

L 171815

"MUST BE APPLIED FOR"  
NIKON INC. ONE YEAR LIMITED  
WARRANTY

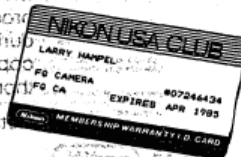


**IMPORTANT NOTICE:**  
**YOU MUST COMPLETE ALL FORMS**  
**AND SUBMIT PART 2 TO RECEIVE**  
**YOUR VALIDATED NIKON INC.,**  
**WARRANTY CARD.**

By completing and submitting this product warranty application, you will automatically be enrolled in the Nikon USA Club, free. You must complete and send in the Nikon Inc. One Year Limited Warranty application for each Nikon product you purchase, even if you are already a member of the Nikon USA Club.

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5C-0461



DOCUMENTS CAPTURED AS RECEIVED

**PLEASE READ THESE INSTRUCTIONS CAREFULLY:**

**STEP #1** - Read Part 1, the terms of the limited warranty, carefully, then fill in the month, day and year of purchase in the space provided.

**STEP #2** - Part 2 is your application for your Nikon Inc. Validated One Year Limited Warranty Card.

Fill in your name and address as well as your Dealer's name and address and mail to Nikon Inc., P.O. Box 7234, Garden City, New York 11530-0723.

**STEP #3** - Part 3 is your Nikon Inc. 45 Day Temporary Warranty which begins on the date of purchase. If the Nikon product described in this warranty requires service during this period, present this part (#3) along with a copy of your bill-of-sale to Nikon Inc. or any Nikon Authorized Service Station for warranty service.

Retain Part 3. With your temporary papers.

L 171815

Product Description:  
NIKKOR 80/4 C

6	20	85
MONTH	DAY	YEAR

Date of Purchase

The Nikon product is, upon application and validation, by Nikon Inc., warranted by Nikon Inc. against defects in material and workmanship for a period of one (1) year from the date of purchase. During such period Nikon Inc. or its authorized service stations will, upon presentation of a validated warranty card, repair without charge any part or assembly of parts which is found to be defective in material or workmanship subject to following limitations and exclusions:

The warranty is void if the original or repaired product has been altered or modified in any way or if the product is used for purposes other than those intended by Nikon Inc. or its authorized service stations.

This warranty shall not apply to the following:

- Any product which has been subject to misuse, abuse, negligence or accident
- Any defects or damage directly or indirectly caused by the use of unauthorized replacement parts and/or service performed by unauthorized personnel
- Any alterations

\*How to make application for the Nikon Inc. One Year Ltd. Warranty  
Return to Nikon Inc., a copy of the bill of sale, clearly showing your name, address, product purchased along with the completed warranty application (Part 2, attached herewith). This application must be made within 90 days of the date of purchase. Upon receipt and verification of the request, Nikon Inc. will issue the validated warranty card, which is your warranty. This validated warranty card must be presented with the product each and every time the product is presented for service under the terms of this warranty. No warranty claims will be honored without the validated warranty card or the temporary card during the first forty-five (45) days. Application for the warranty card may only be made on the original application provided with the product. Copies or facsimiles are not acceptable.

In the event of the need for emergency repairs of the validated warranty card, there is also attached with Part 2, a "Temporary Warranty Card" which is valid for 45 days, beginning on the date of purchase. The date of purchase must be entered on the Temporary Card for it to be accepted for warranty service.

BE SURE TO COMPLETE ALL REQUIRED INFORMATION ON ALL FORMS. FAILURE TO DO SO WILL RESULT IN DELAY OR DENIAL OF ANY WARRANTY SERVICE. ALL WARRANTIES IMPLIED BY LAW INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE SHALL BE OF A DURATION OF ONE (1) YEAR FROM DATE OF ORIGINAL PURCHASE. THE WARRANTIES HEREIN ARE EXPRESSLY IN LIEU OF ALL OTHER EXPRESSED WARRANTIES INCLUDING THE PAYMENT OF CONSEQUENTIAL OR INCIDENTAL DAMAGES FOR THE BREACH OF ANY WARRANTY.

SOME STATES DO NOT ALLOW LIMITATION ON HOW LONG AN IMPLIED WARRANTY LASTS OR IN THE EXCLUSION OF LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES SO THE ABOVE LIMITATIONS ON EXCLUSIONS MAY NOT APPLY TO YOU. THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE.

