

# FOR A GOOD **REASON** **GRUNDIG**

## Owner's Manual



## Body Worn Camera

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GBW-G0116X      4 Megapixel Full HD IP68 Body Worn Camera ICR IR LED

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GBW-G0116X.49.1.21.03.2016

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## 1 Introduction

Thank you for purchasing the Grundig Body Worn camera GBW-G0116X. This Manual applies to the Grundig Camera GBW-G0116X.

The Manual includes instructions for using and managing the product. Pictures, charts, images and all other information hereinafter are for description and explanation only. The information contained in the Manual is subject to change, without notice, due to firmware updates or other reasons. Please find the latest version on the company website. Please use this user manual under the guidance of professionals.

EU Conformity Statement:

This product and - if applicable - the supplied accessories too are marked with "CE" and comply therefore with the applicable harmonised European standards listed under the EMC Directive 2004/108/EC, the RoHS Directive 2011/65/EU.

2012/19/EU (WEEE directive):

Products marked with the "[Crossed out bin]" symbol cannot be disposed of as unsorted municipal waste in the European Union. For proper recycling, return this product to your local supplier upon the purchase of equivalent new equipment, or dispose of it at designated collection points. For more information see: [www.recyclethis.info](http://www.recyclethis.info).

2006/66/EC (battery directive):

This product contains a battery that cannot be disposed of as unsorted municipal waste in the European Union. See the product documentation for the specific battery information. The battery is marked with a "[Crossed out bin]" symbol, which may include lettering to indicate cadmium (Cd), lead (Pb), or mercury (Hg). For proper recycling, return the battery to your supplier or to a designated collection point. For more information see: [www.recyclethis.info](http://www.recyclethis.info).

### 1 Important Safety Instructions

Be sure to use only the standard adapter that is specified in the specification sheet. Using any other adapter could cause fire, electrical shock, or damage to the product. Incorrectly connecting the power supply or replacing the battery may cause explosion, fire, electric shock, or damage to the product. Do not connect multiple products to one single adapter. Exceeding the capacity may cause abnormal heat generation or fire.

Do not place conductive objects (e.g. screwdrivers, coins or any metal items) or containers filled with water on top of the product. Doing so may cause personal injury due to fire, electric shock, or falling objects.

If any unusual smells or smoke comes out of the unit, stop using the product. In this case, immediately disconnect the power source and contact the service center. Continued use in such a condition may cause fire or electric shock.

If this product fails to operate normally, contact the nearest service center. Never disassemble or modify this product in any way. (GRUNDIG is not liable for problems caused by unauthorised modifications or attempted repair.)

To prevent fire or electric shock, do not expose the inside of this device to rain or moisture.

## **2 Package Contents**

These parts are included:

- Body Worn Camera
- USB charging station
- USB charging cable
- USB data cable
- USB power supply
- Shoulder Strap
- Display protection foils

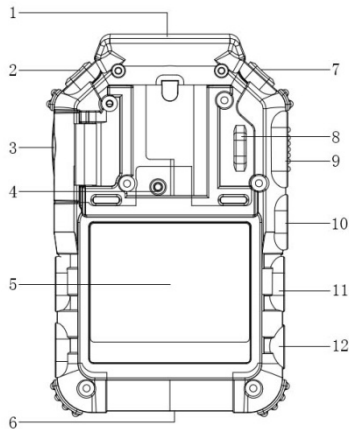
## **3 Key features**

- 4 Megapixels CMOS, Colour/B&W Camera
- Full HD 1080p resolution video recording
- IR LEDs integrated
- 170° viewing angle
- IP 68 Certification
- Built-in 32GB SDRAM
- Video, Image & Audio Recording
- 7-day standby time
- Vibration activated video recording

## 4 Installation

### 4.1 Camera's connectors

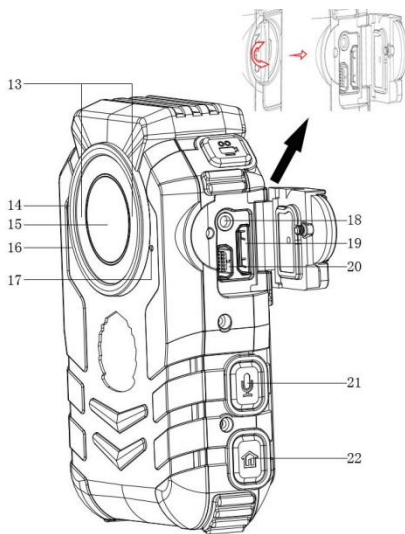
- 1) Speaker
- 2) Video Recording Key
- 3) Rotatable ON-OFF Cap
- 4) Reset
- 5) LCD Screen
- 6) Walkie-talkie Port/Extension port
- 7) Photo-key
- 8) Fixing Hole
- 9) Inter-talk key
- 10) Playback
- 11) LCD turn off key



- 12) Power key
- 13) IR LED light
- 14) Status Indication LED
- 15) Lens
- 16) Inter-talk MIC
- 17) Audio recording MIC

Rotate to open the Cab  
(Refer to the arrow in picture)

- 18) Earphone port
- 19) HDMI Port
- 20) USB Port
- 21) Audio recording key
- 22) Menu Key



## 5 Camera Usage

### 5.1 Power on

Press **[⏻]** to power on the camera. After the “beep” sound, the camera will enter into preview mode automatically. The status indication LED light will turn green.



