

NON-STERILE MEDICAL DEVICE



DENTALEZ

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Before operating the motor, carefully read and follow all of these instructions. Save these instructions for future reference and observe all warnings and cautions.

INDICATIONS FOR USE

The Aeras™ low speed dental motors are used by trained dental professionals to facilitate various dental procedures requiring cutting, drilling, polishing and pin setting.

NOTICE The Aeras Titan motor contains a Radio Frequency Identification Tag. The RFID Tag is passive and does not emit radio waves until activated by a RFID reader within a range of approximately 2 inches.

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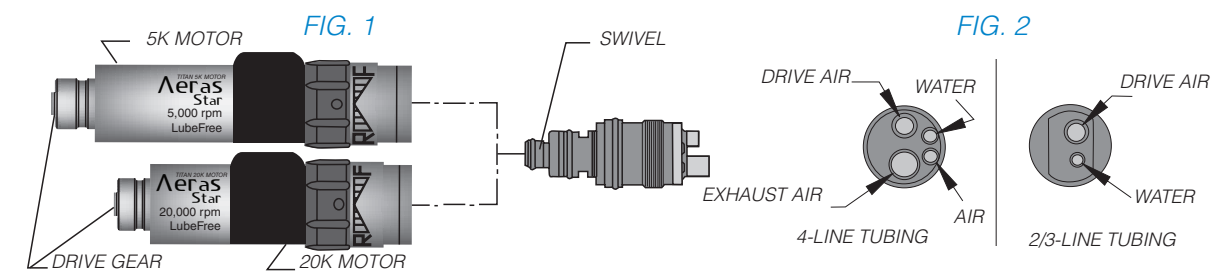
SPECIFICATIONS

- 5,000 rpm Motor: Aeras™** (StarDental part #266270 and 266279) 5K RFID Motor.
- 20,000 rpm Motor: Aeras™** (StarDental part #266271 and 266280) 20K RFID Motor.
- No Lubrication Required
- Recommended Air Pressure: 40-45 psi (swivel motor)
- Air Flow: 2.1 SCFM @ 40-45 psi at Maximum Power Point (swivel motor)
- Rotation: Forward and Reverse
- 4-Line Connection (Fixed Back End)
- RFID Frequency: 902-928 MHZ
- RFID Protocol: EPC GEN2

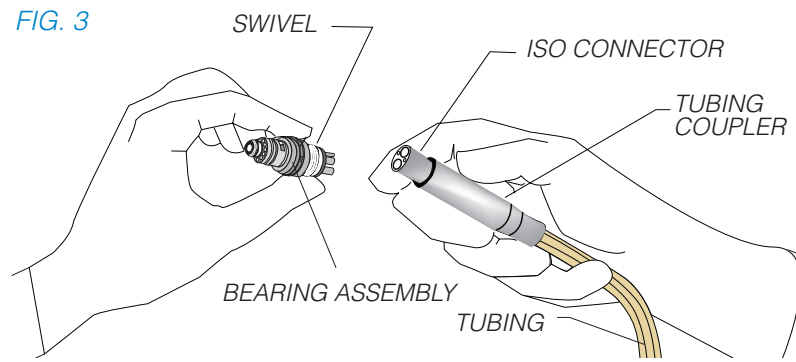


INSTALLATION - SWIVEL MOTORS

FIG. 1 AND FIG. 2



- Select the motor appropriate for tubing based on power requirements. Examine connection of the motor and swivel tubing configuration as these must match configuration of delivery system tubing.



NOTE: If delivery unit has oil/mist lubrication, detach and drain; motor needs no lubrication.

NOTICE To prevent damage to bearings, before installing always check drive air pressure by using air pressure gauge, StarDental Part #262591 (4/6-Line) between swivel and tubing and obtain a reading. Adjust air pressure at delivery head until gauge reads 40-45 psi while operating motor in full forward position and with foot control completely depressed.

- Disconnect swivel from motor if necessary. Grasp the swivel in front of the bearing assembly between the thumb and index finger as shown. (Fig. 3)
- Slide tubing coupler until the end of the ISO connector is exposed; hold in hand as shown with fingers securing the tubing.
- Align and insert swivel tubes into the ISO connector holes.
- While applying slight pressure to hold fittings in the connector holes, slide coupler forward and engage threads. Continue threading coupler clockwise until hand tight against the swivel.

