



- IHEALTH WIRELESS HEALTH-CARE PRODUCTS 
- DIAGNOSTIC TESTS LABORATORY 
- OPERATOR'S PROTECTION 
- HOLLOWARE - SURGICAL INSTRUMENTS - SYRINGES 
- MEDICAL BAGS 
- SCALES & MEASURES 
- HEALTH CARE PATIENT AIDS 
- FURNITURE 
- PHYSIOTHERAPY NEBULIZERS - SUCTION PUMPS 
- GYNAECOLOGY & PROCTOLOGY 
- CAUTERY & ELECTROSURGERY 
- LOUPES, VISION & ENDOSCOPY 
- MEDICAL LIGHTS 
- DIAGNOSTICS 
- AUDIOMETRY & RESPIRATORY 
- ECG MONITORS & ULTRASOUND 
- FIRST AID PARAMEDICAL - EMERGENCY 
- STERILIZATION 
- VETERINARY 
- HUMAN ANATOMY MODELS 





En **LOMISA** nos centramos en los proyectos con la finalidad de mejorar la eficiencia operativa de un centro de salud. Hacemos frente, junto a nuestros clientes, al reto de modernizar sus instalaciones y servicios, proporcionando tecnologías vanguardistas, procedimientos probados y protocolos clínicos actualizados.

Nuestra visión a largo plazo siempre mejora la calidad de vida de los pacientes, que deberían beneficiarse del uso de las instalaciones y servicios. Mediante una estrecha colaboración con los profesionales y gestores del sector sanitario, proporcionamos planes, proyectos ejecutables y soluciones materiales para alcanzar los objetivos de sus instituciones públicas o privadas.

Al trabajar a nivel de gobiernos o administraciones centrales, también consideramos la oportunidad de reforzar el funcionamiento de la atención primaria para facilitar o ampliar el acceso de la población a los estándares apropiados de cuidado preventivo, diagnóstico y crítico. Nuestra estrategia para lograr esos objetivos es la potenciación de los actores claves, para que hagan lo correcto.

Nuestro equipo incluye a gestores e ingenieros con una gran experiencia en el sector hospitalario, ampliamente cualificados en el uso de la tecnología médica y la gestión de los servicios clínicos, que reciben el apoyo de una extensa red internacional de asesores clínicos de primer nivel para cubrir cualquier especialidad, desde los servicios clínicos centrales del hospital a las terapias modernas y complejas.

En **LOMISA** proporcionamos una amplia gama de servicios (instalación, ajuste, puesta en marcha, formación técnica y al usuario, mantenimiento preventivo y correctivo durante el periodo de garantía o el ciclo de vida útil) al presupuestar todas nuestras soluciones de equipamiento, como parte de nuestro fuerte compromiso con el cliente.

Otros equipamientos que suministramos:

- Anatomía patológica
- Esterilización y desinfección
- Rehabilitación
- Imagenología
- Laboratorio
- Medicina deportiva
- Oncología
- Quirófanos
- Refrigeración



**NUESTRAS MARCAS**



ECG , monitors & ultrasound

ECG y  
Ultrasonido

■ SELECCIONE EL PRODUCTO QUE ESTÁ BUSCANDO

ECG  
ULTRASONIDO  
MONITORES



ECG y  
Ultrasonido

# SINGLE CHANNEL PALM ECG: CARDIO-A AND CARDIO-B

CE 0123



33259

CE 0476



33260

**4 MEASUREMENT MODES:  
PALM, LEG, CHEST,  
TRADITIONAL**

**PALM ECG'S** are designed for general practitioners or for domestic users who suffer from cardiovascular diseases such as hypertension, coronary disorders, giving the possibility of a daily ECG test. Records can be saved and used as a reference for clinical applications. **4 measurement modes: palm, leg, chest or lead wire traditional measurement.**

Main features:

- small, portable and easy to use
  - 30 second ECG waveform and measurement results
  - 600 (CARDIO-A) or 1200 (CARDIO-B) ECG waveform can be saved
  - 5 hours (CARDIO-A) or 10 hours (CARDIO-B) ECG continuous measurement data storage
  - analysis and report of 8 types (CARDIO-A) and 17 types (CARDIO-B) of ECG waveform
  - USB 2.0 interface with option data cable and ECG viewer software
  - traditional measurement with optional ECG cable
- CARDIO B with Bluetooth module for wireless data transmission.** Allows to download data on your smartphone or tablet, compatible with Android.  
Supplied with multilingual manual and box (GB, FR, IT, ES).

PALM ECG		
code		
33260	CARDIO-A palm ECG	
33261	CARDIO-B palm ECG - colour display	
33259	CARDIO-B Bluetooth palm ECG+viewer software	
ACCESSORIES		
33265	ECG viewer software+USB 2.0 cable - for 33260, old 33261	
33249	ECG viewer software + USB 2.0 cable for new 33261 since SN: XXS02JL01044 - Jan 2014	
33248	New ECG 3 pin lead cable - 3 leads - optional - 2012 from SN: XXQ00HJ03925 for 33260 from SN: XXS02HL01709 for 33261	
33264	Old ECG banana lead cable - 3 leads - optional	
TECHNICAL SPECIFICATIONS		
	<b>CARDIO A</b>	<b>CARDIO B</b>
ECG bandwidth:	0.5 Hz - 40 Hz	1 Hz - 40 Hz
Heart rate measuring range:	30 - 240 bpm ± 2 bpm	
LCD back light display:	128x64 dot matrix	240x160 dot matrix
Display size:	49x25 mm	57.6x40 mm
Power:	2xAAA batteries	
Dimensions	115x58x18 mm	125x70x21.5 mm
Weight	65 g	106 g

# CARDIO-C: 3 CHANNEL POCKET ECG

iHealth  
Bluetooth ECG  
see page 4



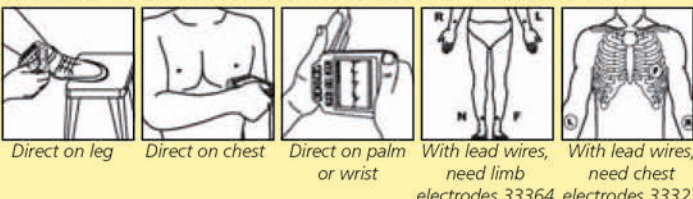
## • 33245 CARDIO-C POCKET ECG 3 channel

- small size, light-weight and easy to carry
  - one-key measurement
  - clear ECG waveform and interpretation of results on colour dot-matrix TFT 3.5" screen
  - up to 19 types of measurement results
  - high capacity built-in memory: 24 hours records storage and review for single channel waveform and 8 hours record storage and review for 3-channel waveforms
  - quick measurement: **by built-in metal electrodes**, on palm, chest or leg or **by external lead wires** (needs optional limb and chest electrodes)
  - data management to review or delete data records locally or to upload to PC
- Supplied with ECG viewer software, USB cable, power transformer, ECG 4 pins lead wire, 25 disposable electrodes, manual (GB, FR, IT, ES, DE, PT).  
Other accessories see at page 277-278.

- 33364 SET OF 4 LIMB CLAMP ELECTRODES (4 COLOURS) - adult
- 33327 DISPOSABLE TNT ELECTRODES Ø 55 mm

TECHNICAL SPECIFICATIONS	
Heart rate measuring range:	30 bpm ~ 240 bpm
Heart rate measuring accuracy:	± 2 bpm or ±2% whichever is greater
ECG bandwidth:	0.5 Hz ~ 40 Hz
Internal noise level:	≤ 30µVp-p
Display scale:	5.0 mm/mV ±10%
Common-mode rejection ratio (CMRR):	≥ 60 dB
Waveform sweeping speed:	20 mm/s ±10%
Input loop current:	≤ 0.1 µA
Input impedance:	≥ 5 MΩ
Power	
Power:	4 AA alkaline batteries
Supply voltage range:	4.4 ~ 6 VDC
Max average working current:	≤ 160 mA
Auto power-off:	can be adjustable between 1-5 mins
Low battery indication:	4.4 VDC ±0.2 VDC

Methods of ECG measurements: direct or with lead wires



Internal software in GB, IT, FR

## CARDIPOCKET ECG - 3 CHANNELS

### • 33232 CARDIPOCKET ECG 3 CHANNELS - with software

12-lead ECG printing ECG waveform with thermal printing system, measuring and diagnosing ECG waveform parameters automatically.

- **full-automatic analysis function:** auto-analysis and auto diagnosis for routine ECG parameters. It provides measurement results and auto diagnosis conclusion for HR, P-R interval, P Duration, QRS Duration, Q-T interval, Q-tc, P Axis, QRS Axis, T Axis, R(V5), S(V1), R(V5)+ S(V1)
- **2.83" colour LCD screen** (resolution 320x240) that operates both with touch screen and keys
- **high resolution thermal array output system** 8 dots/mm (vertical)
- **built-in rechargeable lithium detachable battery** can continuously work for 4 hours, print up to 90 minutes and 150 ECG
- **store up to 100 cases** in a SD card (not included)
- **high-accurate digital filter** eliminates baseline drift and distortion to ECG waveform
- **ECG-Sync software** to form a ECG workstation

- 32963 THERMAL PAPER - box of 20 rolls
- 33233 RECHARGEABLE Li-Ion BATTERY

- 33328 ECG CABLE spare

#### TECHNICAL SPECIFICATIONS

Power:	AC: 100-240 V, 50/60 Hz - DC 12V rechargeable lithium battery 2,000 mAh
Noise level:	≤15 μVp-p CMRR: >60 dB, > 100 dB (add filter)
EMG filter:	25/35 Hz Time constant: ≥3.2 s
Frequency response:	0.05-150 Hz (-3 dB - 0.4 dB)
Patient leakage current:	<10 μA
Recording paper:	50 mm x 20 m, high speed thermal paper
Paper speed:	6.25, 12.5, 25, 50 mm/s ±5%
Safety standard:	IEC class I, type CF defibrillation-proof applied part
Input mode:	floating and defibrillation protection
Input circuit current:	≤0.1 μA Input impedance: ≥50 M Ω

Size: 207x96x62 mm  
Net weight: 500 g

#### STANDARD ACCESSORIES

- Patient cable
- 1 roll of paper
- 1 rechargeable lithium battery
- 4 limb electrodes
- 6 chest limb electrodes
- 1 user manual (GB, IT, FR)
- 1 CD software (GB, FR, IT, ES, DE, TR) and cable for connection to PC



## CARDIPOCKET ECG - 1 CHANNEL

### • 33257 CARDIPOCKET ECG - standard 12 lead ECG - with software

Compact and lightweight pocket device with unbeatable features:

- wide graphic display (it allows "live" view of ECG trace and selection of all parameters)
- rechargeable lithium battery operated (80 ECG with full charge)
- PC software with interpretation included for storing data into PC (GB/IT) (operating system: Microsoft Windows 2000/XP/2003/Vista/7)
- multilanguage internal software: GB, IT, DE, FR, ES, TR, CN
- real time continuous records of clear and exact single channel ECG waveform and notes. The notes include mark, sensitivity, chart speed, filter mode, etc
- full-touch keyboard control, easy to use. Screen displays, working position, state of the instrument are clear and easy to be read.

- 32963 THERMAL PAPER - box of 20 rolls
- 33243 RECHARGEABLE Li-Ion BATTERY up to S.N. CD 1212100050
- 33244 RECHARGEABLE Li-Ion BATTERY since S.N. CD 130730000-1
- 33328 ECG CABLE - spare

#### TECHNICAL SPECIFICATIONS

Power:	AC: 100-240V, 50/60 Hz - DC: 7.4V / 2,000 mAh DC: 9V rechargeable battery
In optimal DC state up to 8 h standby time, up to 4 h continuous print	
Noise level:	≤15μVp-p CMRR: >60 dB, >100 dB (add filter)
EMG filter:	35 Hz (-3 dB) Time constant: ≥3.2s
Sensitivity display:	standard sensitivity: 10mm/mV±2%
Sensitivity setting:	1/2, 1, 2 (cm/mV), conversion deviation ≤5%
Recording system:	thermal-array, 8 dots/mm (vertical), 16 dots/mm (horizontal, 50 mm/sec) 32 dots/mm (horizontal, 25 mm/sec)
Paper speed:	25 mm/s, 50 mm/s ±5%
Recording paper:	50 mm x 20 m, high-speed roll
Safety standard:	IEC class I, type CF
Input circuit current:	≤50nA

Integrated thermal printer



Weight 800 g with rechargeable battery

Compact: only 190 mm (size: 190x90x40 mm)

60x35 mm wide display

#### STANDARD ACCESSORIES

- Patient cable
- 1 roll of paper
- 1 rechargeable lithium battery
- 4 limb electrodes
- 6 chest limb electrodes
- 1 user manual (GB, IT, FR)
- 1 CD software and cable for connection to PC



## PM10 PALM ECG WITH SOFTWARE AND BLUETOOTH

### • 33246 PM10 PALM ECG - with software and Bluetooth

PM10 is a homecare device to check ECG parameters. It can be used as a reference for patient to take further medical treatment and reference for doctor to diagnose. It can help to early prevent from cardiovascular diseases and reduce risks. Intelligent design, it achieves remote health management through mobile application; it can automatically start measurement, store ECG, upload data, download health results. Suitable for patients with chronic diseases, especially coronary heart disease, diabetes, hypertension, myocarditis, obesity, chest pain, palpitations and dyspnea.

#### 4 MEASUREMENT MODES



Limb leads I

Chest leads V

Limb leads I

Limb leads II

#### Features:

- 1.77" colour TFT-LCD
- quick ECG test with a simple touch. User friendly
- accurate conclusion can be obtained immediately after measuring
- continuously record for up to 500 cases with built-in rechargeable lithium battery in full charge
- Bluetooth transmission
- ECG data can be saved to cloud Platform permanently, easy to check and analyze
- historical data can be printed at any time, easy to diagnose

Size: 100x45x15 mm  
Weight: about 60g

Supplied with a carrying bag, a multilanguage manual (GB, FR, IT, ES, DE, PT) and a CD software to visualize data on PC



33246

# DIGITAL SINGLE, 3 OR 3/6 CHANNEL ECG

- **33220 SINGLE CHANNEL ECG 100G**
  - large LCD display waveform and data
  - high-resolution thermal printing array system
  - frequency response is as high as 150 Hz
  - capable of printing continuously on channel trace and annotations including lead mark and parameter such as sensitivity, paper speed and filter operation status
  - high resolution digital filter inhibits baseline drift without affecting ECG waveform
  - floating input circuit meets IEC safety standard
  - rechargeable battery supporting more than 50 patient examinations
  - internal software: GB, IT, DE, TR, RU, CN
  - manual: GB, IT, ES
- **33225 RECHARGEABLE BATTERY - spare**
- **32968 PAPER ROLL 50 mm x 20 m - box of 20**
- **33328 ECG CABLE - 10 leads - spare**



**CONTEC™**

33220

USB connection allows real-time transmission to PC, remote data analysis and diagnosis, management and printing through the PC



33221

- **33222 6 CHANNEL ECG 600G - monitor up to 12 channels**
  - 7" TFT, colour LCD touch screen
  - 12 leads simultaneous display
  - digital isolation technology and signal processing solution, digital filter
  - patient management, name, age and id, detail analysis report
  - built-in lithium rechargeable battery
  - thermal printing system provides more than 10 printing modes
  - can print 90 minutes and print out 150 ECG continually
  - ECG-Sync software, USB connection to PC and built-in memory can store more than 1000 cases
  - auto-measurement, auto-analysis and auto-interpretation
  - internal software: GB, FR, IT, ES, DE, TR, PL, PT, SI, RU, KZ, CN
  - PC software: GB. Manual: GB, IT, FR
- **33226 RECHARGEABLE BATTERY - spare**
- **32970 PAPER ROLL 110 mm x 20 m - box of 10**
- **33328 ECG CABLE - 10 leads - spare**



- **33221 3 CHANNEL ECG 300G - monitor up to 12 channels**
  - 3.5" TFT colour LCD screen
  - 12 leads simultaneous display
  - thermal printing system
  - AC and DC power supply
  - high capacity built-in lithium rechargeable battery
  - battery power supports up to 150 ECG continuous records
  - built-in Database
  - built-in memory can store more than 1000 cases
  - digital signal processor for filter
  - auto-measurement, auto-analysis, auto-interpretations
  - ECG-Sync software, USB connection to PC
  - internal software: GB, FR, IT, ES, DE, TR, PL, PT, SI, YU, RU, KZ, CN
  - PC software: GB
  - manual: GB, IT, ES, FR
- **33226 RECHARGEABLE BATTERY - spare**
- **32969 PAPER ROLL 80 mm x 20 m - box of 10**
- **33328 ECG CABLE - 10 leads - spare**

USB connection allows real-time transmission to PC, remote data analysis and diagnosis, management and printing through the PC



33222

**TECHNICAL SPECIFICATIONS**

		ECG 100G	ECG 300G	ECG 600G	
ECG instrument Input	Safety Type	Class I, type CF applied part, which has defibrillation-proof applied part			
	Lead	Standard 12 leads			
	Input way	Floating and defibrillation protection			
	Patient leak current	<10µA			
	Sampling rate	800 Hz	1,000 Hz	1,000 Hz	
	A/D conversion	12bit			
	Frequency response	0.05Hz~150Hz (-3dB, + 0.4dB)			
	Time constant	≥ 3.2s			
	CMRR	>60dB, >100dB(Add filter)			
	Enduring polarization voltage	±500mV			
Dispose Wave Data	Noise level	<15µVp-p			
	EMG interference filter	35Hz (-3dB)	25Hz/35Hz (-3dB)		
	AC filter	50Hz/60Hz (-20dB)			
	Recording way	Thermal printing system	Thermal printing system (32spots/mm)		
	Recording paper	50mm(W)×20m(L)	80mm(W)×20m(L)	110mm(W)×20m(L)	
	Waveform output	Sensitivity	5, 10, 20mm/mV	2.5, 5, 10, 20, 40 mm/mV	
		Paper speed	Auto-record: auto leads changing	Auto-record: 25mm/s, 50mm/s	
			Rhythm record: 25 mm/s, 50 mm/s		
			Manual-record: 25 mm/s, 50 mm/s	Manual-record: 5, 6.25, 10, 12.5, 25, 50 (only 33221), 100 mm/s (only 33222)	
	Power supply Fuse	AC	110-220V, 50/60 Hz		
DC - Lithium battery		7.4V, 2000 mAh	7.4V, 3500 mAh		
Form	Size	2 pcs φ5×20mm AC time lag; T250mA/250V(Power Supply:220V)			
	Net Weight	1.5 kg	1.6 kg	1.7 kg	



- STANDARD ACCESSORIES**
- ECG cable - 1 set
  - Limb electrode clamp - 1 set
  - chest electrodes - 1 set
  - Ground wire
  - Power connection
  - Paper roll
  - USB connection and PC software (only 33221 and 33222)

- **33228 CARRYING BAG 39x29x14 cm**



### 3 AND 6-12 CHANNEL DIGITAL ECG WITH HIGH RESOLUTION MONITOR

33334

33350

WITH INTERPRETATION



3 YEARS WARRANTY made in Italy

Portable with small dimensions and light weight

Large, high resolution backlight Display: LCD 320x240 dots.

- 33334 CARDIOGIMA 3M - 1-3 ch. with interpretation
- 33350 CARDIOGIMA 6M - 3-6-12 ch. with interpretation (monitor 3-6 channels, printer 3-6-12 channels)
- LCD monitor in Standard or Cabrera format with base line setting
- High resolution thermal printer (8 dots/mm): hardcopy 1-3 or 3-6-12 channels real time with possibility to print a millimetric grid
- Manual or automatic recording
- Image freeze with memory scrolling for reviewing and hard copy of acquired signals (Memory 10 seconds for each lead)
- Digital filters for elimination of muscle tremors, power line and base line noises
- Pacemaker detection
- Power supply by built-in high capacity Ni-Cd batteries and fast charging time

- Very simple operation by pre-defined fast keys and menus
- Based on a risk processor for a full digital signal processing
- Made in Italy.

