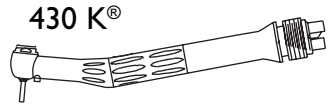


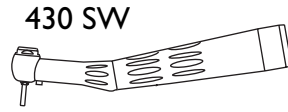
Lube Free High Speed Handpiece Maintenance Chart

The 430 Series does not require lubrication.

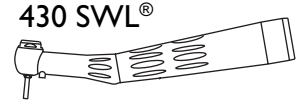
For your convenience the Star 430 and Solara Handpiece Series contain a sophisticated autochuck turbine with ceramic bearings. Lubrication of the turbine is not required. To ensure the life of the maintenance-free bearings, do not lubricate!



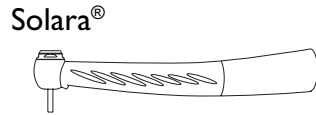
StarDental Part #262052



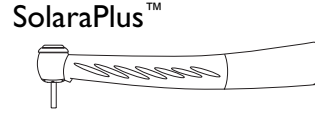
StarDental Part #262057



StarDental Part #262054



StarDental Part #263718



StarDental Part #263719

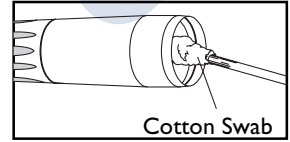
CLEANING (clean after each use)

You Will Need:

- Tooth Brush
- Isopropyl Alcohol
- Cotton Swab

CLEAN AFTER EACH PATIENT

1. Wear puncture-resistant gloves to prepare any handpiece for sterilization.
2. Remove bur from handpiece.
3. Disconnect fixed back end handpiece from tubing coupler. For SW, SWL, Solara, and SolaraPlus, disconnect handpiece from swivel. Swab all internal surfaces at rear of handpiece with cotton swab soaked in isopropyl alcohol until clean.
4. Clean all external surfaces using a small toothbrush with **isopropyl alcohol** only.
5. Place handpiece in sterilization bag. Use only paper or paper/plastic bags. Do not exceed 135° C. See **Sterilization**.



NOTE: Clean chuck once a week with Junk-Out High-Speed Chuck Cleaner Kit P/N 263790:

Shake well before use

Install brush to handle. See diagram at right.

Use one new brush per cleaning application. **Do not reuse brushes.**

Remove bur from chuck.

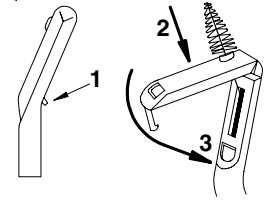
Dip brush into bottle. Remove excess cleaner from the brush.

Insert brush into bur end of turbine.

Clean gently by rotating and inserting the brush in and out of the turbine.

Repeat process if necessary.

Reseal cap on bottle immediately after use to reduce evaporation.



STERILIZATION (Sterilize after each use)

-The handpiece must be cleaned and sterilized between patient use.

-A **wrapped** handpiece 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** handpiece 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 handpiece needs to be used immediately or sterility is not maintained.

-Do not exceed the sterilizer manufacturer's guidelines for load capacity.

-Do not remove handpiece from sterilizer before the drying cycle ends. Allow handpiece to cool in bag. Using the handpiece without completing the drying cycle could result in handpiece damage.

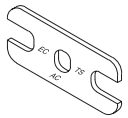
CAUTION: Use steam sterilization exclusively for complete sterility. Never dry heat sterilize, ultrasonically clean, or expose handpiece or swivel to chemical disinfection or cold sterilization by:

- Immersion techniques or Surgical milk
- Surface wipes, Hand soaps, or Detergents
- Surface sprays
- Sterilization bags containing disinfectants

MOST COMMON TROUBLESHOOTING TIPS

You May Need:

- Disconnect Wrench, StarDental Part #203048



- Cleaning Wire, StarDental Part #256719



- DentaLube II, StarDental Part #262539



- Junk-Out Chuck Cleaner, StarDental Part #263790



Problem: LACK OF POWER

Cause: Air pressure too low

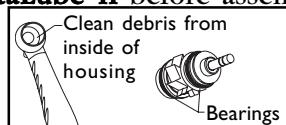
Correction: Verify proper handpiece air pressure. (Refer to *Handpiece Installation*.)

