



# INSTALLATION INSTRUCTIONS

## RBand

MODELS: RB-P-K10C, RB-TX10C



Use with: 10K/T2 Sensing Edge, **Output:** Pulsed, N.O.

PRODUCT INFO

### WARNING

Read and understand all instructions before beginning installation. Disconnect power to motor and test upon completion. Sensing edges and wireless products should be installed by qualified personnel to ensure the requirements herein have been met. Keep these instructions with the installation. Always abide by local and national electrical code specifications when wiring accessories to motor controls.

The Miller Edge RBand Monitored Wireless Sensing Edge System is intended to provide a wireless connection between a monitored sensing edge and a motorized operator. RBand meets the UL 325 requirements for monitored devices and has been certified as a UL 325 Recognized Component. It is designed for use with operators that comply with UL 325 using a Miller Edge 10K Sensing Edge. Consult your operator manual for detailed instructions about connecting to the motor.

### KIT CONTENTS

- (1) RB-P-RX10C: RBand Edge Receiver
- (1) RB-TX10C: RBand Edge Transmitter
- (2) **3.6V AA lithium batteries\***
- (4) #6 pan head transmitter mounting screws

**\*REPLACEMENT BATTERIES: 3.6V AA lithium batteries can be purchased at an electronics store (ER14505 or equivalent) or from Miller Edge (226-9313). Standard 1.5V AA batteries are not compatible with RBand.**

### REQUIRED (not included)

- Miller Edge 10K (T2/blue band) sensing edge
- Receiver mounting hardware
- 1/8" flat blade screwdriver
- 1/4" flat blade screwdriver
- 18-26 AWG wire to connect receiver to operator

### RECOMMENDED

- Multi-meter
- MET-101 Edge Tester by Miller Edge
- Operator manufacturer's manual

## I. RECEIVER INSTALLTION

1. Turn off power to the operator.
2. Remove Receiver cover and mount the receiver base near the operator, where it will be in line of sight with the transmitter for the entire range of travel [\[IMAGE 1\]](#).
3. Connect power (12-24 VAC/DC) to the terminals marked power, noting the +/- polarity. 24 VAC power can be connected either way not polarity sensitive [\[IMAGE 2\]](#).
4. Connect both PE1 and PE2 to the photo-eye inputs on the operator. N/A is not used.
5. Replace the Receiver cover and turn on power to the operator. Note: it takes ~5 seconds for the Receiver to initialize.

