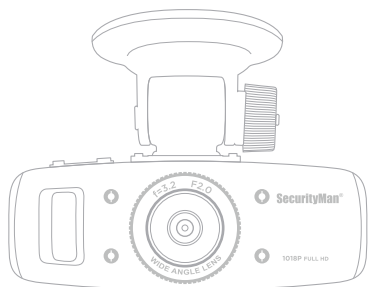


**User's Guide**  
**HD Car Camera Recorder**  
with Impact Sensor  
Model: Carcam-SD™



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## FCC Information

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference.
- (2) This device must accept any interference received, including interference that may cause undesired operation.

## Warranty

SecurityMan Inc warrants that this product will be free from defects in title, materials and manufacturing workmanship for one year or otherwise specified on the product packaging. This limited warranty shall commence from the date of purchase. SecurityMan products warranty is not transferable and is limited to the original purchaser. If the product is found to be defective then, as your sole remedy and as the manufacturer's only obligation, SecurityMan will repair or replace the product. This warranty shall not apply to products that have been subjected to abuse, misuse, abnormal electrical or environmental conditions, normal wear and tear, or any condition other than what can be considered normal use.

## Warranty Disclaimer

SecurityMan Inc, makes no other warranties, express, implied or otherwise, regarding this product, and specifically disclaims any warranty for merchantability or fitness for a particular purpose. The exclusion of implied warranties is not permitted in some states and the exclusions specified herein may not apply to you. This warranty provides you with specific legal rights. There may be other rights that you have which vary from state to state.

## Limitation of Liability

The liability of SecurityMan Inc, arising from this warranty and sale shall be limited to a refund of the purchase price. In no event shall SecurityMan be liable for costs of procurement of substitute products or services, or for any lost profits, or for any consequential, incidental, direct or indirect damages, however caused and on any theory of liability, arising from this warranty and sale. These limitations shall apply not withstanding any failure of essential purpose of any limited remedy.

For Customer Service: 888-977-3777

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## Introduction

Thank you for choosing Securityman. SecurityMan Carcam-SD can do automatic video recording when ignition is on. The recorded video clips or photos provides information about the weather, traffic, road condition, activities of the driver during the occurrence of an accident, and give you the chance to record interesting events on the road that can come of help if there are any legal complications. However, you can always remain assured that you have some form of evidence to back up any emergency situations. Simply mount the camera in any kind of vehicle, so it has a good view out of the windshield. Insert your memory card (micro SD) and connect the cigarette lighter. Once connected, the **Carcam-SD™** will automatically start to record whenever you start the engine and stop whenever you turn off the vehicle. The **Carcam-SD™** is also equipped with a special feature called "G-Sensor Recording" (impact sensing recording) which automatically locks the recorded files (two 30-sec video clips) whenever impact occurs, keeping them from being overwritten by the system. Therefore, the **Carcam-SD™** is a great companion device for all drivers.

## Features

- Do-it-yourself (D.I.Y) and easy to use vehicle camera system
- Used to capture interesting events on the road that can come of help if there are any legal complications
- HD video quality and real time recording (30fps)
- Auto recording, video motion detection recording, and manual recording (video or snapshot)
- Smart impact sensor recording (impact force sensing; non-overwritable video)
- Records up to 226/149 total minutes (at 480P/1080P) on a 32GB micro SD (not included)
- Auto overwrite function when SD is full (for regular recording)
- Built-in microphone and speaker
- 130 degree wide angle lens
- Records 30-second, 3-min, or 5-min continuous video clips and locks up current and previous G-sensing video clips
- Includes a car cigarette lighter cable for easy power source and charging
- Built-in rechargeable battery for up to one hour usage (recording)
- Built-in USB 2.0 for easy PC connection to recharge or to backup
- Built-in 1.5" LCD screen with 30-second sleep mode to avoid driving-and-watching at the same time
- Rechargeable battery indicator bar display
- Easy on-screen display playback, HDMI/AV output to a larger screen, or computer
- 15 different language selections

## Important

This guide provides important information on the use and operation of your **Carcam-SD™** and the images/features shown throughout the manual are subject to change without notice due to system and firmware upgrades. Please read all the information carefully prior to using the product for the best performance and to prevent any damage/injuries or misuse of the device(s). Customers are entitled to have read through this complete user's manual before using the **Carcam-SD™**. Any unapproved changes or modifications will void your warranty. Please ensure to have a complete understanding of the following restrictions.

**NOTE: Please check your state laws and regulations to determine if windshield mounting is legal in your state.**

## Restrictions

When using this product, the safety precautions below must be taken to avoid possible legal liabilities and damages. Retain and follow all product safety and operating instructions. Observe all warnings in the product operating instructions. To reduce the risk of bodily injury, electric shock, fire and damage to the equipment, observe the following precautions.

PLEASE NOTE that under certain circumstances, audio/video recording may be PROHIBITED by law. This device should be used only in compliance with all applicable federal, state and local statutes.

- DO NOT use this product near water, for example, near a bathtub, washbowl, kitchen sink, or laundry tub, in a wet basement, or near a swimming pool.
- DO NOT place this product on an unstable cart, stand, or table. The product may fall, causing serious damage to the product.
- DO NOT disassemble this product. Opening or removing covers may expose you to dangerous voltages or other risks. Incorrect reassembly can cause electric shock during subsequent use.
- DO NOT use this product to infringe on one's privacy, spying intercepting and related activities are illegal and punishable by law. Monitoring one's private activities without consent is illegal and this product is not designed or manufactured for these purposes.
- DO NOT use this product to carry out any illegal activities such as sneak preview, etc. SecurityMan shall not be responsible for any consequences of illegal conducts made by users.

