

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 320 x 240 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	

GIMA code	CARDIOGIMA ACCESSORIES	Minimum order
27139	Transport bag (see at page 34)	-
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 - 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: 145hz
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: 240 x 160 x 65 mm. Weight: 1.5 kg. Made in Italy

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



33329

3 YEARS WARRANTY
made in Italy

- 33329 CARDIOGIMA 1 M - 1-3 channel ECG with monitor
- A real portable ECG with small dimension and light weight, 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 - 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	

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: 145hz
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: 190 x 120 x 60 mm. Weight: 1 Kg.
Conformity standards: 93/42/CEE; EN60601-1; EN60601-1-2; IEC601-2-25 Made in Italy

SMART SINGLE AND THREE CHANNEL ECG

33330



33332 Single and three channel with 12 channel display

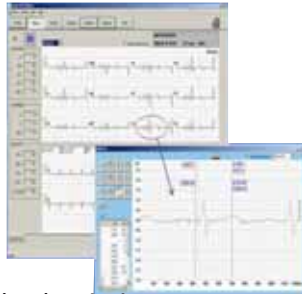


PORTABLE ECG - 1 and 3 channel

- Complete digital design
- Folding up LCD display waveforms, parameters configurable
- High resolution thermal printing
- Built-in rechargeable Li-ion battery, AC/DC supply
- Complete digital filter, avoid baseline drift, AC, EMG interfere
- Baseline automatic adjustable, optimize printing position
- Auto/manual operation selectable
- Lead-off detection and display

Three channel ECG also features

- 12 Lead simultaneous acquisition
- Automatic ECG parameters measurement and analysis
- Selectable printing format: Auto, manual, rhythm
- Support USB ink-jet printer for 12 leads printing



TECHNICAL SPECIFICATIONS		
	33330	33332
Input Circuit:	floating input circuit, protection from defibrillation and pace maker	
Lead :	Standard 12 leads	
Acquisition mode:	Single	12 leads simultaneously
Time constant:	> 3.2 s	
Sensitivity:	2.5, 5, 10, 20, mm/mV	
Input impedance:	> 50 MΩ	> 50 MΩ
Anti baseline drift:	Automatic	
Filter:	EMG Filter 35 Hz (-3 dB) AC/DFT Filter 50 Hz/60Hz (-20 dB)	EMG Filter 25/35/40Hz off DFT Filter 0.05/0.15 /0.25/0.5Hz Low pass filter 150/100/75 Hz AC Filter 50 Hz/60Hz
CMRR:	>90dB	
Recording mode:	Auto/Manual	Auto/Manual/Rhythm
Rhythm lead:	Any lead selectable	
Safety standard:	IEC I/CF	
Power supply:	AC: 100V-115 V/220V-240V, 50/60 Hz Rechargeable Li-ion battery: voltage 14.8V More than 3 hours continuously operation under battery supply	
Recorder:	Thermal printer	
Record paper:	50mmx30m	80mmx20 m
Paper speed:	25mm/s, 50 mm/s (± 3%)	5mm/s, 6.25 mms 10mm/s, 12.5mm/s, 25mm/s, 50 mm/s
Dimension:	288mmx210mmx70mm	
Weight:	2.3 kg (with battery)	2.5 kg (with battery)
Display:	192x64 pixel LCD	320x240 pixels LCD (Wide screen)
Display language selectable	Eng - Ita	Eng - Ita - Spa - Fra - Russian
Interface:	Ethernet, RS232, USB	

GIMA code	SMART ECG AND ACCESSORIES
33330	Smart SE-1 Single Channel ECG
33332	Smart SE-3 Three Channel ECG - interpretative
33336	ECG-Viewer Software (English and Italian)
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 2200 mAh - spare
27139	Transport bag - see page 34

STANDARD ACCESSORIES

Patient cable	1 roll of paper
1 bottle of gel	4 limb electrodes
Manual: English, Italian, (Spanish, French, Turkish, Russian (only SE3), on request)	6 chest limb electrodes
	Rechargeable battery

CARDIPOCKET ECG - 1 CHANNEL

- 33257 CARDIPOCKET ECG - with software
- 32963 THERMAL PAPER - box of 20 rolls

Compact and lightweight pocket device with unbeatable features:

- wide graphic display (it allow "live" view of ECG trace and selection of all parameters)
- rechargeable lithium battery operated (80 ECG with fully charge)
- PC software with interpretation included for storing data into PC (English/Italian) (operation system: Microsoft Windows 2000/XP/2003/Vista/7)
- multilanguage internal software: English, Italian, German, French, Spanish, Chinese, Turkish
- standard 12 leads ECG
- 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 operate. Screen displays, working position, state of the instrument are clear and easy to be read.

TECHNICAL SPECIFICATIONS

Power:	AC: 100-240V, 50/60 Hz - DC: 12V rechargeable battery
The instrument could normally work for more than 0.5 hours under DC supply	
Noise level:	≤15μVp-p
CMRR:	>100 dB
EMG filter:	35 Hz
Time constant:	≥3.2s
Sensitivity display:	standard sensitivity: 10mm/mV±5%
Sensitivity setting:	1/2, 1, 2 (cm/mV), conversion deviation≤5%
Recording system:	thermal-array, 8 dots/mm (vertical), 16 dots/mm (horizontal), 25mm/sec
Paper speed:	25mm/s - 50mm/s ±5%
Recording paper:	50mm, 20 m, high-speed roll
Safety standard:	IEC class I, type CF
Input circuit current:	≤100nA
Fuse standard:	AL 220V/2A
Weight:	800 g (with rechargeable battery and paper)
Dimension:	190x90x40 mm

STANDARD ACCESSORIES

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



Integrated thermal printer

Compact: only 19 cm

60x35 mm wide display



SMART 6 AND 12 CHANNEL ECG



33309
SE-6



33310
SE-12 Express

PORTABLE ECG: 6 AND 12 CHANNEL

Portable unit

Compact design, lightweight with carrying handle 5.7 inch high-resolution screen (33309) or 12.1 inch high-resolution colour fold up touch-screen (33310).

Various Methods of data transfer

USB interface for patient record transmission ethernet or RS-232 interface for networking or data transmission to PC

Unique features

Standby mode for saving energy and extending LCD life

Various printing formats

Freeze real time waveform and record with selected format

Alphanumeric keyboard

Easy to use and analyze

Single button operation for data printing and storage

Built-in rechargeable lithium battery

Automatic detection and record of arrhythmia

Last 120 seconds waveforms reviewable and recordable

Internal data storage for up to 100 digital ECG records (33309) or 200 (33310):

Accurate ECG interpretation programme

PC software: smart ECG viewer (optional)

12 channel ECG also features

12.1 inch high-resolution colour fold up touch-screen

Internal storage for 200 patient data

Preview of waveforms and analysis result before printing

Freeze and replay the waveform to detect arrhythmia

Waveforms reviewable, adjustable and recordable to meet different needs

Analysis of heart rate variability (HRV)

GIMA code	SMART ECG AND ACCESSORIES
33309	Smart SE-6 6 Channel ECG
33310	Smart SE-12 express 12 Channel ECG - interpretative
33336	ECG-Viewer Software (English and Italian)
32966	Recording paper z-fold, 210x295 mm - 100 sheets
33298	ECG cable - spare
33318	Rechargeable lithium battery 2200 mAH - spare

STANDARD ACCESSORIES	
Patient cable	1 pack of paper 210x295 mm - 100 sheets
1 bottle of gel	4 limb electrodes
Manual and software: English, French, Spanish, Italian	6 chest limb electrodes Rechargeable lithium battery

TECHNICAL SPECIFICATIONS	
SE-6 six-channel ECG / SE-12 express twelve channel ECG	
Input Circuit	floating input circuit, protection from defibrillation and pace maker
Acquisition Mode	12 leads simultaneously
A/D Converter	12 bits
Input Voltage Range	± 5mVpp
Time Constant	> 3.2s
Frequency Response	0.05Hz ~ 150Hz
Calibration Voltage	1mV ± 2%
Noise Level	<12.5 µ Vp-p
Anti Baseline Drift	Automatic
Patient leakage Current	< 10 µ A (220V-240V)
Patient Auxiliary Current	<0.1 µ A (DC)
Filter	EMG filter 25Hz/35Hz/45Hz/OFF - DFT filter 0.05/0.15/0.25/0.5Hz lowpass filter 150Hz/100Hz/75Hz - AC filter 50 Hz/60Hz
CMRR	>110dB
Recording Mode	Auto/Manual/Rhythm (33309/10) R-R analytic (33310)
Rhythm lead	Single lead or three leads selectable
Safety Standard	IEC I/CF
Power Supply	AC:100V-240V,50/60Hz
Battery	Built-in rechargeable lithium voltage=14.4V, for about 100 patient records (33309), 200 patient records (33310)
Recorder	Thermal printer
Record Paper	Roll and Z-fold 216mm , 210mm paper width
Record Speed	5mm/s, 10mm/s, 12.5mm/s, 25mm/s, 50mm/s (± 3%)
Dimension	420x330x105 mm (33309) - 420x330x120 mm (33310)
Display	320x240 dot single colour LCD (33309) 800x600 multicolour LCD (33310)
External Input/Output	Input: > 100KΩ ; Sensitivity 10mm!V ± 5% Output: > 1000Ω; Sensitivity 1V/mV ± 5%
Communication Interface	Ethernet, RS232, USB

3/6/12 CHANNEL ECG WITH COLOUR DISPLAY AND INTERPRETATION



Internal switchable software in 7 languages: GB, IT, FR, PL, CZ, SI, HR

• **33307 CARDIOGIMA COLOUR ECG 3/6/12 CHANNELS**
3/6/12 channels electrocardiograph with analysis, HES interpretation and software.

