

ventra

BCR-400

HD Body Worn Camera

User Guide



Please read and follow all instructions and features before use. Save for future reference.

For latest update and specs, please visit www.ventrainc.com

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1. Introduction

Product Overview

Ventra BCR-400 Body Camera is a full-featured body worn camera designed for various application in both private and public sector. It features vivid 1080P HD video recording and high resolution megapixel still image capture.

The BCR-400 also features embedded 32GB storage for extended recording capacity. A high capacity built-in Li-Ion battery provides continuous recording of up to 6 hours and long standby time. An embedded Passive GPS which when in outdoor environment and acquires signal, will record the coordinates onto the video*.

BCR-400 does not require special software. Simply record and playback directly on the camera, or connect it to a PC via USB cable and view recordings via standard media player.

For convenience, a charging dock is included which connects to the 5V power supply or PC via USB cable**.

*The BCR must be outdoors and within satellite signal range in order to receive and record the coordinates. Satellite signal acquisition may vary widely dependent upon environment, location and other factors.

Time to acquire signal can range anywhere from 1 minute to 10 minutes. So while the video is recording when outdoors, the BCR may not have acquired the signal and or recorded the coordinates.

**The charging dock is currently used solely for charging. Optional system connection to PC for file access may be offered or developed in the future at Ventra's discretion.



System Includes:

- Body Camera BCR-400
- Charging Dock
- USB Cable
- 5V Power Adapter
- Rotatable Clip (on BCR)
- User Manual
- Shoulder clip
- Car Charger



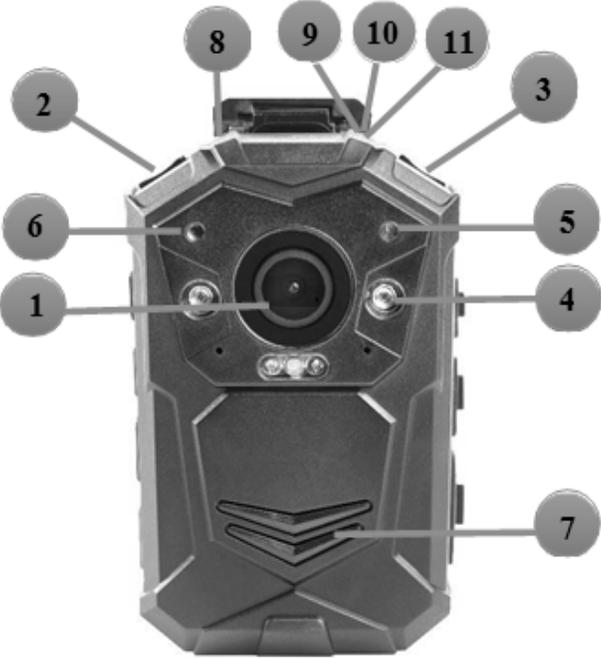
Support

For the latest information about BCR-400, visit: www.Ventrainc.com

2. Technical Specifications

Camera	
Image Sensor	5MPCMOS
Wide Angle	140° wide angle lens
Video	
Video Compression	H.264 / MPEG4
Video Resolution	2304 x 1296, 1920 x 1080, 1440 x 1080, 1280 x 720 848 x 480, 720 x 480
Frame Rate	30fps @ all resolution, 60fps on 1280 x 720 / 848 x 480
Audio	Built-in Microphone
Audio Format	AAC2 / MP3
Audio Playback	Yes
Watermark	Device ID, User ID, Time & Date, GPS Coordinates embedded into Video
Password Protection	Password for video playback, setting change and prevent video deletion
Pre-Record	Up to 30s pre-record
Video Quality	Super Fine / Fine / Normal
Video Segment Duration	5min / 10min / 15min / 30min / 45min
Snap Shot	
Image	32MP Max (Digitally Enhanced)
Image Format	JPEG
Burst	2 / 3 / 4 / 10 / 15 / 20 snap shots
Video/Image Review	
LCD Screen	2in TFT-LCD High-Resolution Color Display
Audio Playback	Yes
Video Output	HDMI 1.3 Port
Video Transfer	USB 2.0
General	
IR LEDs	4
IR LED Function	Manual / Auto / OFF (Programmable)
IR Distance	25 ft
IR Wavelength	850nm
Built-In Storage	32GB Embedded 1080P @ 30fps = approximately 6 Hours 720P @ 30fps = approximately 8 Hours 480P @ 30fps = approximately 13 Hours
White LED Flash Light	Yes
Weather Resistance	IP65
Passive GPS	Yes
Battery	Built-in 2900mAh Lithium Ion
Battery Charge Time / Life Cycle	3.5 Hours Full Charge / 300 Charge Cycle
Recording Battery Life -Continuous	Continuous Recording Time Based on Full Charge 1080P @ 30fps = approximately 6 Hours 720P @ 30fps = approximately 9 Hours 480P @ 30fps = approximately 11 Hours
Operating Temperature	14°F - 122°F
Storage Temperature	-4°F ~158°F
Dimensions	3.54" x 2.17" x1.10"
Weight	6.17 oz without clip
Accessories	Short Clip, Charging Dock, USB Cable, USB Power Adapter, Car Charger, Manual, Epaulet Clip
Certificates	CE, RoHS

