

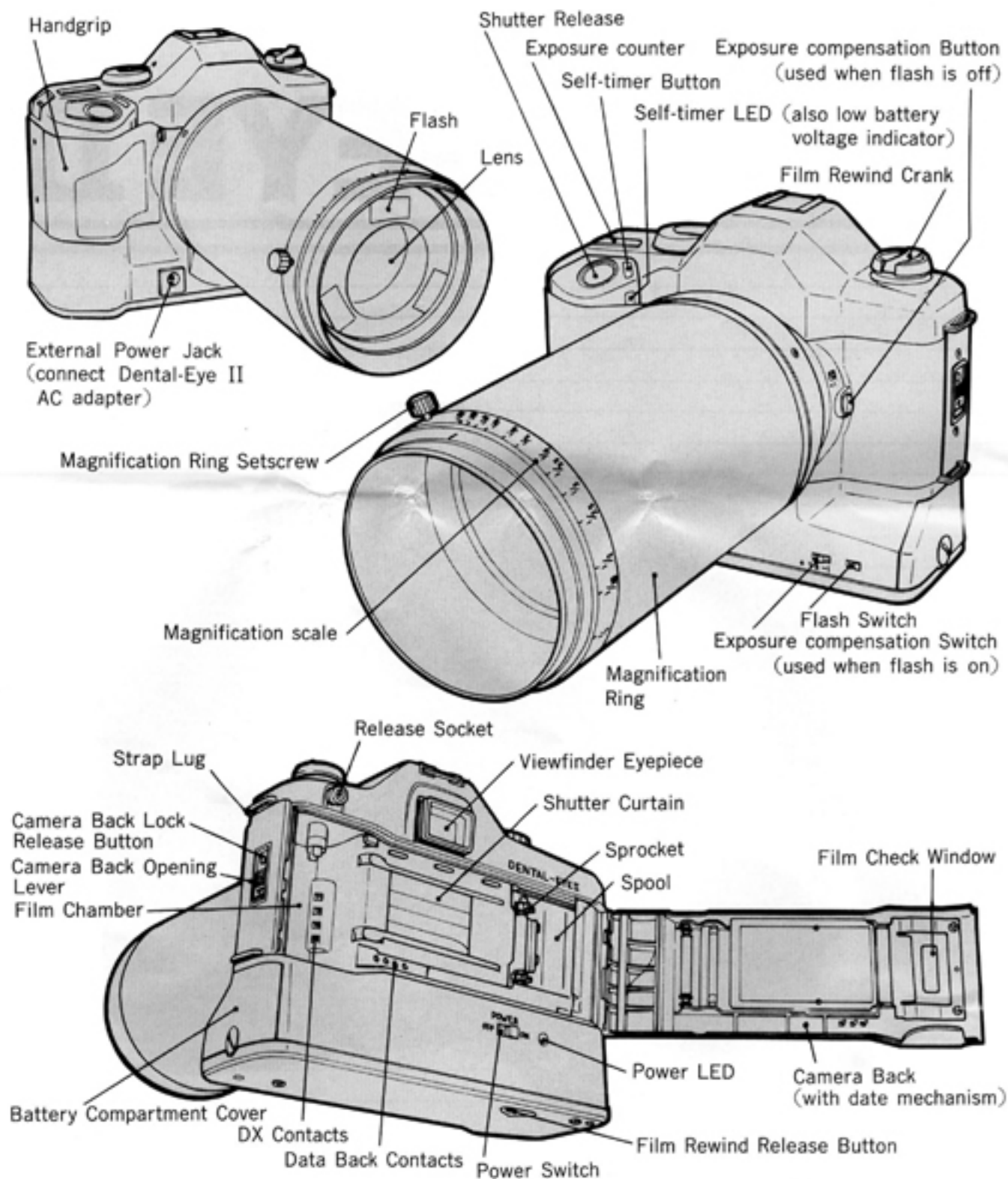
YASHICA DENTAL-EYE II



Instruction Manual

Thank you for your purchase of a Yashica Dental-Eye II. This is a 35mm single-lens reflex camera equipped with flash and 100mm/F4 macro-lens. Please read this instruction booklet carefully through before using it.

Names of Parts



1. Installation of battery

① Loosen the battery cover setscrew, using a coin, and remove the battery compartment cover.

② Introduce the battery in correct directions as shown.

③ Fit the edge and close the battery compartment cover. Then lock it with the set-screw.

● Use a 6V lithium battery (2CR5). No other batteries can be used.

● The camera will not operate if the battery is placed a wrong way.

2. Turning power switch on

Set the switch to "⚡" and turn on the power switch, then the power LED flashes (flash being charged) and lights up (charging completed) several seconds later.

This completes preparation for your shooting.

● The completion of preparation can also be confirmed by the lighting of the "⚡" mark in the viewfinder.

