SMARTWITNESS

VEHICLE CCTV AND SAFETY SYSTEMS

Why SmartWitness?

Certifications

- IS09001:2008
- ISO14001:2015
- RoHS, FCC, CE, & E-mark
- PTCRB
- RHA Gold Associate
- AT&T Network Certified
- Verizon Wireless Network Certified
- Sprint Network Certified
- Transport for London (TFL) Approved
- New York Taxi & Livery (TLC) Approved
- Chicago BACP Approved

Accurate

We don't just rely on design & software to produce accurate results, we source technology from industry leaders such as Bosch, Sony, U-BLOX, Telit, Taoglas, Samsung, and Sierra Wireless.

Secure

Our systems are designed to be automated and tamper-resistant. Our vehicle integration technology & securely locked hardware allow the data recorded from our systems to maintain their integrity and reduce the risk of theft or manipulation.

SMARTWITNESS

About SmartWitness

FleetNews AWARDS 2014 WINNER Best New Product or Service

Brake FLEET SAFETY Award WINNER

- Designer, Manufacturer, & Distributor of Vehicle Cameras, Recorders, & Software
- First Launched in 2007 in London as a branch Y3K, a global CCTV company. We have since grown to become the #1 vehicle camera supplier in the U.K.
- U.S. Office opened in Jan. 2014 in Schaumburg, IL.
- Over 250,000 SmartWitness units on the road today, in over 50 different countries
- Suppliers to Transport for London (TFL) & numerous local authorities across the UK
- Used by major city governments including: Chicago, New York, London, & Hong Kong
- ISO 9001 & ISO:14001 certified. FCC, CE, E-Mark & RoHS compliant
- Highest quality system components; Bosch, Sony, & Toshiba

A Few Statistics…

UMTRI TRANSPORTATION RESEARCH INSTITUTE UNIVERSITY OF MICHIGAN

- Car drivers assigned fault in 81% of cases.

NHTSA

- Cars were the encroaching vehicle in 91% of head-on crashes
- Cars were the encroaching vehicle in 91% of opposite-direction sideswipes
- Cars were the encroaching vehicle in 71% of rear-end crashes
- Cars were the encroaching vehicle in 77% of same-direction sideswipes

FMCSA
Federal Motor Carrier Safety Administration

- A large truck crash involving a fatality costs on average $3.6 million per incident
- A crash with injuries costs almost $200,000 per incident
- The average cost of all large truck crashes is about $91,000 per incident

Why SmartWitness?

It's no secret that there is a national shortage of commercial drivers…but no shortage of risks and liability posed by the road and drivers, especially from false claims and accusations. Commercial drivers are often considered "guilty until proven innocent". SmartWitness helps assign guilt where it truly lies, while also providing tangible driving data to improve driving behaviors and reduce the frequency of all road events.

Click here to watch SmartWitness technology overview

Problems Faced

- ✘ Cash for Crash or Insurance Fraud Incidents
- ✘ Exaggerated/False Whiplash & Injury Claims
- ✘ Lack of Witnesses or Conflicting Reports
- ✘ Poor Driver Behavior
- ✘ Lack of Security on Vehicle & Cargo
- ✘ Long & Tedious Claims Processes

- ▶ HD Video Footage Delivers Concrete Evidence
- ▶ Smart G-Sensor Provides Detailed Impact Data
- ▶ Real-Time Access to Video, Audio, & Driving Data
- ▶ Drive Reports on braking/accel, idle time, RPM, etc.
- ▶ Multi-Camera Recording Inside/Outside Vehicle
- ▶ Accelerates Resolution of Insurance Claims

