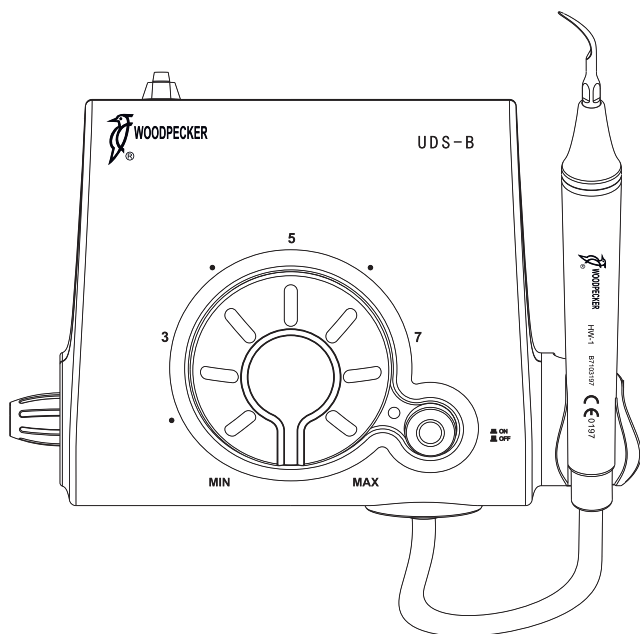




Industrial design patent No.: CN 200830300435.3  
Please read this manual before operating

# UDS-B ULTRASONIC SCALER

## INSTRUCTION MANUAL



[www.glwoodpecker.com](http://www.glwoodpecker.com)

**GUILIN WOODPECKER MEDICAL INSTRUMENT CO., LTD.**

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## **1 The installation and components of equipment**

### 1.1 Instruction

Guilin Woodpecker Medical Instrument Co., Ltd. is a professional manufacturer in researching, developing and producing ultrasonic scaler. The product is mainly used for teeth cleaning and also an indispensable equipment for teeth disease prevention and treatment. The product UDS-B ultrasonic scaler has scaling function. It contains the following features:

1.1.1 Automatic frequency tracking ensures that the machine always works on the best frequency and more steadily.

1.1.2 Digitally controlled, easy operation and more efficient for scaling.

### 1.2 Components

1.2.1 The components of the machine are listed in the packing list.

The scaling tips and other accessories are not listed in this instruction manual completely. The detail can be found in the instruction for tips and packing list.

1.2.2 Product performance and structure

Ultrasonic scaler is composed of electro circuit, water way and ultrasonic transducer.

1.2.3 Scope of application

Ultrasonic scaler UDS-B is used for the dental calculus elimination.

### 1.3 The main technical specifications

1.3.1 Power supply input: 220 - 240V~ 50Hz/60Hz 150mA

1.3.2 Main unit input: 24V~ 1.3A

1.3.3 Output primary tip Vibration excursion:  $\leq 100\mu\text{m}$

1.3.4 Output half-excursion force:  $< 2\text{N}$

1.3.5 Output tip Vibration frequency:  $30\text{kHz} \pm 3\text{kHz}$

1.3.6 Output power: 3W to 20W

1.3.7 Main unit fuse: T 1.6AL 250V

1.3.8 Power supply fuse: T 0.5AL 250V

1.3.9 Water pressure: 0.1bar~5bar (0.01MPa ~0.5MPa)

1.3.10 Weight of main unit: 0.62kg

1.3.11 Weight of power supply: 1 kg

1.3.12 Main unit volume: 192mm×128mm×78mm

1.3.13 Operating mode: Continuous operation

1.3.14 Type of protection against electric shock: Class II

1.3.15 Degree of protection against electric shock: Type BF applied part

1.3.16 Applied part of the equipment: handpiece and tip

1.3.17 Degree of protection against harmful ingress of water: Ordinary equipment (IPX0), Protection degree against water (used on foot switch): IPX1