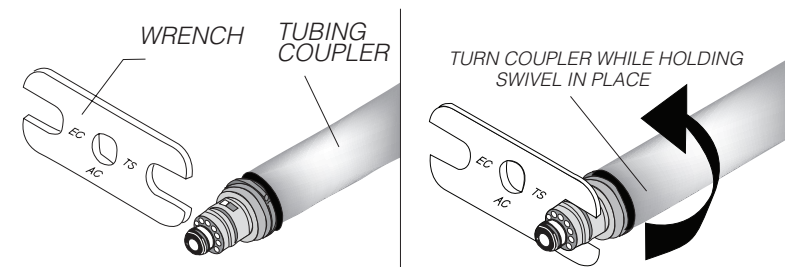


FIG. 4

- Using the wrench as shown, (Fig. 4) tighten the swivel to the tubing coupler. Be sure to turn tubing coupler, not swivel. DO NOT OVER TIGHTEN.

NOTE: This joint loosens over time, resulting in air leakage and loss of power. Check for tightness periodically.

- Connect motor to swivel.

INSTALLATION - NON SWIVEL MOTORS

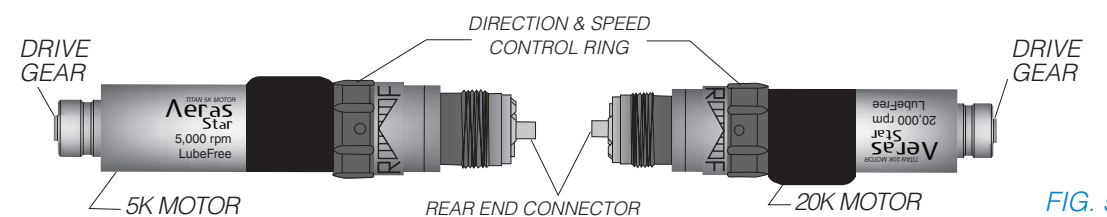


FIG. 5

NOTE: If delivery unit has oil/mist lubrication, detach and drain; motor needs no lubrication.

NOTICE To prevent damage to bearings, before installing always check drive air pressure by using air pressure gauge, StarDental Part #262591 (4/6-Line) between motor and tubing and obtain a reading. Adjust air pressure at delivery head until gauge reads 40-45 psi while operating motor in full forward position and with foot control completely depressed.

- Examine rear end connector of motor. (Fig. 5) Verify motor matches tubing connector of delivery system.
- To connect motor to tubing, align drive air and exhaust tubes with mating ISO connector holes in coupler.
- While applying slight pressure to hold tubing in connector holes, slide tubing coupler forward and engage threads. Continue threading tubing coupler clockwise until hand tight against the motor. DO NOT OVER TIGHTEN.

NOTE: This joint loosens over time, resulting in air leakage and loss of power. Check for tightness periodically.

OPERATION

The 120° rotation speed adjustment ring sets direction and speed. To run motor forward at full speed, rotate ring towards the letter 'F' while operating the foot control. Rotate to the letter 'R' to yield full speed in reverse. Vary speed by rotating ring in either direction towards center. Note the small depression for the current setting. After setting, the motor runs at current speed and direction until reset. Pausing the motor is not needed to alter direction or speed using the ring. (Fig. 6)

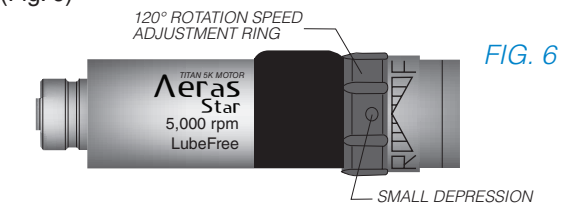
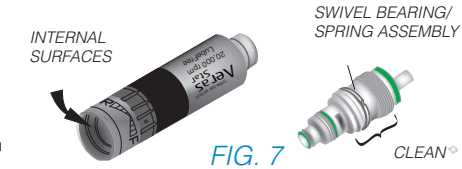
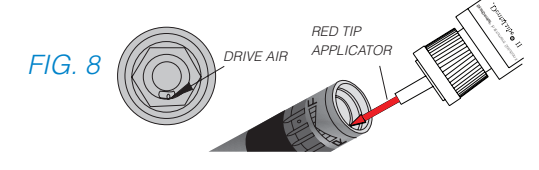


FIG. 6

CLEANING & STERILIZATION

CAUTION	It is the responsibility of the user to use only FDA compliant sterilizing equipment and accessories that are capable of meeting the manufacturers recommendations below.
CAUTION	Do not exceed 135°C Do not use: <ul style="list-style-type: none"> • dry heat sterilizer • immersion techniques • detergents • cold sterilizers • sterilizer bags containing disinfectants • surface wipes • ultrasonic cleaners • surface disinfectants • surface sprays • chemical disinfectors • hand soaps • surgical milk
LIMITS ON REPROCESSING	Repeated processing has minimal effect on these attachments. End of life is normally determined by wear and damage due to use.

