

**PEN**  
**RECORDER**  
**PRO**.COM

**1080P HD EXTREME SPY  
PEN CAMERA HD500**

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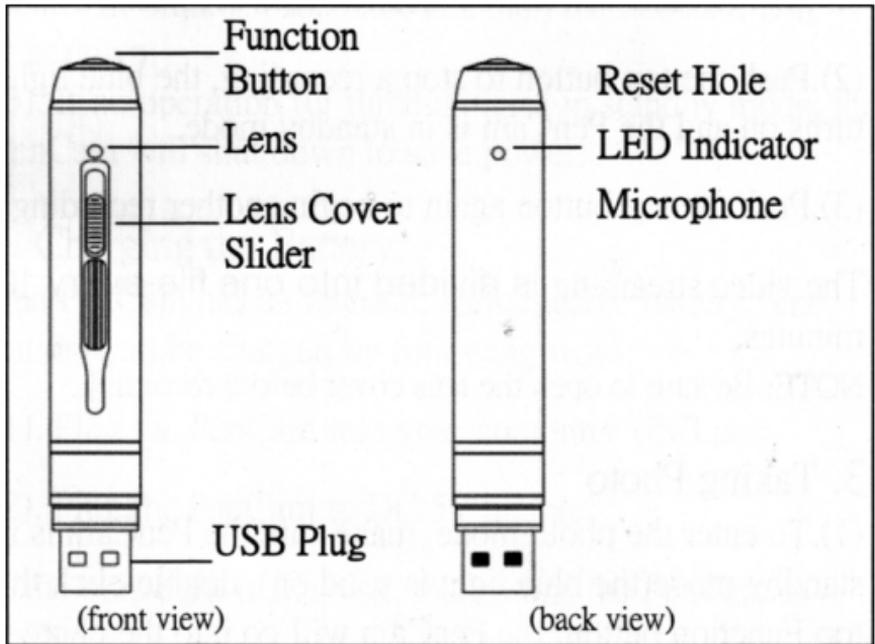
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## KEY FEATURES

- Superior image sensor for low light video recording, quickly responds to changes in lighting.
- Full HD 1080P at 30fps; amazing HD video
- 720P at 60fps; fluid fast action recording
- H.264 compression
- Easy one button operation
- No flashing light while recording

- MAC/Windows, direct USB plug design



## HOW TO OPERATE

### 1. CHARGING

Before using for the first time, we recommend giving the device a full charge. It has an internal rechargeable battery. The battery can be charged the following ways:

- a. Plug into computers USB port
- b. Plug the pen into one of our optional charging accessories (wall/car/portable charger) If you use your own charger, make sure is no more than 5V and 1000mAH output (most standard cell phone chargers will work)
- c. While charging, the light will flash blue; when

charging is complete the light will stop flashing and turn a solid blue.

## 2. TURN ON/OFF

**Power on:** press and hold the top function button until the blue indicator light appears and release (**NOTE:** if you continue to hold the button down while the green light is flickering, the pen will not begin to record, but enters “standby” mode which is indicated by a solid blue light). After a second the green light will flicker several times while pen is loading. The green flickering light will turn off and the pen will begin to record video. The indicator light will remain off while it is recording.

**Power off:** Push and hold the button until all indicator lights turn off.

## 3. RECORDING VIDEO

**a.** Power on the Pen as in step 2. The pen will automatically begin to record video.

**b.** Quick press button to stop recording. The pen will enter standby mode and the indicator light will be solid blue.

**c.** Quick press button again to begin recording. Indicator light will flicker green to let you know recording has started.

**NOTE:** In order to avoid large file sizes that may cause the pen or your computer to freeze, recording is divided into 10 minute intervals.

**NOTE:** Be sure to open lens cover before recording.

#### **4. TAKING PHOTOS**

- a.** Enter standby mode (indicated by a solid blue light). From off position press and hold button and release while the green light is flashing, the green light will flicker again and turn solid blue
- b.** While in standby mode, double click the button to go into photo mode and the green light and blue light will start flashing alternately.
- c.** Click the button once to take a picture, the blue light blinks twice to indicate that the picture was taken successfully
- d.** To quit photo mode, double-click the button again, the device will go back to standby mode.

#### **5. AUTO POWER OFF**

- a.** When the battery is about to run out, the blue light will blink for a few seconds, and the pen will shut down.
- b.** When the memory is full, both the blue and green light will blink for a few seconds and the pen will shut down.
- c.** If the pen is in standby mode for over 3 minutes, it will shut down.

