



ELSY - 360 M+

Advanced Microcontroller Based Digital
ELECTROSURGICAL UNIT



CE
1639

ALAN's Electrosurgical Unit (Diathermy) is designed with latest miniature electronic circuit design technology. The advanced microcontroller based technology helps in achieving the desired tissue effects. It is Small in size but Surprises on Performance.

+ **SAFETY**

- Patient Plate Contact Quality Monitoring System.
- HF leakage monitoring & controlling systems.
- Real-Time Tissue impedance monitoring for power control.
- Power up Self-Test to ensure the unit healthiness.
- Handswitch and Footswitch short detection during Self-Test.
- Multiple microcontroller supervision for RF power accuracy.

+ **RELIABILITY**

- Built in line filter protects from voltage surges and bad line conditions hence no need to use Spike Buster.
- No need of voltage stabilizer, can work in lower voltage.
- Works on Generator, Inverter & UPS.
- Convection Cooling System offers better Reliability.
- Alan's proven track record for more than 13 years.

+ **CLINICAL BENEFITS**

MONOPOLAR CUTTING

- **Pure** : Monopolar Cut mode is for Underwater (TURP) and General Surgeries.
- **LowCut** : Mode specifically tailored for Laparoscopy.
- **Blend** : Cutting with Coagulation effect.
- **EndoCut** : Special mode for Polypectomy & Papillotomy.

MONOPOLAR COAGULATION

- **Spray** : Impulse modulated sinuous waveform for non-contact coagulation and (TURP) Underwater Procedures.
- **Fulgurate/Force** : A low spray waveform suitable for non-contact coagulation on oozing surfaces and (TURP) underwater coagulation.
- **Desiccate** : Standard Coagulation Mode.
- **Soft** : Low voltage coagulation mode for delicate tissues.
- **Auto-Desiccate & Auto-Soft**

BIPOLAR

- **Cut/Standard** : Best coagulation mode when used with graspers. especially designed for Bipolar Scissors.
- **Force/Macro** : Faster Bipolar Coagulation.
- **Micro/Precise** : Pinpoint coagulation for delicate tissues with less thermal spread
- **Auto-Stop** : For optimum coagulation effect.
- **Auto-Start** : Auto-start coagulation in Bipolar.

GENERAL FEATURES

- Feather touch membrane keyboard for Power, Mode, Program and Footswitch selection etc. for easy operation of Machine.
- User programmable 99 memory locations.
- Can Seal up to 7mm Vessels.
- 5 Different ligation levels for different Vessel Thickness.
- 2 Different Fast Ligation Levels for Faster Sealing Cycle.
- Faster Sealing Cycle with Less Thermal spread.
- Isolated Monopolar & Bipolar outputs.
- Simultaneous Coagulation for 2 surgeons in Monopolar mode.
- Monopolar outputs can be activated via Handswitch and Footswitch.
- Special EndoCut mode for Polypectomy & Papillotomy.
- 9 levels are given in Endocut to achieve varying speed, depth and sharpness of the cut.
- Auto-Stop in Bipolar & Monopolar for optimum coagulation effect.
- Digital volume control and audio-visual indications for all outputs.
- Restoration of previous activated power settings.
- Reduced R.F distortion due to noiseless performance.
- User Settable Auto start delay in Bipolar.
- User settable maximum RF activation Timeout limit.
- Instant power response against the tissue density & impedance variation and Adjust Power.
- PPCM monitors Split/Non-Split type patient plates and deactivates output power with audio-visual alarm during improper contact between patient and patient plate to eliminate the risk of site burns.
- Using Alan's 3 pedal footswitch Monopolar and Bipolar can be operated without changing any settings in the machine.
- 3 Pedal Footswitch is explosion proof and water proof.
- Compatible with Wireless Footswitch.
- Well suited for Underwater (TURP), Micro, Major, Gynaec, General and all other Surgeries
- Upgradable to Argon beam coagulator*
- Maximum output of 400 Watts.

▲ Refer User manual

* Optional Feature

- Specifications are subject to change due to continual Development & upgradation.
- ESU is Also Popularly Known as E. S. Diathermy & E.S. Cautery.

TECHNICAL SPECIFICATIONS

MONOPOLAR CUT

1. Pure	400 Watts / 300 Ohms
2. LowCut	300 Watts / 300 Ohms
3. Blend	250 Watts / 300 Ohms
4. Endocut	200 Watts / 300 Ohms@EC9 Variable Duty cycle up at 9 Levels

MONOPOLAR COAG

1. Spray	120 Watts / 500 Ohms
2. Fulgurate/Force	150 Watts / 500 Ohms
3. Desiccate	120 Watts / 500 Ohms
4. Soft	120 Watts / 150 Ohms
5. Auto Desiccate	
6. Auto-Soft	

BIPOLAR

1. Cut	120 Watts / 100 Ohms
2. Force	100 Watts / 100 Ohms
3. Micro	100 Watts / 100 Ohms
4. Auto-Stop	40 Watts, Max.
5. Auto-Start	40 Watts, Max.
6. Scal-Cut	5 Levels.

VESSEL SEALING

1. Ligate	5 Levels
2. F-Ligate	2 Levels

INPUT SUPPLY

Input Supply	: 220/230VAC $\pm$ 20% 50 Hz
Power Consumption	: 750VA Max.
Loading Duty Factor	: 10Sec (Active) / 30Sec (Pause)
Output Control	: Digital Display, Push buttons in all Modes.

SAFETY STANDARDS

Basic Construction	: Accordance with IEC 60601 - 1, IEC 60601 - 1 - 2 & IEC 60601 - 2 - 2
Protection Class	: 1
Mdd	: IIb
Unit Type	: CF
PER	: 98%
All Outputs	: Floating Outputs
Electrical Potential Balancing	: Connecting Pin and Indicated by Symbol.
Max Weight	: 6 Kg.
Size (in mm)	: 420(L) x 340(W) x 160(H)



Manufactured by, ®

ALAN

Since 1997

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