

# Guidance for CCTV in licensed vehicles

## General

The councils support the use of CCTV to improve driver and passenger safety in licensed vehicles by:

- deterring the occurrence of crime
- reducing the fear of crime
- assisting law enforcement with criminal investigations, and
- assisting insurance companies in investigating motor vehicle accidents

This guidance sets out to ensure that CCTV systems installed in licensed vehicles are properly managed whilst promoting the above objectives. The use of CCTV systems in licensed vehicles is voluntary.

For the purpose of this document the term 'CCTV system' will apply to any electronic recording device attached to the inside of a vehicle having the technical capability of capturing and retaining visual images and audio recording from inside the vehicle. In addition to the standard CCTV camera system these may include for example, such devices as events/incident/accident data recording devices. We recommend that any CCTV system should meet the requirements set out in the specification in [Annex A](#).

The installation and operation of CCTV must comply with the requirements of the Information Commissioner's Office (ICO): [ICO Guidance on CCTV and dashcams](#)

## Data retention and privacy

Data should only be downloaded in response to a legitimate data access request or subject access request made under the Data Protection Act 2018, or where a written complaint has been made to the licensing authority regarding the vehicle/driver and the complaint cannot be resolved by any other method. Data provided to the licensing authority will only be retained for as long as required for the enforcement / legal process to be completed. Further information on data protection and privacy notices can be found on the relevant council's website.

## Signage

All licensed vehicles with CCTV should display signage within the vehicle to indicate that CCTV is in operation. The signage should be displayed in such positions to minimise obstruction of vision and to make it as visible as possible to passengers, before and after entering the vehicle. Signs should make it clear that audio recording may be carried out and this should also be verbally brought to the attention of the passengers. When a passenger appears to be visually impaired, the driver should inform the passenger that CCTV is fitted in the vehicle and audio recordings may be carried out.

## Audio recordings

Approved CCTV systems are permitted to record audio, however, should not be capable of continuous sound recording. Sound should only be recorded via a 'panic' button operated by the driver and passenger. The driver should only operate the sound recording in the following circumstances:

- When the driver believes there is a risk to themselves or their passenger's safety
- When the driver is concerned about potentially harassing or abusive language
- For the purpose of protecting their livelihood e.g. disputes about payment, concern of potential damage to the vehicle.

Where the audio recording is justifiable, signs should make it clear that audio recording is being carried out.

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## Annex A Technical Specification and System Requirements

### 1. Operational Technical Specifications

Ref	Specification	Details
1.1	100% solid state design or a proven vibration and shock resistant system.	System should not have any fan and recording should be vibration and shock proof, i.e. <ul style="list-style-type: none"> <li>- Flash-based SSD (100% industrial grade),</li> <li>- Hard disk with both mechanical anti-vibration and anti-shock mechanism and self-recovery and self-check file writing system.</li> </ul> SD cards within the camera head will not be acceptable.
1.2	8 to 36 Volts DC.	Operational between 8 and 36 volts DC.
1.3	Reverse polarity protected.	System must be protected against reverse voltage.
1.4	Short circuit prevention.	System to be protected against short circuits.
1.5	Over voltage protection.	System to be protected against high voltage transients likely to be encountered in the vehicle electrical system.
1.6	Automotive Electromagnetic Compatibility Requirements.	The taxi camera equipment must be E-marked or CE-marked with confirmation by the equipment manufacturer as being non-immunity related and suitable for use in motor vehicles.
1.7	System override switch to be located in a position where it is not accessible from inside driver or passenger compartment of the vehicle (i.e. in the boot)  The override switch must be illuminated when switched 'on'.	The system is required to be active at all times that the vehicle is being used as a licensed vehicle. This will allow the facility for the system to be deactivated during times when the vehicle is being used for private purposes (e.g. domestic use). The switch that deactivates the system must not be located inside the driver or passenger compartment of the vehicle. (i.e. the boot / luggage compartment will be suitable)
1.8	First-in/first-out buffer recording principle.	The system must automatically overwrite to create a constant cycle recording.
1.9	Access record.	A service log must be kept and maintained by the approved installer and the local authority.
1.10	Security, duration and auto-clearing of log files.	
1.11	Image recording formats and media.	Images must be encrypted to a minimum of FIPS 140/2.
1.12	Image protection during power disruption.	Images must be preserved in the event of loss of power. Battery back-up will not be permitted.
1.13	Unit must operate without the ignition being turned on.	The unit must have the ability to operate for at least 30 mins without power from the ignition.

