



3D 360 VR Camera  
User Manual



Welcome,

Humaneyes VR Camera is a 3D 360 VR camera – captures full spherical videos and photos in stereoscopic 3D. The footage is stitched to a spherical format using a proprietary stitching technology developed for use with the camera.

The Camera is provided together with Vuze Camera App and Humaneyes VR Studio.

Vuze Camera App is designed to control the camera remotely and manage the media stored on the internal SD card.

Humaneyes VR Studio edits captured media using spherical editing tools and to render and stitch media using proprietary stitching technology.

## Support and Contact Information

Should you have technical issues concerning our product, please contact us directly:



Humaneyes Technologies

Email to: [support@vuze.camera](mailto:support@vuze.camera)

[www.vuze.camera](http://www.vuze.camera)

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## Safety

Please read the following safety information before using your camera. Attention to these warnings will help prevent personal injuries and damage to the product.

This camera should be used in a responsible manner by its intended purpose. Humaneyes Technologies shall not assume responsibility for damages caused by disregarding these safety guidelines.

Before use, please check there are no signs of damage to the Camera. If the camera appears damaged, do not operate it and contact customer service at [www.vuze.camera/contact/](http://www.vuze.camera/contact/)

The basic safety instructions and the product documentation should be kept in a safe place and passed on to subsequent users.

The following safety signs and symbols are used in the manual:



Indicates a hazardous situation which, if not avoided, may result in death or injury.



Indicates the possibility of incorrect operation which can result in damage to the product.



Indicates information related to safety or system proper use.



## Storage, Service, Cleaning and Caring

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The camera should be stored at an ambient temperature between -20 to 60 °C (-5 to 140 °F) and relative humidity under 95%.



- The camera should be kept out of the reach of children, infants and pets. A strap or cord wound around child's neck may result in asphyxiation.
- Care should be taken of possible loose or broken parts that could cause injury. If internal components become exposed as a result of damage to the Camera do not touch them and contact customer support immediately.



- When not in use, avoid placing or storing the product in the following places or under the following conditions:
  - Exposed to direct sunlight.
  - Inside a car.
  - In a humid environment or exposed to dust.
- Before cleaning the product, disconnect it completely from the power supply and make sure the interface panel cover is closed. Use a soft, non-linting cloth to clean the product. Never use chemical cleaning agents such as alcohol, acetone or diluents for cellulose lacquers.
- This product does not contain any user replicable or serviceable parts. Do not take apart or attempt to service the camera yourself. The internal battery is not user replicable. Never remove the cover or any part of the housing of the camera. In the event of an equipment malfunction, all repairs must be performed either by Humaneyes Technologies or by an authorized agent. For service information contact Humaneyes Technologies customer support at [www.vuze.camera/contact](http://www.vuze.camera/contact)
- Be careful not to subject the camera to high impact. If the camera was subject to a fall or other high impact, check the camera carefully for any damage. If any damage is observed the use of the camera must be stopped immediately.



- This product contains an internal non-replaceable Li-ion polymer battery.



## Charger Electrical Safety

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We recommend you charge the camera in an ambient temperature from 0 to 30°C (30 to 85 °F) while the camera is off. We recommend to use the camera charger and under the operating conditions for optimal charging time.



- The following information on electrical safety must be observed, failing to follow these instructions may lead to electric shock, fire and/or serious personal injury or death.
- Never use the charger if the power cable is damaged. Check the power cable on a regular basis to ensure that it is in proper operating condition.
- Before charging the camera and plugging the charger into the main power supply, always ensure that the nominal voltage setting on the charger matches the nominal voltage of the AC supply network.
- Do not insert the plug into sockets that are dusty or dirty. Insert the plug firmly and all the way into the socket. Otherwise, sparks that result may lead to fire and/or injuries.
- Do not insert any metallic or wet objects into the camera sockets. Only the intended cable and memory cards should be inserted in the camera sockets.
- Do not overload any outlets, extension cords or connector strips; doing so can cause a fire or electric shocks.
- Do not insert or remove the plug with wet hands.
- Never remove the cover or any part of the housing of the charger, doing so will expose circuits and components and can lead to electric shock, injuries, fire or damage to the product



## Operation

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The camera operating ambient temperature is 0 to 40 °C (30 to 100 °F) and relative humidity under 95%.