3. Film loading

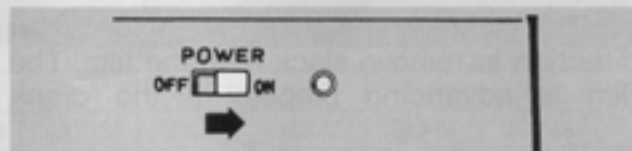
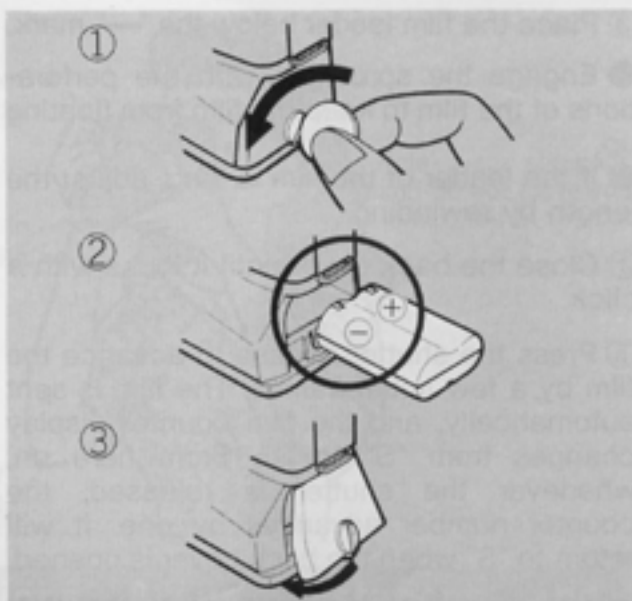
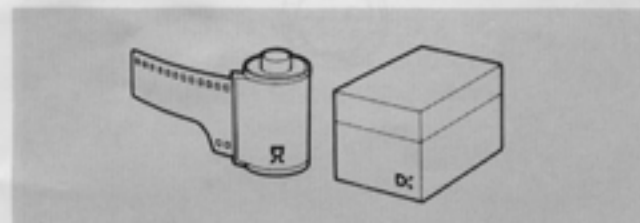
Use a film cartridge with 35mm DX mark, whose sensitivity is in the following range.

	Film sensitivity (interlocking range)
When flash is on (⚡ mark side)	ISO50~400

● When the flash is off, it is interlocked with ISO 50 to 3200.

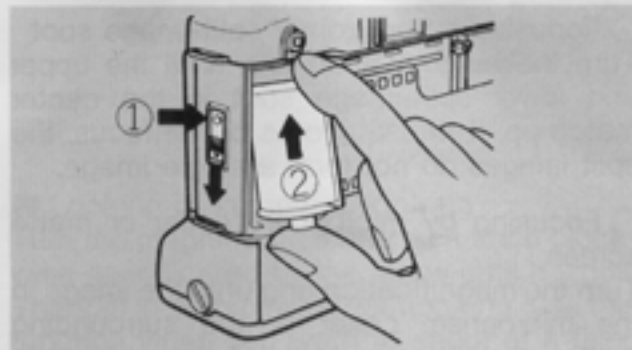
● The DX mark and film sensitivity are marked on the film cartridge box and film cartridge.

● The film without DX mark will be fixed at ISO100.



● With the power switch left "on", this camera of power saving design turns power off automatically about 90 seconds after power on. Before the next shooting, turn off the power switch and turn it on again.

* When you do not use the camera, be sure to keep the power switch off, to prevent the battery drain during the said 90 seconds.



① While pressing the camera back lock release button, slide the camera back opening lever in the arrow direction and open the camera back.

② Engage the depressed end of the film cartridge with the shaft in the top of the film chamber, then the film can be introduced in the chamber easily.

● Take care not to touch carelessly or soil the shutter curtain or DX film.

● Do not expose the film to direct sunshine when putting it in or out the chamber.

③ Place the film leader below the "—" mark.

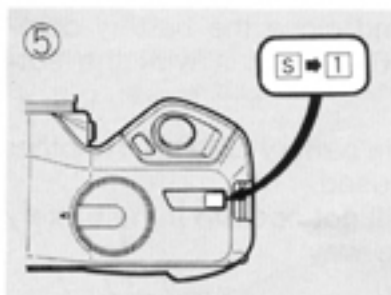
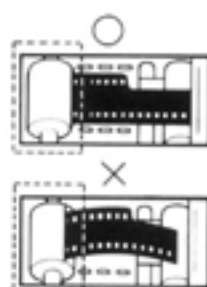
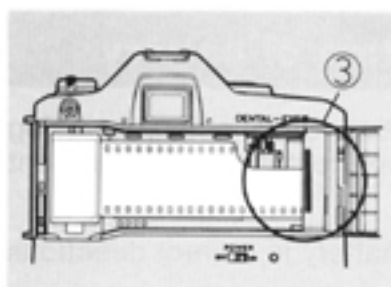
● Engage the sprockets with the perforations of the film to keep the film from floating up.