- DO NOT put the plastic packaging bags in reach of children or babies. Plastic bags can create a suffocation hazard when placed over the nose and mouth.
- DO NOT plug in the car cigarette lighter adapter with wet hands might cause electric shock.
- DO NOT cover the car cigarette lighter adapter when it is connected to an outlet, place the adapter near heaters, or put it on the floor which is equipped with a heater. The above mentioned operation might cause fire or incidents.

## Disclaimers

- Please make sure that you are following the regulations and laws set by your states DMV (Department of Motor Vehicles) prior to mounting your camera. This manual does not intend to provide any specific legal advice.
- Please check the **Carcam-SD**'s features periodically to ensure that it is operating as required.
- During a car accident, the impact of the collision must be hard enough to trigger the impact sensor In order for the **Carcam-SD**'s to lock the recorded files.
- Please use the **Carcam-SD**™ as a tool while driving and use driver's safety while driving.
- SecurityMan Inc shall not be held responsible for any traffic violations related to the position ing or improper use of our product.
- Avoid mounting the camera outside of an airbag deployment zone.
- All vehicles must use the included warning stickers when using the **Carcam-SD**™ which must be visible to all passengers.

## Conditions

Please read the following messages to make sure your working environment is suitable.

- If your vehicle does not cut off power to your cigarette lighter port, then you may have to manually turn off or unplug the charger to prevent it from overheating.
- The operating temperature should be kept between  $-10^{\circ}\text{C}$  and  $50^{\circ}\text{C}$  ( $14^{\circ}\text{F}$  to  $122^{\circ}\text{F}$ ). The relative humidity should be kept between 20% and 85%.
- Avoid putting the product in places where temperature or humidity may change rapidly.
- Keep it dry, dustless and avoid lens exposure in direct sunlight.
- Keep product away from heat sources such as electric heaters.
- Do not use the camera near harmful chemicals.
- Do not place product near any strong magnetic objects
- It might influence the normal operation of the product if used at the fringe range of normal temperature. Please turn off the power when not in use.
- Do not disassemble the product.
- Do not shake or strike the product.
- Please obey the local government's environment protection policy.

Package Contents



1x Carcam-SD



1x Suction Cup



2x Warning Stickers  
Must be used and visible to all passengers



1x Car Charger



1x USB Cable



Micro SD card not included  
(supports up to 32GB)



1x AV Cable



1x HDMI Cable



User's Manual



Product Basics

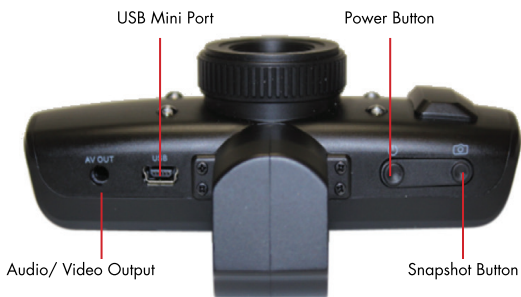
FRONT



REAR



TOP



LEFT



RIGHT



## Quick Start

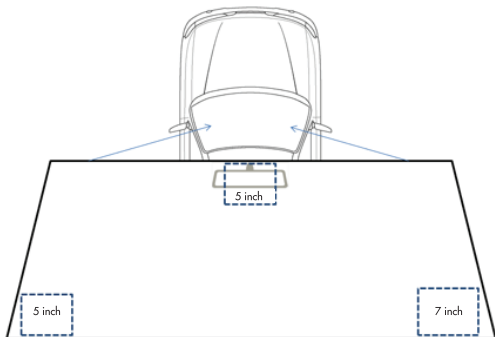
**MOUNTING THE CAMERA**

Please make sure that you are following the regulations and laws set by your states DMV (Department of Motor Vehicles) prior to mounting your camera. This will avoid any accidents and traffic violations that can occur if the camera is mounted in a location that is prohibited by law.

**NOTE:** SecurityMan Inc shall not be held responsible for any traffic violations related to the positioning or improper use of our product.

Determine where you will be mounting the camera. The following diagram depicts mounting locations on a vehicle based in the state of California and its restrictions.

**NOTE:** According to CA VC Section 26708 (13) (A) "A video event recorder with the capability of monitoring driver performance to improve driver safety, which may be mounted in a **seven-inch square** in the lower corner of the windshield farthest removed from the driver, in a **five-inch square** in the lower corner of the windshield nearest to the driver and outside of an airbag deployment zone, or in a **five-inch square** mounted to the center uppermost portion of the interior of the windshield. As used in this section, "video event recorder" means a video recorder that continuously records in a digital loop, recording audio, video, and G-force levels, but saves video only when triggered by an unusual motion or crash or when operated by the driver to monitor driver performance."



**INTERIOR VIEW OF THE WINDSHIELD**

(Based on California's vehicle code restriction & requirement)

Using the suction cup and rotating bracket, mount the **Carcam-SD™** to the inside of your vehicle's windshield (use the adjustment knob to loosen and tighten the **Carcam-SD™** as needed).

**NOTE:** The **Carcam-SD™** can also be used to record both exterior and interior (front and rear) driving habits when needed (taxis, limousines, shuttle buses, etc). Please use the horizontal and vertical rotation points to adjust the cameras focus point as needed and make sure you are following your state laws and requirements when using the **Carcam-SD™**.



## INSERTING THE SD CARD

Insert your micro SD card into the **Carcam-SD™**'s micro SD slot. Make sure that you insert the memory card with the teeth facing toward the 1.5" TFT LCD screen as shown in the image below. We recommend to use MicroSD with Class 6 or higher (SanDisk, Samsung, & etc.).



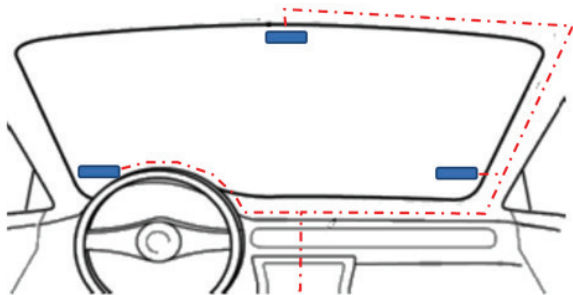
## CONNECTING THE POWER CABLE

Connect the car charger cable into the **Carcam-SD**'s power socket located above the camera lens as shown in the image below.

