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WOODPECKER

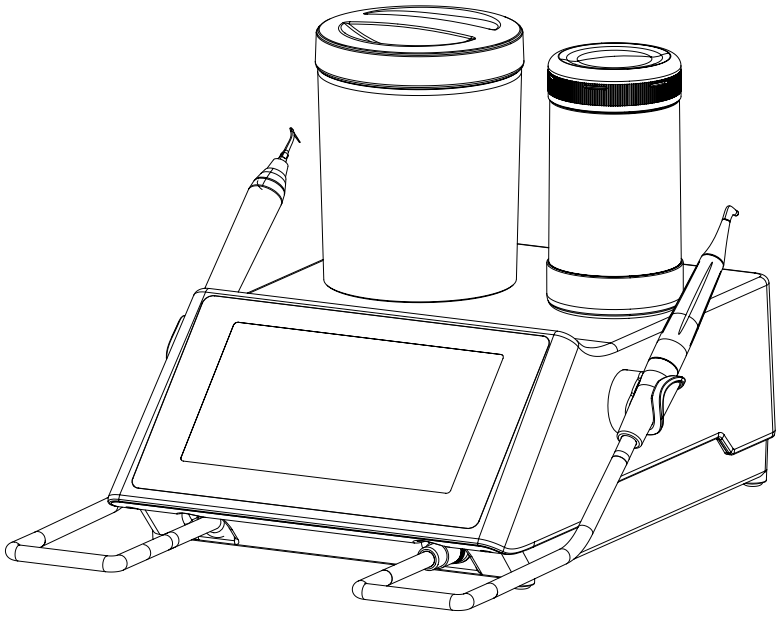
桂林市啄木鸟医疗器械有限公司

Guilin Woodpecker Medical Instrument Co., Ltd.

Please carefully read this Manual before first operation

PT-A Plus Dental Scaler and Air Polisher Instruction Manual

CE 0197



ZMN-SM-928 V1.2-20260427

www.glwoodpecker.com

GUILIN WOODPECKER MEDICAL INSTRUMENT CO., LTD.

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Forward

Guilin Woodpecker Medical Instrument Co., Ltd is a professional manufacturer researching, developing, and producing dental products. Woodpecker owns a sound quality control system and two brands, Woodpecker and DTE. Its main products include Ultrasonic air polishing Periodontal Treatment Device, Ultrasonic Scaler, Curing light, Apex locator, Ultrasurgery, etc.

1 Introduction

1.1 Brief introduction

PT-A Plus Dental Scaler and Air Polisher has both ultrasound system and air polishing system. It is suitable for periodontal treatment and root canal irrigation in dental clinical treatment. It can remove subgingival and supragingival calculus and plaque, so as to achieve the therapeutic effect of consolidating periodontal tissue. The features of this device are:

1) According to the selected handpiece, automatically switch the working mode.
2) The front panel adopts touch LCD screen, and the function selection and working status indication are simple and clear.
3) The rounded vibration trajectory of the tip realizes treatment and polishing at the same time. With small amplitude of tip, achieve painless treatment.
4) Titanium alloy tip will not hurt cementum or enamel.
5) In the automatic water supply mode, special chemical solutions such as hydrogen peroxide, sodium hypochlorite and chlorhexidine can be used to improve the clinical treatment effect.
6) The automatic frequency tracking system is used to automatically search for the best working condition, which brings more stable performance of device.
7) The three-piece design of air polishing handpiece is easy to load and unload for cleaning and maintenance.
8) The powder tank adopts a side cone structure to effectively reduce the residual amount of powder.
9) Detachable ultrasonic handpiece and air polishing handpiece can be sterilized under high temperature of 134℃ and high pressure of 0.22MPa.
10) The working process is fully automatic controlled by microcomputer, which is convenient and simple to operate and if of high efficiency.

1.2 Model

PT-A Plus

1.3 Device configuration

Please refer to the packing list for device configurations.

1.4 Structure and components

It consists of main unit, water bottle, powder tank, prophylaxis powder(Sodium bicarbonate,hydrophobic silica,edible essence), air polishing handpiece, ultrasonic handpiece, working tips, power cord, sand blasting nozzle, power cable and foot control, etc.

Applied part: working tips,sand blasting nozzle

1.5 Intended Use

1.5.1 Ultrasound system

① Scaling

- Removal of supragingival calculus
- Removal of stains

② Endo

- Preparation, cleaning and irrigation of root canals
- Retrograde preparation of root canals
- Condensing gutta-percha
- Removal of crown, bridges and restorations

③ Restorative

- Cavity preparation
- Luting inlays and onlays
- Condensing of amalgams

④ Perio

- Scaling and root planing
- Periodontal treatments

1.5.2 Air polishing system

- Remove dental plaque
- Surface preparation before bonding/cementation of inlays, onlays, crowns and veneers
- Perform the tooth surface preparation before placing the composite restoration.
- Cleaning before sticking orthodontic brackets
- Effectively remove plaque and tartar for orthodontic patients
- Cleaning the implant fixture before loading
- Stain removal for shade determination
- Remove plaque before fluoride treatment
- Remove plaque and tartar before whitening procedure

1.6 Intended user

Professional dentists.

1.7 Intended patient

Intended for use on patients requiring dental treatment.

1.8 Contraindications

1.8.1 Contraindications for treatment

① Contraindicated in patients with hemophilia.

② Contraindicated in patients and operators with pacemakers or other implanted electronic devices.

③ DO NOT use products on patient with uncontrolled acute bronchitis/asthma or upper respiratory tract disease or infection during treatment.

1.8.2 Patient contraindications

Do not use the Air Polisher function on specific sites

- Sites with suppuration on probing, including open wounds
- After any subgingival debridement, especially when the soft tissue condition is not optimal

- Profuse bleeding and suppuration on probing
- Lack of keratinized tissue
- Adjacent to an unhealed or recently extracted site
- Where there is presence of any abscess
- Acute pain at the site
- In case of vertical root fracture

1.8.3 Contraindications for air polishing powder

Powders are subject to their own contraindications, please refer to their instructions for use.

1.8.4 Residual risks

When using the ultrasonic function	When using the Air polishing function
• Increased gingival recession • Increased sensitivity • Tooth loosening or tooth loss • Pain • Infection/contamination (related to aerosol generation) • Soft tissue injury • Burn • Swallowing of parts • Pain/inflammation	• Pain/Inflammation • Emphysema • Infection • Soft or hard tissue damage/injury • Burn • Allergic reaction

1.8.5 Patient specific recommendations

⚠ Special considerations where clinicians must use their own discretion or consent from the physician:

- Antiresorptive therapy that reduces bone loss (i.e. therapy with bisphosphonates or denosumab).
- Pregnant and breast-feeding patients.

Contagious patients or patients with a risk of infection: suitability for air polishing and ultrasonic treatment needs to be assessed individually by the clinician according to the medical condition present and in accordance with practitioner protection level, patient risk assessment and specific country regulations.

- Medically compromised patients (e.g. diabetes, multiple drug interactions, cardiac abnormalities, infectious diseases, immunocompromised patients ...).
- Patients taking medications (e.g. anticoagulants).
- Patients with joint replacements.
- The treatment of deep periodontal pockets can cause bacteremia. Please apply appropriate restrictions for the treatment of risk patients: endocarditis, pregnancy, breast feeding, contagious disease, immune deficiency, patients under radiotherapy, chemotherapy, antibiotics treatment or in the healing phase.

Additional specific recommendations for ultrasonic only:

- Ultrasonic devices can create interferences with cardiac pacemakers, defibrillators or other active implantable medical devices only if the distance between the devices is too close. To avoid interference, please keep a safe workable distance >23cm between the ultrasonic device, cables, handpiece and the implanted device.
- There are a variety of pacemakers and other medically implanted devices on the market. Clinicians should get the patient's physician consent on the prophy-

laxis treatment with ultrasonic before any treatment to ensure that the treatment is compatible with the implanted device.

• Implantable electronic devices such as insulin pump and hearing aids are recommended to be switch off or removed during treatment.

1.8.6 Recommendations and safety precautions

Only use Woodpecker products together.

⚠ The use of any other accessories could lead to patient injury, malfunction or damage to the device.

