

# Footprint RCU4

## 4 Input Remote Counter Unit

# People Counter Unit

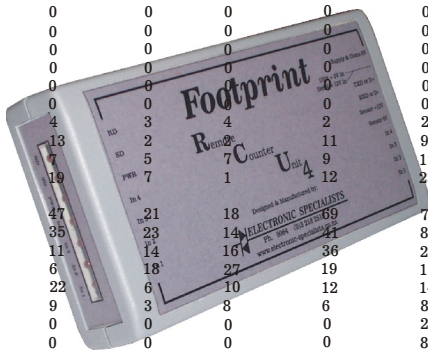
## Operating and Installation Instructions

Electronic Specialists  
**PEOPLE COUNTER REPORT**

Jamies Jeans Ltd  
Start Date: 15/02/98

Door 1  
Finish Date: 21/02/98

Period	Weekly Total: 1071						Saturday
	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	
0.00 to 1.00 am	0	0	0	0	0	0	0
1.00 to 2.00	0	0	0	0	0	0	0
2.00 to 3.00	0	0	0	0	0	0	0
3.00 to 4.00	0	0	0	0	0	0	0
4.00 to 5.00	0	0	0	0	0	0	0
5.00 to 6.00	0	0	0	0	0	0	0
6.00 to 7.00	0	0	0	0	0	0	0
7.00 to 8.00	0	0	0	0	0	0	0
8.00 to 9.00	0	4	3	4	2	2	0
9.00 to 10.00	0	13	2	2	11	9	0
10.00 to 11.00	0	7	5	5	9	17	0
11.00 to 12.00 Midday	0	19	7	1	12	23	0
12.00 to 1.00 pm	0	47	21	18	14	74	0
1.00 to 2.00	0	35	23	14	16	89	0
2.00 to 3.00	0	11	14	16	27	22	0
3.00 to 4.00	0	6	18	27	36	13	0
4.00 to 5.00	0	22	6	10	12	14	0
5.00 to 6.00	0	9	3	8	6	8	0
6.00 to 7.00	0	0	0	0	0	23	0
7.00 to 8.00	0	0	0	0	0	81	0
8.00 to 9.00	0	0	0	0	0	95	0
9.00 to 10.00	0	0	0	0	0	0	0
10.00 to 11.00	0	0	0	0	0	0	0
11.00 to 12.00 Midnight	0	0	0	0	0	0	0
Totals:	0	173	102	107	217	472	0



Designed & Manufactured by:

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# Footprint RCU4

## People Counter System

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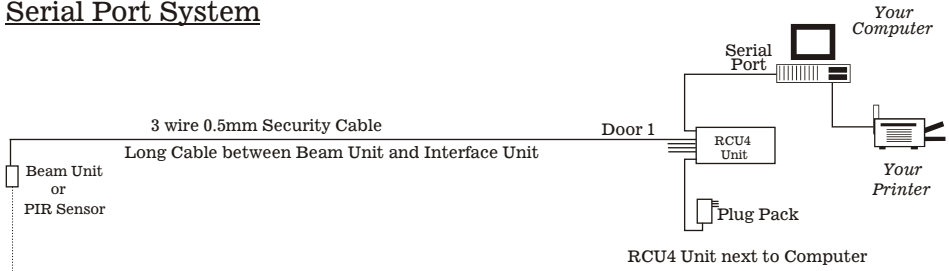
# System Overview

