

The Nikon F2 Camera



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Code numbers:

Nikon F2 Photomic Body, chrome
Nikon F2 Photomic Body, black

No. 100-08-002
No. 100-08-042

Nikon F2 Body, chrome
Nikon F2 Body, black

No. 100-07-002
No. 100-07-042

A. General Introduction

The Nikon F2 combines the world-renowned quality of its predecessor, the Nikon F, with the latest innovations in 35mm SLR technology. The major features of the F2 camera include:

- Titanium-foil focal plane shutter
- Wide shutter speed selection from extra slow 10 sec. to very high 1/2000 sec.
- Stepless shutter speed between 1/80 sec. and 1/2000 sec.
- Easy and accurate multiple exposures
- FP and X synch automatically adjusted with shutter speeds
- Hot-shoe contact for Nikon cordless flash unit
- Interchangeable viewfinders and focusing screens cover 100% of the picture field
- Built-in center-weighted through-the-lens exposure meter
- Film advance lever with a 120° stroke, operated in a single sweep or in a series of short strokes. It also serves as meter on-off switch
- Depth-of-field preview control
- Large reflex mirror to avoid image cutoff in the viewfinder. It can be independently locked up
- Easy attachment of the Motor Drive. Motorized film rewinding possible
- Rewind shaft pulls up halfway for easy rewinding and for mounting Ready-Light Adapter or other accessories
- Fully automatic aperture control with special

accessories

- Hinged removable camera back for easy film loading and for attachment of 250- or 800-exposure magazine backs

The camera body consists of the die-cast aluminum alloy shell, baseplate, mirror box, front cover, top plate, bottom cover and camera back. With each of its 1,506 component parts designed, processed, finished and assembled under strictest quality control, the Nikon F2 gives outstanding performance in every conceivable photographic situation.

The standard Nikon F2 comes in a chrome-plate body and a Photomic finder finished in black. The F2 camera body is also available in black finish.

The F2 camera has compact, sleek and elegant appearance. The body has been streamlined, with its corners and edges and the lower end of the front scutcheon rounded for greater stability, balance and a good fit to the palm.

Every mechanism of the camera was designed with utmost care and all the controls positioned where they are most readily handled. The rewind crank, camera back latch and the T-L fingerguard around the shutter release button have been redesigned or newly added.

The neck strap eyelets are located on the slanted faces to the front of the body for better balance, and have stainless steel insets to reduce wear.

B. Specifications (Nikon F2 Photomic)

Type:

35mm single-lens reflex.

Shutter:

Dimpled titanium-foil focal plane.

Shutter speeds from 10 to 1/2000 sec. plus B and T. Stepless shutter speed selection between 1/80 and 1/2000 sec. Built-in self-timer 2 to 10 sec.

Synchronization:

FP and X synchs automatically adjusted with shutter speeds. M- and MF-class bulbs also usable. X synch at 1/80 sec. or slower.

PC-plug socket threaded for positive cord connection. Hot-shoe contact for Nikon cordless flash unit.

Viewing/focusing:

Eye-level pentaprism finder with built-in exposure meter covers 100% of the picture field. Interchangeable with five other finders. Speed and f-number indications visible in lower finder viewfield. Type A Focusing Screen with matte/Fresnel field and central split-image rangefinder. Interchangeable with 17 other screens. Depth-of-field preview button. Virtually no image cutoff by mirror even with super-telephoto lenses.

Exposure metering:

Through-the-lens center-weighted measurement at full opening.

CdS exposure meter powered by two 1.5V silver oxide batteries.

Meter needle visible in and atop the finder. Has battery checker button.

Range of metering: EV1 — EV17 at ASA 100 (e.g. f/1.4, 1 sec. — f/8, 1/2000 sec.).

ASA sensitivity setting: 6 — 6400.

Maximum aperture setting: f/1.2 — f/5.6.

Diaphragm coupling: f/1.2 — f/32. Couples with both diaphragm and shutter speed dial.

Other features:

120° film advance lever (throw-angle 20°; multi-stroke winding also possible). The lever also serves for on-off switch of the meter.

Readily acceptable 5 f.p.s. motor drive system.

Removable hinged back with memo holder.

Built-in ready-light for speedlight, visible in the finder viewfield.

Independent mirror lock-up.

Easy and accurate multiple-exposure.
Automatic "0" resetting frame counter.
Easy film loading by six-slotted film take-up spool.
Crank-type film rewinding.
Positive shutter lock for transportation.
Various accessories to comply with any photographic situation.

Lenses:

Standard: 50mm f/2, 50mm f/1.4 and 55mm f/1.2 Nikkor Auto lenses. Nikon F bayonet mount. More than 40 Nikkor interchangeable lenses available.

Dimensions (body):

152.5 x 102 x 65mm (6 x 4 x 2-9/16 in)

Weight (body):

