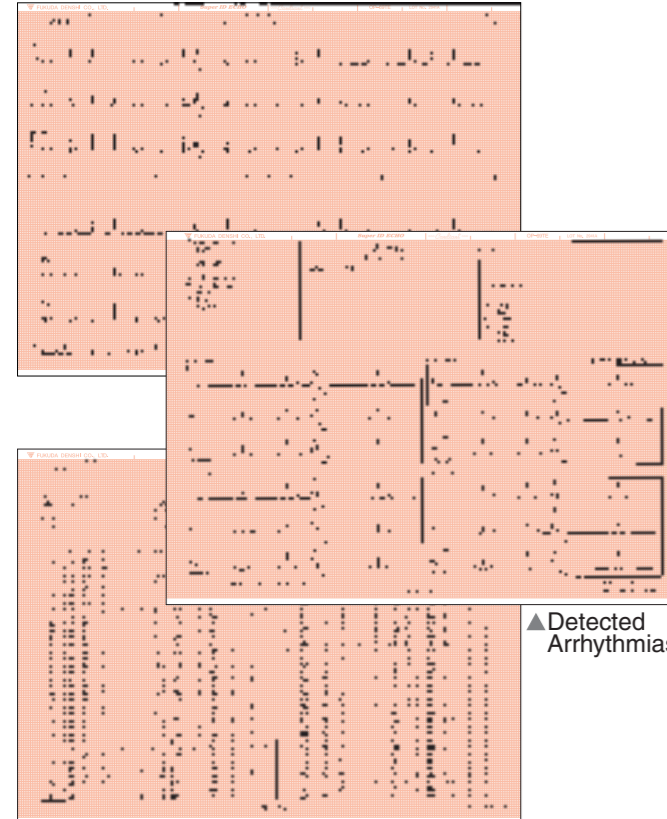### ● Program Cartridges

Optional accessories to the FX-7402 include two types of program cartridge. These cartridges upgrade the FX-7402 to an electrocardiograph with an interpretation function, or a stress test function*.

NOTE: * Available for the market in the fourth quarter of 2002

ECG Analysis Function

Installation of an optional program cartridge (PC-7403 or PC-7404*), enables the FX-7402 to interpret the ECG and perform arrhythmia analysis.

▼ECG waveform for Arrhythmia detection

▲Detected Arrhythmias

▲Arrhythmia measurements

Stress Test Function*

Installation of the optional program cartridge (PC-7404*), enables the FX-7402 to perform stress ECG examination in conjunction with an ergometer or a treadmill connected through an optional connection cable.

Features

- ● Real-time 12-lead ECG averaging for ST measurement
- ● 5 different protocols for tredmill, 8 protocols for ergometer
- ● Storing the 2-channel rhythm lead during entire process
- ● Arrhythmia analysis for the 2-channel rhythm lead during entire process
- ● Real-time alarm detection
- ● Various Report Formats
- ● Optional External color monitor

● Battery Operation

An optional battery, when fully charged, can provide one-hour of operation time.

FX-7402 Specifications

ECG	
Leads	Standard 12 leads
Sensitivity selection	1/4, 1/2, 1, 2 cm/mV; manual or automatic
Time Constant	3.2 sec or greater
Frequency response	0.05 Hz to 150 Hz (within -3dB)
Common mode rejection ratio	103 dB or greater
Max. electrode potential	± 550mV or greater
A/D conversion	18 bits
Sampling frequency	8000 samples/sec/channel
Filters	AC: 50 or 60 Hz, -20dB or less
	Muscle: 25 or 35 Hz, -3dB (-6dB/oct)
	Drift: 0.25 or 0.5Hz, -3dB (-6dB/oct)

Storage	
Built-in memory	Up to 300 events
PC card	Up to 1000 events (with 2Mbytes PC card)