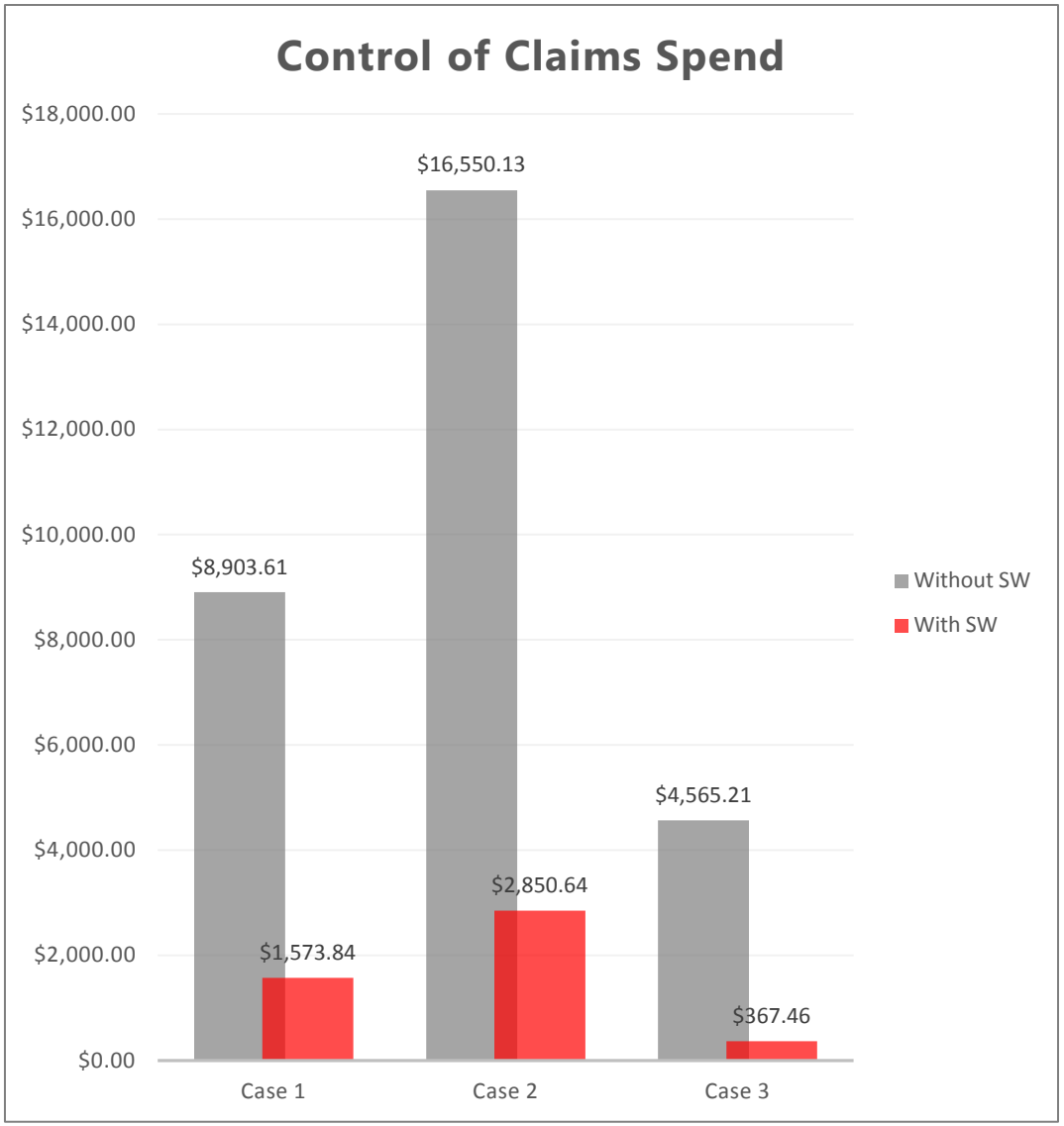
Benefits

- ✓ Mitigation of Whiplash/Personal Injury Claims
- ✓ Proven Reduction of Road Incidents
- ✓ Increased Fuel Economy
- ✓ Proven Reduction of At-Fault Claims
- ✓ Possible Insurance Premium Reductions

Benefits of SmartWitness Video Solutions for Claims

- **Immediate Notification of Incidents**
  Manage the direction of claims through early interception
- **Control of Claims Spend**
  Reduces third party claim costs
- **Early Liability Decisions**
  Eradicates the cost of investigation fees from external sources
- **Early Third Party Capture**
  First to the third party keeping them out of the opposing organization's grasp and into the hands of network service providers
- **Undeniable Witness Evidence**
  Video data reduces disputed claims from **40% to 2%**
- **Remote Access to Video Footage**
  Instant access when needed by claims department
- **Vehicle Tracking & Monitoring**
  Proves if the vehicle was in the area of an alleged incident and speed/behavior metrics
- **Force of Impact Recorded**
  G-sensor provides data-backed evidence related to incident causation and severity
- **Fraud Prevention**
  Concrete evidence to determine occupancy claims or staged/induced accidents

Case Study #1 – Claims Cost Reductions



Source: UK Commercial Insurance Carrier, 2016

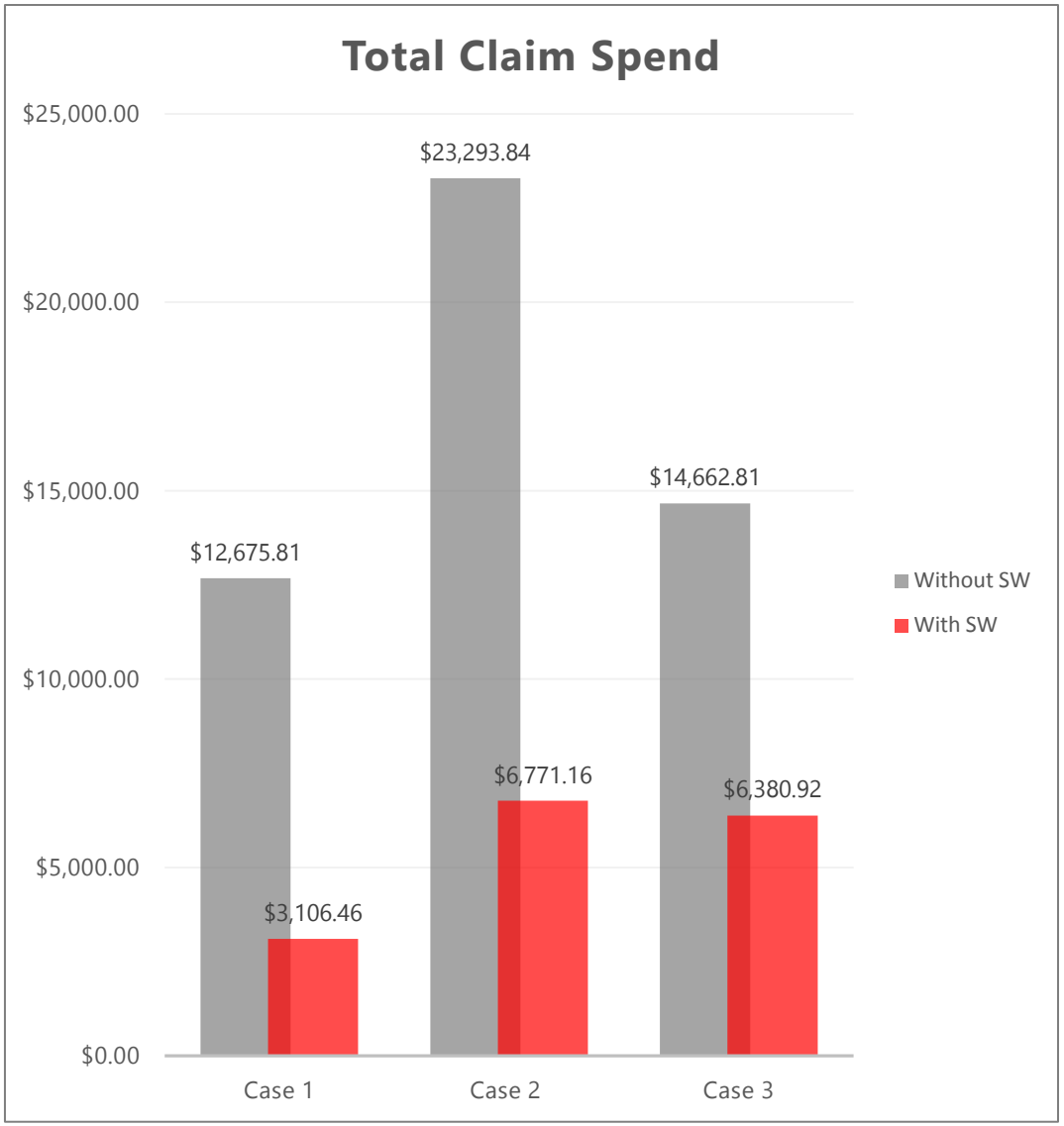
As a direct result of implementation of SmartWitness video telematics, significant decreases in claims cost reduction are made.

