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FMX-DSL R

2-Channel Portable Audio Mixer

OPERATING MANUAL

***Thank you for purchasing an Azden product.
Please read this manual thoroughly before using this
product.***

AZDEN CORPORATION

1-12-17 Kamirenjaku Mitaka-shi Tokyo 181-8533 Japan
Tel :+81(0)422-55-5115 Fax :+81(0)422-55-0131
E-mail :sales@azden.co.jp URL <http://www.azden.co.jp>

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Introduction

The Azden FMX-DSLR is a 2-channel portable mixer with built-in preamplifiers that will enable you to attach external microphones and other audio gear to any DSLR camera with a built-in mic jack.

The FMX-DLSR uses exceptionally low noise, wide bandwidth preamplifiers for superb audio. It allows you to connect a wide variety of audio devices including wireless systems, sound boards and professional condenser microphones that require 48V phantom power to operate.

The FMX-DSLR is equipped with the AGC On/Off switch that will allow you to control the wild swings of the Auto Gain Control (AGC) that plague most cameras. With the switch in off position, it will reduce noise during quiet moments of recording.

The mixer mounts to the bottom of the camera and can also be mounted to any standard tripod.

Before You Begin

1. These instructions refer to the use of this mixer with the DSLR cameras unless otherwise noted.
2. Always perform a few test recordings and check playback on the camera to be sure that the audio is captured as expected. Since there is no headphone jack on most cameras, you cannot monitor what is being recorded by the camera.
3. Please read and understand the use of the AGC On/Off feature before using this function.

Setup Guide

- 1) Install 4 “AA” batteries in the mixer (not included).
- 2) Mount the FMX-DLSR to the camera using the CAMERA MOUNTING BOLT (20). Line up the mounting bolt on top of the mixer to the tripod hole on the underside of the camera. Carefully turn the mounting bolt clockwise using a coin from the bottom panel of the mixer. Make sure the mixer is mounted squarely to the camera. Do not over tighten.
- 3) Connect the supplied mini-to-mini cable from the OUTPUT jack on the mixer (15) to the MIC input jack on the camera. If the MIC input jack on the camera is not 3.5mm mini-plug jack, source an appropriate cable that will allow the connection.
- 4) Set the MIC 1/LINE/MIC 2 SELECTOR (5) to either MIC 1 (XLR) or MIC 2 (mini plug) when connecting microphones or most wireless receivers, or to LINE when taking a line level feed.
- 5) Connect audio sources to the mixer.
- 6) Set the MONITOR SELECTOR (8) to OUTPUT to monitor the audio from the microphones during recording.
- 7) Set the GAIN switch(es) (6) to your preference. HI is the normal setting for most microphones. If you are using very sensitive condenser type microphones or recording very loud sounds, you may have to set the GAIN switch to LOW to prevent distortion.

Mode	Setting	Maximum Input Level	Maximum Gain	Input Impedance
LINE/AUX	LOW	+22dBu	-22dB	19kΩ/10kΩ
LINE/AUX	HI	+6dBu	-6dB	19kΩ/10kΩ
MIC 1/MIC 2	LOW	0dBu	0dB	2kΩ/2kΩ
MIC 1/MIC2	HI	-16dBu	+16dB	2kΩ/2kΩ

Specifications

Inputs

MIC 1/LINE:	Two balanced 3-pin XLR connectors
MIC 2:	3.5mm stereo jack
AUX:	3.5mm monaural jack
RTN:	Two RCA inputs for playback monitoring

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MIC 1/MIC2	HI	-16dBu	+16dB	2kΩ/2kΩ

Outputs

OUTPUT:	3.5mm stereo jack	+0dBu (at 2kΩ load)
PHONES:	3.5mm stereo jack	-3.5dBu (at 32Ω load)
Output Impedance:	56Ω	

Frequency Response

Main and Unbalanced Outputs:	20Hz - 30kHz (+0/-1dB)
PHONES Output:	50Hz - 20kHz (+0/-1dB)

