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Cardimax8

FX-9800

Resting ECG FX-9800

Ready When Needed.

Introducing the FX-9800 Resting ECG from Fukuda Denshi, Japan's Leading ECG
Manufacturer with Over 80 Years of History —

Clarity, Efficiency, Support.



High-Resolution 15-inch
Wide-Screen



Display with 160°
Rotational Capability



Wireless Patient Module



External Keyboard



Flexible and intuitive performance with smooth simplicity.



Bluetooth technology enables wireless ECG measurements between the main unit and the patient electrodes with the Wireless Patient Module.



Prevention of examination errors in advance by alerting electrode misapplication.



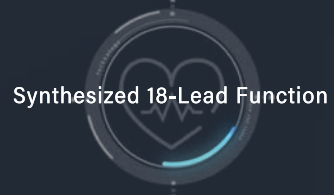
When a pacemaker waveform is detected in real-time, a detection marker can be displayed onscreen and in the report.



The auto capture function automatically selects, records, and analyses the most crucial waveforms within the specified time period.



Up to 10 waveforms can be analysed simultaneously from among the waveforms stored in the internal memory, with the results saved.



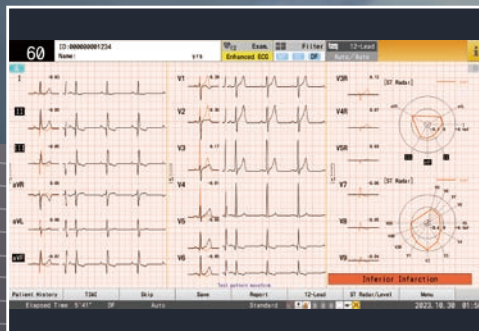
Our proprietary synthesized 18-lead function is also included, allowing simultaneous 12-lead analysis to support the diagnosis of ACS patients who might otherwise be missed.



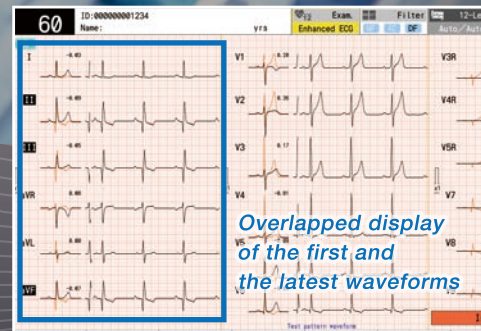
Key Feature: Examination Mode Ideal for Use in ER, Postoperative ICU, and More

Enhanced ECG

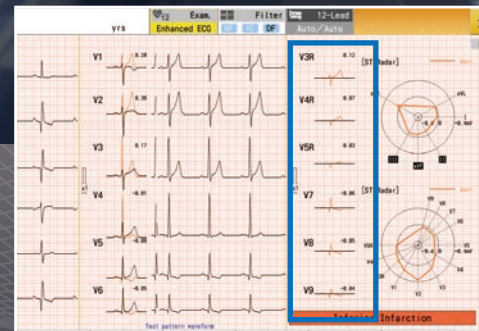
Included in FP-908A Optional



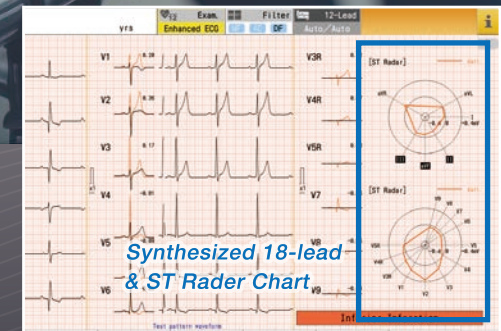
Enhanced ECG mode with an optimized synthetic 18-lead analysis and an ST Radar Chart for the measurement of ST changes in patients with ACS.



Easily detect ST changes with a clear visual by overlaying the reference ECG waveform (black) with the latest waveform (orange).



Superimposes the V3R to V5R and V7 to V9 waveforms that were generated using synthetic lead technology.



Radar chart for visualizing ST changes in synthesized 18-lead from both anterior and superior perspectives.

Addressing Growing Information Security Demands



Password Login Function

Registering user IDs and passwords for operators and limiting access to prevent data leaks.



Patient Information Anonymization Function

Patient information is anonymized both on screen and in test reports.