## 4 Input Remote Counter Unit (RCU4)

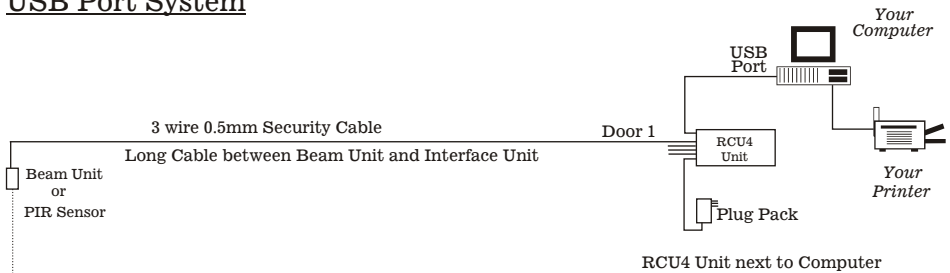
The *Footprint 4 Input Remote Counter Unit (RCU4)* is a microprocessor controlled counting system that allows up to four inputs to be connected so that it can log counts for each of the four inputs. The RCU4 is then connected to either a Serial or USB computer port, depending on the model supplied. RCU4 is capable of counting contact closure events, on a per hour basis, twenty four hours a day for up to one week at a time. You should note, that the computer with the *Footprint RCU4* software installed on it, is only required to extract the count data from the RCU4.

We have two types of systems available:

### Serial Port System



### USB Port System



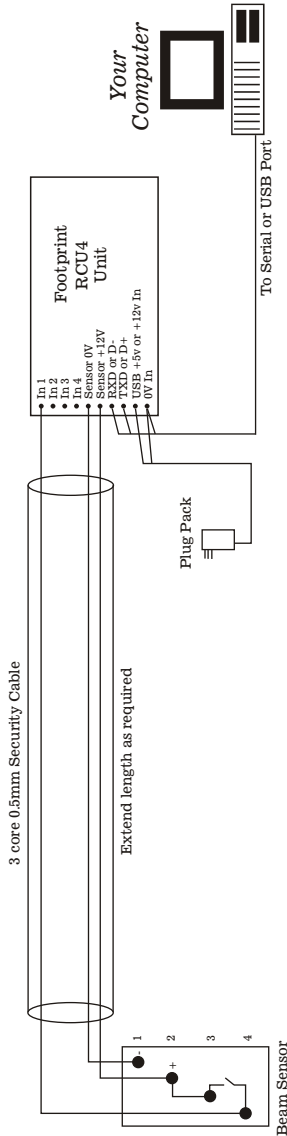
### NOTE:

Both of these types can operate with either a 3 wire cable or the Footprint Wireless Link. See page 11 for information on the Wireless Link.

# Wiring Connections

## Serial and USB Port System Wiring

The amount of current drawn by a typical 5 metre IR Beam is approximately 50mA. Therefore a suitable cable would be a three wire core 0.5 to 1.0mm flexible alarm cable or similar.

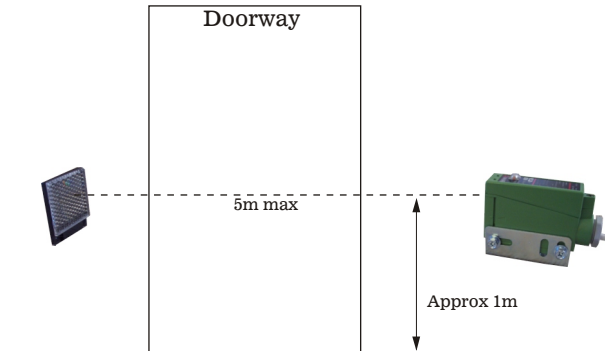


You should note that power for the RCU4 Unit and the beam units is derived from the Plug pack which must be powered all the time.

Connect 2nd, 3rd and 4th Beam Units the same as shown above, except use In 2, In 3 and In 4 inputs. Parallel up all the Sensor + 12v and 0v wires.

# General Information

## Mounting of Beam Sensor.



1. Keep Beam Unit out of direct sunlight.
2. Mount Beam approximately one metre above floor level.
3. Beam and Reflector should be mounted firmly.
4. Beam must be aligned with the reflector.
5. Care should be taken to ensure that the beam is not obstructed by a display stand etc.
6. Select Beam location to enable easy access to wiring.
7. The maximum distance from the standard Beam Unit to the reflector is 5 metres.
8. Run a 3 wire cable from the Beam Unit back to the PC Computer and connect up as per the wiring diagram.

# General Information Continued

## Installing The Footprint Software

### Serial Port System

Insert CD into CD drive.

Using Windows Explorer, select File / New / Folder.

Name new folder as: Footprint

Select CD drive using Windows Explorer.

