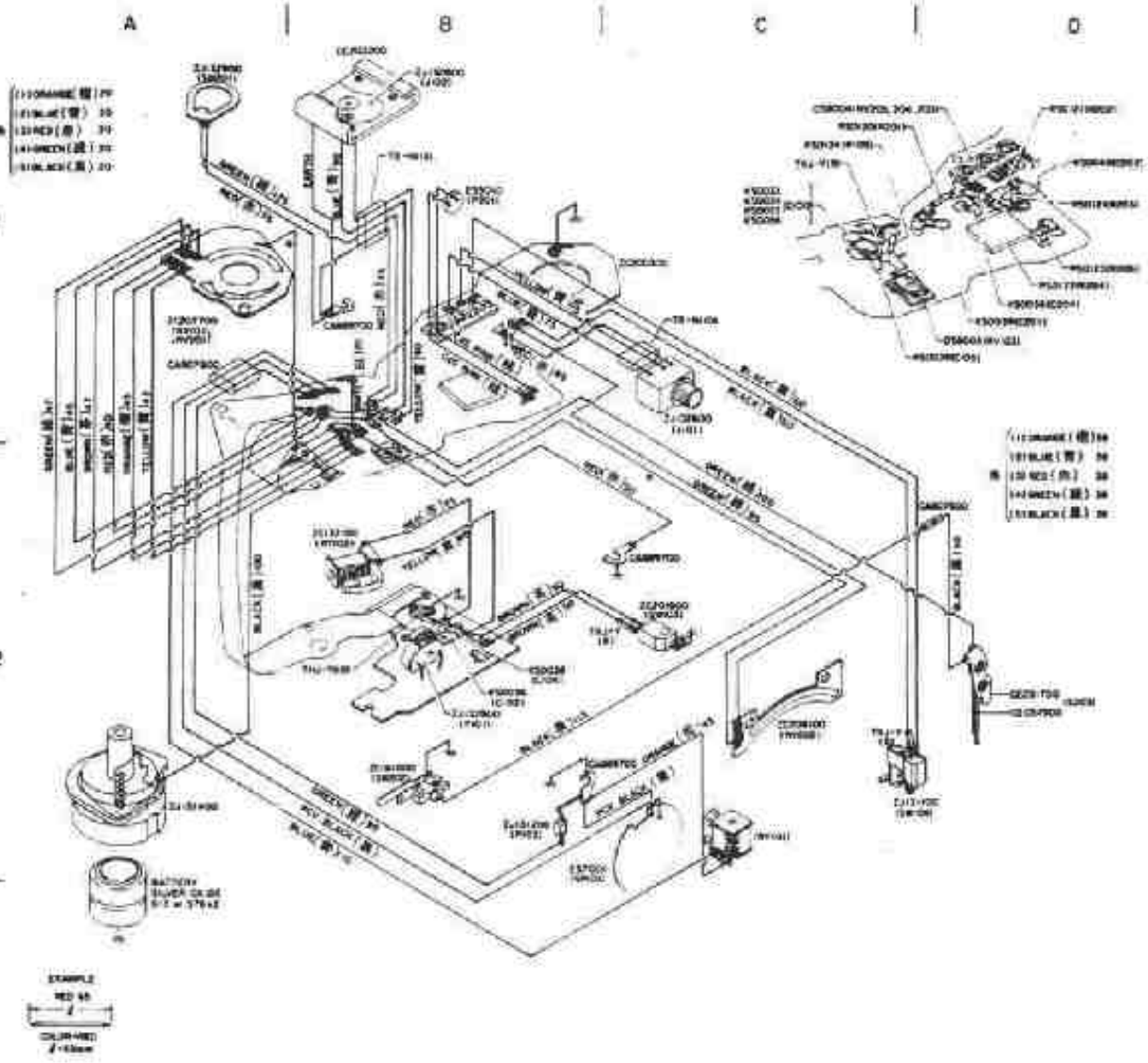
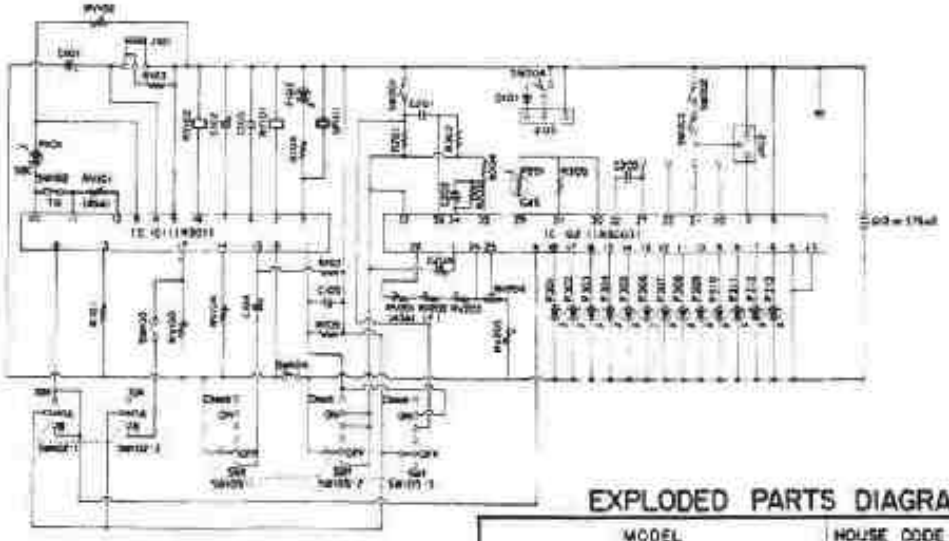
PARTS NO.	NAME OF PARTS	NOTE	(Q'ty used/ per unit
CA738100	STOPPER SCREW	4 - B4	(1)
CA796300	E RING	4 - C1	(2)
CA807600	TUBE	3 - A3	(2)
CA841800	STOPPER SCREW	8 - C2	(1)
CA841900	HOOKING LEVER	8 - B2	(1)
CA842100	HOOKING LEVER SPRING	8 - B2	(1)
CA842200	TUBE 2	8 - D2	(1)
CA842300	RETURNING	8 - C2	(1)
CA843100	TUBE 1		(1)
CA843400	HOOK SPRING	8 - C2	(1)
CA843700	MS SPRING	8 - C2	(1)
CA844600	M RING	8 - D2	(1)
CA844700	M SPRING	8 - D2	(1)
CA844800	CONNECTING LEVER SPRING	8 - D2	(1)
CA846300	E RING 0.8	5 - C1, 8 - B3	(2)
CA849900	B MASK	4 - D3	(1)
CA852300	PLATE L	4 - C1	(1)
CA852900	ROLLER B	4 - B1, 4 - C2	(2)
CA853100	TENSION NUT	4 - B4	(2)
CA853200	TENSION NUT STOPPER	4 - B4	(1)
CA858900	1st C, SPRING	5 - A2	(1)
CA859400	1st C, SPRING	5 - A2	(1)
CA859800	WASHER	3 - A1	(1)
CA871600	R COLLAR SPRING	7 - C1	(1)
CA872200	KEY SPRING	1 - D2	(1)
CA874600	LIGHT PROOF R	1 - A3	(1)
CA877000	SPOOL SPRING	2 - B2	(1)
CA881500	S TUBE SHAFT HOLDER	3 - D2	(1)
CA881600	GEAR NO.1	3 - D2	(1)
CA881700	GEAR NO.1 SCREW	3 - D2	(1)
CA881800	GEAR NO.1 SPRING	3 - D2	(1)
CA881900	K CLAW	3 - D2	(1)
CA882100	CHECKING LEVER	3 - D1	(1)
CA882400	LOCK LEVER	3 - D1 short	(1/2)
CA882600	LOCK SPRING	3 - D1, 3 - D2	(2)
CA882700	SHAFT NO.2	3 - C1	(1)
CA884000	S WINDING PLATE	3 - B2	(1)
CA884100	GEAR NO.4 BASE	3 - C2	(1)
CA884300	SHAFT NO.4	3 - B2	(1)
CA884800	KS SHAFT	3 - B2	(1)
CA884900	KS SPRING	3 - B2	(1)
CA885100	GEAR NO.3 SPRING	3 - B2	(1)
CA885200	SHAFT NO.4 SCREW	3 - C1	(1)
CA885400	S RING	3 - C2	(1)
CA885700	BASE PLATE SHAFT	3 - C2	(1)
CA885900	BULB PALTE SCREW	3 - C1	(1)
CA886100	RETURNING SPRING	3 - C1	(1)
CA886400	KL SHAFT	3 - B1	(1)
CA888800	MOUNT SPRING	6 - C4	(3)
CA889700	FP SYNCHRO CONTACT POINT	1-B2, 4-A3, 6-A1, 8-C3	(4)
CA890000	INSULATING PLATE	6 - B1	(1)
CA907000	C SCREW	3 - D3	(1)
CA908400	BUTTON SHAFT	3 - D4	(1)
CA910600	SHIM 1	t 0.01 6 - B2	(0 ~ 4/3)





