

Monitor 8”

Code No.P9442B/EB

USER MANUAL

Conetent

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Introduction

Dear Customers :

Thank you for your purchasing HAWK series products. This device has been scientifically designed and manufactured to match the highest standards required in the international application related to endoscopic diagnosis and surgery. Before operating this device, please read this operation instruction thoroughly and retain it for future reference. Hawk is always prepared to assist in answering any of your questions or in meeting your specific needs. We also welcome any comments you may have concerning our device. Your comments and questions will receive immediate attention. We can be contacted via phone, mail, Fax and e-mail.

1. SAFETY

1.1 Introduction

Safety is indeed everyone's responsibility. The safe use of this device is largely dependent upon the installer, user, operator, and maintainer. It is imperative to study and familiarize this manual in person before attempting to install, operate, clean, service or adjust this device and any associated accessories. It is paramount to fully understand and follow the instructions in this manual to ensure the safety of the patient or operator. For this reason, the following safety precautions are listed in this manual to emphasize information related to safety or requiring special attention. All users, operators, and maintainers must be familiar with and pay particular attention to all warnings, cautions or other identification symbols incorporated herein.



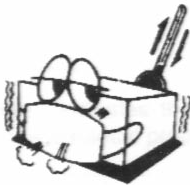
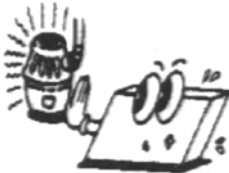


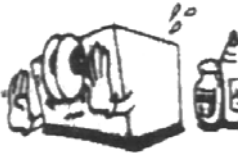

WARNING!
Failure to observe can result in death or serious injury.



CAUTION!

Failure to observe can result in slight injury or damage to the product.

1.2 Environment factors

1.2.1 Avoid the following environments for operation or storage

	<p>Do not expose the device to water vapor; do not operate the device with wet hands.</p>		<p>Do not expose the device to direct sunlight.</p>
	<p>Do not place the device where the temperature changes dramatically. The normal operating temperature is between 10 °C and 40 °C and the humidity is between 30% and 75%.</p>		<p>Keep the device away from heat generating instruments</p>
	<p>Do not place the device in a condition with high humidity or poor ventilation.</p>		<p>Do not let the device knock, vibration or swing.</p>
	<p>Do not place the device near chemical raw materials or expose to flammable and explosive gases.</p>		<p>Proceed carefully, do not let dust especially metal enter into the device.</p>

	<p>Don't disassemble the product or open. We are not responsible for this.</p>		<p>Hold the plug instead of the wire to unplug the cable, AV cable, USB cable, etc.</p>
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1.2.2 Avoid places where the ambient temperature falls below 10°C or exceeds 40°C for normal operation ;

1.2.3 During transportation, shock, violent vibration and humidity shall be avoid ;

1.2.4 Storage environment:

Ambient temperature -25°C ~ +55°C;

Relative humidity not exceeds 90%;

Atmospheric pressure range 500hpa ~ 1060hpa;

None corrosive gas and good indoor ventilation;

1.3 Safety Precautions

1.3.1 Please read the manual carefully before using the product to ensure safe, correct and effective use.

1.3.2 It is strictly forbidden to dismantle the product by person who is not designated by our company.

1.3.3 Please try to avoid using and storing the device under the weather conditions of rain, snow, hail, lightning, dirty, dust, chemicals, etc., which will damage its parts and electronic components, and also reduce the service life of the device.

1.3.4 Please do not use in the environment with flammable and explosive liquid, gas and dust.

1.3.5 As the product contains electronic components, please keep away from heat source, water source and unsafe power source, the exposed metal parts of the product contact with charged objects, which may cause injury to operators and damage the product

1.3.6 When the product is damaged, smoking, emitting odor and other phenomena, please turn off the power immediately, stop using, clean it, wipe it with alcohol, and send it back to our company for maintenance.

