



## KARL STORZ AUTOCON II 400 High Frequency Surgery Units

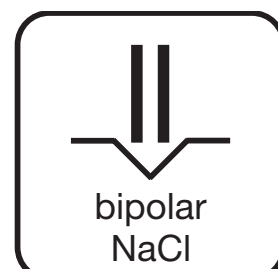
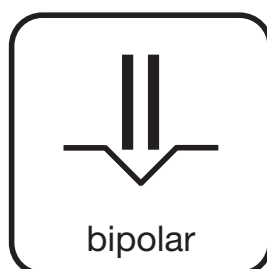
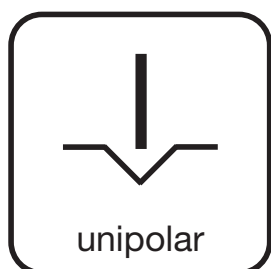
## The new AUTOCON® II 400 HF unit

- For interdisciplinary use
- The world's first HF unit with a user-friendly, easy-to-disinfect touch screen
- Equipped with 2 bipolar or 2 monopolar HF outputs
- CF outputs for maximum patient and user safety
- Permanent monitoring of the neutral electrode during monopolar use
- 2 footpedals can be connected
- Automatic activation or via handswitch or footswitch
- Self-test for maximum patient and user safety
- Connection sockets individually selectable according to user requirements
- Logical arrangement and color coding of the control elements make the unit extremely simple to operate



## Applications

- General surgery
- Gynecology
- Urology
- Gastroenterology
- Minimally invasive surgery (MIS)
- Plastic surgery
- Thoracic surgery
- Neurosurgery
- Arthroscopy
- Cardiovascular surgery
- Pneumology
- ENT medicine
- Pediatric surgery
- Oral and maxillofacial surgery



## Safety aspects and main features of the AUTOCON® II 400 HF unit

- **Integrated voltage stability control or arc control**

The two state-of-the-art generators each guarantee optimal surgical cutting and coagulation power that adapts continuously to the particular indication, especially when there are wide variations in the tissue structures and tissue impedances. At the press of a button, the operator can switch between arc control (TOP CUT mode) and voltage stability control (POWER CUT mode).

- **TOP CUT mode**

In this mode, the HF energy required for a cutting effect is automatically reduced to the necessary physical minimum in each individual case. The electric arc always

remains at a constant level, thus ensuring a uniform surgical effect. Given precise operation, this offers a clear safety advantage and produces a cut that conserves tissue and reduces stress for the patient. This increased safety with the AUTOCON® II 400 unit is achieved by using the latest and fastest microprocessor and sensor technology, which enables the unit to capture all the important parameters, such as variable incision speed, geometry of the active electrode, different impedance behavior of biological tissue types and fluids, and transition and contact resistances. This data is then used to adjust the HF power output and HF voltage. This means that the opera-

- **POWER CUT mode with constant HF voltage and power**

This mode ensures a uniform surgical effect and consistent cutting efficiency over a wide impedance range and many different tissue types.

- **RAM system – Return electrode Application Monitoring**

This safety system continuously monitors the contact quality between the neutral electrode and the patient's skin, and addi-

*Equipped with 2 monopolar and 2 bipolar outputs*



*World's first HF-unit with user-f*



tionally indicates it with symbols. If the contact surface area decreases, the safety system gives an early visual and acoustic alarm, thus preventing a burn under the application site of the patient electrode. To increase the contact reliability of the neutral electrode, the user can prevent the application of single-faced electrodes.

- **Gastro Cut and Papillo Cut**

These two new resection modes, which were specially developed by KARL STORZ for use in flexible endoscopy, permit a fractionated, and controlled cut with no bleeding. The special HF generator technology allows controlled output of cutting

and coagulation pulse current. Both the pulse sequence and the pulse speed can be set separately and specifically for each mode.

- **LF-/HF leakage currents**

Stray currents and the associated risk of burns are exceeded by design measures.

- **SCB- and OR1-compatible**

The units are designed for integration in the KARL STORZ Communication Bus (SCB). Full integratability of the HF unit in the networked, and even speech-controlled, operating room of the future is already a standard feature (system requirement: RUI software release 2009001-26 or later).

