Feature Film
Sound Effects

Nature
Takes

TV and Radio
Documentary

Broadcast
Programming

Location Sound
Recording

FR-2

Field Memory Recorder

FOSTEX®

FR-2
Field Memory Recorder

EASY TO USE CONTROLS
Taking its cue from the PD-6 timecode DVD location recorder and Fostex's excellent pedigree in portable timecode DAT recording, the FR-2 is ergonomically designed so that all controls fall easily to hand. The large 132 x 64 dot matrix display provides clear and concise information at all times, while innovative features such as automated file/take naming enhance still further the usability.

INTERFACING
The FR-2 is very well connected: the two analog inputs switchable between Mic & line on XLR connections link to top quality microphone pre-amps with selectable phantom power, while analog out is offered on RCA connectors. Digital I/O is selectable between AES/EBU and S/P-DIF, again on balanced XLR connections.
The USB ports allow direct connection to PC and MAC with an additional port allowing for an external keyboard to be used to aid file naming and operation.

ROBUST DESIGN, TOUGH CONSTRUCTION
Designed from the ground up to withstand the rigours of in-the-field use, the FR-2 is constructed out of high-grade materials and tried & tested components.

High Quality Sound Recording

The new Fostex FR-2 has been designed specifically for location sound recording; high quality sound effects acquisition; TV & radio documentary; in fact any application where quality audio recording is required.
With excellent quality (up to 24-bit / 192KHz recording - a first for a CF recorder), huge feature list and a cost-effective price point, the FR-2 offers users of portable DAT and other formats the opportunity to make the switch to a more flexible, higher quality audio acquisition machine without sacrificing features.

Main Features

- Recording industry standard, PC-compatible BWF files (stereo/mono) on a FAT32 media format
- Up to 24-bit/192kHz uncompressed recording
- Includes a unique 22.05kHz sampling frequency setting for extended recording
- Records to both Type II CompactFlash™ cards and PCMCIA 1.8" hard disk drives[*1]
- Fostex's "File per Take" system with auto scene & take naming/increment
- Two balanced XLR microphone inputs with switchable phantom power and top quality, high headroom mic pre-amps
- 132 x 64 dot matrix LCD screen for ease of use & high visibility in the field
- Uses AA-sized rechargeable NiMH batteries which are widely available due to the popularity of digital cameras. 8 AA cells will provide approximately 2.5 hours operation when recording to a CF card
- Easy file transfer to PC/Mac via PCMCIA, CF

*1 May require software update for PCMCIA HD operation *2 Complies with
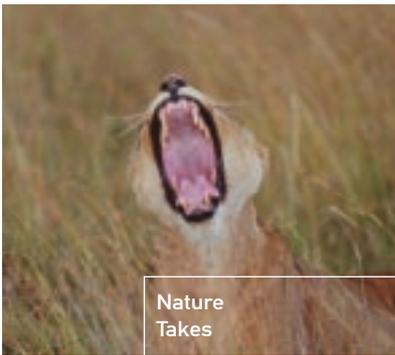
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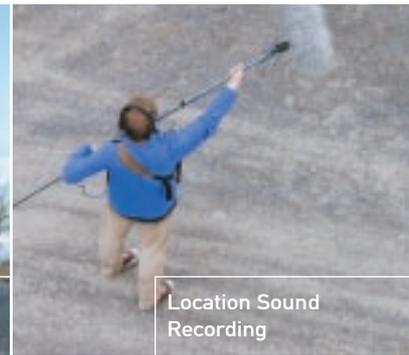
Location Sound
Recording

adaptor or standard on-board USB connection for data editing and/or backup*2

- Quick and easy on-board file naming or via external keyboard through standard USB keyboard port
- "Pre-record" loop buffer of approximately 10 seconds*3
- Easy software update via CF or PCMCIA card with downloads from the internet
- Optional timecode generator / reader card

Excellent Audio Compatibility

In adopting the BWF Broadcast WAV file format, the FR-2 offers what is now the most popular choice for professional recording. It can be set to record mono or stereo files with 16 or 24-bit quantisation over a vast range of frequencies from 22.05kHz for extended recording time up to 192kHz for the highest quality audio acquisition. Transferring files for editing and/or backup is fast and simple via a Compact Flash reader attached to a computer; a PCMCIA slot and/or a CF adaptor – ideal for those editing with a laptop; or indeed the on-board USB port.

Professional Features

The FR-2 incorporates a number of features developed through Fostex's work in location DVD-RAM recording with the PD-6 and DV40.
Automated file/take naming speeds up time spent naming

files between takes on location and complies with both US and Euro clapper board standards. In addition, the inclusion of a 'pre-record' buffer (user adjustable) means there should never be another missed take or lost soundbite!

Timecode

The FR-2 can be retrofitted with an optional, fully featured timecode card offering both reader and generator thus turning it into the ideal production and location recorder, whether it be used as a master or backup machine.

All Bases Covered

Excellent audio integrity, fully flexible recording, top quality mic amps, extensive interfacing plus optional timecode prove the Fostex FR-2 has all bases covered.

RECORDING TIME EXAMPLES:
A 1GB CF card offers 86 minutes of stereo recording at 16bit/48kHz and 28 minutes at 24bit/96kHz.

