

CLINICAL MICROMOTORS

NLZ



The Compact Makes a Big Change

Now in a more compact size, with higher safety and flexibility for different installation styles, NSK's all new "NLZ" can help any user of air driven handpieces convert to electric and enjoy the full benefits of this smart system. The unique technology of "NLZ" employs an all-new micromotor system and expands the possibilities of dental treatment. This original concept from the leading handpiece manufacturer provides cutting-edge features applicable to a wide-range of endodontic treatments with enhanced comfort and safety. A big change in treatment environment is brought with only a minor addition to the current equipment in your office.

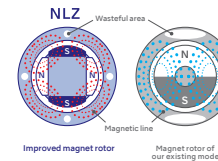
Flexible Installation Style Superior Visibility & Operability



Superior* Performance of Motor with Compact Size

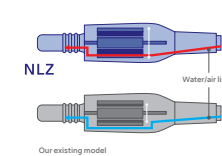
Powerful

The conventional magnet rotor has been replaced with an improved magnet rotor. More powerful rotation is achieved in the same amount of space by reducing weak magnetic areas.



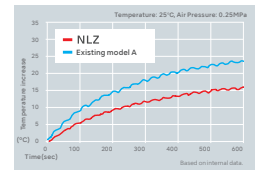
Efficient

In this unique technology, the water and air lines that used to bypass the motor have now been integrated with the motor. This new, more efficient configuration makes maximum use of the limited space and is lighter and more powerful than before.



Less heat

NLZ employs a simple non-layered coil instead of a standard layered coil. The coils are as compact as possible, shortening the pathway for heat generating current. As a result it generates less heat without reducing the output power.



*Compared to our existing model.

NLZ/NLZ E

Electric Micromotor

- Internal Water Spray



NLZ

Optic	MODEL	ORDER CODE
●	NLZ S230	Y1500360

Contents

- NLZ U (Control Unit & Main Unit) • NE180 (AC adaptor)
- NLZ (Motor) • NLZ CD (Motor Cord 1.8 m)
- NLZ U BRACKET

Specifications

[Unit]

- Dimension Control Unit : W 76 × D 87.1 × H 63.4 mm
- Dimension Main Unit : W 146 × D 75 × H 48 mm
- Power Supply : 230 V 50/60 Hz
- Programs : General Application Mode / 6 programs
Rotary Endo Mode / 6 programs

NLZ E with Endodontic Function

Optic	MODEL	ORDER CODE
●	NLZ E S230	Y1004004

Contents

- NLZ E U (Control Unit & Main Unit) • NE180 (AC adaptor)
- NLZ (Motor) • NLZ CD (Motor Cord 1.8 m)
- NLZ U BRACKET

[Motor]

- Motor Type : Brushless Micromotor
- Max Torque : 4.2 Ncm
- Endodontics Torque : 0.3 - 6.0 Ncm*
- Motor Speed : 100 - 40,000 min⁻¹
- Dimension : ø22 × H 68.8 mm
- Weight : 59 g (motor only)
- Light : White LED

*Depending on gear ratio

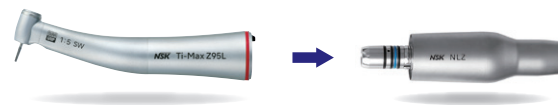
	NLZ	NLZ E
General Application Function	○	○
Rotary Endo Mode Function	—	○
Recipro Endo Mode Function	—	*○

*The "Reciprocating Endo Mode" can be operated only with the NLZ Endo Contra-angle handpiece and WAVEONE® file.

SAFETY FUNCTIONS

Contra-Check Function (Proprietary to NSK)

"Contra-Check Function" helps detect abnormalities caused by deterioration of the electric attachment and insufficient maintenance before use. Our advanced function is the result of NSK's relentless pursuit of safe treatment. *NSK's Ti-Max Z, X and S-Max M electric attachments are compatible with "Contra-Check Function".



For Safer and More Efficient Endodontic Treatment

In addition to the Auto Reverse and Auto Stop functions, a wide range of new features are incorporated for safer and more efficient endodontic treatment.

Reciprocating specialist electric attachment

Newly developed reciprocating specialist electric attachment NLZ Endo. Building on our existing handpiece development technology, we have succeeded in reducing the movement loss during reciprocating operations. As a result, it is possible to correctly transmit reciprocating actions for a smooth endodontic treatment.



