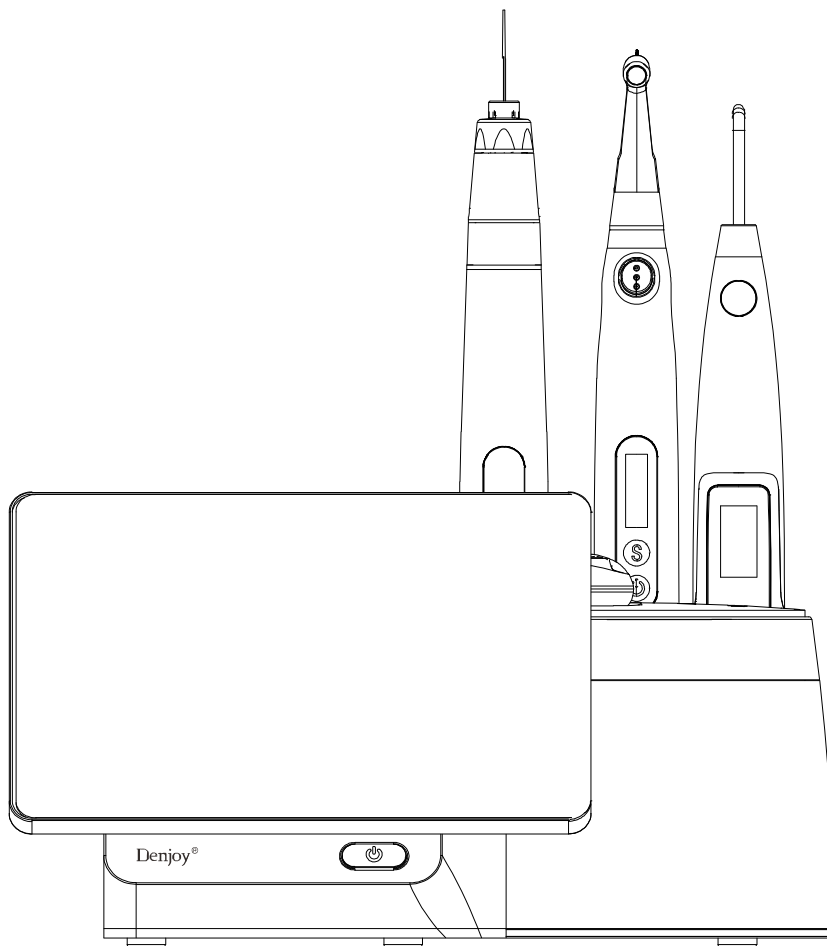


# USER MANUAL



## ***Meet Endo-II*** Integrated Endo System

- \*The device must be installed by a qualified engineer.
- \*Only for use by dental professionals.
- \*Read this operation manual carefully before installation or operation.

**Caution:** The device is prescription use. Federal law restricts this device to sale by or on the order of a physician.

Thank you for purchasing our device. Before operating the device, please fully read the manual and this manual should be saved for later use.

DENJOY DENTAL CO., LTD will take the responsibility for the security, reliability, capability under the following conditions:

1. The installation, debugging, maintenance should be adjusted by the approbatory technician by our company or obtained related nation quality level license professions.
2. The power supply shall be in conformity with the relevant provisions of the state and the use requirements of device itself.
3. The device should be operated by licensed dental professionals with medical applied skill. The whole operation process should follow user's manual strictly.

DENJOY DENTAL CO., LTD has right to improve the shape and structure of the device, change any information and technical specification of this manual all the time without prior notice. The pictures here are for reference only. Real products shall prevail.

## **CONTACT INFORMATION**

The device is manufactured by: DENJOY DENTAL CO., LTD

Address: F4, Building A4, Lugu Medical Device Park, No.229

Guyuan Road, Changsha, 410205 P. R. China

Website: [www.denjoy.cn](http://www.denjoy.cn)

E-mail: [denjoy@denjoy.cn](mailto:denjoy@denjoy.cn)

Phone: +86 731 85126543

Fax: +86 731 88885317

Please contact sales representative directly from whom you have bought this device for user's record and further after-sale service.

## **CONTENTS**

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**SECTION 6: ENVIRONMENTAL REQUIREMENTS**

**SECTION 7: DISPOSAL METHODS AND REQUIREMENTS**

**SECTION 8: WARRANTY**

**SECTION 9: ELECTRO MAGNETIC COMPATIBILITY (EMC)**

**SECTION 10: FCC CAUTION**

## SECTION 1: GENERAL INTRODUCTION

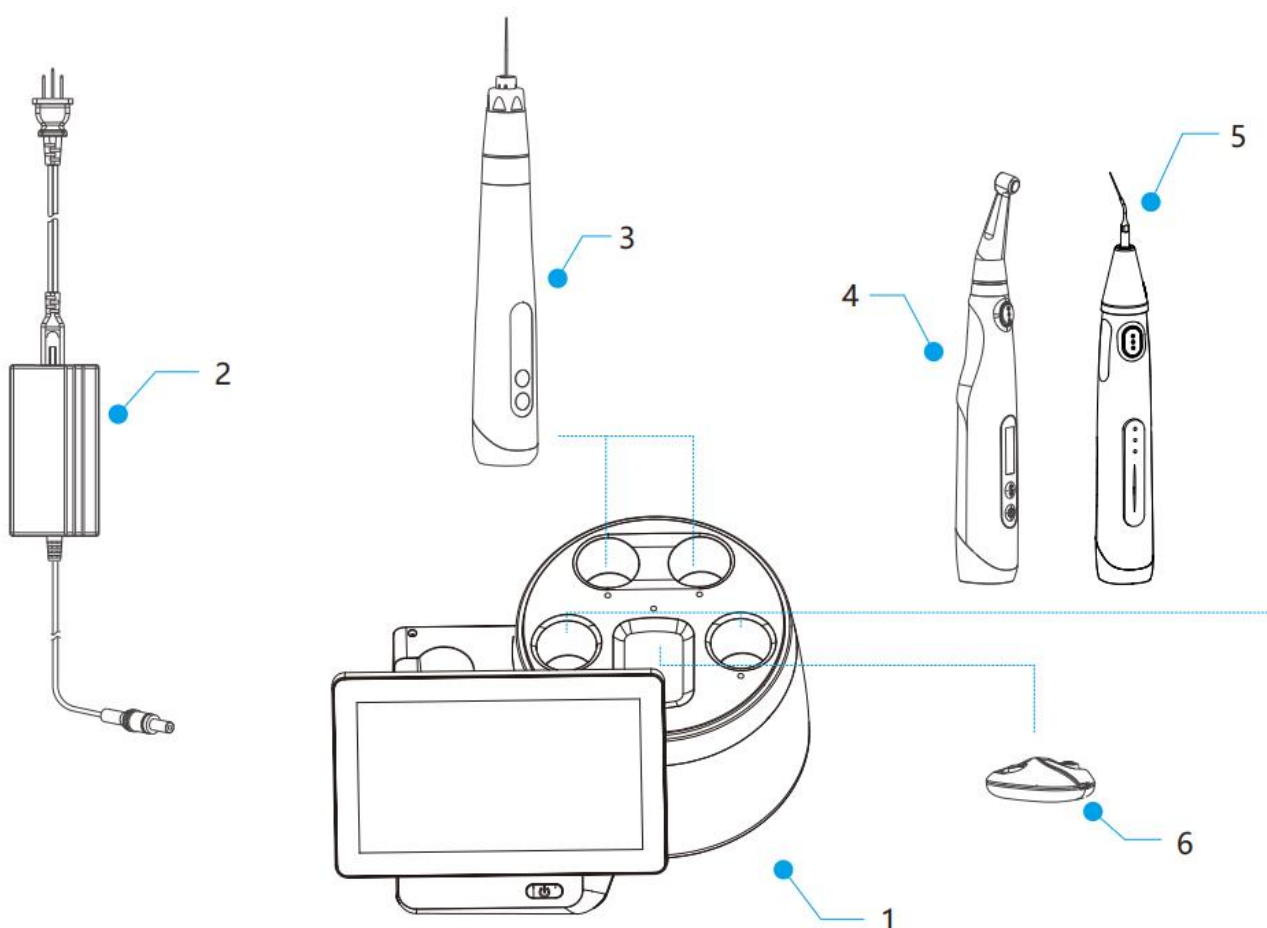
### Indications for Use:

The Integrated Endo System is dental device which combine in a single main control unit an endo motor to clean the root canal, a dental obturator to fill and pressurize, an electronic apex locator to assist the operator to locate the file tip in the root canal and an ultrasonic-handpiece for root-canal cleaning and preparation.

The Integrated Endo System is intended solely for use by trained dental professionals in professional health care facilities on patients that need root-canal-treatment.

### Standard Composition:

Main Unit, Adapter, MeetMotor, MeetFill, MeetPex, MeetActivator



1	Main Unit with charging base	2	Adapter
3	MeetFill	4	MeetMotor
5	MeetActivator	6	MeetPex

## Device description

The Integrated Endo System Meet Endo-II is composed of Main Unit, Adapter, MeetMotor, MeetFill, MeetPex, MeetActivator. It is standalone AC-powered dental control units with a touch display screen to which multiple hand-held dental handpieces for root canal therapy procedure (MeetMotor is for root canal preparation, MeetFill is for root canal backfilling, MeetPex is for working length measurement of root canal, MeetActivator is for root canal irrigation).

These multifunctional devices are intended for use by professionals in the dental clinic use environment. Based on the modular concept of the Integrated Endo System different handpieces can be combined with the control unit. The key hand-held components like handpieces or endodontic tools of the Integrated Endo System are medical devices commercially available by themselves and have separate FDA registration or clearance for marketing in the US.

## SECTION 2: MAIN TECHNICAL INDEX

Product Name	Integrated Endo System
Model Name	Meet Endo-II
Trade Name	Meet Endo
Safety class against electric shock	Class I
Anti-shock type	Built-in power supply
Anti-shock degree	Type BF applied part
Degree of protection IP code	IPX0
Operation mode	Continuous operation
Modulation mode	GFSK
Radio transmit power	2400-2483.5 MHz
Occupied bandwidth	≤2MHz, ≤20 dBm (EIRP)

### Adapter

Input for adapter	100~240V 50/60Hz, 1.5A Max
Output for adapter	24V DC, 3A
Built-in fuse	T2A250V
Internal Power	14.4Vd.c., 4800mAh

### MeetMotor

Motor	X <sub>1</sub> :9.82±0.08mm
Handpiece	X <sub>2</sub> :12.34±0.08mm
speed range	100-1500 rpm

torque range	0.4-5.0N.cm
handpiece contra angle	ratio 6:1
battery	3.7V, 2000mAh
size & net weight	26*28*140mm, 128g

## MeetFill

temperature range	100~200°C±10%
push speed	high, medium, low
Injection needle	23 Ga, 24 Ga and 25 Ga
battery	3.7V, 2000mAh
size & net weight	29*30*178mm, 150g









## MeetPex






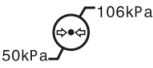




apical area setting	±0.5mm
battery	3.7V, 120mAh
size & net weight	27*40*19mm, 22g

## MeetActivator

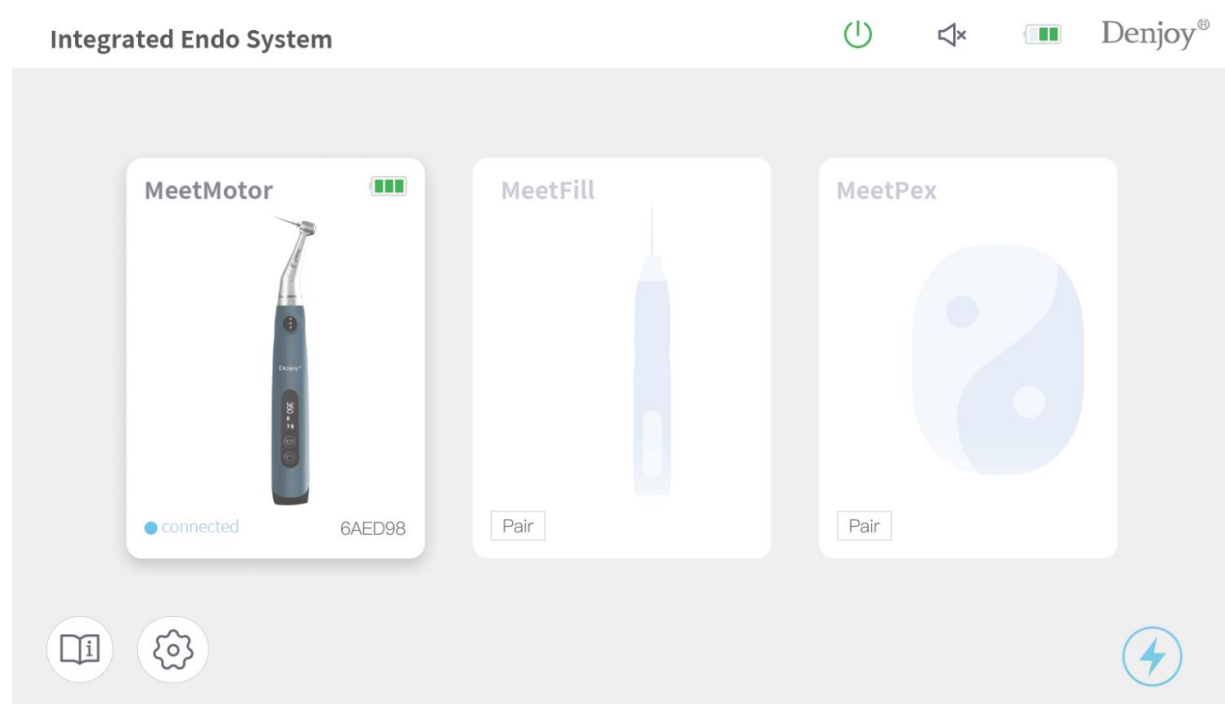
Frequency	45±10kHz
Activator tip	T18 02/30, T21 02/20, S21 02/20
battery	3.7V, 1200mAh
size & net weight	26*26*162mm, 88g

## SYMBOL

	Refer to instruction manual / booklet
	Type BF applied part
	Caution
	Date of manufacture.
	Manufacturer
	Specifies serial number
	Sterilizable up to the temperature specified at most
	DISPOSAL: Do not dispose this product as unsorted municipal waste. Collection of such waste separately for special treatment is necessary.

