renkforce

CE

Table of contents

Page

1. Introduction

Dear customer,

Thank you for purchasing this product.

This product complies with statutory national and European regulations.

To ensure that the product remains in this state and to guarantee safe operation, always follow the instructions in this manual.

These operating instructions are part of this product. They contain important information on setting up and using the product. Do not give this product to a third party without the operating instructions. Keep these operating instructions in a safe place for future reference.

For technical queries, please contact:

International: www.conrad.com/contact

United Kingdom: www.conrad-electronic.co.uk/contact

2. Explanation of symbols

The symbol with an exclamation mark in a triangle is used to highlight important information in these operating instructions. Always read this information carefully.

The arrow symbol indicates special information and advice on how to use the product.

3. Intended use

The dashcam is a compact video camera designed for shooting videos and photos in vehicles.

The vehicle charging cable or a suitable USB port must be used to power the camera and charge the battery.

This product is only intended for indoor use and in protected areas of vehicles. Contact with moisture must be avoided under all circumstances.

Always ensure that you comply with privacy protection laws. Never photograph or film people without their permission.

In addition, please note that using the device as a surveillance camera in vehicles may be restricted or prohibited in some countries. Familiarise yourself with the relevant regulations before using the product for the first time.

For safety and approval purposes, you must not rebuild and/or modify this product. Using the product for purposes other than those described above may damage the product. In addition, improper use can cause hazards such as a fire or overheating. Read the instructions carefully and store them in a safe place. Only make this product available to third parties together with its operating instructions.

All company and product names are trademarks of their respective owners. All rights reserved.

4. Delivery contents

- GPS Dashcam RF-DC-1G
- Suction mount
- Car charging cable
- Operating instructions

Up-to-date operating instructions

Download the latest operating instructions via the link www.conrad.com/downloads or scan the QR code. Follow the instructions on the website.

5. Safety instructions

Read the operating instructions and safety information carefully. If you do not follow the safety instructions and information on proper handling in this manual, we will assume no liability for any resulting personal injury or damage to property. Such cases will invalidate the warranty/guarantee.

a) General information

- This product is not a toy and must be kept out of the reach of children! Children do not understand the hazards associated with the incorrect use of electrical devices.

- Do not leave packaging material lying around carelessly, as it may become dangerous playing material for children.

- Protect the product from extreme temperatures, strong jolts, high humidity, moisture, flammable gases, vapours and solvents.

- Do not place the product under any mechanical stress.

- If it is no longer possible to operate the product safely, stop using it and prevent unauthorized use. Safe operation can no longer be guaranteed if the product:

  - is visibly damaged,

  - is no longer working properly,

  - has been stored for extended periods in adverse ambient conditions or

  - has been subjected to any serious transport-related stress.

- Always handle the product carefully. Jolts, impacts or a fall even from a low height may damage the product.

- Pay attention to all additional safety information in the individual sections of these instructions.

- Consult an technician if you are not sure how to use or connect the product.

- Maintenance, modifications and repairs must be done by a technician or a specialist repair centre.

- If you have questions which remain unanswered by these operating instructions, contact our technical support service or other technical personnel.

- Always read these operating instructions before using, installing, configuring or servicing this product.
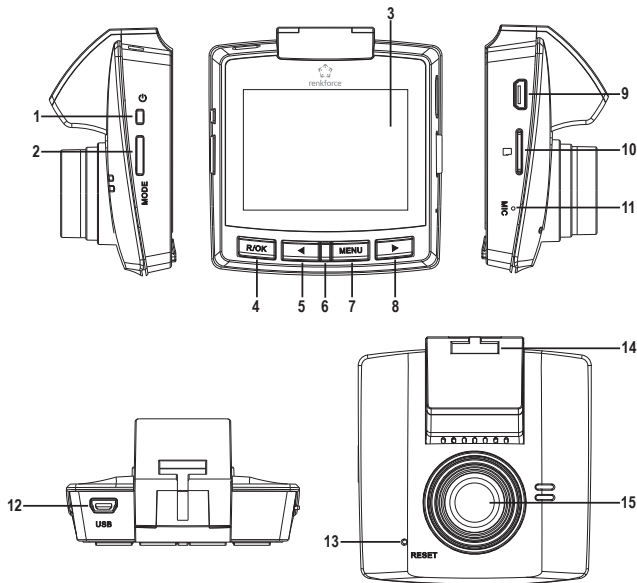
b) Rechargeable battery

⚠

- The built-in rechargeable battery cannot be removed and can only be charged in the device. Never attempt to remove the battery and charge it with an external charger.

