

ventra

Innovative solutions in vehicle and mobile video technology

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ventra

VDR-100

Vehicle HD Video Recorder

User Guide



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

Manual Ver 09 17

Warning – Safety Precaution

- Please read these safety instructions thoroughly before operating the product and keep this manual for future reference.
- Please be aware that micro SD memory card have limited product life expectancy and will eventually degrade in time - causing errors in recordings / data corruption.
- It is highly recommended to format and check the integrity of the Micro SD card on a regular basis. Micro SD memory card related problems are not under warranty and the manufacturer or the supplier is not responsible for data loss or missing recordings.
- Install the device in a manner that does not obstruct the driver's view of the front or sides of the vehicle, or interfere with the safety of operating the vehicle.
- When exposed to direct sunlight for extended period of time, the equipment may become hot. Please exercise caution when touching the equipment.
- Do not operate, adjust or view the VDR-100 while driving or when vehicle is in motion as it may lead to accidents and or injuries.
- Do not place the device insecurely on the dashboard, or place the device in front of or above an airbag.
- Altering and disassembling of the product may result in a fire or electric shock. Disassembling the product will void the warranty. Inquire with Ventra in the event the product needs repair.

Warning – Safety Precaution

- Please comply with all local, state and federal driving and traffic regulations.
- To reduce the risk of fire or electric shock, do not expose this unit to water, liquid, rain or moisture.
- Disconnect and replace cable if wire is stripped or damaged.
- In the event of an impact or accident, please check to ensure the equipment is properly secured. Inspect the mounting bracket and adhesive for any signs of damage.
- Do not put foreign material into card insertion slot of the terminal, it may cause product damage.
- The product is designed to be installed inside the vehicle. Any damage caused by placing the device outside the vehicle, or damage due to misuse or handling of the product will void the warranty.
- The warranty does not cover claims related to mishandling, tampering and / or disassembling of the product.

WARNING– IMPORTANT NOTICE

ADAS Feature

- The ADAS (Advanced Driver Assistance System) is an image and software based feature embedded by the processor manufacturer which is NOT Ventra.
- As with all technologies, the ADAS feature has limitations and may not detect variations in vehicle operation and environment.
- Do NOT rely on the ADAS feature as an alternative to proper operation of the vehicle. The feature is NEVER a substitution for attentive driving at ALL TIMES.
- Failure to focus on attentive driving may lead to accidents which result in serious injury or death

Built-In Shock Sensor

- The built-in shock sensor may not recognize slight shock or minor collision as an event. Different sensitivity levels may be adjusted to match the level of sensitivity.

Windshield Mounted Device Legal Notice

Please check and comply with ALL local, state and federal laws and or regulations regarding windshield mounted devices. Some state laws prohibit drivers from using suction mounts on their windshield when operating motor vehicles. Other state laws allow the suction mount to be mounted to be located only in specific locations on the windshield. Numerous states have enacted restrictions against placing objects on the windshield in locations that obstruct the driver's vision.

IT IS THE USER'S RESPONSIBILITY TO MOUNT VENTRA EQUIPMENT IN COMPLIANCE WITH ALL PPLICABLE LAWS AND ORDINCANCE.

Audio and Video Recording Legal Notice

Certain local, state and federal laws may prohibit recording of audio and or video in vehicles or public area, or without knowledge and or consent, please check and comply with ALL local, state and federal laws and regulations.

Certain local, state and federal laws may require signage or display that indicate recording of audio and or video in vehicles or public area. Please check and comply with ALL local, state and federal laws and regulations.

IT IS THE USER'S RESPONSIBILITY TO USE VENTRA EQUIPMENT IN COMPLIANCE WITH ALL PPLICABLE LAWS AND ORDINCANCE.

Use of this product other than its intended purpose is strictly prohibited.

Ventra Technology, Inc. does not assume any responsibility for any fines, violation, penalties or damages that may be incurred as a result of the use of the product.

Ventra Technology, Inc. is not responsible for any direct, indirect, incidental or consequential damages, arising out of use, misuse or inability to use of our products.

1 Introduction

Ventra VDR-100 is an all-in-one high performance Vehicle HD Video Recorder. The plug and play setup makes this system an ideal choice for both passenger and commercial vehicle.

