EICKVIEW COMPACT
4-IN-1 ENDOSCOPY MONITOR

USER MANUAL

Item no. 306106
Version 1, 06/2023

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CONTENT

1. PRODUCT INTRODUCTION

1.1 Working Principle

The device can be extended to the lesion after being connected to the endoscope by the optical coupler, and it can accurately illuminate the lesion. The camera randomly tracks and records the lesion tissue irradiated by the endoscope in real time, and sends it to the image processing system with an electrical signal, which is then processed and transmitted to the display or external image monitor for image display without distortion.

1.2 Classification

1. Classified by type of Electrical shock protection: Class I Equipment;
2. Classified by degree of electrical shock protection: BF type application part;
   Equipment that cannot be used in the presence of flammable anesthetic gas mixed with air or in the presence of flammable anesthetic gas mixed with oxygen or nitrous oxide;
3. Classified by operation mode: continuous operation;
4. Classified by degree of protection against fluid ingress: IPX0 for the whole machine, IPX7 for the coupler and camera head.

2. PRODUCT PERFORMANCE, MAIN STRUCTURAL COMPOSITION, SCOPE OF APPLICATION

2.1 Product Performance

1. Image has horizontal resolution.
2. Camera head comes with IPX7 water proof function.
3. Coulper connection: It connect with the standard rigid endoscope and is locked after mating. It is positioned reliably after locking and easy to insert and disassemble, well sealed after locking. The coupler comes with IPX7 waterproof function.
4. Can adjust the image for the following options: white balance, freezing, color, brightness adjustment, menu, endoscope mode, backlight, exposure, DNR, image, system. The camera head comes with freezing and white balance remote control. Image recording function included.

2.2 Main structural Composition

This product consists of image processing system, display, cold light source, camera, optical bayonet, power adapter, and cable.

2.3 Scope of Application

This product is used in the operating room of a medical institution. It is connected to an optical endoscope in endoscopic diagnosis or treatment to capture, process, store and transmit images of the field of view area of the human body cavity observed by the endoscope to a display or monitor, and to provide an illumination source for the endoscope.

3. CONTRAINDICATIONS, PRECAUTIONS, WARNINGS

3.1 Contraindications

No

3.2 Precautions

Please carefully read the security warning and precaution provided in this manual to ensure safe use of the endoscope camera and light source integrated.

1. Please use a separate power outlet and make sure the ground terminal is connected reliably. Please insert the power plug of the camera system completely into the power outlet. Do not use a power source other than the specified voltage. Do not plug or unplug the power cord with wet hands.
2. When use this device, keep it away from producing or potential electromagnetic interference equipment, such as X-ray machines, microwave multi-function therapeutic equipment and other equipment.
3. Replaceable parts and materials must use the manufacturer and model specified by our company or provided by our company. If use other parts or material, the minimum safety will be reduced, such as optical interfaces, cameras, signal cables.
4. This equipment cannot be used with multiple devices connected to the power supply to avoid potential safety hazards caused by the leakage current superposition.
5. This equipment should avoid be used with multiple devices in the same room, preferably in a separate room, so as to avoid electromagnetic interference from other devices. It should be connected to the three holes ~ 220 V / 10 A power socket with protective ground.
6. The endoscope and light source integrated should be used in a clean and ventilated room. The environment requires heat insulation, moisture resistance, dust prevention, and avoid proximity to chemicals, toxic gases and corrosive items.
7. When it is powered on, all wires are strictly forbidden to be plugged in and pulled out, and all movement and disassembly should be performed under power-off conditions. Keep all wires connected firmly and avoid pulling, bending, rotating and twisting.
8. When the endoscope camera and light source integrated is not in use, turn off the power and cover it with a cloth. If the device needs to be restarted, it must be powered on after an interval of 3 minutes. Frequent power on / off is forbiddened.
9. The EickView Compact 4-in-1 Endoscopy Monitor can be connected with the endoscopes and cold light source equipment.
10. When using the EickView Compact 4-in-1 Endoscopy Monitor with other medical electrical equipment, potential safety hazards due to common use should be avoided.
11. This equipment can be used together with other medical electrical equipment. It is not subject to external electromagnetic interference during use and will not interfere with the common use of other equipment.
12. If the endoscope equipment is damaged (such as broken or fractured, etc.), please replace the endoscope equipment in time, otherwise the endoscope will likely overheat and other phenomena.
13. The light emitting part may exceed 41 °C, when used together with the endoscope, the brightness of the light emitted should be reduced appropriately and avoid irradiating the same part for a long time when operating, so as not to cause burns to the patient.
14. Do not look directly into the light emitting port to avoid permanent damage to the eye. Do not place items with low ignition point, such as paper, plastic, cloth, etc., in front of the light outlet to avoid overheating and burning.
15. If you need to replace the bulb, please contact the supplier, do not replace it yourself. Do not look directly into the light outlet with the naked eye to avoid permanent eye damage. Do not disassemble the equipment to check the bulb without permission to avoid high temperature burns.

