ORION™

With ✦ **VISILIGHT LED**™

MODELS: LED-ORION

WARNING

Read and understand all instructions before beginning installation. Disconnect power to motor and test upon completion. Orion should be installed by qualified personnel to ensure the requirements herein have been met. Keep these instructions with the installation. Always abide by local and national electrical code specifications when wiring accessories to motor controls.

Orion™ adds bright, continuous LED visibility to commercial motorized sectional and rolling steel doors. Mounted along the door's bottom edge, Orion provides a clear visual signal of door presence and movement. This always-on illumination complements sensing edges, photo eyes, and light curtain systems to improve awareness among pedestrians, drivers, and equipment operators in busy environments. Available in multiple lengths, Orion installs easily on the interior of the door for a clean appearance and a straightforward retrofit, delivering reliable, long-lasting performance with minimal maintenance.
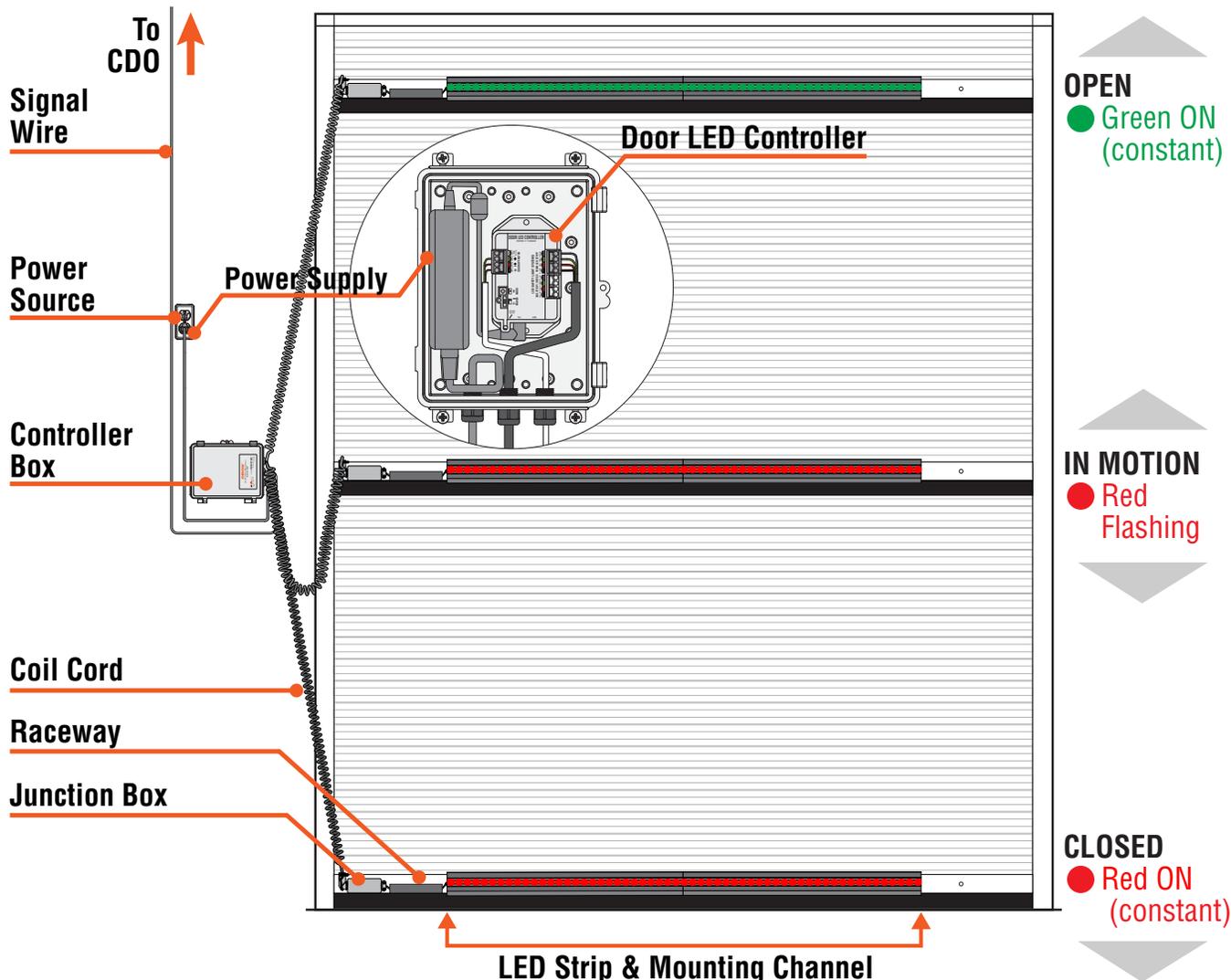