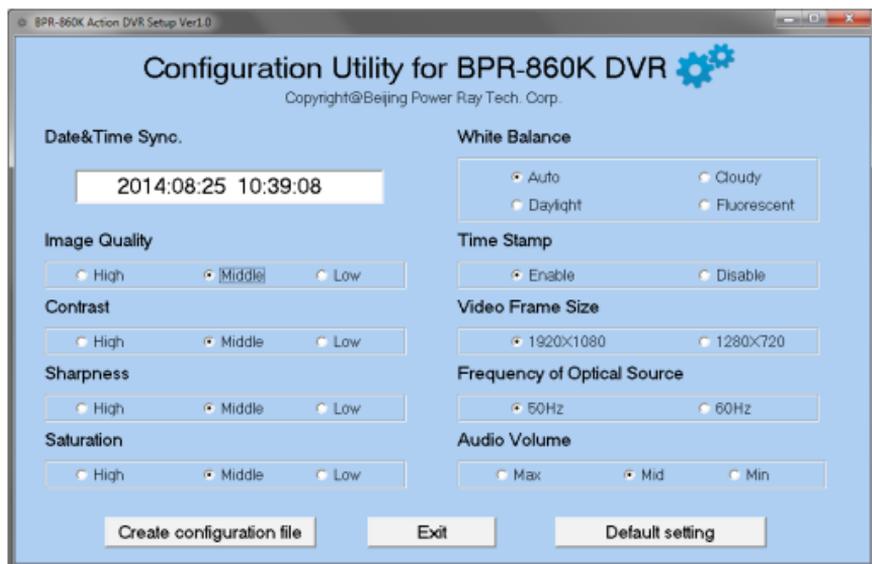
#### **6. RESET**

If you pen is malfunctioning, we recommend

resetting it. Use a thin object to press the reset button (located inside indicator light hole). After resetting the pen should work normally. NOTE: resetting the pen only resets the software within the pen, but does not delete any files.

## TIME/DATE STAMP

**NOTE:** We have included universal instructions that work for both MAC and Windows. However, if you are a windows user, you can use the file located in the root folder of the pen called “setup.exe” to change time/date. Screenshot below:



After you have changed the time/date stamp. Click “Create Configuration File” and close the program. Unplug the pen from the computer. The next time you record a video the updated time/date will take affect.

## **1. TURN ON/OFF TIME/DATE STAMP (MAC & Windows)**

- a.** Connect your Pen to the computer while turned off.
- b.** Open “setting.txt” from the root folder of the glasses.
- c.** First change “UPDATE:N” to “UPDATE:Y” then refer to line item “RTCDisplay”. Set to “0” to turn off time stamp or set to “1” to turn on time stamp.

## **2. SETTING CURRENT TIME/DATE (MAC & Windows)**

- a.** Connect your Pen to the computer while turned off.
- b.** The Pen will automatically connect to your computer as a removable drive.
- c.** Open Notepad (Windows) or TextEdit (Mac) and create a new text file.
- d.** Input the local true time according to the following form- For example: The present time is: 09:08:07, October 6th, 2014, so the input would be: 20141006090807 (no spaces between the numbers)
- e.** Save the new document as “settime.txt” in the root folder of the Pen. Make sure it is a plain text file.

## VIDEO SETTINGS

**NOTE:** We have included universal instructions that work for both MAC and Windows. However, if you are a windows user, you can use the file located in the root folder of the pen called “setup.exe” to change the video settings. (See screen shot under “Time/Date Stamp” instructions). Change to your desired settings and click “Create Configuration File” and close the program. Unplug the pen from the computer and the next time you record a video your settings will take affect.

### 1. CHANGE VIDEO SETTINGS (MAC & WINDOWS)

**a.** Connect the Pen to the computer while turned off. The pen will mount as a drive. Open up the drive and you will see 3 files in the root folder of the pen:

(don't delete)setting.txt

setting.txt

setup.exe

**b.** Open the file titled “(don't deleted)setting.txt” this file contains a list of settings and below a description of the settings. Change your desired settings, and make sure “Y” is displayed next to the wording “Update:” if “N” is displayed you settings won't take affect. Save the file as “setting.txt” on the root folder of the pen, go ahead and say yes to overwrite/replace the existing “setting.txt” file.

c. Unplug the pen from the computer and the settings will take affect the next time you record a video.

