PEOPLE COUNTING
AXIOMATIC TECHNOLOGY LTD

Please make sure you have Microsoft .NET framework 3.5 installed on your machine

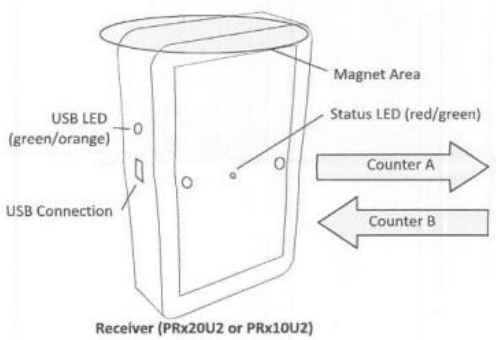
USB People Counter

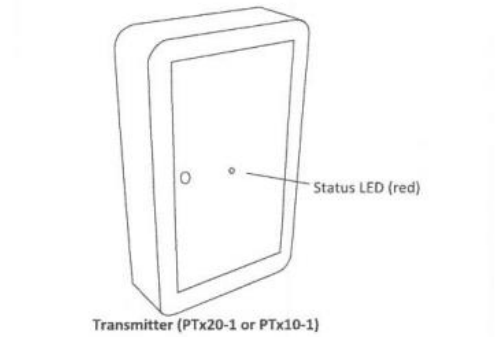
1. Check the contents

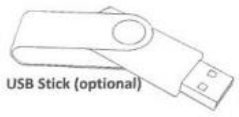
- Receiver with USB connection (PRx20U2 or PRx10U2)
- Transmitter (PTx20-1 or PTx10-1)
- Magnet key hanger
- USB cable
- USB Adaptor cable
- USB Memory stick
- 4 x 1.5v Alkaline batteries
- 2 x screws for locking box cover
- Screwdriver
- Installation guide

Specifications:

Power supply:	1.5v Alkaline battery
Battery life:	approx. 1 year
Measurement width:	10 metres max
Dimensions:	116 x 70 x 26mm
Material:	ABS black







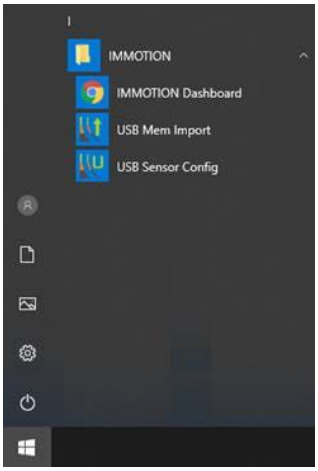
2. Software Requirements

Before installing the People Counter please first download the latest version of the Sensor Server software from the following web page:

www.sdinternational.nl/downloads

To install the software, follow the instructions on screen.

Once you have downloaded and installed IMMOTION Setup v1.0.3, from the IMMOTION website you should have the following appear on the start menu, under IMMOTION:-



Or you can type in the name on the start menu, e.g. USB Sensor Config.

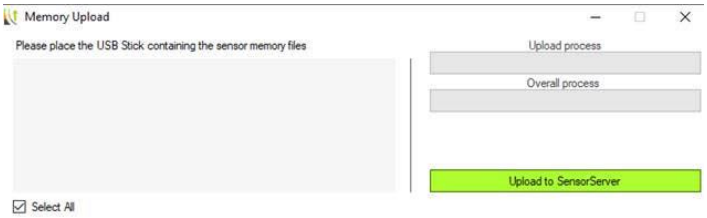
To access the start menu, please click the small square flag on the bottom left of the task bar (as per the above screenshot).

The 4 steps are as follows (once the IMMOTION Setup v1.0.3 software has been downloaded and installed): -

1) Run USB Sensor Config whilst the counter is connected to the laptop via USB. Then follow section 3 to set the correct names/locations with the names for each of your entrances. Please ensure that you hit save once these have been set, to ensure the changes are saved. Once step 1 has been done once (on each counter), you should be able to proceed to steps 2,3 and 4 the next time you come to download the footfall data.

2) Then once the names/location have been saved from step 1, Connect the USB flash drive to the counter, using the USB lead provided with the counter and wait for 2 minutes, as it takes time for the file to download. If the file is 0KB, it means the USB flash drive has been disconnected too early, as it hasn't had enough time to download the file.

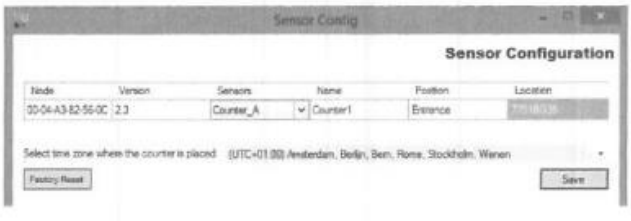
3) Once the USB flash drive has been left in the counter for 2 minutes, disconnect the USB flash drive and connect it to the laptop, then run USB Mem Import, which will load the following screen, then tick the select file you wish to upload (the latest file downloaded for each counter) and click Upload to Sensor Server:-



4) Once the Mem Import is complete, then load up IMMOTION Dashboard and on the location dropdown, the relevant counter should appear, and you should be able to switch between your 2 counters and view the footfall data.