To CDO

Signal Wire

Power Source

Controller Box

Coil Cord

Raceway

Junction Box

Door LED Controller

Power Supply

LED Strip & Mounting Channel

OPEN
● Green ON (constant)

IN MOTION
● Red Flashing

CLOSED
● Red ON (constant)

IMAGE 1: Orion Installed on a Motorized Commercial Sectional Door

LED-ORION_Inst_20260106

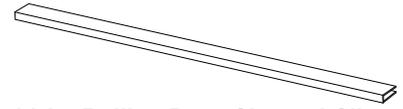## Contents • Length & Quantity Determined by Model

- **LED-ORION-24-K8**
  - ○ (1) 8-ft. LED Strip
  - ○ (3) 36-in. Universal Mounting Channels
  - ○ (3) 36-in. Rolling Door Channel Clips
- **LED-ORION-24-K10**
  - ○ (1) 10-ft. LED Strip
  - ○ (4) 36-in. Universal Mounting Channels
  - ○ (4) 36-in. Rolling Door Channel Clips
- **LED-ORION-24-K12**
  - ○ (1) 12-ft. LED Strip
  - ○ (5) 36-in. Universal Mounting Channels
  - ○ (5) 36-in. Rolling Door Channel Clips
- **LED-ORION-24-K14**
  - ○ (1) 14-ft. LED Strip
  - ○ (6) 36-in. Universal Mounting Channels
  - ○ (6) 36-in. Rolling Door Channel Clips
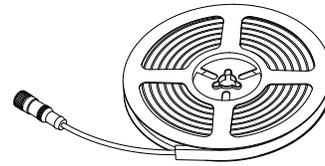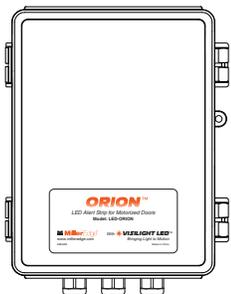
LED Strip
Length determined by model
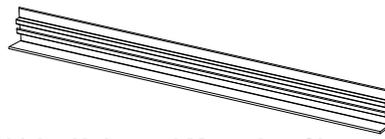
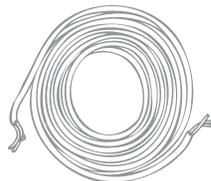**36-in. Universal Mounting Channel**
Quantity determined by model

36-in. Rolling Door Channel Clip
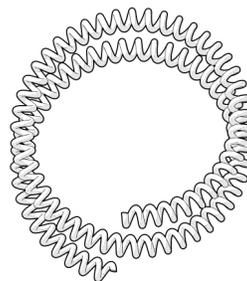*Quantity determined by model*

Contents • Included with All Models

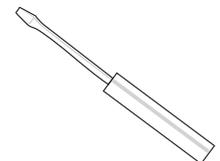| **(1) Controller Box**	**(1) CDO Signal Cable**	**(1) Coil Cord**	**(1) 4-ft. LED Strip**	**(1) Cable Raceway**
Includes Power Supply & Door LED Controller *(assembled)*	**6-wire, 22 AWG, 20-ft.**	**6-wire, 22 AWG, 12-ft.**	**Extension Cable with Threaded Connector**	
(1) Junction Box	**(1) 90° Junction Box Cord Grip**	**(1) Straight Junction Box Cord Grip**	**(4) Wire Nuts**	**(1) 3 mm Phillips/ Flathead Screwdriver**
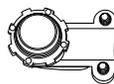
Required		Suggested	Optional
• Operator manual • Drill/driver • Knife, shears, or hacksaw to cut mounting channel & raceway	• Fasteners for attaching: - Controller box to wall - Junction box to door - Mounting channel to door (sectional doors only)	• Needle nose pliers • Marking pencil or pen • Measuring tape • Level	• Cable ties for dressing wires

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I. LED Strip Installation

1. **Identify these parts before beginning:** PAGE 2
   - (1) LED Light Strip
   - Cable Raceway
   - 36-in. Universal Channels
   - *Rolling steel doors only:*
     36-in. Rolling Door Channel Clips

