CAMDEN DOOR CONTROLS

Electrified Locks, Relays and Timers

CX-WC17VR-PS-M2 Series Restroom Kit
INSTALLATION INSTRUCTIONS

THIS PACKAGE INCLUDES:

Column Switches:
3 - CM-7536VR V2 Column™ Switches
12 - #14 x 1-1/2" Self Tapping Screws
12 - Anchors
12 - Concrete Anchors
12 - 1/4-20 x 1" S/S Pan HD PH Screws
6 - Wire Nuts
3 - Jumpers

Electric Strike:
1 - CX-ED1689L-4 Electric Strike
2 - 4 PIN Power Connector

10 - B Connectors
1 - Varistor
1 - Two Pin Connector
1 - Monitor Switch
2 - 4-40 x 3/16" Screws
1 - Door Contact
1 - Two Pin Door Connector
3 - Two Pin Connectors
2 - 12-24 x 1/2" Screws
2 - M3 x 5 Screws
1 - Dress Plate

2 - Keeper Shims

CX-33PS Logic Relay:
1 - Metal Cabinet
1 - Pre-wired CX-33 Relay
1 - Power Supply
1 - Hardware Kit
1 - Transformer

1 - Surface Mounting Contact
1 - "Occupied When Red" Sign
1 - "Locked When Red" Sign
4 - Foam Tape

1. GENERAL DESCRIPTION

The Camden CX-WC17VR-PS-M2 Restroom Control Kit now comes with the built-in CM-221 Hands-Free Switch, which uses active infrared sensor technology and is designed to be used in ADA-compliant automatic door control applications and access control. The CM-221 switch eliminates the spread of germs by avoiding physical contact and provides greater convenience when moving through the premises. For smooth operation, the CM-221 has an adjustable time delay of 0.5 to 20 seconds and an adjustable range of 2" to 8" (5cm to 20cm).

The CX-WC17VR-PS-M2 Restroom Control Kit is controlled by Camden's CX-33PS advanced relay logic controller (designed to support virtually any automatic door application).

The designation "PS" in the part number reflects that this kit now comes pre-wired in a metal enclosure with a power supply that is ready to accept all field wiring.

Operation at a Glance

The CX-WC17VR-PS-M2 has two modes: Mode 7 and Mode 8. Mode 7 refers to the "Normally Unlocked" condition, when the exterior PUSH to OPEN Column™ Switch is pressed or waved, it triggers the door operator to open the door. Mode 8 refers to a "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 or waved, it keeps the door locked and disables the exterior PUSH to OPEN Column™ Switch. The LED light ring on the Column™ Switch turns red, indicating the restroom is occupied. The user can either press or wave PUSH to UNLOCK Column™ Switch as they exit the restroom. The LED light ring 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-7536VR V2
Voltage	12 to 24 VDC +/- 10%
Current	45 mA (peak)
Contact Rating	1 Amps @ 30 VDC
Contacts	Common/ N.O./ N.C.
Temperature Range	-13F to 122F (-25 °C to 50 °C)
Response Time	10ms
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 1-3/4" D (955mm x 150mm x 44mm)

Model	CX-ED1689L-4
Voltage	12/24V AC/DC
Current Draw	300mA@12V, 150mA@24V DC
Static Strength	1,500 Lbs.
Dynamic Strength	70 Ft-Lbs.
Endurance	1,500,000 Cycles (Factory Tested) 500,000 Cycles (UL Verified)
Fire Rating	UL 10C/CAN4-S104 3 hrs. (Fail Secure Only)
Mode	Field Selectable, Fail Safe/Fail Secure
Operation	AC-Buzz, DC-Silent
Duty	Continuous
Latch Bolt Monitor	SPST, 100mA @ 24 VDC
Strike Monitor	SPST, 100mA @ 24 VDC
Dimensions (Body)	4-7/8" H x 1-5/8" W x 1-3/8" D (124mm x 41mm x 36mm)
UL 294 Performance Levels	- Line Security = Level I - Attack Level = Level I - Endurance Level = Level IV - Standby Power = Level I
Approvals	UL Listing #BP10200 for UL 1034 & UL 294 BHMA Certified ANSI A156.31

Model	WC-17VR-PS-M2 Relay Cabinet CX-33PS
Voltage	AC Input: 12V to 28V; DC Output: 12 or 24V
Current Supply	2 Amps
Battery Backup	Gel Type (not supplied)
LED Indicator	AC Input and DC Output
Temperature	Operating: 0° C to 49° C (32° F to 120° F) Storage: - 20° C to 70° C (- 4° F to 158° F)
Inputs	(4) Dry, (1) Wet 5V to 120V AC/DC, Non-Polarity Optically Isolated
Outputs	(3) Form 'C' (SPDT), 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	11-1/16" H x 7-7/8" W x 2-13/16" D (281mm x 200mm x 72mm)

3. CX-33PS MOUNTING, WIRING & MODE SETTING

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

The CX-WC17VR-PS-M2 Restroom Control Kit includes the CX-33PS Advanced Logic Relay. A complete wiring diagram is included in this manual.

Mounting

The CX-33PS should be mounted in a clean dry location out of direct contact with the elements. Ideal locations include inside a metal enclosure, operator header, or above a false ceiling. 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-33PS. 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-WC17VR-PS-M2 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.

Note: The default mode for the CX-WC17VR-PS-M2 is Mode 7 **(normally unlocked).**

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-WC17VR-PS-M2, simply 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, 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 the Table 3.1

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-WC17VR-PS-M2.

Figure 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-7536VR V2 COLUMN SWITCH INSTALLATION

Code Requirements: If installed according to these instructions the CM-7536VR 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-7536VR V2 complies with the National Building Code of Canada reference to CSA Regulation 5.2.9.3 (c) ii.

The CM-7536VR 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-7536VR V2 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 Phillips screw holding the top End Cap in place. Once both screws are removed, take out the cap. (Figure 4.1)

2. Carefully pull out the actuator and place it aside so as to protect it from any surface damage. The bottom of the Switch should be located between 3" to 8" (76mm to 203mm) off the finished floor as per site conditions or code requirements. See Figure 4.2 for mounting illustration.

(See Figure 4.2 and 4.3 for reference.)

3. Determine and mark the optimum height and mounting location from the finished floor to mount the Column™ Switch.

4. Center the touchless 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 1/4" (6.4mm) 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. Drill the wall at the four marked locations and insert the appropriate wall or concrete anchors provided for the #14 screws.

7. 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).

8. Connect all the wires coming from the CX-33PS box to the CM-221 sensor. Refer to Section 4. CM-221 TO CX-33PS CONNECTIONS for wiring instructions.

