Integrated Power Console (IPC™)

Models EC300 and 1898001

Service Manual for Console and Attachments

Rx Only

- A small amount of irrigant is observed flowing at the tip of irrigation device(s).
- Pump(s) turns off.

10. Confirm system operation.
    Verify:
    - Pedal (Coolant) Starts handpiece and coolant flow (coolant pump continues to run for 1 minute after pedal is released).
    - Pedal (Irrigation) Starts and stops the handpiece and irrigation flow (At this step you should also verify that the characters on the SPEED display changed from white to yellow.
    - Pedal Buttons: Please refer to "Multifunction Foot Control Unit".
11. Depress the intraoperative button on the back of the console.
    Verify:
    - Starts and stops the handpiece, irrigation and/or coolant flow.
12. Touch Screen
    Verify:
    - Speed can be adjusted.
    - Mode can be changed.
      - In oscillate and cut modes check:
        - The "Blade Position" panel opens.
        - The clockwise and counterclockwise buttons move the position indicator and blade in the appropriate direction.
        - Depressing the 180° button moves the position indicator and blade 180°.
      - Flow rate for irrigation is adjustable.

Power Down

1. Turn power switch Off.
2. Disconnect:
   a. Accessories.
   b. Suction, irrigation, and coolant tubing.
   c. Power cord.
3. Discard disposables following health-care facility guidelines on contaminated materials.

NOTE: If any of these condition are different check your set-up, if still incorrect contact Customer Service.

Cleaning

IPC™, Foot Control Unit, and Endo-Scrub® 2 Footswitch

- Do not immerse or sterilize the units.
- Do not use alcohol, other solvents, or abrasive cleaners.

1. Wipe down the IPC™, Foot Control Unit, and Endo-Scrub® 2 Footswitch with a cloth dampened with a neutral enzymatic detergent, pH 6.0-8.0 or phenol based disinfectant.

Non-Slip Pad ONLY

1a. Spray a neutral enzymatic detergent, pH 6.0 – 8.0, or a phenol based disinfectant, mixed to manufactures instructions, directly onto foot pad.

1b. Allow the solution to remain in contact with the surface for approximately 10 minutes.

1c. Wipe the solution or disinfectant off the foot pedal until visually clean.

2. Dry the units with a clean, non-abrasive cloth.

NOTE: If debris is found under the Foot Control Unit's boot, return for warranty service.

Console Specifications

Functional Standards for Electric Systems		
ANSI / AAMI: - ES 60601-1	Medical electrical equipment -- Part 1: General requirements for basic safety and essential performance	2005
IEC - 60601-1	Medical electrical equipment -- Part 1: General requirements for basic safety and essential performance	2005
EN - 60601-1	Medical electrical equipment -- Part 1: General requirements for basic safety and essential performance (IEC 60601-1:2005))	2006
IEC - 60601-1-4	Medical Electrical Equipment – Part 1: General Requirements for Safety, Part 4: Programmable Electrical Medical Systems	2000
EN - 60601-1-2	Medical Electrical Equipment – Part 1-2: General Requirements for Safety – Collateral Standard: Electromagnetic Compatibility – Requirements and Tests	2001/ A1: 2006
CSA - C22.2 No. 601.1	Medical Electrical Equipment - Part 1: General Requirements for Safety.	2005

Physical Dimensions

Size: 277 mm W x 353 mm H x 267 mm D
Weight: 7.3 kg 3.3.2

Operational Environment

Temperature: +10°C to +33°C
Humidity: 30% to 75% RH
Barometric Pressure: 700 - 1060 hPa

Transport and Storage Environment

Temperature: -40°C to +70°C
Humidity: 10% to 95% RH
Barometric Pressure: 500 to 1060 hPa

Display / Touch Screen

Type: High contrast, digital, graphic Color, visible in complete darkness. 1.1.1
Resolution: 1.1.2 Display 21 cm diagonal, resolution 480 X 640 pixels

2

Set-Up

General instructions for set-up, inspection, and use of the Integrated Power Console.
The IPC™ is designed to require no regular maintenance or service. The following recommended sustaining care may be performed annually or at more frequent intervals to extend the life of the IPC™.
NOTE: Use sterile water or saline for irrigation and cooling.

Inspect:

1. Visually inspect:
   - the entire console for signs of cracks or other damage.
   - the front and back connector panel for damaged or loose connectors
   - air inlet and exhaust on the bottom and rear of console is clean and free of debris.
2. Check that the handle is securely attached to console and slowly rotate the IPC™ to an inverted position while listening for loose material inside the enclosure.
3. Ensure pole clamp is securely attached to console and knob spins freely.

Configure System:

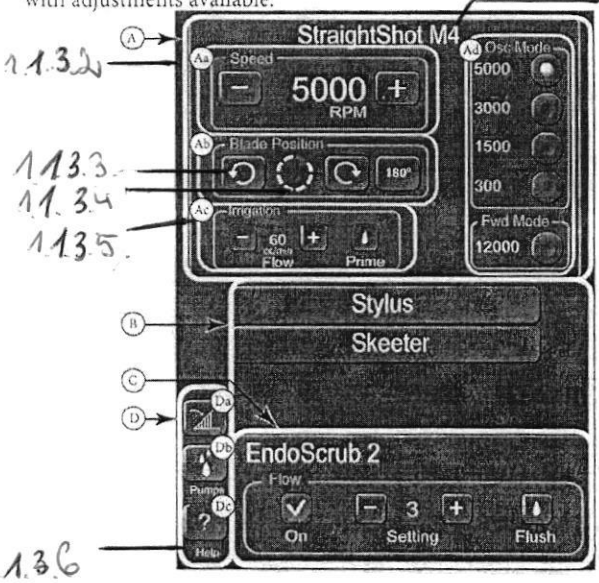
4. On Irrigation pole, mount IPC™ and irrigation/coolant bag(s).
Note: Irrigant and coolant bags should be placed above the console to ensure adequate flow.
5. Position the IPC™ in a manner that does not obstruct the power inlet for the purpose of disconnecting the Mains voltage by the power cord. Plug unit into power source.
6. Connect FCU.
7. Connect the accessories to console (test all accessories available one at a time).
8. Irrigation/Coolant Pumps
   - Connect tubing as needed (suction, cooling, irrigation).

Functional Test Splash Screen

1. Turn power switch ON and verify:
   - the power switch operates smoothly
   - switch lamp illuminates
   - fan on bottom of device is turning by listening for fan noise.
   - The Splash Screen is displayed while the system is starting up and executing its self tests
   - System passes self test
   - Default screen opens.

Main Screen

During the boot up/self-test operation the IPC™ will identify attachments such as handpiece(s) foot pedal etc. Actual screen displayed is dependent on attachment found.
The following generalized screen is meant to familiarize the technician with adjustments available.



A. Handpiece Panel - This panel shows the active handpiece.
   - Aa Speed - Variable adjustment on most handpices. Default value is handpiece specific.
   - Ab Blade Position - Handpiece specific, allows the user to rotate the inner cutting tip of specially designed rotatable blades.
   - Ac Irrigation - Adjust the flow rate of irrigation. Default value is handpiece specific.
   - Ad Mode - Handpiece specific cutting mode selection.

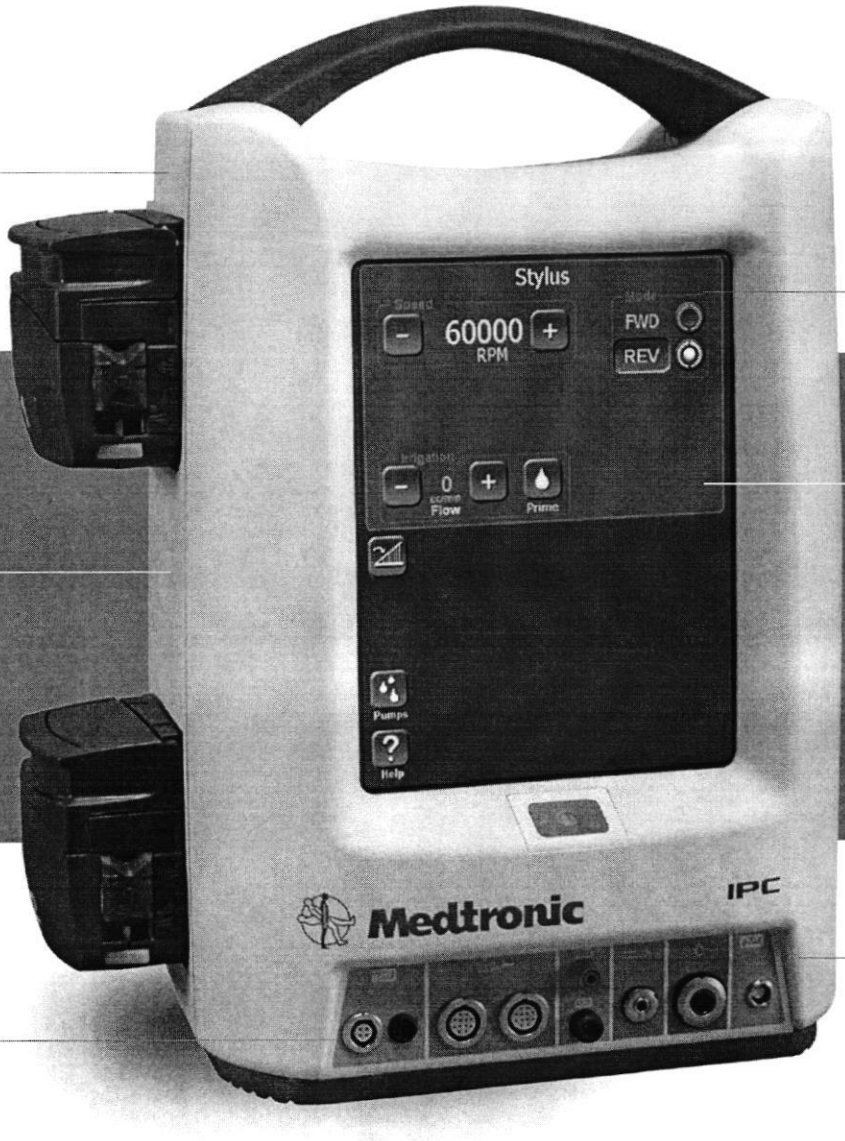
B. Augment Area - Shows supplemental information such as inactive handpiece(s), special function panel, pump panel etc.
C. Special Function Panel - Shows Suction Irrigator or Endo-Scrub® 2 panel.
D. Main Screen subsection
   - Da Foot Control Unit (FCU) Button - changes foot pedal from variable speed control to On/Off.
   - Db Pumps - Opens pump panel.
   - Dc Help - Opens help screens.

Handpiece Touchscreen Default Value Table		RPMs		Mode				Pump 1			Pump 2	
Handpiece Name	Touchscreen Display Name	RPM Range	Default RPMs	Fwd (Forward)	Rev (Reverse)	Osc (Oscillate)	Cut (1 revolution)	Cooling	Irrigation	EndoScrub 2	Irrigation	Suction Irrigator
Visao	Visao	200-80000	80000	X				X			X	
		200-80000	80000		X							
Suction Irrigator Optional												X
Midas Rex SC1	SC1 Handpiece	50-5000	5000			X						
		50-12000	12000	X							X	
		↓					X					
StraightShot M4 Microdebrider	StraightShot M4	50-5000	5000			X						
		50-12000	12000	X							X	
EndoScrub 2 Optional										X		
Straightshot III Microdebrider	StraightShot M4	50-5000	5000			X						
		50-12000	12000	X							X	
EndoScrub 2 Optional										X		
Straightshot Magnum II Microdebrider	StraightShot M4	50-5000	5000			X						
		50-12000	12000	X							X	
EndoScrub 2 Optional										X		
Midas Rex Legend EHS® motor.	EHS	200-75000	70000	X	X				X			
Suction Irrigator Optional												X
Midas Rex Legend EHS Stylus motor	Stylus	200-75000	60000	X	X				X			
Suction Irrigator Optional												X
Skeeter Handpiece	Skeeter	1000-16000	16000	X	X							
Suction Irrigator Optional												X

THE POWER **TO DO MORE**

THE INTEGRATED POWER CONSOLE (IPC®) PLATFORM

Inspired by listening to your needs, the IPC® platform delivers maximum torque and ease of use. It's the first multispecialty powered surgery console from Medtronic for cranial, spine, and ENT. Our innovative IPC system drives more handpieces with more power than ever before.



IntelliFlow™ irrigation remote control

Helpful graphics for each handpiece

Easy-to-use touchscreen

Legend EHS Stylus® motor delivers >50% more torque

Connect up to four handpieces at once

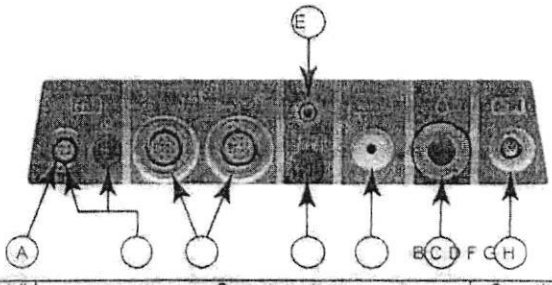
Color coded connectors for ease of use

Console Front

A. Touchscreen – User interface.
B. Pump 1 – Coolant, lens cleaning, or irrigation.
C. Pump 2 – Irrigation.
D. Connector Panel - peripheral devices.
E. Power Switch – System On/Off switch.

Note. Pump1 and Pump2 can working independently from each other.

Connector Panel



Port #	Component	Quantity
A	Midas Rex® Legend EHS® motor	1
B	Midas Rex® Legend EHS® Stylus motor	1
C	StraightShot® M4 Microdebrider	2
	Midas Rex® Legend EHS® Stylus TouchTM motor	1
	Midas Rex® SC1	
	StraightShot® Magnum® II and StraightShot® III	
	Visao®	
D	Stimulus input from Patient Interface connection (NIM).	1
E	Stimulus output to STIM Bur Guard	1
F	Skeeter® Handpiece	1
G	Endo-Scrub® 2 Finger Switch	1
	Endo-Scrub® 2 Footpedal	
	IntelliFlow Irrigation Remote Control	
H	Foot Control Unit (FCU)	1

Connector Panel Cable Connection

Cable to console connection red/silver dot:

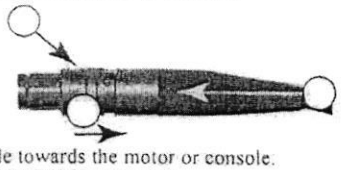
- Red or silver dot connections are multi pin and must be correctly aligned (oriented).

Cable to console connection without dot:

- Connectors without the red or silver dot are single pin and may be inserted without regard to orientation.

