

People Counter with LCD Display

PC-SBX05



Description:

When installed as explained below, the photoelectric sensor and the reflector generate an invisible beam of light that travels across a maximum distance of 5 meters (~16ft) between sensor and reflector. When a person crosses the beam breaking the "A" sensor first a digital signal is sent to the counter incrementing its display by +1. This unit counts up only when people are entering (people exiting are ignored). Turning off the power on the display does not reset the counter. It will maintain its count until the reset button on the display is depressed. This system operates with a safe low voltage 24V DC supply (included).

Components:

- o Counter Display
- o 2 Retroreflective Photoelectric Sensors With 10ft Cable (W25xH65xL75mm)
- o 2 Reflectors (40.5x60.5mm).
- o 24V DC Power Supply With 10ft Cable
- o Count Recorder (*optional*)
- o Chime (*optional*)



Maintenance:

Occasionally it may be necessary to wipe the lens of the reflectors and sensors clean from debris and dust. Use a soft cotton cloth with a mild detergent.

Support:

For technical assistance please call 330.792.7089

Installation:

By following the simple guidelines below your people counter will be operating within a few minutes.

1. Adding Cable Length

Skip this step if you plan on using the standard 10ft cable provided.

Refer to Figures 1, 2, and 3

You may use your own cable (according to the specifications listed in figure 3) if you wish to extend the distance from the components (up to 1000ft with shielded cable). To remove the sensor covers, loosen the screw on each sensor housing and pull the tops off. If removed, replace the sensor covers and screw them back into place.

2. Wiring Components

Refer to Figure 3

Connect the wires from the sensors, power supply, count recorder,* and chime* to the back of the display according to the wiring diagram, while adhering to the wiring codes established for your state and locality. Excess wire length can be trimmed. If a count recorder is being used please follow the included instructions with the count recorder along with the wiring guide in figure 3.

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**Optional components*

3. Mounting Components

Refer to Figure 4

The sensors should be installed securely using the mounting brackets supplied with sensor "A" closest to the entry (mounting screws not supplied). The sensors should be mounted at a level that people will break the beam. They are most effective when mounted about 3-4ft above the ground (aim at the torso section), or 4-5ft to ignore children in counts.

Plan to mount the reflectors directly across from the sensors at a distance no greater than 5 meters. **DO NOT MOUNT THE REFLECTOR UNTIL STEP 4.** Make sure nothing is in the path between the sensors and where the reflectors will be mounted. Before mounting the reflectors make sure that the sensor-reflector alignment is correct (see step 4). Mounting suggestions are located in figure 4.

The display can be mounted or set in any convenient indoor location using the 4 mounting feet.

4. Aligning and Mounting Reflectors

After the sensor and display are wired and mounted, connect the power supply to a 120V AC outlet and take note of the lights on the sensor. Focus your attention on the yellow light. The yellow light on sensor B should be ON without a reflector in front of the sensor. With nothing blocking the path between the sensors and reflectors proceed as follows:

1. Align the first reflector with sensor "B" by placing it directly across the sensor and adjusting it until the yellow light is OFF on sensor "B" (the green light may or may not be on). If the yellow light is illuminated then either the sensor and reflector are not aligned or something is in the path of the beam from the sensor to the reflector. Further adjustments to the sensor alignment can be accomplished by loosening the screws on the sensor bracket in order to point the sensor up or down or side to side.
2. If opening is less than 5ft, the yellow light on sensor "A" should be OFF. Proceed to step 4.
3. If opening is greater than 5ft, the yellow light on sensor "A" should be ON. After the reflector is aligned with sensor "B," align the second reflector with sensor "A" in the same way. Once aligned properly the yellow light will NOT be illuminated. When the beam is broken, the yellow light will illuminate and the count will be incremented by +1.
4. Mount the reflector(s) at the appropriate location securely using screws or heavy duty, double-sided, foam mounting tape and tighten the screws on the sensor brackets in order to maintain alignment.

