



CAMDEN DOOR CONTROLS CM-7536VR Column Switch with Sensor Instruction Manual

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CAMDEN DOOR CONTROLS CM-7536VR Column Switch with Sensor



Product Information

The CM-7536VR Series Hands-Free Column™ switches are designed for easy installation on any flat wall surface or on Model CM-42 or CM-48 anodized aluminum or stainless-steel bollards. The package includes mounting hardware for all options. The switch runs on 12 to 24 VDC +/- 10% voltage with a current of 45 mA (peak) and has a contact rating of 1 Amp @ 30 VDC. It is constructed with heavy-duty extruded aluminum and comes in anodized clear, dark bronze, or stainless steel finish. The switch has a temperature range of -20 to 55 degrees Celsius and a quick response time of 10ms.

Product Usage Instructions

1. Choose a flat wall surface or Model CM-42 or CM-48 anodized aluminum or stainless-steel bollards for installation.
2. Mount the switch using the provided mounting hardware.
3. Do not use AC Voltage for this unit. Ensure the power source is within the voltage range of 12 to 24 VDC +/- 10% and current of 45 mA (peak).
4. In a typical application, approach the CM-221 and the LED will be red. When you wave your hand in front of the switch, the LED will change to green, and the relay will trigger to unlock your door or trigger the door operator to open the door. Use the toggle feature to keep the door unlocked until you wave your hand a second time to relock it.
5. Configure the CM-7536VR by adjusting the range of detection (2 to 8, 5 to 20 cm) and time delay (0.5 to 20 seconds) using the adjustment knobs.
6. For remote LED switching, install the supplied jumper onto the two pins on the back of the unit. The green and red LEDs 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.
7. Wire the CM-7536VR according to the wiring diagram provided in the manual.

DESCRIPTION

Camden CM-7536VR Series Hands-Free Column™ switches uses active infra-red microburst sensor technology, designed for use in ADA compliant automatic door control applications and access control. The switches eliminate the spread of germs by avoiding physical contact and provide greater convenience when moving through the premises. All models are ROHS compliant with lead-free construction. Built-in remote LED switching allows for integration with third-party applications, such as guard and nurse station annunciators. Adjustable time delay from 0.5 to 20 seconds and an adjustable range from (2" to 8" / 5cm to 20cm).

The CM-7536VR Series Hands-Free Column™ switches may be mounted to any flat wall surface, or to our Model CM-42 or CM-48 anodized aluminum or stainless-steel bollards. We provide necessary mounting hardware for all options.

SPECIFICATIONS

Voltage	12 to 24 VDC +/- 10%
Current	45 mA (peak)
Contact Rating	1 Amp @ 30 VDC
Contacts	Common/ N.O./ N.C.
Temperature Range	14F to 122F (-10 to 50 °C)
Response Time	10ms
Construction	Heavy duty extruded aluminum
Finish	Anodized clear, dark bronze or stainless steel
Mounting	4 x #14 wood screws or 1/4"- 20 S/S machine screws with anchors
Dimensions	37 -1/2" H x 5-7/8" W x 1-1/2" D (overall)

FEATURES

- Built-in Red and Green LED indication.
Factory default = Red (Standby), Green (Triggered)
- Red and Green LEDs can be controlled by sensor or externally
- Adjustable detecting distance: 2 to 8 Inches (5 cm to 20 cm)
- Adjustable Time Delay: 0.5 seconds to 20 seconds
- Toggle function selection available
- IP65 rating
- IR lens to provide stable and reliable operation

OPERATION AT A GLANCE

In a typical application, as you approach the CM-221, the LED will be red. When you wave your hand in front it will change the LED to green, and trigger its relay to change state and unlock your door, or trigger the door operator to open the door. The toggle feature can be used to trigger the door to remain in the unlocked position, until you wave your hand a second time to relock it.

CONFIGURING THE CM-7536VR

Range of Detection and Output Duration

Looking at the back of the CM-221 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).

