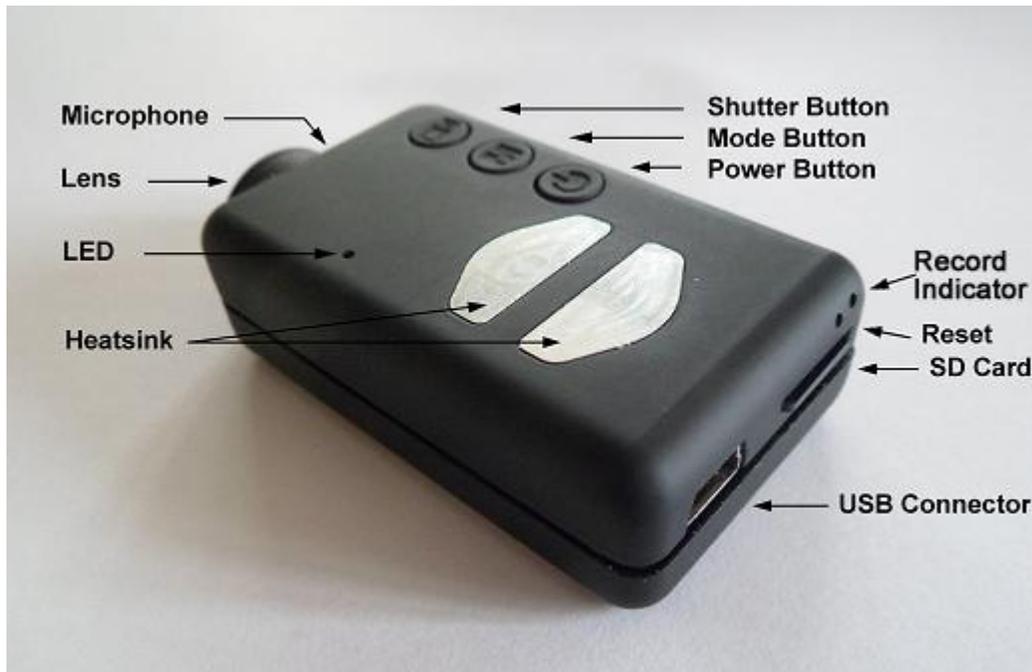


# Users Guide for the CAPTIONHD



## Overview

The image above shows the arrangement of the user operating features and controls. Please note that the two metallic heat sinks can become hot during operation. This is normal. Avoid leaving the camera in the ON position when the ambient temperature exceeds  $\sim 47^{\circ}\text{C}$  ( $118^{\circ}\text{F}$ ). If you wish to use the camera in hot conditions, ensure that the heat sinks are adequately ventilated.

NOTE: This Users Guide assumes that your camera is loaded with firmware and the User Configuration Tool as available only from CAPTIONHD ([www.captionhd.com](http://www.captionhd.com)). This is how it is set up at the factory. It is advised that you NEVER download firmware/software from any other source.

NOTE: There are no user serviceable components inside the camera. Opening the case will void the CAPTIONHD Warranty.

## Memory Cards

You may use any MicroSD or MicroSDHC card with a capacity of up to 32GB with this camera. Larger capacity cards are not supported at this time. To avoid card compatibility issues, we recommend the use of Kingston brand cards with a Class 4 rating or greater. The camera supports cards formatted with FAT32. Purchased Kingston cards are typically supplied pre-formatted. Visit [www.captionhd.com](http://www.captionhd.com) to purchase recommended cards from us.

## Cables

The CAPTIONHD requires a **standard** USB cable for charging, connecting to external battery packs for continuous recording, and for connecting to a PC as an external disc drive or webcam.

Please note that A/V-Out requires a special cable available at [www.captionhd.com](http://www.captionhd.com).

**Do not use any other "special" USB cable.** Doing so may damage your camera.

## Audio-Video (A/V) Out

The optional A/V-Out cable (see above) should always be connected or disconnected while the camera is in Standby condition or turned OFF. If the cable is connected or disconnected during recording, the recording will be stopped and the camera will enter Standby condition. The camera will not be recognized as a removable drive when the video-out cable is connected

## Getting Started Using Your CAPTIONHD

### Factory Default Settings

Before using the camera for the first time, ensure that it is fully charged. See below, under "Charging". **(NOTE: Camera should be charged every 2-3 months when not in use)**  
A fully charged battery will provide 80 to 90 minutes of recording time.

