

## Pentax K-1 Mark II

# Pentax K-1 Mark II Full Frame DSLR Instruction Manual

Model: K-1 Mark II

## 1. INTRODUCTION

---

The Pentax K-1 Mark II is a flagship 35mm full-frame DSLR camera designed to deliver exceptional image quality with rich colors, subtle shades, beautiful bokeh, and a well-defined sense of depth. This camera features an advanced image-processing system, a 36MP AA filter-less sensor, and robust weather-resistant construction, making it suitable for demanding photographic situations.

Key features include:

- 36 MP AA filter-less shake reduction sensor with APS-C crop mode.
- Hand-Held Pixel Shift Resolution for superior images with increased color rendition and sharpness.
- Engine Accelerometer for reduced image noise, faster focusing, and increased image sharpness.
- Magnesium Alloy, weather-resistant body.
- Astro Tracer extended exposure mode for reduced star trails.

## 2. SETUP AND INITIAL PREPARATION

---

### 2.1. Unpacking the Camera

Carefully unpack all components from the box. Ensure all items listed below are present.

**What's in the Box:**

- Pentax K-1 Mark II Camera Body
- Rechargeable Lithium-ion Battery D-LI90
- Battery Charger D-BC90
- AC plug cord
- Strap O-ST162
- Body mount cap KII
- Eyecup FT
- Hot shoe cover FK
- Sync socket 2p cap

- Software (CD-ROM) S-SW162

## 2.2. Charging the Battery

Before first use, fully charge the D-LI90 battery using the provided D-BC90 charger and AC plug cord. Insert the battery into the charger, connect the charger to a power outlet, and wait for the charging indicator to signal completion.

## 2.3. Inserting the Battery and SD Cards

Open the battery compartment cover on the bottom of the camera and insert the charged battery. The K-1 Mark II supports dual SD card slots (SDXC compatible). Insert memory cards into the designated slots. Ensure they are inserted correctly until they click into place.

## 2.4. Attaching a Lens

Remove the body mount cap from the camera and the rear cap from your Pentax KAF3 compatible lens. Align the red or white index marks on the lens and camera body, then rotate the lens clockwise until it locks into place.

# 3. OPERATING THE CAMERA

---

## 3.1. Camera Controls and Display

Familiarize yourself with the camera's controls and the information displayed on the rear LCD monitor and top panel.



Figure 3.1: Rear view of the Pentax K-1 Mark II, showing the main LCD display with exposure settings (M 1/250, F1.4, ISO

400) and control buttons.



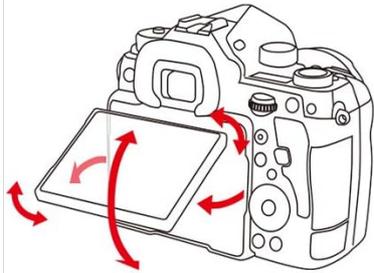
Figure 3.2: The Pentax K-1 Mark II with its flexible tilt-type LCD monitor extended, demonstrating its versatile viewing angles.

### 3.2. Flexible Tilt-Type LCD Monitor

The K-1 Mark II features an innovative flexible tilt-type LCD monitor that can be adjusted to various angles, including vertical tilt (approx. 44°), waist-level shooting (approx. 90°), and horizontal tilt (approx. 35°). This allows for comfortable shooting from diverse perspectives.

# PENTAX **K-1 II** Flexible Tilt-Type LCD monitor

Innovative mechanism to tilt the monitor to any desired angle along the optical axis



- Vertical tilt: approx. 44° (Waist-level shooting: approx. 90° )
- Horizontal tilt: approx. 35°



**Air Gapless LCD monitor**



Figure 3.3: Illustration of the flexible tilt-type LCD monitor, detailing its range of motion for various shooting positions.

### 3.3. Shooting Modes

The camera offers a variety of shooting modes to suit different photographic needs:

- **Program (P):** Automatic exposure with manual shift.
- **Shutter Priority (Tv):** Manually set shutter speed, camera sets aperture.
- **Aperture Priority (Av):** Manually set aperture, camera sets shutter speed.
- **Manual (M):** Manually set both shutter speed and aperture.
- **Sensitivity Priority (Sv):** Manually set ISO, camera sets shutter speed and aperture.
- **Bulb Mode:** Shutter remains open as long as the shutter button is pressed.
- **Time Mode:** Shutter opens with one press and closes with another.
- **Auto:** Fully automatic exposure control.

### 3.4. Image Stabilization (Shake Reduction II)

The K-1 Mark II incorporates an in-body 5-axis, 5-step Shake Reduction II mechanism. This system effectively compensates for camera shake across pitch, yaw, roll, and horizontal/vertical shifts, ensuring sharp images even in challenging conditions.

## In-body shake reduction mechanism

Effective compensation for all types of camera shake

**5 axis / 5 steps**

**1 2**

Pitch and Yaw

**3**

Roll

**4 5**

Horizontal and vertical shift



Figure 3.4: Visual representation of the 5-axis Shake Reduction II system, indicating the directions of compensation.

### 3.5. Pixel Shift Resolution System

This advanced feature captures four images of the same scene by shifting the image sensor by a single pixel for each image. It then composites them into a single, super-high-resolution image with enhanced color accuracy and sharpness, ideal for static subjects.

