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CAMDEN WC17PS Series
Restroom Control

CAMDEN WC17PS Series Restroom Control Installation Guide

Contents

CAMDEN WC17PS Series Restroom Control

Electrified Locks, Relays and Timers

WC17PS Series Restroom Control

INSTALLATION INSTRUCTIONS

GENERAL DESCRIPTION

- The CX-WC17PS Restroom Control Kit allows access in and out of a restroom with the ability to secure the door once inside. The Kit also provides annunciation by including an Occupied light. The designation of "PS" in the part number reflects that this kit now comes pre-wired in a metal enclosure with a power supply which is ready to accept all field wiring.

- The CX-WC17PS Restroom Control Kit is controlled by Camden's advanced relay logic controller CX-33. The CX-WC17PS has two modes. One is Mode 7 for a normally unlocked restroom and the other is Mode 8 for a normally locked restroom. In Mode 7 when the exterior PUSH to OPEN column switch is pressed it will trigger the door operator to open the door. In Mode 8 when the exterior PUSH to OPEN column switch is pressed it will unlock the strike and trigger the door operator to open the door. Once in the restroom and the PUSH to LOCK column switch is pressed, it will keep the door locked in either mode, and disable the exterior PUSH to OPEN column switch, as well as, providing annunciation with an Occupied light. When exiting the restroom, you can either press the inside PUSH to OPEN column switch to unlock the door and open the door or you can push the crash bar, paddle or turn the knobset to break the door contact circuit, which will also unlock the door and reset the system. The Occupied light will turn off, signaling the restroom is available.

INSTALLATION

Operation at a Glance
When the exterior PUSH TO OPEN column switch is pressed it will send a momentary closure to the outside PUSH TO OPEN terminal on the CX-WC17PS allowing the door to swing open. When the interior PUSH TO LOCK

column switch is pressed it will send a momentary closure to the to inside PUSH TO LOCK terminal on the CX-WC17PS causing it to lock the restroom and turn on the Occupied light. When the inside PUSH TO OPEN column switch is pressed it will send a momentary closure to the inside PUSH TO OPEN terminal on the CX-WC17PS causing it to unlock the door and open it. The Occupied light will now turn off signalling the restroom is now vacant. The restroom can also be unlocked by opening the door from the inside which will break the door contact circuit causing the CX-WC17PS to reset and unlock the door.

Mounting

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

The CX-WC17PS cabinet should be mounted in a clean dry location out of direct contact with the elements.

Wiring the CX-WC17PS Series Restroom
Control Kit is as follows

- The CX-WC17PS comes from Camden with the CX-33 pre-wired to a labeled set of two terminal strips. This will make the wiring of the push buttons easier since the wiring manual will no longer need to be directly referenced for termination points. A complete wiring diagram is adhered to the inside of the door to provide a layout of the wiring as a reference when wiring the field devices to the kit.

- There are two terminal strips that mirror the locations on the CX-33. The left strip is used for power to the CX-33, the PUSH TO OPEN and PUSH TO LOCK column switch, 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), Occupied light (Relay3), and to provide VDC power for the door strike.

- Once all field devices are wired to the CX-WC17PS 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.

The supplied CX-TRX-5024 transformer will have its secondary terminals wired to the terminals on the top of the left terminal strip marked as "AC". Next, wire the primary terminals to the AC feed to be used. Confirm your connections and apply power by turning on the electrical panels breaker.

Selecting a Mode
The CX-WC17PS has two restroom applications built in (Mode 7 & 8). The default mode for the CX-WC17PS is Mode 7 (normally unlocked).
Determining which mode is correct for you will be based on whether the restroom will be normally unlocked (Mode 7) or normally locked (Mode 8).

There are three LED displays that will allow you to see what mode you have selected when advancing through the modes. To change the mode of the CX-WC17PS simply press the MENU button once and use the UP button to advance to the desired mode.

Editing the Settings for a Mode
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, it can be done by pressing the "MENU" button within the mode you selected. 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 chart below.

Factory Reset (Defaulting the CX-33)
To return the CX-33 back to its factory default settings you will need to remove power, then hold down the "MENU" button while powering up the CX-33. Once started you will see the firmware version listed then a 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.
Fully test the operation of the CX-WC11PS for proper

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 1	Relay 2 Hold Time	0.0 to 50 seconds
d, then 1	Relay 3 Delay Time	Depends on Mode
H, then 1	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 Dry Input 5 to activate on normally open or normally closed contact.	N/O OR N/C

