Rollei

CarDVR-310

User Guide
in English

www.**rollei**.com

Contents

CarDVR-310

About this Guide
The content in this document is for information purpose and is subject to change without prior notice. We made every effort to ensure that this User Guide is accurate and complete. However, no liability is assumed for any errors and omissions that may have occurred. The manufacturer reserves the right to change the technical specifications without prior notice.

WEEE Notice

Disposal of Waste Electrical and Electronic Equipment and/or Battery by users in private households in the European Union. This symbol on the product or on the packaging indicates that this cannot be disposed of as a household waste. You must dispose of your waste equipment and/or battery by handling it over to the applicable take-back scheme for the recycling of electrical and electronic equipment and/or battery. For more information about recycling of this equipment and/or battery, please contact your city office, the shop where you purchased the equipment or your household waste disposal service. The recycling of materials will help to conserve natural resources and ensure that it is recycled in a manner that protects human health and environment.

Battery warning

- Never dismantle, crush, or pierce the battery, or allow the battery to short-circuit. Do not expose battery being placed in high temperature environment, if battery leaks or bulges, stop continue to use.
- Always charge using the system. Risk of explosion if battery is replaced by an incorrect type.
- Keep the battery out of reach of children.
- Batteries may explode if exposed to naked fire.
  Never dispose of batteries in a fire.
- Never replace the battery on your own; have the dealer do it for you.
- Disposed of used batteries observing local regulations.
- Before disposing the device, please remove the battery.
  To remove the battery open the screws on the housing of the device.

Notes on Installation

1. This product shall be installed near the rear view mirror, at the center and top of windshield for optimal viewing.
2. Make sure that the lens is within the wiping range of the windscreen wiper to ensure a clear view even when it rains.
3. Do not touch the lens with your fingers. Finger grease may be left on the lens and will result in unclear videos or snapshots. Clean the lens on a regular basis.
4. Do not install the device on a tinted window. Doing so may damage the tint film.
5. Make sure that the installation position is not hindered by the tinted window.
6. To use the products of the attached power charger only, please do not use other brand power charger, in order to avoid equipment burn or cause the battery explosion.

Caution

- Due to local laws and vehicles safety considerations, do not operate the device while driving.
- Set up time and date accurately before you use this device.
- Please use SuperCar software in condition that Google Maps is function normally.
- The firmware function in the device is for reference only, please follow the actual road condition.
- The results of GPS positioning are only for reference, and should not affect the actual driving situation. The system also cannot ensure the positioning accuracy.
- GPS positioning accuracy may differ depending on weather and location such as high buildings, tunnels, undergrounds, or forests.
  GPS satellite signals cannot pass through solid materials (except glass). Tinted window will also affect the performance of the GPS satellite reception.
- GPS reception performance on each device may differ. The system cannot determine the accuracy of the positioning results from different devices.
- The values displayed in this system, such as speed, position, and the distance warning to the speed camera set points, may be inaccurate due to the influence of surrounding environment. They are for your reference only.
- The system is used only for non-commercial use, within the maximum limits permitted by applicable law. Our company does not accept any responsibility for any data loss during the operation.
- This product gets warm when in use; this is normal.
- Improper use or operation of the product may result in damage of the product or its accessories and void the warranty.

1   Introduction

Thank you for purchasing this advanced Car Recorder. This device is specifically designed for real time video recording when driving.

1.1 Features

- Full HD recording videos (1920x1440/30fps)
- 2.31" LCD color screen
- Wide angle lens
- Automatic Emergency recording for collision detection
- Support SDHC Level 10 and above. Support up to 32 GB

1.2 Package Contents

The package contains the following items. In case there is any missing or damaged item, contact your dealer immediately.