(Balance space, Files quantity, Available video recording time, Battery volume)

In preview mode, you will see the balance space, the files quantity, the available video recording time, and the battery volume above the LCD screen from left to right. In the bottom of the screen you will be presented the current time of the system.

### 5.2 Video Recording

After the camera has been powered on, it will enter into preview mode automatically. Press the Video recording button **[📹]** to start recording. You will hear a “beep” sound for confirmation and the status LED in front of the camera will turn red. A red status indicator will appear also on the display. Press the photo button **[📷]** to take photos while the video recording is on. The photos will be saved automatically in JPG format in the resolution of the video. To stop recording, press the video recording button **[📹]** again. Two “beep” sounds will confirm that the recording has been stopped. The videos will be saved automatically in a H.264 compression format.






device serial number      time watermarking      the system's current date

(Recording status indicator in the top left corner, the number of the camera in the bottom left of the video)

Note: The number of the camera will be integrated in the video in the bottom left part of the video stream. To change this number, please use the supplied software. Check the "Use Management Software" chapter for more details.


### 5.3 Photo

Press the photo button  to take photos while the camera is in preview mode. The photos will be saved automatically in JPG format in the resolution that was set using the management software.



### 5.4 Digital Zoom Function



The current time of system

This function is to activate the zoom in preview mode. To Zoom Out, press and hold the menu button  again. (The digital zoom bar appears on the right side of the display)

## 5.5 Record Audio recording



Press the Audio Recording button  to record the audio while the camera is in preview mode. A beep sound will confirm that the recording has started. Press the Audio Recording button  once again to stop the recording. Tfile will be saved automatically in WAV format. A beep sound will confirm that the recording has been stopped.



[Recording indication LED, Recording time, Battery volume]

Note: While recording the audio, the yellow status indication LED will flash and the red dot will flash in the left upper corner of the LCD screen.






## 5.6 IR Night-vision

In preview mode or camera mode, press and hold the "display off" button  to start the IR mode. Press and hold the "display off" button  again to turn off the IR mode. Enter the "IR brightness setting" to set this function to ON/OFF.

Note: Entering the menu, playback or connecting the camera to a power supply will turn off the IR mode.

## 5.7 Playback mode

### 5.7.1 Select Playback File

In preview mode, press the playback button  to enter the playback mode (as shown in figure 1). Press the video recording button  or the photo recording button  to select the file type. Press the playback button  to enter the thumbnail playback mode (as shown in figure 2). Press the menu button  to exit to the preview mode.

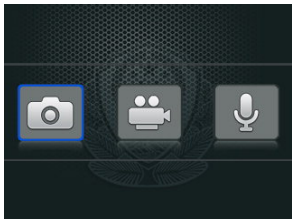









Figure 1







Figure 2

### 5.7.2 Video/Audio File Playback





After entering the audio file playback thumbnails, press the playback button  to enter the full-screen playback mode. Press the playback button  to begin to play the file again. When the audio file is playing, press the playback button  to pause the playback. Press the playback button  to continue to play again. Press the "off" button  to return to thumbnail mode. After the playback of the file has finished, the camera will automatically return to thumbnail playback mode.

Note: When replaying the video files, press the video recording button  to fast backward the video. Press the photo recording button  for fast forwarding the video.

### 5.7.3 Photo Playback

In thumbnail playback mode, after selecting the image files, press the playback button  to enter the full-screen playback mode. Press the camera button  or the photo button  to switch to the last or to the next file. Press the "off" button  to return to thumbnail playback mode.

### 5.7.4 File Search

In thumbnail playback mode, press the "display off" button  to enter the date retrieval setting interface (as shown in figure 3). Press the camera button  and the photo button  to select retrieval time options. Press the "off" button  and the

playback button **【▶】** to set the retrieval time range, and press the menu button **【🏠】** to determine the retrieval. The files that conform to the retrieval time range will have a **☑** logo (as shown in figure 4).

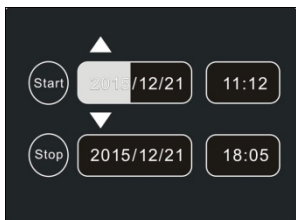


Figure 3



Figure 4

### 5.7.5 Exit the Playback Mode

In full-screen playback mode, press the menu button **【🏠】** or the "display off" button **【🔌】** to return to thumbnail playback mode, press the menu button **【🏠】** again to return to preview mode.

