OmniCounter Wireless Infrared People Counter

Model: OmniCounter

Introduction

The Traf-Sys/Walker Wireless OmniCounter Wireless Infrared People Counters provide a simple and elegant, yet effective way to track foot traffic through a given area or entrance. The counter consists of two parts, a transmitter and receiver, and determines traffic based using infrared beam breaks; upon beam break, the counter will increment and counts may be viewed on the LCD utilizing a magnet (Page 6).

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Features and Benefits

- Infrared beam-interrupt 24-bit People Counter
- Battery operated (fully wireless)
- Can operate in side-firing or front-firing mode (switch selectable)
- Integrated 6 digit LCD display indicating total counts
- Up to 18ft. infrared transmission range (dependent upon conditions)
- Complies with part 15 of the FCC rules

- Up to 110ft (418MHz) indoor radio transmission range
- Monitors infrared beam interruptions and duration of beam interruptions
- CRC-16 error checked radio packets
- User replaceable batteries (**3.6 volt lithium**)
- Flush mounting bracket (included)

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Mounting and Orientation

One key to your OmniCounter People Counters operating properly and efficiently is their mounting orientation and height:

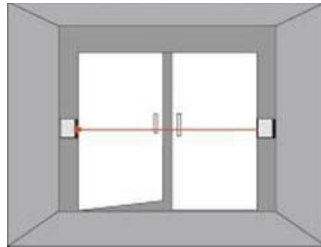Normal mounting height is between 36 and 52 inches. Please see the illustrations below:

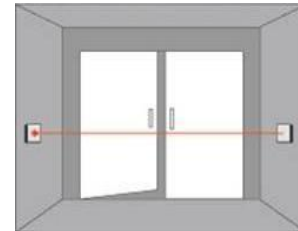Figure 1 shows a typical side-firing (door mounted) installation.

Figure 2 shows a typical front-firing (wall mounted) installation.

Figure 1

Figure 2

Firing Orientation

Receiver side (side with the LCD display). Located on both the transmitter and receiver is a dimple that is used to allow the correct orientation. The dimples are also used to indicate which side of the enclosure the IR receiver or IR transmitter is located when using the counter in different firing Modes.

Side Firing Mode

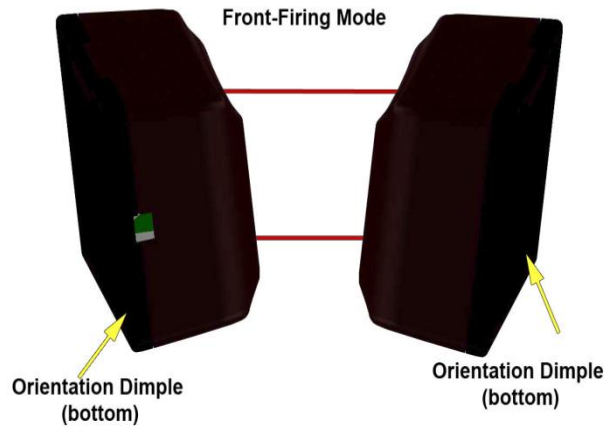In Side-Firing Mode, the counters need to be mounted so that the dimples are oriented to the center

**Orientation Dimples**
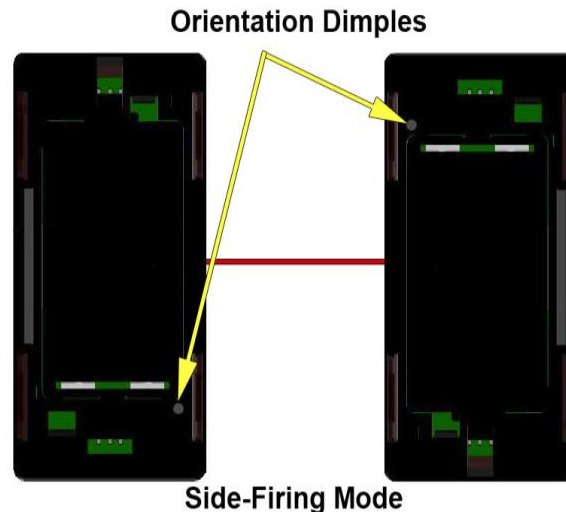
Side-Firing Mode

Front Firing Mode

When used in Front-Firing Mode, the counter needs to be installed with either both dimples at the top or both dimples at the bottom.

