DIVIMATH

HDZero Monitor User Manual

Revision	Date	Description
1.0	May 23, 2024	Initial draft

For more product information, please visit:
www.hd-zero.com
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DIVIMATH

HDZERO™

Contents

Introduction

Experience seamless viewing of HDZero and Analog video feeds with the HDZero Monitor. Similar to the HDZero Event VRX that is widely used for major racing events, this monitor effortlessly detects the transmission type and displays the appropriate feed instantly. With instant power-on functionality and compatibility with a wide range of flight batteries (2s-6s voltage), you can dive into your FPV adventures without delay. The high-brightness anti-glare 800-nit screen ensures clear visibility even in outdoor settings.
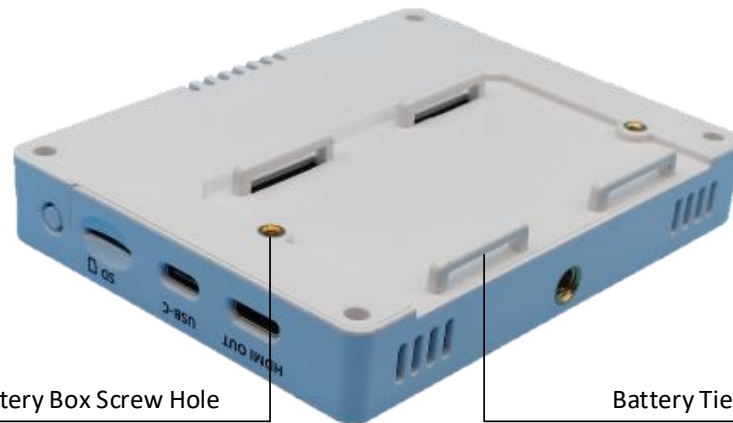
Share your FPV experience effortlessly with HDMI output and built-in DVR capabilities. Analog video is upscaled to 720p and de-interlaced for superior quality on both HDMI output and DVR recordings. Whether you're a seasoned FPV enthusiast in need of a reliable field monitor or a budget-conscious beginner, the HDZero Monitor is your perfect companion, delivering just what you need, quickly and easily.

Diagram

Control Button

DC In (6V-25V)

XT30 In (2S-6S)

Video In & Audio Out

Power Switch

1/4-20 Threaded Insert
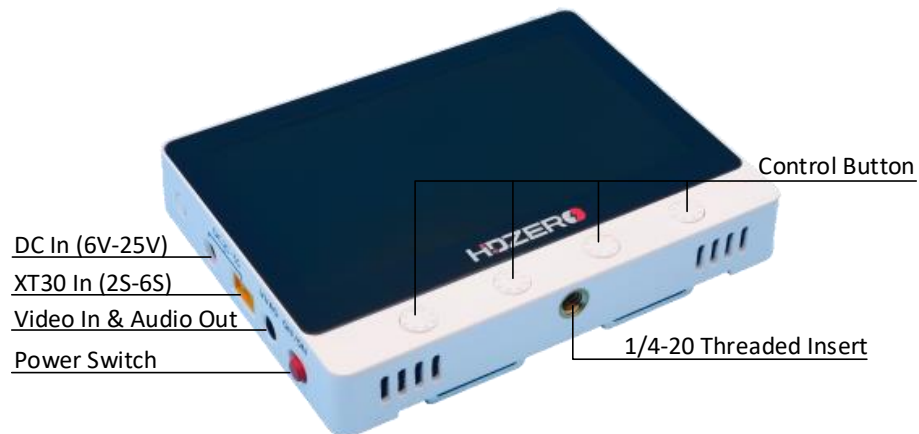
*When HDZero Monitor is connected to HDZero Programmer APP, Button will be disabled.

SD Card Slot

USB-C Interface

HDMI OUT Interface

Battery Box Screw Hole   Battery Tie Hole

*The product does not include the battery in the box. You can obtain 3D
CAD files and print it through the open source community.

