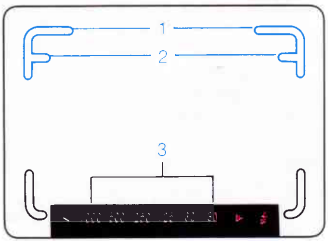
24. Hold the camera steady.

Many blurred shots are caused by improperly holding the camera. The best way to prevent camera blur is to hold the camera steady. Basic shooting posture: As you look through the viewfinder, use your left hand to cradle the camera, wrapping your fingers around the lens and propping your elbow against your body for support. Use your right hand's index finger to depress the shutter release button, and use your thumb to wind the film advance lever. Wrap the other fingers of your right hand around the camera body. You can adapt this basic posture to both horizontal- and vertical-format shooting.

Other factors can contribute to camera blur, especially when shooting underwater, so experiment until you find the camera holding method that works best for you (practicing by holding the camera in front of a mirror is useful). When actually shooting, it is also advisable to lean on or against a strong, stable object (for instance, a wall or large rock).



25. Frame the subject in the viewfinder.

The frame lines built into the viewfinder show the field of view of the normal 35mm lens. For proper framing, place your subject within the outlined area. When shooting subjects at distances as close as 0.8m (2.75ft), use the parallax correction marks for framing.

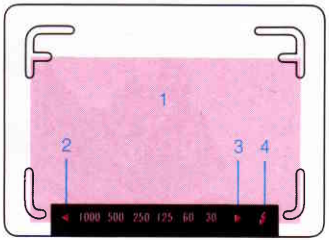
Inside the viewfinder

1. Frame lines showing the field of view for the normal 35mm lens
2. Parallax correction marks
3. LED shutter speed indicators

26. Take the picture.

Look through the viewfinder and depress the shutter release button halfway. The shutter speed, determined by the subject's brightness, is indicated by the viewfinder LED. If any LED shutter speed indicator between 1000 and 30 lights, gently depress the shutter release button completely.

If either the LED overexposure or underexposure warning arrow lights, adjust the lens aperture knob to turn it off. If the warning arrow remains lighted, after the lens aperture knob is adjusted, the shutter speed is beyond the meter coupling range and you cannot obtain the correct exposure. See page 35 for more information.



Inside the viewfinder

1. Actual field of view with parallax-corrected shooting
2. LED overexposure warning arrow
3. LED underexposure/camera shake warning arrow
4. LED thunderbolt mark (flash ready-light)

27. Advance the film.

Stroke the film advance lever to transport the film to the next frame and prepare the camera for the next shot.

28. Set the shutter speed/mode selector dial to "R."

After the last exposure has been made, the film advance lever will not advance further and the frame counter will indicate that all frames have been exposed. You must then rewind the exposed film back into its cartridge. To do this, first turn the shutter speed dial to "R" (Rewind) to disengage the film sprocket drive.

The shutter is automatically locked when the dial set to "R."

29. Lift up the film rewind knob.

Lift up the film rewind knob and rotate it in the direction of the arrow on the knob (clockwise) to secure it in the raised position.

30. Rewind the film.

Fold out the film rewind crank and rotate it in the direction of the arrow on the knob (clockwise) to rewind the film.

When you feel the tension lessen, continue winding one or two more turns so the film leader rewinds completely into the cartridge.

- *Do not open the camera back until you have completely rewound the film into its cartridge. Otherwise, light may reach the film and ruin your photos.*
- *Do not attempt to rewind film underwater.*

31. Remove the film cartridge.

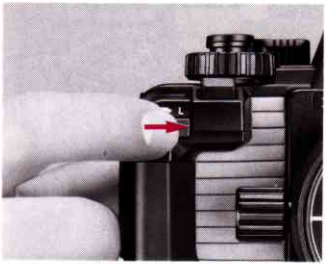
Do not remove the film cartridge in direct sunlight.

Open the camera back by following the directions in **Step 5** (the frame counter will automatically return to "S") and remove the film cartridge. Then close and lock the camera by following the directions in **Step 13**.

- *Do not store the removed film cartridge in a brightly lit area.*
- *Take the film in for development as soon as possible.*
- *After shooting underwater, thoroughly wipe off any water around the camera back with a soft cloth before opening the camera back.*

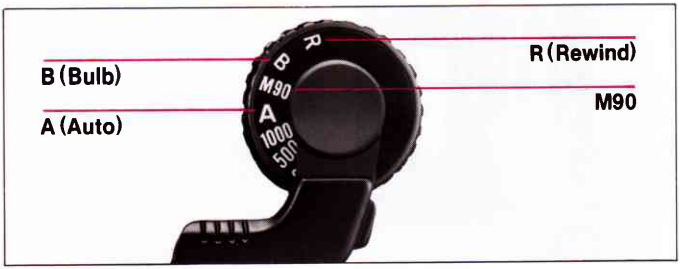
Also wipe off the junctions of the O-rings and their grooves with a soft cloth.

