

VC SERIES SENSOR UNIT Web Settings Manual

System: VC-1010(E) / VC-1020 / VC-1050
Version 5033
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Distribution For System Setup Personnel

Version. WM-VC-1702-1-EN

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Revisions:

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1. VC SERIES Web Settings Overview

This manual explains how to set up the sensor's basic settings (Network, Time, Count Area, Count Check) via IE browser.

For installing, please refer to "Installation Manual" for each model.

Required items for setting up the Sensor Unit

PC and network connection are required for setting up the sensor unit.

VC-1010: ONE(1) Setup PC and ONE(1) LAN cable are required.

VC-1020/VC-1050:

ONE(1) Setup PC and TWO(2) LAN cables and ONE(1) PoE switch (injector)(802.3af) are required.

Recommended PC Requirements

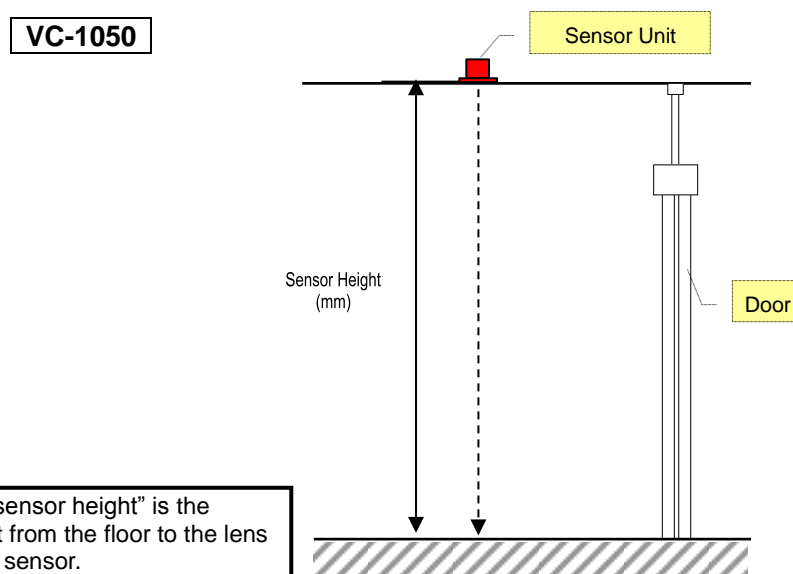
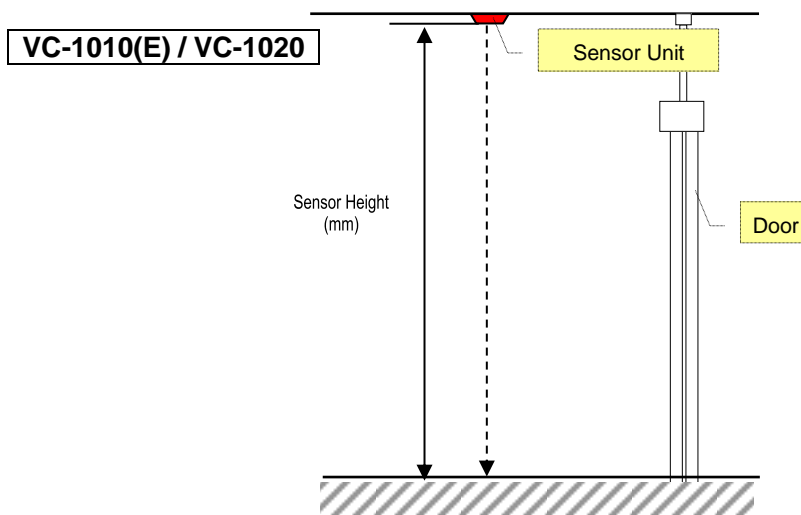
- Operating System: Windows Vista/Windows 7/Windows 8/Windows 10
- Browser: Internet Explorer 8 or later versions

2. Before setting up the system

2.1. Points to be checked BEFORE setting up system (Sensor Installation Information)

Before setting/adjusting the system with the web settings, check the location where the sensor is installed and note the following items.

- **Sensor(Camera) Height:** The height from the floor to the sensor camera lens (mm).
- **Sensor(Camera) installed location:** Is the sensor installed inside or outside the store?



! The "sensor height" is the height from the floor to the lens of the sensor.

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2.2. Points to be checked BEFORE setting up system (Sensor Network Parameter Information)

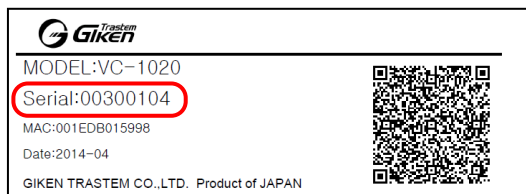
Check and confirm with the end-user the IP addresses, Subnet mask and Default gateway and LAN parameters appointed for the customer counting system.

When the system is to utilize the end-users LAN, IP addresses must be pre-appointed so as to not overlap with other IP address on the same network.

One IP address is required for each sensor unit. Set the LAN parameters with the IP address list at hand. If the data is to be transferred (FTP/HTTP), please check the data transfer parameters and SNTTP server IP address beforehand.

⇒ Please take note of the Sensor Serial Number and the appointed IP address for future reference. Check against the serial number on the Sensor unit label or the serial number indicated on [Sensor Status].

(c.f.) VC-1010(E):00100000 ~
 VC-1020 :00300000 ~
 VC-1050 :00500000 ~



Sensor Status	
Sensor	
Model	[VC-1020]
Serial No.	[00300104]

3. Setup Steps for VC SERIES

[Setup Steps]

- > Connect to Sensor by Setup PC's Browser (Log on to the Web Setting page) (Refer to page 4)
- > [[LAN Settings](#)] (Refer to page 7)
 - Set-up the network parameters such as IP addresses appointed for each sensor etc.
- > [[TIME Settings](#)] (Refer to page 8)
 - Setup the current time and time zone of the installed location.
- > [[Count Area Settings](#)] (Refer to page 10)
 - Setup the Count Area, IN Direction.
- > [[Count Monitor](#)] (Refer to page 24)
 - Check Count Direction (IN / OUT) and the count accuracy
 - * If the count results are inaccurate and count area/settings need readjusting, return to [[Count Settings](#)] to adjust the settings.
- > [[Logout](#)] (Refer to page 53)
- > Sensor setup and adjustment completed.

Setup the settings below when necessary

- > Select [[Transfer Settings](#)] (Refer to page 27)
- > Select [[Streaming Settings](#)] (Refer to page 44)
- > Select [[Advanced](#)] (Refer to page 49)

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4. Connecting Sensor and PC to Network

The default IP address of the sensor unit is set as [192.168.0.249]

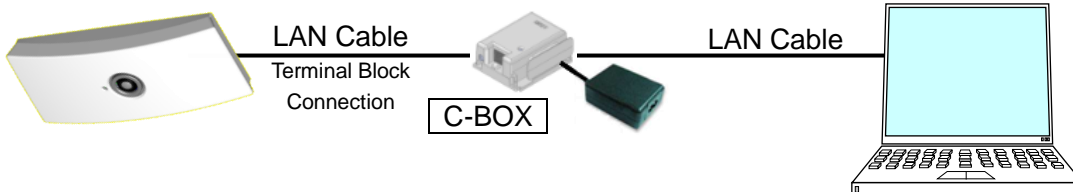
For initial setup, change the Setup PC IP Address to the same range as the sensor IP address.

Example 192.168.0.250 etc.

Connect the Setup PC and Sensor directly.

!! Network Settings must be completed before connecting the sensor to the End Users network.

VC-1010 Sensor Unit

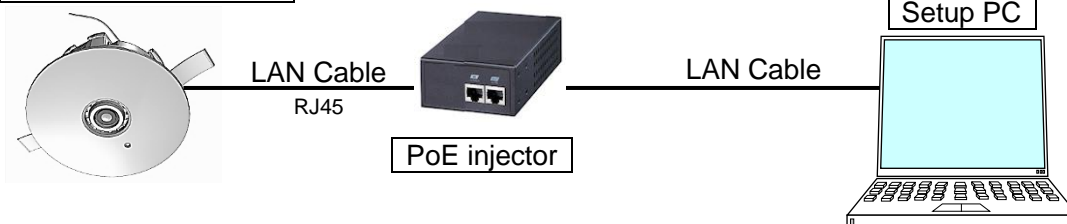


VC-1020 Sensor Unit



* When power is connected to the sensor unit directly via the power jack, connect to the PC using a regular switching hub.

VC-1050 Sensor Unit



REMARKS: PoE has two standardized methods for transmitting power over the Ethernet:

Alternative A (Mode A): Delivers power on the data pairs of the LAN cable.

Alternative B (Mode B): Delivers power on the unused spare pairs of the LAN cable.

To ensure that power can be supplied with either mode, please use all 4-pairs (8 lines) LAN cable.

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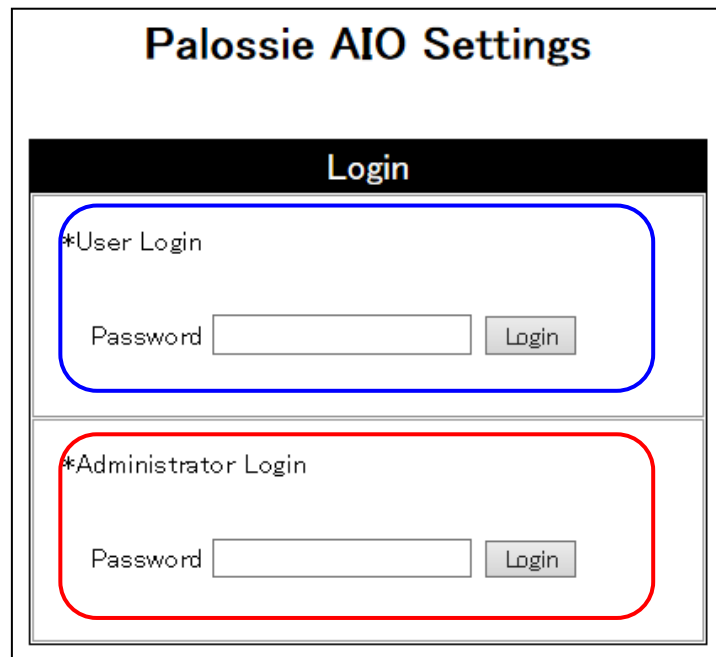
5. Activating Web Settings

(1) Activate IE (Internet Explorer). (Select [Start] =>[All programs]=>[Internet Explorer])

(2) Enter [http://\[Sensor Unit IP address\]](http://[Sensor Unit IP address]) in the Address bar
For initial setup enter the default IP address: <http://192.168.0.249>



(3) The Login Screen below will appear.



(4) Two Login types are available.

User Login = Access limited to Sensor Status and Count Check menus only.

Administrator Login = Access to all menus, Sensor Status and various basic sensor settings.

(5) The default password for each Login type is as follows.

User Login = user

Administrator Login = admin

(6) Click on the [Login] Button

(7) Jumps to the Menu Screen of the relevant login type.

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6. Various Settings Tabs

Each settings page is sorted by the tabs on the top of the page.

User Login Menu: (3 Selections)

Sensor Status Count Monitor Logout

Administrator Login Menu (10 Selections)

Sensor Status Count Monitor LAN Settings Time Settings Count Settings
Transfer Settings Streaming Settings Password Settings Advanced Logout

Tab Name	Details	Remarks
Sensor Status	<ul style="list-style-type: none"> • Sensor Status For checking sensor information, sensor status, network information	Authority level: User/ Administrator
Count Monitor	<ul style="list-style-type: none"> • Count Monitor Count check menu	
LAN Settings	<ul style="list-style-type: none"> • LAN Settings Setup IP address, subnet mask, default gateway, DNS Server	Authority level: Administrator
Time Settings	<ul style="list-style-type: none"> • Time Settings For sensor unit time adjustment, set SNTP, select time zone	
Count Settings	<ul style="list-style-type: none"> • Count Settings Setup Installation height, IN Direction, Count Area, Optional settings	
Transfer Settings	<ul style="list-style-type: none"> • FTP Settings Setup when FTP data transfer is required. The sensor can transfer data directly from the sensor to the FTP Server. <ul style="list-style-type: none"> • HTTP Settings Setup when HTTP data transfer is to be used. The sensor can transfer data directly via TCP/IP to a designated location in XML format. Setup Sensor/Data ID, Transfer Parameters, Connection, Transfer operation timing etc.	
Streaming Settings	<ul style="list-style-type: none"> • Video Streaming Settings Enables video streaming to a designated PC. The video will not be transferred when the IP address is set to 0.0.0.0.	
Password Settings	<ul style="list-style-type: none"> • Password Settings Use to change the User or Administrator password. * Please have the administrator of the counting system change the password.	
Advanced	<ul style="list-style-type: none"> • Settings Import/Export • Save or upload Count settings or FTP settings • Installation Mode Settings Select the Installation Height Mode [Standard/High Mount] *License key is separately required to activate High mode. <ul style="list-style-type: none"> • Clear Buffer option to delete the data saved on the sensor. • Sensor Reset to schedule rebooting the sensor hardware or firmware. 	
Logout	<ul style="list-style-type: none"> • Logout Logout of Web settings page	

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7. Explanation of Each Settings Page [Basic Settings]

7.1. Sensor Status Settings

Click on the **Sensor Status** tab.

Once the communication with the sensor is made, the current sensor unit information and sensor status will be shown.

(1)	Sensor				
	Model	[VC-1050]			
	Serial No.	[00500051]			
	Version	[P5030/L1001.0000]			
(2)	Status		Wired Network		(3)
	Date	[2016-11-10]	IP	[192.168.0.249]	
	Time	[16:43:19 +0900]	Subnet	[255.255.255.0]	
	Unit	[GOOD]	Gateway	[0.0.0.0]	
	Camera	[GOOD]	DNS	[0.0.0.0]	
	Processing load	[48]%	MAC	[00:1e:db:01:79:e3]	
	Memory usage	[35]%			
	Last Sync Time	[2015-08-21 07:42:41 (UTC)]			

(1) Sensor

Sensor's product information: Shows sensor information, Model Number, Serial Number, Firmware Version

(2) Status

Shows Current Date/Time/Timezone of Sensor, Status of Sensor Unit and Camera, Processing load, Memory usage and last time synchronization.

UNIT	STATUS
GOOD	NORMAL
INIT	INITIALIZING
ERROR	UNIT ERROR
FAILED:X	OTHER ERRORS "X" will indicate a certain error code
CAMERA	STATUS
GOOD	NORMAL
UNCONNECT	CAMERA DISCONNECT
FAILED:L	LOW LUMINATION (not enough light)
FAILED:X	ERROR "X" will indicate a certain error code

(3) Wired Network Parameters

Shows current IP Address, Subnet Mask, Default Gateway, DNS, MAC Address.

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7.2. LAN Settings

Click on the **LAN Settings** to jump to the LAN Settings page.
Enter the pre-appointed network parameters of the sensor unit.

