Electrified Locks, Relays and Timers

WC13PS Series Restroom Control
INSTALLATION INSTRUCTIONS

1. GENERAL DESCRIPTION

The Restroom Control Kit allows access in and out of a Restroom, with the ability to secure the door to make patrons aware that the location is either occupied or vacant.

The CX-WC13PS Series of Restroom Control Kits are controlled by Camden's advanced relay logic controller model CX-33. The CX-33 currently has 2 pre-set modes that will accommodate most Restroom applications. When used to control a Restroom application, the modes most often used will be Mode 7 (normally unlocked) or Mode 8 (normally locked). **The default Mode for the CX-WC13PS is Mode 7 (normally unlocked).** Each Restroom Control Kit will have the ability to physically open the door then allow the patron to lock the door once inside. When locked the CX-33 will change the coloring of the inside & outside PUSH TO OPEN buttons from green to red displaying that the Restroom is in use. When the inside PUSH TO OPEN is pressed it will unlock the door, then (physically) open the door and change the coloring of the inside & outside PUSH TO OPEN buttons back to green, displaying that the Restroom is now vacant. The locked Restroom can be unlocked by either pressing the inside PUSH TO OPEN which will reset the system back to unlocked, or by using the crash bar, paddle or turning the knob set to open the door contact circuit and resetting the CX-33.

The CX-WC13PS Series of Restroom Control Kits use Camden's trademark Aura boards. The Aura circuit board is installed behind the outside PUSH TO OPEN and inside PUSH TO LOCK push buttons and can be seen easily seen by patrons at a distance.

2. INSTALLATION

Operation at a Glance

When the exterior PUSH TO OPEN button is pressed it will trigger the PBTN input on its Aura board causing its N.O. relay contact to send a momentary closure to the outside PUSH TO OPEN on the CX-WC13PS allowing the door to swing open. When the interior PUSH TO LOCK button is pressed it will trigger the PBTN input on its Aura board causing its N.O. relay contact to send a momentary closure to inside PUSH TO LOCK causing the CX-WC13PS to lock the Restroom and switch the Aura colors from green to red. The inside PUSH TO OPEN button is wired directly to inside PUSH TO OPEN on the CX-WC13PS.

When pressed the Restroom will unlock and the door will swing open. The Restroom can also be unlocked by opening the door from the inside which will break the door contact circuit causing the CX-WC13PS to reset and unlock the door. The Aura's will switch back to green signalling the Restroom is now vacant.

Mounting

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

The CX-WC13PS cabinet should be mounted in a clean dry location out of direct contact with the elements.

Wiring the CX-WC13PS Series Restroom Control Kit is as follows:

The CX-WC13PS 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 buttons, 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), Aura LEDs (Relay3), and to provide DC power for the door strike.

Once all field devices are wired to the CX-WC13PS, 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 panel breaker.

Selecting a Mode

The CX-WC13PS has two Restroom applications built in (Mode 7 & 8). **The default mode for the CX-WC13PS 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-WC13PS 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-WC13PS for proper functionality.

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

SURFACE MOUNT RESTROOM INSTALLATION

1. Place the white vinyl sign behind the surface aura enclosure and place them against the mounting wall.

2. Use the #10 x 1" pan head screws with the green pvc anchors provided to hold the white vinyl sign and the aura enclosure against the wall .

