

Orthodontics & polishing User's manual



Refer to the instructions for use

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1.1 product description

The dental polisher is a high-performance device that is used with disposable polishing cups.

Tooth polishing equipment is mainly used for polishing, cleaning and whitening the tooth surface.

Features of this equipment include:

- a) Wireless handle, more comfortable to operate.
- b) It has precise and stable speed control. Compared with traditional pneumatic low-speed manual Machine polishing is more stable.
- c) It has a one-button speed control function, making the doctor's treatment more convenient.

1.2 product description

1.2.2 Performance structure and composition

It consists of a charging bottom line, a handle, a polishing cup metal joint and a disposable polishing cup.

1.2.3 Scope of application

Used for cleaning and polishing tooth surfaces, etc.

1.2.5 Contraindications

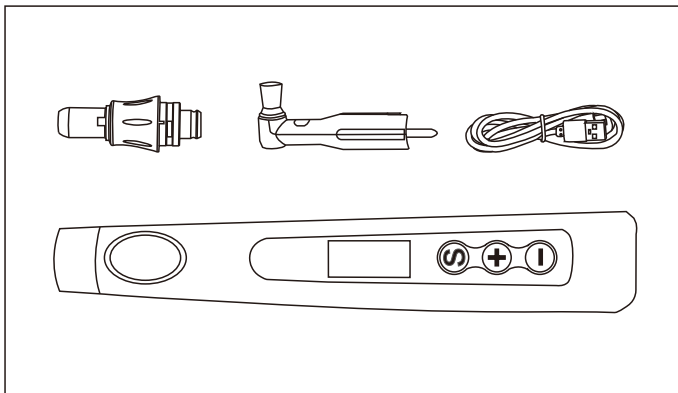
- a) Not recommended by doctors with pacemakers.
- b) Patients with pacemakers (or other electrical equipment) and who have been warned not to use small appliances (such as electric shavers, hair dryers, etc.) are prohibited.
- c) Contraindicated for patients with hemophilia.
- d) Contraindicated for patients with hemophilia.

1.2.6 Warning

- 1. Please read this manual carefully before first use.
- 2. This device must be used in a suitable location and by a professional and qualified dentist.
- 3. This product is suitable for polishing and cleaning tooth surfaces.

4. Do not place this device directly or indirectly near a heat source. This device must be operated and stored in a reliable environment.
5. This equipment requires special precautions regarding electromagnetic compatibility (EMC) and must be installed and used in strict compliance with the EMC information. Do not use this device especially near fluorescent lamps, wireless transmitters, remote control devices, handheld and mobile high-frequency communications equipment
6. Using the handle for a long time may cause the handle to overheat. In this case, it should be allowed to cool before use. If the motor handle frequently overheats, please contact your local dealer.
7. The handle of this device must be charged with the original charging cable, otherwise it will not be usable or may cause adverse consequences.
8. Please do not make any modifications to this device. Any modifications may violate safety regulations and cause harm to the patient. Any modifications will be made without any warranty.
9. Please use the original power adapter cable. Other power adapter cables will cause damage to the lithium battery and control circuit.
10. The handle, disposable polishing cup, and power adapter cable cannot be sterilized by high temperature and high pressure. The surface can only be wiped with neutral disinfectant such as medical alcohol.
11. Do not install or remove the polishing head before the handle stops rotating, otherwise the handle may be damaged.
12. Do not remove the disposable polishing cup before the handle stops rotating, otherwise the polishing cup and handle may be damaged.
13. Before starting the handle, please confirm that the polishing head is installed in place and locked
14. Please use a disposable polishing cup that conforms to the interface of this device for treatment, otherwise the disposable polishing cup and handle may be damaged.
15. The polishing cup is for one-time use and cannot be reused.
16. Replacing the lithium battery incorrectly will result in unacceptable risks, so please use the original lithium battery and contact your local dealer or manufacturer to replace the lithium battery
17. If the device is not used for a long time, please charge the handle regularly, at least once a month.
18. This device cannot be used to directly clean and polish the tooth surface. It is prone to friction and heat, which may cause irritation, heat and other physiological effects to the patient. operate Before cleaning, make sure the toothbrush head is soaked in sufficient polishing paste.
Please follow the recommended methods for treatment.