When loading or removing film, wipe up any water that seeps into the camera body or it may corrode the body.



32. Lock the shutter release button.

Return the shutter speed/mode selector dial to the "A" position to prepare the camera for the next roll of film. Finally, move the shutter release button lock lever to the "L" position to prevent the shutter release button from being depressed and inadvertently draining battery power.



Shutter Speed/Mode Selector Dial ③

The Nikonos-V offers aperture-priority automatic mode operation and manual control of all shutter speeds from 1/30 to 1/1000 sec., including the M90 (1/90 sec.), B (Bulb), and R (Rewind) settings. All shutter speeds from 1/30 to 1/1000 sec., excluding M90 (1/90 sec.) and B (Bulb), are electronically controlled. To set the desired shooting mode or shutter speed, rotate the shutter speed/mode selector dial until the desired setting click-stops opposite the shutter speed/mode index. The shutter speed/mode selector dial has the following settings: R (Rewind), B (Bulb), M90 (1/90 sec.), A (Auto), and six shutter speeds from 1/1000 to 1/30 sec. Intermediate settings cannot be used.

A (Auto)

Used for aperture-priority automatic mode shooting. Manually set the f/stop first; then the camera's microcomputer selects the matching shutter speed steplessly between 1/30 and 1/1000 sec., depending on the scene brightness and the film speed in use. Until the frame counter reaches frame "1," the shutter will be automatically released at approximately 1/1500 sec. regardless of the scene brightness and the film speed in use. After the frame counter reaches frame "1," the camera automatically returns to normal A mode operation.

Manual (1/30 to 1/1000 sec.)

Used for full manual control of both f/stop and shutter speed. All six shutter speeds indicated on the dial are available with timing accuracy assured by a quartz oscillator. Each number shown on the scale is reciprocal, i.e., 1000 means 1/1000 second, 125 means 1/125 second, etc. A one-step change will either halve or double the exposure; e.g., a shutter speed of 1/125 sec. lets in twice as much light as 1/250 sec. and half as much light as 1/60 sec.

Note: *When the shutter speed/mode selector dial is set at either M90 or B, the exposure meter does not work nor do the LED viewfinder indicators light. When the dial is set at R, the shutter is automatically locked.*

M90 (1/90 sec.)

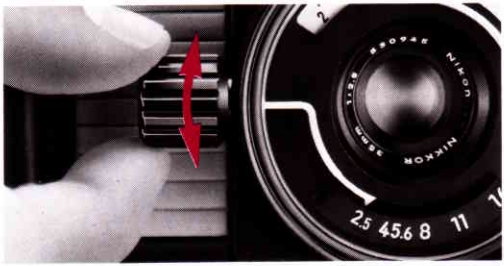
At this setting, the shutter is mechanically released at 1/90 sec. Use this setting when the battery (or batteries) is weak, exhausted or not loaded in the camera. M90 setting can also be used for flash photography. It cannot, however, be used for TTL auto flash photography.

B (Bulb)

At this mechanical setting, the shutter remains open for as long as you depress the shutter release button. Cannot be used for TTL auto flash photography.

R (Rewind)

This setting disengages the film sprocket drive to permit film rewinding. At this setting, the shutter release button cannot be operated.



Aperture Setting

The aperture controls the amount of light passing through the lens. When moving from one f/stop to the next, the amount of light is either halved or doubled. For example, to halve the amount of light, rotate the lens aperture knob (in the case of the LW-Nikkor, rotate the aperture ring) until the aperture index is opposite the next smaller aperture (indicated by a numerically larger f-number on the aperture scale). To double the amount of light through the lens, rotate the lens aperture knob until the aperture index is opposite the next larger aperture (the next smaller f-number).