3.3 Warnings

Statement: For users who have the endoscope and light source integrated maintenance technology, our company can provide circuit diagrams, component lists, and the necessary information for qualified technicians to repair the device.

3.4 Electromagnetic Compatibility

1. The manual of EickView Compact 4-in-1 Endoscopy Monitor special instructions on electromagnetic combustibility and provides electromagnetic compatibility information for installation and use instructions.
2. Portable and mobile RF communications equipment may affect the description of medical electrical equipment
3. Portable and mobile RF communications equipment may affect the description of medical electrical equipment.

   The EickView Compact 4-in-1 Endoscopy Monitor with the cords, which meet the requirements of YY0505-2012 36.202. The following is the manufacturer and mode of the cords.

No.	Name	Specification
1	Power cord	C3-10

   Warning: The use of accessories, transducers and cables of the EickView Compact 4-in-1 Endoscopy Monitor that is not manufactured or authorized by our company may result in the increase the emit and decrease the immunity.
4. ***Warning:*** The EickView Compact 4-in-1 Endoscopy Monitor should not be used close to or stacked with other devices. If it must be used close to or stacked with other devices, it should be observed and verified to work normal under the configuration used.
5. Basic performance features: with image display
6. Explanation of electromagnetic immunity

Guidance and manufacturer's statement – Electromagnetic emission		
EickView Compact 4-in-1 Endoscopy Monitor is used in the following specified electromagnetic environment, the purchaser and user should ensure that it is used in such electromagnetic environment		
Emission Test	Compliance	Electromagnetic Environment – Guide
GB4824 EF Emission	1set	The EickView Compact 4-in-1 Endoscopy Monitor uses RF energy only for its internal functions. Therefore, its RF emissions are low and the potential for interference with nearby electronic equipment is minimal.
GB4824 EF Emission	A Class	The EickView Compact 4-in-1 Endoscopy Monitor is suitable for use in non-domestic and all facilities not directly connected to the domestic residential public low-voltage supply network.
GB17625.1 Harmonic emission	Not applicable	
GB17625.2 Voltage Fluctuation / Flashing Emission	Not applicable	

7. Explanation of electromagnetic immunity

Guidance and manufacturer's statement – Electromagnetic immunity			
EickView Compact 4-in-1 Endoscopy Monitor is expected to be used in the following specified electromagnetic environment, the user should ensure the device is used in this electromagnetic environment			
Immunity Test	**IEC 60601 Test Level**	**Match Level**	**Electromagnetic Environment – Guide**
Electrostatic Discharge (ESD) **GB/T 17626.2**	± 6 kV Contact Discharge ± 8 kV Air discharge	± 6 kV Contact Discharge ± 8 kV Air Discharge	The ground should be wood, concrete or tiles, if the ground is covered with synthetic material, the relative humidity should be at least 30 %.
Electrical Fast Transient **GB/T 17626.4**	± 2 kV For the Power Cord ± 1 kV For Input / Output Lines	± 2 kV For the Power Cord	The network power supply should have the quality applied in typical commercial or hospital environment.
Electrical Surge **GB/T 17626.5**	± 1 kV Differential Mode Voltage ± 2 kV Common Mode Voltage	± 1 kV Differential Mode Voltage ± 2 kV Common Mode Voltage	The network power supply should have the quality applied in typical commercial or hospital environment.
Voltage sag, short interrupt and change in power input line **GB/T 17626.11**	<5 % U_T, lasts 0.5 Circles (>95 % Sag in U_T) 40 % U_T, lasts 5 circles (60 % Sag in U_T) 70 % U_T, lasts 25 Circles (30 % Sag in U_T) <5 % U_T, lasts 5 s (>95 % Sag in U_T)	<5 % U_T, lasts 0.5 Circles (>95 % Sag in U_T) 40 % U_T, lasts 5 circles (60 % Sag in U_T) 70 % U_T, lasts 25 Circles (30 % Sag in U_T) <5 % U_T, lasts 5 s (>95 % Sag in U_T)	The network power supply should have the quality applied in typical commercial or hospital environment. If users want a continuous operation during power interruption, the uninterruptible power or battery is recommended.
Frequency Magnetic Field (50/60 Hz) **GB/T 17626.8**	3 A/m	3 A/m	The electromagnetic field should have the frequency characteristics applied in typical commercial or hospital environment.
Note: U_T refers to the AC voltage before applying the test voltage.			