In order to obtain performance of the warranty obligations, the original consumer purchaser must return this Nikon product together with the validated warranty card, or the temporary validated warranty card and proof of purchase and proof of purchase date either in person or addressed to the warranty department of Nikon Inc., 4333 Central Ave., Garden City, New York 11530, or any one of the Authorized Service Stations at their respective addresses listed on the reverse side. The original consumer purchaser in returning this Nikon product must properly package, ship, insurable, and delivery costs to the repair facility. This warranty card may not be reproduced or copied and shall be valid only with products sold by Nikon Inc.

"MUST BE APPLIED FOR"

**NIKON INC. ONE YEAR LIMITED WARRANTY**  
(Valid in the Continental United States, Alaska, Hawaii, Puerto Rico and the U.S. Virgin Islands)

5C-11461

**Nikon** PART 1

**Nikon** PART 3

## DOCUMENTS CAPTURED AS RECEIVED

L 171815

Product Description:  
NIKKOR 30/4 C

Retain this Worldwide Warranty with proof of purchase for your records.

**NIKON ONE YEAR WORLDWIDE LIMITED WARRANTY** (Excluding the Continental United States, Alaska,

(Excluding the Continental United States, Alaska, Hawaii, Puerto Rico, and the U.S. Virgin Islands.)

**Welcome to the worldwide family of Nikon owners.**

Your Nikon equipment has been manufactured to the highest quality standards by Nippon Kogaku K.K., Tokyo, Japan

Your Nikon equipment has been manufactured to the highest quality standards by Nikon Kogaku K.K., Tokyo, Japan. This warranty entitles the original consumer to worldwide warranty protection in accordance with the terms and conditions. It affords the consumer warranty protection outside the continental United States, Alaska, Hawaii, Puerto Rico and the U.S. Virgin Islands. Such warranty coverage is supplemental to and not in lieu of the United States Nikon Inc. One Year Limited Warranty, which is available only upon application. See Part 1 for details.

This Nikon product except for batteries, is warranted by **Nippon Kogaku K.K., Tokyo, Japan** to be free from defects in materials or workmanship for a period of one year from the date of purchase. During this period any one of the worldwide repair facilities listed on the reverse side will repair without charge any parts or assembly of parts found to be defective in material or workmanship subject to the following limitations:

1. This warranty extends to the original consumer purchaser only and is not assignable or transferable.  
2. This warranty shall not extend to any product which has been subject to misuse, abuse, negligence, accident or unauthorized repair.  
All warranties implied by law including any warranty of merchantability or fitness for a particular purpose shall be of a duration of one (1) year from date of purchase. The warranties herein are expressly in lieu of all other express warranties including the payment of consequential or incidental damages for the breach of any warranty.

No warranties, whether express or implied, including the warranties of merchantability or fitness for a particular purpose are made by any distributor or dealer of the product herein warranted; nor shall such dealer or distributor be liable for the payment of any direct incidental or consequential damages.

Incidental or consequential damages.

In order to obtain worldwide service, the consumer should return the Nikon product, either in person or addressed to the Warranty Department of any authorized service repair station listed on the reverse side together with proof of purchase and this warranty. The original consumer is returning this product, must prepay all postage, shipping, transportation,

FIRST NAME RAHIB

LAST NAME SA

For prompt response of worldwide warranty inquiries, please direct all correspondence to:

**NIPPON KOGAKU K.K.**

FIRST NAME 2nd

NAME SA IN DU W  
LAST SA IN DU W

NAME \_\_\_\_\_  
\_\_\_\_\_

**ADDRESS**

CITY [ ] [ ] [ ] [ ] [ ] [ ] STATE [ ] [ ]

ZIP 

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 PART

PART

5C-0461

DOCUMENTS CAPTURED AS RECEIVED

L 560392 MUST BE APPLIED FOR BY  
NIKON INC. ONE YEAR LIMITED  
WARRANTY

W-NIKKOR 35/2.5 C



**IMPORTANT NOTICE:**  
**YOU MUST COMPLETE ALL FORMS**  
**AND SUBMIT PART 2 TO RECEIVE**  
**YOUR VALIDATED NIKON INC.**  
**WARRANTY CARD.**

By completing and submitting this product warranty application, you will automatically be enrolled in the Nikon USA Club, free. You must complete and send in the Nikon Inc. One Year Limited Warranty application for each Nikon product you purchase, even if you are already a member of the Nikon USA Club.



