The Next Generation in Electrosurgery and Arthroscopic Tissue Ablation Technology

ORTHOPAEDIC PROCEDURE ELECTROSURGICAL SYSTEM (OPES®)

The First "3-in-1" Electrosurgical System Flexibility

A comprehensive orthopaedic electrosurgical system that combines arthroscopic ablation, arthroscopic coagulation, open surgery monopolar and bipolar electrosurgery from one fully digital generator

Arthrex®

The Arthrex Advantage

The Arthrex Orthopaedic Procedure Electrosurgical System (OPES) is the first of its kind completely digital platform designed to provide the surgeon and O.R. staff with greater flexibility
and performance for arthroscopic as well as open surgical procedures.

Digital Technology and Patient Safety

The OPES generator was designed with patient safety as its highest priority. The completely digital generator provides efficient tissue cutting, coagulation and ablation at significantly reduced power settings. The Digital Error Detection (DED) and Neutral Electrode Monitoring (NEM) ensure the highest level of patient safety.

Monopolar Ablation and Coagulation Probes

The OPES monopolar all-in-one disposable ablation probes provide greater ablation speed and efficiency while lowering the
per procedure cost. For convenience, all probes are hand or
foot controlled.

3-in-1 Electrosurgical System

With "3-in-1" system flexibility, the OPES Electrosurgical Generator is also capable of controlling a host of different instruments, including disposable monopolar arthroscopic electrodes, reusable and disposable monopolar open procedure pencils and tips, and reusable bipolar forceps. The need for three separate, costly and space-occupying electrosurgical generators is eliminated.

Electrosurgical Generator Compatibility

All OPES arthroscopic probes and electrodes can be used in conjunction with standard electrosurgical generators utilizing a 3-pin monopolar connection port. Another great option to eliminate multiple arthroscopic ablation boxes in the O.R.

OPES Electrosurgical Generator

The OPES Electrosurgical Generator utilizes Fast Digital Feedback System technology (FDFS). The generator can track changes in tissue impedance on a real time level 5000T/S. As tissue impedance varies, the power is automatically adjusted to deliver a constant clinical effect. The result is more efficient tissue cutting, coagulation and ablation at significantly lower power levels. Lower power levels produce lower heat to the tissue. The digital OPES generator raises the standard in electrosurgery and patient safety.

The OPES generator is equipped with ten blended cutting modes, allowing the user to select the most effective setting for their particular needs. During ablation, for instance, the blend settings provide higher voltage peaks for the most aggressive and consistent ablation with significantly less power than the pure cut waveform that is used in bipolar systems. The result is cleaner, cooler and safer tissue removal.

The OPES generator comes preprogrammed with ten power levels. These convenient, preset levels can be used in conjunction with recommended ablation probe power settings, or can be reprogrammed to levels to suit individual preferences. Cut, blend, coag and bipolar levels can be programmed.

OPES Electrosurgical Generator AR-9600

Digital Hardware

- Rapid (5000T/S) tissue impedance tracking
- Reduced power output
- No calibration

