

Blis-sonic™ Scaler
Instruction Manual

Division of DentalEZ® Group
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Caution: Federal law restricts this device to sale by or on the order of a dentist.

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www.DentalEZ.com

MAKES YOUR PRACTICE PERFECT®

★ ★ ★ DO NOT USE FOR ORAL SURGERY ★ ★ ★

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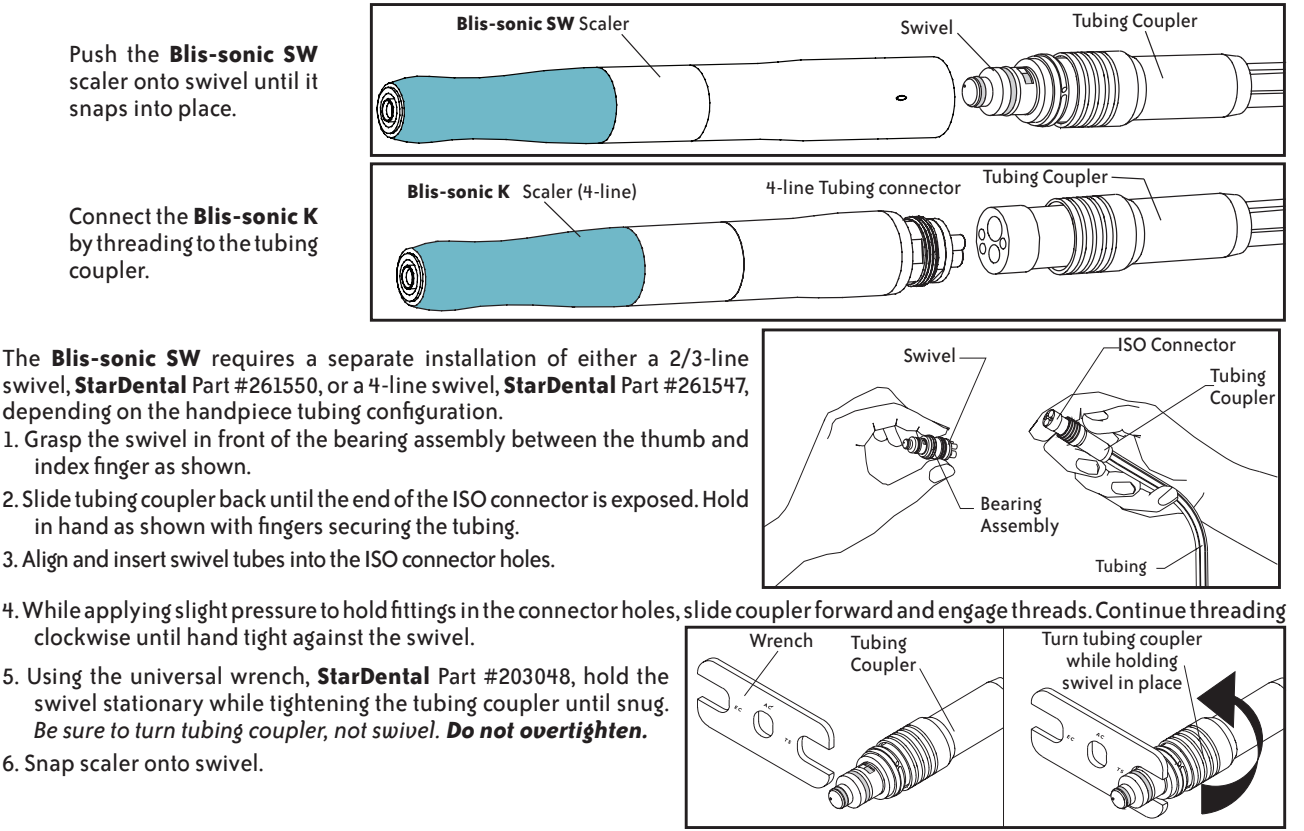
Specifications (Nominal)

