



BEFORE YOU BEGIN

Read these instructions completely and carefully.

IMPORTANT SAFEGUARDS

When using electrical equipment, basic safety precautions should always be followed including the following:

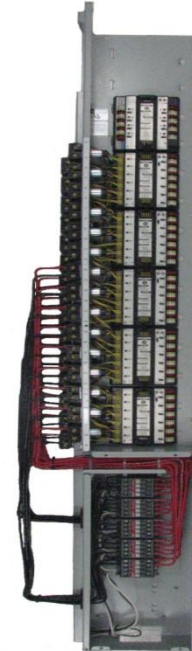
- a) READ AND FOLLOW ALL SAFETY INSTRUCTIONS.**
- b) Do not use outdoors.
- c) Do not let wiring touch hot surfaces.
- d) Do not mount near gas or electric heaters.
- e) Equipment should be mounted in locations and at heights where it will not readily be subjected to tampering by unauthorized personnel.
- f) The use of accessory equipment not recommended by manufacturer may cause an unsafe condition.
- g) Do not use this equipment for other than intended use.
- h) Only qualified personnel should perform servicing of equipment.

SAVE THESE INSTRUCTIONS



LightSweep™

Modular Lighting Control
System Emergency Interior
Catalog Number
CLCINTxxEyz **



DESCRIPTION

The Modular Emergency Lighting Control System is a small network of relay panels and occupant control switches linked by a dataline. Together, these devices form a reconfigurable switching platform — one that uses “softwiring” instead of hardwiring to link occupant switches to relays. Scheduling capability can be readily added by simply adding a CLCDLS scheduler to the network.

The CLCINTxxEyz is the interior for the Modular Emergency Lighting Control System Relay Panel.
The complete relay panel assembly will include the following:

1. Tub (CLCTUBxx)
2. Interior (CLCINTxx)
3. Power Supply (CLCXFRxxx)
4. Cover (CLCCOVxxSE)

This instruction sheet will describe:

1. Various components of the panel
2. Installation of the Relay Panel Interior
3. Initial set-up
4. Pushbutton programming/operation
5. Module replacement



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.**

** y is the number of emergency circuits:

CLCINT24E12z = 12 emergency relays

CLCINT48E18z = 18 emergency, 12 normal relays

CLCINT48E24z = 24 emergency relays

** z is the contactor coil voltage:

CLCINTxxEy120 = 120Vrms coil

CLCINTxxEy277 = 277Vrms coil



imagination at work

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

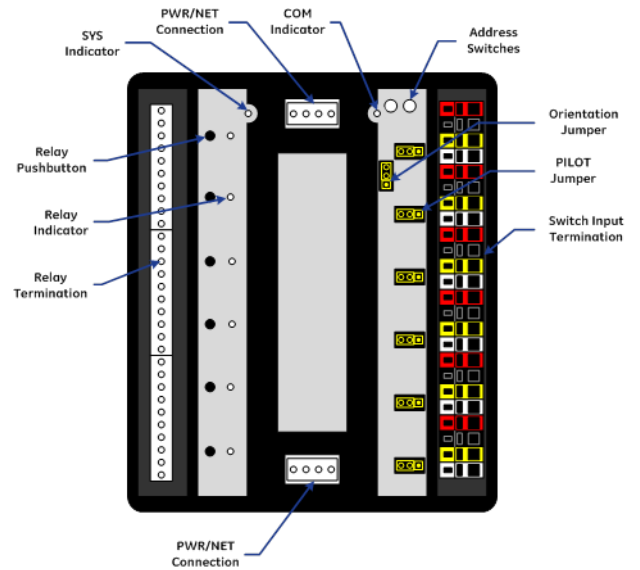
Installation Instructions

RELAY MODULE

CLCRMS6

- Addressable
- Controls up to six GE RR9 relays
- Local push button control of individual relays
- One direct switch input per relay
- LED status indicator for each relay
- LED SYS status indicator
- LED COM status indicator
- Four position header for connection of power and network to other modules (up to 8 total)

CLCRMS6



Non-program Mode LED Description

LED	Description
SYS	<ul style="list-style-type: none"> • Solid Green – device is powered, running normally • Flashing Green – device upgrade in progress • Solid Yellow – panel address conflict • Flashing Yellow – network address conflict • Solid Red – supply voltage is low • Flashing Red – fault in device
COM	<ul style="list-style-type: none"> • Flashing Green – normal network traffic • Flashing Yellow – error with data • Flashing Red – communication error detected
Relay	<ul style="list-style-type: none"> • Solid Red – relay is energized

