## ATTACHMENTS

**DRILLS**
**REAMERS**
**DRIVERS**
**STERNUM SAW GUARD**

*Instructions for Use*
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Introduction

Thank you for choosing BUSA® Surgical Power & Accessories as supplier of your large bone power system.

The information and procedures described in this manual are intended to assist medical professionals in the safe and effective use, care, cleaning, sterilization and long-term maintenance of BSPMAX™ II Large Bone Power System.

Intended Use

The BSPMAX™ II Attachments (Drills, Reamers and Drivers) are intended for use with the BSPMAX™ II Modular Drill/Reamer designed for cutting bone, reaming, drilling, wires and pins in most common large bone orthopaedic surgical procedures.

The BSPMAX™ II Sternum Saw Guard Attachment is intended for use with the BSPMAX™ II Reciprocator/Sternum Saw designed for cutting bone in thoracic surgical procedures.

Warnings

• Only trained and experienced medical professionals should use this equipment. Failure to comply with the BSPMAX™ II Instructions for use may result in patient and/or medical staff injury.

• Use of eye protection is required while operating equipment.

• To prevent accidental activation of the handpiece, the trigger should always be in the SAFE mode when attachment, battery pack and cutting accessory (drill, pin, wire, reamer and blade) are being installed or removed.

• DO NOT place hands on or grip any rotating part while operating a handpiece. Failure to comply may result in medical staff injury.

• To ensure safety and optimum performance, use BUSA® Surgical Power & Accessories cutting accessories (drills, wires, pins and blades).

• DO NOT modify any attachment. Failure to comply may result in patient and/or medical staff injury.
Warnings (continued)

- Before each use, test the equipment and inspect each device (handpiece, attachment and accessory) for damage. Do not use any device if damage or malfunctioning is apparent. Return device for service.

- Continually check handpiece and attachments for excessive heat. If overheating is noticed, discontinue use and return device for service.

- Clean and sterilize handpieces, attachments, battery packs and accessories before every use.

- Perform recommended preventive maintenance as indicated in the Care and Maintenance section.

- DO NOT install or remove attachment or cutting accessory while the handpiece is operating.

- Always place the handpiece in the SAFE mode while the handpiece is idle, before installing or removing attachment or cutting accessory, (drill, pin, wire, reamer and blade) or when passing the handpiece to another person.

- DO NOT apply excessive force on a cutting accessory (drill, pin, wire, reamer and blade) when installed in the handpiece, such as bending or prying. Using excessive force may damage the device or cutting accessory and may cause injury to patient and/or user.

- Inspect cutting accessories (drills, pins, wires, reamers and blades) for damage before each use. Do not attempt to straighten or sharpen.

- If accessory binds or jams in the bone, release power completely. Manually rotate in opposite direction to release/unjam accessory.

- Only use compatible shank accessories that fit snugly with attachment. If worn or incompatible (too loose) condition exist, do not use.

- Under certain classifications of risk, the World Health Organization (WHO), or local regulatory authorities recommend special CJD (Creutzfeldt-Jakob Disease) inactivation processing procedures. Consult WHO and local regulations for further information.
Explanation of Symbols

EC REP

Authorized representative in the European community.

REF

Catalog number.

Caution.

Conforms with the essential requirements of the European community directives with Brasseler USA Medical’s notified body.

Date of manufacture.

Manufacturer.

Serial Number.