2. **Open the door until halfway open.** IMAGE 3A / 3B → #1

3. **Turn off power to the operator.**

4. **Prepare and mount the Universal Mounting Channel**
   a. Trim the channel to match the length of the LED Light Strip.
   b. Align the channel horizontally along the bottom center of the door with no gaps between sections: IMAGE 1
      o **Sectional Doors:** Remove the bottom leg of the channel before mounting. Mount using the appropriate fasteners (not provided). IMAGE 2A
      o **Rolling Steel Doors:** Mount the universal channels to the bottom bar using the rolling door channel clips. IMAGE 2B

5. **Install the LED Strip**
   a. **Starting on the commercial door operator (CDO)-side of the door**, insert the **non-wired end** of the LED Strip into the channel and fully into place and it is centered on the door. IMAGE 3A / 3B → #2
      o **Warning:** Do not pull the strip by the cable.
      o **Tips:**
         – Have a second person feed the strip while you gently pull from the non-wired end with needle-nose pliers.
         – Lubricate the channel with soapy water to ease installation.

6. **Install the Cable Raceway**
   If needed, mount the Cable Raceway onto the door positioned in the gap between the Mounting Channel and the side of the door: IMAGE 3A / 3B → #3
   a. Cut the Cable Raceway to the required length for a customized fit.
   b. Remove the lid and paper backing from the VHB tape and apply the Cable Runway to the door aligned horizontally with the mounting channel:
      o **Sectional Doors:** Bottom section of the door.
      o **Rolling Steel Doors:** Bottom bar.
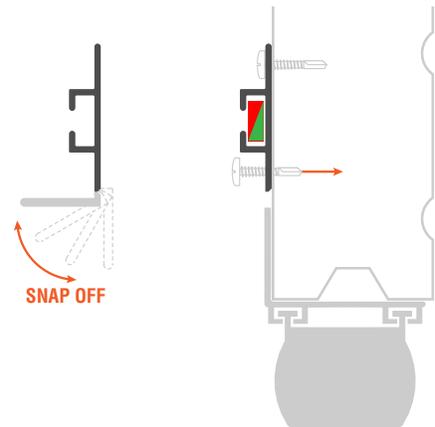

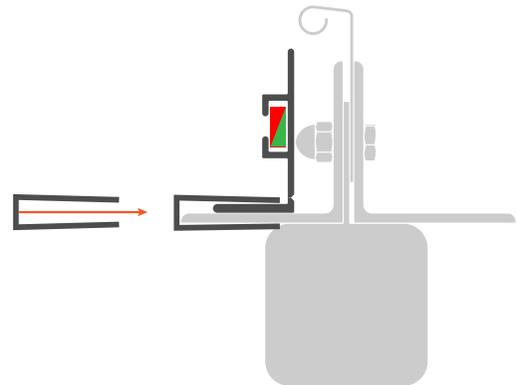**IMAGE 2A: Sectional Door Channel Installation**

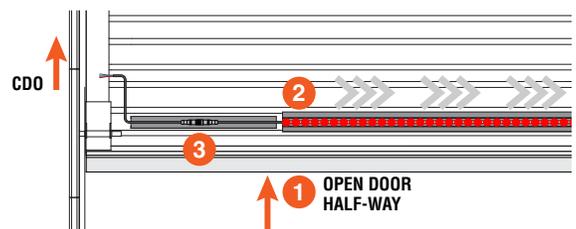**IMAGE 2B: Rolling Steel Door Channel Installation**

IMAGE 3A: Sectional Door LED Strip & Cable Raceway Installation
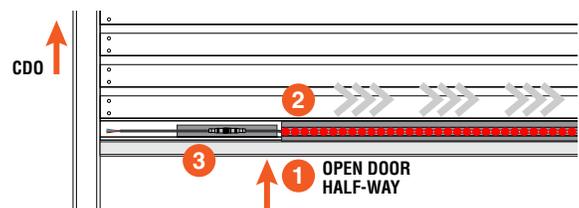

IMAGE 3B: Rolling Steel Door LED Strip & Cable Raceway Installation

II. Junction Box Installation and Wiring

1. **Identify these parts before beginning: PAGE 2**
   - (1) Junction box
   - (1) Straight cord grip
   - (1) 90° cord grip
   - (4) Wire nuts
   - (1) Coil cord

