

Electrified Locks, Relays and Timers

## CX-WC17 Series Restroom Kit

### INSTALLATION INSTRUCTIONS

#### THIS PACKAGE INCLUDES:

<b>Column™ Switches:</b>	<b>CX-33 Logic Relay:</b>
1 - CM-7536/4-LED V2 Column™ Switch	1 - CX-33 Relay
1 - CM-7536/8B-LED V2 Column™ Switch	1 - 1-1/2" x 1-1/2" Velcro
1 - CM-7536/4 V2 Column™ Switch	1 - Resistor
12 - #14 x 1-1/2" Self Tapping Screws	1 - Surface Mounting Contact
12 - Anchors	1 - WC 7" x 5" Sign
12 - Concrete Anchors	1 - "Occupied When Red" Sign
12 - 1/4-20 x 1" S/S Pan HD PH Screws	1 - "Locked When Red" Sign
6 - Wire Nuts	4 - Foam Tape
3 - Jumpers	



#### 1. GENERAL DESCRIPTION

The all-new Camden CX-WC17 Restroom Control Kit allows access in and out of a restroom with the ability to secure the door once inside. The Kit consists of Column™ Switches that provide built-in annunciation with LED illumination.

The CX-WC17 Restroom Control Kit is controlled by Camden's CX-33 advanced relay logic controller (designed to support virtually any automatic door application).

#### Operation at a Glance

The CX-WC17 has two modes: **Mode 7** and **Mode 8**.

**Mode 7 "Normally Unlocked" condition:** When the exterior PUSH to OPEN Column™ Switch is pressed, it triggers the door operator to open the door.

**Mode 8 "Normally Locked" condition:** Where entry to the restroom is accomplished by a Keyswitch, Keypad, Prox Reader, or other secure means. The exterior PUSH TO OPEN Column™ Switch is still utilized, but in this mode it is to be wired in series with the limited access device mentioned above.

Inside the restroom once the door closes, if the PUSH to LOCK Column™ Switch is pressed, it keeps the door locked and disables the exterior PUSH to OPEN column switch. The LED light on the Column™ Switch turns red, indicating the restroom is occupied. The user can either press the PUSH to UNLOCK Column™ Switch as they exit the restroom. The LED light on the Column™ Switch turns green, indicating the restroom is now available to be used.

**Note:** While exiting, the user can also use the lever handle to open the door; in this case, the system will reset to its initial condition (Mode 7 or Mode 8), and the red light will turn green, allowing other users to use the restroom.

#### 2. SPECIFICATIONS

Model	CM-7536/4, 7536/4/8B-LED V2
Contact Rating	15 Amp @ 30 VDC
Contacts	2 x SPST momentary Contact Switch (Form C), UL Listed
LED Current Rating	≤ 20mA @ 12 to 24 VDC
Construction	Heavy duty extruded aluminum
Finish	Anodized clear, black, blue, dark bronze
Mounting	4 x #14 wood screws with anchors or 1/4"-20 S/S machine screws
Actuator Width	3" (76mm)
Dimensions (overall)	37-1/2" H x 5-7/8" W x 1-1/2" D (955mm x 150mm x 38mm)

Model	CX-33
Operating Voltage	12/24 Volts, AC/DC
Current Draw	105 mA standby, 320 mA max.
Operating Temperature	Operating: - 30° C to 85° C (- 22° F to 185° F)
Display	Blue multi-segment LED
Programming	MENU, UP & DOWN buttons
Inputs	(4) Dry, (1) Wet 4.5V to 120V AC/DC, Non-Polarity Optically Isolated, non-polarity sensitive)
Response Time	0.5 seconds
Relay Output	3 x Form 'C' (SPDT)
Relay Contact Rating	3 Amps @ 24V DC
Time Delay	Hold 1 Timer: 0 to 50 seconds Delay 1 Timer: 0 to 15 seconds Hold 2 Timer: 0 to 50 seconds Delay 2 Timer: 0 to 60 seconds Hold 3 Timer: 0 to 50 seconds Delay on Activate: 0 to 10 seconds
Dimensions	2" H x 6" W x 7/8" D (51mm x 152mm x 22mm)

#### 3. CX-33 MOUNTING, WIRING & MODE SELECTION

**IMPORTANT:** Do not apply power to the unit until you have fully read the instructions and have made the required adjustments.

