LCN®

8310-2420 Push Plate Restroom Kit

Model 8310-2420

Installation Instructions

CAUTION

The product warranty will be voided if the product is mounted for an exterior door and/or is exposed to elements.

For cleaning purposes, do not expose components to extreme wash-down.

The electric strike is not water-proof.

Description

Actuators

Available faceplates:

Dual Single Gang "Push to Open/Push to Lock" with illuminated flush mount box

Double Gang "Push to Open" with illuminated flush mount box

E-strike

Provided faceplates:

- 4-7/8" x 5/8" (ANSI Square/Hollow Metal)
- 6-7/8" x 5/8" (Aluminum)
- 7-7/8" x 5/8" (Wood Door)

- **Transformer**
- Open style, channel bracket, two-hole chassis mount.
- 120 VAC @ 60 Hz.
- Minimum 6" leads
- Class B insulation (130º C)

Cabinet

- 11-1/16" x 7-7/8" x 2-11/16"
- Power Supply (blue circuit board), Relay Module (green circuit board), and two terminal buses
- **Must be set to 24VDC output**

Parts lists

Main parts list

Item #	Description	Quantity
1	"Push to Open" switch	1
2	"Push to Open/Push to Lock" combo switch	1
3	LED electrical board	2
4	LED diffuser	2
5	Power supply/relay cabinet	1
6	Door position switch	1
7	Flush mounting boxes	2

Item #	Description	Quantity
8	"Wait for Door to Close" vinyl decal	1
9	"Door locked when red/unlocked when green" black vinyl sign	1
10	"Door occupied when red/vacant when green" black vinyl sign	1
11	E-strike with 3 faceplates and hardware (see the E-strike parts list below)	1
12	Transformer	1

E-strikes parts list

Item #	Description	Quantity
1	E-strike (comes pre-installed w/ ANSI faceplate)	1
2	Aluminum faceplate	1
3	Wood faceplate	1
4	Faceplate template	3
5	24V female connector	1
6	Varistor (MOV)	1
7	Trim plate	1

Item #	Description	Quantity
8	Mounting brackets	2
9	Wire nuts	4
10	#10-32 x ½" machine screws (installed w/ ANSI faceplate on e-strike)	2
11	#10 - 1¼" wood screws (used for mounting brackets to wood frame)	2
12	M5 x 12mm machine screws (for mounting brackets - 2 screws for securing the frame brackets and 2 screws for securing the electric strike)	4

Technical specifications

Actuators

Descriptions	8310-2420 Series
Input voltage (for LED electronic board)	24V DC
Current draw (for LED electronic board)	110 mA @ 24 VDC
Contact rating	3A @ 30 VDC
Lumina red	14.8 lumens, 1600 mW
Lumina green	3.8 lumens, 330 mW
Sounder	3200 ± 300 Hz @ 85 dB
Relay contact	1 x Form C
Mounting	4 x #12 wood screws with anchors
Construction	Flame-resistant black ABS (insert-translucent ABS)
Finish	Attractive pebble finish
Dimensions	6 1/2" x 6 1/2" x 2" (165 mm x 165 mm x 51 mm)

E-strike

Descriptions	8310-2420 Series
Voltage	24 DC
Current Draw	150 mA maximum @ 24 VDC
Static strength	1000 lbs.
Dynamic strength	50-ft. lbs.
Mode	Field selectables Fail safe/fail secure
Mechanical adjustment	Strike body/faceplate
Operation	DC-silent
Duty	Continuous
Dimensions (body)	3 3/8" x 1 7/8" x 1 7/32" (86 mm x 47 mm x 31 mm)

Transformer

Descriptions	8310-2420 Series
Input voltage	120V AC
Output voltage	24V AC @ 60 Hz
Class	B2
Power	50 VA

DPS Switch

Descriptions	8310-2420 Series
Power max.	3.0 W
Electrical configuration	SPDT
Suggested Wiring	22AWG
Gap distance max.	0.75"

Operation at a glance

When the exterior PUSH TO OPEN button is pressed it will trigger the PBTN input on its electrical board causing its N.O. relay contact to send a momentary closure to the outside PUSH TO OPEN on the restroom kit allowing the door to swing open. When the interior PUSH TO LOCK button is pressed, it will trigger the PBTN input on its electrical board, causing its N.O. relay contact to send a momentary closure to inside PUSH TO LOCK , causing the restroom kit to lock the restroom and switch the electrical board colors from green to red. The inside PUSH TO OPEN button is wired directly to inside PUSH TO OPEN on the restroom kit. 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 restroom kit to reset and unlock the door. The electrical board will switch back to green, signaling that the restroom is now vacant.

Installation

1 Mounting

CAUTION

The product warranty will be voided if the product is mounted for an exterior door and/or is exposed to elements.

For cleaning purposes, do not expose components to extreme wash-down.

The electric strike is not water-proof.

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

Actuators

ⓘ **NOTE: Actuators are for interior use only!**

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

1b Slide in the black vinyl behind the flush enclosure and fit them inside the dry wall bracket.

1c Ensure the two mounting holes on the bracket and the flush enclosure align. Use the 8-32 Phillips screws to completely tighten in place.

1d Place the electronic board inside the flush enclosure, making sure the screw holes on the electronic board align with the screw holes inside the flush enclosure. Use the #6 x 3/8" self-tapping screws to tighten the electronic board in place.

1e Place the diffuser insert inside the flush enclosure, making sure the mounting screw holes on the diffuser insert and the flush enclosure align.

