# *Electrosurgical Unit*

CE 2460

GMP

ZEUS *Vision* Electrosurgical

1. PROGRAM

| MENU | MONO1 | REM | Program Manager |

MODE
Polypectomy
OUTPUT
150

MODE
Soft
OUTPUT
80

BIPOLAR MODE
Standard
OUTPUT
100

Esc   Menu   Enter

Monopolar M1
Monopolar M2
Bipolar

ZERONE

# FOR YOUR
# **RELIABLE** SURGERY

# DESIGNED,
# DEVELOPED,
# AND MADE
# IN **KOREA**

We, ZERONE are a manufacturer of medical device and specialized in surgery and treatment. We work under strict policy of quality control and orient excellent performance.

We promise to provide the best competitiveness aiming user's satisfaction.

# ZEUS VISION

CE 2460

## Output Specification

**Basic**

| Mode | | Output Power |
|---|---|---|
| CUT | Pure | 400W / 200Ω |
| | Blend 1 | 250W / 200Ω |
| | Blend 2 | 200W / 200Ω |
| | Blend 3 | 150W / 200Ω |
| Coagulation | Contact | 120W / 200Ω |
| | Spray | 100W / 300Ω |
| | Argon | 100W / 300Ω |
| Bipolar Coagulation | Standard | 100W / 100Ω |
| | AutoStart | 100W / 100Ω |
| | Forced | 80W / 100Ω |
| Bipolar Cut | Cut | 120W / 200Ω |
| | Blend | 100W / 200Ω |

**Option 1**

| | | |
|---|---|---|
| Coagulation | Soft | 80W / 100Ω |
| Endo Cut | Papillotomy | 150W / 100Ω |
| | Polypectomy | 150W / 100Ω |

· Main Frequency : 400, 500KHz
· Power Source : AC120V or AC230V, 50Hz / 60Hz
· Protection Class : Class 1, Type CF
· Dimension(WxDxHmm) : 388×410×160
· Weight : 12.5Kg

## Feature

• **Color Graphic User Interface**
Wide TFT LCD mount, clean and sharper image quality, unlike the existing electricity and the innovative new U.I. configuration operation.

• **Best Safety with Feedback System**
REM(Return Electrode Monitoring) function monitors the size of contact area between a patient and the pad. If the size is inappropriate, it automatically blocks the high-frequency current to minimize the danger of burning incidents.

• **7inch touch Screen System & key**
Touch screen system through the implementation easier and faster with a parameter setting, external key management can be the same as a touch screen.

• **Diversity of Feature Bipolar**
Bipolar Cut, Bipolar Blend, Bipolar Forced to add features to implement more up-grade the optimal system.

• **Memory Function**
99 storages are available.

**Option 1** Endo Cut(Intra Cut)
Endo-cut is a monopolar electrosurgical treatment method and a cut which is carried out intervals(fractionated cut) with software-controlled alternations between cutting and coagulation stages.

## Standard Accessories

| Code No. | Name of Item |
|---|---|
| FS02-01R | Double Foot Switch |
| FS01-01R | Single Foot Switch  * Not included in upgrade version |
| HD02-01D | Disposable Twin Button Handle |
| HD01-02R | Monopolar Handle & Cable |
| PL02-01R | Silicon Patient Plate(240X150mm) |
| PL03-02D | Disposable Patient Plate (5ea) |
| CA02-02R | Patient Return Plate Cable |
| CA03-01R | Ground Cable |
| CA01-02R | Bipolar Forceps Cable |
| CA08-01R | Monopolar Connecting Cable(For Endo Cut*3Φ Connector) |
| BF01-01R | Bipolar Forceps(Bayonet 17.8cm 1.0 Tip) |
| EL01-02D | Electrode(Knife 2.4*70mm) |
| EL02-02D | Electrode(Ball 5mm) |
| EL03-02D | Electrode(Loop 6mm) |
| EL04-02D | Electrode(Needle 2.4*70mm) |
| EL04-04D | Electrode(Needle Angled 2.4*70mm) |

FS02-01R   * FS01-01R   HD02-01D   HD01-02R

PL02-01R   PL03-02D   CA02-02R   CA03-01R

CA01-02R   CA08-01R   BF01-01R   EL01-02D/EL02-02D EL03-02D/EL04-02D EL04-04D

# ZEUS-400/300/200

**UPGRADE VERSION**

The upgrade version provide safety flexibility
and convenience by powerful and stable technology.

