RISCOM®

DASH CAM PROGRAM

Information Packet

Confidentiality Statement & Disclaimer

In accepting this document the recipient agrees:

The information contained within this document (which includes appendices and exhibits) is proprietary and confidential information of RISCOM.

This document is provided for the sole use of the intended recipient or permitted third parties. Neither this document nor the information contained therein may be disclosed or reproduced, in whole or part, without prior written consent of RISCOM.

RISCOM has made every attempt to ensure the accuracy and reliability of the information provided in this document. However, the information is provided “as is” without warranty of any kind. RISCOM does not accept any responsibility or liability for the accuracy, content, completeness, legality or reliability of the information contained herein.

Contents

1 - Program Overview

This document, provided by Regional Insurance Services Company, LLC, (RISCOM) was developed exclusively for our insureds and is solely intended to be used as a resource guide in assessing and selecting a dash cam solution that best fits an insured's specific operational needs. RISCOM strongly encourages you to perform your own due diligence in researching, identifying, implementing, and utilizing a commercial grade dash cam solution. RISCOM also recommends that you inquire and comply with all applicable laws and rights to privacy in jurisdictions where you plan to use this technology as some jurisdictions regulate or prohibit its use.

Dash cams are becoming smaller, easier to use, and more affordable so they are providing a greater return on investment and very soon could be considered standard equipment in most vehicles. Dash cams are a factual, neutral and influential tool that is designed to provide significant evidence in the event of an accident, while also promoting safe driving practices through driver monitoring and training.

Why should your company install a commercial grade dash cam solution? The most obvious reason is for the benefit it can provide in the event of an accident. Traumatic memories are hard to keep straight, and no one in an accident wants to believe they were at fault. Dash cam footage is the strongest and most effective proof you can have to defend you and your drivers. Dash cam video also enables you to fight fraudulent claims. Commercial vehicles are constantly targeted by criminals and their fraudulent scams. It is assumed that all commercial vehicles are well-insured, leading some to criminal behavior like slamming on their brakes in front of a commercial vehicle or speeding into a left turn causing a collision so they can then claim they were severely injured. These scams often include staged witnesses that can be hard to overcome. This ability to disprove liability is the driving force behind the current proliferation of dash cam systems as video is the best way to fight back and exonerate you or your driver.

RISCOM is committed to providing the highest quality educational information and support to our insured's on the use and impact of this evolving technology. RISCOM strongly believes that when implemented and properly maintained, this technology provides companies the most cost-effective way to combat the increasing pressure of rising insurance premiums.

2 – Making an Informed Purchase

Finding the best dash cam solution can be an overwhelming task, so RISCOM has provided a quick and easy guide of the most important considerations when evaluating which solution best fits your company's needs.

2.1 Dash Cam Basics

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

How your dash cam is mounted to your vehicle is very important. Most dash cams come with a standard equipped suction mount, but the preferred method to mount your dash cam is with a permanent adhesive mount. An adhesive mount is consistently more reliable, providing a secure long term solution and 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, thereby 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 was not plugged into the cigarette lighter? No power, equals no video. Why take the chance?

Another feature worth consideration is the tamperproof SD memory card lock. One of the main reasons to install a dash cam solution is to provide the evidence needed if there is a future dispute. This feature protects the SD card from drivers 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.

There are several reasons why using your smartphone as your dash cam solution is 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 do not 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.

2.2 Budget

The prices of dash cams can vary significantly from as low as $50 to more than $500 depending on the manufacturer and the features you desire. It might be tempting to purchase a very low-priced model, but is likely you will be dissatisfied and inevitably spending more to replace that

purchase several months later. To avoid this, you should do your research. Identify your potential target list of dash cams and then research each dash cam's strengths and weaknesses. Consider your needs carefully and work towards making a selection that best fits your business operations. The biggest direct impact to your budget is in selecting what type of system will work best for your company. The two choices to consider are stand-alone and 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 continually pushes video up to a cloud environment where it can be viewed and evaluated. While this integrated solution has merit, it is generally suited for larger fleets that cover a very wide geographical area. The associated reoccurring monthly cost charged for each vehicle by the monitoring company may be cost prohibitive.