LAN Settings	
(1) MAC Address	00:1e:db:01:79:e3
DHCP	<input type="checkbox"/>
IP Address	192 . 168 . 0 . 249
Subnet mask	255 . 255 . 255 . 0
Def.Gateway	0 . 0 . 0 . 0
DNS Server	0 . 0 . 0 . 0
Server Settings	
(2) Server Port	50001
Timeout	5000 msec
(3)	<input type="button" value="Save LAN Settings"/>

(1) LAN Settings

[MAC Address] : Shows the MAC address registered to the sensor. (Cannot be changed)

-> Setup the following sensor network parameters.

Enter the appointed parameters in the relevant item.

[DHCP] : Check ON if the sensor will get an IP address from a DHCP server.

*Reserved DHCP IP address is recommended.

[IP Address]

[Subnet mask]

[Default Gateway]

[DNS Server] : Enter Domain Name Server when domain name is used for SNTP or FTP address.

(2) Server Settings

-> Normally do not change the default settings unless necessary. (Used only for LP-MANAGER data collection)

(3) Save settings to the sensor unit

Click on the **Save LAN Settings** button to save the LAN settings to the sensor unit.

After the settings have been saved the following message will appear at the top of the page.

Setup Complete

*** After the IP Address has been changed, logout or close the browser and enter the new IP address in the IE address bar and re-login to the web settings page. Refer to 5. Activating Web Settings**

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7.3. Time Settings [Time Adjustment/Time zone]

Click on the **Time Settings** tab, the Time Settings menu will appear.
Setup the current time and the time zone.

! Change the time and time zone only during the initial setup. When changing the time and time zone of the sensor unit, there might be a possibility that the system will be severely affected. Thus, before making any necessary change(s), it is essential to ensure that the system will not be affected by changing the time.

(1) Present Time

Shows the current time and time zone of the Sensor Unit and the connected PC.

(2) Time Settings

(2-1) SNTP Address : Enter the SNTP Address (IP address or hostname) to sync the sensor unit clock.
When specifying a hostname as the SNTP server, the DNS IP address in the LAN Settings menu must be entered.

! Please designate a reliable time server, when setting the SNTP.

(2-2) Update : Specify the time to connect to the SNTP address.
(2-3) Time Zone : Select the time zone of the location where the sensor is installed from the pull down menu. The time zone is set to **UTC 0000** by default.

(2-4) Time Adjustment : Check and adjust the time for initial setup, or when time lags occur by ticking ON the [Adjust Time (Sync with PC)] box. * Be sure to check that the PC's clock is accurate.

Adjust Time (Sync with PC)

! The time zone will not sync with the PC, please set the time zone manually.

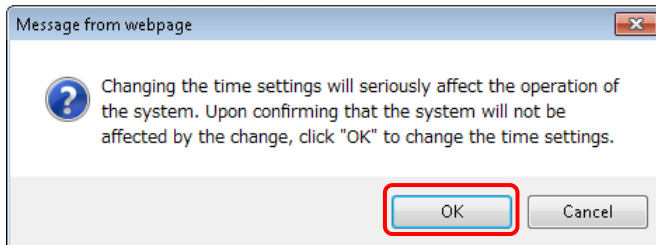
Time Zone	(+0430) Kabul
Time Adjustment	(+0500) Islamabad, Karachi
	(+0500) Urafsk
	(+0530) Kolkata
	(+0530) Sri Lanka
	(+0545) Kathmandu
	(+0600) Astana
	(+0600) Yekaterinburg
	(+0630) Yangon
	(+0700) Bangkok
	(+0800) Beijing
	(+0800) Hong Kong
	(+0800) Krasnoyarsk
	(+0800) Kuala Lumpur
	(+0800) Perth
	(+0800) Taipei
	(+0900) Irkutsk
	(+0900) Seoul
	(+0900) Tokyo, Osaka
	(+0930) Darwin
	(+1000) Brisbane
	(+1000) Guam
	(+1000) Yakutsk
	(+1030) Adelaide
	(+1100) Hobart
	(+1100) Sydney, Canberra
	(+1100) Vladivostok
	(+1200) Fiji
	(+1200) Magadan
	(+1200) Marshall Islands

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(3) Save Settings to Sensor Unit

Click **Save Time Settings** button to save time settings to the Sensor unit.

The message below will appear on screen. Please check and confirm that the time change will not affect the system. After Confirmation, please click [OK].



When the settings are saved to the sensor unit, the message below will appear on screen.

Automatic Time Setting (sync with PC) completed.
Sensor clock adjustment complete.
Setup Complete

or

Setup Complete

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7.4. Count Settings

Select **Count Settings** tab, Count Area Settings menu will display on screen.

The screenshot shows the 'Count Settings' window. On the left, a camera view shows a count area with four numbered corners (1, 2, 3, 4). Below it are 'Image Options' for switching between still and live images and showing a floor grid. In the center is a 'Count Area Setup Diagram' showing the sensor, count area, and detection lines. On the right are three settings panels: 'Count Area Settings' (Installation Mode, Sensor Height, Adjust Count Area, Area Corner), 'Area Type' (Area Type, Direction), and 'Optional Settings' (Sensitivity, Detection Size, Option). A 'Save parameters to sensor' button is at the bottom right.

(1) Count Area Image

(2) Image Options

(3) Count Area Setup Diagram

(4) Count Area Settings

(5) Area Type

(6) Optional Settings

(7) Save parameters to sensor

(8) Setup Complete

7.4.1. Description of Menu Items

(1) Count Area Image

Shows video or still images of sensor and count area.

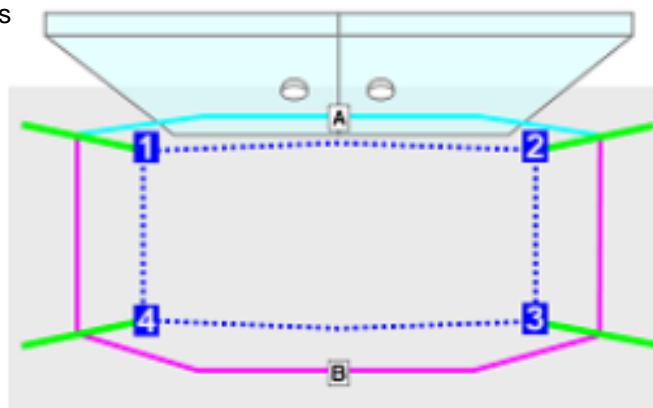
(2) Image Options

Switch the image to still or live images

Tick the box to show the floor grid (Distance between dots 30 cm/11.8 inches).

(3) Count Area Setup Diagram

Illustrated Area Settings



Dotted Blue line indicates the count area at floor height.

Blue[A]/Red[B] line indicates the virtual count line set at the height about 1200mm/3.93ft from the floor.

Green line indicates the detectable height of the object for the count area. As long as the head of the green line is shown in the image the persons at the edge of the count area will be detected.

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(4) Count Area Settings (Installation Height / Area Position / Setting IN Direction)

(4-1) [Installation Mode]

The height Installation Mode [Standard/High] is indicated. (Refer to image below/green square)

(4-2) [Sensor Height]:

(4-2-1) Standard Mode

Enter the distance/height (in mm or inches) between the sensor lens and the floor.

Allowable height between 2,300 to 4,200 mm (7.54 to 13.7ft)

Count Area Settings	
Installation Mode	Standard Mode
Sensor Height	2690 mm 105.9 inch
Adjust Count Area	Area Corner
Area Corner	<input checked="" type="radio"/> (1) <input type="radio"/> (2) <input type="radio"/> (4) <input type="radio"/> (3)
Reset	

(*Height outside of range cannot be set. When an invalid value is entered and the save button is clicked, the message below will appear, please set the height within the allowable range.)

ERROR: Invalid Sensor Height.

(4-2-2) High Mode [optional feature] *Refer to 12. Advanced Settings: Installation Mode [License key is required to activate this feature]

Enter the distance/height (in mm or inches) between the sensor lens and the floor.

Allowable height between 4,000 to 6,000mm (13.12ft to 19.68ft) [High Mode].

NOTE: Compared with the standard mode, width of detection area is smaller. Additionally when there is a sharp difference in the brightness in the camera image, the sensor accuracy may decrease when using the High Mode.

*Count Area Image [High Mode](Set at height of 6000mm).

Count Settings

● Still image / ○ Live image
☑ Show floor grid (300 mm / 11.8 inches)

Count Area Settings

Installation Mode: High Mode

Sensor Height: 6000 mm
236.2 inch

Adjust Count Area: Area Corner

Area Corner: (1) (2)
 (4) (3)

Reset

Area Type

AreaType: N Custom

Direction: A > B B > A
 B > A A > B

Optional Settings

Sensitivity: Standard (Set within -4 to +2)

Detection Size: Standard (Set within -5 to +5)

Option: Shopping cart
 Shadows(Sunlight)
 Shadows(Spotlight)

Save parameters to sensor

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(4-3) [Adjust Count Area]:

Choose from either [Area Corner] or [Door Position] option.

Adjust Count Area	Area Corner Door Position
Area Corner	<input checked="" type="radio"/> (1) <input type="radio"/> (2) <input type="radio"/> (4) <input type="radio"/> (3)

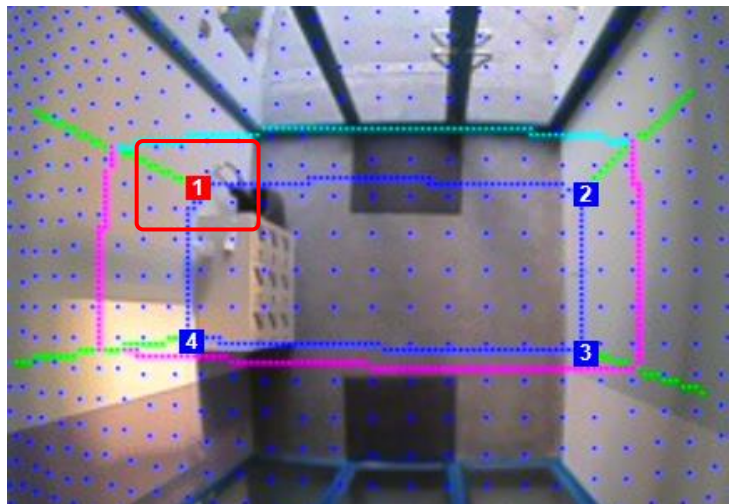
(4-3-1) [Area Corner]:

This will enable to create/adjust the count area by each corner.

Each corner of the count area has a number **1 2 3 4** appointed. The corners indicate the height of the floor.

Click on one of the corners **1 2 3 4** in the Area Corner box or directly click on the corner number inside the Count Area Image. The selected number will highlight in red.

Using the arrows keys of the keyboard move the highlighted corner to the desired location. Or click on the desired location with your mouse, the highlighted number will jump to the pointed location.



Repeat steps for all the corners so that all the corners **1** to **4** covers the whole entrance area where people walk through.

To save the count area click on **Save parameters to sensor**. The area setting will not be saved unless the button is clicked.

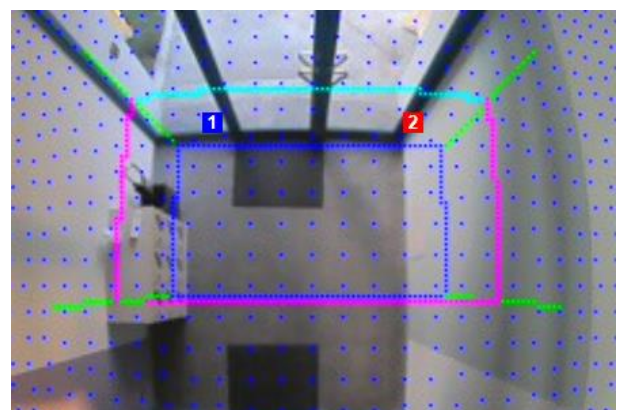
(4-3-2) [Door Position]:

This feature will create an automatic count area based on the door location.

Click on one **1** or **2** in the Door Position box or directly click on the number inside the Count Area Image. The selected number will highlight in red.

Adjust Count Area	Door Position
Door Position	<input type="radio"/> (1) <input checked="" type="radio"/> (2)

Using the arrows keys of the keyboard move the highlighted number **1** to one of the axis of the door etc. Or click on the desired location with your mouse, the highlighted number will jump to that designated location. Repeat steps for number **2** by selecting the other side of the door.



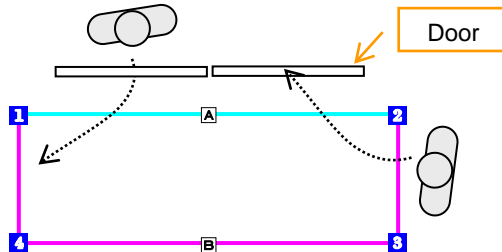
* Note: At this point the area settings have not been saved to the sensor unit yet. To save the count area click on **Save parameters to sensor** before proceeding with the other settings.

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(4-4) Tips for Count Area Setup:

(A) COUNT AREA SIZE

Adjust the area size larger than the actual door/entrance width. By doing so the sensor can accurately grasp people entering the facility diagonally.



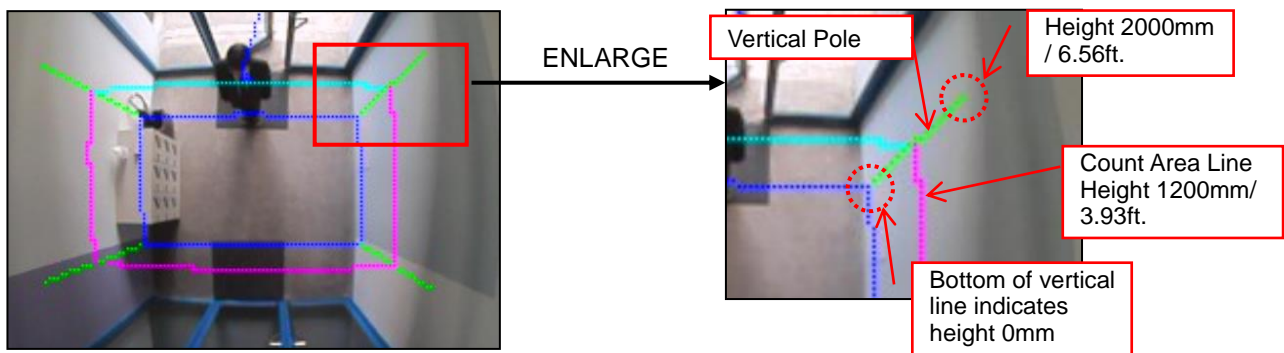
(B) AREA DEPTH

The area depth should at least be 2-3 person's stride length. (At least 120cm (3.93ft) is recommended. 4 dots of the grid) If the count area depth is too narrow people roaming in the area may be inaccurately counted.

! If the count area depth is too wide then people may not be counted. At the edge of the area only half of a person might be detected or multiple people may overlap and a person may not be detected accurately.

(C) COUNT AREA HEIGHT

The count area is processed in the Sensor Unit as a three-dimensional area with length, depth and height. The Blue line [A] and Red line [B] in the counting image are both set to a height of 1200mm (3.93ft) in the sensor unit.



The bottom of the green vertical line indicates the floor (height 0mm).

