Important Information

Safe Driving
Motorists, as well as operators of emergency or service vehicles, are expected to exercise all due caution while using this product, and to obey all applicable traffic laws.

Security of Your Vehicle
Before leaving your vehicle, always remember to conceal this device in order to reduce the possibility of break-in and theft.

Privacy
This device may not be used to violate the privacy rights of others. In no way will Cobra Electronics or its subsidiaries be responsible for inappropriate use of this product. It is the sole responsibility of the buyer to consult legal counsel for the interpretation of any laws applicable to the area of intended use of this product.
Congratulations! You've made a smart choice by purchasing a Drive HD Dash Cam from Cobra. This booklet describes the simple steps for mounting, setting up, and using your dash camera.

Product Features

Records everything you see and hear in 1080P Full HD with high dynamic range that optimizes video during day or night.

Continuous Loop Recording overwrites old footage unless you want to save it. A time/date stamp is embedded on all recordings so you’ll never miss an event while driving.

Ready to use out-of-the-box. Includes a heavy-duty suction cup to mount the camera to your windshield and an 8GB MicroSD card to record your ride.

Wide angle view gives you a full view of the road without any edge distortion.

3-axis G-Sensor senses sudden accelerations and collisions and automatically protects footage surrounding the incident.

Camera Features

Additional Features

Emergency Record Button

Motion Sensor

Built-in Microphone & Speaker

Auto-Record and Auto-Power Off

Adjustable Movie Clip Time

Notes

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Notes
Contents

Introduction
Important Information ........................................ A1
Customer Assistance ........................................ A1
Controls, Indicators and Connections ..................... A2
Product Features ............................................. A3

Your Device
What’s in the Box .............................................. 2
Installation ....................................................... 3
Device Operation .............................................. 5-12
Powering the Device On and Off .......................... 4
Charging the device .......................................... 4
Video Record, Still Photo and Playback Modes .......... 5
Video Mode .................................................... 6
Still Photo Mode ............................................. 8
Video and Photo Playback Modes ......................... 9
Video Playback Screen ..................................... 10
Video Protection Screen .................................... 12
Adjusting Camera Settings .................................. 13
Language Selection .......................................... 13
Video Settings ............................................... 14
Adjusting Video Settings .................................... 15
To Adjust General Settings .................................. 16
General Settings ............................................. 17
Still Photo Mode Settings .................................... 18
Connecting to a Computer ................................... 19
Troubleshooting ............................................... 20
Trademark Acknowledgements ............................ 20

Customer Information
Specifications ................................................. 21
What's in the Box

What's in the box

Dash Cam (Model # CDR 820)

Heavy Duty Suction Cup Mount

8GB Micro SD Card (installed)

Cigarette Lighter Adapter

Mini USB to USB Cable

Product Manual

Installation

Where to Mount Your Unit

You will get optimum performance from your camera if you mount it on the front windshield, behind the rear-view mirror. This will minimize the impact on the driver's line of sight. You'll also want to keep the camera centered and angle the bracket to optimize the camera's view of the road ahead.

Windshield Mounting

1. Peel the plastic film off of the suction cup.
2. Position the mounting bracket above the camera as shown. Rotate the vertical support knob clockwise for 2-3 full rotations until it captures the camera firmly.
3. To adjust the angle to the road, if necessary, loosen the angle locking knob above. Turn the camera so that it has a clear view of the road, ahead. Tighten the knob when done.
4. Press the Suction Cup firmly onto the windshield. Push down on the lever to lock the suction cup in place.
5. Plug the USB power cord into the camera.
6. Plug the cigarette lighter adapter on the power cord into your vehicle's cigarette lighter.
Device Operation

Powering the Device On and Off
To turn the device on, press the POWER button.
To turn the device off, press and hold the POWER button for three seconds.

Charging the device
You can charge the device with the included car charger, or with a USB cable. The device will also run off of its own internal battery for a short time.

**NOTE:** When the Car charger is connected, the device will automatically power on and start recording video.

Battery: The battery in this unit is intended to operate the unit after power loss due to an accident or crash. Note that while recording may continue, the device was not intended for long-term recording on battery power.

Video Record, Still Photo, and Playback Modes
The camera has four separate modes:
- Video Mode
- Still Photo Mode
- Video Playback Mode
- Still Photo Playback Mode

To toggle between the modes:
Press the MODE Button:

**NOTE:** You cannot switch modes or enter menus while the camera is recording video.
**Device Operation**

**Video Mode**

Video Mode is the primary function of this device and allows you to easily record HD video of the road ahead of you.

