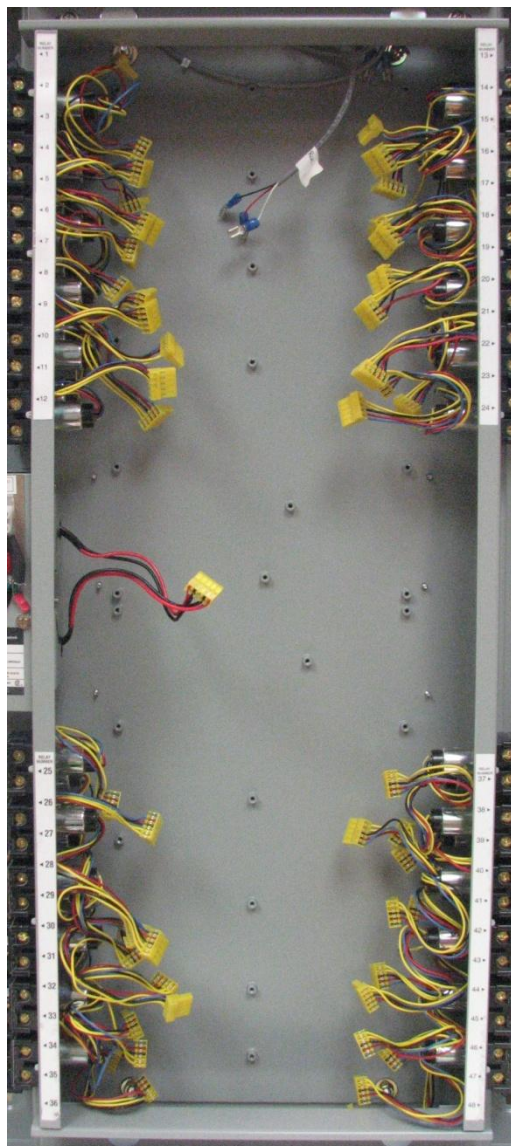
- Number of installed relays
- Number of connected switch inputs
- Number of data-line network connections
- Type of cover (door)

**Typical items required to complete retrofit**

- Philips head screwdriver
- Small flathead screwdriver (1/8")
- Wire cutter
- Wire stripper (small gauge wire)
- Small gauge signal wire (18 – 22 AWG, 300V)
- Wire nuts
- Electrical tape
- Wire markers
- Work light



**Retrofit Kit**

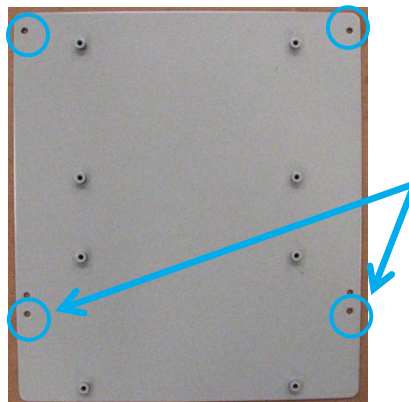


# Installation Instructions

## INSTALL TOP TUB ADAPTER PLATE

### Installation of Tub Top Adapter Plate

- The Tub adapter plate is secured with 4 screws – see circled holes in photo for location
- **NOTE:** Use lower holes at bottom of plate



Use lower holes during installation

Mounting hole location

- Orient plate as shown in photo – tilt plate at an angle to slide under end of relays
- Flatten out plate and slide under relays on opposite side of panel – slide up into position

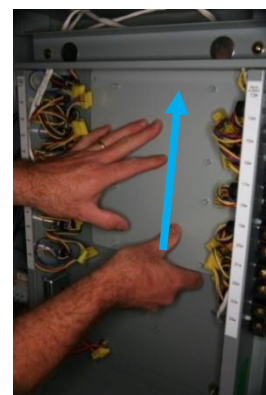
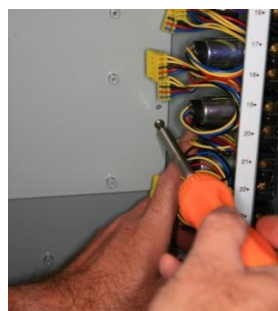
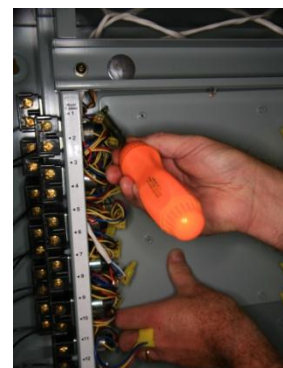


Plate orientation

- Insert screw/lock washer in upper right corner of plate – do not fully tighten at this time
- Insert screw/lock washer in upper left corner of plate – do not fully tighten at this time
- Insert remaining two screws/lock washers into plate
- Completely tighten all four screws



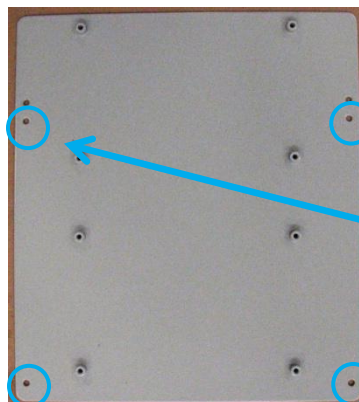
Securing Plate

# Installation Instructions

## INSTALL BOTTOM TUB ADAPTER PLATE

### Installation of Bottom Tub Adapter Plate

- The Tub adapter plate is secured with 4 screws – see circled holes in photo for location
- **NOTE:** Use lower set of holes at top of plate as shown



Use lower holes during installation

Mounting hole location

- Orient plate as shown in photo – **NOTE:** plate is installed 180 degrees compared with top adapter plate
- tilt plate at a an angle to slide under end of relays
- Flatten out plate and slide under relays on opposite side of panel – slide down into position

