smith&nephew

QUANTUM® 2

Controller System for use with COBLATION® Wands

State-of-the-art performance for fast, efficient procedures

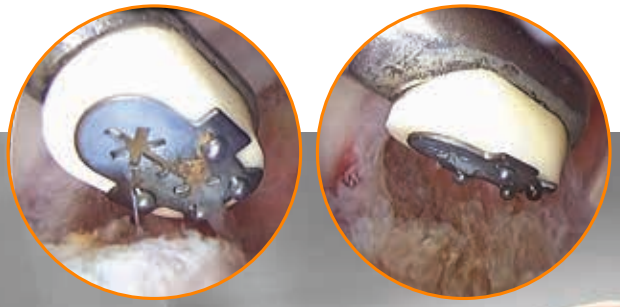
COBLATION◇ plasma technology

How COBLATION◇ technology works

The term COBLATION means “controlled ablation.” To date, over 6 million procedures have been successfully performed utilizing COBLATION technology to ablate and coagulate tissue.

COBLATION involves the creation and application of a high-energy field called “glow discharge plasma.” This plasma ablates tissue through a chemical process as highly energized particles in the plasma break down molecules in the tissue. COBLATION technology provides two distinct advantages to the surgeon:

- COBLATION operates at lower temperatures than other RF based technologies
- The 100µm – 200µm plasma field allows for precise removal of soft tissue with minimal damage to untargeted tissue.



ACL debridement with AMBIENT◇ MEGAVAC◇ 90

COBLATION simulation

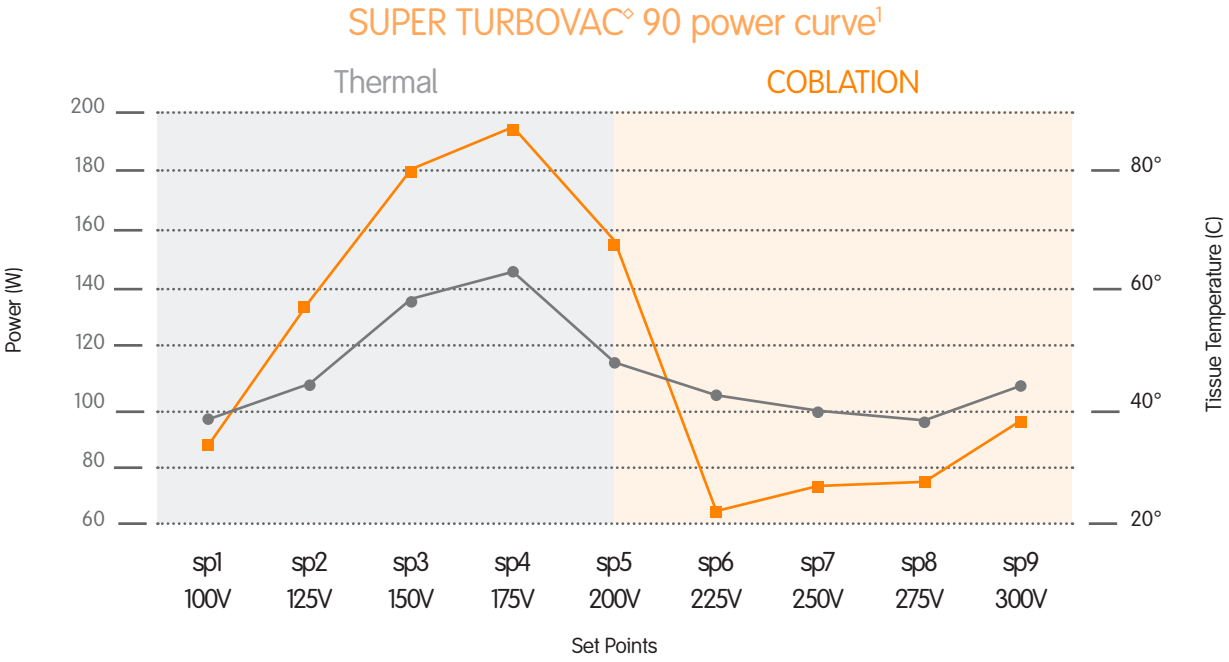
QUANTUM◇ 2 COBLATION◇ System

QUANTUM◇ 2 operating modes

Smith & Nephew COBLATION products are designed to operate in ablation and coagulation modes, which result in different tissue effects.

