

MASIMO Rad-57™

The world's first hand-held Pulse CO-Oximeter non-invasively measures carbon monoxide and methaemoglobin in the blood



All of the non-invasive rainbow measurements you need right in the palm of your hand, including oxygen saturation, pulse rate, and perfusion index in addition to carboxyhaemoglobin and methaemoglobin

Masimo Rad-57

TECHNOLOGY

- > Masimo Rainbow® SET technology analyses multiple wavelengths of light to accurately measure carboxyhaemoglobin (SpCO®) and methaemoglobin (SpMet®) levels in the blood non-invasively and continuously
- > Gold-standard Masimo SET® pulse oximetry is proven accurate in more than 100 independent and objective studies

CLINICAL BENEFITS

- > Helps clinicians reduce the risk of misdiagnosing unsuspected carbon monoxide poisoning
- > Assists clinicians in detecting potentially life-threatening acquired methaemoglobinemia
- > Accurate SpO₂ and pulse rate measurements during the most difficult clinical conditions, including during patient motion and conditions of low peripheral perfusion motion
- > Perfusion Index (PI) indicates arterial pulse signal strength and may be used by clinicians to help diagnose during low perfusion

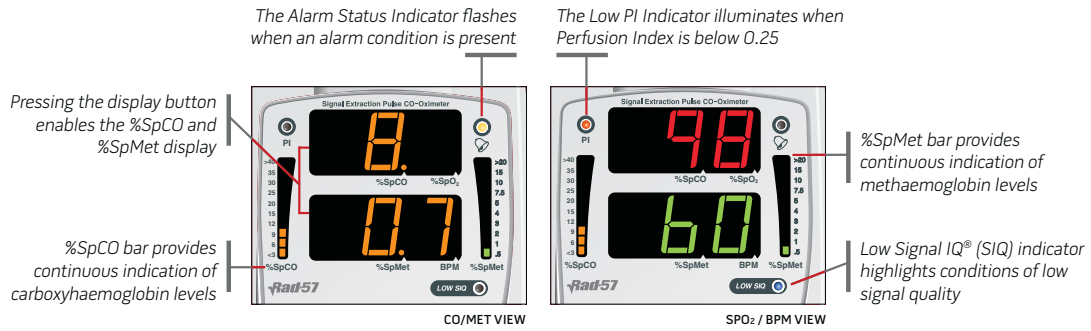
PRODUCT OVERVIEW

- > Quick and easy-to-use: requires no user calibration and does not require patient cooperation or consciousness
- > Complete replacement for existing pulse oximeters, plus continuous monitoring and spot check measurements of SpCO, SpMet, SpO₂, Pulse Rate, and Perfusion Index
- > Rugged and lightweight: ideal for field or hospital settings



Pictured is the Rad-57cm. Display features will vary based on the model.

SCREEN DISPLAYS



The Masimo Rad-57's easy-to-read screen provides at-a-glance patient status data.



FEATURES

- > User may programme default power-up settings
- > Delivers more than 8 hours of continuous monitoring of SpCO, SpMet, SpO₂, Pulse Rate, and Perfusion Index
- > FastSat® tracks rapid changes in arterial O₂ with unmatched fidelity
- > SmartTone™ beeps in sync with pulse, even under patient motion conditions
- > Up to 72 hours of trending memory of SpCO, SpMet, SpO₂, Pulse Rate, and Perfusion Index
- > Sensitivity options of APOD™, Normal and MAX provide flexibility to support a range of clinical applications



Protective boots are available in your choice of seven different colours.