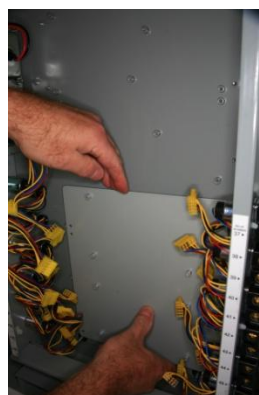
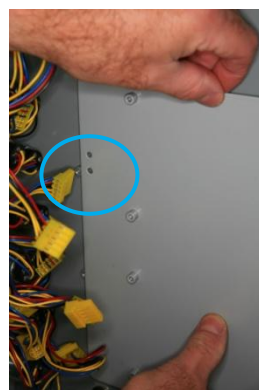
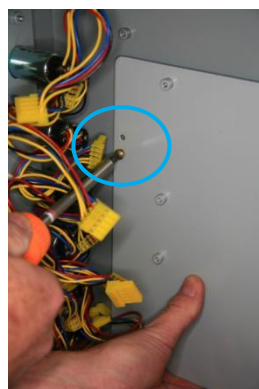


Plate orientation



- Insert screw/lock washer in upper left corner of plate – do not fully tighten at this time
- Insert screw/lock washer in upper right corner of plate – do not fully tighten at this time
- Insert remaining two screws/lock washers into plate
- Completely tighten all four screws



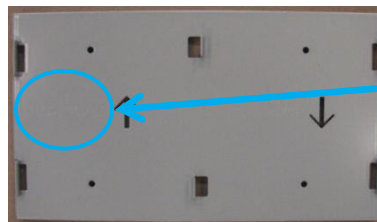
Securing Plate

# Installation Instructions

## INSTALL RELAY MODULE ADAPTER PLATES

### Installation of Top Relay Module Adapter Plate

- The Relay Module adapter plate is secured with 4 screws
- **NOTE:** For proper orientation, the arrow pointing up should be labeled "LEFT RELAY MODULE"



Labeled:  
"LEFT RELAY  
PLATE"

Relay Module Adapter Plate

- Orient plate with "LEFT RELAY MODULE" wording on the left side
- Start in open area in the middle of interior
- Slide plate upwards under end of relays
- Align holes in plate with top four standoffs in Tub Adapter Plate

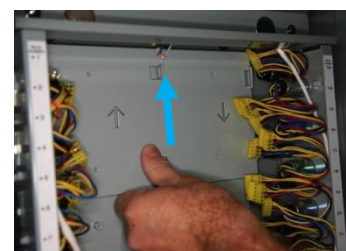
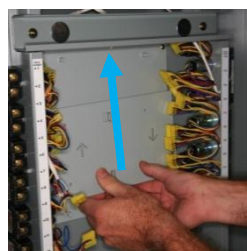
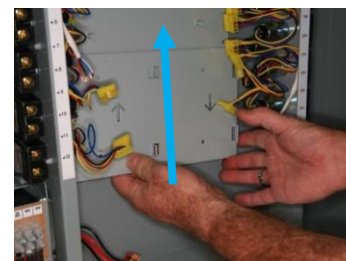


Plate Alignment

- Insert screw/lock washer in upper left corner of plate – do not fully tighten at this time
- Insert screw/lock washer in upper right corner of plate – do not fully tighten at this time
- Insert remaining two screws/lock washers into plate
- Completely tighten all four screws



Securing  
Plate

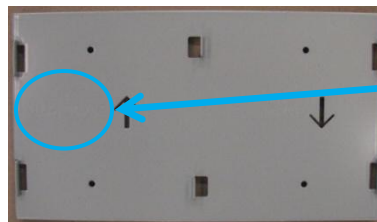


# Installation Instructions

## INSTALL RELAY MODULE ADAPTER PLATES

### Installation of Second Relay Module Adapter Plate

- The Relay Module adapter plate is secured with 4 screws
- **NOTE:** For proper orientation, the arrow pointing up should be labeled "LEFT RELAY MODULE"



Labeled:  
"LEFT RELAY  
MODULE"

Relay Module Adapter Plate

- Orient plate with "LEFT RELAY MODULE" wording on the left side
- Start in open area in the middle of interior
- Slide plate upwards under end of relays
- Align holes in plate with bottom four standoffs in Tub Adapter Plate

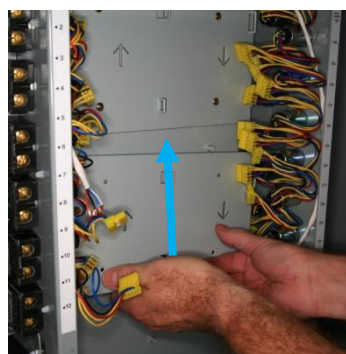
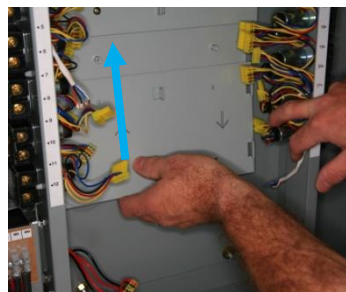


Plate  
Alignment

- Insert screw/lock washer in upper right corner of plate – do not fully tighten at this time
- Insert screw/lock washer in lower left corner of plate – do not fully tighten at this time
- Insert remaining two screws/lock washers into plate
- Completely tighten all four screws



Securing  
Plate

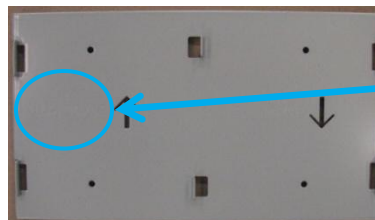


# Installation Instructions

## INSTALL RELAY MODULE ADAPTER PLATES

### Installation of Bottom Relay Module Adapter Plate

- The Relay Module adapter plate is secured with 4 screws
- **NOTE:** For proper orientation, the arrow pointing up should be labeled "LEFT RELAY MODULE"



Labeled:  
"LEFT RELAY  
MODULE"