**STANDARD ACCESSORIES 3M AND 6M**

Patient cable	6 chest limb electrodes
4 limb electrodes	1 roll of paper
Manual (English, Italian)	1 bottle of gel
Rapid guide: English, Spanish, Italian	Battery

code	CARDIOGIMA ACCESSORIES	Minimum order
27139	Transport bag (see at page 60)	-
32996	Thermal paper 58 mm x 25 m (Cardiogima 3M)	box of 20
32953	Thermal paper 112mm x 23m (Cardiogima 6M)	box of 10
33328	ECG cable 10 leads - spare	-

**TECHNICAL SPECIFICATIONS CARDIOGIMA 3M AND 6M**

Power supply: internal rechargeable Ni-Cd batteries  
 AC/DC Adapter: 100-240V, 50-60 Hz; 200mA  
 Battery autonomy: 2.5 hours  
 Applied part: CF type  
 Input impedance: > 100 Mohm  
 Frequency response: 0.05: 145 Hz  
 Cmrr: > 91 dB (33334), Cmrr: > 100 dB (33350) Time constant: > 3.2 s  
 Acquisition: 12 bit 800 samples/sec/channel-isochrome  
 Leads: 12 standard or Cabrera

Sensitivity: 5mm/mV; 10mm/mV; 20mm/mV ±5%  
 Scrolling speed: 5mm/s; 10mm/s; 25mm/s; 50mm/s  
 Signal memory: 10s for each lead  
 Printer: thermal printer 8 dots/mm, paper 58 mm (3M) 110 mm (6M).  
 Filters: muscles tremors 35Hz digital; power line interferences 50-60Hz digital; high pass 0,5Hz digital  
 Defibrillation protection: internal  
 Display/Hardcopy: 1/3 channel (3M) 3/6/12 channel (6M)  
 Dimensions: 240x160x65 mm. Weight: 1.5 kg. Made in Italy

### CARDIOGIMA 1M - 1/3 CHANNEL ECG WITH PARAMETERS CALCULATION



3 YEARS WARRANTY made in Italy

33329

- 33329 CARDIOGIMA 1M - 1-3 channel ECG with monitor
- A real portable ECG with small dimension and light weight (1 kg), with LCD monitor 128x64 pixel, high resolution thermal printer (8 dots /mm hardcopy, 1 channel real time) and parameters calculation. With manual or automatic recording, memory 10 seconds for each lead. Includes digital filters for elimination of muscles tremors, power line and base line noises. Based on a risk processor for a fully digital signal processing. Made in Italy.
- 32996 THERMAL PAPER 58 mm x 25 m - box of 20
- 33328 ECG CABLE 10 leads - spare

**STANDARD ACCESSORIES**

Patient cable	1 roll of paper
1 bottle of gel	4 limb electrodes
Manual (English, Italian)	6 chest limb electrodes
Rapid guide: English, French, Spanish, Italian	Battery

**TECHNICAL SPECIFICATIONS**

Power supply: internal rechargeable Ni-Mh batteries  
 AC/DC Adapter: 100-240V, 50-60 Hz; 200mA  
 Battery autonomy: 3 hours  
 Applied part: CF type  
 Input impedance: > 100 Mohm  
 Frequency response: 0.05: 145 Hz  
 Cmrr: > 100 dB time constant: > 3.2 s

Acquisition: 12 bit 800 samples/sec/channel  
 Leads: 12 standard or Cabrera  
 Sensitivity: 5mm/mV; 10mm/mV; 20mm/mV ±5%  
 Scrolling speed: 5mm/s; 10mm/s; 25mm/s; 50mm/s  
 Signal memory: 10 sec for each lead  
 Printer: thermal printer 8 dots/mm, paper 58 mm.  
 Defibrillation protection: internal

Filters: muscles tremors 35Hz digital; power line interferences 50-60Hz digital; high pass 0.5Hz digital  
 Dimensions: 190x120x60 mm. Weight: 1 kg.  
 Conformity standards: 93/42/CEE; EN60601-1; EN60601-1-2; IEC601-2-25 Made in Italy



# EDAN SINGLE OR THREE CHANNEL ECG

33330



33333

Single and three channel with 12 channel display



INTERPRETATION

COLOUR DISPLAY



## EDAN PORTABLE ECG - 1 and 3 channel

- foldable LCD screen, vivid waveform display
- built-in high resolution thermal printer
- built-in rechargeable Li-ion battery, AC/DC supply
- complete digital filter, avoid baseline drift, AC, EMG interfere
- automatic baseline adjustment
- auto/manual operation selectable
- lead-off detection and alarm

## SE-3 Three channel colour ECG also features

- interpretation tested by CSE/AHA/MIT database
- 12 Lead simultaneous acquisition
- automatic ECG parameters measurement and analysis
- auto, manual, rhythm off work mode
- support barcode scanner to simplify patient information input
- LAN/RS232/USB connection to PC
- 12 leads grid printing on normal A4 paper by external printer

## ECG Viewer Software: PC based ECG data management software

- compatible with Windows XP, WIN 7, Vista (32 bit, 64 bit)
- multi format reports - XML/SCP/DICOM/PDF/JPG/BMP/TIFF/PNG
- support bi-directional communication with ECG device

code	EDAN ECG AND ACCESSORIES
33330	Edan SE-1 Single Channel ECG
33333	Edan SE-3 colour Three Channel ECG - interpretative
33336	ECG-Viewer Software (GB, FR, IT, DE, PL, RU, ES, TU) for 33333
32963	Thermal paper - roll 50mm x 25m for 33330 and 33305
32964	Thermal paper - roll 80mm x 25m for 33332/3 and 33306
33328	ECG cable - spare
33318	Rechargeable Lithium battery 2500 mAh - spare
27139	Transport bag - see page 60

	33330	33333
Lead:	One lead	Standard 12 leads
Acquisition mode:	One lead	12 leads simultaneously
Sensitivity:	2.5, 5, 10, 20 mm/mV	2.5, 5, 10, 20 mm/mV
Input impedance:	> 50 MΩ (10 Hz)	> 50 MΩ (10 Hz)
Filter:	EMG Filter 35 Hz (-3 dB) AC/DFT Filter 50 Hz/60Hz (-20 dB)	EMG Filter 25/35/45 Hz off DFT Filter 0.05/0.15/0.25/0.32/0.5/0.67 Hz Low pass filter 150/100/75 Hz AC Filter on/off
Recording mode:	Auto/Manual	Auto/Manual/Rhythm/USBPRT
Rhythm lead:	Any lead selectable	Any lead selectable
Safety standard:	IEC I/CF	IEC I/CF
Power supply:	AC: 100-115 V, 220-240 V, 50/60 Hz Rechargeable Li-ion battery: voltage 14.8 V	AC: 100-115 V, 220-240 V, 50/60 Hz Rechargeable Li-ion battery: voltage 14.8 V
Data storage:	More than 6.5 hours continuous operation with battery supply	500 ECG's
Thermal paper:	50 mm x 30 m	rolled 80 mm x 20 m folded 80x70 mm x 200 pages
Paper speed:	25 mm/s, 50 mm/s (± 3%)	5mm/s, 6.25 mms 10 mm/s, 12.5 mm/s, 25 mm/s, 50 mm/s (±3 %)
Dimension:	300x260x75 mm	300x260x75 mm
Weight:	2.3 kg (with battery)	2.5 kg (without battery)
Display:	192x64 pixel LCD	320x240 pixels LCD (colour screen)
Selectable display language	GB, IT, FR, ES, PL, RU, TR, UA	GB, IT, FR, ES, RU, PL, CZ, RO, DE, TR, HR, UA
Interface:	RS 232	Ethernet, RS232, USB
Barcode scanner support:	-	yes
Report formats:	-	PDF, Dicom, SCP, XML
<b>STANDARD ACCESSORIES</b>		
Patient cable	1 roll of paper	4 limb electrodes
1 bottle of gel	Rechargeable battery	6 chest limb electrodes
Manual: GB, IT. On request: FR, ES, PT, TR (SE-1 and SE-3), DE, RU (SE-3 only)		

# MINDRAY BENEHEART R3 ELECTROCARDIOGRAPH

## • 33301 MINDRAY BENEHEART R3 ELECTROCARDIOGRAPH 3 channels

Lightweight portable cardiograph for resting ECG diagnosis.

### Reliable analysis - Glasgow algorithm

Utilizes the University of Glasgow ECG analysis algorithm, one of the world-leading resting ECG interpretations.

### Great Portability - only 1.2 kg

Weighs only 1.2 kg with battery, easy to carry.

### 5" clear colour display

Offers the highest resolution in industry, enabling clinicians to observe real-time waveforms accurately.

### Convenient operations

ECG recording is automatically unfolded on the writing pad at the top of the unit for notes or signature.

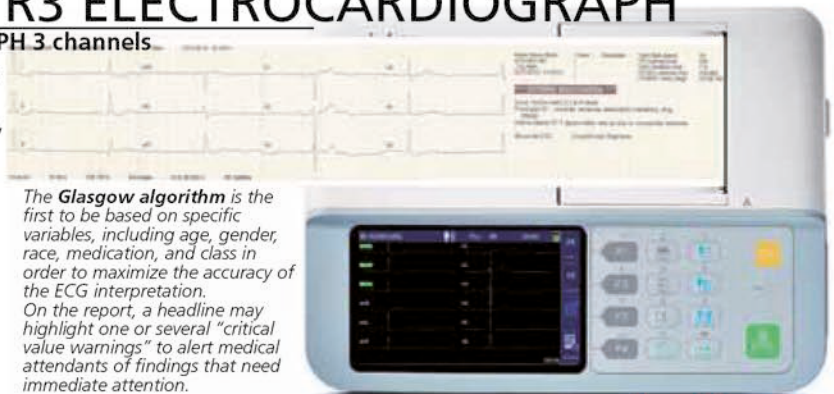
### Unique recorder - Z-folded or rolling paper

Compatible with both rolling paper and Z-fold paper.

Easily switchable without dismantling the pressure lever.

### • 33014 ROLL THERMAL PAPER - 80 mm x 20 m - box of 10

### • 33016 Z-FOLD THERMAL PAPER - 80x70 mm x 200 sheet - box of 25



The **Glasgow algorithm** is the first to be based on specific variables, including age, gender, race, medication, and class in order to maximize the accuracy of the ECG interpretation. On the report, a headline may highlight one or several "critical value warnings" to alert medical attendants of findings that need immediate attention.

STANDARD ACCESSORIES	
Cable with banana plugs, IEC	1 roll paper
Limb clamp set of 4	Rechargeable battery
Chest bulb set of 6	User manual in: GB, FR, DE, HU, IT, PL, ES, TR
Glasgow algorithm (available in 13 languages as internal software)	

TECHNICAL SPECIFICATIONS	
Power	100 to 240 VAC ± 10% 60 VA
AC power:	rechargeable Lithium ion battery
Battery-type:	11.1 V typical, 2,500 mAh
- capacity:	6 hours of continuous operation without recording or 500 ECGs in 2.5 x 4 format at 25 mm/s and 10 mm/mV
- charge time:	3.5 hours with power off
Processing	500 samples/second (sps)
ECG analysis	Digital 1,000 samples/second/channel
Pacer detection	16,000 samples/second/channel
Acquisition mode:	Pre-acquisition or post-acquisition provide 10 seconds of instantaneous ECG acquisition
ECG amplifier:	DC-coupled
Input impedance:	50 MD at 10 Hz, defib protected
Patient leakage:	< 10 µA
Heart rate meter:	30 to 300 BPM ± 10% or ± 5 BPM, whichever is greater
Sensitivity/gain:	5, 10, 20 mm/mV, Auto
Colour display	TFT LCD with LED graphics backlit 800x400
Resolution:	Patient ID, gender, age, heart rate, clock, battery power indicator, waveforms, lead labels, speed, gain, filter settings, warning messages, information messages, network status and USB
Display data:	
Thermal printer:	Dot array/Width 80 mm/speed 5, 12.5, 25, 50 mm/s
Software	
Resting ECG mode:	Records and prints 12-lead resting ECG with 10-second duration
Patient information:	Patient ID, secondary ID, age, date of birth, gender, race, medication class and V3 electrode placement
Internal storage:	800 ECGs in internal memory
ECG Storage format:	PDF and Mindray storage format
internal software:	GB, FR, IT, ES, DE, PL, PT, TR, RU, HU, RO, CZ, CN
Report formats	Thermal printer/PDF/A4/letter
Size/Weight:	250x194xh 56 mm/1.2 kg including battery



# MULTI CHANNEL ECG WITH INTERPRETATION ON PAPER



33354

**SOFTWARE INCLUDED FOR DATA STORAGE ON PC**

- **33354 CARDIOGIMA 12 ECG - 3-6-12 channel**  
Cost effective 12 channel resting ECG recorder without performance compromise. The simultaneous record of 12 channels has a high diagnostic value - all the 12 channels are shown at the same time. A4 size paper, one body type.  
Main Features:  
- 12 leads simultaneous 10-second resting ECG with interpretation in only 60 seconds multilanguage.  
Internal software+print in GB, FR, IT, DE, RU, TR, CN.  
- wide paper printing (A4 size thermal paper, fax paper is OK)  
- combined output of all relevant curves, patient data, date, time and instrument settings  
- **PC Connections**  
Connection to PC with RS 232 port or LAN to submit recorded ECG signal to other specialist for evaluation (only a modem is needed)  
- **ECG filing system**  
A fully configured PC-based software enables to record, print, change the settings of ECG's and save them in JPG format, which ensure compatibility with most EMR package.  
- **rechargeable batteries (optional)** with 1 hour capacity in normal use (about 100 ECG printouts)

TECHNICAL SPECIFICATIONS	
ECG Leads:	3-6-12 channel illustration of ECG signals in continuous recording or 10 sec. recording with interpretation.
Dimension:	296x305.5x92.5 mm Approx 3 kg
Recording channel:	3, 6, 12 channel and 1 channel (60 sec.)
Sensitivity:	2.5, 5, 10, 20, auto (I-aVF: 10, W1-V6: 5) mm/mV
Printing speed:	12,5; 25; 50 mm/s
Filters:	AC (50/60 Hz, -20 dB or better), Muscle (25-35 Hz, -3 dB or better) Low pass filter (off, 40 Hz, 100 Hz, 150 Hz)
Display:	2x16 character LCD display
LCD display:	Sensitivity, speed filter status, HR, Printing form, rhythm lead
LED indicator:	Signal quality, power source, battery
Keyboard:	Membrane keyboard, alphanumeric and symbol available
Patient data:	ID, name, age, sex, height, weight
Basic measurement:	Heart rate, PR, QRS, QT/QTc, P-R-T axis
Recorder:	Thermal print head, thermal paper roll Report papers: A4: 215X297 mm (8.5"x11.7") Letter: 215x280 mm (8.5"x11")
Resolution:	vertical: 8 dots/mm, horizontal: 16 dots/mm
Electrical:	Internal noise: 20 µV (p-p) max Input circuit: floating input Isolated and defibrillation protected DC offset voltage: ≥ ± 300 mV Patient leakage current: < 10µA Frequency response 0,05-150 Hz
Power:	Power supply: AC or built-in battery (options) Power requirement: 100-240 Vac, 50/60 Hz, 1.0-0.5 A Power consumption: 60 W max
Battery capacity:	1 hour of normal use (approx. 100 automatic ECG printouts)
Communication:	PC Connection with RS-232 interface and lan
Safety:	Class I, Type BF
Conformity:	CE, FDA, KFDA, CFDA, NCC <span style="float: right;">Made in Korea</span>

STANDARD ACCESSORIES	
1 PC software (GB/IT)	1 ECG gel tube (250 ml)
1 LAN cable	1 Recording paper roll
1 Patient cable - 10 leads	1 Operation manual (GB/IT)
4 ECG clip-on electrodes	
6 Chest electrodes, suction for adult	
1 Power cable	

CARDIOGIMA 12 ACCESSORIES		
code		33354
29534	Rechargeable battery - for 33354/33355/33357	+ 29519
32950	Thermal paper A4 - for 33354-5-7 - box of 5	
33328	ECG cable for 33354-5-7	
29519	Trolley for 33354-5-7	

# DIGITAL 12 CHANNEL COLOUR ECG WITH WI-FI



33223

- **33223 12 CHANNEL ECG 1200G with WI-FI**  
- 8" TFT display, 800x600 dots high resolution colour LED backlight  
- simultaneous 12 leads acquisition and display  
- digital signal technique, AC filter, baseline filter, EMG filter  
- auto-analysis and auto-interpretation  
- Multi-mode display and printing, such as 12, 6+1 (rhythm), 6, rhythm 12, rhythm 10, rhythm 8, rhythm 6. Manual, Freeze etc  
- 0.5 built-in lithium rechargeable battery  
- 2 USB and LAN Socket for uploading data to PC  
- built-in flash memory. Stores more than 1,000 files  
Multi-language internal software: GB, FR, IT, ES, PT, PL, SI, TR, RU, KZ, CN.  
• **33227 RECHARGEABLE BATTERY - spare**  
• **32967 PAPER ROLL 210 mm x 30 m**  
• **33328 ECG CABLE - 10 leads - spare**

TECHNICAL SPECIFICATIONS	
Input way	Floating and defibrillation protection
Lead	Standard 12 leads
Patient leak current	< 10 µA
Input impedance	≥ 50 MΩ
Frequency response	0.05 - 150 Hz (-3 - + 0,4 dB)
Time constant	≥ 3.2 s
CMRR	>60 dB, > 100 dB (adding filter)
EMG interference filter	25/35 Hz (-3 dB)
Thermal paper	210 mm x 30 m high-speed
Paper speed	Auto and rhythm record: 25, 50 mm/s, ±5% Manual record: 5, 6.25, 10, 12.5, 25, 50 mm/s, ±5%
Sensitivity selections	2.5, 5, 10, 20, 40 mm/mV, ±5%. Standard sensitivity is 10 mm/mV ±0.2 mm/mV.
Auto record	Record setup according to auto record format and mode, automatically changing leads, measuring and analyzing.
Rhythm record	Record setup according to rhythm record format and mode, automatically measuring and analyzing.
Manual record	Record setup according to manual record format, manually changing leads.
Measurement parameters	HR, P-R interval, P Duration, QRS Duration, T Duration, Q-T interval, Q-Tc, P Axis, QRS Axis, T Axis, R(V5), S(V1), R(V5)+S(V1)
Product safety type	Class I CF defibrillation and pacing protection
Size	334x320x85 mm
Power	AC: 100-240 V, 50/60 Hz DC: 14.8 V, 3700mAh rechargeable lithium battery

STANDARD ACCESSORIES	
1 ECG cable	1 ground wire
1 set limb electrode clamp	1 paper roll
1 set chest electrodes	Power connection
USB connection	
Rechargeable battery	
Software (same languages as internal software)	
Manual: GB, FR, IT	

# CARDIO 7: 12 CHANNEL RESTING ECG WITH TOUCH SCREEN

**SOFTWARE EKG VIEW PLUS**  
for data storage on PC

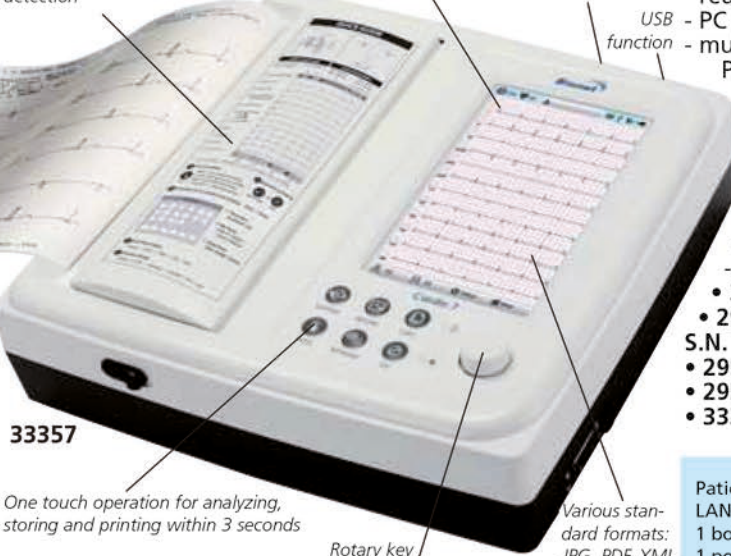


Long term ECG recording and automatic arrhythmia detection

Touch screen operation full alphanumeric keyboard support

Optional spirometer function

USB function



**33357**

One touch operation for analyzing, storing and printing within 3 seconds

Rotary key access to all menus

Various standard formats: JPG, PDF, XML, MFER, DICOM

- **33357 ECG CARDIO 7: 12 CHANNEL ECG WITH TOUCH SCREEN**
- 12 channel interpretive ECG for adult, pediatric and neonatal use
- over 130 kinds of interpretation results based on advanced Minnesota code, HRV (Heart Rate Variability analysis)
- memory for up to 200 patients
- real-time preview monitor
- PC compatible through LAN or Wi-Fi
- multi-language selectable software (GB, RU, FR, DE, IT, CN, ES, TU, PL, RU, PT)
  - lead fault message
  - pace maker detection
  - automatic arrhythmia detection
  - 3, 5, 10 minutes long term recording
  - grid function allows you to use low cost plain fax paper
  - wide and clear colour 7" TFT LCD (800x480)
  - touch screen for easy operation
  - full disclosure function
- **32950 THERMAL PAPER A4 - box of 5 rolls**
- **29534 RECHARGEABLE Ni-MH 12 V BATTERY up to S.N. T7xxxxxxx - optional**
- **29536 RECHARGEABLE Li-Ion BATTERY since S.N. T8xxxxxxx - optional**
- **29519 TROLLEY**
- **33328 ECG CABLE**