1.1 Features

- * High Dynamic Range Imaging (HDR)
- * Super HD 2304*1296
- * Up to 150 Degree Wide Angle Glass Lens & IR-Filter
- * Built-in G-sensor
- * Motion Detection
- * Emergency Recording File
- * Advanced Driver Assistance Systems (ADAS)

1.2 Package Contents

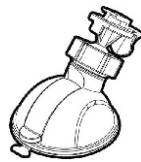
Camera



Car Charger



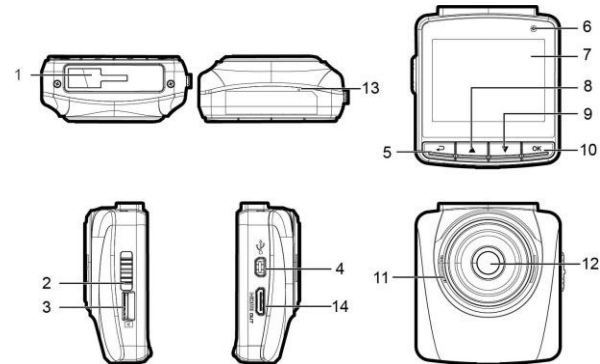
Bracket



MicroSD Card



1.3 Product Overview



| Number | ITEM | Number | ITEM |
|--------|------------------|--------|-------------------|
| 1 | Bracket Socket | 8 | Up Button (▲) |
| 2 | Power Switch | 9 | Down Button (▼) |
| 3 | Memory Card Slot | 10 | Enter Button (OK) |
| 4 | USB Connector | 11 | Speaker |
| 5 | Back Button (↶) | 12 | Wide Angle Lens |
| 6 | LED Indicator | 13 | Microphone |
| 7 | LCD Panel | 14 | MiniHDMI |

Note:

To operate the camera, press the corresponding buttons (5, 8, 9, 10) according to guide icons shown on the screen.

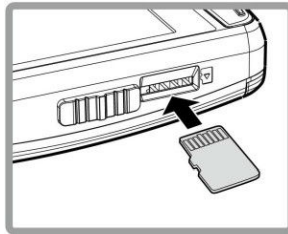
2 Getting Started

2.1 Inserting the Memory Card

Insert the memory card with the gold contacts facing the back of the camcorder. Push the memory card until it clicks into place.

To remove the memory card

Power off the VDR-100 first, then push to eject the memory card out of the slot.



Important Note:

1. Do not remove or insert the memory card when the camera is turned on. This will damage the memory card.

2. It is recommended to use Class 10/U1 or above micro SD card.

3. Please format the micro SD card prior to the initial use.

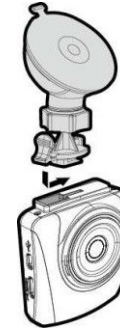
4. If the screen shows "Low Speed Card" while recording, this means the writing speed of the memory card is too slow. Please replace it with a higher-speed memory card.

5. If "Card is too fragmented" is displayed while recording, it means the card is unable to save the recording. Please make a copy of existing files in the card and then reformat it in the VDR-100.

2.2 Installing in Vehicles

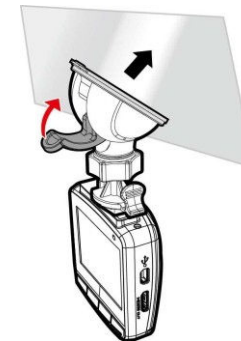
2.2.1 Mount to windshield

1. Attach the bracket to the camcorder. Slide it into the bracket holder until you hear a click.



2. Select the location to mount the VDR. Ideally in the center section of the windshield.

3. Before installing the bracket, please use alcohol to clean the windshield and suctioncup of the bracket. Wait for it to dry and press suction-cup on the windshield.

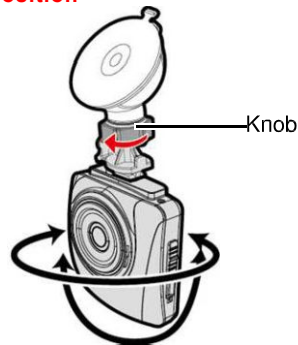


4. Hold the base firmly on the windshield and press down the clamp to mount the car holder to the windshield. Make sure the base is securely locked in place.

