

C70 is inherited the outstanding character of our Patient Monitor C90 and adopted with highly integrated modular mechanical structure, it efficiently combines the structure, function and maintain management. C70's single-module and muti-module can combination at will to meet the upgrade in Clinical need. C70 opens a new chapter in modular monitor field.



With leading ECG technology, anti-motion & week perfusion SPO<sub>2</sub> technology as well as accurate NIBP measurement technology and cooperation with word leading medical technique providers such as Masimo、Covidien、Respironics、  $Medis,\ C80\ is\ designed\ to\ optimize\ performances\ by\ configuring\ Etco_2,\ AG,BIS\ and\ noninvasive\ hemodynamic$ monitoring into one, helping you care even the most cri]tical patients with professional assistance.





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# **COMON**



Integrated with the world-leading technology of life parameter monitoring and IT application, C90 Patient Monitor makes a high-end life monitoring platform and provides a comprehensive monitoring solution.

# Comprehensive monitoring management in hospital and outside hospital

To monitor the patient parameter comprehensively and integratively from the first- aid spot to the recovery of patients as a complete management system.



Discharged from hospital Filing up the patient's records.



First-aid on the spot



Put on to ambulance



Lifted onto stretcher



Treated in the operating room

C90 modular monitor will carry out all-round monitoring and diagnosing to the patient's condition With displaying 12-channel ECG waveforms simultaneously, the accurate ECG measurements will help doctors to make better diagnosis and keep the operation carried out more smoothly. The combination with an anesthesia machine cover with a respirator will help doctors to control operation time more accurately.



Transferred to general ward

The patients will be transferred to general ward after their condition improved and became stable; the patient's information accumulated in operating room and ICU unit will be transferred through a small host C30 to a large frame C90 modular monitor to ensure the continuity and real-time updating for patient's information.



Sent to an emergency room Once C30 ambulace transport monitor is connected into C90 modular monitor, the patient would be fully monitored by C90. C90 will take over to monitor and start working.



Transferred from emergency room to an operating room



C90 modular monitor has taken an important position ICU; as a device to directly display the patient's condition after operation, it allows doctors to control the condition at any time in ICU, and it will give an alarm under abnormal condition to remind medical stuff so that the patient s condition could be effectively controlled until the patients are gradually recovered.

Transferred from the operating room to ICU



The world leading technology and high-level materials and advanced manufacturing process ensure that C90 modular monitor provides a high-end life monitoring platform.

# **External Design**















17" screen

double operation

battery

solution

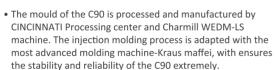
Touch/button Built-in lithium Two mounting External printer

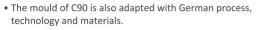
conductive contacts transmission

• 17" LED backlight touch screen

- Dual operation system: Touch screen and operation buttons to keep double assurance
- Built-in lithium battery for 4 hours continuous monitoring
- Multi mount solutions: Wall mounting, trolley
- External laser printer and built-in thermal printer
- Gold-plated module contacts, automatic data exchange through IR transmission
- Fan-less design provides super quiet environment for ICU, OR, etc.







• Al-Mg alloy heat dissipation components: having an extraordinary heat dissipation.





• handle: built-in handle for space saving and ease to carry around.

• 360° visual alarm lamp: three-color alarm lamp to strike your eye definitely, and make clear for physiological alarm and technical alarm.



- Multiple USB interfaces can support external keyboard, mouse and support data transfer as well as software upgrade.
- Various ports for external devices: anxiliary plug-in box, monitor, CIS and cable network interface and so on.
- External ports management house: to conceal interfaces, to keep dust awat, to prevent foreign matter to drop in, and to manage uniformly the data lines.

COMON 03 COMON 02

# Hardware technology – module

4+1functional module slot, which is hot swappable, supporting full-module random combination, automatic identification with software, and interface dynamic combination

- Standard configuration: ECG NIBP SPO<sub>2</sub> PR RESP
- Optional configuration: C.O. ICG EtCO<sub>2</sub> BIS AG IBP TEMP

# Diversified C30 6-parameter plug-in module



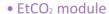


- C30 with in-situ 4.3" LCD display, coped with independent operating system which can be used either for C90 plug-in module or separate monitor.
- C30 used together with C90 can be displayed with double screens allows both front and back view simultaneously.
- Patient data can be exchanged between C30 and C90, such that C30 can help to realize the data transfer and to share the data between C90 one another.
- C30 built-in 2200mAh lithium cell can support hot swap with power on thereby transferring patient's information monitored without any obstacle.
- C30 6-parameter module: electrocardiography/ heart rate/ respiratory rate/ NIBP/ pulse oxygen saturation.
- ① ECG twelve channel electrocardiograph technology With CardioTec™ twelve channel electrocardiograph it can realize to display 12-channel electrocardiographic wave at the same screen simultaneously. The accurate measurements can help doctors to give a good diagnosis. A common mode rejection ratio (CMRR) can reach 105db such that it has an extreme interference-free capability in ECG. 26 arrhymia analysis support.
- ② SpO₂ pulse oxygen saturation technology Gold standard OxiMax® pulse oxygen saturation system in the worldwide blood oxygen monitoring field is ensured to take a leading position in the technology with its unique LoSat™ technique thereby ensuring the widest range of accuracy to extend its accurate measurement range to 60%-100%. The special SatSeconds™ intelligent alarm management system can effectively reduce false alarm so as to
- ③ relieve workload on the medical personnel.
  NIBP, non-invasive blood pressure technique
  Use of AcuTec™ non-invasive blood pressure technique to allow C90 accuracy to reach world-leading level in the light of blood pressure measurement.



