

## Titanium Body Air Scaler

# Ti-Max

**S950KL** (For KaVo<sup>®</sup> MULTIflex<sup>®</sup> LUX) **S950SL** (For Sirona<sup>®</sup> Quick Coupling) S950WL(For W&H® Roto Quick®) **S950BL** (For Bien-Air<sup>®</sup> Unifix<sup>®</sup> L)



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

MADE IN JAPAN OM-T0214E 002



## CAUTIONS IN HANDLING

- Read these cautions carefully to correctly follow the intended use.
- Safety instructions are intended to avoid potential hazards that could result in personal injuries or damages to the device. Safety instructions are classified as follows in accordance with the seriousness of the risk.

Class	Degree of Risk				
	Existence of a hazard that could result in bodily injury or damage of the device, if the safety instructions are not followed.				
	Possibility of a hazard that could result in light or middle degree of bodily injury or damage of device, if the safety instructions are not followed.				

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- Do not exceed the recommended air pressure at the back end of the air scaler. Excessive air pressure might cause the scaler tip to accidentally break while in use.
- The oscillation of the tip could exceed 200 μm amplitude at the recommended air pressure. Caution is requested not to harm the patient.
- Do not use a tip on which rust is found. It may break while in use at where rust grew.

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- Place the most priority of the patient's safety.
- For professional use only. Do not make wrong use of the air scaler.
- Do not exceed 0.28 MPa (2.9kgf/cm<sup>2</sup>) for the setting air pressure of the dental unit.
- If any abnormalities are found in use, stop using immediately and contact your dealer.
- Do not disassemble, nor alter the air scaler.
- Do not drop, hit, or subject to excessive shock.
- Check the vibration, noise and overheating outside of the patient's mouth before initial use. If any abnormalities are found in use, stop using immediately and contact your dealer.
- Stop the air supply and replace the tip or connect and/or disconnect the air scaler.
- Watch out the sharp point of the tip.
- The air scaler emits a high-pitch sound during normal operation. Please wear ear protection during use as frequent exposure to this sound can cause hearing loss.
- Refer to the coupling manual for connecting it to the handpiece hose.

#### 1. Features

- Titanium achieved lighter weight and better fit in hand.
- Titanium-better material to metal-allergic patients.
- High output and low noise air scaler.
- Oscillation of the tip can be adjusted.
- The air scaler could be connected with KaVo® MULTIflex® LUX, Sirona® Quick Coupling, W&H® Roto Quick® and Bien-Air® Unifix® L.
- Donut-type light illuminates working area brilliantly.
- Autoclavable up to 135°C.

## 2. Specifications

Model	Max. Recommended Air Pressure	Air Consumption	Oscillation (Air pressure adjuster ring at Level 3)	Weight	Light
S950KL	0.28 MPa(2.9kgf/cm <sup>2</sup> )	25 - 35 L/min		78 g	
S950SL				75 g	Deput turne Lighting
S950WL		35 - 45 L/min	5,600 - 5,850Hz	83 g	Donut-type Lighting
S950BL		20 - 30 L/min		84 g	

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Bien-Air® and Unifix® are registered trademarks of Bien-Air Dental S.A., Switzerland.

#### 3. Installation and Supply Air Pressure

- Be sure to read the operation manual for Instruments carefully. Connect the air scaler to the coupling.
- Air pressure adjuster ring controls the oscillation.(Fig.2)

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- Do not exceed Power Level below. If it exceeds the level, tip may brake or tooth surface may injure. Begin to use the product from lower Power Level. Set the Power Level according to the condition of the oral cavity or the case.
- Set the air pressure at 0.28 MPa (2.9kgf/cm<sup>2</sup>) at the place where the air scaler is connected to the handpiece hose, as shown by the arrow in Fig. 1. Higher air pressure may cause higher tip oscillation, which could damage the tooth surface and may cause pain to the patient. It also may shorten the tip life and premature failure or breakage of the tip.
- The amplitude may exceed 200µm, even at the recommended air pressure, care should be exercised not to harm the patient.

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A	- -	-Max second		



※ Picture shows S950KL.

Fig. 1

Fig. 2

Purpose	Tin	Power Level			
Fuipose	Tip	1	2	3	
SCALING	$\bullet$		$\rightarrow$		
PERIO	S10, S20, S21R, S21L	$\leftarrow$	$\rightarrow$		
POLISHING	S50 + Various Brashes				
ENDODONTICS	S75 + V Tip(V-U15-35)	$\mathbf{+}$			
(V Tip)	S75 + V Tip(V-N50,51)				
(• 110)	S75 + V Tip(V-S50-53,V-S50D-53D)	$\mathbf{+}$			
Restorative (V Tip)	S75 + V Tip(V-G70,71,72,75,76)			$\rightarrow$	
	S75 + V Tip(V-G77-79)			$\rightarrow$	

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- It is approximately 0.03MPa higher than the proper air pressure for an air turbine handpiece head because of different internal structure.
- When a non-fiber optic swivel coupling is used with S950KL, S950SL, S950WL and S950BL, the air scaler cannot transmit light.

#### 4. Use Dry, Clean Air.

Moisture and debris in drive air may cause the air scaler to malfunction. It is important to drain the air compressor regularly, even though an air filter or a heater is provided in the air line.

