

# Lazerpoint™ RF RX-90v2

## Advanced Single Relay Receiver

### INSTALLATION INSTRUCTIONS



## 1. DESCRIPTION

CM-RX-90v2 receivers can be paired with Lazerpoint™ or Kinetic™ transmitters, switch selectable.

Kinetic™ by Camden is an advanced 900 MHz 'power harvesting' wireless system that uses the energy created by the operation of the switch to power the wireless transmitter.

This Kinetic™ transmitter is available with the following push plate switches: CM-45K, CM-46K, CM-7536K and CM-7509K.

Lazerpoint™ Radio Controls comprise the following models:

- CM-TX-9 Wall switch ready transmitter
- CM-TX-99 Plug-in transmitter
- CM-TXLF 1, 2 & 4 button fob transmitters
- CM-RX-90v2 Advanced single relay receiver
- CM-RX-91 Basic single relay receiver
- CM-RX-92 Full function (dual relay) receiver

Lazerpoint™ RF is the first system designed to address the specific needs of the Automatic Door industry. Unlike typical "garage door" RF, Camden's Lazerpoint™ operates at 915 MHz frequency to "cut through" noise and clutter, penetrating typical building materials to ensure a reliable installation.

Three receiver models are offered – the basic single relay RX-91, the full function RX-92 and the advanced single relay RX-90v2. The RX-90v2 offers 3 operating modes including delayed, no delay and latched.

The CM-RX-90v2 supports both Lazerpoint™ RF and Kinetic™ by Camden transmitters.

CM-RX-90v2 features a convenient terminal block, visual relay status, and 40 code memory with push and learn technology.

## 2. FEATURES

- 3 Modes of Operation:
  - Delayed (1 - 15 Seconds)
  - No Delay (1 – 30 Seconds)
  - Latching
- Adjustable Range: 3' - 300'
- 40 Transmitter capacity, either Lazerpoint™ or Kinetic™ either delayed, non-delayed or both
- Form 'C' Relay Output
- 12/24V AC/DC operation
- 915 MHz Lazerpoint™ or Kinetic™ Technology
- Small Size: 2-5/8"H x 1-1/2"W x 13/16"D (67mm x 38mm x 21mm)

## 3. SPECIFICATIONS

Operating Voltage	12/24V AC/DC
Current Draw	23 mA nominal @ 24 VAC 43 mA maximum @ 24 VAC
Response Time	30 – 200 ms
Memory Delay & No Delay	40 transmitters total
LED's	Indicate: relay status; learn mode; erase mode & potentiometer position
Output	1 x SPDT Relay contact
Rating	3 amps @ 30 VDC
Operating Time	1 – 30 seconds
Delay Time	1 – 15 seconds
Frequency	915 Mhz.
Mounting	2- #4 screws at 3" centers or Velcro (supplied)
Enclosure	Clear plastic case
Dimension	2-5/8"H x 1-1/2"W x 13/16"D (67mm x 38mm x 21 mm)

# LAZERPOINT™ RF RX-90v2 ADVANCED SINGLE RELAY RECEIVER

## INSTALLATION INSTRUCTIONS

### 4. INSTALLATION

#### MOUNTING

The RX-90v2 receiver is designed to mount inside the automatic door header. Screw holes are located at each end of the receiver case, or the included velcro may also be used to hold it securely.

For dimensional information refer to RX-90v2 electrical and mechanical Drawing on **Page 4**.

#### WIRING

**Note: Do not use the Kinetic/Lazerpoint RF system as a safety device! If safety devices are used, always wire directly to the operator control box.**

Refer to the RX-90v2 Wiring Diagram on **Page 5**, and wire the receiver as follows:

Wire the device (electric lock / operator) to the Relay output - terminal 3 is N.O. 4 is Common and 5 is N.C.

