

# ëLEC



## ëLEC

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## GREETINGS

MICRO-NX is a company that continues to connect laboratories with manufacturing plants. This is to ensure the standardization and specialization of quality and to build trust, dependability, and excellence within our industry.

MICRO-NX co.,Ltd. holds international patents in dental electric micromotors such as engines for implant procedures, electric micromotor systems, as well as various other sectors.

MICRO-NX also develops, designs, manufactures, and exports dental equipment based on a foundation of Swiss-type micromotor technology. MICRO-NX holds 30 intellectual property rights and patents.

MICRO-NX was also named the world's best dental handpiece manufacturer in 2011.

## CORE TECHNOLOGY

- Developed ultra-high RPM(150,000 rpm) precision brushless motor
- Secured future growth power through development and production of customized micromotors
- Secured technology to manufacture parts for better precision
- Motors for the robot industry and the aerospace sector
- Possessed the technology used to manufacture ultraprecision dental implant instruments
- Localized electric motors for dental procedures and secured international patents
- Registered 20 patents for small Swiss-type BLDC motors
- Developed the world's first LED light-type electric motor with a water spray handpiece

# MICRONX : OFFICIAL SITE

LET'S MAKE IT BETTER



Introduce MICRO-NX products, news, exhibitions participation information, catalogs, and user manuals which can be downloaded.



Introduce MICRO-NX products and share information on how to use it.



1:1 real-time inquiry channel including product inquiry and after-sales information of MICRO-NX  
※ PC and mobile users, the program needs to be installed



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# ELEC<sup>TM</sup> ENGINE

## Implant Surgical Engine



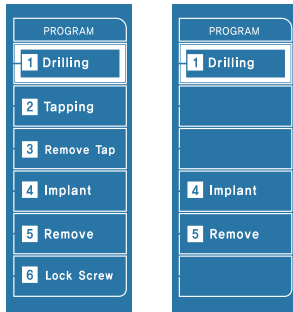
### KEY FACT

- Powerful torque up to 70N.cm(20:1 gear handpiece).
- Torque and RPM values can be checked in real time through the 5,5-inch large-screen LCD.
- When the load value is higher than the set torque value, a warning sound rings out for more than 3 seconds and operation of the item stops with a torque limiting function.
- Powerful optic motors to minimize shadow areas.
- If you press the RPM setting buttons ▲/▼ buttons at the same time for 2–3 seconds, the calibration function is enabled.
- By using memory, it is possible to store up to 9 different setting modes about torque and rpm values suitable for various users.





## CLINICAL EXAMPLE



### Program editing function

Programs that are not in use within the treatment programs in step 6 can be deleted or edited.



Press and hold the program button to disable.  
You can delete programs that are not in use.

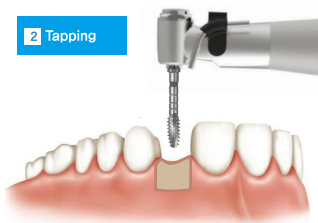


Press and hold the rotation direction setting button to delete. The program can also be repaired.

### Thread Cutting Function

Thread cutting is available in the Tapping mode and it includes 6 basic programs.

The thread cutter function supports surgery when it taps implants into dense(D1) bones.



Select tapping mode  
& Set Torque



When reach  
preset torque



It automatically  
reverses



## SPECIFICATION



### Micromotor

Model: ISM-B70L  
Max.Speed: 40,000rpm  
Max.Torque: 70N.cm(20:1)  
Demension: Ø24xL100mm  
Weight: 156g  
LED: Fiber optic

### Controller

Model: ISE-270M  
Power supply voltage: AC 110~240V  
Frequency: 50/60Hz  
Power consumption: 150VA  
Max.coolant flow rate: 110ml/min  
Fuse: 2x250V-T2.0AH  
Dimension: W285 x D250 x H120mm

### Foot pedal

Model: FC-V2  
Speed control: Variable  
Foot control function:  
● Coolant  
● Program  
● Clockwise / Counter clockwise

# ÈLEC DRIVER™ 35<sup>N·cm</sup> / 60<sup>rpm</sup>

## Electric Wireless Torque Driver



### KEY FACT

- Prosthetic screw connection is all in one
- Easy use when the orthodontic mini screw is inserted
- Accurate and quick setup
- TCS(Torque calibration system) Function