3. System Overview



3. System Overview

RIGHT SIDE



- ADD IMPORTANT FILE
- ONE PRESS AUDIO RECORDING & CHANGE RESOLUTION
- ONE PRESS PHOTO SHOT
- ONE PRESS VIDEO RECORDING

LEFT SIDE



- USB PORT
- MINI HDMI PORT
- AV PORT
- OUT PORT

TOP



- TURN ON/OFF LED LIGHT & RED IR

- POWER ON/OFF BUTTON

BOTTOM

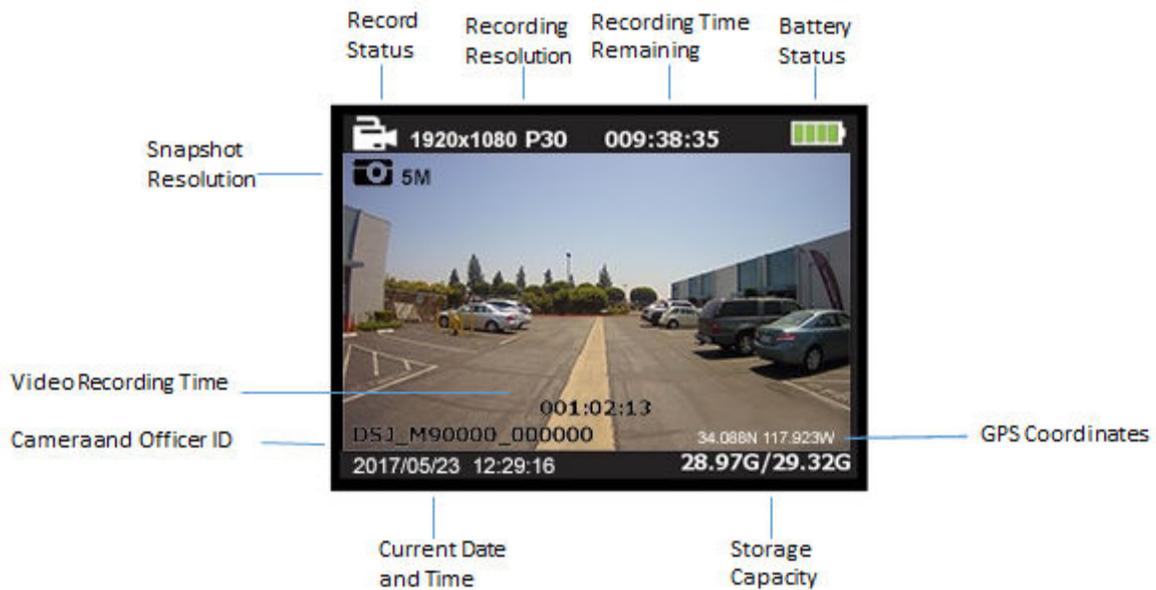


- CHARGING BASE PORT

4. Feature Overview

Item	Description
1.Camera Lens	High Definition Camera
2. Power Button	a). Press to turn camera on; Hold for 3 seconds to turn off camera b). Press to enter or exit screen saver when camera is on c). Press to return to previous menu when in settings or playback mode
3.IR/White Light button	a). Press to turn IR light on/off; b). Hold to turn on/off white light
4.Infrared LEDs	Records clear image in low light condition- up to 30 feet
5.Light Sensor	Detect changes in light and auto activate IR for low-light recording
7.Speaker	Built-in speaker
8. Indicator LED	Blue: Charging Status Green: camera is powered on and in standby mode
9.10.11. Status Indicator LED	Green: camera is powered up and in standby mode, not recording Flashing Red: camera is recording video Flashing Yellow: camera is recording audio only
PLAY & UP KEY	a). Press to scroll up in menu mode b). In play mode, hold to zoom out c). In play mode, press to rewind video
CONFIRM KEY	a). Press to make a selection in menu mode b). In play mode, press to pause/resume video or audio playback c). In standby mode, press to review files
MENU & DOWN KEY	a). Press to enter into menu mode b). Press to scroll down in menu mode c). In play mode, hold to zoom out the playing image d). In play mode, press to fast forward video
ADD IMPORTANT FILE	Press to tag importance to audio/video file when camera is recording
ONE PRESS AUDIO RECORDING & CHANGE RESOLUTION	a). Press to record audio when not in video-recording mode b). Press to mute/unmute video when camera is on video recording c). Hold to change resolution between 480P and 720P
ONE PRESS PHOTO SHOT	a). Press to take pictures in standby mode b). Press to take a single snapshot image while in video recording
ONE PRESS VIDEO RECORDING	a). Press to start/stop recording b). Hold to power up camera and start video recording immediately when camera is powered off
USB PORT	Connects to USB cable for charging or connection to PC
HDMI PORT	Connects to 1.3 HDMI cable for video playback only
CHARGING BASE PORT	Connect to charging dock to charge the camera