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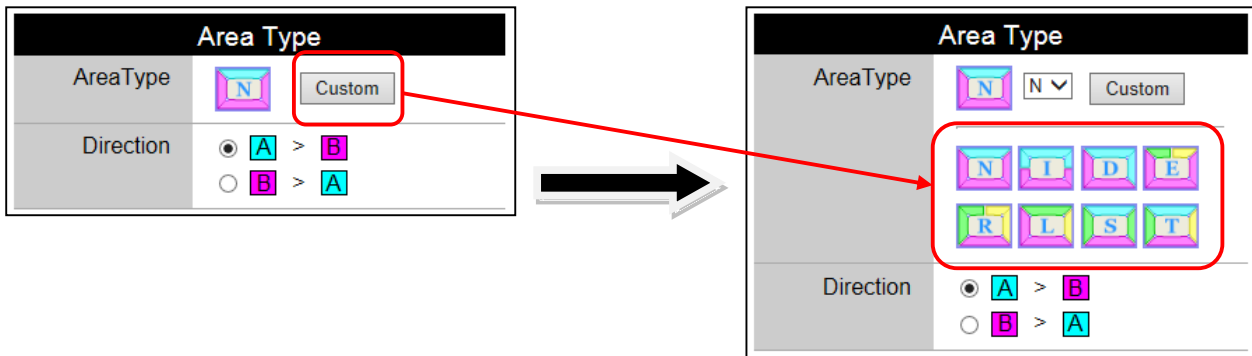
(5) Area Type [Select Area Type/Designate IN Direction]

(5-1) Area Type [Select Area Type]

Normally [N] (Normal) is default, choose from several Area Types that best fits the installation environment and counting pattern.

N Type : 1 direction (A and B) : 2 count lines [IN](A =>B), [OUT](B=>A)

Click on the [Custom] button, other available Area Types will appear.



Select an Area Type and click the icon, the [Count Area Image] and the [Count Area Setup Diagram] will switch to the selected Area Type.

[IN] direction is decided by specifying the order of the lines which a person passes (Blue line [A], Red line [B]) in the counting area.

The selected button indicates the [IN] direction.

To set the [IN] direction as Blue Line [A] to Red Line [B] choose as below.

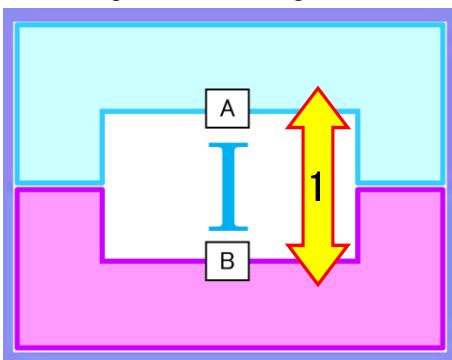


! If the [IN] direction changes to red [B] => blue [A], count [IN] and [OUT] will be reversed.

(5-2) Area Type [1 direction / 2 count lines]

Area Type for 1 direction and 2 count lines are [N] (Normal), [I], and [D] types.

According to the counting environment select the suitable type.



1 Direction	2 Count Lines
1	A=>B / B=>A

Ex. Area Type [I]

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(5-3) Area Type [Multiple Direction Count Setting]

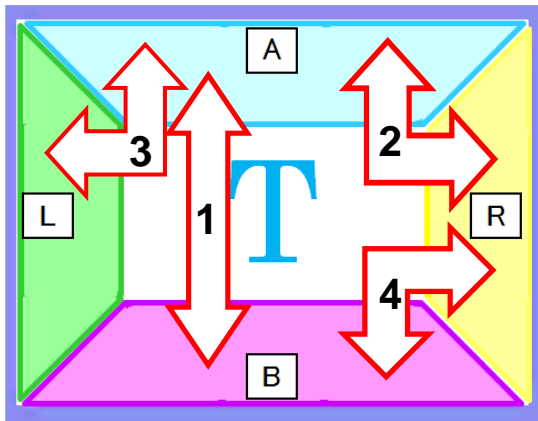
This mode is to be used when it is required to count multiple movements: set 2 directions or more with a single sensor unit. [MAX: 4 directions, 8 count lines]

When counting multiple directions (more than bi-directional traffic) select a suitable Area Type.

Upon selecting the Area Type select the directionality of each required count line.

Each line is color coded to distinguish each area (Count line: **Blue Line [A]**, **Red Line [B]**, **Green Line[L]** and **Yellow Line[R]**).

Select the direction by specifying the directionality with these color codes.



4 Directions	8 Count Lines
1	A=>B / B=>A
2	A=>R / R=>A
3	A=>L / L=>A
4	B=>R / R=>B

Ex. Area Type [T]

Remarks: For the T type 6 Directions /12 Count Lines can be assumed but the maximum number of directions that can be set is up to **4 Directions / 8 Count Lines**.

Sample setting for Area Type [T]

Example for Setting the count area, according to the image above.
(Area Type [T])

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1. Before setting up, check the installed location and decide the count directions.

Example:

[Counting]

1. Entrance => In-store

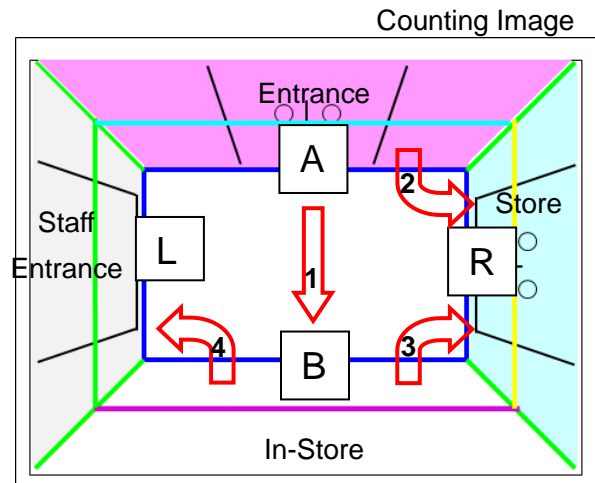
2. Entrance => Store

3. In-store => Store

[Counting Exclusion]

4. In-store => Staff Entrance

Select the Area Type [T], and then setup a count area inside the image that covers the required area. Then specify each of the Directions (from Direction1 to last)

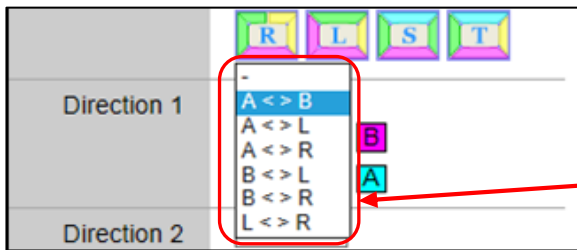


First set Direction 1.

The allowable combinations of the count lines are listed in the pull down list.

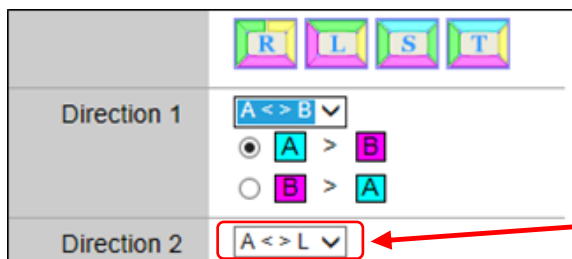
Setup all four directions

Direction 1 [Entrance(A) => In-Store(B)]. Select [A <> B] from the pull down menu.



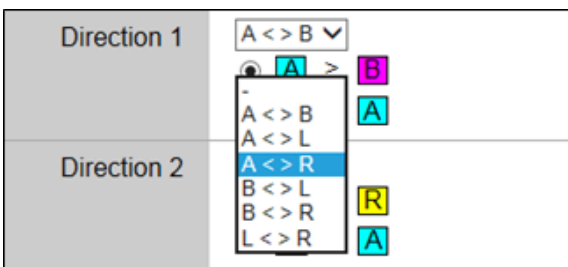
Shows the list of all available directions.

Next click the button [A > B] to set Entrance(A) => In Store(B) order as [IN].



Shows the direction arrows corresponding to direction settings.

Set Direction 2 in the same way. Direction 2 [Entrance(A) => Store(R)]. Select [A <> R] from the pull down menu.



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Next click the button [A > R] to set Entrance (A) => In Store (B) as [IN].

	<input type="radio"/> B > A <input checked="" type="radio"/> A > R <input type="radio"/> R > A
Direction 2	A <> R
Direction 3	A <> R

Direction 3 [In-Store (B) => Store (R)]. Select [B <> R] from the pull down menu.

Direction 2	<input type="radio"/> B > A <input checked="" type="radio"/> A > R <input type="radio"/> R > A
Direction 3	A <> B A <> L A <> R B <> L <input checked="" type="radio"/> B <> R L <> R <input type="radio"/> R > B

Next click the button [B > R] to set In-Store (B) => Store (R) as [IN].

Direction 3	<input checked="" type="radio"/> B > R <input type="radio"/> R > B
-------------	---

Direction 4 Exclude the count of [In-Store (B) => Staff Entrance (L)]. Select [-] from the pull down menu, the direction will be ignored.

Direction 4	<input checked="" type="radio"/> B > R <input type="radio"/> R > B
Direction 4	<input type="radio"/> B > A <input checked="" type="radio"/> A > R <input type="radio"/> R > A <input type="radio"/> B > R <input type="radio"/> R > B <input type="radio"/> L > R

Counting exclusion is displayed as [-]

Direction 4	-
-------------	---

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2. Save the Area settings.

Recheck all the settings and click on the [Save parameters to sensor] to save settings.

Save parameters to sensor

The applied area directions will show as below.

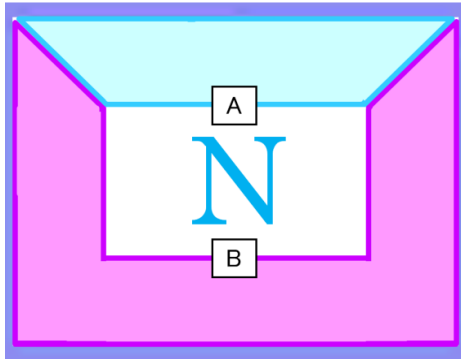
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3. Description of each Area Type & Examples

Area Type: [N] Normally use this type

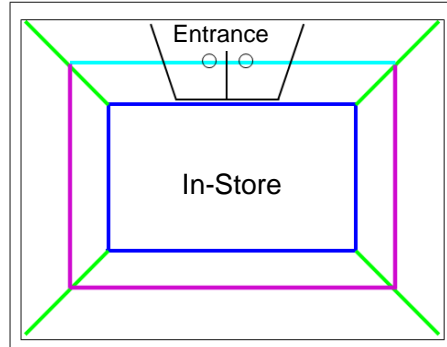
Count direction: Bi-Directional (Blue, Red)

Main use: Entrance etc.



Ex. Entrance

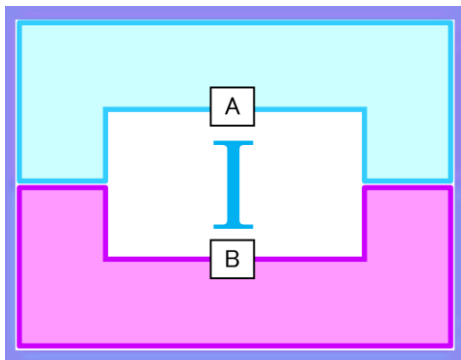
A => B [IN]



Area Type: [I]

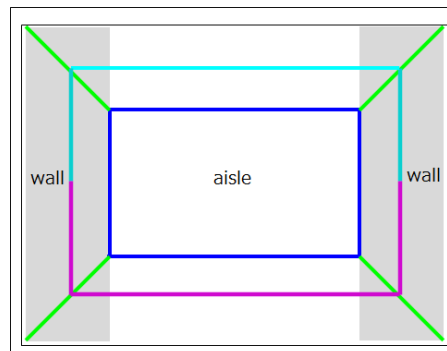
Count direction: Bi-Directional (Blue, Red)

Main use: Aisle etc.



Ex. Aisles

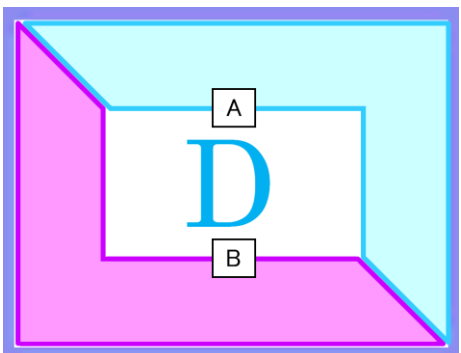
A => B [IN]



Area Type: [D]

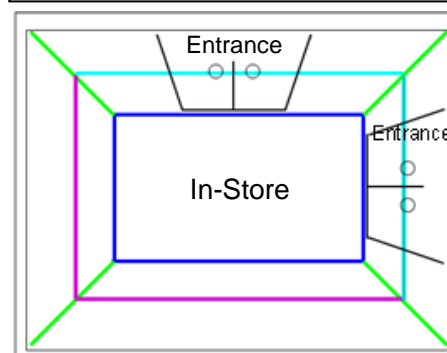
Count direction: Bi-Directional (Blue, Red)

Main use: L-shaped Entrance, etc.



Ex. L-shaped Entrance

A => B [IN]

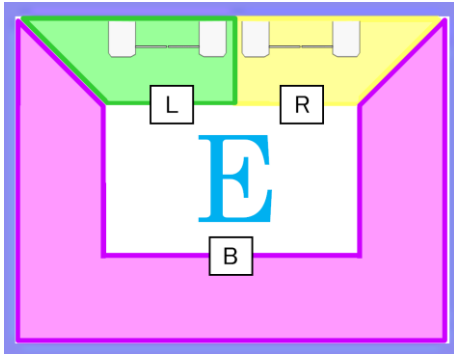


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Area Type: [E]

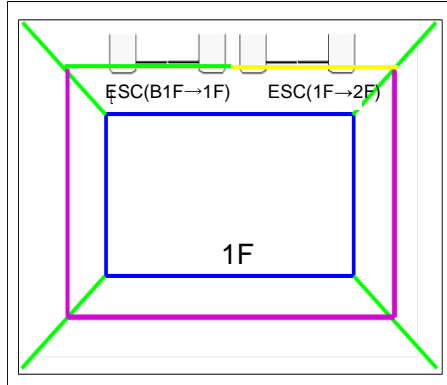
Count direction: 3 directions, 6 count lines
(Red, Green, Yellow)

Main use: Escalator, Floor traffic, etc.



