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DePuy Synthes Power Tools manufactures pneumatic and electric high speed performance instruments and attachments to meet the specific needs of both surgeon and staff. While the advanced design of these instruments provides performance and reliability for the most demanding applications, they also allow for effortless assembly.

All DePuy Synthes Power Tools instruments are manufactured to conform to rigorous quality standards to provide dependable performance.

Anspach EG1 High Speed Electric System
The EG1A Handpiece operates up to 80,000 rpm. It offers variable speed, bidirectional operation and minimal sound levels. It is a high performance system and highlights minimal vibration performance, thermal energy management, and high reliability for neurosurgeons, neurotologists, skull base surgeons, spinal surgeons, and otologists.

Warning: Before using any of the Anspach High Speed Electric Systems, it is imperative that all individuals working with the system read the accompanying documentation with the product. The surgeon is responsible for learning the proper techniques in the use of this system, as improper use may cause injury.

To schedule a hands-on training course, contact your local DePuy Synthes Power Tools sales representative, or call (800) 327-6887 or (561) 627-1080 to schedule a course.

If you have any questions after reading this guide, please call your local DePuy Synthes Power Tools sales representative or the DePuy Synthes Power Tools Customer Service Department at (800) 327-6887 or (561) 627-1080.

INDICATIONS
The Anspach EG1 High Speed Electric System is intended for cutting and shaping bone including the spine and cranium.

The Anspach EG1 High Speed Electric System is composed of handpiece model EG1A; electric console models SC3001 and SC3002; foot control models E-FP, E-FP-DIR, and E-FP-DIR/IRR; associated attachments and dissection tools.
WARNINGS AND CAUTIONS

WARNINGS

- Always use continuous irrigation to prevent heat build-up. Irrigation is necessary for proper performance.
- Surgeon is responsible for learning proper techniques in use of equipment; improper use may cause serious injury to user or patient or damage to system.
- Instrument operator and all operating room personnel must wear eye protection.
- Visually inspect for damage before using; do not use if damage is evident.
- Do not use if the product sterilization barrier or its packaging is compromised.
- Do not use, or discontinue use of powered equipment exhibiting excessive temperatures that can cause patient injury (necrosis) and/or user discomfort.
- Use of damaged or improperly maintained power equipment and/or misused powered equipment can result in excessive temperatures.
- Use caution to avoid cutting or tearing gloves while handling dissection tools.
- Dissection tools must be adequately retained within attachment to prevent distal migration, which may cause injury. Confirm attachment is proper size for dissection tool and that it is secure.
- Gently pull on dissection tool shaft to ensure it is fully seated and properly installed.
- Only cut visible areas unless an image intensifier is utilized.
- Delicate structures in proximity to dissection must be thoroughly protected to prevent injury.
- Maintain firm control of instrument at all times.
- Do not bend or use as a lever.
- Use a gentle tapping motion or side-to-side motion and let instrument do cutting.
- Do not use excessive force.
- Forceful side loading of dissection tool may cause fracture of dissection tool, which may cause injury.
- Dissection tools are disposable and intended for single patient use only. Do not resterilize and/or reuse dissection tools.
- Use standard protocol for disposal of sharp instruments.
- Continuous extreme cutting at or near stalling conditions will quickly overheat handpiece.
- Do not operate in an explosive flammable environment.
- Do not modify ground or power cord.
- Do not allow liquid into console.
- Use of accessories or cables other than those provided by DePuy Synthes Power Tools and specified for use with EG1 System may result in increased emissions or decreased immunity.
- The EG1 should not be used adjacent to or stacked with other equipment and that if adjacent or stacked use is necessary, the EG1 should be observed to verify normal operation in the configuration in which it will be used. Do not stack equipment which is heavier than 13.6 kg (30 lbs).
- Medical electrical equipment needs special precautions regarding Electromagnetic Compatibility (EMC) and needs to be installed and put into service according to the EMC information provided in this accompanying documentation.
- Portable and mobile RF communications equipment can affect medical electrical equipment.
- Power source should comply with applicable IEC, CEC, and NEC requirements. Grounding reliability can only be achieved when this equipment is connected to a receptacle marked “HOSPITAL GRADE.”
- Do not use in oxygen rich environment.
- No modification of this equipment is allowed.
- Do not modify. Modifications could result in loss of electrical safety.
- Dispose of items contaminated with body fluids with other biohazardous waste.
- At end of life recycle or dispose of device in accordance with local and national regulations.
- To avoid the risk of electric shock, this equipment must only be connected to a supply main with protective earth. The use of accessories, transducers, and cables other than those specified, with the exception of transducers and cables sold by the manufacturer of this device as replacement parts for internal components, may result in increased emissions or decreased immunity of the EG1 System.
CAUTIONS

- United States federal law restricts this device to sale by or on order of a physician or other licensed healthcare provider.
- Do not use accessories other than those provided by DePuy Synthes Power Tools and specified for use with Anspach Systems.
- To insure equipment operates as designed, read, and follow manufacturer’s instructions.
- Do not operate handpiece without an attachment and the corresponding dissection tool.

- Only Anspach G1 Dissection Tools should be used with G1 Systems.
- Use care to protect hose when handling, cleaning, and during system use.
- Damage to hose can cause leaking, rupture, or other related failures.
- Do not step on, set equipment on, pinch, kink, clamp, or otherwise occlude handpiece hose during use.
EG1a Handpiece Specifications

Speed: 10,000–80,000 rpm
Handpiece/hose Length: 3.8 m (12.5 ft)
Outside Housing (diameter): 19.1 mm (0.8 in)
Length of Housing: 127.76 mm (5.03 in)
Handpiece Weight: 116.0 g (4.1 oz)
Handpiece/hose Weight: 488.7 g (17.2 oz)

Foot Pedal (E-FP, E-FP-DIR, E-FP-DIR/IRR) Specifications

Size: 26.7 cm x 16.5 cm x 14.7 cm (10.5 in x 6.5 in x 8.5 in)
Weight: 2.0 kg (4.4 lbs)
Cord: 3.7 m (12 ft) in length
Fluid Ingress Protection: IPX8

Environmental Conditions

Temperature
Operating: 18°–30°C (65°–85°F)
Transportation and Storage: -29° – +50°C (-20° - +120°F)

Relative Humidity
Operating: 30% to 70%
Transportation and Storage: 10% to 90%

Atmospheric Pressure
Operating: 0.7–1.06 bar
Transportation and Storage: Not applicable

Patent Information

For patent information about this product, go to:
www.depuy.com/patentmarking

Not made with natural rubber latex

Note: If a fuse replacement is necessary, use only a Time Lag, 5 x 20 mm, 5A, 250V fuse.

Caution: For continued protection against risk of fire and electric shock, replace fuse only as marked.

Note:
• Item to be replaced by DePuy Synthes Power Tools repair facility ONLY.
• Return all equipment to DePuy Synthes Power Tools for proper disposal.

The device complies with the following standards:

With regard to electrical shock, fire, mechanical hazards, this ETL classified device conforms to AAMI STD ES60601-1, UL STD 60601-1, and is certified to CSA STD C22.2 No.60601-1 and 601.1

**Guidance and manufacturer's declaration – electromagnetic emissions**

The EG1 System is intended for use in the electromagnetic environment specified below. The customer or the user of the EG1 System should ensure that it is used in such an environment.

<table>
<thead>
<tr>
<th>Emission test</th>
<th>Compliance</th>
<th>Electromagnetic environment – guidance</th>
</tr>
</thead>
<tbody>
<tr>
<td>RF emissions</td>
<td>Group 1</td>
<td>The EG1 System uses RF energy only for its internal function. Therefore, its RF emissions are very low and are not likely to cause any interference in nearby electronic equipment.</td>
</tr>
<tr>
<td>CISPR 11</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RF emissions</td>
<td>Class A</td>
<td>The EG1 System is suitable for use in all establishments, other than domestic establishments and those directly connected to the public low-voltage power supply network that supplies buildings used for domestic purposes.</td>
</tr>
<tr>
<td>CISPR 11</td>
<td>Class A</td>
<td></td>
</tr>
<tr>
<td>Harmonic emissions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IEC 61000-3-2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Voltage fluctuations/flicker emissions</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>IEC 61000-3-3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Guidance and manufacturer’s declaration—electromagnetic immunity

The EG1 System is intended for use in the electromagnetic environment specified below. The customer or the user of EG1 System should assure that it is used in such an environment.

<table>
<thead>
<tr>
<th>Immunity test standard</th>
<th>IEC 60601 test level</th>
<th>Compliance level</th>
<th>Electromagnetic environment—guidance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electrostatic discharge (ESD)</td>
<td>±6 kV contact</td>
<td>±6 kV contact</td>
<td>Floors should be wood, concrete, or ceramic tile. If floors are covered with synthetic material, the relative humidity should be at least 30%</td>
</tr>
<tr>
<td>IEC 61000-4-2</td>
<td>±8 kV air</td>
<td>±8 kV air</td>
<td></td>
</tr>
<tr>
<td>Electrical fast transient / burst</td>
<td>±2 kV for power supply lines</td>
<td>±2 kV for power supply lines</td>
<td>Mains power quality should be that of a typical commercial or hospital environment.</td>
</tr>
<tr>
<td>IEC 61000-4-4</td>
<td>±1 kV for input/output lines</td>
<td>±1 kV for input/output lines</td>
<td></td>
</tr>
<tr>
<td>Surge</td>
<td>±1 kV line(s) to line(s)</td>
<td>±1 kV line(s) to line(s)</td>
<td>Mains power quality should be that of a typical commercial or hospital environment.</td>
</tr>
<tr>
<td>IEC 61000-4-5</td>
<td>±2 kV line(s) to earth</td>
<td>±2 kV line(s) to earth</td>
<td></td>
</tr>
<tr>
<td>Voltage dips, short interruptions and voltage variations on power supply input lines</td>
<td>&lt;5% UT (95% dip in UT) for 0.5 cycle</td>
<td>&lt;5% UT (95% dip in UT) for 0.5 cycle</td>
<td>Mains power quality should be that of a typical commercial or hospital environment. If the user of the EG1 System requires continued operation during power mains interruptions, it is recommended that the EG1 System be powered from an uninterruptible power supply or a battery.</td>
</tr>
<tr>
<td>IEC 61000-4-11</td>
<td>40% UT (60% dip in UT) for 5 cycles</td>
<td>40% UT (60% dip in UT) for 5 cycles</td>
<td></td>
</tr>
<tr>
<td></td>
<td>70% UT (30% dip in UT) for 25 cycles</td>
<td>70% UT (30% dip in UT) for 25 cycles</td>
<td></td>
</tr>
<tr>
<td></td>
<td>&lt;5% UT (95% dip in UT) for 5 sec</td>
<td>&lt;5% UT (95% dip in UT) for 5 sec</td>
<td></td>
</tr>
<tr>
<td>Power frequency (50/60 Hz) magnetic field</td>
<td>3 A/m</td>
<td>3 A/m</td>
<td>Power frequency magnetic fields should be at levels characteristic of a typical location in a typical commercial or hospital environment.</td>
</tr>
<tr>
<td>IEC 61000-4-8</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Note:** UT is the AC mains voltage prior to application of the test level.
Guidance and manufacturer’s declaration – electromagnetic immunity

The EG1 System is intended for use in the electromagnetic environment specified below. The customer or the user of the EG1 System should assure that it is used in such an environment.

