

# General Camera Accessories

## SALES MANUAL







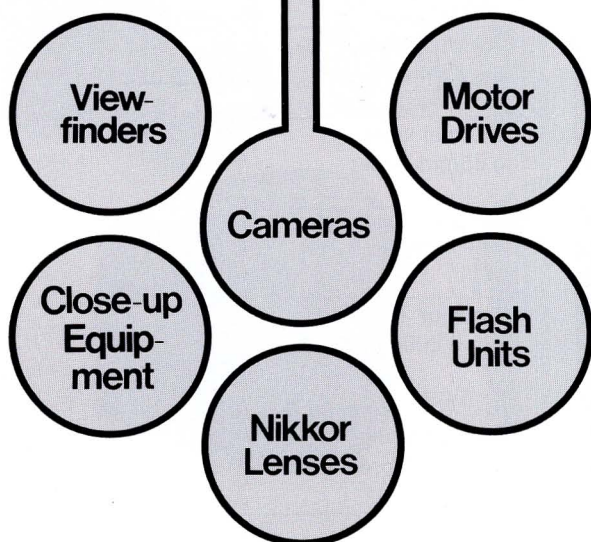
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## Introduction

Your customer's choice of a Nikon or Nikkormat camera should be an indication to you that he has a serious interest in photography, and is concerned about the quality of the equipment that he owns. With this in mind, it makes good sense, both for you and him, that he be aware of the wide variety of Nikon accessories made for his camera. Nikon is well known for its extensive line of major accessories—components that have made the Nikon System the most comprehensive in all photography: motor drives, close-up, flash equipment, and the incomparable Nikkor lens line. In this brochure, however, it is those all-important smaller accessories that will be discussed. Your customer should know that Nikon quality makes a difference in cases, filters, viewing aids, and all the other indispensables that serious photographers need. Nikon accessories are made of the same fine-quality materials and with the same attention to craftsmanship that characterize all Nikon products. Each item is designed to last the life of the camera, and to withstand the wear to which photographic equipment must often be subjected. Your customer should regard these accessories as the essential photographic tools they are: tools whose combined value sometimes exceeds that of the camera. For this reason alone, great care should be taken to assure that the accessory does justice to the camera. General accessories often enable a photographer to personalize his own style of photography by making a specific job easier. For example, Nikon accessories can add drama to landscapes, facilitate photocopying, or allow viewing from a right angle to the camera. Some protect valuable equipment from inadvertent abuse or bad weather. Get familiar with the general accessories presented in this handbook so that you will be able to keep your customer informed as to how the Nikon System can best respond to his interests. Naturally, no photographer needs every accessory, but the wise one can anticipate the problems and opportunities, and is ready with the Nikon accessory that makes the shot possible, more comfortable, or better. A prudent choice of filters and viewing aids can make the difference between an ordinary picture and one that builds photographic reputations.

### General Accessories



## List of Nikon Camera Cases

Designation	Material	Cameras	Lenses	Features
Hard Case	CH-3	Leatherette	Nikon EL2, Nikkormat ELW or EL	Wide or Normal lenses, including 85mm lenses Wide, Normal or Telephoto lenses up to a 105mm f/2.5 lens Wide or Normal lenses, including 85mm lenses Wide, Normal or Telephoto lenses up to a 105mm f/2.5 lens Wide or Normal lenses, including 85mm lenses With Auto Winder AW-1 mounted With EE Aperture Control Attachment DS-12 or DS-2 mounted
	CH-4	Cowhide	Nikon F2 or F2 Photomic-Series	
	CH-5	Cowhide		
	CH-6	Leatherette		
	CH-7	Leatherette	Nikkormat FT3 or FT2	
	CH-8	Leatherette	Nikon EL2, Nikkormat ELW or EL	
	CH-9	Leatherette		
	CH-10	Leatherette	Nikon EL2 or Nikkormat ELW	
	CH-11	Cowhide	Nikon F2AS Photomic, F2SB Photomic or F2S Photomic	
Semi-soft Case	CF-1	Cowhide	Nikon F2 or F2 Photomic-series	Wide or Normal lenses, including 85mm lenses Wide or Normal lenses, including a 85mm f/2 lens Wide, Normal or Telephoto lenses up to a 135mm f/3.5 lens Speed Case Wide or Normal lenses, including a 85mm f/2 lens Wide, Normal or Telephoto lenses up to a 105mm f/2.5 lens With Motor Drive MD-11 mounted
	CF-2	Cowhide		
	CF-4	Leatherette		
	CF-5	Leatherette	Nikkormat FT3 or FT2	
	CF-6	Leatherette	Any Nikon or Nikkormat camera	
	CF-7	Leatherette		
	CF-8	Leatherette	Nikon FM or FE	
	CF-9	Leatherette		
Soft Case	CS-7	Leatherette	Nikon EL2, FM, FE or Nikkormat ELW, EL, FT3, FT2	Wide or Normal lenses, including a 85mm f/2 lens Wide or Normal lenses, including 85mm lenses Wide, Normal or Telephoto lenses up to a 135mm f/3.5 lens Wide, Normal or Telephoto lenses up to a 200mm f/4 lens Wide or Normal lenses, including 85mm lenses Blimp case; used to dampen camera noise
	CS-8	Leatherette	Any camera except Nikon F Photomic-series and F2S Photomic	
	CS-9	Leatherette		
	CS-10	Leatherette	Any Nikon or Nikkormat camera except Nikon F Photomic-series	
	CS-11	Cowhide	Nikon EL2, Nikkormat ELW or EL	
	CS-12	Cowhide	Nikon F2 or F2 Photomic-series	
	CS-13	Leatherette	Any Nikon or Nikkormat camera	

Note: CS-11 and CS-12 have two-piece construction.



# Camera Cases

Nikon camera cases are designed to keep cameras well protected from the normal jolts and bruises of travel and heavy use. They are the best place to store Nikon and Nikkormat cameras when they are not being used, but are designed to keep the camera ready for action when wanted. They are literally 'ever ready.'

Both the hard and semi-soft cases are of a two-piece design which allows great versatility. The body portion of the case is held firmly in place at the tripod socket, while the front flap can either hinge down or be completely removed when taking pictures.

The soft case, on the other hand, is generally of one-piece construction (see note on page 4) and attaches easily with snaps around the camera's neckstrap eyelets. It is made of genuine leather or leatherette and gives a touch of luxury while at the same time protecting against nicks and scratches.

Fully collapsible, it folds easily when not in use, and can even fit into the photographer's pocket. The hard case, available in leather or durable leatherette, is designed to provide maximum protection against moisture, dust, and physical shock. Lined with soft felt, the hard case is fully formed and is finished in glossy black.

The semi-soft case is a pliable formed case of leather or texturized leatherette. It provides most of the protection qualities of the hard case, yet has a softer look and feel.

All Nikon camera cases are manufactured to the same high-quality standards of Nikon cameras. The materials, stitching, and hardware are all chosen to last through many years of hard service, and models are available to accommodate a wide variety of lens and accessory combinations.

## Cases for the F2 Nikons

For the owner of an F2 Nikon there are three different textures to choose from when using a normal lens: hard CH-4, semi-soft CF-1, and soft CS-12. For longer lenses, the CH-5 is available—a hard case for use with lenses up to the size of the 43-86mm zoom lens. With the action finder

attached, F2 Nikons have a semi-soft case, the CF-2, which has been specially designed for this combination. Another example of a special case is the CH-11, a hard case which accepts an F2AS, F2SB, or F2S with both a long lens (up to the size of the 43-86mm zoom) and an EE servo control attached.





### Cases for Nikon FM and FE

The Nikon FM and FE take any of three semi-soft cases specially made for them; the CF-7 for the camera with its normal lens, CF-8 for the camera

body and any lens up to the size of the 43-86mm zoom. The CF-9 is designed to take the camera with the MD-11 motor drive attached. Its front will accommodate lenses as large as the 43-86mm zoom.



### Cases for Nikkormat EL, ELW, and Nikon EL2

For the normal lens user, there is a choice of two textures; hard CH-3 and soft CS-11. In addition, there are cases for winder-equipped ELW's or EL2's; the CH-9 for lenses of 50mm size or smaller, and

the CH-10 for use with larger lenses up to the size of the 43-86mm zoom. For cameras with long lenses (up to the size of the 43-86mm zoom) and no winder, a hard case, the CH-8 is available.





### Cases for the Nikkormat FT2 and FT3

Available in hard and semi-soft. CH-6 is a hard case for the camera with normal or smaller lenses mounted. CH-7 is a hard case with a longer front to accommodate lenses up to the size of the 43-86mm

zoom. The CF-4 is a semi-soft case for the camera with normal and smaller lenses. The CF-5 is a semi-soft front flap only which can be used with the body case of the CF-4 when using larger than normal lenses, up to the size of the 43-86mm zoom.



### Blimp Case CS-13

The blimp case is a special-purpose case which can be used with any Nikon or Nikkormat camera. It is thickly padded for increased protection against the cold, and effectively dampens all camera noise. It has a front opening which permits lenses of any focal length to be used. It also has a window which is located over the camera's top deck and through which the photographer will be able to view the shutter speed in use. The photographer's right hand fits through a tight elastic sleeve, permitting access to all of the camera's controls.



### Nikon Speed Case CF-6

The CF-6 is a semi-soft case made of leatherette which will accommodate any Nikon or Nikkormat camera with a long lens attached. Among the lenses which will fit are: 180mm f/2.8, 200mm f/4, 300mm f/4.5, and the 80-200mm f/4.5 zoom. Should a shorter lens be mounted on the camera, the space in the nose of the case can be used for another short accessory lens or any other photographic equipment which will fit, a section divider is furnished for the purpose. The case comes with a belt loop for carrying at the waist and a shoulder strap.





## Cases for General Use

Cases CS-8, CS-9, and CS-10 are soft cases with "noses" of progressively longer length, to accommodate lenses of various focal lengths. Capable of being used with any current Nikon or

Nikkormat camera, they are especially recommended to the photographer who owns a selection of different cameras and lenses.

Note: CS-7 is a soft case for users of all but F and F2 model Nikons.



CS-10



CS-9



CS-8



CS-7

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Camera	Case Designation		Wide 15/5.6	Fisheye 16/3.5	Wide 18/4	20/4	24/2	24/2.8	28/2	28/2.8	28/3.5	35/1.4	35/2	35/2.8	Normal 50/1.4	50/2	55/1.2	Telephoto 85/1.8	85/2	105/2.5	135/2	135/2.8	135/3.5	180/2.8	200/4	PC 28/4	PC 35/2.8	Micro 55/3.5	Micro 105/4	Noct 58/1.2	Zoom 28-45/4.5	43-86/3.5	80-200/4.5
F2 series	Hard	CH-4																															
		CH-5																															
		CH-11																															
	Semi-soft	CF-1																															
		CF-2																															
	Soft	CS-12																															
Nikon EL2, Nikkormat ELW or EL	Hard	CH-3																															
		CH-8																															
		CH-9																															
		CH-10																															
Soft	CS-11																																
Nikon FM or FE	Semi-soft	CF-7																															
		CF-8																															
		CF-9																															
Nikkormat FT3 or FT2	Hard	CH-6																															
		CH-7																															
	Semi-soft	CF-4																															
		CF-5																															
Any Nikon camera	Semi-soft	CF-6																															
	Soft	CS-7#																															
		CS-8+																															
		CS-9♦																															
		CS-10♦																															
		CS-13																															

■ With a lens cap, filter and snap-on hood mounted in reverse (or a rubber hood folded down or inside out over the lens barrel).