10 storages are available by using user storage function.
Bipolar cut function is available.

- Main Frequency : 400, 500KHz
- Power Source : AC120V or AC230V, 50Hz / 60Hz
- Protection class : Class 1, Type CF
- Dimension(WxDxH mm) 330x455x150
- Weight : 13.0Kg

## **O**utput Specification

| Mode | ZEUS series UPGRADED VER. | | |
|------|------------|------------|------------|
| | **ZEUS-400** | **ZEUS-300** | **ZEUS-2** |
| Pure cut | 400W / 300Ω | 300W / 300Ω | 200W / 3 |
| Blend 1 | 250W / 300Ω | 230W / 300Ω | 150W / 3 |
| Blend 2 | 200W / 300Ω | 180W / 300Ω | 120W / 3 |
| Blend 3 | 150W / 300Ω | 120W / 300Ω | 100W / 3 |
| Contact Coag. | 120W / 300Ω | 100W / 300Ω | 100W / 3 |
| Spray Coag. | 100W / 300Ω | 80W / 300Ω | 80W / 3 |
| Bipolar Coag. | 100W / 100Ω | 80W / 100Ω | 80W / 1 |
| Bipolar Cut | 100W / 200Ω | 80W / 200Ω | 80W / 2 |

## **S**tandard Accessories

| Code No. | Name of Item |
|----------|-------------|
| FS02-01R | Double Foot Switch |
| FS01-01R | Single Foot Switch |
| HD02-01D | Disposable Twin Button Handle |
| HD01-01R | Monopolar Handle & Cable |
| PL02-04R | Silicon Patient Plate(240X150mm) |
| PL03-02D | Disposable Patient Plate (2ea) |
| CA02-03R | Patient Return Plate Cable |
| CA03-01R | Ground Cable |
| CA01-01R | Bipolar Forceps Cable |
| BF01-01R | Bipolar Forceps(Bayonet 17.8cm 1.0 Tip) |
| EL01-02D | Electrode(Knife 2.4*70mm) |
| EL02-02D | Electrode(Ball 5mm) |
| EL03-02D | Electrode(Loop 6mm) |
| EL04-02D | Electrode(Needle 2.4*70mm) |
| EL04-04D | Electrode(Needle Angled 2.4*70mm) |

## **A**pplication

- General Surgery
- Dermatology
- Vascular Surgery
- Gynecology
- ORL/ENT
- Pediatric Surgery
- Urology
- Orthopedics
- Oral Surgery
- Plastic Surgery
- Endoscopy

## **F**eature

- A display window allows you to easily check output value, indicated as digits.

- Unit provides various functions that are required to perform an operation as functional cut mode
  (Pure cut, Blend1, Blend2, Blend3)Coagulation mode(Spray coag., Contact coag.), Bipolar coag. mode by hand or foot,
  Bipolar cut(upgrade version only).

- Each working condition can be checked by sound and indication lamp.

- Hand bipolar(Auto bipolar)can be checked only by contacting Forceps.

- Unit output strong and stable power by micro-processor.