<table>
<thead>
<tr>
<th>Immunity test</th>
<th>IEC 60601 test level</th>
<th>Compliance level</th>
<th>Electromagnetic environment–guidance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conducted RF</td>
<td>IEC 61000-4-6</td>
<td>3 Vrms</td>
<td>Portable and mobile RF communications equipment should be used no closer to any part of the EG1 System, including cables, than the recommended separation distance calculated from the equation applicable to the frequency of the transmitter.</td>
</tr>
<tr>
<td></td>
<td>150 kHz to 80 MHz</td>
<td>3 Vrms</td>
<td>Recommended separation distance</td>
</tr>
<tr>
<td>Radiated RF</td>
<td>IEC 61000-4-3</td>
<td>3 V/m</td>
<td>$d = 1.2 \sqrt{P}$</td>
</tr>
<tr>
<td></td>
<td>80 MHz to 2.5 GHz</td>
<td>3 V/m</td>
<td>$d = 1.2 \sqrt{P}$ 80 MHz to 800 MHz</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>$d = 2.3 \sqrt{P}$ 800 MHz to 2.5 GHz</td>
</tr>
</tbody>
</table>

Where $P$ is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer and $d$ is the recommended separation distance in metres (m).

Field strengths from fixed RF transmitters, as determined by an electromagnetic site survey, should be less than the compliance level in each frequency range. Interference may occur in the vicinity of equipment marked with the following symbol: 📡

---

Note 1: At 80 MHz and 800 MHz, the higher frequency range applies.

Note 2: These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.

Field strengths from fixed transmitters, such as base stations for radio (cellular/cordless) telephones and land mobile radios, amateur radio, AM and FM radio broadcast and TV broadcast cannot be predicted theoretically with accuracy. To assess the electromagnetic environment due to fixed RF transmitters, an electromagnetic site survey should be considered. If the measured field strength in the location in which the eG1 System is used exceeds the applicable RF compliance level above, the eG1 System should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as reorienting or relocating the eG1 System.

Interference may occur in the vicinity of equipment marked with the following symbol: 📡

Field strengths from fixed transmitters, such as base stations for radio (cellular/cordless) telephones and land mobile radios, amateur radio, AM and FM radio broadcast and TV broadcast cannot be predicted theoretically with accuracy. To assess the electromagnetic environment due to fixed RF transmitters, an electromagnetic site survey should be considered. If the measured field strength in the location in which the eG1 System is used exceeds the applicable RF compliance level above, the eG1 System should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as reorienting or relocating the eG1 System.

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Interference may occur in the vicinity of equipment marked with the following symbol: 📡

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Interference may occur in the vicinity of equipment marked with the following symbol: 📡

---

Note 1: At 80 MHz and 800 MHz, the higher frequency range applies.

Note 2: These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.
Recommended separation distances between portable and mobile RF communications equipment and the EG1 System

The EG1 System is intended for use in the electromagnetic environment in which radiated RF disturbances are controlled. The customer or the user of the EG1 System can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and the EG1 System as recommended below, according to the maximum output power of the communication equipment.

<table>
<thead>
<tr>
<th>Rated maximum output power of transmitter (W)</th>
<th>Separation distance according to frequency of transmitter (m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>150 kHz to 80 MHz</td>
<td>80 MHz to 800 MHz</td>
</tr>
<tr>
<td>$d = 1.2 \sqrt{P}$</td>
<td>$d = 1.2 \sqrt{P}$</td>
</tr>
<tr>
<td>0.01</td>
<td>0.12</td>
</tr>
<tr>
<td>0.1</td>
<td>0.38</td>
</tr>
<tr>
<td>1</td>
<td>1.2</td>
</tr>
<tr>
<td>10</td>
<td>3.8</td>
</tr>
<tr>
<td>100</td>
<td>12</td>
</tr>
</tbody>
</table>

For transmitters rated at a maximum output power not listed above, the recommended separation distance $d$ in metres (m) can be estimated using the equation applicable to the frequency of the transmitter, where $P$ is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer.

**Note 1:** At 80 MHz and 800 MHz, the separation distance for the higher frequency range applies.

**Note 2:** These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.
### Glossary of Symbols

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Anspach Product Icon" /></td>
<td>Anspach Product Icon</td>
</tr>
<tr>
<td><img src="image" alt="CUTTER RUN ADJUST TUBE" /></td>
<td>Indicates the attachment setting, refer to MA-D20-G1 section in this document for further details</td>
</tr>
<tr>
<td><img src="image" alt="SAFE" /></td>
<td>Indicates position, alignment or location (Color: black or red)</td>
</tr>
<tr>
<td><img src="image" alt="SAFE" /></td>
<td>Indicates position or location</td>
</tr>
<tr>
<td><img src="image" alt="SAFE" /></td>
<td>Direction of rotation</td>
</tr>
<tr>
<td><img src="image" alt="SAFE" /></td>
<td>Located on the Foot Pedal switch; this indicates a change of rotational direction for the handpiece</td>
</tr>
<tr>
<td><img src="image" alt="SAFE" /></td>
<td>Located on the Foot Pedal switch; this indicates a change state (on/off) for the Console Irrigation System</td>
</tr>
<tr>
<td><img src="image" alt="SAFE" /></td>
<td>Located on the Foot Pedal switch; this indicates a change of rotational direction for the handpiece</td>
</tr>
<tr>
<td><img src="image" alt="SAFE" /></td>
<td>AC Power Source</td>
</tr>
<tr>
<td><img src="image" alt="SAFE" /></td>
<td>Consult Operating Instructions</td>
</tr>
<tr>
<td><img src="image" alt="SAFE" /></td>
<td>Located on the Console; this indicates motor or handpiece connector</td>
</tr>
<tr>
<td><img src="image" alt="SAFE" /></td>
<td>Located on the Console; this indicates Foot Control connector</td>
</tr>
<tr>
<td><img src="image" alt="SAFE" /></td>
<td>Located on the Console touchpad; this feature is not active on these models</td>
</tr>
<tr>
<td><img src="image" alt="SAFE" /></td>
<td>Located on the Console; this indicates Forward (Clockwise rotation when looking at handpiece from proximal end)</td>
</tr>
<tr>
<td><img src="image" alt="SAFE" /></td>
<td>Located on the Console; this indicates Reverse (Counterclockwise rotation when looking at handpiece from proximal end)</td>
</tr>
<tr>
<td><img src="image" alt="SAFE" /></td>
<td>United States Federal law restricts this device to sale by or on the order of a physician or other licensed health-care provider</td>
</tr>
<tr>
<td><img src="image" alt="SAFE" /></td>
<td>Certified/Accredited Test House</td>
</tr>
<tr>
<td><img src="image" alt="SAFE" /></td>
<td>Run; system ready to operate</td>
</tr>
<tr>
<td><img src="image" alt="SAFE" /></td>
<td>Load; insert attachment and/or burr. System will not operate</td>
</tr>
<tr>
<td><img src="image" alt="SAFE" /></td>
<td>Transmitter Interference may occur in the vicinity of equipment marked with this symbol</td>
</tr>
<tr>
<td><img src="image" alt="SAFE" /></td>
<td>Located on the irrigation pump; move in this direction to install irrigation tube</td>
</tr>
<tr>
<td><img src="image" alt="SAFE" /></td>
<td>Located on the irrigation pump; indicates the portion of the irrigation tube to be directed toward the handpiece</td>
</tr>
<tr>
<td><img src="image" alt="SAFE" /></td>
<td>Revolutions per minute</td>
</tr>
<tr>
<td><img src="image" alt="SAFE" /></td>
<td>Potential Equalization Terminal</td>
</tr>
<tr>
<td><img src="image" alt="SAFE" /></td>
<td>1. Console Control Touchpad; indicates a change state (on/off) for the Console Irrigation System 2. Irrigation Pump; indicates irrigation tube direction toward the irrigation source</td>
</tr>
<tr>
<td><img src="image" alt="SAFE" /></td>
<td>Temperature limits</td>
</tr>
</tbody>
</table>
### Glossary of Symbols

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Power Button" /></td>
<td>Found on the Console ON/OFF</td>
</tr>
<tr>
<td><img src="image" alt="Reference Number" /></td>
<td>Reference number (A.K.A. item number, catalog number, part number)</td>
</tr>
<tr>
<td><img src="image" alt="Lot Number" /></td>
<td>Lot (A.K.A. lot number, batch number, batch code)</td>
</tr>
<tr>
<td><img src="image" alt="Serial Number" /></td>
<td>Serial number</td>
</tr>
<tr>
<td><img src="image" alt="Expiration Date" /></td>
<td>Use by date (A.K.A. expiration date, expiry)</td>
</tr>
<tr>
<td><img src="image" alt="Manufacturer" /></td>
<td>Manufacturer</td>
</tr>
<tr>
<td><img src="image" alt="Authorized Representative" /></td>
<td>Authorized European Union Representative</td>
</tr>
<tr>
<td><img src="image" alt="Sterilized" /></td>
<td>Sterilized using irradiation</td>
</tr>
<tr>
<td><img src="image" alt="Single Use" /></td>
<td>Single use only (A.K.A. do not reuse)</td>
</tr>
<tr>
<td><img src="image" alt="Foot Control" /></td>
<td>Located on the Console touchpad; indicates foot control activation</td>
</tr>
<tr>
<td><img src="image" alt="Keep Dry" /></td>
<td>Keep dry (A.K.A. protect from moisture)</td>
</tr>
<tr>
<td><img src="image" alt="Sterile Unless Damaged" /></td>
<td>Sterile unless damaged or open</td>
</tr>
<tr>
<td><img src="image" alt="CE Mark" /></td>
<td>CE Mark (A.K.A. CE Mark [notified body number], Conformité Européenne)</td>
</tr>
<tr>
<td><img src="image" alt="Product Warranty" /></td>
<td>Product warranty is void if seal is damaged or removed.</td>
</tr>
<tr>
<td><img src="image" alt="CAUTION" /></td>
<td>CAUTION: Refer to accompanying documentation</td>
</tr>
<tr>
<td><img src="image" alt="Position, Alignment, Location" /></td>
<td>Indicates position, alignment or location (Color: black or red)</td>
</tr>
<tr>
<td><img src="image" alt="Irrigation Pump" /></td>
<td>Located on the irrigation pump; indicates the amount of irrigation from minimum to maximum</td>
</tr>
</tbody>
</table>

| ![Disposal](image) | DO NOT DISPOSE OF IN HOUSEHOLD WASTE |

Type B electrical equipment
EG1 HIGH SPEED ELECTRIC SYSTEM
ASSEMBLY AND OPERATING INSTRUCTIONS

The system console houses the electrical components that provide power, control, and cooling functions to the EG1A Handpiece. It provides the user control for all system functions via an integrated touch pad face panel. The system console has connections for the EG1A Handpiece, foot controls, AC power inlet and the main power switch.

