

# **Fetal Doppler Operation Manual**

**MODEL:JSL-T501.JSL-T502.JSL-T503.JSL-T505**

***T O L i s t e n A n g e l ' s H e a r t b e a t***



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## Chapterone User attention

**Please read the manual carefully before using and notice the notice, the information prompt and the warning.**


1.This manual if there is any modification, and software upgrades, the contents of this manual contains advice can not be making changes, without the prior written consent, should not be allowed to copy or any part of this manual translated into other languages.

2.The meaning of the icon in this product is as follows:

 **Prevent electric shock level:** BF type equipment

**IPX4:** Waterproof level (Waterproof splash equipment)

 **Pay attention to:** It means to Mild dangerous.

 **The information prompt:** It is information about the user's connection, use, or maintenance. It is not a warning.

 **warning:** Users must take care to avoid potentially harmful information.



## Chapter two Safety instructions

The instrument is an internal power supply equipment, electric shock protection grade of BF type. BF type protection said the patient connection should comply with the GB 9706.1-2007 to allow the leakage current and dielectric strength.

Carefully check the Fetal doppler (the instrument) and the attachment to ensure that the host and accessories have no visible impact on patient safety and instrument performance. The recommended check period is once a week.

This instrument cannot be used in an environment with electric knife instrument. Installation, adjustment and maintenance must be completed by qualified engineers.

Note the warning and attention to avoid possible damage.

### **Pay attention to**

1. Please read this manual carefully before using this instrument to ensure that you are familiar with control and operation.

2. The used battery must be processed according to local regulations.

3. If you use rechargeable batteries, to ensure the performance and life of rechargeable batteries, prior to the first use of the battery power once full of: general will need to recharge the battery of continuous charging more than 2 hours or follow all instructions given by the battery charging time for continuous charging of the battery.

4. Do not short-circuit or reverse load when using battery. Full battery life for 5 hours.

5. Information in this manual can be in the absence of advance notice. The lifetime of the instrument is 5 years. After the instrument in the effective lifetime, please according to the relevant provisions of the processing.