### The Power Button

**(See also "Turn on Camera")**

NOTE: The CAPTIONHD has been pre-configured from the factory for EZ ON/Record. A single push of the ON/OFF Button turns the camera on and also starts video recording in Mode 1. (Flashing yellow LED on top-mounted indicator.) If you chose to turn off this feature, (see Advanced Users Section) the following instructions will then apply:

Press the Power Button to turn the camera on. The Blue LED will first turn on for about 1 second, and after about 3 seconds the Yellow LED will turn on, indicating that the camera is ready for use (Standby). NOTE: If "Power-On Delay" is set to ON (see Advanced Users Section), press the power button for about 4 seconds until the Yellow LED turns on.) The camera is now ready for use.

As an optional setting, "Power On Delay" is useful to prevent the camera from being inadvertently turned on.

To turn the camera OFF, stop any recordings that may be running by pressing the shutter button and then press the power button for two seconds. The camera will turn off.

For other Power/Record setting options see Advanced Users Section.

## The Mode Button (Also see Switching Between Modes)

The Mode Button enables the camera to be sequentially switched between 4 different operating modes. Each successive button press advances to the next mode as indicated by the LED color.

NOTE: The CAPTIONHD Configuration Utility that is provided in the camera's memory allows the user to change these parameters and to create their own Mode 1 and 2 settings (See Advanced Users Section). There is a "hover-over" Tool Tips function that provides detailed information for each selectable parameter.

Following are Factory Settings:

- Video Mode 1 (**Yellow LED**) 1080P HD, 30 frames per second (fps), Wide Field of View (FOV)
- Video Mode 2 (**Blue LED**) 720P HD, 60 fps, Narrow FOV
- Photo Mode (**Red LED**) is the photograph (still picture) mode.
- A/V Playback Mode (**Red LED**) is only active when the special A/V-out cable is connected.

## The Shutter (VIDEO) Button

Press the Shutter Button to start or end video recording, to take a picture or to play/pause when in TV Playback Mode. (TV Playback Mode is only active when the A/V cable is attached)

### LED status indicators

The CAPTIONHD provides numerous features and functions. It is therefore important to understand the meaning of the LED Indicators. The following LED states are for the camera in normal use and **when not connected to a PC**:

**Yellow LED remains on:** The camera is in Video Mode 1 and is in standby condition.

**Yellow LED slowly flashes** (1 sec. On, 1 sec. Off): The camera is in Video Mode 1 and is recording video.

**Blue LED remains on:** The camera is in Video Mode 2 and is in standby condition.

**Blue LED slowly flashes** (1 sec. On, 1 sec. Off): The camera is in Video Mode 2 and is recording video.

**Red LED remains on:** Camera is in Photo Mode or Playback Mode (if an A/V cable is connected) and is in standby condition.

**Red LED flashes once** The camera has taken a picture

**Green LED is on:** The battery is charging.

## **The Rear LED (Red Only)**

Battery Charge Level

Record Indicator

When the camera is turned on, the rear LED will blink one to three times to indicate the battery charge level. Three fast blinks indicate a full battery, and one blink indicates the battery charge is low. Note: The blinks are very fast.

The rear red LED will also blink in unison with the top-mounted LED while recording.

## **Connecting the camera to a PC**

You will connect the camera to a PC to charge it, to playback directly and to connect it for Video/Photo uploads. The *CAPTIONHD* appears to the PC as if it was an external “Thumb Drive”

Make sure the camera is turned OFF when connecting to a PC. Always connect the camera directly to the PC using the USB cable provided. Do not use a USB hub.

## **Playback Video/Display Photos**

Although video can be viewed directly on a PC, it is recommended that video clips are downloaded to a PC prior to viewing. Most computers are not fast enough to render the video in high quality when streaming from the camera directly.

The *CAPTIONHD* appears to the PC just as if it was a “Thumb Drive”. Plug the *CAPTIONHD* into a PC USB port and go to the camera’s main menu. Select the DCIM file where you will find your videos. Download clips to your PC for high quality HD viewing and storage.

Note to Apple Users: In order to free up memory space on the *CAPTIONHD*, after you delete video and photo files from the camera, please make sure to “empty the trash”. Click on “Finder” on the Command Bar to access the drop down box to select this function.

