

# CARESCAPE VC150

## Vital signs monitor

Clinical excellence, mobile charting,  
seamless connectivity.

The CARESCAPE™ VC150 vital signs monitor offers fast, accurate clinical measurements and seamless EMR connectivity that enables nurses to focus on taking care of their patients while easily documenting the patient information.



## Features

- Configurable monitor that can be used for spot-checking or for continuous monitoring, providing you the flexibility of two devices in one
- Designed for adult, pediatric and neonatal use, including patients with low perfusion rates
- Includes the same algorithms for NIBP and SpO<sub>2</sub> as other higher acuity GE monitors, helping ensure measurement consistency across all care areas
- Noninvasive blood pressure measurement uses GE's exceptional DINAMAP™ technology
- Allows for inflation setpoints, so you can be sensitive to patients' special circumstances and ensure their comfort
- Three choices for pulse oximetry include TruSignal™; Nellcor™ OxiMax™ or Masimo rainbow SET,® displayed also as a waveform
- Two options for temperature include Exergen® TemporalScanner™ and Welch Allyn® SureTemp®
- Touch screen display
- Configurable Early Warning Score platform supporting typical clinical scoring systems like MEWS or NEWS protocols defined by the clinical facility
- Connectivity to any HIS system through the HL7® interface engine, or direct to certain IHE-compliant systems
- Connectivity to Cerner™ Millenium™ EMR via CareAware™ VitalsLink™ with help of an iBus™ protocol. The integration is native to the CARESCAPE VC150 monitor
- Communicates through your enterprise wireless network, with low bandwidth usage
- Typical battery life of up to 10.5 hours before requiring recharge. If the battery is discharged, patient data is not lost
- Ability to use a barcode scanner during the positive patient identification process and to identify the caregiver
- Ability to add additional information into patient record for EMR transmission such as pain score, medication or respiration rate with help of custom fields.
- The monitor can store up to 3000 snapshot entries
- Ability to generate PDFs of patient records and transfer them to PC via a USB connection
- Designed for easy serviceability with simple field replacement kits
- Ability to copy the configuration of a monitor to other CARESCAPE VC150 monitors via a PC and USB connection or via WiFi

## Technical specifications

Screen	Resistive touchscreen display (8.4in)
Portability	Carried by a handle or on a roll stand. Mounting solution also available.
<b>Printer</b>	
Printer type	Thermal dot array
Resolution	384 dots/inch horizontal
Paper type	Thermal printer paper, roll, 57 mm (2.25 in) wide
Languages available	English, Danish, Dutch, Finnish, French, German, Italian, Norwegian, Portugese, Spanish and Swedish
Operating system	Linux
WiFi connection standards:	802.11 a/b/g/n
Capable of communicating on	2.4 GHz and 5 GHz bands.
Encryption methods:	WEP, WPA-PSK, WPA-EAP, WPA Custom

### Temperature options

Exergen TemporalScanner temporal artery thermometer or Welch Allyn SureTemp thermometer

### SpO<sub>2</sub> options

Available either with GE TruSignal, Masimo rainbow SET or Nellcor OxiMax oximetry technologies

### Barcode reader

Support for optional medical grade barcode reader via USB.

## Performance specifications

### Alarms

Alarms are provided for all physiological parameters except temperature. The monitor does not alarm in a spot check operating mode.

In the monitoring mode, there are three alarm priorities: high, medium and low and notifications for technical notes.

### TruSignal SpO<sub>2</sub> specifications

#### Measurement range

SpO <sub>2</sub>	0 to 100%
Pulse rate	30 to 300 bpm
Perfusion index	0 to 32

#### Accuracy<sup>1</sup>

Adult	70 to 100% ±2 digits (without motion)
Neonate	70 to 100% ±3 digits (without motion)
Adult/Neonate	70 to 100% ±3 digits (during clinical motion)
Low perfusion	70 to 100% ±2 digits

#### Accuracy<sup>2</sup>

Adult/Neonate	30 to 250 bpm: ±2 digits (without motion)
	30 to 250 bpm: ±5 digits (during motion)
Low perfusion	30 to 250 bpm ±3 digits

**NOTE:** Accuracy may vary for some sensors; always check the instructions for the sensor.

### Masimo rainbow SET<sup>®</sup> specifications<sup>3</sup>

#### Measurement range

SpO <sub>2</sub>	0 to 100%
Pulse rate	25 to 240 bpm
Perfusion index	0.02 to 20%

#### Accuracy and motion tolerance

Without motion adult/ped/infant	70 to 100% ±2 digits
Without motion neonate	70 to 100% ±3 digits
With motion adult/ped/infant/neonate	70 to 100% ±3 digits
Low perfusion adult/ped/infant/neonate	70 to 100% ±2 digits 0 to 69% unspecified

#### Accuracy and motion tolerance

Without motion adult/ped/infant/neonate	25 to 240 bpm ±3 digits
With motion adult/ped/infant/neonate	25 to 240 bpm ±5 digits
Low perfusion adult/ped/infant/neonate	25 to 240 bpm ±3 digits

Monitors equipped with Masimo rainbow SET<sup>®</sup> SpO<sub>2</sub> technology include Desat Index 3D Alarm, PI Delta 3D Alarm, and Rapid Desat Alarm.

