



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

MADE IN JAPAN
OM-SH0015E 002



Intended to Use

This handpiece is designed for surgical use by qualified personnel.

CAUTION

- When operating the handpiece always consider the safety of the patient.
- Do not disassemble or alter the handpiece. For service or repair, contact authorized dealer.
- Check for vibration, noise and overheating before use. If any abnormalities are found, stop using the handpiece immediately and contact authorized dealer.
- Should the handpiece function abnormally, cease operation immediately and return the handpiece to an authorized dealer for repair.
- Do not allow any impact on to the sheath. Do not drop the handpiece.
- Ball bearings are articles of consumption. When you leave it broken, it may cause burn injury.
- Do not turn the Bur Lock Ring while the handpiece is rotating.
- Do not connect or disconnect the handpiece until the motor has completely stopped.
- Ensure the bur and motor connection. Improper connection may cause spin the bur out.
- Immediately after use, the handpiece should be cleaned, lubricated and sterilized before blood, etc. dries inside the handpiece. If blood is left on the handpiece, it can become clotted and causing rust.
- Do not wipe nor immerse the handpiece in acidic water or acidic solutions.
- Perform periodical maintenance checks.
- If the handpiece has not been used for a long period, check for noise, vibration, and overheating before use.

1. Specifications

Model	SGA-ES	SGA-EM	SGA-EL
Handpiece Type	Angle / Short	Angle / Medium	Angle / Long
Gear Ratio	1:1 Direct Drive		
Allowable Max. Speed	40,000 min ⁻¹ (rpm)		
Bur Size	Short Surgical Burs ø2.35 x L70 mm	Medium Surgical Burs ø2.35 x L95 mm	Long Surgical Burs ø2.35 x L125 mm

Model	SGA-E2S	SGA-E2M	SGA-E2L
Handpiece Type	Angle / Short	Angle / Medium	Angle / Long
Gear Ratio	1:2 Increasing		
Allowable Max. Speed	80,000 min ⁻¹ (rpm)		
Bur Size	Short Surgical Burs ø2.35 x L70 mm	Medium Surgical Burs ø2.35 x L95 mm	Long Surgical Burs ø2.35 x L125 mm

Model	SGS-ES	SGS-EM	SGS-EL
Handpiece Type	Straight / Short	Straight / Medium	Straight / Long
Gear Ratio	1:1 Direct Drive		
Allowable Max. Speed	40,000 min ⁻¹ (rpm)		
Bur Size	Short Surgical Burs ø2.35 x L70 mm	Medium Surgical Burs ø2.35 x L95 mm	Long Surgical Burs ø2.35 x L125 mm

Model	SGS-E2S	SGS-E2M	SGS-E2L
Handpiece Type	Straight / Short	Straight / Medium	Straight / Long
Gear Ratio	1:2 Increasing		
Allowable Max. Speed	80,000 min ⁻¹ (rpm)		
Bur Size	Short Surgical Burs ø2.35 x L70 mm	Medium Surgical Burs ø2.35 x L95 mm	Long Surgical Burs ø2.35 x L125 mm

2. Connecting/Disconnecting the Handpiece and the Motor

- (1) Connecting
 - 1) Insert the handpiece until it reached the end of the Motor Insert.
 - 2) Screw it until it click.
- (2) Disconnecting
 - 1) Hold the Motor and the Handpiece, then pull out.

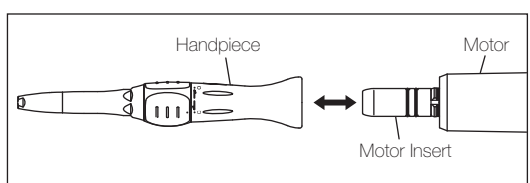


Fig. 1

3. Mounting and Removing Bur

- (1) Mounting
 - 1) Open the chuck to turn the Bur Lock Ring. (Fig.2)
 - 2) Insert the bur into the chuck.
 - 3) Close the chuck to turn the Bur Lock Ring. (Fig.2)

CAUTION

Ensure the position of Black Dots. Improper position may cause heat generation, which results in burns.

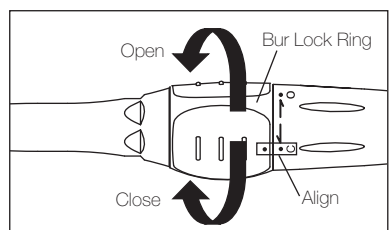


Fig. 2

- (2) Removing
 - 1) Open the chuck to turn the Bur Lock Ring. (Fig.2)
 - 2) Pull the bur out from the chuck.

