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VILTROX 50mm F2.0 Full Frame

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Model: 50mm F2.0 Full Frame | Brand: VILTROX

INTRODUCTION

The VILTROX 50mm F2.0 Z-Mount Camera Lens is a compact, lightweight full-frame prime lens designed for Nikon Z-mount mirrorless cameras. It offers fast, quiet, and reliable autofocus, a versatile standard view for everyday shooting, high image quality, and a large F2.0 aperture for beautiful bokeh. This manual provides essential information for optimal use and care of your lens.

PACKAGE CONTENTS

Upon opening your VILTROX 50mm F2.0 Z-Mount Camera Lens package, you should find the following items:

- 1x VILTROX 50mm F2.0 Z-Mount Camera Lens
- 1x Lens Hood
- 1x Pouch Case
- 1x Front Lens Cap
- 1x Rear Lens Cap
- 1x Warranty Card

Package List:

50mm F2.0 Z Lens	x1
Lens Hood	x1
Pouch Case	x1
Front/Back Lens Cap	x1



Image: The VILTROX 50mm F2.0 Z-Mount Lens and its included accessories.

SETUP

Attaching the Lens

1. Remove the rear lens cap from the VILTROX 50mm F2.0 lens and the body cap from your Nikon Z-mount camera.
2. Align the red dot on the lens barrel with the corresponding mounting mark on your camera body.
3. Gently insert the lens into the camera's lens mount and rotate it clockwise until it clicks securely into place. Do not force the lens.

Detaching the Lens

1. Ensure the camera is powered off.
2. Press and hold the lens release button on your camera body.
3. Rotate the lens counter-clockwise until it detaches from the camera body.
4. Immediately attach the rear lens cap to the lens and the body cap to the camera to protect them from dust and damage.

From the center to the edges, the picture quality is still excellent

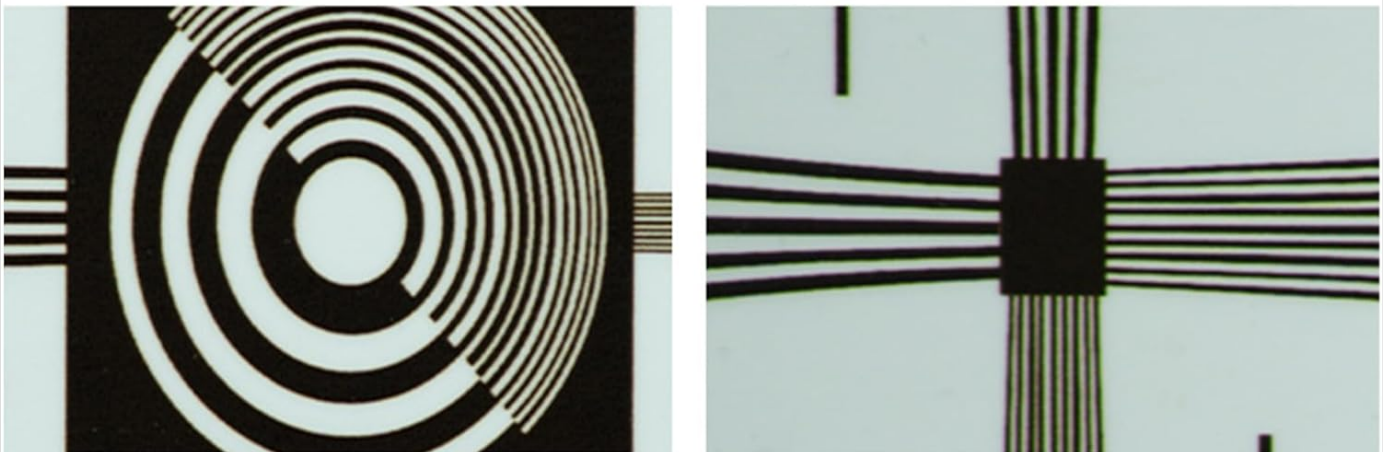


Image: The VILTROX 50mm F2.0 lens securely attached to a Nikon Z-mount camera.

Firmware Updates

The VILTROX 50mm F2.0 Z-Mount lens is equipped with a USB-C port for convenient firmware updates. Regularly checking for and installing the latest firmware ensures optimal performance, compatibility, and access to new features. Visit the official VILTROX website for the most current firmware and detailed update instructions.

OPERATING THE LENS

Autofocus (AF)

This lens features a fast, quiet, and reliable internal STM (Stepping Motor) for autofocus. It supports various AF modes available on your Nikon Z-mount camera, including AF-S (Single-servo AF), AF-C (Continuous-servo AF), AF-A (Auto-servo AF), and DMF (Direct Manual Focus). The lens also supports advanced subject recognition capabilities of compatible camera bodies.



Image: The STM motor provides smooth and continuous focusing action, ideal for video.

Manual Focus (MF)

To use manual focus, set your camera to MF mode. Rotate the focus ring on the lens to achieve desired sharpness. The internal focusing design ensures the lens length remains constant during focusing, contributing to stable handling.

