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F2

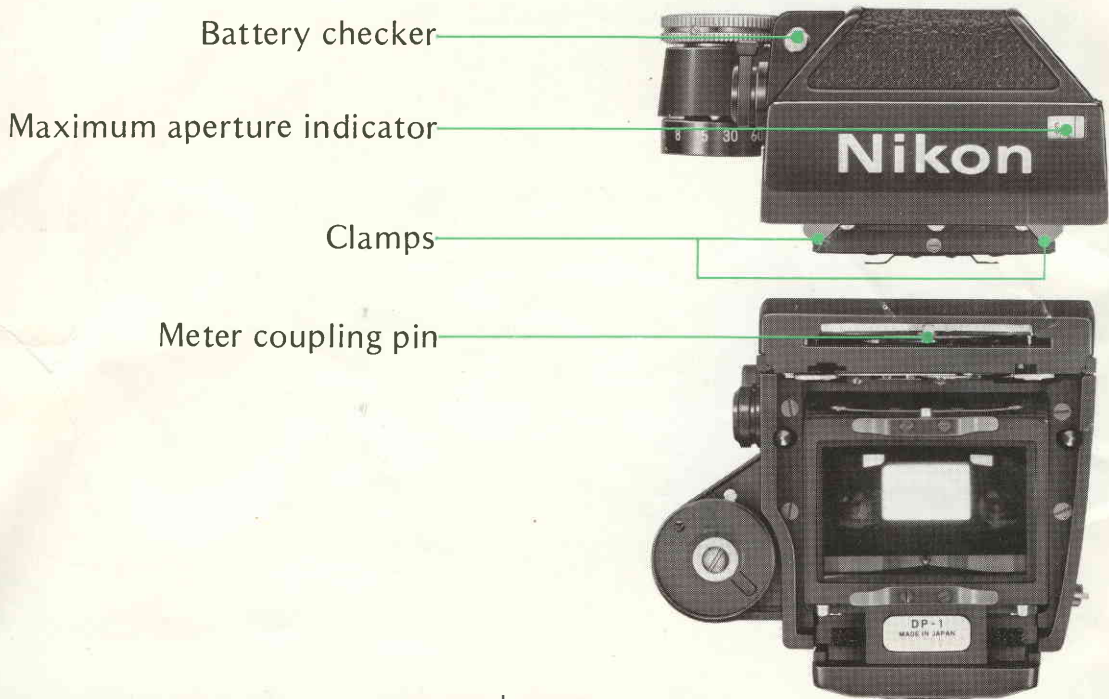
Nikon

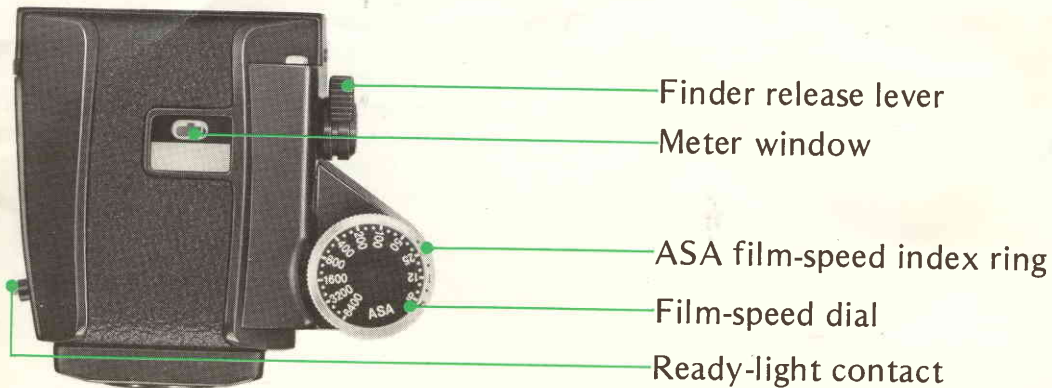
Photomic

FINDER DP-1

INSTRUCTION MANUAL

NOMENCLATURE





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FOREWORD

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The Nikon Photomic Finder DP-1 incorporates a precise center-weighted CdS exposure metering system which couples with the camera's lens aperture diaphragm and shutter speed controls. It makes possible easy, accurate thru-the-lens exposure measurement with the Nikon F2.