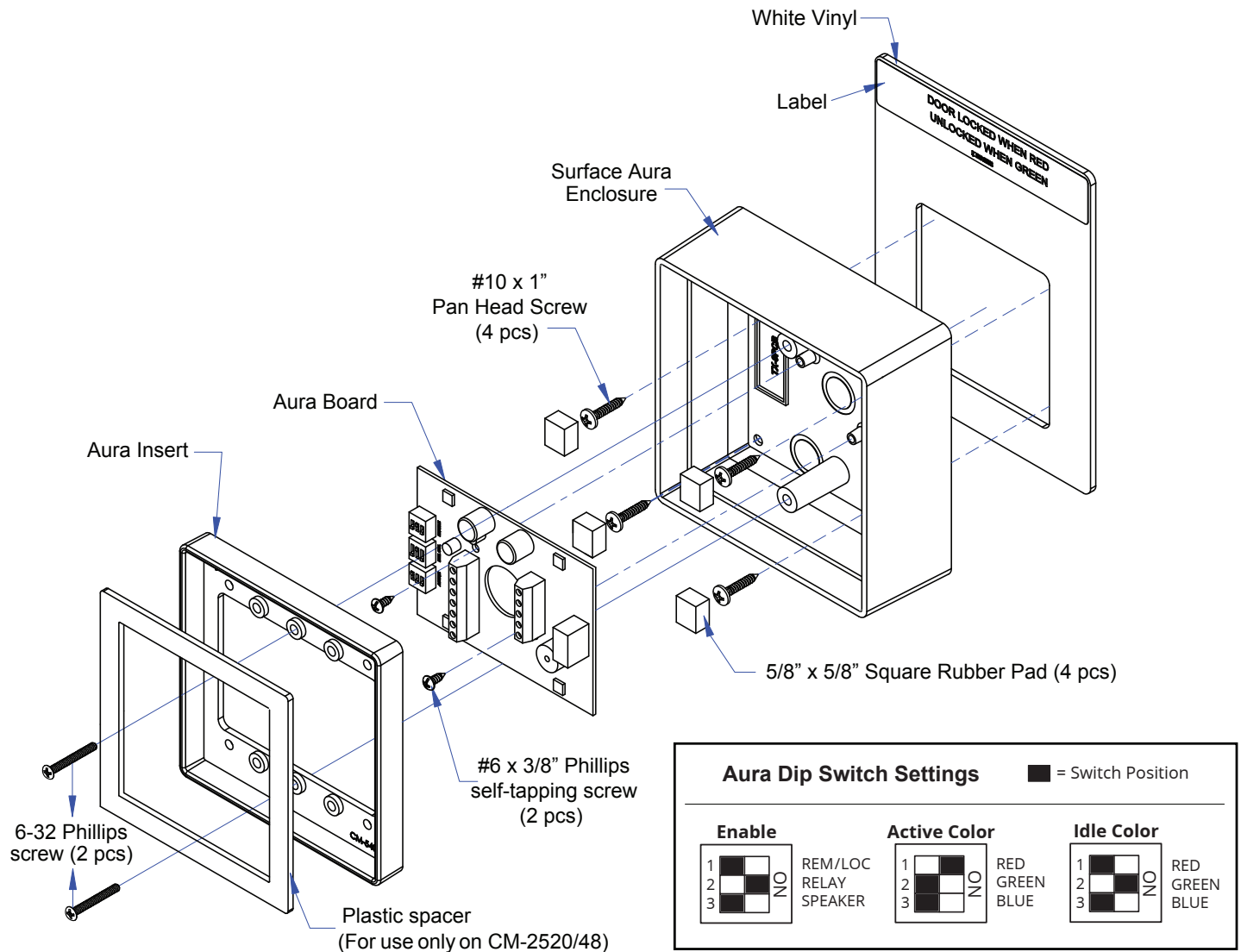**Note: White vinyl sign does not come with the CM- 45/4 - 4 1/2" 'Push To Open'.**

3. Place all the square rubber pads inside the flush aura enclosure. Insert the aura board inside the flush aura enclosure, making sure the screw holes on the aura board align with the screw holes inside the surface aura enclosure. Use the #6 x 3/8" self-tapping screws to tighten Aura board in place.

4. Place the Aura insert inside the surface aura enclosure, making sure the mounting screw holes on the aura insert and the surface aura enclosure align.

FOR CM-45/454SE1, CM-45/854SE1 & CM-45/4 SWITCHES

a. Use the 6-32 hex head screws to tighten the aura insert slightly.

b. Fit in the assembled CM-45/4 by locating the screws with the holes on the backplate.

c. Fit the hex key through the hole on the face plate and completely tighten the 6-32 screws in place.

FOR CM-2520-4854SE1 COMBO SWITCH

a. Fit the plastic spacer inside the aura insert

b. Place the combo switch Inside the aura insert, making sure the mounting holes on the aura and on the back plate align

c. Use the 6-32 Phillips screws to tighten in place.

