| EN - | One Use-Plus microkeratome |    |
|------|----------------------------|----|
|      | with metal ring            |    |
|      | USER MANUAL                | 15 |



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MORIA S.A. – 27, rue du Pied de Fourche - 03160 Bourbon L'Archambault – France #65040-H-05.2023





































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# **1 DISCLAIMER**

### 1.1 MAINTENANCE AND WARRANTY

The One Use-*Plus* system has been designed for optimal operation, provided that the recommendations listed in this user manual are followed carefully. If, for any reasons, the system does not perform properly, have it checked immediately by MORIA. In order to maintain the original performance of your system, reusable items must be checked by MORIA on a yearly basis as a preventive maintenance.

As only MORIA and its agents are fully expert in MORIA products, servicing and maintenance must be carried out by MORIA or its approved agents.

MORIA shall not be held liable for any malfunction or damage to the apparatus, poor results, or surgical complications due to maintenance being having been carried out by an unqualified operator or third party.

Any such unauthorised intervention shall render the guarantee and any maintenance contract null and void.

### 1.2 USE OF GENERIC PRODUCTS AND REUSE OF SINGLE-USE CONSUMABLES

The materials used in the microkeratome blade, blade holder and head have been selected for their sliding characteristics. The dimensions and tolerances of the blade have been determined in consideration of the dimensions and tolerances of the head of the keratome. MORIA's manufacturing and inspection procedures guarantee there is no conflict in dimensions between head and blade, and that the blade will slide smoothly in the head.

Single-use devices must not be re-used. Reuse affects their mechanical and biological features, their clinical performances, causes device failures and exposes the patient to adverse events such as contamination, bacterial infection, inflammation, irritation or minor eye lesion.

The reuse of single-use products, or the use of consumables other than those supplied by MORIA, entails serious surgical consequences for the patient and damages the microkeratome.

MORIA shall not be held liable in the event of a malfunction or damage to the microkeratome, poor results or surgical complications due to the reuse of a single-use product or the use of consumables other than those supplied by MORIA.

#### MORIA handpieces must only be connected to MORIA devices (console unit, heads, suction rings, etc.).

All warranties become null and void if the microkeratome degrades or malfunctions due to such practices.

### 1.3 HEAD CALIBRATION VALUE AND FLAP THICKNESS

Flap thickness is a key factor for both LASIK and lamellar keratoplasty. Multiple parameters affect flap thickness and standard deviation. Numerous scientific studies have demonstrated that flap thickness is influenced by several patient-related factors such as keratometry (K) readings, corneal anatomy, preoperative pachymetry and refraction, intraocular pressure (IOP), and also by surgery-related factors, such as corneal hydration and the speed of the pass (when using manual microkeratomes).

Ultrasonic pachymetry measurements are not always accurate and reproducible, and results may also vary with surgeons' techniques and calibration of the device. Thus, at Speed 2, a MORIA One Use-*Plus* head labeled:

- "90" (SBK head) cuts, on average, a 100-micron flap with variations around this average.
- "130" cuts, on average, a 130-micron flap with variations around this average.

MORIA can only guarantee the dimensional characteristics of the head, not the surgical result.

For the EVOLUTION 3E console, refer to the related instruction manual (#65060/INTL).

The most recent version of this user guide and additional information on your keratome are available on the MORIA website: http://www.moria-surgical.com.

# **2 REGULATORY INFORMATION**

|                              | MORIA S.A.<br>27, rue du Pied de Fourche-03160 Bourbon L'Archambault - France<br>Phone +33 (0) 146 744 674<br>Fax +33 (0) 146 744 670<br>moria@moria-int.com<br>http://www.moria-surgical.com   |  |
|------------------------------|---|--|
| Customer Service Information | Contact your local dealer or MORIA  |  |
| EUROPE                       | CLASS IIA according to MDD 93/42/CEE  |  |
| USA                          | Product registered at the Food and Drug Administration (FDA): 510(k) K040297<br>Caution USA only: Federal law restricts the use of this device to physicians or<br>licensed practitioners.  |  |
| Electrical Safety Standard   | IEC 60601   |  |
| X                            | For EU customers only: this symbol indicates that within the European Union, the product must be discarded in a separate collection bin at the end of its useful life. This applies not only to this device, but also all accessories, including the footpedal and electrical motors, regardless of whether those accessories are marked with the symbol. Do not dispose as unsorted municipal waste. For users out of European Union: please refer to local environmental regulatory regarding waste of electrical and electronic equipment. |  |