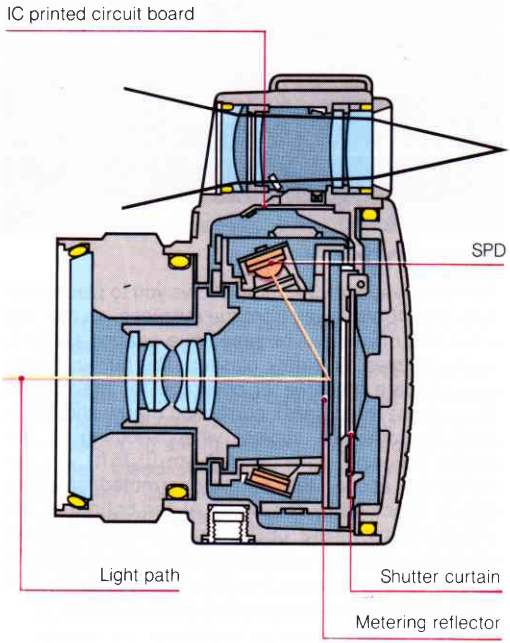
Because the Nikkor lenses for the Nikonos-V do not have click-stops at each f-number, any setting can be used. (The LW-Nikkor does have click-stops between f-numbers, but intermediate settings can still be used.) As the aperture is opened and closed, the pincer-type depth-of-field indicators open and close to show the distance range which will be in focus in the final photograph. See page 39 for more information.

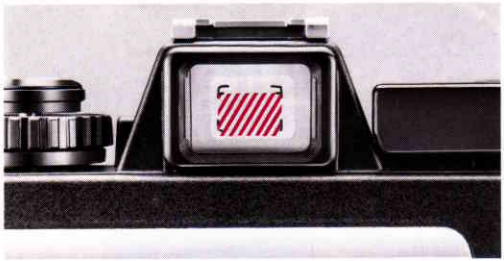
TTL Metering System

The Nikonos-V uses a (through-the-lens) TTL center-weighted stopped-down metering system which measures the light passing through the lens to determine the correct exposure.

When the shutter release button is depressed halfway, activating the exposure meter, the camera's microcomputer automatically selects the shutter speed that corresponds to the aperture set, ASA/ISO film speed in use, and scene brightness, and causes the appropriate viewfinder LED indicators to light.

The camera places special emphasis on the brightness at the center of the viewfinder, although the meter measures the brightness of the entire scene. Correct exposure is assured when the main subject is placed in this central area.

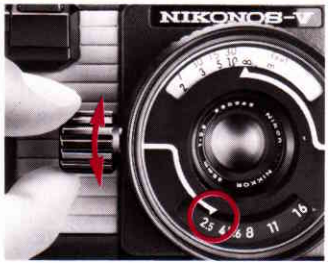




Viewfinder ⑭

The high-eyepoint viewfinder allows you to place your eye up to 40mm away from the eyepiece, so that the entire field of view can be seen while wearing a diver's mask, goggles, or safety glasses. The built-in frame lines indicate the area of coverage for the normal 35mm lens; the parallax correction marks should be used to frame the subject when shooting at the closest focusing distance of 0.8m (2.75ft). (In the illustration above, the parallex-corrected shooting area is indicated by red lines.) At the bottom of the viewfinder, there are LEDs (Light Emitting Diodes) which indicate the shutter speeds and warn of possible over- or underexposure. In addition, a flash ready-light in the form of a red lightining bolt mark is built in.

- *The frame lines indicate 85% (when the focusing scale is set to infinity) of the area which will be reproduced on the film. So the actual area will be wider than the scene through the viewfinder.*
- *When using the LW-Nikkor 28mm f/2.8, the field of view is the same as the full area inside the viewfinder. When shooting at the closest focusing distance of 0.5m (1.5ft), the picture coverage is from the top of the uppermost frame lines down.*



Shooting in the Aperture-Priority Automatic Exposure Mode

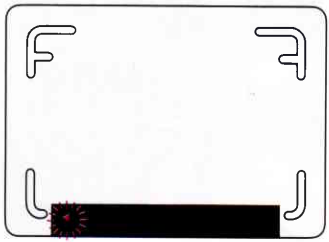
To use the aperture-priority automatic exposure mode, perform the following procedures:

1. Set the shutter speed/mode selector dial to "A" (Auto).
2. Turn the lens aperture knob (in the case of the LW-Nikkor, turn its aperture ring) to the desired aperture setting. Intermediate aperture settings can be used.
3. Estimate or measure the camera-to-subject distance*. Then turn the lens focusing knob (in the case of the LW-Nikkor, turn its focusing ring) until the distance scale index is opposite the desired setting.

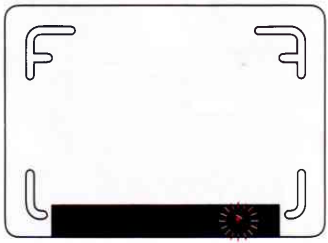
* See page 59 for more information.

