

**RAC RAC 03 IB**  
**Size: 525(W) x 280(H) mm. (Folded size: 105(W) x 140(H) mm.)**  
**Date: 20151112**  
**Colour: Orange (C: 0 M: 76 Y: 100 K: 0)**  
**Colour: Grey gradient background - (Light grey) (C: 0 M: 2 Y: 0 K: 20)**  
**(Dark grey) (C: 0 M: 2 Y: 0 K: 40)**



**Introduction**  
 Thank you for choosing the RAC 03 Super HD Rear View Mirror Video Dash Cam. Please read these instructions carefully before use.

**Product Features**  
 Speed Camera Alert with FREE lifetime updates  
 Built in GPS System Records Speed and Location  
 4.3 inch TFT LCD display  
 150 degree field of view  
 1/3 inch CMOS 5mp sensor  
 6 layer all glass lens with a 60cm to infinity focus range  
 Video Format: H.264 (MP4)  
 Built-in Microphone and Speaker  
 330mAh/3.7V Li-ion battery  
 MicroSD card socket (compatible up to 64GB)  
 Micro HDMI connector for FHD video playback  
 Loop video recording  
 Photo mode  
 Auto screen saver  
 Auto power on and record  
 G-Sensor automatically detects and records collisions  
 Parking Monitor records events when parked  
 Lane Diversion Warning System  
 Forward Collision Warning System  
 Forward Motion Detection Warning System  
 Low Light Warning System  
 Drive Time Warning System  
 GPS Speed Warning System  
 Automatic time setting via GPS

**Unpacking**  
 Unpack the contents of the box and ensure the following components are present.  
 RAC 03 Camera      In Vehicle Power Adaptor      8GB MicroSD Card  
 2 x Mounting Straps      USB Cable      User Manual

**Identification of Controls**

**Buttons and Socket:**

1. Menu / Return button
2. Play / Up / Mute button
3. Photo Capture / Down / Video Lock button
4. Record / OK button
5. Video Display
6. Record Indicator (blue)
7. Battery Charging Indicator (red)
8. Mounting Straps
9. Micro USB Socket
10. MicroSD Card Slot
11. Micro HDMI Socket
12. Power on / off button
13. Speaker
14. Reset button
15. Directional lens

**Battery Indicator and Charging**

**Battery Power Indicator**

100% charged    75% charged    50% charged    25% charged    Low Power

**Charging the Battery**  
 The RAC 03 Dash Cam has a built-in Lithium Ion battery that can be charged while in use in the vehicle, or outside using the supplied USB cable. The battery will take approximately 2 hours to charge and will provide 15 minutes of emergency recording time once the power supply has been disconnected.

**Preparing for Use**  
 IMPORTANT: To get the best quality recordings when using this Dash Cam, always ensure your windscreen is clean and free from dirt, smudges and fingerprints on both the inside and outside of the windscreen. Dirt and smudges can, and will, affect the quality of the video recorded.

**White Balance**  
 This function adjusts the white balance setting for different lighting conditions. Five options are available:  
 Auto  
 Incandescent  
 Sunny  
 Cloudy  
 Fluorescent

**Exposure Bias** (not available in HDR 1920 x 1080 resolution)  
 This function enables you to adjust the exposure or light level value from +2 EV to -2EV. Select a +EV value to brighten the exposure or a -EV value to darken the exposure.

**Time & Date**  
 This function allows for manual time setting if GPS is not available. Once a GPS signal is received the time and date will update automatically.

**Important:** GPS time signals are incapable of detecting which time zone you are in so a manual time zone adjustment is necessary in order to set the correct time. The Dash Cam is set to Greenwich Mean Time (GMT) as standard shown as '00', therefore adjust to +1 during British Summer Time (BST). There are 24 time zones available from GMT +12 to GMT -12. When travelling abroad, always ensure the correct time zone is selected.

**Time zone adjustment**

**Speaker Volume**  
 This function enables you to adjust the volume of the internal speakers. Three options are available:  
 High  
 Middle  
 Low

**Keystroke Sound**  
 This function enables or mutes the keystroke beep sound.

**Installing the Dash Cam**

1. Remove the rubber Mounting Straps from their lower anchor points either side of the Dash Cam.
2. Carefully place the Dash Cam in front of your existing rear view mirror and place the Mounting Straps over the mirror.
3. Reattach the Mounting Straps to the lower anchor points either side of the Dash Cam so that the Dash Cam is held securely in place with the rubber Mounting Straps. Note: Some stretching of the rubber Mounting Straps will be required but do not overstretch or the straps will break.
4. Insert the In Vehicle Power Adaptor cable into the USB socket on the side of the Dash Cam.
5. Remove the protective film from the front of the lens and the mirrored surface of the Dash Cam.
6. Adjust the position of the Dash Cam so that the rear view is clearly visible when sitting in the driving position.