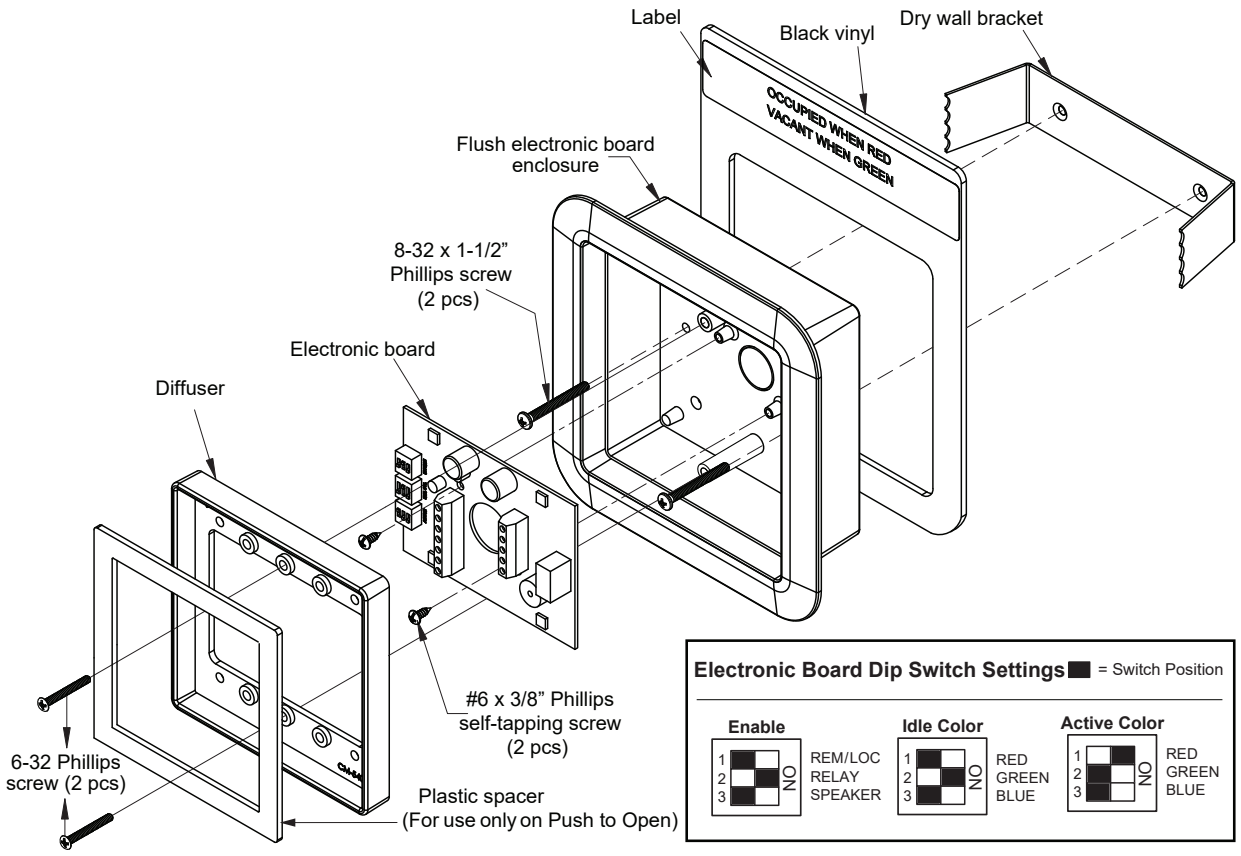
For Push to Open switches

a. Use the 6-32 hex head screws to tighten the diffuser insert slightly.
b. Fit in the assembled push plate by locating the screws with the holes on the back plate.
c. Fit the hex key through the hole on the face plate and completely tighten the 6-32 screws in place.

ⓘ **Note: Do not overtighten!**

For Push to Open/Push to Lock combo switch

a. Fit the plastic spacer inside the diffuser insert.
b. Place the combo switch inside the diffuser insert, making sure the mounting holes on the board and on the back plate align.
c. Use the 6-32 Phillips screws to tighten in place.



E-strikes

ⓘ **Note: This can only be used with cylindrical locks. These cannot be used with mortise locks, deadbolts, or rim exit devices. Allegion suggests a storeroom function for a cylindrical lockset when paired with an e-strike (ex. the Schlage ND-Series ND80).**

ⓘ **Note: this e-strike is not rated for preloading (pressure against the strike when the door is closed).**

1a Prepare the door jamb, per the drawing below.

1b Confirm whether the strike is for fail safe or fail secure mode.

1c Install the mounting brackets to the jamb using M5 x 12mm screws and pressed metal nuts. Do not tighten.

1d Install electric strike jamb by attaching with #10-32 screws and lock washers.

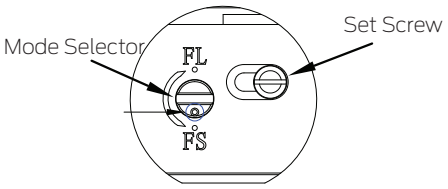
1e Secure M5 x 12 screws hold mounting brackets to jamb.

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

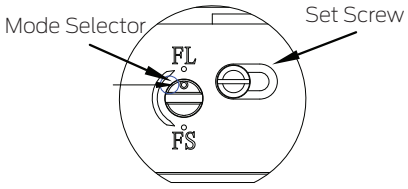
1a Loosen the screw, as per the product diagram below.

1b Rotate the set plate 180º and slide the plate until it is properly seated.

1c Tighten the screw.

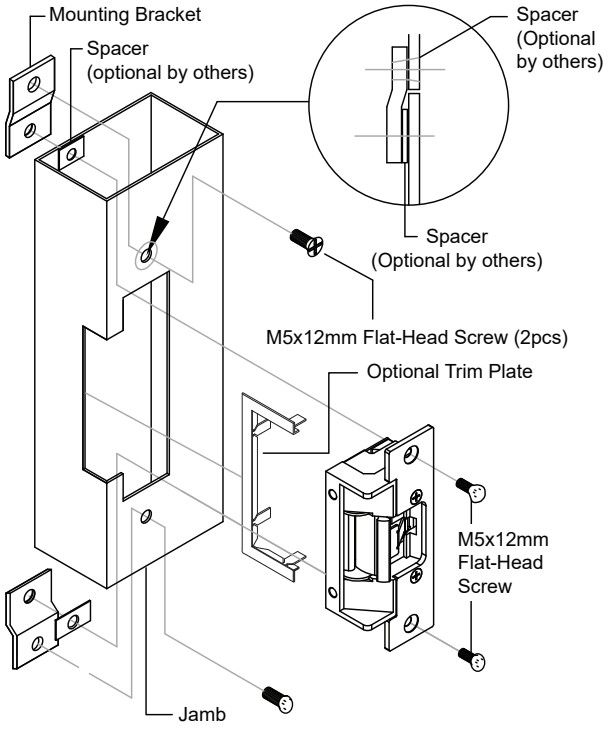


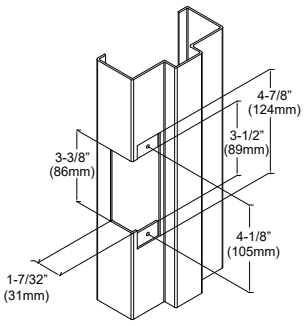
Fail-Safe mode when
Mode Selector is pointing to Fail Safe



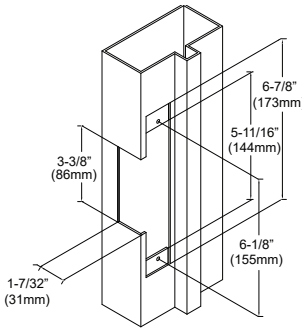
Fail-Lock mode when
Mode Selector is pointing to Fail Lock

ⓘ **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 (power loss results in locked door), 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.**

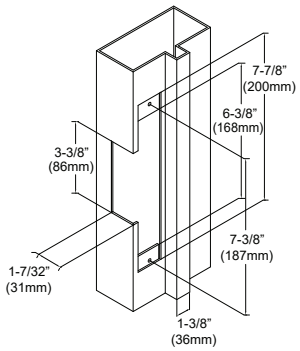




ANSI square/Hollow metal



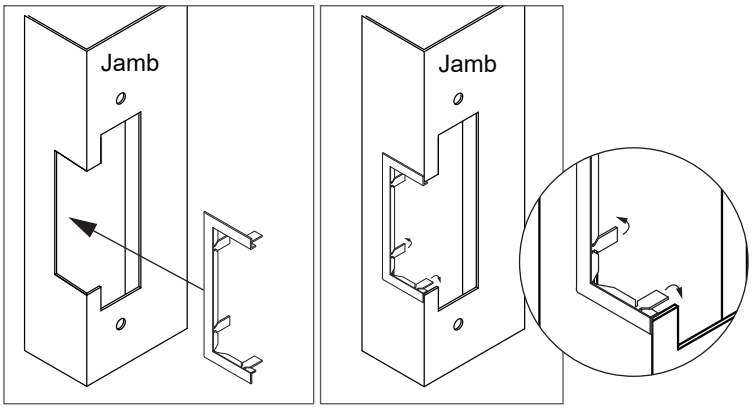
Aluminum



Wood

Optional trim plate installation

Used for retrofit installation, if gaps need to be filled in.



