

# People Counting Camera Installation Guide

Q960, Q961, Q962

2019/08/02



**ACTi**  
Connecting Vision

The following documentation covers the installation and configuration of your device.

**NOTE:** The accuracy of the analytics algorithm may be affected by different environmental factors or inappropriate installation. Please follow the procedures in this installation guide. ACTi will not be held liable for inaccuracies resulting from the aforesaid causes.


## Part 1: Installation Specification

### 1. Model and counting width

The counting width depends on the installation height. The recommended installation height for dual-lens camera is less than 4.0m (13.1ft). The specific corresponding relation shown below:

Model	Installation height (m/ft)	Max. counting width (m/ft)	Without doorframe	With doorframe
Q960	2.5/8.2	1.8/5.9	Placed in the middle	0.68m(2.2ft) to door Placed in the middle
	3.0/9.8	2.9/9.5	Placed in the middle	1.1m(3.6ft) to door Placed in the middle
	3.5/11.5	4.0/13.1	Placed in the middle	1.52m(5.0ft) to door Placed in the middle
Q961	3.0/9.8	2.2/7.2	Placed in the middle	0.85m(2.8ft) to door Placed in the middle
	3.5/11.5	3.1/10.2	Placed in the middle	1.17m(3.8ft) to door Placed in the middle
	4.0/13.1	4.0/13.1	Placed in the middle	1.5m(4.9ft) to door Placed in the middle
Q962	4.0/13.1	2.8/9.2	Placed in the middle	1.05m(3.4ft) to door Placed in the middle
	4.5/14.8	3.4/11.2	Placed in the middle	1.28m(4.2ft) to door Placed in the middle
	5.0/16.4	4.0/13.1	Placed in the middle	1.5m(4.9ft) to door Placed in the middle

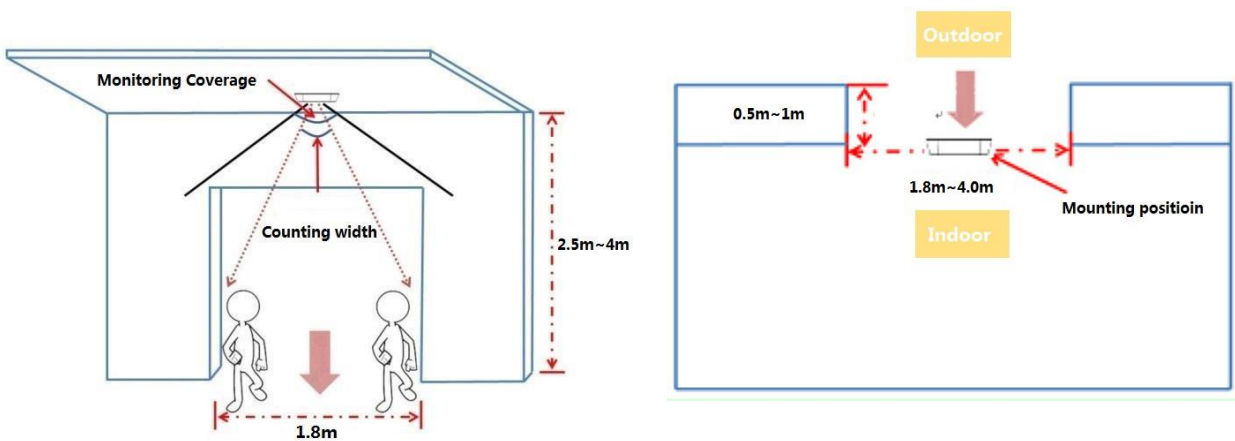
## 2. Package Contents

Camera	Mounting Base
	
Quick Start Guide	Screw Kit
	

## Part 2: Installation Steps

### 1. Installation

Please pay great attention to the mounting position. Inappropriate mounting position may cause loss of accuracy. The recommended mounting position is shown below:



Horizontal sketch map of mounting position

Vertical sketch map of mounting position



Effect picture after installation

**Notice:** Avoid the reflective environment (ex: Marble floor)

Make sure the camera is mounted vertically above the passenger flow (90°vertical by the ground), see picture below:



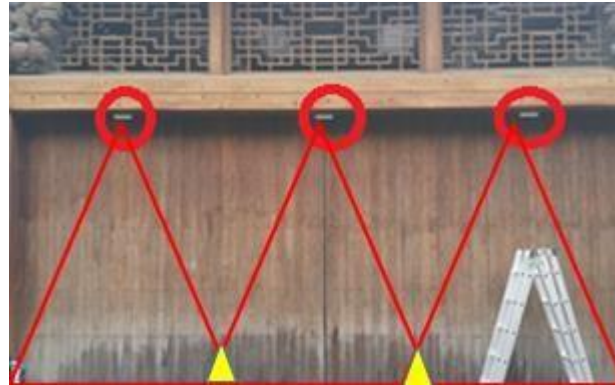
*Passenger flow (perpendicular to the door)*

For some scenarios where there are multiple cameras, mount the cameras according to two rules.

- ✓ **Rule one:** If there are turnstiles, each camera should be mounted to monitor certain turnstile



- ✓ **Rule two:** If there is no turnstile, at first, mount the cameras in one line, and make sure the cameras have the same focal length. Then, keep a proper distance between each camera according to the overlap (see the yellow area below) of the adjacent two cameras' counting width. The suggested overlapping length is between 0.2-0.5m.



*Sketch map of multiple cameras installation*

**Notice:**

- 1) People flow should be in vertical up-and-down direction



*Passenger flow in horizontal direction (wrong)*

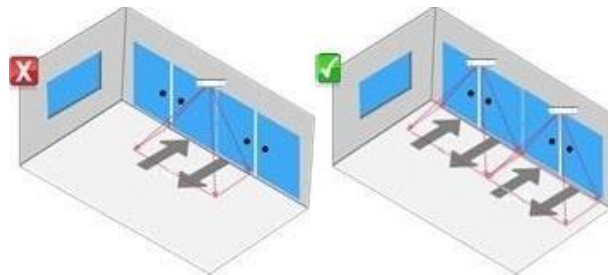


Passenger flow in slant direction (wrong)

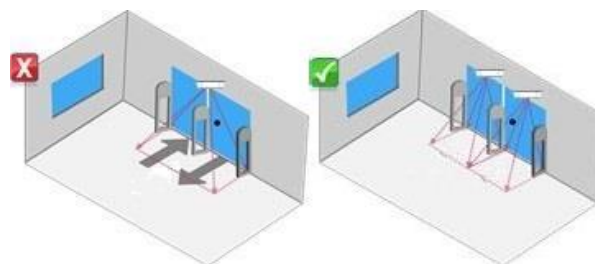


Passenger flow in vertical up-and-down direction (right)

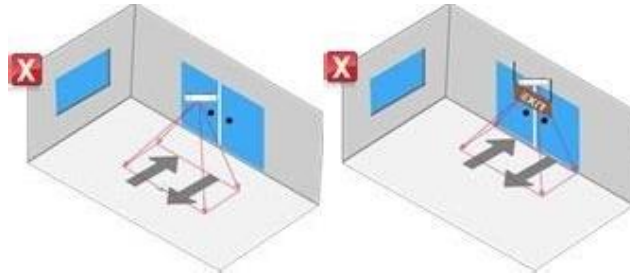
2) Passageway width should be within camera's counting width



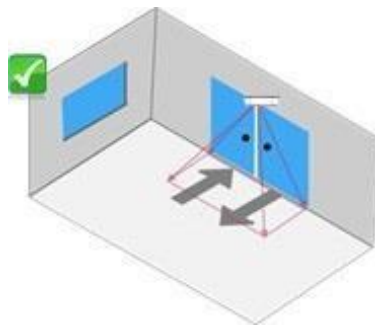
3) Avoid obstacles such glass door, shield door and turnstile that block the camera. For Each divided passageway, mount one camera right above.



4) The camera should be mounted as close as possible to the passageway without obstacle. Remove the obstacle or adjust the camera mounting position if there is obstacle below the camera. Meanwhile, to prevent miscounting, if there's a sliding door onsite, make sure the trajectory of the sliding door does not overlap the detection line. Otherwise, the counting number may be misled by the door opening and closing



