

NSK



Please read this Operation Manual carefully before use, and file for future reference.

High Speed Air Turbine Handpiece

PANA-MAX

MADE IN JAPAN

OM-T0307E 002



Powerful Partners®

PANA-MAX

OPERATION MANUAL

CE₀₁₉₇ The EU directive 93/42/EEC was applied in the design and production of this medical device.

MODE D'EMPLOI

CE₀₁₉₇ Cet appareil médical est conforme dans sa conception et sa production à la directive européenne 93/42/EEC.

BEDIENUNGSHANDBUCH

CE₀₁₉₇ Design und Herstellung dieses medizinischen Gerätes erfolgte unter Anwendung der EU-Richtlinie 93/42/EEC.

MANUAL DE USO

CE₀₁₉₇ La directiva EU 93/42/EEC ha sido aplicada en el diseño y producción de este instrumento médico.

Specifications

Model	PAX-SU M4	PAX-SU B2	PAX-TU M4	PAX-TU B2
Head Type	Standard Head		Torque Head	
Rotation Speed	400,000~450,000min ⁻¹		320,000~370,000min ⁻¹	
Drive Air Pressure	0.215MPa			
Chuck Type	Ultra Push			
Burs	ISO 1797-1 Type3 ø1.59~1.60			

 **CAUTION**

- Place the most priority of the patient's safety.
- For professional use only. Do not make wrong use of the handpiece.
- Do not disassemble, nor alter the handpiece.
- Check the vibration, noise and overheating outside the patient's oral cavity before use. If any abnormalities are found, stop using immediately and contact your dealer.
- After extended use the handpiece may become noisy, replace the cartridge with a new one manufactured by NSK. Failure to replace the cartridge may cause accidents or impair operator's hearing.
- Depressing the push-button while handpiece bur is in rotation will result in OVERHEATING of the handpiece head. Special caution must be exercised during use to keep cheek tissue **AWAY** from the push-button of the handpiece. Contact with cheek tissue may cause the push-button to depress and injury to the patient may occur.
- Do not drop, hit, or subject to excessive shock.

- Do not use bent, damaged, or sub-standard burs. The shank could be bent or broken even within the recommended speed.
- Always keep the bur shank clean. Entry of debris into the chuck could cause bur run-out and the bur could not be mounted inmost.
- Do not exceed the bur manufacture's recommended speed.
- Do not operate the handpiece without the bur or test-bur.
- Remove the bur or the test-bur after the air supply is stopped completely.

PANA-MAX SUPPLY AIR PRESSURE

Set the pressure at the arrow, Fig. 1, to **0.2-0.25MPa (2.0-2.5kgf/cm²)**.



Fig. 1

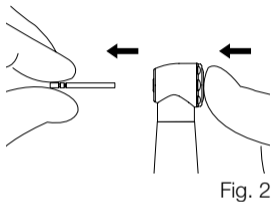
CAUTION

Do not exceed the recommended air pressure. This is important to prevent higher speed which could cause breaking of the bur and premature bearing failure.

PANA-MAX **CAUTION ON BURS**

- Do not use non-standard burs. The ISO standard shank diameter is $\varnothing 1.59 - \varnothing 1.60$ mm.
- Do not use bent, worn, damaged, or non-concentric burs.
- Always use within the bur manufacturer's recommended allowable speed.
- Always use clean burs. Uncleaned burs may allow debris to build up inside chuck, causing weak bur retention or premature chuck wear.
- Insert the bur all the way into the chuck until it stops with the push-button fully depressed.
- Do not use short shank burs.

PANA-MAX CHANGING BURS



(1) Bur Removal

Push the push button in the head cap with thumb to click, and remove the bur. (Fig. 2)

(2) Bur Mounting

Insert the bur into the head until it stops. Push the push button and further insert the bur all the way into the head until it stops.

CAUTION

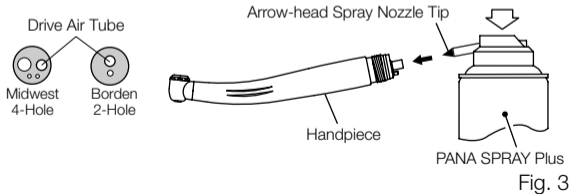
In case of cutting under heavy vibrations such as in crown removal, there may be a case where the bur is difficult to remove with ease. In such a case, pull out the bur with pliers or the like with the push button kept pushed. This case may be prevented if you often relocate position of the bur in the chuck.