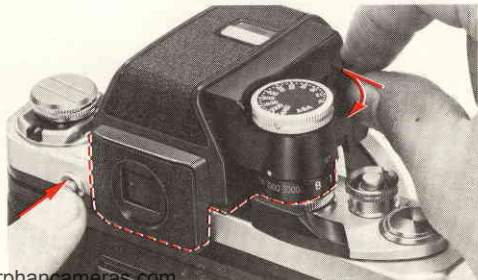
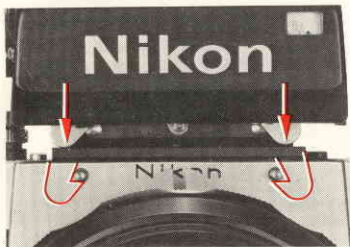
This instruction booklet has been prepared to help you get the most out of your Photomic finder. For best results, read the instructions carefully and keep this booklet handy for ready reference until you have mastered its basic steps. Follow the suggestions for care and handling on page 25 and you will get perfect exposures every time you shoot.

ATTACHING THE PHOTOMIC FINDER

To attach the finder to the camera with the lens in place, first set the lens aperture diaphragm at $f/5.6$ or larger and place the finder in position loosely. Make sure that the meter coupling pin is in the center. Then press down gently on the finder until it clicks into place and the two clamps settle into place.

Mounting the finder on the camera body without a lens is simple. Just set it in position and press until it clicks into place.

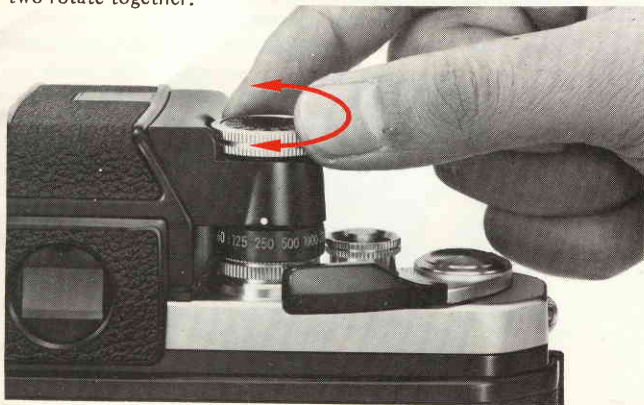
To remove the finder, first, depress the base of the finder release lever and then turn the lever downward. Next, press the finder release button on the back of the camera.



The finder will come loose and can be lifted out.

Shutter Speed Coupling

When the Photomic finder is attached to the camera, the shutter speed dial on top of the camera is inaccessible. Therefore, an auxiliary shutter speed scale is provided on the finder. With the finder in place, twist the shutter speed selector back and forth until it engages the dial on the camera and the two rotate together.



Lens Aperture Coupling

The Photomic finder takes advantage of the automatic diaphragm feature of Nikkor lenses to measure light with the lens wide open. Full-aperture metering gives a bright, clear finder image for viewing and focusing and minimizes the effect of light entering the viewfinder from the rear.

