

KX5600E Quick Start Guide

System Configuration

Typical configuration

1.	Main unit (included probe)	1 unit
2.	Power adapter	1 PC
3.	Power cable	1 PC
4.	Internal battery	1 PC
5.	Straps	2 PCS
6.	LEMO connector	1 PC
7.	Hood	1 PC
8.	Battery lock coin	2 PCS
9.	Probe holder	1 PC
10.	APP software	1 PC
11.	Plastic sealed box	1 PC

System Outline and Structure

Components Name

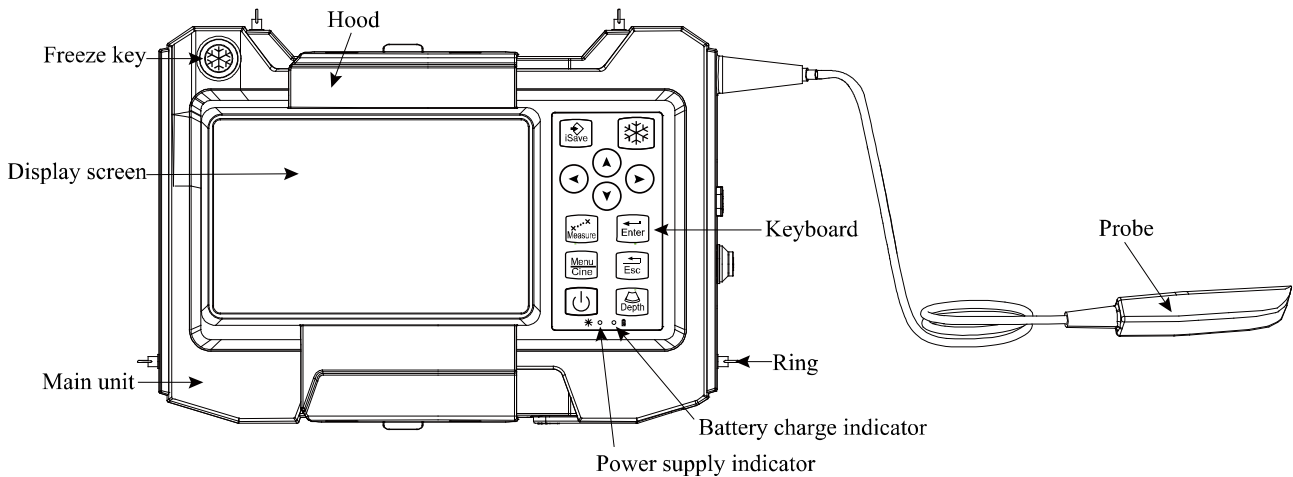


Figure: main unit front view sketch map

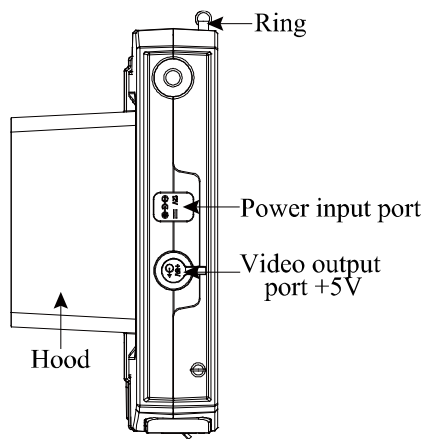


Figure: Side view

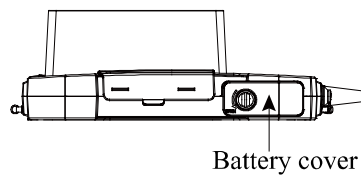


Figure: Bottom view

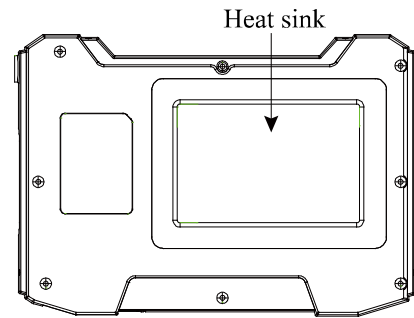


Figure: Rear view

Function Keys Description

SN.	Function keys	Function
1		Power switch
2		Direction keys
3		Freeze/Unfreeze
4		In frozen state, press the key to store image
5		During the measurement, press the key to exchange the starting point and end point of the measurement.
6		Enter confirm
7		In real-time state: Main-menu In frozen state: Save and read image, Cine loop
8		Quit
9		In real-time state: Adjust the depth range of the image In frozen state: Transfer images to APP software

