



# Surround Sensor

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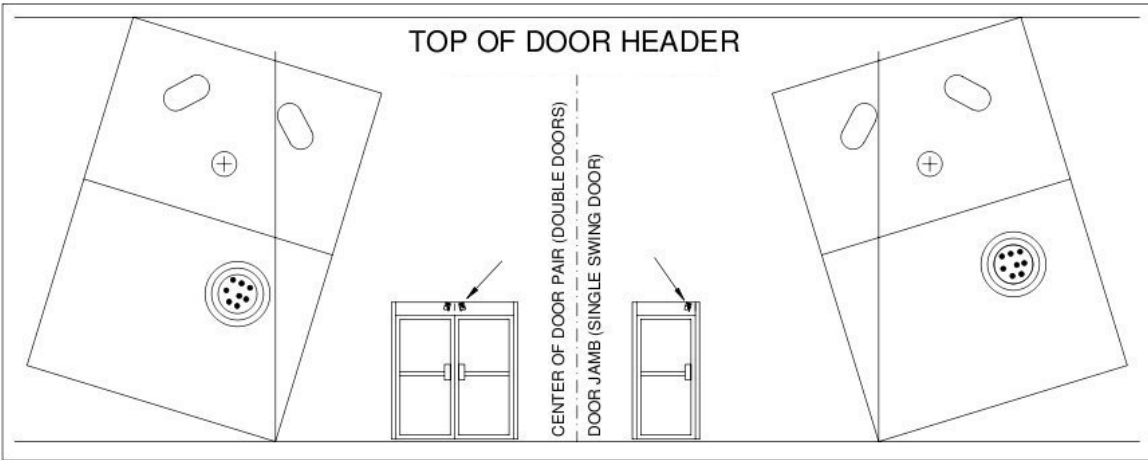
## Introduction

The Surround Sensors are designed to collect accurate foot traffic data in swinging door entrance applications. The Surround Sensor has a built in microprocessor (smart chip) for greater accuracy and is unaffected by lighting conditions.

## Specifications

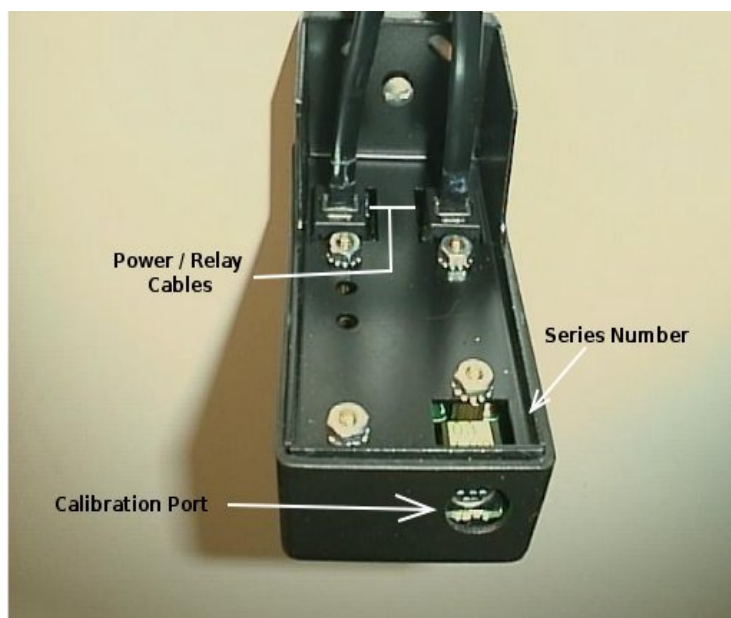
Size:	2 1/8", Wide; 4 1/8" Long; 1 1/8" Deep
Casing:	ABS Plastic
Connection:	RJ-12 female; daisy-chainable among multiple sensors
Interfaces:	Traf-Sys Pulse Transmitter; Traf-Sys MIU Data Controller
Mounting:	Traf-Sys mounting bracket; black metal; 4 points
Entrance Type:	Standard 3-foot opening; single or double swinging doors
Mounting Height:	7-9 Feet
Calibration:	Auto Calibration; Manual setup through Configurator
Power:	12-24 VDC
Operation:	Count Detection via contact closure
Statistics:	IN counts; OUT counts; HEARTBEAT diagnostics
Detection Pattern:	Diagonal through entrance area

## Mounting Your Surround Sensors



Mounting of your Surround Sensors involves mounting the supplied bracket to the door frame above the door handle, angling it towards the lower adjacent corner. On double swing doors the same this installation is repeated for both sides. For accurate mounting angle use our bracket mounting template.