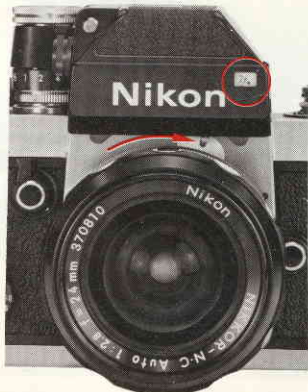
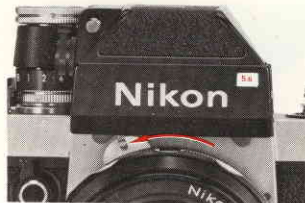
In order to measure exposure at full aperture with lenses having different maximum apertures, the meter must be adjusted to the maximum aperture of the lens in use. This is done each time the lens is attached or changed as follows:



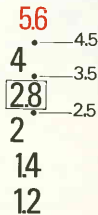
Position the lens in the camera's bayonet mount so that the indicator dots on the lens and camera body line up. Grasp the lens by the white milled ring and twist it counterclockwise until it clicks into place. Turn the aperture ring all the way to the minimum aperture setting (largest f/number), then all the way in the opposite direction. This step automatically fits the coupling pin in the Photomic finder into the coupling prong on the lens and adjusts the meter to the maximum aperture of the lens.

Maximum Aperture Indicator

The above adjustment can be verified by checking the maximum aperture indicator in the window on the Photomic finder. The scale has a range from $f/1.2$ to $f/5.6$. For example, if the 24mm $f/2.8$ lens is mounted on the camera, 2.8 should appear in the window.



Maximum Aperture Scale



SETTING THE FILM SPEED (ASA)

The exposure meter in the Photomic finder must be adjusted for the film speed (ASA number) of the film in use. Lift up the milled ring around the film-speed dial and turn it so that the film speed appears opposite the red arrow. The film speed dial covers a range from ASA 6 to 6400 with two dots between each pair of numerical settings for intermediate values such as ASA 64, 80, 125, etc.



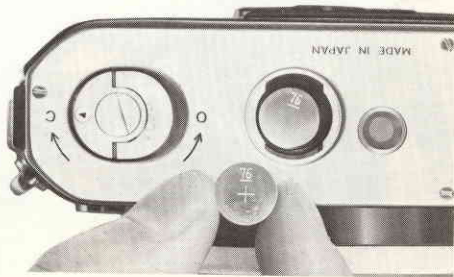
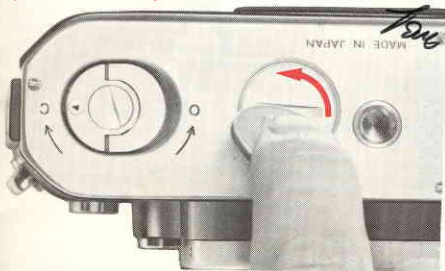
INSTALLING THE BATTERIES

Two 1.5V silver batteries are supplied with each Photomic finder. They must be installed in the battery chamber on the Nikon F2 camera baseplate before the meter circuit will operate.

To install the batteries, twist the baseplate cap with a coin or similar object to remove it and drop the batteries into the chamber. Make sure that the plus (+) side faces out.

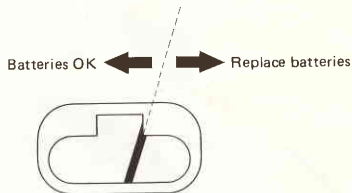
Caution: Remove the silver batteries from the camera when not in use for a long time.

At below-freezing temperatures, the batteries may malfunction or cease to operate until the temperature rises again. Be careful not to expose the battery to severe cold for long periods of time.



Checking the Batteries

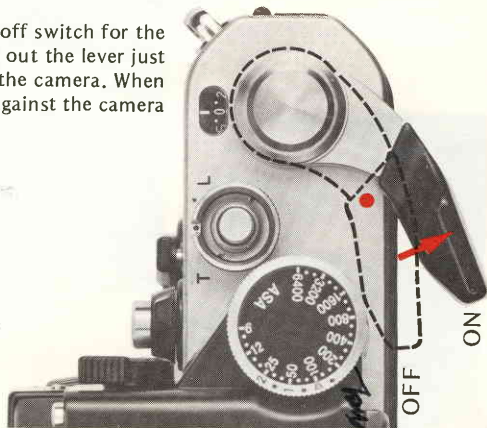
A built-in battery checker lets you check the condition of the silver batteries at a glance. Pull out the film-advance lever to uncover the red dot, press the battery checker button and watch the needle in the window on top of the finder. If the needle swings to the right edge of the notch or beyond, the batteries are in good condition. If not, they need to be replaced.