(1) Accuracy, A<sub>rms</sub> (root mean square or paired values; previously represented by +/- 1 SD)

(2) TruSignal technology with OxyTip+/TruSignal sensors have been validated for pulse rate accuracy over the specified range in bench top testing against a patient simulator. Accuracy was calculated as the root-mean-square (rms) difference between paired pulse rate data recorded with the pulse oximeter equipment and with the patient simulator.

(3) SpO<sub>2</sub>, SpCO, and SpMet accuracy has been validated on healthy adult male and female volunteers with light to dark skin pigmentations in the range of 60%-100% SpO<sub>2</sub>, 0%-40% SpCO, and 0%-15% SpMet against a laboratory CO-Oximeter. SpHb accuracy has been validated on healthy adult male and female volunteers and on surgical patients with light to dark skin pigmentations in the range of 8 g/dL to 17 g/dL SpHb against a laboratory CO-Oximeter. The SpCO, SpMet and SpHb have not been validated with motion or low perfusion. Pulse Rate accuracy has been validated in the range of 25-240 bpm in bench top testing against a Biotek Index2 simulator. Respiration rate accuracy has been validated for the range of 4 to 70 breaths per minute in bench top testing. Clinical validation for up to 30 breaths per minute was also performed with the Masimo Acoustic Respiration sensor and instrument. The variation in accuracy specifications equals plus or minus 1 standard deviation which encompasses 68% of the population. Contact Masimo for testing specifications.

## Performance specifications *(Continued)*

### Licensable options:

#### *Masimo rainbow SET® parameters measurement range*

SpCO	0 to 99%
SpMet	0 to 99.9%
SpHb	0 to 25 g/dL
RRa	0 to 70 breaths/min
SpOC	0 to 35 ml of O <sub>2</sub> /dL of blood

#### *Masimo rainbow SET® parameters accuracy*

SpCO	1 to 40% ±3% adult/ped/infant
SpMet	1 to 15% ±1% adult/ped/infant/neonate
SpHb	8 to 17 ±1 g/dL (arterial or venous) adult/ped
RRa	4 to 70 ±1 breath per minute adult/ped 2 years of age and >10 kg

### Nellcor™ OxiMax™ specifications<sup>4</sup>

#### *Measurement range*

SpO <sub>2</sub>	1 to 100%
Pulse rate	20 to 300 bpm
Perfusion range	0.03 to 20%

#### *Pulse rate accuracy*

Normal range	20 to 250 bpm ±3 digits
Low perfusion <sup>5</sup>	20 to 250 bpm ±3 digits

### Oxygen Saturation Accuracy

Sensor Model Type	LoSAT Range 60% to 80%	Standard Range 70% to 100 %
MAX-A, MAX-AL	± 3.0 digits	± 2.0 digits
MAX-N (Adult and Neonatal)	± 3.0 digits	± 2.0 digits
MAX-P, MAX-I, Forehead SpO <sub>2</sub> Sensor	± 3.0 digits	± 2.0 digits
SpO <sub>2</sub> Non-adhesive, Adult, Neonatal, Premie	N/A	± 3.5 digits
MAX-R	N/A	± 2.0 digits
Low perfusion	N/A	± 2.0 digits

Monitors equipped with Nellcor SpO<sub>2</sub> technology include SatSeconds alarm management feature. Optionally Saturation Pattern Detection (SPD).

### NIBP specifications

Cuff pressure range	0 to 290 mmHg (adult/ped) (Normal operating range) 0 to 145 mmHg (neonate)
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#### *Blood pressure accuracy*

SuperSTAT algorithm	Mean error ≤5 mmHg, standard deviation ≤8 mmHg (Meets ANSI/AAMI Standard SP10:2002)
Auscultatory algorithm	Mean error ≤5 mmHg, standard deviation ≤8 mmHg (Meets ANSI/AAMI Standard SP10:2002)
Maximum	120 s (adult/ped) determination time 85 s (neonate)
Overpressure safety cutoff	300 to 330 mmHg (adult/ped) 150 to 165 mmHg (neonate)

#### *Blood pressure range*

SuperSTAT NIBP Algorithm	
Systolic	30 to 290 mmHg (adult/ped) 30 to 140 mmHg (neonate)
MAP	20 to 260 mmHg (adult/ped) 20 to 125 mmHg (neonate)
Diastolic	10 to 220 mmHg (adult/ped) 10 to 110 mmHg (neonate)