**Note:** RBand Sensing Edge Receiver is compatible with up to 3 RBand Transmitters.

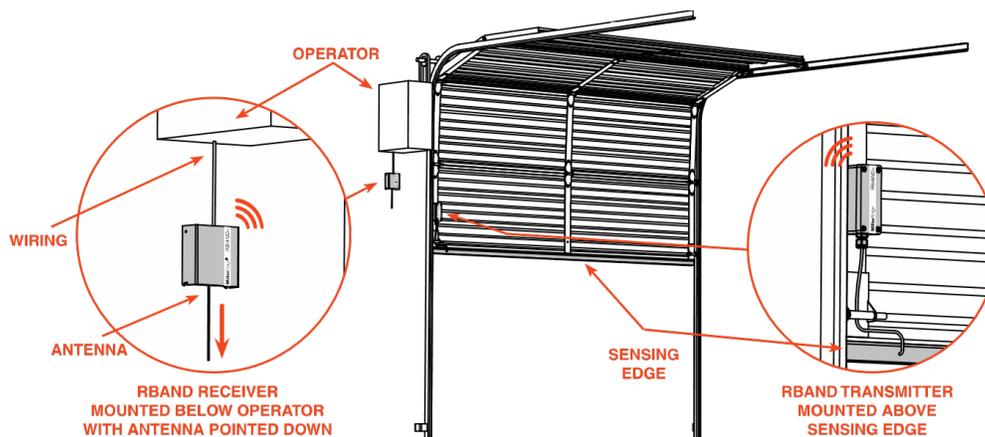


IMAGE 1. Door Installation with RBand Transmitter & Receiver

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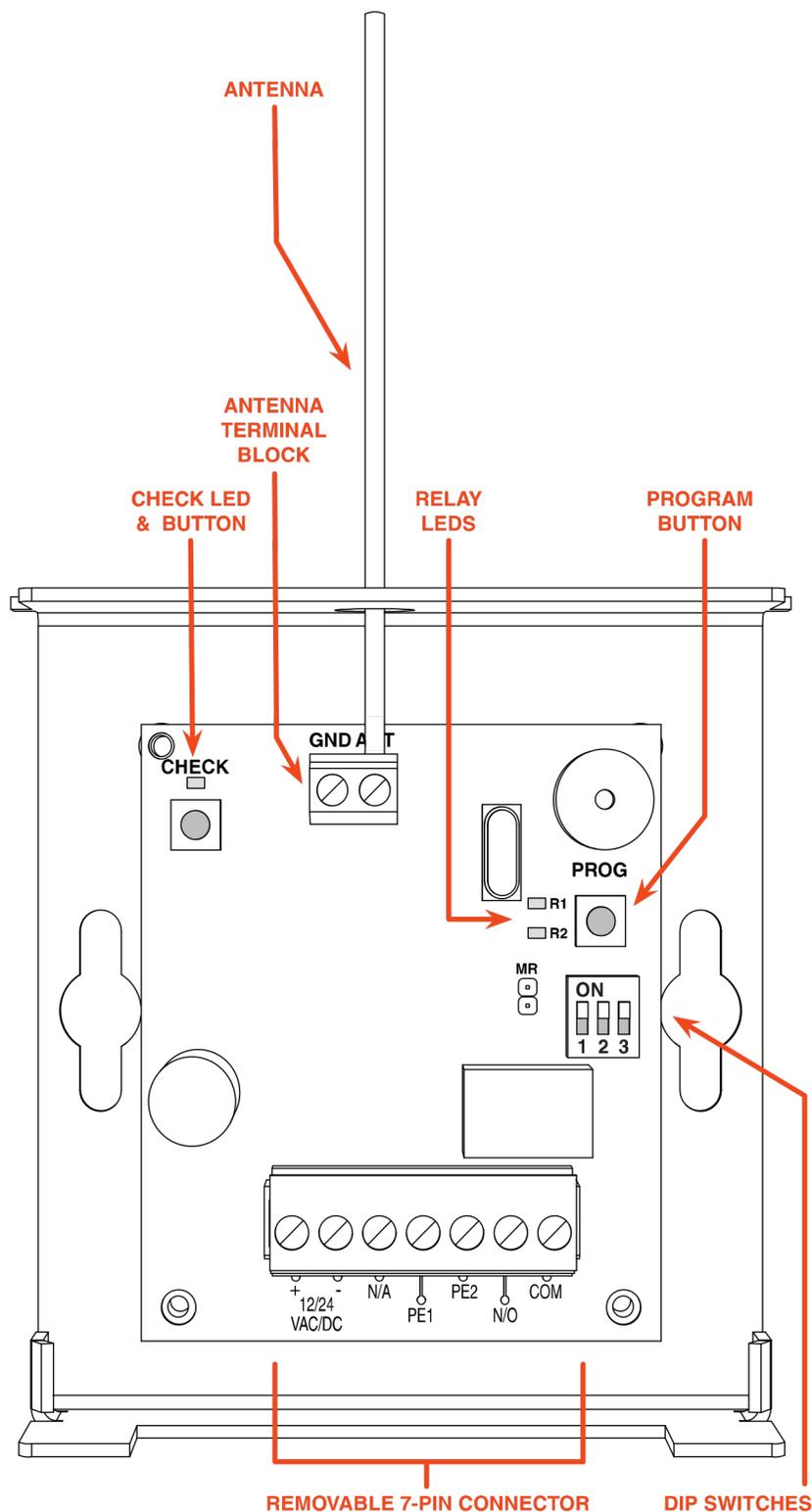


IMAGE 2. RBand Sensing Edge Receiver PCB & Connections

### LED INDICATORS

#### Initial Power

- No Transmitters Programmed: R1 LED on

#### R1 LED (1 edge connected)

- Programmed: **Off**
- Fault Condition: **On**

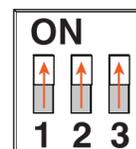
#### Check LED

- Programmed: Check LED flashes every 5 seconds

#### R2 LED

- Not used

### DIP SWITCH SETTINGS



Leave switches in factory default settings (all on).