Cabinet

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

The 8310-2420 cabinet should be mounted in a clean, dry location out of direct contact with the elements. The cabinet base dimensions can be seen on the separate cabinet base template (on page 17).

DPS Switch

ⓘ **NOTE: The gap distance should not exceed 0.75".**

1a Determine mounting location on the door frame.

1b Mark and drill two holes for mounting the switch.

1c Mount the switch to the frame with the screws.

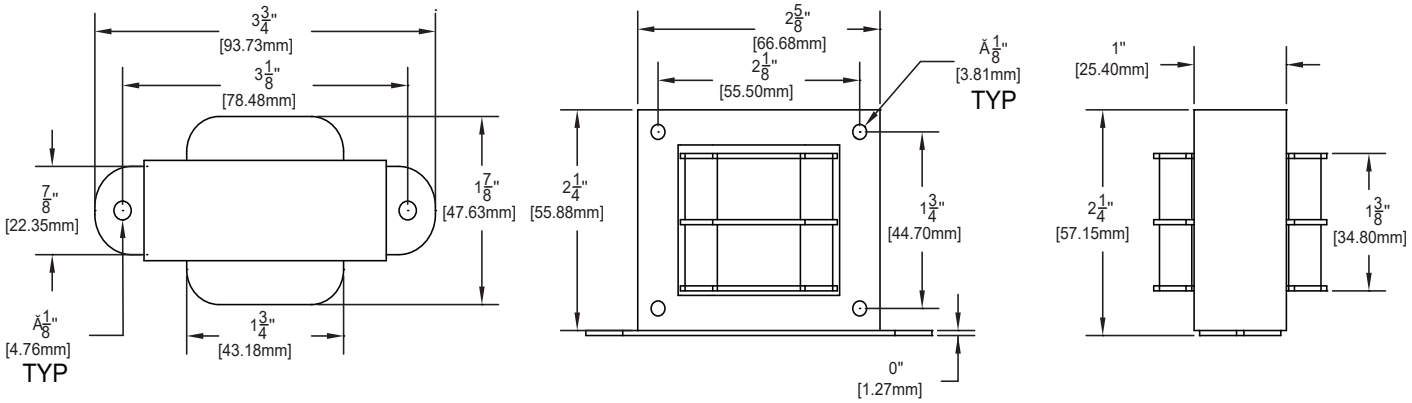
1d Align the magnet on the door with the switch.

1e Mark and drill two holes for the mounting magnet.

1f Mount the magnet with the screws.

Transformer

The transformer should only be installed OUTSIDE of the Power Supply Cabinet per all National Electric Code (NEC) / NFPA 70 requirements along with local code requirements, and it should be kept in close proximity to the Power Supply Cabinet. For verification of code compliance, we recommend reaching out to the AHJ (Authority Having Jurisdiction), which may be your local Fire Marshall. Pending approval from the AHJ, the transformer may be mounted to the side of the Power Supply Cabinet (requires drilling) or mounted in a separate utility box to house it (typically installed by an electrician). As previously stated, the installation will need to be compliant with all local and NEC requirements.



2 Wiring

⚠ CAUTION

Do not apply power to the unit until all secondary wiring is complete, and dip-switches have been set.

All applications

The 8310-2420 comes with the relay module pre-wired to a labeled set of two terminal strips. 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.

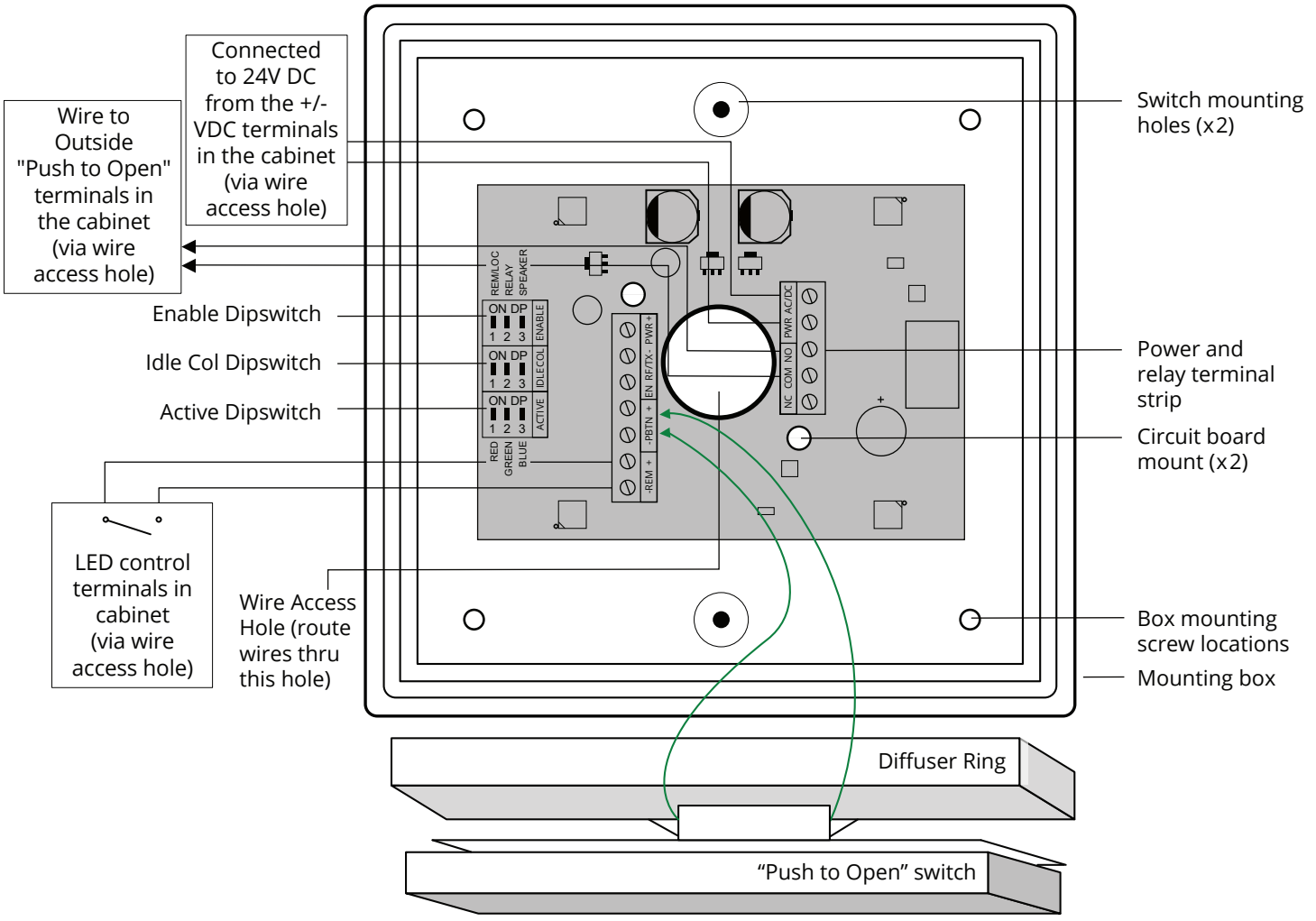
There are two terminal strips that mirror the locations on the relay module. The left strip is used for power to the relay module, the PUSH TO OPEN and PUSH TO LOCK buttons, the door position switch, and the Wet trigger. The right strip is for the outputs to drive the strike (Relay 1), door operator (Relay 2), electronic board LEDs (Relay3), and to provide VDC power for the door strike.