- 1.3.7 When the product is working, it is not allowed to plug the memory card, which will damage the product and may cause the loss or damage of the files in the memory card.
- 1.3.8 If the product is not used for a long time, long press the power button to turn off the device, open the battery cover, take out the battery and fully charge it, and then place it in a safety location for storage, and fully charge it every three months.
- 1.3.9 Please select original accessories or accessories approved by our company, in order to avoid the mismatched accessories affecting the use of the product or causing damage to the product. For details, please consult your distributor or our after-sales service department.
- 1.3.10 Please send the waste electronic products and packaging materials to the special recycling point according to the local laws and regulations, so as to facilitate the waste treatment and promote the material recycling. Consult your local distributor or waste disposal agency for more details.
- 1.3.11 Please put the manual in a place that can be easily accessible to operators and maintainers at any time.
- 1.3.12 When charging the battery, please take out the battery in time after charge finished.

2. THE APPLICABLE SCOPE OF THIS PRODUCT


Monitor 8” is one of accessories for Hawk video endoscopes, not to be used as a separate product, it is designed to observe and process images with a video endoscope, by touching the function buttons on the monitor screen, you can take pictures, record videos and play back, the menu interface is simple and unique. There is a micro image storage and processing chip inside, which adopts full digital recording technology. It is far better than the past simulation technology in image display, image processing, image storage and other aspects, and the processed image quality is clearer and more realistic. It has the advantages of simple operation, fast image processing, high storage capacity, direct real-time image display and convenient examination. This product is mainly used to connect with the video endoscope produced by our company to form an image processing system, so as to

observe, record and compare images.

3. INSTRUCTION FOR USE

3.1 This product does not have waterproof performance, please keep it dry, and do not use or store in a humid environment, so as not to damage the internal electronic components.

3.2 This product is strictly prohibited to be used in an environment where the temperature exceeds +10°C~+40°C.

 CAUTION
<ul style="list-style-type: none">● It is strictly forbidden to use this product in a liquid, vapor, flammable and explosive environment and otherwise it will damage the internal precision parts.● This product is strictly prohibited to be used in an environment where the temperature exceeds +10°C~+40°C.

3.3 This product must be used, operated and maintained only by properly trained and qualified persons, or under their direct supervision.

3.4 To modify this product can only be made by hawk service technicians or other authorized person.

3.5 Customer maintenance of this product can only be carried out as described in this manual. Any additional maintenance can only be performed by HAWK service technicians or HAWK authorized personnel.

3.6 The manufacturer is only responsible for the safety, reliability and performance of products that meeting the following requirements:

·Electrical installation is carried out in accordance with the regulations described in this manual;

·This device installed, used, operated and maintained is according to this manual.

3.7 Unauthorized modification of this device is not allowed. Such modification will cause the user to lose the warranty rights, and the manufacturer is not responsible for it.

- 3.8 This product must be used in conjunction with the video endoscope produced by HAWK, and must not be used for other brands of products.
- 3.9 When this product is working, it is not allowed to unplug and plug the cables and cards, so as not to damage the internal components or the files in the memory card.
- 3.10 The product must be cleaned immediately after use. It can be wiped with a damp soft cloth or cotton to prevent the dirt from hardening, corroding and deforming, which will affect its external appearance and performance.
- 3.11 After the product is cleaned, wipe, disinfect and air dry, keep it dry, and store it in the designated location in the packaging box.
- 3.12 Do not store this product under pressure, impact, or bumps to avoid deformation and damage.
- 3.13 If the product will not be used for a long time, turn off the power switch, open the battery cover, take out the battery and fully charge it, then store it in a safety location, and fully charge it every three months.
- 3.14 In case of a crash, please turn off the power switch first, and then use a thin needle to insert from the RESET button on the back and press the reset button to reset, or press the power button for more than 10 seconds, and then restart it.
- 3.15 When using a brand new SD card, please insert the memory card into the SD card socket of this product, and select the format option in the menu to operate. Each SD card only needs to be formatted once and can be reused. If the SD card is formatted on other devices other than this product, please repeat the above formatting operation again.