The camera may be operated only under the operating conditions as specified by Humaneyes Technologies. The camera should not be operated in extreme conditions.

The Camera should not be used near dangerous or flammable gasses or in any location where instructed not to use cameras or connective devices.

When the camera is used for an extended period and/or at high ambient temperature and/or exposed to direct sunlight it is normal for the camera body to feel warm. Take care when placing the camera on elevated surfaces and avoid placing it on unstable surfaces.



- Stop using the product immediately if it emits smoke or a strange smell, or otherwise behaves abnormally.



- Avoid overheating the product. Do not cover or obstruct the airflow around the camera while operating. Use the camera in ambient temperatures as advised in the specifications only.
- Do not place the product on heat-generating surfaces, or near heat emitting devices or direct flame. Verify that there is sufficient clearance between the product and any other warm air exhaust
- Disregarding these guidelines could lead to overheating, possibly resulting in burns or damage to your product.
- The camera adheres to the IP64 protection standard and as such is dust tight and splash proof. This splash protection does not hold if the interface panel cover is open. If the interface panel cover is open, take extra care to avoid damp environments or possible liquid penetration and keep clear of dust or other elements that could penetrate your camera.
- When the cover is closed, it is recommended to avoid using the product in wet environments.
- If the necessary precautions are not taken, the user may suffer electric shock or the product itself may be damaged, which can also lead to personal injury.



# Package Contents



3D 360 VR Camera



Charger with USB input



Small Handle



USB Cable



Mini VR Glasses



Charger Adaptor



Hardshell Case



Lens Cleaning Cloth



Check the package contents for damage. If any item is damaged, do not use the Camera and contact support at [www.vuze.camera/contact](http://www.vuze.camera/contact)



## Description

### 3D 360 Camera





## Interfaces Panel

The camera's Interfaces Panel, hidden behind the cover, has various interfaces and indicators. These interfaces are intended for connection to various external devices.

Open the cover to reveal the interfaces panel.





## Handle

1. Fold the handle to the open position:
2. Screw the small handle to the bottom interface of the camera.



3. For storage and when not in use, fold the handle flat against the camera.





## Operation

### Before Using Your Camera

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Before you use your camera, make sure it is fully charged and the internal clock is synched with the Vuze Camera App. Please follow the recommendations below:

- The camera should be fully charged before the use. Make sure you charge it about 3 hours.
- The camera has an internal clock. This clock affects the time-stamp on the footage captured. Your time zone will be automatically updated when the Camera is connected to your mobile device through Vuze Camera App. To ensure the correct time zone connect your camera to the mobile App as instructed below.

### Power On / Off

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- On - Press On/Off button. Buzzer will beep 3 times and indication light will blink.
- Off - Press On/Off button for 2 seconds. Buzzer will beep 3 times and indication light will blink.



## Operation Modes

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You can use the camera for recording videos or for taking photos.

The LED color of the On/Off button indicates the operation mode, as follows:

 **Video Mode**

 **Photo Mode**

To change between the modes press the on/off button. Two beeps will confirm the change and the color of the indication button will blink twice and change.



When switching between modes, the camera must be in standby mode.

## Capture

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- Start / Stop Video – Press Capture button. Buzzer will beep once when beginning and twice when ending a recording.
- Take Photo – Press Capture button (In Photo mode). Buzzer will beep before and after and the indication light will blink once.



Please make sure that the camera lenses are clean before recording or taking photos.



## Charging the Camera

1. Turn off the camera.
2. Connect the USB cable to the Micro USB camera interface.
3. Connect the other end to the charger.
4. Plug the charger into an electrical outlet. Charging indication appears. It should take about 3 hours to fully charge your camera.





## Using the Camera with an External Power Bank

To extend battery life, you can use an external power bank while capturing with your camera. Note that you need to hide the power bank under your camera to avoid interfering with the camera's field of view.

1. Connect USB cable to the Micro USB camera interface.
2. Connect the other end to the external power bank.
3. Turn on the camera.



Use a special USB connector with a folded neck to avoid interference with the recording.

## Replace SD Card

- Insert the SD card into the micro SD slot and press it into place.
- To remove the card, press on it and then remove it. Place a new SD card into the slot and press into place.



The camera will support SD cards with UHS-I (Ultra High Speed) speed class and above.

