Sony ILME-FR7

Sony FR7 Cinema Line Full-Frame PTZ Robotic Camera

Model: ILME-FR7 User Manual

This manual provides essential information for the safe and effective use of your Sony FR7 camera.

1. Introduction

Thank you for purchasing the Sony FR7 Cinema Line Full-Frame PTZ Robotic Camera. This camera is designed to combine lens interchangeability, a full-frame image sensor, and pan/tilt/zoom (PTZ) functionality, offering unprecedented creative potential for various production environments. It features a back-illuminated Exmor R image sensor with 10.3 effective megapixels and a BIONZ XR processor for superb image quality. This manual will guide you through the setup, operation, and maintenance of your new camera.

2. Safety Information

WARNING: To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.

- **Power Supply:** Use only the specified power adapter. Ensure the power source voltage matches the camera's requirements.
- **Placement:** Do not place the camera in direct sunlight, near heat sources, or in environments with extreme temperatures, humidity, or dust. Ensure stable placement to prevent falls.
- **Handling:** Avoid strong impacts or vibrations. Do not attempt to disassemble or modify the camera. Refer all servicing to qualified personnel.
- **Ventilation:** Do not block ventilation openings. Ensure adequate airflow around the camera to prevent overheating.
- **Cleaning:** Disconnect the power before cleaning. Use a soft, dry cloth. Avoid liquid cleaners or solvents.

3. Package Contents

Verify that all items are present in your package:

- Sony FR7 Cinema Line Full-Frame PTZ Robotic Camera (ILME-FR7)
- Power Adapter

- Power Cord
- Operating Guide (this document)
- Warranty Card
- Other accessories (may vary by region)

4. Product Overview

The Sony FR7 is a versatile PTZ camera designed for professional cinema applications. It features a robust build and comprehensive connectivity.



Figure 4.1: Front View. This image displays the front of the Sony FR7 camera, highlighting the E-mount for interchangeable lenses and the 'Full-Frame' designation.



Figure 4.2: Rear View. The rear view of the Sony FR7 camera, illustrating the comprehensive connectivity options including LAN, SDI OUT, HDMI, AUDIO IN, and power input.



Figure 4.3: Side View. A side profile of the Sony FR7 Cinema Line camera, showcasing its compact design and the 'Cinema Line FR7' label.

5. Setup

Follow these steps to set up your Sony FR7 camera:

1. **Mounting the Camera:** Securely mount the camera on a stable surface or compatible rigging using appropriate mounting hardware. Ensure the camera is level and balanced.
2. **Attaching a Lens:** Remove the body cap from the camera and the rear cap from your E-mount lens. Align the white index marks on the lens and camera, then insert the lens into the camera mount and rotate it clockwise until it clicks into place.
3. **Connecting Power:** Connect the supplied power adapter to the camera's 19.5V DC input. Plug the power cord into an AC outlet. The camera will power on automatically or can be powered on using the power button.
4. **Network Connection:** For remote control and IP streaming, connect an Ethernet cable to the LAN port on the camera. Configure network settings via the camera's menu or a connected control panel.
5. **Video Output:** Connect your monitor or recording device to the SDI OUT or HDMI ports as required.
6. **Audio Input:** Connect external microphones or audio sources to the AUDIO IN ports (XLR 3-pin type) if needed.

6. Operating Instructions

The Sony FR7 offers advanced controls for capturing high-quality footage.

- **Pan/Tilt/Zoom (PTZ) Control:** The camera's robotic base allows for precise remote control of pan, tilt, and zoom movements. These functions are typically controlled via a dedicated PTZ controller or software interface connected to the camera's network port.
- **Lens Control:** Depending on the attached E-mount lens, focus, iris, and zoom can be controlled electronically.

The camera supports a wide range of E-mount lenses, including G Master series, offering focal lengths from 12 mm to 1200 mm.

