Lowspeed Handpiece

OPERATION MANUAL

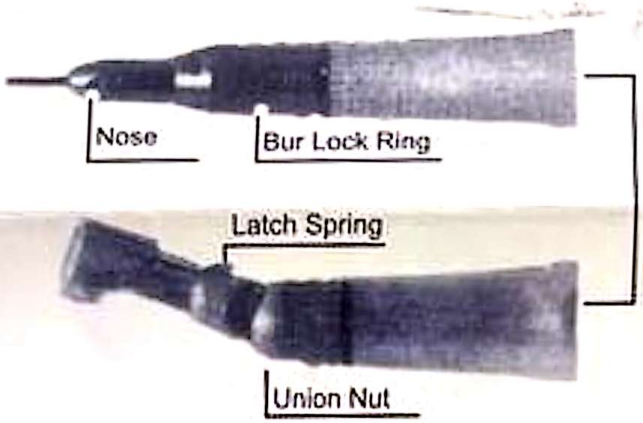
⚠ Caution

- 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.
- 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
  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.

1.Motor and Handpiece

(1) Straight Nosecon
SN 1000 (Clean Head)
Uses ϕ2.35mm Handpiece Burs

(2) Contra Angle Handpiece
CA 1000
Uses ϕ2.34mm Latch Burs



(3) Air Motor
AM 1000 1:1

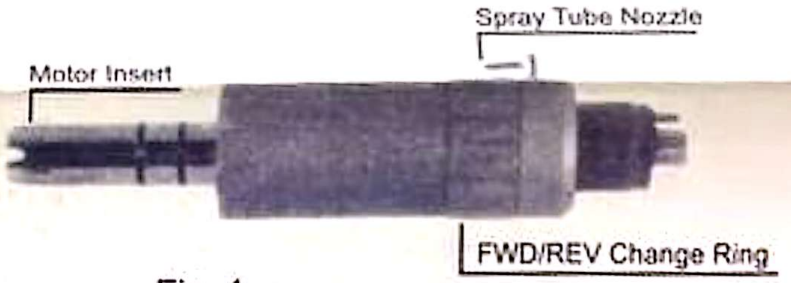


Fig. 1

2.Specifications

MODEL	Green 1000	Green 3000
min^{-1}(rpm) at 0.25MPa(2.5kgf/cm^2)	5,500	22,000
min^{-1}(rpm) at 0.3MPa(3kgf/cm^2)	6,250	25,000
min^{-1}(rpm) at 0.4MPa(4kgf/cm^2)	6,750	27,000
Air Consumption(NL/min) at 0.25MPa(2.5kgf/cm^2)	55	55
Weight g (Midwest 4 -Hole)	105	90

*Speed may vary slightly depending on the back-end configuration, the direction of rotation, and type of hose used.

3.Mounting of Handpiece

(1) Mounting
Insert the E-type handpiece in the motor insert.
(2) Removal
Simply pull out the handpiece from the motor.

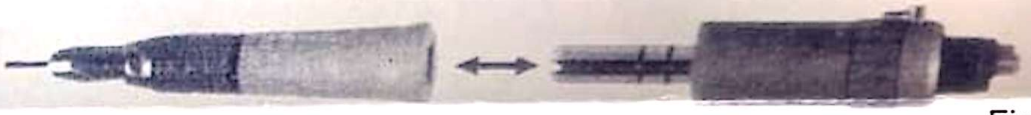


Fig. 2

4. Forward / Reverse Rotation

(1) Forward Rotation: Turn the FWD/REV Change Ring to "F" as shown in Fig. 3.
(2) Reverse Rotation: Turn the FWD/REV Change Ring to "R" as shown in Fig. 4.
(3) When the FWD/REV Change Ring is positioned in the middle of "F" and "R" , the drive air is interrupted and the motor does not rotate. (Fig. 5)