- Internal memory for more than 300 tests
- Pacemaker detection
- LCD TFT color display 5.7"
- USB output for printing A4 with external printer
- PC software for data management

Made in Europe.

• **32953 THERMAL PAPER 112 mm x 23 m - box of 10**

TECHNICAL SPECIFICATIONS	
One time record: 3/6/12 channels	stimulations
Width of record: 112mm	Paper easy-load
Outside USB printer: printout A4 (210x297)	Signalization of wrong connection with particular electrodes
Record speed: 5/10/25/50 mm/s	CMRR: >100dB
Sensitivity: 2,5/5/10/20 mm/mV	Leads: 12 standard/Cabrera
Digital filtration of disturbances: 25, 35, 50, 60 Hz	Input channels: floating, protected from impulse defibrillating CF
Display: 5.7" graphic, color TFT 320x240	Power: 90-240V, 50/60Hz
Analysis and interpretation: HES compliant with EN 60601-2-51	Inside rechargeable battery: Li-ion 7,2V 2200 mAh Li-ion
Internal memory: >300 tests	Power consumption: <30VA
Alphanumeric keyboard	Dimensions: 260x220x52 mm
Detection of stimulator impulses (pacemaker)	Weight: < 1,8 Kg
Automatic regulation of isoelectric line	Standards: EN 60601-1, EN 60601-1-2, EN 60601-2-25, EN 60601-2-51
Constant measurement of heart action (HR)	Class/Group: Class A/Group 1 (CISPR-11)
Acoustic signalization of detected	

STANDARD ACCESSORIES	
Patient cable 10 leads	1 roll of paper
1 bottle of gel	4 limb electrodes
1 power cable	6 chest limb electrodes
CD manual (English, Italian)	PC software for data management

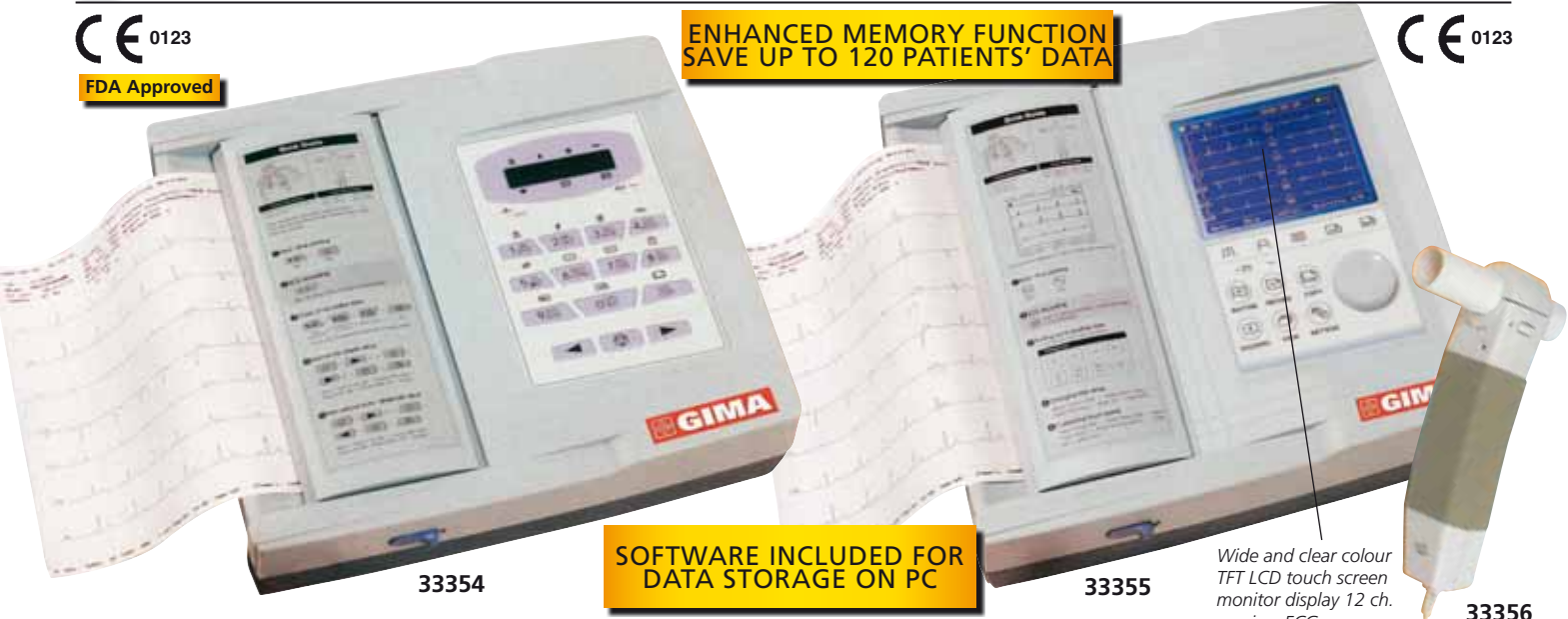
MULTI CHANNEL ECG WITH INTERPRETATION ON PAPER



**ENHANCED MEMORY FUNCTION
SAVE UP TO 120 PATIENTS' DATA**



FDA Approved



33354

**SOFTWARE INCLUDED FOR
DATA STORAGE ON PC**

33355

Wide and clear colour
TFT LCD touch screen
monitor display 12 ch.
preview ECG wave

33356

- **33354 CARDIOGIMA 12 ECG - 3-6-12 channel**
 - **33355 CARDIOGIMA 12 M ECG - 3-6-12 channel with monitor**
- We propose two models of 12 channel resting ECG recorder which are the most economically priced without performance compromise. The simultaneous record of 12 channels has a high diagnostic value - all the 12 channels are illustrated at the same time. Their design is maximized for the user's convenience (A4 size paper, one body type).

Main Features:

- 12 leads simultaneous 10-second resting ECG with interpretation in only 60 seconds (33355 in **only 5 seconds**) multilanguage, internal software+printing in English, Spanish, French, German, Russian, Italian, Chinese, Turkish, Polish, Portuguese, Romanian.
- Wide Paper Printing (A4 size thermal paper, fax paper is OK)
- Combined output of all relevant curves, patient data, date, time and instrument settings
- Pacemaker and lead fault detect (only 33355)

- PC Connections

Connection to PC (PC interface with RS 232 port Via LAN-software included) and submit already recorded ECG signal to other specialist for evaluation (only a modem is needed)

- ECG filing system "ECG Plus"

A fully configured PC-based filing system enables to record ECG signals, display them in real time, print and record them.

- Rechargeable batteries available (optional) with 1 hour capacity in normal use (about 100 ECG printouts)

- **33356 SPIROMETER MODULE - for code 33355**
- It transforms CARDIOGIMA 12M 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, FEV 200-1200 ml, FEV 25%, FEV 50%, FEV 75%, FIF 50%, PIF, FET 100%, FIVC.
SVC: SVC, ERV, IRV, TV, EC, IC, BC
MVV: RR, TV, MVV
 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.**

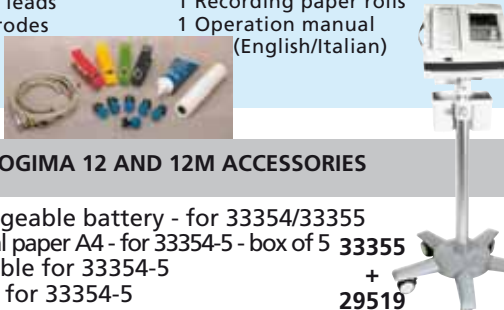
TECHNICAL SPECIFICATIONS 33354 - 33355

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 (only 33355) 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)
Display:	Low pass filter (off, 40 Hz, 100 Hz, 150 Hz) 2x16 character LCD display (code 33354) 480x272 colour TFT LCD display (3 and 12 channel preview) (code 33355)
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: width: A4: 210 mm or 8.5", length A4: 300 mm or 11"
Resolution:	vertical: 8 dots/mm, horizontal: 16 dots/mm
Electrical:	Internal noise: 20µV (p-p) max Input circuit: floating input Isolated and defibrillation protected DC offset voltage: ± 500 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, CSA

Made in Korea

STANDARD ACCESSORIES

- | | |
|---------------------------------------|--------------------------------------|
| 1 PC software (English/Italian) | 1 ECG electrode cream (70 g) |
| 1 LAN cable | 1 Power cable |
| 1 Patient cable - 10 leads | 1 Recording paper rolls |
| 4 ECG clip-on electrodes | 1 Operation manual (English/Italian) |
| 6 Chest electrodes, suction for adult | |



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

33355 + 29519

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, AR1200, ADV.
CARDIORAPID CAMINA: K111, K112, K33, K36, K300 M, K300 P, K600 P, K600 D, K130 B, K 130 D.

- 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.



Other ECG accessories at page 183-184

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 350 cm) and a powerful interpretation software (English, Italian, Spanish)

Main software features:

- 12 lead resting ECG with interpretation
- Vector cardiograph (VCG) with interpretation
- Electronic ruler to measure ECG waves
- 3D VCG animation to diagnose myocardial infarction and difficult arrhythmia
- Database serial comparisons make it possible to study the changes of the disease of the same patient. Can print reports in B/W or colour
- Multi hour ECG Monitoring with holter analysis
- Simple exercise stress test with report
- Tests twice comparison

• 33328 ECG CABLE - SPARE

• 33321 PC-ECG+CARDIOLOGY SOFTWARE

Same as code 33320 but with the following specialist functions: Timed vector-cardiograph (TVCG), Frequency ECG (FCG, particular technique to detect ischemia and CAD), High Frequency ECG (HFECG), SAECG (VLP) analysis (Signal Averaged ECG or Ventricular Late Potentials, time domain and 3D frequency domain), QTD analysis (QT dispersion) with chroma map, Heart Rate Variability (HRV) (time domain, 3D frequency domain, Lorenz poincare plots), Pacemaker analysis, Heart rate Turbulence (HRT, or VE chaos).