Relay Module Adapter Plate

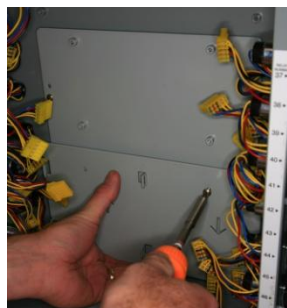
- Orient plate with "LEFT RELAY MODULE" wording on the left side
- Start in open area in the middle of interior
- Slide plate downwards under end of relays
- Align holes in plate with bottom four standoffs in Tub Adapter Plate



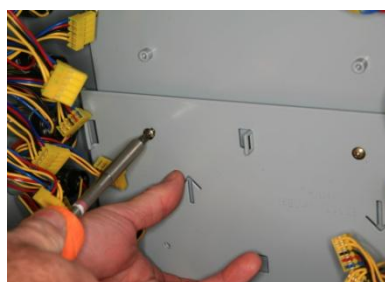
Plate  
Alignment



- Insert screw/lock washer in upper right corner of plate – do not fully tighten at this time
- Insert screw/lock washer in upper left corner of plate – do not fully tighten at this time
- Insert remaining two screws/lock washers into plate
- Completely tighten all four screws



Securing  
Plate

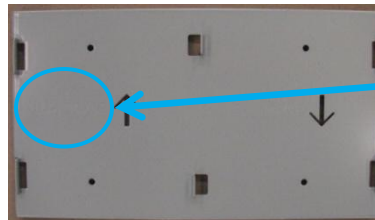


# Installation Instructions

## INSTALL RELAY MODULE ADAPTER PLATES

### Installation of Last Relay Module Adapter Plate

- The Relay Module adapter plate is secured with 4 screws
- **NOTE:** For proper orientation, the arrow pointing up should be labeled "LEFT RELAY MODULE"



Labeled:  
"LEFT RELAY  
PLATE"

Relay Module Adapter Plate

- Orient plate with "LEFT RELAY MODULE" wording on the left side
- Start in open area in the middle of interior
- Slide plate downwards under end of relays
- Align holes in plate with bottom four standoffs in Tub Adapter Plate

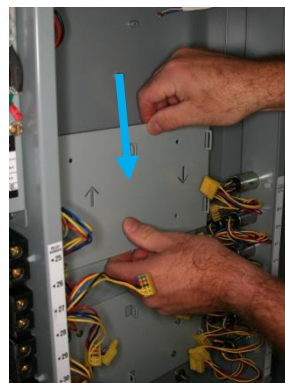
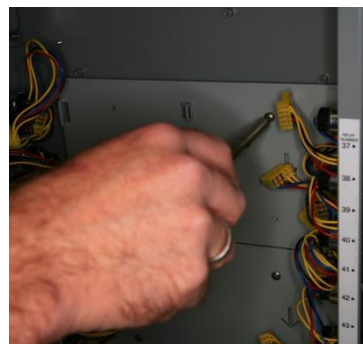
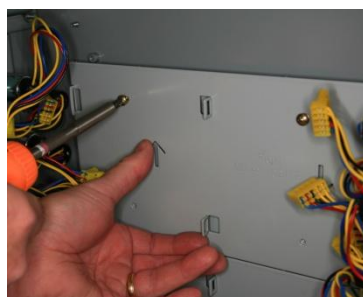


Plate  
Alignment

- Insert screw/lock washer in upper right corner of plate – do not fully tighten at this time
- Insert screw/lock washer in upper left corner of plate – do not fully tighten at this time
- Insert remaining two screws/locks washer into plate
- Completely tighten all four screws



Securing  
Plate

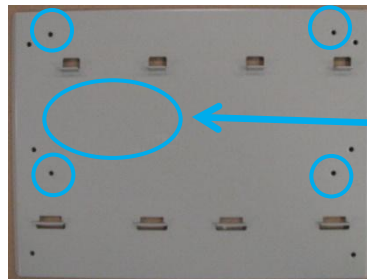


# Installation Instructions

## INSTALL GROUP SWITCH MODULE ADAPTER PLATE

### Installation of Group Switch Module Adapter Plate

- The Group Switch Module adapter plate is secured with 4 screws – see circled holes in photo for location
- **NOTE:** For proper orientation, the left side of the plate should be labeled “MODULE POWER SOURCE”



Labeled:  
“MODULE  
POWER  
SOURCE”

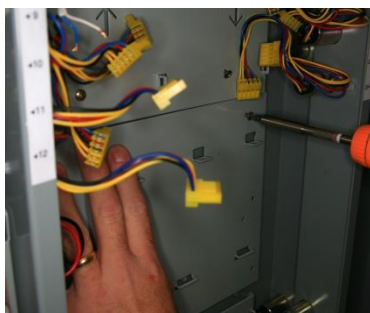
Group Switch Module Adapter Plate

- Orient plate with “MODULE POWER SOURCE” wording on the left side
- Plate locates between Relay Module adapter plates
- Align holes in plate with standoffs in sheet metal interior

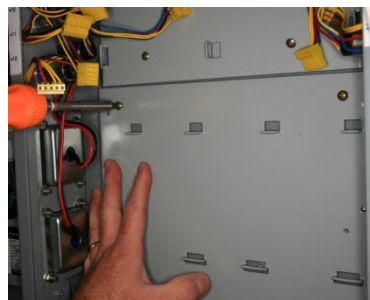


Plate  
Alignment

- Insert screw/lock washer in upper right corner of plate – do not fully tighten at this time
- Insert screw/lock washer in upper left corner of plate – do not fully tighten at this time
- Insert remaining two screws/lock washers into plate
- Completely tighten all four screws