Caution: Do not use handpiece without an attachment and dissection tool properly locked in place. Damage to the burr lock mechanism could occur.

WARNING: Prior to first use the equipment must be processed as per the included Anspach G1 High Speed System Cleaning and Sterilization instructions.

Note: When following these instructions hold handpiece and attachments with distal end pointing away from user.

SYSTEM ASSEMBLY
1. Place console on a flat sturdy surface.
   Warning: Console must be outside sterile field.

2. Plug hospital-grade AC power cord into AC power inlet on back of console. Plug opposite end of power cord into standard, hospital-grade grounded wall outlet.
   Caution: Connect to supply mains with protective earth only. Position equipment in such a manner that it provides access to the rear of the system in order to disconnect from mains

3. Insert foot control connector into foot control connector port on front of console with red dot on connector facing up.
   Warning: Foot control must be outside sterile field.
   Caution: Do not push foot control connector into console connector port when out of alignment.

4. Insert handpiece connector into handpiece connector port on front of console with red dot on connector facing up.
   Warning: Handpiece must remain inside sterile field with exception of handpiece connector which is connected to console.
Caution: Do not push handpiece connector into console connector port when out of alignment.

5. Activate console by depressing power switch located on front of console. Display will illuminate.

6. Refer to Operating Instructions.

Warning: Handpiece is fully functional at this time.

Caution: Do not use handpiece without an attachment and dissection tool properly locked in place. Damage to the burr lock mechanism could occur.

Attachment Assembly
1. Refer to the Anspach G1 Attachment instructions accompanying the specific device.

Dissection Tools
1. Refer to the Anspach G1 Dissection Tools instructions accompanying the specific device.

Optional Irrigation Tubing Set-Up (SC3002 only)
Irrigation Tubing Options
05.001.178.01S Sterile Tubing for Irrigation System
05.001.178.05S Sterile Tubing for Irrigation System, 5 pack, (OUS* only)
HOSECLIPS-G1 Irrigation Tube Hoseclips for EG1a

1. Remove sterile irrigation tube from sterile package.
2. Slide irrigation tubing onto proximal end of irrigation attachment clip.
3. Attach irrigation attachment clip to handpiece.
4. Attach irrigation attachment clip to attachment.
5. Route irrigation tube end into non-sterile area.
6. Open twist-lock for irrigation pump in direction of arrow shown.
7. Insert irrigation tube into pump in accordance with marking and close twist lock.
8. Insert IV pole into bracket on back of console.
9. Hang irrigation bag onto IV pole (maximum 1 L bag).

10. Remove protective cap from cannula and connect cannula to irrigation bag. When doing so, make sure connection nipple of cannula is not touched by non-sterile persons while securing irrigation.
11. Secure tubing to handpiece hose using irrigation tube hose clips.
12. To activate, depress “Irrigation” button on front of console. Light on front of console will be on to indicate irrigation is active.
13. To control flow of irrigation, rotate knob located adjacent to irrigation pump.
14. Irrigation can also be activated from certain optional foot controls (see Step 4 of Foot Control Operation).

Caution: Tubing can disconnect from connectors without warning if occluded. Do not step on, set equipment on, pinch, kink, clamp, or otherwise occlude tubing during use.

Note: Nominal Maximum Flow Rate: 95 ml/min.

*Available only outside the US (OUS)
SYSTEM OPERATION

Warning
- Do not use a dissection tool without an attachment, injury may occur.
- Only Use G1 Dissection Tools. Using other than indicated dissection tools may lead to injury.
- Use the correct dissection tool and attachment combination or injury may occur.

Caution: Do not use handpiece without an attachment and dissection tool properly locked in place. Damage to the burr lock mechanism could occur.

Console Default Settings
Direction: Forward (clockwise with distal end pointing away from user)
Speed: 80,000 RPM (maximum)
User Interface: Foot Control
Irrigation: OFF

CONSOLE OPERATION

1. To increase or decrease maximum operational speed of handpiece, depress blue arrows located on front of console. Speed increases and decreases in 10,000 RPM increments. Lights on front of console will indicate the maximum Revolutions per minute (RPM).

2. To change rotational direction of handpiece, depress “R” or “F” arrow located on front of console. Direction can only be changed when handpiece is not running. Lights next to “F” and “R” will indicate if console is set to forward or reverse. A series of three beeps indicates console is set to operate in reverse (counterclockwise) and the foot pedal is depressed.

Note: The following steps are to operate irrigation on SC3002 console only.

3. To activate irrigation, depress the Irrigation button on front of console. Light will be on to indicate irrigation is active. Note: Irrigation can also be activated from certain optional foot controls (see Step 4 of Foot Control Operation below).

4. To control flow of irrigation, rotate knob located adjacent to irrigation pump. Irrigation flow rate is controlled by position of knob on dial located adjacent to irrigation pump.

Note: Buttons with hand and foot symbols on front of console are non-operational. Light next to foot symbol is on indicating console is set to operate in foot control mode. There is no hand control mode for EG1A Handpiece, consoles will always be in foot control mode.
Foot Control Operation

Note: Certain optional foot controls have direction and irrigation control switches.

1. Set operational direction of handpiece (see Step 2 of Console Operation).

Warning: Handpiece is fully functional at this time.

Caution: Do not use handpiece without an attachment and dissection tool properly locked in place. Damage to the burr lock mechanism could occur.

2. Press foot control pedal to start handpiece. Increase pressure on pedal to increase speed of handpiece and release pressure on pedal to decrease speed of handpiece.

3. Optional (E-FP-DIR and E-FP-DIR/IRR only): To change direction of handpiece, depress Directional Control Switch located on top left of foot control for a minimum of one second. When direction changes, a single beep will sound and light on front of console will indicate direction of rotation once the pedal is depressed.

4. Optional (E-FP-DIR/IRR only): To activate irrigation, depress Irrigation Control Switch on top right of foot control for a minimum of one second. Light on front of console will be on to indicate irrigation is active. Press on foot control pedal to start handpiece and irrigation.

Priming Irrigation System

1. Once irrigation tubing is set-up the line may be primed from console.

2. Press and hold irrigation button on front of console for a minimum of 3 seconds to start priming process.

3. Release irrigation button to stop priming process once irrigation fluid is visible at the handpiece.

4. Confirm light is on indicating irrigation system is operational.

5. If irrigation light is not on, depress irrigation button on front of console to activate irrigation.
SYSTEM OPERATIONAL ASSESSMENT

1. Confirm attachment and dissection tools are properly locked in place.
2. Depress foot pedal to assure you have properly functioning device prior to proceeding.
3. Device functions as expected, if device does not function as expected refer to troubleshooting chart.

### Prior to Use Inspection

<table>
<thead>
<tr>
<th>Component</th>
<th>Inspection Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>LONG-G1</td>
<td>Visually inspect for any damage to the tube.</td>
</tr>
<tr>
<td>LONG-HD-G1</td>
<td></td>
</tr>
<tr>
<td>MEDIUM-G1</td>
<td></td>
</tr>
<tr>
<td>MEDIUM-HD-G1</td>
<td>Visually inspect for bent or broken drive shaft and for any damage to the tube.</td>
</tr>
<tr>
<td>MIA16-G1</td>
<td></td>
</tr>
<tr>
<td>SHORT-G1</td>
<td></td>
</tr>
<tr>
<td>SHORT-HD-G1</td>
<td></td>
</tr>
<tr>
<td>MA-D20-G1</td>
<td></td>
</tr>
<tr>
<td>QD8-G1</td>
<td>Visually inspect for bent or broken foot.</td>
</tr>
<tr>
<td>QD11-G1</td>
<td></td>
</tr>
<tr>
<td>CRANI-A-G1</td>
<td>Visually inspect for overall damage or missing components.</td>
</tr>
<tr>
<td>CRANI-L-G1</td>
<td></td>
</tr>
<tr>
<td>CRANI-P-G1</td>
<td></td>
</tr>
<tr>
<td>CSR60-G1</td>
<td>Visually inspect for damage to the electrical cord or connector.</td>
</tr>
<tr>
<td>E-FP</td>
<td>Visually inspect for damage or cracks to the housing or pedal.</td>
</tr>
<tr>
<td>E-FP-DIR</td>
<td></td>
</tr>
<tr>
<td>E-FP-DIR/IRR</td>
<td></td>
</tr>
<tr>
<td>EG1A</td>
<td>• Visually inspect for damage to the silicone hose or to the electrical connector.</td>
</tr>
<tr>
<td></td>
<td>• Connect to console and operate.</td>
</tr>
<tr>
<td></td>
<td>• The handpiece should operate smoothly.</td>
</tr>
<tr>
<td></td>
<td>• CAUTION: Do not operate without attachment or dissection tool.</td>
</tr>
<tr>
<td>SC3001</td>
<td>Visually inspect for damage or cracks to the housing.</td>
</tr>
<tr>
<td>SC3002</td>
<td>Visually inspect for damage to the electrical power cord. Power the system and inspect for illumination of the LEDs. If there is an irrigation pump present check for proper function.</td>
</tr>
</tbody>
</table>
SYSTEM SHUTDOWN

1. There are no special procedures for system shutdown. Depress power switch on front of console to shut down system for approximately 2–3 seconds.