Technical Specifications

Technical Data

1. Monitor: 7 inch LED monitor
2. Adapter ratings: 100-240V~, 1.2-0.6A, 50-60Hz
3. Adapter model: BJE01-40-001M
4. Output of adapter: DC12.8V 3.0A
5. Main device rating: DC12.8V 3.0A
6. Dimension: 282mm (length) ×200mm (width) ×102mm (thickness) (Installed the hood)
7. Main unit net weight: 1.6 kg (including battery)

System Installation

Please carefully read through and fully understand the use-method before installing the system, and check the goods for its completeness.

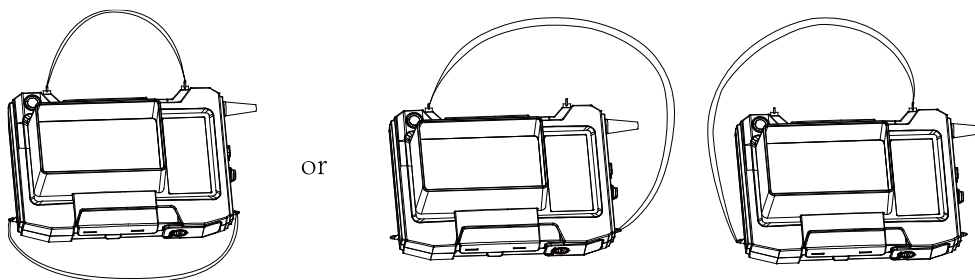
Take out the main unit and straps; install the straps on the ring of machine as figure shown. The instrument can be hung on the chest or placed on both sides of the body.

1. Instrument hanging on the chest to use

Take out the main unit and straps; install the straps on the rings of main unit as figure shown, adjust the strap length, the straps hung on the neck to use.

2. Instrument placing on both sides of the body to use

Take out the main unit and a strap; according to the left/right-handed habits, install the strap on the diagonal ring of the main unit, as shown in the figure below, adjust the length of the strap and use it diagonally across your shoulder.



3. Video Glasses Installation

Turn off the instrument; connect the video signal line of video glasses to the “Video output port + 5V” on the side of main unit.

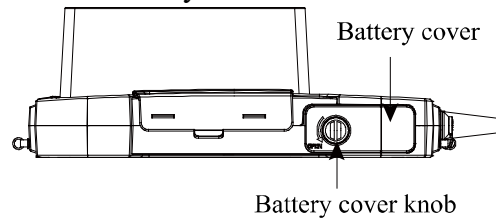
4. Installing and Removing the Battery

⚠ Warning: Removing and installing the battery have a certain risk, non-technical personnel or authorized qualified personnel by the manufacturer shall not disassemble the battery.

1) Install the Battery

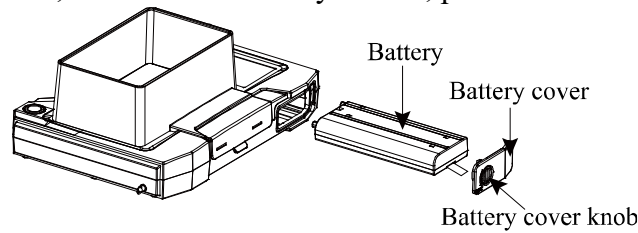
1. Shutdown the system and disconnect the connection between the power adapter and the main unit;
2. Lay the machine flat, and then put the battery into battery storage of main unit, and arrange the blue belt;
3. Push the “Battery cover” into the corresponding position, and put “Battery lock coin” into the groove of the “Battery cover knob”, and then toggle the “Battery cover knob”

counterclockwise to lock the “Battery cover”.