⚠ Only use this product for the intended indications. Please refer toIntended Use section. Carefully read these operating instructions before using the product. This also applies to any product used with this system. Failure to observe the operating instructions may result in the patient or user suffering serious injury or the product being damaged.

⚠ Follow the recommendations of the "Cleaning, Disinfection, and Sterilization" regarding procedure. Always examine your air polishing handpiece and ultrasonic handpiece products for damage before starting treatment. Damaged product must not be used and must be replaced. Only use original Woodpecker spare parts and accessories.

⚠ DO NOT modify this equipment and/or any of its accessories. No modification of any part of this medical device is allowed.

1.7 Device safety classification

1.7.1 Classified by operation mode: Continuous operating device

1.7.2 Type of protection against electric shock: Class I

1.7.3 Degree of protection against electric shock: B type applied part

1.7.4 Degree of protection against harmful ingress of water: Ordinary equipment (IPX0). Foot pedal is anti-drip device (IPX1).Declaration: The product is suitable for scenarios where there is no liquid on the ground in the environment

1.7.5 Degree of safety application in the presence of a flammable anesthetic mixture with air, oxygen, or nitrous oxide: Equipment cannot be used in the presence of a flammable anesthetic mixture with air, oxygen, or nitrous oxide.

1.8 Main technical specification

1.8.1 Main unit input: 100-240V~, 50Hz/60Hz, 3-1.5A

1.8.2 Output main vibration offset of tip (maximum): 90μm, deviation: ±50%

1.8.3 Output vibrating frequency of tip: 30±5kHz

1.8.4 Output semi-offset force: 5N Deviation: ±50%

1.8.5 Output power of tip:3W~20W

1.8.6 Main unit fuse: T3.15AH 250V

1.8.7 Water inlet pressure: 1bar~5bar (0.1MPa~0.5MPa)

1.8.8 Air inlet pressure: 5.5bar~7.5bar (0.55MPa~0.75MPa)

1.8.9 Main unit weight: 2.75Kg

1.8.10 Main unit size: 330mm×280mm×120mm

1.8.11 Software version: V1

1.9 Operation environment

1.9.1 Environmental temperature: +5℃~+40℃

1.9.2 Relative humidity: 30% ~ 75%

1.9.3 Atmospheric pressure: 70kPa~106kPa
1.9.4 Cooling water temperature: +5℃~+25℃

2 Installation

2.1 Front view of the main unit

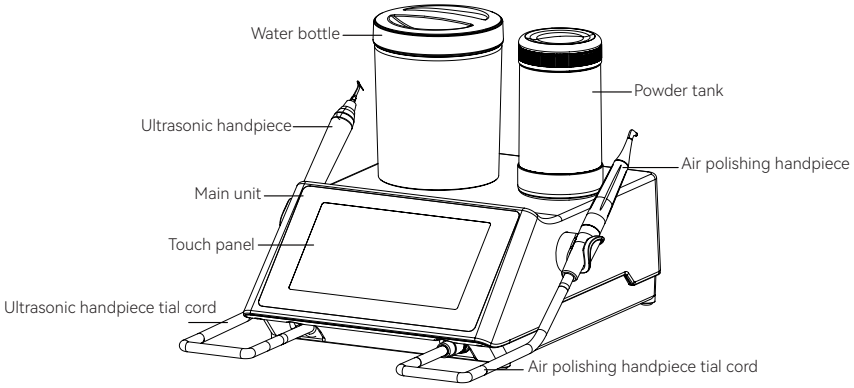


Figure 1 Front view of main unit

2.2 Rear view of the main unit

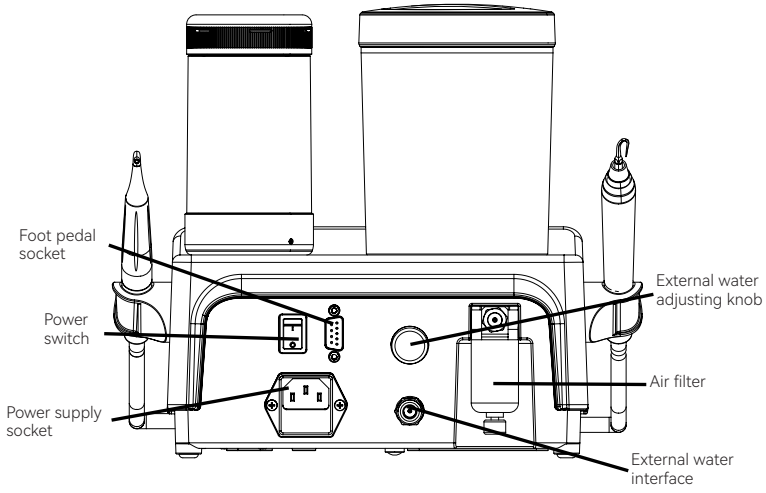


Figure 2 Rear view of the main unit

2.3 Touch panel



Scaling Ultrasonic scaling

Air Polishing Air polishing scaling

Purge Cleaning mode

G Scaling/supragingival air polishing

P Perio/subgingival air polishing

E Endodontic treatment

— Turn down water volume/power/air pressure

\+ Turn up water volume/power/air pressure

Setting

Heating

Water tank indicator light: Blue indicates internal water connection mode

Figure 3 Schematic diagram of touch panel

2.3 Schematic diagram of handpiece

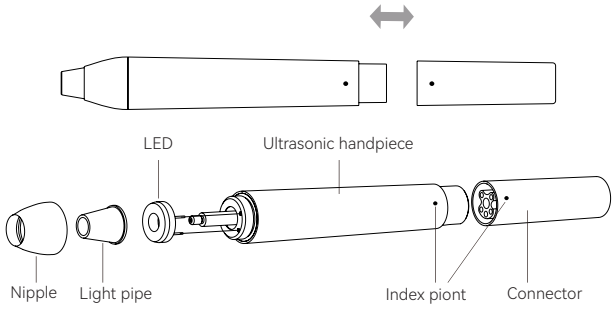


Figure 4 Ultrasonic handpiece



Figure 5 Air polishing handpiece

2.4 Schematic diagram of tip installations

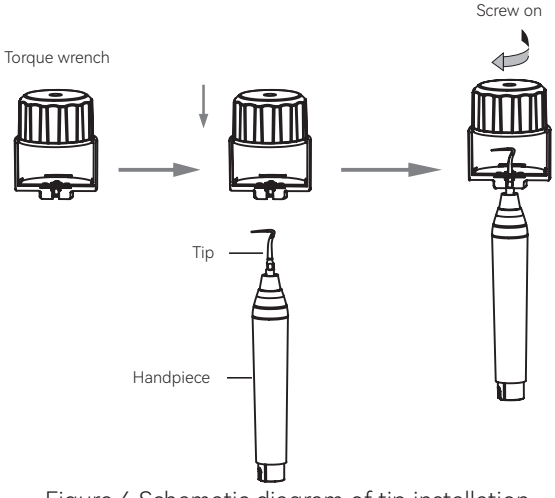


Figure 6 Schematic diagram of tip installation

2.5 Installation procedures

① Open the package, check whether the equipment is complete as per the packing list, and place the main unit on a solid plane, holding it directly facing the operator.

② Connect the power cable with main unit.

③ Plug the external air pipe connector into the air intake connector on the back of the main unit.

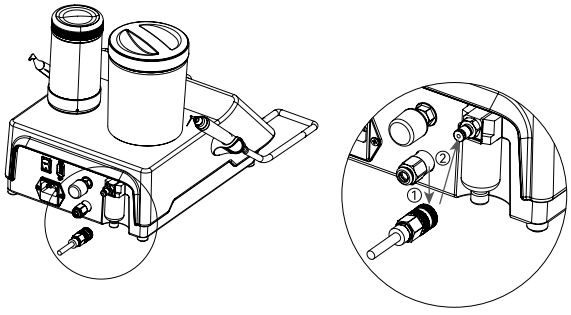


Figure 7 Schematic diagram of external air pipe installation

④ Insert the foot pedal plug into the foot switch socket.

⑤ Connect the ultrasonic handpiece and air polishing handpiece with corresponding tail cords respectively, and place the handpieces on the brackets on both sides of the main unit. The ultrasonic handpiece is on the left and the air polishing handpiece is on the right.

