

Industrial design patent No.: CN 201130027363.1

Please read this manual before operating

UDS-J2 LED ULTRASONIC SCALER INSTRUCTION MANUAL



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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 scalers. The product is mainly used for teeth cleaning and also an indisensable equipment for teeth disease prevention and treatment.

The ultrasonic scaler UDS-J2 LED has scaling, perio functions with the following features:

- 1.1.1 The silicon-cover can be autoclaved to high temperature $134^{\circ}\mathrm{C}$ and high pressure $0.22\mathrm{Mpa}.$
- 1.1.2 Automatic frequency tracking ensures that the machine always works on the best frequency and more steadily.
 - 1.1.3 Digital control, easy operation and more efficient for scaling.
 - 1.1.4 Optical handpiece, more convenient for clinical operation.

1.2 Components

- 1.2.1 The components of machine are listed in the packing list.
- 1.2.2 Product performance and structural composition

Ultrasonic scaler UDS-J2 LED is composed of electrocircuit, water way and ultrasonic transducer.

1.2.3 Scope of application

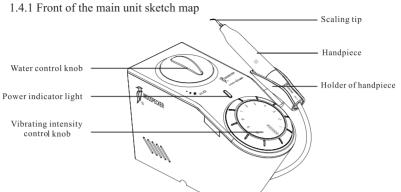
Ultrasonic scaler UDS-J2 LED is used for the dental calculus elimination.

1.3 The main technical specifications

- 1.3.1 Technical specifications of ultrasonic scaler
- a) Main unit input: 220-240V~ 50Hz/60Hz 150mA
- b) Output primary tip vibration excursion: ≤100μm
- c) Output half-excursion force: <2N
- d) Output tip vibration frequency: 30kHz±3kHz
- e) Output power: 3W to 20W f) Main unit fuse: T0.5AL 250V
- g) Water pressure: 0.01MPa to 0.5MPa
- h) Weight of main unit: 1.7kg
- i) Operating mode: Continuous operation
- j) Type of protection against electric shock: class II equipment
- k) Degree of protection against electric shock: Type BF applied part
- l) Applied part of the equipment: handpiece and tip
- m) Degree of protection against harmful ingress of water: Ordinary equipment, the foot switch is drip-proof equipment (IPX1)
- n) Degree of safety of application in the presence of a Flammable Anesthetic Mixture with air, Oxygen or Nitrous Oxide: Equipment not suitable for being used in the presence of a flammable anesthetic mixture with air, oxygen or nitrous oxide.

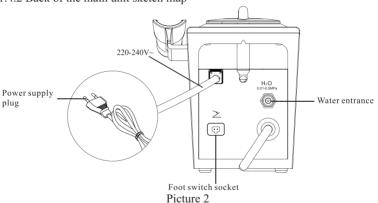
1.4 Instruction of the main components

Instruction and component sketch map

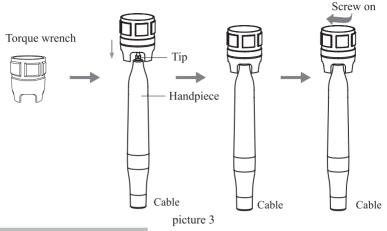


picture 1

1.4.2 Back of the main unit sketch map



1.4.3 Sketch map for how to install tip with torque wrench



2. Installation and adjustment

2.1 Operation

- 2.1.1 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 the the stable plane facing to the operator.
- 2.1.2 Turn the water control knob to the max according to the picture direction, Do not screw it over tight in case of damage. [note 1]
 - 2.1.3 Insert the plug of the foot switch to its socket. (see picture 2)
- 2.1.4 Connect one end of the water pipe to the water entrance, and the other end to the clean water sourse. (see picture 2)
- 2.1.5 Choose the scaling tip according to the requirement, and fix the scaling tip with the wrench. (see piecture 3)
- 2.1.6 Turn on the power switch in the clockwise direction till hearing a "click" sound, and the power indicator lighted and the machine is ready for work.
- 2.1.7 Under normal working condition, the frequency of the tips is very high, light touch and a certain to-and-fro motion will eliminate the tartar without obvious heating, overexetion and overstay are forbidden.
- 2.1.8 Vibrating intensity: Adjust the vibrating intensity according to your need, usually adjust to the middle grade, and adjust the vibrating during the clinical treatment according to the patient's sensitivity and the rigidity of the tartar.
- 2.1.9 Step on the foot switch, the tip begins to vibrate, and the LED lamp on the top of the handpiece shines. Release the foot switch, the LED lamp keep shining for 10 seconds.
- 2.1.10 Water volume adjustment: Step on the foot switch, and the tip begins to vibrate, then turn the water control switch to fine spray to cool down the

handpiece and clean the teeth.