**NOTE:** Use the brackets adjustment knob to make adjustments as needed.



Depending on where you've chosen to mount the **Carcam-SD™**, run the power cable so that it doesn't disturb the driver's view or steering wheel while driving.



Insert the cigarette lighters AC adapter into your vehicle's cigarette lighter port as shown.



## TURNING THE CAMERA ON/CAMERA ON

Turn on your vehicle and the **Carcam-SD™** will automatically turn on and begin recording.

**NOTE:** To prevent accidents while driving and to conserve battery life, the **Carcam-SD's** LCD screen will turn off after 30 seconds while recording and completely turn off if inactive (not recording) for 2 minutes. In most cases the **Carcam-SD™** will automatically turn on/off depending on the car ignition switch as shown below.



**IMPORTANT NOTICE:** In case your vehicles continues to provide power to the cigarette lighter port when the keys are removed from the ignition (ignition off), please manually power off the Carcam-SD or unplug the cigarette lighter adapter to stop recording and preserve battery life.

## Buttons &amp; Settings

## BUTTONS



## POWER

The power button is used to manually turn the **Carcam-SD™** on or off when needed, but in most cases the **Carcam-SD™** will automatically turn itself on and off when the car ignition is on and off.

## SNAPSHOT

The snapshot button allows you to use the **Carcam-SD™** in the same manner that you would use a Digital Camera, allowing you to take photos when the occasion calls for it.

**NOTE:** The snapshot button only works while in photo mode. Use the MODE button located below the REC/SEL button to change between video and photo as needed.

## UP/INCREASE

The up/increase button is used to navigate through out the menu and make setting selections. It is also used to Zoom-In while in photo mode and also to navigate and fast forward recorded events during playback.

## **DWN/DECREASE**

The down/decrease button is used to navigate through out the menu and make setting selections. It is also used to Zoom-out while in photo mode and also to navigate and rewind recorded events during playback.

## **REC/SEL**

The REC/SEL button is used to start and stop manual recording while in video mode. It is also used to confirm and make setting changes and also to select which event to view during playback.

**NOTE:** The REC/SEL button only works while in video mode. Use the Mode button located below the REC/SEL button to change between video and photo as needed.

## **MODE**

The mode button is used to switch between Video, Photo and Playback. It is also used to enter and exit the selected modes (video, photo) menu settings when held down for 5 seconds. For example, if you wanted to adjust the **Carcam-SD's** "VIDEO" recording time frame or enable motion detection recording while in photo mode you would press the mode button until you are in video mode and then press-and -hold the mode button until the menu appears on the screen.

## **SETTINGS**

The **Carcam-SD's** configuration is divided into 3 different categories (Setup, Record and Photo) which can be accessed by navigating to the either of the two different recording modes using the "Mode" button then holding down the same button used (mode) for 5 seconds. For example, if you wanted to adjust the **Carcam-SD's** "VIDEO" recording time frame or enable motion detection recording while in photo mode you would press the mode button until you are in video mode and then press-and -hold the mode button until the menu appears on the screen.

**NOTE:** The "General" settings can be accessed from both the record and photo configuration menu.

## **VIDEO**

The Video configuration menu consists of settings and options that are used to configure the **Carcam-SD's** video recording settings. To open the Video settings menu, navigate to video mode using the mode button and then press and hold the mode button until the video settings window is displayed as illustrated below.

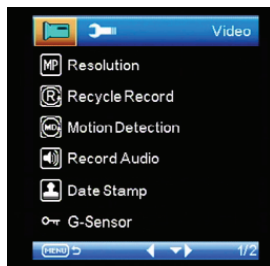




## VIDEO SETTINGS

The Video settings consist of the following configuration options.

- **Resolution** – Video resolution configuration.
- **Recycle Record** – Overwrite configuration.
- **Motion Detection** – Enables/Disables motion detection recording.
- **Record Audio** – Enables/Disables audio recording.
- **Date Stamp** – Enables/Disables date stamp on recorded events.
- **G-Sensor (a.k.a. Impact Sensor)** – Enables/Disables impact sensing recording.



## RESOLUTION

The **Carcam-SD™** supports various resolutions that you can select from. To make changes to the videos resolution, simply use the up/down buttons until resolution is highlighted and then press the REC/SEL button to display the options available. Then use the up/down buttons to highlight the desired resolution type and press the REC/SEL button to make your selection. The available options include:

- **1080FHD** (default)
- **1080P**
- **720P**
- **480P**



## RECYCLE RECORD

The recycle record option serves as two features "Overwrite" & "Segment Length". The overwrite feature allows the DVR to delete previously recorded events in increments based on the time frame selected allowing the DVR to keep recording when the memory becomes full and the segment length feature is the maximum length each recorded event can be before generating a new file. To make changes to these features, simply use the up/down buttons until recycle record is highlighted and then press the REC/SEL button to display the options available. Then use the up/down buttons to highlight your selection and press the REC/SEL button to confirm. The recycle record feature consists of the following options:

- **Off** – Disables overwrite and enables the default 24 hour segment recording.

**NOTE:** Setting this feature to off will create on long video which will stop recording as soon as the file exceeds the memory cards capacity.

- **30 Seconds** (default) – Enables the DVR to overwrite (delete) in 30 second increments and record video files no longer than 30 seconds per segment.
- **3 Minutes** – Enables the DVR to overwrite (delete) in 3 minute increments and record video files no longer than 3 minutes per segment.
- **5 Minutes** – Enables the DVR to overwrite (delete) in 5 minute increments and record video files no longer than 5 minutes per segment.



