

**YASHICA**

**DENTAL-EYE II**

**ASSEMBLING CHART**

KYOCERA CORPORATION

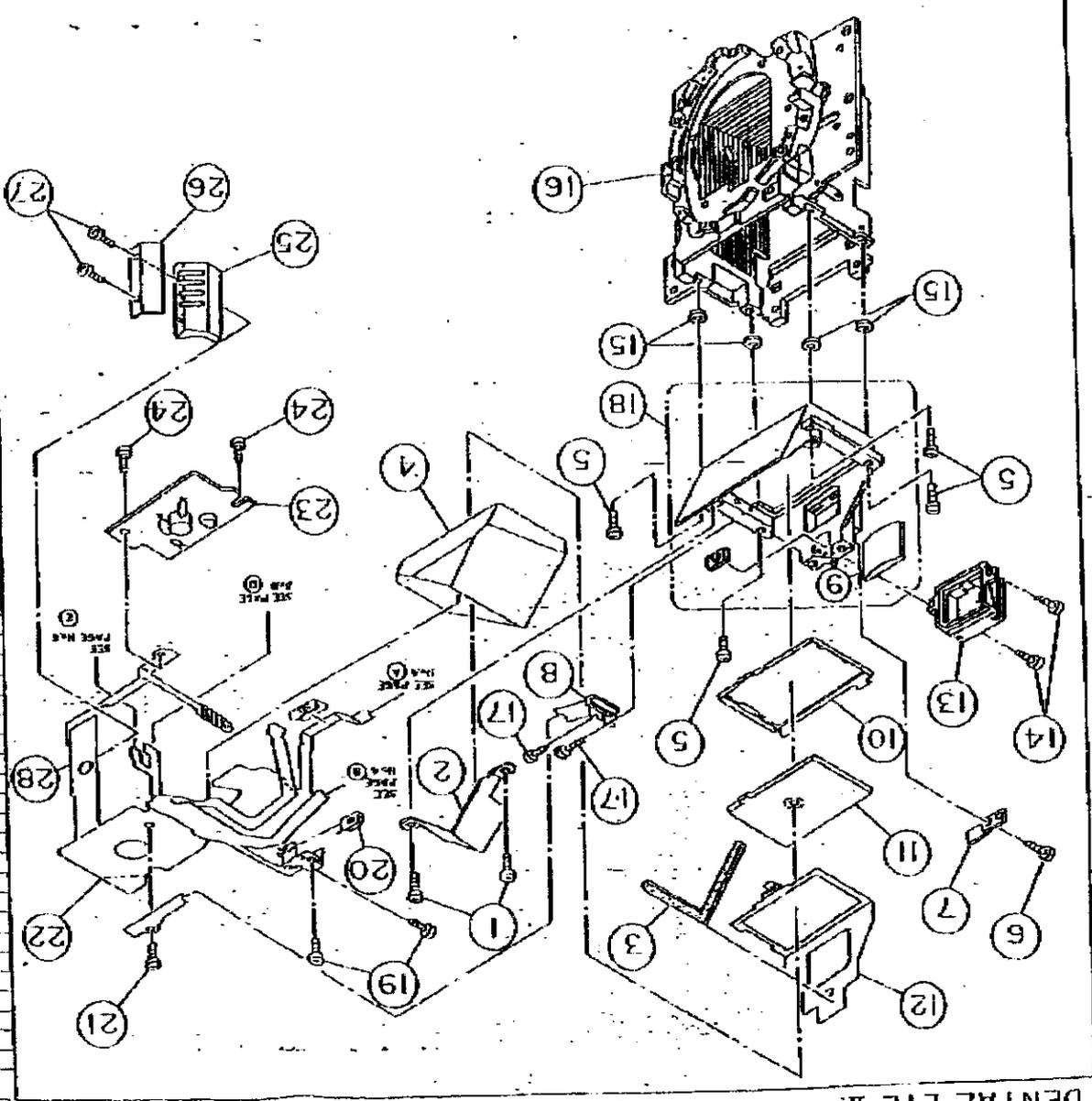








PARTS No.	DESCRIPTION	QTY
1	59214076 TAP-TITE S.S.	2
2	460803 PENTA PRISM FIXER	1
3	147081 PENTA DUST-PROOF MOUNT	1
4	173003 PENTA PRISM	1
5	639402 MACHINE S.S.	1
6	69213016 TAP-TITE S.S.	4
7	173003 SFB FIXER	1
8	173795 MODULATOR LED	1
9	173788 EYE-PIECE LENS	1
10	168800 FG HOLDER	1
11	173784 FOCUSING CLASS	1
12	173782 FINDER FRAME	1
13	173305 EYE-PIECE	1
14	693576 TAP-TITE S.S.	2
15	6939187 PENTA PRISM HOLDER ADJUST W	4
16	6939187 WASHER TO1	1
17	6939187 WASHER TO2	1