EXPLODED PARTS DIAGRAM

MODEL	HOUSE CODE or UNIT	FIG.
OM-10	MDJ	9/9
OLYMPUS OPTICAL CO., LTD. TOKYO, JAPAN		

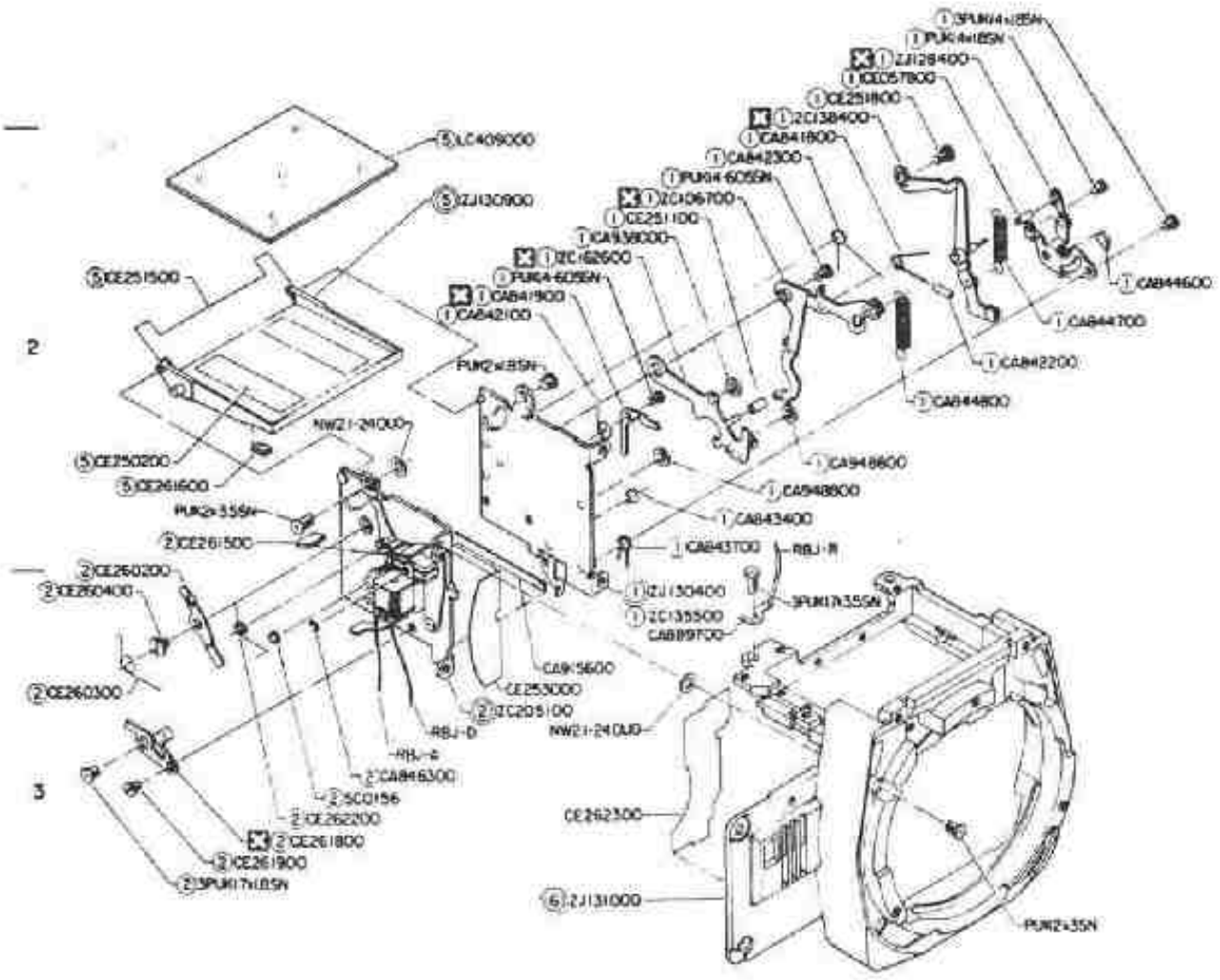
NOTE: WHEN ORDERING FOR SPARE PARTS, PLEASE CLARIFY A MODEL or HOUSE CODE, PARTS NUMBER AND QUANTITY.