● If the leader of the film is long, adjust the length by rewinding.

④ Close the back cover until it locks with a click.

⑤ Press the shutter release to advance the film by a few initial frames. The film is sent automatically, and the film counter display changes from "S" to "1". From here on, whenever the shutter is released, the counter number advances by one. It will return to "S" when the back cover is opened.

● After the initial advancement of the film, turn the film rewind crank slowly in the arrow direction to remove slack from the film. The film is advancing properly if the crank



rotates after each shooting.

● See through the film check window, and you can see whether there is a film or not.

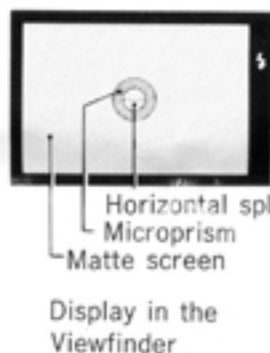
4. Focusing

While observing the subject through the viewfinder, turn the magnification ring to bring it into focus, using the horizontal split-image spot, the microprism collar or the peripheral matte screen.

○ Focusing by horizontal split-image spot
Turn the magnification ring until the upper and lower split-image spot in the center match up. If the subject is out of focus, the split images do not form a single image.

○ Focusing by microprism collar or matte screen

Turn the magnification ring until the image in the microprism collar or the surrounding matte screen looks sharp. If the subject is

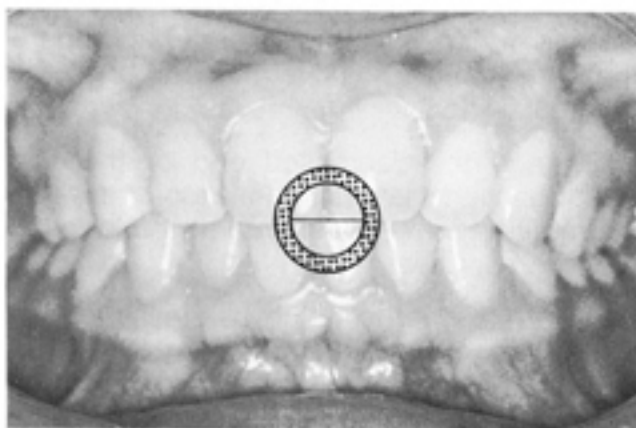


⚡ Lighting: Lights up on completion of charging with flash on.

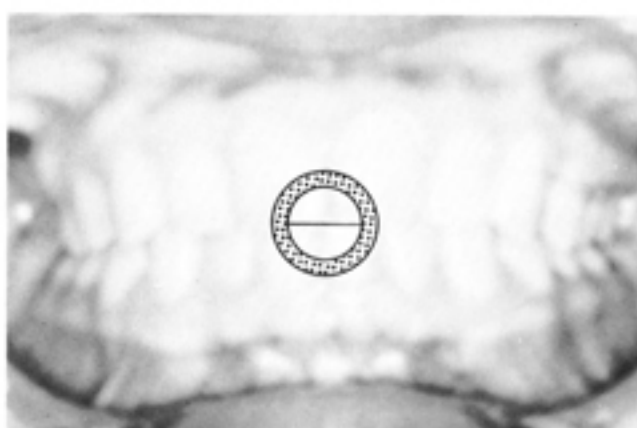
⚡ Flashing:
Quick flashing → Warning of the camera shaking (low brightness)
Slow flashing → Warning of low battery voltage at half-pressing of the shutter release

out of focus, the image in the microprism appears jagged and that in the matte screen blurred.

● Facility for longsighted or nearsighted persons
Please use the FL type diopter lens, which is available separately.



In focus



Out of focus

How to Hold the Camera

It is necessary to hold the camera securely if you are to get a sharp shot without any blurr. Please practice holding the camera, heed- ing the points in the illust - ration.

Press the shutter release gently.

Hold your face in light contact with the camera.

Steady the camera by holding your arms close to your sides.



Relax your shoulders and do not move your upper half of the body.

Table of Shooting Magnifications, Areas, Distances and Depths of Field

Shooting magnification	1/15	1/10	1/8	1/5	1/3	1/2	2/3	1/1
Shooting area (mm)	360×540	240×360	192×288	120×180	72×108	48×72	36×54	24×36
Shooting distance (cm)	155	105	85	55	35.5	25.5	20.5	15.5
Depth of field (mm)	+49	+34	+25	+15	+8	+5	+3	+2
(Flash ON)	-46	-32	-23	-14	-8	-5	-3	-2

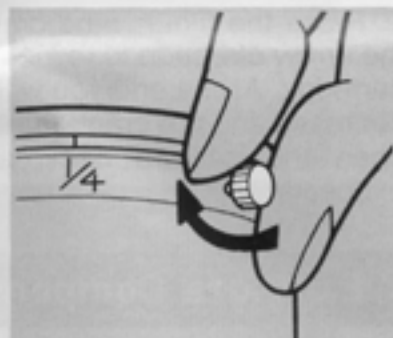
* Use the above data for your guidance.