FCG CAD gram to locate coronary artery disease and ischemia



3D-VCG tool to detect myocardia infarction



QT Dispersion QTD analysis with chroma map

Above 3 pictures refers to code 33321



CE 0197

Only 550 g

TECHNICAL SPECIFICATIONS		STANDARD ACCESSORIES	
Communication port:	USB - Support HL7, Dicom interface	4 limb electrodes	
Size:	196x143x30 mm - 550 g	6 chest electrodes	
Power source:	5V DC (from PC USB port)	Patient cable 8 leads	
Patient insulation:	4000 V AC	USB pen driver	
Defibrillation protection:	built in box	CD software	
PC minimum requirements:	Windows 2000, XP Vista and Windows 7	Ground cable	
	CPU ≥ 1 GHz - HD ≥ 40 G - RAM ≥ 256 M	Banana plug	

CARDIO XP 12 CHANNEL ECG WIRELESS OPTION

• 33303 CARDIO XP 12 CHANNEL ECG

• 33302 WIRELESS MODULE

High quality

- optional wireless patient module offers full freedom
- one-touch operation for analysis, storage and printing in 5 second
- ECG signal acquisition and interpretation of up to 12 leads for both adult and pediatric patients
- configurable report option for cardiologist
- multilanguage internal software (Eng-Ger-Rus-Ita-Spa-Fra-Chi-Kor)

User friendly

- Z-fold printer in A4 size prevent rolled paper problem
- versatile LCD mount support for rotation, tilt and wall mount
- 7 inch colour touch screen TFT (800x480) LCD monitor
- portable, lightweight design with rechargeable Li-ion battery (300 events)
- SD Card and USB port

Easy and fast typewriting by external USB keyboard (optional)

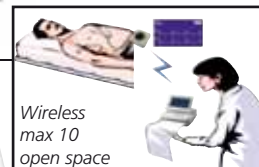
• 33803 THERMAL PAPER - box of 10 packs

• 33304 LI-ION BATTERY - 111 V - 4400 mAh - optional

(capacity 3 hours - 300 ECG, charging time 8 hours)



33303



Wireless max 10 open space



Optional wireless module

TECHNICAL SPECIFICATIONS		STANDARD ACCESSORIES	
ECG Acquisition:	Up to 12 leads for both adult and pediatric patients Base line drift, artifact, AC, and low and high pass frequency filters	Sensitivity:	2.5, 5, 10, 20, auto(I-aVF: 10, V1-V6: 5) mm/m
ECG Memory and Transfer:	Storage memory for 120 ECGs, with easy transfer by LAN connection, SD card & USB memory	Printing speed:	12.5, 25, 50 mm/sec
ECG Interpretation:	The cardiograph includes the 12-Lead algorithm for interpretive analysis of the amplitudes, durations and morphologies of ECG waveforms and associated rhythm for adult and pediatric patients This clinically proven interpretation program provides configurable levels of interpretive, reason and severity statements that are printed on the ECG report	Patient data:	ID, name, age, birth, gender, height, weight, smoke, depart, race...
User interface:	Touch screen (alphanumeric and symbol) Rotary push-knob(POP-UP menu)	Basic measurement:	Heart rate, PR, QRS, QT/QTc, P-R-T axis
Display:	800 x 480 pixel resolution. 7" Color TFT wide display 12 channels preview(3x4 or 6x2 channels)	Battery Capacity (Li-Ion):	3 hour of normal use (approx. 300 ECG printouts) on 8 hours charge
Filters:	AC(50/60 Hz, -20dB or better) Muscle(25-35Hz, -3dB or better) Base line drift(0.1Hz, -3dB or better) Low pass filter(off, 40Hz, 100Hz, 150Hz)	ECG Storage:	Internal Storage for 120 ECGs built-in memory External Storage: SD Card or USB Memory
Printer Resolution:	Thermal print head, Z-fold paper Report paper - width: A4(210mm) or Letter(8.5"), length: A4(300mm) or Letter(11")	Time Constant:	3.2 sec
Report Formats:	Resolution: 8dot/mm(0.125mm pitch) 3 channels + 1 Rhythm, 3 channels + 3 Rhythm, 6 channels + 1 Rhythm, 12 channels Disclose (1 minute of continuous waveform data for 1 selected lead)	Input Impedance:	More than 10MΩ
		CMRR:	Greater than 100dB
		Line Power:	95 ~ 240 VAC, 50/60Hz, 60 VA max
		Dimensions:	299 x 298 x 123 mm (11.8 x 11.7 x 4.8 inch)
		Weight:	4.5 kg (9.9 lb)
		Out Interface:	USB 1 : Host (Memory) SD card slot : SD card (memory) USB 2 : Host (Keyboard, printer) Serial port 1 / 2 : RS-232C (Patient Module, Spirometer, Wireless Pack) Ethernet : LAN (S/W Upgrade, Patient Information trans/receive) VGA : External Monitor (Holter, Stress System)
		Out Interface:	USB 1 : Host (Memory) SD card slot : SD card (memory) USB 2 : Host (Keyboard, printer) Serial port 1 / 2 : RS-232C (Patient Module, Spirometer, Wireless Pack) Ethernet : LAN (S/W Upgrade, Patient Information trans/receive) VGA : External Monitor (Holter, Stress System)

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



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 result
- 24 (cardio A) or 300 (cardio B) ECG waveform can be saved
- Analysis and report of 9 types (CARDIO A) and 17 types (CARDIO B) of ECG waveform
- USB interface with option data cable and ECG viewer software
- Traditional measurement with optional ECG cable

TECHNICAL SPECIFICATIONS

	CARDIO A	CARDIO B
ECG bandwidth:	0,5 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	57.6x40mm
Power:	2XAAA batteries	
Dimensions	115x58x18mm	125x70x21,5mm
Weight	65g	106g

GIMA code	PALM ECG AND ACCESSORIES
33260	CARDIO-A palm ECG
33261	CARDIO-B palm ECG-colour display
33265	ECG viewer software+USB cable - optional
33264	ECG lead cable - 3 leads - optional



HOLTER ECG SYSTEM - 24 HOURS MONITORING



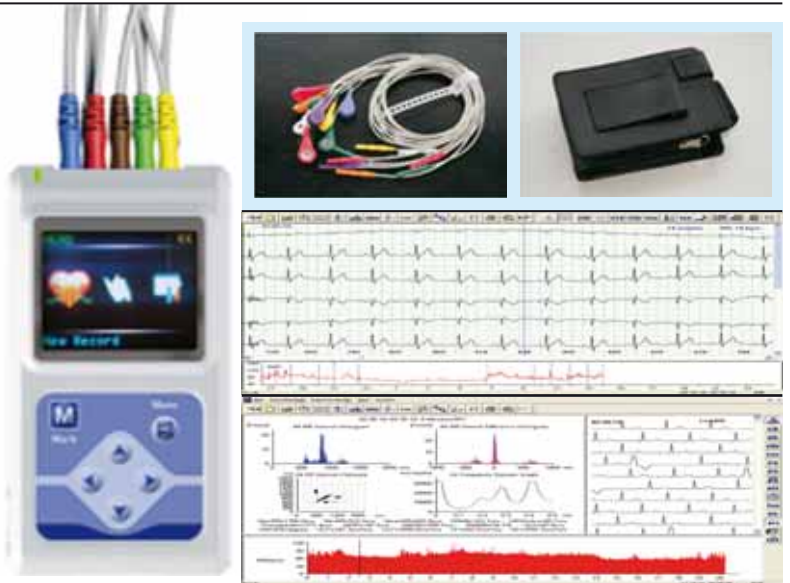
• 35130 ECG HOLTER + SOFTWARE

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
- 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. (option)



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: Windows 98, 2000, XP, 7

TECHNICAL SPECIFICATIONS

Scale voltage: 1mV±5%	Least measurement 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: 105g (without battery)
Time constant: >3.2s	
Scan speed: 25mm/s±5%	
Enduring polarization voltage: ±300mV	

STANDARD ACCESSORIES

1 Holter recorder	1 pouch for hanging recorder
1 CD with software	1 USB cable for data downloads
10 leads patient cable	1 USB security key
10 disposable ECG sensor	Instruction Manual (English, Italian)

GIMA ECG THERMAL PAPERS FOR DIFFERENT ECG BRANDS



GIMA code	ECG MANUFACTURER AND MODEL	Type	Width mm	Length	Sheet	Marker	Grid	Min. order
32950	BIONET Cardiocare/Cardiotouch	roll	215	25	-	no	orange	5
32953	BTL 08 MT-MD	roll	112	23	-	no	orange	10
32954	BURDICK Atria 3100/6100, quest	pack	210	300	200	yes	orange	1
32955	CARDIOLINE Elan 1100	pack	112	100	300	yes	orange	25
32956	Delta 1 plus	pack	60	100	300	yes	orange	25
32957	Delta 1 plus	roll	60	30	-	no	orange	20
32958	Delta 3 plus	pack	112	100	300	yes	orange	25
32959	Delta 30	roll	183	30	-	no	orange	5
32960	Delta 60 plus	roll	210	30	-	no	orange	5
32961	EDAN Elan 2100, Delta 612	pack	210	280	200	yes	orange	1
32963	SE-1	roll	50	25	-	no	orange	20
32964	SE-3	roll	80	25	-	no	orange	10
32965	SE-601	pack	110	140	143	yes	orange	20
32966	SE-6-12 - 1200 EXP	pack	210	295	150	yes	orange	1
32960	SE-6-12 - 1200 EXP	roll	210	30	-	no	orange	5
32971	ELETTRONICA TRENTINA/CARDIETTE/CARDIOLINE Autoruler 12/1, comp. 1x12	roll	50	30	-	yes	blue	20
32972	Start 100	roll	130	27	-	yes	blue	10
32973	AR 600	roll	60	15	-	yes	blue	25
32974	AR1200	roll	120	18	-	yes	blue	10
32975	Daedalus - AR2100	roll	210	20	-	yes	blue	5
32976	Daedalus, Start 200, AR2100	pack	210	150	200	yes	blue	8
32980	ESAOTE BIOMEDICA P 80	roll	90	28	-	no	orange	10
32981	P 80	pack	90	70	400	yes	orange	25
32982	P 80 Power, P 80 SIX	pack	210	280	215	yes	orange	1
32983	P8000 base	pack	80	70	300	yes	orange	20
32984	P8000 Power	pack	210	280	200	yes	orange	1
32985	Archimed 4240, Archiwin	pack	210	300	200	yes	orange	1
32986	Personal 120	pack	126	150	170	yes	white	20
32988	FUKUDA ME - FUKUDA DENSHI 501A, FX121, FCP-500, OP18TE	roll	50	30	-	no	orange	20