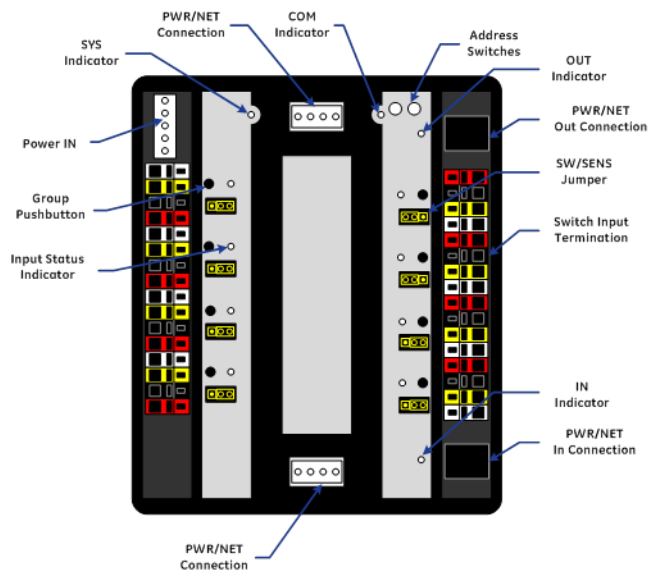
Installation Instructions

GROUP SWITCH/POWER INJECTOR MODULES

CLCGSM8

- Addressable
- Control of up to 8 inputs (switches, photocell, motion)
- Scene programming
- Local push button control of individual groups
- Jumper for setting input to binary/analog
- Two RJ45 connectors for Power/Network in and out (remote devices, other panels)
- Connects power supply to system
- LED status indicator for each group
- LED SYS status indicator
- LED COM status indicator
- LED status indicators for IN and OUT
- Four position header for connection of power and network to other modules (up to 8 total)

CLCGSM8



Non-program Mode LED Description

LED	Description
SYS	<ul style="list-style-type: none"> • Solid Green – device is powered, running normally • Flashing Green – device upgrade in progress • Solid Yellow – panel address conflict • Flashing Yellow – network address conflict • Solid Red – supply voltage is low • Flashing Red – fault in device
COM	<ul style="list-style-type: none"> • Flashing Green – normal network traffic • Flashing Yellow – error with data • Flashing Red – communication error detected
IN/OUT	<ul style="list-style-type: none"> • Solid Green – below rated power of supply • Solid Yellow – at rated power of supply • Solid Red – exceeding rated power of supply • No color – no power is present (Network IN)
INPUT STATUS	<ul style="list-style-type: none"> • Solid Red – outputs are on or match state of scene • Solid Green – not all of outputs are on or match the state of the scene • Repeat Fading Red/Green – all/some of the outputs are in flick warn mode

Installation Instructions

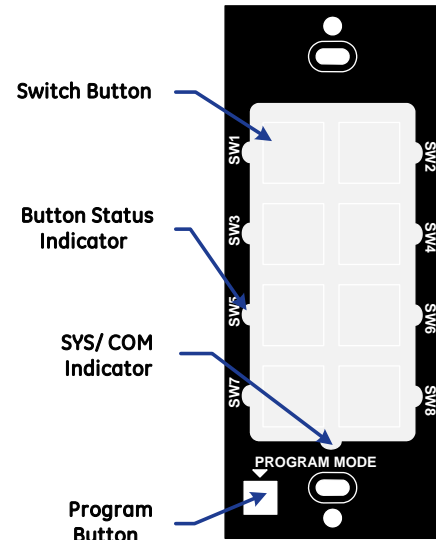
DATALINE SWITCH

CLCSWTx

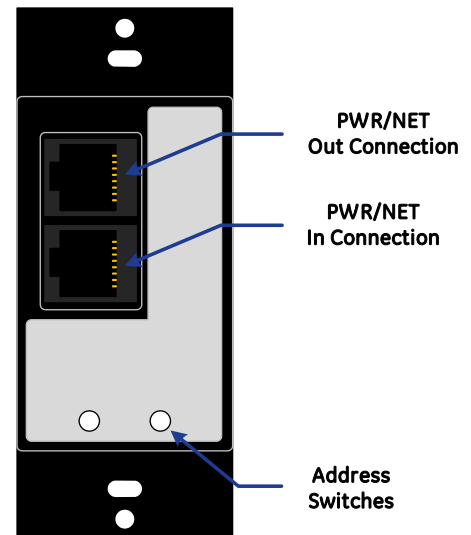
- Addressable
- Capacitive touch
- Fits in standard NA electrical box
- 1, 2, 4 and 8 button configuration – re-configurable in the field
- Programming “pad”
- LED status indicator for each switch position
- LED SYS/COM status indicator
- Two RJ45 connectors for Power/Network in and out