### 5.8 Screen-off

Pressing the 'display off' button **【🔌】** in preview mode will turn the LCD screen off to save power. Press any other function key to restart the LCD screen.

### 5.9 Standby Function

Set the standby time through the management software. In standby mode, the LCD screen will be shut down, the yellow indicator will flash, and the system will enter a standby power-saving mode. Press any function button to exit the power saving mode.

### 5.10 Walkie-talkie

Use the interphone end that is connected to the cable to connect the camera's interphone interface, and connect the other end to the walkie-talkie.

Note: When connecting the digital interphone, it is required to connect the camera first, then connect the digital interphone. 2. For different interphones, please choose the correct walkie-talkie connections.

### 5.11 Trigger Automatic Video Function

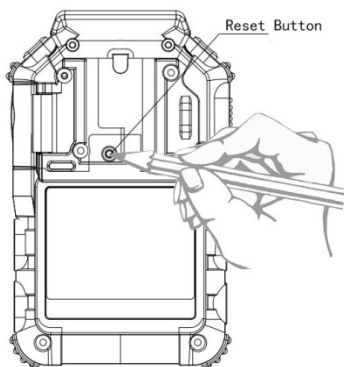
Open this function in the menu. This function will start automatically the video recording when touching the camera.

## 5.12 Set Vibration Function

Open this function in the menu. This function will enable or disable the vibration feedback when you turn on/off the camera.

## 5.13 Reset

If you want to reset the camera, please click as shown in the figure below.



Note: this operation will not cause the file data being lost or damaged.

## 7 Use the management software

### 7.1 Software Introduction

The Camera Document management system (hereinafter referred to as document management system) has high security; tamper-proof evidence documents functions...etc... It can realise such functions as device password modification, time automatic synchronisation, parameters setting of the resolution, user information setting, and important files uploading.

### 7.2 Operation System

The operating system supported by the software is: Windows 7 and Windows 7 above.

### 7.3 Driver Installation

Before using the management software, you need to install the driver first. The installation method is as follows:

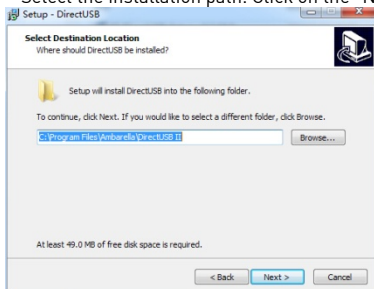
### 7.3.1 Run the Driver

Insert the attached CD-ROM of the camera into the upper drive, open the CD, run the driver and install the software. Click on the "Next" button.



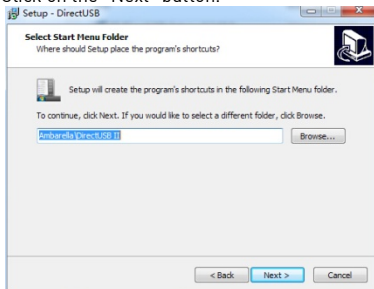
### 7.3.2 Installation Path

Select the installation path. Click on the "Next" button.



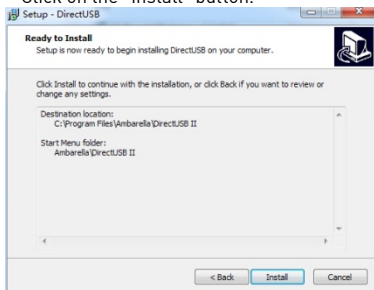
### 7.3.3 Create Shortcut

Click on the "Next" button.



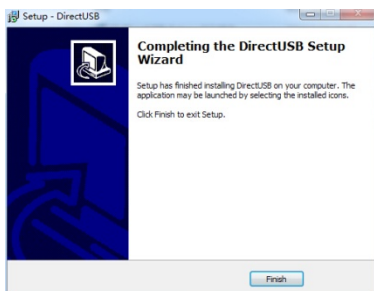
### 7.3.4 Start the Installation

Click on the "Install" button.



### 7.3.5 Complete the Installation

The installation is complete, click on the "Finish" button to end the installation.

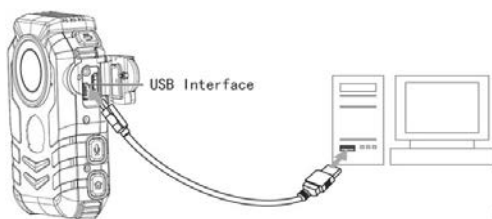


### 7.4 Open the Management Software

In the CD file, click on the management software and run it.

