



Reducing crime through partnership and prevention

# Small Business Guide to CCTV

Getting the most out of your Surveillance Camera System

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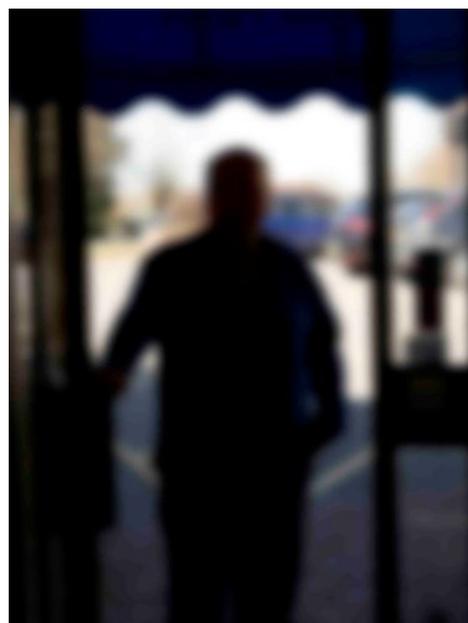
# Small Business Guide to CCTV

## Getting the most out of your Surveillance Camera System

This document 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 is available in the [Surveillance Camera Code of Practice](#). The code is intended to strike an appropriate balance between protecting the public and upholding civil liberties. Further information, including a more comprehensive buying guide, is available from the [Surveillance Camera Commissioner's website](#).

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

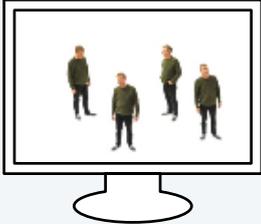
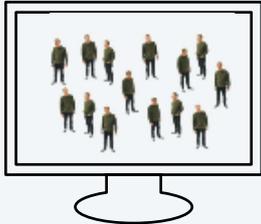
If you install a poor system then the answer is probably “very little”. You should have a very clear idea of what you want your system to do and how it should perform. This should be based on your own premises, its layout, and the specific problems you want to address. The mere visible presence of a CCTV camera is unlikely to assist your fight against crime in your business. Rather, it is the action that can be taken as a result of your system that is all important. In addition to using CCTV to provide evidence of criminal behaviour and to visually identify offenders, police forces increasingly make use of automated facial recognition to identify offenders. But this won't work unless the images are of sufficient quality. Performance has to be ‘designed in’ and cannot be taken for granted.



How good is your CCTV?

## What do I need in a CCTV system?

One of the most common failings in a CCTV system is that the images captured of individuals are too small to enable identification and recognition. The pictures below show how large a person should look on screen depending on the intended purpose of the camera.

Purpose	Example (typical adult)	Description
Automated Search	 <p>Head and Shoulders</p>	A frontal facial image with features clearly visible to enable an automated search against a database of facial images
Identify	 <p>100% Screen Height</p>	Sufficient picture quality and detail to identify an individual not previously known to the viewer
Recognise	 <p>50% Screen Height</p>	Viewers can recognise an individual who is already known to them
Observe	 <p>25% Screen Height</p>	Some characteristic details of the individual, such as distinctive clothing can be seen

<b>Benefits of a good quality CCTV system</b>	
<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. This may require some form of live-time monitoring of the cameras to enable an early intervention by an appropriate person.
<b>Crime reduction</b>	<b>Premises management</b>
A properly specified CCTV system can help businesses to 'design out' crime through successful identification of offenders. The preventative benefit relies on the knowledge of the public of the presence of cameras and also their effectiveness.	CCTV has an important part to play in the management of premises e.g. seeing the arrival of a delivery lorry. However, the same camera cannot also 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.

<b>Capturing the most suitable quality</b>
A key requirement of most systems is the ability to identify persons entering and leaving the premises. Consideration should be given to the use of furniture to direct people through 'pinch points' where the goal should be to capture high quality images that clearly show the subject's face (i.e. images suitable for automated identification). Wider overview coverage is likely to be acceptable at other parts of the building to provide a record of events. For those areas only accessible to staff, images of 'observe' or 'recognise' quality will usually be sufficient.

## Minimum recommended standard

- One camera should be positioned to provide images of everyone entering your premises to at least 'identify' quality. However, the aim should be to capture faces that resemble the 'automated search' image above (full frontal face, evenly lit and with no strong shadows) and which are suitable for use with an automated facial recognition system. Note that this may require more than one camera. The best place to capture these images is usually at the main doorway but beware of large differences in illumination levels, inside and outside the premises, that can result in silhouetted subjects). It is strongly recommended that another 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, but a higher frame rate of 12 frames per second, or more, is recommended.
- Ensure that 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 and ensure that they are also covered with additional cameras and capturing images to a standard appropriate to the location.

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

Yes. It's simpler than you might think. The Information Commissioner's 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:

<https://ico.org.uk/for-organisations/business/guide-to-the-general-data-protection-regulation-gdpr-faqs/>

## Angles and lighting

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. Note that additional lighting may need to be installed to achieve good quality images.



View too wide to identify vehicle



Camera view obscured



Camera set too high



Subject strongly backlit, no details visible



Good coverage to identify vehicle



Good position and lighting for identification

## What else do I need to know?

### System time

- The system clock should be set correctly and regularly checked for accuracy (taking account of GMT and BST). Knowing the exact time at which the images were captured will be very important if a police investigation is carried out.

### Storage and retention

- 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.

### Playback and Export

- The user should know the retention period of recordings
- There should be someone available who is trained and able to replay recordings and produce copies for the police
- The system should be able to export video and still images in a format suitable for upload to a Crime Reporting Portal or copying to a removable storage medium e.g. CD/DVD. This should include the time and date integral to the relevant picture or video and ideally without any drop in quality
- Exported images should include any vendor-specific software needed to view or replay the pictures
- Further information on CCTV equipment and installation can be found in British Standard EN 50132-7: "Alarm systems: CCTV surveillance systems for use in security applications - Application guidelines".

## 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 should demonstrate that the system meets your specified requirement. We recommend the Home Office CAST test targets which can be found on the [Home Office website](#).