5. Apply the label to the black vinyl as required.

Aura Dip Switch Settings		= Switch Position
Enable	**Active Color**	**Idle Color**
1 2 3 — REM/LOC RELAY SPEAKER	1 2 3 — RED GREEN BLUE	1 2 3 — RED GREEN BLUE

FLUSH MOUNT RESTROOM INSTALLATION

1. Prepare the cut-out for the unit and fit in the dry wall bracket.

2. Slide in the black vinyl behind the flush aura enclosure and fit them inside the dry wall bracket.

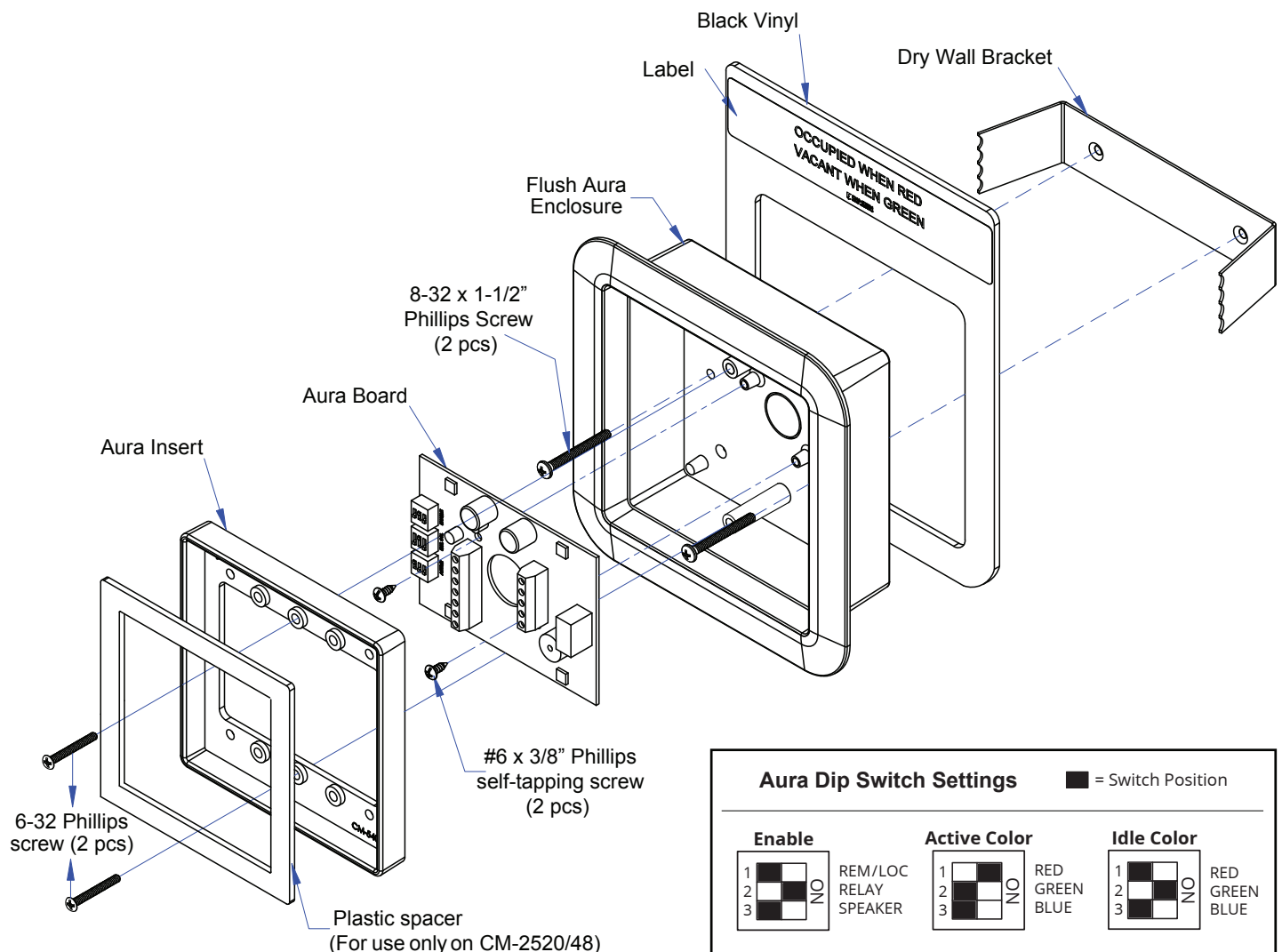**Note: Black vinyl does not come with the CM-45/4 - 4 1/2" 'Push To Open'.**

3. Ensure the two mounting holes on the bracket and the Flush aura enclosure align. Use the 8-32 phillips screws to completely tighten in place.