■ With a lens cap, filter and a snap-on hood mounted in reverse.

■ With a filter and screw-in hood.

■ With a lens cap and a filter.

■ With a lens cap.

■ With a PK-13 Ring.

■ With a PN-11 Ring.

■ Any Nikkor lens

**Notes:** # Unusable with F and F2 series ♦ Unusable with F Photomic-series

+ Unusable with F series and F2S Photomic



**Plastic Case:** Has a bayonet mount at the base of the "bottle" to accept the lens directly, and its clear plastic top screws on tightly, sealing out moisture as well as dust. Available in two sizes.



**Notes:**  
 \* With a DF-1 finder  
 ● With a camera body  
 ▲ With a Focusing Unit AU-1

- ☆ Remove interior cushions for lens accommodation.



# Compartment Cases

Nikon compartment cases are specially designed to be a safe, convenient way for the photographer to carry a variety of cameras, lenses and accessories. Each provides a high degree of flexibility for the photographer with specialized requirements, and each offers a high degree of security for delicate optical accessories while affording easy access to all sections of the case.

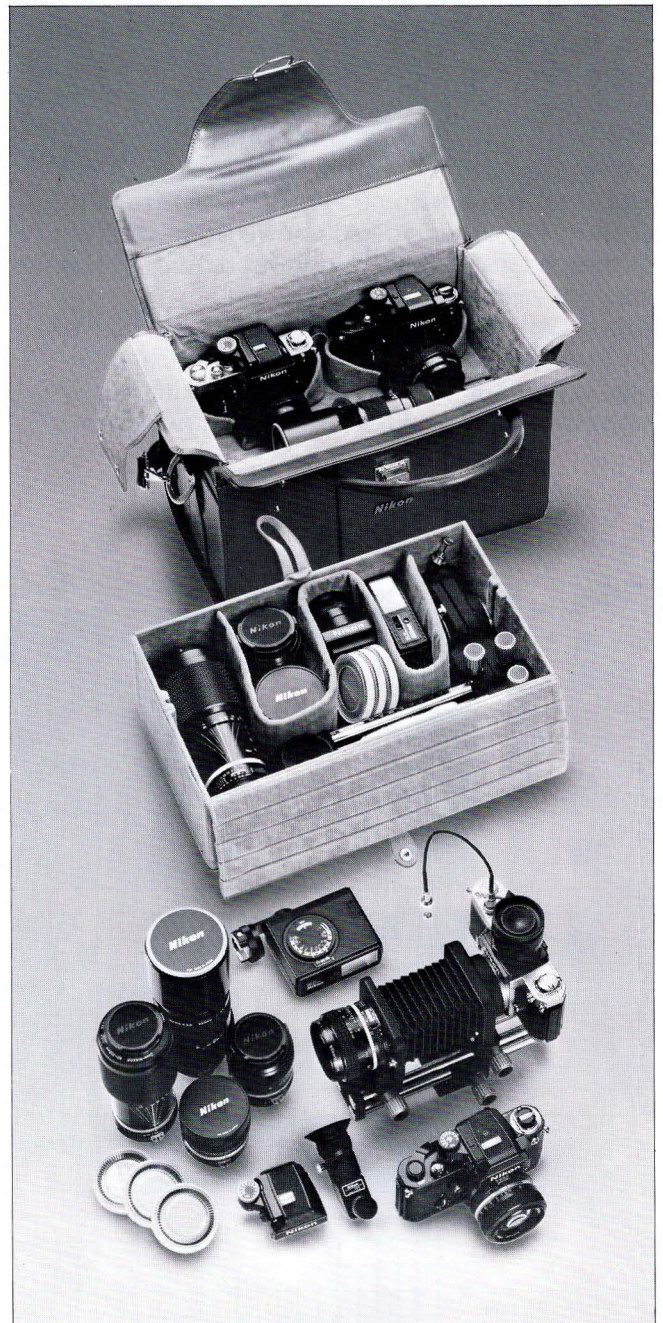
The chief considerations in any compartment case are durability and accessibility. Nikon cases excel in both areas. Made of the finest materials, each case is built to stand up to the kind of hard use that the most heavy-duty photographers will give it. Double-stitched and reinforced in all critical stress areas, Nikon cases are tough on the outside and safe on the inside.

## FB-11A



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The FB-11A is Nikon's highest capacity case, and made of genuine leather. It is particularly recommended for the photographer who has an extensive collection of bulky accessories, in addition to the usual lenses and camera bodies. For example, bellows units, finders, speedlights, meters, and motor drives can all be accommodated in the lower portion of the case's two-tier design, while the top tray contains two camera cradles with adjustable lens straps. A separate set of velcro-type adjustable lens retainers allows one long telephoto lens to be stored additionally in the upper compartment along with the camera bodies. Removable partitions in the lower chamber allow the space to be custom-tailored to the specific requirements of the user. A removable filter case, CA-1, is supplied, which holds six 52mm filters. The interior of the case is finished in soft plush to keep all equipment scratch-free, and reinforced handstraps and a shoulder strap are provided.





## FB-8



The FB-8 is designed to carry two camera bodies plus four or five lenses. Made of tough leatherette, it affords excellent protection from moisture and shock, and the plush interior keeps all equipment secure and scratch-free. An unusual webbed hinge permits both the back and the top to swing away from the body of the case, giving wide access to all equipment. A steel plate in the bottom contains three bayonet mounts to which lenses can mount directly, eliminating the need to remove and remount rear lens caps. In addition, the receptacles are spaced widely enough to keep each lens separate and secure. An outside snap-open compartment provides convenient storage for small accessories; the inside filter case stores four 52mm filters. The FB-8 is supplied with a combination hand/shoulder strap with non-slip rubber pad.

## FB-14



The FB-14 has an unusual vertical design which gives instant access to all its contents through an extra-wide zipper opening. A camera body and up to three lenses can be stored vertically, separated from each other with adjustable plush dividers. Long lenses, like the 80-200mm zoom, can be accommodated with room to spare, and small accessories will find plenty of room along the inside walls and in a special zipper compartment on the outside. Although the protection afforded by this case is somewhat less than with heavier cases, its lightweight design makes it ideal for carrying equipment for long periods, as when hiking or vacationing. The shoulder strap is of an extra-strong Y-shaped design, and fastens to the case with rivets



Because of its storage configuration, the FB-8 is ideally suited to those photographers whose equipment is primarily camera bodies and lenses.



and heavy reinforced stitching.



## FB-15



The FB-15 is a versatile compartment case in handsome leather. The two-tier design keeps equipment well-organized for quick access. The bottom level can be divided into three compartments for individual requirements using the removable partitions. Soft plush dividers further aid in keeping items separate and secure. The lid of these compartments may be secured in the open position, allowing taller items, like a camera with an attached motor drive to be stored with ease. This particular combination is specially at home in the FB-15, as an accessory pouch is provided which fits the camera and motor ensemble exactly. The upper tray comes with a movable camera cradle which fastens securely with velcro retainers. The case is supplied with both reinforced handstraps and a shoulder strap with a non-slip rubber pad.



## FB-16



Though the FB-16 is the most compact of the Nikon compartment cases, it has the unusual capacity to accommodate an F2 Nikon with a lens and the MD-2 motor drive attached. In addition, an extra lens and a good selection of other accessories can be stored. For further protection of lenses and small accessories, movable partitions are included, made of soft plush. The case is finished in textured leatherette, has a snap-open lid and a reinforced handstrap. It is particularly suited to those occasions when a limited amount of preselected equipment needs to be carried or when space is at a premium.





## List of Nikon Compartment Cases

Designation	Dimensions (L x W x H) Weight	Purpose			Remarks
		Camera body	Lens/accessory attached to camera body	Lens/accessory separately stored	
FB-8  leatherette black	32 x 21 x 21cm (12.6 x 8.3 x 8.3 in.)  2.8kg (6.17 lb)	Two bodies	Two lenses up to 135/2.8	Two lenses up to 105/2.5; one lens up to 55/1.2	Has a steel plate in the bottom with three bayonet mount lens receptacles; outside compartment for vari- ous small accessories; built-in filter case stores four 52mm fil- ters
			One lens up to 135/2.8	Two lenses up to 105/2.5; one lens up to 300/4.5	
FB-11A  leather brown	38 x 29 x 29cm (15 x 11.4 x 11.4 in.)  3.1kg (6.83 lb)	[Upper compartment]	Two lenses up to 180/2.8 or 200/4	None	Can be arranged to suit the user, using many detachable and movable parti- tions; accepts vari- ous cameras, lenses and accessories; CA-1 also provided for six 52mm filters
		Two bodies	Two lenses up to 50/1.4	One lens up to 400/5.6	
		[Lower compartment] Bulky lenses and accessories, such as 500/8, bellows, speedlight, finders, etc.			
FB-14  leather black	29 x 12 x 24cm (11.4 x 4.7 x 9.4 in.)  0.9kg (1.98 lb)	One body	One lens up to 50/1.4	One lens up to 105/2.5; one lens up to 300/4.5	Vertical design for greater accessibility; inside pockets for filters, cables, etc.; outside zipper com- partment for other accessories
FB-15  leather brown	33 x 19 x 23cm (13 x 7.5 x 9.1 in.)  2.5kg (5.5 lb)	[Upper compartment]	One lens up to 300/4.5	None	Many detachable and movable partitions permit flexible stor- age combination; special large pouch provided for bulky equipment such as motor drive-/bat- tery pack-equipped camera with 50/1.4 lens
		One body			
		[Lower compartment]  One body with 50/1.4, motor drive and battery pack mounted (if the lens in upper compartment is up to 180/2.8 or 200/4)		Two to four lenses from 18—200mm; pistol grip, release, filters, etc.	
FB-16  leatherette brown	22 x 19 x 17cm (8.7 x 7.5 x 6.7 in.)  0.9kg (1.98 lb)	One body with 43-86/3.5 Zoom, motor drive and cordless battery pack mounted		One lens up to 80-200/3.5 Zoom; speedlight SB-7E or SB-8E; filters and other sundries	Handy case with two movable partitions

- Notes:**
1. Nikon F2 Photomic-series camera body.
  2. All the lenses described above represent the old models which are generally more bulky than the current ones. Slightly longer focal length lenses of current models may be stored in some cases.
  3. Compare the exact lens models to be stored, not by the focal lengths, but by the physical lengths and/or diameters. Some lenses like bulky ultra-wideangles, fisheyes, zooms, etc. were disregarded in making the table.



