Complete Streets Toolkit

Equipment Library

Quick guide to using Trailmaster TM1550 Counters

Equipment:

Monitor (TM1550 Active Infrared Trail Monitor)

Transmitter (Second Generation Infrared)

Data Collector (TM Data Collector II)

Data Collector Cable

Stat Pack Cable

Setting up the counter

The Trailmaster active infrared counter consists of 2 parts, a **Transmitter** (the smaller device) and a **Monitor** (the larger device), which receives the signal. Ideally, the two parts should each be set up in secure, locked metal boxes (provided). Each metal box can be fixed to a wooden post (e.g. on a trail bridge deck) by screws (also provided) inserted through the holes in the back of the box. Make sure that both the **Transmitter** and **Monitor** are positioned properly with respect to the holes in the boxes that allow the infrared signal to be transmitted and received.

Aligning the **Transmitter** and the **Monitor**

The **Transmitter** broadcasts a signal and the **Monitor** (the larger device) receives the signal. The counters work by recording instances in which the infrared beam between the two parts is interrupted. The **Transmitter** is labeled "Second Generation Infrared" and the **Monitor** is labeled "Trailmaster TM1550."

It is important to align the two devices properly in order to collect accurate data. For an optimal alignment, the "eye" at the center of the **Transmitter** should point directly at the shiny black circle on the side of the **Monitor**. There is a straight groove across the front of the **Monitor** to help with the alignment.

To align the devices:

1. Turn the **Transmitter** on by flipping the small metal switch on its side.
2. Turn the **Monitor** on by pressing the "TIME SET" and "SET UP" buttons on its front at the same time. The **Monitor** should show a display alternating between the date, time, and other numbers.
3. Press "SET UP" once or twice, until the display reads "S. uP"
4. The red light on the side of the **Monitor** should flash rapidly when the signal is being received. Although the red light cannot be seen when the **Monitor** is in the metal box, using this alignment procedure can help to get an idea of how closely the **Monitor** and **Transmitter** need to be aligned.

Starting to count

No special programming is required to start the counter collecting data – just turn it on and leave it on. To turn it on, press the "TIME SET" and "SET UP" buttons on its front at the same time.

Collecting data in the field

1. Turn on the TM1550 **Monitor** and the **Data Collector**.
2. Connect them using the **Data Collector Cable**. The gray 9-pin plug at one end of the cable plugs into the 9-pin port on the **Data Collector**. The 1/8" headphone-style jack at the other end plugs into the "PTR" port on the **Monitor**. The other 9-pin plug at that end doesn't plug into anything.
3. On the **Data Collector**, press "COLL DATA" once, so that the screen shows "coL!"
4. On the **Monitor**, press "SET UP" about 4 times until the screen shows "Snd?"
5. On the **Monitor**, press "R/O ADV" once. The screen should show "Snd!" then the smaller red light on the front of the **Data Collector** should flash. The data is being transferred.

6. When the transfer is complete, the **Monitor**'s screen will show "thru."
7. You're not finished yet. The data is always supposed to be transferred twice to ensure integrity. So, repeat Steps 4 and 5. The small light will flash again.
8. When the second transfer is complete, the **Data Collector** screen will show "donE." You can now disconnect the cable.
9. Turn the **Data Collector** off to save battery power, by pressing the "COLL DATA" and "SEND DATA" buttons at the same time.

Transferring data from the data collector to your computer

Normally, this step will be done by MORPC staff.

Note: This assumes you have the "Trailmaster Stat Pack" program installed. It also assumes your computer has a 9-pin port.

At your computer, plug the gray 9-pin plug at one end of the **Stat Pack Cable** into the 9-pin port on your computer. Plug the 9-pin at the other end into the **Data Collector**.

Turn on the **Data Collector**.

Open Stat Pack on your PC.

Go to the File menu and click "Import new."

On the **Data Collector**, press "SEND DATA." Press "R/O ADV." Press "SEND DATA" again. Press "R/O ADV" again. This will transfer the data to your computer.

To save battery life, disconnect the cable and turn off the **Data Collector.**

With luck, your data will be in this folder path: Go to "My Documents" à Trailmaster à StatPack à Data. If you open data files within Stat Pack, you can export and save in various formats.