

NiSi HUC PRO Nano IR ND64



NiSi HUC PRO Nano IR ND64 77mm Neutral Density Camera Lens Filter

Instruction Manual

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1. INTRODUCTION

This manual provides comprehensive instructions for the proper use and care of your NiSi HUC PRO Nano IR ND64 77mm Neutral Density Camera Lens Filter. Please read this manual thoroughly before using the product to ensure optimal performance and longevity.

2. PRODUCT OVERVIEW

The NiSi HUC PRO Nano IR ND64 filter is designed to reduce the amount of light entering your camera lens by 6 stops (1.8 density), allowing for longer exposure times and wider apertures in bright conditions. It features advanced optical glass with a nano coating and infrared reduction technology to maintain color neutrality and image clarity.

Key Features:

- **6-Stop Light Reduction:** Enables precise exposure control for creative effects like motion blur and enhanced depth of field.
- **Advanced Infrared Protection:** Eliminates unwanted red color casts, ensuring vivid and true-to-life colors.
- **Nano Waterproof Coating:** Resists scratches, water, and fingerprints, making it durable and easy to clean.
- **Slim, Stackable Aluminum Frame:** Features double-sided threading and knurled edges for easy installation and combination with other filters.
- **Optical Glass Construction:** Ensures high optical clarity and image quality.



Figure 2.1: NiSi HUC PRO Nano IR ND64 77mm Filter. This image shows the front view of the neutral density filter, highlighting its slim profile and clear optical glass.

3. SETUP

3.1 Checking Compatibility

Before attaching the filter, verify your camera lens's filter thread size. This is typically indicated by a 'ø' symbol followed by a number (e.g., ø77mm) on the front of your lens or inside the lens cap. This filter is designed for lenses with a 77mm filter thread.



Figure 3.1: Example of lens thread size marking. The 'Ø' symbol indicates the filter diameter required for the lens.

3.2 Attaching the Filter

1. Carefully remove the lens cap from your camera lens.
2. Align the NiSi ND64 filter with the filter threads on your lens.
3. Gently rotate the filter clockwise until it is securely fastened. Avoid overtightening.
4. To remove, rotate the filter counter-clockwise.

3.3 Stacking Filters (Optional)

The slim aluminum frame and double-sided threading allow for stacking with other filters (e.g., UV, CPL, or additional ND filters). Attach the NiSi ND64 filter first, then thread the additional filter onto the NiSi filter.



4. OPERATING INSTRUCTIONS

4.1 Understanding Neutral Density Filters

Neutral Density (ND) filters reduce the intensity of light uniformly, without affecting color. The ND64 filter reduces light by 6 stops, meaning it allows 1/64th of the light to pass through. This enables the use of slower shutter speeds or wider apertures than would otherwise be possible in bright conditions.

4.2 Applications

- **Long Exposure Photography:** Create motion blur effects in water (e.g., silky waterfalls, smooth seas) or clouds, and make moving objects disappear from busy scenes.
- **Wide Aperture in Bright Light:** Achieve shallow depth of field (bokeh) in bright conditions without overexposing the image.
- **Video Production:** Maintain cinematic shutter speeds (e.g., 1/50th or 1/60th second) in bright light while keeping the desired aperture.



Figure 4.1: Comparison of a scene without (left) and with (right) an ND filter, demonstrating the motion blur effect on water.