Once all field devices are wired to the 8310-2420, then AC power can be wired in.

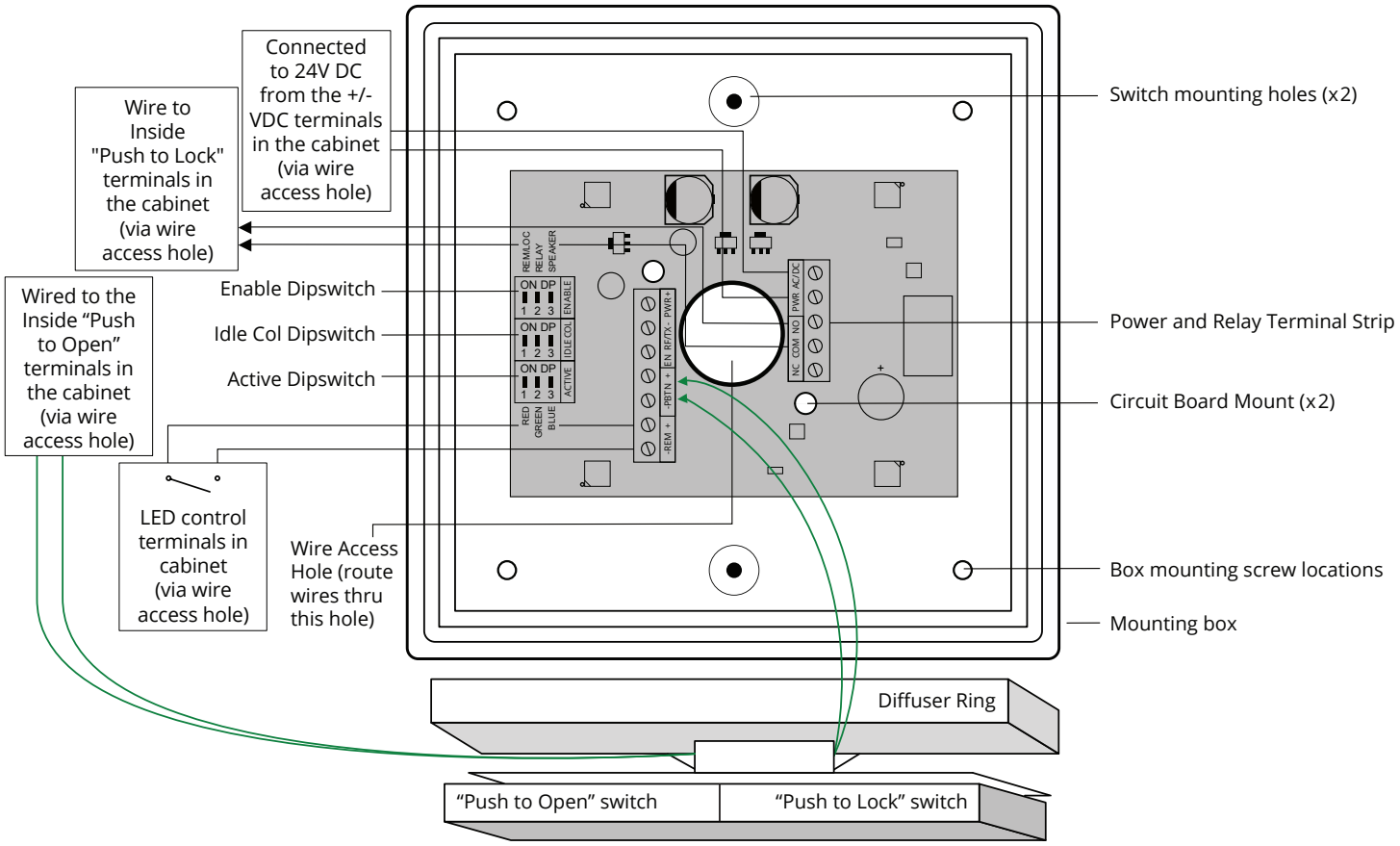
ⓘ **IMPORTANT: Confirm the electrical panels breaker you are going to be using is currently off. Do not wire the primary terminals of the transformer until the secondary terminals are connected first.**

The supplied transformer will have its secondary terminals wired to the terminals (red wires from the transformer) on the top of the left terminal strip marked as “AC”. Next, wire the primary terminals (black wires from the transformer) to the AC feed to be used. Confirm your connections and apply power by turning on the electrical panel breaker.

Actuator wiring



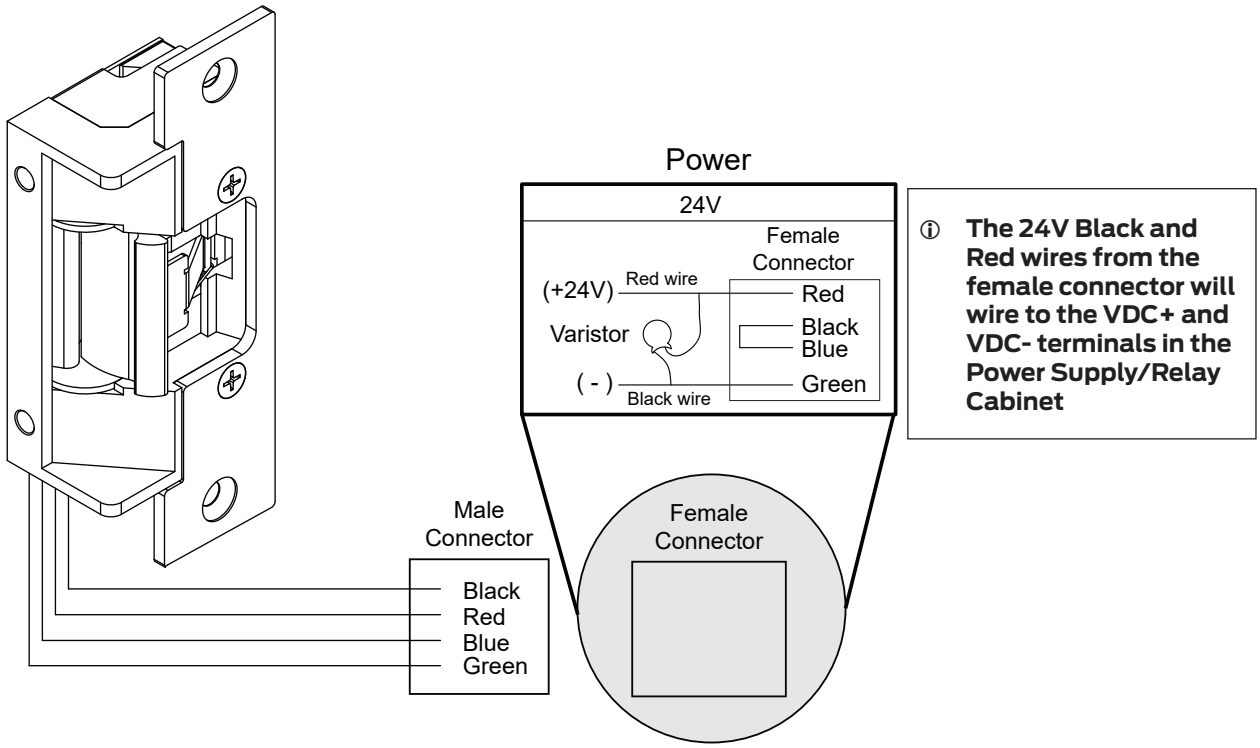
Outside “Push to Open” actuator wiring diagram (typical)