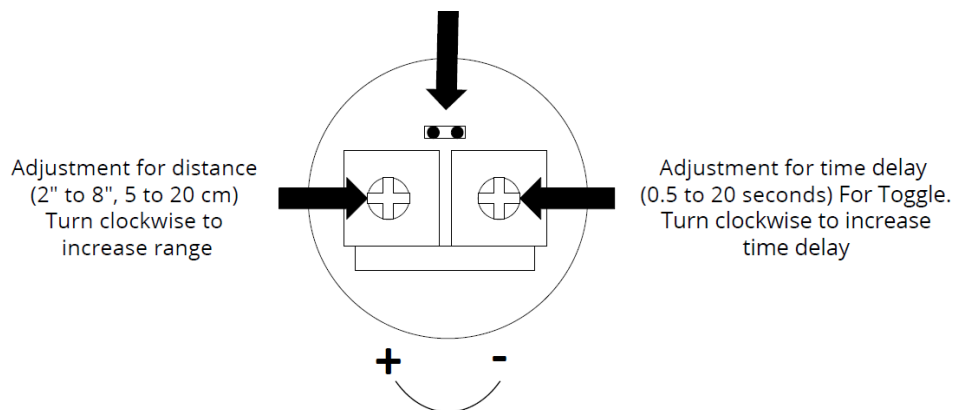
If the output needs to be triggered and maintained in that state until triggered once more, then the Toggle feature can be used by turning the output duration adjustment potentiometer to the fully clockwise position.

Remote LED Switching

The CM-221 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.

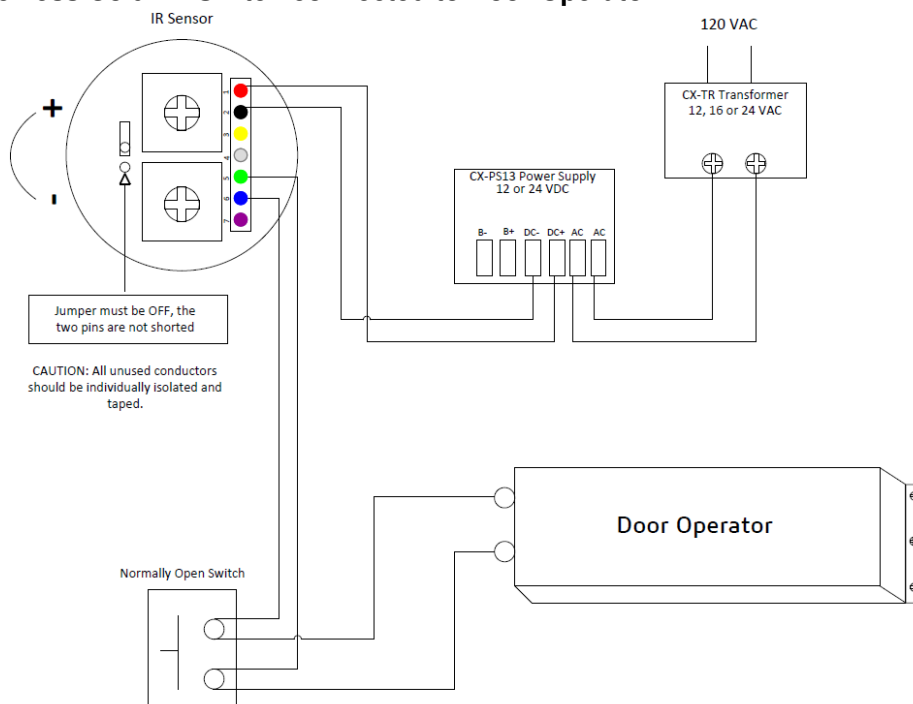
MODE PINS:

- 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.



