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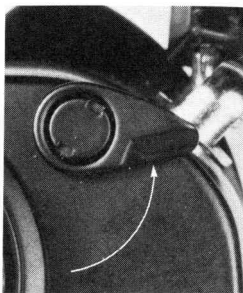
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MULTIPLE EXPOSURE LEVER

The multiple-exposure lever located adjacent to the film advance lever permits any number of exposures on one frame. After making the first exposure, push the multiple exposure lever 90 degrees counterclockwise while cocking the shutter. Both the film and frame counter will not advance. The multiple exposure lever will automatically click back to its original position so that when the second exposure is made, the film will advance as normal. If a third, or additional exposures, are to be made on the same frame, set the multiple exposure lever each time.



To make multiple exposures, make the first exposure normally, then before advancing to the next frame, push the multiple exposure lever counter-clockwise. Turn the advance lever and the shutter will be cocked but the film will not advance.

CHANGING LENSES

To remove a lens from the camera, press the lens-release button located to the right of the lens, while twisting the lens clockwise until it can move no further. The lens will now pull off freely.

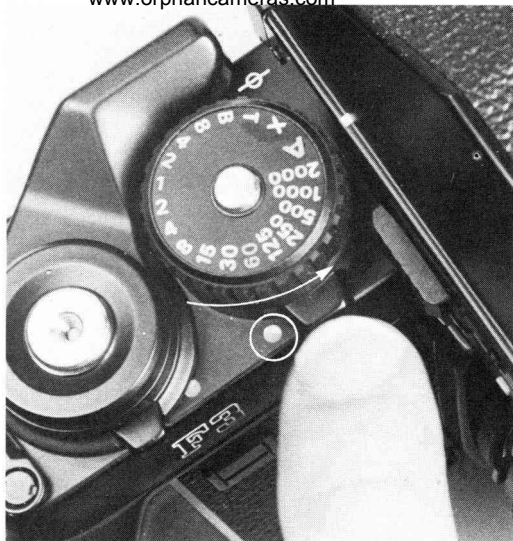
To mount an AI lens, position the lens so the focusing-index mark aligns with the mounting-index on the camera. Mount the lens on the camera body so that the lens is firmly seated on the lens-mount flange. Turn the lens counterclockwise until it clicks into position.

To mount a non-AI lens, make sure the camera's meter-coupling lever is out of the way of the lens. Push the meter-coupling lever release button, and fold it back toward the camera body. Mounting procedure from this point is identical to AI lenses.

SELF-TIMER

The self-timer delays the release of the shutter for ten seconds after it has been triggered. The self-timer lever is located at the base of the shutter speed dial. To operate this mechanism, set the exposure controls, advance the film and push the self-timer lever to the right until the red dot is uncovered. Activate the timer by pressing the shutter-release button. The red LED on the front of the camera will flash steadily for eight seconds and then blink rapidly during the last two seconds as a warning to get ready.

The self-timer does not return to a normal shutter release automatically. The switch must be manually returned to its normal position after using it.



To make a delayed exposure, push the self timer lever to the right. A red LED flashes steadily for the first eight seconds; and then speeds up for the last two seconds of the delay.

To cancel the timer after pressing the shutter release button, push the self-timer lever back to its original position. The picture will not be taken.

The self-timer works just as well with the MD-4 motor drive except the LED is covered and rendered useless.

An added advantage is when the motor drive is set on the continuous, ("C" setting) and a small object is used to hold the MD-4 shutter release button down, enables the motor drive to be used as a ten second interval timer.

MIRROR LOCKUP LEVER

When using super-telephoto lenses or doing photomicrography it becomes necessary to reduce camera vibration to an absolute minimum. Mirror vibration may cause a disturbance in these two specialized situations. Two Nikkor lenses that require the reflex mirror to be locked up are the Fish-eye-Nikkor 6 mm $f/5.6$ and the OP Fish-eye Nikkor 10 mm $f/5.6$. Also, when using the MD-4 motor drive at top speed,—6 frames per second—it becomes necessary to lock up the mirror.

The mirror lock-up lever is located directly behind the depth-of-field preview button. To lock the mirror in the "up" position, push in the depth-of-field preview button, and rotate the mirror lock-up lever counterclockwise until it stops.