GIMA code	ECG MANUFACTURER AND MODEL	Type	Width mm	Length	Sheet	Marker	Grid	Min. order
32989	FCP15, FCP11, OP110TE, OP119TE	roll	63	30	-	no	orange	20
32990	OP 111 TE, OP 115 TE	pack	50	75	400	yes	orange	20
32991	OP 112 TE, OP 122 TE	pack	63	75	400	yes	orange	25
32992	FCP231, OP69TE, FX7402, FX7542	roll	210	30	-	no	orange	5
32965	OP222TE, FX7202	pack	110	140	143	yes	orange	20
GIMA								
32996	Cardiogima 1M, 3M	roll	58	25	-	no	orange	20
32953	Cardiogima 6M, colour	roll	112	23	-	no	orange	10
HEWLETT PACKARD								
32999	Page Writer 100/200, M1709A, M2483A	pack	210	300	200	hole	orange	1
32988	40453 A, 43120	roll	50	30	-	no	orange	20
KENZ - SUZUKEN								
33002	Cardico 302/601	roll	112	27	-	no	orange	10
33003	Cardico 302/601	pack	112	90	200	yes	orange	20
32960	Kenz-Cardico 1210, 1211	roll	210	30	-	no	orange	5
32988	103, R50-30R	roll	50	30	-	no	orange	20
MACQUARIE								
33006	CT 100/CT 200	roll	57	13	-	no	green	25
MARQUETTE - HELIGE - GE								
33010	MAC PC	roll	108	23	-	no	orange	10
33011	Case 10-12-15, MAC 3000-5000	pack	215	280	300	hole	orange	1
32966	Cardiosmart, MAC 1200/1600	pack	210	295	150	yes	orange	1
33012	MAC 400	pack	80	90	280	yes	orange	25
33013	MAC 800	pack	110	140	200	yes	orange	25
MORTARA								
33017	Eli 50	pack	50	70	200	yes	orange	25
33010	Eli 100	roll	108	23	-	no	orange	10
33019	Eli 210, Eli 250, Eli 350	pack	210	300	250	yes	orange	1
33020	Eli 150	pack	108	140	200	yes	orange	25
33021	Eli 230	roll	210	20	-	no	orange	5
NIHON KOHDEN								
33025	9620	roll	63	30	-	no	orange	20
33026	9110, 9130, 9132	pack	210	140	215	yes	white	10
33027	GEM, 9010, 9020, 9022	pack	110	140	143	yes	white	20
33028	ECG 1500, 1550, 9110, 9130, 9132, 9320	pack	210	295	170	yes	white	1
33029	Def. TEC 5521, 5531	pack	50	100	200	no	orange	25
PHYSIO CONTROL								
33032	Life Pack 8-9-10	roll	50	23	-	no	orange	20
33033	Life pack 11-12-15	roll	107	25	-	no	orange	10
PROGETTI								
32953	EPG 612	roll	112	23	-	no	orange	10
32996	EPG Basik-pocket	roll	58	25	-	no	orange	20
SCHILLER								
33037	AT 1, AT 4	pack	90	90	390	yes	green	25
32982	AT 2, CS 200	pack	210	280	215	yes	orange	1
33038	AT 10	pack	210	140	250	yes	green	10
32983	AT 101, Defigard	pack	80	70	300	yes	orange	20
32984	AT 102	pack	210	280	200	yes	orange	1
33039	Cardiolaptop, AT110	pack	210	140	150	yes	green	5
SIEMENS								
32990	Cardiostat 1	pack	50	75	400	yes	orange	20
32991	Cardiostat 11	pack	63	75	400	yes	orange	25
TRISMED								
33046	Cardipia 400, 406RS	roll	110	30	-	no	orange	25
33047	Cardipia 800, 812RS	roll	215	30	-	no	orange	5

SONY PRINTER AND PAPER



Size:
154x240xh 88 mm
33967



- 33967 SONY PRINTER UP-897 MD - black/white
Produces A6 size printings in about 2 seconds, with superb print quality with 325 dpi and grey level of 256 steps. 110-240 V AC, 50/60 Hz.
 - 33991 SONY COLOUR PRINTER UP-21 MD
 - 33992 SONY A4 COLOUR PRINTER UP-D77MD
- SONY PAPERS.
- 72730 SONY PAPER - UPP-110 HD - box of 5 rolls
High density printing paper - 110mm x 20 mm
 - 72731 SONY PAPER - UPP-110 HG - box of 5 rolls
High glossy printing paper - 110mm x 18 mm
 - 72732 SONY PAPER UPP-110S - box of 5 rolls
 - 72733 SONY PAPER UPP-110HA - box of 5 rolls
 - 72735 SONY COLOUR PAPER UPC-21L
(4 ink rolls + 200 supports 144x100 mm)



72731

GIMA VIDEOPRINTER PAPER



Videoprinter paper

COMPATIBLE WITH MOST VIDEO-PRINTERS

72721

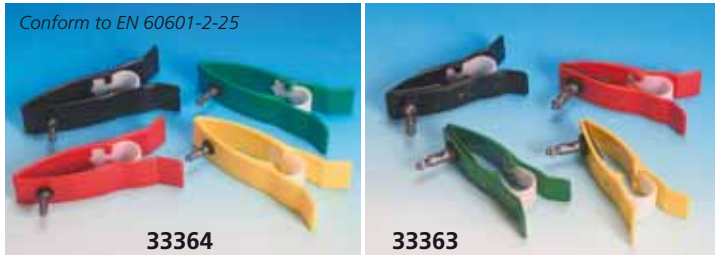
- 72721 VIDEOPRINTER PAPER - roll 110 mm x20 m

GIMA VIDEOPRINTER PAPER-COMPATIBILITY LIST		
List of compatible printers	Alternative to papers	Nr of prints
Mitsubishi electric P-60/61/65/66/67/90/91	K-61 B, K-65 HM	200
Sony UP-860-890/D860/D890/MD 897	UPP-110 S, UPP-110 HD, UPP-110 HA	80
Aloka	SSZ-300 S	100
Hellige SSZ-300	226 149 01	100
Hewlett-Packard	77510 A	200

- 72740 MITSUBISHI PAPER LX65HM-CE

CREAM, ELECTRODES AND ADAPTORS FOR MOST ECG

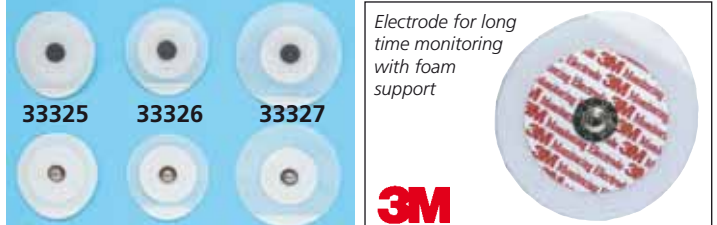
GIMA code	UNIVERSAL REUSABLE ECG ELECTRODES	Minimum order
33363	Set of 4 limb clamp electrodes (4 colours) pediatric	1 set
33364	Set of 4 limb clamp electrodes (4 colours) adult	1 set
33368	Set of 6 chest electrodes Ø 15 mm- silver coated	1 set
33365	Set of 6 chest electrodes Ø 24 mm- silver coated	1 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



UNIVERSAL DISPOSABLE ECG ELECTRODES AND ADAPTERS		
33325	Disposable FOAM electrodes Ø 43-45 mm - solid gel	1,250 pcs.
33326	Disposable TNT electrodes Ø 43-45 mm - solid gel	1,250 pcs.
33327	Disposable TNT electrodes Ø 55 mm - solid gel	1,200 pcs.
33344	Disposable FOAM electrodes Ø 48-50 mm - liquid gel	1,200 pcs.
33367	Adaptors to connect ECG cable to code 33325/6/7	10 pcs.
33341	Disposable pre-gelled tab electrodes 34x22 mm	100 pcs.
33375	Adapter for ECG cables (pin)	10 pcs.
33376	Adapters for ECG cables with 4 mm banana plug	10 pcs.
33342	Universal adapter with 4 mm socket for snap and alligator connection	10 pcs.



3M RED DOT™ CONNECTION		
33378	3M Red Dot™ 2330 - 3.2 x 2.2 cm single use electrode with adhesive gel	100 pcs.
33297	3M Red Dot™ 2239 - Ø 6 cm - 20 bags box of 50 pcs	1,000 pcs.