# **3 LIST OF EQUIPMENT, ACCESSORIES AND LABELING**

### 3.1 EQUIPMENT LIST AND PRIMARY ACCESSORIES LIST

| Description  | Regulatory designation              | MORIA<br>reference |
|--|-------------------------------------|--------------------|
| One Use-Plus handpiece (blue color)                        | ONE USE PLUS MOTOR                  | 19345              |
| One Use-Plus One-Handed handpiece (blue color)             | ONE HAND ONE USE PLUS HANDPIECE     | 19345OH            |
| Wrench   | WRENCH                              | 19345C             |
| One Use-Plus ring sterilization box                        | ONE USE PLUS RING STERILIZATION BOX | 22519513           |
| Polymere box for One Use-Plus handpiece                    | ONE USE PLUS STERILIZATION BOX      | 22519514           |
| EVOLUTION 3E Console (S/N above 5000)                      | EVOLUTION 3E CONTROL UNIT           | 19380              |
| EVOLUTION 3-3E Control Footpedal                           | FOOTPEDAL FOR EVOLUTION             | 19361              |
| EVOLUTION 3E Control Footpedal Epi-K™                      | EVOLUTION 3E FOOTSWITCH             | 19381              |
| EVOLUTION 3E Footswitch - China                            | EVOLUTION 3E FOOTSWITCH             | 19381C             |
| EVOLUTION 3E Footswitch - Japan                            | EVOLUTION 3E FOOTSWITCH             | 19381J             |
| EVOLUTION 3 Supply Cords (CEE) (2.50m) / Cable (CEE)       | EVOLUTION 3 SUPPLY CORD (EEC)       | 19362              |
| EVOLUTION 3 Supply Cords (USA) (2.50m) / Cable (USA)       | EVOLUTION SUPPLY CORD (USA)         | 19363              |
| EVOLUTION 3 Supply Cords (UK) (2.50m) / Cable (UK)         | EVOLUTION 3 SUPPLY CORD (UK)        | 19364              |
| EVOLUTION 3 Supply Cords (China) (2.50m) / Cable (China)   | EVOLUTION 3 SUPPLY CORD CHINA       | 19516              |
| EVOLUTION 3 Supply Cords (Brazil) (2.50m) / Cable (Brazil) | EVOLUTION 3 SUPPLY CORD BRAZIL      | 19521              |
| Supply cord USA  | SUPPLY CORD (USA)                   | 19451              |
| Carrying Case  | N/A                                 | 19511              |
| Aspiration tubing  | EVOLUTION 2-3-3E TUBING X10         | 19138              |
| Aspiration tubing - China                                  | EVOLUTION 2-3-3E TUBING X10         | 19138C             |

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# 3.2 SECONDARY ACCESSORIES LIST

| Description   | Regulatory designation                                | MORIA reference | User manual   |
|---|---|-----------------|---------------|
|   | ONE USE PLUS SBK SET (90/-1)                          | 19336/90        |               |
| One Use- <i>Plus</i> : ring –1 and Head SBK (90) or 130   | ONE USE PLUS SET (130/-1)                             | 19336/130       | 1             |
| One line Blue time 0 and line d OBIC (00) and 00  | ONE USE PLUS SBK SET (90/0)                           | 19337/90        | 65039         |
| One Use- <i>Plus</i> : ring 0 and Head SBK (90) or 130  | ONE USE PLUS SET (130/0)                              | 19337/130       |               |
|   | ONE USE PLUS 110 LARGE CUT SET                        | 19354/110       | 65039 - 65040 |
| One Use-Plus: ring -1 Large Cut and Head Large Cut 110L and 130L  | ONE USE PLUS 130 LARGE CUT SET                        | 19354/130       | 05039 - 05040 |
| One Use-Plus Large cut reusable metal ring size -1, 0 with stops at 7.5 - 8.0 - 8.5 - 9.0 (mauve color)     | OUP LC -1 REUSABLE SUCTION RING                       | 19519/-1        |               |
|   | OUP REUSABLE SUCTION RING -1                          | 19391/-1        |               |
| One Use- <i>Plus</i> reusable metal ring size -1, 0 with stops at 7.5 - 8.0 - 8.5 - 9.0 (blue color)        | OUP REUSABLE SUCTION RING 0                           | 19391/0         |               |
|   | OUP REUSABLE SUCTION RING 1                           | 19391/1         | 7             |
| One Use- <i>Plus</i> reusable metal ring size +1, +2, +3 with stops at 7.0 - 7.5 - 8.0 - 8.5 (yellow color) | OUP REUSABLE SUCTION RING 2                           | 19391/2         |               |
|   | OUP REUSABLE SUCTION RING 3                           | 19391/3         | 65040         |
|   | OVAL FLAP OUP METAL SUCTION RING +1                   | 19391/1/OV      | 03040         |
| One Use-Plus reusable metal oval rings size +1, +2, +3, with stops at 7.0 - 7.5 - 8.0 - 8.5 (grey color)    | OVAL FLAP OUP METAL SUCTION RING +2                   | 19391/2/OV      |               |
|   | OVAL FLAP OUP METAL SUCTION RING +3                   | 19391/3/OV      |               |
| Box of 10 sterile heads One Use- <i>Plus</i> SBK (90) or 130  | ONE USE PLUS SBK HEAD                                 | 19393/90        |               |
| Box of To sterile reads One Ose-Fras SBK (90) of 130  | ONE USE PLUS 130 HEAD                                 | 19393/130       |               |
| Box of 80 sterile heads One Use-Plus SBK (90) (China)   | ONE USE PLUS SBK HEAD X80 (CHINA)                     | 19393/90C5      |               |
| Disposable brush  | BRUSH   | 19149           | -             |
| Tonometer   | BARRAQUER AUTOCLAVABLE TONOMETER                      | 19042           | -             |
| Sterilization box for autoclave tonometer   | BARRAQUER AUTOCLAVABLE TONOMETER<br>STERILIZATION BOX | 22519049        | -             |

