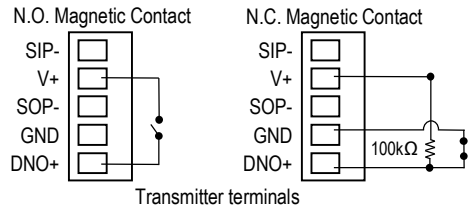## Using a Magnetic Contact for Door Monitoring:

- Door monitoring should only be used for applications where the door being monitored is usually kept open.
- If an N.C. magnetic contact is being used to monitor the door then a 100kΩ resistor (not included) should be installed between the voltage and door contact inputs.


N.O. Magnetic Contact

| SIP- |
| V+ |
| SOP- |
| GND |
| DNO+ |

N.C. Magnetic Contact

| SIP- |
| V+ |
| SOP- |
| GND |
| DNO+ |

100kΩ

Transmitter terminals

PIR Sensor Detection Angle:

The transmitter's PIR sensor can detect movement up to ~16ft (5m). However, be sure to take into account the height and angle at which the transmitter is mounted. Refer to the diagrams to the right to help you decide the best height, and orientation, to mount your Room Monitor transmitter.

y
16' (5m)   41°
8' (2.5m)
x
PIR Sensor
-41°
Side view

16'   8'
(5m) (2.5m)
x
-47°   47°
y
Top view
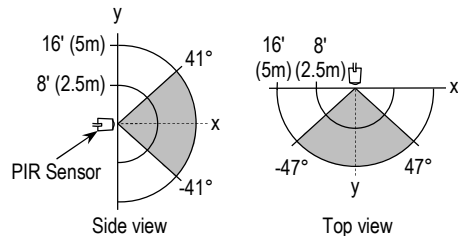
Sample Application

The Room Monitor can be used in a variety of situations to monitor room occupancy, or even assist customers if used with a service button. Receivers can also be paired with handheld transmitters to reset the receivers after the service button has been pushed, or to reset any preset timers.

RM-R100-TLQ
RM-R100-RB1Q
RM-R100-R2Q
RM-R100-TBQ

Room 1 occupied   Room 2 empty
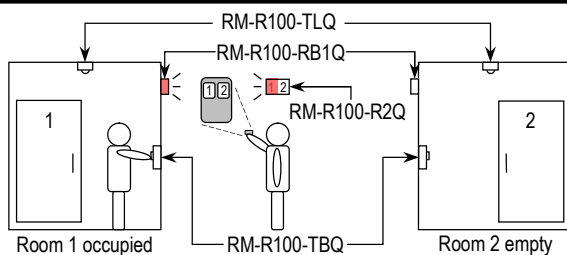
FCC COMPLIANCE STATEMENT   **FCC ID: K4ER100TLQ**

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.

Notice: The changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

IMPORTANT NOTE: To comply with the FCC RF exposure compliance requirements, no change to the antenna or the device is permitted. Any change to the antenna or the device could result in the device exceeding the RF exposure requirements and void user's authority to operate the device.

SECO-LARM® U.S.A., Inc.

16842 Millikan Avenue, Irvine, CA 92606   Website: www.seco-larm.com
Phone: (949) 261-2999 | (800) 662-0800   Email: sales@seco-larm.com

® PITSW1
Order Part# 763-189%
MI_RM-R100-xxxQ_181119.docx

ENFORCER®

Room Monitor

Manual

Features:

- PIR Sensor detects motion (programmable ON/OFF via jumper)
- Phototransistor detects light (programmable ON/OFF via jumper)
- Door sensor input on transmitter for door monitoring
- Can be programmed to flash and/or sound* after a set amount of time
- Service button connections available**

- Suitable to use in restrooms, fitting rooms, etc. to monitor occupancy
- Receiver can be paired with 15 Transmitters per channel
- Transmitter can transmit to unlimited number of receivers
- Compatible with all ENFORCER 433.92MHz transmitters

*Buzzer available on RM-R100-RB1Q only.
**RM-R100-TLQ and RM-R100-RB1Q only.