- 2.1.11 The handpiece can be handled in the same gesture as a pen in hand.
- 2.1.12 Be sure not to make the end of the tip touch the teeth vertically, and not use too much pressure when the tip touch the surface of the teeth, in order not to hurt the teeth and the tip.
- 2.1.13 After finishing operation, keep the machine working for 30 seconds with the water supply to clean the handpiece and the tip.
 - 2.1.14 Unscrew the scaling tip and sterilize it.

Note: Don't screw the scaling tips when stepping on the foot switch, and the machine is working.

3. Maintenance and sterilization

- 3.1 All the scaling tips ,wrench, silicon-cover of handpiece 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

Fault	Possible Causes	Solutions
The scaling tip doesn't	The plug is in loose or	Connect the power plug
vibrate and no water	wrong contact.	well.
flowing out when	The foot switch is in	Connect the switch well.
stepping on the foot	loose contact.	
switch.	The fuse is broken.	Change a new T0.5AL 250V
		fuse.

Fault	Possible Causes	Solutions
The scaling tip doesn't	The scaling tip is in loose contact.	Screw it tightly (see picture 3)
vibrate, but there is	The connector plug of the	Contact with the local
waterflowing out when		distributor or manufacturer.
stepping on the foot	board is in loose contact.	
switch.	Malfunction of the	Contact with the local
	handpiece.	distributor or manufacturer.
The scaling tip vibrates	The water control switch	Turn on the switch [note 1].
but there is no spray	is off.	
come out when	There is impurity in the	Contact with the local
stepping on the foot	solenoid valve.	distributor or manufacturer.
switch.	The water pipe is jammed.	Clean water pipe by multi-
		function syringe [note 2].
There is water flow	There is impurity in the	Contact with the local
out when turn off the	solenoid valve.	distributor or manufacturer.
power.		
	The amount of spouting	Turn the water control
The handpiece	water is too little.	switch to a higher grade
generates heat.		[note 1].
	The potentiometer is	Change a new one.
	broken.	
	The water control knob is	Turn the knob to a high
	a low grade.	grade [note 1].
The amount of spouting	The water pressure is not	Enhance the water pressure.
water is too little.	enough.	
	The water pipe is jammed.	Clean water pipe with multi-
		function syringe [note2].

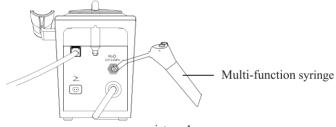
Fault	Possible Causes	Solutions
	The tip hasn't been	
The vibration of the tip	screwed tightly or	Screw the scaling tip tightly
becomes weak.	becomes loose because	(picture 3).
	of vibration.	
	The tip is damaged.[note 3]	Change a new one.
The vibrating intensity	The potentiometer is	Contact with the local
control knob is seized	damaged.	distributor or our company.
up.		

If the troubles still can't be solved, please contact with the local distributors or manufacturer.

3.6 Notice

[Note 1] The water control knob can adjust the water volume according to the symbol.

[Note 2] To clean the water pipe with the multi-function syringe of the dental unit (see picture 4):



picture 4

- a) Snip the water pipe at a distance of 10cm to 20cm from the water entrance.
- b) Turn on the power switch, get through to the power.
- c) Connect the multi-function syringe of the dental unit to the water pipe.
- d) Screw off the scaling tip or pull out the handpiece.
- e) Step on the foot switch.
- f) Turn on the switch of the multi-function syringe, press the air or water into the water pipe to clean and eliminate the impurity.