2.2.2 Adjust the camcorder position

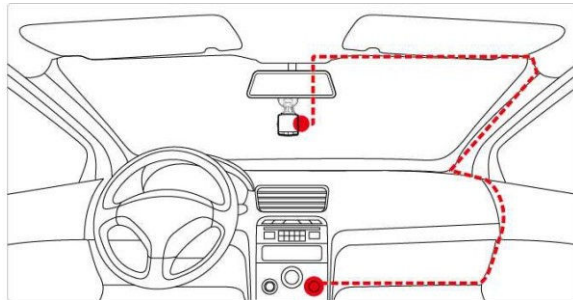
1. Loosen the knob to swivel the device vertically or horizontally.

2. Tighten the knob to make sure the camera is securely locked in place.



2.3 Connecting Power

Use only the supplied car adapter to power up the camera and charge the built-in battery.



1. Connect one end of the car adapter to the USB connector of the VDR-100.

USB port input: DC 5V / 1A.

2. Plug the other end of the car charger to the cigarette lighter socket of the vehicle. Once the vehicle engine is started, the camera automatically turns on. Car charger input: DC 12 / 24V.

Important Note:

1. Use the product with the supplied charger only. Do NOT use other power chargers to avoid camera damage or cause battery explosion.
2. When using the VDR-100 for the first time, please fully charge the camera battery.
3. Please note if the environment temperature reaches 113°F or above, the car adapter will continue to supply power to VDR-100, but will not charge the Lithium-ion battery for safety reasons.

Battery Status Indicator

| Icon | Description |
|------|---|
| | Fully charged |
| | 75% charged |
| | 50% charged |
| | 25% charged |
| | Low battery |
| | Connect the car adapter to charge the battery / Battery is fully charged. |

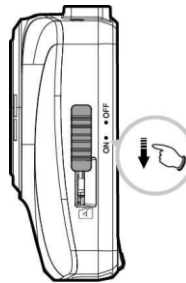
2.4 Battery Status Indicator

| Icon | Description |
|-------------------------------------|--------------|
| Power off, battery charging | Green |
| Power off, battery fully Charged | LED LightOff |
| Power on, battery charging | Green |
| Power on, battery fully charged | LED LightOff |
| Recording/ Recording and screen off | BlinkingRed |

2.5 Powering the Camcorder On / Off

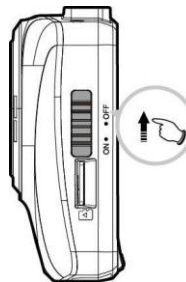
2.5.1.1 Power On

Slide the Power Switch down to the ON position. This action will cover part of the memory card slot.



2.5.1.2 Power Off

Slide the Power Switch up to the OFF position. Before removing the memory card, please wait until power-off sequence is completed and the screen turns off. Do not remove memory card during power-off sequence to prevent video loss or file corruption.



2.5.1.3 Reset the camcorder

On rare occasions, the VDR-100 may experience an error for unknown reasons. In this case, please press OK button for at least 8 seconds to turn off the camera.

2.5.2 Set the Date and Time

To set the date and time, do the following:

1. Press the button to enter the on-screen display (OSD) menu.
2. Press the / button to select Date / Time and press the **OK** button.
3. Press the / button to adjust the value and press the **OK** button to move to another field.
4. Repeat step 3 until the date and time setting is Complete



3 Using the VDR-100

3.1.1 Record videos while driving

When the vehicle engine starts up and the Automatic Record function is enabled, the VDR-100 automatically turns on and starts recording. Recording will automatically stop when the engine is switched off. Or press the button to stop recording manually.

Note: On certain vehicles, the cigarette lighters are constantly ON (Hot) so the recording will continue when the engine is switched off. If this happens, please manually turn off the camera or remove the car adapter from the cigarette lighter.

3.1.2 Record all other types of videos

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

Note:

1. Camera can be configured to save a video file for every 3 or 5 minutes of recording segment.
2. If the memory card capacity is full, the oldest file in the memory card will be overwritten.

3.1.3 Emergency Recording

During Video Recording, press the **OK** button to enter emergency recording mode. The “**Emergency**” message will be shown immediately on the upper left corner of the screen, and the recorded file will be protected. To stop the recording, press the **▼** Button.



Note:

1. If the **Collision Detection** function is enabled and a collision is detected, the camcorder will automatically trigger the emergency recording. The recording will last 20 seconds after collision.