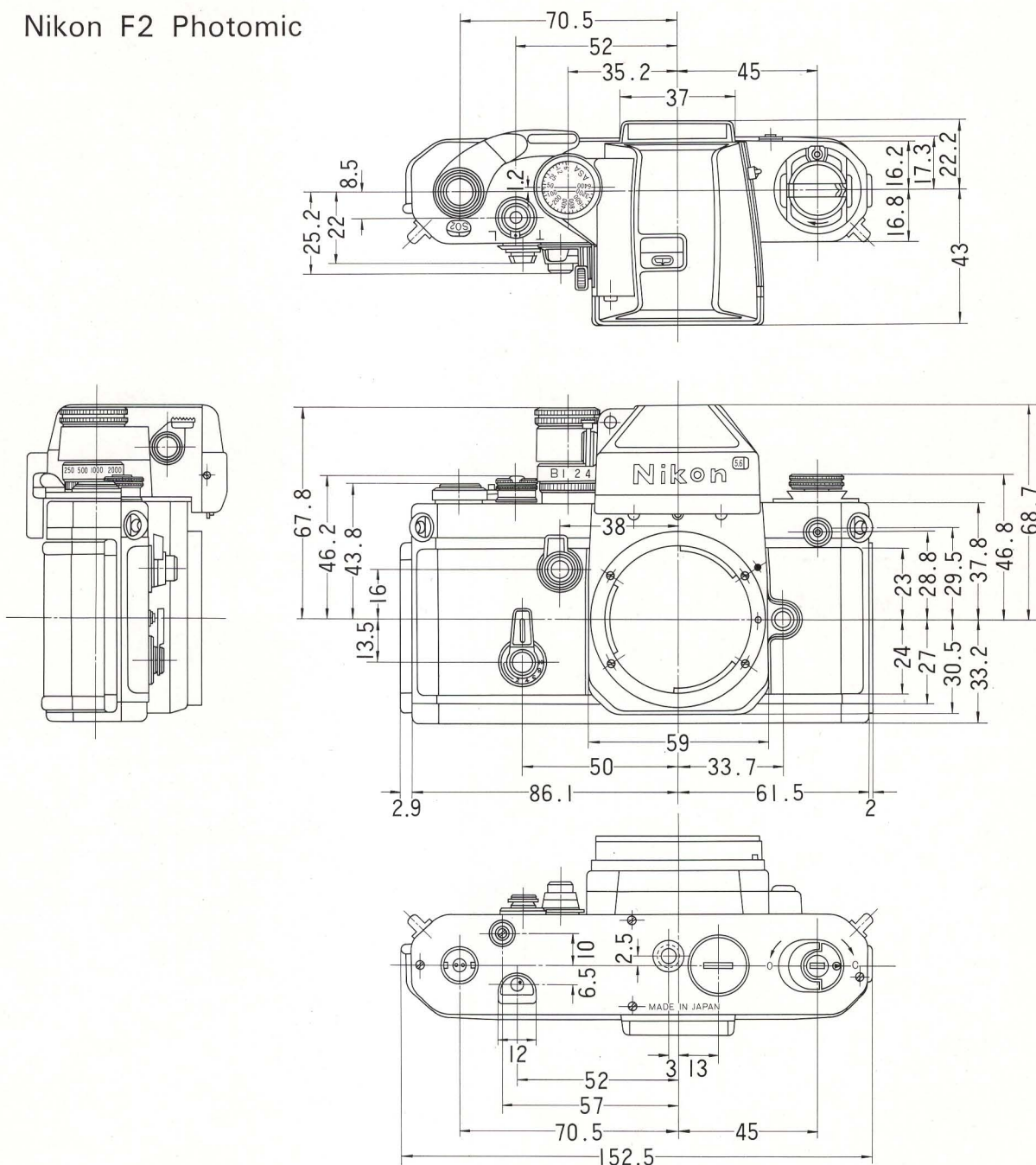
840g (1.85 lb)

Remarks:

Eye-level finder version instead of the Photomic finder offered as companion model (called "Nikon F2").

Available in satin-chrome or black finish.

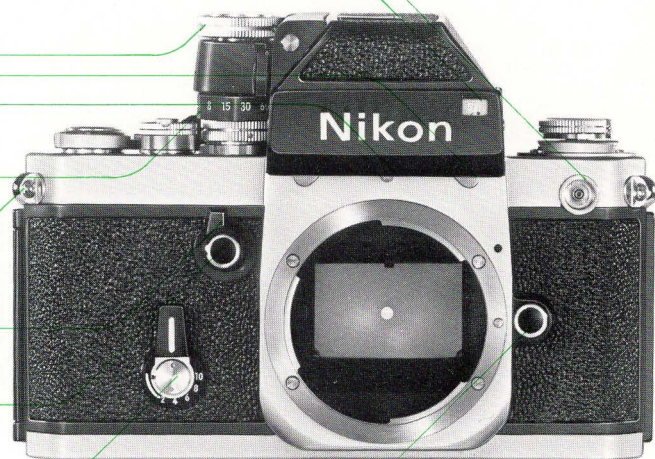
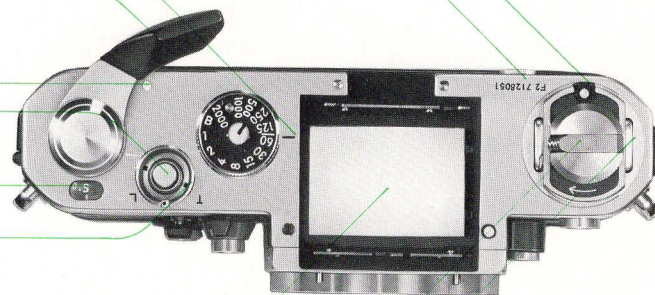
Nikon F2 Photomic

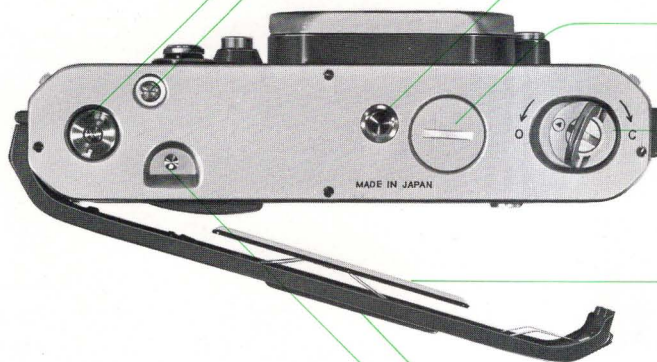
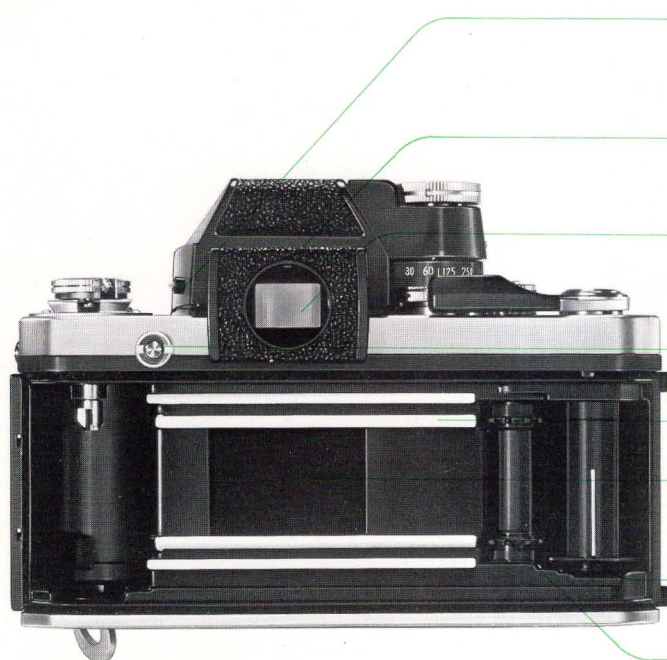