Ablation mode

As the Controller settings increase from 1 to 9 in the ablation mode, the performance of the Wands transitions from a thermal effect to ablative effect through the creation and intensity of plasma. When the Controller setting increases, the plasma field increases in size, and power decreases accordingly.



Coagulation mode

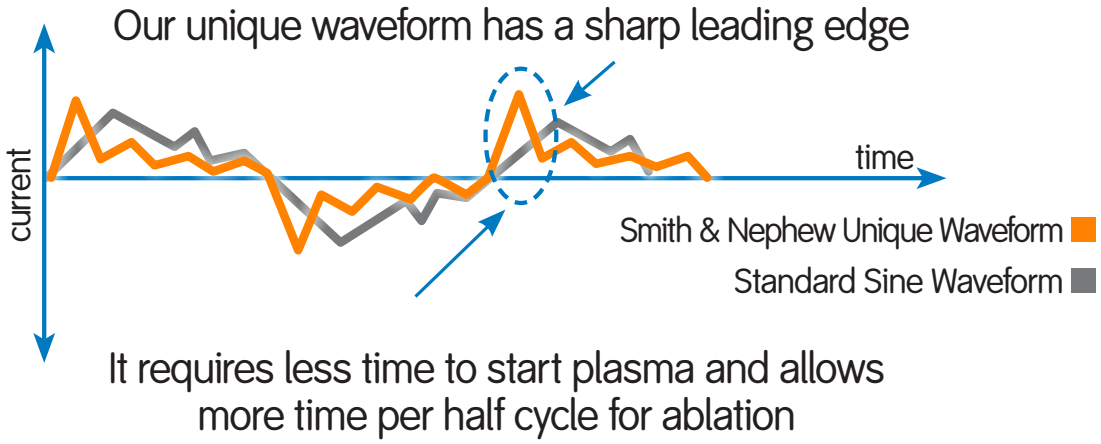
All COBLATION Wands can operate in coag mode for hemostasis. At lower settings with minimal formation of plasma and its insulation, the current flows through the tissue. Blood vessels within the tissue are coagulated, stopping their bleeding during a surgical procedure.

AMBIENT® Technology

Smith & Nephew has the only arthroscopic system that offers real-time temperature monitoring of the intra-articular fluid. The temperature of the fluid is continuously displayed on the LCD screen of the Controller. When the temperature within the joint space exceeds the user-selected set point, the Controller will emit visual and audible alarms, providing direct feedback to the surgeon.

Unique waveform

Smith & Nephew Controllers use a unique waveform that delivers fast ablation speed. The waveform has a sharp leading edge that requires less time to generate plasma and therefore allows more time for active ablation.



Controller ouput

Smith & Nephew Controllers use a unique radiofrequency (RF) output which allows them to deliver the correct amount of power to create plasma. Energy delivery is optimized to provide fast and effective plasma formation while minimizing the dissipation of thermal energy in the joint.

Scope safety feature

The QUANTUM® 2 Controller includes proprietary circuits that continuously monitor the energy and automatically suspend the output when there is a spike in current, such as when the Wands are in close proximity to, or contact metal.

Efficient ablation, intelligent features

The QUANTUM◇ 2 Controller is the most dynamic COBLATION◇ generator platform we've created. When paired with our COBLATION Wands, the QUANTUM 2 Controller delivers state-of-the-art performance for fast, efficient procedures.

Adjustable coagulation

Enhanced coagulation mode improves visualization when tough bleeders are encountered.

Integrated TOPAZ◇ timer

When using TOPAZ devices, the QUANTUM 2 Controller defaults to the recommended set point and timer settings.

Hand control capability

When using TOPAZ◇ devices, the QUANTUM◇ 2 Controller defaults to the recommended set point and timer settings.