Non-program Mode LED Description	
LED	Description
SYS	<ul style="list-style-type: none"> • Solid Green – device is powered, running normally • Flashing Green – device upgrade in progress • Solid Yellow – panel address conflict • Flashing Yellow – network address conflict • Solid Red – supply voltage is low • Flashing Red – fault in device
Button	<ul style="list-style-type: none"> • Solid Red – outputs are on or match state of scene • Solid Green – not all of outputs are on or match the state of the scene • Repeat Fading Red/Green – all/some of the outputs are in flick warn mode

Front view



Rear view



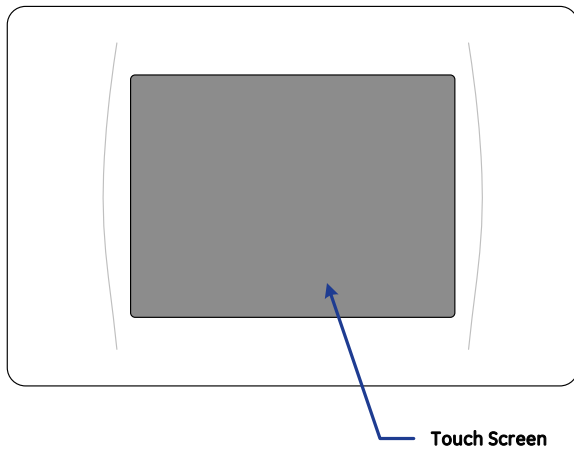
Installation Instructions

DATALINE SCHEDULER

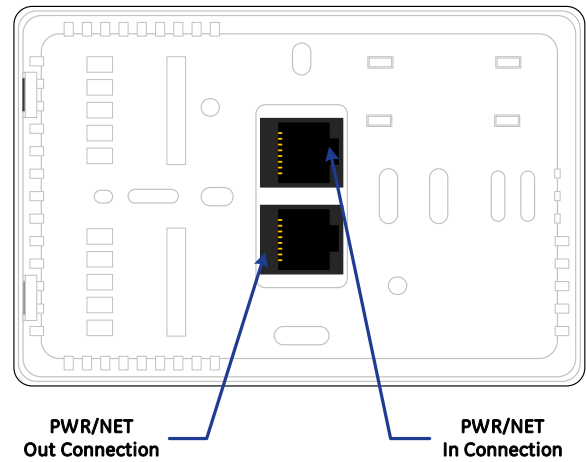
CLCDLS

- Addressable
- Touch screen
- Astronomical clock
- 8 weekly schedules with exceptions (single or reoccurring)
- 8 additional groups
- Can be used to configure system
- Two RJ45 connectors for Power/Network in and out

Front view



Rear view



Installation Instructions

RELAY PANEL INSTALLATION

FIGURE 1
Dimension A

CLCTUB24	38"
CLCTUB48	60"

Relay Capacities

CLCINT24E	12 RR9 relays
CLCINT48E	30 RR9 relays **

Emergency Circuits

CLCINT24E	12
CLCINT48E	18/24 **

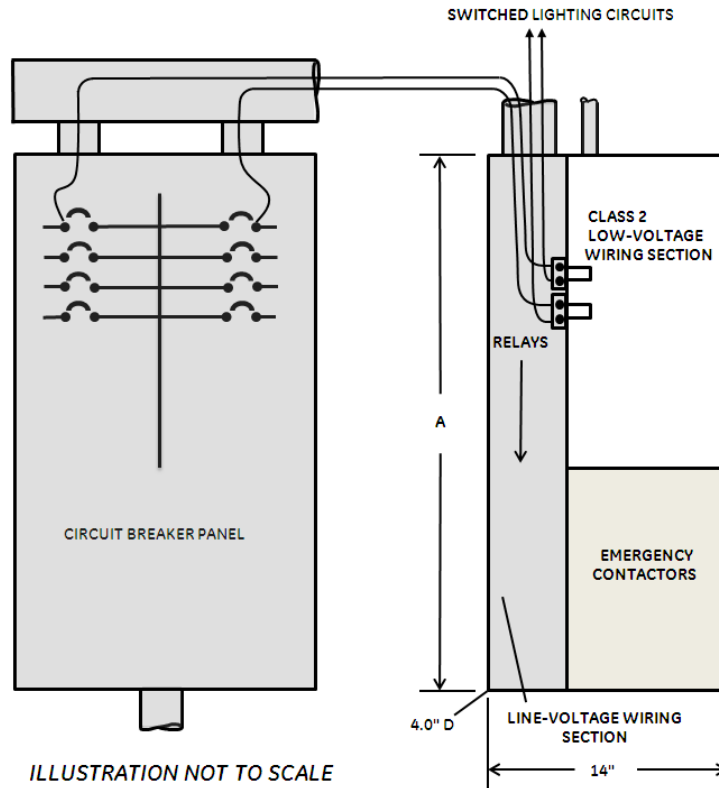
Mains Conduit Size

CLCTUB24	1.5"/2"
CLCTUB48	2"/2.5"