Inside "Push to Open/Push to Lock" actuator wiring diagram (typical)

E-strike

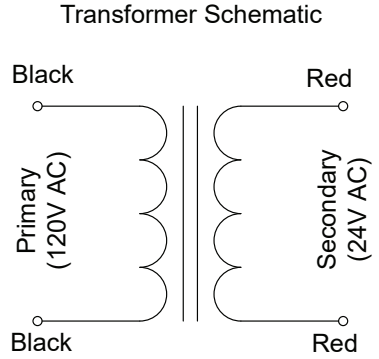
A varistor is provided to protect/prevent strike from spikes. Connect varistor between input wires.

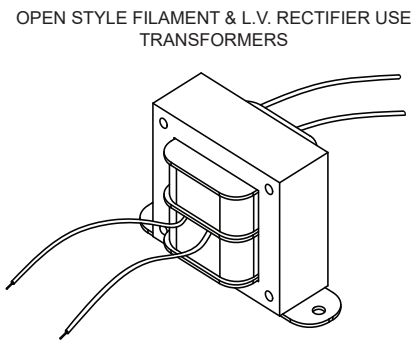


The 24V Black and Red wires from the female connector will wire to the VDC+ and VDC- terminals in the Power Supply/Relay Cabinet

Transformer

Refer to the graphic below to wire the transformer.





DPS switch

Wire the switch as needed for the application.

3 Set-up

ⓘ **NOTE: The red dip switches (power supply dip switches) need to be set for 24V.**
- **Dip switch SW1 should be set to OFF**
- **Dip switch SW2 should be set to ON**

All applications

The restroom kit has two restroom applications built in (Mode 7 & 8). The default mode for the restroom kit is Mode 7 (normally unlocked). Determining which mode is correct for you will be based on whether the restroom will be set to fail safe (Mode 7) or fail secure (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 restroom kit simply press the MENU button once and use the UP button to advance to the desired mode.

Editing the Settings for a Mode

Typical times are pre-set 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 chart below.

Factory Reset (Defaulting the relay module)

To return the relay module back to its factory default settings you will need to remove power, then hold down the “MENU” button while powering up the power supply. 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 restroom kit 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 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 relay module 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	Not used.	Not used

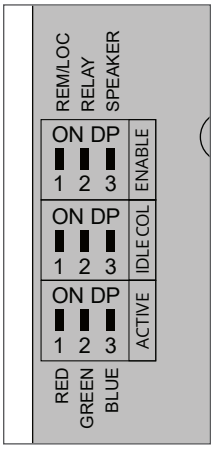
Actuators

Dip Switch Settings

The Enable Dip Switch Bank contains three dip switches.

Dip switch #3 turns the speaker on or off. Dip switch #2 toggles relay operation, and should be left ON for standard operation. Dip switch #1 allows you to choose whether the color will be changed locally via the push switch or remotely, and should be left OFF for standard operation.

Idle color selection is made with the Active and Idle COL dip switch banks. The Active dip switch bank determines the active color, and the COL dip switch bank determines the idle color.



See the diagrams below for the dip switch functionalities:

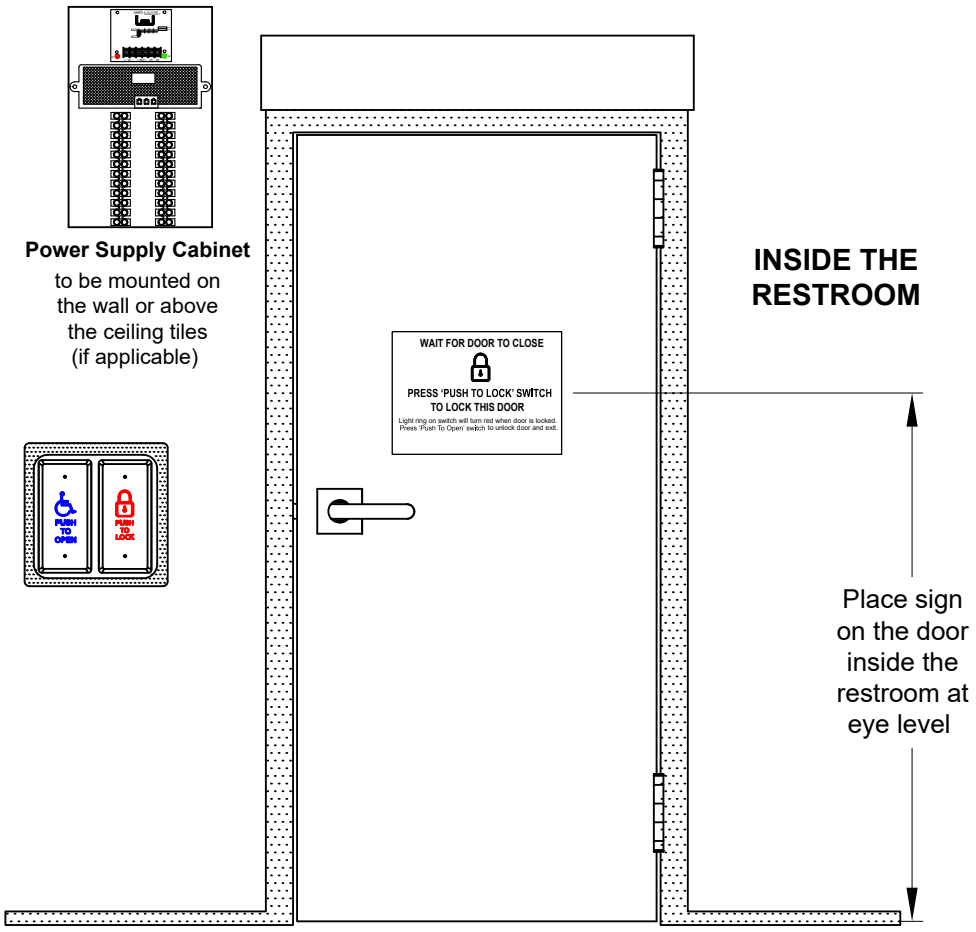
Enable Dip Switch Bank	
Switch number	**Description**
1	REMOTE/LOCAL on to enable LED color change from idle to Active with press of the push button.
2	RELAY On to enable operation of the relay with activation of the push button.
3	SPEAKER On to enable operation of the speaker with activation of the push button.

