Central Monitor

CNS-9601K

Intuitive, Reliable, Flexible

Central Monitoring System

Fighting Disease with Electronics

NIHON KOHDEN

Common complaints about typical central monitoring systems

☒ *Complicated operation*

☒ *Too many false alarms so staff can't rely on them*

☒ *Stored data can't be reviewed efficiently*

CNS-9601K

Shown with options

Nihon Kohden provides the solution

☑ ## *Intuitive operation*

Easy and fast. Just touch or click the parameter you want to change.

☑ ## *Reliable alarms*

You can reduce false alarms by reviewing alarm and measurement conditions on the alarm review screen.

☑ ## *Flexible review*

The nine different review screens are time synchronized with each other so you can easily review the same patient event in different ways.

✔ Intuitive operation

The typical central monitor is complicated to operate. Operations need many steps to change settings, so if you change a setting, it takes a lot of time.

Our CNS series is designed so it can be used without the operator's manual. With the intuitive operation, most functions can be done in just 3 steps so busy staff can spend their time on patient care.

1. *Touch or click* the data area for the patient

2. *Touch or click* the parameter

3. *Touch or click* a new setting

Touch screen operation

With a VL-974P 19-inch color LCD display, you can operate the monitor by touch screen. You can also use a local purchase display and operate the monitor by keyboard and mouse.
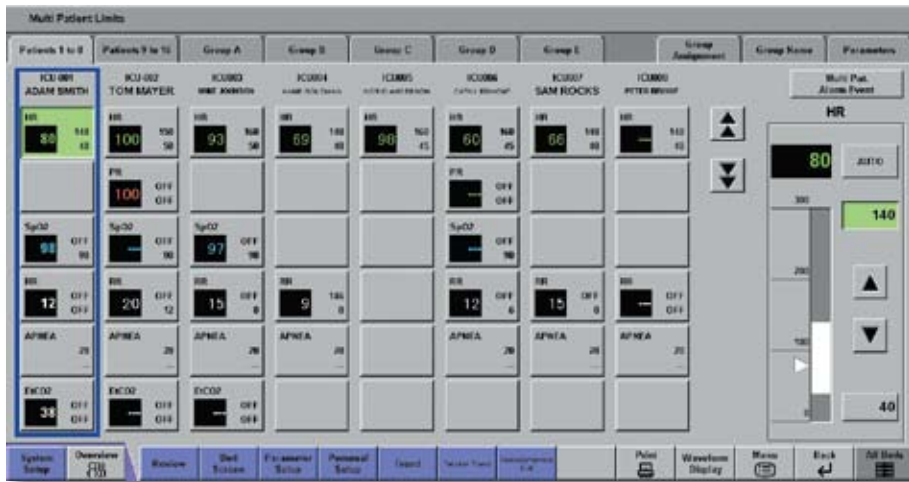
The bottom of the screen has 7 function keys.
Assign your most frequently used screens to the function keys for instant access.

Review	Bed Screen	Parameter Setup	Personal Setup	Setup	Multi Alarm Event	Multi Limit

Easy alarm setup

Multi patient limits screen

The multi patient limits screen helps you set alarms more efficiently. Alarm levels for up to 8 patients are shown on one screen so you can check and change alarm settings compared to other patients.

