



Superlux®

FMX22D

Portable Mixer

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Instruction Manual 02

使用手冊

FMX22D

Portable Mixer



Description

The FMX22D is a 2 channel studio grade microphone mixer designed for remote or field mixing in video, film, broadcast or professional recording applications. The compact and lightweight mixer boasts an impressive feature set starting with 2 transformer balanced XLR microphone inputs and stereo (L/R) XLR outputs. Separate stereo tape output and tape return input are provided, both feature 1/8" (3.5 mm) mini stereo jacks. The mixer supplies +15V and +48V phantom power and a 1/4" TRS phone/headphone monitor output allows monitoring of main and tape return inputs.

Both channels feature user switchable, two-stage limiting for control over signal overload and distortion. The low-cut filter removes low frequency noise caused by wind and proximity effect. Also provided is an internal test tone oscillator and slate microphone for signal calibration. The FMX22D is powered via 2 AA alkaline batteries or external DC power source.

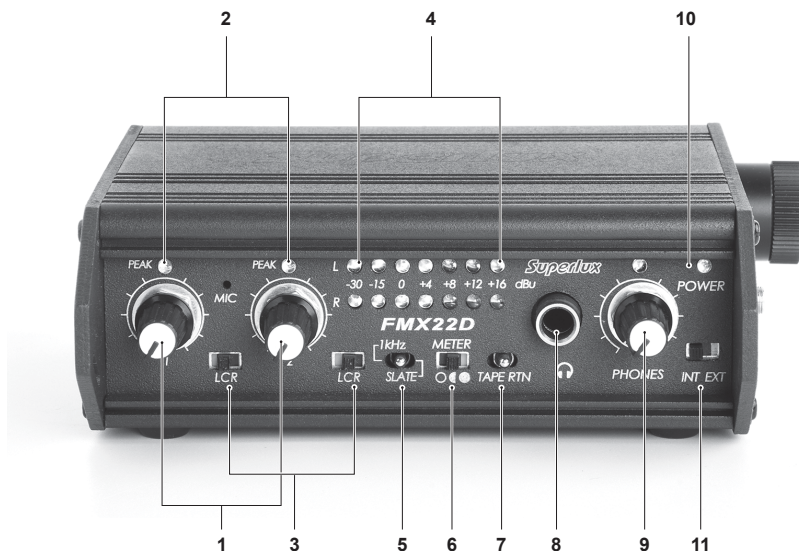
Features

- 2 full function microphone preamps with stereo link
- 48V or 15V phantom power supply
- Independent gain/level control for each input and L/C/R panning controls
- Dual 7-segment peak level LED meter with 3 stage brightness control
- Built-in 1 kHz tone generator plus slate microphone for sound file
- Balanced and unbalanced line level outputs for connecting with professional and prosumer recording devices
- Tape return monitor input with independent level alignments. A 3-position monitor switch with center position for normal monitoring, and left side to switch on tape return, while the right side is instant release for momentary tape return
- Powerful headphone output for professional headphone monitoring
- Operates with 2 AA batteries as well as external DC power
- Sturdy aluminum alloy case

Applications

- Field Recording
- Studio

Controls and Settings



1. CH 1 to CH 2 Gain setting

This controls the sensitivity of the input signal. The gain should be adjusted to a level that allows the maximum use of the audio, while still maintaining the quality of the feed.

2. PEAK / LIM Indicators

When this illuminates, it means the audio level is over the threshold setting and the limiter will prevent overload and distortion.

3. L / C / R PAN Setting

This switch will determine the assignment of each of the two input channels to either the left, right or both audio channels. (When set at the C position, the input signal will be sent to both output channels, placing the audio in the center.)

4. Level Meter

Two rows of LED level meters indicate levels for both the left and right audio channels. There is a setting to set the display to either high or low intensity for use outdoors or to save battery power.

5. Tone Oscillator/Slate Microphone Switch

Toggle switch activates a 1 kHz tone oscillator when switched to the left position and activates the slate microphone when in the right (momentary) position. Microphone inputs are muted when tone or slate are activated.

6. LEVEL METER Intensity Switch

This switch determines the brightness of the level meter LED display located on the front panel. Selectable for high visibility outdoors, mid and low is for conserving battery power.