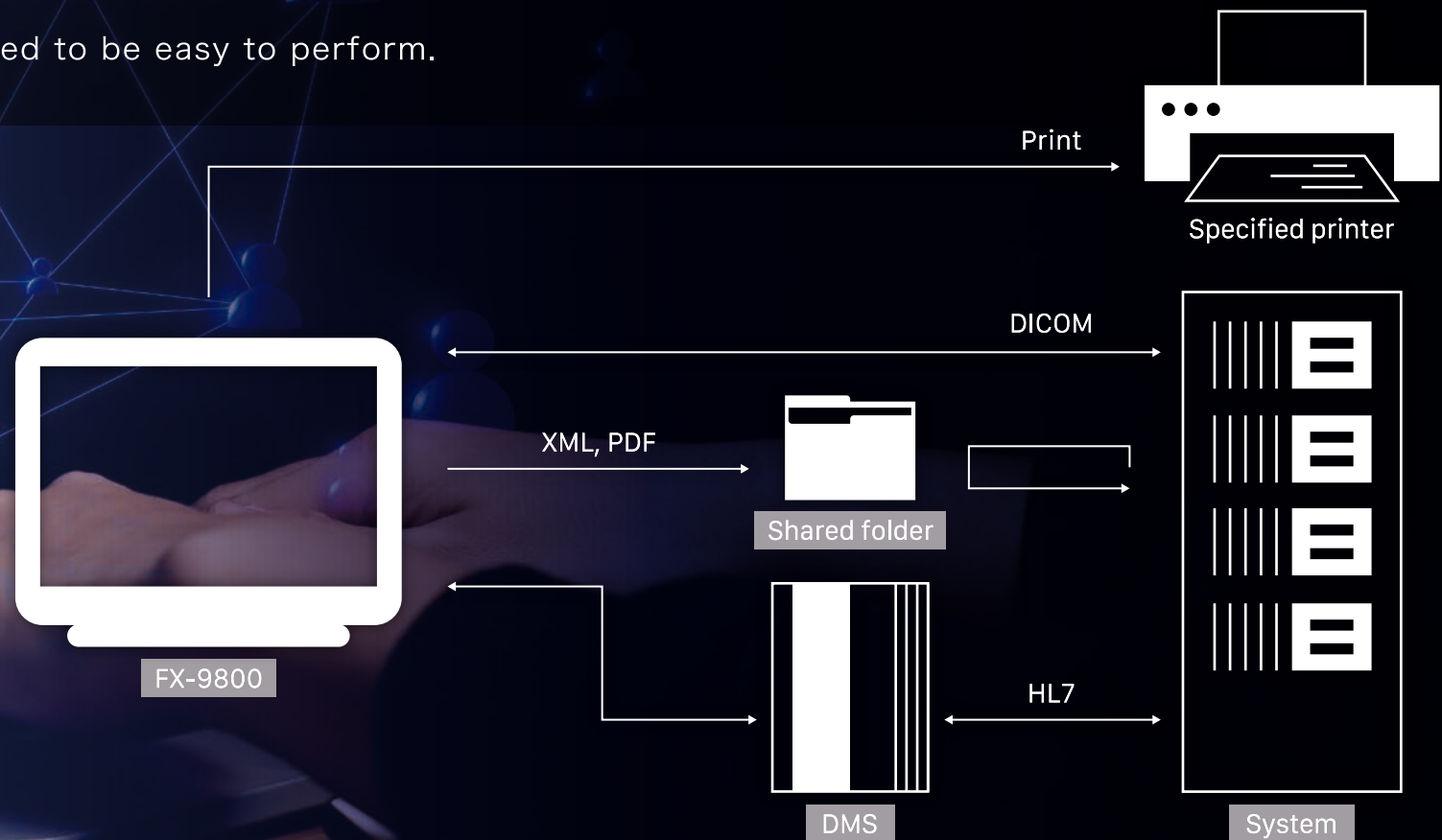


Transfer and use acquired ECG data across multiple computers and systems in a variety of formats.

Data Transfer Network

- Transfer data in DICOM format according to international standards.
- Transfer exam reports in PDF format to PC shared folders.
- Print directly to a designated network printer.

All of these tasks are designed to be easy to perform.