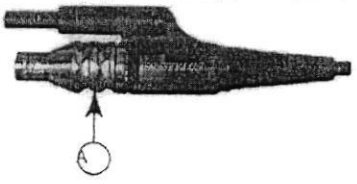
Connector Panel Cable Disconnection (multi pin) To Remove Midas Rex® :

To Remove Midas Rex® Legend EHS® Motor and Legend EHS Stylus® Motor, Cable from motor or console:



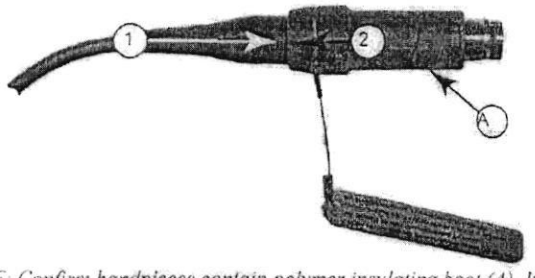
1. Push the cable towards the motor or console.
2. Then pull out by locking ring (A).

To Remove Midas Rex® Legend EHS Stylus® Cable from console:



Push the cable towards the console, then pull by locking ring (A)

To Remove cables (multi pin) with polymer insulating boots:



NOTE: Confirm handpieces contain polymer insulating boot (A). If handpiece contain missing or cracked polymer boots, contact Medtronic Customer Care for upgrade.

NOTE. If units with polymer insulating boots have debris under the insulator:

- *Reclean according to Cleaning and Sterilization instructions.*
- *If debris was not removed return for warranty servicing.* See warning W4.

3. Push the cable towards the console.
4. Then pull out by the polymer insulating boot (A).

To Remove cables (multi pin) with silicone insulating boots:

Silicone insulated connectors do not have a locking device (ring) and may be removed by pulling straight out on the connector.

Cable Disconnection (single pin)

Single pin connectors do not have a locking device (ring) and may be removed by pulling straight out on the connector.

System Description

List used in Manual

This manual contains two basic types of list, Alphabetic list (A. B. C. etc.) and Numeric list (1. 2. 3.). The alphabetic list contains general information about the part such as name or usages. Numeric list are instructions for completing a task.

Definitions

This section explains the essential meaning of a word or acronym as used in this manual.
Also explains changes in words or phrases variations from one product generation to the next.

FCU -	Foot Control Unit
IPC* -	Integrated Power Console
I.V. -	Intravenous
NIM* -	Nerve Integrity Monitor - One or all of the following units: NIM-Response* 2.0, NIM-Neuro* 2.0, NIM-Response* 3.0, and NIM-Neuro* 3.0
Nomenclature	The act or process or an instance of naming
XPS* -	Xomed Power System

When The System Arrives

Unpacking and Inspection

Check off the contents of the box against packing slip. If incomplete or damaged, notify Customer Care.
If container is damaged, or cushioning material shows stress, notify carrier and Customer Care. Keep shipping materials for carrier inspection.
After unpacking, save the cartons and packing material. If the instrument is to be shipped the shipping package will provide proper protection.

System Description

The IPC™ System is a powered microdebrider, drill and saw system that will remove soft tissue, hard tissue, and bone during surgical procedures. The system consists of a power control console, footswitch, connection cables, and assorted handpieces to drive various burs, blades, drills, rasps, cannulae, and saws. It includes integrated irrigation pumps for irrigation of blades, burs and for motor coolant.

The Nerve Integrity Monitor (NIM*) is a separate device that stimulates and monitors the nerve. This system has connections that allow the NIM* to be connected with the Visao* handpiece and Stimulating Bur Guard enabling the NIM* to stimulate and monitor the nerve at the surgical site.

The system can be used to clear the end of a rigid rod endoscope in order to maintain good visualization of endoscopic procedures without having to remove the scope from the surgical site.

This device is intended for use by physicians trained in the procedures described.

Intended Use / Indications for use

3.1. The IPC™ is indicated for the incision / cutting, removal, drilling, and sawing of soft and hard tissue and bone, and biomaterials in Neurosurgical (Cranial, Craniofacial) Orthopedic, Arthroscopic, Spinal, Sternotomy, and General surgical procedures.

Contraindications

The IPC™ system is contraindicated for arthroscopic microdiscectomy in individuals with the following:

- Severe/progressive neurological deficits
- Cauda equine syndrome
- Active infection.

Arthroscopic microdiscectomy is not indicated for individuals with sequestered disc fragments, discogenic pain, internal disc destruction, or lumbago.

Sales And Customer Care

Medtronic Powered Surgical Solutions

4620 North Beach StreetFort Worth, TX 76137 USA

www.medtronic.com

U.S. Help Line

(800) 468-9710

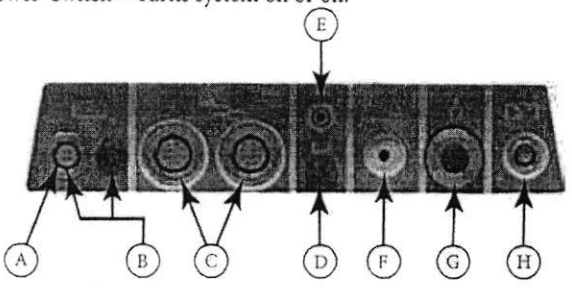
International Service

International customers should contact their Medtronic Neurologic Technologies representative.

Console

Console Front

A. Touchscreen – User interface.
B. Pump 1 – For coolant, lens cleaning, or irrigation.
C. Pump 2 – For Irrigation.
D. Connector Panel - peripheral devices.
E. Power Switch – Turns system on or off.

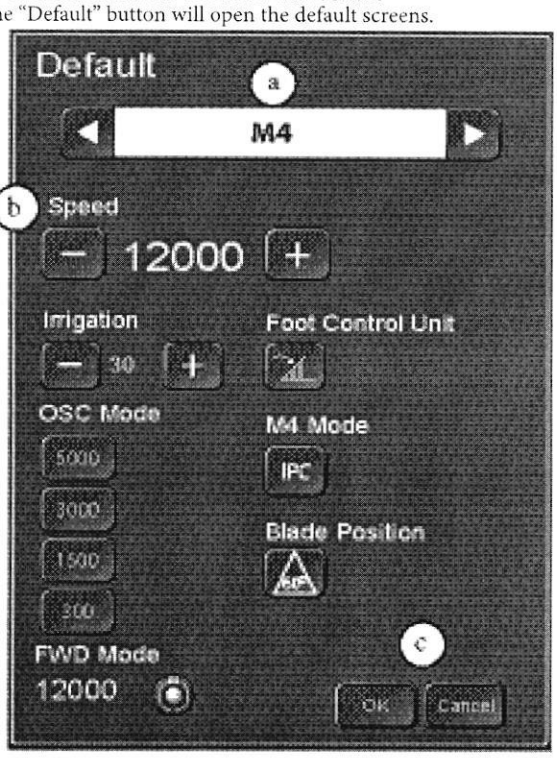


Connector Panel

Port #	Component	Quantity
A	Midas Rex* Legend EHS* motor	1
B	Midas Rex* Legend EHS* Stylus motor	1
C	StraightShot* M4 Microdebrider	2
	Midas Rex* Legend EHS* Stylus Touch™ motor	1
	Midas Rex* SC1	
	Straightshot* Magnum* II and Straightshot* III	
	Visao*	
D	Stimulus input from Patient Interface connection (NIM).	1
E	Stimulus output to STIM Bur Guard	1
F	Skeeter* Handpiece	1
G	Endo-Scrub* 2 Finger Switch	1
	Endo-Scrub* 2 Footpedal	
	IntelliFlow Irrigation Remote Control	
H	Foot Control Unit (FCU)	1

6

B. "Touch Screen Calibration" button will open the calibration screen. To calibrate follow the on screen instructions
C. The "Default" button will open the default screens.



a. The operator can cycle through handpieces to locate desired handpiece.
b. The operator may change any of the default settings to those most frequently used or view default settings.
c. OK or Cancel button will accept or void changes and return to previous screen.

D. OK or Cancel button will accept or void changes and return to previous screen.

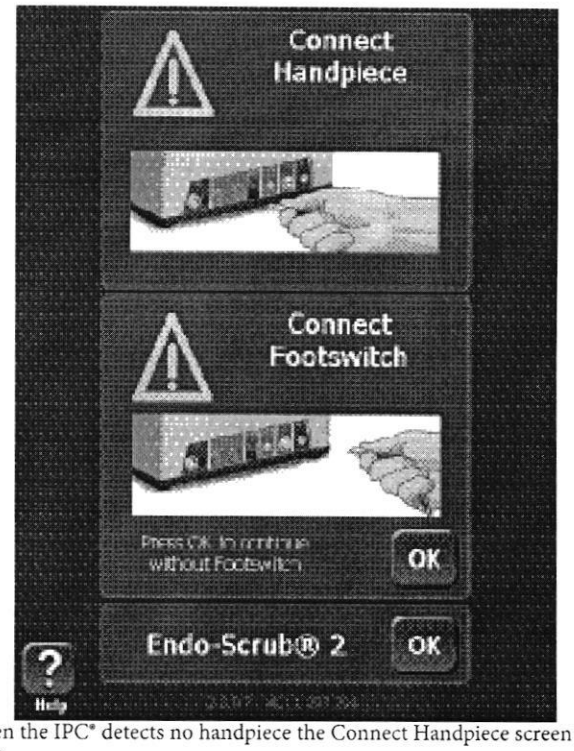
NOTE: Changing the default setting of any handpiece in no way affects the operator's ability to change settings during surgery.

Handpiece Default Settings Table

Handpiece		Mode		Pumps	
	Speed Setting	Fwd	Osc	Pump 1	Pump 2
Visao®	80000	X		Coolant	Irrigant
Midas Rex® SC1	3400		X		Irrigant
StraightShot® M4,	12000	X		Endo-Scrub® 2	Irrigant
StraightShot® III, Magnum® II	5000		X	Endo-Scrub® 2	Irrigant
Midas Rex® Legend EHS® motor.	70000	X		Irrigant	
Midas Rex® Legend EHS® Stylus motor	60000	X			Irrigant
Midas Rex® Legend EHS® Stylus Touch™	60000	X		Irrigant	
Skeeter® Handpiece	16000	X			
Endo-Scrub® 2				X	
Suction Irrigator				Optional	Optional

Device	Setting
FCU Delay	100 mS
Endo-Scrub® 2 Pump	Pump 1
Endo-Scrub® 2 Setting	3

Connect Handpiece/Footswitch Screen



When the IPC® detects no handpiece the Connect Handpiece screen will open.

By pressing the OK button in the Connect Footswitch panel the handpiece function will be allowed without the use of a footswitch.

By pressing the OK button in the Endo-Scrub® 2 panel the Endo-Scrub® 2 function will be allowed without the use of a hand piece.

Console Set-Up

Console Set-Up Instructions

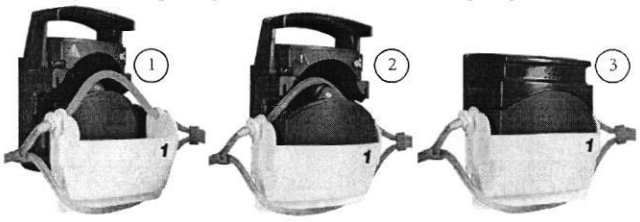
General instructions: for set-up and use of the Integrated Power Console. See "Accessories" for instructions specific to the peripheral being used.

NOTE: Use sterile water or saline for irrigation and cooling.

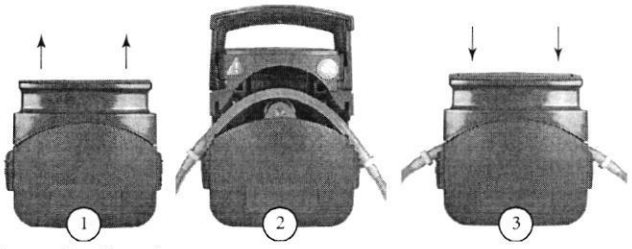
1. Locate cart and lock wheels.
2. Inspect components for damage and determine if system is ready to use.
3. On IV pole, mount IPC® and irrigation/coolant bag(s).
   NOTE: Irrigant and coolant bags should be placed above the console to ensure adequate flow.
4. Position the IPC® in a manner that does not obstruct the power inlet for the purpose of disconnecting the Mains voltage by the power cord. Plug unit into power source.
5. Connect footswitch.
6. Connect the sterilized accessories to console.
7. Tubing
   - Connect tubing as needed (suction, cooling, irrigation).
8. Turn power switch ON and verify:
   - System passes self test
   - Default screen opens. If "Attach Handpiece / Attach Footpedal" screen opens, return to steps 4 and 5.
9. Prime irrigation and cooling: See Precaution P1.
   a. Adjust clamp on the irrigation tubing to OPEN.
   b. Manually prime the clear drip chamber (if used).
   c. Depress and release the prime button on the touch screen panel. Verify:
      - Pump(s) run until all air has been purged out of the tubing.

Visao® Coolant Pump Set-Up

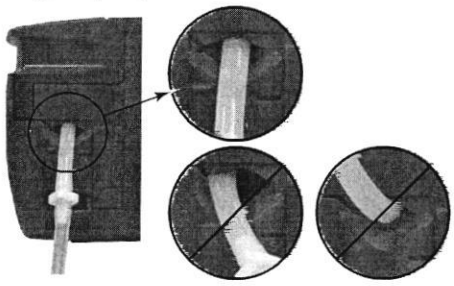
The Pump Cartridge snaps onto the lower section of pump # 1.



Standard Pump Set-up



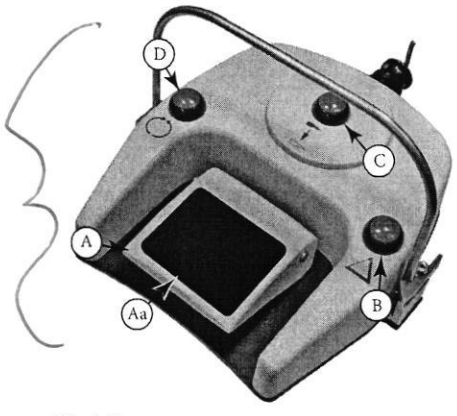
Tips on loading the pump



Accessories/attachments

Multifunction Foot Control Unit (FCU)

Part No. 1898430 or EF200



Buttons and Pedal

NOTE: Each button must be depressed and held for a definable amount of time (100 mS by default).

Drills

A. Foot Pedal - Start/Stop, Variable speed.
   Aa. Non-Slip Foot Pad.
B. Right Button - Pedal function, (Start-Stop or Variable speed).
C. Top Button - Active handpiece selection
D. Left Button - Mode selection, (FWD/REV).

Microdebrider

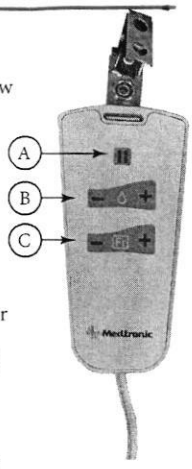
A. Pedal: Start/stop, variable speed (start/stop, or variable speed selectable via FCU button on Main Screen).
B. Right Button: In OSC Mode this button will rotate inner blade 60°/180° (touchscreen selected). In FWD Mode this button will select Pedal function (Start/stop, or variable speed).
C. Top Button: Active handpiece selection.
D. Left Button: Mode/RPM selection -

SC1

A. Pedal: Start/stop, variable speed (start/stop, or variable speed selectable via FCU button on main screen).
B. Right Button: If mode is set to OSC this button will, rotate inner tube on blades 180°. If mode is set to FWD this button will, select pedal function (Start/stop, or variable speed).
C. Top Button: Active handpiece selection.
D. Left Button: Mode selection -FWD/OSC

NOTE: If any of these condition are different check your set-up, if still incorrect contact Customer Service.