1   Car Recorder
2   Quick start guide
3   CD-ROM
4   Bracket
5   Car adapter
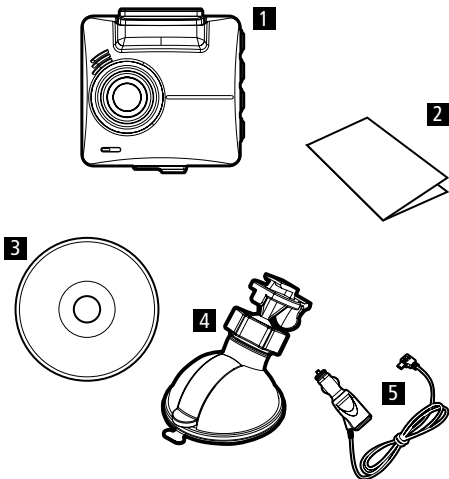
1.3 Product Overview
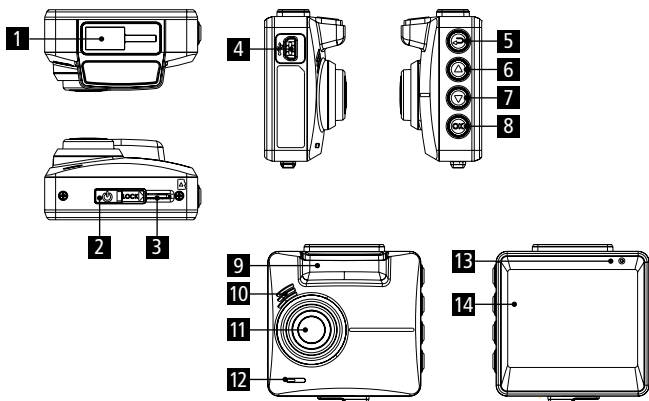
No.	Item
1	Bracket Socket
2	Power Switch
3	Memory Card Slot
4	USB / Power Connector
5	Back Button (⤶)
6	Up Button (▲)
7	Down Button (▼)
8	Enter Button (**OK**)
9	GPS Antenna
10	Speaker
11	Wide Angle Lens
12	Microphone
13	LED Indicator
14	LCD Panel

2 Getting Started
2.1 Inserting the Memory Card
Insert memory card with the gold section facing upward and the screen of the device facing upward too, as illustrated. Push the memory card in until a click sound is heard, indicating the card is in position.
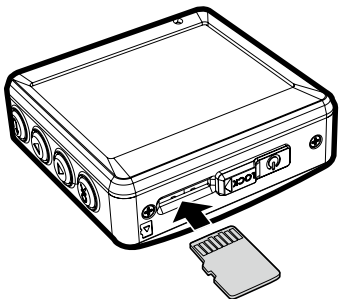
To remove the memory card

Push to eject the memory card out of the slot.

Note:
1. Do not remove or insert the memory card when the device is turned on. This may damage the memory card.
2. Please use a Class 10 or higher rating Micro SD card, max. up to 32 GB.
3. Please format the micro SD cards before the initial use.
4. When removing the memory card, please take note that the memory card will be ejected quickly and may get lost. This is a characteristic of the memory card ejection slot to facilitate easy removal by the user.

2.2 Installing in Vehicles
2.2.1 Mount to Windshield

1. Attach the bracket to the device.
   Slide it into the bracket holder until you hear
   a click.
2. Before installing the bracket, please use alcohol
   to clean the windshield and suction cup of the
   bracket. Wait for dry and press suction-cup on
   the windshield.

3. Hold the base firmly on the windshield and
   press down the clamp to mount the car holder
   to the windshield. Make sure the base is
   securely locked in place.
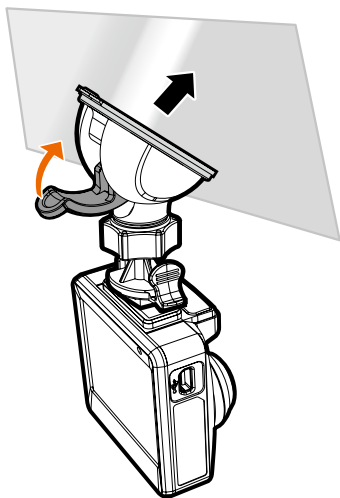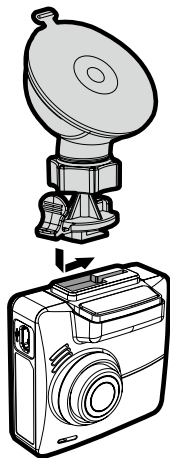
2.2.2 Adjust the device position

1. Loose the knob (1) to swivel the device vertically or horizontally.
2. Then tighten the knob to make sure the camcorder is securely locked in place.
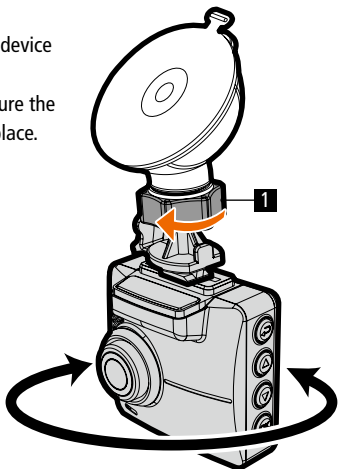
2.3 Connecting to Power

Use only the attached power connector for activating the device and charging the built-in battery.