Warning1: When the machine is connected to the network power supply, the protec- tion ground must be linked.

Warning2: When the machine is connected to the network power supply, do not place or install the product where it is difficult to disconnect the network power supply.

3 Function and operation

3.1 Multi-function foot pedal

① According to the installation procedures, insert the foot pedal plug into the main unit, tighten it, and place the foot pedal face up on a flat surface.

② The multi-function pedal is as shown in the figure, and the functions of each button are as follows:

Button	Working mode	Function	
		Ultrasound system	Air polishing system
A	Standard	Vibration + water	Air, powder + water
B	Anhydrous mode	Vibration	Air only
C (+A)	Enhance 【Note】	Power increases by three levels	Air pressure increases by three levels
D	Irrigation	Only water spray	Air+Water

【Note】In the Enhance mode, the power/air pressure is increased by three

levels based on the original level, and the maximum is level 12. When the pedal button C is released, the gear position is automatically restored to the previously set gear position.

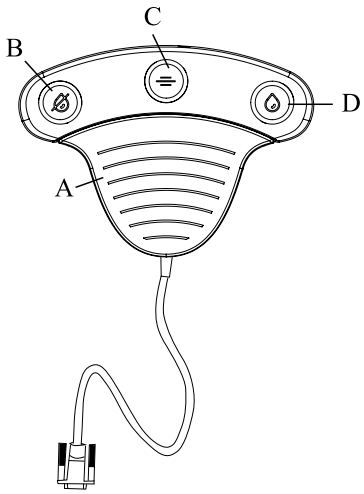


Figure 8 Schematic diagram of multi-function foot pedal

3.2 Ultrasound system

3.2.1 Scaling

1. Install the product correctly according to the product installation steps, and the operator is facing the machine.

2.Turn on the power switch on the main unit and pick up the ultrasonic handpiece. At this time, the panel automatically jumps into the Ultrasound system interface, and the indicator under water bottle lights up.

3.This machine uses the touch panel. Directly click the “G” on the panel to enter the teeth scaling mode.

4.Select the appropriate water supply method and click on the water bottle/faucet icon on the panel to switch between water bottle supply and external water.

5.Select proper tip as per need, and use torque wrench to tighten it to the handpiece.

6.When the foot button A is pressed, the tip vibrates, and the LED light on the head of handpiece is illuminated, accompanied by the cooling water spray (For the first time after booting, as there is more air in the pipeline, it takes a few seconds to drain.) After releasing the foot pedal, the vibration and water spray stop, and the LED light continues to light for 10 seconds and then goes out.

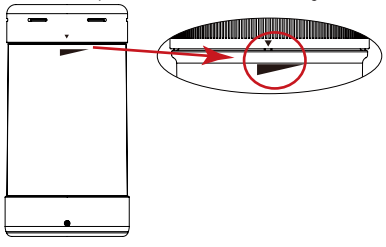
7.Generally, hold the handpiece with the gesture of holding a pen.

8.The frequency of the tip is extremely high. In the condition of normal tip vibration and water spray, lightly touch the tooth surface with the side of tip and move in a certain to-and-fro motion to eliminate the calculus without obvious heating. Avoid local overexertion or overstay in scaling.

9.Vibrating intensity: Adjust the vibrating intensity according to your need. Generally start with level 1 power, and adjust the vibrating intensity according to the teeth sensitivity and hardness of calculus during clinical application.
10.Water volume: For water bottle supply mode, click the water volume adjusting knob on penal to adjust. For external water supply mode, adjust the water volume through the water volume adjusting knob on the back of main unit.
11.In clinical scaling, please keep the side of the tip in contact with and parallel to the tooth surface. Do not apply pressure so as to allow the tip to vibrate freely.
12.After operation, please keep device working for 30s with water supply to wash the handpiece and tips.
13.Remove the tip for disinfection.
3.2.2 Ultrasonic periodontal treatment
1.Use a torque wrench to tighten the periodontal treatment tip to the ultrasonic handpiece. Click the “P” key on panel to enter the periodontal treatment mode.
2.The rest of the operation and adjustment methods are similar to the ultrasonic scaling mode.
3.2.3 Endodontic irrigation
1.Tighten the Endo file to the Ultrasonic handpiece with Endo wrench.
2.Click the “E” key on panel to enter the Endodontic irrigation mode.
3.After switching to the Endodontic irrigation mode, the default power level is level 1. Select higher power level according actual need during clinical treatment.
4.Select the appropriate Endo file and slowly place it into the root canal of the patient’s teeth. Start the foot pedal to perform ultrasonic endodontic irrigation.
5.When the Endo file is in the root canal, please do not the press it too tight.
6.Only after the Endo file is in the root canal can the foot pedal can be activated.
7.The recommended power level of Endodontic irrigation is level 1 – level 5.

3.3 Air polishing system

1. Add appropriate amount of powder to the supragingival powder tank (the amount of powder should to be controlled between the “Max” amount and “Min” amount on the surface of the tank), then tighten the cover of powder tank and plug the powder tank into the powder tank socket just above the device.



Align the‘▼’ mark on the cover within the ‘▬’ range before use (see figure:‘▼▬’). If not properly aligned, powder may leak from the pressure relief hole on the cover.

2. Pick up the air polishing handpiece, the panel automatically jumps to working interface of air polishing mode. Click the “G” key on the panel to enter the su-

pragingival air polishing mode.
3. Click the panel to adjust the water volume to the maximum level (level 12), adjust the air pressure (POWER) to level 1, align the nozzle with the pool, and press the button A on foot pedal to confirm whether the nozzle can normally emit gas, powder and water mist. The device can be used later after the nozzle can normally emit gas, powder and water mist.
4. Before air polishing treatment, please help patient to wear the goggles and give patient a mask to cover the face or let. And the users should wear goggles or a protective mask.
5. Generally, hold the handpiece with the gesture of holding a pen.
6. Adjust the water volume and air pressure to appropriate level. Normally the water volume starts with level 5, and air pressure starts with level 1. During clinical application, adjust the water volume and air pressure according to the teeth sensitivity and dental plaque condition. Increase of air pressure will enhance the cleaning effect, but will weaken the polishing effect. Increase of water volume will enhance the polishing effect, but weaken the cleaning effect.
7.During scaling, align the nozzle with the tooth surface, but not directly contact it. Keep it 3-5mm away from the tooth surface at the angle of 30°-60°. The smaller the angle, the bigger the cleaning area will be. During scaling, please perform a small circular motion on the tooth surface. Do not point the nozzle at the gums or periodontal parts.
8.The air/powder mixture reflected from the tooth surface should be evacuated by using a strong suction device on the dental unit during treatment.
9.After treatment, adjust the water volume to the maximum level, and polish the surface of all teeth.

3.4 Cleaning mode

It is recommended to flush and disinfect the pipe of the unit daily. The Cleaning mode allows the pipes to be cleaned and disinfected to reduce crystal accumulation and the amount of bacteria in the pipe.
1.Fill the water bottle with distilled or dematerialized water.
2.Pick up the ultrasonic handpiece, point the handpiece at the sink, click the “Purge” button on the screen, and press the button D on foot pedal to start cleaning the pipeline. At this time, the pedal can be released.
3.After cleaning for 30 seconds, the device will automatically stop the “Cleaning” mode. You can also press the button D on foot pedal again in the “Cleaning” mode or click “Purge” on the screen to stop cleaning.
4.After cleaning, put the ultrasonic handpiece back into the bracket. And then, pick up the air polishing handpiece, point the handpiece nozzle at the pool, and click the “purge” button again, so that the device will automatically blow out the residual powder in the pipeline and release the high pressure gas in powder tank.
5.After cleaning for 20 seconds, the device will automatically exit the “Cleaning” mode. You can also click “Purge” on the screen to stop cleaning.

3.5 Function setting

Click the Setting key on the panel to enter the setting interface for language selection and the start or closure of heater. The power and water volume are automatically restored to the gear positions set at the factory when you click the

'Restore the factory setting'.