3. First Time Setup

To identify the People Counter in the software you can give the People Counter a name, position, and location. Please start the Sensor Tool to set up these names and the time zone in which the counter will be installed. When the application is started you can connect the People Counter. Once the current settings are read out you can enter the Name, Position and Location of the People Counter.
Enter information which corresponds to the place where the People Counter will be mounted, for example: Name: Counter1, Position: Entrance, Location: 7751BG35.
The Location field is in most cases an administrative code of the location.



When ready, click on the Save button to store this information to the People Counter.

4. Mount the People Counter
When mounting the people counter take care of the following:

- The maximum distance between transmitter and receiver is 10m
- to count adults, use a mounting height between 125cm and 140cm
- Avoid the possibility of obstacles blocking the line of sight of the People Counter.
- Use a wall or another steady object to mount the People Counter on.

Additional information:
The measurement width of 10 metres will decrease when the infrared signal goes through goals or when full sunlight is shining directly on the receiver at a low angle.

Be aware of infrared light from other sources like bright lights and infrared devices. When the PRx20U2 receives infrared from other sources, instead of the PTx10-1, unexpected behaviour could be the result.

Due to the strong field of AM anti-shoplifting systems, it is recommend placing the People Counter at least 1 metre away from an AM system.

Note: the red LED on the receiver will light up when noise is detected. In this case find the source of this disturbance and try to remove.

ENI (Enhanced Noise Immunity)
The PRx20U2 is featured with ENI technology.
This technology enables the PRx20D1 to work in environments where noise exists.
The above additional information is still important when there is too much disturbance in the environment. In that case red LED on the Receiver will light up.

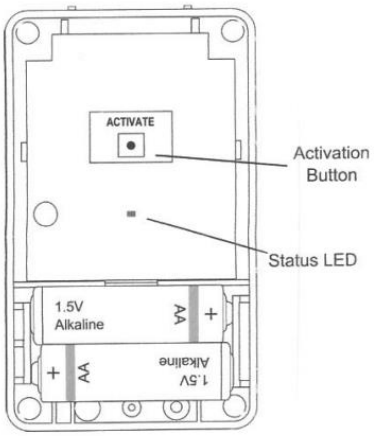
5. Place the batteries
To power on the Transmitter (PTx20-1) and Receiver (PRx20U2) place the batteries into the battery compartment.

Please take note of the polarity of the batteries when placing them.

The display on the Receiver will show zero when the batteries are placed.

To Activate the Transmitter press and release the small Activation button (see below).

The status LED will blink twice during activation



6. Check the alignment
The receiver (display) needs to 'see' the transmitter.

The receiver contains an alignment feature which helps you to point the transmitter to the receiver.

To enable the alignment mode, slide the magnet on the top side of the receiver (display) [magnet area].

When the LED is blinking red you need to point the transmitter to the receiver until the LED lights up green continuously.

Please try to find the middle of the light beam during the alignment.

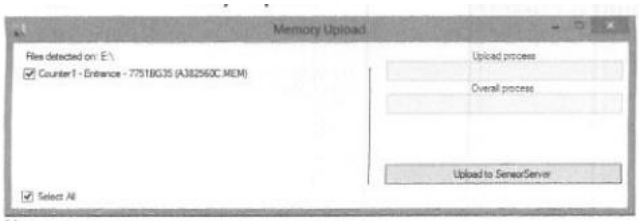
Accuracy of the People Counter
The accuracy of the counter will be higher when the distance between the transmitter and receiver gets smaller. When more people interrupt the beam at once the People Counter will increase the count value by one.

7. Start Counting
The counter stores the count values including a timestamp in its memory. When counts are created within a minute it will be stored in the memory. The green status LED on the receiver will blink once a count is created.

8. Data Download
The memory of the counter can store up to 40 days of minutely data.
To read out the memory use the adaptor cable to connect a USB stick to the counter.
Once the adapter cable is connected the USB LED will light up orange.
When the USB stick is connected, the USB LED will start to blink green.

The USB stick can be removed when the green LED stops blinking. Now the complete memory of the counter is stored on the USB stick and is ready to be imported into the SensorServer.
Note: Multiple counters can be read out with a single USB stick since the counter is configured with a Name, Location and Position information.

9. Data Import
Use the USB MEM upload application to upload the data from one or more counters to the SensorServer database and make it visible in the EasyReports.
Once the application is started it will search for memory files containing the data. Select the counters you want to upload and click on the 'upload' button.
A progress bar indicates the total progress of the file upload. Once ready the data can be displayed using the SensorServer's EasyReports.



Note: it is possible to place the MEM upload application on the USB stick. The SensorServer can be installed on a different PC than from where you upload the memory files.

10. Additional Information

Low battery detection:
The receiver and transmitter are both equipped with a low batter detection.
The red LED will blink every 2.5 seconds indicating the low battery state. During this state you have enough time to replace the battery.

Internal Clock:
The receiver contains and internal clock to keep track of the current date and time.
It is recommended to connect the receiver with the SensorTool to synchronise the clock once a year. This way the date and time of the data stays accurate.
This is an indoor unit. For outdoor applications, separate robust housings can be purchased.