2.3 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 cams you have 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 its 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 to identify dash cams manufactured with heat-tolerant 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 you must remember dash cam batteries and 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 vehicle 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 than plastic. 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.

2.4 Recording Capability

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)? If you are looking for a dash cam to protect yourself on the road, a 1-channel forward facing dash cam will fit your needs. These cameras 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, if you want full protection in both the front and the rear then you should 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.

2.5 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 allow you to make out license plates, which is 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 or field of view. Wide angle recording means that you can cover more street area on both sides while you drive. The higher the viewing degree of angle the wider the viewing area, with the current standard at around 120 degrees.

2.6 Memory Cards

The memory card or SD card is absolutely the most important component of a dash cam system. 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), which means 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.

It is very important to be aware of the NAND flash memory technology that is utilized by your SD card. Only SD cards designed with either the SLC (Single-Level Cell) or MLC (Multi-Level Cell) flash memory technology should be used in your system. These standards offer an industrial

grade solution, which is a vital component in maintaining a reliable dash cam system. Non-stop video recording can be brutal on cards that are not designed for continuous writing and if used in this capacity it can result in data corruption, system performance issues and ultimately the potential loss of video.

The following times below are a general 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 - 6 hours
•64GB card - 10 hours
•128GB card - 15 hours

Given these time limitations, your drivers will need to understand that even the most minor of incidents should trigger an immediate reaction to preserve the dash cam video and report the incident to RISCOM. To secure video evidence in the event of an accident RISCOM recommends the SD card be removed from the dash cam and replaced with a backup SD card for use when the vehicle is cleared to resume operations.

While not widely advertised or discussed, another 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 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 cannot be emphasized enough how important it is to closely monitor this usage. Ideally, this should be part of a comprehensive routine 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, you should put in place a routine maintenance program to manage your SD card inventory and usage.

2.7 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. 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 do not have built in screens, but this typically is not a major issue for most consumers. Another consideration would be color with black as the preferred and least noticeable color for a dash cam. It is also important to consult the laws of the states in which you travel as some states do regulate the placement of dash cams.

3 – RISCOM Recommendations

3.1 Dash Cam Specification Recommendations

Single Channel Dash cam

- Forward facing
  - Minimum Video Resolution: 1920 x 1080p 30fps

Dual Channel Dash cam

- Forward facing
  - Minimum Video Resolution: 1920 x 1080p 30fps
- Interior/Driver facing
  - Minimum Video Resolution: 1280 x 720 30fps

Video Resolutions

The higher the camera's resolution the better

- Quad HD 3840 x 2160 30fps
- Super HD 2304 x 1296 30fps
- Full HD 1920 x 1080 30fps(Minimum – Forward View)
- HD 1280 x 720 30fps (Minimum - Rear View)

Camera Field of View/Visual Angle

- 120°

Storage Media

More memory is always better, as it reduces looping and overwriting

- Micro SD Memory Card
  - 32GB (Minimum)
  - Storage Technology (No Exception)
    - SLC (Single-Level Cell)
    - MLC (Multi-Level Cell) or SuperMLC
  - Class 10 (Minimum)
  - Brand Name (Transcend, Kingston, Samsung, SanDisk)
    - Avoid All Generic Products
    - High Endurance/Industrial Series

Power Source

- Manufacturer supplied hard wired power supply kit

Mounting

- Fixed adhesive mount

3.2 System Recommendations – Non Monitored (Stand Alone)

The commercial dash cam solutions listed below (in no particular order) are provided as RISCOM has firsthand knowledge and experience using these solutions. While other quality products may exist, those listed below have all been successfully installed and are providing reliable service and results to RISCOM insured's.

MANUFACTURERS:

Transcend
- MODEL: Drivepro 50 – 1ch
- MODEL: Drivepro 550 – 2ch

Vantrue
- MODEL: R2 – 1ch
- MODEL: N2 – 2ch

BlackVue
- MODEL: DR450 – 1ch
- MODEL: DR430 – 2ch

Rexing
- MODEL: V1 – 1ch
- MODEL: V1P – 2ch

KdLinks
- MODEL: X1 – 1ch
- MODEL: DX2 – 2ch

3.3 System Recommendations – Monitored (Fleet)

The commercial dash cam solutions listed below (in no particular order) are provided as RISCOM has firsthand knowledge and experience with these solutions. While other quality systems may exist, those listed below have all been successfully installed and are providing reliable service and results to RISCOM insured's.

