

14.2. Vienkartinio naudojimo

SINGLE - USE BIPOLAR RADIOFREQUENCY ELECTRODES

14.1. Bipoliniai elektrodai

A Comprehensive Portfolio to  
Enable Arthroscopic Surgery

skirti artroskopiniams operacijoms

VAPR

SHOULDER - pečiai

KNEE - keliai<sup>1.4.</sup>

SMALL JOINTS

never stop moving™

 **DePuy**  
Mitek Inc.  
a Johnson & Johnson company



## INTEGRATED HANDPIECE

### TIP:

- Solid one-piece active tip design
- Proprietary active/return distance ratio
- Large uninhibited suction hole
- Atraumatic liquid crystal polymer cowling provides insulation

### SHAFT:

- High dielectric strength insulation maintains electric activity at tip

### CABLE:

- Integrated power connection with pliable kink-resistant material
- "Pin Exposed" plug design for ease and security of connection

### HANDLE:

- Indentation indicates active tip orientation

### INTEGRATED HANDPIECE QUICK REFERENCE GUIDE

227204	3.3mm	Premiere90
227504	3.0mm	Premiere50
225370	4.0mm	S <sup>90</sup> 90° Suction
227355	3.0mm	S <sup>50</sup> Knee Electrode 50° Suction
227312	3.5mm	Flexible Side Effect
227302	3.5mm	Angled Side Effect, 21°
227301	3.5mm	Side Effect
227305	3.5mm	90° Hook
227202	2.3mm	End Effect
227203	2.3mm	Wedge
227213	2.3mm	Wedge Short
227211	2.3mm	Side Effect Short
227252	2.3mm	Temperature Control End Effect

## VAPR ELECTRODES \*



Description	Electrode**	Size	Catalog No.	Mode	Default		Maximum		Suction	Shoulder	Knee	Small Joint
			2-Piece or Integrated Handle		ABLATE/ CUT(w)	DES/ COAG(w)	ABLATE/ CUT(w)	DES/ COAG(w)				
Premiere90		3.3mm	227204 (Integrated)	V3	240	120	260	160	✓	✓	✓	
Premiere50		3.0mm	227504 (Integrated)	V2	160	45	200	60	✓		✓	
S <sup>90</sup> 90° Suction		4.0mm	225370 (Integrated)	V3	240	120	260	160	✓	✓	✓	
LP Suction (LPS)		4.0mm	225361 (2-Piece)	V3	240	120	260	160	✓	✓	✓	
LD Suction (LDS)		4.0mm	225360 (2-Piece)	V3	240	120	260	160	✓	✓	✓	
S <sup>50</sup> Knee Electrode 50° Suction		3.0mm	227355 (Integrated)	V2	60	45	90	60	✓		✓	
Side Effect		3.5mm 3.5mm	227301 (Integrated) 225301 (2-Piece)	V2	120	90	180	120		✓	✓	
Flexible Side Effect		3.5mm 3.5mm	227312 (Integrated) 225312 (2-Piece)	V2	120	90	180	120		✓	✓	
Angled Side Effect, 21°		3.5mm 3.5mm	227302 (Integrated) 225302 (2-Piece)	V2	120	90	180	120		✓	✓	
Straight End Effect		3.5mm	225303 (2-Piece)	V2	90	60	130	90		✓	✓	
Flexible End Effect		3.5mm	225314 (2-Piece)	V2	90	60	130	90		✓	✓	
Angled End Effect		3.5mm	225304 (2-Piece)	V2	90	60	130	90		✓	✓	
90° Hook		3.5mm 3.5mm	227305 (Integrated) 225305 (2-Piece)	BV2	120	90	180	120		✓	✓	

## SHOULDER

Subacromial decompression  
Acromioplasty  
Bursectomy  
Synovectomy

Labral tear resection  
Thermal modification  
Scar tissue excision  
Chondroplasty

## KNEE

ACL debridement  
Lateral release  
Meniscectomy  
Chondroplasty  
Synovectomy

Meniscal cystectomy  
Plica removal  
Thermal modification  
Marking drill holes

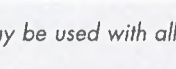
## SMALL JOINT

Synovectomy  
Cartilage debridement  
Thermal modification  
Fracture debridement

Resection of adhesions  
Chondroplasty  
Tendon debridement  
Scar tissue excision





Description	Electrode <sup>1</sup>	Size	Catalog No.	Mode	Default		Maximum		Suction	Shoulder	Knee	Small Joint
					ABLATE/ CUT(w)	DES/ COAG(w)	ABLATE/ CUT(w)	DES/ COAG(w)				
90° Suction		3.5mm	225350 (2-Piece)	V3	160	120	200	160	✓	✓	✓	
Thermal Side Effect		3.5mm	225101 (2-Piece)	N/A	N/A	20	N/A	50		✓	✓	
Thermal Flexible Side Effect		3.5mm	225322 (2-Piece)	N/A	N/A	20	N/A	50		✓	✓	
Thermal Reverse Angled Side		3.5mm	225112 (2-Piece)	N/A	N/A	20	N/A	50		✓	✓	
Thermal Angled End Effect		3.5mm	225104 (2-Piece)	N/A	N/A	20	N/A	50		✓	✓	
Thermal Flexible End Effect		3.5mm	225324 (2-Piece)	N/A	N/A	20	N/A	50		✓	✓	
Temperature Control <sup>1</sup>		2.3mm	227252 (Integrated)	N/A	65°C	40	95°C	50		✓	✓	✓
Side Effect		2.3mm	225201 (2-Piece)	V2	60	45	90	60				✓
Side Effect Short		2.3mm	227211 (Integrated)	V2	60	45	90	60				✓
Wedge		2.3mm	227203 (Integrated)	V2	60	45	90	60				✓
Wedge Short		2.3mm	227213 (Integrated)	V2	60	45	90	60				✓
End Effect		2.3mm	227202 (Integrated)	V2	90	60	130	90				✓

VAPR Suction Sheaths may be used with all non-suction electrodes.