Idle COL Dip Switch Bank	
Switch number	**Description**
1	ON = Red LED when IDLE
2	ON = Green LED when IDLE
3	ON = Blue LED when IDLE

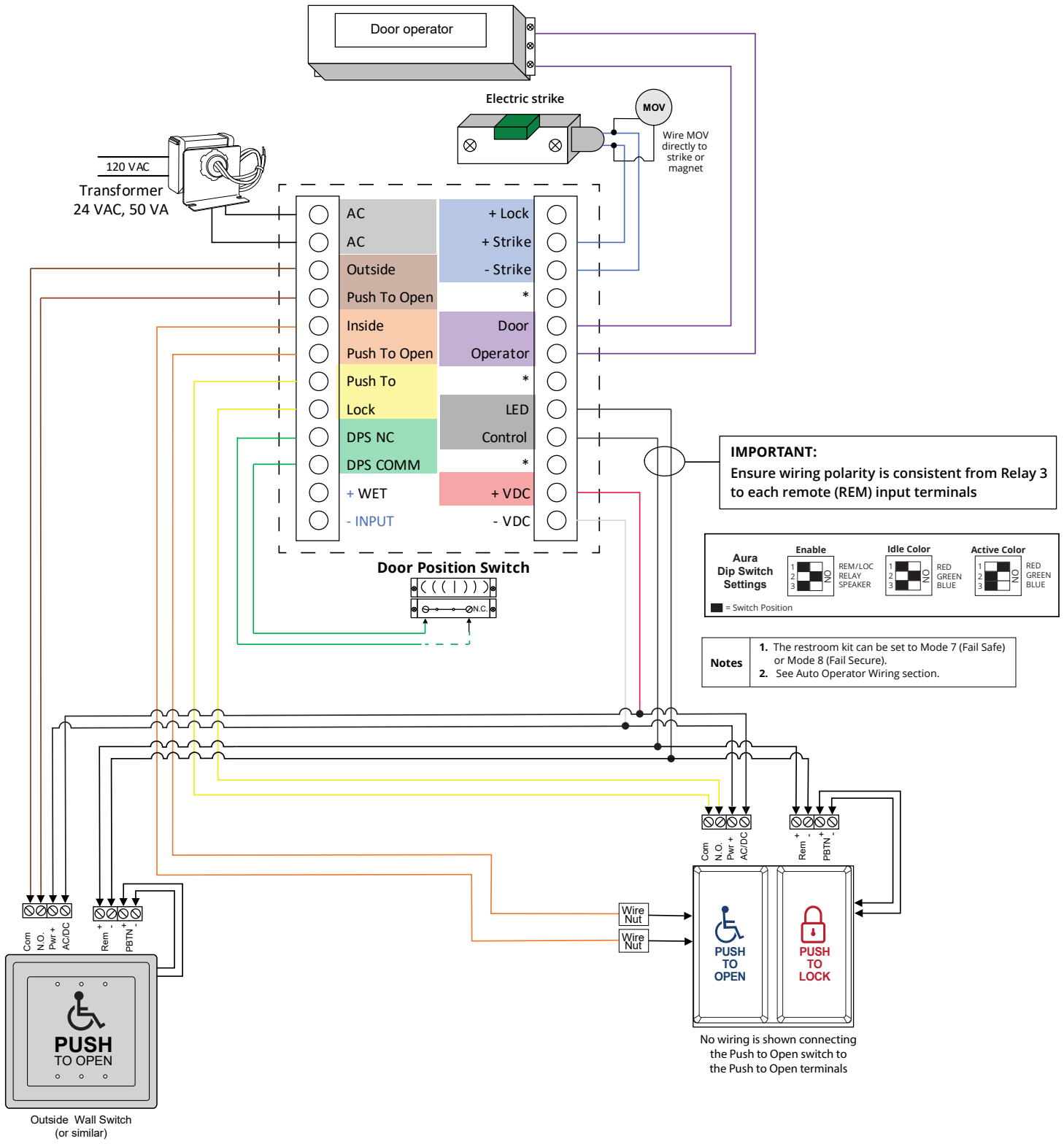
Active Dip Switch Bank	
Switch number	**Description**
1	ON = Red LED when active
2	ON = Green LED when active
3	ON = Blue LED when active

ⓘ **NOTE: If all dip switches are in the OFF position, there will be no color illuminated. This allows for no idle color or no active color.**

4 Restroom signage



5 Wiring diagram



6 Auto Operator Wiring

Auto operator	COM	NO
4630/4640 Series Electric Auto-Equalizers	Terminals 17 or 19	Terminals 16 or 18
7900 Series Pneumatic Auto-Equalizers	Terminal 10	Terminal 8 (for Door A) or Terminal 6 (for Door B)
9100 Series Benchmark	Either “MAIN ACT” terminal	Either “MAIN ACT” terminal
2800/9500 Series Senior Swing	P6 or P7 cable, yellow wire	P6 or P7 cable, gray wire

Troubleshooting

Power supply/Relay cabinet

Scenario	Cause	Solution
No LEDs (Red or Green) on in Power Supply/Relay Cabinet	120V not supplied to transformer	Verify 120V connection to black wires (Primary) on transformer.
	Improper wiring to transformer	Verify 120V connection to black wires (Primary) on transformer.
	Incorrect voltage from transformer	Verify a minimum of 24VAC output from red wires (Secondary). Typical Output ~27VAC.
Logic Module Display won’t turn on, but Power Supply LEDs (Red & Green) on	Improper wiring from transformer to cabinet	Verify red transformer wires are wired to AC inputs on power supply (in cabinet).
	Power wires disconnected	Verify the red and white wires are connected to Logic Module power input.
		Verify red and white wires are connected to power board.
	Power supply DIP switches set improperly	Verify DIP switches are set to 24V.

E-strike (Fail Safe mode)

Scenario	Cause	Solution
Electric strike won’t lock after closing the door or after pushing “Push to Lock”	Logic Module not in Mode 7	Change Logic Module to Mode 7 and ensure all mode 7 settings are set as shown in the instructions
	No power to the strike	Ensure proper wiring from Door Strike terminals to Electric Strike wiring harness (female).
		Check if voltage is present across Door Strike terminals in the cabinet after pushing the button. If voltage is present, ensure all wires to the electric strike harness are fully connected and that the harness is fully seated/connected to the electric strike connector.
		If voltage is not present across Door Strike terminals, ensure wires from the Logic Module are fully connected to the Door Strike terminals. If the wires are not connected, then they need to be connected. The Logic Module’s blue wire should go to the upper (+) terminal, and the Logic Module’s white wire should go to the lower (-) terminal.
		If wires going from the Logic Module to the Door Strike terminals have not come loose/disconnected at either end, then check to ensure that the LED display on the Logic Module is lit up as ‘7’. If the module is set to ‘7’, then ensure all mode 7 settings are set as shown in the instructions.
		If the LED Display is not on, then check the power troubleshooting section as either the module is bad or the module is not being powered up.
		If the LED Display is not set to ‘7’, press the far left “MENU” button on the Logic Module and use the “UP” or “DOWN” buttons to scroll to mode ‘7’. Ensure all mode 7 settings are set as shown in the instructions.

