



WOODPECKER

33  
YEARS  
Since 1989

# WOODPECKER ENDO SERIES PRODUCTS

One-stop endo solutions



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# Woodpecker

Woodpecker focuses on dental instrument research and development for **33** years.

**33** product categories, **81%** domestic market share, and exported to **140** countries and areas.

Woodpecker has **539** employees, **81%** are undergraduates, **91** R&D engineers.

**417** national patents, **21** invention patents.

**85225**m<sup>2</sup> existing manufacturing and research base, **130576** m<sup>2</sup> base under construction.

**33** million USD invested to build up full-automatic processing and testing center .

Own 4 brands,  **WOODPECKER** **DTE** **DBA** **RTA**

# COMPANY

## ENDO MOTOR

Brushless Endo Motor Series	Smart A	3-4
	Ai-Motor	5-6
	Endo Radar Pro	7-8
	MotoPex	9-10
Brush Endo Motor Series	EndoMatic	11-12
Brushless Endo Motor Series	Endo Smart +	13-14
	Endo Pace	15-16
	Endo Free	17-18

## APEX LOCATOR

Ai-Pex	19-20
Woodpex V Dpex V	21-22

## OBTURATION SYSTEM

Fi-E	23-24
Fi-G&Fi-P	25-26
R1 Plus Fi-N	27-28

## ULTRASONIC SCALER

D600 LED	29-30
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## ENDO ACTIVATOR

Endo 1	31-32
Endo 3	33-34

## IMAGING SYSTEM

Ai Ray	35-36
i-Scan	37-38
Free Scan	39-40
i-Sensor	41-42

## PIEZO BONE SURGERY

Ai surgery	43-44
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## LASER

Lx16 Plus	45-46
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## CURING LIGHT

O-Star	47-48
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# Woodpecker Endo Series Products

## One-stop Endo solutions

This series includes Imaging System, Endo Motor, Apex Locator, Ultrasonic Endodontic Expert, Piezo Bone Surgery, Laser, Endo Activator, Obturation System and Curing Light.

They can be used for treatments such as root canal preparation, working length determination, irrigation, canal modification, sterilization, root canal filling and curing.

Woodpecker Endo Series meets all your needs in Endodontic treatment.



Apex locating

Apex locator  
Ai-Pex  
Woodpex V  
Dpex V



Preparation

Endo Motor  
Smart A, Ai-Motor,  
Endo Radar Pro, MotoPex  
EndoMatic, Endo Smart +  
Endo Pace, Endo Free



Irrigation

Ultrasonic Scaler  
D600 LED  
Endo 1



Sterilization

Laser  
LX16 Plus



Filling

Obturation System  
Fi-E Fi-G Fi-P  
R1 Plus  
Fi-N



Curing

Curing Light  
O-Star



CA161

Mini head, better operating view.  
360° rotatable contra-angle

Head height: 9.7 mm  
Head diameter: 8 mm  
Neck diameter: 6 mm



CA161-RR

1mm Vertical movement contra angle,  
better bypass ledge  
360° rotatable contra-angle

Head height: 9.7 mm  
Head diameter: 8 mm  
Neck diameter: 6 mm



CA161(insulated)

Mini insulated 6:1 contra-angle  
Coated with insulating polymer material  
360° rotatable contra-angle

Head height: 9.7 mm  
Head diameter: 8 mm  
Neck diameter: 6 mm

Preparation

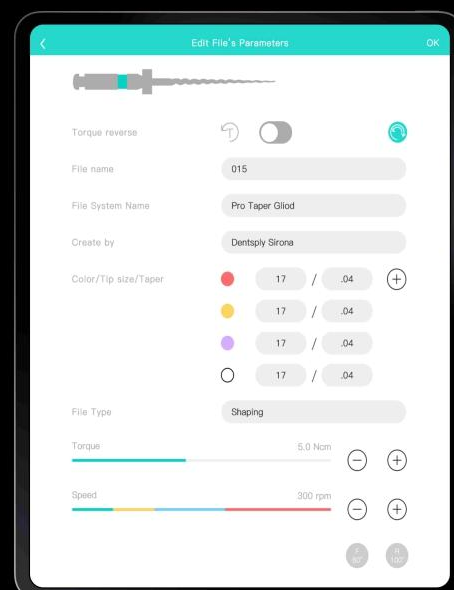
# Smart A

## Brushless Endo Motor Series



### Customized treatment plan Files from different brands available

Files from different brands can be selected from the database to establish a new "Common File System". The name, file sequence and working parameters, of the new file system can be determined as you wish. (The files not in the database can also be added by yourself.)



### Voice control by vivi Nearly hands-free

Through the voice command "hi~vivi", you can: Control the device switch and handpiece parameters; Adjust the speed, torque, forward and reverse rotation mode, reciprocating mode, reciprocating angle, file type, etc.



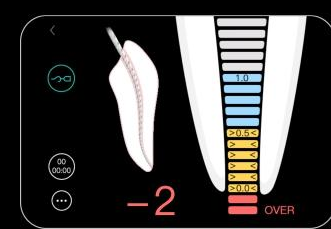
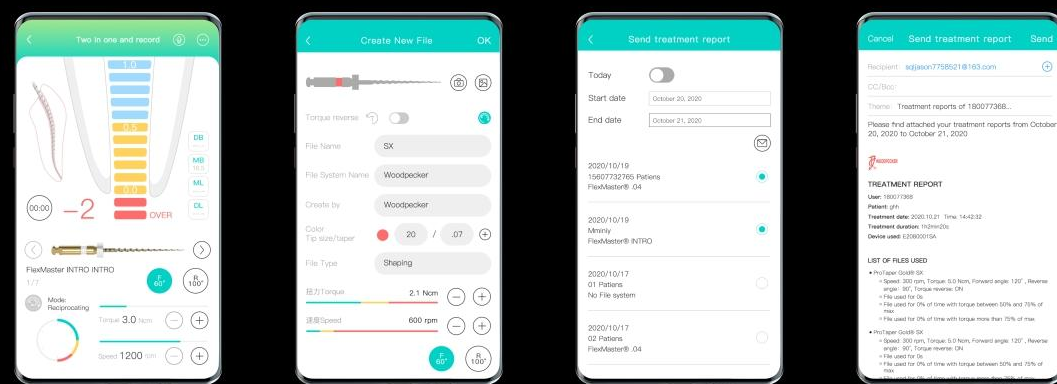
### High configuration Regular update

Optional Smart Watch for voice or touch screen control  
Regular update of the system and program for timely grasp of the latest file database information

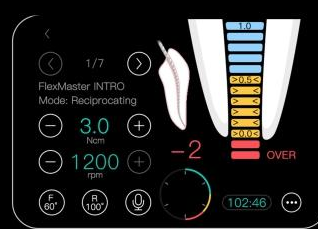


### Cloud storage of treatment report delivers personal customization

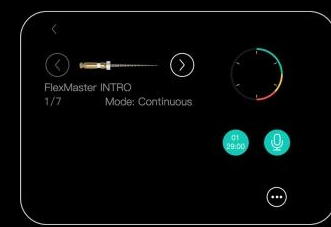
Auto storage of basic patient information, treatment data and file usage time  
Each dentist can create a personal account  
Realize single device with multiple users, but independent information storage



Start measuring and record



Integrated apex locator and record ATR mode



Start treatment and record Continuous mode



File system options

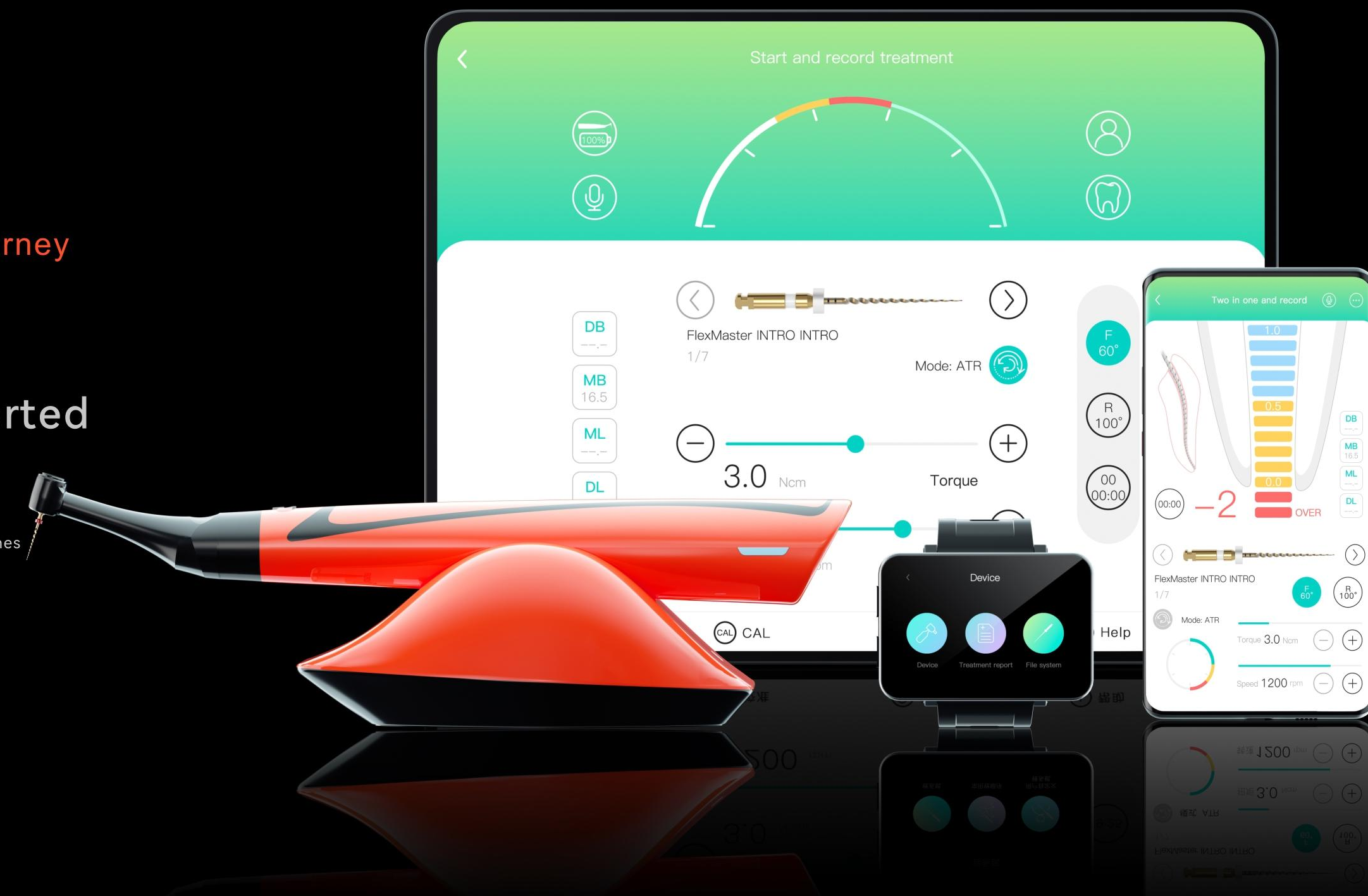
# Smart A

Powerful and intelligent output safeguards your endodontic journey

## Smart APP control

## Multiple devices supported

Bluetooth communication, smart control  
Record patient data and store treatment reports in the cloud  
Support Smart Watch, Apple iPad, Apple iPhone, Android phones (Huawei, Xiaomi, OPPO, VIVO, Samsung...)



## Jointly-developed Advanced device performance + Your exquisite technique = A Perfect Match

COOPERATION WITH SUPREME ENDODONTIST  
BB MODE & LB MODE DEVELOPED

### BB MODE

The file moves continuously at an angle of 90°, with 1s interval between each movement.  
BB is the abbreviation of "block bypass". Sometimes there is dentin debris or pulp residue blocking the apex.  
This rotation with up and down motion can bypass the block.

### LB MODE

The file reciprocates with a difference of 5° between the forward angle and the reverse angle, such as 10°/5°, 15°/10°, 20°/15°, etc., for forward/reverse angles.  
LB is the abbreviation of "ledge bypass". There are many reasons for ledge formation. Ledge bypassing is needed to locate the original root canal. First, make the pre-bent file bypass the ledge. Once the ledge is bypassed, start the switch again to adjust to the continuous motion state.