(m/m)

C. Nomenclature

- Hot-shoe contact** ●
For Nikon cordless flash unit.
- Serial number** ●
Top edges of digits show the film plane.
- Shutter speed index** ●
- Film advance lever** ●
Advances the film, cocks the shutter, operates the frame counter and acts as a switch for the meter.
- Meter switch index** ●
- Shutter release button** ●
Has a screw thread for Nikon cable release.
- Frame counter** ●
Indicates the number of frames exposed.
- T-L fingerguard** ●
For time and extra-long exposures or for locking the shutter to prevent accidental release.
- Focusing screen** ●
- Film rewind crank** ●
The shaft pulls up about 6mm for easy rewinding of film and mounting of accessories.
- Accessory shoe** ●
Accepts the Nikon cordless flash unit, ready-light adapter and other accessories.
- ASA film speed dial** ●
For setting the film speed from ASA 6 to 6400 for exposure metering.
- Meter window** ●
Meter needle appears in the window to show correct exposure.
- Finder release lever** ●
Depress to remove or attach the Photomic finder.
- Battery checker** ●
- Synch terminal** ●
Threaded for firmer hold of Nikon synch cord.
- Maximum aperture indicator** ●
For checking if the meter is set for maximum aperture of the lens in use.
- Shutter speed selector** ●
- Clamp** ●
- Meter coupling pin** ●
Fits the coupling prong on the lens aperture ring.
- Shutter speed dial** ●
Speeds from 1 to 1/2000 sec. plus B.
- Neck strap eyelet** ●
Stainless steel inset for extra durability, positioned for better balance with neck strap.
- Mirror lock** ●
Turn downward to lock up the mirror out of the optical path.
- Depth-of-field preview button** ●
Press to stop down the diaphragm to the preset aperture.
- Self-timer** ●
Trips the shutter in 2 to 10 seconds. Also used in combination with shutter release for extra-long exposures of 2 to 10 seconds.
- Lens-lock release button** ●
Press to unlock the lens for removal.





● **Ready-light contact**
Connects with speedlight unit by means of ready-light adapter.

● **Ready-light**
Indicates when the Nikon speedlight unit is fully charged.

● **Finder eyepiece**
Accepts various screw-in accessories.

● **Finder release button**
Depress to release the finder and focusing screen.

● **Film guide rails**

● **Titanium-foil shutter curtains**

● **Take-up spool**
Has six slots for easier film loading.

● **Sprockets**

● **Film cartridge stabilizer**

● **Camera back**
Hinged to swing open. Can be removed for use with 250- or 800-exposure magazine back.

● **Camera back latch**
Push downward to remove camera back.

● **Film roller**

● **Film advance coupling**
Advances the film and cocks the shutter when the motor drive is attached.

● **Shutter release coupling**
Releases the shutter when the motor drive is attached.

● **Tripod socket**

● **Battery chamber**
Houses two silver oxide batteries for powering the meter.

● **O/C key**
Turn to open and close the camera back. May be removed to accept motor drive rewinding shaft.

● **Film pressure plate**

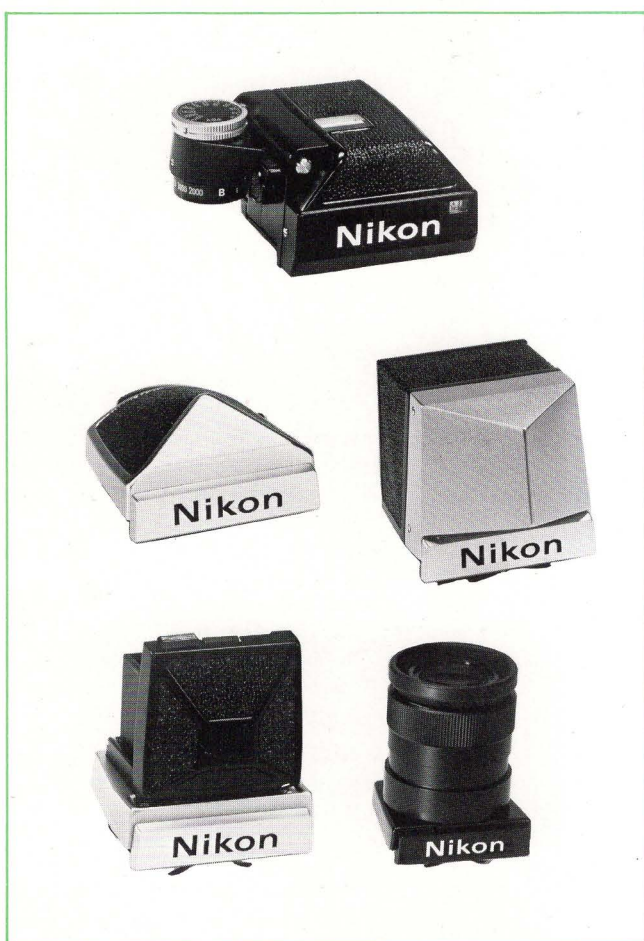
● **Memo holder**
Holds a film carton top as reminder of the film type, speed and number of exposures.

● **Film rewind button**
Depress to rewind the film or to make multiple exposures on the same frame.

D. Features

1. Viewfinders

The Nikon F2 offers complete interchangeability of its viewfinders. The camera body equipped with the F2 Photomic Finder DP-1 is referred to as the Nikon F2 Photomic, and that provided with the Eye-Level Finder DE-1 is called the Nikon F2 camera. These two finders are interchangeable with four other finders—the F2S Photomic Finder DP-2, the Action Finder DA-1, the Waist-Level Finder DW-1 and the 6X Focusing Finder DW-2.



The viewfinders show 100% of the area recorded on the film, enabling the photographer to compose right to the edges of the screen. The brightness of the finder ensures easy viewing and focusing. The image magnification ratio is 0.8X with the normal 50mm lens set at infinity.