Connect 12 or 24V AC/DC to terminals 1 & 2 on the receiver. (Terminals are not polarity sensitive)

Terminal	Description
1	Power in
2	Power in
3	Normally Open
4	Common
5	Normally Closed

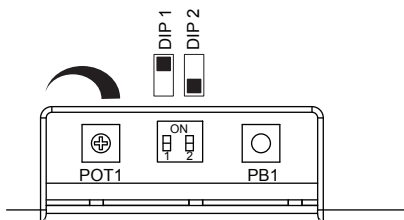
### 5. SET-UP INSTRUCTIONS

**Note: Some switches that have more than one transmitter (CM-7536(K)) will have to have both individually learned into the CM-RX90v2. This will affect how many devices can be learned in since the total number of transmitters per CM-RX90v2 is 40 and not 40 devices.**

#### STEP 1

##### Learning the Transmitter(s) to the Receiver

A receiver can have up to 40 transmitters paired with it. The transmitter can be paired as Kinetic™/ Lazerpoint™ delayed, non-delayed or a combination of both, making RX-90v2 ideal



for bi-directional door sequencing.

##### Set the RF Transmitter Type

Set DIP2 to ON Kinetic™, DIP2 to OFF Lazerpoint™

##### Learning the Transmitter in Delayed Mode

Set DIP1 to ON.

Press PB1 using a small blunt object such as a small blade screwdriver or similar. Within 10 seconds, press the switch connected to a TX-9 transmitter or a button on a Lazerpoint™ FOB or Kinetic™ switch. The Green LED Array flashes to confirm enrollment. Repeat with any additional transmitters. Pressing the learned transmitter again will signal the receiver that you are finished programming and the LED will flash rapidly.

Pressing the transmitter a third time activates the relay, LED, and the device connected to the relay contacts after the delay time set by POT1. If you wait longer than the 10 second period, the receiver times out of Learn Mode and reverts back to standby.

##### Learning the Transmitter in No-Delay Mode

Set DIP1 to OFF

Press PB1 using a small blunt object such as a small blade screwdriver or similar. Within 10 seconds, press the switch connected to a TX-9 transmitter or a button on a Lazerpoint™ FOB or Kinetic™ switch. The Green LED Array flashes to confirm enrollment. Repeat with any additional transmitters. Pressing the learned transmitter again signals the receiver that you are finished programming and the LED will flash rapidly.

Pressing the transmitter a third time will activate the relay, LED, and the device connected to the relay contacts. If you wait longer than the 10 second period, the receiver times out of Learn Mode and reverts back to standby.

#### STEP 2

##### Adjustments

The delay before operate and relay On-Time are controlled by POT1.

##### Delayed Mode

The RX-90v2 has a delay before operate timer.

Set DIP1 to ON.

Adjust POT1 clockwise to increase the delay timer from 0 to 15 seconds. The LED lights and become brighter as the delay time is increased and becomes dim as the delay time is decreased. The LED starts to flash once the maximum delay time has been reached. Back off the delay time until the LED is solid again for maximum delay time.

##### No-Delay Mode

The RX-90v2 can be adjusted to activate the output relay without a delay. The relay On-Time is adjustable from 1 to 30 seconds.

Set DIP1 to OFF.

Adjust POT1 Clockwise/counterclockwise to adjust the relay On-Time (1 to 30 Seconds). To increase the time, turn the pot clockwise, or for minimum time, turn the pot counterclockwise.

The LED lights and becomes brighter as the Relay On-Time is increased. The LED starts to flash once the maximum On-Time has been reached. Back off the POT until the LED is solid again for maximum On-Time.

## Latching Mode

The RX-90v2 has a latching mode. Activating the transmitter will latch the output relay ON. Activating the transmitter a second time will latch the Relay OFF.

DIP1 can be set to either ON/OFF.

Adjust POT1 clockwise until the LED starts to flash. RX-90v2 is in latching mode at this point. To remove latching mode, turn POT1 counter clockwise until the LED is solid again.

**Note: Latching mode disables delayed mode. Transmitter programmed as delayed mode will work as latching mode transmitter.**

## Signal Strength Adjustment

For the most reliable, consistent operation, leave the signal strength at full power. RX-90v2 receiver has an adjustment RF range from a few feet to full range (300 ft. LOS).