## MOTION DETECTION

The motion detection option is used to enable/on and disable/off motion detection recording. To make changes to this feature, simply use the up/down buttons until motion detection is highlighted and then press the REC/SEL button to display the options available. Then use the up/down buttons to highlight your selection and press the REC/SEL button to confirm. The recycle record feature consists of the following options:

- **On/Enable:** Once enabled, you must press the REC/SEL button to activate motion detection.
- **Off/Disable** (default)



## RECORD AUDIO

The record audio option is used to enable/on and disable/off audio recording. To make changes to this feature, simply use the up/down buttons until record audio is highlighted and then press the REC/SEL button to display the options available. Then use the up/down buttons to highlight your selection and press the REC/SEL button to confirm. The record audio feature consists of the following options:

- **On/Enable** (default)
- **Off/Disable**

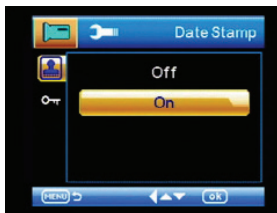
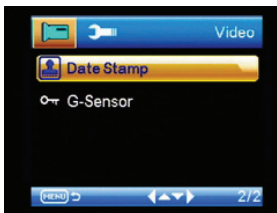
**NOTE:** Some states prohibit the use of audio recording. Please make sure you contact your local law enforcement agency if you are unclear on your state laws and guidelines.



## DATE STAMP

The date stamp option is used to enable/on and disable/off the date & time stamp from being displayed on recorded events. To make changes to this feature, simply use the up/down buttons until date stamp is highlighted and then press the REC/SEL button to display the options available. Then use the up/down buttons to highlight your selection and press the REC/SEL button to confirm. The date stamp feature consists of the following options:

- **On/Enable** (default)
- **Off/Disable**



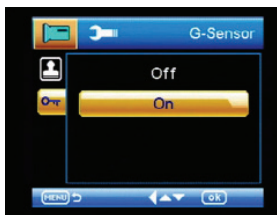
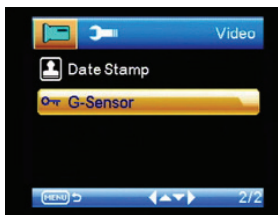
## G-SENSOR (Impact Sensor)

The G-Sensor (impact sensor) option is used to enable/on and disable/off the **Carcam-SD's** G-Sensing/Impact recording feature which will lock the previous and current file from being deleted by the overwrite feature. To make changes to this feature, simply use the up/down buttons until G-Sensor is highlighted and then press the REC/SEL button to display the options available. Then use the up/down buttons to highlight your selection and press the REC/SEL button to confirm.

**NOTE:** During a car accident, the impact of the collision must be hard enough to trigger the G-Sensor In order for the **Carcam-SD's** to begin recording.

The G-Sensor (impact sensor) feature consists of the following options:

- **On/Enable** (default)
- **Off/Disable**



## SETUP

The Setup menu consists of configuration options that are used to configure the **Carcam-SD**'s basic settings and can be accessed from both the Record and Photo menu categories by simply pressing the REC/SEL button to switch tabs as shown in the image below.

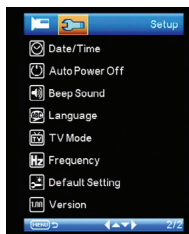
**NOTE:** You must press the REC/SEL button as soon as the Record or Photo menus are displayed on the screen to switch over to the setup tab. If you scroll up or down to make record or photo changes, you will have to exit the menu and reopen it to switch tabs.



## SETUP SETTINGS

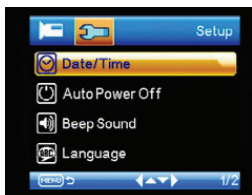
The Setup settings consist of the following configuration options.

- **Date/Time** – Date and Time configuration.
- **Auto Power Off** – Auto shut down configuration.
- **Beep Sound** – Enables/Disables beep notifications.
- **Language** – Language settings.
- **TV Mode** – TV standard configuration.
- **Frequency** – Light frequency configuration.
- **Default Setting** – Restores the **Carcam-SD**™ to its factory default settings.
- **Version** – Displays Firmware information.



## DATE/TIME

The date/time option is used to set and configure the **Carcam-SD's** current date, time and format. To make changes to this feature, simply use the up/down buttons until date/time is highlighted and then press the REC/SEL button to display the options available. Then use the "Snapshot" button to highlight the value you want edit and the up/down buttons to change its value. When you are done press the REC/SEL button to confirm your changes.



## AUTO POWER OFF

The auto power off option is used to enable and disable the **Carcam-SD's** auto shut down feature which shuts itself off after the set time frame of inactivity (not recording) has expired. To make changes to this feature, simply use the up/down buttons until auto power off is highlighted and then press the REC/SEL button to display the options available. Then use the up/down buttons to highlight your selection and press the REC/SEL button to confirm. The auto power off feature consists of the following options:

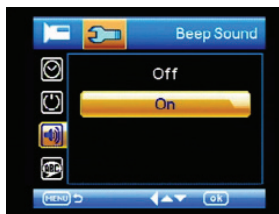
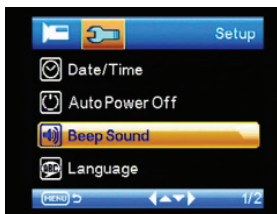
- **Off**
- **30 Seconds**
- **1 Minute**
- **2 Minutes** (default)
- **5 Minutes**
- **10 Minutes**



## BEEP SOUND

The beep sound option is used to enable/on and disable/off the audible alert “beep” that can be heard every time a button on the **Carcam-SD™** is pressed. To make changes to this feature, simply use the up/down buttons until beep sound is highlighted and then press the REC/SEL button to display the options available. Then use the up/down buttons to highlight your selection and press the REC/SEL button to confirm. The beep sound feature consists of the following options:

- **On/Enable** (default)
- **Off/Disable**



## LANGUAGE

The language option lets you change the language of the DVR's menu. It is important that you stay away from making changes unless you are really sure that you want to change the language. Having the menus in a foreign language can make it difficult to navigate through the options to try and get back the right one. To make changes to this feature, simply use the up/down buttons until language is highlighted and then press the REC/SEL button to display the options available. Then use the up/down buttons to highlight your selection and press the REC/SEL button to confirm. The language feature consists of the following options:

- **English** (default)
- **French**
- **Spanish**
- **Portuguese**

- Dutch
- Italian
- ChineseTV MODE
- Simplified Chinese
- PyccknnTV MODE
- Traditional Chinese

- Korean
- Polish
- Czech
- Slovak
- Turkce
- Jugoslovenski



## TV MODE

The TV mode option lets you switch between the two most commonly used video formats "NTSC" and "PAL". By default the **Carcam-SD™** is set to NTSC which is the standard for North America. To make changes to this feature, simply use the up/down buttons until TV mode is highlighted and then press the REC/SEL button to display the options available. Then use the up/down buttons to highlight your selection and press the REC/SEL button to confirm. The TV mode feature consists of the following options:

- **NTSC** (default) - National Television System Committee (NTSC) is the commonly used format for North America and Japan
- **PAL** - Phase Altering Line (PAL) is the common format in European nations



## FREQUENCY

The frequency option lets you switch between the two most commonly used light frequencies/refresh rates "60Hz" and "50Hz". By default the **Carcam-SD™** is set to 60Hz which is



standard for United States and Japan. To make changes to this feature, simply use the up/down buttons until frequency is highlighted and then press the REC/SEL button to display the options available. Then use the up/down buttons to highlight your selection and press the REC/SEL button to confirm. The frequency feature consists of the following options:

- **60Hz** (default) – Standard for United States and Japan.
- **50Hz** – Standard for Europe and China.



## DEFAULT SETTING

The default setting option is used to apply the **Carcam-SD's** manufacturer default settings. To make changes to this feature, simply use the up/down buttons until default setting is highlighted and then press the REC/SEL button to display the options available. Then use the up/down buttons to highlight your selection and press the REC/SEL button to confirm. The default setting feature consists of the following options:

- **Cancel**
- **Ok**



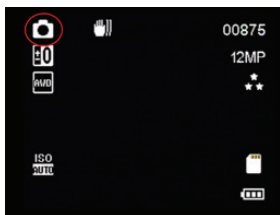
## VERSION

The version option is used mainly to view the **Carcam-SD's** firmware. To view this information, simply use the up/down buttons until version is highlighted and then press the REC/SEL button to display the info. Then press the REC/SEL button to exit.



## CAMERA

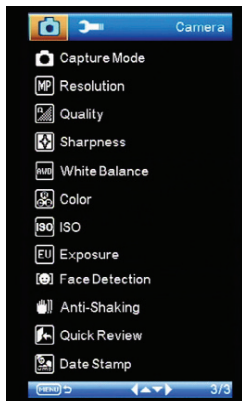
Press the MODE button several times to get to the CAMERA mode. The camera configuration menu consists of settings and options that are used to configure the **Carcam-SD**'s photo snapshot settings. To open the Photo settings menu, navigate to photo mode using the mode button and then press and hold the mode button until the camera settings window is displayed as illustrated below.



## CAMERA SETTINGS

The Camera settings consist of the following configuration options.

- **Capture Mode** – Used to configure single or timed snapshots.
- **Resolution** – Photo resolution configuration.
- **Quality** – Photo quality configuration.
- **Sharpness** – Image sharpness configuration.
- **White Balance** – White balance configuration.
- **Color** – Color selection.
- **ISO** – Light sensitivity configuration.
- **Exposure** – Image exposure adjustment.
- **Face Detection** – Enables/Disables smile detection.
- **Anti-Shaking** – Enables/Disables anti-shaking.
- **Quick Review** – Enables/Disables quick review.
- **Date Stamp** – Enables/Disables date stamp on recorded events.



## CAPTURE MODE

The capture mode option lets you dictate how the **Carcam-SD™** will operate every time the snap shot button is pressed. For example, you can set it to take an instant snap shot every time or you can implement a timer delay which will automatically take a snap shot when the set time has expired. To make changes to this feature, simply use the up/down buttons until capture mode is highlighted and then press the REC/SEL button to display the options available. Then use the up/down buttons to highlight your selection and press the REC/SEL button to confirm. The capture mode feature consists of the following options:

- **Single** (default)
- **2S Timer**
- **5S Timer**
- **10S Timer**
- **Sequence**



## RESOLUTION

The **Carcam-SD™** supports various “Mega Pixel” resolutions that you can select from. To make changes to the photos resolution, simply use the up/down buttons until resolution is highlighted and then press the REC/SEL button to display the options available. Then use the up/down buttons to highlight the desired resolution type and press the REC/SEL button to make your selection. The resolution feature consists of the following options:

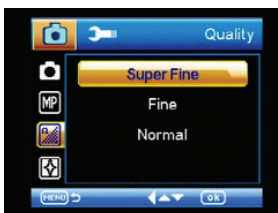
- **12MP** (default)
- **8MP**
- **5MP**
- **3MP**



## QUALITY

The quality option lets you select the quality of the photos being taken. To make changes to the photos quality, simply use the up/down buttons until quality is highlighted and then press the REC/SEL button to display the options available. Then use the up/down buttons to highlight the desired quality type and press the REC/SEL button to make your selection. The quality feature consists of the following options:

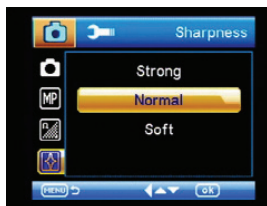
- **Super Fine** (default)
- **Fine**
- **Normal**



