

# Avante Waveline Pro

## Anesthesia Monitor

### Superior Performance with a High-Resolution Touchscreen

The Waveline Pro is a dependable, affordable touchscreen monitor that can accommodate a full range of acuity levels for all areas of patient care. It displays as many as eight colorful waveforms on a crisp 15" high resolution screen.

#### FEATURES

- EtCO2 (mainstream or sidestream)
- (Respironics)
- Multi-lead simultaneous ECG monitoring Automatically set alarm limits
- Masimo SET® Pulse Oximetry — ask your Avante representative for details
- Graphical and tabular trending
- Color-coded alarms
- Patient data entry
- Battery backup
- (two removable batteries)
- Built-in thermal recorder
- Networking capability
- Large (15"), high resolution flat panel display
- Available with a built-in thermal printer
- Standard Parameters: ECG, Masimo Pulse Oximetry, 2 x Temperature, NIBP, Respiration, and Printer
- Optional Parameters: Invasive Blood Pressures, CO2 (Mainstream or Sidestream) and Drager Built-in Anesthetic Agent Module
- Comes with standard veterinary accessories



## Specifications



**Weight:**  
17.6 lbs (8 kg)  
(including anesthetic agents  
module and batteries)



**Height:**  
12.1"  
(309 mm)

**Width:**  
14.4"  
(365 mm)

**Depth:**  
6.3"  
(159 mm)

**Touchscreen Display:**  
15"



**Source:**  
External AC power  
or internal battery

**AC Power:**  
100 - 240VAC,  
50/60Hz, 150VA

**Battery:**  
Built-in and rechargeable  
lithium ion

**Operating Time:**  
3+ hours

Web ID: 2012

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## Anesthesia Monitor

### Performance

Trace: 8 waveforms

**Indicator:**

Alarm Indicator  
Power Indicator  
QRS beep and alarm sound

**Trend Time:** 1 - 72 hours  
**Recorder:**

Built-in, thermal array, 3 channels  
Record width: 48mm  
Recorder paper: 50mm  
Record speed: 25mm/s 50mm/s

### ECG

**Input:** 5-lead ECG cable and standard AAMI line for connection

**Lead Choice:** I, II, III, aVR, aVF, aVL, V, V1-V6, TEST

**Gain Choice:** x0.5, x1, x2, x4

**Frequency Characteristic:** 0.05 ~ 35 HZ (+3dB)

**ECG Waveforms:** 7 channels

**Penetration Voltage:** 4000VAC 50/60Hz

**Sweep Speed:** 12.5, 25, 50 and 100 mm/sec (left to right or right to left)

**HR Display Range:** 30 ~ 300bpm

**Accuracy:** ±1bpm or ±1%, whichever is greater

**Alarm Limit Range Setting:**

Upper limit 100 ~ 200bpm,  
Lower limit 30 ~ 100bpm

### NIBP

**Measuring Technology:** automatic oscillating measurement

**Cuff Inflating:** <30s (0 ~ 300 mmHg, standard adult cuff)

**Measuring Period:** AVE<40s

**Mode:** Manual, Auto

**Measuring Interval in AUTO Mode:** 2 min ~ 4 hrs

**Pulse Rate Range:** 30 ~ 250 (bpm)

**Measuring Range:**

Adult/Pediatric Mode:  
SYS: 40 ~ 250 (mmHg)  
DIA: 15 ~ 200 (mmHg)  
Neonatal Mode:  
SYS: 40 ~ 135 (mmHg)  
DIA: 15 ~ 100 (mmHg)

**Accuracy:**

Maximum Mean error: ±5mmHg  
Maximum Standard deviation: 8mmHg

### TEMP

**Range:** 25 ~ 50 (°C)

**Accuracy:**

± 0.2°C (25.0 ~ 34.9°C)  
± 0.1°C (35.0 ~ 39.9°C)  
± 0.2°C (40.0 ~ 44.9°C)  
± 0.3°C (45.0 ~ 50.0°C)

**Display Resolution:** 0.1°C

**Alarm Limit Setting:**

Upper limit 0 ~ 50°C,  
Lower limit 0 ~ 50°C

**Channel:** 2 channels

### Masimo SET SpO<sub>2</sub>

**SpO<sub>2</sub> Accuracy (non-motion):**

Adult Pediatric: 70~100%: ±2%,  
0~69%: unspecified  
Neonate: 70~100%: ± 3%,  
0~69%: unspecified

**SpO<sub>2</sub> Accuracy (motion):**

Adult Pediatric: 70~100%: ±3%,  
0~69%: unspecified  
Neonate: 70~100%: ± 3%,  
0~69%: unspecified

**SpO<sub>2</sub>:** ±2 %

**PR:** ±3 bpm

**Modes:**

Averaging mode: 2,4,8,10,12,  
14 and 16s  
Sensitivity: Normal, APOD and  
Maximum

**PR Accuracy (non-motion):**

Neonate: 70~100%: ± 3%,  
0~69%: unspecified  
Adult Pediatric Neonate:  
25~240 bpm: ±3 bpm

**PR Accuracy (motion):**

Adult Pediatric Neonate:  
25~240 bpm: ±5 bpm

**Measuring Range:**

SpO<sub>2</sub>: 1~100%  
PR: 25~240 bpm  
Perfusion: 0.02~20%

**Low Perfusion Performance:**

> 0.02 % Pulse  
Amplitud and %  
Transmission > 5

### RESP

**Measure Method:** RA-LL impedance

**Range:** 0 ~ 120 rpm

**Sweep Speed:** 12.5, 25, 50 and 100 mm/sec (left to right or right to left)

**Alarm Limit Setting:**

Upper limit 6 ~ 120 rpm,  
Lower limit 3 ~ 120 rpm

**Accuracy:** ±3 rpm

### Networking

Industry standard 802.11b/g wireless network

### IBP

**Measurement Range:** -50 ~ 300mmHg

**Channel:** 2 channels

**Pressure Transducer:** sensitivity, 5ÅµV/V/mmHg

**Transducer Sites:** ART, PA,CVP, RAP, LAP, ICP

**Unit:** mmHg/kPa selectable

**Resolution:** 1mmHg

**Accuracy:** ±1mmHg or ±2%, whichever is greater

**Alarm Range:** -10 ~ 300mmHg

**Impedance Range:** 300 ~ 3000Ω

### Optional

EtCO<sub>2</sub>, Cardiac Output, and Anesthetic Agents