



## CCTV supporting small businesses

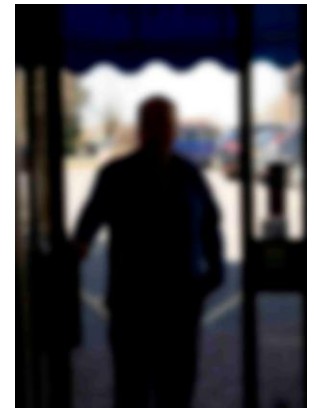
Home Office Centre for Applied Science and Technology

This leaflet offers guidance to current or potential users of CCTV on how to get the most from this technology. Much like buying a new car or a television you have to make some important decisions before you buy to ensure that it actually meets your requirements and gives you a return on your investment.

Further guidance for users of CCTV will be available in the surveillance camera code of practice which, subject to the outcome of statutory consultation and the will of Parliament, will come into force in summer 2013. The code is intended to strike an appropriate balance between protecting the public and upholding civil liberties. This leaflet will be reissued after the code comes into force.

### *What can CCTV do for me and my customers?*

If you install a poor system then the answer is probably “very little”. You should have a very clear idea of what you want your system to do and how it should perform. This should be based on your own premises, its layout, and the specific problems you want to address. The mere visible presence of a CCTV camera is unlikely to assist your fight against crime in your business. It is the action that can be taken as a result of your system that is all important, whether that be at the time of an incident or afterwards. Performance has to be ‘designed in’ and cannot be taken for granted. CCTV needs to be of a high enough quality to ensure these elements actually work. It doesn’t necessarily have to cost a fortune – it just needs to be well thought out.






How good is your CCTV?

### *Benefits of a good quality CCTV system*

<b>Crime detection</b>	<b>Staff and public safety</b>
CCTV is an electronic witness that can assist in proving guilt, innocence and association. It plays a significant part in many investigations by the police. There are two critical elements within the investigative process – the identification of suspects and the capture of events.	The use of CCTV for the safety of users of your business is important. Often this requires some form of live time monitoring of the cameras to enable an early intervention by an appropriate person in an incident such as an assault or a violent shoplifter.
<b>Crime reduction</b>	<b>Shop management</b>
The reduction of crime is inextricably linked to the ability to detect and prosecute offenders. The potential reduction strategy is therefore based on the threat of being caught. This preventative benefit relies on knowledge by the public of the presence of cameras and also their effectiveness. Clearly people cannot be deterred from committing crime if they don’t know they are being watched.	Some CCTV has an important part to play in the management of a store, e.g. seeing the arrival of a delivery lorry. This will probably mean however, that the same camera cannot be expected to be capable of identifying persons committing crime. In simple terms don’t install a camera for one purpose and expect to use it for another because you and the police are likely to be disappointed.

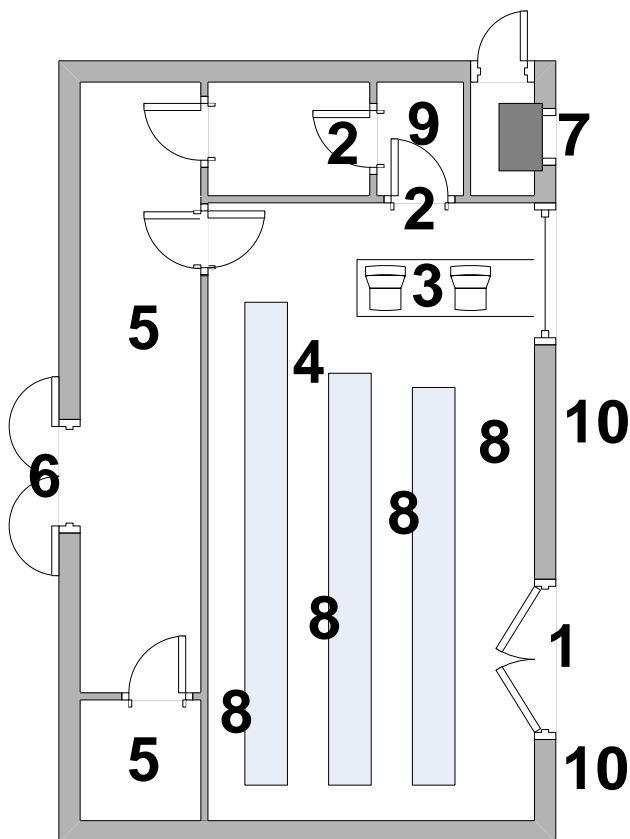
## What do I need in a CCTV system?

One of the most common failings in a CCTV system is having image sizes that are too small to enable identification and recognition. The pictures below demonstrate how large a person should look on screen, depending on the purpose of the camera.