Phantom Power

48V ±2V

Power Source

4 “AA” Alkaline batteries

Battery Duration

Approx. 15 hours with phantom power off

Dimensions

L105mm x W105mm x H44mm / L4 1/8” x W4 1/8” x H1.3/4”

Weight

470 g (16.6 oz) including the batteries

Using the AGC ON/OFF Feature

The Auto Gain Control (AGC) in the camera will vary the amount of gain depending upon the input signal level. During quiet moments, the AGC will increase the gain, which will also increase the amount of hiss from the camera preamplifiers. The AGC ON/OFF feature, when it is set to the OFF position, will trick the camera's AGC in order to disable the wild swings of the AGC. It activates an inaudible tone of 20kHz to the left channel that prevents the AGC from increasing the gain to its maximum level. This reduces the hiss that normally occurs when the camera is recording audio during quiet moments. This inaudible tone is recorded by the camera but can be easily filtered out if necessary. You can still use the left channel for recording normal audio at the same time that AGC switch is in the OFF position.

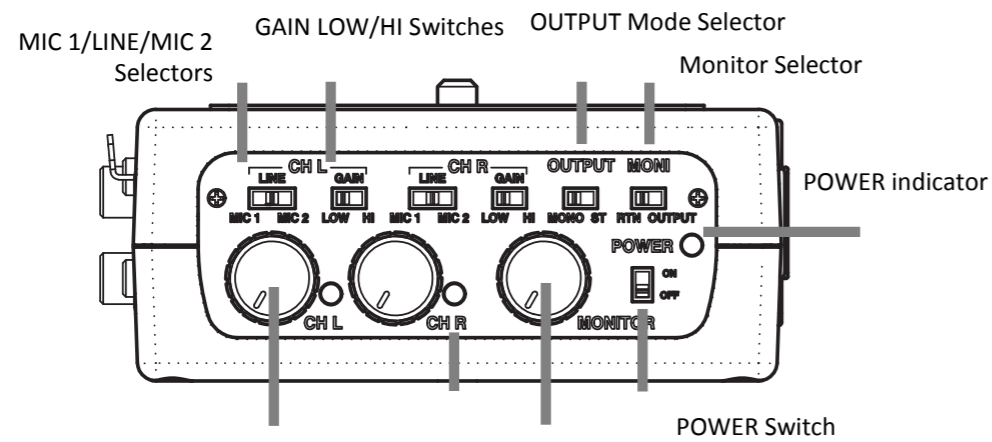
The camera's audio level meter may indicate some audio when there is no apparent sound with the AGC switch in the OFF position. This is because the audio level meter is sensing the 20kHz inaudible tone and you should not be concerned about.

You may also want to record audio only on the right channel and leave the left channel unused for the AGC control signal if this tone presents a problem. In this case, you should set the OUTPUT Mode Selector (7) to ST for stereo to keep the AGC signal separated from the record signal.

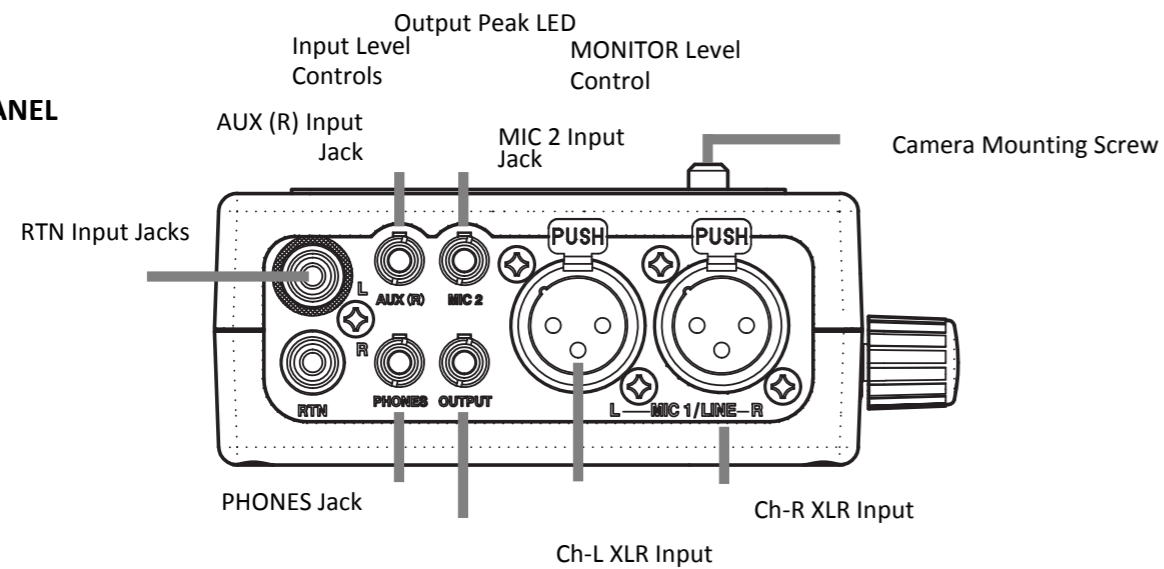
It is important that you do a test recording and play back the audio to see if it is acceptable.