### STANDARD ACCESSORIES

- Patient cable - 10 leads
- LAN cable
- 1 bottle of ECG cream (70 g)
- 1 power cable
- manual (GB, IT)

- 1 paper roll
- 4 limb electrodes
- 6 chest limb electrodes
- EKG View Plus (GB, IT)

### TECHNICAL SPECIFICATIONS

ECG leads : 10 lead, 12 channel simultaneous ECG and acquisition  
 Dimension: 300(W) x 299(H) x 123(D)mm, approx. 3.5 kg  
 Recording channel: 3 channels + 1 rhythm, 3 channels + 3 rhythm, 6 channels + 1 rhythm, 12 channels, 60 seconds  
 1 channel, 3, 5, 10 minutes 1 channel and beat report  
 Sensitivity: 2.5, 5, 10, 20, auto (I-aVF: 10, V1-V6: 5) mm/mV  
 Printing speed: 5, 12.5, 25, 50, 100 mm/s  
 Sampling rate: 2,000 samples/sec  
 Filters: AC (50/60 Hz, -20 dB or better)  
 Muscle (25-35 Hz, -3dB or better)  
 Base line drift (0.05, 0.1, 0.2 Hz, -3dB or better)  
 Low pass filter: off, 40 Hz, 100 Hz, 150 Hz  
 Display: 7" color TFT LCD display (800x480), 12 channels preview ECG wave  
 Monitor display: ID, date, sensitivity, speed, filter, form, rhythm lead  
 User interface: Touch screen (alphanumeric and symbol available), Keyboard, rotary push-knob (pop-up menu)  
 Patient data: ID, name, age, sex, height, weight, smoke, race  
 Basic measurement: Heart rate, PR int, QRS dur, QT/QTc, P-R-T axis  
 Recorder: Thermal print head, roll paper  
 A4 report paper: 210x300 mm (8.5"x11")

Resolution: Vertical: 8 dot/mm  
 Horizontal: 16 dot/mm  
 Electrical: Internal noise: 20 µV (p-p) max  
 Input circuit: floating input  
 Input impedance: ≥50 MΩ  
 Input voltage range: ≥ ±5 mV  
 Common mode rejection: > 105 dB  
 DC offset voltage: ≥ ±400 mV  
 Time constant: 3.2 sec  
 Patient leakage current: < 10 µA  
 Frequency response: 0.05 ~150 Hz  
 Isolated and defibrillation protected  
 Signal quality control: Disconnected lead detection  
 Pacemaker pulse detection  
 ECG data storage: storage for 200 ECGs (Internal on flash memory)  
 Power: AC 100-240 VAC, 50/60 Hz or battery (option)  
 2.0~1.0 A, 60 VA max  
 Battery (Li-Ion): 4 hours of normal use (approx.200 ECG printouts)  
 Communication: PC connection with LAN D2 Wi-Fi  
 Safety conformity: Class I, Type CF, CE, CSA, FDA, KFDA, CFDA, CCC

## SPIROMETER MODULE FOR CARDIO 7

• **33356 SPIROMETER MODULE - for code 33357**

It transforms CARDIOGIMA 7 in a 2 in 1 system: ECG-SPIROMETER.

Spirometry measuring values:

FVC: FEV 1.0, FEV 1/FVC, FEV 0.2-1.2L, FIVC, FEV 25-75, FEV 75-85%, PEF, FEF 200-1200 ml, FEF 25%, FEF 50%, FEF 75%, PIF, FET 100%, FIVC.

SVC: SVC, ERV, IRV, TV, EC, IC,

MVV: TV, MVV, FB

Pre and post bronchodilator comparison.

Presentation: flow volume loop, flow time plot, measurement values table. Complies with ATS standard.

• **33362 DISPOSABLE MOUTHPIECES - box of 100 pcs.**

**33356**



## ECG CABLE COMPATIBLE WITH MOST ECG BRANDS

• **33328 ECG cable - 10 leads**

Long lasting, individually tested cable compatible with the following ECG machines:

**BIONET:** Cardiocare, Cardiotouch

**CARDIOLINE:** E1, E1R, E3, Delta 300, Delta 360, C3.

**CARDIETTE (Elettronica Trentina):**

Autoruler 12/1, Autoruler 12/3, Excel 103, Excel 106, Astron Comp 1, Astron Comp 3, Astron Comp 6, Start 100 P, Start 100 H, Start 200, Start 200HV, AR600, AR 600 ADV, AR1200, AR1200ADV.

**CARDIORAPID CAMINA:** K111, K112, K33, K36, K300 M, K300 P, K600 P, K600 D, K130 B, K 130 D.

**CONTEC:** 100G, 300G, 600G, 1,200G

**EDAN:** Smart SE-1, SE-3

**ESAOTE:** P80, P8000

**GIMA:** CARDIOGIMA 1M, 3M, 6M, 12, 12M

**HP:** Pagewriter 1513, 154B/C, 1514D, 1515A/B, 1517A.

**KONTRON EKG P80**

**MACQUAIRE CT100, CT200.**

**M4 MEDICAL:** M traces

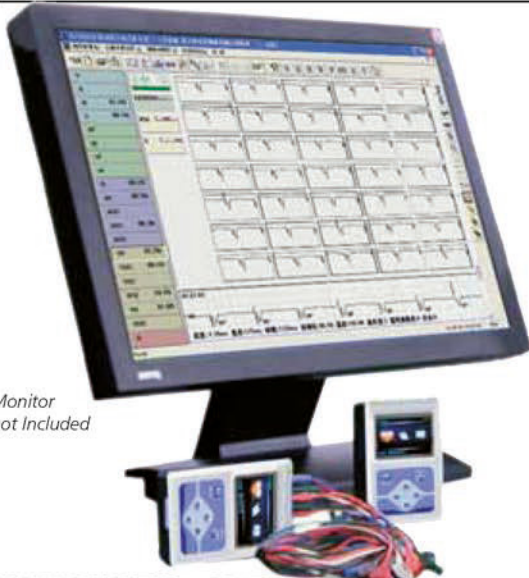
**NIHON - KOHDEN** Cardiofax 651, 6581, 8110.

**PROGETTI all models:** EPG junior, EPG view, EPG6 view, EPG6 view plus

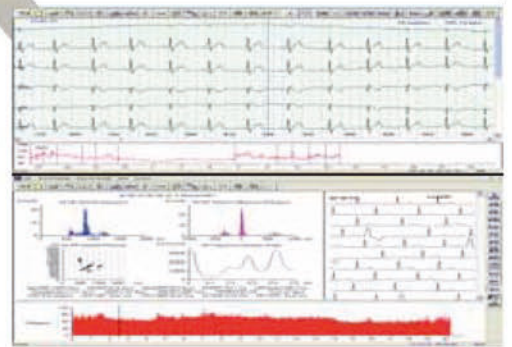
**SCHILLER AT/1, AT/2, AT/3, AT/4, AT/5, AT/6, AT/10, CS6, CS12, CS100, CV6, P80.**



## HOLTER ECG SYSTEM - 24 HOURS MONITORING



Monitor not included



### • 35130 ECG HOLTER + SOFTWARE

ECG Holter system includes ECG recorder and software connectable to a computer system or laser printer. The recorder has built-in flash storage media to increase memory capacity. The sampling rate of 1,000 sampling/sec has improved the quality of waveform.

Accuracy of the system is ensured by AHA and MIT data.

#### Features:

- windows software interface (GB, IT, PL)
  - quick and accurate analyzing system
  - special editing system of R point
  - perfect analysis function of ST segment
  - analysis function of T wave of all channels and T wave trend graph
  - review of ECG trend graph
  - analysis system of HR variability, providing regular SDNN, SDANN, RMSSD, LF, HF, time domain and frequency domain
  - QT analysis and QT trend graph
  - acquire pacing ECG directly without separate channel;
- Also have the functions of VCG, VLP, TVCG, HRT, TWA

#### Recorder:

- 12 channel Synchronized ECG Acquisition
- small ECG recorder with OLED colour screen to display real time ECG waveform and review storage data.
- capacity up to 2G
- selectable sampling rate, 200, 500, 1,000 sampling/sec
- sampling accuracy: 12 bit
- built-in FLASH storage media, to prevent the flash card from damage due to repeated insertion and pull out
- USB interface
- operating system: Win 98, 2000, XP, 7, 8, 10

### • 35131 ECG CABLE - spare

#### TECHNICAL SPECIFICATIONS

Scale voltage: 1mV±5%	Least measure signal: 50µV p-p
Standard sensitivity: 10mm/mV ±5%	Interference between channels: scan track deflection (result from interference between channels) <0.5mm
Noise level: ≤30µV	Product safety type: type B (internally powered)
CMRR: ≥60dB	Size: 111 (L) x60 (W) x25 (H) mm
Frequency response: 10Hz as benchmark, 0.5Hz~55Hz; -3dB	Net weight: 105 g (without battery)
Time constant: >3.2s	
Scan speed: 25mm/s ±5%	
Enduring polarization voltage: ±300mV	



#### STANDARD ACCESSORIES

- 1 Holter recorder
- 1 CD with software
- 10 leads patient cable
- 10 disposable ECG sensor
- 1 pouch for hanging recorder
- 1 USB cable for data downloads
- Instruction Manual (GB, IT)



## PC-ECG WITH INTERPRETATION SOFTWARE AND USB PORT

### • 33320 PC-ECG + ECG LAB SOFTWARE

Innovative PC-ECG device that can be connected to your PC via USB port. No power cable is required as it is powered through the USB PC cable. The unit is supplied with a 10 banana plug ECG cable (length 295 cm) and a powerful interpretation software (GB, FR, IT, DE, ES, PT, CN).

Main software features:

- 12 lead resting ECG with auto interpretation (ECG)
  - vector ECG (VCG)
  - sampling screen colour customization
  - standard or thermal paper print, B&W or colour
  - auto interpretation On or Off
  - tests comparison
  - multi ECG report formats
  - measurement table
  - 90s resting ECG full disclosure
  - multi hour ECG monitoring with holter analysis
  - simple exercise stress test with report
  - e-mail, PDF, ASCII, HL7, Dicom, GDT Interfaces
  - 33328 ECG CABLE - SPARE
  - 33321 PC-ECG+CARDIOLOGY SOFTWARE
- Same as code 33320 but with the following specialist functions:
- timed vector ECG (TVCG)
  - SAECG (Signal Averaged ECG) ventricular late potentials analysis
  - QTd analysis
  - hour ECG
  - High Frequency ECG (HFECG)
  - Frequency Cardiogram (FCECG)
  - simple exercise ECG

### • 33322 CARDIOLOGY SOFTWARE to upgrade 33320 into 33321

#### TECHNICAL SPECIFICATIONS

Communication port:	USB - Support HL7, Dicom interface
Size:	120x85x28 mm - 190 g
Power source:	5V DC (from PC USB port)
Patient insulation:	4000 V AC
Defibrillation protection:	built-in patient cable
Sample rate:	10240Hz - Sample accuracy: 16 bit
PC minimum requirements:	Windows 2000, XP Vista and Windows 7 CPU ≥ 1 GHz - HD ≥ 40 G - RAM ≥ 256 M

#### STANDARD ACCESSORIES

- 4 limb electrodes
- 6 chest electrodes
- Patient cable 10 leads,
- 10 electrodes
- USB pen driver
- CD software
- Banana plug



ECG CAD gram to locate coronary artery disease and ischemia

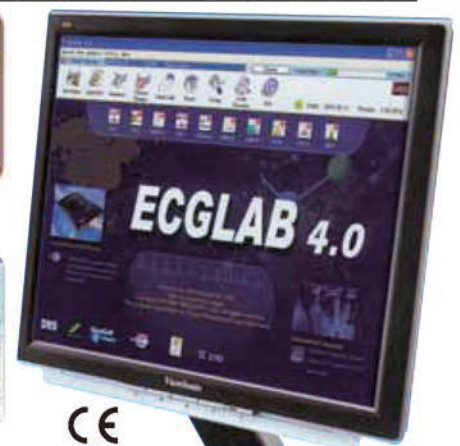


3-VCG analysis



QT Dispersion QTD analysis with chroma map

Above 3 pictures refers to code 33321



CE 0197

PC not included

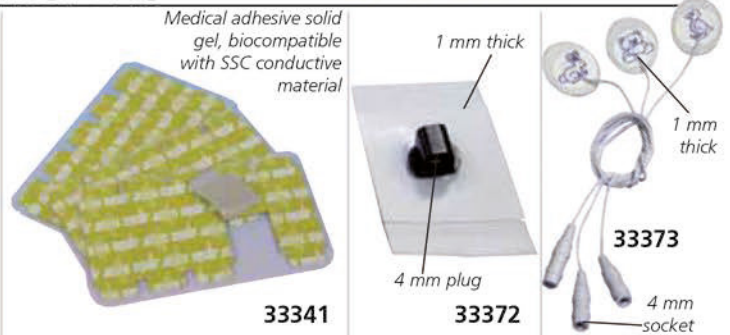


Only 550 g

4 mm pins

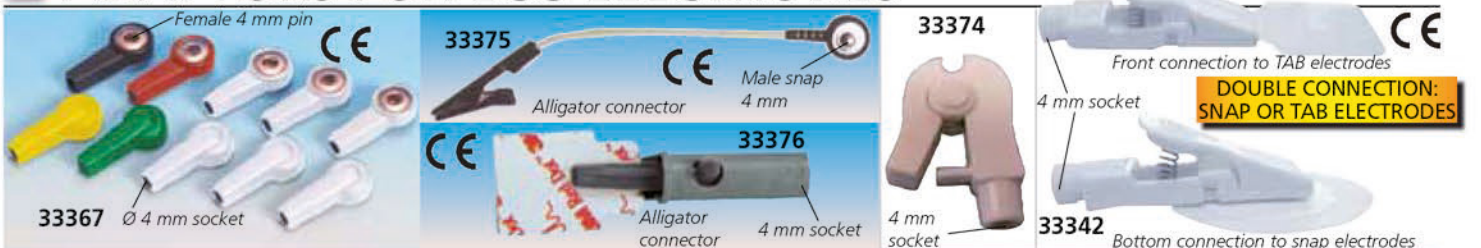


## FIAB ECG UNIVERSAL ELECTRODES



UNIVERSAL DISPOSABLE ECG ELECTRODES - latex free								Minimum order
code	FIAB code	Material	Size	Gel	Shape	Connection	Application	
33313	F9089P-100	Foam	Ø 32x36 mm	Solid	Oval	Snap	Pediatric - rest, long term, stress and ECG holter	box of 2,000 pcs (20 bags of 100)
33370	F9060P	PE-Foam	Ø 40 mm	Solid	Round	Snap	Pediatric - rest, long term, stress and ECG holter	bag of 50 pcs
33314	F9089-100	Foam	Ø 36x40 mm	Solid	Oval	Snap	Adult - rest, long term, stress and ECG holter	box of 2,000 pcs (20 bags of 100)
33371	F9060	PE-Foam	Ø 48x50 mm	Solid	Oval	Snap	Adult - rest, long term, stress and ECG holter	bag of 50 pcs
33344	F9067	PE-Foam	Ø 48x50 mm	Liquid	Oval	Snap	Adult - rest, stress and ECG holter	box of 1,200 pcs (24 bags of 50)
33327	F2080	Non woven	Ø 55 mm	Solid	Round	Snap	Adult - rest ECG	box of 1,200 pcs (24 bags of 50)
33341	F3001ECG	Gelled	34x23 mm	Solid	TAB	Alligator	Adult - rest ECG	bag of 100 pcs
33372	F9047/4FL	PE-Foam	28x44 mm	Liquid	Rectangular	Plug 4 mm	Adult - rest ECG	box of 1,000 pcs (20 bags of 50)
33373	F9053N	Foam	Ø 23x30 mm	Solid	Oval	35 cm wire with 4 mm socket	Pediatric and neonatal	box of 150 pcs (5 bags of 30)

## ADAPTORS FOR ECG ELECTRODES



UNIVERSAL ADAPTERS FOR ECG ELECTRODES			Minimum order
33367	Set of 10 adaptors (6 white, 1 yellow, 1 green, 1 red, 1 black) for ECG electrodes with 4 mm snap - codes 33313, 33314, 33327, 33344, 33370, 33371		set of 10 pcs
33375	Alligator adaptor with wire - total length: 16,5 cm		10 pcs
33376	Alligator adaptor		10 pcs
33342	Multifunction adaptor - can fit both snap electrodes and TAB electrodes - size 14x54x17 mm		10 pcs
33374	Grabber adaptor - fit snap electrodes - size 22.5x33 mm		10 pcs

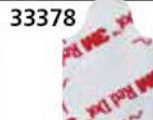
## LIMB CLAMP AND CHEST ELECTRODES



UNIVERSAL REUSABLE ECG ELECTRODES LATEX FREE - NICKEL FREE			Minimum order
33363	Set of 4 limb clamp electrodes (4 colours) pediatric		1 set
33364	Set of 4 limb clamp electrodes (4 colours) adult		1 set
33368	Set of 6 chest electrodes Ø 15 mm - silver coated		1 set
33365	Set of 6 chest electrodes Ø 24 mm - silver coated		1 set
33369	Set of 6 chest electrodes Ø 30 mm - silver coated		1 set
33323	Set of 6 chest electr. Ultra Ø 24 mm - silver coated		1 set
33324	Set of 6 chest electr. Ultra Ø 30 mm - silver coated		1 set



# 3M™ RED DOT™ ELECTRODES



code	3M code	3M™ RED DOT™ ELECTRODES	Minimum order
<b>Gel electrodes - short term diagnostics</b>			
33378	2330	3M™ Red Dot™ - 3.2 x 2.2 cm	bag of 100
<b>Foam monitoring electrodes</b>			
33293	2570	3M™ Red Dot™ - 4 x 3.5 cm	bag of 50
33294	2237	3M™ Red Dot™ - Ø 6 cm	bag of 50
<b>Non woven monitoring electrodes</b>			
33299	2248-50	3M™ Red Dot™ - Pediatric - Ø 4.5 cm	box of 50
33300	2271	3M™ Red Dot™ - 5.6 x 5.1 cm	box of 50
33297	2239	3M™ Red Dot™ - Ø 6 cm	box of 1,000*

\*20 bags of 50 pieces

**3M 2330** resting ECG electrode with adhesive gel

**3M 2570** electrode with foam tape and sticky gel - radiolucent. 5-days wearing time

**3M 2237** fluid resistant foam polyethylene backing. 3-days wearing time

**33300**



**3M 2271** diaphoretic soft cloth monitoring electrode with blue abraded 3-days wearing time

**33299**



**3M 2248-50** pediatric monitoring electrode with micropore tape backing

**33297**



**3M 2239** monitoring electrode with micropore tape backing 3-days wearing time

# AMBU BLUE SENSOR ECG ELECTRODES



4 mm	Tab or snap	code	AMBU code	Description	Application	Gel type	Backing material	Size (mm)	Shape	Shelf life* (month)	Radiolucent	Connector type	Minimum order	Packaging
		<b>33200</b> <b>33201</b>	SU-00-A/60 SU-00-C/100	Blue sensor SU	Resting	Wet	Polymer	49x33	Tear drop	24	No	4 mm TAB	box of 1,200 box of 1,200	20 pouches of 60 12 pouches of 100
		<b>33203</b>	L-00-S/25	Blue sensor L	Long-term	Wet	Microporous	68.2x55	Round w/offset	24	No	Snap	box of 500	20 pouches of 25
		<b>33204</b> <b>33205</b> <b>33206</b>	VL-00-S/25 VL-00-S/25 VL-00-A/25	Blue sensor VL	Long-term	Wet	Microporous	72x68	Round w/offset	24	No	Snap Snap 4mm	box of 25 box of 500 box of 500	1 pouch of 25 20 pouches of 25 20 pouches of 25
		<b>33208</b> <b>33209</b>	R-00-A/25 R-00-S/25	Blue sensor R	Stress test	Wet	Foam	57x48	Round w/offset	24	No	4mm Snap	box of 500 box of 500	20 pouches of 25 20 pouches of 25
		<b>33211</b> <b>33212</b>	M-00-A/50 M-00-S/50	Blue sensor M	Short-term	Wet	Polymer	40.8x34	Round w/offset	15	No	4mm Snap	box of 1,000 box of 1,000	20 pouches of 50 20 pouches of 50

\*Shelf life means maximum life from production date. Average Gima shelf life is 50 to 90% of maximum life

## BLUE SENSOR

BlueSensor is the world's most time and cost efficient range of electrodes that delivers unmatched readings, user convenience and patient comfort. BlueSensor ensures that you don't get your workflow disrupted by false alarms or have to waste time resolving problems with electrode adhesion.

