

Fostex®



8 TRACK RECORDING
simultaneous 8 track recording via analog inputs

DIGITAL MIXING
with balanced & un-balanced inputs

WAVE DISPLAY
graphical display of waveforms

GRAPHIC EQ
visual editing of eq curves

COMPRESSORS
channel & master compressors

ADAT I/O
adat interface as standard

.WAV FILE
export & import audio as .wav files

HD UPGRADEABLE
user upgradeable E-IDE hard drive

VF-16

16 Track Digital Multitracker



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ADAT INTERFACE
 The VF-16 is equipped with an ADAT™ Digital Interface which can be used for importing and exporting ADAT™ compatible material, plus archiving sessions to the ADAT format.



Main features..

DIGITAL RECORDING

- 16 recording tracks plus 8 additional ghost tracks for multiple takes. 24 recording tracks in total
- 8 track simultaneous recording using analogue inputs. 16-track simultaneous recording available using ADAT interface in addition to analog inputs
- No compression recording to internal 3.5" E-IDE hard drive (eg. 962 track minutes available on a 5.1 GB hard drive)
- ±6% Pitch Control
- 99 programs (songs) with program names
- Align Point selectable when pasting a clipboard data
- 7 Mark Point on the fly, 7 Edit Memory & 99 Event Memory
- SCSI interface (for back-up)
- .WAV file export and import via external SCSI media
- Full MTC/MMC compliance

DIGITAL MIXING

- 16 input faders (8 x analog/track input + 8 x track input) and 1 x Master fader (stereo buss) - all 60mm
- MIC/LINE trim pot on all analogue inputs. Input G & H feature balanced XLR connectors, phantom power and insert points. Peak LED is provided on each input.
- Assignable channel compressors (ch 13 + 14 or ch 15 + 16 with effect off) & Master compressor
- Two effect sends and two AUX sends (pre/post switchable)
- 3-band EQ on all 16 channels (HI parametric, shelving, LPF, MID parametric, LO shelving). Separate 3-band Master EQ
- 100 mix scenes per program
- 64 x 128 dot-matrix LCD display.
- Two built-in Fostex A.S.P. digital effects

UPGRADABLE HARD DRIVE
 The removable plate on the underside of a VF-16 allows you to change the internal E-IDE hard drive. A larger hard drive means more recording time. Visit www.fostex.co.jp for a list of compatible drives.



Fostex's new VF-16 digital multitracker doesn't just rewrite the book on all-in-one digital multitrack solutions, it rips it up and starts again.

Here is a machine which combines state-of-the-art hard disc based 16-track digital recording with supreme quality digital mixing and houses it in a rugged, easy to use, package.

But that's just the start of it. As usual with Fostex, this little baby is not only packed with stellar features it's simplicity itself to operate.

DIGITAL RECORDING

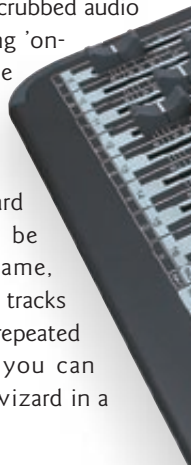
The VF-16 features no less than 24 tracks with simultaneous 8 track recording, (16 when using ADAT interface) to an internal (user upgradable) E-IDE hard disc. And having those extra 'ghost' tracks gives you real flexibility. For example; you've recorded a great guitar solo, but want to try another to see if you can improve the performance - no problem, just use another track for the new version. With this type of power you can record different versions of vocals, different drum grooves, different guitar parts, then choose which of the 16 tracks you wish to reproduce and mix. Once you've experienced this kind of flexibility it becomes a necessity.

Two assignable recording modes are available;

Direct Mode - If you want to record 8 inputs simultaneously to 8 recording tracks this mode routes the inputs directly to the digital recorder via trim pot, bypassing the mixer.

Rec Buss Mode - Alternatively you can record multiple inputs to 2 recording tracks using the digital mixer to set levels, EQ, effects, etc. But all this flexibility counts for nothing if it's let down by the quality of the audio.

No chance. This high specification machine records true CD-quality uncompressed digital audio. Naturally, as the VF-16 uses a digital non-linear recording system, full Copy, Paste, Move & Erase editing with Undo & Redo is achievable. Ease of editing is aided by the ability to display scrubbed audio graphically, making 'on-the-fly', intricate edit points simple and intuitive to designate. Plus, with clipboard data available to be pasted to the same, another or multiple tracks and automatically repeated up to 99 times, you can become a re-mix wizard in a matter of minutes.