The two Photomic finders and the eye-level finder accept a host of screw-in eyepiece attachments, such as Right Angle Viewing Attachment, Eyepiece Correction Lenses, Rubber Eyecup, Eyepiece

Magnifier and Photomic Illuminator.

The Photomic and eye-level finders for the Nikon F2 incorporate a ready-light lamp for use with the Nikon Speedlight Unit.

The ready-light adapter is slid onto the accessory shoe of the camera to make contact with a pin on the side of the viewfinder as well as with the hot-shoe contact. Then, a cord from the adapter is plugged into the synch socket of the Nikon Speedlight Unit SB-1. The ready-light lamp lights up when the speedlight unit is fully charged and ready for firing, so that the photographer need not remove his eye from the finder.

Contained in the baseplate of the F2 camera are two silver oxide batteries (1.5V) for powering the exposure meter. Compared to the conventional mercury battery, the silver oxide battery is more efficient in cold weather, ensuring stable meter performance.



The F2 Photomic Finder DP-1 features center-weighted through-the-lens exposure metering. Coupled to the lens aperture diaphragm and shutter speed dial, the meter is designed to read the brightness of the entire screen but concentrates some 60% of its light sensitivity on the 12mm-diameter central spot—about 1/8 of the total area of the focusing screen. From this central spot toward the edges of the screen, the light measuring sensitivity of the meter gradually falls off.

This arrangement ensures very accurate exposure measurement even under adverse lighting situations. Since the metering is performed with the lens diaphragm fully open, the maximum aperture of a lens in use must be set into the meter. After mounting the lens, just turn the aperture ring

counterclockwise, all the way to the minimum aperture setting, then clockwise as far as it will go. The aperture thus set will appear in the maximum aperture indicator window.

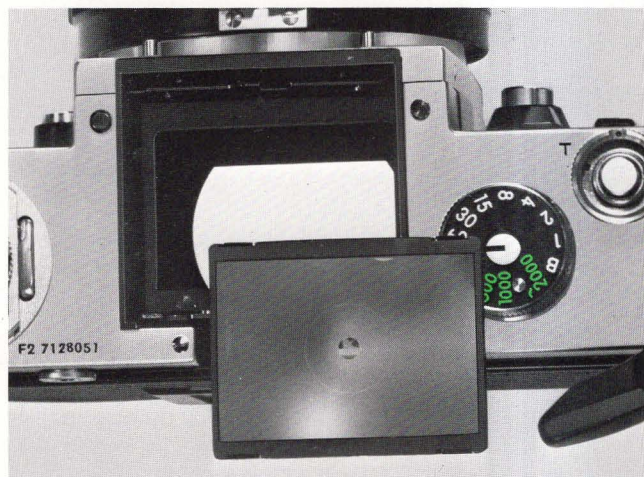
The metering range of the F2 Photomic Finder extends from EV1 to EV17 at ASA 100. This low-range sensitivity, down to EV1, has been achieved by the use of high-quality CdS cells and improvements in a number of related parts. The range of shutter speeds covered extends from 2 seconds ^{*}(B) to 1/2000 second. The coupling range of aperture diaphragm is from f/1.2 to f/32. ASA sensitivity setting ranges from 6 to 6400.

^{*} When the meter needle stops at the center and the speed indication in the viewfinder shows "B," set the exposure for two seconds.

Exposure data appear in the viewfinder, below the viewfield. To the left and right of the meter needle are f-number (f/1.2 to f/32) and shutter speed (B to 1/2000 sec.) settings.

Correct exposure is denoted by centering the meter needle, with the plus and minus marks indicating over-and under-exposures respectively. The film advance lever functions as an on/off switch for the exposure meter. It is switched on by pulling out the lever to uncover a red dot on the top plate of the camera and switched off by pressing the lever flush against the camera body. To check the condition of the silver oxide batteries, just press down the built-in battery checker while switching on the meter. If the needle swings beyond the right edge of the notch, the batteries are in good condition.

2. Focusing Screens

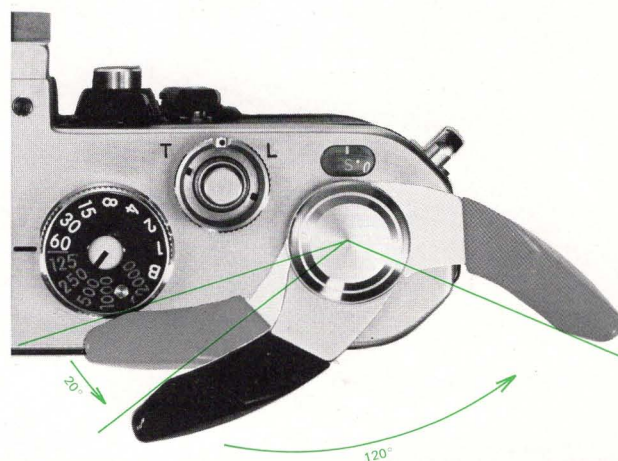


A total of 18 Nikon interchangeable focusing screens are available for the Nikon F2. They consist of 12 basic screens, classified from Type A to Type P, plus variations of the G and H

screens, making it possible to cope with various photographic situations.

The Type A screen, provided as a standard equipment for the F2 camera, has a 3mm-diameter split-image range-finder in the center, outside of which is a matte/Fresnel field. A 12mm-diameter reference circle surrounds the split-image spot.

3. Film Advance Lever



For ease of handling and speedy picture-taking, Nikon has designed for the F2 camera a film advance lever with a short stroke angle of 120°. The lever can be operated in a single sweep or in a series of shorter strokes. A built-in locking device prevents accidental tripping of shutter before it has been fully cocked. The lever swings back after each stroke.

