LightLEEDer EVO-TC
Distributed Control Panel - Time Clock

intelligent lighting controls

IMPORTANT: Read carefully before installing product. Retain for future reference.
Failure to comply with these instructions may result in death, serious bodily injury and property damage.

⚠ WARNING

Risk of Fire, Electrical Shock, Cuts or other Casualty Hazards- Installation and maintenance of this product must be performed by a qualified electrician. This product must be installed in accordance with the applicable installation code by a person familiar with the construction and operation of the product and hazards involved.

Before installing or performing any service, the power MUST be turned OFF at the branch circuit breaker. All installations should be in compliance with the National Electric Code and all state and local codes.

Risk of Fire and Electric Shock- Make certain power is OFF before starting installation or attempting any maintenance. Disconnect power at fuse or circuit breaker.

Risk of Burn- Disconnect power and allow product to cool before handling or servicing.

Risk of Personal Injury- Due to sharp edges, handle with care.

DISCLAIMER OF LIABILITY: Cooper Lighting Solutions assumes no liability for damages or losses of any kind that may arise from the improper, careless, or negligent installation, handling or use of this product.

NOTICE: Product may become damaged and/or unstable if not installed properly.

Note: Specifications and dimensions subject to change without notice.

ATTENTION Receiving Department: Note actual product description of any shortage or noticeable damage on delivery receipt. File claim for common carrier (LTL) directly with carrier. Claims for concealed damage must be filed within 15 days of delivery. All damaged material, complete with original packing must be retained.

NOTICE: All new wiring must be fully verified before applying power.

NOTICE: Designed for indoor installation and use only.

NOTICE: Do not install near electric or gas heaters.

NOTICE: Refer to product cut sheet for additional operating environment specifications.

NOTICE: The unit must be installed in locations and at heights where it cannot be easily tampered with by unauthorized personnel.

NOTICE: The use of accessories not recommended by the manufacturer may cause hazardous conditions.

NOTICE: Do not use this equipment for purposes other than its intended use.

NOTICE: The device should be mounted in a location and at heights where it will not be readily subject to tampering by un-authorized personnel, but still accessible to an electrician for testing and maintenance.

NOTICE: The use of accessory equipment not recommended by the manufacturer may cause an unsafe condition, void warranty, and result in non-compliance with UL specifications

COOPER Lighting Solutions
a signify business

SAVE THESE INSTRUCTIONS

This installation instruction is for the LightLEEDer LLEVO-TC.

The purpose of this document is to provide sufficient detailed instructions for installation and basic troubleshooting.

This document covers installation of the following products.

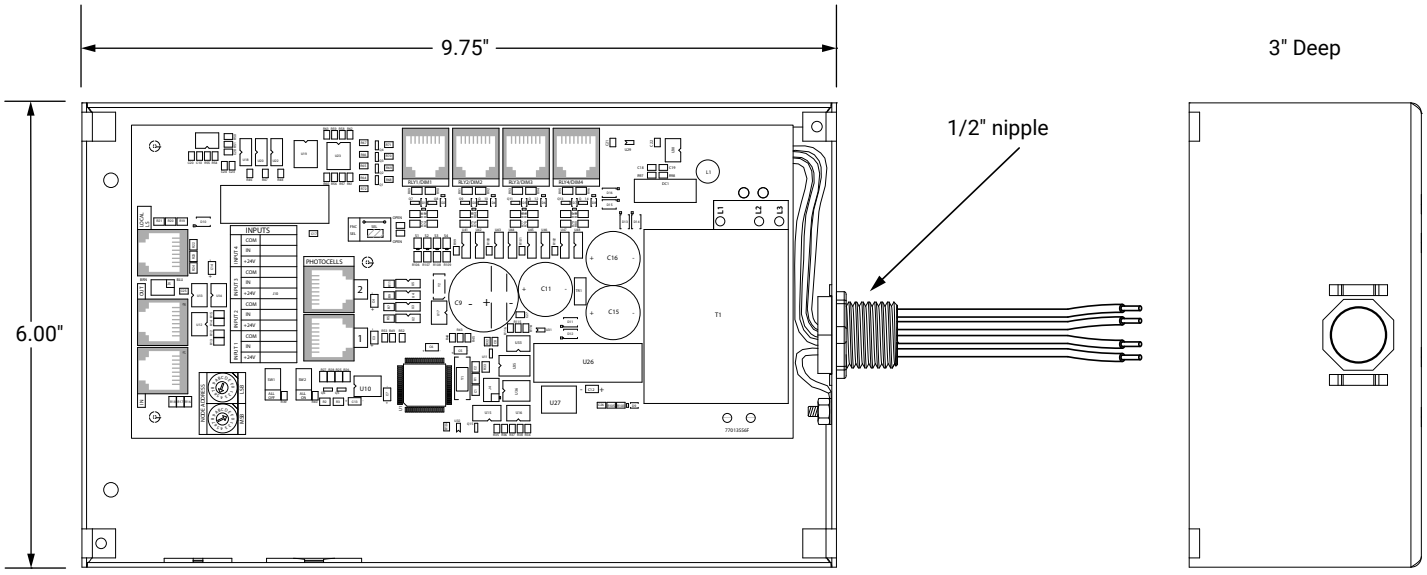
- LLEVO-TC LightLEEDer EVO Distributed Control Panel - Time Clock

