

StarDental® Instrument Solutions

Titan® E-Type Low-Speed System

Titan® Tipo E - Sistema de Baja Velocidad

Instruction Manual

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

Precaución: La ley federal restringe la venta de este dispositivo a un dentista o a la orden de un dentista.



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DO NOT USE FOR ORAL SURGERY

BEFORE OPERATING THE HANDPIECE, CAREFULLY READ AND FOLLOW ALL OF THESE INSTRUCTIONS. SAVE THESE INSTRUCTIONS FOR FUTURE REFERENCE AND OBSERVE ALL WARNINGS AND CAUTIONS.

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Specifications

1:1 Straight Nose Cone Attachment, 1:1 Contra Angle Attachment and Latch Angle

Air Pressure: 35-50 psi recommended
Attachment Coupling with Motor: ISO Standard E-type
Lubrication required, Autoclave at maximum 135° C (275° F)



Operating Recommendations

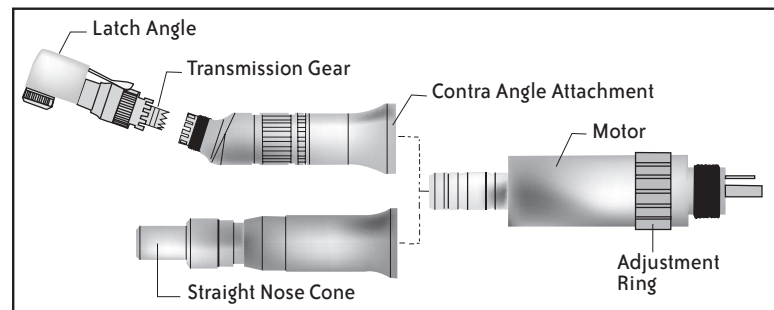
AIR SUPPLY:
Moist or dirty air from the compressor or dental unit tubing can damage the attachments. Check the filters often and if dirt or moisture is present, replace the filter and/or bleed the system.

EMPTY OPERATION:
Only operate the straight nose cone and contra angle with a bur/file installed and chucking mechanism fully locked.

COMPATIBILITY:
StarDental's quality attachments are designed to be used with the StarDental motors. However, these attachments can also be powered by other E-type low speed motors. Speed should not exceed 30,000 rpm.

Installation

- This product is not sterile! Clean, lubricate and sterilize before use. Follow LUBRICATION CLEANING and STERILIZATION instructions.
- Install motor according to manufacturer's instructions.



- Attach a straight nose cone or contra angle to the motor by pushing all the way onto motor shaft. Attach latch angle to contra angle:
 - insert transmission gear into contra angle front gear; align to desired position, see illustration above.
 - carefully mesh the splines on the latch angle with splines of the contra angle.

NOTICE If the splines do not mesh, remove latch angle and spin contra angle drive gear to a position where the two sets of splines will mesh and re-insert latch angle.

- once the splines are aligned correctly, tighten knurled ring of latch angle onto contra angle threads until snug.

Secure a rotary instrument (handpiece bur, or Doriot attachment, if applicable) to the low speed motor using instructions below.

SECURE A ROTARY INSTRUMENT :

Latch Angle/Contra Angle

- Open latch and insert a concentric .0925" (2.350mm) diameter, standard length bur or file the full length of the chuck.
- Close latch firmly then tug on bur or file to verify proper seating and retention.
- To remove, open latch and pull bur or file straight out.