Cause: Crimped tubing

Correction: Straighten tubing inside and outside delivery head.

Cause: Debris buildup

Correction: Clean inside of housing and end cap with swab and alcohol. Lubricate inside of housing with **DentaLube II** before assembly.



Note: Before cleaning, check for and remove any debris from turbine housing to prevent damage and to insure turbine performance.

Cause: Worn out turbine

Correction: Refer to *Turbine Replacement*.

Cause: Swivel not threaded fully onto tubing

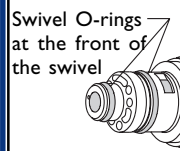
Correction: Refer to *Handpiece Installation*.

Problem: WATER LEAKAGE

Cause: Brittle handpiece rear seal

Correction: Replace rear seal for 4-line, "Green"

StarDental Part #202897, and for 6-line, "Green" StarDental Part #262520. For 4-line HiFlo swivel, replace "Black" StarDental Part #263734 and for 6-pin HiFlo swivel, "Black" StarDental Part #263770.



Cause: Swivel O-rings worn

Correction: Replace both O-rings on swivel with StarDental Part #259884 or StarDental Part #263771 for the HiFlo swivels. Refer to *O-ring and Rear Seal Replacement* from *HiFlo Swivel Connector Manual*, StarDental Part #063776.

Problem: SWIVEL WILL NOT DISENGAGE FROM HANDPIECE

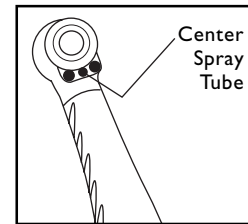
Cause: Buildup of debris

Correction: Place two drops of **DentaLube II** into swivel/tubing connector area. Rotate swivel to circulate lube. Disengage handpiece. Contact dealer if unable to disengage swivel. To prevent recurrence, refer to *Cleaning*.

Problem: IMPROPER SPRAY

Cause: Clogged filters, tubes or water ports

Correction: Inspect and clean water filter in delivery head. Disconnect handpiece. Depress foot control; verify water exits the swivel. (If water does not come from swivel, refer to *Cleaning the Swivel*.)



Cause: Brittle handpiece rear seal

Correction: Replace rear seal

Cause: Swivel O-rings worn

Correction: Replace O-rings, StarDental Part #259884 or StarDental Part #263771 for HiFlo swivels.

Problem: BUR LOCKS OR SLIPS IN AUTOCHUCK

Cause: Debris build-up in chucking mechanism
Correction: Clean with Junk-Out Chuck Cleaner part number 263790

Cause: Use of non-ISO burs

Correction: Always use ISO burs.

Lubricated High Speed Handpiece Maintenance Chart

LUBRICATING & CLEANING (clean after each use)

You Will Need:

- Tooth Brush
- Isopropyl Alcohol
- Cotton Swab
- DentaLube II, StarDental Part #262539



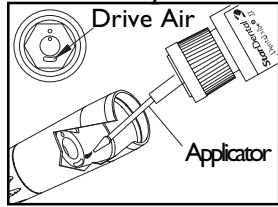
- Junk-Out Chuck Cleaner, StarDental Part #263790



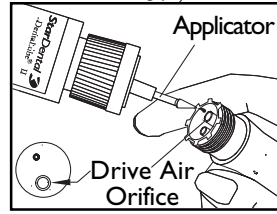
LUBRICATE AND CLEAN AFTER EACH PATIENT

Note: For the (431 StarEndurance™ SWL, SW and K), (StarFlex® SWL, SW and K), Solara®Lubricated, StarAdvantage®, and Concentrix® III follow this lubrication procedure only once **daily**.