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		The device must be hard wired to both constant and ignition supply.
1.14	Image and audio data shall be recorded and stored in a unit separate from camera head.	Self-contained storage cards within the camera head will not be acceptable.
1.15	GPS capability.	System must have GPS capability.
1.16	The system must be capable of recording audio in real time and synchronised to the recorded images.	If activated, the audio must record within the video file. Not in any separate file or folder.
1.17	The system shall not record audio except when audio recording is activated by means of an approved trigger / panic switch.	<p>The system should have the ability to start recording audio data by means of a trigger button/switch.</p> <p>One trigger must be capable of being activated by the driver or passengers. Once the trigger is activated the system must begin to record audio data. The system will continue to record audio until the same trigger is used to deactivate the audio (e.g. a/trigger could be pressed to begin audio recording, pressing the/trigger again would stop audio recording).</p> <p>The second /trigger where installed must be capable of being activated by the passengers in the vehicle independently of the driver.</p> <p>Both audio activation triggers must be independent of each other – this means that audio recording can only be deactivated by means of the same trigger (driver or passenger) that was used to activate the audio recording.</p>
1.18	Audio data and image data must be stored together, not in separate files, and must be protected against unauthorised access or tampering (password access).	
1.19	The system must support testing of the audio function for installation set-up and inspection purposes.	
1.20	Images recorded by the system shall not be displayed constantly within the vehicle.	The monitor must display live images as clearly visible by having a glance around as per ICO specifications, it must not display images constantly.

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1.21	The system must have a panic switch for audio activation.	At least one trigger/audio activate button must be capable of being operated by the driver and a passenger.  Once activated, this switch must trigger the recording of video and audio in accordance with section 1.17.
1.22	The system must include a visual indicator that will clearly show when audio recording is taking place. This indicator must be visible to all passengers within the vehicle.	This may take the form of an indicator LED built into the audio activation switch, or a remote LED that can clearly be seen by passengers.

### 2. Storage Capacity Technical Specification

Ref	Specification	Details
2.1	Minimum of 28 days i.e. (28 x 24 hours) of recording capacity.	The camera system must be capable of recording and storing a minimum of twenty-eight days of images of HD1 (720/288) size or better.
2.2	Cameras must have a light contrast compensation systems to allow images to be clear in all lighting conditions.	System to provide clear images in bright sunshine, shade, dark and total darkness. Also, when strong back light is present without the need for additional components.

### 3. Camera Head Technical Specification

Ref	Specification	Details
3.1	Camera installation non-obstructive.	The camera and all system components shall be installed in a manner that does not interfere with the driver's vision or view of mirrors or otherwise normal operation of the vehicle.
3.2	Protected camera disconnect.	The camera head shall be designed to disconnect for ease of removal and replacement only by maintenance personnel.
3.3	Special tools for adjustment/removal.	To prevent inappropriate interference only tools supplied to authorised fitters should be capable of carrying out adjustments or removal.
3.4	Field of view to capture all passengers in the vehicle.	The lens or the position of the camera must be of a type that captures the driver and all passengers of the vehicle on the recorded image. The lens must be of a style not to create a "fishbowl" effect.
3.5	Compatible for use in vehicles with a partition (shield).	The camera system must be adaptable to provide clear images when a vehicle is equipped with a shield. This may be accomplished with the use of multiple camera heads.

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3.6	Multiple cameras.	The unit shall be capable of supporting up to four (4) cameras. Four cameras may be required to provide adequate coverage in larger vehicles and/or certain purpose-built vehicles or external images.
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### 4. Technical Specification: Storage Device

Ref	Specification	Details
4.1	Impact and shock resistance.	The recorder shall be impact resistant, sufficient to withstand a typical car accident, or striking with a large, heavy object such as a suitcase.
4.2	Controller in concealed location.	The storage unit shall be concealed from within the passenger compartment and effectively inaccessible except by authorised personnel. For example, in the luggage area.
4.3	Download port provision.	The recorder shall be equipped with a communication port within the hard drive housing (caddy) for downloading by authorised personnel.
4.4	Download port shall be located in an easily accessible location.	The recorder download port shall be positioned in a location that does not require the removal of panels and is accessible to authorised personnel.
4.5	Where a download port is required, the cable length must be 6 feet minimum	Download port shall be at least six feet in length for ease of connectivity.
4.6	Recorder to be securely affixed to the vehicle.	
4.7	Log to register each user access.	
4.8	Log to register camera system parameter modifications.	
4.9	Log to register each image download session.	
4.10	Log to register exporting of downloaded images.	
4.11	Log to register exporting of downloaded clips.	
4.12	Log file protected against unauthorised access.	
4.13	Time/date stamp.	All stored images must be time and date stamped.
4.14	Vehicle ID number stamp.	All stored images must have two fields for vehicle identification (VIN or number plate).