1. Connect one end of power connector to USB/Power connector port on the device. USB port input: DC 5V / 1A.
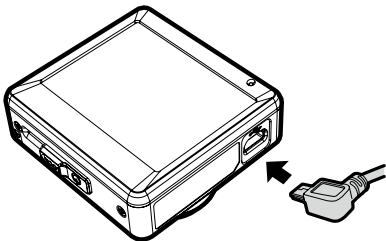
2. Plug the other end of the car adapter to the cigarette lighter socket of your vehicle. Once the vehicle engine is started, the device automatically turns on. Car charger input: DC 12 / 24V.
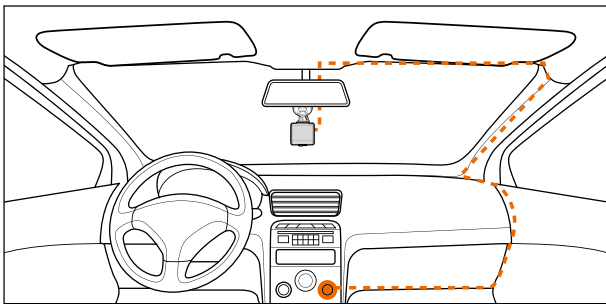
Note: This device shall be installed near the rear view mirror, at the center and top of windshield for optimal viewing.

Battery Status Indicator:

Icon	Description
🔋	Full battery power.
🔋	2/3 battery power.
🔋	1/3 battery power.
🔋	Out of battery power.
🔋	Battery is charging.
⌁	Connect the car adapter to charge the battery, battery is full charged.

Note:
1. Please take note if the environment temperature reaches 45°C or above, the car adapter still can supply power to device, but it will not charge the Lithium-ion battery. This is the characteristic of Lithium-ion and is not a malfunction.
2. If the operation temperature is below 0° C, the device still can power on but unable to operate. The device will start Automatic Record when the operation temperatures above 0° C.

2.4 LED Indicator

Status Explanation	LED Indicator Color
Power off, battery charging	Red
Power off, battery full charged	LED light off.
Power on, battery charging	Red
Power on, battery full charged	Green
Standby / Standby and screen off	Green
Recording/ Recording and screen off	Flash red

2.5 Powering the Device On / Off

2.5.1 Auto Power On/Off

Once the vehicle engine is started, the device automatically turns on. If the Automatic Record function is enabled, the recording will automatically start right after the device turns on.

Please refer to Set Automatic Record (2.6.2).

2.5.2 Manual Power On/Off and Reset
2.5.2.1 Manual Power On

Push the power switch and make sure that the power switch locks on the memory card slot.
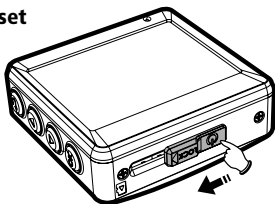
2.5.2.2 Power Off

Push the power switch and make sure that the memory slot is released and the device starts power off sequence. Do not power on the device when it is in the power-off sequence, or the recorded file may become corrupt.
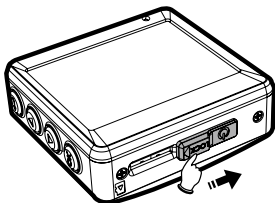
2.5.2.3 Reset the device

In case the device fails to function normally due to unknown causes, push the power switch and verify the memory card is in the removable state; wait for 7 seconds and push the power switch again to restart the device.

2.6 Initial Settings

Before using the device, we recommend you to set up the correct Date and Time and Automatic Record.

2.6.1 Set the Date / Time

To set the correct date and time, do the following:

1. If recording is in progress, press the ▼ button to stop recording
2. Press the ⮌ button to enter the OSD menu.
3. Press the ▲/▼ button to select Date / Time and press the **OK** button.
4. Press the ▲/▼ button to adjust the value and press the **OK** button to move to another field.
5. Repeat step 4 until the date and time setting is complete.