### 3.6. Astrophotography Features

The K-1 Mark II is well-suited for astrophotography, featuring a built-in GPS module and Astro Tracer extended exposure mode. This mode uses the camera's SR mechanism to track celestial bodies, allowing for longer exposures without star trails. It also includes a Night Vision LCD Display and Operation Assist Lights for dark environments.

# PENTAX *K-1 II* Top performer in astrophotography



HD PENTAX-D FA 15-30mmF2.8ED with ASTROTRACER

Built-in GPS module

ASTROTRACER



Night Vision LCD Display



**Operation Assist Light** - Supporting camera operations in the dark



Figure 3.5: Overview of astrophotography capabilities, showing the Astro Tracer, Night Vision LCD, and various operation assist lights for low-light use.

## 4. MAINTENANCE AND CARE

### 4.1. Weather-Resistant Construction

The Pentax K-1 Mark II features a highly dependable dustproof and weather-resistant construction. This design, combined with a weather-resistant lens, forms a completely environment-resistant imaging system, allowing for reliable operation in challenging outdoor conditions.

# PENTAX K-1 II



## Dependable dustproof, weather-resistant construction

A completely environment-resistant imaging system, with a weather-resistant lens.

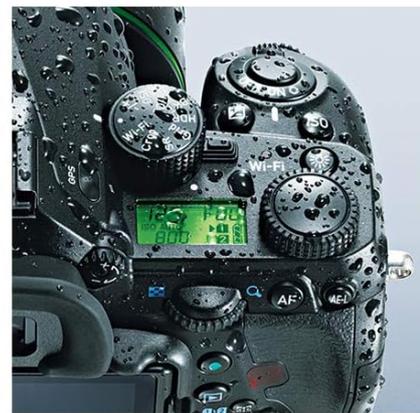


Figure 4.1: Cutaway view and external depiction of the K-1 Mark II's weather-resistant sealing, highlighting its robust construction.

### 4.2. Cleaning the Camera

- **Camera Body:** Use a soft, dry cloth to wipe the camera body. For stubborn dirt, slightly dampen the cloth with water. Avoid using organic solvents.
- **Lens:** Use a lens brush or blower to remove dust. For smudges, use a specialized lens cleaning solution and a microfiber cloth.
- **Image Sensor:** The camera has a sensor cleaning function. For persistent dust, consult a professional service center.
- **LCD Monitor:** Gently wipe with a soft, dry cloth. Avoid pressing hard on the screen.

### 4.3. Storage

When not in use for extended periods, remove the battery and store the camera in a cool, dry, well-ventilated place, away from direct sunlight and high humidity. Use desiccant packets if storing in humid environments.

## 5. TROUBLESHOOTING

---

This section addresses common issues you might encounter with your Pentax K-1 Mark II.

**Camera does not power on:**

Ensure the battery is fully charged and correctly inserted. Check if the battery contacts are clean.

**Images are blurry:**

Check focus settings (autofocus or manual focus). Ensure shutter speed is fast enough for the subject and focal length. Verify that the Shake Reduction system is enabled if needed. Clean the lens if smudges are present.

**Mode dial does not change settings:**

Ensure the mode dial lock is disengaged. If the dial turns but the mode does not change on the display, this may indicate a mechanical or electronic issue. Contact customer support for assistance.

**Memory card error:**

Ensure the memory card is inserted correctly. Try reformatting the card (this will erase all data). Test with a different, known-good memory card. If the issue persists, the card or camera slot may be faulty.

**Poor image quality in low light:**

Increase ISO sensitivity, but be aware of increased noise at very high ISOs. Use a wider aperture lens. Consider using a tripod and longer exposure times, especially with Astro Tracer for night sky photography.

## 6. SPECIFICATIONS

---

### Pentax K-1 Mark II Key Specifications

Feature	Detail
Model Name	Pentax K-1 Mark II
Photo Sensor Resolution	36.4 MP
Photo Sensor Size	Full Frame (35mm)
Image Stabilization	Dynamic (5-axis, 5-step in-body Shake Reduction II)
Compatible Mountings	Pentax KAF3
Screen Size	3.2 Inches
Display Type	Articulating LCD
Expanded ISO Range	100 - 819200
Maximum Shutter Speed	30 Seconds (for Bulb/Time modes)
Continuous Shooting	6.4 FPS
Autofocus Points	33 (25 cross-type)
File Format	JPEG, RAW (DNG)
Video Resolution	FHD 1080p
Connectivity	HDMI, USB, Wi-Fi

Feature	Detail
Memory Slots	2 (SDXC compatible)
Item Weight	2.2 Pounds (approx. 1 kg)
Special Features	Pixel Shift Resolution, Astro Tracer, GPS, Operation Assist Lights, Weather Resistant

## 7. WARRANTY AND SUPPORT

---

### 7.1. Warranty Information

The Pentax K-1 Mark II comes with a **1-year Parts and Labor warranty** from the date of purchase. Please retain your proof of purchase for warranty claims. This warranty covers manufacturing defects but typically excludes damage caused by misuse, accidents, or unauthorized repairs.

### 7.2. Customer Support

For technical assistance, service, or further inquiries, please visit the official Pentax support website or contact their customer service department. You can find more information and resources on the [Pentax Store on Amazon](#) or the manufacturer's official website.