● Shooting magnification

The shooting magnification represents the ratio of the size of the subject to its size on the film. You can see the magnification value on the magnification scale along the edge of the magnification ring when the camera is focused on the subject. Also, if you want to set the magnification value beforehand, set the desired value on the scale to the index and move the camera forward or backward to bring the subject into focus.

● Shooting distance

The shooting distance is from the flash surface to the subject.



● Locking of magnification ring

Turn the magnification ring lock knob clockwise as indicated by the arrow until it stops. This will lock the magnification ring. Use this function when you want to shoot at a fixed magnification.

5. Shooting

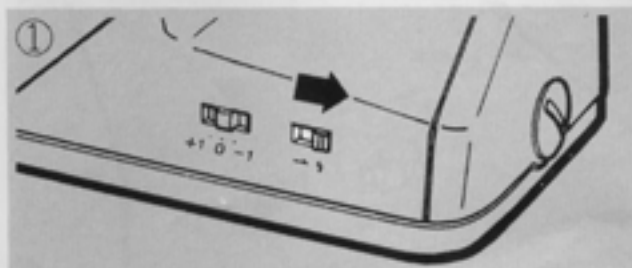
For exposure, you can rely on the camera, which provides full automatic exposure control.

○ When flash is on (⚡ mark side):

Flash-matic system of aperture control according to the shooting distance

○ When flash is off:

Auto system of controlling the shutter speed according to the brightness of the subject with the F-stop fixed at F4.



① Set the flash switch to "⚡". At this time, make certain that the power LED or the "⚡" mark in the viewfinder has lit up (completion of charging).

② Make sure that the subject is in focus, and press the shutter release, which will accomplish your shooting with a blare of flashlight.

● If the shutter release is pressed during charging, the flash photography will not take place, but an auto photography as when flash is off will be effected.

● When the "⚡" mark in the viewfinder is flashing quickly, take your photograph with flash on so as to avoid blurring.

● When the flash is off, the power LED flickers to indicate it.

6. Film rewinding

The film, when it has been fully exposed, must be rewound and unloaded. Before rewinding, see the film counter and make sure of the end of the film.

① Set the power switch to OFF and push the film rewind release button at the bottom of the camera. It is not necessary to keep pressing the button.

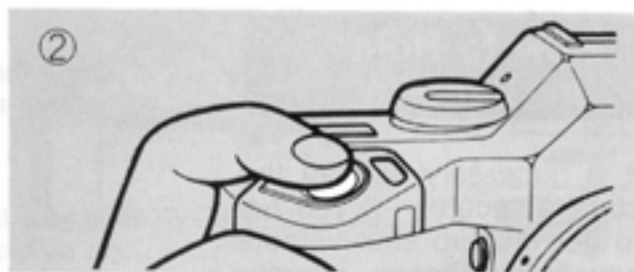
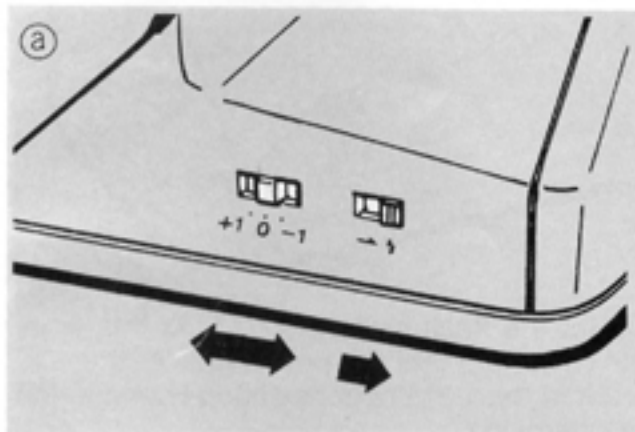
② Raise the film rewind crank and turn it in the arrow direction to rewind the film into the cartridge. At the end you will feel the friction decrease and the crank turn with ease. Then open the camera back and unload the exposed film.

Exposure Compensation

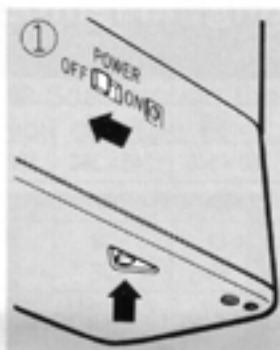
Exposure compensation can be done as follows:

Ⓐ When flash is on: Set the $\pm 1.0\text{EV}$ exposure compensation switch to the compensation value.