A | B | C | D

1

2

3



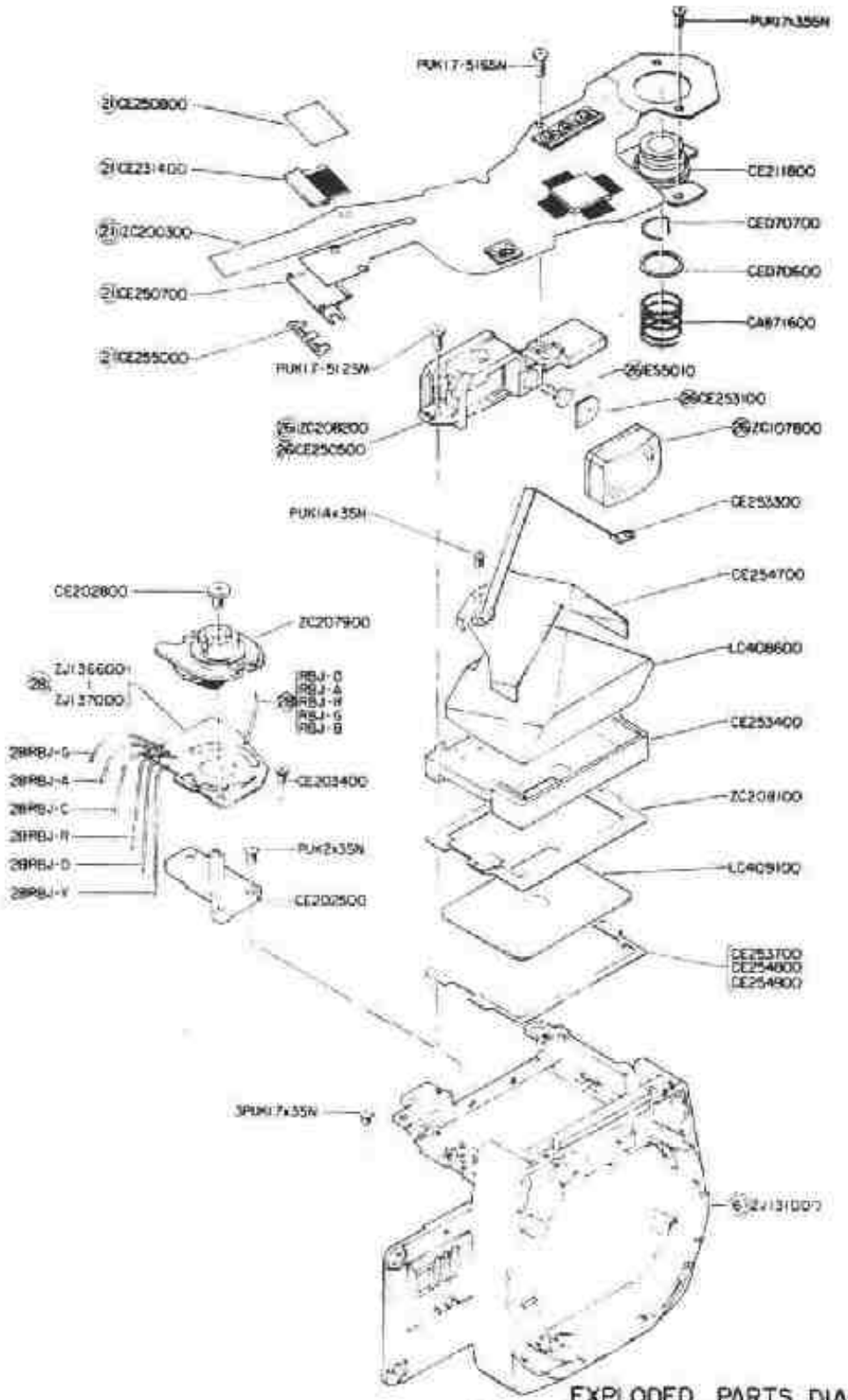
4

EXPLODED PARTS DIAGRAM

MODEL	HOUSE CODE or UNIT	FIG.
OM-10	MDJ	8/9
OLYMPUS OPTICAL CO. LTD. TOKYO, JAPAN		

NOTE : WHEN ORDERING FOR SPARE PARTS, PLEASE CLARIFY A MODEL or HOUSE CODE, PARTS NUMBER AND QUANTITY.