CAUTION for Bur Usage

- Do not use bent, damaged or sub-standard burs. The shank could bend or brake even within the recommended speed.
- Always keep bur shanks clean. Dirt or debris in a chuck could cause poor bur concentricity or low chuck retention force.
- Do not use the bur other than specified in Specification.

4. The Bur

Use this handpiece for Implant with straight handpiece bur, mount the Stopper (Option). This may not use for Speed Increase Handpiece. (SGS-EM,SGS-EL,SGS-E2S, SGS-E2M, SGS-E2L, SGA-EM, SGA-EL, SGA-E2S, SGA-E2M, SGA-E2L)
Stopper: Order No. Y900 160

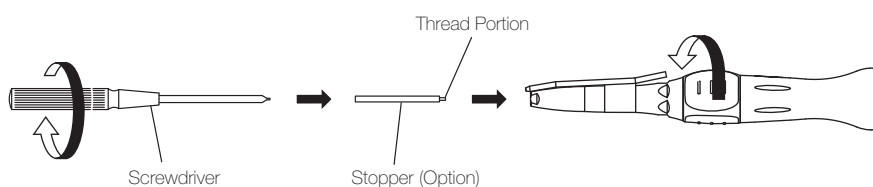


Fig. 3

■ Mount the Stopper (SGS-ES,SGA-ES)

- 1) Open the chuck to turn the Bur Lock Ring. (Fig.2)
- 2) Insert the Stopper from threaded portion in to the chuck and screws it in with provided screwdriver.

5. Irrigation Nozzle

Insert the Irrigation Nozzle into the handpiece. And, push the Irrigation Tube into the nozzle until it reaches end.

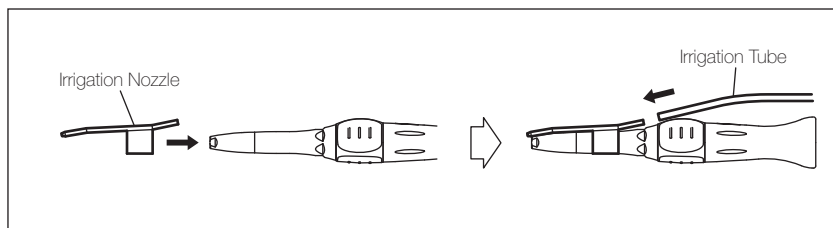


Fig. 4

* Irrigation Nozzle

for SGA-ES, SGA-E2S, SGS-ES, SGS-E2S: Order No. H263 018
for SGA-EM, SGA-E2M, SGS-EM, SGS-E2M: Order No. H263 023
for SGA-EL, SGA-E2L, SGS-EL, SGS-E2L: Order No. H263 024

6. Maintenance

⚠ CAUTION

After each operation, be sure to keep the handpiece after cleaning, lubrication, and sterilization. If the blood is left on the handpiece, it can be clotted causing rusty.

(1) Cleaning

Clean the Irrigation Nozzle inside with clean water.



This handpiece can be washed via Thermo Disinfectant.

(2) Lubrication

Supply lubricate spray after each use and/or before each autoclaving.

■ PANA-SPRAY Plus / PANA-SPRAY (Fig. 5)

- 1) Push E-type spray nozzle attachment over the lubricate spray nozzle until it firmly seats.
- 2) Shake the can 3-4 times to well mix lubricant and propellant.
- 3) Insert the spray nozzle in the rear of the handpiece and spray the lubricant into the handpiece 2-3 times for 2-3 seconds each time.

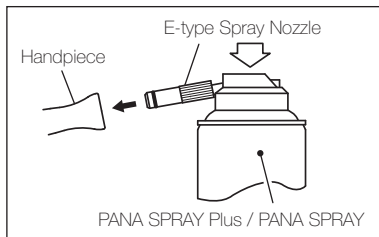


Fig. 5

⚠ CAUTION

- Be sure to hold the handpiece firmly to prevent slipping out of hand by the spray pressure when lubricating.
- Supply lubricant until it comes out of the handpiece head.
- Repeat this lubrication until you see no foreign articles such as blood penetrated into the handpiece comes out.
- Hold the lubricate spray can upright.

(3) Sterilization

Steam autoclave is recommended.

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

■ Autoclave Procedure

- 1) Scrub dirt and debris from the handpiece, and wipe clean with alcohol-immersed cotton swab or cloth. Do not use a wire brush.
- 2) Lubricate with lubricate spray. Refer to (2) Lubrication.
- 3) Insert into an autoclave pouch. Seal the pouch.
- 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.

*Sterilization at 121°C for more than 15 minutes is recommended by EN13060 or EN ISO17665-1.

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

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