NOTE: Do not use the automatic-exposure setting on the shutter speed dial when the mirror is locked up. This also applies when you lock up the mirror when using the MD-4 motor drive at high speeds.

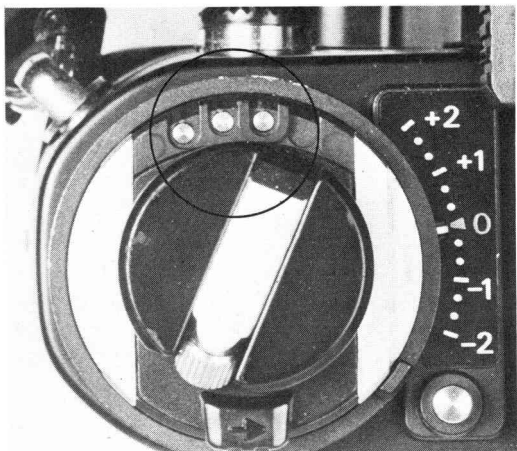
ACCESSORY SHOE

The accessory shoe allows the direct mounting of the SB-12 speedlight. It is located at the base of the



To lock the mirror in the up position push the mirror lock-up button down as far as it will go.

rewind knob. Three electrical contacts on the forward side of the shoe provide flash synchronization, automatic through-the-lens flash output control and ready-light indication (LED) in the camera's viewfinder. It also provides automatic override of the camera's



The accessory hot shoe slides into place over the film rewind crank and makes contact with the three electrical contacts shown here.

shutter-speed dial and sets the shutter speed for 1/80 sec. Two flash coupling adapters are available allowing either the ISO—or Nikon F2 type direct-mounting flash units to be attached.

SYNC TERMINAL

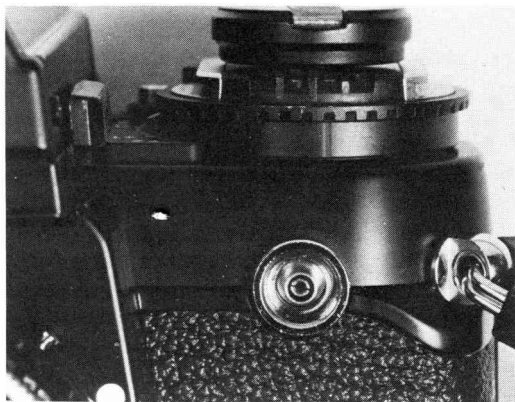
On the front of the camera just below the accessory shoe is a separate sync terminal. It accepts all standard plug-in PC cords, and is threaded to accept the Nikon

screw-in PC cord. When using flash bulbs or an electronic flash without a "hot shoe", it is necessary to use the sync terminal. See the accompanying table to determine the correct synchronization speed to set on the shutter-speed dial.

FILM MEMO HOLDER

As a reminder of the type of film and number of frames on a roll being loaded in the camera, tear off one end of the film carton and insert it into the memo holder on the back of the camera.

The flash sync terminal allows flash units to be used off the camera by means of a PC cord which fits into this terminal.





The film memo holder on the back of the F3 holds the end panel of the film box as reminder of the type of film in use.

Camera Care

Following are a few tips on general camera care that should help maintain the long life expectancy of the Nikon F3:

Keep the camera clean. Use lens cleaning tissues moistened with alcohol or lens cleaner for the lens surfaces. Use a blower brush to remove dust from all camera parts inside and out.

The F3 is especially easy to clean as it is easily "field stripped." Two places in the camera that need extra care when cleaning are the shutter curtain and

mirror mechanism. Both are extremely fragile and should only be cleaned with a blower brush. Never touch these mechanisms with your fingers.

Store the camera properly. Always keep front and back lens caps on a lens not being used. Keep a body cap on the camera body when a lens is not mounted on it.

When storing a camera and its electronic accessories always remove the batteries.

Never subject the camera to excessive heat. Heat can ruin films and shorten the life of the metering system's LCD.

Keep the camera dry. When shooting in the rain or snow, or near the ocean, wrap the camera in a plastic bag. Use a rubber band to hold the open end of the bag around the lens shade or filter ring. Always protect the lens with a skylight or U.V. filter to keep water off the lens itself.

Never attempt to do your own repairs.