# Lens Hoods



## Rubber Screw-in Type

The rubber collapsible hood mounts in the same way, but can be folded back when not in use, allowing the camera to be stored in a camera case with the hood attached.

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Lens hoods are important accessories that reduce the amount of stray light which enters the lens. Because of this, hoods improve contrast and control flare, one of the most common causes of disappointing picture quality.

Lens hoods also provide good protection to vulnerable front lens elements by further recessing the glass surface. Nikon's lens hoods come in four styles: screw-in, slip-on, snap-on, and rubber collapsible. It is strongly recommended that every lens be fitted with a lens hood specially designed for it. Failure to do this will result in insufficient shading on the one hand, and vignetting or view obstruction on the other hand.



## Screw-in Type

The screw-in hood, as its name implies, fastens simply to the front thread of the lens barrel. This direct mechanism requires no retaining ring, and is therefore suitable for wideangle and zoom lenses, since it causes no vignetting. The rigid construction and secure fit provide maximum physical protection to the optical element.



## Snap-on Type

The snap-on style is the fastest to attach. A retaining ring with a large finger-grip is squeezed to mount the hood, the release of the ring securing the hood to the front of the lens barrel. By reversing the hood and securing it in the same way, the camera can be stored easily in a camera case with the hood in place.



## Slip-on Type

Some wide-zoom and ultra-wideangle lenses require a special slip-on hood which attaches to the lens barrel behind the front rim, thereby preventing vignetting, a darkening of the corners. A knurled screw tightens a retaining ring, holding the hood firmly to the lens. This secure fit provides excellent protection to the front element.



Type	Designation	Attachment size	Lenses or Filters
Snap-on	HS-6	52mm	50/2
	HS-7	52mm	55/1.2, 58/1.2 Noct
	HS-8*	52mm	105/2.5, 135/3.5 #
	HS-9	52mm	50/1.4
	HS-10*	52mm	85/2
	HS-11	52mm	50/1.8
Rubber Screw-in	HR-1	52mm	50/1.4, 50/1.8, 50/2
	HR-2	52mm	55/1.2, 58/1.2 Noct
Screw-in	HN-1	52mm	24/2.8, 28/2, 35/2.8 PC
	HN-2	52mm	28/2.8, 28/3.5
	HN-3	52mm	35/1.4, 35/2, 35/2.8, 43-86/3.5, 55/3.5 Micro
	HN-4	52mm	45/2.8 GN
	HN-7	52mm	80-200/4.5, 85/1.8
	HN-9	72mm	28/4 PC, 20/3.5 +
	HN-10*	82mm	200-600/9.5
	HN-11	95mm	50-300/4.5
	HN-12	60mm	52mm Polar Filter
	HN-13	86mm	72mm Polar Filter
	HN-15*	86mm	18/4
	HN-16*	95mm	180-600/8
	HN-17*	122mm	360-1200/11
	— *	87mm	500/8
Slip-on	HK-1	72mm	28-45/4.5
	HK-2	52mm	24/2
	HK-3	52mm	20/4
	HK-4	72mm	35-70/3.5
	HK-5	95mm	50-300/4.5 ED
	HK-6	52mm	20/3.5 ▲
	— *	108mm	1000/11

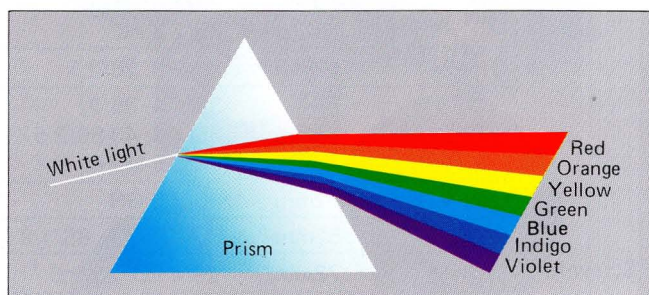
## Note

- # Old model without built-in telescopic hood  
+ Old model with 72mm attachment size  
▲ New model with 52mm attachment size
- The following lenses come supplied with the lens hoods mentioned above, so all hoods marked with an asterisk (\*) are available only as replacements  
18mm f/4, 85mm f/2, 105mm f/2.5, 180-600mm f/8 ED, 200-600mm f/9.5, 360-1200mm f/11 ED  
500mm f/8 Reflex, 1000mm f/11 Reflex
- The following lenses have integral or built-in telescopic hoods which are not detachable.  
13mm f/5.6, 15mm f/5.6, 105mm f/4 Micro, 135mm f/2, 135mm f/2.8, 135mm f/3.5, 180mm f/2.8, 200mm f/4, 300mm f/2.8 IF-ED, 300mm f/4.5, 300mm f/4.5 ED, 400mm f/3.5 IF-ED, 400mm f/4.5, 400mm f/5.6 ED, 600mm f/5.6 IF-ED, 600mm f/5.6, 600mm f/5.6 ED, 800mm f/8, 800mm f/8 ED, 1200mm f/11, 1200mm f/11 ED, 2000mm f/11 Reflex



# Filters

What we think of as "white" light is, in fact, composed of an entire spectrum of colors, both visible and invisible. Each color of the spectrum has its own wavelength, measured in nanometers. The visible spectrum ranges from red on the one end (700 nanometers) to violet on the other (400 nanometers). Beyond this visible spectrum on the red side are invisible light waves known as infrared, and beyond the spectrum on the violet side are wavelengths called ultraviolet. Most of the light we see is composed of unbalanced amounts of all the different colors in both the visible and invisible portions of the spectrum.



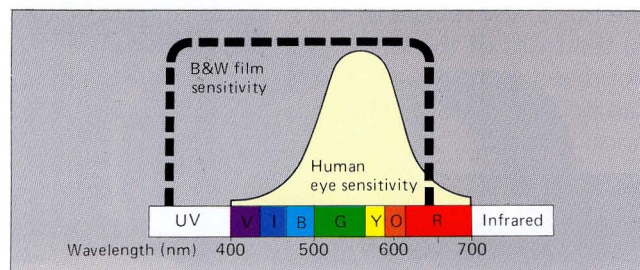
Because light which appears white is not pure white, an impartial recording medium like film may record the scene as "reddish" or "bluish." You and your customer have probably noticed this phenomenon in your photographs, but the effect is even noticeable to the naked eye. By turning your eyes quickly from daylight to an incandescent bulb, you will notice that for a few seconds the bulb seems unusually "warm" looking, strongly orange in color. This is the way that "daylight" film records scenes lit with incandescent light. This is one reason why filtering is necessary in many photographic situations.

Filters function by holding back portions of the spectrum and allowing others to pass freely through. In this way they can correct what our eye perceives to be imbalances in color tonality. This imbalance is as true for black and white (B&W) as it is for color film, though its effect is less pronounced in B&W.

## Film vs. the Eye

In addition to its ability to adjust to different light sources the eye has other qualities which differ from the qualities of films. For example, the eye is more sensitive to yellow than are most panchromatic B&W films, meaning that yellow items are rendered in a darker shade of gray relative to other colors than we would expect. The sensitivity of the eye diminishes to those colors progressively farther from yellow on the spectrum. Ultraviolet, which is practically invisible to the human eye, is still recorded by the film, and causes tonal relationships unnatural to our eyes. As a result, skies and foliage, which often reflect high amounts of ultraviolet may appear unnaturally light or even white in a

B&W print. So to restore a natural tonal relationship which corresponds to our perception we need to filter.



## Enter Filtration

Whether used to shift the color balance with color film or to improve contrast and tonal rendition with color or black-and-white films, filters function by absorbing selected areas of the visible and invisible portions of the spectrum.

So a good way to think of filters is not so much by the color they appear to the eye, but rather in terms of the colors they hold back from the film.

Essentially a filter is a subtractive device, absorbing certain wavelengths of light and thereby seeming to boost the value of other wavelengths. The transmission charts should serve as a guide to judge which filters should be used to suppress which colors.

## Filters for Black-and-White Photography

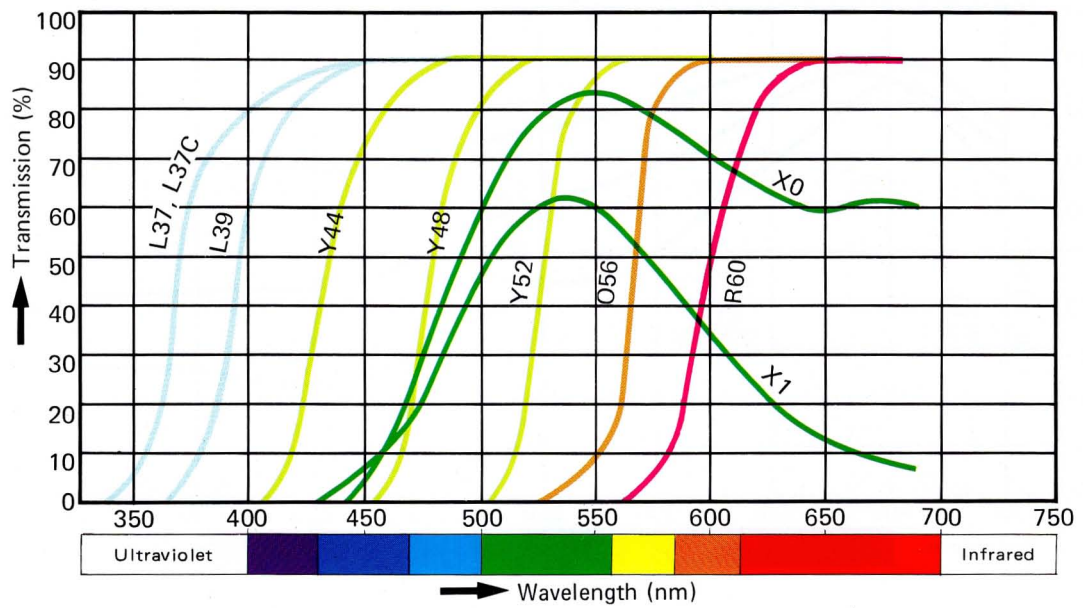
In black-and-white photography, the principal aim of filtration is to change the way certain colors are rendered on a "gray scale" of black to white. As mentioned earlier, film does not respond to the brightness of colors in the same way as does the human eye, meaning that some colors are represented lighter than we see them in nature, and some are rendered a darker shade of gray than we find "natural." To highlight details, to improve contrast, or to create special effects we can choose filters that suppress certain portions of the spectrum while allowing others to pass. For example, skies reflect ultraviolet and blue to which film is quite sensitive. The result is a "washed-out sky-look" that can take away from the effectiveness of a black-and-white print. By using a filter which absorbs blue and ultraviolet, less light from the sky passes on to the film and the result is a more dramatic photograph.

Contrast can be improved with the use of filters by choosing one color to be darkened with respect to the others and then choosing a filter which absorbs that color. A flower, for example, can be made to stand out against darkened foliage by choosing a filter which passes the color of the flower while absorbing the green of the foliage.

To create strong pictorial effects, deep filters can be used for unusual renderings like black skies, very high contrast, and "nighttime" effects taken in daylight.



