Encision recommends placing this document in the Instructions for Use/Care Section of your AEM Monitor Operator/Service Manual.

**Device Description**

**Modular Instruments**

The ES8000, ES8000L, ES8200 and ES8200L Handle Assemblies are instruments designed for use with reusable and disposable AEM Inserts. Most inserts fit standard 5.5mm trocar canulas. (Inserts with a larger or smaller cross-section are identified in the catalog description.) The instruments are “true 5mm” and are sized for use with the Disposable Sheath (ES0150A or ES0150-45).

**Principle of Operation**

The front and rear handles open and close the working tip (jaw/blade insert) of the instrument.

The working tip of the instrument should always be closed when introducing or removing the instrument from the cannula.

Laparoscopic procedures should be performed only by surgeons having adequate training and familiarity with laparoscopic techniques as well as the complications, hazards, risks and benefits of the procedure.

**Indications/Intended Use**

These AEM Instruments incorporate the use of AEM technology and are intended for use in delivering monopolar electrosurgical energy during laparoscopic procedures only.

AEM Instruments are intended for use with the AEM Monitoring System and electrosurgical generators having compatibility with the AEM Monitor.

**Contraindications**

These instruments are not intended for use when laparoscopic electrosurgical techniques are contraindicated.

**Instructions For Use**

**Prior to Use**

Thoroughly read these instructions and the instructions in the AEM Monitor Operator/Service Manual. Reusable components are supplied non-sterile. Refer to Reprocessing Instructions prior to use. Disposable inserts and sheaths are supplied sterile. Inspect the instrument for proper assembly and function. See End of Life Indicators.

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**NOTE**

- This product is rated to 9000 Vp-p. Limit electrosurgical generator power setting to 80 Watts or lower (60 Watts for the Conmed Aspen Excalibur spray mode). Higher settings may result in spurious insulation failure alarms and/or insulation breakdown. See Encision AEM Monitor Operator/Service Manual for a list of compatible electrosurgical generators.
- See also Instructions for Use/Care for AEM Instruments, Disposable Sheath and Disposable Scissors as applicable.
- The ES8000, ES8000L, ES8200, ES8200L handles are not compatible with 35cm or 45cm lengths of the following model number inserts: ES0502, ES0517, ES0518, ES0519, ES0520, ES0529, and ES0545.
- Discard on evidence of End of Life Indicators.
- This product is supplied non-sterile and must be sterilized prior to use.

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**AEM System Setup**

See laminated Setup Sheet (00701) when using the ES9005 series AEM Cord Adapter and (02678) when using the ES9015 Universal Adapter.

**WARNING**

- Laparoscopic surgery may result in gas embolism due to insufflation of gas into the abdomen.
- Pulling or tugging cords can result in breaking of internal conductors, causing intermittent alarms or sparking and burning of insulation during use. The AEM Monitor is not designed to detect or prevent an arc in the event of a broken active wire.
- Keep electrical connections dry while in use to prevent potential conduction of HF current to the user.
- Damaged external insulation AND incorrect setup of the AEM Monitor may result in a risk of unintended patient burn, shock or fire hazard. Do not use product having damaged insulation.

**CAUTION**

- Good operating room practice suggests that connections of accessories to electrosurgical generators be made only while the generator is Off or on Standby.
- Use these instruments only in conditions that assure adequate visualization to minimize risk of misapplied electrosurgical energy.
- Keep ESU power setting as low as possible for the intended purpose to minimize unintended burns.
- Damaged internal insulation of the cord and/or instrument, or loss of shield continuity, may cause ESU return pad alarms triggered by the AEM Monitor’s Fault Indicators. For maximum patient safety, discontinue use of the instrument if this occurs.
- A singular AEM Instrument must be the sole conductor of energy to tissue. Do not conduct energy by touching an AEM Instrument to a second instrument contacting tissue. The second device will not be protected from capacitive coupling and insulation failure.
- Keep electrosurgical instruments away from the patient and operative field when not in use. Accidental activation can result in unintended injury to the patient.
- See electrosurgical generator manual and AEM Monitor Operator/Service Manual for precautions concerning the general application of electrosurgical equipment.
Assembly Instructions (Handle and Insert)
Assemble the two (2) basic components.
1. Hold the instrument upside down as shown. Slide the insert (A) into the handle shaft until the trigger catches and rotates slightly upward.