3.6 Precautions

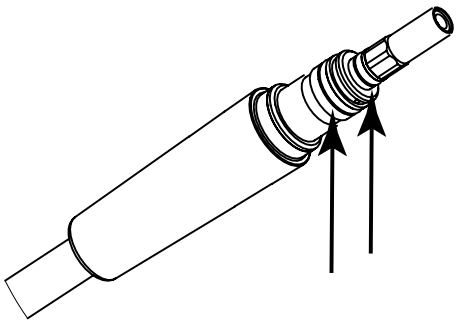
1.Please keep the device clean before and after operation.
2.Allow the machine to work with water for 10 seconds before each clinical operation to remove any water remaining in the pipe.
3.Operators should be equipped with adequate protection (e.g., goggles, masks, etc.) to prevent cross-contamination.
4.Product use must comply with the relevant operation specifications and relevant regulations of the medical department. And the operation is limited to trained doctors or technicians.
5.Before each operation, please disinfect the accessories such as ultrasonic handpiece, tip, torque wrench and air polishing handpiece.
6.Please do not load or unload the tip while stepping on the foot pedal or the handpiece is vibrating.
7.Do not step on the foot pedal button while the tail cord of the air polishing handpiece has been removed from the main unit.
8.Before using the ultrasonic handpiece, make sure that the tail cord of the air polishing handpiece is correctly placed on the handpiece bracket; similarly, before using the air polishing handpiece, make sure that the ultrasonic handpiece tail plug is correctly placed on the ultrasonic handpiece bracket.
9.The tip must be tightened.
10.When the tip is damaged or worn, the vibration intensity will decrease. The operator should replace it with a new one in time according to the clinical situation.
11.Do not bend or grind the tip.
12. If the equipment is used in the waterless mode for a while, the temperature of the tip may be more than 51 ℃. It is recommended that the tip continuously works for 2 seconds and pause for at least 15 seconds in the waterless mode.
13.Under no circumstances should the air polishing handpiece nozzle be aimed at people.
14.If the powder accidentally sprays into the eyes, it may damage eyes. We strongly recommend that all personnel (doctors, nurses, patients) wear goggles during air polishing treatment.
15.During the air polishing process, if you need to add powder to the powder tank, please click the "Cleaning" key on the screen, wait for the internal pressure of the powder tank to be released, then remove the powder tank from the machine and load the appropriate amount of powder.
16.Before replacing the air polishing handpiece or the nozzle, please use a syringe to blow the moisture at the joints at both ends (especially the gas interface) to prevent moisture from entering the gas path and avoid clogging of the powder in the pipeline.
17.Do not use unclean water.
18.If a pressureless water source is used, the water surface of the pressureless water source should be more than one meter above the patient's head.
19.Do not pull the tail cord hard during the use of the device to avoid damage to the tail cord.
20.Do not hit or scratch the handpiece.

21.After operation, turn off the power cable and unplug the power plug.
22.If there is any problem with the power cable, please return it to the manufacturer or have it repaired by an authorized professional.
23.Our company is specialized in the production of medical devices. Only when the maintenance, repair and modification of the machine is carried out by our company or our authorized dealer, the replacement parts are the Woodpecker accessories and the operation is in accordance with the instruction manual, we are responsible for its security.
24.The inner thread of the tip manufactured by certain manufacturers are rough, rusty and will break the teeth or adopt other thread system, the combination between the above mentioned inner thread with our handpiece will damage the outer thread of handpiece, which will cause irreparable damage to the scaler. Please use corresponding tips of the Woodpecker brand.
25. If you find that the sealing ring is damaged when using PT-A Plus, please refer to the annex Sealing Ring Specifications in the Manual and get it replaced with suitable sealing ring. There are seals of various specifications in the supplied accessories. If you have any questions, please contact the manufacturer or local distributor.
26. Use of this equipment adjacent to or stacked with other equipment should be avoided because it could result in improper operation. If such use is necessary, this equipment and the other equipment should be observed to verify that they are operating normally.
27. Use of accessories, transducers and cables other than those specified or provided by the manufacturer of this equipment could result in increased electromagnetic emissions or decreased electromagnetic immunity of this equipment and result in improper operation.
28. The device can't be used in rooms where HF surgical equipment, MRI equipment or CT equipment are present.
29. Intended for use in the dental office of a hospital or clinic, dental chairs, other dental electronic devices and other sources of interference in the environment may cause electromagnetic interference to the product.

4 Troubleshooting

4.1 Description of Wearing Parts

1. The O-rings at the joint of the handpiece: the connection position of the handpiece may be damaged due to its frequent unplugging, so it needs to be replaced as needed from time to time.

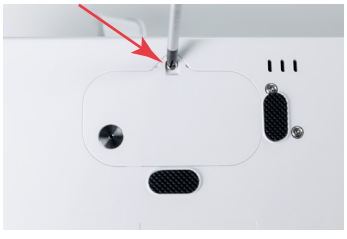


2. Maintenance of bottom chamber (pinch valve)
After a pop-up window “Please clean the pinch valve in time” appears on the main unit screen to give a maintenance prompt, please turn off the device and cut off the power, water and air sources.

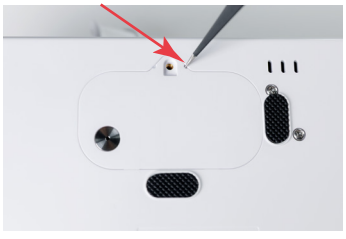
Maintenance Due:Powder Container and Bottom Powder Tube Compartment. Please perform this maintenance promptly. Refer to the IFU or scan the QR code for instructions.
Click "Complete powder container maintenance" when done.

EXIT

Remove the screws on the chamber cover at the bottom of the device. It is normal to find powder remaining on the chamber cover.
Blow away the powder left in the chamber with an air gun, re-close the base cover and tighten the screws.
After the operation is completed, click OK in the pop-up window on the main unit screen to complete the maintenance.



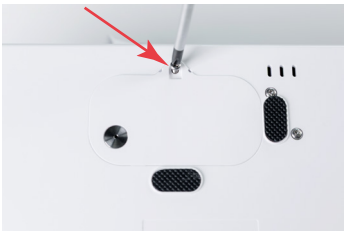
① Loosen the base cover screw



② Pry out the base cover from the slot with tweezers



③ Blow away the powder left in the pinch valve chamber with an air gun.

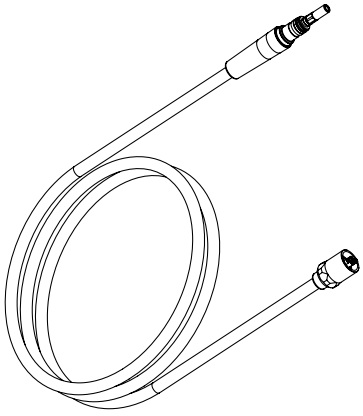


④ Re-install the base cover screw

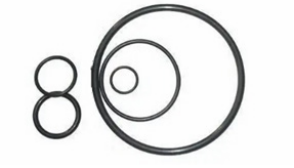
Note: If any situation that cannot be handled occurs during maintenance, please contact the distributor or manufacturer in time.

3. The sandblasting tail line of the main engine: there is a sand hose in the tail line of the sandblasting handpiece, and the wear of the hose for a long time may lead to air leakage and sand leakage of the tail line; it needs to be replaced The sandblasting tail line of the main engine:

Frequency of use	Expected life
1 ~ 2 times/day	4 ~ 6 years
3 ~ 4 times/day	2 ~ 4 years
5 times or more/day	1 ~ 2 years



4. The O-rings in the rest of the mainframe may also be damaged due to wear and tear, which need to be replaced after the damage.