CM-AF503 MOUNT INSTALLATION

Flush Mount Installation
With the back box already roughed-in, position the CM-AF503 so that the holes on the faceplate line-up with the screw holes on the back box and tighten with supplied #6-32 screws securely in place and completely tighten the #6-32 screws in place.
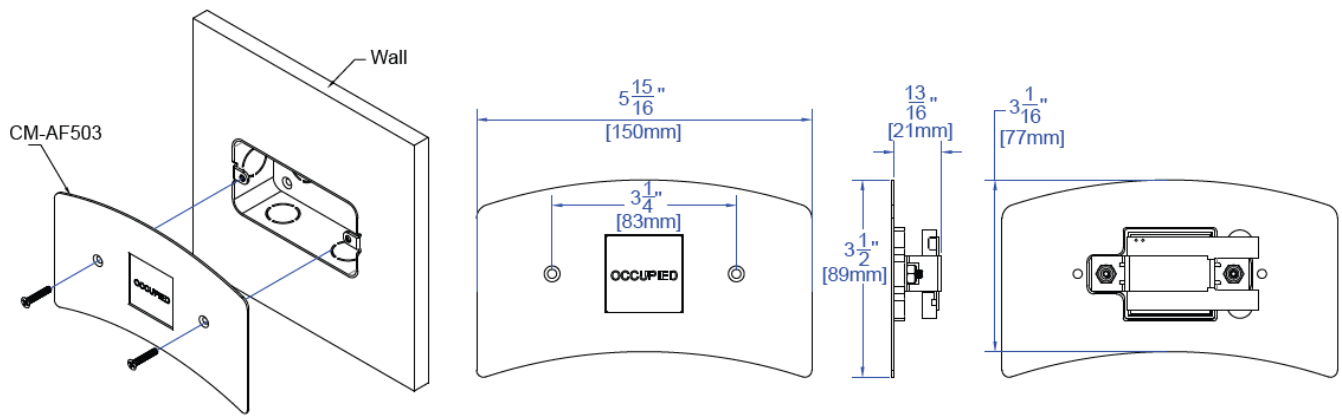
CM-7536 MOUNT INSTALLATION

Code Requirements: If installed according to these instructions the CM-7536 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.
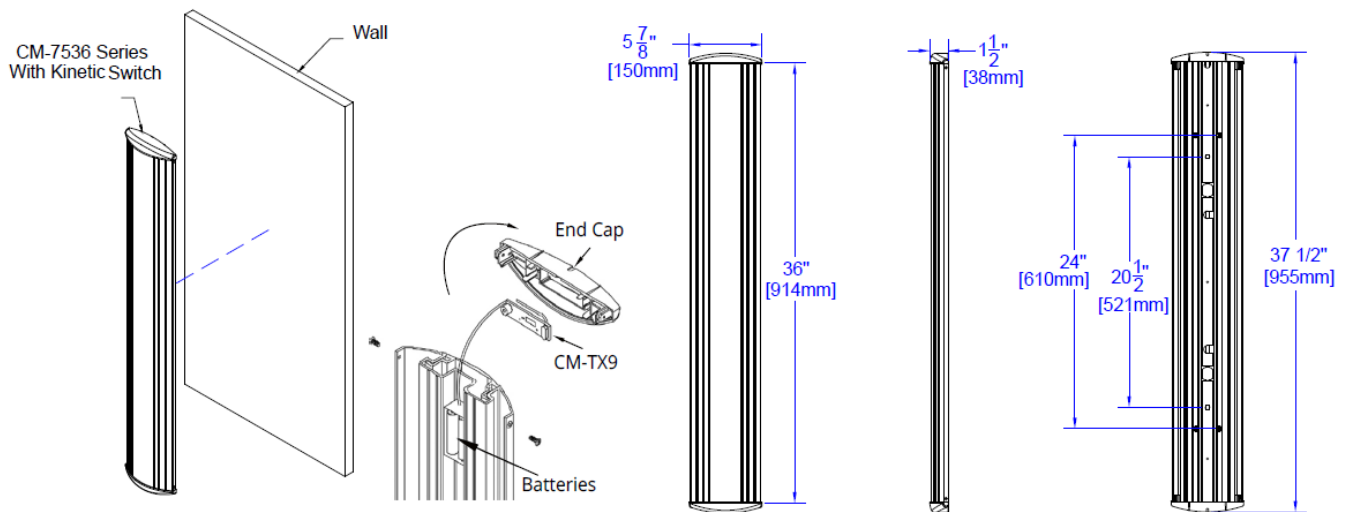
Installation Steps

1. Remove the assembled unit from packaging. The unit must be disassembled to be installed. To do this, remove the two small Phillips screws holding the top cap in place.
   Remove the cap. Then, grasping the center (metal) actuation bar, pull vertically until the entire actuation bar is removed from the base unit. Set the actuation bar aside and protect from surface damage.

2. Determine the optimum height from the finished floor. See illustration (above) for common height. If utilizing an in-wall electrical box, center the backplate over the box, while lining up the top edge with your mark.

3. Using a level, ensure the base unit is plumb and level, and mark the 4 mounting locations through the adjustable nylon inset screws onto the wall surface (if on drywall use a pencil, and if on concrete a narrow Sharpie or similar).

4. a) Drill the wall at the 4 marked locations, and tap in the appropriate wall plugs. We supply both drywall and concrete anchors for the included #14 screws.
   - If mounting the Column Switch to an aluminum post or framing section, drill and tap 4 holes for 1/4"-20 Stainless Steel Machine screws (also provided).

