



Fiber Optic Ultrasonic Scaler (Water Bottle)

Model:YS-CS-A (V)

Operation Manual

FOREWORD

Honorific Customer, welcome you to buy Ultrasonic Scaler YS-CS-A(V). It will bring fire-new experience and convenience.

This operation manual define summary, operation method, maintain of YS-CS-A(V). Wish you can read particular before use and operate depend on the indication of manual, use the machine in right way. Otherwise, Our company would not shoulder any responsibility of damage which causes by wrong operation.

If you want to buy the product, accessory and after sales service of Ultrasonic Scaler YS-CS-A(V). Please contact our company.

1. Equipment Summarize

1.1. Equipment Introduction

Ultrasonic Scaler is mainly used in cleaning the teeth. It is the indispensability equipment of teeth illness prevention. The YS-CS-A(V) Ultrasonic Scaler have 2 kind of water supply mode: inside water supply and outside water supply. It has many function such as: clean the teeth, cleanup the teeth concretion、tartar and pigment point and so on.

Characteristic:

1. With inside water supply system, convenient use.
2. Big LCD blue screen display, clearly and distinct.
3. Micro-computer control system, automatic follow frequency.
4. Detachable handpiece, can be sterilized in 135°C and 0.22Mpa.
5. Handpiece with light, dentist use convenient.

1.2 Equipment Label



A

Attention! Use before
reference operation manual



B

Use part, Type B



C

Class II equipment

IPX0

D.

Common Equipment

1.3. Equipment Standard

No.	Name	Standard	QTY	No.	Name	Standard	QTY
1	Mainframe	250mmX186mmX72mm	1	7	Wrench	φ32mmX39mm	1
2	Detachable Handpiece	φ30mmX110mm	1	8	Plastic Circle	φ3.2mmX1mm	22
3	Power Adapter	111X51X33	1	9	Operation Manual		1
4	Foot Switch		1	10	Warranty Sheet		1
5	Tips		5	11	Water Bottle		2
6	Water Pipe	φ6mmX4mm	1	12	Wligibility Certificate		1

1.4 Equipment Frame

The Scaler is made up of water circuitry, electrocircuit and ultrasonic power change device.

1.5 Technology Parameter

- a) Input Power: 40VA;
- b) Voltage: A.C. 100V~240V 50Hz \pm 1Hz ;
- c) Ultrasonic wave output character: Biggest output intensity 8W.
- d) Frequency: 25-35 kHz, 1-5 Bar
- e) Transformer: input: AC 100-240V, 50-60Hz, output: DC 24V
- f) Main libration excursion: 0.05-0.15mm, Half excursion power:

Not smaller than 0.5N

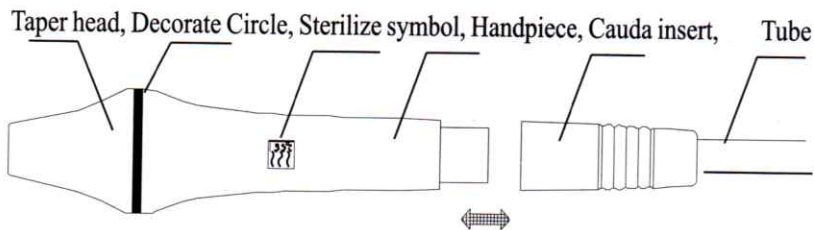
- g) Tips output libration frequency: 25KHz~35 KHz
- h) Operation type: Continue operation
- i) Type of Protection against Electric Shock: Class II
- j) Deleterious protect degree: Common equipment, Foot switch is water-proof type
- k) Depend on the safety degree classify of using with air flammability and anaesthetic gas or oxygen or with N₂O flammability and anaesthetic gas: This equipment can not use in these two situations.

Working situation: Air.

- a) Environment Temperature: 5 $^{\circ}$ C~40 $^{\circ}$ C;
- b) Relative humidity: \leq 80%
- c) Atmospheric pressure: 86 kPa ~106kPa;

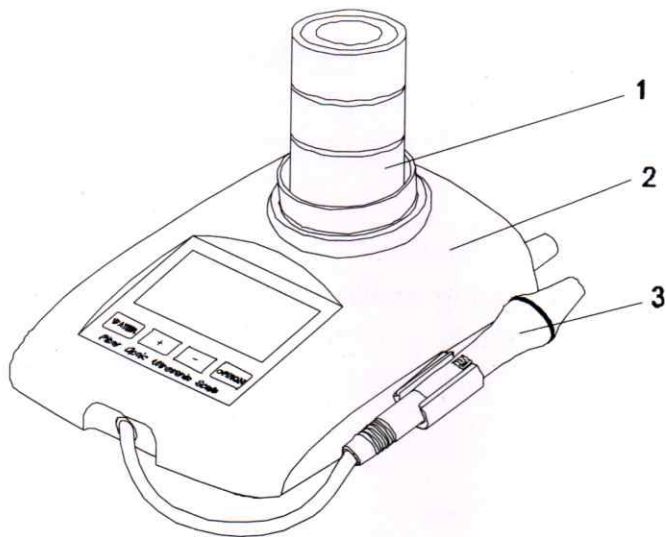
2. Name and Function of Each Part

2.1 Use Instruction Detachable Handpiece Mainly Part



- a) Taper head: Can be use autoclave sterilize.
- b) Decorate Circle: Can be use autoclave sterilize.
- c) Handpiece: Working main part, can be use autoclave sterilize.
- d) Symbol: Express can high temperature (135°C)、high pressure(0.22MPa) sterilize.
- e) Cauda insert: Connect the detachable handpiece with water and electricity of mainframe. Use alcohol for sterilizing.

