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Konica FC-1

INSTRUCTIONS



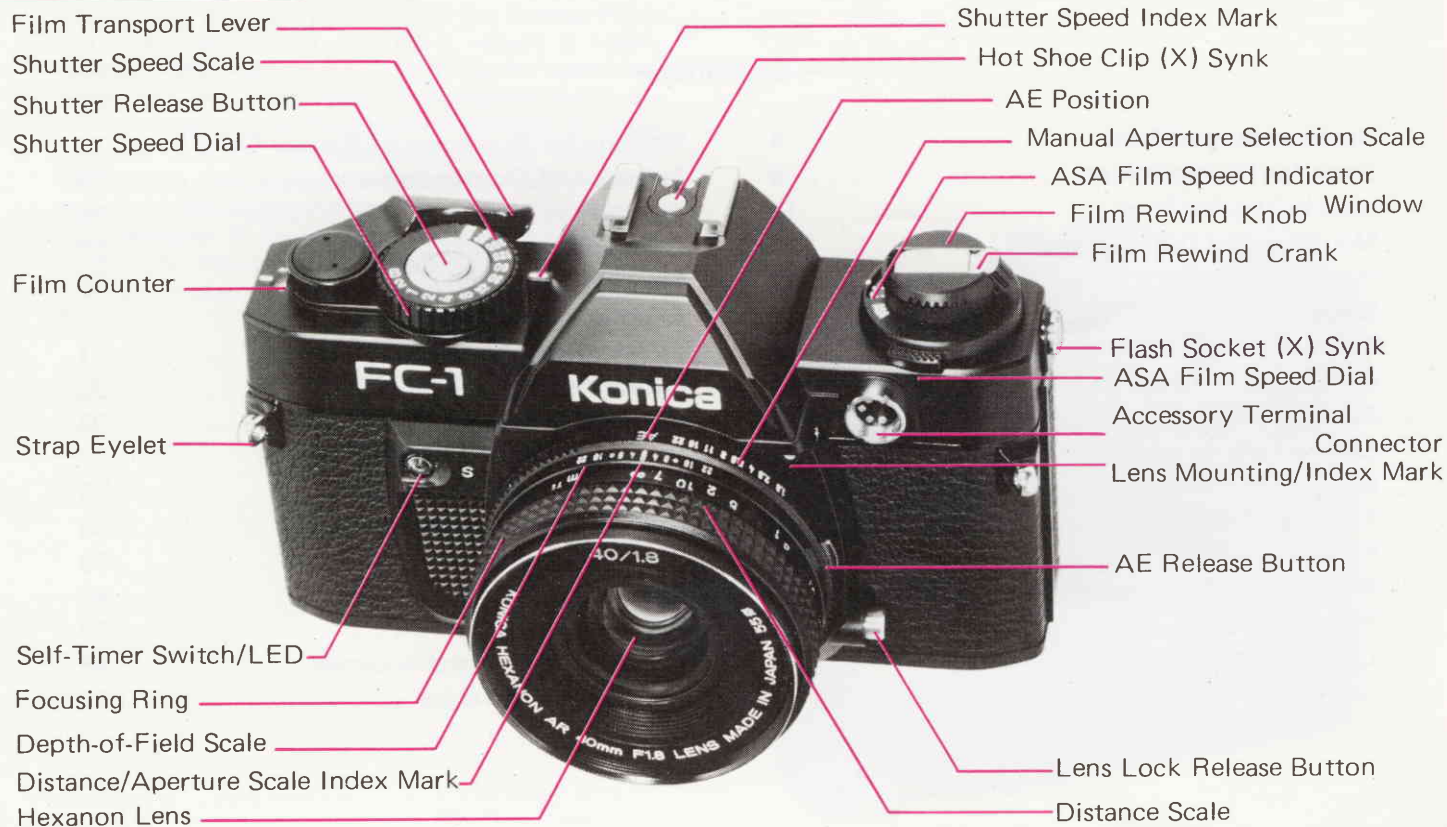
Thank you for your purchase of the Konica FC-1. Like its sister model, the FS-1, which is highly reputed, the Konica FC-1 is a shutter speed-priority TTL-AE SLR which is equipped with the world's biggest and most versatile central processing unit (CPU). Incorporating an easy film loading system, it is a perfected camera readily usable even by a photographic layman. With the Konica Auto-Winder F (available for separate sale), it is possible to take pictures in succession at 1.5 f.p.s., giving full play to the performance of the Konica FC-1.