Repairs inside the camera, lens, motor drive or flash unit should be left to an authorized Nikon repairman.

Accessories

Md-4 Motor Drive. The Md-4 Motor Drive is a light-weight, extremely fast, full-scale motor drive for the Nikon F3. It provides an adjustable range of firing speeds up to 6 frames per second. It also can be used with remote-control accessories via the remote terminal on the front of the unit. The MD-4 Motor Drive also features motorized film rewind and a subtractive frame counter.

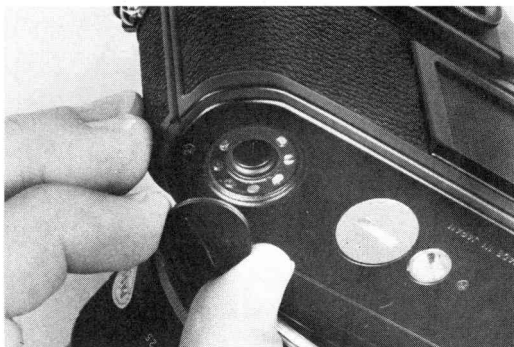
When the MD-4 is mounted on the camera body all of the camera's power is supplied from the MD-4's batteries. This allows the F3 to operate in extremely low temperatures when the camera's two silver oxide batteries would normally become sluggish. The shutter-release button on the MD-4 becomes the camera's main shutter-release button, and the MD-4's power switch overrides the camera's power switch.

Basic operation of the MD-4 Motor Drive. Before installing the MD-4's batteries, make sure the camera's power switch is off, and no film is in the camera. Use a coin to unscrew the cap on the bottom of the camera located directly opposite the rewind knob. Store the cap in the small slot on the front of the MD-4's battery clip.



The Nikon F3 accepts the accessory MD-4 motor drive (shown here) which has a maximum firing rate of six frames per second.

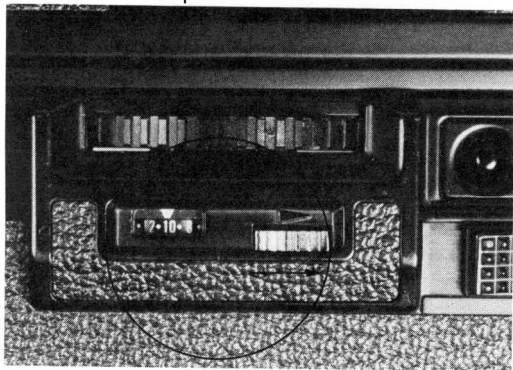
To open the battery clip, slide the release catch to the right. The battery clip then pops out. Load eight AA-type penlight batteries into the battery chamber of the battery clip according to the positive/negative signs inside the battery chamber. Slide the clip back into position until it locks.



To mount the MD-4 motor drive, you must first remove the rewind cap on the camera's baseplate.

Check the batteries by pressing the battery check button on the back of the motor drive. If the batteries are properly installed, two LED's near the battery check button should light up. If only one lights, the batteries are not fresh enough to provide full power, but the motor drive is still operable. If neither of the LED's lights, the batteries are either improperly installed or exhausted.

Before attaching the MD-4 to the camera body, the mode selector switch on the motor drive should be on "L" (locked) or the motor will run on contact. Align the mounting screw of the MD-4 with the tripod socket of



Align the F3 camera body with the MD-4 motor drive and turn the mounting screw (shown here) clockwise, until the motor drive is firmly attached to the F3.

the camera body and fasten tightly, making sure all of the motor drive's pins are aligned with their respective contacts on the camera.

Load the camera with film. Set the frame counter on the motor drive to the orange dot by pushing the wheel to the right.

The mode-selector for single-frame or continuous shooting is next to the MD-4's trigger button on top of the hand-grip. Set the S-C mode selector on the "S" for single frames, or "C" for continuous operation, by lifting and rotating the selector ring. This switch also

activates the camera's metering system and electromagnetic shutter-release system even if the camera's switch is in the "off" position.

Take pictures using the MD-4's shutter-release button for either single or continuous operation. During single-frame operation the motor drive advances one frame each time the shutter-release button is pressed, while continuous operation results in a rapid burst of shots, that will fire at a rate of up to 5.5 or 6 frames per second, as long as the shutter-release remains depressed. Single-frame operation can also be

The MD-4 will operate in two modes: Single Frame and Continuous Advance. To select the mode turn the mode selector to "S" for single frame and "C" for continuous. Lock the MD-4 trigger by moving the selector to "L."