### SPECIFICATION

#### Handpiece

Model: TD-C60  
 RPM range: 15/30/45/60rpm  
 Torque stages: 5/10/15/20/25/30/35N.cm  
 Battery type: Li-Polymer  
 Battery capacity: 7.4V DC/ 360mA  
 Dimension: W30 x D28 x H200mm  
 Weight: 200g  
 Screw driver: shank Ø2.35(CA type)

#### Charging Cradle

Model: TD-C12MG  
 Input: 12V DC/ 0.5A  
 Output: 8.4V DC/ 360mA  
 Charging time: Approx. 90min  
 Dimension: W105 x D111 x H51mm  
 Weight: 80g  
 Adaptor Input: 100~240VAC, 0.3A  
 Adaptor Output: 12VDC, 0.5A



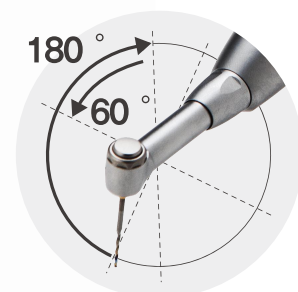
# ÈLEC<sup>TM</sup> ENDOIT

## Electric Wireless Endodontic Handpiece



### KEY FACT

- Torque range : 0.5 ~ 4.0 N.cm
- RPM range : 120 ~ 500rpm
- Reciprocating Mode
- Torque load protection mode
- 8 memory programs



**Reciprocating**



### SPECIFICATION

#### Handpiece

Model: EH-C500  
RPM range: 120~500rpm  
Torque range: 0.5~4.0N.cm(0.5N.cm step)  
Battery type: Li-Polymer  
Battery capacity: 7.4V DC/ 360mA  
Dimension: W27 x D23 x H157mm  
Weight: 148g  
Screw driver: shank Ø2.35(CA type)

#### Charging Cradle

Model: EH-CS12  
Input: 12V DC/ 0.5A  
Output: 8.4V DC/ 360mA  
Charging time: Approx. 90min  
Dimension: W105 x D111 x H51mm  
Weight: 80g  
Adaptor Input: 100~240VAC, 0.3A  
Adaptor Output: 12VDC, 0.5A



# ËLEC<sup>TM</sup> 2mini

## Clinical Electric Micromotor



### KEY FACT

- The smallest and most powerful electric micromotor for dental prosthetics.
- The rotation speed is adjustable from 1,000rpm(20:1 deceleration angle) to 200,000rpm(1:5 incresement angle).
- The world's first direct cooling-type micromotor PCT patented.
- Powerful optic motors to minimize shadow areas.
- By using M1 ~ M3, 3memories can be saved which allows users to instantly save and load their own personal settings.
- Sample installation for Unit Chairs(It can be installed in all types of unit chair).



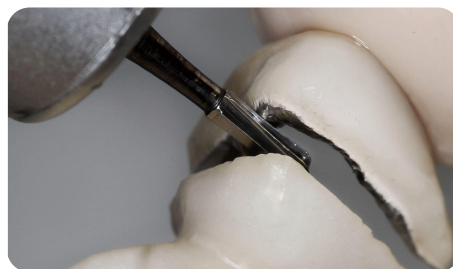


## CLINICAL EXAMPLE



### Tooth prep

It can be made faster and smoother than a typical high-speed air turbine handpiece.



### Dental prosthesis removal

Powerful prostheses such as zirconia, amalgam, and PFM can be easily removed.



### Margin of the prosthesis

It can produce high power even at low speed, so you can complete the optimal prosthesis with precise margin molding.



### Other Operations

It is fast and efficient in precision drilling work such as implant stent production.



## SPECIFICATION

Premium Mobile Type



### Micromotor(mini)

Model: ELM-B40S  
Max.Speed: 40,000rpm  
Max.Torque: 3N.cm  
Max.Current: 5A  
Dimension: Ø20 x L63mm  
Weight: 68g  
LED: Fiber optic  
Water: Internal water

### Controller

Model: EL-M40S  
Input: 100-240V, 1.4-0.7A,  
Frequency: 47-63Hz  
Power consumption: 105VA(max.)  
Dimension: W70 x D95 x H35mm  
Speed range: 100 ~ 200,000rpm  
Class of protection: IPX0

### Handpiece

Model: CA100L / SA100L  
Max.Speed: 40,000rpm  
Ratio: 1:1  
Material: Stainless steel  
LED: Fiber optic  
Water: Internal water