Ex. Escalator

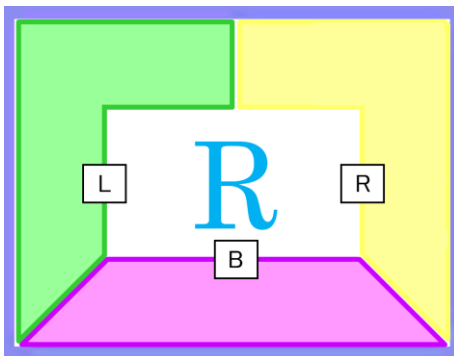
L => B [go down to 1F]
L => R [go up to 2F]



Area Type: [R]

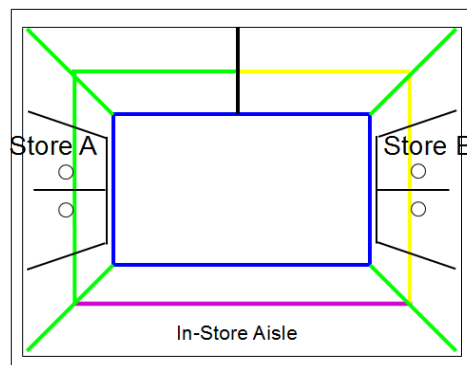
Count direction: 3 directions, 6 count lines
(Red, Green, Yellow)

Main use: Aisle, Store Entry, etc.



Ex. No. of people entering each store

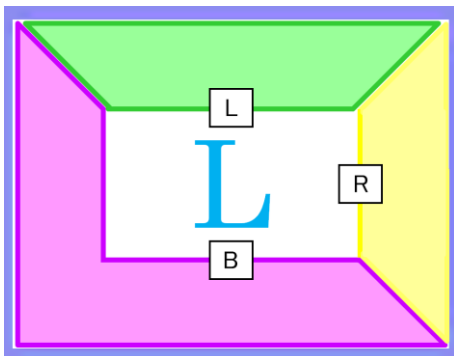
B => L [go to store A]
B => R [go to store B]



Area Type: [L]

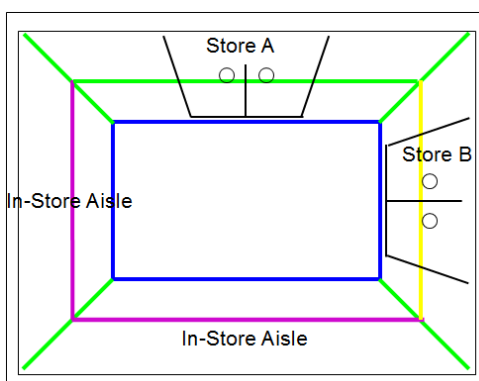
Count direction: 3 directions, 6 count lines
(Red, Green, Yellow)

Main use: Aisle, Store Entry, etc.



Ex. No. of people entering each store

B => L [go to store A]
B => R [go to store B]

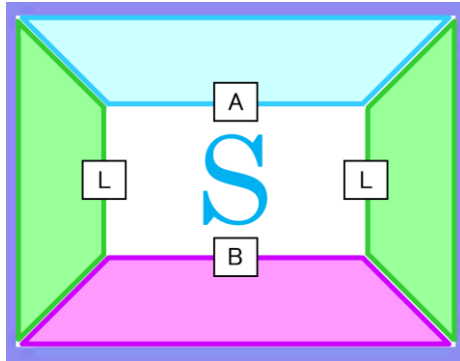


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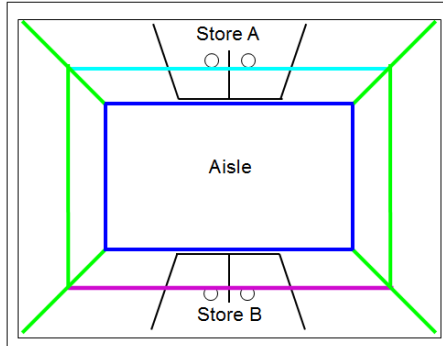
Area Type: [S]

Count direction: 3 directions, 6 count lines
(Blue, Red, Green)

Main use: Aisle, Store Entry, etc.



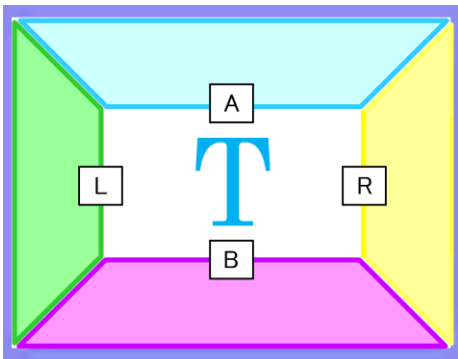
Ex. No. of People Entering each store
B => L [go to store A]
B => R [go to store B]



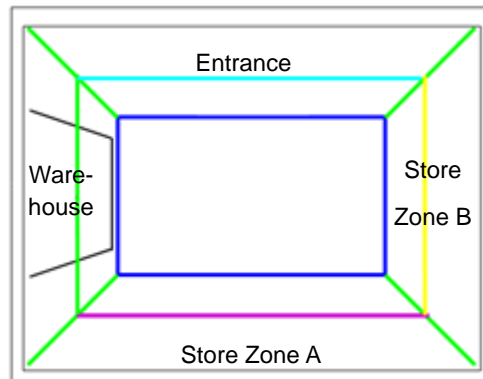
Area Type: [T]

Count direction: 4 directions, 8 count lines
(Blue, Red, Green, Yellow)

Main use: Aisle, Store Entry, etc.



Ex. Shopping Center, Enter SC, Store Entry,
Exclude count.
A => B [Zone A IN]
A => R [Zone B IN]
B => R [Zone to Zone traffic]
A/B/R => L [exclude (Warehouse) staff traffic]



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(6) Advanced Settings (Parameter, Option)

* Normally, this function is left as default. Please make necessary changes only when people are not counted correctly.

Optional Settings	
Sensitivity	Standard ▼ (Set within -4 to +2)
Detection Size	Standard ▼ (Set within -5 to +5)
Option	<input type="checkbox"/> Shopping cart <input type="checkbox"/> Shadows(Sunlight) <input type="checkbox"/> Shadows(Spotlight)

=> [Sensitivity]

Select the Sensing sensitivity from the pull down list.

Adjust the detecting sensitivity, to reduce counting losses and double counting.

[Sensitivity Options]

Recommended range: Set between: - 4 to + 2

[+1 to +2] : When the entire image is dark (not enough light) and people are not detected or counted less.

[- 1 to - 4] : When one person is detected as multiple people or shadows (created by lighting) are detected as people.

	+5	
	+4	
	+3	
	+2	
	+1	
	Standard	
	-1	
	-2	
	-3	
	-4	
	-5	

! Do not change the setting higher/lower than the above recommended range.
(The changes may affect the sensing accuracy.)

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=> [Detection Size]

Adjust the Detection Body Size against the Standard human body size.

The system detects an object by comparing the size of the object to a standardized body frame, when the size matches the object then that object is detected as a person.

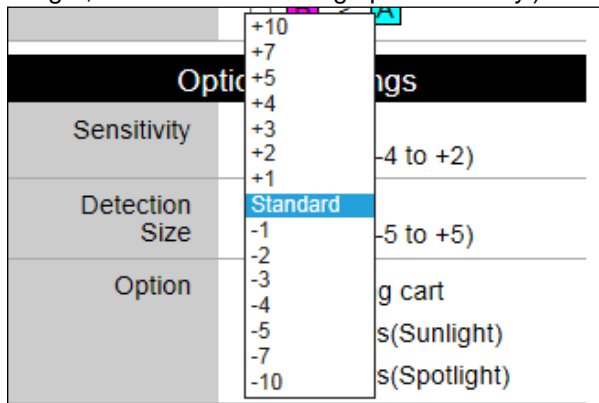
[Detection Size]

Recommended range: Set between: -5 to +5

[Standard] : Standard Size

[+10 to -10] : Allowable setting range

(Minus is for smaller body frames, Plus is for larger body frames. if set the minus, standard size becomes smaller, sensor detects a small person easily, if set the plus, standard size becomes larger, sensor detects a large person easily.)



! Do not change the Detection Size setting higher/lower than the above recommended range. (The changes will greatly affect the sensing accuracy.)

=> [Option]

This option switch is to activate (ON) or inactivate (OFF) optional detection programs to heighten accuracy. Both options are functions to assist limiting double counting.

(A) Shopping Cart

When this option is activated, if an object is judged as a shopping cart that object will be omitted from detection.

Only use when the majority of customers use shopping carts. Put a check in the Shopping cart box. [ON .

(B) Shadows (Sunlight)

When the counting area is in an area with strong or direct sunlight and a person's shadow appears and is being counted, put a check in the [Shadows (Sunlight)] box [ON]. When the system judges that the object is a "Shadow" the system will omit that object from the count.

(C) Shadows (Spotlight)

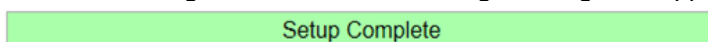
When the counting area is in an area near a spotlight and a person's shadow appears and is counted due to the lighting environment, put a check in the [Shadows (Spotlight)] box [ON]. When the system judges that the object is a "Shadow" the system will omit that object from the count.

! When the "Shopping Cart" option, "Shadows" option is turned OFF to ON, the system has a self-learning function therefore the option will activate after a few people are detected.

(7) Save Settings to Sensor Unit

Click on the Save parameters to sensor button to save the Count Area Settings to the sensor unit.

After the settings are saved the following message will appear.

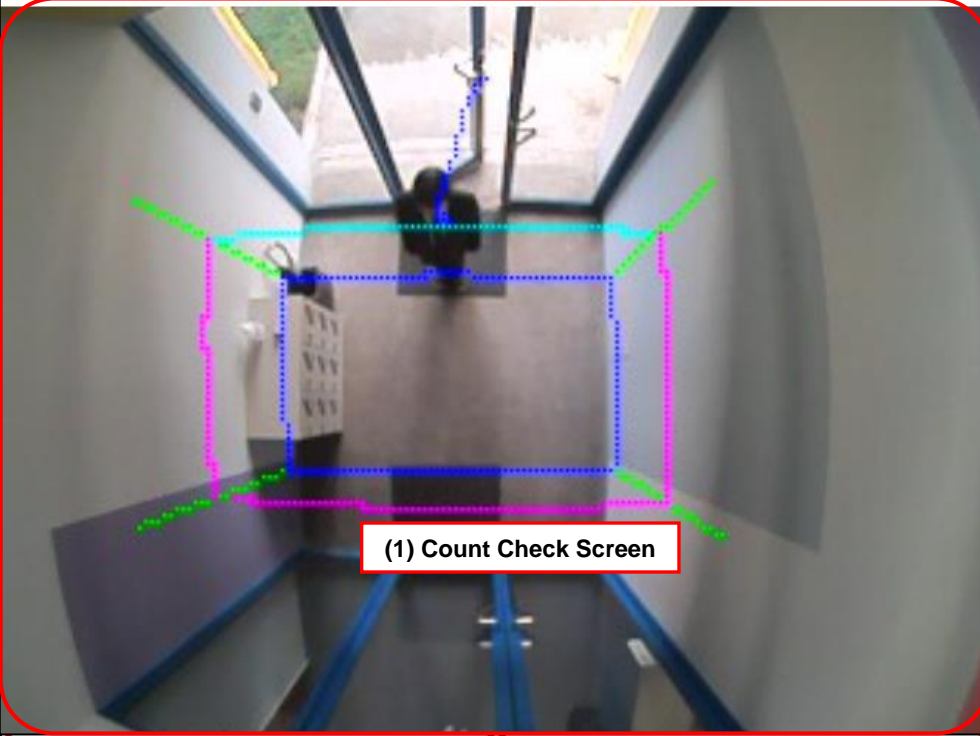


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8. Count Monitor

Click on the **Count Monitor** tab to jump to the Count Monitor page.
The set count area will appear, check that the people are being counted accurately.

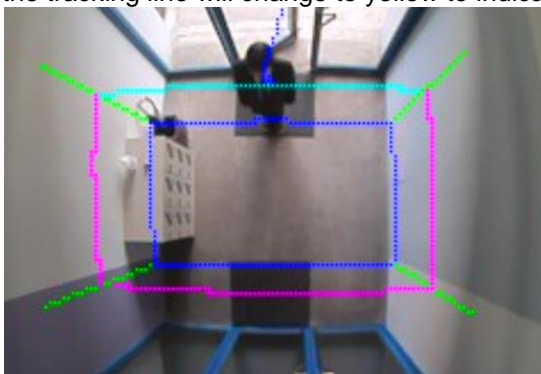
Count Monitor



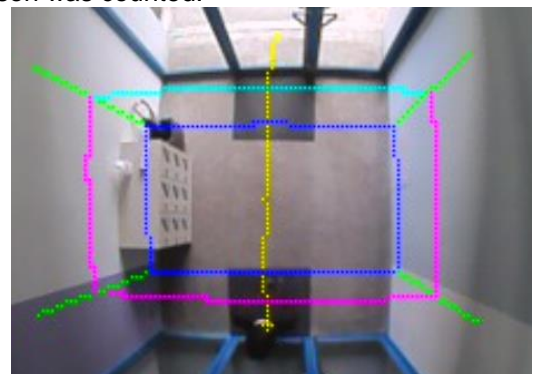
Count Check		
IN	A > B	320
OUT	B > A	318

Monitor Settings	
Quality	<input checked="" type="radio"/> High <input type="radio"/> Middle <input type="radio"/> Low
Refresh	<input checked="" type="radio"/> Fast <input type="radio"/> Slow

- (1) Count check screen:** The sensor's real-time camera images are shown here with the count area.
When a person walks into the image a **[+]** will appear above the detected person. A tracking line will appear in blue showing the person's movements. When the person walks through the set count area the tracking line will change to yellow to indicate that person was counted.



Detected and tracking (Blue line)



Counted (Yellow Line)

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(2) Count check: The count results are shown here when people are detected and counted.

Example of multiple counting check.

Count Check		
IN	A > B	100
OUT	B > A	50
IN	A > R	150
OUT	R > A	30
IN	B > R	200
OUT	R > B	100

*To clear the count Click the **Clear Count** button. The count will only be cleared on the count check screen, the data is not affected (data stored in the sensor will be retained).

(3) Monitor Settings: Change the quality and refresh rate of the camera images. Use for slow networks or when accessing remotely.

The Count Area Settings are now complete.

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9. Troubleshooting

The following is to be referenced as basic procedures to fix problems that may arise when setting up the system. The parameters may vary according to the installed environment (lighting, floor patterns/rugs, fixtures near the doors etc.).

Problem	Causes	Solutions
People walking near the edge (corners) of the area are not counted.	-The count area is not covering the whole count area.	-Widen and readjust the count area.
Counts people roaming around the entrance/doors.	-The count area depth is not enough. -The position of the count area is not suitable for this area.	-Readjust the count area depth. -Move the position of the count area.
Only one person is counted although two people simultaneously passed through.	-People are walking close together, therefore the detection of one of the people is cancelled out.	-Lower the [Detection Size] rate(Ex. Standard-> -2 > -4) * When the [Detection Size] rate is set too low this setting will affect the system accuracy, therefore gradually lower the [Size] rate and check operation each time to get the right rate.
Counts shadows (or objects near people's feet). (Double counts)	-Shadows are counted.	-Check that the Shadow (sunlight) box is checked ON (☑). -Lower the Sensitivity level (Ex. Standard -> -2). -Raise the Detection Size level (Ex. Standard-> +3).

Setup the following optional settings 10. and onwards only when the settings are to be used.

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10. Transfer Settings (FTP/ HTTP Settings)

Click on the **Transfer Settings** tab to jump to the Transfer Settings Page.