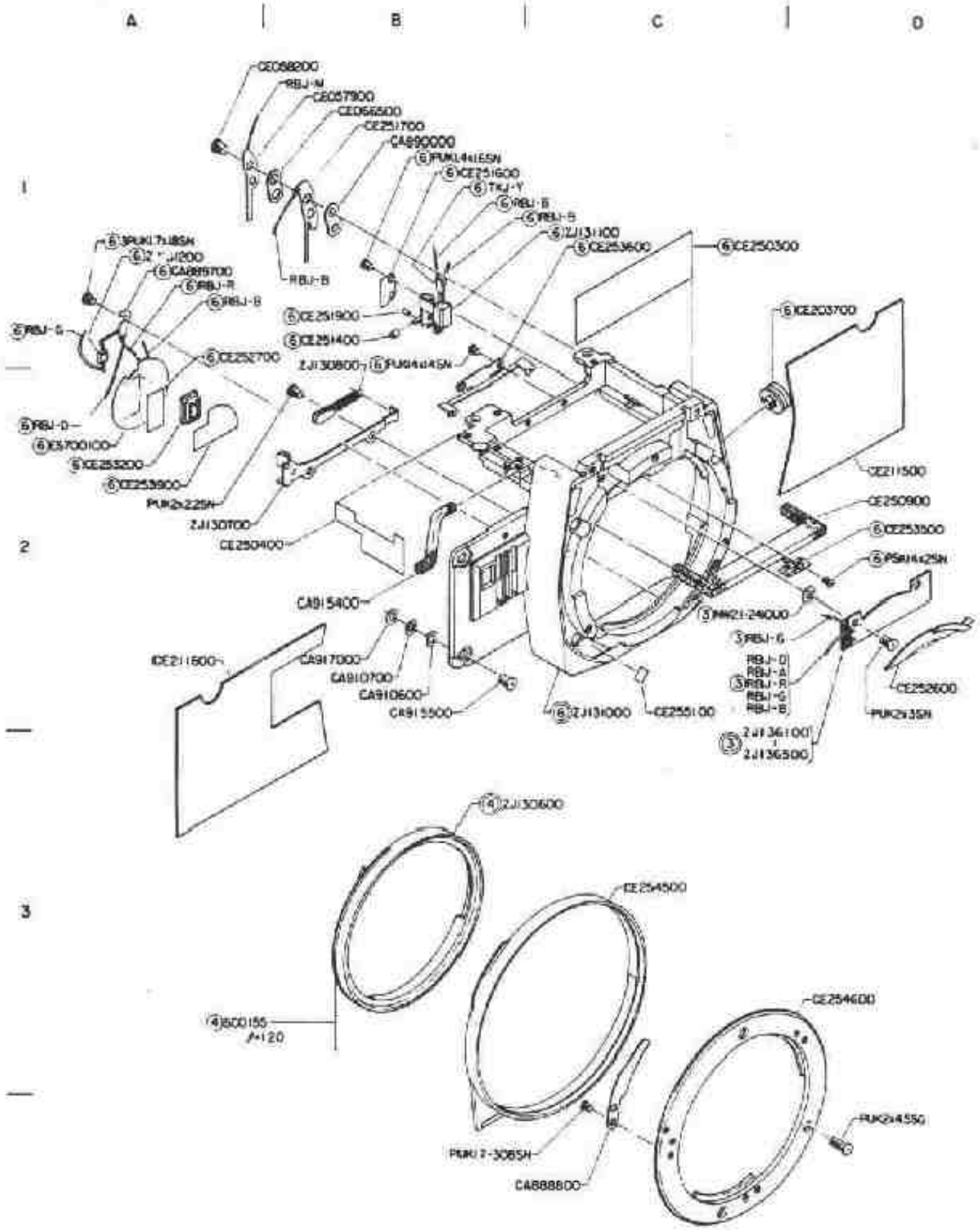
19



EXPLODED PARTS DIAGRAM

MODEL	HOUSE CODE or UNIT	FIG.
OM-10	MDJ	7/9
OLYMPUS OPTICAL CO., LTD. TOKYO, JAPAN		

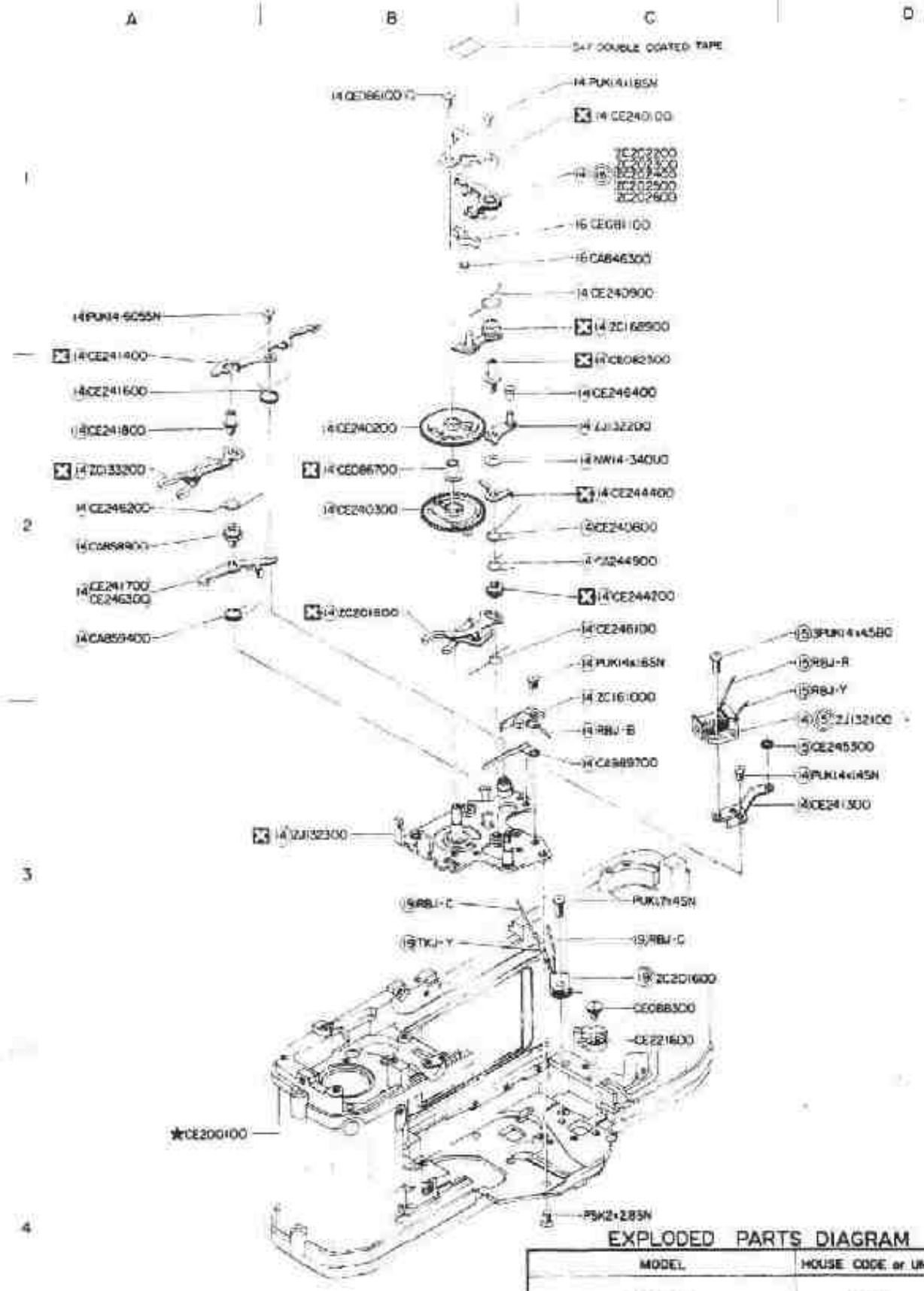
NOTE WHEN ORDERING FOR SPARE PARTS, PLEASE CLARIFY A MODEL or HOUSE CODE, PARTS NUMBER AND QUANTITY.



EXPLODED PARTS DIAGRAM

MODEL	HOUSE CODE or UNIT	FIG.
OM-10	MDJ	6/9
OLYMPUS OPTICAL CO., LTD. TOKYO, JAPAN		

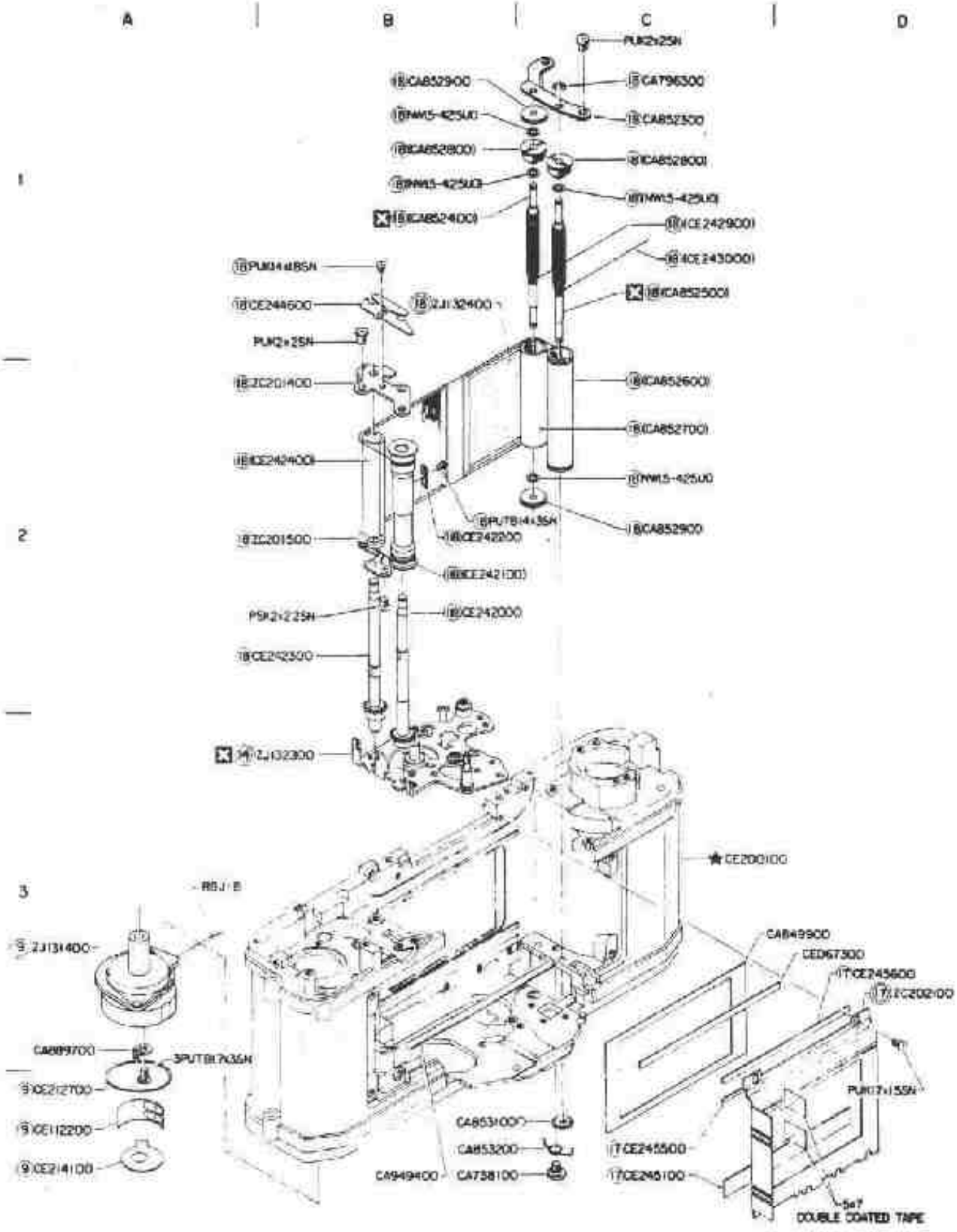
NOTE: WHEN ORDERING FOR SPARE PARTS, PLEASE CLARIFY A MODEL or HOUSE CODE, PARTS NUMBER AND QUANTITY.