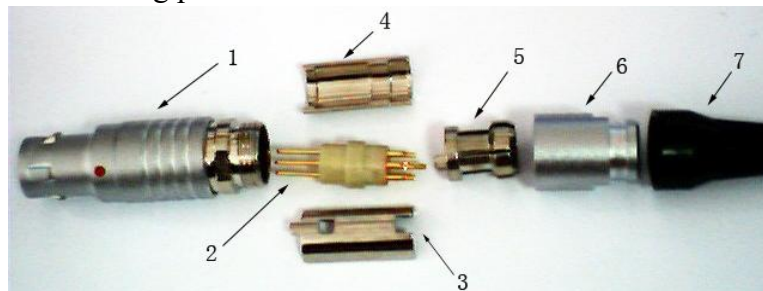
2) Remove the Battery

1. Shutdown the system and disconnect the connection between the power adapter and the main unit;
2. According to the “OPEN” direction of the arrow, use the “Battery lock coin” to toggle “Battery cover knob”, remove the “Battery cover”, pull the belt and take out the battery.

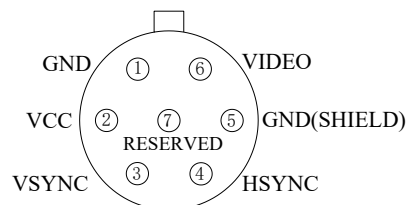


5 LEMO Connector Welding Method

1. First take out the LEMO connector from the accessories, and then place the disassembled parts in order of following picture:



2. Strip one end of the signal wire by 10mm, and then thread the part 7-bushing, part 6-nut and part 5- wire buckle. Take out the part 2, in accordance with the pins definition welding method provided by the following picture, put the wire on the 8mm * ϕ 1 heat shrinkable tube and solder the wire on the pins of the LEMO connector and pay attention to the welding direction. Then the outermost shield is loosened and reflex evenly on the outermost side of the seven-core cable.

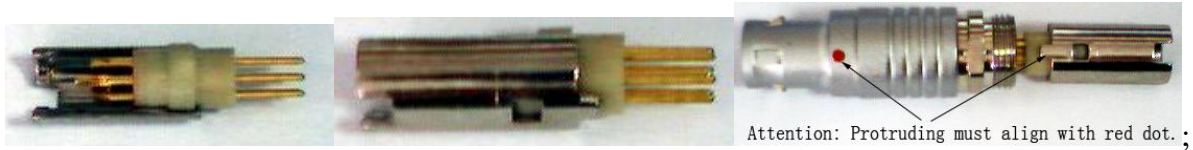


Welding method:

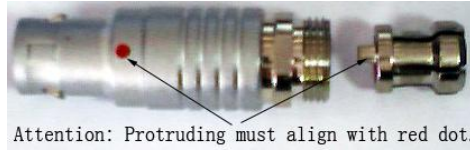
1. GND (black) 2. VCC (red) 3. VSYNC (yellow) 4. HSYNC (brown)
5. GND (shield of green shielded wire) 6. Video signal (core of green shielded wire)
7. Reserved

3. Place part 3 and part 4 in accordance with the shown picture, buckle the welded wire and

part 3/4 together, align the protruding of part 3 with a red dot of part 1, and then be put into the part 1;

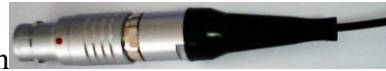


4. Laminate the reflex shield into the part 5, align the protruding of part 5 with a red dot of part



1, and then be put into the part 1

5. Put the part 6-nut into the part 1 and tighten;



6. Has completed the LEMO connector welding; connect LEMO connector to “Video output port + 5V” interface, this connector can be used.

6. Use of Wireless Monitor

1. Set the RF according to the section 5.2.5 and select the RF channel, such as "RF: 1";
2. Turn on the wireless monitor's power switch;
3. To set the wireless monitor. First select the source "RF", then search the RF channel;
4. Wireless monitor starts automatic search, after completed search, the wireless monitor automatically synchronizes the display of the main unit screen content.

Note: When selecting the wireless monitor, you need a wireless monitor of receiving a 5.8GHz signal. Wireless reception range is within 4 meters, no obstacles.