Temperature limit.
<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
<th>Collet</th>
<th>Gear Ratio</th>
<th>Cannulation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Trinkle/AO® - PM-X08-905</strong></td>
<td>Collet: Small ASIF/AO®/Synthes®, Trinkle</td>
<td>3.2 mm</td>
<td>1:1</td>
<td>3.2 mm</td>
</tr>
<tr>
<td><strong>1/4 in Jacobs® Chuck w/ Key - PM-X08-910</strong></td>
<td>Collet: 1/4 in (6.5 mm)</td>
<td>4 mm</td>
<td>1:1</td>
<td>4 mm</td>
</tr>
<tr>
<td><strong>5/32 in Jacobs® Chuck w/ Key - PM-X08-915</strong></td>
<td>Collet: 5/32 in (4 mm)</td>
<td>3.2 mm</td>
<td>1:1</td>
<td>3.2 mm</td>
</tr>
<tr>
<td><strong>Hudson® - PM-X08-920</strong></td>
<td>Collet: Hudson® Accessories</td>
<td>4 mm</td>
<td>1:1</td>
<td>4 mm</td>
</tr>
<tr>
<td><strong>Zimmer® - PM-X08-925</strong></td>
<td>Collet: Zimmer® Accessories</td>
<td>4 mm</td>
<td>1:1</td>
<td>4 mm</td>
</tr>
<tr>
<td><strong>1/4 in Keyless Chuck - PM-X08-930</strong></td>
<td>Collet: 1/4 in (6.5 mm)</td>
<td>4 mm</td>
<td>1:1</td>
<td>4 mm</td>
</tr>
<tr>
<td><strong>3 mm Keyless Chuck - PM-X08-935</strong></td>
<td>Collet: 1/8 in (3 mm)</td>
<td>3.2 mm</td>
<td>1:1</td>
<td>3.2 mm</td>
</tr>
<tr>
<td><strong>ZHS - PM-X08-940</strong></td>
<td>Collet: Zimmer®/Hudson®/Stryker® Universal</td>
<td>4 mm</td>
<td>1:1</td>
<td>4 mm</td>
</tr>
</tbody>
</table>
## Drill, Reamer & Driver Attachments - Features & Specifications

### Reamers (Color: Blue)

<table>
<thead>
<tr>
<th>Image</th>
<th>Reamer Description</th>
<th>Details</th>
</tr>
</thead>
</table>
| ![Image 1] | **1/4 in Jacobs® Hi Torque w/ Key (Extended Length) - PM-X08-911** | Collet: 1/4 in (6.3 mm)  
Cannulation: 4 mm  
Gear Ratio: 3:1 |
| ![Image 2] | **Hudson® (Extended Length) - PM-X08-950** | Collet: Hudson® Accessories  
Cannulation: 4 mm  
Gear Ratio: 3:1 |
| ![Image 3] | **Zimmer® (Extended Length) - PM-X08-955** | Collet: Zimmer® Accessories  
Cannulation: 4 mm  
Gear Ratio: 3:1 |
| ![Image 4] | **AO® (Extended Length) - PM-X08-960** | Collet: Hex AO® Accessories  
Cannulation: 4 mm  
Gear Ratio: 3:1 |
| ![Image 5] | **ZH S (Standard Length) - PM-X08-965** | Collet: Zimmer®/Hudson®/Stryker® Universal  
Cannulation: 4 mm  
Gear Ratio: 3:1 |
| ![Image 6] | **1/4 in Jacobs® Hi Torque w/ Key (Standard Length) - PM-X08-970** | Collet: 1/4 in (6.3 mm)  
Cannulation: 4 mm  
Gear Ratio: 3:1 |
## Drill, Reamer & Driver Attachments - Features & Specifications

### Drivers

| ![Driver Illustration] | **Pin - PM-X08-701**  
Collet: .078 in (2.0 mm) to .156 in (4.0 mm)  
Gear Ratio: 1:1 |
|------------------------|------------------------------------------------------|
| ![Driver Illustration] | **Wire - PM-X08-702**  
Collet: .028 in (0.7 mm) to .078 in (2.0 mm)  
Gear Ratio: 1:1 |
Drill, Reamer & Driver Attachments - Installation & Removal

**Attachment Installation:**

- Rotate trigger to the SAFE mode.
- Insert and rotate attachment into handpiece aligning attachment male tabs with handpiece female slots, press firmly until snaps in lock position.
- Tug firmly on the attachment to make sure it is installed properly.

**Attachment Removal:**

- Rotate trigger to the SAFE mode.
- Depress both release tabs fully on the attachment and pull the attachment out of the handpiece.
Drilling & Reaming Cutting Accessory - Installation & Removal

**Trinkle Attachment:**

Accessory Insertion:
- Retract attachment’s quick connect sleeve.
- Align the dimple on the Trinkle shank with the alignment arrow on the quick connect sleeve.
- Insert the accessory shank and release the quick connect sleeve.
- Rotate the accessory until fully engaged.
- Tug firmly on the accessory to ensure it is installed properly.

Accessory Removal:
- Rotate trigger to the SAFE mode.
- Retract the quick connect sleeve and remove accessory.