Case 1: 82% reduction in cost

Case 2: 82% reduction in cost

Case 3: 92% reduction in cost

Case Study #2 – Total Claims Spend Reductions



Source: UK Commercial Insurance Carrier, 2016

SmartWitness video telematics allows far greater control over costs of claims by reducing the time taken to obtain key information.

Case 1: 76% reduction in spend

Case 2: 71% reduction in spend

Case 3: 56%% reduction in spend

SmartMail Overview

1 Camera installed into vehicle

KP1S is a windshield mounted device with an optional 2nd camera input. GPS, Smart Accelerometer, Microphone, HD Camera, & 3G modem are all on-board.

2 An event is triggered

A safety critical event occurs (accident, hard brake, overspeed, panic button, alarm input). KP1S records HD video at full frame rate to its internal storage. At the same time, KP1S transmits a preview file and e-mail message to SmartMail server.

3 Images & drive data transmitted to SmartMail server

SmartMail e-mail server receives message from the KP1S and pushes GPS/G-Force data and preview video file to user's e-mail address.

4 Video is instantly sent to user's e-mail inbox

Customer receives e-mail from SmartMail server with attached 10 second preview video. Customer can request full resolution video by replying to e-mail message from the KP1S and review original file through the Analysis Tool.

SmartMail was developed with the small/medium fleet operator in mind. It delivers driver safety and protection information to you within moments of an incident taking place. That may be a road collision, an unsafe braking/speeding event, a driver-initiated panic button or where someone just feels unsafe and wants to know you're looking out for them. Using SmartWitness cellular-enabled dash cameras, any safety-critical road event will automatically transmit an email notification to up to 5 email recipients. The emails will contain the Vehicle ID, GPS location, Event type and a 10 second low-resolution video clip of the incident.

If confirmed that something critical has happened, the email recipients are able to request the original high definition footage, which resides on the camera's internal storage (up to 128GB). Receiving that information in seconds takes your ability to manage any potential claim to the next level. Industry statistics show that the faster any claim can be picked up and managed by your insurer (whether your fault or not) the cheaper the claim is to resolve. The lower the claim cost the less impact it has on your insurance renewal/loss ratio. Smart Mail utilizes much less data than Smart API and, as a result, is a more affordable solution.

SmartMail Event Data Flow

Camera Installed into Vehicle

Event is Triggered

Images & Drive Data Transmitted to SmartMail Server

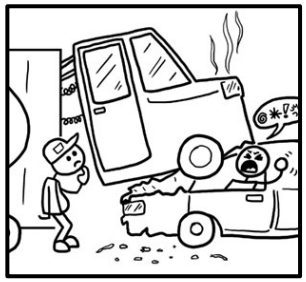
Video is Instantly Sent to User's E-Mail Box

1

2

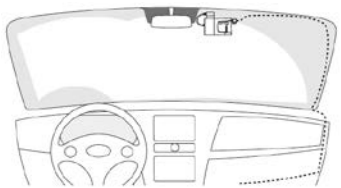
3

4



Cellular Transfer

SmartWitness cameras are windshield mounted devices with an GPS, Smart Accelerometer, Microphone, HD camera, & 3G modem.



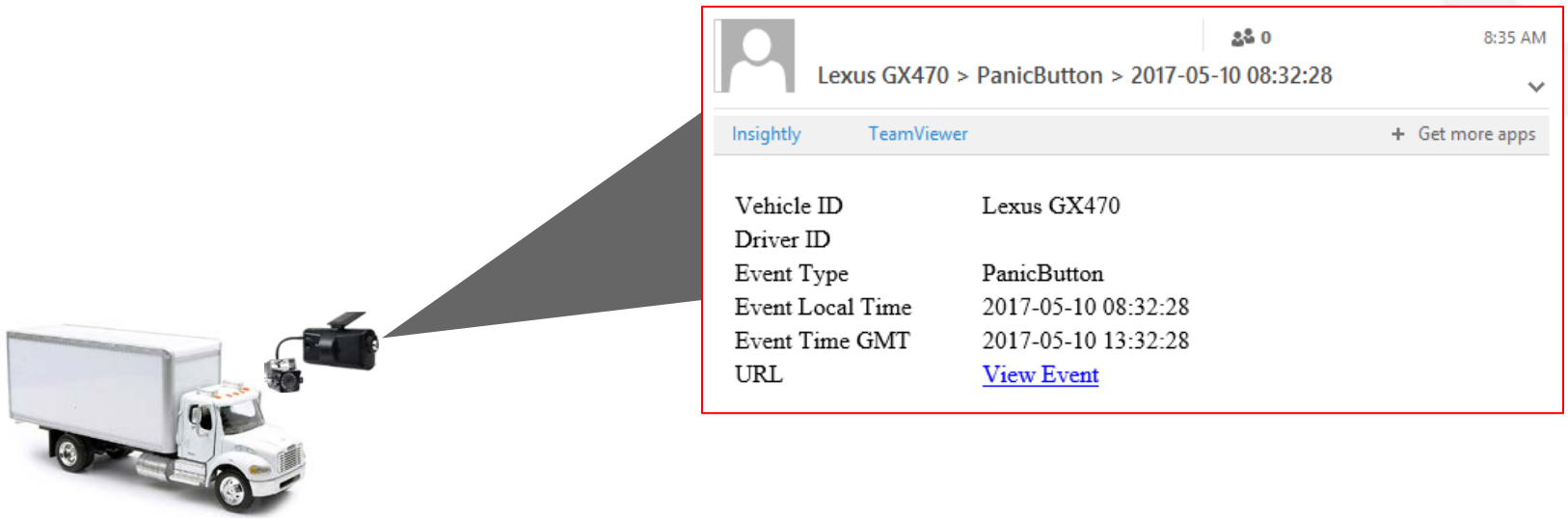
A safety critical event occurs (accident, hard brake, overspeed, panic button, alarm input). Device records HD video at full frame rate to its internal storage. At the same time, KP1S transmits a preview file and e-mail message to SmartMail server.

