

spirit of excellence



Perfectly coordinated

### One device – multiple disciplines!

The HF-GENERATOR 2260 from Richard Wolf can be used across a range of disciplines and has been specially developed for use in combination with existing Richard Wolf instruments for urology, general and visceral surgery and gynecology.

Specially designed, easy-to-use presets deliver precise, perfectly coordinated energy performance that is unrivaled on the market, allowing the user to achieve exceptional results with the relevant Richard Wolf equipment.

Urolog

E-line



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For endourological treatment of benign prostatic hyperplasia (BPH)

Various endourological procedures can be used for treating benign prostatic hyperplasia (BPH). According to the EAU (European Association of Urology) guidelines, transurethral resection of the prostate (TUR-P) is the gold standard when it comes to surgical treatment of benign prostate syndrome (BPS). In recent years, however, endoscopic enucleation of the prostate (EEP) has increasingly become established as a more patient-friendly method.

### **Monopolar TUR-P**

In the standard version of TUR-P, monopolar current flows from the resection loop through the prostate tissue to the neutral electrode which is attached to the patient's body with full-surface contact. A salt-free irrigation solution must be used when carrying out resection with monopolar current. The preset for monopolar TUR-P on the HF-GENERATOR 2260 is explicitly geared toward ensuring outstanding cutting results when resecting the prostate tissue.

### **Bipolar TUR-P**

Bipolar TUR-P represents a technological step forward compared to conventional TUR-P. Rather than the electrolyte-free solution, it uses a physiological saline solution as the irrigation fluid and current conductor. The current circuit is closed via the loop and the branch of the electrode, which means that the current does not flow through the patient's body. In the case of bipolar TUR-P, a plasma bubble forms on the electrode loop which enables ablation of the prostate tissue. The preset for bipolar TUR-P on the HF-GENERATOR 2260 features outstanding ignition and cutting behavior from the electrode. The plasma bubble forms on the electrode loop even without direct tissue contact and ensures excellent resection as well as vaporization and coagulation of the prostate tissue.

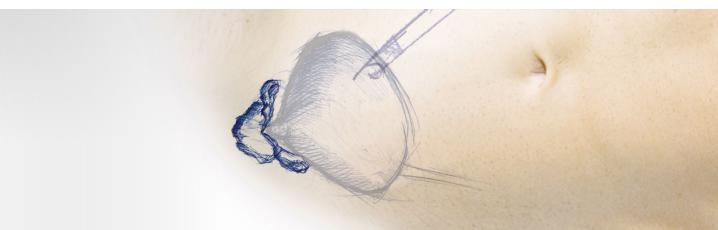




Excellent cutting behavior, especially with the monopolar and bipolar electrodes from Richard Wolf



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### **Bipolar enucleation**

Particularly in the case of larger prostates, endoscopic enucleation of the prostate (EEP) is proving to be a more patient-friendly method than standard TUR-P and is becoming increasingly established around the world. Holmium and thulium laser enucleation (HoLEP & ThuLEP) are most commonly used with this type of procedure. Bipolar enucleation (bipolEP) is a cost-efficient alternative to laser therapy. The HF-GENERATOR 2260 provides a specially coordinated preset for bipolEP and ensures excellent performance when used on tissue, particularly in combination with the bipolar enucleation electrode from Richard Wolf.

### Further presets for treating BPH:

- Monopolar coagulation
- Bipolar coagulation
- Bipolar vaporization



Bipolar enucleation electrode for endoscopic enucleation of the prostate (EEP)

For transurethral resection of bladder tissue and photodynamic diagnostics

Transurethral resection of the bladder (TUR-B) is a diagnostic and therapeutic method for sampling and resection of non-muscle invasive bladder carcinoma (NMIBC) within the bladder. In the case of classic TUR-B, the malignant tissue is resected in layers, i.e., in a fractionated manner. During this process, however, thermal damage to the individual tissue fragments can impair the quality for the histopathological diagnosis of the specimens.

Furthermore, with classic TUR-B, diagnosis and resection of the bladder tumor are only carried out under white light. The disadvantage here is that it is not always possible to identify the edges of the tumor, which means that complete resection of the tissue cannot be guaranteed. Photodynamic diagnostics (PDD), in combination with the specialized en bloc resection of bladder tumors (ERBT), can minimize these risk factors. PDD is particularly suitable for diagnosis and therapy of precancerosis and epithelial tumors (carcinoma in situ), as it allows resection of the malignant tissue to be carried out completely under blue light.

### **Monopolar TUR-B**

From a technical perspective, monopolar TUR-B works in the same way as monopolar resection of the prostate (TUR-P). The preset for monopolar TUR-B on the HF-GENERATOR 2260 is ideal for precise effect and cutting performance and ensures effective resection and coagulation of the tissue.