- The battery must be charged with the vehicle charging cable provided, a USB power adapter or a USB port on your computer. Using another power supply with a different charging current may damage the camera and cause the battery to overheat, catch fire or explode.

- Charge the battery on a regular basis, even when you do not use the device (about every 3 months). Failure to charge the battery regularly may cause the battery to overdischarge, which can cause permanent damage.

6. Features and functions

- Automatically activates recording via the cigarette lighter
- Records to a microSD card
- 6.1 cm (2.4") display
- Sturdy suction mount
- Large image angle with wide-angle lens
- Built-in acceleration sensor for detection of accidents (the current recording is automatically write-protected)
- Automatic recording control via motion detection
- SOS function (the recording is write-protected when you press a button)
- WDR function (Wide Dynamic Range for better quality images in poor lighting conditions).
- GPS tracking function (GPS data is associated with the video recording)
- Zoom function
- Built-in rechargeable battery for powering the camera when there is no onboard power supply

7. Product overview

1   (power) button
2   MODE button
3   Display
4   R/OK button
5   ◄ button
6   Status indicator
    Red = Battery charging
    Blue = Switched on
    Flashing blue = Video recording

7   MENU button
8   ► button
9   USB data port
10 Card slot
11 Microphone
12 USB charging port
13 RESET button
14 Mounting lug
15 Lens

8. Fitting

⚠ Never install the product within the release range of an airbag or in an area where it may impair the driver's vision.

When installing the product, consider the risks that may arise from devices becoming dislodged in the event of an accident. Secure the product in a place where it will not present a danger to the driver and/or passengers.

⟶ Mounting the camera on a heated or coated windscreen may impair GPS reception.

- Clean the part of the windscreen where you wish to install the suction mount.
- Insert the suction mount into the mounting lug (13) on the camera.
- Press the suction mount against the windscreen and pull down the lever.
- Check that the suction mount is securely in place.
- Loosen the cap nut on the ball joint of the suction mount. Align the camera as desired and screw the cap nut tight.

9. Connecting the power supply

⚠ When laying the vehicle charging cable, make sure that no safety-related equipment (such as side air bags) is affected. The cable may not be laid within the activation range of airbags and must not interfere with the driver.

- Connect the mini USB connector on the charging cable to the USB charging port (11).
- Extend the cable to the cigarette lighter and plug it in.

⟶ If the camera is not supplied with power, you may need to turn on the ignition. In some vehicles, the cigarette lighter only works after switching on the ignition.

10. Charging the battery

- The camera switches on and the battery charges automatically when the camera is connected to a power supply.
- The status indicator (6) turns red when the battery is charging. A full charge cycle takes approximately one hour.
- The status indicator (6) will turn off when the battery is fully charged.
- A fully-charged battery will last for approximately 20 minutes of video recording.

$\longrightarrow$ In some vehicles, the cigarette lighter is not switched on and off by the ignition. If this is the case, the vehicle battery may be discharged. Disconnect the charging cable from the cigarette lighter when you do not need to use the camera.

11. Inserting a memory card

$\longrightarrow$ The camera supports memory cards with a capacity of up to 32 GB.

If the device does not recognise your memory card, remove the memory card and insert it again.

The memory card should be formatted before using the device (refer the menu instructions in this manual for details).

- Insert the memory card into the card slot (10).
- The memory card contacts must point towards the display (3).
- To remove the memory card, press the memory card inwards and then release it. The memory card will spring back and protrude out of the card slot (10), allowing you to remove it from the camera.

12. Operation

⚠️ Do not operate the camera when you are driving, as this may distract you and endanger you and other road users.

a) General functions

Switching on and off

- Press the ⏻ button (1) briefly to switch on the camera.
- Hold down the ⏻ button (1) to switch off the camera.

⟶ The camera will switch on automatically and start to record video when it is connected to a power supply via the USB charging port (12).

The camera switches off when it is disconnected from the power supply via the USB charging port (12) (this depends on the settings in the menu).

