

PRESTO II

OPERATION MANUAL

OM-K0516E 001

Thank you for purchasing the PRESTO II.

Please read this manual carefully, and store it in a place where it can be easily accessed for future reference.

1. CAUTIONS FOR HANDLING AND OPERATION

- Read these warnings and cautions carefully and only use in the manner intended.
- These warnings and cautions are intended to avoid potential hazards that could result in personal injury to the operator or damage to the device. These are classified as follows in accordance with the seriousness of the risk.

Class	Degree of Risk
⚠ WARNING	A safety hazard could result in bodily injury or damage to the device if the safety instructions are not properly followed.
⚠ CAUTION	A hazard that could result in light or moderate bodily injury or damage to the device if the safety instructions are not followed.

⚠ WARNING

- ① Do not touch the cutting tool while it is running.
- ② Use a protective cover, glasses and / or facemask for your safety during rotation.
- ③ Do not drop or hit the handpiece because the shock can damage internal components.
- ④ Do not force or bend the cutting tool. The shank might be broken and / or bent.
- ⑤ Check if the collet chuck has been tightened firmly before operation.
- ⑥ Observe the permissible speeds the manufacturer or dealer designates for the bur. Otherwise, you may be injured by scattering and breaking up of the bur.
- ⑦ Do not use burs which are oscillating or bent or damaged and of which shank portions are worn. Otherwise, you may be injured by scattering and breaking up of the bur.

⚠ CAUTION

- ① Do not modify or disassemble unnecessarily, performance and safety may be seriously affected.
- ② Do not drop the handpiece and unit. Make sure to put the unit on a horizontal and stable surface.
- ③ Do not turn the chuck release ring during rotation of the handpiece. Otherwise, the handpiece will be broken.
- ④ Never supply lubricant to the handpiece. It uses grease filled bearings and additional lubrication may cause failures.
- ⑤ Pay careful attention to rattling, vibration, sounds and temperature (heating), and inspect by rotating in advance before starting use. Immediately ask dealers for repair work if any irregularities are sensed.
- ⑥ The proper air pressure is 0.2 - 0.25MPa (29 - 36.3psi). Pressure exceeding the value may lead to premature failure of the bearings because of excessive speeds.
- ⑦ Extract water if water drips or contaminants are found on the filter of the unit.
- ⑧ Always clean the shank of the bur you are going to mount. Contaminant deposits in the chuck may lead to oscillating of the bur and break the chuck.
- ⑨ Install the cutting bur or test bur when not in use.
- ⑩ Operational control, maintenance and inspection is the responsibility of each user.

9. REPLACEMENT OF CARTRIDGE

- ① Fit the cartridge wrench supplied with the handpiece to the flats on the handpiece nose. Turn the cartridge wrench as shown in (Fig.10) after it is loosened, unscrew the nose with fingers and remove from the handpiece.
- ② Before inserting a new cartridge, clean the head interior.
- ③ Finally, securely tighten the cartridge by turning it in the reverse direction to removal.



Fig. 10

10. REPLACEMENT OR CLEANING PROCEDURES OF CHUCK

⚠ CAUTION

As the guide-bush is a very small part, be careful not to lose it.

NOTICE

Remove the chuck and clean once a week.

10 - 1 Removal of Chuck

- ① Remove the cartridge with a bur or dummy bur installed.
- ② (9. REPLACEMENT OF CARTRIDGE)
Hold the rotor with two fingers as shown on the Fig.11.
Mount the wrench provided on the rotor nut located on the top of rotor shaft and turn counterclockwise (Either side of wrench can be used).
- ③ When the rotor nut is loose. Push out the chuck carefully with a dummy bur or the bur shank from the back of the cartridge, the Guide-bush and the chuck will come out (Fig.12).
- When cleaning the chuck, clean it with ultrasonic cleaner etc.
Spray oil to the inside of the rotor shaft and clean thoroughly.