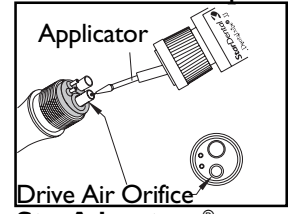
1. Wear puncture-resistant gloves to prepare any handpiece for sterilization.
2. Disconnect fixed back end handpiece from tubing coupler. For SW's, SWL's and Solara, disconnect handpiece from swivel.
3. Assemble conical red tip applicator, StarDental® Part #202954, into DentaLube II bottle cap.
4. Place 2 drops of DentaLube II, StarDental Part #262539, into the drive air orifice at rear of the handpiece.



431 StarEndurance SW & SWL
StarFlex® SW & SWL, Solara®Lubricated



Concentrix® III

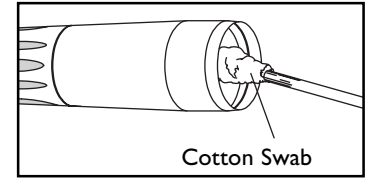


StarAdvantage®,
StarEndurance K & StarFlex K

5. Reconnect handpiece to swivel or directly to tubing and operate for 20 seconds to expel excess lubricant.

Never operate handpiece without bur in place.

6. Remove bur from handpiece.
7. Disconnect fixed back end handpiece from tubing coupler. For SW's and SWL's, disconnect handpiece from swivel. Swab all internal surfaces at rear of handpiece with cotton swab soaked in isopropyl alcohol until clean.



Cotton Swab

8. Clean all external surfaces using a small toothbrush with **isopropyl alcohol** only.
9. Place handpiece in sterilization bag. Use only paper or paper/plastic bags.

Do not exceed 135° C. See **Sterilization**.

NOTE: Clean chuck once a week with Junk-Out High-Speed Chuck Cleaner Kit P/N 263790:

Shake well before use

Install brush to handle. See diagram at right.

Use one new brush per cleaning application. **Do not reuse brushes.**

Remove bur from chuck.

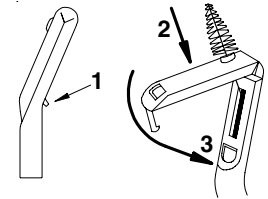
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Insert brush into bur end of turbine.

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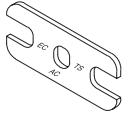
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Cause: Air pressure too low

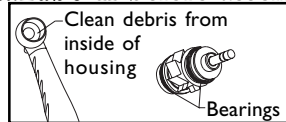
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Correction: Clean inside of housing and end cap with swab and alcohol. Lubricate inside of housing with **DentaLube II** before assembly.



Note: Before cleaning, check for and remove any debris from turbine housing to prevent damage and to insure turbine performance.

Cause: Worn out turbine

Correction: Refer to *Turbine Replacement*.

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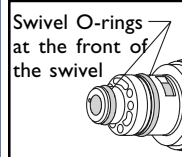
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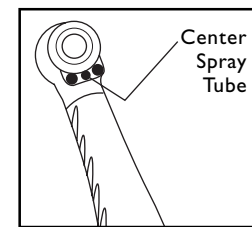
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Cause: Clogged filters, tubes or water ports

Correction: Inspect and clean water filter in delivery head. Disconnect handpiece. Depress foot control; verify water exits the swivel. (If water does not come from swivel, refer to *Cleaning the Swivel*.)



Center
Spray
Tube

Cause: Brittle handpiece rear seal

Correction: Replace rear seal

Cause: Swivel O-rings worn

Correction: Replace O-rings, StarDental Part #259884 or StarDental Part #263771 for HiFlo swivels.

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Cause: Debris build-up in chucking mechanism

Correction: Clean with Junk-Out Chuck Cleaner part number 263790

Cause: Use of non-ISO burs

Correction: Always use ISO burs.