Blis-sonic K 2/3-Line:	StarDental® Part #264564	Blis-sonic SW:	StarDental® Part #264563
Blis-sonic K 4-Line:	StarDental® Part #264565		
Air Pressure:	40 psi (2.7 atmospheres)	Air Pressure:	40 psi (2.7 atmospheres)
	at the scaler		at the scaler
Air Flow:	1.5 SCFM (42.0 SLM)	Air Flow:	1.5 SCFM (42.0 SLM)
Water Flow:	25 cc/min. @ 15 psi	Water Flow:	25 cc/min. @ 15 psi
Length (with tip):	6.7 inches (17.0 cm)	Length (with tip):	6.8 inches (17.3 cm)
Weight:	1.8 ounces (50.7 grams)	Weight:	1.9 ounces (54.6 grams)
<div><div>135°C</div><div>SSS</div></div>		Sterilizable up to 135°C	

Blis-sonic SW & K Installation

Note: Use softened and deionized water. Be sure filters operate efficiently. Before installing scaler, thoroughly purge both the dental unit air line and water line. Verify recommended filtration of 10 microns air and 25 microns water.

CAUTION: If delivery unit has oil/mist lubrication, detach and drain.



Note: To disconnect scaler from swivel, grasp scaler firmly with one hand and pull tubing coupler with the other. **Do not pull on tubing.** Swivel remains with tubing as shown.

Note: The swivel tubing connection joint may loosen over time, resulting in water leaks and/or loss of power. Check for tightness periodically.

Air Pressure and Water Flow Adjustments

1. Thread the selected tip. *With the scaler operating*, rotate tip a 1/4 turn with fingers.

CAUTION: To prevent damage to the scaler, **do not tighten tips with the universal wrench**. Use the wrench **only to remove tips** as shown in *Tip Installation*.

2. Mount 4/6-line pressure gauge, **StarDental** Part #262591, between the scaler and the air supply tubing for the **Blis-sonic K Ergonomic Scaler**. Mount the pressure gauge between the swivel and air supply tubing for the **Blis-sonic SW Ergonomic Scaler**. Snap scaler onto swivel.

3. Turn water OFF.

4. Fully depress foot control. Adjust air supply on delivery unit until gauge shows 40 psi, 2.72 kg/cm².

NOTE: Do not exceed 40 psi. Patient sensitivity and tooth damage may result.

5. After adjustment, uncouple the pressure gauge and install scaler directly to the tubing.

6. With scaler running and tip held vertically, adjust water flow until water atomizes at tip. When water atomizes, the water flow needed is optimized (see illustration above).

Tip Installation

Note: Do not sharpen or alter tips in any way.

1. Thread the selected tip onto the scaler with the scaler operating until it stops turning. Rotate slightly with fingers until tight.

CAUTION: To prevent damage to the scaler, **do not tighten tips with the universal wrench**. Use the universal wrench **ONLY to remove tips**. Use the wrench as illustrated.

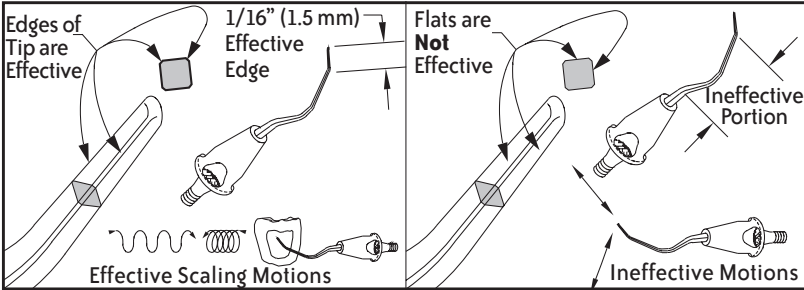
2. When the procedure is complete and the scaler is no longer in use, remove the tip and blow compressed air through the tip to remove water trapped inside the tip. Cap it with the cover provided, **StarDental** Part #261358. This practice prevents injury to patient or staff.

3. To change tips, always loosen or tighten with the scaler running. The vibration makes changing tips easier.

Tip Operation

Remember:

- 1) Use the last 1/16" of tip
- 2) Use the edges of the tip, **not** the flats
- 3) Keep the tip moving in either of two motions as shown.



Operation of the **Blis-sonic SW and K Ergonomic Sonic Scaler Tip** is similar to that of an ultrasonic scaler. Follow these steps to minimize the risk of damage to restorations.

1. Always scale with tip at an angle to the restoration margin.
2. Use a "feather touch," one to two ounces applied pressure.
3. Move tip in a crosshatching, circular or wave fashion (see illustration).

WARNING: ALWAYS USE WATER.