4. Place the aura board inside the flush aura enclosure, making sure the screw holes on the aura board align with the screw holes inside the Flush aura enclosure. Use the #6 x 3/8" self-tapping screws to tighten Aura board in place.

5. Place the Aura insert inside the Flush aura enclosure, making sure the mounting screw holes on the aura insert and the flush aura enclosure align.

FOR CM-45/455SE1, CM-45/855SE1 & CM-45/4 SWITCHES

a. Use the 6-32 hex head screws to tighten the aura insert slightly.

b. Fit in the assembled Push plate by locating the screws with the holes on the backplate.

c. Fit the hex key through the hole on the face plate and completely tighten the 6-32 screws in place.

FOR CM-2520-4855SE1 COMBO SWITCH

a. Fit the plastic spacer inside the aura insert

b. Place the combo switch Inside the aura insert, making sure the mounting holes on the aura and on the back plate align.

c. Use the 6-32 Phillips screws to tighten in place

7. Apply the label to the black vinyl as required.

Aura Dip Switch Settings	■ = Switch Position

Enable	Active Color	Idle Color
1 2 3 NO — REM/LOC RELAY SPEAKER	1 2 3 NO — RED GREEN BLUE	1 2 3 NO — RED GREEN BLUE

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.

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.
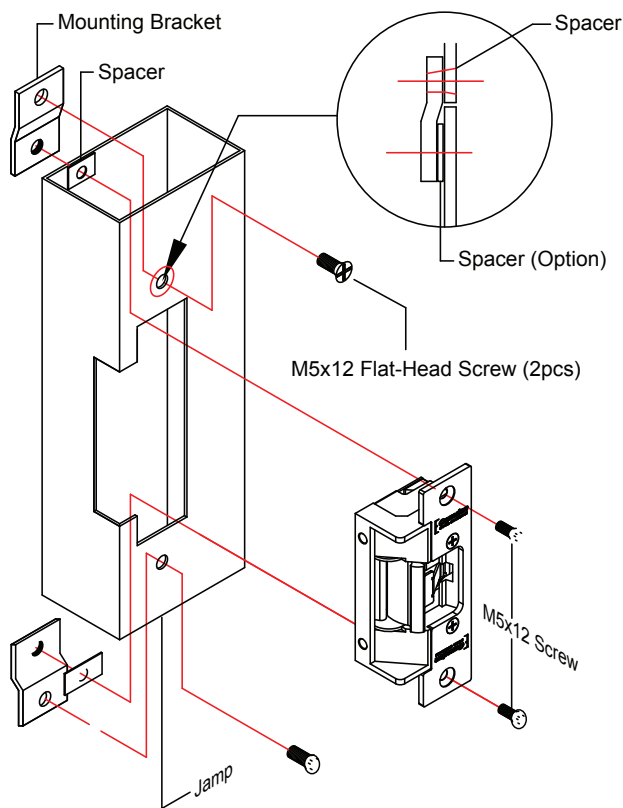
Vertical Centerline

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.