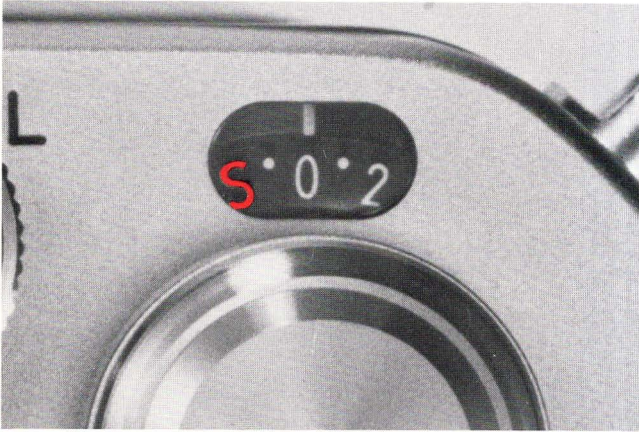
A shorter stroke angle of a film winding lever would generally mean an increased winding torque. However, the Nikon F2's film advance lever uses ball bearings and special teflon bushing for smooth, light and easy operation.

The tip of the lever is covered with plastic to improve its "feel" on the photographer's thumb.

The film advance lever also serves as an on/off switch for the exposure meter of the Photomic finder. The meter is turned on by moving out the lever some 20° to reveal the meter switch index (red dot) beneath, and turned off by pressing it flush against the body. The meter is powered by two silver batteries contained in the baseplate of the camera.

The Nikon F2 employs a six-slotted film take-up spool for secure and easy insertion of the film leader. The shaft for winding the film passes through the center of the spool.

4. Frame Counter



The frame counter indicates the number of frames exposed. Calibrated in even numbers from 0 to 40, it resets itself automatically to "S," two frames before 0, as the camera back is opened.

5. Rewind Button

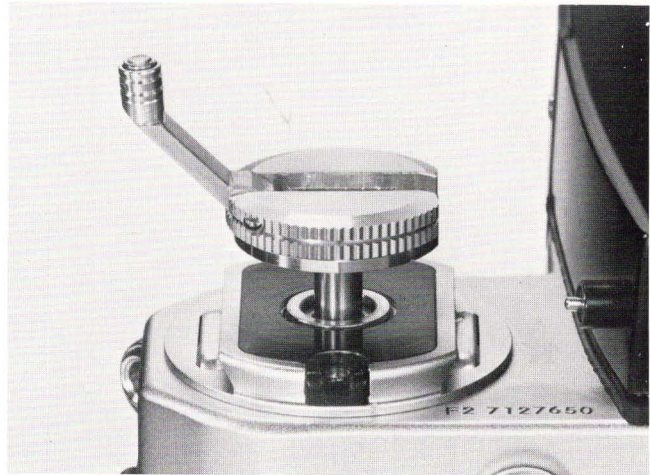


To facilitate film rewinding, a new feature—the film rewind button—has been added to the Nikon F2 camera. When the button is pressed, the film winding sprockets are disengaged, and the film is ready for rewinding. The button pops up again as the film advance lever is stroked.

The rewind button couples with the rewinding mechanism of the Motor Drive MD-1.

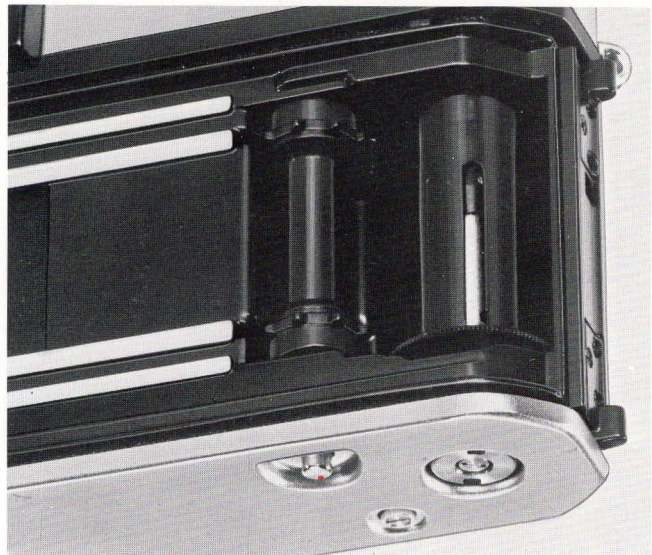
Moreover, by pressing the rewind button to release the sprockets and stroking the film advance lever to cock the shutter, the photographer is able to make exact multiple exposures.

6. Film Rewind Crank



With the camera back closed, the film rewind knob may be pulled up halfway (about 6mm) for easier film rewinding and for accommodating a host of accessories including the ready-light adapter for use with the Nikon Speedlight Unit. When the camera back is opened, the knob can be pulled up all the way for loading or unloading of film cassette.

7. Multiple Exposures



Using the rewind button located on the baseplate of the Nikon F2, the photographer is able to make accurate multiple exposures on the same frame. After making the first exposure, stroke the film advance lever, pressing the rewind button to release the sprockets. This cocks the shutter without advancing the film. Any number of exposures may be made on the same frame by repeating this process.

8. Shutter Speed Dial



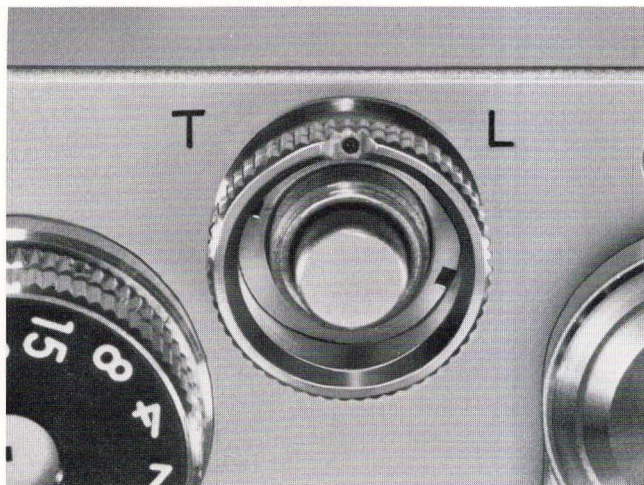
Shutter speeds: 1, 1/2, 1/4, 1/8, 1/15, 1/30, 1/60, 1/125, 1/250, 1/500, 1/1000, 1/2000 second plus B.

The Nikon F2 features a maximum shutter speed of 1/2000 second, made possible by faster shutter curtain travel time.

The shutter speeds are marked clearly on the dial in white (B to 60) and green (125 to 2000) with fluorescent paint. A red line indicates the 1/80 second setting, up to which speed X synchronization takes place. The dial can be rotated 360° in either direction (when the Photomic finder is not attached).