4. Screen Display Overview



Record Status	Red blinking record status icon indicates camera is recording, white solid is standby mode
Video Recording Time	Recorded time of current clip
Battery Charge	Current battery level
Camera and Officer ID	Assigned camera and User ID
Remaining Time	Estimated recording hours remaining
SD Card Memory	Internal SD Card capacity: Free space/Total capacity

5. Main Setting Menu

To enter the settings menu:

1. Press Menu () button on the rear of the BCR and enter the password
2. Enter the password by using the following commands:
 - Press Scroll Up () button to change the character to the previous letter or number
 - Press Menu () button to change the character to the next letter or number
 - Press OK () button to move to the next character

The default password is 000000

3. After selecting the last character, press OK () button to enter the setting menu

To navigate the settings menu:

1. Press Menu () button to select next setting or option
2. Press Scroll Up () button to select the previous setting or option
3. Press OK () button to move to confirm your selection or enter the sub-menu
4. Press Power () button to return to the previous menu without changing anything

5. Main Setting Menu

Bold Denotes Default Setting

Setting	Description	Options
Resolution	The image resolution for video	2304×1296 30P 1920×1080 30P 1440×1080 30P 1280×720 60P 1280×720 30P 848×480 60P 848×480 30P 720×480 30P
Megapixels	The image resolution for photos	32M (7600×4275 16:9) 30M (7304×4104 16:9) 28M (7056×3968 16:9) 25M (6664×3752 16:9) 23M (6480×3648 16:9) 21M (6144×3456 16:9) 20M (5960×3352 16:9) 16M (5336×3000 16:9) 12M (4608×2592 16:9) 10M (4384×2466 16:9) 8M (3456×1944 16:9) 5M (3008×1688 16:9)
Burst	The number of images captured when taking a snapshot image	Off , 2, 3, 5, 10, 15, 20
Self Timer	The amount of time the camera waits to take a photo after pressing Snapshot button.	Off , 5 sec, 10 sec
Continuous shooting	When on, pressing the Snapshot button will activate continuous shooting during which the camera will automatically taking a picture at regular intervals. Press this button again to stop shooting. When off, this feature will be disabled.	Off , 5 sec, 10 sec
Quality	The quality of the image for video and photo files.	S. Fine , Fine, Normal
Pre-record	When on, any video you record will include 30 seconds prior to pressing the Record button (stored in the camera buffer); When off, any video you record will include only video and audio from the point after you press the Record button.	Off , On
Delay Record	The amount of the time the camera waits to stop recording video after you press the Record button.	Off , 5 sec, 1 minute, 10 minutes
Car DVR Mode	When on, camera will power up automatically and start video recording when it is charged. Camera will power off as it normally does when it is disconnected from the power source.	Off , On
Loop Recording	When on, camera will overwrite the oldest video file with the most current video file once its memory is full. This setting can be selected only when car DVR mode is on.	Off , On
Split Time	While recording video, the camera will automatically split its recording into files of this length.	3min, 5 min, 10 min, 15 min , 30 min, 45min
Slides Show	When on, viewing photo file will start a slideshow where each photo will be shown for around 5 seconds.	Off , on

5. Main Setting Menu

Infrared	When set to manual, user will need to hold Snapshot button to turn IR LEDs on/off. When set to Auto, these lights will activate automatically based on the light sensor's reading.	Manual , Auto, off
White Led	White Led Flash Light	Off , On
Motion Detect	When on, camera will start recording when front movement is detected by the lens.	Off , On
Recording warning	When on, you will hear a voice confirmation when you start recording. When off, voice confirmation is disabled.	Off, On
GPS	When GPS is on and BCR is outdoor and acquires signal, coordinates will be recorded and can be reviewed by GPS player.	Off , On
Time Zone	Adopt local time in time zone.	-12 to +12
Language	The language of the text in camera interface.	Englsih , 繁體中文, Русский, Jezyk Polski, French, 日本語, Portuguese
Screen Saver	The amount of the time the camera can be idle before deactivating the display to conserve power.	Off, 30 sec, 1 min , 3 min, 5 min
LCD Brightness	Brightness of LCD screen	Low, High
Auto Power off	The amount of the time the camera can be idle before powering off.	Off , 30 sec, 1 min, 3 min, 5 min
LED Light	When on, indicator LED will tell the status of the camera; When off, camera is entering covert mode.	On , Off
Key Tone	When on, camera will play a tone each time you press a button.; When off, tone is disabled.	On, Off
Volume	The volume of camera speaker. This affects the loudness of video playback, audio playback, the key tone, record warning, and any other sounds played by camera. This doesn't affect the volume of the recorded video or audio files themselves.	0-12 (10)
ID setting	User can set Device SN and Person SN	Alphanumeric characters
Change Password	Password can be set or changed	Alphanumeric characters
Time Setup	Adjust time and date	yyyy/mm/dd __: __
Default setting	Use this to return camera to its original settings. This does not erase the recordings.	O (Yes), X (No)