ESP1B + ESP2B

ESP3B

ESP4B
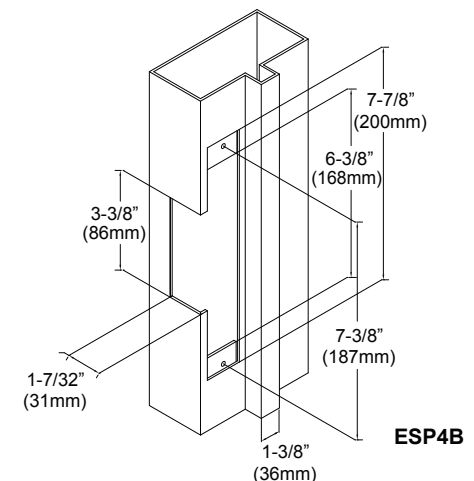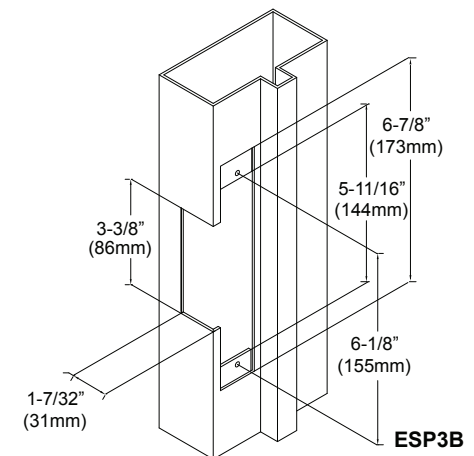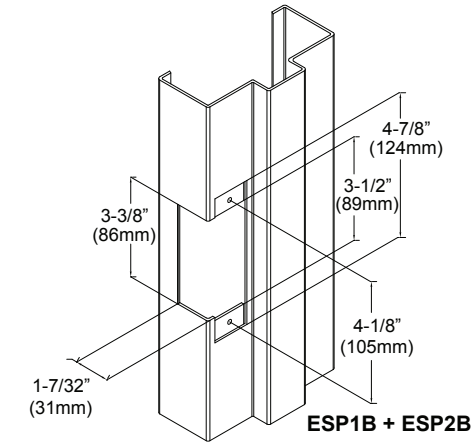
CONNECTIONS

POWER

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

A varistor is provided to protect/prevent 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.
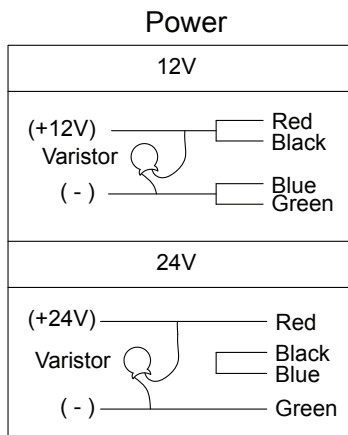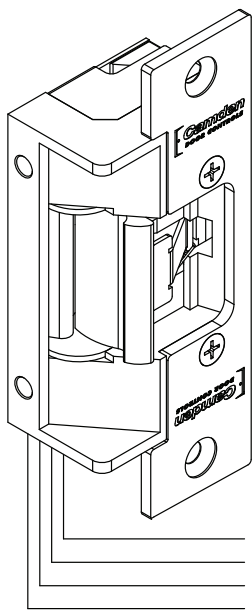
OPERATIONS

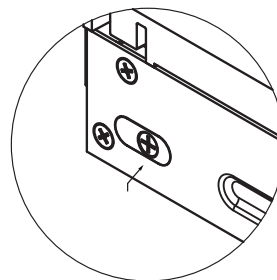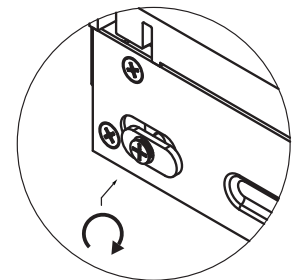How to modify fail-safe to fail-secure or vice versa.

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
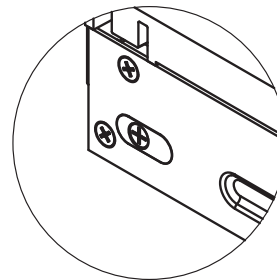
Fail Secure

RESTROOM SIGNAGE

INSIDE THE RESTROOM

Place sign on the door inside the restroom at eye level

WAIT FOR DOOR TO CLOSE

PRESS 'PUSH TO LOCK' SWITCH TO LOCK THIS DOOR

Light ring on switch will turn red when door is locked.
Press 'Push To Open' switch to unlock door and exit.

CAMDEN DOOR CONTROLS
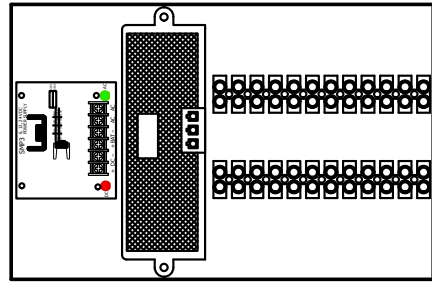
CX-33PS
Power Supply Cabinet
to be mounted on
the wall or above
the ceiling tiles
(if applicable)