⚠ Read and follow safety instructions

- The device should be mounted in a location and at heights where it will not be readily subject to tampering by un-authorized personnel, but still accessible to an electrician for testing and maintenance.
- The use of accessory equipment not recommended by the manufacturer may cause an unsafe condition, void warranty, and result in non-compliance with UL specifications.
- Test all connections and verify operation.

Installing the LLEVO-TC Controller

- Locate LL-EVO enclosure in an easy to access location, preferably directly above main switch station in the room controlled.
- Mount to line voltage junction box using the 1/2" nipple and secure enclosure using the two pre-drilled mounting holes and appropriate hardware.
- Terminate to line voltage leads as indicated below, cap off the unused lead.
- Install CAT-5 data cable to R20 remote mounted relays, and LightSync switch station(s).
- Use 3-#18AWG to Occupancy sensor(s) and Photo sensor(s) as required per plans.
- Follow local codes and rules for conduit and plenum rated cable requirements.
- Set EVO address for application type and test each device as they are connected.
- Always test 0-10V wiring at fixture for excessive AC leakage voltage and reverse wiring before connecting to the remote R20D relays 0-10V dimming control leads.



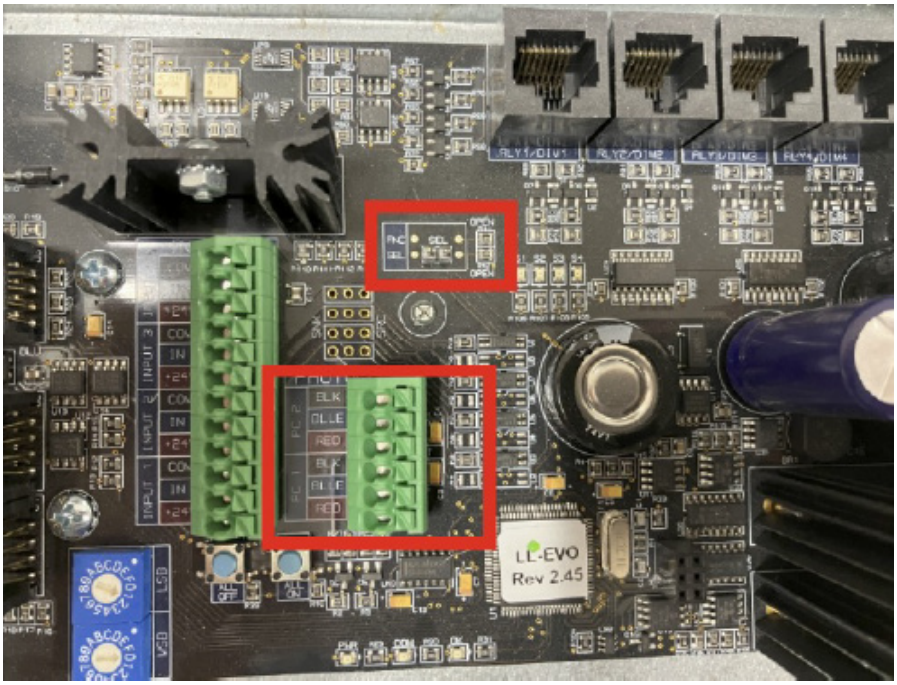
Existing EVO-TC:

Existing Process:

- Set panel address to desired preprogram (F0-FF)
- Install jumper to access preset programs
- Remove jumper if presets not required

Functionally:

- Hardwired Photocells



Updated EVO-TC:

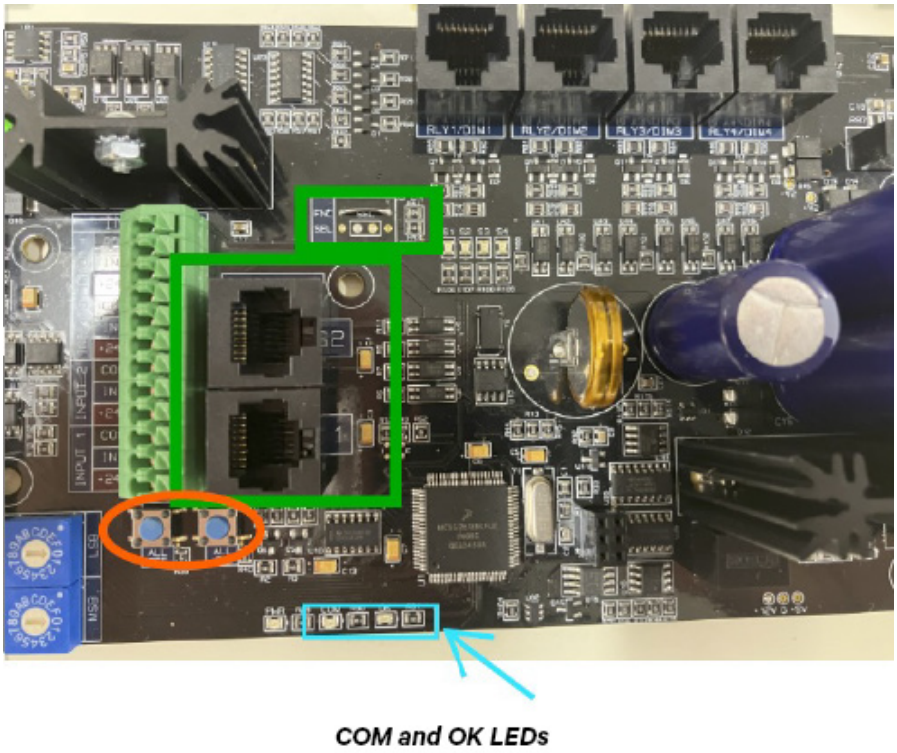
Customer no longer needs to go into the ceiling to pull the jumper off when reprogramming is needed.

New Process:

- Set panel address to desired preprogram (F0-FF)
- Press and hold both ON/OFF buttons to transfer presets (~6 seconds) until all four relay lights flash and COM and OK LED turn on solid
- After letting go of buttons, the relays will still flash (~6 sec) until panel restarts
- After panel restarts, panel can be set back to network address

Functionally:

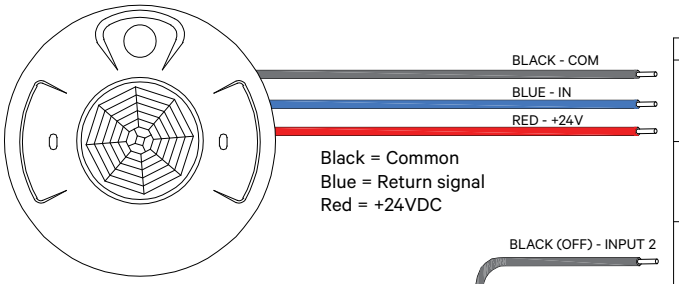
- No jumpers
- RJ45 connectors for photocells