**Important:** Never mount the Dash Cam in a position that could interfere with the operation of any Air Bags in the event of a collision.

**Switching On and Recording**  
 The Dash Cam is designed in such a way that it will automatically switch on and start recording the moment it detects a connection to the vehicle electrical system via the in vehicle power socket. It is important to note however that while some vehicles provide power to the in vehicle power socket even when the vehicle ignition is off, other vehicles require the ignition to be ON before providing power to the in vehicle power socket.

1. Insert the free end of the Power Adaptor into the in vehicle power socket.

**Note:** If your vehicle provides power to the in vehicle power socket even when the vehicle ignition is off, the Dash Cam will switch on and start recording immediately. The Blue Recording LED will flash to indicate recording is in progress. If not, proceed to step 2.

2. Switch on the vehicle ignition. The Dash Cam will automatically switch on and start recording. The Blue Recording LED will flash to indicate recording is in progress.

**Important:** Never remove the card while the unit is switched on. Always ensure replacement cards are High Speed SDHC Class 6 or faster. The RAC 03 supports cards up to 64GB.

4. The Dash Cam will continue to record for 10 seconds after the ignition has been switched off or when the power adaptor is removed from the in vehicle power socket.

5. To Stop recording at any time, press the OK button.

6. To switch OFF the Dash Cam, press and hold the button for 2 seconds.

7. To switch ON the Dash Cam (for example, when outside of the vehicle) press and hold the button for 2 seconds.

8. You can switch on or off the internal microphone by pressing the button once.

**Note:** If the Dash Cam is switched on while connected to an external power source, it will automatically start recording after it is switched on. If the Dash Cam is switched on without a connection to an external power source (i.e. using the internal rechargeable battery only), it will switch on but will NOT start recording automatically.

**Overview of Controls**

**When the Dash Cam in Standby mode (i.e. device is on but not recording)**  
 Press any key to wake the display, then you are able to:-

1. Enter the menu modes. Pressing and holding for 2 seconds enters the Speed Camera Warning Mode.
2. Enter playback mode.
3. Take a still photo.
4. Start Recording.

**When the Dash Cam is Recording**  
 Press any key to wake the display, then you are able to:-

1. Enter the menu modes. Pressing and holding for 2 seconds enters the Speed Camera Warning Mode.
2. Mute the Microphone.
3. Lock the recorded video file.
4. Stop Recording.

**Speed Camera Warning Mode**  
 In the Speed Camera Warning Mode, the Dash Cam will alert you as you approach a location where a speed camera is in operation. To enter the Speed Camera Warning Mode (from Standby), press and hold the button for 2 seconds, the display will switch to a digital speedometer. To exit the Speed Camera Warning Mode, press the button once.

To ensure the Speed Camera Database in your Dash Cam is always up to date, visit the Product Resources section of [www.ProofCam.com](http://www.ProofCam.com) to obtain your free lifetime updates. Instructions are provided under the RAC 03 resources.

**Video Resolution**  
 This function enables you to set the recording resolution. Higher resolutions give the best picture quality but also create the largest file size. There are seven options available:

Image Size	Frame Rate	Aspect Ratio	HDR
2560 x 1080	30P	21.9	-
2304 x 1296	30P	16.9	-
1920 x 1080	45P	16.9	-
1920 x 1080	30P	16.9	ON
1920 x 1080	30P	16.9	-
1280 x 720	60P	16.9	-
1280 x 720	30P	16.9	-

HDR (High Dynamic Range) enables a greater range of luminance levels to be recorded. When this resolution is selected, the following features or adjustments are not available:-  
 Exposure Bias  
 Forward Collision Warning System  
 Lane Diversion Warning System

**Navigating the Menu**  
 You can navigate through the menu system using the following buttons:  
 - Enables entry to (and exit from) the menus.  
 - Enables navigation through the menu options.  
 - Selects an option within the menu.

**Setting up the Dash Cam - Menu 1**  
 Press the button to enter the first menu. Use the buttons to highlight the specific option, then the OK button to select that option.

