

# HIGH SPEED AIR TURBINE HANDPIECE OPERATION MANUAL



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

## OPERATION MANUAL

### 1 ⚠ CAUTIONS(1)

- 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 in use, stop using immediately and contact your dealer.
- After extended use the handpiece may become noisy, replace the cartridge with a new one manufactured by dealer. 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's recommended speed.
- Do not operate the handpiece without the bur or test-bur.

## 2 SUPPLY AIR PRESSURE

Set the pressure at the arrow, Fig. 1, to  $0.18\sim0.22\text{MPa}(1.8\sim2.2\text{kgf/cm}^2)$ . If a pressure gauge for use at the arrow is not available, set the air pressure to  $0.2\sim0.25\text{MPa}(2\sim2.5\text{kgf/cm}^2)$  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.

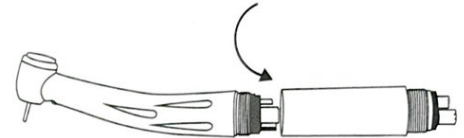


Fig. 1

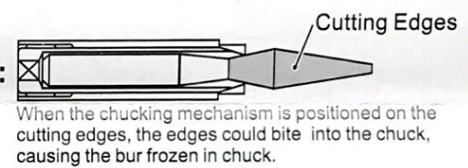
## 3 BUR TYPES

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

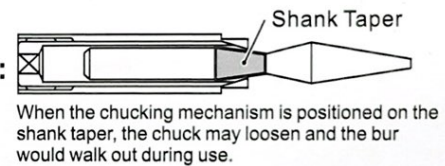
### ⚠ Caution

- Do not use non-standard burs. The shank diameter, in particular, must conform to ISO standard of  $1.59\sim1.6\text{mm}$ .
- 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.
- Do not use short shank burs on the Standard or Torque head handpiece. In case such needs to be used, locate the chucking mechanism on the bur shank, and not on the shank taper on the cutting edges. (Fig. 2)

### WRONG:



### WRONG:



### CORRECT:

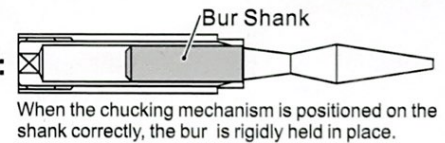


Fig. 2

## 4 CHANGING BURS

### (1) Screw Type Chuck

#### Bur Removal :

Mount the Chuck Wrench as shown in Fig. 3 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. (Do not turn the knob more 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.

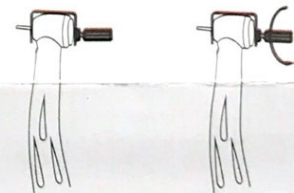
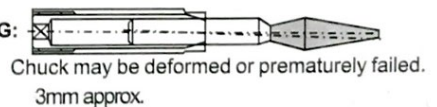


Fig. 3

### ⚠ Caution

- Do not run the handpiece with the bur not fully inserted (Fig. 4). Bearings may fail prematurely due to poor bur concentricity and resultant vibration.
- Never run the handpiece without a bur. Chuck may be forced out or damaged, or cause damage to the bearings.

### WRONG:



### CORRECT:

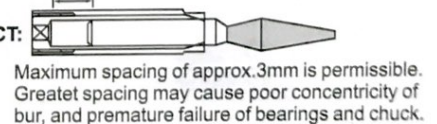


Fig. 4



## (2) Ultra Push Type

**Bur Removal:** Push the push button in the head cap with thumb to click, and remove the bur. (Fig.5)

**Bur Mounting:** Insert the bur into the head until it stops (1~2mm deep approx). Push the push button and further insert the bur all the way into the head until it stops.

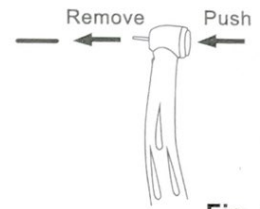


Fig. 5

### ⚠ 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 with the EG wrench.

This case may be prevented if you often relocate position of the bur in the chuck.