### Impressive reciprocating mode

Adjustable rotation angle in reciprocating mode  
Adjustment range: 5°-400°  
Adjustment interval: 5°



Preparation

# Ai-Motor

Brushless  
Endo Motor Series



Dr. Yoshi Terauchi

Customized  
reciprocating angle

Integrated  
apex locator mode  
delivers  
safety protection

High performance  
brushless motor

Safe ledge bypassing

Mini contra-angle

Stable operation  
enables efficient  
preparation



*Yoshi Terauchi*

## High performance brushless motor

(about 10 times the service life of brush motor)

Stable cutting can still be ensured at the narrow or curved apex.

Reduce the risk of instrument separation and improve preparation efficiency.



## Integrated apex locator mode delivers safety protection

Auto start/stop at root canal orifice

Auto slowdown at narrow apex

Auto reverse/stop at apical stop



Apex locator  
alone mode

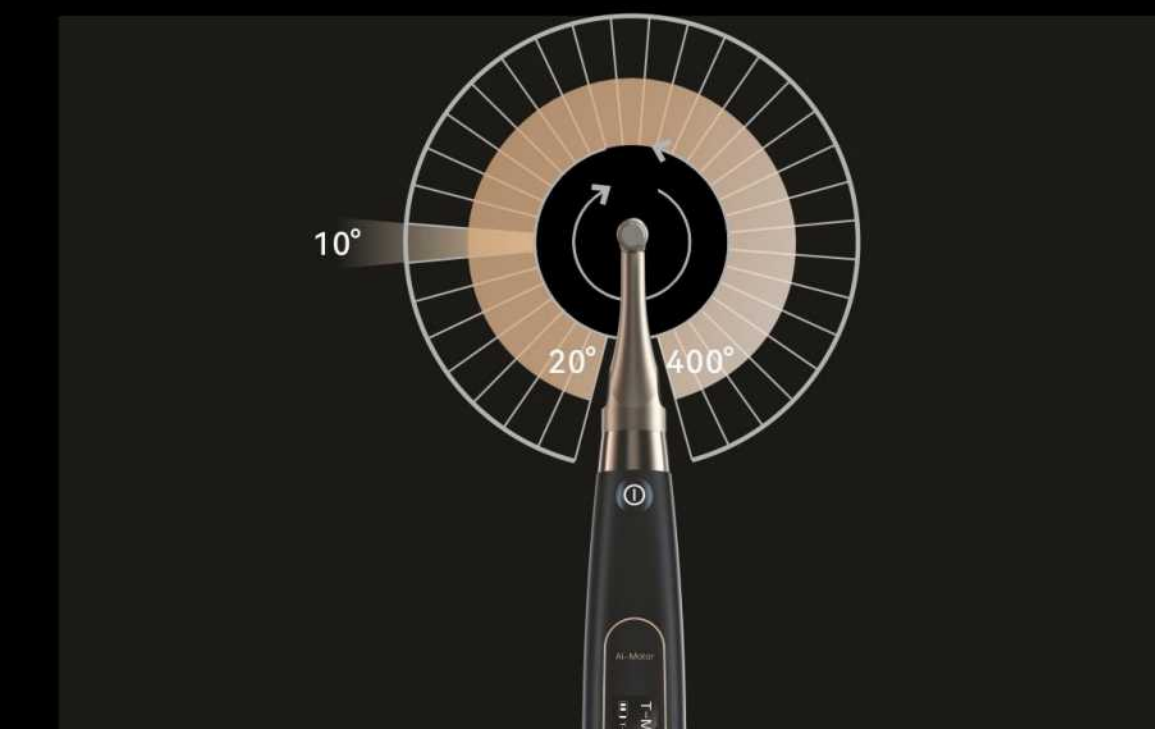
Integrated  
apex locator  
mode

## Customized reciprocating angle

Adjustable rotation angle in reciprocating mode.

20°-400°  
Adjustment range

10°  
Adjustment interval



## Mini contra-angle

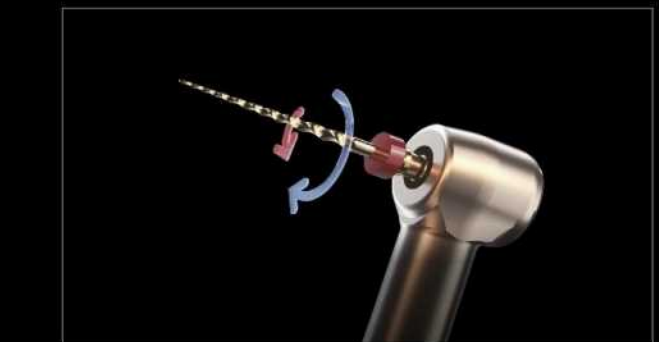
Easier preparation of posterior teeth  
Clearer and broader surgical field.

8.0 mm Diameter  
9.7 mm Height  
360° Rotatable  
contra-angle



## Safe ledge bypassing

Perform "watch-winding" motion at a fixed 90° before the ledge is bypassed, and reciprocate at a fixed forward 180° and reverse 90° after the ledge is bypassed. The speed and torque can be adjusted within the range of 100-500rpm and 2.0-5.0N.cm respectively, enabling safer preparation.



## Stable operation enables efficient preparation



Preparation

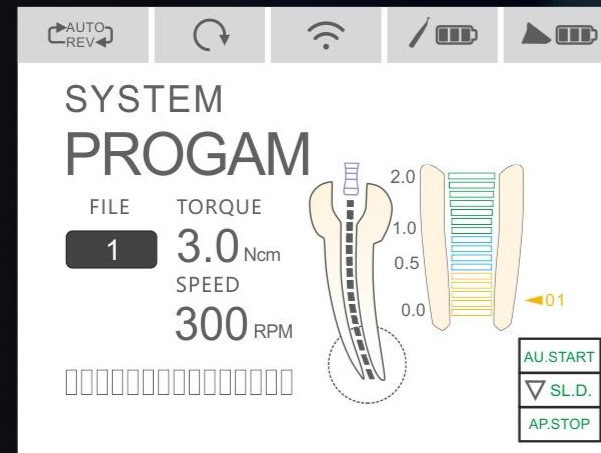


# Endo Radar Pro

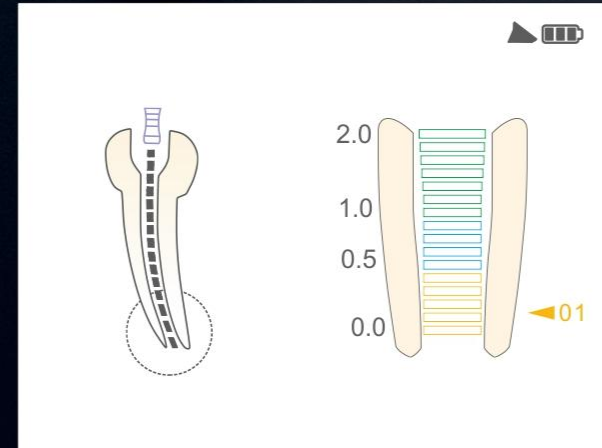
Brushless  
Endo Motor Series

## Two-in-one function

① Root canal preparation with simultaneous length control



② Length determination only



### A. Auto start and stop

Automatically start when the file is inserted into the canal, and stop rotating when it leaves the canal.

### B. Auto apical reverse and auto apical stop

Automatically reverse and stop when the file reaches the apical stop.

### C. Auto apical slowdown

The file slows down as it gradually approaches the apical stop.

## Super-mini contra-angle

The contra-angle is only 8mm in diameter and 9.7mm in height



Head and neck of ordinary contra-angle



Head and neck of Woodpecker super-mini contra-angle

# Endo Radar Pro

Upgraded star product

Brushless Endo Motor with two-in-one function and compact handpiece

Two-in-one function enables the root canal preparation with simultaneous length control

Super-mini handpiece

Brushless motor

Cordless

**6:1**

6:1 Contra-angle

**360°**

360° rotatable contra-angle



Preparation



# MotoPex

## Brushless Endo Motor Series

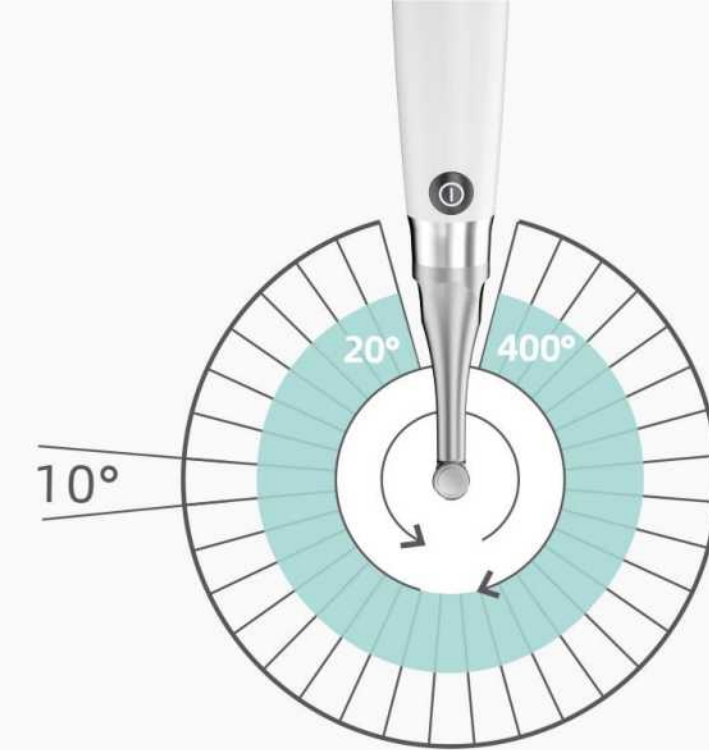
- Super mini head & slim neck
- Stronger power
- Precise rotation
- Lower noise
- Balanced weight



Speed range : 100-1200 RPM  
 Torque range : 0.4-5.0N·cm  
 Reciprocating angle adjustment range : 20°-400°

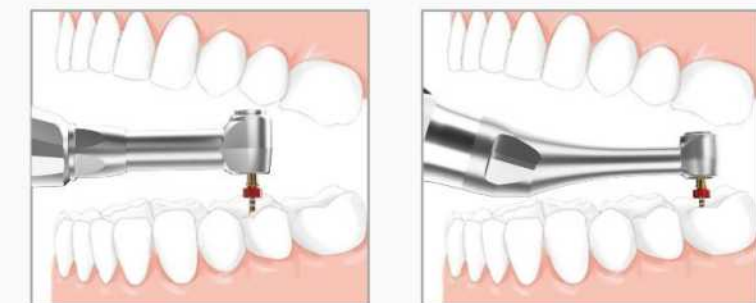
### High performance brushless motor

Adjustable reciprocating angle  
 (10°interval; adjustment range: 20°- 400°);  
 Accurate rotating angle reduces risk of instrument fracture and enables higher preparing efficiency.



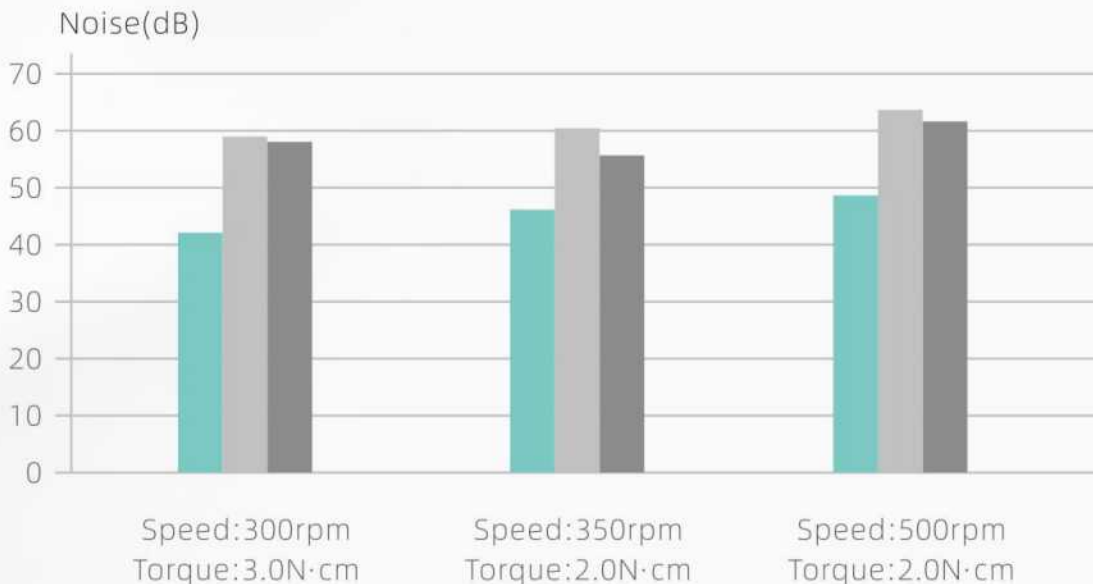
### Super Mini Contra-angle

Super mini head,  
 with a diameter of 8mm  
 and a height of 9.7mm, brings  
 clear vision during operation.