- **Bipolar generator with 370 W HF power**

This outstanding performance range allows the unit to be used in conjunction with newly developed bipolar special and standard accessories. This high-end unit is even suitable for indications using irrigation liquids, which in the past could only be performed with special-purpose HF systems. The safety of the bipolar technology from KARL STORZ eliminates the need for applying a neutral electrode, including for interventions which used to be standard monopolar procedures.

- **Monopolar generator with 300 W HF power**

With a peak power of 300 watts, the AUTOCON® II 400 is ideally equipped for interventions in all areas of use.

*friendly touch screen operation*



*Suitable for both open surgery and endoscopic surgery*



- **C-Cut mode and LAP-C-CUT mode – the Intermittent Coagulation-Cutting mode with AUTOCON® II 400**

The electric current, designed for blood-free cutting during laparoscopy and when using irrigation liquids, is specially modulated, and offers a reproducible coagulation current with high cutting efficiency. This makes time-consuming subsequent coagulation a thing of the past. Using the C-Cut mode thus reduces the need for blood transfusions and saves surgery time. The result is an overall reduction in operating costs, and for the patient it means additional protection against the TUR syndrome that occurs in urology.

- **Precise power setting and power limitation**

Exact fine tuning in 1 W steps is provided for interventions requiring maximum precision with very low power.

- **Up to 8 hemostatic effects**

Individual selection of up to 8 hemostatic effects for monopolar and bipolar cutting, each with up to 370 W output, permits optimal control of coagulation and the surgical effect in every situation.

- **Forceps auto-start function**

When the forceps tips contact the tissue, bipolar coagulation is activated automati-

cally after a freely adjustable delay of up to 9.9 seconds.

- **6.5" touch screen**

The color touch screen makes the AUTOCON® II 400 the world's first HF unit with this new, user-friendly operating technology. It also offers the important advantage of very easy cleaning and wipe-down disinfection.

- **100 program memories**

Simple programming of the indication-related unit parameters makes the AUTOCON® II 400 easy and intuitive to operate because all the programs can be stored in numeric order or text-based with user name and indication. The stored programs

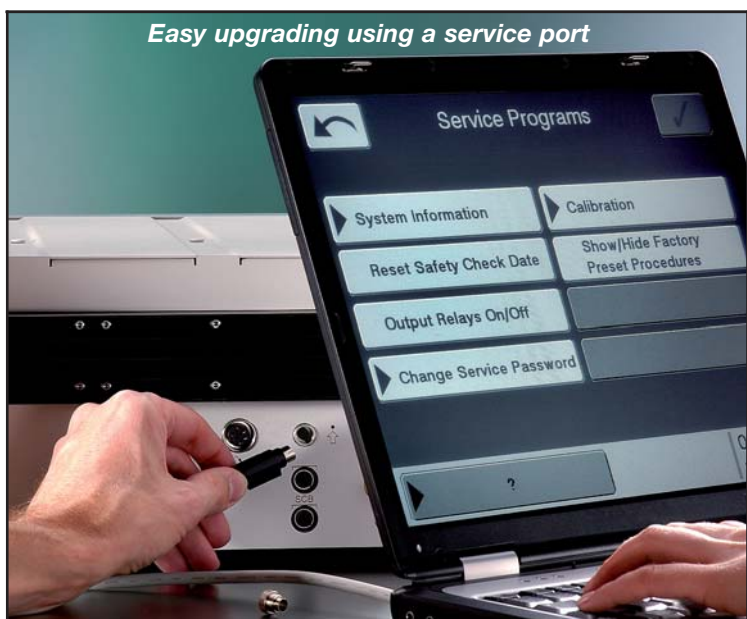
- **Software upgrade**

The service port on the back of the unit allows the HF functions of the AUTOCON® II 400 to be expanded economically for future forms of HF treatment. This means that the AUTOCON® II 400 is always up-to-date.

*Connection sockets individually selectable according to user requirements*



*Easy upgrading using a service port*



can be called up in the indication list at the touch of a button.

- **Bipolar coagulation auto-stop function**

Automatic power shutdown when the coagulation procedure has been ended.

- **Self-test program**

A comprehensive software safety concept ensures smooth, safe use after switching on. Detected component faults are indicated by an error code display, enabling rapid troubleshooting. The self-test also includes the connected accessories for the specific purpose of minimizing waiting times in preoperative work-up.