5. If hardwiring: Use the supplied wirenuts to make your wire connections. Push excess wire into the back box and ensure cable is not exposed to the moving parts of the switch, or pinched between the back of the base unit and wall surface.
   - nylon inset screws may be turned in or out to help plump up Column switch and adjust for wall irregularities. Check with a level. When satisfied, install the 4 mounting screws and tighten.
   - 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 wirenuts, 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.
   Using the supplied wirenuts, 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.
   - If using other RF: Using the supplied wirenuts, 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.

6. 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.
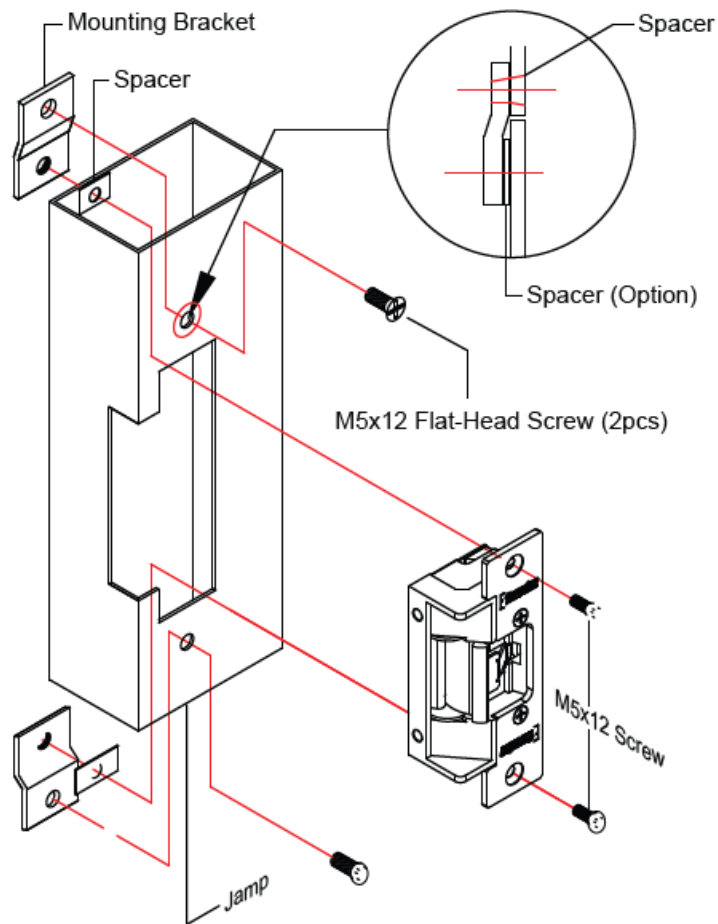When the bottom edge of the actuation bar reaches the height of the springs, use your free hand to tuck in the spring and switches under the actuation bar as it slides over them. When activation bar is approx 2" from bottom, position hanger so it falls into the slots provided at the top of the base unit. 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.

7. When satisfied with the switch operation, place cap back on top, and screw in the two small self-tapping Phillips screws.