	Alert indicator displayed on the LCD screen
	Battery power indicator displayed on the LCD screen
	Keep out of the sun
	Handle with care
	Keep dry
	Atmospheric pressure range: 50kPa~106kPa
	Humidity range: 0%-95%
	Temperature range: -40°C~55°C
	Medical device
	Prescription use

## SECTION 3: INSTRUCTION GUIDE



3.1 Extended press the on/off button on the front of the charging base to turn on the charging base.

3.2 For the first use, it is necessary to pair the device with control unit. The specific pairing method is as follows:

a. After the charging base is turned on, click the "Pair" button on the screen to enter pairing mode.

b. Extended press the on/off button of the device that needs to be connected for pairing.

c. After hearing the successful boost tone of the connected device, the pairing is completed, and the screen will display "Connected" and relevant information.

3.3 Paired devices will automatically connect when the charging stand and device are turned on.

### 3.4 Settings interface

Click the settings button on the screen of control unit to enter the settings interface.

**automatic shutdown time:** 5-60 minutes. 5 minutes for default.

**Lock-screen time:** 20-120S. 10S for each adjustment. 60S for default.

**volume adjustment:** 25%, 50%, 75%, 100% of 4 levels can be set. 75% for default.

**brightness adjustment:** 25%, 50%, 75%, 100% of 4 levels can be set. 75% for default.

**language selection:** Chinese/English can be set.

**volume type:** Types 1 and 2. Type 1 for default.

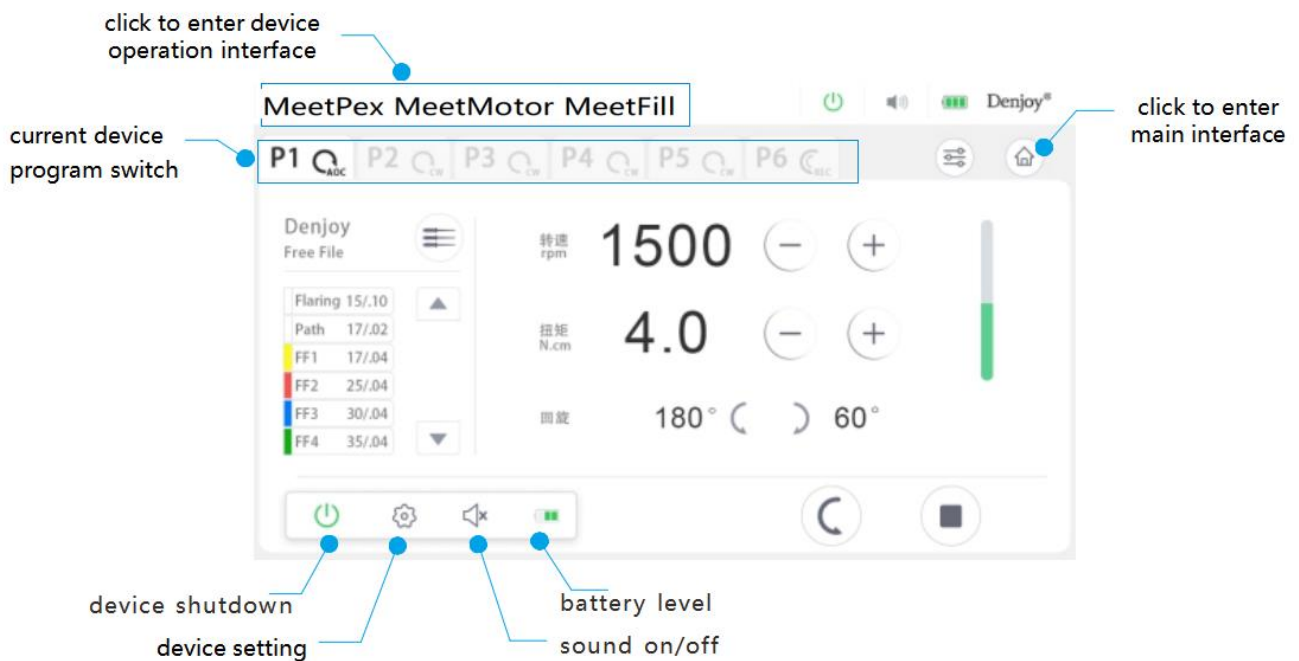
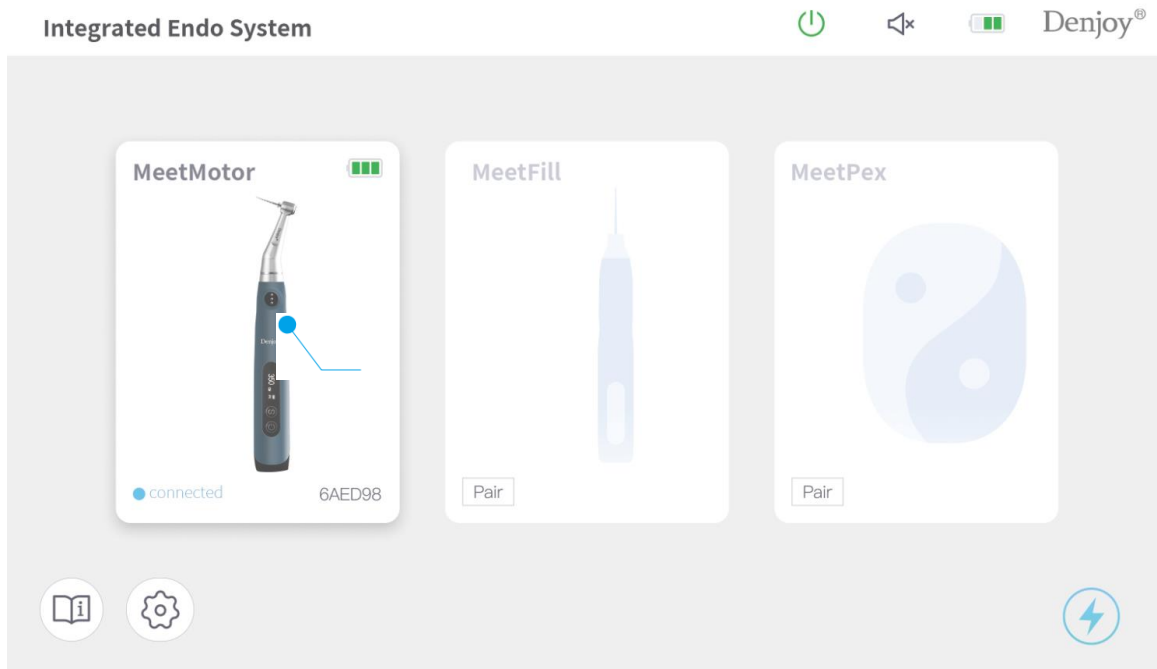
**device synchronous shutdown:** When this function is activated, if the charging base shuts down, and the paired devices will shut down synchronously.

**restore factory settings:** restore factory settings for all parameters.

### 3.5 device operation interface

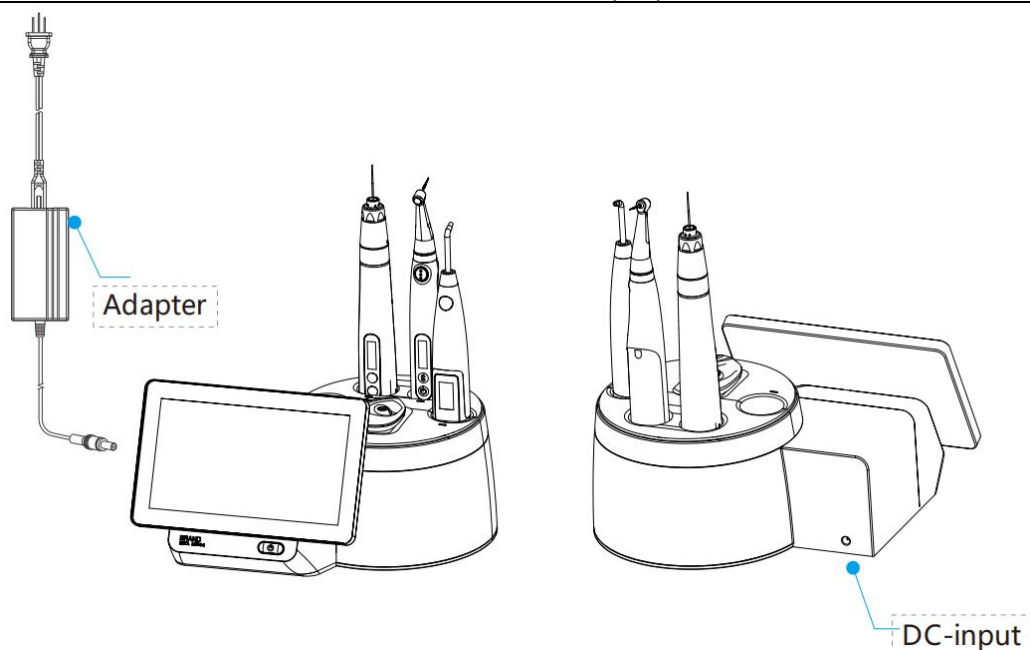
Click the icon of device on the screen to enter the device operation interface.





3.6 For other functions, check the detailed description of each separate device.

## SECTION 4. CHARGING



When the charging base shows low battery, please charge the charging base in time. Connect the power adapter to the 220V power supply, and insert the other end into the DC input interface of the charging base. Disconnect the power adapter after full charging.

## Device charging by charging base

Turn on the power switch of charging base, put the device into the charging position and start charging the device. 5 devices can be charged at most. When charging, the screen of device can display the charging state (the battery grid rolls). And when MeetPex is charging, the indicator light is in breathing state. During the charging, the indicator light of the charging base is in breathing state. After full charging, the indicator light (the device displays full power state) is steady green. The indicator light is not on if the device is not plugged in.



### real-time charging status

The grid of battery icon scrolls from bottom to top when charging.



### Note:

**During the wireless charging process, there will be a small amount of heat**

generation, which is a normal phenomenon.

If the indicator light flashes during the charging process, it indicates an abnormal charging state. Please power it on again or remove the device and reinsert it.

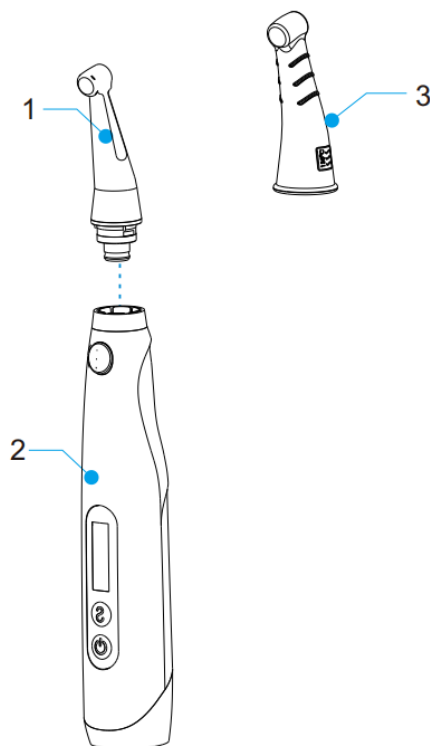
The device cannot be turned on in the charging state.

## Part 1: Meet Motor

### Intended use:

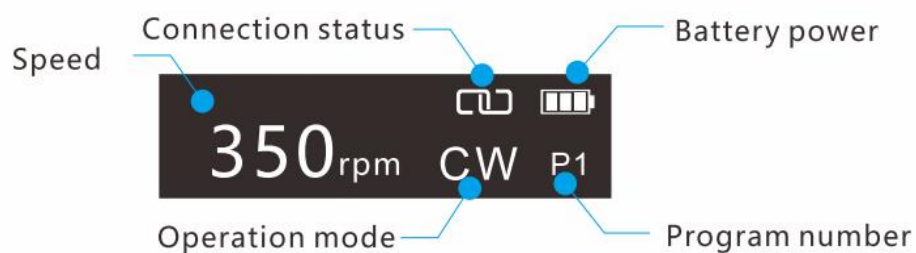
For root canal preparation during the root canal therapy procedure.

### Product Structure

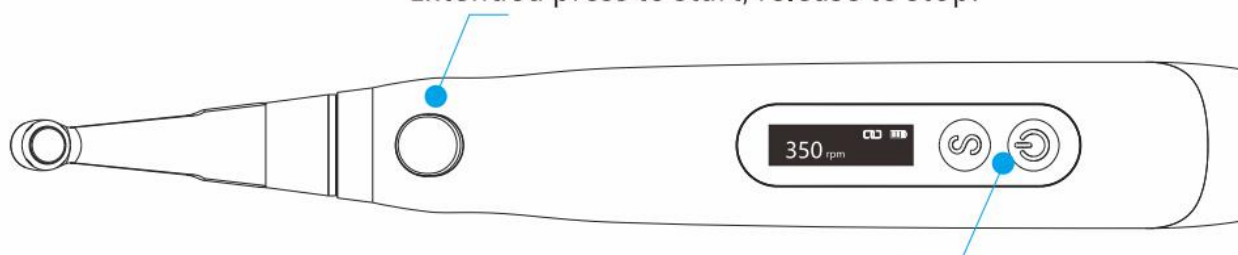


1. HP contra angle    2. Motor handpiece    3. Silicone protector

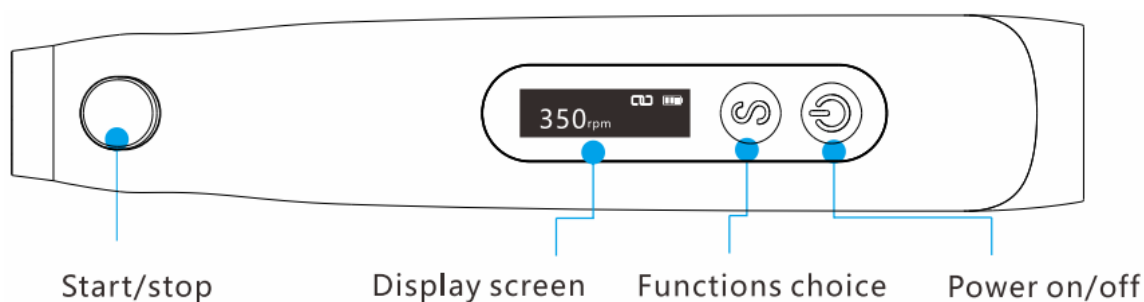
### Button and Operation Interface Description