## AUTOCON® II 400 – Specifications

HF Modes	Effects	P max. at 500 Ohm	V <sub>p</sub> max. at 500 Ohm	Crest-Factor	Arc control	voltage control	Model		
							Standard	Bipolar	High End

### Unipolar

TOP-Cut	8	300	950	1,4	●	–	●	–	●
Power-Cut	8	300	740	1,4	–	●	●	–	●
C-Cut	4	200	1450	3,0 – 3,8	–	●	●	–	●
LAP-C-Cut	8	200	1450	3,0 – 3,8	–	●	●	–	●
Gastro-Cut	4	200	550	1,4	–	●	●	–	●
Papillo-Cut	4	200	550	1,4	–	●	●	–	●
Standard Coag	8	200 (an 50 Ohm)	190	1,4	–	●	●	–	●
Forced Coag	4	120	1800	6,0	–	●	●	–	●
Spray Coag	2	120	4300	7,4	–	●	●	–	●

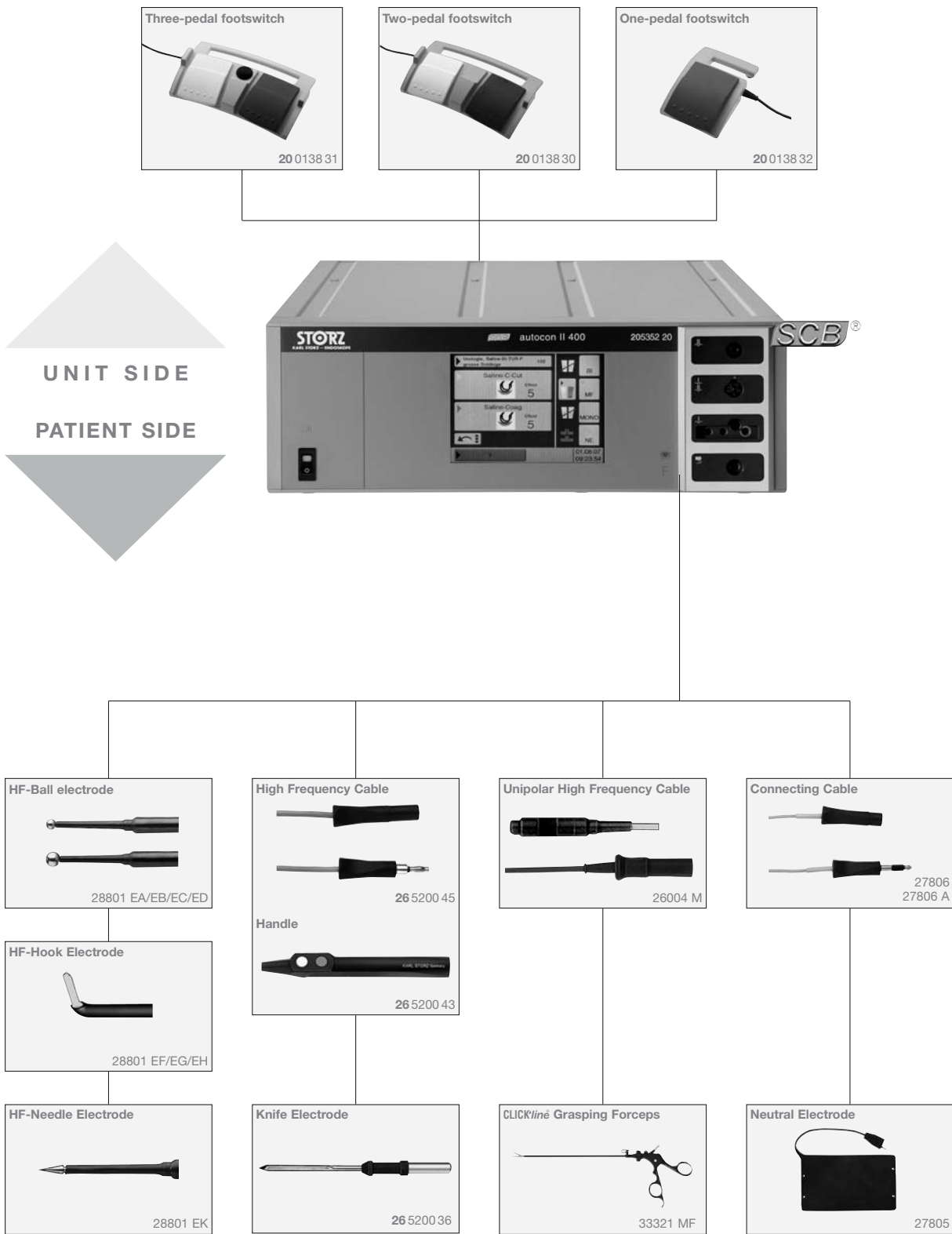
### Bipolar

Bipolar-Cut	8	100	740	1,4	–	●	●	●	●
Saline-C-Cut	8	–	740	1,4	–	●	–	●	●
Saline-Time-C-Cut	8 Zeit 0,1-1 s	–	740	1,4	–	●	–	●	●
Saline Coag	8	–	190	1,4	–	●	–	●	●
Saline-Time-Coag	8 Zeit 0,1-1 s	–	190	1,4	–	●	–	●	●
Bipolar Soft Coag	8	120 (an 75 Ohm)	190	1,4	–	●	●	●	●
Bipolar Soft mit Auto-Stop	8	120 (an 75 Ohm)	190	1,4	–	●	●	●	●
Bi-Vascular-Safe	8	120 (an 75 Ohm)	190	1,4	–	●	–	●	●

### Specifications

Safety Systems	Power supply	Dimensions w x h x d (mm)	Weight (kg)	Certified to