- 8) Set the OUTPUT switch (7) to MONO when using one microphone. Set the unused channel level control (3) fully clockwise to disable it to prevent noise. When using two microphones, you should normally set the switch to ST for stereo to keep each channel separated.
- 9) Activate the 48V phantom power (19) for only those microphones that require phantom power to operate. **WARNING:** Do not activate phantom power for dynamic microphones, condenser microphones that do not operate on phantom power, wireless receivers, mixing boards or any unbalanced device as it may cause damage to both the mixer and connecting device.
- 10) Leave the AGC switch (18) in ON position for now. Before turning the switch to OFF position to disable AGC, please read "Using the AGC ON/OFF feature" in this manual for a detailed explanation on how this feature works.
- 11) Turn the POWER switch (1) on. The power LED (2) should light green.
- 12) Adjust the input level control (3) for each channel so that the output peak LED's (4) stay green. Decrease the levels if they turn red.
- 13) Plug your headphones into the PHONES jack (16) on the mixer and adjust the MONITOR level control (9) to a comfortable level. Be sure that you hear audio on both channels from the connected devices.
- 14) Do a test recording and playback to ensure that the captured audio is satisfactory.
- 15) To monitor the audio from the camera during playback, connect an AV cable with RCA plugs (not included but most likely came with the camera) to the corresponding RTN (Return) input jack (14) on the mixer. Attach the other end to the AV output of the camera. Set the MONITOR selector (8) to RTN and you will hear the sounds from the camera from the PHONES output.