INSTRUCTIONS

WARNING	The handpiece motor must be cleaned and sterilized before first use and between patient use.
CONTAINMENT AND TRANSPORTATION	It is recommended that motors are reprocessed as soon as is reasonably practical following use.
PREPARATION FOR CLEANING	Remove motor from swivel if applicable or tubing.
CLEANING AUTOMATED	Washer-disinfectors are not recommended.
CLEANING MANUAL	Cleaning the Swivel & mating Motor Parts: To optimize operation of the swivel connector, clean all internal surfaces of the motor with a cotton swab soaked in isopropyl alcohol until clean. Clean area around bearing/spring assembly at rear of swivel using isopropyl alcohol and a toothbrush. (Fig. 7) Dry both using syringe air. Sterilizing Handpiece Motor: After each patient, flush air by running handpiece motor for 20 seconds. Remove attachment. Clean all internal surfaces at rear of handpiece motor with a cotton swab soaked in isopropyl alcohol until clean. Clean all external surfaces using a small toothbrush with isopropyl alcohol. Dry thoroughly. Place handpiece motor and swivel in sterilization bag. Follow the sterilization guidelines as stated by the manufacturer of your sterilizer.
MAINTENANCE & LUBRICATION:	The Titan Motor is LubeFree and, therefore, requires no lubrication. However, at times debris from the delivery system's drive air tubing collects in the motor. This build-up may cause sluggish motor operation. To ease, place 3 drops of DentalLube II, StarDental Part #262539 into the drive air tube of motor (Fig 8), and alternately operate the motor in forward and reverse.  
DISINFECTION:	Motor should be routinely maintained, checked for corrosion, worn parts, ect and should be replaced on an as needed basis.
DISINFECTION:	Use steam sterilization exclusively for complete sterility as outlined below.
INSPECTION & FUNCTION TESTING:	See Installation, Operating Recommendations, and/or Troubleshooting sections of this manual.
PACKAGING:	Single: A standard sterilization packaging material must be used. Ensure that the pack is large enough to contain the item without stressing the seals.
WRAPPED INSTRUMENT STERILIZATION:	Gravity Type Autoclave: <ul style="list-style-type: none"> • Minimum of 15 minutes at 132° C • Minimum of 30 minutes at 121° C Pre-Vacuum Autoclave: <ul style="list-style-type: none"> • Minimum of 4 minutes at 132° C Do not exceed 135° C
DRYING:	Dry the motor for 30 minutes minimum using the sterilization dry cycle and allow the motor to cool to room temperature in bag prior to use. If moisture is present, increase your sterilizer dry cycle appropriately.
STORAGE:	Store in bag after sterilization until ready to use.
ADDITIONAL INFORMATION:	Do not exceed the sterilizer manufacturer's guidelines for load capacity. Use only paper or paper/plastic bags.
MANUFACTURER CONTACT:	See first or last panels of this manual.

RFID TAG

TO ACTIVATE RFID TAG

1. RFID Tag is passive. Activation and operation of RFID capabilities requires a compatible (EPC GEN2) reader system operating in the 902-928 MHZ band.
2. Pass motor within 2 inches of the reader with a sideways orientation as shown to the right (Fig 9).
3. The RFID Tag is programmed from the factory with the motor serial number.