2.6.2 Set Automatic Record

Default setting of Automatic Record is enabled. The device will automatically start recording when powered on. In case Automatic Record is disabled, enable it by the following steps:

1. If recording is in progress, press the ▼ button to stop recording.
2. Press the ⮌ button to enter the OSD menu.
3. Press the ▲/▼ button to select Automatic Record and press the **OK** button.
4. Press the ▲/▼ button to select On and press the **OK** button.
5. Press the ⮌ button to exit the menu.

2.6.3 Set the Satellite Synchronization

To set the proper satellite time zone (satellite synchronization), follow the steps below:

1. If recording is in progress, press the ▼ button to stop recording
2. Press the ⮌ button to enter the OSD menu
3. Press ▲/▼ to select **Satellite Synchronization** and press **OK** into the function.
4. Press ▲/▼ to select **On**, then press **OK** to turn on the function.

2.6.4 Set Timezone

1. If recording is in progress, press the ▼ button to stop recording
2. Press the ⮌ button to enter the OSD menu
3. Press the ▲/▼ button, select the Set Timezone and then press the **OK** button, then press the ▲/▼ button to select the correct time zone that the country is located and then press the **OK** button. After this, the time synchronization setting is completed.

Note:

1. If Satellite Synchronization is on, device clock will be calibrated via satellite clock signal based on Set Timezone. Please refer to (4.2)
2. If satellite positioning is not successful, device clock will run based on user defined time.

3 Using the Car Recorder
3.1 Recording Videos
3.1.1 The Recording Screen

No.	Item	Description
1	Duration	Indicates the recording duration.
2	4 GRID FUNCTION CHART	You will see the 4 GRID FUNCTION CHART in the LCD screen after you push ⏎ button.
3	Stop recording	Press the ▼ button to stop recording.
4	Emergency recording	Press the **OK** button to start manual emergency recording.
5	Resolution	Indicates the video resolution.
6	GPS icon	After the GPS is positioned, a "📡" icon will be displayed on the screen.
7	Battery	Indicates the remaining battery power.
8	Date/Time setting reminder	Reminds that the date and time have not been set up yet.
9	Date/Time	Refers to the prevailing date and time of recording.
10	Temperature	The screen shows below message when the operation temperature below 0 ° C, the device cannot be operated.

3.1.2 Record videos while driving

When the vehicle engine starts up and the Automatic Record function is enabled, the device automatically turns on and starts recording. Recording stops and shut down after the engine is switched off.

Note:

On some cars, the recording will continue when the engine is switched off. If this happens, please manually turn off the cigarette lighter or remove the car adapter from the cigarette lighter.

3.1.3 Emergency Recording

To start Emergency Recording, do the following:

1. During the recording period, press the **OK** button to enter emergency recording mode. The wordings, **"Emergency"**, will be displayed on the top right-hand corner of the display screen. Files that are saved during the emergency recording mode will be protected.

2. Press the ▼ to stop recording immediately.

Note:

1. If the Collision Detection function is enabled and a collision is detected, the device will automatically trigger the emergency recording. Please refer to (4.2).

2. The emergency recording file is created as a new file, which will be protected to avoid being overwritten by normal cycling recording. 8G (or above) memory card can save up to 10 emergency video files. The alert message of "Emergency files are full" will pop up on the screen when the emergency recording files are full, and the oldest emergency file will be automatically deleted when a new emergency recording file is created.

3.1.4 Stop/Start recording

1. Press the ▼ button to stop recording.
2. Press the **OK** button to start recording.

Note:

1. It can be configured to save a video file for every 3 or 5 minutes of recording. Please refer to (4.2).
2. The device saves the recording in the memory card. If the memory card capacity is full, the oldest file in the memory card is overwritten.

3.1.5 Taking Snapshot

You can also use this device to take snapshots of the current scene.

1. If recording is in progress, press the ▼ button to stop recording.
2. Press the ▼ button to take a snapshot.

3.1.6 HDR (High Dynamic Range)

HDR (High Dynamic Range) will be activated under the HDR 1920 x 1080/30fps mode of the device. Its purpose is to provide clear images even under backlighting, when there are very bright and very dark areas simultaneously in the camera's field of view.

3.1.7 Parking Mode

To monitor the vehicle when it is parked, you can activate Motion Detection or Vibration Detection.