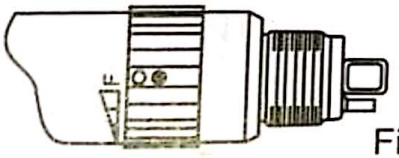


Fig. 3

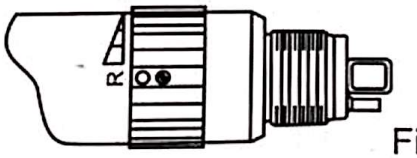


Fig. 4

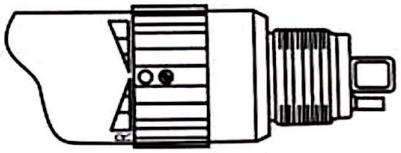


Fig. 5

5. Water and Chip Air Supply

Water water, chip air, or spray is required at the bur, connect the spray tube attachment to the head and the tube to the spray tube nozzle of the motor. Trim the tube to the desired length.(Fig. 6)
The spray tube attachment for the Straight Nosee. one(p / n H019-711)is available as an option.

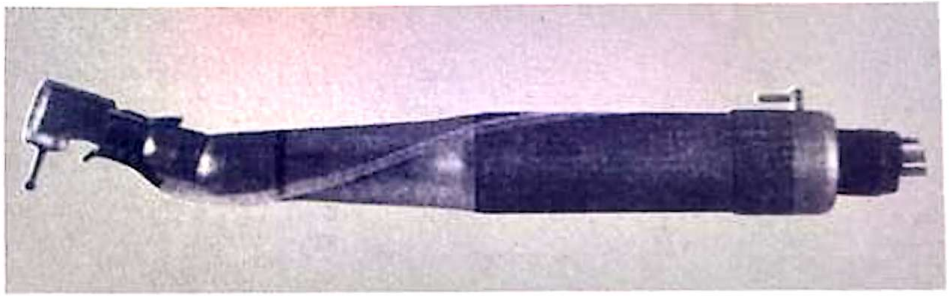


Fig. 6

6.Mounting burs

(1) SN 1000 Straight Nosecone

① Turn the Bur Lock Ring all the way in the direction of black arrow to open the chuck. Insert a bur into the chuck.

② Return the bur Lock Ring in the direction of white arrow until a click sound is heard.

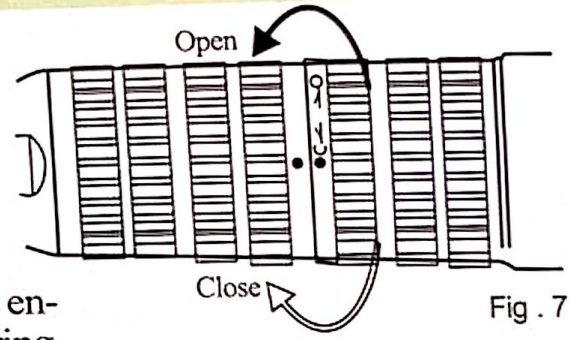


Fig . 7

(2) CA 1000 Contra Angle Handpiece

Push the latch spring sideways to open. Insert the latch bur into the head all the way to engage the top end of the bur into the crescent hole of the rotor. Swing back the latch spring to engage the latch into the groove in the bur.

⚠ Caution

- Never use bent, off-centered or damaged burs.
- Clean the bur shank before use. If grease or foreign particles get stuck on the spindle by a dirty bur, it may cause vibration, weak chucking power, or other abnormalities.
- Always insert a bur all the way into the chuck.
  This will prevent "BUR-WALK-OUT" ,and/or damage to the ball bearing.
- Never operate SN 1000 Straight Nosecone without a bur or bur blank securely held in place. or the Bur Lock Ring at different position.
- Do not leave the handpiece without a bur or bur blank securely chucked.

7.Lubrication

Lubrication is required at least once a day. Use of Handpiece Oil

(1) AM 1000 Air-motors

Disconnect the motor from the handpiece hose, and supply a few drops of Handpiece Oil for a few seconds into the drive air tube at the back end of the motor as shown in Fig. 8

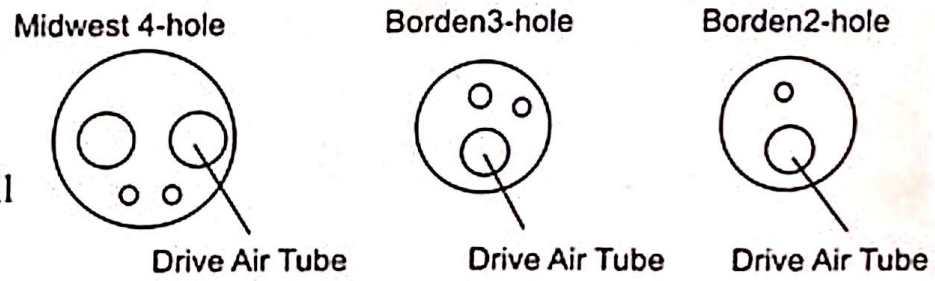


Fig. 8

(2) SN 1000 Straight Nosecone

Supply Handpiece Oil after each use and/or before autoclaving.