To adjust the RF range:

1. Press PB1 to enter pairing mode.
2. Press PB1 again until the LED flickers 3 times. This places the receiver in RF range adjust mode.
3. Adjust POT1 to adjust the RF range. CW to increase the range, CCW to decrease the range.
4. Press a paired transmitter to test range as it is being adjusted.
5. Once the desired range is set, Press and hold PB1 until LED flickers 3 times. The transmitter is now back in pairing mode. Either wait for the receiver to time out or press a paired transmitter to exit pairing mode. After adjusting the range you **MUST** adjust POT 1 for relay timing at this point based on the mode (delay or no-delay).

## STEP 3

### DELETING TRANSMITTERS

#### Delay Mode Transmitters

Set DIP1 to ON.

Pressing and holding PB1 for 8 seconds deletes all transmitters delay mode. LED flashes rapidly for 4 seconds, indicating erasure of the codes.

#### No Delay Mode Transmitters

Set DIP1 to OFF.

Pressing and holding PB1 for 8 seconds deletes all transmitters no delay mode. The LED flashes rapidly for 4 seconds, indicating erasure of the codes.

**Note that individual removal of specific codes is not possible.**

## 6. WARRANTY

Camden Door Controls guarantees the Lazerpoint™ RF to be free from manufacturing defects for 3 years from date of sale.

If during the first 3 years a Lazerpoint™ RF component fails to perform correctly, it may be returned to our factory where it will be repaired or replaced (at our discretion) without charge.

Except as stated herein, Camden extends no warranties expressed or implied regarding function, performance or service.

**NOTE: Batteries are exempt from this warranty!**

# LAZERPOINT™ RF RX-90v2 ADVANCED SINGLE RELAY RECEIVER

## INSTALLATION INSTRUCTIONS

### IC & FCC INFORMATION FOR USERS

This device complies with Industry Canada's licence-exempt RSSs. Operation is subject to the following two conditions:

1. This device may not cause interference; and
2. This device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :

1. l'appareil ne doit pas produire de brouillage;
2. l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

This radio receiver has been approved by Industry Canada to operate with the antenna types listed below with the maximum permissible gain indicated. Antenna types not included in this list, having a gain greater than the maximum gain indicated for that type, are strictly prohibited for use with this device.

Le présent receveur radio a été approuvé par Industrie Canada pour fonctionner avec les types d'antenne énumérés ci dessous et ayant un gain admissible maximal. Les types d'antenne non inclus dans cette liste, et dont le gain est supérieur au gain maximal indiqué, sont strictement interdits pour l'exploitation de l'émetteur.