ALKALINE, LITHIUM AND ZINC-AIR "ACOUSTIC" BATTERIES



FOR GENERAL USE APPLICATIONS

FOR ELECTRONIC

FOR ACOUSTIC

GIMA code	VARTA ALKALINE HIGH ENERGY BATTERIES	Type	Blister	Min. order
32200	Varta ministilo H.E. - alkaline	AAA	4 pcs.	10 blister
32201	Varta stilo H.E. - alkaline	AA	4 pcs.	20 blister
32203	Varta half torch H.E. - alkaline	C	2 pcs.	10 blister
32204	Varta torch H.E. - alkaline	D	2 pcs.	10 blister
32205	Varta 9V H.E. - alkaline	9V	1 pc.	10 blister

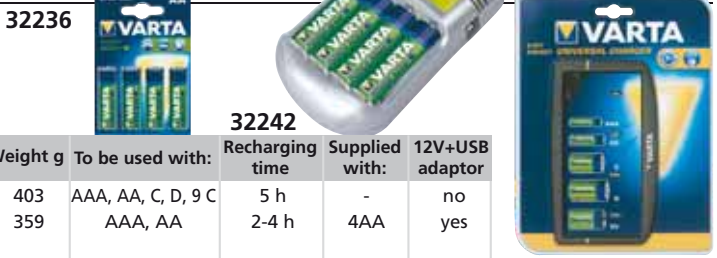
GIMA code	VARTA LITHIUM BATTERIES - BUTTON	Blister	Min. order
32210	Varta 2016 - lithium button	1 pc.	10 blister
32211	Varta 2025 - lithium button	1 pc.	10 blister
32212	Varta 2032 - lithium button	1 pc.	10 blister

GIMA code	RAYOVAC ALKALINE BATTERIES - BULK	Type	Box	Min. order
32202	Rayovac Stilo - alkaline	AA	24 pcs.	2 boxes

GIMA code	RAYOVAC ZINC-AIR "ACOUSTIC BATTERIES" - mercury free	Blister	Min. order
32220	Rayovac 675 - zinc air - acoustic	6 pcs.	10 blister
32221	Rayovac 13 - zinc air - acoustic	6 pcs.	10 blister
32222	Rayovac 312 - zinc air - acoustic	6 pcs.	10 blister
32223	Rayovac 10 - zinc air - acoustic	6 pcs.	10 blister

RECHARGEABLE BATTERIES AND CHARGERS

GIMA code	VARTA POWER PLAY RECHARGEABLE BATTERIES	Type	Blister	Min. order
32235	Varta ministilo - 1000 mAh	AAA	2 pcs.	10 blister
32236	Varta stilo - 2500 mAh	AA	4 pcs.	20 blister



GIMA code	CHARGERS FOR ANY BRAND	Power supply	Sizes mm	Weight g	To be used with:	Recharging time	Supplied with:	12V+USB adaptor
32241	Universal charger	100 - 240 V	180x240x87	403	AAA, AA, C, D, 9 C	5 h	-	no
32242	LCD charger	110 - 240 V	120x230x75	359	AAA, AA	2-4 h	4AA	yes

GIMA ULTRASOUND GEL



GIMA ULTRASOUND GEL

Hypoallergenic gel suitable for all kind of ultrasonography and doppler applications. It ensures the ultrasound waves come to the equipment display in a clear and uninterrupted way.

GIMA code	ULTRASOUND GEL	minimum order
33269	Sterile ultrasound gel - sachet - 20ml - transp	box of 48
33271	Ultrasound gel - sachet - 20ml - transparent	box of 200
33272	Ultrasound gel - tube 250ml - blue	box of 40
33273	Ultrasound gel - tube 250ml - 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**
33280	Pump for bag 5l	
33283	Pump for tank 5l	

*includes 2 empty bottles 250 ml ** includes 4 empty bottles 250 ml



GEL CLEANING DEVICES

• 33281 PROBE CLEANING SOLUTION 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.

• 33282 GEL CLEANING WIPES bottle of 70 wipes

Wet wipes specifically designed to remove ultrasound gel from patient body leaving it clean and dry.



EEG PASTE

• 33262 EEG PASTE - 400 g

Used beneath EEG electrodes in EEG 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.



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.



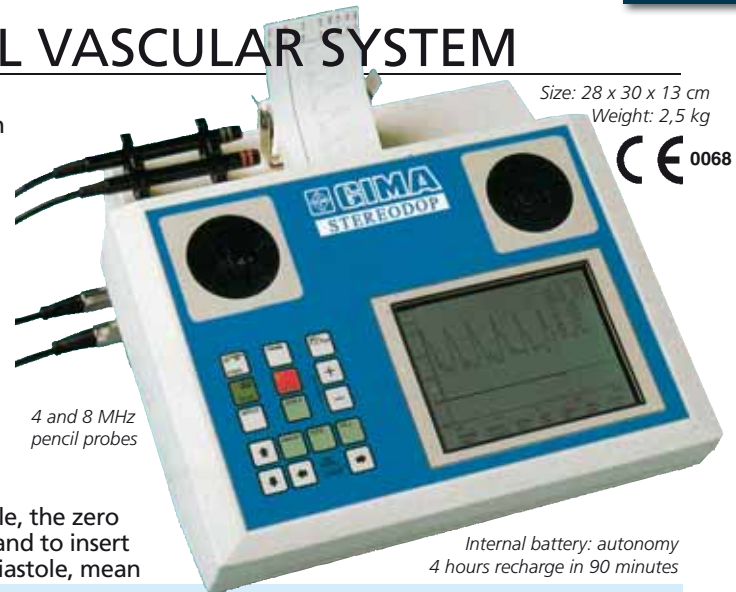
STEREODOP - PROFESSIONAL VASCULAR SYSTEM

• **33235 STEREODOP with 2 pencil probes: 4 and 8 MHz**
 This is a continuous wave (CW) bidirectional stereo doppler with high resolution printer, large LCD display and rechargeable batteries that provide a doppler signal of high quality.

Main features

- **Real time high resolution thermal printer.** With 3 speeds: 5, 12.5, 25 mm/s, 384 dots on 58 mm thermal paper.
- **High resolution backlit LCD graphic display.** 320x240 dots, 1/4 VGA. Selectable zero line position. Inversion of graph and scale. Mode selection: bidirectional or separate. Display speeds: 5, 12.5, 25 mm/s. Double printer control.
- **Hi-Fi stereo audio amplifier.** Acoustic power: 5 + 5 watt. Venous filter selection. Bandwidth: 20 Hz to 12 KHz. Automatic gain control (AGC) and digital volume regulation.
- **Double footswitch:** for freezing (the right) and for printing (the left).
- **Microprocessor controlled system.** Memory of last 90 sec. The post processing system allows the flow of graph to change the scale, the zero line positioning, the speed, to make the inversion, to select the mode and to insert or to include or exclude the following calculations: peak systole, end diastole, mean velocity, pulsatility index, resistivity index and heart rate.

- **33237 STEREODOP PROBE 4 MHz**
- **33238 STEREODOP PROBE 8 MHz**
- **33250 THERMAL PAPER 57 mm x 25 m (pack of 5 rolls)**



Size: 28 x 30 x 13 cm
 Weight: 2,5 kg



4 and 8 MHz pencil probes

Internal battery: autonomy 4 hours recharge in 90 minutes

STANDARD ACCESSORIES

- 2 electronic pencil probes: 4 and 8 MHz.
- Battery charge
- Gel bottle 50 g
- Footswitch
- Carrying case
- Thermal paper roll 30 m
- Manual (English, Italian, French)

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 use or 1 hour print.
- 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 x 25m (pack of 5 rolls)**



High definition thermal printer: 192 dots

Light, only 1.8 kg, and compact (24 x 23 x 8 cm)



33230

Probe selection

Main functions are available from footswitch or Key-pad

POCKET DOPPLER WITH INTERCHANGEABLE OR FIXED PROBES

Supplied in a nice bag with 7 languages user manual: English French German Italian Spanish, Greek, Portuguese and gel tube.

Lightweight only 350 g



2 MHz

5 MHz

8 MHz

33126

33127

33128

33123

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 minimises noise artefacts. The flow signal is also available to the user via the built-in loudspeaker with output level controlled by rotary volume control.

TECHNICAL SPECIFICATIONS

Ultrasound

Frequency: 2, 5 or 8 MHz continuous wave
 Transducer: 2 crystal narrow beam
 Output power: <15mW/cm² SATA
 Audio Response: 300Hz - 4 KHz

Unit Controls

Keys: 1 Key (for unit on/off)
 Controls: rotary volume
 Indicators: Yellow battery low LED

Power supply

Battery 9V Alkaline (not included)
 Expected battery life: >9 hours

Output

Headset: Audio output to optional headset (not included)
 Material: ABS / Noryl
 Size: 150 mm by 75 mm
 Weight: 299 g (with transducer)
 Classification: Class I Type B - IEC 60601-I
 Warranty: 1 year - Made in UK

TOP QUALITY: MADE IN UK

GIMA 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

CHISON IVIS 60 EXPERT ECOCOLOURDOPPLER+4D

• 33940 ECOCOLOURDOPPLER - 15" flat high resolution monitor
 Supplied with 3 probe connectors, trolley, keyboard, without probes, with large image storage: 160GB HardDisk, 2 port USB, DVD-RW, VGA format
 Digital colour Doppler System with professional features:

Imaging mode:

- B, 2B, 4B, B/M
- CFM, B/BC
- PW mode, HPRF
- Power doppler / Directional PD
- Instant triplex, duplex
- Chroma B/PW/CW

Image processing technology:

- THI on all probes
- Speckle reduction algorithm (SRA)
- Multiple compound imaging (MCI)

Wideband multifrequency probes

Continuously adjustable, 2-13 MHz
 Operating voltage: 110-230V 50-60 Hz

• 33941 ECOCOLOURDOPPLER + 4D PROBE AND PACKAGE

Same as code 33940 but with 4D real time imaging composed of 3D pictures with the addition of live motion and probe 4D convex (33949).