Normal contra angle head & neck      Woodpecker contra angle Super Mini head & slim neck

Smooth rotation and lower noise make treatment more endurable for patients.

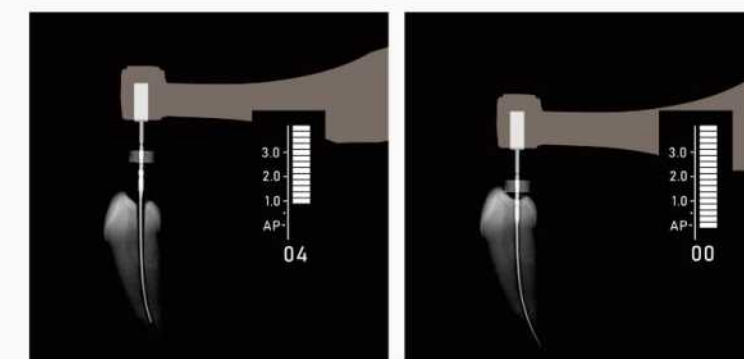


Strong power, together with accurate and stable torque output, helps to realize efficient root canal preparation.



### Built-in Apex locator

Integrated length determination makes endodontic treatment safer and more efficient. Realize real-time display of file location in canal. Automatically stops or reversely rotates as soon as the file reaches the apical stop, so as to prevent perforation. Auto Start and Auto Stop functions respectively enable motor to automatically start while the file gets in canal and stop when it is out.



- Service life of motor: **Brushless Endo Motor=Brush Endo Motor x10**
- Compatible with all mainstream file systems
- Front center-of-gravity
- 6:1 Contra-angle
- 2000mAh Lithium battery
- 360° rotatable contra-angle



# EndoMatic

Cordless Endo Motor with combined length determination

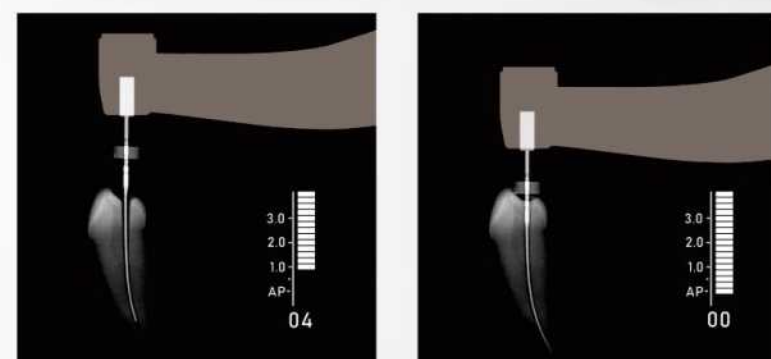
## Integrated length determination

The EndoMatic combines with the length measuring function.

This feature makes endodontic treatment safer.

The file position is shown in the display screen.

And the Endo motor stops rotating or reversely rotates as soon as the file reaches the APICAL POINT.



Speed range : 100-1000 rpm

Torque range : 0.4-5.0N·cm



## All-angle OLED screen

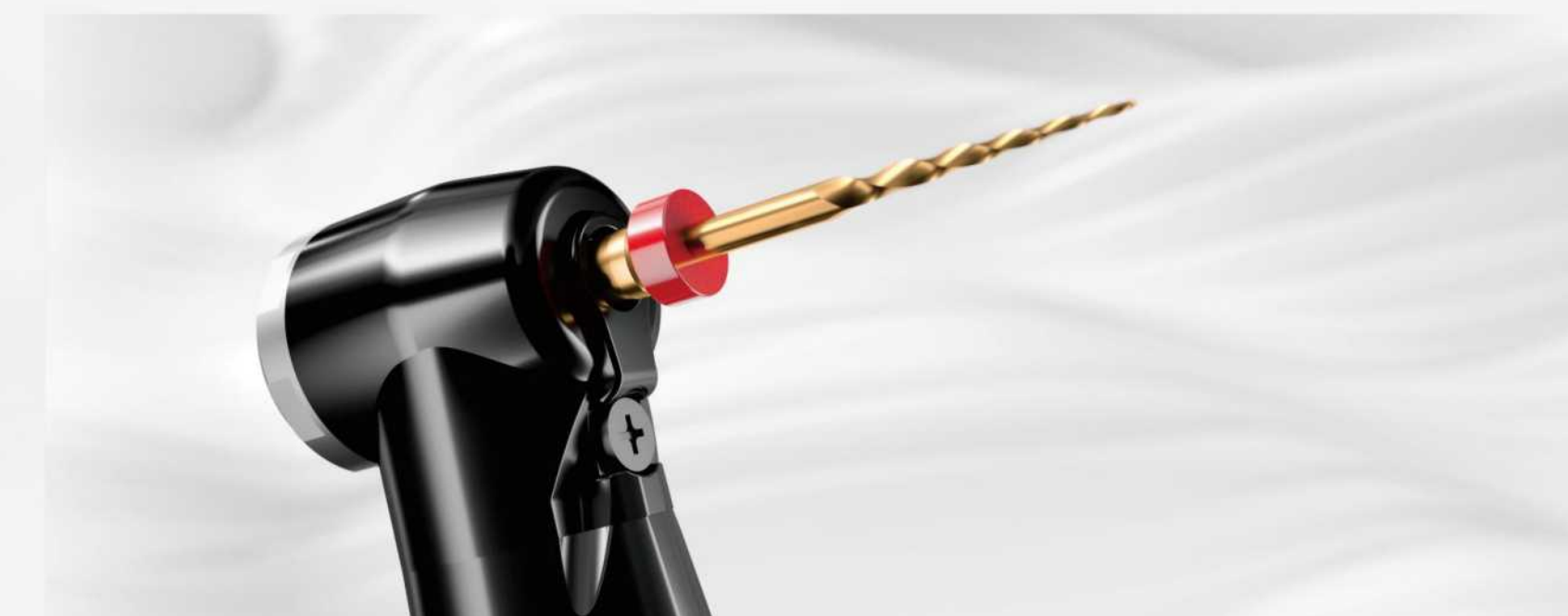
Without viewing angle limit, clear display can be guaranteed even under strong light.



## Maximum compatibility

Wide torque and speed range make it compatible with various file systems.

## Adjustable Contra-angle

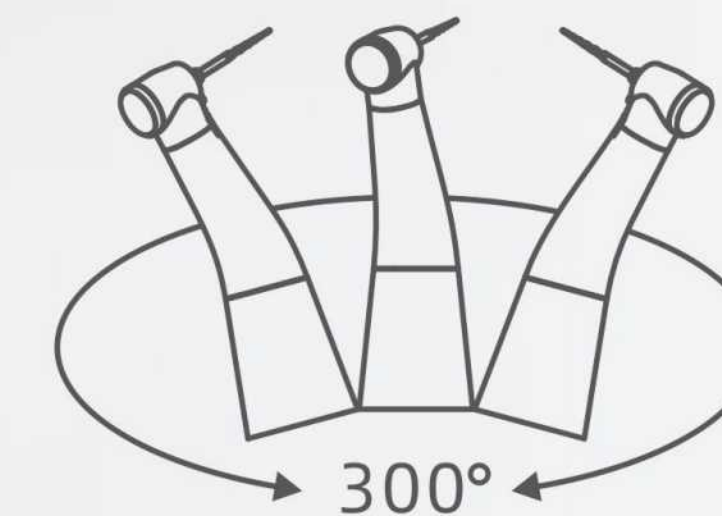


## Autoclavable resin contra-angle

The Autoclavable resin contra-angle is of surface insulation; therefore, when the endo motor and apex Locator are used together, there is no need to use silicone sleeve to insulate it.

Integrated Apex Locator in contra-angle connects electrode. The Endo motor and apex Locator can be used together after inserting Ni-Ti files.

Special aviation grade Autoclavable resin enables contra-angle to be autoclaved to avoid cross-infection.







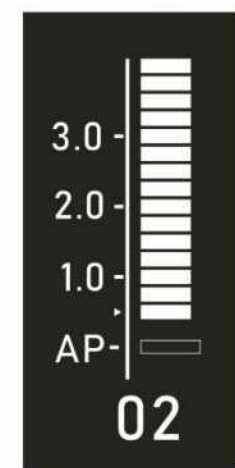
# Endo Smart +

Brushless  
Endo Motor Series

## Combined length determination mode

Endo Smart + can be connected to the matched Apex locator to realize apex locating function.

By connecting the Endo Smart + to the matched Apex locator, the position of the file tip inside the canal can be monitored during the procedure and many automatic functions such as Auto Apical Reverse can be activated.

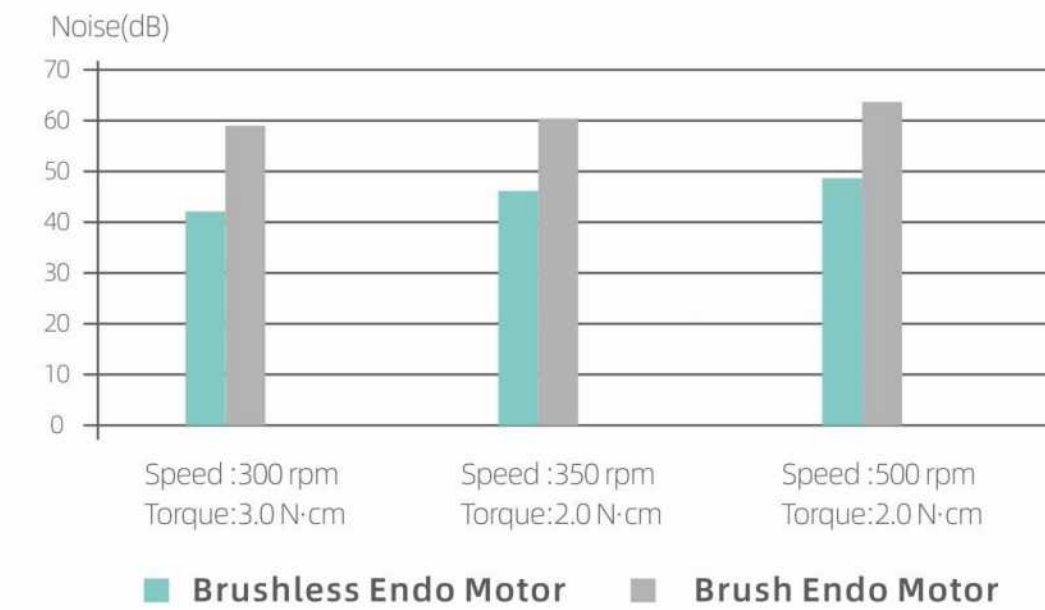


- Apical Action Reverse
- Auto Start ON
- Auto Stop OFF
- Apical Slow Down ON

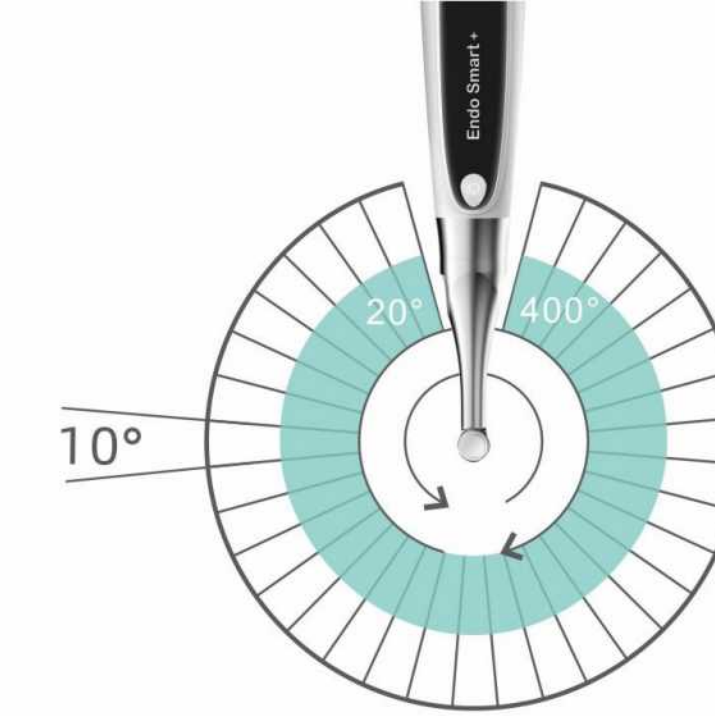


## High performance brushless motor

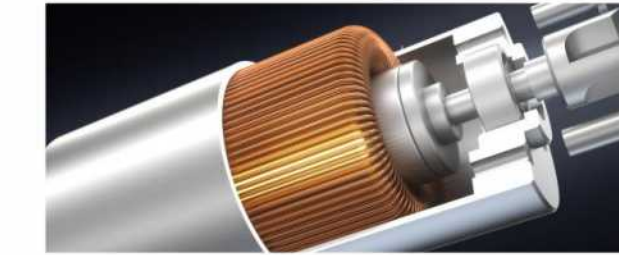
- 1- Adjustable reciprocating angle (10° interval; adjustment range: 20°-400°); Accurate rotating angle reduces risk of instrument fracture and enables higher preparing efficiency.
- 2- Super high torque, high speed, fast response, more accurate output, more stable, to ensure more efficient & safe preparation. Speed : 100-1200rpm Torque : 0.4-5.0N·cm
- 3- Smooth rotation, lower noise and small vibration in handpiece. Doctors feel good during operations. Patients feel more comfortable during operation.