Flexible screen layouts for any number of patients

16 patients

1 wave

12 patients

2 waves

8 patients

1 wave

6 patients

2 waves

4 patients

3 waves
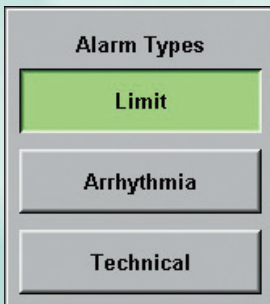

3 waves

4 waves

6 waves

☑ Reliable alarms

Typical central monitors cause too many false alarms so staff can't rely on them.
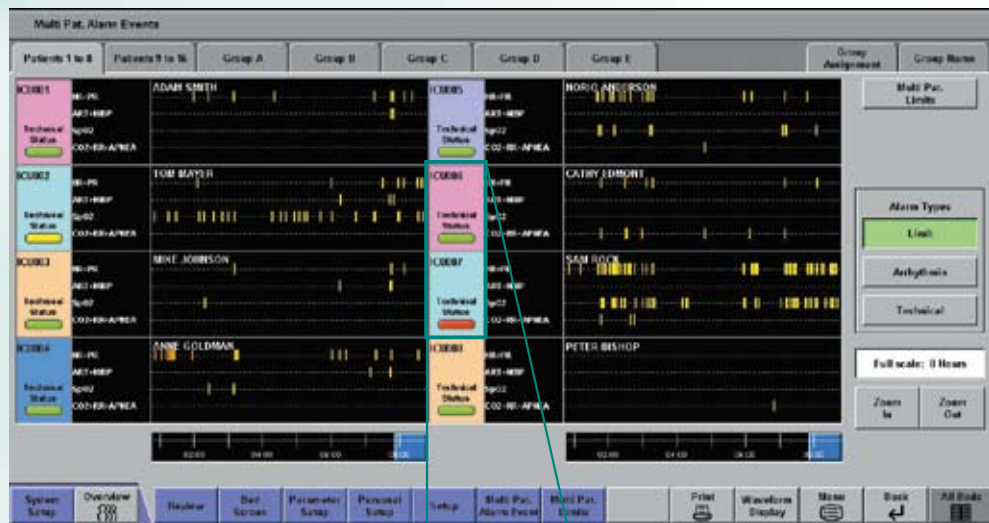Many false alarms are caused by technical alarms and unsuitable alarm settings.

In order to improve this, a new window was added to CNS-9601K: Multi Patient Alarm Event window. This can help reduce false alarms and provide high quality patient care.

Alarm type hide and display button

In the multi patient alarm event window, you can hide and display the alarm depending on the type of alarm.

- **Limit alarm**
  Vital signs alarms indicate the condition of each parameter.
- **Arrhythmia alarm**
  You can check the frequency of arrhythmias on one screen.
  This can show the effect of arrhythmia drugs.
- **Technical alarms**
  This can help manage the electrode replacement cycle.

Technical status signal

You can display the frequency of technical alarms in the last hour, indicated by specified color. This shows at a glance the measuring conditions such as electrode attachment or noise.

Green (Good):
less than 10 alarms in one hour

Yellow (Not Bad):
10 to 29 alarms in one hour

Red (Bad):
over 30 alarms in one hour
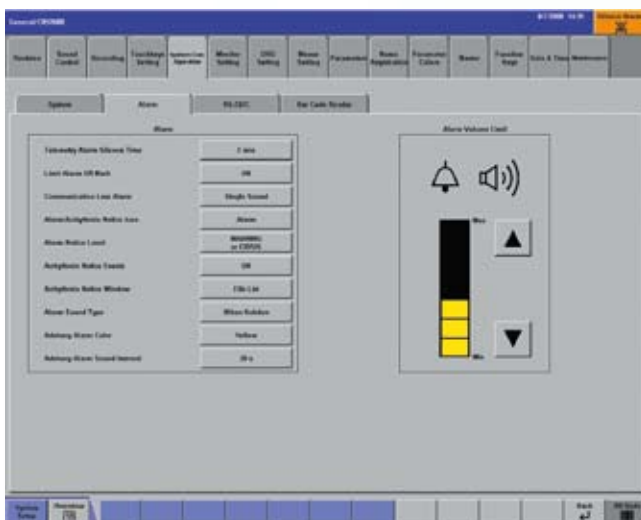
Alarm related features

Optional alarm indicator

The alarm indicator on the top of the display can be clearly seen at a distance. The blinking or steady lighting condition and color shows alarm information. The blinking alarm indicator is also synchronized with heart rate, blood pressure or SpO_2 of a selected patient.

Color coded alarm level

Alarms are indicated by a blinking frame and highlighted message. Red shows CRISIS alarms and orange shows WARNING alarms.