CX-ED2079 'UNIVERSAL' ELECTRIC STRIKE INSTALLATION

1. Prepare the door jamb as per the appropriate drawing.
2. Install mounting brackets to jamb using M5x12 screws and pressed metal nuts. Do not tighten.
3. Spacers are used to assure flush final assembly of faceplate into jamb- Add one of more spacers between jamb and mounting bracket when face plate extends beyond the jamb- When the faceplate sits inside the jamb, spacers must be added between the mounting bracket & the lip bracket- Make sure clearance hole in spacer aligns with hole in mounting bracket
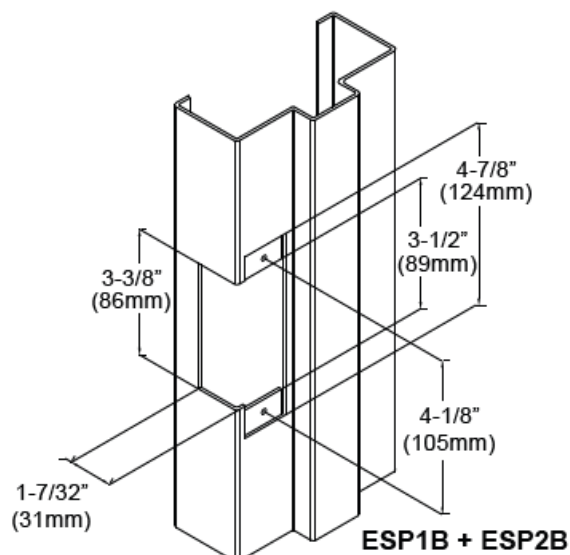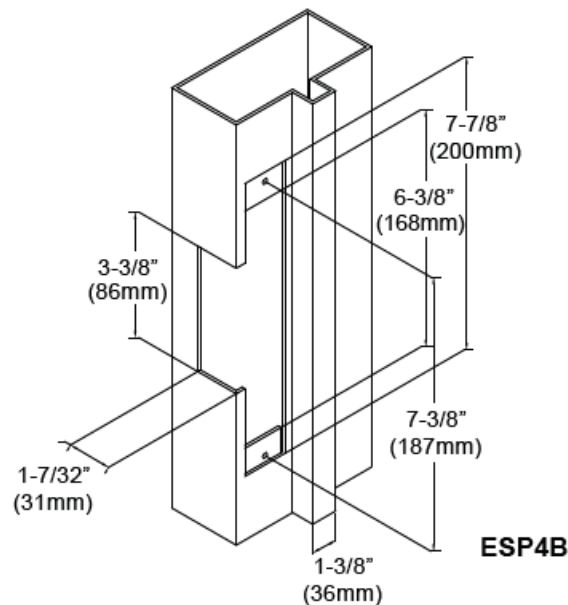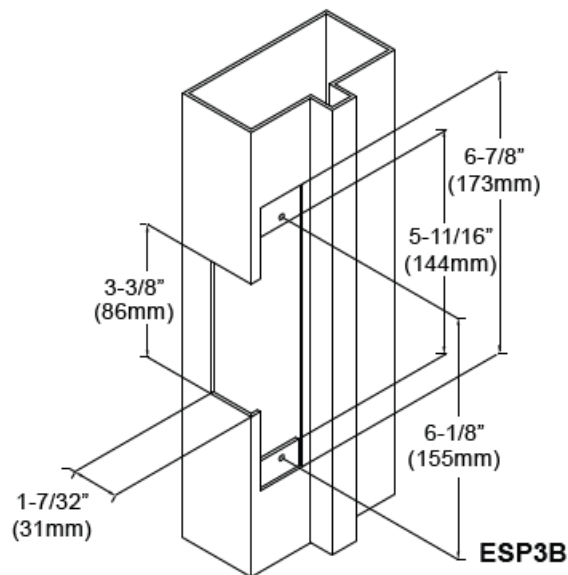
Labels in diagram:
- Mounting Bracket
- Spacer
- Spacer
- Spacer (Option)
- M5x12 Flat-Head Screw (2pcs)
- M5x12 Screw
- Jamp

Vertical Centerline

Note: The products are intended to be installed in accordance with the installation wiring diagram, mechanical assembly drawings provided with each product, the local authority having jurisdiction (AHJ) and the National Electric Code, NFPA 70. When installed in fail secure mode, the local authority shall be consulted with regard to the use of possible panic hardware to allow emergency exit from the secure area.

The electric door strike shall be installed in such a way and in such a location so as to not impair the operation of an emergency exit device or panic hardware mounted on the door.

4. Connect wires coming from the low voltage side of the transformer to wires (black) from strike.
5. Install electric strike jamb by attaching with # 10-32 screws and lockwashers.
6. Secure M5x12 screws holding mounting brackets to jamb.

Dimensions in diagram:
- 4-7/8" (124mm)
- 3-1/2" (89mm)
- 3-3/8" (86mm)
- 4-1/8" (105mm)
- 1-7/32" (31mm)
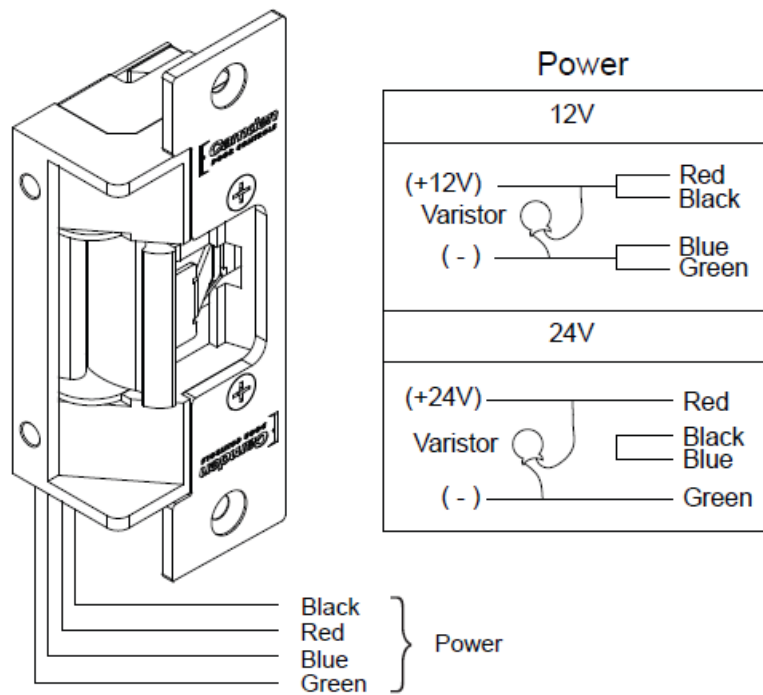
ESP1B + ESP2B

ESP3B

ESP4B

CONNECTIONS

POWER

- **12VDC**
- **Red/Black:** +12V
- **Blue/Green:** Ground
- **24VDC**
- **Red:** +24V
- **Black/Blue:** –
- **Green:** Ground

A varistor is provided to protect strike from spikes.
Connect varistor between input wires.

