

THE NEXT GENERATION ENERGY PLATFORM IS HERE.

Valleylab™ FT10 Energy Platform Specification Guide

The Valleylab™ FT10 energy platform is here with:

- Improved LigaSure™ vessel-sealing technology.
- Expanded electrosurgical features.

FAST SEALING

Seals vessels in one to four seconds*1

TISSUEFFECT™ TECHNOLOGY

Consistently responds to changes in tissue — at a speed of 430,000 times per second — as the device seals

INTUITIVE CONTROL PANEL

- Four-quadrant touch screen with enhanced ease of use
- Quick settings for surgeon preferences
- Easy to understand error alerts

LIGASURE™ TECHNOLOGY

Improved and enhanced LigaSure™ vessel-sealing performance:

- Faster vessel sealing than ForceTriad™ energy platform²
- Minimizes lateral thermal spread to surrounding tissue³

SMART CONNECTORS

Recognizes the type of instrument used and automatically configures energy output for consistent results



VALLEYLAB™ FT10 ENERGY PLATFORM TECHNICAL SPECIFICATIONS

General

| | |
|----------------------|--|
| Output configuration | Isolated output |
| Cooling | Natural convection and fan |
| Display | 7 in. LCD touchscreen |
| Connector ports | LED illuminated Smart connector reader on the LigaSure™/Bipolar receptacle |
| Enclosure | Magnesium |
| Mounting | <ul style="list-style-type: none">Valleylab™ universal generator cart (VLFTCRT)OR boom systemsAny stable, flat surface such as a table or cart top |

Dimensions and Weight

| | |
|--------|--------------------|
| Height | 6.7 in. (17.0 cm) |
| Width | 14.5 in. (35.8 cm) |
| Length | 18.2 in. (46.2 cm) |
| Weight | 22.3 lb. (10.1 kg) |

Audio Tones

| Activation Tones | Tone | Duration | Volume |
|------------------|-------------|----------------------------|---|
| CUT | 660 Hz ± 5% | Entire Activation Duration | User adjustable from 45 dBA to 65 dBA (-0/+6 dBA @ 1 m) |
| COAG | 940 Hz ± 5% | Entire Activation Duration | User adjustable from 45 dBA to 65 dBA (-0/+6 dBA @ 1 m) |
| VALLEYLAB | 800 Hz ± 5% | Entire Activation Duration | User adjustable from 45 dBA to 65 dBA (-0/+6 dBA @ 1 m) |
| BIPOLAR | 940 Hz ± 5% | Entire Activation Duration | User adjustable from 45 dBA to 65 dBA (-0/+6 dBA @ 1 m) |
| LIGASURE | 440 Hz ± 5% | Entire Activation Duration | User adjustable from 45 dBA to 65 dBA (-0/+6 dBA @ 1 m) |

Operating Parameters

| | |
|---------------------------|---------------------------|
| Ambient temperature range | 50 to 104 F (10 to 40 C) |
| Relative humidity | 30% to 75% non-condensing |
| Atmospheric pressure | 700 to 1060 millibars |

Transport and Storage

| | |
|---------------------------|----------------------------|
| Ambient temperature range | 14 to 149 F (-10 to +65 C) |
| Relative humidity | 25% to 85% non-condensing |
| Atmospheric pressure | 500 to 1060 millibars |

Duty Cycle

The Valleylab™ FT10 energy platform is capable of operating a duty cycle of 25%, defined as 10 seconds active and 30 seconds inactive, in any mode for a period of 4 hours.

Internal Memory

| | |
|-------------------------|---|
| Real-time clock battery | Battery type - Lithium CR1620; Battery capacity - 75 mAh |
| Storage capacity | 4 GB |



Radio Frequency Identification (RFID)

| | |
|------------------------------------|------------------------------|
| Frequency Range | 13.56 MHz |
| RF Output Power | 68.17 dBuV/m @ 3 meters |
| Type of Antenna | Integral Loop Antenna |
| Modulation | Amplitude-shift Keying (ASK) |
| Mode of Operation (Simplex/Duplex) | Duplex |
| Contains Transmitter Module FCC ID | 2AAVI-JDK1901 |
| Contains IC ID | 11355A-JDK1901 |

Wireless Fidelity (WiFi)

| | |
|----------------------------------|---|
| Transmit/Receive Frequency Range | 2.4000 ~ 2.4835 GHz (Industrial Scientific Medical Band) |
| Standards | IEEE 802.11b, 802.11g, 802.11n |
| RF Output Power | 11b: 17 ± 1.5 dBm 11g: 15 ± 1.5 dBm 11n: 14 ± 1.5 dBm |
| Data Rate | 11b: 1/2/5.5/11 Mbps 11g: 6/9/12/24/36/48/54 Mbps 11n: (20 MHz): MCSO-7 (Up to 72 Mbps) 11n: (40 MHz): MCSO-7 (Up to 150 Mbps) |
| Securities | WEP 64/128, WPA, WPA2, and IEEE 802.1x |
| Type of Antenna | Internal Antenna (1T1R) |
| Contains Module FCC ID | NDD9578111008 |
| Contains IC ID | 4701A-78111306 |