Minimum alarm volume

To prevent missed alarms, the administrator can set a minimum alarm volume.

Settings security

For security, some settings are password protected so they can be controlled by an administrator.

☑ Flexible review

Synchronized review data

Typical central monitors cannot review the stored data efficiently. It takes many steps to find and display the data, and the data aren't linked to each other.

CNS-9601K lets you review synchronized data in different ways. All 9 review screens are time-synchronized so that when you find an alarm or arrhythmia episode, you can see the same event on other review screens as full disclosure, trend or numeric data to check details. This is an easy one-step operation. CNS-9601K lets you review data accurately and quickly.

9 ways to review

1) Trend graphs
Trend graphs of 4 parameters and 2 events of the last 72 hours can be displayed.

2) Tabular trends
Numeric data of measured parameters for the latest 72 hours can be displayed in a table.
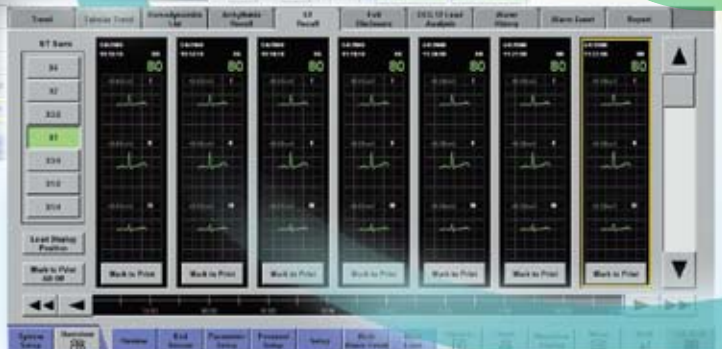
3) Hemodynamics data
Up to 256 hemodynamics measurements can be displayed in 8 rows per screen.

4) Arrhythmia recall
Up to 768 eight-second arrhythmia episodes for each patient can be stored and reviewed.

5) ST recall
ST recall files are created at specified intervals. Up to 4320 files can be saved. 7 files can be displayed at the same time.

TIME

SYNCHR

9) Alarm events window

72-hour alarm lists for 8 persons can be displayed at the same time. There are 3 types of alarm displays: vital sign alarms, arrhythmia alarms, and technical alarms.

8) Alarm history

The latest 1000 files can be saved for each bed. The alarm history window displays the file list with report creation time, alarm levels, parameters, descriptions, and other information.
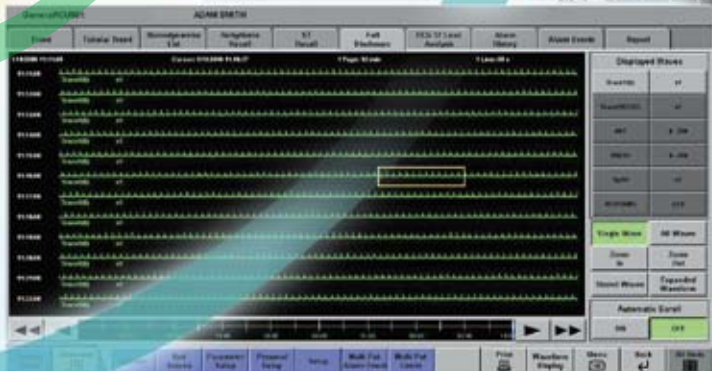
7) 12-lead ECG analysis