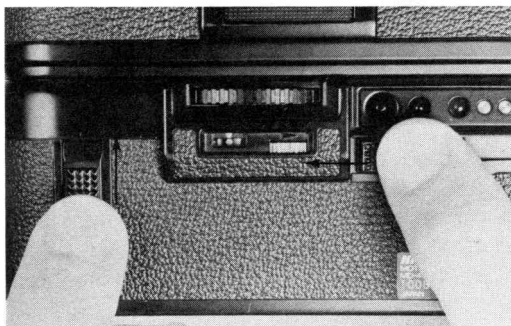


achieved by switching both the motor drive and camera on and using the camera's shutter-release button rather than the MD-4 shutter-release. The speeds at which the MD-4 will operate, varies depending on the power source and whether or not the mirror is locked up. Top speeds are reached with NiCd batteries (5.5 fps normally and 6 fps with the mirror locked up). With AA alkaline batteries top speed is 3.8 fps and 4 fps with the mirror up.

When the last frame on a roll of film has been taken, the motor drive advances incompletely and one of the LED's lights up. It is necessary at this point to rewind the film. To rewind film automatically, press the small release button in the center of the rewind slide marked "R1" and slide it to the left. While still holding this slide to the left, push rewind slide "R2" straight up. Let go of both slides and the film rewinds automatically. Once the film is completely rewound, push rewind slide "2" down to its original position.

The MD-4 Motor Drive may be attached or detached from the F3 body at any time, even if film is loaded in the camera. The danger of fogging your film is greatly reduced by a spring-loaded light trap inside the film chamber that keeps light from entering the camera through the power film rewind mechanism. Even with the light trap however, it is still advisable to remove the motor in subdued light if the camera is loaded.

To make multiple exposures with the MD-4 Motor Drive, remember to push the multiple-exposure lever before pressing the shutter-release button for each frame. The last exposure on a given frame should be



To use the MD-4's power rewind, press the release button in the center of the "R-1" rewind slide and slide it to the left. Now push the second slide ("R2") straight up. When the film is completely rewound push the "R2" down to shut off the motor.

made without pushing the multiple-exposure lever so that the film will advance normally. On occasions when the motor drive's continuous setting is used, push the multiple exposure lever and hold it in the "set" position while making the exposures. After the last exposure on the same frame has been taken, the camera is still set to make one more exposure on that frame. To avoid an additional exposure, place a lens cap over the lens, set the shutter speed dial to a manual setting and press the MD-4's shutter release button twice: once to return the multiple-exposure lever to its normal position (which still leaves the film unadvanced), and again to advance the film.

MD-4 MOTOR DRIVE— SPECIFICATIONS

- Camera fitting: Nikon F3
- Shooting modes: Choice of single-frame (S) or continuous (C) firing via S-C mode selector; lock (L) position also provided
- Shutter release: By electromagnetic trigger button; also switches on camera meter when depressed halfway; meter remains on for 16 secs. after finger is lifted off button
- Firing rate: Up to 6 frames per second (fps) with NiCd Battery Unit MN-2, up to 4 fps with 8 penlight AA-type batteries; firing rates decrease at shutter speeds slower than 1/125 sec.
- Automatic winding stop: Motor shuts off at film's end with LED indication; frame counter also provided to automatically stop film winding after preset number of exposures—useful in very low temperatures
- Number of 36-exp. rolls per fresh battery set: Guaranteed firing rate; Approx. 60 with all types of batteries. Slower firing rates, but still usable: Approx. 70 with NiCd Battery Unit MN-2: Approx. 100 with zinc-carbon batteries; Approx. 140 with alkaline-manganese batteries
- Automatic film rewind: 4.5 secs. with NiCd Battery Unit MN-2 and 8 secs. with penlight AA-type batteries for 36 exposure film: automatic film rewind stop with optional MF-6 Camera Back
- Shutter speeds: 8 to 1/2000 sec. including "X" (1/80 sec.) and "T"

- Dimensions: 146.4mm (W) x 114.7mm (H) x 70.7mm (D)
- Weight: 480g

SB-12 speedlight. The Nikon SB-12 speedlight is designed exclusively for use with the Nikon F3. It is a direct mounting flash unit offering fully automatic through-the-lens flash output control. The camera's SPD meter system reads the light reflected from the film and shuts the flash off when the exposure is correct.