1. If recording is in progress, press the ▼ button to stop recording.
2. Press the ⏎ button to enter the OSD menu.
3. Press the ▲/▼ button, select **Parking Mode,** and then press the **OK** button.
4. Press the ▲/▼ button, select **Vibration Detection** or **Motion Detection,** and then press the **OK** button.
5. Press the ⏎ button to exit the menu

Item	Description
Vibration Detection	If disconnected from power when the camcorder is powered on, the system alert message **"Wait for 60 seconds to enter Vibration Detection or press OK key to power off."** This means the system will enter Vibration Detection automatically in 60 seconds; when the camcorder detects any external vibration applied to the vehicle, Video Record will be 60 seconds and the recording will be protected. If press **OK** within 60 seconds, the camcorder will be powered off instead of entering Vibration Detection mode.

Item	Description
Motion Detection	If disconnected from power when the device is powered on, the system alert message **"Wait for 10 seconds to enter Motion Detection, or press OK key to power off."** This means the system will be displayed on the screen. This means the system will enter Motion Detection automatically in 10 seconds, when the device detects any motion in front of lens or detects any external vibration, Video Record will be 10 seconds, if the screen detects any vibration, the device will keep recording next 10 seconds until the vibration stops. If press **OK** within 10 seconds, the device will be powered off instead of entering Motion Detection mode.
Off	No parking monitoring activated.

Note:
1. When the battery is fully charged and is in good condition, Motion Detection can record continuously for about 20 minutes
2. As the device is used, the battery storage capacity will decrease gradually. This is a normal phenomenon for the battery.
3. The recording under parking mode will be all saved in emergency recording file.

3.1.8 4 GRID FUNCTION CHART in the LCD screen

When the device is recording, press ↩ button will enter 4 GRID FUNCTI-
ON CHART in the LCD screen, users can check vehicular informations here.
Press ↩ button once again will go back into your recording.

No.	Item
1	Driving Speed
2	Time
3	Driving direction

Note:

Driving Speed and Driving Direction are only applicable when satellite
positioning of the device is ready; otherwise, they will be displayed in
gray scale only. Satellite positioning function is dependent on the model
purchased.

3.2 Playback Videos and Photos

If recording is in progress, press the ▼ button to stop recording.

1. Press the ↩ button to enter the OSD menu.
2. Press the ▲/▼ button, select the **File
   Playback** and then press the **OK** button.
3. Press the ▲/▼ button, select the file type
   that you wish to view, and then press the **OK**
   button.
4. Press the ▲/▼ button to view the previous/
   next file and then press the **OK** button to
   view the file on full screen.

Note:

You can press the ▲ button from the standby screen and directly enter the playback mode.

The final recoding will be shown on the screen.

3.2.1 Video Playback

If recording is in progress, press the ▼ button to stop recording.

1. Press the ⤺ button to enter the OSD menu.
2. Press the ▲/▼ button, select File **Playback** and then press the **OK** button.
3. Press the ▲/▼ button, select **Video** or **Emergency**, and then press the **OK** button.
4. Press the ▲/▼ button to view the required video recording file and then press the **OK** button, playback the video.
5. Press the ▼ button to stop playback. Press it again to resume playback.
6. Press ▲ up to 4 times fast-forward. Press ▼ to resume normal mode.
7. Press **OK** up to 4 times rewind speed. Press ▼ to resume normal mode.

3.2.2 Viewing Photos

If recording is in progress, press the ▼ button to stop recording.

1. Press the ⤺ button to enter the OSD menu
2. Press the ▲/▼ button, select File Playback, and then press the **OK** button.
3. Press the ▲/▼ button, select Picture, and then press the **OK** button.
4. Press the ▲/▼ to view the required picture files, and then press the **OK** button to view the files on full screen.

3.2.3 The Playback Screen

Video Playback Screen

Picture Playback Screen

No.	Item	Description
1	File selection (back)	Press the ⏎ button to return back to file selection display.
2	Previous File	Press the ▲ button to review the previous picture/video.
3	Next File	Press the ▼ button to view the next video/picture.
4	File Playback	Press **OK** to play video (photo).
5	Playback page no. of the file	Instructs the current file being played and the total no. of playback files.
6	Current Duration	Indicates the elapsed time.
7	Date and time	Indicates the recorded date and time.

3.2.4 Deleting Files

If recording is in progress, press the ▼ button to stop recording.