2. To disconnect power cord from mains, grasp ridged portion of connector between thumb and forefinger of one hand. Gently pull connector away from console. Connector should remove easily. If not, ensure only ridged portion of connector is pulled. Do not pull on smooth part of connector, as connector will not disengage from console.

Additional Information

To isolate the device from the mains supply, remove the power cord. All specifications are subject to change.

The EG1 System operates continuously without a duty cycle under normal operating conditions. When a A-1 or H-1 alert is indicated on the console display the following duty cycle must be employed:

1 minute ON / 1 minute OFF for unlimited number of cycles for ambient temperatures up to 29°C (85°F).

After completing the procedure perform the Inspection and Maintenance steps provided. If the alert does not clear, return the system for repair to DePuy Synthes Power Tools.

Potential Equalization Terminal

The purpose of additional potential equalization is to equalize potentials between different metal parts that can be touched simultaneously, or to reduce differences of potential which can occur during operation between the bodies of medical electrical devices and conductive parts of other objects. The EG1 System Console incorporates a dedicated potential equalization terminal that is identified by the symbol and is designed as a means of establishing potential equalization.

The potential equalization terminal is specially shaped so as to prevent the risk of accidental disconnection when used as intended and allows the lead to be removed without the need for tools. The terminal is located at the back of the EG1 System console and is accessible to the operator during normal use.

The potential equalization terminal on the EG1 System Console cannot be used as a protective earth connection. The EG1 System Console provides an IEC320 inlet with a dedicated protective earth blade. The power supply cord provided with the EG1 System Console does not provide a potential equalization conductor.

Prior to using the EG1 System, attach the potential equalization wire to the potential equalization terminal at the back of the EG1 System Console.

End of Life

Return all equipment for proper disposal.

Recommended Manufacturer Inspection Interval

It is recommended that the equipment be returned to DePuy Synthes Power Tools at a minimum every 12 months to perform a full product inspection.
Warning: All dissection tools are packaged sterile and are single use.

Cleaning and Sterilization

- Prior to first use the equipment must be processed as per the included Anspach G1 High Speed System Cleaning and Sterilization instructions.
- At the point of use the device must be cleaned as soon as possible after use to prevent drying of blood, tissue, other biological debris and contaminants on the device.
- Refer to the Anspach G1 High Speed System Cleaning and Sterilization instructions accompanying this device.

Attachment and Dissection Tool Selection

To assist in identifying the correct attachment and dissection tool combination, attachments have color bars at proximal end that correspond with color bars on dissection tool package labels as shown in Table 1 below.

Table 1

<table>
<thead>
<tr>
<th>Attachment</th>
<th>Color Bars</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>SHORT-G1</td>
<td>YELLOW / YELLOW</td>
<td>Straight Attachment</td>
</tr>
<tr>
<td>QD8-G1</td>
<td>YELLOW / YELLOW</td>
<td>QD Angle Attachment</td>
</tr>
<tr>
<td>MEDIUM-G1</td>
<td>ORANGE / ORANGE</td>
<td>Straight Attachment</td>
</tr>
<tr>
<td>QD11-G1</td>
<td>ORANGE / ORANGE</td>
<td>QD Angle Attachment</td>
</tr>
<tr>
<td>LONG-G1</td>
<td>RED / RED</td>
<td>Straight Attachment</td>
</tr>
<tr>
<td>MIA16-G1</td>
<td>BLACK / BLACK</td>
<td>Straight Attachment</td>
</tr>
<tr>
<td>SHORT-HD-G1</td>
<td>LIGHT BLUE / GREEN</td>
<td>Straight Attachment</td>
</tr>
<tr>
<td>MEDIUM-HD-G1</td>
<td>LIGHT BLUE / YELLOW</td>
<td>Straight Attachment</td>
</tr>
<tr>
<td>LONG-HD-G1</td>
<td>LIGHT BLUE / BLUE</td>
<td>Straight Attachment</td>
</tr>
<tr>
<td>CRANI-A-G1</td>
<td>GREEN / GREEN</td>
<td>Craniotome Attachment</td>
</tr>
<tr>
<td>CRANI-P-G1</td>
<td>TURQUOISE / TURQUOISE</td>
<td>Craniotome Attachment</td>
</tr>
<tr>
<td>CRANI-L-G1</td>
<td>GOLD / GOLD</td>
<td>Craniotome Attachment</td>
</tr>
<tr>
<td>MA-D20-G1</td>
<td>NA</td>
<td>Minimal Access Attachment</td>
</tr>
<tr>
<td>CSR60-G1</td>
<td>NA</td>
<td>Perforator Driver Attachment</td>
</tr>
</tbody>
</table>
### Straight Attachments

**Straight Attachments**

- SHORT-G1  5 cm Short Attachment
- SHORT-HD-G1  5 cm Heavy Duty Short Attachment
- MEDIUM-G1  8 cm Medium Attachment
- MEDIUM-HD-G1  8 cm Heavy Duty Medium Attachment
- LONG-G1  11 cm Long Attachment
- LONG-HD-G1  11 cm Heavy Duty Long Attachment
- MIA16-G1  16 cm Minimally Invasive Attachment

**Note:** When following these instructions hold handpiece and attachments with distal end pointing away from user.

**Caution:** Do not use handpiece without an attachment and dissection tool properly locked in place. Damage to the burr lock mechanism could occur.

1. Confirm indicator bar on distal end of handpiece is aligned with unlock symbol before attempting to install attachment. If not aligned properly, hold handpiece housing firmly with one hand and with other hand rotate distal end in direction of arrow to align indicator bar with unlock symbol.
2. Slide attachment over distal end of handpiece aligning arrow on attachment with indicator bar and unlock symbol. Pull back firmly until fully seated against handpiece.
3. Rotate attachment in direction of arrow on handpiece to align arrow on attachment with lock symbol.
4. Insert dissection tool into distal end of attachment and rotate dissection tool slowly until fully seated.
5. Gently pull on dissection tool to ensure proper engagement.

**Note:** Handpiece is now fully functional.

### Disassembly

1. Rotate attachment to align arrow with unlock symbol.
2. Remove dissection tool from attachment.
3. Remove attachment from handpiece.
CRANIOTOME ATTACHMENTS

Craniotome and Specialty Attachments
CRANI-P-G1  6.5 cm Pediatric Craniotome
CRANI-A-G1  6.5 cm Adult Craniotome
CRANI-L-G1  7.5 cm Large Craniotome

Note: When following these instructions hold handpiece and attachments with distal end pointing away from user.
1. Confirm indicator bar on distal end of handpiece is aligned with unlock symbol before attempting to install attachment. If not aligned properly, hold handpiece housing firmly with one hand and with other hand rotate distal end in direction of arrow to align indicator bar with unlock symbol.
2. Insert dissection tool into distal end of handpiece and rotate dissection tool slowly until fully seated.
3. Slide attachment over distal end of dissection tool and handpiece aligning arrow on attachment with indicator bar and unlock symbol. Pull back firmly until fully seated against handpiece.
4. Rotate attachment in direction of arrow on handpiece to align arrow on attachment with lock symbol.
5. Visually inspect to confirm dissection tool is not touching attachment guard.

Note: Handpiece is now fully functional.

Disassembly
1. Hold handpiece firmly in one hand and with other hand push and rotate release sleeve of attachment until arrow is aligned with unlock symbol.
2. Remove attachment from handpiece.

Warning: Use caution to avoid cutting hands or fingers on dissection tool when performing this step.
3. Remove dissection tool from attachment.
QD Angle Attachments

Warning: Observe the following duty cycle to avoid overheating of this device.

- Employ a duty cycle of 20 seconds ON and 40 seconds OFF for an unlimited number of cycles at ambient temperatures up to 29°C (85°F).

Note: When following these instructions hold handpiece and attachments with distal end pointing away from user.

Assembly
1. Confirm indicator bar on distal end of handpiece is aligned with unlock symbol before attempting to install attachment. If not aligned properly, hold handpiece housing firmly with one hand and with other hand rotate distal end in direction of arrow to align indicator bar with unlock symbol.
2. Slide attachment over distal end of handpiece aligning arrow on attachment with indicator bar and unlock symbol. Pull back firmly until fully seated against handpiece.
3. Rotate attachment in direction of arrow on handpiece to align arrow on attachment with lock symbol.
4. Rotate attachment lock sleeve to align arrow with lock symbol.
5. Insert dissection tool into distal end of attachment and rotate dissection tool slowly until fully seated.
6. Gently pull on dissection tool to ensure proper engagement.

Note: Handpiece is now fully functional.

Disassembly
1. Rotate attachment lock sleeve to align arrow with unlock symbol.
2. Remove dissection tool from attachment.
3. Hold handpiece firmly in one hand and with other hand push and rotate release sleeve of attachment until arrow is aligned with unlock symbol.
4. Remove attachment from handpiece.
MINIMAL ACCESS ATTACHMENT AND BEARING SLEEVES

Driver and Bearing Sleeves
MA-D20-G1  Minimal Access Angle Driver, G1  
MA-10S  Bearing Sleeve, 10 cm Straight  
MA-10C  Bearing Sleeve, 10 cm Curved  
MA-15S  Bearing Sleeve, 15 cm Straight  
MA-15C  Bearing Sleeve, 15 cm Curved  
MA-15ST  Bearing Sleeve, 15 cm Straight Taper  
MA-19ST  Bearing Sleeve, 19 cm Straight Taper

Note: The four words labeled on the attachment near the lock sleeve mean the following:

<table>
<thead>
<tr>
<th>CUTTER</th>
<th>Insert or remove dissection tool.</th>
</tr>
</thead>
<tbody>
<tr>
<td>RUN</td>
<td>Attachment and dissection tool are now functional.</td>
</tr>
<tr>
<td>ADJUST</td>
<td>Bearing sleeve can be moved to desired exposure.</td>
</tr>
<tr>
<td>TUBE</td>
<td>Insert or remove bearing sleeve.</td>
</tr>
</tbody>
</table>

Observe the following duty cycle to avoid overheating of this device.

- Employ a duty cycle of 20 seconds ON and 40 seconds OFF for an unlimited number of cycles at ambient temperatures up to 29°C (85°F).