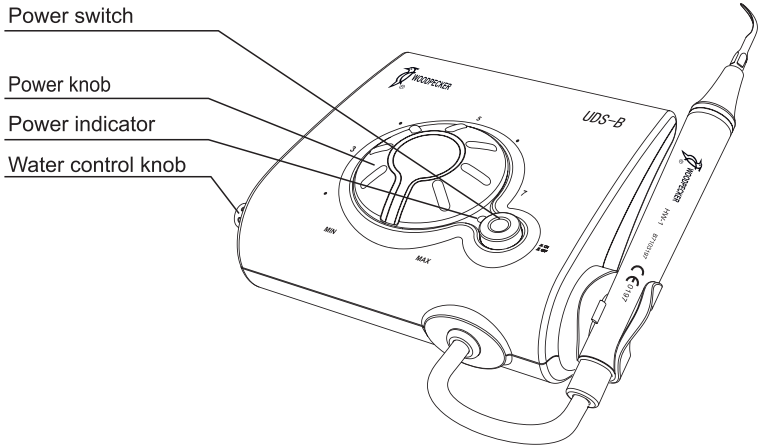
1.3.18 Degree of safety of application in the presence of a Flammable Anesthetic Mixture with air or with Oxygen or Nitrous Oxide: Equipment not suitable for being used in the presence of a flammable anesthetic mixture with air

or with oxygen or nitrous oxide.

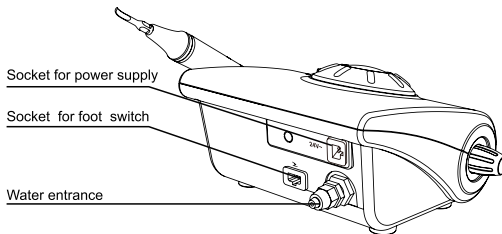
#### 1.4 Installation of the main components

##### 1.4.1 Sketch map for installation and connection

a) The top and side map of the equipment

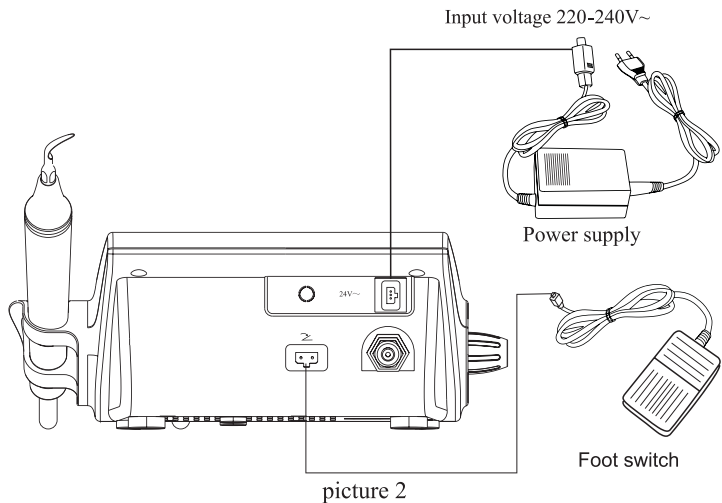


picture 1(a)

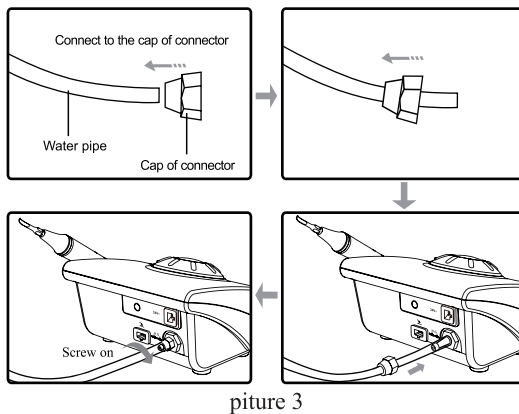


picture 1(b)

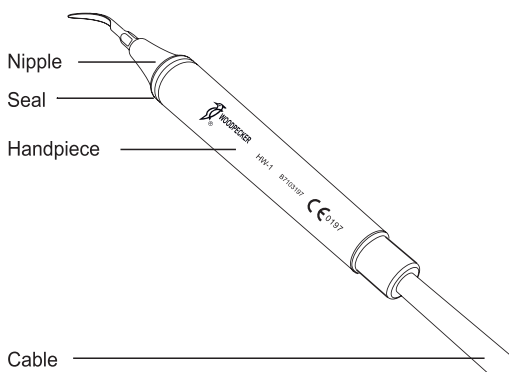
b) Sketch map for connection of foot switch, power supply and main unit.



c) Sketch map for connection of water supply system.