• 33942 CARDIAC PACKAGE

(colour M, CW, steering M, ECG)

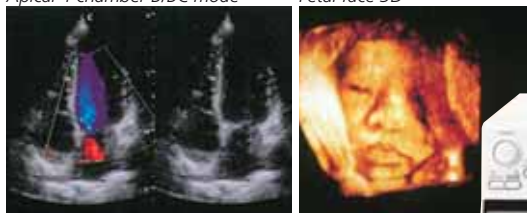
• 33943 I-IMAGE to improve image quality

• 33989 MITSUBISHI CP30W COLOUR VIDEO

PRINTER 423 dpi

• 33993 SONY UP-25 MD COLOUR PRINTER

Apical 4 chamber B/BC mode Fetal face 3D



Tomography imaging (multi slice) function ensures more accurate diagnosis into each slice



Vibration and noise free, lightweight 4D probe



FDA Approved

GIMA code	PROBES		FREQUENCY (MHZ)		● Main application							
	Outlook	Scanning Method	Main freq.	Probe band width	ABDOMINAL	OB/GYN	UROLOGY	SMALL PARTS	CARDIOLOGY	PROCTOLOGY	PEDIATRICS	VESSELS
33944		CONVEX	3.5	2.0 - 5.8	●	●	●					
33945		LINEAR	7.5	4.0 - 13.0				●				●
33946		MICRO-CONVEX (TRANSVAGINAL)	6.0	4.0 - 9.9		●						
33947		CARDIAC (PHASED ARRAY)	3.0	2.0 - 4.4					●			
33948		PEDIATRIC	5.0	3.0 - 8.5								●
33949		4D CONVEX	3.5	2-6.8	●	●						

33989



CHISON Q5 PORTABLE COLOURDOPPLER

• 33950 CHISON Q5 COLOURDOPPLER with 2 probe connector, 15" high resolution monitor, 80GB hardisk, 2 USB port, VGA port, without probe.

Portable digital colour doppler with high professional features:

- Imaging mode:**
- B, 2B, 4B, B/M
 - B/BC, CFM - TSS
 - PW, HPRF, CW
 - PD, directional PD
 - Instant triplex, duplex
 - Chroma B/M/PW/CW

Image processing technology:

- Double phase digital beam forming (DPDBF)
- THI on all probes
- Speckle reduction algorithm (SRA)
- Multiple compound imaging (MCI)
- Operating voltage: 110-230V, 50-60 Hz

• 33942 CARDIAC PACKAGE for Q5 - to be ordered with colour doppler

• 33951 CHISON Q8 COLOURDOPPLER

Same as Q5 but with 4D real time imaging, 160Gb hardisk, cardiac package

• 33901 TROLLEY FOR Q5 AND Q8

• 33943 I-IMAGE for improving image quality



33901



GIMA code	PROBES		FREQUENCY (MHZ)		● Main application							
	Outlook	Scanning Method	Main freq.	Probe band width	ABDOMINAL	OB/GYN	UROLOGY	SMALL PARTS	ENDOCAVITY	CARDIOLOGY	PROCTOLOGY	VESSELS
33954		CONVEX	3.5	2.0 - 6.8	●	●	●					
33955		LINEAR	7.5	4.0 - 15.0				●				●
33956		MICRO-CONVEX (TRANSVAGINAL)	6.0	4.0 - 12.0		●	●		●			
33957		CARDIAC (PHASED ARRAY)	3.0	2.0 - 5.4						●		
33958		PEDIATRIC	5.0	3.0 - 9.3								●
33959		4D CONVEX	4.0	2 - 6.8	●	●						



DIGITAL PORTABLE ULTRASOUND

• **33900 DIGITAL PORTABLE ULTRASOUND 8300** supplied with 10" SVGA monitor, 2 probes connectors, CINE memory, 2 USB ports, software packages. Without probes. Professional portable ecograph with wide range of probes and high quality of images suitable in many specialistic fields.

Image:

- B, B/B, 4B, M, B/M
- Harmonic imaging
- 256 gray scales
- Scanning depth: max 240 mm (depending on probe)

Probes: supplied with 2 probe connectors
 - Selection of 5 probes: Electronic Convex / Linear / Transvaginal / Transrectal / Cardiac
 - Wideband multi-frequency 2-9 MHz

Image processing:

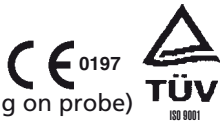
- Fully digital beamforming technology
- Real-time dynamic imaging: RDF, RDA, DFS, DRA
- Frame averaging: 8 steps
- Linear averaging: 8 steps
- 6 STC slides for near far and overall gain control
- Image reversing: left/right, up/down
- Zoom: intelligent zoom, 4 steps

Measurement and report

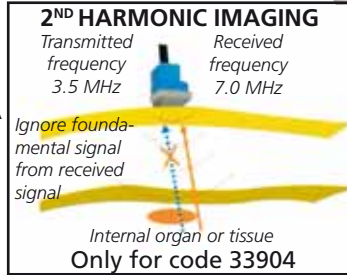
- B mode: Distance, circumference, area, volume, ratio, angle, %stenosis, histogram, profile
- Cardiology package: LV, mitral and aortic valve, CO, LVET, MVCF, SV, EF, cardiac index
- Software package: Abdomen, OB/GYN, Cardiac, Urology
- M mode: distance, time, velocity, heart rate
- EDD tables, gestational age: BPD, GS, CRL, FL, HC, AC
- Fetal weight, fetal heart measurement, growth analysis, LMP, BBT

Others

- CINE: 128 frames, play back selectable
- 10 inch, SVGA high resolution monitor
- image permanent storage: hard disk, USB (2 ports)
- can use PC printer (A4) or video printer
- operating voltage: 110-230V, 50-60 Hz
- **33901 HEIGHT ADJUSTABLE TROLLEY**
- **33903 CARRYING BAG**
- **33967 SONY PRINTER UP-897MD**



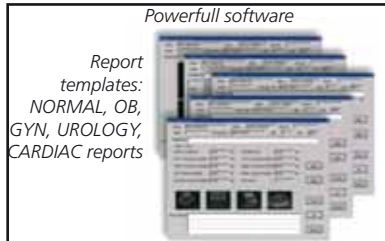
Back-light keyboard for better visibility in dark room



Modern design, height adjustable trolley, provided of 4 wheels with brake.



GIMA code	PROBES		FREQUENCY (MHZ)		Main application								
	Outlook	Scanning Method	Main freq.	4-Step Multi-frequency	ABDOMINAL	OB/GYN	UROLOGY	SMALL PARTS	BREAST	CARDIOLOGY	PROCTOLOGY	PEDIATRICS	VESSELS
33904		CONVEX	3.5	2.5/3.5/4.0/5.0	●	●							
33905		LINEAR	7.5	5.0/6.0/7.5/9.0				●	○				○
33906		MICRO-CONVEX (TRANSVAGINAL)	6.0	4.5/6.0/7.0/8.0			●	○					○
33907		CARDIAC	3.0	2.0/3.0/3.5/4.5						●			
33908		TRANSRECTAL	7.5	5.0/6.0/7.5/9.0						●			●



CHISON 600M PORTABLE ULTRASOUND - NEW VERSION



• **33930 CHISON 600M PORTABLE ULTRASOUND 10" SVGA monitor with two probe connectors, 256 frames cine memory, USB port without probes**
 - Zooming and measurement functions (max scanning depth: 252 mm)
 - Wide applications: GYN, urology, abdominal, small parts
 - Easy to use, just one day to learn all functions
 - 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: 110-230V, 50-60 Hz
 • **33967 SONY PRINTER UP-897 MD**
 You can use any other printer for ecograph on the market
 • **33901 TROLLEY FOR 33930**

GIMA code	PROBES		FREQUENCY (MHZ)		Main application								
	Outlook	Scanning Method	Main freq.	4-Step Multi-frequency	ABDOMINAL	OB/GYN	UROLOGY	SMALL PARTS	BREAST	CARDIOLOGY	PROCTOLOGY	PEDIATRICS	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				●	○				●
33934		MICRO-CONVEX (TRANSVAGINAL)	6.0	4.5/6.0/7.0/8.0			●	○					

GIMA VITAL SIGNS MONITORS

SpO₂
 SpO₂+NIBP+TEMP
 SpO₂+NIBP+ECG+TEMP
 SpO₂+EtCO₂



Optional printer

"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 (SpO₂), electrocardiogram (ECG), temperature (TEMP) and capnography (EtCO₂).