Intelliflow Irrigation Remote Control



A. Pause/On-Off:
   - Pause if used with handpiece irrigation (Flow rate will flash yellow).
   - On-Off/Pause if used with Suction Irrigator.
B. Increase/Decrease:
   - Handpiece Irrigation - fine adjustment for irrigation rate.
   - Suction Irrigator - fine adjustment for irrigation rate.
C. Increase/Decrease:
   - Handpiece Irrigation - coarse adjustment for irrigation rate.
   - Suction Irrigator - selects stainless steel (Fr) tubing size.

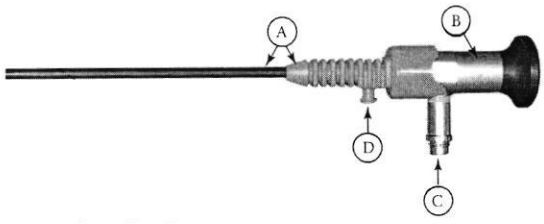
Endo-Scrub® 2

NOTE: Can be used only with a microdebrider.

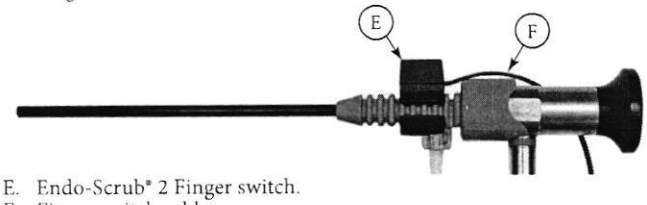
The IPC™ System incorporates Endo-Scrub® 2 functionality by using irrigation pump number one (1) and controlling operation with the touch screen and an external footswitch or finger switch.

It is not to be used for infusion, for disinfection or sterilization of an endoscope, or for suction removal of blood and debris.

NOTE: Use the Endo-Scrub® 2 sheath only with an endoscope listed on the sheath product label, as malfunction or poor performance could result.



A. Endo-Scrub® 2 Sheath.
B. Endoscope.
C. Light source connection.
D. Irrigation connection.



E. Endo-Scrub® 2 Finger switch.
F. Finger switch cable.

YOUR COMPLETE SOLUTION. ONE PARTNER.

In your daily practise you constantly strive for improved clinical outcome and optimized workflow.

Medtronic offers a unique complete solution that seamlessly combines unparalleled expertise in spinal surgery and state-of-the-art technology.

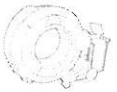
Deformity Solutions

Degenerative Solutions

Fracture Solutions

ACCURACY. EFFICIENCY. **ADDED CONFIDENCE.**

8.1



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2D & 3D imaging at its best

SPINAL INSTRUMENTS
navigate every step of the surgery

MIDAS REX®
Full flexibility in drills & saws

NAVIGATION
Precision throughout Surgery

8.1

ADVANCED ENERGY
Aquamantys® haemostatic soft tissue sealing and PEAK PlasmaBlade

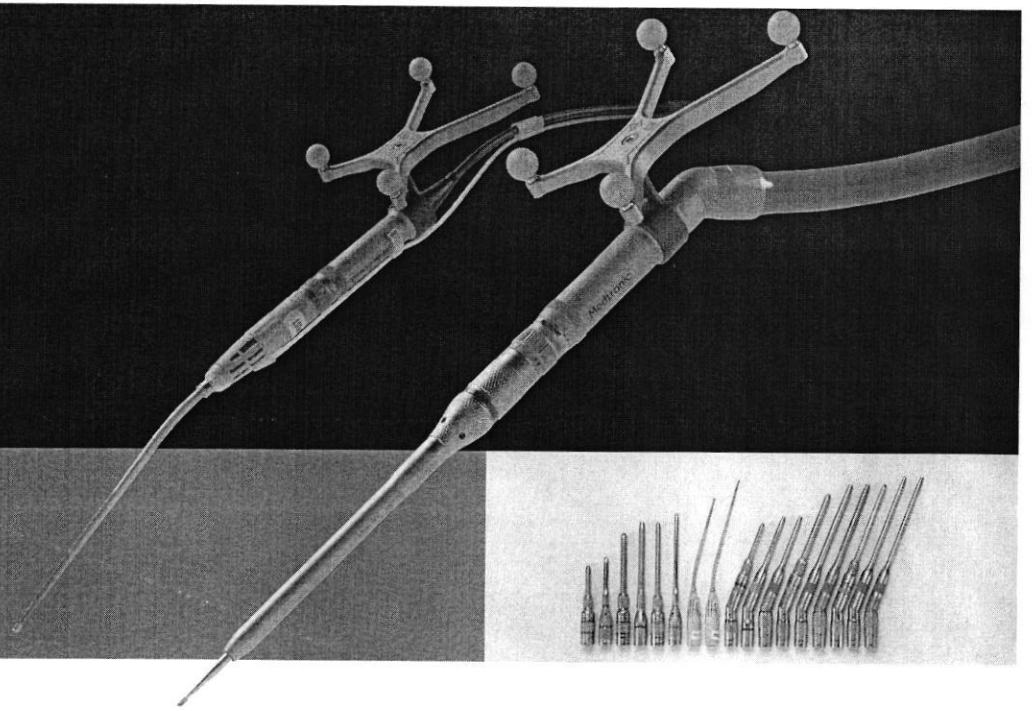
BIOLOGICS
Bone grafting and anti-adhesion solutions

SPINAL IMPLANTS
Unparalleled choice for your therapy

NERVE MONITORING
Confirm nerve function and reduce nerve injury

INTEGRATED NAVIGATION & POWER IN YOUR OPERATING ROOM

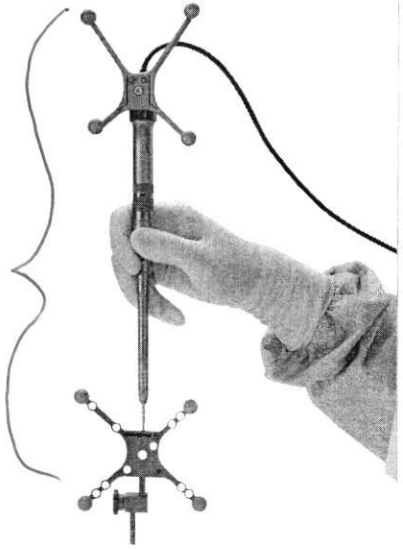
Get instant feedback on the position of your Midas Rex™ dissecting tools during surgery with more detail and capabilities than ever before. That's the power of Stealth-Midas™, combined with the O-arm™ Surgical Imaging System and the StealthStation® Surgical Navigation System.



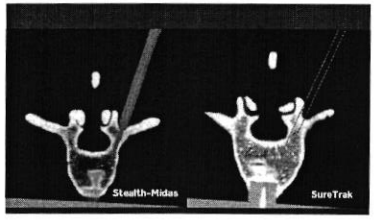
DESIGNED FOR EASE **DESIGNED FOR PERFORMANCE**

One-step registration. Place the tip of your Stealth-Midas tool in the divot of the spine reference frame.

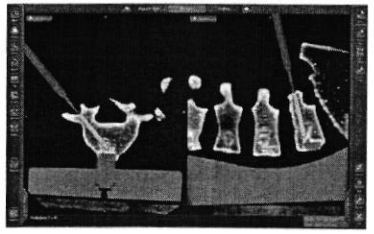
The ergonomic Stealth-Midas' rear-mounted, light-weight tracker provides minimal disruption to your visibility.



SEE MORE, **PLAN MORE**



Advanced visualization means a more detailed view of your Midas Rex dissecting tool.



Create plans and projections. Drill with instant visual feedback.

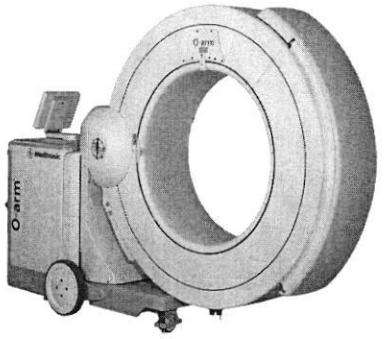
No need to switch between your drill and navigated probe.

StealthStation S7®

THE POWER OF CHOICE **YOUR CHOICE OF POWER**

Pneumatic or electric Stealth-Midas™ has the motor for you.

Stealth-Midas™ dissecting tools work with your choice of straight, angled, variable, and double-lock attachments.

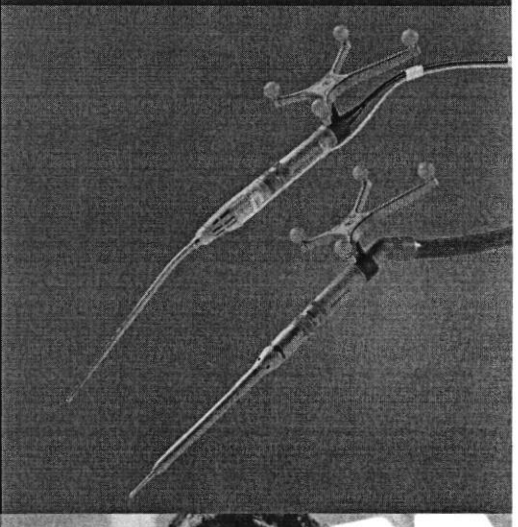


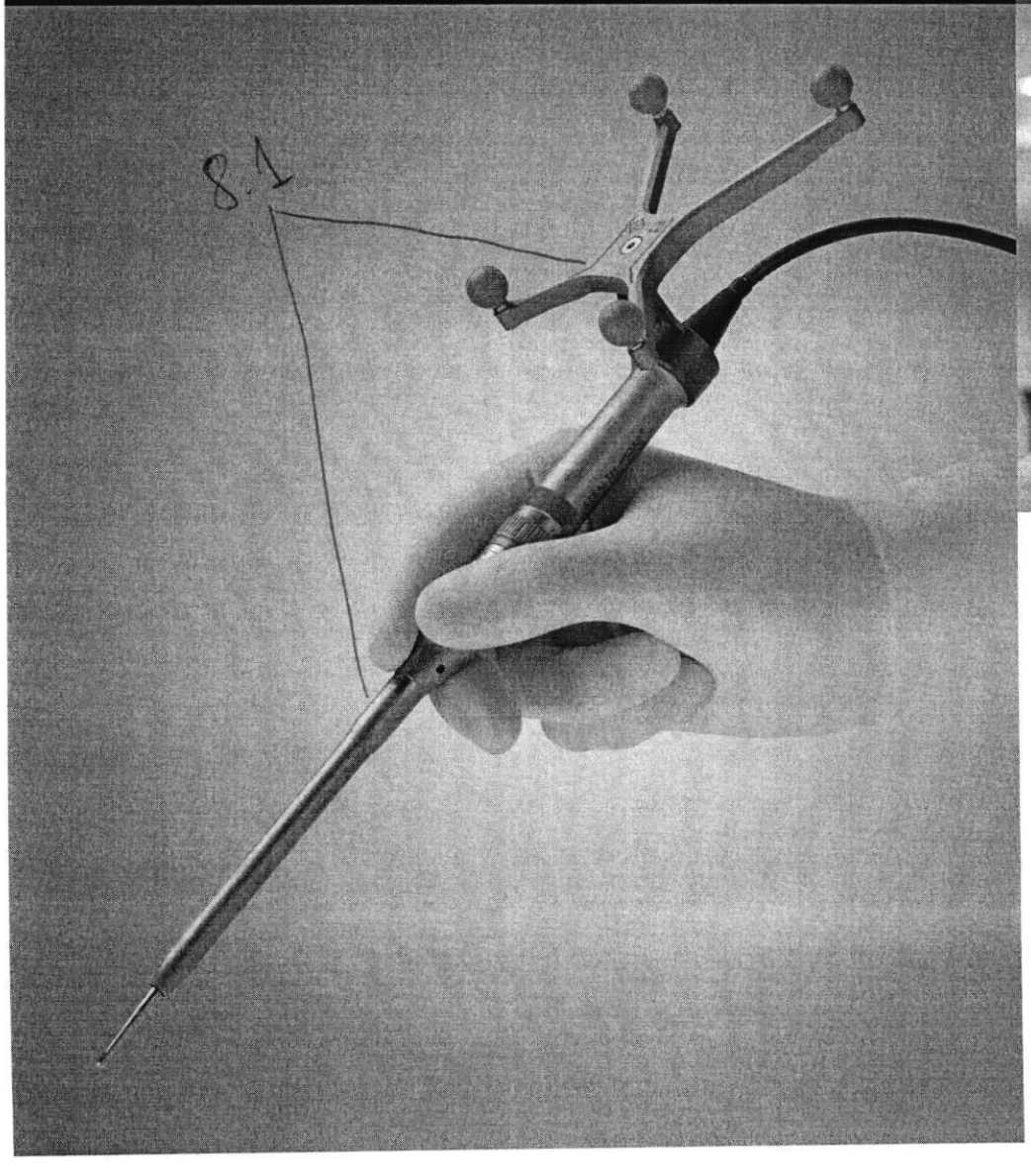
O-arm™

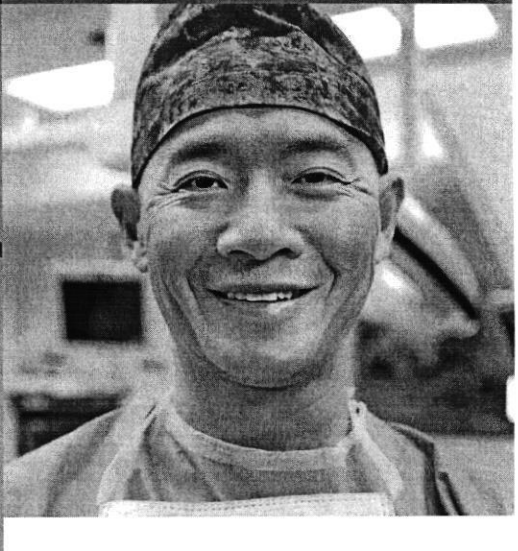
SEAMLESS NAVIGATION & POWER

SPINAL

STEALTH-MIDAS™ ELECTRIC AND PNEUMATIC DRILLING SYSTEMS







Medtronic
Further, Together

11

EN

Reprocessing Instructions for Legend Devices with Alkaline Detergents in an Automated Washer

Note: These instructions are supplemental to the Reprocessing Instructions provided in the Integrated Power Console (IPCTM) System User's Guide for the Legend EHSTM, Legend EHS StylusTM, Stylus TouchTM, and LegendTM Attachments and Tubes. All Warnings, Precautions, and Limitations included in the Integrated Power Console (IPCTM) System User's Guide apply.