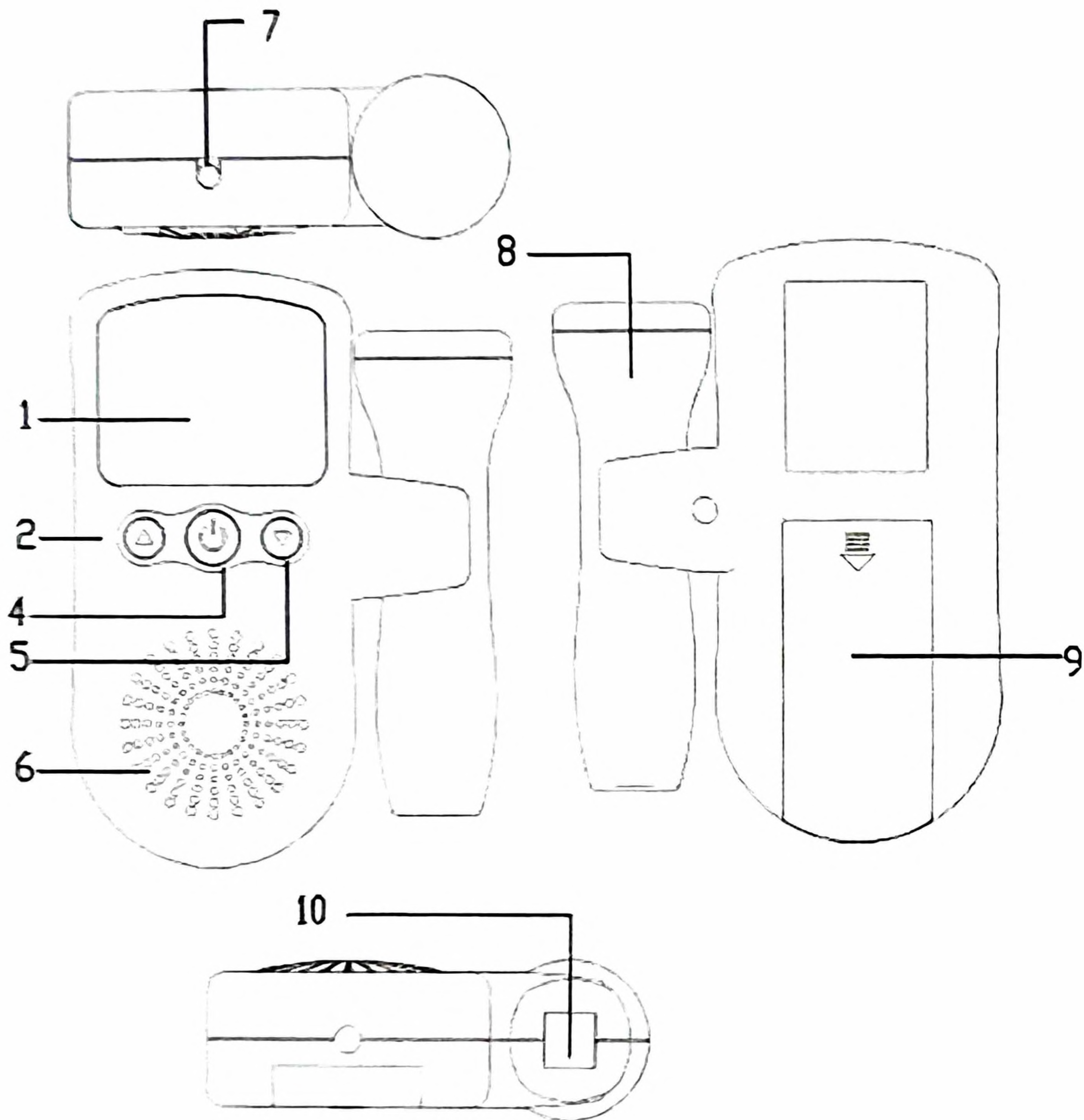
### **warning**

1. This instrument USES low energy ultrasonic doppler. Through design,



# Chapter four Product appearance

## 4.1 Appearance of the structure



(1) display (2) volume up (4) switch machine key (5) volume down (6) horn (7) audio jack (8) Probes (9) Battery cover (10) Probe connection port

## 4.2 To display the meaning of the object







4.2.1 JSL-T501/3 Show the number of placental heart rate and work parameter.

4.2.2 JSL-T502/5 Display menu, heart rate number, heart rate curve and working



parameters.

#### 4.2.3 Show the explanation of the content

serial number	symbol	explain
1		Heart rate symbol
2	<b>MHz</b>	Frequency unit, insert probe display
3	<b>bpm</b>	Fetal heart rate units, times/minutes
4		Battery capacity
5	<b>- - -</b>	There is no fetal heart rate or no fetal heart signal
6		Alarm on/off
7		Voice volume
8		Backlight on/off
9		The headset connection

#### 4.3 Controlling Keys

##### 4.3.1 The volume button

When the instrument is turned on or at work, if the sound is too small, the volume control will rotate downward, increasing the volume.

When the instrument is turned on or at work, the volume is rotated upward and the volume is reduced if the sound is too loud.

##### 4.3.2 The switch machine key

Boot Press the switch machine key Boot, Press the switch again and off for three seconds To turn it off.

##### 4.3.3 menu Keys

When the instrument is working, click the menu button to switch the work mode, or switch the menu item up or down.

#### 4.4 Indicator light

##### 4.4.1 Charge Indicator

When the battery is charged, the light is indicated. When the battery is full, the indicator is green.

##### 4.4.2 Working Indicator light

When the instrument is turned on, the indicator is blue.



### **3.5 probes**

The basic frequency of the probe is 2.0MHz and 3MHz optional.

## **Chapter Five Basic operation**

### **5.1 Used to prepare**

Check the equipment for damage and the attachment is intact. If not in good condition, please stop using the instrument and contact the local distributor immediately.

Keep the packaging material for future transportation or storage.

### **5.2 To use the battery**

#### **5.2.1 The installation battery**

Flip the instrument, turn on the battery cover, and press the battery to the positive negative terminal.

#### **5.2.2 Take out the battery**

Flip the instrument,, hold the fuselage in one hand, slide the battery cover in the direction of the battery, and move the battery cover in the direction of the arrow.

#### **5.2.3 Close the battery storehouse**

Push the battery cover in the opposite direction of the battery to close the battery storehouse.

### **5.3 Operation of the probes**

Hold the device in one hand and the other on the top of the probe. Remove the head first and then remove the entire probe along the direction of the arrow.

⚠ Pay attention to: When turning on, do not remove or reload the probe. The probe should be removed before turning on, and then the probe will be returned after shutdown.

### **5.4 Open the machine**



Press the switch machine key once, the work indicator is bright, the instrument is in standby condition.

## **5.5 Patterns and Function Is Introduced**

**5.5.1 The digital mode:**In this display mode, the instrument shows the number of placental heart rate and related parameters.