**AO® Attachment:**

Accessory Insertion:
- Align the flat surface on the AO® shank with the alignment arrow on the quick connect sleeve.
- Insert the accessory shank until it stops and then retract attachment’s quick connect
- Insert the accessory shank fully and release the quick connect sleeve.
- Tug firmly on the accessory to ensure it is installed properly.

Accessory Removal:
- Rotate trigger to the SAFE mode.
- Retract the quick connect sleeve and remove accessory.
Drilling & Reaming Cutting Accessory - Installation & Removal

*Jacobs® Chuck w/ Key Attachments:*

**Accessory Insertion:**
- Rotate trigger to the SAFE mode.
- Open the chuck jaws and insert the accessory shank into the center of the open jaws.
- Close and tighten the chuck jaws by turning the chuck key clockwise. Check to ensure accessory shank is centered in the jaws.
- Tug firmly on the accessory to ensure it is installed properly.

**Warning:**
- Always manually close the chuck jaws to secure the accessory.
- DO NOT operate the handpiece to automatically close the jaws on the accessory shank. Failure to comply may result in medical staff injury.

**Accessory Removal:**
- Rotate trigger to the SAFE mode.
- Open the chuck jaws by turning the chuck counter clockwise and remove accessory.
Keyless Chuck Attachments:

Warnings:

• Always manually close the chuck jaws to secure the accessory.
• DO NOT operate the handpiece to automatically close the jaws on the accessory shank. Failure to comply may result in medical staff injury.
• Keyless chucks will loosen if handpiece is used in REVERSE or OSCILLATE mode.

Accessory Insertion:

• Rotate trigger to the SAFE mode.
• Open the chuck jaws by turning the knurled collar counter clockwise while firmly holding the chuck ring.
• Insert the accessory shank into the center of the open jaws.
• Close and tighten the chuck jaws manually. Turn the knurled collar clockwise while firmly holding the chuck ring. Check to ensure accessory shank is centered in the jaws.
• Tug firmly on the accessory to ensure it is installed properly.

Accessory Removal:

• Rotate trigger to the SAFE mode.
• Open the jaws of the chuck by turning the knurled collar clockwise while firmly holding the chuck ring and remove accessory.
Drilling & Reaming Cutting Accessory - Installation & Removal

_Hudson®, Zimmer® & ZHS Attachments:_

**Accessory Insertion:**
- Rotate trigger to the SAFE mode.
- Retract the attachment’s quick connect sleeve.
- Align the accessory’s flats with the collet’s drive flats.
- Insert the accessory shank and release the quick connect sleeve.
- Tug firmly on the cutting accessory to ensure it is installed properly.

**Warning:**
- If reamer accessory binds or jams in the bone, release power completely. Manually rotate in opposite direction to release/unjam accessory.

**Accessory Removal:**
- Rotate trigger to the SAFE mode.
- Retract the quick connect sleeve and remove accessory.

**Warning:**
- Verify that the mating accessory shank is compatible and not too worn. If too much gap is evident, the driving tabs of the attachment may fracture.
AO® Reamer Attachment:

Accessory Insertion:
• Rotate trigger to the SAFE mode.
• Retract the attachment’s quick connect sleeve.
• Align hex with collet.
• Insert the accessory shank and release the quick connect sleeve.
• Tug firmly on the cutting accessory to ensure it is installed properly.

Accessory Removal:
• Rotate trigger to the SAFE mode.
• Retract the quick connect sleeve and remove accessory.
Pins & Wires - Installation & Removal

Pin & Wire Driver Attachments:

Pin/Wire Insertion:

- Rotate trigger to the SAFE mode.
- Insert selected pin/wire into the front of the driver to the desired working depth.

Note: To prevent pin/wire slippage during handling, pins/wires are retained upon insertion into the driver. Pull firmly on the driver lever to drive pins/wires for insertion into bone.

To Insert Pin/Wire into bone:

- Position the mode selector to FWD mode.
- Rotate trigger to the RUN mode.
- Pull the driver lever firmly toward the handpiece while simultaneously depressing the trigger.
- Insert pin/wire to the desired depth.

Warning:

- Working exposed length amount varies with bone density and pin/wire diameter. If exposed length is too long, the wire/pin may bend.

To Advance Pin/Wire:

- Release the trigger to stop the handpiece.
- Release the driver lever and slide the handpiece along the pin/wire.