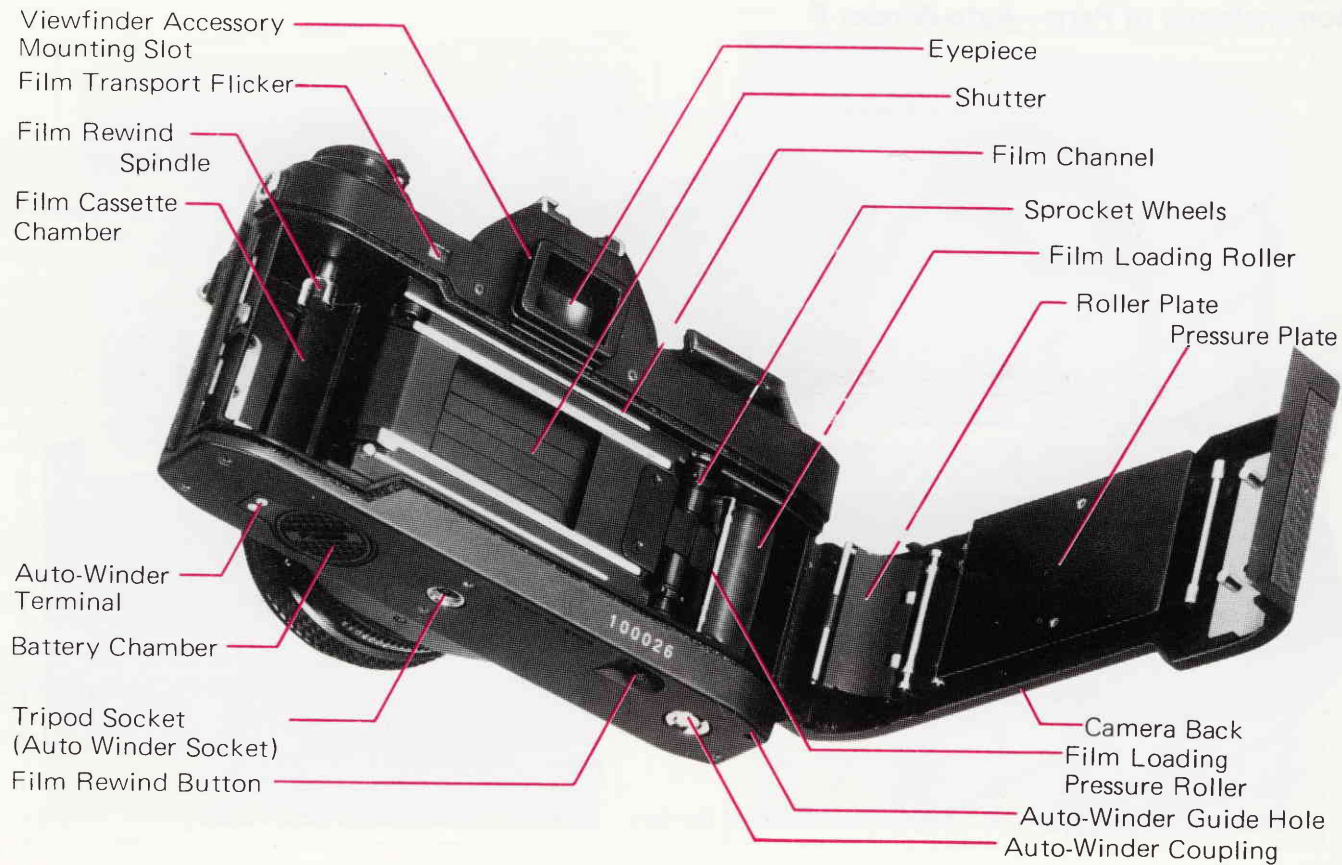


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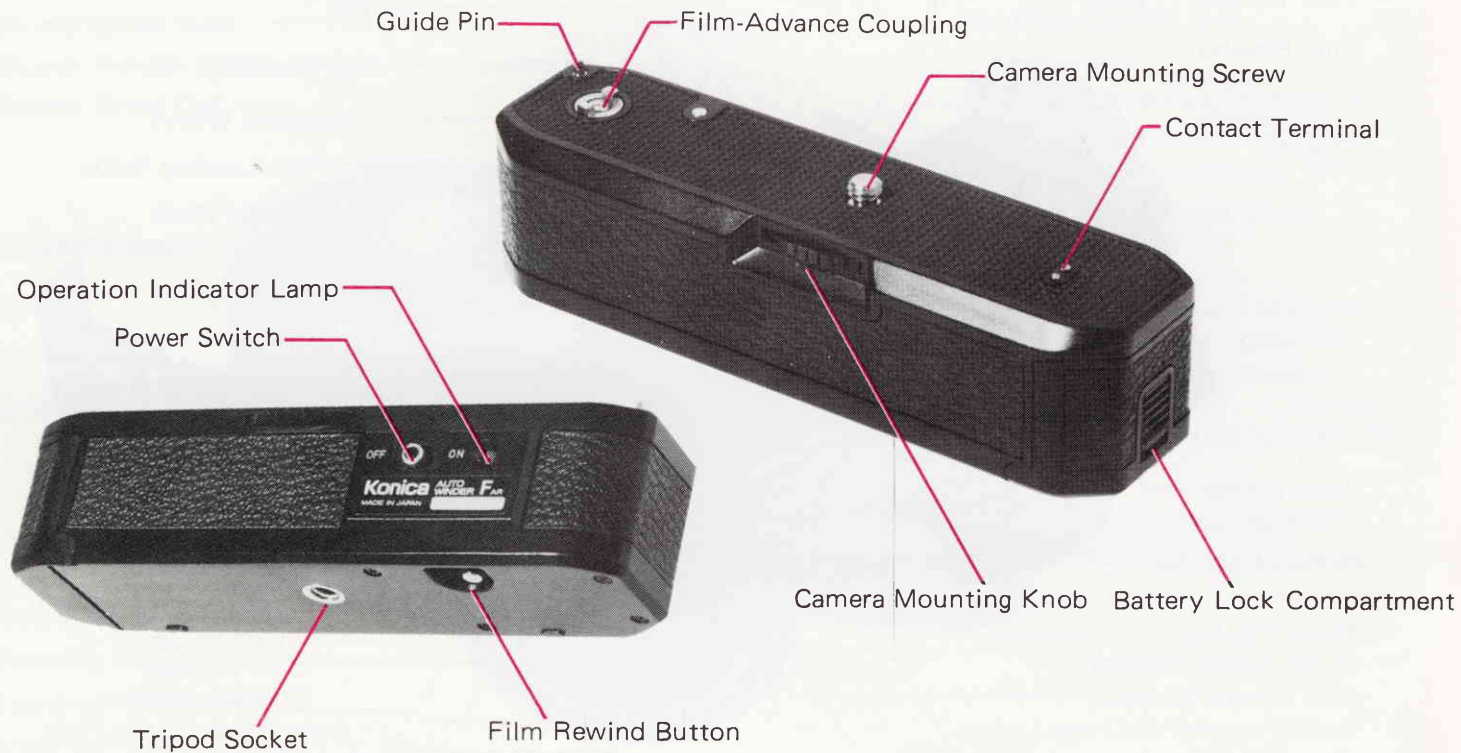
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Nomenclature of Parts





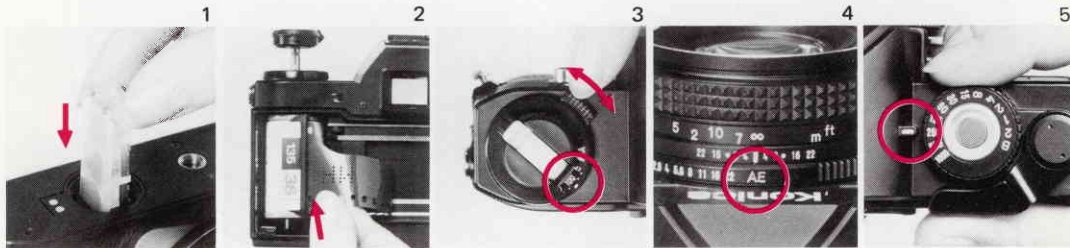
Nomenclature of Parts—Auto-Winder F



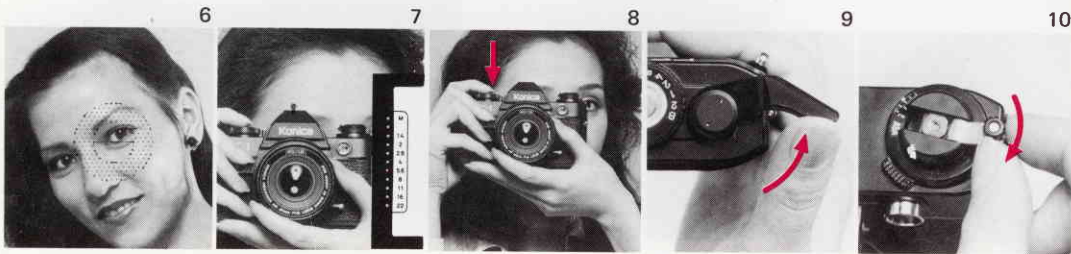
(Available for separate sale.)



Steps for Photographing

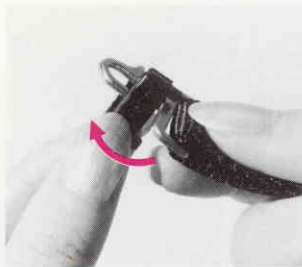


- 1 Insert battery cells. (P.12)
- 2 Load a roll of film. (P.14)
- 3 Set the film speed. (P.18)
- 4 Set the AE position. (P.19)
- 5 Determine the shutter speed. (P.19)

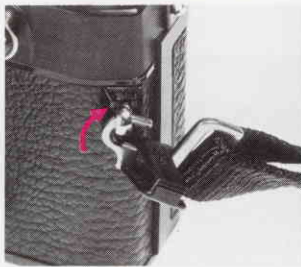


- 6 Focus the lens. (P.21)
- 7 Slightly depress the shutter release button and ascertain the correct exposure. (P.22)
- 8 Frame the subject and release the shutter. (P.20)
- 9 Wind the film. (P.22)
- 10 Rewind the film, which has been completely exposed. (P.23)

How to Use the Strap



1) Undo the stoppers on the strap.

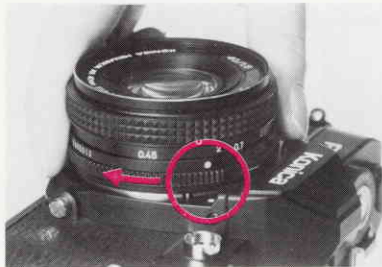


2) Run one end of the strap through the strap eyelet on one side and secure it; repeat the operation for the other side.