# 3.3 LABELING

| Description  | Regulatory designation | MORIA reference    |
|--|------------------------|--------------------|
| One Use-Plus metal ring user manual  | N/A                    | 65040              |
| One Use-Plus metal ring nomogram (-1 Large-Cut, -1, 0, +1, +2, +3)   | N/A                    | 65067              |
| One Use-Plus -1 Large-Cut metal ring nomogram  | N/A                    | 65074XX            |
| One Use-Plus metal ring nomogram for Asian eyes  | N/A                    | 65075XX            |
| One Use- <i>Plus</i> Oval metal ring nomogram  | N/A                    | 65077EN<br>65077XX |
| Instruction for use for the setting of the One Use-Plus single-use head  | N/A                    | 65055              |
| One Use-Plus & Epi-K™ Operator's cleaning-disinfection-sterilization-storage instructions (extract from One Use- <i>Plus</i> metal ring user manual) | N/A                    | 65096<br>65096XX   |
| EVOLUTION 3 console user manual  | N/A                    | 65038              |
| EVOLUTION 3E console user manual (serial number below 5000)  | N/A                    | 65051              |
| EVOLUTION 3E console user manual (serial number 5000 and above)  | N/A                    | 65060/INTL         |
| EVOLUTION 3E console user manual (serial number 5000 and above) - China  | N/A                    | 65060ZH            |
| EVOLUTION 3E console user manual (serial number 5000 and above) - Brazil   | N/A                    | 65060BR            |
| EVOLUTION 3E console user manual (serial number 5000 and above) - Japan  | N/A                    | 65060JA            |
| Annexe "Guidance and manufacturer's declaration: electromagnetic emissions and immunity"   | N/A                    | 65073              |

# **4 LABELING INFORMATION**

| REF XXXXXX | CATALOGUE REFERENCE   |
|------------|---|
| x)         | QUANTITY  |
|            | USE BY DATE   |
|            | BATCH CODE  |
| STERILE EO | STERILIZED USING ETHYLENE OXIDE   |
| 8          | DO NOT REUSE  |
|            | MANUFACTURER  |
|            | DATE OF MANUFACTURE   |
|            | CAUTION : CONSULT ACCOMPANYING DOCUMENT(S)  |
|            | CONSULT OPERATING INSTRUCTIONS  |
| 8          | DO NOT USE IF PACKAGE IS DAMAGED AND CONSULT INSTRUCTION FOR USE  |
| NON        | NON-STERILE   |
| Ť          | KEEP DRY  |
| *          | KEEP AWAY FROM SUNLIGHT   |
| <u>茶</u>   | DISCARD IN A SEPARATE COLLECTION BIN  |
| Ronly      | CAUTION for USA only: US federal laws restrict this device to sale by, or on the order of, a physician. |
| MD         | MEDICAL DEVICE  |
| $\bigcirc$ | UNIQUE STERILE BARRIER SYSTEM WITH INNER PROTECTIVE PACKAGING   |

# **5 IMPORTANT INFORMATION**

# 5.1 DESCRIPTION

The One Use-*Plus* microkeratome is used to create corneal, lamellar, hinged flaps (keratectomy). The One Use-*Plus* microkeratome is an automated, mechanical, linear microkeratome designed to create nasal-hinged flaps. It has three components:

- a handpiece (#19345), containing 2 independent motors: one for advancement, and one for oscillation.
- a metallic suction ring ((#19391/xx or #19391/x/OV).
- a single-use sterile plastic head (#19393/xx) encasing a pre-inserted blade.