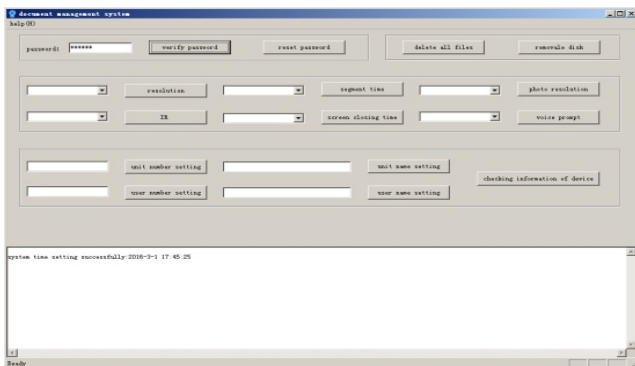
### 7.5 Management Software Instructions

The camera needs to be connected with the upper machine through the USB cable, and the management software needs to be executed. The way to connect is shown in the figure below:



### 7.5.1 Verify the Password

To access the data of the camera or change any settings, you need to login into the camera. To login, please input the password of the camera, click on the "verify password" button. After the tip of "successfully set the system time", the system time of the camera will be automatically synchronised with the upper computer's time.

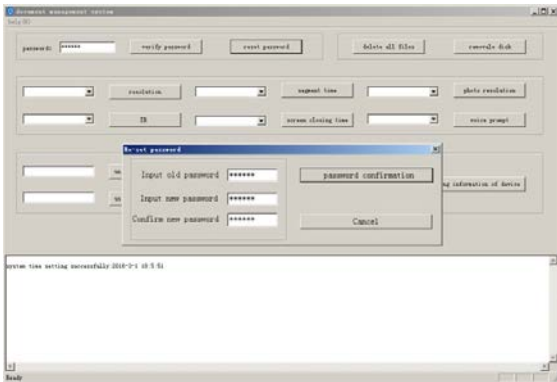


Note: The default password is "123456", please enter the password before executing any management software operation.

### 7.5.2 Re-set the Password

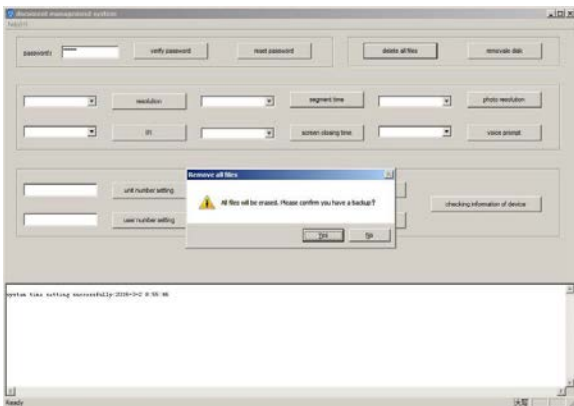
To modify the password, click on the "reset password" button to change the password. Enter the correct former password, input the new password twice and click on "password confirmation". After that a "modified password success" dialogue will appear. The password can only contain up to six figures, and can only consist of numbers or characters.





### 7.5.3 Delete Files

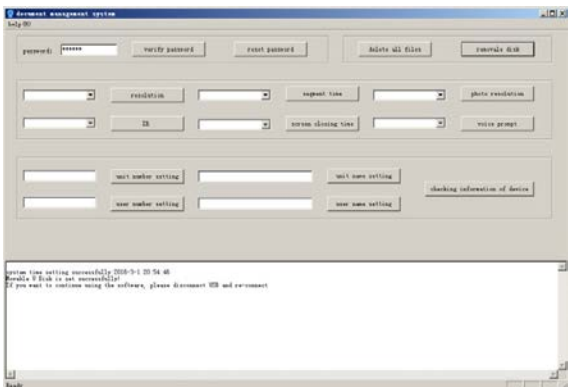
To delete all files on the camera, click on "delete all files", and confirm the appearing dialogue box. Select "yes" to continue the operation. Once again, select "yes" to continue this operation or select "no" to cancel this operation. A confirmation dialogue will appear after that.



Note: After completion of this operation, the file shall be unrecoverable.

### 7.5.4 Movable Disk

To access the data stored on the camera, press the "movable disk" button. The computer will now detect the camera as a standard USB storage device and you will be able to access, copy and delete all video files, audio files and images which are stored on the camera.

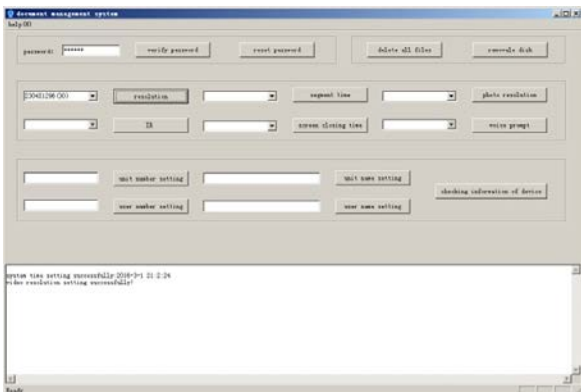


Note: After entering the mobile disk model, the management software cannot change any camera options. If you want to change the settings, please disconnect the USB connection and reconnect again.