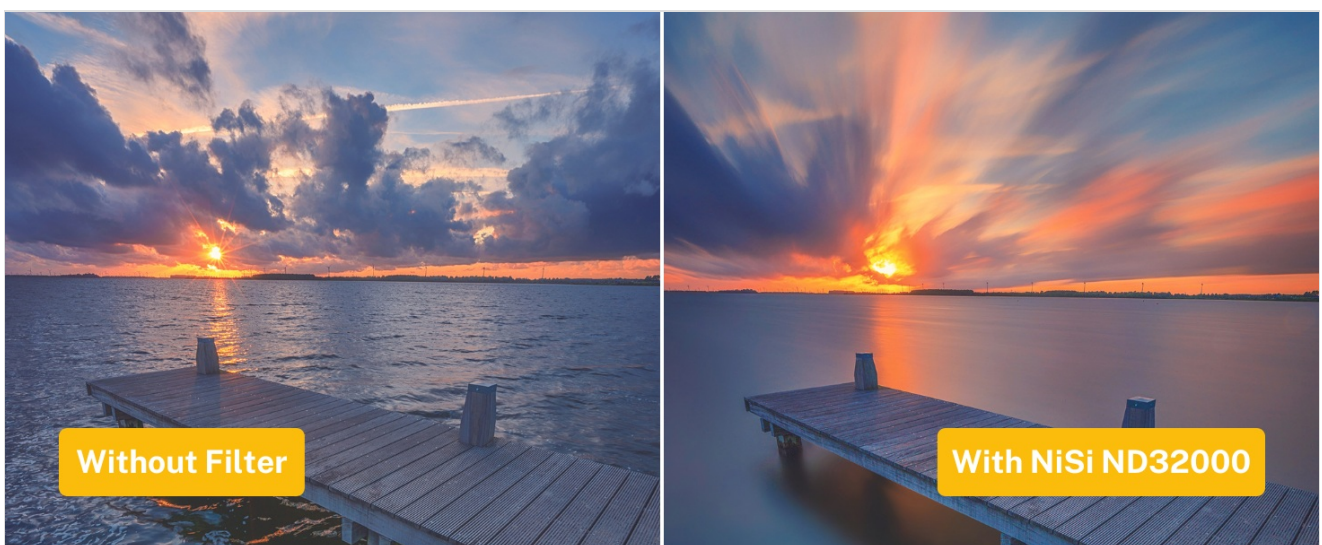


Figure 4.2: A landscape photograph utilizing an ND filter to smooth out water and clouds, creating a serene effect.

4.3 Exposure Calculation

When using an ND64 filter (6 stops), multiply your normal shutter speed by 64. For example, if your correct exposure without the filter is 1/2 second, with the ND64 filter, your new shutter speed will be $1/2 \times 64 = 32$ seconds.

Table 4.1: ND64 Exposure Conversion Chart

Normal Shutter Speed	ND64 (6 Stops) Shutter Speed
1/125 sec	1/2 sec
1/60 sec	1 sec
1/30 sec	2 sec
1/15 sec	4 sec
1/8 sec	8 sec
1/4 sec	16 sec
1/2 sec	32 sec
1 sec	64 sec

5. MAINTENANCE

The NiSi HUC PRO Nano IR ND64 filter is designed for durability with its robust nano waterproof coating. Proper cleaning and storage will ensure its long-lasting performance.

5.1 Cleaning the Filter

1. Use a blower brush to remove any loose dust or debris from the filter surface.
2. For fingerprints or smudges, apply a small amount of lens cleaning solution to a clean microfiber cloth.
3. Gently wipe the filter surface in a circular motion until clean. Avoid excessive pressure.
4. Do not use abrasive materials or harsh chemicals, as these can damage the nano coating.



Figure 5.1: The nano waterproof coating repels water, making the filter easy to clean and maintain.

5.2 Storage

Store the filter in its protective case when not in use to prevent scratches and dust accumulation. Keep it in a cool, dry place away from direct sunlight and extreme temperatures.

6. TROUBLESHOOTING

6.1 Color Cast Issues

While the NiSi ND64 filter features IR reduction to minimize color shifts, some cameras or lighting conditions might still produce a slight color cast. This is often correctable in post-processing. Ensure your camera's white balance is set correctly for the scene.



Figure 6.1: Transmission graph illustrating the effectiveness of IR reduction in NiSi filters compared to others, which helps prevent unwanted color casts.

6.2 Vignetting

Vignetting (darkening at the corners of the image) can occur, especially with wide-angle lenses or when stacking multiple filters. To minimize vignetting:

- Use the slimmest possible filters.
- Avoid stacking too many filters.
- Zoom in slightly if your lens allows.
- Vignetting can often be corrected in post-processing software.

6.3 Difficulty Attaching/Removing Filter

Ensure the filter is aligned correctly with the lens threads. If it feels stuck, avoid forcing it. Try gently tapping the edge of the filter with the palm of your hand to loosen it, or use a rubber filter wrench if available.

7. SPECIFICATIONS

Feature	Detail
Brand	NiSi
Model Name	HUC PRO Nano IR ND64
Filter Type	Neutral Density (ND)
Filter Factor	ND64 (6 Stops)
Density	1.8

Feature	Detail
Thread Size	77 Millimeters
Material	Optical Glass
Coating	Nano Coating, IR Reduction
Water Resistance Level	Waterproof
Product Dimensions	3.03"L x 3.03"W
Item Weight	0.08 Kilograms
Compatible Devices	Cameras with lenses having a 77mm thread size

8. WARRANTY AND SUPPORT

8.1 Limited Warranty

NiSi products are covered by a **12-month limited warranty** against defects in materials and workmanship under normal use. A valid proof of purchase from an authorized NiSi USA dealer is required for warranty claims. Products purchased from unauthorized sellers may not be eligible for warranty coverage or customer support. The warranty does not cover damage resulting from misuse, impact, water, fire, loss, or normal wear and tear.

8.2 Customer Support

For assistance, warranty claims, or technical support, please contact NiSi Optics USA directly. Refer to the official NiSi website for the most current contact information.