- Input power frequency is automatically detected.

| S-200 | ZEUS-400 | ZEUS-300 | ZEUS-200 |
|---|---|---|---|
| / 300Ω | 400W / 300Ω | 300W / 300Ω | 200W / 300Ω |
| / 300Ω | 250W / 300Ω | 230W / 300Ω | 150W / 300Ω |
| / 300Ω | 200W / 300Ω | 180W / 300Ω | 120W / 300Ω |
| / 300Ω | 150W / 300Ω | 120W / 300Ω | 100W / 300Ω |
| / 300Ω | 120W / 300Ω | 100W / 300Ω | 100W / 300Ω |
| / 300Ω | 100W / 300Ω | 80W / 300Ω | 80W / 300Ω |
| / 100Ω | 99W / 100Ω | 80W / 100Ω | 80W / 100Ω |
| / 200Ω | | | |

※ In case of Zeus-200, receptacle part is little different than Zeus-400/300,
When customer buys Zeus-200, please check.

| | | | |
|---|---|---|---|
| FS02-01R | FS01-01R | HD02-01D | HD01-01R |
| PL02-04R | PL03-02D | CA02-03R | CA03-01R |
| CA01-01R | BF01-01R | EL01-02D/EL02-02D<br>EL03-02D/EL04-02D/EL04-04D | |

The ZEUS series provide safety flexibility
and convenience by powerful and stable technology.

· Main Frequency : 400, 500KHz
· Power Source : AC120V or AC230V, 50Hz or 60Hz
· Protection class : Class 1, Type CF
· Dimension(WxDxH mm) 330x455x150
· Weight : 13.0Kg

## Application

· General Surgery          · Urology
· Dermatology              · Orthopedics
· Vascular Surgery         · Oral Surgery
· Gynecology               · Plastic Surgery
· ORL/ENT                  · Endoscopy
· Pediatric Surgery

## Safety Function

● A fuse which is built in a power circuit board prevents over current from flowing through the equipment

● When the plate attached to the patient is disconnected from the unit, red alarm light begins flickering.
If press any button of the twin button handle or press any pedal of double foot switch, alarm sound is made
but the unit doesn't work.

● REM(Return Electrode Monitoring) function monitors the size of contacting area between a patient and the pad.

If size is inappropriate, it automatically blocks the high-frequency current to minimize the danger of burning incident.

● To protect a patient, the case is fully grounded so that a leakage current can flow into the earth.

# Electrosurgical Unit
# ZEUS-200S/150



· Main Frequency : 400, 500KHz
· Power Source : AC120V or AC230V, 50Hz / 60Hz
· Protection Class : Class 1, Type CF
· Dimension(WxDxHmm) : 330×320×150
· Weight : 8.0Kg

## **O**utput Specification

| Mode | ZEUS-200S | ZEUS-150 |
|---|---|---|
| Pure Cut | 200W / 200Ω | 150W / 200Ω |
| Blend Cut 1 | 150W / 200Ω | 120W / 200Ω |
| Blend Cut 2 | 120W / 200Ω | 100W / 200Ω |
| Contact Coagulation | 80W / 200Ω | 80W / 200Ω |
| Spray Coagulation | 80W / 500Ω | 60W / 500Ω |
| Bipolar Coagulation | 80W / 100Ω | 80W / 100Ω |

## **F**eature

• **Various Function with Compact Design**
Cut(Pure Cut, Blend 1, Blend 2), Coag.(Contact, Spray), Bipolar Coag.; Fully enough for most of the operations.

• **Best Safety with Feedback System**
REM(Return Electrode Monitoring) function monitors size of contact area between a patient and the pad.
If contact is inappropriate, it automatically blocks the high-frequency current to minimize the danger of burning incident.

• **Different Tone Audible Sound**
Each working condition can be checked by sound and indication lamp
The level if alarm sound can be adjusted during an operation of application mode.

• **Auto Select Function**
Without pressing cut or coag. button, use twin button handle or double foot switch for
working cut or coag. mode.
Press each mode button for 3 sec., output power will be set 1W,
it enables to adjust from 1W to maximum power quickly.