The camera allows 2 bit rate setting for recording- 15MB and 10MB (set through mobile app). When recording 15MB bit rate we recommend to use UHS-I (U3) – Ultra High Speed Class with U3 Speed Class Mark. When recording 10MB bit rate we recommend to use UHS-I (U1) – Ultra High Speed Class with U1 Speed Class Mark.

We tested and validated SD cards types from different vendors. You can find the recommended SD card list on our website [www.vuze.camera/support](http://www.vuze.camera/support)



Do not remove SD card while capturing with your Camera or while the camera is connected to a computer.



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## Connect to Vuze Camera App – WiFi On/Off

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Vuze Camera App allows you to control your camera remotely using your mobile device. You can download the App from Google Play or Apple Store and follow the steps below to connect to your camera:

1. Turn On the camera.
2. Push the WiFi button. Blue LED starts to blink.
3. Connect your mobile device to the camera's WiFi. Your camera's WiFi SSID is its Serial Number, as appears on the bottom of the camera. The default password for your WiFi is 12345678. The WiFi name and password can be changed through the App settings after the first connection. Once connected the blue LED is on.
4. Operate the camera via the Vuze Camera App.



## Connect to Computer & Studio

Humaneyes VR Studio allows you to edit the media you capture and generates your VR content. Once you've installed Humaneyes VR Studio from our website connect your camera as follows:

1. Connect the USB cable to the Micro USB camera interface.
2. Connect the other end to the computer.
3. Turn on the camera.



Alternatively, you can remove the SD card from your camera and insert it in an SD slot in your computer.





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## Camera and WiFi Reset

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Press ON/OFF button for 16 seconds when the camera is on. This can be used in a situation when the camera is not responding.

To reset WiFi to default password and SSID, press WiFi button for 3 seconds.

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## Firmware Upgrade

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See our support page for updates regarding Firmware updates. [www.vuze.camera/support](http://www.vuze.camera/support).

1. Turn the camera off.
2. Copy the firmware.bin file to the SD card root folder.
3. Insert the SD card into the micro SD slot of the camera and press it into place.
4. Turn on the camera.
5. The camera will boot normally.
6. The Firmware upgrade starts when the orange LED starts to blink.
7. Upon Firmware upgrade completed the camera will reboot and reach to standby mode
8. Firmware upgrade completed.
9. You can see the new Firmware version through your mobile app settings.



# Indications



- Camera is not recording
- Blinking – Camera is recording  
Single blink - Photo
- Camera is off
- Video mode / Standby, Blinking while booting.
- Photo mode / Standby
- On – Critical error!  
4 blinks and beeps – Battery empty
- Blinking, 4 beeps - Memory full / No memory card
- Blinking, 3 beeps - High temperature
- Blinking - Low memory
- Blinking - Low battery

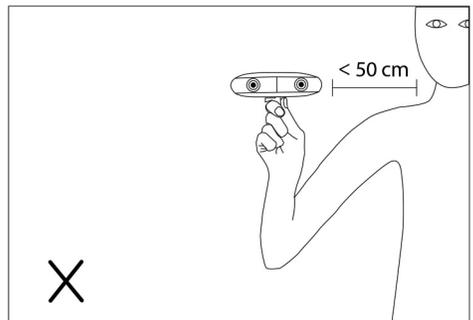
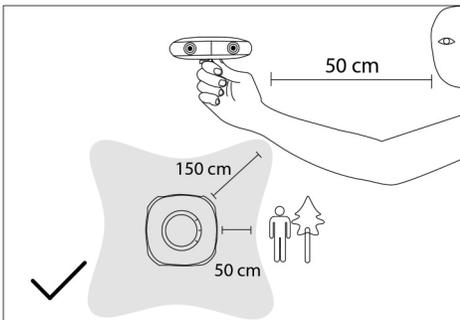
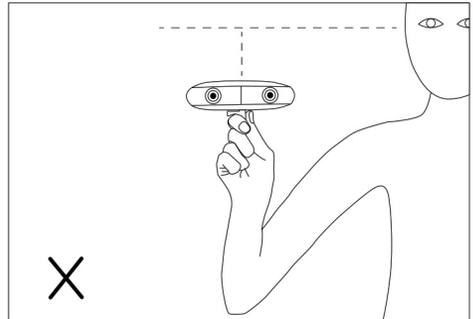
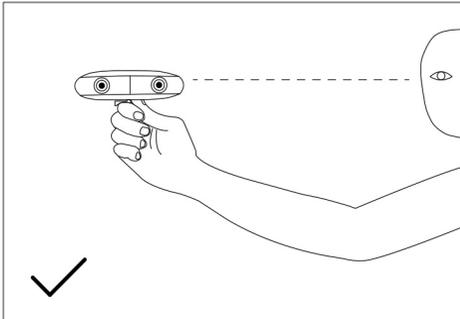
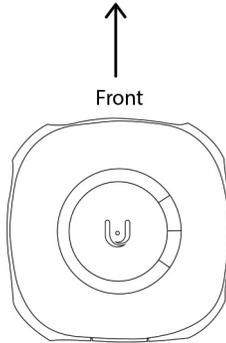