Note: When following these instructions hold handpiece and attachments with distal end pointing away from user. Minimal Access Attachments are compatible with multiple bearing sleeve configurations. Instructions are the same for all bearing sleeve configurations.
Minimal Access Attachment and Bearing Sleeves

Assembly
1. Confirm indicator bar on distal end of handpiece is aligned with unlock symbol before attempting to install attachment. If not aligned properly, hold handpiece housing firmly with one hand and with other hand rotate distal end in direction of arrow to align indicator bar with unlock symbol.
2. Slide attachment over distal end of handpiece aligning arrow on attachment with indicator bar and unlock symbol. Pull back firmly until fully seated against handpiece.
3. Rotate attachment in direction of arrow on handpiece to align arrow on attachment with lock symbol.
4. Rotate attachment lock sleeve to align arrow with “TUBE” (Figure A).
5. Insert bearing sleeve into distal end of attachment until fully seated.
6. Rotate attachment lock sleeve to align arrow with “CUTTER” (Figure B).
7. Gently pull on bearing sleeve to ensure proper engagement.
8. Insert dissection tool into distal end of bearing sleeve and rotate dissection tool slowly until fully seated.
9. Rotate attachment lock sleeve to align arrow with “RUN” (Figure C).

Note: Additional force is required to seat dissection tool into curved bearing sleeves.
10. Gently pull on dissection tool to ensure proper engagement.

Note: Handpiece is now fully functional.

Bearing Sleeve Adjustment
1. Rotate attachment lock sleeve to align arrow with “ADJUST”.
2. Move bearing sleeve to desired exposure.
3. Rotate attachment lock sleeve to line up arrow with “RUN”.

Disassembly
1. Rotate attachment lock sleeve to align arrow with “CUTTER”.
2. Remove dissection tool from bearing sleeve.
3. Rotate attachment lock sleeve to align arrow with “TUBE.”
4. Remove bearing sleeve.
5. Hold handpiece firmly in one hand and with other hand push and rotate release sleeve of attachment until arrow is aligned with unlock symbol.
6. Remove attachment from handpiece.
CSR60-G1  Perforator Driver with Hudson End

This Perforator Driver attachment allows Hudson style cranial perforators (60:1 Ratio, approximately 1,300 rpm.)

**Warning:** Follow instructions supplied with cranial perforator before use

**Note:**
- When following these instructions hold handpiece and attachments with distal end pointing away from user.
- Perforator Driver Attachment is designed to connect to cranial perforators with a Hudson connection.

**Assembly**
1. Confirm indicator bar on distal end of handpiece is aligned with unlock symbol before attempting to install attachment. If not aligned properly, hold handpiece housing firmly with one hand and with other hand rotate distal end in direction of arrow to align indicator bar with unlock symbol.
2. Slide attachment over distal end of handpiece aligning arrow on attachment with indicator bar and unlock symbol. Pull back firmly until fully seated against handpiece.
3. Rotate attachment in direction of arrow on handpiece to align arrow on attachment with lock symbol.
4. To insert cranial perforator, pull back on lock sleeve at distal end of attachment, insert cranial perforator until fully seated and release lock sleeve.
5. Gently pull on cranial perforator to ensure proper engagement.

**Note:** Handpiece is now fully functional.

**Warning:** Follow instructions supplied with cranial perforator before use.

**Disassembly**
1. To remove cranial perforator, pull back on lock sleeve at distal end of attachment and remove cranial perforator.
2. Hold handpiece firmly in one hand and with other hand push and rotate release sleeve of attachment until arrow is aligned with unlock symbol.
3. Remove attachment from handpiece.
Perform these activities regularly as per institution policy.

**Warning:** Do not use any damaged equipment. Return to *DePuy Synthes Power Tools* repair facility.

## ATTACHMENTS

### Straight Attachments

- LONG-G1
- LONG-HD-G1
- MEDIUM-G1
- MEDIUM-HD-G1
- MIA16-G1
- SHORT-G1
- SHORT-HD-G1
- MA-10S
- MA-10C
- MA-15S
- MA-15C
- MA-15ST
- MA-19ST

Visually inspect for any damage to the tube.

### Angle Attachments

- MA-D20-G1
- QD8-G1
- QD11-G1

Visually inspect for bent or broken drive shaft and for any damage to the tube.

### Craniotomes

- CRANI-A-G1
- CRANI-L-G1
- CRANI-P-G1

Visually inspect for bent or broken foot.
Inspection and Maintenance

**Perforator Driver**
- CSR60-G1

Visually inspect for overall damage or missing components.

![CSR60-G1](image)

**Foot Controls**
- E-FP
- E-FP-DIR
- E-FP-DIRARR

- Visually inspect for damaged electrical cord or connector.
- Visually inspect for damage or cracks to the housing or pedal.

![E-FP](image)

**Handpiece**
- EG1A

- Visually inspect for damage to the silicone hose or to the electrical connector.
- Connect to console and operate. The handpiece should operate smoothly.

Caution: Do not operate the handpiece without an attachment and dissection tool. Damage to the burr lock mechanism could occur.
## Consoles
- SC3001
- SC3002

- Visually inspect for damage or cracks to the housing.
- Visually inspect for damage to the electrical power cord.

- Power the system and inspect for illumination of the LEDs.
- If there is an irrigation pump present check for proper function.
  If the irrigation flow LED display is not on, press the Drop button.
**Warnings:**
- Cannulations must be cleaned with appropriate brushes as described in cleaning instructions.
- At the point of use the device must be cleaned as soon as possible after use to prevent drying of blood, tissue, other biological debris and contaminants on the device.
- National regulations must be observed.
- You must follow standard hospital procedures.
- You must follow manufacturer’s recommendations for any detergents, disinfectants and washing equipment used.
- Do not reprocess dissection tools. Dissection tools are disposable and SINGLE USE ONLY.

**Cautions:**
- Rx Only: United States Federal law restricts this device to sale by or on order of a physician or other licensed healthcare provider.
- Do not use any alkaline detergent with a pH greater than 11. Alkaline detergents with higher pH attack grease and seals which can increase wear and cause device to malfunction.
- Do not use ultrasonic equipment.
- Do not use hypochlorite solution (i.e. bleach).
- Handpieces must not be immersed in cleaning solution but may be sprayed with it.
- Fully demineralized (deionized, distilled, or purified) water must be used during final rinse to prevent corrosion and spots.

**Note:** Use of alkaline detergents can cause device color to fade but this does not impair function.

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**Operating Room (OR) Personnel Instructions**
1. After completion of procedure, remove external debris by wiping attachments and handpiece.
2. Dispose of open or used dissections tools.

**Reprocessing Personnel Instructions**

**HANDPIECE**

1. **Preparation**
   - Assemble all necessary supplies including the attachment cleaning brush (ACB), sponge, lint-free cloth and soft bristle brush.
   - Remove attachment and dissection tool from handpiece.

2. **Rinse**
   - Rinse handpiece with distal end pointing down under running cold deionized, distilled, or purified water for a minimum of 2 minutes.
   - Use a sponge, soft lint-free cloth or soft bristle brush to assist in removing gross soil.
   - Caution: Do not immerse. Do not use high pressure water or air. Do not allow running water to enter distal end of handpiece or console connector (end of cable).

3. **Clean**
   - Prepare cleaning solution using alkaline detergent or neutral pH enzymatic detergent per manufacturer’s directions for correct temperature, water quality (i.e. pH, hardness) and product concentration/dilution.
   - With distal end pointing down spray and wipe using cleaning solution for a minimum of 2 minutes.
   - Use a sponge, soft lint-free cloth or soft bristle brush to remove all visible soil.
   - Hold handpiece with distal end pointing down and insert ACB wetted with cleaning solution into distal end of handpiece.
Warning: ACB is single use and should only be used to clean one handpiece and associated attachments.

Caution: Do not immerse. Do not allow running water to enter distal end of handpiece or console connector. Do not insert ACB beyond last bristle. Do not force ACB into handpiece. Do not use pipe cleaners.

4. Rinse Thoroughly
   • With distal end pointing down rinse device thoroughly using running hot deionized, distilled, or purified water for a minimum of 2 minutes.
   • Hold handpiece with distal end pointing down and flush inside of distal end using a syringe or pipette filled with hot deionized, distilled, or purified water.

Caution: Do not use high pressure water or air. Do not immerse. Do not allow running water to enter distal end of handpiece or console connector.

5. Inspect
   • Visually inspect handpiece. Repeat Steps 2 thru 5 if visible soil remains.

6. Go to Sterilization section for further instructions.

ATTACHMENTS

Note: The instructions in this section are specific to the G1 Attachments and MA Bearing Sleeves listed in Table 1 in the Mechanical/Automated Cleaning section of this document.

1. Preparation
   • Assemble all necessary supplies including ACB, Small Diameter Cleaning Brush (SDCB), sponge, lint-free cloth, and soft bristle brush.
   • Remove attachment and dissection tool from handpiece.

2. Rinse
   • Rinse attachment under running cold deionized, distilled, or purified water for a minimum of 2 minutes.
   • Manipulate any moving parts such as release sleeves under running cold deionized, distilled, or purified water to loosen or remove gross soil.
   • Use a sponge, soft lint-free cloth, or soft bristle brush to assist in removing gross soil.

Caution: Do not use high pressure water or air. Do not rinse attachment with saline solution.

3. Clean
   • Prepare cleaning solution using alkaline detergent or neutral pH enzymatic detergent per manufacturer’s directions for correct temperature, water quality (i.e. pH, hardness) and product concentration/dilution.
   • Fully immerse attachment in cleaning solution in a suitable container and manually agitate for 2 minutes.
   • Use a sponge, soft lint-free cloth or soft bristle brush to remove all visible soil.
   • Gently use a brush to clean cannulations of attachment while immersed in cleaning solution. Use ACB for all attachments except MA-D20-G1 and Minimal Access Attachment Bearing Sleeves. Use the Small-Diameter Cleaning Brush (SDCB) for MA-D20-G1 and Minimal Access Attachment Bearing Sleeves. If attachment has a release sleeve, move sleeve and brush exposed area.

   Note: Brushes may be inserted from distal or proximal end of attachments and bearing sleeves.

Warning: ACB and SDCB are single use and should only be used to clean one set of attachments.

Caution: For MA-D20-G1 and Minimal Access Attachment Bearing Sleeves use SDCB only. Do not force ACB or SDCB into or through attachments or bearing sleeves. Do not use pipe cleaners.

4. Rinse Thoroughly
   • Rinse device thoroughly using running hot deionized, distilled, or purified water for a minimum of 2 minutes.
   • Use a syringe or pipette filled with hot deionized, distilled, or purified water to flush lumens or channels.
   • Manipulate any moving parts such as release sleeves.

Caution: Do not use high pressure water or air. Do not rinse attachment with saline solution.
5. Inspect
   • Visually inspect attachment for visible soil. Repeat Steps 2 thru 5 if visible soil remains.
Caution: This step is for attachments only. Do not lubricate handpieces.