<ul style="list-style-type: none"> <li>- Automatic Self-Test</li> <li>- Maldosage</li> <li>- Neutral Electrode Safety System (dynamic, two-part, one- and two-part NE)</li> <li>- LF/HF Leakage Current Monitor</li> <li>- Activation Time</li> <li>- Deactivable HF</li> </ul>	<b>20 5352 20-11x</b> 230 VAC, 50/60 Hz <b>20 5352 20 U11x</b> 115 VAC, 50/60 Hz	448 x 164 x 345	10	IEC 601-1, CE nach MDD

# AUTOCON® II 400 – System components





# AUTOCON® II 400





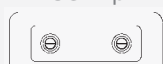



## Recommended System Configurations











- 20 5352 01-11x **AUTOCON® II 400**  
**consisting of:**  
 20 5352 20-11x **AUTOCON® II 400 with KARL STORZ-SCB®**,  
 power supply 230 VAC, 50/60 Hz  
 400 A **Mains Cord**  
 20 0901 70 **SCB Connecting Cable**, length 100 cm

AUTOCON® II 400 Set	AUTOCON® II 400	Socket position			
		1	2	3	4

### Standard





20 5352 01-111	20 5352 20-111	Bipolar 	Bipolar 	Unipolar 3-pin and Erbe 	Neutral electr. 6.3 mm jack 
20 5352 01-112	20 5352 20-112	Bipolar US-2-pin 	Bipolar US-2-pin 	Unipolar 3-pin and Bovie 	Neutral electr. 2-pin 

### High-End

20 5352 01-115	20 5352 20-115	Bipolar 	Bipolar Multifunction 	Unipolar 3-pin and Erbe 	Neutral electr. 6.3 mm jack 
20 5352 01-116	20 5352 20-116	Bipolar US-2-pin 	Bipolar Multifunction 	Unipolar 3-pin and Bovie 	Neutral electr. 2-pin 