Note: Normal use results in tip wear. **Replace tips annually**. Use the tip lengths indicated to determine more frequent replacement. Replace if shorter by .02" (1/2 mm) or more.

Use tips for subgingival scaling and fine access. Select a tip according to the following applications.

Universal - StarDental Part #261668

- Use for all surfaces, medium and heavy calculus

Sickle - StarDental Part #261667

- Recommended for sensitive patients
- Less energetic than the Universal Tip
- Less suitable for deep root scaling

Perio - StarDental Part #261669

Perio Left - StarDental Part #263397

Perio Right - StarDental Part #263398

- Recommended for lingual supragingival scaling of mandibular incisors and deep local pockets
- Provides the same energy as the Universal Tip
- Use to break up heavy calculus deposits

Cleaning

CLEANING The Tips

WEEKLY - Blow compressed air through the tip to remove water trapped inside the tip. Next, clean outside of tip with toothbrush and isopropyl alcohol. Then run cleaning wire, **StarDental** Part #256719, through entire tip starting at opening in front.

CLEANING Blis-sonic SW or K Water Tube

On a regular basis or if a water tube blockage occurs, remove the tip (and on the **Blis-sonic SW** also disconnect from swivel). Push the cleaning wire through the internal water tube using needle nose pliers at the front on both the **Blis-sonic SW and K** as shown. Push small lengths of 3 to 4 mm at a time until the wire emerges at the opposite end. Pull wire completely out.

CLEANING the Swivel

Note: To insure peak performance and proper functioning of scaler, clean swivel and mating components daily or as needed. Do not attempt to disassemble swivel.

1. Disconnect swivel from scaler and tubing. Depress foot control; verify that water exits tubing.
2. Connect swivel to tubing. Depress foot control; if almost no water exits front of swivel, clean as follows.
3. Detach swivel from tubing and find water tube
4. Insert cleaning wire, **StarDental** Part #256719, into water tube. When the wire will not insert, move wire back and forth to loosen debris at blockage.
5. Remove wire and apply a blast of air into water tube with syringe air.

CLEANING Mating Parts of the Swivel

To optimize operation of the swivel, disconnect mechanism and swab all internal surfaces of scaler with a cotton swab soaked in isopropyl alcohol until clean. Dry using syringe air.

Clean area in the bearing/spring assembly at rear of swivel using isopropyl alcohol and a toothbrush. Dry using syringe air.

Lubricating

LUBRICATING Blis-sonic SW and Blis-sonic K

Always lubricate scaler prior to each autoclave sterilization with DentaLube® for Sonic Scalers, **StarDental** Part #261818.

CAUTION: Use of lubricant other than StarDental "DentaLube for Titan Sonic Scaler" can result in failure of the scaler.

1. To remove **Blis-sonic K** Scaler from tubing: Unthread from the tubing coupler. Disconnect the **Blis-sonic SW** from the swivel by grasping the scaler with one hand, pull coupler with other hand. **Do not pull on the tubing**. When separated, the swivel remains with the tubing coupler.
2. Find drive air on **Blis-sonic K** or notched hole inside of **Blis-sonic SW** (see illustration).
3. Insert lubricator tip firmly into nozzle. Spray a short burst of **DentaLube for Sonic Scalers** into the **Blis-sonic K** drive air tube or in a notched hole of the **Blis-sonic SW**.
4. Thread tubing coupler onto the **Blis-sonic K** or snap **Blis-sonic SW** onto swivel; attach tip.

Note: Never run scaler without the tip in place.

5. Run scaler for 20 seconds to circulate lubricant; remove the tip.
6. Steam sterilize, see *Sterilization*.

Sterilization

The scaler, tip, grip and wrench must be cleaned and sterilized between patient use.

1. Wear puncture resistant gloves to prepare scaler for sterilization.
2. After each patient, flush air and water by running scaler.
3. Remove tip from scaler.
4. Lube scaler as described in *Lubricating*.
5. Attach **Blis-sonic K** to tubing by turning coupler clockwise. Attach **Blis-sonic SW** by snapping onto swivel.
6. Attach tip to scaler. *Never run scaler without tip in place.*
7. Run scaler 20 seconds to expel excess lube; remove tip, clean tip per instructions in *Cleaning*.
8. Detach scaler by reversing **Step 5**.
9. Clean all external surfaces using a small toothbrush with isopropyl alcohol.
10. Dry thoroughly.
11. Place scaler, tip, grip* and wrench in a sterilization bag; use paper or paper/plastic bags only. Follow the sterilization guidelines as stated by the manufacturer of your sterilizer.
12. Remove scaler, tip, grip* and wrench from sterilizer after drying cycle ends and allow to cool in bag.