# • IBP (invasive blood pressure) module

Various brands of IBP accessories support. It is able to monitor more than 10 pressures such as arterial pressure, pulmonary arterial pressure, central venous pressure, intracranial pressure, left/right arterial pressure, etc.



### RESPIRONICS CO2

To work together with US RESPIRONICS / MASIMO we chose mainstream / side stream (miniflow) CO₂ module. As small in size, durable and light in weight, the mainstream sensor can be used to provide all intubated patients from new born child to adults for an accurate reliable CO₂ monitoring. It can be automatically corrected, an LoFlo side flow probe (without dewatering bottle) is used to monitor non-intubated patients. The flexible and compact CO₂ sensor can provide adults, child and newborn babies for a continuous and reliable CO₂ monitoring. And, the sampling rate (miniflow) is ≤50mL/min.



Extremely compact design (25g!); Maintenance free-no calibrations needed; Intelligent disposables; Extremely easy to integrate; "Plug in and measure".

### MASIMO ISA CO<sub>2</sub> (Sidestream)

Unique water handing-nomoline; Low sample flow-50ml/ min for all type of patients; "Instant on" - warm-up time 10/20 seconds until full spec; Extremely low power and weight; "Plug in and measure"; Maintenance free-no routine calibrations needed.



# • AG (anesthetic gases) module

To cooperate with MASIMO with advanced AG modular, it is able to monitor eight different gases ( $O_2$ ,  $CO_2$ ,  $N_2O$ , ENF, ISO, DES, SEV, HAL). It can automatically identify what kind of anesthetic gas is in use, characterized by its short period of warmming time and long service life as well as MAC value provided (minimum alveolar concentration).





# • ICG (noninvasive blood flow dynamics) module

Collaborated with Medis inpedance ECG to realize noninvasive blood flow dynamics monitoring, which is characterized by its noninvasive, continuous and high accurate and strong interface-resistant capability as well as lower cost and easy operation. The impedance variation is used to monitor parameters such as stroke volume(SV), cardiac output(CO), system vascular resistance(SVR), cardiac index(CI), myocardial contractility and fluid state(TFC), etc.



# • BIS (Depth of Anesthesia) module

Cooperate with CONVIDIAN company from USA for BIS technology.

The BIS module has been designed to be used in the monitoring of the level of consciousness of aperson during the application of general anaesthesia or in intensive care. This is accomplished byregistering the

electroencephalographic signal (EEG) by means of surface electrodes which is thenanalyzed by a digital process.

As a result of the applied calculation, an index "BIS" is obtained, which serves as guidance to theexperts who use it to determine the level of consciousness of the patient during surgery.



# • C.O. (invasive cardiac output) module

C90 is involved itself in invasive cardiac output technique, but C.O. measurement is conducted with conventional thermo dilution invasive cardiac output and other hemodynamic parameters. The monitor can measure "blood temperature", "calculating cardiac output", "calculating hemodynamics". The cardiac output is measured with floating catheter led from vein to pulmonary artery followed by injecting a certain amount at  $0^{\circ}C-25^{\circ}C$  injecta such that the blood temperature will be varied after the injecta and blood output from the heart are mixed together thereby achieving cardiac output by measuring blood temperature variation before and after infected in accordance with the principle of heat balance.



# • C90 plug-in expansion slot

10 module slots can be provided for function expansion.

# Software technology-interface

High-informatization and high-intelligence operation system and analysis software can provide precise digital support for clinical decision-making.

Self-adapting working interface adjustment function and humanized operation system allow you to enjoy the best operation experience.



COMEN 06

# Software technology

Unique I-Klok® intelligent alarm system: to identify alarm level automatically according to variation of measurement parameters. There are high, middle and lower alarm levels. There are different sounds and lighting prompts for every level with delay alarm and delay time which can be adjusted. There is also automatic alarm & printing function. Different from traditional alarm, there is practical clinical significance for alarm to reduce mis-alarm and useless alarm.

- Powerful network function to support wire and wireless access, built-in WiFi module selectable:
- Prompt module identification and interface switching without flashing feeling during interface switching;
- The Moudule Extension Function with automatic identification for software and dynamic adjustment for interface.

# Interface



# Module MAP diagram

• Display operating status of module



# Information integration function

- Complete medical records management
- Users can search, review, delete and transfer medical records



### Touch screen

• Keyboard, handwritting input



## Big font interface

- Observed clearly from long distance, is especially suitable for ICU, CCU, OR and night care.
- Users can freely select 4 parameters to display on the screen.
   one waveform will be displayed for those parameters with waveforms.



# Respiration Oxygenation interface

- Consist of HR trend, SpO<sub>2</sub> trend and RR trend or compressed respiration waveforms
- Different period of trend selectable



# Trend Coexistence

- Trend graph displays dynamic change of each parameter
- Trend view time of each parameter are freely selectable



# Alarms setting on one page

 All alarms are managed on the same page, more easy to set the alarms



# Bed to bed Observation

- To display other bed information such as bed no. patients' name, alarm information and parameter setup;
- User can configure dynamic parameters and waveform



# Layout interface

- User can freely select the parameters and waveforms and locate its displayed place on the screen
- Design the interface freely as you reference



# Configuration management

 Five departments default configuration, can also be customized to meet application of different departments