4. PRODUCT COMPOSITION

The composition and structure of the product are shown in figures 1 and 2

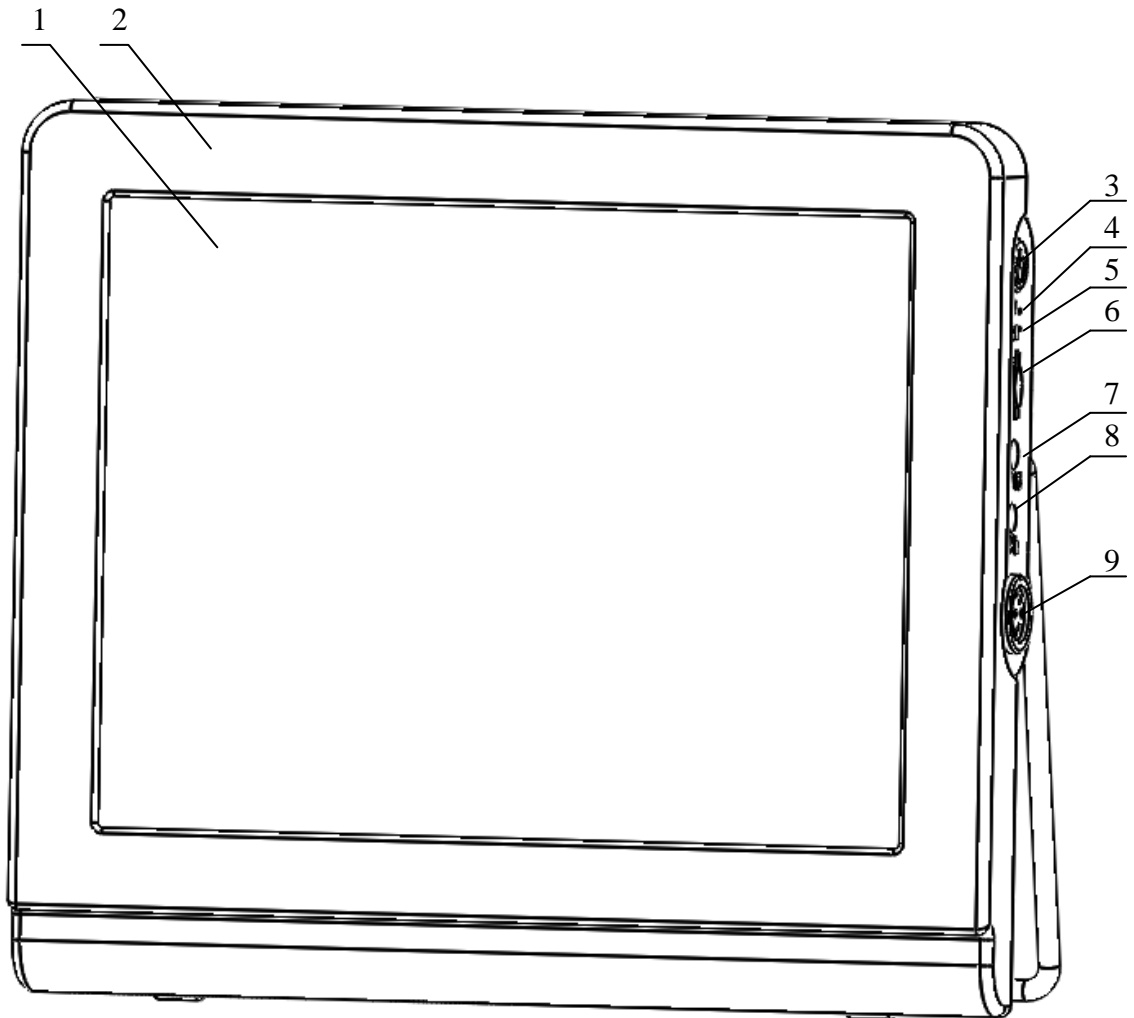


Figure1: Front

- | | | | | |
|------------|------------------------|-----------------------|-----------------------|---------------------|
| 1: Screen | 2: Housing | 3: Switch | 4: Charging indicator | 5: Power Indication |
| 6: SD Slot | 7: AV output connector | 8: DC input connector | 9: Adaptor | |