**Continuous Cylindrical Recording**: Once the memory card is full, this camera will continuously overwrite the oldest footage recorded. To protect a clip so that it will not be overwritten, press the **FILE LOCK** button. The icon will show on the screen. Files can also be locked from the playback menu in Video Playback Mode.

**G-Sensor**: The G-Sensor is an accelerometer that can detect an impact caused by an accident. If the G-Sensor is triggered, the current video segment will automatically be locked so that it is not overwritten by cyclical recording. If the G-Sensor is triggered and video is not being recorded, it will start video recording automatically.

The sensitivity of the G-Sensor can be adjusted in settings.
Still Photo Mode

This device can be used to capture high-resolution still photos using its built-in camera. The images are stored on the removable SD Card memory.

To take a picture
Press the RECORD button. The screen flashes black and the image briefly freezes to show that a picture was taken.

To digitally zoom in or out
Press and hold the UP or DOWN buttons. The image zooms in or out, and indicates the zoom factor on the screen. (1x - 4x)

Video and Photo Playback Modes

This device stores video and pictures on its removable SD Card Memory. Playback mode will allow you to review the saved video and photos, and play back the video with sound.

File Selection Screen

To move forward or backward in the list of saved files
Press the UP or DOWN buttons while on the video selection screen. The red box moves to select the next or previous file. If you are at the beginning or end of a page, this may cause you to flip to the previous or next page.

To play a selected file:
Press the RECORD button while on the file selection screen. The video will begin playing.
To play or pause video playback
Press the RECORD button. The video will begin playing or pause playback, and the Play / Pause icon will toggle.

To Fast forward or rewind the video
Press the UP or DOWN buttons. The video will begin playing faster or rewind, and the playback speed will show on the screen as 2X, 4X, etc.

To adjust the playback audio volume
Press MENU to bring up the Playback menu. Make sure VOLUME is highlighted, and press MODE.
Press the arrow keys to select a volume level, 0-10. The selected volume level will have a red box around it. Press MODE again to confirm and close. Finally, press MENU to exit.

To delete a file
Press the MENU button to bring up the Playback menu. Press the down arrow to highlight DELETE, and press MODE to confirm.

To delete just one file, highlight the icon with just one item in the trash, and press MODE to confirm. You will then see the “select a file” dialog. Use the arrow keys to highlight the file you want to delete with the red box, then press RECORD to confirm. The “Delete Selected File” Dialog will appear. Make sure YES is selected, and then press RECORD to confirm. The file will be deleted and you will return to the video selection screen.
Video Protection Screen

To Lock a video or image while in playback mode

Press the MENU button to bring up the Playback menu. Press the down arrow until PROTECT is highlighted, and press MODE to confirm.

To protect just one file, highlight the icon with the open book and the key, then press MODE to confirm.

You will then see the “select a file” dialog. Use the arrow keys to highlight the file you want to protect with the red box, then press RECORD to confirm.

You’ll see the “Protect Selected File” dialog. Press the UP arrow to ensure that YES is selected, then press RECORD to confirm.

The selected picture will now show a lock icon:

This means this file will not be overwritten by continuous loop recording in Dash Cam mode.

Language Selection

While in Video or Still Photo mode, press the MENU button, scroll to the language menu, and press MODE to enter the Language Selection menu.

Use the UP or DOWN arrows to select the desired language, and then press MODE to confirm.

The following languages are supported:

- English
- Spanish
- Portuguese
- Russian
- Chinese
- Simplified Chinese
Adjusting Camera Settings

Video Settings

Note: If you are currently recording video (●) you’ll need to stop recording with the RECORD button first.

While in VIDEO mode, press the MENU button once to enter the menu selection screen. Verify that Video Settings is selected, then press MODE to confirm.

Press the UP and DOWN arrows to select the setting you’d like to modify, then press the MODE button to confirm.

A window on the right edge of the screen will display the available options. Use the UP and DOWN arrows to make your selection, then press MODE to confirm.

A list of the settings and their meanings are shown on the next page.

