

INSTRUCTIONS FOR USE

Electric High Speed Zirconia Trimming Motor / ML-A150

EXTREME
ELECTRIC HIGH SPEED 150K

Thanks for your selection of our products one more.

The accidents by nonfulfillment of this instruction is not our responsibility.

User should pay attention to safe use and keeping.

Design and specification can be changed without notice for quality improvement.

Please contact us whenever you have a question.

Thank you.

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1. Cautions in use

1.1 Warning

- ① When using this product, carefully observe whether it is used by the elderly or physically uncomfortable or close to children, and do not leave children alone in the space where this product is installed,
- ② Use according to the intended use, and refrain from use not recommended by the manufacturer,
- ③ If power supply cord, plug or consent are broken or damaged, do not use them and contact us,
- ④ When you pull out the power supply cord, please pull out it by pulling the plug out and do not touch the plug with wet hands,
- ⑤ Do not install near a heating device or where excessive moisture is exposed, or place flammable substances on the surroundings,
- ⑥ To prevent freezing problems below 0°C, remove water completely when not in use.





1.2 Caution

- ① Please read this operation manual carefully before use and be sure that you have fully understood it and then use the product,
- ② Please replace and/or mount the Handpiece after the rotation of the motor has completely stopped,
- ③ Please use all the products and supplies that are used with this product that comply with the specification that we are providing you with,
- ④ Be careful not to drop or damage the controller or handpiece,
- ⑤ If you find any sign of abnormality such as vibration, heating, or strange sound before or during the use of the product, please stop using the product promptly and contact us,
- ⑥ Do not use bent or rusted burs,
- ⑦ Do not disassemble the product and the Handpiece,
- ⑧ Please use or store this product under environmental conditions we are providing.
- ⑨ When you are replacing fuse, please use those products that comply with the specification of ours of 250V T2AL.

1.3 Maintenance and service

- ① Remove connected devices such as Foot Switch, Handpiece, Cables from the main body.
- ② Prepare a pieces of cloth or smooth brush,
- ③ Wipe out foreign objects from the surface of the product using a cloth or brush,
- ④ Wipe out foreign objects from the surface and niches of the Handpiece, Foot Switch, Motor Cable, and Controller,
- ⑤ After removing foreign objects, connect the Foot Switch, Handpiece and Cable to the machine.

1.4 Symbol







No.	Symbol	Description	No.	Symbol	Description
1		Alternating current	3		Off (Power)
2		On (Power)	4		Do not dispose with domestic waste

2. Description of the Product

2.1 Purpose of use

Handpiece and Controller of this product are used for the purpose of grinding and cutting of dental materials.

2.2 Construction of the product

		
Upper Body (ML-A150U) Bottom Body (ML-A150B)	High Speed Handpiece (BL-150K)	Low Speed Handpiece (BL-800C / Option)
		
Foot Pedal (FS-60)	Power Cable	Main Body Connection Cable

2. Description of the Product

2.3 Specification of the product

1) Main Body



Control unit	
Model name of Controller	ML-A150B
Model name of Water Injector	ML-A150U
Power consumption	80[VA]
Power supply voltage	100-120/220-240V, 50/60Hz
Fuse	250V T2AL
Weight	3.65[kg]
Dimension	115(W) × 210(L) × 270(H) mm

2) Handpiece



High speed handpiece	
Model name	BL-150K
Max. speed	150,000[rpm]
Bur	FG bur ø 1,6(mm)
Cooling system	Internal irrigation
Dimension	ø 24 × 102mm [D × L]



Low speed handpiece ※(Option)	
Model name	BL-800C
Max. speed	50,000[rpm]
Bur	HP bur ø 2,35(mm)
Dimension	ø 26 × 160mm [D × L]

3) Foot Pedal



Foot pedal	
Model name	FS-60
Function	Motor operation controller

2. Description of the Product

2.4 Components Detail and Function

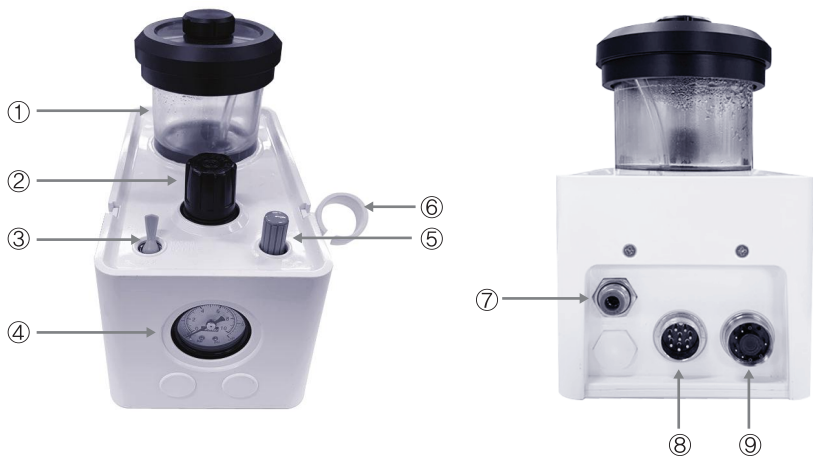
1) Controller(ML-A150B)