2 Product basic accessories diagram



3 Equipment security classification

- (1.) Classification by operating mode: Run the device continuously.
- (2.) Classification according to type of protection against electric shock: Class II equipment with internal power supply
- (3.) Classification according to degree of protection against electric shock: Type B applied part.
- (4.) According to the degree of protection against liquid intrusion: the complete handle is waterproof, and the power supply and adapter cable are ordinary equipment.
- (5.) Level of safety when used with flammable anesthetic gases mixed with air or with oxygen or nitrous oxide: Equipment not to be used in the presence of flammable anesthetic gases mixed with air or flammable anesthetic gases mixed with oxygen or nitrous oxide

3-2 The main technical parameters

- (1.) DC 3.6V /750mAh

Battery: Lithium battery: DC 3.6V/750mAh

- (2.) Power Adapter

Input: 100V~240V~ 50/60Hz 0.4A Max

output: DC 5V 1A

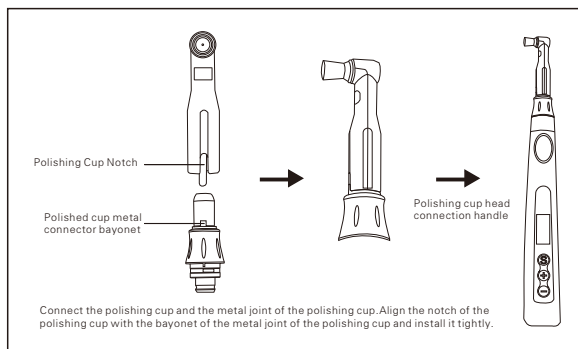
The adapter used should meet the relevant requirements of GB 9706.1 and YY 0505 standards.

3-3. range of rotation: 500rpm ~3000rpm

Usage environment

- (1.) ambient temperature : +5°C ~ +40°C
- (2.) Relative humidity: 30% ~ 75%
- (3.) Air pressure: 70kPa ~ 106kPa

4. Product installation



Note: After connection, please push and pull the product slightly to confirm whether the connection is firm!

4-2 Preparation before installation

(1.) The battery of the handle must be checked before using the device. When the battery is extremely low and cannot support the operation of the handle, the battery indicator light will flash and the handle will be turned off automatically.

At this time, it needs to be charged with enough power before it can be used.

Warning: You must use the original adapter charging cable to charge the handle, otherwise the handle may be damaged.

(2.) The handle, base and polishing cup must be wiped and disinfected with neutral disinfectant such as medical alcohol before use.

4-3 Installation of polishing machine head

When the machine is not started, insert the metal joint of the polishing cup into the handle to ensure that it is securely fastened.

Warning

1) The polishing cup metal joints must be autoclaved and sterilized before each use.

2) The metal joint of the polishing cup must be inserted when the machine is not started, otherwise the machine and the metal joint of the polishing cup may be damaged.

4-4 Disassembly of polishing cup metal joint

When the machine is not started, hold the handle and pull out the metal connector of the polishing cup.

Warning

a) Be sure to stop the handle before unplugging and inserting the metal connector of the polishing cup.

1 Installation of disposable polishing cup

Use a disposable polishing cup that conforms to the interface of this equipment and install it on the metal joint of the polishing cup while the machine is stopped to ensure that it is installed in place.

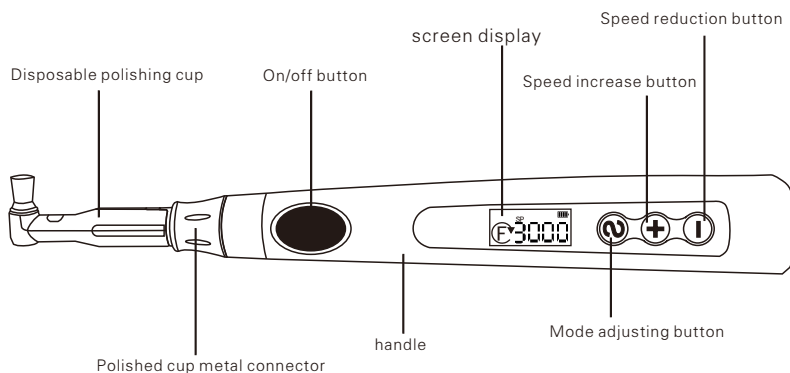
2 Removal of disposable polishing cups

After using the equipment, fix the metal joint of the polishing cup and pull out the disposable polishing cup directly.