Straight Nose Cone Twist-Chuck Instrument Changing System

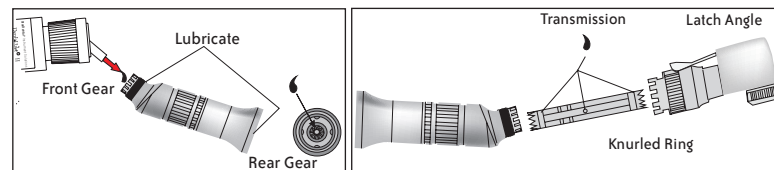
- Grasp straight nose cone firmly. **To open chuck**, grasp chuck locking collar and depress toward the body of the Straight Nose Cone while rotating 1/4 turn clockwise. With chuck open, insert a concentric .0925" (2.350mm) diameter, standard length bur, Doriot attachment or prophy angle the full length of the chuck. **Note:** the slot on Doriot attachment or prophy angle will need to be lined up with the square alignment tab on the front of the Straight Nose Cone.
- To close chuck: return the collar ring to its original locked position by turning 1/4 turn counter-clockwise. As a recommended safety feature, tug on bur, Doriot attachment or prophy angle to confirm that bur/attachment is securely locked in place.
- **To remove**, grasp Straight Nose Cone firmly. Depress the chuck ring toward the body of the Straight Nose Cone while rotating 1/4 turn clockwise to open the chuck. Pull instrument straight out. If you feel resistance, push the bur, Doriot attachment or prophy angle into the chuck, slightly rotate and then pull it out.

Lubrication

LUBRICATING the Straight Nose Cone:
- Remove from motor. Lubricate the internal mechanism with a few drops of lubricant from both ends without rotary instrument (bur) installed.
- by hand, or install on a motor and run for up to 20 seconds, to distribute and expel excess lubricant. Sterilize in a steam sterilizer - see Sterilization.

LUBRICATING the Contra Angle and Latch Angle Transmission:
- Remove contra angle from motor. Remove rotary instrument (bur or endo file) from latch angle. Remove latch angle from contra angle.
- Place a drop of **DentalLube II**, StarDental Part #262539, on each gear of the contra angle attachment. Let the lubricant penetrate into bearings.
- Place a drop of **DentalLube II** at both ends of the transmission gear and a third drop in the center hole of the transmission gear. Rotate the gears to allow thorough oil distribution. Apply a light coat of lubricant to the latch angle gear teeth. Rotate the gears to allow thorough oil distribution.

- Reassemble latch angle to contra angle. Install on a motor and run for up to 20 seconds. Sterilize in a steam sterilizer - see Sterilization.



Cleaning & Sterilization

CAUTION	Do not exceed 135°C To prevent damage to the bur, use an autoclavable bur block. Do not use: - dry heat sterilizers- cold sterilizers- ultrasonic cleaners- chemical disinfectors - immersion techniques- sterilizer bags containing disinfectantsz - hand soaps - detergents -surface wipes -surface sprays - 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.

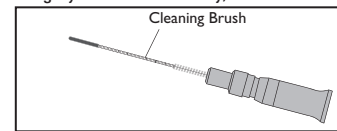
INSTRUCTIONS	
WARNING	Clean and sterilize motor, straight nosecone, contra angle attachment, latch angle, and burs as soon as practical before first use and after each patient.
Containment and transportation:	It is recommended that handpieces are reprocessed as soon as is reasonably practical following use.

Preparation for cleaning: Always wear masks, puncture-resistant gloves and protective eyewear. Flush by running motor with attachments for 20 seconds. Remove motor and attachments from dental unit tubing; remove straight nosecone from motor. No further disassembly is required.

Cleaning Automated: Washer-disinfectors are not recommended.

Cleaning Manual: To remove debris from external surfaces, clean using a small toothbrush with isopropyl alcohol.
Cleaning Motor, Attachments, and Straight Nosecone:
SNC: Close chuck, Insert round end of brush, StarDental® Part #203043, straight into chuck and withdraw.
Note: Do not rotate brush while inserting or removing. After removing brush, tap nose of chuck to expel debris.