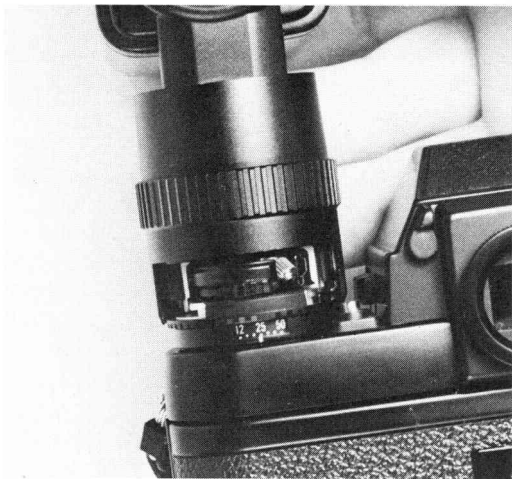
The Nikon F3 with the SB-12 flash unit.



Basic operation of the SB-12. To install batteries, slide the battery compartment lid in the direction of the arrow and insert four AA-type penlight batteries according to the positive/negative symbols inside the compartment.

When mounting the SB-12 on the camera, rotate the unit's locking ring so the mount is open and the mounting-foot is uncovered. Slide the mounting-foot over the camera's accessory shoe from the front. Close

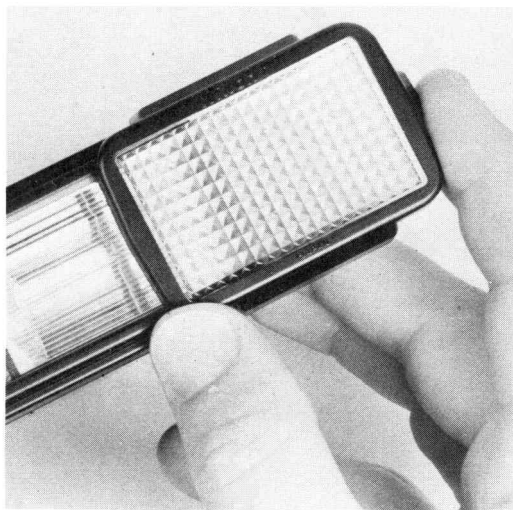
Mount the SB-12 on the F3 by sliding the flash onto the camera's accessory shoe (incorporated in the rewind crank assembly.)



When you are using a wide angle lens, use the SW-4 adapter. This assures flash coverage wide enough for the angle of view of a 28 mm lens.

To use the SB-12 in the manual mode, determine the f -stop with the exposure-calculator dial. Locate the f -stop opposite the distance from which you are shooting and set the aperture accordingly.

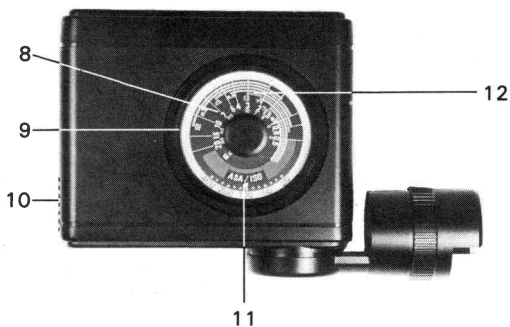
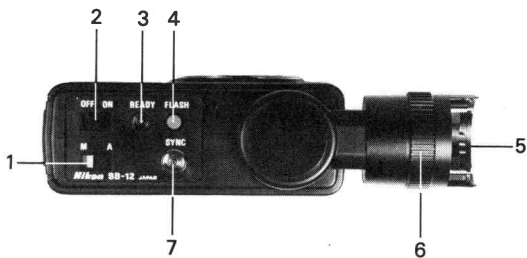
The SB-12 diffusing grid is used to widen the flash coverage when a wide angle lens is in use.