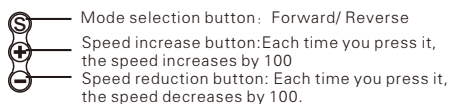
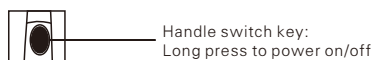
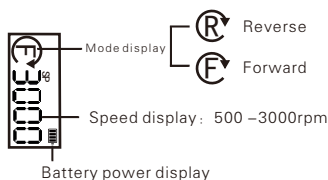
Warning

3 Be sure to stop the handle before removing or inserting the disposable polishing cup

5. Handle button function



Screen display



6 Product functions and usage

6.1 Usage mode

There are two usage modes of this equipment. The function button control forward and reverse rotation.

(1) When the handle is powered on, the S key can select forward mode and reverse mode. Press the " S " key and a "beep" sound will sound, indicating that the mode selection is successful.

(2) When the handle is turned on, the handle speed can be adjusted by itself, with a minimum of 500rpm and a maximum of 3000rpm. Press button + and – briefly to adjust the speed.

(3) When the handle is running at a fixed speed, pressing the handle on/off key will stop the handle.

6.2 Handle power on and off

(1) Handle power on: Press the handle button to turn on

(2) Handle power off: Press the handle button to turn off.

a) After the handle is turned on and not working, if there is no operation for 2 consecutive minutes, the handle will automatically shut down.

7. Operating Instructions

7.1 Operating environment

Temperature: +5℃ ~ +40℃

Relative humidity: 30% ~ 75%

Atmospheric pressure: 70kPa ~ 106kPa

7.2 Operation steps

7.3 After installing the handle, press the handle button to turn on.

When the handle's display lights up, it means the handle is turned on.

7.4 Use the function buttons of the handle to adjust the rotation speed of the handle to the appropriate speed, and then treat the patient.

7.5 Adjust the handle to a low speed gear (500rpm), and then immerse the brush head of the polishing cup into the polishing paste so that the brush head is immersed in enough polishing paste.

7.6 After the treatment, first stop the rotation of the handle, and then take out the disposable polishing cup and metal joint.

7.7 Perform high-temperature and high-pressure sterilization on the metal joints of the polishing cup, disinfect the handle, and dispose of the disposable polishing cup as medical waste.

8. Charging instructions

Charging handle

Connect the original power adapter cable to the plug, connect it to the power strip, and let the handle stand for charging. When charging, the battery indicator light on the display will flash regularly, and when fully charged, the indicator light will turn solid.

- a) For safety reasons, please do not activate the handle when charging.
- b) Please use the original power adapter cable for charging, otherwise the device may be damaged.

9. Cleaning, disinfection and sterilization

9.1 Cleaning of polishing cup metal joints

The metal joint of the polishing cup is manually cleaned with clean water.

The operation method is as follows: :

- (1) Remove the disposable polishing cup from the metal connector and pull the metal connector out of the handle
- (2) Use a clean, soft-bristled brush to brush away any surface stains from the metal joints.
- (3) Rinse the surface of the metal connector with clean water until the smudges is removed.
- (4) After cleaning, please clean off any liquid residue on the surface of the metal connector and the inner cavity. You can use an absorbent cloth or compressed air to blow dry.

Warning

- a) Metal joints cannot be cleaned with ultrasonic waves, as this will reduce their service life.
- b) Do not rinse the inner cavity of the metal connector with clean water, but wipe it.
- c) After cleaning, there should be no water accumulation or obvious water droplets remaining on the surface and inner cavity of the metal joint.

