Sigma 883101

Sigma 18-250mm f/3.5-6.3 DC MACRO OS HSM Lens Instruction Manual

For Canon Digital SLR Cameras

1. Introduction

This manual provides detailed instructions for the proper use and care of your Sigma 18-250mm f/3.5-6.3 DC MACRO OS HSM lens. Designed exclusively for Canon Digital SLR cameras, this high-performance, compact, and high-zoom ratio lens offers versatility for various photographic situations, from wide-angle to telephoto, including macro photography.

The lens incorporates Thermally Stable Composite (TSC) material in its barrel, which helps maintain structural integrity across varying temperatures. Its optimized optical and structural design contributes to a compact size and improved close-up capabilities.

2. Lens Components and Features

Familiarize yourself with the key components of your Sigma 18-250mm f/3.5-6.3 DC MACRO OS HSM lens.

Image 2.1: Front view of the Sigma 18-250mm f/3.5-6.3 DC MACRO OS HSM lens. This image displays the lens barrel with its textured zoom and focus rings, distance scale, and the AF/MF, OS, and LOCK switches clearly visible on the side.

Image 2.2: Angled view of the Sigma 18-250mm f/3.5-6.3 DC MACRO OS HSM lens. This perspective shows the lens from a slight angle, providing a clearer view of the lens mount at the base and the various control switches on the side of the barrel.

- **Zoom Ring:** Used to adjust the focal length from 18mm (wide-angle) to 250mm (telephoto).
- **Focus Ring:** Used for manual focusing.
- **AF/MF Switch:** Toggles between Autofocus and Manual Focus modes.
- **OS Switch:** Activates or deactivates the Optical Stabilizer function.
- **LOCK Switch:** Secures the lens at the 18mm position to prevent zoom creep during transport.

- **Distance Scale:** Indicates the focusing distance in meters and feet.

3. Setup

3.1 Mounting the Lens

1. Ensure your camera is turned off.
2. Align the mounting index mark on the lens barrel with the corresponding mark on your camera's lens mount.
3. Rotate the lens clockwise (for Canon EF mount) until it clicks into place. Do not force the lens.

3.2 Attaching the Lens Hood

The lens hood helps to block extraneous light, reducing flare and ghosting, and provides some physical protection to the front element.

Image 3.1: Detached lens hood for the Sigma 18-250mm lens. This image shows the petal-shaped lens hood, designed to attach to the front of the lens to reduce flare and protect the front element.

Image 3.2: Sigma 18-250mm lens with the lens hood attached. This image illustrates the lens with its hood securely mounted, demonstrating how it extends forward to shield the lens from stray light.

1. Align the lens hood with the front of the lens barrel.
2. Rotate the hood until it locks into place. Ensure it is securely attached and properly oriented.

4. Operating the Lens

4.1 Autofocus (AF) and Manual Focus (MF)

Use the AF/MF switch on the lens barrel to select your desired focusing mode.

- **AF (Autofocus):** For automatic focusing. The lens will focus automatically when the camera's shutter button is half-pressed.
- **MF (Manual Focus):** For manual focusing. Rotate the focus ring to adjust focus manually. Ensure the camera is also set to MF mode if applicable.

4.2 Optical Stabilizer (OS)

The Optical Stabilizer (OS) function helps reduce blur caused by camera shake, especially useful in low light or at longer focal lengths.

- Toggle the OS switch to **ON** to activate stabilization.
- Toggle the OS switch to **OFF** when using a tripod or when stabilization is not required.
- *Note:* Optical Stabilizer (OS) is not available for Sony and Pentax mounts of this lens. This specific model

is for Canon.

4.3 Zoom Operation

Rotate the zoom ring to change the focal length. The lens covers a wide range from 18mm to 250mm, making it suitable for various subjects.

- Rotate towards 18mm for wide-angle shots (e.g., landscapes).
- Rotate towards 250mm for telephoto shots (e.g., distant subjects, portraits).

4.4 Macro Photography

This lens offers enhanced close-up capabilities with a minimum focusing distance of 35cm (13.8 inches) throughout the entire zoom range and a maximum magnification ratio of 1:2.9. This allows for macro photography with approximately 1:2 magnification ratio in APS-C size equivalent.

- To achieve macro effects, zoom in on your subject and move closer until focus is achieved at the minimum focusing distance.
- The size and framing of subjects can be adjusted by rotating the zoom ring, offering flexibility similar to using a fixed focal macro lens.
- The maximum magnification ratio at each focusing distance is indicated on the side of the lens barrel.

4.5 Lens Lock Switch

The LOCK switch prevents the lens barrel from extending under its own weight (zoom creep) when carried or pointed downwards. Engage the lock when the lens is at its widest (18mm) position for transport.

5. Technical Explanations

5.1 MTF Chart (Modular Transfer Function)

MTF is a measurement used to evaluate a lens's performance, specifically its contrast and sharpness. The horizontal axis represents the distance from the center of the image towards the edges (in millimeters), and the vertical axis shows the contrast value (with 1 being the highest).

- **Contrast Ability (Red Lines):** Measured at 10 lines per millimeter.
- **Sharpness Ability (Green Lines):** Measured at 30 lines per millimeter, with the aperture wide open.
- **Sagittal (S) Lines:** Fine repeating line sets created parallel to a diagonal line from corner to corner of the frame.
- **Meridional (M) Lines:** Sets of repeating lines vertical to the sagittal lines.

5.2 Distortion

Distortion refers to the optical aberration that causes straight lines in a scene to appear curved in the image. The extent of distortion (D[%]) is calculated as (Y-Y0/Y0)x100, where Y is the actual image height and Y0 is the ideal image height.

- **Barrel Distortion (Minus Value):** The image appears expanded, with lines bowing outwards from the center.

