

Personalised Transport Security Camera Specifications

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Queensland Camera System Specifications

1. Introduction

The following specifications identify the minimum requirements necessary for a camera system that is supplied and installed in a taxi, limousine or ride-booking vehicle ('personalised transport vehicle') in Queensland. These specifications do not apply to forward or rear facing cameras which must not record images or audio of persons inside the vehicle.

It is a legal requirement that only camera systems approved by the Department of Transport and Main Roads (the department) are installed in personalised transport vehicles to record images or audio of persons inside the vehicle.

All parties seeking approval for camera systems will need to provide an application to the department to have their system considered. Approved systems will be announced via the department's website.

Supporting material relevant to these specifications is available on the department's website, including the:

- Personalised Transport Security Camera Approval Process
- Personalised Transport Security Camera System Program Approval Application (F5114)
- Statement of Compliance
- Guidelines for Installation and Use of Personalised Transport Security Cameras

The department will consider each application and the extent to which the proposed security camera system meets the specifications. Parties seeking approval for camera systems should note that a security camera system purported to exceed minimum requirements does not guarantee departmental approval.

2. Definitions

Table 1 below defines the terms and abbreviations used in this document.

Term	Definition
Authorised Booking Entity	A person who holds a booking entity authorisation for the booked hire service.
Authorised person	A person authorised by the department, members of the Queensland Police Service or persons associated with a camera supplier, for example a camera technician. In some cases, the authorised person will be an employee of an Authorised Booking Entity.
Booked hire service	A public passenger service where a driver and vehicle are hired, other than an excluded public passenger service and a rank and hail service.
Boot time	The time taken for the camera system to become operational after the power has been turned on.
Camera(s)	The component of the security camera that captures images and audio of the driver and passengers and is separate from the control unit which contains the security camera logic and stores the images and audio collected by the camera.
Camera system	All the security camera components as a whole including but not limited to the control unit, recording unit, camera heads, cables, and any other components required to make the system operate correctly.
Download station	A department authorised static or mobile facility used by an authorised person for the relevant retrieval of images and audio from a personalised transport security camera system.
Personalised transport vehicle	A taxi, limousine or ride-booking vehicle.

3. System environmental requirements

- 3.1 The camera system must be capable of functioning over:
 - a) A temperature range of -5°C to +60°C; and
 - b) A humidity range of 0 to 85 per cent relative humidity, non-condensing.
- 3.2 The camera system must comply with the following electromagnetic standards:
 - a) AS/NZS CISPR 25:2010;
 - b) ISO 10605:2008; and
 - c) ISO 7637-2:2011.
- 3.3 The camera system must be impact and shock resistant, sufficient to withstand a typical car accident and the regular vibration experienced by a personalised transport vehicle.
- 3.4 Camera system components mounted on the exterior of a personalised transport vehicle must meet or exceed the IP65 rating.

4. System operation

- 4.1 The camera system must be powered, fully operational and recording continuously when the vehicle ignition is on.
- 4.2 The boot time for the camera system from ‘power on’ to recording images must be less than 30 seconds.
- 4.3 The camera system must continue to record for a period of 30 minutes after the vehicle ignition has been turned off.
- 4.4 When ‘powered on’ the camera system must employ a self-test methodology to automatically detect and report functional faults, which must include a test for lack of image from any camera head due to external interference or obstruction.
- 4.5 The camera system must not allow any person to turn off or in any way disable the camera system.
- 4.6 Images must be capable of being recovered following loss of power to the camera system.
- 4.7 The camera system must use solid state non-volatile industrial grade memory to store all captured images and audio. All images and audio stored must be encrypted.
- 4.8 If the camera system has removable memory, it must only be able to be removed by authorised persons.
- 4.9 An internal camera must be visible to passengers in the vehicle.
- 4.10 An internal camera must at all times provide a clear view of the front of the driver and all forward-facing passengers when seated in the vehicle, including their entire upper body from the waist to the top of the head.
- 4.11 An external camera must provide a view of any person approaching (from up to 2.4 metres and a minimum field of view of 70 degrees relative to the driver’s window) or standing at the driver’s window. To meet this requirement it may be necessary to install one or more internal cameras and one or more external cameras.
- 4.12 The camera system must be supplied with adhesive backed, weather proof and ultra-violet resistant sets of signs. The signs shall be designed as per the diagram at right.
- 4.13 In accordance with sections 117K and 117L of the *Transport Operations (Passenger Transport) Regulation 2005*, signs must be affixed to all entry points of the personalised transport vehicle and conspicuously placed in the interior of the personalised transport vehicle. The signs ensure all vehicle occupants are made aware they are under security camera surveillance.
- 4.14 The camera system must have a visual indicator showing when the system is operational and when there is a functional fault. The visual indicator must be visible to the driver when seated in the driver position.



- 4.15 The camera system must log events, including but not limited to all:
 - a) Faults with the camera system;
 - b) Times the camera system has been accessed, for example via download software or physical access to components of the camera system;
 - c) Software updates; and
 - d) Image downloads.
- 4.16 The camera system must store images and audio for at least 168 continuous hours, with the oldest images and audio to be overwritten first.
- 4.17 The camera system must synchronise each audio recording made with the image recording to which it relates.
- 4.18 The camera system must record a minimum of 5 frames per second.

5. Images and audio

- 5.1 Images from the camera system must comply with AS4806.2-2006 in relation to face identification of the driver and all passengers in the vehicle under all lighting conditions.
- 5.2 The camera system must store images with a minimum of 256 greyscale levels and/or a minimum of RGB (red, green and blue) 8-bit colour.
- 5.3 The images must be in focus at any distance from the lens between 300mm and 3m for internal camera head(s) and 300mm to 5m for the external camera head(s).
- 5.4 The resolution and clarity of the recorded images from a camera must be maintained under all lighting conditions from darkness (0 lux) through to bright sunlight.
- 5.5 All images (either displayed on a computer device or printed) must have imprinted on them the following metadata (without obstructing the view of any occupant in a seated position in the vehicle) –
 - a) The vehicle registration number;
 - b) Date and time in Universal Time Coordinated (UTC) within 1 second; and
 - c) Location in coordinates of latitude and longitude accurate to within 25 metres 95 per cent of the time.
- 5.6 The audio recordings must be of a quality and level to record conversations within the operating environment of a personalised transport vehicle, taking into consideration background noise like road and wind noise.

6. Accessing images

- 6.1 The supplier of the camera system must provide free software to the Queensland Police Service and the department's nominated authorised download stations that enables authorised persons to access and download images and audio, and event logs from the camera system.
- 6.2 The software provided by the supplier must be able to operate on a commercial off-the-shelf computer device or the supplier must provide a download system to the Queensland Police Service and the department's nominated authorised download stations.
- 6.3 The download software must be password protected or otherwise encrypted to prevent unauthorised access to images and audio.
- 6.4 If an image and audio is stored on the hard drive of a computer, or in a data centre managed by a third-party cloud provider, access to the image and audio must be password protected or otherwise encrypted.
- 6.5 Image and audio data must not be readily decrypted into a clear audible sound or images without using the Download Software.