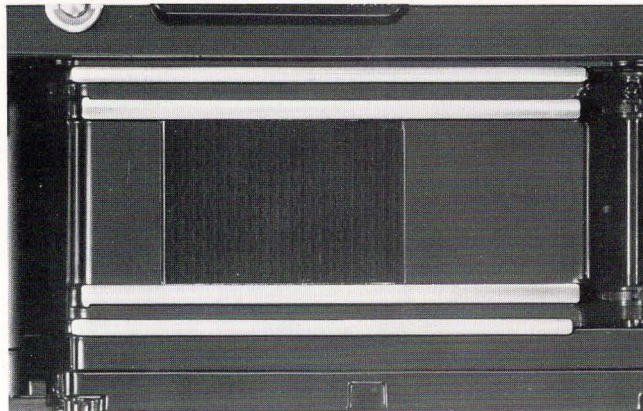
Between 1/80 to 1/2000 second, the F2 offers intermediate speed settings between the click-stops—thanks to improved precision cams and other related parts—for fine exposure adjustments without changing the lens diaphragm aperture. Located on top of the shutter dial is a pin for direct coupling with the Photomic finders.

9. Shutter Release Button



With the shutter release button positioned nearer the front of the camera, the photographer may stroke the film advance lever and press the button in rapid succession.

10. Shutter



In the Nikon F2, the shutter curtain travel time has been shortened to 10 milliseconds, making possible the maximum shutter speed of 1/2000 second and X synchronization at speeds up to 1/80 second.

Improvements in the structure of the main shaft and spring ensure stable travel of the shutter curtains even at the maximum speed, and the carefully-devised shutter braking system and mirror linkage minimize curtain bounce which is apt to become more pronounced as the shutter curtain speed is increased. Faster shutter curtain travel time also guarantees greater shutter speed accuracy.

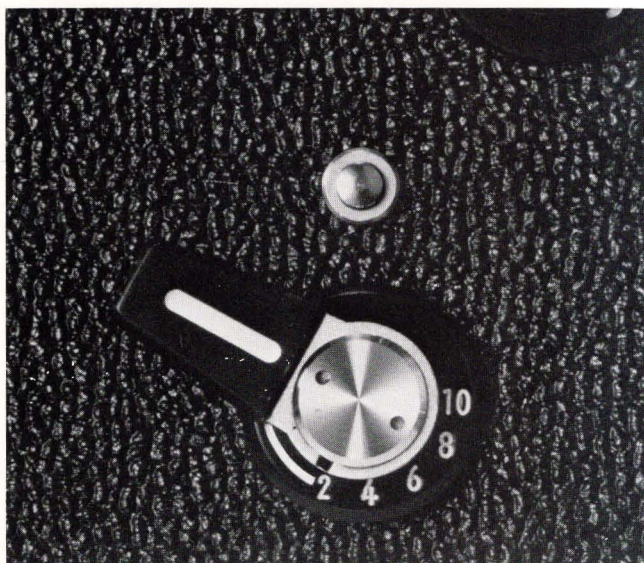
The shutter curtain is made of titanium foil, which is highly resistant to heat and exhibits low heat conductivity and small thermal dilatation. The surfaces of the curtain are dimpled for high tensile strength with a minimum of elongation and high fatigue strength.

11. Self-Timer

The self-timer permits delayed exposures of up to 10 seconds. Marked with numerals—2, 4, 6, 8 and 10—it sets the shutter for a delay of the number of seconds desired.

It can also be used for obtaining extra-slow shutter speeds of 2 to 10 seconds.

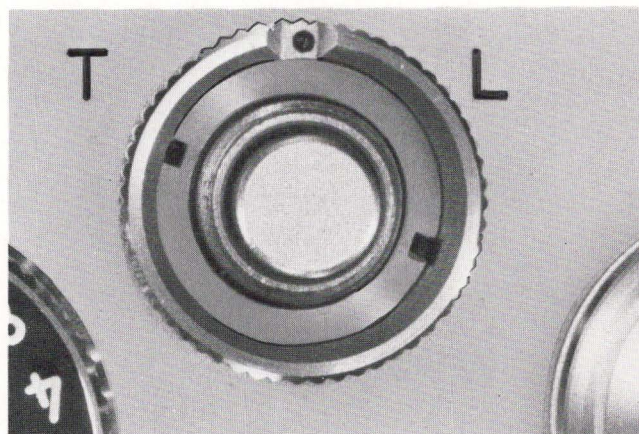
To do this, cock the shutter, set the shutter speed dial at "B," turn the T-L finger guard to the "T" position, adjust the self-timer to the desired shutter speed setting, and press the shutter release button. The shutter will remain open for the preset duration and then close automatically.



12. T-L Fingerguard

The fingerguard around the shutter release button serves as a safety lock against accidental shutter release and a control device for time exposures. Turning the fingerguard to "L" locks the shutter, while the "T" setting (with the speed dial adjusted to "B") prepares the camera for time exposures. When releasing the shutter except at "T" setting, the fingerguard is turned to the center position. For time exposure, set the shutter speed dial at

"B," turn the T-L fingerguard to "T" and release the shutter. The shutter remains open until the fingerguard is returned to its neutral position.