**Video Resolution**  
 This function enables you to set the recording resolution. Higher resolutions give the best picture quality but also create the largest file size. There are seven options available:

HDR (High Dynamic Range) enables a greater range of luminance levels to be recorded. When this resolution is selected, the following features or adjustments are not available:-  
 Exposure Bias  
 Forward Collision Warning System  
 Lane Diversion Warning System

**Video Quality**  
 This function allows you to set the video compression for recorded files. There are three options available:  
 SuperFine  
 Fine  
 Normal

**Loop Video Recording**  
 When recording continuous video, the Dash Cam saves the data in small manageable files. These video files can be 1, 3 or 5 minutes in length. Once the memory vehicle is full, the Dash Cam will automatically overwrite the oldest file to make space so the latest video is always recorded and stored. This function allows you to set the video file length. There are four options available:  
 Off  
 1 minute  
 3 minutes  
 5 minutes

**Microphone Setup**  
 This function turns the built-in microphone on or off so that audio is either recorded or muted during recording. The default option is ON.

**Embedded Info**  
 This function enables you to select which information is embedded into the recorded video. There are three options available:  
 Date  
 Time  
 Driver ID

**Driver ID**  
 This function enables you to enter an ID (e.g. vehicle registration number) that can be embedded into the video. A maximum of 9 alpha numeric characters can be used.

**White Balance**  
 This function adjusts the white balance setting for different lighting conditions. Five options are available:  
 Auto  
 Incandescent  
 Sunny  
 Cloudy  
 Fluorescent

**Exposure Bias** (not available in HDR 1920 x 1080 resolution)  
 This function enables you to adjust the exposure or light level value from +2 EV to -2EV. Select a +EV value to brighten the exposure or a -EV value to darken the exposure.

**Time & Date**  
 This function allows for manual time setting if GPS is not available. Once a GPS signal is received the time and date will update automatically.

**Important:** GPS time signals are incapable of detecting which time zone you are in so a manual time zone adjustment is necessary in order to set the correct time. The Dash Cam is set to Greenwich Mean Time (GMT) as standard shown as '00', therefore adjust to +1 during British Summer Time (BST). There are 24 time zones available from GMT +12 to GMT -12. When travelling abroad, always ensure the correct time zone is selected.

**Time zone adjustment**

**Speaker Volume**  
 This function enables you to adjust the volume of the internal speakers. Three options are available:  
 High  
 Middle  
 Low

**Keystroke Sound**  
 This function enables or mutes the keystroke beep sound.

**Auto Power Off - Device**  
 This function enables you to set the auto power off time (applicable only in standby mode without an external power source). Four choices are available:  
 Off  
 1 minute  
 3 minutes  
 5 minutes

**Auto Power Off - Display**  
 This function enables you to set the auto power off time for the LCD display. Note that even with the display off, the Dash Cam will otherwise remain on, even when recording. There are two options:-  
 Off (the display will always remain on as long as the Dash Cam is switched on).  
 On (after 20 seconds, the display will automatically power off - press any button to bring the display back on).

**Satellite Info**  
 This function enables you to see how many GPS satellites the Dash Cam is detecting and their individual signal strengths.

**Card Info**  
 This function enables you to see how much of the memory card is used and how much free space there is available. The total card volume is also shown.

**Delete File**  
 This function enables you to delete specific files. Files that are locked (either manually or via the G-Sensor function) are located in the Event Video library. All other files are located in the Normal Video library.

**Format Card**  
 Use this function to format the Micro SD card. Note this will erase ALL files, including files that have been previously locked. This function cannot be undone.

**Factory Reset**  
 Resets all the options to their default factory settings.

**Firmware Version**  
 Displays the current firmware version.

**Setting up the Dash Cam - Menu 2**  
 Press the button twice to enter the second menu. Use the buttons to highlight the specific option, then the OK button to select that option.

**Speed Warning**  
 This feature enables you to set a speed limit between 20mph and 70mph. When the set speed limit is exceeded, a warning will sound. Always obey the posted speed limits.

**Drive Time Warning**  
 This feature enables you to set a reminder not to exceed a fixed period while driving. Note that this feature should never be used as justification for driving when tired or fatigued. Always take regular breaks when driving on long journeys and never drive while tired or fatigued.

**FMWD (Forward Motion Detection Warning)**  
 When switched on, this feature will sound a notification when it detects the vehicle in front has moved (when stopped in traffic for example).

