



Directional Wireless Beams

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Contents

Introduction	3
Features	3
Sensor Configuration	3
Operation Modes.....	3
Overview	3
Shipping Mode	3
Online Mode	4
Changing Operation Modes	4
To Online Mode	5
To Shipping Mode	5
What Mode am I In?	5
Power Modes	6
Overview	6
Low Power.....	6
High Power.....	6
Changing Power Modes	6
Installation	7
Optional Mounting Bracket	7
Installation Tips.....	7
Battery Replacement	8
Contact Information.....	8

Introduction

The Trafsys Directional Wireless Beams provide a simple way to track the direction of 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.

Features

- 15' or 25' Entrance range
- 3.6 v Lithium Battery Power
- 418 MHz radio interface
- Up to 200 ft radio range
- Unique Serial Number embedded in data packets

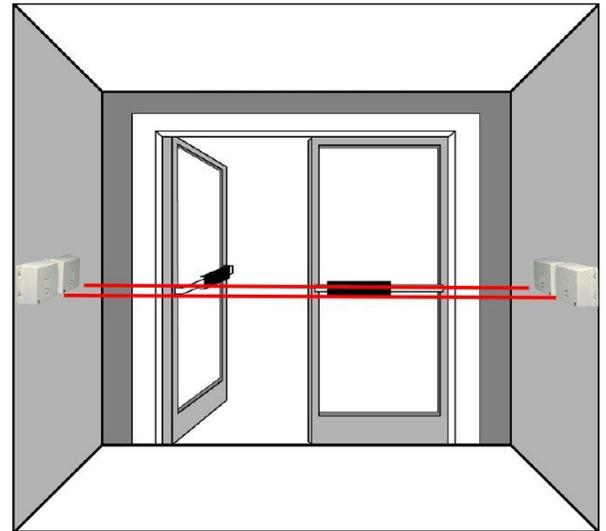


Figure 1: Typical Directional Beam Installation

Sensor Configuration

The Trafsys Directional Wireless Sensors have two simple settings that need to be configured before they are put into use. These settings are the Operation mode and Power mode.

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 directional beams this will be the state that the beams will be set to.

Online Mode

This mode is the operational mode that turns on both the transmitter and receiver. This mode turns on the active infrared beams along with turning on the radio that transmits the packets to MIU data controller.

Changing Operation Modes

Changing modes requires you to take the front cover off and press a switch to change the state of the sensors. When removing and replacing the covers, be careful not to bend the LED's as this may cause the beam sensors to not "see" one another. Please refer to Figure 2 & 3 for locating the switch and LED indicator.