8. Explanation of electromagnetic immunity

Guidance and manufacturer's statement – Electromagnetic immunity			
EickView Compact 4-in-1 Endoscopy Monitor is used in the following specified electromagnetic environment, the purchaser and user should ensure that it is used in such electromagnetic environment			
Immunity Test	**Immunity Test**	**Immunity Test**	**Electromagnetic Environment – Guide**
RF Transmit GB/T 17625.6 RF Radiation GB/T 17626.3	RF Transmit GB/T 17625.6 RF Radiation GB/T 17626.3	RF Transmit GB/T 17625.6 RF Radiation GB/T 17626.3	Portable and mobile RF communication equipment as well as cables should not be used more closely to any parts of EickView Compact 4-in-1 Endoscopy Monitor than the recommended isolation distance. The distance should be calculated by the formula corresponding to the transmitter frequency. **Recommended isolation distance:** $d = 1.2\sqrt{P}$ $d = 1.2\sqrt{P}$ 80 MHz to 800 MHz $d = 2.3\sqrt{P}$ 800 MHz to 2.5 GHz Where *P* is the maximum output rated power provided by the transmitter manufacturer in watts and d is the recommended isolation distance in meters.[1] The field strength of the fixed RF transmitter is determined by the investigation [2] of the electromagnetic field, which should be lower in each frequency range than the coincidence level. Interference may occur near the device marking the following symbols. 
[1] At frequencies of 80 MHz and 800 MHz, the formula in the higher frequency band is used. [2] These guidelines may not be suitable for all situations where electromagnetic transmission is affected by the absorption and reflection of buildings, objects and humans.			
a) Fixed field strength, such as: wireless (cellular / cordless) telephones and terrestrial mobile radio base stations, amateur radio, AM (AM) and FM (FM) radio and television broadcasts, the field strength in theory can not be accurately Predicted. If the field strength of the AGM HD2 endoscope camera and light source integrated is higher than the RF compliance level given above, the device should be observed to verify its normal operation. If abnormal performance is observed, the supplement may be necessary, such as re-positioning or positioning the EickView Compact 4-in-1 Endoscopy Monitor. b) In the whole frequency range from 150 kHz to 80 MHz, the field strength should be less than 3 V/m.			

9. Recommended isolation distance between portable and mobile RF communication equipment and AGM HD2 endoscope camera and light source integrated.

Recommended isolation distance between portable and mobile RF communication equipment and endoscopy camera			
The EickView Compact 4-in-1 Endoscopy Monitor is used in an electromagnetic environment with controlled radio frequency radiation harassment. Depending on the maximum output power of the communication equipment, the purchaser or user of the EickView Compact 4-in-1 Endoscopy Monitor can prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communication equipment (transmitter) and the EickView Compact 4-in-1 Endoscopy Monitor.			
Max ouput power of the transmitter (W)	**Isolation distance for transmitters with different frequencies/m**		
	150 kHz ~ 80 MHz $d = 1.2 \sqrt{P}$	80 MHz ~ 800 MHz $d = 1.2 \sqrt{P}$	800 MHz ~ 2.5 GHz $d = 2.3 \sqrt{P}$
0.01	0.12	0.12	0.23
0.1	0.38	0.38	0.73
1	1.2	1.2	2.3
10	3.8	3.8	7.3
100	12	12	23
For the maximum rated output power of the transmitter not listed in the table above, the recommended isolation distance *d*, in meters (m), can be determined using the formula in the corresponding transmitter frequency bar, where *P* is transmitter maximum output rated power provided by the transmitter manufacturer in watts (W). Note 1: At frequencies of 80 MHz and 800 MHz, the formula in the higher frequency range is used. Note 2: These guidelines may not be suitable for all situations where electromagnetic transmission is affected by the absorption and reflection of buildings, objects and humans.			