#### Antenna Specification

Model: Camden Lazerpoint Proprietary PCB Antenna

Center Frequency: 915MHz

Recom. Freq. Range: 903-928MHz

Wavelength: ¼ Wave

Peak Gain: 0dBi

Impedance: 50-ohms

Connector: 2-pin Header

Oper. Temp. Range: -40° to +85°C

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

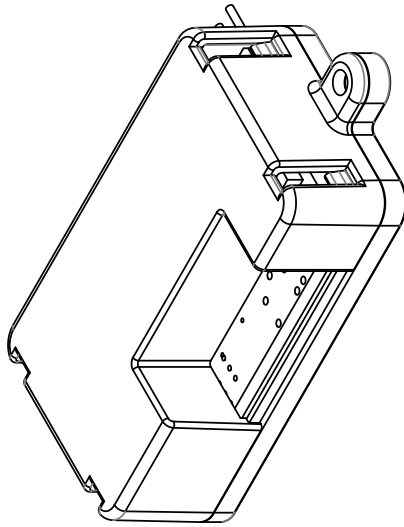
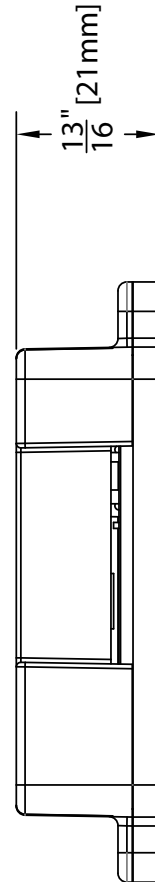
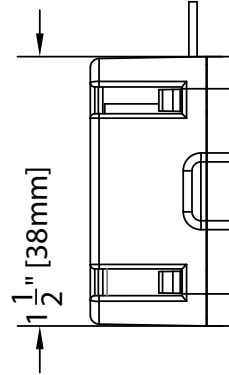
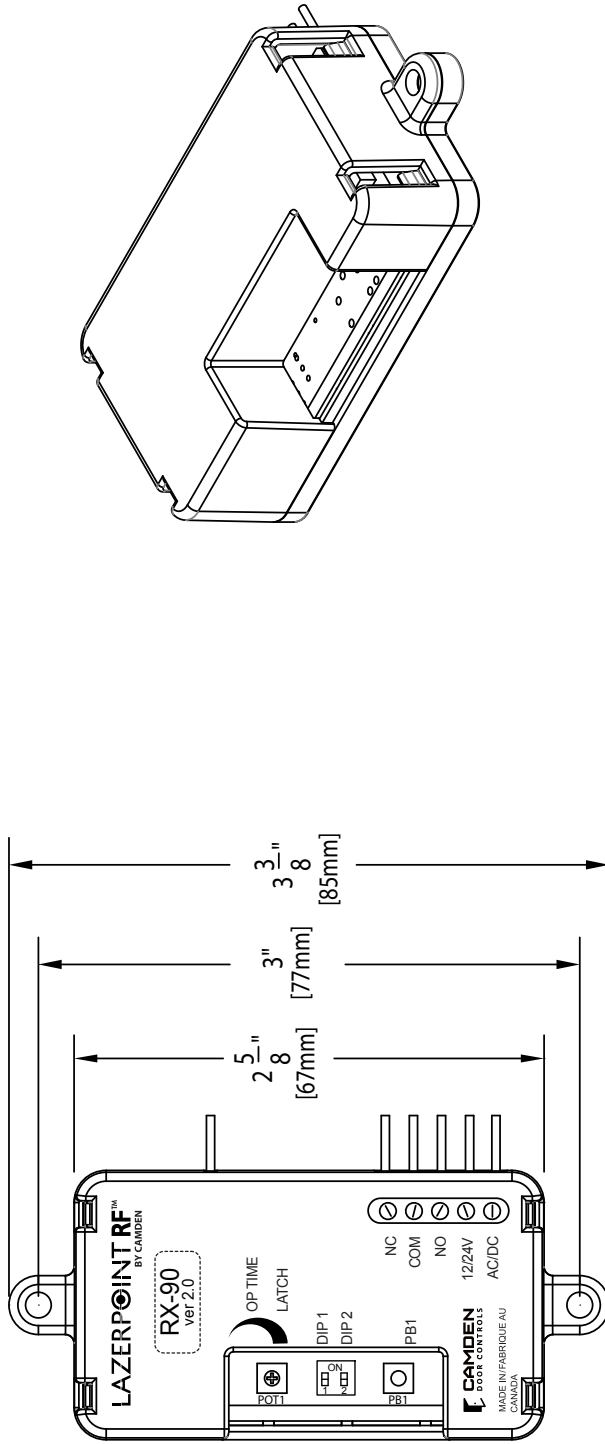
This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Changes or modifications made to this equipment not expressly approved by Camden Door Control could void the user's authority to operate the equipment.