Aperture Control

The large F2.0 maximum aperture allows for excellent performance in low-light conditions and enables the creation of images with a shallow depth of field. The 9-blade diaphragm contributes to a smooth and aesthetically pleasing background blur (bokeh).



Image: The F2.0 large aperture and 9 aperture blades contribute to beautiful bokeh.

Focal Length and Angle of View

With a 50mm focal length, this lens provides a 41.4° angle of view on full-frame cameras. This perspective closely mimics the natural field of vision of the human eye, making it highly versatile for portraits, street photography, and general everyday shooting.



Image: The compact and lightweight design (171g) makes the lens suitable for various uses, including vlogging.

Optical Design and Image Quality

The lens features an optical construction of 9 groups and 13 elements, including 3 ED (Extra-low Dispersion), 4 high-refractive (HR), and 1 aspherical (ASPH) lens. This design minimizes chromatic aberration, distortion, and color fringing, ensuring sharp images from the center to the edges with high clarity and contrast.



Image: Demonstrating consistent image quality from the center to the edges.



Image: Optical structure diagram of the VILTROX 50mm F2.0 lens.

MAINTENANCE

Cleaning the Lens

To maintain optimal image quality, keep your lens clean. Use a soft, lint-free microfiber cloth to gently wipe dust and smudges from the lens surfaces. For more stubborn marks, apply a small amount of lens cleaning solution specifically designed for optical elements onto the cloth, then gently wipe the lens. Avoid direct application of liquid to the lens surface. Never use abrasive materials or harsh chemicals.

Storage

When not in use, always attach the front and rear lens caps to protect the delicate optical elements from dust, scratches, and impacts. Store the lens in its pouch case in a cool, dry place, away from direct sunlight, high humidity, and extreme temperatures. Avoid storing the lens with mothballs or other chemicals that may emit volatile gases.

Dust and Water Resistance

The VILTROX 50mm F2.0 lens features a dust- and water-resistant coating, providing a degree of protection against light splashes and dust. However, this lens is not waterproof. Avoid exposing it to heavy rain, direct water spray, or submerging it in water. If the lens gets wet, wipe it dry immediately with a clean, soft cloth.

TROUBLESHOOTING

Autofocus Not Working or Inconsistent

- **Check Lens Mounting:** Ensure the lens is securely attached to the camera body. A loose connection can prevent proper communication.
- **Clean Contacts:** Power off the camera, remove the lens, and gently clean the electrical contacts on both the lens and camera body with a dry, lint-free cloth. Reattach the lens.
- **Camera Settings:** Verify that the camera's autofocus mode is correctly set for your shooting conditions (e.g., AF-S for still subjects, AF-C for moving subjects).
- **Lighting Conditions:** In very low light or with very low contrast subjects, autofocus may struggle. Try switching to manual focus or using an AF assist lamp if available.
- **Firmware Update:** Ensure both your camera and lens have the latest firmware installed. Firmware updates often include improvements to autofocus performance and compatibility.

Image Quality Issues (Softness, Aberrations)

- **Clean Lens Elements:** Dust or smudges on the front or rear elements can significantly degrade image quality. Clean the lens as described in the Maintenance section.
- **Correct Focus:** Ensure your subject is in sharp focus. If using autofocus, confirm the camera is focusing on the intended point.
- **Aperture Choice:** While F2.0 offers shallow depth of field, lenses often perform optimally (sharpest) when stopped down slightly (e.g., F2.8 or F4). Experiment with different apertures.
- **Camera Shake:** Use a faster shutter speed or a tripod to prevent blur from camera shake, especially in low light.

Lens Not Recognized by Camera

- **Re-mount Lens:** Power off the camera, remove the lens, and reattach it carefully, ensuring it clicks into place.
- **Clean Contacts:** As mentioned above, clean the electrical contacts on both the lens and camera.
- **Restart Camera:** Turn the camera off, remove the battery for a few seconds, then reinsert it and power on.
- **Firmware:** Ensure both camera and lens firmware are up to date.

SPECIFICATIONS

Feature	Description
Brand	VILTROX
Model Name	Viltrox AF 50mm F2.0 AIR
Focal Length	50 Millimeters
Lens Type	Standard Prime
Compatible Mountings	Nikon Z
Maximum Aperture	2 f
Minimum Aperture	16 f
Number of Diaphragm Blades	9
Focus Type	Auto Focus
Lens Design	Prime
Lens Coating Description	Nano Crystal Coating
Real Angle Of View	41.4 Degrees
Image Stabilization	No image stabilization
Water Resistance Level	Water Resistant

WARRANTY AND SUPPORT

Warranty Information

The VILTROX 50mm F2.0 Z-Mount Camera Lens is covered by a 1-year manufacturer's warranty. Please retain your proof of purchase and the included warranty card for any warranty claims. The warranty covers defects in materials and

workmanship under normal use.

Customer Support

For technical assistance, product inquiries, or to report any issues, please contact VILTROX customer support. You can find contact information and additional resources, including the latest firmware updates, on the official VILTROX website: www.viltrox.com.