#### *Auscultatory algorithm*

Systolic	30 to 245 mmHg (adult/ped)
MAP	15 to 215 mmHg (adult/ped)
Diastolic	10 to 195 mmHg (adult/ped)

#### *Pulse rate range*

SuperSTAT algorithm	30 to 240 beats/min (adult/ped) 30 to 240 beats/min (neonate)
Auscultatory algorithm	30 to 200 beats/min (adult/ped)
Pulse rate accuracy	±3.5% or 3 bpm, whichever is greater

**NOTE:** To ensure accurate measurements, use only recommended blood pressure cuffs available from GE.

(4) Refer to CARESCAPE VC150 monitor Operator's Manual

(5) Specification applies to the N600x oximeter performance and OEM monitor performance from the Simulated Low Performance Saturation and Pulse Rate Accuracy Study using a pulse simulator.

## Power specifications

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Universal	P/N 2074082-001 power converter
AC input voltage	100 to 240VAC, 1.1A
DC output voltage	24VDC at 2A The AC mains power adapter contains a non-resettable and non-replaceable fuse
Protection against electrical shock	Internally powered or Class I when powered from specified external power supply
DC input voltage	24 VDC, supplied from a source conforming to IEC 60601-1
Fuses	The monitor contains two T3.5A replaceable fuses on the mother board (F3) and USB board (F1). The battery packet contains overcurrent and temperature protection. The fuses protect the low voltage DC input and the main battery

### Battery

Type	Lithium-ion, 10.8V and 11.1V (two types), 5.2 Ah
Battery life	Up to 8 hours with NIBP every 5 minutes and SpO <sub>2</sub> , temperature and WiFi active Up to 10.5 hours with a usage scenario of: NIBP determinations every 15 minutes without SpO <sub>2</sub> , temperature, or WiFi active
Charge time	Approximately 4 hours from full discharge when the monitor is off Approximately 4 hours when the monitor is on

## Environmental specifications

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### Operating conditions

Temperature	5° to 40°C (41° to 104°F) without temperature sensors 10 to 40° C (50 to 104°F) with Welch Allyn temperature sensor 16 to 40° C (61 to 104° F) with Exergen temperature sensor
Atmospheric pressure	700 to 1060 hPa

### Storage conditions

Storage temperature	-20° to 50°C (-4° to 122°F)
Atmospheric pressure	500 to 1060 hPa
Humidity range	5 to 95% noncondensing
Radio frequency	Complies with IEC 60601-1-2. Medical Electrical Equipment, Electromagnetic Compatibility Requirements and Tests and CISPR 11 (Class B, Group 1) for radiated and conducted emissions

## Physical specifications

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Dimensions (H x W x D)	24.7 x 24.2 x 13.6 cm (9.75 x 9.5 x 5.3 in) 24.7 x 29.2 x 13.6 cm (9.75 x 11.5 x 5.3 in) with Welch Allyn temperature option
Weight	2.8 kg (6.2 lb) including battery
Mounting options	Self-supporting on rubber feet. Optional roll stand or wall mount

### Roll stand (optional)

Height to mounting platform	101 cm (40 in) from floor to lowest position 144 cm (45 in) from floor to highest position
Base diameter	53.3 cm (21 in) 5 - 7.1 cm (2.8 in) casters – 3 locking
Weight (without accessories)	8.0 kg (17.5 lbs) Capability to lock wheels

### Accessories (H x W x D)

Accessory bin	10.2 x 33.3 x 22.4 cm (4.0 x 13.1 x 8.8 in)
Surface tray	3.0 x 30.0 x 5.5 cm (1.2 x 11.8 x 2.2 in)
Rear canister bin	10.7 x 13.5 x 13.0 cm (4.2 x 5.3 x 5.1 in)



## Early Warning Score

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### EWS systems supported:

Any typical EWS scoring systems supported such as MEWS and NEWS. Customizable configuration with help of a web based configuration tool.

Up to three different EWS protocol profiles supported on the same patient monitor.

Facility can define their EWS protocol to include:

- Measured parameters (NIBP, SpO<sub>2</sub>, Temp or Pulse Rate)
- Customizable manual parameters/entries (numerical or selection list)
- Subscore scales 0-2, 0-3 or 0-4 are supported
- Total up to 10 parameters
- Up to 8 trigger levels for clinical responses
- Each trigger level can include textual clinical action and color coding
- Support for single parameter triggering to a specified threshold level

### EWS user interface

Total EWS score is on the main screen with color coding. Clinical response and individual parameter scores with colors are on a dedicated window.

EWS value and the used scoring system name is sent to the EMR.

## Imagination at work



Manufacturer:

Innokas Yhtymä Oy  
Vihikari 10  
FI-90440 Kempele  
Finland



CE0598

Product may not be available in all countries and regions. Full product technical specification is available upon request. Contact a GE Healthcare Representative for more information. Please visit [www.gehealthcare.com/promotional-locations](http://www.gehealthcare.com/promotional-locations).

Data subject to change.

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