**Exact monitoring - clear picture**  
Blue Sensor electrodes give a fast and reliable trace without the need for skin preparation, maximizing comfort for the patient. We know that fast, exact monitoring that ensures a clear picture of the patients' heartbeat is essential to accurate diagnoses.

### AMBU BLUE SENSOR SU

- highly conductive wet gel
- superior quick adhesion
- unique offset connector - fitting or tab

- occlusive backing material
- high quality Ag/AgCl sensor
- AMBU BLUE SENSOR L**
- highly conductive wet gel
- combination of instant and long-term adhesives
- breathable microporous material
- unique offset connector
- high quality Ag/AgCl sensor
- AMBU BLUE SENSOR VL**
- highly conductive wet gel
- combination of instant and long-term adhesives
- breathable microporous material
- unique offset connector
- high quality Ag/AgCl sensor
- AMBU BLUE SENSOR R**
- highly conductive wet gel
- superior adhesion
- comfortable foam backing
- large measuring area



- unique offset connector
- high quality Ag/AgCl sensor
- AMBU BLUE SENSOR M**
- highly conductive wet gel
- superior adhesion
- occlusive backing material
- unique offset connector
- high quality Ag/AgCl sensor

# ECG GEL AND SPRAY

- 33266 ECG GEL - 250 ml - box of 40 tubes
- 33263 ECG GEL - 5 l - box of 4 bags\*\*
- 33268 ECG SPRAY GEL - 250 ml - box of 20 tubes

Suitable for non pre-gelled electrodes, ECG latches and pendant switches in any ECG and exertional applications. Allows ECG waves clear transfer to equipment.

It is hypoallergenic, does not irritate skin, does not contain oil and oily substances, does not contain formaldehyde and salt, has no toxic effects and is odourless.

- 33283 PUMP FOR BAG 5 l

\*\*Includes 4 empty bottles 250 ml and 1 nozzle for easy refill





## SONY MEDICAL PRINTERS



Space saving design:  
154x240xh 88 mm,  
for flexible integration  
into medical carts

33968

**SONY**

- 33968 SONY HYBRID GRAPHIC PRINTER UP-X898 MD - black/white  
Produces A6 size printings in about 2 seconds, with superb print quality with 325 dpi and grey level of 256 steps. Can take both analogue video and digital signal inputs. 110-240 V AC, 50/60 Hz.

- 33993 SONY COLOUR PRINTER UP-25 MD  
High quality analogue A6 Dye.

Sublimation Printer for use in medical applications.

An ideal technology for making high quality, accurate photographic prints.

See more info on [www.gimaitaly.com](http://www.gimaitaly.com)



33993

## SONY ORIGINAL PAPER



**SONY**

### SONY VIDEOPRINTER PAPERS

- 72726 SONY PAPER - UPP-110 HD - box of 10 rolls  
High density printing paper - 110 mm x 20 m
- 72727 SONY PAPER - UPP-110 HG - box of 10 rolls  
High glossy printing paper - 110 mm x 18 m
- 72728 SONY PAPER UPP-110S - box of 10 rolls
- 72729 SONY PAPER UPP-110HA - box of 10 rolls
- 72735 SONY COLOUR PAPER UPC-21L  
(4 ink rolls + 200 supports 144x100 mm)

## MITSUBISHI ORIGINAL PAPER

- 72740 MITSUBISHI PAPER  
K65HM-CE - box of 4



## COMPATIBLE PAPERS FOR SONY AND MITSUBISHI PRINTERS



### ULTRASOUND COMPATIBLE PAPER FOR VIDEOPRINTERS

Top quality thermal print media perfectly fitting Sony and Mitsubishi thermal printers.

**Long lasting image durability for high storage durability**  
- high humidity and heat resistance for long storage  
- strong resistance to water, finger prints and ultrasound gel drops.

**Precise, high resolution image reproduction**

- first class colour intensity for highest black colour density  
- outstanding, bright, sharp and detailed medical image  
- high glossy, brilliant, photorealistic reproduction

**Trouble-free printing and long-term use of printer**

- easy tearing along the cross direction  
- minimum curling for flat photo media and easy filing  
- built-in anti-electrostatic layer preventing thermal head damage.



code	Compatibility		Paper grade	Size mm x m	Minimum order
	SONY	MITSUBISHI			
72745	UPP-110HG	K91HG/KP91HG	high glossy	110x18	box of 5
72746	UPP-84HG	-		84x12.5	box of 10
72747	UPP-110HD	-		110x20	box of 5
72748	-	K65HM/KP65HM	high density	110x20	box of 5
72749	UPP-210HD	-		210x25	box of 5
72750	UPP110S	-	standard	110x20	box of 5
72751	-	K61S/KP61S/KP61B		110x20	box of 5

## COMPATIBLE DEFIBRILLATOR ECG THERMAL PAPER - DIFFERENT BRANDS

code	MANUFACTURER AND MODEL	Type	Width mm	Length m	Sheet	Marker	Grid*	Min. order	GIMA code	MANUFACTURER AND MODEL	Type	Width mm	Length m	Sheet	Marker	Grid*	Min. order
33100	CORPLUS Corplus 3	roll	106	20	-	no	or/red	10	33102	PHILIPS Defibrillator MRX	roll	75	25	-	no	or/red	10
32968	MINDRAY Beneheart D3, D6	roll	50	20	-	no	or/red	20	33103	Heartstart XL	roll	50	30	-	no	or/red	20
33103	HEWLETT PACKARD 40457CD, Codemaster 100, XL	roll	50	30	-	no	or/red	20	33032	PHYSIO CONTROL Life Pack 8-9-10	roll	50	23	-	no	or/red	20
33029	NIHON KOHDEN Def. TEC 5521, 5531, BSM 2300, 3000	pack	50	100	200	no	or/red	25	33033	Life pack 11-12-15	roll	107	25	-	no	or/red	10
32988	Tech-8300	roll	50	30	-	no	or/red	20	32983	SCHILLER Defigard 6002	pack	80	70	300	yes	or/red	20
										ZOLL Defi/1400 (P/N 8000-0300)	pack	90	90	200	yes	or/red	20

\*or/red: grid could be orange or red colour



## GIMA ULTRASOUND GEL



code	ULTRASOUND GEL	Minimum order
33269	Sterile ultrasound gel - sachet - 20ml - transp	box of 48
33271	Ultrasound gel - sachet - 20ml - transparent	box of 200
33270	Ultrasound gel - tube 60 ml - transparent	box of 12
33272	Ultrasound gel - tube 250 ml - blue	box of 40
33273	Ultrasound gel - tube 250 ml - transparent	box of 40
33274	Ultrasound gel - bottle 1 l - blue	box of 12
33275	Ultrasound gel - bottle 1 l - transparent	box of 12
33276	Ultrasound gel - tank 5 l - blue	box of 2*
33277	Ultrasound gel - tank 5 l - transparent	box of 2*
33278	Ultrasound gel - bag 5 l - blue	box of 4**
33279	Ultrasound gel - bag 5 l - transparent	box of 4**
33283	Pump for tank 5 l and bag 5 l	

\*includes 2 empty bottles 250 ml \*\* includes 4 empty bottles 250 ml and 1 nozzle

### GIMA ULTRASOUND GEL

Hypoallergenic, water soluble gel suitable for ultrasonography, doppler and defibrillator applications. It ensures the ultrasound waves come to the equipment display in a clear and uninterrupted way. Salt, formaldehyde, fragrance free.



## GEL CLEANER

• **33281 GEL PROBE CLEANER 250 ml**  
It removes the gel left over the probe, makes the image clearer and extends the probe life. Thanks to the active agents contained, it prevents the bacteria to pass from patient to patient, and it ensures hygiene. Alcohol-free.



## COSMETIC GEL



## TECARTHERAPY CREAM

• **33251 TECARTHERAPY CREAM 1 l**  
It allows to reduce the contact impedance between the probe and the skin. The high conductivity ensures the best results both in the capacitive phase and in the resistive phase of the treatment. Preservatives and dyes used are non-toxic. Latex free.



## EEG PASTE

• **33262 EEG PASTE - 400 g**  
Used with EEG electrodes in EEG application for brain mapping. Thanks to the active substances in its content, it allows the electrode to cling to the strand of hair easily and provides conductivity. It is hypoallergenic, does not irritate skin, soluble in water and can be cleaned easily. Does not contain oil and oily substances. It has no toxic effects and odour.



### KONIX COSMETIC LASER & CAVITATION GEL

Laser & Cavitation gel reduces the pain that patients experience during depilation and makes the device last longer by cooling the device head and window. Thanks to the vacuum technology, its active substances and its high viscosity it preserves probe from damages. It is not affected by the body salt during the use, ensures an easy application. **Technical properties:** it is hypoallergenic, does not irritate skin, is water soluble and easily cleanable. Oily substances, formaldehyde and salt free. No toxic effects and odourless.

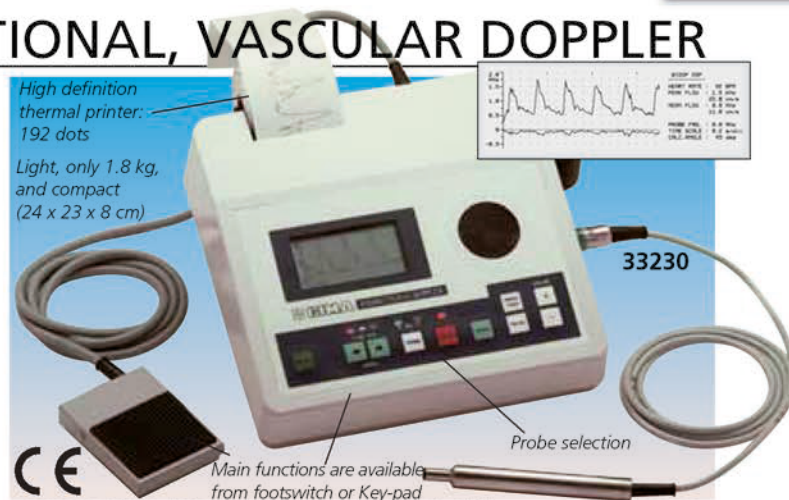
code	COSMETIC LASER & CAVITATION GEL	Minimum order
33253	Cosmetic gel - tube 250 ml	box of 40
33254	Cosmetic gel - bottle 1 l	box of 12
33255	Cosmetic gel - bag 5 l	box of 4**
33283	Pump for bag 5 l	

\*\* includes 4 empty bottles 250 ml and 1 nozzle for easy refill



# GIMA PORTABLE, BIDIRECTIONAL, VASCULAR DOPPLER

- **33230 GIMA BIDIRECTIONAL DOPPLER NON STEREO with two probes: 4 and 8 MHz**  
Continuous wave (CW) bidirectional doppler equipped with electronic probes for high sensitivity and low background noise.
  - bidirectional graphic separation of flow (forward and reverse)
  - LCD graphic display for real time display of forward and reverse flow in bidirectional or separate mode
  - selectable amplitude scale: 1, 2, 4, 8 kHz during the test and before printing. Preset zero line
  - 5 minutes (300 sec.) continuous and reviewable memorized test. Operator can select the most meaningful exam and print it.
  - calculation of: heart rate, peak flow and mean flow
  - simultaneous connection of high sensitivity probes
  - internal rechargeable large capacity battery (Ni-Cd 1.8 Ah); the system can be operated during charging. Autonomy 8 hours
  - footswitch for freezing or memorizing the graphs
  - hardcopy may or may not include the parameter calculation
  - printing time scale: 25 mm/s
  - Hi-fi audio output for correct acoustic diagnosis



- **33240 GIMA BIDIRECTIONAL PROBE 4 MHz - spare for 33230**
- **33241 GIMA BIDIRECTIONAL PROBE 8 MHz - spare for 33230**
- **33250 THERMAL PAPER 58 mm x25m (pack of 5 rolls)**

# POCKET DOPPLER WITH INTERCHANGEABLE OR FIXED PROBES



TECHNICAL SPECIFICATIONS	
<b>Ultrasound</b>	<b>Power supply</b>
Frequency: 2, 5 or 8 MHz continuous wave	Battery 9V Alkaline (not included)
Transducer: 2 crystal narrow beam	Expected battery life: >9 hours
Output power: <15mW/cm <sup>2</sup> SATA	<b>Output</b>
Audio Response: 300Hz - 4 KHz	Headset: Audio output to optional headset (not included)
<b>Unit Controls</b>	Material: ABS / Noryl
Keys: 1 Key (for unit on/off)	Size - weight: 150 mm by 75 mm - 299 g
Controls: rotary volume	Classification: Class I Type B - IEC 60601-1
Indicators: Yellow battery low LED	

## GIMA POCKET DOPPLERS

Small, lightweight, high sensitivity pocket Doppler. Its probes are ideal for use by a General Practitioner, vascular specialist for routine vascular examination in ER for vessel location, or by specialists in diabetes, urology and gynaecology. Vascular flow signals and FHR are easily located using the transducer while internal signal processing minimizes noise artefacts. The flow signal is also available to the user via the built-in loudspeaker with output level controlled by rotary volume control. 2 years warranty. Supplied in a nice bag with probe, cable, gel tube and 7 languages user manual: GB, FR, DE, IT, ES, GR, PT.

code	GIMA POCKET DOPPLERS
33120	DOPPLER V2005 with 5 MHz fixed vascular probe
33121	DOPPLER V2008 with 8 MHz fixed vascular probe
33123	DOPPLER V2000 (without probe)
33126	2 MHz interchangeable probe - foetal for V2000
33127	5 MHz interchangeable probe - vascular for V2000
33128	8 MHz interchangeable probe - vascular for V2000
29511	ON/OFF membrane switch spare for 33120/3

# SONOTRAX DOPPLERS



code	DOPPLERS AND INTERCHANGEABLE PROBES - LATEX FREE
29490	SONOTRAX LITE DOPPLER - without probe - with bag
29491	SONOTRAX BASIC DOPPLER - with display - without probe - with carrying bag
29493	SONOTRAX PRO II DOPPLER with backlit display built-in audio recorder and rechargeable batteries, battery charger, carrying bag, without probe
29496	2MHz waterproof probe - gynaecology
29497	3MHz waterproof probe - gynaecology
29498	4MHz waterproof probe - vascular
29499	8MHz waterproof probe - vascular

# SONOLINE COLOUR DOPPLER

- **29480 COLOUR SCREEN POCKET DOPPLER**
  - portable and lightweight
  - built-in speaker
  - TFT-LCD, real-time display of FHR
  - three working modes: real-time FHR, average FHR and manual calculation
  - display of FHR, bar graph and heartbeat waveform, red alarm for abnormal FHR
  - low power consumption, continuously work for more than 8 hours with two "AA" batteries LR6
  - 1.5 VDC
  - indication for probe-off and low battery
- **29481 2 MHz WATERPROOF PROBE - gyn**
- **29482 3 MHz WATERPROOF PROBE - gyn**
- **29483 4 MHz WATERPROOF PROBE - vascular**
- **29484 8 MHz WATERPROOF PROBE - vascular**



TECHNICAL SPECIFICATIONS		
Ultrasound working frequency:	2 MHz ± 10%	
Fetal heart rate:	range: 50-240 bpm	accuracy: ± 2 bpm
	resolution: 1 bpm	
Alarm:	high limit: 160 bpm	low limit: 120 bpm
Ultrasound intensity:	< 5 mm/cm <sup>2</sup>	
Auto power off after 1 minute no signal		
Dimension - weight:	135x92x29 mm - 245 g	

# MINDRAY DP-10 AND DP-20 DIGITAL ULTRASOUND SYSTEM

## DP-10 slim and smart

Good image quality, easy to use and lightweight to take it anywhere. It combines fashionable design, diagnostic confidence and economy.

## DP-20 exceeds your expectations

Smart portable B/W ultrasound system with advanced features

### Display modes and imaging processing:

Broadband, multi-frequency imaging: B, B/B, 4B, B/M, M

### Imaging processing:

- multi-frequency probes for 2D imaging modes -
- iClear: speckle reduction image
- THI (Tissue Harmonic Imaging) with convex probe 33976 only

- TSI (Tissue Specific Imaging)
- zoom function: spot zoom, pan zoom
- ExFOV (Extended field of view)

Extended view of the anatomical structure on all convex and linear probes allow to discover better diagnostic information.

- iTouch (Auto image optimization)

### User interface

- alphanumeric QWERTY keyboard with backlight
- trackball: speed presettable
- 8-segment TGC
- user defined blank keys: shortcut for easy access to menus

### iStation™ intelligent workflow

Intelligent patient data management system

- integrated search engine for patient data
- detailed patient information review
- intelligent data backup/restore
- patient data/image sending, data deleting (USB, DVD, DICOM)
- exam managing: activate exam

### Storage/review mode:

- image archive on hard disk and USB mobile storage medium, temporary saving in cine memory, directly transfer report to PC
- 2 USB ports
- multiple image formats: BMP, JPG, DCM, FRM, AVI, DCM, CIN
- iVision: demo player
- Cine review: auto, manual (auto review segment can be set), supports linked cine review for 2D, M images
- Cine memory capacity (max.)
- clip length presettable: 1-60 s

B mode: 11959 frames M mode: 110.0 s

Supplied with GB, IT manual and CD manual (GB, FR, IT, ES, PT, DE, RU, BR).



Handle for easy mobility

33971

Lithium-ion battery on request for DP-20



### iScanHelper function

Dedicated inbuilt tutorial function to enhance ultrasound experience.

- wide selection of application specific exam planes
- anatomical illustrations
- standard ultrasound images
- scanning reference pictures
- tips on scanning and diagnosing

### Optional PW doppler for probes 33976 (Convex), 33977 (Linear)

DP-10/20 support superb PW Doppler imaging to access blood flow in different clinical conditions.

With PW, doctors will be able to:

- differentiate non echoarea and blood vessels
- distinguish arteries and veins
- evaluate blood flow velocity for more comprehensive diagnosis
- Check the health of a fetus by blood flow evaluation of the umbilical cord

### Features

Parameter adjustment: Gain, Sample volume size, Scale, Steer, Dynamic range, Wall filter, etc.

Measurement: Trace, HR, Velocity, PS/ED, PI, RI, etc.