**5.5.2 Curve pattern:**In this display mode, the instrument shows the number of placental heart rate, the fetal heart curve and the related parameters.

**5.5.3 Backlit switch:**To set the switch function of backlight.

**5.5.4 The alarm switch:**Used to set alarm function.

**5.5.5 The voice switch:** It is used to set up the speech function, in the open condition, after the fetal heart data is stable, the instrument broadcasts the fetal heart rate once every 8 seconds.

**5.5.6 Storage function:**used to store fetal heart rate data.

**5.5.7 Playback function:**Used for playback of fetal heart rate data.

**5.5.8 Bluetooth switch:**To set up bluetooth capabilities.

**5.5.9 The demo functions:**Used to demonstration the fetal heart rate display.

### **5. 6.10 Mode switch and menu Settings:**

A、C, In the order of the menu,Switching menus, up or down options,No action 3 seconds, and the current content is selected by default.

#### **The menu Settings**

Short press menu select, up or down according to the menu button switch menu item, then up or down according to the function of the menu to open or close the current entry, 3 seconds without operation, exit menu Settings.

## **5.6 Turn off the machine**

When the machine is turned on, press the switch machine key for three seconds, then turn off, the job light is out.

**⚠ Note:**The machine shuts down automatically when there is no operation in one minute.

## **5.7 Battery replacement or charging**

When the battery is not enough, the user should replace the battery or charge the rechargeable battery in time. When charging in the machine, the adapter dc port is



plugged into the instrument charging port, ac port is inserted into the AC110 -240v, 50/60 Hz ac power outlet outlet. Full electricity takes about two hours. When the LED is green, the charge is finished.

**⚠ Warning:**

1. When the instrument is working, the rechargeable 1.2 V nimh battery cannot be charged. When charged, the instrument charging cannot work.
2. The instrument works only when the adapter is not connected to the instrument.

## **Chapter six Maintenance and troubleshooting**

### **6.1 Maintenance**

Please turn off the Close the machine before cleaning and remove the battery from the host. Use a soft cloth to wipe off the remaining coupling agent on the probe. Keep the outer surface of the instrument clean, and there is no dust. (Including LCD display) .

If necessary, use a neutral cleaner or alcohol to wipe the surface to be careful to prevent the flow of liquids into the machine damaged parts.

**⚠ Warning:**

1. Ultrasonic probes are sophisticated parts that must be carefully placed. After the instrument is used, the coupling agent must be wiped off the probe the coupling agent.

2. The instrument should undergo periodic safety testing to ensure leakage current insulation, including leakage current measurement. It is recommended to be tested in accordance with public organization's specifications and inspection procedures.

3. The accuracy of the fetal heart rate is controlled by the instrument and cannot be adjusted by the user.

4. If the outcome of the fetal heart rate is not credible, use other methods such as using a stethoscope to verify or contacting local agents for help.

### **6.2 troubleshooting**

In use, if the following failure occurs, please follow the instructions below. If you fail to troubleshoot, contact your local agent.



### **6.2.1 There is no sound**

main reason: (1) Low battery capacity; (2) The volume to shut down; (3) The probes is not connected.

Solution: (1) The battery recharges or changes the battery; (2) Open the sound; (3) Reconnect the probes.

### **6.2.2 sound small**

main reason: (1) Adjust the volume too low; (2) Low battery capacity; (3) There is no or not enough coupling agent.

Solution: (1) Adjust the sound up big; (2) The battery recharges or changes the battery; (3) Apply enough the coupling agent.

### **6.2.3 noise**

main reason: (1) probes too close to the host; (2) Interference of external signals; (3) Low battery capacity.

Solution: (1) Keep the probe away from the host; (2) Away from the outside signals; (3) Replace the battery or charge.

### **6.2.4 Low sensitivity**

main reason: (1) The probes position is incorrect; (2) There is no or no coupling enough agent.

Solution: (1) Ensure that the probes is in the right place; (2) Apply enough coupling agent.



## **chapter seven Warranty and after-sales service**

### **7.1 The warranty**

The warranty liability of this product is limited or the replacement of an examination certificate is within the warranty period and the warranty scope the whole machine or part.

The following is not covered under warranty:

- (1) Malfunctions caused by misuse, negligence, accident and transport.
- (2) Disassemble the modification and repair equipment.
- (3) Change or remove the serial number and the device label.

### **7.2 After-sales service**

If there are any problems in use, maintenance, technical parameters and instrument failure, contact local dealers.