# Transmission Charts





## Filters for Color Photography

Color photography poses its own problems, and filtration often becomes an essential tool to obtain the desired result. No color film can ever see light or color the same way the human eye sees it. The best that can be hoped for is a reasonable balance. Our eye and brain working together can compensate for such affecting variables as the color and brightness of objects surrounding the main subject, its gloss, and the color temperature of the light which illuminates the scene. To get a truly correct rendering of the subject with the kind of film we are using, we have to take all these factors into account and choose a filter accordingly.

In practice, the process is not as complicated as it sounds for most types of photography. Once again, the key is to approach filtering from the idea of subtraction; what colors need to be suppressed? The chart at the bottom shows us what percentages of each portion of the spectrum are cut with the use of various Nikon filters. We can see, for example, that the A-series filters cut blue while allowing other colors to pass. So rather than thinking of the A-series as amber filters, which they are, we ought to look at them functionally as "blue-suppressing" filters. This helps us to see that this series is useful for eliminating the blue tints encountered when photographing outside on heavily overcast days or with film balanced for the warmer light of electric bulbs.

This brings us to the subject of the different types of color film. Daylight film is ideally balanced for soft noonday sun. However, the morning sun tends to have a slightly lower color temperature (more yellow and red component) than noon sun, and

late afternoon sun is redder still. On these occasions a blue filter will suppress the reddish quality of the light and deliver a more neutral rendition.

Incandescent lights produce so much red that it is difficult to filter it all satisfactorily. However, photofloods can be used with daylight film when filtered, and conversely, tungsten film can be used in daylight when the blue-suppressing amber filter is used.

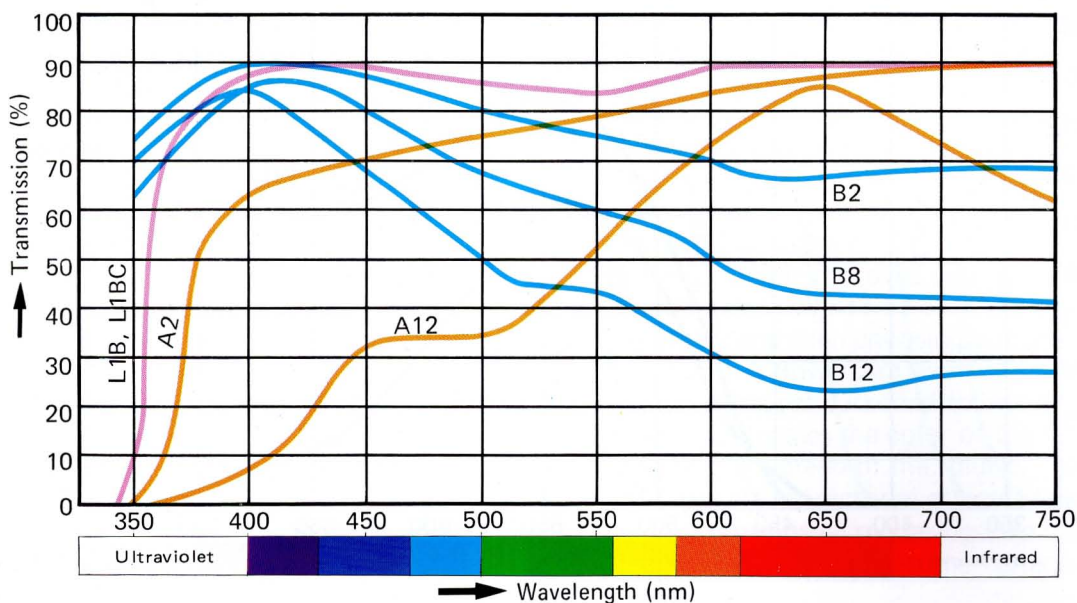
For special effects, seemingly inappropriate or strongly colored filters can be used to create a mood, add drama, or give a painting-like quality to color photographs.

## Filters for Color and Black-and-White Films

There are some filters that have no strong effect on color rendition, and whose properties are effective with color and B&W. Contrast, darkened skies, and reduced transmission can be effected with these filters regardless of the film used.

## Nikon Filters

An optical filter should be a precise instrument matched to the optical qualities of your lens. Nikon filters are made by Nikon from the finest optical glass, to be an exact optical complement to Nikkor lenses. Each Nikon filter is ground and polished with the same care as Nikkor lenses. Front and rear surfaces are exactly parallel to eliminate any degradation of image quality. The optical glass is shock-mounted to prevent any deformation under stress, and the filter rings themselves are strong, yet exceptionally thin, to prevent vignetting when used with wideangle lenses.





## Filter Factor

Since filters are subtractive devices, they do cut down the amount of light which reaches the film. Therefore most filtered photographs require additional compensation to ensure a proper overall rendering of tones. Nikon cameras equipped with TTL metering and all Nikkormat cameras measure light through the lens and therefore through any mounted filter. Because the light is measured after the filtration process, no manual exposure compensation is required.\* For F and F2 Nikon

cameras without TTL metering, the lens aperture or shutter speed must be adjusted from the normal reading to compensate for the reduced light transmission of filtered exposures. The amount of adjustment is a geometric progression represented numerically—the filter factor. A filter with a factor of two requires one extra “stop,” a factor of four requires two stops, a factor of eight requires three “stops” and so on.

\* Except when using the R60 under tungsten lights.

Filter Designation	Type		Filter Factor		Screw-in Type (mm)					Drop-in Type Series IX
			Daylight	Tungsten Light	39	52	72	95	122	
L1B L1BC	Skylight		1	1	•	•	•			
L37 L37C L39	Ultraviolet		1	1	•	•	•	•	•	•
Y44 Y48 Y52	Yellow	Light	1.5	1		•				•
		Medium	1.7	1.2		•	•	•	•	•
		Deep	2	1.4	•	•				•
O56	Orange		3.5	2	•	•	•	•	•	•
R60	Red		6	5	•	•	•	•	•	•
X0 X1	Green	Light	2	1.7		•				
		Deep	5	3.5		•				
Polar	Polarizing		2 ~ 4			•	•			
ND2 ND4 ND8	Neutral Density		2	4	•	•	•			
			4	8	•	•				
			8		•					
A2 A12	Amber	Light	1.2		•	•				
		Deep	2		•	•				
B2 B8 B12	Blue	Light	1.2		•	•				
		Medium	1.6		•	•				
		Deep	2.2		•	•				

### Nikkor Lenses Attached to:

300/2.8 IF-ED 400/3.5 IF-ED 600/5.6 IF-ED 500/8 Reflex 1000/11 Reflex	20/4 24/2 24/2.8 28/2 28/2.8 28/3.5 35/1.4 35/2 35/2.8 50/1.4 50/1.8 50/2 55/1.2 85/1.8 85/2 105/2.5 135/2.8 135/3.5 200/4 43-86/3.5 Zoom 80-200/4.5 Zoom 35/2.8 PC 45/2.8 GN 58/1.2 Noct 55/3.5 Micro 105/4 Micro Focusing Unit AU-1	135/2 180/2.8 300/4.5 300/4.5 ED 400/5.6 ED 28-45/4.5 Zoom 35-70/3.5 Zoom 28/4 PC	50-300/4.5 Zoom 50-300/4.5 Zoom ED 180-600/8 Zoom ED	300/2.8 IF-ED 400/3.5 IF-ED 400/4.5 600/5.6 600/5.6 ED 600/5.6 IF-ED 800/8 800/8 ED 1200/11 1200/11 ED 360-1200/11 Zoom ED	18/4 200-600/9.5 Zoom
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• = Available



## Filters for Black-and-White Film



Y44

Y48

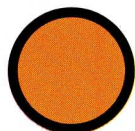
Y52

### Yellow (Y44, Y48, Y52)

Because black-and-white films are more sensitive to blue and ultraviolet than the human eye, blue objects are often rendered lighter than we want them to be. Skies, for example, often appear white and lifeless in prints where we see them as a darker blue.

Yellow filters absorb blue, producing darker skies with more pronounced clouds. They are particularly useful for landscapes which often reflect a large quantity of ultraviolet, which is invisible to the eye but registers strongly on the film.

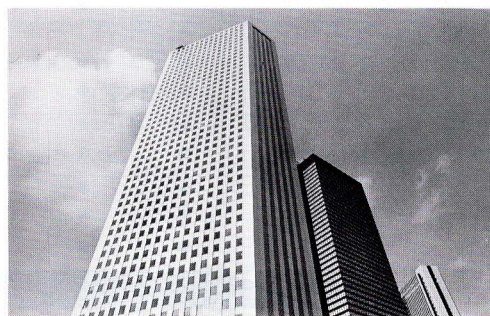
Y44 is a mild filter, while Y48 and Y52 have progressively stronger effects.



O56

### Orange (O56)

The Nikon orange filter absorbs more of the spectrum than the yellow, suppressing ultraviolet, blue, and green, while passing orange and red. The effect of the orange filter is more pronounced than the yellow in darkening skies and heightening contrast. Because orange absorbs green, the orange filter is very effective for pictures of flowers and trees, where the darkened foliage emphasizes the texture of rocks, tree trunks, and similar objects. Another situation which calls for an orange filter is telephoto landscape photography. Long lenses can reduce contrast with distant scenery, but filtering restores this contrast to normal.







**R60**

### **Red (R60)**

A very high contrast filter which absorbs all colors of the spectrum except red. Skies are darkened, and red objects appear to jump out of a dark background. Dramatic cloud effects and simulated night effects make use of the severe cutting action of the red filter. It should also be considered when photographing misty landscapes where the additional contrast may be needed to provide sufficient detail. The red filter is also used with infrared film.



**X0**



**X1**

### **Green (X0, X1)**

Green filters absorb both red and blue, and so are effective for highlighting both green and yellow.

X0 has a less pronounced effect in subduing red than does X1, though both absorb blue light about equally. X0 is a good all-around filter for both panchromatic and orthochromatic films, while X1 is particularly recommended for portraiture where its red-absorbing quality can be used to balance the reddish cast of floodlights to render skin tones in a more natural tonal relationship.





