

# HIGH FREQUENCY SURGICAL UNIT PRECISION









- Control panel with easy understanding, modern design and waterproof.
- 03 independent and simultaneous digital displays for cutting, coagulation and bipolar modes.

## Monopolar mode:

- 12 cut functions (normal and delicate)
- 6 functions of coagulation.
- Low mode for delicate tissues and High for adipose human tissues.
- PPC® function (Cut and coagulation pulsed for laparoscopy and endoscopy procedures)

# Bipolar mode:

- Precise mode or micro bipolar (With auto-stop resource)
- Standard Mode (With auto-stop resource)
- Macro bipolar mode
- Bipolar Cut Mode (Bcut®)
- 3 independent output connections for use with 2 independent dual control monopolar footswitch and 1 bipolar footswitch
- Tripolar® function (Monopolar+Bipolar):
- Single Power Generator with high frequency.
- Technique FPA® (Feedback Power Adjustment®) -
- Power automatic compensation with variation of tissue impedance.
- Technique CVM® (Consistency Verification Mechanism)
- System RMPF® (Redundant Mechanism for Protection in Case of failure)

Neutral Plate alarm system: MRPGraph® (Monitoring of neutral plate / patient contact resistance with bargraph)

Memory up 120 editable and non-volatile different procedures. RELOAD function recovery the last setup power, if the equipment has been suddenly switched off (automatic Back-up)

Automatic selection of neutral plate, simple or dual.

 Output setup power in the control panel or remote control by dual control handpiece or by footswitch, for cut, coagulation, and bipolar functions. The audible indication of the function in use, with different tones for cut, coagulation and bipolar.

Two independent output monopolar connections for dual control handpieces and / or simple handpieces and / or hemostatic forceps or resection loops, which allows two surgeons works at same time.

3 independent output connections in the rear panel for use with 2 independent dual control monopolar footswitch and 1 bipolar footswitch, With IPX 7 protection.

 Automatic self check up with information through the error codes in the front panel display

The audio setup for cut and coagulation on the front panel.

- Stand-by function.
- Natural convection ventilation or through an internal cooler.
- Retractable carry handle also used for fixing the device in the transport unit UT-102.

## Compatibility with Argon Plasma Coagulator

Compatible connection whit Argon Plasma Coagulator from any model or brand with three monopolar connection pins.

## Stand-by Function

For use in situation that require momentary interruption of the surgical procedure

## Using two handpieces simultaneously

Allows two simultaneous and independent works by two surgeons using dual control handpiece or dual control footswitch

# FPA® Technique (Feedback Power Adjustment)

Automatic power compensation in accordance with the change in tissue resistance, keeping constant output power at all time.

## **Backlight Output Connectors**

Backlight output connectors for easy viewing, especially in video laparoscopic surgeries, where it is necessary to reduce lighting in the surgery room.

#### **Reload Function**

All output power set, in any function are immediately stored, easing the return of the set power, case of electric energy failure

## **Remote Setup Function**

Triggering the output power of cutting, coagulation and bipolar function, by remote and automatic system.

#### Alarm System

# MRPGraph® System (Neutral Plate Resistance Monitoring)

Monitors the electric resistance of contact between the neutral plate and skin of patient when use the double disposable neutral plate, with contact quality control by color led (Bargraph) shutoff the power in case of failure on neutral plate (wire breakage, non-connection of the neutral plate to the patient or inadequate plate / patient contact resistance, reducing the risk of burns).

Audible and visual alarms are on, warning the medical team when neutral plate failure. The power device will be turned on only after the problem is solved.

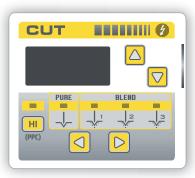
# High Frequency Electrosurgical Generator

The Precision® electrosurgical generator, use the last generation microprocessors, designed for all kinds of surgeries, from low medium and high complexity. Has features that enable them both for cardiac surgery, as well as for urological or neurosurgical surgery.

Cut and coagulation in wet field, enabling all kind of endoscopic resection. The wave forms for which functions was setup for cardiovascular surgeries, and mamaria resection.

For the medical team convenience, on the coagulation process to allowing two independent and simultaneous surgeons, using dual or single control handpieces.

Independent and insulation bipolar output, has been appropriate to all kind of surgeries especially on microsurgery and neurosurgery.



## **Cut Mode** 12 cut functions.

PPC® Function

Pulsed Polypectomy (Pulsed Cut and Coagulation) for polypectomy procedures among others.

This mode is a way to use the CUT function and COAG function with advantages in polypectomy, papillotomy and mucosectomy.

In PPC® mode, the radio frequency applied to the polyp, consists of cutting pulses interspersed with coagulation pulses.

# **Pulse Cut**

4 Pulse Effects

40ms of cut and 700 ms of coagulation



## Coagulation Mode

06 coagulation modes: Desiccate, Spray, Fulgurate and more 3 modes of pulsed coagulation.

# Tripolar® Function

The Tripolar function allows simultaneous and independent use of monopolar + bipolar modes.



# Mono (1) Mono (2) e Bipolar

MODO		TC4	тС3	TC2
СИТ	PURE CUT	400W	300W	200W
	BLEND 1/MIN	300W	250W	160W
	BLEND 2/MID	250W	200W	130W
	BLEND 3/MAX	200W	150W	100W
COAG	DESICCATE	180W	150W	130W
	SPRAY	120W	120W	100W
	FULGURATE	120W	120W	100W
BIPOLAR	STANDARD	100W	100W	100W
	PRECISE	100W	100W	100W
	MACRO/ BIPOLAR CUT	100W	100W	100W



## Bipolar Mode:

The bipolar technique has the following modes: Precise (Microbipolar), Standard (Bipolar), Macro-bipolar and Cut-bipolar (Bcut®). Independent footswitch for automatic activation of the bipolar functions.

# **Auto-stop functions**

Precise (microbipolar) and Standard (Bipolar)

In auto-stop functions the coagulation between the tips of the bipolar forceps are monitored electronically, the output power applied is turned off when the impedance of tissues reached preset values, even if the footswitch remains Allows simultaneous use of up to 2 pedals, activated. With this action, the risk of Independent monopolar or bipolar pedal unwanted injuries in small caliber vessels. As higher the output power, faster the coagulation.

> The monopolar mode has power setup with 1,0 Watt of precision until the end of scale. The bipolar mode has power setup has with precision of 0.5 Watt, also up to the end of the scale.