Note: For UL 294 / UL 1034 compliance the door strikes are to be powered via a UL 294/ UL 603 class 2 power limited output from a control panel and or power supply. Furthermore, when powered by AC/DC, the units shall use a UL regulated UL 294/UL 603 power limited class 2 output rated 12/24V with AC on indicator.

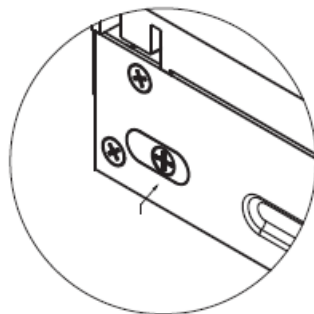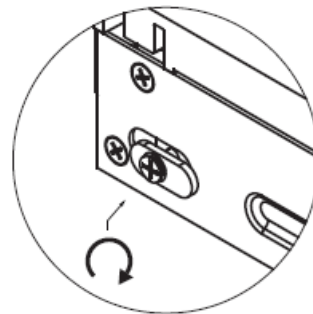| Power		
12V		
(+12V) Varistor	Red Black	
(-)	Blue Green	
24V		
(+24V) Varistor	Red	
	Black Blue	
(-)	Green	

Black
Red
Blue
Green
} Power

OPERATIONS

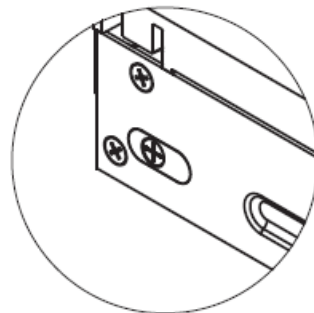How to modify fail-safe to fail-secure or vice versa.

1. Loosen the screw as per the product diagram below.
2. Rotate the set plate 180° and slide the plate until it is properly seated.
3. Tighten the screw.

**Fail Safe**   **Changing**

Fail Secure

ORDERING INFORMATION FOR REPLACEMENT PARTS

ITEM	PART NUMBER	DESCRIPTION
1	60-40E036	Advanced Logic Control Relay and 2 Amp Power Supply in pre-wired metal cabinet
2	CX-MDA	Magnetic Door Contact
3	CX-ED2079	Grade 2 universal electric strike
4	CM-7536/4	36'' COLUMN "PUSH TO OPEN" SWITCH
5	CM-7536/8B	36'' COLUMN ''PUSH TO LOCK'' SWITCH
6	CM-AF503	LED ANNUNCIATOR WITH OCCUPIED AND ''LOCKED'' LABELS.

WC17PS SERIES RESTROOM CONTROL

INSTALLATION INSTRUCTIONS

CX-WC17-PS Wiring Diagram with CX-WEC10-K2 Integration
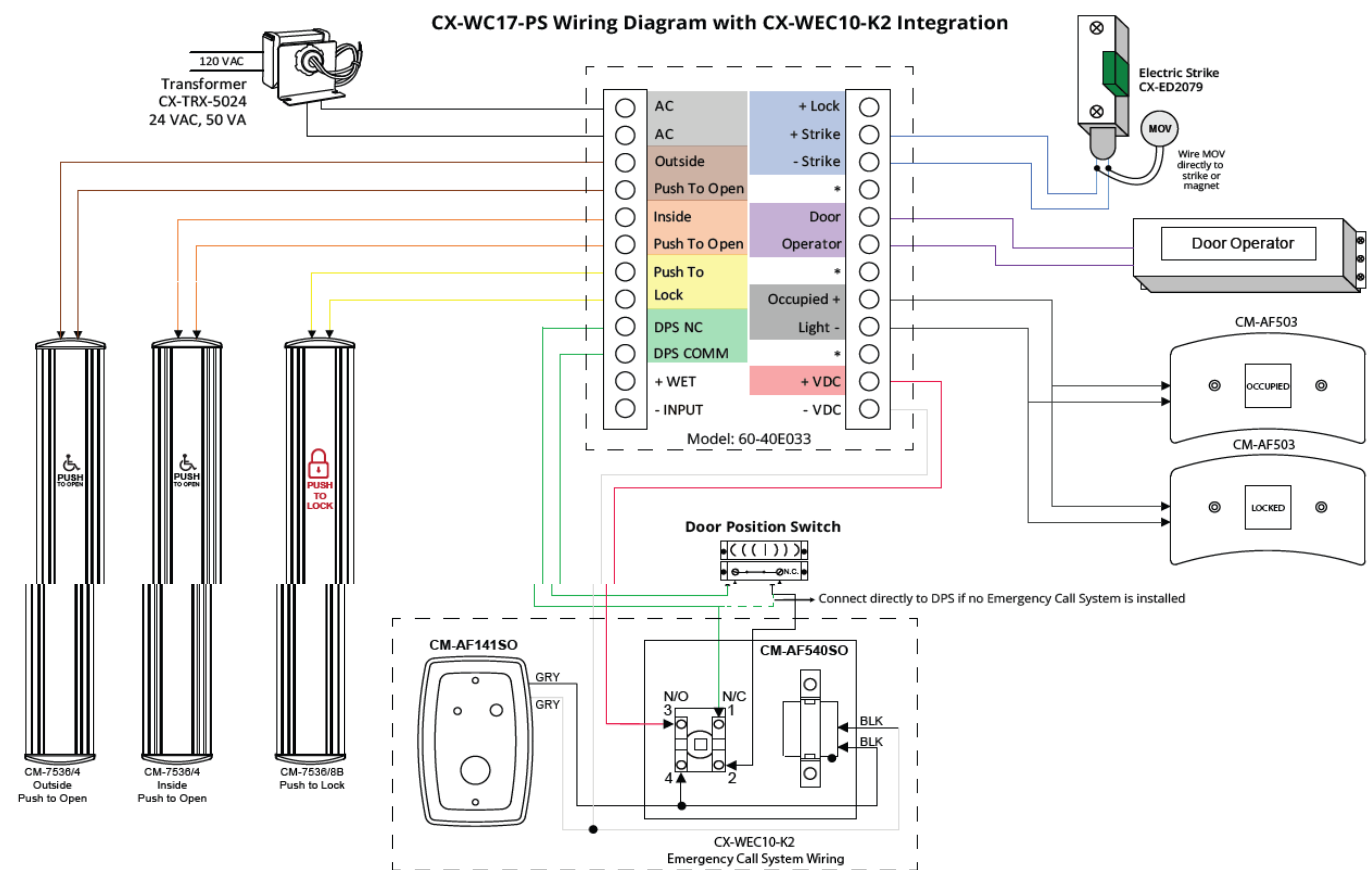
Notes