Adjusting Video Settings

Movie Mode Settings

<table>
<thead>
<tr>
<th>Setting</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Video Settings</td>
<td>This sets the level of detail in the video. FHD will give you the best image, but will take up the most memory.</td>
</tr>
<tr>
<td>Movie Quality</td>
<td>Select between Super High Quality (SHQ) and High Quality (HQ)</td>
</tr>
<tr>
<td>Movie Clip Time</td>
<td>This selects the length of the video clips the system records. Options range from 1 minute to 10 minutes.</td>
</tr>
<tr>
<td>Auto Power Off</td>
<td>Once power is removed from the device, it automatically shuts down. This option lets you set how many seconds to continue recording video after power is removed.</td>
</tr>
<tr>
<td>Motion REC Time</td>
<td>When the Motion Event REC feature is turned on, the camera will analyze the image and determine when the image has changed substantially, and automatically start recording for you. Leave this feature on if you want to record video when you’re moving, and stop recording video when stopped.</td>
</tr>
<tr>
<td>Microphone</td>
<td>If you do not want this device to record audio with its internal microphone, turn this setting off.</td>
</tr>
<tr>
<td>MIC sensitivity</td>
<td>Set the sensitivity of the microphone.</td>
</tr>
<tr>
<td>Scene</td>
<td>Select between Auto, Sport, Portrait, Landscape, Snow, Beach, and Fireworks.</td>
</tr>
<tr>
<td>Exposure</td>
<td>In very bright environments, use a positive EV. Dark environments use negative EV. Options between -2 and +2 are available.</td>
</tr>
<tr>
<td>White Balance</td>
<td>You can adjust the white balance based on the ambient lighting. Options include: Auto, Daylight, Cloudy, Flourescent 1, Flourescent 2, and Flourescent 3.</td>
</tr>
<tr>
<td>ISO Sensitivity</td>
<td>Increasing ISO will make the camera more sensitive to light. Try increasing ISO in low-light conditions, or leave it set to “Auto”.</td>
</tr>
<tr>
<td>Color</td>
<td>Adjusts color saturation. Options include: natural, bright, and grey.</td>
</tr>
<tr>
<td>Effect</td>
<td>Photo effects include: Normal, retro, black and white, relief, negative, drawing, painting, and crayon.</td>
</tr>
</tbody>
</table>
Adjusting Camera Settings

To Adjust General Settings

NOTE: If you are currently recording video (🔴) you’ll need to stop recording with the Record button first.

While in VIDEO or STILL PHOTO mode, press the MENU button once to enter the menu selection screen. Press the down arrow until General Settings is highlighted, then press MODE to confirm.

Press the UP and DOWN arrows to select the setting you’d like to modify, then press the MODE button to confirm.

A window on the right edge of the screen will display the available options. Use the UP and DOWN arrows to make your selection, then press MODE to confirm.

A list of the settings and their meanings are shown on the next page.

General Settings

<table>
<thead>
<tr>
<th>Setting</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beep Sound</td>
<td>If you don’t want the device to beep on every button press, turn this option OFF.</td>
</tr>
<tr>
<td>Idle Power Off</td>
<td>Once power is removed from the device, it automatically shuts down. This option lets you set how many seconds to wait before shutting down.</td>
</tr>
<tr>
<td>Date/Time</td>
<td>Use this to set the current time and date.</td>
</tr>
<tr>
<td>Date Format</td>
<td>Sets the date format.</td>
</tr>
<tr>
<td>HDMI Output</td>
<td>Lets you choose between 720P and 1080P on the HDMI Output.</td>
</tr>
<tr>
<td>Screen Flicker</td>
<td>This sets the screen refresh rate. Options include 50 Hz and 60 Hz.</td>
</tr>
<tr>
<td>USB Function</td>
<td>If you want your camera to behave like a Mass Storage device (flash drive) when connected to a computer, select MSDC. If you want to use it as a webcam with your computer, select PCAM.</td>
</tr>
<tr>
<td>Screen Rotate</td>
<td>Allows you to flip the screen vertically for upside-down operation.</td>
</tr>
<tr>
<td>Screen Saver</td>
<td>Allows you to set a timeout for the screen to go black when not in use. Options include 1 minute and 3 minutes.</td>
</tr>
<tr>
<td>G-Sensor Level</td>
<td>Sets the sensitivity of the G-Sensor, from 0 (off) to 4 (max)</td>
</tr>
<tr>
<td>Motion Detector</td>
<td>Sets the sensitivity of the Motion sensor, from 0 (off) to 3 (max)</td>
</tr>
<tr>
<td>Restore Defaults</td>
<td>Resets the system to its default settings.</td>
</tr>
<tr>
<td>Format SD-Card</td>
<td>If you want to completely erase all the movies and files on the SD-card, select this option. Be careful, all your data will be lost.</td>
</tr>
<tr>
<td>SD-Card INFO</td>
<td>See how much space remains on the SD Card.</td>
</tr>
<tr>
<td>FW Version</td>
<td>Get the firmware version information.</td>
</tr>
</tbody>
</table>
Connecting to a Computer

To connect your camera to a Computer

Connect the camera to your computer using the included USB to Mini-USB Cable.