# LAZERPOINT™ RF RX-90v2 ADVANCED SINGLE RELAY RECEIVER

## INSTALLATION INSTRUCTIONS



WIRE COLOR	DESCRIPTION
RED	POWER IN
RED	POWER IN
BLUE	NORMALLY OPEN
GREY	COMMON
ORANGE	NORMALLY CLOSED

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

**CAMDEN DOOR CONTROLS**

SCALE: NONE    DRAWN BY: J LEWIS    DATE: 09/14/17    REVISED:

CX-RX-90 Electrical and Mechanical

DRAWING No: CM-RX-90\_Mech    FILE NAME: CM-RX-90\_Mech.ai

**Set the Protocol with DIP2**

ON= Kinetic™  
OFF= Lazerpoint™

**Learning the Transmitter in Delayed Mode**

**Step 1** - Set SW1 to ON.

**Step 2** - Press the PB1 button using a small blunt object such as a small blade screwdriver or similar.

Within 10 seconds, press the switch connected to a TX-9 transmitter or a button on a Lazerpoint FOB. The Green LED Array will flash to confirm enrolment.

**Step 3** - Repeat with any additional transmitters.

**Step 4** - Pressing the learned transmitter again will signal the receiver that you are finished programming and the LED will flash rapidly. If you wait longer than the 10 second period, the receiver will time out of Learn Mode and revert back to standby.