18	6939187 WASHER TO3	1
19	6939187 WASHER TO4	1
20	6939187 WASHER TO5	1
21	6939187 WASHER TO6	1
22	6939187 WASHER TO7	1
23	6939187 WASHER TO8	1
24	6939187 WASHER TO9	1
25	6939187 WASHER TO10	1
26	6939187 WASHER TO11	1
27	6939187 WASHER TO12	1
28	173506 PENTAFIXER HOUDER ASSTY	1



DENTAL EYE II

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# YASHICA DENTAL-EYE

Operating Instructions

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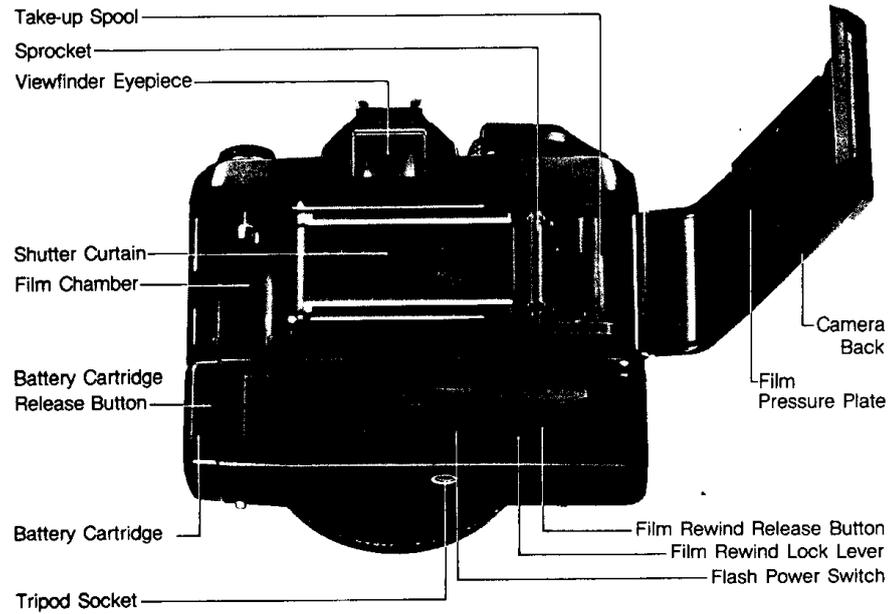
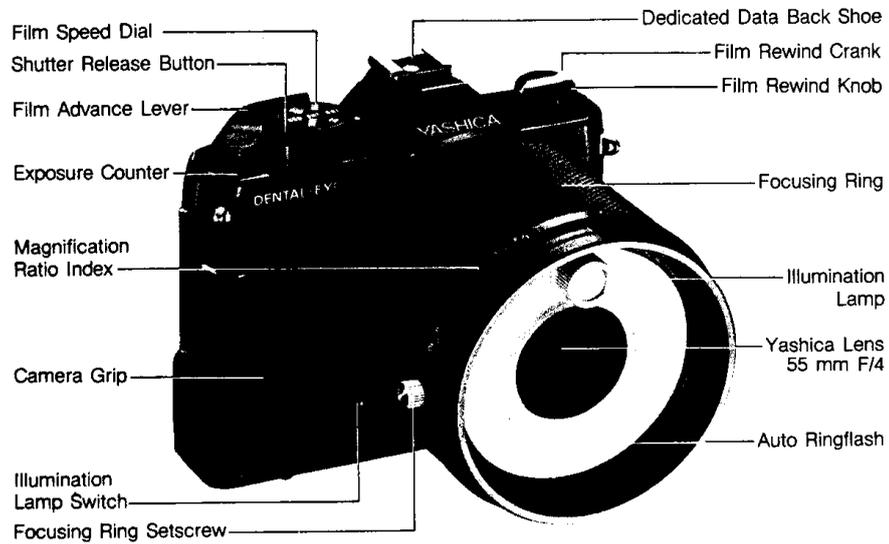
BilstraÙe 28, D-2000 Hamburg 28, West Germany  
Tel: (040) 78 15 21/25