## **S**tandard Accessories

| Code No. | Name of Item |
|---|---|
| FS02-01R | Double Foot Switch |
| HD02-01D | Disposable Twin Button Handle |
| HD01-01R | Monopolar Handle & Cable |
| PL02-04R | Silicon Patient Plate(240X150mm) |
| PL03-02D | Disposable Patient Plate (2ea) |
| CA02-03R | Patient Return Plate Cable |
| CA01-01R | Bipolar Forceps Cable |
| BF01-01R | Bipolar Forceps(Bayonet 17.8cm 1.0 Tip) |
| EL01-02D | Electrode(Knife 2.4*70mm) |
| EL02-02D | Electrode(Ball 5mm) |
| EL03-02D | Electrode(Loop 6mm) |
| EL04-02D | Electrode(Needle 2.4*70mm) |
| EL04-04D | Electrode(Needle Angled 2.4*70mm) |



FS02-01R    HD02-01D    HD01-01R    PL02-04R

PL03-02D    CA02-03R    CA01-01R    BF01-01R

EL01-02D / EL02-02D
EL03-02D / EL04-02D / EL04-04D

## Output Specification

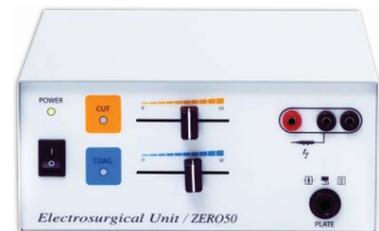| Mode | ZEUS-100 | ZEUS-80 |
|---|---|---|
| Pure Cut | 100W /300Ω | 80W /300Ω |
| Blend Cut | 100W /300Ω | 80W /300Ω |
| Contact Coagulation | 60W /300Ω | 50W /300Ω |
| Bipolar Coagulation | 80W /100Ω | 70W /100Ω |

· Main Frequency : 1.6MHz
· Power Source : AC120V or AC230V, 50Hz / 60Hz
· Protection Class : Class 1, Type BF
· Dimension(WxDxHmm) : 270×310×110
· Weight : 6.0Kg

## Standard Accessories

| Code No. | Name of Item |
|---|---|
| FS01-01R | Single Foot Switch |
| HD02-01D | Disposable Twin Button Handle |
| PL02-05R | Silicon Patient Plate(165X90mm) |
| EL01-02D | Electrode(Knife 2.4*70mm) |
| EL02-02D | Electrode(Ball 5mm) |
| EL04-02D | Electrode(Needle 2.4*70mm) |
| EL04-04D | Electrode(Needle Angled 2.4*70mm) |

FS01-01R   HD02-01D   PL02-05R

EL01-02D / EL02-02D
EL04-02D / EL04-04D

## Output Specification

| Mode | ZERO50 | |
|---|---|---|
| Cut | 50W /300Ω | |
| Coagulation | 40W /300Ω | |

· Main Frequency : 1.6MHz
· Power Source : AC120V or AC230V, 50Hz / 60Hz
· Protection Class : Class 1, Type BF
· Dimension(WxDxHmm) : 200×220×90
· Weight : 2.6Kg

Electrosurgical Unit / ZERO50

## Standard Accessories

| Code No. | Name of Item |
|---|---|
| HD02-01D | Disposable Twin Button Handle |
| PL02-03R | Silicon Patient Plate(110X80mm) |

HD02-01D   PL02-03R

# ARGON-Z

## **F**eature

- Convenient LCD display on the front plate.
- Resection and coagulation by Argon Twin Button Handle.
- Foot switch is available for cutting and coagulation.
- 9 storages are available by using user storage function.
- Even coagulation by contactless coagulation.
- Small carbonization and almost none sticking.
- Fast hemostasis, when massive bleeding.
- Easy and clean range of vision due to small smoke.