9. Secure the assembly with the provided mounting screw, and insert actuation bar which was removed in step 1, and finally secure it with End Cap.
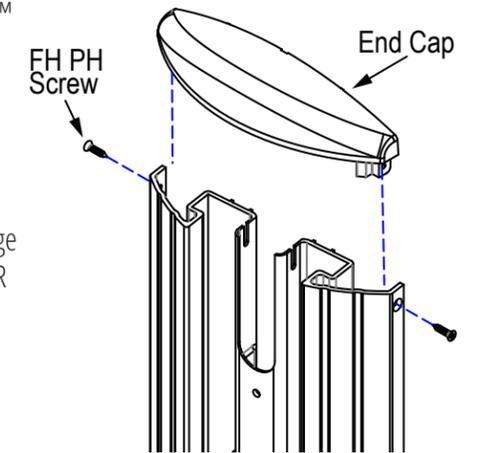

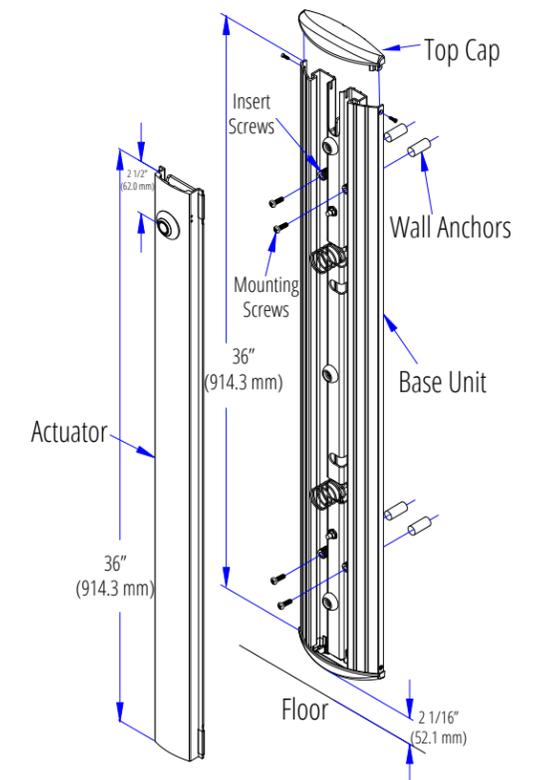*Figure 4.1 End Cap and Actuation Bar Removal*

Figure 4.2 Mounting of Base Unit

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.
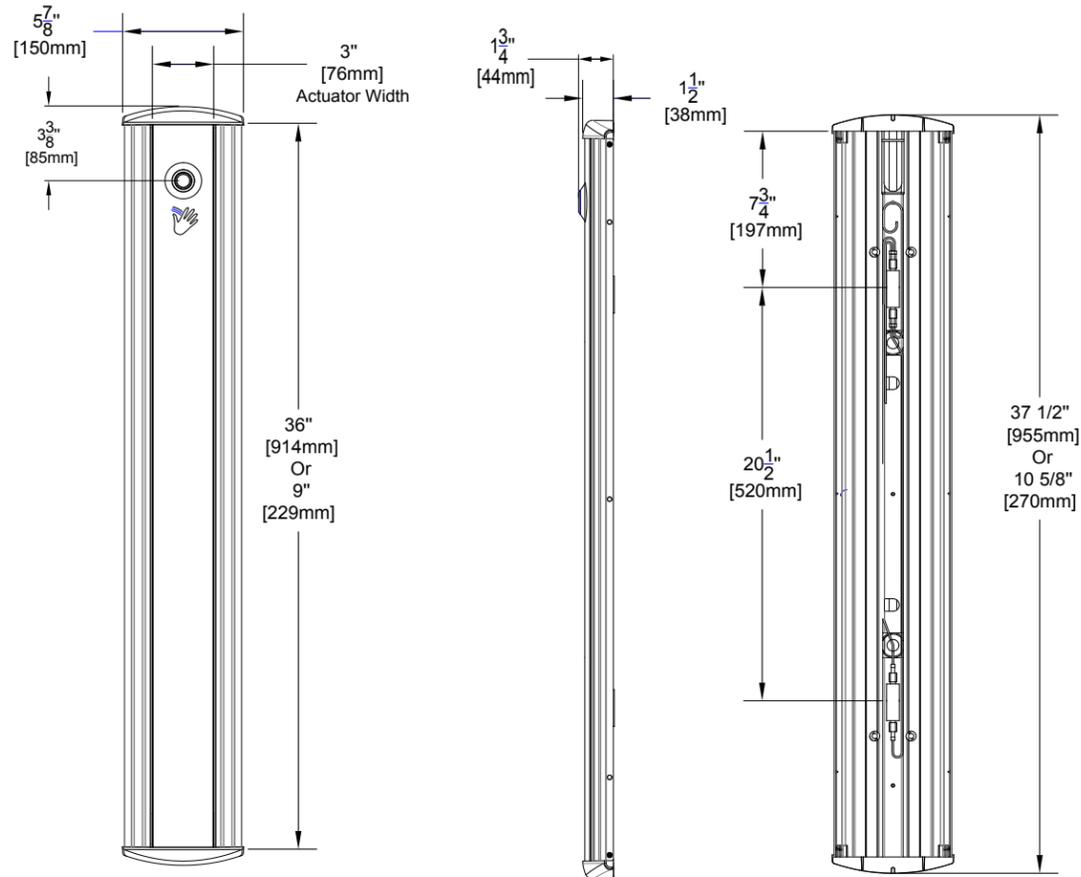
Figure 4.3 Dimensions

Note: While placing actuation bar back, make sure that hanger sits perfectly into the slot.
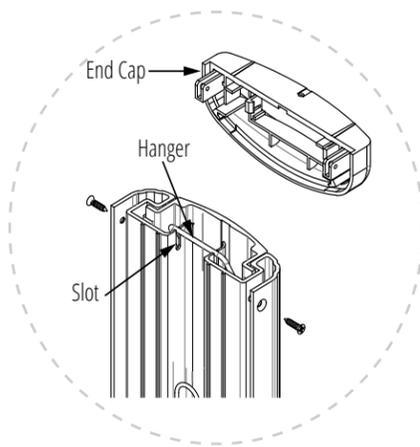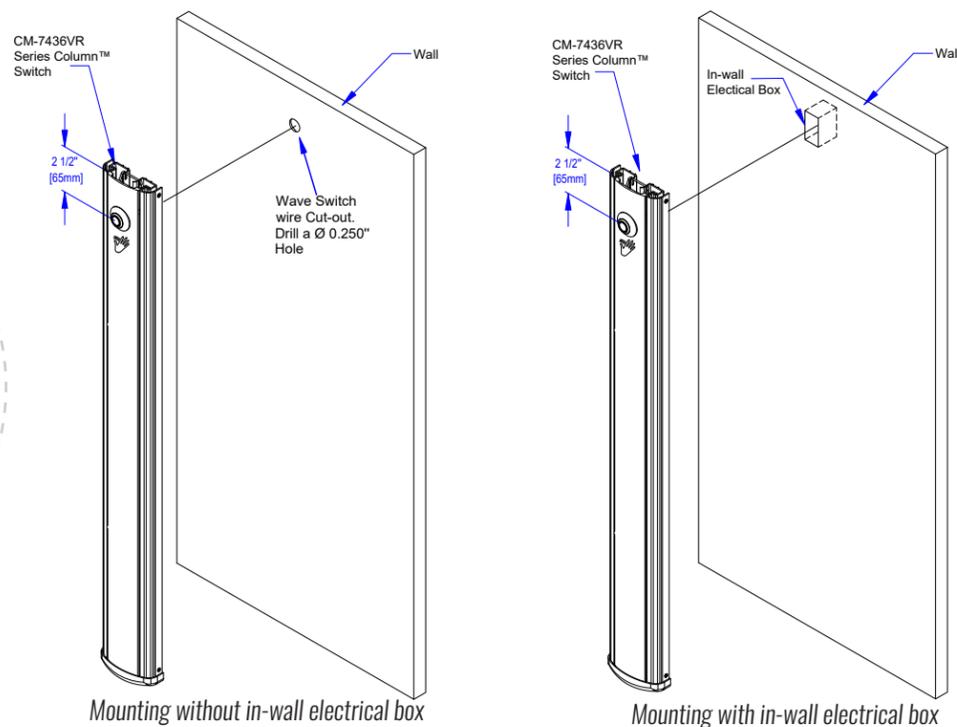