f/stop	Film sensitivity (ASA/ISO)					Auto shooting range	
	400	200	100	50	25	Normal Operation	With Wide-Flash Adapter SW-4
2	—	—	—	—	—	4~15 (13.1~49.2)	3.6~15 (11.8~49.2)
2.8	2	—	—	—	—	3~15 (9.8~49.2)	2.7~12 (8.9~39.4)
4	2.8	2	—	—	—	2~12 (6.6~39.4)	1.8~8.8 (5.9~28.9)
5.6	4	2.8	2	—	—	1.4~8.8 (4.6~28.9)	1.3~6.2 (4.3~20.3)
8	5.6	4	2.8	2	—	1~6.2 (3.3~20.3)	0.9~4.4 (3.0~14.4)
11	8	5.6	4	2.8	2	0.8~4.4 (2.6~14.4)	0.8~3.1 (2.6~10.2)
16	11	8	5.6	4	2	0.7~3.1 (2.3~10.2)	0.7~2.2 (2.3~7.2)
22	16	11	8	5.6	2	0.6~2.2 (2.0~7.2)	0.6~1.5 (2.0~4.9)
—	22	16	11	8	2	0.6~1.5 (2.0~4.9)	0.6~1.1 (2.0~3.6)
—	—	22	16	11	2	0.6~1.1 (2.0~3.6)	0.6~0.8 (2.0~2.6)

The SB-12 exposure calculator table gives the range of flash coverage under various shooting conditions.

Maximum battery life is attained with the SB-12 in the automatic mode with the camera set on the widest aperture possible that the situation will allow. Flash duration is kept at a minimum and recycling time is shortened under these circumstances.



SB-12 FLASH PARTS NOMENCLATURE

- 1. Shooting mode selector**
- 2. Power switch**
- 3. Ready-light**
- 4. Open-flash button**
- 5. Contact pins (inside)**
- 6. Mounting foot with locking ring**
- 7. Flash sync. terminal**
- 8. Distance scale**
- 9. Exposure calculator dial**
- 10. Battery chamber lid**
- 11. ASA/ISO film speed index**
- 12. Auto shooting range indicators**

SB-12 FLASH—SPECIFICATIONS:

- **Light output control:** Automatic: Silicon-controlled rectifier (thyristor) and series circuitry Manual: Full output
- **Guide number (ASA/ISO 100 and feet):** 82 (59 when used with Wide-Flash Adapter SW-4) ASA/ISO 25 and feet: 40 (28 when used with Wide-Flash Adapter SW-4) ASA/ISO film speed range: ASA/ISO 25 400
- **Angle of coverage:** Horizontal: 56 (67 when using SW-4) Vertical: 40 (48 when using SW-4)
- **Recycling time:** Automatic: Variable depending on shooting distance Manual: Approx. 9 sec. with fresh set of zinc-carbon batteries: approx. 8 sec. with alkaline-manganese batteries
- **Number of flashes:** Automatic: Variable depending on shooting distance Manual: Approx. 60 with fresh set of zinc-carbon batteries; approx. 160 with alkaline-manganese batteries
- **Power source:** Four 1.5V AA-type batteries
- **Ready-light:** Provided
- **Open-flash button:** Provided
- **Mounting:** ● **Dimensions (excluding mounting foot):** Directly on F3 accessory shoe 105mm (W) x 40mm (H) x 85mm (D)
- **Weight (without batteries):** 350g

Finders. The Nikon F3 comes with a DE-2 eye-level viewfinder as standard equipment. There are many situations, however, when the eye-level restriction hinders good photography. For this reason Nikon offers a selection of accessory viewfinders.

DA-2 action finder. The DA-2 action viewfinder is for situations that prohibit getting your eye close to the camera. It is recommended if you must wear goggles or if you are moving too fast to see through the viewfinder clearly. It is also helpful for underwater photography when the camera is in an underwater housing.

DW-3 waist-level finder. This finder is for low angle shots. It has a deeply shielded viewing hood so the image may be seen clearly at all times. A built in 5X flip-up magnifier is supplied for fine focusing.

DW-4 6X high magnification finder. This finder magnifies the entire viewing screen to 6X magnification and is fitted with a -5 to +3 diopter adjustment for individual eyesight correction. An eyepiece cover prevents stray light from affecting the automatic meter system while shooting. It is recommended for photomicrography.