Dual (Directional) Mode

For dual mode the receiver side (side with the LCD display) should be mounted horizontally on the right side of the entrance with the display facing up and the dimple at the bottom. The transmitter side is then mounted horizontally with the dimple at the top.
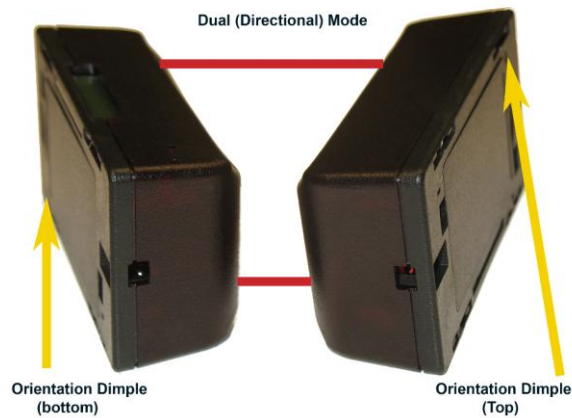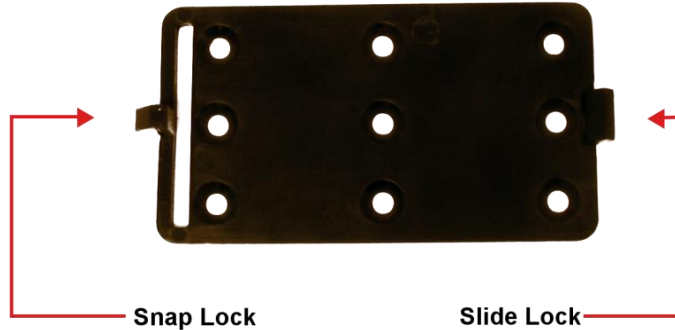

Mounting Bracket

You should decide what mode you are going to use your counters in before hanging the mounting brackets.

- You will want to mount each mounting bracket (shown below) with snap lock facing up for **front firing** mode to allow for proper orientation and sensor operation.
- For **side firing** the bracket will have one snap lock facing up and the other facing down to allow for proper orientation and sensor operation.
- For **dual (directional)** mode the brackets need to be mounted horizontally. Both of the brackets will have the snap lock facing the inside of the door to allow for proper orientation and sensor operation.

After mounting the brackets, your Omni Counter sensors simply slide onto the Slide lock and then snap securely onto the Snap lock. The following pictures will help illustrate the process.

Figure 1   Figure 2   Figure 3

Figure 1: Grasp the sensor firmly and line it up with the Slide lock.

Figure 2: Slide the sensor onto the Slide lock.

Figure 3: Begin to push the sensor towards the Snap lock until it snaps into place.

To Remove Sensor from bracket

To release the sensor from the mounting bracket, depress the Snap lock with the included screwdriver and gently pull the top of the sensor away from the mounting bracket. See Figure 4 below for the location of the Snap lock release.

Figure 4

Configuring the IR Receiver

To turn the unit on, use a paperclip to press the Configuration Button.

To select the mode of operation press and hold the Configuration Button. The LCD display will sequence through the available operation modes:

- **SIDE** - side firing
- **FRNT** - front firing
- **DUAL**- dual firing for in and out count
- **SELFTEST -** test of the sensor
- **PWR OFF** - powering off the sensor

To select the desired mode, release the IR Receiver Configuration Button when the desired mode is displayed on LCD.

To put the counter into Alignment Mode, momentarily press and release the IR Receiver Configuration Button on the IR Receiver. If the IR Receiver and IR Transmitter are properly aligned, then the LED will be lit on the IR Receiver. You can exit Alignment Mode by pressing the IR Receiver Configuration Button again or allow it to exit Alignment Mode on its own (after 60 seconds). This button is also used to send a service packet. This will be discussed later in the manual.
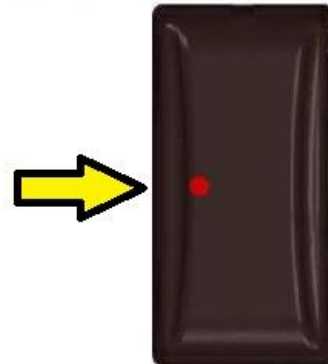
To display the counts on the LCD

Swipe a magnet across the IR Receiver where the reed switch is located (opposite side of the LCD display).

To reset the counts to zero, hold a magnet next to the reed switch for approximately 5 seconds. This is the recommended way to reset the counts. It is recommended that you use your magnet to check your counts. This will eliminate the potential of changing the configuration or possible tuning off the sensor.