Scenario	Cause	Solution
Electric strike won't lock after closing the door or after pushing "Push to Lock"	Electric Strike itself is set to Fail Secure rather than Fail Safe.	Follow the electric strike instructions in the Set-up section to change the screw on the back of the strike from Fail Secure to Fail Safe.
	Strike is not fully seated/ in the closed position or there's pressure against the strike when it is unlocked.	The strike needs to be in the fully closed position in order for the strike to lock. If the strike is somehow being held open manually or through stack pressure, then the strike will not lock until it is back in the closed position. This can be caused by pressure against the door / strike as the door is latching, which may prevent the door from fully closing / latching.
	Female connector is not plugged in properly to the male connector coming off the electrick strike.	If the female connector is not plugged in properly, the electric strike will not function right. The tab on the female connector must line up with the tab on the male connector as shown in illustration A. If this is corrected and the electric strike does not work, test the electric strike solenoid resistance to ensure the solenoid was not damaged, as mentioned in a previous troubleshooting step.
	DPS wiring is not correct.	Check to ensure the DPS is wired correctly into the correct terminals in the Cabinet. Also verify there are no loose connections on the DPS itself or in the Cabinet.
	Door Position Switch (DPS) is not closed.	Ensure DPS is mounted properly so that the DPS contact is made. If it appears to be closed, checked for continuity across the DPS wires to the cabinet to ensure the DPS is not internally defective.
	Issue with actuator	Ensure that a dry contact is being made when the Push to Lock actuator is pressed. Ensure all wiring is correct and there are no loose connections.
Electric strike won't unlock	Pressure against the strike when it is locked.	If there is pressure against the strike when it is locked, then it will not unlock when the solenoid releases. This can be caused by too much stack pressure on the door pressing on the strike.
	Electric Strike itself is set to Fail Secure rather than Fail Safe.	Follow the electric strike instructions in the Set-up section to change the screw on the back of the strike from Fail Secure to Fail Safe.
	Logic Module not in Mode 7	Change Logic Module to Mode 7 and ensure all mode 7 settings are set as shown in the instructions.
	Issue with actuator or Electronic LED Board	Verify all wiring and refer to the Actuator and Electronic LED Board troubleshooting section if not resolved.
Electric strike locks when using either outside actuator or "Push to open"	Logic Module not in Mode 7	Change Logic Module to Mode 7 and ensure all mode 7 settings are set as shown in the instructions.
	Issue with actuator or Electronic LED Board	Verify all wiring and refer to the Actuator and Electronic LED Board troubleshooting section if not resolved.

E-strike (Fail Secure mode)

Scenario	Cause	Solution
Electric strike won't unlock using inside or outside actuator	Logic Module not in Mode 8	Change Logic Module to Mode 8 and ensure all mode 8 settings are set as shown in the instructions
	No Power to the strike	Ensure Proper wiring from Door Strike terminals to Electric Strike wiring harness.
		Check if voltage is present across Door Strike terminals in the cabinet directly after pushing the button. This needs to be done immediately after pressing the button. If voltage is present, ensure all wires to the electric strike harness are fully connected and that the harness is fully seated/connected to the electric strike connector.
		If voltage is not present across Door Strike terminals, ensure wires from the Logic Module are fully connected to the Door Strike terminals. If the wires are not connected, then they need to be connected. The Logic Module's blue wire should go to the upper (+) terminal, and the Logic Module's white wire should go to the lower (-) terminal.
		If wires going from the Logic Module to the Door Strike terminals have not come loose/disconnected at either end, then check to ensure that the LED display on the Logic Module is lit up as '8'. If the module is set to '8', then ensure all mode 8 settings are set as shown in the instructions.

Scenario	Cause	Solution
Electric strike won't unlock using inside or outside actuator (cont.)	No Power to the strike (cont.)	If the LED display is not on, then check the power troubleshooting section as either the module is bad or the module is not being powered up.
		If the LED Display is not set to '8', press the far left "MENU" button on the Logic Module and use the "UP" or "DOWN" buttons to scroll to mode '8'. Ensure all mode 8 settings are set as shown in the instructions.
	Electric Strike itself is set to Fail Safe rather than Fail Secure.	Follow the electric strike instructions in the Set-up section to change the screw on the back of the strike from Fail Safe to Fail Secure.
	Strike is not fully seated/ in the closed position	The strike needs to be in the fully closed position in order for the strike to unlock. If too much force is pressing on the strike, then the strike will also not unlock.
	Female connector is not plugged in properly to the male connector coming off the electrick strike.	If the female connector is not plugged in properly, the electric strike will not function right. The tab on the female connector must line up with the tab on the male connector as shown below. If this is corrected and the electric strike does not work, test the electric strike solenoid resistance to ensure the solenoid was not damaged, as mentioned in a previous troubleshooting step.
	Issue with actuator or electronic LED board	Verify all wiring and refer to the actuator and electronic LED board troubleshooting section if not resolved.
Electric strike won't lock after closing the door or after pushing "Push to Lock"	Pressure preventing the strike from fully closing.	If there is pressure against the door/strike as the door is latching, then the door may not fully latch. If this occurs, the source of the pressure/force needs to be removed so that the door can fully close. This can be caused by too much stack pressure preventing the door from latching properly.
	Electric Strike itself is set to Fail Safe rather than Fail Secure.	Follow the electric strike instructions in the set-up section to change the screw on the back of the strike from Fail Safe to Fail Secure.
	Issue with actuator	Ensure that a dry contact is being made when the Push to Lock actuator is pressed. Ensure all wiring is correct and there are no loose connections.

Automatic operator

Scenario	Cause	Solution
Automatic operator will not open	Operator issue	Disconnect the two activation wires from the operator that are wired into the "Door Operator" terminals in the Power Supply Cabinet. Then, manually hold the door open about 45 degrees and momentarily touch the wires together. If the door does not try to open, the issue is with the operator or operator's wiring. If the door does open, continue through the other troubleshooting steps in this section.
	Electric strike is not releasing	See electric strike troubleshooting on page 13.
	Power supply not powered	See power supply troubleshooting on page 12.
	Logic module set to wrong mode	Change logic module to Mode 7 or 8 depending on if your electric strike is set as Fail Safe or Fail Secure, respectively. Ensure all Mode 7 or 8 settings are set as shown in the instructions.
	Wiring issue	Ensure the activation wires from the operator are fully connected to the "Door Operator" terminals in the Power Supply Cabinet. Also double check that the wires running from the "Door Operator" terminals to the Logic Module inside of the Power Supply Cabinet are fully connected.
	Issue with actuator or Electronic LED Board	Verify all wiring and refer to the Actuator and Electronic LED Board troubleshooting section if not resolved.

Scenario	Cause	Solution
Automatic operator will not close	Logic Module set to wrong mode	Change Logic Module to Mode 7 or 8 depending on if your Electric Strike is set as Fail Safe or Fail Secure, respectively. Ensure all mode 7 or 8 settings are set as shown in the instructions
	Logic Module has a stuck relay	Replace unit.
	Wiring issue	Ensure the wiring from the operator is correct and that the activation wires are properly wired into the “Door Operator” terminals in the Power Supply Cabinet.
	Operator issue	Disconnect the two activation wires from the operator that are wired into the “Door Operator” terminals in the Power Supply Cabinet. Then, manually hold the door open about 45 degrees and momentarily touch the wires together. If the door continues to hold open after this, there’s an issue with the operator..
	Issue with actuator or electronic LED Board	Verify all wiring and refer to the Actuator and Electronic LED Board troubleshooting section if not resolved.