Convenience and Ease of Use

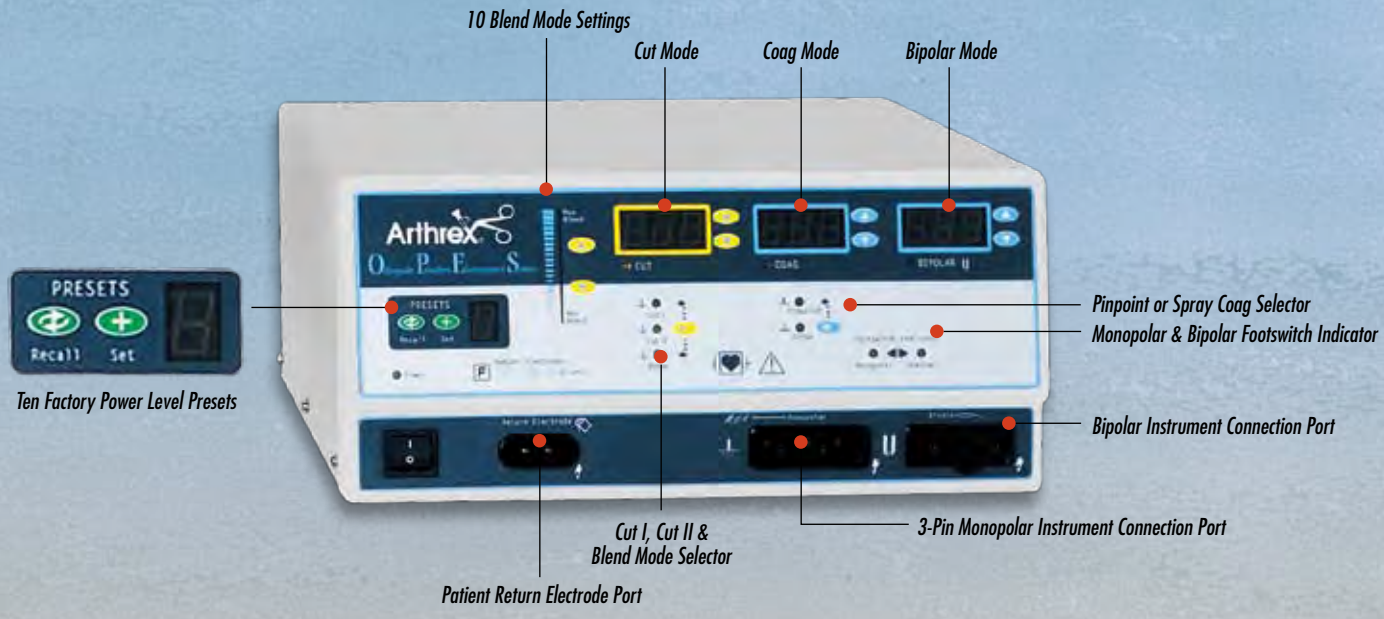
- Ten probe-specific factory power level presets

Performance

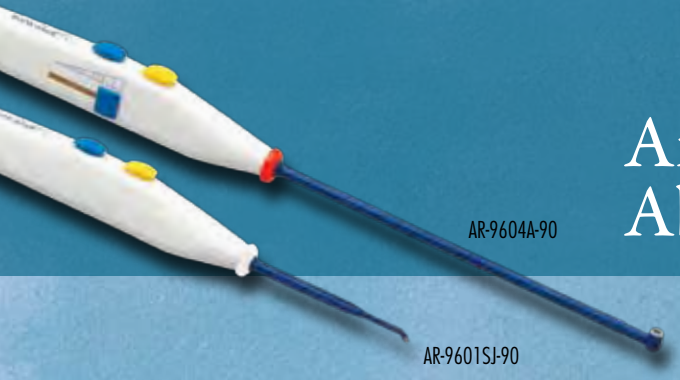
- Ten distinct blend mode settings
- Separate coag and ablate function for ablation probes

Built-In Safety Features

- Neutral electrode monitoring (NEM)
- Digital error detection



Arthroscopic Tissue Ablation and Coagulation



Monopolar Ablation Probes and Ball Electrodes

With the comprehensive line of tissue ablation probes, the possibilities are endless. The raised ribbed geometry of the ablation probe tips provide the most efficient design for effective ablating while providing the tactile feel required by surgeons. The high quality ceramic and insulation, as well as a stiffer shaft, make these probes extremely durable and reliable.

The all-in-one handle, probe and cord design is an effective way to control "replacement costs" associated with other expensive, reusable components. The OPES assortment includes a number of tissue ablation/coagulation probes in aspirating and nonaspirating configurations.

The line of low profile probes is designed to fit through smaller diameter cannulas typically used in shoulder procedures. The suction port is positioned through the active electrode face for optimum visualization and ablation efficiency as tissue is drawn toward the active electrode.

The varying angled tips, electrode sizes and 130 mm shaft lengths offer the greatest number of choices resulting in optimal ablation control for procedure-specific use. All ablation probes may be used with hand or foot control, based on surgeon preference. With the foot control engaged, the hand control buttons become inactive for patient safety.