### YASHICA DO BRASIL INDUSTRIA E COMERCIO LTDA.

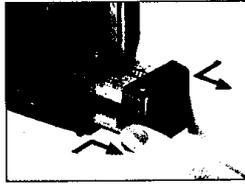
Rua Cruz e Souza 59, Aclimacao, So Paulo, Brazil  
Tel: 283-4244



## DESCRIPTION OF PARTS

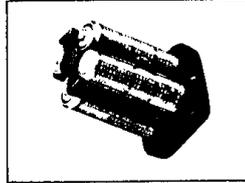


## 1. Installing Batteries



The auto ringflash unit is powered by four size AA batteries of the 1.5 V alkaline or manganese type or of the 1.2 V Ni-Cd type. The use of high performance alkaline batteries is recommended.

1 To remove the battery cartridge, depress release buttons on opposite sides of the cartridge and draw out the cartridge at the same time.



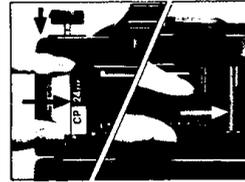
2 Install the four batteries correctly as shown by the etched (+) and (-) polarity marks. After installing the batteries, replace the battery cartridge by sliding it in until it snaps into place.

## 2. Film Loading



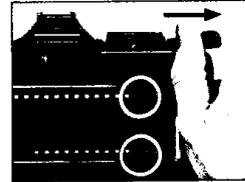
Use standard 35 mm cassette film.

1 Lift the film rewind knob and then pull it up firmly until the camera back opens.

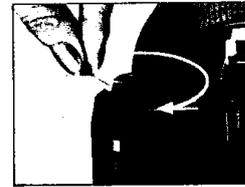


2 Insert the film cassette into the film chamber and then push the rewind knob down to its original position. The knob will seat itself easily if it is turned back and forth slightly while being pushed down.

3 Then insert the film tip into one of the slots on the take-up spool.

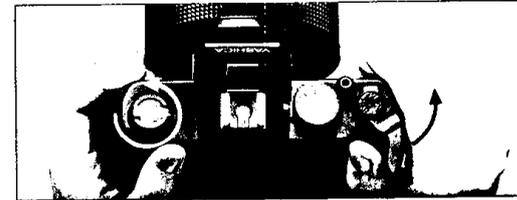


4 Gently cock the film advance lever, winding on the film until the upper and lower rows of perforations mesh with their respective sprockets. After confirming that the film has meshed correctly, close the camera back.



5 To eliminate any slack in the film, unfold the film rewind crank and gently turn it in direction of the arrow until it stops.

6 Then make blank exposures by alternately cocking the film advance lever and releasing the shutter until the exposure counter registers "1", which is your starting point for shooting pictures. If the film rewind knob rotates as the film advance lever is being worked, it means the film is feeding properly.

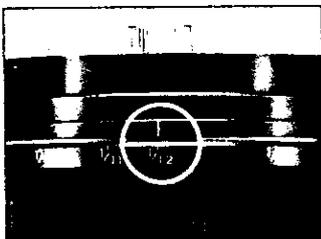


## 3. Setting the Film Speed



Turn the film speed dial until it is set at the speed rating (ISO) of the film in use. Set the dial precisely on the correct stop position. The film speed for the film in use is indicated on the side of the film box.

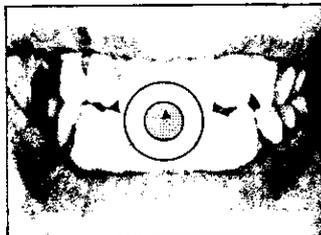
## 4. Focusing



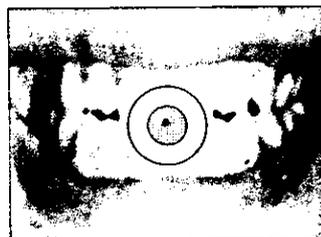
While peering through the viewfinder, turn the focusing ring on the lens until the image in the microprism in center of the focusing screen or in the surrounding matte field appears sharp. If subject is out of focus, you will see a blurred image.

A magnification ratio index along the front end of the focusing ring can be used to confirm the magnification ratio in effect for the object brought into focus. When a predetermined magnification ratio is desired, preset the focusing ring at the desired ratio and then focus by moving the camera back or forth in relation to the subject.