Securing  
Plate

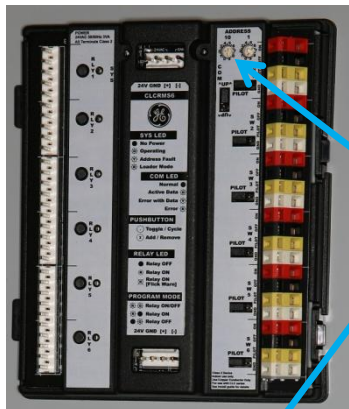


# Installation Instructions

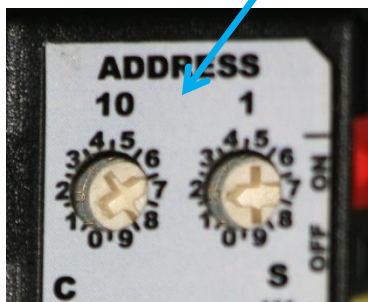
## RELAY MODULE INFORMATION

### Relay Module Information

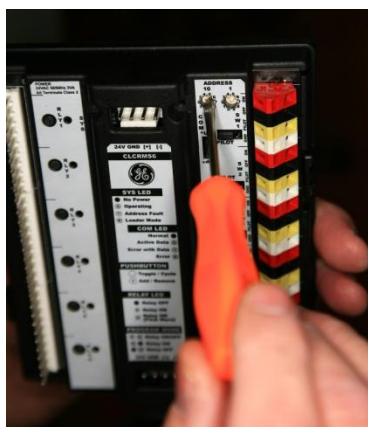
- Each relay module should be supplied with a short module to module jumper
- Each relay module will need a unique address



Module  
address  
location



- To change module address, use small screwdriver to align arrow on switch with number on label
- The 10's location is on the left
- The 1's location is on the right
- Example: address 62 equals "6" in the 10's location and "2" in the 1's location



Change  
module  
address

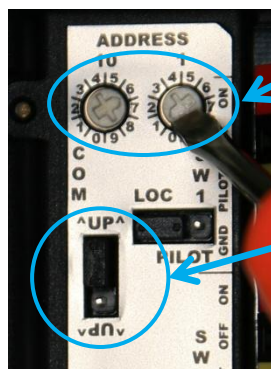


# Installation Instructions

## RELAY MODULE INSTALLATION

### Install First Relay Module

- Set address of first module to **60**
- Make sure module position jumper ("UP") is oriented as shown
- First relay module is installed in the upper left position (next to relays #1- #6)
- Slide the two tabs on left side of module under raised slots in sheet metal interior
- Press down on right side of module to snap into place

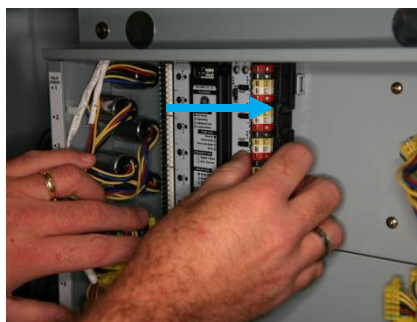


Set address

Orientation Jumper



Module 1 Installation



### Install Second Relay Module

- Set address of second module to **61**
- Make sure module position jumper ("UP") is oriented the same as the first module
- Install second module in the lower left position, below the first module (next to relays #7 - #12)



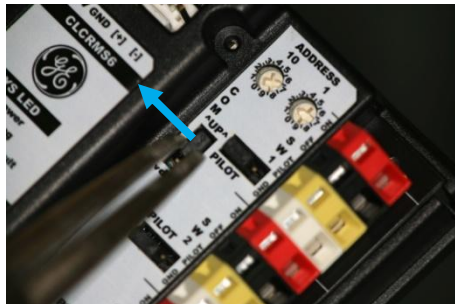
Module 2 Installation

# Installation Instructions

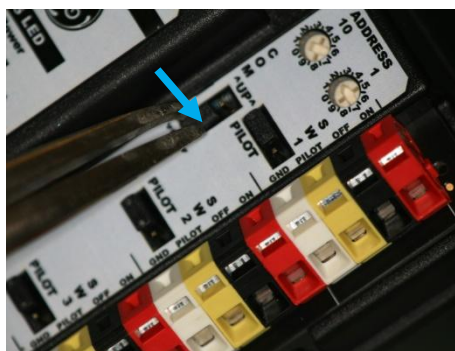
## RELAY MODULE INSTALLATION

### Install Third Relay Module

- Set address of third module to **62**
- The module position jumper ("UP") **MUST** be moved as shown – this re-numbers the relay order to account for the inverted relay module
- Use a pair of pliers to lift the jumper and move down one position



Moving of  
Orientation  
Jumper



- Flip the module 180 degrees and install in the upper right position (next to relays #13- #18)
- Slide the two tabs on left side of module slide under raised slots in sheet metal interior
- Press down on right side of module to snap into place



Module 3  
Installation

### Install Fourth Relay Module

- Set address of second module to **63**
- The module position jumper ("UP") **MUST** be moved
- Install fourth module in the lower right position, below the third module (next to relays #19 - #24)



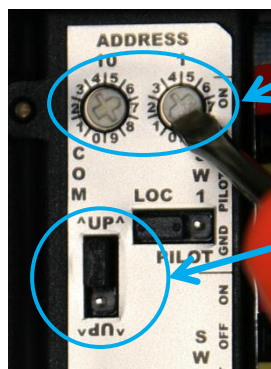
Module 4  
Installation

# Installation Instructions

## RELAY MODULE INSTALLATION

### Install Fifth Relay Module

- Set address of fifth module to **64**
- Make sure module position jumper ("UP") is oriented as shown
- Fifth relay module is installed in the upper left position in the lower section of interior (next to relays #25- #30)
- Slide the two tabs on left side of module under raised slots in sheet metal interior
- Press down on right side of module to snap into place

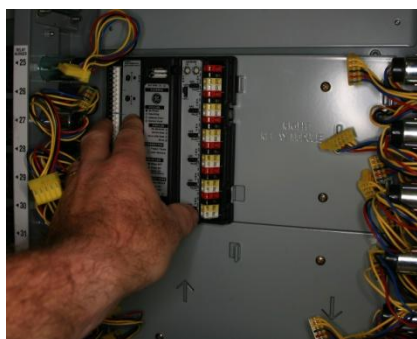


Set address

Orientation Jumper



Module 5  
Installation



### Install Sixth Relay Module

- Set address of second module to **65**
- Make sure module position jumper ("UP") is oriented the same as the fifth module
- Install sixth module below the fifth module (next to relays #31 - #36)