The CX-WC17 Restroom Control Kit includes the CX-33 Advanced Logic Relay. A complete wiring diagram is included in this manual.

#### Mounting

The CX-33 should be mounted in a clean dry location out of direct contact with the elements. The Display & LEDs are visible through the clear plastic case, and cut-outs for programming buttons and terminal strips. Once wired and adjusted, the unit can be tucked into the operator header or secured using the supplied velcro or screws.

#### Wiring

Refer to the complete wiring diagrams included in this manual.

There are two terminal strips on the CX-33. The left strip is used for power to the CX-33, the PUSH TO OPEN and PUSH TO LOCK column switches, the door position switch, and the Wet trigger. The right strip is for the outputs to drive the strike (Relay 1), door operator (Relay 2), LED illumination (Relay3), and to provide VDC power for the door strike.

Once all field devices are wired to the CX-WC17 then AC power can be wired in.

**IMPORTANT:** Confirm the electrical panels breaker you are going to be using is currently off. Do not wire the primary terminals of the transformer until the secondary terminals are connected first.

#### Mode Selection

Mode selection depends on the user requirements:

- If the user wants the restroom unlocked during the idle state, use Mode 7.
- If the user wants the restroom locked during the idle state, use Mode 8. Additional contact block for Mode 8 - Fail Secure is not included; order Part Number 60-66C000.

**Note:** The default mode for the CX-WC17 is Mode 7 (**normally unlocked**).

There are three LED displays on the CX-33 that allow you to see what mode you have selected when advancing through the modes. To change the mode, press the MENU button once and use the UP button to advance to the desired mode.

### Mode Editing

Camden builds in typical times for lock release and door operator activation, and is ready to use without changing any parameters. If you need to change the timing or delay for an output, press the MENU button within the mode you selected on the CX-33. Once the option is selected, you can use the UP or DOWN buttons to select the timing needed. The first option (H & 1 flashing) will be how long relay 1 will be activated for (0-50 seconds). The second option (d & 1 flashing) will be how long to wait before activating relay 2 (0-15 seconds). The third option (H & 2 flashing) will be how long relay 2 will be activated for (0-50 seconds). The fourth option (d & 2 flashing) will be how long to wait before activating relay 3 (0-15 seconds). The fifth option (H & 3 flashing) will be how long relay 3 will be activated for (0-50 seconds). See the Table 3.1 on the following page.

### Factory Reset (Defaulting the CX-33)

To return the CX-33 back to its factory default settings, you must remove the power, then hold down the MENU button while powering up the CX-33. Once started, you will see the firmware version listed, and number "1" will be displayed. Reconnect your power and press the MENU button once, then use the UP or DOWN button to advance to the desired mode. For proper functionality, fully test the operation of the CX-WC17.

Table 3.1 Adjusting the Settings in CX-33

Display (M)	Description (Mode you are in)	Parameters (1-15)
H, then 1	Relay 1 Hold Time	0.0 to 50 seconds
d, then 1	Relay 2 Delay Time	0.0 to 15 seconds
H, then 2	Relay 2 Hold Time	0.0 to 50 seconds
d, then 2	Relay 3 Delay Time	Depends on Mode
H, then 3	Relay 3 Hold Time	0.0 to 50 seconds
d	Sets the display ON or OFF during operating mode	ON or OFF
A	Input delay on Activate. If other than 0.0 is selected, the input must be held in for the time period chosen before the CX-33 will activate.	0.0 to 10 seconds
1	Set Dry Input 1 to activate on normally open or normally closed contact.	N/O OR N/C
2	Set Dry Input 2 to activate on normally open or normally closed contact.	N/O OR N/C
3	Set Dry Input 3 to activate on normally open or normally closed contact.	N/O OR N/C
4	Set Dry Input 4 to activate on normally open or normally closed contact.	N/O OR N/C
5	Set Wet Input 5 to activate when voltage applied or removed. N/O: voltage applied to activate; N/C: voltage removed to activate.	N/O OR N/C

### 4. CM-7536-LED V2 COLUMN™ SWITCH INSTALLATION

Code Requirements: If installed according to these instructions the CM-7536-LED V2 Column™ Switch will meet the requirements of the California Building Code (Section 1117B.6, Date: 2009), and Section 3.8.3.3.17(b) of the Ontario Building Code.

CM-7536-LED V2 complies with the National Building Code of Canada reference to CSA Regulation 5.2.9.3 (c) ii.