Suction Sheath	2.3mm	225401
Suction Sheath	3.5mm	225402



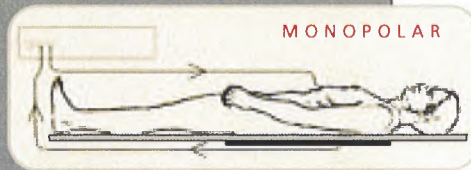
<sup>1</sup> Temperature display and control available only when used with the VAPR II and VAPR 3 electro-surgical generators.

\* Please consult package insert for instructions for use.

\*\* All VAPR Electrodes are indicated for use in the shoulder, knee, elbow, ankle, and wrist.

## MONOPOLAR VS. BIPOLAR TECHNOLOGY

Bipolar energy has been shown to be safer than monopolar energy as it limits potential damage to alternate sites by containing the energy around the tip. It does not require a grounding pad. The system itself is less complicated and easier to use than monopolar units.



## ALL VAPR ELECTRODES ARE BIPOLAR



## KEY SYSTEM FEATURES

- **Seamless fault safety** - System shuts down when electrode contacts metal. Avoid costly scope repair and sheath damage.
- **Temperature Control** - available with "Thermal" and "Temperature Control" electrodes.



## VAPR HARDWARE & ACCESSORIES\*

225021	VAPR Generator – VAPR 3
225002	VAPR Handpiece
225023	VAPR Footswitch
225004	VAPR Sterilization Tray
225005	VAPR Power Cord



## TROUBLESHOOTING GUIDE

### GENERATOR ERROR & FAULT SYMBOLS

Most technical problems are indicated by either an ERROR or a FAULT symbol that appears in the Generator display window.

**An ERROR** symbol indicates an accessory malfunction or a Generator component failure that requires servicing of the equipment. These symbols include a code number to be used by DePuy Mitek technical service to diagnose why the system failed.

- An ERROR symbol is displayed as two alternating messages:  
– ERROR XXX REF YYY – INTERNAL FAILURE

**WARNING:** An error symbol indicates an equipment malfunction, which may be hazardous. Disconnect all accessories and switch the Generator off. Switch the Generator back on and if the self-test is completed satisfactorily as evidenced by the "CONNECT CABLE" symbol in the display, the failure occurred in the accessories, which should be discarded and replaced. If the self-test fails, then all functions will be inhibited and no attempt should be made to use the Generator. Contact DePuy Mitek customer service for assistance.

**A FAULT** symbol indicates a transient non-hazardous event and can be corrected by resetting the system.

- A FAULT symbol is displayed as two alternating messages:  
– FAULT XXX REF YYY  
– TEXTUAL MESSAGE - where TEXTUAL MESSAGE relates to the type of fault

**NOTE:** Remember to take note of the fault code for reporting to customer service before completing the reset.

**CLEANING NOTE:** See User Manual for Generator and Footswitch cleaning instructions. **All VAPR Electrodes are single-use only.**

FAULT SYMBOL	REF	DESCRIPTION	CORRECTIVE ACTION
100	10	Software failure	<b>When a Fault Appears on the Generator</b> <b>1. Press mode button twice</b>  or <b>2. Depress both footswitches simultaneously and release both footswitches once (VAPR II only)</b> or <b>3. Press the MENU/RESET button (VAPR 3 only)</b> if error appears on the generator. <b>a. Turn machine off and restart.</b> <b>b. Disconnect electrode and reconnect.</b>  If this does not resolve the problem, contact <b>DePuy Mitek</b> <b>customer service at</b> <b>1-800-382-4682.</b>
100	12	Non volatile memory failure	
100	14	Power generation fault on startup	
300	10	Internal overheating (refer to troubleshooting guide in user manual)	
300	12	Out of specification input voltage: low	
300	13	out of specification input voltage: high	
300	14	Accessory fault (refer to trouble shooting guide in user manual) (VAPR II only)	
300	16	Temperature control system problem	
300	20	Unsupported electrode (VAPR 3 only)	
400	10	Footswitch blue pedal stuck	
400	11	Footswitch yellow pedal stuck	
400	12	Handswitch input fault	
400	13	Menu/reset button stuck (VAPR 3 only)	
400	14	Electrode identification circuit fault	
400	15	Front panel switch fault: yellow up button	
400	16	Front panel switch fault: yellow down button	
400	17	Front panel switch fault: blue up button	
400	18	Front panel switch fault: blue down button	
400	19	Front panel switch fault: mode button	
400	20	Intermittent activation switch	
400	21	Accessory thermistor fault (open)	
400	22	Accessory thermistor fault (short)	
400	23	Accessory fault (invalid electrode configuration)	

1-800-382-4682 | www.depuymitek.com

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