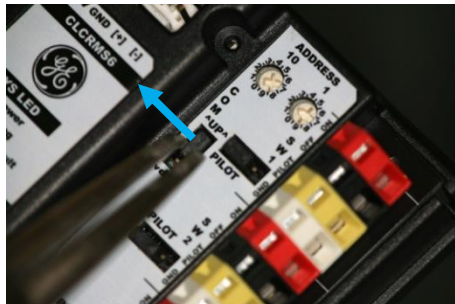
Module 6  
Installation

# Installation Instructions

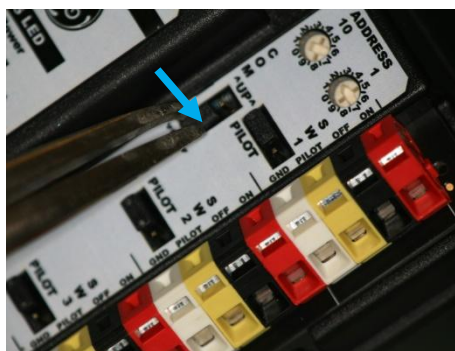
## RELAY MODULE INSTALLATION

### Install Seventh Relay Module

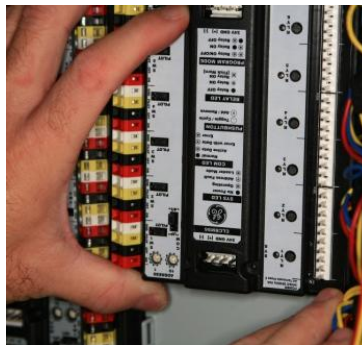
- Set address of third module to **66**
- The module position jumper ("UP") **MUST** be moved as shown – this re-numbers the relay order to account for the inverted relay module
- Use a pair of pliers to lift the jumper and move down one position
- 



Moving of Orientation Jumper



- Flip the module 180 degrees and install in the upper right position in the lower section of interior (next to relays #37- #42)
- Slide the two tabs on left side of module slide under raised slots in sheet metal interior
- Press down on right side of module to snap into place



Module 7 Installation

### Install Eighth Relay Module

- Set address of eighth module to **67**
- The module position jumper ("UP") **MUST** be moved
- Install eighth module below the seventh module (next to relays #43 - #48)



Module 8 Installation

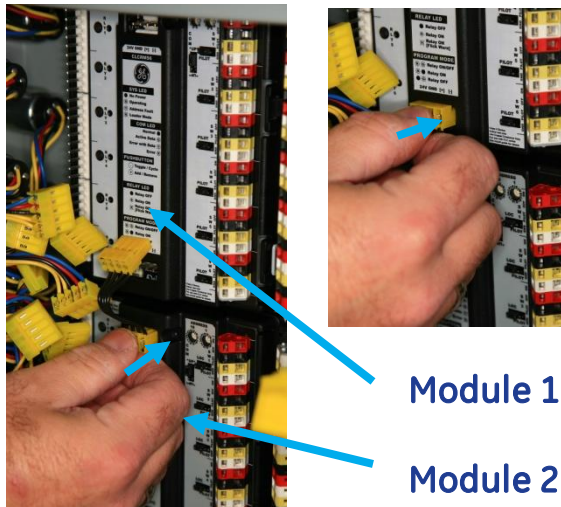


# Installation Instructions

## RELAY MODULE JUMPER INSTALLATION

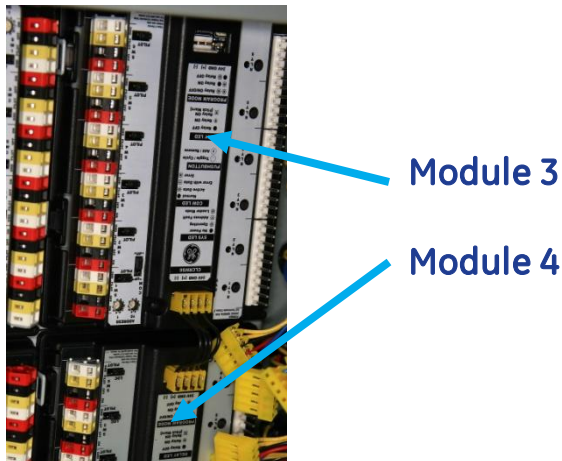
### Install Jumper Between First and Second Relay Modules

- Use short jumper supplied with each relay module
- Jumpers are polarized – wires always exit connector **AWAY** from the module
- Plug one end into the TOP of the second relay module
- Plug the other end into the BOTTOM of the first relay module



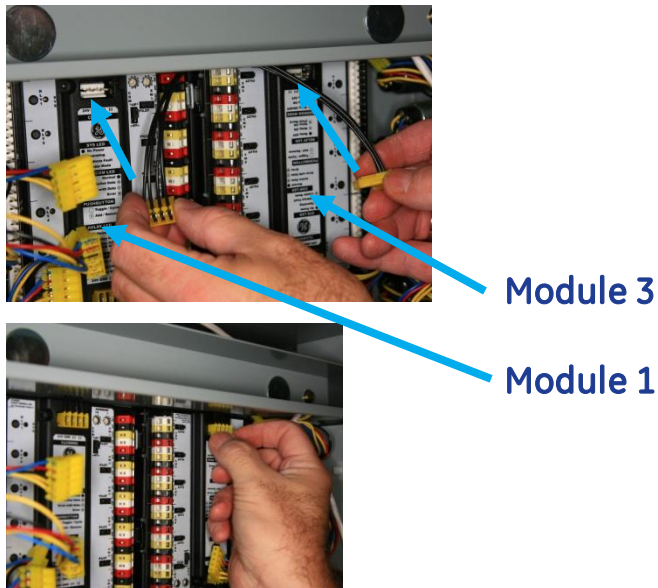
### Install Jumper Between Third and Fourth Relay Modules