2. Rotate the insert tip clockwise to screw in the insert.

3. Turn the rotation knob to adjust the positioning of the insert.

Reprocessing Instructions
After use, the instrument must be disassembled, cleaned, lubricated and sterilized before reuse.
This product has been validated for 10^-6 sterility assurance level when reprocessed in accordance with these cleaning and sterilization instructions.

CAUTION
- Treat a used instrument as a potential biohazard until cleaning and sterilization has been completed. Microscopic residues may remain after cleaning.
- Stainless Steel is rust-resistant, not rust-proof. Instruments should be kept dry when not in use.
- Do not use bleach (sodium hypochlorite) based products during cleaning. Bleach is extremely corrosive to metals and can negatively affect the electrosurgical instruments. Refer to your cleaning products Material Safety Data Sheet (MSDS) to ensure that they are not corrosive or harmful to various metals (including stainless steel, gold, etc).
- Use of some detergent solutions may leave a surfactant residue on the gold connector surface, depending on the strength of the solvent and how thoroughly the residues are rinsed off. This may result in intermittent cord alarms. The residue may be removed by use of an alcohol-soaked swab, rotated completely around the external gold connector surfaces.
- Certain cleaning chemicals may negatively affect metals, such as the gold connectors. Refer to your cleaning products Material Safety Data Sheet (MSDS) to ensure that they are not corrosive or harmful to various metals (including stainless steel, gold, etc).

Cleaning
Automated washer/disinfector systems are not recommended as the sole cleaning method for surgical instruments. An automated washer/disinfector system may be used as a follow-up to manual cleaning, but is not required.

NOTE
- The use of fully distilled or demineralized water is preferred for cleaning and rinsing.

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>When using a disposable sheath, remove and discard the sheath prior to cleaning.</td>
</tr>
<tr>
<td>2</td>
<td>Immerse all components in KLENZYM® or equivalent blood dissolving enzymatic solution (prepared per manufacturer's instructions) for at least 5 minutes and gently agitate. (Soak longer if proteinaceous material is present.)</td>
</tr>
<tr>
<td>3</td>
<td>Remove the device from the enzyme solution and rinse thoroughly under running tap water (minimum of 3 minutes).</td>
</tr>
</tbody>
</table>

Disassembly/Disposal
Disassemble in reverse order from assembly. No further disassembly is recommended.
If using Disposable Sheath, see also Disposable Sheath Instructions For Use/Care.

NOTE
- Used instruments are considered medical waste. Dispose of in accordance with local regulations.
## Typical Automated Washer/Disinfector Cycle for Surgical Instruments

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Prewash with cold tap water for 1-10 minutes.</td>
</tr>
<tr>
<td>2</td>
<td>Enzyme spray with hot tap water for 1-15 minutes.</td>
</tr>
<tr>
<td>3</td>
<td>Rinse with hot or cold water for at least 20 seconds.</td>
</tr>
<tr>
<td>4</td>
<td>Detergent wash with hot tap water for 1-20 minutes.</td>
</tr>
<tr>
<td>5</td>
<td>Hot water rinse for at least 20 seconds.</td>
</tr>
<tr>
<td>6</td>
<td>Thermal rinse (80°C to 98°C / 176°F to 208°F) for 1-5 minutes. Lubricant may be added during this cycle.</td>
</tr>
<tr>
<td>7</td>
<td>Hot air dry (use low temperature setting) for 0-10 minutes.</td>
</tr>
</tbody>
</table>

**NOTE**
- The washer/disinfector manufacturer’s instructions should be strictly adhered to.

### Lubrication

After cleaning all the components, but before sterilization, lubricate the shaft and all moving parts of the jaw insert with water-soluble medical instrument lubrication. After lubrication, prepare the instrument for sterilization by wrapping in sterile wrap, as appropriate.

**NOTE**
- Failure to lubricate may result in increased wear or binding.

### Sterilization

Monitoring sterility using Geobacillus stearothermophilus spore strips is recommended.

**NOTE**
- Do not exceed temperatures of 135°C / 275°F. Performance to specification has not been verified above this temperature. Damage to the product may occur.
- Validation of sterilization cycles other than steam autoclave is the responsibility of the end user.