**LLWS (Low Light Warning System)**  
 This feature monitors light levels and will sound an alarm if the driver does not switch on the driving lights when operating the vehicle in a dark environment.

**FCWS / LDWS Option**  
 Forward Collision Warning System (FCWS) sounds an alarm in advance of possible forward collision.  
 Lane Diversion Warning System (LDWS) sounds an alarm when it detects a diversion from one lane to the next.

You must set the correct road conditions for FCWS and LDWS.  
 Four options are available:-  
 Off  
 Motorway  
 Rural  
 Urban

**Note:** This feature is not available in HDR 1920 x 1080 resolution  
**Important:** Forward Collision and Lane Diversion Warning Systems should never be relied upon as an alternative for remaining alert when driving.

**FCWS / LDWS Calibration**  
 A calibration is required for the Forward Collision and Lane Diversion Warning Systems to work correctly. This calibration should only be done with the vehicle parked on a flat, level road with a clear view ahead. With the Dash Cam mounted and adjusted for the optimum viewing angle, enter the calibration mode. Two lines will appear on the LCD display. Using the and adjust the upper line so that it sits level with the horizon (i.e. the vanishing point of the road). Once complete, press the OK button to adjust the lower line (note that each line turns red when it is being adjusted). Using the and set the lower line to sit level with the end of the vehicle bonnet (i.e. the collision point). Once complete, press the OK button to exit the calibration mode.

**Note:** This feature is not available in HDR 1920 x 1080 resolution

**Motion Detection**  
 This feature sets the Dash Cam to automatically record when movement is detected.

**Parking Monitor**  
 This feature enables the Dash Cam to record collisions even when the vehicle is switched off and parked. With this feature switched off, the Dash Cam shuts down completely when the vehicle is parked and will not sense collisions or record any events. However, with the Parking Monitor switched on, the G-Sensor and CPU remain active. The Parking Monitor works in one of two ways:-

1. When the Dash Cam is receiving power from an external supply, the Dash Cam will record for 20 seconds then switch to loop recording indefinitely.
2. When the Dash Cam does not detect power from an external supply, the device enters a sleep state with only the G-Sensor and CPU remaining active. When a collision is detected the Dash Cam will fully wake and record for 20 seconds before reverting back to the sleep. Note that in this mode, the events leading up to the collision will not be recorded.

**G-Sensor**  
 In the event of a collision, this function locks the file being recorded and keeps it safe so it cannot be overwritten later on. The sensitivity of the collision sensor can be adjusted as follows:  
 Off  
 High  
 Medium  
 Low

**Playing Back Videos and Photos**  
 Video and still photos recorded on the memory card can be reviewed in several ways.

1. The card can be removed from the Dash Cam and using a card reader, be viewed on a PC using the default media player. In addition files can be played back using the RAC GPS Media Player which enables GPS speed and position data to be viewed in real time along with the recorded video.
2. The Dash Cam can be connected to a PC using a Micro USB cable (not supplied). When using this method, the Dash Cam becomes viewable as a Removable Disk. These files can be viewed using a standard media player or the RAC GPS Media Player.

**RAC GPS Media Player**  
 The RAC GPS Media Player enables you to playback video files and view the embedded speed and position data for each video in real time and is available as a free download from [www.ProofCam.com](http://www.ProofCam.com).

- Install the GPS Media Player and follow the onscreen instructions.
- Open the GPS Media Player.
- Click the 'Open File' button and navigate the GPS Media Player to the location of the folder where the video files are stored then click the 'OK' button.

**A. Video Playback:** This window shows the video footage recorded by the Dash Cam.  
**B. File List:** This window shows the files available for playback. Select a file and Press play or double click a file to start playback.  
**C. GPS Map:** This window maps the location and route driven. Note that if GPS information was unavailable at the time of the recording, this area will not show the map.  
**D. Speedometer:** This window shows a real time analogue speedometer.  
**E. GPS Data:** This window shows the precise GPS data captured in real time.  
**F. Playback Navigation and Controls:** This window contains the playback and volume controls.

3. The recorded video files and still photos can also be played back directly on the Dash Cam in Playback mode. While in Playback mode (press to enter Playback Mode), the buttons perform the following functions:-

- Exits the menu
- Enables navigation through the gallery of recorded files
- Enables navigation through the gallery of recorded files
- Selects the video or still photo file to be seen in full size

When a Video file has been selected to be seen in full size:

- Returns to the gallery of recorded files
- Skips to previous file
- Skips to next file
- Plays & Pauses the currently selected video file or returns to gallery of recorded files if photo

4. Playback on a TV  
 Connect the Dash Cam to your TV via a Micro HDMI cable (not supplied) using video cables and photos whilst in playback mode.