### **Bipolar TUR-B**

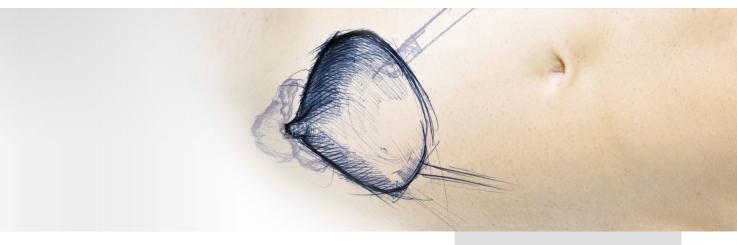
This method increases patient safety as the emitted current does not flow through the entire body. In the case of bipolar TUR-B, a plasma bubble forms on the electrode loop which enables resection of the NMIBC. The preset for bipolar TUR-B on the HF-GENERATOR 2260 ensures that the plasma bubble forms quickly on the electrode tip even without direct tissue contact. It is essential that the electrode delivers effective and precise ignition and cutting behavior for sampling and treatment of an NMIBC, particularly when it comes to the resection of surface tissue and marking of the tumor edges.







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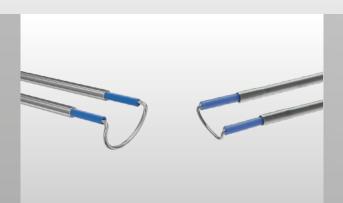
#### **Bipolar en bloc resection**

The aim of en bloc resection (ERBT) is to remove the NMIBC in one piece. With classic TUR-B, it is specifically the fractionated manner in which the tumor is removed that presents certain disadvantages – the individual tumor fragments make it impossible to carry out an exact pathological assessment of the free resection margins and prevent spatial mapping of the specimen. The horizontal and vertical resection margins and the general invasion depth are a key indicator for the quality and completeness of a resection. The ERBT method enables excellent resection results, particularly in combination with System blue for photodynamic diagnostics (PDD). Richard Wolf provides a particularly thin cutting electrode and a special oval cutting electrode for ERBT which both – in combination with the preset for bipolar TUR-B on the HF-GENERATOR 2260 – ensures precise marking of the tumor edges and effective resection of the NMIBC.

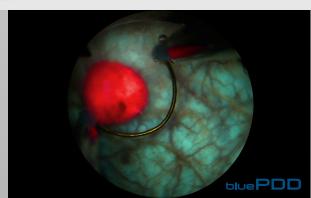
# Further presets for white light cystoscopy and photodynamic diagnostics:

- Monopolar coagulation
- Bipolar coagulation





Left: particularly thin cutting electrode Right: oval cutting electrode for en bloc resection



With System blue, the complete resection of the NMIBC can also be carried out under blue light

For laparoscopy

By combining the HF-GENERATOR 2260 with ERAGON instruments, Richard Wolf is now able to provide a finely tuned product range for laparoscopy and the use of modern HF surgical techniques. In addition to monopolar applications, bipolar resection offers a particularly safe way of handling the use of current and fully harnessing the benefits of resection.



### Monopolar and bipolar applications

In the field of surgery, the aim of the new HF Generator was to elevate the performance of the Richard Wolf instruments to the highest possible level. Presets for laparoscopic surgery that are perfectly adapted to the ERAGON instrument family automatically enable the best possible results. Possible applications for the HF-GENERATOR 2260 in general and visceral surgery include all minimally invasive and laparoscopic surgical techniques – from standard procedures such as laparoscopic cholecystectomy to bariatric surgery and colorectal surgery. Applications in gynecology, meanwhile, include laparoscopic hysterectomy (TLH, LASH, LAVH) and fertility and myoma surgery.

### **Vessel sealing**

Together with the new ERAGONseal\* bipolar vessel sealing instrument, Richard Wolf provides a way of preparing, coagulating, and sealing vessels or tissue bundles precisely and effectively without having to switch instrument – saving time and money. Thanks to the design of the instrument and the insulation of ERAGONseal, only the tissue between the jaw insert is sealed and separated. This prevents any thermal damage to surrounding tissue.

MOLF

90



\*available soon

HE-GENERATOR

For hysteroscopic resection



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### **Bipolar resection and coagulation**

Bipolar resection makes it possible to remove myomas or polyps using physiological saline solution. This method increases patient safety as the emitted current does not flow through the entire body and electrolyte-free fluid is not used (fluid overload syndrome). Various cutting and hook electrodes (septum dissection) with different shapes and diameters cater to a range of preferences. The presets ensure the best possible performance from the relevant bipolar resection instrument.

### **Bipolar vaporization**

Bipolar plasma vaporization is based on the functional principle of normal bipolar resection. It uses a specially shaped vaporization electrode which leaves behind a particularly smooth surface in comparison with a conventional ball electrode. Existing presets in the HF-GENERATOR 2260 ensure the best possible performance in conjunction with the corresponding instruments from Richard Wolf, such as the PRINCESS resectoscope and our SHARK resectoscopes.









