

Quadra

Innovation is our Policy

SURGICAL DIATHERMY MODELS - D450V Series



CUADRA INSTRUMENTATION
Easy to understand and apply



Cuadra's Surgical Diathermies D450V1 and D450V2 are the best in the class. They incorporate the latest technologies to give unmatched performance: flexibility for the surgeon to meet specific needs and utmost safety for the patient.

The conventional surgical diathermy produces output which is highly dependent of tissue type. Cuadra's TTM (Tissue Type Monitoring) technology incorporates continuous monitoring of the tissue type using high-speed microcontroller and adjusts the output accordingly.

The TTM technology guarantees reproducible cutting and coagulation quality - largely independent of cutting electrode, the cutting process and the tissue type. It also reduces smoke generation, tissue damage and necrosis.

Functional Features

Monopolar Cut:

There are 8 modes in AUTO CUT: 4 CUT effects and 4 HIGH CUT effects. HIGH CUT mode is especially useful for tissues with poor electric conduction, such as fatty tissue while CUT mode is recommended for delicate tissues. EFFECTS 1 to 4 give different haemostasis levels.

The **ENDO CUT** program is specially designed for cutting polypectomy and papillotomy. **ENDO CUT** is an electrosurgical cut which is carried out in predefined intervals. The ENDO CUT function regulates cutting speed and haemostasis. In this way, a polypectomy loop cannot cut through a polyp at just any speed.

Monopolar Coagulation:

Forced coagulation is the standard coagulation mode.

Fulgurate coagulation provides the cut as well as coagulation effect at the same time. This reduces the surgery time.

Soft (also known as desiccate) coagulation is contact coagulation with deep effect. This treats tissues gently and reduces the necrosis & tissue adhesion to the electrode.

Spray coagulation is ideal for non-contact superficial coagulation.

Bipolar Cut:

Bipolar Cut can be activated with touch of a button by switching to 'b' program.

Bipolar coagulation:

Bipolar coagulation can be operated in manual (activation and deactivation by footswitch) or in automatic modes. In Semi-Auto mode, the activation is manual and the deactivation takes places once coagulation reaches optimum level. In Auto mode, both activation and deactivation are automatic.

Usability Features

Programmable: You can personalize the power setting and different modes, your all settings will be stored in memory. There are 10 Programs.

Power fail memory: All current settings stored at the time of power fail and are instantly available on switch on of the machine.

Automatic self diagnostic startup check will detect common failures like short circuited foot switches, short circuited hand switches and also its own power supply. The errors detected are stored in memory and are useful for service engineer.

The **2+1 pedal footswitch** makes it possible to use bipolar coagulation and monopolar coagulation without change of any settings on the machine. It is also possible to use 2 pedal footswitch.



MODEL D450V1



MODEL D450V2

Advanced Features

TTM Technology: Heavy demands are placed on the surgical diathermy during under water cutting and during cutting in very fatty tissues. The intelligent TTM technology handles this situation very easily. The TTM technology also makes sure that there is minimal smoke and less necrosis.

Power and mode control through handswitch: The power settings & the modes of monopolar cut & coagulation can be changed from sterile area without anybody's assistance.

Extra features in D450V2 as against D450V1

Twin coagulation output offers two COAG outlets with individual settings. Two operators can use two monopolar outputs in alteration, or one surgeon can work with two different COAG instruments, each adjusted for different modes and intensity. No switching back and forth, no re-connecting different handles. Bipolar coagulation has three variants: Micro for delicate tissues, Precise for normal tissues and Macro for tough tissues.



Now Power in your hand

Now the surgeon can adjust the power setting through handswitch from sterile area. No assistance required.

Control in your hand

Now the surgeon can change the CUT & COAG modes through hand-switch from sterile area. No assistance required.

Applications

- General surgery
- Gynaecology and Obstetrics
- Laparoscopy and Cystoscopy
- Orthopaedic
- Neurosurgery
- Urology including TUR
- Cardiothoracic
- Plastic surgery & Dermatology
- Pediatric Surgery
- ENT

Safety Features

- Protection Class According to EN 60 601-1
- Type according to EN 60 601-1 CF
- LF leakage current to less than 0.05mA
- HF Leakage current < 150mA
- HF Leakage monitor: Yes
- Arc Control: Arc control makes sure that there is no unintended sparks and thus avoids tissue damage
- Intelligent patient pad contact quality monitoring: Yes, with split patient plate
- Output type: Floating
- Auto Timer: Avoids error some long time power delivery by mistake.

Specifications

Monopolar cut (Auto Cut Effect 4)	300W in 500 Ohms (340 KHz +/-15%)
Haemostasis levels (EFFECTS)	Four
Forced coag. power	120W in 350 Ohms (Pulse Modulated)
Spray coagulation power	120W in 500 Ohms (Pulse Modulated)
Fulgurate power	120W in 500 Ohms (Pulse Modulated)
Soft Coag. power	120W in 125 ohms (340 KHz +/-15%)
Auto Bipolar output power	
Precise and Macro Mode	120W in 125 Ohms (350 KHz +/-15%)
Micro Mode	80W in 125 Ohms (350 KHz +/-15%)
Bipolar Cut	150W in 500 Ohms (350 KHz +/-15%)
Power display accuracy	+/-15% OR 5W whichever is greater
Mains supply	230V (+/- 15%) 50Hz (+/- 5Hz)
Internal power supply	SMPS
Maximum current	4.0 A
Power consumption in standby mode	30W
Operating temperature range	+10 to +40 °C
Dimensions	W 420 x H 155 x D 350 mm
Weight	7.2 Kg.

Distributor



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CE
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Company Certified by:

ISO 13485:2003



ISO 9001:2008

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