PUSH TO LOCK

PUSH TO OPEN

ORDERING INFORMATION FOR REPLACEMENT PARTS

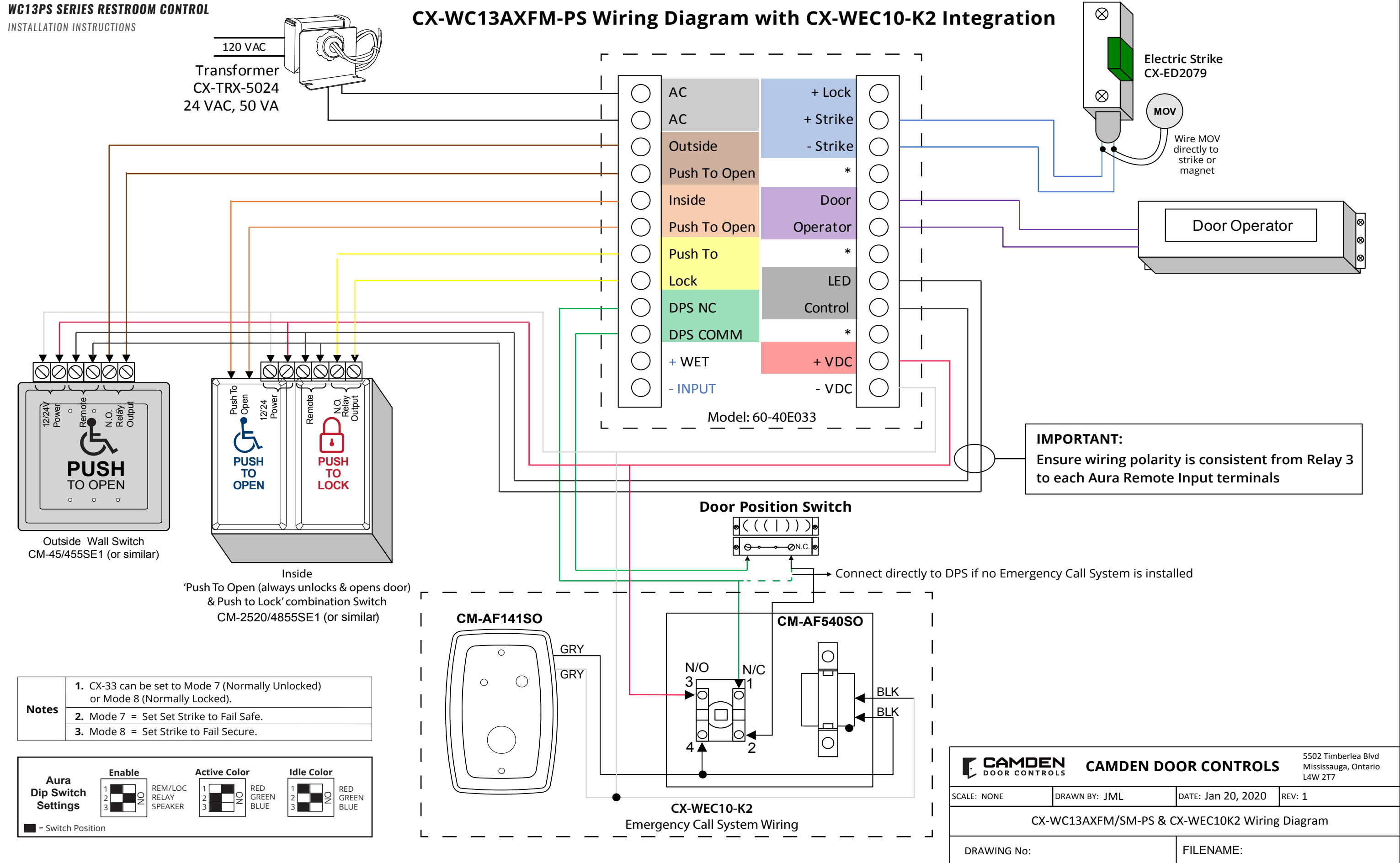| Item	Part Number	Description
1	60-31A041	Blue/Red/Green Aura PC Board
2	60-42C012	Square Aura Insert
3	60-40E033	Advanced Logic Control Relay and 2 Amp Power Supply in pre-wired metal cabinet
4	CX-MDA	Magnetic Door Contact
5	60-42C019	Mounting Box, Flush Aura Enclosure. Flame/Impact Resistant Black Polymer (ABS) 6-1/2"W X 6-1/2"H X 2"D
6	60-42C010	Mounting Box, Surface Aura Enclosure. Flame/Impact Resistant Black Polymer (ABS) 5-1/4"W X 5-1/4"H X 2"D
7	60-81C021	English Self-Adhesive Vinyl Sign "WAIT FOR DOOR TO CLOSE"
		Black Vinyl & Sign for Flush Aura Enclosure
8	CM-SFE1	Black Vinyl & English Label "DOOR LOCKED WHEN RED/UNLOCKED WHEN GREEN" & "OCCUPIED WHEN RED/VACANT WHEN GREEN"
9	CM-SFF1	Black Vinyl & French Label "OCCUPÉ/LIBRE" & "PORTE BARRÉE/PORTE DÉBARRÉE"
10	CM-SFFE1	Black Vinyl & English Label "DOOR LOCKED WHEN RED/UNLOCKED WHEN GREEN" & "OCCUPIED WHEN RED/VACANT WHEN GREEN" Black Vinyl & 2-sided French Label "OCCUPÉ/LIBRE" & "PORTE BARRÉE/PORTE DÉBARRÉE"
		White Vinyl & Sign for Surface Aura Enclosure Installed
11	CM-SE1	White Vinyl & English Label "DOOR LOCKED WHEN RED/UNLOCKED WHEN GREEN" & "OCCUPIED WHEN RED/VACANT WHEN GREEN"
12	CM-SF1	White Vinyl & French Label "OCCUPÉ/LIBRE" & "PORTE BARRÉE/PORTE DÉBARRÉE"
13	CM-SEFE1	White Vinyl & English Label "DOOR LOCKED WHEN RED/UNLOCKED WHEN GREEN" & "OCCUPIED WHEN RED/VACANT WHEN GREEN" White Vinyl & 2-sided French Label "OCCUPÉ/LIBRE" & "PORTE BARRÉE/PORTE DÉBARRÉE