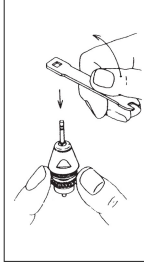


Fig. 11

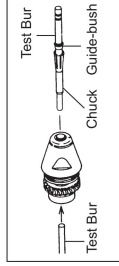


Fig. 12

10 - 2 Installation of a New Chuck

- ① Apply oil thinly on the surface of the new chuck or the chuck after cleaning, insert the test bur and push into the rotor shaft. (Fig.13)
- ② Set the longer one of the guides of the guide bushings on the end of the rotor shaft along the test bur (Fig.14).
- ③ Finally insert the rotor shaft nut along the test bur, and tighten firmly with a wrench while holding the rotor (Fig.15).

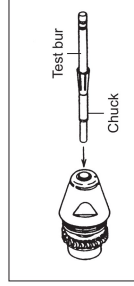


Fig. 13

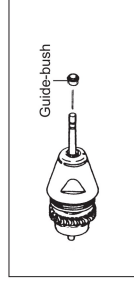


Fig. 14

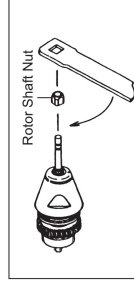


Fig. 15

11. MAINTENANCE OF UNIT

11 - 1 Draining the Filter

Check the filter bowl from the filter inspection window, and if there is an accumulation of water, insert fingers from the bottom, and turn the drain valve in the direction of the arrow (counterclockwise) to drain water from the filter (Fig. 16).

After draining, securely tighten the drain valve by turning it in the reverse direction.

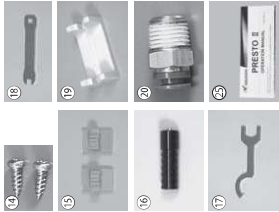
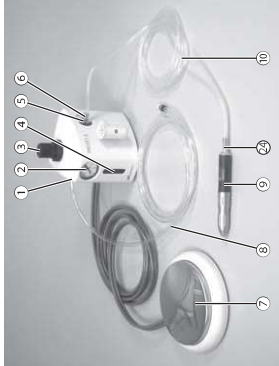


Fig. 16

12. DISPOSAL OF THE PRESTO II

When disposal of a PRESTO II is necessary, follow the instructions from your local government agency for proper disposal of industrial components.

2. COMPONENT NAMES AND BASIC PACKAGE



- ① PRESTO II Control Unit
- ② Pressure Gauge
- ③ Regulator Knob
- ④ Filter Inspection Window
- ⑤ Handpiece Connector
- ⑥ Tube Stopper
- ⑦ Foot Pedal
- ⑧ Plumbing Hose
- ⑨ PRESTO Handpiece
- ⑩ Handpiece Tubing
- ⑪ Foot Pedal Connector
- ⑫ Hose Stopper
- ⑬ Plumbing Connector
- ⑭ Unit Mounting Screws
- ⑮ Handpiece Tubing Clamps
- ⑯ Bur Push-in Tool
- ⑰ Cartridge Wrench
- ⑱ Rotor Shaft Nut Wrench
- ⑲ Handpiece Stand
- ⑳ Air Supply Connector
- ㉑ Cartridge
- ㉒ Wrench Flats
- ㉓ Chuck Release Ring
- ㉔ Tube Clamp Ring
- ㉕ Operation Manual

3. WARRANTY

We provide a limited warranty for our products. We will repair or replace the products if the cause of failure is due to the following manufactures defects. Please contact us or your local distributor for details.

- ① Defect in manufacturing.
- ② Any shortage of components in the package.
- ③ Where damaged components are found when initially opening the package.
(This shall not apply if the damage was caused by the negligence of a customer.)

4. CONTACT US

For your safety and convenience when purchasing our products, we welcome your questions.
If you have any questions about operation, maintenance and repair of the product, please contact us.