Figure 4.4 Wire Hanger/ End Cap

Mounting without in-wall electrical box

Mounting with in-wall electrical box

Figure 4.5 Wall Mounting Options

5. CONFIGURING THE CM-7536VR

Range of Detection and Output Duration (Figure 5.1)

Looking at the back of the CM-7536VR V2 with the Mode pins located at the top, you will see two adjustment potentiometers. The one on the left can be turned clockwise to set the range of detection (2" to 8" / 5cm to 20cm), and the one on the right will set the duration of the output (0.5 to 20 seconds).

If the output needs to be triggered and maintained in that state until triggered once more, then the Toggle feature can be used by turning the output duration adjustment potentiometer to the fully clockwise position.

Remote LED Switching

The CM-7536VR V2 can also have its LED states controlled remotely. This is done by installing the supplied jumper from the parts bag onto the two pins on the back of the unit. Once installed the green and red LED's can be triggered to change by bringing either one low (to ground). The yellow wire controls the green LED, whereas, the white wire controls the red LED. They can be individually turned on or off, or they can be wired to a SPDT contact to turn red on and green off, or vice versa.

Note: Refer to the complete wiring diagrams included in this Instructions Manual.

MODE PINS:
OPEN (Default position)= Internal mode where the LED colours will be controlled by the IR sensor.
SHORTED = External mode where the LED colours will be controlled by Yellow and White wires.

Adjustment for distance (2" to 8", 5 to 20 cm) Turn clockwise to increase range

Adjustment for time delay (0.5 to 20 seconds) For Toggle. Turn clockwise to increase time delay
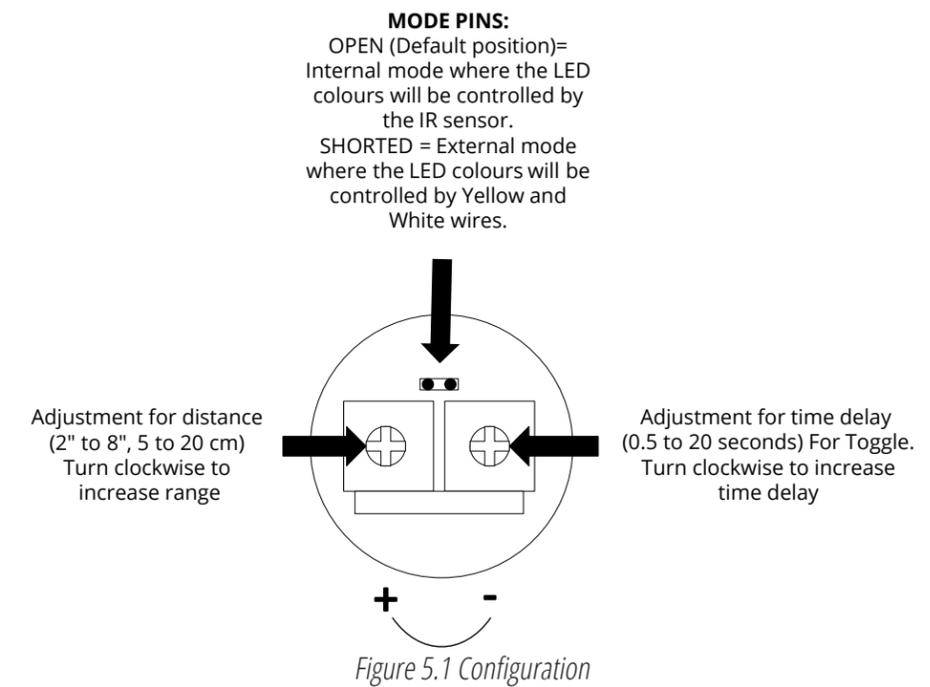
Figure 5.1 Configuration

6. CM-221 to CX-33PS CONNECTIONS

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

The CX-WC17VR-PS-M2 Restroom Control Kit comes with the CX-33PS Advanced Logic Relay, Power Supply and Cabinet, which has a set of two terminal strips. The terminal strips are pre-wired with clear labels, and a complete wiring diagram is displayed inside the door and included in the later sections of this manual to provide a wiring layout reference when connecting field devices to the kit.

The left-side terminal strip is used to power CX-33PS, the PUSH to OPEN (both exterior and interior) Column™ Switches, PUSH to LOCK

Column™ Switch, the door position switch, and the wet trigger. The right switch of the terminal is used to power the outputs to drive the strike (Relay 1), door operator (Relay 2), LED light (Relay 3), and provide VDC power for the door strike. A complete wiring diagram is included in this manual.

IMPORTANT: 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.

