

Applications include:

EFP (Electronic Field Production) On-location TV programs Film / Movie productions Sports event broadcasting Single camera ENG applications

# FM-4 : FM-3 Portable Location Mixers







## Exclusively Machined Aluminum Knobs

Light but robust aluminum body construction with exclusivelymachined large aluminum fader knobs. Metal axis fader pots using conductive plastic for higher durability.



# Organic LED Display

High resolution metering offering both VU and Peak level with selectable Stereo and Mono indication. Various settings status (mic/line, phantom on/off, etc) can be also be viewed.



tion **Mixers** 

U

0

J

Battery Pack 8 x AA batteries or DC10-24V external powering. More than 6 hours operation with alkaline batteries (phantom off). Remaining battery capacity available on both display and LED indicator.



# FM-4 : ELECTRONIC FIELD PRODUCTION, ON-LOCATION TV & FILM FM-3 : ENG, NEWS REPORTING, DOCUMENTARY



# Robust, high specification, professionally engineered portable mixers specifically designed for location film & TV production, electronic field production and ENG applications.

Fostex has an unrivalled pedigree and a unique understanding of the broadcast, film and TV environments, having designed and manufactured world class location recorders for almost 20 years. So when we decided to introduce portable location mixers, we first canvassed opinions from our professional users, listening to their needs and understanding their working practises.

The culmination of this process is two thoroughly professionally engineered Portable Location Mixers with feature sets tailored for specific 'over-the-shoulder' applications: EFP (Electronic Field Production) for on-location TV program and film productions in the case of the FM-4 and ENG (professional electronic news gathering) for the FM-3.

# FM-4 : EFP on-location TV and Film

As a 4-channel portable audio mixer designed specifically for EFP, broadcast, on-location TV and film applications, you would expect exceptional audio performance with flexible

output options and the FM-4 does not disappoint. Each of the 4 balanced XLR inputs can accept mic or line level inputs and features 12T and 48V Phantom power, an ultra-low noise pre-amp design with high quality custom transformers and switchable Hi Shelving EQ and Mid Sweep EQ. Metering is taken care of by an easy to read, highly visible organic LED display with high resolution metering offering both VU and peak level indication, battery level and selectable stereo and mono modes.

There are multiple output options including sub outputs, a Tape output and 2 x AUX outputs with channel select. The main outputs (x2) and sub outputs (x2) also double as 1-4ch Direct Out (post-fader). In addition, a dedicated monitor return input is available for referencing audio from VTR or Camera feeds.

# FM-3 : ENG

The FM-3 Portable Mixer offers a three-input, stereo output portable mixing solution and has been designed primarily for ENG (professional

variety of sub outputs. recording media.

# New Benchmarks

With their low-noise circuitry, exceptional audio fidelity and unique feature sets the new Fostex Portable Mixers are not only more than suitable for all professional broadcast and film applications, they set a new benchmark for portable on-location mixing devices.







electronic news gathering) but is also at home in on-location film productions. It's equipped with 3 balanced inputs (switchable phantom power), with a 2ch main output plus a wide

Both the FM-4 and FM-3 are robust, rugged designs with all controls, inputs and outputs easily accessible on three main surfaces with no 'round the back' controls. Special care has been taken to ensure noise levels are kept extremely low, which makes these mixers perfect for use in any over-the-shoulder production application including digital transmission links or digital video and audio

# FM-3 Portable Location Mixer

# **Main Features**

- FM-4 Balanced 4ch inputs (Mic/ Line) and 2ch main outputs with high quality custom transformers
- FM-3 Balanced 3ch input and 2ch main outputs with high quality custom transformers

# FM-4 & FM-3 Common Features

- Highly visible Organic LED display
- Mixer's parameter setting status (mic/line, phantom on/off, etc) can be seen on the display
- Phones outs accept standard and mini plugs on each socket with multiple source and PFL monitoring
- Comprehensive outputs including Sub outs, Tape out, 2 x AUX outs with channel select
- Switchable level settings at +40/0/-10/-60 (FM-4) and +40/0/-20/-60 (FM-3) on Main and Sub outputs
- Dedicated monitor return input to check the audio from VTR or Camera feeds

# FM-4 Only Features

- Main outputs (x2) and Sub outputs (x2) double as 1-4ch Direct Out (post-fader)
- Hi Shelving EQ and Mid Sweep EQ for ch1/3 and 2/4
- Seamless PAN control and Fader Link function (1-2ch & 3-4ch)

# FM-4 / FM-3 SPECIFICATIONS

## Inputs

FM-4 INPUT 1 through INPUT 4: XLR-3-31 type (transformer balanced)
FM-3 INPUT 1 through INPUT 3: XLR-3-31 type (transformer balanced)
MIC incut

MIC input	
Input impedance: 2 kQ or more	
Nominal input level: -70 dBu to -30 dBu	
Phantom Power: P48V or T12V (selectable)	
LINE input	
Input impedance: 10 kΩ or more	
Nominal input level: -20 dBu to +4 dBu	
AUX IN: XLR-5-51 type (electronically balanced)	
Input impedance: 20 kΩ or more	
Nominal input level: +4 dBu	
RTN IN: Connector: ø3.5mm stereo mini-phone jack (unbalanced)	
Input impodance: 10 k0 or more	