1. Press the ⤴ button to enter the OSD menu.
2. Press the ▲/▼ button, select **"File Deletion"**, and press the **OK** button.
3. Press the ▲/▼ button, select file type and press the **OK** button.
4. Press the ▲/▼ button, select the file that you wish to delete and then press the **OK** button to enter the deletion menu.
5. Press the ▲/▼ button to select an item.

Item	Description
Delete One	Delete the current file.
Delete All	Delete all files.

6. Press the **OK** button, please confirm deletion.

Note:

Deleted files cannot be restored. Please ensure that files have been backed up before deleting.

4. Adjusting the settings
4.1 Using the menu

You can customize the general settings via the on-screen display (OSD) menus. Please note that the menus consist of several pages. The menus can be selected by the ▲/▼ button.
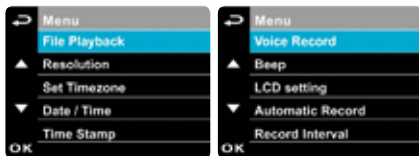
If recording is in progress, press the ▼ button to stop recording.

1. Press the ⮌ button to open up the OSD menu.
2. Press the ▲/▼ button, select menu item and press the **OK** button, then enter the selected menu.
3. Press the ▲/▼ button to select to required setting and press the **OK** button to confirm setting.
4. Press the ⮌ button to exit the menu

4.2 Menu Items

Refer to the below table for details of main menu and function list.

Menu Item	Description	Available Option	Default Option
File Play-back	Select the file type that you wish to view.	Picture / Video / Emergency	Video
Resolution	Set up resolution of video recording.	1920 x 1440p/30fps 1920 x 1080p/60fps 1920 x 1080p/30fps HDR 1920 x 1080p/30fps 1280 x 720p/120fps	1920 x 1080 / 30 fps
Set Time zone	Select the correct time zone that the country is located.	Factory default time zone is set as "+00"	+00
Date / Time	Set up date and time.	Press the ▲/▼ button to adjust the value, and press the **OK** button to switch the field and confirm.	Manually set up after the device is turned on
Time Stamp	Activate/suspend the use of the date stamp.	On / Off	On
Voice Record	Activate/suspend the use of voice recording.	On / Off	On

4.2 Menu Items

Menu Item	Description	Available Option	Default Option
Beep	Activate/suspend use of sound effects setting.	VOLUME 1 / VOLUME 2 / VOLUME 3 / Off	VOLUME 2
LCD Setting	Set the screen auto shutdown time after video recording has started.	On / Turn Off After 30 sec. / Turn Off After 3 min. / Off	On
Automatic Record	Activate/suspend use of the automatic record function after the device is turned on.	On / Off	On
Record Interval	Set the record interval for each video recording file.	1 min. / 3 min.	3 min.
EV	Setting of exposure value.	Press the ▲/▼ button to set the exposure value. It can be set between +1.0 to -1.0.	+0.0
Speed Unit	Select the unit for speed display.	km/h / mph	km/h
Satellite System	Select the satellite system where the user is located	GPS / GLONASS	GPS
Satellite Status	Displays the status of current satellite signal reception.		

4.2 Menu Items

| Menu Item	Description	Available Option	Default Option
Satellite Synchronization	Automatically synchronize with the local satellite time. Satellite time will be displayed by the system as a first priority after this function is activated, and the time cannot be manually changed subsequently (recommend that the time zone is not changed deliberately).	On / Off	On
Collision Detection	Activate/suspend use of the collision detection function. Emergency recording will be activated automatically when any collision is detected.	High Sensitivity / Normal Sensitivity / Low Sensitivity / Off	Normal Sensitivity
Parking Mode	To monitor the vehicle when it is parked.	Vibration Detection / Motion Detection / Off	Off
WDR	Present a crisp and clear picture quality with harmonious contrast in a high contrast, high discrepancy environment.	On / Off	Off
Language	Setting of display language menu.	15 languages to select	English
File Deletion	Delete files.	Picture / Video / Emergency	Video
Format	Formatting of memory card	Yes / No	No
Default	Reset all and restore to factory default settings.	Yes / No	No

5. Installing the Software

1. Place the attached CD ROM into the CD player.
2. If the CD does not execute automatically, please use Windows File Manager to execute the Install_CD.exe file in the CD.

