

**HIGH HANDPIECE**

**OPERATION MANUAL**

**Thank you for purchasing high handpiece. Read this Operation Manual carefully before use, and file for future reference.**

## **1. CAUTIONS**

- 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.
- If any abnormalities are found in use, stop using immediately any contact your dealer.
- After extended use the handpiece may become noisy, replace the cartridge with a new one. 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 manufacturer' recommended speed.
- Do not operate the handpiece without the bur or test-bur.
- Always nount the bur or the test-bur even when the handpiece is not in use.
- Remove the bur or the test-bur after the air supply is stopped completly.



## 2. SUPPLY AIR PRESSURE

Set the pressure at the arrow, Fig. 1, to 177~216kpa(1.8~2.2kgf/cm<sup>2</sup>). If a pressure gauge for use at the arrow is not available, set the air pressure to 196~245kpa(2.0~2.5kgf/cm<sup>2</sup>) at the drive air pressure gauge in the unit.

**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.

Fig.1



## 3. BUR TYPES

Insert the bur all the way into the chuck until it stops.

### Caution

1. Do not use non-standard burs. The shank diameter, in particular, must conform to ISO standard of 1.59-1.6mm.
2. DO not use bent, irregularly worn, or damaged burs. Always keep the burs clean. Dirt and debris on the shank may cause clogging of the chuck, loss of grip power, or premature wear of the chuck.

## 4. CHANGING BURS

### ① Screw Type Chuck

**Bur Removal:** Mount the chuck Wrench as shown in Fig. 2 with the knurled knob pulled out. Push the knob into the head and make a 1/4 turn in the counter-clockwise direction. Bur is ready to remove. (Fig. 3)

(Do not turn the knob than a 1/4 turn.)

**Bur Mounting:** To mount a bur, turn the knob in the clockwise direction with the knob pushed into the head.

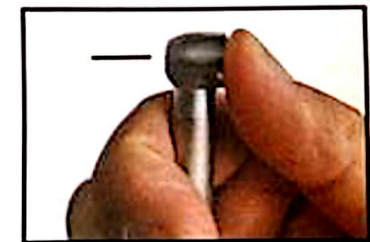


Fig.3

## 5. LUBRICATION

Spray lubrication for 1-2 seconds into the drive air tube at the end of each day's work. Should use of the handpiece be above average, lubricate twice a day (one at lunch time, and one at the end of the day's work). Be sure to sufficiently lubricate before autoclaving.

## 6. STERILIZATION

Sterilization by autoclaving is recommended.

- ① Brush off excess dirt and wipe clean with alcohol-soaked cloth.
  - ② Remove Bear handpiece from the hose and lubricate as described in 5.LUBRICATION.
  - ③ Insert the handpiece in a sterilization pouch and seal it.
  - ④ Autoclave for-20 min. at 121 °C, or 15 min. at 132 °C
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### Caution

- Skip dry cycle.
- Heating element may be located on 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.

## 7. CARTRIDGE REPLACEMENT

### ① Removing Cartridge

Mount a dummy bur in the chuck.

Turn the head cap counter-clockwise with the head cap wrench, and remove the head cap. Push up the dummy bur, and the cartridge is easily removed from the head. (Fig. 5)

### ② Mounting Cartridge

Align the small pin in the cartridge with the slot in the handpiece head, and insert the cartridge into the head. Mount and screw in the head cap with fingers till tight. Further tighten with the head cap wrench. (Fig. 6)



Fig.5

### Caution

The threads in the head are very fine. Do not turn the head cap with the wrench from the first turn.

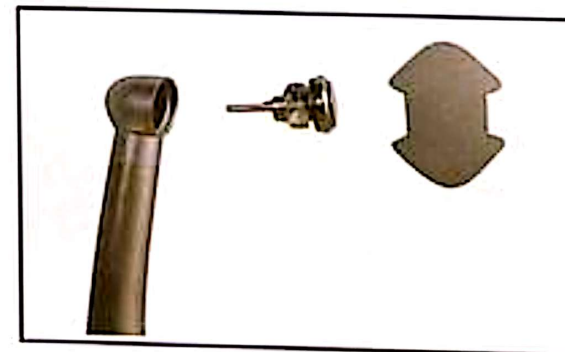


Fig.6