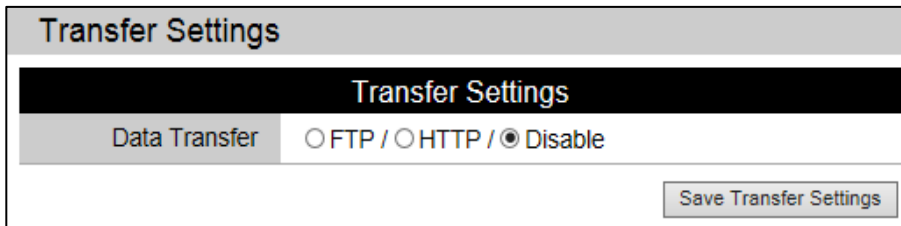
Available data transfer types are FTP and HTTP(TCP/IP). To use either of these data transfer method, choose one the methods. When data transfer is not required (using data collection) select “Disable”.

NOTE: Depending on some server environments operation is not guaranteed.

10.1 FTP Settings

Select FTP to show the FTP Settings Menu.

The Sensor Unit connects (Login) to a server that is running as a FTP Server and transfers the Count Data and Status (System Condition) File.



Transfer Settings

Transfer Settings

Data Transfer FTP / HTTP / Disable

Save Transfer Settings

! When using the FTP Data Transfer feature to send the count data, to synchronize the time in Sensor Unit Internal clock, a SNTP Server is required. Register the SNTP server IP address to each sensor unit. (Refer to 7.3. Time Settings [Time Adjustment/Time zone])

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When the FTP settings are enabled the screen below will appear.

Transfer Settings	
Transfer Settings	
Data Transfer	<input checked="" type="radio"/> FTP / <input type="radio"/> HTTP / <input type="radio"/> Disable
Data ID	
Store/Site ID	<input type="text" value="Store A"/>
Entrance/Spot ID	<input type="text" value="Main Entrance"/>
FTP Server Connection	
IP Address	<input type="text" value="0.0.0.0"/> IP Address or hostname
Protocol Type	<input checked="" type="radio"/> ftp / <input type="radio"/> ftps(explicit) / <input type="radio"/> ftps(implicit) / <input type="radio"/> sftp
Login User Name	<input type="text" value="anonymous"/>
Login Password	<input type="text" value="anonymous@ftp"/>
Directory	<input type="text" value="/"/>
Mode	<input checked="" type="radio"/> Active / <input type="radio"/> Passive
Size Check	<input checked="" type="checkbox"/> Supported
Command Port	<input type="text" value="21"/>
Data Port	<input type="text" value="1024"/> - <input type="text" value="2047"/>
Timeout	<input type="text" value="5000"/> msec(500-60000)
Retry	<input type="text" value="3"/> times(0-10) <input type="text" value="10"/> sec.(0-60)
<input type="button" value="Test FTP Settings"/>	
Transfer Operation	
Time(hhmm)	<input type="text" value="0000"/> - <input type="text" value="2400"/>
Transfer Mode	<input type="radio"/> Cycle Mode Every <input type="text" value="10"/> mins(1-60) <input checked="" type="radio"/> Per Hour Mode Every hour at <input type="text" value="0"/> min(0-59)
Count Data Transfer	
Transfer	<input type="text" value="1440"/> Record(s)(1-14400)
Data Transfer	<input checked="" type="radio"/> Transfer specified no. of records <input type="radio"/> Transfer the difference
Record Unit	<input type="text" value="1 min."/> ▼
Format	<input type="text"/>
Sensor Status File Transfer	
Enable	<input checked="" type="checkbox"/> Enable
Data Transfer History	
Delete Transfer History	<input type="checkbox"/> Delete
<input type="button" value="Save Transfer Settings"/>	

(1) Sensor Data ID

(2) FTP Server Connection Parameters

(3) Transfer Operation

(4) Count Data Transfer

(5) Sensor Status File Transfer

(6) Delete Data Transfer History

(7) Save settings to sensor unit

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IMPORTANT: Count Data's File Name

The File name of files that are transferred into the server will be in the following format.

The file name (1) to (4) will change depending on whether the Store (Site) ID and/or Sensor Location (Spot) ID is specified (setup).

- (1) When both (Site ID and Spot ID) are not setup.

C_nnnnnnnn_YYYYMMDD_hhmmss.txt

- (2) When only the Store (Site) ID is setup.

C_sssssssssssssss_YYYYMMDD_hhmmss.txt

- (3) When only the Sensor Location (Spot) ID is setup.

C_pppppppppppppppp_YYYYMMDD_hhmmss.txt

- (4) When both the Store (Site) ID and Sensor Location (Spot) ID is set.

C_sssssssssssssss_pppppppp ppppppp_YYYYMMDD_hhmmss .txt

nnnnnnnn: Sensor's Serial Number (8 digits, with no zero suppression).

ssssssssssssssss: Store (Site) ID (maximum 16 characters)

pppppppppppppppp: Sensor Location (Spot) ID (maximum 16 characters)

YYYYMMDD: The date when the File is generated, year/month/day (year according to western calendar, with no zero suppression).

hhmmss: The time when the File is generated, hour/min/sec (notated in 24 hours, with no zero suppression).

Enter the following required setup fields to enable Count Data FTP transfer.

(1) Data ID Settings

Data ID	
Store/Site ID	<input type="text"/>
Entrance/Spot ID	<input type="text"/>

Content	Range/Format	Description
Store/Site ID	Specify or Blank Max. 16 characters	Store or Site ID Attached to the transmitted file name and record
Entrance/Spot ID	Specify or Blank Max. 16 characters	Entrance / Spot ID Attached to the transmitted file name and record

When the above ID's are set the names will appear on the file name.

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(2) FTP Server Connection Settings

FTP Server Connection		
IP Address	<input type="text" value="0.0.0.0"/>	IP Address or hostname
Protocol Type	<input checked="" type="radio"/> ftp / <input type="radio"/> ftps(explicit) / <input type="radio"/> ftps(implicit) / <input type="radio"/> sftp	
Login User Name	<input type="text" value="anonymous"/>	
Login Password	<input type="text" value="anonymous@ftp"/>	
Directory	<input type="text" value="/"/>	
Mode	<input checked="" type="radio"/> Active / <input type="radio"/> Passive	
Size Check	<input checked="" type="checkbox"/> Supported	
Command Port	<input type="text" value="21"/>	
Data Port	<input type="text" value="1024"/> - <input type="text" value="2047"/>	
Timeout	<input type="text" value="5000"/> msec(500-60000)	
Retry	<input type="text" value="3"/> times(0-10) <input type="text" value="10"/> sec.(0-60)	
<input type="button" value="Test FTP Settings"/>		

Item	Range/Format	Description
IP Address	0.0.0.0-255.255.255.255 or hostname	FTP Server's IP Address or hostname
Protocol Type	4 Selections · ftp · ftps(explicit) · ftps(implicit) · sftp	FTP Protocol Type
Login User Name	Max. 63 characters	FTP Server Login User Name
Login Password	Max. 63 characters	FTP Server Login User Password
Directory	Max. 63 characters	FTP Transfer destination's directory name
Mode	Active / Passive	FTP Mode (Active / Passive)
Size Check	ON	Supported
Command Port	21	Server's TCP Listening Port Number Change only if necessary.
Data Port	1024-2047	Port Number range to be used for Data communication. Change if necessary.
Timeout	5000	Connection/Retrieving Response Timeout time
Retry ___times	3	Number of retry(s) during Connection/Data Transfer Failure * When the connection failure is due to user/password error retry will not be performed.
Retry ___sec.	10	Retry interval (in sec.) of connection/data transfer failure

***After inputting the parameters, Click the button to check whether the sensor can communicate with the FTP server. A test file will be sent to the designated location in the FTP folder.**

When communication is established successfully, the below message will appear.

Test file transferred.
 Please save Transfer settings.

If the inputted parameters are incorrect (cannot establish connection), the message below will show. Please reenter the parameters and check again until transfer is confirmed.

Connection failed.
 Check IP Address, Protocol Type, Login User Name/Password, Command Port.

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(3) FTP Transfer Operation Settings

Transfer Operation	
Time(hhmm)	0000 - 2400
Transfer Mode	<input checked="" type="radio"/> Cycle Mode Every 10 mins(1-60)
	<input type="radio"/> Per Hour Mode Every hour at 0 min(0-59)

Item	Range/Format	Default Value	Description
Time(hhmm) Period to transfer data to FTP Server	0:0-23:59 to 0:0-47:59	0000 - 2400	FTP File Transfer time range

The timing to transfer the files can be chosen from the following two options.

- Periodical Transfer (Cycle Mode): Transfer at every specified time (in min.).
- Hourly Transfer (Per Hour Mode): Generated hourly at a set time (min.).

Cycle Mode (Periodical Transfer)		-	Transfer Operation Mode's data transmission cycle time (specify in minutes) Example:10 = Data is transferred every 10 minutes.
Per Hour Mode (Hourly Transfer)		00 (Transfer every hour at 00 min.)	Transfer Operation Mode's hourly data transfer time (min.) Example: "05" = Data transferred at every hour at 05 minutes. (9:05, 10:05 ...)

If connection failure occurs and after Retry Connection Failure has been confirmed, the next connection/data transfer will be carried out at the next periodic transfer interval.

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(4) Count Data Transfer Settings

Count Data Transfer	
Transfer	<input type="text" value="1440"/> Record(s)(1-14400)
Data Transfer	<input checked="" type="radio"/> Transfer specified records. <input type="radio"/> Transfer the Difference.
Record Unit	<input type="text" value="1 min."/> ▾
Format	<input type="text"/>

Item	Range/Format	Default Value	Description
Transfer Records	1-14400 Records	1440 (One day)	Indicate the number of required records to transfer (Max. 14400 records)
Data Transfer	2 Options	Transfer specified records	(1) Transfer Specified records Transfers only the specified number of records indicated in the above box. Eg. 60 records are selected then only 60 records will be sent at each specified interval. (2) Transfer the Difference When this option is selected the sensor will send the data in the increments specified in the Record Unit box. The sensor will also conduct a check for the unspent data and resend the past data with the current data. When '60 mins.' is selected, hourly aggregated data will be sent every hour (60 mins.).
Record Unit	1, 5, 10, 15, 30, 60 mins.	1 min.	Specify the data recording units (aggregates data in specified minutes.) Eg. When 15 mins. is selected: the data will be sent 4 times within the hour every 15 mins.,. (1) 10:00:00 to 10:14:59, (2) 10:15:00 to 10:29:59, (3) 10:30:00 to 10:44:59. (4) 10:45:00 to 10:59:59 will be calculated and sent.
Record Output Format	Max. 128 characters	NULL	When "Null" the data is transferred in the standard format.

When the Transfer Records and Record Unit are set, Transfer Records divided by Record Unit number will be outputted.

e.g. When Transfer Records 600, Record Unit 15 is setup, 40 records will be outputted.

(4.1) Count Data File Format Settings

The output count data format follows the format specified at [Record Output Format] in the [FTP Transfer Operation] menu. When the "Count Data Transfer Format" is not specified (blank) the Count Data will be transferred in the standard format.

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(4.2) Count Data File Specifications:

- Count data records are saved per minute as 1 record in the sensor, the data will be output as 1 minute data or when the Record Unit is selected the data will be aggregated and output in the specified increment.
- Record will be arranged in sequence, starting from the oldest record to the most current record.

(4.3) Standard Format

When the “Count Data Transfer Format” is not specified (blank) the Count Data will be transferred in the following text format.

Format	
--------	--

The Output Contents of the Standard Format

Column	Content	Size	Description/Remarks
1	Store (Site) ID	0 - 16	* Will not be output when Store (Site) ID is not setup/entered.
2	Sensor Location (Spot) ID	0 - 16	* Will not be output when Sensor Location (Spot)ID is not setup/entered.
3	Device No.	8	Sensor’s Serial Number
4	Start Date/Time	0 - 32	“YYYYMMDDhhmm”
5	End Date/Time	0 - 32	“YYYYMMDDhhmm” When 5 min, 10 min, 15 min. 30 min, 60min aggregation is selected.
6	Record flag	1	“1”=Buffer (Fixed)
7	Status	1	“g”=Normal, “u”=Camera disconnected/faulty, “e”=In the process of setting Sensor
8	Count 1 IN	4	Number of people(Count Direction 1 IN) entering the area “0000” to “9999” *1 (refer next page)
9	Count 1 OUT	4	Number of people(Count Direction 1 OUT) leaving the area “0000” to “9999” *1 (refer next page)
10	Count 2 IN	4	Number of people(Count Direction 2 IN) entering the area “0000” to “9999” *1 (refer next page)
11	Count 2 OUT	4	Number of people(Count Direction 2 OUT) leaving the area “0000” to “9999” *1 (refer next page)
12	Count 3 IN	4	Number of people(Count Direction 3 IN) entering the area “0000” to “9999” *1 (refer next page)
13	Count 3 OUT	4	Number of people(Count Direction 3 OUT) leaving the area “0000” to “9999” *1 (refer next page)
14	Count 4 IN	4	Number of people(Count Direction 4 IN) entering the area “0000” to “9999” *1 (refer next page)
15	Count 4 OUT	4	Number of people(Count Direction 4 OUT) leaving the area “0000” to “9999” *1 (refer next page)
16	Carriage return	2	CR(0x0D) LF(0x0A)

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Example 2. Area T TYPE

Data String

```
Store_Main_Entrance000123452013053109591g00080002000800070005001000110005
Store_Main_Entrance000123452013053110001g00100005001100080004000500040006
Store_Main_Entrance000123452013053110011g00100015000500070009000400050010
```

DIRECTION1		DIRECTION2		DIRECTION3		DIRECTION4	
IN	OUT	IN	OUT	IN	OUT	IN	OUT
A=>B	B=>A	L=>A	A=>L	A=>R	R=>A	L=>R	R=>L
0008	0002	0008	0007	0005	0010	0011	0005
0010	0005	0011	0008	0004	0005	0004	0006
0010	0015	0005	0007	0009	0004	0005	0010

(4.4) Data Record Output Format Specifications

By specifying the required data format using the characters and numbers in the table below, the data records will be output in the specified order and content and the specified characters will be converted to the corresponding data indicated in the "Record Output Format Conversion Table". When a character is bracketed with single quotation marks " ' " the characters inside the single quotation marks will be output as it is.

When specified as above the data will be output in the specified format not the standard format.

