

Lares Research

ProStyle E Straight Attachment

Operating Manual



Type:

Dental straight handpiece, direct ratio, internal spray, locking ring

Intended Use:

Product intended for professional use only. Use in dentistry for general dentistry work. Any use other than that for which this device is intended is prohibited and may prove dangerous.

Technical Data:

Classification

Class IIa in accordance with European Directive 93/42/EEC concerning medical devices.

Type of coupling

Standard as per ISO 3964 with internal spray in the motor.

Transmission ratio

1:1 direct ratio

Motor speed

Maximum 40,000 rpm

Rotation speed

Blue marker: maximum 40,000 rpm

Bur

Diameter of shaft 2.35mm type 2, in accordance with ISO 1797, maximum length 45mm code 4, in accordance with ISO6360-1 (figure 1).

Changing the bur

Rotate the sleeve and remove the bur (figure 2). Fully insert the bur. Lock the bur changing mechanism by fully rotating the sleeve, it can be fully tightened after initial mechanical resistance.

Whenever inserting a bur, check that the bur change system is working by lightly pushing/pulling on the bur, and check that it is correctly in position. (figure 3).

Important

- The device must not be started without a bur inserted into the chuck.
- Never mount an instrument on a rotating motor.
- Never adjust the clamping/unclamping ring while the instrument is rotating, since this could damage the mechanism or destroy the motor.
- Comply with maximum lengths by always inserting the burs as far as possible into the locking mechanism. If a bur is operated at high speeds when incorrectly mounted (i.e. not fully inserted in the locking mechanism or being longer than the values specified here-in) this can cause a centrifugal force which may bend or break the bur.
- Do not exceed the maximum operating speed authorized by the bur manufacturer.
- Only use milling tools which are concentric and in perfect condition.

To ensure that your straight/micro motor unit functions with maximum efficiency, it must be cooled by an air supply of 8-10 standard liters per minute on the nose of the micro-motor.

Maintenance

Separately clean, lubricate and sterilize the device before the treatment of each patient.

Important

- The instrument is delivered "non-sterile".
- Before using for the first time and within a maximum of 30 minutes after each treatment, clean, disinfect and lubricate the instrument, then sterilize. Observing this procedure eliminates any blood, saliva or saline solution residues and prevents the transmission system from being blocked.
- Only instruments bearing a pictogram can be placed in the washer/disinfectant unit.
- Do not immerse in an ultra-sonic bath.

- Use only Lares Research provided maintenance products and parts or those recommended by Lares Research. Using other products or parts may cause operational failure and/or void the warranty.

Precautions of use

The universal precautions, in particular wearing of personal protective equipment (gloves, goggles etc.), should be complied with by medical personnel using or performing maintenance of medical devices that are contaminated or potentially contaminated. Pointed and sharp instruments should be handled with great caution.

Check that the sterilizer and the water that is used are clean. After each sterilization cycle, remove the device from the sterilizing apparatus immediately in order to reduce the risk of corrosion.

Bur Chuck Mechanism (cutting tool)

- Carry out cleaning-disinfection-sterilization without bur in the chuck mechanism.

Suitable detergent

For automatic cleaning disinfection:

- Slightly alkaline enzymatic detergent recommended for cleaning in a washer-disinfectator for dental or surgical instruments.

For manual cleaning-disinfection:

- Lares Clean-N-Dry
- Detergent or detergent-disinfectant (pH 6-9.5) recommended for cleaning-disinfection of dental or surgical instruments. Quarternary ammonium- and/or enzyme-based surfactants.
- Do not use detergents that are corrosive or contain chlorine, acetone aldehydes or bleaches.
- Do not soak in physiological liquid (NaCl).

Important

In the event of prolonged disuse, the instrument must be stored in a dry environment. Lubricate and sterilize the instrument before reuse.

After cleaning and disinfecting/sterilizing the instrument and before using it, operate at moderate speed, with a bur in the chuck, for 10 to 15 seconds to circulate lubricant and remove excess.

Ⓛ Pre-disinfection (at place of operation)

Preparation

- Disconnect the instrument from the drive motor, withdraw the bur and leave the chuck mechanism open (figure 2).
- Clean the spray tubes (if equipped) with the port cleaning tool (figure 6).
- Perform manual pre-cleaning.

Manual Pre-cleaning

Use Lares Clean-N-Dry cleaning product.

- Spray the interior and exterior of the instrument to remove residue and clean all surfaces carefully.
- Wipe down the external surfaces with an absorbent paper towel.
- Perform a manual or automatic cleaning-disinfection process.

Ⓛ Cleaning and disinfection

Manual cleaning-disinfection

Dip the instrument in a tank containing appropriate detergent and using a soft bristle brush (clean & disinfected) clean the outside of the instrument in accordance with the detergent manufacturer's instructions (time, concentration, temperature, renewal etc.).

Rinsing:

Rinse the inside and outside of the device with cold running water (<35C/<95F) for about 30 seconds.

Drying:

Spray the interior of the instrument with Lares Clean-N-Dry product immediately to remove all traces of detergent and rinsing water to prevent any adverse impact on the internal

components, e.g. which might cause them to seize. If necessary, clean with a dry paper towel.