Non-Aspirating Ablation Probes	
OPES Ablator, Meniscectomy, 45°	AR-9602M-45
OPES Ablator, Meniscectomy, 90°	AR-9602M-90
OPES Ball Electrode, Arthroscopic	AR-9608
OPES Ablator, 3 mm, 30°	AR-9603-30
OPES Ablator, 3 mm, 60°	AR-9603-60
OPES Ablator, 3 mm, 90°	AR-9603-90
OPES Ablator, 4 mm, 90°	AR-9604-90
OPES Ablator, 3 mm, 60°, low profile	AR-9703-60
OPES Ablator, 3 mm, 90°, low profile	AR-9703-90
OPES Ablator, 4 mm, 60°, low profile	AR-9704-60
OPES Ablator, 4 mm, 90°, low profile	AR-9704-90
OPES Ablator, Toothbrush, 60°, low profile	AR-9705-60
OPES Ablator, Toothbrush, 90°, low profile	AR-9705-90

Aspirating Ablation Probes	
OPES Aspirating Ablator, 3 mm, 60°, low profile	AR-9703A-60
OPES Aspirating Ablator, 3 mm, 90°, low profile	AR-9703A-90
OPES Aspirating Ablator, 4 mm, 60°, low profile	AR-9704A-60
OPES Aspirating Ablator, 4 mm, 90°, low profile	AR-9704A-90
OPES Aspirating Ablator, Toothbrush, 60°, low profile	AR-9705A-60
OPES Aspirating Ablator, Toothbrush, 90°, low profile	AR-9705A-90

Monopolar Small Joint Ablation Probes and Ball Electrode

The OPES Small Joint Ablation Probes and Ball Electrode provide controlled ablation, coagulation and tissue modification during arthroscopic procedures of the elbow, wrist and ankle. The 6.25 cm length probes have a 1.5 mm diameter active electrode in both 45 and 90 degree tip angles. The optimal size provides superior visualization, manipulation and access to smaller joint spaces. The Ball Electrode tip is 2 mm and is malleable for intraoperative adjustments to assist in reaching tight areas. The small joint probes also function with hand or foot control.

Small Joint Ablation Probes and Ball Probe	
OPES Ablator, Small Joint, 45°	AR-9601SJ-45
OPES Ablator, Small Joint, 90°	AR-9601SJ-90
OPES Ball Electrode, Small Joint	AR-9608SJ

Open & Arthroscopic Hemostasis & Cutting

Arthroscopic Electrodes

The OPES arthroscopic electrodes are available for use during arthroscopic procedures for hemostasis and tissue cutting, including lateral release or subacromial decompression. Each Arthroscopy Electrode is strengthened with an inner steel shaft to achieve optimal stiffness and control. Electrodes feature safety grip insulators combining patient and user safety with easy insertion and removal from the surgical pencil.

Arthroscopic Electrodes	
Arthroscopy Electrode, Hook, 45°	AR-9606H-45
Arthroscopy Electrode, Hook, 90°	AR-9606H-90
Arthroscopy Electrode, Blade, insulated	AR-9606A
Arthroscopy Electrode, Blade, uninsulated	AR-9606M

AR-9606H-45

AR-9606H-90

AR-9606A

AR-9606M

Monopolar Electrosurgical Instruments

The Monopolar pencils and electrodes are available in single use and reusable models. All electrodes use the standard 3/32" inner steel shaft and safety grip insulator, for optimal performance and safety. Electrodes are available in blade and needle tip with standard or
extended length.

The reuseable pencils are validated for 40 autoclave cycles, ensuring quality and performance. They are supplied unsterile. The reusable electrodes are validated for 25 autoclave cycles.All pencils are compatible with current generators with standard 3-pin connection ports.