## SHARPNESS

The sharpness option lets you select the image sharpness of the photos being taken. To make changes to the photos sharpness, simply use the up/down buttons until sharpness is highlighted and then press the REC/SEL button to display the options available. Then use the up/down buttons to highlight the desired sharpness type and press the REC/SEL button to make your selection. The sharpness feature consists of the following options:

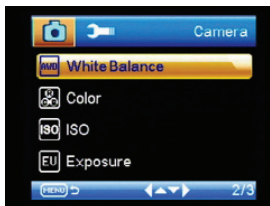
- **Strong**
- **Normal** (default)
- **Soft**



## WHITE BALANCE

The white balance option lets you remove unrealistic color casts, so that objects which appear white in person are rendered white in your photo. To make changes to the white balance, simply use the up/down buttons until white balance is highlighted and then press the REC/SEL button to display the options available. Then use the up/down buttons to highlight the desired white balance type and press the REC/SEL button to make your selection. The white balance feature consists of the following options:

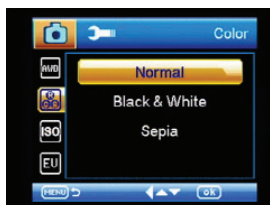
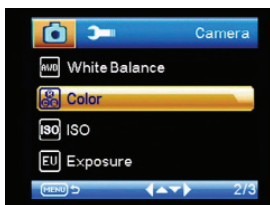
- **Auto** (default)
- **Daylight**
- **Cloudy**
- **Tungsten**
- **Fluorescent**



## COLOR

The color option lets you select the color scale you want to use for the photos being taken. To make changes to the photos color, simply use the up/down buttons until color is highlighted and then press the REC/SEL button to display the options available. Then use the up/down buttons to highlight the desired color type and press the REC/SEL button to make your selection. The color feature consists of the following options:

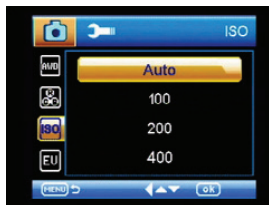
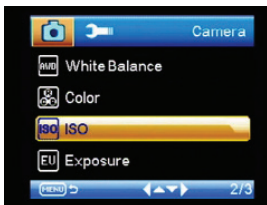
- **Normal** (default)
- **Black & White**
- **Sepia**



## ISO

The ISO option changes the sensitivity to light of the image sensor inside of it. The lower number that you select the less sensitive the sensor is to light (and conversely the higher the number the more sensitive it becomes). This is useful when you're shooting in different lighting situations – particularly when there's low light and you might not be able to use a flash (you'd bump up your ISO setting in this case). To make changes to the ISO, simply use the up/down buttons until ISO is highlighted and then press the REC/SEL button to display the options available. Then use the up/down buttons to highlight the desired ISO type and press the REC/SEL button to make your selection. The ISO feature consists of the following options:

- **Auto** (default)
- **100**
- **200**
- **400**



## EXPOSURE

The exposure option lets you select the numeric exposure value for your snap shots. To make changes to the photos exposure, simply use the up/down buttons until exposure is highlighted and then press the REC/SEL button to display the options available. Then use the up/down buttons to highlight the desired exposure value and press the REC/SEL button to make your selection. The exposure feature consists of the following options:

- **+2.0**
- **+5/3**
- **+4/3**
- **+1.0**
- **+2/3**
- **+1/3**
- **+0.0** (default)
- **-1/3**
- **-2/3**
- **-1.0**
- **-4/3**
- **-5/3**
- **-2.0**



## FACE DETECTION

The face detection option lets you enable the smile detection options that are available on the **Carcam-SD™** under the camera mode. To make changes to the face detection feature, simply use the up/down buttons until face detection is highlighted and then press the REC/SEL button to display the options available. Then use the up/down buttons to highlight the desired face detection option and press the REC/SEL button to make your selection. The face detection feature consists of the following options:

- **Off** (default)
- **Smile Detection** – Takes snap shots every time the camera detects a person's smile while staring at the camera.

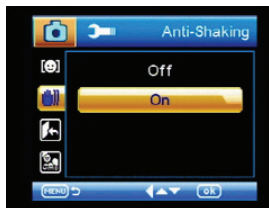


## ANTI-SHAKING

The anti-shaking option lets you enable (on) or disable (off) the IPcam-SD's anti-shaking feature which helps eliminate the blurriness caused when taking snap shots while moving. To make changes to the anti-shaking feature, simply use the up/down buttons until anti-shaking is highlighted and then press the REC/SEL button to display the options available. Then use the up/down buttons to highlight the desired anti-shaking option and press the REC/SEL button to make your selection. The anti-shaking feature consists of the following options:

- **On** (default)
- **Off**

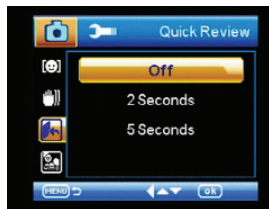
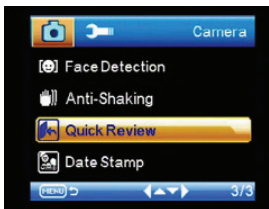




## QUICK REVIEW

The quick review option lets you preview images that are taken for the set time frame. To make changes to the quick review feature, simply use the up/down buttons until quick review is highlighted and then press the REC/SEL button to display the options available. Then use the up/down buttons to highlight the desired option and press the REC/SEL button to make your selection. The quick review feature consists of the following options:

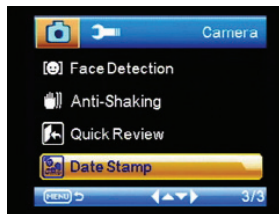
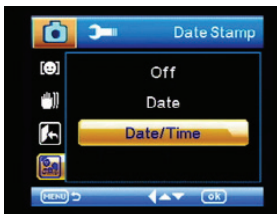
- **Off** (default)
- **2 Seconds**
- **5 Seconds**



