

## PCW-TB06 - Installation Guide

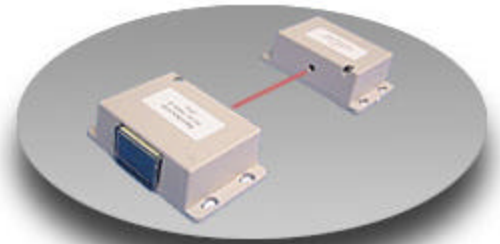
### Non-Directional IR Counter

*Battery operated IR transmitter & receiver with integrated counter and RF transmitter*

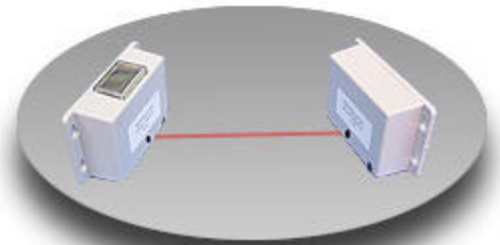
#### Features

- Battery operated for a truly wireless installation
- Radio interface operates with all SenSource PCW Receivers
- Unique serial number embedded in radio data packets
- Integrated 6-digit LCD beam interrupt counter
- Integrated mounting flange
- Optional flush-mount wall box kit
- Up to 20 Ft. IR transmission range
- Up to 600 Ft. radio range
- Counts beam interruptions and total beam interrupt duration (counts up regardless of traffic direction)
- 2.0" X 2.5" X 1.0" ABS enclosures
- Energy managed low power modes for long battery life
- User replaceable batteries

Side Firing  
(PCW-TB06-S)



Front Firing  
(PCW-TB06-F)



#### Description:

The SenSource PCW-TB30 IR Sensor/Counter is a battery operated infrared beam interruption sensor with an Optional 418 MHz radio transmitter. The sensor consists of two parts; the IR transmitter and the IR receiver. The IR receiver has an integrated 6-digit LCD counter and a radio transmitter for truly wireless installation and operation. The IR transmitter and receiver operate across a distance of up to 20 feet. The IR transmitter flashes 16 pulses of high intensity IR each second enabling the receiver to distinguish these pulses from any other source of IR light. This characteristic allows the IR sensor to operate in almost any environment without interference from ambient lighting.

PARAMETER	MIN	TYP	MAX	UNITS
Battery life IR receiver	1	3	6.5	Years
Battery life IR transmitter	-	1	-	Years
Battery type; Lithium TL-2100	-	-	-	-
IR range (sensing Distance)	.5		20	feet
Radio range	-	200	900	feet
IR receiver pushbutton down to Reset	4	LCD SETTO ZERO	8	seconds
IR receiver pushbutton down to Online Mode	4	LED ON CONSTANT	8	seconds
IR receiver pushbutton down to Standby Mode	8	-	-	seconds
IR receiver pushbutton down to Setup Mode	.25	-	1	seconds
IR transmitter pushbutton down to Online Mode	4	LED ON CONSTANT	8	seconds
IR transmitter pushbutton down to Standby Mode	8	-	-	seconds
Enclosure 2.0" x 2.5" x 1.0" ABS Plastic	-	-	-	-



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### 1. Installation Instructions (PLEASE READ COMPLETELY PRIOR TO INSTALLATION):

1.1. Chose an area to mount the Transmitter (unit marked with TX on the label and no display) and Receiver (unit marked RX on the label and with display) so that the sides with the round hole are facing one another and perpendicular (pointing directly at each other). The two units should not be spaced more than 20ft apart. The sensors should be mounted at about 3 – 4ft to count all traffic and at about 4 – 5ft to count only adult traffic. The surface should be sturdy in order to prevent misalignment by bumping into the sensor or mounting surface. The transmitter/receiver should not be mounted such that a door opening or closing will interrupt the IR beam (If mounted in this way the receiver will count door openings/closings and may or may not count people). **Only mount the Receiver at this time so that you can move the transmitter for optimal alignment in the following steps.**

1.2. Place the transmitter and receiver in On-Line Mode (see programming section below).

1.3. Next place the receiver in Setup Mode to check alignment. With the receiver in setup mode hold the transmitter in the intended mounting location making sure not to block the hole in the cover and move the Transmitter up/down/left/right if necessary so that the Red LED on the Receiver lights up solid. Mark this location through the mounting holes and proceed with mounting the Transmitter. When aligned properly each time the invisible IR beam is broken, the LED will flash for a brief moment and the counter will increment. If the counter operates as specified then your sensor installation is complete.