Speed range : 100-1000 rpm  
Torque range : 0.4-5.0N·cm  
Reciprocating angle adjustment range : 20°-400°



10° for each unit



Service life of motor:  
Brushless Endo Motor=Brush Endo Motor x10



2000mAh Lithium battery



360° rotatable contra-angle

# 6:1

## Super mini contra-angle

Super mini contra-angle allows clearer operation field.



Preparation

# Endo Pace



## Endo Pace Woodpecker Brushless Endo Motor

- **Lightweight handpiece**  
Easy preparation
- **Brushless motor**  
Strong power
- **10 times the service life of brush motor**

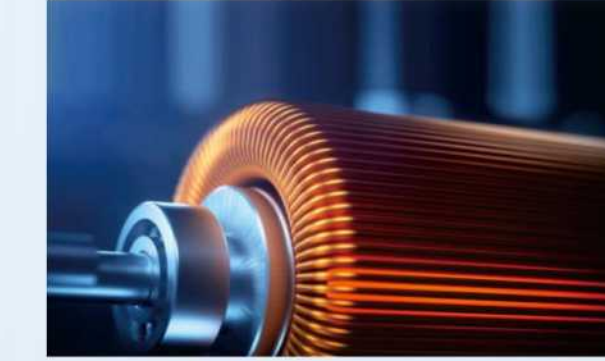


### High performance brushless motor

High torque and fast response

More accurate and more stable output, enabling more efficient preparation

Speed: 100rpm-1500rpm  
Torque: 0.4N·cm-4.2N·cm



### Lightweight cordless handpiece offers better hand feeling

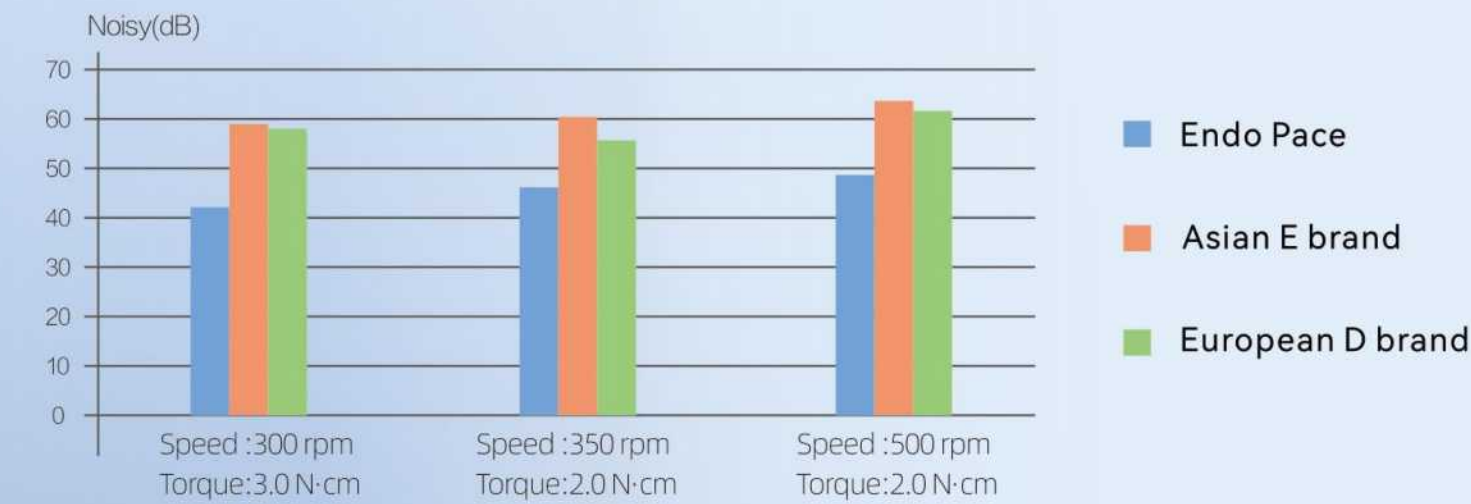
**Weight: 106.8g** (handpiece+contra-angle)

Control the handpiece with wireless signal, without the restraint of tail cord  
Well-balanced design allows easier preparation

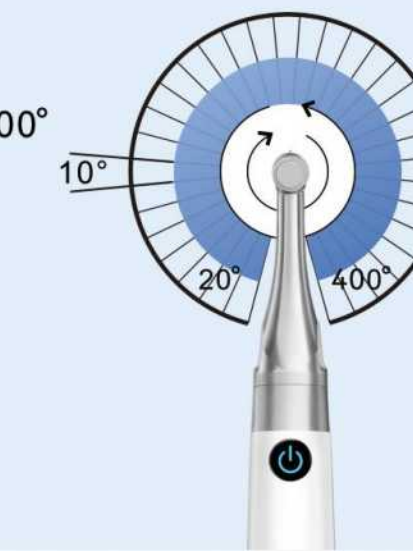
### Low wear, low heat and longer service life

**10 times the service life of brush motor.**

Smoother rotation and lower noise.  
Stable cutting can still be ensured at the narrow or curved apex.



Adjustable reciprocating angle with 10° interval  
Adjustment range of forward and reverse reciprocating angle: 20°-400°  
Accurate control of the rotation angle reduces the risk of instrument separation and enables more efficient and safer preparation.



### 6:1 mini contra-angle delivers broader operation field

Compact but powerful  
6:1 speed ratio ensures low speed and stable rotation under high torque

Head height: 9.7mm  
Head diameter: 8mm  
Neck diameter: 6mm

360°rotatable contra-angle

More flexible operation, facilitating the preparation of teeth at different positions



Preparation

# Endo Free



## Endo Free

Woodpecker Brushless Endo Motor

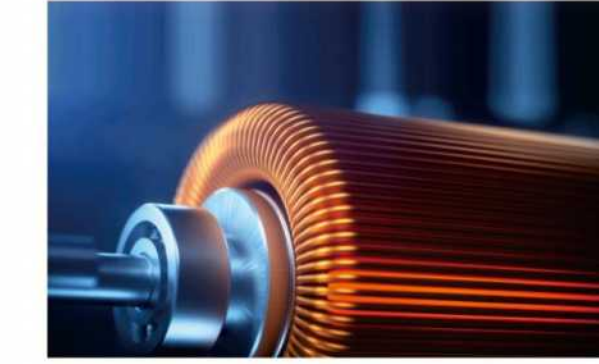
- **Lightweight handpiece**  
Easy preparation
- **Brushless motor**  
Strong power
- **10 times the service life of brush motor**

### High performance brushless motor

High torque and fast response

More accurate and more stable output, enabling more efficient preparation

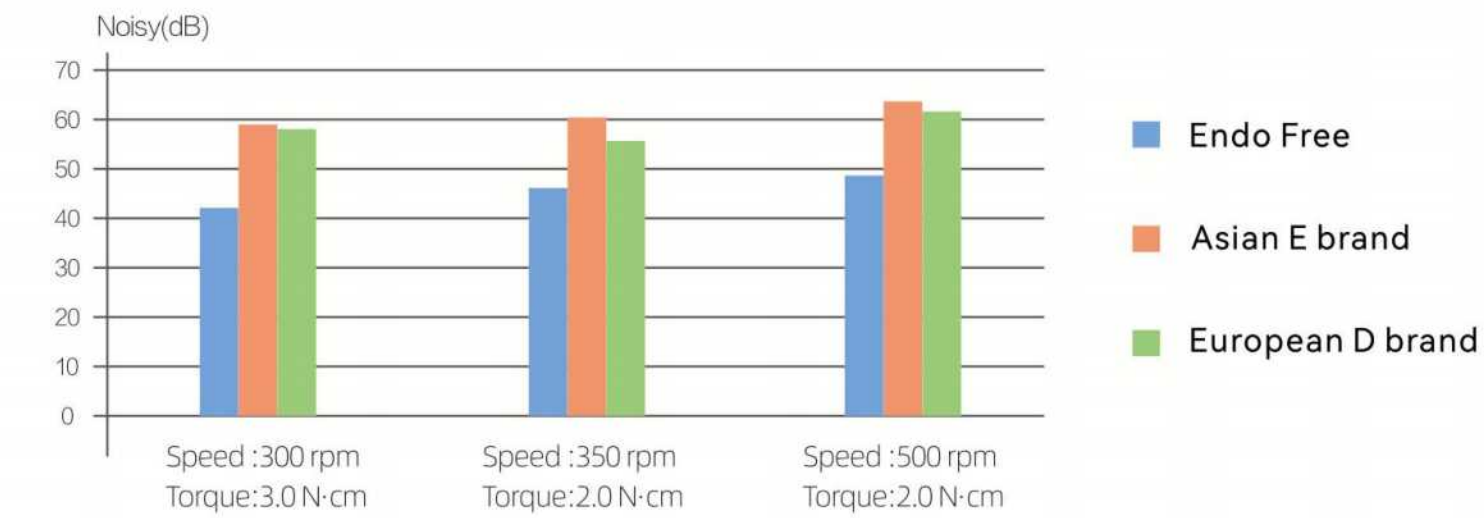
Speed: 100rpm-1500rpm  
Torque: 0.4N·cm-4.2N·cm



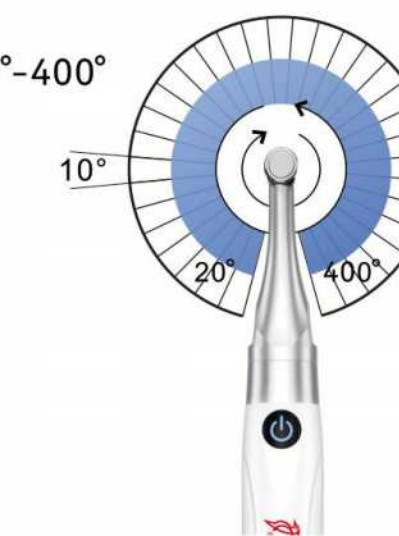
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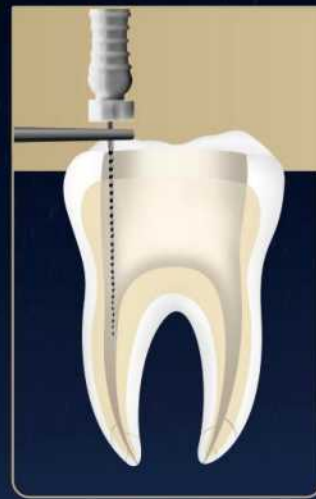
360°rotatable contra-angle

More flexible operation, facilitating the preparation of teeth at different positions



Apex locating

# Ai-Pex

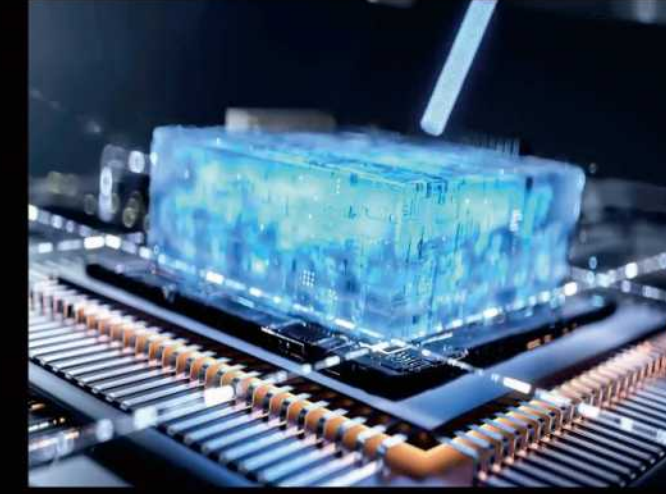


# Ai-Pex

**CONSTANT CURRENT SOURCE**  
Electric pulp testing

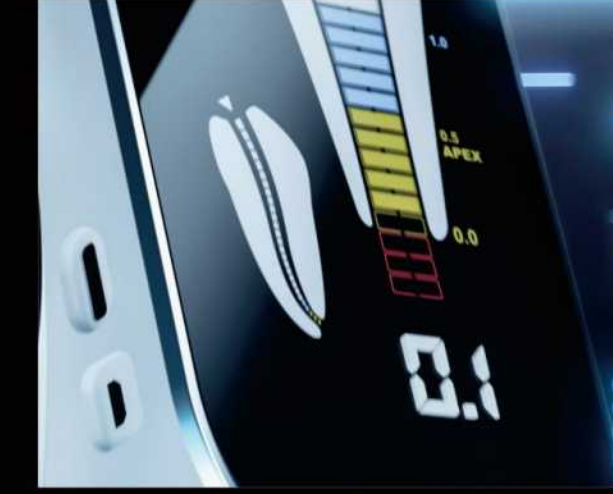
**MAGNETIC ADSORPTION**  
Unique base design

**ANTI-INTERFERENCE**  
Multi-frequency  
DSP technology



## ROOT CANAL LENGTH MEASUREMENT

Auto calibration after startup  
New digital circuit  
U.S. central processing chip with DSP processing module  
0.1% high precision components  
Information processing speed increased by 2.125 times



## ACCURATE MEASUREMENT OF ROOT CANAL LENGTH

Lowered environment requirements for root canal length measurement  
Suitable for various complex root canals  
Unaffected by blood and residual pulp, whether the root canal is dry or wet, it can automatically and precisely determine the position of apical foramen.