The exposure meter in the Photomic finder features a center-weighted thru-the-lens metering system cross-coupled with the shutter speed and aperture controls. The meter reads the light over the entire focusing screen but favors a central area. This means that correct exposures are easy to get even in situations where an averaged reading would result in wrong exposure.

Turning On the Meter

The film-advance lever also serves as an on-off switch for the exposure meter. To turn the meter on, pull out the lever just far enough to uncover the red dot on top of the camera. When the meter is not in use, press the lever flush against the camera body to avoid draining the batteries.

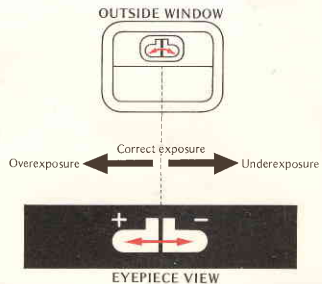


Centering the Meter Needle

The amount of light reaching the film is determined by a combination of lens aperture and shutter speed. Since the two are interrelated, different combinations will give the same amount of exposure. The “best” combination depends on the results desired. Use fast shutter speeds to freeze motion or slow ones to create deliberate blur. Small apertures give greater depth of field; large ones let the subject stand out against an out-of-focus background.

To determine correct exposure, adjust the aperture and/or shutter speed until the meter needle is centered in the U-shaped notch visible in the viewfinder (+ and – marks let you know whether you are over- or underexposing) or at the U-shaped notch located beneath the window on top of the Photomic finder. For fine adjustments of less than one f/number, either the aperture ring or the shutter speed (except for speeds slower than 1/80 sec.) permits reliable intermediate settings.





Under extremely low light conditions, the meter needle may center at the "B" setting on the shutter speed selector. If so, correct exposure time is 2 seconds.

If the needle moves erratically or cannot be centered even after all possible aperture-shutter speed combinations have been tried, then the light is too bright or dim for the meter's range. Effective range (coupling range) varies according to the lens and film speed used. For example, with the 50mm f/1.4 lens and a film speed of ASA 100, it extends from f/1.4 at 1 second to f/8 at 1/2000 second.

For added convenience when measuring exposures, the actual shutter speed and the aperture selected appear in the bottom edge of the finder viewfield. This permits exposure setting while observing the exposure needle in the viewfinder.

Getting the Right Exposure

The central part of the focusing screen should always be aimed at the main subject when centering the needle. Otherwise unimportant bright or dark areas may have adverse influence on the exposure reading. If an off-center composition is desired, first measure the light striking the main subject and set the aperture and shutter speed to center the needle. Then move the camera until the desired composition appears in the viewfinder.

For subjects of uniform brightness, a reading may be taken from any part of the subject. However, if the lighting is harsh or contrasty, move up close and measure the light falling on the most important part of the subject in which detail is desired in the final picture.

If the picture includes an unusually bright source of light such as a light bulb or expanse of sky, move the camera so that the light source does not dominate the viewfinder while you make your reading. For backlighted subjects, move up close and include dark areas of the subject in your reading.

Measuring the bright area in the center of the screen will cause underexposure of the main subject.



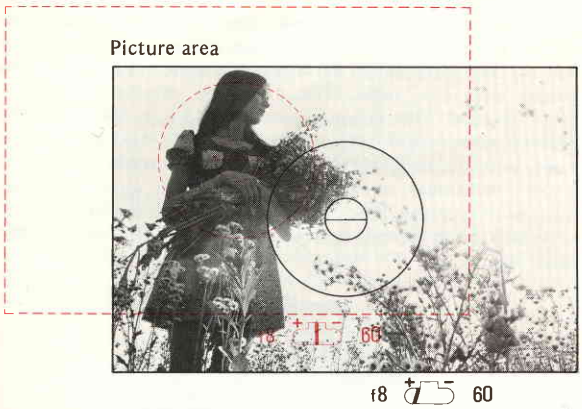
f8  250

Keep out stray light!