## SPECIFICATION

### Premium Panel Type



#### Micromotor(mini)

Model: ELM-B40S  
Max.Speed: 40,000rpm  
Max.Torque: 3N.cm  
Max.Current: 5A  
Dimension: Ø20 x L63mm  
Weight: 68g  
LED: Fiber optic  
Water: Internal water

#### Panel

Model: ELCP-BT  
Dimension: W113 x D12 x H44(mm)

#### Built-in board

Model: EMT-B40K  
Input: AV24V, 50/60Hz  
Power consumption: 100VA(Max.)  
Dimension: W70 x D95 x H35(mm)

#### Handpiece

Model: CA100L/ SA100L  
Max.Speed: 40,000rpm  
Ratio: 1:1  
Material: Stainless steel  
LED: Fiber optic  
Water: Internal water

### Standard Panel Type



#### Micromotor

Model: ELM-B40I  
Max.Speed: 40,000rpm  
Max.Torque: 3N.cm  
Max.Current: 5A  
Dimension: Ø20 x L63mm  
WEight: 70g  
LED: No  
Water: Internal water

#### Panel

Model: ELCP-BT  
Dimension: W113 x D12 x H44(mm)

#### Built-in board

Model: EMT-B40K  
Input: AV24V, 50/60Hz  
Power consumption: 100VA(Max.)  
Dimension: W70 x D95 x H35mm

#### Handpiece

Model: CA100R/ SA100R  
Max.Speed: 40,000rpm  
Ratio: 1:1  
Material: Stainless steel  
LED: No  
Water: Internal water



## SPECIFICATION

Basic

Panel Type



### Micromotor

Model: ELM-B40M  
Max.Speed: 40,000rpm  
Max.Torque: 3N.cm  
Max.Current: 5A  
Dimension: Ø20 x L63mm  
Weight: 70g  
LED: No  
Water: No

### Panel

Model: ELCP-BT  
Dimension: W113 x D12 x H44(mm)

### Built-in board

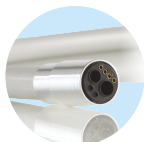
Model: EMT-B40K  
Input: AV24V, 50/60Hz  
Power consumption: 100VA(Max.)  
Dimension: W70 x D95 x H35mm

### Handpiece

Model: CA100/ SA100  
Max.Speed: 40,000rpm  
Ratio: 1:1  
Material: Stainless steel  
LED: No  
Water: No

Brush

NXOP-100E



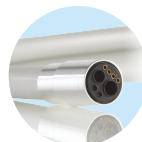
Connect a 6-hole tubing  
to a dental unit

### Micromotor

Model: NXOP-100E  
Max.Speed: 40,000rpm  
Max.Torque: 3.1N.cm  
Type: Carbon brush  
Weight: 105g  
LED: Fiber optic  
Water: YES  
Control board: EMT-D35K

Brush

NXHW-100E



### Micromotor

Model: NXHW-100E  
Max.Speed: 40,000rpm  
Max.Torque: 3.1N.cm  
Type: Carbon brush  
Weight: 105g  
LED: No  
Water: YES  
Control board: EMT-D35K

# ÈLEC<sup>TM</sup> ANGLE SERIES

## Dental Handpiece Series



**1:1**  
RATIO

### Low Speed Contra Angle Series

Accurate and stable rotation of up to 40,000rpm and an internal water spray improves work convenience.



#### Optic model

Model: CA100L  
Ratio: 1:1  
Max.Speed: 40,000rpm  
Dimension: Ø20 x L95mm  
Weight: 81g  
Material: Stainless steel  
LED: Fiber optic  
Water: Internal water  
Bur: CA bur(Ø2,35)



#### Non optic model

Model: CA100R  
Ratio: 1:1  
Max.Speed: 40,000rpm  
Dimension: Ø20 x L95mm  
Weight: 81g  
Material: Stainless steel  
LED: No  
Water: Internal water  
Bur: CA bur(Ø2,35)



**1:1**  
RATIO

## Low Speed Straight Handpiece Series

Accurate and stable rotation up to 40,000rpm and an internal water spray improves work convenience.



### Optic model

Model: SA100L  
Ratio: 1:1  
Max.Speed: 40,000rpm  
Dimension: Ø20 x L80mm  
Weight: 77g  
Material: Stainless steel  
LED: Fiber optic  
Water: Internal water  
Bur: HP bur(Ø2,35)



### Non optic model

Model: SA100R  
Ratio: 1:1  
Max.Speed: 40,000rpm  
Dimension: Ø20 x L80mm  
Weight: 77g  
Material: Stainless steel  
LED: No  
Water: Internal water  
Bur: HP bur(Ø2,35)

**20:1**  
RATIO

## Implant Surgical Angle Series

With a powerful torque up to 70N.cm and one-touch disassembly and assembly, maintenance such as cleaning and sterilization is easy.