Display	
Device	Backlit LCD with Touch Screen
Display area	115 mm (H) x 86 mm (V)
Resolution	320 x 240 dots
Representation	3/6/12 channels/display

Operation	
Devices for operation	Touch Screen and membrane type keys
	(The touch screen can be used as an alphanumeric keyboard)

Recorder	
Method	Thermal dot array
Paper speed	5, 10, 12.5, 25 or 50 mm/sec
Recording paper	Roll, 210mm x 30m (OP-69TE)

I/O interface	
Serial port	RS-232C, 1 port
PC card slot	PCMCIA, 1 slot
External display	SVGA, 800 x 600 pixels

Safety	
Regulatory standards	IEC60601-1, IEC60601-2-25
Electrical shock protection	Class I, Type CF and Internally powered equipment, Type CF
Conformity	CE marking for the 93/42/EEC Directive

General	
Power requirements	100 to 240V AC Universal, 50/60Hz, or 9.6V DC (optional rechargeable battery pack)
Dimensions	335 (W) x 346 (D) x 100 (H) mm
Weight	Approx. 6 Kg

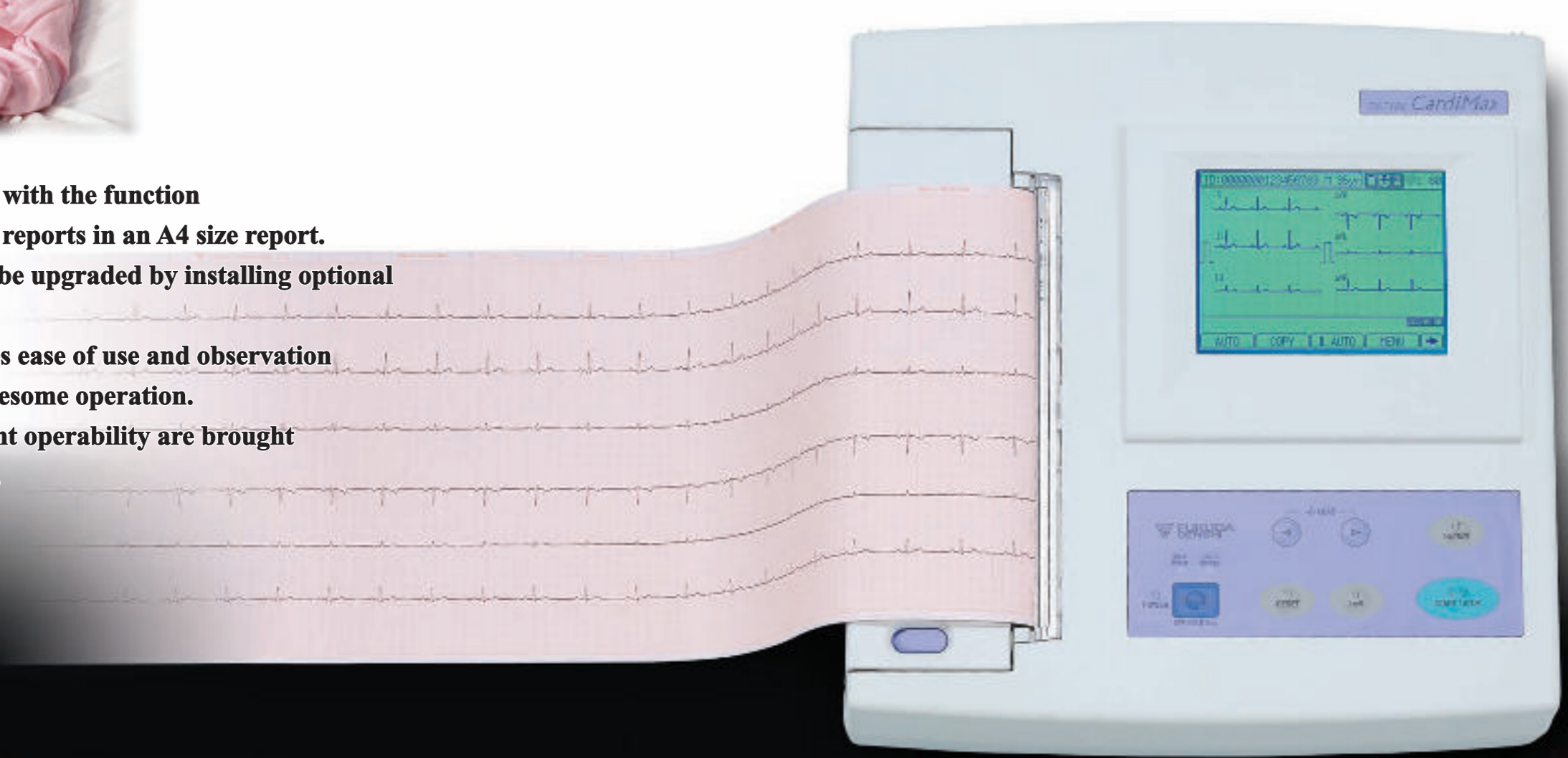| Option	
Program cartridges	PC-7403: Interpretation
	PC-7404: Interpretation + Stress (Available for the market in the fourth quarter of 2002)
Carrying handle	OA-301
Rechargeable battery	8/HRY-4/3 AFD (Smart battery, Ni-MH)

