

# Root<sup>®</sup> with Noninvasive Blood Pressure and Temperature

Expandable, Versatile, and Customizable Patient Monitoring and Connectivity Hub



THE ROOT OF PATIENT CARE



# Patient Monitoring and Connectivity Platform with Noninvasive Blood Pressure and Temperature

Streamline clinician workflows with Root, a versatile patient monitoring and connectivity platform. Root integrates noninvasive technologies usually found on multiple separate devices into one comprehensive, powerful vital signs monitor.

## Noninvasive Blood Pressure and Temperature (NIBPT) Measurement



### NIBP Modes

Adaptable to various workflows, with three NIBP measurement modes:

- > **Automatic Interval** — Root can measure blood pressure automatically at fixed or varying intervals to facilitate routine spot-checks
- > **Stat Interval** — Root can automatically take consecutive blood pressure measurements for up to 10 minutes to aid in critical cases
- > **Spot-check** — On-demand blood pressure measurement

### Temperature

Adaptable to various workflows, with two optional temperature measurement types:

- > Integrated oral/axillary temperature module to fit various workflows and use cases
  - Spot-check and continuous modes
  - Multi-site application
- > Optional wireless thermometer reduces risk of patient cross-contamination
  - Non-contact infrared measurement
  - Bluetooth connectivity to Root

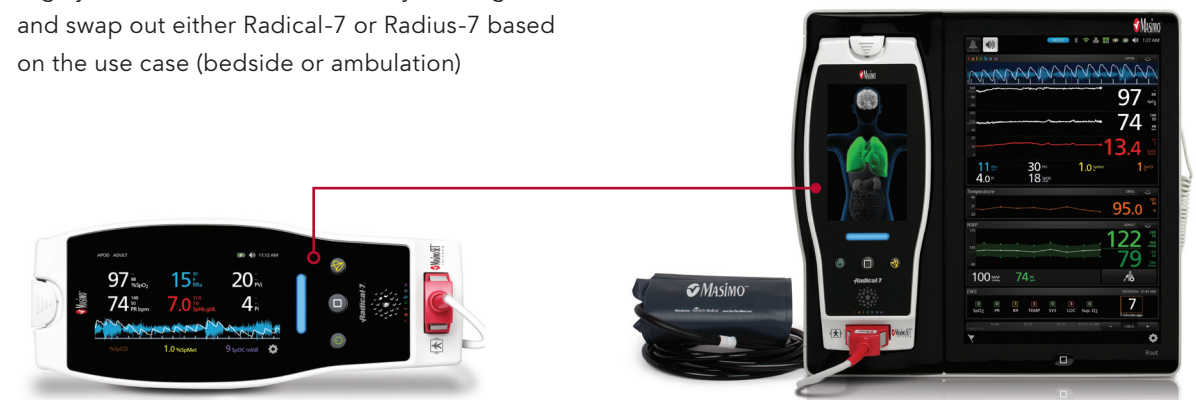
## Integrated Monitoring

Root offers multiple high-impact innovations, such as Masimo SET® Measure-through Motion\* and Low Perfusion™ pulse oximetry, upgradeable rainbow SET® measurements, and rainbow Acoustic Monitoring®, for broad application across the continuum of care.

- > Instantly interpretable, high-visibility display of Masimo's breakthrough rainbow® and SET® measurements from Masimo's Radical-7 handheld monitor and Radius-7 wearable monitor
- > Intuitive, touchscreen navigation for easy and adaptable use in any hospital environment
- > Highly customizable, with the ability to integrate and swap out either Radical-7 or Radius-7 based on the use case (bedside or ambulation)



Radius-7® Wearable Patient Monitor



Radical-7® Handheld Monitor

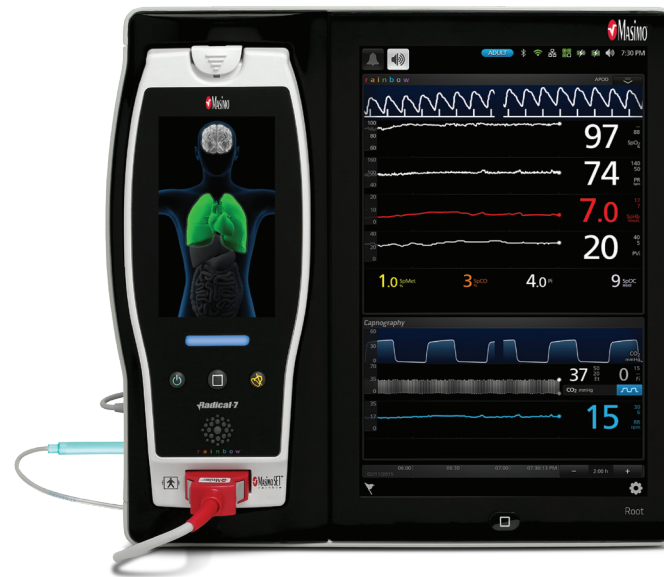
\* Masimo SET® Measure-through Motion technology includes SpO2 and PR.