## **Charging**

- Connect one end of the supplied standard USB cable to the camera.
- Connect the other end to a USB, 5V DC power source (provided car charger, wall charger, PC or external battery).
- The Factory Setting is to always charge the camera when plugged in to a PC USB port

NOTE: Automatic charging when connected to a PC USB port can be toggled ON or OFF using the Configuration Utility (See Advanced User Section). When connecting to a Smartphone, you should turn this functionality OFF!

When charging, the Green LED will be on, and will turn off when the battery is fully charged. Charging takes about 2.5 hours for a fully discharged battery with the camera turned off and connected to an external USB Charger. If charged with under-rated chargers or using a USB

hub, expect longer charging times. **(NOTE: Camera should be charged every 2-3 months when not in use. Batteries are not covered under the CAPTIONHD warranty)**

### **Automatic Power OFF from Standby mode**

If the camera is in Standby condition (Video Mode 1, Video Mode 2 or Photo Mode) you must start a video recording or take a picture(s) within 30\* seconds. The camera will automatically turn off after 30\* seconds if there is no activity.

\*This value can be set or Auto Power Off can be disabled using the Configuration Utility (see Advanced Users Section).

When the special A/V cable is connected, automatic power-off will always be disabled.

### **Turn Camera ON**

Power-On can be configured as "fast" or "delayed". ("Fast" is the factory setting-See Advanced Users Section). In fast mode, the camera will turn on immediately when the Power Button is pressed. If Delayed Mode setting is chosen (See Advanced Users Section), press and hold the Power Button for 4-5 seconds until the Yellow LED turns on and remains on. This setting is useful to avoid inadvertent recording (i.e. when button accidentally pushed while in your pocket.) Regardless of whether the camera is configured in "fast" or "delayed" Power-on, the Blue LED will turn on for a second followed by the Yellow LED. When the Yellow LED remains on, the camera is ready for use.

The CAPTIONHD is configured at the factory in EZ ON-Record. This means that the camera will automatically begin recording in Mode 1 as soon as the power button is pressed, or external power is detected by the camera. The yellow LED will slowly flash at 2 second intervals indicating that the camera is recording. If the recording LED indicator has been disabled, (See Advanced Users) the yellow LED will blink 3 times and then turn off, indicating that recording has started.

Recording can be stopped and started manually by pressing the Shutter button. The camera will always be turned off when power is removed, however, assuming the camera's internal battery has sufficient power, there is a 15 second delay before recording stops. If power is reconnected during this delay, the camera will resume normal operation.

### **Turn Camera OFF**

Press and hold the Power Button for at least half a second and then release it. The Red LED will blink 3 times and the camera will turn off.

## Switching between Modes

The CAPTIONHD can be switched between the different modes by pressing the Mode button. Each successive button click advances the camera to the next mode. Video Mode1 - Video Mode2 - Photo Mode - Playback Mode (only if A/V cable is attached) - Video Mode1, etc.

## Recording Video Mode 1 or 2 (Yellow or Blue LED)

### Start video recording and write-protecting important clips.

- Briefly press the Vide/shutter button while in Standby for Video Mode 1 or 2.
- ► If the recording LED has been enabled, (factory setting) the Yellow or Blue LED will slowly flash at 2 second intervals indicating that the camera is recording.
- ► If the recording LED has been disabled, (See Advanced Users) the Yellow or Blue LED will blink 3 times and then turn off, indicating that recording has started.
- The current clip can be **write-protected** by pressing the Mode button while recording.

### Stop video recording.

- Briefly press the Video/shutter button. The camera will return to standby condition in the mode from which the video was started.

## Taking a Photo (Red LED)

- When in Mode 4- Photo Mode, briefly press the Video/shutter button. The Red LED will flash indicating that a picture has been taken.

## TV/Monitor Playback Mode

- Ensure you have the special A/V cable (supplied) connected between the camera and an external TV/monitor and that a memory card is inserted.
- Turn on the camera if it is not already on.
- Momentarily and repeatedly press the Mode Button until the Red LED turns on (Photo Mode).
- Now press the Mode button once more. The Red LED will remain on, but the camera will be in playback mode and the first frame of the first clip found on the card will show on the external monitor.
- ► If no clips are found on the card the display will show "Empty".
- Press the Video/Shutter Button to play or pause the clip.
- Press the Mode Button to advance to the next clip.
- Press the Power Button to exit Playback Mode and turn off the camera.
- ► NOTE: It is not possible to exit Playback Mode except by turning off the camera.