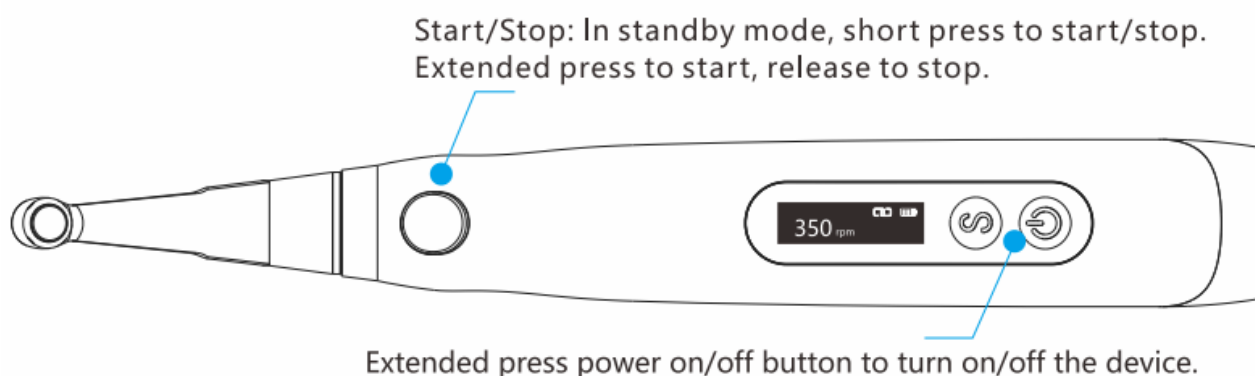
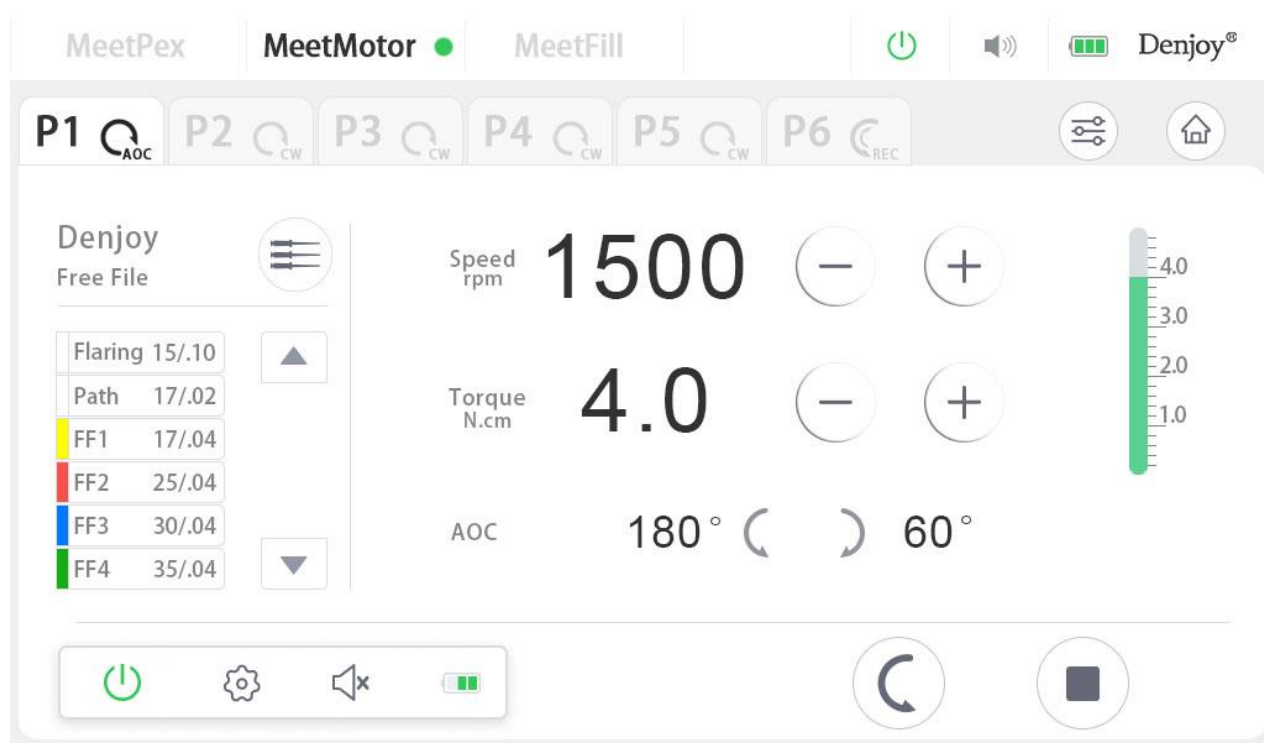


Start/Stop: In standby mode, short press to start/stop.  
Extended press to start, release to stop.



Extended press power on/off button to turn on/off the device.





## Power On/Off

Extended press power on/off button to turn on/off the device.

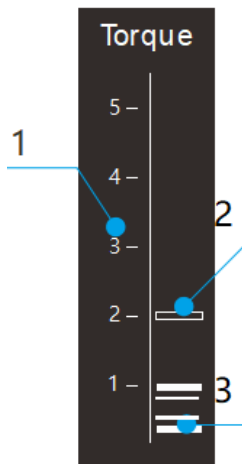
2 beeps can be heard when power on/off.

The device can be turned off through App software.

## Device Connection

Enter main interface, press the connection button to connect the current device on the top- right corner. "connected" will occur for successful connection after hearing 3 beep sounds.

Note: Before connection, the device should be in standby mode after power-on.



1. Torque display
2. Set value for torque( flashing)
3. Dynamic real-time torque value

## Program switching

In the connected state, press the function "S" key to switch between programs.

## Start/Stop of Motor

In standby mode, short press to start/stop.

Extended press to start, release to stop.

In standby mode, press the start/stop button to start the motor. Press the start/stop button again to stop the motor. Long press the start stop button to start the motor, and the motor will stop after the torque scale is released.

## Speed setting

In the standby mode, press the "+, -" keys of main unit to set the speed, or drag the slider directly to set the speed range of 100-1500 rpm.

For 100-500 rpm, the adjustment is 10 rpm each.

For 500-1000 rpm, the adjustment is 50 rpm each.

For  $\geq 1000$  rpm, the adjustment is 100 rpm each;

After the motor runs, the speed cannot be adjusted.

## Torque setting

In the standby mode, press the "+, -" keys of main unit to realize the torque adjustment of 0.4-5.0N. cm. the adjustment is 0.1N. cm each.

When the motor runs, the device and App software will display real-time torque at the same time.

## **Motor rotation mode**

The device has two rotation modes, namely continuous rotation and reciprocating rotation, to adapt to different root canal files.

### ***Continuous rotation***

The device will conduct 360° continuous rotation according to the speed and direction set through main unit. When the load torque reaches the set torque, act according to torque action setting.

1. **Torque action setting:** Before the motor runs, three kinds of settings are available: Auto reverse(Rev), stop and AOC, which cannot be set after motor runs.

2. **Auto Rev:** When the load torque exceeds the set torque, the motor reverses. When the load torque decreases to unloading value, the motor returns to the original rotation direction.

3. **Stop:** The motor stops when the load torque exceeds the set torque.

4. **AOC:** When the load torque exceeds the set torque, the motor rotates forward and backward according to the set angle.  
When the load torque decreases to the unloading value, the motor returns to the original rotation direction. AOC angle can be set by adjustable 20°~370° through main unit, step by step 10°.

5. **Direction rotation switch:** For clockwise direction, the device rotates clockwise, and vice versa. The torque action function (Auto reverse(Rev), stop and AOC) fails during counterclockwise rotation.

## **Setting interface**

Options settings

File Library

Customize

Rotary file



Denjoy

Free File

Preset mode

<

AOC

>

Angle



180°



Angle



360°



Confirm

## Reciprocating rotation

The speed and reciprocating angle set by main unit.

The speed range is 100-500 rpm and the angle can be set by adjustable 20°~370°through main unit , step by step 10°.

Default torque max. 5.0 N.cm.

1. **Torque action setting:** Before the motor runs, two kinds of settings are available: Auto reverse(Rev), stop, which cannot be set after motor runs.

### 2. Auto Rev:

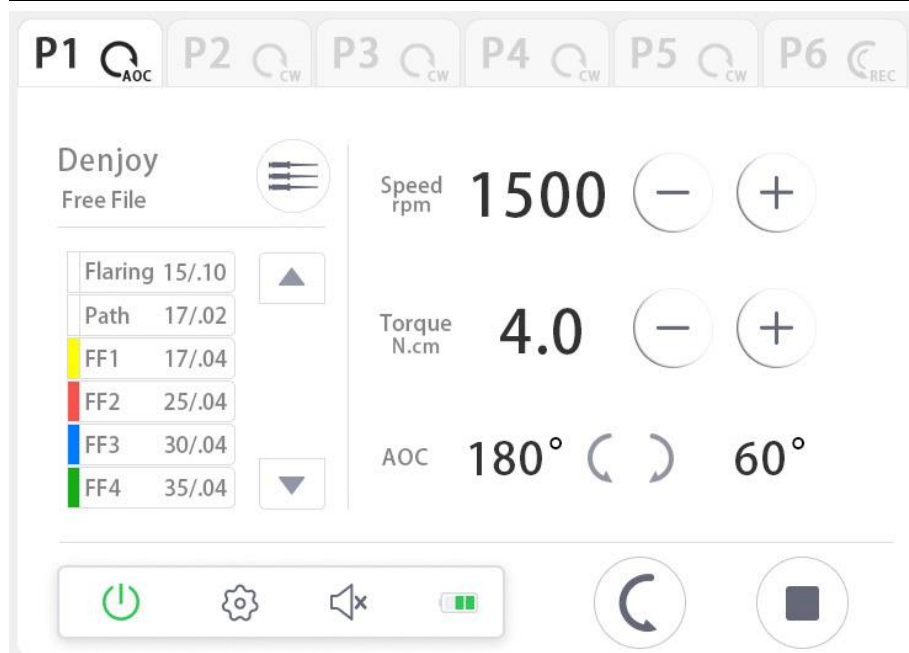
When the load torque exceeds the maximum torque, the motor continuously reverses.

When the load torque decreases to the unloading value, the motor turns to reciprocating motion. The reverse direction of reciprocating is the reverse direction of large angle.

For Example: The single file with counter blade is 150 ° counterclockwise and 30 ° clockwise and the reverse action is clockwise rotation.

3. **Stop:** The motor stops when the load torque exceeds the set torque.

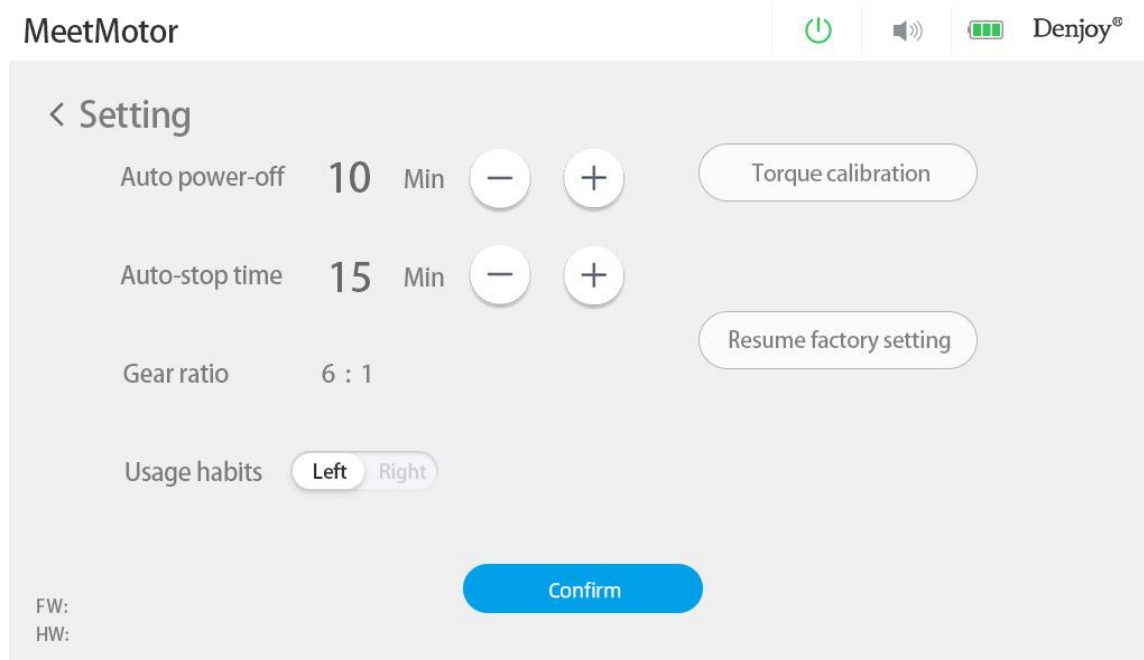




## System settings

Click the setting icon on the homepage to enter the setting page:

- (1) Automatic power-off time: 2~60 minutes can be set (default: 5 minutes)
- (2) Automatic stop time: 2~15 minutes can be set to stop the motor running (default: 5 minutes)
- (3) Gear ratio: default: 6:1.
- (4) Usage habits: set the usage habits of left and right hands.



## Contra angle calibration

### 1. Calibration through main unit

- (1) First, turn on the device and keep it connected, and put it in the standby state;
- (2) Click the "Torque Calibration" button, and the device will display "calibration" when the "beep" sound of the device is heard;
- (3) Press the start/stop button of device to start torque calibration (starts rotation);
- (4) After the automatic completion, the torque calibration is completed, and the calibration status is displayed in the status bar.

### 2. Calibration via device (unconnected state)

In the standby mode, extended press the function S key to wait for the device displaying "calibration", and then press the Start/Stop key to start calibration. After calibration, the device will enter the standby mode.



Calibration

calibration preparation

## Restore factory settings

### 1. Restore factory settings through Main Unit


- (1) First, turn on the device and keep it connected, and put it in the standby state;
- (2) Click the "Restore Factory Settings" button, and the device will display "Restoring" and then "Aligning" when the "beep" sound of the device is heard;
- (3) After the automatic completion, the device will be restored to factory settings, and the main unit will show that the factory setting restoration is successful.
- (4) After factory setting restoration is completed, the device will enter the standby state.

### 2. Restore factory settings by pressing the device

Extended press and hold the power on/off key when the device is turned off (DO not release pressing the key even after the device is turned on) until "Restoring" and then "Aligning" on the screen of device appear, and after factory setting restoration is completed, the device will enter the standby mode.



Restoring...



Aligning...