Selecting the operating mode

Briefly press the button "MODE" (2) to switch between modes. The camera mode is indicated by the icon in the upper-left corner of the display (3).

- Video mode (video camera icon)

⟶ Video is recorded in sequences. The length of each sequence can be configured via the menu.

If the memory card is full, the oldest recording will be overwritten.

If the built-in acceleration sensor is enabled and detects an impact, the current recording will be write-protected and will not be deleted, even when the card is full.

You can also press the ◀ button (5) (SOS function) to write-protect the recording.

Write-protection ensures that important recordings are not lost.

- Photo mode (photo camera icon)
- Playback mode (film strip icon)

Manual recording

- Use the MODE button (2) to select the desired operating mode.
- Video mode

  Press the R/OK button (4) to start a video recording.

  Press the R/OK button (4) again to stop the recording.
- Photo mode

  Press the R/OK button (4) to take a photo.

Playback mode

- Use the MODE button (2) to select playback mode.
- Select the desired file with the ◀ (5) or ▶ (8) button.
- Press the R/OK button to start or stop video playback.

Zooming in

- Press the ◀ (5) or ▶ (8) buttons to zoom in on the image in standby mode (camera is not recording).

b) Menu

Each mode has its own menu. To access a menu, enable the corresponding mode.

⟶ The system menu can be accessed in any mode.

Using the menu

⟶ If necessary, stop the video recording or video playback. The camera must be in standby mode.

• Use the MODE (2) button to select the mode whose menu you wish to access.
• Press the MENU button (7) to display the menu for the selected mode.
• Press the MENU button (7) again to display the system menu.
• Press the ◀ (5) or ▶ (8) buttons to navigate in the menu or change settings.
• Press the R/OK button (4) to select a menu item or confirm your entry.
• Press the MENU button (7) to go back to the previous menu. To exit the menu, press the MENU key (7) repeatedly until the selected mode appears on the display.

Video menu

Resolution	Configures the resolution and frame rate settings
Loop recording	Sets the length of recording sequences. The camera records video in sequences. The oldest recording is overwritten when the memory card is full.
WDR	**W**ide **D**ynamic **R**ange Improves image quality when there are strong contrasts and challenging lighting scenarios.
Exposure	Sets the exposure compensation
Motion Detection	Automatically controls video recording (start/stop) via motion detection
Record Audio	Enables/disables audio recording
Date Stamp	Enables/disables the time and date stamp
Gravity sensing	Automatically write-protects video recordings when an accident is detected. Sets the sensitivity of the acceleration sensor.

GPS	Enables/disables GPS When GPS is enabled, GPS data is recorded and the time is set automatically. The GPS symbol appears in green when GPS reception is sufficient.
Plate Number	Option for entering the vehicle numberplate

Photo menu

Take photo auto	Automatic shooting with adjustable interval between photos
Image Size	Sets the image resolution
Sequence	Continuous shooting
Quality	Sets the image quality (image compression)
Sharpness	Focus adjustment
White Balance	White balance settings
Color	Colour settings
ISO	ISO sensitivity settings
Exposure	Sets the exposure compensation
Anti-shaking	Enables/disables the image stabiliser
Date Stamp	Enables/disables the date/time stamp

Playback menu

Delete	Delete function
Protect	Enables/disables write protection Files cannot be deleted when write-protection is enabled (if you wish to delete a file, disable write protection)
Slide show	Sets the image display duration for slide shows

System menu

Date /Time	Sets the date and time
Auto Power-Off	Switch-off delay after disconnecting the power supply
Beep Sound	Enables/disables button tones
Language	Sets the menu language
Frequency	Set the mains frequency to avoid flickering in video recordings (Europe 50 Hz/ USA 60 Hz)
Screen Saver	The displays switches off when the camera is not being used. Press any button to wake the display.
Delayed shutdown	Configures the automatic power off settings for when the camera is disconnected from the power supply.
Auto Update Time	Sets the time difference between your country and GMT time (for automatic GPS time), e.g. Germany: GMT+01:00 (winter time) GMT +02:00 (summer time)
Formate	Formats the memory card **Warning – all data on the memory card will be deleted.**
Default Setting	Restores factory settings
Version	Displays the firmware version

13. Connecting the device to a computer

⚠ When the camera is connected to a computer, it turns on automatically and the battery starts to charge.

a) Storage management

- Connect a suitable USB cable to the USB data port (9).
- Connect the other end of the USB cable to a USB port on your computer.
- Use the file explorer on your computer to access the memory card and view, delete and save files.
- Alternatively, remove the memory card from the camera and insert it into a card reader on your computer.

b) GPS tracking

Compatible software is required to play and display videos with GPS data. There are many such software products available online. For example, you can download the trial version of "Dashcam Viewer" from www.dashcamviewer.com free of charge.