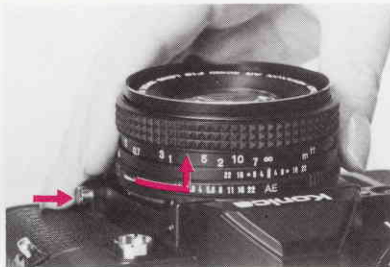


- The strap should be fixed onto the camera in such a way that the mark Konica on the stoppers is visible on both sides.

Mounting and Dismounting of Lens



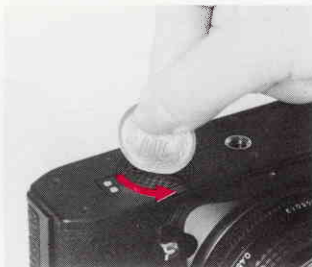
To install a lens, align the red dot of the lens with the lens mount/dismount indicator (red dot) of the camera body and lightly sink the lens into the camera body. Hold the lens and turn it clockwise until it stops with a clicking sound.



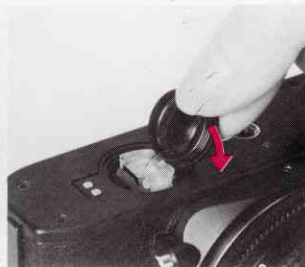
To remove the lens, hold the base of the lens and turn it counterclockwise, while the lens interchange button is kept depressed. Take out the lens when the red dot of the lens comes in line with the lens mount/dismount indicator of the camera body (red dot).

- When the lens is detached, see to it that dust will not come in the camera and lens barrel and the lens surface will not be either scratched or marred with fingerprints. Under any circumstances, do not touch the inner parts of the camera.

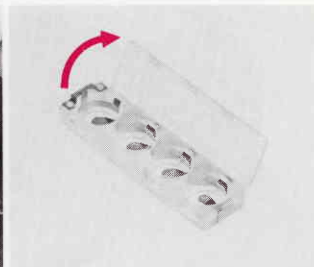
Inserting of Battery Cells



1) Remove the cover of the battery chamber by turning it counterclockwise with a coin.



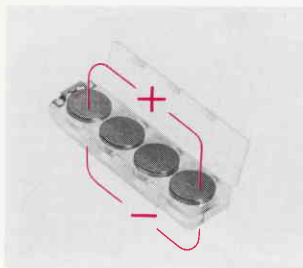
2) Turn the cover of the battery chamber upside down, put its edge under the red mark of the battery case and pull up the case to remove the case from the battery chamber.



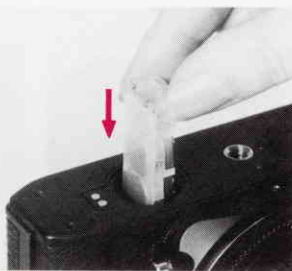
3) Open the cover of the battery case. Push open the arrow-marked part of the cover using your fingertip.

- Use four 1.5V alkaline battery cells LR-44 or silver oxide battery cells SR-44 (Eveready S-76, Mallory MS-76). Absolutely avoid the mixed use of both types of battery cells.

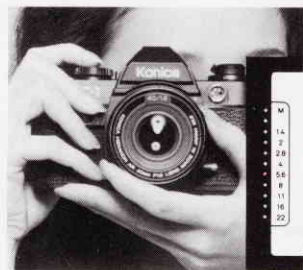
- This camera cannot operate without batteries.



4) Wipe the surface of each battery cell with a piece of dry cloth. Set the four battery cells into position with the "+" plus side up and close the cover.



5) Align the red mark of the battery case with that of the battery chamber and push the case into the chamber until it does not move further. Tightly screw in the cover on the chamber.



Battery Check

Slightly depress the shutter button while looking through the finder, and you will see the aperture indicator LED on the left-hand side will burn or flicker.

If the voltage of the battery cells has run down, the LED will flicker alternately at the intermediate point between M and f/1.4 and at f/22. The battery cells are serviceable when the indicator lamp burns or flickers at other points.

- When your camera is not to be used for a long period, take out the battery cells.
- To put battery cells out of the battery case, insert the tip of a pencil into the hole of the lower side and push the battery, and it will come out with ease.

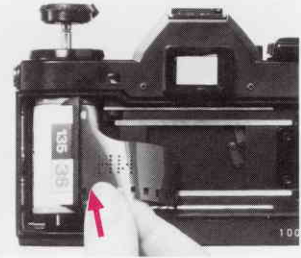
Film Loading

- The Konica FC-1 uses all standard 35mm 12-, 20-, 24-, 36-exposure film cassettes.

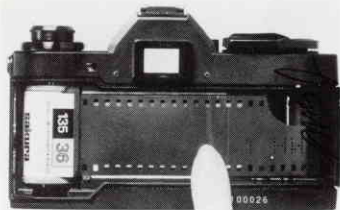
The film loading system of the Konica FC-1 is so designed that a roll of film may be loaded with ease and certainty, as the film is set into the prescribed position, the back cover is closed and the film transport lever is locked to transport it to the first frame for exposure.



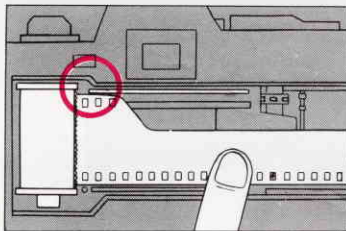
1) Pull up the film rewind knob and then pull it with bigger force, and the back cover will open.



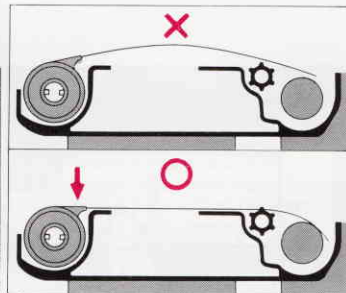
2) Insert a cassette into the cassette chamber and push the cassette rewind knob down to the original position. If the knob stops halfway, turn it clockwise and counterclockwise, and the knob will go down.



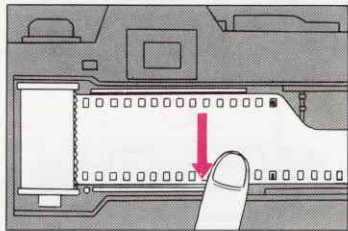
3) Pull out the film while slightly depressing the film outlet of the cassette. Stretch it out until it comes over the roller. Place it on the roller.



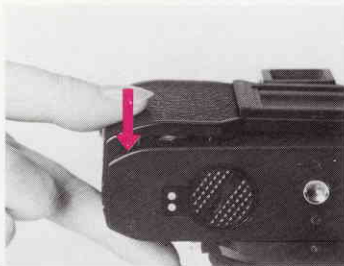
For film with a longer leader, pull it out until the first two or three perforations on the upper side make their appearance.



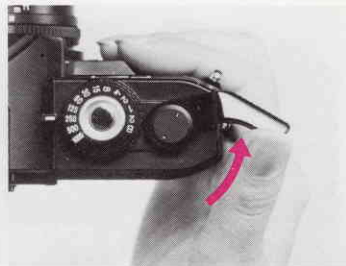
Make sure that the film does not warp and that the film outlet of the cassette is not lifted out.



Push the film leader onto the film channel on the lower side.

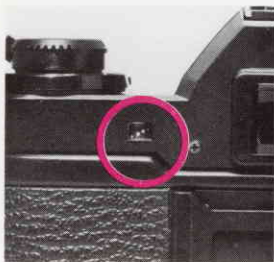


4) Push down the back cover and make sure that it is tightly closed.



5) Cock the film transport lever until it does not move further. Repeat this action three or four times until the figure "1" appears in the film counter.

As long as the film transport flicker turns during the course of this action, the film is being transported properly. There is no need to click the shutter during this time.