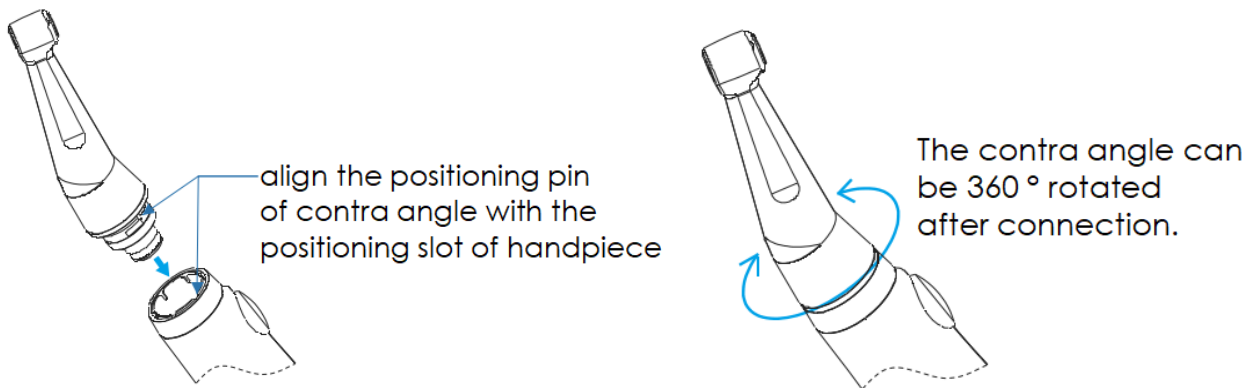
## Assembly of contra angle

When connecting the contra angle with the motor handpiece, align the positioning pin of contra angle with the positioning slot of the motor handpiece, insert it until you hear the "click" sound.

The contra angle can be 360 ° rotated after connection.

Please pull contra angle out in a straight and parallel direction.

Note: When assemble and disassemble the contra angle, please turn off the motor, and load and unload after the device stops rotating.



## Assembly of rotary file

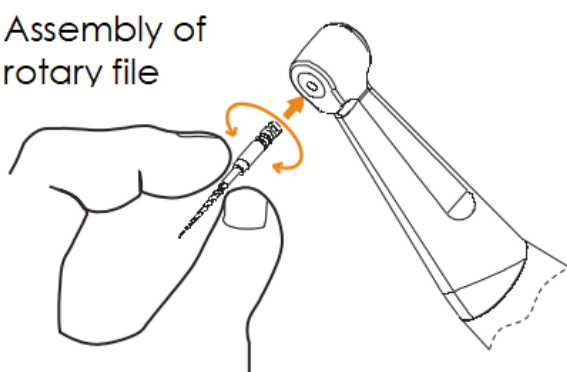
Insert the rotary file into the rotating shaft hole on the head of the contra angle, rotate it gently to find the position corresponding to the semicircle part of the rotary file. After finding the position, first insert the part of rotary file. Do not press the button on the head of the contra angle, and press the rotary file directly into the contra angle with a slightly greater force.

When you hear the "click" sound, it means that the rotary file is connected to the contra angle successfully. When taking the rotary file out, please press and hold the button on the head of the contra angle and pull the rotary file out of the head of the contra angle.

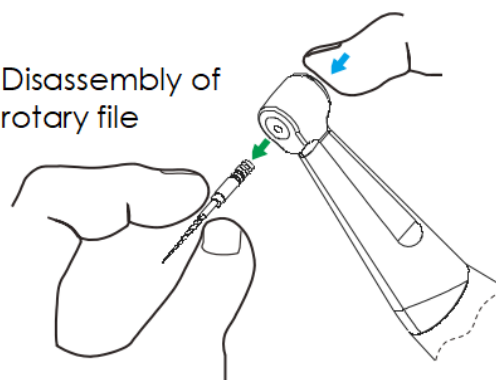
### Note:

- When assemble and disassemble the rotary file, the motor must be turned off.
- When installing the rotary file, make sure to pull and press it back and forth for several times to confirm that the rotary file is indeed installed properly before use.
- Please ensure the cleanness of the rotary file. It will cause the vibration of rotary file that dirt enters the inside of the contra angle,
- Please use the rotary file with its handle conforming to ISO standards.

Assembly of rotary file



Disassembly of rotary file

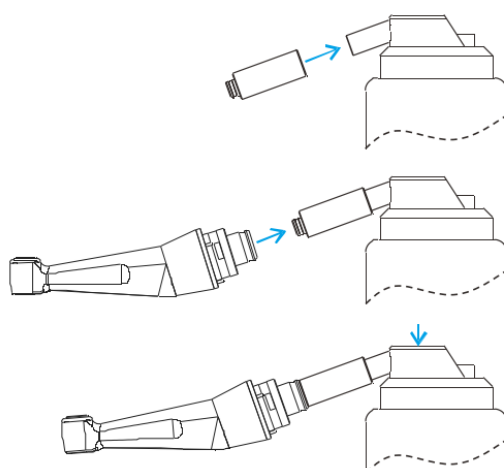


## Maintenance of contra angle

Before maintenance, remove the rotary file from the contra angle, sterilize it at high temperature, and then inject oil for maintenance. Insert the fuel injection nozzle into the spray lubricant nozzle, and then insert the fuel injection nozzle into the end of the contra angle.

Press the injection switch for more than two seconds until oil leaks from the front of the contra angle.

Repeat the injection until the oil ejected from the front end is no longer black. Then make the contra angle stand upright to remove excess oil stains.



## Precautions:

Do not use a root canal file that is bent, cracked, deformed, or out of specification. If this kind of root canal file is used, root canal file will suddenly break off during the rotation process, resulting in injury accidents.

When using root canal file, please follow the speed or torque specified by the manufacturer of root canal file and contra angle. Do not lubricate the motor

handle with oil or sterilize it under high temperature and pressure.

Please use the contra angle provided or approved by the manufacturer/seller, otherwise it will cause the misoperation of the device.

## **Cleaning, Disinfection and Sterilization**

- The parts capable of using an autoclave for sterilization before use:  
HP contra angle

Times of sterilization: 250

High temperature and high pressure autoclave can be used for sterilization.

Temperature: 135°C, Pressure: 0.20 ~0.23 MPa.

The sterilization time is no less than 3 minutes.

- The parts capable of using a towel with 75% rubbing alcohol before use the mainbody of the device.

- Others

When the surface of the power adapter is stained, wipe it clean with a soft cloth coated with some neutral detergent.

Note:

Do not use paint thinner, gasoline solution for cleaning.

Do not spill the therapeutic liquid on the product.

These chemical solutions may degrade the properties of the resin and Metal parts (deformation, discoloration, etc.). In particular, the chemical solution containing sodium hypochlorite is highly corrosive. In case of contact, please wipe it off immediately (due to the different chemical solutions and types, sometimes even if it is wiped off immediately, some chemicals will leave some traces).

**It's recommended that the device should be cleaned after every use.**

## **Storage**

It is not suitable for storage in the presence of sunlight and X-ray,

Ambient temperature: -40°C ~ 55°C

Relative humidity range: ≤95%

Atmospheric pressure: 50kPa ~ 106kPa

Please check that the device can work normally and safely before use if product is not in use for a long time.

The production date is shown on the product label, and the working life is 8 years.

## **CAUTIONS**

Patient safety comes first and care must be taken when using this product. The device is only for use by qualified dentists during the treatment. There are no self-replaceable or removable parts for the mainbody of the device. For other replaceable parts, please see the replacement list of parts and consumable parts.

This device is not waterproof, so the device can not be contacted with water or liquid medicine which will lead to short circuit caused by heating or rust damage to the device, and is easy to cause appliance discoloration.

It is recommended to use the adapter and accessories offered by the manufacturer to avoid adverse accidents. The internal lithium battery of the device cannot be removed or replaced by the user.

This device does not cause electromagnetic interference to other devices in the same environment and will not be subject to electromagnetic interference from other devices in the same environment. However, please do not use the device in the complex electromagnetic environment with strong magnetic field and electric field.

## **CONTRAINDICATION**

1. Please do not use with high-frequency surgical equipment. Be careful with heart disease patients, pregnant women and children!
2. Patients with cardiac pacemakers are not allowed to use this device.
3. Doctors with cardiac pacemakers are forbidden to use this device.
4. Hemophilia patients are forbidden to use this device.
5. It is forbidden to use this device for those who are allergic to known natural latex, stainless steel, silver, copper and other metal.

## **MAINTENANCE & SERVICE**

### **Maintenance performed by the operator**

The operator is responsible for the use and maintenance of medical equipment.

### **preventive inspection**

Preventive maintenance inspection shall be carried out regularly according to the following inspection items.

### **Inspection items:**

1. Check whether the power button can be turn on & off correctly.
2. Lithium battery: When the user does not use the machine every 30 days, the machine should be charged for a short time (charging time shall not be less than

30 minutes) to activate the lithium battery inside the machine and ensure the use efficiency and life of the lithium battery.

3. Check whether the key can be set normally.

Replacement List of Parts and consumable Parts.

Item name	Replacement way	Replacement time
HP Contra angle	inject oil	Runs abnormally

## TROUBLE SHOOTING

If the product runs abnormally during the use, please refer to the inspection items listed below for maintenance.

Problems	Inspect items	Cause & Solution
The device can be not turned on	Low battery power	Charge the device
	Too short press of the power button	Extended press the power button
	Broken power button	Contact the dealer
No display when charging	Bad connection	Please recheck the connection
	Bad connection of the handpiece with the charging stand	Keep the correct connection of the handpiece with the charging stand
	Anything remains on the charging stand	Remove the remains

## Error Code, Description and Solution

Error Code	Description	Solution
E-1	The motor will shut off when overcurrent happened during the operation.	Remove the load, and press any button to restart the device
E-2	The motor will shut off when overheating happened for long time operation.	Remove the load, and press any button to restart the device
E-4	Device calibration error	Remove the load on the contra-angle and inspect it

## PACKING LIST

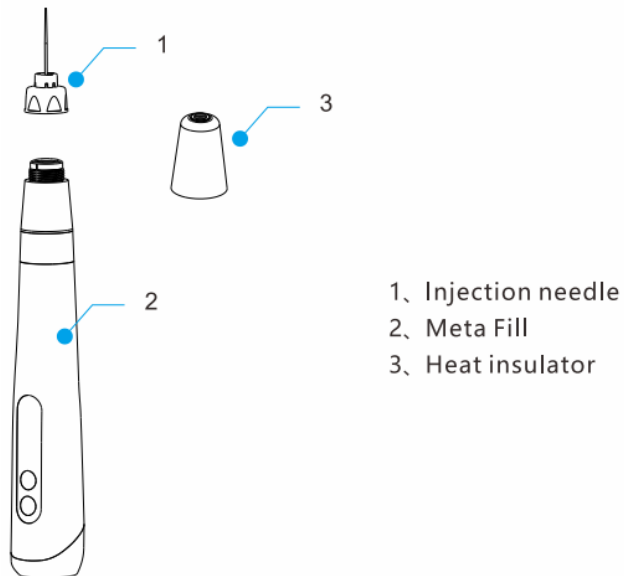
Motor handpiece	1 pc	Silicone rubber protector	5 pcs
HP Contra angle	1 pc		

## Part 2: Meet Fill

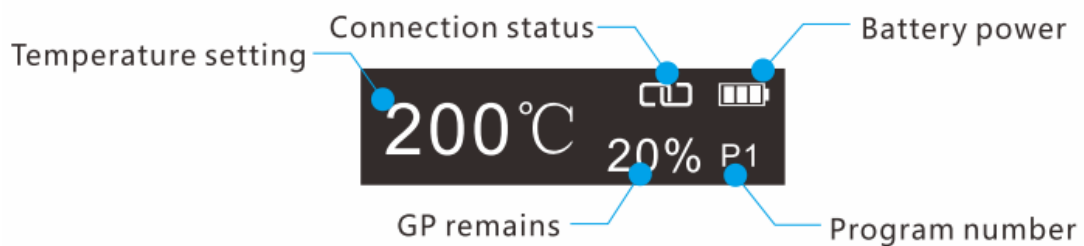
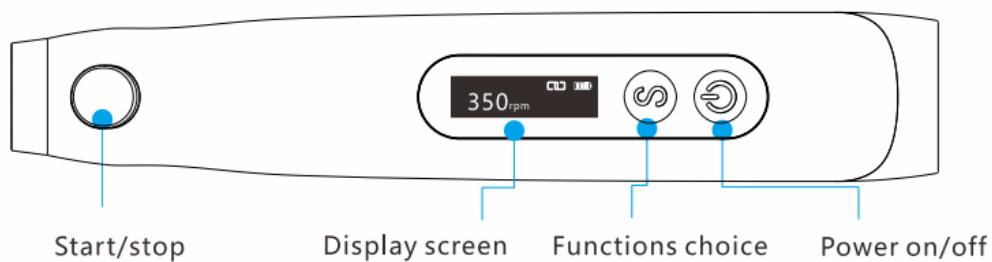
### Intended use:

For root canal backfilling during the root canal therapy procedure.

### Product Structure



### Button Description

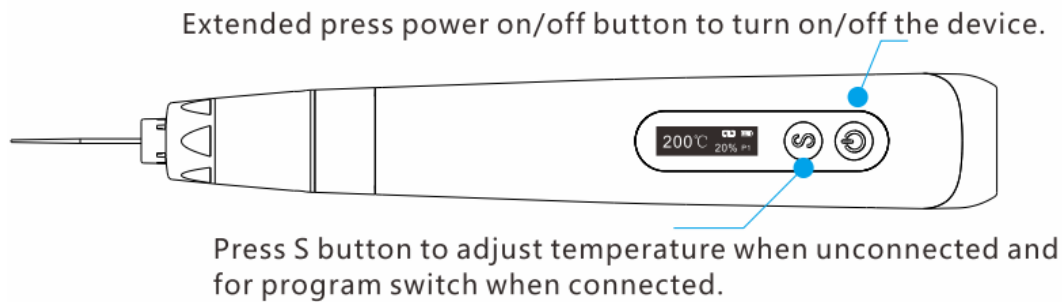




## Function Description

### Power on/off

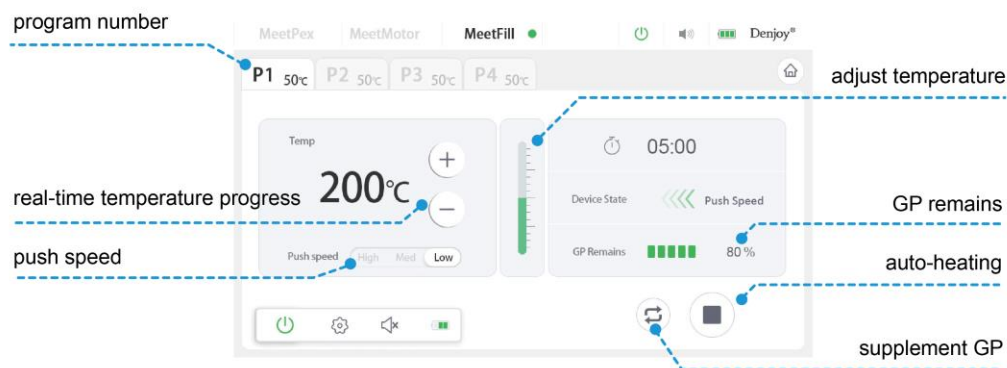
Extended press power on/off button to turn on/off the device.  
Two beep sounds can be heard.