7. CX-ED1689L ELECTRIC STRIKE INSTALLATION

1. Check that the door jamb has a cutout that fits the strike assembly. If not, refer to figure 4.2 for guidance.
2. Follow the instructions in section 7 to connect the wires.
3. Use the 12-24 x 1/2" machine screws provided to mount the strike onto the door jamb.
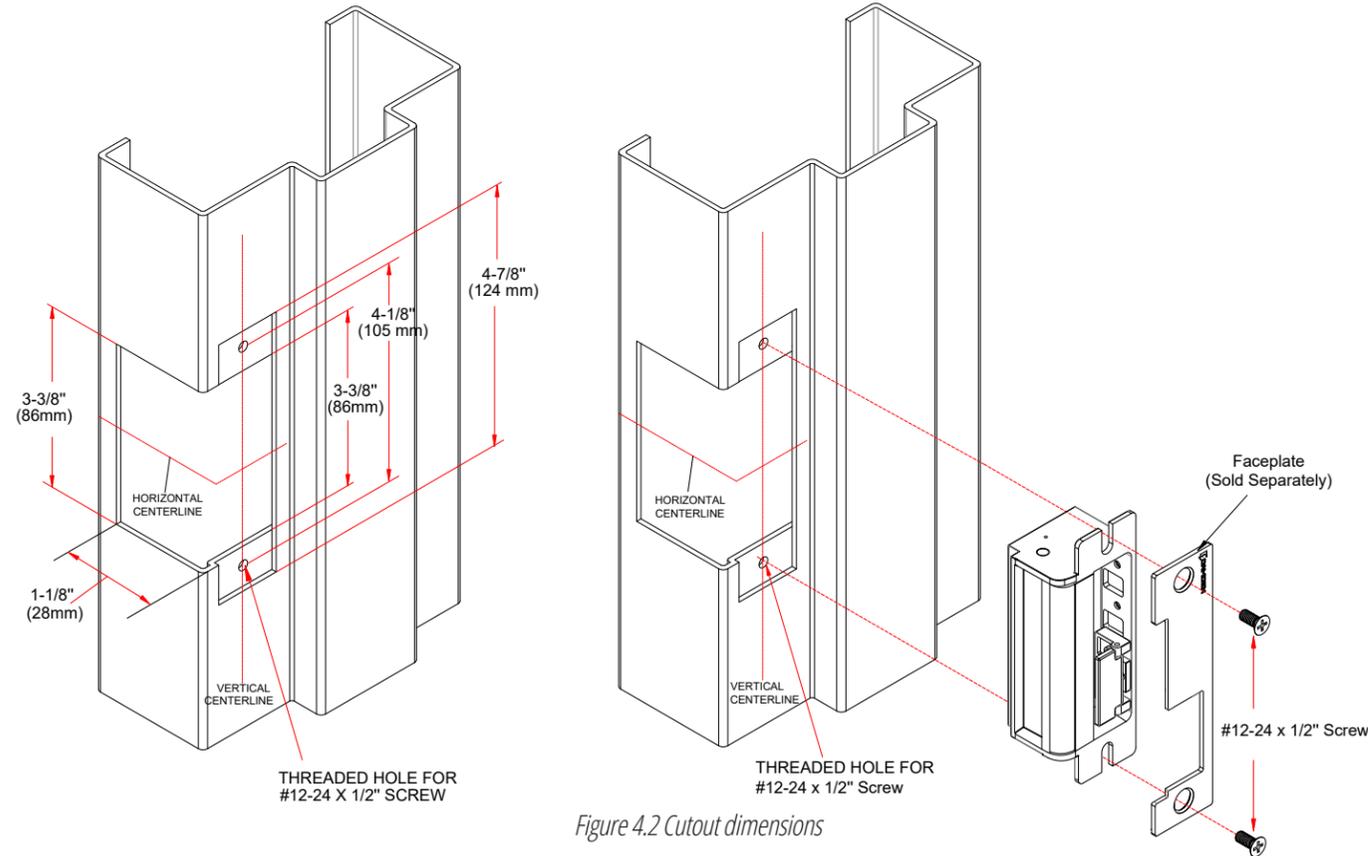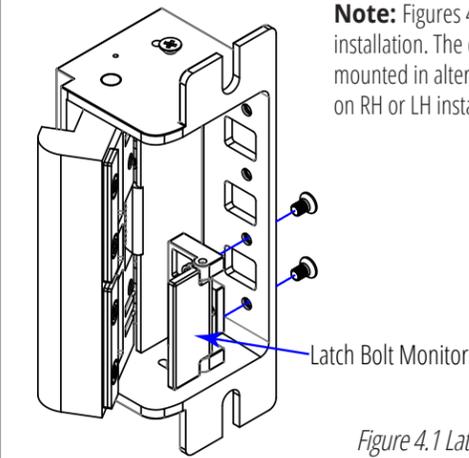4. Test the fit of the electric strike in the mortise. If necessary, adjust it until it fits properly.

LATCH BOLT INSTALLATION

Bracket Installation

Note: Figures 4.1 show typical installation. The dead bolt bracket, can be mounted in alternate locations depending on RH or LH installation.

Latch Bolt Monitor

Figure 4.1 Latch bolt installation

ANSI FRAME

4-7/8" (124 mm)

4-1/8" (105 mm)

3-3/8" (86mm)

3-3/8" (86mm)

HORIZONTAL CENTERLINE

1-1/8" (28mm)

VERTICAL CENTERLINE

THREADED HOLE FOR #12-24 X 1/2" SCREW

HORIZONTAL CENTERLINE

VERTICAL CENTERLINE

THREADED HOLE FOR #12-24 x 1/2" Screw

Faceplate (Sold Separately)

#12-24 x 1/2" Screw

Figure 4.2 Cutout dimensions

8. GAP ADJUSTMENT BETWEEN KEEPER AND LATCH

The strike comes with four keeper shims included in the package for adjusting the gap between the keeper and latch.

To modify the gap,

1. First loosen and remove the two set screws that secure the keeper shims (see Figure 5.1).
2. Add or remove shims as needed to achieve the desired gap between the latch and keeper.
3. Once the gap is adjusted, securely tighten the two set screws to keep the shims in place.

Tighten Screws

STEP 1

STEP 2
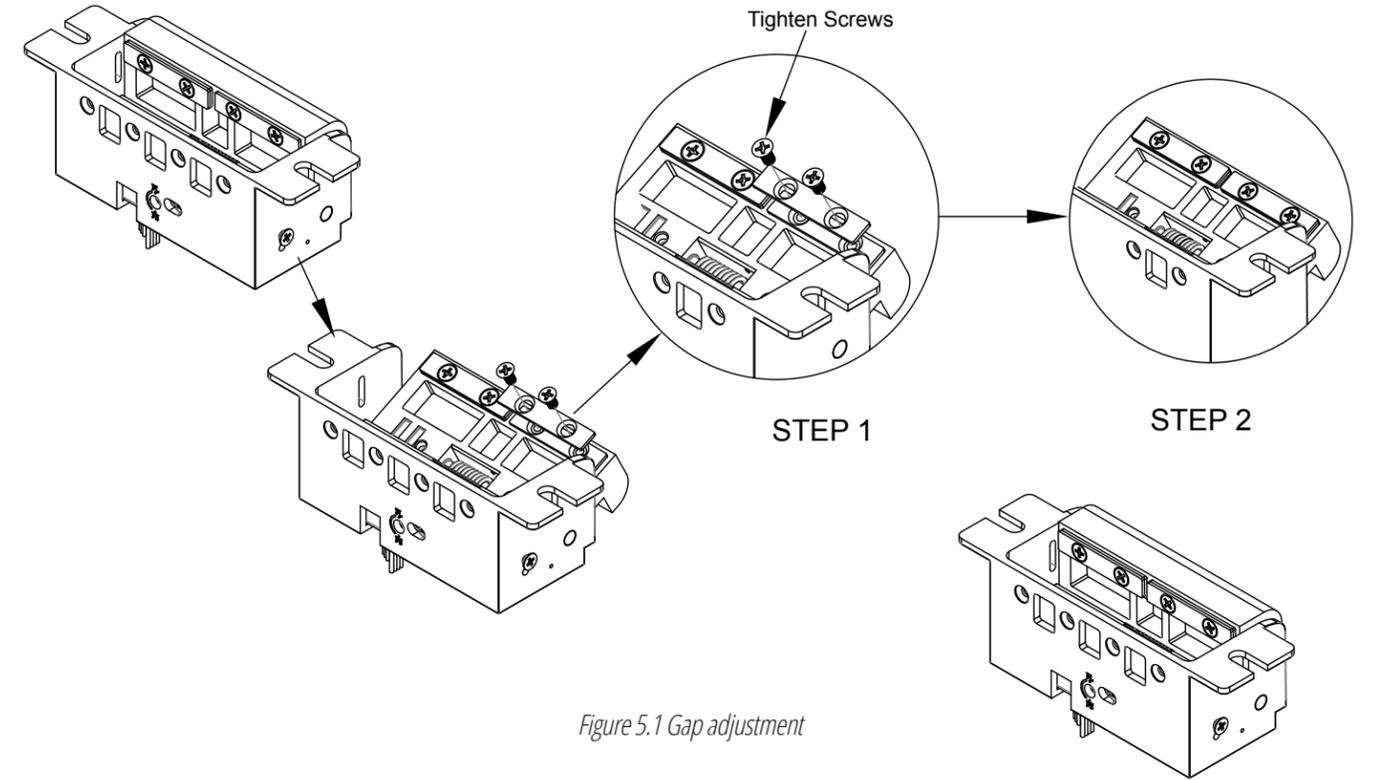
Figure 5.1 Gap adjustment

9. CONNECTION

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

A varistor is provided to protect/prevent strike from voltage spikes. Connect varistor between input wires. (See Figure 6.1)

Latch Bolt Monitor

This SPST monitor provides position status for the lockset latch bolt. When the latch is engaged, this monitor will provide a contact closure between the COM (white) and NO (purple) wires.