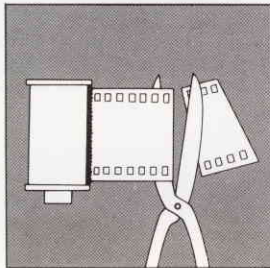


Film Transport Flicker

If the film is being transported properly, the film transport flicker will turn each time the film transport lever is cocked. This feature makes it possible to ascertain the film wind and its rewind.

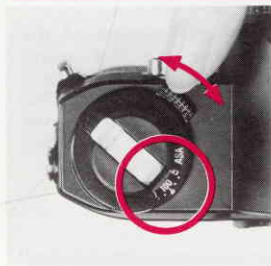


Insert the end portion of the film box into the film memo holder located on the back cover to remind you of the film type in the camera. You may also insert a piece of white paper to write notes.



In case you use long-footage film and feed a film cassette, the film in this cassette may be loaded with its tip cut at right angles. For this case, too, follow the previous instruction for loading. Correctly insert the film tip into the film roller.

Setting of Film Speed Reading



Turn the ASA set dial and align the ASA film speed reading of the film loaded in your camera with the index mark visible in the ASA speed indicator window.

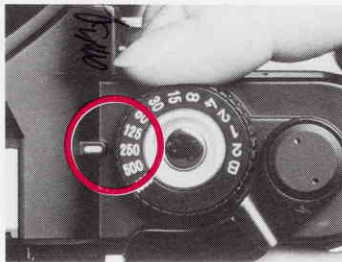
Actual ASA Dial	25	•	•	50	•	•	100	•	•	200	•	•	400	•	•	800	•	•	1600
Intermediate Settings	(32)	(40)		(64)	(80)		(125)	(160)	(250)	(320)		(500)	(640)	(1000)	(1250)				

Setting Lens to AE



In AE (Automatic Exposure) photography turn the lens aperture ring to the AE position. A safety lock will prevent accidental change.

Setting of Shutter Speed



Turn the shutter speed dial and align the shutter speed reading with the index mark. The dial is so designed that it revolves endlessly as it is manipulated by the tip of the forefinger while the camera is held in your hands. The yardsticks for AE photography are 1/125-1/250 sec. outdoors and 1/30-1/60 sec. indoors with ASA 100 film.

Training of the Camera



To take sharp and beautiful pictures, it is important to accustom yourself to the proper training of your camera so that it will not be jarred when a picture is taken. Tightly hold your camera in your hands and put it onto your face. Keeping tightly to your body the elbow of the arm which holds the camera, train your camera in a stable posture.

- For picture-taking at speeds slower than $1/30$ sec., it is advisable to use a cable switch (available for separate sale) and a tripod to prevent the camera from being accidentally jarred.

Focusing



Microdiaprism

Split Image

Mat Section



Out of Focus



In Focus

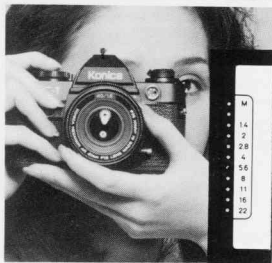
The range which is visible the finder is the frame of picture. A split image is provided to the center of the field of view. The periphery around the split image is a micro-diaprism and the other section is a mat plane. Any of these sections may be used for sharp focusing.

Coupled to the focusing ring: Bring the upper half of an image in line with the lower half at the split-image section for focusing.

At the micro-diaprism section, the lens will be sharply focused on the subject when the image stops flickering and is visible clearly.

At the mat section, focusing may easily be done with a close-up or telephoto lens.

AE (Automatic Exposure) Photography



Slightly depress the shutter button with bulb of the forefinger, and the LED aperture indicator situated on the left-hand side of the field of view of the finder will light up, making it possible to ascertain the correct exposure.

If the LED lights up at any aperture reading between $f/2$ -22, the lens will be stopped down to the indicated aperture for the correct exposure. For example, the LED lights up at $f/5.6$ with the shutter speed set to $1/250$ sec., the lens will be stopped down to $f/5.6$ at $1/250$ sec.

In actuality, the lens aperture may work at the intermediate point between LED-indicator readings.

When the correct exposure has been ascertained, release the shutter.

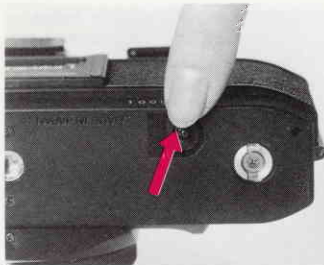
When priority is to be given to the determination of a lens aperture, turn the shutter speed dial while looking through the finder, slightly press down the shutter button and change the shutter speed so that the LED will be turned on at the reading of the desired lens aperture.

Wind the Film

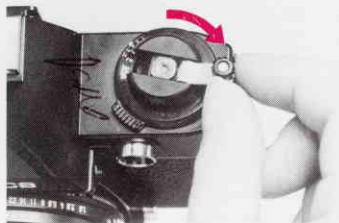
When the shutter has been released, wind the film by one frame for another exposure. Pull the film transport lever a little toward you, and it will be easy to put the finger on the lever. From there, turn the lever until it does not move further, and the film will be transported by one frame for another shot.

Film Rewind

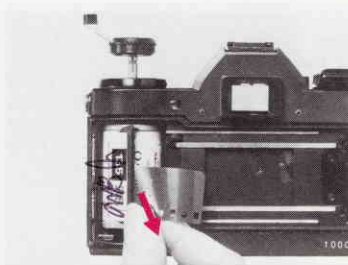
When the prescribed number of frames has been exposed on the film, start rewinding the film.



1) Push the film rewind button on the bottom of the camera body inwards, and the button will be locked.



2) Flip up the film rewind crank and turn it in the arrow-indicated direction, and the film will be taken up on the feed cassette spool. Here, the film transport flicker will light up.



3) The film rewind will be completed when the pressure on your finger suddenly reduces and the film transport flicker stops blinking open the back and remove the cassette. The sunken film rewind button will return to the original position when the film wind lever is cocked.

LED Information in Viewfinder

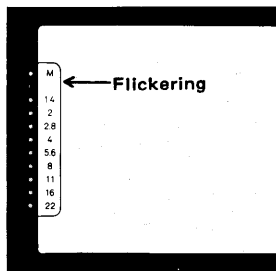
When the shutter button is lightly depressed by the bulb of the forefinger, photographing data will be shown in the finder. The red-colored LED with which all data, aperture values and warnings for the prevention of photographing errors, are so arranged as to be readily understood, will be turned on or flicker.

- In AE photography under a fluorescent lamp, there are cases in which two LEDs for indication of the correct aperture value are seen turned on. This phenomenon is caused by the flickering of the fluorescent lamp, so pictures can continuously be taken.

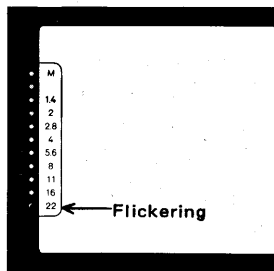
- ① **Indication of the correct aperture value** — The LED for one of the aperture values from f/1.4 to f/22 will be turned on, indicating the correct aperture value in AE photography.
- ② **Warning against an under-exposure** — The LED for f/1.0 (intermediate between M and f/1.4) will flicker.
- ③ **Warning against an over-exposure** — The LED for f/22 will flicker.
- ④ **Manual indication** — The LED for M will flicker and the LED for some of the aperture values between f/1.4 and f/22 will be turned on indicating the correct exposure (with the use of a Hexanon AR lens).
- ⑤ **Warning against a rundown of the cells** — The LEDs for f/1.0 (intermediate between M and f/1.4) and f/22 will alternately flicker.
- ⑥ **Indication for stopped-down metering** — The LED of f/1.0 (in between M and f/1.4) is the fixed-point mark, and the correct exposure will be assured when the mark is turned on. The LED flickers at M.
- ⑦ **Indication for completed recharge of the electronic flash unit** — When the recharge of the exclusive electronic light unit (X-24) is completed, the LED either for f/5.6 or f/11 will flicker.



