DASHCAMS

INFORMATION FOR VIDEOGRAPHERS

DASHCAM BASICS

With the advancements in modern camera technology, dashcams are available at numerous price points making it easy for anyone to protect themselves with a reliable, objective witness to anything that might happen on the road.

Dashcams use internal microprocessors and software to record and store video and synced audio files, typically in an MP4 file format, on an internal storage device such as Solid State Drive or SD/MicroSD card.

The internal software on most dashcams utilize either Continuous or Loop Recording to store video files, while some can do both and allow the user to choose which method works best for them.
- *Continuous Recording* records video continuously, in one long file.
  - This results in larger files and can make editing or selecting a specific incident difficult and time consuming
- *Loop Recording* splits the footage into manageable segments, such as 2 or 5 minutes
  - This helps keep the recordings organized and easier to view/edit/upload

Most dashcam's internal software also utilize an *Auto Overwrite* function. When the storage device is full, the oldest clips are automatically overwritten by new recordings. This ensures that your dashcam can keep recording without the need for manual intervention.

Many dashcams have an *Incident Detection* feature, activated either manually or automatically triggered. With this functionality, the internal software flags important footage and prevent it from being automatically overwritten.

Dashcams come with a variety of features, such as:

- **High Resolution Camera**
  - Dashcams offer recording in 4K, 2K, Full HD and Standard HD resolutions
- **GPS**
  - Built in GPS receiver can append location data to the video file
- **G-Sensors**
  - Bulit in gyroscopic sensors that can detect crashes/incidents
- **Parking Mode**
  - The camera can use built in G-Sensors to detect disturbances to the vehicle when it's parked and activate recording. Useful for parking garages or to record break-ins/theft.
- **Voice Control**
  - Built in voice control allows drivers to control certain functions of the dashcam, like saving a recording, without having to push a manual button
- **Wi-Fi Connection**
  - A Wi-Fi connection allows the dashcam to connect to an external device such as a phone or tablet
- **Bluetooth Connection**
  - A Bluetooth connection allows the dashcam to connect to an external device such as a phone or tablet
- **LTE Connection**
  - A cellular network connection that can connect the dashcam to cloud storage
  - Typically requires an additional subscription cost
- **Multi-camera setup**
  - Multi-channel dashcams allow one or more camera's to be connected to the main dashcam, such as a rear window camera to capture footage from the rear of the vehicle
  - A 3 channel dashcam offers 3 camera views for maximum coverage: Forward, Rear and Rear Facing In Cab (to record the passenger compartment
- **Cloud Storage**
  - Some dashcams offer cloud video storage. This feature can use a connected device such as your cellphone or in-vehicle hotspot to automatically upload videos to the cloud, which can free up storage space on the internal storage device.

POPULAR DASHCAMS

Brand	Model	Price	SDCard Slot	Recording Resolutions	G-Sensor (Crash Detection)	GPS	Video Format
Garmin	Dash Cam Live	$399.99	MicroSD (512GB Max)	1440p HDR/30fps 1080p/60fps 1080p HDR/30fps 720p HDR/30fps	Yes	Yes	HEVC (H.265) MP4
Nextbase	522GW	$259.99	MicroSD	1440p/30fps 1080p/60fps 1080p/30fps	Yes	Yes	MP4
Red Tiger	F7N-S	$119.99	MicroSD (256GB Max)	2160p/30fps 1440p/60fps 1080p/120fps	Yes	Yes	MP4

SD/MICROSD CARD

The majority of dashcams use an SD Card or the smaller form factor MicroSD card to store video files. Be sure to reference your dashcam's user manual to determine the correct form factor and max storage capacity card that your dashcam can accept.

Factors to consider when choosing a SD/MicroSD card:

- *Resolution:* The higher the resolution of your dashcam, the greater the storage space requirement. 4K images take up way more space than 1080p images which use quite a bit more space than 720p.
- *Rewriting:* Dashcam memory cards are overwritten numerous times. A larger memory capacity reduces the number of write cycles and extends the life of the card.
- *Frame Rates:* Dash cams generally shoot 30 to 60 frames per second. The 60fps provides a higher quality image but also takes twice the storage space and 30fps video produces good quality.
- *Usage Time:* Generally, one hour of 1080p recording uses approximately 6GB. Driving two hours a day, five days a week would need about 60GB worth of storage or a 64GB card.

Transferring video files from an SD/MicroSD card to your computer or directly to EXCH4$ may require an adapter and/or card reader, such as the ones pictured.

SD Card

MicroSD w/Adapter

External Card Reader

Dashcams offer a variety of methods to transfer video files, including, but not limited to:
1) Direct transfer via cable
2) SD/MicroSD Card
3) Wi-Fi
4) Bluetooth
5) Download from Cloud

It is important to note that many dashcams offer proprietary apps/software and some of these may limit the options you have to transfer video files.

Users should always consult the Owner's Manual and Technical Documentation that came with their dashcam for the best method to transfer video files.

DIRECT TRANSFER VIA CABLE

The simplest, but arguably the most inconvenient method for transferring video footage from a dashcam to your computer is via a cable. Many dashcams have a micro-USB or USB-C data port which can be utilized to connect the dashcam to a computer.

To transfer the video files:
1) Detach the dashcam from it's mount
2) Connect the dashcam to the computer using the appropriate cable
3) Open your computer's file manager and look for a new USB drive
4) Open the new USB drive and navigate to the videos stored on the dashcam
5) Use the cut or copy function to move files to your computer's hard drive or upload them directly to EXCH4$

Dashcam with micro-USB to USB transfer cable

TRANSFER FROM SD/MICROSD CARD

The most popular method for transferring video footage is by removing the SD/MicroSD card from your dashcam and inserting it into an internal or external card reader.

To transfer the video files:
1) Remove the storage card from the dashcam
2) Insert the card into the appropriate card reader
3) Open your computer's file manager and look for a new USB drive
4) Open the new USB drive and navigate to the videos stored on the card
5) Use the cut or copy function to move files to your computer's hard drive or upload them directly to EXCH4$

Built-in Card Reader

External Card Reader

TRANSFER VIA WIFI/BLUETOOTH

An alternate method for transferring/uploading video footage is by connecting a Wi-Fi or Bluetooth enabled device to your dashcam and downloading the video files.

It's important to note that this method isn't typically as straightforward as other methods. Many dashcam manufacturers require users to use their proprietary app or software to access video files using Wi-Fi/Bluetooth. Due to the typical file sizes involved, this method can be significantly slower than other methods.

To transfer the video files:
1) Connect the dashcam to the external device (smartphone, tablet, etc) by following the instructions provided with the dashcam
2) Determine if you need to access the files via a companion app or if they can be viewed directly
    a) If using the manufacturer's app, check for a download button. This should download the file directly to the connected device into a file manager or photo library
3) Use the share function of the connected device's file manager or photo library to upload them directly to EXCH4$