Configuring the IR transmitter
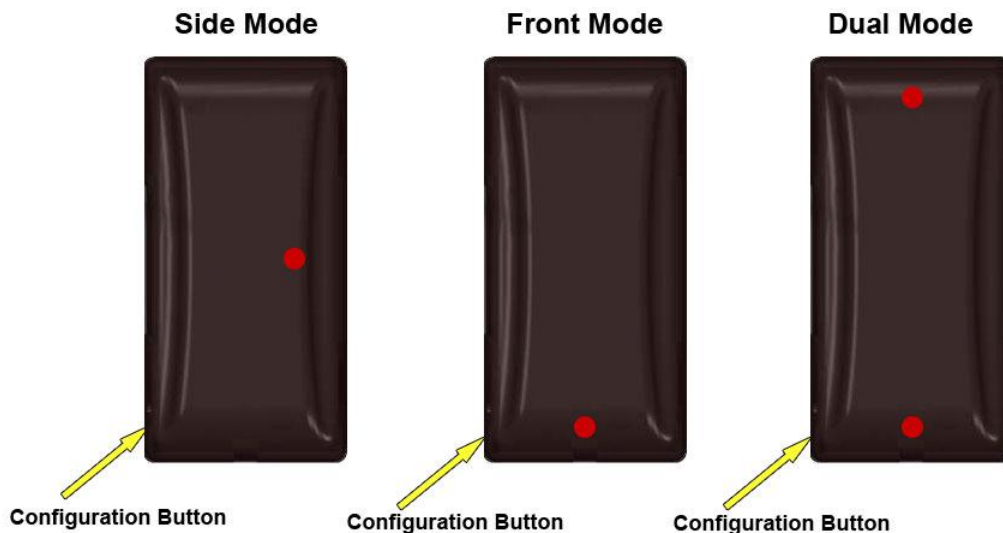
To select the mode of operation, use a paperclip to press and hold the configuration button. The visible LED's will provide feedback to the available modes (Side Low Power, Side High Power, Front Low Power, Front High Power, Dual Low Power, or Dual High Power).

Low Power Mode is indicated by a solid LED and High Power Mode is indicated by a flashing LED. (High power setting recommended for a distance over 10 feet)

Sending a Service Packet

Sending a service packet from the OmniCounter People Counters is a useful diagnostic tool; it will allow you to do the following things:

- It will allow you to easily add the sensor to your MIU data controller using the Auto Add method described in your data controller's manual.
- It will automatically update the sensor's status and make its total count visible in the data controller. This is most useful for retrieving your total count (standalone mode) or interactive monitoring (when using a data controller).

To send a service packet, depress and release the IR Receiver Configuration Button using a small pointed object (i.e. – paperclip, bobby pin) on receiver side (side with LCD).

Troubleshooting

Below are solutions to common problems you may experience with the OmniCounter Wireless Infrared People Counters.

My sensors are not counting.
The sensors are not generating counts when the infrared beam is being broken.

- Ensure the power is on for both sensors.
- Ensure that your sensors' firing designation switch is set properly to be front-firing or side-firing and ensure that the sensors are mounted to match that designation.
- Your batteries may need replaced; see Appendix A for battery replacement information.

- If your counters are not counting and you have a "Blocked" status on your LCD display this means that the transmitter and receiver are unable to see each other.
  - 1. Ensure that there is nothing between the sensors.
  - 2. The two sides are not in the same firing mode.
  - 3. Ensure that the alignment of the two sides is good.

I do not see any counts on my LCD screen.
The onboard screen displaying counts is blank.

- This is by design; sending a service packet or utilizing the magnet as described on Page 6 will cause the count total to become visible. This feature was implemented to conserve battery life.

Appendix A: Battery Replacement

When it comes time to replace the batteries in your sensors, please follow this quick guide. You may purchase your batteries directly from Traf-Sys/Walker Wireless; these sensors **require 3.6 volt lithium batteries**.

1. Remove the battery door on both of your sensors by applying pressure downwards in the direction the arrow is pointing (towards the battery door as show below in Figure 11).
2. Using your fingernails or the included screwdriver, <u>gently</u> pry and remove the batteries.
3. Following the proper battery polarity designations (printed in white on the circuit board under the batteries) replace the batteries with new 3.6 volt lithium batteries.
4. Turn both units on and remount them on their brackets.
5. Test your sensors by walking through the entrance or otherwise breaking the beam path.
6. If your sensors successfully generated counts, congratulations, you have successfully replaced the batteries in your sensors. If you were unable to generate counters, please refer to the Troubleshooting section of this document then contact Traf-Sys/Walker Wireless technical support if you require further assistance.

Figure 11

OmniCounter Accessories

- MIU-1000 or CompuCount data controller
- 3.6 volt lithium AA battery
- Visicount server software (requires data controller)
- Traf-Sys Data Hosting and Support Services (requires data controller)