COMPANIES:

- Samsara
  - URL: https://www.samsara.com/
- AngelTrax
  - URL: https://www.angeltrax.com/
- Azuga
  - URL: https://www.azuga.com/
- Lytx
  - URL: https://www.lytx.com/
- Seon
  - URL: https://www.seon.com/
- SmartDrive
  - URL: https://www.smartdrive.net/
- Safety Vision
  - URL: https://www.safetyvision.com/

4 – RISCOM Program Requirements

4.1 RISCOM Minimum Dash Cam Specification Requirements

Please find the following minimum system specification requirements:

- Video Resolution: FHD 1920 x 1080p; 30fps
- Field of View/Visual Angle: 120°
- Memory Card: 32GB High Endurance Micro SD Card
- Power Source: Manufacturer supplied hard wired power supply kit
- Mounting: Fixed adhesive mount

4.2 RISCOM Proof of Installation Requirements

The following list of required documentation must be provided to RISCOM as proof of your dash cam installation on all conditionally bound policies where a dash cam installation was mandated. To remain compliant and maintain current coverage this documentation must be received prior to the expiration of the installation time frame. Installation time frames begin from the date coverage was bound.

- Written notification from the insured providing a statement that all vehicles have had their cameras permanently installed (fix mount and hard wired); all are currently in use; and a routine maintenance plan is in place and will be utilized.
- A copy of the original invoice, to include a detailed line item breakdown of item, quantity and cost.
- Pictures of at least two vehicles showing the installed camera system along with those vehicles identifying vehicle identification number (VIN).

4.3 A Visual Guide to System Compliance

NO YES

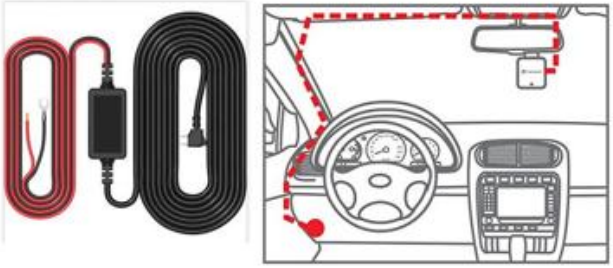
Mounting

Suction Cup Mount

Adhesive Mount

Power Supply & Installation

Car Lighter Adapter



Hardwire Kit with Professional Installation

Micro SD Memory Card

NAND Flash Memory: TLC
(Ex: Ultra, Advantage, Extreme Pro)

32GB Minimum
NAND Flash Memory: SLC or MLC
(Ex: High Endurance, Industrial)

CAMERA MINIMUM REQUIREMENTS

Video Resolution: FHD 1920 x 1080p 30fps

Field of View (Visual Angle): 120°

5 – Maintaining a Dash Cam System

The installation of a dash cam system is just the beginning as routine maintenance is essential to ensuring reliability from your dash cam investment. Routine maintenance, whether daily, weekly or at a minimum - monthly, is crucial in identifying and averting system malfunctions that may lead to critical video not being captured.

RISCOM strongly encourages you to perform the following routine maintenance:

5.1 Format Memory Cards

The most common issue or point of failure with a dash cam system is with its memory card. Regular memory card maintenance is critical to maintaining your system's optimal performance and reliability. Routinely formatting memory cards per the manufacturer's guidelines prepares the memory card for the storage of data. Formatting wipes the memory card clean by removing previously existing data and creating a new file system. You may think, "My dash cam has a loop recording function, so why would I need to format the memory card?" Although the dash cam records over old footage, it is still possible for fragments of previous data to be left on the memory card making the card susceptible to errors, corrupt data or a complete system failure.

> **TIP:** Transcend provides a smartphone app for all DrivePro series systems allowing local Wi-Fi access. The DrivePro app enables users to perform a variety of functions like viewing and downloading saved video loops, but, most importantly, it provides the easiest and most reliable way to reformat the memory card.

5.2 Reviewing Dash Cam Video

It is imperative that you routinely play back your last video file, checking to ensure it actually contains your most current dash cam footage. If the last video file recorded is not current footage then your system has a critical issue that needs to be corrected immediately. It is also important to ensure that the system date and time stamp is current and that your video accurately reflects this information.