1.4. If integrating with a Count Server or Sensor Server please reference the readme.txt file and manual provided on the software CD for the server.

**2. Programming:** Programming is accomplished by pushing on the label over the area marked (RX) or (TX) as indicated below (also see figure 1 below for location of the programming button)

2.1. **Standby Mode (used to deactivate or turn OFF the Transmitter and Receiver):** The IR receiver (RX) and IR transmitter (TX) are placed in Standby Mode (factory default setting) to lower energy usage and to prevent radio transmissions during shipping. Holding the pushbutton down on the Transmitter or Receiver for a period of time greater than 8 seconds and then releasing will initiate Standby Mode. On the Receiver standby mode is indicated by the LCD display counting automatically 1 time each second. When shipped from the SenSource each unit will always be in Standby Mode. If the Receiver or Transmitter are in standby mode, pushing the button for less than 4 seconds will cause a rapid flashing of the LED (if you continue to hold the button standby mode will be exited as explained below)

2.2. **Online Mode (used to turn ON the Receiver (RX) and Transmitter (TX): Both the receiver and the transmitter are shipped in Standby Mode and must be placed in Online Mode prior to counting or any other programming.** Online mode activates the transmitter and receiver and is entered from Standby Mode by pushing and holding the pushbutton for greater than 4 seconds then releasing it in less than 8 seconds (during the time when the LED stays on solid without flashing (or for the IR receiver until the LCD display clears to zero). The IR transmitter and receiver indicate Standby Mode by a rapid flashing of the LED whenever the pushbutton is pressed for periods of less than 4 seconds. After alignment of the transmitter and receiver in Online Mode the LED on the front of the receiver will flash briefly each time the IR beam is interrupted. The counter will display and record each beam interruption.

2.3. **Setup Mode (on The Receiver (RX) this is used for alignment or to initiate communication with Sensor Servers):** While in Online Mode the user can place the receiver (with RX on the label) in Setup Mode by pushing the pushbutton for a short time of about ½ to 1 seconds. The receiver should be placed in Setup Mode to aid in alignment of the transmitter and receiver. In setup mode the RED LED on the receiver will glow to indicate proper alignment of the IR beam from the transmitter to the receiver. A solid glow will indicate proper alignment. **The receiver will remain in setup mode for two minutes or until a solid glow is accomplished for 8-consecutive seconds in which case the receiver will exit setup mode automatically.** Setup Mode is also used to send an RF signal to PCW Count Servers or Sensor Servers in order to enable sensors to be monitored by the server (If using a server, refer to its manual for more information).

2.4. **Reset (used to reset the LCD display to zero):** When the counter is in Online Mode the LCD display can be reset to zero by pushing the button on the IR receiver (with RX on the label) and holding for approximately 4 seconds or **only until the display is reset to zero.** **NOTE – If the button is held much longer after the display is reset to zero the counter will go into Standby Mode** (indicated when the counter begins to count up about once/second even when nothing is breaking the beam).

## PCW-TB06 - Installation Guide

**3. Changing Batteries:** Both transmitter and receiver come equipped with a 3.6V Lithium battery. To remove the cover, squeeze along the sides of the cover and pull away from the back (See Receiver (RX) drawing below). Remove battery from clamps and replace with the new battery. After your new battery is installed, replace the cover. Make sure the cover is replaced with the proper orientation. An LED located on the bottom right should pop through the hole in the bottom right hand side of the cover. **Contact SenSource at 1-800-239-1226 to order additional batteries.**