### 7.5.5 Recording Resolution

Here you can set the video resolution of the camera.

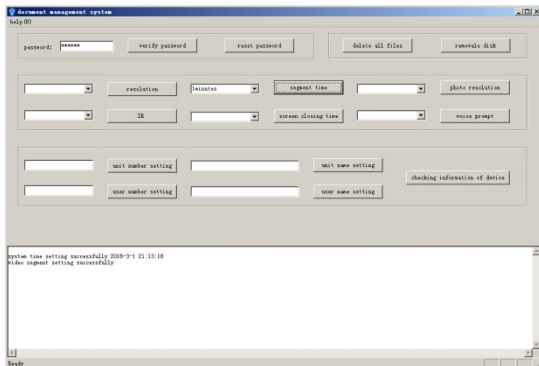
After selecting "2304×1296(30)", "1920×1080(60)", "1920×1080(30)", "1280×720(60)", "1280×720(30)", "848×480(30)", click on "Recording Resolution".



## 7.5.6 Segmented Time

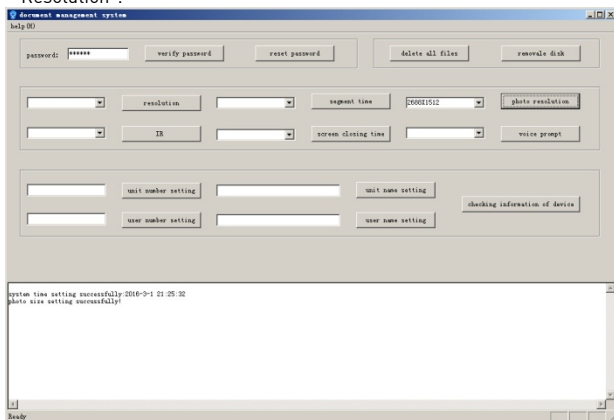
You can set the segmentation time that will be used for video recordings.

After choosing the "5 minutes", "10 minutes", "15 minutes", "30 minutes" and "off", click on "segmented time".



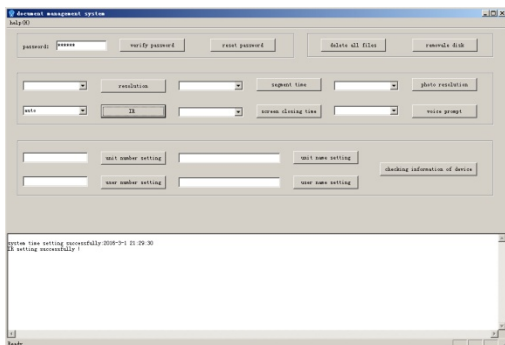
## 7.5.7 Photo Resolution

After choosing "7680X4320", "6016X3384", "5376X3024", "2688X1512", click on "Photo Resolution".



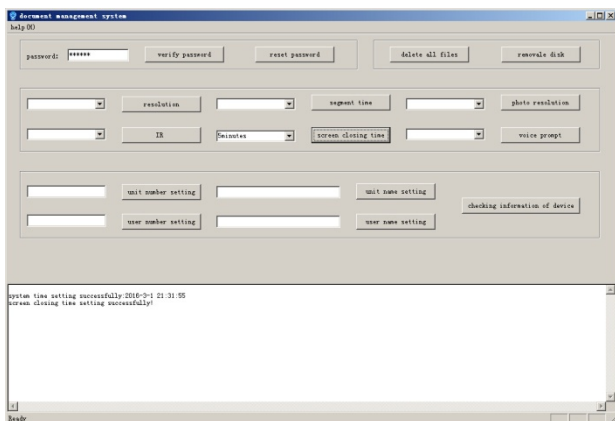
## 7.5.8 IR

You can set the IR mode of the camera. Under manual mode, you need to activate the IR mode with the dedicated button. Under auto mode, the camera will switch automatically to BW IR mode. After choosing between "manual", or "automatic" option, click the "IR" button.



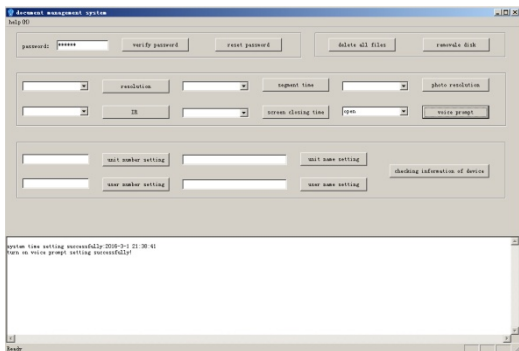
## 7.5.9 Screen-off Time

You can set the screen-off time of the Camera.  
After choosing "1 minute", "5 minutes", click on "screen-off time".