Example if entered as: S,P,Y/M/D,h:m,C1,C2 ->
Data will be output as [Store ID, Spot ID,YYYY/MM/DD,hour:minute,Count1 IN,Count2 OUT]

Sample: Store ID: Store_A
Entrance ID: Entrance_1

File Sample

File name: C_Store_A_Main_Entrance_20130531_104834.txt

```
Store_A,Main_Entrance,2013/05/31, 09:59,0008,0002
Store_A,Main_Entrance,2013/05/31, 10:00,0010,0005
Store_A,Main_Entrance,2013/05/31, 10:01,0015,0010
:
```

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Record Output Format Conversion Table

No.	Conversion Character	Content	No. of characters of the replaced data	Description
1	S	Store(Site)ID	0-16	Store(Site)ID
2	P	Sensor Location (Spot) ID	0-16	Sensor Location (Spot) ID
3	N	Device Number	8	Sensor's Serial Number
4	Y	Start Record date: YEAR(4 Digits, western calendar)	4	Record date (YEAR) "2000" - "2099"
5	y	Start Record date: YEAR (Last 2 Digits, western calendar)	2	Record date (YEAR) "00" - "99"
6	M	Start Record date: MONTH	2	Record date (MONTH) "01" - "12"
7	D	Start Record date: DAY	2	Record date (DAY) "01" - "31"
8	h	Start Record date: HOUR	2	Record date (HOUR) "00" - "23"
9	m	Start Record date: MINUTE	2	Record date (MINUTE) "00" - "59"
10	eY	End Record date: YEAR(4 Digits, western calendar)	4	Record date (YEAR) "2000" - "2099"
11	ey	End Record date: YEAR (Last 2 Digits, western calendar)	2	Record date (YEAR) "00" - "99"
12	eM	End Record date: MONTH	2	Record date (MONTH) "01" - "12"
13	eD	End Record date: DAY	2	Record date (DAY) "01" - "31"
14	eh	End Record date: HOUR	2	Record date (HOUR) "00" - "23"
15	em	End Record date: MINUTE	2	Record date (MINUTE) "00" - "59"
16	U	Status	1	"g"=Normal, "u"=Camera disconnected/faulty, "e"=In the process of setting Sensor
17	C1	Count 1 IN	4	Number of people (Direction 1 IN) entering the area "0000" to "9999" *1
18	C2	Count 1 OUT	4	Number of people (Direction 1 OUT) leaving the area "0000" to "9999" *1
19	C3	Count 2 IN	4	Number of people (Direction 2 IN) entering the area "0000" to "9999" *1
20	C4	Count 2 OUT	4	Number of people (Direction 2 OUT) leaving the area "0000" to "9999" *1
21	C5	Count 3 IN	4	Number of people (Direction 3 IN) entering the area "0000" to "9999" *1
22	C6	Count 3 OUT	4	Number of people (Direction 3 OUT) leaving the area "0000" to "9999" *1
23	C7	Count 4 IN	4	Number of people (Direction 4 IN) entering the area "0000" to "9999" *1
24	C8	Count 4 OUT	4	Number of people (Direction 4 OUT) leaving the area "0000" to "9999" *1

*Refer to remarks for "Count (Direction 1 through 4)" on the page 33 for more details.

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(5) Sensor Status File Transfer Settings

Sensor Status File Transfer	
Enable	<input type="checkbox"/> Enable

Item	Range/Format	Default Value	Description
Status File Transfer	Enable/Disable	Disable	Tick the box to Enable to send the status file of the Sensor Unit.

- Output contents: Store ID, Sensor Location (Spot) ID, Device Number, Sensor Unit Date/Time, Time Zone, Status, Program Version, MAC Address, IP Address, Sensor Unit Activation Time
- A “,” (Comma) will be added between each column as a delimiter

(6) Delete Data Transfer History

To delete the past data transfer history, please check this option. We recommend using this function at the initial setup only, or in the event the user requires the data to be resent.

Data Transfer History	
Delete Transfer History	<input type="checkbox"/> Delete
<input type="button" value="Save Transfer Settings"/>	

(7) Save settings to the sensor unit

Click on the button to save the FTP settings to the sensor unit.

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10.2 HTTP Settings

Select HTTP to show the HTTP Settings Menu.

The Sensor Unit connects (Login) to a server and transfers the Count Data file transferred via TCP/IP.

Transfer Settings	
Data Transfer	<input type="radio"/> FTP / <input checked="" type="radio"/> HTTP / <input type="radio"/> Disable
Data ID	
Site ID	<input type="text" value="aaaaa"/>
Site Name	<input type="text" value="iiii"/>
Device ID	<input type="text" value="uuuuu"/>
Device Name	<input type="text" value="eeee"/>
HTTP Server Connection	
IP Address	<input type="text" value="175.184.18.244"/> IP Address or hostname
Protocol Type	<input checked="" type="radio"/> HTTP / <input type="radio"/> HTTPS
Login User Name	<input type="text"/>
Login Password	<input type="text"/>
Path	<input type="text" value="/node/"/>
SSL/TLS Version	<input checked="" type="checkbox"/> SSL 2.0 <input checked="" type="checkbox"/> SSL 3.0 <input checked="" type="checkbox"/> TLS 1.X
Port Number	<input type="text" value="80"/>
Retry	<input type="text" value="0"/> times(0-10) <input type="text" value="0"/> sec.(0-60)
<input type="button" value="Test HTTP Settings"/>	
Transfer Operation	
Time(hhmm)	<input type="text" value="0000"/> - <input type="text" value="0000"/>
Transfer Mode	<input type="radio"/> Cycle Mode Every <input type="text" value="0"/> mins(1-60) <input type="radio"/> Per Hour Mode Every hour at <input type="text" value="0"/> min(0-59)
Count Data Transfer	
Transfer	<input type="text" value="0"/> Record(s)(1-14400)
Data Transfer	<input checked="" type="radio"/> Transfer specified no. of records <input type="radio"/> Transfer the difference
Record Unit	<input type="text" value="1 min."/> ▾
Data Transfer History	
Delete Transfer History	<input type="checkbox"/> Delete
<input type="button" value="Save Transfer Settings"/>	

(1) Sensor Data ID

(2) HTTP Server Connection Parameters

(3) Transfer Operation

(4) Count Data Transfer

(5) Delete data transfer history

(6) Save settings to sensor unit

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(1) Data ID Settings

Data ID	
Site ID	<input type="text"/>
Site Name	<input type="text"/>
Device ID	<input type="text"/>
Device Name	<input type="text"/>

Items	Range/Format	Description
Site ID	Specify or Blank Max. 16 characters	Store/Site ID Attached to the transmitted file name and record
Site Name	Specify or Blank Max. 16 characters	Store/Site Name Attached to the transmitted file name and record
Device ID	Specify or Blank Max. 16 characters	Entrance/Device ID Attached to the transmitted file name and record
Device Name	Specify or Blank Max. 16 characters	Entrance/Device Name Attached to the transmitted file name and record

(2) HTTP Server Connection

HTTP Server Connection	
IP Address	<input type="text" value="175.184.18.244"/> IP Address or hostname
Protocol Type	<input checked="" type="radio"/> HTTP / <input type="radio"/> HTTPS
Login User Name	<input type="text"/>
Login Password	<input type="text"/>
Path	<input type="text" value="/node/"/>
SSL/TLS Version	<input checked="" type="checkbox"/> SSL 2.0 <input checked="" type="checkbox"/> SSL 3.0 <input checked="" type="checkbox"/> TLS 1.X
Port Number	<input type="text" value="80"/>
Retry	<input type="text" value="0"/> times(0-10) <input type="text" value="0"/> sec.(0-60)
<input type="button" value="Test HTTP Settings"/>	

Item	Range/Format	Description
IP Address	0.0.0.0-255.255.255.255 or hostname	HTTP Server's IP Address or hostname
Protocol Type	2 Selections-HTTP-HTTPS	HTTP Protocol Type
Login User Name	Max. 63 characters	HTTP Server Login User Name
Login Password	Max. 63 characters	HTTP Server Login User Password
Path	Max. 63 characters	HTTP Transfer destination's directory name
SSL/TLS Version	3 Selections - SSL2.0 - SSL3.0 - TLS1.X	Select Certification Type
Port Number	80	HTTP Command Port Change only if necessary.
Retry times	3	Number of retry(s) during Connection/Data Transfer Failure * When the connection failure is due to user/password error retry will not be performed.
Retry sec.	10	Retry interval (in sec.) of connection/data transfer failure

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*After inputting the parameters, Click the **Test HTTP Settings** button to check whether the sensor can communicate with the server. A test file will be sent to the designated location. When communication is established successfully, the below message will appear.

Server Connection Confirmed.
Please save Transfer settings.

If the inputted parameters are incorrect (cannot establish connection), the message below will show. Please reenter the parameters and check again until transfer is confirmed.

Connection failed.
Check IP Address, Protocol Type, Login User Name/Password, Command Port.

(3) HTTP Transfer Operation Settings

Transfer Operation	
Time(hhmm)	<input type="text" value="0000"/> - <input type="text" value="2400"/>
Transfer Mode	<input checked="" type="radio"/> Cycle Mode Every <input type="text" value="60"/> mins(1-60)
	<input type="radio"/> Per Hour Mode Every hour at <input type="text" value="10"/> min(0-59)

Item	Range/Format	Default Value	Description
Time(hhmm) Period to transfer data via HTTP	0:0-23:59 to 0:0-47:59	0000 - 2400	HTTP File Transfer time range

The timing to transfer the files can be chosen from the following two options.

- Periodical Transfer (Cycle Mode): Transfer at every specified time (in min.).
- Hourly Transfer (Per Hour Mode): Generated hourly at a set time (min.).

Cycle Mode (Periodical Transfer)		-	Transfer Operation Mode's data transmission cycle time (specify in minutes) Example:10 = Data is transferred every 10 minutes.
Per Hour Mode (Hourly Transfer)		00 (Transfer every hour at 00 min.)	Transfer Operation Mode's hourly data transfer time (min.) Example: "05" = Data transferred at every hour at 05 minutes. (9:05, 10:05 ...)

If connection failure occurs and after Retry Connection Failure has been confirmed, the next connection/data transfer will be carried out at the next periodic transfer interval.

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(4) Count Data Transfer Settings

Count Data Transfer	
Transfer	<input type="text" value="1440"/> Record(s)(1-14400)
Data Transfer	<input checked="" type="radio"/> Transfer specified records. <input type="radio"/> Transfer the Difference.
Record Unit	<input type="text" value="1 min."/> ▾
Format	<input type="text"/>

Item	Range/Format	Default Value	Description
Transfer Records	1-14400 Records	1440 (One day)	Indicate the number of required records to transfer (transfer specified records mode) (Max. 14400 records)
Data Transfer	2 Options	Transfer specified records	<p>(1) Transfer Specified records Transfers only the specified number of records indicated in the above box. Eg. 60 records are selected then only 60 records will be sent at each specified interval.</p> <p>(2) Transfer the Difference When this option is selected the sensor will send the data in the increments specified in the Record Unit box. The sensor will also conduct a check for the unsend data and resend the past data with the current data. When '60 mins.' is selected, hourly aggregated data will be sent every hour (60 mins.).</p>
Record Unit	1, 5, 10, 15, 30, 60 mins.	1 min.	<p>Specify the data recording units (aggregates data in specified minutes.) Eg. When 15 mins. is selected: the data will be sent 4 times within the hour every 15 mins.,.</p> <p>(1) 10:00:00 to 10:14:59, (2) 10:15:00 to 10:29:59, (3) 10:30:00 to 10:44:59. (4) 10:45:00 to 10:59:59 will be calculated and sent.</p>

When the Transfer Records and Record Unit are set, Transfer Records divided by Record Unit number will be outputted.

e.g. When Transfer Records 600, Record Unit 15 is setup, 40 records will be outputted.

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(5) XML data file sample

HTTP Transfer send the data as an XML file.

```
<?xml version="1.0"?>
<Metrics SiteId="STORE B" SiteName="STORE B" DeviceId="500051" DeviceName="Entrance A">
  <Properties>
    <Version>5030</Version>
    <SensorTime>2016-11-10 16:55:44</SensorTime>
    <MacAddress>00:1E:DB:01:79:E3</MacAddress>
    <IpAddress>192.168.0.74</IpAddress>
    <HostName>192.168.2.236</HostName>
    <HwPlatform>VC-1050 </HwPlatform>
    <Timezone>+09:00</Timezone>
    <IANA>Asia/Tokyo</IANA>
    <Dst>0</Dst>
    <DeviceType>0</DeviceType>
    <SerialNumber>00500051</SerialNumber>
    <BootTime>2016-11-10 16:34:07</BootTime>
  </Properties>
  <ReportData Interval="5">
    <Report Date="2016-11-10">
      <Count Id="0" StartTime="16:50:00" EndTime="16:55:00" Enters="0" Exits="0" Status="GG"/>
      <Count Id="1" StartTime="16:50:00" EndTime="16:55:00" Enters="0" Exits="0" Status="GG"/>
      <Count Id="2" StartTime="16:50:00" EndTime="16:55:00" Enters="0" Exits="0" Status="GG"/>
      <Count Id="3" StartTime="16:50:00" EndTime="16:55:00" Enters="0" Exits="0" Status="GG"/>
    </Report>
  </ReportData>
</Metrics>
```

XML Data File Contents

Item		Description
<Metrics>	Site ID	Store ID
	Site Name	Store name
	Device ID	Entrance ID
	Device Name	Entrance name
<Version>		Firmware Version
<SensorTime>		Current time of the sensor clock
<MacAddress>		Mac Address for sensor unit
<IpAddress>		IP Address for sensor unit
<HostName>		Host Name for data transfer destination
<HwPlatform>		Hardware Platform
<Timezone>		Timezone
<IANA>		IANA time zone code
<Dst>		Daylight Savings Time (Summer Time)
<DeviceType>		Device Type
<SerialNumber>		Serial Number for sensor unit
<BootTime>		Hardware reboot time
<ReportData Interval>		Interval of data collection unit
<Report Date>		Date of report data
<Count>	ID	Count ID No. is 0 to 3 (depends on direction settings)
	Start Time	Count Starting Time
	End Time	Count Ending Time
	Enters	No. of Enters (IN)
	Exits	No. of Exits (OUT)
	Status	Sensor Status is indicated as below. "g"=Normal, "u"=Camera disconnected/faulty, "e"=In the process of setting Sensor

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(6) Delete Data Transfer History

To delete the past count data transfer history, please check this option. **We recommend using this function at the initial setup only, or in the event the user requires the past data to be resent.**

Data Transfer History	
Delete Transfer History	<input type="checkbox"/> Delete
<input type="button" value="Save Transfer Settings"/>	

(7) Save settings to the sensor unit

Click on the button to save the HTTP settings to the sensor unit.

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11. Streaming Settings

Click on the **Streaming Settings** tab to setup required settings to enable video streaming.
 Click on Enable: the setup screen will appear.
 Enter the IP Address to send the video streams in the [Send] column.
 Click on the **Save Streaming Settings** button to save the settings.

Note: When the streaming feature is enabled, depending on the network environment and bandwidth the network may slowdown. We recommend enabling this feature when only required to stream the sensor video and disable this feature when not in use.

Streaming Settings	
Streaming Settings	
Streaming	<input type="radio"/> Enable / <input checked="" type="radio"/> Disable
<input type="button" value="Save Streaming Settings"/>	
Streaming Settings	
Streaming Settings	
Streaming	<input checked="" type="radio"/> Enable / <input type="radio"/> Disable
Send	
IP Address	<input type="text" value="192"/> . <input type="text" value="168"/> . <input type="text" value="0"/> . <input type="text" value="38"/>
Port Number	<input type="text" value="5000"/>
Stream Quality	
Quality	<input checked="" type="radio"/> VGA (640 * 480) / <input type="radio"/> QVGA (320 * 240)
Frame Rate	<input type="text" value="30"/> ▼
Codec Type	<input checked="" type="radio"/> H.264 / <input type="radio"/> MPEG-4
<input type="button" value="Save Streaming Settings"/>	

!! Please be sure to set the streaming IP address to a valid address.
 Enable the Streaming Settings only when using this option. Depending on the users network environment the network speed may be effected.