### Connection

Press the connection button to connect the current device on the top- right corner. "connected" will occur for successful connection after hearing 3 beep sounds with rising tone. When disconnect, after hearing 3 beep sounds with falling tone, "disconnected" will occur.

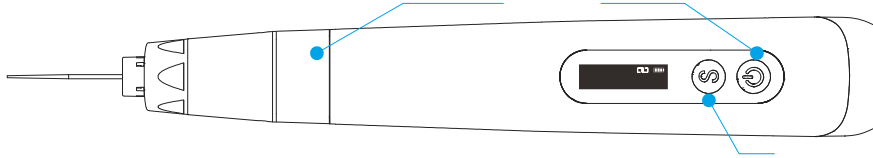
Note: Before connection, the device should be in standby mode after power-on.



main interface of Meet Fill

## Temperature setting

Press the power on/off button or push button to start heating up.

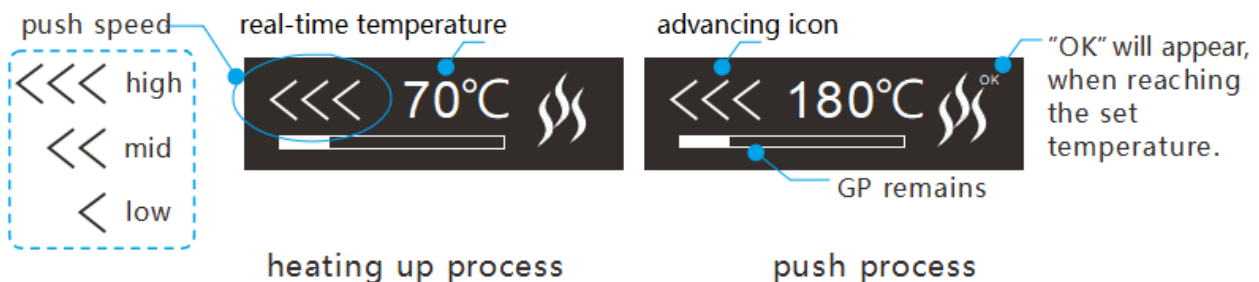


Press the "S" function button to adjust the temperature.

In standby mode, press the "S" function button to adjust the temperature. Each time you press the button, the temperature will rise by 10°C. The default temperature is 200°C, and the adjustment range is 100~200°C. 180-200°C is recommended.

When Meet Fill is connected through main unit, the target temperature can be reached by clicking "+" and "-" or by dragging the slider. At this time, the LCD of Meet Fill displays the temperature value set through main unit. The last temperature setting value will be saved after Meet Fill turns off.

## Heating up and push ahead



In standby mode, pressing the power on/off button, or push button, or by the main unit, Meet Fill can start heating up. Pressing the power on/off button or by the main unit, Meet Fill can stop the heating up when in the process of heating up. After heating up, the real-time temperature and heating up icon will be displayed on the screen of Meet Fill, and will be synchronously displayed on the main unit. After the set temperature is reached, Meet Fill will enter the constant temperature state. The push ahead advancing icon will be displayed on the screen, waiting for push ahead.

Press the push button, Meet Fill starts to extrude the heated gutta percha. Release the push button and Meet Fill stop extruding the heated gutta percha. (At this time, the motor of Meet Fill will rotate reversely for one circle and then stop to release the pressure of the chamber of Meet Fill).

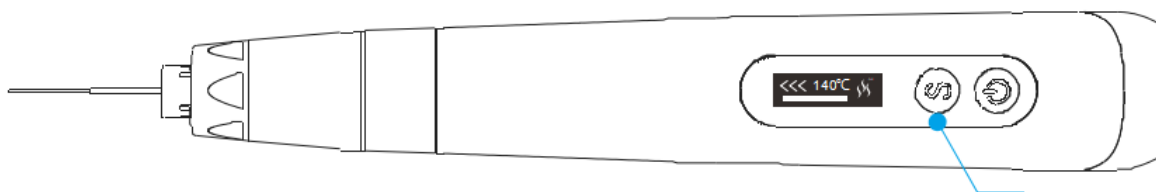
When the real-time temperature does not reach the set temperature, Meet Fill will not extrude the heated gutta percha.

## Gutta percha addition

When the gutta percha in the chamber are used up, the plugger returns to the initial position, and the screen displays "insert a GP!", then remove the injection needle and add new gutta percha bar.

### Manual Setting:

In standby mode, extended press the "S" function button to enter the mode of gutta percha addition. After the set temperature is reached, Meet Fill starts to extrude the remaining gutta percha (The push ahead advancing icon <<< will occur). When the gutta percha in the chamber are used up, the plugger returns to the initial position (The return/retreat icon >>> will occur), then the screen displays "insert a GP!". The setting of GP addition can also be operated through main unit,. Please use the gutta percha with the size below. The diameter is less than 2.8mm and the length is less than 17mm.



Extended press the "S" button to enter the mode of GP addition.



## System settings

Click the setting button on the main interface to enter the setting interface.

**Beep sound setting:** Turning on and off the sound can be available.

**Temperature unit:** Celsius / Fahrenheit is optional (the default is Celsius).

**Automatic shutdown time:** 2-60 minutes can be set (5 minutes by default).

**Heating time:** 2-15 minutes can be set (5 minutes by default).

**Usage habits:** Left/ Right-handed use can be available.

## Restore factory settings

### 1 Setting by Main Unit

- (1) Turn on the device and keep it connected for standby mode.
- (2) Click "restore factory settings", the screen shows restoring process after hearing beep sound. The indicator light on the device turns white and blinking. After

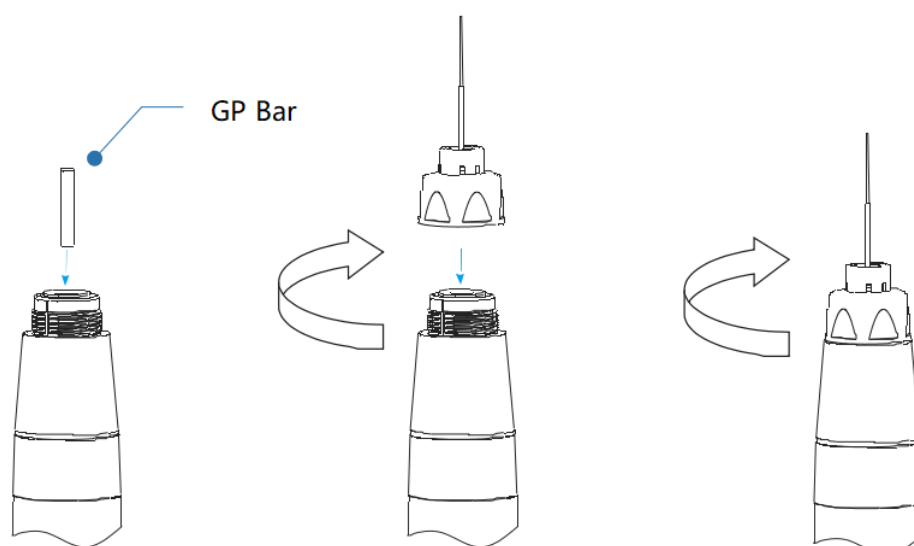
restoring the factory settings, the screen will show successful recovery. After restoring the factory settings, the device will be in standby mode.

## 2 Setting by the Device

In the shutdown state, extended press the power on/off key (Do not release after the device is powered on) until the screen shows restoring. The plugger will return to the initial position), and enter the standby state after completion.



## 3 Usage



1. add gutta percha bar
2. install injection needle
3. fasten injection needle

### installation of gutta percha bar and injection needle

Enter the gutta percha addition mode, then remove the injection needle, pick up the gutta percha bar with tweezers, and install gutta percha bar from the front end of the Meet Fill.

Select an appropriate injection needle according to the thickness of the root canal crown, install the injection needle into the front end of the Meet Fill, and fasten it by hand.

Rotate counterclockwise to remove the injection needle. If there is residual gutta percha in the tube of injection needle or in the chamber of Meet Fill, the injection needle may not be removed. Please heat up Meet Fill to soften the gutta percha before removing the injection needle.

Specification for injection needle

Type	Tip Diameter	Working length	Note
------	--------------	----------------	------

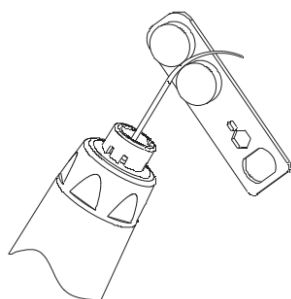
F23G	0.6mm	25.5mm	Reusable
F24G	0.55mm	25.5mm	Reusable
F25G	0.5mm	25.5mm	Reusable

## Pre-bend injection needle

According to the condition of the teeth to be treated, please use the wrench to properly bend the injection needle.

If there is residual gutta percha in the tube of injection needle, please heat up Meet Fill to soften the gutta percha and then bend the injection needle to avoid being broken.

**Note: The angle of injection needle tube after bending shall not be less than 90 degrees, otherwise the needle tube is easy to break.**



Extended press the power on/off button to turn on the device through main unit. Set the appropriate temperature according to gutta percha, and it is recommended to use 180~200 °C. Press the push button to start heating up, or start heating up through main unit.

After the set temperature is reached, insert the injection needle into the root canal, press the push button again, the heated gutta percha will flow out of the injection needle and then inject gutta percha into the root canal. After filling, slowly withdraw the injection needle from the root canal. The root canal filled with gutta percha will be vertically compressed and compacted with hand plugger. The operation can also be repeated if necessary to make the root canal filling completely compact.

After use, press the power on/off button to turn off the device.

## Cleaning and maintenance after use

It is recommended that the dentists clean the device every time after use to prevent too much gutta percha from caking inside the injection needle and affecting the next operation.

When the temperature reaches 100 °C, remove the injection needle, and clean up the excessive gutta percha outside the canal cavity with sterilized tweezers. Then use tweezers to clean up the residual gutta percha inside the thread mouth of injection needle.

## Cleaning and Sterilization

High temperature and high pressure autoclave can be used for sterilization.

Temperature: 135°C, Pressure: 0.20 ~0.23 MPa.

The sterilization time is no less than 3 minutes.

## Warning

- In order to avoid cross infection, the tip must be sterilized under high temperature and high pressure before use.
- Injection needle can not touch oral mucosa when in use, which may cause hurt.
- Replace the tip with a new one when it is worn down or broke.

## Precautions for use:

- The injection needle is the expected heating part, and the maximum temperature may reach 150 °C. Please pay attention to burns!
- In order to avoid cross infection, the injection needle must be sterilized under high temperature and high pressure before use.
- Due to the aging of metal, the injection needle will break after use for some time. Please replace it with a new one at an appropriate time. Do not rotate injection needle at will because of it is made of silver alloy.
- When replacing a new injection needle, please make sure that the injection needle is not damaged or deformed. Damaged and deformed dental glue needles are easy to break when using.
- The injection needle and heat insulator must be disinfected before use. Please remove the injection needle BEFORE gutta percha cools.

## CLEANING AND STORAGE

### Disinfection and Sterilization

The parts capable of using an autoclave for sterilization:

- Injection needle and heat insulator must be autoclaved before use.

Times of sterilization: 100

High temperature and high pressure autoclave can be used for sterilization.

Temperature: 135°C, Pressure: 0.20 ~0.23 MPa.

The sterilization time is no less than 3 minutes.

- Clean the mainbody of Meet Fill regularly with the use of a towel with 75% rubbing alcohol.
- Others

When the surface of the power adapter is stained, wipe it clean with a soft cloth coated with some neutral detergent.

Note:

Do not use paint thinner, gasoline solution for cleaning.

Do not spill the therapeutic liquid on the product.

These chemical solutions may degrade the properties of the resin and Meetl parts (deformation, discoloration, etc.). In particular, the chemical solution containing

sodium hypochlorite is highly corrosive. In case of contact, please wipe it off immediately (due to the different chemical solutions and types, sometimes even if it is wiped off immediately, some chemicals will leave some traces).

**It's recommended that the Meet Fill should be cleaned after every use to prevent built-up of excess gutta percha in the chamber.**

## Storage method

It is not suitable for storage in the presence of sunlight and X-ray,

Ambient temperature: -40°C ~ 55°C

Relative humidity range: ≤95%

Atmospheric pressure: 50kPa ~ 106kPa

Please check that Meet Fill can work normally and safely before use if product is not in use for a long time.

The production date is shown on the product label, and the working life is 8 years.

## CAUTIONS

Patient safety comes first and care must be taken when using this product. Meet Fill is only for use by qualified dentists during the treatment. There are no self-replaceable or removable parts for the mainbody of Meet Fill. For other replaceable parts, please see the replacement list of parts and consumable parts. Meet Fill is not waterproof, so Meet Fill can not be contacted with water or liquid medicine which will lead to short circuit caused by heating or rust damage to the machine, and is easy to cause appliance discoloration.

It is recommended to use the adapter and accessories offered by the manufacturer to avoid adverse accidents. The internal lithium battery of Meet Fill cannot be removed or replaced by the user.

Meet Fill does not cause electromagnetic interference to other devices in the same environment and will not be subject to electromagnetic interference from other devices in the same environment. However, please do not use the device in the complex electromagnetic environment with strong magnetic field and electric field.

## CONTRAINDICATION

1. Please do not use with high-frequency surgical equipment. Be careful with heart disease patients, pregnant women and children!
2. Patients with cardiac pacemakers are not allowed to use this device.
3. Doctors with cardiac pacemakers are forbidden to use this device.
4. Hemophilia patients are forbidden to use this device.
5. It is forbidden to use this device for those who are allergic to known natural latex, stainless steel, silver, copper and other metal.