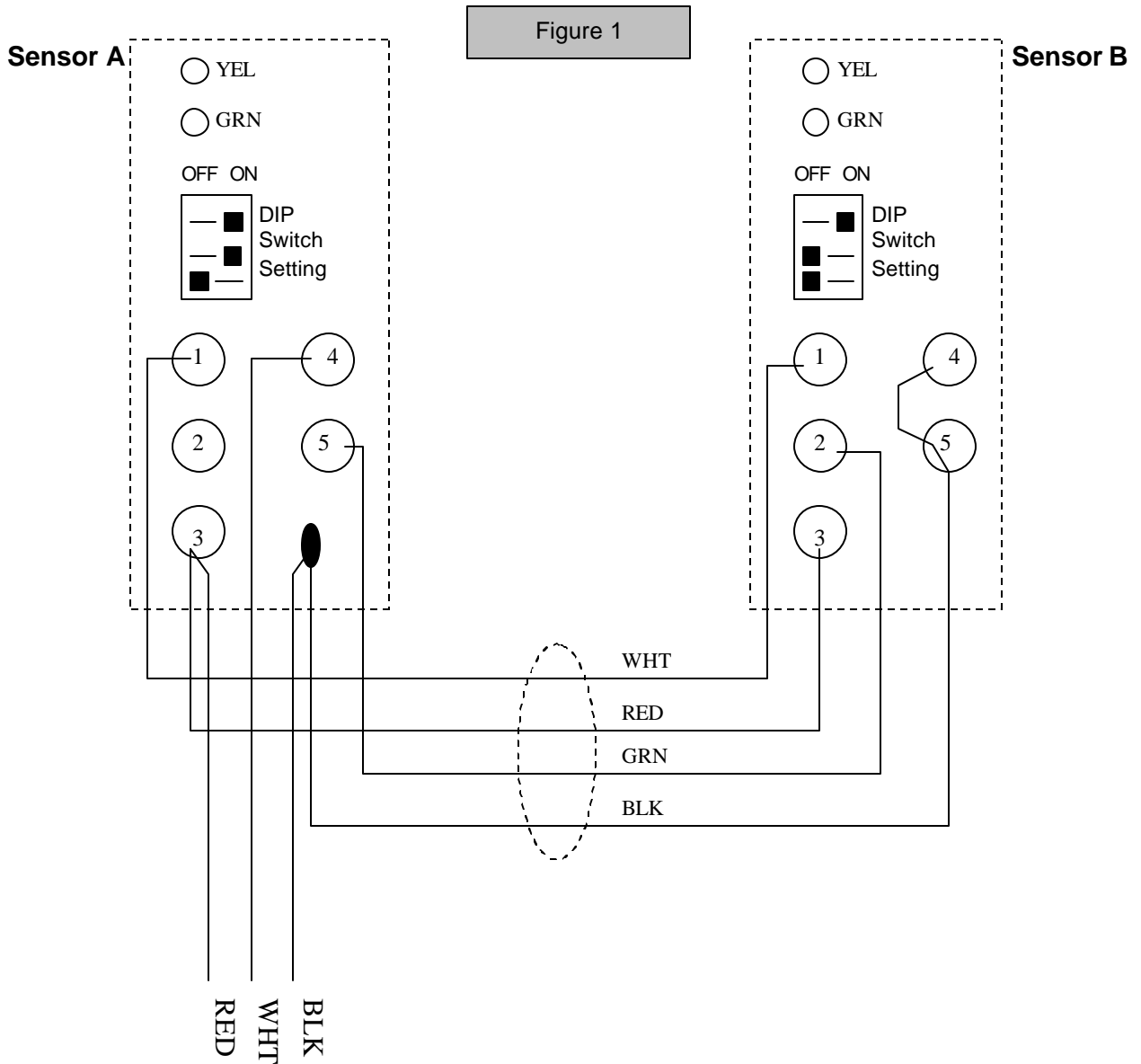
NOTE: The Photoelectric sensors include adjustments for both sensitivity and signal delay located under the sensor cover. These settings are factory set and should not require adjustment. If adjustment becomes necessary due to unforeseen conditions, the time delay or sensitivity can be increased or decreased on sensor "B" only by rotating the appropriate adjustment using the small blue screwdriver provided. Turning clockwise will increase and counterclockwise will decrease. **DO NOT MAKE ANY ADJUSTMENTS TO SENSOR "A."** Increasing the time delay will reduce false signals but slow the operation of the sensor.

6. Your counting system is ready for operation

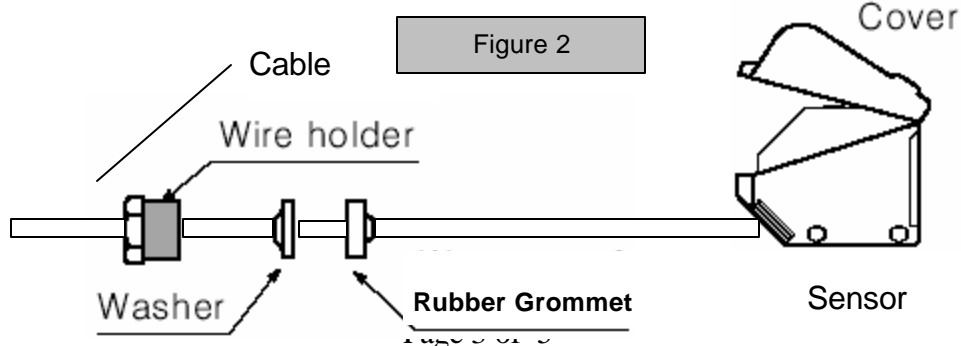
NOTE: If you have the Count Recorder please refer to its manual for further information.