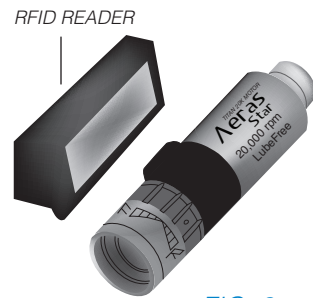


FIG. 9

APPLICATION GUIDE

AERAS TITAN		
PROPHY	LUBRICATED	LUBEFREE
RPM Range: 1,000 to 3,000		
Systems Configuration Options:		
5,000 RPM Motor		266270
Motor-to-Angle Adapter		264073
5 Star Prophy Angle		265801
20,000 RPM Motor		266271
Torque Multiplier		258443
Motor-to-Angle Adapter		264073
5 Star Prophy Angle		265801
GRINDING & TRIMMING (Fabrication)		
RPM Range: 10,000 to 20,000		
Systems Configuration Options:		
20,000 RPM Motor		266271
Straight Nose Cone		257506
POST & PIN DRILLING		
Systems Configuration Options:		
5,000 RPM Motor		266270
RPM Range: 1,000 to 5,000		
Motor-to-Angle Adapter		264073
Ball Bearing Latch Angle OR	259005	262738
Ball Bearing Auto Latch Angle	264182	264146
20,000 RPM Motor		266271
RPM Range: 1,000 to 5,000		
Torque Multiplier		258443
Motor-to-Angle Adapter		264073
Ball Bearing Latch Angle OR	259005	262738
Ball Bearing Auto Latch Angle	264182	264146
PIN SETTING		
Systems Configuration Options:		
5,000 RPM Motor		266270
RPM Range: 1,000 to 5,000		
Motor-to-Angle Adapter		264073
Ball Bearing Latch Angle OR	259005	262738
Ball Bearing Auto Latch Angle	264182	264146
20,000 RPM Motor		266271
RPM Range: 500 to 2,000		
Motor-to-Angle Adapter		264073
20,000 RPM Motor		266271
RPM Range: 500		
Torque Multiplier		258443
Motor-to-Angle Adapter		264073
ENDODONTIC (Canal enlargements)		
Systems Configuration Options:		
20,000 RPM Motor		266271
RPM Range: 500 to 2,000		
Motor-to-Angle Adapter		264073
5,000 RPM Motor		266270
RPM Range: 350 to 5,000		
Motor-to-Angle Adapter		264073
Auto Latch Endodontic Angle - -for Standard Files & Reamers (90° reciprocating motion) OR	262570	
Manual Latch Endodontic Angle - -for Latch Type Files & Reamers (90° reciprocating motion)	262571	

AERAS TITAN

	LUBRICATED	LUBEFREE
ENDODONTIC (Condensing gutta percha)		
RPM Range: 10,000 to 20,000		
Systems Configuration Options:		
20,000 RPM Motor		266271
Motor-to-Angle Adapter		264073
Ball Bearing Latch Angle OR	259005	262738
Ball Bearing Auto Latch Angle	264182	264146
CARIES REMOVAL		
Systems Configuration Options:		
5,000 RPM Motor		266270
RPM Range: 2,000 to 5,000		
Motor-to-Angle Adapter		264073
Ball Bearing Friction Grip Angle OR		262740
Ball Bearing Autochuck Friction Grip Angle	264149	264151
Ball Bearing Latch Angle OR	259005	262738
Ball Bearing Auto Latch Angle	264182	264146
20,000 RPM Motor		266271
RPM Range: 2,000 to 5,000		
Torque Multiplier		258443
Motor-to-Angle Adapter		264073
Ball Bearing Friction Grip Angle OR		262740
Ball Bearing Autochuck Friction Grip Angle	264149	264151
Ball Bearing Latch Angle OR	259005	262738
Ball Bearing Auto Latch Angle	264182	264146
FINISHING (Cavity and crown preps)		
RPM Range: 10,000 to 20,000		
Systems Configuration Options:		
20,000 RPM Motor		266271
Motor-to-Angle Adapter		264073
Ball Bearing Friction Grip Angle OR		262740
Ball Bearing Autochuck Friction Grip Angle	264149	264151
Ball Bearing Latch Angle OR	259005	262738
Ball Bearing Auto Latch Angle	264182	264146
POLISHING		
(Amalgam, composites, gold margins)		
RPM Range: 10,000 to 20,000		
Systems Configuration Options:		
20,000 RPM Motor		266271
Motor-to-Angle Adapter		264073
Ball Bearing Latch Angle OR	259005	262738
Ball Bearing Auto Latch Angle	264182	264146

TROUBLESHOOTING

PROBLEM: LACK OF POWER

Cause: Air pressure
Correction: Verify proper motor air pressure. Refer to applicable Installation section.

Cause: Crimped tubing
Correction: Straighten tubing inside and outside delivery head.

Cause: Swivel or Fixed Back End Motor not threaded fully onto tubing
Correction: Refer to applicable Installation section.

Cause: Brittle swivel or Fixed Back End Motor silicone rubber seal
Correction: Replace silicone rubber seal for 2/3-line swivel with StarDental Part #203103 and 4-line with StarDental Part #202897.

Cause: Swivel O-rings worn
Correction: Replace swivel O-rings, StarDental Part #259884.