## MANTENANCE

### Maintenance

Maintenance shall be made by the operator.

The operator (hospital, clinic) shall be responsible for the management of the use and maintenance of device.

### Preventive inspection

Preventive inspection shall be carried out on the products regularly according to the following inspection items.

Inspection items:

1. Check that the power key can be turned on and off correctly.
2. Lithium battery: when the user does not use the machine every 30 days, the machine shall be charged for a short time (the charging time shall not be less than 30 minutes) to activate the internal lithium battery of the machine and ensure the service efficiency and life of the lithium battery.
3. Check that the keys can be selected and set normally.

### Consumable parts list for replacement

Item name	Replacement method	Time for replacement
Injection needle	Repurchase from local dealers or manufacturer	leakage, etc
Heat insulator		Not disinfected or damaged
Wrench		Slipping or can not tighten

## TROUBLE SHOOTING

If the product runs abnormally during the use, please refer to the inspection items listed below for maintenance.

### Q: The device can not be turned on.

Reasons & methods:

A. The battery is in low power.

Connect the power supply for charging.

B. The key pressing time is too short.

Press the power on/off key for at least 1 seconds.

C. The power on/off key is broken.

Contact with local dealer or manufacturer for replacement.



## **Q: No reaction while charging.**

Reasons & methods:

A. The adapter is not plugged in properly.

Please plug the adapter properly.

B. The device is not properly placed on the charging stand.

Please place the device again in a proper way.

## **Q: No GP coming out of injection needle.**

Reasons & methods:

A. The injection needle is blocked up.

Please unblock the injection needle or change a new one.

B. The temperature is low.

Please set the temperature to the required degree.

## **Error Code, Description and Solution**

Error Code	Description	Solution
E-6	Abnormal heating	Restart the device
E-7	Heating with excessive time	Check the battery power
E-11	Great push resistance	Check the gutta percha or heating temperature

If it still fails to operate normally after inspection according to the above methods, please contact the dealer or manufacturer.

There are no parts that you can repair on your own in the package. The hardware failure cannot be repaired on site. It needs to be sent back to the manufacturer for repair by professional personnel.

It's not recommended to open or disassemble the device in any case and manufacturer or local dealer does not have any responsibility on problems or troubles caused by opening or disassembling the devices by unauthorized person.

## **PACKING LIST**

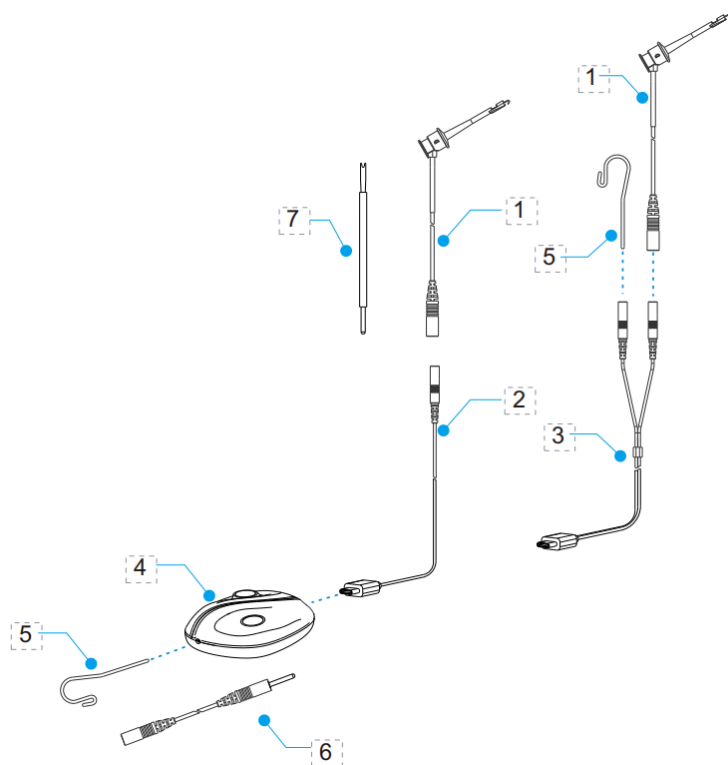
MeetFill handpiece	1 pc	Wrench	1 pc
Injection Needle	1 Pack	Heat Insulator	1 pc

## **Part 3: MeetPex**

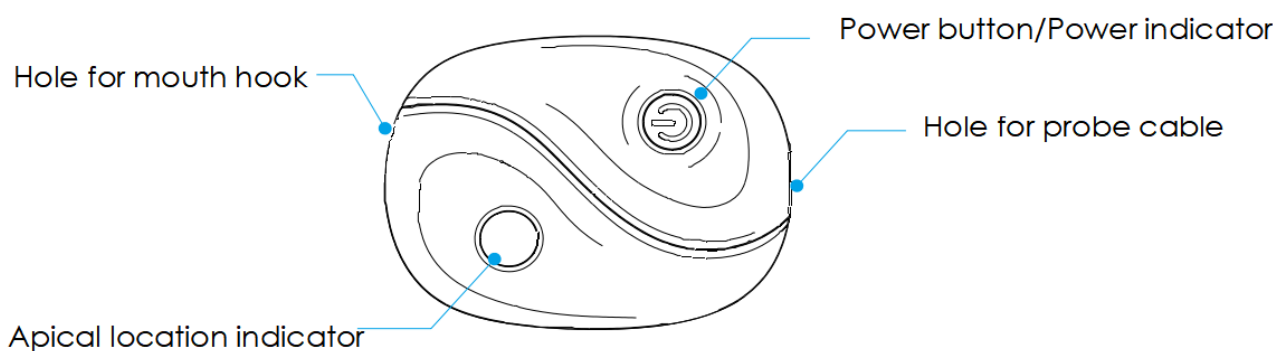
**Intended use:**

For working length measurement of root canal during the root canal therapy procedure.

## Components



1. File holder    2. Probe cable (single)    3. Probe cable (double)    4. Locator  
5. Mouth hook    6. Extension cable for hook    7. Probe needle



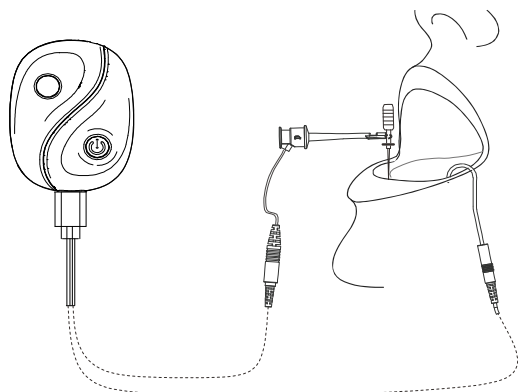
## Apical location indicator

Apical location indicator will not light if probe cable didn't insert into locator, otherwise will be blue flash state. Apical location indicator will be blue start measure, indicator will be green when file near AP, will be yellow when file up to

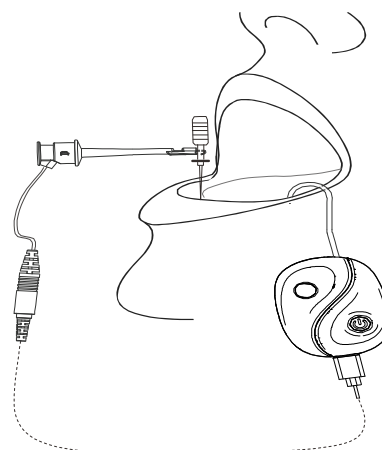
AP, will be red when file over AP.

## Preparations before operation

Connect well hook, locator, probe cable and file holder before operation, file holder should latch the metal portion of file. There are 2 connection type, single wire and double wire pattern.



Double wire pattern



Single wire pattern

## Operational approach

1. Long press power to switch till the indicator light, the indicator light turns green indicates the power is enough, otherwise the indicator light turns yellow.

2. Connect main unit.

Enter match state after turn on, the main unit is used to search for the connection. If a successful match occurs, the indicator light turns blue.

3. Measurement

Hang the mouth hook up at any side of the patient's mouth, insert the file which latched by file holder into the teeth, Apical location indicator light turns blue. When the file needle is close to the apical stenosis area (the root measurement data of the main unit is displayed at the position of 05, and the apical positioning indicator lights up green), slow down the speed of advancing until the AP is displayed on the screen (the locator indicator lights up yellow) and stop advancing, then fasten the file with rubber positioning ring, it means the file needle has reached the anatomic root canal foramen.

The measured data will be synchronized to the main unit through wireless connection and dynamically displayed through the display screen of the mobile terminal.

## 4. Deciding the working length

Subtract a minimum of 0.5 mm~1.0mm from the measured file length as standard working length. (Clinical practice as a safety measure).

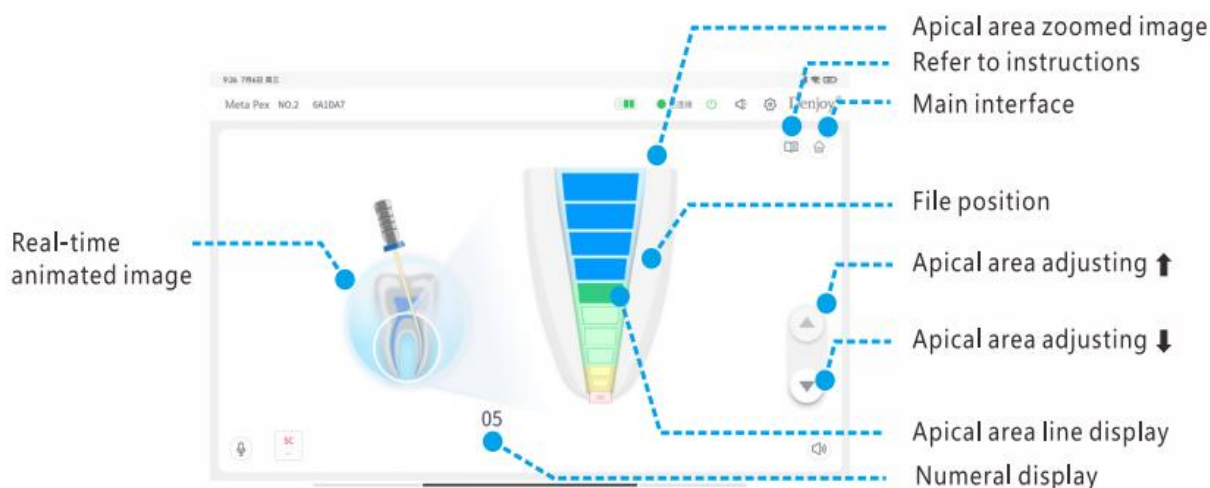
Remarks :The working length of root canal varies from each other for the reason of different shapes of teeth and root-canal.

## 5. Apical point setting

Apical point could be set via control unit.

When the measured data approaches the set value of apical point, the reminder frequency of the buzzer tone will increase.

When the measurement data exceeds the apical point which set by control unit, the buzzer will keep beeping, and the indicator light will turn to flashing.



Main page of Meet Pex

**Note:** Please take X-rays to confirm after measure working length.

The figure in display is not the real distance, it means the file push toward the apex.

Please use the file with plastic handle rather than metal handle, The length of the root canal cannot be measured correctly because the metal handle creates resistance through the finger. Even if the file with plastic handle is used, please be careful not to touch the metal part of the file with your fingers. Clamp the file needle with the root canal needle holder to the upper part of the metal (near the stem).

A broken needle holder does not measure the length of the root canal correctly.

The test wire plug should be fully inserted into the test wire jack of the positioner, it can not measure without complete insertion, it is forbidden to push pull the wire

part when test wire and file holder were insert and pull out.

When the file needle touches the inside of the root canal, the scale will react and move to the root apical, and it will automatically return to the normal state.

## After operation

The operation is completed, unplug the probe cable, turn off the power switch to save power. If you forget to turn off the power switch, the device will automatically shut down after 5 minutes of non-use (it could set via control unit).

Check the power of the device and charge the device in time for the convenience of next use.

The mouth hook and file holder used by each patient must be sterilized by high temperature and high pressure.

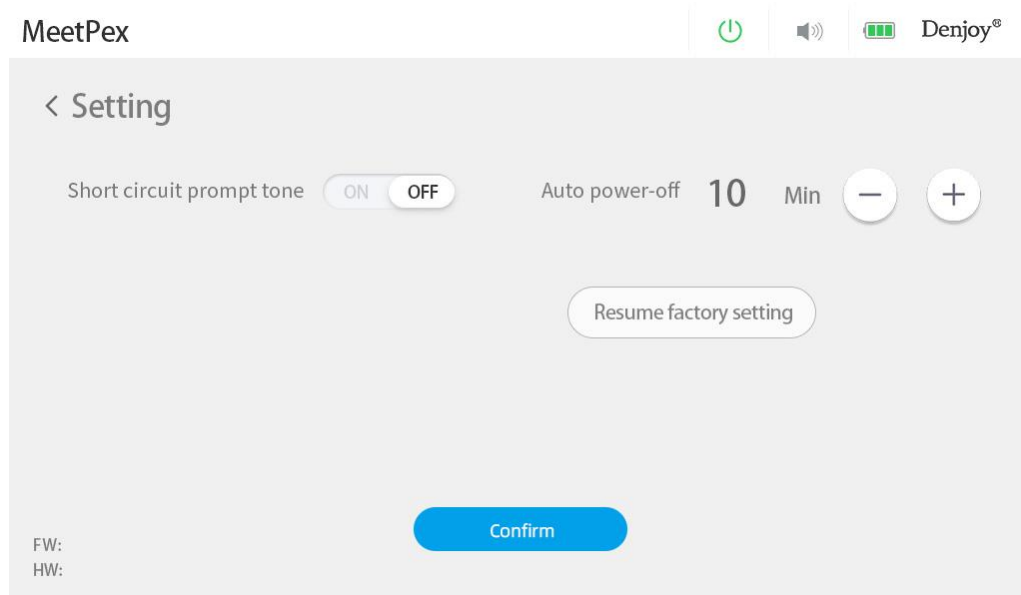
## System setup

Click the setting button on the main interface to enter the setting interface.

(1) Prompt tone Settings: prompt tone can be set on/off, high/low, alarm frequency Settings.

(2) Automatic shutdown time: 2-60minutes (default: 5 minutes).

(3) Short circuit prompt tone will be turn on/off



## Factory reset

### Factory reset via main unit

(1) Turn on the device and keep it connected and in standby screen.

(2) Click the "Restore Factory Settings" button below, the device begins to restore the factory setting when you hear the "beep" sound of the device, and the indicator light of the device shows white and flashes.