SmartMail e-mail server receives message from the device and pushes GPS/G-Force data and preview video file to user's e-mail address.

Customer receives e-mail from SmartMail server with attached 6 second preview video. Customer can request full resolution video through the SmartMail administrator portal.

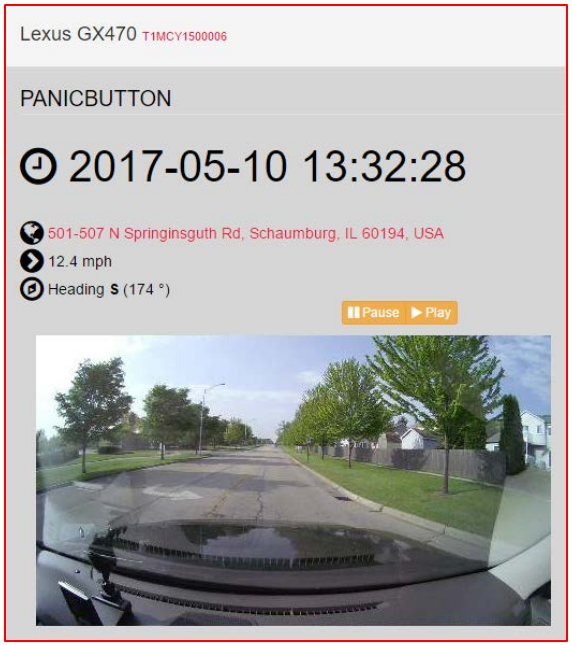
SMARTWITNESS

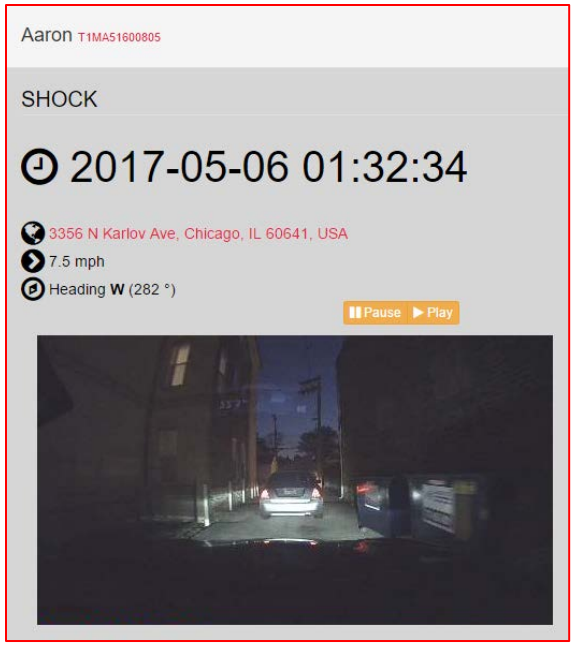
E-Mail Messages from SmartMail



- Alert messages from SmartMail include the following information:
  - Unique Vehicle ID
  - Unique Driver ID
  - Event Type (ignition on, panic, or shock)
  - Event Time
  - Media link to view preview file where applicable (6 seconds; 3 pre/post event)

SmartMail Preview Files

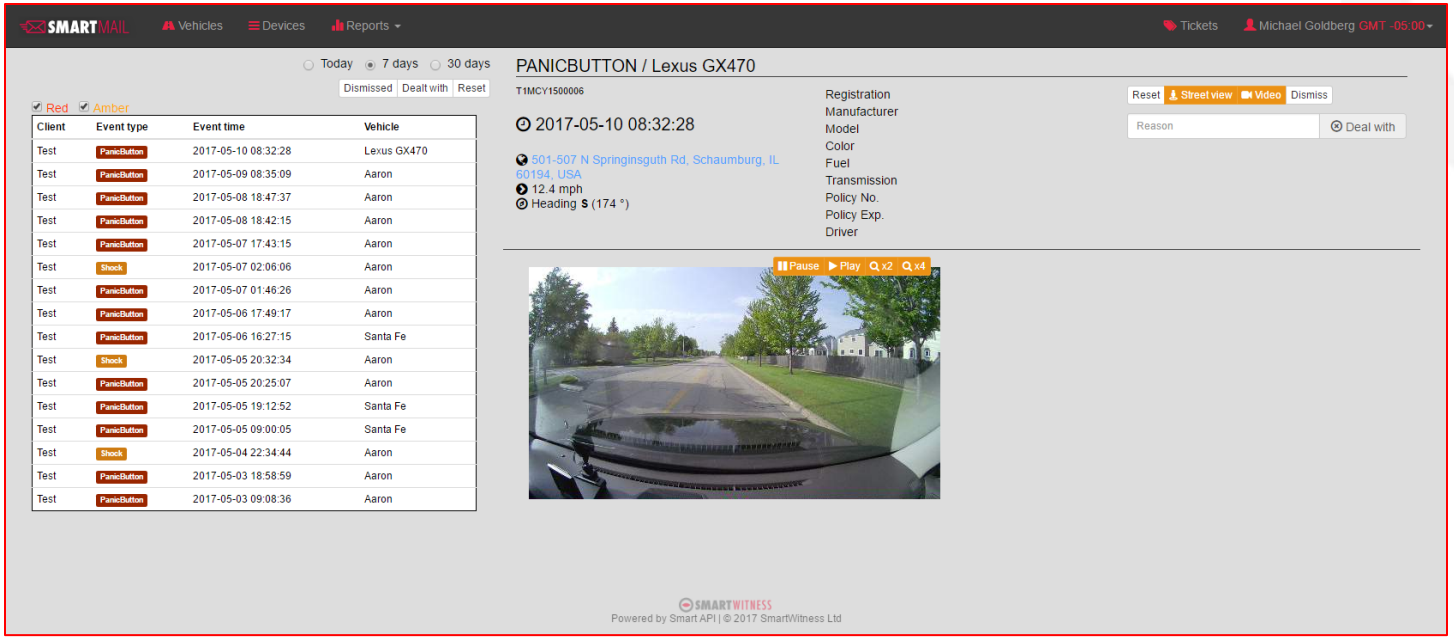




- Preview files can be opened on any computer, smartphone, or tablet for review and include the following information:

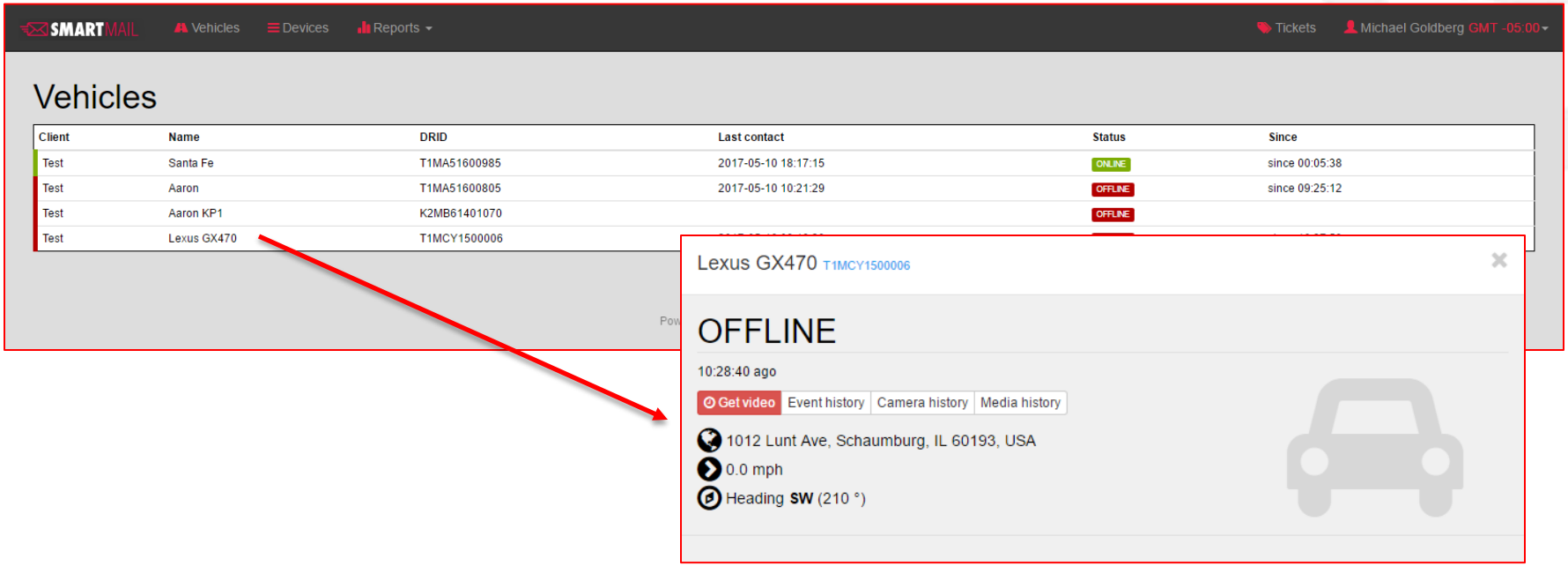
  - Vehicle ID and Camera Serial Number
  - Event Type
  - Location Link (will open Google Maps location)
  - Speed
  - Heading
  - Media File (will display all the cameras installed in the vehicle)

SmartMail Administrator Portal – Landing Page



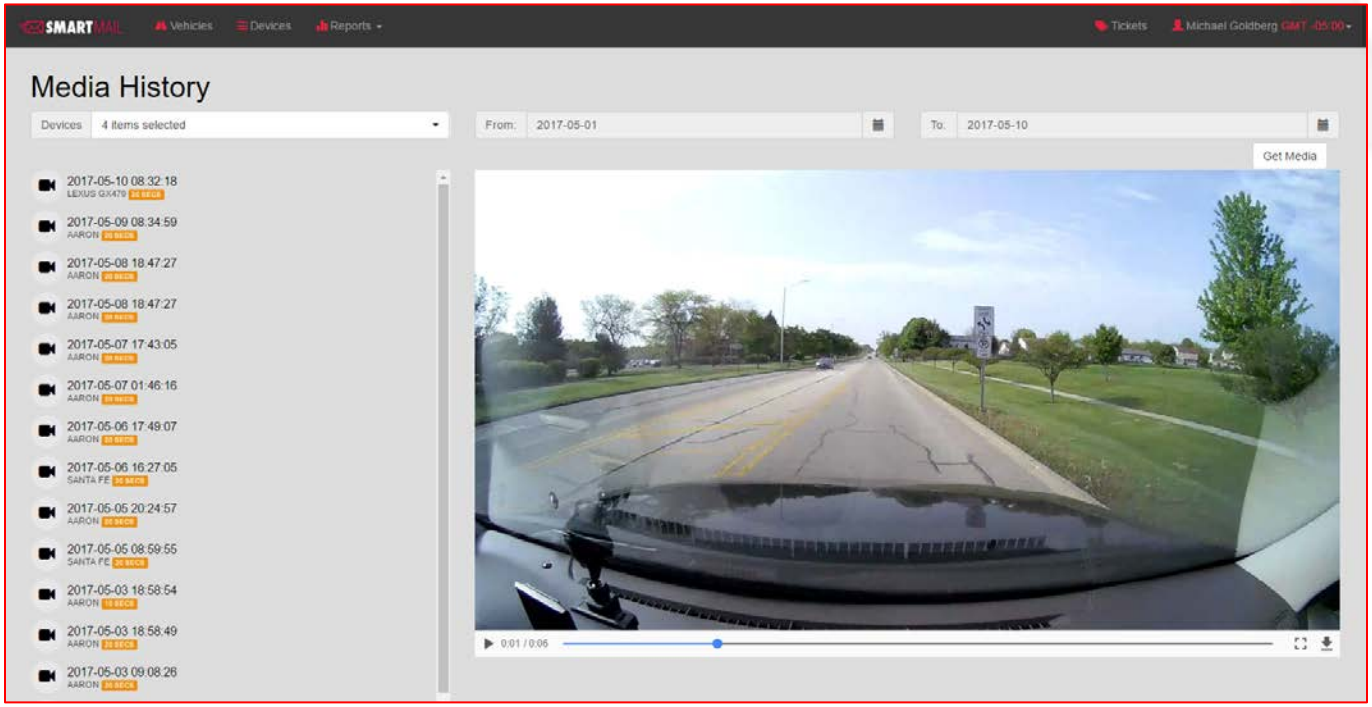
- Dashboard provides at-a-glance view of available media for today, the last 7 days, or the last 30 days
- Events sorted by type, time/date, and vehicle
- Preview playback initiated once any event is clicked
- Ability to retrieve HD video from any preview file
- All customizable vehicle details are displayed during playback
- Ability to manage event list in the dashboard by either dismissing or dealing with events