5. Operation

5.1 Power on/off

1) Power on: when camera is off, press () button, camera will power up and enter standby mode;

- Boot up screen
- Working status LED indicator turns green
- Boot up tone
- Camera vibrates
- Camera voice “beeps” when [Record Warning] is ON

2) Power off: press and hold power () button for 2 seconds to turn off working-status camera:

- Save video/audio files before power-off
- Working status indicator turns off
- Power off image
- Power off tone
- Camera vibrates

5.2 Video Recording

In standby mode, PRESS record () button, indicator LED flashes Alternate Red and Green, then camera “beep” and vibrates. If the video recording alert announcement is on, camera will start video recording with indication sound. PRESS record () button again, video recording stops and camera switches to standby mode, working status indicator changes to green.

One Touch Recording Mode

When BCR is powered off, HOLD Record () button for 3 seconds, camera will power on and start video recording immediately. Pre-record feature is not available in the One Touch mode as the BCR was not previously powered on and no video buffer were stored.

5. Operation

5.3 Audio Recording

In standby mode, PRESS Audio () button, with a beep and camera vibration, LED indicator turn yellow and flashes, audio recording started. PRESS Audio () button again to stop audio recording.

5.4 Infrared Night Vision

While under low light conditions, infrared LED will provide additional light to record image or video.

In standby mode, PRESS Menu () button to navigate. Find option **【Infrared】** , PRESS OK () button to enter sub-menu: Manual & Auto, press OK () button to select.

1) Auto Infrared Mode:

In low light situations (3 Lux), IR LEDs will activate automatically, camera switches on infrared filter lens, video image turns to black and white. When system detects sufficient lighting, IR LED turns off, and image automatically reverts to color.

2) Manual Infrared Mode:

When night vision is needed, PRESS IR light button to switch to Infrared mode, IR LEDs will be turned on. PRESS IR Light button again to turn off IR LEDs, image revert to color.

5.5 Take Snapshot Image

In standby, PRESS snapshot () button to take a snapshot, with a sound “Click”, LED working status indicator will flash green once, and the photo stored. The photo resolution and quality can be set in the settings menu.

5.6 Take Snapshot Image While Recording Video

While camera is video recording, PRESS snapshot () to take a snapshot. On the LCD display, there will be a flashing green icon, which indicates that a photo has been taken while video is recording.

5. Operation

5.7 Motion Detection

In settings, find [Motion Detect] option. PRESS OK () button to select.

Sub options: ON/OFF

PRESS record () button to activate motion detection, any movements detected, camera will start recording. If there are no movements for 10 seconds, camera will stop recording. Once any movement is detected, camera will start video recording again.

5.8 Tag / Bookmark Important File

In audio or video recording, PRESS Tag / Bookmark () button, camera vibrates. The audio or video file will be bookmarked with a yellow icon () displayed on the top right corner of the LCD screen.

5.9 Device ID / User ID

In standby mode, PRESS Menu () button to enter settings. Find [ID setting], PRESS OK () button to select. Enter the password, the default password is: 00000. After password entered, the Device & Person SN interface is displayed. 5 characters for Device ID and 6 characters for User ID.

PRESS scroll-Up () button or Scroll-down () button to highlight a character, then PRESS OK () button to select. When completed, press () button to save and exit.

5.10 Time Setting

In standby mode, PRESS Menu () button to enter settings. Find Time setting option, adjust accordingly - for example, 2017/07/31 07:40.

Press Scroll-Up () button or Scroll-down () button to highlight a character, the PRESS OK () button to select.

6. Playback – File Viewing

6.1 Playback directly on BCR– Video, Snapshot, Audio

To enter playback mode, PRESS () for 3 seconds while camera is in standby mode. Enter password and PRESS OK ().