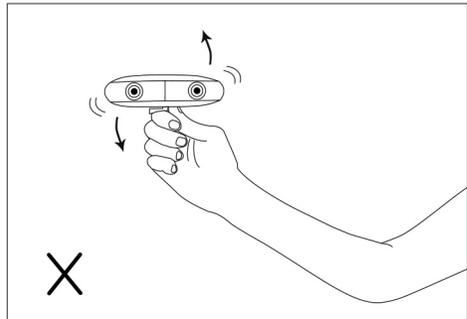
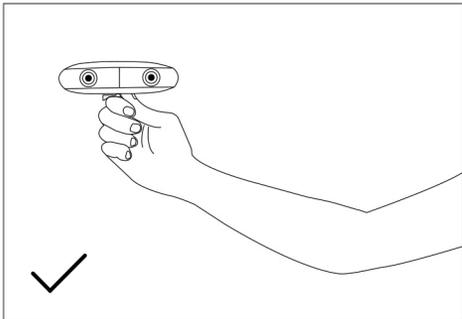
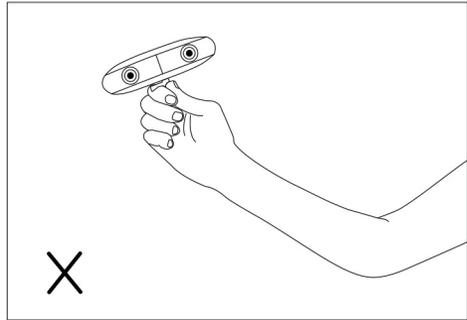
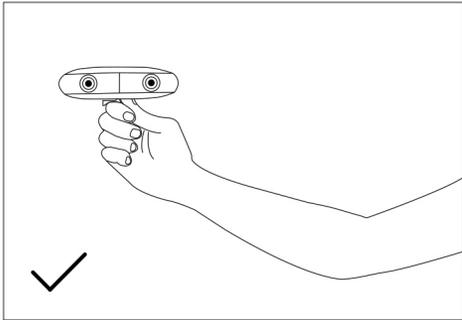
- On – WiFi is connected
- Blinking – WiFi is on but not connected

- Battery is charging or connected to power bank
- Blinking - Charging problem
- Battery is charged



# Capturing with Your Camera







# Specifications

## Optics

Sensors	8 Sony FHD image sensors imx408
Media FOV	360°x180° (Full Spherical)
ISO	100-1600

## Operation

Processors	Two Ambarella A9 video processors
Controls	One button operation, remote-control mobile application
Indications	Colorful LED indications
IP rating	IP64 (Dust tight, splash proof)
Operating temperature	0 - 40°C
Operating Humidity	Under 95% RH
Battery type	Li-ion 3,700 mAh (3.8V)
Battery life	About 2 hours operation
Motion tracking	Inertial measurement units (IMU): Accelerometer, Gyroscope, Compass
WiFi	IEEE 802.11b/g/n 2.4 GHZ
USB port	USB 2 (for charging and data connection)
Memory	Replaceable Micro SD card, compatible with UHS 1 and above.