The magnification ratio indicates size of the subject image in relation to the negative area. The relationship between the shooting range and the lens barrel front-to-subject distance (working distance) is as shown in the table on reverse side.



In Focus



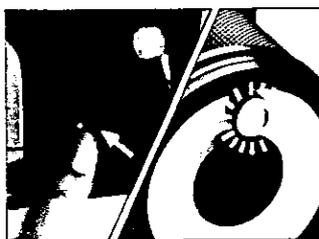
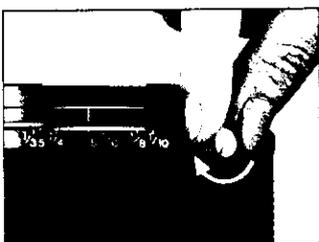
Out of Focus

### < Locking the Focusing Ring >

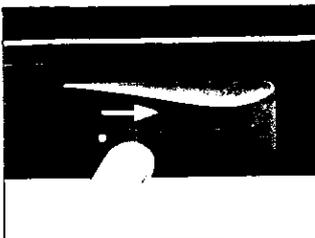
The focusing ring can be locked by turning the setscrew in the direction of arrow as far as it will go. Thus, it is very handy for photographing at a predetermined magnification ratio.

### < Using the Illumination Lamp >

Use the illumination lamp when focusing difficulties are encountered inside the oral cavity or when there is low ambient light. This lamp can be turned on by pressing the white dot on the illumination lamp switch after sliding the flash power switch to ON.

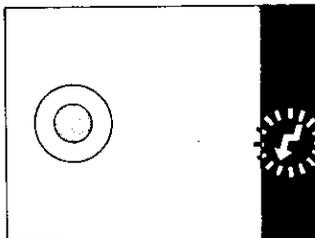


## 5. Photographing Procedure



① When the flash power switch is turned ON, a green LED mark "L" will light up within a few seconds to indicate flash-ready status.

② Advance the film and focus on subject. Then press the shutter release button to fire the ringflash unit.



- When finished taking flash, turn off the flash power switch to conserve the batteries.

- Please note the when standard size prints are made from the exposed film, they may show somewhat less than that displayed in the negative area.

## 6. Film Rewinding



When the entire roll of film has been exposed, you will not be able to operate the film advance lever. Do not attempt to forcibly cock the lever. Instead, check the frame counter before rewinding the film.

① Turn the film rewind lock lever and then depress the film rewind release button. It is not necessary to hold the button down.

② Unfold the film rewind crank and turn it in the direction of arrow. The film will then be rewound back onto the film cassette. When resistance is gone and the rewind crank turns freely, open the camera back and remove the film.

③ Then refold the film rewind crank. Next turn film rewind lock lever back to its former position so as to prevent the film rewind release button from being accidentally depressed.



### Dental Eye Kit Case

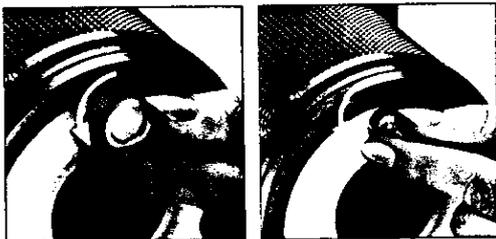
Specially designed carrying case or the Yashica Dental Eye. Camera is ready for instant use when taken out of the carrying case. Offers complete protection to camera when being carried around or in storage.



### < Replacing the Illumination Lamp >

When the lamp fails, remove the lamp cover by turning it counterclockwise. Then remove the lamp by unscrewing it counterclockwise with your fingertips.

Take the defective lamp to your local electric shop and ask for a 6 V 3 W replacement lamp.



### < Magnification Ratio and Related Data >

Magnification Ratio:	1/10	1/8	1/5	1/3	1/2	1/1.5	1/1
Picture-taking Area:	240 x 360 mm	192 x 288 mm	120 x 180 mm	72 x 108 mm	48 x 72 mm	36 x 54 mm	24 x 36 mm
Working Distance:	58.1 cm	47.5 cm	31.5 cm	21.8 cm	18 cm	17.1 cm	7.9 cm
Depth of Field:	-14 mm +15 mm	-11 mm +12 mm	-7 mm +7 mm	-4 mm +4 mm	-2.5 mm +2.5 mm	-2 mm +2 mm	-1 mm +1 mm

\* Use the data as a general guideline.