2. The emergency recording file is created as a new file, which will be protected to avoid being overwritten by normal cycle recording.

The alert message of “**Emergency files are full**” will pop up on the screen when the emergency recording files are full. User will need to manually delete the emergency files in the memory card to record new emergency files.

3.1.4 The Recording Screen



| Number | Item | Description |
|--------|------------------------|--|
| 1 | Recording Duration | Indicates the recording duration. |
| 2 | Date and Time | Indicates current recording date and time. |
| 3 | Guide Icon (Menu) | Press the ☰ button to enter the OSD menu. |
| 4 | Guide Icon (Playback) | Press the ▲ button to switch to Playback mode. |
| 5 | Battery | Indicates remaining battery power. |
| 6 | Guide Icon (Stop) | Press the ▼ button to stop the recording. |
| 7 | Guide Icon (Emergency) | Press the OK button to continuously record the emergency video in one file until the recording is manually stopped. |

3.1.5 Taking Snapshot

You can also use this camera to take snapshots of the current scene. From the standby screen, press the **▼** button to take a snapshot.



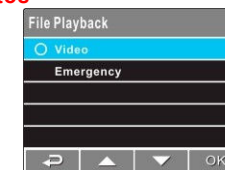
Note: If recording is in progress, press the **▼** button to stop the recording first.

3.2 Playback Videos and Photos

3.2.1 Playing Videos/ Viewing Photos

To play videos, do the following:

1. If recording is in progress, press the **▼** button to stop recording. The standby screen is displayed.
2. Press the **☰** button to enter the OSD menu.
3. Press the **▲/▼** button to select **File Playback** and press the **OK** Button.
4. Press the **▲/▼** button to select **Video** or **Emergency** and press the **OK** Button.
5. Press the **▲/▼** button to browse for the desired video file and press the **OK** button to play the video.



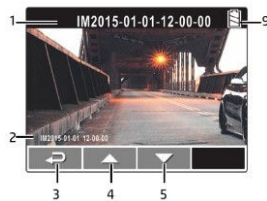
6. Press the **OK** button to pause the playback. Press it again to resume.



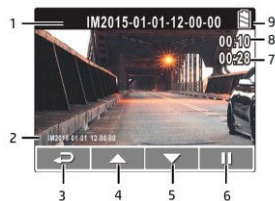
Note: When the VDR-100 is recording, press **▼** button to stop recording, then press **▲** button, you can directly enter Playback mode. The last recorded video is displayed on the screen.

3.2.2 The Playback Screen

Photo Playback Screen



Video Playback Screen

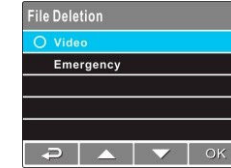


| Number | Item | Description |
|--------|-----------------------|---|
| 1 | Date and time | Indicates the recorded date and time |
| 2 | Stamp Print | Indicates the file name, date and time stamp if it was enabled in the Settings menu |
| 3 | Guide icon(Back) | Press the ↶ button to return to file selection display |
| 4 | Guide icon (Previous) | Press the ▲ button to view the previous video/photo. |
| 5 | Guide icon(Next) | Press the ▼ button to view the next video/photo |
| 6 | Guide icon(Pause) | Press the ⏸ button to pause the video playback |
| 7 | Total recorded time | Indicates total recorded time |
| 8 | Current Duration | Indicates the elapsed time |
| 9 | Battery | Indicates the remaining battery power |

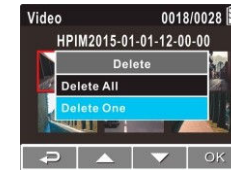
3.2.3 Deleting Files

To delete file(s), do the following:
1. If recording is in progress, press the **▼** button to stop recording.

1. Press the **↶** button to enter the OSD menu.



3. Press the **▲/▼** button to select **File Deletion** and press the **OK** button.



4. Press the **▲/▼** button to select the file category and press the **OK** button

5. Press the **▲/▼** button to select the file that you want to delete and press the **OK** button to enter the Delete menu.