7. TAPE RTN Monitoring

Toggle switch allows external audio to be monitored in the headphones. The center position is FMX22D program audio. The left and right positions monitor tape return audio; the left position is locking, and the right position is momentary.

8. HEADPHONE Jack

This 1/4" jack is for operator headphone monitoring. Always turn the headphone level control down before connecting or putting on headphones.

9. HEADPHONE Level Control

Please set to extreme left before you put on your headphones. Gradually turn the knob to an appropriate level. Always use at the lowest practical level to protect your hearing.

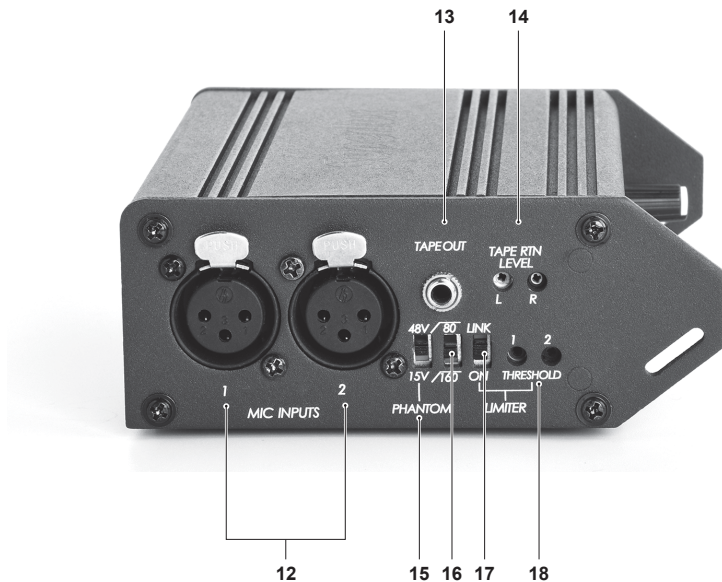
10. Headphone Level Peak Indicator

Illuminates 3 dB before clipping of either channel of the headphone circuit. Also illuminates 3 dB before clipping of either channel of Tape Return audio.

11. POWER INT/EXT

When set to INT position, power is from 2 AA batteries, or set to EXT position the power is from external power adapter.

Left Panel



12. MIC XLR Inputs

These 2 input channels incorporate transformer balanced audio inputs. There are mic gain setting and 15/48V phantom power on/off switches. When the input source does not need to use phantom power, please set to the off position.

These XLR connectors are wired as follows:

Pin 1: Ground (shield)

Pin 2: Hot (in phase)

Pin 3: Cold (out of phase)

Phantom power for these XLR connectors is wired in the following manner:

Pin 1: Ground

Pins 2 & 3: Carry 15 or 48 volts DC

13. TAPE OUT

3.5 mm TRS stereo output (unbalanced) can be used to feed consumer level DAT, Mini-Disc, and CD recorders.

Tip = left, ring = right, sleeve = ground.

14. TAPE RTN LEVEL

These gain controls allow you to adjust the best level for matching a variety of video cameras and other recording equipment for monitoring tape confidence heads.

15. Phantom Power

Three-position switch selects either 48-volt or 15-volt phantom power for both inputs. Center position turns phantom power off.

16. High-Pass Filter Switch

Three-position switch selects 80 Hz or 160 Hz corner frequency filters, 6 dB per octave. Filters affect both inputs. Center position of switch removes filters from the signal path.

17. Limiter Switch

Activates input peak limiter. ON position functions as a dual mono limiter, with each input signal controlling its own limiter. LINK functions as a stereo limiter, with both left and right inputs controlled simultaneously. Center position of switch turns limiter off.

18. Limiter Threshold Level Control

Recessed potentiometers adjust peak level of limiter activation. Can be independently controlled for each input.

Right Panel



19. Tape Return Input Connector

3.5 mm TRS stereo (unbalanced) connector allows external audio sources to be monitored in the FMX22D Headphone circuit.

Tip = left, ring =right, sleeve = ground

20. LINE OUTPUT

These two balanced XLR connectors will send out the master mix of each input. When feeding unbalanced out from these connectors, avoid grounding a signal pin.

21. Battery Compartment

Two AA batteries can be used in this battery compartment. Insert positive (+) end of batteries first.

22. External Power Socket

Accepts external DC power source (battery supply or AC to DC transformer) from 5–18 VDC.