13. Flash Synchronization

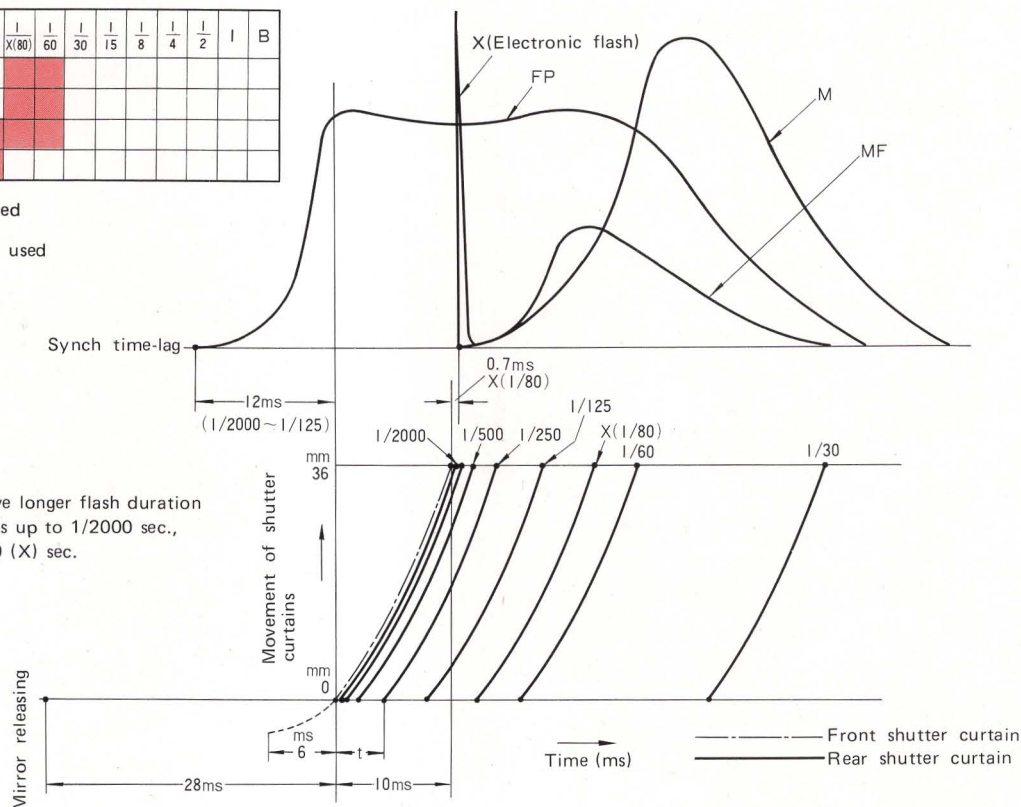
The Nikon F2 is designed to synchronize with the different types of flashbulbs, almost at any shutter speed, as well as with electronic flash. X synchronization at speeds up to 1/80 second has been made possible by the increased traveling speed of the shutter curtains.

FP and X synchs are automatically adjusted with shutter speeds. M- and MF-class bulbs may also be used.

Shutter speed	2000	1000	500	250	125	X(80)	60	30	15	8	4	2	1	B
Class														
FP														
* M														
MF														
X														

□ = Synchronized
■ = Cannot be used

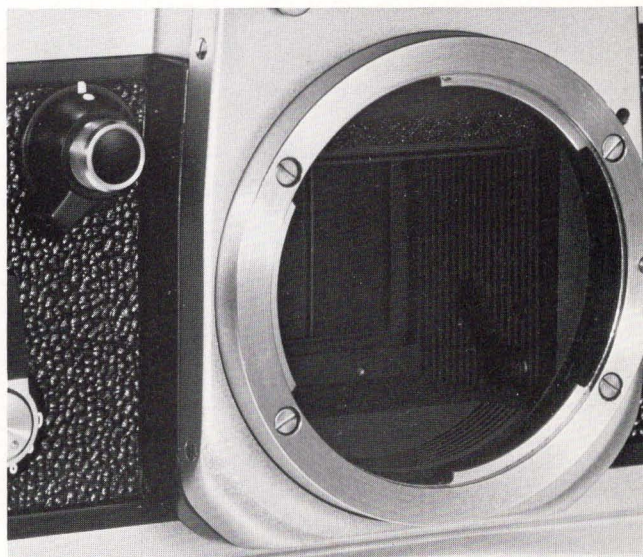
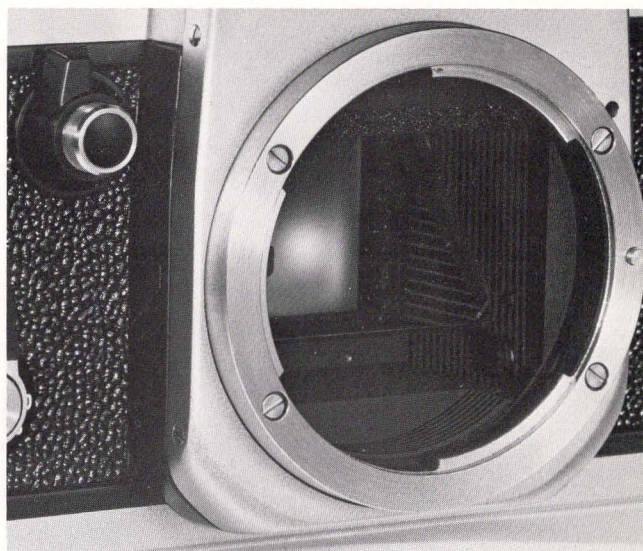
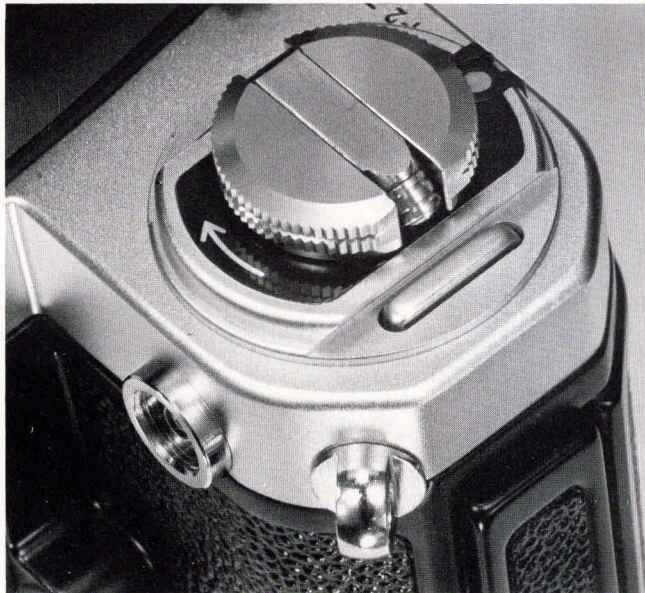
* Some M-class bulbs have longer flash duration covering all shutter speeds up to 1/2000 sec., except for 1/60 and 1/80 (X) sec.



● Synch Terminal and Hot-Shoe Contact

Located on the front of the camera, the synch terminal of the Nikon F2 is threaded to prevent accidental disconnection of the synch cord from the socket. It also accepts conventional plug-in cords.