33985



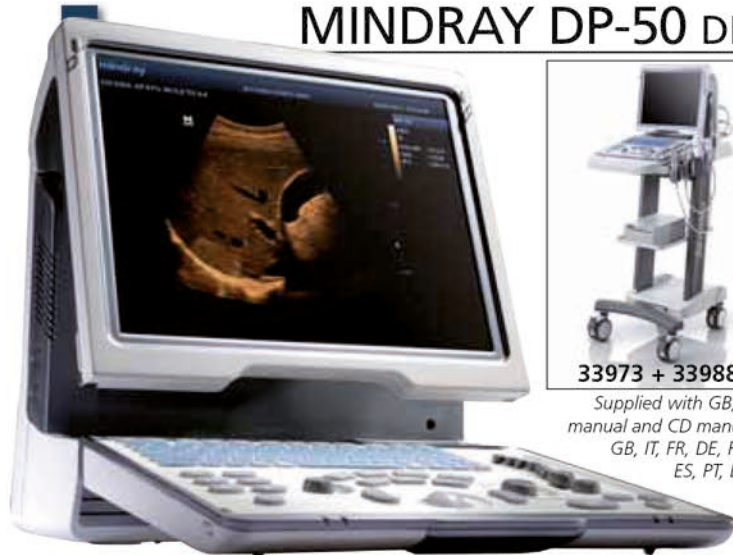
code	DIGITAL ULTRASONIC DIAGNOSTIC IMAGING SYSTEM	
33970	MINDRAY DP-10 B/W system with 1-probe connector, 12.1" high resolution LED monitor, 2 USB port, 1 VGA OUT port, 1 video OUT, 1 S-Video OUT, software, without probe	
33971	MINDRAY DP-20 portable B/W system with 1-probe connector, 12.1" high resolution LED monitor, 2 USB port, THI, iStation™, software package, without probe	
PW DOPPLER		
33969	PW (Pulse Wave) doppler for probes 33976, 33977	
ACCESSORIES		
33875	Needle guided brackets for Linear probe (33977, 33983)	
33876	Needle guided brackets for Micro-Convex probe (33979, 33984)	
33974	Lithium-ion rechargeable battery for DP-20	
33985	Carrying bag for DP-10, DP-20, DP-30	
33986	UMT-110 mobile trolley for DP-10, DP-20, DP-30	
33968	SONY HYBRID GRAPHIC PRINTER X898 MD	

PROBES DP-10 - DP-20		FREQUENCY (MHz)		● Main application										
code	Mindray code	Scanning method	Main freq.	Probe band width	ABDOMINAL	OB / GYN	UROLOGY	SMALL PARTS	CARDIOLOGY	MSK	VASCULAR	PEDIATRIC	ORTHOPEDECS	INTRAOOPERATIVE
33976	35C50EB	Convex	3.5	2.0 - 5.0	●	●	●	●	●	●	●	●	●	●
33977	75L38EB	Linear	7.5	5.0 - 10.0	●	●	●	●	●	●	●	●	●	●
33978	65C15EA	Micro-convex	6.5	5.0 - 8.5	●	●	●	●	●	●	●	●	●	●
33979	65EC10EB	Micro-convex	6.5	5.0 - 8.5	●	●	●	●	●	●	●	●	●	●
33980	35C20EA	Micro-convex	3.5	2.0 - 5.0	●	●	●	●	●	●	●	●	●	●
33983	75L53EA	Linear	7.5	5.0 - 10.0	●	●	●	●	●	●	●	●	●	●

TECHNICAL SPECIFICATIONS	
Dimension:	16x29xh 35.4 cm (6.3"x11.4"xh 13.9")
Weight:	5.1 kg
Display:	12.1" LED, high-resolution 1024x768
Display language:	DP-10, DP-20: GB, FR, DE, IT, ES, PT, RU, CZ, PL
Power:	AC100-240 V, 50-60 Hz
	Rechargeable lithium-ion battery (DP-20 only) - on request



# MINDRAY DP-50 DIGITAL ULTRASOUND DIAGNOSTIC SYSTEM



33973 + 33988

Supplied with GB, IT manual and CD manual  
GB, IT, FR, DE, RU, ES, PT, BR.

- 33973 MINDRAY DP-50 PORTABLE ULTRASOUND with 15" high resolution LCD monitor, 2 probe connectors, 320GB hard disk, 4 USB ports, multiple software package, without probes. Imaging mode: B, B/B, 4B, B/M, M  
Image processing technology:
  - Phase Shift Harmonic Imaging
  - Tissue Harmonic Imaging
  - iBeam™ Spatial Compound Imaging
  - iClear™ Adaptive Speckle Suppression Imaging
  - iTouch™ Auto Optimization
  - Trapezoid imaging
  - iZoom™ Automatically expand the image to full screen
  - Slant scanning for linear probes (2D Steer)
- Wideband multifrequency probes: continuously adjustable 2-14 MHz  
Intelligent Workflow/Storage/Review:
  - iStation™ Intelligent patient data management system
  - 320 GB integrated hard disk for storage
  - 4 USB ports
  - Cine memory capacity (Max.) B mode: 10566 frames
  - M mode: 66.3 s
- 33972 MINDRAY DP-50 PT PORTABLE ULTRASOUND PHYSIOTHERAPY PRESET with 15" high resolution LCD monitor, 2 probe connectors, 320GB hard disk, 4 USB ports, multiple software package, without probes. Same as 33973 but with real time ultrasound imaging (RTUI) for physiotherapy. Dedicated Physiotherapy presets: pelvic/hip/lumbar spine/shoulder/elbow/wrist/knee/ankle/Achilles tendon/cervical spine. Dynamic tracking therapeutic effects with image comparison function. Optimal musculoskeletal image quality

TECHNICAL SPECIFICATIONS	
Display:	15" LCD
Display language:	GB, FR, IT, ES, PT, RU, PL, CZ, TR, FI, DK, NO, SE, DE
Power:	AC 100-240 V - 50/60 Hz rechargeable lithium-ion battery - on request
Size and weight:	19x41.5xh 37.8 cm (7.5"x16.3"xh 14.9"); 7.7 kg (17 lb)

# MINDRAY Z5 COLOUR DIAGNOSTIC ULTRASOUND SYSTEM

- 33880 MINDRAY Z5 COLOUR PORTABLE ULTRASOUND with 15" high resolution LCD monitor, 2 probe connectors, 320GB hard disk, 4 USB ports, multiple software package, without probes. A colour doppler system that offers a rare combination of high performance and low cost. Superior image quality, affordability, versatility and mobility in a unique portable Doppler system:
- Versatility**
  - scanning modes: B, Colour, PW, Power, M, FreeXros M
  - image display modes: B, 2B, 4B, B/C, B/M, B/PW, Triplex PW
  - applications: ABD/OB/GYN/CAR/SML/URO/VAS/ORTH/EM/NERVE
  - transducer variety : Convex, Linear, Micro-convex, Endocavity
  - extended scanning angle with ExFov function
  - high frequency linear probe for superficial scanning
- Productivity**
  - iTouch: quick image optimization with one-click
  - iZoom: instant full screen zoom with one-click
  - iStation: patient database review and analysis platform
  - iStorage: direct data transfer to PC
  - Clipboard: easy play, preview and sharing of cineloop
  - Multiple image formats : BMP, JPG, DCM, AVI, DCM, CIN
- Mobility**
  - compact and streamlined design weighing 7.7kg
  - 15" LCD monitor with 30 degree tilt function
  - dual universal transducer connectors

- two level backlit keyboard for varying requirements
- can be packed in a convenient hand-carried bag for easy transportation
- 1.5 h uninterrupted scanning with rechargeable battery
- Supplied with CD manual: GB, FR, IT, ES, PT, DE, RU, BR.



33880

TECHNICAL SPECIFICATIONS	
Display:	15" LCD high resolution 1024x768
Software display + keyboard input:	GB, FR, IT, ES, PT, RU, PL, CZ, DE
Keyboard input:	TR, FI, DK, NO, SE
Power:	AC 100-240 V - 50/60 Hz rechargeable lithium-ion battery - on request
Size and weight:	19x41.5xh 37.8 cm (7.5"x16.3"xh 14.9"); 8.8 kg (19.4 lb)

# PROBES AND ACCESSORIES FOR DP-50 AND Z5

code	ACCESSORIES for DP-50 and Z5	
33875	Needle guided brackets for Linear probe (33983)	
33876	Needle guided brackets for Micro-Convex probe (33984)	
33975	Lithium-ion rechargeable battery for DP-50 and Z5	
33987	Carrying bag for DP-50 and Z5	
33988	UMT-150 mobile trolley for DP-50 and Z5	
33968	SONY PRINTER UP-X898 MD FOR DP-50	
33993	SONY COLOUR PRINTER UP-25 MD FOR Z5	



33987

Trolley size:  
44,5x53,5x  
h 81 or 87 cm

Height selectable  
(2 levels) when installing

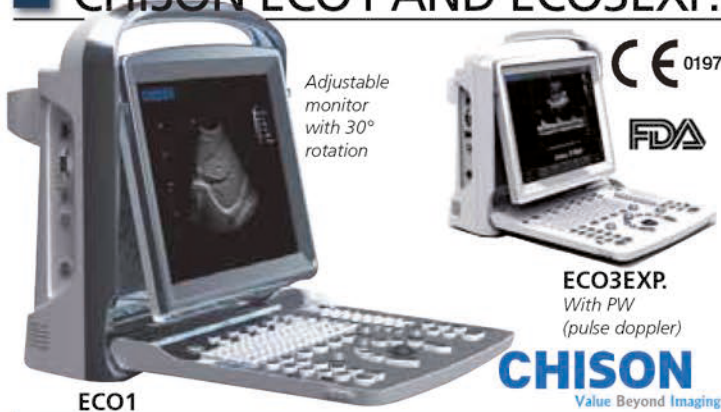
PROBES DP-50 and Z5			FREQUENCY (MHz)		● Main application									
code	Mindray code	Scanning method	Main freq.	Probe band width	ABDOMINAL	OB / GYN	UROLOGY	SMALL PARTS	CARDIOLOGY	MSK	VASCULAR	PEDIATRIC	PROSTATE	ORTHOPEDIC
33982	35C50EA	Convex	3.5	2.0 - 5.0	•	•	•	•	•	•	•	•	•	•
33983	75L53EA	Linear	7.5	5.0 - 10.0	•	•	•	•	•	•	•	•	•	•
33978*	65C15EA	Micro-convex	6.5	5.0 - 8.5	•	•	•	•	•	•	•	•	•	•
33984*	65EC10EA	Micro-convex	6.5	5.0 - 8.5	•	•	•	•	•	•	•	•	•	•
33990*	10L24EA	Linear array	10.0	8.0 - 14	•	•	•	•	•	•	•	•	•	•
34004	75L38EA	Linear	7.5	5.0 - 10.0	•	•	•	•	•	•	•	•	•	•



33988

\*not for DP-50PT

# CHISON ECO1 AND ECO3EXP. DIGITAL ULTRASOUND SYSTEMS



code	DIGITAL ULTRASOUND B&W DIAGNOSTIC IMAGING SYSTEM	ECO1	ECO3EXP.	ECO5					
33863	CHISON ECO1 with 1 probe connector without probe	•	•	•					
33864	CHISON ECO3EXP. with 2 probe connectors without probe	•	•	•					
<b>STANDARD PACKAGE</b>									
	12" high resolution LED monitor - B&W	•	•	•					
	12" high resolution LED monitor - colour	•	•	•					
	8G memory card	•	•	•					
	Hot Key	•	•	•					
	PC printer connection	•	•	•					
	3 USB port	•	•	•					
	1 ethernet port	•	•	•					
	1 video out port, 1 VGA out port	•	•	•					
	1 footswitch port	•	•	•					
	Full screen display	•	•	•					
	2.5 hours rechargeable lithium-ion battery	optional	•	•					
	Power adaptor	•	•	•					
	Standard software package	•	•	•					
	Easy View image archive system	•	•	•					
	THI	•	•	•					
	PW (doppler function to detect blood flow speed)	•	•	•					
<b>TECHNICAL SPECIFICATIONS</b>									
Dimension and weight: 33.5x15.5x35 cm (13.2"x6.1"x13.8"); 6 kg									
Display: 12" LED, high resolution 1024x768									
Power: AC 100-240 V - 50/60 Hz									
rechargeable lithium-ion battery (ECO1 option, ECO3EXP. standard)									
<b>LANGUAGE - switchable by user</b>									
	GB	IT	FR	ES	DE	CZ	TR	CN	RU
Software	•	•	•	•	•	•	•	•	•
User manual	•	•	•	•	•	•	•	•	•

**ECO1 Premium Design, Surprising Price**  
**ECO3EXP. Premium Black&White Model with Doppler,**

- ultra-compact and ultra-light weight, easy to carry
- latest LED screen technology, super bright images allow to easily view scan even outdoor.
- ergonomic monitor design, 30 degree rotation, adjustable.
- ultra-long battery life up to 2.5 hours, for outdoor scanning
- one-key to enlarge image to full screen, easy to view from distance
- streamlined workflow, easy to operate, 6-one-key to finish the cycle of diagnosis.

**Display modes and imaging processing**  
 B, B/B, 4B, M, B/M, PW (ECO3EXP. only) multi-frequency imaging

**Imaging processing**

- compound Imaging
- i-image intelligent image optimization
- THI (Tissue Harmonic Imaging)
- SRA (Speckle Reduction Algorithm)
- full digital beam-former
- full screen display

**User interface**

- fold-up control panel and alphanumeric keyboard
- back-lit keyboard for good visibility in dark room
- interactive back-lighting
- indicator lights identify activated keys
- 8 TGC slides for easy adjustment
- short cut knob for quick adjustment (hot key user- defined)
- neat and clear keyboard layout, doctor can remember easily
- user defined preset

**Streamlined workflow, one key to:**

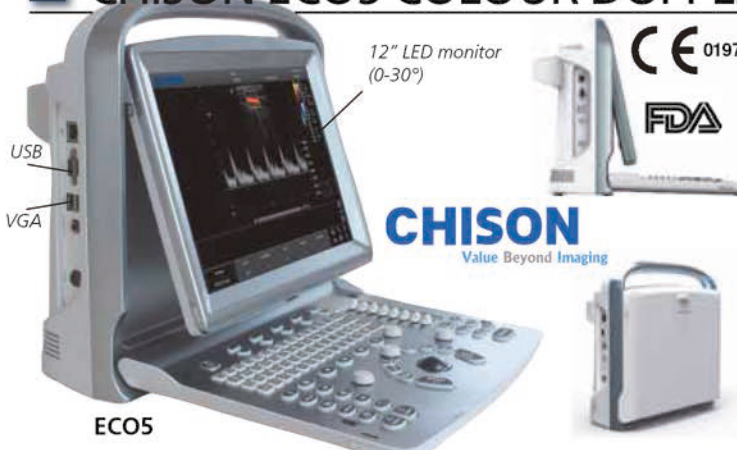
- select desired application with automatic preset
- optimize the image automatically (AIO)
- save still image and CINE loop
- print to PC printer\* (laser or inkjet) or video printer

\*See list of compatible printers on our websites

**EASYVIEW™ Archive system**

- image archive on hard disk and USB mobile storage
- 3 USB ports
- multiple image formats: BMP, JPG, DCM, CIN, AVI
- cine review: auto, manual (auto review segment can be set) for 2D, M, PW (ECO3EXP. only) images
- cine memory capacity (256 frames/10s)

# CHISON ECO5 COLOUR DOPPLER DIGITAL ULTRASOUND SYSTEM



• 33865 CHISON ECO5 Colour Doppler 12" high resolution color LED monitor, 8G high speed memory, 3 USB ports, 2 probe connectors, EASYVIEW™ archive system, without probe

**Imaging model:** B, B/B, 4B, B/M, M, CFM, PW

**Imaging processing:**

- MCI (Multiple Compound Imaging)
- i-image intelligent image optimization
- THI (Tissue Harmonic Imaging)
- SRA (Speckle Reduction Algorithm)
- full digital beam-former

**Other specifications as ECO3EXP.**

**TECHNICAL SPECIFICATIONS**

Dimension and weight: 33.5x15.5x35 cm(13.2"x6.1"x13.8"); 6.5kg  
 Display: 12" LED, high-resolution colour 1024x768  
 Power: AC 100-240 V, 50-60 Hz  
 Rechargeable lithium-ion battery

# PROBES AND ACCESSORIES FOR CHISON ECO SERIES

PROBES ECO1 - 3 - 5		FREQUENCY(MHz)		Main application									
code	CHISON code	Scanning method	Main freq.	Probe band width	ABDOMINAL	OB&GYN	UROLOGY	SMALL PARTS	BASC CARDIOL.	MSK	VASCULAR	PEDIATRIC	ORTHOPAED.
33998	C3-A	Convex	3.5	2.5 - 5.0	•	•	•	•	•	•	•	•	•
33999	L7M-A	Linear**	7.5	5.3 - 10.0	•	•	•	•	•	•	•	•	•
33871	L7S-A	Linear***	9.0	5.3 - 11.0	•	•	•	•	•	•	•	•	•
33872	V6-A	Trans-vaginal	6.0	4.5 - 8.0	•	•	•	•	•	•	•	•	•
33997	MC6-A	Micro-convex	6.0	4.5 - 8.0	•	•	•	•	•	•	•	•	•
33873*	R7-A	Trans-rectal	7.5	5.0 - 10.0	•	•	•	•	•	•	•	•	•
33874	MC3-A	Micro-convex	3.0	2.5 - 5.0	•	•	•	•	•	•	•	•	•

code	ECO SERIES ACCESSORIES
33869	Rechargeable lithium-ion battery BT-2500 (2.5 hours)
33867	ECO trolley TR-9000
33868	Carrying bag
33866	Needle guided brackets - specify for which probe (for 33998-9, 33872-4 only)
<b>PRINTERS</b>	
33968	SONY UP-X898 MD B&W printer (for ECO1 and ECO3EXP.)
33993	SONY UP25MD colour printer(for ECO5)



\*For ECO3EXP. and ECO5 only      \*\*With 40 mm footprint, general linear probe  
 \*\*\*With 30 mm footprint for superficial tissue exams with higher resolution



# CHISON QBit5 AND i8 ECO-COLOUR DOPPLERS



**CHISON**  
Value Beyond Imaging

CE 0197

FDA



• **33877 QBit5 ECO-COLOUR DOPPLER** - 15" flat high resolution LED monitor. Supplied with 2 probe connectors and 1 parking probe connector, trolley, keyboard, large image storage: 32 GB HardDisk, 6 USB ports, VGA format, without probes. Affordable and reliable colour doppler with advanced technologies: compound imaging, quad beam former imaging, Q-image, Q-flow, X-contrast providing superb images. The Streamlined workflow and ergonomic outlook design improve work efficiency.

**Imaging modes:**

- Power Doppler / Directional PD
- B/BC
- CFM
- PW mode
- CW mode
- full screen
- duplex, triplex
- chroma B/M/PW/CW
- B, 2B, 4B, B/M, M
- Four chambers view, B/BC mode
- trapezoidal on linear probe

**Image processing technology:**

- Speckle Reduction Algorithm (SRA)
- direct print to PC or video printer
- automatic image optimizer (AIO)
- fusion harmonic imaging (FHI)

**Special radiology function:** 2D steer and super needle (optional)

**Phased array probe and package**

Phased array probe functions include CW, TDI, ECG, Colour M and complete calculation packages including PISA/Dp/Dt

• **33965 i8 ECO-COLOUR DOPPLER** - 19" flat high resolution monitor. Supplied with 4 probe connector, trolley, keyboard, large image storage: 500 GB HardDisk, 6 USB port, DVD-RW, VGA format, I-image, Cardiac Package, without probes. Digital colour Doppler System with professional features: I-IMAGE improves image quality and offers ECG Intelligent I-image optimization.

**Imaging mode:**

- B, 2B, 4B, B/M, M
- CFM, Power doppler, Directional PD
- PW mode, CW mode (with cardiac probe)
- instant triplex, duplex, quadplex
- trapezoidal on linear probe
- B/BC mode
- panoramic
- chroma B/M/PW/CW

**Image processing technology:**

- Tissue Harmonic Imaging (THI) on all probes
- Speckle Reduction Algorithm (SRA)
- Multiple Compound Imaging (MCI)

**Wideband multifrequency probes**

Continuously adjustable, 2.5-12 MHz

Operating voltage: 100-240 V, 50-60 Hz

**Cardiac Package (colour M, CW, steering M, ECG, TDI, IMT)**

• **33966 i8 ECO-COLOUR DOPPLER+4D PROBE AND PACKAGE**

Same as 33965 but with 4D real time imaging composed of 3D pictures with addition of live motion and probe 4D convex (33959).