(3) The device will be restored to the factory state after the device completed ,

and the main unit will prompt that the recovery is successful.

(4) After the factory reset is completed, the device will in standby state.

## **Factory reset via device button**

Long press the power button for 5 seconds to factory reset when the device is shut down.

## **CHARGING**

Please charging in time when the battery grid blinks.

Insert the charging plug of the power adapter into the charging base, power indicator on the charging base will not light.

Put the device into the charging base, the charging base indicator light is a breathing light, indicating that it is in the charging state; Indicator light is steady on after charging; The indicator is off after the device is removed.

The charging is abnormal if the indicator flash during the charging process, power on the device or remove the device and put it back in.

It cannot be turned on while charging.

## **CLEANING, DISINFECTION, STERILIZATION AND STORAGE**

### ● Sterilization

The instruments capable of using an autoclave for sterilization:  
mouth hook, file holder and probe needle

Times of sterilization: 250

Only the above accessories can be sterilized by high temperature and high pressure.

Recommended temperature: 135 °C,

Recommended pressure: 0.20MPa~0.23MPa,

Sterilization time should not be less than 3 minutes

Warning: It must be autoclaved and disinfected before use.

### ● Disinfection

The instruments that can be wiped with 75% medical alcohol:  
the main body of Meet Pex and probe cable.

Wipe clean with gauze containing 75% medicated alcohol, Note: Do not use any kind of alcohol or cleaning solution other than 75% medical alcohol.

### ● Other cleaning

When the surface of the power adapter is stained, wipe it clean with a soft cloth coated with some neutral detergent.

Note: Do not use paint thinner, gasoline solution cleaning.

Do not spill the therapeutic liquid on the product, especially liquid medicine

contain sodium hypochlorite, because these liquid medicine is very corrosive, please immediately wipe clean in case of contamination.

- storage method

It is not suitable for storage in the presence of sunlight and X-ray,

Ambient temperature: -40°C ~ 55°C

Relative humidity range: ≤95% (No condensation)

Atmospheric pressure: 50kPa ~ 106kPa

- Please check whether the product can work normally and safely before using it again if product is not in use.

## CAUTIONS

Patient safety comes first and care must be taken when using this product. Only for use by qualified dentists in dental treatment.

There are no self-replaceable or removable parts in the device. Other replaceable parts see the replacement list of parts and consumable parts.

This product is not waterproof, so as far as possible do not make the machine with water or liquid medicine, in order to prevent short circuit caused by heating or rust damage to the machine, but also easy to cause appliance discoloration.

This machine is only suitable for the corresponding power adapter configured by our company, and the power adapter conforms to the requirements of IEC60601. The internal lithium battery of this product cannot be removed or replaced by the user. You must contact the local dealer or manufacturer.

It is recommended to use the accessories of our company to avoid adverse accidents.

The device does not cause electromagnetic interference to the devices in the same environment and is not subject to electromagnetic interference in the general environment. However, avoid using the device in the complex electromagnetic environment with strong magnetic field and electric field.

## CONTRAINDICATION

1. Do not use with high-frequency surgical equipment and heart disease in patients, pregnant women and children with caution!
2. The cardiac pacemaker patient can not use this product.
3. The cardiac pacemaker doctor can not use this product.
4. Hemophiliac patient can not use this product.
5. Allergic to known natural latex, stainless steel, silver, copper and other Metals can not use this product.

## MANTENANCE & SERVICE

**Maintenance performed by the operator**

The operator is responsible for the use and maintenance of medical equipment.

## preventive inspection

Preventive maintenance inspection shall be carried out regularly according to the following inspection items.

### Inspection items:

1. Check whether the power button can be turn on & off correctly.
2. Lithium battery: When the user does not use the machine every 30 days, the machine should be charged for a short time (charging time shall not be less than 30 minutes) to activate the lithium battery inside the machine and ensure the use efficiency and life of the lithium battery.
3. Check whether the key can be set normally.

Replacement List of Parts and consumable Parts.

Item name	Replacement way	Replacement time
Probe cable	Contact and buy from local dealer or manufacturer	Connect not well
File holder		Broken
Mouth hook/probe needle		

## TROUBLESHOOTING GUIDE

Please refer to the following inspection items for maintenance if the product does not run normally in use.

### Question: The device can not be turned on

Reasons & methods:

Battery is in insufficient.--- Connect the power supply for charging.

The keystroke time is too short---Hold the power on/off key for at least 1 seconds.

Power on/off key is broken---Contact with local dealer or manufacturer.

### Question: No reaction while charging

Reasons & methods:

The power adapter is not properly inserted---Please insert power adapter properly.

Locator not put well on the charging base---Reset locator.

### Question: No reaction while measuring

Reasons & methods:

The plug of the probe cable is not in good contact---Insert completely and connect well.



Probe cable is broken---Change probe cable.

**Question: The measurement value display is not stable, the accuracy is not high.**

Reasons & methods:

1. Mouth hook and oral mucosa are poor contact---Keep mouth hook and oral mucosa contact well.
2. Blood or liquid spills and sticks to the crown of the tooth.
3. Measure after drying the spilled blood and medicine in the root canal.
4. The tooth surface is stained with liquid medicine and debris---Clean the tooth surface.
5. The file touches the gum---Display will show "OV" if file touches the gum  
Much pulp in the root canal---Working length can not measure accurately when much pulp in root canal
6. Rotary file comes into contact with the metal--Display will show "OV" if rotary file comes into contact with metal.
7. Caries near the test tooth--- The measured current flows from the adjacent caries to the gingiva and thus cannot be correctly measured for working length
8. There are collateral canals or broken roots in the root canal---Display will show "OV" if there are collateral canals or broken roots in the root canal
9. Removal of the top of the compartment causes the crown of the tooth to be low or leaves a residual root---Please use a rubber barrier to prevent current from flowing to your gums.
10. There is a cyst in the root tip---The working length cannot be accurately determined because of cyst in the root tip
11. The metal portion of the file holder is not clean or broken---Wipe the file clip clean or replace it with medical alcohol.

**Question: The indicator strip for length measurement was fully displayed only near the apical stenosis.**

Reasons & methods:

The root canal is blocked---The screen display will be normal after the apical stenosis is unblocked.

There is too dry in root canal--- Please wet the root canal with saline solution.

The rotary file in root canal is too slight---Please choose right size rotary file.

**Question: Short circuit prompt tone**

Reasons & methods:

Please check whether the sound adjustment key is turned on

## PACKING LIST

Locator	1 pc	Probe cable	1 pc
Calibrator	1 pc	Mouth hook	4 pcs

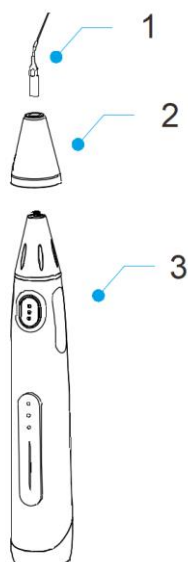
Probe needle	2 pcs	File holder	2 pcs
Extension cable for hook	1 pc		

## Part 4: Meet Activator

### Intended use:

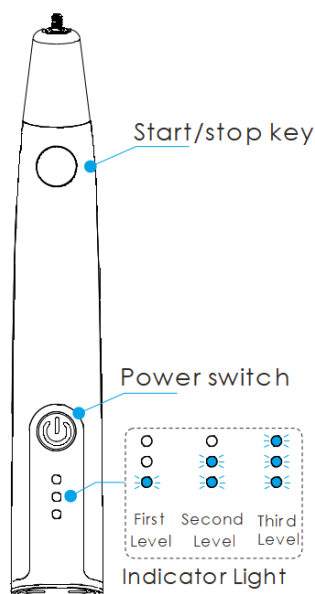
For root canal irrigation during the root canal therapy procedure.

### Product Structure



1. Activator tip      2. Silicone sleeve      3. Handpiece

### Button Description



## 1. Power switch

### 1.1 Function of switching machine:

Long press the power button when the machine is off, and the buzzer will prompt 2 times.

When the machine is on, press the power button long enough to shut it off. All the indicator lights will go out and the buzzer will prompt 2 times.

### 1.2 Output amplitude setting

In the standby state, click the power button to switch gears, a total of 3 levels, from the first to the third level amplitude from weak to strong, cyclic switching.

### 1.3 Power indicator

When the power indicator is steady green, it means that the power is sufficient. When the power indicator is steady orange, it means that the power is not sufficient. When the power indicator is steady orange and in breathing state, it means low power.

## 2. Start and stop button

In standby state, press start and stop button to start/stop vibration.

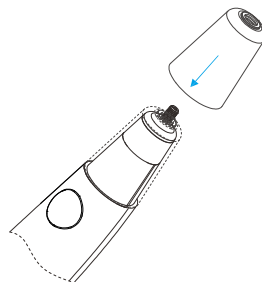
## 3. Operation instructions

Adjust the main handpiece to the required gear, put the working tip into the root canal, and press the start and stop button to start. After starting, the buzzer will prompt once every 5 seconds, automatic stop after 30 seconds, or press the start and stop button to manually stop, move out of the working tip, repeat the above steps after changing the liquid. The selected amplitude indicator flashes after startup.

## INSTALLATION

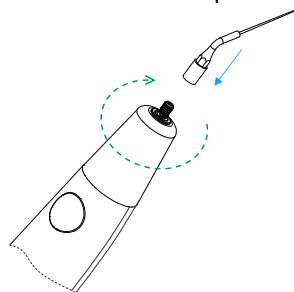
### Install silicone sleeve

Sterilize the silicone sleeve before use.



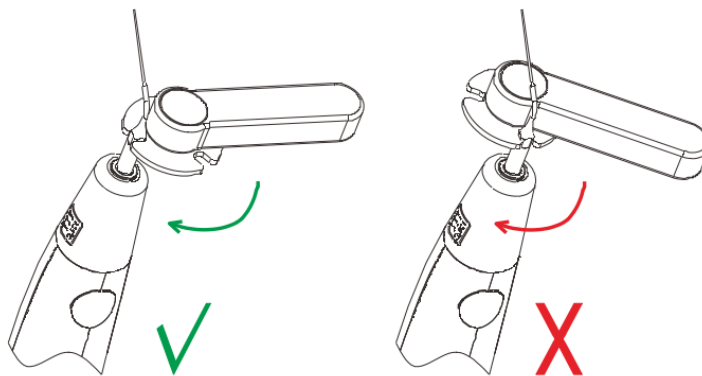
### Install activator working tip

Align the screw port of the working tip with the screw post of the main handpiece, and screw it into the main handpiece clockwise.



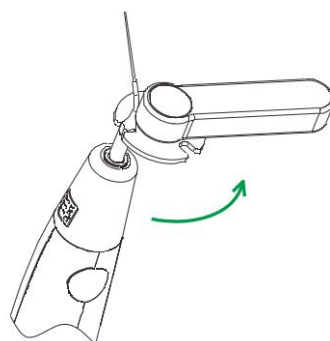
### Fasten activator working tip

Use wrench chuck stuck working tip, slowly turn the wrench, chuck can slip.



### Disassembly

After holding the main handpiece, unscrew the working point against the clock with a wrench.



## Attention

Please turn off the power before installation.

Please use the wrench that comes with the package.

Do not tighten the working tip with too much force, which may cause damage to the internal devices or working tip of the main handpiece.

## Cleaning, Disinfection and Sterilization

- The parts capable of using an autoclave for sterilization before use:

Activator working tip

Times of sterilization: 50

High temperature and high pressure autoclave can be used for sterilization.

Temperature: 135°C, Pressure: 0.20 ~0.23 MPa.

The sterilization time is no less than 3 minutes.

- The parts capable of using a towel with 75% rubbing alcohol before use mainbody of the device.

- Others

When the surface of the power adapter is stained, wipe it clean with a soft cloth coated with some neutral detergent.

Note:

Do not use paint thinner, gasoline solution for cleaning.

Do not spill the therapeutic liquid on the product.

These chemical solutions may degrade the properties of the resin and Metal parts (deformation, discoloration, etc.). In particular, the chemical solution containing sodium hypochlorite is highly corrosive. In case of contact, please wipe it off immediately (due to the different chemical solutions and types, sometimes even if it is wiped off immediately, some chemicals will leave some traces).

**It's recommended that the device should be cleaned after every use.**

## Storage

It is not suitable for storage in the presence of sunlight and X-ray,

Ambient temperature: -40°C ~ 55°C

Relative humidity range: ≤95%

Atmospheric pressure: 50kPa ~ 106kPa

Please check that the device can work normally and safely before use if product is not in use for a long time.

The production date is shown on the product label, and the working life is 5 years.

## CAUTIONS

Patient safety comes first and care must be taken when using this product. The device is only for use by qualified dentists during the treatment. There are no self-replaceable or removable parts for the mainbody of the device. For other replaceable parts, please see the replacement list of parts and consumable parts.

This device is not waterproof, so the device can not be contacted with water or liquid medicine which will lead to short circuit caused by heating or rust damage to the device, and is easy to cause appliance discoloration.

It is recommended to use the adapter and accessories offered by the manufacturer to avoid adverse accidents. The internal lithium battery of the device cannot be removed or replaced by the user.

This device does not cause electromagnetic interference to other devices in the same environment and will not be subject to electromagnetic interference from other devices in the same environment. However, please do not use the device in the complex electromagnetic environment with strong magnetic field and electric field.

## CONTRAINDICATION

1. Please do not use with high-frequency surgical equipment. Be careful with heart disease patients, pregnant women and children!
2. Patients with cardiac pacemakers are not allowed to use this device.
3. Doctors with cardiac pacemakers are forbidden to use this device.
4. Hemophilia patients are forbidden to use this device.
5. It is forbidden to use this device for those who are allergic to known natural latex, stainless steel, silver, copper and other metal.

## Maintenance

Maintenance shall be made by the operator.

The operator (hospital, clinic) shall be responsible for the management of the use and maintenance of device.

## Preventive inspection

Preventive inspection shall be carried out on the products regularly according to the following inspection items.

Inspection items:

1. Check that the power key can be turned on and off correctly.

2. Lithium battery: when the user does not use the machine every 30 days, the machine shall be charged for a short time (the charging time shall not be less than 30 minutes) to activate the internal lithium battery of the machine and ensure the service efficiency and life of the lithium battery.
3. Check that the keys can be selected and set normally.

Replacement list of parts and consumable parts:

Part name	Exchange method	Exchange situation
Activator working tip	Repurchase with local dealers or manufacturer	In case of damage and looseness
Silicone sleeve	Repurchase with local dealers or manufacturer	In case of damage

## TROUBLE SHOOTING

If the product runs abnormally during the use, please refer to the inspection items listed below for maintenance.