● After the compensation setting, be sure to



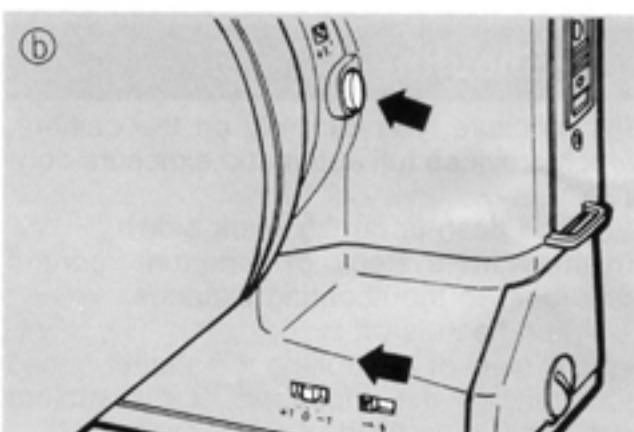
● The service-size print turns out narrower than the actual film frame. Therefore, be sure to place all the important parts of the subject within the viewfinder with some margin along the frame edges.



● Do not release the shutter during film rewinding. Also, be sure not to open the camera back before the rewinding is completed.

set the switch back to "0". Otherwise, the compensation will continue.

Ⓑ When flash is off: Press the shutter release while depressing the +1.5EV exposure compensation button.



Self Timer

After focusing, press the self timer button. The self timer LED will light up and then blink, and about ten seconds later the shutter will be released.

- To cancel the self timer function midway,

Date Printing

The auto date mechanism built into the camera back of this camera enables automatic printing of date and time on photographs.

(The date and time have been set beforehand in the factory, but they must be reset to the correct date and time in each country.)

① Select a printing display (mode). At each press of the Display Select button, the display changes in the order of "year-month-day", "hour-minute", "-----". Use this function and make a desired display.

(The year is represented by the last two digits of the year, and the hour by the 24-hour system.)

- Never press the button, using a sharp end of an object like a needle.
- If you do not want the day and hour printed, set the display of "-----" before shooting.

② Press the shutter release to take a photograph.

At the releasing of the shutter, "PRINT" appears in the display window, indicating the entry of the date in the picture.

- The date and hour are printed in the below right corner of the photo. Avoid white, yellow or other light background, or the date numbers will not appear clearly.

< How to set a date >

In the following example, "March 15, 1990" is set:

① Press the Mode Button to set the "year-month-day" mode in the Data Display Window.

② Press the "Year" button and set "90". The year is represented by the last two digits.

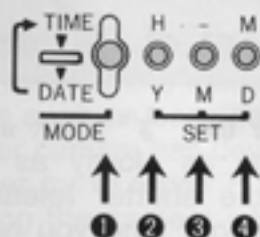
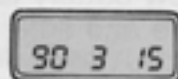
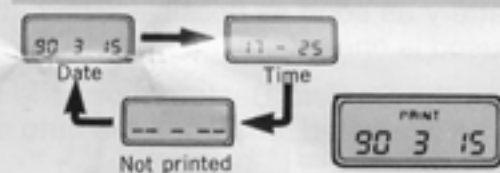
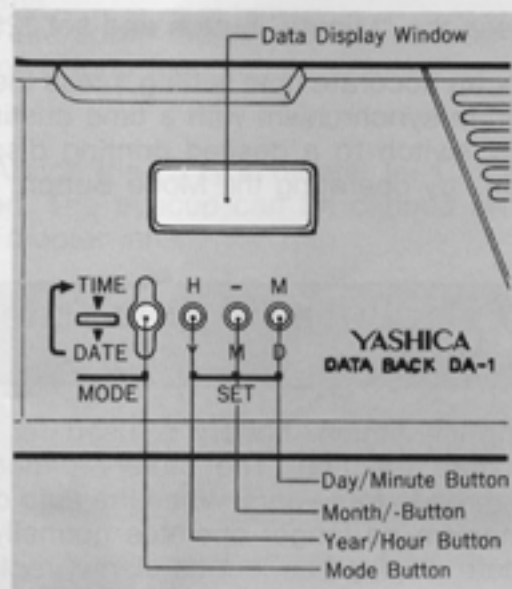
③ Press the "Month" button and set "3".

④ Press the "Day" button and set "15".

press the self timer button again or set the power switch to OFF.

- If you press the shutter release during a self-timer shooting, the shutter can be released.

- The self timer LED serves also as a low battery voltage indicator.

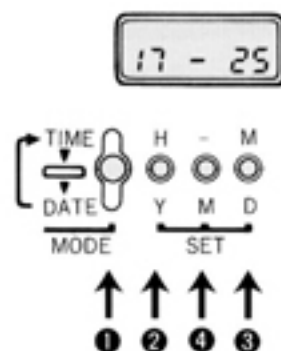


- Keep pressing a Correct button, and the display will continue to change quickly.