Wireless foot switch

When using TOPAZ◇ devices, the QUANTUM◇ 2 Controller defaults to the recommended set point and timer settings.

COBLATION◇ Wand collection

Introducing the COBLATION Wand collection; featuring an assortment of tip angles and electrode designs for precise access to soft tissue. The variety of electrode configurations offers both sculpting abilities and volumetric removal when bulk debridement is necessary. AMBIENT◇ Technology provides reliable, accurate temperature feedback measurements of the circulating fluid for informed procedures.

Hip arthroscopy

AMBIENT HIPVAC◇ 50

- Raised electrodes for efficient ablation
- 50° tip and rigid shaft facilitate access to hip anatomy
- Ambient technology provides real-time temperature feedback

SIDEWINDER◇ Blade

- Articulating rotating shaft up to 100° allows unparalleled access to the hip joint
- Robust shaft and ergonomic handle optimized for hip arthroscopy
- Slim shaft compatible with 5.5mm cannula

MULTIVAC◇ 50 XL

- 50° angle and multiple suction ports allow efficient ablation and suction for hip arthroscopy
- Uniquely designed long shaft length for greater access to the hip joint

TURBOVAC◇ 90 XL

- 90° angle and multiple suction ports allow efficient ablation and suction for hip arthroscopy
- Uniquely designed long shaft length for greater access to the hip joint
- Slim shaft compatible with 5.5mm cannula

SABER◇ Wand

- A single hook electrode designed to simultaneously cut and coagulate the hip capsule
- Effective for focused incisions around sensitive tissue structures in the hip
- Eliminates sharp edges in the joint

Shoulder arthroscopy

AMBIENT SUPER TURBOVAC 90 Wand

- Recognized screen shape and profile for bulk debridement
- 90° angle and multiple suction ports allow efficient ablation and suction
- Ambient technology provides real-time temperature feedback

AMBIENT MEGAVAC◇ 90

- Mega-sized electrode design for aggressive ablation speed
- Large single-aperture suction port for swift removal of bubbles and debris
- Ambient technology provides real-time temperature feedback

Shoulder arthroscopy (cont.)

COVATOR® 20

- Single blade electrode for efficient separation of soft tissue from other structures
- 20° angled tip resects and ablates tissue while contouring tissue edges

Knee arthroscopy

AMBIENT® COVAC® 50 and 70

- Wire electrode design for versatility in the knee
- Slim shaft and tip angles provide excellent access and precise resection of tissue
- Ambient technology provides real-time temperature feedback

AMBIENT SUPER MULTIVAC® 50

- Flat electrode design provides precise tissue removal
- Slim shaft and 50 degree tip is uniquely designed to provide access to compact knee anatomy
- Ambient technology provides real-time temperature feedback

PARAGON® T2 (Chondroplasty)

- Uniquely designed to offer focused removal of articular cartilage
- Tip geometry is well suited for the contours of the femoral chondyle, tibial plateau, and patella
- T2 technology provides a visual indicator of local temperature and changes color

MENIVAC® 45 (Meniscectomy)

- Resects and ablates meniscal tissue while contouring tissue edges
- 15° beveled tip ablates tissue, limiting the need to reposition the Wand
- Slim shaft facilitates access and visualization during knee arthroscopy

Tendon debridement

TOPAZ® MicroDebrider

- Quick, simple, minimally invasive alternative
- Slim tip design facilitates access to target tissue
- Single application protocol

Small joint

Short Bevel 35 and MICROBLATOR® 30

- Specifically designed for arthroscopic applications in the wrist, ankle and elbow
- Small diameter and short shafts designed for optimal control and maneuverability