Actuators

Scenario	Cause	Solution
Restroom Kit not responding/ or providing incorrect action upon actuator input	Actuator wiring not properly installed	Validate each NO & COM wire is secured & in the correct terminal and the actuator wires are secured in the ‘+’ and ‘-’ PBTN terminals on the LED board
	Incorrect wiring	Push to Lock Actuator wiring validation: NO & COM to "push to lock" cabinet terminals
		Inside Push to Open Actuator wiring validation: actuator wired to "PBTN" on the LED board, and then the LED control board NO & COM terminals wired to "inside push to open" cabinet terminals
		Outside Push To Open Actuator wiring validation: actuator wired to "PBTN" on the LED board, and then the LED control board NO & COM terminals wired to "outside push to open" cabinet terminals.
		Take a jumper wire and touch the screw heads of the PBTN (+) and (-) terminals the actuators wires are hooked up to. If the unit acts as if the actuator was actually pushed, then either the actuator was wired incorrect, the actuator wires were not making full contact with the terminals, or the actuator is faulty.
		Remove actuator wires from LED Electronic Board. Press down on the actuator and check for continuity between the two actuators wires. If no continuity, the actuator is faulty.

LED electronic board

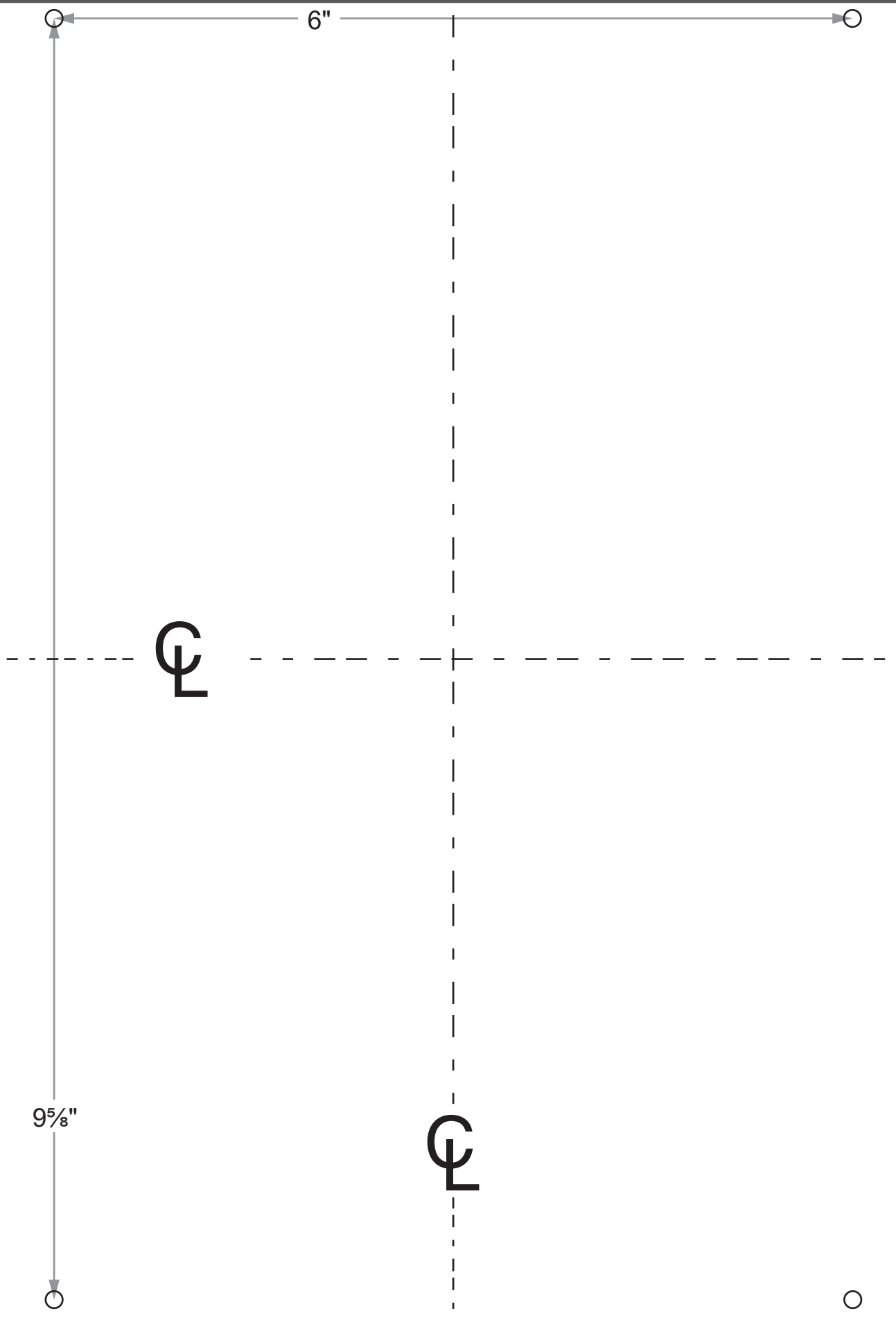
Scenario	Cause	Solution
LED Electronic Board not lighting up LEDs	No power to board	Confirm power terminals are connected to +/- VDC cabinet terminals and wires are fully seated in the power terminals.
		Verify wires from +/-VDC cabinet terminals full connect to the Logic Module. If they do, refer to Power Supply Cabinet troubleshooting.
	DIP Switch Configuration	Verify all DIP switches are not set to OFF position.
Dim LED Electronic Board	Improper Voltage	Confirm Power Supply/Relay Cabinet set to 24V.
Incorrect LED Colors (ie. LED showing red when it should be green)	DIP Switch Configuration	Mode 7 (Idle Color -DIP1-OFF, DIP2-ON, DIP3-OFF. Active -DIP1-ON, DIP2-OFF, DIP3-OFF). Mode 8 (Idle Color -DIP1-ON, DIP2-OFF, DIP3-OFF. Active -DIP1-OFF, DIP2-ON, DIP3-OFF).
LEDs don’t change color (remain on idle color)	DIP Switch Configuration	Confirm if the active DIP switches are set correctly (Mode 7 - Active -DIP1-ON, DIP2-OFF, DIP3-OFF, Mode 8- Active -DIP1-OFF, DIP2-ON, DIP3-OFF).
		Dip Switch #2 in the Enable bank of dip switches needs to be set to "ON". If it's "OFF", an activation signal won't be sent to the Power Supply Cabinet, and the LEDs won't change color.
	Incorrect Wiring	Verify wires are fully seated in the "REM" LED Control Terminals and that these wires are fully connected to the "LED CONTROL" terminals in the Power Supply Cabinet. Also ensure wires from the "LED CONTROL terminals to the Relay Module in the Power Supply Cabinet are fully connected.

Scenario	Cause	Solution
LED changes color from idle to active when pressing the Push to Open actuator	DIP Switch Configuration	DIP Switch #1 in the Enable bank of dip switches needs to be set to "OFF". If it's turned "ON", this will happen.
	Incorrect wiring	The Push to Open actuator is incorreclty wired to the "Push to Lock" terminals in the Power Supply Cabinet. The actuator should be wired per the instructions.

DPS switch

Scenario	Cause	Solution
DPS switch not closing contact	Wiring issue	Verify wiring is correct to Power Supply/Relay Cabinet and DPS wires fully connected.
	Incorrect mounting	Mounting gap should be no more than 3/4” between each half of the DPS.

Do not leave problems unresolved. If a satisfactory solution cannot be achieved after troubleshooting a problem, please contact Allegion at 1-877-671-7011. If you must wait for the following work day to call Allegion, leave the door inoperable until satisfactory repairs can be made. Never sacrifice the safe operation of the automatic door or gate for an incomplete solution.

For more information, visit www.allegion.com.

7 Cabinet base template