The One Use-*Plus* microkeratome operates with the EVOLUTION 3 and 3E control units (#19360, 19380). Please refer to user guide: #65060/INTL (EVOLUTION 3E serial numbers 5000 and above).

| The EVOLUTION 3E control unit and the electrical motors / turbines must follow the | e following conditions: |
|--|-------------------------|
|  |                         |

|                          | Temperature              | Humidity rate<br>(without condensation) | Atmospheric<br>pressure |
|--------------------------|--------------------------|---|-------------------------|
| Transportation           | 5 - 45°C / 41°F – 113°F  | 30 - 90%                                |                         |
| Storage                  | 10 - 40°C / 50°F – 104°F | 30 - 75%                                |                         |
| Normal conditions of use | 10 - 40°C / 50°F – 104°F | 30 - 75%                                | 70 - 106 kPa            |

# 5.2 INDICATIONS

The One Use-*Plus* microkeratome is indicated for the creation of lamellar nasal-hinged flaps in corneas with preoperative pachymetry of 500 microns or greater, and keratometry between 39 D and 49 D. During laser in-situ keratomileusis (LASIK), the flap is then lifted to enable photoablation of the stroma with an excimer laser.

# 5.3 CONTRAINDICATIONS

Patients who are not candidates for LASIK.

Note: Careful preoperative evaluation and sound clinical judgment should be used by the surgeon to determine the risk/benefit ratio. Particular attention must be given before performing a keratectomy on a patient with any of the following conditions:

- preoperative pachymetry under 500 microns
- keratometry under 39 D
- keratometry over 49 D
- inability to withstand a transient rise in intraocular pressure.

## 5.4 WARNINGS

- Design of this medical device does not allow its reuse. Reuse may affect its mechanical and biological features, its clinical performances, may cause device failures and may expose the patient to adverse events such as contamination, bacterial infection, inflammation, irritation or minor eye lesion.
- Do not mix One Use-Plus heads with Epi-K<sup>™</sup> heads.
- Do not use disposable materials and/or components or a brand other than MORIA with the One Use-Plus microkeratome.
- The heads must only be screwed on by hand. Dismantling should be done only with the provided wrench (#19345C) or by hand. Never use any tools or other spanners. Incorrect assembly may cause incomplete or uneven cuts due to lack of blade oscillation.
- Never pull on the cable connected to the handpiece, and never hold the motor by the cable.

### 5.5 POTENTIAL ADVERSE EVENTS

As with any surgical procedure, there is risk involved. LASIK surgery requiring the use of a microkeratome that cuts a corneal flap, potential side effects of laser refractive surgery may include but are not limited to: visual anomalies, dry eye and flap related complications (free cap, incomplete flap, buttonhole, epithelial defect, flap dislocation, flap striae, wrinkles, etc.).

Inappropriate use, deterioration of microkeratome and/or non-respect to contraindications (§ 5.3) and warnings (§ 5.4) expose patient at higher risk to adverse events.

Note: Additional surgery may be necessary to correct some of these potential adverse events.

Any serious incident occuring in conjunction with these instruments must be reported to the manufacturer and the competent authority of the user's and/or patient's Member State.

# 5.6 PRECAUTIONS

- The keratectomy must be performed only by experienced refractive surgeons with specific training in the use of the One Use-*Plus* microkeratome.
- Preoperative and operative procedures, including knowledge of surgical techniques, proper head
  and ring selection, and assembly and placement of the microkeratome are important considerations
  in the successful use of the system by the surgeon. Furthermore, proper patient selection and
  compliance will greatly affect the results.

### For USA only

# CAUTION: FEDERAL LAW (USA) RESTRICTS THESE DEVICES TO SALE BY OR ON THE ORDER OF A PHYSICIAN.

Other preoperative, intraoperative and postoperative warnings and precautions are as fellows: **PREOPERATIVE** 

- Only patients that meet the criteria described in the indications should be selected.
- Care should be used in the handling and storage of the microkeratome components. They should not be scratched or otherwise damaged. Handpiece should be protected during storage, especially from corrosive environments.
- Check the label and expiration date on the unopened package for head.
- After opening the package, verify that head information is consistent with information on outer package labeling.
- The head, suction ring, handpiece and the control unit should be fully inspected prior to use. The pre-inserted blade should be inspected on both sides under a microscope.
- The surgeon should be familiar with the various components before using the microkeratome and verify that all parts and necessary instruments are present and properly assembled before the surgery begins. Additional sterile components should be available in case of an unexpected need.
- The selection of the proper head, ring and stop position for each eye is crucial to the success of the procedure: see MORIA nomogram.

### INTRAOPERATIVE

- Breakage, slippage, or misuse of microkeratome and its components may cause injury to the patient or operating personnel.
- Before any usage, lubricate the eye, the suction ring, the head and the blade with a physiological saline solution or another appropriate ophthalmic solution that is compatible with the One Use-*Plus* components.