CardiMax

FX-7402

12-lead Electrocardiograph

FUKUDA DENSHI

The FX-7402 electrocardiograph incorporates a simple profile and user-friendly operation, while at the same time providing sophisticated functions, offering the medical staff a comfortable examination environment.
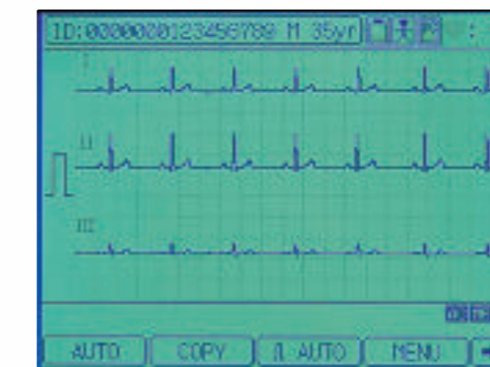
The FX-7402 comes standard with the function to produce ECG examination reports in an A4 size report. Furthermore, the system can be upgraded by installing optional program cartridges.

The LCD touch screen ensures ease of use and observation of information without troublesome operation.

High functionality and efficient operability are brought together in this simple design.
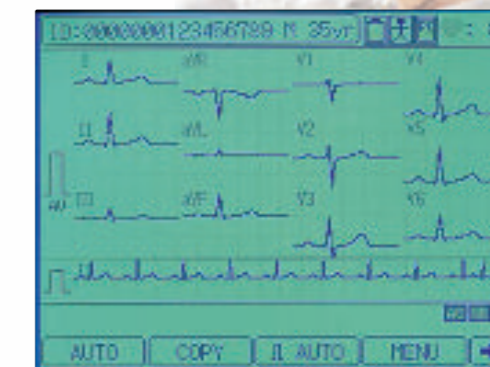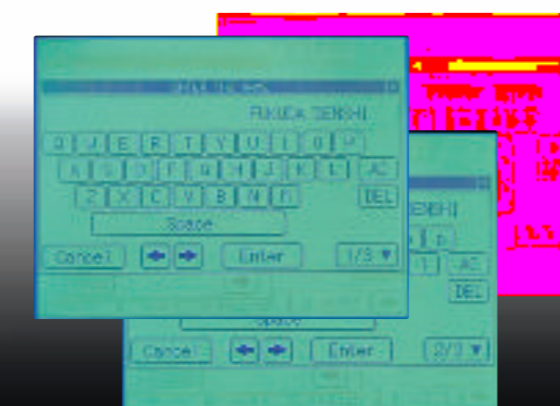
Easy-to-see Display

The backlit display provides up to 12 leads of real-time ECG waveforms, and error messages. The display assists you to easily identify noisy leads from the real-time ECG waveforms, or locate a possible lead with an electrode disconnected, making it possible to avoid useless recordings.