### 7-PIN CONNECTOR

+12/24 VAC/DC ► Constant power

-12/24 VAC/DC ► Constant power

N/A ► Not used

PE1 ► P.E. input

PE2 ► P.E. input

N/O ► Normally open

COM ► Relay common

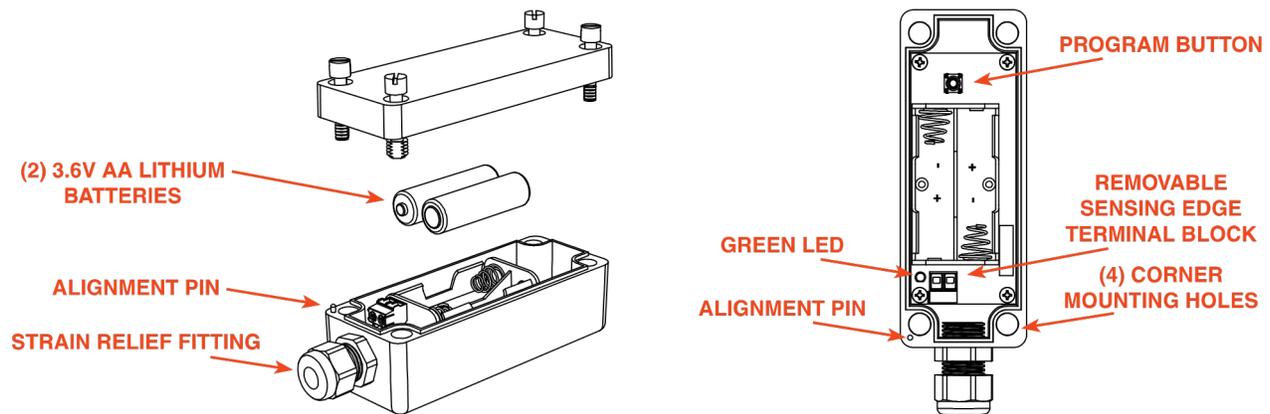


IMAGE 3. RBand Edge Transmitter PCB & Connections

### II. TRANSMITTER: PROGRAM MODE

1. Confirm the Receiver is powered up. Prior to mounting the Transmitter, remove the cover and insert the batteries, noting their polarity [IMAGE 3]. The green LED should blink to indicate that the Transmitter has not been associated with the Receiver yet.
2. To enter **learn** mode, press and hold the Receiver program button [IMAGE 2] for ~2 seconds until the **R1 LED** turns on, then release the button.
3. Press the Transmitter **program button** [IMAGE 3] for ~2 seconds. The Receiver should beep. Wait 10 seconds for an additional **beep** to indicate that programming is complete.
4. Repeat 3-2 and 3-3 for up to 3 Transmitters.

### III. TRANSMITTER: INSTALL & TEST

1. Strip back approximately 2 inches of outer covering of sensing edge cable, then feed through the Transmitter **strain relief fitting** [IMAGE 3]. Connect the two sensing edge wires to the removable terminal. Dress the wires with a small service loop and tighten the strain relief. Mount unit utilizing the mounting holes at the 4 corners of the Transmitter box. Return lid to Transmitter, noting the **alignment pin** [IMAGE 3].
2. Test the sensing edge for functionality: press the sensing edge and the Receiver **R1 LED** will turn on.

### IV. TROUBLESHOOTING

If the Receiver does not react to the Transmitter, you can check the RF signal strength:

1. Press the **check button** on the Receiver for ~2 seconds [IMAGE 2]; 4 beeps will be heard. You then will hear a beep every 1-1/2 second during the **check** process. Wait about 30 seconds; if no other beeps occur, your system is functioning. 3 quick beeps indicate a communication error.
2. Activate the sensing edge and observe the **check LED**; 3-5 flashes is ideal. Less than 3 flashes means there is a weak signal.
3. To exit **check** function, press the **check button** again, or the system will time-out after 5 minutes. There will be a series of beeps heard upon exiting.
4. Keep a clear line of sight between transmitter and receiver antenna. Nominal range is 50-ft.