4. Look through the viewfinder and compose the subject within the frame lines.
5. Unlock the shutter release button and gently depress the shutter release button halfway. If any one of the viewfinder shutter speed LED indicators between 1/30 and 1/1000 sec. lights (indicating the shutter speed selected by the camera's microcomputer), depress the shutter release button completely to release the shutter. If two shutter speed LED indicators light at the same time, it means the camera's microcomputer has selected an intermediate shutter speed. If the LED overexposure warning arrow (◀) blinks, the exposure is beyond the high end of the meter's range (the sub-

Overexposure warning



Underexposure warning

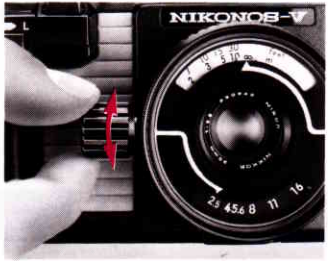


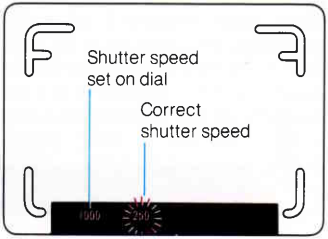
ject is too bright). Therefore, set the lens to its smallest available aperture (the largest f-number). If, after that, the arrow is still blinking, either use a neutral density filter or change to a film with a lower ASA/ISO film speed.

If the LED underexposure warning arrow (▶) blinks, the exposure is beyond the low end of the meter's range (the subject is too dark). Therefore, set the lens to its largest available aperture (the smallest f-number). If, after this, the arrow is still blinking, use a Nikon Speedlight or change to a film with a higher ASA/ISO film speed. (For Speedlight information, see page 50.)

Shutter-priority automatic exposure photography

The Nikonos-V allows you to select a particular shutter speed to achieve a specific photographic effect when shooting in the A mode. To photograph moving subjects, you can select a fast shutter speed to freeze the action and produce sharp outlines, or you can select a slow shutter speed to pan the action and produce an intentional blur. To operate the Nikonos-V in this manner, gently depress the shutter release button halfway. Then, while watching the viewfinder LED indicators, turn the lens aperture knob (in the case of the LW-Nikkor, turn its aperture ring) until the LED that indicates the desired shutter speed lights.





Shooting in the Manual Exposure Mode

The following procedures apply when you want to:

- Select your own aperture and shutter speed.
- Use an exposure other than what the viewfinder LEDs indicate.
- Use the "B" (Bulb) setting.
- Use a Nikon Speedlight other than the SB-103, SB-102 or SB-101.
- Use the "M90" (1/90 sec.) setting.

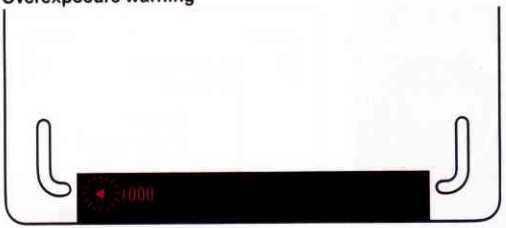
1. Estimate or measure the camera-to-subject distance*.
2. Unlock the shutter release button.
3. Set the shutter speed/mode selector dial and the aperture index to the desired shutter speed and f/stop, respectively.
4. Look through the viewfinder, compose the scene, and gently depress the shutter release button halfway to activate the meter. The viewfinder LED indicator which corresponds to the shutter speed you selected will light. If, at the same time, one or two other shutter speed LEDs blink, the camera's microcomputer has determined that a different shutter speed is needed to obtain the correct exposure with the existing scene brightness and aperture.

To obtain the correct exposure, rotate either the lens aperture knob (in the case of the LW-Nikkor, rotate its aperture ring) or the shutter speed/mode selector dial until only one shutter speed LED remains lighted.

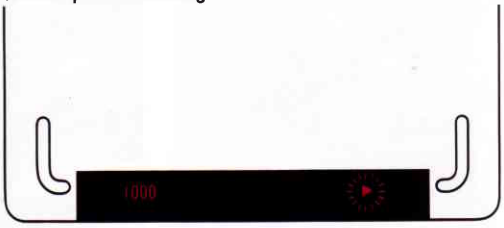
If the LED overexposure warning arrow (◀) blinks, either turn the shutter speed/mode selector dial to a faster shutter speed or set the lens to a smaller

* See page 59 for more information.

Overexposure warning



Underexposure warning



aperture (a larger f-number). If the arrow continues to blink even when the shutter speed/mode selector dial is set to "1000" (1/1000 sec.) and the lens is set to its smallest aperture (the largest f-number), either use a neutral density filter or change to a film with a lower ASA/ISO film speed.

If the LED underexposure warning arrow (▶) blinks, either turn the shutter speed/mode selector dial to a slower shutter speed or set the lens to a larger aperture (a smaller f-number). If the arrow continues to blink even when the shutter speed/mode selector dial is set to "30" (1/30 sec.) and the lens is set to its largest aperture (the smallest f-number), either use a Nikon Speedlight or change to a film with a higher ASA/ISO film speed. (For Speedlight information, see page 50).