Strike Monitor Operation

The Strike Monitor provides status information for the operation of the strike. When the strike is activated this Form C monitor changes state.

Door Contact

The provided concealed door contact provides the ability to monitor the status of the door in conjunction with the latch bolt monitor. The door contact can be monitored separately or can be connected in series with the latch bolt monitor. The door contact operates with the same logic as the latch bolt monitors. It provides an OPEN connection when the door is open and a CLOSED connection when the door is closed.

Purple
White
Purple
White
Optional Form C
For cut wires

Strike Monitor Wires:
Purple - Common
Yellow - Normally Open
Blue - Normally Closed

12V
(+12V) — Red / Black
Varistor
(-) — Blue / Green

24V
(+24V) — Red / Black / Blue
Varistor
(-) — Green

Or
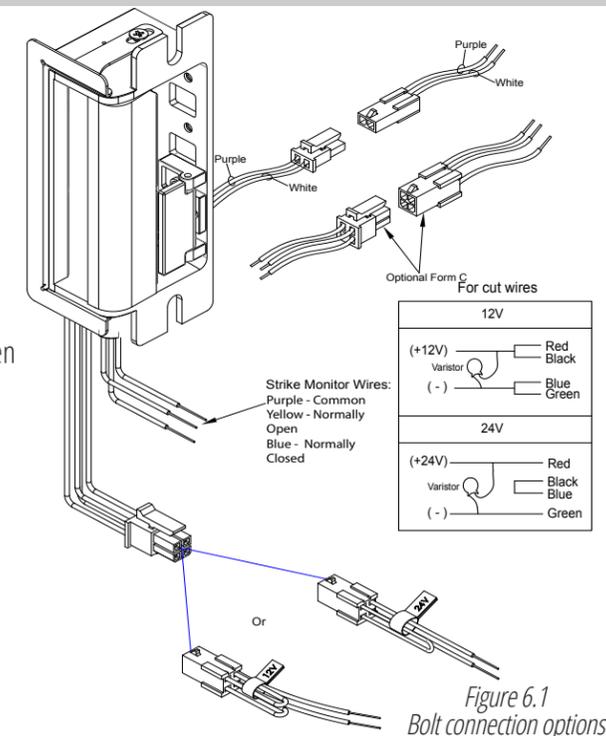
Figure 6.1 Bolt connection options

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.

10. OPERATION

The strike is designed to operate in fail-secure mode by default. However, if needed, it can be changed to fail-safe mode by adjusting the mode screw as follows (See Figure 7.1):

1. Loosen the set screw.
2. Turn the mode screw counterclockwise (CCW) to enable fail-safe mode or clockwise (CW) to enable fail-secure mode.
3. Tighten the set screw.

CW = Fail Secure
CCW = Fail Safe

Mode Set Screw
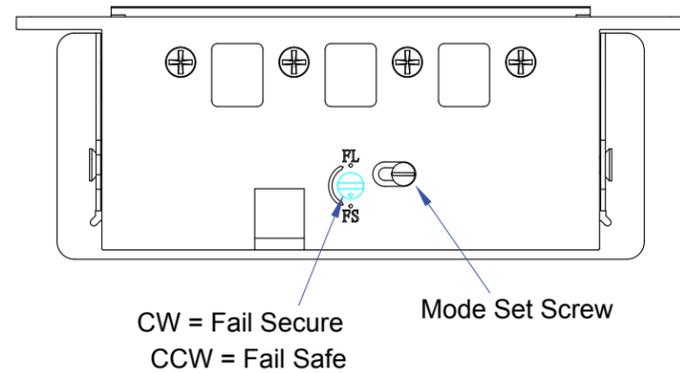
Figure 7.1 Strike operation from Fail Secure to Fail Safe and vice-versa

ORDERING INFORMATION FOR PART REPLACEMENT

PART NUMBER	DESCRIPTION
60-31A083	Touchless Sensor Switch With External Led Control
60-40E036VR	WC17VR-PS-M2 Multifunction Relays In Pre-Wired Metal Cabinet
CX-MDA	Magnetic Door Contact
CX-ED1689L-4	Grade 2 Universal Electric Strike
CM-7536VR/4	36" Column "Push To Open" Switch
CM-7536VR/8B	36" Column "Push To Lock" Switch

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)

CX-WC17VR-PS-M2 Wiring Diagram

120 VAC

Transformer
CX-TRX-5024
24 VAC, 50 VA

Electric Strike
CX-ED1689L

MOV

Wire MOV directly to strike or magnet

Model: 60-40E036VR

AC	+ Lock
AC	+ Strike
Outside	- Strike
Push To Open	*
Inside	Door
Push To Open	Operator
Push To Lock	*
	Green LED
DPS NC	Red LED
DPS COMM	*
+ WET	+ VDC
- INPUT	- VDC

Door Operator

Door Position Switch

N.C.

PUSH TO OPEN

PUSH TO OPEN

PUSH TO LOCK

CM-7536VR/4
Outside
Push to Open

CM-7536VR/4
Inside
Push to Open

CM-7536VR/8B
Push to Lock

CM7536VR/4 & CM-7536VR/8B TOUCHLESS SENSOR SETTINGS

MODE PINS:
OPEN (Default position)= Internal mode where the LED colours will be controlled by the IR sensor.
SHORTED = External mode where the LED colours will be controlled by Yellow and White wires.

Adjustment for distance (2" to 8", 5 to 20 cm) Turn clockwise to increase range

Adjustment for time (0.5 to 20 seconds) Turn clockwise to increase time delay

+ -

#	Color	Function
1	Red	12 to 24 VDC
2	Black	0 VDC (Ground)
3	Yellow	Green LED controlled by external mode.
4	White	Red/Blue LED, controlled by external mode.
5	Green	Relay: Normally Open
6	Blue	Relay: Common
7	Purple	Relay: Normally Closed

ATTENTION:
CONNECT GREEN (NORMALLY OPEN) AND BLUE (COMMON) TO THE BLACK WIRES FROM THE SWITCHES IN THE CM-7536VR V2.

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.