To Remove Pin/Wire from Bone:

- Position the mode selector to REV mode.
- Rotate trigger to the RUN mode.
- Slide the driver over the pin/wire.
- Pull the driver lever firmly toward the handpiece while simultaneously depressing the trigger.
- Remove pin/wire.
Sternum Saw Guard - Installation & Removal

PM-X14-901:

Sternum Saw Guard Installation:

- Rotate trigger to the SAFE mode.
- Install saw blade per instructions in the Saw Blade – Installation and Removal section.
- Retract the guard’s quick connect collar toward guard foot.
- Align the dimple on the sternum saw guard with the dimple on the Reciprocating Saw/Sternum Saw.
- Slide the sternum saw guard over the sternum saw blade. Ensure that the guard’s support strut is behind the smooth side of the sternum saw blade, and distal end of saw blade is inserted properly into the guard’s foot.
- Release quick connect collar.
- Tug firmly on the sternum saw guard to ensure it is installed properly and will not pull off the handpiece.

Sternum Saw Guard Removal:

- Rotate trigger to the SAFE mode.
- Retract the guard’s quick connect collar toward guard foot and remove guard.

Handpiece Operation

See Handpiece Instructions for Use.
## Troubleshooting

### Modular Drill/Reamer/Driver Attachments

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Potential Cause</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attachment will not connect properly to handpiece.</td>
<td>There is debris in the handpiece collet.</td>
<td>See cleaning recommendations.</td>
</tr>
<tr>
<td></td>
<td>Attachment release tabs are damaged.</td>
<td>Replace attachment.</td>
</tr>
<tr>
<td>Difficult/Cannot remove attachment from handpiece.</td>
<td>Attachment release tabs are not fully depressed.</td>
<td>Depress both release tabs fully.</td>
</tr>
<tr>
<td></td>
<td>Handpiece was sterilized with attachment installed.</td>
<td>See cleaning recommendations.</td>
</tr>
<tr>
<td></td>
<td>If condition continues, send handpiece to Brasseler U.S.A. Medical, LLC, for service.</td>
<td></td>
</tr>
<tr>
<td>Attachment will not hold reamers or drills.</td>
<td>Attachment collet is worn.</td>
<td>Replace attachment.</td>
</tr>
<tr>
<td></td>
<td>There is debris in attachment collet.</td>
<td>See cleaning recommendations.</td>
</tr>
<tr>
<td></td>
<td>Wrong attachment.</td>
<td>Use correct attachment.</td>
</tr>
<tr>
<td>Attachment and/or cutting accessory wobbles in handpiece.</td>
<td>Incorrect attachment used.</td>
<td>Insert correct attachment.</td>
</tr>
<tr>
<td></td>
<td>Cutting accessory or wire/pin is bent, extends too far from the distal end of attachment, is the wrong size, or is not properly centered in the attachment.</td>
<td>Reinsert the cutting accessory, wire or pin. If condition continues, send handpiece and attachment to Brasseler U.S.A. Medical, LLC, for service.</td>
</tr>
<tr>
<td>Attachment gets hot while in use.</td>
<td>Debris or contamination in attachment.</td>
<td>Send attachment to Brasseler U.S.A. Medical, LLC, for service.</td>
</tr>
</tbody>
</table>
### Troubleshooting (continued)

**Modular Drill/Reamer/Driver Attachments**

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Potential Cause</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pin/Wire slips or will not advance.</td>
<td>The pin/wire size is incorrect.</td>
<td>Check that pin/wire size is correct size for pin/wire driver.</td>
</tr>
<tr>
<td></td>
<td>The attachment collet is worn.</td>
<td>Replace attachment.</td>
</tr>
<tr>
<td></td>
<td>The lever force is inadequate.</td>
<td>Pull driver lever fully for maximum gripping force.</td>
</tr>
<tr>
<td>Pin/Wire driver lever won’t depress.</td>
<td>There is debris in the attachment collet.</td>
<td>Send attachment to Brasseler U.S.A. Medical, LLC, for service.</td>
</tr>
<tr>
<td>Pin/Wire is not retained in the attachment.</td>
<td>The pin/wire size is incorrect.</td>
<td>Check that pin/wire size is correct size for pin/wire driver.</td>
</tr>
<tr>
<td></td>
<td>The attachment collet is worn.</td>
<td>Send attachment to Brasseler U.S.A. Medical, LLC, for service.</td>
</tr>
<tr>
<td></td>
<td>There is debris in the attachment collet.</td>
<td>See cleaning recommendations. If condition continues, send attachment to Brasseler U.S.A. Medical, LLC, for service.</td>
</tr>
</tbody>
</table>
## Troubleshooting (continued)