- *If two shutter speed LED indicators light at the same time, it means an intermediate shutter speed will provide the correct exposure. Therefore, turn the lens aperture knob (in the case of the LW-Nikkor, turn its aperture ring) slightly until only one LED remains lighted.*
- *When the shutter speed/mode selector dial is set at either M90 or B, the exposure meter does not work nor do the LED viewfinder indicators light. When the dial is set at R, the shutter is automatically locked.*
- *To create a special photographic effect through an intentional over- or underexposure, set either the lens aperture knob (in the case of the LW-Nikkor, set its aperture ring) or the shutter speed/mode selector dial so that at least two non-adjacent LED indicators are lighted.*

How to select the f/stop and shutter speed

Exposure is determined by the combination of shutter speed and aperture. As the numbers on either the aperture scale or shutter speed/mode selector dial increase by one increment, the amount of light striking the film is reduced by approximately one half. For example, the amount of light at 1/250 sec. is one half that at 1/125 sec., but the amount of light at 1/60 sec. is twice that at 1/125 sec. Likewise, the amount of light at f/16 is one half that at f/11, but the amount of light at f/8 is twice that at f/11. Brighter scenes require either faster speeds or smaller apertures or a combination of both which will give the same amount of exposure; darker scenes require the reverse.

For example, if you obtain the correct exposure with the combination of 1/125 sec. and f/11, you will also obtain the correct exposure with the combination of 1/60 sec. and f/16, and with 1/250 sec. and f/8.

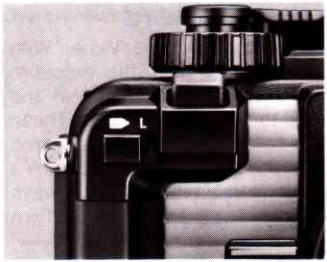
For more information about depth of field, see page 45.

Shutter speed/aperture combinations that give the same exposure

Shutter speed (sec.)	1/1000	1/500	1/250	1/125	1/60
Aperture (f/number)	4	5.6	8	11	16

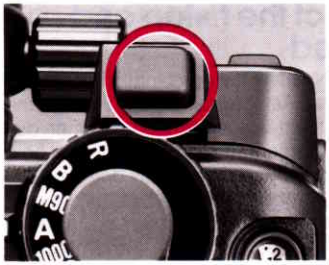
EV Range of the Camera

EV is the abbreviation for Exposure Value. With ASA/ISO 100 film and an f/2.8 lens, the exposure value range of the Nikonos-V is between EV 8 and EV 19 (1/30 sec. at f/2.8 to 1/1000 sec. at f/22). These shutter speed/aperture combinations are not affected by ASA/ISO film speed. That is, the Nikonos-V's shutter speed/aperture combinations are always 1/30 sec. at 2.8 to 1/1000 sec. at f/22 at any film speed from ASA/ISO 25 to 1600.



Shutter Release Lock Lever ⑥

This convenient lever prevents film wastage and inadvertent battery drain caused by accidentaly depressing the shutter release button when the camera is not in use. When storing or carrying the camera, lock the shutter release button by sliding the lever to the "L" position. To unlock the shutter release button, slide the lock lever off the "L" position.



Shutter Release Button ⑤

Located at the top of the anatomical grip, the large shutter release button on the Nikonos-V provides convenient operation either above or below the water. When gently depressed halfway, this button activates the exposure meter. After you remove your finger from the button, the meter stays for approximately 16sec. and then automatically turns itself off to conserve battery power. Because the shutter release button activates the viewfinder LEDs when the shutter speed/mode index is opposite any setting **except** M90 (1/90sec.), B (Bulb), or R (Rewind), the shutter release button can be used as a battery check. At M90 (1/90sec.), B (Bulb), and R (Rewind), and until the frame counter reaches "1," the viewfinder LEDs do not appear. Remember that the shutter release button should be depressed gently, not rapidly, to

release the shutter. Also avoid shaking or moving the camera when releasing the shutter.

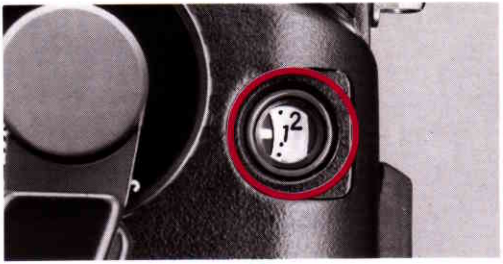
- *When you release the shutter at "A" in a very dark place or with the front lens cap on, the shutter curtain may remain open. If this happens, turn the shutter speed/mode selector dial to another setting to close the shutter.*
- *The shutter will not be released when the film has not been advanced, when the shutter release button is locked, nor when the shutter speed/mode selector dial is set at "R."*

ASA/ISO Film Speed Dial 26

Providing ASA/ISO settings from 25 to 1600, the film speed dial is set by lifting up the knurled ring and rotating it until the desired speed is opposite the white index. When the ring is released, it locks into place. The dial can be rotated even underwater without water getting inside the camera.