6. Press the **▲/▼** button to select an Option.

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

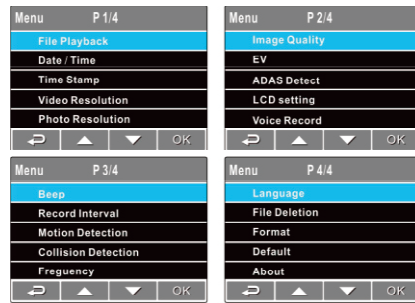
7. Press the **OK** button to confirm delete.

Important Note: Deleted files cannot be recovered. Ensure the files have backup before deletion.

4 Adjusting the Settings

4.1 Using the Menu

Customize video recording and other general settings via the on-screen display (OSD) menus.



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 a menu option and press the **OK** button to enter the selected menu.
4. Press the ▲/▼ button to select the desired settings and press the **OK** button to confirm the setting.
5. Press the ↶ button to exit the menu.

4.2 Menu Tree

Refer to the table for details on menu items and available menu options.

| Menu Item | Description | Available option |
|------------------|--|--|
| File Playback | Select the file category that you want to view | Normal Video /Emergency |
| Date / Time | Set the date and time | Press ▼/▲ button to adjust the value, press the OK button to switch the field and confirm |
| Time Stamp | Enable/Disable the date stamp. | On /Off |
| Video Resolution | Set the video resolution | 2560 X 1080P 30 2304 X 1296P 30 1920 X 1080P 30 HDR 1280 X 720 p60 |
| Photo Resolution | Set the photo resolution | 13M (4800 X 2700) 9M (4000 X 2250) 4M (2688 X 1512) |
| Image Quality | Set different image quality for the recording videos | S.Fine/ Fine/Normal |
| EV | Set the exposure compensation | Press ▼/▲ button to set the exposure level. You may customize it between -2.0 ~ +2.0 |
| ADAS Detect | Enable/Disable | On/Off |
| LCD Setting | Set the duration for the display to automatically turn off after video recording starts | On / Turn Off After 30 sec. /Turn Off After 3 min. / Off |
| Voice Record | Enable/Disable the voice recording | On /Off |
| Beep | Enable/Disable the beep sound when navigating the VDR-100 | Press ▼/▲ button to set the volume. You may customize it between 0 ~ 5 |
| Record Interval | Set the recording duration for each recorded video file segment | 3 min. / 5 min. |
| Motion Detection | If Motion Detection is activated, the VDR-100 will automatically trigger recording when the camera detects any motion in front. When the battery is fully charged and is in good condition, Motion Detection can record continuously | On /Off |

| | | |
|------------------------------------|---|--|
| Collision Detection (Shock Sensor) | The built-in shock sensor will detect the level of impact based on the settings. VDR-100 will automatically trigger emergency recording when corresponding level of shock is detected | Off/Low/Medium/High |
| Frequency | Reduce flicker on LCD. | Auto/ 60Hz/ 50Hz |
| Language | Set the OSD menu language. | English, Deutsch, Français, Italiano, Español, Português, Türkçe, Polski |
| File Deletion | Delete the file(s). | Video /Emergency |
| Format | Format the memory card inserted in the device. All the files in the card will be erased. | Yes /No |
| Default | Reset all settings to factory default settings. | Yes /No |
| About | Firmware Version | |

Certain features and settings may change due to constant product enhancement.

Ventra reserves the right to change specification without prior notice.

VDR-100 Specifications

| Item | Description |
|---|--|
| Imagesensor | 1/3" CMOS sensor |
| Effective pixels | 2688 (H) x 1520 (V) |
| Storage media | Support Micro SDHC, up to 64GB class 10 or above |
| LCD display | 2.4" LCD color TFT (262K pixels) |
| Lens | Wide Angle Fixed Focus lens F/2.0, f=2.6mm |
| Focus range | 0.5m ~ Infinity |
| Video (Format: MOV) | Resolution: WFHD (2560 x 1080), 30fps Super HD (2304 x 1296), 30fps Full HD (1920 x 1080), 30fps HDR HD (1280 x 720), 60fps |
| Still image (Photograph) (Format: DCF (JPEG)) | In Photo mode, available resolutions are available from digital enhancement: 13 Megapixel (4800 x 2700) 9 Megapixel (4000 x 2250) 4 Megapixel (2688 x 1512) |
| Shutter | Electronic shutter Auto: 1/2 ~ 1/2000sec. |
| G-Sensor | 3-Axis G-Force sensor |
| ISO | Auto |
| White Balance | Auto |
| Microphone | Yes |
| Speaker | Yes |
| Connection | MiniUSB |
| Battery | Built-in 470mAh Li-polymer rechargeable (This battery is NOT replaceable) |
| Operating Temperature | 32° ~ 120° F |
| Operating Humidity | 20 ~ 70% RH |
| Storage Temperature | -2° ~ 155° F |
| Dimensions | 65 x 70 x 27.5 mm |
| Weight | Approx. 80g (without memory card) |