Select files to view - **Video, Photo** or **Audio**

1) In Playback Mode: PRESS OK () to pause/resume playback; PRESS Scroll-Up () button to rewind, PRESS Scroll-down () button to fast forward, then PRESS OK () to play normally. Forward or Rewind Speed = 2x, 4x, 8x, 16x, 32x, 64x, 128x.

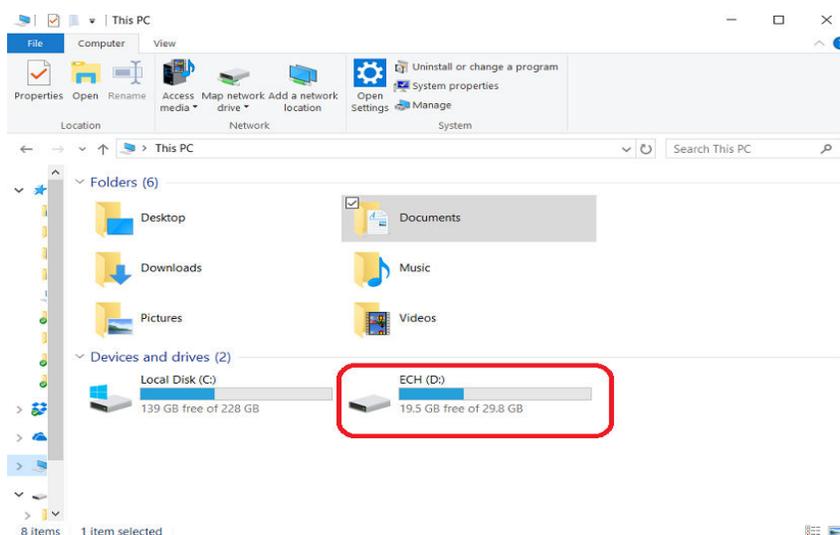
2) Exit the Playback mode:

In Playback mode, PRESS Record () button to return to standby mode step by step.

6.2 Playback via PC

For enhanced security, the BCR is password protected which requires a code to view or accessed by a PC. Without the password, the PC will NOT detect the BCR when connected to the computer.

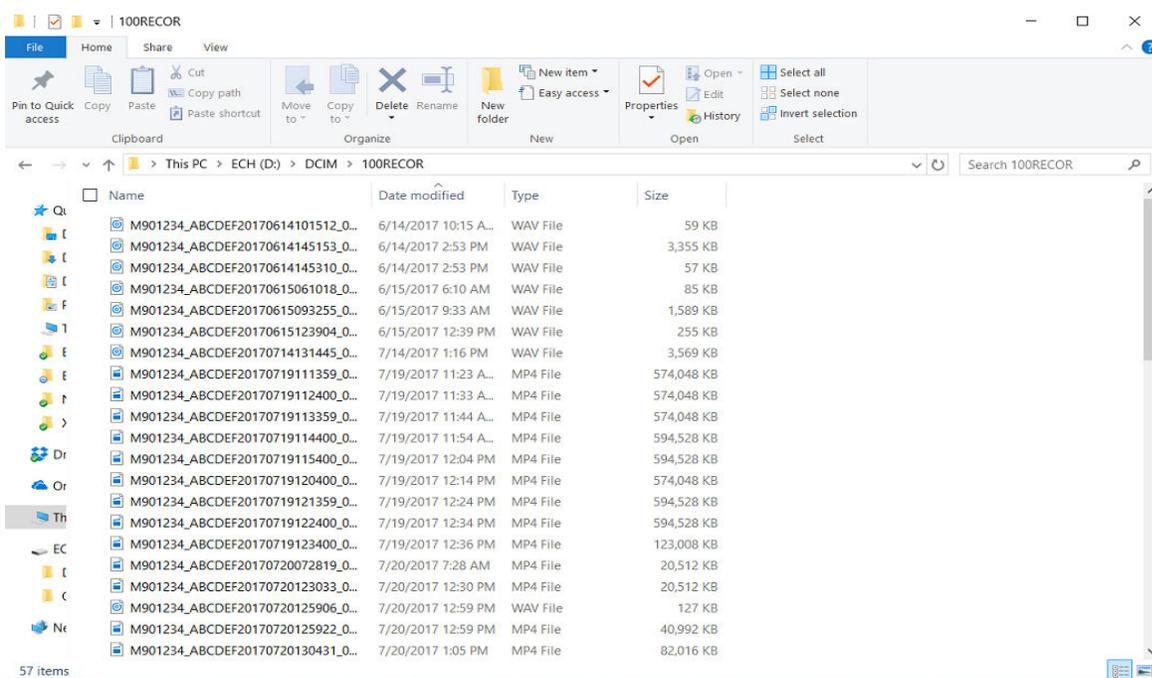
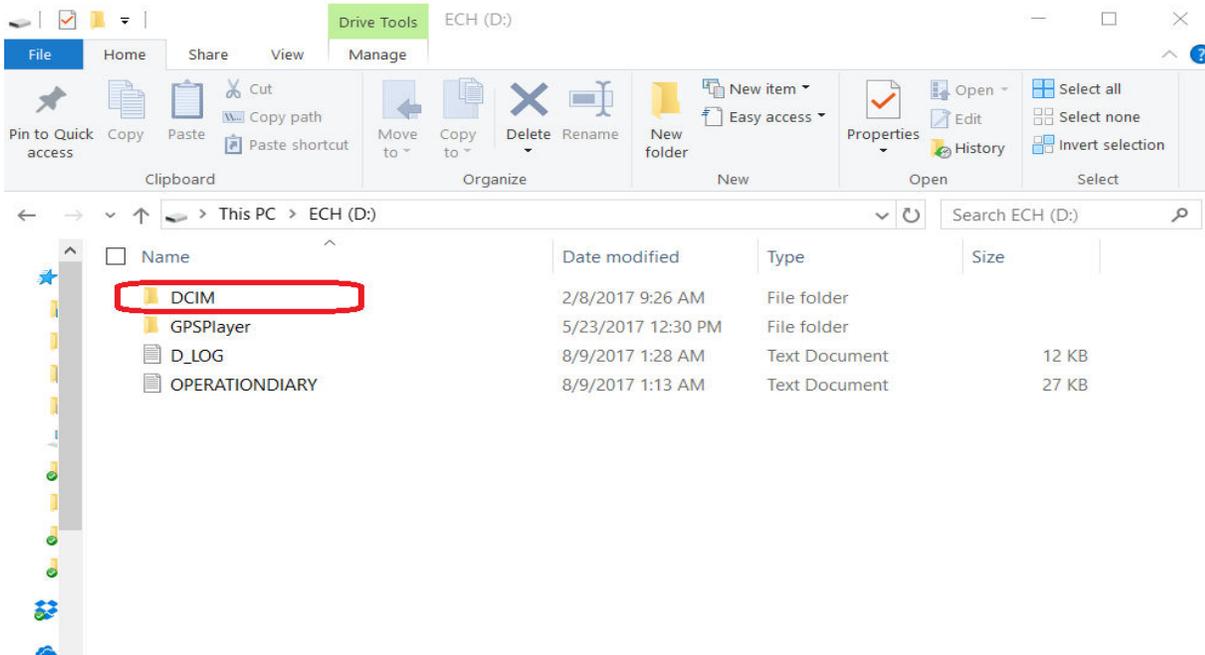
- To view or download recordings via PC, connect USB cable to BCR
- Password menu prompts for password
- Upon successful login, the PC will display the BCR as a Drive