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4.15	Controller non-modifiable ID code stamp.	Each recorded image shall be automatically stamped with a unique and non-modifiable code that identifies the controller that was used to record the image.
4.16		Manufacturer to supply licensing authority with a supply of specialised tools to allow for removal of the controller and download of data when required.

### 5. Specifications for video and audio recording rate

Ref	Specification	Details
5.1	Video image recording on system activation (when audio is not activated).	The system shall record images at a minimum rate of twenty-five (25) images per second.
5.2	Video image recording when audio is activated.	The system shall record images at the rate of twenty-five images per second during periods when audio recording is activated.
5.3	When activated, audio recording must be in real time and synchronised with the video recording.	When activated, audio recording must be in real time and synchronised with the video recording.
5.4	System to continue to record images (and audio when applicable) when engine is off.	System must continue to record images (and audio when applicable) for 30 minutes after engine / ignition or override switch is switched off.

### 6. Downloading technical specification

Ref	Specification	Details
6.1	Provision of necessary software, cables, security keys to the licensing authority	
6.2	Downloaded images must be stored securely.	By the licensing authority
6.3	Downloaded images stored in secure format.	By the licensing authority.
6.4	Verifiable image authenticity.	Each image shall be watermarked with vehicle ID, and time and date, and be tamperproof.
6.5	Provision of Service Level Agreement (SLA) regarding technical support to the licensing authority when necessary.	To assist in accessing system in case of damage to the vehicle or to the system in case of accident within a reasonable time frame.
6.6	Wireless Download Prohibited.	All wireless hardware to be disabled.

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6.7	Filter the specific images for events and times for the approximate time of the crime committed.	The playback software must list the files in date and time slot order for ease of location of required file.  The time taken to download such files should take no longer than 30 minutes.
6.8	Windows compatible.	Once downloaded and converted.

### 7. Requirements in relation to System Information

Ref	Specification	Details
7.1	Provision of service log.	The unit manufacturer shall have a service log. The manufacturer shall also enclose detailed instructions for the drivers with each unit.
7.2	Serial number indication on service log.	The unit will be marked with a serial number.
7.3	Installation date indication.	A certificate of installation must be provided which will indicate the installation date.
7.4	Clarity of operating instructions.	The system shall be provided with clear and concise operation instructions which are written or presented with due consideration to varying levels of literacy.
7.5	Installation by authorised agents.	The unit shall only be installed by manufacturer's authorised agents, or other installers approved by those agents.
7.6	Provision of authorised agents list to the licensing authority	The manufacturer or supplier shall provide a list of local authorised agents to the licensing authority
7.7	Documentation.	The manufacturer must provide clear and concise operating instructions which are written or presented in layman's terms. (Details on how the system operates)
7.8	Image Protection.	All captured images must be protected using encryption software that meets or exceeds the current FIPS 140-2 (level 2) standard or equivalent.

### 8. System requirements in relation to Vehicle Inspection Facility

Ref	Specification	Details
8.1	Provision of system status/health indicator.	The driver shall have an indicator showing when the system is operational and when there is a malfunction. This should include the images as shown to verify the status of each camera.
8.2	Mounting location of system status/health indicator to be seen.	The indicator or monitor shall be mounted in such a way to allow for ease of view.

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8.3	Design and or installation to be testable as part of the vehicle compliance test.	The system shall be designed and installed such that the system may be easily tested as part of vehicle compliance test as prescribed.
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### 9. General System Requirements

Ref	Specification	Details
9.1	Vandal and tamper resistance.	All component parts must be securely mounted, hard wired and small and discreet enough to remove the risk of tampering.
9.2	Provision of statement of compliance.	In addition to a formal test of all aspects of this requirement specification, a statement of compliance shall be provided and signed by an officer of the company.
9.3	Reliability in operational and environmental conditions.	The system shall provide reliable and full functionality in all operational and environmental conditions encountered in the operation of taxis.
9.4	Programmability of image timing parameters.	It shall be possible to change timing and parameters without the requirement to change components.
9.5	Training and Technical Support and Equipment.	Manufacturer must provide the licensing authority with Training and Technical support.
9.6	Software and Hardware.	Manufacturer to supply the licensing authority with a supply of cables and software to be installed under the supervision of the licensing authority's authorised staff.
9.7	Agreement between the Camera Manufacturer and the licensing authority.	Agreement to allow the licensing authority access to the relevant software from the supplier so that in the event the manufacturer goes out of business, the licensing authority will be able to support the system.
9.8	All equipment must comply with any legislative requirements on respect of the Motor Vehicle Construction and Use Regulations.	