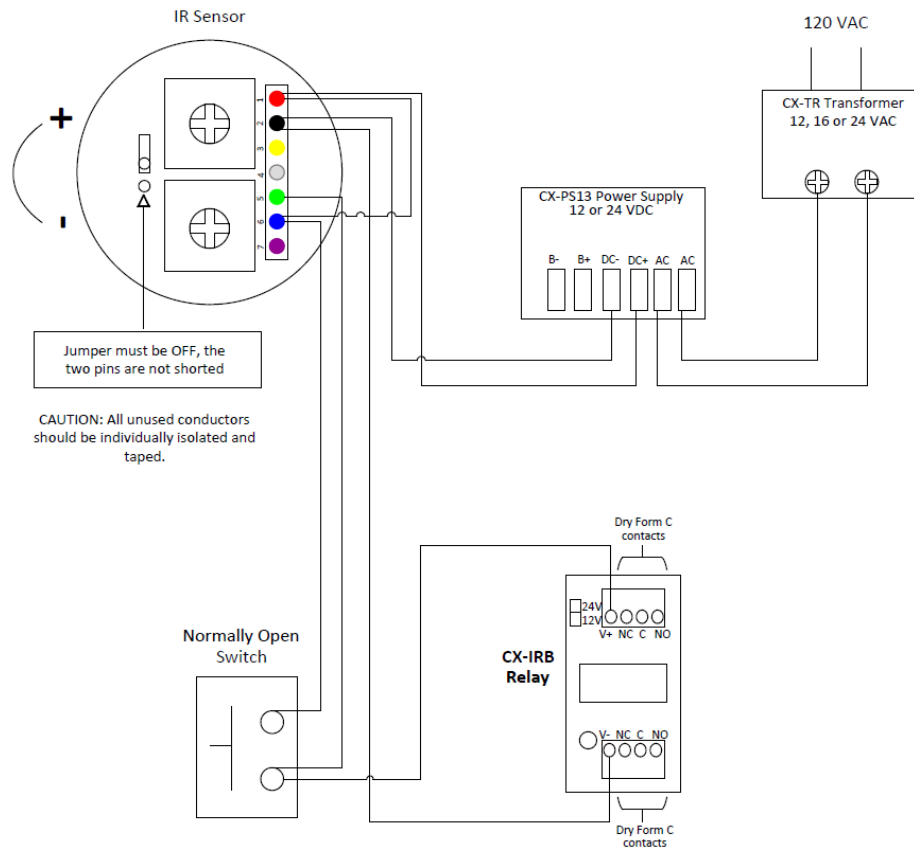
WIRING THE CM-7536VR

The CM-7536 Touchless Column Switch connected to Door Operator



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

CM-7536VR Touchless Column Switch connected to DPDT Relay

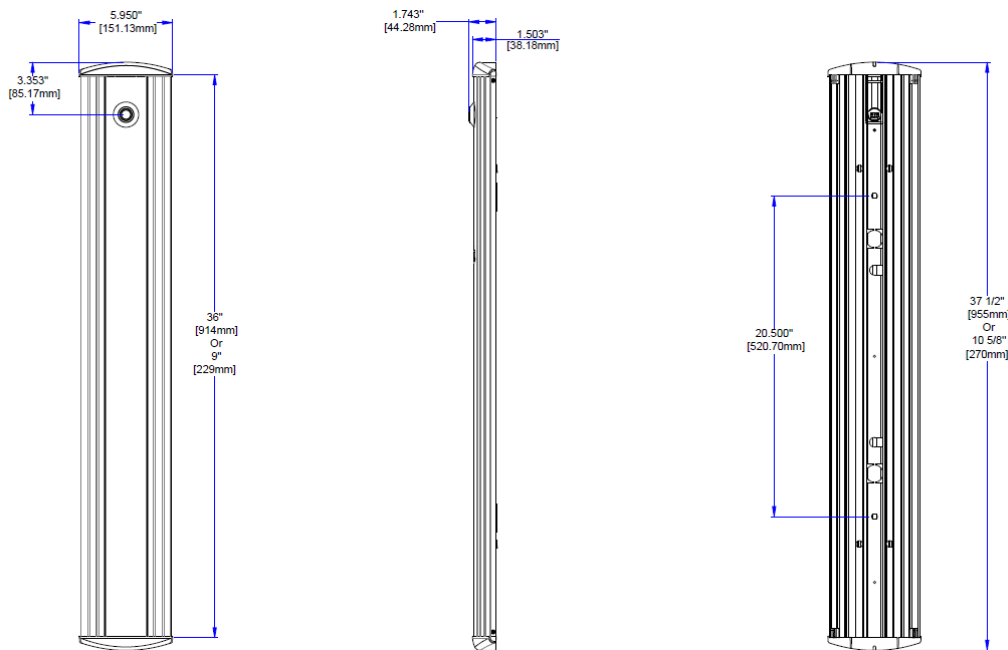


#	Color	Function
1	Red	12 to 24 VDC
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5	Green	Relay: Normally Open
6	Blue	Relay: Common
7	Purple	Relay: Normally Closed

POWER

The CM-7536VR 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 Hands-Free Column™ switch at any time.

Note: A linear output VDC power supply is strongly recommended. If using power from other than Camden's CX-PS13 filtered regulated power supply, you must measure the provided power before applying power to the CM-7536VR Hands-Free Column™ switch. Voltages of more than 10% over the specified acceptable range or using a power supply with large amounts of AC voltage on it (unfiltered unregulated power such as a transformer and a rectifier) may damage the CM-7536VR Hands-Free Column™ switch and void the warranty.

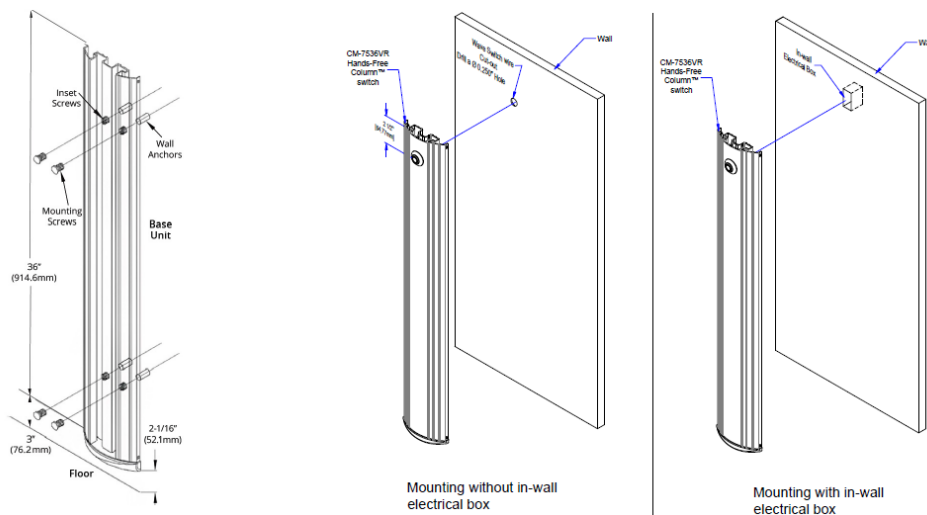


INSTALLATION

Code Requirements: If installed according to these instructions the CM-7536VR 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 touchless switch over the box for wire connection, while lining up the top edge with your mark.

If mounting without an in-wall electrical box, drill a $\varnothing 0.250$ \" hole for wire connection.

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.
- b) 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). Note: Camden CM-42 and CM-48 series posts are available with pre-drilled and tapped holes preparation for Column™ switches.

SYSTEM INSPECTION

After the Installation and operational check of the system:

- 1. Place any applicable labels on the door (as per ANSI A156.10 or A156.19 guidelines).
- 2. Instruct the owner on door system operation and how to test it. This should be checked on a daily basis.
- 3. Strongly recommend to the owner that the complete entry be inspected twice a year as part of the service agreement.

Documents / Resources

	<p>CAMDEN DOOR CONTROLS CM-7536VR Column Switch with Sensor [pdf] Instruction Manual</p> <p>CM-7536VR, CM-7536VR Column Switch with Sensor, CM-7536VR Column Switch, Column Switch, Column Switch with Sensor, Switch with Sensor, Switch, Sensor Switch</p>
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References

-  [Camden Door Controls is the industry leading manufacturer of door activation and locking products.](#)