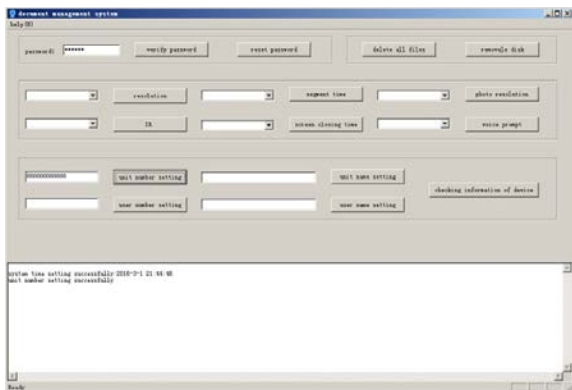
### 7.5.10 Voice Prompt

You can set an intelligent voice prompt. After selecting "on" and "off", click on the "voice prompt".



### 7.5.11 Unit No.

You can set the unit number in the camera. This number will be implemented in the video recording. Enter the unit number and click on the "unit number" button. A dialogue will appear that the unit number has been changed successfully.

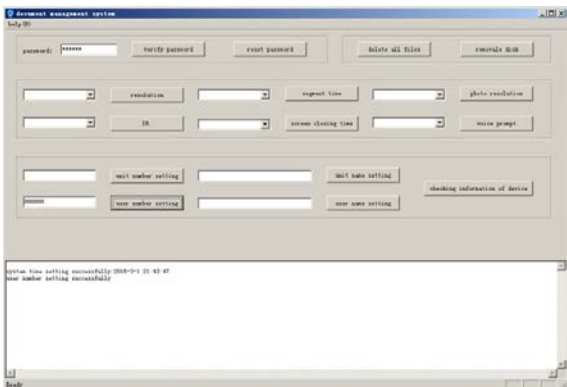


Note: The unit number length cannot be more than 12 digits, and can only consist of numbers or characters.

### 7.5.12 User No.

You can set the user No. to the camera, and superimpose the user information on the video/image file.

Enter the user number and click on the "user number" button. A dialogue will appear that the unit number has been changed successfully.

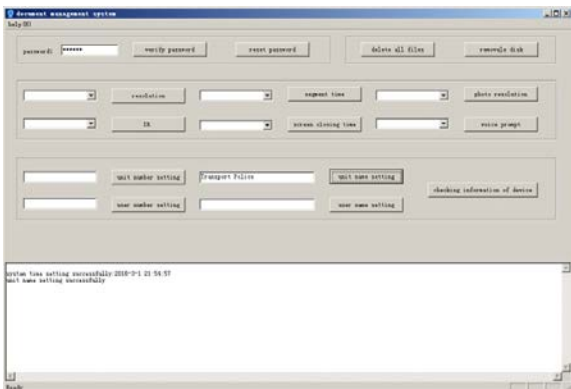


Note: The User No. length cannot exceed 6 digits, and can only consist of numbers or characters.

### 7.5.13 Unit Name

You can set the unit name in the camera.

Enter the unit name and click on the "unit name" button. A dialogue will appear that the unit number has been changed successfully.

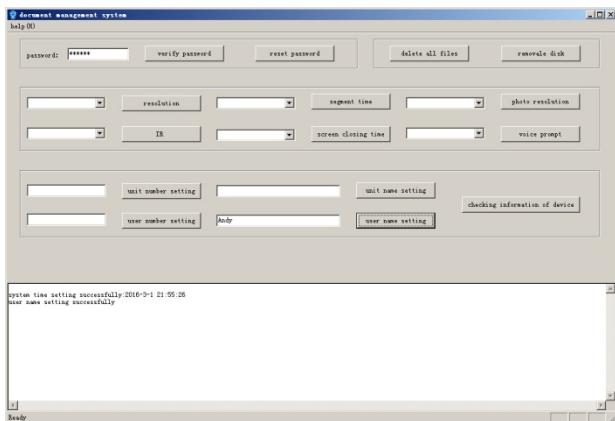


Note: the unit name length can't be more than 32 characters.

### 7.5.14 User Name

You can set the user name in the camera.

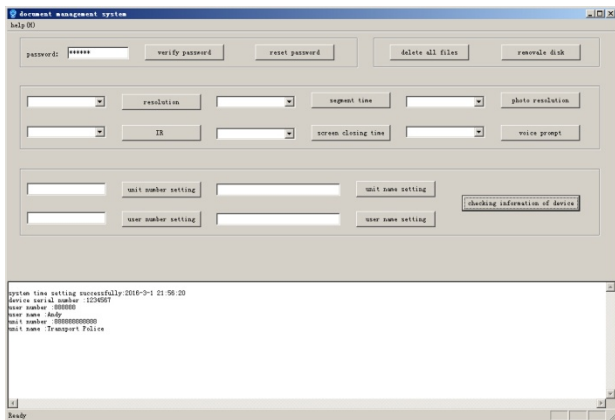
Enter the username and click on the "user name" button. A dialogue will appear that the unit number has been changed successfully.