### POSTOPERATIVE

• The surgeon's postoperative instructions to the patient and the corresponding patient compliance are extremely important.

# 5.7 PRODUCT COMPLAINTS

Health care professionals (e.g., customers or users of this device) having any complaints about or dissatisfaction with the product quality, identity, durability, reliability, safety, effectiveness and/or performance, should notify MORIA or its distributor by telephone, fax or written correspondence, and have the products checked by MORIA.

When filing a complaint, please provide the component(s) name(s), reference(s), batch number(s), as well as your name and address, the nature of the complaint, and the relevant patient data. Also disinfect and return the components.

### 5.8 PACKAGING

Packages of each of the components should be intact upon receipt. If a loaner or consignment system is used, all sets should be carefully checked for completeness, and all components should be carefully checked to ensure that there is no damage prior to use. Damaged packages or products should not be used and should be returned to MORIA. Do not use single-use products if package is open or torn.

# **6 INSTALLATION AND CONNECTION**

| Steps | What to do  |   | Related picture |
|-------|---|---|-----------------|
| 1     | Select the suction ring and the head according to the One Use- <i>Plus</i> nomogram | <ul> <li>The disposable head (#19393/xx) is supplied sterile<br/>and for single use only.</li> <li>Check that package is undamaged, unopened and<br/>within the expiration date.</li> </ul>   | А, В            |
| 2     | Assemble the head onto the handpiece  | <ul> <li>Open the package containing the disposable head (#19393/xx).</li> <li>Screw the head clockwise onto the threaded motor shaft.</li> <li>Check that the head is screwed on tightly to the motor. There should be no rotation of the head.</li> <li>If the head is not screwed completely onto the motor, the shaft will not drive the blade holder, and the blade will not move. Poor or irregular resections can result from incorrect assembly.</li> <li>Do not use the wrench (#19345C) or other tools to assemble it. The wrench should be used for disassembly only.</li> </ul> | E, F            |
| 3     | Carefully inspect the keratome head after assembly                                  | <ul> <li>The disposable head must be perfectly clean inside<br/>and outside and free from debris, particles, oxidation<br/>and deposits. There should be no scratches on the<br/>plates. If any, replace the head.</li> <li>After assembly and using a microscope, carefully<br/>inspect the blade under high magnification to ensure<br/>that it is not damaged.</li> </ul>  | A               |
| 4     | Check for blade oscillation   | <ul> <li>Start the motor to check proper blade oscillation</li> <li>Do not use the One Use-<i>Plus</i> system if the oscillation is not smooth, regular and uninterrupted.</li> </ul>   |                 |
| 5     | Inspect the suction ring  | <ul> <li>The suction ring must be carefully inspected prior<br/>to use; it must be perfectly clean, free from debris,<br/>particles and deposits.</li> <li>Carefully check that the suction port is not obstructed.</li> </ul>  | В               |

| Steps | What to do  |  | Related picture |
|-------|---|--|-----------------|
| 6     | Set the stopper                                   | <ul> <li>Refer to the indicative nomogram for the selection of the ring and stop.</li> <li>The adjustable stop pin is pre-mounted on the suction ring and used to determine the size of the hinge. The hinge will be placed in a nasal position.</li> <li>To configure the stop, follow these steps: <ul> <li>o unscrew the stop setting screw</li> <li>o lift it up then turn the stop to the appropriate value</li> <li>o the value of the stop selected must line with the etched ring size</li> <li>o screw the stop setting screw.</li> </ul> </li> </ul> |                 |
| 7     | Connect the suction ring to the aspiration tubing | <ul> <li>The aspiration tubing (#19138) is supplied sterile and for single use only.</li> <li>Check that package is undamaged, unopened and within the expiration date.</li> <li>Inspect the aspiration tubing and in case of kinks or obstructions, replace it.</li> </ul>  | D               |

