

## TAILGATE DETECTOR INSTALLATION SHEET

**For full Installation and configuration instructions please refer to the Tailgate Detector Installation Guide IPU 40082 (included on the Tailgate Detector Set-up Software CD)**

### 1. Detector Location - Tailgate Mode

Correct performance of the Tailgate Detector requires that all individuals moving into the secure area can be counted, and that spurious counts created by people loitering near the doorway are avoided. The positions of the detector and the virtual count line should be determined accordance with the following guidelines.

In corridor-like scenarios (doorway A Figure 1) where the full width of the scene is within the detector's **minimum detection width** (see Table 1), position the detector away from the door on its secure side. The position of the virtual count line should be outside the arc of the door but close enough that entry will be detected before the corresponding access event is timed out. Ideally the count line will be immediately below the detector for maximum discrimination between people.

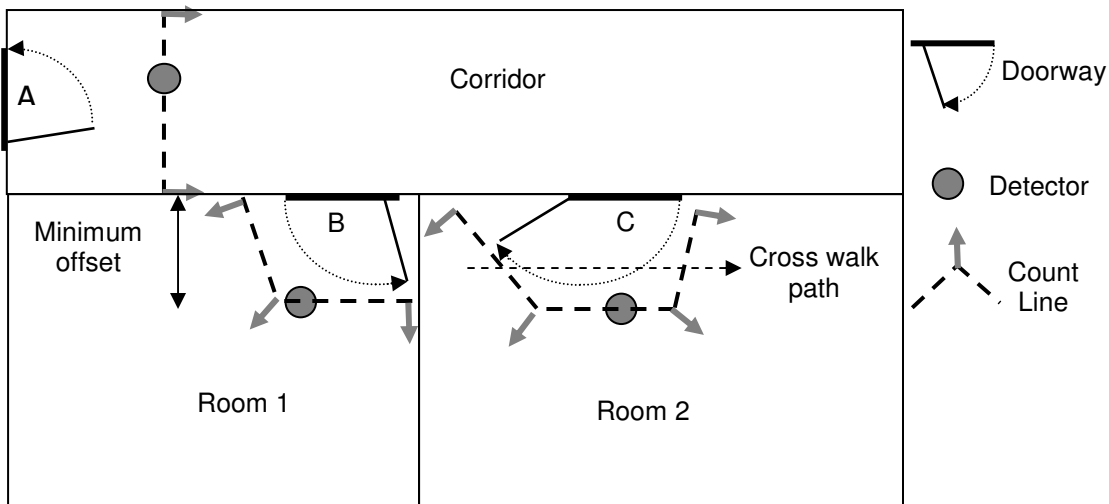


Figure 1

Where a doorway is being monitored and the full width of the scene is not within the detector's **minimum detection width** (doorways B and C), position the detector such that the count line can be shaped around the doorway, ensuring that all individuals entering can be detected, it is important that the detector is positioned no further from the wall incorporating the door than indicated by the "Offset from wall" in Figure 2. In normal circumstances, the detector should be positioned with respect to the doorway such that the region of possible entry positions is central in the field of view.

When the mounting height gives rise to a reduced detection width and single-leaf doors with restricted opening are to be monitored, the detector's horizontal alignment should be biased towards the side of the doorway away from the hinges (see Room 1), to improve the coverage of targets moving parallel to the doorway. The count line must be positioned such that it lies outside the region of the field of view into which the door opens to minimise the potential for false alarms associated with the motion of door leaves, as shown in Figure 1.

In the Room 2 scenario care should be taken to install the detectors so that people do not have to walk between the detector and the doorway, as shown by the dotted arrow, as this could give rise to unwanted tailgate alarms. The risk can be minimised by ensuring that both return arms of the count line approach the wall, so that a cross-walker crosses first from the secure side of the line.

In general, the performance of the detector can be maximised by positioning the virtual count line to avoid areas where: -

- individuals may loiter
- other objects (e.g. doors) move
- temperature change may occur (e.g. patches of carpet illuminated by sunlight)