### Sternum Saw Guard Attachment

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Potential Cause</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sternum saw guard cannot be installed onto handpiece.</td>
<td>Guard support strut is bent.</td>
<td>Send guard to Brasseler U.S.A. Medical, LLC, for service.</td>
</tr>
<tr>
<td></td>
<td>Guard quick connect collar was not retracted while installing guard.</td>
<td>Retract guard collar while installing guard.</td>
</tr>
<tr>
<td>Difficult/Cannot remove sternum saw guard from handpiece.</td>
<td>There is debris in the quick connect collar.</td>
<td>See cleaning recommendations. If condition continues, send handpiece and attachment to Brasseler U.S.A. Medical, LLC, for service.</td>
</tr>
<tr>
<td></td>
<td>Guard quick connect collar is damaged.</td>
<td>Send handpiece and attachment to Brasseler U.S.A. Medical, LLC, for service.</td>
</tr>
<tr>
<td></td>
<td>Guard quick connect collar was not retracted.</td>
<td>Send handpiece and attachment to Brasseler U.S.A. Medical, LLC, for service.</td>
</tr>
</tbody>
</table>
Care & Maintenance

BUSA® Surgical Power & Accessories recommends that all BSPMAX™ II components (handpieces, attachments and accessories excluding battery packs) be returned to Brasseler U.S.A. Medical, LLC, Service Department for routine preventative maintenance every twelve (12) months.

Follow a regular care regimen that includes routine cleaning and a thorough inspection for damage. Routine preventive maintenance performed every twelve (12) months by the Brasseler U.S.A. Medical, LLC, Service Department can increase the reliability and extend the life of your BSPMAX™ II Large Bone Power System.

Checklist:

- Inspect all BSPMAX™ II components (handpieces, attachments and accessories) to verify all components are present.
- Ensure all handpieces, attachments and accessories have been properly cleaned as outlined in the Cleaning Recommendations section.
- Inspect all devices for proper set up and operation.
- Ensure all attachments install properly.
- Ensure the battery pack installs properly onto the handpiece.
- Ensure the drills, pins, wires, reamers and blades work properly with attachments.
- Ensure there are no loose or missing components.
- Ensure there are no cracks in the battery pack case.
- Test* the handpiece and battery pack to ensure that they are working properly.
- Check all moving parts for free movement.
- Check for unusual sounds or vibrations.
- Check for proper operating speed.
- Check for unacceptable or rapid temperature rise during testing.
- If the recommended solutions provided in the Troubleshooting section do not solve problem(s), send the device(s) to Brasseler U.S.A. Medical, LLC, Service Department as outlined in the Repair Service section.
- Remove battery pack from handpiece when test is completed.

* This maintenance test may be completed under non-sterile conditions with a battery pack that has not been sterilized.
Cleaning Recommendations

Warnings:
- Clean and sterilize handpieces, attachments, battery packs and accessories before every use.
- DO NOT sterilize 4-Bay Power Unit, Charging Bay Cover and Charging Bay.
- Prior to cleaning and sterilization, remove cutting accessory (drill, pin, wire and reamer) from attachment and remove attachment and battery pack from the handpiece.
- DO NOT use solvents, lubricants, or other chemicals, unless otherwise specified.