12-lead ECG analysis waveform, average waveform, comparison waveforms, and analysis reports from the bedside monitor can be displayed.
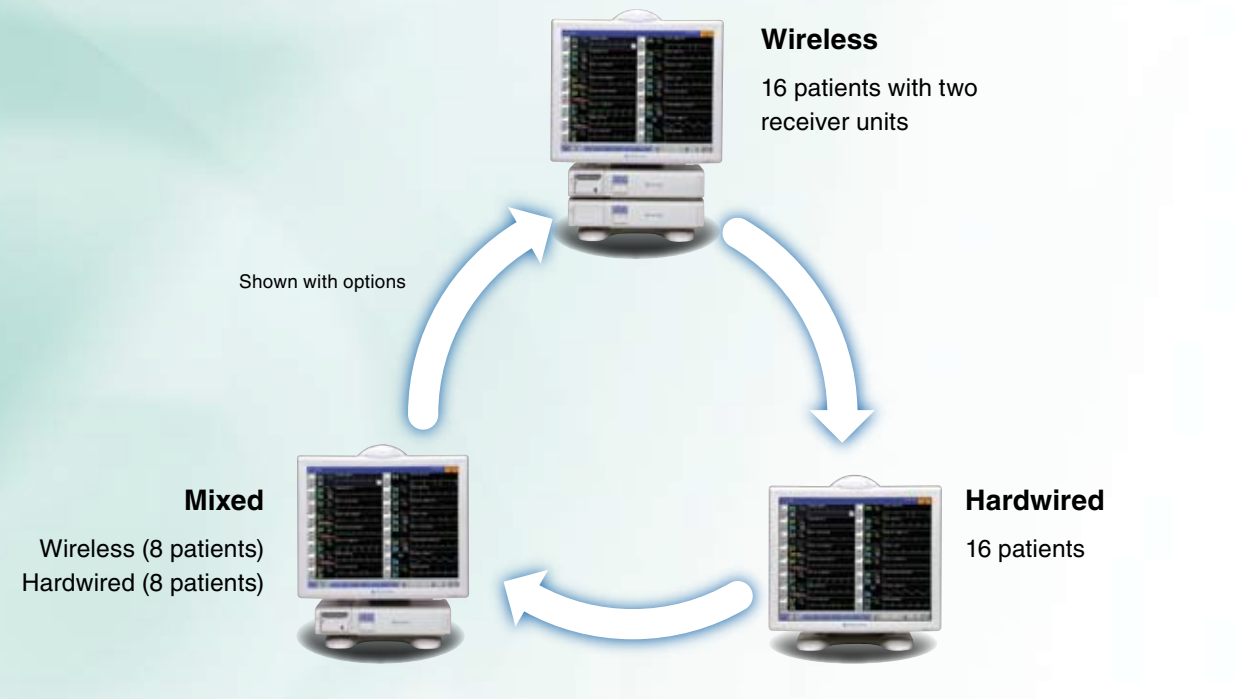
6) Full disclosure ECG

Six 72-hour full disclosure waveforms for each patient can be stored and reviewed with an optional program kit.
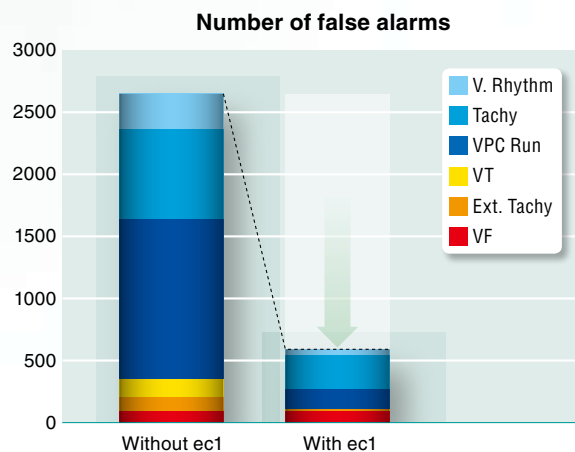
Flexible configuration

Optional multiple patient receiver unit receives signals from transmitters. One receiver unit is for up to 8 transmitters.