5 View Recordings on PC

5.1 Using Media Player

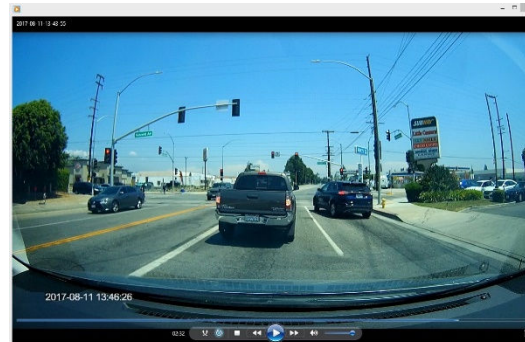
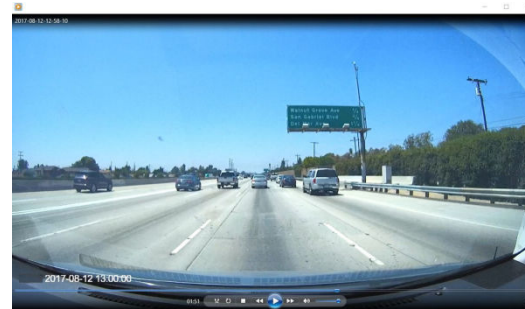
VDR-100 videos are saved as MOV files and can be viewed via standard Media Players.

To view recordings:

1. Safely remove the Memory card from the VDR-100 after it has been powered off.
2. Insert Memory card to a computer. A SD card slot is required.
3. Select the Drive the SD card is located and select the file folder to view (Normal / Emergency).
4. Select the file to view via Media Player.

| Name | Created | Type | Size |
|---------------------|--------------------|----------|-----------|
| 2017-08-10-18-04 | 8/10/2017 6:18 PM | MOV File | 20,344 KB |
| 2017-08-10-20-47-43 | 8/10/2017 11:07 PM | MOV File | 20,344 KB |
| 2017-08-10-24-07-52 | 8/10/2017 11:07 PM | MOV File | 20,347 KB |
| 2017-08-11-14-48-31 | 8/11/2017 10:48 PM | MOV File | 20,346 KB |
| 2017-08-11-17-40-35 | 8/11/2017 07:40 PM | MOV File | 20,346 KB |
| 2017-08-11-18-35-00 | 8/11/2017 07:35 PM | MOV File | 19,415 KB |
| 2017-08-11-19-50-40 | 8/11/2017 07:50 PM | MOV File | 19,512 KB |
| 2017-08-11-20-46 | 8/11/2017 12:20 PM | MOV File | 9,102 KB |
| 2017-08-11-18-40-34 | 8/11/2017 10:40 PM | MOV File | 19,415 KB |
| 2017-08-11-18-45-35 | 8/11/2017 10:45 PM | MOV File | 19,415 KB |
| 2017-08-11-18-46-55 | 8/11/2017 10:46 PM | MOV File | 19,415 KB |
| 2017-08-11-19-09-55 | 8/11/2017 10:09 PM | MOV File | 19,512 KB |
| 2017-08-11-19-50-50 | 8/11/2017 07:50 PM | MOV File | 19,509 KB |
| 2017-08-11-18-35-00 | 8/11/2017 07:35 PM | MOV File | 19,364 KB |
| 2017-08-10-20-29-27 | 8/10/2017 07:29 PM | MOV File | 19,415 KB |
| 2017-08-10-20-29-28 | 8/10/2017 07:29 PM | MOV File | 19,329 KB |
| 2017-08-10-20-29-17 | 8/10/2017 07:29 PM | MOV File | 20,348 KB |

Date and Time Stamp are watermarked if feature is enabled.



VENTRA LIMITED WARRANTY

Ventra Technology, Inc. warrants the system 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 with 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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