The following screen will be shown up:

3. Press the [Menu] item to start the installation process according to the instructions on-screen

6. SuperCar
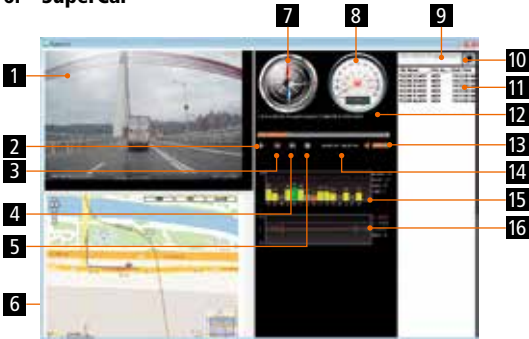
No.	Item
1	Video Player
2	Play / Pause
3	Previous
4	Next
5	Stop
6	Google Map
7	Compass
8	Speed Meter
9	File Path
10	Browser File
11	File List
12	File Name
13	Volume
14	Current Duration / Total Duration
15	Signal Noise Ratio (SNR)
16	G-Sensor

Note:
1. To display the route on Google Maps, please make sure the internet is connected before starting the video playback.
2. Video files (MOV / TS) and GPS/G-Sensor files (NMEA) must be stored in the same folder before starting the playback.
3. The SuperCar software is only applicable to a Windows operating system

7. Specifications

Item	Description
Image sensor	1/3″ CMOS sensor
Effective pixels	2688 (H) x 1512 (V)
Storage media	Support Micro SDHC Class 10, max. up to 32 GB
LCD display	2.31″ LCD color screen
Lens	Wide Angle Fixed Focus lens | F1.8, f=2.94mm
Focus range	1.5m ~ Infinity
Satellite System	GPS / GLONASS
Movie Clip	Resolution: 1440P/30fps ; 1080P/60fps ; 1080P/30fps ; 1080P/30fps HDR ; 720P/120fps Format: MOV
Still image (Snapshot)	Resolution: 4M (2688 x 1512) Format: JPEG
Shutter	Electronic shutter Auto: 1/2 ~1/2000 sec
G-Sensor	3-Axis G-Force sensor
ISO	Auto
White Balance	Auto
Microphone	Support
Speaker	Support
Interface	Mini USB
Battery	Built-in 470mAh Li-polymer rechargeable
Operating Temperature	0° ~ 60° C
Operating Humidity	20 ~ 70% RH
Storage Temperature	-20° ~ 70° C
Dimensions	57 x 30 x 58 mm
Weight	approx. 75 g (without memory card)

8 CE Conformity

The Manufacturer hereby declares that the CE marking was applied to the Rollei CarDVR-310 in accordance with the basic requirements and other relevant provisions of the following CE Directives:

2011/65/EC	RoHs Directive
2004/108/EC	Low Voltage Directive
1999/5/EG	R&TTE Directive
2006/95/EEC	LVD Directive
2002/96/EG	WEEE Directive

$$C \epsilon$$

The EC Declaration of Conformity can be requested from the address specified on the Warranty card.

9   License Information

License- and Sourcecode information: The product includes software components, which have been licensed by the rights holders as free software or open source software. You'll find the copyright notes and license texts here: http://gpl.rollei.com

You can obtain the source code of these software components on a data carrier from us by sending a request to our customer support department at the address below within three years after sale of the product and for at least as long as we offer support and spare parts for the product:

Rollei Service Germany
Denisstraße 28a, D-67663 Kaiserslautern
(or by e-mail to: service@rollei.com)
Subject: "Source code, CarDVR-310"

To the extent the product includes proprietary software components, which stem from us and are linked with a library under the GNU Reader or Library General Public License, we allow the reengineering of these proprietary software components for debugging of changes and for making changes for your own use. Passing on changes of proprietary software components, on the other hand, is not permitted.

Liability and warranty information of the rights holders:
"This program comes with ABSOLUTELY NO WARRANTY; for details see Sec. 11 and 12 of the GNU General Public License, Version 2." "This program comes with ABSOLUTELY NO WARRANTY; for details see Sec. 15 and 16 of the GNU General Public License, Version 3." "This program comes with ABSOLUTELY NO WARRANTY; for details see Sec. 15 and 16 of the GNU Lesser General Public License, Version 2.1."

www.**rollei**.de/**social**

www.**rollei**.com/**social**

www.**rollei**.com