## RGON-Z Specification

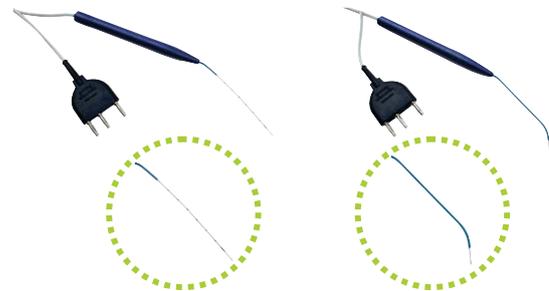| | | | |
|---|---|---|---|
| Rated Voltage | 100V - 240V~ | Minimum Purity of Argon | 99.998% |
| Rated Frequency | 50Hz / 60Hz | Argon Gas Flow, CUT | 0.1 l/min ~ 9.9 l/min |
| Power Consumption | 50VA + 10% | Argon Gas Flow, COAG. | 0.1 l/min ~ 9.9 l/min |
| Fuse | T1AL 250V | Minimum Cylinder Pressure | 200bar(20MPa) |
| Protection Class | Class 1, Type CF | Weight | 6 Kg |
| Input Pressure | Min 2.5bar(250kpa) ~ Max 4.5 bar(450kpa) | Dimension(WxDxH) | 330x380x130 mm |

## tandard Accessories

| Code No. | Name of Item |
|---|---|
| FS02-02R | Double Foot Switch |
| CA05-01R | Foot Switch Signal Cable |
| CA06-01R | Monopolar Cable |
| TB01-01R | Luer Lock Tube |
| CA07-02R | Reusable Flexible Argon Probe Cable |
| AP01-02R | Reusable Flexible Argon Probe |
| CA03-01R | Ground Cable |
| CA03-02R | Ground Cable (2ea) |
| RG01-01R | Regulator |

FS02-02R  CA05-01R  CA06-01R  TB01-01R

CA07-02R  AP01-02R  CA03-01R  CA03-02R*2

RG01-01R

## Output Specification

| Mode | Output Power | Carrier Freq. | Duty Rate |
|------|-------------|---------------|-----------|
| Cut | 25W/600Ω | 485KHz | 100% |
| Coagulation | 30W/100Ω | 485KHz | 100% |

| | |
|---|---|
| Rated Voltage | 100-240V~ |
| Rated Frequency | 50/60Hz |
| Power Consumption | 140VA+10% |
| Fuse | T1.6ALAC250V |
| Protection class | Class1, Type BF |
| Leakage current | In acc. With IEC601,Part2-2 |
| Carrier Frequency | 485KHZ |
| Size(WXDXH) | 330mmX320mmX150mm |
| Weight | 5.5Kg |
| Operation Cycle | 10sec ON 30 Idle(recommended) |

## Standard Accessories

| Code No. | Name of Item |
|----------|--------------|
| HD03-01D | Sens Probe |
| FS02-02R | Double Foot Switch |
| PL02-02R | Silicon Patient Plate |
| HD01-02R | Monopolar Handle |
| EL06-03D | Wire Straight Electrode |
| | |

HD03-01D    FS02-02R    PL02-02R

HD01-02R    EL06-03D

| Features | Applications |
|----------|--------------|
| ▶ Provide Pure cut and Bipolar coagulation function in one unit | ▶ Multi-level treatment of sleep- related breathing disorders, such as occasional or habitual snoring as well as mild cases of obstructive sleep apnoea |
| ▶ There are two independent displays (CUT and COAG.) | |
| ▶ Distinguish Cut from Coag. By lamp, while device works | ▶ Nasal concha hyperplasia |
| ▶ Available 10 memories to save user's value | ▶ Palatine tonsil hyperplasia |
| ▶ After power off and get back, last set output value is displayed | ▶ Nasal polyp |
| ▶ Adjustable working sound and Alarm volume from 1 to 9 | ▶ Excess mucous membrane around the palatine arches |
| ▶ Available free voltage | ▶ Uvula hyperplasia |
| ▶ Suitable for a wide range of ENT application | |
| ▶ Simple and safe operation | ▶ Treatment of tumours in the head-neck area |
| ▶ 3D-impedance feedback control:automatic monitoring and regulation process | ▶ Treatment in the region of the larynx, e.g. spasmodic dysphonia" |
| ▶ Auto-stop function | |

