Moonlight ND filter

Neutral density filters ND8 / ND16 / ND32
for the Walksnail Avatar Moonlight camera



Read this manual carefully before first use and keep it for future reference.

www.rotorama.com

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1. Product description

1.1 What it is for

The Moonlight ND filter is a neutral density filter (ND) that fits directly onto the lens of the Walksnail Avatar Moonlight FPV camera. It evenly reduces the amount of light reaching the image sensor without changing the colours of the image. The camera can therefore use a longer exposure (slower shutter speed) at the same scene brightness.

The longer exposure causes a slight blurring of the image edges during fast movement (*motion blur*). Flight footage then looks smoother and more cinematic. The filter is available in three strengths – ND8, ND16 and ND32 – and the strength is chosen according to the light intensity. The Moonlight camera and the Moonlight Kit are supplied by the manufacturer with an ND8 filter; separately sold filters serve as a replacement or add further strengths.



Moonlight camera with the filter fitted (manufacturer's photo, camera not included)

1.2 Technical data and package contents

Manufacturer	Caddx (Walksnail brand)
Product designation	Walksnail Camera ND Filter – ND8, ND16 or ND32; strength printed on the frame
Manufacturer code	WNPJ-Y0N08 (ND8) WNPJ-Y0N16 (ND16) WNPJ-Y0N32 (ND32)
Light transmission	ND8: 1/8 (12.5 %, 3 EV less) ND16: 1/16 (6.25 %, 4 EV less) ND32: 1/32 (3.125 %, 5 EV less)
Compatibility (per manufacturer)	Walksnail Avatar Moonlight and Avatar Pro Camera; Moonlight Kit, GT Kit, GT2 Kit and HD Pro Kit
Package contents	1× ND filter in the selected variant
Not included	camera, VTX, other filter strengths, cleaning aids

2. Use

2.1 Choosing the filter strength

The higher the number, the darker the filter. Choose the strength according to the light intensity – a filter that is too dark causes a dark and noisy image, a filter that is too light does not allow the exposure to be extended sufficiently. The following table is for guidance only:

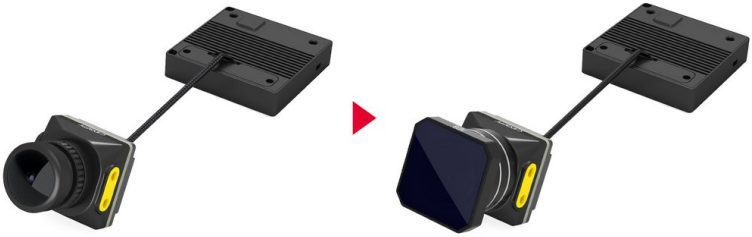
Filter	Light reduction	Suitable conditions (guidance)
ND8	3 EV (1/8)	partly cloudy, partial sun, morning and early evening
ND16	4 EV (1/16)	bright sunshine
ND32	5 EV (1/32)	very harsh sunlight, reflections from water, snow



Filter variants ND8, ND16 and ND32 – the designation is printed on the frame

※ The filter also reduces the light in the image you see in your goggles. When flying into shade (under trees, around buildings), the image becomes darker, or the camera raises its sensitivity (ISO) and the image becomes grainier. Remove the filter for flying at dusk and at night.

2.2 Fitting and removing the filter



Camera without filter and with the filter fitted (manufacturer's illustrative photo)

① Disconnect the battery from the drone before handling the camera.

② Check that the camera lens and the filter glass are clean and free of dust. Remove any dirt with a dry microfibre cloth.

③ Hold the filter by its frame (do not touch the glass) and slide it straight onto the camera lens along its axis.

④ Turn the filter so that its square front part is aligned with the camera body, and press it until it seats evenly.

⑤ Check that the filter holds firmly and does not wobble. A loosely seated filter may fall off in flight.

Remove the filter again by pulling its frame straight along the lens axis. Hold the camera by its body, do not press on the lens and do not rotate it. Do not use tools that could scratch the filter glass or the camera lens.

2.3 Camera settings

The Moonlight camera supports manual shutter and ISO settings. With automatic exposure, the camera partly compensates for the filter by itself and the difference in footage smoothness is smaller. You will achieve the most pronounced effect by setting the shutter and ISO manually:

- In film practice, an exposure time of approximately 1/(2 × frame rate) is used as a starting point – e.g. 1/120 s at 60 frames per second. Fine-tune the value according to the result.
- Set the ISO as low as possible to keep the image clean. If the image is still too bright, use a darker filter; if it is too dark, use a lighter filter.
- With a fixed exposure setting, the camera does not react to changes in light. Verify the settings before flying in the conditions in which you will fly.
- For consistent colour rendering of the footage, consider also setting the white balance manually.

2.4 Care, storage and safety

- Clean the filter glass only with a dry microfibre cloth or a cleaning agent intended for optics. Do not use solvents or abrasive materials.
- Store the filter when not in use in a dry place and in packaging that protects the glass from scratches.
- After a crash, check that the filter is not cracked or scratched and that it still holds firmly. A damaged filter degrades image quality and there is a risk of cuts from fragments – replace it.
- The filter is a small part – keep it out of the reach of children.

3. Information for the EU and Czech Market

3.1 Importer and responsible person in the EU

The product is placed on the European Union market by the importer stated below, who is at the same time the responsible person within the meaning of Article 16 of Regulation (EU) 2023/988 of the European Parliament and of the Council on general product safety (GPSR).

Importer / responsible person in the EU	Rotorama, s.r.o.
Company ID (IČO)	051 57 692
VAT ID (DIČ)	CZ05157692
Registered office	Okrajová 1351, 674 01 Třebíč, Czech Republic
E-mail	info@rotorama.cz
Phone	+420 252 252 098
Website	www.rotorama.com

3.2 Disposal

The filter is a passive optical accessory with no electrical or electronic components and no battery. It is therefore **not covered by the take-back scheme for electrical equipment** and is not marked with the crossed-out wheeled bin symbol.

- Dispose of an unwanted or damaged filter according to the waste sorting rules applicable in your municipality; if in doubt, take it to a collection yard.
- Wrap a cracked filter (e.g. in paper) before disposal so that no one can be cut by the fragments of the optical element.
- Put the packaging into the appropriate container for sorted waste (paper, plastic).

4. Warranty and rights arising from defective performance

The rights and obligations of the contracting parties are governed by Czech law, in particular by Act No. 89/2012 Coll., the Civil Code, and Act No. 634/1992 Coll., on consumer protection.

- The seller is liable to the buyer for the product being free of defects on receipt. If the buyer is a consumer, a defect may be notified **within two years of receipt** of the product (Section 2165 of the Civil Code).
- If a defect appears within **one year** of receipt, the product is deemed to have been defective already at the time of receipt (Section 2161(5) of the Civil Code).
- When purchasing online, a consumer has the right to **withdraw from the contract within 14 days** of receiving the goods without giving a reason (Section 1829 of the Civil Code).
- Claims should be made with the retailer from whom you purchased the product. The importer's contact details are given in Chapter 3.1.
- The competent body for out-of-court settlement of consumer disputes is the **Czech Trade Inspection Authority**, Štěpánská 796/44, 110 00 Prague 1, www.coi.cz.