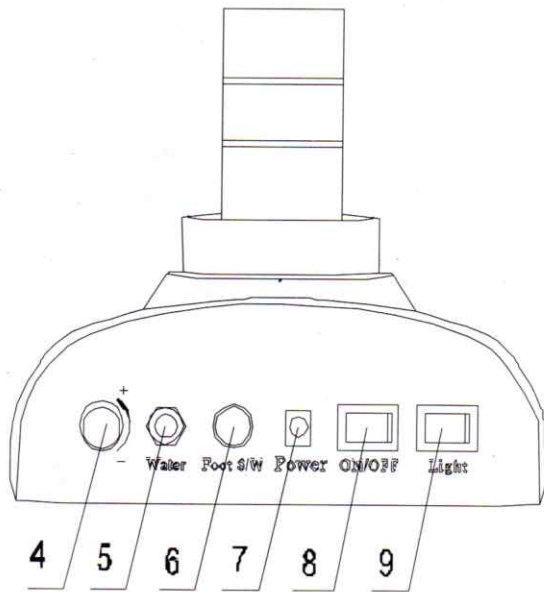
2.2 Equipment Frame



1. Water bottle

2. Mainframe

3. Fiber Optic Handpiece



4. Water regulation 5.intakes 6. foot switch 7.power socket
8.power switch 9. LED Switch

3. The Function Of Component

3.1 Steps

- take the instrument on solid flat surface and make it face to the operator;;
- make the power switch (ON/OFF) put off, and then make the power plug into host pulp (POWER)
- the foot pedal should be connect the switch plug;
- turn on the make the water regulator knob by counter-clockwise
- water installation:
 - the use of reservoir water bottle
Put the water into the bottle, and then make the bottle upside down and connect the machine
 - use the external pure water
The water inlet connect the a intake (WATER), and lock the nut; make the other side connect with the pure water phase;

f) make the working tip tighten the handle with the power wrench

and then the handle and insert will be in correct connection;

g) open the switch ON/OFF, LCD screen display water supply mode, frequency, size, working tip state;

h) Press "WATER" button under the need to select automatic mode or external pure water supply mode, the LCD screen will display the corresponding pattern.

i) Click "OPTION" key to select the suitable tip, the LCD screen will display the corresponding work tip; other two working tip will be flashed;

j) vibration intensity::

① G working tip, the liquid crystal display "P = 6",

② P / E working tip, the liquid crystal display "P = 4"

If required, adjust the size of vibration intensity, you can press button to select the "+", "-"

Working tip Model: G: scaling Category P: periodontal Treatment E: Root canal treatment

This instrument has 10 different intensity

k) Water regulation: pedal foot switch, the working tip to vibrate, rotate, and adjust knob effluent water, form Water spray;

l) LED switch: Switch divided into 3 files, according to the left is the LED light always open, the middle is off, press the right pedal, the pedal LED lights will become open;

m) Operation is complete, let the machine continue to work under conditions of water about 30 seconds to flush the handle and working tip.

3.2 The Limited Power Wrench Instructions

a) power wrench made of high temperature resistant material, the structure specially designed for loading and unloading tip the intensity of the work, which will carry out rational and effective control and ensure that the user in the course of loading and unloading convenient and effective and protect the user's hand in the work of loading and unloading are not in tip damage.

b) use

① Working loaded tip: Hold the handle with force, use the wrench whirl clockwise rotation until it is not in tip rotation,

② Unloading work tip: Hold the handle, with limited Power Wrench rotate counterclockwise, you can remove the working tip



Limited power wrench Schematic diagram of installation tip

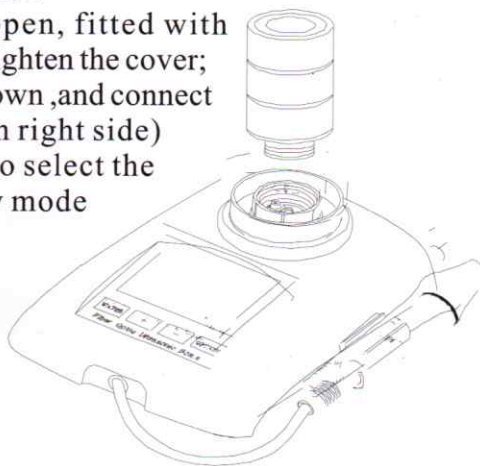
3.3 Supply Water Way

a) the use of the water bottle :