# AUTOCON® II 400

## Optional accessories

	20 0138 31	<b>Three-Pedal Footswitch</b> , with switch function for switching between mode levels A and B, for use with <b>20 5352 20-11x</b>
	20 0138 30	<b>Two-Pedal Footswitch</b> , for use with <b>20 5352 20-11x</b>
	20 0138 32	<b>One-Pedal Footswitch</b> , for activating coagulation, for use with <b>20 5352 20-11x</b>
	27805	<b>Neutral Electrode</b> , of conductive silicone with 2 rubber ties for attachment, contact surface A = 500 cm <sup>2</sup> , for use with connecting cable 27806
	27806	<b>Connecting Cable</b> , for connecting the neutral electrodes 27805 and 860021 E, length 400 cm
	27802	<b>Neutral Electrode</b> , for single use, contact face divided into two, A = 169 cm <sup>2</sup> , package of 50, connecting cable 27801 required
	27801	<b>Connecting Cable</b> , to connect neutral electrodes for single use 27802 and 860021 S, length 500 cm
	27806 UR	<b>Connecting Cable Neutral Electrode</b> , for 27805 at 20535220 version -112 and -116
	27806 US	<b>Connecting Cable Neutral Electrode</b> , for 27802 at 20535220 version -112 and -116
	26 5200 43	<b>Electrode Handle</b> , with 2 buttons for activating the unipolar generator, yellow button: unipolar cutting, blue button: unipolar coagulation (cables <b>26 5200 44/45</b> required)
	26 5200 45	<b>High Frequency Cord</b> , for handle used with electrode handle <b>26 5200 43</b> , length 400 cm
	26 5200 46	<b>Electrode Handle</b> , without buttons, with integrated connecting cable, length 300 cm; the high-frequency surgery unit is activated via the footswitch

# Surgery-Set

## Accessories



**20 5300 07** **Surgery Electrodes Set**  
consisting of:

**20 5300 30** **Sterilizing Insert**, without  
electrodes, with box and rack  
for 12 electrodes



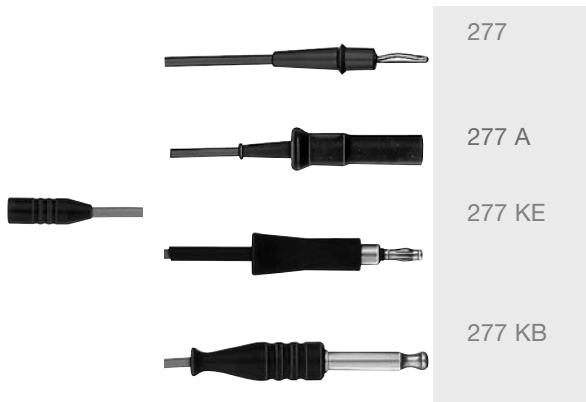
- 26 5200 31** **Wire Snare**, 5 mm
- 26 5200 32** **Wire Snare**, 10 mm
- 26 5200 33** **Ribbon Snare**, 10 mm
- 26 5200 34** KIRSCHNER **Spatula Electrode**,  
straight
- 26 5200 35** MAGENAU **Knife Electrode**,  
angled downwards
- 26 5200 36** **Same**, lancet-shaped
- 26 5200 37** **Ball Electrode**, 2 mm
- 26 5200 38** **Same**, 4 mm
- 26 5200 39** **Same**, 6 mm
- 26 5200 40** **Needle Electrode**
- 26 5200 41** **Flat Electrode**,  
8 x 10 mm
- 26 5200 42** **Same**,  
10 x 15 mm

# Accessories

## Unipolar High Frequency Cable

Unipolar High Frequency Cords for use with Working Elements  
27050 C/D/E, 27054 D/E, 27053 E, 27056 E and 27143 ER

KARL STORZ High Frequency Surgery  
Instrument Units



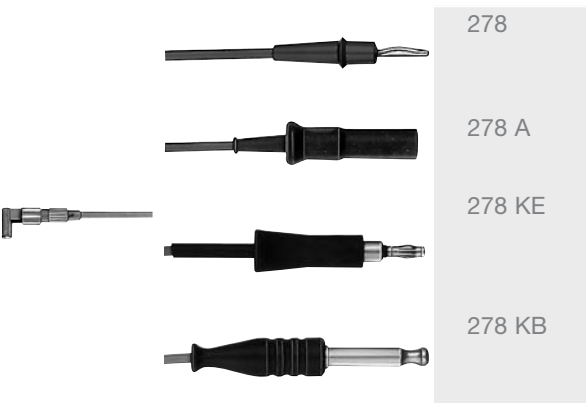
**Unipolar High Frequency Cord**, with 4 mm plug for HF unit, models **KARL STORZ** and Erbe type T, older models, length 300 cm

**Unipolar High Frequency Cord**, with 4 mm plug for HF unit, models Berchtold and Martin, length 300 cm

**Unipolar High Frequency Cord**, with 5 mm plug for HF unit, models **KARL STORZ** AUTOCON® system (50/200/350), AUTOCON®II 400 (111, 115) and Erbe type ICC, length 300 cm