Option 1: 05.001.078, Lubricant for Anspach systems, 110 ml

Warning: Do not use Gravity Air Displacement Steam Autoclave Sterilization Process.
   • For the following attachments apply one (1) spray pump spray to the proximal end of the attachment.

<table>
<thead>
<tr>
<th>SHORT-G1</th>
<th>MEDIUM-HD-G1</th>
</tr>
</thead>
<tbody>
<tr>
<td>SHORT-HD-G1</td>
<td>MEDIUM-G1</td>
</tr>
<tr>
<td>MA-10S</td>
<td>MA-10C</td>
</tr>
<tr>
<td>MA-15S</td>
<td>MA-15C</td>
</tr>
<tr>
<td>MA-15ST</td>
<td>MA-19ST</td>
</tr>
<tr>
<td>LONG-HD-G1</td>
<td>CRANI-A-G1</td>
</tr>
<tr>
<td>LONG-G1</td>
<td>CRANI-L-G1</td>
</tr>
<tr>
<td>MIA 16-G1</td>
<td>CRANI-P-G1</td>
</tr>
</tbody>
</table>
   • For the following attachments apply one (1) spray pump spray to the distal end of the attachment and one(1) to the proximal end of the attachment.

<table>
<thead>
<tr>
<th>MA-D20-G1</th>
<th>QD8-G1</th>
</tr>
</thead>
<tbody>
<tr>
<td>QD11-G1</td>
<td>CSR60-G1</td>
</tr>
</tbody>
</table>
   • Applying excess amounts of lubricant will cause the lubricant to drop from the attachment. Clean off any excess lubricant.

Option 2: Non-silicone based medical lubricant
   • Prepare a lubricating solution on instrument milk (non-silicone based medical lubricant) per the manufacturer’s directions.
   • Fully immerse attachment in lubricating solution, at room temperature, in a suitable container and agitate for 15 seconds.
   • Remove attachment and allow it to drain completely until no visible droplets are coming from it.

Caution: Do not rinse out instrument milk. Do not apply mineral oil or other lubricants, which may cause attachment to overheat.

7. Go to Sterilization section for further instructions.

**CONSOLES**

Caution: Do not immerse or sterilize. Do not allow liquid to enter console.

Note: Consoles are non-sterile capital equipment and shall always be maintained outside the operating room sterile field.

1. Disconnect all power from console.
2. Clean console by wiping with non-abrasive cloth and neutral ph detergent and deionized, distilled, or purified water after each case.
3. Dry thoroughly with non-abrasive cloth.

**FOOT PEDALS**

Caution: Do not immerse or sterilize. Do not allow liquid to enter foot pedal.

Note: Foot pedals are non-sterile capital equipment and shall always be maintained outside the operating room sterile field.

1. Disconnect from console.
2. Clean foot pedal by wiping with non-abrasive cloth and neutral ph detergent and deionized, distilled, or purified water after each case.
3. Dry thoroughly with non-abrasive cloth.

**DISSECTION TOOLS**

Warning: Do not reprocess dissection tools. Dissection tools are disposable and SINGLE USE ONLY. Dispose of properly in sharps container.

Note: The clinical processing instructions provided have been validated by DePuy Synthes Power Tools for preparing a non-sterile medical device; this instruction is provided in accordance with ISO 17664 and ANSI/AAMI ST81.
MECHANICAL/AUTOMATED CLEANING

Warnings:
• Manual precleaning must be completed prior to mechanical cleaning.
• Manual precleaning must be followed by mechanical cleaning.
• Cannulations must be precleaned with appropriate brushes as described in precleaning instructions.
• At the point of use the device must be cleaned as soon as possible after use to prevent drying of blood, tissue, other biological debris and contaminants on the device.
• National regulations must be observed.
• You must follow standard hospital procedures.
• You must follow manufacturer’s recommendations for any detergents, disinfectants, and washing equipment used.
• Do not reprocess dissection tools. Dissection tools are disposable and SINGLE USE ONLY.

Cautions:
• Rx Only: United States Federal law restricts this device to sale by or on order of a physician or other licensed health care provider.
• Do not reprocess any devices not listed in Table 1 using the mechanical/automated cleaning method.
• Do not use any alkaline detergent with a pH greater than 11. Alkaline detergents with higher pH attack grease and seals which can increase wear and cause device to malfunction.
• Do not use ultrasonic equipment.
• Do not use hypochlorite solution (i.e. bleach).
• Handpieces must not be immersed in cleaning solution but may be sprayed with it.
• Fully demineralized (deionized, distilled, or purified) water must be used during final rinse to prevent corrosion and spots.

Note: Use of alkaline detergents can cause color to fade but this does not impair function of device.

List of Devices in G1 Cleaning and Sterilization Basket

Table 1

<table>
<thead>
<tr>
<th>Device</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>EG1A</td>
<td>QD8-G1</td>
</tr>
<tr>
<td>SHORT-G1</td>
<td>QD11-G1</td>
</tr>
<tr>
<td>SHORT-HD-G1</td>
<td>MA-D20-G1</td>
</tr>
<tr>
<td>MEDIUM-G1</td>
<td>MA Bearing Sleeves*</td>
</tr>
<tr>
<td>MEDIUM-HD-G1</td>
<td>CRANI-P-G1</td>
</tr>
<tr>
<td>LONG-G1</td>
<td>CRANI-A-G1</td>
</tr>
<tr>
<td>LONG-HD-G1</td>
<td>CRANI-L-G1</td>
</tr>
<tr>
<td>MIA16-G1</td>
<td>CSR60-G1</td>
</tr>
</tbody>
</table>

*Any Qty.2 of the following: MA-10S, MA-10C, MA-15S, MA-15C, MA-15ST, MA-19ST.

Note: MA Bearings are compatible with MA-D20-G1, MA-D20, MA-DRIVER, and MA-D20BM.

Operating Room (OR) Personnel Instructions
1. After completion of procedure, remove external debris by wiping attachments and handpiece.
2. Properly dispose of open or used dissections tools.

Reprocessing Personnel Instructions

MANUAL PRECLEANING OF HANDPIECE

Note: The instructions in this section are specific to the EG1 Electric Handpiece.

1. Preparation
   • Assemble all necessary supplies including ACB, sponge, lint-free cloth, and soft bristle brush.
   • Remove attachment and dissection tool from handpiece.

2. Rinse
   • Rinse handpiece with distal end pointing down under running cold deionized, distilled, or purified water for a minimum of 2 minutes.
   • Use a sponge, soft lint-free cloth, or soft bristle brush to assist in removing gross soil.

Caution: Do not immerse. Do not use high pressure water or air. Do not allow running water to enter distal end of handpiece or console connector.
3. Clean
   - Prepare cleaning solution using alkaline detergent or neutral pH enzymatic detergent per manufacturer’s directions for correct temperature, water quality (i.e. pH, hardness), and product concentration/dilution.
   - With distal end pointing down spray and wipe using cleaning solution for a minimum of 2 minutes.
   - Use a sponge, soft lint-free cloth, or soft bristle brush to remove all visible soil.
   - Hold handpiece with distal end pointing down and insert ACB wetted with cleaning solution into distal end of handpiece.

**Warning:** ACB is single use and should only be used to clean one handpiece and associated attachments.

**Caution:** Do not immerse. Do not allow running water to enter distal end of handpiece or console connector. Do not insert ACB beyond last bristle. Do not force ACB into handpiece. Do not use pipe cleaners.

4. Rinse Thoroughly
   - With distal end pointing down rinse device thoroughly using running hot deionized, distilled, or purified water for a minimum of 2 minutes.
   - Hold handpiece with distal end pointing down and flush inside of distal end using a syringe or pipette filled with hot deionized, distilled, or purified water.

**Caution:** Do not use high pressure water or air. Do not immerse. Do not allow running water to enter distal end of handpiece or console connector.

5. Inspect
   - Visually inspect handpiece for visible soil. Repeat Steps 2 thru 5 if visible soil remains.

6. Go to Mechanical/Automated Cleaning section for further instructions.

**Warning:** Manual precleaning must be followed by mechanical/automated cleaning.

### MANUAL PRECLEANING OF ATTACHMENTS

**Note:** The instructions in this section are specific to the G1 Attachments and MA Bearing Sleeves listed in Table 1.

1. Preparation
   - Assemble all necessary supplies including ACB, SDCB, sponge, lint-free cloth, and soft bristle brush.
   - Remove attachment and dissection tool from handpiece.

2. Rinse
   - Rinse attachment under running cold deionized, distilled, or purified water for a minimum of 2 minutes.
   - Manipulate any moving parts such as release sleeves under running cold deionized, distilled, or purified water to loosen or remove gross soil.
   - Use a sponge, soft lint-free cloth, or soft bristle brush to assist in removing gross soil.

**Caution:** Do not use high pressure water or air. Do not rinse attachment with saline solution.

3. Clean
   - Prepare cleaning solution using alkaline or neutral pH enzymatic detergent per manufacturer’s directions for correct temperature, water quality (i.e. pH, hardness), and product concentration/dilution.
   - Fully immerse attachment in cleaning solution in a suitable container and manually agitate for 2 minutes.
   - Use a sponge, soft lint-free cloth, or soft bristle brush to remove all visible soil.
   - Gently use a brush to clean cannulations of attachment while immersed in cleaning solution. Use ACB for all attachments except MA-D20-G1 and Minimal Access Attachment Bearing Sleeves. Use SDCB for MA-D20-G1 and Minimal Access Attachment Bearing Sleeves. If attachment has a release sleeve, move sleeve and brush exposed area.

**Note:** Brushes may be inserted from distal or proximal end of attachments and bearing sleeves.

**Warning:** ACB and SDCB are single use and should only be used to clean one set of attachments.

**Caution:** For MA-D20-G1 and Minimal Access Attachment Bearing Sleeves use SDCB only. Do not force ACB or SDCB into or through attachments or bearing sleeves. Do not use pipe cleaners.
4. Rinse Thoroughly
   • Rinse device thoroughly using running hot deionized, distilled, or purified water for a minimum of 2 minutes.
   • Use a syringe or pipette filled with hot deionized, distilled, or purified water to flush lumens or channels.
   • Manipulate any moving parts such as release sleeves
   **Caution:** Do not use high pressure water or air. Do not rinse attachment with saline solution.