## Expanded Monitoring

### Masimo Open Connect® (MOC-9®)

- > MOC-9 modules expand Root's monitoring capabilities with additional Masimo and third-party measurement technologies, allowing clinicians to connect the most applicable monitoring solutions.



Root with NomoLine® Capnography provides sidestream CO<sub>2</sub> and multi-gas monitoring with moisture removal technology.



### Other Available MOC-9 Modules



Root with Next Generation SedLine® Brain Function Monitoring utilizes four simultaneous channels of EEG data to provide continuous information about the state of the brain under anesthesia.



Root with O3® Regional Oximetry uses near-infrared spectroscopy (NIRS) to enable monitoring of tissue oxygen saturation (rSO<sub>2</sub>) in the region of interest, such as the brain.

## Connected Monitoring

### Advanced Connectivity with the Masimo Hospital Automation™ Platform



#### Bedside Device Monitoring

- > Connect third-party devices to Root using Iris® ports
- > Automatically and continuously transfer device data, waveforms, and alarms to Patient SafetyNet™\* or Iris Gateway
- > Display near real-time data from Root and connected third-party devices on Patient SafetyNet's central view station



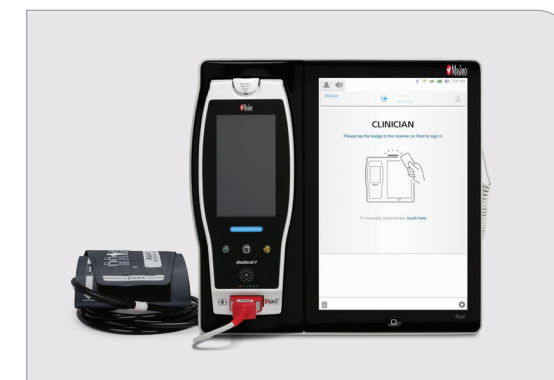
#### EMR Integrated Monitoring

- > Optimize care provider workflows by automatically charting data from Root and connected third-party devices in the patient's electronic medical record (EMR)



#### Remote Monitoring and Alarm Notification

- > With Replica™, send patient bedside device data and alarm notifications directly to available clinicians, with automatic escalation, helping facilitate quick patient assistance



#### Authorized User Access

- > In conjunction with Imprivata®, clinicians can seamlessly and securely log in on Root with their Imprivata credentials at the patient's bedside to review and validate pertinent patient data

\*The use of the trademark PATIENT SAFETYNET is under license from University HealthSystem Consortium.

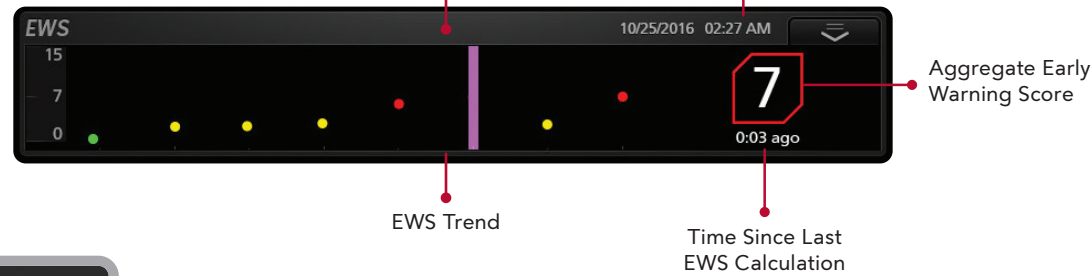
## Tailored Monitoring

### Configurable Early Warning Scores (EWS)

Root automates the calculation of EWS. EWS systems help clinicians by providing standardized scores to aid them in evaluating the degree of deterioration (or improvement) in a patient's status. By automating the calculation, which is based on Root-measured physiological contributors, clinician-entered data, and each care area's or institution's EWS protocol, Root facilitates efficient clinical workflows, so that clinicians can spend more time with patients, not performing manual calculations.

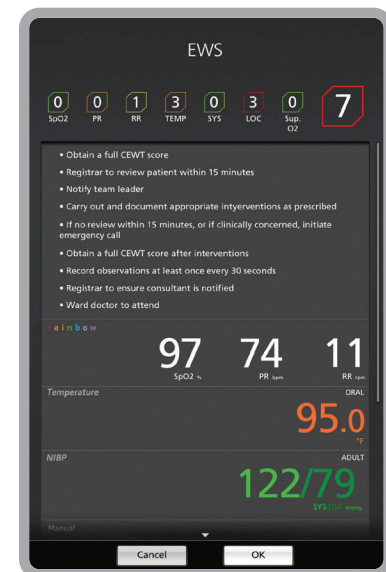


Spot-check Calculation with Time/Date Stamp



EWS Trend

Time Since Last EWS Calculation



- > EWS protocol configurations can be customized based on hospitals' determination of up to 14 contributors and their relative scoring weights.
- > EWS is initiated by the clinician and automatically calculated, with the option to display configurable score-specific prompts, as determined by hospital guidelines, to guide patient management.
- > EWS trends are available on Root, allowing clinicians to quickly visualize changes in patient status over time.
- > EWS on Root supports protocols with dynamic individual contributor scoring scales based on patient demographics or clinician data entry.

