



Minneapolis
City of Lakes

Taxicab Safety

Book of Standards

For Cameras,

Shields, and

Global Positioning Systems (GPS)

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Cameras

All cameras installed in Minneapolis licensed taxicabs shall meet and/or exceed the following standards approved by the Minneapolis City Council.

Overall Camera System

- a. The system chosen by the taxicab service company from a taxi camera supplier must meet or exceed the standards set by this section and shall be installed by the taxi camera supplier or a certified installer for that system.
- b. All installations must be completed in accordance with the instructions of the manufacturer of the system.
- c. Service companies shall provide the City of Minneapolis with all updated software and hardware, in compliance with city standards, to download images from the camera system installed.
- d. Every camera system installed shall be tested before the taxicab vehicle may be placed into service. The test will include:
 - 1) Photos showing the alignment of the camera to cover the driver and backseat area.
 - 2) Photos showing the system under low-light conditions.
- e. The installer of a camera system shall complete an installation report form (see page 11 or [link?_____](#)) to the City of Minneapolis Licenses and Consumer Services Division and to the licensee of the taxicab before the taxicab may be placed into service. The report must include:
 - 1) Taxicab vehicle identification number (VIN)
 - 2) Serial number of camera
 - 3) Serial number of control unit
 - 4) Service company name
 - 5) Vehicle owner's name
 - 6) Date the camera system was installed
 - 7) Attached test photos
 - 8) If system was installed in another taxicab, the vehicle identification number from the taxicab from which the system was transferred.
- f. System components shall be easily interchangeable in the event that one component fails or is damaged. A replacement report must be filled out with photos showing properly working system (see page 11).
- g. Installers must have access to the system configuration software to confirm that the camera system is operating properly, that information associated with an image is being properly captured, that the internal clock for the control unit is set properly, and that the camera head is positioned correctly.
- h. The system shall be protected from reverse voltage, short circuits, and high voltage transients likely to be encountered in the electrical system of the vehicle.

- i. The system shall not be adversely affected by lower voltages that are likely to be encountered with the starting of the vehicle engine.
- j. The system shall be connected directly to the vehicle battery and the fuse shall be concealed.

Camera Head

- a. Shall be sufficiently shock resistant to withstand vehicle movements over variable terrain and the impact of a typical vehicle collision.
- b. Digital cameras must be mounted on the front dashboard or windshield in such a way as to not limit the driver's view.
- c. Digital cameras must be equipped with infrared illumination so there is no need for outside light sources.
- d. Must provide a clear digital image capable of reproduction of the entire rear seat of the taxicab and its occupants.
- e. Must ensure a tamperproof connection from the control unit to the camera head.
- f. Must not have sharp corners or edges.

Control Unit

- a. Shall be sufficiently shock resistant to withstand vehicle movement over variable terrain and the impact of a typical vehicle collision.
- b. Shall be separate from the actual camera head.
- c. The control unit must be mounted in an approved location concealed from view and accessible only to persons authorized to download images.
- d. Housing and installation bracket must be tamperproof.
- e. Must have a minimum of two camera inputs.
- f. Must be powered by a 12-volt DC system with input protection.
- g. Must have a backup battery to hold images in case of a power failure.
- h. Automatic image recording loop, but sufficient to cover a 12-hour shift.
- i. Each image taken and stored must have stamped on it the time, date, identification number of the taxicab, and the type of trigger (door, meter, emergency button, etc.)
- j. If the unit has a removable flash memory, access to images via removable flash memory card must require a coded hardware key, which shall be issued to authorized agents only.
- k. The recording and downloading of images shall be at the system's maximum resolution configurable.

1. The unit shall have mounted a malfunction indicator or LED that is visible only to the driver.

Camera Activation

- a. *Meter:* At the start of the taxicab meter, one image recorded every five seconds for the first 60 seconds. Additional setting may be programmed for additional timing sequences. Panic trigger will interrupt at any point.
- b. *Door:* The opening and closing of any door, one image recorded every five seconds for the first 90 seconds. Additional settings may be programmed for additional timing sequences. Panic trigger will interrupt at any point.
- c. *Panic Button:*
 - a. First press: one image every two seconds for the first 60 seconds.
 - b. Second press: one image every one second for the first 60 seconds.
 - c. Third press: one image every one second until system is full and locked.
 - d. If the system chosen does not have three stages for the panic button, one image every two seconds until the system is locked.
- d. *Test:* When the system is tested every six months, one image only for inspection and testing purposes by authorized personnel or certified installer.
- e. The driver shall have no control over the system except for an emergency deactivation switch, which must be installed with easy access for the driver and out of sight of any passenger.
- f. Any emergency switch activation shall lock all images in the control unit until they are downloaded and the unit is unlocked by authorized personnel.