5. Inspect
   • Visually inspect attachment for soil. Repeat Steps 2 thru 5 if visible soil remains.

6. Go to Mechanical/Automated Cleaning section for further instructions.

**Warning:** Manual precleaning must be followed by mechanical/automated cleaning.

## MECHANICAL/AUTOMATED CLEANING

**Note:** Prior to using G1 Cleaning and Sterilization Basket for first time, attach connector sleeve to basket by clipping onto internal support structure. The connector sleeve should remain with basket for future use.

1. **Loading the Basket**
   • Load devices in G1 Cleaning and Sterilization Basket by securing them in appropriate brackets as marked on basket with distal end angled down where applicable.
   • Place connector sleeve on connector end of electric handpiece.

   **Caution:** Connector end of electric handpiece must be sealed with handpiece connector sleeve provided with basket.

   **Warning:** Angled attachments must be loaded in the correct orientation as shown in Figure 1.

2. **Mechanical/Automated Cleaning Cycle Process Parameters**

<table>
<thead>
<tr>
<th>Cycle</th>
<th>Duration (minimum)</th>
<th>Cleaning Instructions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rinse</td>
<td>2 minutes</td>
<td>Cold de-ionized (DI) or purified (PURW) water</td>
</tr>
<tr>
<td>Prewash</td>
<td>1 minute</td>
<td>Warm (DI) or (PURW) water (≥ 40°C); use detergent</td>
</tr>
<tr>
<td>Cleaning</td>
<td>2 minutes</td>
<td>Warm (DI) or (PURW) water (≥ 45°C); use detergent</td>
</tr>
<tr>
<td>Rinse</td>
<td>5 minutes</td>
<td>Rinse with (DI) or (PURW) water</td>
</tr>
<tr>
<td>Thermal Processing</td>
<td>5 minutes</td>
<td>Hot DI water, ≥ 93°C</td>
</tr>
<tr>
<td>Dry</td>
<td>40 minutes</td>
<td>≥ 90°C</td>
</tr>
</tbody>
</table>

**Caution:** Do not use neutralizing agent.

3. **Inspect**
   • Visually inspect devices for soil. Repeat manual preclean and mechanical/automated clean if visible soil remains.
   • Remove connector sleeve from connector end of handpiece and drain until no visible droplets are coming from the handpiece or connector.

4. **Lubricate**

   **Caution:** This step is for attachments only. Do not lubricate handpieces.

Option 1: 05.001.078, Lubricant for Anspach Systems, 110 ml

**Warning:** Do not use Gravity Air Displacement Steam Autoclave Sterilization Process
   • For the following attachments apply one (1) spray pump spray to the proximal end of the attachment.

<table>
<thead>
<tr>
<th>Attachment</th>
<th>Lubricant Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>SHORT-G1</td>
<td>MA-10S</td>
</tr>
<tr>
<td>SHORT-HD-G1</td>
<td>MA-10C</td>
</tr>
<tr>
<td>MEDIUM-HD-G1</td>
<td>MA-15S</td>
</tr>
<tr>
<td>MEDIUM-G1</td>
<td>MA-15C</td>
</tr>
<tr>
<td></td>
<td>MA-15ST</td>
</tr>
<tr>
<td></td>
<td>MA-19ST</td>
</tr>
<tr>
<td>LONG-HD-G1</td>
<td>CRANI-A-G1</td>
</tr>
<tr>
<td>LONG-G1</td>
<td>CRANI-L-G1</td>
</tr>
<tr>
<td>MIA16-G1</td>
<td>CRANI-P-G1</td>
</tr>
</tbody>
</table>
STERILIZATION

For the following attachments apply one (1) spray pump spray to the distal end of the attachment and one (1) to the proximal end of the attachment.

<table>
<thead>
<tr>
<th>Attachment Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>MA-D20-G1</td>
</tr>
<tr>
<td>QD8-G1</td>
</tr>
<tr>
<td>QD11-G1</td>
</tr>
<tr>
<td>CSR60-G1</td>
</tr>
</tbody>
</table>

Applying excess amounts of lubricant will cause the lubricant to drip from the attachment. Clean off any excess lubricant.

Option 2: Non-silicone based medical lubricant
- Prepare a lubricating solution of instrument milk (non-silicone based medical lubricant) per the manufacturer’s directions.
- Fully immerse attachment in lubricating solution, at room temperature, in a suitable container and agitate for 15 seconds.
- Remove attachment and allow it to drain completely until no visible droplets are coming from it.
- Return attachments to basket for further processing.

Caution: Do not rinse out instrument milk. Do not apply mineral oil or other lubricants, which may cause attachment to overheat.

1. Loading the Basket
- Load devices in G1 Cleaning and Sterilization Basket by securing them in appropriate brackets as marked on basket with distal end angled down where applicable.
- Remove connector sleeve from handpiece connector.
- Replace connector sleeve in its bracket and lay handpiece connector in bottom of basket.

Warning: Handpiece connector sleeve must be removed prior to sterilization. Angled attachments must be loaded in the correct orientation as shown in Figure 1.

2. Packaging
- When wrapping the basket the lid must be used.
- In US, double wrap basket or instruments with an FDA-cleared sterilization wrap using appropriate wrapping techniques described in ANSI/AAMI ST79 (for example: Simultaneous double wrapping or sequential wrapping).
- Outside US, double wrap basket or instruments in accordance with local procedures, using standard wrap and wrapping techniques such as those describe in ANSI/AAMI ST79.

Warning: When using a sterilization wrap the basket lid must be used. Must follow manufacturer’s instructions for any wraps used. Do not use individual sterilization pouches. Only use indicated basket for equipment.

3. Sterilization
- Sterilize in accordance with the following guidelines.

Warning: Do not use any other sterilization method or cycle than those listed below which have been validated in accordance with ISO 17665.

Before sterilizing
- Ensure sterilization equipment is in proper working order as specified by manufacturer.
- Assure equipment manufacturer’s instructions are properly employed by trained and qualified personnel.
- Assure actual cycle employed has been properly validated for the device(s)/load configuration being processed and appropriate sterilization indicator devices are included for each process and cycle.

Warning: Devices must be cleaned prior to sterilization using the validated cleaning method outlined in these instructions

1. Loading the Basket
- Load devices in G1 Cleaning and Sterilization Basket by securing them in appropriate brackets as marked on basket with distal end angled down where applicable.
- Remove connector sleeve from handpiece connector.
- Replace connector sleeve in its bracket and lay handpiece connector in bottom of basket.

Warning: Handpiece connector sleeve must be removed prior to sterilization. Angled attachments must be loaded in the correct orientation as shown in Figure 1.

2. Packaging
- When wrapping the basket the lid must be used.
- In US, double wrap basket or instruments with an FDA-cleared sterilization wrap using appropriate wrapping techniques described in ANSI/AAMI ST79 (for example: Simultaneous double wrapping or sequential wrapping).
- Outside US, double wrap basket or instruments in accordance with local procedures, using standard wrap and wrapping techniques such as those describe in ANSI/AAMI ST79.

Warning: When using a sterilization wrap the basket lid must be used. Must follow manufacturer’s instructions for any wraps used. Do not use individual sterilization pouches. Only use indicated basket for equipment.

3. Sterilization
- Sterilize in accordance with the following guidelines.

Warning: Do not use any other sterilization method or cycle than those listed below which have been validated in accordance with ISO 17665.
### US Steam Autoclave Instructions

<table>
<thead>
<tr>
<th>Option</th>
<th>Exposure Temperature</th>
<th>Exposure Time</th>
<th>Minimum Dry Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Pre-Vacuum (wrapped or unwrapped)</td>
<td>132°C</td>
<td>4 minutes</td>
<td>40 minutes</td>
</tr>
<tr>
<td>2. Gravity Air Displacement (wrapped or unwrapped)</td>
<td>132°C</td>
<td>15 minutes</td>
<td>40 minutes</td>
</tr>
</tbody>
</table>

### Outside US Steam Autoclave Instructions

<table>
<thead>
<tr>
<th>Option</th>
<th>Exposure Temperature</th>
<th>Exposure Time</th>
<th>Minimum Dry Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Pre-Vacuum (wrapped or unwrapped)</td>
<td>132°C</td>
<td>4 minutes</td>
<td>40 minutes</td>
</tr>
<tr>
<td>2. Pre-Vacuum (wrapped or unwrapped)</td>
<td>134–138°C</td>
<td>3–18 minutes</td>
<td>40 minutes</td>
</tr>
<tr>
<td>3. Gravity Air Displacement (wrapped or unwrapped)</td>
<td>132–138°C</td>
<td>15–18 minutes</td>
<td>40 minutes</td>
</tr>
</tbody>
</table>

Caution: A drying cycle is required to avoid possible adverse effects caused by exposure to condensation.

Notes:
- Metal devices, tools and equipment are constructed of materials unaffected by normal environmental conditions of current standard sterilization means, when proper operational techniques are employed.
- Effectiveness of sterilization equipment or sterilization processes are directly dependent upon numerous factors beyond DePuy Synthes Power Tools control including among other things; sterilization means, processes and wrapping techniques employed, brand, model and condition of sterilization equipment, care and maintenance techniques employed, and operator knowledge and experience.
- *DePuy Synthes Power Tools* cannot anticipate all possible equipment, processes, and/or conditions that may be encountered. The suggested operation conditions are to be considered as a starting point for determination of the overall process capability, without regard for type or condition of equipment used or methods, techniques or practices employed by user. Use of proper sterilization indicator devices is strongly recommended. It is recommended that a drying cycle be included to avoid possible adverse effects caused by exposure to condensation.
- Packaged and sterilized products should be stored in a dry, clean environment, protected from direct sunlight, pests, and extremes of temperature and humidity. Use products in the order in which they are received (“first-in, first-out principle”).
## Troubleshooting