The CM-7536-LED V2 Hands-Free Column™ switch is a VDC device only and will accept a range of VDC power from 12VDC to 24VDC (+/- 10%). Do not connect AC voltage to the CM-7536-LED V2 Hands-Free Column™ Switch at any time.

### Installation Steps:

1. Unpack the pre-assembled unit from the box. To mount the switch, it is required to disassemble a few components. Firstly, remove two screws holding the top End Cap in place. Once both screws are removed, take out the cap.
2. Carefully pull out the Actuation Bar and place it aside to prevent any surface damage. (See Figure 4.1)
3. Determine/mark the optimum height and mounting location from the finished floor to mount the Column™ Switch. (See Figure 4.2 and 4.3)  
We recommend drilling a 3/4" Ø hole along the Guide Channels at the upper end of the Base between 8" and 12" from the top of the Column™ Switch. You may drill a different size that matches your in-wall wiring, this hole location must align with the wires from the wall or in-wall electrical box.
4. Center the Switch over the box for wire connection, while lining up the top edge with your mark (If installing through an in-wall electrical box), drill a Ø 0.25" hole for wire connection (If installing without an in-wall electrical box).
5. Using a level tool, ensure the base unit is perfectly leveled and mark 4 mounting locations through the adjustable nylon inset screws onto the wall surface (if mounting on drywall, use a pencil, and if mounting on concrete wall, use a narrow sharp object for marking).
6. a. Drill the wall at the four marked locations and insert the appropriate wall or concrete anchors provided for the #14 screws.  
b. If mounting the Column™ Switch on an aluminium post or framing section, drill and tap four holes for 1/4"-20 stainless steel machine screws (also provided).
7. a. **If hardwiring:**  
Use the supplied wire nuts to connect wires. Push excess wires in the back and ensure cables are not exposed to the moving parts of the Switch, or pinched between the back of the base unit and wall surface.  
Four nylon inset screws may be turned in or out to help plump up and adjust the Column™ Switch for wall irregularities. Check with a level. When satisfied, install and tighten the four mounting screws.

#### b. If using Lazerpoint RF:

The cap includes a snap-in compartment for our TX-9 transmitter. Place transmitter in the cap, with the wires hanging down and to the front of the cap. Using the supplied wire nuts, connect the two activating wires to the Column™ Switch lead wires. Slide the battery and the extra wiring into the center (rear) channel provided. Do not slide all of the wire into the channel, so that the cap can hang off to one side while you perform the next step. (See Figure 4.4)

Using the supplied wire nuts, connect the two activating wires to the Column™ Switch lead wires. Then, slide the battery and the extra wiring into the center (rear) channel provided. Do not slide all of the wire into the channel, so that the cap can hang off to one side while you perform the next step.

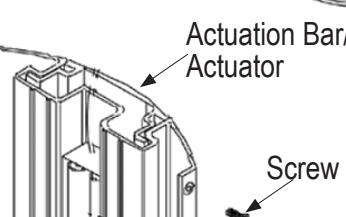
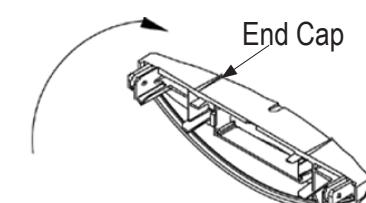