4.2 Troubleshooting

Fault	Possible cause	Solutions
There is a pop-up prompt “Heating malfunction. Please turn off heating system.”	The heating system is abnormal and cannot conduct heating normally.	Enter the air polishing interface and turn off heating. If other functions perform normally, please contact local dealer or Woodpecker to replace the heater.
There is a pop-up prompt “Grounding fault, please turn off heating system and check the circuit grounding condition of your clinic.”	The clinic power supply is not grounded.	Enter the air polishing interface and turn off heating. If other functions perform normally, it’s recommended to use a grounded power supply.
The tip does not vibrate and there is no water spray after power on and stepping on the foot pedal.	Loose contact of power cable plug.	Plug the power cable plug well.
	Loose contact of foot pedal.	Plug the foot pedal plug well.
	The fuse is broken.	Change to T3.15AH 250V fuse.
	The bracket switch does not pop up.	Move the bracket switch to make it pop up smoothly.
The tip does not vibrate and there is water spray after power on and stepping on the foot pedal.	Loose tip	Tighten the tip (figure 6)
	The connection between the tail wire and the circuit board is loose.	Contact local distributor or manufacturer.
	Handpiece failure	Contact local distributor or manufacturer.
	Tail cord failure	Contact local distributor or manufacturer.
The tip vibrates but there is no water spray after power on and stepping on the foot pedal.	Water volume adjustment knob is not open.	Open the water volume adjustment knob. 【Note1】
	Wrong selection of water supply mode	Keep the water supply mode displayed on screen consistent with the actual water supply.
	Filter clogging	Clean the filter
	Impurity in the solenoid valve	Contact local distributor or manufacturer.
	Water line clogging	Use syringe to drain.
After power-off, there is still water spray.	Impurity in the solenoid valve	Contact local distributor or manufacturer.

Heating handpiece	Water volume is too small	Turn up the water volume. 【Note1】
	Device fault	Contact local distributor or manufacturer.
The effluent water temperature is too high (over 45 ° C)	Thermocouple failure	Contact local distributor or manufacturer.
Water spray is too small	Water volume is too small	Turn up the water volume. 【Note1】
	Water pressure is not enough	Increase the water pressure
	Water line clogging	Use syringe to drain.
Weakened tip vibration	Tip is not tightened.	Tighten the tip (Figure 6)
	Tip is loose	Tighten the tip (Figure 6)
	Broken tip 【Note2】	Replace the tip
The Endo file does not vibrate	The nut is not tightened	Tighten the nut
There is no air spray and water spray after power on and stepping on the foot pedal.	Loose contact of power cable plug.	Plug the power cable plug well.
	Loose contact of foot pedal.	Plug the foot pedal plug well.
	The bracket switch does not pop up.	Move the bracket switch to make it pop up smoothly.
The nozzle does not spray gas but there is water spray after power on and stepping on the foot pedal.	Nozzle clogging	Dredge the nozzle
	Handpiece clogging	Dredge the handpiece
	Clogging of handpiece tail cord	Remove the tail cord from the main unit, dredge the tail cord or replace it.
	Solenoid valve failure	Contact local distributor or manufacturer.
There is air flow but no water spray after power on and stepping on the foot pedal.	Water volume adjustment knob is not open.	Open the water volume adjustment knob. 【Note1】
	Wrong selection of water supply mode	Keep the water supply mode displayed on screen consistent with the actual water supply.
	Filter clogging	Clean the filter
	Impurity in the solenoid valve	Contact local distributor or manufacturer.
	Water line clogging	Contact local distributor or manufacturer.

Leaking air of powder tank	The O-ring on base of powder tank is broken.	Contact local distributor or manufacturer.
	The rubber ring on upper cover of powder tank is broken.	Replace the rubber ring.
	There is powder residue at the thread, so that the screw is not in place.	Remove the residual powder at the thread part.
	The upper cover of powder tank is broken.	Replace the upper cover of powder tank.
	The thread of powder tank is broken so that the screw is not in place.	Replace the powder tank.
Water leakage of air polishing handpiece	Broken O-ring of handpiece	Replace the O-ring
The air powder scaling efficiency is reduced.	The powder in tank is not enough.	Add powder to the tank.
	Powder residue in pipe, handpiece, or nozzle passage	Clean the passage with a fine needle and blow it off with compressed air.
Touch panel pops up prompt message	No powder chamber	Check the powder chamber and reinstall.
	Insufficient pressure	Increase pressure of external air.
	Do not take two handpieces at the same time	Choose one handpiece when working and put another one back into the bracket.
	Please adjust water volume by the knob	Using the knob to adjust the water volume when the external water is choosed.
	Heating system failure! Please stop heating.	Turn off heating and contact local distributor or manufacturer.

Note: if the problems cannot be solved, please contact local distributor or manufacturer.

4.2 Notice

【Note1】As shown in the picture, the water volume can be increased or decrease through adjusting the water volume adjustment knob.

【Note2】If the tip is surely tightened and there is water mist spray, the tip is considered to be damaged with the following phenomena:

1) The vibration intensity of the tip and the degree of water atomization are significantly weakened.

2) The tip makes a harsh "click" sound during operation.

5 Cleaning, disinfection, and sterilization

Drain the water tubing-dry mode

After each use, the water in the water tubing should be drained to avoid the retention of residual water and the growth of bacteria. The method of draining the water in the tubing is as follows:

(1) In ultrasonic mode

a. If water bottle is used for water supply:

After treatment, remove the ultrasonic handpiece and water bottle, and pour out the remaining liquid in the water bottle. Touch the "Auto Purging" button on the screen and step on the D button on the pedal. At this time, you can release the pedal and it will stop automatically after 30 seconds. Touch the "Auto Purging" button again and repeat the above steps for 3 times to drain the water in the tubing.

b. If external water supply is used:

After treatment, turn off the external water switch, remove the ultrasonic handpiece, touch the "Auto Purging" button on the screen and step on the D button on the pedal. At this time, you can release the pedal and it will stop automatically after 30 seconds. Touch the "Auto Purging" button again and repeat the above steps for 3 times to drain the water in the tubing.

(2) In Airpolishing mode

Remove the sand blasting handpiece and water bottle, pour out the remaining water in the water bottle or turn off the external water switch, adjust all gears to the maximum level, press the pedal continuously for 1 min, then release the pedal to drain the water in the tubing.

The cleaning, disinfection and sterilization of the Ultrasonic handpiece, scaling tip, Air polishing handpiece, nozzle, and wrench are as follows. Unless otherwise stated, they will be hereinafter referred to as "products.

Warnings

1) The use of strong detergent and disinfectant (alkaline pH>9 or acid pH<5) will reduce the life span of products. And in such cases, the manufacturer takes no responsibility.

2) Do not clean the Ultrasonic handpiece with ultrasound cleaning machine.

3) This device shall not be exposed to high temperature above 138℃.

4) Please note that disinfection is not a substitute for cleaning or sterilization. Both cleaning and sterilization must be performed after each use.

Reprocessing limit

The products have been designed for a large number of sterilization cycles. The materials used in manufacture were selected accordingly. However with every renewed preparation for use, thermal and chemical stresses will result in aging of the products. The maximum number of sterilizations for the Ultrasonic handpiece is 600 times. For Air polishing handpiece, it is 1000 times. For tips, it is 300 times. And for wrench, it is 1000 times.

5.1 Initial processing

5.1.1 Processing principles

It is only possible to carry out effective sterilization after the completion of effective cleaning and disinfection. Please ensure that, as part of your responsibility for the sterility of products during use, only sufficiently validated equipment and

product-specific procedures are used for cleaning/disinfection and sterilization, and that the validated parameters are adhered to during every cycle.
Please also observe the applicable legal requirements in your country as well as the hygiene regulations of the hospital or clinic, especially with regard to the additional requirements for the inactivation of prions.
5.1.2 Post-operative treatment
The post-operative treatment must be carried out immediately, no later than 30 minutes after the completion of the operation. The steps are as follows:
1. Let the PT-A Plus Dental Scaler and Air Polisher work for 20-30 seconds under irrigation mode to flush the Ultrasonic handpiece, tip, air polishing handpiece and nozzle.
2.Remove the Ultrasonic handpiece and air polishing handpiece from the PT-A Plus Dental Scaler and Air Polisher, and rinse away the dirt on the surface of product with pure water (or distilled water/deionized water).
3. Dry the product with a clean, soft cloth and place it in a clean tray.

5.2 Transportation

Safely store and transport the device to the reprocessing area to avoid any damage and contamination to the environment.