SECO-LARM® SLI®

Introduction:

The ENFORCER Room Monitor can be used to monitor the occupancy status of rooms in high traffic areas: restrooms, fitting rooms, etc. The Room Monitor uses PIR and phototransistor sensors to monitor the occupancy of a room. The single-room receiver includes additional features, such as a built-in buzzer and service button input, for applications where occupants may need assistance. Two-room receivers are ideal for monitoring multiple rooms at once.

Parts List for Room Monitor Kit (RM-R100-KB1Q):

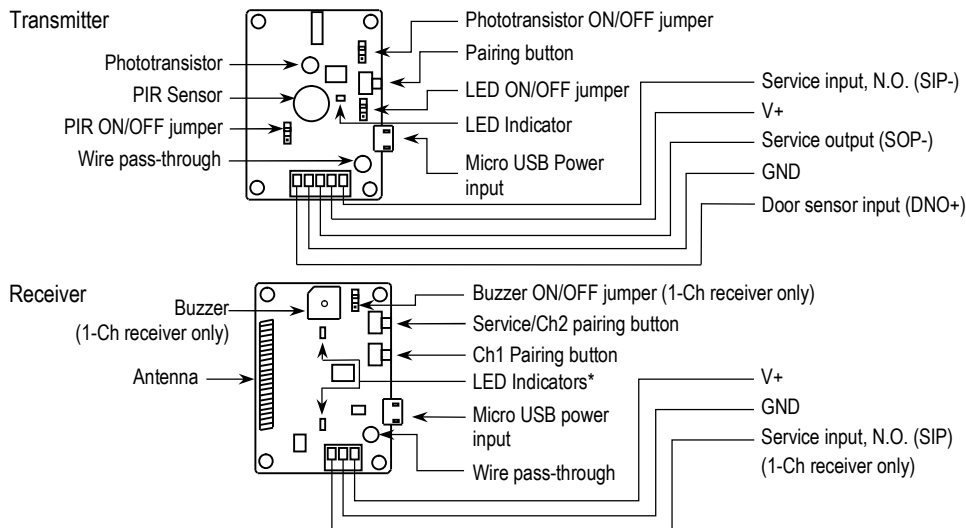|		
1x RM-R100-TLQ	1x RM-R100-RB1Q	2x USB Power cords*
1x Receiver decal	1x Manual	

*The RM-R100-RB1Q, RM-R100-R2Q, and RM-R100-RLQ come with 1x USB power cord.

Specifications:

Model		RM-R100-TLQ	RM-R100-RB1Q	RM-R100-R2Q
Description		Transmitter	Single-room, 1-ch receiver	Two-room, 2-ch receiver
Indicators		LED	Buzzer and LED	LED
Memory capacity		N/A	15 Transmitter codes, per channel	
Current draw	Standby	2mA@12VDC	6mA@12VDC	
	Active	15mA@12VDC max.	35mA@12VDC max	
Transistor ground rating		100mA max.	N/A	
PIR Sensor range		~16' (5m)	N/A	
Phototransistor sensitivity		≥320Lux	N/A	
Door input		NO or NC	N/A	
RF Range*		100' (30m)		
Operating frequency		433.92MHz		
Operating voltage		5VDC via micro USB or 5~12 VDC via terminals		
Connections		Screw terminals		
Operating temperature		-4°~167° F (-20°~75° C)		
Dimensions		$2^1/_2$"x$^{15}/_{16}$"x$1^7/_8$" (64x24x48 mm)		
Weight		1.8-oz (50g)		

*Actual operating range will vary greatly depending on the installation and operating environment.