* Replaceable rubber grip can be autoclaved while attached to the nosecone **OR** by removing from the nosecone. **NOTE:** By removing the rubber grip and wiping the nosecone with gauze and isopropyl alcohol, the operator will be able to replace with another grip (new or autoclaved) and continue use.

The scaler, tip, grip and wrench must be cleaned and sterilized between patient use.

A **wrapped** scaler, tip, grip and/or wrench should be steam sterilized at 132° C for a minimum of 10 minutes or at 121° C for a minimum of 50 minutes. Do not exceed 135° C.

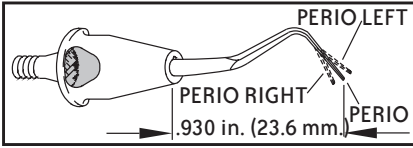
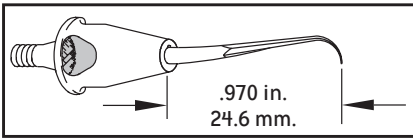
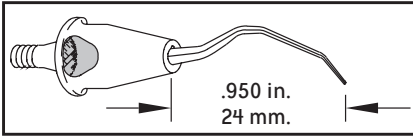
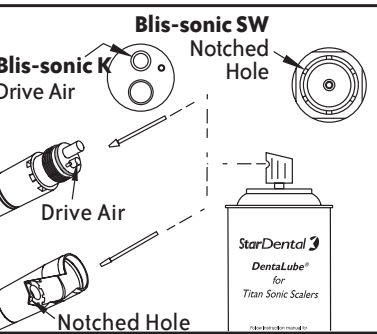
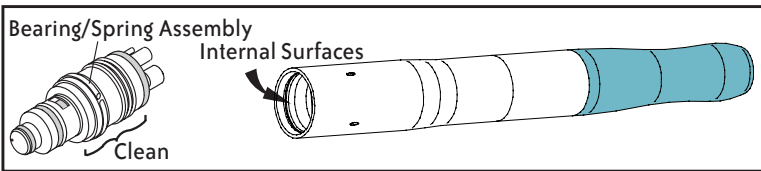
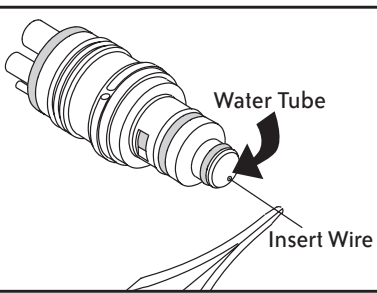
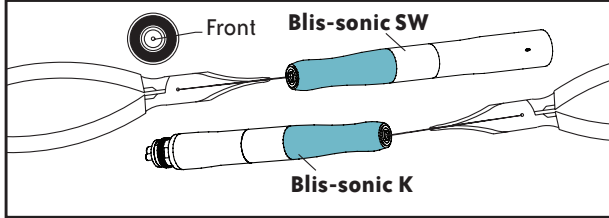
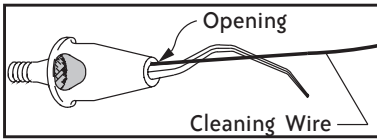
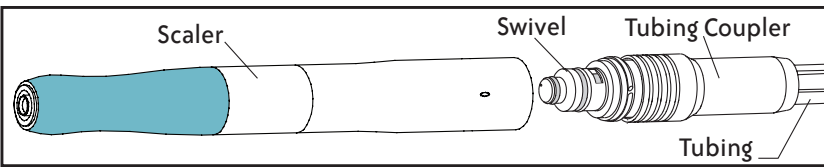
An **unwrapped** scaler, tip, grip and/or wrench should be steam sterilized at 132° C for a minimum of 8 minutes or at 121° C for a minimum of 30 minutes. Do not exceed 135° C.

Note: An unwrapped scaler, tip, grip and/or wrench needs to be used immediately or sterility is not maintained.