NLZ Endo



- Max Speed : 1,000 min⁻¹
(Input Max Rotation Speed of the Motor : 6,000 min⁻¹)
- Engine Files (ø2.35) *For Rotary Endo mode
- Wave-One Reciprocating Files (ø2.35)
*For Recipro Endo Mode
- Push Button Chuck

	Optic	MODEL	ORDER CODE
6:1 Reduction	—	NLZ Endo	C1130

NLX nano

Electric Micromotor Portable System

- Speed : 2,000 – 40,000 min⁻¹, Torque : 3.4 Ncm



Contents

- NLX nano U (Control Unit)
- NLX nano (Motor)
- NLX CD (Cord) • NLAC (AC Adaptor)

Specifications (Control Unit)

- Rated Input : AC 28 V 50/60 Hz
- Dimensions : W 127 x D 149 x H 54 mm
- Weight : 517 g

Optic	MODEL	ORDER CODE
●	NLX nano S230	Y1001362

Electric Micromotor Integrated System

- Speed : 1,000 – 40,000 min⁻¹, Torque : 3.4 Ncm



Please contact NSK dealer for installation inquiry

A New Generation of Micromotor as Well Balanced as an Air Turbine

NLX nano has been designed to minimize weight and size to improve the balance of instrument and motor in the hand of the clinician, reducing fatigue during prolonged procedures.

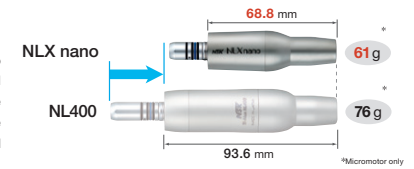
Despite its small size and light weight, the NLX nano is as powerful as traditional micromotors and offers wider range of speeds. Its 180° Vector Control assures smooth and stepless control over the entire speed range.

Thanks to LED illumination, it now delivers 32,000 LUX, natural daylight quality light and assures clearer vision, reducing fatigue during operation.

Feel our quality of NLX nano micromotor.

More Than 25% Shorter and 20% Lighter

Thanks to NSK know how, NLX nano has been designed to reduce weight by 20% and size by more than 25% compared with the current NSK micromotor. Despite its smaller size and lighter weight, NLX nano is as powerful and offers the same speed range as the current brushless NSK clinical micromotors.



Perfect Balance

The balance of the motor and instrument combined has been dramatically improved as the weight and size of NLX nano has been reduced drastically.

The overall length of instrument and NLX nano micromotor are almost the same as the length of air turbines and couplings, thus enabling practitioners use contra-angles and NLX nano micromotors just like the use of air turbines.



Wider Clinical Applications

NLX nano covers a wide speed range and is compatible with your existing optic and non-optic contra-angles. Combined with a wide range of contra-angles, it covers a speed range of 100 – 200,000 min⁻¹, to make it suitable for any applications.

	100	1,000	2,000	2,500	10,000	40,000	200,000
Z10L 16:1				100-2,500 min ⁻¹			
Z25L 1:1					2,000-40,000 min ⁻¹		
Z95L 1:5							10,000-200,000 min ⁻¹



Contra-angles



NLX nano

- System : 180° Vector Control System
- Motor Type : Sensorless DC Brushless Micromotor
- Motor Speed : 2,000 – 40,000 min⁻¹ (NLX nano U)
: 1,000 – 40,000 min⁻¹ (NLX BF)
- Torque : Max. 3.4 Ncm
- Weight : 61 g (micromotor only)
- Light : White LED

NLX plus

Electric Micromotor Integrated System

- Speed : 100 – 40,000 min⁻¹, Torque : 4.0 Ncm, with Endo Function
- Internal Water Spray
- BRUSHLESS

Features

- Torque control & Auto reverse feature
3 working modes: Auto-reverse on, Auto-stop or Auto-reverse off
- Autoclavable titanium body
- LED illumination
- Installable built-in type conforms to most dental equipments by employing original NLX BF power module



Please contact NSK dealer for installation inquiry

NBX

Electric Micromotor Integrated System

- Speed : 60 – 40,000 min⁻¹
- Internal Water Spray
- BRUSH



Please contact NSK dealer for installation inquiry

M40 XS

Features



- Quiet smooth operation from 60 to 40,000 min⁻¹
- Minimal heat generation
- Compact and light coreless electric micromotor
- LED illumination is incorporated inside the optic micromotor (M40 XS)
- Titanium body with Scratch Resistant DURACOAT



- Made Shorter and Lighter for Perfect Balance
- Advantages of using - LED light
- Ergonomic Shape
- Internal Water Spray
- Brush

Optic	MODEL	ORDER CODE
●	M40 XS	E1135051
—	M40N XS	E1136051

Multi Pad

Multi-Control Panel for Built-in System

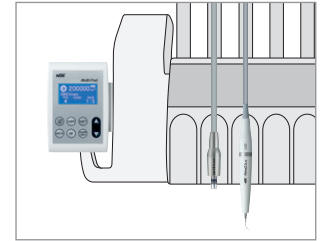


Integrated into Existing Equipment with The Latest Leading Edge Technology

NSK's Multi Pad uniquely enables control of the NLX nano and NLX plus electric micromotors and the Varios 170 ultrasonic scaler in one system. When partnered with Multi Pad, the NLX nano reaches speeds of 1,000 - 40,000 min⁻¹ and delivers a powerful 3.4 Ncm torque, whilst the NLX plus additionally offers 3 user-friendly endo modes; auto-reverse on, auto-stop and auto-reverse off. NSK's Multi Pad can also be used to control all functions of the Varios 170 ultrasonic scaler.