- Features:
- small size, clear and bright display for remote view
 - up to 400 groups of NIBP measurements can be stored and listed
 - up to 90 hours of EtCO₂, SpO₂ and HR trend curve can be displayed
 - built-in rechargeable battery
 - optional built-in thermal printer

GIMA code	MONITOR	SpO ₂	NIBP	ECG	CO ₂	TEMP
35120	VITAL-S	•				
35121	VITAL-SNT	•	•			•
35122	VITAL-SNET	•	•	•		•
35123	VITAL-C	•			•	
35125	Printer - optional					
35126	Battery - spare					
35135	Adult SpO ₂ probe - spare					
35136	Pediatric SpO ₂ probe					
35137	ECG cable - spare					
35139	NIBP cuff					
35127	Trolley					
35128	Rail clamp					



35122

STANDARD ACCESSORIES

	35120	35121	35122	35123
- Adult SpO ₂ probe	•	•	•	•
- NIBP adult cuff		•	•	•
- Temperature probe		•	•	•
- ECG cable + 20 ECG electrodes		•	•	•
- Sidestream sensor and line kit			•	•
- Battery	•	•	•	•
- Manual (English)	•	•	•	•

NIBP
 Technology: Oscillometric method
 Standard measurement range:
 Systolic: Adult: 50-240 mmHg
 Diastolic: Adult: 15-180 mmHg
 MAP: Adult: 25-200 mmHg
 Measurement mode: Manual, Auto, STAT

SpO₂
 SpO₂ measurement range: 0%- 99%
 SpO₂ measurement accuracy: 75%-99% ±2%
 50%-74% ±3%

Low perfusion performance: 0.4%
 Pulse rate measurement range: 30bpm-240bpm
 Pulse rate measurement accuracy:
 ± 2bpm or 2% whichever is greater

TECHNICAL SPECIFICATIONS

ECG and TEMP
 Heart rate range: 20bpm-300bpm
 TEMP measurement range: 25°C-45°C
 Accuracy: ±2bpm or 1% whichever is greater (ECG)
 ±0.2°C (TEMP)

CO₂
 Technology: Infrared absorption method
 Sampling Mode: Sidestream or Mainstream
 CO₂ Response Time: - Sidestream: <3 seconds
 (includes transport time and rise time)
 - Mainstream: <60ms (rise time)

Power
 AC power supply voltage: 100-250V AC
 AC power frequency: 50/60 Hz
 International power supply: 12VDC (rechargeable)
 Battery specification: 12V 2,3AH (sealed lead-acid battery)

35127



SENSORS COMPATIBLE WITH BCI, NELLCOR, COMDEK





Sensor Picture	Socket Picture	GIMA code	Description	Recommended use	Patient range	Preferred application	Cable length	Min. order	To be used with GIMA codes	Compatible with
		34296	Infant probe	Disposable	under 3 kg	hand or foot	55 cm	box of 10 pcs.	34286, 34290, 34291, 33702 (need extension cable 34299)	BCI - Comdek
		34297	Child probe	Disposable	3-15 kg	finger or toe	55 cm	box of 10 pcs.	34286, 34290, 34291, 33702 (need extension cable 34299)	BCI - Comdek
		34298	Pediatric probe	Disposable	15-45 kg	finger or toe	55 cm	box of 10 pcs.	34286, 34290, 34291, 33702 (need extension cable 34299)	BCI - Comdek
		34300	Adult probe	Disposable	over 40 kg	finger or toe	55 cm	box of 10 pcs.	34286, 34290, 34291, 33702 (need extension cable 34299)	BCI - Comdek
		34292	Adult probe	Reusable	over 40 kg	finger	145 cm	1 pc.	34286, 34290, 34291, 33702	Comdek
		34294	Child probe	Reusable	3-15 kg	toe	40 cm	1 pc.	34286, 34290, 34291, 33702 (need extension cable 34299)	BCI - Comdek
		34293	Adult probe	Reusable	over 40 kg	ear	120 cm	1 pc.	34286, 34290, 34291, 33702 (need extension cable 34299)	BCI - Comdek
		34299	Extension cable	Reusable	-	-	150 cm	1 pc.	34286, 34290, 34291, 33702 34293, 34294	BCI - Comdek
		34288	Extension cable	Reusable	-	-	150 cm	1 pc.		Nellcor - Bionics
		34283	Adult child probe	Reusable	over 15 kg	finger		1 pc.	34281, 33290, 33291	Nellcor - Bionics
		33288	Adult probe	Reusable	over 40 kg	finger		1 pc.	33280, 33281	Bionics (BPM-300 only)
		33708	Vet probe	Reusable	VET	tongue	145 cm	1pc.	33703	BCI - Comdek

BM3 & BM5 MONITOR ACCESSORIES



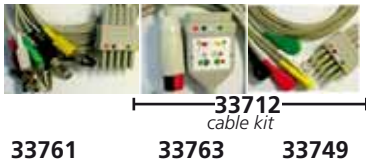






GIMA code	ACCESSORIES FOR BM3 AND BM5						
33738	NIBP	Extension cable, 3 m (necessary for all cuffs)			33736		
33735		Adult cuff - 49x15 cm - need ext. cable 33738					
33736		Child cuff - 35x11 cm - need ext. cable 33738					
32848		Obese cuff 62x75.5 - need ext. cable 33738					
33737		Kit of 3 neonatal cuffs - needs cable 33738					
32810		Mini cuff 16x5 cm - needs 33738+33739					
32811		Mini cuff 23x5 cm - needs 33738+33739					
33739	Metal connector (necessary for mini cuff)						
33740	Temp	Temperature sensor exacon 2.75 m, skin type					
33741		Temperature rectal sensor					
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 ₂ - for 33782 only					
33747	Adapter	AC adapter					
33744	Jack	Direct vehicle cigar jack (12 V dc)					

*** Date is approximative. Please select battery on the base of picture and specifications*

BM3 & BM5 SpO₂ SENSORS - NELLCOR COMPATIBLE

GIMA code	ACCESSORIES FOR BM3 AND BM5							
33733	SpO ₂	Extension cable*, 2 m (7 pin small SpO ₂ connector) up to 2005						
33734		Extension cable*, 2 m (6 pin SpO ₂ connector) sold in 2005/6/7						
33716		Extension cable*, 2 m (7 pin big SpO ₂ connector) since 2007						
33730		Adult reusable finger probe (> 45 kg) Nellcor comp.						
33731		Pediatric reusable finger probe (15-45 kg) - Nellcor comp.						
33732		Vet reusable probe - clip						
33755		Disposable infant probe - under 3 kg - Nellcor comp.						
33756		Disposable child probe - 3-15 kg - Nellcor comp.						
33757		Disposable pediatric probe - 15-45 kg - Nellcor comp.						
						<i>* Necessary for all probes. Please select correct one</i>		
		<i>** All probes are suitable also for OXY-9</i>						
								

ECG CABLES FOR MONITORS

GIMA code	ACCESSORIES FOR CODES 33718, 33719, 33720, 33721, 33722, 33723, 33724, 33780, 33781	ACCESSORIES FOR MONITOR BM3 and BM5								
		NEW (after 6/2006)		OLD (before 6/2006)						
33711	3-lead patient cable kit (cable+snap connectors 33748)			3	Lead					
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 clip connectors)									
33713	3-lead veterinary cable kit (cable+3 clips connects)									
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			5	Lead					
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									
	ECG CABLES FOR 33777, 33778, 33779									
33764	3-lead patient cable kit (cable + snap connector)									
33765	10-lead patient cable kit (cable + snap connector)									
33766	3-lead veterinary cable kit (cable + clip connector)									

COLOUR MULTIPARAMETER MONITORS



Bed-rail hook
Ergonomic handle

Pacemaker detection indicated on ECG display

- 33718 GIMA BM3 MONITOR (7" - 800X480 - TFT display)
- 33719 GIMA BM3 VET MONITOR - VETERINARY

ECG+SpO₂+NIBP+RESP+TEMPERATURE

- GIMA monitors are configured with
- Heart/pulse rate
 - ST analysis, PVC count display
 - 3 lead ECG (5 lead optional)
 - Non-invasive blood pressure (NIBP)
 - Nellcor Pulse oximetry (SpO₂) - pitch tone
 - Impedance respiration
 - Temperature (sensor is optional)
 - Pacemaker detection indicated on ECG display
 - Battery and direct DC (18 VDC) input (not for recharge)
 - Built-in printer (58 mm)
 - 120 hours memory trend capacity
 - Remote alarm function
 - 20 alarm memory
 - wired or wireless LAN and HL7
 - Internal software selectable in GB, DE, FR; IT, PT, PL, RO, HU, ES, CZ, BG, RU, TR, CN
 - User manual: English (on request: Italian, Spanish, French, German).
- 33725 CART Adjustable height, basket included
See temperature sensors, cuffs, batteries and other accessories at page 190.



Angle of plate adjustable
Height of cart is adjustable
Moving cart increase flexibility around the ward or department.

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

Battery status indicator
- operating time 2 h
- charging time 4h

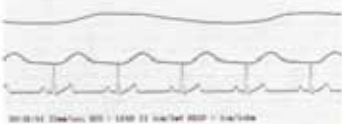


Easy mounting with bed-rail hook



Direct connection of external monitor

Printing sample

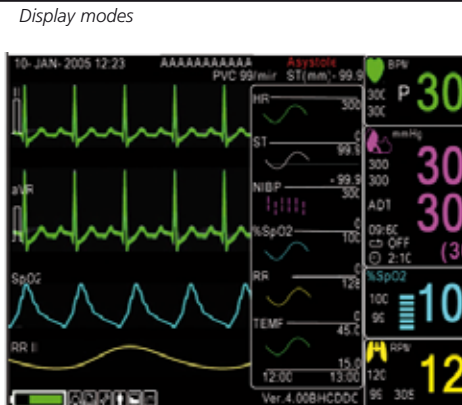


STANDARD ACCESSORIES	33718	33719
3 lead patient cable (ECG)	•	• vet
Disposable electrodes: 10 pcs	•	•
NIBP tubing - 3m	•	•
Reusable adult cuff 25-35 cm	•	•
Reusable child cuff	•	•
Set of 3 veterinary cuff	•	•
SpO ₂ sensor - reusable	•	• vet
SpO ₂ sensor extension cable 2 m	•	•
Thermal printer 58 mm	•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



ST analysis display mode

Large parameter display mode



Display modes

Trend display mode

- 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 and software)
 - 33746 WIRE CONNECTION KIT
- One for any monitor to be connected.
- 33758 WIRELESS CENTRAL SYSTEM (PC, monitor and software)
 - 33759 WIRELESS CONNECTION KIT
- One for any monitor to be connected.



