



Section 1

General Description

Camden 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-90 Advanced single relay receiver
- CM-RX-91 Basic single relay receiver
- CM-RX-92 Full function (dual relay) receiver.

Camden 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” the noise and clutter, and penetrate typical building materials to ensure a reliable installation every time.

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

Camden CM-RX-90 features a convenient wiring harness, 18” in length, visual relay status, and 40 code memory with push-and-learn technology.

Section 2

Features

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

Section 3

Installation

Mounting

The RX-90 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-90 electrical and mechanical Drawing on Page 4.

Wiring

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

Refer to the RX-90 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 24 Volt AC or DC to terminals 1 & 2 on the receiver. (The terminals are *not polarity sensitive*).

Wire	Description
Red	Power In
Red	Power In
Blue	Normally Open
Grey	Common
Orange	Normally Closed

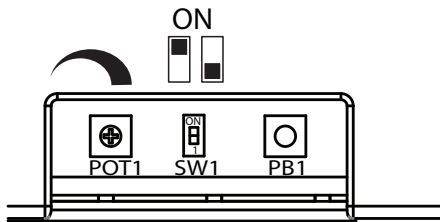
Section 4

Set-up Instructions

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 delayed, non-delayed or a combination of both, making RX-90 ideal for bi-directional door sequencing.



Learning the Transmitter in Delayed Mode

Set SW1 to ON.

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. 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 will activate the relay and the LED, and also 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 will time out of Learn Mode and revert back to standby.

Learning the Transmitter in No-Delay Mode

Set SW1 to OFF

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. 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 will activate the relay and the LED, and also the device connected to the relay contacts.

If you wait longer than the 10 second period, the receiver will time out of Learn Mode and revert back to standby.

Step 2

Adjustments

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

Delayed Mode

The RX-90 has a delay before operate timer.

Set SW1 to ON.

Adjust POT1 clockwise to increase the delay timer from 0 to 15 seconds. The LED will light and become brighter as the delay time is increased and become 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-90 can be adjusted to activate the output relay without a delay. The relay On-Time is adjustable from 1 to 30 seconds.

Set SW1 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 will light and become 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-90 has a latching mode. Activating the transmitter will latch the output relay ON. Activating the transmitter a second time will latch the Relay OFF.

SW1 can be set to either ON/OFF.

Adjust POT1 clockwise until the LED starts to flash. The RX-90 is in latching mode at this point. To remove latching mode, turn POT 1 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.

Step 3

Deleting Transmitters

Delay Mode Transmitters

Set SW1 to ON.

Pressing and holding PB1 for 8 seconds will delete all transmitters delay mode. The LED will flash rapidly for 4 seconds to indicate erasure of the codes.

No Delay Mode Transmitters

Set SW1 to OFF.

Pressing and holding PB1 for 8 seconds will delete all transmitters no delay mode. The LED will flash rapidly for 4 seconds to indicate erasure of the codes.

Note that individual removal of specific codes is not possible at this time.

Section 5

Technical Data

Model	RX-90 Receiver
Size	2 5/8"H x 1 1/2"W x 13/16"D (67mm x 38mm x 21mm)
Mounting	2 # 4 screws at 3" centers, or Velcro (supplied)
Enclosure	Clear plastic case
Operating Voltage	12 / 24 Volts, 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