2. **Install the Junction Box**
   a. Remove the junction box lid.
   b. Remove the **end knockouts** in accordance with national and local electrical codes.
   c. Install the **90° Cord Grip** for the coil cord and the **Straight Cord Grip** for wiring the LED Strip and coil cord to the junction box.
   d. Mount the Junction Box to the door using appropriate fasteners (not provided):
      o **Sectional Doors:** Mount the junction box on the end stile. Position it approximately **3–6 inches above the LED Strip lead wire**, adjusting spacing as needed to allow coil cord clearance around door hardware. **IMAGE 4A → #1**
      o **Rolling Steel Doors:** Mount the junction box on the bottom bar, approximately **3–6 inches from the door guide**, adjusting spacing as needed for coil cord clearance around door hardware. **IMAGE 4B → #1**

3. **Connect the LED Strip to the Junction Box**
   a. Connect the LED Strip cable and LED Strip Extension Cable at the threaded connector. **IMAGE 4A / 4B → #2**
   b. Route the LED Strip cable through the Cable Raceway, placing the threaded connector within it and snapping the lid back on.
      o **Tip:** If the extra length of the 4-foot LED Strip Extension Cable is not needed, it can be cut to length.
   c. Strip the cable jacket back 0.75-in.
   d. Strip each wire back 0.25-in.
   e. Insert the cable through the **Straight Cord Grip** and tighten to secure. **IMAGE 4A / 4B → #2**

4. **Connect the Coil Cord to the Junction Box**
   a. Strip the Coil Cord jacket back 1-in, and each wire back 0.5-in. on **both ends** of the Coil Cord.
   b. Insert the coil cord through the **90° Cord Grip** and tighten it to secure. **IMAGE 4A / 4B → #2**

5. **Wire the LED Strip to the Coil Cord**
   a. Using the provided (4) Wire Nuts, connect wires according to **TABLE 1**.
   b. Ensure all wires are securely twisted and capped.
   c. Confirm both cord grips are tightened.
   d. Install the junction box lid using the provided (2) screws.
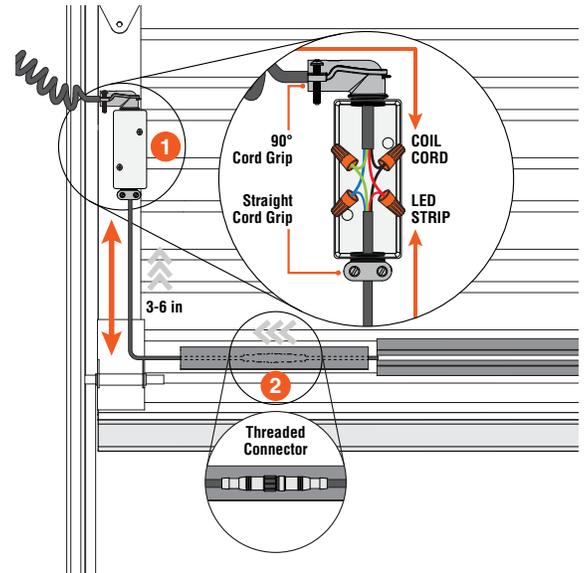
IMAGE 4A: Sectional Door Junction Box Placement & Wiring
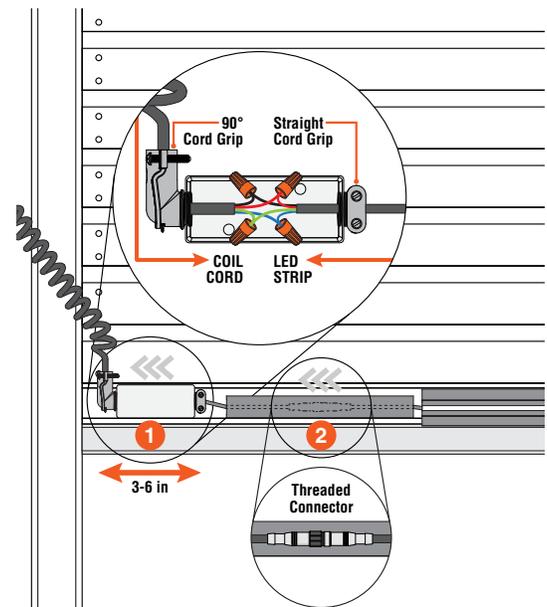
IMAGE 4B: Rolling Steel Door Junction Box Placement & Wiring

TABLE 1: Coil Cord → LED Strip Wiring

Coil Cord		LED Strip
● Blue	→←	Blue
● Green	→←	Green
● Red	→←	Red
● Black	→←	Black
○ Black/White Stripe (not used)	✖	-
○ White (not used)	✖	-