Low Voltage Conduit Size

CLCTUBxx	0.5"/0.75"
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** two options available - all 24 emergency or 18 emergency, 12 non-emergency



Rough-In Tub

- Environment**
 24 Panel: 0°C to 40°C, 25A per relay
 48 Panel: 0°C to 40°C, 20A per relay
 0 to 90% relative humidity, stationary applications
- Mounting**
 The tub should be level, plumb and rigidly installed with hardware sufficient to hold 100 lbs. (34kg). For multiple panels, allow 1/4" minimum between panels for showbox cover clearance.
- Pulling Wires**
 Route line-voltage wiring through the knockouts in either the top or bottom of the tub, using 10AWG THHN wire. Route Class 2 low-voltage dataline from the remote switches or other low voltage controls through the knockouts in top of the tub. Remove one knockout in bottom of the tub (middle section). This will be used for the emergency contactor "normal power" sense wires. Refer to Figure 1 for conduit sizes.

Install Interior

- Power Supply**
 Remove and discard shipping bracket from the top of the interior. Locate opening in the left side of the interior. Feed secondary wires (2 pairs of Red and Black leads in connector) through opening. Align two captive screws on power supply with swaged standoff in Interior. Tighten two screws to secure power supply. Plug in power supply connector to mating header on the CLCGSM. The label is marked "24VAC 50/60HZ" next to the connector. See Figure 2.
- Interior**
 Mount the interior in the tub and secure it to the studs with the hardware provided. Do not completely tighten hardware at this time. The cover secures to the interior in several locations. To align cover to tub and interior - the interior may need to be adjusted side-to-side. Connect power supply ground wire to the hole in tub using green 8-32 screw (Figure 3). Make sure that all line- and low-voltage wiring is confined to the appropriate areas.

Wire Line Voltage

Before making any connections to the relays, make sure that none of the load circuits are shorted. Wire from the circuit breaker through each relay's SPST output terminals, and from there to the loads. Confirm that each circuit is wired to the relay specified in the drawings. Wire the power supply.