- Repeat this process for the jumper between the third and fourth relay module



### Install Jumper Between First and Third Relay Modules

- Use long jumper supplied with this kit
- Plug one end into the TOP of the first relay module
- Plug the other end into the TOP of the third relay module

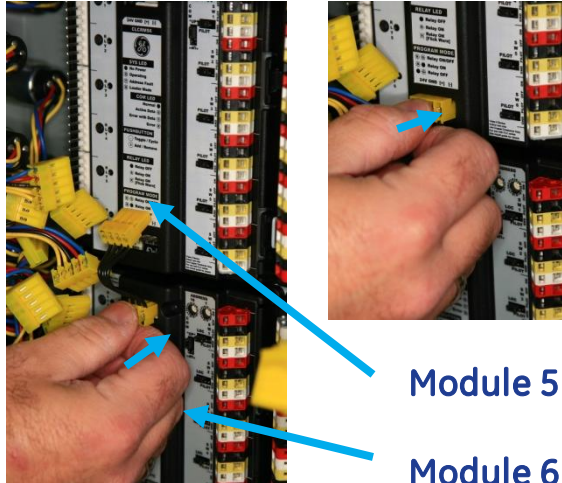


# Installation Instructions

## RELAY MODULE JUMPER INSTALLATION

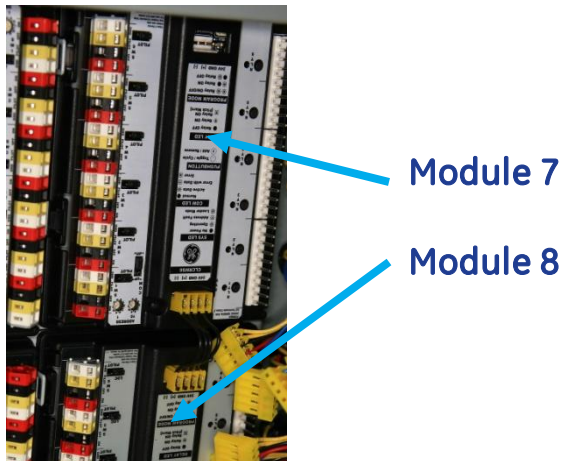
### Install Jumper Between Fifth and Sixth Relay Modules

- Use short jumper supplied with each relay module
- Plug one end into the TOP of the sixth relay module
- Plug the other end into the BOTTOM of the fifth relay module



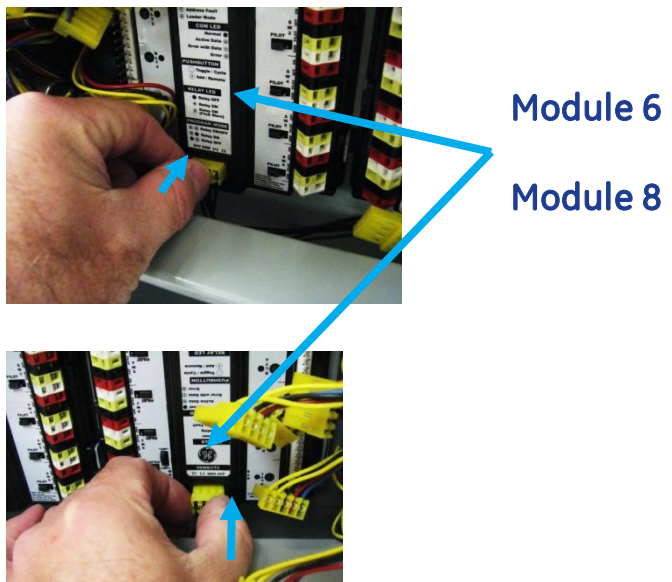
### Install Jumper Between seventh and eighth Relay Modules

- Repeat this process for the jumper between the seventh and eighth relay module



### Install Jumper Between sixth and eighth Relay Modules

- Use long jumper supplied with this kit
- Plug one end into the BOTTOM of the sixth relay module
- Plug the other end into the BOTTOM of the eighth relay module

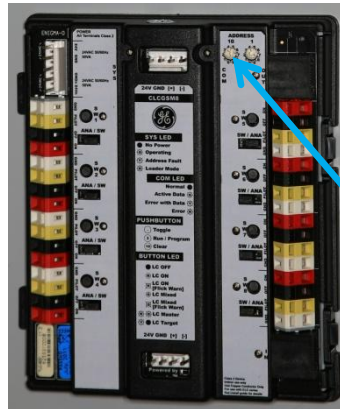


# Installation Instructions

## GROUP SWITCH MODULE INFORMATION

### Group Switch Module Information

- The group switch module should be supplied with a short module to module jumper
- The group switch module will need a unique address



Module  
address  
location

- To change module address, use small screwdriver to align arrow on switch with number on label
- The 10's location is on the left
- The 1's location is on the right
- Example: address 40 equals "4" in the 10's location and "0" in the 1's location



Change  
module  
address

## GROUP SWITCH MODULE INSTALLATION

### Install Group Switch Module

- Set address of module to **40**
- Group switch module is installed below the second relay module (to the right of the power supply)
- Slide the two tabs on the module slide under raised slots in sheet metal interior
- Press down on right side of module to snap into place



Set address



Module  
Installation



# Installation Instructions

## GROUP SWITCH MODULE JUMPER INSTALLATION

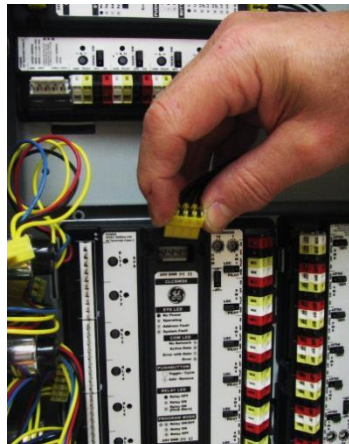
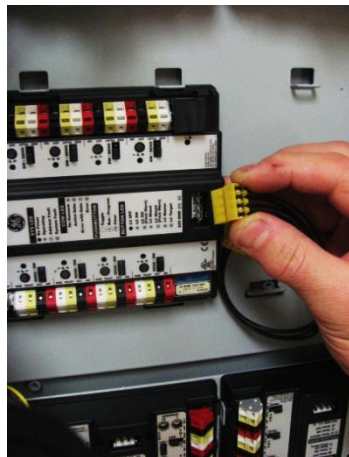
### Install Jumper Between Group Switch and Second Relay Modules