Disposable Pencil	
Pencil, Hand Control	AR-9610

Reusable Pencil and Electrodes	
Electrode, Blade, Reusable	AR-9609BR
Electrode, Extended Blade, Reusable	AR-9609EBR
Electrode, Needle, Reusable	AR-9609NR
Electrode, Extended Needle, Reusable	AR-9609ENR
Pencil, Hand Control, Reusable	AR-9610R

AR-9606H-90

AR-9610

AR-9610R

Bipolar Hemostasis & Accessories

Bipolar Forceps

A complete line of bipolar forceps are available in seven different sizes for specific surgical situations. All are foot pedal controlled, reusable and available in micro, 1 mm and 2 mm tip size and in lengths ranging from 4.5" to 8". A reusable bipolar cord is also available with quality silicone construction. All bipolar forceps are validated to 20 autoclave cycles.

Bipolar Forceps	
Bipolar Forceps, Bayonet, medium, 8"	AR-9611BMR
Bipolar Forceps, Bayonet, fine, 7.25"	AR-9611BFR
Bipolar Forceps, straight, fine, 7"	AR-9611SFR
Bipolar Forceps, curved, fine, 7"	AR-9611CFR
Bipolar Forceps, curved, fine, 4.5"	AR-9612CFR
Bipolar Forceps, straight, medium, 4.75"	AR-9612SMR
Bipolar Forceps, straight, fine, 4.5"	AR-9612SFR
Bipolar Forceps Cable	AR-9611CR

Reusable and Disposable Accessories

Arthrex carries a complete line of monopolar and bipolar accessories to complement the Orthopaedic Procedure Electrosurgical System as well as to maximize performance and safety with other standard generators.

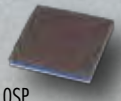
Reusable Accessories	
OPES Electrosurgical Generator Stand	AR-9600D
OPES Electrosurgical Generator Monopolar Footswitch	AR-9600FM
OPES Electrosurgical Generator Bipolar Footswitch	AR-9600FB
ERBE Pencil Plug Adapter	AR-9600EA
Footswitch Pencil Plug Adapter	AR-9600A

Disposable Accessories	
Pencil Holster	AR-9610H
Scratch Pad	AR-9610SP
Split Adult Return Electrode	AR-9610SGP


AR-9600FM


AR-9610H


AR-9610SGP


AR-9610SP


AR-9600FB

Arthrex OPES Recommended Power Settings

							
Part Number	AR-9601SJ-45	AR-9601SJ-90	AR-9602M-45	AR-9602M-90	AR-9603-30	AR-9603-60	AR-9603-90
Probe Name	2 mm, 45° Small Joint	2 mm, 90° Small Joint	2 mm, 45° Meniscectomy	2 mm, 45° Meniscectomy	3 mm, 30°	3 mm, 60°	3 mm, 90°
Recommended Preset Setting	0	0	2	2	4	4	4
OPES Power Setting (Waveform)	Cut I	Cut I	Cut I	Cut I	Cut II	Cut II	Cut II
OPES Power Setting (Cut)	20 W	20 W	30 W	30 W	90 W	90 W	90 W
OPES Power Setting (Pinpoint COAG)	10 W	10 W	15 W	15 W	40 W	40 W	40 W
Indications							
Shoulder							
Subacromial Decompression/ Acromioplasty						I	I
Bursectomy						I	I
Synovectomy				I	I	I	I
Capsular/Ligament/Tendon Coagulation			I	I			
Labral Tear Resection			I	R	I	I	
Adhesive Capsulitis Release			I		I	I	I
Capsular Release			R	R		I	
Hemostasis			I	I			
Chondroplasty				R			
Wrist/Elbow							
TFCC Debridement	R	R					
Tendon Debridement	R	R					
Ligament/Tendon Coagulation	I	I					
Fracture Debridement	R	R					
Synovectomy	R	R					
Chondroplasty	R	R					
Knee							
Meniscectomy (anterior and posterior)			R	R			
Meniscal Cystectomy			R	R			
Lateral Release				R			
Synovectomy			R	R	I	I	I
Plica Removal			R	R			
Chondroplasty			I	R	I		
ACL Debridement							
Hemostasis	I	I	I	I			I
Notchplasty					I	I	I
Ligament/Tendon Coagulation							
Foot/Ankle							
Tendon Debridement	R	R					
Fracture Debridement	R	R					
Scar Tissue Excision	R	R					
Synovectomy	R	R					
Chondroplasty	R	R					
Ligament/Tendon Coagulation	I	I					

NOTE: The information on this chart is intended as a guideline and suggestion. Surgeons should use their best medical judgment when selecting an Arthrex Ablation Probe for a patient and procedure.