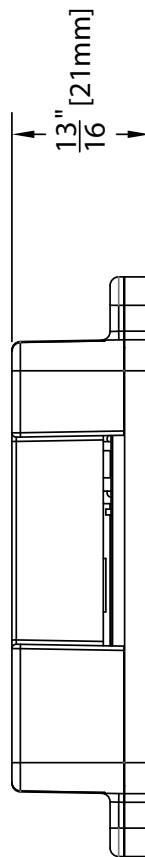
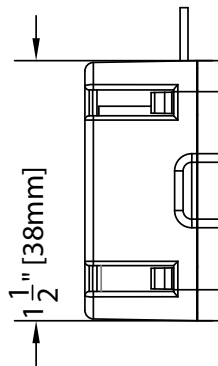
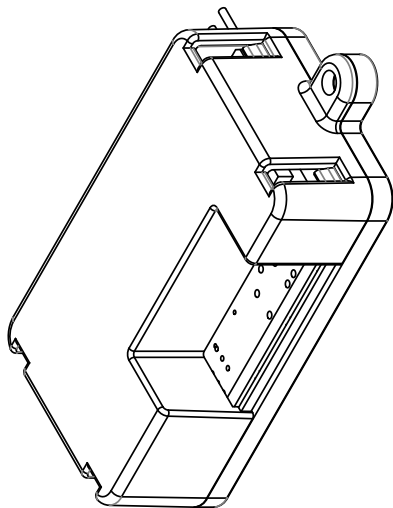
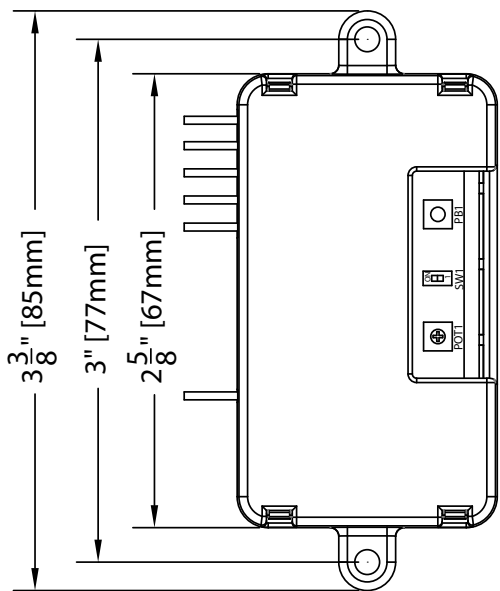
Electrical Life	1 x 10 ⁵ minimum
Temperature Rating	-40 to 185°F (-40 to +85°C)
Certifications	- FCC Part 15 Compliant - Canada RSS CNR210:1078 1032 061A - Meets: IEC60601-1-2:2007 - Patent Pending

Section 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!



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



CAMDEN DOOR CONTROLS

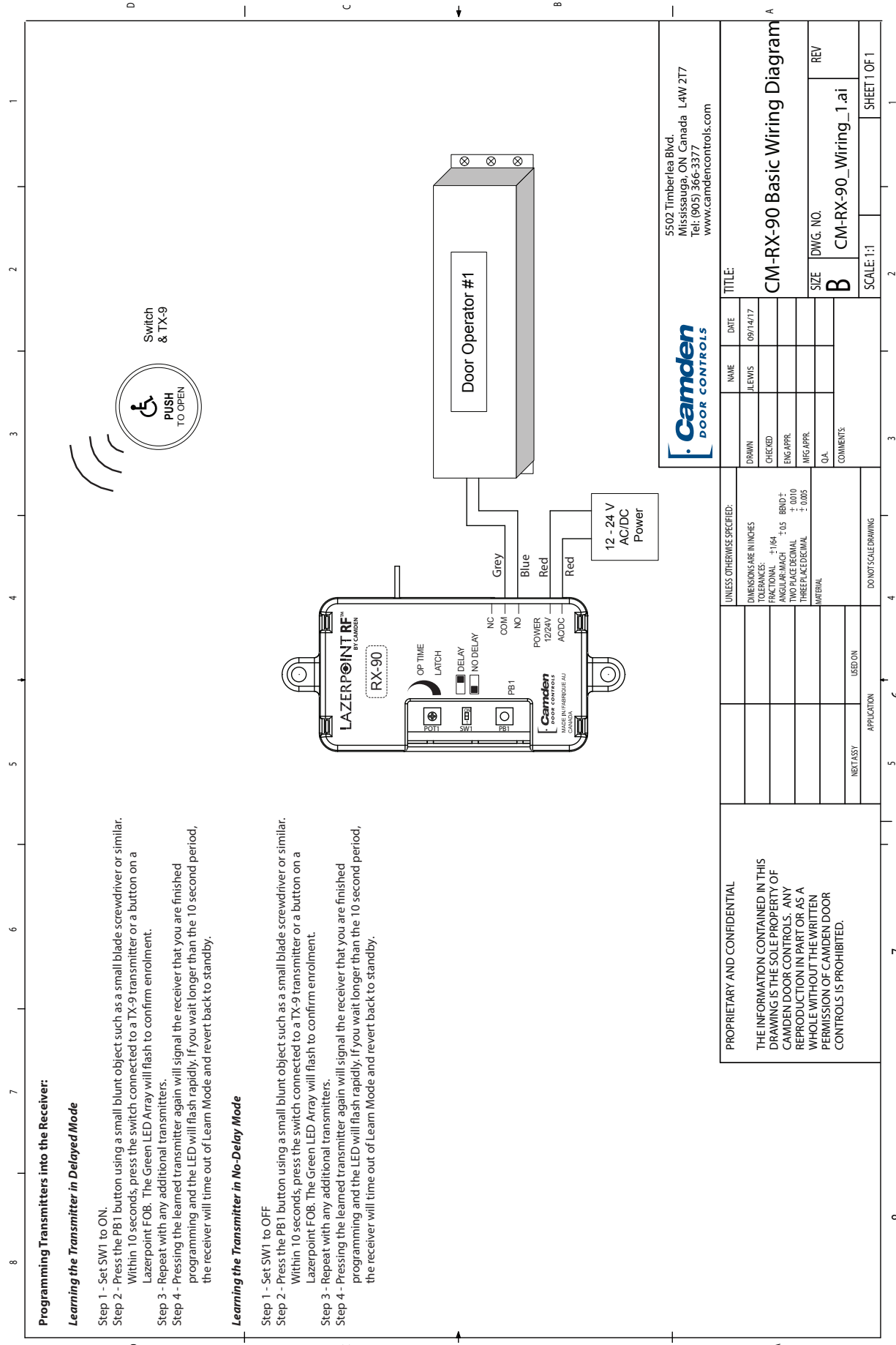
5502 Timberlea Blvd.
Mississauga, Ontario
L4W 2T7