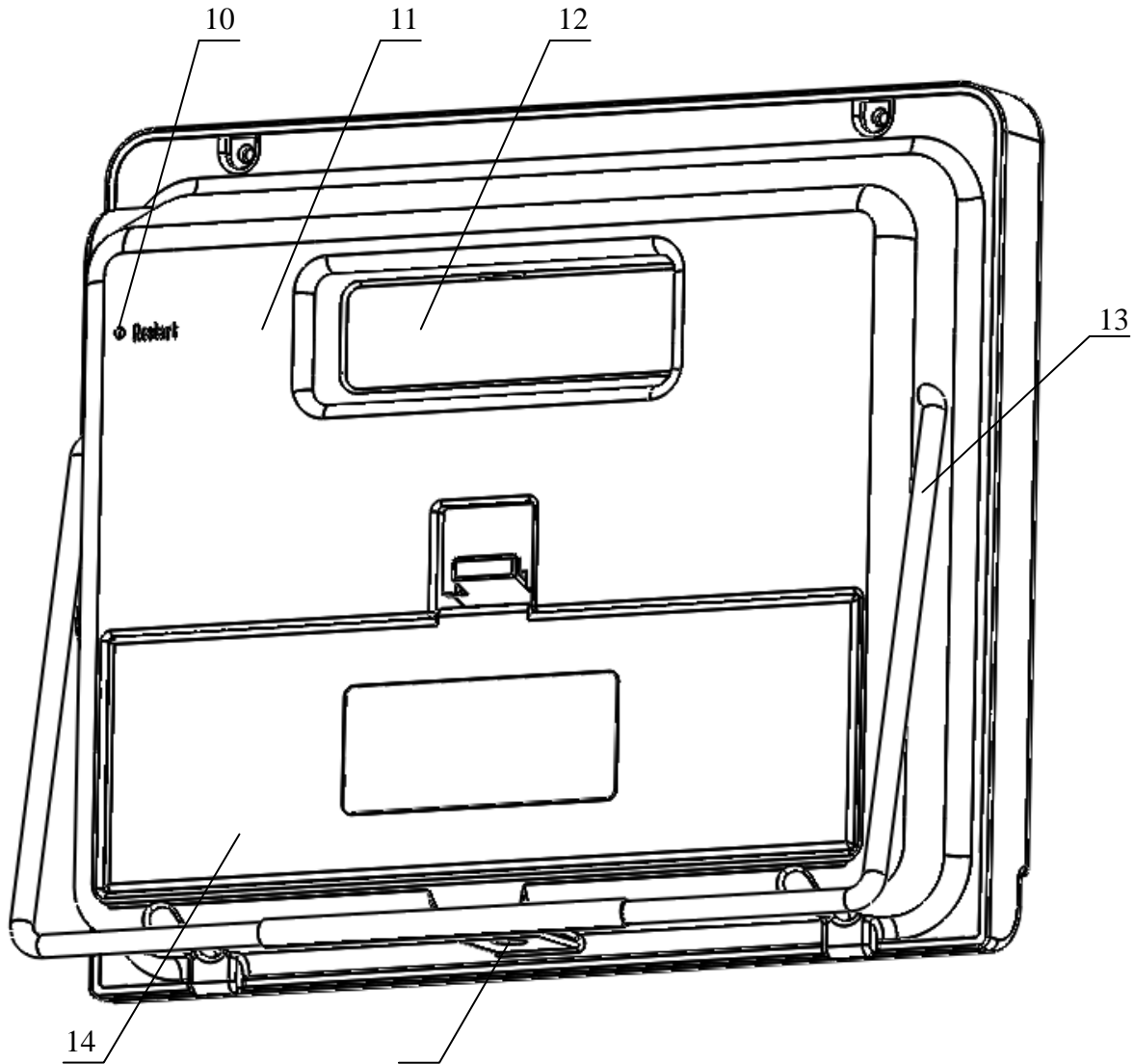


Figure 2 Back

- 10: Reset button 11: Housing 12: Handle
13: Support 14: Battery Cover 15: Support Connection