No.	Name	Function
1	Speed Display	Motor Rotation Speed
2	Auto cruise button	It can change to auto cruise mode When using the foot switch and LED on/off of High Speed handpiece
3	Handpiece Selection Button	Choose one between High and low speed handpeice
4	Speed control knob	Controlling speed of Handpiece
5	Driving mode selector button	Choose one between by hand and foot mode
6	Rotation Direction Selection button	Select Handpiece Rotation direction
7	Connect section of Foot Switch	Connect the jack of Foot Switch
8	Power Connection	Connect the Power Cable
9	Low Speed Handpiece Connection	Connect the cable of Low Speed Handpiece
10	Water Injector connection	Connect Controller with Water Injector

2. Description of the Product

2) Water Injector(ML-A150U)



No.	Name	Function
1	Water bottle	Stores water in injection device
2	Air Pressure Regulation knob	Regulates pressure of supplied air, When the knob is pressed, supply is locked and when it is pulled, locking is released,
3	Water Bottle On/Off Switch	Switches Water Bottle On/Off
4	Air pressure Indicator	Indicates the pressure of air supplied to the Handpiece,
5	Water Injection Regulation Knob	Regulates the amount of water supplied
6	Handpiece Stand	Mounted the Handpiece (selectable left or right)
7	Outside Air Supply	Connects the air supplied from outside,
8	Controller Connection	Connects between the Controller and the Water Injector,
9	High Speed Handpiece Connector	Connects between the High Speed Handpiece and the Controller,

2. Description of the Product

2.5 Working Condition

1) Storage Condition

Temperature	-10~50° C
Humidity	10~85%RH
Atmospheric	500~1060 hPa

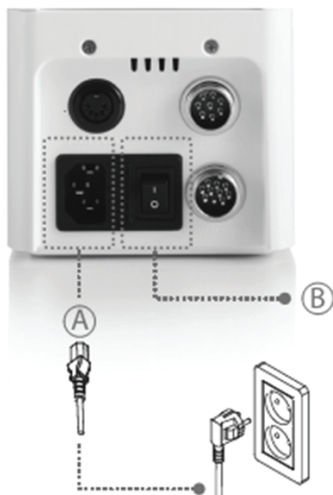
2) Usage Condition

Temperature	10~40° C
Humidity	10~85%RH
Atmospheric	700~1060 hPa

3. Installation of the product

3.1 Product installation

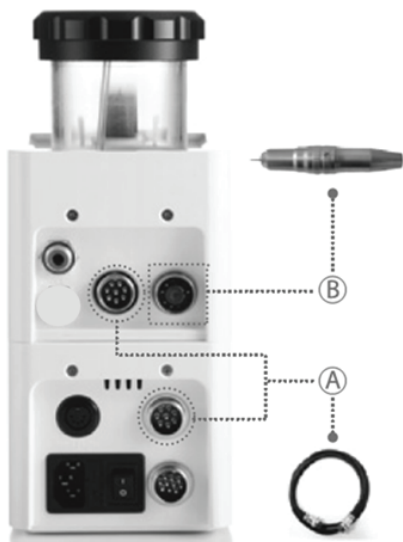
1) Connecting the power



A Connect the power cable to the main body of the controller.

B Turn on the switch after connect the power cable to the Power socket

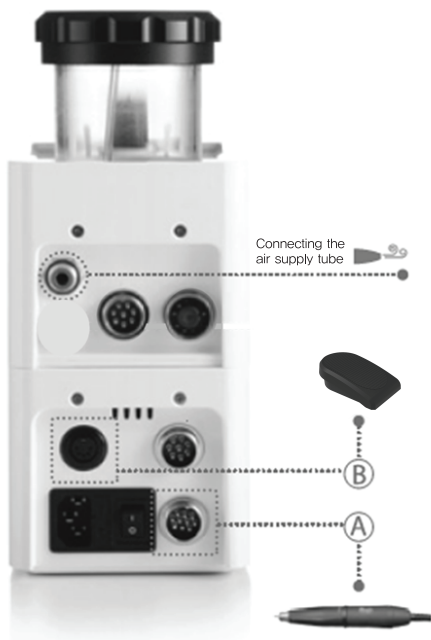
2) Usage Condition



A Connect the Controller and Water Injector Supply with Main Body connection cable.

B Connect the High Speed Handpiece cable with Water Injector Supply.

3. Installation of the product



3) Connecting low speed handpiece

A Connect the Controller main body with Low Speed Handpiece cable,

4) Connecting the Foot switch

B Connect main body of the Controller with Foot Switch,

5) Connecting the External air supply

Connect the air supply tube to the rear of the external air supply as shown in the figure.