## DATE STAMP

The date stamp option lets you enable or disable the time stamp from being displayed on all the photos. To make changes to this feature, simply use the up/down buttons until date stamp is highlighted and then press the REC/SEL button to display the options available. Then use the up and down buttons to highlight your selection and press the REC/SEL button to make your selection. The date stamp feature consists of the following options:

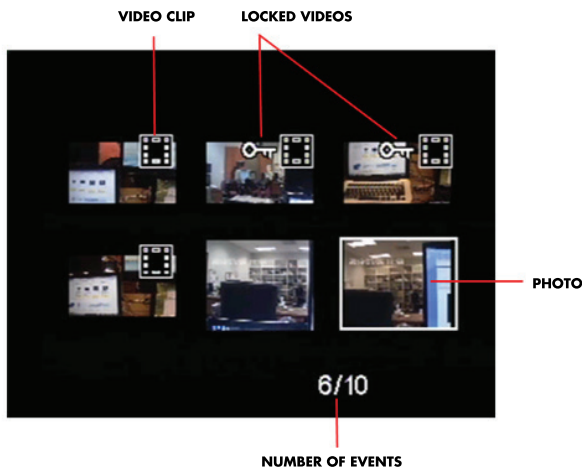
- **Off**
- **Date**
- **Date/Time** (default)



## Playback

### Playback on 1.5" TFT screen:

Press the MODE button several times to get to the playback mode as shown below. In the playback mode, press the UP or DWN buttons to toggle between the video footages (Video Clip), the picture snapshots (Photo), and the locked video footages (Locked Videos). The video files are distinguished by the film icon on the upper right corner, the locked impact sensor files displays a key icon on the upper right corner, and the photos are without any icon as illustrated below.



You can playback recorded events using two methods; directly from the Carcam-SD™. To playback directly, there are several output options; playback on the 1.5" TFT screen, use provided AV output cable to a larger analog TV, or use the provided HDMI output cable to a high definition TV.

To view the photos, simply highlight a photo and then press the REC/SEL button once to view the picture. To view the video footages, simply highlight a video footage clip and then press the REC/SEL button twice to start playback as illustrated below.

## PLAYBACK SCREEN



Once the play back screen is displayed, you can use the following buttons to play back and delete the recorded events:

REC/OK	Press once (when not playing back video)	Selects the highlighted event to play back/view and to confirm an option when prompted.
	Press once (during video play back)	Starts and pauses the video.
Mode	Press and Hold (when not playing back video)	Brings up the delete and format options (during full screen mode only)
	Press once (during multiple file view)	Exits the play back screen and goes to video mode.
	Press once (during multiple file view)	Used to navigate through the recorded events.
Up	Press once (during video play back)	Increases the volume.
	Press and Hold (during video playback)	Fast forwards the video being played and also skips to the next recorded event when pressed after the video has stopped.
Down	Press once (during multiple file view)	Used to navigate through the recorded events.
	Press once (during video play back)	Decreases the volume.
	Press and Hold (during video playback)	Rewinds the video being played and also skips to the previous recorded event when pressed after the video has stopped.

**NOTE:** When playing back video footages, traffic lights may flash during depending on the angles, reflections, and time of day.

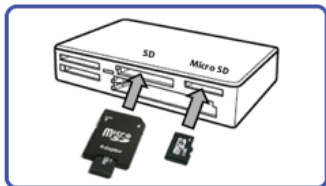
### Playback on computer:

There are two methods to playback on a computer. One method is to plug the Carcam-SD to the computer using the USB cable provided and then select "Mass Storage" option. The second method is to remove the Micro SD card from the Carcam-SD as illustrated below:

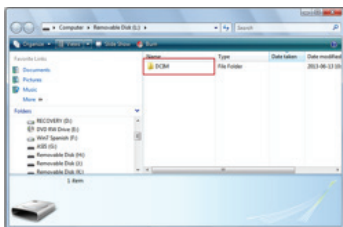
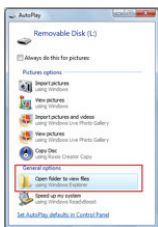
Remove the Micro-SD card from the camera by gently pushing on the SD card allowing it to pop out from its slot as illustrated below.



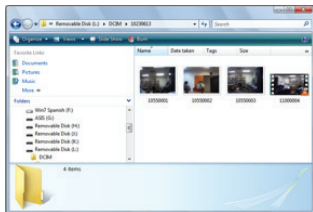
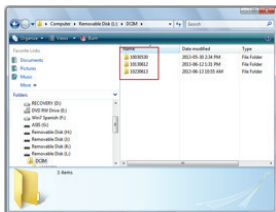
Insert the Micro-SD card into a Micro-SD card reader (not included) connected to your PC (your PC should load the SD card as a new Removable Drive) as illustrated below. “Open folder to view files” option to view its contents. You should see a folder labeled “DCIM” in the SD directory as shown below.



Your PC should load the SD card as a new Removable Drive. When prompted, select the “Open folder to view files” option to view its contents. You should see a folder labeled “DCIM” in the SD directory as shown below.

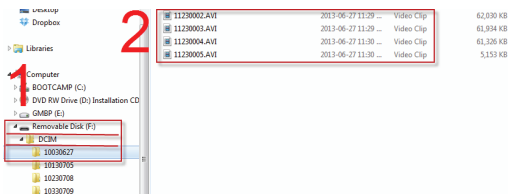


Double-click to open the DCIM folder to view a list of all the recorded event folders. Once inside the dated folder you can double-click any of the recorded AVI (video) or JPG (picture) files to open them up in your default media player or picture viewer.