# **7 OPERATION**

| Steps | What to do  |  | Related picture |
|-------|---|--|-----------------|
| 1     | Preliminary check before any usage  | <ul> <li>It is imperative to verify that the devices are perfectly clean and free of any organic or other residues.</li> <li>Refer to EVOLUTION 3E user manual (#65060/<br/>INTL) for operations prior use. The operator should be familiar with the functioning of the EVOLUTION 3E control unit (#19380).</li> <li>If you have additional questions, consult MORIA website or your MORIA distributor.</li> </ul>   |                 |
| 2     | Connect the motor to the control<br>unit, select One Use- <i>Plus</i> and the<br>speed, then check vacuum prior use | <ul> <li>Refer to EVOLUTION 3E user manual (#65060/INTL) for operations prior use.</li> <li>Refer to the indicative nomogram for the selection of the speed, ring and stop.</li> </ul>   |                 |
| 3     | Insert the head in the rails of the suction ring  | <ul> <li>When inserting the head in the rails of the suction ring, the handpiece must be at a 45° angle from the threaded shaft of the ring, to avoid any blade damage</li> <li>If the bottom of the head (the area where the blade edge protrudes) is in contact with the threaded shaft of the suction ring, inadvertent damage to the blade may occur. Release vacuum and change to a completely new set to avoid the possibility of irregular cut.</li> <li>Once the head properly inserted, slightly reduce the angle from 45° to 0°.</li> <li>Carefully engage the head into the ring.</li> <li>The shaft of the ring must be aligned with the motor.</li> </ul> | G, H            |
| 4     | Check for keratome translation prior<br>to use (forward and backward pass)  | <ul> <li>Press vacuum ON, make forward then backward<br/>movements using footpedals, then press vacuum OFF.<br/>Refer to EVOLUTION 3E user manual (#65060/INTL)<br/>for operations prior use.</li> <li>Do not use the One Use-<i>Plus</i> system if the forward pass<br/>is not smooth, regular and uninterrupted.</li> </ul>  |                 |
| 5     | Position the suction ring on the eye.<br>Activate vacuum by pressing the<br>"Vacuum" footswitch once.               | <ul> <li>Verify that the device will not interfere with any other<br/>medical devices used during the procedure.</li> </ul>  |                 |

| Steps | What to do  |  | Related picture |
|-------|---|--|-----------------|
| 6     | Check the intraocular pressure with the tonometer   | <ul> <li>The tonometer (#19042) must be perfectly dry and<br/>used only on dry eyes. If the pressure is below<br/>65 mmHg, do not proceed with the surgery.</li> </ul>   |                 |
| 7     | Lubricate the suction ring, the head and the blade  | <ul> <li>Prior to use, lubricate the rails of suction ring, head,<br/>and blade with balanced salt solution or another<br/>appropriate solution.</li> <li>The device should not be placed in contact with<br/>solutions for which the potential interactions are<br/>unknown.</li> </ul>   |                 |
| 8     | Once the One Use- <i>Plus</i> system is<br>in position, activate the motor by<br>pressing the "Forward" footswitch.<br>When the microkeratome head<br>touches the stop, immediately<br>release the "Forward" footswitch.<br>Reverse by pressing the "Backward"<br>footswitch. | <ul> <li>See EVOLUTION 3 or 3E console user manual (#65038, 65051, 65060/INTL).</li> <li>Hold the suction ring by its handle; check that your fingers do not hinder the forward movement of the device.</li> <li>Check nothing prevents or modifies head movement in the rails of the suction ring</li> <li>Ensure that there are no obstructions (speculum, eyelashes, eyelids, etc.) in its path.</li> </ul> |                 |
| 9     | Release the "Vacuum" footswitch by<br>pressing once.<br>Remove the suction ring.  | Discard the disposable head and aspiration tubing after<br>each procedure in an appropriate container.   |                 |

# **8 TROUBLESHOOTING**

For any further information and description, refer to EVOLUTION 3E user manual (#65060/INTL) for operations prior use.

In case of defective handpiece, contact your MORIA representative or distributor for repairing.

# 9 CARE & MAINTENANCE

The recommendations for cleaning, disinfection and sterilization are updated and available on MORIA's website: http://www.moria-surgical.com.

## 9.1 INTRODUCTION

In case of unusual vibrations or noises, do not use the unit and contact your distributor.

Please contact MORIA for any other servicing.

The following are only recommendations. They must be adapted according to the laws in the country of utilization. All the products and solutions for cleaning and disinfection must be used according to the manufacturer's instructions.

MORIA recommends:

- not to touch potentially contaminated areas,
- use gloves during cleaning and decontamination operations

## 9.2 INITIAL TREATMENT AND STORAGE

To avoid risks of condensation inside the packaging, unpack and store the devices in a clean, dry environment. Do not store the instruments in an environment or next to other products that may possibly have a corrosive or magnetic effect. Avoid any contact between devices, especially those comprised of different materials. The device should be damage free and have no scratches or other surface defects.

Fragile devices or those requiring particular manipulation must be handled separately, taking special care to protect delicate parts.