Click on the 'FootprintRCU4.exe' file on the CD and drag it over to the new Footprint folder.

Right click on the 'FootprintRCU4.exe' file just installed in the Footprint folder to create a short cut. Drag the short cut Icon over to the desk top window.

Double left click on this desk top icon to run the program.

#### **NOTE:**

**DO NOT run the FootprintRCU4.exe program direct from the CD.**

### USB Port System

Insert CD into CD drive.

Read the 'Installation Help.txt' text file on the CD.

Click on the CP210x\_Drivers.exe file.

Follow the USB Driver install wizard that will appear.

Using Windows Explorer, select File / New / Folder.

Name new folder as: Footprint

Select CD drive using Windows Explorer.

Click on the 'FootprintRCU4.exe' file on the CD and drag it over to the new Footprint folder.

Right click on the 'FootprintRCU4.exe' file just installed in the Footprint folder to create a short cut. Drag the short cut Icon over to the desk top window.

Double left click on this desk top icon to run the program.

# General Information Continued

## System Operation

You only need your PC Computer to extract (download) the count data from the RCU4. This means you do not need to have a computer at the site where the RCU4 is until you need to download the data.

When the system is functioning correctly the PWR light on the window end of the RCU4 Unit will flash slowly.

When the Beam is interrupted, the following three features can be observed.

- A. The light on the beam unit comes on.
- B. In 1, In 2, In 3 or In 4 light comes on, on the Footprint RCU4 Interface Unit.
- C. A tone is heard coming from inside the RCU4 Unit if Tone is enabled via the Footprint Software.

### **NOTE:**

If the Beam Unit is out of alignment, all three above will be observed continuously.

***You should regularly check that the PWR light is still flashing slowly and that the In 1, In 2, In 3 or In 4 lights come on when the Beam is broken.***

## Saving Of Data

The Footprint Software will save all count data to the Computers hard drive when you Down Load the RCU4. Data is saved in two files. Week Grid data is saved in a file called ShopName\_20060731\_Wk.csv where 20060731 represents the start date of the current weeks data. A new file is created each week.

Year Grid data is saved in a file called ShopName\_2006\_Yr.csv where 2006 represents the current year. You should note that both of these files are created automatically.

# **General Information Continued**

## **Tools Menu**

**Note:** All the settings below are saved to the hard drive in your PC so you only have to configure these settings to your requirements the first time you use the Footprint RCU4 software.

## **Coms**

Click on Tools / Coms to setup the com port that you have connected the RCU4 into. You will have to close the current com port before you can select a new one. Remember to open the com port again.

## **Setup Shop Name**

Click on Tools / Setup Shop Name to install your shop name. The name length is limited to 35 characters. The name you put in will appear on the Week Grid Viewer window and on all print outs.

## **Setup Beep Control**

Click Tools / Setup Beep Control to enable (ticked) or disable each individual door beeper.

## **Setup Count Divide**

Click Tools / Setup Count Divide to enable or disable each individual door count divider. If the Count Divide box for Door 1 is set to 2 the RCU4 will only count every second person through the door. If it is set to 1 then the RCU4 will count every person. The current setting for each individual door is displayed on the Week Grid Viewer window and is on each printout.

## **Setup Save Directory**

Click Tools / Setup Save Directory to set the location that you wish the count data files to be saved in. You do not need to put in a file name just select the directory and the system will create the file name for you. The default file location is the same location as the Footprintrcu4.exe file.

## **Setup Automatic Download**

Click Tools / Setup Automatic Download to configure the automatic download features. If the Auto Download Mode box is ticked the system will run in the automatic mode next time you run up the program. If the Clear Counter Memory box is ticked the system will clear all count data in the RCU4 after downloading and saving the count data to the file on your hard drive.

# **Typical System Operation**

Once the RCU4 unit and the Beam Unit(s) have been connected and the software has been correctly installed you are ready to test the system.

## **Week Grid**

Click on the 'Week Grid Viewer' button to view the week Grid . Click the 'Down Load' button at the bottom of the window to extract the count data from the RCU4. The count data will appear on the grid after about 5 seconds.