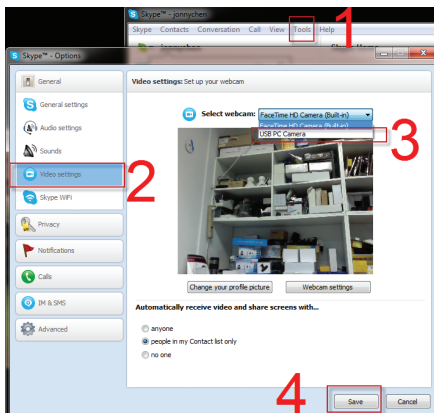
**NOTE:** While accessing the SD card directory, you may also use right mouse click to “Copy” and “Paste” the desired folders, videos, and pictures so to back them up to your local PC.

To playback using the first method: Simply connect the **Carcam-SD** to a computer using the USB cable provided. Next, select "Mass Storage" by using the **UP** and **DWN** navigation buttons to highlight mass storage and then press the **REC/SEL** button to mount the drive to your computer. Double-click on the .AVI file as illustrated in "2" below to start playing back the video footage.



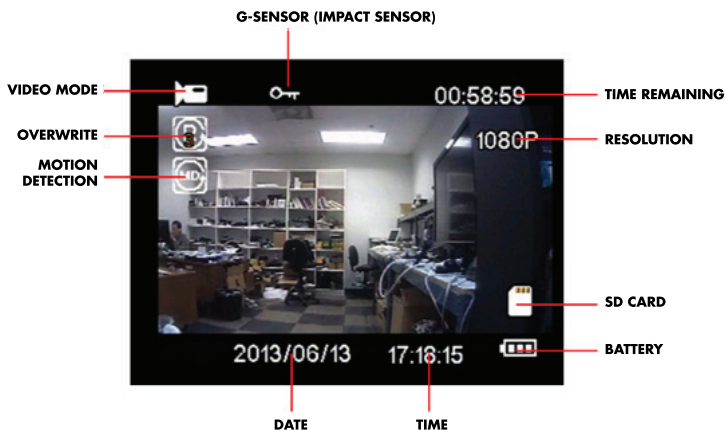
## Carcam-SD as a Webcam:

To use the **Carcam-SD** as a webcam: Simply connect the **Carcam-SD** to a computer using the USB cable provided. Next, select "PC Camera" by using the **UP** and **DWN** navigation buttons to highlight PC camera and then press the **REC/SEL** button to mount the webcam. Once mounted as a webcam, please login to your instant message application(s) to start using the **Carcam-SD** as a webcam on your computer. Since there are many instant messaging applications out there today, in this section we illustrate using Skype. In Skype, advanced to "Tools>Options.." as shown in 1, in options highlight "Video settings" as shown in 2, select "USB PC Camera" under "Select webcam" as shown in 3, and finally click on "Save" to save your settings as shown in 4.

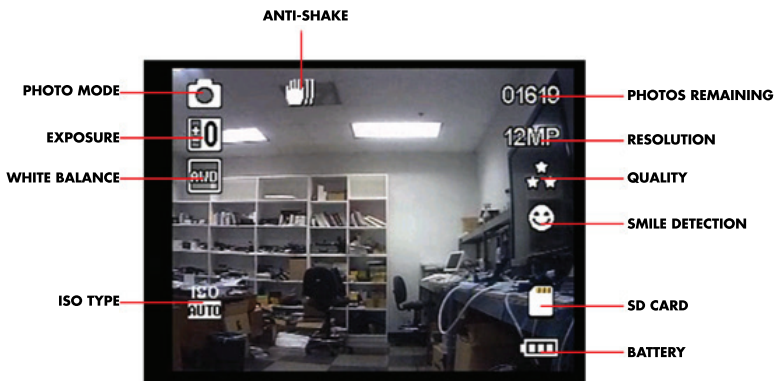


## On-Screen Display

### LIVE VIEW VIDEO



### LIVE VIEW PHOTO



## Specifications

LCD size	1.5", 4:3, TFT LCD
Image sensor	Digital HD color CMOS
Viewing angle	130°A+ class high-resolution super wide angle
Language for options	English/Germany/Deutsch/French/Spanish/Italian/Portugal/ Traditional/Chinese/Simplified/Chinese/Japanese/Korean/ Russian/Pycknnn/Polish/Czech/Slovak
Video resolution	1920x1080(FHD), 1440x1080(1080P), 1280x720(720P), & 840x480(480P)
Video/Photo formats	AVI / JPG
Photo pixels	12MP/8MP/5MP/3MP (Mega Pixels)
SD slot	1 Micro SD (TF), supports up to 32GB Max. Class 6 or higher (SanDisk, Samsung, etc.)
Microphone	Built-in (Menu: On/Off)
Speaker	Built-in
Night vision	4 IR LEDs Light
Recording frame rate	30fps
Video recording mode	Auto record when the ignition is on and stop when engine is off (with car cigarette lighter cable connected), Manual record by pressing REC button, & Video Motion Detection record
Shooting mode (photo)	Single, 2s, 5s, 10s, (self timer), & Sequence (5 consecutive shots)
Light source frequency	60Hz/50Hz
TV standard	NTSC/PAL
Output	HDMI, AV
USB port	USB2.0
PC mode	Mass Storage or PC Camera
Power supply	DC 5V 1.0A
Rechargeable battery	Li-ion 500mA (Charging time: 2 hrs. Recording time: 1 hr)
Camera size (LxWxH)	4.25"x2.5"x1.75"(without bracket)
Operating humidity	≤85% RH
Operating temperature	-10°C to 50°C (14°F~122°F)
Non-Operating temperature	-20°C to 65°C (-4°F~149°F)
Operation system	Windows 2000, XP, Vista, 7, & 8 / MAC OS 10.3.6 or above



If you encounter any difficulty in the operation of this product after reading the manual, please feel free to contact us. You can reach us by phone at 1-888-977-3777 from 8:30 AM to 5:30 PM Monday through Friday (Pacific Standard Time) or by email [techsupport@securitymaninc.com](mailto:techsupport@securitymaninc.com). We will be happy to answer your questions and help you in any way we can.

[www.securitymaninc.com](http://www.securitymaninc.com)