The finder is designed to minimize the effect of light entering through the finder eyepiece under normal conditions. However, in the following situations, the use of a finder eyecup is recommended to insure complete exclusion of stray light:

- When the camera is in sunlight and the subject is in

Exposure measurement area



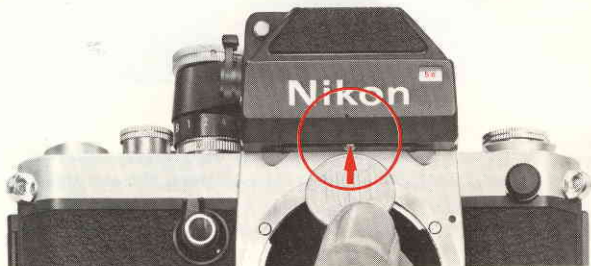
For correct exposure, first measure the light striking the main subject, then compose and shoot.

- When the stop-down method is used at small apertures.
- When a shaft of sunlight falls between the eye and the eyepiece.

When the needle on top of the finder is used to determine exposure, the eyepiece should be covered with the hand to prevent extraneous light from entering the finder.

Stop-Down Exposure Measurement

With the following lenses and accessories, full-aperture exposure measurement is not possible, either because the lens has no auto-diaphragm or because the diaphragm will not couple with the meter. Therefore, the stop-down method must be used. This means measuring exposure with the lens aperture diaphragm stopped down to the taking aperture. First, push the coupling pin up into the Photomic finder with a coin or similar object so that the $f/5.6$ appears in the maximum aperture indicator window. Mount the lens or lens/accessory setup on the camera and switch on the meter in the usual way.



Bellows Focusing Attachments, Extension Rings and Focusing Unit

To determine exposure, select the desired shutter speed and stop down the lens manually until the needle centers.

Preset Lenses

Use the same procedure as above for lenses having preset diaphragms, such as the PC-Nikkor 35mm f/2.8.

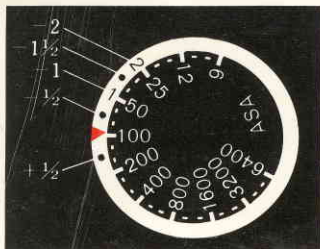
Auto Lenses Without Coupling Prong

Some lenses like the Zoom-Nikkor Auto 200-600mm f/9.5 have an auto diaphragm but no coupling prong. Use the depth-of-field preview button to stop down the lens until the needle is centered.

Reflex-Nikkor Lenses

The Reflex-Nikkor 500mm f/8, 1000mm f/11 and 2000mm f/11 lenses have no aperture diaphragm. Adjust the shutter speed until the needle is centered.

Note: Since focusing may be difficult or impossible at small apertures due to image darkening on the screen, first open the lens to full aperture to focus. Then determine the correct exposure by the stop-down method.



Exposure Correction for Special Lens-Focusing Screen Combinations

Because the light-transmitting properties of some focusing screens differ from those of ordinary screens, certain lens-screen combinations require exposure correction to compensate for the influence of the screen. The numbers in the table on the opposite page show the exposure corrections in f-stops. With the Photomic finder, the method used is to set the film speed (ASA) against the proper compensating mark engraved on the film speed index ring. For example, the table indicates a half-stop decrease ($-1/2$) for the Fisheye-Nikkor Auto 8mm f/2.8 lens with type C screen. If the film speed is ASA 100, lift up the index ring and set the number 100 on the film speed dial opposite the $-1/2$ mark.

When no exposure correction (0) is indicated, the ASA rating for the film in use should be opposite the red arrow.