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4J-2084

# DOCUMENTS CAPTURED AS RECEIVED

## PLEASE READ THESE INSTRUCTIONS CAREFULLY:

**STEP #1**—Read Part 1, the terms of the limited warranty, carefully, then fill in the month, day and year of purchase in the space provided.

**STEP #2**—Part 2 is your application for your Nikon Inc. Validated One Year Limited Warranty Card.

Fill in your name and address as well as your Dealer's name and address and mail to Nikon Inc., PO Box 723, Garden City, New York 11530-0723.

**STEP #3**—Part 3 is your Nikon Inc. 45 Day Temporary Warranty which begins on the date of purchase. If the Nikon product described in this warranty requires service during this period, present this part (#3) along with a copy of your bill-of-sale to Nikon Inc. or any Nikon Authorized Service Station for warranty service.

Retain Part 3, with your important papers.

L 560392

Product Description:  
W=NIKKOR 35/2.5 C

6 MONTH 20 DAY 85 YEAR

Date of Purchase

This Nikon product is your application and validation, by Nikon Inc., to be free from defects in materials and workmanship for a period of one (1) year from the date of purchase. During such period Nikon Inc. or its authorized service stations will, upon presentation of a validated warranty card, repair without charge any part or assembly of parts which is found to be defective in material or workmanship subject to following limitations and exclusions.

The warranty extends to the original consumer purchaser only and is not assignable or transferable.

The warranty shall not apply to the following:

1. Any product which has been subjected to misuse, abuse, negligence or accident.
2. Any defect or damage directly or indirectly caused by the use of unapproved replacement parts and/or service performed by unauthorized personnel.
3. Any tampering.

To be valid, application for the Nikon Inc. One Year Ltd. Warranty must be made within 45 days of purchase. A copy of the bill of sale, clearly showing your name, address, product purchased along with the completed warranty application (Part 2), attached herewith, this application must be submitted within 45 days of purchase to Nikon Inc. or its authorized service stations. This Validated Warranty Card must be presented with the product each and every time the product is presented for service under the terms of this warranty. No warranty claims will be honored without the validated warranty card for the temporary card during the first forty-five days. Application for the warranty card may only be made on the original application provided with the product. Copies or facsimiles are not acceptable.

In the event of the valid application to extend the validated warranty card, then attached herewith Part 3, "Temporary Warranty Card" which is valid for 45 days, beginning on the date of purchase. If date of purchase must be extended to the Temporary Card it is to be accepted for warranty service.

BEFORE TO COMPLETE ALL REQUIRED INFORMATION ON ALL FORMS, FAILURE TO DO SO WILL EITHER DELAY OR INVALIDATE ANY WARRANTY ON THE PRODUCT. ALL WARRANTIES, IMPLIED OR LAW INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE SHALL BE OF A DURATION OF ONE (1) YEAR FROM DATE OF ORIGINAL PURCHASE. THE WARRANTIES, IMPLIED AND EXPRESSLY, IN ALL OF ALL STATES, EXPRESSLY SUPPORTED INCLUDING THE REMEDY OF CONSEQUENTIAL OR INCIDENTAL DAMAGES FROM THE BREACH OF ANY WARRANTY.

SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS OR DO NOT DISALLOW OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES BY THE ABOVE LIMITATIONS OR EXCLUSIONS MAY NOT APPLY TO YOU. THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE.

In order to obtain performance of the warranty obligations, the original consumer purchaser must return this Nikon product together with the validated warranty card, or the temporary validated warranty card and proof of purchase and proof of purchase date either in person or addressed to the warranty department of Nikon Inc., 623 Stewart Ave., Garden City, New York 11530, or any one of the Authorized Service Stations at their respective addresses listed on the reverse side. The original consumer purchaser to returning this Nikon product must provide all postage, shipping, transportation, insurance and delivery costs to the repair facility.

This warranty card may not be reproduced or copied and shall be valid only with products sold by Nikon Inc.

## "MUST BE APPLIED FOR"

**NIKON INC. ONE YEAR LIMITED WARRANTY**  
(Valid in the Continental United States, Alaska, Hawaii,  
Puerto Rico and the U.S. Virgin Islands)

4J-2084

**Nikon** PART 1







## Nikon Filters

### Nikon Filters

Filters are often thought of as mere accessories, but, in fact, they play an important role in substantially enriching various photographic effects. Light and its effect on film varies by the location (cities, beaches or mountains), the condition of the atmosphere (rain, clouds, haze or sun) and, of course, by the light source itself (natural or artificial). Filters allow you to minimize the harsh, undesirable effects of light while controlling its other elements to create strong pictorial effects.