PANA-MAX LUBRICATION

Supply PANA SPRAY Plus or lubrication oil after each use and/or before autoclaving.

■ PANA SPRAY Plus

- ① Mount the arrow-head spray nozzle tip into the spray port.
- ② Insert the arrow-head spray nozzle in the drive air tube of the handpiece and spray for approximately 2-3 seconds.

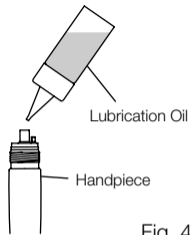
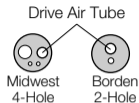


⚠ CAUTION

- Be sure to hold the handpiece firmly to prevent the handpiece from slipping out of hand by the spray pressure when lubricating.
- Supply lubricant until it comes out of the handpiece head.
- Hold the PANA SPRAY Plus can upright.
- Mount the arrow-head spray nozzle tip into the spray port and lubricate chuck directly thorough the hole for bur attachment once a week.

■ Lubrication Oil

Supply 2-3 drops of the lubrication oil into the drive air tube.



PANA-MAX CLEANING AND STERILIZATION



This product can be washed via Thermo Disinfector.

Sterilization by autoclaving is recommended.

Sterilization is required first time you use and after each patient.

■ AUTOCLAVING

- ① Brush off dirt and wipe clean with alcohol-soaked cloth.
 - ② Remove PANA-MAX handpiece from the hose and lubricate with PANA SPRAY Plus as described in LUBRICATION.
 - ③ Insert the handpiece in a sterilization pouch and seal it.
 - ④ Autoclavable up to max. 135°C.
ex.) Autoclave for 20 min. at 121°C, or 15 min. at 132°C.
 - ⑤ Keep the handpiece in the autoclave pouch to keep it clean until you use it.
- * EN13060 4.6.3 recommends autoclaving for 3 minutes (minimum holding time) at 134°C or 15 minutes (minimum holding time) at 121°C. NSK recommends Class B or S sterilization.



CAUTION

- Heating element may be located at the bottom of the chamber, and the temperature there locally may exceed the set value. Place the handpieces on the central or upper tray.
- Do not autoclave the handpiece, even when it is bagged, together with other instruments, from which chemicals are not sufficiently cleaned. This is to avoid discoloration and/or damage to the plating of the handpiece.

PANA-MAX CARTRIDGE REPLACEMENT

(1) Removing Cartridge

- ① Install the turbine head on the test bur.
- ② Fit the head cap wrench onto the head and remove the head cap. (Fig. 5)
- ③ Remove the head cap, and remove the cartridge by pushing up on the test bur.
- ④ Use the needle to remove the O-ring in the head cap. (Fig. 6)
- ⑤ Remove the wave washer under the O-ring. (Fig. 7)

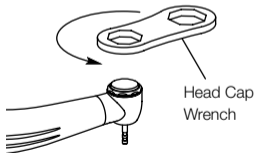


Fig. 5

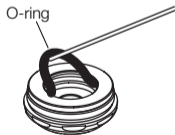


Fig. 6



Fig. 7

(2) Mounting Cartridge

- ① Set the wave washer in the head cap. Direction doesn't matter. (Fig. 8)
- ② Install the new O-ring in the head cap. Apply a small amount of turbine oil to the O-ring before installation. Needles should never be used for installation. (Fig. 9)
- ③ Install the cartridge in the head by inserting it vertically. (Fig. 10)

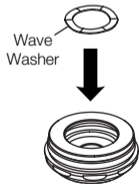


Fig. 8

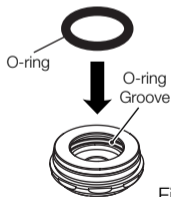


Fig. 9

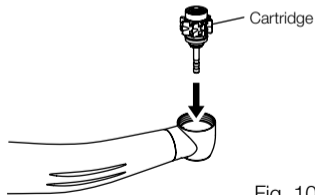


Fig. 10

- ④ Screw the head cap with fingers until it stops, then hold the tip of the test bur and make sure it's tightly and securely locked by giving a pull-and-push test. (Fig. 11)
- ⑤ Fasten the head cap to the head cap wrench until it's fixed firmly.

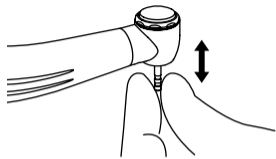


Fig. 11

⚠ CAUTION

- The threads in the head are very fine. Do not turn the head cap with the wrench from the first turn.
- Use of non-NSK- made cartridge may void the NSK warranty.