EXPLODED PARTS DIAGRAM

MODEL	HOUSE CODE or UNIT	FIG.
OM-10	MDJ	5/9
OLYMPUS OPTICAL CO., LTD. TOKYO, JAPAN		

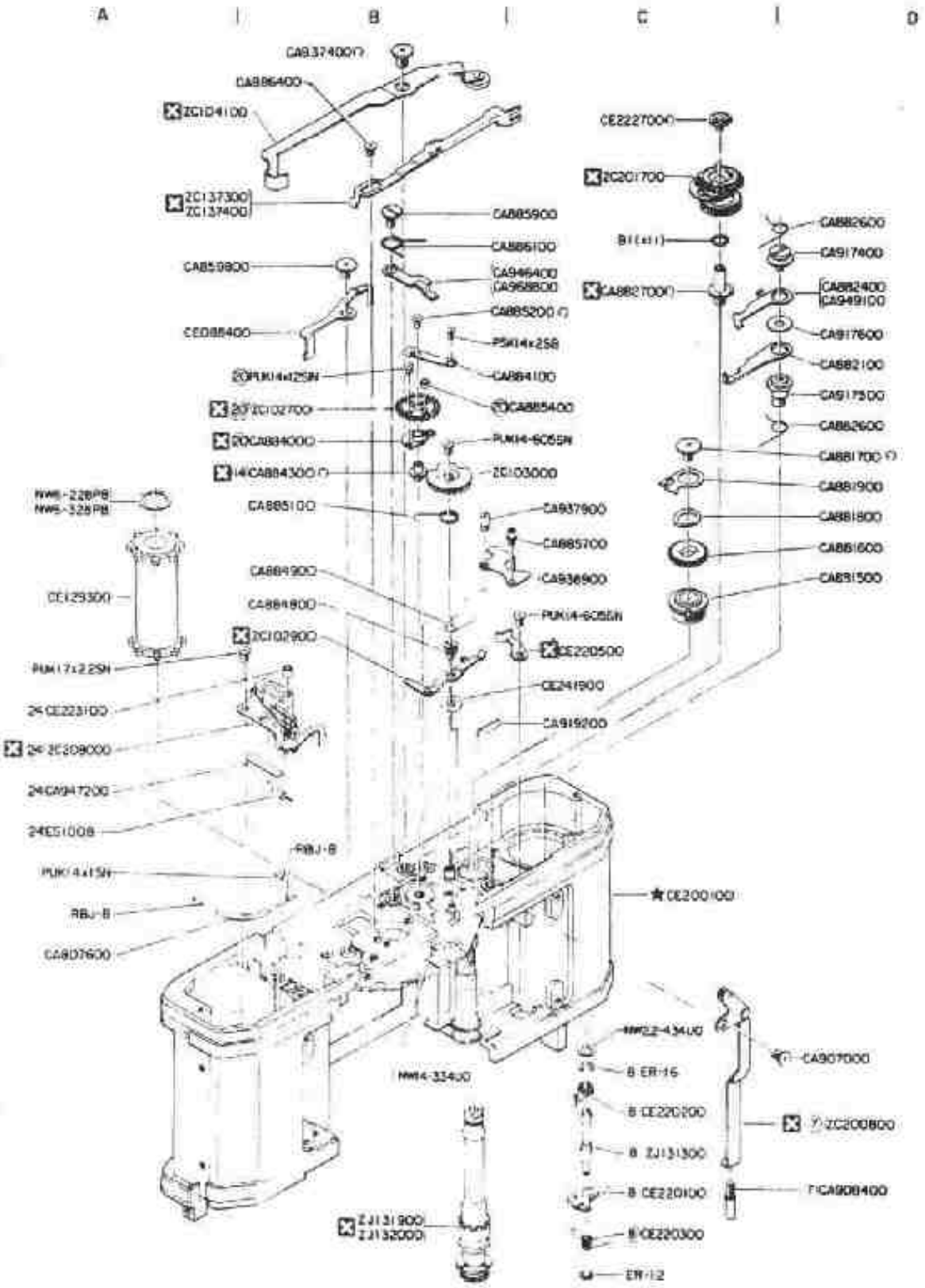
NOTE: WHEN ORDERING FOR SPARE PARTS, PLEASE CLARIFY A MODEL or HOUSE CODE, PARTS NUMBER AND QUANTITY.



EXPLODED PARTS DIAGRAM

MODEL	HOUSE CODE or UNIT	FIG.
OM-10	MOJ	4/9
OLYMPUS OPTICAL CO. LTD. TOKYO, JAPAN		

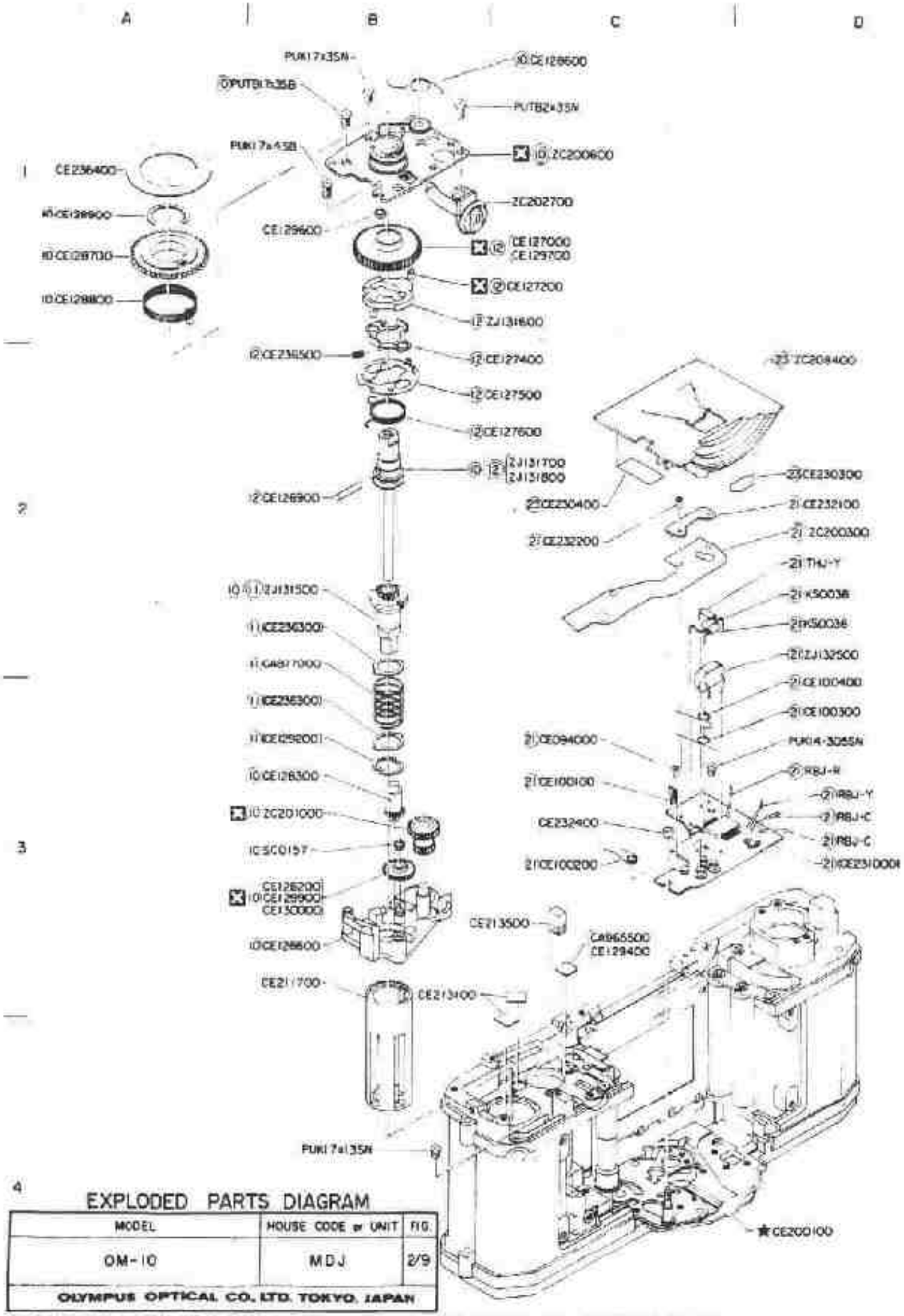
NOTE : WHEN ORDERING FOR SPARE PARTS, PLEASE CLARIFY A MODEL or HOUSE CODE, PARTS NUMBER AND QUANTITY.