- Download compatible software from the Internet.
- Install the software on your computer and follow the onscreen installation instructions.
- Connect the camera to your computer (see "Storage management") or insert the memory card into a card reader.
- Start the software.
- Open the desired file to play the video and display the GPS data on the map.

→ If you have any software-related questions, refer to the documentation provided by the software developer.

14. Troubleshooting

The camera is built using state-of-the-art technology and is safe to operate. However, problems and malfunctions may still occur. Follow the instructions below to troubleshoot possible faults:

⚠️ Always follow the safety information.

The camera does not work after it is switched on:

• The car charging cable is not connected to the cigarette lighter properly or the low-voltage plug is not connected to the USB charging port (12).

• The cigarette lighter is not supplied with electricity.

• The charging cable fuse was triggered. Unscrew the positive contact on the top of the cigarette lighter plug and replace the fuse with a new fuse of the same type (see "Technical data").

• The battery is flat (only when used without the vehicle charging cable).

The camera does not work:

• Press the RESET button (13) with a sharp object (e.g. a bent paper clip).

There is no sound during video playback:

• Audio recording was disabled in the video menu.

Files cannot be saved to the memory card:

• There is no memory card inserted, or the memory card is not inserted correctly. Remove the memory card and insert it again.

• The memory card is not formatted. Format the card from the system menu.

• The memory card is damaged. Try using a different memory card.

• The memory card is not compatible (see "Technical data").

No GPS reception (GPS icon does not appear green on the display):

• GPS was disabled in the video menu.

• Poor GPS reception due to heated or coated windscreen.

• Poor GPS reception due to obstacles (e.g. tunnels or tall buildings that obstruct the sky).

15. Care and cleaning

⚠ Never use aggressive detergents, rubbing alcohol or other chemical solutions, as these could damage the casing or stop the product from functioning properly.

• Always disconnect the product from the power supply before cleaning it.

• Do not press too hard on the display (3) or lens (15) when cleaning the camera.

16. Disposal

Electronic devices are recyclable waste and must not be placed in household waste. At the end of its service life, dispose of the product in accordance with applicable regulatory guidelines.

The built-in rechargeable battery not can be removed and must be disposed of together with the product.

17. Declaration of Conformity (DOC)

Conrad Electronic SE, Klaus-Conrad-Straße 1, D-92240 Hirschau, hereby declares that this product conforms to the 2014/53/EU directive.

→ Click on the following link to read the full text of the EU declaration of conformity: www.conrad.com/downloads

Select a language by clicking on the corresponding flag symbol, and then enter the product order number in the search box. The EU Declaration of Conformity is available for download in PDF format.

18. Technical data

Power supply .... 12-24 V/DC (via cigarette lighter)

5 V/DC (camera via USB)

Rechargeable battery .... 3.7 V/200 mAh, LiPo battery

Fuse.. F2AL AL/250V (5 x 20 mm)

Battery life..................................... approx. 20 min (video recording)

Charging time .... approx. 1 hr

Lens.. 152° wide angle

Display size .... 6.1 cm (2.4")

Storage media .... microSD/microSDHC (class 10) max. 32 GB

Video format .... mov H.264

Video resolution............................. 1080p 1920x1080 30 fps

720p 1280x720 30/60 fps

VGA 640x480 60 fps

Photo format.................................. jpg

Photo resolution............................. 12 / 8 / 5 / 3 megapixels

ISO sensitivity............................... AUTO / 100 / 200 / 400

Recording sequences.................... 1 / 2 / 3 min

Operating temperature .... -20 to +70 °C / 15-85% rel. humidity

Storage temperature...................... -40 to +85 °C / 15-85% rel. humidity

Dimensions.................................... 67 x 72 x 37 mm

Weight .... 78 g (camera only)