23. Strap Ear

This allows you to put on a shoulder strap and still protect the front panel from damage.

Specifications

- **Inputs:** 2-XLR 3-pin female
- **Outputs:** 2-XLR 3-pin male
- **Monitor/ Headphone Out:** 1/4" (6.3 mm) TRS Phone output jack
- **ALT I/O Tape Out:** 1/8" (3.5 mm) unbalanced output jack
- **Tape RTN:** 1/8" (3.5 mm) unbalanced input jack
- **Input Impedance:** Transformer balanced, 2 k Ω
- **Output Impedance:** 120 Ω ; Tape: 2.4 k Ω
- **Gain Mic In to Line Out:** 66 dB
- **Mic In to Line Out:** 56 dB phantom power on
- **Mic In to Tape Out:** 56 dB
- **Mic In to Tape Out:** 46 dB phantom power on
- **Hum & Noise:** EIN -126 dBu min. (150 Ω source, flat weighted, 20-20 kHz bandwidth, gain control at 50%, phantom power off)
- **Frequency Response:** 20 Hz-30 kHz , +0.2dB , -0.5dB
- **THD:** 0.08% max
- **Phantom Power:** +15V & +48V
- **Power:**
2 AA alkaline batteries - 6 hours life typically (phantom off)
External 5-17 VDC via coaxial connector,(5.5 mm outer diameter, 2.1 mm inner diameter), pin positive, sleeve negative. Voltages above 17 VDC cause no damage to unit, but will open an internal poly fuse. Poly fuse will reset when voltage is removed.
- **Operating Temperature Range:** 00 C ~700 C(320F~1600F)
- **Dimensions (H $\times$ W $\times$ D):** 43 $\times$ 94 $\times$ 140 mm (1.69" $\times$ 3.7" $\times$ 5.51")
- **Net Weight:** 0.95 kg (2.1 lbs)
- **Optional Accessories:** 12V DC / 500mA power adapter

Operational Notes

- Remove the batteries from the battery compartment when the FMX22D is not in use. They will corrode and damage the battery box when unused for a long period of time.
- The FMX22D is capable of driving headphones to harmful sound pressure levels. Before you put on your headphones, please turn the volume control of headphone to the extreme left in the beginning, and then adjust to an appropriate level.

Important Safety Instructions

1. Read these instructions before operating this apparatus.
2. Keep these instructions for future reference.
3. Heed all warnings to ensure safe operation.
4. Follow all instructions provided in this document.
5. Do not use this apparatus near water or in locations where condensation may occur.
6. Clean only with dry cloth. Do not use aerosol or liquid cleaners. Unplug this apparatus before cleaning.
7. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifier) that produce heat
8. Protect the power cord from being walked on or pinched particularly at plug, convenience receptacles, and the point where they exit from the apparatus.
9. Only use attachments/accessories made by the manufacturer.
10. Unplug this apparatus during lightning storms or when unused for long periods of time.
11. Refer all servicing to authorized service personnel.

LIMITED WARRANTY

Superlux Enterprise warrants all materials and workmanship under use as instructed by the user's manual of this product for a period of one year from the original date of purchase. Warranty period might be different for each area. Please contact your local dealer for more information. If any defects are found in the materials or workmanship or if the product fails to function properly during the applicable warranty period, Superlux Enterprise, at its option, will repair or replace the product. This warranty applies only to equipment sold and delivered by Superlux Enterprise's authorized distributors or dealers. However, the following are not covered: Damage caused by accident, misuse, abuse, product modification or neglect; damage occurring during shipment; damage resulting from failure to follow instructions contained in your Instruction manual; damage resulting from the performance of repairs by someone not authorized by Superlux; claims based upon any misrepresentations by the seller; any Superlux product on which the serial number has been defaced, modified or removed. Service and repairs of Superlux products are to be performed only at a factory-authorized facility or authorized distributors or dealers. Unauthorized service, repairs, or modification will void this warranty. To obtain repairs under warranty, you must have a copy of your sales receipt from the authorized Superlux dealer where you purchased the product. It is necessary to establish purchase date and determine whether your Superlux product is within the warranty period. To obtain factory authorized service, please contact authorized distributors, dealers or mail to sales@superlux.com.tw.

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