

# GZ-140

## Ambulatory Vital Signs ECG, respiration rate, pulse oximetry, iNIBP\*



Actual Size



### SMART

- Runs over shared or dedicated Wi-Fi networks, or independently in local monitoring mode
- Maintains a comprehensive patient record with up to 15-minute data backfill in the event of wireless coverage loss
- Automatically switches to local monitoring mode during Wi-Fi coverage loss



### SAFE

- Premium as standard philosophy; all devices are fully featured, including arrhythmia analysis and full disclosure
- Helps detect falls and wandering with a proprietary algorithm
- Enables expansion of ambulatory monitoring throughout the hospital



### SECURE

- Complies with current wireless security protocols, including 802.1X and WPA2 Enterprise with AES encryption and EAP authentication
- Seamless integration with hospital enterprise system, with authorized access to data on the Nihon Kohden network
- Software upgrades and security updates included for the life of the equipment



\* Inflationary non-invasive blood pressure.

Quicker and more comfortable non-invasive blood pressure measurements compared to traditional deflation method.<sup>1</sup>



Wireless Patient  
Monitoring System



# Specifications

## GZ-140

### MEASURED PARAMETERS

<b>Waveforms:</b>	ECG (up to 8 vectors), respiration, SpO <sub>2</sub> pulse waveform
<b>Numeric Data:</b>	Heart rate, respiration rate, SpO <sub>2</sub> , pulse rate, NIBP

### DISPLAYED DATA

<b>Display Screen:</b>	3.2" TFT color LCD
<b>Waveforms:</b>	ECG, respiration curve, SpO <sub>2</sub> pulse waveform
<b>Numeric Data:</b>	Heart rate, VPC rate, ST level, respiration rate, SpO <sub>2</sub> , pulse rate, NIBP (Systolic (SYS), diastolic (DIA), mean (MAP))
<b>Status Information:</b>	Battery level, alarm suspended, pause monitoring, ECG lead, pacing detection, electrode status, SpO <sub>2</sub> status
<b>Review Data:*</b>	<b>Full Disclosure:</b> 1 hour, <b>Tabular Trend:</b> 1 hour, <b>NIBP Trend:</b> 100 items, <b>Arrhythmia Recall:</b> 720 files, <b>Alarm History:</b> 1000 events

\*The wearable vital sign telemeter can display review data saved on the telemeter and 24 hours of data (except PI) saved on the central monitor. The alarm history saved on the central monitor is not displayed on the wearable vital sign telemeter.

### ALARMS

<b>Alarm Items:</b>	Vital sign, arrhythmia, technical
<b>Alarm Levels:</b>	Crisis, warning, advisory
<b>Alarm Pause/Silence:</b>	1, 2, 3 min, selectable

### ECG MEASUREMENT

<b>Leads:</b>	I, II, III, AVR, AVL, AVF, 2 from V1-V6
<b>Input Range:</b>	≥ ±5 mV
<b>DC Offset Tolerance:</b>	≥ ±500 mV
<b>Input Impedance:</b>	≥ 5 MΩ (at 10 Hz), ≥ 2.5 MΩ (at 0.67 to 40 Hz)
<b>QRS Detection:</b>	Amplitude ≥ 0.5 mV
<b>HR Counting Range:</b>	0, 15 to 300 beats/min
<b>HR Counting Accuracy:</b>	± 2 beats/min

### RESPIRATION MEASUREMENT

<b>Measuring Method:</b>	Impedance method
<b>Measuring Lead:</b>	R-F
<b>Impedance Range:</b>	220 to 2,000Ω
<b>Counting Range:</b>	0 to 150 breaths/min
<b>Measuring Accuracy:</b>	± 2 beats/min

### SPO<sub>2</sub> MEASUREMENT

<b>Display Range:</b>	0 to 100%
<b>Declared Range:</b>	70 to 100%
<b>Accuracy:</b>	± 3% SpO <sub>2</sub> (70% SpO <sub>2</sub> ≤ SpO <sub>2</sub> < 80% SpO <sub>2</sub> ) ± 2% SpO <sub>2</sub> (80% SpO <sub>2</sub> ≤ SpO <sub>2</sub> ≤ 100% SpO <sub>2</sub> ) Less than 70% is not specified

### PULSE RATE MEASUREMENT

<b>Measuring Range:</b>	30 to 300 beats/min
<b>Accuracy:</b>	±3% ± 1 beat/min

### NIBP MEASUREMENT

<b>Measuring Method:</b>	Oscillometric
<b>Measuring Modes:</b>	Manual, STAT, periodic
<b>Intended Patient Type:</b>	Adult, Child
<b>Measuring Range:</b>	0 to 300 mmHg
<b>Measuring Accuracy:</b>	±3 mmHg
<b>Maximum Pressure:</b>	300 mmHg
<b>Cuff Time Limiter:</b>	≤ 160 s
<b>Displayed Items:</b>	Systolic, diastolic, mean

### TRANSMITTER

<b>FCC Regulation:</b>	FCC requirement 15.407(c)
<b>Wireless Communication:*</b>	IEEE 802.11 a/b/g/n, OKC *Requires wireless gateway
<b>Water Resistance:</b>	IPX1

### DIMENSIONS AND WEIGHT

<b>Dimension:</b>	5.4" W x 3.9" H x 1.7" D (excluding protruding parts)
<b>Weight:</b>	13.2 oz (excluding batteries)

### POWER REQUIREMENTS

<b>Battery Type:</b>	Three AA (R6) alkaline or NiMH batteries
<b>Operating Time:*</b>	<b>Monitor Mode OFF:</b> 24 hours for Alkaline and NiMH, <b>Monitor Mode ON:</b> 3 hours for Alkaline and 7 hours for NiMH

\*Operation time may vary depending on radio wave conditions, and is subject to change. Please see the operator's manual for a complete listing of the measurement conditions for the above specification.

### OPERATING ENVIRONMENT

<b>Temperature:</b>	+5 to +40°C (+41 to +104°F)
<b>Humidity:</b>	15 to 85% RH
<b>Atmospheric Pressure:</b>	70 to 106 kPa

**For more information**, please contact us at 1-800-325-0283 or visit [us.nihonkohden.com](http://us.nihonkohden.com)

<sup>1</sup>Onodera J, Kotake Y et al. Validation of inflationary non-invasive blood pressure monitoring in adult surgical patients. J Anesth. 2011; 25: 127-30.



Wireless Patient Monitoring System

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