HDZero & Analog Ant   HDZero Ant

Video in
Audio out
Ground

Features

- Instant boot-up – just flip the red slide switch similar to HDZero Goggle
- HDZero/Analog auto-switching (like Event VRX)
- Shared antennas for HDZero and Analog
- 4.3-inch high-brightness (800 nits) 720p LCD with anti-glare screen protector
- Deinterlaced/Up-scaled analog video with adaptive comb filter
- HDMI output for both HDZero and Analog
- Built-in DVR for HDZero and Analog including deinterlaced/up-scaled analog video
- Open-source CAD files, including additional battery case and sunshield to 3D print your own
- Open-source software so you can customize the monitor to fit your needs
- Supports CVBS input and Audio line output
- Type-C USB port for parameter adjustment and firmware updates
- 2S-6S XT30 or DC in with recoverable fuse and polarity protection
- Tripod mount with the 1/4-20 threaded insert on the bottom

Specification

- Input Voltage: 6-26V
- Power consumption: 9.0W
- Weight: 155g
- Dimension: 114x88x18mm

Included Accessories

- 1x HDZero Monitor
- 2x Lipo Strap
- 1x Anti-glare screen protector

Power

HDZero Monitor provides two different power supply interfaces: DC(5.5mm*2.0mm) and XT30. And built-in polarity protection.

The voltage range input is 2S-6S(6-25V). Power consumption is approximately 9.0 watts when receiving HDZero video and recording.

HDZero Monitor will automatically identify cell counts based on voltage when powered on, and will alarm when the cell voltage is lower than 2.8v(flashing OSD voltage display).

You can also manually set cell counts and warning cell voltage in the HDZero Programmer App.

Firmware Update

Before updating the firmware, make sure you have downloaded the latest HDZero programmer.

You can download it from the website https://www.hd-zero.com/document
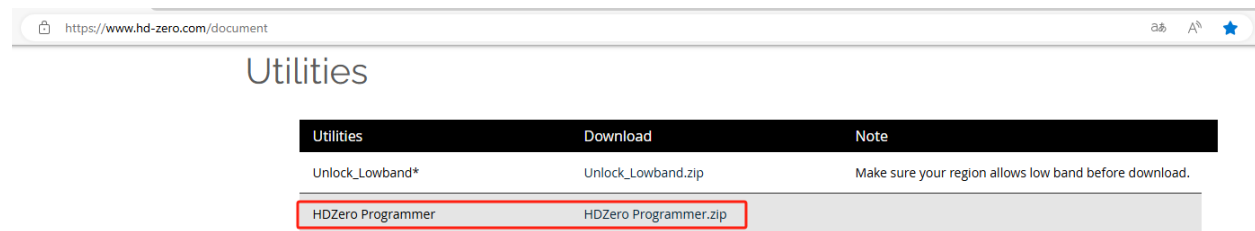
- Open HDZeroProgrammer.exe and switch to Monitor Tab.
- Click **Load Online Firmware** and select the latest version, Then Click **Flash Monitor**.
- Power on the hdzero monitor and connect it to the PC through a USB cable with a type-c interface.
- The firmware will be downloaded and updated automatically. Do not disconnect the monitor power supply or USB cable before the update is completed.
- Re-power hdzero monitor after the update is completed.

Band & Channel

HDZero Monitor does not have a scanning function, you need to set Band & Channel manually.
Band and channel are set separately, which means you can switch to the channel you want faster.
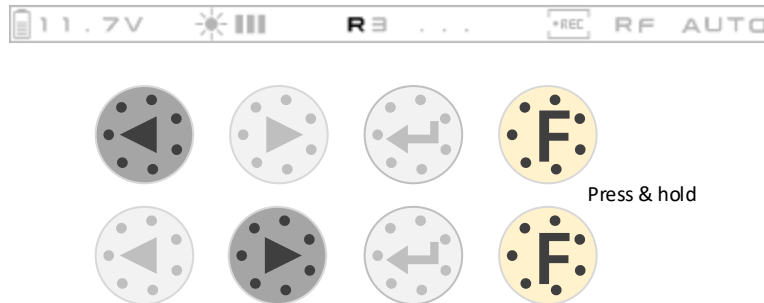For HDZero, following channels are supported:
- E1
- F1, F2, F4
- R1 - R8
- L1 - L8
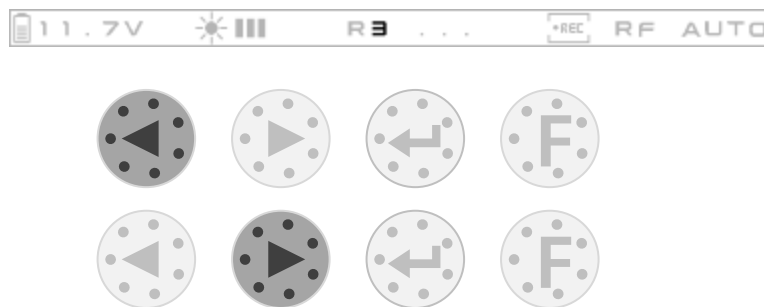
For Analog, following channels are supported:
- A1 - A8
- B1 - B8