• **33993 SONY UP - 25 MD COLOUR PRINTER A6** for i3, i8, QBit5

• **33968 SONY UP-X898 B/W PRINTER** for i3, i8, QBit5

code for QBit5	code for i8	PROBES Scanning Method	FREQUENCY (MHz)		Main application								
			Main freq.	Probe band width QBit5	Probe band width i8	ABDOMINAL OB/GYN	UROLOGY	SMALL PARTS	CARDIOLOGY	TCD	PROCTOLOGY	PEDIATRICS	VESSELS
33953	33953	CONVEX	3.5	2-6.8	2.5-5.3	●	●	●					
33955	33955	LINEAR	7.5	4-15	5-10								●
33956	33956	MICRO-CONVEX (TRANSVAGINAL)	6.0	4-12	4-10.7	●							
33964	33964	MICRO CONVEX (BASIC CARDIAC)	3.0	2-6.8	2.5-6.4				●				●
-	33963	CARDIAC (PHASED ARRAY)	3.0	-	2.5-4				●				
33879	-	CARDIAC (PHASED ARRAY)	3.0	1.5-5.3	-				●	●			
33958	33958	PEDIATRIC	5.0	4-10.7	3.5-8								●
-	33959*	4D CONVEX	4.5	-	2.2-6.4	●	●						

\*Spare for 33966



# CHISON 600M PORTABLE ULTRASOUND



• **33930 CHISON 600M PORTABLE ULTRASOUND**

10" SVGA monitor with two probe connectors, 256 frames cine memory, USB port, VGA port, without probes

- zooming and measurement functions (max scanning depth: 252 mm)
- wide applications: GYN, urology, abdominal, small parts
- 4-steps sweep speeds for cardiac study: 2s, 4s, 6s, 8s
- 4-steps zoom with depth control: x0.8, x1.0, x1.5, x2.0

- various measurements: distance, circumference, area, volume
- full Ob/Gyn software included: 7 EDD tables (BPD, GS, FL, AD, HC, AC, CRL), G.A. (fetal age) from 4-43 weeks
- fetal weight, fetal heart rate measurement
- imaging reversing: up/down, left/right, positive/negative
- power supply: 110-230 V, 50-60 Hz

• **33968 SONY PRINTER UP-X898 MD** • **33901 TROLLEY FOR 33930**

code	Outlook	PROBES Scanning Method	FREQUENCY (MHz)		Main application							
			Main freq.	4-Step Multi-frequency	ABDOMINAL OB/GYN	UROLOGY	SMALL PARTS	BREAST	VESSELS			
33932		CONVEX	3.5	2.5/3.5/4.0/5.0	●	●	●					
33933		LINEAR	7.5	5.0/6.0/7.5/9.0				●	○		●	

# SONOTOUCH™ 10.4" TOUCH ULTRASOUND COLOUR DOPPLER

• **33919 SONOTOUCH™ 30** - colour doppler with built-in probe connector, 10" high contrast LED monitor, 16 G memory, 3 USB port, video, LAN port, without probe. Lightweight, portable, small size, touchscreen ultrasound devices.

**Main features:**

- display mode: B, B/B, 4B, B/M, M, Colour and PW mode. In the M or B/M mode, 4 steps sweep speeds.
- multi-step display magnification, depth enhancement
- setting adjustment of total gain, and 8 segments of TGC slides for selection and adjustment
- multifocal firing focus, edge enhancement, frame averaging, compound
- image freezing and storage function, built-in 16 GB high-speed memory and external USB memory disk can be connected to the system for mass storage through USB port. Stored images can be retrieved for analysis.
- 256 frames of real-time images can be stored in Cine-memory
- probe scanning direction can be changed and the image can be reversed in left/right, up/down direction
- measurements of distance, area, circumference, volume, OB etc. Automatic calculation of OB and cardiology. Direct display of gestation age, expected date of child delivery and direct measure of heart rate
- real-time clock displays date and time automatically
- display of body marks with corresponding probe position indication
- annotation function in image area of the screen. Special annotation terms for different exam-mode can be added according to user's requirement
- built-in rechargeable lithium Ion battery. Life up to 2.5 hours
- full touch screen display



Button free screen and waterproof front panel

Select your applications from visual icons



Refine the image with easy, touch driven TGC, focus and depth

Take measure with your fingers, no trackball (accuracy 1 mm)

Adjustable angle stand converts into carrying handle



code	PROBES	FREQUENCY (MHz)		● Main application						
	Scanning Method	Main freq.	Probe band width	ABDOMINAL OB/GYN	UROLOGY	CARDIOLOGY	VASCULAR	SMALL PARTS	MISK	PAEDIATRIC
33922	CONVEX	3.5	2.5 - 5.0	●	●	●				
33923	LINEAR	7.5	5.0 - 10.0				●	●	●	
33924	MICRO-CONVEX	3.0	2.5 - 5.0	●	●	●				
33926	TRANSVAGINAL	6.0	4.0 - 7.5			●	●			
33927	MICRO-CONVEX	6.0	4.0 - 8.0							●

# CHISON Q5, Q9 AND Q9 4D PORTABLE COLOURDOPPLER

• **33950 CHISON Q5 COLOURDOPPLER** with 2 probe connector, 15" high resolution monitor, 500 GB hardisk, 2 USB port, LAN port, Video, TV, VGA out, I-Image, without probe. Portable digital colour doppler with high professional features:

**Imaging mode:**

- Instant Triplex, Duplex
- B, 2B, 4B, B/M, M
- CFM
- PW mode
- Power Doppler / Directional PD
- Trapezoidal
- Chroma B/PW

**Image processing technology:**

- Multi-beam former technology
- I-image™: image optimization technology
- THI
- Speckle reduction algorithm (SRA)
- Multiple compound imaging (MCI)

Operating voltage: 110-240 V, 50-60 Hz. Manual: GB, IT, on request FR.



• **33952 CHISON Q9 COLOURDOPPLER**  
Same as Q5 but with TDI quantitative cardiac dialysis, THI on all probes, double phase digital beam, DPDBF, IMT calculation, needle enhancement, 500 GB hard disk, quadplex, Cardiac Package. Suitable for cardiac use.

**Cardiac Package** (ECG software, CW, Free Steering M, colour M, TDI) included.

• **33951 CHISON Q9+4D COLOURDOPPLER**  
Same as Q9 but with 4D real time imaging.

• **33901 TROLLEY FOR Q5, Q8, Q9**



code for Q5	code for Q9	PROBES	FREQUENCY (MHz)		● Main application						
		Scanning Method	Main freq.	Probe band width	ABDOMINAL OB/GYN	UROLOGY	SMALL PARTS	ENDOCAVITY	CARDIOLOGY	PEDIATRICS	VESSELS
33954	33954	CONVEX	3.5	2.5 - 5.3	●	●	●				
33955	33955	LINEAR	7.5	5.0 - 12.0			●				●
33956	33956	TRANSVAGINAL (MICRO-CONVEX)	6.0	4.0 - 12.0			●	●			
-	33957	CARDIAC (PHASED ARRAY)	3.0	2.5 - 5.0					●		
33958	33958	PEDIATRIC	5.0	3.5 - 9.6						●	
33959	33959	4D CONVEX	4.0	2 - 6.8	●	●					



For probes purchased separately from ultrasound it is necessary to supply the serial number of the device 287

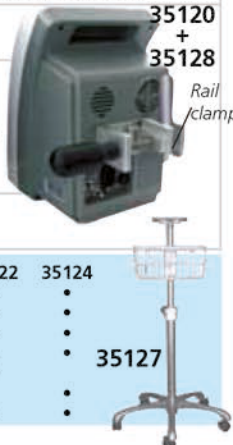
# GIMA VITAL SIGNS MONITORS

"Vital Signs" is a line of small multi-parameter patient monitors, which can monitor the vital physiological parameters: non-invasive blood pressure (NIBP), pulse oxygen saturation (SpO<sub>2</sub>), electrocardiogram (ECG) and temperature (TEMP).

Features:

- small size, clear and bright display (14x17 cm) for remote view
- up to 12,000 groups of NIBP measurements can be stored and listed
- up to 96 hours of SpO<sub>2</sub> and HR trend curve can be displayed
- built-in rechargeable battery, 2 hours use (35120-2) or 3 hours (35124)
- USB port (35124 only)
- optional built-in thermal printer

code	MONITOR	SpO <sub>2</sub>	NIBP	ECG	TEMP
35120	VITAL-S	•			
35121	VITAL-SNT	•	•		•
35122	VITAL-SNET	•		•	
35124	VITAL PRO-SNET	•	•	•	•
35125	Printer* - optional	*Installation done by Gima if ordered with monitor.			
35141	Paper 5.1 cm x 12 m - box of 5	Need service if ordered later.			
35126	Lead acid re-chargeable battery - spare for 35120-2				
35129	Lithium re-chargeable battery - spare for 35124				
35135	Adult SpO <sub>2</sub> probe - spare				35120
35136	Pediatric SpO <sub>2</sub> probe				35128
35137	ECG cable - spare				
35140	NIBP cuff - 10-19 cm - pediatric				
35142	NIBP cuff - 18-26 cm - pediatric XL				
35139	NIBP cuff - 21-35 cm - adult				
35143	NIBP cuff - 27-42 cm - adult XL				
35127	Trolley - adjustable 73 to 113 cm				
35128	Rail clamp				



STANDARD ACCESSORIES	35120	35121	35122	35124
- Adult SpO <sub>2</sub> probe	•	•	•	•
- NIBP adult cuff	•	•	•	•
- Temperature probe - skin type	•	•	•	•
- ECG cable + 10 ECG electrodes	•	•	•	•
- Lead acid battery	•	•	•	•
- Lithium battery	•	•	•	•
- Manual (English)	•	•	•	•



TECHNICAL SPECIFICATIONS	
<b>NIBP</b>	Pulse rate measurement accuracy: ± 2 bpm or 2% whichever is greater
Technology: Oscillometric method	Size: 18.5 x 18 x h 29 cm Weight: 2.4 kg
Standard measurement range:	<b>ECG and TEMP</b>
Systolic: Adult: 50 - 240 mmHg	Heart rate range: 20 - 300 bpm
Diastolic: Adult: 15 - 180 mmHg	TEMP measurement range: 25 - 45 °C
MAP: Adult: 25 - 200 mmHg	Accuracy: ± 2 bpm or 1% whichever is greater (ECG) ± 0.2 °C (TEMP)
Measurement mode: Manual, Auto, STAT	<b>Power</b>
SpO <sub>2</sub>	AC power supply: 100 - 250V, 50/60 Hz
SpO <sub>2</sub> measurement range: 0 - 99%	Internal power supply: 12 VDC (rechargeable)
SpO <sub>2</sub> measurement accuracy:	Battery:
75 - 99% ± 2%	12V 2,3AH (lead-acid battery) (35120-2)
50 - 74% ± 3%	11.1 V, 4,400 mAh lithium battery (35124)
Low perfusion performance: 0.4%	
Pulse rate measurement range:	
30bpm-240bpm	

# PC-3000 MULTI-PARAMETER PATIENT MONITOR



- 35134 PC 3000 MULTI-PARAMETER PATIENT MONITOR
- 7" high resolution colour TFT display, 5-channel waveform display
- standard parameters: ECG, RESP, SpO<sub>2</sub>, NIBP, 2-TEMP, PR; Arrhythmia analysis and ST segment analysis
- up to 12,000 groups parameter data & 60-hour ECG waveform storage and recall
- 1,000-hour graphic and tabular trends for all parameters
- 7-channel ECG simultaneous waveforms display
- protection against interference from defibrillator, electrosurgical knife
- adult / pediatric measurement modes
- visual and audible alarms; networking capability
- carrying handle with bed-hooks
- Internal software: GB, IT. On request: FR, ES, PT, PL, CZ, TR, CN.

STANDARD ACCESSORIES		
1 ECG cable	1 NIBP cuff	10 Disposable electrodes
1 SpO <sub>2</sub> probe	1 Li-ion battery	1 Body surface temperature transducer
1 AC power Adapter	1 Power cable	User manual

code	ACCESSORIES - SPARES
35135	Adult SpO <sub>2</sub> probe - spare
35136	Pediatric SpO <sub>2</sub> probe
35137	ECG cable - spare
35138	Li-ion battery - spare
35140	NIBP cuff - arm circumf. 10-19 cm - pediatric
35142	NIBP cuff - arm circumf. 18-26 cm - pediatric XL
35139	NIBP cuff - arm circumf. 21-35 cm - adult - spare
35143	NIBP cuff - arm circumf. 27-42 cm - adult XL

TECHNICAL SPECIFICATIONS	
<b>NIBP Monitoring</b>	Automatic measurement by oscillating method
Measuring method:	Adult mode: <180mmHg infant mode: <120mmHg
Initial cuff inflation pressure:	Adult mode: 300mmHg Infant mode: 240 mmHg
Overpressure protection limit:	
<b>Measuring range</b>	
Systolic pressure:	Adult: 40-225 mmHg Infant: 40-200 mmHg
Diastolic pressure:	Adult: 20-215 mmHg Infant: 20-165 mmHg
Mean arterial pressure:	Adult: 10-195 mmHg Infant: 10-150 mmHg
Measurement accuracy:	Systolic ±10% Diastolic ±10% MAP ±10%
Measurement mode:	Manual, Auto, STAT
Automatic measuring:	1-240min
<b>TEMP Monitoring</b>	
Measuring range, accuracy:	25.0 - 45.0 °C, ±0.2°C
<b>SpO<sub>2</sub> &amp; Pulse Rate Monitoring</b>	
Transducer:	dual-wave length LED
SpO <sub>2</sub> measuring range:	35%-100%
Low perfusion capability:	0.4%-5%
SpO <sub>2</sub> display accuracy:	70%-100% ± 3%
PR measuring range:	30bpm-250bpm
PR measuring accuracy:	± 2bpm
<b>ECG Monitoring</b>	
Heart rate measurement:	± 0.4 mVp - ± 5 mVp
Heart rate display range:	20 - 250bpm
Display accuracy*:	± 1% or ± 2 bpm, whichever is greater
Heart rate alarm delay time:	≤ 10s
Sensitivity selection:	Auto, x1/2, x1, x2, x4 tolerance: ≤ 5%
Sweeping speed:	12.5 mm/s, 25 mm/s, 50 mm/s tolerance: ≤ 10%
Common-mode rejection ratio:	≥ 89 dB
Frequency response:	Monitoring mode: 0.5 - 40 Hz Diagnostic mode: 0.05 - 75 Hz
<b>RESP Monitoring</b>	
Monitoring range, accuracy:	0 - 120 rpm, ± 5% or 2 rpm, whichever is greater
RESP alarm range:	0 - 100 bpm ± 10%
<b>Other Technical Specifications</b>	
Power supply:	100 - 250 Vac, 50/60 Hz < 80 VA
Networking port:	serial/Net port



Wide option of screen views available



# UP 7000 MULTI-PARAMETER PATIENT MONITOR

ECG+RESP+SpO<sub>2</sub>+  
2 TEMP+PR



- 35145 MULTI-PARAMETER PATIENT MONITOR  
ECG, RESP, SpO<sub>2</sub>, 2 TEMP, PR
- 12.1" high resolution colour TFT display
- 3 channel ECG amplification
- arrhythmia analysis and ST segment analysis
- up to 800 groups parameter data & 24-hour ECG waveform storage and recall
- 480-hour graphic and tabular trends for all parameters
- 7 trace ECG waveforms simultaneous display
- protection against interference from defibrillator
- adult/pediatric measurement modes
- visual and audible alarms
- built-in rechargeable battery
- built-in thermal printer
- multilanguage internal software: GB, FR, IT, ES, PT, PL, CZ, TR, RU, CN



code	ACCESSORIES AND SPARES
35135	Adult SpO <sub>2</sub> probe
35136	Pediatric SpO <sub>2</sub> probe
35137	ECG cable
35140	NIBP cuff - arm circumf. 10-19 cm - pediatric
35142	NIBP cuff - arm circumf. 18-26 cm - pediatric XL
35139	NIBP cuff - arm circumf. 21-35 cm - adult
35143	NIBP cuff - arm circumf. 27-42 cm - adult XL
35126	Lead acid rechargeable battery - spare
35141	Paper 5.1 cm x 12 m - box of 5
35150	Trolley - adjustable 73 to 113 cm



STANDARD ACCESSORIES		
- Adult SpO <sub>2</sub> probe	- Re-chargeable battery	- Disposable electrode
- NIBP adult cuff	- Printer	- Dust-protective mantle
- Temperature probe - skin	- Power supply cable	- Manual (GB, IT)
- Temperature probe - rectal	- ECG cable 5 leads (RA - LA - LL - PL - C)	

TECHNICAL SPECIFICATIONS			
<b>NIBP Monitoring</b>			
Measuring method:	Oscillometric		
Measuring range:	Systolic pressure:	Diastolic pressure:	Mean arterial pressure:
adult:	40-255mmHg	10-220mmHg	20-215mmHg
pediatric:	40-200mmHg	10-110mmHg	20-165mmHg
<b>TEMP Monitoring</b>			
Measuring range:	25.0°C-45.0°C ±0.2°C		
Response time:	≤ 150 sec		
<b>SpO<sub>2</sub> &amp; Pulse Rate Monitoring</b>			
SpO <sub>2</sub> measuring range:	35%-100%		
PR measuring range:	30bpm-240bpm ±2bpm		
<b>ECG Monitoring</b>			
Heart rate measurement:	±0.4mVp-±5mVp		
Heart rate display range:	20bpm-250bpm		
<b>RESP Monitoring</b>			
Measuring method:	Thoracic impedance		
Monitoring range:	0rpm-120rpm,		
Monitoring accuracy:	±5% or ±2rpm whichever is greater		
<b>Other Technical Specifications</b>			
Power supply:	100-250Vac, 50/60Hz		
Power consumption:	<80 VA		
Display mode:	12.1 inches TFT color LCD		
Alarming mode:	Audible-visual alarm		
Networking port:	Ethernet port		
Size - weight:	29x31.5x15 cm - 3.9 kg		

# CMS 8000 CONTEC PATIENT MONITOR

ECG+RESP+SpO<sub>2</sub>+  
NIBP+2 TEMP+PR



- 35151 CMS 8000 PATIENT MONITOR  
ECG, RESP, SpO<sub>2</sub>, PR, NIBP, DUAL CHANNEL TEMP
- 12.1" TFT colour LCD display
- multilanguage interface (GB, IT, FR, DE, ES, PT, NL, PL, CZ, TR, RO, RU)
- adult/pediatric/neonate measurement modes
- 8 channel waveform synchronous display
- 7 lead ECG waveform on one screen
- anti-motion, anti-ambient light interference digital SpO<sub>2</sub> technology
- AC/DC rechargeable lithium battery
- manual/AUTO/continuous NIBP measurement mode
- standard/OXY- graph/Trend-graph/big characters and view bed interfaces

Size: 314x145x264 mm  
Weight: 3.9 kg

code	ACCESSORIES AND SPARES
35149	Adult SpO <sub>2</sub> probe - 3 m cable - spare
35107	Neonate SpO <sub>2</sub> probe <3 kg - reusable
35108	SpO <sub>2</sub> extension cable
35113	Pediatric NIBP cuff 18-26 cm
35114	Adult NIBP cuff 25-35 cm
35115	Adult large NIBP cuff 33-47 cm
35116	Thigh NIBP cuff 46-66 cm
35154	Rectal temp probe - optional
35155	Skin temp probe - spare
35156	ECG cable - spare
35157	Printer - optional
35158	Trolley
35159	Rechargeable lithium battery - spare
32968	Printer paper roll 50 mm x 20 m



Adjustable height  
104-130 cm

STANDARD ACCESSORIES		
- Adult SpO <sub>2</sub> probe	- ECG cable	
- NIBP adult cuff	- power supply cable	
- NIBP extension tube	- manual (GB, IT, ES) on request (PT, TR)	
- Temperature probe - skin	- ECG electrodes	
- Rechargeable lithium battery		

TECHNICAL SPECIFICATIONS		
<b>ECG</b>		
5-lead, dual channel, 3-lead, single channel	Measurement period in CONT mode: 5 min	
Scan speed: 12.5 mm/s, 50 mm/s	Measurement alarm: 10-270 mmHg	
ST segment monitoring	<b>SpO<sub>2</sub></b>	
Measurement and alarm range: -2.0 mV ±2.0 mV	Measurement and alarm range: 0-100%	
<b>RESP</b>		
Method: R-F (RA-LL) impedance	Measurement accuracy: 70-100% ±2%	
Measurement and alarm range: 0-150 rpm	<b>PR</b>	
Apnea alarm: 10-40 sec	Measurement and alarm range: 30-250 bpm	
<b>NIBP</b>		
Method: oscillometry	<b>TEMP</b>	
Mode: manual/AUTO/continuous	Channel: dual channel	
Measurement interval in AUTO mode: 1/2/3/4/5/10/15/30/60/90/120/240/480/960 min	Measurement and alarm range: 0-50 °C	
	Power supply: 110-240 V - 50/60 Hz	
	Safety classification: Classe I type CF	
	Defibrillation-proof applied part	



# BM7 PREMIUM PATIENT MONITOR FOR INTENSIVE CARE



• **33774 BM7 MONITOR 12.1"** touch screen LCD display - 7 channels Premium patient monitor for intensive care.