Since they are used in the light pathway, filters should have optically flat and parallel surfaces as well as good spectrum absorption and minimal filter-ring distortion. High-quality lenses are more likely to clearly show any filter distortion that may exist, so keep that in mind when choosing filters. For these reasons, only Nikon filters should be used with Nikkor and Nikon Series E lenses. All Nikon filters are solid glass, with the exception of polarizing filters, which are sandwich-type (two-pieces) filters. The special optical glass used in Nikon filters is ground and polished to ensure that both surfaces of the

glass are optically flat and parallel to eliminate distortions. And both filter surfaces have a multi-layer coating to prevent reflections.

### Variety

As shown in Table 1, there are Nikon filters available for use with color and black-and-white film, color film only, black-and-white film only and for light with a wavelength in the 300nm to 950nm range. Nikon offers such a wide variety because photographic needs vary. For example, a color-temperature converting filter can balance the color temperature of the light and your film. Filters for black-and-white film alter contrasts and tones to suit your purposes. Polarizing filters reduce the amount of light reflected from non-metallic surfaces like glass and water. And ND (Neutral Density) filters limit the light entering the camera and are useful on bright, sunny days.

TABLE 1

Film	Type	Designation	Filter factor		Use
			Daylight	Tungsten light	
Black & white and color	Skylight	L19C	1	1	Reduces the bluish cast of color shots taken in open shade, of distant landscapes, etc., to produce a more natural effect. Also cuts haze to reveal more details. Has remarkable filter stability. Can be left on the lens as a lens protector. Features Nikon Integrated Coating (NIC) to reduce unfavorable light reflection.
	Ultraviolet	L37 L37C	1	1	Eliminates invisible ultraviolet light and haze, but has no effect on visible light. Absorbs ultraviolet light shorter than 370nm in wavelength and provides sharp images with high contrast. As there is no need to worry about exposure compensation, both can be left on as a general-use filter which doubles as a lens protector. L37C features Nikon Integrated Coating (NIC) to reduce unfavorable light reflection.
Black & white	Ultraviolet	L39	1	1	Provides lucid photographs by absorbing ultraviolet light. Has a wider absorption range and intercepts ultraviolet light shorter than 350nm in wavelength, thus producing prominent effects in black-and-white photography. Note that use of the filter in color photography can result in slightly yellowish tones.
	Light	Y44	1.5 (1/2)	1	Absorbs moderate ultraviolet, violet and blue light, darkening skies and making clouds stand out in black-and-white shots. Light yellow is suitable for outdoor portraits as it produces more naturally rendered skin tones. As the filter factor increases, the color deepens and the effect becomes more pronounced.
	Medium	Y48	1.7 (2/3)	1.2 (1/3)	
	Deep	Y52	2 (1)	1.4 (1/2)	
	Orange	O56	3.5 (1-5/6)	2 (1)	Has a wider absorption of green, blue and ultraviolet for greater contrast than yellow filters. Accentuates any subject in which yellow, orange or red predominates. Accentuates textures of trees, stone, sculpture, etc. Also good for aerophotography, distant scenes and mountain and landscape photography.
	Red	R60	8 (3)	5 (2-1/3)	Creates the most striking contrast of all filters. Brings out distant scenes and emphasizes red and orange. Can be used to create a nighttime effect by underexposing. Also used for infrared photography.
	Light	X0	2 (1)	1.7 (2/3)	Absorbs ultraviolet, blue and red, either partially or completely. Tends to absorb red and blue simultaneously, so the color balance of the subject must be considered carefully. Reproduces each color with almost the same balance of light and shade as seen by the naked eye. Suitable for portraits and for multicolored subjects in general. The X 1 filter is used under tungsten light to prevent overemphasizing red areas of a subject.
Special photography (black & white and color)	Deep	X1	5 (2-1/3)	3.5 (1-5/6)	
	Soft	Soft 1	1	1	Soft 1 is a filter with a subtle soft-tone effect. Suitable when photos with less soft-tone effect are desired or when a large portion is highlighted. It is also suitable for close-up portraits.
	Soft	Soft 2	1	1	Soft 2 is a filter with a large soft-tone effect. Suitable when the subject or highlighted part is small, or when a fog effect is desired in distant-scene photography. Both Soft 1 and Soft 2 produce a picture with soft flare without losing the original crisp tone give an image with a beautiful fade tone in front of and behind the subject. Moreover, the soft-tone effect undergoes no change even if the lens is stopped down, thus any f/stop can be utilized according to your purposes.
	Polarizing	Polar	2 ~ 4 (1 ~ 2)	2 ~ 4 (1 ~ 2)	Eliminates various degrees of reflected light from glass, water, tile and similar surfaces. Useful for photographing through windows or underwater, but not effective for metal surfaces because the polarization is imperceptible. Usable for both black-and-white and color photography because it does not affect tints. Can also eliminate light reflections from vapors or floating dust.
	Neutral Density	ND 2X	2 (1)	2 (1)	Subdues all colors uniformly. Useful when the lens is used at a large aperture to minimize depth of field or when photographing extremely bright subjects such as light sources. Can be used with either black-and-white or color film as the filter itself is colorless.
		ND 4X	4 (2)	4 (2)	
		ND 8X	8 (3)	8 (3)	
Color		ND 400X	400	400	
	Amber	Light	A2	1.2 (1/3)	Used with daylight film to avoid the blue tinge which is likely to occur when photographing in the shade, in cloudy weather or indoors using light from a north window in fair weather.
	Deep	A12		2 (1)	Used with color film balanced for tungsten light when shooting outdoors in fair weather. Reduces blue tinge.
	Light	B2		1.2 (1/3)	Used with daylight film to prevent the red-yellow cast which is characteristic of shots taken three hours or so before sunset or after sunrise.
	Medium	B8		1.6 (2/3)	Used with daylight film and clear flash bulbs to eliminate excessive red-yellow cast. Offers greater effects than B2.
	Deep	B12		2.2 (1-1/6)	Used with daylight film to avoid the red-yellow cast caused by using a photo-flood lamp indoors.

