



Wireless Transmitter v 1.0

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Introduction

The Traf-Sys People Counting Wireless Transmitter is the interface between a People Counting Device without integrated wireless capability and our wireless data controllers. They use a proprietary wireless protocol to communicate to the data controller. The wireless communication will not interfere with a nearby 802.11 connection.

Connections

Your Wireless Transmitter is fitted with two RJ-45 connection jacks. One connection is to be used for powering the device and your sensor(s) and the other will be used to connect to your sensors. Your sensors will receive power through the Wireless Transmitter and send count data to the Transmitter which will track the total counts in memory and send the data over a 900 MHz wireless signal to a wireless data controller.

Connecting Power

The Wireless Transmitter will use a 12 Volt Output 1000 mA power supply which is connected to a Cat 5e end using shrink wrap. You can either purchase this adapter from Trafsys, or if necessary, create your own using the power connection diagram in the appendix.

Connect the Cat 5e end of the power supply into one of the RJ-45 jacks on the wireless transmitter. You should see numbers on the display once power is applied.

Connecting the Sensor(s)

Use the second RJ-45 connection on the Wireless Transmitter to connect to your sensor(s). If you have multiple sensors, they will typically be wired in a series with the last sensor or the hub sensor plugged into the Wireless Transmitter.

If possible, check your sensors to make sure they are powered on. Try creating some test counts with the sensor. The local display on the Wireless Transmitter should show an increase in counts as the sensor sends its data to the device.

Using the Wireless Transmitter with the MIU-1000

If you haven't done so already, download the MIU-1000Config software from <http://sw.trafsys.com/MIU1000Config/>.



Figure 1: A standard Wireless Transmitter Power supply.

Connect to your MIU-1000 device and view the Sensor Table.

The Heartbeat Sensor

Wireless Transmitters will always appear as 2 sensors in the sensor table of your MIU-1000. The serial numbers will always have the first 15 characters matching. The sensor with the lower valued last character is the sensor that records your inbound and outbound counts. The second sensor, with the higher valued last character is the sensor that will record your heartbeat counts.

The heartbeat count is a statistic that is sent from your sensor(s) to the Wireless Transmitter to let the system know that they are still active and plugged in. This data is used as a diagnostic and should not be integrated with your pedestrian traffic data.

Manually adding a Wireless Transmitter to the Sensor Table

In the options for the sensor table, make sure that the Sensor Type Display is set to Trafsys. This will allow you to select the Wireless Transmitter sensor type.

Click “Add Sensor” at the top of the page to create a new sensor entry. Select Wireless Transmitter as the sensor type.

When you select Wireless Transmitter as the sensor type, you will have 2 sensor serial numbers and two sensor names to enter. The two serial numbers should be labeled on your Wireless Transmitter device. Always enter the lower valued serial number first and the higher valued serial number in the Serial2 section.

Click “OK” to add the sensor to the table. When finished, click “Apply” at the sensor table window to write the changes to the MIU-1000. **Note: if you do not click Apply, the changes will not be saved to the MIU-1000 device.**

Troubleshooting

Here are some solutions to common problems you may experience with the Wireless Transmitter.

My Wireless Transmitter appears to be online, but I do not receive counts in my software

In this case, the wireless transmitter is working, but your sensors may not.

The screenshot shows the 'Edit Sensor' window for a Wireless Transmitter. The window is titled 'Edit Sensor' and has a close button in the top right corner. The 'Type' dropdown is set to 'Wireless Transmitter'. The 'Serial' field contains '0000000038302681' and the 'Serial2' field contains '0000000038302689'. The 'Name' field contains 'Main Entrance' and the 'Name2' field contains 'Main Heartbeat'. The 'I/O Setup' field contains '(SBlocked,Okay,PwrAlm,BattAlm,0)(1,000,0,Count,0,0)(1,00'. The 'Max Age' field contains '600' and there is a 'Mark For Deletion' button next to it. The 'Max Age Action' dropdown is set to 'Do_Nothing'. The 'Service Action' dropdown is set to 'Do_Nothing'. There are checkboxes for 'History On Alarm' and 'History On Log', both of which are unchecked. The 'Online Action' dropdown is set to 'Do_Nothing'. The bottom section is titled 'Last Readings' and contains the following text: 'System Alarm', 'Sensor Type: 18', 'Age: 00007 seconds', 'Sensor Alarm: F', 'Service Mode: F', 'I/O Status: F', 'Last Reading: Okay', 'F67', 'F56'. There are 'OK' and 'Cancel' buttons in the top right corner.