Figure 4.1 End Cap Removal

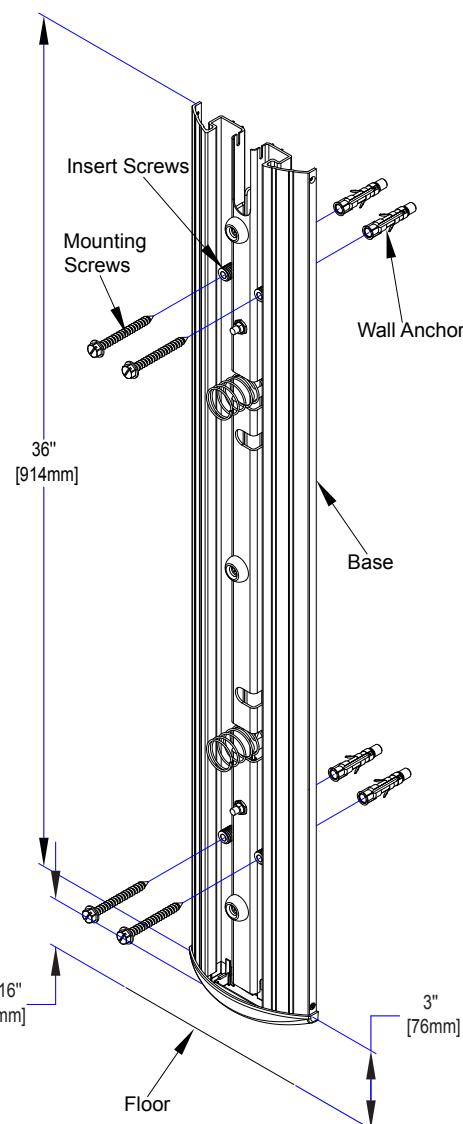


Figure 4.2 Mounting of Base Unit

c. **If using Kinetic RF:** The CM-7536K uses 2 Kinetic RF switches installed near the top and the bottom of the actuator. When pairing this switch with a Kinetic receiver, you must pair both the top and the bottom switches. The pairing of Camden Kinetic transmitters is detailed in the CM-RX90v2 installation manual. (See Figure 4.5)

d. **If using other RF:** Using the supplied wire nuts, make your wire connections to the RF transmitter and tuck the transmitter and excess wire into the back box (or wall cavity). Ensure cable is not exposed to the moving parts of the switch, or pinched between the back of the base unit and the surface of the wall.

8. Reassemble the (center) actuation bar into base unit. This is done by holding the hanger (located at the top center) vertically 'up' – then carefully sliding actuation bar down the length of the base unit, being careful not to bend or break the springs or internal switches.

When the bottom edge of the actuation bar reaches the height of the springs, use your free hand to tuck in the spring and switches under the actuation bar as it slides over them. When

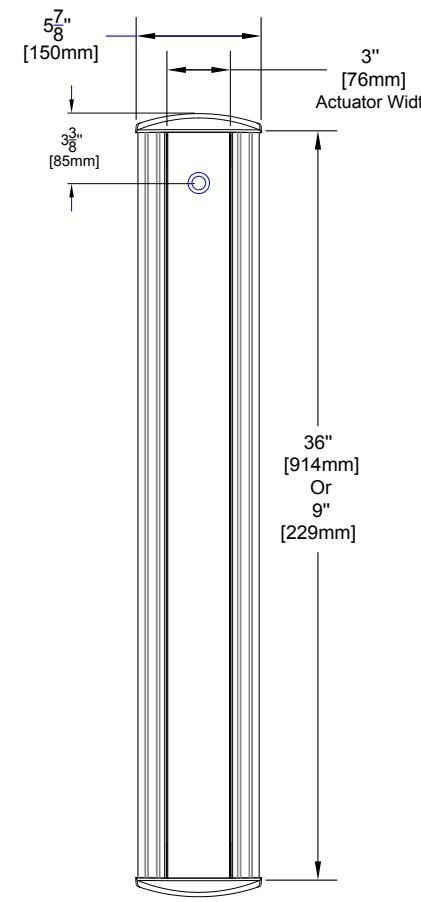


Figure 4.3 Dimensions

activation bar is approx 2" from bottom, position hanger so it falls into the slots provided at the top of the base unit. Slide actuation bar down until it rests on the hanger. Actuation bar should now move freely within the base unit. Test the operation of the switch before mounting the cap.

**Note:** Make sure the hanger sits perfectly into the slot while placing the actuation bar back.

9. When satisfied with the switch operation, place the End Cap back to top and secure with the two self-tapping screws.

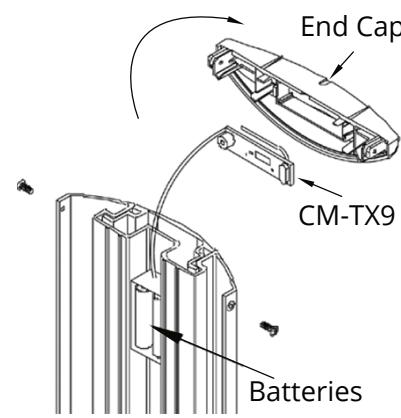


Figure 4.4 Wire Hanger/ End Cap

**IMPORTANT:** When sliding the actuator bar down into the base assembly you must take care not to snag the springs or switches. You will need to depress the springs or switches slightly as you slowly slide bar past them.