Figure 2

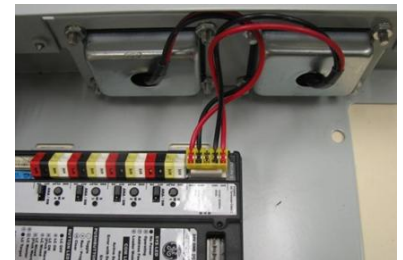


Figure 3



Installation Instructions

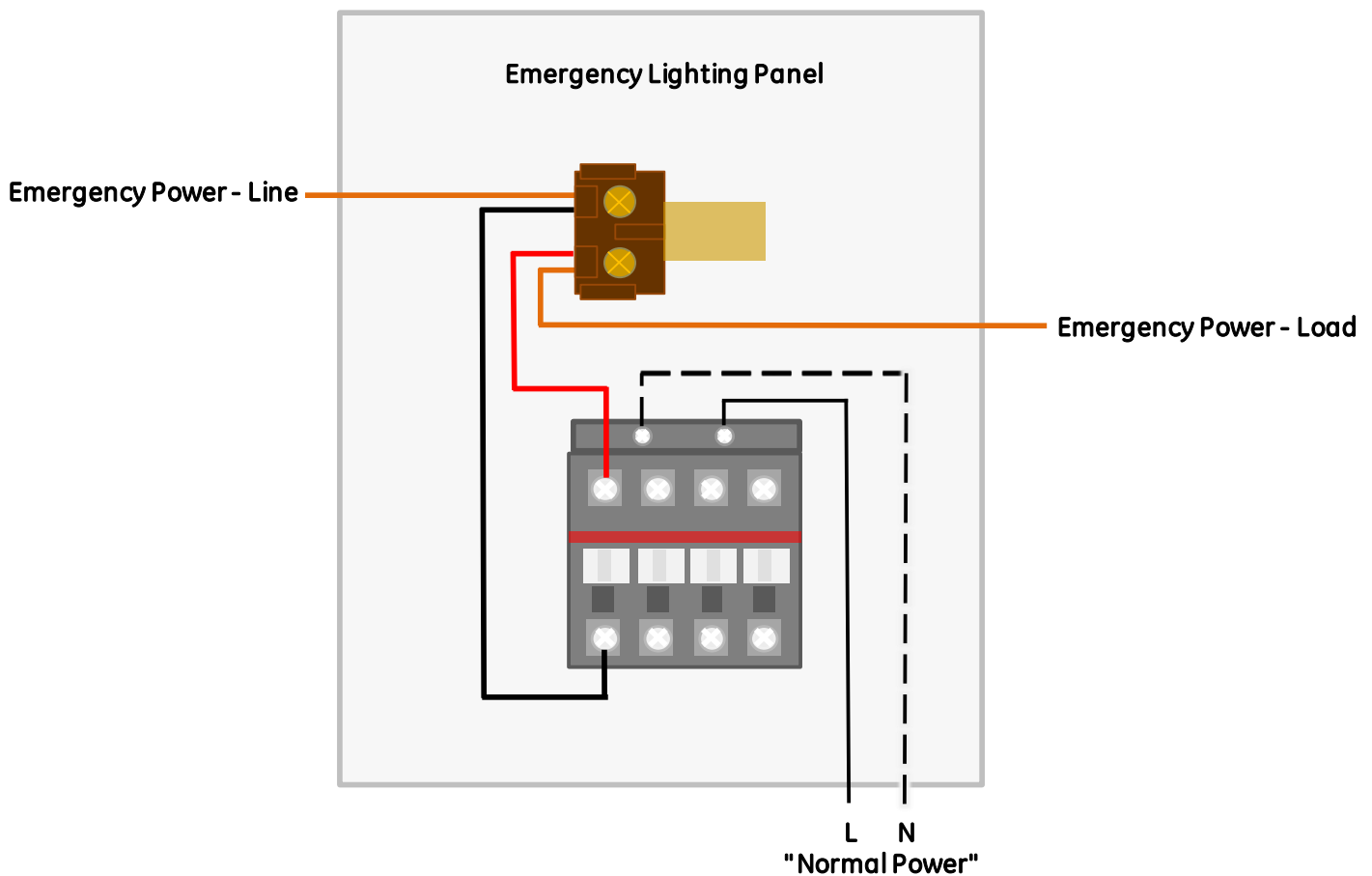
EMERGENCY CIRCUITS AND WIRING

Operation

The panel is equipped with 4-pole normally closed (NC) contactors. Each pair of NC contacts is factory wired in parallel with designated relays. The coils of all contactors are wired in parallel. This provides a single sense point for "normal power". While "normal power" is present, the contacts are held in the open state. Relays will operate as commanded – switches, overrides, schedules, etc. Should "normal power" drop out, all contacts will close. The relays will be bypassed, providing closure on the circuit.

Wiring

- Install potential barriers as required.
- Connect coil ("normal power") sense leads to branch circuit (internally wired with 14 AWG wire - recommended protection rating of 15 amps) of the correct voltage (coil voltage either 120V or 277V). This circuit should be fed from mains serving the panel (not from the emergency power). Use knockout in bottom of the tub (middle section).
- Before making any connections to the relays, make sure that none of the load circuits are shorted. Wire from the circuit breaker of the emergency power panel through each relay's SPST output terminals, and from there to the loads. Confirm that each circuit is wired to the relay specified in the drawings. Make sure factory wiring to the relays is still secured.



Installation Instructions

INITIAL SYSTEM SET-UP

1. Ensure that each device in network has a unique address. The maximum number of addressable devices on the network is limited to 99.
2. Wire remote switch(s) to CLCRMS6 relay module(s). A small flat head screwdriver should be used to apply pressure to connector for wire insertion. Two locations can be used, front and back. Refer to **Figure 4** for location and direction of pressure. Move jumper position if using "pilot" or "locator" switches. See **Figure 5**.
3. Wire remote switch(s) **Figure 4**, photo cell(s), occupancy sensor(s) to CLCGSM8. Move jumper to correct position, dependent on type of input. For a switch or closed contact input, move jumper to "SW". For photocell or occupancy sensor, move jumper to "SENS". See **Figure 6**.
4. Connect dataline switch(s) and/or dataline scheduler to the CLCGSM8 using CAT5 or higher UTP 4 pair 24AWG cable. The connection should start from the CLCGSM8 "PWR/NET OUT connection" and connect to the "IN" of the next device. Proceed from the "OUT" of that device in a daisy chain fashion to the remaining devices in the network. The length of the network is limited to 3,300 feet. The CLCGSM8 can connect up to eight CLCRMS6 and the following combinations of CLCDLS and CLCSWTx:

CLCSWTx	CLCDLS
25	0
19	1
13	2
7	3
1	4

5. The network must be terminated on both ends. Install CLCTRM at both ends of the network.

Figure 5

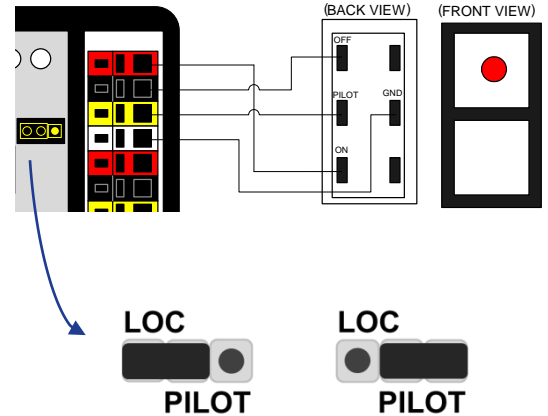


Figure 6

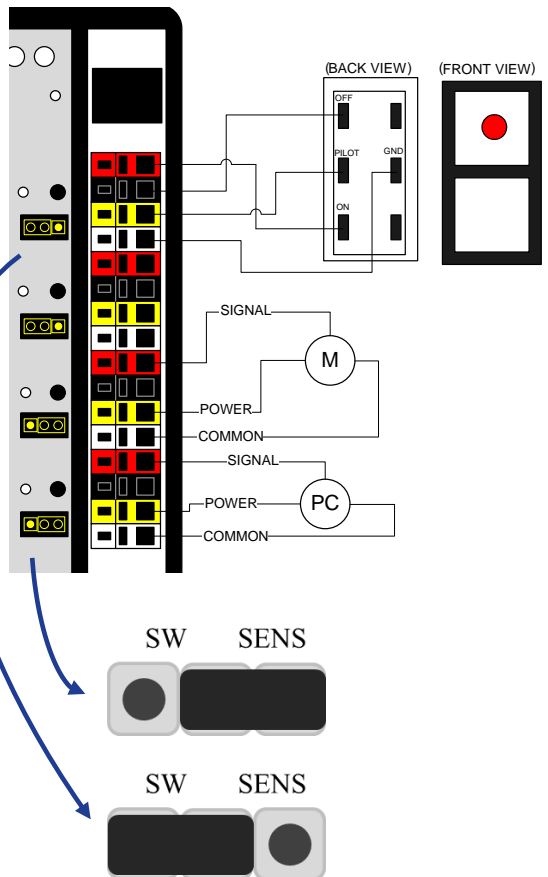
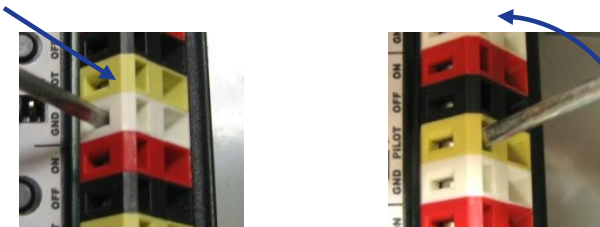


Figure 4
(Arrow indicates direction of applied pressure)



Installation Instructions

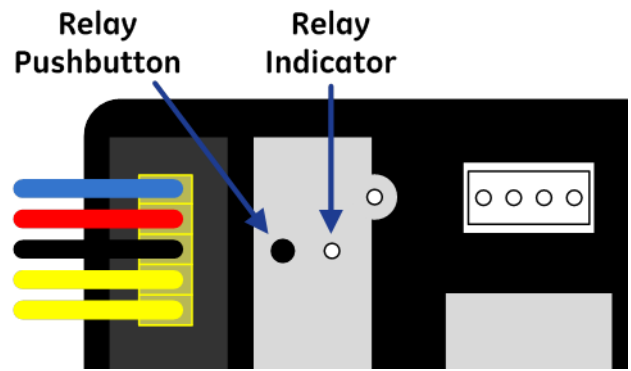
INSTALL COVER

1. Align mounting holes in cover with holes in tub and interior. If necessary, adjust interior side-to-side.
2. Tighten hardware securing interior to tub.
3. Secure cover to tub/interior using supplied hardware.