Left: hook electrode Right: BiVAP electrode

# PRINCESS resection master

### Order data Everything at a glance

### The advantages at a glance:

### Performance

Modern control mechanisms in combination with presets for Richard Wolf instruments with optimized voltage and power outputs ensure the best conditions for excellent results with a range of indications.

#### Bipolar perfection

With the perfect ignition behavior of the electrodes, you will benefit from perfect cutting behavior even without tissue contact.

#### Safety

Optimized menu navigation on the touch display of the HF Generator prevents the maximum permissible voltage being exceeded for the connected HF instrument.

Technical data			
Cutting power	max. 400 watts		
Coagulation power	max. 350 watts		
Activation tone signal level	40–60 dB (A), adjustable		
Type of controls on housing front	Touch panel		
Frequency	50/60 Hz		
Power connection voltage	100–240 V		
Medical device class according to 93/42/EEC	llb		
Compatible med. device control manufacturer and model	Richard Wolf – core nova		
Current rating	6.3 A		
Maximum power rating	650 VA		
Dimensions (W x H x D)	300 x 159 x 419 mm		
Weight	10.2 kg		

### Convenient operation with footswitch and toggle function

The footswitch allows the HF Generator to be operated more flexibly and makes it possible to combine two profiles together (toggle function). This means the user can activate the generator by themselves, independently of the surgical staff.

#### User-friendly operation

RFID detection and the preset parameters allow the user to operate the device quickly, easily, and safely.

### core connection

The device can be integrated in the Richard Wolf *core* nova system via the integrated LAN (Ethernet) interface. The components must fulfill the requirements in accordance with the latest instruction manual for the *core* nova system, section on "Combinations".

### **HF Generator:**

<ul> <li>HF Surgery Generator 400 kHz</li> <li>International version</li> <li>Monopolar connection:</li> <li>8 mm plug (Bovie)</li> <li>US 3-pin plug</li> <li>4 mm plug</li> </ul>	<ul> <li>Bipolar connection:</li> <li>Round plug (Erbe)</li> <li>US 2-pin flat plug</li> </ul>
<ul> <li>HF Surgery Generator 400 kHz</li> <li>Erbe version</li> <li>Monopolar connection:</li> <li>Round plug     (Erbe 9/5 mm)</li> <li>US 3-pin plug</li> <li>4 mm plug</li> </ul>	2260002 Bipolar connection: Round plug (Erbe) US 2-pin flat plug
Footswitch, 2 pedals, L 5 m, with fixed connection cable	

### **Order data** Monopolar application



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Monopolar connection cables								
Instrument connector (exemplary)	Device connector	Suitable device version		Description	Item number			
		2260001	2260002					
	Canadra		•	Mono HF connection cable L 3 m	815.032			
	Round plug (Erbe 9/5 mm)		•	Mono HF connection cable L 5 m	815.052			
		•		Mono HF connection cable L 3 m	815.033			
	8 mm plug (Bovie)	•		Mono HF connection cable L 5 m	815.053			
		•	•	Mono HF connection cable L 3 m	815.034			
	4 mm plug	•	•	Mono HF connection cable L 5 m	815.054			
			•	Mono HF connection cable L 3 m	8106.032			
	Round plug (Erbe 9/5 mm)		•	Mono HF connection cable L 5 m	8106.052			
		•		Mono HF connection cable L 3 m	8106.033			
	8 mm plug (Bovie)	•		Mono HF connection cable L 5 m	8106.053			
		•	•	Mono HF connection cable L 3 m	8106.034			
	4 mm plug	•	•	Mono HF connection cable L 5 m	8106.054			

### Accessories for monopolar application:

#### HF Neutral Electrode Cable, mono L 4.5 m,

#### Neutral Electrode

for use with high-frequency surgical device, foil bag with 5 neutral electrodes, (PU = 50 pcs)...... 1280H

### Order data Bipolar application



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Bipolar connection cables							
Instrument connector	Device connector	Suitable device version		Description	Item number		
(exemplary)		2260001	2260002				
	One	•	•	Bipo HF connection cable L 3 m	8108.032		
	Round plug (Erbe)	•	•	Bipo HF connection cable L 5 m	8108.052		
		•	•	Bipo HF connection cable L 3 m	8108.033		
	US 2-pin flat plug	•	•	Bipo HF connection cable L 5 m	8108.053		
	Operation	•	•	Bipo HF connection cable L 3 m	8108.132		
	Round plug (Erbe)	•	•	Bipo HF connection cable L 5 m	8108.152		
		•	•	Bipo HF connection cable L 3 m	8108.133		
	US 2-pin flat plug	•	•	Bipo HF connection cable L 5 m	8108.153		
		•	•	Bipo HF connection cable L 3 m	8108233		
	US 2-pin flat plug	•	•	Bipo HF connection cable L 5 m	8108253		

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