By default, your device connects to your computer in Mass Storage mode, and acts like a flash drive. Videos can be viewed with any standard video player that supports .avi files.

NOTE: Quicktime, the native video player for Mac, only supports specific types of .avi files and cannot playback this camera's videos. For links to third party players that will work on Mac, visit www.cobra.com/support/software-downloads.

Movies that are locked begin with “SOS_” and movies that are not locked begin with “MOV_.”

Note that if the Memory card gets too full, videos that are not locked will be overwritten to make room for new videos. If you want to save any videos that begin with “MOV_” you should copy them to your computer, or Lock the files.

To switch the camera’s USB function

If you prefer to connect your camera to your PC as a web or video camera, you can change this setting in the settings menu.

Disconnect the camera from your PC, enter General Settings, and change the USB Function to MSDC.

Then, when you reconnect your camera to your PC, it will use this function.
Troubleshooting

If your unit does not appear to be operating properly, please follow these troubleshooting steps:

- Make sure the power cord is properly connected.
- Make sure the socket of your vehicle's cigarette lighter is clean and free of corrosion.
- Make sure the power cord's cigarette lighter adapter is firmly seated in your cigarette lighter, and the Status LED is on between the UP and DOWN buttons.
- Check the power cord fuse. (Unscrew the ribbed end cap of the cigarette lighter adapter and examine the fuse. If required, replace it with a 2-amp fuse only.)

For detailed and up-to-date FAQ's, please visit www.cobra.com/support/faqs.

Trademark Acknowledgement

Cobra®, Nothing Comes Close to a Cobra®, and the snake design are registered trademarks of Cobra Electronics Corporation, USA.

Cobra Electronics Corporation™ is a trademark of Cobra Electronics Corporation, USA.

NOTE: This device complies with part 15 of FCC rules: Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) This device must accept any interference received including interference that may cause undesired operation.

CAUTION: Modifications or parts not approved by Cobra Electronics Corporation may violate FCC Rules and void authority to operate this equipment. This device complies with RSS-310 of Industry Canada. Operation is subject to the condition that this device does not cause harmful interference.

WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

Camera Specifications:

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Visual Angle</td>
<td>118 degrees</td>
</tr>
<tr>
<td>Sensor</td>
<td>5 MP CMOS</td>
</tr>
<tr>
<td>Video resolution</td>
<td>1080P 1440x1080 30 fps</td>
</tr>
<tr>
<td></td>
<td>720P 1280x720 30 fps</td>
</tr>
<tr>
<td></td>
<td>720P 1280x720 60 fps</td>
</tr>
<tr>
<td></td>
<td>480P 640x480  30 fps</td>
</tr>
<tr>
<td>Video Format</td>
<td>H.264 .avi</td>
</tr>
<tr>
<td>Picture Resolution</td>
<td>4032x3094 (Max. 14 MP)</td>
</tr>
<tr>
<td>Picture Format</td>
<td>JPEG</td>
</tr>
<tr>
<td>White Balance</td>
<td>Auto</td>
</tr>
<tr>
<td>Color Effect</td>
<td>Auto</td>
</tr>
<tr>
<td>Continuous Loop Recording</td>
<td>Supported</td>
</tr>
<tr>
<td>Motion Detection</td>
<td>Supported</td>
</tr>
<tr>
<td>Date and Time Stamp</td>
<td>Supported</td>
</tr>
<tr>
<td>Media Supported</td>
<td>SD Card - 8GB Included (32GB Max)</td>
</tr>
<tr>
<td>Languages</td>
<td>English, Spanish, Portuguese, Russian, Chinese</td>
</tr>
<tr>
<td>Sound Recording</td>
<td>Synchronous video and sound record</td>
</tr>
<tr>
<td>USB Interface</td>
<td>USB 2.0</td>
</tr>
<tr>
<td>USB Web Camera</td>
<td>Supported</td>
</tr>
<tr>
<td>USB Mass Storage</td>
<td>Supported</td>
</tr>
<tr>
<td>Display Screen</td>
<td>1.5” LCD</td>
</tr>
<tr>
<td>Battery</td>
<td>Rechargeable Lithium-Ion</td>
</tr>
</tbody>
</table>

Camera Capacity:

- 1080P Recording time with 8GB card (included). 120 minutes
- 1080P Recording time with 16GB card 240 minutes
- 1080P Recording time with 32GB card (max) 480 minutes