Input impedance: 10 kQ or more Nominal input level: -10 dBV

#### **Outputs** FI

FM-4 MAIN OUT (L, R) / DIRECT OUT (CH1-2): XLR-3-32 type (transform	er balanced)
FM-3 MAIN OUT (L, R): XLR-3-32 type (transformer balanced)	
Applicable load impedance: 600 $\Omega$ or more	
Nominal output level: +4, 0, -10 or -60 dBu (FM-4) / +4, 0, -20 or -60 dBu (FM-3	) (switchable)
FM-4 SUB OUT / DIRECT OUT (CH 3-4): XLR-5-52 type (electronically bal	anced)
FM-3 SUB OUT: XLR-5-52 type (electronically balanced)	
Applicable load impedance: 10 kΩ or more	
Nominal output level: +4, 0, -20 or -60 dBu (switchable)	
TAPE OUT: Connector: ø 3.5mm stereo mini-phone jack (unbalanced)	
Applicable load impedance: 10 kΩ or more	
Nominal output level: -10 dBV	
AUX OUT: Connector: ø3.5mm stereo mini-phone jack (unbalanced)	
Applicable load impedance: 10 kΩ or more	
Nominal output level: -10 dBV or -60 dBV (switchable)	
PHONES: Connectors : 1/4" stereo phone jack and ø3.5mm stereo mini-pho	one jack
Applicable load impedance: 80 or more	
LIMITER:	
Attack time: approx 5 msec. Release time: approx 200 msec.	
Threshold level: +6, +9 or +12dBu (FM-4) / +6 or +12dBu (FM-3) output	level
Ratio: 3:1 or 5:1 (level and ratio can be selected using the status mode)	
DC IN: XLR-4-32 type (male). Input voltage: DC10V to DC 24V	
	2V - 24

requercy response.	
LINE IN - MAIN OUT: 20Hz to 20kHz +/- 1dB (reference level)	
MIC IN - MAIN OUT: 40Hz to 20kHz +/- 1dB (reference level)	
HEADPHONES (32Q load, 25mW output power): 20Hz to 20kHz +/- 3dB	
S/N ratio (A-weighted):	
LINE (INPUT GAIN: +4 dBu): 80dB or better	
MIC (INPUT GAIN: -70dBu: 55dB or better (equivalent input noise: -125 dBu)	
Total harmonic distortion:	

LINE: 0.1% or less at 1 kHz (Input Gain +4dBu) MIC: 0.1% or less at 1kHz (Input Gain -70dBu) Headphones residual noise: (PHONES level control at minimum) -72 dBV or less (A-weighted)

Crosstalk: -70 dB or less at 1kHz

#### FM-4 Only Specifications

HPF: 40Hz to 200Hz, -12dB/oct. The cutoff frequency is continuously sweepable. EQ: HI: 10kHz fixed, +/-12dB MID: 200-8kHz variable, +/-12dB

#### **Physical**

	•			
FM.	4	Ph	vs	ir

The Flysical	
External dimensions: 274 (W) x 57 (H) x 180 (D) mm (Including prot	rusions)
Weight: Approximately 1.5kg (not including the internal batteries)	
FM-3 Physical	
External dimensions: 210 (W) x 57 (H) x 156 (D) mm (Including prot	rusions)
Weight: Approximately 1.2kg (not including the internal batteries)	

Internal batteries: Eight AA batteries (alkaline: 12V, nickel hydride: 9.6V) Power requirement: DC7.2 to 12V External power supply: Optional AC adaptor (AD15C / AD15-4300)

FOStex

# Interfacing

# FM-4 & FM-3 Portable Audio

# Interface.

The easy to operate, rugged FM-4 is equipped with a balanced 4ch input and 2ch main output mixer featuring individual high quality, ultralow noise signal transformers, whilst the FM-3 is compact and rugged. It is equipped with a balanced 3ch input and 2ch main output mixer each featuring individual high quality signal transformers, plus it offers a wide variety of sub outputs.

FM-4

# **Optional Extras**

# **Carrying Cases**

The perfect protection for Fostex Portable Mixers

Bespoke padded carry cases are available for both FM-4 (model SC-FM4) and FM3 (SC-FM3) mixers. Each features velcro-taped side flaps on the both sides for easy cable access, front pockets, (handy for placing a wireless receiver, extra battery cases and/or microphones), vinyl window on the top flap for easy viewing of top panel controls, a name card holder on the front pocket, four plastic legs on the bottom and extra reinforcing sheets inside the back and bottom materials for additional protection.

# **EX-BP2** FM-3 and FM-4 Battery Case

The FM-3 and FM-4 uses an Internal 8 x AA batteries or DC10-24V external powering. It has more than 6 hours operation with alkaline batteries (phantom off).



3-2-35 Musashino, Akishima, Tokyo, Japan 196-0021 Tel: +81 (0)42-546-4974 Fax: +81 (0)42-546-9222

www.fostex.jp

E FM-3