-
- = Measure exposure by the full-aperture method.
 - = Use the stop-down measuring method.
 - = Neither method works. The viewfinder can be used only for focusing, not exposure measurement.

Combinations represented by a blank space are unusable because of image darkening or considerable moiré over the screen area.

Lens		Screen																
		A/L	B	C	D	E	G1	G2	G3	G4	H1	H2	H3	H4	J	K/P	M	R
Fisheye	6mm f/2.8	0	0	-1/2	-1/2	0	0	0			0	0			0	0		0
	8mm f/2.8	0	0	-1/2	-1/2	0	0	0			0	0	0		0	0		0
	16mm f/3.5	0	0			0	-1/2				0				0	0		0
Wideangle	15mm f/5.6	0	0			0		-1/2				-1/2			0	0		0
	20mm f/3.5	0	0			0	-1/2				0				0	0		0
	24mm f/2.8	0	0			0		0			+1/2	0			0	0		0
	28mm f/3.5	0	0			0	-1/2				0				0	0		0
	28mm f/2	0	0			0	+1/2	+1/2			+1/2	+1/2			0	0		0
	35mm f/2.8	0	0			0	-1/2				0	0			0	0		0
	35mm f/2	0	0			0	+1/2	0			+1/2	0			0	0		0
Normal	35mm f/1.4	0	0			0		+1/2			+1/2	+1/2			0	0		0
	50mm f/2	0	0			0	+1/2	+1/2			+1/2	+1/2			0	0		0
	50mm f/1.4	0	0			0		+1/2			+1/2				0	0		0
	55mm f/1.2	0	0			0		0			0				0	0		0
	85mm f/1.8	0	0			0		+1/2			+1/2	+1/2			0	0		0
Telephoto	105mm f/2.5	0	0			0		0			+1/2	+1/2			0	0		0
	135mm f/3.5	0	0	0	0	0		-1				0			0	0		0
	135mm f/2.8	0	0	0	0	0		0	0			+1/2			0	0		0
	180mm f/2.8	0	0	0	0	0			0			0	0	0	0	0		0
	200mm f/4	0	0	0	0	0		-1/2				-1			0	0		0
	300mm f/4.5	0	0	0	0	0			-1/2			-1/2	-1	-1/2	0	0		0
	400mm f/5.6	0	0	0	0	0									0	0		0
	400mm f/4.5	0	0	0	0	0									0	0		0
	600mm f/5.6	0	0	0	0	0									0	0		0
	800mm f/8	0	0	0	0	0									0	0		0
	1200mm f/11	0	0	0	0	0									0	0		0
Zoom	43~85mm f/3.5	0	0			0		-1/2				-1/2			0	0		0
	50~300mm f/4.5	0	0			0			-2				-1/2		0	0		0
	80~200mm f/4.5	0	0			0			-1				-1/2	-1/2	0	0		0
	200~600mm f/9.5	0	0	0	0	0									0	0		0
GN	45mm f/2.8	0	0			0	0				0			0	0		0	
Micro-P	55mm f/3.5	0	0			0								0	0		0	
PC	35mm f/2.8	0	0			0								0	0		0	
Bellocs	105mm f/4	0	0	0	0	0								0	0		0	
Medical	200mm f/5.6					0								0	0		0	
Reflex	500mm f/8	0	0	0	0	0								0	0		0	
	1000mm f/11	0	0	0	0	0								0	0		0	
Telephoto	2000mm f/11	0	0	0	0	0								0	0		0	

Repro-Copying, Slide-Copying and Photomicrography
Some exposure correction may be necessary depending on the type of film and the subject or the original slide. The numbers in the tables below show the exposure correction in f-stops. Readjust either the shutter speed or the lens diaphragm according to the indicated numbers, or reset the film speed. 3 marks on the film-speed scale are equivalent to one f-stop. If the table indicates a one-stop increase with a film rated at ASA 100, reset the red arrow opposite the number 50.