### Optic model

Model: SG200L  
Ratio: 20:1  
Max.Torque: 70N.cm  
Dimension: Ø20 x L95mm  
Weight: 73g  
Material: Stainless steel  
LED: Fiber optic  
Bur: CA bur(Ø2,35)



### Non optic model

Model: SG200  
Ratio: 20:1  
Max.Torque: 70N.cm  
Dimension: Ø20 x L95mm  
Weight: 73g  
Material: Stainless steel  
LED: No  
Bur: CA bur(Ø2,35)

**16:1**  
RATIO

## Endodontic Angle Series

It is possible to disassemble and assemble with one touch, so maintenance such as cleaning and sterilization is easy.



### Optic model

Model: CA160L  
Ratio: 16:1  
Max.Speed: 2,500rpm  
Dimension: Ø20 x L95mm  
Weight: 81g  
Material: Stainless steel  
LED: Fiber optic  
Bur: CA bur(Ø2,35)



### Non optic model

Model: CA160  
Ratio: 16:1  
Max.Speed: 2,500rpm  
Dimension: Ø20 x L95mm  
Weight: 81g  
Material: Stainless steel  
LED: No  
Bur: CA bur(Ø2,35)

# ÄLEC<sup>TM</sup> EXTREME

Electric High Speed

## Zirconia Trimming Motor



### KEY FACT

- The electric motor can reach up to 150,000rpm. It also boasts outstanding efficiency in processing zirconia ceramic.
- Cartridge-free, electric motor-based product that eliminates the need for periodic cartridge replacement.
- The handpiece achieves maximum efficiency through its LED and water spray feature that prevents cracks.
- When the handpiece turns, air is released from its head to prevent dust from penetrating the handpiece.
- The water spray on/off feature enables both wet and dry methods of use.
- Two stage detachable design (Separate controllers are available for independent controllers).



## CLINICAL EXAMPLE



### Delicate Groove

High power can be generated even at low speeds. Optimal prosthesis can be completed by margin molding.



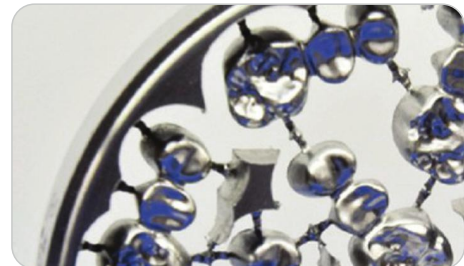
### Crack-Prevention

Water spray function that controls the amount of injection and prevents microcracks of zirconia caused by high temperatures.



### Superior Work Speed

It's Possible to process 4 times more zirconia prosthesis in the same time with the same number.



### Easy Handling for a Laboratory

Easily workable to reduce stress during usage.



## SPECIFICATION



### Controller

Model: ML-A150  
Power supply voltage: 110-120V/220-240V  
Frequency: 50/60Hz  
Power consumption: 80VA  
Fuse: 250V-T2.0Ah  
Weight: 3.65kg  
Dimension: W115 x D210 x H270mm

### Handpiece

Model: BL-150K  
Type: Brushless type  
Max.Speed: 150,000rpm  
Max.Torque: 4.0Ncm  
Dimension: Ø25 x L101mm  
Bur: FG bur Ø1.6mm  
with Water Spray & LED Light

## Dental Laboratory Handpiece



### KEY FACT

- Provides handpieces with various specifications to suit the customer's work use (brushless type, brush type).
- Provides stable and high torque output in all rotation ranges.
- The ergonomic design provides a stable grip during precision work.
- Reduces hand fatigue and improves balance through a lightweight and compact design.
- The micro motor is completely sealed to minimize noise and vibration.



