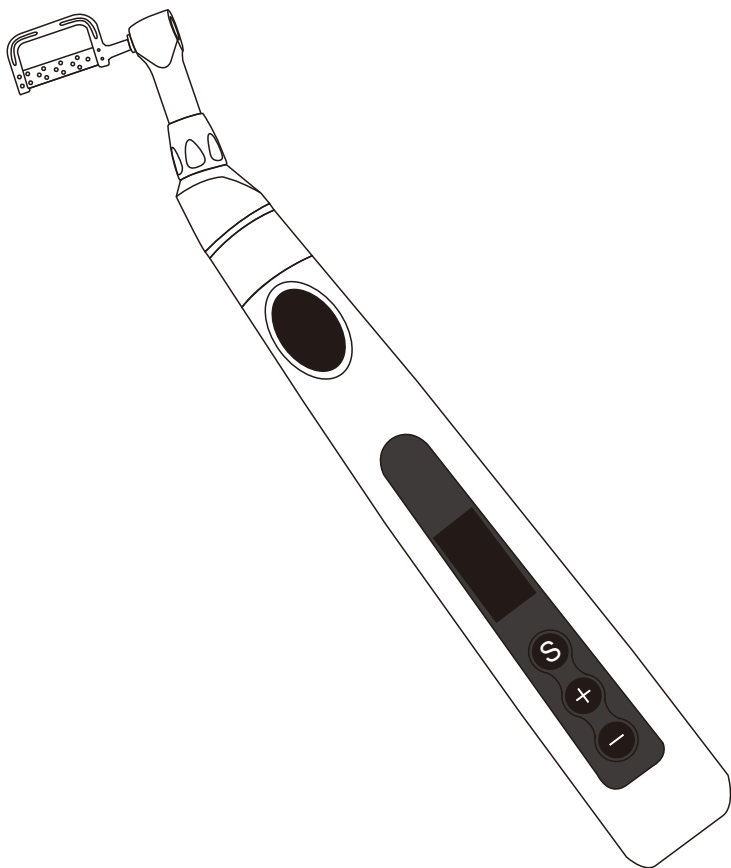


Orthodontics

User's manual



Refer to the instructions for use

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1 Product description

1.1 Product introduction

Dental interproximal reduction (IPR) is a means of removing a small amount of the outer layer of enamel between two adjacent teeth and between the tooth surfaces to gain extra space to create ideal tooth alignment.

Features:

- a) Wireless, convenient operation.
- b) With precise and stable speed control, it is more stable and has better treatment effects than traditional low speed air motor orthodontics.
- c) One-key speed control function makes doctor's treatment more convenient.
- e) Reciprocating.

Basic functions

Create space to improve tooth alignment.

Help to improve biting force. Can increase the teeth stability, so they can remain in their position for a long time.

Can reduce "black triangle". This is caused by the lack of gum tissue (gingival papillae) between the teeth and the appearance of a dark space or cavity.

IPR may reduce the permanent need for teeth in certain situations.

May help to improve the appearance of the teeth, giving people a better aesthetic appearance.

1.2 Product overview

1.2.1 Performance structure and composition

It consists of a charging cable, a handle, 4:1 contra angle handpiece and diamond slices.

1.2.2 Scope of application

It is used in dental surgery to cut or chisel away bone and other tissues to prepare for tooth correction.

1.2.3 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) Patients with heart disease, pregnant women and young children should use with caution.

e) Not suitable for people with metal allergies.

1.2.4 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. Do not place this device directly or indirectly close to a heat source.

This device must be operated and stored in a reliable environment.

4. 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.

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6. This device must be charged with the original charging cable, otherwise it will not be usable or may cause adverse consequences.

7. Please do not make any modifications to the device. Any modifications may violate safety regulations and cause harm to the patient. Any modifications will be made without any warranty.

8. Please use the original power adapter cable. Other power adapter cables will cause damage to the lithium battery and control circuit.

9. The handle and cable cannot be autoclaved, and the surface can only be wiped with neutral disinfectant such as medical alcohol.

10. Do not install or remove the orthodontic handpiece before the handle stops rotating, otherwise the handle may be damaged.