## Calibrating Your Surround Sensors



### Identifying the Series

If the sensor is installed, disconnect the cable and remove the sensor from the bracket. The calibrator jack is mounted on the circuit board and should display a **yellow tag** with the series indicated. If there is **no tag**, the series identification is **10-001 to 19-999**.

After identification has been determined, install the sensor (using the template for new installations) and connect the power/relay cable(s). Plug either end of the gray calibrator cable into the port on the front of the sensor, flat side up. Plug the other end into the port at the top of the calibrator, flat side out.

## Calibrating the Sensor



On the left side of the calibrator, slide the power switch up (on). The first two digits on the LCD display indicate the red channel, the second two digits indicate the green channel. Activity on either of these channels is indicated by the corresponding LED above the display.

Standing well away from the sensor, momentarily press the square calibration button on the right side of the calibrator. A clicking sound will be heard as the unit is calibrated.

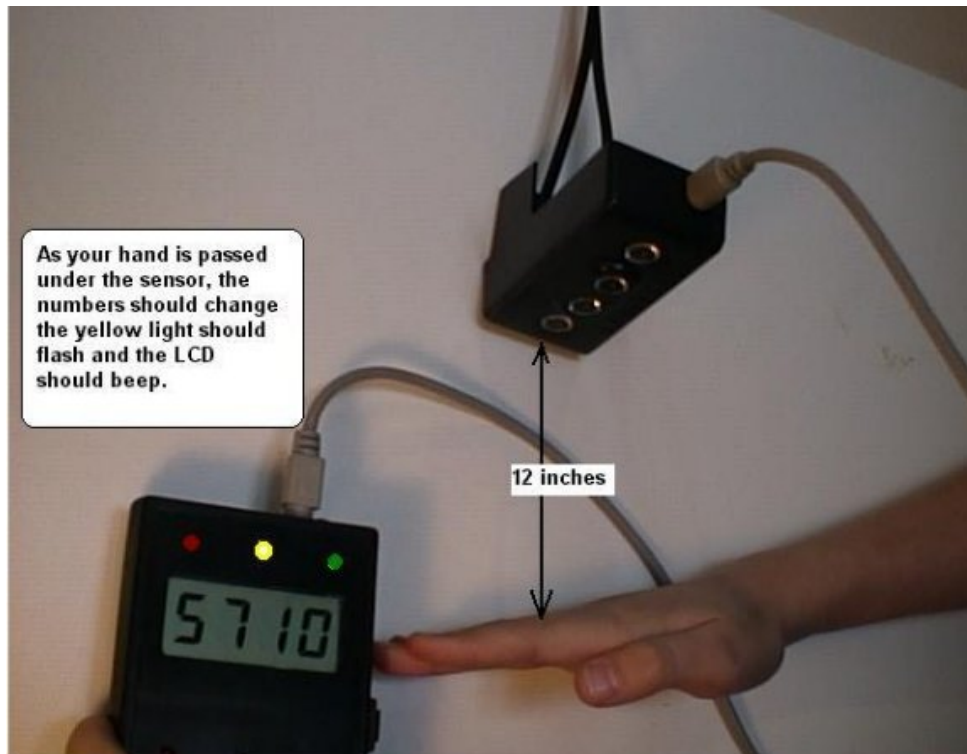
### Calibrating Series 01-001 to 09-999:

The readings for **each** of the red and green channels should approach **03** as the calibration proceeds. An extended tone will signal that the calibration is complete. The LCD display should indicate a reading of between **0202** and **0404**. Readings slightly higher are not unusual. After calibration is complete, the red and green LED's should not be illuminated.

### Calibrating 10-001 to 19-999:

The readings for **each** of the red and green channels should approach **50** as the calibration proceeds. An extended tone will signal that the calibration is complete. The LCD display should indicate a reading between **4040** and **6060**. After calibration is complete, the red and green LED's should not be illuminated.

## Testing the Calibration



Pass your hand under the sensor and observe the LCD display. The count numbers should increase as you move under the sensor through the doorway. The green and red LED's should flash in turn as each of the channels are activated. Additionally, a chirping sound will be heard as counts are generated, and the yellow LED will flash to indicate the relay of the counts to the MIU. There may be an appreciable lag between the time the count chirp is heard and the time the yellow LED flashes; there may be a burst of yellow LED activity as a group of counts is relayed to the MIU.

## Troubleshooting

If there is neither a count chirp nor a yellow LED flash as you walk through the doorway, re-calibrate the sensor according to the “Calibrating the Sensor” instructions above.

If a count chirp is audible, and the red and green LED’s flash in turn, but no yellow LED activity is observed, test the cable and connections from the sensor to the MIU.

Change the sensor if the either of the above conditions persist.

## Contact Information

### **Traf-Sys Inc.**

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