6.2 Playback via PC

Playback via PC Continued

- Select Drive and Folder to view recordings
- Recorded files may be viewed via standard Media Player such as Windows Media Player
- Files may be manually downloaded or deleted to a PC or Server accordingly



6.3 Playback of BCR Location History – GPS Player

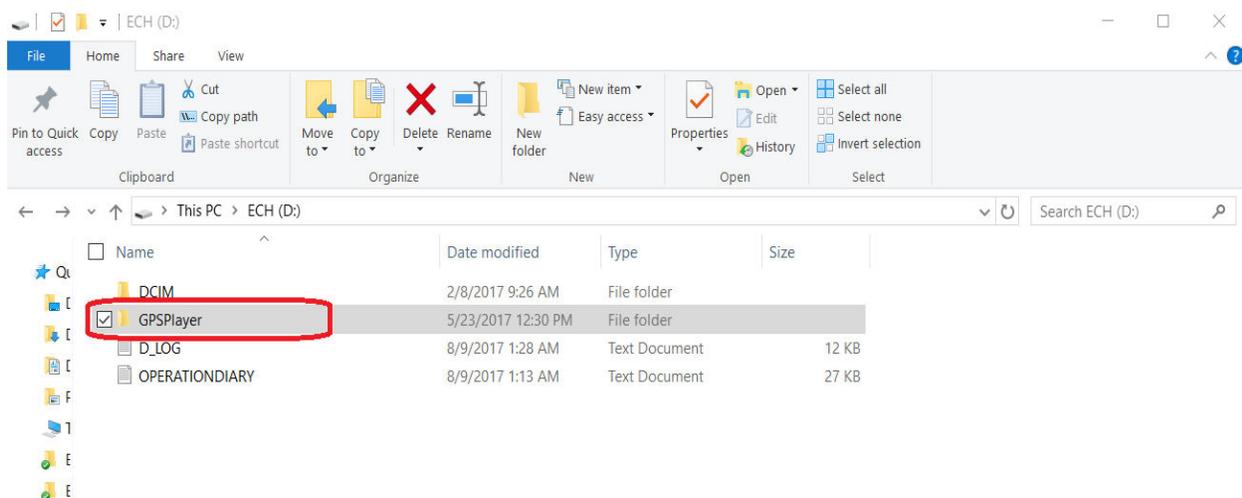
When the BCR is outdoors and can acquire coordinates via the built-in Passive GPS, these data are recorded into the system. An open source viewing software is included to view the location history of the system.