Definition:

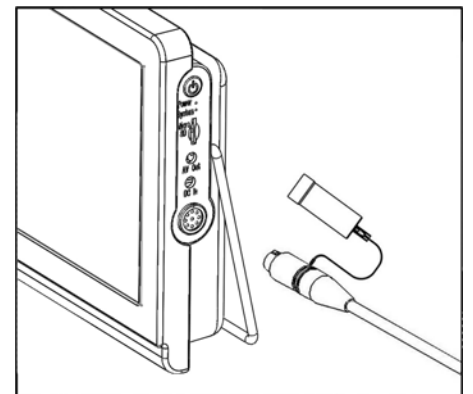
1. Screen: Color LCD screen is used to display image picture and carry out touch operation.
2. Housing (front cover): Used to install display screens and circuit boards
3. Switch: Press for a long time can turn on/off, press for a short time after booting to enter/exit the album, press for more than 10 seconds to restore the menu default settings.
4. Charging indicator: Indicator on means charging.
5. Power Indication: Indicator on means the monitor is working

6. SD Slot: Insert SD card. For the SD card that is used for the first time or formatted by other equipment, please insert the SD card into the socket and select the format operation in the setting menu of this product. The SD card can be used to store photos and video files, we recommend use 64G Micro SD card.
7. AV output connector: Connect with AV cable to output CVBS signal
8. DC input connector: Used to connect a 5V DC charger to charge the lithium battery in the device.
9. Adaptor: Used to connect portable video scopes or rigid endoscope camera head.
10. Reset button: For reset.
11. Housing (back cover): Used to install bracket, circuit board, lithium battery, battery cover.
12. Handle: Hold monitor 8"
13. Support: As holder and can adjust viewpoint.
14. Battery Cover: Open the battery cover to install the 18650 rechargeable lithium battery in the positive and negative direction.
15. Support connection: Used to connect accessories such as tripod.

5. OPERATION

5.1 Connecting LCD Screen to Video Endoscope

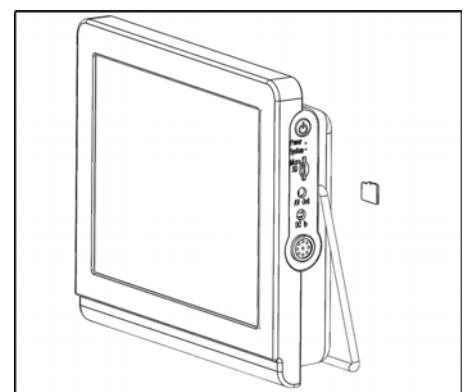
Remove the dust cover on the 14 core plug at one end of the connecting line, and then align the plug with the red dot of the metal connector socket on the monitor 8", and insert it




gently. When removing the plug, hold the plug part instead of the wire. At the other end of the connecting wire, align the red dot with the red dot, insert it into the LCD socket of the video endoscope and tighten and fix it firmly.

5.2 Inserting SD Card

With the notch side of the memory card facing up and the contact side facing inward, carefully push the memory card into the slot until the sound of "click" is heard, and the memory





card is completely stuck in the slot. After power on, the logo of the memory card and the remaining capacity / total capacity will be displayed at the bottom left of the screen. At this time, you can take photos or record videos and store them in the memory card. If you want to take out the memory card, after shutting down, gently push the memory card inward, the memory card will pop up, and then you can pull it out.







	NOTE
<ul style="list-style-type: none"> ● It is necessary to load the memory card before use, so as to ensure the effective photographing and video recording. ● The memory card that is used for the first time or formatted by other devices needs to be inserted into the memory card slot of this product. It can be used normally after the format operation in the menu. The information in the card will be cleared by the format operation. Please backup it in time before operation. ● Do not plug the memory card and the connecting cable when the power is turned on, otherwise the video endoscope and the memory card or the stored files will be damaged! ● After the memory card is inserted into the slot, the memory card logo and capacity information will be displayed on the bottom left of the screen. ● If the memory card is full, it no longer saves at this time. ● If it is sudden power failure during use, the current photo taking and video recording files will not be saved. ● If the video playback time on other devices is abnormal, please change the player to 4:3 ratio, or use the video processing software to change the video to 4:3 ratio. 	