## ENABLE WORKING LENGTH CONTROL DURING PREPARATION WHEN CONNECTED TO AN ENDO MOTOR

Connecting the Ai-pex to an Endo Motor that can be connected to Apex Locator allows real-time observation of the position of the file in the root canal during operation and activates many automatic functions (e.g. Auto Reverse).



## CONSTANT CURRENT SOURCE ELECTRIC PULP TESTING

When the clinical need to determine the vitality of the root pulp arises, electric pulp test must be used. In the case of thermal pulp test (cold & heat), the cold and heat stimuli can only reach the coronary pulp and cannot test the vitality of the root pulp.



## MAGNETIC ADSORPTION BASE

360° rotatable  
The viewing angle of the screen can be adjusted, no backlighting.





# Woodpex V Dpex V

New Generation More than accurate

## Apex locating and preparation Two-in-one

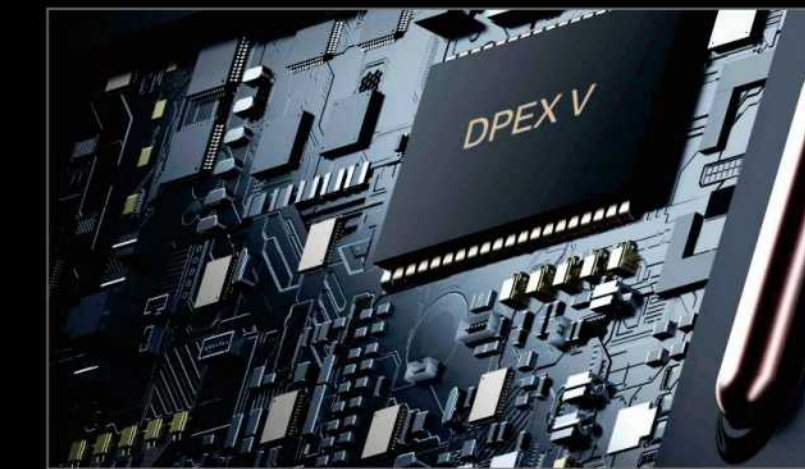
Be able to connect compatible Endo Motor to realize real-time data transmission. Simultaneously realize apex locating and root canal preparation.



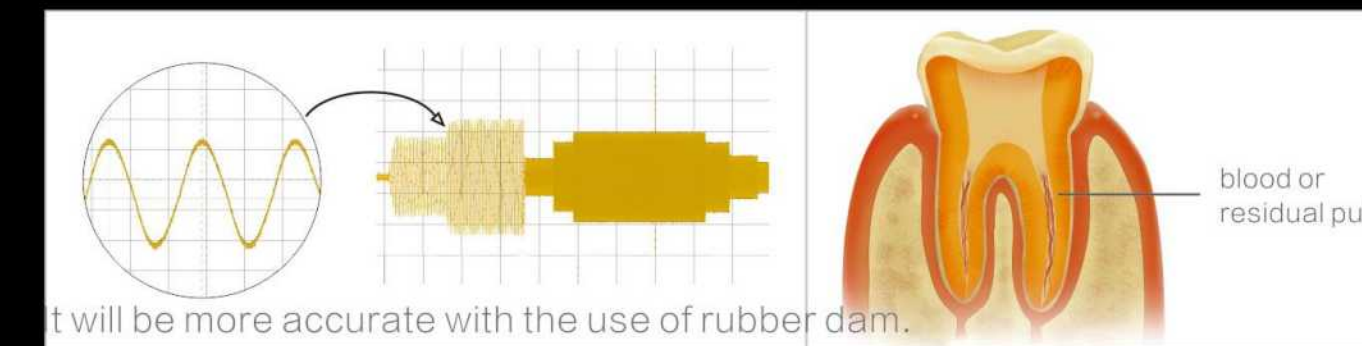
## DPEX V

25 National Patents 8 Invention Patents

- More than accurate
- Newly upgraded algorithm makes it more stable and enables stronger anti-interference ability.



- Multi-frequency apical position technology guarantees accurate measuring even there is blood or residual pulp in the root canal.



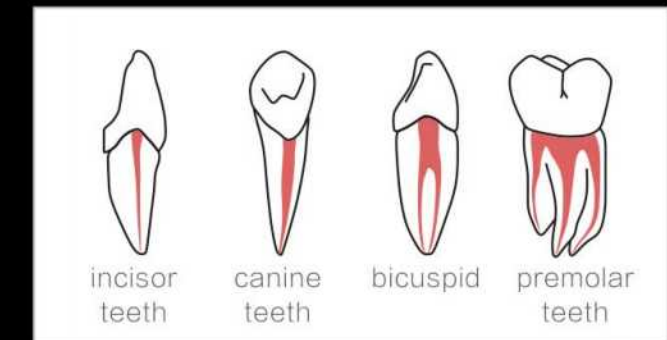
It will be more accurate with the use of rubber dam.



WOODPEX V

DPEX V

- Measurement results will not be affected by the tooth type.



Filling



## Fi-E & Fi-P

# Fi-E & Fi-P

Gutta Percha  
Obturation Device



### Wireless and electric

Perfect gutta-percha fluidity, uniform and smooth gutta-percha output without bubbles.

Easier than traditional manual gutta-percha injection to relieve hand fatigue for the operator.

Eliminate surgical hazards caused by gutta-percha leakage and overflow.

Maintenance-free thanks to automatic cleaning of remaining gutta-percha.

### Reusable injection needle

360° rotatable

The gutta-percha bar is directly loaded into the injection needle.

There is no gutta-percha residue inside the machine, making it easier to clean.

The gutta-percha bar can be replaced at any time without waiting for the internal cooling of machine.



### Dual button design

Symmetrically-designed dual injection buttons, sensitive and convenient.



### Compact and lightweight Easier to hold

Diameter: 26mm\*26mm

Length: 200mm

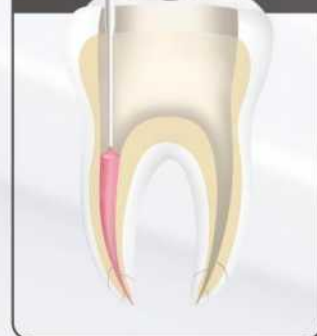
Weight: 148g



Filling

Fi-G Fi-P

Gutta-percha Obturation DEVICE



# Fi-P



**0.2 second** heating time

High-performance conversion system ensures the efficient cutting



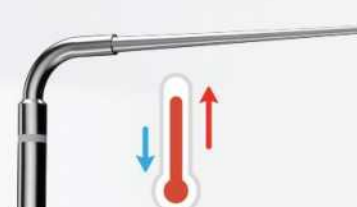
**0.35mm** pre-bend tip

Thinner tips can penetrate deep into the narrow root canal, providing you a better treatment effect.



**High precision** temperature control

Constant temperature prevents scalding



**4 working** temperatures

150°C、180°C、200°C、230°C can match gutta-percha of different brands on the market.



**4 hours** of endurance

Large capacity battery & special heating system enable 1500 operations with a full charge.



Fi-G:Time for 0°C-230°C (S)

Woodpecker

15

Korean B brand

24

Chinese C brand

51

Chinese D brand

56

# Fi-G



Quick heating within **15 seconds**

reduces time for waiting and increase your working efficiency.



**0.5mm** injection needle

Easy to reach the apical 3mm of canal brings better filling.



**Prevent gutta-percha leakage**

**360** rotatable needle

Optimized structure, 360° uniform rotation, effectively avoiding gutta-percha leakage.



**Pushing ram**

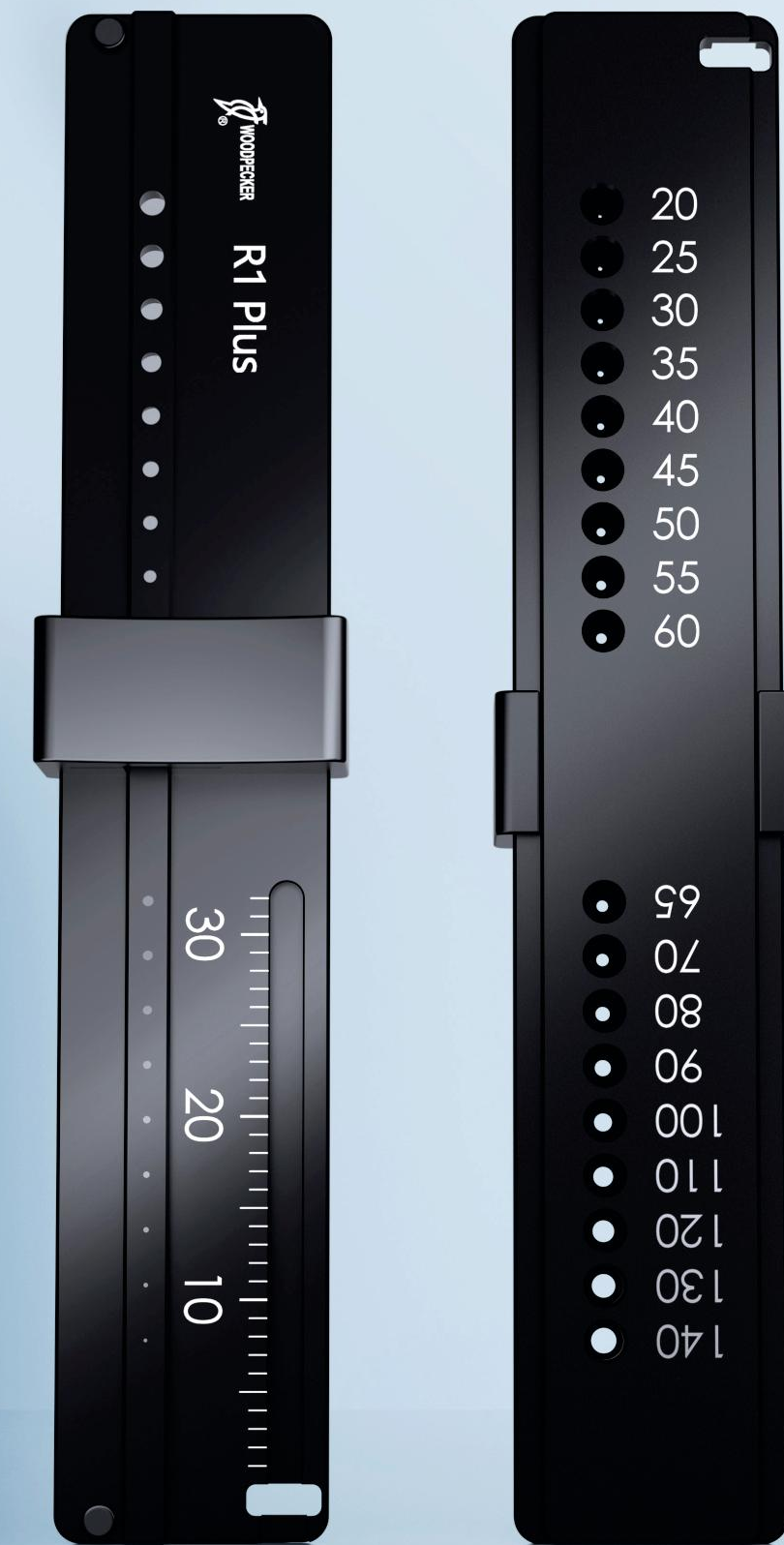
**with anti-return structure**

Mechanical-locking structure, effectively preventing the pushing ram from returning and avoiding the generation of cavities and bubbles.