*Too far away from the door / Obstacle below camera*

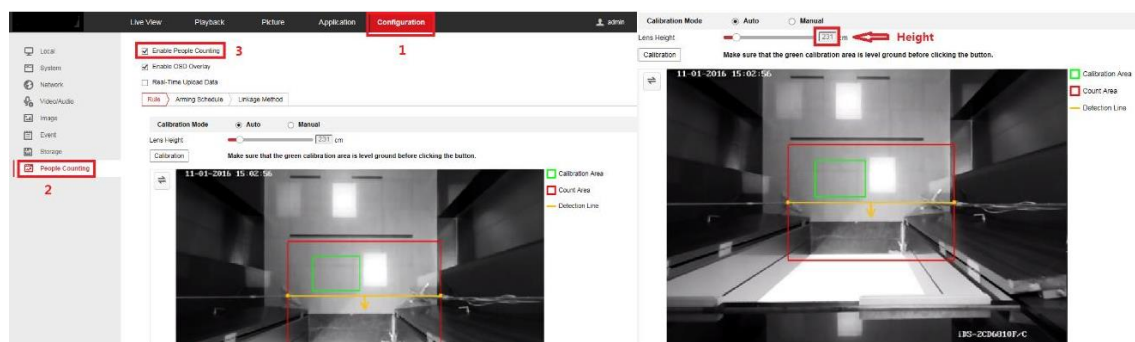


*Recommended installation*

## 2. Configuration for single camera

**Step 1:** Enable People Counting: check [Configuration]-[People Counting]-[Enable People Counting]

**Step 2:** Calibration- Select the green box, drag it to proper location and click [Calibration]. After this, “Height” in the configuration page will refresh (close to the real height). A red box, which means the counting scope, and yellow detection line will turn up. The arrow shows the direction of entering. See picture below:



**Notice:** If auto calibration fails, switch to [Manual] and input the measured “Height”, then click [Calibration].

**Step 3:** Detection line: move the detection line to proper location, about 0.5m to the door. Then adjust the length of detection line to the real door’s width by dragging the detection line’s two ends. See picture below:



**Notice:** You should make the whole detection line in the same ground level or it may lose accuracy.

Step 4: Save configuration and test. After configuration, click [save] and test. If miscounting happens, slightly adjust the detection line's location and length.

### 3. Configuration for multiple cameras

Step 1: Do configuration for each camera following the steps above

Step 2: Move each camera's detection line and connect the ends of adjacent lines. Some objects could be placed on the image border for reference. See picture below:



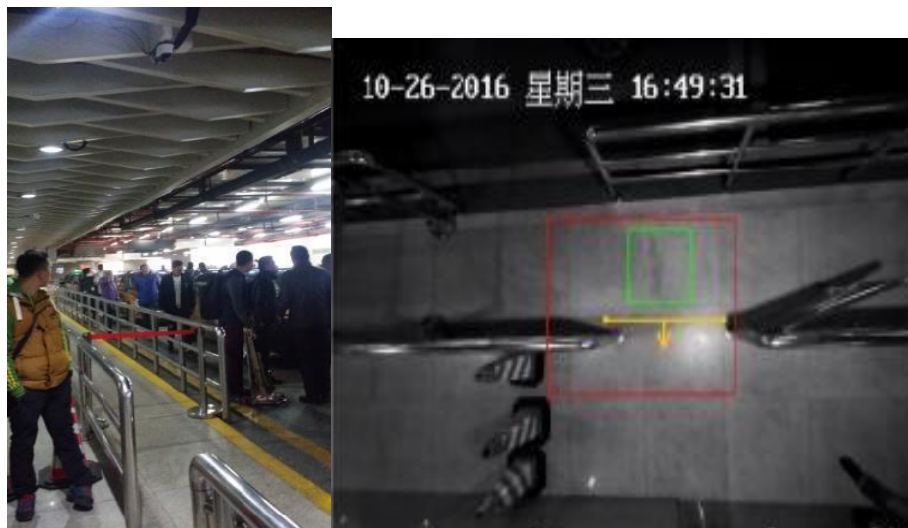
*Configuration of each detection line*

### Part 3: Application Scenario

The application scenario and the mounting position are very important to the people counting accuracy. Usually the camera is mounted above the passageway and the door. Below shows the mounting position and configuration for two typical examples:



*Mounting position and configuration for supermarket*



*Mounting position and configuration for subway*



Copyright © 2019, ACTi Corporation All Rights Reserved  
7F, No. 1, Alley 20, Lane 407, Sec. 2, Ti-Ding Blvd., Neihu District, Taipei, Taiwan  
114, R.O.C.

TEL : +886-2-2656-2588    FAX : +886-2-2656-2599

Email: [sales@acti.com](mailto:sales@acti.com)