Under- and Over- Exposure Warnings

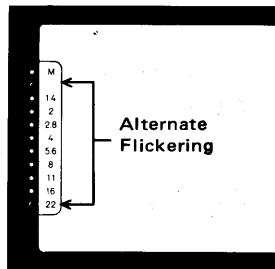


Under-Exposure Warning: When the shutter button is slightly depressed, the LED at $f/1.0$ (intermediate point between M and $f/1.4$) will flicker. Any picture taken in this situation will be under-exposed. Choose a slower shutter speed and ascertain that the correct exposure is secured, before the shutter button is pressed down.



Over-Exposure Warning: When the shutter button is depressed, the LED at $f/22$ will flicker, suggesting an over-exposure. Choose a faster shutter speed,

Warning for Run-Down of Battery Cells



New battery cells generally remain good for a year or so. When the battery cells have run down, the LEDs at f/1.0 (intermediate point between M and f/1.4) and f/22 will alternately flicker, warning the run-down. In this situation, change the cells with new ones. The battery cells may be changed during the course of photographing. Take care not to do this in sunlight.

In the unlikely event that the camera is used with run down or dead batteries, please take note of the following.

- If pictures are continuously taken in spite of the warning, the mirror will remain lifted. In this situation, change the battery cells with new ones and depress the shutter button, and the mirror will be put back into normal operation. During this time do not rewind the film.
- During low battery power condition, the correct exposure LED will light, and the under and over exposure warning LED's will cycle (pulse) at a faster rate.
- For stopped-down metering with a warning for a drop in voltage, the correct exposure will be assured the LED of f/1.0 (in between M and f/1.4) will stop flickering and will be turned on.

Selection of Shutter Speed



1/500 Sec.



1/30 Sec.

The shutter speeds range from B, 2, 1 to 1/1000 sec. The shutter speeds are calibrated on the dial. An intermediate point between readings is not usable, so make sure that the dial clicks into position.

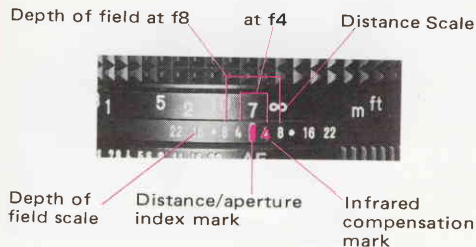
Basis for Shutter Speed Selection

Your camera is equipped with a system of giving priority to shutter speed. Depending on the brightness and movement of a subject, a shutter speed may be optionally selected.

In a broad term, the recommended shutter speed is 1/125 to 1/250 sec. for outdoor photography and 1/30 to 1/60 sec. for indoor shooting. For a moving subject, determine the shutter speed in the following manner:

- 1) If you want a moving subject to look still in a finished picture, select a fast speed from a range of 1/250 to 1/1000 second.
- 2) If you want to stress the movement of a moving subject, select a slow speed from a range of 1/30 to 1/60 second.

Aperture vs Depth-of-Field



When the lens is focused on a subject, there is a range around the subject which will be clearly delineated in a finished picture. This range is known as a depth of field.

1) The larger the aperture value (i.e., the smaller the lens aperture), 2) the longer the camera-to-subject distance, 3) the shorter the focal length, the greater the depth of field. The depth of field is shallow for the area in front of the focal point and deep for the area behind. The actual depth may be known by checking the depth-of-field scale.

Reading of Depth-of-Field Scale

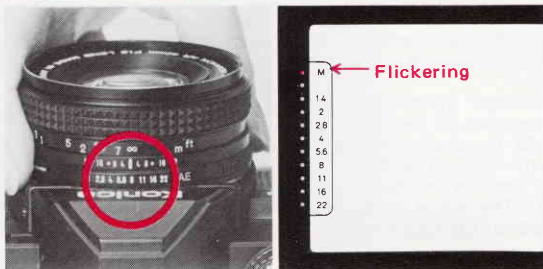
For a depth-of-field scale, identical aperture readings are calibrated in parallel on both sides of the distance index mark. The range which is sandwiched between a pair of identical aperture readings is a depth of field in which the image will be clearly delineated in a finished picture.

For example, when the camera-to-subject distance is 7m with a 40mm standard lens, the depth of field will be about 5 ~ 10m for f/4 and about 3m to infinity for f/8.

Infrared Compensation mark

The red-colored "4" on the depth-of-field scale is an infrared compensation mark, which is used for a compensation of the focal point with the use of infrared film. For example, if the camera-to-subject distance is infinity, the infinity mark will be brought in line with the infrared compensation mark.

Manual Photography



To manually set the exposure with your Konica FC-1, merely set the lens to any aperture other than the AE position. A red LED will pulse at the "M" mark in the viewfinder to signify manual operation.

The Konica FC-1 through the

lens (TTL) — automatic exposure (AE) system operates at all times, even during manual operation displaying the correct exposure in the viewfinder, for the scene, even though you have set an aperture and shutter speed combination manually.

- After manual photography, be sure to reset the AE mark.

Exposure Compensation for Backlight Photography



In normal TTL-AE photography, the correct exposure may be obtained. However, in a situation where the subject is in backlight, where there is much difference between the bright and dim parts of the main subject's periphery, or where it is desirable to produce special effects in a finished picture, the exposure may be compensated to raise the effects.

In a situation where the subject is dark against a bright background scene

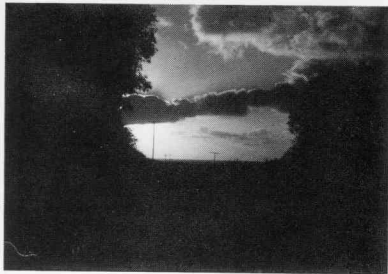
The AE responds to the overall bright background and in some cases the subject may appear dark (underexposed). For such situations:

- 1) You may change the ASA scale by half to compensate for the backlight situation and shoot in AE mode. Example: ASA of film 400, change ASA scale to 200.
- or 2) You may note the aperture LED in the viewfinder and manually set the aperture ring on the lens by one stop. For example: meter reading AE=f11, set lens manually to f8.

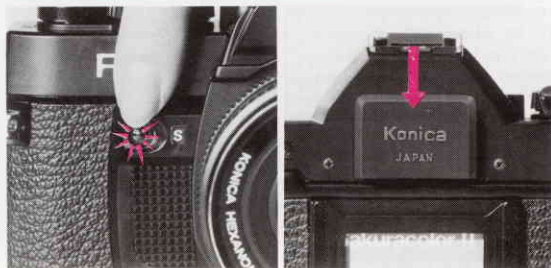
In a situation where the subject is bright and the background dark, reverse the above instructions

- 1) Double the ASA number. Example: 400 to 800
- or 2) You may read the aperture in the viewfinder and set the lens manually to the next f stop. Example: meter reading f5.6 — set lens manually to f8.

- After special exposure photography, be sure to reset the AE mark, and/or reset the ASA speed dial to the correct sensitivity of the film.



Photographing with Self-Timer

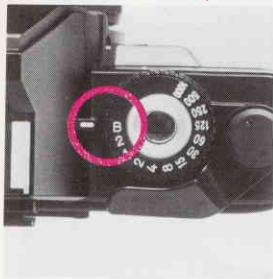


Shield the eyepiece: When the self-timer is to be used, or when a picture is to be taken with the eye kept detached from the eyepiece, place the eyepiece cap in the accessory grooves so that stray light will not fall into the eyepiece. Otherwise, the correct exposure will not be assured.