5.3 Booting

Press the power button on the right side of the product for 3 seconds, and the green work indicator light will be on. After the boot screen has finished displaying, the real-time screen can be used

5.4 Means of icon

Icon	Definition
	SD card logo, SD card was be insert
	Show electricity capacity of battery. The power is fully charged in three grids, 2 / 3 in two grids, 1 / 3 in one grid, no power in no

	grid, and charging in lightning
	Photograph button, click to take pictures
	Record button, click to start/end recording
	Menu button, click to enter the parameter setting function
	Album/Video play button, click to enter the album or play video
	Back button, click to enter album / play video
	Delete button, delete photos / videos from album

5.5 Image display: After turn on the power, the logo will shows on the screen and green indicator in the right is light.

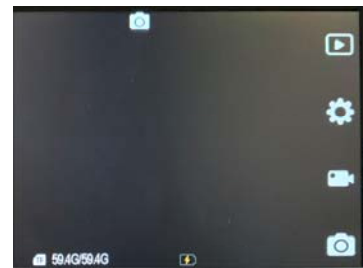
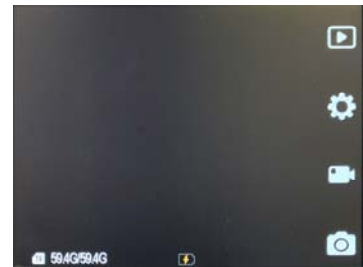
This process takes a few seconds, please wait patiently. After it turn on, entering the preview mode to show the current image. If





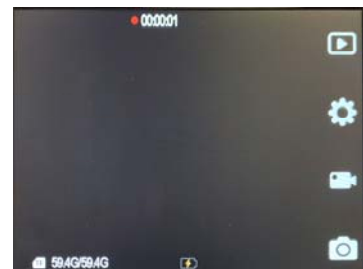
shows on the lower left of screen, it can take photos and videos. Date and time will show on the upper right, video time and capacity show on the lower right, electricity capacity and





show on the lower left.

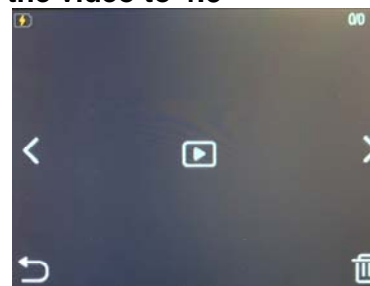


5.6 Take photos: Touch  can take picture and  will show on the upper left of screen. After about one second, the icon disappears, the photo files will be saved automatically. The photo format is JPG. .



5.7 Take videos: Touch  can take videos and  will show on the upper left of screen and flashing. Touch the button again to stop take video, the video files will be saved automatically. The video format is MP4.

(If the video has an abnormal ratio when playing on other devices, please modify the player to 4:3 ratio, or use video processing software to modify the video to 4:3 ratio.)






5.8 Photo album:

Touch the album button  in preview mode enter

After that, the photos and videos in the memory card will be displayed,

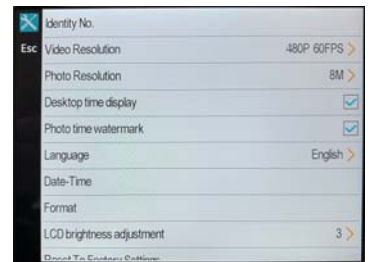
You can click the left and right arrow keys to switch.

Video files can be clicked video play button  enter the play interface. Click the delete button  can delete photo or video. Click the return button  can return to review mode

5.9 Main menu: In the review mode you can click the

main menu button  enter the main

menu, and click the options to modify parameters



5.9.1 Identity No. setting: click to select the value to be modified, slide up and down to increase/decrease the value, after all the values are set, click the CONFIRM button to save and return to the menu interface.