- Use long jumper supplied with this kit
- Plug one end into the TOP of the Group Switch module
- Plug the other end into the BOTTOM of the second relay module



### Install Jumper Between Group Switch and Fifth Relay Modules

- Use long jumper supplied with this kit
- Plug one end into the BOTTOM of the Group Switch module
- Plug the other end into the TOP of the fifth relay module



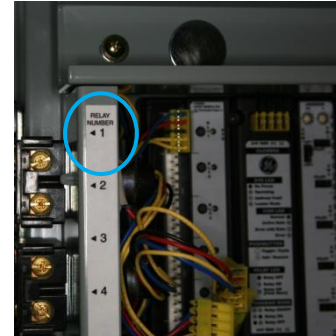
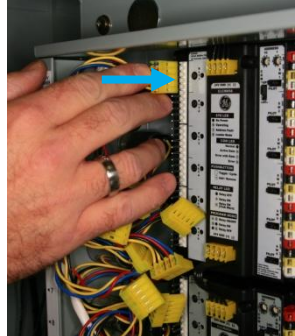


# Installation Instructions

## RELAY CONNECTIONS

### Connect Relays to First Relay Module

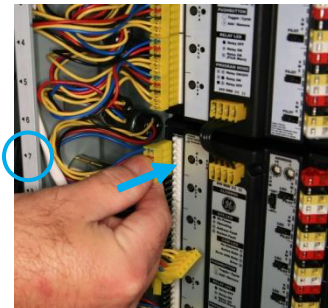
- Start in upper left corner – relay #1
- Slide relay #1 connector over header on first relay module – **NOTE:** Relay numbers are labeled along the side of the sheet metal interior
- Repeat process to connect relay #2 -#6 to first relay module



Relay #1 - #6  
connection to  
first relay  
module

### Connect Relays to Second Relay Module

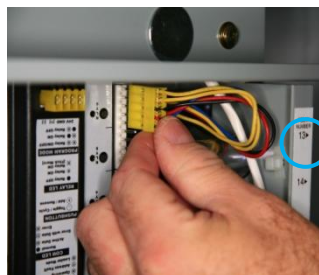
- Start with relay #7
- Slide relay #7 connector over header on second relay module – **NOTE:** Relay numbers are labeled along the side of the sheet metal interior
- Repeat process to connect relay #8 -#12 to second relay module



Relay #7 - #12

### Connect Relays to Third Relay Module

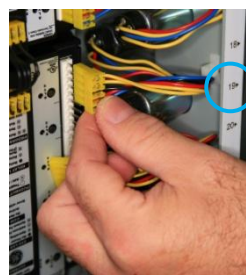
- Start with relay #13
- Slide relay #13 connector over header on third relay module – **NOTE:** Relay numbers are labeled along the side of the sheet metal interior
- Repeat process to connect relay #14 -#18 to third relay module



Relay #13  
connection to  
third relay  
module

### Connect Relays to Fourth Relay Module

- Start with relay #19
- Slide relay #19 connector over header on fourth relay module – **NOTE:** Relay numbers are labeled along the side of the sheet metal interior
- Repeat process to connect relay #20 -#24 to third relay module



Relay #19  
connection to  
fourth relay  
module

# Installation Instructions

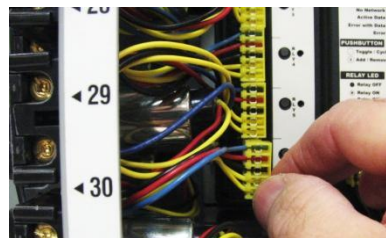
## RELAY CONNECTIONS

### Connect Relays to Fifth Relay Module

- Start in upper left corner – relay #25
- Slide relay #25 connector over header on fifth relay module – **NOTE:** Relay numbers are labeled along the side of the sheet metal interior
- Repeat process to connect relay #26 –#30 to fifth relay module

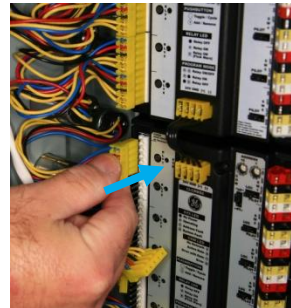


Relay #25 - #30  
connection to  
fifth relay  
module



### Connect Relays to Sixth Relay Module

- Start with relay #31
- Slide relay #31 connector over header on sixth relay module – **NOTE:** Relay numbers are labeled along the side of the sheet metal interior
- Repeat process to connect relay #32 –#36 to sixth relay module



Relay #31 - #36

### Connect Relays to Seventh Relay Module

- Start with relay #37
- Slide relay #37 connector over header on seventh relay module – **NOTE:** Relay numbers are labeled along the side of the sheet metal interior
- Repeat process to connect relay #38 –#42 to third relay module



Relay #37  
connection to  
seventh relay  
module

### Connect Relays to Eighth Relay Module

- Start with relay #43
- Slide relay #43 connector over header on eighth relay module – **NOTE:** Relay numbers are labeled along the side of the sheet metal interior
- Repeat process to connect relay #44 –#48 to third relay module



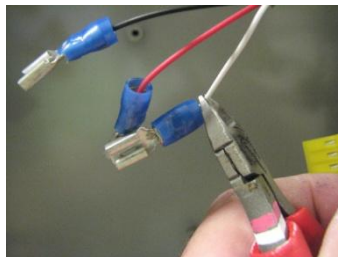
Relay #43  
connection to  
fourth relay  
module