< How to set an hour >

In the following example, "17:25 (5:25p.m.)" is set:

- ① Press the Mode Button to set the "hour-minute" mode in the Data Display Window.
- ② Press the "Hour" button and set "17".
- ③ Press the "Minute" button and set "25".
- ④ For an accurate time setting, press the "-" button in synchronism with a time casting. Finally switch to a desired printing display (mode) by operating the Mode Button.



- Keep pressing a Correct button, and the display will continue to change quickly.

Replacement of Auto Date Battery

A long-life lithium battery is used for the auto date function. The battery ordinarily lasts three to four years. When the auto date mechanism no longer operates normally or the date display has lost its clarity, replace the battery as soon as possible. The battery to be used is one 3V lithium battery CR2025.

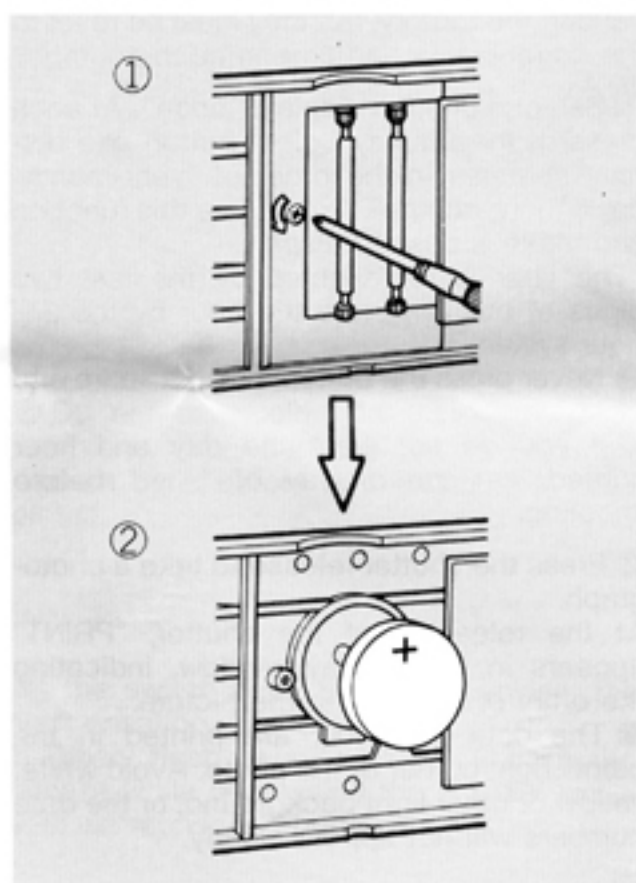
- ① Open the Camera Back, remove the set-screw as illustrated, and open the auto date battery cover.

- ② Insert a new lithium battery with the positive (+) terminal up in the battery compartment, and close the battery cover.

- The auto date mechanism does not function if the battery is placed incorrectly.
- Never hold the battery by the terminals with tweezers or like metallic tool. The battery life can be shortened by such mistreatment.
- When a new battery is installed, be sure to set the date and time afresh.

Replacement of Power Battery

When you see the "⚡" mark in the viewfinder flickering as slowly as once in a second with the shutter release pressed halfway, it is about time you replaced the battery. Open the battery cover and replace the battery with a new one (6V lithium battery 2CR5). The battery, even if weak,



will last one or two rolls of film (12-exposure), but will run down quickly if flash is often used. If you continue to operate the camera with a weak battery, the self-timer LED will light up to warn you. If you do not replace battery even then, the camera will stop working.

Care of the Batteries

● The battery performance drops temporarily at temperatures below 0°C. When using your camera in cold weather, keep the batteries warm, or prepare spare batteries and use them after warming them in your pocket. At normal temperatures, the lowered performance of the batteries returns to normal.

Attaching the Eyecup

The Dental-Eye II comes with the Eyecup F-3 as a standard feature. Clip the eyecup on as illustrated.



Attaching the Eyepiece Cover and the Strap

Press the strap through the eyepiece cover provided with the camera. Then attach the strap to the camera body as shown.

● When taking pictures with your eyes away from the viewfinder like when the self timer is used with flash off, use the eyepiece cover for correct exposure.

Care of the Camera

● Keep your camera in a well-ventilated place, avoiding such places as damp or dusty environment, the chest of drawers containing mothballs or laboratory with chemicals.

● Do not place your camera in a heated area such as inside a car exposed to direct sunshine since the heat may adversely affect the film, battery and camera performance.

● Do not expose your camera to excessive temperature differences such as carrying it from cold outdoor environment into warm indoor environment, which causes condensation and thus corrosion inside the camera.