5.3 Visual System Inspection

Visually check all the components of your system and clean the systems camera lens.

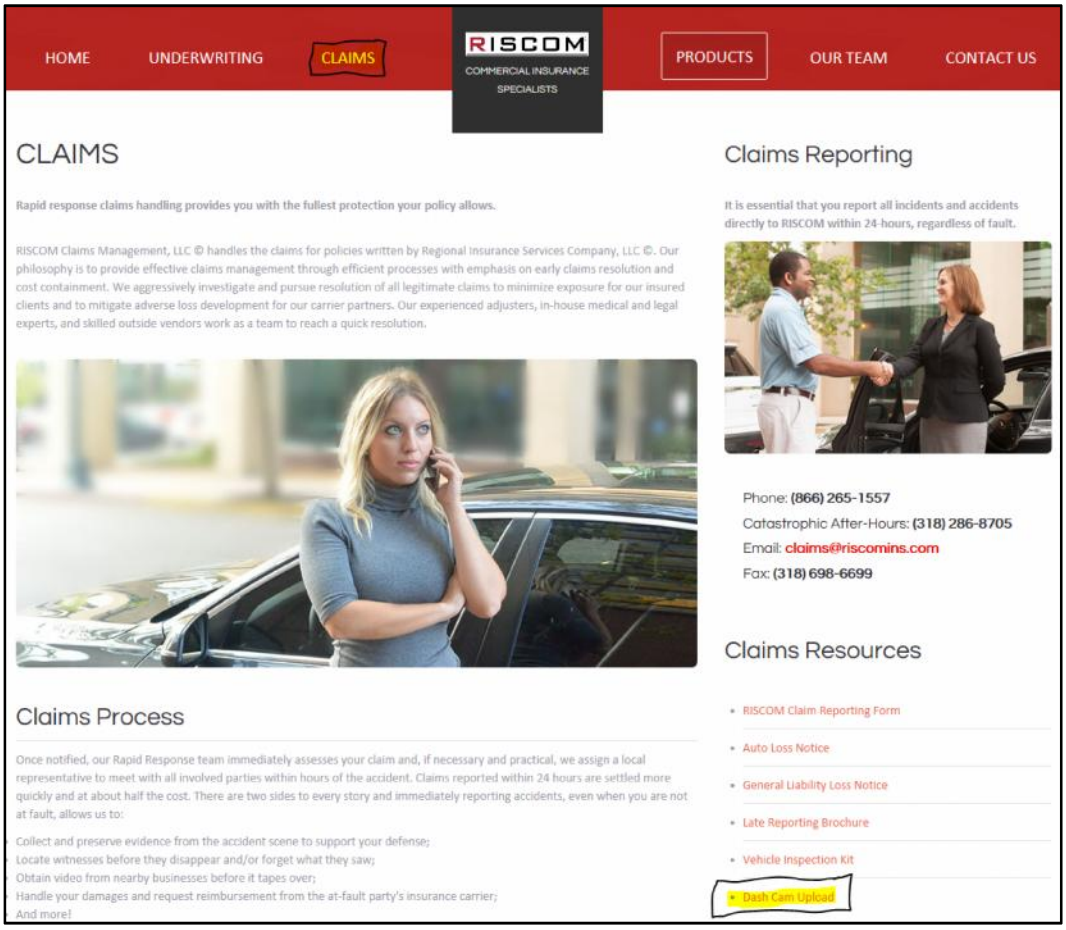
5.4 Replace Older Memory Cards

Your dash cam system is constantly reading and writing new footage to your memory card. Over time the internal materials of the card will degrade, reducing its performance and reliability. It is recommended you replace memory cards at a minimum of every 18 - 24 months.