A 5GB hard disk offers 434 minutes of stereo recording at 16bit/48kHz and 144 minutes at 24bit/96kHz.

For full example, please see the back page.

Windows ME/2000/XP, Mac OS 10.2 or higher   *3 Varies depending on sampling frequency"

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Specifications

CHOICE OF MEDIA

The FR-2 can record to Type II CompactFlash cards and the new breed of PCMCIA 1.8-inch hard disk drives (up to fs 96kHz), offering maximum flexibility and choice.

The new 1.8-inch Type II PC Card hard disk drives pack high capacity into a very compact format. Their powerful, lightweight design makes them an ideal acquisition media offering, for example, 289 minutes of stereo recording at 24-bit/48kHz.

For operation confirmed media, visit the fostex web site.

GENERAL

Recording Media	CompactFlash card, PCMCIA HD
Recording Format	BWF
Number of Channels	Stereo / Mono
Sampling Frequency	22.05 / 44.1 / 48 / 88.2 / 96 / 176.4 / 192kHz
Quantization	16 bit (22.05 – 48kHz), 24 bit (44.1 – 192kHz)

PHYSICAL

Power Requirement	8 x AA type dry cell (NiMH recommended)
	AC adaptor (optional)
	DC 12V
Power Consumption	approx. 5W
Dimension	250(W) x 77(H) x 220(D) mm
Weight	1.5kg (w/out battery)

PERFORMANCE

R/P Frequency Response	20Hz to 10kHz +/–1dB (fs: 22.05kHz)
	20Hz to 20kHz +/–1dB (fs: 44.1 / 48kHz)
	20Hz to 40kHz +/–2dB (fs: 88.2 / 96kHz)
	20Hz to 80kHz +/–3dB (fs: 176.4 / 192kHz)
S/N	(ADC–DAC, 24–bit, ref: –20dB, fs:48kHz)
	Line (input gain: +4dBu): 100dB (typical)
	Mic: (input gain: –60dBu): 87dB (typical)
Dynamic Range	100dB (ADC–DAC, 24bit, ref:–20dB, fs:48kHz) typical
T.H.D.	(ADC–DAC, 24–bit, ref:–20dB, fs:48kHz)
	Line (input gain: +4dBu): Less than 0.005% (at 1kHz, –1dB typical)
	Mic (input gain: -60dBu): Less than 0.008% (at 1kHz, –1dB typical)
Power Life	approx. 2 hours 30 min.
	(8 x AA NiMH type/2300mAH)

INPUT / OUTPUT CONNECTORS

ANALOG AUDIO INPUT	L/R
Connector	XLR–3–31 type (Pin2: Hot)
LINE	
Input Impedance	More than 6k ohm
Reference Input Level	+4dBu
Maximum Input Level	+24dBu (Trim: +4dBu, at the prefader stage)
MIC	
Input Impedance	More than 6k ohm
Input Level	–60dBu
Maximum Input Level	–40dBu (Trim: +4dBu, at the prefader stage)
Phantom Power	P48

ANALOG AUDIO OUTPUT	L(Mono)/R
Connector	RCA pin type
Output Load Impedance	more than 10k ohm
Nominal Output Level	+4dBu

HEADPHONE OUTPUT	50 + 50mW (32 ohm)

MAX SPEAKER OUTPUT LEVEL	1W

DIGITAL INPUT/OUTPUT (except for 176.4, 192kHz)	
Connector	XLR
Input Format	S/P DIF / AES/EBU automatic
Output Format	S/P DIF / AES/EBU switchable
USB	x 2 (keyboard / PC only)

TIMECODE CARD (OPTIONAL, T.B.A.)	
LTC Input/Output	LEMO
Frame Rate	23.976/24/25/29.97DF/29.97ND/30DF/30ND
Gen Mode	24H RUN / REC RUN / FREE RUN / EXT RUN

OPTIONS

Model 8347 Timecode Card

The FR-2 can be retrofitted with an optional timecode reader/generator card. Using a standard 5-pin locking Lemo connector, the card can be fully configured though FR-2's front panel display to provide all standard frame rates including 23.976 and 29.97drop; pull-up and pull-down and jam sync. The generator can work in 24 hour, Rec Run, Free Run or external, with output being set to repro or gen. The addition of the timecode card allows FR-2 to be used for location recording where portability is key and on sets not requiring an high number of independent tracks. Also FR-2 will become an ideal addition to a sound mixers arsenal also finding a use as a timecode backup machine to his/her main recorder.

Model AD12-1300 AC adaptor

An AC adaptor is also available for mains power operation.

Recording Times
* All times in minutes

Drive	Resolution	16 BITS			24 BITS					
Capacity	Fs (kHz)	22.05	44.1	48	44.1	48	88.2	96	176.4	192
1GB	MONO	376	187	172	124	114	61	56	30	27
1GB	STEREO	188	94	86	62	57	31	28	15	14
5GB	MONO	1888	943	867	628	577	313	288	156	143
5GB	STEREO	944	472	434	314	289	157	144	78	72

Distributor / Authorised Dealer

www.fostex.co.jp