- Select GPS Player, unzip file
- Select Player.exe
- The GPS software viewer will automatically populate the recorded files
- When selecting a large file, it may take some time to load the recordings and route history

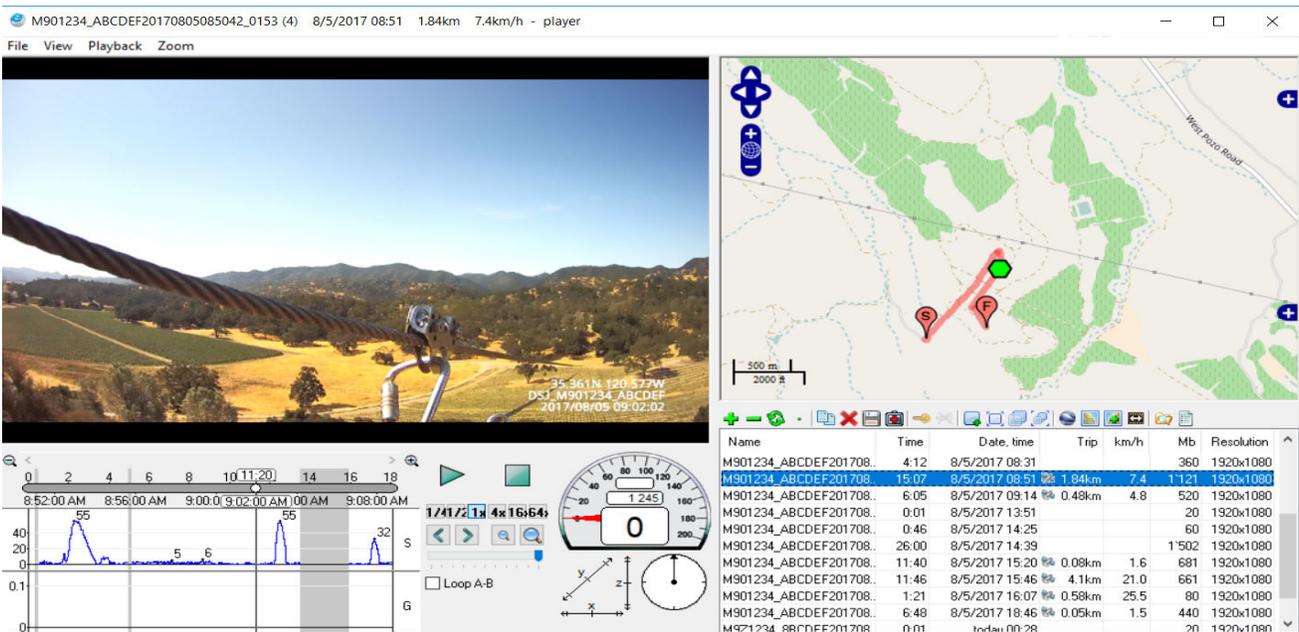
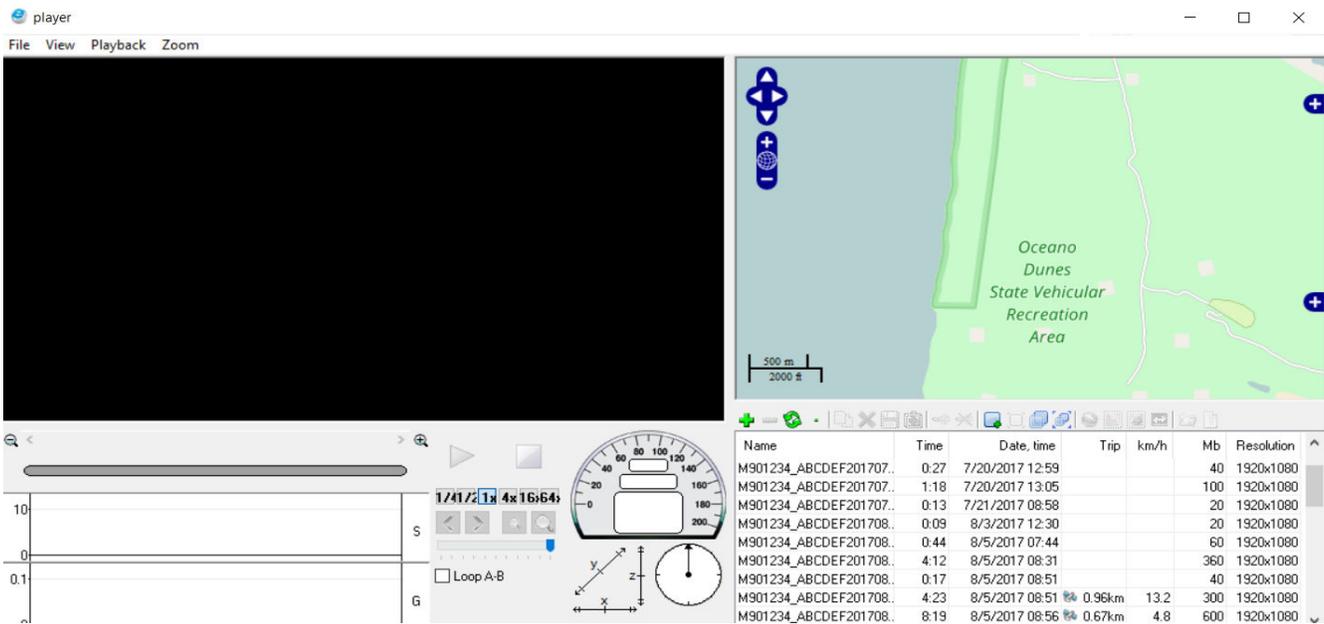
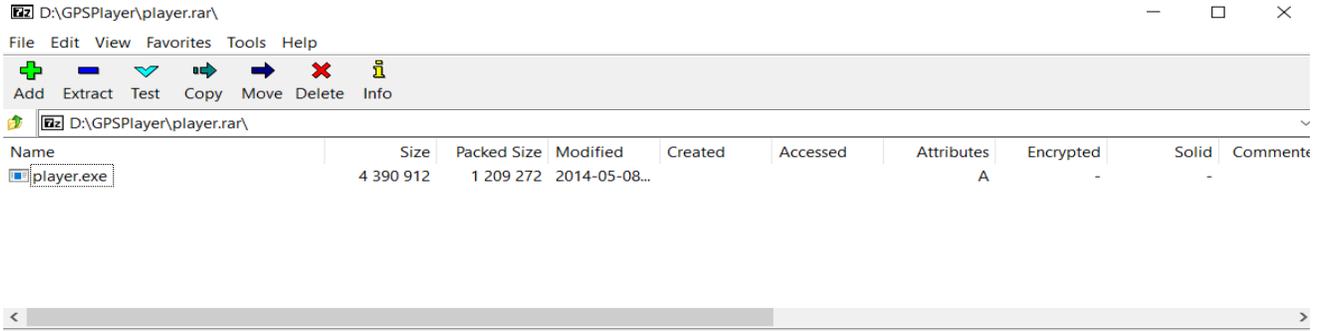
IMPORTANT NOTICE