In addition to the standard synch terminal, there is a hot-shoe contact at the base of the accessory shoe for the Nikon cordless flash unit. A built-in safety switch keeps the circuit open except when an accessory unit is inserted.



14. Reflex Mirror

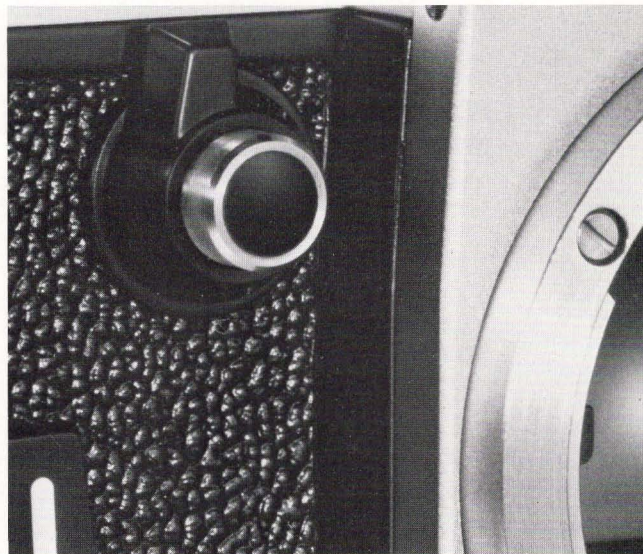
The reflex mirror of the Nikon F2 incorporates a special damping device which reduces to a minimum mirror bounce.

The new suspension system also allows the mirror to be locked up at any time, independently of the shutter mechanism. A 135° turn of the mirror lock-up lever, located at the base of the depth-of-field preview button, locks the reflex mirror out of the optical path.

In addition, by a careful selection of the mirror's axis of rotation, Nikon has made the F2 camera's mirror 2mm longer than that of the Nikon F, eliminating image cutoff in the viewfinder even with super-telephoto lenses having focal lengths of over 800mm.

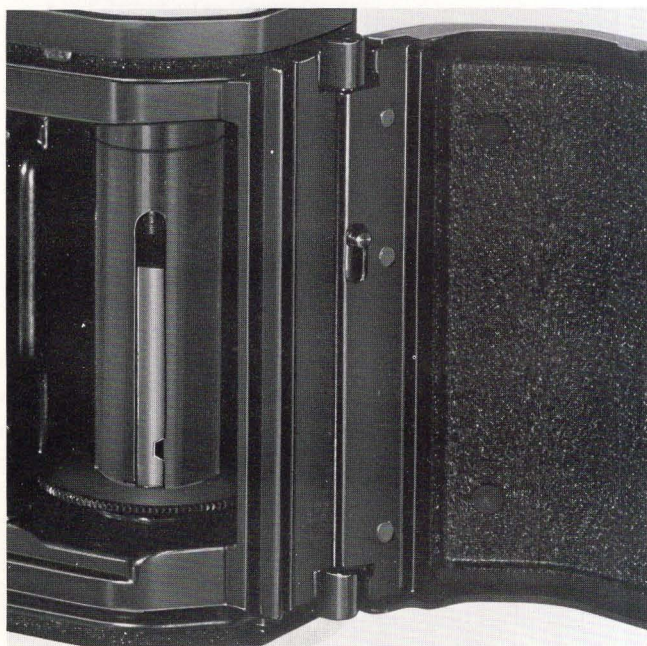
Internal reflection adversely affects the sharpness of image on the negatives. Hence, Nikon has taken a great deal of trouble over the design of the mirror box, a primary source of reflection. The walls of the mirror box have a light-absorbing matte paint finish to minimize reflections. Moreover, the parts that cause reflection inside the box have been reduced and light baffles added.

15. Depth-of-Field Preview Button



Located to the above right of the self-timer, the depth-of-field preview button allows the photographer to check the depth of field for any exposure adjustments before the shutter is released. As the preview button is pressed, the lens diaphragm stops down to the preselected opening for a check on how much background or foreground is in or out of focus.

16. Hinged, Removable Camera Back



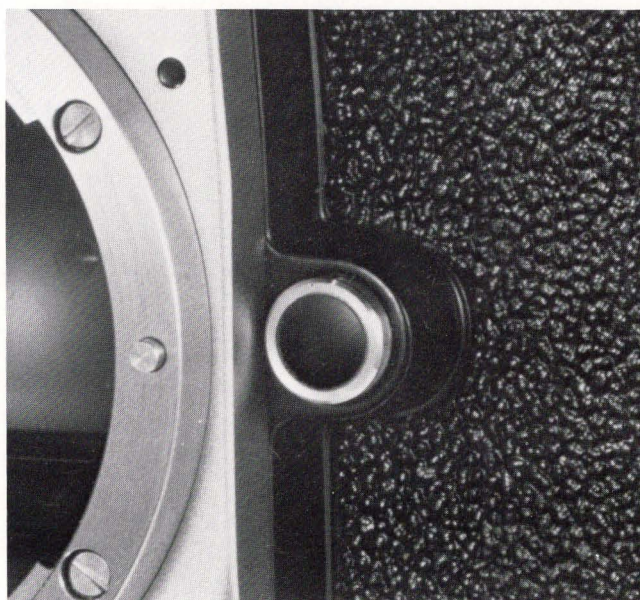
The Nikon F2 camera back swings open on its hinges. The back may also be removed from the camera body to accept the 250- or 800- exposure magazine back for extended sequence shooting with motor drive units. The O/C key is located on the baseplate for opening and closing of the camera back.

17. Memo Holder



A memo holder or a pocket is located on the camera back for holding the end flap of a film carton or other pieces of paper to remind the photographer of the film used, ASA speed, the number of exposures and other data.

18. Lens-Lock Release Button



The button located on the right side of the camera scutcheon is for removing the lens from the camera body. Depressing the button will release the lens locking device and allow the lens to be turned clockwise for removal.

19. Lens Mount Flange

The durable lens mount flange is broad—44mm diameter. A specially treated hard-wearing steel ensures secure seating and correct alignment of the lens mounted.

20. Tripod Socket

The tripod socket has a standard 1/4" thread and is located in the center of the baseplate of the camera body.