Cause: Debris build-up in motor or attachment
Correction: Clean motor and attachment. Refer to Cleaning section in this manual and applicable attachment's manual(s).

PROBLEM: SWIVEL WILL NOT DISENGAGE FROM MOTOR

Cause: Build-up of debris
Correction: Place 3 drops of DentaLube II, StarDental Part #262539, into the swivel/tubing connector. Rotate swivel to circulate lubricant. Disengage motor. Contact dealer if unable to disengage swivel. To prevent reoccurrence, refer to Cleaning.

PROBLEM: CANNOT READ DATA ON RFID TAG

Cause: Incompatible Reader
Correction: Reader should utilize the EPC GEN2 protocol and operate in the 902-928 MHZ band

Cause: Motor orientation
Correction: The motor should be placed in front of reader with a sideways orientation, so that the chip is facing the reader.

Cause: Motor was outside of the readers range
Correction: Consult RFID Reader Manual for appropriate range.

NOTE: If a problem persists, contact dealer for further assistance or contact StarDental technical service at 1-866-DTE-INFO.

REPLACEMENT PART NUMBERS

ALWAYS INSIST ON STARDENTAL PARTS FOR BEST PERFORMANCE.

DESCRIPTION

DESCRIPTION	AERAS TITAN ITEM NUMBER
Aeras Titan 5K Motor SW.....	266270
Aeras Titan 20K Motor SW.....	266271
Aeras Titan 5K Motor FX.....	266279
Aeras Titan 20K Motor FX.....	266280
Straight Nose Cone.....	257506
Motor-to-Angle Adapter.....	264073
Torque Multiplier.....	258443
Swivel, Motor 2/3-Line.....	260152
Swivel, Motor 4-Line.....	260144
LubeFree Ball Bearing Auto Latch Angle.....	264146
LubeFree Ball Bearing Manual Latch Angle.....	262738
LubeFree Ball Bearing Autochuck Friction Grip Angle.....	264151
LubeFree Ball Bearing Manual Chuck Friction Grip Angle.....	262740
LubeFree 5 Star Prophy Angle.....	265801
Ball Bearing Auto Latch Angle.....	264182
Ball Bearing Manual Latch.....	259005
Ball Bearing Autochuck Friction Grip Angle.....	264149
Titan Endodontic Angle, Auto Latch.....	262570
Titan Endodontic Angle, Manual Latch.....	262571
Air Pressure Gauge for 4/6-Line.....	262591
Silicone Rubber Seal, 2/3-Line (Pkg. of 3).....	203103
Silicone Rubber Seal, 4-Line (Pkg. of 3).....	202897
Swivel O-Rings Kit (2 large, 2 small).....	259884
DentaLube II.....	262539

DENTALEZ

IMPORTANT NOTICE ABOUT RETURNING PRODUCT TO DENTALEZ INC.

Anyone wishing to return any DENTALEZ Inc. product to a DentaEZ 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	1. Product Name, Model Number or Part Number
Return Authorization	2. Serial Number of Product
Number Call	3. Dealer Return Purchase Order Number
1-866-DTE-INFO	4. Reason For Return
	5. 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

O-Rings and Seals are specifically excluded from this warranty.

DENTALEZ warrants the Aeras Titan Low Speed Handpiece Motor for 1 year from the date of purchase*.

Please note the following additional terms of our warranty policy:

- Warranty covers manufacturing defects only and does not cover defects resulting from abuse, accidents, misuse, improper handling, cleaning, care or maintenance or the failure to follow or observe our operating/use, maintenance and/or installation instructions. Damage resulting from the use of chemicals, cleaners, disinfectants or sterilization is not covered under this warranty nor is normal wear and tear. Failure to use authorized parts or an authorized repair facility voids this warranty.
- Liability is limited to repair or replacement of the defective part(s) or products at our sole discretion. All other liabilities, in particular liability for damages, including, without limitation, special, exemplary, consequential or incidental damages are excluded
- THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. NO EMPLOYEE, REPRESENTATIVE OR DEALER IS AUTHORIZED TO CHANGE THIS WARRANTY IN ANY WAY OR TO GRANT ANY OTHER WARRANTY.

*Provided conditions in warranty are met.

WARRANTY REGISTRATION

Please visit the website below to register your StarDental product. This will ensure proper registration and prompt and accurate service should any of your purchases need evaluation or repair during the warranty period.

StarDental Products: WWW.DENTALEZ.COM/warranty