Notes :

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

WC13PS SERIES RESTROOM CONTROL
INSTALLATION INSTRUCTIONS

CX-WC13AXFM-PS Wiring Diagram with CX-WEC10-K2 Integration

120 VAC

Transformer
CX-TRX-5024
24 VAC, 50 VA

Electric Strike
CX-ED2079

MOV

Wire MOV directly to strike or magnet

Model: 60-40E033

Left terminals	Right terminals
AC	+ Lock
AC	+ Strike
Outside	- Strike
Push To Open	*
Inside	Door
Push To Open	Operator
Push To	*
Lock	LED
DPS NC	Control
DPS COMM	*
+ WET	+ VDC
- INPUT	- VDC

Door Operator

IMPORTANT:
Ensure wiring polarity is consistent from Relay 3 to each Aura Remote Input terminals

12/24V Power · Remote · N.O. Relay Output

PUSH TO OPEN

Outside Wall Switch
CM-45/455SE1 (or similar)

Push To Open · 12/24 Power · Remote · N.O. Relay Output

PUSH TO OPEN **PUSH TO LOCK**

Inside
'Push To Open (always unlocks & opens door)
& Push to Lock' combination Switch
CM-2520/4855SE1 (or similar)

Door Position Switch
N.C.

Connect directly to DPS if no Emergency Call System is installed

CM-AF141SO

GRY
GRY

CM-AF540SO

N/O 3   N/C 1
4   2

BLK
BLK

CX-WEC10-K2
Emergency Call System Wiring

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

Aura Dip Switch Settings

	Enable	Active Color	Idle Color
1	REM/LOC RELAY SPEAKER	RED GREEN BLUE	RED GREEN BLUE
2			
3			

■ = Switch Position

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

SCALE: NONE	DRAWN BY: JML	DATE: Jan 20, 2020	REV: 1

CX-WC13AXFM/SM-PS & CX-WEC10K2 Wiring Diagram

DRAWING No:

FILENAME:

WC13PS SERIES RESTROOM CONTROL
INSTALLATION INSTRUCTIONS

CABINET BASE

11-1/16" (281.4 mm)

9-5/8" (243.9 mm)

₵L

7-7/8" (200.2 mm)

6" (152.7 mm)

6" (152.7 mm)

₵L

₵L