**Superior features:**

- touch screen operation display
- individual sweep speed setting for each parameter
- 168 full hours of trend data storage
- 4-split large multiple display modes
- oxy/CRG
- drug calculation
- screen freeze ON-OFF
- ST level analysis histogram

**High performances:**

- ECG, SpO<sub>2</sub>, NIBP, Respiration, 2 Temp, 2 IBP
- Sidestream EtCO<sub>2</sub> - optional
- 13 Arrhythmia analysis modes
- high performance **Suntech NIBP**
- Li-ion battery with longer life time (1.5 hrs continuous operation)
- possibility to connect to BM central monitoring system see page 291

• **33725 CART** - adjustable height, basket included

• **33709 Li-ion BATTERY 11.1 V** - spare

Same accessories and probes as BM5 monitors, see page 292, 293.

**STANDARD ACCESSORIES**

5-lead patient Cable (MECA5 (AHA), MACES (IEC))  
Electrodes - box of 10  
NIBP extension tube (3m)  
Reusable Adult Cuff (25-35 cm)

Reusable Pediatric Cuff  
SpO<sub>2</sub> extension cable (2m)  
Reusable Adult SpO<sub>2</sub> probe  
DC adapter (18 VDC, 2.5A)

Li-ion 11.1 V battery  
Thermal printer  
2 paper roll  
User manual: GB, IT

**TECHNICAL SPECIFICATIONS**

**MONITOR**  
Display, Resolution 12.1" color TFT. 800x600 pixels  
Dimension 322x250x224.8 mm  
Weight Approx. 4.5 kg  
Trace 6 waveforms: 2xECG, SpO<sub>2</sub>, RR or EtCO<sub>2</sub>, 2xIBP  
Sweep speed: 6.25, 12.5, 25, 50 mm/sec  
Categorized alarms (3 priority levels)  
Visual alarm lamp handle and heart beat tone  
QRS beep & SpO<sub>2</sub> pulse beep  
SpO<sub>2</sub> pitch tone  
Battery status, external Power LED  
Touch screen, rotary knob  
**Interfaces**  
Connectors DC input connector: 18 VDC, 2.5 A  
Defibrillator Sync. Output:  
- Signal level: 0 to 5 V pulse  
- Pulse width: 100 ± 10 ms  
LAN digital output for transferring data  
External VGA monitor connection  
DC output 5VDC, 1A Max  
**Battery**  
Rechargeable Li-ion battery, 1.5 hours continuous operation  
**Thermal Printer**  
Speed: 25, 50 mm/sec, paper width: 58 mm  
**Data Storage**  
168 hours trends, 20 cases of 10 sec alarm waveform  
USB memory storage  
**Internal language (selectable)** GB, FR, IT, ES, DE, CZ, PL, PT, RO, BG, HU, TR, RU, CN, KR

**ECG**  
Leads type 3-lead, 5-lead  
Lead selection 3-lead: I, II, III  
5 lead: I, II, III, aVR, aVL, aVF, V  
3-lead: 1 channel  
5-lead: 2/7 channel  
**ECG waveform**  
Adult: 15-300 bpm  
Neonate/pediatric: 15-350 bpm  
**Heart rate range**  
Heart rate accuracy ±1 bpm or ±1% whichever is greater  
**Sweep speed** 6.25, 12.5, 25, 50 mm/sec  
**Filter** Diagnosis: 0.05-120 Hz  
Monitoring: 0.5-40 Hz  
Moderate: 0.5-25 Hz  
Maximum: 5-25 Hz  
**S-T segment detection range** -2.0 to 2.0 mV  
**Arrhythmia analysis** ASYSTOLE, VTACH, VFIB, BIGEMINY, ACCVET, COUPLE, IRREGULAR, PAUSE, PVC, RONT, TRIGMINY, VBRADY, SHORTRUN  
**Pacemaker detection mode**  
Indicator on waveform display (user selectable)  
**Protection** Against electro-surgical interference and defibrillation  
**RESPIRATION**  
Method Thoracic impedance  
**Channel selection** RA-LA or RA-LL  
**Measurement range** 5-120 breath per minute  
**Accuracy** ±1 breath per minute  
**Apnea alarm** Yes  
**SpO<sub>2</sub> range** 0 to 100%; (70 to 100% ±2% digits)

**Pulse rate range** 0 to 254 bpm ±2 bpm  
**NIBP SUNTECH**  
Method Oscillometry  
**Operation** Mode manual / Automatic / Continuous  
**Pressure measurement range** 0-300 mmHg  
**Safety pressure:** Adult: 300 mmHg  
Neonate: 150 mmHg  
**Blood pressure:** Adult pressure: 20 to 220 mmHg  
**Measurement range:** Pulse rate: 30-220 bpm  
Pediatric pressure: 20-160 mmHg  
Pulse rate: 30-220 bpm  
Neonate pressure: 20-130 mmHg  
Pulse rate: 30-220 bpm  
**Accuracy:** The static pressure measurement is within ±3 mmHg  
Meets ANSI/AAMI SP 10 2002  
**TEMPERATURE**  
**Measurement range:** 10 to 45°C (59 to 113°F) ±0.1°C  
**Compatibility** YSI SERIES 400 temperature probes  
**IBP**  
**Channels** 2  
**Measurement range:** -50 to 300 mmHg  
**Accuracy** <100 mmHg ±1 mmHg  
>100 mmHg ±1% of reading  
**Pulse rate measurement range** 0 to 300 bpm  
**Zero balancing** Range: ±200 mmHg  
Accuracy: ±1 mmHg  
Drift: ±1 mmHg of over 24 hours  
**Transducer sensitivity:** 5 µV/mmHg  
**Pulse rate measurement range:** 0 to 300 bpm

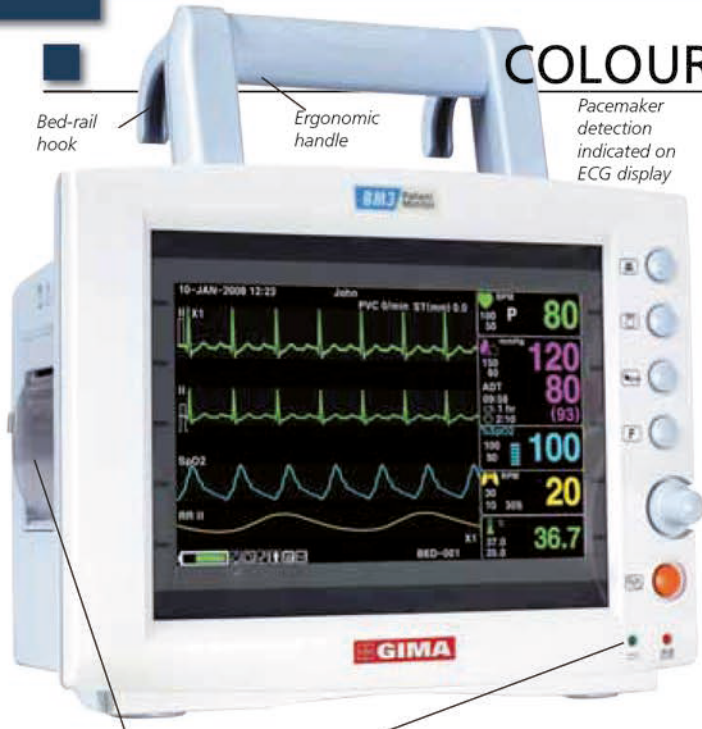
# BM1, BM3, BM5, BM7 MONITOR ACCESSORIES

code	ACCESSORIES FOR BM1, BM3, BM5, BM7				
33738	NIBP	Extension cable, 3 m (necessary for all cuffs)			33736
33735		Adult cuff - 49x15 cm - need ext. cable 33738			
33736		Child cuff - 35x11 cm - need ext. cable 33738			
32848		Obese cuff 62x75.5 - need ext. cable 33738			
33737		Kit of 3 neonatal cuffs* - needs cable 33738			
32810	Temp	Mini cuff 16x5 cm - needs 33738+33739			
32811		Mini cuff 23x5 cm - needs 33738+33739			
33739		Metal connector (necessary for mini cuff)			
33771	Temp	Temperature sensor 3.0 m, skin type <i>Compatible with Drager MM15114, MM15822, GE 21733601, Philips HP21059B, Nihon Kohden P242A, Datascope 0206-02-0003</i>			
33772		Temperature sensor 3.0 m, rectal type			
33743	Paper	Thermal paper 57.5 mm, 38 Ø			
33742	Battery	Ni-MH 12V battery - up to January 2006** - BM3, BM3 Plus			
33715		Ni-MH 12V battery - Since January 2006** - BM3, BM3 Plus			
33717		Li-ion battery - Since Sept. 2007** - new BM3, Plus, BM5			
33798		Li-ion battery 11.1 V - 6 cell for EtCO <sub>2</sub> - for 33782 only			
33710		Li-ion battery 11.1 V for BM1			
33709	Li-ion battery 11.1 V for BM7				
33747	Adapter	AC adapter for BM3, BM5, BM7			

\*\*Date is approximative. Please select battery according to picture and specifications

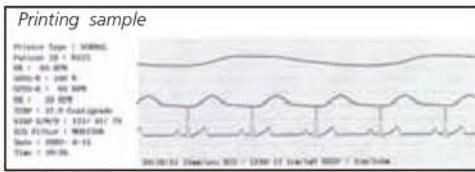
\* Cuff 3.3-5.6 cm, 4.2-7.1 cm, 5-10.5 cm

# COLOUR MULTIPARAMETER MONITORS



58 mm built-in printer for both real time and trend data (Speeds: 25-50 mm/sec)

Battery status indicator - continuous operating time 1.5 h



Printing sample



Easy mounting with bed-rail hook



Direct connection of external monitor through optional card

- 33718 GIMA BM3 MONITOR (7" - 800x480 - TFT display)
- 33719 GIMA BM3 VET MONITOR - VETERINARY

## ECG+SpO<sub>2</sub>+NIBP+RESP+TEMPERATURE

- GIMA monitors are configured with
- 7" colour TFT LCD for a clear view
  - Individual sweep speed setting for each parameter
  - 128 full hours trend data stored
  - SpO<sub>2</sub> measurement with very low perfusion detection and pulse beep
  - 2 traces ECG
  - screen freeze on/off
  - connection to Central monitoring system using LAN or W-LAN
  - Li-ion Battery (for 1.5 hours continuous operation)
  - High-performance ECG detection and analysis
    - input impedance for dry skin or electrode patch
    - ST level, PVC count real-time display
    - 3 kinds of Arrhythmia analysis
    - pacemaker detection function
  - Enhanced data management
    - graphical and tabular trends
    - 20 cases per 10 sec alarm waveform stored, reviewed and printed
  - Internal software selectable in GB, DE, FR, IT, PT, PL, RO, HU, ES, CZ, BG, RU, TR, CN
  - User manual: GB, IT (on request: ES, FR, DE).



Angle of plate adjustable

Height of cart is adjustable

CE 0123

33725

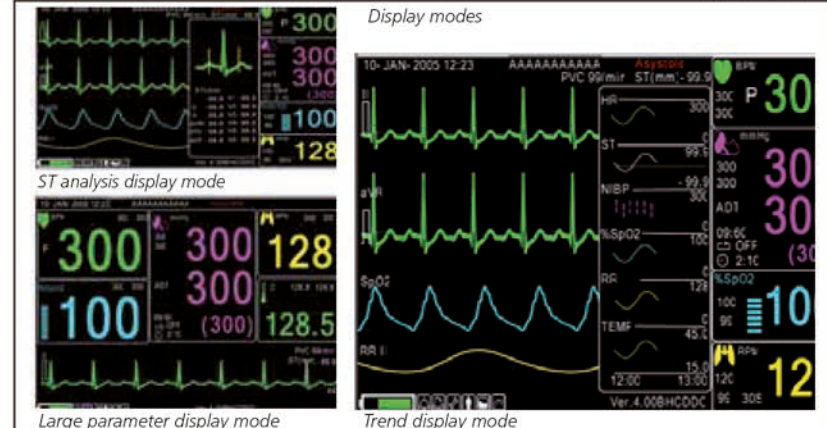
Moving cart increase flexibility around the ward or department.

See temperature sensors, cuffs, batteries and accessories at page 290, 293

STANDARD ACCESSORIES	33718	33719
3 lead patient cable (ECG)	•	• vet
Disposable electrodes: 10 pcs	•	•
NIBP tubing - 3m	•	•
Reusable adult cuff 25-35 cm	•	•
Reusable child cuff	•	•
Set of 3 veterinary cuffs	•	•
SpO <sub>2</sub> sensor - reusable	•	• vet
SpO <sub>2</sub> sensor extension cable 2 m	•	•
Thermal printer 58 mm	•	•
DC adaptor (18 VDC, 2.5A)	•	•
Battery	•	•
User manual: GB, IT	•	•

## PATIENT CENTRAL SYSTEM (up to 31 monitors)

- It allows the user to monitor and extract the exact status of several patients simultaneously at a place. Convenient bidirectional communication allows you to admit new patient information, set alarms at either central station or patient monitor.
- 33745 WIRE CENTRAL SYSTEM (PC, monitor, 16 port switch and software)
  - 33746 LAN CABLE - 3 m
  - 33767 LAN CABLE - 30 m
- One for any monitor to be connected. Customized cable length on request.
- 33758 WIRELESS CENTRAL SYSTEM (PC, monitor, wireless router and software)
  - 33759 WIRELESS CONNECTION KIT (Ethernet converter and power cable)
- One for any monitor to be connected.



ST analysis display mode

Large parameter display mode

Display modes

Trend display mode

GENERAL	
Display:	7" colour TFT 800x480 pixels
Dimensions - Weight:	238x250xh 163 mm - 3.1 kg
Trace:	4 waveforms: 2*ECG, SpO <sub>2</sub> , Respiration
Indicators:	Sweep speed: 6.25, 12.5, 25, 50 mm/sec Categorized alarms (3 priority levels) Visual alarm, QRS beep & SpO <sub>2</sub> Pulse beep Percent (%) SpO <sub>2</sub> , pitch tone, Battery status, External Power LED
Thermal printer:	25, 50 mm/sec (paper width 58 mm)
Battery:	Rechargeable Li-ion battery Operating time: 1.5 hours (fully charged)
Interfaces:	LAN digital output for transferring data DC input connector: 18 VDC, 2.5 A max
Operating voltage:	100-240 V, 50-60 Hz
Data storage:	128 hours trends, 20 cases of 10 sec alarm waveform
ECG	
Lead type:	3-lead, 5-lead (option)
Lead selection:	3-lead I, II, III 5-lead I, II, III, aVR, aVL, aVF, V (option)
Heart rate range:	Adult: 30 to 300 bpm, Neonate/Pediatric: 30 to 350 bpm
Heart rate accuracy:	± 1bpm or ± 1%, whichever is greater
Sweep speed:	6.25, 12.5, 25, 50 mm/sec
Filter:	Diagnosis: 0.05 to 150 Hz - Monitoring: 0.5 to 40 Hz Moderate: 0.5 to 25 Hz - Maximum: 5 to 25 Hz
S-T segment detection range:	-2.0 to 2.0 mV

TECHNICAL SPECIFICATIONS	
Arrhythmia analysis:	ASYSTOLE, VTACH, VFIB
Pacemaker detection mode:	Indicator on waveform display (user selectable)
Protection:	Against electro-surgical interference and defibrillation
SpO <sub>2</sub>	
% Saturation Range:	0% to 100% ± 2 digits (70% to 100%)
Pulse rate range:	30 to 254 bpm ± 2 bpm
NIBP	
Technique:	Oscillometric
Measurement Modes:	Manual/automatic/continuous
Pressure range:	0 to 300 mmHg ± 3 mmHg
Measurement range:	Adult pressure: 20 to 260 mmHg Pediatric pressure: 20 to 230 mmHg Neonatal pressure: 20 to 120 mmHg
Respirations	
Method:	Thoracic impedance
Range:	5 to 120 breath/min
Accuracy:	± 1 breath/min
Apnea alarm:	yes
Temperature Unit	
Range:	0° to 50°C (32°F to 122°F)
Accuracy:	± 0.1°C (25°C to 50°C), ± 0.2°C (0°C to 24°C)
Compatible with:	YSI Series 400 Temperature Probes



33745



# BM5 MULTIPARAMETER MONITOR WITH EXTENDIBLE PARAMETERS

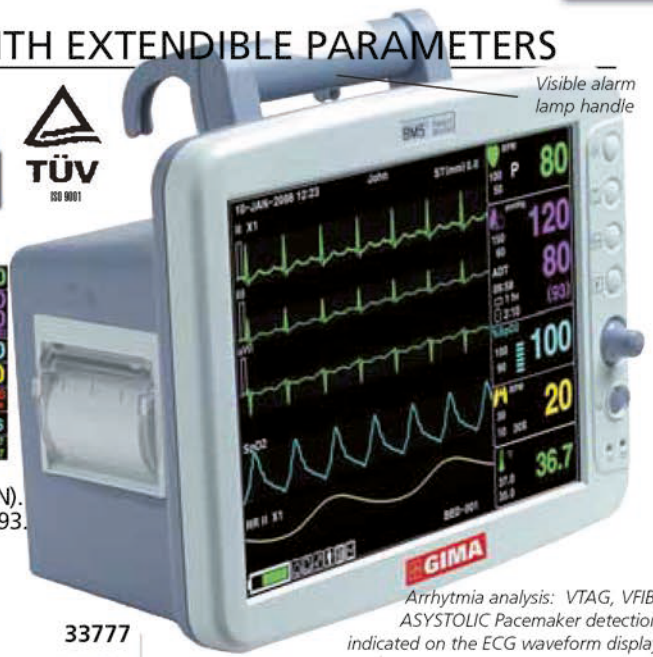
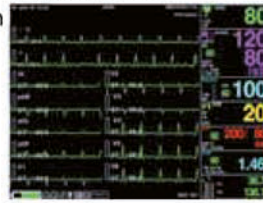
- 33777 GIMA BM5 MONITOR - 10.4" TFT display - 7 ch ECG
  - 33779 GIMA BM5 VET MONITOR - 10.4" TFT display
  - high-performance ECG analysis
  - ST level PVC count display
  - 13 kinds of Arrhythmia analysis
  - 7 channels
  - 10.4" colour TFT screen with 6 waveforms
  - visible alarm lamp handle
  - SpO<sub>2</sub> technology with very low-perfusion detection
  - SpO<sub>2</sub> pitch tone
  - 58 mm built-in chart recorder
  - graphical and tabular trends of printing
  - LAN or wireless LAN
  - 128 full hours trend data stored
  - direct DC input for vehicle transport
  - Li-ion battery with long life time
  - connection to central monitoring system
  - selectable software language (GB, DE, FR, IT, PT, PL, RO, HU, ES, CZ, BG, RU, TR, CN).
- Standard accessories as BM3 monitor, page 291. Other accessories page 290-293.