POWER UP AND TEST RELAYS/CONTACTORS

1. Apply power to the power supply only. As shown in **Figure 7**, to the right, press the Relay Pushbutton next to each relay's yellow plug-in termination to toggle it ON/ OFF. The relay should "click" and the Relay Indicator should change state. Confirm the operation by measuring the continuity at the line-voltage terminations of each relay.
2. Apply power to the relays. Being careful not to touch any line-voltage wiring, toggle each relay ON/OFF again and confirm that each relay controls the appropriate load.
3. Cycle the breaker feeding "normal power" sense leads on. Contactors should energize and an audible sound will be emitted.

Figure 7



DOCUMENT RELAY WIRING

Record the circuit controlled by each relay on the **RELAY SCHEDULE** which was shipped with the interior..

RELAY SCHEDULE

PANEL # 01

RELAY #	SUPPLY	LOAD DESCRIPTION
-01	LP1-1	OPEN OFFICE – First Floor – NW
-02	LP1-2	OPEN OFFICE – First Floor – NW
-03	LP1-3	OPEN OFFICE – First Floor – NE
-04	LP1-4	OPEN OFFICE – First Floor – NE
-05	LP1-5	OPEN OFFICE – First Floor – SW

Installation Instructions

PUSHBUTTON PROGRAMMING

Group Switch Module Input

1. To enter programming mode, press and hold group pushbutton for desired input for > 2 seconds. The LED next to pushbutton will flash red.
2. To add a relay to control – press and hold relay pushbutton > 2 seconds. Input will default to on/off type control. Select the desired control type by pressing pushbutton (on/off, on only, off only). LED color indicates control type selected.
3. Repeat step 2 to add other relay(s) to be controlled by this input.
4. To remove a relay already programmed - press and hold pushbutton > 2 seconds.
5. To exit programming of input, press and hold group pushbutton for > 2 seconds.
6. To clear an input (remove all programming), press and hold group pushbutton for > 10 seconds.
7. To add input as a Target for another input in programming mode: press and hold group pushbutton for desired input for > 2 seconds. The LED next to pushbutton will flash green.

Dataline Switch Button

1. Remove switch plate from switch.
2. Touch programming pad (lower left corner) for > 2 seconds. The SYS LED will flash red.
3. Press desired switch button to program. The LED next to button will flash color based on current programming status (see table).
4. To add a relay to control – press and hold pushbutton > 2 seconds. Input will default to on/off type control. Select the desired control type by pressing pushbutton (on/off, on only, off only). LED color indicates control type selected. .
5. Repeat step 2 to add other relay(s) to be control by this button.
6. Touch programming pad for > 2 seconds.
7. Touch switch button being programmed.
8. To clear a switch button, touch programming pad for > 10 seconds. The SYS LED will flash yellow. Touch switch button.
9. To add switch button as a Target for another input in programming mode: touch programming pad for > 2 seconds. The SYS LED will flash green. Touch desired switch button to add as a target.
10. Attach switch plate to switch.

CLCRMS6 Programming Mode LED Description	
LED Color	Control Type
Alternating Red/Green	Relay is ON/OFF controlled
Flashing Red	Relay can only be controlled ON
Flashing Green	Relay can only be controlled OFF
No Color	Relay is no longer controlled by input

CLCSWTx Switch Button Programming Mode LED Description	
LED Color	Control Type
Flashing Red	Button already has targets
Flashing Green	Button is a target of another input
Flashing Yellow	Button does not have assigned targets

PUSHBUTTON OPERATION

Group Switch Module

Press and hold pushbutton for desired input for < 2 seconds. For a group in “off” or “mixed” (LED is green) mode, targets will be commanded “on”. For a group in “on” (LED is red) mode, targets will be commanded “off”.

Relay Module

Press the pushbutton for desired relay. The pushbutton will toggle the state of the

Dataline Switch Button

Touch the desired switch button. For a group in “off” or “mixed” (LED is green) mode, targets will be commanded “on”. For a group in “on” (LED is red) mode, targets will be commanded “off”.

Installation Instructions

CLCDLS INSTALLATION

1. Remove screw in tab of bracket (reference **Figure 8**).
2. Plug in Cat5 cables for PWR/NET IN and PWR/NET OUT (if required) on back of assembly (reference **Figure 9**). Make note of which cable is plugged in to each.
3. Route Cat5 cable(s) out of the top or bottom opening of bracket. Interior location will dictate the best option.
4. Slide assembly into interior (reference **Figure 10**). **Note:** the inward tabs (labeled 1 in **Figure 9**) are a blind fit into interior slots, whereas the outward tabs (labeled 2 in **Figure 9**) are visible.
5. Insert screw in hole of tab and tighten (**Figure 11**).
6. Plug in the Cat5 cable from the PWR/NET IN slot to either the PWR/NET OUT jack on the CLCGSM8, CLCPIM or CLCDIM4 (**Figure 12**).
7. Route and plug the Cat5 cable from PWR/NET OUT through the low voltage knockout to the next system member (if required).