5.9.2 Video Resolution: the resolution of the video file can be set.

5.9.3 Photo Resolution: the resolution of the photo file can be set.

5.9.4 Desktop time display: after checking, the system time can be displayed on the upper left of the desktop.

5.9.5 Photo time watermark: after checking, the system time can be recorded and displayed in the photo/video file.

5.9.6 Language: the language can be set.

5.9.7 Date – Time: Select the number to be modified, slide up and down to increase/decrease the value, after all the values are modified, click the CONFIRM button to save and return to the menu.

5.9.8 Format: click and select confirmation to format the memory card. The format operation will empty the memory card content, please backup in time. For the memory card that is used for the first time or formatted by other device, please insert it into the device and format it before use.

5.9.9 LCD brightness adjustment: adjust the brightness of the screen.

5.9.10 Restore factory settings: reset the parameters in the menu to the default parameters,

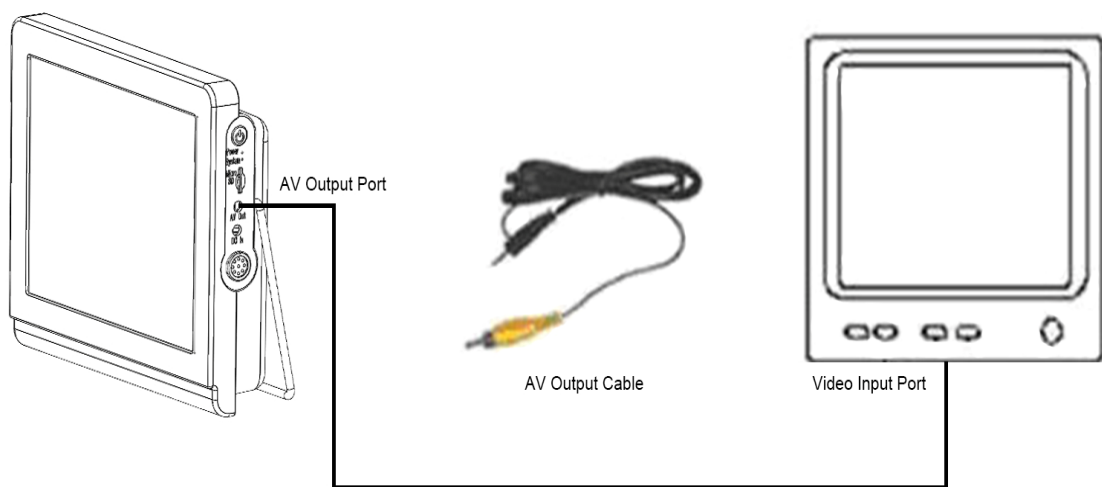
the language will not be reset.

5.9.11 Firmware version: you can view the current system version information.

5.10 Naming rules: Folders are divided into two categories, named by video and photo.

For example, if a folder named "000220200110_172609A" that means its number is 0002, photo on 2020.01.10 and Suffix is the identification number.

5.11 Image output: Connect the plug of AV cable to AV output port of monitor and connect another plug to TV or other monitors. Then the image will be displayed on TV or other monitors, meanwhile no image will be displayed on the screen which the screen is black.




5.12 Disassemble: After observing, press and hold the power key for 3 seconds to turn off the device, unplug the AV output line and take out the memory card. Hold the Monitor 8" and gently pull it off.

6. CLEANING AND DISINFECTION

6.1 After using, please confirm all power has been disconnected and please clean and disinfect this product with alcohol immediately.

6.2 To keep the device clean, please gently wipe the device with a soft wet cloth (gauze) soaked in warm water or added with cleaning detergent, at least once a month, but the

liquid must be prevented from penetrating into the device.

	CAUTION
Forbidden to soak the monitor 8" and its accessories (such as connecting wire, charge), otherwise, the product will be damaged!	

6.3 Please wipe gently to the monitor screen to avoid scratching the screen and affecting the observation.

6.4 Do not use any solution except alcohol and detergent to prevent damage to device shell and monitor screen, and do not use any polishes.