Devices cleaned via the following procedure should be packaged, sterilized, maintained, inspected and tested and stored per the Reprocessing Instructions provided in the Integrated Power Console (IPCTM) System User's Guide prior to use. Compatible with KARL STORZ sterilization and washing systems. 8.1

Cleaning Instructions for Legend EHSTM, Legend EHS StylusTM, and Stylus TouchTM

- Review the washer-disinfector warnings in the IPC System User's Guide before using this cleaning method.
- Rinse devices under running tap water with collet pointed down until no visible soil is noticed.
- A nylon brush may be used to aid in cleaning.
- Remove devices from instrument trays before placing into washer.
- Orient devices following recommendations of the washer/disinfector manufacturer.
- Clean per recommended washer cycle below.
- After cleaning per the recommended washer cycle below, visually examine the devices for cleanliness.

Cleaning Instructions for LegendTM Attachments and Tubes

- Review the washer-disinfector warnings in the IPC System User's Guide before using this cleaning method.
- Rinse attachments/tubes under running tap water, until no visible soil is noticed.
- Attachments with moving parts should be actuated through their full range of motion under running tap water.
- While rinsing under running tap water, an appropriately sized nylon brush may be used internally or externally to aid in cleaning attachments.
- Remove devices from instrument trays before placing into washer.
- Variable exposure attachments (AVAXX, AVAXXDK, AVSXX) must be placed in the washer with their tube in the fully extended position.
- Orient devices following recommendations of the washer/disinfector manufacturer.
- Clean per recommended washer cycle below.
- After cleaning per the recommended washer cycle below, visually examine the attachments/tubes for cleanliness.

Recommended Washer Cycle

Automated Cleaning - Alkaline Detergent (8.0 -10.5 pH)			
Phase	**Recirculation Time**	**Water Temperature**	**Detergent Type**
Pre-wash	2 minutes (02:00)	Cold tap water	Not applicable
Wash	5 minutes (05:00)	43°C (set point)	Alkaline detergent with pH 8.0 - 10.5
Rinse	1 minute (01:00)	Hot tap water	Not applicable
Thermal Rinse	1 minute (01:00)	90°C	Not applicable
Purified Water Rinse	1 minute 30 seconds (01:30)	66°C (set point)	Not applicable

FR

Instructions de retraitement des dispositifs Legend dans un appareil de lavage automatisé avec détergents alcalins

Remarque : Ces instructions complètent les Instructions de retraitement fournies dans le guide d'utilisation de la Console électrique intégrée (IPCTM) pour Legend EHSTM, Legend EHS StylusTM, Stylus TouchTM et les accessoires et tubes LegendTM. L'ensemble des avertissements, précautions et limitations inclus dans le guide d'utilisation de la Console électrique intégrée (IPCTM) restent valables.

Les dispositifs nettoyés à l'aide de la procédure suivante doivent être emballés, stérilisés, maintenus, inspectés et testés conformément aux Instructions de retraitement du guide d'utilisation de la Console électrique intégrée (IPCTM) avant utilisation.

Instructions de nettoyage pour Legend EHSTM, Legend EHS StylusTM et Stylus TouchTM

- Relire attentivement les avertissements concernant l'appareil de lavage/désinfection contenus dans le guide d'utilisation de l'IPC, avant de procéder à cette méthode de nettoyage.
- Rincer les dispositifs à l'eau courante, la douille de serrage orientée vers le bas jusqu'à ce que toute trace de salissure ait disparu.
- Une brosse en nylon peut être utilisée pour faciliter le nettoyage.
- Retirer les dispositifs des plateaux pour instruments avant de les placer dans l'appareil de lavage.
- Orienter les dispositifs selon les recommandations du fabricant de l'appareil de lavage/désinfection.
- Procéder au nettoyage selon le cycle de nettoyage recommandé indiqué ci-dessous.
- Une fois le nettoyage effectué selon le cycle de nettoyage recommandé, examiner les dispositifs pour en contrôler la propreté.

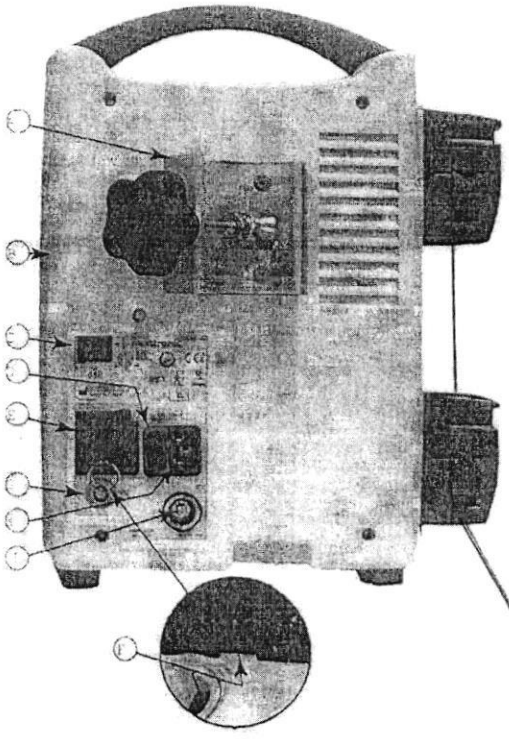
Instructions de nettoyage pour accessoires et tubes LegendTM

- Relire attentivement les avertissements concernant l'appareil de lavage/désinfection contenus dans le guide d'utilisation de l'IPC, avant de procéder à cette méthode de nettoyage.
- Rincer accessoires et tubes à l'eau courante jusqu'à ce que toute trace de salissure ait disparu.
- Il est conseillé d'ouvrir complètement les accessoires comportant des pièces mobiles sous le robinet.
- Une brosse en nylon de taille adéquate peut être utilisée lors du rinçage à l'eau courante afin de faciliter le nettoyage interne ou externe des accessoires.
- Retirer les dispositifs des plateaux pour instruments avant de les placer dans l'appareil de lavage.
- Les accessoires à visibilité variable (AVAXX, AVAXXDK, AVSXX) doivent être placés dans l'appareil de lavage avec leur tube entièrement déployé.
- Orienter les dispositifs selon les recommandations du fabricant de l'appareil de lavage/désinfection.
- Procéder au nettoyage selon le cycle de nettoyage recommandé indiqué ci-dessous.
- Une fois le nettoyage effectué selon le cycle de nettoyage recommandé, examiner les accessoires et tubes pour en contrôler la propreté.

Cycle de nettoyage recommandé

Nettoyage automatisé – Détergent alcalin (pH de 8,0 à 10,5)			
Phase	**Temps de recyclage**	**Température de l'eau**	**Type de détergent**
Prélavage	2 minutes (02:00)	Eau froide du robinet	Sans objet
Lavage	5 minutes (05:00)	43 °C (point de consigne)	Détergent alcalin avec un pH compris entre 8 et 10,5
Rinçage	1 minute (01:00)	Eau chaude du robinet	Sans objet
Rinçage à chaud	1 minute (01:00)	90 °C	Sans objet
Rinçage à l'eau purifiée	1 minute et 30 secondes (01:30)	66 °C (point de consigne)	Sans objet

Console Rear



H. Pole clamp.
I. Compact flash card port (factory use only).
J. Manual Start/stop button.
K. Fuse Access – Replace only with 5 x 20 T. L. 5A, 250 V fuse.
L. Auxiliary power outlet with protective cover:
   - For use at grid voltage < 120 VAC only.
   - HydroDebriderTM, or Bone Mill consoles only. See warning W5.

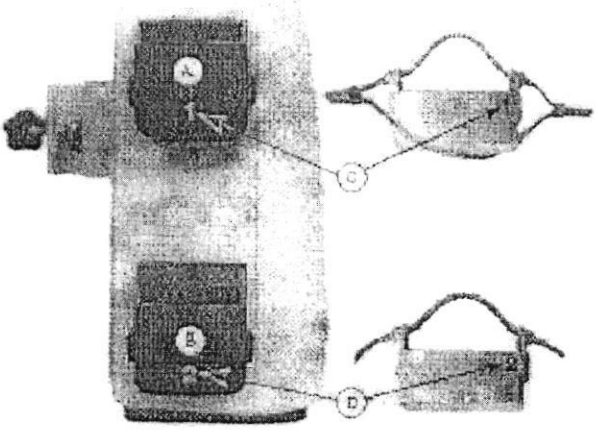
F. To remove cover, place small screwdriver in notch at bottom and pull/pry off.
M. Endo-Scrub® 2 - power connector.
N. Power cord connector: See sppendix B for part numbers.
   - Hospital grade power cord connects here.
   - Means of disconnecting device from Mains voltage by the power cord.

I. Equipotential:
   - Uniform potential.
   - Means for eliminating noise or interference with sensitive equipment by application of a POTENTIAL EQUALIZATION CONDUCTOR.

Power Cords

North America: USA, Barbados, Belize, Bolivia, Canada, Columbia, Ecuador, Venezuela Standard P/N EA600 or 1895820 6 meter P/N EA650 or 189721	United Kingdom, Ireland, Hong Kong, Malaysia, Singapore P/N EA606 or 1895821	Continental Europe: Austria, Belgium, Finland, France, Germany, Greece, Korea, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden P/N EA602 or 1895822
China P/N EA604	India, South Africa P/N EA607	Switzerland P/N EA601
Argentina P/N EA608	Israel P/N EA609	Denmark P/N EA610
Australia, New Zealand P/N EA605	Japan P/N EA603 or 1895823	Italy, Chile P/N EA611

Console Pump Designator



D. Pump 1: Coolant, lens cleaning, or irrigation.
E. Pump 2: Irrigation or lens cleaning.
F. Pump 1 Designator – This designator number is used to coordinate the pump (by number) with the cartridge number and/or pump set-up screen number listed on the touch screen. When setting up the console these ***numbers must match***.
G. Pump 2 Designator.

NOTE: Not all Pump Cartridges have pump designator numbers. For these cartridges the operator should view the Pump Setup Screen prior to installing the cartridge. (Irrigation speed 0.5-100 ml/min)

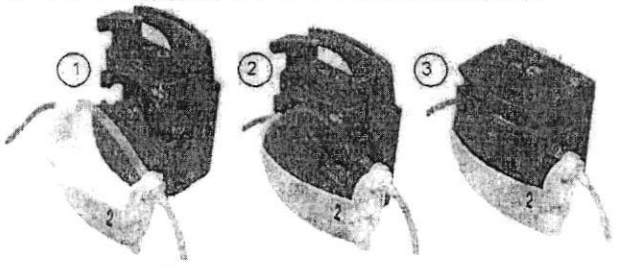
10.1

Irrigation/Coolant Pumps

9.1

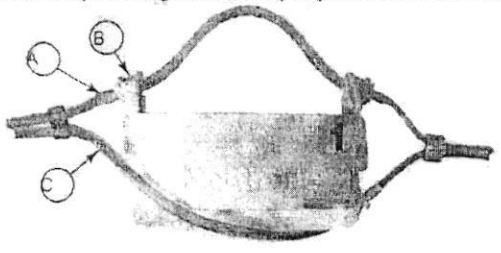
Pump Cartridge Set-up

The Pump Cartridge snaps onto the lower section of the pump.

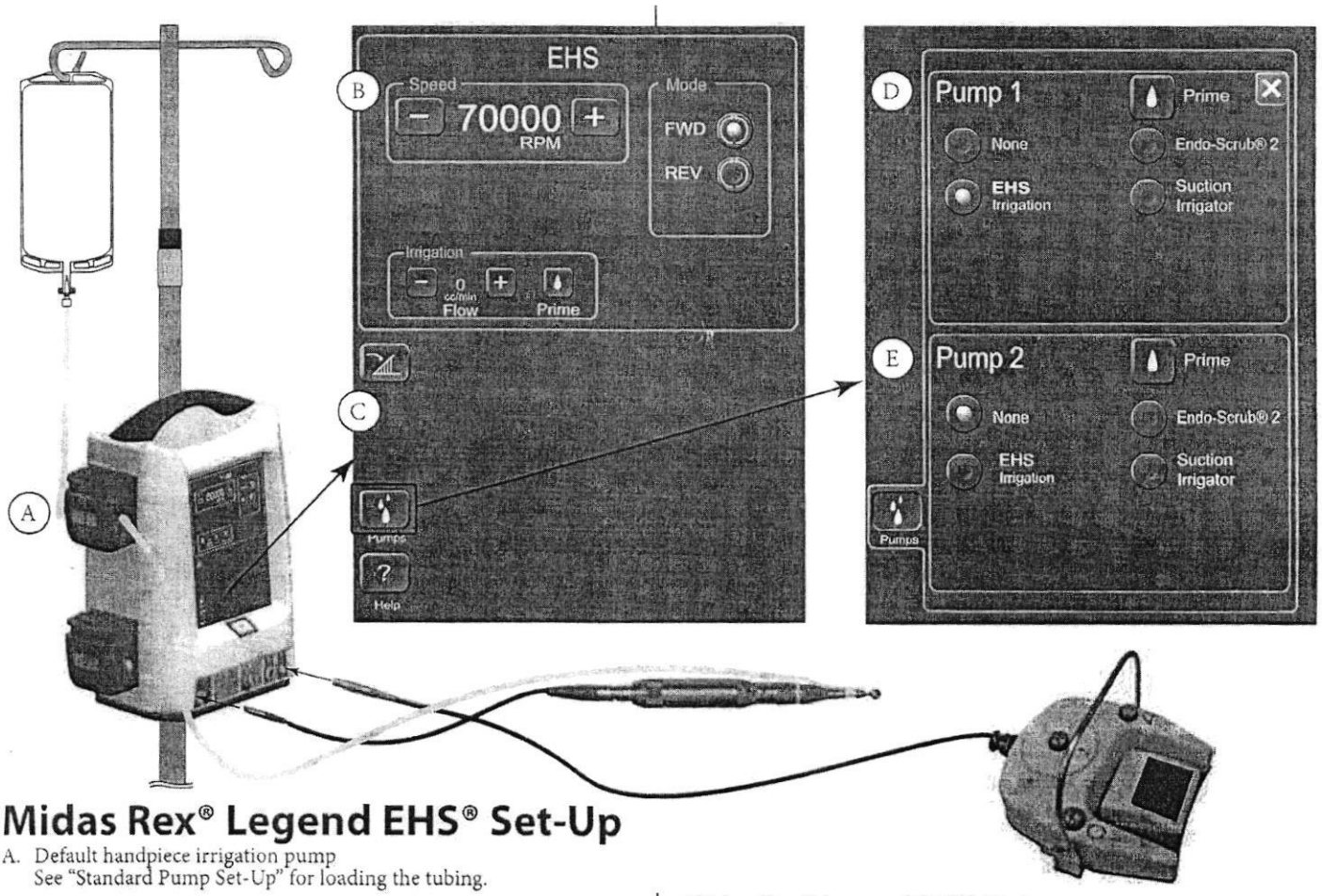


Visao® Pump Cartridge

The Visao® Pump Cartridge has both a pump tube and a return tube.



