Wireless Beams

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Introduction

The Trafsys Wireless Beams provide a simple way to track people passing through a given area. The beams communicate wirelessly to either an MIU-1000 or MIU-1500 data controller. Each beam set is uniquely identified by a serial number that is stamped into each of the transmitted packets to the data controller. They may also be used as a simple stand alone counter.

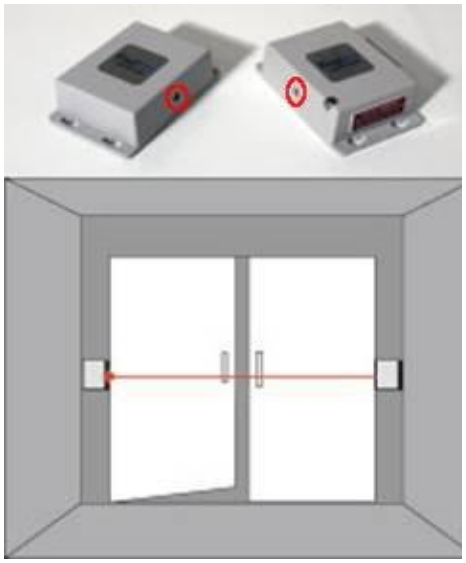

Figure 1: Typical Side Firing Installation

Models

There are two variations of the Trafsys Wireless Beams, the front firing and the side firings beams. With the combination of these two styles we are able to accommodate for more installation options. When mounting the sensors on the frame of the door, side firing wireless beams will be used. *(Figure1)* When the sensors need to be located on two opposing walls, front firing wireless beams will be selected. *(Figure 2)* Refer to the red selection to the right to determine what sensor type is best suited for your needs..

Features

- 24-bit counter
- 30’ Entrance range
- 3.6 v Lithium Battery Power
- 418 MHz radio interface
- Up to 600 ft radio range
- Front or Side firing beam
- Integrated 6-digit cumulative count display
- Unique Serial Number embedded in data packets

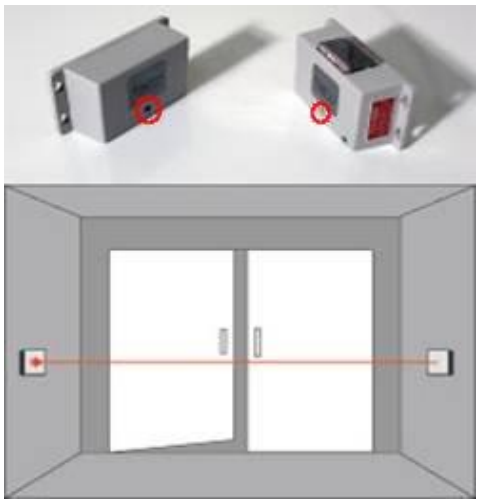

Figure 2: Typical Front Firing Installation

Operation Modes

Overview

A beam set has two possible modes of operation, Shipping mode and Online (operational) mode.

Shipping Mode

This will put the receiver and transmitter in a low energy setting to save the battery life. Upon receiving your wireless beams this will be the state that the beams will be set to. You will see numbers on the LCD incrementing upwards one per second.

Online Mode

This mode is the operational mode that turns on both that transmitter and receiver. This mode turns on the monitoring of the counts along with turns on the radio that transmits the packets to MIU data controller.

What Mode am I In?

To identify the mode that the wireless beams are in you need to shortly press (*One Second*) the pushbutton on each sensor. If the LED indicator immediately lights up, then the sensor is currently in Shipping Mode. If the light does not light up IMMEDIATELY, the sensors are in online (operational) mode. Note also that the numbers in the LCD will no longer be incrementing upwards when in online mode.

Changing Operation Modes

Changing modes requires you to take the front cover off and press a switch to change the state of the sensors. Please refer to Figure 3 & 4 for locating the switch and LED indicator.