# 9.3 CLEANING-DISINFECTION-STORAGE OF THE HANDPIECE AND ELECTRICAL CABLE

| Steps | What to do   |  | Related picture |
|-------|--|--|-----------------|
| 1     | <ul> <li>Cleaning</li> <li>To clean the screw core of the motor and metallic parts, use the disposable brush (#19149) moistened with cleaning solutions.</li> <li>Dip the blade oscillation shaft of the motor in a sterile distilled water bath and run the motor back and forth 10 times.</li> <li>Remove the motor from the cup, unplug it from the console, and wipe the oscillation shaft of the motor with a lint-free cloth.</li> <li>Air-dry the shaft of the motor with clean, filtered compressed air.</li> <li>Cable can be cleaned with a lint-free cloth moistened with cleaning solutions.</li> <li>Air-dry the shaft of the motor with clean, filtered compressed air.</li> <li>Air-dry the shaft of the motor with clean, filtered compressed air (medical compressed air).</li> </ul> | <ul> <li>The handpiece must be carefully cleaned after each surgical procedure.</li> <li>Do not use abrasives or scrapers to clean any elements of the system. Doing so may result in reduced precision, burrs and/or irregular tissue resection.</li> <li>Do not immerse the motor in the sterile distilled water bath.</li> <li>To prevent damaging the connectors and to ensure proper functioning of the motor, never pull on the cables and never hold the motor by its cable.</li> </ul> | 1               |
| 2     | <ul> <li>Disinfecting &amp; Drying</li> <li>Wipe each part of the motor with a lint-free cloth moistened with disinfecting solutions.</li> <li>Use appropriate disinfecting solutions (spray or wipe clean disinfectant) according to the manufacturers' instructions.</li> <li>Dry carefully with disposable instrument cleaner (lint-free) then with clean, filtered, compressed air.</li> </ul>   | <ul> <li>It is imperative to verify that the devices are perfectly clean and free of any organic or other residues.</li> <li>Do not gas sterilize (ETO) the motor.</li> <li>Do not autoclave the motor.</li> <li>No current sterilization process is compatible with MORIA motors.</li> </ul>  |                 |
| 3     | Storage  | <ul> <li>Failure to completely dry the inside of the motor can result in oxidation.</li> <li>Do not store products that are not completely dry; doing so may create rust and result in irregular corneal resection.</li> <li>When not in use, the One Use-<i>Plus</i> system should be kept in its storage box (#22519514) in a dry atmosphere.</li> </ul>   |                 |

# 9.4 CLEANING-DISINFECTION-STERILIZATION-STORAGE OF THE SUCTION RINGS

This protocol has been approved by the French National Ophthalmological Hospital (CHNO), XV/XX (Paris, France), Hygiene/Sterilisation Department (Dr Patrice RAT).

| Steps | What to do  |   |
|-------|---|---|
| 1     | <ul> <li>Double cleaning</li> <li>On leaving the operating theatre, immediately immerse the devices in an aldehyde-free detergent/disinfectant solution (e.g.: Alkazyme® / Alkapharm Laboratories) for at least 15 minutes according to manufacturer recommendations.</li> <li>Manual cleaning (or use a machine, provided that it does not recycle the cleaning products, after disassembling the device where appropriate).</li> <li>Rinse the circuit with water.</li> <li>Immerse the device in an aldehyde-free detergent/ disinfectant solution (a different bath from the one above).</li> <li>Manual cleaning (or use a machine, provided that it does not recycle the cleaning products).</li> <li>Rinse using filtered distilled or osmosis-treated water.</li> <li>Wipe the device using a non-woven, lint-free, disposable cloth.</li> </ul>  | <ul> <li>Manual cleaning: mechanical cleaning of the medical device using soft brushes (metal brushes and scouring pads are prohibited).</li> <li>IMPORTANT: Change the baths after each use.</li> <li>Incompatibility: <ul> <li>Do not use bleach</li> <li>Do not apply this protocol to products made of aluminium alloy.</li> <li>Do not apply this protocol to heat-sensitive (motor and turbine).</li> </ul> </li> </ul> |
| 2     | <ul> <li>Deactivation of NCTAs (Non-Conventional<br/>Transmitted Agents)</li> <li>On leaving the operating theatre, immediately<br/>immerse the devices in an aldehyde-free<br/>detergent/disinfectant solution, preferably<br/>enzymatic (e.g.: Alkazyme® / Alkapharm<br/>Laboratories) for at least 15 minutes according to<br/>manufacturer recommendations, and then rinse<br/>the devices.</li> <li>Cleaning, disinfectant and rinsing fluids must<br/>be stored in sealed containers and disposed<br/>of by appropriate procedures for contaminated<br/>biological liquid waste.</li> <li>Immerse the device in a soda solution (1 N) for<br/>one hour.</li> <li>Rinse the device manually three times (using<br/>water from the network), and check the pH when<br/>performing the last rinse to prevent any risk of<br/>burns (neutral pH). The last rinse must be carried<br/>out using microbiologically tested water.</li> <li>Wipe the device using a non-woven, lint-free,<br/>disposable cloth, and reinstall the device in the<br/>normal disinfection/sterilization circuit.</li> </ul> | <ul> <li>Deactivation of NCTAs: for patients with a risk of Creutzfeldt-Jakob disease only – CJD questionnaire (see the Ministry's guide, dated November 05)</li> <li>Note: If the pH is not neutral, perform further rinses until an acceptable pH is reached (close to pH7).</li> </ul>   |
| 3     | Sterilization<br>Sterilize the sterilization tray using an autoclave<br>(moist heat sterilizer) at a temperature of at least<br>134°C for 18 minutes.   |   |