- **Image Sensor and Processor:** The 10.3 MP back-illuminated Exmor R image sensor and BIONZ XR processor deliver exceptional image quality, high sensitivity up to ISO 409,600, and a 15+ stop dynamic range.
- **Autofocus (AF):** Utilize the Fast Hybrid AF system with 627 phase-detection AF points for accurate and rapid focusing. Real-time Eye-AF is also available for precise tracking of subjects.
- **Recording:** The camera supports in-camera slow and quick motion recording. Refer to the on-screen menu for detailed recording settings and formats.
- **Camera Presets:** Up to 100 camera presets can be stored, allowing for quick recall of specific pan, tilt, zoom, and focus positions.
- **Custom and Cine EI Modes:** The FR7 provides Custom and Cine EI modes to match various production workflows and ensure consistency with other Cinema Line cameras.

7. Maintenance

Proper maintenance ensures the longevity and optimal performance of your camera.

- **Cleaning the Camera Body:** Use a soft, dry cloth to wipe the camera body. For stubborn dirt, slightly dampen the cloth with water or a mild detergent, then wipe dry. Avoid harsh chemicals.
- **Lens Care:** Use a lens blower to remove dust from the lens surface. For smudges, use a specialized lens cleaning solution and a microfiber cloth. Never touch the lens surface with your fingers.
- **Sensor Cleaning:** The image sensor is a delicate component. If dust or smudges appear on images, consult a qualified service technician for sensor cleaning. Do not attempt to clean the sensor yourself unless you are experienced with such procedures.
- **Storage:** When not in use for extended periods, store the camera in a cool, dry place away from direct sunlight and extreme temperatures. Use a desiccant to prevent mold and mildew in humid environments.
- **Firmware Updates:** Periodically check the Sony support website for firmware updates to ensure your camera has the latest features and performance enhancements.

8. Troubleshooting

If you encounter issues with your Sony FR7 camera, refer to the following common problems and solutions:

Problem	Possible Cause / Solution
Camera does not power on.	Ensure the power adapter is securely connected to both the camera and a working AC outlet. Check the power cord for damage.
No image on monitor.	Verify that the video output cable (SDI or HDMI) is correctly connected to both the camera and the monitor. Check the monitor's input selection. Ensure a lens is attached and the lens cap is removed.
PTZ functions are unresponsive.	Check the network connection between the camera and the PTZ controller. Ensure the controller is properly configured and communicating with the camera. Restart both devices.
Autofocus is not working correctly.	Ensure the lens is set to autofocus mode. Check lighting conditions; extreme low light can affect AF performance. Clean the lens contacts.

Problem	Possible Cause / Solution
Poor audio quality.	Verify microphone connections and settings. Check audio input levels on the camera. Ensure external microphones are powered if required.

If the problem persists after trying these solutions, please contact Sony customer support.

9. Specifications

Feature	Description
Model Number	ILME-FR7
Image Sensor	10.3 MP back-illuminated Exmor R (Full-Frame)
Processor	BIONZ XR
Lens Mount	Sony E-mount
Sensitivity	Up to ISO 409,600
Dynamic Range	15+ stops
Autofocus	Fast Hybrid AF with 627 phase-detection AF points, Real-time Eye-AF
PTZ Mechanism	Remote-controlled pan/tilt/zoom
Camera Presets	Up to 100
Connectivity	LAN, SDI OUT, HDMI, AUDIO IN, TC IN, GENLOCK, OPTICAL
Product Dimensions	8.94 x 11.3 x 9.17 inches
Item Weight	12 pounds

10. Warranty and Support

Warranty Information: This product is covered by a limited warranty provided by Sony. Please refer to the warranty card included in your package for specific terms, conditions, and duration of coverage. Keep your proof of purchase for warranty claims.

Customer Support: For technical assistance, troubleshooting beyond this manual, or service inquiries, please visit the official Sony support website or contact your local Sony customer service center. You can find contact details and additional resources at www.sony.com/electronics/support.

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Ask a question about this manual

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

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Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question