SmartMail Administrator Portal – Vehicles



- Displays all vehicles within a fleet or organization
- Gives name, camera ID, last contact information, and current status (online/offline)
- Clicking on a vehicle pops up detailed vehicle view with available actions:
    - Get Video: query video from any time/date available from the onboard storage
    - Event History: all ignition on/off events or offline events
    - Camera History: all positioning data and check-ins of the device
    - Media History: last 7 days of media (pic/vid) of the device

SmartMail Administrator Portal – Media History Report



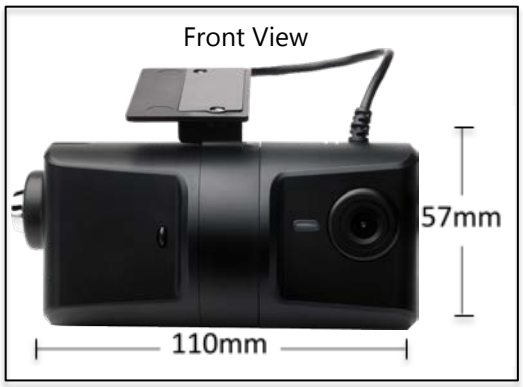
- Media history report gives the administrator the ability to retrieve all media from devices based on a custom date range
- Playback of any media within the same window for easy navigation through data
- All videos/images are labeled by time/date, vehicle ID, and duration

Telematics Device Notifications (Optional)

Upon event trigger, the SmartWitness device will send a notification via a telematics device installed in the vehicle. This will create an alert on the GPS tracking application which allows for auditing of camera events.

1. Event is triggered on camera system (panic, shock, speed, PTO, etc.)
2. Alert signal is sent to telematics device
3. Notification pops up on telematics platform
4. User can sort notifications by vehicle or fleet

KP1S Key Features

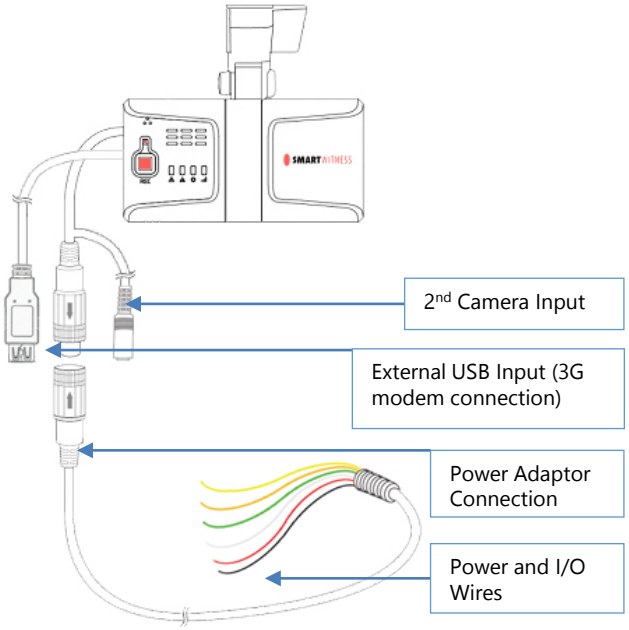


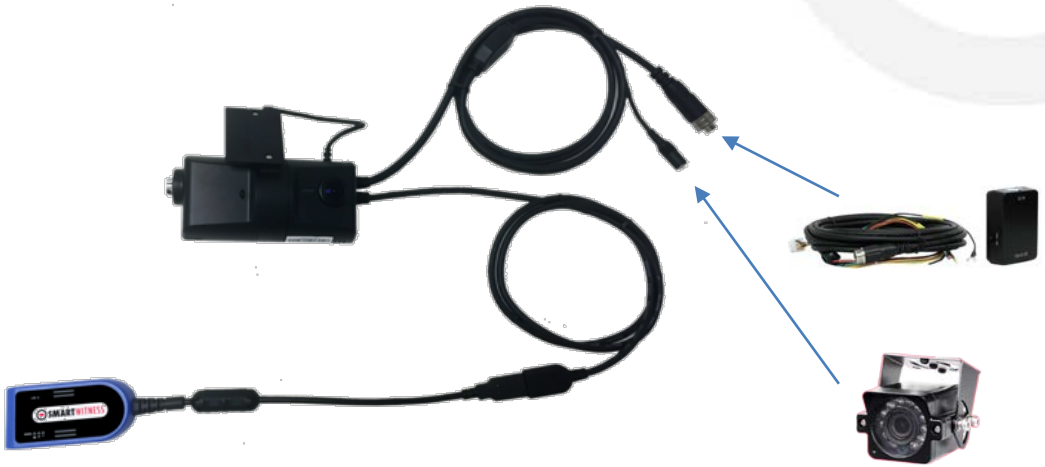
- 720p HD video at 30 FPS – 170° Wide Angle View of road
- Optional 2nd camera for side, rear or interior view (Plug n Play)
- Built-in Smart G-Sensor, GPS, Mic, & Patented Locking Enclosure
- Dual SD Cards (64GB capacity) & Automatic SD Card Maintenance Feature
- Delayed power shutdown feature for connectivity & recording after ignition is off
- Permanent power cable and direct power connection to vehicle ignition/power ensures full automation of system recording and all operation
- Tamper-resistant windshield mount. Cannot adjust angle once locking door is attached
- Alarm Input Triggers: Ignition, Speed, Turn signals, Brakes, Reverse, Emergency lights, Horn, Door open, panic button, etc.
- USB Input for adding optional Wi-Fi or 3G connectivity for wireless transmission of recorded data to a server or via email
- Integration with existing Telematics software available