CAMDEN DOOR CONTROLS

2395 Skymark Ave,
Mississauga, ON
L4W 4Y6

SCALE: NONE	DRAWN BY: JML (JF)	DATE: Mar. 5, 2026	REV: 0

CX-WC17VR-PS-M2 Wiring Diagram

DRAWING No: CX-WC17VR-PS-M2-WD-1	FILENAME: CX-WC17VR-PS-M2-WD.ai

CX-WC17VR-PS-M2 Wiring Diagram with CX-WEC10K2 Integration

120 VAC

Transformer
CX-TRX-5024
24 VAC, 50 VA

Electric Strike
CX-ED1689L

MOV

Wire MOV
directly to
strike or
magnet

Left terminal block (Model: 60-40E036VR):
- AC
- AC
- Outside
- Push To Open
- Inside
- Push To Open
- Push To Lock
- DPS NC
- DPS COMM
- + WET
- − INPUT

Right terminal block:
- + Lock
- + Strike
- − Strike
- *
- Door
- Operator
- *
- Green LED
- Red LED
- *
- + VDC
- − VDC

Model: 60-40E036VR

Door Operator

Door Position Switch

(((|)))   N.C.

Connect directly to
DPS if no Emergency
Call System is installed

CM-7536VR/4
Outside
Push to Open

CM-7536VR/4
Inside
Push to Open

CM-7536VR/8B
Push to Lock

PUSH TO OPEN

PUSH TO OPEN

PUSH TO LOCK

CM-AF141SO

GRY
GRY

CM-AF540SO

N/O   N/C
3   1
4   2

BLK
BLK

CX-WEC10-K2
Emergency Call System Wiring

MODE PINS:
OPEN (Default position)=
Internal mode where the LED
colours will be controlled by
the IR sensor.
SHORTED = External mode
where the LED colours will be
controlled by Yellow and
White wires.

**CM7536VR/4 & CM-7536VR/8B
TOUCHLESS SENSOR SETTINGS**

Adjustment for distance
(2" to 8", 5 to 20 cm)
Turn clockwise to
increase range

Adjustment for time
(0.5 to 20 seconds)
Turn clockwise to increase
time delay

+   −

#	Color	Function
1	Red	12 to 24 VDC
2	Black	0 VDC (Ground)
3	Yellow	Green LED controlled by external mode.
4	White	Red/Blue LED, controlled by external mode.
5	Green	Relay: Normally Open
6	Blue	Relay: Common
7	Purple	Relay: Normally Closed

ATTENTION:
CONNECT GREEN (NORMALLY OPEN) AND BLUE (COMMON)
TO THE BLACK WIRES FROM THE SWITCHES IN THE CM-7536VR V2.

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.

CAMDEN DOOR CONTROLS

2395 Skymark Ave,
Mississauga, ON
L4W 4Y6

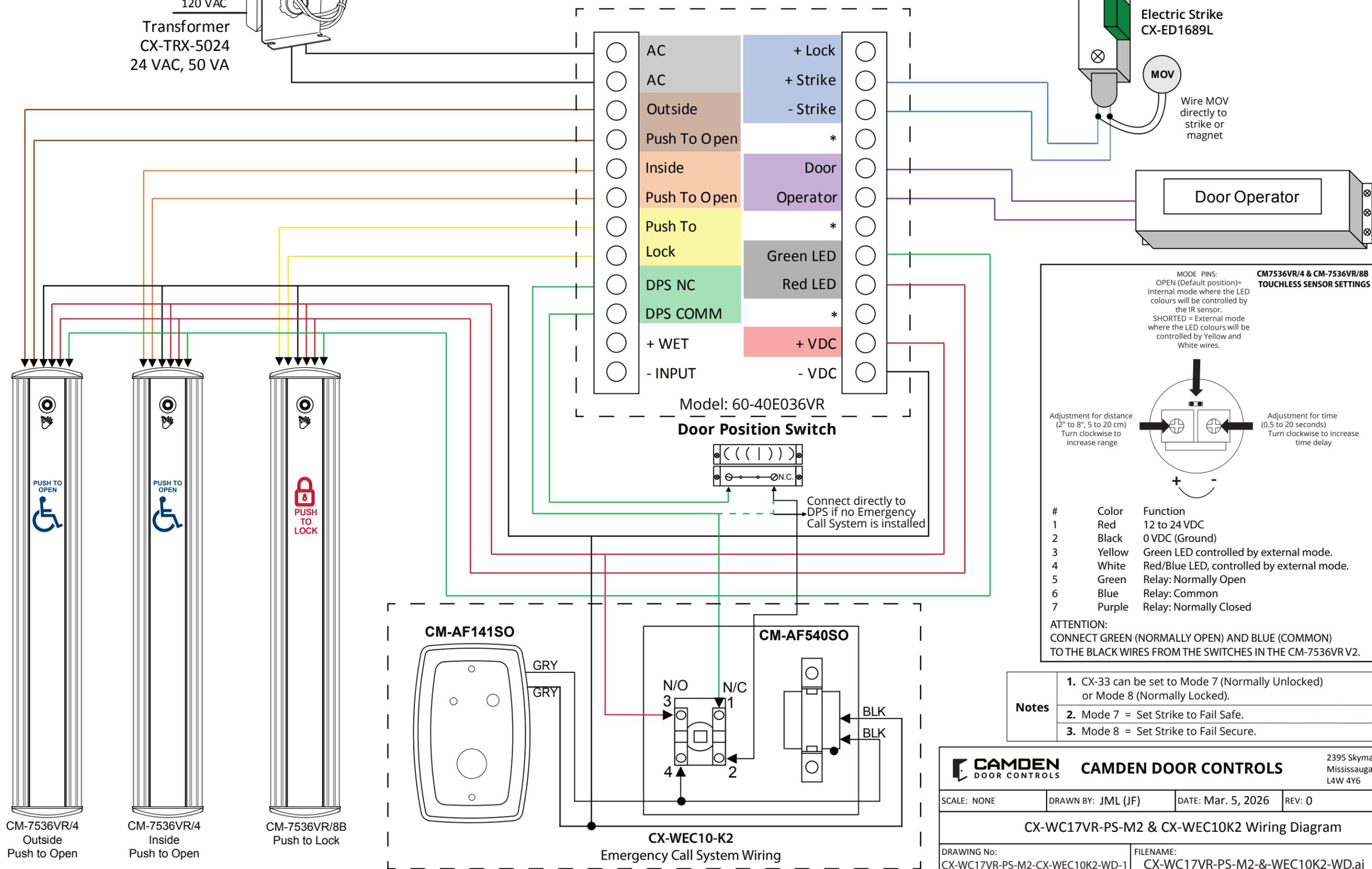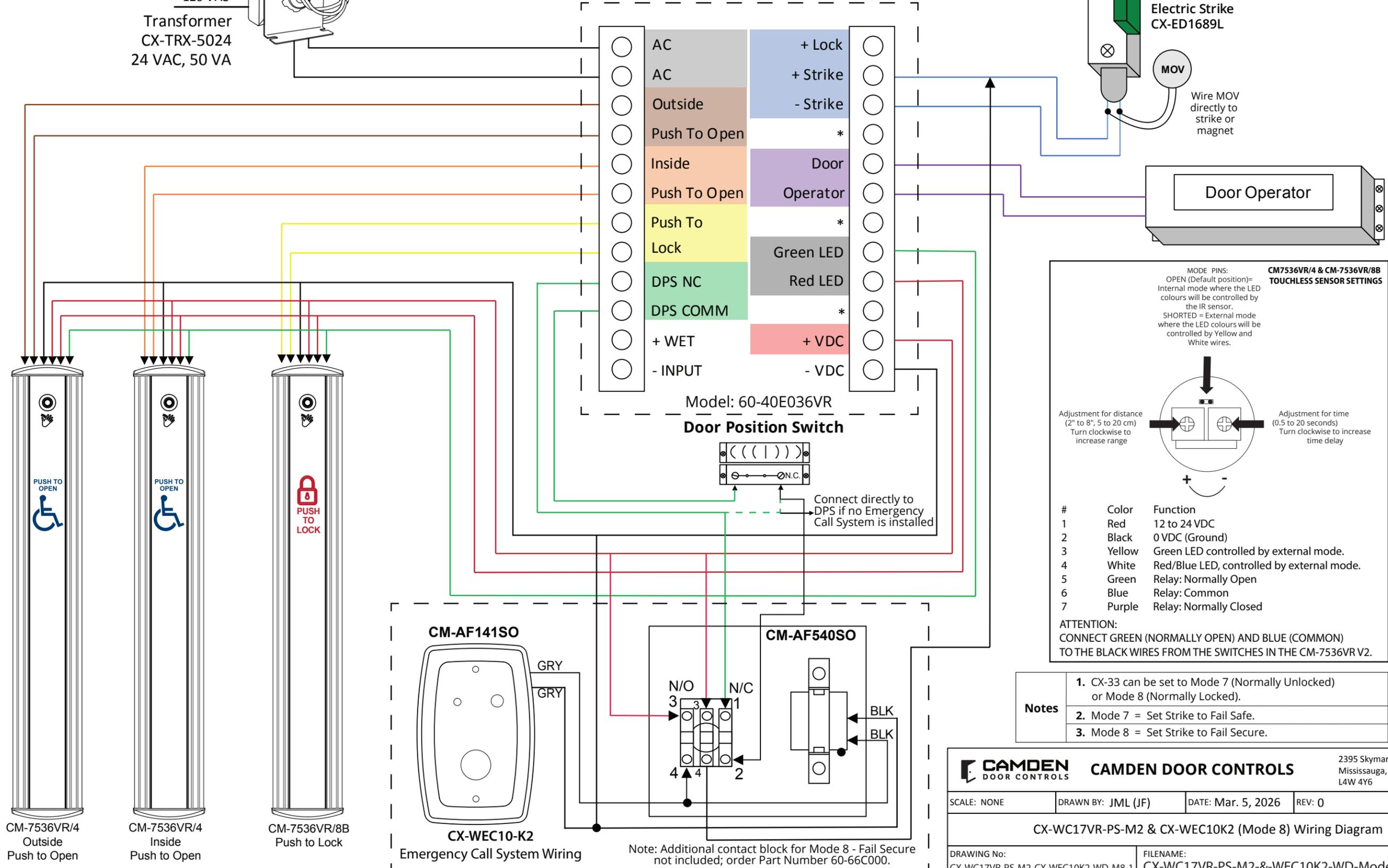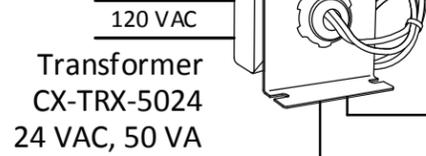| SCALE: NONE	DRAWN BY: JML (JF)	DATE: Mar. 5, 2026	REV: 0