| Accessory | Code No. | Name of Item | Specification |
|---|---|---|---|
|  | FS01-01R | Single Foot Switch | 3pin Plug Cable 4m |
|  | FS02-01R | Double Foot Switch | 4pin Plug Cable 4m |
|  | PL02-01R | Silicon Patient Plate | 240mm x 150mm<br>6.3Pie Plug Cable 3m |
|  | PL02-02R | Silicon Patient Plate | 165mm x 90mm<br>6.3Pie Plug Cable 2m |
|  | PL02-03R | Silicon Patient Plate | 110mm x 80mm<br>6.3Pie Plug Cable 2m |
|  | PL02-04R | Silicon Patient Plate | 240mm x 150mm<br>ValleyLab Type Plug<br>Cable 3m |
|  | PL02-05R | Silicon Patient Plate | 165mm x 90mm<br>ValleyLab Type Plug<br>Cable 2m |
|  | PL02-06R | Silicon Patient Plate | 110mm x 80mm<br>ValleyLab Type Plug<br>Cable 2m |
|  | PL03-02D | Disposable Patient Plate | Adult Dual (120㎠) |
|  | PL03-03D | Disposable Patient Plate | Pediatric Dual (66㎠) |
|  | HD01-01R | Monopolar Handle & Cable | Silicon Cable 4ø 3m |
|  | HD01-02R | Monopolar Handle & Cable | Silicon Cable 4ø 3m |
|  | HD02-01D | Disposable Twin Button Handle | 3pin Plug Cable 3m |
|  | CA01-01R | Bipolar Forcep Cable | 2pin Plug<br>Cable 3m<br>EN Type Connector |
|  | CA01-02R | Bipolar Forcep Cable | 2pin Plug<br>Silicon Cable 3m<br>EN Type Connector |
|  | CA01-03R | Bipolar Forcep Cable | 2pin Plug<br>Silicon Cable 3m<br>EU Type Connector |
|  | CA01-04R | Laparoscopy Bipolar Connecting Cable | Silicon Cable, 3m |
|  | CA01-06R | Bipolar Sealer Cable | Silicon Cable 4Ø, 3m |
|  | CA01-07R | Vessel Sealing Cable | 2pin Plug Silicon, Cable 3m,<br>EU Type connector |
|  | CA03-01R | Ground Cable | Cable 4ø, 3m |

| Accessory | Code No. | Name of Item | Specification |
|---|---|---|---|
|  | CA08-01R | Monopolar Connecting Cable | 3Ø Connector, 4m |
|  | CA08-02R | Monopolar Connecting Cable | 4Ø Connector, 4m |
|  | CA08-03R | Monopolar Connecting Cable | 4.2Ø Connector, 4m |
|  | CA02-02R | Patient Return Plate Cable | 6.3Pie Plug Silicon Cable 3m |
|  | CA02-03R | Patient Return Plate Cable | ValleyLab Type Plug Silicon Cable 3m |
|  | BF01-01R | Bipolar Forceps | Bayonet 17.8cm 1.0 Tip |
|  | BF01-02R | Bipolar Forceps | Bayonet 15.2cm 1.0 Tip |
|  | BF02-01R | Bipolar Forceps | Straight 9.0cm 0.5 Tip |
|  | BF02-02R | Bipolar Forceps | Straight 12.1cm 1.0 Tip |
|  | BF02-03R | Bipolar Forceps | Straight 17.8cm 1.0 Tip |
|  | BF03-01R | Bipolar Forceps | Angled 9.0cm 0.5 Tip |
|  | BF03-02R | Bipolar Forceps | Angled 17.8cm 1.0 Tip |
|  | EL01-02D | Electrode | Knife 2.4 * 70mm Black |
|  | EL02-02D | Electrode | Ball 5mm Black |
|  | EL03-02D | Electrode | Loop 6mm Black |
|  | EL04-02D | Electrode | Needle 2.4 * 70mm Black |
|  | EL04-04D | Electrode | Needle Angled 45º 2.4 * 70mm Black |
|  | CT01-01R | CART | W390 x D480 x H850 |
|  | HD03-02D | Sens Probe | 3 Pin Plug Cable 3m |
|  | HD03-01D | Sens Probe | 2 Pin Plug Cable 3m |

**ZERONE**