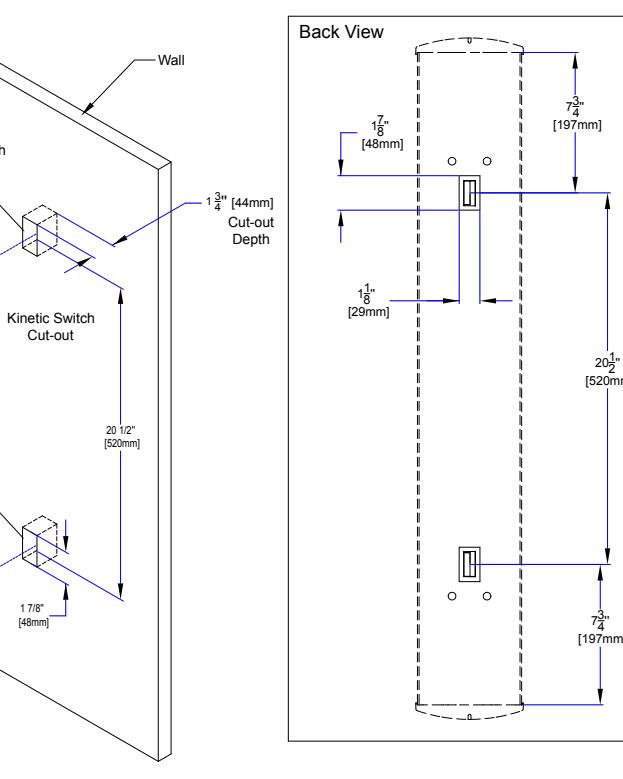
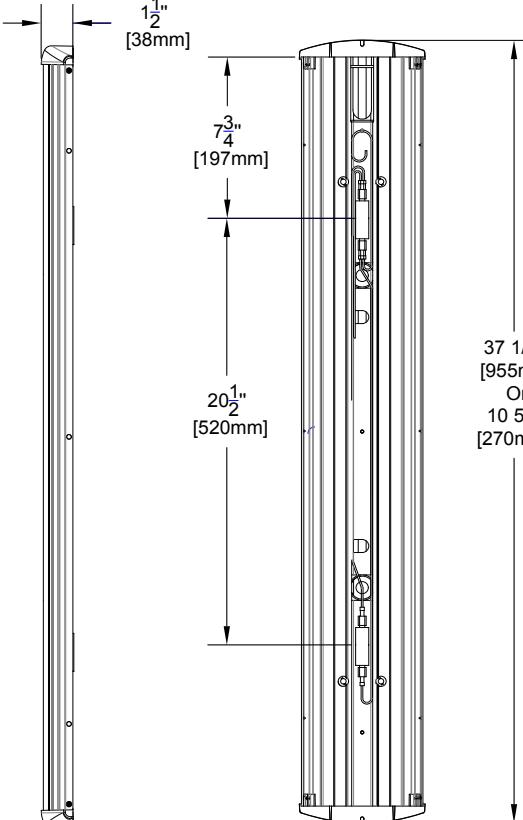


Figure 4.5 Kinetic Wall Mounting

## 5. FCC COMPLIANCE INFORMATION

### (If using Kinetic by Camden™)

#### FCC ID: 2A4GFAGIM5002

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference, and
2. This device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 5 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

**Caution:** Changes or modifications not expressly approved by manufacturer could void the user's authority to operate the equipment.

#### IC: 1105A-AFIM5002

This device complies with Industry Canada licence-exempt RSS standards. Operation is subject to the following two conditions:

1. This device may not cause interference, and
2. This device must accept any interference, including interference that may cause undesired operation of the device.

## 7. ORDERING INFORMATION FOR PART REPLACEMENT

PART NUMBER	DESCRIPTION
CX-33	Advanced Logic Control Relay
CX-MDA	Magnetic Door Contact
CX-ED2079	Grade 2 Universal Electric Strike
CM-7536/4-LED	36" Column "Push To Open" Switch V2
CM-7536/8B-LED	36" Column "Push To Lock" Switch V2
CM-7536/4	36" Column "Push To Open" Switch V2