A. Pump tubing.
B. Pump tubing is clipped into the Pump Cartridge.
C. Return tube.



Midas Rex® Legend EHS® Set-Up

A. Default handpiece irrigation pump
See "Standard Pump Set-Up" for loading the tubing.

Legend EHS® Touch Screen

B. EHS* Touch Screen:
- Speed Panel:
  - In FWD Mode, allows variable adjustment from 200 to 75000 rpm with a default speed of 70000 rpm.
  - In REV Mode, allows variable adjustment from 200 to 75000 cpm with a default speed of 70000 rpm.
- Irrigation Panel - Used to adjust the flow rate for optional in-blade irrigation. Default is 0 cc per minute in FWD Mode and 0 cc per minute in REV Mode.
  Flow rate is adjustable with the touchscreen or the irrigation remote control. See Precaution P1 for Prime/Flush button.
- Mode Panel - Enables selection of FWD or REV mode.

C. Main Screen subsection buttons:
- Foot Control Unit (FCU) Button - changes foot pedal from variable speed control to On/Off.
- Augment Area - (blank area) Shows supplemental information, such as, inactive handpiece(s), or the special function panel (Suction Irrigator or Endo-Scrub® 2).
- Pumps - Opens pump panel.
- Help - Opens help screens.

Legend EHS® Pump Screen

D. Pump number 1 panel:
- Attachments listed for this pump.
- Pump 1 is EHS* irrigation by default. If not using irrigation operator should change to none.
- Pump panel may be closed by pressing the X-button.
- See Precaution P1 for Prime/Flush button.

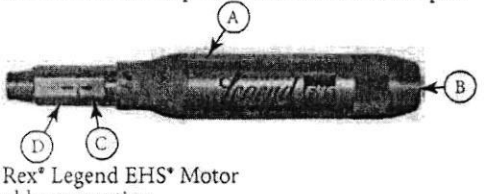
E. Pump number 2 panel:
- Attachments listed for this pump.

NOTE: When the Legend EHS® is detected by the console, Pump 2 will default to none, with optional attachments listed.

- See Precaution P1 for Prime/Flush button. Legend EHS® Motors

Midas Rex® Legend EHS® Motor

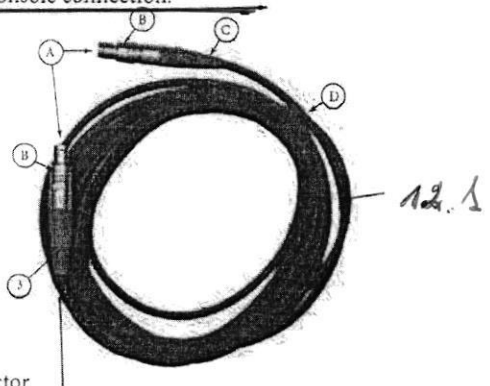
High speed, high torque, reversible electric motor used to dissect bone and biomaterial at selectable speeds from 200 to 75,000 rpm.



A. Midas Rex® Legend EHS® Motor
B. 4-pin cable connection
C. Stationary collet
D. Rotational collet

Legend EHS® Motor Cable

EHS® motor to console connection.



A. 4-pin connector
B. Locking sleeve
C. Green boot
D. Cable

12.1

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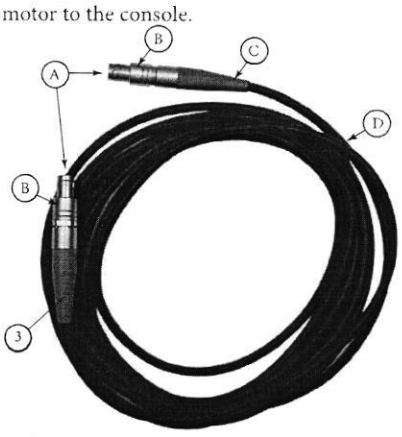
Legend EHS® Motor Cable

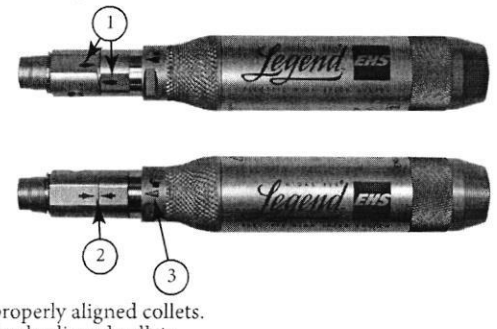
Connects the motor to the console.



A. 4-pin connector.
B. Locking sleeve.
C. Green boot.
D. Cable.

Motor Collet

Prior to installing an attachment, ensure that arrows on the motor collet are in proper alignment.



1. Improperly aligned collets.
2. Properly aligned collets.
3. Motor side attachment alignment arrow.

If the arrows are not aligned, use the Motor Wrench to turn the rotational collet until its arrow is aligned with the arrow on the stationary collet.

Technical Specifications

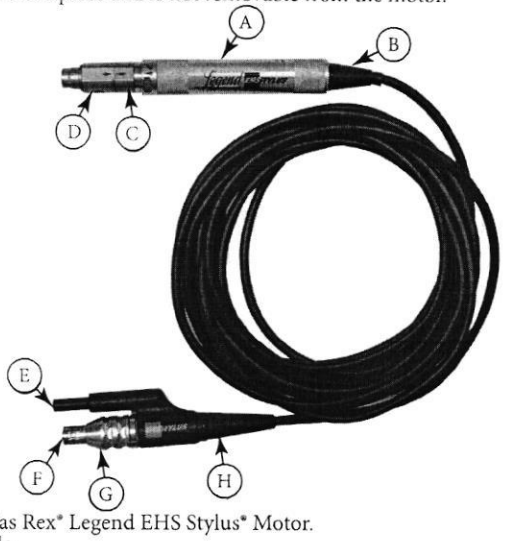
Part No.	EM100-A
Speed	200-75000 RPM forward/reverse
Size	9.02 cm length x 2.03 cm diameter
Weight	180 g

Duty Cycle (To avoid overheating):

- For continuous use in operating room temperatures up to 40°C , the Legend EHS® Motor is rated for a cutting time of 3 minutes, at 70,000 RPM.
- For normal operating room temperatures (typically 20°C) the Legend EHS® Motor is rated for a continuous cutting time of 10 minutes followed by 25 minutes of rest.
- The Legend EHS® Motor is rated for intermittent use of 20 seconds ON / 20 seconds OFF, indefinitely at 70,000 RPM.

Midas Rex® Legend EHS Stylus® Motor

A smaller compact high speed, high torque, reversible electric motor used to dissect bone and biomaterials at selectable speeds from 200 to 75,000 RPM. The Midas Rex® Legend EHS Stylus® Motor cable is integral with the Handpiece and is not removable from the motor.



A. Midas Rex® Legend EHS Stylus® Motor.
B. Cable.
C. Rotational collet.
D. Stationary collet.
E. Ground connector.
F. 4-pin connect
G. Locking sleeve.
H. Black boot.

Technical Specifications

Legend EHS Stylus® Motor

Part No.	EM200
Speed	200-75000 RPM forward/reverse
Size	7.77 cm length x 1.65 cm diameter
Weight	90 g

Duty Cycle (To avoid overheating):

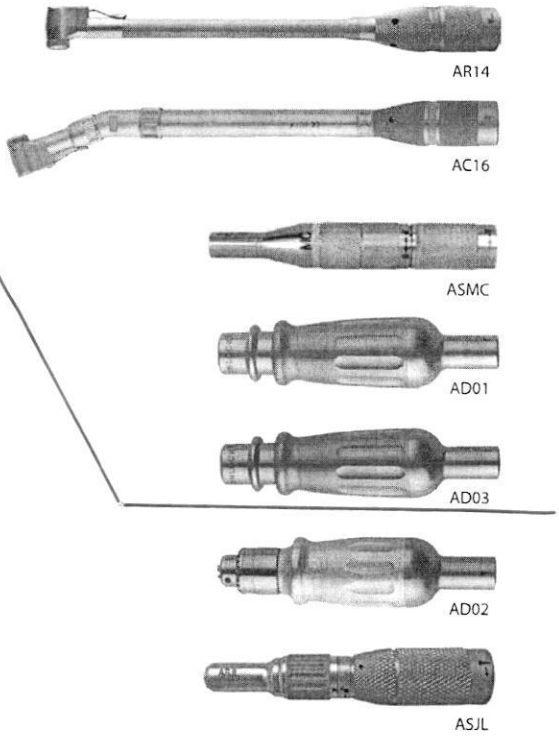
- For continuous use in operating room temperatures up to 40°C, the Legend Stylus™ Motor is rated for 3 minutes at 60,000 RPM, followed by 25 minutes of rest.
- For normal operating room temperatures (typically 20°C) the Legend Stylus™ Motor is rated for continuous cutting indefinitely at 60,000 RPM.

HIGH SPEED ELECTRIC MOTOR SPECS

	Legend Stylus	Legend EHS
Console	IPC/Legend EHS	IPC/Legend EHS
Max Speed (rpm)	75,000	75,000
Max Power (W)	160	146
Max Torque (Mn-m)	42	38
Noise (Db)	58	58
Weight (oz)	3.17	6.35
Length (in)	3.06	3.55
Diameter (in)	0.65	0.8
Foot/Finger	Both	Foot only
Special Features	Trans Nasal Skullbase burs	

Specialty Attachments

Product	Description
AR14	Right-Angle Attachment
AC16	Contra-Angle Attachment (MF)
ASMC	Metal Cutter Attachment
AD01	Perforator Driver Attachment — 800 rpm
AD03	Perforator Driver Attachment —1000 rpm
AD02	Jacobs Attachment (5/32") with key
ASJL	J-Latch Attachment



SymmeTRI Dissecting Tools

Product	Description	Head Dia. (mm)
75BA30T	SymmeTRI 7.5 cm, 3 mm	3.0
75BA40T	SymmeTRI 7.5 cm, 4 mm	4.0
75BA50T	SymmeTRI 7.5 cm, 5 mm	5.0
75BA60T	SymmeTRI 7.5 cm, 6 mm	6.0
75BA75T	SymmeTRI 7.5 cm, 7.5 mm	7.5
9BA30T	SymmeTRI 9 cm, 3 mm	3.0
9BA40T	SymmeTRI 9 cm, 4 mm	4.0
9BA50T	SymmeTRI 9 cm, 5 mm	5.0
9BA60T	SymmeTRI 9 cm, 6 mm	6.0
10BA30T	SymmeTRI 10 cm, 3 mm	3.0
10BA40T	SymmeTRI 10 cm, 4 mm	4.0
12BA30T	SymmeTRI 12 cm, 3 mm	3.0
12BA40T	SymmeTRI 12 cm, 4 mm	4.0
14BA30T	SymmeTRI 14 cm, 3 mm	3.0
14BA40T	SymmeTRI 14 cm, 4 mm	4.0
14BA50T	SymmeTRI 14 cm, 5 mm	5.0
14BA60T	SymmeTRI 14 cm, 6 mm	6.0
14BA75T	SymmeTRI 14 cm, 7.5 mm	7.5
15BA30T	SymmeTRI 15 cm, 3 mm	3.0
15BA40T	SymmeTRI 15 cm, 4 mm	4.0

*Easy*Drill™ AutoStop Cranial Perforators

The EasyDrill™ AutoStop Cranial Perforators combine efficient bone cutting performance with the protection of AutoStop technology. 15.1

PROTECTION

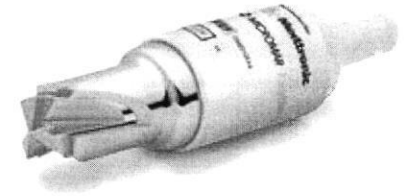
Employs a clutch mechanism to automatically disengage when encountering resistance. 15.1

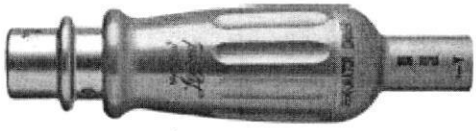
PERFORMANCE

Drill tip design helps prevent skiving, while sharp edges cut quickly through bone.

VARIETY

Four color-coded sizes to meet a wide range of cranium types.





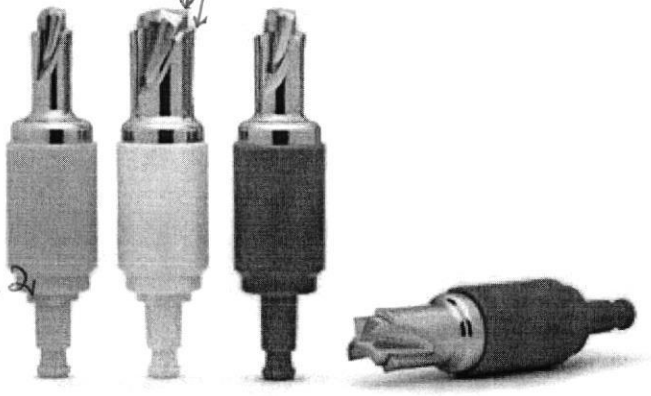
15.1

Ordering Information

Item #	Colour	Outer Diam.	Inner Diam.	Shelf
DM0008FAA	●	9.0 mm	6.0 mm	3.0 mm
DM0011FAA	●	11.0 mm	7.0 mm	3.0 mm
DM0210FAA	●	14.0 mm	11.0 mm	1.5 mm
DM0010FAA	○	14.0 mm	11.0 mm	3.0 mm

15.2

14.2 e 27



Item #	Description
*AD03	Midas Rex® Perforator Driver Attachment

For more information, contact your Medtronic Neurosurgery sales representative or refer to **www.MedtronicNeurosurgery.com.**

For a listing of indications, contraindications, precautions, warnings, and potential adverse events, please refer to the Instructions for Use.

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The Manufacturer is:

Medtronic

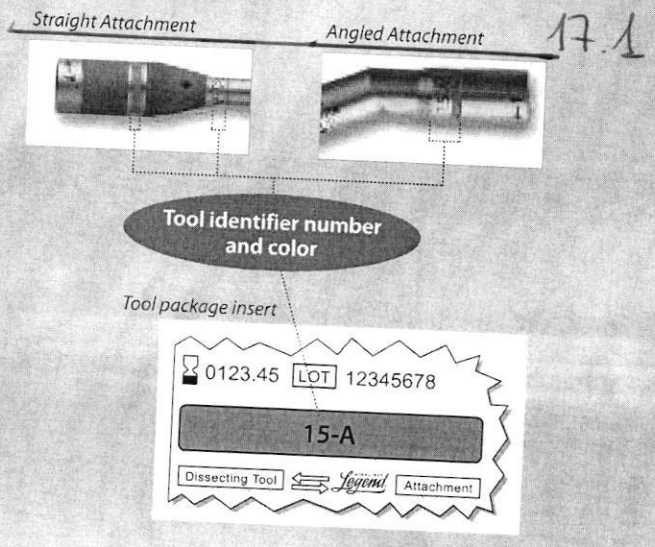
MICROMAR

Attachments

A variety of shapes and sizes to fit almost any need

Easy to identify, easy to use

- Ergonomically designed and textured for grip and control
- All 52 standard and specialty Legend attachments fit every Legend motor
- Most comprehensive attachment offering available
- Large, easily read markings identify matching attachments and tools
- Bold color coding identifies matching attachments and tools

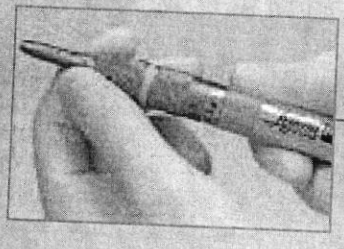


17.1

Quick Release

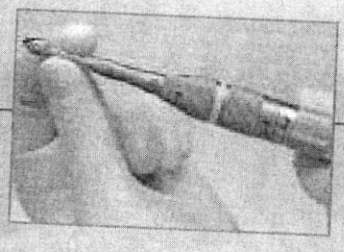
Simple, 3-step quick-release system for all standard and specialty attachments

1 Snap onto motor



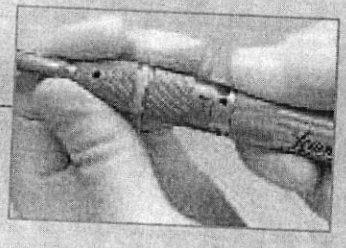
Slide attachment over motor collet while aligning triangular markers on attachment and motor case. A tactile and audible click indicates when the attachment is fully seated.