( ) = 1/stop compensation

### Suggestions for Use

1. Do not use more than one filter at a time, or vignetting may occur. Be especially careful when using filters with short focal-length lenses.
2. Polarizing filters are designed to rotate in their mounts. When using a filter of this type with a single lens reflex camera, rotate the filter's outer ring to the point at which the least amount of reflection is seen in the viewfinder. Using a polarizing filter with a rangefinder camera like the Nikon SP is difficult because the filter's effects cannot be seen in the viewfinder. The exposure compensation factor of a polarizing filter depends upon the amount of light reflected. Naturally, no compensation is needed with TTL-metering cameras.
3. When using color film, filters cannot balance the color temperature of the film with the color temperature of two or more different types of light sources at the same time.
4. Filters cannot balance the color temperature of color film with the color temperatures of ordinary household fluorescent lights. To shoot color film under fluorescent lighting, use only fluorescent lights specifically designed for color photography.
5. The exposure compensation factor (as shown in Table 1) of a black-and-white filter is the approximate factor needed when using general panchromatic film. When using film with a different color sensitivity, test shooting will be required to determine the proper factor.

6. When used with a camera body with TTL metering, Nikon filters—with the exception of the R60—do not require any exposure compensation. When using the R60 filter, increase the exposure value by one f/stop more than that indicated by the exposure meter.
7. When the lens is pointed toward the sun or toward a very bright light at night, remove the filter from the lens to avoid producing ghost images on the film caused by light reflecting on the filter surface.
8. Always keep the filter free of dust, dirt, fingerprints and smudges. If the filter becomes dirty, carefully wipe it with a clean, soft cotton cloth that has been moistened with a little alcohol. If you use ether to clean a multi-layer coated filter, a smudge may appear. If this happens, wipe the filter again with a cotton cloth moistened with alcohol.

### Attachment Sizes

In Table 2, filter sizes are divided into three types: Screw-in, Drop-in and Rear-interchange. Screw-in type filters mount directly on the lens, except for super-telephoto lenses in which they mount on the filter holder inserted into the body of the lens. Drop-in type filters are inserted between the filter retaining ring and the lens hood or into a lens hood equipped with a filter-holder function. Rear-interchange type filters are mounted by aligning the black circle mark on the outer ring of the filter with the mounting pin groove on the lens bayonet section, pushing it gently, then turning the filter clockwise until it stops.