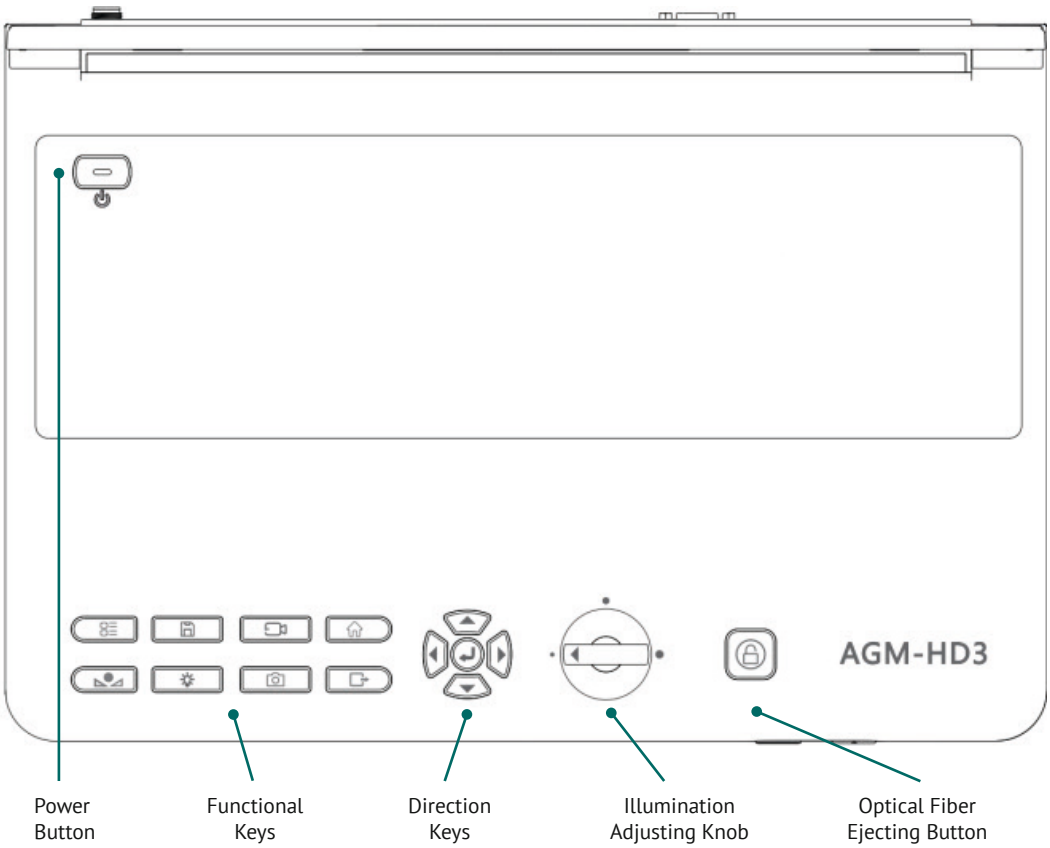
4. INSTALLATION AND USAGE INSTRUCTIONS

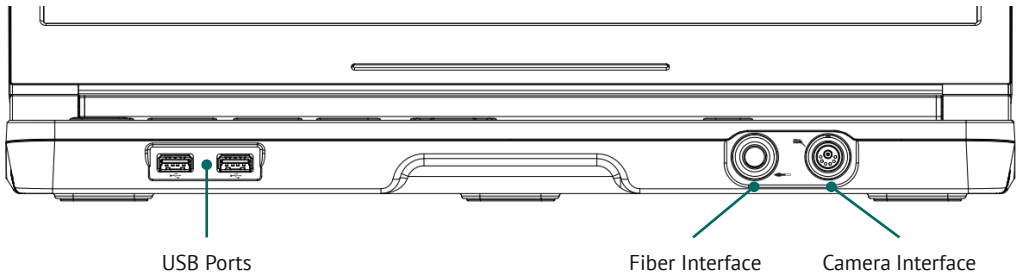
4.1 Operational Requirements

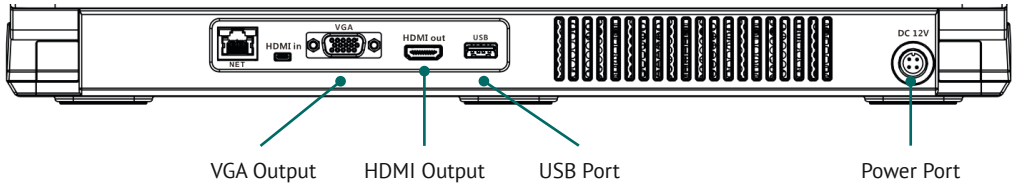
a) Use of power: AC 220 V 50 Hz
b) Input power: ⩽ 160 VA
c) Ambient temperature +5 °C~+40 °C
d) Relative humidity 30 %~80 %
e) Atmospheric pressure 700 hPa~1060 hPa

4.2 Installation

4.2.1 Structure Illustration

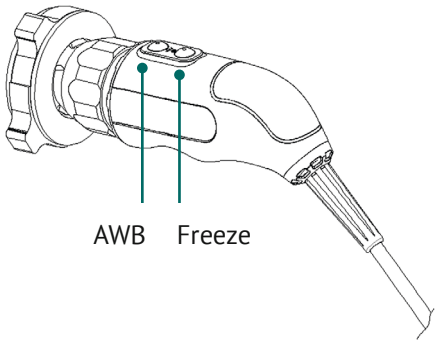






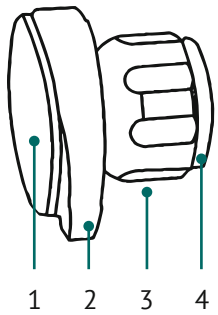
Camera Head

The camera head is connected to the camera box capturing surgical video and photo in surgery. It can control the image by two buttons on the camera head (see in this manual).



C-type Coupler

The coupler is connected in the front of camera head. It has a focus ring to adjust the sharpness of the image.
The function of coupler is as follows:



1. Dust cap: prevent dust and protect the coupler
2. Coupler: fix the endoscope
3. Focus ring: adjust the camera focus
4. Camera side: screw connection to camera

4.2.2 Installation

Before connecting the signal cable and camera connector cord, please make sure that the device is not connected to the network power or that the power switch of the device is turned off.

The installation of EickView Compact 4-in-1 Endoscopy Monitor includes 3 steps:

1. Installation of camera box
2. Installation of camera head
3. Installation of camera coupler

4.2.2.1 Installation of Camera System

Caution! Connect the device to an appropriate power supply, you can use hospital-level power. Improper AC power will cause the camera to shut down and lose image.