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



Programming Transmitters into the Receiver:

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

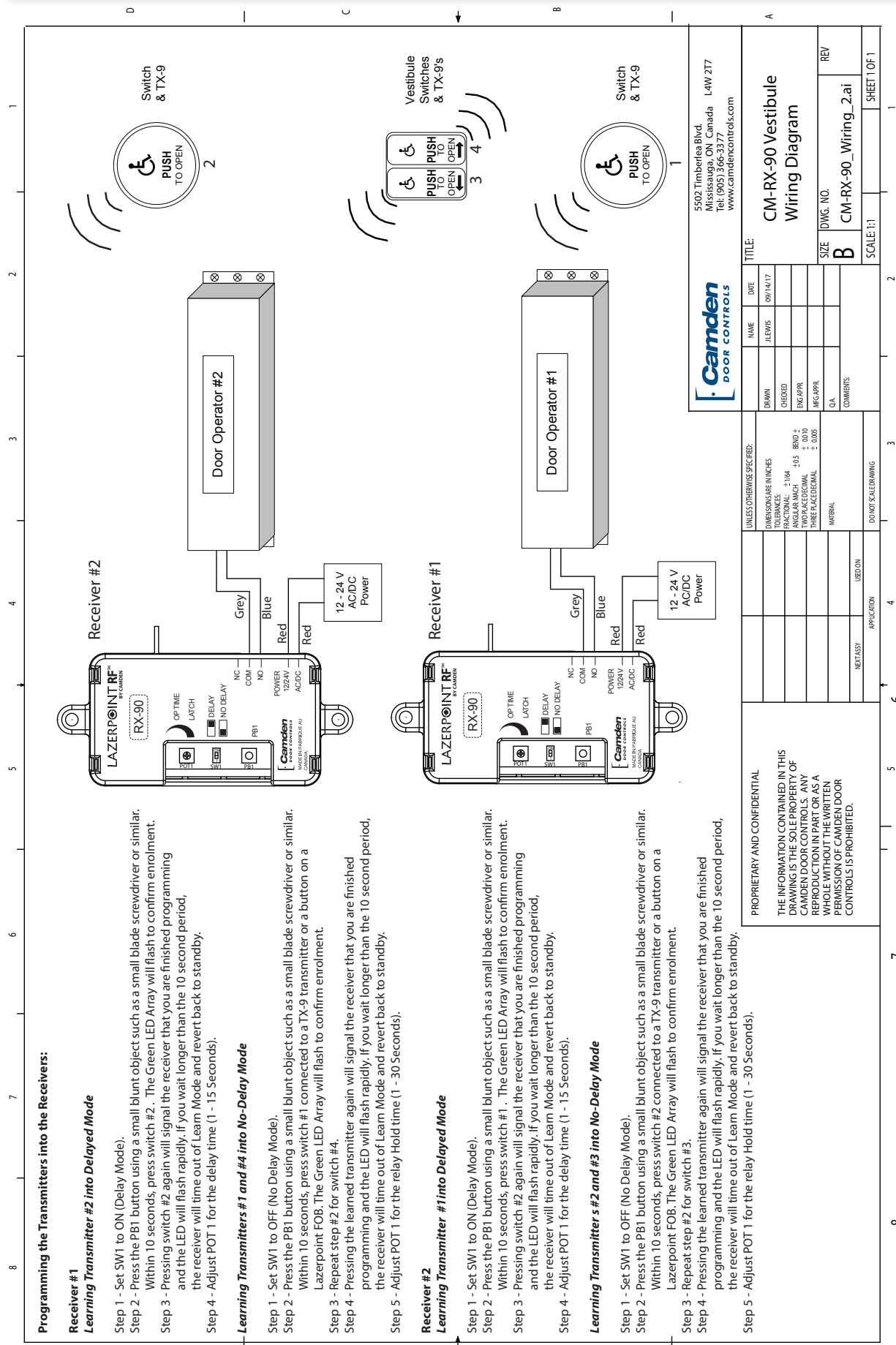
- Step 1 - Set SW1 to OFF
- Step 2 - Press the PB1 button using a small blunt object such as a small blade screwdriver or similar. Within 10 seconds, press the switch connected to a TX-9 transmitter or a button on a Lazerpoint FOB. The Green LED Array will flash to confirm enrolment.
- Step 3 - Repeat 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.