# R1 Plus NO CE

## Gutta-percha Cutter



Designed by international dental experts  
 Conducting 220 precise manufacturing processes  
 on the equipment imported from Germany and Japan

- 01** 

Gutta-percha point trimming, smooth and glabrous cut surface
- 02** 

18 trimming and diameter measuring holes with an accuracy of 0.01mm, suitable for all gutta-percha points on the market
- 03** 

Anti-rust and double-sided cutting blade, smooth cutting can be done by sliding forward or backward
- 04** 

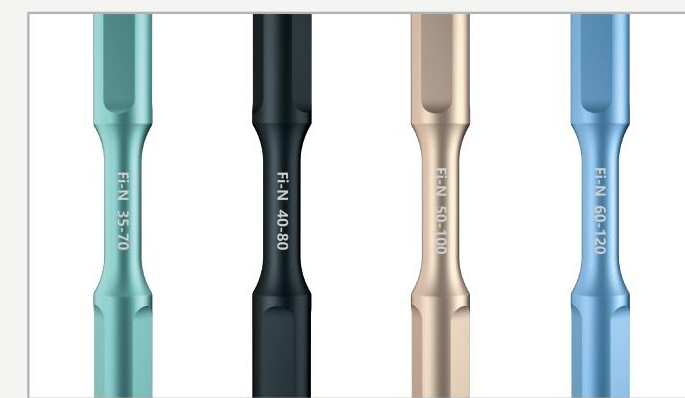
30mm length measuring ruler
- 05** 

Laser marking guarantees durable and fadeless marks
- 06** 

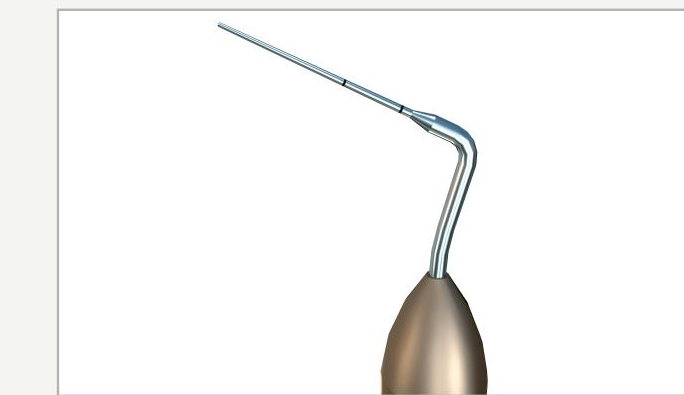
Made of aluminum alloy, autoclavable, light weight, no rust

# Fi-N Plugger NO CE



- 01** 

4 models with different tip diameters.  
 35-70 40-80 50-100 60-120



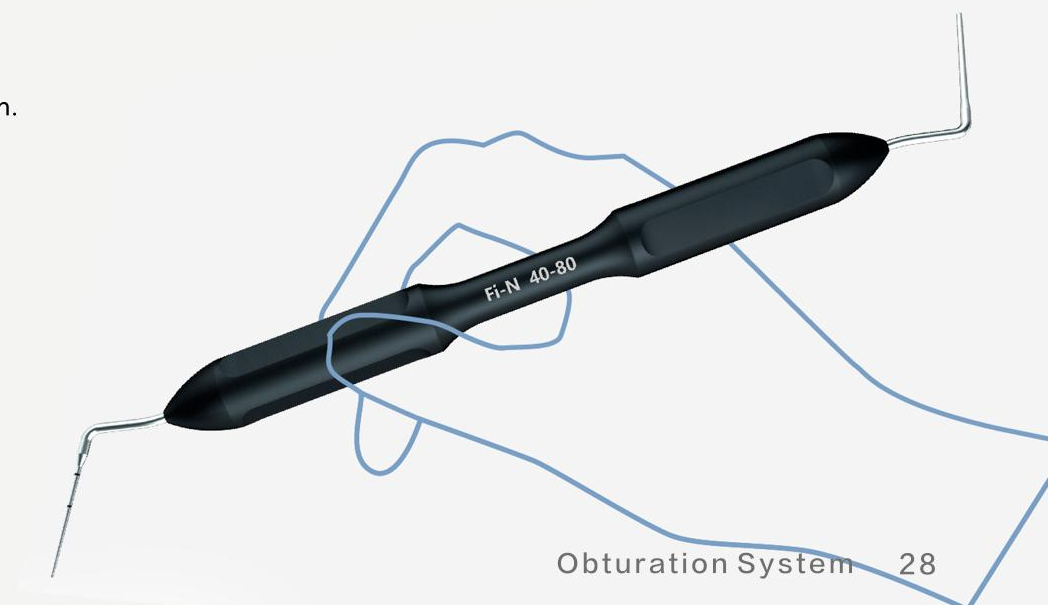
- 02** 

The smaller end is NiTi alloy tip and the other end is stainless steel tip.  
 Good rust resistance.  
 NiTi alloy can easily restore to its original state after 500 times of bending.  
 Super elastic, suitable for curved root canals.  
 Two laser marking rings of 10 mm and 15 mm engraved on the NiTi tip enable easier identification of the condensation depth.
- 03** 

78 precise machining processes are conducted on each plugger with CNC machining equipment imported from Germany and Japan.
- 04** 

Taper accuracy up to 0.02mm.
- 05** 

Ergonomically designed handpiece allows easy operation and comfortable holding.







## D600 LED

### New Era for Scaling

#### Ultrasonic Endodontic Expert

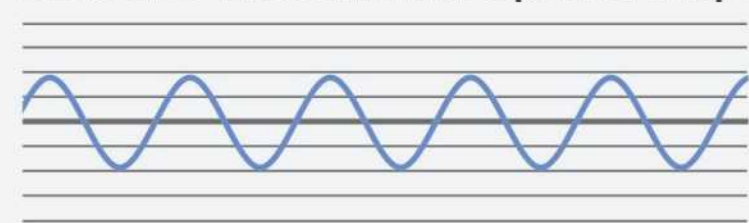
Rapid preparation, root canal orifice locating, removal of foreign body in root canal, endodontic irrigation, root canal retreatment, supragingival scaling and periodontal treatment.

Compatible with more than 70 DTE tips.  
Metal handpiece with LED can be autoclaved.

#### Sine-wave Drive

Avoid stimulation caused by instantaneous current output. Bring patients with comfortable treatment. Embody comfortable scaling.

#### D600 LED mild sine wave power output



**ED3D**  
Modification of the pulp cavity



**ED12D**  
Locate root canal orifice



**ED62**  
Root canal irrigation



**ED6**  
Removal of instrument fractures

#### Intelligent degenerative feedback

According to the different surface state of teeth, automatically select correct power so as to realize stable and continuous scaling effect.

#### Smart touch system

Clear control panel display.  
Ultrasensitive touch control.  
Waterproof design.

#### Automatic water supply system

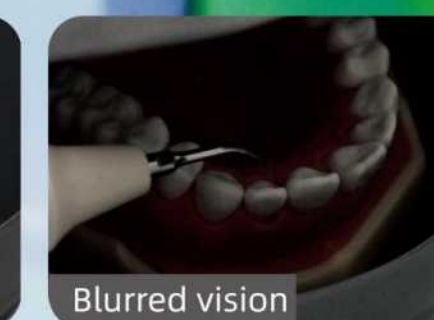
Solutions such as sodium hypochlorite, chlorhexidine, hydrogen peroxide, and saline can be used.  
Easy to change water; double waterway design eliminates redundant steps.  
Clear 50 ml scale mark makes it convenient to formulate solutions.

#### Detachable handpiece with LED

Handpiece adopts latest sealing technique and can be autoclaved.  
Patients feel more comfortable during treatment.



Clear vision  
D600 LED with light



Blurred vision  
Without light



Irrigation



# Endo 1



# Endo 1

## Ultrasonic Endo Activate Device

Autoclavable handpiece head

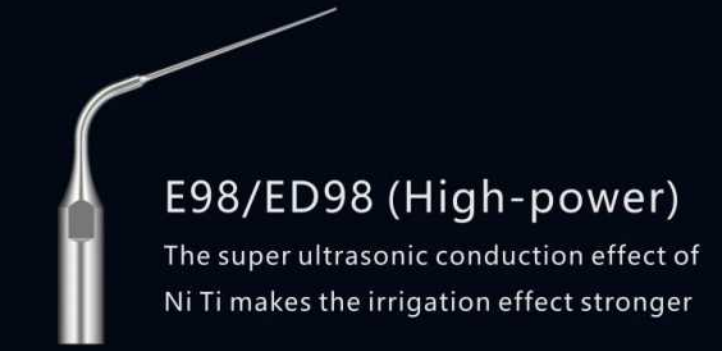
Detachable handpiece head  
Can be autoclaved under high temperature of 134°C and high pressure of 0.22Mpa  
Prevent cross infection and enable safer treatment



**E93/ED93 (Anti-breakage)**  
Unique root breakpoint design enables safer separation of devices



**E96/ED96 (Bendable)**  
Can be pre-bent slightly according to the root canal shape



**E98/ED98 (High-power)**  
The super ultrasonic conduction effect of Ni Ti makes the irrigation effect stronger



35

### Intelligent microcomputer automatic control

Microcomputer automatic control is adopted. The high-frequency oscillation signal is generated by the high-frequency oscillation circuit and acts on the handpiece head, making the tip resonate by the ultrasonic vibration stimulation.



### Wireless and lightweight design

Non-tail cord design enables wireless operation  
More flexible

### Long standby

Long standby for 6 months  
4 hours of continuous work  
Battery capacity: 750mAh



### Perfect configuration

Standard configuration  
1 autoclavable handpiece + 8 irrigation tips

Recommended service life of tip:  
Each tip can irrigate 30-50 root canals



Irrigation



## Endo 3

# Endo 3

Ultrasonic Endo Activate Device

### Multi-mode setting

- User-friendly LCD screen + Ring switch button
- Smart Microcomputer control



### Dual-mode setting

Mode 1: Hot standby mode

In this mode, power and time can be adjusted.

Mode 2: Irrigation mode

It is working mode.

### Three power levels

Three power levels available: E1, E2, E3, power from low to high in order

### Four time modes

Four time modes optional: "10, 15, 20, --"

The working time in the irrigation mode: "10s, 15s, 20s, 10min"



### Stable performance



Stable performance Intelligent tracking

Fully automatic frequency tracking system  
Automatically search for best working state



Appropriate vibration amplitude

Tips with low vibration and high efficiency  
More efficient and reliable irrigation

### Highly convenient design More efficient irrigation



Smart microcomputer control

Microcomputer automatic control is adopted. The high-frequency oscillation signal is generated by the high-frequency oscillation circuit and acts on the handpiece head, making the tip resonate by the ultrasonic vibration stimulation.