Only parts that have been confirm compatibility to the camera can connect the camera. Connecting an incompatible device may result in unexpected results.
When installing EickView Compact 4-in-1 Endoscopy Monitor, ensure that all are in accordance with IEC 60601-1-2006. The camera box should be placed in an area with proper ventilation (airflow). Inadequate ventilation may cause overheating and shutting down.

Install the camera as following steps:

1. Connect AC power.
   Connect the AC power cord to the power outlet on the rear.
   Connect another side of cord to the hospital-level power supply.
2. Connect video output.
   Rear provides 5 high-definition digital video output connectors that can be used together or independently.

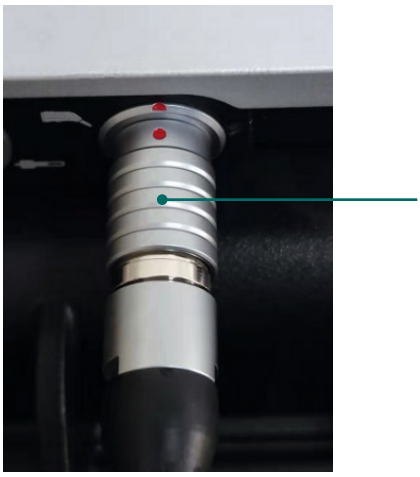
Video Output	Output Cable
VGA	VGA
HDMI	HDMI

You can use the cables as above to connect the EickView Compact 4-in-1 Endoscopy Monitor to other equipment.

Note: An additional monitor can be connected to any open video output on the rear panel.

4.2.2.2 Installation of Camera Head

The camera head of the socket is in front panel of the camera, and it has the same red dot as the camera head cord. After aligning the two red dots in the horizontal direction, push the connection plug until it locks (as shown in the picture below).



Hold here,
then pull back hard
to pull out the plug

4.2.2.3 Installation of optical Fiber

You can connect an endoscope and a cold light source to this device. Be sure to connect the cold light source and the endoscope correctly. (For details, please refer to the instruction manual for the endoscope or cold light source).

4.2.2.4 Installation of Camera Coupler

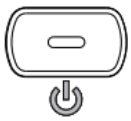
1. Connect the camera coupler into the camera head.
   Hold the coupler and screw the it onto the front of the camera (clockwise) until it forms a tight seal.

   Caution! Before each use, check the outer surface of the coupler window glass to make sure there are no foreign objects, sharp edges, or protrusions. When connecting or removing the camera coupler, only grasp the front of camera coupler. Twisting the rest of the camera coupler may cause mechanical damage. Do not over tightly connect the camera coupler as it may damage the front window of the camera.

2. Installation of endoscope in the coupler.
   If there's a cap, take off it.
   Clamp the two raised parts of coupler and hold it. Then insert the endoscope to the end.
   Release the camera coupler.
3. Connect a optical fiber cable in to the endoscope.

4.2.3 Instructions for Use

4.2.3.1 Power Button



Press the power button on the control panel to turn the camera on or off.

4.2.3.2 Functional Keys

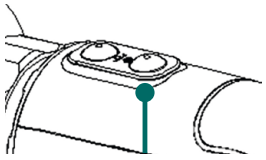
4.2.3.2.1 AWB

The Auto White Balance Button (AWB) is used to correct minor color differences that exist between different light sources or endoscopes. Perform the white balance procedure before each surgical procedure.

Attention!
Make sure that the endoscope and light source are connected to the camera and that the camera, light source, and monitor are turned on before adjusting the white balance.

1. Prepare a stack of 4x4 white gauze pads, or a white laparoscope sponge, or any clean white surface. Align the endoscope above the surface of the object
2. Look at the monitor to ensure that the white surf ace does not glare.
3. Press the white balance button(AWB) .
4. Continue aligning to the white surface until the lower right corner of the video monitor “AWB SETTING” disappear, the white balance is complete, and the video image will change color.

4.2.3.2.2 Freeze Button



Freeze button is for temporarily freezing dynamic images.
When special inspection is required, freeze it.

1. Press the freeze button and the image will freeze.
2. Press the freeze button again to return to the video.

Attention!
When observing the image by freezing, the surgical instruments such as endoscopes are still active in the patient. Operators should be careful to avoid accidents.

4.2.3.2.3 Endoscope Mode Switching

Endoscope mode button is used to adjust different usage modes, including laparoscope, ENT, cystoscope, Preset 1, Preset 2.

1. Press the endo mode button to switch to the next mode.
2. When adjusting the mode parameters, you need to save it manually. Switching the endoscope mode directly will lose the current setting data.

Caution!
Do not modify the parameters of the non-custom mode without special needs. If you need to adjust it, please do so under the guidance of a professional. After the adjustment, press the "SAVE" button to save.