Original Type of film	Repro-Copying & Slide-Copying			Photomicro- graphy
	B & W or color photo	Letters or fig- ures on light background	Letters or fig- ures on dark background	
Panchromatic film for general use	No compensation necessary	+1 $\frac{1}{2}$ stops	-1 $\frac{1}{2}$ stops	+1 stop

Ready-light

The Photomic finder has a built-in ready-light at the eyepiece for use with the Nikon speedlight unit. The lamp lights up to let you know when the speedlight is fully charged and ready to fire without removing your eye from the viewfinder. It goes out after the speedlight has fired. The ready-light is connected to the speedlight by means of an optional ready-light adapter. For details, see the speedlight instruction manual.

Your Photomic finder is ruggedly constructed. However, it deserves the same care you would give any precision instrument. Follow the simple precautions given below and the Photomic will give years of dependable service.

- Store the finder in a case to keep out dust. Avoid storing it in places liable to excessive heat, cold or dampness.
- Attach a prism guard when storing the finder separately.
- To insure most dependable service, clean the battery contact surfaces periodically with a rough cloth.
- Avoid fingerprints and dust particles on the prism surface.
- Brush away grit or dust with a soft brush or use a rubber syringe. Do not use cloth or ordinary tissue.
- If smudges or fingermarks persist, use tissue with a professionally recommended lens cleaner very sparingly. Wipe with a circular motion and gentle pressure. Even an approved cleaner can cause damage if it seeps into the prism mount.
- To insure that the exposure meter will operate properly when needed, it should be checked periodically. Make a few trial exposures before leaving for a holiday. Allow at least two or three weeks' time for processing the test film and making any needed repairs or adjustment. This simple precaution may save a valuable holiday record which would otherwise be lost.

FEATURES/SPECIFICATIONS

Film speed scale: ASA 6–6400

Metering range: EV 1–17 at ASA 100 (1 sec. at $f/1.4$ – $1/2000$ sec. at $f/8$ with 50mm $f/1.4$ lens)

Light measuring method: Center-weighted, full-aperture measurement

Aperture coupling range: $f/1.2$ – $f/32$, aperture selected visible in viewfinder

Shutter speed coupling range: 1– $1/2000$ sec. plus B. Shutter speed visible in viewfinder

Maximum aperture scale range: $f/1.2$ – $f/5.6$

Meter needle: Visible in the viewfinder and in the window on top of the prism housing

Meter switch: Camera film-advance lever switches meter on and off

Battery check: Provided

Batteries: 2 silver batteries (1.5V each)

Weight: 220g

THE NIKON WARRANTY

The Nikon worldwide service warranty registration card which identifies your Photomic finder by its serial number is your guarantee that the Photomic finder you buy is a new one. When you return this card to a Nikon distributor you will receive your Nikon worldwide service warranty certificate, which entitles you to a one-year warranty anywhere throughout the world, subject to the conditions listed in the certificate.

Only a franchised Nikon dealer can provide you with a Nikon warranty registration card. We cannot guarantee any Photomic finder sold to you by an unauthorized dealer without a warranty registration card, since it may be second-hand equipment.

お知らせ：

ただいまでは、露出計の指標を下図のごとく変更いたしております。

Notice:

The indicator of the DP-1 exposure meter has been changed as shown below.

Anmerkung:

Der Anzeiger des Belichtungsmessers im DP-1 wurde wie unten angegeben geändert.

Note:

L'indicateur du posemètre DP-1 a été changé comme indiqué ci-dessous.

Nota:

El indicador del exposímetro DP-1 ha sido cambiado como se muestra abajo.



適正露出

Correct exposure
richtige Belichtung
Exposition correcte
Exposición correcta

露出オーバー
Overexposure
Überbelichtung
Sur-exposition
Sobrexposición



露出不足
Underexposure
Unterbelichtung
Sous-exposition
Subexposición

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