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III. Controller Box Installation

1. **Install the Controller Box** on the same side as the commercial operator approximately mid-door height. **IMAGE 4**
   a. Rotate the box 90° so the cord grips are facing toward the door.
   b. Mount the box to the wall using the corner mounting tabs and the appropriate fasteners (not provided). **IMAGE 5**
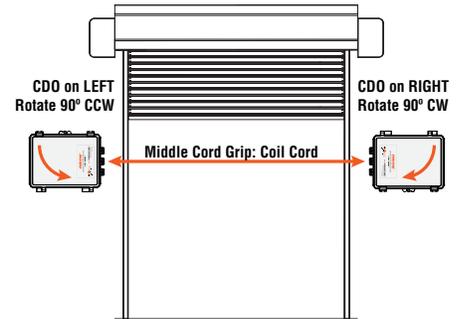
IV. Connect the Door LED Controller

1. **Identify these parts before beginning: PAGE 2**
   - CDO Signal Wire

2. **Open the lid of the Controller box.**

3. **Connect the Coil Cord to the Door LED Controller:**
   a. Insert the coil cord through the center cord grip on the Controller Box. **IMAGE 5**
   b. Remove the **right terminal block** labeled *Main LED Strip*.
   c. Loosen all terminal screws using the provided **3 mm Phillips/Flathead Screwdriver**.
   d. Connect each wire to the terminals according to **TABLE 2**.
   e. Tighten all terminal screws.
   f. Reinsert the terminal block.

4. **Connect the CDO Signal Wire to the Door LED Controller (most door operators):**
   a. Strip the supplied Signal Wire jacket back **1-in**, then strip each wire back **0.5-in**. **IMAGE 5**
   b. Perform this on **both ends** of the Signal Wire.
   c. Insert the Signal Wire through the **available cord grip**.
   d. Remove the **left terminal block** labeled *Door Operator*.
   e. Loosen all terminal screws using the provided **3 mm Phillips/Flathead Screwdriver**.
   f. Connect each wire to the terminals according to **TABLE 3**.
   g. Tighten terminal screws and reinsert the terminal block.
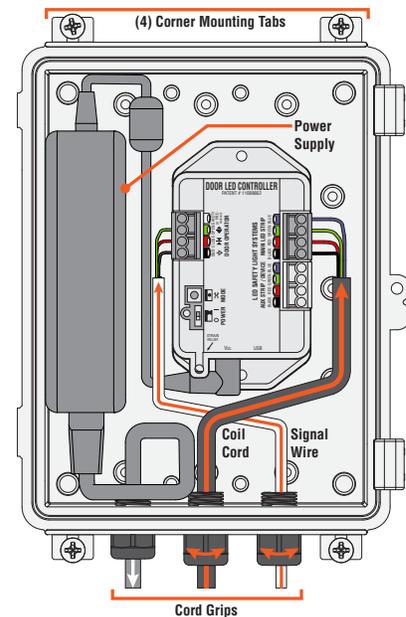   h. Tighten the Controller box cord grips.

5. **Connect the Controller Box to the power source. IMAGE 6**
   - Ensure the Door LED Controller is powered OFF before making any power supply connections.
   - Connect the Controller Box 24 VDC power supply to a 115-230 VAC power source.
     o **Note:** The included power supply cable has a grounded 3-prong plug for standard 115 VAC wall outlet connection. If wiring directly to a power source, the plug may be removed.
     o **Important:** All direct wiring must be performed by a qualified electrician and comply with national and local electrical codes.

IMAGE 4: Controller Box Orientation & Cord Grip Asignment (not to scale)

IMAGE 5: Controller Box Wiring

TABLE 2: Coil Cord → Door LED Controller Wiring
Terminal Location: Top-Right *"Main LED Strip"*

Coil Cord		Terminal Position
● Blue	→	● Blue
● Green	→	● Green
● Red	→	● Red
● Black	→	● Black

TABLE 3: Signal Wire → Door LED Controller Wiring
Terminal Location: Left *"Door Operator"*

Signal Wire		Terminal Position
● Green	→	Open
● Red	→	Close
● Black	→	Ground
○ White (not used)	✖	-
● Yellow (not used)	✖	-
● Blue (not used)	✖	-

V. Connect the Door LED Controller to the Commercial Door Operator (CDO)

1. **Route the CDO Signal Wire along a fixed surface and secure it to prevent interference with moving door components.** IMAGE 6