4. Operation

4.1 Operation method

- ① Turn on the power switch on the rear side of the main body of the product.
- ② Make sure if the LED light on the front side of the Controller is turned on.
- ③ Select the Handpiece user wants to use, the direction of turning of the Handpiece and select from between hand drive mode or foot drive mode.
- ④ If hand drive mode is selected, regulate the speed of Handpiece by adjusting the Speed control Knob.
- ⑤ If foot drive mode is selected, please adjust the Speed control knob to a speed you want and then drive the motor by pushing the pedal of the Foot switch.
- ⑥ It can control the quantity of water injection through Water Injection Regulation Knob
 - Turning counterclockwise increases the amount of water, and turning clockwise decreases the amount of water.
- ⑦ Before use, check if the handpiece collec chuck is locked by turning the handle of the handpiece or pulling the bur.

4.2 Operation of functions


1) High speed handpiece LED selection

[] Auto cruise button

It is operated only when high speed handpiece is connected.

- ▶ Press this switch and drive the handpiece to turn on the LED. Pressing the switch once again turns off the LED on the handpiece.

2) Auto cruise mode selection

[] Auto cruise button

It is operated only when foot Switch is connected.

- ▶ If you press this switch for 2 seconds, the green LED on the button flashes. At this time, set the desired speed and press the scaffold for 5 seconds, the beep sounds, the red LED on the button lights up, and the handpiece operates at a constant speed even if you release the foot switch. Pressing and releasing the foot switch again stops the handpiece, the green LED blinks, and speed is adjustable. At this time, if the Auto cruise button is pressed for 2 seconds, the automatic operation mode is canceled.

3) Handpiece selection

[] Handpiece selection button

- ▶ You can select between High Speed Handpiece and Low Speed Handpiece you want to use by pushing this switch. When low speed handpiece is selected, the LED above the button lights up in green. When high speed handpiece is selected, the LED above the button lights up in red.

4. Operation

4.2 Operation of functions

4) Selecting direction of rotation

[◀▶] Rotation direction selection button

- ▶ This switch is used for switching the direction of rotation of the Handpiece you selected.

When forward direction is selected, the LED above the button lights up in green. When reverse direction is selected, the LED above the button lights up in red.

5) Selection from among hand driving mode and foot pedal driving mode

[H/F] Driving mode selector button

- ▶ You can use this when you switch driving mode. When you selected hand driving mode by pushing Driving mode selector button, you can regulate speed by adjusting the Speed Control Knob and Green LED on over the button. If you select foot pedal driving mode by pushing the switch again, Red LED on over the button and you can drive the handpiece by pushing the pedal of the Foot Switch after connecting the Foot Switch and adjusting the speed by setting the speed Control Knob to the wanted speed.

5. Failure and Troubleshooting

5.1 Explanation about the error messages

Error code	Status	Cause of error	Remedy
E1	Low speed handpiece motor error	Motor or connection is not proper	Reconnect the motor and check and ask for repair as required.
E2	High speed handpiece motor error	Motor or connection is not proper	Reconnect the motor and check and ask for repair as required.

5.2 Explanation about the failures

Failure	Cause of failure	Solution
Display screen does not appear when power supply is turned on	Incorrect connection of the power supply line	Check the connection of the plug
	Failure of power supply switch	Ask for repair
	Fuse failure	Replace fuse
Motor is not working when Foot Switch is pushed.	Incorrect connection of the connection cord	Check the connection
	Foot Switch failure	Ask for repair

6. Warranties for Services and Supplies

6.1 List of supplies

1) Consumable items



BL-150K
High Speed
Handpiece



BL-800C
Low Speed
Handpiece (Option)



FS-60
Foot Switch



Main Body
Connection Cable



Power Supply
Cable

6.2 A/S and purchase of supplies

1) Manufacturer: MICRO-NX Co., Ltd.

2) Country of origin: Republic of Korea

3) Address: 22, Maeyeo-ro 1-gil, Dong-gu, Daegu

4) Contact numbers: Tel) 82 53 650 1000,

Fax) 82 53 650 1001

5) Homepage: <http://www.micronx.co.kr>

※ Service CENTER at EU

MICRO-NX CO., Ltd(EU office)

Address : kari-Marx-Str, 6, 16540, Hohen Neuendorf, Germany

Tel : +49 (0)3303-5412323

E-mail : micronxeu@micronx.co.kr

6.3 Warranty

Warranty period: 1 year

※ We are not responsible for the damage caused by the negligence or misuse of the user or normal wear and tare of bearings of the Handpiece,

7. Disposal of the product

7.1 Disposal

1) Disposal of the Main Body, Foot Switch, and Handpiece



① Regarding the disposal of the electric apparatus you have used, please follow the laws, standards and guidelines of applicable countries.

② Do not allow occurrence of any pollution caused by parts during the disposal of the product.

2) Disposal of packaging materials

① All of the packaging materials can be disposed of or recycled in an environmentally friendly manner.

MICRONX

GET THE ANSWER



MICRONX Co., Ltd.

22, Maeyeo-ro 1-gil, Dong-gu, Daegu, 41059 Republic of Korea

Tel: 82 53 650 1000

Fax: 82 53 650 1001

Web: www.micronx.co.kr



MICRONX Co., Ltd. branch office

Karl-Marx-Str. 6 16540 Hohen Neuendorf Germany

Tel: 49 (0)3303 5412323

Fax: 49 (0)3303 5412324