CX-WC17VR-PS-M2 & CX-WEC10K2 Wiring Diagram

DRAWING No:
CX-WC17VR-PS-M2-CX-WEC10K2-WD-1

FILENAME:
CX-WC17VR-PS-M2-&-WEC10K2-WD.ai

CX-WC17VR-PS-M2 Wiring Diagram with CX-WEC10K2 Integration
(With additional contact block for Mode 8 - Fail Secure/Normally Locked setting)

120 VAC

Transformer
CX-TRX-5024
24 VAC, 50 VA

Electric Strike
CX-ED1689L

MOV

Wire MOV directly to strike or magnet

Door Operator

AC	+ Lock
AC	+ Strike
Outside	- Strike
Push To Open	*
Inside	Door
Push To Open	Operator
Push To Lock	*
	Green LED
DPS NC	Red LED
DPS COMM	*
+ WET	+ VDC
- INPUT	- VDC

Model: 60-40E036VR

Door Position Switch

N.C.

Connect directly to DPS if no Emergency Call System is installed

CM-7536VR/4
Outside
Push to Open

CM-7536VR/4
Inside
Push to Open

CM-7536VR/8B
Push to Lock

PUSH TO OPEN

PUSH TO OPEN

PUSH TO LOCK

CM-AF141SO

GRY
GRY

CX-WEC10-K2
Emergency Call System Wiring

CM-AF540SO

N/O   N/C
3 3   1

4 4   2

BLK
BLK

Note: Additional contact block for Mode 8 - Fail Secure not included; order Part Number 60-66C000.

MODE PINS:
OPEN (Default position)= Internal mode where the LED colours will be controlled by the IR sensor.
SHORTED = External mode where the LED colours will be controlled by Yellow and White wires.

CM7536VR/4 & CM-7536VR/8B TOUCHLESS SENSOR SETTINGS

Adjustment for distance (2" to 8", 5 to 20 cm) Turn clockwise to increase range

Adjustment for time (0.5 to 20 seconds) Turn clockwise to increase time delay

#	Color	Function
1	Red	12 to 24 VDC
2	Black	0 VDC (Ground)
3	Yellow	Green LED controlled by external mode.
4	White	Red/Blue LED, controlled by external mode.
5	Green	Relay: Normally Open
6	Blue	Relay: Common
7	Purple	Relay: Normally Closed

ATTENTION:
CONNECT GREEN (NORMALLY OPEN) AND BLUE (COMMON) TO THE BLACK WIRES FROM THE SWITCHES IN THE CM-7536VR V2.

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.

CAMDEN DOOR CONTROLS

2395 Skymark Ave, Mississauga, ON L4W 4Y6

| SCALE: NONE | DRAWN BY: JML (JF) | DATE: Mar. 5, 2026 | REV: 0 |

CX-WC17VR-PS-M2 & CX-WEC10K2 (Mode 8) Wiring Diagram

DRAWING No:
CX-WC17VR-PS-M2-CX-WEC10K2-WD-M8-1

FILENAME:
CX-WC17VR-PS-M2-&WEC10K2-WD-Mode-8.ai

Spec Ref # : CX-WC17VR-PS-M2 & CX-WEC10K2

CX-WC17SLVR-PS EQUIPMENT PACKAGE:

- 1 CX-33PS(50-40E036VR) - POWER SUPPLY CABINET.
- 2 CM-7536VR/4 - 36" COLUMN SWITCH WITH 'WHEELCHAIR SYMBOL' AND 'PUSH TO OPEN' GRAPHICS, MOUNTED HANDS FREE SWITCH AND 'OCCUPIED WHEN RED' SIGN.
- 3 CM-7536VR/4 - 36" COLUMN SWITCH WITH 'WHEELCHAIR' SYMBOL AND 'PUSH TO OPEN' GRAPHICS, MOUNTED HANDS FREE SWITCH.
- 4 CM-7536/8B - 36" SIDE LOAD COLUMN SWITCH WITH 'LOCK ICON' AND 'PUSH TO LOCK' GRAPHICS, MOUNTED HANDS FREE SWITCH AND ' LOCKED WHEN RED' SIGN.
- 5 CX-MDA - MAGNETIC DOOR CONTACT.
- 6 CX-ED1689L-4 - UNIVERSAL ELECTRIC STRIKE.