Cautions:
- Follow universal precautions and protective apparel when handling and cleaning contaminated instruments.
- Remove attachment and battery pack from handpiece prior to cleaning and sterilization.
- Dispose of all cutting accessories properly after each use.
- DO NOT lubricate handpieces or attachments.
- DO NOT immerse handpieces, attachments and battery packs in liquid. Contaminants will enter the equipment and damage the device.
- DO NOT clean handpieces, attachments or battery packs in an automated washer or ultrasonic cleaner.
- DO NOT clean handpieces or attachments with bleach, chlorine-based detergents, liquid or chemical disinfectants, or any products containing sodium hydroxide (i.e. INSTRU-KLENZ® or Buell® Cleaner). They will degrade the anodized aluminum coating.
Cleaning Recommendations (continued)

Cleaning Procedures:

1. Remove battery pack and attachment from the handpiece.
2. Remove cutting accessory from attachment.
3. Scrub debris from the attachment using a brush with stiff, non-metallic bristles and mild, pH balanced enzymatic cleaner. Manipulate all moving parts of the attachment to ensure all debris is removed. Use a bottle brush to clean the entire cannula in the attachment. Pull the wire end of the bottle brush through the cannula and repeat until all debris is removed.
4. Rinse all external surfaces of the attachment under running tap water. Flush the cannula in the attachment with running tap water.
5. Visually inspect the attachment for any remaining debris. If any debris is present, repeat the cleaning and rinsing procedure.
6. Gently shake the attachment free of water.
7. Dry the attachment with a clean lint-free soft cloth.
8. Inspect attachment for damage and malfunctioning. Return damaged components to Brasseler U.S.A. Medical, LLC, Service Department.
9. Place handpieces, attachments and chuck keys into designated locations in the tray insert and place tray insert into sterilization case. Fasten sterilization case lid.
10. Sterilize as directed. See Sterilization Recommendations section.
Sterilization Recommendations

Steam sterilization has been found to be both safe and effective for the sterilization of BSPMAX™ II Large Bone Power System attachments. The attachments are capable of withstanding the recommended exposure times and temperatures of steam sterilization.

Warnings:

• The use of disinfecting solutions for an exterior instrument wipe will not sterilize equipment and is not recommended.

Cautions:

• DO NOT sterilize attachments with Ethylene Oxide (ETO).
• DO NOT sterilize attachments in cold sterilization like CIDEX®.
• DO NOT “peel pack” attachments for sterilization. Sterilization in a sealed pouch traps moisture which can cause damage.
• DO NOT sterilize attachment while connected to the handpiece.
• Do not flash sterilize. It can decrease the life of the device and may cause premature failure of the device. Flash sterilization will void the warranty.

Notes:

• The following processes have been validated as being capable of cleaning and sterilizing BSPMAX™ II attachments.
• The sterilizer manufacturer’s written instruction for cycle parameters, load configuration and AAMI guidelines for steam sterilization should be followed.
Sterilization Recommendations (continued)

## Parameters for Sterilizing BSPMAX™ II Attachments

<table>
<thead>
<tr>
<th>Sterilization Type</th>
<th>Minimum Temperature</th>
<th>Minimum Exposure Time</th>
<th>Dry Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre Vacuum (Wrapped)</td>
<td>270°F (132°C)</td>
<td>4 Minutes</td>
<td>15-30 Minutes</td>
</tr>
<tr>
<td>Pre Vacuum (Wrapped)</td>
<td>273°F (134°C)</td>
<td>3 Minutes</td>
<td>15-30 Minutes</td>
</tr>
<tr>
<td>Gravity (Wrapped)</td>
<td>250°F (121°C)</td>
<td>100 Minutes</td>
<td>15-30 Minutes</td>
</tr>
<tr>
<td>Gravity (Wrapped)</td>
<td>270°F (132°C)</td>
<td>60 Minutes</td>
<td>15-30 Minutes</td>
</tr>
</tbody>
</table>

### Specifications

#### Environmental Requirements

**Operating:**
- Ambient temperature: 50°F to 70°F (10°C to 21°C)
- Relative Humidity 30% - 75%
- Atmospheric Pressure: 700hPa to 1060hPa

**Transport:**
- Ambient temperature: -4°F to 158°F (-20°C to 70°C)
- Relative Humidity 10% - 100%
- Atmospheric Pressure: 500hPa to 1060hPa
Repair Service

Contact your distributor for details regarding repairs.

BUSA® Surgical Power & Accessories recommends that all BSPMAX™ II handpieces, attachments and accessories (excluding battery packs) be returned to Brasseler U.S.A. Medical, LLC, Service Department for routine preventive maintenance every twelve (12) months. Follow a regular care regimen that includes routine cleaning after each use, strict adherence to sterilization recommendations and a thorough inspection for damage of all devices after each use. Routine preventive maintenance performed by the Brasseler U.S.A. Medical, LLC, Service Department can increase the reliability and extend the life of your BSPMAX™ II Large Bone Power System.