The white dots between the numbers on the dial represent intermediate film speed settings. (See the adjacent chart at page 23.).

- *Setting the correct ASA/ISO film speed value is essential to the proper operation of the camera, since the ASA/ISO film speed in use is one of the three pieces of information (the other two being the shutter speed in use and the scene brightness) used by the camera's microcomputer to determine the correct exposure.*



Frame Counter ④

To accommodate all commercially available film cartridges, the Nikonos-V frame counter goes up to 36. The "S" appears automatically as soon as the camera back is opened and signifies the "START" position. There are two dots between "S" and "1" to indicate blank exposures. After "1," even numbers are listed and odd numbers are indicated by dots in between. The most frequently used numbers—**12, 20, 24,** and **36**—are in red. The frame counter will advance one stop with each complete stroke of the film advance lever, regardless of whether or not there is film in the camera. The frame counter will not advance after it reaches 36, but the film can be wound and the shutter can be cocked.

- *Do not begin shooting until the frame counter reaches frame "1."*
- *When the shutter speed/mode index is opposite any setting* ***except*** *M90 (1/90sec.), B (Bulb), or R (Rewind), the shutter will be automatically released at approximately 1/1500sec. until the frame counter reaches frame "1," regardless of the scene brightness and the film speed in use.*
- *After the frame counter reaches frame "1," the camera automatically returns to the mode you have selected.*

Film Advance Lever ①

The film advance lever on the Nikonos-V operates in the same manner as that of a regular 35mm camera. To cock the shutter and advance the film to the next frame, stroke the lever counterclockwise until it stops. When you remove your finger, the lever will automatically return. The lever is ratcheted, so it may be operated in one continuous stroke or a series of shorter ones. In addition, the lever is hinged for compact storage in the rest position. The angle of throw is 144°.

- *If the lever becomes increasingly difficult to stroke when winding several frames, the film is improperly advancing. Do not force the lever further; instead, rewind the film and load it again.*
- *When all available frames have been exposed, the lever will stop advancing. Do not force the lever further; instead, rewind the film.*

Exposure Compensation

When the overall scene is unusually light or dark in tone or there is a substantial difference in contrast between the main subject and the background (for example, backlit subjects or snowscapes), the camera's meter may be fooled into giving the incorrect exposure. In these cases, exposure compensation—via the ASA/ISO film speed dial—is required to obtain the correct exposure. To do this, intentionally reset the ASA/ISO film speed dial.

Exposure Compensation in the A mode: To make an exposure compensation with the ASA/ISO film speed scale, determine the film speed that corresponds to the desired exposure compensation value by using the following chart.

For example, to make a +1 exposure compensation when using ASA/ISO 100 film, reset the ASA/ISO film speed scale to ASA/ISO 50.

❷ \ ❶	+2	+1⅔	+1⅓	+1	+⅔	+⅓	0	−⅓	−⅔	−1	−1⅓	−1⅔	−2
32	—	—	—	—	—	25	32	40	50	64	80	100	125
64	—	—	25	32	40	50	64	80	100	125	160	200	250
100	25	32	40	50	64	80	100	125	160	200	250	320	400
200	50	64	80	100	125	160	200	250	320	400	500	640	800
400	100	125	160	200	250	320	400	500	640	800	1000	1250	1600
1000	250	320	400	500	640	800	1000	1250	1600				

❶ Exposure compensation value
❷ Film speed in use

Exposure Compensation in the manual mode (1/30 sec. to 1/1000 sec.): To make an exposure compensation, set either the lens aperture knob (in the case of the LW-Nikkor, set its aperture ring) or the shutter speed/mode selector dial so that at least two non-adjacent LED indicators are lighted (one LED indicates the shutter speed you select, one indicates the shutter speed the camera's microcomputer selects). Another method is to move close to the subject (or position it in the center of the viewfinder) and obtain an exposure reading; then set the controls accordingly and step back (or change the position of the subject in the viewfinder). When you release the shutter, the result with be a properly exposed photograph.