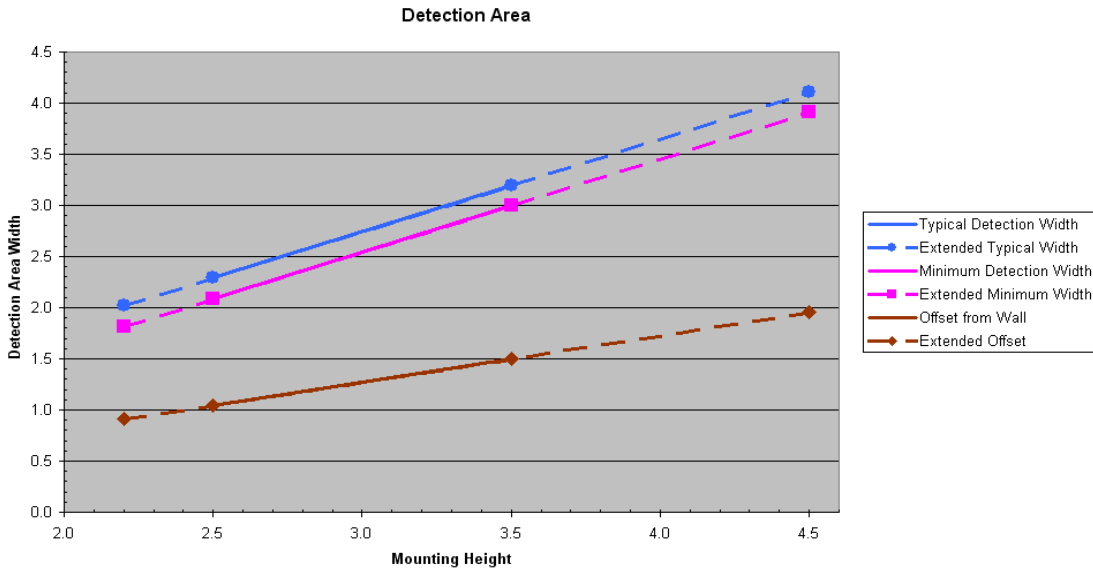


Figure 2

## 2. Installation

- 2.1 Detach the detector from its base by twisting anticlockwise and gently pulling apart (Figure 3).
- 2.2 Select a suitable location for mounting the counter base. Refer to the 'IPU 40082 Tailgate Detector Installation Guide' for details of recommended locations. Ensure 'Traffic Flow Direction Arrow' is pointing in the direction of traffic flow into secure area (Figure 4).
- 2.3 Install base using mounting holes provided (see Figure 4). Ensure that cable runs do not interfere with the IWC2044 Setup Module. (see Figure 4); dotted lines show cut-out areas that should not be used in this case).
- 2.4 **ENSURE POWER IS OFF** before connecting the power and data cables to terminal block as in Table 1. Do not over tighten terminal screws. Cables should be held in place so that they will not short-out on the PCB of the counter head when it is attached to the base, but with sufficient slack to allow slight movement of the connector block.
- 2.5 The detector can now be installed onto its base. To do this push the counter head up into the base and turn anticlockwise until the tabs engage into position and then turn clockwise to lock (See Figure 3). Power can then be re-applied.

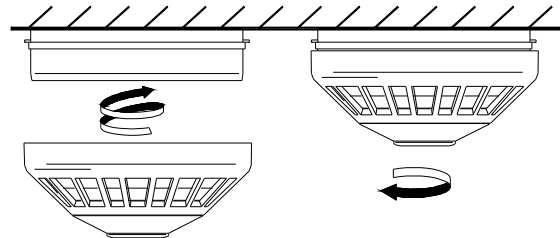


Figure 3

Term.		Signal
1	-	Reserved – do not use
2	-	Tamper output
3	-	Tailgate Application - Validated Entry Input 10-28V Airlock Application - Relay 2, normally closed to 0V
4	-	Relay 1/CAN2 Low
5	-	CAN High
6	-	CAN Low
7	-	+10v to +28v DC
8	-	0v

Table 1

1.1

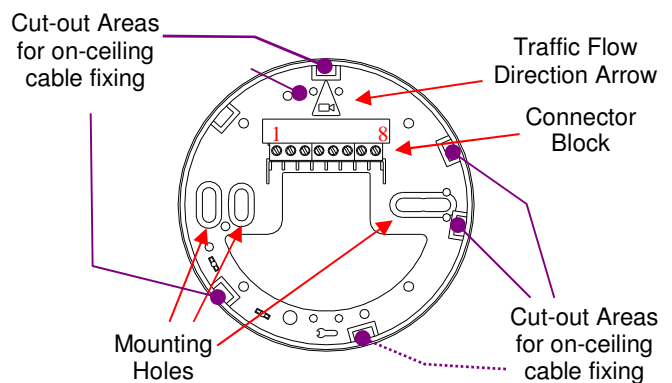


Figure 4

## 3. Configuration

- 3.1 The detector requires configuring before use. Settings, once made, are saved into non-volatile Flash memory and will not be lost even if the unit is powered off.
- 3.2 To configure the indoor people counter requires an IWC2044 Setup Module. **SWITCH OFF POWER TO THE DETECTOR** before connecting your setup module. Attach the setup module as per the 'IPU400114 to Setup Module Installation Guide'
- 3.3 Use the Tailgate Detector Set-up Software ISU 0004 to configure the detector, referring to the Tailgate Detector Installation Guide IPU 40082 (Available on the Set-up Software CD).