This allows you to perform the ECG examination quickly and accurately.

▲3-lead display   ▲12-lead display
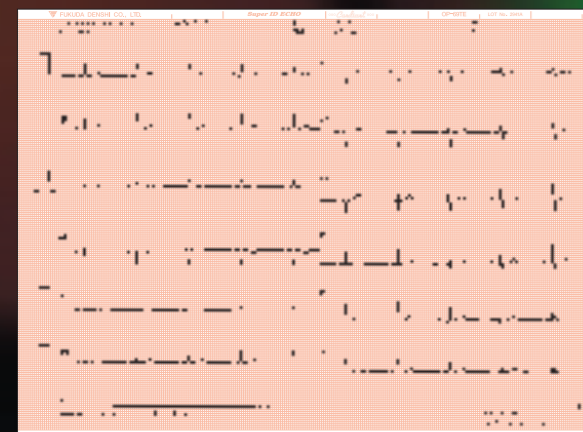
Touch Screen for Easy Operation

The touch screen allows the FX-7402 to have a simplified appearance with a reduced number of fixed keys on the operation panel. To start, the display only shows the information and keys required for the ECG examination.

Thus, you can simply select the desired key for operation, and quickly proceed with the examination. In addition, the touch screen provides a full keyboard for input of information, including the patient name.
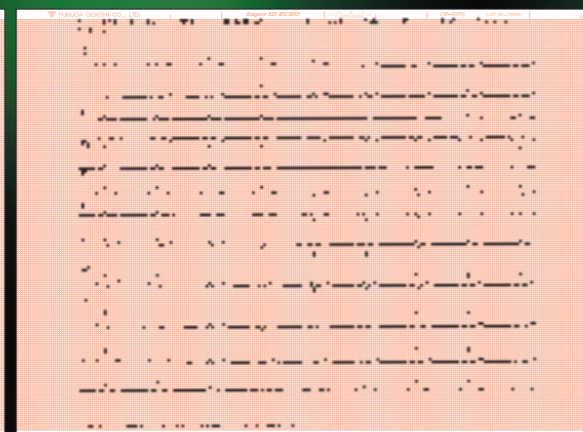
Large Report Format

The FX-7402 has an integrated thermal dot recorder, which accommodates 210 mm wide chart paper to record ECG waveforms, measurements, and R-R interval trending data in A4 size format.

In addition, an optional program cartridge enables reporting of results for ECG interpretation, arrhythmia analysis, and stress ECG examination.

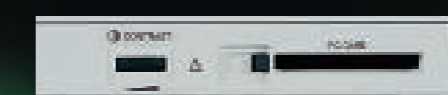### Built-in memory for ECG storing

The built-in memory can store approximately 300 events. Each ECG is automatically logged and stored into the memory by the FX-7402 for review and recording. The stored ECG data can be written on an optional PC memory card, and can be transmitted to a personal computer through communications port.

PC Card for ECG Data Filing

The FX-7402 comes with a standard PCMCIA interface. By inserting an optional PC memory card in the slot, the operator can store measured ECG data in the card for review or recording at any time. Optional ECG data filing software enables the operator to file stored data in a personal computer.

Serial Communications Port for ECG Data

The FX-7402 is equipped with a serial port to output the measured ECG data. The data can then be stored with the optional filing software to enable the personal computer to manege the ECG data. When the Stress Test is performed with the optional program cartridge, an ergometer or a treadmill is connected with this serial port.

▲6 lead by 6 lead recording   ▲12 lead recording   ▲Measurements   ▲R-R interval report

FX-7402 CardiMax