2 Click in tool



Insert dissecting tool into attachment until a tactile and audible click indicates that the dissecting tool is fully seated.

3 Twist to lock



Rotate attachment to the lock (🔒) position indicated by the closed padlock symbol on the motor case. Check to ensure the attachment alignment triangle is aligned with the closed padlock to ensure the attachment is secure. Gently tug on the dissecting tool to confirm it is secure.

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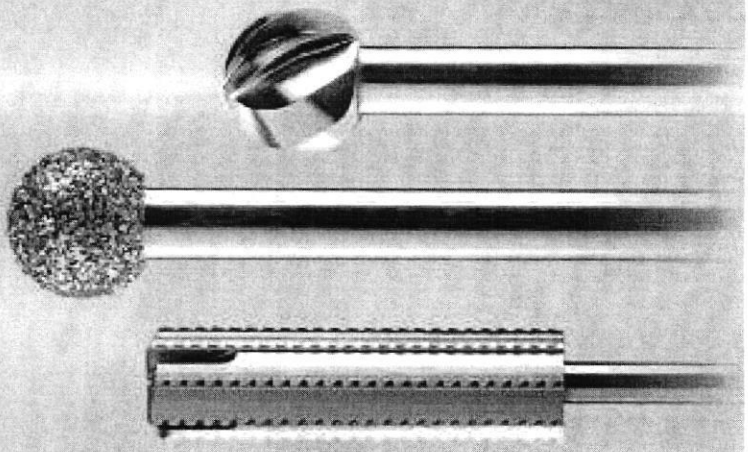
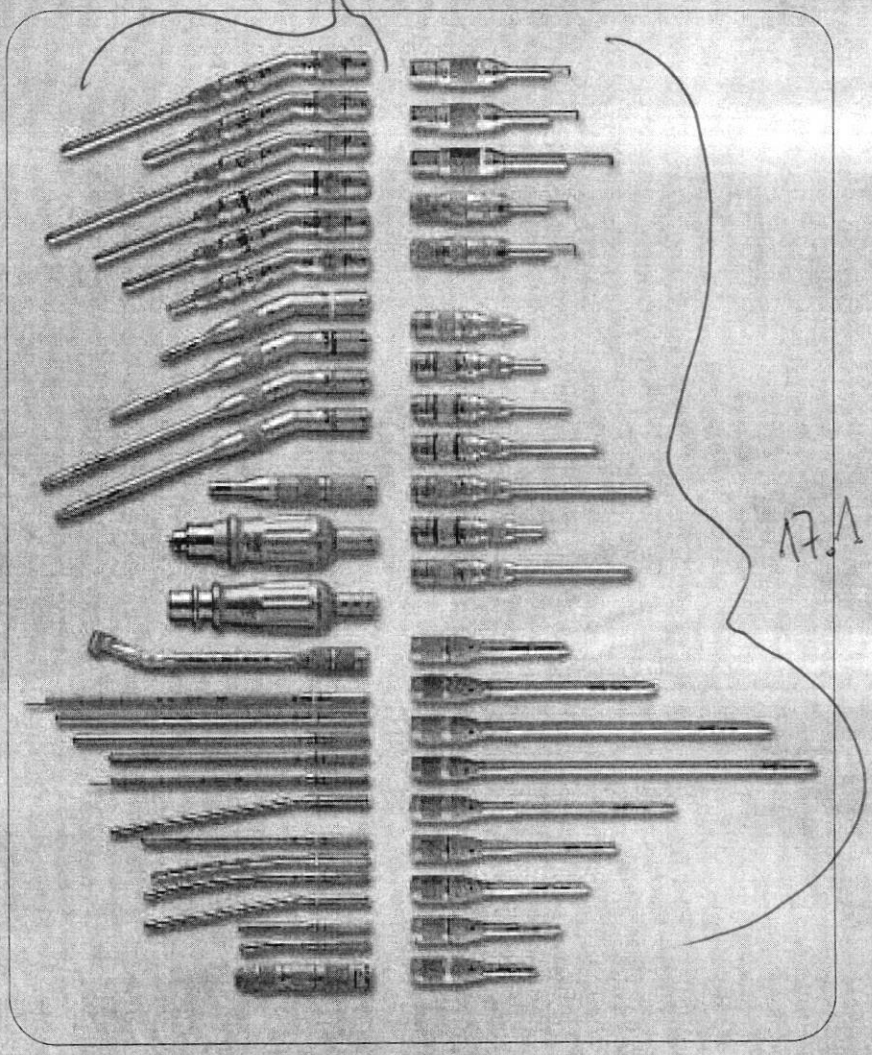
Legend® Attachments and Tools

Legend® Standardization - Saves Time and Money

The Midas Rex® Legend® system provides a platform for multiple surgical specialties. The system includes both pneumatic and electric powered components, as well as attachments and tools that fit all Midas Rex Legend motors – a variety for any specialty. The modular specialty attachments, chucks, and tools comprise a system built for almost any need.



17.1



17.1

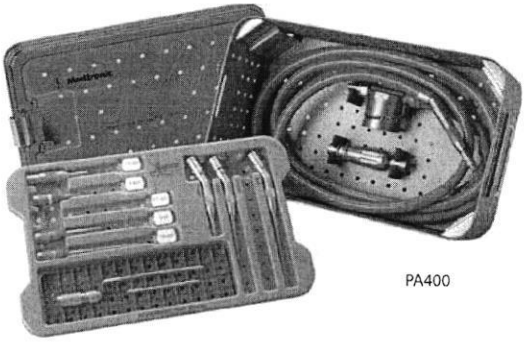
Simplified logistics include one system for all high-speed users from one vendor with over 40 years of experience. Training needs are simplified with the innovative and intuitive system. A single versatile system reduces equipment in the operating room, allowing for faster room turnover and reduced cleaning time. Inventory standardization reduces operating costs with less inventory, fewer purchase orders, and less space required for products.

Legendary performance with classic form and function

20

Instrument Case 3/4 DIN

Product	Description	Quantity
PA400		
Case includes the following:		
PA410	Instrument Case Base 3/4 DIN	1
PA415	Instrument Case Lid 3/4 DIN	1
PA420	Instrument Case Tray 3/4 DIN	1
PA421	Instrument Case Labels 3/4 DIN	1
PA425	Instrument Case Mat 3/4 DIN	1



PA400

Instrument Case Kit Full DIN with Triton® Tray

(not shown)

Product
PA500

Midas Rex® MR7 Instrument Case 3/4 DIN

Case includes base, lid, tray, and tray mat

Product	Description	Quantity
PA600	Midas Rex® MR7 Instrument Case 3/4 DIN	1
Replacement components:		
PA615	Midas Rex® MR7 Instrument Case Replacement (Lid)	1
PA620	Midas Rex® MR7 Instrument Case Replacement (Tray)	1
PA625	Midas Rex® MR7 Instrument Case Replacement (Tray Mat)	1

PA600

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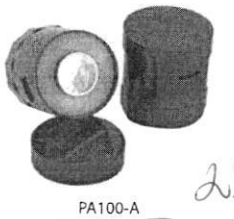
MIDAS REX® Legend® System

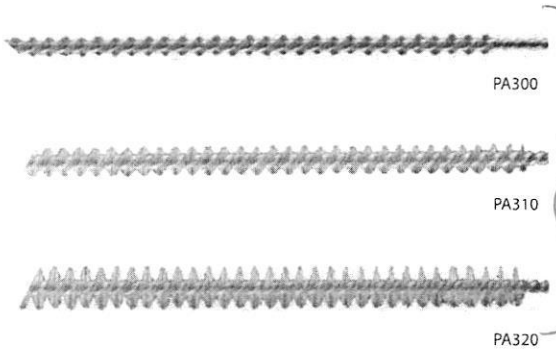
Accessories

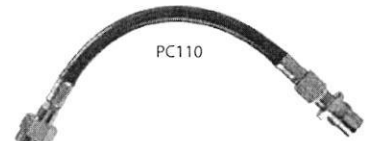
Product	Description	Quantity
PC100	Pneumatic Control Unit FN2 - DISS (with 20 ft. hose)	1
PC101	Pneumatic Control Unit (Schrader)	1
PA100-A	Lubricant/Diffuser Pack	4
PA130	Legend Motor Wrench	1
PA200	Regulator (DISS conn)	1
PA300	1.2 mm Cleaning Brush (1/32")	1
PA305	1.2 mm Cleaning Brush	5
PA310	2.4 mm Cleaning Brush (3/32")	1
PA315	2.4 mm Cleaning Brush	5
PA320	3.2 mm Cleaning Brush (1/8")	1
PA325	3.2 mm Cleaning Brush	5
PA115	Tool Storage Rack	1
PC110	Adaptor FN2-DISS to M-Schr	1
PC120	Adaptor FN2-DISS to MA-DISS	1
PC130	WF4 Connector	1
PC140	Adaptor FN2-DISS to F-Schr	1
PC230	30 ft. Extension Hose, Black	1
PC231	30 ft. Extension Hose, Black (Schrader)	1
PC720	MR7 Triton* Adaptor	1
PC700	Midas Rex* MR7 Pneumatic Foot Control	1
PC710	Midas Rex MR7 Regulator Hose	1
PA700	Midas Rex MR7 Lubricant/Diffuse Cartridge	4-pk


PC100


PA100-A

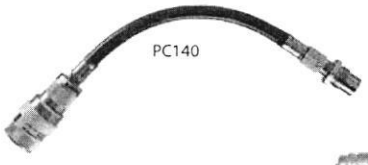
PA130

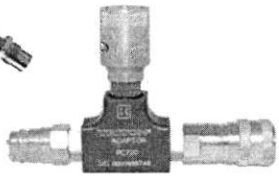



PC110


PC120


PC130


PC140


PC720

Legend EHS Stylus Touch® Kit

Product	Description	Quantity
EK006	Legend EHS Stylus Touch® Kit	
Kit includes the following:		
EM210	Legend EHS Stylus Touch® Motor	1
EA100	Instrument Case	1
PA300	Cleaning Brush, 1.2 mm	1
PA310	Cleaning Brush, 2.4 mm	1
PA320	Cleaning Brush, 3.2 mm	1
PA130	Legend Motor Wrench	1
LIT2500006EN	Legend Wall Chart	1

Accessories

Product	Description	Quantity
IRD250	Irrigation Tubing	1
IRD300	Irrigation Tubing	5
IRD400	Irrigation Tubing, Low Profile	5
IRD450	Irrigation Tubing, Low Profile	1
3318604E	Suction-Irrigator Tubing, 2-Pack, with IntelliFlow™ Remote Control	1
EA201	Foot Control Y-Splitter	1
EA800	IPC® Cart (Includes Built-In IV Pole)	1
EA900	Basket for Foot Control, Mountable on Standard IV Pole	1
EF200	Foot Control, Front Accessible	1
PA130	Legend Motor Wrench	1
PA300	1.2 mm Cleaning Brush (1/32")	1
PA305	1.2 mm Cleaning Brush (1/32")	5
PA310	2.4 mm Cleaning Brush (3/32")	1
PA315	2.4 mm Cleaning Brush (3/32")	5
PA320	3.2 mm Cleaning Brush (1/8")	1
PA325	3.2 mm Cleaning Brush (1/8")	5
PA115	Tool Storage Rack	1

IPC® NT Manuals

Product	Description	Quantity
175027EN	Instruction Manual, EC300 Integrated Power Console, English Only	1
175027ML53	Instruction Manual, EC300 Integrated Power Console, Mediterranean (EL, EN, ES, FR, PT)	1
175027ML36	Instruction Manual, EC300 Integrated Power Console, Western Europe (DE, EN, FR, IT, NL)	1
175027ML51	Instruction Manual, EC300 Integrated Power Console, Nordics (DA, EN, FI, NO, SV)	1
175027ML4V	Instruction Manual, EC300 Integrated Power Console, Eastern Europe (CS, EN, HU, PL, RU, TR)	1
175027MLLH	Instruction Manual, EC300 Integrated Power Console, Russia	1

SURGICAL TECHNIQUE

THE EASYDRILL™ CRANIAL PERFORATORS

The EasyDrill Cranial Perforator device is a bone cutting and drilling instrument used in conjunction with a surgical motor and a Hudson Chuck - speed reducer attachment, to drill access holes through a patient's skull.

When properly used, the EasyDrill Cranial Perforator employs a clutch mechanism to automatically disengage once perforation is accomplished and as the drill ceases to find resistance to bone.

EQUIPMENT NEEDED

1. EasyDrill Cranial Perforator™
2. Attachment Driver (AD03)
3. Drill

EASYDRILL CRANIAL PERFORATOR FUNCTIONAL TEST

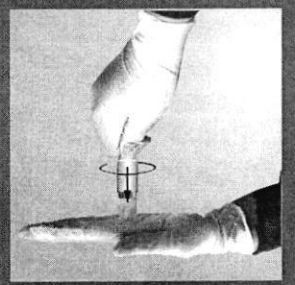
Perform the following function test before each trephination. Use sterile disposable gloves to perform the test.

CAUTION: If the sterile protective cover is not available, use sterile gauze (as a protective barrier) when handling the cutting end of the EasyDrill Cranial Perforator.

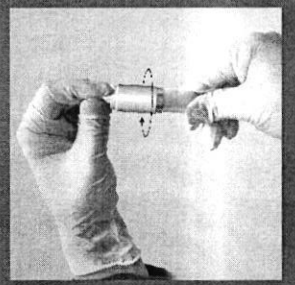
NOTE: Do not use the product and contact customer service if either of the two function tests below fail to present the indicated results:

RECOMMENDED SPEED RANGE:

We recommend a speed range of 800 to 1000 RPM for the drilling with EasyDrill Cranial Perforators.