Select the Tab for the Door you wish to view. E.g. Click on the Door 3 tab to view the count data for the door that is connected to the In 3

Selecting the Combined Tab will show the combined count of all four doors.

You can print out a copy of this grid at any stage by clicking File / Print at the top left corner of the Grid Window and selecting the Door you wish to print.

## **Year Grid**

Click on the Year Grid button to view the current years daily totals. Select the tab for the Door you wish to view.

You can print out a copy of this grid at any stage by clicking File / Print at the top left corner of the Grid Window and selecting the Door you wish to print.

## **Historic Grid**

Click on the Historic Grid button to view any previous data by selecting the Week or Year file that you wish to view or print.

## **On Screen Help**

Click on the Help word at the top of the blue main window to access further information relating to various options and set ups.

# Testing The Footprint RCU4 System

## Testing The System

Once the system has been installed and connected correctly the following procedure should be carried out.

1. Confirm that the RCU4 is actually working by blocking the beam and ensuring that the appropriate input LED turns on.
2. When the Beam is broken you should see the SD LED flash indicating that Data is being sent to the PC Computer.
3. At the end of the test, all of the lights will go off except for the PWR light which will continue to slowly flash.

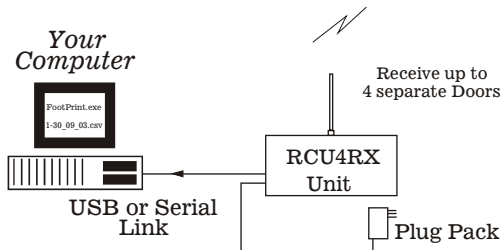
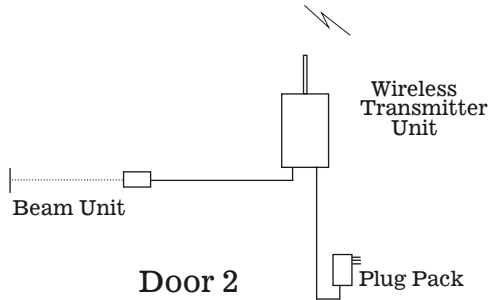
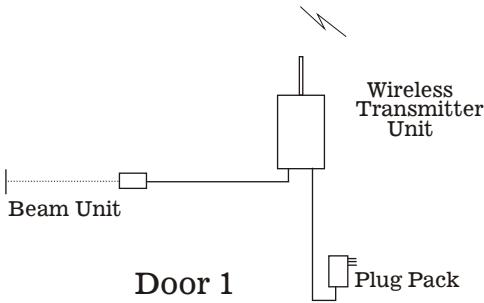
## Description of LED Indicators

The RCU4 has seven LED status indicators as follows:

- |         |              |                                      |
|---------|--------------|--------------------------------------|
| 1. In 1 | Input No 1   | On when input is triggered.          |
| 2. In 2 | Input No 2   | On when input is triggered.          |
| 3. In 3 | Input No 3   | On when input is triggered.          |
| 4. In 4 | Input No 4   | On when input is triggered.          |
| 5. PWR  | Power On Led | Flashes slowly while CPU is running. |
| 6. SD   | Send Data    | On when RCU4 is Sending Data.        |
| 7. RD   | Read Data    | On when RCU4 is Receiving Data.      |

# Wireless Option

This option eliminates the need for the 3 wire cable between the Beam unit and the RCU4. Typical range of the wireless link is about 200 metres depending on how much steel is in your building. You should note the requirement for mains power for each Transmitter Units Plug pack near each Door.



# Warranty and Indemnity

The *Footprint RCU4* device carries a twelve month warranty. This warranty covers all parts contained within the *Footprint RCU4* device and the cost of the labour to replace any such part during the warranty period. All warranty repairs must be carried out by Electronic Specialists or their designated agent. The warranty does not include any freight cost that may be incurred, nor does it include any repairs required due to any cause other than normal component failure.

Although all reasonable care has been taken, in the unlikely event of a problem occurring, Electronic Specialists and or any of its acting Agents will in no way be responsible for any loss of count data from this device or any interference or damage it may cause to any other equipment or property whatsoever.



Available from:

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