Do not exceed the sterilizer manufacturer's guidelines for load capacity. Use only paper or paper/plastic bags. Always use complete dry cycle of sterilizer. Always allow product to cool in bag to room temperature prior to using. Contact your sterilizer manufacturer if moisture remains inside bag and on product after drying.

CAUTION: Use steam sterilization exclusively for complete sterility. Never dry heat sterilize, ultrasonically clean, expose to chemical disinfection or cold sterilization by:

- Immersion techniques
- Surface wipes, hand soaps or detergents
- Surface spray
- Handpiece pouches that contain disinfectants.



Troubleshooting

Problem: NO VIBRATION OR NOISE

Cause: No air

Correction: Check pressure at compressor and delivery unit.

Cause: Blocked air line

Correction: Check for air at tubing coupler.

Cause: Control unit not functioning

Correction: Check operation of handpieces and syringe. If needed, remove tubing from control block and check for blockage of drive air tubing.

Problem: LOW VIBRATION LEVEL OR LOW POWER

Cause: Low air pressure

Correction: Check for full depression of foot control, unit pressure and compressor output. Check pressure at scaler with air gauge 4/6-line, **StarDental** Part #262591.

Cause: Tip loose

Correction: Finger tighten, do not tighten tip with wrench. Refer to *Tip Installation*.

Cause: Dirty rotor

Correction: Lubricate with DentaLube for Blis-sonic® Sonic Scalers, **StarDental** Part #261818.

Cause: Tip touches nose

Correction: Check all joints on nose, handle and torque reaction sleeve for tightness. If OK, return scaler to factory for repair.

Cause: Rotor seal rings out of alignment

Correction: Remove scaler handle, relocate rotor seal rings in shallow grooves. Carefully thread scaler handle on to prevent damage to seal rings.

Cause: Broken or worn tip

Correction: Refer to *Tip Operation* for tip lengths. Replace if shorter by .02" (1/2mm) or more.

Cause: Rotor broken

Correction: Remove scaler handle; replace rotor. Refer to *Rotor & Seal Rings Replacement*.

Cause: Broken rear suspension (very high air noise, low pitch)

Correction: Return scaler to dealer or factory for repair.

Cause: Defective swivel, O-rings and/or seal

Correction: Refer to *O-Rings & Rear Seal Replacement*.

Problem: BLOCKED MUFFLER

Cause: Replace muffler

Correction: Refer to *Muffler Replacement*.

Problem: UNABLE TO DETACH SWIVEL FROM SCALER

Cause: Lack of maintenance

Correction: Spray a short burst of DentaLube® for Sonic Scalers into swivel-tubing connector area; rotate swivel to circulate lube. Disengage handpiece. Contact dealer if unable to disengage swivel. To prevent reoccurrence, refer to *Cleaning*.

Problem: NO WATER

Cause: Water off

Correction: Check dental unit controls and inlet supply.

Cause: Tip blocked

Correction: Remove tip, check flow. If tip blocked, refer to *Cleaning Tip*.

Cause: Water tube blocked or swivel clogged

Correction: Clean scaler or swivel water tube. Refer to *Cleaning Water Tube*.

Cause: Worn swivel O-rings or seal

Correction: Replace O-rings and/or seal. Refer to *O-Rings & Rear Seal Replacement*.

Problem: WATER LEAKS AT REAR

Cause: Rear seal

Correction: Tighten tubing coupler. If leak persists, refer to *O-Rings & Rear Seal Replacement*.

Problem: WATER LEAKS BETWEEN TIP AND HANDLE

Cause: Tip shaft seat dirty

Correction: Clean shaft end recess with cotton swab soaked in isopropyl alcohol. Clean conical tip seat.

Problem: AIR LEAK INTO WATER STREAM

Cause: Rear seal leaks

Correction: Tighten tubing coupling. If leak persists, refer to *O-Rings & Rear Seal Replacement*.

Problem: WATER DOES NOT ATOMIZE

Cause: Front suspension O-rings

Correction: Replace front suspension, refer to *O-Rings & Rear Seal Replacement*.

Problem: AUDIBLE IRREGULARITY, CHANGE IN PITCH OR NOISE

Cause: Tip loose

Correction: Finger tighten, do not tighten tip with wrench. Refer to *Tip Installation*.

Cause: Rotor broken

Correction: Remove handle assembly, replace rotor. Refer to *Rotor & Seal Rings Replacement*.