Wireless control, handy to operate

Wireless operation and charging  
Compact and light, easy for irrigation



User-friendly ring switch button

Ring switch button to control the machine  
Facilitate the treatment of different angles and different tooth positions



Clear LCD screen, easier observation

Visually display the machine working state

# Ai Ray

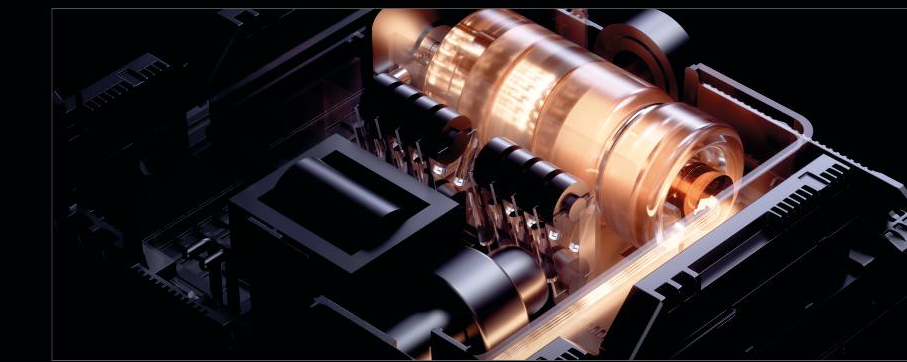
NO CE

Dental X-Ray Device



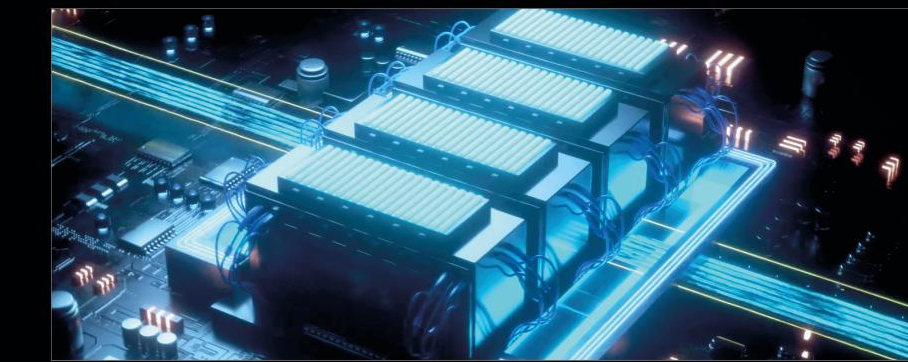
## PURELY IMPORTED JAPAN CANON HIGH-FREQUENCY X-RAY TUBE

Refined tube manufacturing process  
Ensure X-ray output stability and quality  
Guarantee safe photographing



## SUPER HIGH PERFORMANCE HIGH EFFICIENCY

Emission power up to 210W  
Shorter exposure time with high power  
Achieve stable, accurate and quick photography of  
different tooth positions



## HIGH-CAPACITY BATTERY LONGER ENDURANCE

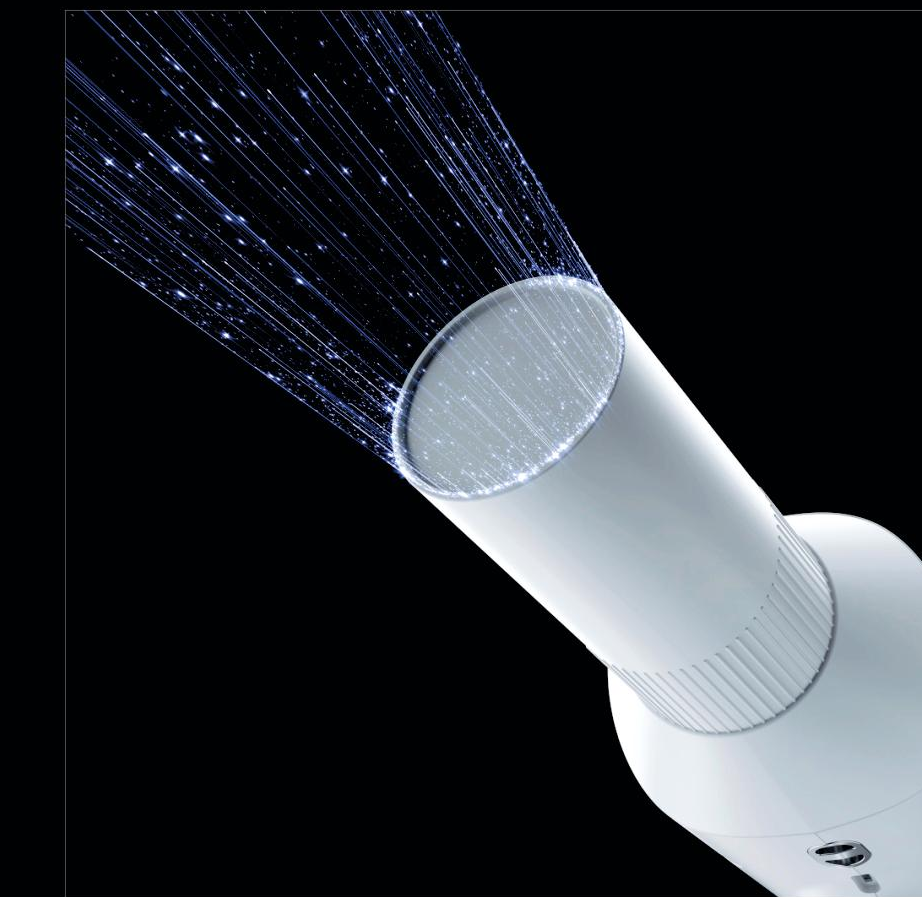
15000mAh high-capacity power lithium  
battery delivers a longer endurance.  
More than 1,500 dental films can be taken under a full charge.



## DETAILED DENTAL FILMS MORE RELIABLE

### 0.4mm focus X-ray tube

Provide high-quality and clearer image  
for various diagnostic needs



### Over 110

Dental films can be taken after **5mins** of charging.  
Enable clear and concise display  
Abandon the traditional physical button,  
beautifying the machine's appearance

# i-Scan

## Wireless Image Plate Scanner

### Powerful processing capability

8-core CPU (containing 4 Arm Cortex-A53s, 1 Arm Cortex-M4F, 1 GPU, 1 VPU, and 1 FPU) developed with 14nm LPC FinFET advanced process technology, and FPGA used as a coprocessor, bring a smoother image processing experience



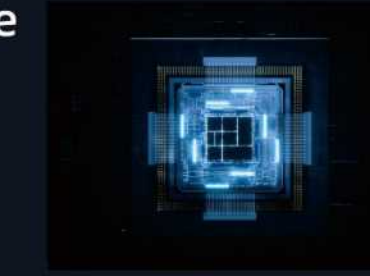
### Powerful algorithm

One-click ultra-clear algorithm  
Multi-level structure image algorithm framework enhances the details of super-resolution images.



### Ultra-high performance

8-core CPU developed with 14nm advanced LPC FinFET process technology  
FPGA used as a coprocessor  
Over 100 million data acquired per dental film  
Bring a smoother image processing experience



### Super screen

7-inch 800\*1280 ultra-high resolution capacitive touch screen  
Realize the analysis of images with clear details on the i-Scan and computer, ensuring the reliable diagnosis basis for dentists.



### Powerful software

One-click installation, easy operation and all-round function  
Professional and accurate image processing and intelligent image optimization  
Support for multiple languages



### Flexible and compact

Covering only 0.13 m<sup>2</sup>, the powerful, full-featured and compactly-designed i-Scan can be set up in dental clinics efficiently, easy for direct use beside the chair.



### Scan and see

One-click starting, scanning and imaging viewing  
Chairside mode eliminates the restraint of computer or internet  
Capacitive touch screen enables accurate and sensitive image processing and data management



### Ultra-thin and flexible plate

Imported ultra-thin imaging plate can be reused more than 1000 times.  
The imaging plate is only 0.4mm in thickness, softer than conventional films.  
A total of 4 size (0-3) intraoral imaging plates can be used on i-Scan, allowing the photographing of various tooth positions.



# Free Scan

## Imaging Plate Scanner



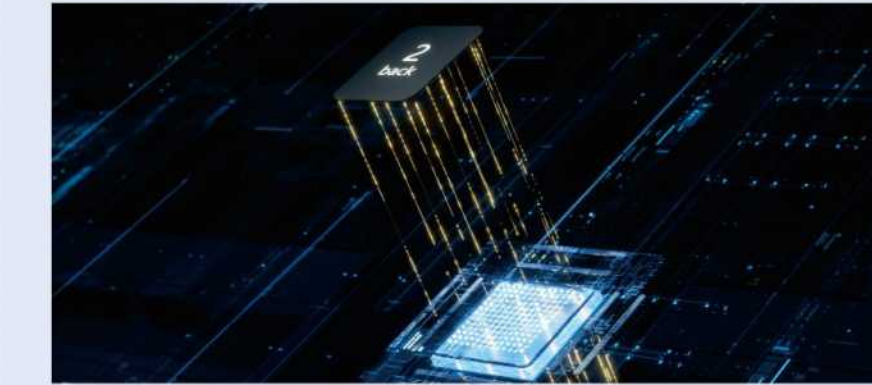
### Remarkable imaging sharpens each detail

25um scanning accuracy.  
17LP/mm+65535 grayscale detail recognition ability.  
Clear details and image processing make diagnosis and treatment more effective.



### Advanced algorithm leads to intelligence

Multi-layered structural image algorithm framework enhances the details of super-resolution images.  
Multi-mode processing algorithm to meet the image viewing habits of different doctors.



### Powerful chip Intelligent scanning

FPGA chip accelerates data acquisition.  
Support image viewing on mobile phones, tablets, and computers.  
Exclusive image viewing software.  
Greatly facilitate image viewing and processing.



### Quick image viewing

Imported ultra-thin imaging plate has moderate thickness to keep oral cavity comfortable.  
The 0-3 size imaging plates are available for photographing all tooth positions.



### Good-looking and handy Compacted size of 0.046m<sup>2</sup> and space-saving position

The silver-black scheme is suitable for upscale and official occasions.  
The compacted size of 0.046 m<sup>2</sup> remains full-fledged  
Standing nearby armchair to safeguard your teeth

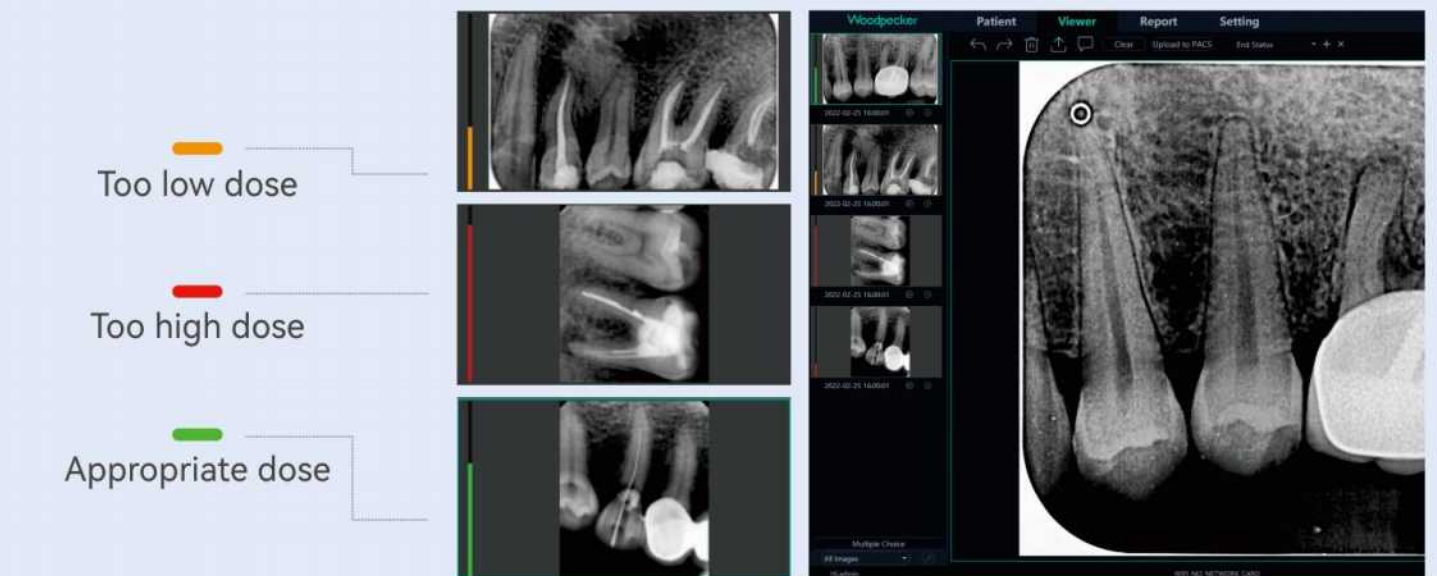
### Easy to operate

One-button start for scanning .  
120-second autolock  
to keep data safe.



### Real-time intelligent dose analysis Safe dental film photographing

Appropriate dose.  
Accurately record the dose value for each photographing.  
Timely reminder of exposure dose for clear images.  
Ensure secure photographing.





