



COMMERCIAL DASH CAM Making an Informed Purchase

This overview, provided by Regional Insurance Services Company, LLC, was developed exclusively for our insureds and is intended to be used as a guide in assessing and selecting a dash cam solution that best fits their specific operational needs. RISCOM strongly encourages our insureds to perform their own due diligence in researching, identifying, implementing, and utilizing a dash cam solution.

A few considerations that may be helpful in determining which solution best fits your needs:

1. **Dash Cam Basics:** What to look for?
2. **Budget:** What are your needs and how much should it cost?
3. **Reliability:** Doing the research.
4. **Recording Capability:** 1 Channel vs 2 Channel Solutions.
5. **Video Quality & Coverage:** The importance of video quality.
6. **Memory Card Capabilities:** What to consider?
7. **Discreteness:** How visible should your dash cam be?

Dash Cam Basics:

There are a number of factors to be considered when determining which dash cam solution is the best fit for your business while providing the best return on investment. When starting your search, you will probably find that the number and variety of dash cams on the market can be overwhelming. So many of the dash cams' manufacturers will provide volumes of information regarding cryptic specifications while flaunting features galore trying to tempt you to buy their product. Avoid the trap and ignore the marketing hype by simply educating yourself on the fundamental basics listed throughout this guide.

A good way to start your search is by asking the question, "What do we want to accomplish by investing in a dash cam solution?" Most dash cams are installed because they are the strongest and most efficient proof you can have for defending yourself in the event of an accident. It can provide clear evidence of what actually happened during an accident. This ability to disprove liability is the main driving force behind the current proliferation of dash cam systems. Another reason for wanting a dash cam solution could be to monitor the driving habits of your staff. This can be done for multiple reasons such as identifying poor and undisciplined drivers who would benefit from additional training. Your commercial vehicle may be one of your business' most valuable assets and a dash cam solution can provide a certain peace of mind.

Do you want to record both inside and outside your vehicle? Most basic dash cams are forward facing and only record the road ahead of you. These dash cams are known as single-lens dash cams or 1 channel systems. If you have a need to record what is happening behind the vehicle or the inside



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activities of the driver, you will want a dual-lens dash cam or 2 channel system. Most 2 channel systems designed to record in front of the vehicle and the driver have both lenses built into one single device.

How your dash cam is mounted to your vehicle is important. Most dash cams come with a standard equipped suction mount, but the preferred method to mount your dash cam to your windshield is with a permanent adhesive mount. An adhesive mount is consistently more reliable, providing a secure long term solution which provides for better quality results.

Strong consideration should be given to purchasing a hardwire kit with your dash cam and having it permanently installed into your vehicles. This will ensure the dash cam is powered up and recording each time the vehicle's ignition is engaged, completely eliminating a critical point of failure. How much worse would your day be if you did have an accident and your dash cam's AC adapter wasn't plugged into the cigarette lighter? No power, no video. Why take the chance?

Another feature that deserves consideration is the tamperproof SD memory card lock. One of the main reasons to install a dash cam solution is evidentiary, as it will provide the evidence needed if there is a future dispute. This feature protects the SD card from drivers, law enforcement or any other unauthorized person from tampering with the video evidence. It can also minimize a plaintiff attorney's claim that the video evidence could have been tampered with.

Why not just use your smartphone as your dash cam solution? Well, there are several reasons why this would be a poor choice. Placing your smartphone on your dash will expose it to direct sunlight and excess heat, which may degrade battery life and cause reliability issues over time. Also, smartphones usually don't have enough storage or last long enough on a charge to record high-resolution video for hours on end. And, if you actually need to use your phone for navigation or a call, your smartphone-dash cam setup may prove inconvenient. In contrast a true dash cam solution is durable, can be hard-wired to your vehicle's battery, and can record many hours of video making it a far superior choice over a smartphone.

Budget:

The prices of dash cameras can vary significantly from as low as \$50 to more than \$500 depending on what features you require. It might be tempting to purchase a very low-priced model, only to be dissatisfied and inevitably spending more to replace that purchase several months later. To avoid this, do your research. Identify your potential target list of dash cams and then research each dash cam's strength and weaknesses. Consider your needs carefully and work towards making a selection that best fits your business operations. Another consideration that will directly impact your budget is the type of system you chose. The two choices to consider are stand-alone and remote monitored. A stand-alone dash cam solution is not connected or integrated to anything and typically is cheaper. This solution, in its most basic form, records continuous video footage and stores it locally to a memory card. When the memory is full, it continues recording by overwriting the oldest recorded video. To access or view this video the memory card must be physically retrieved. A remote monitored dash cam solution also records a limited amount of video locally on the dash cam, but then pushes that video up to a cloud environment where it can be viewed and evaluated. While this integrated solution has merit, it is



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generally only considered for larger fleets that cover a very wide geographical area. The associated reoccurring monthly cost charged for each vehicle by the monitoring company can be cost prohibitive.

Reliability:

This is an area where your research will pay dividends, as it is critical to ensure that your dash cam selection proves to be a reliable choice. Check recent reviews of all the dash cameras you've targeted. Be cautious if reviews consistently reveal performance issues. Compare manufacturer's specification details.