- *This technique can also be used to create intentional over- and underexposures in normal lighting. The proper amount of exposure compensation can be determined through trial and error.*
- ***Be sure to return the ASA/ISO film speed dial to the correct setting after you have finished your exposure compensation.***
- *It is difficult to use exposure compensation when shooting underwater in harsh lighting conditions. An alternative is to "bracket" your shots: take one shot at the indicated correct exposure, and one each at the next largest and smallest f/stops (or next fastest and slowest shutter speeds).*
- *Generally speaking, a +2 exposure compensation is required when shooting subjects against snowscapes and similar situations, but that value will not always provide the correct exposure. For best results, use an 18% reflectance gray card (available at most camera stores) for precise exposure metering rather than using the ASA/ISO film speed dial. TTL exposure meters are calibrated to provide the correct exposure when an 18% reflectance gray card is used. If you do not have a gray card, hold the palm of one hand at least a foot in front of the lens in the same light as your main subject and let the camera meter your hand for the correct exposure.*

Depth Of Field

When you shoot at a certain aperture and focusing distance, you will find that not only the main subject but also objects within a certain range in front and behind it will be sharp in the final photograph. This "in-focus zone" is known as depth of field. Objects beyond this range become increasingly out of focus. Because the Nikonos-V features aperture-priority automatic exposure, you can control depth of field by varying the f/stop. When the zone of sharpness is large, depth of field is "deep"; when it is small, depth of field is "shallow."

For any individual lens:

- The smaller the aperture (the larger the f-number), the deeper the depth of field; the larger the aperture (the smaller the f-number), the shallower the depth of field.
- Depth of field becomes deeper the farther the subject is from the lens; the depth of field becomes shallower the closer the subject is to the lens.
- Depth of field behind the main subject is deeper than in front of it.

Between lenses of different focal lengths: longer focal length lenses have shallower depth of field at each f/stop; shorter focal length lenses have deeper depth of field at each f/stop.

As you open and close the aperture, the pincer-type depth-of-field indicators open and close to show the distance range which will be in focus in the final photograph. (In the case of the LW-Nikkor, depth of field is indicated by pairs of colored depth-of-field index lines on the aperture scale.)

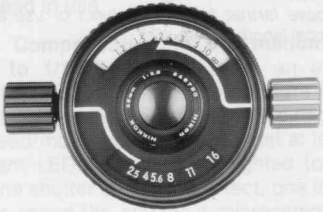
For example, with the standard W-Nikkor 35mm f/2.5 lens, when the lens focusing knob is set at 3m and the lens aperture knob at f/16, the indicators show that all objects between 1.5m and infinity (∞) will be in focus in the final photograph.

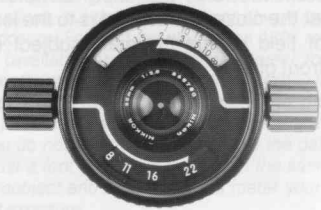
- *To minimize any errors you may have made when measuring or estimating the subject distance or focusing, use the smallest aperture (the largest f-number) possible. Alternately, move farther from the subject or use a lens with shorter focal length.*

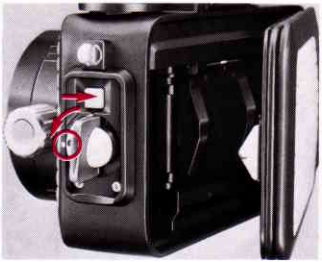
Different Depths Of Field

f/2.5—Shallow depth of field

f/22—Deep depth of field





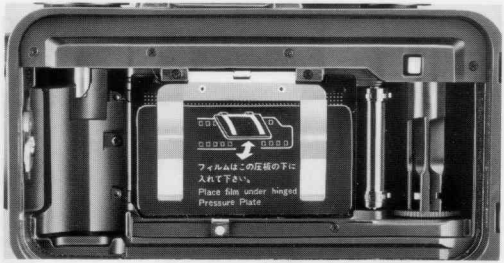


Camera Back Lock System

This newly designed system allows quick and easy film loading in the normal 35 mm camera way.

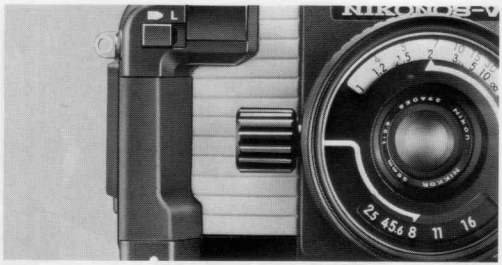
To allow the camera back to be opened or closed in a minimum amount of time, a quick-release camera back release/lock latch ㉜ is employed. It can be opened after turning it 90° in the direction of the arrow on the camera body while depressing the orange camera back release/lock button ㉘, thereby aligning the red camera release/lock mark ㉛ on the latch with the white camera back release index ㉚ on the camera body. Before closing the camera back, align the red mark with the white index, then firmly press the camera back against the body and turn the latch until its red mark clicks into position opposite the red index ㉙.