- ① Make bottle's cover open, fitted with appropriate pure water, tighten the cover;
- ② make the bottle upside down, and connect the scaler (see picture in right side)
- ③ Press "WATER" button to select the automatic water supply mode

b) External pure water

- ① use the water hose ϕ 6mmX4mm connect the inlet (WATER), The other connect the pure water.
- ② Tighten nut
- ③ Press "WATER" button to select the external pure water model;



3.4 Tube Function

a) Step :

- ① use the handle root connect the handle
- ② screw pine nut root canal converter
- ③ put the root canal file into the root canal converter front-End hole
- ④ with the root canal nut wrench to tighten the clamp root Canal File;

- ⑤ Click "OPTION" button to select the function of root canal therapy, this time on the LCD screen displays the corresponding Work sharp,
- ⑥ Switch the function SCALER to the ENDODONTIC function, the default power has fourth gear, put the file into the patient's root canal, presses the foot switch can be carry out root canal treatment, it could increase or decrease the power according to the situation in the clinical course of treatment.

Note:

- ① root canal converters must be screwed into the handle tightly
- ② the nut which is in root canal converter must be tightened;
- ③ root canal file can not be oppressed too tightly in the root canal ;
- ④ Only step up the foot pedal switch when the root canal file in the root canal .
- ⑤ lease choose based on the actual situation in power size;

4. Routine Maintenance And Sterilization

4.1 Handpiece Sterilization

4.1.1 Pull out the handle and unload the tip after use.

4.1.2 Optional high temperature and pressure sterilization
Temperature / pressure

a) 121 °C / 1bar (0.1MPa)

b) 135 °C / 2.2bar (0.22MPa)

4.2 Working Tip Sterilization

It can be sterilized with sterilized towel or alcohol; also can also be sterilized using autoclave sterilization.

4.3 Power Wrench Sterilization

a) power wrench can be sterilized with commonly non-corrosive neutral disinfectant disinfection ,can also choose Sterilizer autoclave sterilization.

4.4 Trail Plug Sterilization: Cleaned And Disinfected With alcohol.

Note: forbidden use following sterilization methods.

- ① Spanner is put in boiling solution;
- ② with tincture of iodine, alcohol, and glutaraldehyde disinfectant, etc.;
- ③ placed in the oven or microwave oven baking;

5. Frequently Asked Questions And Solutions

6. Note

6.1 Precautions

- 6.1.1 Instrument keep clean before and after use;
- 6.1.2 Before use, Sterilize the work tip, handpiece , power wrench and other accessories
- 6.1.3 Do not tread foot switch when loading and unloading tip;
- 6.1.4 working tip to be tightened and the work must have a water mist spray;
- 6.1.5 Do not use no clean water, avoid using saline instead of pure water. ;
- 6.1.6 Use non-pressure water, please put non-pressure at more than 1 m from patients head;
- 6.1.7 before installing the handle, please ensure the connector of handle and trail plug is dry.
- 6.1.8 when use the instrument ,Do not force pulling the lines, so as to avoid the handle and trail plug are separated, then effect don't work.
- 6.1.9 use finished, please turn off the power switch, unplug the power plug;
- 6.1.10 use the accessories are provided by factory;
- 6.1.11 Please note that the water level, and add water in time;
- 6.1.12 Do not use this device near strong magnetic fields

6.2 Contraindications

- 6.2.1 hemophilia patients, patients with a cardiac pacemaker is disabled;
- 6.2.2 heart disease, pregnant women and young children with caution.

6.3 Storage And Maintenance

- 6.3.1 The devices should be handled with care, away from the vibration source, and should be placed or stored in A cool dry and ventilated place;
- 6.3.2 Do not store with toxic, corrosive, flammable, explosive mix materials;
- 6.3.3 When this equipment is not in use a long time, should Have switch on or water every month, for once every 5 minutes.

7. Maintenance Instruction

- 7.1** From the sale date, within a year, does not work because of quality problems, the virtue of an invoice from my company can be free repair;
- 7.2** Repaired by non-designated officer of the company's to cause equipment damaged, not belong to the scope of free warranty.
- 7.3** The Company may provide the circuit diagram of maintenance and components lists, according to purchaser require

8. The Manufacturer's Right

For the machine design, product technology, accessories, instruction manual and machine packaging the content, the manufacturer have the right to make changes at any time, without notice.

9. The Environmental Protection

When the equipment after the expiration of life, do not arbitrarily discarded, please follow the local laws and regulations are properly handled

Packing List Of The Ultrasonic Scaler

No	Name	Qty	remark
1	Handle	1	
2	Scaler host	1	
3	Adapter	1	
4	Foot-switch	1	
5	Segment	5	
6	Segment handle	1	
7	Waterproof seal	20	
8	Water pipe	1	1.6M
9	Certification	1	
10	Manual	1	