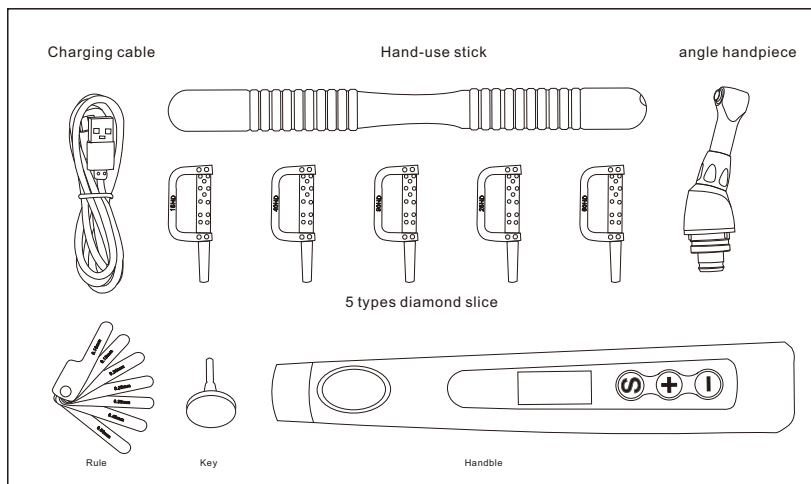
11. Do not remove the diamond slice before the handle stops rotating, otherwise the head and handle may be damaged.

12. Before operating the handle, please confirm that the orthodontic handpiece has been installed in place and locked.

13. Please use the diamond slice that conforms to the interface of this device for treatment, otherwise the handpiece head and handle may be damaged.

14. 1pc diamond slice can be used on 5 to 10 teeth.
15. Replacing the lithium battery incorrectly will lead to unacceptable risks, so please use the original lithium battery and contact your local dealer or manufacturer to replace the lithium battery.
16. If the device is not used for a long time, please charge the handle regularly, at least once a month.

2 Product basic accessories diagram



3 Equipment security classification

- (1) Classification by operating mode: Continuous operation equipment.
- (2) Classification according to type of protection against electric shock: Class II equipment with internal power supply.
- (3) Classification according to the degree of protection against electric shock: Type B applied part.
- (4) Classification according to the degree of protection against electric shock: Type B applied part.

3-2 Main technical parameters

(1) Battery

5V Type: Li-ion battery, Capacity: 1500mAh, Charging voltage: 5V

(2) Adapter: :

Input: 100V-240V, 50/60Hz

Output: DC5V, 1A

The adapter used should meet the relevant requirements of the GB9706.1-2007 standard.

3-3. Rotation speed: 500rpm -3000rpm

Usage environment

(1) Environment temperature: +5°C ~ +40°C

(2) Relative humidity: 30% ~ 75%

(3) Atmospheric pressure 70kPa ~ 106kPa

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 fully charged before use.

Warning: The original charging cable must be used to charge the handle, otherwise the handle may be damaged.

(2) The handle must be disinfected with neutral disinfectant before use. Such as: medical alcohol, etc. for wiping and disinfection.

Installation of 4:1 angle handpiece

When the device is not started, place the diamond slice into the 4:1 angle handpiece to ensure that it is firmly locked.

Warning

1) The 4:1 angle handpiece and diamond slice must be disinfected and autoclaved before each use.

2) The 4:1 angle handpiece must be installed when the device is not started. Otherwise the device and diamond slice may be damaged.

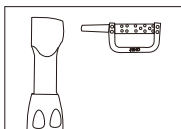
Disassembly of 4:1 angle handpiece

When the device is not started, hold the handle, pull out the 4:1 angle handpiece, put the key into the hole at the back of the handpiece, and push out the diamond slice.

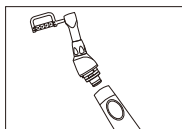
Warning

a) Be sure to stop the handle before insert and pull out the 4:1 angle handpiece and diamond slice.