### < Battery Changing Time >

In the case of the Dental Eye, the recycling time (or the number of flashes) will vary with the film speed being selected. If the flash-ready lamp takes more than 15 seconds to light up (when set at ISO 100),

it means the batteries are low. In this case, replace all four of the batteries with fresh ones of the same type. (Mixing of fresh and old batteries will shorten battery life.)

before using them. As temperatures return to normal, the batteries will recover their usual capacity and become serviceable again.

• Stained or smudged battery terminals can lead to poor electrical contact, so wipe the batteries clean with a piece of cloth before installing them.

### < Battery Precautions >

- When not using the camera for an extended period, remove the batteries before storing the camera.
- When exposed to cold temperatures, the batteries will perform less efficiently. When shooting in cold areas, either protect the batteries from the cold or keep a spare set warmed in your pocket

finder eyepiece are smeared with finger stains, do not attempt to wipe them off vigorously. Gently wipe them with a piece of cleaning tissue moistened with some lens cleaning solution. And use a blower brush to blow or lightly brush away dust from the glass surfaces.

• When the body surfaces need to be cleaned, wipe them with a soft cloth. Never use any solvent such as benzene or thinner.

### < Camera Care >

- As it can have a damaging effect on the camera mechanism, avoid leaving the camera in extremely humid or hot areas such as at the seashore or in sun-bathed cars during hot summer months.
- Avoid abrupt changes in temperature, such as when suddenly entering a heated room from the cold outdoor, because can cause corrosion inducing condensation inside the camera.
- When the glass surfaces of the lens and view-

## Optional Accessories

### Dental Eye 2X lens

A conversion lens which mounts over front rim of lens of the Yashica Dental Eye. Magnification ratio of 2:1 permits extra close-up work.

### Dental Eye Data Back

Used by installing on the camera in place of the standard back. Recording of such data as magnification ratio and initial (two alphabetical characters) is coupled with shutter release system.

### Dental Mirror

Designed for oral cavity use for photographing upper jaw dental arch and profile of premolars and true molars.

### Dental Eye AC Adapter

Is used as an alternate power source for the flash unit by connecting to AC outlet.

## SPECIFICATIONS

**Type:** 35 mm SLR featuring built-in electronic ringflash and a focal-plane shutter.

**Image Size:** 24 x 36 mm.

**Film:** Standard 35 mm film cassette of 12, 20, 24 and 36 exposure rolls.

**Lens:** Yashica Lens 55 mm F/4, 4 elements in 3 groups, with angular field of 43 degrees.

**Shutter:** Vertical travel type metal focal-plane shutter.

**Shutter Speed:** 1/60 sec.

**ISO Film Speed Index:** 64—100—200—400—800—1000.

**Magnification Ratio Index:** 1/1—1/1.1—1/1.2—1/1.5—1/1.8—1/2—1/2.5—1/3—1/3.5—1/4—1/5—1/6—1/8—1/10.

**Picture-Taking Area:** 24 x 36 ~ 240 x 360 mm.

**Working Distance:** 58.1 cm (1/10) ~ 7.9 cm (1/1).

**Viewfinder:** Pentaprism eyelevel type, with field showing 92% of picture area, and magnification of 0.91X.

**Focusing Screen:** Microprism type.

**Viewfinder Display:** Green LED flash-ready signal.

**Film Advance:** Lever type (130 degree setting angle, 20 degree rest).

**Film Rewind:** Rewind crank with rotary action.

**Exposure Counter:** Auto setting, additive type.

**Camera Back:** Hinged type, opened by lifting up film rewind knob.

**Electronic Flash:** Ring-shaped xenon discharge tube, flashmatic mechanism, minimum aperture of F/16.

**Maximum Output:** Approx. 7.3 W (ISO 64).

**Maximum Guide Number:** Approx. 3.8 (ISO 64/ meters).

**Recycling Interval:** ISO 100

Manganese batteries: Approx. 4 sec.

Alkaline batteries: Approx. 2.5 sec.

Ni-Cd batteries: Approx. 2 sec.

**Number of Flashes:** ISO 100, recycling time under 15 sec.

Manganese batteries: Approx. 500 flashes.

Alkaline batteries: Approx. 1000 flashes.

Ni-Cd batteries: Approx. 300 flashes.

**Power Source:** Four AA type batteries, or Ni-Cd batteries.

**Dimensions:** 136 (W) x 120.5 (H) x 134 (D) mm.

**Weight:** 1,080 g (without batteries).

\* The above specifications and design are subject to change without notice.