6.5 The environment of cleaning and disinfecting the products should be dried will and at room temperature.

6.6 After drying, put the product into a safety container and put it in a ventilated, cool and non volatile liquid storage place. Please take out the battery if it is not used for a long time

7. FUNCTIONAL CHECK

Before use, check the positive (+) and negative (-) directions of the battery installation, whether the device is connected correctly, whether the output is proper, and whether the button functions are proper.

8. GENERAL MALFUNCTION AND SOLUTION

8.1 No image display:

8.1.1 Please check if the power switch turned on or off (turn on power switch.)

8.1.2 Please check if the positive and negative of the battery are correctly installed and charged (please check the positive and negative directions and fully charge them).

8.1.3 Please check if the video endoscope is connected (please plug in the connecting cable).

8.2 The image is showed on LCD, but cannot take picture and capture video and other operations:

8.2.1 Please check if the SD card is inserted or not (unplug and reinsert).

8.2.2 Please check if the SD card is full or damaged.

8.2.3 Please check if the SD card is used for the first time or has been formatted by other devices, and is not formatted on this product.

8.2.4 Please check if the touch screen is out of order (if not, please contact our company for repair).

8.3 No output from other external monitors:

8.3.1 Please check if AV output line is not connected properly (unplug and reinsert).

8.3.2 Please check if the power supply of other external monitors is connected and if the power switch is on (please check)

8.3.3 Please check if the power supply of the monitor 8” is connected (turn on the power switch and press the standby button).

8.4 Crash:

If there is a crash, please turn off the power switch first, and then use a thin needle to insert it from the reset hole on the back and press the reset button to reset, and then restart the machine.

If the product is breakdown and still cannot be used after the above treatment, please give it to the service department of Hawk Company and abide by the following rules:

- Before packaging, monitor 8” should be cleaned and disinfected.
- The monitor 8” is a precise instrument and device. In order to avoid damage during transportation, please use hard packing and take aseismatic measures.
- Inform the fault contents of the monitor 8” in written form, if you have any other question do not hesitate to contact HAKW’s service department.

9. TECHNICAL SPECIFICATIONS

1. Display Resolution: 1024×768
2. Size: 198×173×44 mm

3. SD Card type: normal SD card
4. Capacity of SD card: max. support 64GB SD card. (recommended)
5. Adaptor : 14 pins
6. AV Output connector: 3 pins Φ 3.5mm A
7. Battery: 3.6V/2600mAh (rechargeable lithium battery)
8. Continuing working time: ≥ 4 hours
9. Application environment : $+10^{\circ}\text{C} \leq \text{Temperature} \leq +40^{\circ}\text{C}$ relative humidity $\leq 75\%$

10. ACCESSOIRES

1. Monitor 8”
2. Cable for monitor (optional part)
3. SD Card
4. SD card reader
4. Certificate
5. Instruction manual
6. AV output cable

11. ENVIRONMENTAL PROTECTION

Due to the presence of special substances in the device, incorrect use or disposal of the device will cause harm and adverse effects on the surrounding environment and human health. Products must not be treated as ordinary household waste. It should be collected separately and handled by the environmental protection department

12. CUSTOMER SERVICE

1. According to the spirit of “customer first, quality first”, our company implement ISO9000 standard quality management and provide quality tracking service for products.
2. Since the date of sale, this product will be guaranteed within one year under normal

condition (except for line, card and human damage).

3. During the warranty period, we are responsible for the repair and maintenance of the fault caused by improper use or poor maintenance and our company only charge the cost of replacement parts and mailing fee.

4. Beyond the warranty period, the company implements lifelong maintenance on the products and charges according to the situation.

IF USERS NEED TO REPAIR BY THEMSELVES, THEY MUST BE TRAINED BY OUR COMPANY AND ISSUED WITH SPECIAL MAINTENANCE LICENSE AND MAINTENANCE MATERIALS. DISASSEMBLY AND REPAIR BY THE CUSTOMER ITSELF IS NOT PERMITTED, IF THIS LEAD TO SOME DAMAGE, THE CUSTOMER SHOULD TAKE RESPONSIBILITY OF IT.

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