TABLE 2

Type	Size	Nikon and Nikkor lenses, focal length / f/number		Variety of filters (● = available)																					
		Nikon bayonet mount	Others	L36C	L37	L37C	L39	V44	V45	V52	D56	R60	X1	Polar	ND2X	ND4X	ND8X	ND16X	A2	A12	B2	B8	B12	Soft 1	
Screw-in	39mm	ED 300/2.8 (IF), ED 400/3.5 (IF), ED 600/4 (IF), ED 600/5.6 (IF), ED 800/8 (IF), ED 1200/11 (IF), Reflex 500/8, Reflex 1000/11		●	●				●	●	●	●			●	●	●	●	●	●	●	●	●		
	46mm		Nikon L35AF-L35AD Camera	●																					
	52mm	20/3.5, 24/2.8, 28/2.8, 28/3.5, 35/1.4, 35/2.8, 35/2.8, PC 35/2.8, 50/1.2, 50/1.4, 50/1.8, Micro 55/2.8, 85/2.8, 105/2.5, Micro 105/4, 135/2.8, 135/3.5, 200/4, Micro 200/4 (IF), ED 300/2 (IF), Zoom 35-105/3.5-4.5, Zoom 80-200/4.5, Focusing Unit AU-1 (except Polar), Noct 56/1.2, AF 80/2.8*, Series E28/2.8, E35/2.5, E50/1.8, E100/2.8, E135/2.8, E36-72/3.5, E75-150/3.5	Nikonos WDS/2.5, 80/4 (used with filter holder)	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	62mm	105/1.8, Zoom 35-70/3.5 (Macro), Zoom 50-135/3.5, Zoom 80-200/4, AF ED 200/3.5 (IF)*, 670-210/4		●	●				●	●	●	●			●				●	●	●	●	●		
	72mm	18/3.5, PC 28/3.5, 85/1.4, 135/2, ED 180/2.8, 300/4.5, ED 300/4.5 (IF), ED 400/5.6, Zoom 25-50/4, Zoom 35-70/3.5		●	●				●	●	●	●			●				●	●	●	●	●		
	95mm	Zoom ED 80-200/2.8, Zoom ED 50-300/4.5, Zoom ED 180-600/8							●	●	●	●													
	122mm	ED 200/2 (IF), ED 300/2.8 (IF), ED 400/3.5 (IF), ED 600/5.6 (IF), ED 800/8 (IF), ED 1200/11 (IF), Zoom ED 200-400/4, Zoom ED 360-1200/11							●	●	●	●													
	160mm	ED 600/4 (IF)							●	●	●	●													
Drop-in	Series IX	18/4, Zoom 200-600/9.5							●	●	●	●													
Rear-interchange	Bayonet filter	13/5.6, 15/3.5, 16/2.8		●					●	●	●	●							●	●					

\* The F3AF's autofocus/focus-aid function cannot be used with the R60.

**Nikon** NIPPON KOGAKU K.K. Tokyo, Japan

Printed in Japan (84.3.A00)H-4N

# **RAINBOW CAMERA, INC.**

802 Fort St. Mall  
Honolulu, Hawaii 96813  
Phone: (808) 531-4618

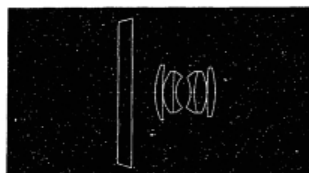
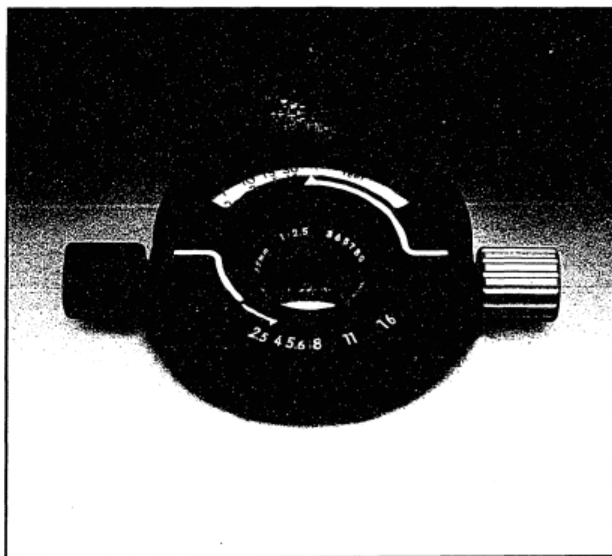
Customer's Order No.		Phone No.		Date <i>6/20/88</i>		
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City						
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Qty.	Description			Price	Amount	
1	Nikonos V body w/35 f2.5 (B: 2017674 A: 560392)				459.95	
1	Nikonos 80mm Lens (171815)			224.95		
				684.90		
				27.40		
				712.30		
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					Total	
All claims and returned goods MUST be accompanied by this bill.						
Rec'd. By						

Reorder Item # G2R © Wheeler Group Inc. 1980

110583

Thank You!