### Selection of Filters for Black-and-White Film

Subject	Effects required	Suggested filters
Blue sky as the background of main subject	Natural Darkened Night effects	Y44, Y48 O56, R60 R60 + Polar
Marine scenes with blue sky	Natural Darkened water surface	Y48, X0 Y52, O56
Sunrise and sunset	Natural Increased drama	None or Y44 O56, R60
Distant Scenes	Natural Haze reduction Sharp-cut image Detailed image (haze elimination)	Y44, Y48 L39, Y44 Y52, O56 R60 (with infrared film)
Plants (flowers and leaves)	Natural	Y48, X0
Outdoor portraits against sky	Natural	X0, Y48, Polar
Red, bronze and orange subjects	Detailed images	R60
Dark blue and purple subjects	Detailed images	X1
Stones, porcelain, glassware, plastic lumber, sand, snow, etc.	Natural Detailed structure Elimination or reduction of reflecting lights	Y48 O56, R60 Polar
Window glass, coated surfaces or water surfaces	Elimination or reduction of reflections	Polar

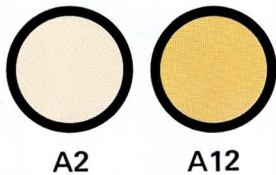
### Selection of Filters for Color Film

Film used	Subject/Circumstances		Effects desired	Suggested filters
Daylight	Open shade on a clear day, distant landscape, mountains, sea, etc.		Natural color effect Haze cut to show details	L1B, L1BC
	Blue sky, foliage		Darkening; increased saturation	Polar
	Cloudy day or heavily shaded subject		Warming up bluish cast	A2
	With blue flash bulb, blue reflector lamp or most speedlight units		Natural color effect	None
	Twilight hours (3 hours or so before sunset) on a clear day		Natural color balance, reducing yellowish and/or reddish tone	B2 (mild correction)
	With clear flash bulb			B8 (moderate correction)
	With reflector lamp			B12 (severe correction)
Daylight & Tungsten	When using a light source of proper color temperature	Window glass, non-metallic coated surfaces, or water surfaces	Elimination or reduction of reflecting light	Polar
		High EV situation	Reduction of overall light; intentional blurred image using a slow shutter speed	ND2X, ND4X, ND8X
Tungsten	Open air: blue sky, mountains, sea, etc.		Natural color balance with bluish cast reduced	A12
	With blue flash bulb or blue reflector lamp			
	With reflector lamp or quartz lamps		Natural color effect	None

Remarks: Color balancing with a filter is impossible when photographing under more than two light sources of varying color temperatures.



## Filters for Color Film



### Amber (A2, A12)

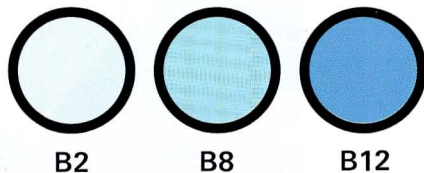
Amber filters absorb blue, and are therefore useful in counteracting the bluish tint that sometimes affects daylight-balanced color film.

A2 is mild in effect and is normally used to warm up the bluish cast of subjects in the shade or under cloudy skies. It is also used to neutralize the effect of light from a north window when shooting daylight film indoors during the day.

A12 is a stronger amber and is used with tungsten film when shooting outdoors in fair weather.



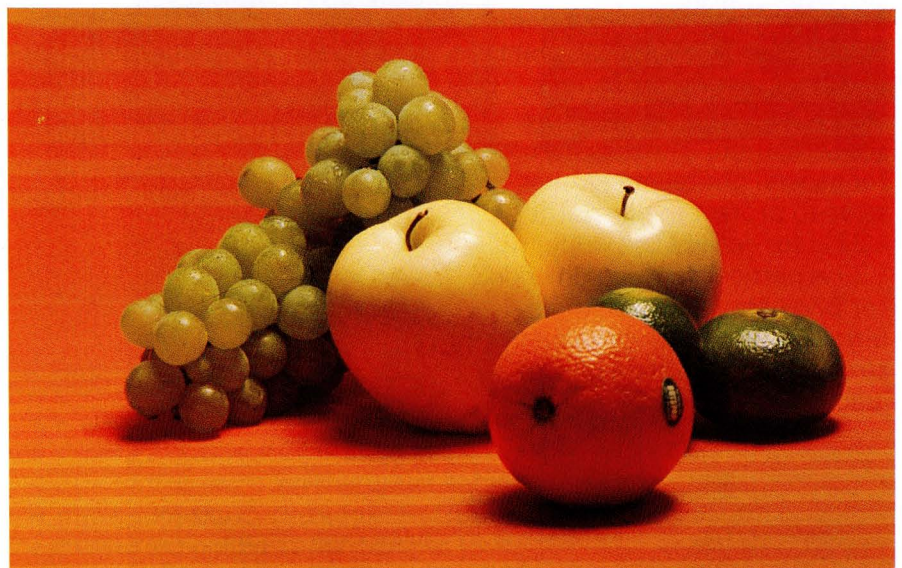
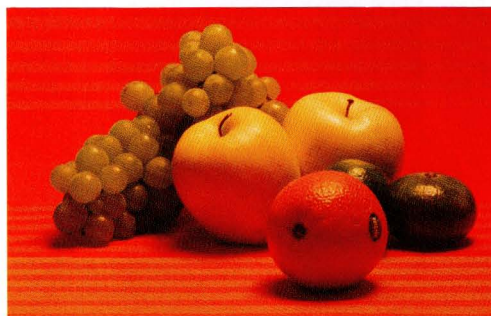
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### Blue (B2, B8, B12)

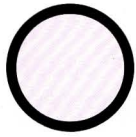
B2 is a mild blue filter which can cool off the normally reddish cast of daylight within three hours of sunrise or sunset. It is used with color film balanced for daylight. B8 is a medium-blue filter which gives correct color rendition on daylight film used with clear flashbulbs.

B12 is a strong blue filter which converts daylight film for use with 3400° K photofloods when shooting indoors.





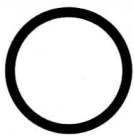
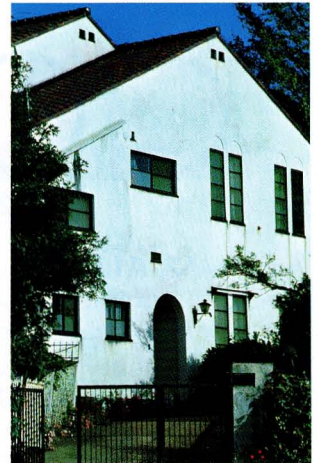
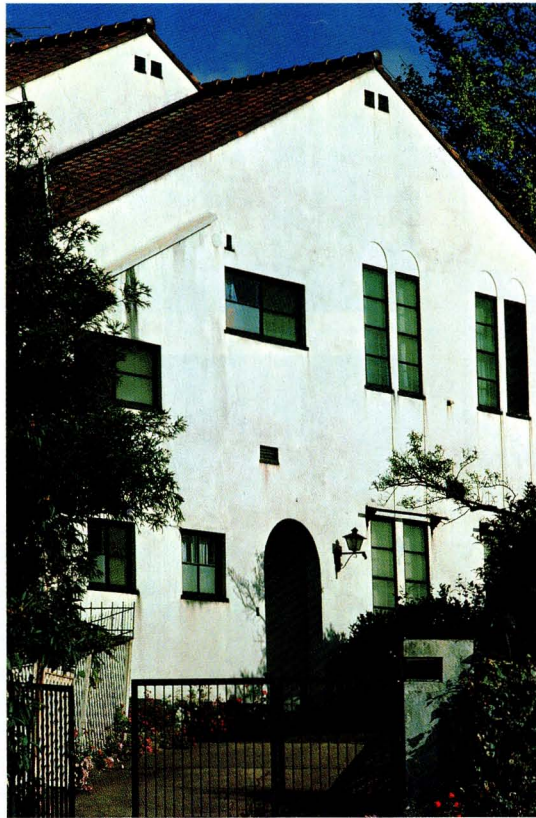
## Filters for Both Color and Black-and-White Film



**L1B/L1BC**

### **Skylight**

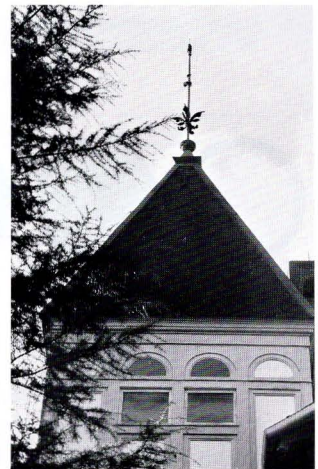
Daylight type color film, used in fair weather at midday, often displays a slightly bluish cast, owing to the film's sensitivity to invisible ultraviolet rays. Nikon's L1B or L1BC skylight filter cuts excessive blue-green and ultraviolet, as well as haze, to make the effect more natural and to uncover more details. The blues of a summer seashore, or a winter scene under blue skies, for instance, will appear toned down. This filter also serves as a lens protector.



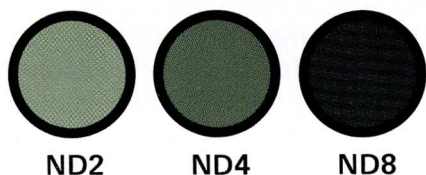
**L37/L37C/L39**

### **Ultraviolet**

Absorbs the ultraviolet light invisible to the naked eye without affecting visible light to effect clear-cut, non-hazy pictures with B&W film—and pictures without bluish or violet tints when color film is used. Nikon's ultraviolet filters are colorless and transparent, requiring no exposure compensation, and are thus useful for general photography; they also serve to protect the lens. The L37 is for general use while the L39 is particularly recommended for B&W photography where ultraviolet rays are apt to be strong, as in mountain photography in midsummer.







ND2

ND4

ND8

### Neutral Density (ND2, ND4, ND8)

Used with B&W and color films, Neutral Density filters absorb all colors equally, and are therefore employed when color balance is to be retained while restricting the amount of light entering the camera. They are useful in controlling depth of field by allowing a larger aperture to be used while the shutter speed need not change. They can also be used when no combination of aperture and shutter speed is sufficient to prevent overexposure, as with high-speed films in daylight, or where a slow shutter speed effect may be wanted. Reflex Nikkors, which have no iris diaphragm, can also



use ND filters effectively to control light transmission.



Polar

### Polarizing Filters

Polarizing filters can be used with both color and B&W films, and reduce the reflected light from non-metallic surfaces such as glass and water. The polarizer is the only filter which can darken the sky in color photography while not affecting the overall color balance. It also reduces glare from grass and trees, giving them a deeper, more saturated color. Polarizing filters may be used to photograph through window glass, or spectacles.

The effect of a polarizer can be observed on a focusing screen as it is being rotated (up to 180°) on its mount. For maximum control of reflections, the camera position may need to be altered



because best results are obtained when the camera's optical axis is at an angle of 32 ~ 37 degrees from the target surface. For maximum sky darkening effect, the camera should be at right angles to the sun.





## Filter Accessories

### Filter Cases

Nikon provides cases for its filters to give them the same protection that your customer would want to give the glass elements of his lenses.

To store single filters, replacement filter cases in plastic (for 52mm, 72mm and Series 9 filters) and leather (for 95mm and 122mm filters) are available. These are identical to the cases in which the filters are stored when they are shipped.

For the photographer with a collection of filters, it makes more sense to carry them together. Nikon cases CA-1, for 52mm filters, and CA-2, for 39mm filters, provide a practical means. Finished in textured leatherette, they keep each of six filters in a separate pouch, protected from dust and scratches.



### Nikon Gelatin Filter Holders AF-1 and AF-2

For the photographer who plans to use a large number of filters, the economical way is the gelatin filter holder which permits standard 3-inch gelatin filters to be adapted to many Nikkor lenses. The AF-1 attaches to lenses of 52mm front thread, and the AF-2 attaches to lenses of 72mm front thread. Since the front thread of the AF-1 is 60mm, the Polar hood HN-12 can be used for the purpose. The AF-2 comes with its own lens hood.