4.2.3.2.4 Video/Photo Button

After inserting the storage device into the USB port

1. Press the Picture key to capture the current image screen and save it to the memory device.

2. Press the Recording button to record the current image screen and save it to the storage device.

4.2.3.2.5 Menu

Press the menu button to enter the menu selection interface

- Playback: Enter the playback menu
- Network switch: Open/close the key tone network function
- Video: Switch the video resolution
- Language: Switch language
- Keytone: Turn on/off the keytone
- Image setting: Enter the camera menu
- System information: View working hours, IP address, USB status, software version

4.2.3.2.6 Save Button

Pressing and holding this button for 3 seconds will save the current setting parameters.

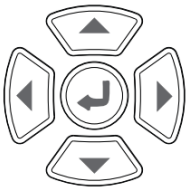
4.2.3.2.7 Cold Light Source Switch Button

Turn on/off the cold light source.

4.2.3.2.8 Return/Exit Button

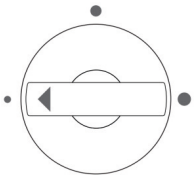
Return to the upper menu or exit.

4.2.3.3 Direction keys



Select and confirm in the menu.

4.2.3.4 Illumination adjusting Knob

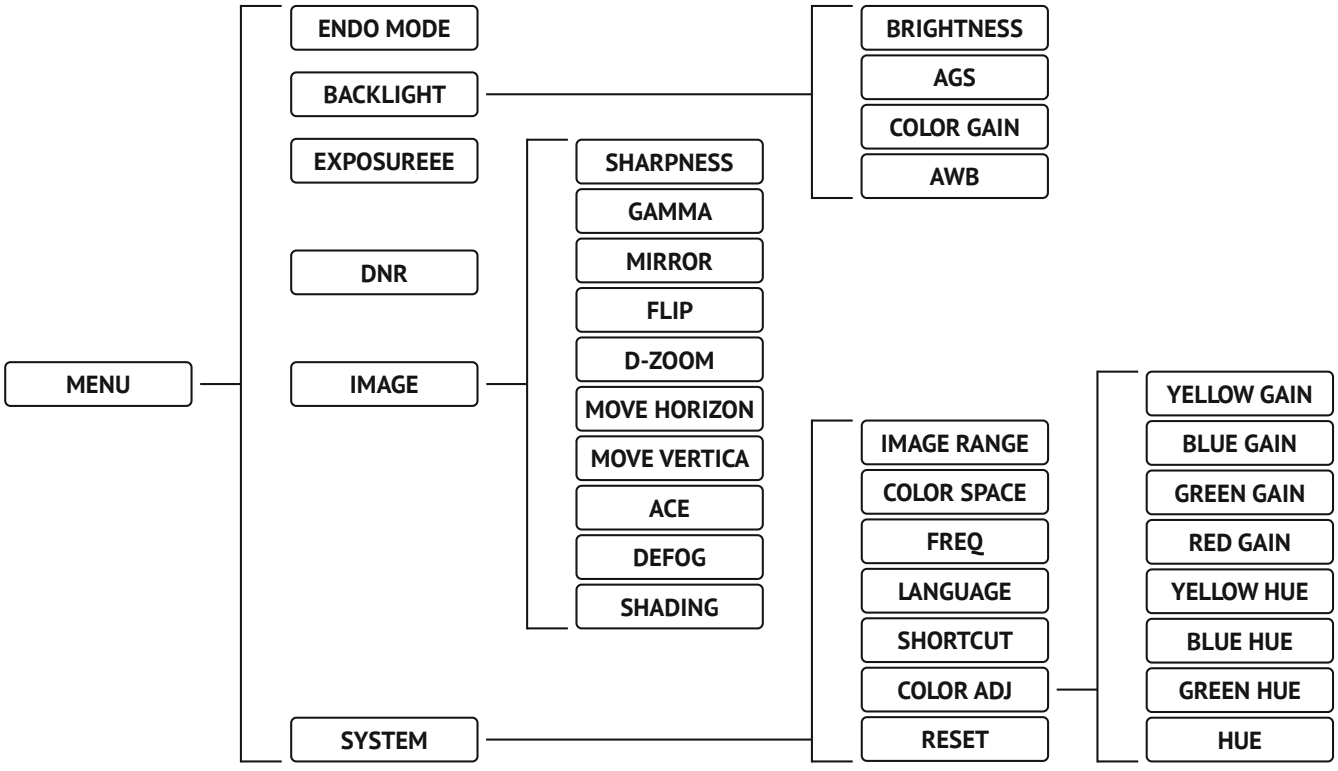


Adjust the output brightness of the cold light source.

4.2.3.5 Optical Fiber Ejecting Button

Press to release the locking state of the inserted fiber.