Detach and Hang

												
AR-9604-90	**AR-9703-60**	**AR-9703-90**	**AR-9704-60**	**AR-9704-90**	**AR-9705-60**	**AR-9705-90**	**AR-9703A-60**	**AR-9703A-90**	**AR-9704A-60**	**AR-9704A-90**	**AR-9705A-60**	**A**
3 mm, 90°	3 mm, 60° Low Profile	3 mm, 90° Low Profile	4 mm, 60° Low Profile	4 mm, 90° Low Profile	Toothbrush, 60° Low Profile	Toothbrush, 90° Low Profile	3 mm, 60° Aspirating	3 mm, 90° Aspirating	4 mm, 60° Aspirating	4 mm, 90° Aspirating	Toothbrush, 60° Aspirating	T A
6	4	4	6	6	6	6	7	7	7	8	9	
Cut II	Cut II	Cut II	Cut II	Cut II	Cut II	Cut II	Blend 30%	Blend 30%	Blend 30%	Blend 30%	Blend 30%	
110 W	90 W	90 W	110 W	110 W	110 W	110 W	120 W	120 W	120 W	140 W	160 W	
50 W	40 W	40 W	50 W	50 W	50 W	50 W	50 W	50 W	50 W	50 W	50 W	
R	I	I	R	R	I	I	I	I	R	R	R	
R	I	I	R	R	I	I	I	I	R	R	R	
I	I	I	I	I	I	I	I	I	R	R	R	
	I	I			I	I	I					
R	I		R	R	I	I	I	R	R	R	R	
	I				I	I	I	I				
	I	I						R				
I		I	I	I				R	R	R	R	
I	I	I	I	I				R	R	R	R	

								
R-9705A-90	**AR-9606H-45**	**AR-9606H-90**	**AR-9606A**	**AR-9606M**	**AR-9608**	**AR-9608-45**	**AR-9608SJ**	**AR-9608SJ-45**
oothbrush, 90° Aspirating	Hook, 45° Insulated	Hook, 90° Insulated	Blade, Insulated	Blade, Uninsulated	Ball Electrode, Arthroscopic	Ball Electrode 45°, Arthroscopic	Ball Electrode, Small Joint	Ball Electrode 45°, Small Joint
9	2	2	2	2	3	3	1	1
Blend 30%	Cut I	Cut I	Cut I	Cut I	Cut II	Cut II	Cut II	Cut II
160 W	30 W	30 W	30 W	30 W	30 W	30 W	20 W	20 W
50 W	15 W	15 W	15 W	15 W	40 W	40 W	15 W	15 W
R	I	I	I	I				
R								
R								
					R	R		
	I	I						
R	I	I						
	R	R	I					
	R	R		I				
	I	I			I	I	R	R
	I	I	I					
	I	R		I				
	I	R						
				I				
R								
R								
					R	R		
	I	I						
	I	I						
	I	I						
							R	R

Detachable OPES Reference Chart Content

Part Numbers and Instrument Tips
- Easy identification of probe tips with part numbers

Recommended Preset and Power Settings
- Separate coag and ablate function for ablation probes, ball electrodes and arthroscopic electrodes
- Ten convenient preset power levels for probe specific use

Indications for Use
- Probe specific surgical indications

For assistance in using the products in this brochure, please call the
Arthrex Tech Support Hotline
1-888-420-9393
Monday-Friday, 9 am to 5 pm EST

For more information, call Arthrex at 800-933-7001 or contact your local Arthrex representative to schedule a trial.

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