Cause: Rear suspension broken

Correction: Return to factory through authorized dealer for repair.

Note: *If any problem persists, contact dealer for further assistance or contact **StarDental** Customer Service at 1-866-DTE-INFO.*

Grip Replacement

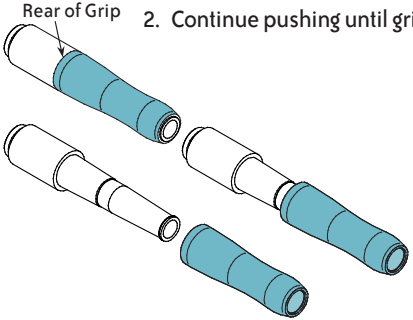
Removal of grip:

- With thumb at rear of grip, push down and forward
- Continue pushing until grip clears nose

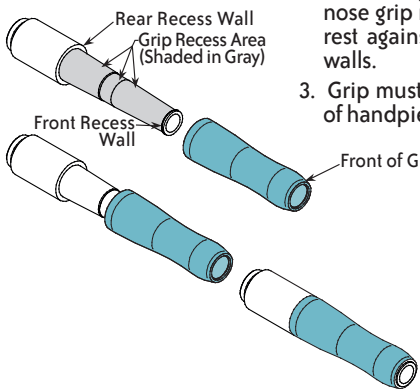
Installation of grip:

- Push grip onto nose at front of grip
- Continue pushing until grip fits in nose grip recess area. Grip should rest against front and rear recess walls.
- Grip must not protrude past front of handpiece (scaler nose).

Rear of Grip



Installation of grip:



PLEASE NOTE: DO NOT PULL OR PEEL TO REMOVE

O-Rings & Rear Seal Replacement

Swivel O-Rings: Periodically replace the swivel O-rings, **StarDental** Part #259884.

Front Suspension O-Rings: After two years, front suspension O-rings relax resulting in play between shaft and handle.

CAUTION: *Never remove scaler nose nor handle with tip assembled to the scaler, this could damage the shaft assembly.*

- Remove tip, see '*Tip Installation*'
- Remove grip, see '*Grip Replacement*' - Removal of Grip'
- Unthread the front of the scaler nose to expose the front suspension O-rings.
- Remove the two *old* O-rings and install the replacement O-rings, **StarDental** Part #256718.
- Rethread scaler nose to original position.

Blis-sonic K/SW Rear Seal & Swivel O-Rings

Seals wear with repeated use. Replace rear seals annually or as needed. On either the 2/3-line swivel or **Blis-sonic K** 2/3-line scaler, replace the 2/3-line rear seal with **StarDental** Part #203103. On either the 4-line swivel or **Blis-sonic K** 4-line scaler, replace seal with **StarDental** Part #202897.

2/3-line for Blis-sonic SW and Blis-sonic K

- Remove 2/3-line rear seal with an explorer.
- Place new rear seal over drive air and water tubes.
- Carefully push seal into place using a blunt instrument.

Rotor & Seal Rings Replacement


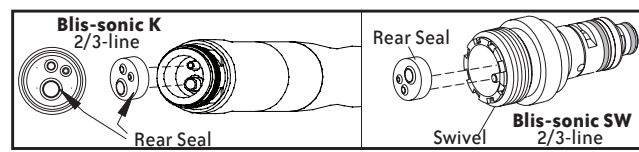
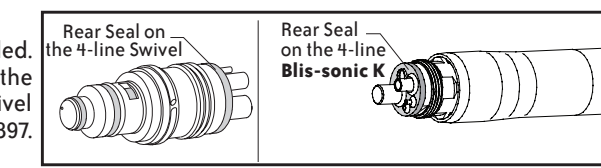
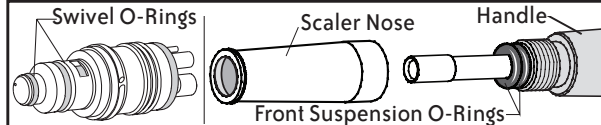
If rotor fails, scaler emits a low pitch '*bubbling*' sound and power reduces dramatically. Replace rotor and seals on **Blis-sonic SW** or **Blis-sonic K** with Rotor Spares Kit, **StarDental** Part #256715.

