MASIMO
Rad-57™

The world's most versatile handheld oximeter,
featuring fully upgradable rainbow technology

Get gold-standard Masimo SET® oxygen saturation, pulse rate,
and perfusion index now— and upgrade later to total hemoglobin,
oxygen content, carboxyhemoglobin, methemoglobin, and PVI

Masimo
> # Rad-57™

> Technology

> More than 100 independent and objective studies demonstrate Masimo SET provides the most reliable SpO2 and pulse rate measurements even under the most challenging clinical conditions, including patient motion and low peripheral perfusion.

> Masimo Rainbow® SET technology analyzes multiple wavelengths of light to accurately measure total hemoglobin (SpHb™), oxygen content (SpOC®), carboxyhemoglobin (SpCO™), methemoglobin (SpMet®), and PVI® noninvasively and continuously.
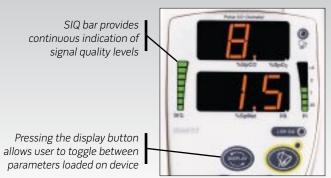
> Clinical Benefits

> **Masimo SET pulse oximetry -** Virtually eliminates false alarms without missing true clinical events.

> **Upgradeable Rainbow SET Pulse CO-Oximetry -** Compared to traditional invasive measurements, noninvasive and immediate measurements may allow clinicians to provide faster diagnosis, initiate treatment earlier, and improve efficiency.

> **Total Hemoglobin (SpHb) -** Detect chronic or acute anemia, identify hemorrhaging earlier, aid in optimal transfusion management.

> **Oxygen Content (SpOC) -** By calculating hemoglobin and oxygen saturation, SpOC provides a more complete picture of your patients' oxygenation status.

> **Carboxyhemoglobin (SpCO) -** Detect carbon monoxide (CO) poisoning.

> **Methemoglobin (SpMet) -** Identify methemoglobinemia, a dangerous and deadly reaction caused by many drugs routinely administered in the hospital.

> **PVI -** Predict fluid responsiveness, aid fluid management.

Pictured is the Rad-57 in SpO2 mode. Display features will vary based on the noninvasive measurements loaded onto the device.

> Screen Displays

SIQ bar provides continuous indication of signal quality levels

The Alarm Status Indicator flashes when an alarm condition is present

PI bar provides continuous indication of perfusion index

Pressing the display button allows user to toggle between parameters loaded on device

Low Signal IQ® (SIQ) Indicator highlights conditions of low signal quality

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

> Product Overview

> Quick and easy-to-use— requires no user calibration and does not require patient cooperation or consciousness.

> Complete replacement for existing handheld pulse oximeters, with factory-ordered options or simple field-installed software upgrades to continuous monitoring and spot check measurements of SpHb, SpOC, SpCO, SpMet, and PVI.

> Rugged and lightweight— ideal for field or hospital settings.

> Awarded Airworthiness Release Certification by the United States Army.

> Features

> User may program default power-up settings.

> Delivers more than 10 hours of continuous battery life.

> Up to 72 hours of trending memory.

> FastSat® tracks rapid changes in arterial O2 with unmatched fidelity.

> SmartTone™ beeps in sync with pulse, even under patient motion conditions.

> 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 colors.

> Reusable Sensor Options

Adult

Rainbow DCI-dc3 | PN 2201
RED DCI-dc3 | PN 2053

Pediatric

Rainbow DCIP-dc3 | PN 2069
RED DCIP-dc3 | PN 2256

> Rainbow® reusable sensors available in 3 ft., 8 ft., and 12 ft. cable lengths.

> Red reusable sensors available in 3 ft. and 12 ft. cable lengths.

> Masimo Rad-57 can also be used with Masimo LNOP® and LNCS® adhesive sensors.

> Rainbow sensors must be used when reading SpHb, SpCO, and SpMet. Red sensors can be used for SpO2, PR, and PI only.