1. CX:33- can-be-set-to Mode-7-(Normally Unlocked) For Mode 8 (Normally Locked).

2. Mode 7 = Set Set Strike to Fail Safe.

3. Mode 8 = Set Strike to Fail Secure.

CAMDEN DOOR CONTROLS
5502 Timberlea Blvd Mississauga, Ontario L4W 2T7

- **SCALE:** NONE
- **DRAWN BY:** JML
- **DATE:** Jan 20, 2020
- **REV:** 1
- CX-WC17-PS & CX-WEC10K2 Wiring Diagram
- DRAWING No
- FILENAME

CX-WC17-PS EQUIPMENT PACKAGE

1. CX-33PS (60-40E036) – POWER SUPPLY CABINET WITH A CX-TRX-4024 – 40VA, 24 VAC TRANSFORMER
2. CM-7536/4 – 36" COLUMN "PUSH TO OPEN" SWITCH
3. CM-7536/8B – 36" COLUMN "PUSH TO LOCK" SWITCH
4. CM-AF503 – LED ANNUNCIATOR WITH OCCUPIED AND "LOCKED" LABELS.
5. CX-MDA – MAGNETIC DOOR CONTACT
6. CX-ED2079 – GRADE2 UNIVERSAL ELECTRIC STRIKE

   ADDITIONAL PARTS REQUIRED

   BUT NOT INCLUDED WITH THE CX-WC17-PS