Push down the self-timer switch, and the LED will start flickering, indicating that the self-timer is put into operation. The duration that the self-timer remains set is about 10 sec, and the instant at which the shutter may be released with the flickering of the LED getting gradually faster.



B (Bulb) Exposure



The B (bulb) exposure mechanism is used for an exposure of more than three seconds. Set the shutter speed dial to B and depress the shutter button, and the shutter will be opened. When the finger is detached from the button, the shutter will be closed. If your camera is set to manual and a desired shutter speed, a long-time exposure may be made.

- For a protracted exposure with B (bulb) exposure, use new battery cells.
- For a time (B) exposure, it is advisable to use a tripod and a Konica Cable Switch which are available from your photo dealer.
- Fit the cable switch into the accessory terminal connector. The accessory terminal connector is also the attachment point for a Radio Control Set and Intervalo Timer.

Photography with the Auto-Winder

The Auto-winder F, used in conjunction with the Konica FC-1 makes possible auto-loading and continuous shooting at 1.5 frames per second.

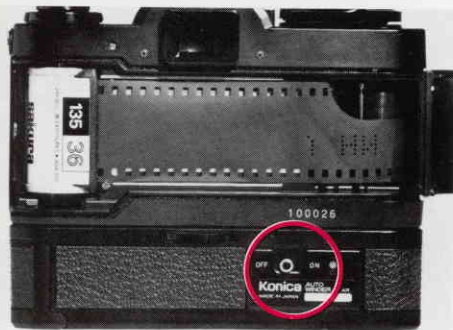
Continuous Shooting — Continuously depressing the shutter button permits continuous shooting. Linked up with a shutter-priority AE meter moving objects in a location with strongly varying light can be continuously shot.

Single frame shooting — If the shutter button is immediately released after the shot is taken, one frame shooting become possible with the film automatically advancing one frame at a time.



Mounting to the camera

Turn the Auto-winder power switch to "OFF", insert the guide pin into the guide hole on the bottom of the camera body, line up the mounting screw and tighten the mounting knob firmly.



Auto-loading

- 1) Please be certain to turn OFF the auto winder power switch.
- 2) Load the film the same as is normally done without, the auto winder; that is, pulling out the film lead for enough to cover the roller and loading properly.
- 3) Close the back cover and turn ON the Auto winder power switch. The auto winder's red operation lamp will turn on and the film will be automatically advanced to frame 1. The film transport flicker turns at this time, indicates that the film is moving properly.

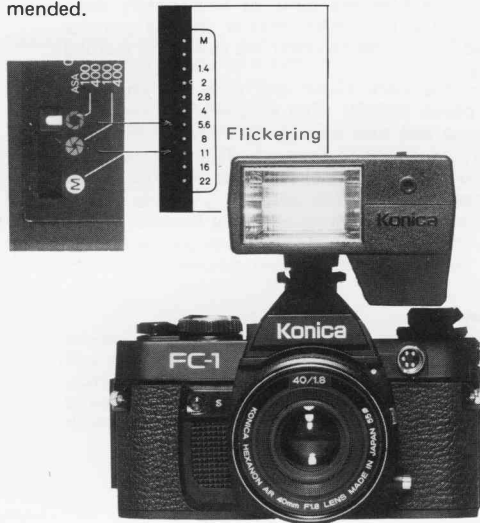


Film Rewind

- 1) When finished shooting a roll, the auto winder will stop and the operating indicator lamp will come on. Turn off the auto winder power switch.
- 2) Rewind film by firmly depressing the rewind button on the bottom of the auto winder, which is linked up to the camera.

Electronic Flash Photography

During the night or in a dark room where AE photography is unsuitable, the use of the Konica X-24 Auto electronic flash is recommended.



To use the Konica X-24 Auto Flash

1) Use four AA Alkaline or nickel cadmium rechargeable batteries to power the Konica X-24 auto flash.

2) Attach the X-24 auto flash to the hotshoe at the top of the Konica FC-1 camera and set the F value scale to distance green (f5.6) or close range red (f11).

3) When the X-24 autoflash is charged — ready to shoot;
a. the shutter speed will automatically change to 1/100th second flash sync speed.

b. the aperture will automatically change to f5.6 or f11 as preselected on the X-24 scale.

c. the LED in the viewfinder at f5.6 or f11 will pulse indicating that the flash is ready.

If the picture is taken before the flash is ready, the picture will be exposed in AE mode. Be sure to observe the under/over exposure warning signals.

The range for automatic flash is:

ASA 100 film — f5.6 2.3 — 14.1 ft (0.7 — 4.3m)

f11 2.3 — 6.9 ft (0.7 — 2.1m)

ASA 400 film — f5.6 3.3 — 28.2 ft (1.0 — 8.6m)

f11 2.3 — 14.1 ft (0.7 — 4.3m)

- With flash photography using the self timer, check that the charge is complete before depressing the self timer switch.



- For shooting at stops other than X-24 please refer to the manual. However, please note the following in respect to shooting at X-28.

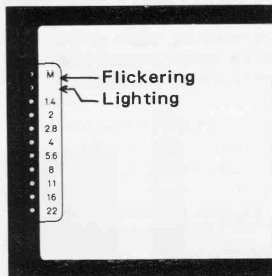
Use of Other Types of Electronic Flash Units

An electronic light with a hotshoe, such as the Konica X-28, X-20 and X-14, may be electrically connected simply by fitting it to the hotshoe clip.

With an electronic light without a hotshoe connector, insert the plug of its cord into the X flash contact taphole of the camera body.

- 1) set the shutter speed to 1/60 sec. for all types electronic flash except Konica X-24 Autoflash.
 - 2) set the lens aperture manually per the instructions of the electronic flash unit.
 - 3) when using automatic flash units such as the Konica X-24, set the lens aperture as indicated by the autoflash.
 - 4) for manual flash units, determine the correct aperture to set by dividing the guide number by the camera to subject distance. Example: Using ASA 100 film with a Konica X-20 flash, you will get a guide number (GN) of 20, divided by the distance (5 meters) results in a lens aperture of f4 ($20 \div 5 = 4$).
- Synchronized with M. FP and MF bulbs at 1/30 sec. and slower shutter speeds.

Stopped-down Metering Method



With a Hexanon AR lens bearing an AE mark, the correct exposure is determined at the full opening of the lens both in AE and manual photography, to determine the correct exposure in a stopped-down metering situation.

- 1) A manual pre-set aperture Hexanon ARP lens or a manual pre-set ARM lens is in use.
- 2) The AE cannot be used because of the use of an extension ring or bellows.
- 3) A lens of some other make is used on a lens mount adapter.

Exposure Determination

For stopped-down metering, look through the finder and turn the aperture ring or the shutter speed dial, while the shutter button is lightly depressed.

When the LED positioned between the "M" and "f/1.4" mark glows, you have set the correct exposure. The LED will flicker at M when pictures are to be taken in a stop-down metering system.

- Stopped-down metering tends to be affected by the rays inversely straying into the eyepiece. Prevent the rays with an eyecup or some other device.
- Stopped-down metering is also done for microscopic photography. Adjust the shutter speed according to the brightness of the light source.

Precautions for Use

- Do not touch or otherwise dirty the lenses. If the lenses do get dirty, use a blower or brush to remove the dirt and then wipe lightly with a soft cloth. When you do not intend to use the lenses, attach the lens cap and store.
- Use a soft brush or a blower to clean away dirt on the surface of the mirror or inside the film compartment, and take care not to touch the mirror or shutter directly.
- If you leave the camera on a beach in summer, in a car exposed to direct sunlight, or in any hot and humid location for a long period of time, the performance of the film and batteries will deteriorate, and the camera's mechanisms may be adversely affected. Avoid, therefore, such locations.
- If your camera gets wet, take it as soon as possible to the nearest Konica camera service station. If water has dripped onto the camera or if the camera has been exposed to a sea breeze, wipe it well with a dry cloth.
- The camera and its lenses do not take kindly to dust or moisture. Store them in a location which is dry and free from dust. If you do not intend to use your camera for a prolonged period of time, remove the batteries from the battery compartment, place the camera inside a polythene bag along with a drying agent, seal the bag tightly and store. Do not store the

camera where there is any naphthalene.