5.3 Preparation before cleaning

The devices must be reprocessed in a disassembled state. Steps are as follows:
Tools: 5# torque wrench (or endo wrench), tray, soft brush, clean and dry soft cloth
1. Remove the tip from the Ultrasonic handpiece with 5# torque wrench provided by Guilin Woodpecker Medical Instrument Co., Ltd, and then put the tip and wrench into a clean tray.
2. Unscrew the nipple of handpiece counterclockwise, remove the sealing ring, light pipe, and LED lamp, and put them in the tray.
3. Remove the nozzle from air polishing handpiece, and then put them into a clean tray.
4. Use a clean soft brush to carefully brush the joints between handpiece and the connector of cable, front thread, horn, nipple, seal ring, light pipe, LED lamp, and nozzle until the dirt on surface is not visible. Then use soft cloth to dry the handpiece and accessories and put them into a clean tray. The cleaning agent can be pure water, distilled water or deionized water.
For disassembling steps see figure 9 below for details.

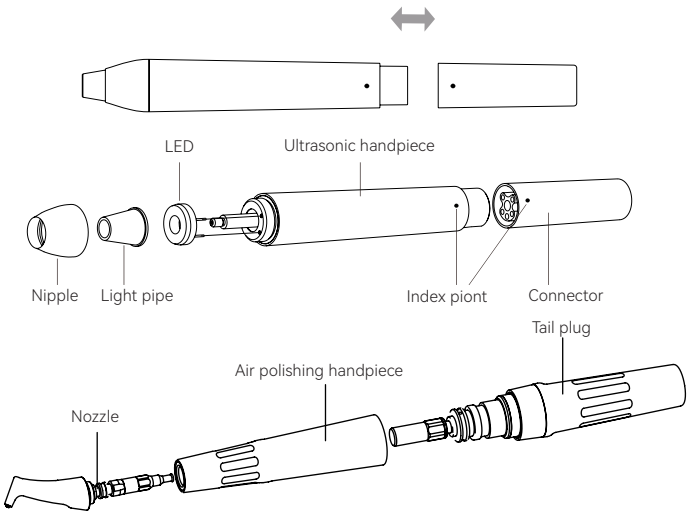


Figure 9 Ultrasonic handpiece and Air polishing handpiece

5.4 Cleaning

The cleaning should be performed no later than 1 hour after the operation.
Preference is given to automated reprocessing methods, especially due to the better standardizing potential and industrial safety.
Automated cleaning

- The cleaner is proved to be valid by CE or FDA certification in accordance with ISO 15883.
- There should be a flushing connector connected to the inner cavity of the product.
- The cleaning procedure is suitable for the product, and the irrigating period is sufficient.
- Do not clean the Ultrasonic handpiece with ultrasound.

1. Carefully place the product into the washer-disinfector. Fixation of product is needed only when the product is removable in the device. The products are not allowed to contact each other.
2. Connect the interface of the nozzle to the appropriate flushing connector of the automatic washer-disinfector.
3. Start the program of the washer-disinfector:
-3 min pre-cleaning with cold purified water
-emptying
-5 min washing with Metrex Empower in deionized water (<45℃)
Cleaning Agent: Metrex EmPower Concentration: 1:128~1:512
Temperature: 20℃~40℃
-emptying
-1 min intermediate rinsing with cold deionized water
-emptying
-1 min intermediate rinsing with cold deionized water
-Emptying

Notes

a) The cleaning agent does not have to be pure water. It can be distilled water, deionized water or multi-enzyme. But please ensure that the selected cleaning agent is compatible with the product.

b) In washing stage, the water temperature should not exceed 45 ℃, otherwise the protein will solidify and would be difficult to remove

5.5 Disinfection

Notes

1) According to ISO 17664 no manual reprocessing methods are required for these devices. If a manual reprocessing method has to be used, please validate it prior to use.

2) The washer-disinfector is proved to be valid by CE or FDA certification in accordance with ISO 15883.

3) Regularly repair and inspect the disinfector. Disinfection must be performed no later than 2 hours after the cleaning phase. Automated disinfection is preferred if conditions permit.

5.6 Drying

Automated Drying: Drying of outside of instrument through drying cycle of washer/ disinfector. If needed, additional manual drying can be performed through lint free towel. If using sterile compressed air for drying insufflate cavities of instruments, the air must be filtered by HEP.

Manual drying:

If your cleaning and disinfection process does not have an automatic drying function, dry it after cleaning and disinfection.

Methods

1. Spread a clean white paper (white cloth) on the flat table, point the product against the white paper (white cloth), and then dry the product with filtered dry compressed air (maximum pressure 3 bar). Until no liquid is sprayed onto the white paper (white cloth), the product drying is
completed.

2. It can also be dried directly in a medical drying cabinet (or oven). The recommended drying temperature is 80℃~120℃ and the time should be 15~40 minute.

Notes

a) The drying of product must be performed in a clean place.

b) The equipment used should be inspected and maintained regularly.

5.7 Inspection and maintenance

In this chapter, we only check the appearance of the product. After inspection, if the- re is no problem, the Ultrasonic handpiece should be immediately reassembled. Ins- tall the sealing ring, LED, light guide, and cone head in sequence to the Ultrasonic handpiece, and then tighten the cone head clockwise. The nozzle should be immediately inserted into air polishing handpiece.

5.7.1 Check the product. If there is still visible stain on the product after cleaning/ disinfection, the entire cleaning/disinfection process must be repeated.

5.7.2 Check the product. If it is obviously damaged, smashed, detached, corroded or bent, it must be scrapped and not allowed to continue to be used.

5.7.3 Check the product. If the accessories are found to be damaged, please replace them before use. And the new accessories for replacement must be cleaned, disinfected and dried.
5.7.4 If the service time (number of times) of the product reaches the specified service life (number of times), please replace it in time.

5.8 Packaging

Install the cleaned and dried product and quickly package it in a FDA-cleared wrap or pouch or other method of maintaining sterility for the sterilization.

Notes

a) The packaging environment and related tools must be cleaned regularly to ensue cleanliness and prevent the introduction of contaminants.
b) Avoid contact with parts of different metals when packaging.

5.9 Sterilization

Use the following steam sterilization procedures (fractional pre-vacuum procedure*) for sterilization:
1. The steam sterilizer complies with EN13060 or is certified according to EN 285 to comply with ISO 17665.
2. The sterilization time is 4 minutes at a temperature of 132 ℃/134 ℃ and a pressure of 2.0 bar ~2.3 bars, with drying time of 20 minutes.

Notes

a) Only products that have been effectively cleaned and disinfected are allowed to be sterilized.
b) Before using the sterilizer for sterilization, read the Instruction Manual provided by the equipment manufacturer and follow the instructions.
c) Do not use hot air sterilization and radiation sterilization as this may result in da- mage to the product.
d) Please use the recommended sterilization procedures for sterilization. It is not recommended to sterilize with other sterilization procedures such as ethylene oxide, formaldehyde and low temperature plasma sterilization. The manufacturer assumes no responsibility for the procedures that have not been recommended. If you use the sterilization procedures that have not been recommended, please adhere to related effective standards and verify the suitability and effectiveness.
*Fractional pre-vacuum procedure = steam sterilization with repetitive pre-vacuum. The procedure used here is to perform steam sterilization through three pre-vacuums.

5.10 Storage

5.10.1 Store in a clean, dry, ventilated, non-corrosive atmosphere with a relative humidity of 10% to 93%, an atmospheric pressure of 70KPa to 106KPa, and a temperature of -20 ℃ to +55 ℃.
5.10.2 After sterilization, the product should be packaged in a medical sterilization bag or a clean sealing container, and stored in a special storage cabinet. The storage time should not exceed 7 days. If it is exceeded, it should be reprocessed before us.

Notes

a) The storage environment should be clean and must be disinfected regularly.

b) Product storage must be batched, marked and recorded.

5.11 Transportation

5.11.1 Prevent excessive shock and vibration during transportation, and handle with care.

5.11.2 It should not be mixed with dangerous goods during transportation.

5.11.3 Avoid exposure to sun or rain or snow during transportation. The cleaning and disinfection of main unit are as follows.

- Before each use, wipe the surface of the machine and the tail cord of the handpiece with a soft cloth or paper towel soaked in 75% medical alcohol. Repeat the wipe for at least 3 times.
- Before each use, please let the PT-A Plus Dental Scaler and Air Polisher work under irrigation mode for 20-30s, then install the handpiece.
- After each use, please let the PT-A Plus Dental Scaler and Air Polisher work under irrigation mode for 20-30s, then remove the handpiece.
- After each use, wipe the surface of the device and the tail cord of the handpiece with a soft cloth soaked in clean water (distilled or deionized water) or a clean disposable wipe. Repeat the wipe for at least 3 times.