## Removable Disk Mode (Download Video and Pictures to PC for Playback and Storage)

- Make sure a memory card is inserted and the camera is turned off.
- Connect the camera to a PC using a standard USB cable (included). The Green LED may turn on indicating that the battery is charging (if charging is needed).
- The Blue LED will turn on for about a second but will then be replaced by the Yellow LED. After a short while the Yellow LED may also turn off.
- The camera is now in Disc (Download) Mode and a new removable drive should be available on your computer. This may take up to 30 seconds.
- Go to the camera's main menu. Select the DCIM file, where you will find your videos.
- Download clips and photos to your PC for high quality HD viewing and storage.

## Webcam Mode

There are two ways in which you can enter Webcam Mode.

Method 1:

Connect the *CAPTIONHD* as a removable drive (see above).

- Press the Video/Shutter button to enter Webcam Mode.
- If this is the first time you have connected the camera in WebCam mode, Windows will automatically install the required drivers.
- Disconnect the camera or press the Shutter button to exit Webcam Mode.

Method 2:

- Remove the memory card.
- Connect the camera to a PC using a standard USB cable.
- The Yellow LED will blink at 2 second intervals indicating there is no card inserted. This is normal.
- If this is the first time you have connected the camera in Webcam Mode, Windows will automatically install the required drivers.
- The camera is now in Webcam Mode.
- Start your favorite WebCam software, such as AMCap. Make sure the program shows the "USB PC camera" as the "device" selected for video capture. If this option does not show in the "device" option list, restart the webcam program and check again.
- Disconnect the camera or press the Video/Shutter Button to exit Webcam Mode.

NOTE: Windows XP has a built-in Webcam Viewer. Your *CAPTIONHD* will be visible in "My Computer" as "USB Video Device". This functionality does not exist in Windows 7.

## Recording using an external power supply

The CAPTIONHD can charge the battery and record at the same time using a standard external USB 5V DC power supply. The power supply may be mains driven (normal household wall plug), or by using batteries, including the car charger USB plug and cable supplied with the camera.

To avoid possible problems, always use a generic power supply. External USB power supplies usually only use the +5V and the - (Ground/Earth) wires. The 2 data wires are normally not used. However, some USB power supplies designed for a specific USB device may use different wiring schemes and thus may not work with this camera.

When turned on, the camera checks for an electrical signal on the two Data wires. If a signal is found, the camera assumes it is connected to a PC and recording will not be possible - see below "Recording when directly connected to a PC".

For recording video or taking pictures using a standard external power supply connection, the USB power supply can be connected at any time, i.e. before the camera is turned on, before the recording is started, or after the recording has been started.

## Recording when directly connected to a PC

The CAPTIONHD can charge the battery and record videos or time-lapse photos (See Advanced User Section) at the same time and while connected to a PC.

In order to do this, the video or time-lapse photo recording must be started **before** the camera is connected to the PC. It is not possible to record if the camera is turned on while connected to a PC. Likewise it is not possible to take single still pictures while the camera is connected to the PC.

## **ADVANCED USERS SECTION**

This section of the *CAPTIONHD* Users Guide is intended for enthusiasts who wish to take advantage of the many features and functions available on this versatile miniature Video Action Camera. Most users will not need nor want to go to the level of adjustability in video capture and presentation as described in this Section.

Features/Functions Available Include:

- Motion Detection
- Time-Lapse Photos
- Advanced Image Settings for creating custom Videos: (FOV, Sharpness, White Balance, Contrast, Color Saturation and more.)
- Create you own selectable Video Setting Profiles
- Time Stamp
- A/V Out options
- Automatic Power-On and Record options
- LED Indicator settings
- Loop Recording
- Advanced Video Settings
- Create your own Video Modes

### **Camera Setup (Configuration)**

It is highly recommended to always use the *CaptionHDsetup* program if you wish to modify the camera's configuration. It is found in the folder in the camera memory and is accessible when connected to a PC as an external drive. *CaptionHDsetup* communicates directly with the camera and makes configuring the camera very easy, using a simple User Interface.

#### **Using *CaptionHDsetup* to configure the camera**

*CaptionHDsetup* will automatically configure the camera with the parameters you select.