### Bibliography:

- March 2001 Circular No. DGS/5C/DHOS/E2/138 dated 14 March 2001 on risk management in health establishments
- November 2005 Guide from the Ministry on the treatment of medical devices for ophthalmology and contactology - http://www.sante.gouv.fr.

# **10 WARRANTY**

# **10.1 SCOPE OF WARRANTY**

| Designation                                | MORIA references |
|--|------------------|
| One Use-Plus handpiece (blue color)        | 19345            |
| Wrench                                     | 19345C           |
| Storage box for the One Use-Plus handpiece | 22519514         |
| EVOLUTION 3 console (except the battery)   | 19360            |
| EVOLUTION 3E console (except the battery)  | 19380            |
| EVOLUTION 3E Footswitch                    | 19361            |
| EVOLUTION 3E Footswitch Epi-K™             | 19381            |

- The above items as well as spare parts and labor necessary for their repair are covered by warranty. Any items returned must be sent it their original packaging, after having previously been disinfected.
- The maintenance operations and the replacement of spare parts will be exclusively carried out by technicians authorized by MORIA.
- Any defective part exchanged during the period of warranty becomes property of MORIA.
- Instruments and accessories that cannot be reused are excluded from this warranty.
- Future upgrades and/or improvements on the keratome are not implied by this warranty. .

### **10.2 NON-APPLICATION OF WARRANTY**

The warranty will not be applicable under any of the following conditions:

- Defects or malfunction that occur out of the warranty period (10.3). •
- Normal wear and tear. .
- Negligence or usage that does not comply with the specifications in the user manual. .
- The use of supplies, spare parts, or accessories other than those supplied by MORIA.
- Any disassembly, modification or intervention carried out on the devices by a person not authorized by MORIA.

### **10.3 WARRANTY PERIOD**

- The warranty takes effect on the date the material is dispatched.
- The duration of the warranty is 12 months from the date of effect. ٠

### **10.4 LIABILITY**

- ٠ The liability of MORIA is limited to the supply of the services mentioned in paragraph 10.1. MORIA will not be held responsible of any direct or indirect damage suffered by the client owing to the interventions within the scope of this warranty.
- For any dispute concerning the interpretation or the execution of the present contract or the present general terms and conditions, the Commercial Court of Nanterre (France) will have sole iurisdiction.

# **11 DRAWINGS**

### A. DISPOSABLE HEAD

- 1 Threaded shaft
- 2 Head calibration value
- 3 Blade housing
- 4 Slide
- 5 Blade
- 6 Aplanating plate

### **B. SUCTION RING**

- 1 Vacuum connection
- 2 Stop setting screw
- 3 Stop
- 4 Guiding
- 5 Ring size
- 6 Threaded shaft

## C. SETTING THE STOPPER

- Step 1: Loosen safety screw 1
- 2 Step 2: Turn stop to desired value (the desired stop value must face the ring). Tighten screw with fingers

#### D. CONNECTING THE SUCTION RING TO THE ASPIRATION TUBING

- Aspiration tubing end
- 2 Suction ring end

## E. MOTOR

- 1 Motor housing
- 2 Motor cord
- 3 Threaded ring
- 4 Oscillation motor shaft
- 5 Head alignment guide
- 6 Advance drive

### F. MOUNTING THE HEAD ON THE MOTOR

- Screw the head clockwise onto the 1 threaded motor shaft.
- 2 Check that the head is screwed on tightly to the motor
- 3 There should be no rotation of the head

## G. MOUNTING THE HEAD ON THE SUCTION RING

- 1 When inserting the head in the rails of the suction ring, the handpiece must be at a 45° angle from the threaded shaft of the rina
- 2 Once the head properly inserted, slightly reduce the angle from 45° to 0°

# H. ALIGNMENT OF THE HEAD, MOTOR AND

- SUCTION RING
- 1 Proper assembly
- 2 Incorrect alignment 3
- Alignment of the threaded shaft with the motor

# I. CLEANING THE MOTOR

1 Disposable brush (#19149)

#### 2 Maximum submersion 3

Sterile distilled water



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