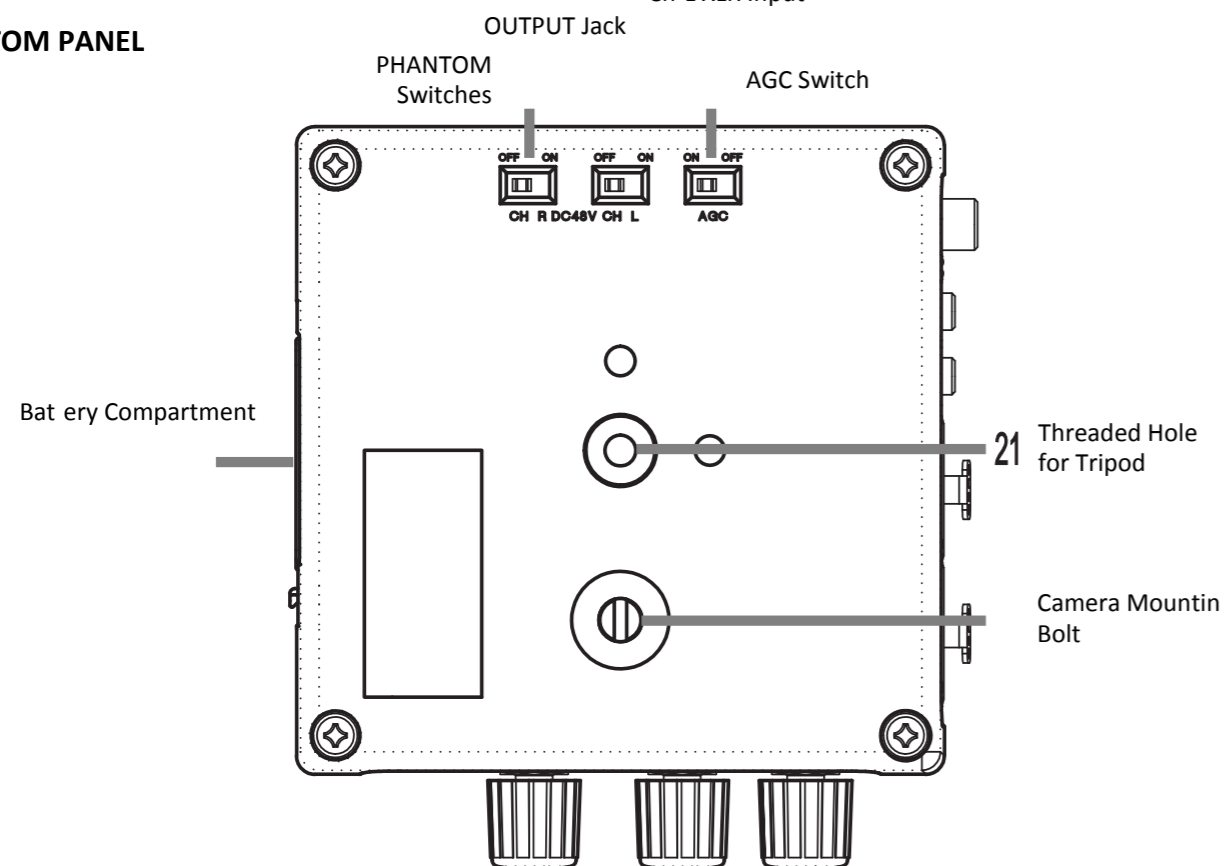
FRONT PANEL



LEFT-SIDE PANEL



BOTTOM PANEL



1 POWER Switch

2 **POWER Indicator LED:** Green indicates power on and good battery condition. Red indicates low battery voltage.

3 Ch-L, Ch-R Input Volume Level Controls

4 **Output Peak Indicator LED:** When the output volume level is too high and the sound is distorted, the LED will light in RED. Reduce the volume level by turning the Input Volume Level Controls 3 counterclockwise.

5 **MIC 1/LINE/MIC 2 Selectors:** Selects microphone or line level input on each channel.

6 **GAIN LOW/Hi Switches:** Change the gain level of each channel. Refer to the specifications for the actual gain level of LOW/Hi for each input mode.

7 **OUTPUT Mode Selector:** Selects the output mode between mono and stereo.

8 **Monitor Selector:** Selects headphone monitoring from either the microphones during recording (OUTPUT) or playback audio from the camera (RTN).

9 **MONITOR Level Control:** Adjust the headphone volume level.

10 & 11 **Ch-R and Ch-L XLR Inputs:** Two balanced XLR inputs attached to microphones or other audio gear such as wireless systems or sound boards.

12 **MIC 2 Stereo Input:** 3.5mm mini-plug jack that, when a stereo microphone is connected, will distribute the sound to the both L & R channels. When a monaural microphone is connected, the sound will be sent to Ch-L. Provides 3.5V input power.

13 **AUX (R) Input:** Unbalanced 3.5mm mini-plug jack for connecting to a wireless receiver or other device that has a mini-plug output cable. The sound will be sent to Ch-R. This input cannot be used simultaneously with the Ch-R XLR input (10).

14 **RTN Inputs:** RCA jacks for connecting AV cable to the camera to monitor the audio during playback.

15 **OUTPUT Jack:** Unbalanced 3.5mm mini-plug jack for connecting to the camera. MIC level output.

16 **PHONES jack:** Headphone jack to monitor the audio from microphones or camera.

17 Battery Compartment

18 **AGC ON/OFF Switch:** When turned OFF, disables the Audio Gain Control feature in the camera. Read "Using AGC ON/OFF Feature" in this manual before using this function.

19 **Phantom Switch:** Activates 48V phantom power.

20 Camera Mount Bolt

21 Thread Hole for Tripod