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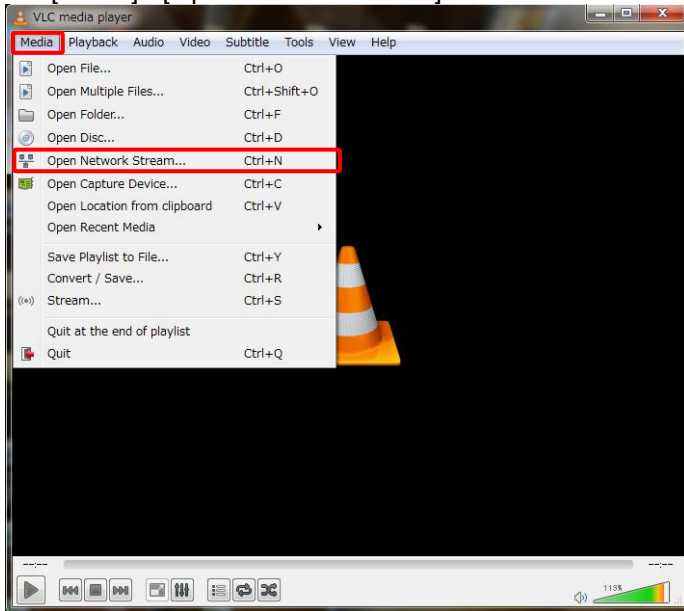
To stream the video, please use VLC MEDIA PLAYER.

<http://www.videolan.org/vlc/>

* We cannot guarantee that all versions of this third party software will stream the video, some versions may not be compatible.

How to view the streaming feed:

- (1) Activate the VLC MEDIA PLAYER.
- (2) Select [Media]->[Open Network Stream]

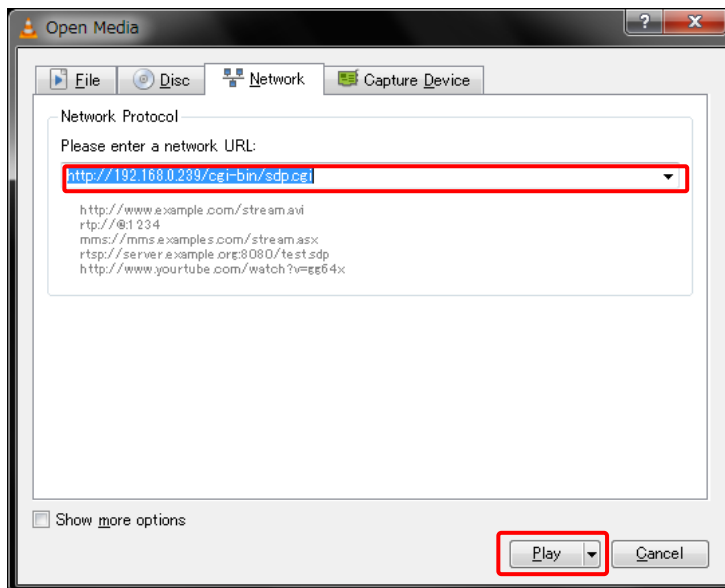


- (3) Open Media window will appear. Select the [Network] tab.
- (4) Enter the network URL.

<http://SENSOR UNIT IP ADDRESS/cgi-bin/sdp.cgi>

If the Sensor Unit IP address is: 192.168.0.239

Enter <http://192.168.0.239/cgi-bin/sdp.cgi>

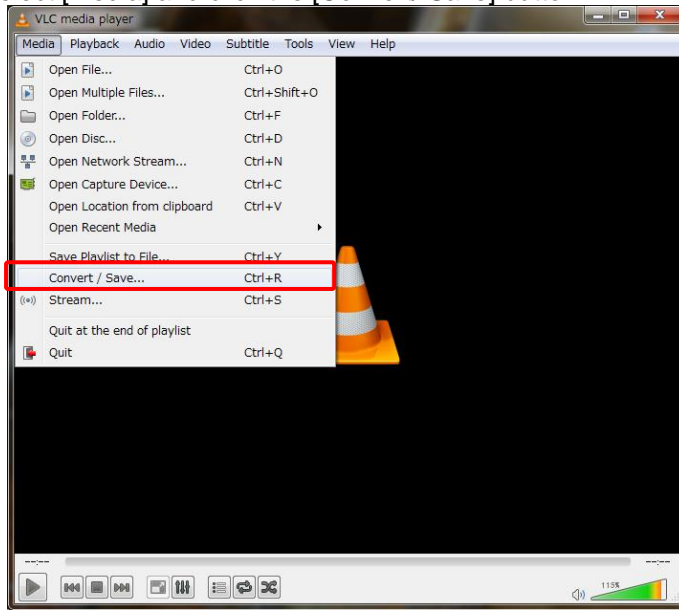


- (5) Click on the [Play] button.
- (6) The live video feed of the sensor will be streamed.

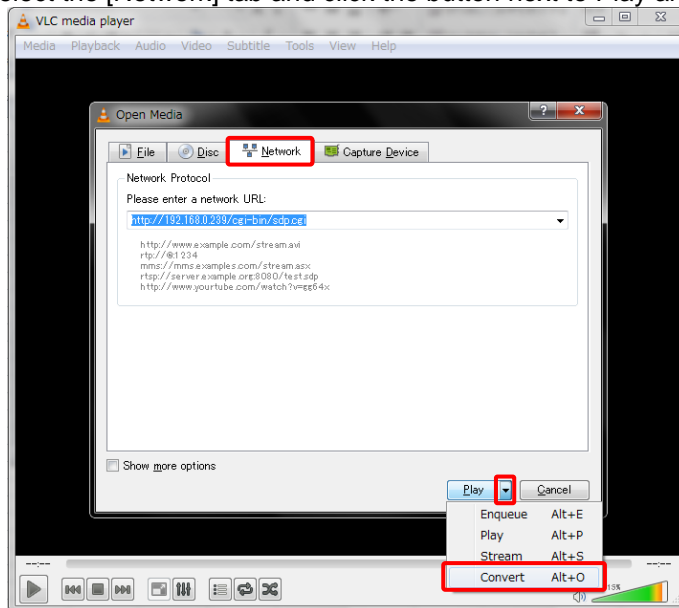
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How to Record the streaming feed:


(1) Select [Media] and click the [Convert/ Save] button.

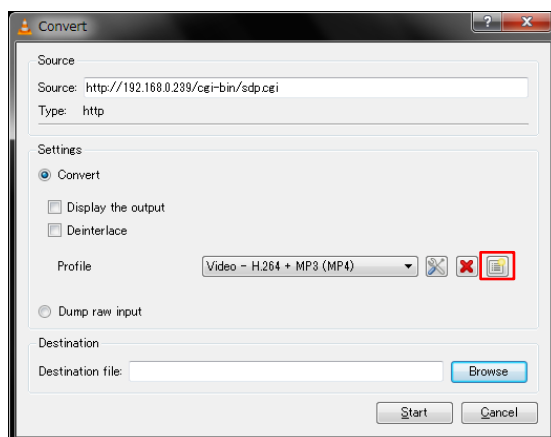


(2) Select the [Network] tab and click the button next to Play and Click [Convert].



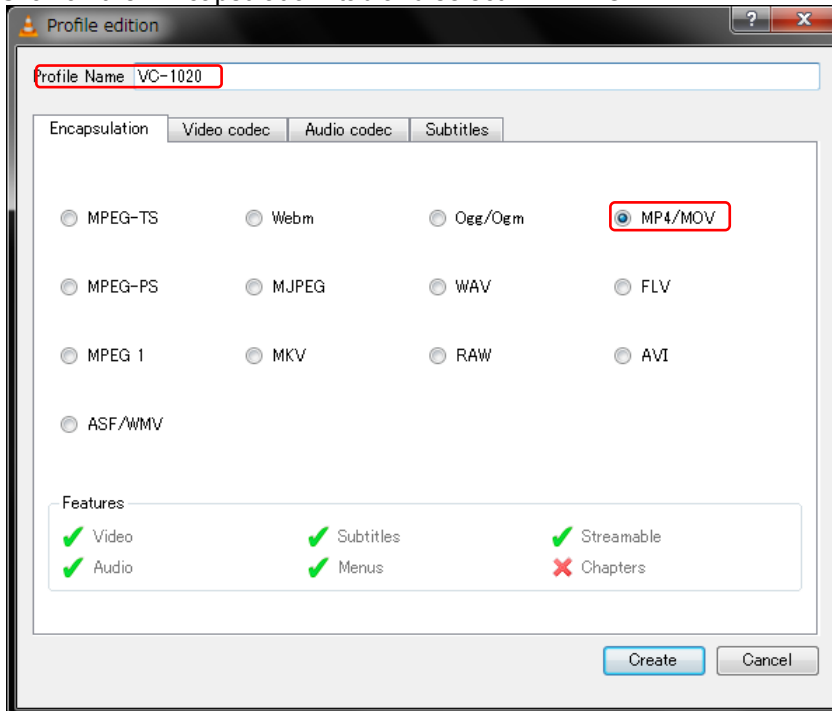
NOTE: When recording for the first time, a profile for VC Series needs to be created.

(1) Click on  icon to create a new profile.

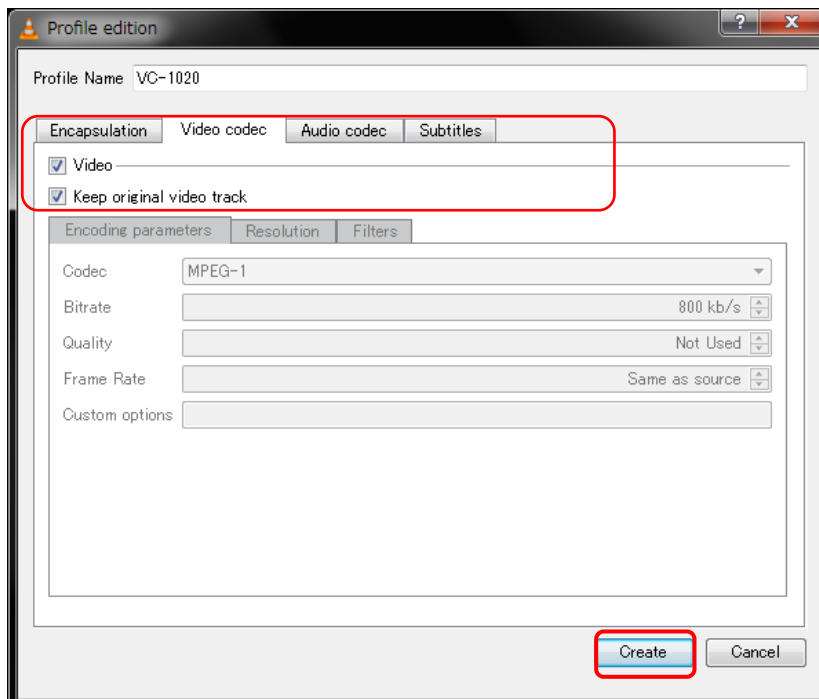


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- (2) Enter the profile name as "VC-1010 or VC-1020 VC-1050".
- (3) Click on the "Encapsulation" tab and select "MP4/MOV"

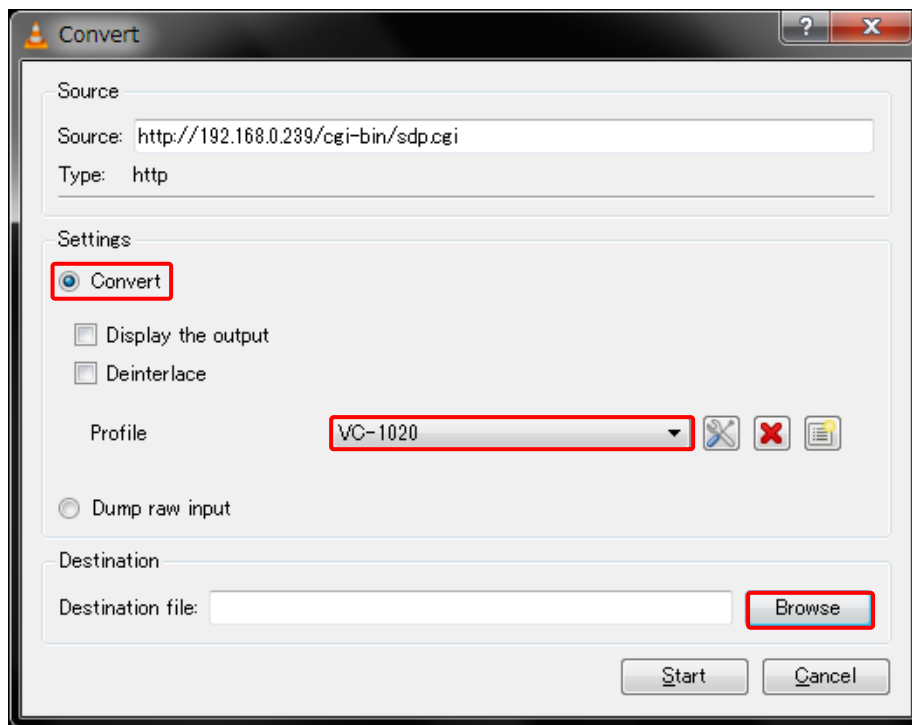


- (4) Next select the "Video codec" tab and tick ON boxes of "Video" and "Keep original video track".
 - (5) Click on the "Create" button.
- After a profile is made this VC1010/VC-1020 profile can be selected from the pull down list.



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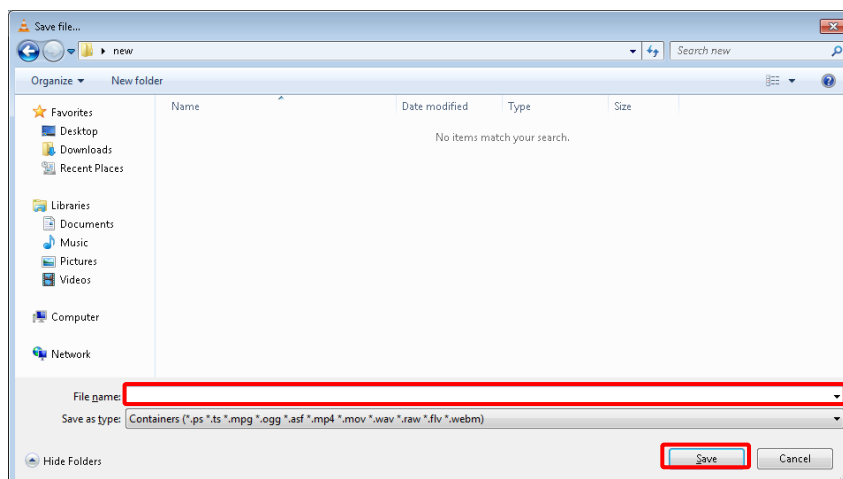
- (6) Select the Convert button and select the profile [VC-1010 or VC-1020, VC-1050].
Click [Browse] to designate the Destination file.
*To show the streaming feed while recording, check ON the [Display the output].