The Factory default settings offer 4 unique Profiles:

- 1) 1080P Universal—The *CAPTIONHD* is pre-configured in this Profile. It is a very good general setting for most video capture situations
- 2) 1080P Narrow—This Profile provides for a narrower field of view, see Field of View (FOV) below
- 3) 720P Action—This Profile setting provides a higher frame capture rate for fast moving subjects or when the camera is in motion (i.e. when mounted on a moving vehicle.)

4) DriverCam—This Profile provides instant Power ON and Video Record when external power is detected by the *CAPTIONHD*. This is ideal for dashboard mounted cameras when plugged into a cars 12V power source.

If this Profile is selected, the *CAPTIONHD* will start recording as soon as external power is detected or the camera is turned on. Recording can be stopped and started manually by pressing the Shutter button. The camera will always be turned off when power is removed, however, assuming the camera's internal battery has sufficient power, there is a 15 second delay before recording stops. If power is reconnected during this delay, the camera will resume normal operation.

## Custom Profiles

CaptionHDsetup allows the user to change parameters and to create your own saved configuration Profiles. There is a “hover-over” function called Tool Tips that provides detailed information for each selectable parameter. Hold the cursor over the violet colored parameter title. A description of the parameter’s function will appear.

To create your own custom Profile, click on the Create Profile Button, give it a name and then click Save. Set the parameters of your choice and click Save Profile.

If you wish to load the newly created Profile into the *CAPTIONHD*, click on the Set Parameters Button.

Note that the Profile in the Drop-down Box labeled “Camera Values” always displays the settings that are currently active in the camera.

**NOTE: DO NOT** modify any of the settings located on the Tools page accessed by clicking on the “Tools” box. These settings are set at the factory as required for proper operation of the camera. NEVER check for or download any updates by checking these boxes. If Updates become available for your *CAPTIONHD*, they will be available for download at [www.captionhd.com](http://www.captionhd.com).

## FOV (Field Of View)

The field of view setting allow you to either capture the complete area of the image sensor or a smaller area without noticeable loss in quality. The following table shows which area of the image sensor is captured and how it is converted using the Wide and Narrow FOV settings:

Resolution and Frames per Sec.	FOV	CMOS Area	Explanation
1080p @ 30fps	Wide	2304 x 1296	Reduced to 1920 x 1080 using pixel binning. Widest possible setting
1080p @ 30fps	Narrow	1920 x 1080	Captured directly from centermost portion of CMOS array. No scaling
720p @ 30fps	Wide	2304 x 1296	Reduced to 1280 x 720 using pixel binning. Widest possible setting
720p @ 30fps	Narrow	1920 x 1080	Identical to 1080p @ 30fps but reduced to 1280 x 720 using pixel binning
720p @ 60fps	Narrow	1280 x 720	Captured directly from centermost portion of CMOS array. No scaling. Narrowest possible setting

## Firmware Update

Normally, there is no need to update the camera's firmware. Firmware updates that may provide enhanced functionality or anomaly fixes will be available as needed at [www.captionhd.com](http://www.captionhd.com). **Only update using the software/firmware provided on our website.**

Any recommended revision will be downloadable from [www.captionhd.com](http://www.captionhd.com) and installed directly from the setup program. Instructions for download will be provided in the event that a firmware update is recommended by us. Updating the firmware is an easy and safe process.

## Manual Firmware Update

If for any reason your software or firmware becomes corrupted or is lost, It is recommended that you save a copy of the entire folder located on the camera memory to your computer.

Or, please visit [www.captionhd.com](http://www.captionhd.com) where you will find downloadable replacements.

## Audio Volume

When the volume is turned OFF, the sound track is completely eliminated from the video output stream in **all** camera modes. Having the Audio Volume switched to OFF will free up an additional 7% video recording space.

## Time Lapse

If Time Lapse is enabled, Auto Record must be disabled. Time-Lapse photos are taken with the CAPTIONHD in Photo Mode (Red LED indicator). The rear LED will not blink when Photo Mode has been configured to take Time-Lapse photos with a time interval of less than 2 seconds.

## Trouble shooting

**Q.** The camera is not recognized as a removable disc or as a Webcam.

**A.** The PC's operating system must be XP or newer. The camera must be connected using a standard USB cable. Confirm that the cable is not defective by attaching another USB device using the same cable. Do not use a USB hub. Try using another USB port. Defective cables are the most common problems when the camera is not correctly recognized by the PC.