RAINBOW® REUSABLE SENSOR OPTIONS



Rainbow® DCI-dc3
PN 2201



Rainbow® DCIP-dc3
PN 2069

- > Rainbow reusable sensors available in 3 ft. (.91 m). and 12 ft. (3.66 m). cable lengths
- > Red reusable sensors available in 3 ft. (.91 m). and 12 ft. (3.66 m). cable lengths
- > Masimo Rad-57 can also be used with Masimo LNOP® and LNCS® adhesive sensors

	SpO ₂	PR	PI	SpCO	SpMet
Rad-57c	●	●	●	●	
Rad-57m	●	●	●		●
Rad-57cm	●	●	●	●	●

PERFORMANCE

MEASUREMENT RANGE

SpO ₂1% - 100%
SpCO	0% - 99%
SpMet0% - 99.9%
Pulse Rate	25 - 240 (bpm)
Perfusion Index	0.02% - 20%

OXYGEN SATURATION ACCURACY (%SpO₂)

Saturation	70% to 100%
No Motion	
Adults, Paediatrics	±2 digits
Neonate	±3 digits
Motion ¹	
Adults, Paediatrics	±3 digits
Neonate	±3 digits
Low Perfusion ²	
Adults, Paediatrics	±2 digits
Neonate	±3 digits

CARBOXYHAEMOGLOBIN SATURATION ACCURACY (%SpCO)

SpCO®1% - 40% ±3 digits ³
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METHAEMOGLOBIN SATURATION ACCURACY (%SpMet)

SpMet®1% - 15% ±1 digits ³
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PULSE RATE ACCURACY

Pulse Rate	25 - 240 bpm
No Motion	
Adults, Paediatrics, Neonate	±3 digits
Motion ¹	
Adults, Paediatrics, Neonate	±5 digits
Low Perfusion ²	
Adults, Paediatrics, Neonate	±3 digits

RESOLUTION

Oxygen Saturation (%SpO ₂)1%
Pulse Rate (bpm)	1 bpm
Carboxyhaemoglobin Saturation (%SpCO)	
Numeric Display1%
Bar Display3, 6, 9, 12, 15, 20, 25, 30, 35, > 40%
Methaemoglobin Saturation (%SpMet)	
Numeric Display	0.1%
Bar Display	0.5, 1-5, 7.5, 10, 15 > 20%

SPECIFICATIONS

BATTERIES

Type4 AA Alkaline
Capacity	over 8 hours ⁴

ENVIRONMENTAL

Operating Temperature	0°F to 129°F (-18°C to 54°C)
Storage Temperature	-40°F to 158°F (-40°C to +70°C)
Operating Humidity	5% to 95%, non-condensing
Operating Altitude500 mbar to 1060 mbar pressure, -1,000 ft to 18,000 ft (-304m to 5,486m)

Effective battery life will be reduced when operating the instrument below 5 degrees Fahrenheit due to alkaline battery technology.

DIMENSIONS

Handheld	6.2" x 3.0" x 1.4" (15.8 cm x 7.6 cm x 3.6 cm)
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WEIGHT

Handheld	13 oz (.37 kg)
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TRENDING

Provides 72 hours of trending at 2 second resolution of SpO₂, SpCO, SpMet, pulse rate, and perfusion index. Output to PC running Masimo TrendCom™ Utility.

SPO₂ MODES

Averaging mode ⁵	2, 4, 8, 10, 12, 14 or 16 seconds
Sensitivity	APOD, Normal and Max
FastSat ⁶	On / Off

ALARMS

Audible and visual alarms for high and low saturation (SpO₂ 1% to 100%, SpCO 5% - 40%, SpMet 0.5% to 30%, and pulse rate 25 - 240 bpm) Sensor condition, system failure and low battery alarms

DISPLAY/INDICATORS

Data Display	%SpO ₂ , %SpCO, %SpMet, SpCO bar, SpMet bar, pulse rate, perfusion index, low Signal IQ alarm status, alarm silence and battery life
Type	LED

COMPLIANCE

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

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 Accuracy has been validated on healthy adult volunteers against a laboratory co-oximeter. | ⁴ When using new, fully charged batteries. | ⁵ With FastSat the averaging time is dependent upon the input signal. | ⁶ Automatically enabled in 2 and 4 second averaging modes.