Note: The user name length cannot be more than 32 characters.

### 7.5.15 Check the Equipment Information

When you click on "check the equipment information", the following information can be displayed: device serial number, user No., user name, unit number, unit name, and other information.



## 8 Battery Recharging

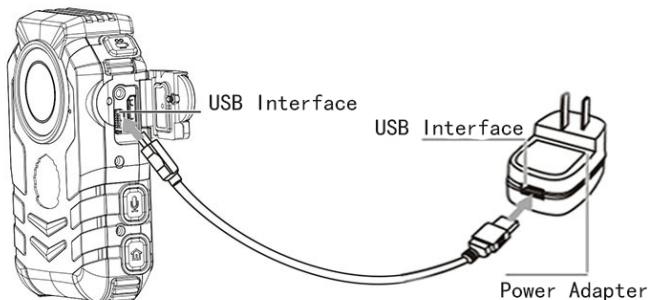
### 8.1 The Battery

The camera has a built-in rechargeable battery. When the battery is insufficient, the camera will inform you by playing a “beep” sound and show the corresponding icons on the screen.

### 8.2 USB Cable Charging

Use the USB cable to connect the camera with a computer. The recorder will startup automatically and enter into charging mode. In the charging process, the status indicator light will show red. After the full charge, the indicator light will turn green. The charging time to full capacity is ca. 9 hours.

Power adapter charge: If you connect the camera with the power adapter, the recorder will startup automatically and enter into charging mode. In the charging process, the status indicator light will show red. After the full charge, the indicator light will turn green. The charging time to full capacity is ca. 8 hours using the power adapter.

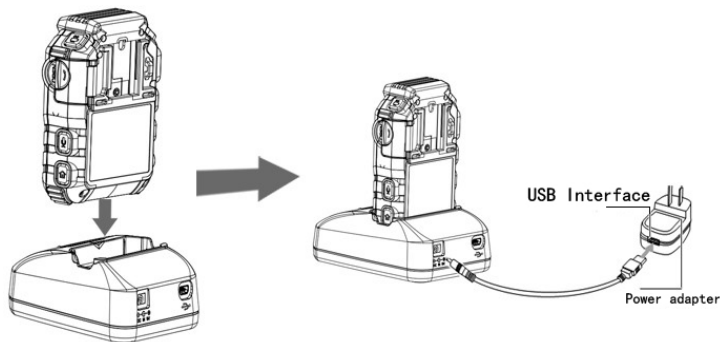


Note: It is recommended to charge in shutdown state.

### 8.3 Multifunctional Charging Base

Use the included power cables to connect the power adapter and the multi-functional base. After connecting the power supply, the multi-function base's power light will be lit up. If you insert the camera into the multi-functional base (as shown in the figure below), the camera status indicates a red light when entering into the charging status. The lights will turn green after being charged. The charging time to full capacity is ca. 8 hours using the power adapter.

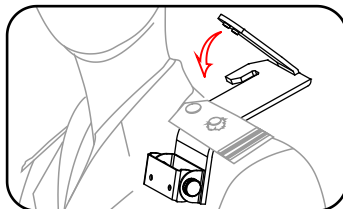
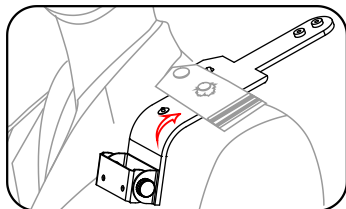




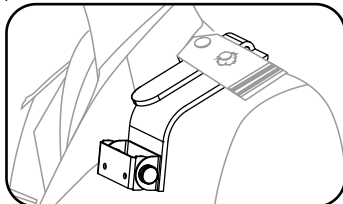
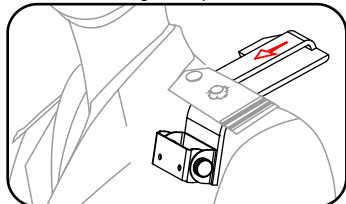
- Note: 1. You can charge the camera after the connection of the multi-functional base with the camera.  
 2. It is recommended to charge in the shutdown state.  
 3. Please charge every three months if the camera is for a long time off, in order to avoid battery failure.

## 9 How to Wear the Shoulder Strap

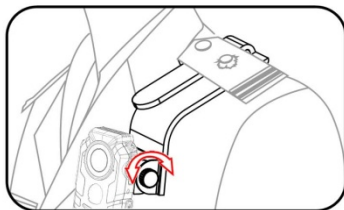
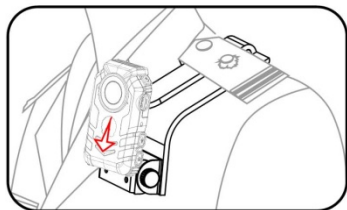
Wearing Method I:



1. Spread the Shoulder Strap and insert it from the bottom to the top of the shoulder mark.
2. When reaching the top of the Shoulder Strap, reverse it back.