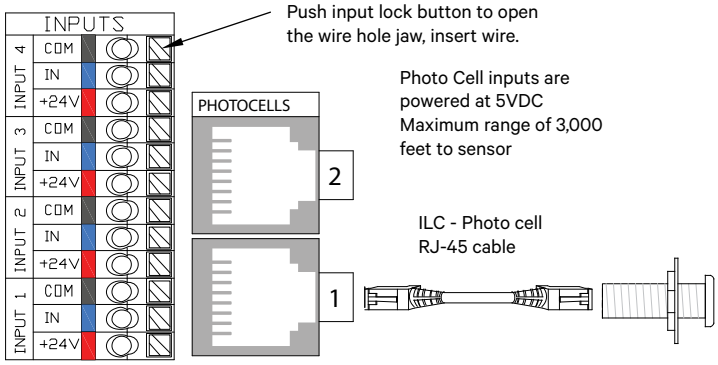
COM and OK LEDs

Wiring Details

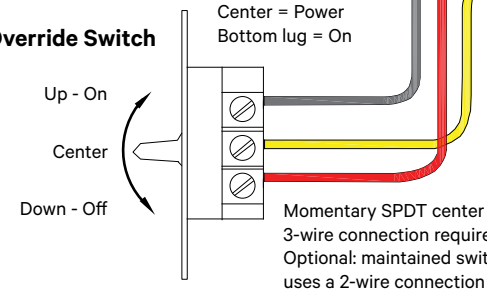
Motion Sensor

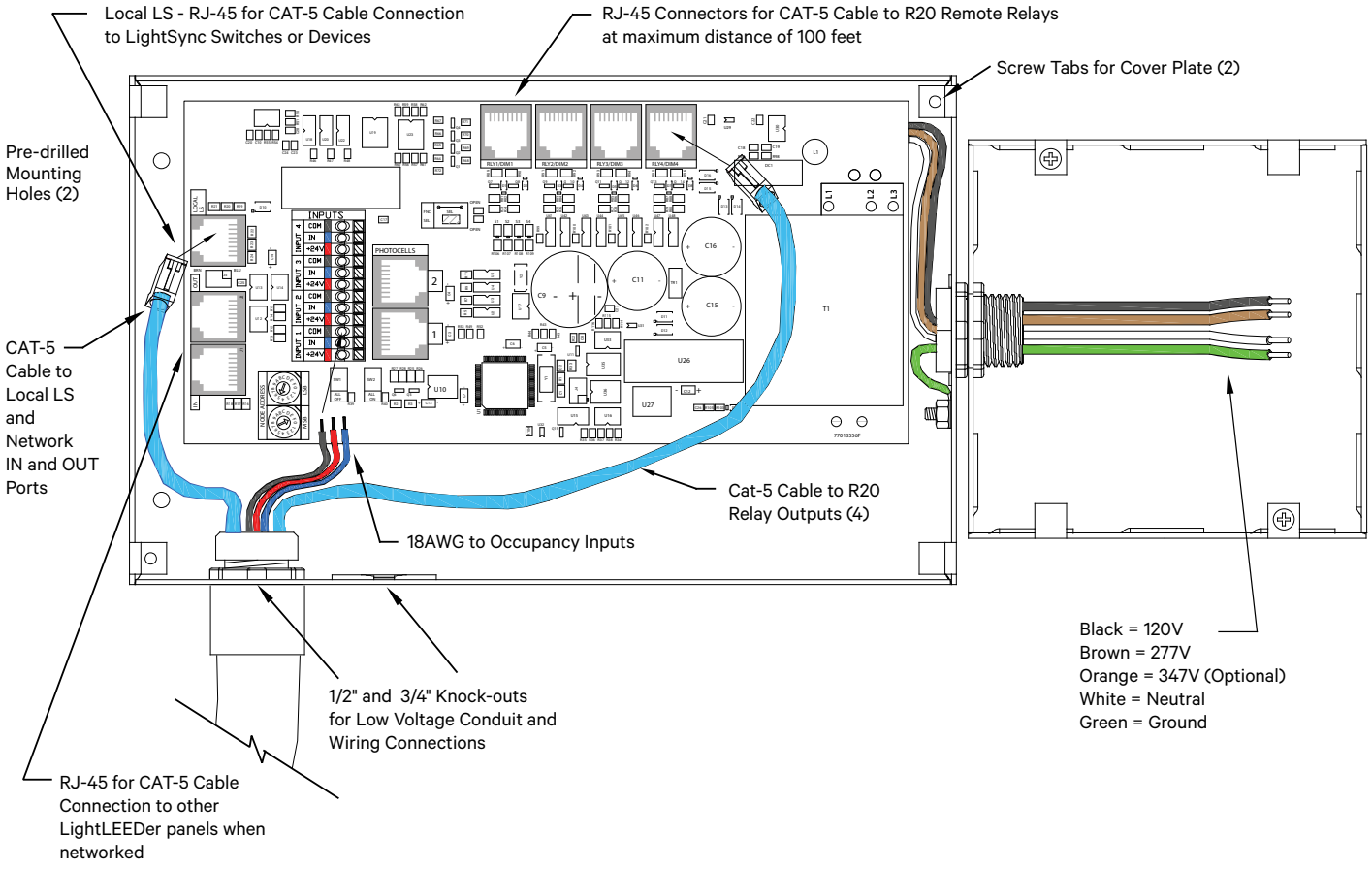


EVO Input wiring



Override Switch





LLEVO-TC Pre-Programs

F 0	**Large room 4-Zone, 2-independent Daylight Zones, 4-Scene, 4-MZD4, LSCS sensors.** Photo sensor inputs for 1 or 2 daylight zones, motion sensor inputs for Occupancy, Vacancy or Occupancy On at 50% (Remote OSC8I option for independent zone control) Remote digital CAT-5 LightSync device - two 4-Scene dimming switch, two LSG3-4-MZD switch for control of all 4 zones, and up to 3 LSCS sensors.
F 1	**General Room, 3 or 4-Zone, 2-independent Daylight Zones, MZD3, MZD4** Photo sensor inputs for 2 independent daylight zones with individual sensors, motion sensor inputs for Occupancy, Vacancy control or Occupancy On at 50%, On-50% Off toggle SPST switch. Remote digital CAT-5 LightSync G3 MZD4 or MZD3, standard button switches for local room control w/3-ways setting, 1-each Individual Zone switch w/dimming
F 2	**General Room, 3 or 4-Zone, 1-Photocell, 2-Daylight Zones, MZD3, MZD4** Photo sensor input for 2 daylight zones from One sensor, motion sensor inputs for Occupancy, Vacancy control, Occupancy On at 50%/Off, and On-100% /Off-50%. Remote digital CAT-5 LightSync MZD-4 or MZD-3, standard button switches for local room control
F 3	**Two Office, 1 or 2-Zone, 1-Daylight Zones, MZD1, MZD2** Photo sensor inputs for 1 daylight zone per room, motion sensor inputs for Occupancy On at 50% or Vacancy control, Remote digital CAT-5 LightSync G3 MZD2 or MZD1 per room, standard button switches for local room control
F 4	**Two Office, 1 or 2-Zone, 2-Daylight Zones, MZD1, MZD2** Photo sensor inputs for 2 daylight zone per room(one at -10% reduction), motion sensor inputs for Occupancy On at 50% or Vacancy control, Remote digital CAT-5 LightSync G3 MZD2 or MZD1 per room, standard button switches for local room control