## Video/Image

Spherical Resolution	4K (per eye)
Frame rate	30 fps
Bit rate	15 MB/sec or 10MB/sec (configurable by app)
360 Video Format	mp4 (over-under for 3D)
Video Compression	H.264
360 Photo Format	JPEG (over-under or side-by-side for 3D)

## Audio

Microphones	Four MEMS 48Hz microphones
Format	Four ACC audio tracks

## General

Camera weight	~ 450 g
Camera dimensions	~ 120x120x30 mm
Package dimensions	240x160x60 mm
Camera colors	Black, Yellow, Red, Blue
Camera model	VUZE-1-xxx
Included Accessories	Hardshell case, Mini-handle, Mini glasses, USB cable, Power adaptor (model KSA29B0500200D5), Lens cleaning cloth



## Warranty

### THE CAMERA LIMITED CONSUMER WARRANTY

**Who is this Warranty from?** This limited consumer warranty (herein the “**Warranty**”) is granted by Humaneyes Technologies Ltd. (herein the “**Company**,” “**Us**,” or “**We**”).

**What are the products as defined in this Warranty?** The **Product/s** refers to any new hardware devices purchased from Us, directly or through our authorized distribution channels.

**Who is this Warranty to?** This Warranty is issued to You as an original purchaser (herein “**You**”) of a new Product from the Company or an authorized retailer. This Warranty cannot be transferred or reassigned to any other user.

**What does this Warranty do?** This Warranty gives You specific legal rights in case there is a problem with the Product. You may have additional rights based on Your location. This Warranty does not affect any rights you have under the laws in your jurisdiction regarding the sale of consumer goods. By using Your Product, You are agreeing to the terms of this Warranty. If You do not agree to these terms, please do not use the Product.

**What does this Warranty cover?** This Warranty covers the Products in the event of defects in materials and workmanship when the Products are used normally and for their intended use in accordance with Company's published guidelines. The Company's published guidelines include but are not limited to information contained in technical specifications, user manuals and service communications.

**How long does this Warranty last?** This Warranty lasts for period of ONE (1) YEAR from the date of Your original date of purchase (the “**Warranty Period**”). Your location may provide You a longer period of protection.

**What will We do if there is a problem that is covered under this Warranty?** If during the Warranty Period You submit a claim to the Company, the Company may, at its option, subject to applicable law, either: (i) repair the Product using new or previously used parts that are equivalent to new in performance and reliability; (ii) replace the Product with the same model (or with Your consent a product with similar functionality) formed from new and/or previously used parts that are equivalent to new in performance and reliability; or (iii) exchange the Product for a refund of the price for which You purchased the Product (Collectively herein, the “**Warranty Service**”).

**What do You have to do prior to requesting Warranty Service?**



Subject to the Terms of Use of the Product available at <http://vuze.camera/terms-of-use/>, You are required to register the Product in Our system following your purchase of certain Products (herein the "**Registration**"). This Registration must be completed before You can make a Warranty claim and receive the Warranty Service. Additionally please note that Your order number serves also as Your warranty number for the Product and it is Your responsibility to retain this number.

Before Submitting a Warranty claim the first thing You should do if You suspect a problem is contact Us through Our Customer Support Team at <http://vuze.camera/contact/> to see if We can help You.

### **How can You claim this Warranty and how will the Company provide the Warranty Service?**

After a Warranty claim is made, the Company will provide the Warranty Service, subject to applicable law and the Company policy, as follows: Our Customer Support Team will instruct You on how and where to return Your Product. The Company may send You waybills and if applicable, packaging material and instructions on how to properly pack and address the Product, so that You may ship the Product to an authorized service provider location. Instructions may be sent via email or in hard copy with the packaging material. Once the Warranty Service is complete, the authorized service provider will return a repaired or replacement Product, or refund therefor, to You.

NOTE: Before returning or replacing any Product or part of a Product for Warranty Service, be sure to back up all data and remove any confidential, proprietary information from the Product's memory. It is likely that during the repair process the contents of the Product will be completely erased and We are not responsible for damage to or loss of any data, images and/or personal information that may be stored on the Product.

### **How long is the Warranty following repair or replacement of a Product?**

A replacement part installed by the Company, assumes the remaining term of the Limited Warranty or ninety (90) days from the date of replacement or repair, whichever provides longer coverage. When a part is replaced or a refund provided, any replacement item becomes the Customer's property and the replaced or refunded item becomes the Company's property.

The Company reserves the right to change the method by which We may provide the Warranty Service. Warranty Service will be limited and subject to, and adjusted per, the options available by law in the country where service is requested. Warranty Service options, parts availability and response times may vary according to country. You may be responsible for shipping and handling charges if the Product cannot be serviced in the country it is in. If You seek Warranty Service in a country that is not the original country of purchase, You will comply with all applicable import and export laws and regulations and be responsible for all custom duties, V.A.T. and other associated taxes and charges. Where international service is available, the Company may repair or replace parts with comparable parts that comply with local standards.