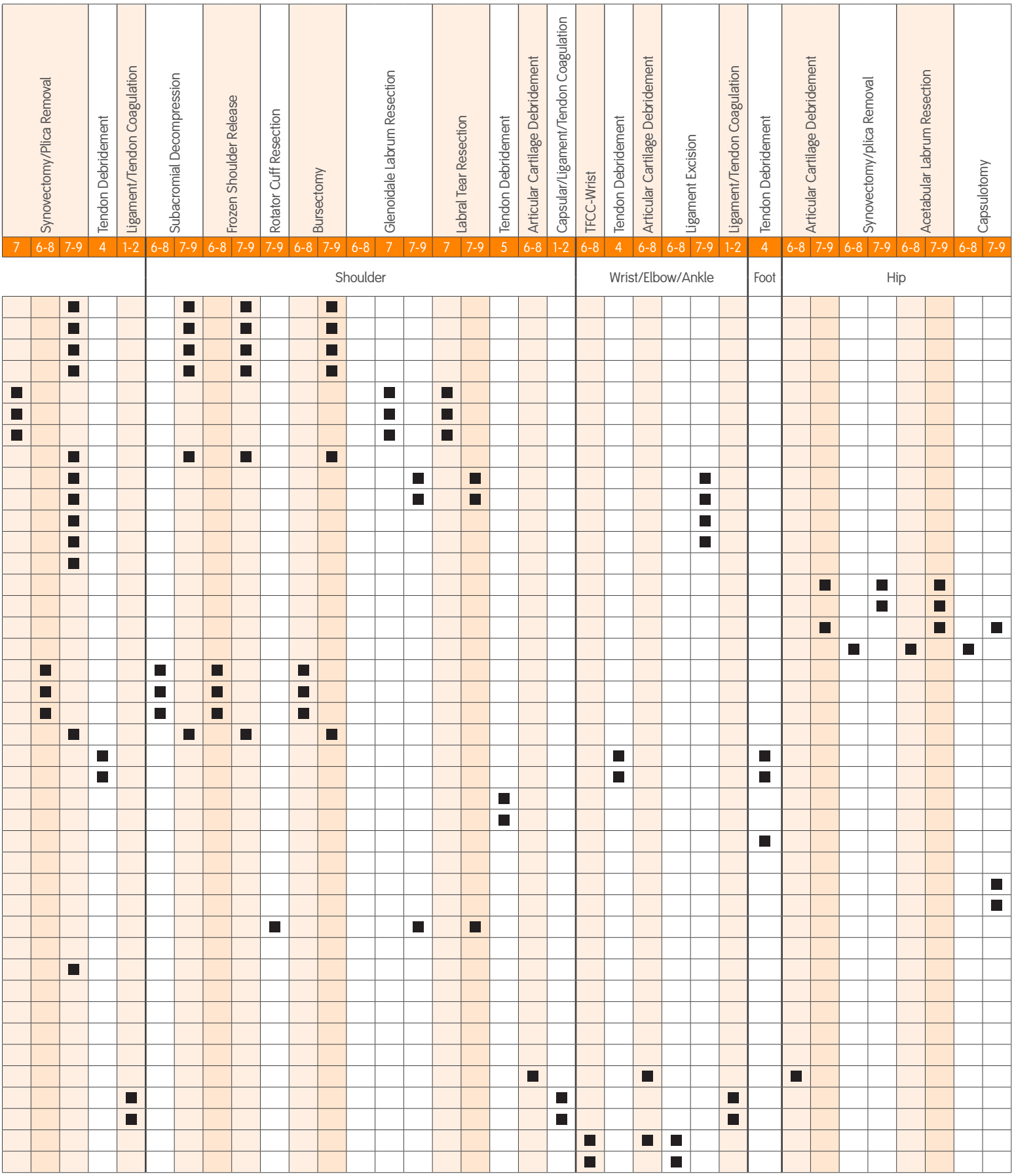
COBLATION® Wand selection chart

							Meniscectomy			Lateral Release		ACL/PCL Debridements			Articular Cartilage Debridement		
			Recommended Set Points				7	6-8	7-9	6-8	7-9	7	6-8	7-9	7	6-8	7-9
	Reference #		COBLATION Wand	Shaft Size	Angle	5.5mm Cannula[2]	Knee										
	Non-ICW[1]	ICW[1]															
Suction		ASC4251-01	STARVAC® 90	3.75mm	90°	X								■			
		ASHA4250-01	AMBIENT® SUPER TURBOVAC® 90 IFS	3.75mm	90°									■			
		ASH4250-01	SUPER TURBOVAC 90 IFS	3.75mm	90°	X								■			
		ASC4250-01	SUPER TURBOVAC 90	3.75mm	90°	X								■			
		ASHA4830-01	AMBIENT SUPER MULTIVAC® 50 IFS	3.75mm	50°		■					■			■		
		ASH4830-01	SUPER MULTIVAC 50 IFS	3.75mm	50°		■					■			■		
		ASC4830-01	SUPER MULTIVAC 50	3.75mm	50°		■					■			■		
		ASCA5001-01	AMBIENT MEGAVAC® 90	4.20mm	90°	X								■			
		ASHA2530-01	AMBIENT COVAC® 50 IFS	3.00mm	50°				■								■
		ASC2530-01	COVAC 50	3.00mm	50°				■								■
		ASHA3730-01	AMBIENT COVAC 70 IFS	3.00mm	70°				■								
		ASC3730-01	COVAC 70	3.00mm	70°				■								
		ASC4630-01	TRISTAR® 50	3.00mm	50°	X			■								
Hip		ASHA4730-01	AMBIENT HIPVAC® 50 IFS	4.7mm	50°												
		ASC1336-01	TURBOVAC® 90 XL	3.75mm	90°	X											
		ASC4730-01	MULTIVAC 50 XL	3.75mm	50°	X											
		AC2340-01	SIDEWINDER® BLADE	2.7mm	55°												
Right Angle	A1325-01		RIGHT ANGLE 90	2.5mm	90°								■			■	
		AC1340-01	RIGHT ANGLE 90	3.5mm	90°								■			■	
		AC1336-01	LOPRO® 90	3.6mm	90°	X							■				
		AC1345-01	ELIMINATOR® 90	4.5mm	90°	X								■			
Tendon		ACH4040-01	TOPAZ® MICRODEBRIDER IFS	0.8mm	0°												
		AC4040-01/ Q6000-01	TOPAZ MICRODEBRIDER	0.8mm	0°												