2. **Connect the CDO Signal Wire to the operator input according to the brand-specific wiring diagrams:**
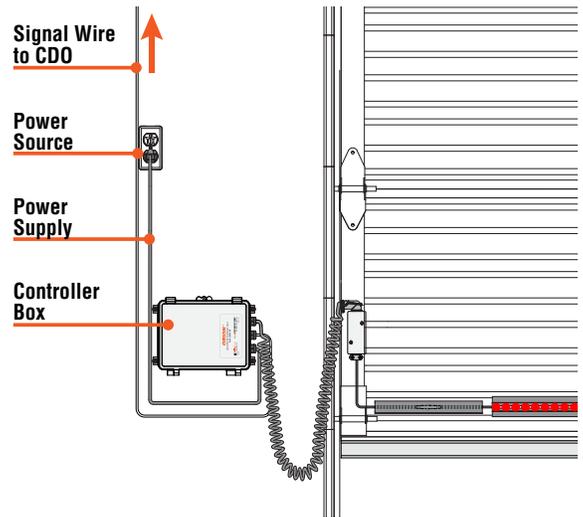

Signal Wire to CDO

Power Source

Power Supply

Controller Box

IMAGE 6: Controller Box Wiring

Manaras Opera CDO Wiring Schematic

With both the commercial door operator (CDO) and the Door LED Controller powered OFF, connect the Operator Signal Wire to the commercial door operator as shown in the diagram.

SIGNAL WIRE	DOOR LED CONTROLLER		CDO
● Green	OPEN	←→	OPEN L/S (NO)
● Red	CLOSE	←→	CLOSE L/S (NO)
● Black	GND	←→	3: COM

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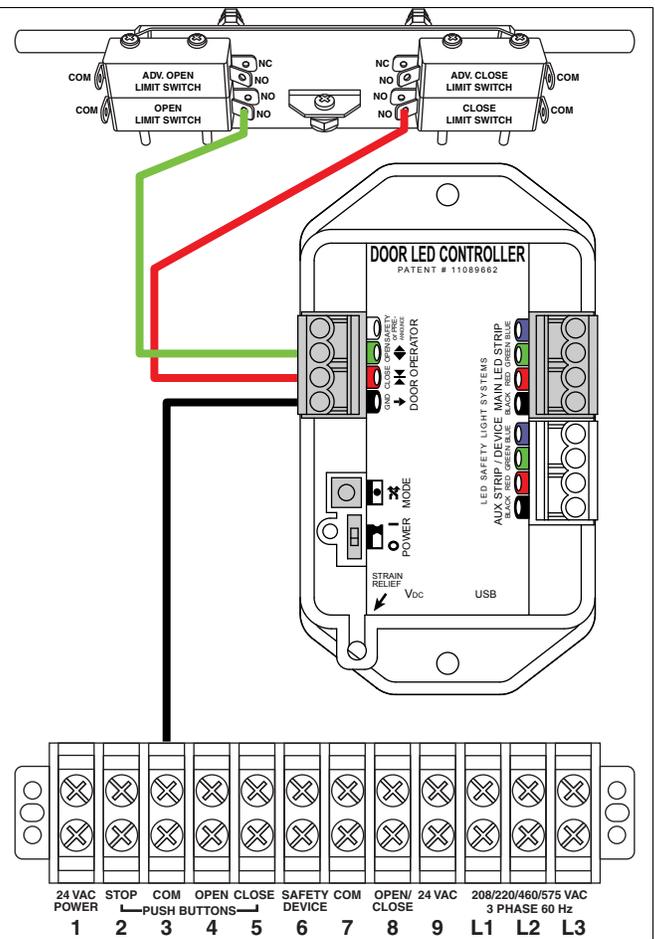
Overhead Door RSX CDO Wiring Schematic

Note: This Overhead Door model CDO requires use of the OHD-brand **Auxiliary Output Module (AOM)**.

With both the commercial door operator (CDO) and the Door LED Controller powered OFF, connect the Operator Signal Wire to the commercial door operator as shown in the diagram.