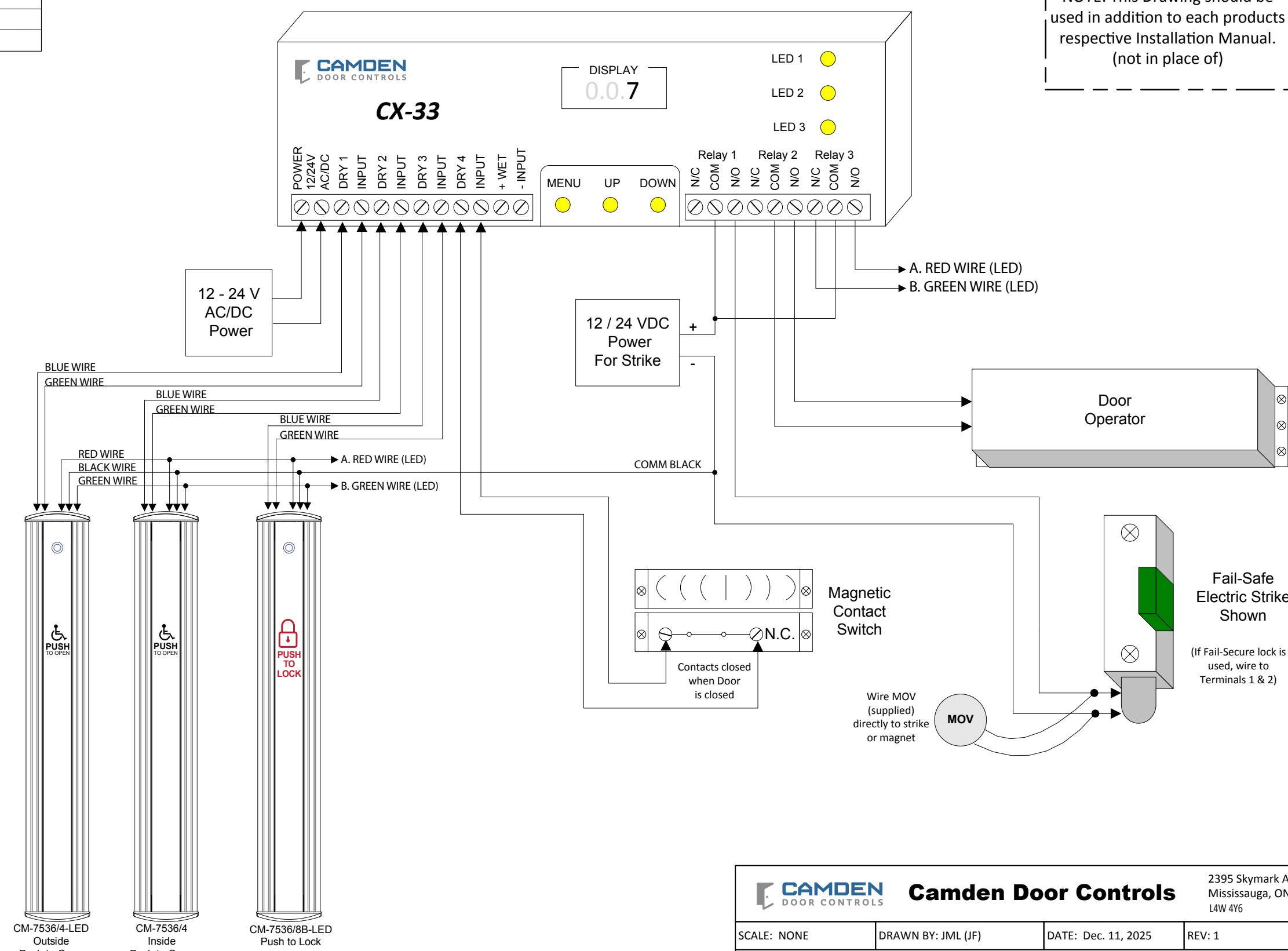
Notes:

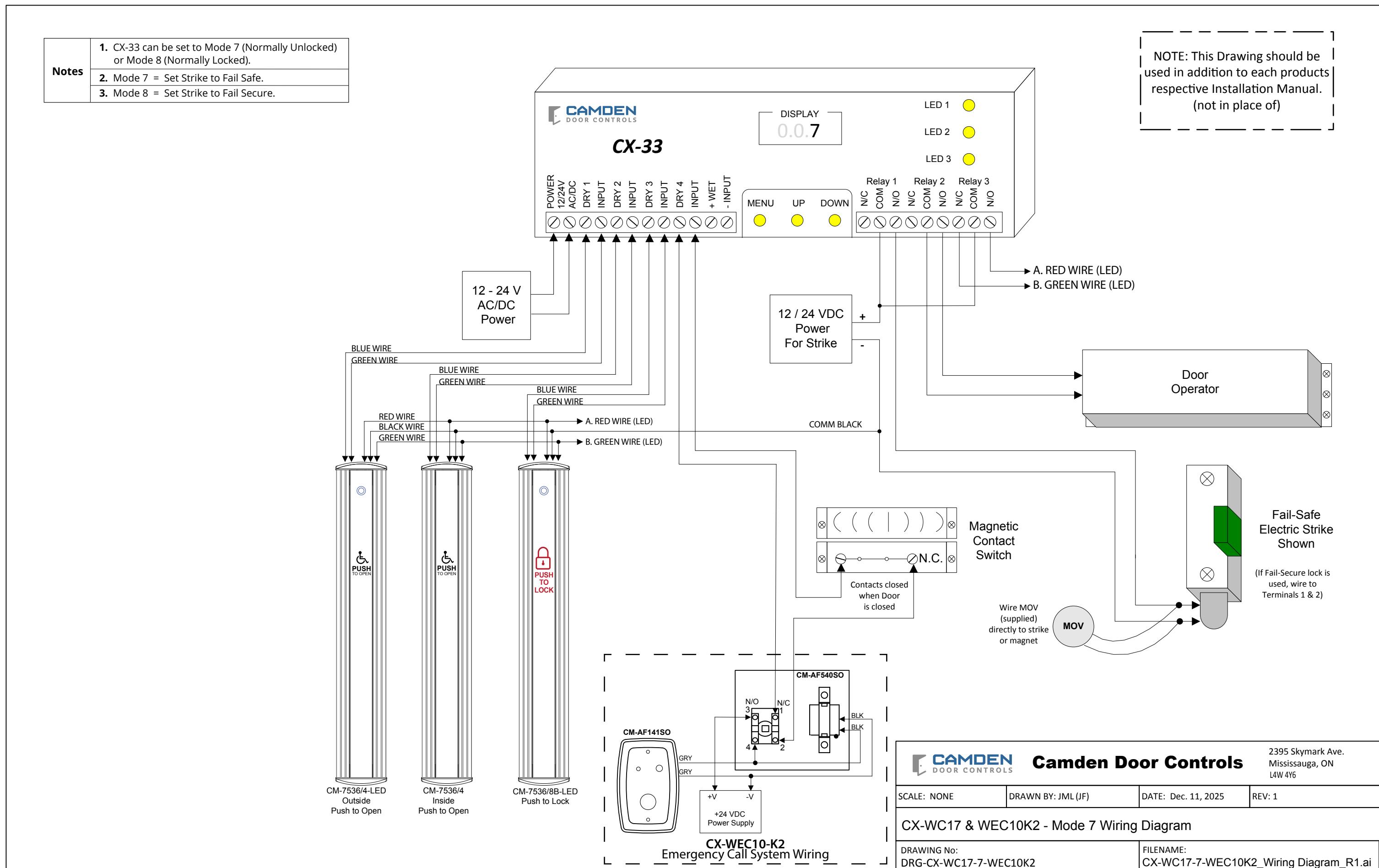
- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.
- 9.
- 10.
- 11.
- 12.
- 13.
- 14.
- 15.
- 16.
- 17.
- 18.
- 19.
- 20.
- 21.
- 22.
- 23.
- 24.
- 25.
- 26.

**Questions? Call us toll-free at 1-877-226-3369 or technical support 905-366-3377 (ext. 505)**

<b>Notes</b>	1. CX-33 can be set to Mode 7 (Normally Unlocked) or Mode 8 (Normally Locked).
	2. Mode 7 = Set Strike to Fail Safe.
	3. Mode 8 = Set Strike to Fail Secure.

NOTE: This Drawing should be used in addition to each products respective Installation Manual. (not in place of)





Notes	1. CX-33 can be set to Mode 7 (Normally Unlocked) or Mode 8 (Normally Locked). 2. Mode 7 = Set Strike to Fail Safe. 3. Mode 8 = Set Strike to Fail Secure.
-------	--

NOTE: This Drawing should be used in addition to each products respective Installation Manual. (not in place of)