### V. ERASING THE RECEIVER

Erase the Receiver if you need to replace a Transmitter or have any other programming problems:

1. Use a screwdriver to short the two pins next to the **DIP** switch marked **MR** [IMAGE 2].
2. While shorting the pins, press and hold the **program button** for several seconds; you will hear a series of 10 beeps following by a rapid chirping sound.
3. When the chirping stops, release the **program button**. Wait ~10 seconds and you will hear 2 beeps. The Receiver is now ready to be reprogrammed.

### VI. TECH SUPPORT

For additional assistance, contact Miller Edge Tech Support: 800-220-3343

### VII. TRANSMITTER: SPECIFICATIONS & CONTROLS

**Transmitter Frequency:** 916 MHz, FSK modulation

**TX Indicator Lights:**

Green LED: Normally off

Press program button for status

**Mounting:** 4 corner screws (provided)

**Power Source:** Batteries: 2 AA, 3.6V lithium, 2-year life expectancy

**Dimensions:** 1.80"L x 4.78"W x 1.75"H

**Program Button:** Momentary push button is used to associate the Transmitter to the Receiver.

### VIII. RECEIVER: SPECIFICATIONS & CONTROLS

**Power:** 12-24 VAC/DC nominal (11-30 V max); power may be supplied from the operator or alternatively from an external supply. 100 mA maximum current draw.

**Cable Connections:** Screw clamp type terminal blocks for 18-26 AWG wire.

**Dimensions:** 4.12"L x 3.65"W x 1.65"H

**Learn Button:** Used to associate a Transmitter with the desired receiver channel.

**Check Button:** Press to determine the signal strength. 4 or 5 blinks is ideal.

**RX Indicator Lights:**

- Check LED:
  - a. Blinks every ~5 seconds to indicate working properly
- Channel LED:
  - a. Off when the associated sensing edge is learned and has no faults
  - b. On solid: No Transmitters learned or sensing edge is active

**Connections:**

- Power (2)
- Output:
  - a. PE1, PE2: Photo-eye style pulsed output
  - b. N/A; High speed pulse output (not commonly used)
  - c. COM, N/O: Normally Open output for non-monitored applications

### IX. FCC COMPLIANCE

**Supplier's Declaration of Conformity**  
**47 CFR § 2.1077 Compliance Information**

**Unique Identifier:** RB-TX10, RB-TX10B, RB-TX10C, RB-P-RX10C

**Responsible Party - Miller Edge, inc.**  
300 N. Jennersville Road  
West Grove, PA 19390

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 may 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:

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

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

### X. MAINTENANCE

It is strongly recommended that users check wireless systems at least once per month for low batteries alerts, and damage to housings and mountings. Also check for signs of damage to sensing edge and cable connection points. Compress the sensing edge 2" from both ends and in the center and observe that it sends an electric signal to the controls. Refer to your operator manual for detailed instructions about motor connections.

### XI. REPLACEMENT

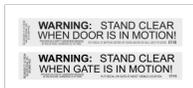
To replace your Miller Edge wireless system, contact your sales representative. Attempting to repair your Miller Edge wireless system is not recommended and will void the manufacturer warranty.

### XII. WARRANTY

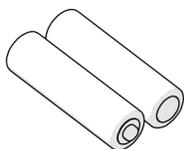
**RBand (model: RB-P-K10)** carries a 2-year warranty from date of shipment from Miller Edge for credit or replacement. This warranty applies to normal use, which is found to have defective materials or workmanship, as determined solely by an authorized factory representative. This warranty is void where evidence of misuse or abuse is present. This warranty covers repair or replacement of the purchased product only; product installation/labor charges are not covered. Miller Edge manufactures its products to meet stringent specifications and cannot assume responsibility for those consequences arising from improper installation or misuse. Installation instructions and testing procedures provided by Miller Edge must be followed for proper operation and maintenance.

### XIII. ACCESSORIES

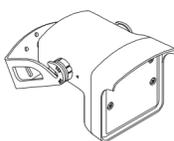
Contact your Miller Edge sales representative for accessories to wireless systems:



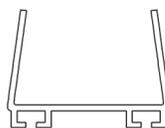
**WARNING LABELS**



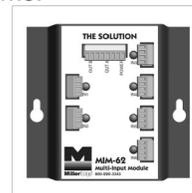
**BATTERIES**



**MOTION SENSORS**



**MOUNTING CHANNELS**



**MODULES (MIM)**



**EDGE TESTER**