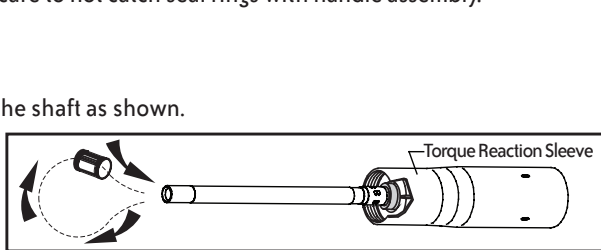
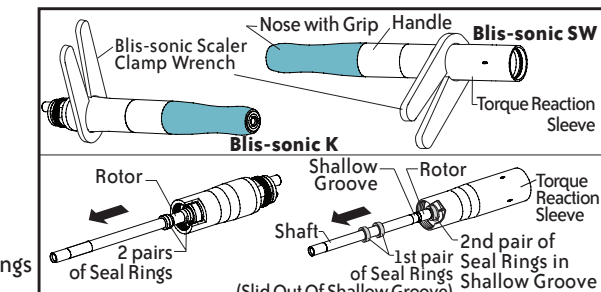
CAUTION: *Never remove scaler nose nor handle with tip assembled to the scaler, this could damage the shaft assembly.*

- Remove scaler tip.
- Use clamp wrench provided to unthread handle from scaler torque reaction sleeve exposing the shaft.

CAUTION: *Handle precision rotor with extra care.*

- Slide off 2 pairs of seal rings and the *old* rotor.
- Clean shaft with a 2 x 2 gauze.
- Slide new rotor and new seal rings onto shaft; verify both pair of rings are in both shallow grooves.
- Thread scaler handle assembly onto torque reaction sleeve. Take care to not catch seal rings with handle assembly.
- Firmly tighten handle assembly to shaft.
- Lubricate scaler and reconnect to handpiece tubing.
- If power is inadequate after replacing rotor, reverse the rotor on the shaft as shown.





Water Tube Gasket Replacement

Replace the washer gasket or o-ring on the **Blis-sonic K** water tube assembly annually with the gasket provided in the **StarDental** Spares Kit #256888 for the 2/3-line, or the o-ring provided in the **StarDental** Spares Kit #264952 for the 4-line.

2/3 Line:

CAUTION: *Use needle nose pliers **carefully** to prevent distortion of the air tube when removing water tube assembly.*

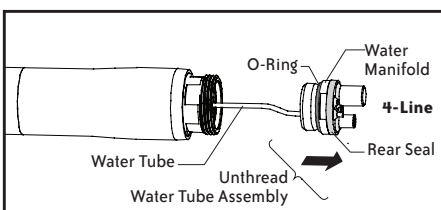
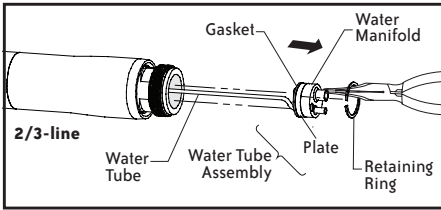
- Remove the water tube assembly. Remove retaining ring with an old dental instrument such as an explorer. Gently tug on the air tube with needle nose pliers to remove water tube assembly. Retaining ring pops out when removing assembly. *Take care not to lose retaining ring.*
- Slide *old* gasket off water tube.
- Slide on *new* gasket and seat in place.
- Insert water tube into handle, rotate slowly between thumb and forefinger to locate internal water tube assembly. Push lightly to fully seat tube.

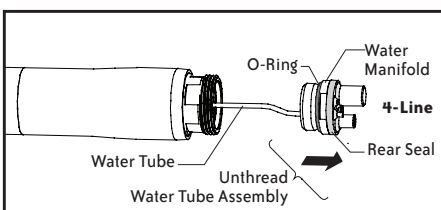
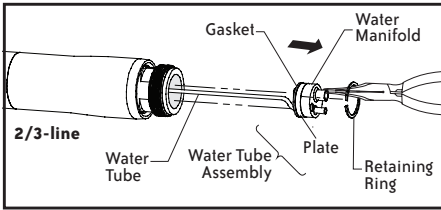
Note: *Reinstall retaining ring. Then assemble rear seal over tubes and retaining ring.*

4 Line:

- Remove rear seal. Then, using a 7/16" open end wrench, or an adjustable wrench, unthread manifold assembly (water tube assembly).
- Slide *old* o-ring off of water tube.
- Slide on *new* o-ring and seat in place.
- Insert water tube into handle, rotate slowly between thumb and forefinger to locate internal water tube assembly. Thread manifold assembly (water tube assembly) into torque reaction sleeve. Tighten using 7/16" open end wrench, or adjustable wrench.