# Caps

## Lens Caps

The front and rear elements of Nikkor lenses are vulnerable surfaces and should not be exposed to possible damage by being left uncovered when not in use. For this reason, Nikkor lenses are supplied with both front and rear caps.

**Rear Caps:** Made of heavy plastic, they fit tightly on the bayonet mount of the lens. Two types are available: LF-2 for 6 and 10mm Fisheye lenses, and LF-1 for virtually all other lenses.\*

**Front Caps.** Come in three styles—snap-on, screw-in and slip-on.

The most common is the black snap-on cap with its spring-return retaining ring. Plastic tabs on either side are squeezed for easy mounting and removal. The screw-in cap, as its name implies, is a cap threaded to be screwed directly into the filter thread on the front of the lens. Screw-in caps are made of metal. Slip-on caps in leather or metal, are available as replacements; they are secured by friction-fit.



\* Ultra-telephoto lenses, which require the AU-1 focusing unit, are excluded. A special leather cap is used with these lenses, as they are not provided with a bayonet mount.



## Camera Body Caps

The body cap is made of tough black plastic, and mounts securely to the bayonet mount of all Nikon and Nikkormat cameras, allowing them to be stored safely. Body caps protect the camera's delicate mirror, and keep dust and foreign matter out of the mirror box.



Size (mm)	Type	Lens
38	Screw-in	200/5.6 Medical
52	Snap-on	All the lenses with 52mm front thread
64	Slip-on	16/3.5 Fisheye
72	Screw-in	All the lenses with 72mm front thread
86	Screw-in	18/4
88	Screw-in	500/8
90	Slip-on	15/5.6
93	Slip-on	500/8
95	Screw-in	50-300/4.5
100	Slip-on	200-600/9.5
108	Screw-in	1000/11
115	Slip-on	1000/11
120	Screw-in	8/2.8 Fisheye
122	Screw-in	400/4.5, 600/5.6, 800/8, 1200/11
133	Slip-on	400/4.5, 600/5.6, 800/8, 1200/11



# Viewing Aids

The whole idea behind SLR photography is the ability to see the picture as it will be recorded on the film through the picture-taking lens. This ability is further enhanced by the various viewing aids designed to make viewing clearer or more convenient, even with unusual camera positions or in specialized applications. Each viewing accessory attaches directly to the eye-level finder of most Nikon and Nikkormat cameras, enabling the camera to be used in a variety of applications including close-up, photomicrography, and photocopying. Nikon viewing aids are specially designed to match perfectly the optical viewing system of Nikon and Nikkormat cameras. Made from Nikon optical glass, and manufactured with the same attention to quality as Nikon cameras and lenses, these aids deliver uncompromising performance and will give years of trouble-free service.

## DR-3 Right-Angle Viewing Attachment

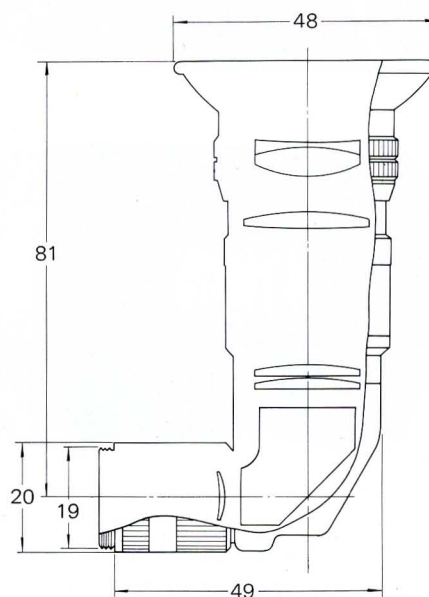
This attachment screws directly into the finder of any Nikon or Nikkormat camera accepting screw-in eyepiece accessories. Unlike other similar attachments made for other cameras, the Nikon DR-3 provides an upright and unreversed image, allowing the photographer to follow the action easily. In addition, the DR-3 can be rotated laterally 360° to permit viewing from the side or below the camera body.

The DR-3 is especially suited to awkward or low-angle shooting as well as instances where the camera is mounted on a copy stand or used with a microscope. It has its own lockable diopter system which can be adjusted to the eyesight of the user over a range of -5 to +3. A built-in rubber eyecup aids focusing by reducing stray sidelight.

Its 1X magnification renders an image scale identical to that of the camera alone, providing 100% of the viewing screen, including any peripheral exposure information.



Camera	Mounting Procedure
Nikon F/F2	Mount DR-3 with intermediate ring attached.
Nikon FM/FE/EL2 Nikkormat EL/ELW	Remove eyepiece and mount DR-3 with intermediate ring attached.
Nikkormat FT/FT2/ FT3	Remove eyepiece or other accessory and intermediate ring on the DR-3 before mounting.

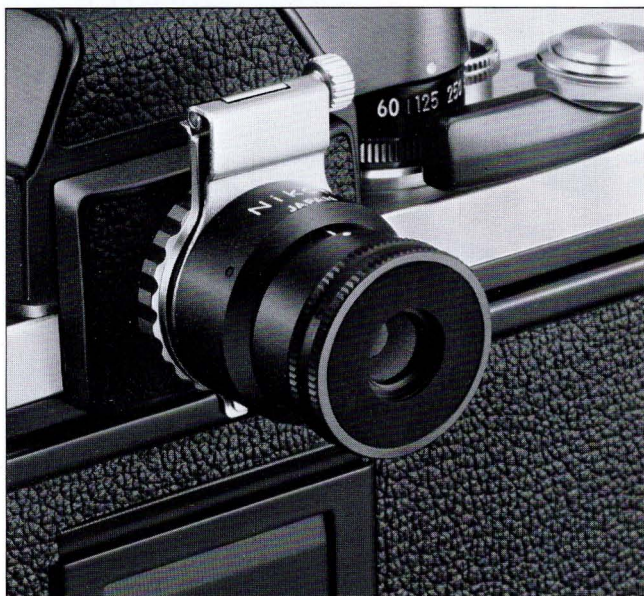


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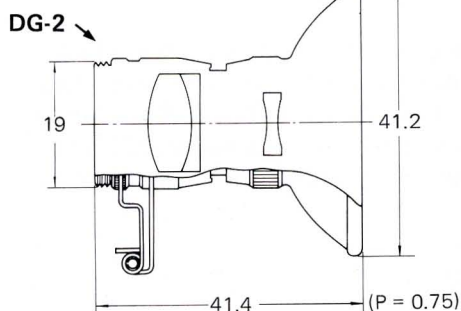
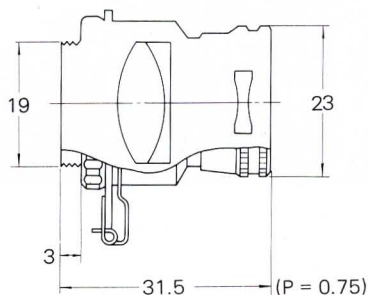
### Eye-piece Magnifier

When ultra-precise focusing is a necessity, the eyepiece magnifier can be used to give a 2X magnification of the central portion of the focusing screen. An area which approximates the central 12mm spot is enlarged to fill the entire screen, permitting very precise viewing and focusing. The attachment is hinged so that it can be swung away from the finder, allowing conventional viewing of the entire picture, including any viewfinder metering information. The built-in adjustable diopter system allows eyepiece correction from  $-5$  to  $+1$  when attached. This accessory is especially recommended for close-up, copy, and photomicrography and microphotography. Although it attaches to any Nikon or Nikkormat camera having a 19mm mounting thread, it does not permit the back of the Nikon FM and FE to be opened when mounted on those cameras.



### Eye-piece Magnifier DG-2

Designed originally for the Nikon FM and FE, the DG-2 is a compact version of the eyepiece magnifier and can be used on all Nikon cameras with perfect compatibility. Its smaller size allows the back of the FM and FE to be opened while the magnifier is mounted, greatly facilitating film changing when the camera is mounted on a tripod or copystand. It is identical in operation to the original eyepiece magnifier, providing a 2X magnification of the central portion of the viewfinder image. It has a built-in diopter providing eyepiece correction over a range of  $+1$  to  $-5$ , and it is hinged to allow instantaneous viewing of the full image area in the viewfinder, including any peripheral metering data. Except for the addition of a rubber eyecup, the DG-2 differs from the original eyepiece magnifier only in terms of size and weight.





## Eyepiece Correction Lenses

Screw-in eyepiece correction lenses allow photographers with limited visual acuity to view and focus with greater ease. Normally, the viewing system of Nikon and Nikkormat cameras produces an image equivalent to a diopter of  $-1$ . Correction lenses are available which, when screwed into the 19mm thread of Nikon viewing systems, produce diopter values of  $-5$ ,  $-4$ ,  $-3$ ,  $-2$ ,  $0$ ,  $+0.5$ ,  $+1$ ,  $+2$ , and  $+3$ . Because they are double-threaded, these correction eyepieces may be used in conjunction with other viewing aids.

Generally, a young person, whether he uses eyeglasses or not, with normal accommodation, does not need an ECL (eyepiece correction lens). When sighting through a small hole, like a viewfinder eyepiece, he can easily accommodate his eye to a  $-1$  diopter, which corresponds to seeing the image at a distance of one meter in front of the eyepiece.\*

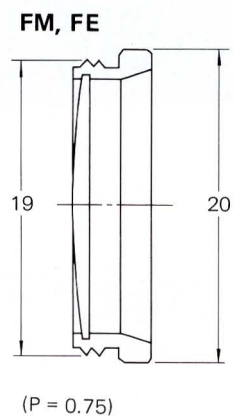
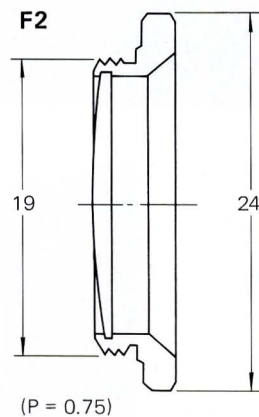
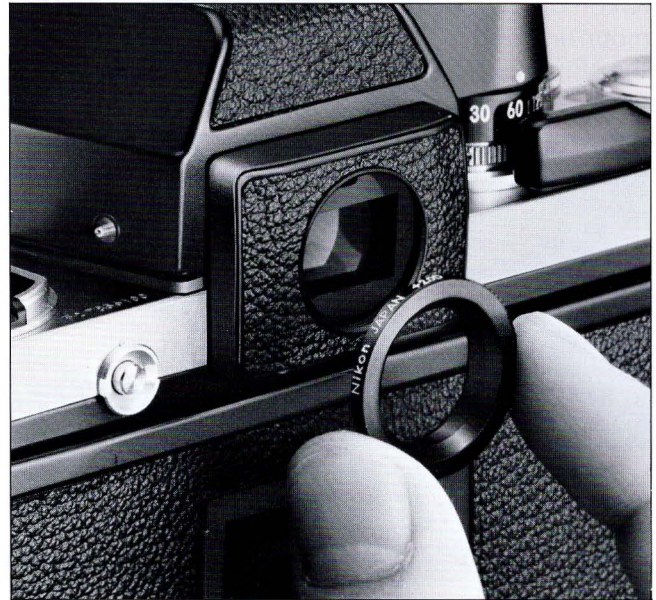
An older person, on the other hand, who is unable to make such an accommodation will normally require an ECL. For instance, if he usually needs his glasses to see the camera's controls, but finds it bothersome to remove his glasses for looking through the viewfinder, he can choose a suitable diopter and continue to use his glasses for the near object and view through the finder with the right ECL. To choose the proper ECL, he first obtains the difference between the power of his glasses for near and far objects, and then selects the minus ECL corresponding to, or approximating, the value of the difference thus obtained. In this way, the ECL serves to offset the difference between the two glasses. If he does not need glasses for distant objects, the value of the glasses for near objects is applied.