Figure 8



Figure 9

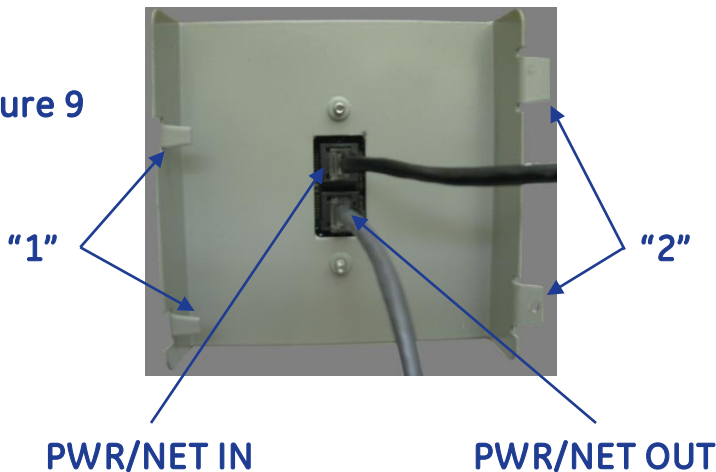


Figure 10

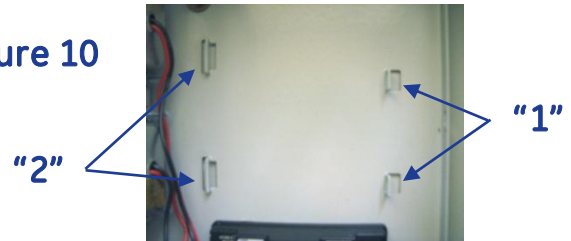
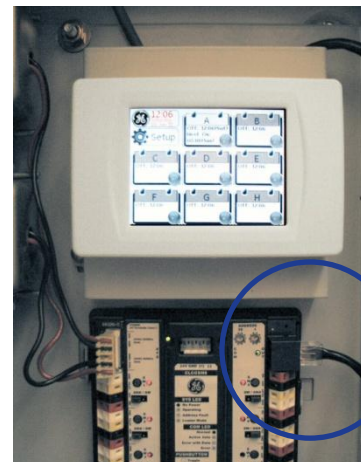


Figure 11



Figure 12



Installation Instructions

MODULE REPLACEMENT

Group Switch Module

1. Remove power supply plug (reference **Figure 2**).
2. Tag and remove wire(s) connected to switch input(s) (reference **Figure 4**).
3. Tag and remove dataline from PWR/NET connectors.
4. Pull up on module jumper (**Figure 13**) to remove.
5. Apply pressure to right side of module (**Figure 14**) – lift module from interior.
6. Insert new module – slide left side plastic tabs under sheet metal tabs (**Figure 15**), push down on right side to lock into place.
7. Set address to match removed module.
8. Install module jumper.
9. Connect dataline as noted in Step 3.
10. Reconnect wire(s) to switch input(s) as noted in Step 2.
11. Connect power supply plug to module (**Figure 2**).

Relay Module

1. Pull up on module jumper(s) (**Figure 13**) to remove.
Note: depending on module location, there may be two jumpers that need removed (top and bottom).
2. Pull up on connectors to disconnect relay connections from module (**Figure 16**).
3. If applicable, tag and remove wire(s) connected to switch input(s) (reference **Figure 4**).
4. Apply pressure to right side of module (**Figure 14**) – lift module from interior.
5. Insert new module – slide left side plastic tabs under sheet metal tabs (**Figure 15**), push down on right side to lock into place.
6. Set address to match removed module.
7. Reconnect wire(s) to switch input(s) as noted in Step 2.
8. Reconnect relay connections to module. Relays numbers are located on interior side.
9. Install module jumper(s).

Figure 13



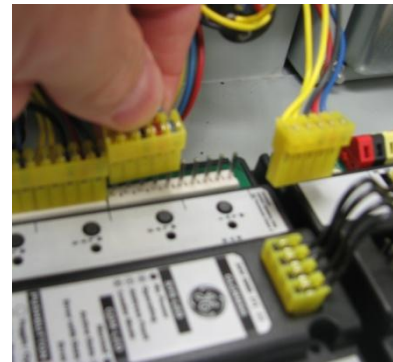
Figure 14



Figure 15



Figure 16



Installation Instructions

NOTES

Installation Instructions

NOTES

Installation Instructions

NOTES

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**