System Maintenance

System Cleaning and Disinfection

⚠ Warning: Turn off the instrument and pull out the power supply cord before cleaning the instrument. It may cause electric shock if clean the system under power is on.

⚠ Warning: The instrument is not waterproof. Do not splash any water or liquid into the instrument when cleaning or maintenance; otherwise it will cause malfunction or

⚠ Attention:

1. To prevent possible infection, it is advisable to wear sterilized gloves when cleaning, disinfecting the probe.
2. Clean the probe with sterile water to remove the residual chemicals after disinfection, because the residual chemicals may be harmful for humans.
3. Kaixin Company will not make any guarantee for the efficacy of disinfectant. Please contact the appropriate manufacturer for details.

⚠ Attention:

1. In the process of cleaning and disinfection, avoid probe overheat (exceeding 55°C) as it may be deformed or damaged under excessive heat.
2. In the operation of disinfection, please refer to medical institutions disinfection technical specifications.

1. Clean the probe

- (1) Must wear sterilized gloves to prevent possible infection.
- (2) Rinse the probe with water or soapy water to remove all contaminants, or use a soft urethane sponge to wipe the probe. Do not use brushes as it may damage the probe.
- (3) After finishing the rinsing, use a sterilized cloth or gauze to wipe the water on the surface of probe. Do not dry the probe by heating it.

2. High-level disinfection

Please follow the disinfection method provided in this user's manual for disinfection.

- (1) Before disinfection, wear sterilized gloves to prevent possible infection;
- (2) You must clean the probe before disinfection. Recommend the solution to disinfect in the following table.

Glutaraldehyde-based disinfectant:

Chemical Name	Reagent Name	Step
Glutaraldehyde (2.4%)	Cidex Glutaraldehyde disinfectant	Please refer to the instructions of the solution for details.

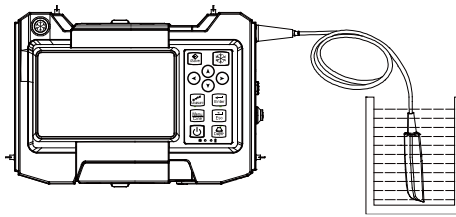
Non-glutaraldehyde-based disinfectant:

Chemical Name	Reagent Name	Step
Phthalaldehyde solution (0.55%)	Cidex OPA	Please refer to the instructions of the solution for details.

- Please follow the instructions about disinfectant concentration and disinfection method, as well as the precautions about disinfectants provided by disinfectant provider. But do not rinse or soak the probe connector or close to connector cable.
- The soaking time of probe in the disinfectant is limited to the minimum time recommended by disinfectant manufacturer (e.g., Cidex OPA manufacturer recommended minimum 12 minutes).
- Please follow local laws and regulations to choose the disinfectants.

- (3) After disinfection, rinse the probe with a large number of sterile water (about 2 gallons) for at least one minute to remove the residual chemicals. You may follow the recommended method by the disinfectant manufacturer to rinse.
- (4) After finishing the rinsing, use a sterilized cloth or gauze to wipe the water on the surface of probe. Do not dry the probe by heating it.

⚠Attention: The waterproof grade of probe is IPX7, immersion depth from probe's acoustic head to the sheath of probe handle. The probe disinfection schematic is as follows.



⚠Attention:

1. It is a normal phenomenon that color of the acoustic lens may change and color of the probe label may fade away.
2. Repeated disinfection may damage the probe, please check the probe's

3. Check probe after cleaning and disinfection

- (1) Check the probe enclosure and its cable to ensure they are free of abnormality (such as scuffing, cracks or drop-off);
- (2) The sound window of probe is thin; ensure that there are no any abnormality on the sound window, such as scuffing, cracks, peeling, and bulge and drop-off.

4. Clean the probe cable

- (1) Clean the probe cable with soft, dry cloth.
- (2) In case of die-hard blots, clean with soft cloth dipped in moderate detergent and then air-dry it.

5. Clean the display screen

- (1) Use a soft cloth to clean the display screen;
- (2) In case of die-hard blots, clean with soft cloth dipped in glass cleaner and then air-dry it.