An extremely important and often overlooked aspect of dash cam reliability is their resistance to and performance in extreme heat. Dash cams are exposed not only to harsh sunlight but to the heat created by the greenhouse effect inside the vehicle. These extreme temperatures can cause cracks in the plastic housing of the camera, but more importantly, the heat often causes the electronic components of the camera to stop working properly. Try and identify dash cams manufactured with heat tolerance components. The manufacturers which make these dash cams tend to mention it prominently in the list of features. One heat related component you should be aware of is the capacitor or lithium ion battery used in the dash cam. While all dash cams require a 12 volt power source to work properly, the capacitor or battery provides the necessary power to the dash cam to safely save your video file should the dash cam's main power supply be disrupted. Capacitors are a preferred option because they are much more heat resistant and have a longer lifespan than lithium ion batteries. But remember dash cam batteries/capacitors are not meant to be used to power the unit while recording video, they are only meant to keep the camera on for a few seconds to save the video file after you have turned your car off.

Another reliability consideration is the dash cam lens. The lens captures light and focuses the image on the sensor. Better lenses produce clearer, sharper, and less distorted video. Glass is better while plastic is worse. The f-number represents the size of the aperture. A lower number is better (f/1.4 is better than f/2.0) as it represents a wider aperture which lets in more light and improves clarity. More lens elements can reduce distortion and increase sharpness. An example of a good lens would be a 7-Element, f/1.6 glass lens.

Recording Capability - 1 Channel vs 2 Channel:

Do you want to only record what is in front of your vehicle (1 Channel)? Or do you wish to record both what is ahead of the vehicle as well as what is behind the vehicle or even inside the vehicle (2 Channel)? Different companies will have different needs, but most companies looking for a dash cam to protect themselves on the road will look for a 1-channel dash cam mounted on the windshield and forward facing, meaning it can only record what is happening on the road in front of the vehicle. This is a great way to gain familiarity with dash cams, and these cameras are usually less costly than a 2-channel setup. However, a lot of companies want full protection in both the front and the rear and will pay the extra price for the peace of mind and install a 2-channel dash cam solution. This complete coverage is extremely valuable should there be an incident.



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Video Quality & Coverage:

This is perhaps the most important feature to look for in a dash camera. When an accident occurs, it is imperative that the details of the accident are clearly visible from the camera footage. Video quality ranges from 480p up to 1296p. A higher quality camera (1080p and up) will make out license plates, an extremely important aspect of capturing accident video. Keep in mind that the higher the quality of the video footage, the more storage space the footage will take up on the memory card. A related feature that should be briefly mentioned is the recording angle of the camera. Wide angle recording means that you can cover more street area on both sides while you drive. The higher the viewing angle, the wider the viewing area with a rating of 120 degrees being the current standard.

Memory Card Capabilities:

The memory card or SD card is arguably the most important component of the dash cam. The best quality camera in the world is useless if the memory card is faulty and the footage does not properly write or save. An SD (Secure Digital) card is a non-volatile digital storage device which simply means it does not require a continuous power supply to retain the data written to its memory. When the dash cam is turned off or loses power the video content written to the SD card is not lost. An important SD card fact is that data retention on your SD card can be affected by many different variables, but, depending on its rating, the data it contains can sit idle for a period of time ranging from months to years with no degradation in quality.

While it might sound obvious, the safest way to be sure you are purchasing the correct SD card is to first consult the dash cam's manufacturing specifications. These specifications should explicitly state what type of SD card is required to avoid compatibility issues while allowing your dash cam to function at its maximum resolution.

The speed at which a memory card can write (also called "write speed") is important when picking a quality SD card and is determined by the "class" of the memory card. Classes 2, 4, 6, and 10 denote the absolute minimum sustained write speeds in Megabytes (MB), meaning a class 2 card has minimum write speeds of 2 MB's while a class 10 card has a guaranteed minimum of 10 MB's.

As a general guideline, the following times below are an approximation of how long a dash camera will record in HD before the card loops (begins recording over from the beginning of the card and recording over previous footage).

- 32GB card - 4 hours
- 64GB card - 8 hours
- 128GB card - 15 hours

Given these time limitations, your drivers will need to understand that even the most minor of incidents should now trigger an immediate reaction to preserve the dash cam data and report the incident to RISCOM.

While not widely advertised or discussed, a very critical fact regarding your SD card is that it is a consumable item and has a finite lifespan defined by the number of write cycles performed. A write



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cycle is the process of writing and erasing data to the memory of an SD card, which is something a dash cam does constantly as it records video images. So applying this to the practical use of a dash cam in a commercial vehicle, the maximum life expectancy of an SD card can be a relatively short period of time. It can't be emphasized enough how important it is to closely monitor this usage. Ideally, this should be part of a comprehensive SD card maintenance procedure developed and implemented by your company.

Finally, always make sure you research and purchase SD cards that meet or exceed your specific dash cam manufacturer's specifications. Always buy the best quality, branded cards and make sure they are genuine cards from a reputable manufacturer. Be diligent and watch for fake or counterfeit SD cards, as there are many of them on the market. Always buy from a trusted supplier. And most importantly, put in place a maintenance program to manage your SD card inventory and usage.

Discreteness:

All viewing obstructions are dangerous when driving a commercial vehicle, so avoid placing dash cams in a position that may block your line of sight. Generally, smaller is safer and more inconspicuous. Ideally, your dash cam can be mounted behind the rear view mirror making the profile unobtrusive while not being clearly visible from the outside in order to prevent drawing unwanted attention. Obviously, the main consideration is the size of your dash cam, but the market contains many different size variations suited for a wide array of applications and vehicle types. The smaller dash cams usually don't have built in screens, but this typically is not a major issue for most consumers. The last consideration would be color with black as the preferred and least noticeable color for a dash cam.

For additional information or questions regarding this information please contact:

A handwritten signature in black ink, appearing to read "Randy Williams". The signature is fluid and cursive, written over a light gray rectangular background.

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