At any rate, since there are many differences in individual accommodation ability, and since this can be affected by different situations and surroundings, the best way to choose the right ECL is by actual test. The photographer may try a few ECL's to choose the one that fits his eye, just as the optometrist examines the eyes of his patient before prescribing a pair of glasses.

\* A young eyeglass wearer with normal accommodation who wants to remove his glasses when viewing through the finder may also use an ECL. He simply selects an ECL whose dioptre corresponds to the dioptre of his glasses.

## Eyepiece Correction Lenses for the Nikon FM and FE

The Nikon FM and FE have a shorter distance between the top of the camera back and the bottom of the viewfinder eyepiece. For this reason, a series of smaller eyepiece correction lenses has been designed especially for them. Covering the same range as those designed for other Nikon and Nikkormat cameras, the correction lenses for the FM and FE allow the camera back to be freely



opened to change film while the ECL remains on the camera. In every aspect, except for size, they are identical to those for other Nikon/Nikkormat cameras, which means that the smaller ECL's can be used on these larger cameras with excellent results.

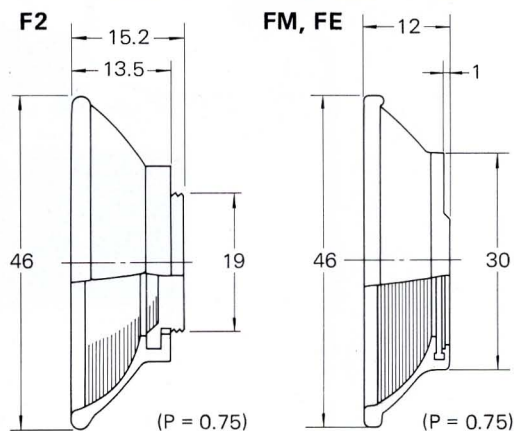


### Rubber Eyecup

The rubber eyecup helps to block stray light from entering the eyepiece, and thus improves the apparent brightness and contrast of the image in the viewfinder. For this reason, it is particularly suited to strongly sidelit situations.

The eyecup can be screwed into the eyepiece of Nikon and Nikkormat cameras, and may be used in conjunction with an eyepiece correction lens. Eyeglass wearers will appreciate the fact that the soft rubber rim of the eyecup protects them from scratching their eyeglass lenses.

In strongly sidelit conditions, the rubber eyecup has the additional benefit of sealing out stray light which might enter through the eyepiece and cause improper reading of light measured through the lens. Three models of the rubber eyecup are available: one for the F2 Nikons, one for Nikkormat cameras, and one for the Nikon FM and FE. The model for the F2 Nikons is identical to the standard model for Nikkormat except that it comes with a special eyecup holder which allows it to be screwed directly into the camera's eyepiece thread. The standard model mounts directly to the finder eyepiece of all Nikkormat models (including Nikon EL2), while the rubber eyecup for the FM and FE features a split-cup design, allowing it to be folded up when the camera back is opened.



### DF-1 Fisheye Finder

While not strictly a general-purpose viewing aid, the DF-1 is available as a finder for centering the main subject when using non-reflex Fisheye-Nikkors like the 6mm f/5.6 and 10mm f/5.6. These lenses require the camera's mirror to be locked up so normal reflex viewing is impossible.

The finder slides over the rewind knob of F and F2 Nikons and can be used on most Nikkormat cameras equipped with the AS-2 flash coupler.



### Finder Eyepiece

The finder eyepiece is a replacement transparent glass disc which screws into the 19mm thread on Nikon and Nikkormat viewfinders. Two models are available: one for FM and FE, the other for Nikkormat and Nikon EL2. Note that this replacement accessory is not necessary for F2 cameras, as it is integrated into the camera's viewfinder.

### Eyepiece Frame Adaptor

The eyepiece frame adaptor is designed to permit older F Nikon and early Nikkormat models with rectangular eyepiece frames to accept screw-in viewing aids. The adaptor slips over the rectangular frame and provides the circular thread now found on current Nikon and Nikkormat cameras.



## Other Accessories

### Neckstraps

Four different neckstrap models are available from Nikon.

Two (AN-4B and AN-4Y) are made of strong webbed nylon, available in either all-black or black with yellow stripes. They flare in the middle to relieve pressure on the neck, but are narrow elsewhere for easier handling.

Also available are conventional straps, AN-1 in leather, and AN-3 in sturdy leatherette. All models fasten securely to the camera eyelets with snap-type clips, and are designed not to scratch the camera body when attached. The neckstrap is fully adjustable to keep the camera at a convenient height.



### AR-1 Soft Release

The soft release is an oversized shutter release button that screws over the standard release to provide a large, flat surface for smooth triggering. It may be left on the camera except when using other threaded shutter release.



### AR-2 Cable Release

The cable release is a necessity for the tripod worker. It minimizes all vibration caused by the pressure of the finger against the shutter release button, and its locking feature makes it ideal for long-time exposures. The Nikon cable release is durably constructed and will not buckle or bind, even if severely bowed.





### Pistol Grip Model 2

The pistol grip model 2 is a rugged unit which integrates perfectly with all Nikon and Nikkormat cameras, attaching securely to the tripod socket. It provides excellent support, and depending on the optional cable release selected, it can be used as either a manual triggering device or a release for a motor drive.

The pistol grip is particularly ideal for use with bulky, long lenses that must be hand-held. It mounts directly to the tripod socket of the lens, improving balance and facilitating triggering. For the motor drive user, the MC-3 cord which connects the pistol grip directly to the remote terminal of the motor drive for both single and sequential shooting is available.



### Panorama Head AP-2

This accessory fits between the camera and a tripod, and enables a sequence of pictures to be taken which can then later be fitted together to form a single panoramic picture. The head is rotatable through 360° enabling a complete surround landscape to be taken. By using the AP-2 with normal or even short telephoto lenses, a unique combination of wide angle of view and telephoto compression can be achieved in the same photograph. The AP-2 is click-stopped to adjust automatically for the covering angles of many popular Nikkor lenses (28, 35, 50, 85, and 105mm) but the click-stops can be also overridden when necessary.

A bubble level is built-in to assure perpendicularity for uniform perspective.



### F-C Lens Mount Adaptor

This accessory allows Nikon F-mount lenses to be used on 16mm cine cameras having a standard C-thread. Care should be taken that the lenses are physically compatible with the camera used. Non-reflex Fisheye lenses may not be used with cine cameras in this way.

### Microscope Adaptor Tube

Connects all Nikon and Nikkormat camera bodies to any standard microscope to permit photomicrography. The image magnification through the camera's viewing system (and the image on the film) is half that of the microscope by itself. An optional leather case is available for the microscope adaptor tube.

### Oscillographic Recording Unit Model D

Oscillographic equipment is available for the photographer who requires a way of recording on film the electronic waveforms displayed on a CRT (cathode ray tube). With the proper adaptors, Nikon and Nikkormat cameras can be attached to CRT screens 4.5, 5, and 7 inches. A hinge allows direct viewing of the screen to be quickly alternated with photographic recording. Incorporated is a device which allows the operator to enter data on the film along with the CRT waveforms.