9.2 Sterilization of metal joints

- (1.) This product can be sterilized by high temperature and high pressure at a temperature of 134° C.
- (2.) High temperature and high pressure sterilization is recommended.
- (3.) After each patient has used it, the following steps should be followed:

High temperature and high pressure sterilization:

- (1) Use the cleaning methods in this article to clean the metal joints.
- (2) Put the cleaned metal joints into a sterilization bag and seal it (only when using vacuum high temperature and high pressure sterilization).
- (3) High-temperature and high-pressure sterilization with a duration of 4 minutes can be performed at 134° C, 220 kPa (2.2bar).
- (4) Sterilized metal connectors should be placed in high-temperature and high-pressure sterilization bags and taken out when used to keep them clean.

Warning

- a) If chemicals remain on the device, do not perform high-temperature and high-pressure sterilization. Otherwise, the surface coating may fall off or internal components may be damaged.
- b) Store metal connectors in a place where they are not affected by dust, sulfide or salt in the air.
- c) Do not touch the metal joints immediately after high temperature and high pressure sterilization to avoid burns.
- d) Cleaned and sterilized metal connectors must be used during each scaling to prevent cross-infection.

9.5 Drying of metal joints

- (1) Metal joints need to be dried after sterilization. Please use high temperature and high pressure sterilization.

Use the drying cycle of the machine to perform drying treatment.

The set cycle is 20 to 30 minutes, and the temperature does not exceed 137° C.

Warning

- a) When metal joints are sterilized and dried under high temperature and high pressure, the set temperature must not exceed 137° C, otherwise the internal components will be damaged.

9.6 Disinfection of handles and polishing cups

- (1) The handle and polishing cup must be wiped and disinfected with medical alcohol disinfectant before use.

(2) After cleaning, each patient should promptly wipe the handle clean with neutral disinfectant such as medical alcohol and dry it with an absorbent cloth. Polishing cups are not reusable and should be disposed of as medical waste.

Warning

- a) It is strictly forbidden to immerse the handle and polishing cup in disinfectant
- b) When the handle is wiped and disinfected, a large amount of liquid should not be adsorbed on its outer surface. There is a risk of penetration, which will cause damage to the internal electrical components.

10 Trouble clearing

Fault status	Possible Causes	Solution
The polishing cup does not rotate once	1. Metal joints and disposable polishing cups are not installed properly 2. Metal joints and handles are not installed properly 3. Not enough power 4. Disposable dental guard corner damaged	1. Make sure the metal connector and disposable polishing cup are in place 2. Make sure the metal connectors and handles are in place 3. Charge the handle 4. Replace with new disposable polishing cup
Excessive noise or vibration during operation	1. Make sure the metal connector and disposable polishing cup are in place 2. Make sure the handle and polishing head are in place 3. Replace with a new polishing cup 4. Clean foreign matter in the connection part 5. Replace with new o-ring	1. Metal joints and disposable polishing cups are not installed properly 2. Disposable polishing cup damaged 3. There is foreign matter in the connection part 4. Worn and failed O-rings on metal joints or handles
The handle is very hot	1. Damage to the disposable polishing cup causes the motor to block and heat up 2. Foreign matter in the connection part causes the motor to become blocked and overheat.	1. Replace with new disposable polishing cup 2. Clean foreign matter in the connection part
The handle cannot be charged	1. There is a foreign object between the handle and the adapter charging cable, which affects charging 2. The power adapter cable is not correctly connected to the handle base Type-C interface 3. Using incorrect power adapter cable	1. Cleaning the handle and adapte 2. Make sure the power dapter is correctly connected to the handle base and power socket 3. Use the original power adapter cable to charge

11 Storage and transportation

11-1 This equipment should be handled with care, away from the source of earthquakes, and should be installed or stored in a cool, dry and ventilated place.

11-2 Do not store with toxic, corrosive, flammable, Explosive items mixed together

11-3 The product should be stored at a relative humidity of 10% to 93%.

The atmospheric pressure is 70kPa ~ 106kPa and the temperature is -20°C ~ $+55^{\circ}\text{C}$.

11-4 During transportation, avoid excessive shock and vibration, handle it with care, and avoid inversion.

11-5 They should not be mixed with dangerous goods during transportation.

11-6 During transportation, avoid exposure to sunlight or rain or snow.