## i-Sensor

Clearer & More durable

Type	i-Sensor H1	i-Sensor H2
<b>Mechanical Size</b>	25.0*36.8*4.4	30.4*41.9*4.4
<b>Detector Technology</b>	APS CMOS	APS CMOS
<b>Scintillator</b>	Csl	Csl
<b>Pixel Matrix</b>	1000*1500	1300*1800
<b>Theoretical Resolution</b>	25lp/mm	25lp/mm
<b>True Resolution</b>	20lp/mm	20lp/mm
<b>Active Area</b>	20*30	30*36
<b>AD Conversion(bit)</b>	16	16
<b>Data Interface</b>	USB 2.0	USB 2.0
<b>Protection</b>	IP68	IP68

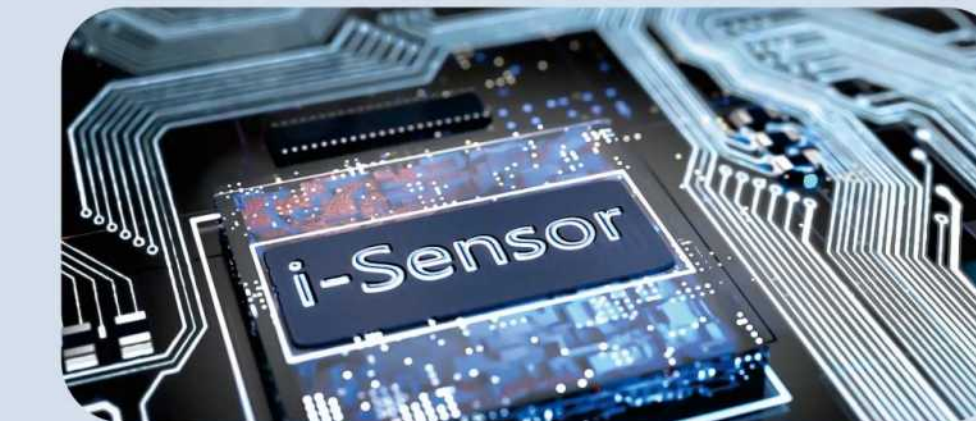
## Hardware

Compact and thin  
Powerful inner core



### Complete imaging process within 3s Efficient diagnosis and treatment

Stable and reliable AED exposure control technology  
Complete digital imaging process within 3s  
Eliminating the redundant procedures in using traditional film, the images can be obtained immediately after photographing. Get inspection results quickly



### 25 lp/mm theoretical resolution

High-precision 16-bit ADC chip, bringing you up to 60000+ grayscale  
Up to 1.5 million pixels, presenting more detailed high-definition images  
Auxiliary weapon for caries detection and endodontic treatment



### Application in aerospace field APS CMOS technology

Efficient information access  
Detailed image of low noise and high resolution

### Ergonomically optimized Cut Corners, bringing high patient occlusal comfort

4.5mm thinnest sensor



Ergonomically optimized Cut Corners, bringing high patient occlusal comfort  
4.5mm thinnest sensor allowing easier placement in the mouth



### Excellent waterproof performance

Rated at IP68, the highest level of Ingress Protection  
Dustproof and waterproof, easy to disinfect  
Can be immersed in disinfectant to avoid cross infection



### withstand the "torture" Withstand "waves"

80000+ bending tests

80000+ bending tests  
Durable and reliable  
Robust CNC shell with fusion ultrasonic welding technology



## Software

Smart sharing  
Rich and wonderful vision

### Multiple clients can be simultaneously connected to one server, facilitating data sharing

Support data and information sharing on multiple terminals including computers, mobile phones and ipads, contributing to communication between doctors and patients

### Easy-to-operate, smart and powerful software

One-click smart installation, free software upgrade



# Ai-surgery

The Latest Generation Piezo Bone Surgery

## NEWLY UPGRADED

### Efficient

Woodpecker fourth generation of Piezo Bone Surgery, with greatly improved cutting efficiency than the third generation

### Intelligent

The intelligent system will automatically adjust to the most appropriate output power according to the operation situation to avoid overheating

### User-friendly

New operation interface, more convenient for doctors to use

## EXTREMELY RELIABLE

### Convenient operation

Fully upgraded Woodpecker fourth generation of Piezo Bone Surgery, easier to operate

**Mode selection**  
Power varies as per different bone quality

**Water flow adjustment**  
Different water flow adjustment levels to choose from

**One-touch enhancement**  
Exclusively featured one-touch power enhancement

**Easy rinse**  
After each use, rinse the pipeline via control of foot pedal



### Multi-function foot pedal

- Control of multiple functions
- One-button rinse mode

### Sterilizable water pipe

- External handpiece for easy disassembly and maintenance
- Autoclavable



### Ultra-quiet peristaltic pump

- Continuous and precise flow control; direct water flow to the tip end; efficient cooling
- More silent and stable

## INTELLIGENT AND POWERFUL

Product with the latest technology from WOODPECKER, providing dentists with a superbly reliable and safe ultrasonic surgical system



## STRONG POWER

**Strong power, no handpiece overheating, thanks to:**

- New enhanced handpiece
- Advanced sensing technology
- Smart control system

### Smart control system

- Automatic identification of different bone quality and strength to perform power adjustment, achieving the optimal output
- Easy and effort-saving for doctors
- Less noise at work





sterilization



## Innovative Three Wavelengths Blue Semiconductor Laser Therapy Device



### Wavelengths & optical power

450 ± 20 nm / Pmax = 3W  
650 ± 20 nm / Pmax = 200 mW  
976 ± 20 nm / Pmax = 5 W



### Laser system

450 nm: Class IV;  
976 nm: Class IV;  
650 nm: Class II (according to IEC 60825-1)



### Emission modes

CW (continuous wave), chopped 1 Hz to 20 kHz



### Aiming beam

650 ± 20 nm / Pmax < 5mW



### Battery

11.1V 2600mAh x2 (57.7Wh)

### Three wavelengths meet requirements of more treatments

The innovative 450 nm blue laser technology is ideal for soft tissue cutting, ablation, coagulation and incision/excision. At 450 nm, the absorption constant of hemoglobin is two orders of magnitude for ordinary lasers (e.g. 980nm/810nm), making it only need very low laser power to complete the treatment, and the thermal damage during treatment is extremely low.

976nm is a traditional infrared dental laser. Due to its deep penetration in tissues, it is widely used for the reduction of bacteria in periodontal disease and endodontic diseases. At the same time, this wavelength is also suitable for high power laser treatment (HPLT) and pain reduction in TMJ.

The 650 nm laser is used for low level laser therapy (LLLT) effects. It is also known as the photobiomodulation (PBM) effect. It will contribute to wound healing and biostimulation of dental surgery.



Before treatment



Under treatment



Four weeks later



**LX16 Plus**



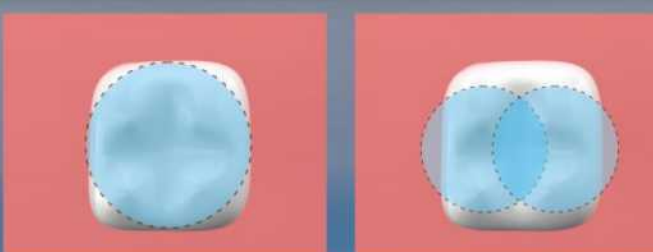
# O-STAR

WIDE-SPECTRUM CURING LIGHT  
ULTIMATE CURING EXPERT

- All-Metal Body
- 1 Sec Curing
- Built-in Light Meter
- Uniform and Collimated Beam
- 7 Modes in Total

Ordinary Curing Light  
8mm diameter of lens

O-Star  
10mm diameter of lens



## 7 MODES TO FULLY MEET A VARIETY OF CLINICAL NEEDS

**Normal Mode**

Constant light intensity:  
1000-1200 mW/cm<sup>2</sup>  
Suitable for most treatment scenarios,  
such as fillings, restorations, etc.  
Time setting: 5s, 10s, 15s, 20s

**High Mode**

Constant light intensity:  
1800-2000 mW/cm<sup>2</sup>  
Suitable for quick curing,  
ensuring enough curing depth  
Time setting: 3s, 5s

**Turbo Mode**

Time setting: 1s, 3s  
2700-3000 mW/cm<sup>2</sup>  
Ultra-high light intensity enables  
1 sec curing of 2mm resin.

**Ortho Mode**

Time setting: 3s\*5, 3s\*10  
2700-3000 mW/cm<sup>2</sup>  
High light intensity with  
strong penetrability,  
especially suitable for  
orthodontic bracket bonding

**Soft Mode**

Light intensity is gradually increased  
from 0 to 1200mW/cm<sup>2</sup>  
Time setting: 5s, 10s, 15s, 20s  
Effectively reduce the  
shrinkage rate of resin;  
Lower the risk of microleakage

**Pulse Mode**

The LED will stop for 0.4s at an  
interval of 0.6s curing.  
When working in a cycle of treatment,  
it can effectively reduce heat generation,  
efficiently dissipate heat and ensure  
the comfort of diagnosis and treatment.  
Time setting: 5s, 10s, 15s, 20s

**Check Mode**

This mode outputs a single  
purple light. When special glasses  
are worn, the caries are  
obviously orange-red.  
Application: Detection of caries,  
calculus and cracked tooth

11°  
O-Star

> 40°  
Ordinary light guide

O-Star

100%	0mm
78.9%	4mm
58.2%	8mm
50.4%	10mm

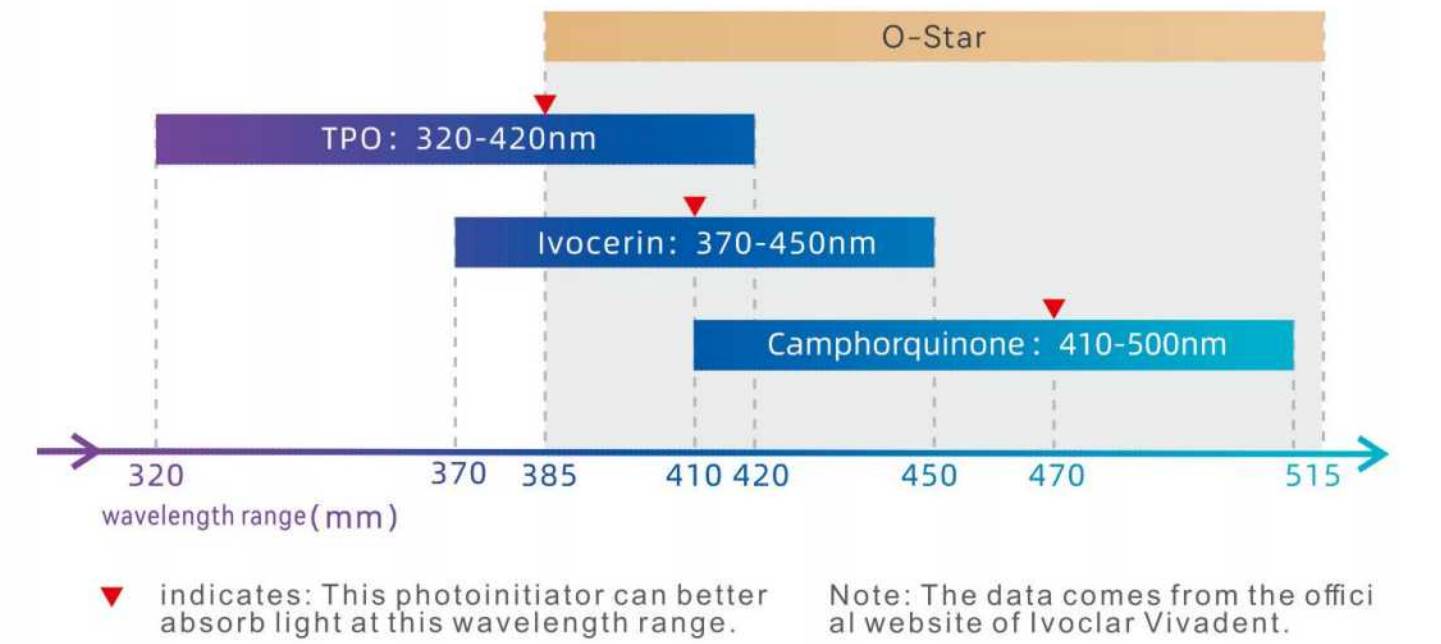
VALO Cordless

100%	0mm
73.4%	4mm
44.1%	8mm
36.2%	10mm

Bluephase PowerCure

100%	0mm
73.9%	4mm
50.3%	8mm
41.8%	10mm

## Wide Spectrum Curing Light can cure all resin materials on the market.



## Uniform beam, Strong penetrability

Curing distance (cm)	5			
Light source	VALO	Woodpecker	VAFU	Ivoclar Vivadent
Light spot length (mm)	41	38	50	87
Light spot width (mm)	41	38	50	87
Light spot area (mm <sup>2</sup> )	1681	1444	2500	5941.665
Light spot area ratio		-14.1%	48.7%	253.5%
Light angle	17.38°	15.80°	21.75°	37.95°