4.2.3.6 Main Menu



4.2.3.7 EXPOSURE

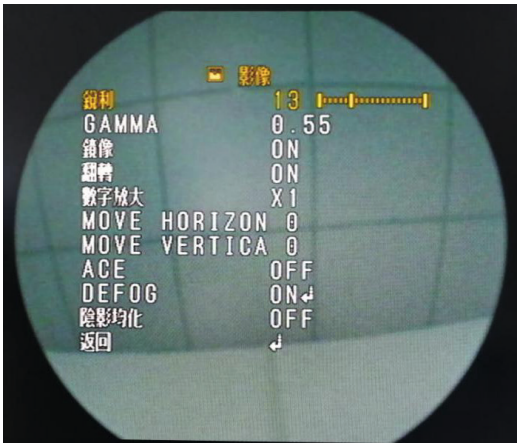
1. Brightness: Adjust screen brightness
2. AGC: Adjust the brightness gain of the electronic automatic algorithm
3. Color gain: Adjust the vividness of hue, which is equivalent to saturation
4. AWB: White balance, automatic or fixed manual

Point the camera with the assembled endoscope (about 2 cm away) with a pure white paper, and press the white balance button of the camera head or the host, hold after 2 – 3 seconds. The prompt "AWB setting" is displaying in the lower right corner of the screen indicates that the white balance is in progress.
When the prompt disappears, it means the current white balance parameters are locked;
when AWB is set to Auto, the white balance is automatically adjusted according to the current picture environment.
Notice: New white balance is needed when changing the different endoscope, coupler and light source.

4.2.3.8 DNR

Adjust the degree of electronic automatic noise reduction

4.2.3.9 IMAGE



1. Sharpness: Adjust the degree of picture sharpening
2. Gamma: Adjust the Gamma
3. Mirror: Reserve the image left and right
4. Flip: Reserve the image up and down
5. D-Zoom: Adjust the electronic automatic magnification
6. Move horizon: Move the overall picture horizontally
7. Move vertica: Move the overall picture vertically
8. Defog: Adjust the degree of screen defogging
9. Shading: Adjust the degree of brightness compensation for dark areas

4.2.3.10 SYSTEM

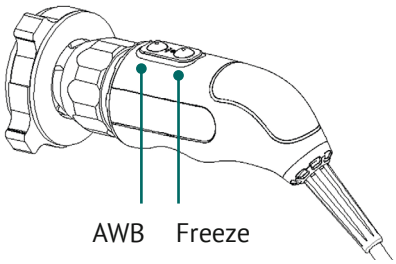
1. Image range: The output resolution of the video output port (CVBS/ SDI/VGA/HDMI/DVI/VGA) can fit different monitors. there are 3 resolutions: 1920 x 1080p, 1920 x 1080i, and 1280 x 720p, all of them support 60 frames and 30 frames output.
2. FREQ: Output grid frequency of the camera, easy to adapt to different monitors in different countries, can be 50 Hz and 60 Hz.
3. 3. Language: Can set the interface in different languages, there are 5 options: simplified Chinese, traditional Chinese, English, Korean and Japanese.
4. COLOR ADJ: Color coordinate adjustment, GAIN adjust the color density, and HUE adjust the color tone, these two parameters need to be adjusted together.
5. Reset: Press and hold for 5 seconds to reset all menu options. The reset may require adjustment of factory parameters.

Caution! Do not adjust the color coordinates to change the factory parameters or reset the menu without special needs. If necessary, please adjust it under the guidance of professionals.

4.2.4 Use Camera Head Button

There are 2 buttons for white balance and freeze on the camera head.

The default function of the front button: short press to take pictures, long press to white balance.
The default function of the back button: short press to record, long press to freeze.
P. S.: The buttons can be customized according to users



5. CARE AND MAINTENANCE, TROUBLESHOOTING, SHIPPING AND STORE

5.1 Care and Maintenance

5.1.1 Cleaning of Camera Box

Caution! Disconnect the camera box from the AC power before cleaning. Clean the camera box with a sterile cloth or a cleaning solution to wipe.

Caution! Do not soak or disinfect the camera box, which will damage the camera and make the warranty to be invalid.

5.1.2 Cleaning and Disinfection of Camera Head

Cleaning	Manual
	Mechanical (Washing machine or sterilizer)
Disinfection	75 % alcohol wipe or soak
Sterilization	Ethylene oxide gas sterilization
	Sterilization by immersion in glutaraldehyde solution

5.1.2.1 Cleaning

Caution! Before use, the camera head and cable (not including the camera connector) must be cleaned and disinfected. And cleaned and disinfected after operation.

1. After use, unplug the camera connector from the camera box and install the soaking cap (if any) until it locks securely.

Caution! Always install the soaking cap (if any) before cleaning the camera head. Failure to properly tighten the soaking cap will corrode the connector pins and make warranty invalid. But we still recommend do not soak the cable connector.

2. Rinse the camera head and cable (without connector) in warm water. Remove the debris and drug-resistant microorganisms from the surface with mild enzyme detergents and soft brushes.
3. Rinse off all the detergent in the water.
4. Wipe all glass mirrors with alcohol and non-fiber cloth.
5. Wipe the camera head and cable with a soft towel or gauze.
6. Wrap the camera head cable into a ring whose diameter is about 25 cm, prevent the cable from twisting.

Caution! Keep the cable connector away from any water or any other liquid during cleaning.