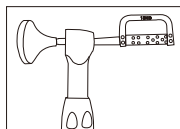
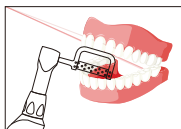
※



Connect to the diamond slice and 41:1 angle handpiece

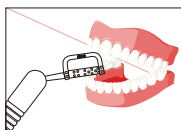
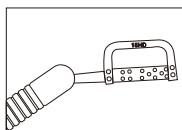
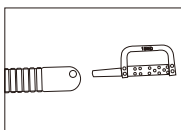


Connect to the handpiece



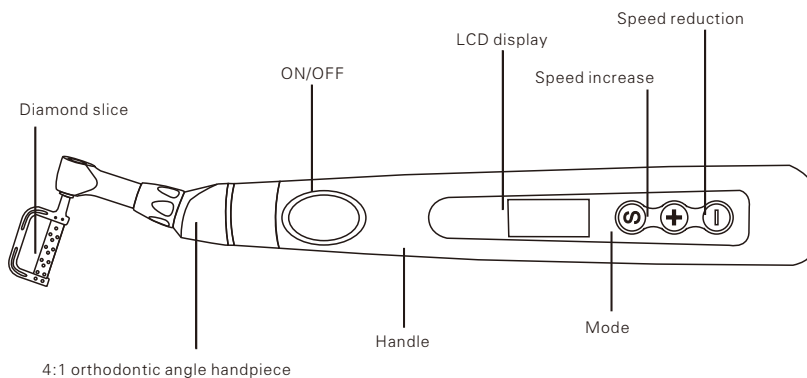
Remove the diamond slice

※ Hand-use stick

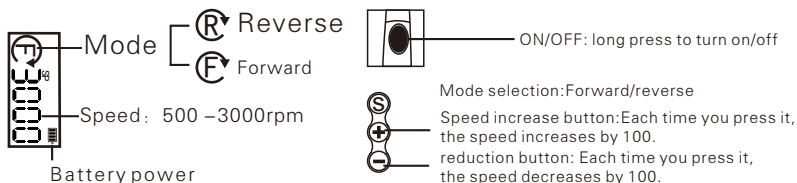


Note: After connecting, please push and pull the product slightly to confirm whether the connection is firm!

4. Handle button function



LCD display



5 Product functions and usage

5.1 Mode

(1) When the handle is turned on, the speed can be adjusted. Minimum 500rpm, maximum 3000rpm. Short press the function keys “+” and “-” to adjust the speed.

(2) When the handle is running at a fixed speed, pressing the “ON/OFF” button can stop the handle.

5.2 Turn on and off the handle

(1) Turn on: press the ON/OFF to turn on.

(2) Turn off: long press the ON/OFF to turn off.

Note: After the handle is turned on and not working, if there is no operation within 2 consecutive minutes, the handle will automatically shut down.

6. Instructions

6.1 Operating environment

Environment temperature: +5℃ ~ +40℃

Relative humidity: 30% ~ 75%

Atmospheric pressure: 70kPa ~ 106kPa

6.2 Steps

6.3 After installing the handle, press the ON/OFF button to turn on the handle and adjust it to the appropriate speed. Press the ON/OFF button one more time to treat the patient.

6.4 After the treatment, first stop the rotation of the handle, and then take out the orthodontic angle handpiece and the diamond slice.

6.5 Autoclave the orthodontic angle handpiece and diamond slice at 135℃. And disinfect the handle.

Reminder: Your dentist will carefully identify which teeth require IPR. Using the specific angle handpiece or hand–use stick (an enamel removal technique), your dentist will selectively remove enamel from adjacent teeth that are in contact with each other. About half a millimeter of tooth enamel can reduce the gap between two adjacent teeth, while still leaving enough enamel on the tooth to maintain optimal health. The dentist will determine how much reduction in enamel size would be optimal. The teeth will be smoothed and polished. Your dentist may recommend topical fluoride treatments and/or daily fluoride rinses following these steps. Generally speaking, there is no discomfort in the interproximal reduction due to the small amount of enamel being removed.

Precautions

There are several factors that dentists must consider to determine whether to use IPR for appropriate treatment.

1. Size and shape of teeth
2. Position and alignment of teeth
3. Patient's facial features
4. The existence of "black triangle" needs to be improved for aesthetics.

Risk

In general, interproximal reduction does not lead to an increased risk of tooth decay or gum disease

People with otitis media may experience sensitivity and experience hot or cold sensations.

Overall, this procedure is a very safe and effective means of creating ideal tooth alignment

7. 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.