# BRUSHLESS TYPE



## BL-T&K

Max,50,000rpm brushless type motor

### Controller

Model: BL-T&K  
 Input: 120V/ 230V  
 Output: DC 0~30V  
 Frequency: 50/60Hz  
 Max,current: 3A  
 Weight: 2,9kg  
 Dimension: W83xD290xH240mm

### Handpiece

Model: BL-800C  
 Type: Brushless type  
 Max.Speed: 50,000rpm  
 Max.Torque: 7,0N.cm  
 Dimension: Ø25 x L158mm  
 Bur: Ø2,35mm



## BL-F(D)

Max,50,000rpm brushless type motor

### Controller

Model: BL-F(D)  
 Input: 120V/ 230V  
 Output: DC 0~30V  
 Frequency: 50/60Hz  
 Max,current: 3A  
 Weight: 2,5kg  
 Dimension: W125xD190xH120mm

### Handpiece

Model: BL-800C  
 Type: Brushless type  
 Max.Speed: 50,000rpm  
 Max.Torque: 7,0N.cm  
 Dimension: Ø25 x L158mm  
 Bur: Ø2,35mm



## BL-F

Max,50,000rpm brushless type motor

### Controller

Model: BL-F  
 Input: 120V/ 230V  
 Output: DC 0~30V  
 Frequency: 50/60Hz  
 Max,current: 3A  
 Weight: 3,1kg  
 Dimension: W225xD305xH100mm

### Handpiece

Model: BL-800C  
 Type: Brushless type  
 Max.Speed: 50,000rpm  
 Max.Torque: 7,0N.cm  
 Dimension: Ø25 x L158mm  
 Bur: Ø2,35mm

# CARBON BRUSH TYPE



## 300D

Carbon brush type motor

### Controller

Model: 300D  
Input: 120V/ 220, 230V  
Output: DC 0~30V  
Frequency: 50/60Hz  
Max,current: 2A  
Weight: 2,3kg  
Dimension: W81xD222xH166mm

### Handpiece

Model: 170S  
Type: Carbon brush type  
Weight: 200g  
Dimension: Ø25 x L156mm  
Bur: Ø2,35mm



## 300B

Carbon brush type motor

### Controller

Model: 300B  
Input: 120V/ 220, 230V  
Output: DC 0~30V  
Frequency: 50/60Hz  
Max,current: 2A  
Weight: 2,3kg  
Dimension: W168xD168xH75mm

### Handpiece

Model: 170S  
Type: Carbon brush type  
Weight: 200g  
Dimension: Ø25 x L156mm  
Bur: Ø2,35mm



## New NX-201N

Carbon brush type motor

### Controller

Model: New NX-201N  
Input: 120V/ 220, 230V  
Output: DC 0~30V  
Frequency: 50/60Hz  
Max,current: 2A  
Weight: 1,3kg  
Dimension: W112xD190xH84mm

### Handpiece

Model: 170S  
Type: Carbon brush type  
Weight: 200g  
Dimension: Ø25 x L156mm  
Bur: Ø2,35mm

## RECHARGEABLE & PORTABLE TYPE



### M1

Max.25,000rpm brush type motor

#### Controller

Model: M1  
Input: AC 100V ~ AC240V  
Output: DC 14.8V  
Frequency: 50/60Hz  
Max.current: 1.2A  
Weight: 185g  
Dimension: W67xD132xH30mm

#### Handpiece

Model: M110  
Type: Carbon brush type  
Max.Speed: 25,000rpm  
Weight: 120g  
Dimension: Ø25 x L136mm  
Bur: Ø2.35mm



### M1+

Max.25,000rpm brush type motor

#### Controller

Model: M1+  
Input: AC 100V ~ AC240V  
Output: DC 14.8V  
Frequency: 50/60Hz  
Max.current: 1.2A  
Weight: 185g  
Dimension: W67xD132xH30mm

#### Handpiece

Model: M110  
Type: Carbon brush type  
Max.Speed: 25,000rpm  
Weight: 120g  
Dimension: Ø25 x L136mm  
Bur: Ø2.35mm



### M4

Max.25,000rpm brush type motor

#### Controller

Model: M4  
Input: AC 100V ~ AC240V  
Output: DC 14.8V  
Frequency: 50/60Hz  
Max.current: 1.2A  
Weight: 185g  
Dimension: W69xD130xH30mm

#### Handpiece

Model: M110  
Type: Carbon brush type  
Max.Speed: 25,000rpm  
Weight: 120g  
Dimension: Ø25 x L136mm  
Bur: Ø2.35mm



## LET'S MAKE IT BETTER

For standardization and specialization of quality, research institutes  
and factories communicate with each other continuously.

We are also one step ahead in quality and the establishment of trust and value.

MICRO-NX Co.,Ltd. always strives to become a creative company.

**MICRO NX**  
LET'S MAKE IT BETTER

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