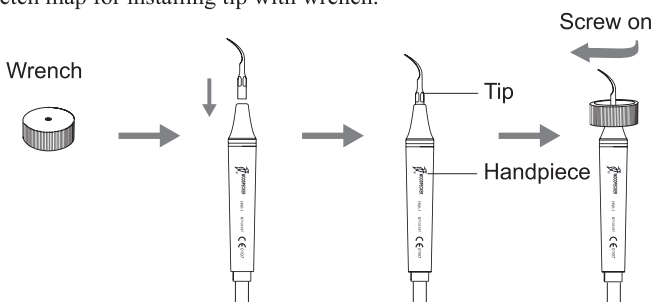


d) Sketch map for handpiece.



picture 4

e) Sketch map for installing tip with wrench.



picture 5

## 2. Product function and usage

### 2.1 Scaling function

### 2.2 Usage

2.2.1 Open the packing box, make sure that all the parts and accessories are complete according to the packing list. Take the main unit out of the box and put it on a stable plane.

2.2.2 Turn the water control knob to the max based on symbol as shown in 3.4.2 [note 1].

2.2.3 Insert the plug of the foot switch to its socket (picture 2).

2.2.4 Connect one end of the water pipe to the water entrance, and the other end to the pure water source (picture 3).

2.2.5 Insert the plug of the power supply to its socket, then get through to the electricity (picture 2).

2.2.6 Switch on the main unit, then the power LED lights up.

2.2.7 Select a suitable scaling tip as you need, screw it on the handpiece tightly by the wrench (picture 5).

2.2.8 The normal frequency is extremely high. Under the normal working state of the scaling tip, a light touch and a certain to-and-fro motion will eliminate the tartar without heating. Overexertion and long-time lingering are forbidden.

2.2.9 Vibrating intensity: adjust the vibration intensity as you need, generally turn the knob to the middle grade. According to patients' different sensitivity and the rigidity of the gingival tartar, adjust the vibration intensity during the clinical treatment.

2.2.10 Water volume adjustment: step on the foot switch, and the tip begins to vibrate, then turn the water control knob to form fine spray to cool down the handpiece and rinse the teeth.

2.2.11 The handpiece can be handled in the same gesture as a pen in hand.

2.2.12 During the clinical treatment, be sure not to make the end of tip touch the teeth vertically and not to make the tip overexert on the surface of the teeth in case of hurting the teeth and damaging the tip.

2.2.13 After finishing operation, keep the machine working for 30 seconds on the water supply condition in order to rinse the handpiece and the scaling tip.

**Notice: Don't screw off the scaling tips when the foot switch is stepped on and the machine is working.**

### **3. Sterilization and maintenance**

3.1 All the scaling tips ,wrench can be autoclaved, under high temperature, pressure. time: 134°C, 2.0bar~2.3bar (0.20MPa~0.23MPa), 4min.

3.2 The scaling tip and wrench can be cleaned by ultrasonic cleaner.

3.3 Handpiece can be sterilized by any neutral sterilized liquid for cleaning and sterilizing. Do not sterilize under the high temperature and pressure.

3.4 The following sterilization ways for torque wrench are forbidden:

- a) Soaked in solution.
- b) Dip in iodine, alcohol or glutaraldehyde.
- c) Torrefy in oven or microwave oven.

**Notice: We are not responsible for any damage of the torque wrench directly or indirectly made by any way in the above items.**