Features

- User friendly LCD display and interface to select settings.
- Visual identification on the display is possible even during operation of the handpiece.
- Up to 8 programs (motor only).
- Supports 5 languages (English, Español, Italiano, Français and Deutsch).



The Integrated System

Electric Micromotor Integrated System (NLX BF) and Multi Function Ultrasonic Scaler (Varios 170) can be controlled with the system.



- Multi Pad Unit
- Angle Plate (Mounting bracket)
- Screws

Multi Pad Complete Sets

MODEL	ORDER CODE
Multi Pad AX (Auto Select)	Y1001846

Specifications

• Input voltage	: DC + 12 V
• Input connect	: 100 mA
• Max. output power	: 1.2 W
• Dimensions	: W 95 x D 138 x H 31 mm

Air Motor



Ti-Max X205L

Shorter and Lighter - Ergonomic Comfort & Improved Balance



Advantages

- Shorter and lighter unsurpassed balance Air motor
- 360° Swivel with LED illumination (32,000 LUX)

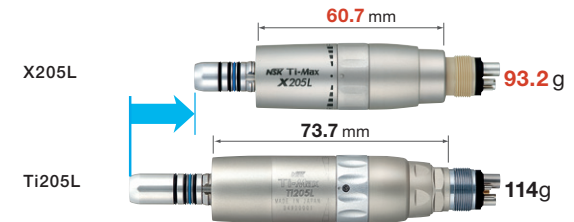


- 360° Swivel with LED illumination
- 32,000 LUX
- Titanium body with scratch-resistant DURACOAT
- Non-Retraction Valve
- Max Speed: 23,000 min⁻¹ ±10%
- Internal Water Spray



Optic	MODEL	ORDER CODE
●	X205L	M1013

Reduced Size and Weight for Unsurpassed Balance



S-Max M205



Optic	MODEL	ORDER CODE
—	M205	M1007



- Stainless Steel Body
- Non-Retraction Valve
- Midwest 4 hole
- Max Speed: 22,000 min⁻¹ ±10%
- Internal Water Spray

FX205



Optic	MODEL	ORDER CODE
—	FX205 M4	M1005002



- Midwest 4 hole
- Max Speed: 22,000 min⁻¹ ±10%
- External Water Spray



- Borden 2 hole
- Max Speed: 25,000 min⁻¹ ±10%
- External Water Spray

Optic	MODEL	ORDER CODE
—	FX205 B2	M1006002

Air Motor Set



- Midwest 4 hole



- Borden 2 hole



- Midwest 4 hole



- Borden 2 hole

Optic	MODEL	ORDER CODE
—	FX205 M4 Set	Y1002665

Contents

- Air Motor (FX205)
- Straight handpiece (FX65)
- Contra-angle handpiece (FX23)

Optic	MODEL	ORDER CODE
—	FX205 B2 Set	Y1002666

Contents

- Air Motor (FX205)
- Straight handpiece (FX65)
- Contra-angle handpiece (FX23)

Optic	MODEL	ORDER CODE
—	FX205 M4 / FX22 Set	Y1003590

Contents

- Air Motor (FX205)
- Straight handpiece (FX65)
- Contra-angle handpiece (FX22)

Optic	MODEL	ORDER CODE
—	FX205 B2 / FX22 Set	Y1003589

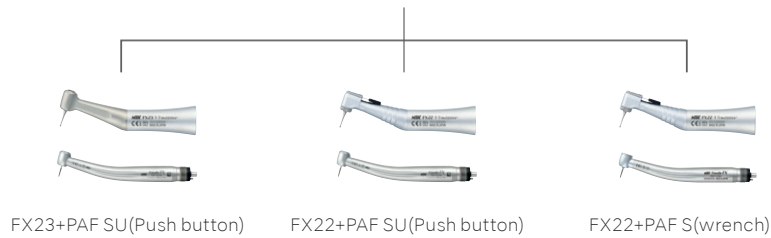
Contents

- Air Motor (FX205)
- Straight handpiece (FX65)
- Contra-angle handpiece (FX22)

Student Kit



Motor Straight Handpiece



FX205/FX65+FX23+PAF SU (Push button)

Contra-angle (FX Series)



FX23

Air Turbine (PanaAir FX) Push Button type



Head	MODEL	ORDER CODE
Standard	PRO PAF SU M4 FX23 KIT	Y1003601
Standard	PRO PAF SU B2 FX23 KIT	Y1003599



FX205/FX65+FX22+PAF SU (Push button)

Contra-angle (FX Series)



FX22

Air Turbine (PanaAir FX) Push Button type



Head	MODEL	ORDER CODE
Standard	PRO PAF SU M4 FX22 KIT	Y1005397
Standard	PRO PAF SU B2 FX22 KIT	Y1003595



FX205/FX65+FX22+PAF S (wrench)

Contra-angle (FX Series)



FX22

Air Turbine (PanaAir FX) wrench type



Head	MODEL	ORDER CODE
Standard	PRO PAF S M4 FX22 KIT	Y1003593
Standard	PRO PAF S B2 FX22 KIT	Y1003591