CX-WEC10K2 EQUIPMENT PACKAGE:

- 7 CM-AF540SO - 'PRESS FOR EMERGENCY ASSISTANCE' SWITCH & 'ASSISTANCE REQUESTED' LED ANNUNCIATOR WITH SOUNDER
- 8 CM-AF141SO - 'ASSISTANCE REQUIRED' SINGLE GANG LED DOME LIGHT WITH SOUNDER
- 9 CM-SE21A - EMERGENCY ASSISTANCE SIGN

ADDITIONAL PARTS REQUIRED
BUT NOT INCLUDED WITH THE CX-WC17SLVR-PS & CX-WEC10K2:
- 10 DOOR OPERATOR - SUPPLIED BY OTHERS.
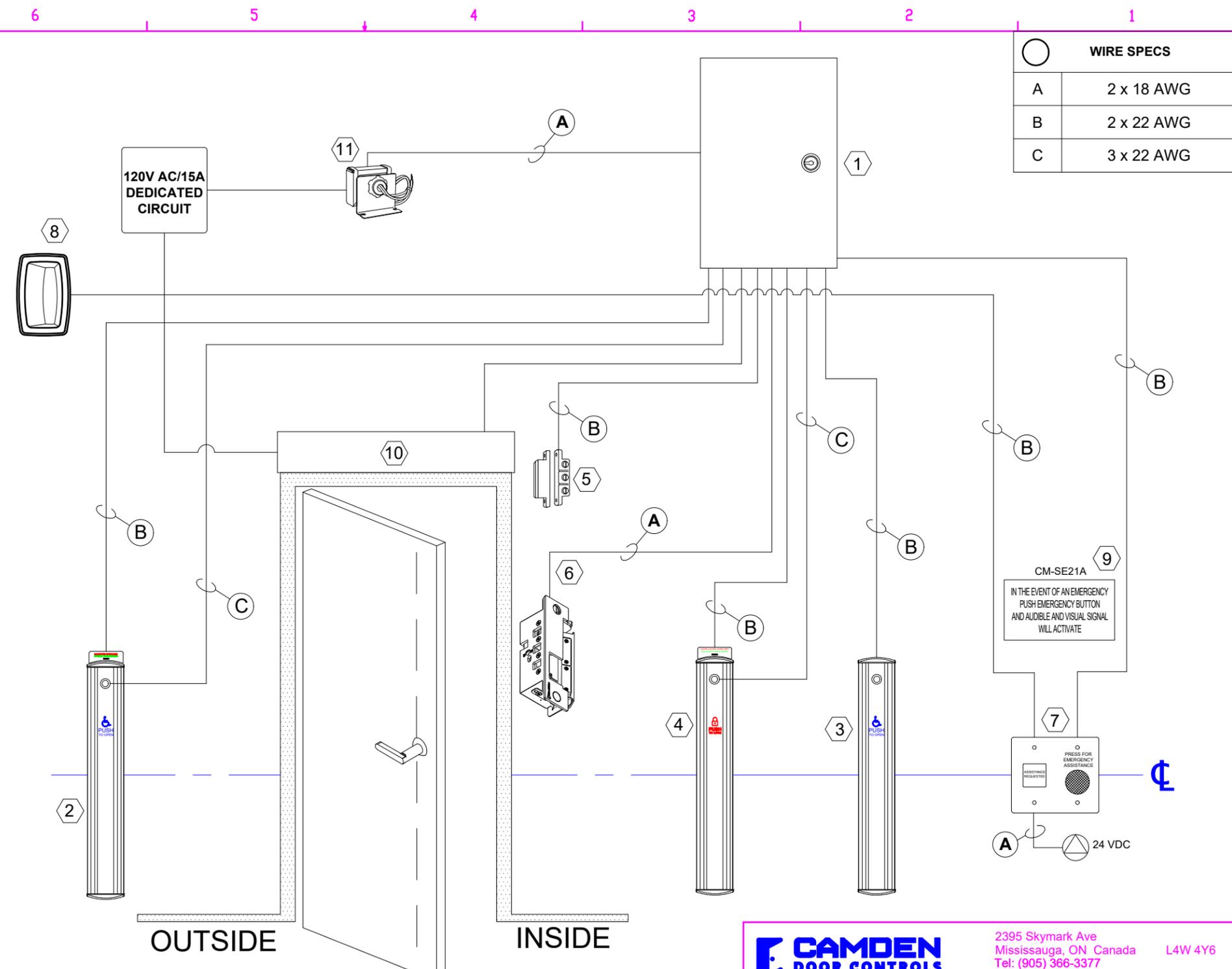- 11 CX-TRX-5024 - 50VA, 24 VAC TRANSFORMER.

SYSTEM OPERATION

CX-WC17VR-PS-M2 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 AND INTERIOR LED ANNUNCIATOR FROM GREEN TO RED
D.　PRESSING THE INTERIOR 'PUSH TO OPEN' SWITCH UNLOCKS THE DOOR, DEACTIVATES THE ILLUMINATED LED ANNUNCIATOR AND RESETS THE SYSTEM
E.　IF THE DOOR IS OPENED MANUALLY TO EXIT THE RESTROOM, THE OVERHEAD MAGNETIC CONTACT SWITCH RESETS THE SYSTEM.

CX-WEC10K2 OPERATION:

A.　THE ' PRESS FOR EMERGENCY ASSISTANCE' MUSHROOM PUSH BUTTON IS ACTIVATED BY THE OCCUPANT.
B.　THIS ENERGIZES THE LED ANNUNCIATOR AND SOUNDER WITHIN THE WASHROOM, AND THE DOME   LIGHT WITH SOUNDER OUTSIDE THE WASHROOM.
C.　BOTH ANNUNCIATORS WILL BE ENERGIZED UNTIL THE LATCHING MUSHROOM PUSH BUTTON SWITCH IS PULLED OUT.

WIRE SPECS	
A	2 x 18 AWG
B	2 x 22 AWG
C	3 x 22 AWG

120V AC/15A DEDICATED CIRCUIT

CM-SE21A

IN THE EVENT OF AN EMERGENCY PUSH EMERGENCY BUTTON AND AUDIBLE AND VISUAL SIGNAL WILL ACTIVATE

PRESS FOR EMERGENCY ASSISTANCE

ASSISTANCE REQUESTED

24 VDC

OUTSIDE

INSIDE

CAMDEN DOOR CONTROLS

2395 Skymark Ave
Mississauga, ON Canada   L4W 4Y6
Tel: (905) 366-3377
www.camdencontrols.com

	NAME	DATE
DRAWN	Carlos V.	06/Mar/26
CHECKED		
ENG APPR.		
MFG APPR.		
Q.A.		
COMMENTS:		

TITLE:
WASHROOM BARRIER FREE DOOR CONTROL & EMERGENCY CALL SYSTEMS

SIZE	DWG. NO.	REV
B	CX-WC17VR-PS-M2 & CX-WEC10K2 Riser	

SCALE: N/A   SHEET 1 OF 1