

EC-12S Resting and Stress ECG System

Technical specification



TECHNICAL SPECIFICATIONS OF EC-12S RECORDER

Leads	I, II, III, aVR, aVL, aVF, V1, V2, V3, V4, V5, V6, NEHB
BP measurement method	Auscultational
BP interval of measurement	30-260 mmHg; Device's measuring limit: 20-280 mmHg
BP measurement's accuracy	± 3 mmHg
PC connection	Bluetooth (wireless type)
Patient protection	EN 60601 (IEC-601-1), CF type
Power supply / Can be exchanged during recording! /	2 x 1,2 V rechargeable batteries (or 2 x 1.5 V AA alkaline battery)
Dynamic interval	± 20 mV
DC offset range	± 1000 mV
Frequency response	0.05 Hz ... 150Hz
Sampling rate	1000 Hz
A/D resolution	16 bit
Input impedance	≥ 120 M Ω
Common Mode Rejection Ratio	> 120 dB
Size	125 x 70 x 33 mm
Weight	~ 200 g (wireless type)

STRESS SOFTWARE FUNCTIONS

• Lead-off warning	• Precise QRS classification	• colour-coded ST level, slope and ST loop graphs
• Store the Indication and medication of the patient	• SAECG	• Smoothing, baseline, mains filters
• MET and VO2 computation	• HR, BP, LOAD, MET graphs	• Customizable alarm and stop criteria
• Ergometer and treadmill database	• Show T-wave deviation: QT, QTc trends	• Vectorcardiography in stress-continuous test
• Arrhythmia analysis	• Weber and Morris function classification	• Bayes theorem in the analysis
• Duke-nomogram	• Borg rank	• QRS frontal axis
• Exercise and condition plan	• Pacemaker detection	• Paper speed: 5-12,5-25-50-100-200 mm/s
• Amplitude: 2,5, 5-10-20-40 mm/mV	• Gender and age-specific ECG analysis software	• Full Disclosure ECG recording
• Modifiable protocols under Load	• standard stress protocols, custom protocols	• Automatic, manual, end of stage blood pressure measure
• Speed measure km/h and mph	• BMI and BMI prime	• Adjustable infoboxes
• Rhythm curves	• Templates analysis	• Event screen
• QT, QTc, QT%	• QRS Axis	• Ectopic rate
• Average view	• ECG contrast	• Milimeter paper settings
• Display channels: 3, 6, 12, additionally: Cabrera, Custom	•	•

REST SOFTWARE FUNCTIONS

• 5, 10, 20 sec and long ECG record	• Rhythm curves	• Lead-off warning
• Precise QRS classification	• Store the Indication and medication of the patient	• Smoothing, baseline, mains filters
• Arrhythmia analysis	• QRS frontal axis	• Full Disclosure ECG recording
• Paper speed: 5-12,5-25-50-100-200 mm/s	• Amplitude: 2,5, 5-10-20-40 mm/mV	• BMI and BMI prime
• Automatic diagnosis	• Average vire	• ECG contrast
• Milimeter paper settings	• Display channels: 3, 6, 12, additionally: Cabrera, Custom	

BASIC FUNCTIONS OF SOFTWARE**DATABASE FUNCTIONS**

• Common database for all Labtech system	• Record recycle bin function	• Search records
• Acquire Patient ID from barcode reader	• System log	• Local database, Network database: Microsoft SQL Server database, SQLite database
• Acquire Patient ID using magnetic card reader	• Filter records	• Different date format
• Medical record for patients	• Import – export records	• Password protected software starting
• Access control	• Import – export records by date	

BASIC FUNCTIONS

• Automatic update	• Normal and MSI install	• Full screen mode
• HIS integrations: GDT, DICOM MODALITY WORKLIST, Cardiospy SDK	• Two display mode	• Cubios HRV export
• FTP integration	• Email function	• AHA / IEC electrode placement

PRINT AND EXPORT FUNCTIONS


• Report printing and exporting	• Automatic print	• Selectable reports
• Color and Black and white reports	• Contrast settings	• Resizable resolution
• Customizable company logo	• Automatic diagnosis	• Custom report
• Adjustable paper speed and amplitude	• Import /Export settings	• Export ECG data to CSV, SCP, Dat format
• Export QRS data	• Export N-N intervals	• Export R-R intervals

SOFTWARE MINIMUM CONFIGURATION

Processor	minimum: Intel® Core™ i3 recommended: Intel® Core™ i5 or better (Sandy Bridge or newer architecture)
RAM	minimum: 4 GB; recommended: 8 GB
Graphics card	DirectX 10 compatible, min. 128 MB video memory
Display	minimum: min. 1280x800 resolution recommended: 22" monitor 1920 x 1080 resolution (Full HD)
HDD	500 GB (SATA II or newer recommended)
Interface	1 USB port for the EC-2H/3H/12H/ABP recorder 1 USB port for the USB-02 key 1 USB port for the printer
Printer	Laser (printing speed: 15-20 page/min, color printer recommended)
Operating system	Windows 7, Windows 8, Windows 8.1, Windows 10 (32-bit or 64-bit versions)

*Windows XP is no longer supported by Microsoft. Labtech provides only limited support for previously installed systems.