Image Retrieval, Storage, and Release

- a. All service companies installing cameras shall provide the Minneapolis Police Department and/or Licenses and Consumer Services with software and hardware in compliance with city standards, capable of downloading images from authorized taxicab fleets within the City of Minneapolis.
- b. Image retrieval shall be completed by the Minneapolis Police Department Identification and Crime Lab Division for all criminal activities and the Licenses and Consumer Services Division, Taxicab Inspections Division, for taxicab complaints.
- c. Images retrieved shall be released only to a law enforcement agency as evidence of the commission of a crime or the Licenses and Consumer Services Division for an investigation of violation of the Minneapolis Taxicab Ordinance.
- d. Image retrieval for criminal actions shall be completed at the Minneapolis Impound Lot, Forensic Garage, or at the crime scene by an authorized person from the Identification and Crime Lab Division.

- e. Image retrieval for the investigation of a violation of the Minneapolis Taxicab Ordinance shall be completed by a taxicab inspector. The authorized personnel downloading images shall fill out a form (see page 12) with the following information:
 - 1) Name of authorized person downloading images
 - 2) Date and time of downloading
 - 3) Service company name
 - 4) Vehicle identification number, license plate number, control unit number, camera number, and taxicab number
 - 5) Driver's name and identification number
 - 6) Complainant's name, date, time, and type of complaint
 - 7) Number of images downloaded
 - 8) File name under which images are stored.
- g. Images shall be protected against access by wireless technology.
- h. Images that are downloaded from the control unit in the taxicab at the site of an investigation must be taken to the investigating department on a single write-only CD.

Signage on Vehicle

- a. Signs will be placed on the lower portion of a non-lowering, right and left rear door window or the upper third of a rear window that is mechanically operated. Signs must be visible to passengers before the passenger enters the taxicab.
- b. Signs must be printed on both sides for interior and exterior viewing.
- c. Signs must give the following statement, or a substantially similar statement approved by Licenses and Consumer Services Taxicab Inspections Division:

VEHICLE IS EQUIPPED WITH SECURITY CAMERA AND ALL
OCCUPANTS WILL BE PHOTOGRAPHED.

Camera System Inspection

- a. Each digital camera must be inspected by an authorized repair facility every six months or by an inspector of the City of Minneapolis Licenses and Consumer Services Division during the spring and fall inspections or when there is reason to believe the camera system is not operating properly.
- b. The licensee of the taxicab shall provide the Licenses and Consumer Services Division with a copy of the inspection report, if not completed by an inspector, showing the current status of the camera (see page 13).
 - a. Service company name
 - b. Vehicle owner's name
 - c. Vehicle identification number
 - d. Cab number
 - e. Control unit identification number

- f. Camera identification number
 - g. Copy of photo
 - h. Date and time inspection was completed
 - i. Name of company completing the inspection
 - j. Name of person completing the inspection.
- c. Any report showing a camera system not being in good working condition shall be taken out of service until the system is in good working order.

Shields

All shields installed in Minneapolis taxicabs shall meet and/or exceed the following standards approved by the Minneapolis City Council:

- a. In all areas above the front seat, shields must be constructed of bullet-resistant “Lexan” plastic at least three-eighths inch thick.
- b. Below the top of the front seat, shields must be constructed of bullet-resistant “Lexan” plastic at least three-eighths inch thick or of 14-gauge sheet metal
- c. There may be no more than a one-inch gap between the top and sides of the shield and the interior frame of the vehicle and no more than an eight-inch gap between the bottom of the shield and the floor.
- d. A money exchange system must be built into all shields.
- e. Shields must be replaced if the clear portion of the barrier becomes scratched or blemished, or if it impedes the driver’s or the passenger’s vision.
- f. Shields must contain padding one-half-inch thick, matching the interior of the vehicle, in front of the rear passenger but not obstructing the driver’s view.
- g. A taxicab driver’s license holder must be mounted to the shield so the passenger can clearly view the license, but the mounting area shall not obstruct the driver’s view.