### EMR Push

Combining Continuous and Spot-Check Workflows

- > EMR Push gives clinicians the ability to transfer spot-check measurements, observations, and EWS from the patient bedside into EMRs on demand, helping to build more comprehensive records.
- > EMR Push can be initiated without interrupting continuous monitoring mode.
- > Enhance workflow efficiency by having all data gathered at a single point of entry, with the ability to include up to 30 manual-entry values.



### Patient Orientation and Activity Monitoring

- > Centroid™ is a wearable, wireless sensor that pairs via Bluetooth with Root to track a patient's posture, orientation, and activity.
- > Centroid provides the ability to detect changes in patient position and can alert clinicians to sudden movements, such as fall-like events.
- > Centroid provides continuous respiratory rate (RR), providing clinicians with more data to better inform care.
- > Centroid is indicated for the orientation monitoring of patients who may be susceptible to pressure ulcers.



# Vital Signs Check



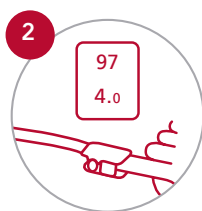
## Vital Signs Workflow

- > Seamless transition from continuous to vital signs check mode
- > Vital signs check mode automates data collection and charting

## Vital Signs Workflow



ADT barcode scanning for patients and clinicians



Collect and review measurements



Send to EMR



## Root with Noninvasive Blood Pressure and Temperature Specifications

### PRESSURE TRANSDUCER ACCURACY

#### NIBP (Pressure Transducer)

Between 0 mmHg and 300 mmHg ..... ±3 mmHg

#### Temperature

Between 80° F and 110° F (26.7° C and 43.3° C) ..... ±0.2° F (0.11° C)

### DISPLAY RANGES

#### NIBP (Adult, Pediatric, Neonatal)

Systolic ..... 40–260 mmHg, 40–230 mmHg, 40–130 mmHg

Diastolic ..... 20–200 mmHg, 20–160 mmHg, 20–100 mmHg

MAP ..... 26–220 mmHg, 26–183 mmHg, 26–110 mmHg

#### Temperature

Temperature ..... 80–110° F (26.7–43.3° C)

### ELECTRICAL

#### Root

AC Power Requirements ..... 100–240 VAC, 47–63 Hz

Power Consumption ..... 180 VA (Max)

Fuses Each with ..... 2 Amp, Time-delay High Breaking Capacity, Metric, (5x20 mm), 250 V

#### Battery

Type ..... 10.8 V Lithium Ion (Nominal)

Capacity ..... 4 Hours<sup>§</sup>

Maximum Charging Time ..... 4 Hours

### ENVIRONMENTAL

Operating Temperature ..... 5–104° F (10–40° C)

Transport/Storage Temperature ..... 4–122° F (-20–50° C)

Operating Humidity ..... 15–95%, Non-condensing

Storage Humidity ..... 15–95%, Non-condensing

Operating Altitude ..... 500–1060 mbar

..... -1,000–18,000 ft

..... (-304–5486 m)

### PHYSICAL CHARACTERISTICS

Weight ..... 7.42 lbs (3.37 kg)

Dimension ..... 11 in x 10.5 in x 5.5 in (27.94 cm x 26.67 cm x 13.97 cm)

### Display

Type ..... Backlit Active Matrix TFT LCD

Resolution ..... 1280 pixels x 800 pixels

Color ..... 24-bit RGB

Size ..... 10.1 in (25.65 cm) Diagonal

### Touchscreen

Type ..... Multi-Touch P-Cap

### CONNECTIONS

#### Connector

Ethernet ..... 10/100 MBps (1)

Nurse Call ..... 1/4 -in Round Female (1)

MOC-9 ..... Masimo Connector (3)

Iris ..... RS-232/RJ-45 (4)

USB ..... USB 2.0 (2)

NIBP ..... Male Quick Connect (1)

Temperature ..... MOLEX 52271-0690 (1)

#### Type (Number of Ports)

<sup>§</sup> This represents approximate run time at the lowest brightness, using a fully charged battery.

Caution: Federal (USA) law restricts this device to sale by or on the order of a physician. See instructions for use for full prescribing information, including indications, contraindications, warnings, and precautions.

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