7. DOOR OPERATOR – SUPPLIED BY OTHERS

OUTSIDE
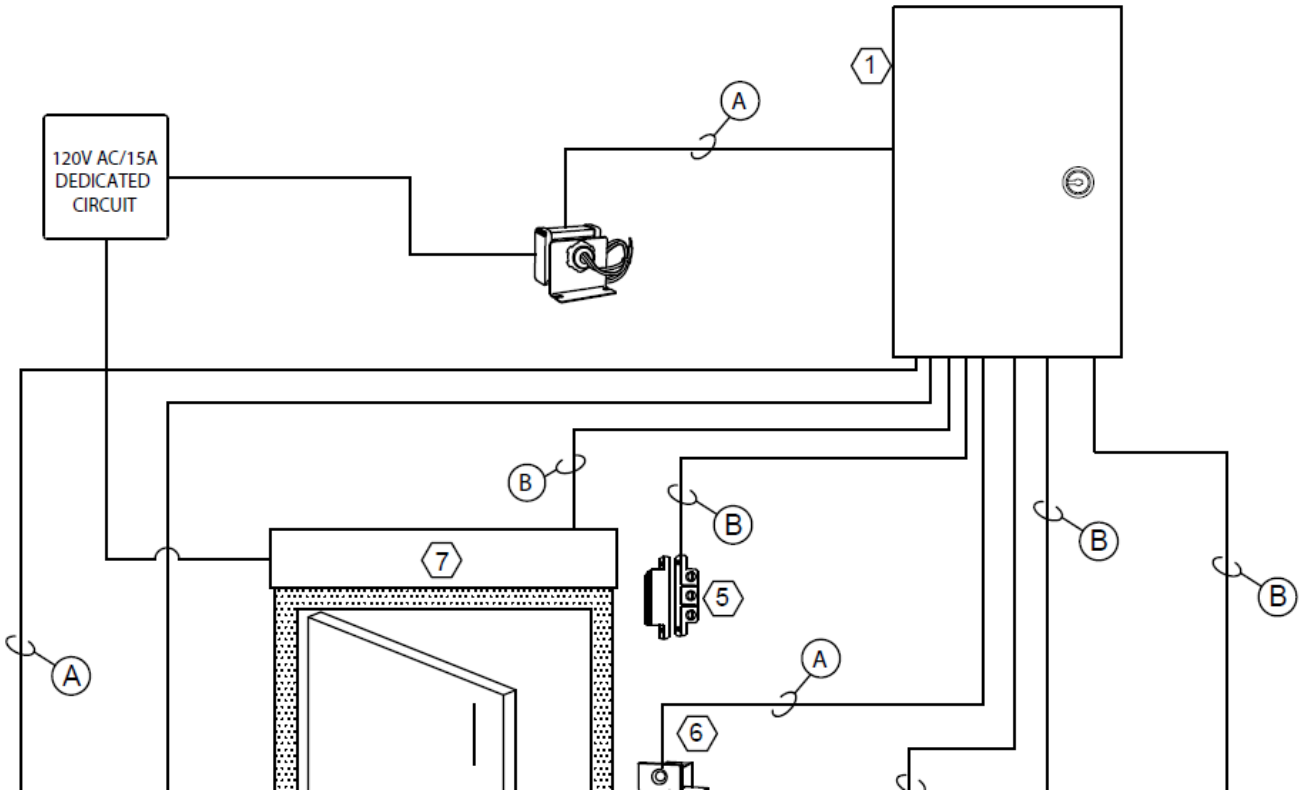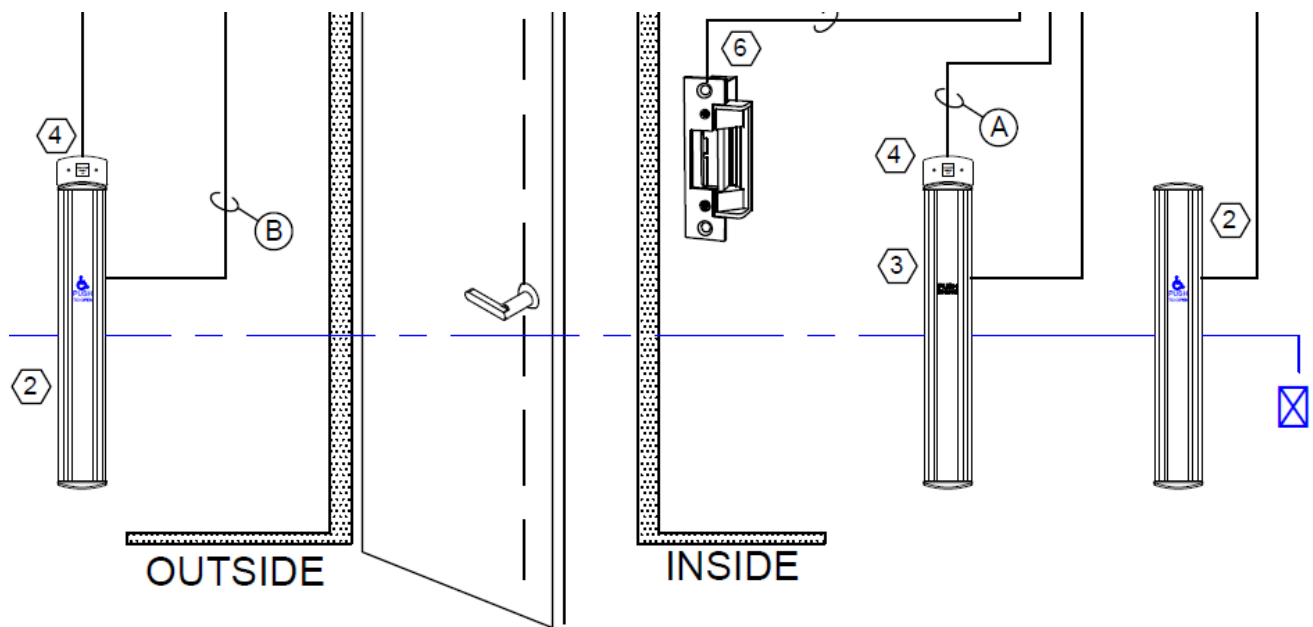
INSIDE

SYSTEM OPERATION

CX-WC17-PS OPERATION

- A. THE DOOR IS NORMALLY CLOSED AND UNLOCKED.
- B. PRESSING THE EXTERIOR COLUMN 'PUSH TO OPEN' SWITCH OPENS THE DOOR.
- C. ONCE INSIDE AND THE DOOR IS CLOSED, PRESSING THE ' PUSH TO LOCK' COLUMN SWITCH LOCKS THE DOOR, DISABLING THE EXTERIOR ' PUSH TO OPEN' COLUMN AND ILLUMINATES THE EXTERIOR ANNUNCIATOR TO SHOW "OCCUPIED" AND INTERIOR ANNUNCIATOR TO SHOW 'LOCKED WHEN LIT'
- D. PRESSING THE INTERIOR 'PUSH TO OPEN' SWITCH UNLOCKS THE DOOR, DEACTIVATES THE ILLUMINATED ANNUNCIATOR AND RESETS THE SYSTEM
- E. IF THE DOOR IS OPENED MANUALLY TO EXIT THE RESTROOM, THE OVERHEAD MAGNETIC CONTACT SWITCH RESETS THE SYSTEM.