CAUTION	Do not adjust or disassemble straight nose cone. Motor and All Attachments: Remove debris from external surfaces using a small brush and isopropyl alcohol. Dry thoroughly. Repeat after each patient. <u>Cleaning Diamond Burs:</u> • After each use, clean the diamond bur by running it against a wet diamond cleaning stone. • To mechanically clean, the diamond bur should be held in a solution of either enzymatic presoak, Sparkl® Dental Instrument Cleaner StarDental Part# 205472, or water. • Rinse the bur thoroughly and allow it to dry, then Sterilize – See Sterilization.
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Lubrication	Lubricate - See 'Lubrication' instruction section.
Disinfection	Use steam sterilization exclusively for complete sterility as outlined below.
Drying:	Dry the handpiece for 30 minutes minimum using the sterilization dry cycle and allow the handpiece to cool to room temperature in bag prior to use. If moisture is present, increase your sterilizer dry cycle appropriately.
Maintenance	See 'Lubrication' instruction section.
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.

Instrument Sterilization: A **wrapped** motor or attachment should be steam sterilized at 135° C (275°F) for a minimum of 20 minutes or at 121° C (250°F) for a minimum of 50 minutes. Do not exceed 135° C (275°F). Do not exceed 135° C
An **unwrapped** motor or attachment should be steam sterilized at 135° C (275°F) for a minimum of 8 minutes or at 121° C (250°F) for a minimum of 30 minutes. Do not exceed 135° C (275°F). Note: An unwrapped motor or attachment needs to be used immediately or sterility is not maintained. Do not exceed 135° C

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.

SAFETY INSTRUCTIONS



Always insert bur the full length of chuck. If you attempt to extend it from chuck, bur may dislodge during use and cause injury to you or your patient.

PLEASE OBSERVE SAFETY RULES

- Always tug on rotary instrument and attachment after chuck is loaded to confirm that it is securely locked before use.

- Before use, verify concentric rotation by operating the angle or straight nose cone outside the oral cavity in a safe place, in a safe manner. Do not use rotary instruments that do not run concentrically or produce excessive noise.
- Never operate angle or Straight Nose Cone without a rotary instrument installed.
- Always use burs with an overall length of less than 24 mm. The shank length must be at least 7.3 mm.
- Use only recommended burs to prevent damage to the chuck and in some cases to prevent burs from improper or incorrect placement. Do not use instruments that do not run concentrically. Replace burs/files that run with excessive noise. An improperly clamped bur may dislodge during use, causing injury to you or your patient. A sudden high-pitched sound or excessive vibration while handpiece is operating alerts the operator to the possibility that the chuck may not retain the bur/attachment or a bent bur is inserted.
- Never attempt to force a bur, Doriot attachment or prophy angle into the nose cone or angle's chucking system. If the shank does not enter the chuck easily, it is oversized or bent and should not be used.
- Never operate motors at air pressure in excess of recommended maximum setting (50 psi).

Troubleshooting

Problem: LACK OF POWER	Cause: Crimped tubing
Correction: Straighten tubing inside and outside delivery head.	Cause: Debris build up in attachment
Correction: Clean and Lubricate attachment. Refer to Cleaning and Lubrication instructions.	

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	Item Number
Titan, EX 1:1 Contra Angle Attachment.....	266102
Titan EX BB Latch Angle Attachment.....	266134
Titan EX 1:1 Straight Nose Cone Attachment	266103
Cleaning Brush for Straight Nose Cone	203043
DentalLube II	262539

Important Notice About Returning Product To The DentalEZ Inc.

Anyone wishing to return any DentalEZ Inc. 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 at www.dentalez.com.

Limited Warranty	
O-Rings and Seals are specifically excluded from this warranty.	
DentalEZ® warrants the Titan® E-Type Attachments to be free of defects in material and workmanship, under normal usage, under the following terms:	
StarDental® Products:	Warranty Period*:
Titan EX Straight Nose Cone	6 Months from date of purchase
Titan EX Contra Angle	6 Months from date of purchase
Latch Angle	6 Months from date of purchase
Please note the following additional terms of our warranty and return policy:	
• Warranties cover manufacturing defects only and do not cover defects resulting from abuse, improper handling, cleaning, care or maintenance, normal wear and tear or non-observance 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.	
• 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 ONE OF THE WEBSITES 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.

For Identafi® Oral Cancer Screening System products: www.identafi.net/warranty

For all Other StarDental® Products: www.dentalez.com/warranty