KP1 with locking cover removed

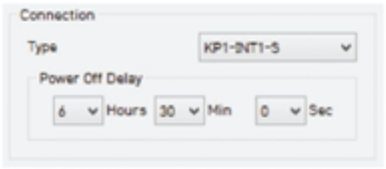
KP1 with 2nd camera connected

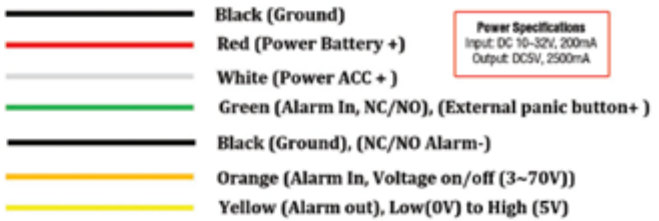
KP1S Hardware (Cont'd)



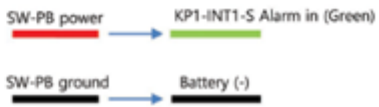


Shutdown Delay time set using provided KP1S configuration tool software



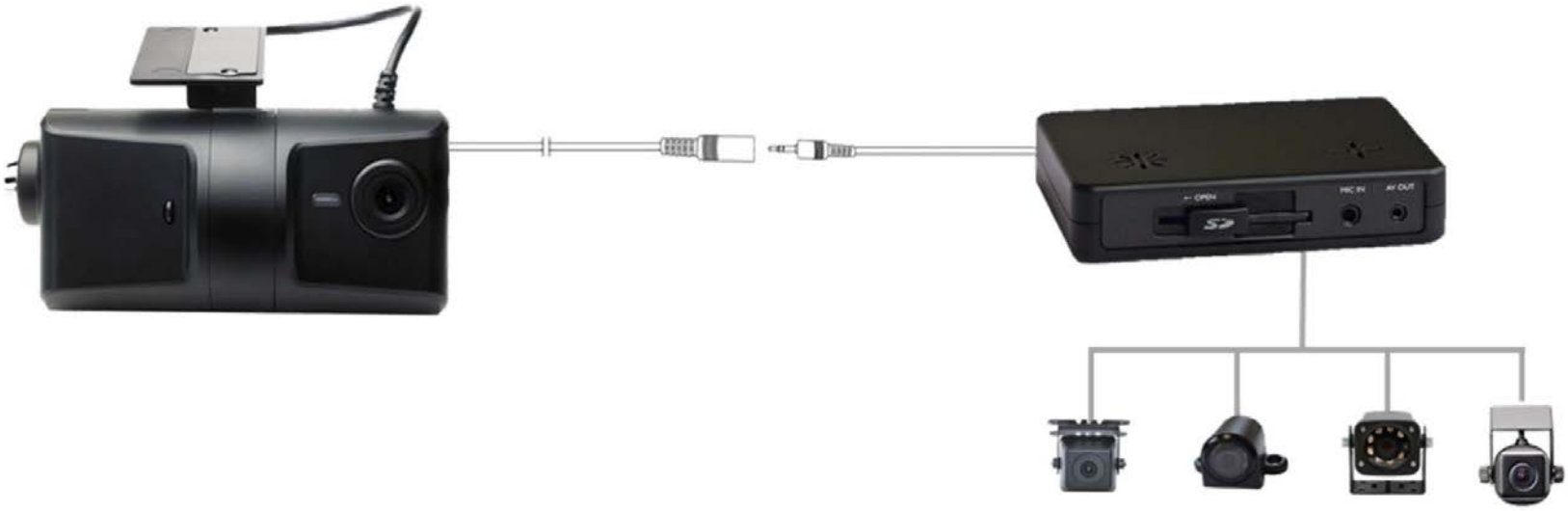


Optional Accessory:
Remote Panic Button (P/N: SW-PB)



KP1S 5 Camera Setup (Optional)

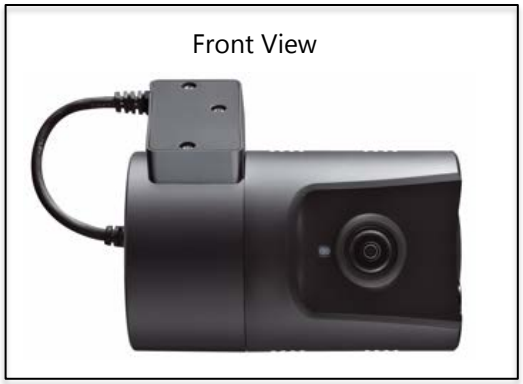
The KP1S can be paired with an SVC400-S to allow for up to 5 cameras to be interfaced and transmitted to SmartMail or a telematics application via cellular network connection.



KP1S Key Differentiators

- Unique 170º Field of View for High Definition Pillar-to-Pillar Camera Viewing Angle
- Wi-Fi enabled for wireless transmission of events, videos, driving data, & unit updates/upgrades
- Dual SD card design for longer storage times and redundancy
- 2nd camera is optional and can be easily added at any time, in any location on the vehicle
- Measurements of 3-Axis G-Forces at 100x per second for accurate impact force & detailed driving behaviors
- Integrated GPS receives data once every second for superior accuracy of Time/Date, Vehicle Speed, & Location
- Tamper-resistant locking case & patented mounting bracket for data protection & video evidence integrity
- Alarm input triggers for advanced data recording (turn signals, brakes, horn, door opening, seatbelt, lights)
- Power is Hard-Wired into vehicle for automated operation & tamper-resistance
- Speed-Dependent Intelligent G-Sensor Algorithm reduces false event triggers at high speeds
- Detailed Driver Reporting – Highlighting training issues and grading drivers' performance
- Auto SD Maintenance– Automatically formats SD Card in the event of corruption or error
- Automatic Calibration of G-Force measurements reduces false triggers
- Server based analysis software for live tracking, real-time video streaming, & event video management
- RESTful/JSON API stack available for seamless integration with Telematics Software.