## **2. DEFAULT SETTINGS**

EV:6

AWB:0

CTST:100

SAT:100

SHARPNESS:100

QUALITY:1

AudioVol:1

RTCDisplay:1

VideoSwitch:0

LIGHTFREQ:1

## **3. SETTINGS EXPLAINED**

a. Exposure (EV): 1-21

Adjust exposure down in bright/sunny conditions.

Adjust exposure up in dark/cloudy conditions.

b. White Balance (AWB): 0-4

Changes the white balance and is used for color correction. 0=Auto, 1=Daylight, 2=Cloudy, 3=Tungsten Filament, 4=Fluorescent

**c. Contrast (CTST): 1-100**

Increase or decrease the degree of difference between tones.

**d. Saturation (SAT): 1-100**

Increase or decrease the vibrance of colors.

**e. Sharpness (SHARPNESS): 1-100**

Increase or decrease the sharpness.

**f. Quality (QUALITY): 0-2**

Change the video quality. 0=High, 1=Middle, 2=Low

**g. Audio Volume (AudioVol): 0-2**

0=Min, 1=Mid, 2=Max

**h. Time Stamp Display (RTCDisplay): 0-1**

0=Off, 1=On

**i. Video Mode (VideoSwitch): 0-1**

0=1080P, 1=720P

**j. Light Frequency: (LIGHTFREQ): 0-1**

0=60Hz, 1=50Hz

## DETAILED SPECS

View Angle:	65°
Min Illumination:	1 Lux
Video Format:	MOV
Compress Format:	H.264 Advanced Version
Video Resolution:	1920x1080, 1280x720
Frame Rate:	1080P max. 30FPS, 720P max. 60FPS
Photo Format:	JPG 2048x1536
Storage:	Micro SD up to 32GB
USB Interface:	USB 2.0
Battery Charge:	DC 5V/500mA
Battery Capacity:	380mAH
Dimensions:	L: 155mm, D: 15mm
Weight:	44 grams

## CAUTION

Here are few tips and things to watch out for when using your pen:

- a.** At times, the pen may become hot during recording - this is normal. To ensure cooling avoid blocking flow of air to the pen.
- b.** Keep your pen dry. Rain, humidity, and all types of liquid or moisture can potentially cause harm or corrosion to the internal components. If you pen does get wet, allow it to dry completely before attempting to use.

- c. Avoid dropping or rough handling. This can break internal electronic components.
- d. Do not use hard chemicals, cleaning solvents, or strong detergents to clean the pen.

## **LEGAL INFORMATION**

All jurisdictions have specific laws and regulations relating to the use of cameras and voice recorders. Before using any camera and/or voice recorder for any purpose it is the buyers responsibility to be aware of all applicable laws and regulations that prohibit or limit the use of cameras and voice recorders, and to comply with the applicable laws and regulations.

## **ONE YEAR WARRANTY**

The limited warranty set forth below is provided by PENRECORDERPRO with respect to all PENRECORDERPRO Brand Products purchased. The PENRECORDERPRO Brand Products purchased with this limited warranty are the only products which this limited warranty provided by PENRECORDERPRO apply. Any PENRECORDERPRO Brand Product, when delivered to you in new condition in its original packaging, is warranted against material defects and workmanship for a period of one year from the date of original purchase. Defective units returned to PENRECORDERPRO and proven to be

defective upon inspection will be replaced with a unit that has similar or more advanced features as our technology progresses. This limited warranty covers all defects encountered in normal use of ANY PENRECORDERPRO Brand Product and does not apply in the following circumstances:

A. Loss of or damage due to abuse, mishandling, improper packaging by you, alteration, accident, electrical current fluctuations, failure to follow operating, maintenance or environmental instructions prescribed in the user manual or services performed by an unauthorized PENRECORDERPRO dealer. Additionally, water damage, sand dust/corrosion damage, damage due to impact, scratches, abrasions or damage to the housing, or other accidental damage to any other accessories that has been determined to have resulted from misuse, abuse or failure to operate the units as set forth in the operating instructions.

B. Use of any parts, accessories, or supplies other than those sold by an authorized PENRECORDERPRO dealer in conjunction with any PENRECORDERPRO brand.

## HAPPY? NOT HAPPY?

We're only happy if you're happy. Our friendly and hassle-free customer service will work hard to put a smile on your face. Go ahead and give us a call or shoot us an email.



**(208) 557-9460**



**[support@penrecorderpro.com](mailto:support@penrecorderpro.com)**



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