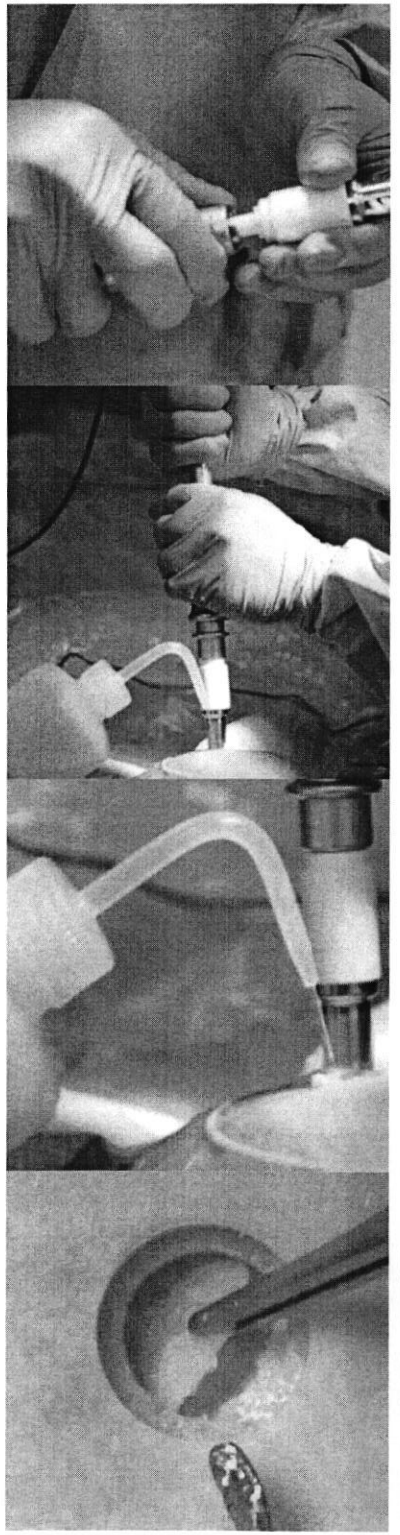
1. Firmly hold the EasyDrill Cranial Perforator's plastic drive shank (Hudson shank) and the protective cover, turning the cutting end of the EasyDrill Cranial Perforator device in a clockwise direction. The cutting end of the device should turn freely.



2. Next, grasp the EasyDrill Cranial Perforator by the plastic drive shank (Hudson shank) and press the protected cutting end of the device into the opposite hand, turn the drill clockwise until it locks; to unlock, cease to apply pressure.

CRANIAL BONE DRILLING

1. After the functional tests, attach the EasyDrill Cranial Perforator to the Hudson-type chuck of the motorized driver. Verify that the EasyDrill Cranial Perforator is firmly fixed to the Hudson-type chuck before proceeding.
2. Remove the protective cover from the cutting end of the EasyDrill Cranial Perforator device before drilling.
3. Position and press the cutting end of the EasyDrill Cranial Perforator gently against the skull to be perforated.
4. Manually turn the EasyDrill Cranial Perforator until you feel the drill engagement.
5. Position the EasyDrill Cranial Perforator perpendicular to the skull (90°) on the point of perforation. Supply power to the drilling system and begin trepanation.
6. Maintain a gentle and continuous pressure while drilling.
7. Irrigate the point of perforation with physiological serum while drilling to prevent bone necrosis.
8. At the drilling depth where the EasyDrill Cranial Perforator device ceases to find resistance to bone, it automatically disengages the cutting end of the device, which stops rotating. Note: At this stage, the plastic shank of the device may appear to continue to rotate.
9. Carefully remove the EasyDrill Cranial Perforator from the skull.
10. There may still be a thin bone layer in the hole that must be carefully removed with appropriate surgical instrument. If this layer is adhered to the brain material, take appropriate care not to injure the dura.
11. Before performing another perforation, wipe the cutting end of the EasyDrill Cranial Perforator removing the residues from the previous drilling. Perform testing procedures again.



27

WARNING

Dissecting tools are for single-use only. Do not attempt to sterilize them. The dissecting tools are packed sterile and are not intended for repeat use. To prevent contamination, use only once.

Do not use an attachment and dissecting tool combination that results in tool flail or excessive vibration.

Do not attempt to remove a tool while the motor is running.

Do not attempt to remove a tool from an overheated motor or attachment.

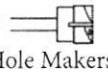
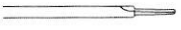
Do not use the device if the package is opened or damaged.

General Guidelines For Attachment and Tool Applications

These are general guidelines for dissecting tool applications and are not an all-inclusive listing.

WARNING

Be sure to match the color code and nomenclature on the Legend® Dissecting Tool packaging with the color band and nomenclature on the Legend® Attachment. Failure to do so could result in injury to the patient or operating room staff.

Surgical Application	Commonly Used Attachments	Commonly Used Dissecting Tools	Suggested Motor(s)
Spine	8-B, 9-M, 14-AM, 15-A	**Match Head** Elongated spherical design allows controlled, delicate dissection. For entry hole, nerve decompression, osteophyte removal, sinus dissection, etc. **Ball**  Helical cutting flutes dissect bone or cement effectively from a wide variety of approach angles. For debridement, decortication, sinus dissection, etc. **Oval**  Helical cutting flutes and curved design blend acorn and ball styles to vary dissection efficiency with approach angle. For decortication, laminotomy, entry hole, nerve decompression, osteophyte removal, etc. **Hole Maker/Saw**  Matched sets of Hole Makers and Hole Saws are efficient and effective for interbody fusion. **Cylinder**  Effective bone sculpting and planing. For graft shaping, debridement, corpectomy, decortication, interbody fusion, fusion takedown, etc. **Acorn**  Curved design varies dissection efficiency with varied approach angles. For entry hole, laminotomy, bone shaping, debridement, corpectomy, decortication, fusion takedown, etc.	MR7, MR7 Touch
	Telescoping	**Match Head**  Elongated spherical design allows controlled, delicate dissection. For entry hole, nerve decompression, osteophyte removal, sinus dissection, etc.	MR7, MR7 Touch
	Footed, Straight	**Tapered**  Slender design for precise dissection with minimal bone loss. For transection, osteotomy, graft harvesting, bone shaping, entry hole, suture hole, midface advancement, etc.	

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Legend Ball Tool
Diamond

Product	Description	Head Dia. (mm)
7BA10D	Legend 7 cm, 1 mm Ball Diamond	1.0
7BA15D	Legend 7 cm, 1.5 mm Ball Diamond	1.5
7BA20D	Legend 7 cm, 2 mm Ball Diamond	2.0
7BA25D	Legend 7 cm, 2.5 mm Ball Diamond	2.5
7BA30D	Legend 7 cm, 3 mm Ball Diamond	3.0
7BA40D	Legend 7 cm, 4 mm Ball Diamond	4.0
7BA50D	Legend 7 cm, 5 mm Ball Diamond	5.0
7BA60D	Legend 7 cm, 6 mm Ball Diamond	6.0
75BA06DL	Legend 7.5 cm, .6 mm Diamond	0.6
75BA08DL	Legend 7.5 cm, .8 mm Diamond	0.8
75BA10D	Legend 7.5 cm, 1 mm Diamond	1.0
75BA10DL	Legend 7.5 cm, 1 mm Diamond	1.0
75BA12DL	Legend 7.5 cm, 1.2 mm Diamond	1.2
75BA15D	Legend 7.5 cm, 1.5 mm Diamond	1.5
75BA15DL	Legend 7.5 cm, 1.5 mm Diamond	1.5
75BA20D	Legend 7.5 cm, 2 mm Diamond	2.0
75BA20DL	Legend 7.5 cm, 2 mm Diamond	2.0
75BA25D	Legend 7.5 cm, 2.5 mm Diamond	2.5
75BA25DL	Legend 7.5 cm, 2.5 mm Diamond	2.0
75BA30D	Legend 7.5 cm, 3 mm Diamond	3.0
75BA35D	Legend 7.5 cm, 3.5 mm Diamond	3.5
75BA35DL	Legend 7.5 cm, 3.5 mm Diamond	3.5
75BA40D	Legend 7.5 cm, 4 mm Diamond	4.0
75BA50D	Legend 7.5 cm, 5 mm Diamond	5.0
75BA60D	Legend 7.5 cm, 6 mm Diamond	6.0
75BA80D	Legend 7.5 cm, 8 mm Diamond	8.0
9BA30D	Legend 9 cm, 3 mm Ball Diamond	3.0
9BA40D	Legend 9 cm, 4 mm Ball Diamond	4.0
9BA50D	Legend 9 cm, 5 mm Ball Diamond	5.0
9BA60D	Legend 9 cm, 6 mm Ball Diamond	6.0
9BA75D	Legend 9 cm, 7.5 mm Ball Diamond	7.5
10BA10D	Legend 10 cm, 1 mm Ball Diamond	1.0
10BA20D	Legend 10 cm, 2 mm Ball Diamond	2.0
10BA30D	Legend 10 cm, 3 mm Ball Diamond	3.0
10BA40D	Legend 10 cm, 4 mm Ball Diamond	4.0
10BA50D	Legend 10 cm, 5 mm Ball Diamond	5.0
10BA60D	Legend 10 cm, 6 mm Ball Diamond	6.0
12BA30D	Legend 12 cm, 3 mm Ball Diamond	3.0
12BA40D	Legend 12 cm, 4 mm Ball Diamond	4.0
12BA50D	Legend 12 cm, 5 mm Ball Diamond	5.0
12BA60D	Legend 12 cm, 6 mm Ball Diamond	6.0
14BA25D	Legend 14 cm, 2.5 mm Ball Diamond	2.5
14BA30D	Legend 14 cm, 3 mm Ball Diamond	3.0

18.1

Round Stainless Steel Burs

5 per box

Product	Bur Dia. (mm)	Bur Type	Bur Length (mm)
31217045U	7	Standard	52
31216046U	6	Standard	52
31215047U	5	Standard	52
9809B	5	Long*	71
31214053U	4	Standard	57
9789B	4	Long*	72
3112917C	3.5	51 mm	54
3112915C	3.2	51 mm	54
31213054U	3	Standard	57
9769B	3	Long*	72
3112912C	3	51 mm	54
3112964C	3	64 mm*	67
3112974C	3	75 mm*	78
3112908C	2.5	51 mm	53
3112910C	2.3	51 mm	53
31142364	2.3	64 mm*	66
3112907C	2	51 mm	57
31142064	2	64 mm*	66
31142075	2	75 mm*	77
3112906C	1.5	51 mm	52
31141564	1.5	64 mm*	65
31141575	1.5	75 mm*	76
3112901C	1	51 mm	52
31141064	1	64 mm*	65
31141075	1	75 mm*	76
3112900C	.5	51 mm	51
31140564	.5	64 mm*	64

* Requires bur guard

27

Legend Tapered Tool

Fluted

Product	Description	Head Dia. (mm)	Head Length (mm)
8TA11	Legend 8 cm, 1.1 mm Tapered	1.1	6.4
8TA17	Legend 8 cm, 1.7 mm Tapered	1.7	15.8
9TA30	Legend 9 cm, 3 mm Tapered	3.0	35.1
10TA23	Legend 10 cm, 2.3 mm Tapered	2.3	15.9
14TA30	Legend 14 cm, 3 mm Tapered	3.0	35.1
14TA31	Legend 14 cm, 3.1 mm Tapered	3.1	19.1
15TA23	Legend 15 cm, 2.3 mm Tapered	2.3	15.9
15TA23L	Legend 15 cm, 2.3 mm Tapered Long	2.3	22.0
16TA11	Legend 16 cm, 1.1 mm Tapered	1.1	6.4
16TA13	Legend 16 cm, 1.3 mm Tapered	1.3	7.7
16TA15	Legend 16 cm, 1.5 mm Tapered	1.5	11.1
16TA17	Legend 16 cm, 1.7 mm Tapered	1.7	15.8
16TA23	Legend 16 cm, 2.3 mm Tapered	2.3	15.9
16TA24	Legend 16 cm, 2.4mm Tapered (Wire Pass)	2.4	5.5
21TA30	Legend 21 cm, 3 mm Tapered	3.0	35.1
26TA30	Legend 26 cm, 3 mm Tapered	3.0	35.1

Legend Tapered Tool

For Footed Attachments

Product	Description	Head Dia. (mm)	Head Length (mm)
F1/8TA15	Legend 8 cm, 1.5 mm Tapered	1.5	11.1
F1/8TA15S	Legend 8 cm, 1.5 mm Spiral Tapered	1.5	13.1
F2/8TA23	Legend 8 cm, 2.3 mm Tapered	2.3	15.9
F2/8TA23S	Legend 8 cm, 2.3 mm Spiral Tapered	2.3	16.4
F3/9TA30	Legend 9 cm, 3 mm Tapered	3.0	25.4

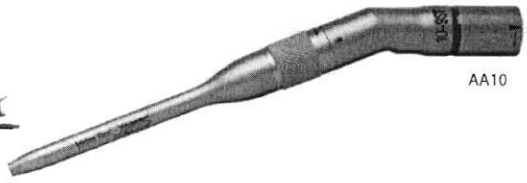
Legend Reverse Tapered Tool

Fluted

Product	Description	Head Dia. (mm)	Head Length (mm)
14RT64	Legend 14 cm, 6.4 mm Reverse Taper	6.4	6.1

Angled Small Bore Attachments (2.4 mm)

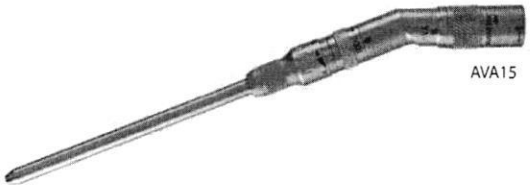
Product	Description	Length (cm)
AA07	Angled Small Bore	7
AA075	Angled Small Bore	7.5
AA10	Angled Small Bore	10
AA10S	Angled Small Bore	9.5
AA15	Angled Small Bore	15
AA07DK	Double Lock	7
AA10DK	Double Lock	10
AA10SDK	Double Lock	10
AA12DK	Double Lock	12
AA15DK	Double Lock	15



AA10

Variable Exposure —10 mm Adjustment

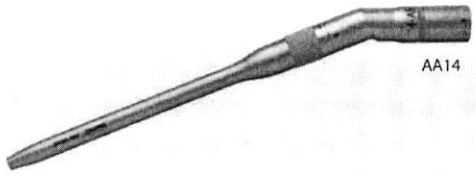
Product	Description	Length (cm)
AVA07	Angled Small Bore	7
AVA10	Angled Small Bore	10
AVA12	Angled Small Bore	12
AVA15	Angled Small Bore	15
AVA07DK	Double Lock	7
AVA10DK	Double Lock	10
AVA12DK	Double Lock	12
AVA15DK	Double Lock	15



AVA15

Angled Large Bore Attachments (3.2 mm)

Product	Description	Length (cm)
AA09S	Angled Large Bore	8.5
AA14	Angled Large Bore	14
AA14S	Angled Large Bore	13.5
AA09DK	Double Lock	9
AA14DK	Double Lock	14
AA14SDK	Double Lock	14



AA14

Variable Exposure —12 mm Adjustment

Product	Description	Length (cm)
AVA09	Angled Large Bore	9
AVA14	Angled Large Bore	14
AVA09DK	Double Lock	9
AVA14DK	Double Lock	14

