AIDA HD-100A

AIDA HD-100A Compact Full HD HDMI POV Camera User Manual

Model: HD-100A

1. Product Overview

The AIDA HD-100A is a compact Full HD HDMI Point-of-View (POV) camera designed for various professional applications. It features a TRS Stereo Audio Input and supports multiple HD formats, making it versatile for different production environments. Its small form factor allows for discreet placement and flexible mounting options.

Figure 1: Front view of the AIDA HD-100A camera, showcasing its compact design and integrated lens.

Key Features:

- Full HD Progressive Scan sensor for sharp and vivid color capture in various lighting conditions.
- Advanced digital image processor with WDR (Wide Dynamic Range), White Balance, and Noise Reduction for detailed images.
- Motion-compensated temporal noise reduction filter for effective noise reduction without motion blur.
- Seamless HDMI video performance.
- Compact design for versatile placement.
- TRS Stereo Audio Input for external audio integration.

2. Package Contents

Verify that all items are present in the package:

- AIDA HD-100A Compact Full HD HDMI POV Camera
- 4mm Megapixel Lens (Pre-Installed)
- I/O Breakout Cable
- DC 12V Power Supply
- International Socket Adapters
- Sensor Cap
- C-Mount Lens Adapter

3. Setup Guide

3.1. Connecting the Camera

The HD-100A utilizes an I/O breakout cable for power, audio, and control. Carefully connect this cable to the camera's multi-pin port.

Figure 2: Rear view of the AIDA HD-100A camera, illustrating the various connection ports including I/O, HDMI, Power, and SVC.

1. **Power Connection:** Connect the DC 12V power supply to the designated power input on the I/O breakout cable. Use the appropriate international socket adapter if necessary.
2. **HDMI Output:** Connect an HDMI cable from the camera's HDMI port to your display, video switcher, or recording device.
3. **Audio Input:** If using external audio, connect your TRS stereo audio source to the 3.5mm audio jack on the I/O breakout cable.
4. **OSD Control:** The I/O breakout cable includes an inline On-Screen Display (OSD) controller with a mini-joystick. This is used for navigating the camera's menu and adjusting settings.
5. **RS-485 Control (Optional):** For remote control via RS-485, connect your control device to the RS-485 terminal jack on the breakout cable.

Important Safety Note: Exercise extreme caution when connecting the power supply to the I/O breakout cable. The 12V power jack and the audio jack are similar in size and located close to each other. Connecting the 12V power line to the audio jack can cause immediate and irreversible damage to the camera. Always double-check connections before applying power.

3.2. Lens Installation (if applicable)

The HD-100A typically comes with a 4mm Megapixel Lens pre-installed. If you need to change the lens or install a C-mount lens:

1. Ensure the camera is powered off.
2. Carefully unscrew the existing lens or protective cap.
3. If using a C-mount lens, attach the provided C-Mount Lens Adapter first, then screw in the C-mount lens.
4. Screw in the new lens gently until secure. Avoid overtightening.
5. Replace the sensor cap when the camera is not in use to protect the sensor.

4. Operating Instructions

4.1. Powering On and Initial View

Once all connections are secure, apply power to the camera. The camera will automatically output video via the HDMI port. Ensure your display or recording device is set to the correct HDMI input.

4.2. Using the OSD Menu

The inline OSD controller allows you to access and adjust various camera settings. Press the joystick button to enter the main menu. Use the joystick to navigate through options and change values.

- **Navigation:** Push the joystick up/down/left/right to move the cursor.
- **Selection:** Press the joystick button to select an option or confirm a setting.
- **Exit:** Navigate to "Exit" or press the joystick button repeatedly to go back through menus and exit the OSD.

4.3. Common Settings Adjustments

Within the OSD menu, you can adjust settings such as:

- **Resolution/Frame Rate:** Select your desired output resolution (e.g., 1080p, 720p) and frame rate.
- **White Balance:** Adjust for accurate color reproduction under different lighting conditions (Auto, Manual, Indoor, Outdoor).
- **Exposure:** Control brightness, including Shutter Speed, Gain, and Brightness.
- **WDR (Wide Dynamic Range):** Enable or disable WDR to improve image quality in scenes with both very bright and very dark areas.
- **Noise Reduction:** Adjust the level of noise reduction to reduce graininess in low-light conditions.
- **Image Adjustments:** Fine-tune settings like Sharpness, Contrast, and Saturation.
- **Audio Settings:** Adjust audio input levels if using the TRS stereo audio input.

5. Maintenance

5.1. Cleaning the Camera

- **Camera Body:** Use a soft, dry cloth to wipe the camera body. Do not use harsh chemicals or abrasive cleaners.
- **Lens:** For the lens, use a specialized lens cleaning cloth and lens cleaning solution. Gently wipe in a

circular motion from the center outwards. Avoid touching the lens surface with your fingers.

- **Sensor:** The camera sensor is delicate. If cleaning is required, it is recommended to use a professional camera cleaning service or a specialized sensor cleaning kit with extreme care.

5.2. Storage

When not in use, store the camera in a cool, dry place away from direct sunlight and excessive dust. Always attach the sensor cap to protect the lens and sensor.

6. Troubleshooting

Common Issues and Solutions:

Problem	Possible Cause	Solution
No video output / Black screen	No power to camera. HDMI cable loose or faulty. Incorrect input selected on display.	Ensure power supply is connected and functional. Check HDMI cable connections; try a different cable. Verify display input.
Poor image quality / Blurry image	Lens out of focus. Dirty lens. Incorrect OSD settings (e.g., low sharpness).	Adjust lens focus ring. Clean the lens carefully. Access OSD menu to adjust sharpness, exposure, and other image settings.
No audio input	Audio cable loose or faulty. Incorrect audio settings in OSD.	Check 3.5mm audio cable connection. Verify audio input levels and settings in the OSD menu.
Camera not responding to OSD controller	Breakout cable not fully connected. Faulty OSD controller.	Ensure the multi-pin connector of the breakout cable is securely attached to the camera. Contact support if the controller is unresponsive.

Critical Warning: As noted in the setup section, ensure the 12V power connector is never inserted into the 3.5mm audio jack on the I/O breakout cable. This will cause irreparable damage to the camera. Always verify the correct port before connecting power.

7. Specifications

Attribute	Detail
Model Number	HD-100A
Brand	AIDA
Product Dimensions	12 x 11 x 2 inches
Item Weight	14.4 ounces

Attribute	Detail
Photo Sensor Technology	CMOS
Video Capture Resolution	720p (supports Full HD output)
Maximum Focal Length	4 Millimeters
Maximum Aperture	2.5 f
Connectivity Technology	HDMI
Color	Black

8. Warranty and Support

For information regarding warranty coverage, technical support, or service, please refer to the official AIDA website or contact their customer service directly. Warranty terms and conditions may vary by region and retailer.

Official AIDA Store: AIDA Store on Amazon

Note on Official Product Videos: No official product videos from the seller were available for inclusion in this manual.