6 – How to Submit Dash Cam Video to RISCOM

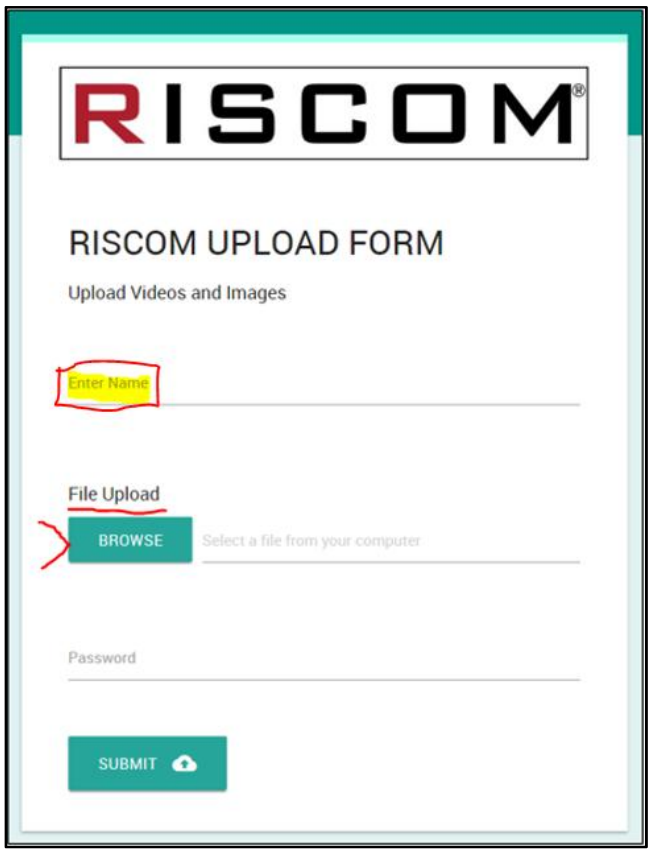
Step by step video upload instructions:

- Go to **www.riscomins.com**
  - Navigate to the CLAIMS page
  - Select [**Dash Cam Upload**] located under “Claims Resources”

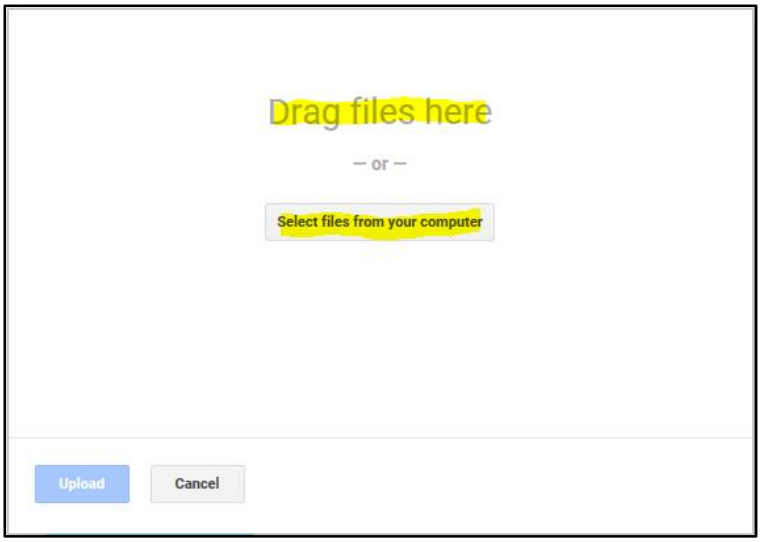


- Enter the **password**: up2riscom! (*case sensitive*)

- Enter Your Company **Name**
- Select the [**BROWSE**] button under “File Upload”

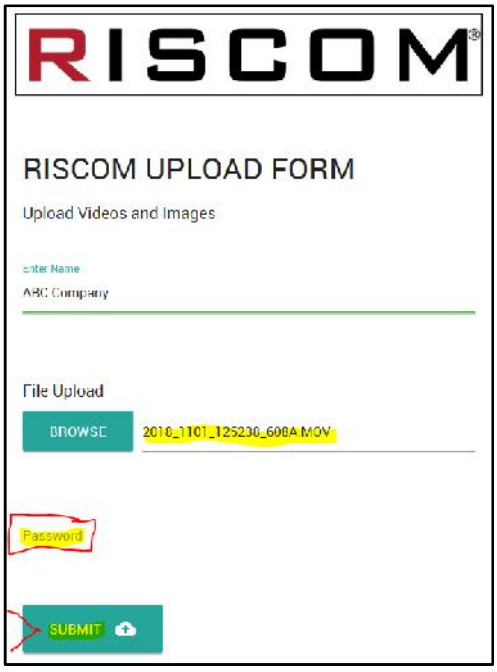


- An upload screen will be displayed allowing you to drag your video file into the upload box or you can navigate to and select your video file [**Select files from your computer**]