8 Cleaning, disinfection and sterilization

8.1 Cleaning, disinfection and sterilization of orthodontic contra angle.

The orthodontic contra angle is manually cleaned with clean water. The operation method is as follows:

- (1) Remove it from the handle;
- (2) Use a clean, soft-bristled brush to remove any stains on the surface of the orthodontic contra angle;
- (3) Rinse the surface of the orthodontic contra angle with clean water until the stains are removed;
- (4) Rinse the surface of the orthodontic contra angle with clean water until the stains are removed;

Warn

- a) The orthodontic contra angle cannot be cleaned using ultrasonic cleaning, which will reduce its service life.
- b) Do not rinse the inner cavity of the contra angle 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 contra angle.

8.2 Disinfection of orthodontic contra angle

(1.) The contra angle 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 uses it, the following steps should be followed:

8.3 High temperature and high pressure sterilization:

- (1) Use the cleaning method in the article to clean the contra angle;
- (2) Put the cleaned contra angle into a sterilization bag and seal it (only when using vacuum high temperature and high pressure sterilization);
- (3) High temperature and high pressure sterilization can be carried out at 134°C, 220 kPa (2.2bar) for 4 minutes;
- (4) The sterilized contra angle should be placed in a high-temperature and high-pressure sterilization bag and taken out when used to keep it clean.

Notice

- a) If there are chemicals remaining in the contra angle, do not perform high-temperature and high-pressure sterilization. Otherwise, the surface coating may peel off or internal components may be damaged.
- b) Please store the contra angle in a place that is not affected by dust, sulfide or salt in the air.
- c) Do not touch the contra angle immediately after high temperature and high pressure sterilization to avoid burns.
- d) A cleaned and sterilized contra angle must be used for each treatment to prevent cross-infection.

1. Please check whether the appearance of the product is obviously deformed or affected by external force, or there are additional foreign objects;
2. Must be kept in a high temperature and high pressure steam sterilizer for 15 minutes, then dried for 30 minutes and stored in a dry condition;
3. Install the orthodontic slice on the contra angle or hand rod in the correct direction.
4. Place the orthodontic slice on the adjacent teeth and gently cut and grind it back and forth.
5. During operation, if the orthodontic slice breaks off or falls to the ground. It should be replaced with a new orthodontic slice immediately.
6. After work, the orthodontic slice should be completely cleaned, sterilized and stored in a dry condition.

8.4 Disinfection of handle

- (1) The handle and orthodontic slice must be wiped and disinfected with a neutral disinfectant such as medical alcohol before use;
- (2) Each patient should promptly use medical alcohol and other neutral disinfectants after treatment.

Wipe the handle clean with liquid and wipe it with an absorbent cloth.

Warn

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

9 Fault resolution

Fault status	Possible Causes	Solution
Orthodontic slice	1. The orthodontic machine head and slice are not installed properly 2. The contra angle and handle are not installed properly 3. Not enough power 4. The orthodontic slice is damaged.	1. Make sure the contra angle and slice are installed in place 2. Make sure the contra angle and handle are installed in place 3. Charge the handle. 4. Change a new slice
Noise or vibration during operation	1. The contra angle and slice are not installed properly 2. The contra angle and handle are not installed properly 3. The slice is damaged. 4. There is foreign matter in the connecting part. 5. The O-ring on the contra angle or handle is worn and failed.	1. Make sure the contra angle and slice are installed in place 2. Make sure the contra angle and handle are installed in place 3. Change a new slice 4. Cleaning the connection part 5. Change a new O-ring
The handle is very hot	1. The slice is damaged Causes the motor to block and heat up 2. There is foreign matter in the connection part Causes the motor to block and heat up	1. Change a new slice 2. Cleaning the connection part
The handle cannot be charged	1. There is a foreign object between the handle and the adapter charging cable that 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 adapter 2. Make sure the power adapter is correctly connected to the handle base and power socket 3. Use the original power adapter cable to charge

10 Storage and transportation

10-1 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.

10-2 Do not mix with toxic, corrosive, flammable or explosive items during storage.

10-3 The product should be stored in an environment where the relative humidity is 10% ~ 93%, the atmospheric pressure is 70kPa ~ 106kPa, and the temperature is -20°C ~ +55°C.

10-4 During transportation, excessive shock and vibration should be prevented, handle with care, and avoid inversion.

10-5 Do not mix with dangerous goods during transportation.

10-6 During transportation, avoid being exposed to the sun or being exposed to rain or snow.