① Push E-type spray nozzle attachment over the Handpiece Oil nozzle until it firmly seats.

② Shake the can3-4 times to well mix lubricant and propellant.

③ Insert the E-type spray nozzle in the rear of the handpiece and sprayfor approximately 2-3 seconds until the oil comes out of the handpiece head or nose.

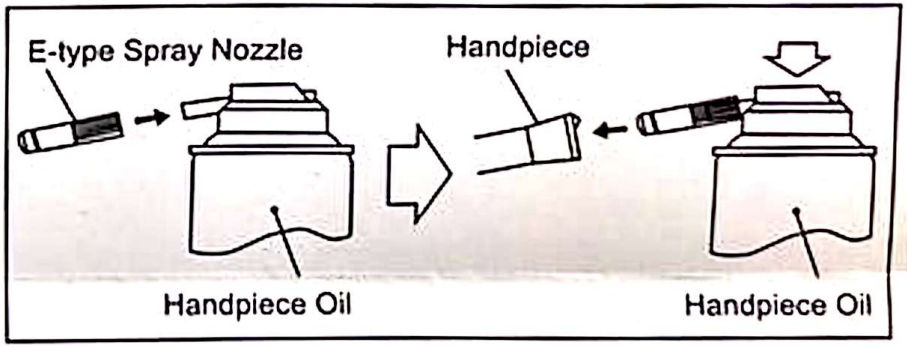


Fig. 9

⚠ Caution

- Be sure to hold the handpiece firmly to prevent the handpiece from slipping out by the spray pressure when lubricating.
- Supply lubricant until it comes out of the handpiece nose (for approx.2 seconds).
- Keep the Handpiece Oil can upright.

(3)CA 1000 Contra Angle Handpiece

Loosen the union nut and separate the head from the sheath. Supply Handpiece Oil to the places as shown by the arrows. (Fig.10) When Handpiece Oil is used, lubricate as shown in Fig. 9.

Fig. 10

⚠ Caution

Always lubricate with Handpiece Oil before autoclaving.
Hold the handpiece and the nozzle together firmly to prevent forcible disengagement by aerosol propellant pressure.
Operate the spray can in an upright position to assure proper oil supply and operate the spray can for approximatery 3 seconds. If. too short, oil may not be propelled.

8.Sterilization

The AM 1000,SN 1000, CA 1000 are autoclavable.
Autoclave sterilization required after each patient as noted below.

Fig. 11

- Autoclaving Procedure:

① Wipe off dirt with alcohol-soaked cloth.
② Lubricate with Handpiece Oil.(Ref. 7.Lubrication)
③ Place in to autoclaving pouch and seal it in accordance with instructions on the p
④ Autoclavable up to a max. 135℃. Ex.) Autoclave for 20 min. At 121℃, or 15 mi at 132℃.

Fig. 12

9.Cartridge Replacement (CA 1000)

①Loosen the union nut and remove the head from the sheath.
②Pull out the transmission gear assembly from the head. (Fig. 11)
③Place cap wrench on the head cap and turn counter-clockwise. Unscrew and separate the cap. (Fig.12)
④Insert a bur blank or round rod into a hole from the latch spring end, and push out the cartridge.
⑤Insert the new cartridge, with its pin aligned in the slot of the head.(Fig.13)
⑥Reassemble in the reverse order.

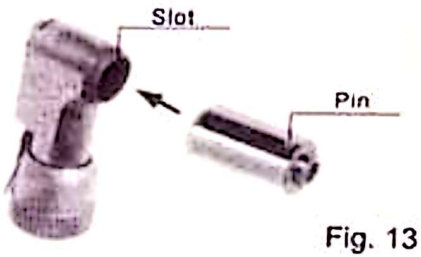


Fig. 13