



ESSE-80

Digital 12-channel
ECG Machine



CARDIOLOGY



Outlook

- Touch Screen, more intuitionistic display
- 12.1 inch color LCD, 12 waveforms synchronously display
- Portable, overturning & folding design
- QWERTY keyboard design, multi-function shortcut key, easy for operation
- IPX1 waterproof performance

Data saving

- Support saving internal data
- Support saving High-capacity data via built-in SD card
- Support saving data via U dish
- Support data transferring & reviewing & reanalyzing

Improved Performance

- Adapt Innovative digital filters for better performance
- Fast-speed baseline correction algorithm rapidly stabilize baseline
- Adapt 24-bit high-resolution data sampling
- Adapt 1000Hz high- frequency data sampling
- 24-bit high-accuracy data saving ensure the accuracy of follow-up data analysis
- Synchronization analysis for 12 lead waveforms, supporting report preview & report format adjustment

Function Upgrading

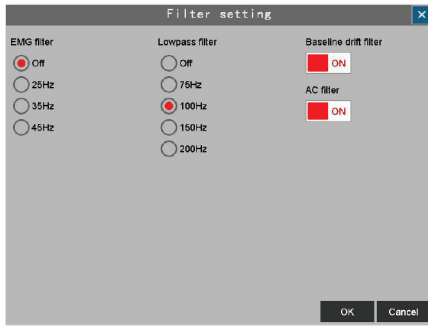
- Automatic measurement and interpretation certified by CSE database
- Rhythm report realized synchronous display of multi-channel data
- Support Pre-sampling mode, Real-time sampling mode and Trigger sampling mode
- Automatic energy saving function
- Support folded & reel type thermosensitive printing paper
- Automatic position function, support external printer
- Defibrillation protected & Pacemaker pulse rejection function
- Diagnosis analyze: ≥ 140 kinds
- Support barcode scanner
- upgradable to exercise electrocardiogram
- Fast FTP file transfer realizes data remote communication and management



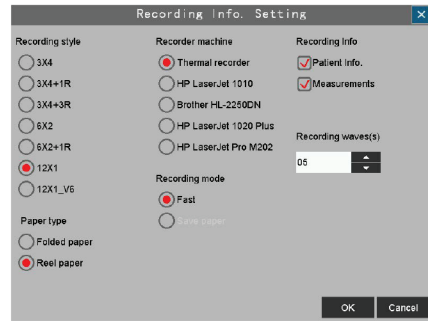
QWERTY keyboard
Operation
waterproof design

Flexible screen
folding design

Touch Screen
intuitionistic display



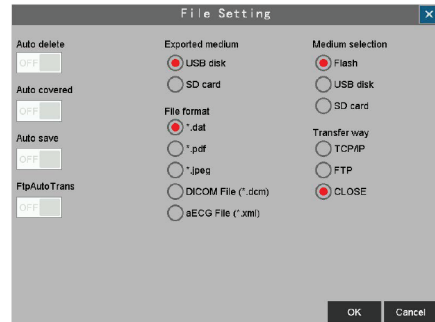
Support four kinds of filter setting: AC filter, baseline drift filter, EMG filter, lowpass filter. High-speed baseline correction filter ensures rapidly correcting the baseline



Support multiple modes of report recording
The length of record waveforms is selectable



Support saving 300 seconds digital 24 bit uncompressed waveform
Random 10-second waveform can be chosen for analysis & processing



The date dimension allows data file management to be summarized by date
Mass storage: Internal flash + SD card + U disk



Keyboard & Touch screen operation, support multiple languages



Data transmitting to PC via LAN/Wi-Fi,
Expand storage capacity via SD card
FTP transfer for data remote control



Wide paper design recorder with precise positioning function, supporting
Folded /Reel thermosensitive printing paper



Unique sealing design effectively prevent liquid penetration
Perfect IPX1 waterproof performance



Specification

Size and Weight:

- Size: 400mm×330mm×100mm(W×H×D)
- Weight: ≤7kg

Display

- Type: 12.1", 800×600 TFT LCD touch screen

Power Supply:

- Input voltage: AC:100V~240V, 50Hz/60Hz
- Input power: 100VA
- Standard: Comply with IEC 60601-1 and IEC 60601-1-2

Battery

- Type: Rechargeable lithium-ion battery
- Rated Voltage: 11.1V
- Capability: 4000mAh
- Operating time: Used continuously for 4 hours (print 150 shares of cardiogram)
- Indication of battery capability: With

Input/Output Specification

- Keyboard: Standard PC 104 (position)
- Standard touch-screen connector (4 lines)
- Network connector: RJ-45 (one) TCP/IP; upgrade,

Web function

- USB connector: 1 x USB Host Support hot-swap, external USB printer
- 1 x USB Device connects PC computer
- SD card: 1 x Standard SD card

Data Storage

- Fixed Memory: 800 groups of ECG data
- Optional Memory: Flash, SD card or U disk
- Storage mode: Background storage automatically
- Storage format: PDF, DAT, Dicom, FDA-XML, JPEG

Recorder

- Recording way: Thermal dot array
- Horizontal resolution: 40 dots/mm
- Vertical resolution: 8 dots/mm
- Recording speed: 5 mm/s, 6.25 mm/s, 10 mm/s, 12.5 mm/s, 25 mm/s, 50 mm/s, error: ±3%
- Record width: 215mm
- Paper: 210mm/215mm×20m(reel) 210mm×140mm×20m (Z type)
- Paper type: Folded/Reel thermosensitive printing paper
- Recording type: more than 10 kind of printing methods (Auto: 3×4, 3×4+1R, 3×4+3R, 6×2, 6×2+1R, 12×1, 12×1_V6; Manual : 3 path, 6path, 12path, Rhythm: single-lead, three-leads , R-R: R-R)

Measure and Diagnosis of ECG Waveform

- HR range: 30bpm -300bpm
- HR precision: ±1bpm (10s average)
- Coefficient error: ≤5%, 0.333
- Measure info of ECG waveform: P time limit, PR interphase, QRS time limit, QT interphase, QTC interphase, RV5swing, SV1swing, RV6swing, SV2swing, RV5+SV1swing, P axis, QRS axis , T axis
- Diagnosis analyze: ≥140 kinds

Display of ECG Collection

- Signal input: 12-lead, defibrillator-proof, Pacemaker pulse rejection
- Degree of protection against electric shock: 4000V, Type CF applied part
- Electrode offset potential: ±600 mV d.c.
- Response to frequency: 0.05Hz-200Hz
- Baseline filter: On/Off
- ECG filter: Off, 25Hz, 35Hz, 45Hz
- Lowpass filter: Off, 75Hz, 100Hz, 150Hz, 200Hz
- Frequency filter: Off/On
- Gain selection: 2.5, 5, 10, 20, 10/5, 40, AGC (mm/mV)
- Gain accuracy: ≤5%
- Time base selection: 5 mm/s, 6.25 mm/s, 10 mm/s, 12.5 mm/s, 25mm/s, 50mm/s
- Input impedance: ≥50MΩ (10Hz)
- Current of input loop: ≤15n A
- Patients leakage current: ≤10 μ A
- CMRR: ≥110 dB (with AC filter)
- Time for response to wave displaying: ≤5s
- Time for baseline recovered after switching leads: ≤1s
- Defibrillator-proof: 5000V 360J
- Standard complied with: IEC 60601-2-25

Environmental Specifications

- Operating:
 - Temperature: 5°C~40°C
 - Relative humidity: 25%~95% (non condensing)
 - Atmospheric pressure: 700hPa~1060hPa
- Transportation and storage:
 - Temperature: -20°C~+55°C
 - Relative humidity: 25%~95% (non condensing)
 - Atmospheric pressure: 500hPa~1060 hPa



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