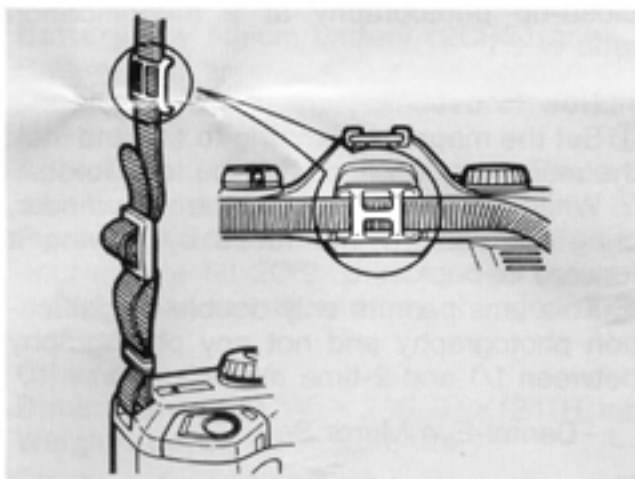
● Defective contact can result from the battery terminals soiled with sweat or oil. Wipe the terminals clean with dry cloth before use.

● Never throw the used batteries into fire disassemble, short-circuit or heat them.

● Keep the batteries out of the reach of infants.

● Take spare batteries with you when you go on a long trip.

● Attach the FL type diopter lens as illustrated. The eyecup can be clipped on over the diopter lens.



● When you have accidentally touched the lens or viewfinder eyepiece with your finger, wipe it gently with lens cleaning tissue wetted with lens cleaning solution. Also, remove dirt or dust, if any, by blowing off with a blower or brushing off with a lens brush.

● When cleaning the camera body, use a soft lintless cloth or like material. Never use any solvents such as benzine or thinner.

● When your camera has developed some trouble, never try to repair it by yourself by disassembling the camera which has high-voltage circuits inside.

● Do not drop or give shocks to your camera, which is a precision instrument.

Optional Accessories

Dental-Eye II AC Adapter (USA only)

Connect this adapter to an AC power outlet, then the Dental-Eye II can be powered without use of the batteries.

< Installation >

Attach the plug of the AC adapter to the external power jack of the camera and then plug the adapter body in the AC power outlet.

● Be sure to remove the adapter body from the AC power outlet before attaching or detaching the plug.

● Insert the plug of the adapter fully into the external power jack of the camera.

● Never use AC adapters supplied by other manufacturers.

Dental-Eye II 2X Lens

Attach this 2X lens over the lens of the Dental-Eye II, which realizes an ultra-close-up photography at a magnification ratio of 2:1.

< How to use >

① Set the magnification ring to 1/1, and lock the magnification ring with the lock knob.

② While looking through the viewfinder, bring the camera into focus by moving it forward or backward.

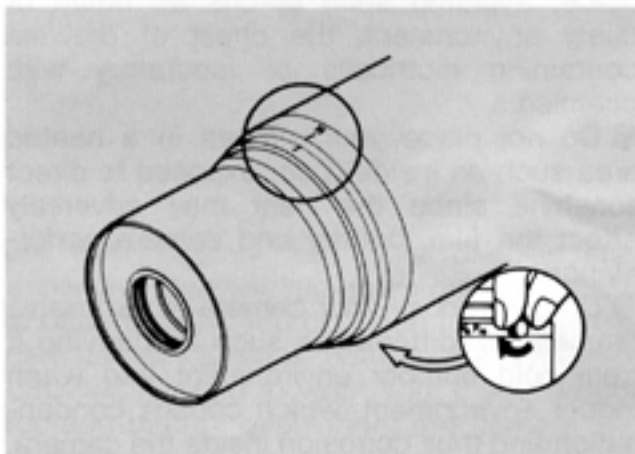
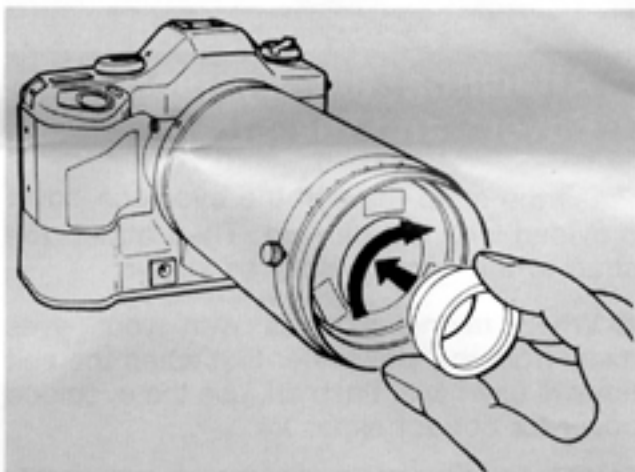
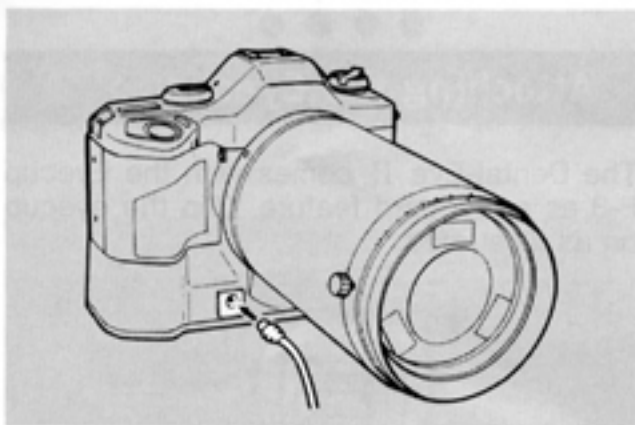
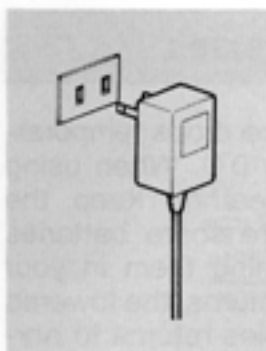
● This lens permits only double magnification photography and not any photography between 1/1 and 2-time magnification.

