

Rad-5[®]

signal extraction pulse oximeter™

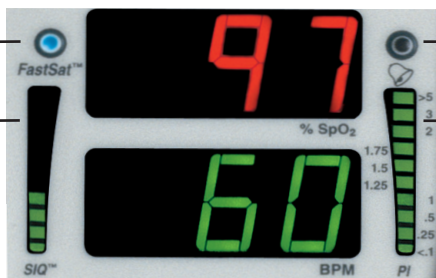
The power of Masimo SET[®] in the palm of your hand.

- Masimo SET technology is scientifically and clinically proven accurate during motion and low perfusion*
- Lightweight, convenient handheld
- Long battery life - up to 48 hours on 4 AA batteries
- Up to 72 hours of trending memory
- Ideal for spot check or continuous monitoring
- Perfusion Index, FastSat[®], Signal IQ[®] displays plus APOD, Normal & MAX sensitivity options
- Audible and visual alarms for High/Low Saturation, Pulse Rate, Sensor Off & Low Battery
- Optional protective boot cover with built in table-top stand



FastSat tracks rapid changes in arterial O₂ with unmatched fidelity.

Signal IQ[®] (SIQ[™]) bar is used for signal identification and quality indication during motion and low signal to noise situations. The LED rises and falls with the pulse, its height indicating signal quality. When Signal IQ is very low, and the SpO₂ and pulse rate values may be suspect, the LED turns red (left graphic).



The Alarm Status Indicator flashes when an alarm condition is present.

Perfusion Index (PI) indicates arterial pulse signal strength and may be used as a diagnostic tool during low perfusion for the accurate prediction of illness severity*. The LED bar is highest and green when the quality of the perfused site is best (left graphic); when PI is poor the LED bar is low and turns red (right graphic).



Specifications



Rad-5 Features

- One of the first dedicated handhelds with Masimo SET technology, clinically proven to read-through motion, provide the highest sensitivity, specificity, fidelity and reliability of any pulse oximeter technology available*
- Designed for hospital and home use; continuous or spot check applications
- User configurable power up default settings⁶
- Displays modes, alarm limits, sensitivity and averaging time at power on
- Four AA alkaline batteries deliver up to 48 hours of continuous use
- New Sleep Mode so clinicians can disable audio tones and LEDs⁷
- Up to 72 hours of trending memory
- Perfusion Index (PI) indicates arterial pulse signal strength and may be used as a diagnostic tool during low perfusion**
- Signal IQ (SIQ) bar for signal identification and quality indication during motion and low signal to noise situations
- FastSat[®] tracks rapid changes in arterial O₂ with unmatched fidelity
- FastStart allows for rapid measurement from the time the instrument is first turned on
- SmartTone[™] beeps in sync with pulse, even under patient motion conditions
- Sensitivity options: APOD, Normal, and MAX

performance

measurement range	
SpO ₂ :	1 - 100%
Pulse Rate:	25 - 240 (bpm)
Perfusion:	0.02% - 20%

saturation accuracy

Saturation:	70% to 100%
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No Motion

Adults, Pediatrics:	±2 digits
Neonates:	±3 digits

Motion¹

Adults, Pediatrics:	±3 digits
Neonates:	±3 digits

Low Perfusion²

Adults, Pediatrics:	±2 digits
Neonates:	±3 digits

pulse rate accuracy

Pulse Rate:	25 - 240 bpm
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No Motion

Adults, Pediatrics, Neonates:	±3 digits
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Motion

Adults, Pediatrics, Neonates:	±5 digits
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Low Perfusion

Adults, Pediatrics, Neonates:	±3 digits
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resolution

Saturation (%SpO ₂):	1%
Pulse Rate (bpm):	1 bpm

electrical

batteries

Type:	4 AA Alkaline
Capacity:	up to 48 hours ³

environmental

Operating Temperature:	41°F to 104°F (5°C to 40°C)
Storage Temperature:	-40°F to 158°F (-40°C to 70°C)
Operating Humidity:	5% to 95%, non-condensing
Operating Altitude:	500 mbar to 1060 mbar pressure

physical characteristics

dimensions

Handheld:	15.8 cm x 7.6 cm x 3.6 cm
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weight

Handheld:	13 oz (.317 kg)
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trending

Provides up to 72 hours of trending at 2 second resolution. Output to PC running Masimo TrendCom[™] Utility

modes

Averaging mode:	2, 4, 8, 10, 12, 14 or 16 seconds
Sensitivity:	APOD, Normal and Max ⁴
FastSat ⁴	

alarms

	Audible and visual alarms for high and low saturation (SpO ₂ 1% to 100% and pulse rate 25 - 240 bpm)
	Sensor condition, system failure and low battery alarms

display/Indicators

Data display:	% SpO ₂ , pulse rate, perfusion index, FastSat, APOD, alarm status, Signal IQ
Type:	LED

compliance

EMC Compliance:	EN60601-1-2, Class B
Equipment Classification:	IEC 60601-1-1 / UL 2601-1
Degree of Protection:	Type BF-Applied part

References:

- * Hay WW, Rodden DJ, Collins SM, Melera DL, Hale KA, Fashaw LM, Reliability of conventional and new oximetry in neonatal patients. *Journal of Perinatology*. 2002; 22:360-366
- ** De Felice et al. The pulse oximeter perfusion index as a predictor for high illness severity in neonates. *Eur J Pediatr* 2002 ; 161 :561-562.

¹ Continuous rubbing and tapping motions at 2 to 4 Hz at an amplitude of 1 to 2 cm and continuous random frequency motion between 1 to 5 Hz at an amplitude of 2 to 3 cm

² Perfusion Index >0.02% and % Transmission > 5%

³ When using new, fully charged batteries

⁴ With FastSat the averaging time is dependent upon the input signal

⁵ FastSat automatically enabled in two and four second averaging modes

⁶ Sensitivity HIGH defaults to NORMAL

⁷ Excluding battery capacity and alarm silence indicators

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