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Allow the instrument to dry thoroughly prior to Sterilization.</td>
</tr>
<tr>
<td>2</td>
<td>See Caution above regarding removal of detergent solution from the connector surface using an alcohol swab prior to Sterilization.</td>
</tr>
<tr>
<td>3</td>
<td>Steam Sterilization – assembled or disassembled: (use one of the methods listed below)</td>
</tr>
<tr>
<td>Prevac (2 layers of Sterile Wrap or Unwrapped)</td>
<td></td>
</tr>
<tr>
<td>Temperature: 132°C / 270°F minimum</td>
<td></td>
</tr>
<tr>
<td>Duration: 4 minutes minimum</td>
<td></td>
</tr>
<tr>
<td>Gravity Steam (2 layers of Sterile Wrap)</td>
<td></td>
</tr>
<tr>
<td>Temperature: 132°C / 270°F minimum</td>
<td></td>
</tr>
<tr>
<td>Duration: 15 minutes minimum.</td>
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</tr>
<tr>
<td>Gravity Steam (FLASH/Unwrapped)*</td>
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<tr>
<td>Temperature: 132°C / 270°F minimum</td>
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</tr>
<tr>
<td>Duration: 10 minutes minimum</td>
<td></td>
</tr>
<tr>
<td>Flash Sterilization is not recommended, except in emergency situations.</td>
<td></td>
</tr>
</tbody>
</table>

**CAUTION**
- Cold Soak Sterilization is not recommended. Testing results indicate that cold soak sterilization (Glutaraldehyde) is not adequate for this product. Manufacturer’s recommended cycle times DO NOT always provide a 10^-6 sterility assurance level.
- Gas Plasma (Hydrogen Peroxide) Sterilization is not recommended for Encision Instruments. Instruments with long, narrow lumens may pose a challenge for this type of sterilization.

### Product Life

This product has been tested and shown to remain safe and effective for up to 50 uses under typical use and reprocessing conditions.

The life of this surgical instrument is largely dependent on the care and handling at the point of use / cleaning / sterilization. For optimal instrument life, protect it from contact / impact with other instruments during decontamination and sterilization.

The number of uses may be reduced by improper handling, and “prevac” or “flash” sterilization methods.

Electrification of scissors inserts may reduce their useful life.

### End of Life Indicators

The ES8000, ES8000L, ES8200 and ES8200L handles may be used until a handle exhibits any of the following end of life indicators.

Visually inspect and electrically test prior to use. Discontinue use if any of the following are evident:
- Intermittent electrical performance
- Bent electrode shaft or tip affecting function of sheath or insertion into trocar
- Any insulation damage which exposes metal (AEM Shield) along the length of the instrument’s shaft and/or any insulation damage in Zone 1
- Binding or impaired mechanical functions

### Express Warranty

Encision hereby warrants to Buyer that products purchased hereunder shall be free from defects in materials and workmanship under normal use and service, as specified in these Instructions for Use/Care, for the period of six months from date of purchase, or upon reaching an end of life indicator, whichever occurs first. Any evidence of unauthorized modification or repair of this device will void the warranty.

See AEM Monitor Operator/Service Manual for details of Limitations, Disclaimer, and Exclusions.

### Return of Used Product

If for any reason this product must be returned to Encision, a returned goods authorization is required prior to shipping. Appropriate return instructions may be obtained from Encision.

### Product

Encision reserves the right to amend, modify or to change any product, to introduce new products, to withdraw products and otherwise vary product specifications at any time without notice.

US Patent Nos.: 5,769,841; 6,494,877

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<tr>
<td>🗓️</td>
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<td>📜</td>
<td>Catalog Number/Reference</td>
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</tr>
<tr>
<td>📌</td>
<td>Consult Instructions for Use</td>
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<tr>
<td>🇺🇸</td>
<td>Does not contain or no presence of natural rubber latex</td>
<td>ISO 15223 5.4.5 with negation symbol Annex B.2</td>
</tr>
<tr>
<td>🎞️ ONLY</td>
<td>Prescription Only</td>
<td>21 CFR PART 801</td>
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</tbody>
</table>

Made in USA

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