6 Maintenance, storage, and transport

6.1 Maintenance

6.1.1 Air filter

1) When water accumulates in the filter, turn the knob at the bottom of the filter counterclockwise to drain the water, and tighten the knob clockwise.

2) Replacement of the filter element: Use a filter wrench to unscrew the transparent cover of the air filter, then use the wrench to unscrew the black nut at the lower end of the filter element, remove the white filter element and discard it into the trash can, replace it with a new filter element, and reinstall the black nut and transparent shell. It is recommended to replace the filter element every 24 months, and the spare filter element is included in the accessory.

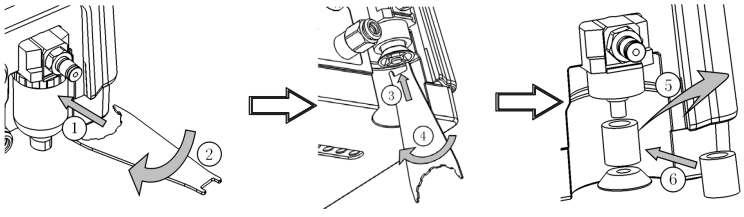


Figure 9 Schematic diagram of filter element replacement

6.1.2 External water filter

Cleaning of the filter: Unscrew the external water connector on the back of the device, take out the disc-shaped filter inside, and use a tweezers to clamp the filter on the outer flame of the alcohol lamp for 5-10 seconds (careful burns), then use distilled water or pure water to clean. If the external water is used frequently, it is recommended to clean it once a week. It is recommended to clean it every 1-2 months if it is not frequently used.

Replace the filter element every 24 months, and the spare filter element is included in the accessory.
Note: The doctor should replace the air filter element and the external water filter piece in strict accordance with the instructions in the manual.

6.2 Storage

6.2.1 The device 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.
6.2.2 Do not store the machine together with articles that is poisonous, combustible, caustic, or explosive.
6.2.3 This machine should be stored in a room where the relative humidity is10%~93%, atmospheric pressure is 70kPa~106kPa, and the temperature is -20℃~+55℃.
6.2.4 When the device is not in use, turn off the power cable and unplug the power plug. If it is not used for a long time, it should be energized and connect to water and air once a month for five minutes.

6.3 Transport

6.3.1 Excessive impact and shake should be prevented during transport. Lay it carefully and lightly.
6.3.2 Do not put it together with dangerous goods during transport.
6.3.3 Avoid being exposed to sun, rain, and snow during transport.

7 Environmental protection

Part	Toxic or harmful substances or elements					
	Pb	Hg	Cd	Cr6+	PBB	PBDE
Main unit	○	○	○	○	○	○
andpiece	○	○	○	○	○	○
Tip	○	○	○	○	○	○
Nozzle	○	○	○	○	○	○
Foot pedal	○	○	○	○	○	○
Mechanical elements, including bolts, nuts, washers, etc.	○	○	○	○	○	○

○: Indicates that the content of the toxic substance in all homogeneous materials of the part is below the limit requirement stipulated in SJ/T-11363-2006 Limit Requirements for Toxic and Hazardous Substances in Electronic Information Products.
×: indicates that the content of the toxic substance in at least one of the homogeneous materials of the part exceeds the limit requirement specified in SJ/T-11363-2006.
Please dispose according to the local laws or consult with dealer from whom you purchased it about waste disposal.

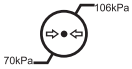
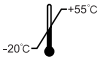
8 After-Sales Service

We offer two-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 non-professional person.
This product is a precision equipment. If there is problem that needs to be repaired, returned to Woodpecker or handled by professionals is recommended.

9 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.

10 Symbol instruction

	Manufacturer		Serial number
	Consult the accompanying documents		Date of manufacture
IPX0	Ordinary equipment		B type applied part
	Recovery	IPX1	Anti-drip equipment
	Handle with care		Keep dry
	Alternating current		Used indoors only
	Water volume adjusting switch		Foot pedal
	Water bottle supply		External water supply
	Protective earthing	CE 0197	CE marked product
	Irrigation mode		Dry mode
	Sterilization under high temperature	ON / OFF	Power switch
T3.15AH 250V	Fuse specification		
H_2O 0.1-0.5MPa	Water inlet, pressure: 0.1MPa-0.5MPa		
0.55-0.75MPa	Air inlet, pressure: 0.55MPa-0.75MPa		
	Storage condition, air pressure limit: 70kPa ~ 106kPa		
	Storage condition, temperature limit: -20℃ ~ +55℃		



Storage condition, humidity limit: 10% ~ 93%



Appliance compliance WEEE directive

EU REP Authorised Representative in the EUROPEAN COMMUNITY

11 European authorized representative

EU REP MedNet EC-REP C IIb GmbH
Borkstrasse 10, 48163 Muenster, Germany

12 EMC-Declaration of conformity

Guidance and manufacturer's declaration - electromagnetic emissions		
The model PT-A Plus is intended for use in the electromagnetic environment specified below. The customer or the user of the model PT-A Plus should assure that it is used in such an environment.		
Emissions test	**Compliance**	**Electromagnetic environment - guidance**
RF emissions CISPR 11	Group 1	The model PT-A Plus use RF energy only for its internal function. Therefore, its RF emissions is very low and is not likely to cause any interference in nearby electronic equipment.
RF emissions CISPR11	Class B	The model PT-A Plus is suitable for used in domestic establishment and in establishment directly connected to a low voltage power supply network which supplies buildings used for domestic purposes.
Harmonic emissions IEC 61000-3-2	Class A	
Voltage fluctuations / flicker emissions IEC 61000-3-3	Complies	

Guidance & Declaration — electromagnetic immunity			
The model PT-A Plus is intended for use in the electromagnetic environment specified below. The customer or the user of the model PT-A Plus should assure that it is used in such an environment.			
Immunity test	**IEC 60601 test level**	**Compliance level**	**Electromagnetic environment - guidance**
Electrostatic discharge (ESD) IEC 61000-4-2	±8 kV contact ±2 kV, ±4 kV, ±8 kV, ±15 kV air	±8 kV contact ±2 kV, ±4 kV, ±8 kV, ±15 kV air	Floors should be wood, concrete or ceramic tile. If floors are covered with synthetic material, the relative humidity should be at least 30 %.
Electrical fast transient/burst IEC 61000-4-4	±2kV for power supply lines ±1kV for signal Input/output lines	±2kV for power supply lines ±1kV for signal Input/output lines	Mains power quality should be that of a typical commercial or hospital environment.
Surge IEC 61000-4-5	±0.5 kV, ±1 kV line to line ±0.5 kV, ±1 kV, ±2 kV line to ground	±0.5 kV, ±1 kV line to line ±0.5 kV, ±1 kV, ±2 kV line to ground	Mains power quality should be that of a typical commercial or hospital environment.

Voltage dips, short interruptions and voltage variations on power supply input lines IEC 61000-4-11.	<5 % UT (>95% dip in UT.) for 0.5 cycle <5 % UT (>95% dip in UT) for 1 cycle 70% UT (30% dip in UT) for 25/30 cycles <5% UT (>95 % dip in UT) for 5/6 sec	<5 % UT (>95% dip in UT.) for 0.5 cycle <5 % UT (>95% dip in UT) for 1 cycle 70% UT (30% dip in UT) for 25/30 cycles <5% UT (>95 % dip in UT) for 5/6 sec	Mains power quality should be that of a typical commercial or hospital environment. If the user of the model PT-A Plus require continued operation during power mains interruptions, it is recommended that the model PT-A Plus be powered from an uninterruptible power supply or a battery.
Power frequency (50/60 Hz) magnetic field IEC 61000-4-8	30 A/m	30 A/m	Power frequency magnetic fields should be at levels characteristic of a typical location in a typical commercial or hospital environment.
NOTE UT is the a.c. mains voltage prior to application of the test level.			

Guidance & Declaration - Electromagnetic immunity

The models PT-A Plus are intended for use in the electromagnetic environment specified below. The customer or the user of the models PT-A Plus should assure that they are used in such an environment.