EXPLODED PARTS DIAGRAM

MODEL	HOUSE CODE or UNIT	FIG.
OM-10	MDJ	3/9
OLYMPUS OPTICAL CO., LTD. TOKYO, JAPAN		

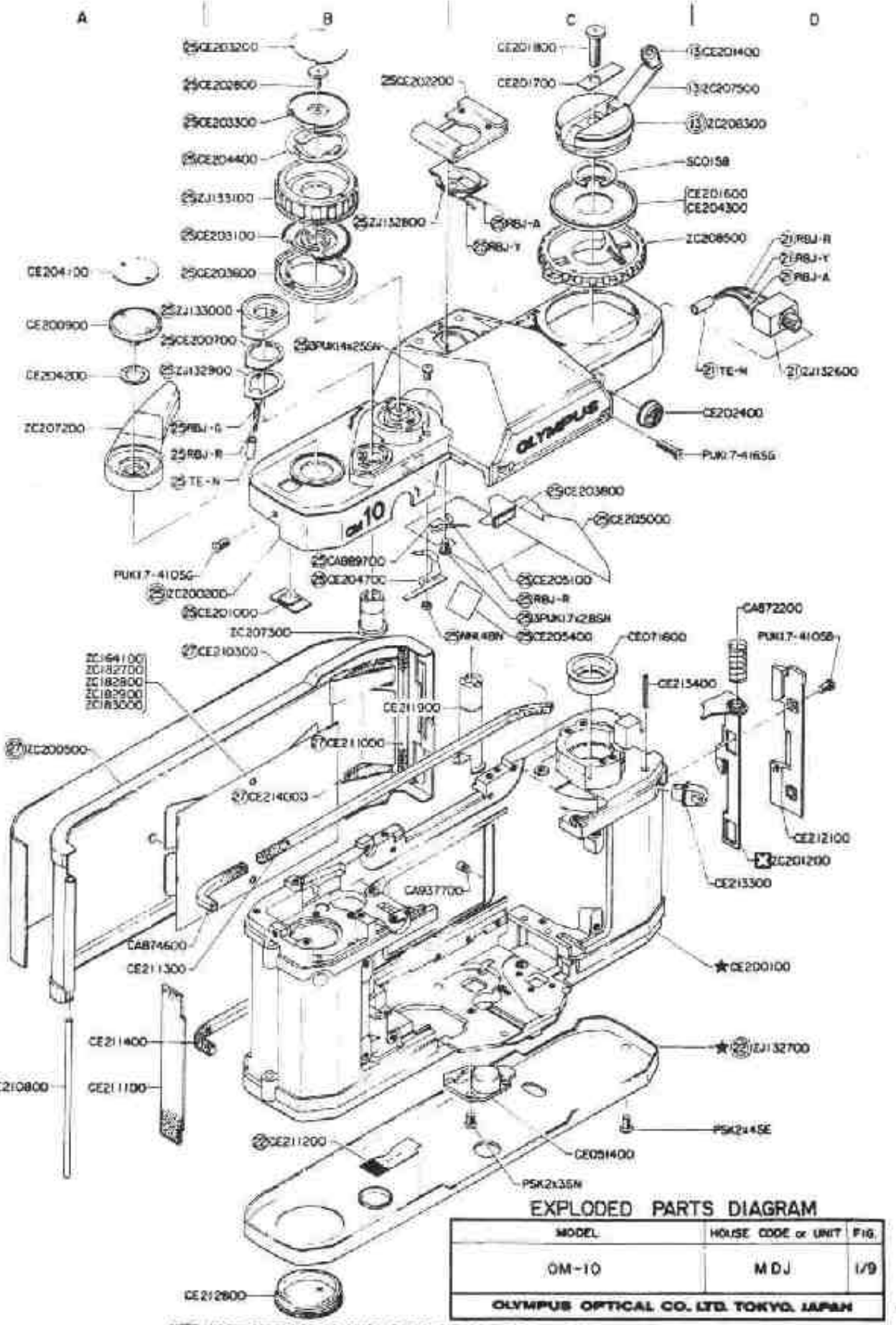
NOTE WHEN ORDERING FOR SPARE PARTS, PLEASE CLARIFY A MODEL or HOUSE CODE, PARTS NUMBER AND QUANTITY



EXPLODED PARTS DIAGRAM

MODEL	HOUSE CODE or UNIT	FIG.
OM-10	MDJ	2/9
OLYMPUS OPTICAL CO., LTD. TOKYO, JAPAN		

NOTE : WHEN ORDERING FOR SPARE PARTS, PLEASE CLARIFY A MODEL or HOUSE CODE, PARTS NUMBER AND QUANTITY.



EXPLODED PARTS DIAGRAM

MODEL	HOUSE CODE or UNIT	FIG.
OM-10	MDJ	1/9
OLYMPUS OPTICAL CO. LTD. TOKYO, JAPAN		

NOTE: WHEN ORDERING FOR SPARE PARTS, PLEASE CLARIFY A MODEL or HOUSE CODE, PARTS NUMBER AND QUANTITY.

EXPLANATION OF MARKS

Ⓘ Indicates parts that are supplied both as a single piece and as an assembled unit. In the latter case, the single part is incorporated in the assembled unit indicated with the mark Ⓘ.
Exception: Parts in the mark ( ) are not supplied in single pieces.
(Parts that are supplied only in single pieces are not indicated with any mark. While parts that are supplied as an assembled unit are prefixed with "Z" or "U".)

] Several types of parts for the same position are available, from which most suitable one is to be selected.

✻ 3 Parts differ according to different models and types. This mark is used to indicate various combinations in a picture.

Left-handed screw. The mate screw hole is not marked particularly.

Indicates parts that should not be touched directly by bare hand because special surface treatment is applied. Wear fingerstalls or use tweezers.

★ Not supplied as a repair part.

Used exclusively for black finish models.

Indicates original parts. New, modified ones are not indicated with this mark. Both original and modified parts are supplied.

No more available parts due to design change or out of stock.