**Q.** When the camera is connected to a PC and then turned on I can take pictures and movies but the camera is not recognized as a removable disk.

**A.** The USB cable is defective.

**Q.** The Yellow LED flashes once per second 4 times and then flashes very quickly before turning off.

**A.** There is no microSD card inserted, the card is not properly inserted, the card is full or the card is defective. The card must be inserted with the gold contacts facing upwards, towards the buttons. There should be a distinct spring action when inserting the last 5 mm and there should be no friction whatsoever.

When the card is pushed 1 mm inside the body the card should latch with a distinctive click. Never force the card, and never push the card more than max. 1 mm into the camera body.

**Q.** The camera does not react. The Green LED may be on or off.

**A.** The firmware may have entered a continuous loop, or the battery may be discharged.

- Make sure the battery is fully charged.
- Use a paper clip or similar object to press the Reset button. This should force the camera to be turned off.
- Wait 10 seconds.
- Turn on the camera.

**Q.** Playback is erratic or stutters or the playback colors are “psychedelic”, pixilated, or the video flashes, has corrupted blocks etc.

**A.** Always first copy the video file from the memory card to your hard drive for playback

- Your PC or graphics card may not be powerful enough to playback the video stream.
- You may not have enough memory installed in your PC.
- Use VLC Media Player. Window Media Player often chokes on underpowered machines.

For more information or questions, visit the *CAPTIONHD* website at [www.captionhd.com](http://www.captionhd.com) , call or email [info@captionhd.com](mailto:info@captionhd.com)

## Specifications:

- Video: 1080P 30FPS FULL HD, 720P 60FPS, 720P 30FPS HD H.264/AVC1 video codec, .MOV file format.
- Photo: 2304 x 1536, 1920 x 1080, 1280 x 720, supports Time Lapse Photo Shooting
- Super mini size: 2.4" x 1.375" x .75"
- Super light-weight 1.4 Ounces
- Rechargeable LIPO Battery (500mah), with Battery Charger Manage IC
- Micro SD card slot, supports up to 32GB, suggest using Class 4 or faster
- USB2.0, plug and play, easy connection with computers, no driver needed.
- Live TV video output while recording videos with optional TV out cable.
- Magnetic Mounting system
- User Configurable settings via text editor, configuration tool or Android App; Time Stamp, Video Resolution, Photo Resolution, Time Lapse Photos, Video Clip Length, Loop Recording, Rotate Video, Video Record Quality, Wide Dynamic Range, Power On Delay, Auto Power Off, Auto Record, LED Functions, Charge From Host, TV Out Mode.
- High quality audio, configurable.

## Weather Cover & Replaceable Windows

The Weather Cover with included replaceable windows is intended to protect the camera from rain, snow, splash and similar environments. It will not protect against submersion of the camera. **Installing the Weather Cover on the CAPTIONHD does not make it waterproof.**

**Assembly:** Start by placing (1) of the windows in the recessed lens area in the flexible rubber cover. Insert the camera into the cover, lens end first. Finish by **gently** stretching the cover over the rear of the camera. (Do not overstretch the cover as damage may occur. A pinching and rolling action works best on the outer corners; "shoe horning" with your finger requires too much stretch and may cause damage.) Check that cover is centered over button area. Make minor adjustments as necessary.

**Cleaning:** Cover can be cleaned using Isopropyl Alcohol or soap and water.

## Mounting

### (Also see animated video)

Camera is removed from Holder by sliding the camera forward, and assembled by aligning the slot on the side of the camera with small tangs on the sides of the Holder, then sliding the camera back until it snaps in place.

With camera removed from Holder, accessory mount screw is exposed in the Mount Adaptor. This is the screw that fastens the different mounts, i.e. Tripedal Magnetic Mount, Bar Mount, Tip Mount to the Mount Adaptor. The Mount Adaptor may also be unsnapped to create a totally flat bottom.

## Warranty

Your **CAPTIONHD** is covered by a full 1 year warranty. We will repair or replace any camera found to be defective. This warranty does not cover misuse, abuse or obvious damage not related to factory defects in materials or workmanship.

Please Note: Warranty does not include Micro SD cards.

Please Note: Warranty does not include internal battery

Please Note: Opening the case voids this Warranty