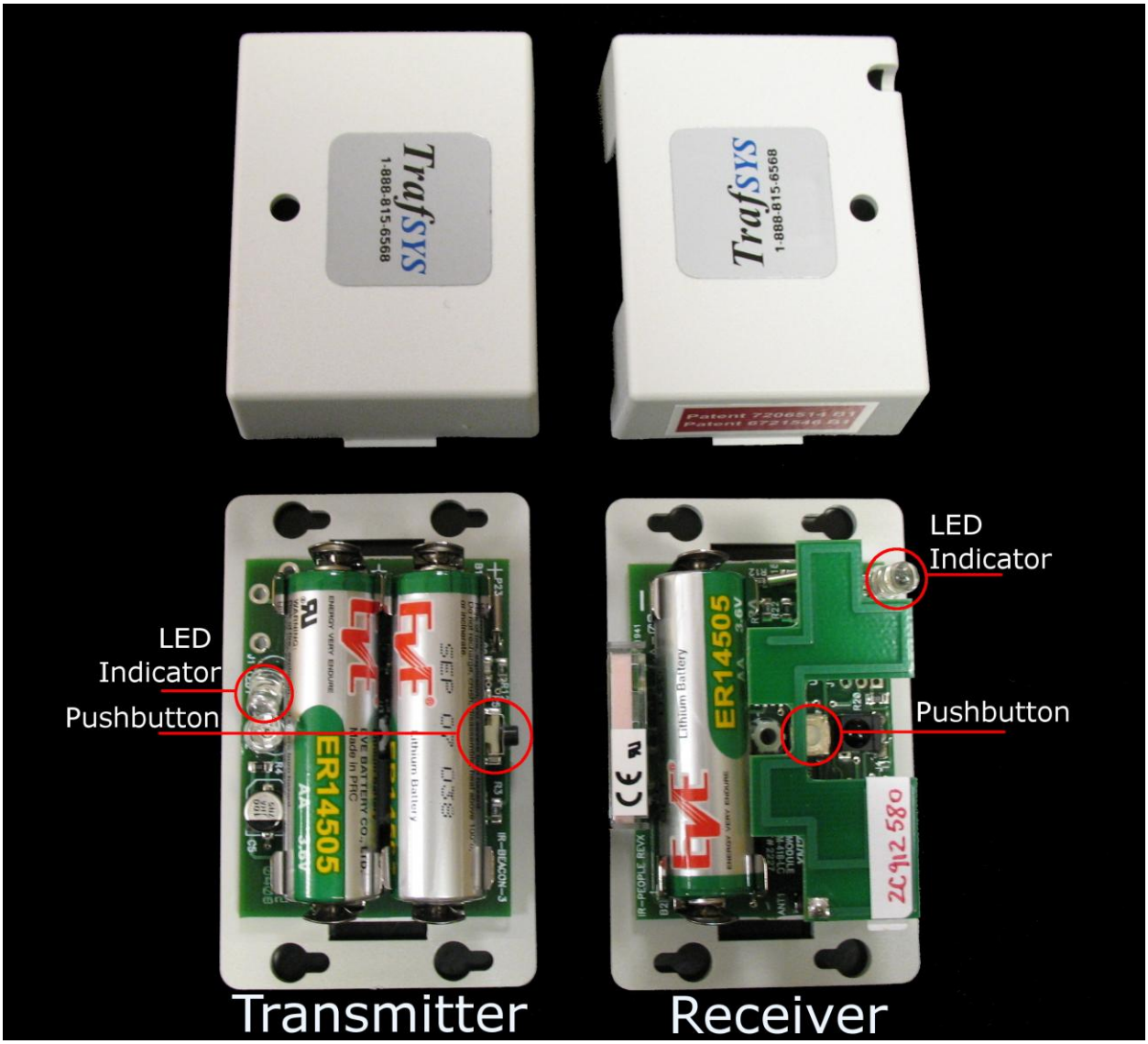

Figure 3: Trafsys Front Firing Wireless Beams

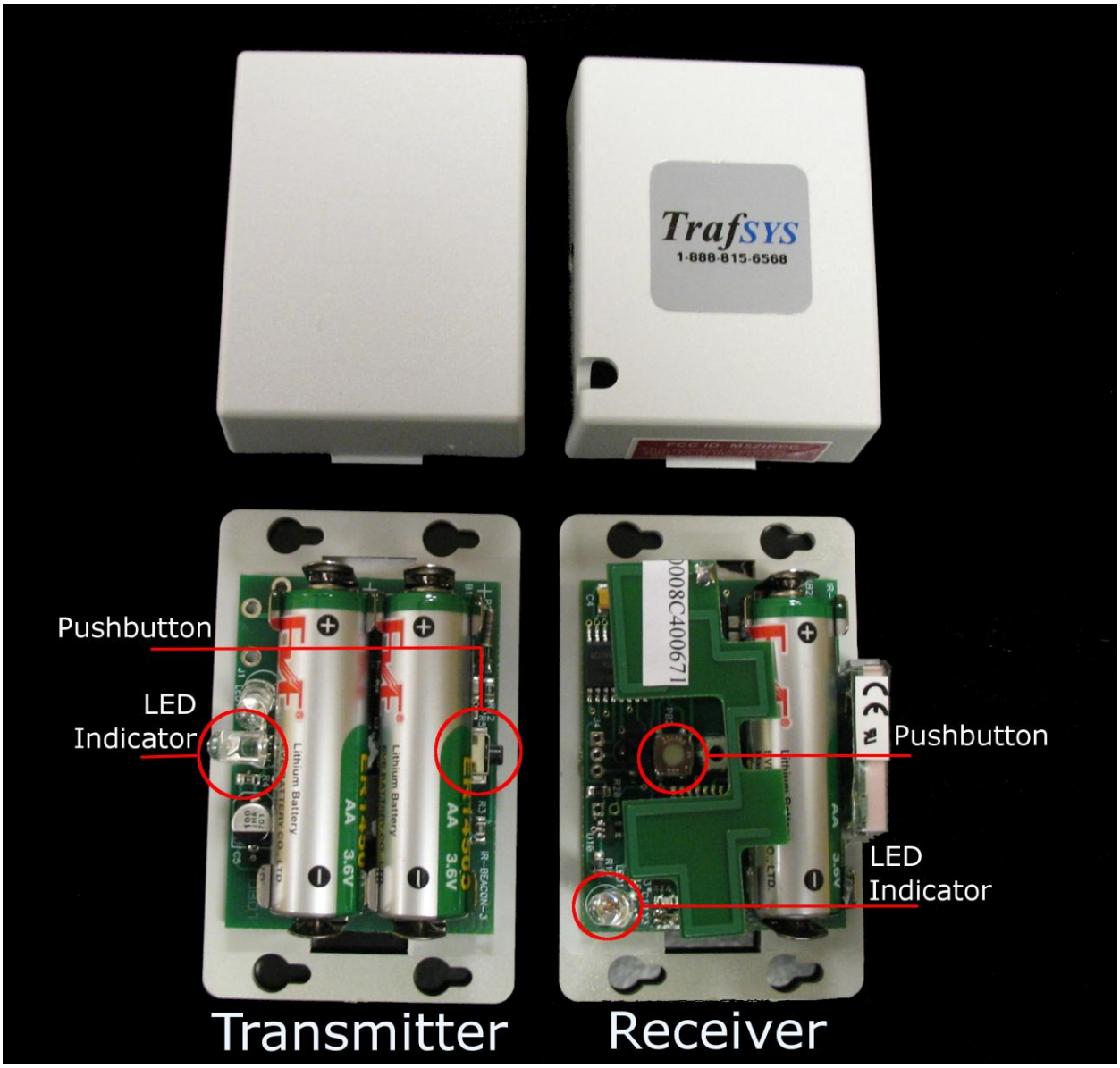

Figure 4: Trafsys Side Firing Wireless Beams

To Online Mode

To place the Trafsys Wireless Sensors into online mode, press and hold the pushbutton for 5 seconds. To verify that you have changed to Online Mode briefly press the button once again to verify that the LED indicator does not immediately light up. If the Indicator **does** lights up immediately, repeat this procedure once again.

To Shipping Mode

To place the Trafsys Wireless Sensors into shipping mode, press and hold the pushbutton for 10 seconds. To verify that you have changed to Shipping Mode, briefly press the button once again to verify that the LED indicator immediately lights up. If the Indicator **does not** light up immediately, repeat this procedure once again.

Installation

Installation may be done using double-sided tape or small screws. Attach the LCD (Numeric Display) half on right side door frame 42 to 48 inches from the floor, making sure the small hole is facing towards the opposite side of the door. Attach the opposite half on the left inside door frame at the same height, making sure the small hole is facing toward the other half. Make sure NO obstructions are in the way, such as signs or displays, as these will interrupt beam operation.

Installation Tips

- Ensure that the door opens away from the sensors. The sensors will not work properly through glass. If the doors swing into the store, the beam sensors will have to be set back far enough into the store to avoid interference from the door.
- The wireless radio is sensitive to EMI (Electromagnetic interference). It is not recommended to install the Trafsys Wireless Beam in close proximity to items such as circuit breakers, dimmer switches, and electronic heating elements.
- High reflective glare (as from mirrors) will also interfere with the sensors ability to accurately count.

Battery Replacement