SIGNAL WIRE	DOOR LED CONTROLLER		CDO	AOM
● Green	OPEN	↔		N.O. UP2
● Red	CLOSE	↔		N.O. DN2
● Black	GND	↔	GND	UP2 + DN2

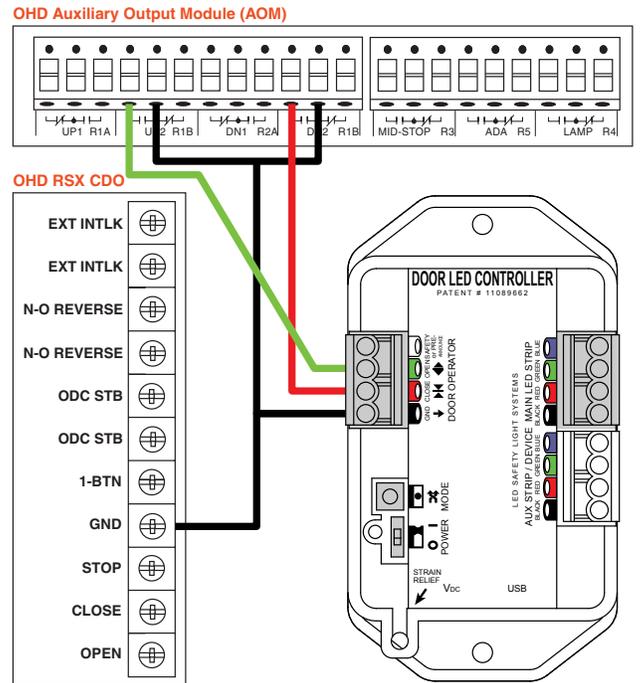## LiftMaster Logic 4/5 CDO Wiring Schematic

With both the commercial door operator (CDO) and the Door LED Controller powered OFF, connect the Operator Signal Wire to the commercial door operator as shown in the diagram.
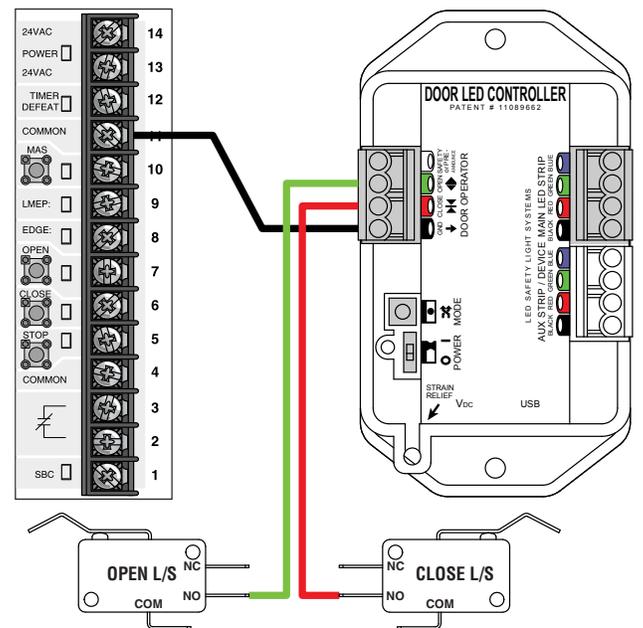
SIGNAL WIRE	DOOR LED CONTROLLER		CDO
● Green	OPEN	↔	OPEN L/S (NO)
● Red	CLOSE	↔	CLOSE L/S (NO)
● Black	GND	↔	11: COMMON

3. **If the commercial door operator is not listed, follow the QR Code for more brand-specific wiring diagrams.**

   Note: Refer to the commercial door operator manufacturer's manual for brand-specific input requirements.

More brand-specific CDO wiring diagrams:

https://www.brinkalert.com/door-schematics

4. After wiring the CDO Signal Wire from the LED Door Controller to the operator, ensure all connections are secure.

5. Apply power to:
   - The commercial door operator
   - The LED Door Controller

6. **Test the LED Strip:**
   a. Move the power switch on the Door LED Controller to **ON** and observe the proper LED Door Controller Indicator Function. TABLE 4
   b. Open and close the door and observe proper function of the LED Light Strip. TABLE 5

7. When the testing confirms normal function, the Orion LED Alert System is operational.

TABLE 4: Normal Function of the LED Door Controller Indicators

LED Indicator	Door Action	Pattern
● Red	Closed	Solid (constant)
● White	In motion	Solid (constant)
● Green	Open	Solid (constant)

TABLE 5: Normal Function of the LED Strip

LED Strip Color	Door Action	Pattern
● Green	Opened	Solid (constant)
● Red	In motion	Flashing
● Red	Closed	Solid (constant)

VI. Troubleshooting

1. **Issue:** Lights do not turn on
   Diagnosis: Power supply problems
   Possible Solutions:
   - Verify the LED Controller. Is the amber LED illuminated?
   - Check power wiring at the operator's power source. Trace the wire from the LED Controller and confirm power.
   - Inspect **terminal blocks:**
     o Ensure wires are fully secured and pressed in vertically.
     o Screws should face outward.
     o Match wire colors to the labels on the Door LED Controller cover.
   - Confirm the **LED Strip** connector is mating the **with the 4-ft. LED extension cable** connector. Inspect pins inside the connector for proper alignment.