Specifications

ECG

Displaying an inoperable ECG	A notification is displayed if any amplifier becomes inoperable due to overload or saturation
Lead identification, lead names and definitions	In a rectangular coordinate system, with time increasing in the positive x direction, when a positive and negative DC signal is connected to an electrode, the recording's positive oscillation is in the positive y direction
Minimum necessary configuration	Standard 12-lead (I, II, III, aVR, aVL, aVF, V1, V2, V3, V4, V5, V6) 15-Lead (in addition to 12-lead, three leads V7, V8, V9 or V3R, V4R, V5R)
Lead circuitry testing	Circuitry voltage deviation of 5% or lower
Recovery Time	Within 1 second
Input impedance	2.5 MΩ or higher within range of DC offset voltage
Sensitivity	2.5 mm/mV, 5 mm/mV, 10 mm/mV, 20 mm/mV
Common-Mode Signal Suppression	2 mmp-v or lower (103 dB or higher) at 50 and 60 Hz with a measurement of 15 seconds or longer
Tolerable Overload Voltage	Normal operation at 10 seconds of 1 Vp-v voltage using commercial frequency (50/60 Hz)
Filters (including power frequency interference suppression filter)	Distortion when the power frequency interference suppression filter is used will be 25 μVp-v or lower
Noise Level	30μVp-v and below
Interference between Channels	Below 0.5 mm at 30 Hz
High-Frequency Response	Conforms with IEC 60601-2-25:2011 Table 201.107 Frequency response method A and E, or methods A, B, C, and D
Low-Frequency (Impulse) Response	Maximum offset of 100 μV or lower outside impulse range Continuing from impulse end, response slope is 250 μV/s or lower
Linearity and Dynamic Range	Linearity: within 3% Dynamic Range: +/-5mV and above
Sampling and Amplitude Quantization during Data Acquisition	Sampling: 32,000 samples/s Skew: 0 μs Resolution: 4.88 μV
Recording Identification	Recording identification at least records year, month, day, hour, minute, and second
Patient Identification	Records name, birth date, age, and patient ID
Time Marker and Event Marker	Unnecessary oscillation in excess of 0.5 mm does not occur on any channel regardless of sensitivity
Recording Speed	Speed is 5, 10, 12.5, 25, or 50 mm/s, with an error within ±2% for each
Using a Pacemaker	Distortion: 70% recovery of 1 mVp-v takes 50 ms or less, 10 mm or less baseline accumulation change, 20% or less amplitude attenuation of triangular waves, able to clearly recognize triangular waves and pacemaker pulses Visibility: 2 mm or greater

Requirements of Filters	The characteristics of the included filters are as follows. High pass filter: 0.05 Hz (-6 dB/oct or lower) Low pass filter: 75, 100, 150, 250 Hz (-6 dB/oct or lower) Drift filter: strong (0.5 Hz), weak (0.25 Hz) (-12 dB/oct or lower) Hum filter: strong 50/60 Hz (LPF: 75+75 Hz, -20 dB or lower) : weak 50/60 Hz (LPF: 75 Hz, -20 dB or lower) Muscle filter: strong (25 Hz), weak (35 Hz) (-6 dB/oct or lower)
Polarization Voltage	±600 mV or higher (EE-50, EE-51) ±300 mV or higher (signal-averaged ECG)
Heart Rate Detection	Range: 20 to 300 beats Accuracy: within ±2 beats/minute
Malfunction Alarm System	Since this is a diagnostic device, it does not include an alarm system. However, when an inoperable ECG is input due to lead off or other problems, a lead off notification message is displayed.
Printing	Black thermal paper color development with 11.8 dot/mm thermal head Recording width: 210 mm Recording speed: 5, 10, 12.5, 25, 50 mm/s
Display	15.6 inch wide color LCD with full HD
Display/printing details	ECG (3/6/12/15/18-channel), patient information, analysis results, software keys, various ECG information, time, others
Communication (isolation)	LAN (supports 10/100 BaseTX, up to 50 m) x 1, RS-232C x 2, Wireless LAN (supports IEEE802.11a/b/g/n/ ac) x 1, Bluetooth 5.0 (LE)
General-purpose Input and Output (non-isolated)	SD card x 1 (supports up to 16 GB, FAT32, and Version 2.0 or newer) USB x 3 (supports up to 16 GB, FAT32, and Revision 2.0 or newer, up to 2 m)
General-purpose Input and Output (isolated)	Serial x 2 5V open collector output (can switch between positive and negative logic with setting)
Operation	Dedicated hardware keys Touch panel (projection-capacitive type)
Version upgrade installation	Uses SD cards

General

Safety	Class I equipment and internally powered equipment Type CF Applied Part
Conforming Standard	Safety standards: IEC 60601-1(2005)+A1(2012)+A2(2020), ES 60601-1(2005)+A1(2012)+A2(2021) Electromagnetic interference standard: IEC 60601-1-2(2014)+A1(2020) Individual standard: IEC 60601-2-25:2011
Cardiac Defibrillator Recovery Time	Within 5 second
Power Supply	AC power AC100V-240V 50/60Hz DC power DC 14.8 V (battery)
Power Consumption	95 VA (AC)
In-Vehicle 12 V Power	Unusable
External dimensions (LCD closed)	Approximately 385 (W) x 347 (D) x 123 (H)
External dimensions (LCD opened)	Approximately 385 (W) x 347 (D) x 430 (H)
Weight	Approximately 8.0 kg (not including options)



FUKUDA DENSHI reserves the right
to change specifications without notice.

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