RUN 7410T			 1936
Larghezza	Width	86 cm	
Lunghezza	Length	210 cm	
Altezza	Height	126 cm	
Massa	Weight	180 kg	

Specifiche tecniche	Technical specifications
<ul style="list-style-type: none"> PC iMX6 DL 1GB, Micro SD 8GB, S.O. Linux 	<ul style="list-style-type: none"> PC iMX6 DL 1GB, Micro SD 8GB, O.S. Linux
<ul style="list-style-type: none"> Porta RS232 opto isolata per collegamento con ECG attraverso il protocollo Trackmaster (compatibile con ECG Amedtec, Beneware, BTL, Cardioflex, Cardiolex, Cosmed, CubeStress Cardioline, Customed, Edan, Ergoline, Fukuda, Imed-Cardiax, Labtech, Medical Econet, Neurosoft, Norav, Schiller, Sentinel 10, Teka, Vyaire, XScribe Mortara) 	<ul style="list-style-type: none"> Analogic interface RS232 opto isolated for connection with ECG through the Trackmaster protocol (compatible with ECG Amedtec, Beneware, BTL, Cardioflex, Cardiolex, Cosmed, CubeStress Cardioline, Customed, Edan, Ergoline, Fukuda, Imed-Cardiax, Labtech, Medical Econet, Neurosoft, Norav, Schiller, Sentinel 10, Teka, Vyaire, XScribe Mortara)
<ul style="list-style-type: none"> Velocità 0.1 - 25.0 km/h 	<ul style="list-style-type: none"> Speed 0.1 - 25.0 km/h
<ul style="list-style-type: none"> Inclinazione 0%, +25% 	<ul style="list-style-type: none"> Inclination 0%, +25%
<ul style="list-style-type: none"> Variazione velocità 0.1 km/h 	<ul style="list-style-type: none"> Speed Increment 0.1 km/h
<ul style="list-style-type: none"> Variazione Inclinazione 0.5 - 1% 	<ul style="list-style-type: none"> Inclination increment 0.5 - 1%
<ul style="list-style-type: none"> Variazione elettronica velocità e inclinazione (solo uso remoto) 	<ul style="list-style-type: none"> Electronic variation of speed and inclination (only for remote use)
<ul style="list-style-type: none"> Sistema di auto-centraggio del nastro 	<ul style="list-style-type: none"> Self-centring belt system
<ul style="list-style-type: none"> Sistema di auto-lubrificazione del nastro 	<ul style="list-style-type: none"> Self-lubrication belt system

Specifiche tecniche	Technical specifications
▪ Superficie di camminamento 154,5 x 54 cm	▪ Walking surface 154.5 x 54 cm
▪ Trasformatore toroidale 1700 VA	▪ Transformer 1700 VA
▪ Inverter Monofase 230V~ 2.2 KW	▪ Single Phase Inverter 230V ~ 2.2 KW
▪ Alimentazione 220~240Vac 50/60 Hz 12Amp	▪ Power supply 220~240Vac 50/60 Hz 12Amp
▪ Circuito Ausiliario Inclinazione 18 Vac	▪ Auxiliary circuit of inclination 18 Vac
▪ Circuito Ausiliario Consolle 12 Vcc	▪ Auxiliary circuit of console 12 Vdc
▪ Motore 3 HP AC	▪ Motor 3 HP AC
▪ Potenza Assorbita Max dal motore 2500 VA	▪ Absorbed power at max speed 2500 VA
▪ Potenza Assorbita Nominale 2000 VA	▪ Nominal absorbed power 2000 VA
▪ Potenza Sonora < 30 DB	▪ Noise < 30 DB
▪ Tavola Ammortizzata	▪ Damped board
▪ Peso Massimo dell'Utente 220 kg	▪ User's max weight 220 kgs
▪ Stop emergenza a pulsante ed a strappo	▪ Emergency stop button and pull rope with magnet
▪ conforme alla direttiva CEE 93/42	▪ Certificate of conformity to EEC93/42 Rule
Componenti di serie	Standard accessories
▪ Corrimano lungo fino a fine corsa	▪ Long size handrails
▪ Dotazione di servizio	▪ Service equipment
▪ Cavo di alimentazione	▪ Power cable
▪ Cavo RS232	▪ RS232 cable
▪ Ruote per lo spostamento	▪ Wheels for movement
Componenti aggiuntivi:	Optional accessories:
▪ Rampa d'accesso ¹	▪ Ramp ¹
Funzione	Function
▪ Uso Remoto tramite seriale RS232	▪ Remote use by RS232 interface

¹ Portata max 220 kg / Max load 220 kg