		ACH4045-01	TOPAZ MICRODEBRIDER XL IFS	0.8mm	15°	X											
		AC4045-01	TOPAZ MICRODEBRIDER XL	0.8mm	15°	X											
		Q6002-01	TOPAZ EPF MICRODEBRIDER	0.8mm	45°												
		Q6003-01	TOPAZ EPF CANNULA SYSTEM														
Cutting		AC4330-01	SABER® 30	3.0mm	30°						■						
	A4300-01		STRAIGHT SABER	3.0mm	0°	X					■						
		AC4340-01	COVATOR® 20	3.3mm	20°	X											
Bevel		AC2430-01	BEVEL 45	3.0mm	45°	X		■		■						■	
	A2530-01		BEVEL 60	3.0mm	60°			■		■							
	A2630-01		BEVEL 30	3.0mm	30°	X		■									
Dome		AC3525-01	DOME 60	2.5mm	60°			■		■							
	A3625-01		DOME 30	2.5mm	30°	X		■		■							
Meniscus & Articular Cartilage		ASC5500-01	MENIVAC® 45	3.0mm	45°	X			■								
		AC5531-01	PARAGON T2	2.3mm	15°	X										■	
Coagulation	A1720-01		MICRO CAPS® *	2.0mm	0°	X											
		AC1830-01	CAPSURE® 30 * ◊	3.0mm	30°	X											
Small Joint		AC2823-01	SHORT BEVEL 35	2.3mm	35°												
		AC4050-01	MICROBLATOR® 30	1.4mm	30°												

[1] Integraged Cable Wand (ICW)
[2] Ensure Wand fits through cannula prior to use

Compatible with ATLAS®, QUANTUM and QUANTUM 2 Systems
QUANTUM 2 System ONLY
QUANTUM and QUANTUM 2 Systems ONLY
■ Recommended

◊ Not Recommended for ankle or wrist use
* For use with Bending Tool (H2000-20)



NOTE: The information contained in this chart is intended as a guideline and suggestion. Surgeons should use their best medical judgement when selecting an COBLATION Wand for a patient and procedure.

References

1 Smith & Nephew P/N 32739A

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Order Entry: 1-800-343-5717
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