# Code Numbers

• Description	• Code number	• Price	• Description	• Code number	• Price
<b>Camera Cases</b>			<b>Lens Hoods</b>		
<b>(Hard Camera Case)</b>			<b>(Snap-On Type)</b>		
CH-3 Leatherette Camera Case	100-28-800		HS-6 52mm Snap-On Lens Hood	108-00-210	
CH-4 Hard Leather Camera Case	100-07-814		HS-7 52mm Snap-On Lens Hood	108-00-208	
CH-5 Hard Leather Camera Case	100-07-815		HS-8 52mm Snap-On Lens Hood	108-02-204	
CH-6 Hard Leatherette Camera Case	100-30-800		HS-9 52mm Snap-On Lens Hood	108-00-211	
CH-7 Hard Leatherette Camera Case	100-30-801		HS-10 52mm Snap-On Lens Hood	108-02-205	
CH-8 Hard Leatherette Camera Case	100-28-802		HS-11 52mm Snap-On Lens Hood	108-00-212	
CH-9 Hard Leatherette Camera Case	100-28-803		<b>(Screw-In Type)</b>		
CH-10 Hard Leatherette Camera Case	100-28-804		HN-1 52mm Screw-In Lens Hood	108-01-201	
CH-11 Hard Leather Camera Case	100-07-817		HN-2 52mm Screw-In Lens Hood	108-01-202	
<b>(Semi-Soft Camera Case)</b>			HN-3 52mm Screw-In Lens Hood	108-01-203	
CF-1 Semi-Soft Leather Camera Case	100-07-800		HN-4 52mm Screw-In Lens Hood	103-03-200	
CF-2 Semi-Soft Leather Camera Case	100-07-803		HN-7 52mm Screw-In Lens Hood	108-02-200	
CF-4 Semi-Soft Leatherette Camera Case	100-26-808		HN-9 72mm Screw-In Lens Hood	108-01-204	
CF-5 Semi-Soft Leatherette Camera Case	100-26-809		HN-10 82mm Screw-In Lens Hood	108-05-200	
CF-6 Leatherette Speed Camera Case	100-07-816		HN-11 95mm Screw-In Lens Hood	108-05-201	
CF-7 Semi-Soft Leatherette Camera Case	100-32-800		HN-12 60mm Screw-In Lens Hood	108-00-205	
CF-8 Semi-Soft Leatherette Camera Case	100-32-801		HN-13 86mm Screw-In Lens Hood	108-02-203	
CF-9 Semi-Soft Leatherette Camera Case	100-32-802		HN-15 86mm Screw-In Lens Hood	109-05-074	
<b>(Camera Pouch)</b>			87mm Screw-In Lens Hood for 500/8	109-05-213	
CS-7 Leatherette Camera Pouch	100-07-810		HR-1 Rubber Lens Hood	108-00-206	
CS-8 Leatherette Camera Pouch	100-07-811		HR-2 Rubber Lens Hood	108-00-207	
CS-9 Leatherette Camera Pouch	100-07-812		<b>(Slip-On Type)</b>		
CS-10 Leatherette Camera Pouch	100-07-813		HK-1 72mm Slip-On Lens Hood	108-05-202	
CS-11 Semi-Soft Leather Camera Pouch	100-28-801		HK-2 Slip-On Lens Hood	108-01-206	
CS-12 Semi-Soft Leather Camera Pouch	100-07-809		HK-3 Slip-On Lens Hood	108-01-207	
CS-13 Leatherette Blimp Camera Case	100-07-818		HK-4 Slip-On Lens Hood	108-05-203	
<b>Lens Cases</b>			HK-5 Slip-On Lens Hood	108-05-204	
CP-1 Plastic Lens Case	108-00-300		HK-6 Slip-On Lens Hood	108-01-208	
CP-2 Plastic Lens Case	108-02-300		108mm Slip-On Lens Hood for 1000/11	109-05-052	
CL-4 Leatherette Lens Case	108-03-303		<b>(Hood Case)</b>		
CL-11 Leatherette Lens Case	108-03-305		CK-1 Leatherette Hood Case for 28-45/4.5	108-05-305	
CL-13 Leatherette Lens Case	108-02-322		<b>Filters</b>		
CL-15 Leatherette Lens Case	108-02-323		<b>(39mm Filter)</b>		
CL-20A Leatherette Lens Case	108-02-321		39mm Filter L1B	129-05-023	
CL-23 Leather Lens Case	109-05-028		39mm Filter L37C	129-05-024	
CL-24 Leather Lens Case	109-05-029		39mm Filter Y52	129-05-002	
CL-26 Leatherette Lens Case	108-03-307		39mm Filter O56	129-05-003	
CL-27A Leatherette Lens Case	108-04-305		39mm Filter R60	129-05-004	
CL-28 Leatherette Lens Case	108-01-302		39mm Filter ND2	129-05-019	
CL-29 Leatherette Lens Case	108-04-309		39mm Filter ND4	129-05-005	
CL-31 Leatherette Lens Case	108-00-308		39mm Filter ND8	129-05-020	
CL-32 Leatherette Lens Case	108-00-309		39mm Filter A2	129-05-006	
CL-33A Leatherette Lens Case	108-00-320		39mm Filter A12	129-05-007	
CL-34A Leatherette Lens Case	108-00-321		39mm Filter B2	129-05-008	
CL-35A Leatherette Lens Case	108-00-322		39mm Filter B8	129-05-009	
CL-61 Leatherette Lens Case	108-04-311		39mm Filter B12	129-05-010	
CL-62 Leatherette Lens Case	108-04-312		<b>(52mm Filter)</b>		
CL-63 Leatherette Lens Case	108-02-325		52mm Filter L1BC	120-00-025	
CE-2 Leatherette Lens Case	108-05-304		52mm Filter L37C	120-00-024	
CE-3 Leatherette Lens Case	108-05-303		52mm Filter L39	120-00-004	
CE-5 Leatherette Lens Case	108-04-306		52mm Filter Y44	120-00-005	
CE-6 Leatherette Lens Case	108-04-307		52mm Filter Y48	120-00-006	
CE-7 Leatherette Lens Case	108-04-308		52mm Filter Y52	120-00-007	
Metal Carrying Case for 2000/11	108-04-303		52mm Filter O56	120-00-008	
CZ-1860 Leatherette Lens Case	108-05-306		52mm Filter R60	120-00-009	
CZ-3612 Leatherette Lens Case	108-05-307		52mm Filter X0	120-00-010	
No. 54 Flexible Lens Pouch	108-00-319		52mm Filter X1	120-00-011	
No. 55 Flexible Lens Pouch	108-02-319		52mm Polarizing Filter	120-00-019	
No. 56 Flexible Lens Pouch	108-02-320		52mm Filter ND4	120-00-012	
No. 57 Flexible Lens Pouch	108-04-314		52mm Filter ND8	120-00-013	
<b>Compartment Cases</b>			52mm Filter A2	120-00-014	
FB-8 Leatherette Compartment Case	100-01-838		52mm Filter A12	120-00-015	
FB-11A Leather Compartment Case	100-07-835		52mm Filter B2	120-00-016	
FB-14 Leather Compartment Case	100-07-834		52mm Filter B8	120-00-017	
FB-15 Leather Compartment Case	100-07-836		52mm Filter B12	120-00-018	
FB-16 Leatherette Compartment Case	100-07-837		CA-1 Leatherette Filter Case	120-00-023	
Shoulder Strap for FB-11A	109-00-379		CA-2 Leatherette Filter Case	109-05-212	
			CP-3 Plastic Case for 52mm Filter or No. 0 Close-Up Lens	100-01-308	
			CP-4 Plastic Case for 52mm Polar Filter or No. 1, 2 Close-Up Lens	100-01-309	
			AF-1 52mm Gelatin Filter Holder	108-00-700	



• Description	• Code number	• Price
<b>(72mm Filter)</b>		
72mm Filter L1BC	120-10-021	
72mm Filter L37C	120-10-020	
72mm Filter L39	120-10-012	
72mm Filter Y48	120-10-013	
72mm Filter O56	120-10-014	
72mm Filter R60	120-10-015	
72mm Polarizing Filter	120-10-016	
72mm Filter ND4	120-10-017	
CP-5 Plastic Case for 72mm or Series 9 Filter	129-05-012	
AF-2 72mm Gelatin Filter Holder	108-02-700	
<b>(95mm Filter)</b>		
95mm Filter L39 W/Leather Case	120-11-000	
95mm Filter Y48 W/Leather Case	120-11-003	
95mm Filter O56 W/Leather Case	120-11-005	
95mm Filter R60 W/Leather Case	120-11-007	
Leather Case for 95mm Filter	120-11-002	
<b>(122mm Filter)</b>		
122mm Filter L39 W/Leather Case	120-12-000	
122mm Filter Y48 W/Leather Case	120-12-003	
122mm Filter O56 W/Leather Case	120-12-005	
122mm Filter R60 W/Leather Case	120-12-007	
Leather Case for 122mm Filter	120-12-002	
<b>(Series 9 Filter)</b>		
Series 9 Filter L39	120-71-013	
Series 9 Filter Y44	120-71-014	
Series 9 Filter Y48	120-71-015	
Series 9 Filter Y52	120-71-016	
Series 9 Filter O56	120-71-017	
Series 9 Filter R60	120-71-018	
CP-5 Plastic Case for 72mm or Series 9 Filter	129-05-012	
<b>Caps</b>		
<b>(Camera Body Cap)</b>		
Camera Body Cap	100-01-930	
<b>(Rear Lens Cap)</b>		
LF-1 Rear Lens Cap	108-00-401	
LF-2 Rear Lens Cap for 6/5.6, 10/5.6 OP-Fisheye	108-03-400	
<b>(Front Lens Cap)</b>		
38mm Screw-In Front Lens Cap for 200/5.6 Medical	109-05-063	
52mm Snap-On Front Lens Cap	108-00-400	
64mm Slip-On Front Lens Cap for 16/3.5 Fisheye	109-05-069	
72mm Screw-In Front Lens Cap	108-02-400	
86mm Screw-In Front Lens Cap for 18/4	109-05-073	
88mm Screw-In Front Lens Cap for 500/8	109-05-211	
90mm Slip-On Front Lens Cap for 15/5.6	109-05-068	
93mm Slip-On Front Lens Cap for 500/8	109-05-026	
95mm Screw-In Front Lens Cap for 50-300/4.5	108-05-401	
100mm Slip-On Front Lens Cap for 200-600/9.5	108-05-400	
108mm Screw-In Front Lens Cap for 1000/11	109-05-230	
115mm Slip-On Front Lens Cap for 1000/11	109-05-027	
122mm Screw-In Front Lens Cap for 400/4.5, 600/5.6, 800/8, 1200/11	108-04-401	
133mm Slip-On Front Lens Cap for 400/4.5, 600/5.6, 800/8, 1200/11	108-04-400	
Front Lens Cap for 8/2.8 Fisheye	109-00-359	

## Viewing Aids

### (Eyepiece Correction Lenses for F2, EL2 and FT3)

-5.0 DPTR. Eyepiece Correction	100-26-267
-4.0 DPTR. Eyepiece Correction	100-26-266
-3.0 DPTR. Eyepiece Correction	100-26-265
-2.0 DPTR. Eyepiece Correction	100-26-264
0 DPTR. Eyepiece Correction	100-26-260
0.5 DPTR. Eyepiece Correction	100-26-268
1.0 DPTR. Eyepiece Correction	100-26-261
2.0 DPTR. Eyepiece Correction	100-26-262
3.0 DPTR. Eyepiece Correction	100-26-263

### (Eyepiece Correction Lenses for FM and FE)

-5.0 DPTR. Eyepiece Correction	100-32-268
-4.0 DPTR. Eyepiece Correction	100-32-267
-3.0 DPTR. Eyepiece Correction	100-32-266
-2.0 DPTR. Eyepiece Correction	100-32-265
0 DPTR. Eyepiece Correction	100-32-260
0.5 DPTR. Eyepiece Correction	100-32-261
1.0 DPTR. Eyepiece Correction	100-32-262
2.0 DPTR. Eyepiece Correction	100-32-263
3.0 DPTR. Eyepiece Correction	100-32-264

### (Other Viewing Aids)

DR-3 Right-Angle Viewing Attachment	100-26-203
Eyepiece Magnifier	100-26-201
Eyepiece Magnifier DG-2	100-32-200
Finder Eyepiece for F2, EL2 and FT3	109-05-054
Finder Eyepiece for FM and FE	109-05-234
Rubber Eyecup for F2 Nikon	109-03-280
Rubber Eyecup for Nikkormat and EL2	100-26-280
Rubber Eyecup for FM and FE	100-32-280
Eyecup Holder	109-05-021
Eyepiece Frame Adaptor	100-01-280
DF-1 Fisheye Finder	108-03-500

## Other Accessories

AN-1 Leather Neckstrap	100-01-862
AN-3 Leatherette Neckstrap	100-32-860
AN-4Y Nylon Neckstrap	100-32-861
AN-4B Nylon Neckstrap	100-32-862
Triangular Metal Ring for Neckstrap	109-05-114
Shoulder Strap Pad	109-05-111
AS-1 Flash Unit Coupler	100-07-450
AS-2 Flash Unit Coupler	100-28-400
AR-1 Soft Shutter Release	100-01-954
AR-2 Shutter Cable Release	100-01-952
Pistol Grip Model 2	100-01-941
Connecting Cable Release for Pistol Grip	100-01-942
AP-2 Panorama Head	100-01-953
F-C Mount Lens Adaptor	100-01-904

### (Oscillographic Equipment)

Oscilloscope Recording Unit Model D	100-01-430
Universal Square Baseplate for Oscilloscope	100-01-431
Circular Base Plate Adaptor for 130 Oscilloscope	100-01-432
Circular Baseplate Adaptor for 120 Oscilloscope	100-01-433

### (Photomicrographic Equipment)

Microscope Adaptor Tube	
Model 2 W/33mm Filter and Eyepiece Adaptor B	224-11-117
Leather Case for Microscope Adaptor	228-13-400
C Type Focusing Screen	100-01-222





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