<table>
<thead>
<tr>
<th>Problem</th>
<th>Possible Cause</th>
<th>Possible Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unit does not power ON when ON/OFF button at console is pressed.</td>
<td>1. Not enough time for console to detect signal.</td>
<td>1. Keep the ON/OFF button pressed for at least 1 second.</td>
</tr>
<tr>
<td>Unit does not power Off when ON/OFF button at console is pressed.</td>
<td>1. Not enough time for console to detect signal.</td>
<td>1. Keep the ON/OFF button pressed for at least 2 seconds.</td>
</tr>
<tr>
<td>Irrigation Pump does not rotate.</td>
<td>1. Irrigation pump is not enabled on display.</td>
<td>1. Keep the Irrigation bottom Pressed for at least 1 second.</td>
</tr>
<tr>
<td>Noise is heard from console even though there are no procedures being performed. This noise was not heard when the console was first powered up.</td>
<td>1. The air pump continues to functioning even when the handpiece is not being run.</td>
<td>1. This is a normal condition, the air pump will turn off automatically after approximately 15 minutes.</td>
</tr>
<tr>
<td>Excessive handpiece noise.</td>
<td>1. Faulty internal component.</td>
<td>1. Return attachment to DePuy Synthes Power Tools for service.</td>
</tr>
<tr>
<td>Lack of power to console.</td>
<td>1. Plug is not fully inserted/power switch not turned on. 2. Outlet is not functional.</td>
<td>1. Verify plugs to wall and back of console are pushed in completely. 2. Verify another piece of electrical equipment can receive power from outlet.</td>
</tr>
<tr>
<td>Handpiece vibration or extremely hot.</td>
<td>1. Faulty internal component. 2. Internal motor overheats due to continuous extreme cutting at near stalling conditions. 3. Hose may be kinked. 4. Handpiece out of balance. 5. Handpiece hose damaged.</td>
<td>1. Return to DePuy Synthes Power Tools for service. 2. Decrease cutting force, allow motor to cool. 3. Unkink hose (verify it is not being pinched or clamped to table). 4. Return to DePuy Synthes Power Tools for service. 5. Return to DePuy Synthes Power Tools for service.</td>
</tr>
<tr>
<td>Excessive vibration of dissection tool.</td>
<td>1. Dissection tool may be bent. 2. Dissection tool may not be fully seated. 3. Improper attachment and dissection tool combination. 4. Possible attachment bearing damage.</td>
<td>1. Replace with new dissection tool. 2. Reassemble dissection tool and attachment. 3. Only use correct dissection tool with appropriate attachment. 4. Return to DePuy Synthes Power Tools for service.</td>
</tr>
<tr>
<td>Unable to place or lock attachment.</td>
<td>1. The Indicator Bar in the handpiece in not aligned with the Unlock (Load) symbol. 2. Misalignment of the Angle Attachment shaft.</td>
<td>1. Manually rotate the Indicator Bar to the Unlock (Load) Symbol. 2. Manually rotate the unit shaft.</td>
</tr>
<tr>
<td>Unable to remove attachment.</td>
<td>1. Attachment has safety locking mechanism. 2. Attachment is captured by dissection tool.</td>
<td>1. Follow Instruction carefully to remove the attachment. 2. Manually rotate the Indicator Bar to the Unlock (Load) Symbol.</td>
</tr>
<tr>
<td>Problem</td>
<td>Possible Cause</td>
<td>Possible Solution</td>
</tr>
<tr>
<td>---------------------------------</td>
<td>---------------------------------</td>
<td>----------------------------------------------------------------------------------</td>
</tr>
</tbody>
</table>
| Attachment is hot.              | 1. Debris lodged inside attachment.  
                                     2. Possible bearing damage.          | 1. Clean attachment using Anspach Attachment Cleaning instructions.  
                                     2. Return attachment to *DePuy Synthes Power Tools* for service. |
| Craniotome attachment is bent.  | 1. Excessive force used in operation. | 1. Do not use; replace attachment.                                                |
| Inoperative Foot Control.       | 1. Connector may not be fully inserted. | 1. Verify plugs for handpiece and foot control are fully inserted. Plug will latch in place once fully inserted. |
## EG1 Console Alerts, Codes, and Displays

<table>
<thead>
<tr>
<th>Result</th>
<th>Action</th>
<th>Display</th>
</tr>
</thead>
<tbody>
<tr>
<td>Turn OFF Alert Sounds</td>
<td>Press speed increase, speed decrease, and forward buttons simultaneously.</td>
<td>![BEEPO]</td>
</tr>
<tr>
<td>Turn On Alert Sounds</td>
<td>Press speed increase, speed decrease, and forward buttons simultaneously.</td>
<td>![BEEP1]</td>
</tr>
<tr>
<td>Foot Pedal Connection</td>
<td>Foot pedal is unplugged, or if the console is turned on without a foot pedal.</td>
<td>![FP0]</td>
</tr>
<tr>
<td>Handpiece Connection</td>
<td>Foot pedal is plugged in, or if the console is turned on with a foot pedal connected.</td>
<td>![FP1]</td>
</tr>
<tr>
<td>Handpiece Connection</td>
<td>Handpiece is connected, or if the console is turned on with a handpiece connected.</td>
<td>![EG1A]</td>
</tr>
<tr>
<td>Console Status</td>
<td>Console is ON, but not ready to run, because either the handpiece or foot pedal, or both are not connected.</td>
<td>![nunn]</td>
</tr>
<tr>
<td>Console Status</td>
<td>Console ready to run.</td>
<td>![0]</td>
</tr>
<tr>
<td>Console Status</td>
<td>Console that has a connected handpiece running at full speed.</td>
<td>![80000]</td>
</tr>
<tr>
<td>Software Version Revision</td>
<td>Forward and Reverse buttons are pressed simultaneously. <strong>NOTE:</strong> Example Only.</td>
<td>![10.00]</td>
</tr>
<tr>
<td>Result</td>
<td>Action</td>
<td>Display</td>
</tr>
<tr>
<td>-------------------</td>
<td>------------------------------------------------------------------------</td>
<td>---------</td>
</tr>
<tr>
<td>Stall Condition</td>
<td>Handpiece does not start when the foot pedal is depressed.</td>
<td>![C-0]</td>
</tr>
<tr>
<td></td>
<td>• Check attachment lock</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Release foot pedal and restart</td>
<td></td>
</tr>
<tr>
<td>System Fault</td>
<td>Handpiece does not start when the foot pedal is depressed.</td>
<td>![C-1]</td>
</tr>
<tr>
<td></td>
<td>• Release foot pedal and restart</td>
<td></td>
</tr>
<tr>
<td>Handpiece Fault</td>
<td>The handpiece must be detached from the console.</td>
<td>![C-2]</td>
</tr>
<tr>
<td></td>
<td>If the alarm clears after the handpiece is removed, the handpiece is damaged.</td>
<td></td>
</tr>
<tr>
<td>Console Fault</td>
<td>The console is damaged and must be returned for repair.</td>
<td>![C-3]</td>
</tr>
<tr>
<td>Temperature Alert</td>
<td>Handpiece temperature exceeded.</td>
<td>![H-1]</td>
</tr>
<tr>
<td>Airflow Alert</td>
<td>Handpiece cooling air flow is blocked.</td>
<td>![A-1]</td>
</tr>
<tr>
<td></td>
<td>• Must use duty cycle.</td>
<td></td>
</tr>
</tbody>
</table>
ORDERING INFORMATION

<table>
<thead>
<tr>
<th>Anspach Attachments</th>
<th>Electric Instrument System</th>
</tr>
</thead>
<tbody>
<tr>
<td>SHORT-G1  5 cm Short Attachment</td>
<td>EG1A EG1 Electric System Handpiece</td>
</tr>
<tr>
<td>MEDIUM-G1  8 cm Medium Attachment</td>
<td>SC3001 EG1 System Console without Irrigation</td>
</tr>
<tr>
<td>LONG-G1  11 cm Long Attachment</td>
<td>SC3002 EG1 System Console with Irrigation</td>
</tr>
<tr>
<td>MIA16-G1  16 cm Minimally Invasive Attachment</td>
<td>E-FP Electric Systems Foot Control</td>
</tr>
<tr>
<td>SHORT-HD-G1  5 cm Heavy Duty Short Attachment</td>
<td>E-FP-DIR Electric Systems Foot Control with Direction</td>
</tr>
<tr>
<td>MEDIUM-HD-G1  8 cm Heavy Duty Medium Attachment</td>
<td>E-FP-DIR/IRR Electric Systems Foot Control with Direction and Irrigation</td>
</tr>
<tr>
<td>LONG-HD-G1  11 cm Heavy Duty Long Attachment</td>
<td></td>
</tr>
<tr>
<td>CRANI-A-G1  Adult Craniotome</td>
<td></td>
</tr>
<tr>
<td>CRANI-P-G1  Pediatric Craniotome</td>
<td></td>
</tr>
<tr>
<td>CRANI-L-G1  Large Craniotome</td>
<td></td>
</tr>
<tr>
<td>MA-D20-G1  Minimal Access Angle Driver, G1</td>
<td></td>
</tr>
<tr>
<td>MA-15S  Bearing Sleeve, 15 cm Straight</td>
<td></td>
</tr>
<tr>
<td>MA-15C  Bearing Sleeve, 15 cm Curved</td>
<td></td>
</tr>
<tr>
<td>MA-15ST  Bearing Sleeve, 15 cm Straight Taper</td>
<td></td>
</tr>
<tr>
<td>MA-19ST  Bearing Sleeve, 19 cm Straight Taper</td>
<td></td>
</tr>
<tr>
<td>MA-10S  Bearing Sleeve, 10 cm Straight</td>
<td></td>
</tr>
<tr>
<td>MA-10C  Bearing Sleeve, 10 cm Curved</td>
<td></td>
</tr>
<tr>
<td>QD8-G1  8 cm QD Angle Attachment</td>
<td></td>
</tr>
<tr>
<td>QD11-G1  11 cm QD Angle Attachment</td>
<td></td>
</tr>
<tr>
<td>CSR60-G1  Perforator Driver with Hudson End</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Electric Instrument System Accessories</td>
</tr>
<tr>
<td></td>
<td>05.001.100 Cart</td>
</tr>
<tr>
<td></td>
<td>05.001.178.01s Sterile Tubing for Irrigation System</td>
</tr>
<tr>
<td></td>
<td>05.001.178.05s Sterile Tubing for Irrigation System, 5 pack (OUS*)</td>
</tr>
<tr>
<td></td>
<td>IRR-CLIP-10 Irrigation Clip for SHORT-G1 and QD8-G1</td>
</tr>
<tr>
<td></td>
<td>IRR-CLIP-30 Irrigation Clip for SHORT-HD-G1</td>
</tr>
<tr>
<td></td>
<td>IRR-CLIP-40 Irrigation Clip for MEDIUM-HD-G1 and LONG-HD-G1</td>
</tr>
<tr>
<td></td>
<td>IRR-CLIP-50 Irrigation Clip for MEDIUM-G1, LONG-G1, MIA16-G1, and QD11-G1</td>
</tr>
<tr>
<td></td>
<td>HOSECLIPS-G1 Irrigation Tube Hoseclips for EG1A</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Refer to dissection tool chart for options.

*Available only outside the US (OUS)

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WARNING: In the USA, this product has labeling limitations. See package insert for complete information.

CAUTION: USA Law restricts these devices to sale by or on the order of a physician.

Not all products are currently available in all markets.