The BCR must be outdoors and within satellite signal range in order to receive and record the coordinates. Satellite signal acquisition may vary widely dependent upon environment, location and other factors. Time to acquire signal can range anywhere from 1 minute to 10 minutes. So while the video is recording while outdoors, the BCR may not have acquired the signal and or recorded the coordinates.

The GPS Player is an open source software provided for convenience. Ventra is not responsible for the accuracy, reliability, features, maintenance or update of the software.



6.3 Playback of BCR Location History



Limited Warranty / RMA / TERMS

Ventra Technology Inc warrants the BCR-400 against defects in material and workmanship for a period of **one (1) year** from the date of original purchase. During this period, Ventra's liability for any defective product, or any product part, shall be limited to the repair or replacement of the product, at Ventra's sole discretion.

This warranty does not apply to defects or damages resulting from mishandling, accident, abuse, negligence, lightning, water/liquid, power surges, improper interfacing, operation outside of design limits, misapplication, improper repair, or unauthorized modification.

The term "Ventra Product" is limited to the hardware components and required firmware. It DOES NOT include software applications or programs, non-Ventra products or peripherals. To the extent permitted by local law, all non-Ventra products or non-Ventra branded peripherals - such as external storage SD card are provided, the respective manufacturer's own warranties directly to you, and are not covered by this Limited Warranty.

To obtain service within the warranty period, please contact Ventra at (888) 418 3833 or tech@ventrainc.com for assistance. If product repair or replacement is necessary, a Return Merchandise Authorization (RMA) will be issued. The Customer will be solely responsible for shipping charges, insurance and proper packaging to prevent breakage in transit, whether or not the product is covered by this warranty. All shipments of repaired or replaced products by Ventra will be F.O.B. California.

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Ventra reserve the right to change the warranty terms without prior notification.

While every effort has been made to ensure the accuracy of the information, certain specifications are based on approximate figures.

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Innovative solutions in vehicle and mobile video technology

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