⚠Attention: Do not clean the screen with hydrocarbon detergent for example alcohol

⚠Attention: Prohibit using sharp objects to touch the display screen, and prohibit

6. Clean the control panel, shell

Clean the instrument surface with soft, dry cloth or with soft cloth dipped in moderate water cleaning media to remove the blots, and then dry the instrument with soft, dry cloth or with air.

Note: If there is oil leakage in the heat radiating area of the rear shell, it is a normal phenomenon and does not affect the performance of the instrument.

7. Use and Maintenance for the Rechargeable Battery Pack

(1) Use of the Rechargeable Battery Pack

The battery pack (model HYLB-1614) is charged within main unit or with charger provided by KAIKIN Company. Service personnel or operator can replace the battery pack.

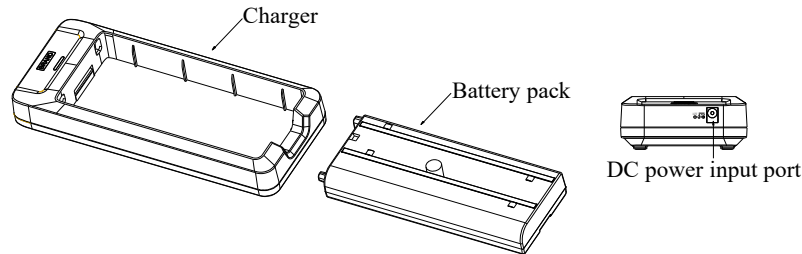
● Charging in the main unit

1. Insert the output plug of adapter into “Power input port” on the side of main unit for charging. When charging, the battery charge indicator flashes green; after fully charged, the indicator is in a green and not-flashing state.


2. The shutdown charging time is about 4 to 5 hours.

● **Charging in the charger**

1. Insert the output port of adapter into the input port of Charger to charge (see the battery charging sketch map). The charge indicator is green and blinking state when charging; the charge indicator is green and no blinking when fully charged.
2. The charging time is about 4 to 5 hours; over-charging or discharging will shorten the battery life; the full charged battery can be used about 3 hours.



Battery charging sketch map

⚠ Attention: When the “” icon appears in the middle of the screen, the battery power is low and needs to be charged before continuing to use. Connect the main unit to external power supply and recharge the battery, or turn off the machine to recharge.

(2) Maintenance of the Rechargeable Battery Pack

1. Battery is consumable; the battery cycle-life is based on the times of charge and discharge as unit. When the use time reduced significantly compared with normal conditions, the battery should be promptly replaced.
2. The excess high or low temperature will affect the charging and discharging performance, and short the battery life and capacity.

8. Troubleshooting

To ensure normal operation, it is recommended that a maintenance and regular inspection plan be established to periodically check the safety performance of the product. If any abnormality occur, timely contact Kaixin for support.

If the following problems occur on starting up the machine, try to make corrections following the method in the table. If the problem remains unsolved, contact Kaixin for support.

SN	Trouble	Correction
1	Power supply indicator does not light and the screen does not display when starting the machine.	<ol style="list-style-type: none"> 1. Check power supply. 2. Check power supply cord and plug. 3. Check power adapter.
2	Intermittent stripe, snow, or far-field interference appears on screen.	<ol style="list-style-type: none"> 1. Check power supply.(spark interference present) 2. Check environment.(source of interference around the machine, such as electric motor, ultrasonic atomizer, automobile, computer or other interference) 3. Check power plug/socket of the instrument. They shall be properly contacted.

3	Image display is not clear.	1. Adjust the total gain, near field gain, far field gain. 2. Adjust the brightness and contrast level.
4	Control panel malfunction.	Restart the machine by turning off the main unit power.

KAIXIN ELECTRONIC
XUZHOU KAIXIN ELECTRONIC INSTRUMENT CO., LTD.



Kaixin Mansion, C-01, Economic Development Zone,
Xuzhou, Jiangsu, China

Post Code: 221004

Tel: +86-516-87732932/87733758

Fax: +86-516-87732932/87792848

Website: <http://www.kxele.com>

E-mail: info@kxele.com

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