

# Avante Waveline Pro

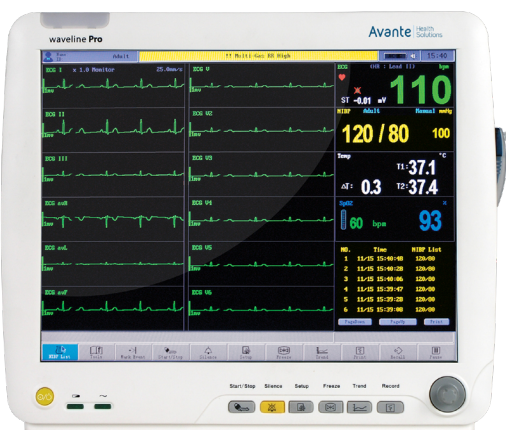
## Anesthesia Monitor

### 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

- › Masimo SET® Pulse Oximetry — ask your Avante representative for details
- › Large (15"), touchscreen with high-resolution flat panel display
- › Displays as many as eight waveforms
- › Multi-lead simultaneous ECG monitoring
- › Optional Integrated Dräger Anesthesia Gas Bench expands measurement capabilities
- › Automatically set alarm limits
- › Optional agent bench is compact and part of main unit. All in one monitor!
- › Graphical and tabular trending
- › Color-coded alarms
- › Standby button
- › Patient data entry
- › Networking capability
- › Works with EMR and wireless telemetry systems
- › Large time stamp in upper right corner
- › Volume and Sounds are adjustable and can be turned off completely
- › Option to print Numerical Data Only
- › Color of the waveforms can be changed
- › Battery backup (two removable batteries)
- › Available with a built-in thermal printer



#### 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

90-2019-10-25

## 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:  $\pm 1$ bpm or  $\pm 1\%$ ,  
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:  $\pm 5$ mmHg  
Maximum Standard deviation:  
8mmHg

## TEMP

Range: 25 ~ 50 (°C)

### Accuracy:

$\pm 0.2^\circ\text{C}$  (25.0 ~ 34.9°C)  
 $\pm 0.1^\circ\text{C}$  (35.0 ~ 39.9°C)  
 $\pm 0.2^\circ\text{C}$  (40.0 ~ 44.9°C)  
 $\pm 0.3^\circ\text{C}$  (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%:  $\pm 2\%$ ,  
0~69%: unspecified  
Neonate: 70~100%:  $\pm 3\%$ ,  
0~69%: unspecified

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

Adult Pediatric: 70~100%:  $\pm 3\%$ ,  
0~69%: unspecified  
Neonate: 70~100%:  $\pm 3\%$ ,  
0~69% : unspecified

SpO<sub>2</sub>:  $\pm 2\%$

PR:  $\pm 3$  bpm

### Modes:

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

### PR Accuracy (non-motion):

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

### PR Accuracy (motion):

Adult Pediatric Neonate:  
25~240 bpm:  $\pm 5$  bpm

### Measuring Range:

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

### Low Perfusion Performance:

> 0.02 % Pulse Amplitude  
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:  $\pm 3$  rpm

## Networking

Industry standard 802.11b/g wireless network

## IBP

Measurement Range:  
-50 ~ 300mmHg

Channel: 2 channels

Pressure Transducer: sensitivity,  
5 $\mu\text{V/V/mmHg}$

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

Unit: mmHg/kPa selectable

Resolution: 1mmHg

Accuracy:  $\pm 1$ mmHg or  
 $\pm 2\%$ , whichever is greater

Alarm Range: -10 ~ 300mmHg

Impedance Range: 300 ~ 3000 $\omega$

## Optional

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