Contact Us

- For U.S. Market
 - Company Name : **NSK America Corp**
 - Industrial Div.
 - Business Hours : 8:30am to 17:00pm (CST)
(closed Saturday, Sunday and Public Holidays)
 - U.S. Toll Free No. : 800-585-4675
 - Telephone No. : 847-843-7664
 - Fax No. : 847-843-7622
 - Web Address : www.nskamericacorp.com
- For Other Markets
 - Company Name : **NAKANISHI INC.**
 - Business Hours : 8:00am to 17:00pm
(closed Saturday, Sunday and Public Holidays)
 - Telephone No. : +81 (0) 289-64-3520
 - e-mail Address : webmaster-ie@nsk-nakanishi.co.jp

5. SPECIFICATIONS

speed	320,000min ⁻¹ (rpm)
Recommended Air Pressure	0.2 - 0.25MPa (29 - 36.3psi)
Handpiece Dimensions	φ 16.6 (D) x 130 (H) mm
Handpiece Weight	71g
Noise Level at 1m distance	Less than 70dB (A)

Control Unit Dimensions	W120 x D102 x H165 (mm)
Control Unit Weight	720g
Proper Air Pressure	40N/L / min
Inside Diameter	φ 1.6mm Bur Only

Operation Environment	Temperature	Humidity	Atmospheric Pressure
Transportation and Storage Environment	0 - 40°C	MAX.75% (No condensation)	700 - 1,060hPa
	-10 - + 50°C	10 - 85%	500 - 1,060hPa

6. SYSTEM ASSEMBLY PROCEDURES

6 - 1 Mounting of the Control Unit

The Control Unit can be secured on a wall, on a work-bench, or under a work-bench.
When securing on a wall surface, etc., fix the Control Unit with unit fixing screws in the two screw holes on its back.

6 - 2 Installation of Plumbing Hose



- Push the plumbing hose into the plumbing connector until it is securely set.
Otherwise, air may leak.
- Pushing the white ring, on the plumbing connector, gently remove the tube.

Push the plumbing hose into the plumbing connector located at the regulator on the left-hand side of the Control Unit until it is securely set to make connection as shown in Fig. 1.
Check if the hose is securely installed by tugging it after connection.

Connect the other end of the plumbing hose to the air line. At this time, use the attached connector if necessary.

6 - 3 Installation of foot Pedal

Loosen and remove the hose stoppers (two) from the foot pedal connectors on the back of the Control Unit, and insert them into the foot pedal hoses. At this time, insert the hose stoppers so that their screws come outside (Control Unit side) (Fig. 2). For wall-hanging use, pass the hoses through the hole shown in Fig. 2.

Insert the "1" - marked end of each hose according to the instructions on the label. After insertion of both hoses, securely tighten the hose stoppers.

6 - 4 Installation of Handpiece

Loosen and remove the tube stopper from the handpiece connector on the right-hand side of the Control Unit, and insert it into the handpiece tubing. At this time, insert the tube stopper so that its screw comes outside (Control Unit side) (Fig. 3).

Insert the handpiece tubing into the handpiece connector, and securely tighten the tube stopper.

Insert the tube clamp ring into the other end of the handpiece tubing as shown in Fig. 4, and insert it into the handpiece tubing socket as shown in Fig. 5.

6 - 5 Installation of Handpiece Tubing Clamps

Locate a Handpiece Tubing Clamp (two pieces supplied) at a proper location to conveniently position the handpiece tubing.

7. OPERATION OF CONTROL UNIT

7 - 1 Set the Drive Air Pressure

Supply air, and adjust to 0.25MPa (36.3psi) by pulling the Regulator Knob upward and turning.
When adjustment is made, push the knob down to lock (Fig.6).

7 - 2 Operation

Stepping on the Foot Pedal starts rotation.

7 - 3 For Finishing Work

Close the main air valve.

8. OPERATION OF HANDPIECE

- ① As the chuck of the PRESTO handpiece is a push-in type, set the φ 1.6mm burs and push in as shown in Fig.7.
If the end of the bur is tapered down in using the provided bur-inserting wrench as shown in Fig.8.
- ② When removing the bur, turn the chuck release ring in the direction of the arrow in Fig.9.



Fig. 1



Fig. 2

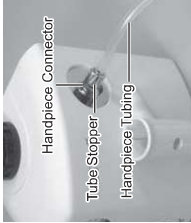


Fig. 3

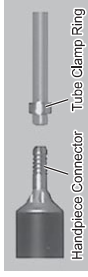


Fig. 4



Fig. 5



Fig. 6

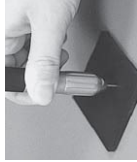


Fig. 7



Fig. 8



Fig. 9