BUILT-IN SCSI-2 INTERFACE
 The SCSI-2 interface allows for back-up sessions to removable media and for exporting & importing .WAV files.



INPUT TRIM POTS
 Each input channel is equipped with a rotary trim pot and handy clipping level peak LED.



BALANCED XLR INPUTS
 Inputs G & H are equipped with balanced XLR connectors and switchable +48V phantom power.



2x INTEGRATED DSP EFFECTS
 VF-16 has 2 independent DSP effects processors powered by Fostex A.S.P. technology.



100 MIX SCENE MEMORY PER PROGRAM
 The VF-16 can store up to 100 mix scenes (snapshots) per program for recall via scene event map or button push

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And if you thought that was cool, wait until you hear that the VF-16 can export and import audio (all tracks, one track or any part of a track) as standard WAV files via SCSI meaning that editing, processing and sound file conversion can be accomplished using popular PC music software.

TRUEDIGITAL MIXING

The amazing audio quality delivered by the VF-16 is due only in part to the stellar recording engine. The digital mixer also plays its part in making the VF-16 the most usable, best sounding multitracker out there. Firstly you get some real 60mm faders to play with on all 16 input channels and master.

The distortion and hiss-free input stages (including 2 with XLR, inserts and +48v phantom power), feature trim pots and have been designed to handle almost anything you can throw at them from the lowest of low level mic signals to the hottest instrument signal.

There's a great 3-band EQ with parametric mid & high on all 16 channels to enable you crisp up, add punch, cut hiss or increase the depth of your sound.

There's also a separate EQ for the master, assignable channel compressors (ch 13 + 14 or ch 15 + 16 with EQ off), & master compressor, 2 AUX sends per channel, for adding external effects, a monitor out with level control and handy

insert points on inputs G & H for adding compressors, limiters, etc. Plus, a stereo mixed source can be digitally transferred to an external digital recorder thru S/P DIF. With the 100 mix scene memory, you're not tied into one mix either. Entire mix scenes (include effect parameters), can be saved and recalled - you'll never lose that perfect EQ setting again. And, as the scene sequence mode allows for the automatic recall of mixes programmed into a scene event map, you're not even tied to one mix per song!

RECORD A TRACK

Select a track to record. (You can record up to 8 at any one time using analog inputs).

WAVEFORM DISPLAY

Making on-the-fly, intricate edit points simple and intuitive to designate.

APPLY EQ

3-band EQ (parametric Hi and Mid) can be applied to recorded tracks.

APPLY COMPRESSION

Compression can be applied with controls for Threshold, Ratio, Attack and Gain.

ASP DIGITAL EFFECTS

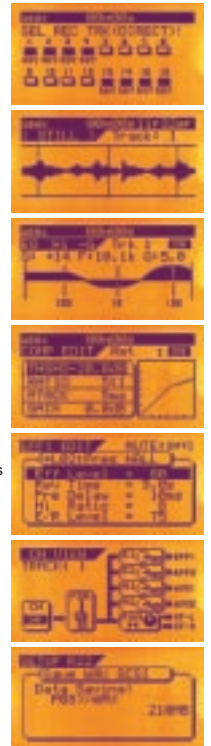
Fostex's acclaimed A.S.P effects offer two independent digital effects processors.

CHANNEL VIEW

Channel routing to internal effects and external aux busses plus pan position is easy view.

SAVE WAV FILES

Recorded audio can be exported as .WAV files for further editing via a PC.



EASY OPERATION

Fostex have made the VF-16 incredibly easy to operate. Nice touches which you'll appreciate include; large illuminated buttons, 60mm faders and a clear backlit LCD display.

Specifications

DIGITAL MIXER SECTION

Input (A - H)	8x ø6mm phone jack (unbalanced)
Input Impedance	>50k ohms
Rated Input Level	-50dBV - +2dBV
Input (G/H)	2x XLR-3-31 type (balanced: 2-Hot) +48V phantom power
Input Impedance	>1k ohms
Rated Input Level	-50dBV - +2dBV
Insert	ø6mm TRS phone jack
Load Impedance	>10k ohms
Rated Output Level	-10dBV
AUX send (I/2)	ø6mm TRS phone jack
Load Impedance	>10k ohms
Rated Output Level	-10dBV
Stereo Out	2 x RCA pin jack
Load Impedance	>10k ohms
Rated Output Level	-10dBV
Monitor Out	2x ø6mm phone jack (unbalanced)
Load Impedance	>10k ohms
Rated Output Level	-10dBV
Headphone Out	1x ø6mm stereo phone jack
Load Impedance	>16 ohms
Maximum Output	20mW (at 50 ohms)
Digital In/Out	2 x Optical
Format	ADAT optical / IEC60958 (S/P DIF)
MIDI In/Out/Thru	2 x DIN 5 pin / MIDI standard
Punch In/Out	1x ø6mm phone jack (Model 8051)
SCSI	1x D-SUB 50-pin (half pitch type)
Protocol	SCSI-2, unbalanced transfer method
Transfer type	Asynchronous
Equalizer	
Peak, Shelving, LPF (HI)	500Hz - 20kHz variable ±18dB
Peak (MID)	500Hz - 20kHz variable ±18dB
Shelving (LOW)	100Hz (effective freq.) ±18dB
Frequency Response	20Hz - 20kHz