AVA14

Straight Small Bore Attachments (2.4 mm)


AS07

Product	Description	Length (cm)
AS07	Straight Small Bore	7
AS075	Straight Small Bore	7.5
AS08	Straight Small Bore	8
AS10	Straight Small Bore	10
AS10S	Straight Small Bore	9.5
AS12S	Straight Small Bore	11.5
AS15	Straight Small Bore	15

Variable Exposure —10 mm Adjustment


AVS15

Product	Description	Length (cm)
AVS07	Straight Small Bore	7
AVS08	Straight Small Bore	8
AVS10	Straight Small Bore	10
AVS12	Straight Small Bore	12
AVS15	Straight Small Bore	15

Straight Large Bore Attachments (3.2 mm)

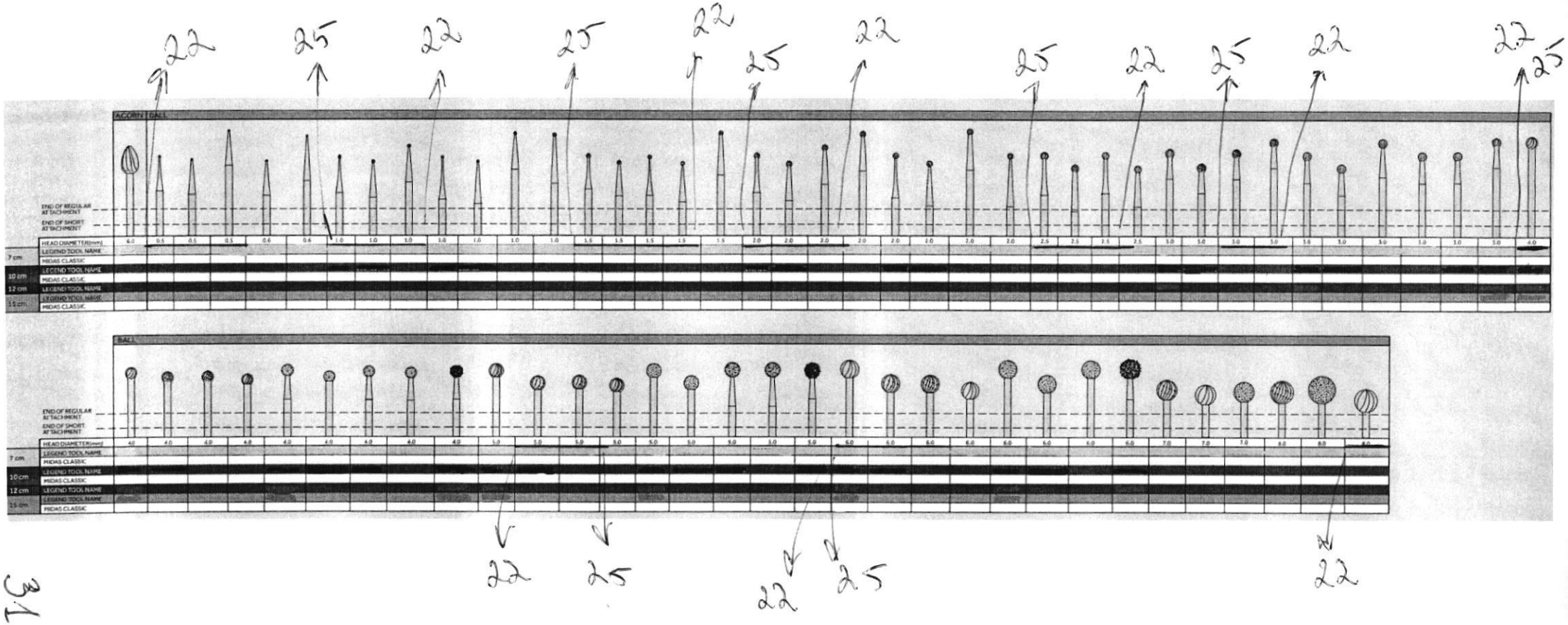

AS09

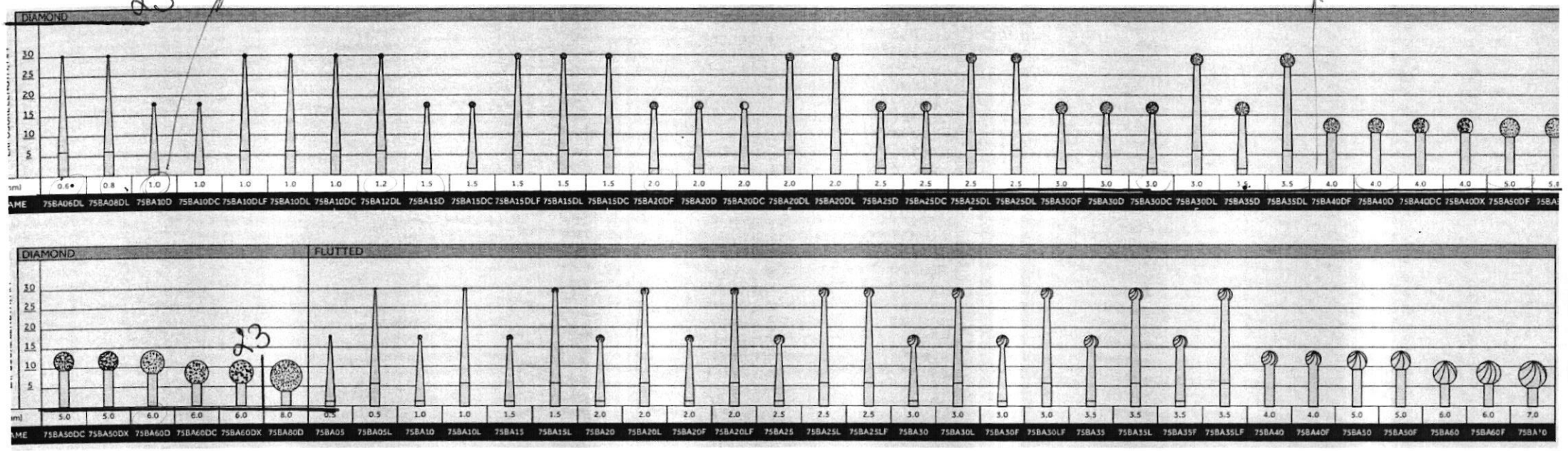
Product	Description	Length (cm)
AS09	Straight Large Bore	9
AS09S	Straight Large Bore	8.5
AS14	Straight Large Bore	14
AS14P	Straight Large Bore — Precision Graft	14
AS14S	Straight Large Bore	13.5
AS21	Straight Large Bore	21
AS26	Straight Large Bore	26

Variable Exposure —12 mm Adjustment


AVS14

Product	Description	Length (cm)
AVS09	Straight Large Bore	9
AVS14	Straight Large Bore	14


ACORN BALL
END OF REGULAR ATTACHMENT
END OF SHORT ATTACHMENT
HEAD DIAMETER(mm)
LEGEND TOOL NAME
MIDAS CLASSIC
7 cm
10 cm
12 cm
15 cm
BALL
END OF REGULAR ATTACHMENT
END OF SHORT ATTACHMENT
HEAD DIAMETER(mm)
LEGEND TOOL NAME
MIDAS CLASSIC
7 cm
10 cm
12 cm
15 cm


DIAMOND
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25
20
15
10
5
0.6
0.8
1.0
1.0
1.0
1.0
1.0
1.2
1.5
1.5
1.5
1.5
1.5
2.0
2.0
2.0
2.0
2.0
2.5
2.5
2.5
2.5
3.0
3.0
3.0
3.0
3.5
3.5
4.0
4.0
4.0
4.0
5.0
75BA06DL 75BA08DL 75BA10D 75BA10DC 75BA10DLF 75BA10DL 75BA10DC 75BA12DL 75BA15D 75BA15DC 75BA15DLF 75BA15DL 75BA15DC 75BA20DF 75BA20D 75BA20DC 75BA20DL 75BA20DL 75BA25D 75BA25DC 75BA25DL 75BA25DL 75BA30DF 75BA30D 75BA30DC 75BA30DL 75BA35D 75BA35DL 75BA40DF 75BA40D 75BA40DC 75BA40DX 75BA50DF
DIAMOND
FLUTTED
30
25
20
15
10
5
5.0
5.0
6.0
6.0
6.0
8.0
0.5
0.5
1.0
1.0
1.5
1.5
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6.0
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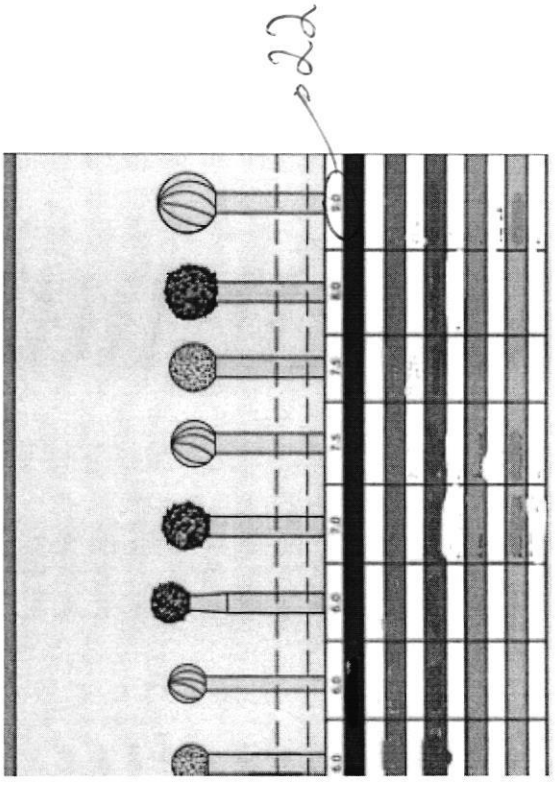
75BA50DC 75BA50DX 75BA60D 75BA60DC 75BA60DX 75BA80D 75BA05 75BA05L 75BA10 75BA10L 75BA15 75BA15L 75BA20 75BA20L 75BA20F 75BA20LF 75BA25 75BA25L 75BA25LF 75BA30 75BA30L 75BA30F 75BA30LF 75BA35 75BA35L 75BA35F 75BA35LF 75BA40 75BA40F 75BA50 75BA50F 75BA60 75BA60F


22

1 psl.
3.3.2. Valdymo konsolė, pritaikyta nešiojimui, su rankena (pav.).

2 psl.
3.3.2. Valdymo konsolė, pritaikyta nešiojimui, su rankena (pav.).
3.3.2. Svoris: 7,3 kg.
1.1.1. Lietimui jautrus spalvotas ekranas.
1.1.2. Įstrižainė: 21 cm.

3 psl.
2. Mikrovarikliai.
1.3. Ekrane rodoma informacija
1.3.1 mikrovariklio tipas,
1.3.2 apsukų greitis,
1.3.3 sukimosi kryptis,
1.3.4 grąžto padėtis,
1.3.5 irigacijos greitis,
1.3.6 pagalbos meniu.

4 psl.
3.1. Naudojama galvos stuburo ir LOR.
4.1 Spalvomis koduotos jungtys.
6.1 Lietimui jautrus ekranas lengvam valdymui.
2. Vienu metu gali jungtis 4 mikrovarikliai

5 psl.
2. Du mikrovarikliai gali veikti nepriklausomai vienas nuo kito.

6 psl.
3.1. IPC naudojama minkštų ir kietų audinių bei kaulų įpjovoms, pjovimui, šalinimui, gręžimui, pjovimui neurochirurgijos, ortopedijos, artroskopinėms, stuburo, sternotomijoms ir bendrosioms chirurgijos procedūroms.

5 psl.
3.1. Naudojama galvos stuburo ir LOR.
4. Spalvomis koduotos jungtys.
6. Lietimui jautrus ekranas lengvam valdymui.
2. Vienu metu gali jungtis 4 mikrovarikliai

7 psl.
5. Konsolės reguliuojamas maksimalus valdomų mikrovariklių greitis – 80 000 k/min.

8 psl.
6.1 Kojinis pedalas.
7.1 Kojinis pedalas turi keturis mygtukus.
11.1. Irigacijos greičio keitimas nuotoliniu valdikliu.

9, 10, 11, 12 psl.
8. Suderinamumas su tiesiu šeiveriu, chirurginiais grąžtais, chirurginiu pjūkleliu, „Karl Storz“ endoskopų praplovimo sistema, „Medtronic S7“ navigacine sistema, „Nim Eclipse“ nervų monitoravimo sistema.

13 psl.
9.1 Integruota ratukinė plovimo-aušinimo pompa.
10.1 Irigacijos greitis 0,5 – 100 ml/min.

14 psl.
12.1 Mikrovariklio prijungimo prie konsolės kabelis, lankstus spalviškai (žalia spalva) koduotas.

15 psl.
13. Midas Rex Legend EHS Stylus mikrovariklis.
13.1. Apsisukimų skaičius reguliuojamas nuo 200 k/min iki 75 000 k/min.
13.3. Svoris 90 g;
13.4. Ilgis 7.77 cm;
13.5. Skersmuo 1.65 cm;
13.6. Normaliomis aplinkos sąlygomis (+20^{0}C) gali dirbti be sustojimo neribotą laiką.

16 Psl.
13.1. Apsisukimų skaičius reguliuojamas maksimalus 75 000 k/min.
13.2. Galia 160 W

17 psl.
14.1. Antgalis perforacijai, apsisukimai 1000 k/min.

18 psl.
14.2. Antgalis perforacijai.
15.1. Dviejų skirtingo diametro grąžtų sistema su automatinio gręžimo sustabdymo mechanizmu. Mechanizmas automatiškai sustoja susidūrus su pasipriešinimu.
14.2. ir 27. 4 skirtingų dydžių perforatoriai.
15.2. DM0010FAA grąžto diametrai: išorinis – 14 mm, vidinis 11 mm.

19 psl.
17.1. Antgaliai tiesūs arba lenkti pasirinktinai

20 Psl.
17.1. Antgaliai tiesūs arba lenkti pasirinktinai

21 psl.
30. Elektrinio kraniotomo sterilizavimo konteineris, su specialiu įdėklu, pritaikytu mikrovariklio bei priedų sudėjimui

22 psl.
29. Priedai skirti valymui, tepalas

23 Psl.
28. Irigacijos vamzdeliai

24 Psl.
27. Hudson tipo jungtis

25 Psl.
27. Perforatoriai ir kiti priedai yra vienkartiniai ir jų sterilizuoti negalima.

26 psl.
18.1. Deimantiniai grąžteliai

27 Psl.
18.1. Nerūdijančio plieno grąžteliai

28 Psl.
19. Tiesus grąžtelis skirtas kraniotomijai

29 psl.
21. Lenktas antgalis 7 cm
24. 15 cm lenktas antgalis

30 Psl.
20. 7 cm tiesus antgalis

31 Psl.
22 ir 25. Nerūdijančio plieno rutulio formos grąžtelis;

32 Psl.
26. Deimantinis grąžtelis

33 psl.
23. Deimantinis grąžtelis