**Nikon**  
**W-Nikkor 35mm f/2.5**  
(For/Für/Pour/Para **NIKONOS**)



**Nikon** NIPPON KOGAKU K.K. Tokyo, Japan

J  
E  
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S

## Foreword

This W-Nikkor lens is designed to be used both underwater and above water with all Nikonos cameras. It has a standard picture angle of 46°30' underwater and a wide picture angle of 62° above water. Its tough pressure-proof and water-proof construction, with all optical elements sealed behind a tough optical glass plate, makes it especially suited for use under all kinds of environmental conditions. To ensure minimum ghost and flare, with maximum image contrast, Nikon Integrated Coating (NIC) is applied to air-to-glass lens surfaces. It is the ideal lens to be used not only for underwater photography but also for fast-action sports, such as sailing or skiing.

## Specifications

<b>Focal length:</b>	35mm
<b>Maximum aperture:</b>	f/2.5
<b>Lens construction:</b>	7 elements in 5 groups (including glass plate)
<b>Picture angle:</b>	62° (on land); 46°30' (underwater)
<b>Distance scale:</b>	Graduated in meters and feet from 0.8m (2.75 ft) to infinity (∞)
<b>Aperture scale:</b>	f/2.5 ~ f/22
<b>Diaphragm:</b>	Manual
<b>Depth-of-field indicator:</b>	Inter-coupled with diaphragm control; directly read on distance scale
<b>Mount:</b>	Nikonos mount
<b>Attachment size:</b>	58mm (P = 0.75mm)
<b>Dimensions:</b>	62mm dia. x 39.5mm long
<b>Weight:</b>	160g

### Accessories

Front cap, rear cap, leather case CL-50A, lens hood (doubles as filter holder for 52mm screw-in filters), rubber hood, underwater finder (also used with the Nikkor 80mm f/4), plastic lens protector

## Notes

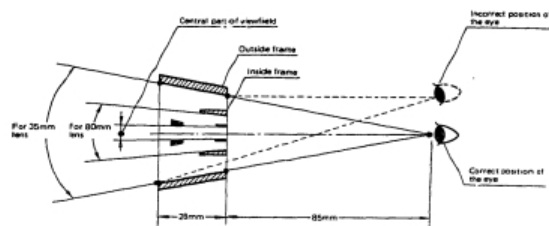
- Since the Nikonos cameras are not provided with rangefinders, camera-to-subject distances are normally estimated, both above water and underwater. However, due to the different refractive index of water, measured distances underwater should be reduced by 25% before being set on the lens distance scale. (e.g. set focus for 3m when measured distance is 4m).
- Depth of field can be read directly from the distance scale in either meters or feet with the aid of the depth-of-field indicator coupled to the lens aperture control knob. As you change aperture settings, two red pointers move together (or apart) automatically to indicate the near and far limits of sharpness at each aperture setting.
- When changing lenses, clean and dry camera first, lubricate lens and body mating surfaces with Nikonos silicon lubricant.
- After using the camera in salt water, and whenever dirty, rinse it thoroughly in fresh running water to remove any residue. Then dry with a soft cloth before opening. Never dry camera by heating.
- When using an optional 52mm-diameter filter, first directly screw it onto the front of the optional lens hood, then attach the hood to the lens.

# Nikon

## NIKONOS UNDERWATER FRAME FINDER For Nikkor 35mm and 80mm lenses

The Nikonos Underwater Frame Finder, designed for use with a UW-Nikkor 35mm lens or 80mm lens, slides onto the accessory shoe of the Nikonos camera.

First position the eye 85mm behind the rear of the peepsight where the sloping lines of the outside frame intersect. Then determine the picture area with the outside frame for the 35mm lens or with the inside frame for the 80mm lens. The peepsight serves to center the picture in the viewfinder and crossbars for proper composition.