**Unipolar High Frequency Cord**, with 8 mm plug for HF unit, models **KARL STORZ** AUTOCON®II 400 system (112, 116) and Valleylab, length 300 cm

Unipolar High Frequency Cords for use with Working Elements 27145 E



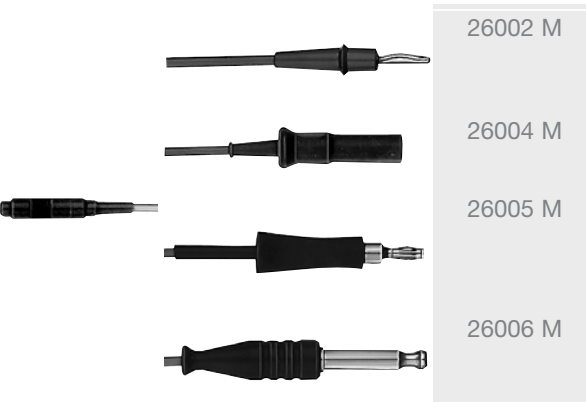
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**Unipolar High Frequency Cord**, with 4 mm plug for HF unit, models Berchtold and Martin, length 300 cm

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**Unipolar High Frequency Cord**, with 8 mm plug for HF unit, models **KARL STORZ** AUTOCON®II 400 (112, 116) and Valleylab, length 300 cm

Unipolar High Frequency Cords



**Unipolar High Frequency Cord**, with 4 mm plug for HF unit, models **KARL STORZ** and Erbe type T, older models, length 300 cm

**Unipolar High Frequency Cord**, with 4 mm plug for HF unit, models Berchtold and Martin, length 300 cm

**Unipolar High Frequency Cord**, with 5 mm plug for HF unit, models **KARL STORZ** AUTOCON® system (50, 200, 350), AUTOCON®II 400 (111, 115) and Erbe type ICC, length 300 cm

**Unipolar High Frequency Cord**, with 8 mm plug for HF unit, models **KARL STORZ** AUTOCON®II 400 (112, 116) and Valleylab, length 300 cm

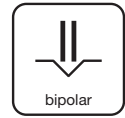
**Please note:** All high frequency cords of this page are delivered with a length of 300 cm. If a length of 500 cm is requested please add letter **L** to the part number, e. g. 26002 **ML**, 26176 **LVL**.







# Accessories

## High Frequency cords, bipolar


### High Frequency Cords, bipolar

KARL STORZ High Frequency Surgery  
Instrument Units



	26176 LE	<b>Bipolar High Frequency Cord, to KARL STORZ</b> coagulator 26021 B/C/D, 860021 B/C/D, 27810 B/C/D, 28810 B/C/D, AUTOCON® system (50, 200, 350), AUTOCON®II 400 system (111, 113, 115) and Erbe-Coagulator, T- and ICC-row, length 300 cm
	26176 LM	<b>Bipolar High Frequency Cord, for Martin and Berchtold</b> coagulators, length 300 cm
	26176 L	<b>Bipolar High Frequency Cord, with 2 x 4 mm banana plug for KARL STORZ</b> coagulator 26020 XA/XB, length 300 cm
	26176 LA	<b>Bipolar High Frequency Cord, with 2 x 4 mm banana plug for KARL STORZ</b> coagulator 26020 XA/XB and Valleylab, length 300 cm
	26176 LV	<b>Bipolar High Frequency Cord, for KARL STORZ</b> AUTOCON®II 400 (112, 114, 116) and Valleylab coagulators, length 300 cm
	26 5200 48	<b>Adapter, zum Anschluss des Elektroden-Handgriffs mtp* an KARL STORZ</b> Koagulator AUTOCON® (Reihe 50, 200, 350)



	27176 LEB	<b>Bipolar High Frequency Cord, for KARL STORZ</b> AUTOCON®II 400 system (113 – 116), for use with KARL STORZ bipolar resectoscopes, length 300 cm
	27176 LEBL	<b>Same, length 500 cm</b>



mtp medical technical promotion gmbh,  
Postfach 4529, 78510 Tuttlingen, Germany

## Notes

## Notes





ENDOWORLD®

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**STORZ**  
KARL STORZ—ENDOSKOPE  
THE DIAMOND STANDARD