Or

Automatic cleaning-disinfection

Note: for instruments engraved with symbol.

Cleaner-disinfectant unit: Use an approved cleaner-disinfectant unit with suitable amount and type of detergent.

Washing cycle: Select the specified washing cycle for these instruments which should be compatible with the detergent manufacturer's instructions.

Recommended temperatures for the devices:

Pre-wash

Water: cold to maximum 35C (95F) – Duration 2 minutes

Wash

Water:50 to 65C (122 to 148F) – Duration 5 minutes.

Rinsing

Water: cold to maximum 35C (95F) – Duration 2 minutes.

Thermal disinfection

Water: 80 to 97C (176 to 206.6F) – Duration 5 minutes.

Drying

Air: 65 to 75C (149 to 167F) – Duration 25 minutes.

Important

Never rinse the devices to cool them.

Ⓛ Lubrication, checks and conditioning process

Verify cleanliness

Visually check the cleanliness of the instrument. If required, re-clean with a soft brush.

Lubrication before each sterilization, and at least twice a day. Only use the Lares One Step Handpiece Conditioner spray.

- Remove the bur before lubricating.
- Place the instrument in a cloth so as to catch the lubricant, debris and foreign matter expelled by the atomizer jet.
- Remove the protective cap and insert the nozzle into the back of the instrument sleeve.
- Spray for one second.

Clamp operation inspection

- Insert a bur in the chuck mechanism of the instrument. Lock the bur by fully rotating the sleeve, it can be fully tightened after initial mechanical resistance.
- Check that the bur remains in position when traction is applied.
- Hold the handpiece upright by the bur between your thumb and index finger and rotate the handpiece; the handpiece should rotate freely (more than 3 rotations).
- Rotate the sleeve and remove the bur to sterilize.

Warning

If the handpiece does not rotate freely, there is a risk of burns to the patient. In this case, return the handpiece to Lares Research for repair.

Packaging process

Wrap the instrument in a cleared, approved packaging for steam sterilization.

Ⓛ Sterilization

Important

The quality of the sterilization depends very much on the cleanliness of the device. Only perfectly clean devices may be sterilized.

Do not use a sterilization procedure other than the one described below.

Procedure:

Autoclave with steam after fractioned initial vacuum phase, Class B according to EN13060. The procedure has been validated to ISO 17664. Nominal temperature: 134C (273F). Duration 3 or 18 minutes according to the national guidelines in force.

Servicing

Never disassemble the device. For any modification or repair, we recommend that you contact your account manager directly. Lares Research asks that you have the device checked or inspected once per year.

Transport and storage conditions

Temperature between -40C (-40F) and 70C (158F), relative humidity between 10% and 100%, atmospheric pressure 50 kPa to 106kPa (7.3 to 15.3 psi).

Information

The technical specifications, illustration and dimensions contained in these instructions are given only as a guide. They may not be the subject of any claim. The manufacturer reserves the right to make technical improvements to its equipment, without amending these instructions. For all additional information, please contact Lares Research directly at 1-888-333-8440.

Other precautions for use

The device must be used by a qualified person in accordance with the current legal provisions concerning industrial safety, health and accident prevention measures, and these working instructions. In accordance with these requirements, the operators:

- must only use operating devices that are in perfect working order. In the event of irregular functioning, excessive vibration, abnormal heating or other signs indicating malfunction of the device, the work must be stopped immediately; in this case, contact repair center.
- must ensure that the device is used only for the purpose for which it is intended, must protect themselves, their patients and third parties from any danger, and must avoid contamination through the use of the product.

Rest the device on a suitable support to avoid risks of infection for yourself, the patient or third parties.

Excess material from products used for maintenance (lubricants, cleaning products and disinfectants) originating from the contra-angle may penetrate into the electric motor and interfere with its functioning. It is essential to follow the maintenance instructions accompanying each product. Never lubricate the electric motor.

Recommendations

It is essential to use dry, purified compressed air in order to ensure the long working life of the device. Maintain the quality of the air and water by regular maintenance of the compressor and filtration systems. The use of unfiltered hard water will lead to early blockage of the tubes, connectors and spray ports.

The device must not be used in the presence of open lesions, injury to soft tissue or recent extractions. The exhaust air could propel infected material into the wounds and cause infections and risk embolism.

Adhere to the instructions for use, in accordance with the instructions of the bur manufacturer. Never use a bur with an incorrect diameter, as there is a risk of becoming detached during treatment and causing injury to yourself, to your patient and to third parties.

The device is intended for medical treatment only; any use other than that for which this product is intended is unauthorized and may be dangerous. The medical device meets all the current legal requirements.

Warranty

Each Lares ProStyle E Straight Attachment is warranted against defects in materials and workmanship for a period of 2 years from the date of purchase.

Additional Conditions of Warranty:

1. Warranty registration is automatic as of shipping date (Outside the US warranty registration may be required).
2. The straight attachment must be operated and maintained in accordance with procedures outlined in these instructions.
3. The straight attachment must not be subjected to abuse or neglect.
4. The straight attachment must not be repaired or disassembled by anyone other than Lares Research or your authorized Lares distributor. Lares Research will repair or replace, at its discretion, without charge any defective parts covered by this warranty provided the ProStyle E Straight Attachment is returned to the