Transmitters

CNS-9601K

BSM-6000   BSM-5100   BSM-4100   BSM-2300   BSM-9101K

Wireless

16 patients with two receiver units

Shown with options

Mixed

Wireless (8 patients)
Hardwired (8 patients)

Hardwired
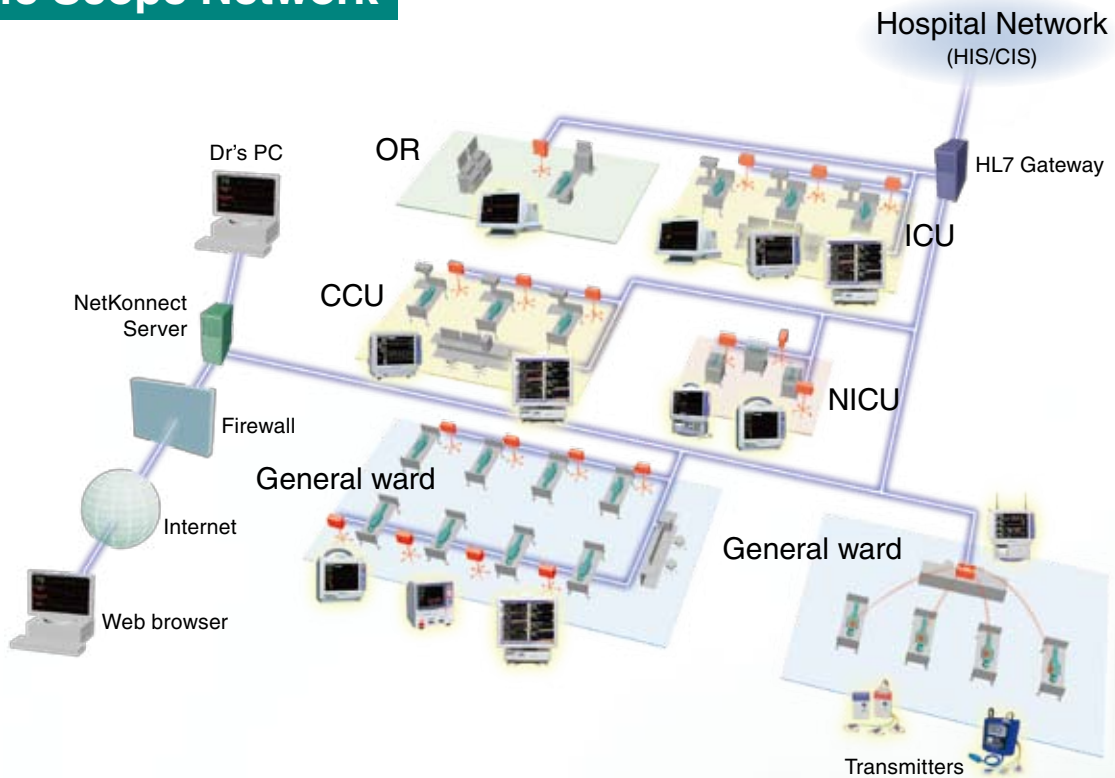
16 patients

ec1 arrhythmia analysis

ec1
Arrhythmia Analysis

Central monitor alarms begin with the connected bedside monitors. Nihon Kohden's ec1 arrhythmia analysis algorithm can reduce 80% of false alarms. ec1 is included in Life Scope i/L/TR/J and all newer bedside monitors

Number of false alarms

V. Rhythm
Tachy
VPC Run
VT
Ext. Tachy
VF

Without ec1   With ec1

Life Scope Network

Hospital Network
(HIS/CIS)

Dr's PC

OR

HL7 Gateway

ICU

NetKonnect
Server

CCU

Firewall

NICU

General ward

Internet

General ward

Web browser

Transmitters

NetKonnect

With optional NetKonnect, you can review real-time patient data anytime and anywhere from your PC with a web browser.

HL7 Gateway

An HL7 gateway connects the LS-NET monitor network to the HIS (Hospital Information System). With the HL7 gateway, vital sign data in the bedside monitor can be transferred using HL7 protocol.

Major Options

For full list of options and consumables, see the technical data separately available.

Display unit
VL-974P
(Touch screen operation)

Alarm indicator
YL-960P

J frame
DM-960P

Receiver unit
RU-960P

Receiver unit
ORG-9100K

Recorder unit
WS-960P

16-patient expansion program kit
QP-962P

Full disclosure filing program kit
QP-963P

12-lead ECG interpretation kit
QP-964P

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