**Learning the Transmitter in No-Delay Mode**

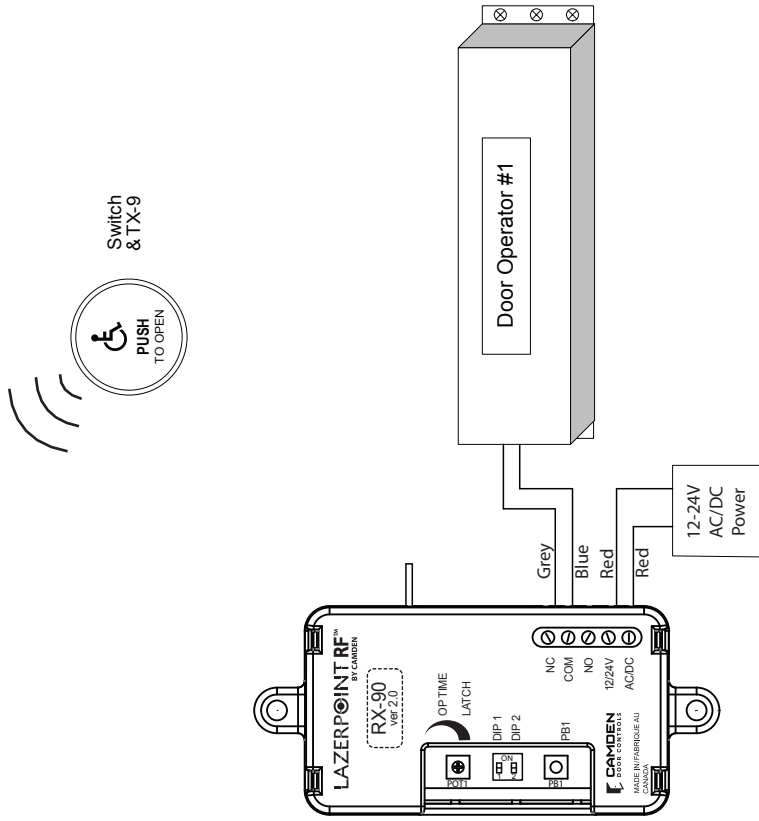
**Step 1** - Set SW1 to OFF

**Step 2** - Press the PB1 button using a small blunt object such as a small blade screwdriver or similar.

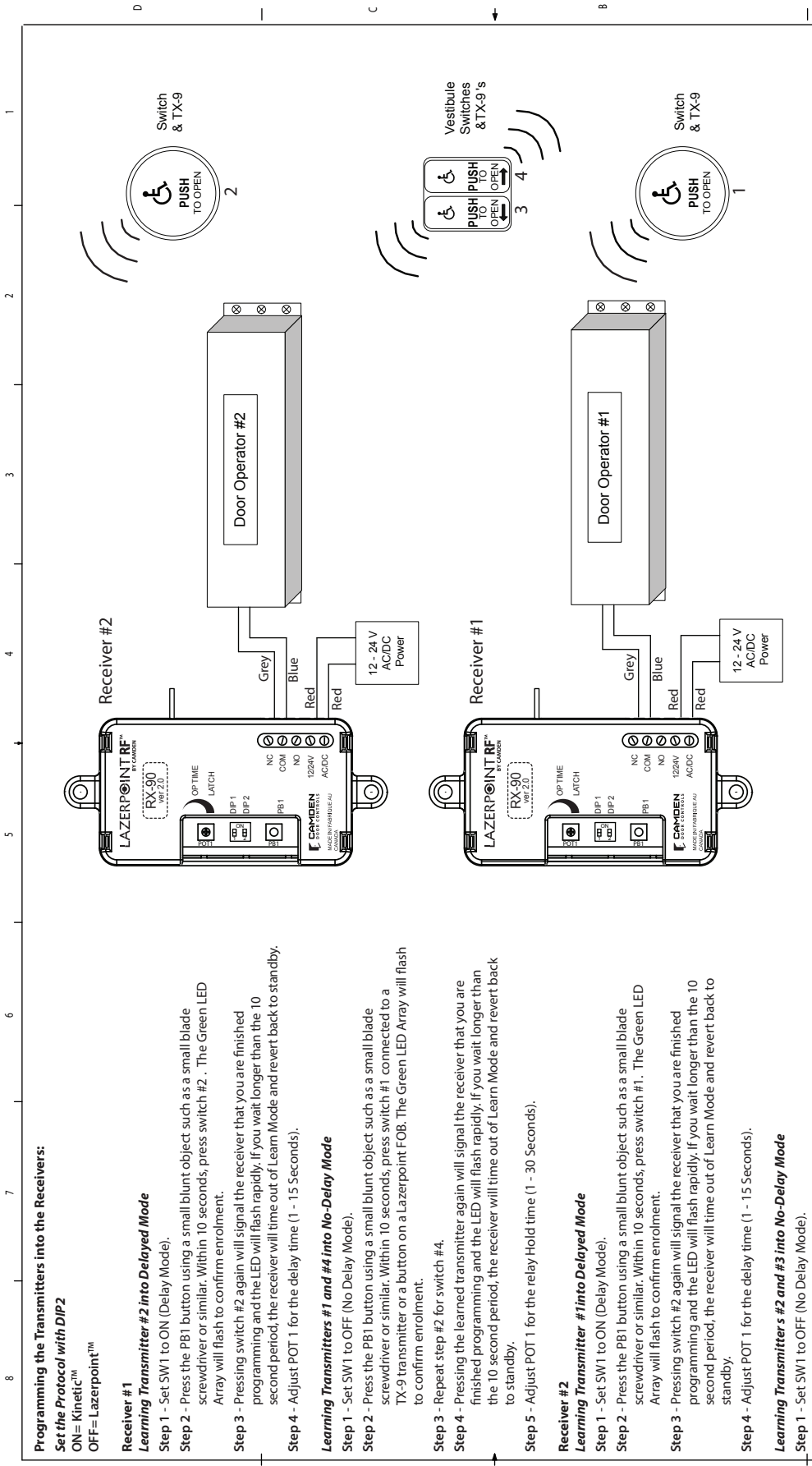
Within 10 seconds, press the switch connected to a TX-9 transmitter or a button on a Lazerpoint FOB. The Green LED Array will flash to confirm enrolment.

**Step 3** - Repeat with any additional transmitters.

**Step 4** - Pressing the learned transmitter again will signal the receiver that you are finished programming and the LED will flash rapidly. If you wait longer than the 10 second period, the receiver will time out of Learn Mode and revert back to standby.