**What does this Warranty not cover?** To the extent permitted by applicable law, this Warranty does not apply: (a) to software (including but not limited to online software and mobile apps) and accessories (b) to consumable parts, such as batteries or protective coatings that are designed to diminish over time, unless failure has occurred due to a defect in materials or workmanship; (c) to cosmetic damage, including but not limited to scratches, dents and broken plastic on ports unless failure has occurred due to a defect in materials or workmanship; (d) to damage caused by use with a third party component or product that does not meet the Product's specifications; (e) to damage caused by accident, abuse, misuse, neglect, improper shipping or installation, fire, earthquake or other external cause; (f) to damage caused by operating the Product through irresponsible or improper use, including not in accordance with the Company's published guidelines or any non-recommended practices; (g) to damage caused by service (including upgrades and expansions) performed by anyone who is not a representative of the Company or an authorized service provider; (h) to a Product that has been modified to alter functionality or capability without the written permission of the Company; (i) to defects caused by normal wear and tear or otherwise due to the normal aging of the Product; (j) if any serial number has been removed or defaced from the Product; or (k) if the Company receives information from relevant public authorities that the Product has been stolen.

**Limitation of Liability.** THE COMPANY DOES NOT ACCEPT ANY LIABILITY BEYOND THE REMEDIES SET FORTH HEREIN, INCLUDING BUT NOT LIMITED TO ANY LIABILITY FOR A PRODUCT NOT BEING AVAILABLE FOR USE, LOST PROFITS, LOSS OF BUSINESS OR FOR LOST OR CORRUPTED DATA OR SOFTWARE, OR THE PROVISION OF SERVICES AND SUPPORT. EXCEPT AS EXPRESSLY PROVIDED HEREIN, THE COMPANY WILL NOT BE LIABLE FOR ANY CONSEQUENTIAL, SPECIAL, INDIRECT OR PUNITIVE DAMAGES, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGES OR FOR ANY CLAIM BY ANY THIRD PARTY. THE CUSTOMER AGREES THAT FOR ANY LIABILITY RELATED TO THE PURCHASE OF A PRODUCT, THE COMPANY IS NOT LIABLE OR RESPONSIBLE FOR ANY AMOUNT OF DAMAGES ABOVE THE AMOUNT INVOICED FOR THE APPLICABLE PRODUCT. SOME JURISDICTIONS MAY NOT ENFORCE ALL OF THESE LIMITATIONS, AND ONLY THE LIMITATIONS THAT ARE LAWFULLY APPLIED TO THE CUSTOMER IN HIS/HER JURISDICTION WILL APPLY.

### **What additional terms govern this Warranty?**

Additional terms may be provided on our website at [vuze.camera](http://vuze.camera), including in our terms of service, terms of sale and EULA.

**What laws govern this Warranty?** To the extent permitted by applicable law, the terms of this Warranty shall be construed in accordance with and governed for all purposes by the substantive laws of the State of Israel without regard to conflicts of law provisions.



### **How can You contact Us to request Support?**

In addition to our online Customer Support form at [www.vuze.camera/contact](http://www.vuze.camera/contact), you may also contact Our Customer Support team at: [support@vuze.camera](mailto:support@vuze.camera).



## Regulations and Disposal

The Camera contains components which should not be treated as household waste. For more detailed information about recycling of this product see: [www.vuze.camera/support](http://www.vuze.camera/support)

### **Federal Communications Commission Declaration of Conformity**

This device complies with Part 15 of the 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.

### **Industry Canada (ICES-003)**

Cet appareil numérique respecte les limites bruits radioélectriques applicables aux appareils numériques de Classe B prescrites dans la norme sur le matériel brouilleur: "Appareils Numériques", NMB-003 édictée par le Ministre Canadian des Communications.

English translation of the notice above:

This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus set out in the interference-causing equipment standard entitled "Digital Apparatus", ICES-003 of the Canadian Department of Communications.

For more information regarding regulation compliance and certification see:

[www.vuze.camera/support](http://www.vuze.camera/support)



Humaneyes Technologies Inc.

[www.humaneyes.com](http://www.humaneyes.com)