5.1.2.2 Disinfection and Sterilization

Caution! Before soaking, check if there's any breaking on the cable. Do not soak a cut or disconnected cable because the water will penetrate into the camera head and cause damage. Return or replace any camera with a damaged cable for maintenance service (via your local sales representative).

Separate camera coupler and the endoscope in the camera head. Disinfection of camera coupler and endoscope refers to their instruction of the product manual. Avoid long time sterilization, as this will accelerate the product normal aging. A right sterilization method will contribute to a camera's long working life.

Prepare cleaned camera head and cable, and ensure the soaking cap is installed. But even this, avoid soaking the cable connector.
Sterilize the camera and cable by glutaraldehyde or ethylene oxide sterilization, with reference to the Technical Specification for Sterilization of Medical Institutions WS/T367-2012.

Attention! Be sure to use the camera after it's completely dry. Any moisture will cause the camera and the coupler glass fog during use.

Caution! Discoloration of cameras and cables may be caused by the sterilization process. However, discoloration does not affect functional and safety requirements.

5.2 Troubleshooting

Before asking for service, please do the following simple check, the following tips will help you save money and time.

Failure phenomenon	Cause of Failure	Solutions
Turn on the power switch but the power indicator does not light, and the camera not work	The power cord is not connected properly	Check and make sure the power cord is connected properly
No image, but the power indicator is normal	1. The dust cap of the camera head not take off	Take off the dust cap of the camera head
	2. The camera head cable is not properly inserted into the camera head socket	Please insert the cable properly
	3. The monitor is damaged or its protection mode is activated	Please contact the monitor manufacturer promptly
There is an image, the image is distorted and cannot be used normally	1. Non-single-phase three-wire grounded power supply	The signal is not grounded, which will cause the monitor image to be distorted. Please choose a single-phase three-wire grounded power supply.
	2. Too many devices in parallel	Signal attenuation is more pronounced due to too many devices connected in parallel. Please reduce the amount of parallel equipment or prohibit getting signals from other devices.
There is an image, the image is very dark	1. Endoscope is damaged	The image is dim due to water ingress, aging, etc. Please contact the endoscope manufacturer in time.
	2. Cold light source brightness is not enough or it is damaged	The brightness is not enough to cause the image in the field of view to be dim. Please adjust the brightness. If it is damaged, please contact the cold light source manufacturer in time.
	3. Monitor brightness is not enough or it is damaged	Adjust brightness or contrast. If it is damaged, please contact the cold light source manufacturer in time.
There are images but the colors are not good	Endoscope camera system parameters are not adjusted to optimal parameters	Adjust chroma, sharpness, definition, contrast, color, etc.

5.3 Storage and Transportation Conditions

5.3.1 Storage Conditions

The packaged endoscope camera and light source integrated should be stored at dry and non-corrosive materials and well-ventilated rooms.
Environment temperature: -40 °C~+ 55 °C
Relative humidity: ⩽ 93 %
Atmospheric pressure range: 860 hPa~1060 hPa.

5.3.2 Transportation Conditions

The packaged endoscope camera and light source integrated can be transported by general transportation, and need to be protected from direct rain and snow. It is strictly prohibited to transport with corrosive items.

6. PRODUCTION DATE AND PERIOD OF USE

6.1 Production Date

See label of the camera

6.2 Period of Use

5 years

7. PARTS LIST AND REPLACEMENT METHOD

7.1 Parts List

No.	Name	Specification	Note
2	Power cord	PSB-10+QT3	Accessory

7.2 Product Accessories Replacement Precautions

Aging components (electronic components) of the waste should be in accordance with the national regulations on the management of medical supplies discards or according to local regulations on end-of-life electronic components to deal with the ground, can not be discarded at will, unified treatment, so as not to cause pollution to the environment.

8. PACKING LIST

No.	Name	Quantity (PCS)
1	EickView Compact 4-in-1 Endoscopy Monitor	1
2	Power cord	1
3	Camera head	1
4	User Manual	1
5	Certificate of conformity	1
6	Warranty Card	1
7	Fuse	2

9. INTERPRETATION OF PRODUCT GRAPHICS, SYMBOLS AND ABBREVIATIONS

Symbol	Description
	Power (on green / off orange)
	Camera interface
	Optical fiber interface
	BF type application part
IPX0	Machine waterproof level
IPX7	Coupler and camera head waterpfoof level
	Check the accompanying documents/cautions
	Fragile – handle with care
	This side up
	Keep away from heat
	Keep dry

10. AFTER-SALES SERVICE COMMITMENT

The company implements three packages and quality tracking service for the products sold.

1. Within 24 months from the date of sale, if the product does not work properly due to product quality problems, it will be repaired for the user without charge (except for consumable items). Failure caused by improper use or maintenance of the user, only the cost and postage will be charged.
2. Lifetime maintenance of the products sold outside the three-package period, and according to the specific circumstances of the fee from the preferential.
3. The user is responsible for any damage or accident caused by the disassembly of the product without the consent of the company.

NOTES

NOTES

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