<p><b>CAMDEN DOOR CONTROLS</b></p> <p>5502 Timberlea Blvd. Mississauga, ON Canada L4W 2T7 Tel: (905) 366-3377 www.camdencontrols.com</p>		<p><b>TITLE:</b> CM-RX-90 Basic Wiring Diagram</p>	
<p>NAME: J. LEWIS</p>	<p>DATE: 09/14/17</p>	<p>SIZE: B</p>	<p>DWG. NO.: CM-RX-90_Wiring_1.ai</p>
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<p>UNLESS OTHERWISE SPECIFIED:</p>	<p>DIMENSIONS ARE IN INCHES</p>	<p>SCALE: 1:1</p>	<p>SHEET 1 OF 1</p>
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<p>NEXT ASSY: [ ]</p>	<p>APPLICATION: [ ]</p>	<p>USED ON: [ ]</p>	<p>DATE: [ ]</p>



**Programming the Transmitters into the Receivers:**

Set the Protocol with DIP2  
 ON= Kinetic™  
 OFF= Lazerpoint™

**Receiver #1**

**Learning Transmitter #2 into Delayed Mode**

- Step 1 - Set SW1 to ON (Delay Mode).
- Step 2 - Press the PB1 button using a small blunt object such as a small blade screwdriver or similar. Within 10 seconds, press switch #2. The Green LED Array will flash to confirm enrolment.
- Step 3 - Pressing switch #2 again will signal the receiver that you are finished programming and the LED will flash rapidly. If you wait longer than the 10 second period, the receiver will time out of Learn Mode and revert back to standby.
- Step 4 - Adjust POT 1 for the delay time (1 - 15 Seconds).

**Learning Transmitters #1 and #4 into No-Delay Mode**

- Step 1 - Set SW1 to OFF (No Delay Mode).
- Step 2 - Press the PB1 button using a small blunt object such as a small blade screwdriver or similar. Within 10 seconds, press switch #1 connected to a TX-9 transmitter or a button on a Lazerpoint FOB. The Green LED Array will flash to confirm enrolment.
- Step 3 - Repeat step #2 for switch #4.
- Step 4 - Pressing the learned transmitter again will signal the receiver that you are finished programming and the LED will flash rapidly. If you wait longer than the 10 second period, the receiver will time out of Learn Mode and revert back to standby.
- Step 5 - Adjust POT 1 for the relay Hold time (1 - 30 Seconds).

**Receiver #2**

**Learning Transmitter #1 into Delayed Mode**

- Step 1 - Set SW1 to ON (Delay Mode).
- Step 2 - Press the PB1 button using a small blunt object such as a small blade screwdriver or similar. Within 10 seconds, press switch #1. The Green LED Array will flash to confirm enrolment.
- Step 3 - Pressing switch #2 again will signal the receiver that you are finished programming and the LED will flash rapidly. If you wait longer than the 10 second period, the receiver will time out of Learn Mode and revert back to standby.
- Step 4 - Adjust POT 1 for the delay time (1 - 15 Seconds).

**Learning Transmitters #2 and #3 into No-Delay Mode**

- Step 1 - Set SW1 to OFF (No Delay Mode).
- Step 2 - Press the PB1 button using a small blunt object such as a small blade screwdriver or similar. Within 10 seconds, press switch #2 connected to a TX-9 transmitter or a button on a Lazerpoint FOB. The Green LED Array will flash to confirm enrolment.
- Step 3 - Repeat step #2 for switch #3.
- Step 4 - Pressing the learned transmitter again will signal the receiver that you are finished programming and the LED will flash rapidly. If you wait longer than the 10 second period, the receiver will time out of Learn Mode and revert back to standby.
- Step 5 - Adjust POT 1 for the relay Hold time (1 - 30 Seconds).

		5502 Timberlea Blvd. Mississauga, ON Canada L4W 2T7 Tel: (905) 366-3377 www.camdencontrols.com	
TITLE: <b>CM-RX-90 Vestibule Wiring Diagram</b>		SIZE: DWG. NO. REV <b>B CM-RX-90_Wiring_2.ai</b>	
NAME: ALEWIS DATE: 09/14/17	DRAWN:	CHECKED:	COMMENTS:
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