		
<b>Identify</b> (100% screen height)*	<b>Recognise</b> (50% screen height)*	<b>Observe</b> (25% screen height)*
Sufficient picture quality and detail to identify an individual beyond reasonable doubt.	Viewers can say with a high degree of certainty whether or not an individual shown is the same as someone they have seen before.	Some characteristic details of the individual, such as distinctive clothing can be seen.
Screen height is how much space vertically a 1.7m tall figure would occupy, as shown in the diagram above		

\*on a standard definition image

## Generic Site Plan



	Location	Activity	Image Quality
1	Door – Customer	Any	Identify
2	Door – Secure	Any	Recognise / Observe
3	Tills	Robbery / Assault / Theft / Fraud	Identify
4	High Value Items	Theft	Recognise / Observe
5	Stock Room	Theft	Recognise / Observe
6	Loading Bay	Theft / Vandalism / Health & Safety	Recognise / Observe
7	ATM	Theft / Assault / Fraud	Identify
8	Aisles	Theft / Health & Safety	Observe
9	Cash Counting	Theft / Fraud	Identify
10	Car Park	Theft / Assault	Observe

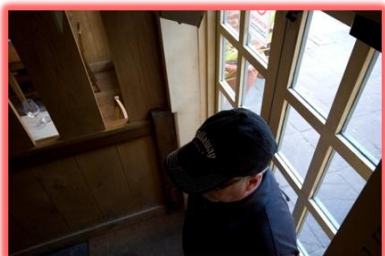
A key element of most systems is the ability to identify persons entering and leaving the premises. By recording large images at these 'pinch points', smaller image sizes and therefore wider overview coverage is likely to be acceptable at other parts of the building to provide sufficient evidence of what took place.

**As a minimum, your system should therefore meet the following standard:**

- At least one camera must provide identifiable quality images of everyone entering your premises, i.e. clear image of the face plus characteristics of clothing, items carried etc. The best place to capture these images is usually at the main doorway. It is strongly recommended that a second camera with similar capabilities is placed near the till.
- The video signal from these cameras should be recorded at a minimum of six frames per second. All other cameras should record at six frames per second for higher risk locations or a minimum of two frames per second at lower risk locations.
- Make sure the recorded image quality is similar to that of the live view. The video should be recorded at its original size with a minimal amount of compression.

In addition to these cameras you should then identify the most important areas of your premises from the table and generic site plan above and ensure that they are also covered with additional cameras to the required standard.

As well as choosing the best location for your cameras, it is also important to consider the angle of view and lighting conditions as the pictures below illustrate. Additional lighting may need to be installed to achieve good quality images.



Camera set too high



Camera view obscured



View too wide to identify vehicle



Subject strongly backlit



Good position and lighting



Good coverage to identify vehicle

## *What else do I need to know?*

### **Storage and Retention. What should you keep and for how long?**

- The system should be capable of saving and securing recorded images for review or export at a later date.
- Information should be kept secure and retained for no longer than is necessary for the purpose of the system. A minimum of 14 days is recommended for small CCTV systems.
- The system clock should be set correctly and kept accurate (taking account of GMT and BST). This will be very important if a police investigation is carried out.

### **Playback and Export. Can the pictures be quickly reviewed and can the police take them away as evidence easily?**

- There should be someone available at all times who is trained and able to replay recordings and produce copies for the police.
- The user should know the retention period of recordings
- The system should be able to quickly export video and stills onto a removable storage medium e.g. CD/DVD with the time and date integral to the relevant picture and without any drop in quality.
- Exported images should include any software needed to view or replay the pictures.
- Equipment and installation should be compliant with BS EN 50132-7.

## *Who should install a CCTV system for me?*

It is likely that you have a 'monitored' intruder alarm. You could choose to use that company or another company who specialises in CCTV. They should be CCTV accredited by a UKAS approved scheme to ensure that the installation and subsequent maintenance are of a professional standard. The company should perform testing of the system using an approved audit and commissioning test and 'prove' that the system meets your specified requirement. We recommend the Home Office CAST test targets, which can be found on the Home Office website.

<http://www.homeoffice.gov.uk/science-research/hosdb/industry-download/>

## *Do I have to comply with the Data Protection Act?*

Yes. It's simpler than you might think. The Information Commissioners' Office has published specific guidance on CCTV, which contains a lot of useful information and step by step help specifically for small businesses like yours. Visit their website at

[http://www.ico.gov.uk/for\\_the\\_public/topic\\_specific\\_guides/cctv.aspx](http://www.ico.gov.uk/for_the_public/topic_specific_guides/cctv.aspx)