3.5 Troubles shotting

Faults	Possible causes	Solutions
The scaling tip doesn't vibrate and there is no water flowing out when stepping on the foot switch	The power pipe plug is in loose contact	Make the plug insert to the socket well
	The foot switch is in loose contact	Insert the foot switch to its socket tightly
	The fuse of transformer is broken	Contact our dealers or us
	The fuse in the main unit is broken	Contact our dealers or us
The scaling tip doesn't vibrate but there is water flowing out when stepping on the foot switch	The tip is in loose contact	Screw on the tip to the handpiece tightly (picture 5 )
	The connect plug between the handpiece and the circuit board is in loose contact	Contact our dealers or us
	Problem of handpiece	Contact our dealers or us
The scaling tip vibrates but there is no spray when stepping on the foot switch	The water control switch is not on	Turn on the water control knob <b>【note 1】</b>
	There is impurity in the electric-magnetic valve	Contact our dealers or us
	The water system is blocked	Clean the water pipe by multi-function syringe <b>【note2】</b>
There is still water flowing out after the power is cut off.	There is impurity in the electric-magnetic valve	Contact our dealers or us
The handpiece generates heat	The water control knob is in a low grade	Turn the water control knob to a higher grade <b>【note 2】</b>
The amount of spouting water is too little	The water pressure is not high enough	Make the water pressure higher
	The water pipe is blocked	Clean the water pipe by multi-function syringe <b>【note2】</b>
The vibration of the tip becomes weak	The tip hasn't been screwed on to the handpiece tightly	Screw the tip on the handpiece tightly(as showed in picture 5)
	The tip is loose because of vibration	Screw on the tip tightly (as showed in picture 5)
	The tip is damaged <b>【note3】</b>	Change a new one

**If the problem still can't be solved, please contact with local dealer or manufacturer.**

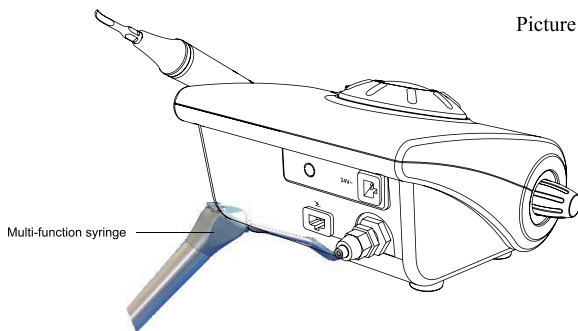
### 3.6 Notes

a) [Note 1] Turn the water control knob toward direction of symbol till not be able to turn any more, it comes to the min; on the contrary direction, the water volume increases step by step till not be able to turn anymore.

b) [Note 2] Clean the water pipe with the multi-function syringe of the dental unit (as showed in picture 6):



Picture 6



- ① Cut the water pipe at a distance of 10cm~20cm from the water entrance.
  - ② Turn on the electricity and get through to the power.
  - ③ Connect the multi-function syringe of dental unit to the water pipe.
  - ④ Disassemble the tip or handpiece.
  - ⑤ Step on the foot switch.
  - ⑥ Turn on the switch of the multi-function syringe, press the water into the machine and the impurity blocked in the water pipe can be eliminated.
- c) [Note 3] If the scaling tip has been screwed on tightly and there is fine spray, the following phenomena show that the scaling tip is damaged:
- ① The vibrating intensity and the water atomization degree become weak obviously.
  - ② During treatment, it produces the sound like "buzz" from the scaling tip.

#### **4. Precaution**

##### 4.1 Notice when using equipment

- 4.1.1 Keep the scaler clean before and after operation.
- 4.1.2 The handpiece, scaling tip and wrench must be sterilized before every treatment.
- 4.1.3 Don't screw or unscrew the scaling tip when stepping on the foot switch.
- 4.1.4 The scaling tip must be fastened and there must be fine spray coming out from the tip when operating.
- 4.1.5 Change a new one when the tip is damaged or worn excessively.
- 4.1.6 While scaler working, the heat of scaling tip will become higher if there is no water flowing out. Please keep the water flow smoothly.
- 4.1.7 Don't twist or rub the tip.
- 4.1.8 Don't use impure water source and be sure not use normal brine instead of pure water source.
- 4.1.9 If use the water source without hydraulic pressure, the water surface should be one meter higher than the head of the patient.
- 4.1.10 Don't pull the cable forcibly in case of the handpiece falling off from

the cable.

4.1.11 Don't knock or rub the handpiece. The modified content of instruction:

4.1.12 Please put the power plug into the socket easy to pull out, to make sure it can be pulled out in emergency.

4.1.13 The power supply is considered as a part of ME equipment. This device can only be equipped with the special power supply of Guilin Woodpecker Medical Instrument Co., Ltd.