#### 5. Scaler Tips

Three types of scaler tips as shown in Fig. 3 are provided as accessory items. Typical applications are explained below:

- Type S1 ... Universal Type (order number Z252-411)
- Curved surfaces, exposed anterior root surfaces, posterior teeth with excessive lingual tipping, etc. Type S2 ... Sickle Type (order number: Z252-413)
- Mandibular anterior teeth, lingual surfaces, hard thick-walled calculus firmly adhered to a tooth, etc. Type S3 ... Perio Type (order number: Z252-412)

Subgingival and supragingival calculus, tar-like deposit, etc.

Remove tips after use, and dry them, especially irrigant port and thread by air syringe.

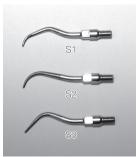


Fig. 3

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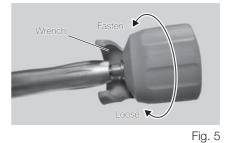
Poor drying could cause the tips to rust, which may result in premature failure and injury.

#### 6. Changing Tips

To mount the tip, screw in the tip until it stops lightly. (Fig. 4) Insert the tip in the provided wrench hole and align the shapes of hole and tip. Turn the wrench firmly until two or three clicks are heard. (Fig. 5)

To remove the tip, mount the wrench over the tip and turn it in the direction as shown in Fig. 5.





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- Always use the wrench to securely tighten the tip. Loose tip may come off during use and cause injury.
- Do not use such tips as shown below. Tips are expendable items.
- (1) Tips with worn and dull edges.
- (2) Corroded or rusted tips.
- (3) Deformed tips, caused by impact of fall.
- Do not grind or polish for reuse.
- Watch out the sharp point.

#### 7. Lubrication

Lubricate the air scaler every three days. Use NSK Turbine Oil (order number: Z016-112). Remove the air scaler from the coupling. Supply 2-3 drops of turbine oil to the drive air port of the coupling.(Fig. 6) Connect the air scaler to the coupling and operate it for 5 seconds.

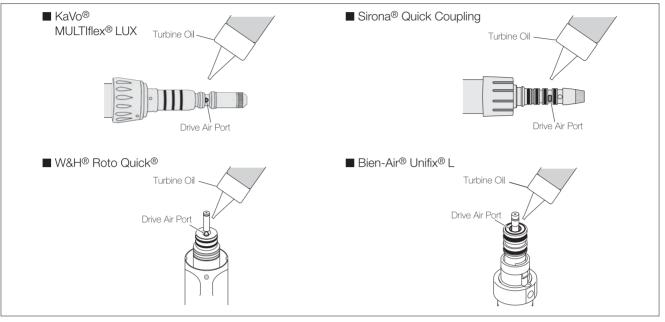


Fig. 6

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Do not spray lubricant to the air scaler. The air scaler could come off by the pressure of the spray.

#### 8. Cleaning and Sterilization of Air Scaler

This Air Scaler can be washed via Thermo Disinfector.

The manufacturer recommends autoclave for sterilization.

- Sterilization is required first time you use and after each patient as noted below.
- Autoclaving Procedure
  - ①Brush off debris and clean with alcohol-wet cloth. Do not use wire brush.
  - ② Lubricate with turbine oil. See 7. Lubrication.
  - ③ Place in an autoclaving pouch, and seal it.
  - (4) Autoclavable up to a max. 135°C.
  - ex.) Autoclave for 20 minutes at 121°C, or 15 minutes 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.

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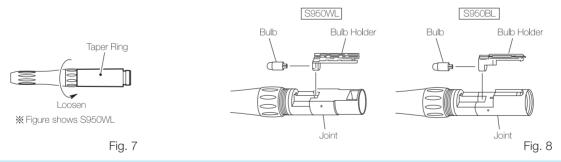
- Do not sterilize the air scaler with other instruments from which chemicals are not sufficiently removed. Chemicals could cause the plating off, discolorate, and deteriorate the fiber bundles and the internal components. Keep any chemicals off the sterilizer.
- Do not clean or wipe the air scaler with highly oxidized or acid water or sterilizing solution.

#### 9. Changing Bulb (S950WL, S950BL)

- ①Remove the handpiece from the coupling, loosen and remove the taper ring (Fig. 7)
- ② Remove the bulb holder, and the bulb from the joint. Aligning the electrodes of the new bulb with the receptacle in the bulb holder, push the bulb into.
- Place the bulb holder back into the joint. (Fig. 8)

③Securely tighten the taper ring.

% Optional Bulb : TA Bulb Set (A Set consist of 3 pieces) Order No. Y900-132



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- Make sure that the bulb is sufficiently cooled, when it is replaced.
- Do not hold or touch the glass of the new bulb.
- Screw in the taper ring tightly. Loosely fit taper ring could result in water and/or air leak.

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It becomes easier to screw in the taper ring when the bulb holder is lightly pressed in by fingers.

#### 10. Cleaning of Fiber Bundles

Carefully wipe debris off the end face of the fiber bundles with alcohol-soaked cotton swab. (Fig. 9)

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Do not use a needle or pointed tool. They may damage the fiber face and reduce the light transmission efficiency.

In case the light becomes dim due to fiber damage, send to the dealer you bought from for repair.

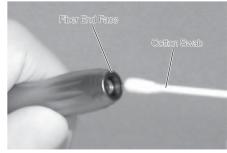


Fig. 9

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

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