33745

TECHNICAL SPECIFICATIONS

GENERAL

Display: 7" colour TFT (800x480)
Dimensions/Weight: 238x250xh 163 mm/3.1 kg
Indicators: Up to 4 waves (2xECG, SpO₂, Respiration), categorized alarms (3 priority levels), external power LED, heart rate tone, battery status

Thermal printer: 25, 50 mm/sec (paper width 58 mm)
Battery: internal battery: Li-ion operating time: 2 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

ECG
Leads: 3 leads, 5 leads(OPTION)
Heart Rate Range: 30 to 300 bpm
Heart Rate Accuracy: ± 3 bpm
ST level: yes
PVC Count display: yes
Bandwidth: 0.5 Hz to 40Hz
Display Sweep Speeds: 25mm/sec
ECG Size (Sensitivity): 0.5, 1, 2, 4 mV/cm
Pacemaker Detection Mode: Indicator on waveform display
CMRR: >90 dB at 50 or 60Hz
Input Dynamic Range: ± 5 mVAC, ± 300 mVDC
Defibrillator Discharge: <4 s
Arrhythmia analysis: VTAC/VFIB/ ASYSTOLIC
Lead-Off Detection with display indicator

SpO₂
% Saturation Range: 0% to 100%
Pulse Rate Range: 0 to 254 bpm
SpO₂ Accuracy: 70% to 100% ±2 digits
Pulse Rate Accuracy: ± 2 bpm

NIBP
Technique: Oscillometric
Measurement Modes: Manual: Single measurement
Auto: Automatic intervals of 1, 2, 3, 4, 5, 10, 15, 20, 30 min. and 1, 2, 4, 8 hours
Stat: Continuous measurement for 5 minutes
Cuff pressure display: 50 to 300 mmHg
B.P. measurement range: Systolic: 0 to 260 mmHg
Mean Arterial Pressure: 30 to 220 mmHg
Diastolic: 20 to 200 mmHg
Adjustable Cuff Inflation Pressure

Respirations
Range: 5 to 120 breaths/min
Accuracy: ± 3 breaths/min

Temperature Unit
Range: 15° to 45°C (59°F to 113°F)
Accuracy: ± 0.1°C
Compatible with: YSI Series 400 Temperature Probes

BM5 MULTIPARAMETER MONITOR WITH EXTENDIBLE PARAMETERS

- 33777 GIMA BM5 MONITOR - 10.4" TFT display - 7 ch ECG
- 33778 GIMA BM5 MONITOR - 10.4" TFT display - 12 ch ECG
- 33779 GIMA BM5 VET MONITOR - 10.4" TFT display

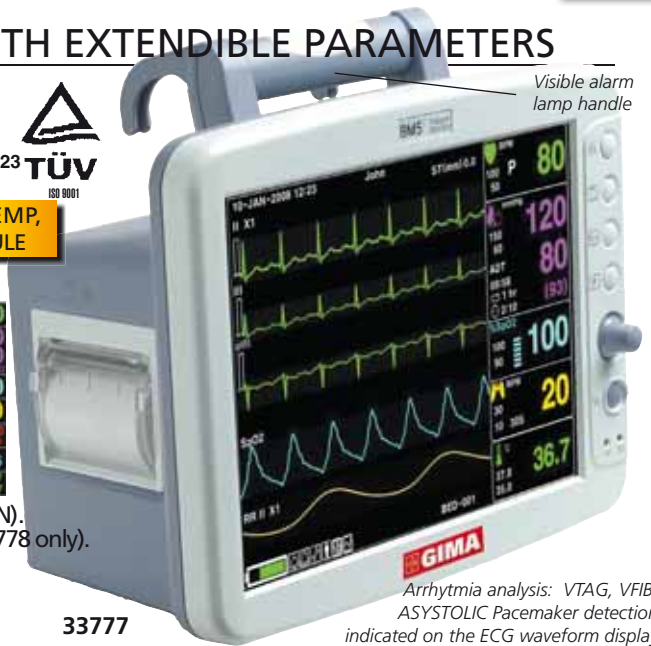
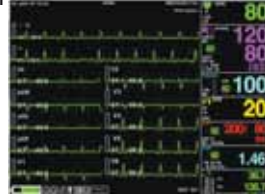
- High-performance ECG analysis
- ST level PVC count display
- 13 kinds of Arrhythmia analysis
- 7 or 12 channels
- 10.4" colour TFT screen with 6 waveforms
- Visible alarm lamp handle
- SpO₂ technology with very low-perfusion detection
- SpO₂ pitch tone
- 58mm built-in chart recorder
- Graphical and tabular trends of printing
- LAN or wireless LAN
- 120 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, see page 191, but with 10 leads ECG cable (33778 only).



ECG+SPO₂+NIBP+RESP+ 2 TEMP,
2 IBP + optional ETCO₂ MODULE

12 Channel display



Visible alarm lamp handle

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

GIMA code	TEMPERATURE, EtCO ₂ AND IBP KIT
33740	Temperature sensor exacon 2.75 m - skin type
33741	Temperature rectal sensor
33796	EtCO ₂ Sidestream module for 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 ₂ nasal cannula - adult - box of 10 for 33796
33793	Non intubated CO ₂ nasal cannula - pediatric - box of 10 for 33796
33794	Non intubated CO ₂ +O ₂ nasal cannula - adult - box of 10 for 33796
33795	Non intubated CO ₂ +O ₂ nasal cannula - pediatric - box of 10 for 33796
33798	Li-ion battery 11.1 V for EtCO ₂ module 33782 only
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

CO₂ nasal cannula - adult



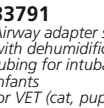
33794

CO₂+O₂ nasal cannula - adult



33791

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



33793

CO₂ nasal cannula - pediatric



33795

CO₂+O₂ nasal cannula - pediatric



TECHNICAL SPECIFICATIONS FOR MONITOR 33777 - 33778 - 33779 - 33780 - 33781

GENERAL	Heart rate range:	Respirations
Dimensions/Weight: 270x185xh 250 mm/4 kg	10-lead: 3/12 channels (33779 only)	Range: 5 to 120 breaths/min
Trace: 6 waveform (ECGx2, SpO ₂ , RR or EtCO ₂ IBPx2)	Adult: 30-300 bpm	Accuracy: ±1 breath/min
Indicators: categorized alarms (3 priority levels), visual alarm lamp handle, heart rate, SpO ₂ pulse pitch tone, battery status, external power LED	Neonate/pediatric: 30-350 bpm	Apnea alarm: yes
Thermal printer: 25, 50 mm/sec (paper width 58 mm)	Heart rate accuracy: ± 1 bpm or ± 1%, whichever is greater	Temperature Unit
Battery: Li-ion (2 hours operating time)	Sweep speed: 6.25, 12.5, 25, 50 mm/sec	Range: 15° to 45°C (59°F to 113°F)
Interfaces: LAN digital output for transferring date, Nurse call system connection, defibrillator sync. output	Diagnostic mode: 0.67-150 Hz	Accuracy: ± 0.1°C
DC input connector: 12 to 18 VDC, 2.5A max	Monitoring mode 0.67-40 Hz	Compatible with: YSI Series 400 Temperature Probes
Operating voltage: 100-240 V, 50-60 Hz	Surgical mode: 5-25 Hz	IBP
SpO ₂	-2.0 to 2.0 mV	Channels: 2
% Saturation Range: 0% to 100%	Asystole, Vtach, Vfib, Bigeminy, Accent Couplet, Irregular, Pause, Pvc, Ront, Trigeminy, Vbrady, Shortrun	Measuring range: -50 to 300 mmHg
Pulse Rate Range: 0 to 254 bpm	120 kinds (33779 only)	Measuring accuracy: ± 1 mmHg (<100 mmHg) ± 1% of reading (>100 mmHg)
SpO ₂ Accuracy: 70% to 100% ±2 digits	Indicator on waveform display (user selectable)	Pulse rate counting range: 0 to 300 beats/min
Pulse Rate Accuracy: ± 2 bpm	Protection: against electro-surgical interference and defibrillation	Zero balancing:
ECG	NIBP	Transducer sensitivity: 5µV/V mmHg
Lead type: 3-lead, 5-lead (33777-33780), 10-lead(33779)	Technique: Oscillometric with linear deflation	EtCO ₂
Lead selection: 3-lead: I, II, III (33777/9/80/81)	Measurement Modes: Adult pressure: 20 to 260 mmHg	Measurement mode: Sidestream
5-lead: I, II, III aVR, aVL, aVF, V (33780/1 only)	Pediatric pressure: 20 to 230 mmHg	Measurement range: 0~150 mmHg, 0 to 19%
10-lead: I, II, III aVR, aVL, aVF, V1, V2, V3, V4, V5, V6 (33779 only)	Neonate pressure: 20 to 120 mmHg	Respiration range: 2~150 bpm
ECG Waveforms: 3-lead 1 channel (33777/9/80/81 only)	0 to 300 mmHg	Accuracy: ± 2 mmHg, 0~40 mmHg ± 5%, 41~70 mmHg ± 8%, 71~100 mmHg ± 10%, 101~150 mmHg ± 1 breath per minute
5-lead: 3/7 channels (33777/9/80/81 only)	Systolic: 40 to 270 mmHg	
Adjustable Cuff Inflation Pressure	Mean: 20 to 230 mmHg	
	Diastolic: 10 to 210 mmHg	

BM1: SLIM AND LIGHT MONITOR WITH STRONG MOBILITY

- 33714 GIMA BM1 MONITOR SpO₂+NIBP optional Temp. and EtCO₂
- Professional multiparameter monitor in compact size:

- Only 60mm (2.36 inch) thick and 1.0 Kg (2.2lb)
 - 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 internal software (English, French, Spanish, Italian, German, Polish, Portuguese, Romanian, Bulgarian, Hungarian, Czech, Russian, Turkish, Chinese)
 - Highly advanced CO₂ monitoring technology
 - Plug and play EtCO₂ module
- Use same accessories of BM5 line
SpO₂, TEMP, EtCO₂, NIBP technical specifications same as BM5.

SpO₂+ NIBP
optional TEMP and EtCO₂

Size: 190x125x60 mm
Weight: 1 kg