Dental-Eye Mirror Set

This mirror enables photography of the inside of the mouth from the whole upper set of teeth to both the sides of molars.

FL Type Diopter Lenses

The FL type comes in eight kinds of -5, -4, -3, -2, 0, +1, +2 and +3. Attach it to the eyepiece. You can clip on the Eye-cup F-3 over it, too.



DENTAL-EYE II Specifications

Type : Built-in flash, 35mm focal-plane shutter, auto exposure SLR

Pictures Size : 24×36mm

Lens : 100mm/F4, macro-lens (5 elements in 3 groups)

Shutter : Vertical-travel, focal-plane shutter

Shutter Speeds : Auto 1/2000 sec. to 16 sec.

X 1/90 sec. (with flash, switched automatically upon completion of charge)

Exposure Control : 1. Flash on Flash-matic (F4 to F22)

2. Flash off Aperture-priority auto exposure (F4 fixed)

Metering System : TTL center-weighted metering

Metering Range : EV5 to EV15 (ISO100, F4 in auto mode)

Film Speed : With DX film

* Film speed range.....① Flash on : ISO50 to 400 (each step)

② Flash off : ISO50 to 3200 (each step)

○ ISO100 with film other than DX

Exposure Compensation : ① Flash on ±1.0EV (exposure compensation switch)

● No +1.0 at ISO50

② Flash off +1.5EV (exposure compensation button)

Magnification scale : 1/1-1/1.2-2/3-

1/1.8-1/2-1/2.5-1/3-1/3.5-1/4-

1/5-1/6-1/8-1/10-1/12-1/15

Shooting Area : 24×36 to 360×540mm

Shooting Distance : 155cm (1/15) to 15.5cm (1/1)

Viewfinder : Pentaprism eye-level finder

Focusing Screen : Horizontal split-image/microprism

Viewfinder Display : "½" mark

1. Lighting.....completion of flash charge (flash on)

2. Slow flashing.....low battery voltage alarm

3. Quick flashing..... low brightness alarm

Film Loading : Automatic loading (with auto advancement to counter "1")

Film Advance : Automatic film advance

Film Rewind : Rewind crank turning

Exposure Counter : Automatic resetting, additive type

Flash : 3 built-in lamps (upper, lower right and lower left), Auto flash-matic mechanism, Minimum aperture : F22, Guide number : approx. 7.5 (ISO100).

New lithium battery recycled by about 2.5 sec. at normal temperature (Kyocers standard)

Battery : 6V lithium battery (2CR5) one

Battery life : approx. 450 shots (continuous shooting with flash, normal temperature, new battery, Kyocera standard)

Auto Date : LCD (Liquid Crystal Display) with built-in quartz timing device

Printing function Year-month-day-hour-minute till 2019. Printing can be cancelled. Year, month and day changed automatically

Other : Kit case

Dimensions : 149(W)×206(D)×124(H)mm

Weight : 1,470g (without battery)

※ Specifications and external design are subject to change without notice.

DENTAL-EYE II AC Adapter Specifications

Input : AC120V (USA only)

Output : DC4.5V, 1600mA, 2m output plug cord

Recycle time : Approx. 2.5 sec at normal temperature (Kyocera standard)

Dimensions : 60×82×68mm, excl. output plug and cord

Weight : 510g

DENTAL-EYE II 2X Lens Specifications

Magnification : 2-time

Shooting Area : 12×18mm

Shooting Distance : 6.9cm

Depth of Field : +0.5mm to -0.5mm

Dimensions : 37(D)×31(L)mm

Weight : 33g



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