[Note 3] If the scaling tip has been screwed on tightly and there is fine spray too, the following phenomena show that the scaling tip is damaged:

- a) The vibrating intensity and the pulverization degree become weak obviously.
 - b) During operating, there is some buzz when the scaling tip is working.

4. Precaution

4.1 usage notice

- 4.1.1 Keep the scaler clean before and after operation.
- 4.1.2 The scaling tip, wrench and handpiece must be sterilized before each treatment.
 - 4.1.3 Don't screw the scaling tip when stepping on the foot switch.
- 4.1.4 The scaling tip must be fastened. 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 Don't twist or rub the tip.
- 4.1.7 While scaler is working, the heat of scaling tip will become higher if there is no water flowing out, please keep the water flow smoothly.
- 4.1.8 Don't use impure water source, and be sure not to 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 knock or rub the handpiece.
- 4.1.11 Please put the power plug into the socket easy to pull out, to make sure it can be pulled out in emergency.
- 4.1.12 When using the equipment, please keep the water get through smoothly, otherwise patient's tooth surface would be injured by overheat in the handpiece.
- 4.1.13 After finishing operation, turn off electrical source, and then pull out the plug.
- 4.1.14 As a professional manufacturer of medical instruments, we are only responsible for the safety on the following conditions:
- \boldsymbol{I} . The maintenance, repair and modification are made by the manufacturer or the authorized dealer.
- ${
 m II}$. The changed components are original of "WOODPECKER" and operated correctly according to instruction manual.
- 4.1.15 The screw thread of the scaling tips produced by other manufacturers maybe coarse, rusty and collapsed, which will damage the screw thread of the handpiece irretrievably. Please use "WOODPECKER" brand scaling tip.
- 4.1.16 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 patient who has hemophilia is not allowed to use this equipment.
- 4.2.2 The patient or doctor who are with heart pacemaker is 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 is 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, or explosive.
- 4.3.3 This equipment should be stored in a room where the relative humidity is $10\% \sim 93\%$, atmospheric pressure is 70kPa to106kPa, and the temperature is -20°C $\sim +55$ °C.
- 4.3.4 Please turn off the power switch and pull out the power plug when the equipment is not used. If the machine is not used for a long time, please make it get through to the power 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 don't invert it.
 - 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 professional technician. We are not responsible for any irretrievable damage caused by the unprofessional person.

6. Environmental protection

Please dispose according to the local laws.

7. Manufacturer's right

We reserve the rights to change the design of the equipment, the technique, fittings, the instruction manual and the content of the original packing list at any time without notice. If there are some differences between blueprint and real equipment, take the real equipment as the norm.

8. Symbol instruction



Trademark

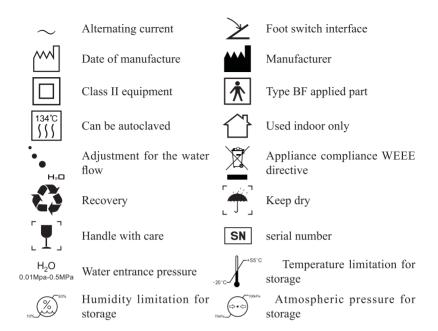


Consult the accompanying documents

IPX1

Anti-drip device

IPX0 Ordinary equipment



9. 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 (UDS-J2 LED)

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

Periodontics	
Tip Model	Power
P1	1-7
P2L	1-2
P2LD	1
P2R	1-2
P2RD	1
Р3	1-4
P3D	1-4
P4	1-4
P4D	-

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	1-7
SB2	1-7
SB3	1-7
SBL	1-7
SBR	1-7

Scan and Login website for more information





Guilin Woodpecker Medical Instrument Co., Ltd. Information Industrial Park, Guilin National High-Tech Zone, Guilin, Guangxi, 541004 P. R. China

Tel:

Europe Sales Dept.: +86-773-5873196, +86-773-2125222 North America, South America &

Oceania Sales Dept.:+86-773-5873198, +86-773-2125123 Asia & Africa Sales Dept.:+86-773-5855350, +86-773-2125896

Fax: +86-773-5822450

E-mail:woodpecker@glwoodpecker.com,sales@glwoodpecker.com

Website: http://www.glwoodpecker.com