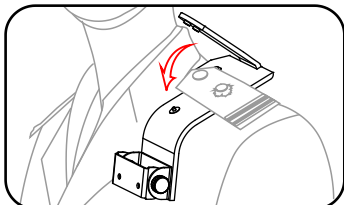
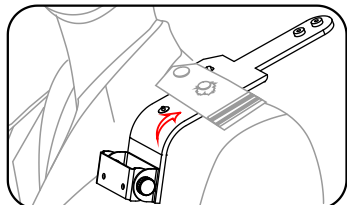


3. Pass the reversed part through the middle tier of the shoulder strap.
4. Press the buckle to fix the straps bayonet in the fixed position of the loops.

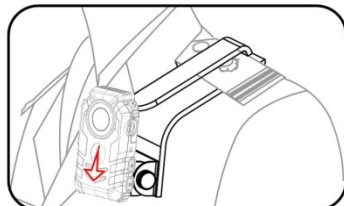
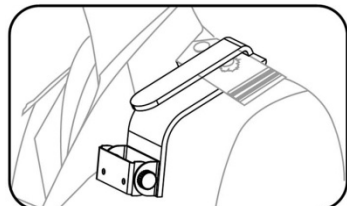


5. Put the back clip of the camera inside the regulator.
6. Turn the regulator to adjust it to the appropriate location.

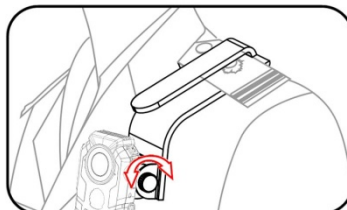
#### Wearing Method II:



1. Open the shoulder straps, insert it under the shoulder board.
2. Reverse the upper straps.



3. Cover the reversed part on the shoulder part and fix the clip mouth.
4. Put the back clip on the built-in button of the adaptor, press the buckle to fix the straps.



5. Turn the regulator to adjust it to the appropriate location.

## SPECIFICATIONS

Image Sensor:	1/3.2" CMOS 4.0 Megapixel
Pixels - Total:	2688 (H) x 1520 (V)
Sensitivity B&W:	0 Lux LED IR on
S/N Ratio:	64.6 dB
Col/B&W:	On/Off/Auto
Lens Focal Length:	2.5 mm
Minimum Object Distance:	0.5 m
Viewing Angle	170°
Iris F-Number:	F 3.2
Lens Drive Type:	Fixed Iris
IR LED:	8 pcs.
Max. IR Distance:	10/15 m (according to scene reflexion)
Wavelength:	850nm
Video Resolution:	Super HD (2304x1296); 1080p (1920x1080); 720p(1280x720); D1 (720x576)
Frame Rate (Max@Resolution):	30fps@SHD, 60fps@FHD, 30fps@FHD, 60fps@HD, 30fps@HD, 30fps@D1
Video Compression:	H.264
Audio Compression:	ADPCM, WAV 2592x1944; (3200x2400, 4608x3456, 5210x3840 by Software upscaling)
Image Size:	upscaling)
Video Text Overlay:	15 character, 1 lines
Digital Zoom:	8x
White Balance:	ATW
DIS: Digital Image Stabilisation:	yes
Access protection:	Password
Audio Inputs:	Built-in Microphone
Audio Outputs:	Built-in Speaker, Phone Jack 2.5mm
SD memory:	32GB built in
Display:	2" LCD (960x240 pixels)
LED Indicator:	Power, Video Recording, Photo, Voice Recording, Replay, Shut off, Intercom, Reset, Stand by
Serial Interface(s):	1x Mini USB; 1x Mini HDMI
Battery:	3200mA/h Lithium Polymer Battery
Regulation:	CE, IP68
Operating Temperature:	-30°C ~ +70°C
Operating Humidity:	15% ~ 85%, non-condensing
Supply Voltage:	5 VDC by USB port
Power Consumption:	8 W
Weight:	0.18 kg
Dimensions (w x h x d):	60 x 93 x 27.5 mm

## EC Declaration of Conformity

GBW-G0116X            4 Megapixel Full HD IP68 Body Worn Camera ICR IR LED

It is hereby certified that the products meet the standards in the following relevant provisions:

EC EMC Directive 2004/108/EC Low

Voltage Directive 2006/95/EC

Applied harmonised standards and technical specifications:

EN 55022: 2010: Class B

EN 55024: 2010

EN 61000-3-2: 2006 + A1:2009 + A2:2009

EN 61000-3-3: 2008

EN 61000-4-2: 2008

EN 61000-4-3: 2010

EN 61000-4-4: 2004 + A1:2010

EN 61000-4-5: 2005

EN 61000-4-6: 2008

EN 61000-4-8:2009

EN 61000-4-11:2004

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Remscheid, 17.01.2012



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