# Installation Instructions

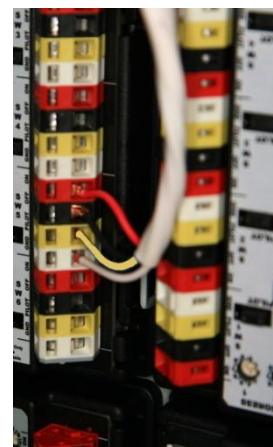
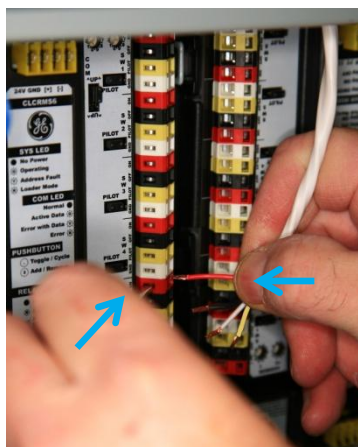
## CONNECT SWITCH INPUTS

### Connect Relay Switch Inputs

- Connect relay switch inputs that were labeled and disconnected at the start of retrofit process
- **NOTE:** some wires may contain quick connect terminals, which must be removed to connect to modules
- **NOTE:** some wires may not reach intended target – splice and insulate with small gauge wire to extend the wires
- Use small screwdriver to apply pressure to back of terminal – slide wire in opening
- Repeat for all wires



Trimming off quick connect

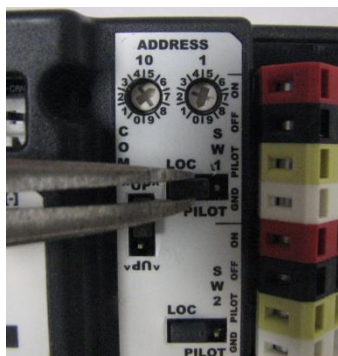


Switch input wiring

Switch Input Color Code	
RED	Relay ON signal
BLACK	Relay OFF signal
YELLOW	PILOT signal
WHITE	Relay COMMON signal

### Pilot/Locator Jumper Position

- For lighted switches, move jumper to the correct position – LOC for locator or PILOT



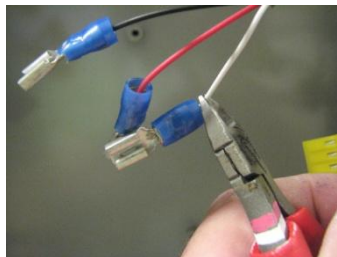
Locator/Pilot jumper

# Installation Instructions

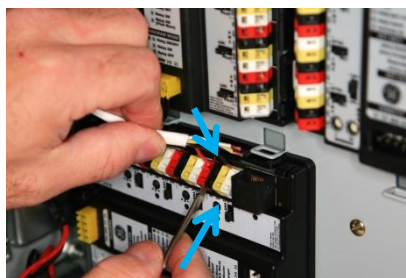
## CONNECT GROUP INPUTS

### Connect Group Inputs

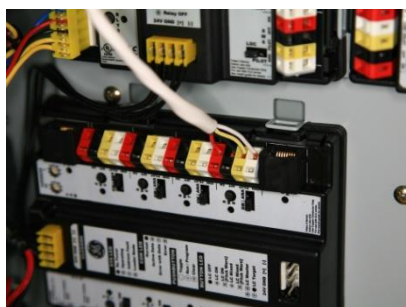
- Connect group switch inputs that were labeled and disconnected at the start of retrofit process
- **NOTE:** some wires may contain quick connect terminals, which must be removed to connect to modules
- **NOTE:** some wires may not reach intended target – splice and insulate with small gauge wire to extend the wires
- Use small screwdriver to apply pressure to back of terminal – slide wire in opening
- Repeat for all wires



Trimming off quick connect



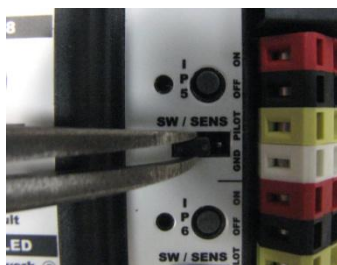
Group input wiring



Terminal Color	Switch Position	Sensor Position
RED	Relay ON signal	Signal
BLACK	Relay OFF signal	Not used
YELLOW	PILOT signal	Power
WHITE	Relay COMMON signal	Common

### Switch / Sensor Jumper

- For Switch inputs, jumper should be in SW position
- For Sensor inputs, jumper should be in SENS position



Switch/Sensor jumper

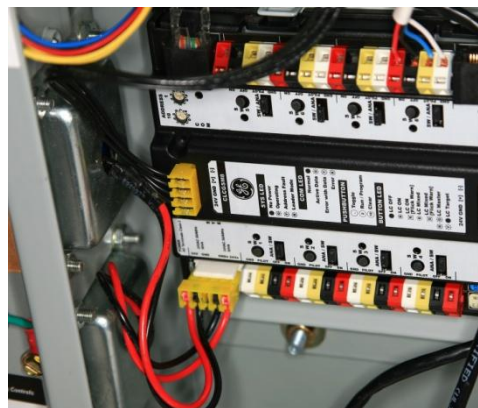


# Installation Instructions

## CONNECT CLASS 2 POWER SUPPLY

### Class 2 Power Supply Connection

- Slide Class 2 power supply connection onto header on group switch module
- **NOTE:** wires should exit connector **AWAY** from the module



## RECONNECT POWER

If cover was removed, reinstall using original hardware.  
Reconnect live power to the panel.

These instructions do not cover all details or variations in equipment nor do they provide for every possible contingency that may be met in connection with installation, operation or maintenance. Should further information be desired or should particular problems arise that are not covered for the purchaser's purposes, the matter should be referred to the GE Company. Information provided is subject to change without notice.

For additional product and application information,  
please consult GE's Website: [www.gelighting.com](http://www.gelighting.com)

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