Immunity test	IEC 60601 test level	Compliance level	Electromagnetic environment - guidance
Conducted RF IEC 61000-4-6	3 Vrms 150 kHz to 80 MHz 6 Vrms in ISM bands	3 Vrms 150 kHz to 80 MHz 6 Vrms in ISM bands & amateur radio bands	Portable RF communications equipment (including peripherals such as antenna cables and external antennas) should be used no closer than 30 cm (12 inches) to any part of the PT-A Plus, including cables specified by the manufacturer. Otherwise, degradation of the performance of this equipment could result. If higher IMMUNITY TEST LEVELS than those specified in Table 9 are used, the minimum separation distance may be lowered. Lower minimum separation distances shall be calculated using the following equation: d=(6×P1/2) /E Where P is the maximum power in W, d is the minimum separation distance in m, and E is the IMMUNITY TEST LEVEL in V/m. If the PT-A Plus complies with higher IMMUNITY TEST LEVELS for this test, the 30cm minimum separation distance may be replaced with minimum separation distances calculated from the higher IMMUNITY TEST LEVELS.
Radiated RF IEC 61000-4-3	10 V/m 80 MHz to 2.7 GHz 385MHz-5785MHz Test specifications for ENCLOSURE PORT IMMUNITY to RF wireless communication equipment (Refer to table 9 of IEC 60601-1-2:2014+A1:2020	10 V/m 80 MHz to 2.7 GHz 385MHz-5785MHz Test specifications for ENCLOSURE PORT IMMUNITY to RF wireless communication equipment (Refer to table 9 of IEC 60601-1-2:2014+A1:2020)	

NOTE 1 At 80 MHz – 800 MHz, the higher frequency range applies. NOTE 2 These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.
A) Field strengths from fixed transmitters, such as base stations for radio (cellular/cordless) telephones and land mobile radios, amateur radio, AM and FM radio broadcast and TV broadcast cannot be predicted theoretically with accuracy. To assess the electromagnetic environment due to fixed RF transmitters, an electromagnetic site survey should be considered. If the measured field strength in the location in which the model PT-A Plus is used exceeds the applicable RF compliance level above, the model PT-A Plus should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as reorienting or relocating the model PT-A Plus. B) Over the frequency range 150 kHz to 80 MHz, field strengths should be less than 3V/m.

The device has been tested and homologated in accordance with EN 60601-1-2 for EMC. This does not guarantee in any way that this device will not be affected by electromagnetic interference Avoid using the device in high electromagnetic environment.

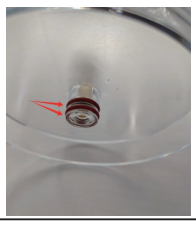
12.1 Cable installation requirements

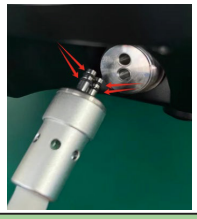
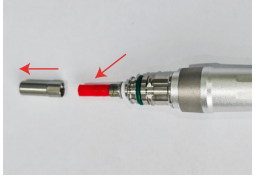
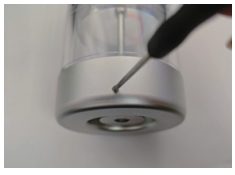
CABLE NAME	Cable Type	Cable Length
Pedal	Unshielded parallel lines	2.4M
cable	Unshielded parallel lines	3M
Ultrasonic handle tail line	Unshielded parallel lines	2M

13 Statement

Woodpecker reserves the right to change the design of the equipment, the technique, fittings, instruction manual and the content of the original packing list at any time without further notice. The pictures are only for reference. The final interpretation rights belong to Guilin Woodpecker Medical Instrument Co., Ltd. The appearance of the product was authorized patent, and counterfeit will be sued! (Please refer to the packaging label for the date of manufacture. Service life: 10 years)

14 Product Sealing Ring Usage Diagram

Specification:rubber sealing ring Location: powder tank holder	Specification: Sealing gasket Location: powder tank cover	Specification: ϕ9.5xϕ1.8 Location: water bottle bottom
		

Specification: ϕ1.2xϕ1 Location: ultrasonic handpiece cord	Specification:ϕ8xϕ1.5 Location: air polishing handpiece cord	Specification:ϕ3.5xϕ1.5 Location: air polishing handpiece cord
		
Specification: ϕ2xϕ0.5 Location: air polishing handpiece	Specification:ϕ3xϕ1 Location: nozzle (AP-1)	Specification:ϕ4xϕ1 Location: nozzle (AP-2)
		
Specification:rubber sealing ring Location: air polishing handpiece cord	Specification: ϕ24xϕ20 Location: powder tank bottom	Use a small screwdriver to rotate the screws counterclockwise and remove the powder canister lower fixed cover.
		
Use a cleaning needle or tweezers to take out the two sealing rings and replace them.	Reinstall the powder canister lower fixed cover, tighten the screws clockwise to complete the replacement.	
		

Scan and Login website
for more information

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E-mail: woodpecker4@glwoodpecker.com
Website: http://www.glwoodpecker.com
EU REP MedNet EC-REP C IIb GmbH
Borkstrasse 10, 48163 Muenster, Germany

Cut along the dashed line

PT-A Plus Dental Scaler and Air Polisher Warranty Card

Name of Customer		(Ⅰ) For Distributor
Address Details		
Postal Code		
Tel		
Model		
Product No.		
Handpiece No.		
Purchase Date		
Contact Person		
Date	Maintenance Record	Repairer

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After-sales Service Dept.: +86-0773-5827898
E-mail: woodpecker4@glwoodpecker.com
Website: http://www.glwoodpecker.com

Distributor:

Seal

PT-A Plus Dental Scaler and Air Polisher Warranty Card

Name of Customer		(Ⅱ) Return to Manufacturer
Address Details		
Postal Code		
Tel		
Model		
Product No.		
Handpiece No.		
Purchase Date		
Contact Person		
Date	Maintenance Record	Repairer

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E-mail: woodpecker4@glwoodpecker.com
Website: http://www.glwoodpecker.com

Distributor:

Seal

Warranty Instruction

Ⅰ Period validity:

Two-year free repair for the whole unit (except for the easily-consumed parts) from the date of purchase. Lifetime maintenance.

Ⅱ Range of warranty:

Within the warranty period of validity, we are responsible for any troubles caused by quality problems or products technique and structure.

Ⅲ The following are beyond our warranty:

1. The damage caused by disobeying the operation instruction or lack of the needed condition.
2. The damage caused by unsuitable operation or disassembly without authorization.
3. The damage caused by unadvisable transportation or preservation.
4. There isn't the seal of distributor or the warranty card isn't filled in completed.

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Harm of fake products

and are two brands of Guilin woodpecker medical instrument company. Recently, growing fake ultrasonic scaler handpieces, tips curing lights are produced and sold on the market, which do harm to users' interest.On this issue, We Woodpecker will crack down fake products and provide safe and secure medical instrument products.

1. Harm of fake ultrasonic scaler handpieces.

1.1 Fake handpieces with poor-designed inner structure can lead to frequent power leakage, which may cause medical accidents.
1.2 Material used on fake handpieces don' t pass biocompatible test, which can easily lead to irritability and poisoning.
1.3 Fake handpieces have quality problems of overheating, non-vibration and cracking, which cause ultrasonic scalers out of order.
1.4 Fake handpieces can' t be compatible with ultrasonic scalers, thus leading to circuit burn out.

2. Harm of fake scaler tips.

2.1 Fake tips are low in toughness, poor in resistance and easy to crack, thus easily cause medical accident.
2.2 Fake tips' screw threads are roughly processed, which can cause handpiece' s screw loosing and cracking.
2.3 Material used on fake tips is inferior and easily rusting, which can cause infection of patient.
2.4 Fake tips have used problem of poor water-spraying, bad screw-thread fit and water leaking, which leads ultrasonic scalers work wrongly.

3. Harm of fake curing light.

3.1 Fake curing light' s batteries can cause self-ignite, even explosion with poor-quality material and no complete charging management.
3.2 Light intensity of fake curing light is not constant, when battery level goes down under 60%, it would lead to incomplete solidification of resin, causing secondary dental caries.