DIGITAL RECORDER SECTION

Recording Media	Internal E-IDE 3.5-inch hard disk
Recording format	FDMS-3 (version 1) (Fostex Disk Management System)
Save/Load format	SCSI, FDIO-1
Sampling Frequency	44.1kHz
Quantization	16bit linear (non compressed)
Recording time	Dependent of disk size eg: approx. 1,880 track minutes @ 16bit/44.1kHz on a 10 GB disk
Number of tracks	16 + 8 additional tracks
Pitch control	±6% (0.01% step)
Crossfade	10ms
Dynamic Range	92dB
T.H.D.	0.01% (typical)
Crosstalk	> 60dB @ 1kHz
A/D converter (20bit)	Delta-Sigma 64x over sampling
D/A converter (24bit)	Delta-Sigma 128x over sampling

PHYSICAL

Dimensions	380 (W) x 98 (H) x 335 (D)mm
Weight	approx. 4.0kg
Power	120V / 230V
Consumption	15W



VF-16 INTERFACING

- Inputs 1 - 6 unbalanced phone
- Inputs 7 - 8 balanced XLR or phone with +48V Phantom Power & inserts
- Monitor Out
- Headphone Out
- Auxiliary Send
- Master Stereo Out
- MIDI IN, OUT
- ADAT optical / S/P DIF In & Out
- Footswitch
- SCSI Interface

28 effect types for EFF 1

EFFECT TYPES FOR EFF 1

- Name**
- Normal Hall
 - Presence Hall
 - Wet Hall
 - No E/R Hall
 - Lo-Freq Hall
 - Stadium
 - Auditorium
 - Hallway
 - Normal Room
 - Dead Room
 - Presence Room
 - Drum Booth
 - Garage
 - Normal Plate
 - Old Plate
 - Presence Plate
 - Wet Plate
 - Digital Plate
 - Normal Vocal
 - Presence Vocal
 - Solo Vocal
 - Arena Vocal
 - Arena Chorus
 - Karaoke
 - Mono Delay-Hall
 - Mono Delay-Plate
 - Panning Delay-Hall
 - Panning Delay-Plate

38 effect types for EFF 2

EFFECT TYPES FOR EFF 2

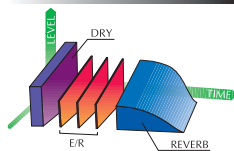
Effect 2 has the same effect types as EFF 1 and these additional types as well.

- Name**
- Mono Delay
 - Panning Delay
 - Mono Bpm Delay
 - Panning Bpm Delay
 - Short Delay
 - Doubling
 - Chorus
 - Flange
 - Mono Pitch
 - Delay Pitch

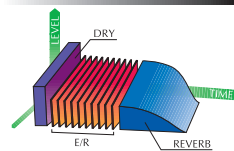
A.S.P. - A BREAKTHROUGH IN DSP EFFECTS

A.S.P. (Advanced Signal Processing) is a unique digital effects processing technology newly developed by Fostex. The diagrams show that by combining a special **Harmonics Feedback Algorithm (H.F.A.)** with **Hi-Density Logarithmic Processing (H.D.L.P.)**, A.S.P. effects offer higher gain in the early reflection characteristic and are free from the 'grittiness' associated with lesser technologies.

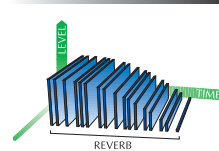
EARLY REFLECTION WITHOUT H.F.A.



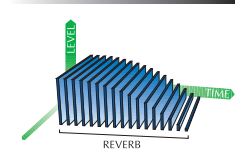
EARLY REFLECTION WITH H.F.A.



REVERB WITHOUT H.D.L.P.



REVERB WITH H.D.L.P.



Fostex

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