- E1 - E8
- F1 - F8
- R1 - R8
- L1 - L8

To Change Channel

Press & hold

To Change Band

Sources

HDZero Monitor supports two signal sources: RF In and Line In.

For RF In:

- HDZero Monitor will automatically switch between RF Analog and RF HDZero until the rf signal is locked.
- When the RF analog signal is locked, NTSC/PAL will be automatically detected.
- When the RF analog signal is locked, the VI/AO interface will output the audio from Analog RF.

For Line In:

- When the line in signal is locked, NTSC/PAL will be automatically detected.

To Change Source
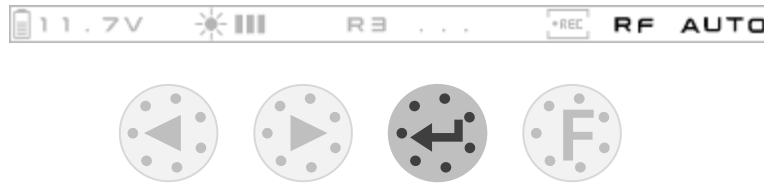
Recording

Insert the SD card into the slot before recording video. The recommended SD card specifications are as follows:

- 8GB-32GB
- FAT32, unit size is 4096 Bytes

After the SD card is correctly recognized, the SD card OSD located in the upper right corner of the screen will be hidden.

When a valid signal is locked, recording will start automatically. When the signal is lost, recording will automatically stop.

You can also manually control the start and stop of recording at any time by the button.
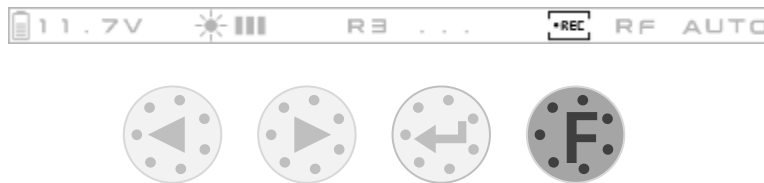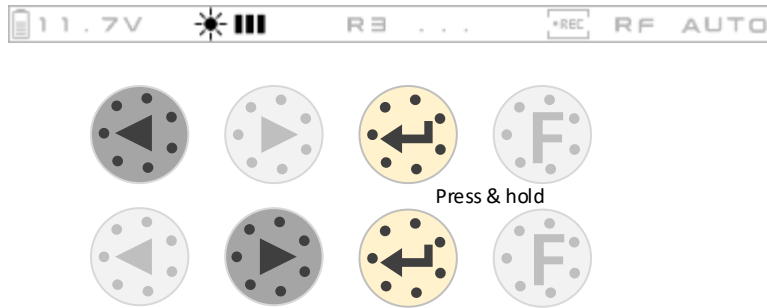
To Start/Stop Record

Image settings

The following image settings can be set via the HDZero Programmer App:

- Brightness
- Contrast
- Saturation
- Backlight

Backlight also supports quick adjustments using Buttons.

To Change Backlight

Press & hold

OSD

You can enable/disable the FC OSD display. You need to set it via the HDZero Programmer App.

CAD Model

You can download the CAD file from https://github.com/hd-zero/hdzero-tooling, You can print the battery box or sunshield nased on the 3D model.