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SENSOR WIRING (sensors are pre-wired from factory)



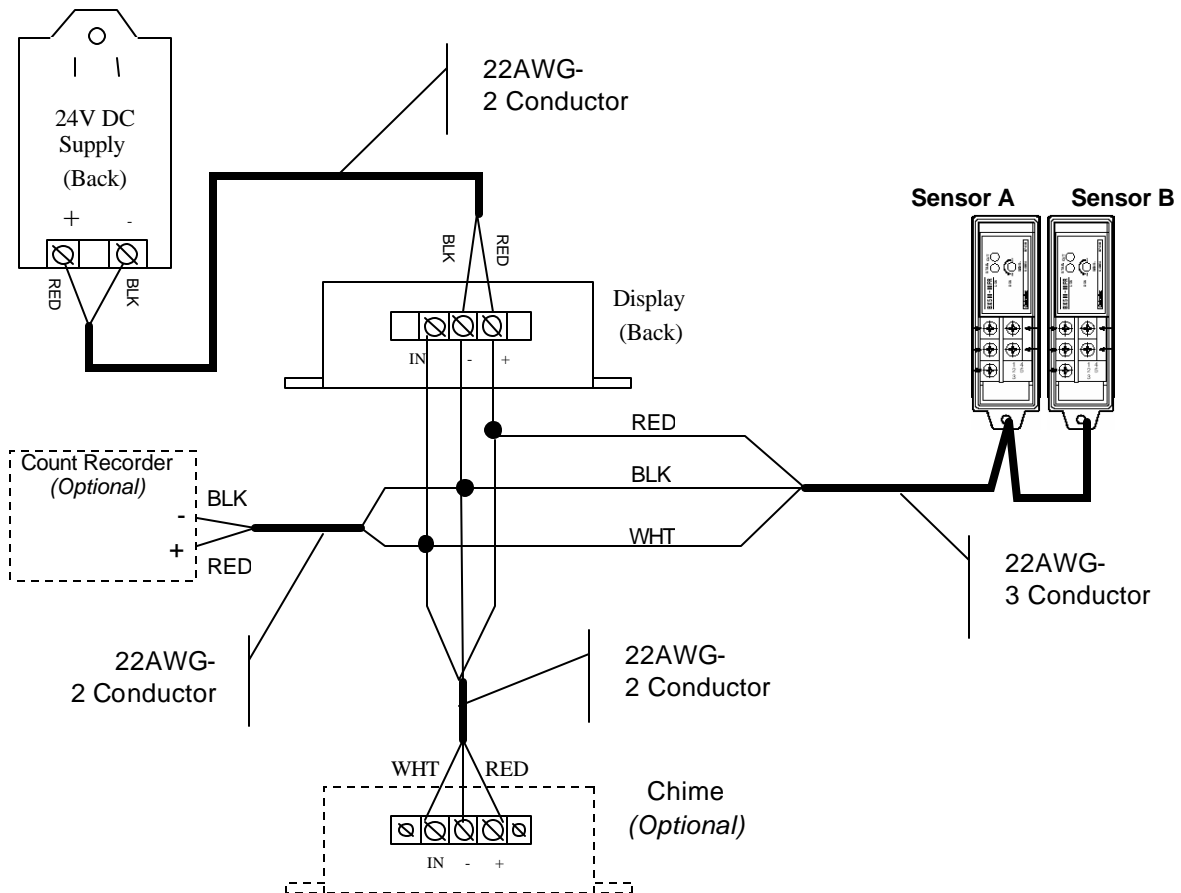
CABLE INSTALLATION



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SYSTEM WIRING

Figure 3



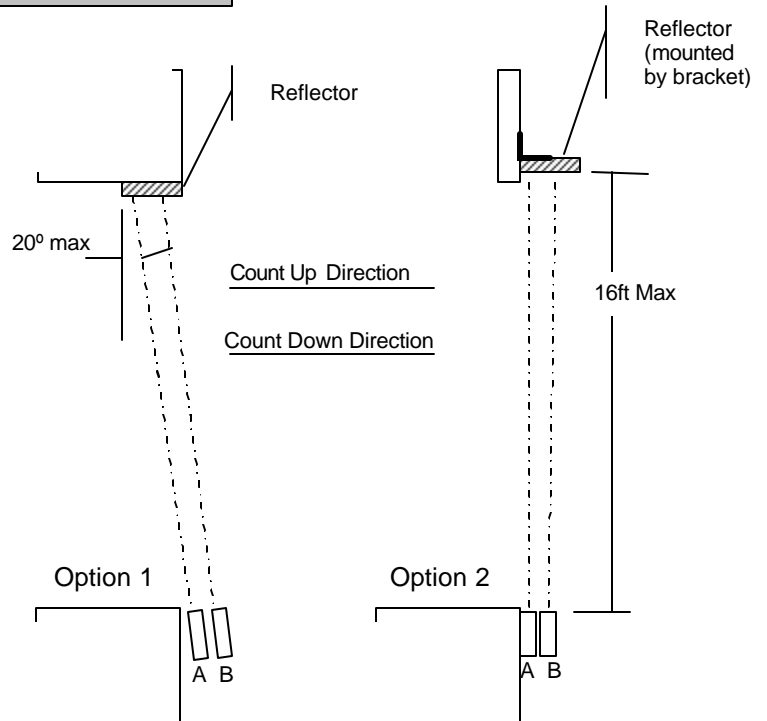
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SENSOR/REFLECTOR MOUNTING & ALIGNMENT (Typical Installations)

Figure 4

Top View of Entry

NOTE:
 Sensor "A" and "B" must be installed as shown so that sensor A's beam is broken first for the counter to increase as people enter the monitored area and decrease as they exit.



Front View of Entry