Overview:

Transmitter

- Phototransistor ON/OFF jumper
- Pairing button
- LED ON/OFF jumper
- LED Indicator
- Micro USB Power input
- Phototransistor
- PIR Sensor
- PIR ON/OFF jumper
- Wire pass-through
- Service input, N.O. (SIP-)
- V+
- Service output (SOP-)
- GND
- Door sensor input (DNO+)

Receiver

- Buzzer (1-Ch receiver only)
- Antenna
- Buzzer ON/OFF jumper (1-Ch receiver only)
- Service/Ch2 pairing button
- Ch1 Pairing button
- LED Indicators*
- Micro USB power input
- Wire pass-through
- V+
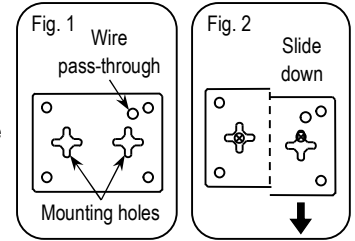- GND
- Service input, N.O. (SIP) (1-Ch receiver only)

*2-Ch receiver has 4 LED indicators (2 for each channel).

Installation Notes:

1. Mount the transmitter and receiver units in locations where they are not exposed to weather or moisture, and where they are not surrounded by metal. Metal will block the RF signal, resulting in reduced range.
2. For best results, mount the transmitter and receiver units with no more than one wall in between the two.
3. If using USB power, make sure to replace the cover before connecting to the mini USB port.
4. The door contact input should only be used for applications where the door being monitored is usually kept open.
5. If an N.C. magnetic contact is being used to monitor the door then a 100kΩ resistor (not included) should be installed between the voltage and door contact inputs. See pg. 4, *Using a Magnetic Contact for Door Monitoring,* for more details.

Installation:

1. Find a suitable location to mount the transmitter/receiver.
2. Remove the top cover and PCB. Place the bottom case on the wall where it is to be mounted, and mark the wall through the two mounting holes.
3. Screw two mounting screw (not included) into the marked locations, and slide the bottom case down onto the screws (see Fig. 2).
4. Tighten the screws as needed, but take care not to overtighten and ensure the case can still be removed by sliding.

NOTE: Mark the location of the wire pass-through hole now, if needed.

5. Remove the bottom case from the wall and feed wires through the wire pass-through holes (PCB and case) and wire as necessary.
6. Replace the top cover and slide back onto mounting screws.

Fig. 1 — Wire pass-through / Mounting holes

Fig. 2 — Slide down

Setting Reminder Time:

NOTE: Pairing button must be pressed within 5 seconds of powering on the transmitter/receiver.

1. Power on receiver/transmitter unit.
2. Press pairing button and count number of times LED flashes
3. Repeat step 2 until desired reminder time is set. See table below for reminder time settings.

# of Flashes	1	2	3	4	5	6	7
Reminder time	Disabled	3min	5min	10min	15min	20min	30min

Code Learning a New Transmitter:

Each receiver channel can learn the codes of up to 15 different transmitters on a first-in, first-out basis. The procedure for code learning a new transmitter is as follows:

1. Once the receiver has been powered on for over 5 seconds, press the pairing button of the desired channel for 3 seconds or more. The channel's LED will start to flash quickly to indicate that it is in learning mode.
2. While the LED is flashing, press the button of the transmitter to be learned one time. The receiver's channel indicator LED will flash once to indicate the transmitter has been successfully learned. After the transmitter has been learned, the receiver will automatically exit learning mode. To learn further codes, repeat step 1 to re-enter learning mode.

NOTES:

- The channel's indicator LED will flash a maximum of 30 seconds. If no transmitter button is pressed during this time, the receiver will automatically exit learning mode, and the LED will turn off.
- If the code being learned has already been learned, the channel indicator LED will turn steady ON and then start flashing again. The code will not be learned a second time.
- One channel can learn the codes of a maximum of 15 transmitter buttons. If you attempt to learn a sixteenth transmitter code, the earliest code learned will be deleted and the new code will be learned.

Clear Channel Memory:

To clear all codes from a channel's memory, press the channel pairing button for 3 seconds or more until the channel indicator LED begins flashing. Release, and then press the button again for 3 seconds or more until the LED stops flashing. The LED will then flash twice to indicate that all codes associated with that channel have been deleted.

Display Channel Memory:

To see how many codes have been learned by a channel, press that channel's pairing button once. The number of codes stored in the channel's memory corresponds with the number of times the channel's LED indicators flash.