F 5	**Two Room, 3-Zone, 1 Daylight Zone & 1-Zone, 1-Daylight Zone** Photo sensor inputs for 1 daylight zone per room, motion sensor inputs for Occupancy On at 50% or Vacancy control, Remote digital CAT-5 LightSync G3 MZD or standard button switches for local room control
F 6	**Two Room, 3-Zone, 2 Daylight Zone & 1-Zone, 1-Daylight Zone** Photo sensor inputs for 2 daylight zone in the 3-zone room and 1 daylight sensor in the 1-zone room, motion sensor inputs for Occupancy on at 50% or Vacancy control, Remote digital CAT-5 LightSync G3 MZD or standard button switches for local room control
F 7	**Four Office, 1-Zone each, Occupancy, 1-Daylight Zone, MZD1, 2-Scene** Photo sensor inputs for daylight zones (PC1 & PC2), motion sensor inputs for Occupancy On at 50%, auxiliary Photo Sensor controller inputs (PC3 & PC4) Remote digital CAT-5 LightSync G3 MZD On-50%/Off, 1-button Non-Dim switches for local room control, G3 2-Scene, Dim to 0%-Off + Raise/Lower
F 8	**Four Office, 1-Zone each, Vacancy, 1-Daylight Zone, MZD1, 2-Scene** Photo sensor inputs for daylight zones (PC1 & PC2), Motion sensor inputs for Manual-On Vacancy-Off control, auxiliary Photo Sensor controller inputs (PC3 & PC4) Remote digital CAT-5 LightSync G3 MZD On-50%/Off, 1-button Non-Dim switches for local room control, G3 2-Scene, Dim to 0%-Off + Raise/Lower
F 9	**Corridor/Stairwell, 1 or 2-Zone, Occupancy High/Low Dim, 1 Daylight Zone** Photo sensor inputs for 1 daylight zone(PC-1), Motion sensor inputs for Occupancy On-High/Off or Dim level control with Building Open/Closed change of sequence Remote digital CAT-5 LightSync control On-Off(Open)/Timed On-2Hr (Closed) Key switch or 1-Button switch's, and Optional hardwired key switch input (OSC: 03.4)
F A	**Classroom, 3-Zone (a, b, bc, c) w/1 Daylight Zone, MZD3, 2-Scene** Photo sensor inputs for 1 daylight zone (b/bc), motion sensor inputs for Occupancy, Vacancy or Occupancy on at 50% Remote digital CAT-5 LightSync 2-Scene, Off, Raise/Lower. One MZD-3 and Three independent 1-zone MZD type switches for "a", "b", "c" and G3-3S/3MZD switches