ECG+SpO<sub>2</sub>+NIBP+RESP+ 2 TEMP, optional 2 IBP + EtCO<sub>2</sub> MODULE



Visible alarm lamp handle

12 Channel display



Arrhythmia analysis: VTAG, VFIB, ASYSTOLIC Pacemaker detection indicated on the ECG waveform display

code	TEMPERATURE, EtCO <sub>2</sub> AND IBP KIT
33771	Temperature sensor 2.75 m - skin type
33772	Temperature sensor 2.75 m - rectal
33741	Exacon temperature sensor 2.75 m - rectal
33796	EtCO <sub>2</sub> Sidestream module for 33714, 33777/8/9
33790	Intubated Filter Line H - adult - box of 10 for 33796
33791	Intubated Filter Line H - infant - box of 10 for 33796
33792	Non intubated CO <sub>2</sub> nasal cannula - adult - box of 10 for 33796
33793	Non intubated CO <sub>2</sub> nasal cannula - pediatric - box of 10 for 33796
33794	Non intubated CO <sub>2</sub> +O <sub>2</sub> nasal cannula - adult - box of 10 for 33796
33795	Non intubated CO <sub>2</sub> +O <sub>2</sub> nasal cannula - pediatric - box of 10 for 33796
33786	Single line monitoring kit (catheter)
33787	IBP Kit - disposable - single
33788	IBP Kit - reusable (not autoclavable) - single
33789	IBP Kit - reusable (not autoclavable) - double

**33790**  
Airway adapter set with dehumidification tubing for intubated adult  
Suitable also for VET (dog, horse)

**33792**  
CO<sub>2</sub> nasal cannula - adult

**33794**  
CO<sub>2</sub>+O<sub>2</sub> nasal cannula - adult

**33791**  
Airway adapter set with dehumidification tubing for intubated Infants  
Suitable also for VET (cat, puppy)

**33793**  
CO<sub>2</sub> nasal cannula - pediatric

**33795**  
CO<sub>2</sub>+O<sub>2</sub> nasal cannula - pediatric

GENERAL		TECHNICAL SPECIFICATIONS FOR MONITOR 33777 - 33779	
Dimensions/Weight: 270x185xh 250 mm/4 kg	Heart rate range: Adult: 30-300 bpm Neonate/pediatric: 30-350 bpm	Respirations Range: 5 to 120 breaths/min	Accuracy: ± 1 breath/min
Trace: 6 waveform (ECGx2, SpO <sub>2</sub> , RR or EtCO <sub>2</sub> IBPx2)	Heart rate accuracy: ± 1 bpm or ± 1%, whichever is greater	Apnea alarm: yes	Temperature Unit Range: 15° to 45°C (59°F to 113°F)
Indicators: categorized alarms (3 priority levels), visual alarm lamp handle, heart rate, SpO <sub>2</sub> pulse pitch tone, battery status, external power LED	Sweep speed: 6.25, 12.5, 25, 50 mm/sec	Compatible with: YSI Series 400 Temperature Probes	IBP - option Channels: 2
Thermal printer: 25, 50 mm/sec (paper width 58 mm)	Filter: Diagnostic mode: 0.67-150 Hz Monitoring mode: 0.67-40 Hz Surgical mode: 5-25 Hz	Measuring range: 0 to 300 mmHg	Measuring accuracy: ± 1 mmHg (<100 mmHg)
Battery: Li-ion (2 hours operating time)	S-T Segment detection range: -2.0 to 2.0 mV	Measuring accuracy: ± 1% of reading (>100 mmHg)	Pulse rate counting range: 0 to 300 beats/min
Interfaces: LAN digital output for transferring data, Nurse call system connection, defibrillator sync. output	Arrhythmia analysis: Asystole, Vtach, Vfib, Bigeminy, Accent Couplet, Irregular, Pause, Pvc, Ront, Trigeminy, Vbrady, Shortrun (120 kinds (33779 only))	Zero balancing: accuracy ± 1 mmHg drift ± 1 mmHg over 24 hours	Transducer sensitivity: 5µV/V mmHg
DC input connector: 12 to 18 VDC, 2.5A max	Diagnostic analysis: Indicator on waveform display (user selectable)	EtCO <sub>2</sub> - option Measurement mode: Sidestream	Measurement range: 0~150 mmHg, 0 to 19%
Operating voltage: 100-240 V, 50-60 Hz	Pacemaker detection mode: Protection: against electrosurgical interference and defibrillation	Respiration range: 2~150 bpm	Accuracy: ± 5%, 41~70 mmHg
SpO <sub>2</sub> % Saturation Range: 0% to 100%	NIBP Technique: Oscillometric with linear deflation	Respiration accuracy: ± 1 breath per minute	
Pulse Rate Range: 0 to 254 bpm	Measurement Modes: Manual-Automatic-Continuous		
SpO <sub>2</sub> Accuracy: 70% to 100% ± 2 digits	Measurement range: Adult pressure: 20 to 260 mmHg		
Pulse Rate Accuracy: ± 2 bpm	Pediatric pressure: 20 to 230 mmHg		
ECG Lead type: 3-lead, 5-lead (33777), 10-lead(33779)	Neonate pressure: 20 to 120 mmHg		
Lead selection: 3-lead: I, II, III (33777/79)	0 to 300 mmHg		
10-lead: I, II, III aVR, aVL, aVF, V1, V2, V3, V4, V5, V6 (33779 only)	Cuff pressure display: Systolic: 40 to 270 mmHg		
ECG Waveforms: 3-lead 1 channel (33777/79)	B.P. measurement range: Mean: 20 to 230 mmHg		
5-lead: 3/7 channels (33777/79)	Diastolic: 10 to 210 mmHg		
10-lead: 3/12 channels (33779 only)	Adjustable Cuff Inflation Pressure		

# BM1: SLIM AND LIGHT MONITOR WITH STRONG MOBILITY

- 33714 GIMA BM1 MONITOR SpO<sub>2</sub>+NIBP optional Temp. and EtCO<sub>2</sub>
- Professional multiparameter monitor in compact size:
- only 60 mm (2.36 inch) thick and 1.0 kg (2.2 lb)
- easy mounting to an IV pole
- 4.5 hours battery operation (rechargeable Li-ion)
- top handle and rear grip
- monitoring mode and spot check mode
- 4.3" color TFT monitor for clear view 480x272 pixels
- touch key and wheel navigation
- external VGA output for large LCD monitor (option)
- saves 128 hours trend and 400 cases
- multilanguage selectable software (GB, FR, IT, ES, DE, PL, PT, RO, BG, HU, CZ, RU, TR, CN, KR)
- highly advanced CO<sub>2</sub> monitoring technology
- plug and play EtCO<sub>2</sub> module
- Same accessories of BM line. SpO<sub>2</sub>, TEMP, EtCO<sub>2</sub>, NIBP technical specifications same as BM5.
- 33710 Li-Ion RECHARGEABLE BATTERY - spare

SpO<sub>2</sub>+ NIBP optional TEMP and EtCO<sub>2</sub>



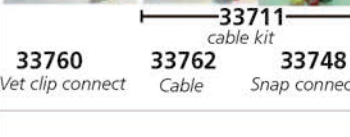
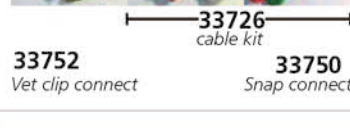
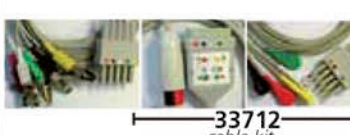



Supplied with NIBP adult cuff (25-35 cm) with 3 m extension hose, SpO<sub>2</sub> adult finger probe with extension cable (2 m) DC adapter (15 VDC, 2.0 A) pole mount bracket, shoulder strap, rechargeable battery.








Size: 190x125x60 mm Weight: 1 kg



## ECG CABLES FOR BM GIMA AND BIONET MONITORS

code	ECG CABLES FOR BM3 (33718, 33719, 33720, 33721, 33722, 33723, 33724, 33780, 33781)	ACCESSORIES FOR MONITOR BM3, BM5, BM7	
		NEW (after 6/2006)	OLD (before 6/2006)
33711	3-lead patient cable kit (cable+snap connectors 33748)	 33713 Vet cable kit	 33727 Vet cable kit
33712	5-lead patient cable kit (cable+snap connectors 33749)		
33726	3-lead patient cable kit (cable+snap connectors 33750)		
33728	5-lead patient cable kit (cable+snap connectors 33751)		
33727	3-lead veterinary cable kit (cable+3 clips connectors)		
33713	3-lead veterinary cable kit (cable+3 clips connectors)	 33711 cable kit	 33726 cable kit
33748	3-lead snap connectors for 33711 - spare - new		
33749	5-lead snap connectors for 33712 - spare - new		
33750	3-lead snap type connectors for 33726 - spare - old		
33751	5-lead snap type connectors for 33728 - spare - old		
33752	Vet 3-lead clip type connectors for 33726-7 - spare - old	 33712 cable kit	 33728 cable kit
33753	Vet 5-lead clip type connectors for 33728 - spare - old		
33760	Vet 3-lead clip type connectors for 33713 - spare - new		
33761	Vet 5-lead clip type connectors for 33712 - spare - new		
33762	3-lead patient cable		
33763	5-lead patient cable	<b>ECG CABLES FOR BM5-BM7 (33777, 33778, 33779)</b>	
33764	3-lead patient cable kit (cable + snap connector)	 33761 Vet clip connect	 33753 Vet clip connect
33765	10-lead patient cable kit (cable + snap connector) only 33778		
33766	3-lead veterinary cable kit (cable + clip connector)		

## BM1, BM3, BM5, BM7 SpO<sub>2</sub> SENSORS - NELLCOR COMPATIBLE

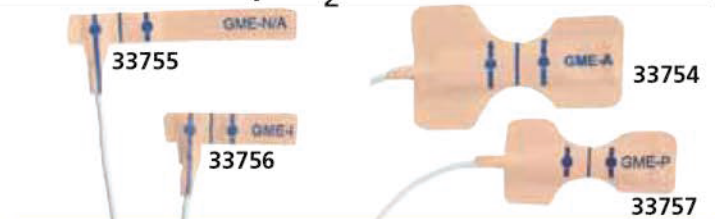
code	SpO <sub>2</sub> SENSORS FOR ALL BM MONITORS	SpO <sub>2</sub> REUSABLE PROBES	
33730**	Adult reusable finger sensor (> 45 kg) Nellcor comp. - 7 pin	 33730	 33731
33731	Pediatric reusable finger sensor (15-45 kg) - Nellcor comp.		
33732	Vet reusable sensor - clip <i>**Not compatible with Nellcor NPB40 and N65</i>		
<b>AVAILABLE OTHER NELLCOR AND NELLCOR OXITECH REUSABLE COMPATIBLE SpO<sub>2</sub> SENSORS - see page 295</b>		<b>SpO<sub>2</sub> EXTENSION CABLES</b>	
code	EXTENSION CABLES FOR BM SpO <sub>2</sub> SENSORS	 33733 <i>for units sold before Oct. 2005</i>	 33716
33733	Extension cable*, 2 m (7 pin small SpO <sub>2</sub> connector) up to 2005		
33734	Extension cable*, 2 m (6 pin SpO <sub>2</sub> connector) sold in 2005/6/7		
33716	Extension cable*, 2 m (7 pin big SpO <sub>2</sub> connector) since 2007 <i>*Necessary for all probes. Please select correct one</i>	 33734	

## NELLCOR COMPATIBLE DISPOSABLE SpO<sub>2</sub> SENSOR

All probes are supplied in sterile pack with 70 cm cable.



code	NELLCOR COMPATIBLE DISPOSABLE SpO <sub>2</sub> PROBES (not compatible with Nellcor Oximax)
33755	Disposable neonate/adult probe - under 3 kg (neonate foot) - over 40 kg (adult finger)
33756	Disposable infant probe - 3-20 kg
33757	Disposable pediatric probe - 10-50 kg
33754	Disposable adult probe - over 30 kg



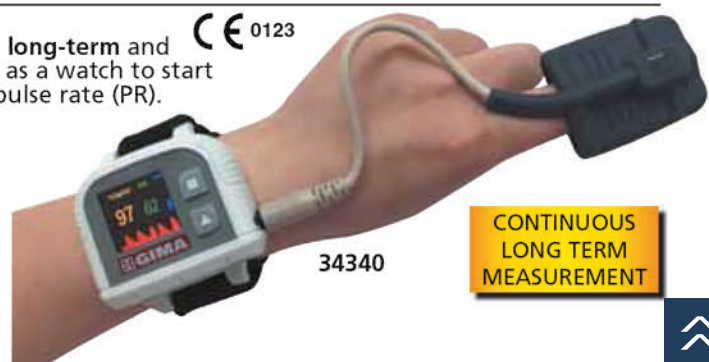
TECHNICAL SPECIFICATION SpO <sub>2</sub> SENSORS	
Range of SpO <sub>2</sub> measurement:	70%~100%
Accuracy:	70%~100% ±2%; below 70%: unspecified
Range of pulse measurement:	30~250 bpm
Accuracy:	±2 bpm of 2% (select larger)
Optical Sensor:	red light (wavelength is 650~670 nm, 6.65 mW) infrared (wavelength is 880~910 nm, 6.75 mW)

## WRIST OXIMETER

• 34340 WRIST PULSE OXIMETER - with software

Small and lightweight wrist Oximeter available for home and clinical long-term and comfortable monitoring. It can be simply worn on the patient's wrist as a watch to start the monitoring and can be used during sports to measure SpO<sub>2</sub> and pulse rate (PR).

- audible and visual alarm with adjustable alarm limits
- trend review function of SpO<sub>2</sub> and PR
- selectable storage modes: 1 group/1s, 1 group/4s, and 1 group/8s
- up to 500 hours storage for SpO<sub>2</sub> and PR data in default mode (1 group/8s)
- clock setting and date display function
- software to download and store all measurements on PC integrated
- removable finger probe
- not suitable for pediatric use



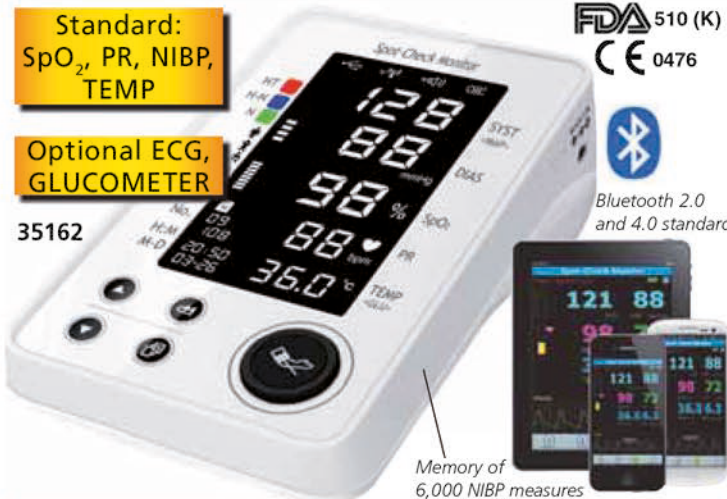
CONTINUOUS LONG TERM MEASUREMENT

# PC-300 SPOT CHECK BLUETOOTH MONITOR

**Standard:**  
SpO<sub>2</sub>, PR, NIBP,  
TEMP

**Optional ECG,  
GLUCOMETER**

35162



FDA 510 (K)  
CE 0476



Bluetooth 2.0  
and 4.0 standard

Memory of  
6,000 NIBP measures

**• 35162 PC-300 SPOT CHECK MONITOR**  
PC-300 handheld Spot-check monitor measures SpO<sub>2</sub>, Pulse Rate, NIBP and TEMP. Widely used in hospitals, clinics and family daily measurement. Equipped with Bluetooth and USB interface, allows to transfer data to PC, tablets and smartphone (Android and iOS).

- up to 6000 groups NIBP data storage, up to 100 different patients (each user can store 999 measurement records)
- quick ear probe TEMP measurement result in 5 seconds
- data transfer to PC/Smartphone by USB or Bluetooth
- optional NIBP pediatric cuff and SpO<sub>2</sub> pediatric probe
- optional ECG and Glucometer
- built-in rechargeable lithium battery
- communication protocols available on request

**STANDARD ACCESSORIES**

- SpO<sub>2</sub> adult probe
- NIBP adult cuff
- Ear thermometer (probe covers not included)
- Lithium battery with charger
- Carrying bag
- User manual: GB, FR, IT, ES



PC-300 ACCESSORIES	
35164	SpO <sub>2</sub> pediatric probe - optional
35165	SpO <sub>2</sub> adult probe - spare
35166	NIBP pediatric cuff 10-19 cm - with extension cable - optional
35167	NIBP adult cuff 22-30 cm - spare
35170	Ear infrared thermometer
35171	Ear probe cover - box of 500
35172	Lithium battery - spare
PC-300 ACCESSORIES: glucose and ECG (optional)	
23890	Glucose monitor On Call Plus II* - IT, GR
23891	Glucose monitor On Call Plus II* - GB, FR
23892	Glucose monitor On Call Plus II* - ES, PT
23895	Glucose monitor Kit On Call Plus II* - IT, GR
23896	Glucose monitor Kit On Call Plus II* - GB, FR
23897	Glucose monitor Kit On Call Plus II* - ES, PT
23910	Glucose strips - box of 25
23912	Glucose strips - box of 50
23913	Glucose strips - box of 100
35176	Glucose monitor USB cable
35178	ECG module** needs 33248
33248	ECG pin lead cable 3 leads

TECHNICAL SPECIFICATIONS	
<b>SpO<sub>2</sub></b>	
Measuring range:	35%-100%
Accuracy:	±3% (70-100%)
<b>Pulse Rate</b>	
Measuring range:	30-240 bpm
Accuracy*:	±2% or ±2 bpm (whichever is greater)
*Root-mean-square value of deviation according to ISO 1919	
<b>NIBP</b>	
Pressure range:	0-300 mmHg (0-39.9kpa)
Accuracy:	±3 mmHg
Measuring range:	Systolic pressure: 60-240 mmHg Diastolic pressure: 30-180 mmHg
<b>TEMP</b>	
Measuring range:	32-43.0°C
Accuracy:	±0.2°C (35-42°C) - ±0.3°C (other)
Measuring time:	<5 s
<b>ECG (Optional)</b>	
Heart Rate measuring range:	30-240 bpm
Heart Rate accuracy:	±2 bpm or ±2% whichever is greater
Display scale:	5.0 mm/mV ±10%
Common-mode rejection ratio (CMRR):	≥60 dB
<b>Blood Glucose (Optional)</b>	
Measuring range:	20 to 600 mg/DL
SEE other specification at page 5	
<b>Power Supply</b>	
Battery:	3.7 V built-in Li-ion battery
Operating voltage:	3.6-4.2 VDC
Operating current:	≤800 mA
Charger:	100 - 240 VAC, 50/60 Hz, 5 VDC or USB

See glucose monitor accessories at page 5  
\*Needs USB cable 35176 to connect to PC-300

See electrodes at page 277-278  
\*\*ECG module can be used without 3 leads cable in palm mode

# PALM SAT® 2500A NONIN PULSE OXIMETER

**• 35086 PALM SAT® 2500A PULSE OXIMETER with rubber reusable adult probe and alarm.**

A compact versatile and reliable pulse oximeter designed and tested to exceed all durability requirements.

Main features:

- Pure Sat® technology offers accuracy & speed in getting a reading, even with varying skin pigmentations or polish and is able to monitor, with declared accuracy in challenging conditions, such as motion & low perfusion, for all patients - it is tested to assure performance in challenging conditions, such as drop and liquid ingress (IPX 2). Granted by US Army/Air Force Aeromedical certification
- It also features: audible and visual alarms, 72 hour memory, long battery life (60 hours) or rechargeable battery for 40 hours
- Supplied with multilanguage cd-rom manual: GB, FR, IT, DE, ES, PT, GR, NL, PL, NO, FI, DK, SE.

**TECHNICAL SPECIFICATIONS**

SpO <sub>2</sub> range:	0% to 100% ±2 (70-100% without movement)
Pulse rate range:	18 to 321 bpm ±3 (18-300% without movement)
Power:	4AA alkaline batteries 1.5 V (for 60 hours use) optional NiMH rechargeable battery (for 40 hours use)
Size:	7x13.8x3.2 cm Weight: 213 g

ACCESSORIES SAT 2500	
35087	Adult reusable rubber probe (12.5-25.5 mm) - 1 m cable
35088	Pediatric reusable rubber probe (10-19 mm) - 1 m cable
35089	Charger stand with NiMH battery pack, plug kit
35082	NVISION software for data management (GB)
35083	Adaptor for USB - PC connection



Bright LED display of SpO<sub>2</sub> and pulse rate

Audible and visible alarms



Easy 2 button operation

Three-coloured signal quality indicator



Blinking alarm silence indicator  
Low battery indicator

Rugged rubberized case with IPX 2 level of liquid ingress protection

35086

35086 + 35089



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