Typical battery replacement is required about once every year. The Trafsys Wireless Beams require 3.6V AA which can be purchased from us. Standard AA batteries will not work in the sensors.

- When replacing batteries be extremely careful not to bend the LED Indicators under the front covers. A bent LED will make the alignment of the sensors difficult.
- Ensure that the batteries are oriented in the correct direction. (*Refer to Figure 4*)

Troubleshooting

Here are some solutions to common problems you may experience with the Trafsys Wireless Beams.

My LCD display is not showing any counts.

The LCD is not displaying current counts or incrementing every second.

- The Battery in the (LCD sided) receiver sensor requires replacement
- This state will account for a status of Offline in the Trafsys Software

My LCD display is showing counts but they are not increasing when people enter.

Something is causing your transmitter (Non-LCD) sensor to not send counts to the receiver (LCD Sided).

- Check to ensure that the transmitter (Non-LCD Side) is turned to Online Mode(*Refer to Page 6*)
- Ensure that the sensors are properly aligned
- Check for any objects in the path between the two sensors
- The batteries in the transmitter require replacement
- This state will account for a status of Blocked in the Trafsys Software

My LCD display continues to count up as no one walks through the entrance.

Your receiver sensor is currently in Shipping Mode.

- Refer to page 6 to switch the sensor to Online Mode

My Beams are recording inconsistent data. I see unusually high spikes in counts during certain periods of the day, even when my facility is closed.

You may be experiencing problems with interference in the detection area of your beams. Please check for the following:

- Make sure there are no reflective objects near the sensors. The sensors also should not be mounted on reflective surfaces.
- Check the LEDs inside the case of your sensors. If the LED does not have a clear view through the case, it could cause misfires even when there is no activity.

Contact Information

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