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UNLESS OTHERWISE SPECIFIED:		DRAWN		DATE		TITLE:	
DIMENSIONS ARE IN INCHES		JLEWIS		09/14/17		CM-RX-90 Basic Wiring Diagram	
TOLERANCES: ±1/64		CHECKED				SIZE DWG. NO.	
ANGULAR MACH ±0.5		END APPR:				B CM-RX-90_Wiring_1.ai	
TWO PLACE DECIMAL ±.0010		MFG APPR:				SCALE: 1:1	
THREE PLACE DECIMAL ±.0005		O.A.				SHEET 1 OF 1	
MATERIAL		COMMENTS					
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<p>PROPRIETARY AND CONFIDENTIAL</p> <p>THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF CAMDEN DOOR CONTROLS. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF CAMDEN DOOR CONTROLS IS PROHIBITED.</p>							

Lazerpoint™ RF RX-90 Advanced Single Relay Receiver Installation Instructions



Programming the Transmitters into the Receivers:

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 POT1 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 POT1 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 POT1 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 POT1 for the relay Hold time (1 - 30 Seconds).

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UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES TOLERANCES: ± 1/64 FRACTIONAL ± 1/16 DECIMAL ± 0.015 THREE PLACE DECIMAL ± 0.005 TRIPLE PLACE DECIMAL ± 0.005 INITIAL		NAME J.E.V.S.	DATE 09/14/17	TITLE CM-RX-90 Vestibule Wiring Diagram
PROPRIETARY AND CONFIDENTIAL THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF CAMDEN DOOR CONTROLS. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF CAMDEN DOOR CONTROLS IS PROHIBITED.	DRAWN GHE/ED	ENK/APP/	MEG/APP/	SIZE B
DO NOT SCALE DRAWING	USED ON	APPLICATION	REV	SCALE: 1:1
NEST ASSY			CM-RX-90_Wiring_2.ai	SHEET 1 OF 1

Lazerpoint™ RF RX-90 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: 1/4 Wave

Peak Gain: 0dBi

Impedance: 50-ohms

Connector: 2-pin Header

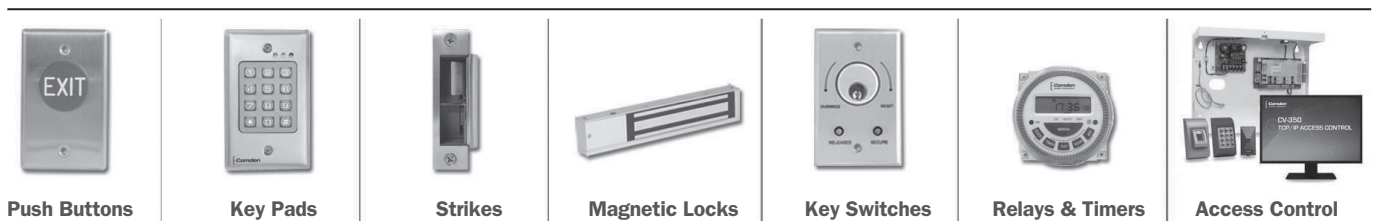
Oper. Temp. Range: -40° to +85°C

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.



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File: Lazerpoint RF RX-90
Manual .indd Rev1
Revised: 02/10/2017
Part No.: 40-82B212