Naturally, you should never attempt to load or unload the camera underwater or in situations where water might get inside the camera.



Pressure Plate ㉟

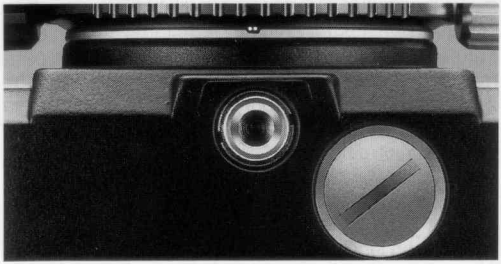
Instead of being attached to the camera back, the Nikonos-V's pressure plate is attached to the inside of the camera and is hinged. This style pressure plate uses a safety catch to keep the film flat, and to protect the shutter curtains from accidental splashes or foreign matter when the camera back is open.



Anatomical Grip ⑦

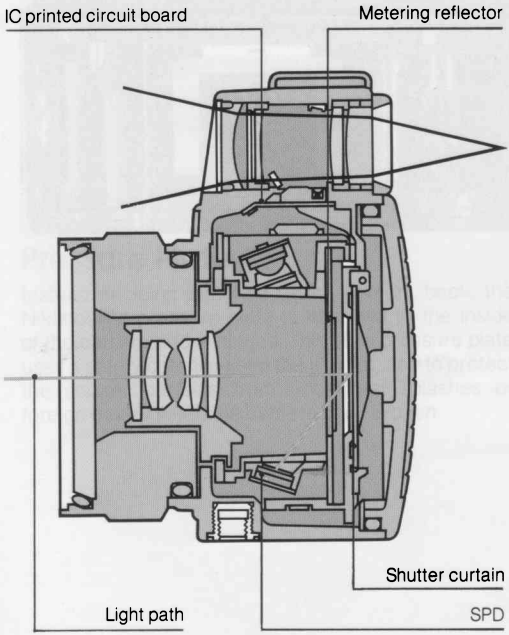
By placing your right forefinger on the shutter release button with the thumb behind the film advance lever, your other fingers naturally wrap around the anatomical grip. With this comfortable and secure hold, you can change rapidly from horizontal- to vertical-format shooting.

One of the biggest causes of blurred pictures is camera shake. When you release the shutter, support the camera with both hands and depress the shutter release button gently, not rapidly. Underwater, weightlessness makes it even more difficult to hold the camera steady, so concentrate on steadiness even when using fast shutter speeds.



Tripod Socket ㊹

A standard tripod socket is located in the camera's baseplate for attachment of the brackets for the Nikonos Underwater Speedlights SB-103, SB-102 and SB-101. A regular tripod can also be used for shooting on land at slow shutter speeds or when making time exposures.



Except at shallow depths, a speedlight is a must when shooting underwater because it restores the subject's natural colors. A speedlight is also convenient as a main light source at night and in dim light as well as a supplemental light source to fill in shadows in daylight.

A number of different speedlights can be used with the Nikonos-V, including the new dedicated speedlight, the SB-103 or SB-102, and the SB-101—both of which can be used both on land and underwater. When shooting on land, you can also use Speedlights SB-19, SB-18, SB-16B, SB-15, and SB-E.

To simplify flash photography even further, the Nikonos-V features fully automatic through-the-lens (TTL) flash exposure control. While the shutter is open, a silicon photodiode (SPD) at the bottom of the shutter box reads the light as it reflects off the film; when the film has received enough light for correct exposure, the flash unit turns off. TTL flash exposure control is operable with the SB-103 or SB-102, which connects directly to the camera, and the SB-18, SB-16B and SB-15, which connect to the camera through a sync cord. The Nikonos-V can also be used with a variety of Nikon TTL Multiple Flash photographic accessories. Before shooting, check that the aperture setting is adequate for the flash-to-subject distance and the guide number of the speedlight in use.

The Nikonos-V, which has only an X-contact, synchronizes with speedlights when the shutter speed set is 1/90 sec. or slower. (Shutter speed sync ranges are shown in the following chart.)

- *When connecting a special electronic flash unit with a provision for time lag, set the shutter speed at 1/60 sec. or slower depending upon the time lag.*
- *Connecting other manufacturers' flash units may damage the Nikonos-V's IC circuitry. Also, units with a high-voltage sync circuit may adversely affect shutter speed precision.*

Shutter speed (sec.)	1/1000	1/500	1/250	1/125	1/60	1/30	M90	B
Speedlight								

: Synchronized

: Cannot be used