- **Pincushion Distortion (Plus Value):** The image appears recessed, with lines bowing inwards towards the center.
- A distortion value close to 0 indicates minimal visible distortion.

5.3 Vignetting

Vignetting is the phenomenon where the corners of an image appear darker than the center. The horizontal axis of a vignetting chart shows the image height (distance from the center to the edge in millimeters), and the vertical axis shows the amount of light in the image (with the center being 100%).

- If the peripheral amount of light is lower than the center, the four corners of the image will be darker.

6. Specifications

Detailed technical specifications for the Sigma 18-250mm f/3.5-6.3 DC MACRO OS HSM lens (Model: 883101).

Image 6.1: Sigma 18-250mm lens held in a hand, illustrating its compact size. The image includes a measurement scale indicating a length of approximately 3.9 inches (10 cm), demonstrating its portability.

Feature	Detail
Lens Construction	16 Elements in 13 Groups
Angle of View (for SD1)	76.5 - 6.5 degrees
Number of Diaphragm Blades	7 Blades (Rounded diaphragm)
Minimum Aperture	F22
Minimum Focusing Distance	35cm / 13.8in.
Maximum Magnification	1:2.9
Filter Size Diameter	62mm
Dimensions (Diameter x Length)	73.5mm x 88.6mm / 2.9in. x 3.5in.
Weight	470g / 16.6oz. (1.04 pounds)
Focal Length Description	18-250 millimeters

Feature	Detail
Lens Type	Macro
Compatible Mountings	Canon EF-S
Item Model Number	883101
Manufacturer	Sigma Corporation of America
Date First Available	June 20, 2012

7. Maintenance and Care

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

- **Cleaning the Lens:** Use a soft, clean microfiber cloth specifically designed for optical lenses to gently wipe dust and smudges from the lens elements. For stubborn marks, use a lens cleaning solution applied to the cloth, not directly to the lens.
- **Cleaning the Lens Body:** Use a soft, dry cloth to wipe the lens barrel. Avoid using harsh chemicals or solvents.
- **Storage:** When not in use, store the lens with both front and rear caps attached in a cool, dry place away from direct sunlight and extreme temperatures. Consider using a dehumidifying cabinet if you live in a humid environment.
- **Avoid Impact:** Protect the lens from drops or strong impacts, which can damage internal components.
- **Moisture:** Avoid exposing the lens to rain, water splashes, or high humidity. If it gets wet, wipe it dry immediately.

8. Troubleshooting

If you encounter issues with your lens, consider the following common solutions:

- **Lens not focusing:**
  - Check if the AF/MF switch on the lens is set to AF.
  - Ensure your camera's focus mode is also set to autofocus.
  - Verify that the lens is securely mounted to the camera body.
  - Clean the electrical contacts on both the lens and camera body with a clean, dry cloth.
- **Images are blurry:**
  - Check if the OS (Optical Stabilizer) switch is ON, especially in low light or at longer focal lengths.
  - Ensure your shutter speed is appropriate for the lighting conditions and focal length to prevent motion blur.
  - Verify that the lens elements are clean.

- **Lens not zooming smoothly:**
  - Ensure the LOCK switch is disengaged.
  - Avoid forcing the zoom ring. If resistance persists, do not attempt to disassemble the lens.

If problems persist after attempting these solutions, please contact Sigma customer support or an authorized service center.

9. Warranty and Support

For information regarding your product's warranty, please refer to the warranty card included with your purchase or visit the official Sigma Corporation of America website. Sigma provides customer support and service for their products.
No official product videos were available for embedding in this manual.

Related Documents - 883101

	Sigma APO 50-150mm F2.8 EX DC OS HSM Lens Instruction Manual This manual provides detailed instructions for the Sigma APO 50-150mm F2.8 EX DC OS HSM lens, covering safety precautions, lens parts, operation (focusing, zooming, OS stabilization), compatibility with camera bodies and accessories like teleconverters and filters, basic care, and technical specifications.
	Univerzální Návod k Objektivům SIGMA: Funkce, Nastavení a Příslušenství Podrobný průvodce používáním objektivů SIGMA, včetně informací o ostření, stabilizaci obrazu (OS), nastavení expozice, kompatibilitě s telekonvertory a speciálním příslušenstvím.
	Sigma 100-400mm F5-6.3 DG OS HSM Lens Instruction Manual Detailed instructions for using the Sigma 100-400mm F5-6.3 DG OS HSM lens, covering its features, operation, care, and technical specifications. Includes information on Optical Stabilizer (OS), Custom Modes, Tele Converters, and more.
	Sigma 35mm f1.4 DG HSM Lens - User Manual and Specifications Comprehensive user manual and technical specifications for the Sigma 35mm f1.4 DG HSM camera lens, covering safety precautions, parts description, focusing, lens hood, filters, care, storage, and technical details.

	Disassemble Sigma 24-70mm F2.8 EX DG Macro Lens Zoom Bearing Guide A step-by-step guide on how to disassemble a Sigma 24-70mm F2.8 EX DG Macro lens to access and repair the zoom bearing, addressing autofocus issues. Includes tools required and safety precautions.
	Introduction to Bird Photography: Settings and Techniques A comprehensive guide to bird photography, covering essential camera settings, lens choices, and techniques for capturing stunning images of birds in various situations, including stationary and in-flight shots.

Documents - Sigma – 883101

Tarif de Base HT - Octobre 2020 - Rexel

Consultez le tarif de base HT d'octobre 2020 de Rexel, une liste complète de prix pour les produits électriques, de chauffage, de climatisation et numériques, couvrant de nombreuses marques.

lang:i-klingon score:10 filesize: 5.93 M page_count: 463 document date: 2020-10-07