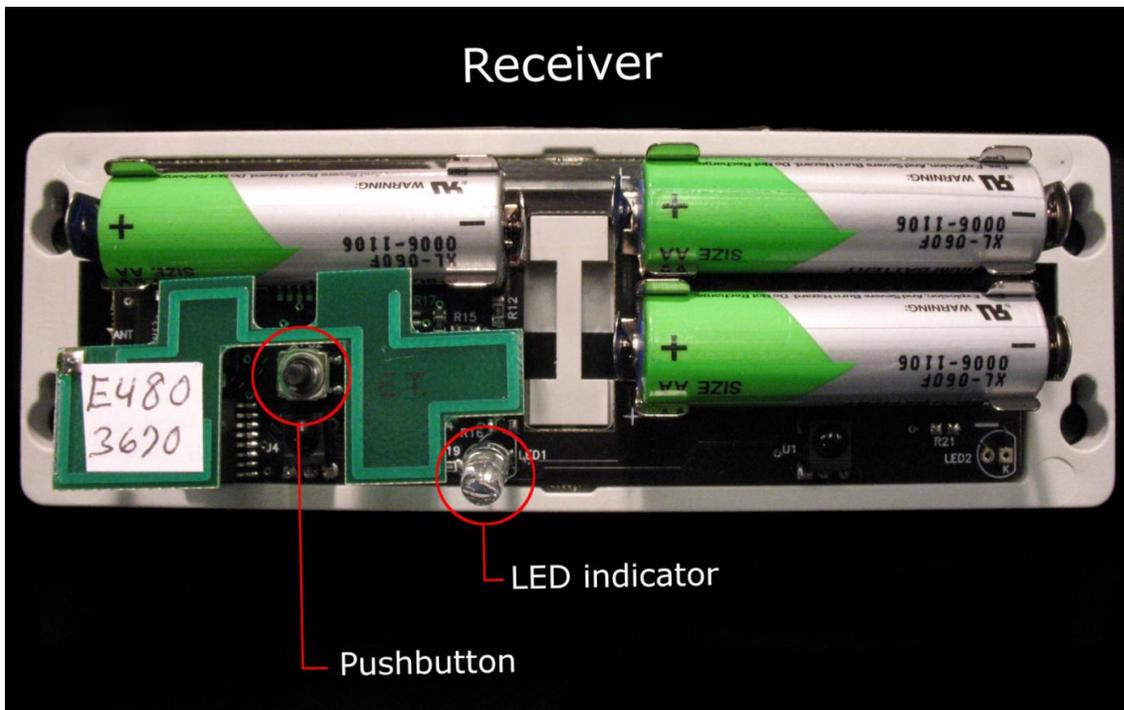


Figure 2: Receiver Beam

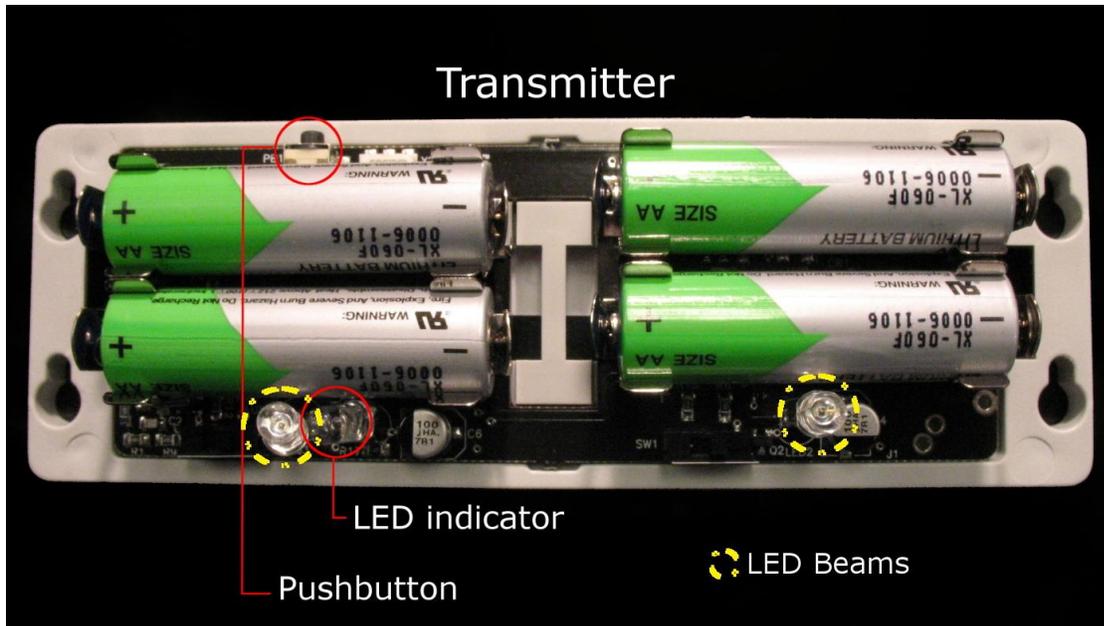


Figure 3: Transmitter Beam

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** light 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 repeat this procedure once again.

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.

Power Modes

Overview

The Directional Wireless sensors are able to accommodate two entrance spans by adjusting the power mode that the sensor is in. Putting the Sensor in the proper mode allows for maximum battery life or maximum entrance width.

Low Power

- For entrances 15 feet or shorter
- Battery life of 1.5 - 2 years

High Power

- For entrances 15 feet to 24 feet
- Battery life of 1 - 1.5 years

Changing Power Modes

To change the power mode on the TrafSYS Directional Wireless beams you must take the covers off of the Transmitter side (side without the TrafSYS sticker). Along side the batteries there are two switches that will select the power mode that they are in, H – High Powered Mode or L – Low Powered Mode. It is important that you place both switches in the same position. Not doing so can lead to inconsistent battery replacement and irregular traffic counting.

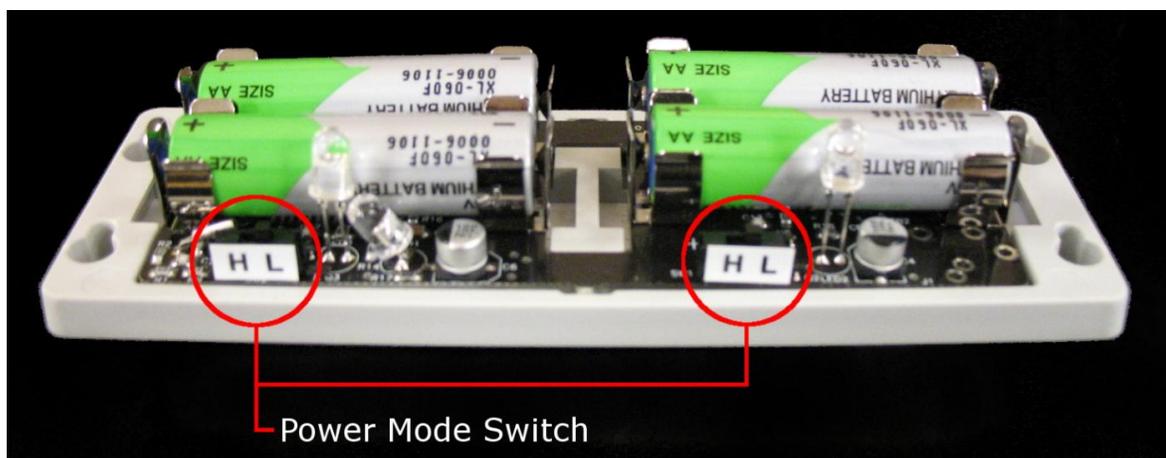


Figure 4: Power Mode Switch

Installation

Installation can be done using screws to attach the beam at the corners of the case. Attach the RECEIVER (TrafSYS sticker) side on right side door frame 42 to 48 inches from the floor. Attach the opposite half, TRANSMITTER, on the left inside door frame at the same height, making sure the small holes are facing toward the other half. Make sure NO obstructions are in the way, such as signs or displays, as these will interrupt beam operation.

Optional Mounting Bracket

If required, mounting bracket allows for installations where suitable walls are not available for installation. The bracket attaches to existing door frame to allow for an easy installation of your TrafSYS Directional Wireless Beams.



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 depends on what Power Mode you are in. (*Refer to page 6*) The Trafosys Directional 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*)

Contact Information

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