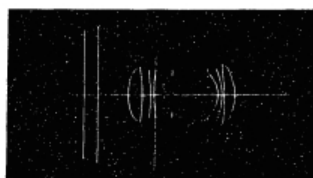
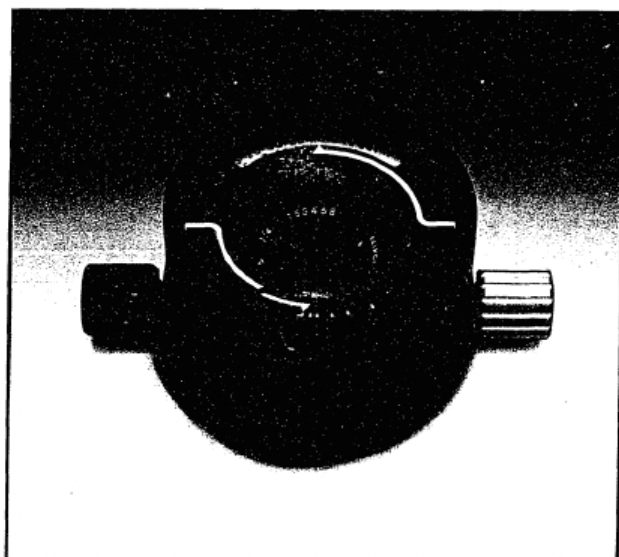
The finder is designed to provide parallax correction at a distance of 2m. At distances closer than 2m a parallax appears near the upper edge of the film. The finder is also useful on land, especially for following fast-moving action. But, because the picture angle on land is about 4/3 of that underwater, the actual subject field will be greater than that indicated by the viewfinder. The respective picture angles on land and underwater are shown below.

35mm Lens			
	Diagonal	Vertical	Horizontal
On Land	62°	37°	53°
Underwater	Approx. 46°	Approx. 27°	Approx. 39°
80mm Lens			
On Land	30°20'	17°20'	25°20'
Underwater	Approx. 22°	Approx. 13°	Approx. 19°

NIPPON KOGAKU K.K. Tokyo Japan

Printed in Japan (84.4c)H-24

**Nikon**  
**Nikkor 80mm f/4**  
(For/Für/Pour/Para **NIKONOS**)



**Nikon** NIPPON KOGAKU K.K. Tokyo, Japan

J  
E  
G  
F  
S

## Features

This telephoto lens, attached interchangeably with other lenses on the Nikonos camera, is used not only underwater up to a depth of about 50m, but also on land for taking telephoto and close-up pictures. Nikon Integrated Coating (NIC) is applied on air-to-glass surfaces to reduce reflection and minimize flare and ghost, thus assuring sharp-contrast images over the entire film plane.

## Specifications

Focal length:	80 mm
Maximum aperture ratio:	f/4
Lens Construction:	4 groups, 4 elements (front watertight glass excluded)
Picture angle:	30°20' (on land), 22°45' (underwater)
Aperture scale:	4, 5.6, 8, 11, 16, 22
Distance scale:	∞ ~ 1m and ∞ ~ 3.5 ft
Depth-of-field scale:	Direct reading, coupled to the aperture scale
Attachment size:	58mm (P = 0.75mm)
Dimensions:	62mmφ x 66mm
Weight:	275g (on land)

### Accessories

Albada finder (for use on land)  
Underwater finder (commonly used for Nikkor 35mm f/2.5 lens)  
Lens case CL-51  
Front cap  
Rear cap  
Plastic lens protector

## Notes

- Since the Nikonos cameras are not provided with rangefinders, camera-to-subject distances are usually estimated. However, due to the refractive index of water, measured distances should be reduced by 25% before being set on the lens distance scale (e.g. set focus for 3m when measured distance is 4m).
- It is recommended that the plastic lens protector (available as an accessory) is used to protect the camera and lens from accidental damage.
- The rear lens cap is waterproof and bayonets onto the lens; to attach, align the pin on the lens with the groove in the cap, bend the cap slightly (to expel the air), push it on and twist it clockwise until it locks.
- Depth of field can be read directly from the distance scale in either meters or feet with the aid of the depth-of-field indicator coupled with the lens aperture control knob. As you change aperture settings, two red pointers move together (or apart) automatically to indicate the near and far limits of sharpness at each aperture setting.
- When changing lenses, clean and dry camera first, lubricate lens and body mating surfaces with Nikonos silicon lubricant.
- After using the camera in salt water, and whenever dirty, rinse it thoroughly in fresh running water to remove any residue. Then dry with a soft cloth before opening. Never dry camera by heating.



#### ATTENTION

Avant de refermer l'appareil, éliminer toute trace de sable et corps étranger du joint torique et de son logement. Assurez-vous que ce joint n'est ni rayé ni tordu et veillez à son bon positionnement dans la gorge.

#### CAUTION

Remove all sand and foreign matter from O-ring before closing camera back. Also, make sure O-ring is not scratched or twisted and is fully seated in its groove.