4.1.14 The power supply is not waterproof. Please keep it dry and away from the water.

4.1.15 After operating, turn off the power, then pull out the plug.

4.1.16 We are only responsible for the safety on the following conditions:

a) The maintenance, repair and modification are made by the manufacturer or the authorized dealer.

b) The changed components are original of "WOODPECKER" and operated according to instruction manual.

4.1.17 The internal screw thread of the scaling tips produced by some other manufacturers may be coarse, rusty and collapsed. This will damage the external screw thread of the handpiece irretrievably. Please use "WOODPECKER" brand scaling tips.

4.1.18 Please select a suitable power when using different type of tips (refer to "TABLE OF OPERATING POWER OF THE TIPS").

## 4.2 Contraindication

4.2.1 The hemophilia disease patient is not allowed to use this equipment.

4.2.2 The patients or doctors with heart pacemaker are forbidden to use this equipment.

4.2.3 The heart disease patient, pregnant woman and children should be cautious to use the equipment.

## 4.3 Storage and maintenance

4.3.1 The equipment should be handled carefully and lightly. Be sure that it is far from the vibration, and installed or kept in a cool, dry and ventilated place.

4.3.2 Don't store the machine together with the articles that are combustible, poisonous, caustic, and explosive.

4.3.3 This equipment should be stored in a room where the relative humidity is 10% ~ 93%, atmospheric pressure is 70kPa to 106kPa, and the temperature is -20°C ~ +55°C.

4.3.4 If not be used for a long time, please make the machine get through to the electricity and water once per month for five minutes.

## 4.4 Transportation

4.4.1 Excessive impact and shake should be prevented in transportation. Lay it carefully and lightly and keep it upright.

4.4.2 Don't put it together with dangerous goods during transportation.

4.4.3 Avoid solarization and getting wet in rain or snow during transportation.

#### 4.5 Working condition

4.5.1 Environment temperature: +5°C to +40°C

4.5.2 Relative humidity: 30% ~75%


















4.5.3 Atmosphere pressure: 70kPa to 106kPa

4.5.4 A temperature of the water at the inlet: not higher than +25°C

#### 5. After-service

We offer one year free repair to the equipment according to the warranty card. The repair of the equipment should be carried out by our professional technician. We are not responsible for any irretrievable damage caused by the not professional person.

#### 6. Symbol instruction

	Trademark		Used indoor only
	Consult the accompanying documents		Appliance compliance WEEE directive
	Class II equipment		Alternating current
	Type BF applied part		Socket for the foot switch
	Adjustment for the water flow		Date of manufacture
	Can be autoclaved		Manufacturer
	Atmospheric pressure for storage		Humidity limitation for storage
	24VAC power supply socket		Water entrance pressure 0.01MPa to 0.5MPa
	Temperature limitation for storage		

## **7. Environmental protection**

Please dispose according to the local laws.

## **8. Statement**

All rights of modifying the product are reserved to the manufacturer without further notice. The pictures are only for reference. The final interpretation rights belong to GUILIN WOODPECKER MEDICAL INSTRUMENT CO., LTD. The industrial design, inner structure, etc, have claimed for several patents by WOODPECKER, any copy or fake product must take legal responsibilities.

## TABLE OF OPERATING POWER OF THE TIPS

Scaling	
Tip Model	Power
G 1	1-9
G 2	1-9
G 3	1-9
G 4	1-9
G 5	1-9
G 6	1-9
G 7	1-9
G 8	1-9
G 9	1-9
G 10	1-9
G 11	1-9

Periodontics	
Tip Model	Power
P1	1-6
P2L	1-2
P2LD	1
P2R	1-2
P2RD	1
P3	1-3
P3D	1-3
P4	1-3
P4D	1-3

Endodontics	
Tip Model	Power
E1	-
E2	-
E3	-
E3D	-
E4	-
E4D	-
E5	-
E5D	-
E8	-
E9	-
E10	-
E10D	-
E11	-
E11D	-
E14	-
E15	-

Cavity Preparation	
Tip Model	Power
SB1	1-6
SB2	1-6
SB3	1-6
SBL	1-6
SBR	1-6

Scan and Login website  
for more information



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