Leakage

Leakage Currents and Patient Auxiliary Currents (IEC 60601-1:2012)

| | |
|------------------------------------|---|
| Touch Current | < 100 µA NC, < 500 µA SFC |
| Earth Leakage Current | < 500 µA NC, < 1000 µA SFC |
| Patient Auxiliary Current (< 1kHz) | < 10 µA NC, < 50 µA SFC |
| Patient Auxiliary Current (> 1kHz) | Scaled with frequency per IEC 60601-1:2012, but does not exceed 10mA NC/SFC |
| Patient Leakage Current | < 10 µA NC, < 50 µA SFC |
| Total Patient Leakage Current | < 50 µA NC, < 100 µA SFC |

NC – Normal Condition

SFC – Single Fault Condition (as defined in IEC 60601-1:2012)

Total Patient Leakage Current – Measurement of patient leakage current with all patient outputs connected together

High Frequency Leakage (IEC 60601-2-2)

| | |
|--|--------------|
| Bipolar | < 68.9 mARMS |
| Monopolar measured directly at the ESU terminals | < 100 mARMS |
| LigaSure™/BPR measured directly at the ESU terminals | < 100 mARMS |

REM Contact Quality Monitoring System

| | |
|---------------------------------------|--------------------------|
| Interrogation frequency | 68–75 kHz |
| Interrogation current | < 100 µA RMS |
| Interrogation Voltage | < 12 VRMS |
| Impedance Sense Range | 5 Ω to 135 Ω |
| Impedance Accuracy (RF not activated) | ± 7 Ω |
| Impedance Accuracy (RF Activated) | Greater of ± 14 Ω or 20% |

Backup Power

The Valleylab™ FT10 energy platform retains all user programmed features, calibration and statistical data when switched off and unplugged. It also operates within specification when switched over to a supplied-line power by hospital backup systems.

Output Waveforms

TissueFect™ tissue-sensing technology, an automatic adjustment, controls all modes. As tissue resistance increases from zero, the energy platform outputs constant current, followed by constant power, followed by constant voltage. The maximum output voltage is controlled to reduce capacitive coupling and video interference and to minimize sparking.

Output Characteristics

| Mode | Rated Load (Ω) | Rated Output Power (W) | Peak Voltage | Current RMS Max | Crest Factor* | Duty Cycle |
|--------------------------|----------------|------------------------|--------------|-----------------|---------------|------------|
| Monopolar CUT | | | | | | |
| PURE | 300 | 300 | 910 | 1.25 | 1.42 | 100% |
| BLEND | 300 | 200 | 1100 | 1 | 2.5 | 50% |
| VALLEYLAB | 300 | 200 | 1549 | 1 | 3.8 | 25% |
| Monopolar COAG | | | | | | |
| FULGURATE | 500 | 120 | 3135 | 1 | 5.7 | 6.25% |
| SPRAY | 500 | 120 | 3575 | 1 | 6.5 | 4.76% |
| SOFT | 100 | 120 | 240 | 1.55 | 1.42 | 100% |
| Bipolar | | | | | | |
| LOW (1-15 W) | 100 | 15 | 88 | 1 | 1.42 | 100% |
| MEDIUM (16-40 W) | 100 | 40 | 143 | 2 | 1.42 | 100% |
| HIGH (45-95 W) | 100 | 95 | 310 | 2 | 1.42 | 100% |
| LigaSure™ | | | | | | |
| LIGASURE | 20 | 350 | 163 | 5.5 | 1.42 | N/A |
| Bipolar Resection | | | | | | |
| CUT | 500 | 375 | 495 | 2.4 | 1.42 | 100% |
| COAG | 100 | 175 | 212 | 3.2 | 1.42 | 100% |

ORDERING INFORMATION

VLFT10GEN Valleylab™ FT10 Energy Platform
1 per package



1. Based on internal test report #RE00025819 Rev A, LigaSure data sources for VLFT10 white papers. September 2015.
2. Based on data from internal test report #R0064457, LigaSure™ renal bench burst pressure evaluation of the Valleylab™ FT10. May 29, 2015.
3. Based on internal test report #RE00005503, Verification – report – GLP acute animal lab – LigaSure™ preclinical evaluation of Valleylab™ FT10. May 19, 2015.
4. Based on internal test report #RE00005401 Rev A, Product validation of Valleylab™ FT10 surgeon & nurse evaluation in simulated use. May 26, 2015.

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