Figure 2: The Edit Sensor Window for a Wireless Transmitter.

- Check the local display on the wireless transmitter. Do the numbers on the display increase as people enter?
- Check the connection between your sensor(s) and the wireless transmitter. Your sensors will receive power and send data over the same connection.
- Check the configuration of your sensor(s) if possible. You may have incorrect settings on your sensors that would cause them to send data to the transmitter that it doesn't understand. Surround sensors do not need to be configured as they already send the proper data packets by default.

Appendix A: Resetting the Display on the Wireless Transmitter

Warning: You should only reset the counts on the display when necessary. Resetting the counts on the wireless transmitter can interfere with regular data transmission in a live system. You can reset the counts displayed on the Wireless Transmitter by holding a magnet near the upper-left corner of the Wireless Transmitter. There is a small magnetic switch located just under the case in the upper-left corner. You will need to use a decently powered magnet to reset the switch (note: a refrigerator magnet will not have enough power to reset the switch).

Hold the magnet to the switch for about 8 seconds while the wireless transmitter is powered on. You should see the display reset to zero.

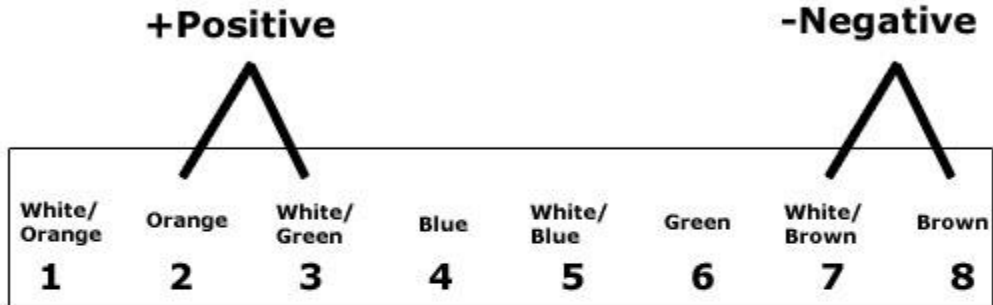


Appendix B: Pin-outs for Power Adapter

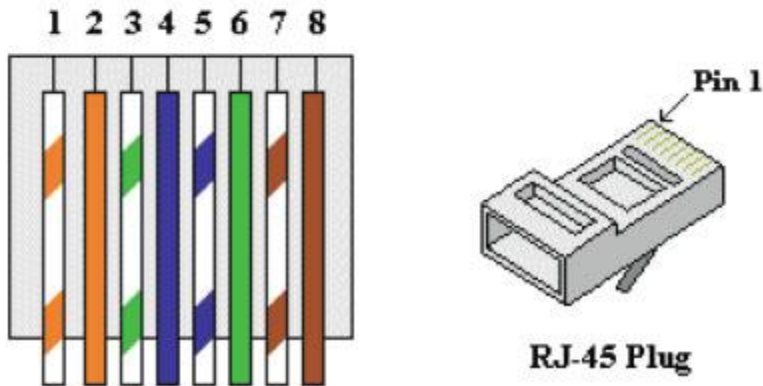
The following pin-outs can be used if you need to use your own power adapter to power the Wireless Transmitter. You will need to use a power supply with 12 Volt, 1000 mA output which will be wired to a Cat5e cable end and shrink wrapped See Figure 1 on page 33. **Do not attempt**

to insert the power supply wires directly into a RJ-45 tip, this could cause power problems since these tips are not designed for inserting stranded copper wire.

Power Adapter Connections



568B Pin Numbers/Colors



Contact Information

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