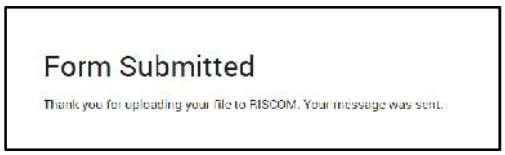


- Select the [**Upload**] button to have your video file uploaded to our webserver
  - Please keep in mind, the files will be large so the time it takes to upload will depend on the file size and your connection speed

- Once uploaded the video file name will be displayed in the “RISCOM UPLOAD FORM”
- Enter the **password** again: up2riscom! (*case sensitive*)
- Select [**SUBMIT**]



Congratulations your video file has been uploaded and is available for an adjuster to review



7 – RISCOM Partners with Transcend Information, Inc.

RISCOM is excited to announce our strategic partnership with Transcend Information, Inc. This partnership connects Transcend with our insureds allowing us to provide exclusive access to discounted bundle pricing of their industry leading dash cam technology.

Founded in 1988, Transcend manufactures a global brand of digital storage, multimedia and industrial products. They are committed to upholding their products to the highest level of quality while also setting the industry standard for professional services. They are an industry leader in the global dash cam market, providing superior quality and innovative commercial dash cam technology. Our partnership allows us to provide a substantial discount directly to our insureds as Transcend has assembled bundled packages specifically created for our insureds. These bundled packages contain every component needed for a compliant installation while also meeting all of RISCOM's specification requirements. Because of our exclusive relationship, if an issue should occur during the purchase process, you can always contact us, and we will intervene on your behalf to ensure your issue is resolved to your satisfaction.

8 – Frequently Asked Questions

Below are the most frequently asked questions and answers we have received regarding our dash cam program. Many additional questions not specifically listed here may have previously been addressed in a prior section of this documentation.

Q: **In the event of an accident, what steps should be taken to secure the video?**
A: First and most importantly, your company should have an established accident protocol to avoid any confusion and potential loss of video prior to an accident occurring. This protocol should include step by step post-event instructions regarding how to preserve the video, either by securing the SD Card or by downloading the actual accident video immediately. If the SD Card is secured by removing it from the system a replacement or backup SD Card will need to be used, ensuring video coverage continues once the vehicle is released from the accident scene. All drivers should be trained on the execution of this protocol and the process reviewed at least once a year. If you should need additional help or information in developing and implementing your unique accident protocol, please contact us and we will be glad to assist you.

Q: **Where do I get my dash cam systems installed?**
A: While RISCOM does not have a specific installation company that we recommend, we do suggest looking for either a mechanic or a local stereo installation shop. If neither of these suggestions will work for your individual needs, please contact us and we will be glad to work with you in completing your installation.

Q: **Why would I find a Transcend DrivePro system online that has a comparable list price to the discounted price provided through the Transcend/RISCOM program?**
A: This answer is always related to differences of the components being offered, making it very important that the two systems be evaluated at the component level to ensure an accurate comparison is being performed. Prior experience has shown that the most common component differences exist in the MicroSD card where a 18GB card is usually provided instead of the required 32GB; the camera mount uses a suction cup instead of a fixed adhesive mount; or the power is provided by a cigarette lighter power adapter instead of a hardwire kit. Once the additional components are purchased/upgraded for the system to be compliant (fixed adhesive mount, hardwire kit and upgraded 32GB MicroSD card), it can easily increase the purchase price by $50 - $70.

Q: **Do I have to purchase my dash cam solution from Transcend?**
A: No. While we encourage you to purchase a commercial grade solution, as long as your selection meets all of RISCOM's minimum system specification requirements it will be accepted for use in our program.

9 – RISCOM Contact Information

For additional information or questions regarding this information please contact:

Randy Williams
Chief Operations Officer

Office: 318-698-6605

Cell: 318-423-2335

Email: randy.williams@riscomins.com

Regional Insurance Services Company, LLC
333 Texas Street, Suite 1150
Shreveport, LA 71101
318-698-6600
www.riscomins.com