- Get into the habit of inspecting your camera before using it.

Battery Cells

- When pictures are to be taken with the temperature standing at less than 0°C (32°F), use new battery cells. In this situation, the performance of the battery cells will be lower than at normal temperature. Keep them warm.
- Even if an under-exposure warning appears at the temperature standing at less than 0°C (32°F), the battery cells will be usable at normal temperature.
- When you know you will use the camera at a cold place, make sure that you will have spare battery cells and keep them warm with your body or in some other means to prevent a drop in the battery performance.

Specifications of the Konica FC-1

Type: 35mm focal plane shutter TTL-AE single-lens reflex camera. Auto-winder fitted outside

Film: 35mm film in cassette

Picture size: 24 x 36mm

Standard lens: Konica Hexanon AR 40mm f/1.8 (five groups and six elements), closest taking distance 0.45m

Mount: Bayonet-type Konica mount II

Aperture mechanism: AE-type fully automatic aperture with smallest aperture at f/22.

Shutter: Digital-controlled, vertically travel electronic metal focal plane shutter

Shutter speeds: B, 2, 1 ~ 1/1000 sec.

Synchro: Hot shoe and X contact with synchro socket, automatically set to 1/100 sec. with exclusive Konica Automatic Electronic Flash X-24. Manually set to 2 ~ 1/60 sec. with electronic flash other than X-24. Synchronized with M, FP and MF bulbs at 1/30 sec. and slower shutter speeds

Self-timer: Digital-controlled electronic self-timer

Finder: Pentaprism eye-level finder, magnification X0.67 (at infinity with 40mm standard lens), field-of-view ratio 90%, real-image alignment system with split-image, microdiaprim and mat plane

View-finder information: LED for one of the apertures in range of f/1.4 ~ 22 lights for correct exposure in AE photography. LED for f/1.0 (intermediate between M and f/1.4) flickers for under-exposure, whereas LED for f/22 flickers for an over-exposure. The LED for M flickers and that for one of the apertures in range of f/1.4 ~ 22 lights up (in use of Hexanon AR lens). LEDs for f/1.0 (intermediate between M and f/1.4) and f/22 alternately flicker for a drop in voltage. LED for f/1.0 (intermediate between M and f/1.4) lights up for stopped-down metering. LED for f/5.6 or f/11 flickers for electronic light charge with exclusive X-24

Exposure adjustment: TTL metering at full lens opening, shutter-speed priority aperture control system with gallium-arsenid-phosphorus compound photocell

- AE-type fully automatic aperture lens (metering at full lens opening): Automatic aperture control system with priority given to shutter speed selection for AE photography reading of correct aperture value coupled to film speed, shutter speed and f-value at full lens opening
- Manual aperture lens (stopped-down metering): System of alignment with fixed point coupled to film speed, shutter speed and lens aperture

AE coupling range: With ASA 100 film and f/1.4 lens EV0 (at 2 sec. with f/1.4) ~ EV19 (at 1/1000 sec. with f/22). With f/1.8 lens, EV0.7 (at 2 sec. with f/1.8) to EV19.

Coupled film speed range: ASA 25-1600

Film loading: Film may be transported to the first frame only with the manipulation of the film transport lever

Film wind: In an arc of 138° with a lever on the camera top, automatic film wind with Auto Winder

Film transport confirmation: A flicker indicator confirms film is properly winding

Film rewind: Crank type with rewind button returning to the original position with loading of new film

Film counter: Number of exposures counted. Returns to the original position with opening of the back cover

Battery cells: Four 1.5V alkaline battery cells LR-44 or silver oxide battery cells SR-44 (Eveready S-76, Mallory MS-76)

Others: Film transport flicker; exclusive wind mechanism (Konica Auto-Winder) may be fitted to the camera to set the camera ready for another shot; film loading (Auto Loading); continuous picture-taking at 1.5 f.p.s. (with AA alkali dry cells); battery cells serviceable for 40 rolls of 36-exposure film (with AA alkali dry cells)

Dimensions and weight: 140×72×89mm, 650g (including battery cells) with f/1.8 lens; 140×45×89mm, 505g (including battery cells) without lens

- The specifications and design are subject to change without notice.

Accessories

○ Konica Auto-Winder F



The Konica Auto-Winder F is designed for exclusive use on the Konica FC-1. Lightweight and compact, this winder may easily fitted to the camera. Pictures are taken with the shutter button of the camera. Continuous and one-frame shooting may be done in AE photography.

Wind: 1.5 f.p.s.

Shutter speed used: All speeds including B (bulb)
Operation indicator: A light up at film wind and continuously light up at film end.

Film loading: Turn on the main switch of the winder, and the camera will set to automatic loading.

Battery cells: AA alkali dry cells (four)

Rolls of film exposed: Over 40 rolls of 36-exposure film (with AA alkali dry cells)

Dimensions and weight: 141x35.5x36mm, 185g (w/o battery cells)

○ Konica X-24 Automatic Electronic Flash



When mounted stop the Konica FC-1 camera, you only set the automatic distance control (green f5.6, or red f11). When the X-24 is turned on and reaches 95% of flash power, it automatically signals the Konica FC-1 camera to change shutter speed to a fast 1/100th second, to change the lens aperture to f5.6 or f11 and displays a blinking LED signal in the viewfinder that the flash is ready.

The film speed (ASA) is automatically set into the X-24 flash by the FC-1 CPU. There are no cables or cords to connect.

Guide Number: 80 (ft.) with ASA 100 film

Range for Automatic:

ASA 100 film — f5.6	2.3—14.1 ft (0.7—4.3m)
f11	2.3— 6.9 ft (0.7—2.1m)
ASA 400 film — f5.6	3.3—28.2 ft (1.0—8.6m)
f11	2.3—14.1 ft (0.7—4.3m)

○ Close-up Lens



This lens permits AE close-ups simply by screwing it onto the front of the lens and mounting it in place. This makes close-up photographs of plants and flowers as well as copies of documents and pictures easy work. This is a standard 40mm lens and it allows close-ups ranging from about 45cm down to 27cm.

○ Angle-Magnifier



This helpful gadget makes it possible to look into the viewfinder from above the camera and it comes in handy for when pictures are to be taken at a low level such as in copying, close-ups and micro-photography. Furthermore, when the lever is rotated, the image in the center of the viewfinder is enlarged two-fold with the magnifying glass and so focusing can be performed very accurately for close-ups, copying, telephoto photography and micro-photography.

○ Cable Switch



When this switch is connected to the terminal of the camera, it is possible to trip the shutter by operating the hand-held switch. This switch is useful for bulb exposure and also close-ups, telephoto shots, and also helps cancel out camera shake when using slow shutter speeds.

○ Remote Control Switch



The cord is 5m in length. Operating the switch on your end of the cord, the shutter may be released at a large away from the camera.

○ Double Cable Switch



The double cable release switch for the use of Auto Bellows with an automatic aperture makes it possible to use any Auto Bellows on the Konica FC-1.

- **Konica X-28 Auto**

This versatile electronic flash provides automatic exposure in two modes plus a manual mode. This special hot shoe mount features a two-way, vertical/horizontal orientation and a special locking device. Guide number of 90(ft.) with ASA 80-125 film.

- **Konica X-20**

This rugged, exceptionally lightweight manual flash fires up to 400 flashes per set of 4 AA batteries. Guide number of 64(ft.) with ASA80-125 film.