2. **Issue:** Lights do not change colors or keep flashing red
   Diagnosis: Signal wire problems
   Possible Solutions:
   - Check for disconnected signal wiring.
   - Use a multimeter to verify signal types for fully open and fully closed positions. Refer to the operator-specific wiring schematics to confirm the connections are correct.
   - Ensure the Door LED Controller is properly grounded to the same Ground used by the operator.
   - Consider a potential programming issue with the LED Controller and contact Tech Support, if needed.

VII. Tech Support

- **For support with installing the LED Light Strip**, contact **Miller Edge** at 800-220-3343, option 3.
- **For support with connecting or programming the LED Door Controller**, contact **Brink Alert** at 786-339-9840.

VIII. General Specifications

LED STRIP		
Brightness	Red: 532 lm/m	Green: 2,392 lm/m
Signaling	Door Opened: Solid green (constant) Door Opening: Flashing red	Door Closed: Solid red (constant) Door Closing: Flashing red
Lifespan	44,000 hours	

PERFORMANCE		
Activation	Hardwired to the commercial door operator through the Door LED Controller	
Operating Temperature	-30° to +140°F (-34° to 60°C)	

ELECTRICAL	
Power Source	115–230V AC wall supply; LED strip operates at 24V DC

| PHYSICAL		
Dimensions	Controller box: 7 W x 9.5 H x 4 D-in. (178 x 241 x 102 mm)	LED strip length by model: - LED-ORION-24-K8: 8-ft. 4-in. (2.54 m) - LED-ORION-24-K10: 9-ft. 8-in. (2.95 m) - LED-ORION-24-K12: 11-ft. 8-in. (3.56 m) - LED-ORION-24-K14: 14-ft. 0-in. (4.27 m)
Cable Lengths	LED strip cable: 1-ft. (0.3 m) LED strip extension cable: 4-ft. (2.4 m)	CDO signal cable: 20-ft. (6.1 m) Power supply cable: 3-ft. (0.9 m)
Weights (door mounted components)	Universal mounting channel: 9.2 oz./piece Rolling steel door channel clip: 5.2 oz./piece LED strip: 0.9 oz./ft.	Raceway: 1.9 oz. Junction box and components: 7.3 oz. Coil cord: 15.25 oz.
Materials	LED Strip: UV protected silicone sheath	Mounting Channels: High density rigid PVC
Controller LED Indicators	Door Opened: Solid green (constant) Door Opening: Solid white (constant)	Door Closed: Solid red (constant) Door Closing: Solid white (constant)
Mounting	Sectional doors: Universal mounting channel surface mounted with appropriate fasteners	Rolling steel doors: Universal mounting channel + rolling door channel clips
Degree of Protection	LED strip: IP67	Controller box: NEMA 4

IX. Maintenance

It is strongly recommended that users check their **Orion (LED-ORION)** at least once per month for proper function of the LED Strip and damage to housings and mountings. Also check for signs of damage to cables or connection points. Refer to your operator manual for detailed instructions about motor connections.

X. Warranty

Orion (LED-ORION) carries a **2-year warranty** from date of shipment from Miller Edge for credit or replacement. This warranty applies to normal use, which is found to have defective materials or workmanship, as determined solely by an authorized factory representative. This warranty is void where evidence of misuse or abuse is present. This warranty covers repair or replacement of the purchased product only; product installation/labor charges are not covered. Miller Edge manufactures its products to meet stringent specifications and cannot assume responsibility for those consequences arising from improper installation or misuse. Installation instructions and testing procedures provided by Miller Edge must be followed for proper operation and maintenance.

XI. Accessories

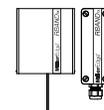Contact your Miller Edge sales representative for accessories:
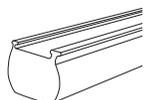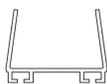
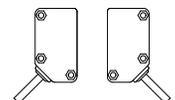**Sensing Edges**   **Mounting Channels**   **Junction Boxes**   **Coil Cords**   **Wireless Systems**   **Photo Optics**