CABINET BASE & MOUNTING TEMPLATE

7-7/8" (200.2 mm)
6" (152.7 mm)
9-5/8" (243.9 mm)
11-1/16" (281.4 mm)
6" (152.7 mm)
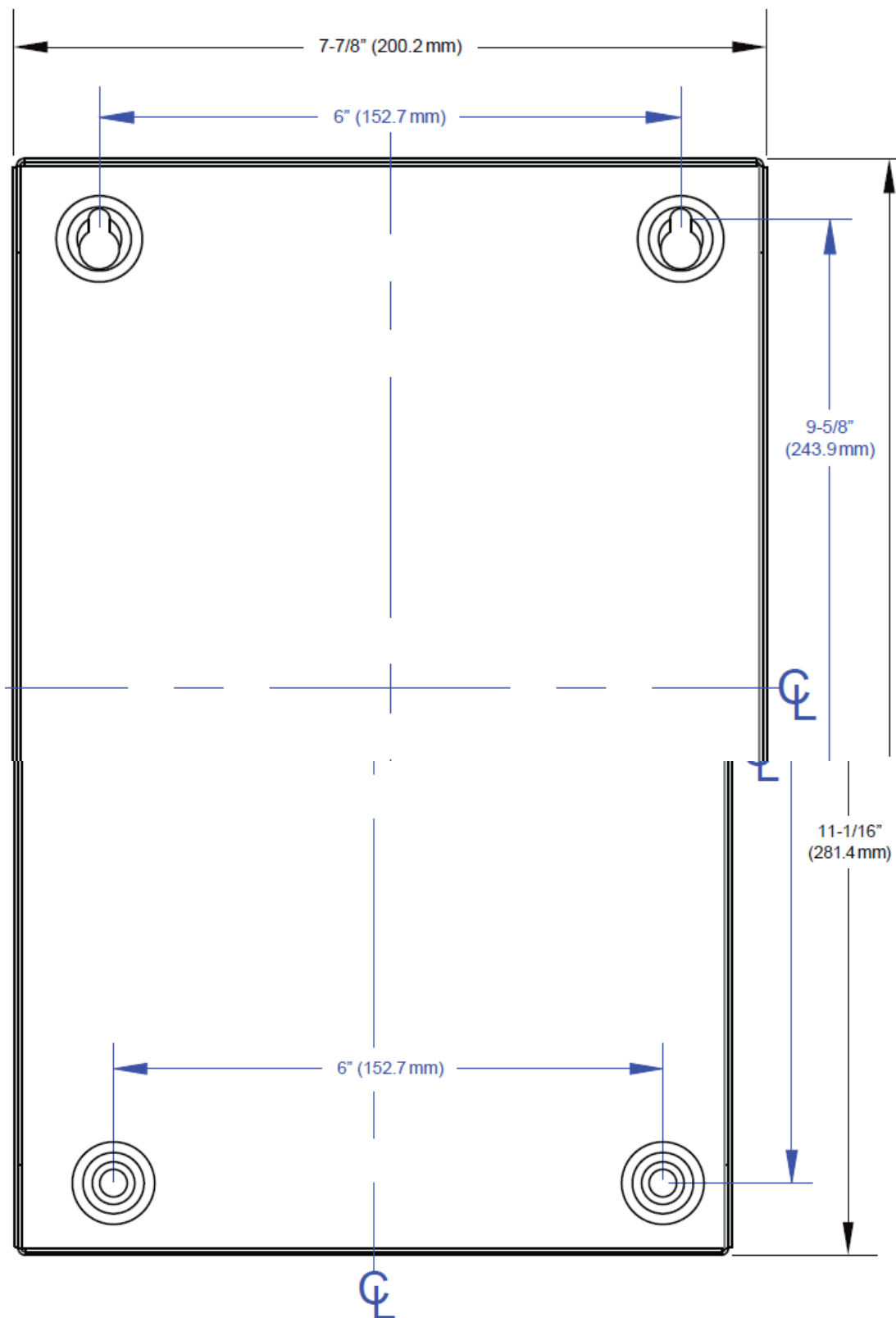
Questions? Call us toll-free at 1-**877-226-3369** or technical support **905-366-3377** (ext. 505)

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- Call: 1.877.226.3369 / 905.366.3377
- **Visit: www.camdencontrols.com**
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- Manual.indd
- **Rev.:** July 28th 2021

- Part No: 4082B271

Documents / Resources

	CAMDEN WC17PS Series Restroom Control [pdf] Installation Guide WC17PS Series Restroom Control, WC17PS Series, Restroom Control, Control

References

- **User Manual**