- **Konica X-14**

Lightweight, ultracompact flash has a guide number of 45(ft.) with ASA 80/125 film.

- **Auto Bellows 2 (To be put on sale)**

Auto Bellows with double cable switch. Allows magnification to 3.6X life size with standard lens. Double cable switch system allows automatic diaphragm operation. Includes built-in depth-of-field preview, tripod sockets for both U.S. and European sizes. Ideal for use with Slide Copier 2 and Macro Stand.

- **Standard Bellows 3**

For precision close-ups with manual diaphragm control. Magnifies to 3.6X life size with standard lens.

- **57mm f/1.2 Bellows Adapter**

This is an adapter indispensable for reverse photography and slide copying with a 57mm f/1.2 lens and reverse adapter.

- **Extension Ring 3**

For close-up/macro photography. Consists of camera base ring, lens base ring, extension rings of 8, 16 and 24mm with reverse lens adapter.

- **Microscope Adapter 2**

Uses optical system of microscope in place of camera lens; unlimited magnification capability. May be used with or without microscope ocular. Mounting clamp fits standard 25mm-diameter microscope ocular tubes.

- **Eyesight Correction Lens 2**

Corrects viewfinder optics to prescription requirements; vastly aids viewing/focusing comfort, accuracy. +1, +2, and +3 diopter lenses for farsighted persons; -1, -2, and -3 for nearsighted persons.

- **Eyecup 2**

Large, soft rubber eyecup shields meter, eye from extraneous light, aids concentration. Prevents metal-to-skin contact in cold weather. Eyecup folds down for eyeglass wearers.

- **Focusing Rail Assembly**

Allows Standard Bellows 3 to be used with Macro Stand.

- **Slide Copier 2**

Attaches to Auto Bellows or Standard Bellows 3, allows same-size or cropped duplicates of standard 24x36mm or smaller transparencies. Accepts mounted slides or uncut strips, rolls. 18mm horizontal, 12mm vertical shift. Lens reversal ring and Slide Copier adapter required for lens reversal.

- **Macro Stand**

For use with Konica Auto Bellows: positions subject absolutely parallel with camera and lens. Rotating (75mm diameter) specimen "stage" has hold-down spring clamps to secure subject in desired position.

- **Reverse Adapter**

Permits reversing all 55mm-thread lenses without reversing front standard of Auto Bellows and Standard Bellows 3. Required for reverse mounting of lens with Slide Copier 2, 5mm depth.

- **Slide Copier Adapter**

This adapter is required for reverse photography with slide copier and used together with a reverse adapter. The Slide Copier-Adapter is usable at the

magnification factors of 1.5X to 4X.

- **Konica Filters**

It is advisable to use a UV or skylight filter for the protection of your camera's lens.

- **Interval Timer**

This device allows photographs to be taken repeatedly at fixed intervals of time. When it is mounted on the camera and the switch is turned on, the shutter is repeatedly tripped at the pre-set time intervals. (Use with the Auto-Winder)

- **Radio Control Set**

This switch is made up of a receiver, which will be fitted to the camera, and a transmitter, which will be used at your side. The electric wave sent by the transmitter will be intercepted by the receiver, making it possible to operate the shutter with electric signals. (Use with the Auto-Winder)

- **Left Hand Release Switch**

This unique device attaches to the accessory terminal of the Konica FC-1 allowing you to release the shutter with your left hand while focusing with your right hand.

Konica Hexanon Interchangeable Lenses

○ **15mm Konica "Fisheye" Lens**

The full frame coverage "fisheye" lens has a 180° angle of view and features a helical focusing mount that permits close up photography at 5cm (5.9") from the front of the lens. This enables you to make full use of the optical exaggeration, distortion and special effects that are possible with this excellent lens. Four filters — sky — R60 — Y 52 — B8 are built into the 15mm fisheye, together with an integral lens shade.

○ **21mm/24mm Konica Extreme Wide Angle Lenses**

Wide angle lenses are capable of photographing more of the scene than the standard lenses yet do not distort the vertical and horizontal lines to the extent of the fisheye on extreme wide angles. Wide angle lenses are ideal for scenery and interior photography.

○ **28mm/35mm Konica Wide Angle Lenses**

Both these lenses have an angle of view which is very much greater than the standard lenses, and they enable pictures to be taken in a variety of situations such as of crowds of people indoors or in restricted locations. The angle can be varied for the addition of a dynamic expression or natural portraits and so these lenses are most commonly used for taking photographs of scenery. The 28mm f/1.8 lens is the brightest AE lens in the world, and its built-in floating system (short-

distance aberration correction mechanism) allows close-ups down to 7cm (7.1") from the front of the lens. All in all, this is one of the most sophisticated wide-angle lenses.

○ **Konica Standard Lenses**

Closely match the field of view of the human eye. They are all purpose lenses with natural perspective. Since they are the "standard" lens, you benefit from larger production runs with very high quality and a lower unit cost. The Hexanon 40mm f1.8 is an automatic lens for "standard" use. Its slightly wider view is ideal for general photography being able to "take in" more of the scene than the standard optics. It is especially excellent in flash photography permitting you to get closer to the subject with better flash efficiency.

○ **Konica Telephoto Lenses**

Magnify the subject and have the effect of bringing the subject in closer". The optical laws case telephoto lenses to "compress" distance and have shallow depth-of-field which can be an advantage for sharp images with soft focus backgrounds. The 85mm and 100mm telephoto lenses have a slight telephoto effect and are ideal for portraiture without the compressed perspective.

- **400mm, 800mm, 1000mm Konica Ultra Telephoto Lenses**

These lenses have even greater possibilities than the ordinary telephoto lenses and they display capabilities exceeding those of the naked eye with high image magnification. This means that they are ideal for special applications involving news reporting, sports, wild animals which cannot be approached but must be snapped from afar, and various types of observatory photographs. The 400mm lens features an extremely compact design for hand-held photography. The 800mm lens features a manual aperture system. The 1000mm is a reflector mirror type of ultra telephoto lens and its construction makes use of a mirror system and a diffraction system. For focusing, the bellows are extended or compressed.

- **35~70mm, 45~100mm, 80~200mm Konica Zoom Lenses**

Zoom lenses which allow the focal length to be varied continuously without intermittent steps are much handier to use than a range of single interchangeable lenses. The 35~70mm lens is compactly designed with an angle of view most frequently used from wide-angle to quasi-telephoto applications. The 45~100mm lens is compact with a collapsible barrel, and it is a variable focus lens which enables close-ups from 150cm down to 35cm. The 80~200mm lens is compactly designed

and lightweight with an extremely high resolution. You'll understand just how valuable these zoom lenses can be to you once you try them out.

- **Macro Lenses**

Are specifically designed for close-up photography. Compensation for natural light fall-off at the corners, attention to uniform flat field sharpness and reduction are prime features of Konica macro lenses.

The Konica Hexanon 55mm is an automatic macro lens which can be used for pictures from infinity to 1/2 life size. Using the adapter supplied, close-ups to exact life size (1:1) are possible. The 55mm macro also features an automatic aperture compensation system for proper exposure in close-up photography with flash.

- **Konica Teleconverter AR 2X**

The Konica Hexanon Teleconverter AR 2X is an attachment lens which is designed to double the focal length without changing the close-up taking distance, when attached to the rear of a Hexanon AR or zoom Hexanon AR interchangeable lens, 40mm or over in focal length.

Multi-coated, this converter makes it possible to give full play to the performance of any Hexanon AR interchangeable lens and produce sharp images. Ultra-telephoto and telephoto photography may be enjoyed, as the converter is coupled to the AE automatic exposure system of the Hexanon lens mounted on your camera.