Note: *Reinstall rear seal.*






Replacement Part Numbers

*Always insist on **StarDental** parts for best performance.*

Description	Item Number
Universal Tip (Plastic Cover Included)	261668
Sickle Tip (Plastic Cover Included).....	261667
Perio Tip (Plastic Cover Included)	261669
Perio Left Tip (Plastic Cover Included).....	263397
Perio Right Tip (Plastic Cover Included).....	263398
Tip, Plastic Cover	261358
TITAN® Blis-sonic SW Titan Scaler (4 Line)	264563
TITAN® Blis-sonic K Titan Scaler (2/3 Line)	264564
TITAN® Blis-sonic K Titan Scaler (4 Line)	264565
Sensi–Tip Kit	263485
Sensi–Tip Replacement Pkg. of 100	263486
Sensi–Tip Holder.....	263487
Sensi–Tip Wrench.....	263488
Cleaning Wire .008 Gauge (Package of 2)	256719
Retaining Ring.....	261349
O-Rings - Swivel (2 large, 2 small)	259884
O-Rings - Front Suspension (Package of 2).....	256718
Rotor Spares Kit (Rotor, 4 Seal Rings).....	256715
Rear Seal, 2/3-line (Package of 3)	203103
Rear Seal, 4-line (Package of 3).....	202897
Water Tube Assembly, Gasket, Retaining Ring, 2/3-line TITAN® Blis-sonic K	256454
Water Tube Assembly, 4-line TITAN® Blis-sonic SW	260503
Water Tube Assembly, Gasket, 4-line TITAN® Blis-sonic K	264593
Water Seal Assembly	261707
DentaLube for Sonic Scalers (8.0 fl.oz. Spray Can)	261818
Air Pressure Gauge (ISO, 4/6-line).....	262591
Universal Wrench	203048
Rubber Grip Replacements (1 each: Aqua, Blue, Lavender and Pink).....	264571
Rubber Grip Replacement, Four Aqua.....	264555
Rubber Grip Replacement, Four Blue	264556
Rubber Grip Replacement, Four Lavender	264557
Rubber Grip Replacement, Four Pink.....	264558
StarDental , Water Tube Assy, Washer Gasket Spares Kit for 2/3 Line	256888
StarDental , Water Tube Assy, O-Ring Spares Kit for 4 Line.....	264592



Important Notice About
Returning Product To The DentalEZ Group

Anyone wishing to return any DentalEZ Group product to a DentalEZ facility MUST obtain the proper RETURN AUTHORIZATION NUMBER from the Customer Service Department. The RA Number *must* appear clearly marked on both the outside and inside of the returned product carton. When calling for a return authorization number you will be asked to provide the following information:

To Obtain A
Return Authorization
Number Call
1-866-DTE-INFO

- Product Name, Model Number or Part Number
- Serial Number of Product
- Dealer Return Purchase Order Number
- Reason For Return
- Copy of Invoice Showing Purchase

Items will be evaluated. Return Authorization Number is not a guarantee for credit. Your cooperation with this procedure will help us expedite processing of any returns.

For new products, manuals and technical information, call 1-866-DTE-INFO or visit our web site @ www.dentalez.com.

Limited Warranty

StarDental® Blis-sonic® SW and K Ergonomic Sonic Scalers are warranted against defects in material and workmanship (excluding rotor, O-rings, and scaling tips) for one year from date of purchase. This warranty is subject to the following conditions:


Handpieces, swivel and Lubefree Turbine with Autochuck must not be abused and must have been operated in accordance with procedures detailed in this manual.


Warranty covers manufacturing defects only and does not cover defects resulting from abuse, improper handling, cleaning care or maintenance, normal wear and tear, or nonobservance of operating, maintenance or installation instructions. Failure to use authorized parts or an authorized repair facility voids this warranty.

Liability is limited to repair or replacement of the defective product at our sole discretion. All other liabilities, in particular liability for damages, including, without limitation, consequential or incidental damages, are excluded.

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