**Reset Button**  
 Press the reset button to reset the unit in the event of any problems.

**Battery**  
 This product uses a Lithium-ion battery. Do not use it in a humid, wet and / or corrosive environment. Do not store or leave your product in or near a heat source, in a high temperature location, in strong direct sunlight, in a microwave oven or in a pressurized container and do not expose it to temperatures over 60°C (140°F). Failure to follow these guidelines may cause the Lithium-ion battery to leak acid, become hot, explode or ignite and cause injury and / or damage. Do not pierce, open or disassemble the battery. If the battery leaks and you come into contact with leaked fluids, rise thoroughly with water and seek medical attention immediately. For safety reasons and to prolong the lifetime of the battery, charging will not occur at low temperatures (below 0°C/32°F) or high temperatures (over 45°C/113°F).

THE LITHIUM-ION BATTERY CONTAINED IN THE PRODUCT MUST BE RECYCLED OR DISPOSED OF PROPERLY. USE RAC DASH CAM ONLY WITH THE SUPPLIED DC POWER LEAD AND AC ADAPTER FOR BATTERY CHARGING.

To recycle your RAC Dash Cam unit, please take it to your local recycling centre.

This product fully satisfies the requirements for CE marking when used in a residential, commercial or light industrial environment.

**CE**

This equipment complies with the essential requirements of EU Directive 99/5/EC  
 Do not use this product on board aircraft, or in hospitals, without first obtaining permission.

**Warranty**  
 This RAC Dash Cam is warranted to be free from defects in materials or workmanship from one year from the date of purchase. Within this period, ProofCam will repair or replace any part or parts that fail provided such failure is not deemed to be as a result of misuse or damage caused. The warranty does not apply to cosmetic damage not to consumables such as batteries or storage cards. At our discretion, we will either repair or replace any cameras that are deemed to be eligible under the terms of this warranty. Any damage or fault caused by accident, misuse, unauthorised repair or interference or similar is not covered under this warranty.

If you have a camera that requires service under warranty, then in the first instance you should return it to the retailer from whom it was purchased.

Should you have any general or technical questions about your RAC 03 Dash Cam, please contact us at [customer@proofcam.com](mailto:customer@proofcam.com). We will endeavor to answer your email within 24 hours.

ProofCam Limited  
 EC1V 7LD  
 ProofCam.com

You can also find general information, news, reviews and competitions on our 'ProofCam' Facebook page [www.facebook.com/proofcam](http://www.facebook.com/proofcam) and Twitter feed [www.twitter.com/proofcam](http://www.twitter.com/proofcam)

**Specification**

Display 2.7 inch TFT LCD monitor  
 Lens 6 layer f2.0 aperture all glass lens with a 60cm to infinity focus range. TTL: 21-22mm  
 Languages English  
 Video Format MPEG-4  
 Video Resolution 2560\*1080 30fps 21.9 / 2304\*1296 30fps 16.9 / 1920\*1080 45fps 16.9 / HDR 1920\*1080P 30fps 16.9 / 1920\*1080P 30fps 16.9 / 1280\*720 60fps 16.9 / 1280\*720 30fps 16.9

Parking mode ON / OFF  
 GPS tracking Built-in  
 Audio Recording ON / OFF  
 Image Resolution 16Mp  
 Image Format JPEG  
 Memory Card MicroSD card up to 64GB  
 MIC / Speaker Built-in  
 Backlight Off ON / OFF  
 Auto Power Off OFF / 1 Minute / 3 Minutes / 5 Minutes  
 USB Port USB2.0  
 Battery Capacity 330mAh 3.7V  
 PC Operation System Windows XP2 / Vista / Windows 7 / Windows 8

**IMPORTANT**  
 It is your responsibility to make sure that you use the RAC Dash Cam in a safe and responsible manner. Do not access functions or change settings whilst you are driving. The location and positioning of your RAC Dash Cam should not interfere with the driver's field of vision. Please make sure that you drive in an appropriate way and in compliance with all laws and regulations. The RAC Dash Cam is not a driving aid and is designed solely to provide a video record of your journey.

ProofCam accept no responsibility whatsoever for any failure of the equipment to work correctly.

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