## 5 LUBRICATION

Spray the SPRAY 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 with SPRAY twice a day (one at lunch time, and one at the end of the day's work). Be sure to sufficiently lubricate with SPRAY before autoclaving. In case you use Turbine Oil (Reorder No.Z016-112) supply 2~3 drops into the drive air tube once or twice a day.

**Note:** Hold the SPRAY can upright, press the spray nozzle to the drive air tube of the handpiece as shown in Fig. 6, and spray.

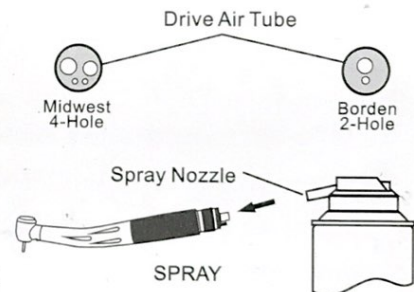


Fig. 6

## 6 STERILIZATION

Sterilization by autoclaving is recommended. Autoclave sterilization required after each patient as noted below.

### ■ AUTOCLAVING

- ① Brush off excess dirt and wipe clean with alcohol-soaked cloth.
- ② Remove the handpiece from the hose and lubricate with SPRAY as described in LUBRICATION.
- ③ Insert the handpiece in a sterilization pouch and seal it.
- ④ Autoclavable up to a max. 135°C.  
ex.) Autoclave for 20 min. at 121°C, or 15 min. at 132°C.

### ⚠ Caution

- Skip dry cycle.
- 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.

## 7 CARTRIDGE REPLACEMENT

### (1) Removing Cartridge

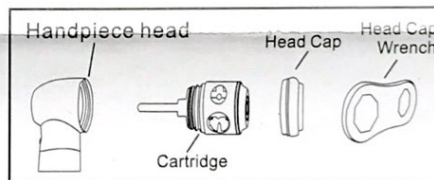
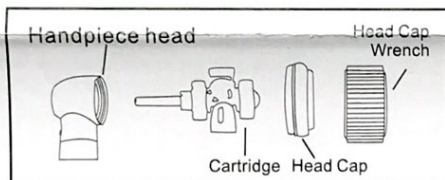
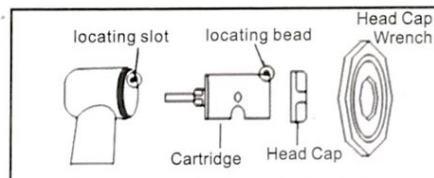
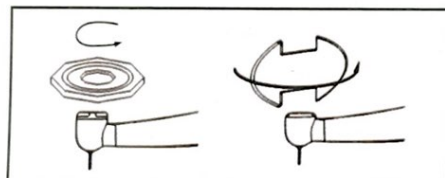
Turn the head cap counter-clockwise with the head cap wrench, and remove the head cap. Push up the dummy bur, and the cartridge is easily removed from the head.

### (2) Mounting Cartridge

Insert the cartridge into the head. Mount and screw in the head cap with fingers till tight. Further tighten with the head cap wrench.

### ⚠ Caution

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



## 8 PRODUCT STRUCTURE

By head part, hand holder, cartridge and tail screw thread 4 parts comprise.

## 9 PRODUCT APPLICATION:

For dental clinic or dental hospital drill, grinding teeth.

## Warranty card

Where to buy the company's products, the warranty period, the normal use of the failure, the company gives free repair, the user needs to complete the warranty card information with the invoice sent to the company's maintenance center.

Mode				Repair date	Finish date	Maintenance record	Fault Description	Maintenance center seal and
Product number								
Purchase date	On	Month	Day					
	Full name							
User	Address							
	Contact phone							
Seller	Name			<b>Remark:</b> 1. the warranty period of the product is as follows: 1 year of the hand piece, the bearing is guaranteed for 3 months. (unloading device, injection nozzle cover etc.) no warranty. 2. consumers for the use, maintenance, improper storage caused damage, or due to force majeure Not entitled to repair, but pay for repairs. 3. the starting date of the warranty period shall be subject to the date of the invoice. 4. maintenance, please show the invoice. 5. more than the warranty period or not belong to free maintenance of the product, the company's maintenance center is still Dedicated to serve you.				
	Seal							
	Address							
	Contact phone							
Remarks:								