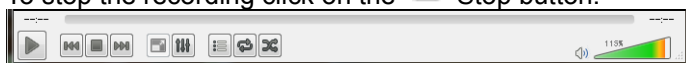
- (7) Designate the location to save and the file name and click on “Save”
Example: StoreA_20140311.**mp4**

(IMPORTANT: Please add the extension “**mp4**” to the end of the file name. When the extension is not designated the file will be saved in “ps” format.)

Click on “Save” the recording will start.



- (8) To stop the recording click on the “■” Stop button.



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12. Advanced Settings

Click on the **Advanced** tab to import/export the Count Area and Transfer Settings.

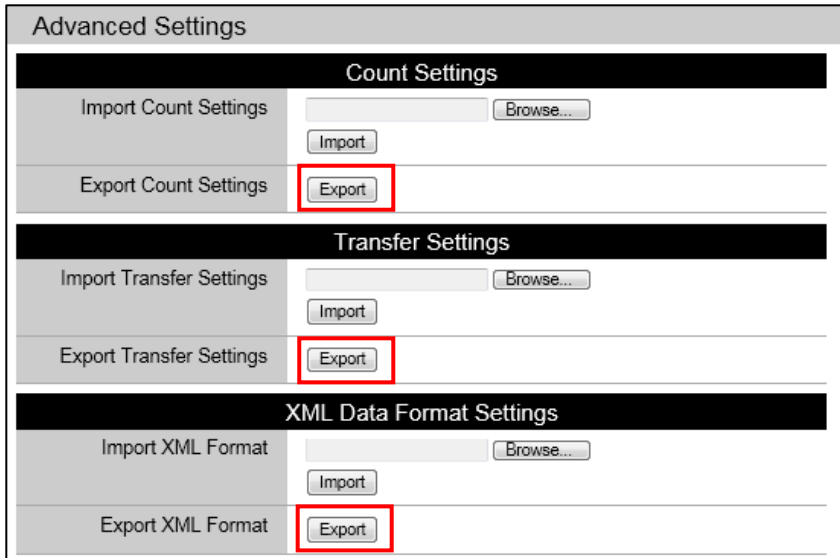
This option also enables the High Mode installation by entering a license key, option to delete the count data stored on the sensor and a feature to schedule a sensor reset.

Use this function to save the various settings for maintenance purposes etc.

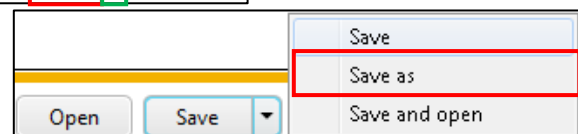
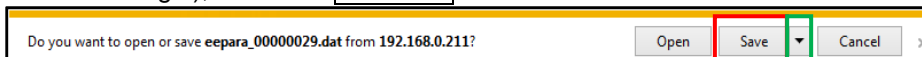
Advanced Settings	
Count Settings	
Import Count Settings	<input type="text"/> 参照... <input type="button" value="Import"/>
Export Count Settings	<input type="button" value="Export"/>
Transfer Settings	
Import Transfer Settings	<input type="text"/> 参照... <input type="button" value="Import"/>
Export Transfer Settings	<input type="button" value="Export"/>
XML Data Format Settings	
Import XML Format	<input type="text"/> 参照... <input type="button" value="Import"/>
Export XML Format	<input type="button" value="Export"/>
Installation Mode Settings	
License Key	<input type="text"/> <input type="button" value="Register"/>
Installation Mode	<input checked="" type="radio"/> Standard Mode (Height 2.3 - 4.2m / 7.54-13.77 ft.) <input type="radio"/> High Mode (Height 4.0 - 6.0m / 13.12-19.68 ft.) <input type="button" value="Save Settings"/>
Count Buffer Clear	
Count Buffer Clear	<input type="button" value="Clear"/>
Auto Sensor Reset	
Reset	<input type="radio"/> Disable / <input checked="" type="radio"/> Firmware / <input type="radio"/> Hardware
Time(hhmm)	<input type="text" value="0200"/>
<input type="button" value="Save Reset Settings"/>	

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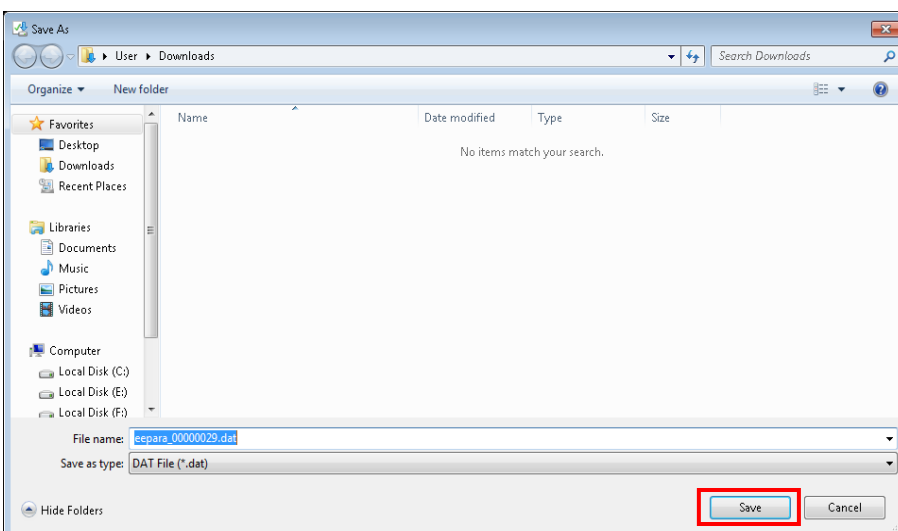
(12-1) Exporting the Count Settings / Transfer / XML Settings files



Click on the **Export** button of the Count Settings, Transfer Settings or XML Format Settings. On the bottom of the browser, the following message will appear, click on the button next to Save (the inverted triangle), and click **Save as**.



Select a location to save the files and save the setting files by clicking **Save**.



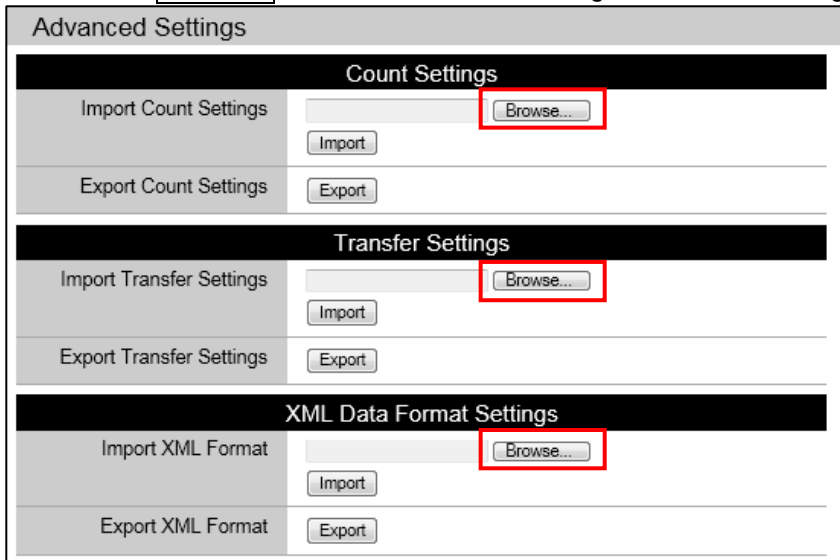
*The default file name is as indicated below. Change the file name according to your needs.

Count Settings(count area file)	eepara_ ssssssss.dat (sssssss= Serial No.)
Transfer Settings (Transfer setup file)	transferpara

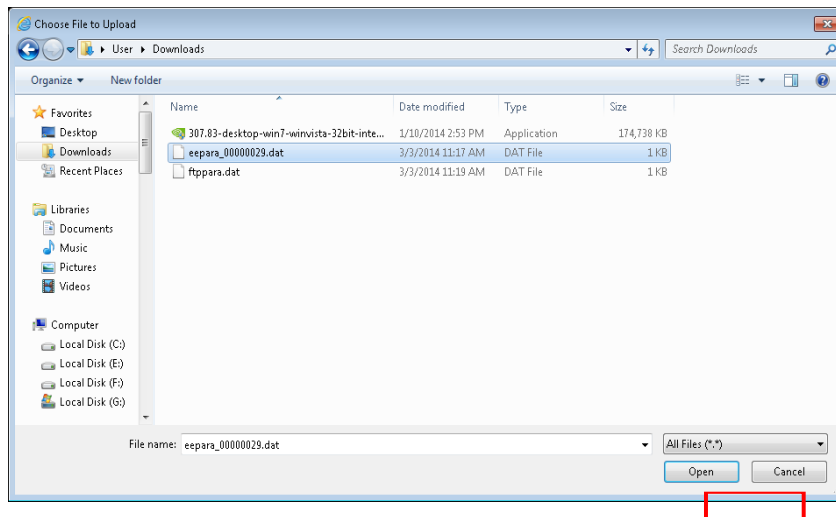
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(12-2) Importing the Count Settings / Transfer / XML Settings files

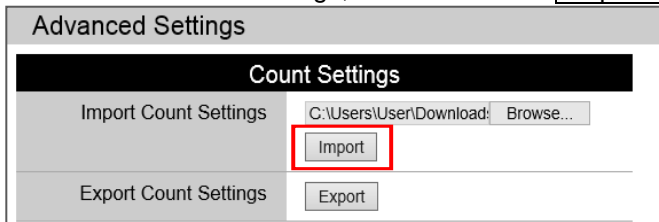
Click on the **Browse** button of the Count Settings or Transfer Settings.



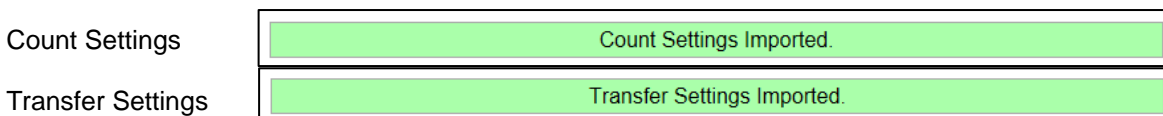
Designate the location of the file to load and select the file to import. Then click on **Open**.



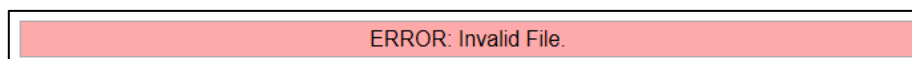
Return to Advanced Settings, and click on the **Import** button.



When the file is uploaded normally, the following message will appear.



If an importing error occurs, the following message will appear. Check the file and try to import again.



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(12-3) Installation Mode Settings

The default mode is Standard Height Mode.

To enable High Mode, enter a license key issued by the supplier etc. The mode will switch to High Mode (4m to 6m), once the license key is entered the modes can be switched between standard and high modes.

*To use high mode, please contact your distributor.

(1) Input the License Key in the box, and Click the [Register] button.

Installation Mode Settings	
License Key	<input type="text"/> <input type="button" value="Register"/>
Installation Mode	<input checked="" type="radio"/> Standard Mode (Height 2.3 - 4.2m) <input type="radio"/> High Mode (Height 4.0 - 6.0m) <input type="button" value="Save Settings"/>

(2) When the key is entered correctly, the following message [License Key is already registered] will appear.

Check the [High Mode] button, the High Mode has now been activated.

Installation Mode Settings	
License Key	License key is already registered.
Installation Mode	<input type="radio"/> Standard Mode (Height 2.3 - 4.2m) <input checked="" type="radio"/> High Mode (Height 4.0 - 6.0m) <input type="button" value="Save Settings"/>

To setup the count area using high mode refer to (7-4-2) [Sensor Height].

(12-4) Count Buffer Clear

By clicking on the [Clear] button all the count data stored on the sensor will be deleted.

The data cannot be restored once deleted therefore please check that the system will not be affected before deleting the data.

Count Buffer Clear	
Count Buffer Clear	<input type="button" value="Clear"/>

(12-5) Auto Sensor Reset

This is an option to reset the Hardware or the Firmware at a scheduled time.

Specify the Time(hhmm) to reset the sensor.

The Hardware reset will take about 30 seconds to reboot, we recommend that the reset time be scheduled during the store is closed so not to disrupt the counting.

Auto Sensor Reset	
Reset	<input type="radio"/> Disable / <input checked="" type="radio"/> Firmware / <input type="radio"/> Hardware
Time(hhmm)	<input type="text" value="0200"/>
<input type="button" value="Save Reset Settings"/>	

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13. Password Settings

To change the User or Administrator password click on the **Password Settings** tab to jump to the Password Settings page.

- ! Please have the administrator (or person in charge of the counting system) change the password.
- ! After the password has been changed and if one forgets the password; the password cannot be reset by the user. Please take care not to forget the password.

Password Settings	
User Password Settings	
New Password (1-16 characters)	<input type="text"/>
Reenter New Password	<input type="text"/>
<input type="button" value="Change"/>	
Administrator Password Settings	
Current Password (1-16 characters)	<input type="text"/>
New Password (1-16 characters)	<input type="text"/>
Reenter New Password	<input type="text"/>
<input type="button" value="Change"/>	

Changing User's password

Enter new password.

For confirmation purpose, please reenter the new password.

Click on the **Change** button to change.

Changing Administrator's password

Enter the current password.

Enter new password.

For confirmation purpose, please reenter the new password.

Click on the **Change** button to change.

14. Logout

When settings and count checks are completed, select **Logout** tab to logout.

Setup Check Sheet

STORE NAME: _____

STORE ID: _____

No.	Sensor Device No.	IP ADDRESS	Entrance		Installed Height	Setup Check	Remarks
			Name	ID			
1		. . .					
2		. . .					
3		. . .					
4		. . .					
5		. . .					
6		. . .					
7		. . .					
8		. . .					
9		. . .					
10		. . .					
11		. . .					
12		. . .					
13		. . .					
14		. . .					
15		. . .					
16		. . .					
17		. . .					
18		. . .					
19		. . .					
20		. . .					
21		. . .					
22		. . .					
23		. . .					
24		. . .					
25		. . .					

Sensor Setup (Static)

Subnet Mask	. . .
Default Gateway	. . .
DNS	. . .

End User PC

IP	. . .
Subnet Mask	. . .
Default Gateway	. . .

Time Settings

SNTP	. . .
Time Zone	

Firmware Version	Ver.
------------------	------

Transfer Settings

Data Transfer	FTP / HTTP
IP ADDRESS	. . .
Procotol Type	
User name	
Directory / Path	/ /
Mode	Active / Passive -
Transfer Mode	<input type="checkbox"/> Cycle Mode mins
	<input type="checkbox"/> Per Hour Mode min
Data Transfer	<input type="checkbox"/> Specified no. of records <input type="checkbox"/> Difference
Record Unit	min.
Data Format	-

Setup Engineer: _____

Date: _____