A correction mark. Parts with this mark are not available.

〈 2 〉 Modified parts that are unable to show in the technical manual. The figure indicates reference page number.

2-A3 This notation is entered in the "Remarks" column of parts list and indicates parts position in the technical manual.

2-A3 ← Parts position. The technical manual is divided into 16 equal sections. Each section can be identified by using A, B, C and D from left to right and 1, 2, 3 and 4 from top to bottom.

——→ Indicates page number in which the technical manual appears. However, 1/1 (page 1 of 1) is not indicated particularly.

GENERAL OUTLINE
AND
MECHANICAL FEATURES

A. GENERAL OUTLINE AND MECHANICAL FEATURES

1. MAIN SPECIFICATIONS

Camera type:
35 mm SLR single lens reflex camera with electronic control automatic exposure and focal paine shutter.

Image format:
24 x 36 mm.

Lens mount:
Olympus OM Mount, bayonet type.

Shutter:
Electronically controlled focal plane shutter.

Flash synchronization:
X contact. Direct contact only.

Automatic exposure control:
Aperture-priority electronically controlled shutter. TTL direct light measuring system. Light measuring range: EV– 0.5 to 17 from 2 sec. to 1/1000 sec. at normal temperatures and humidity with ASA 100 and F1.2 standard lens.
Exposure compensation: ±2 EV.

Film speed range:
ASA 25 to 1600

Battery checker:
Battery voltage can be checked by both LED and PCV. Mirror lock to limit drainage.

Power source:
Two 1.5V silver oxide batteries.
Eveready (or UCAR) EPX-76 or equivalents.

Viewfinder:
Pentaprism type.

Focusing screen:
Microprism/split image-matte type.

Finder View-field:
93% of actual picture field.

Viewfinder magnification:
0.92X with standard 50 mm lens at infinity.

Viewfinder information:
12-step shutter speed scale and flash charge indicated by LEDs.

Mirror:
Oversize, quick return mirror.

Film advance:
Lever type with 130° angle. It can be wound with one long or several short strokes. 30° pre-advance angle. Power winding is possible with the Olympus OM System Winder 1.

Self-timer:
Electronic self-timer with about 12 second delay.

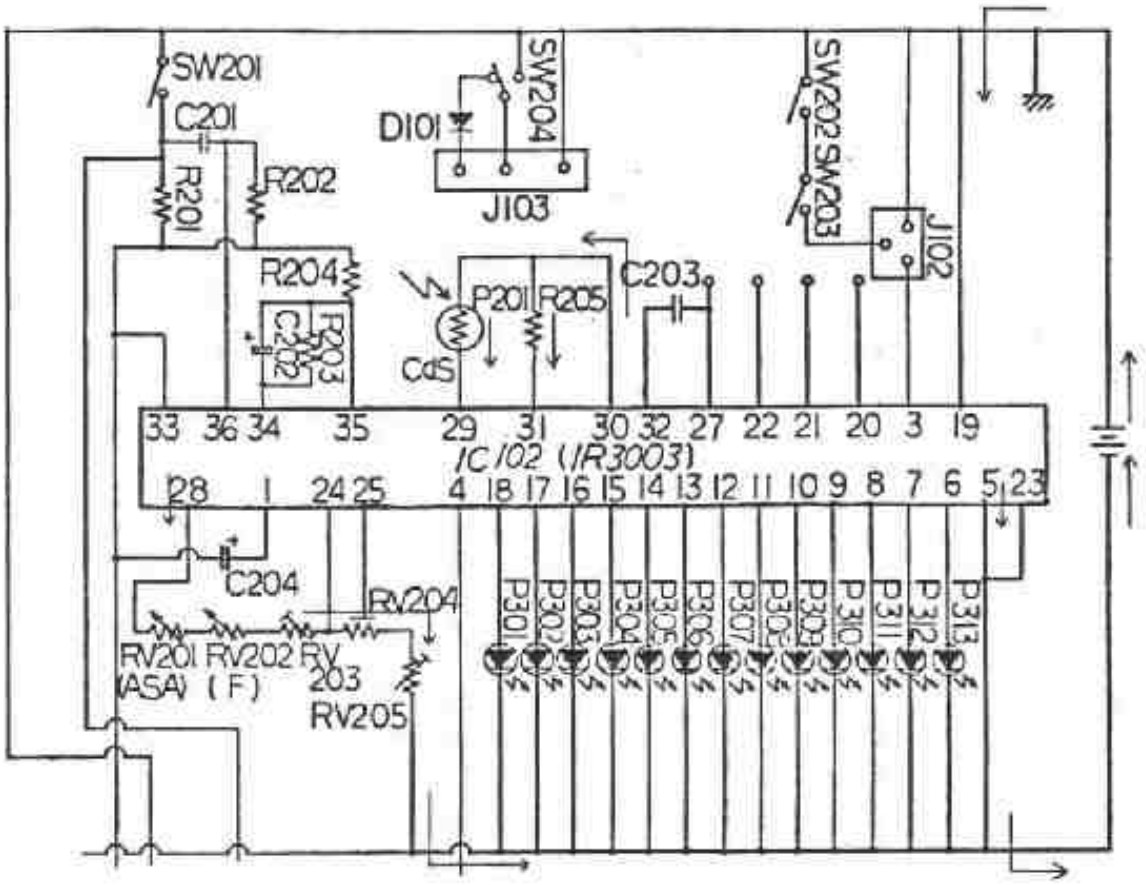
Accessory shoe:
Built-in type, with direct contact.

Dimensions and weights:

Body only:	
135 (W) x 84 (H) x 50 (D) mm	450 gr.
(5.3" x 3.3" x 2")	(15.9 oz)
With F1.8 lens:	
135 (W) x 84 (H) x 81 (D) mm	620 gr.
(5.3" x 3.3" x 3.2")	(21.9 oz)
With F1.4 lens:	
135 (W) x 84 (H) x 86 (D) mm	680 gr.
(5.3" x 3.3" x 3.4")	(24 oz)