Global Positioning System (GPS)

All GPS systems installed in Minneapolis taxicabs shall meet and/or exceed the following standards approved by the Minneapolis City Council.

- a. The GPS system must be connected to a computerized dispatch system that must provide the dispatcher with the current location of a taxicab at the dispatch console when a specific cab identification number is entered into the system.
- b. Vehicle location identified on the monitor must be within 50 feet of the vehicle's current stationary location.
- c. System must be able to show the direction of travel of a taxicab in motion.
- d. System must be able to continue to provide the vehicle's current location while in motion, within 60 seconds of entering the vehicle identification number.
- e. Dispatcher must have telephone access within reach of the GPS monitor and keyboard to keep current the taxicab's location for emergency services personnel.
- f. When the emergency button is pressed, the location of the vehicle in distress must be highlighted and displayed on the GPS monitor and must override all other nonemergency communications.

Small Companies Attaching to a Larger Company's GPS System

Definitions

- a. Companies with computerized dispatch and GPS will be called "host."
- b. Smaller companies purchasing services will be called "recipient."

Standards

- a. The host company will provide the recipient and the Licenses and Consumer Services Division with written documentation explaining how the dispatch system will provide the recipient with service but maintain firewalls between the host and recipients, or between recipients, so there is no exchange of business data.
- b. The host company will provide the recipients with remote access to their records 24 hours a day.
- c. Upon a filed, written complaint that either the host or recipient has violated the firewalls of the other company or any other recipient that might be using the host system, the host and recipient will provide Licenses and Consumer Services Division full access to all records.
- d. Licenses and Consumer Services may review the agreement between the host and recipient for services provided and will provide any updates for the review of the services provided.

- e. When the host company adds or deletes software or hardware to the dispatch or GPS system, a written statement of what was completed, added, or deleted shall be provided to the recipients and the Licenses and Consumer Services Division.

City of Minneapolis
Taxicab Camera Installation/Replacement Form

Service Company Name _____

Vehicle Owner's Name _____

Taxi Vehicle Company/Number (example: ABC #628) _____

VIN of Vehicle Getting Camera Installed _____

Serial Number of Control Unit Being Installed _____

Serial Number of Camera Being Installed _____

Date Camera Installed _____

Is This a Replacement Camera? _____

Date Control Unit Installed _____

Is This a Replacement Control Unit? _____

*If control unit and camera were previously installed in another taxicab,
complete the following:*

Unit was removed from the taxicab with vehicle ID number _____

Date This Form Completed _____

Installation Company Name _____

Installer's Name _____

Test photos must be attached to this form.

White to city, Yellow to owner, Pink to service company, goldenrod to installation company

City of Minneapolis
Camera Image Retrieval Report

Reason for Retrieval

Complainant's Name _____

Date and Time of Complaint _____

Type of Complaint _____

Name of Person Downloading Images _____

Title _____

Date and Time of Downloading _____

Number of Images Downloaded _____

File Name Under Which Images Are Stored _____

Service Company Name _____

Driver's Name _____

Driver's ID Number _____

Taxi Vehicle Company/Number (example: ABC #628) _____

Taxicab VIN _____

Taxicab Car Number _____

License Plate Number _____

Control Unit Number _____

Camera Number _____

Today's Date and Time _____

Name of Person Completing this Form _____

Title of Person Completing this Form _____

**City of Minneapolis
Taxicab Camera Inspection Form**

This form must be completed if the taxicab vehicle owner has the camera system inspected by a certified installer.

Name of Company Completing Inspection _____

Name of Person Completing Inspection _____

Date Completed _____

Time Completed _____

Check one of the following:

- All system components are operating properly.
- One or more system components failed. Explain. _____

Service Company Name _____

Vehicle Owner's Name _____

Vehicle ID Number _____

Cab Number _____

Control Unit ID Number _____

Camera ID Number _____

Signature of Person Completing Inspection _____

Date _____

Time _____

Inspection photos must be attached to this form.

White to city, Yellow to vehicle owner, Pink to service company, goldenrod to inspection company