The symptom	Inspection items
Unable to charge	Check whether the indicator light displays normally.
	Check whether the power adapter is in good contact.
	Check whether the charging electrode of the Meet Pack is in good contact with the ejector pin of the charging base.
Unable to boot	Check whether the battery is full.
	Press and hold the power on button for more than 1 second.
	Battery failure, contact with local dealers or manufacturers.
The activator working tip can not vibrate.	Activator working tip failure, contact with local dealers or manufacturers.
	Press the key for insufficient time, the system does not respond.
	The working tip is not inserted in place. Please reinstall.
	The working tip is not from the original manufacturer. Please replace.

If it still fails to operate normally after inspection according to the above methods, please contact the dealer or manufacturer.

There are no parts that you can repair on your own in the package. The hardware failure cannot be repaired on site. It needs to be sent back to the manufacturer for repair by professional personnel.

## PACKING LIST

Main handpiece	1 pc	Activator working tip	2 packs
Silicone sleeve	2 pcs		

## SECTION 6. ENVIRONMENTAL REQUIREMENTS

### OPERATING CONDITIONS

Ambient temperature: 5°C ~ 40°C

Relative humidity range: ≤80%

Atmospheric pressure: 70kPa~ 106kPa

### STORAGE AND SHIPPING CONDITIONS

Ambient temperature: -40°C ~ 55°C

Relative humidity range: ≤95%

Atmospheric pressure: 50kPa ~ 106kPa

Equipment is not suitable for storage in the presence of sunlight, rain, dust, and corrosive gasoline and volatile without poor ventilation.

Transportation is applicable to all common method.

## SECTION 7: DISPOSAL METHODS AND REQUIREMENTS

The device does not contain harmful components and can be disposed and destroyed according to relevant local regulations. The device complies with EU ROHS environmental protection requirements; At present, there is no mature technology in the world to replace or reduce the lead content in electronic ceramics, optical glass, steel and copper alloys. Rechargeable batteries can be recycled. The metal part of the product is treated as scrap metal. Synthetic materials, electrical components and printed circuit boards are treated as waste electrical appliances. Materials must be handled according to local regulations to avoid harm to people or pollution to the environment.

## SECTION 8. WARRANTY STATEMENT

The device is maintained free of charge and doesn't require any routine maintenance within warranty period.

Do not modify and disassemble the device.

This device described below has been fully inspected and confronts to the current products specification.



The control part/mainbody is guaranteed for its designated use, against original defects in materials and workmanship for a period of 12 months from date of purchase. The guarantee for accessories is 6 months from date of purchase.

Products warranty or service will not be extended if (1) the product is repaired, modified, misused, disassembled, or using the parts are not provided by the manufacturer, (2) The serial number of the product is defaced or missing.

The guarantee for accessories is 6 months from date of purchase. If the accessories of the device are damaged or needed to be renewed, the user can purchase new accessories from the seller.

## SECTION 9: ELECTRO MAGNETIC COMPATIBILITY(EMC)

EMC standard is a standard formulated for the safe use of medical electrical equipment, which stipulates that the interference of electromagnetic waves generated by equipment to other equipment and electromagnetic wave interference from other equipment (mobile phones, etc.) shall be controlled within a certain range.

Table 1

Guidance and manufacturer's declaration - electromagnetic emissions		
The [Meet Endo-II] is intended for use in the electromagnetic environment specified below. The customer or the user of the [Meet Endo-II] should assure that it is used in such an environment		
Emissions test	Compliance	Electromagnetic environment - guidance
RF emissions CISPR 11	Group 1	The [Meet Endo-II] uses RF energy only for its internal function. Therefore, its RF emissions are very low and are not likely to cause any interference in nearby electronic equipment.
RF emissions CISPR 11	Class [B]	The [Meet Endo-II] is suitable for use in all establishments other than domestic, and may be used in domestic establishments and those directly connected to the public low-voltage power supply network that supplies buildings used for domestic purposes, provided the following warning is heeded: <b>Warning:</b> This equipment/system is intended for use by healthcare professionals only. This equipment/ system may cause radio interference or may disrupt the operation of nearby equipment. It may be necessary to take mitigation measures, such as re-orienting or relocating the [Meet Endo-II] or shielding the location.
Harmonic emissions IEC 61000-3-2	Class A	
Voltage fluctuations/ flicker emissions IEC 61000-3-3	Complies	

Table 2

Guidance and manufacturer's declaration - electromagnetic emissions			
The [Meet Endo-II] is intended for use in the electromagnetic environment specified below. The customer or the user of the [Meet Endo-II] should assure that it is used in such an environment			
Immunity Test	IEC 60601	Compliance level	Electromagnetic environment - guidance

	Test level		
Electrostatic discharge (ESD) IEC 61000-4-2	±8 kV contact ±15 kV air	±8 kV contact ±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	±2 kV for power supply lines ±1 kV for input/output lines	±2 kV for power supply lines	Mains power quality should be that of a typical commercial or hospital environment. The electrical fast transient burst (EFT) is generated by the switching of inductive loads. Separation between the equipment and other loads shall be considered before installation. Mains filter is required, if necessary.
Surge IEC 61000-4-5	±1 kV line(s) to line(s) ±2 kV line(s) to earth 100KHz repetition frequency	±1 kV line(s) to line(s) ±2 kV line(s) to earth 100KHz repetition frequency	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	0% 0.5 cycle At 0°, 45°, 90°, 135°, 180°, 225°, 270° and 315° 0% 1 cycle And 70% 25/30 cycles Single phase: at 0 0% 300 cycle	0% 0.5 cycle At 0°, 45°, 90°, 135°, 180°, 225°, 270° and 315° 0% 1 cycle And 70% 25/30 cycles Single phase: at 0 0% 300 cycle	Mains power quality should be that of a typical commercial or hospital environment. If the user of the [Meet Endo-II] requires continued operation during power mains interruptions, it is recommended the [Meet Endo-II] be powered from an uninterruptible power supply or a battery.
Power frequency (50/60Hz) magnetic field IEC 61000-4-8	30 A/m 50Hz/60Hz	30 A/m 50Hz/60Hz	Power frequency magnetic fields should be at levels characteristic of a typical location in a typical commercial or hospital environment.
NOTE U <sub>T</sub> is the a.c. mains voltage prior to application of the test level.			

Table 3

Guidance and manufacturer's declaration - electromagnetic emissions			
The [Meet Endo-II] is intended for use in the electromagnetic environment specified below. The customer or the user of the [Meet Endo-II] should assure that it is used in such an environment			
Immunity Test	IEC 60601 Test level	Compliance level	Electromagnetic environment - guidance
Conducted RF IEC61000-4-6	150KHz to 80MHz: 3Vrms 6Vrms (in ISM and amateur radio bands) 80% Am at 1kHz	150KHz to 80MHz: 3Vrms 6Vrms (in ISM and amateur radio bands) 80% Am at 1kHz	Portable and mobile RF communications equipment should be used no closer to any part of the [Meta Endo-II], including cables, than the recommended separation distance calculated from the equation appropriate for the frequency of the transmitter. Recommended separation


			s: $d=0.35\sqrt{P}$ ; $d=1.2\sqrt{P}$	
Radiated RF IEC61000-4-3	10V/m, 80% Am at 1kHz	10V/m, 80% Am at 1kHz	80MHz to 800MHz: $d=1.2\sqrt{P}$ 800MHz to 2.7GHz: $d=2.3\sqrt{P}$	Where, P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer, d is the recommended separation distance in meters (m) Field strengths from fixed RF transmitters, as determined by an electromagnetic site survey, should be less than the compliance level in each frequency range. Interference may occur in the vicinity of equipment marked with the following symbol: 
NOTE 1 At 80 MHz and 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.				
<p><sup>a</sup> 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.</p> <p>If the measured field strength in the location in which the [Meet Endo-II] is used exceeds the applicable RF compliance level above, the [Meet Endo-II] should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as re-orienting or relocating the [Meet Endo-II].</p> <p><sup>b</sup> Over the frequency range 150 kHz to 80 MHz, field strengths should be less than 3 V/m.</p>				

Table 4

Recommended separation distances between portable and mobile RF communications equipment and the [Meet Endo-II]			
The [Meet Endo-II] is intended for use in an electromagnetic environment in which radiated RF disturbances are controlled. The customer or the user of the [Meet Endo-II] can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and the [Meet Endo-II] as recommended below, according to the maximum output power of the communications equipment.			
Rated maximum output power of transmitter W	Separation distance according to frequency of transmitter m		
	150 kHz to 80 MHz $d=3.5\sqrt{p}$	80MHz to 800MHz $d=1.2\sqrt{p}$	800MHz to 2.7GHz $d=2.3\sqrt{p}$
0,01	/	0.12	0.23
0,1	/	0.38	0.73
1	/	1.2	2.3
10	/	3.8	7.3

100	/	12	23
<p>For transmitters rated at a maximum output power not listed above, the recommended separation distance d in metres (m) can be estimated using the equation applicable to the frequency of the transmitter, where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer.</p> <p>NOTE 1 At 80 MHz and 800 MHz, the separation distance for the higher frequency range applies.</p> <p>NOTE 2 These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.</p>			

Table 5

Guidance and manufacturer's declaration - electromagnetic emissions							
The [Meet Endo-II] is intended for use in the electromagnetic environment specified below. The customer or the user of the [Meet Endo-II] should assure that it is used in such an environment							
Radiated RF IEC61000-4-3 (Test specifications for ENCLOSURE PORT IMMUNITY to RF communications equipment)	Test Frequency (MHz)	Band a) (MHz)	Service a)	Modulation b)	Modulation b) (W)	Distance (m)	IMMUNITY TEST LEVEL (V/m)
	385	380 – 390	TETRA 400	Pulse modulation b) 18 Hz	1,8	0,3	27
	450	380 – 390	GMRS 460, FRS 460	FM c) ± 5 kHz deviation 1 kHz sine	2	0,3	28
	710	704 – 787	LTE Band 13, 17	Pulse modulation b) 217 Hz	0,2	0,3	9
	745						
	780						
	810	800 – 960	GSM 800/900, TETRA 800, iDEN 820, CDMA 850, LTE Band 5	Pulse modulation b) 18 Hz	2	0,3	28
	870						
	930						
	1720	1 700 – 1 990	GSM 1800; CDMA 1900; GSM 1900; DECT; LTE Band 1, 3, 4, 25; UMTS	Pulse modulation b) 217 Hz	2	0,3	28
	1845						
	1970						
	2450	2 400 – 2 570	Bluetooth, WLAN, 802.11 b/g/n, RFID 2450, LTE Band 7	Pulse modulation b) 217 Hz	2	0,3	28
	5240	5 100 – 5 800	WLAN 802.11 a/n	Pulse modulation b) 217 Hz	0,2	0,3	9
	5240						
	5785						

NOTE If necessary to achieve the IMMUNITY TEST LEVEL, the distance between the transmitting antenna and the ME EQUIPMENT or ME SYSTEM may be reduced to 1 m. The 1 m test distance is permitted by IEC 61000-4-3.

- a) For some services, only the uplink frequencies are included.
- b) The carrier shall be modulated using a 50 % duty cycle square wave signal.
- c) As an alternative to FM modulation, 50 % pulse modulation at 18 Hz may be used because while it does not represent actual modulation, it would be worst case.

The MANUFACTURER should consider reducing the minimum separation distance, based on RISK MANAGEMENT, and using higher IMMUNITY TEST LEVELS that are appropriate for the reduced minimum separation distance. Minimum separation distances for higher IMMUNITY TEST LEVELS shall be calculated using the following equation:

$$E = \frac{6}{d} \sqrt{P}$$

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.

## Essential performance of Meet Endo-II

### (1) Meetootor

No-load speed: The no-load speed ranges from 100rpm to 15rpm. The error between the speed and the set value should not be greater than  $\pm 10\%$

### (2) MeeFill

Heating: The heating temperature adjustment range of the dental glue filling instrument is 100-200°C, the step is 10°C, and the temperature error is  $\pm 10\%$

### (3) MeetPex

Display with sound prompts: When the root file is approaching the apical point, the locator indicator shows the root canal file position in color, and the buzzer has a sound warning.

### (4) MeetActivator

Tip vibration frequency: The vibration frequency of the working tip is 45kHz  $\pm$  10kHz.

When the equipment is used in the environment that meets the above immunity requirements, the working mode is unchanged, there is no functional decline, it can work normally, and the product specifications are in the accuracy range. If the device is used in an environment that exceeds the above immunity requirements, the device may not work properly, or the function may deteriorate, and the product specifications may be out of the accuracy range.

## Functional wireless performance (FWP)

Radio type	FWP
Bluetooth	Transmit the MeetFill, MeetMotor, and MeetPex monitoring values to the device by a 2.4G wireless functionality

## Risk management of FWP

Risk category	Risk Category D Wireless risk-Negligible Level of risk-No significant
Effects of delayed/failed communication of each	The radio function has no impact on the device functionality, Hence a failure of the radio link, be

wireless function	automatically connected at a later time. Or the user could reconnect the device and mobile/ phone/table manually.
Specify mitigation techniques used by the wireless to avoid interference	Adaptive frequency hopping Algorithm in the implanted device to reattempt the connection multiple times at a later time if it fails.

## SECTION 10: FCC CAUTION

### Part 15.21

Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

### Part 15.19

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

**(Model: Meet Motor/ Meet Fill/ Meet Pex)**FCC RF Radiation Exposure Statement:

1. This Transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.
2. This equipment complies with RF radiation exposure limits set forth for an uncontrolled environment.
3. The device has been evaluated to meet general RF exposure requirement. The device can be used in portable exposure condition without restriction.

**(Model: Meet Endo-II)**FCC RF Radiation Exposure Statement:

1. This Transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.
2. This equipment complies with RF radiation exposure limits set forth for an uncontrolled environment.
- 3.This equipment should be installed and operated with minimum distance 20cm between the radiator& your body.

### Part 15.105

NOTE: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

## WARRANTY REGISTRATION FORM

Item Name: \_\_\_\_\_

Model Name: \_\_\_\_\_

Serial No.: \_\_\_\_\_

Date of Purchase: \_\_\_\_\_

Name: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Phone: \_\_\_\_\_

Email: \_\_\_\_\_

Name of Distributor: \_\_\_\_\_

Authorized Distributors: \_\_\_\_\_

Stamp and Signature