F B	**Classroom, 3-Zone (a, b, bc, c) w/1 Daylight Zone, MZD3, 3-Scene, 3-Scene/3-MZD** Photo sensor inputs for 1 daylight zone (b/bc), motion sensor inputs for Occupancy, Vacancy or Occupancy on at 50% Remote digital CAT-5 LightSync 3-Scene, Off, Raise/Lower. One MZD-3 and Three independent 1-zone MZD type switches for "a", "b", "c"
F C	**Conference room 4-Zone w/1-Daylight Zone, 5-Scene, MZD4, AV, TSS-2** Photo sensor inputs for 1 daylight zones, Motion sensor inputs for Occupancy or Vacancy control, or Occupancy on at 50% Remote digital CAT-5 LightSync 4-Scene + Off station, MZD3 station, MZD1 for display wall lighting, AV Interface (LSSI-232) with Scene operation
F D	**Double Conference room 4-Zone w/1-Daylight Zone, 5-Scene, MZD4, AV, TSS-2** Photo sensor inputs for 1 or 2 daylight zones, Motion sensor inputs for Occupancy or Vacancy and Occupancy On at 50% using A LSOSI (LS:13) remote module Remote digital CAT-5 LightSync G3 4-Scene + Off switches, MZD-4 switches, MZD1 for display wall lighting, AV Interface (LSSI-232) with Scene operation
F E	**Open Office, 3 or 4-Zone Open/Close Timer sweep, 2-independent Daylight Zones** Photo sensor inputs for 1 or 2 daylight zones, Timer 1 Open - 6:00am ON / Timer 2 Close - 10:00pm - Off sweep repeated every 2 hours w/Blink Alert Remote digital CAT-5 LightSync G3 MZD or standard button switches for local room control
F F	**Open Office, 3 or 4-Zone Motion-On (Open) On/Off (Close time), 2-independent Daylight** Photo sensor inputs for 1 or 2 daylight zones, Timer 1 Open 6:00am ON / Timer 2 Close - 10:00pm - Off sweep repeated every 2 hours w/Blink Alert Remote digital CAT-5 LightSync G3 MZD4,or MZD3, standard button switches for local room control, Occupancy Sensor Inputs change from "On Only" during the day to ON/Off at night

Warranties and Limitation of Liability

Please refer to **www.cooperlighting.com/global/resources/legal** for our terms and conditions.