> **Rad-57** Comes standard with Oxygen Saturation (SpO2), Pulse Rate, and Perfusion Index | PN9188

Available Upgrades	PN
Hemoglobin (SpHb) and Oxygen Content (SpOC)	2630
Carboxyhemoglobin (SpCO)	2296
Methemoglobin (SpMet)	2297
Measure of Fluid Responsiveness (PVI)	2313

> PERFORMANCE

MEASUREMENT RANGE

SpO2 . . . . 0% - 100%
SpCO . . . . 0% - 99%
SpHb* . . . . 0 - 25 g/dL
SpOC* . . . . .0 - 35 mL of O2/dL of blood
SpMet . . . . .0% - 99.9%
Pulse Rate . . . . 25 - 240 (bpm)
Perfusion Index. . . . . 0.02% - 20%

ARTERIAL OXYGEN SATURATION ACCURACY

Saturation . . . . .60% to 80%
No Motion
  Adults, Infants, Pediatrics . . . . ±3%
Saturation . . . . .70% to 100%
No Motion
  Adults, Infants, Pediatrics . . . . ±2%
  Neonate . . . . ±3%
Motion
  Adults, Infants, Pediatrics, Neonates. . . . . ±3%
Low Perfusion
  Adults, Infants, Pediatrics, Neonates. . . . . ±2%

TOTAL HEMOGLOBIN SATURATION ACCURACY* (%SpHb g/dL)

SpHb . . . . .8 - 17 g/dL ±1 g/dL

CARBOXYHEMOGLOBIN SATURATION ACCURACY (%SpCO)

SpCO . . . . .1% - 40% ±3%

METHEMOGLOBIN SATURATION ACCURACY (%SpMet)

SpMet . . . . .1% - 15% ±1%

PULSE RATE ACCURACY

Pulse Rate . . . . 25 - 240 bpm
No Motion
  Adults, Infants, Pediatrics, Neonate. . . . .±3 bpm
Motion
  Adults, Infants, Pediatrics, Neonate. . . . .±5 bpm
Low Perfusion
  Adults, Infants, Pediatrics, Neonate. . . . .±3 bpm

RESOLUTION

Oxygen Saturation (%SpO2) 1%
Pulse Rate (bpm) . . . . 1 bpm
Carboxyhemoglobin Saturation (%SpCO)
Numeric Display 1%
Total Hemoglobin Saturation (%SpHb)
Numeric Display . . . . .0.1 g/dL
Methemoglobin Saturation (%SpMet)
Numeric Display 0.1%

> SPECIFICATIONS

BATTERIES

Type . . . . .4 AA Alkaline
Capacity . . . . .up to 10 hours

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 Altitude . . . . .500 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)

WEIGHT

Handheld . . . . 13 oz (.37 kg)

TRENDING

Provides 72 hours of trending at 2-second resolution of SpO2, SpCO, SpHb, SpMet, Pulse Rate, Perfusion Index, and PVI. Output to PC running Masimo TrendCom™ Utility.

SpO2 MODES

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

ALARMS

Audible and visual alarms for high and low saturation and pulse rate (SpO2 1% to 99%, SpHb 1 g/dL - 24.5 g/dL, SpCO 1% - 98%, SpMet 1% to 99.5%, PI 0.03% - 19%, PVI 1% - 99%, and pulse rate 30 - 235 bpm)

DISPLAY/INDICATORS

Data Display. . . . . %SpO2, SpHb g/dL, SpOC mL/dL, %SpMet,
  SIQ bar, PI bar, Pulse Rate, Perfusion Index, Patient Volume Index,
  low Signal IQ, alarm status, alarm silenced status, and battery status.
Type . . . . .LED

COMPLIANCE

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

* Pending FDA Clearance

Masimo Americas
tel 1-877-4-Masimo
info-america@masimo.com

Masimo International
tel +41-32-720-1111
info-international@masimo.com

Masimo®
Closer to the Heart™

7373-3571H-0909