BUSA® Surgical Power & Accessories warrants any service or repair work performed will be free from defects in material or workmanship for the period of ninety (90) days from date of service or repair. This warranty applies to the actual work performed.

Products must be decontaminated and sterilized before returning.

**Note: It is unlawful to ship contaminated non-sterilized products.**

Contact a Customer Service Representative at BUSA® Surgical Power & Accessories at 877-834-7133 to request repair, preventive maintenance, or a loaner instrument. If available, loaner instruments will be supplied in accordance with the BUSA® Surgical Power & Accessories Loaner Program.

Please include the following information with the returned product(s):
- Indicate on the paperwork or the box the designated call ID number.
- When returning products from outside the U.S. please indicate on shipping documents per Customs requirements the following: "U.S. manufactured goods returned for factory service/repair".
- Catalog number, serial number and lot number (if applicable) of device.
- Customer name, address and account number.
- Itemized packing list.
- Brief statement describing reason for product repair or requesting preventive maintenance.
Repair Service (continued)

Return to:
Brasseler U.S.A. Medical, LLC
4837 McGrath Street
Ventura, CA 93003

Warranty

Contact your distributor for details regarding warranty.
Return Goods Policy

Contact your distributor regarding returned goods policy.
Product Disposal

Dispose of product or recycle in accordance with local laws and regulations.

Product Ordering Information

**HANDPIECES**
- PM-X08-700 MODULAR DRILL/REAMER
- PM-X12-700 SAGITTAL/OSCILLATOR SAW
- PM-X14-700 RECIPROCATOR/STERNUM SAW

**ATTACHMENTS - DRIVERS**
- PM-X08-701 PIN DRIVER
- PM-X08-702 WIRE DRIVER

**ATTACHMENTS - DRILLS**
- PM-X08-905 TRINKLE/AO®
- PM-X08-910 1/4 IN JACOBS® CHUCK W/ KEY
- PM-X08-915 5/32 IN JACOBS® CHUCK W/ KEY
- PM-X08-920 HUDSON®
- PM-X08-925 ZIMMER®
- PM-X08-930 1/4 IN KEYLESS CHUCK
- PM-X08-935 3 MM KEYLESS CHUCK
- PM-X08-940 ZHS - ZIMMER®/HUDSON®/STRYKER® UNIVERSAL

**ATTACHMENTS - REAMERS**
- PM-X08-911 1/4 IN JACOBS® HI TORQUE W/ KEY - EXTENDED LENGTH
- PM-X08-950 HUDSON® - EXTENDED LENGTH
- PM-X08-955 ZIMMER® - EXTENDED LENGTH
- PM-X08-960 AO® - EXTENDED LENGTH
- PM-X08-965 ZHS - ZIMMER®/HUDSON®/STRYKER® UNIVERSAL - STANDARD LENGTH
- PM-X08-970 1/4 IN JACOBS® HI TORQUE W/ KEY - STANDARD LENGTH

**ATTACHMENT - STERNUM SAW GUARD**
- PM-X14-901 STERNUM SAW GUARD

**ACCESSORIES**
- PM-X00-520 4-BAY POWER UNIT 110V
- PM-X00-521 CHARGING BAY COVER
- PM-X00-522 4 BAY POWER UNIT 230V
- PM-X00-710 9.6V BATTERY PACK
- PM-X00-715 12V BATTERY PACK
- PM-X00-731 STANDARD BATTERY PACK CHARGING BAY
- PM-X00-770 STERILIZATION CASE – 3 HANDPIECES
- PM-X08-000 1/4 IN JACOBS® CHUCK KEY
- PM-X08-001 5/32 IN JACOBS® CHUCK KEY

*BUSA® SURGICAL POWER & ACCESSORIES OFFERS A COMPLETE LINE OF CUTTING ACCESSORIES (SAW BLADES/RASPS, BURS, K-WIRES, STEINMANN PINS, TWIST DRILLS AND ORTHOPAEDIC PIN PACKS).*
Brasseler U.S.A. Medical, LLC
One Brasseler Boulevard • Savannah, GA 31419
800-569-6738 Ext. 7050 • 912-921-7578 (fax)
BUSAMedical.com

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