CP1 Key Features



- 1080p HD video at 15 FPS (720p at 30 FPS)
- 170° Wide Angle View
- Built-in Smart G-Sensor, GPS/Glonass, 3G Modem, Mic, & Sim card slot (2ff sim size)
- Integrated 3G modem, PTCRB certified (Quad Band: GSM/GPRS/EDGE + HSPA: 850/1700/1900 MHz)
- 32GB SD Storage Capacity & Automatic SD Card Maintenance Feature
- Delayed power shutdown feature for connectivity & recording after ignition is off
- Permanent power cable and direct power connection to vehicle ignition/power ensures full automation of system recording and all operation

Weight: 11.5 oz
Power: 15w, 5a

- Adjustable windshield mounting bracket, 3M adhesive pad
- Alarm Input Triggers: 12V on/off and NC/CO for connecting auxiliary inputs from vehicle (i.e. door open, horn, etc.)
- Small form factor, fast + tool-free installation
- RESTful API available for Telematics Software Integration

CP1 Key Differentiators

- Unique 170º Field of View for High Definition Pillar-to-Pillar Camera Viewing Angle
- 1080p HD resolution and high frame rate available
- Embedded 3G modem for use with CDMA or GSM carriers
- 3G enabled for wireless transmission of events, videos, driving data, via wireless AP
- Integrated GPS receives data once every second for superior accuracy of Time/Date, Vehicle Speed, & Location
- Tamper-resistant locking case & patented mounting bracket for data protection & video evidence integrity
- Alarm input triggers for advanced data recording (turn signals, brakes, horn, door opening, seatbelt, lights)
- Power is Hard-Wired into vehicle for automated operation & tamper-resistance
- Auto SD Maintenance– Automatically formats SD Card in the event of corruption or error
- Automatic Calibration of G-Force measurements reduces false triggers
- Single UI for viewing video and Telematics together
- 3G service is not mandatory. Video and Driving data can be accessed manually with a key at any time and viewed with our free PC analysis software

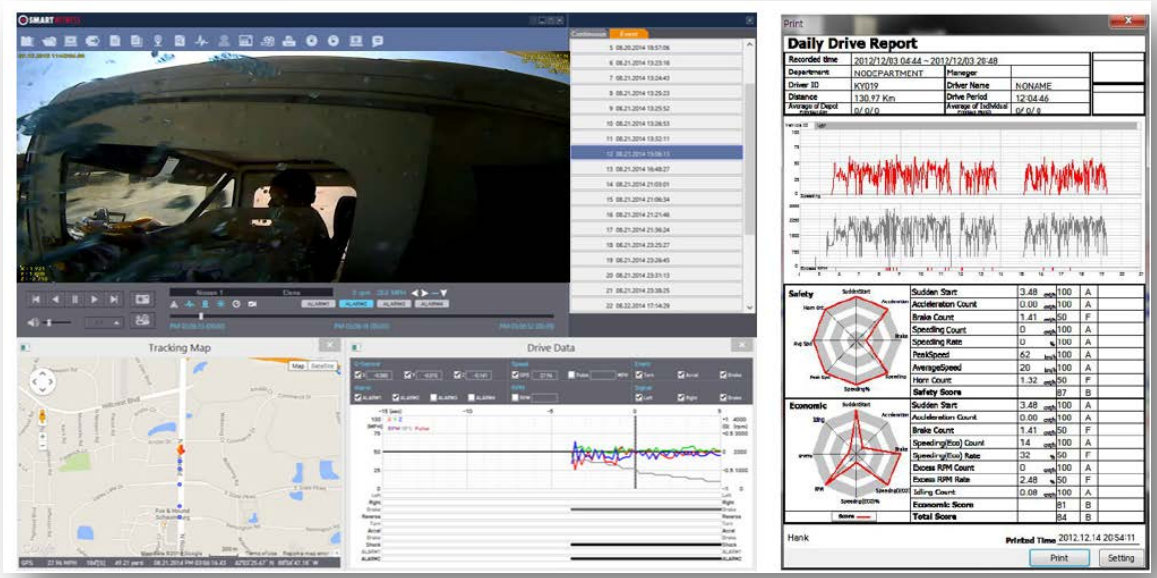
Advanced Incident Analysis

- ***Location*** – KP1 records accurate information on the location of a vehicle using GPS, while also enabling you to view the entire drive route/location history (up to 480 driving hours)

- ***Speed*** – Records vehicle speed; before, during and after an incident/accident.

- ***Driver Grading*** – Grade and score drivers using advanced grading system for a number of criteria, including speeding, economical speeding, sudden braking and prolonged/unnecessary idling.

- ***Privacy/Security*** – Video records to proprietary format and can be password protected. Privacy masking features allows blurring of sensitive information such as faces or license plate numbers.



Commitment to Quality

Professional
Designing our products to the highest international standards (ISO9001 & ISO14001) and Thatcham Tested. This ensures our products are suitable for use in both Private and Commercial Vehicles in all major countries around the world.

Reliable
To ensure the highest reliability rate in the industry we choose our component suppliers very carefully and have a strict Quality Control process in place at every level of the business - and we design our products to be robust and reliable.

Accurate
We don't just rely on great design to produce accurate results, we also source components from leading experts in their respective industries, including GPS sensors from UBLOX, G-Shock Sensors from Bosch, Mapping Software from Google, Memory from Transcend and Imaging Sensors from Sony and Toshiba.

Fit for purpose
Our products are designed to perform one simple function, the one that they were designed for. That is why we make sure we pay attention to even the very smallest details during the design stage. Over the years many companies have tried to copy our key products, but they have never been able to match us. It is our focus on these small and important details that make our products the best.

Safe
Above all else we make sure our products are safe for use in the vehicles they are designed for. We ensure this by meeting all relevant safety standards, including CE, FCC, RoHS, VOSA and E-MARK.

ISO 14001 ISO 9001 RoHS Compliant CE FC

Some of Our Clients