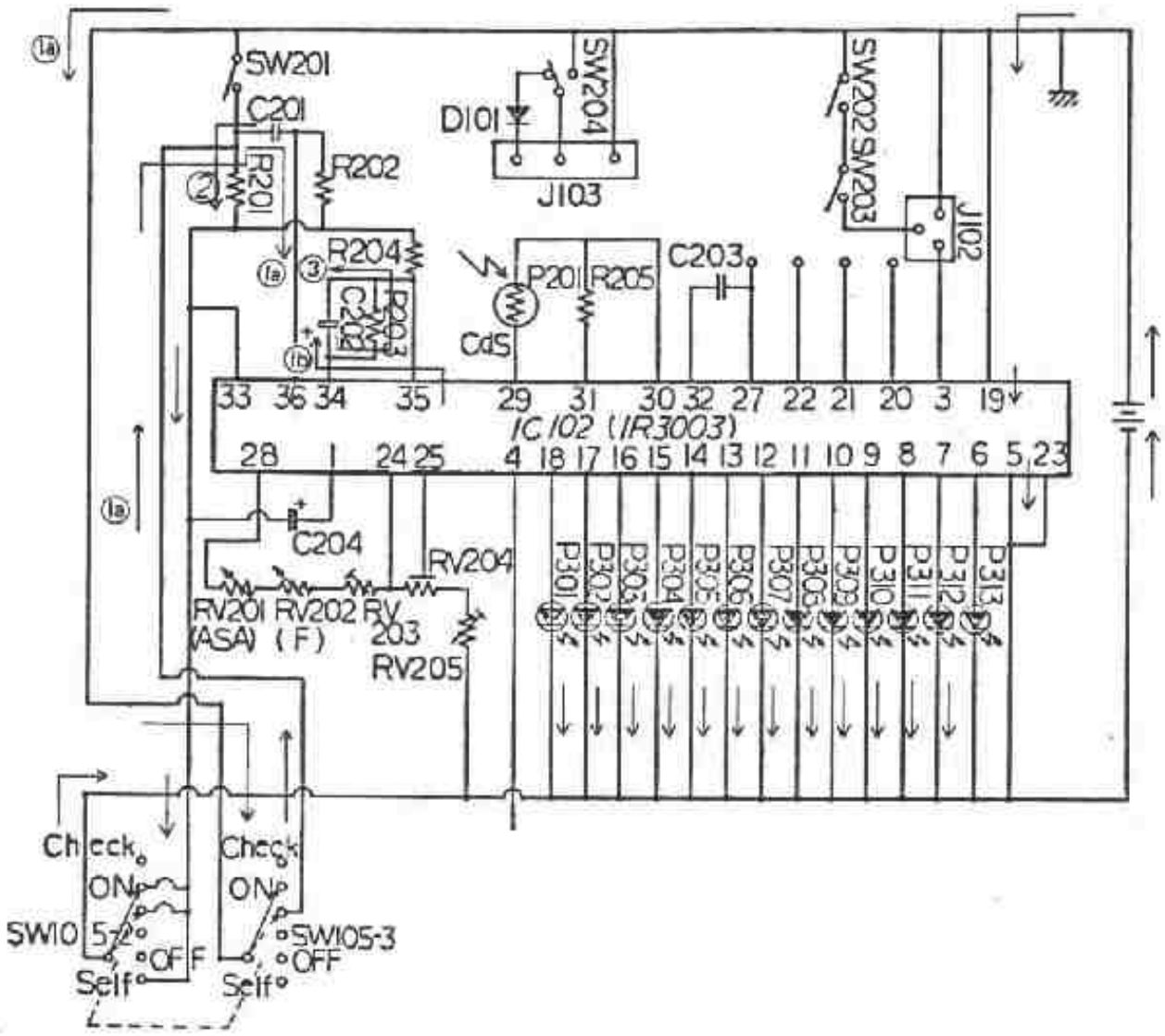
* Specifications subject to change without notice.

3-10. CdS Light Sensing Circuit



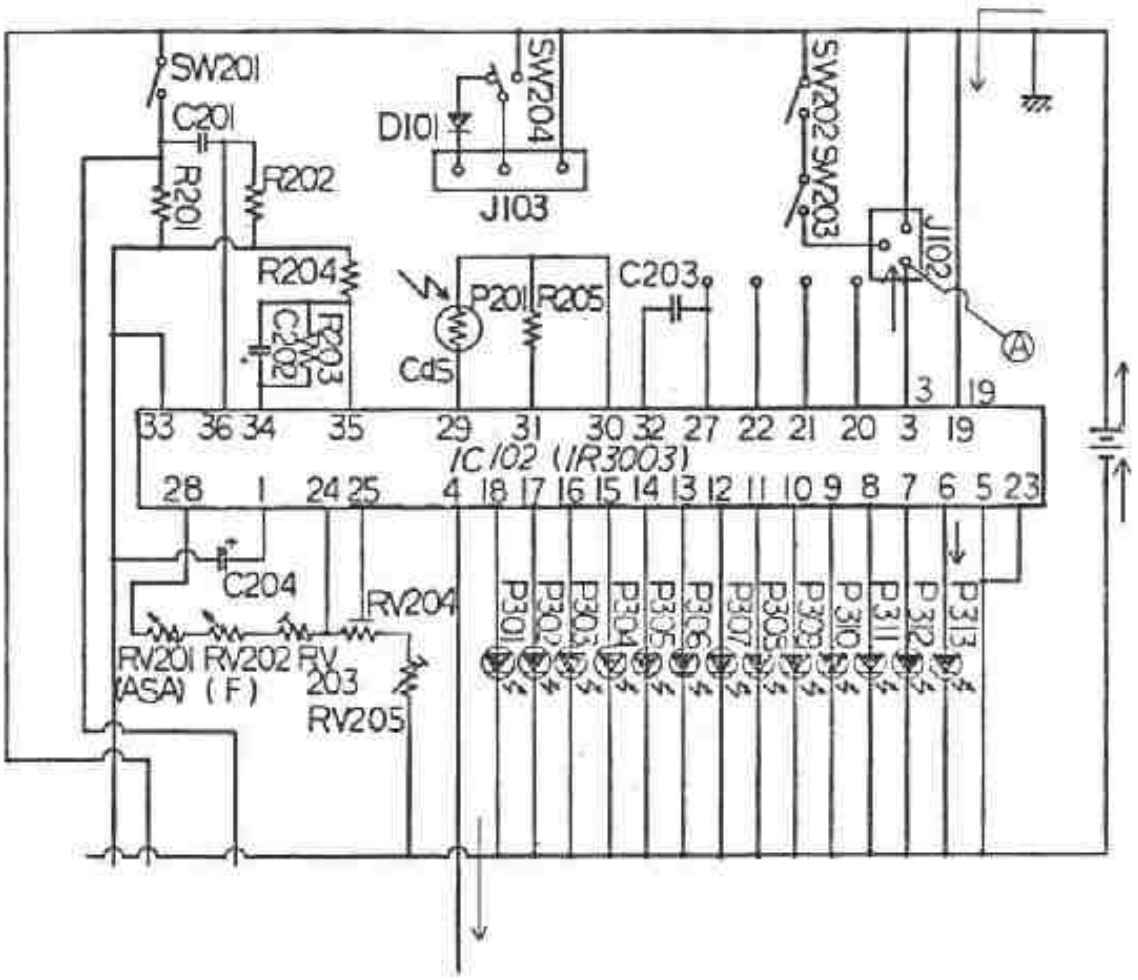
1) The path of current is from terminal 30 through CdS, terminals 29 and 28 and then through PV201, RV202 and RV203.
2) IC102 operates in such a way that, when the intensity of incident light is high, the voltage (through CdS) at terminal 29 is high, and vice versa.
3) This voltage at terminal 29 is checked and compared with the reference voltage at terminal 31 next to R205. It is according to the checked voltage that LEDs (P301 ~ P312) are lit.
4) P312 is the 1-second LED; P311 being the 1/2-second LED; . . . P302 is the 1/1000-second LED. P301 is for OVER indication. (P313 is for strobo indication.)

3-9. Indication Timing Circuit (for shutter speed indication)



1) Moving the switches (SW105) to ON position switches on the hold circuit inside IC102 by the current (Ia), which flows through C201 and SW105-3. The pulse generating circuit remains off. C202, too, gets charged at the same time by the current (Ib).
2) As the hold circuit gets switched on, the indicator circuit becomes energized to commence indication.
3) Also, with this switching-on of the hold circuit, C202 begins to discharge. The discharging current is indicated as 3). (The time constant circuit starts its action.)
4) As C202 becomes increasingly discharged, the potential of its positive (+) side goes down. When this falling potential reaches the reference level, the hold circuit becomes released. About a minute and a half will be required to release the hold circuit.
5) The releasing of the hold circuit puts out the indication.
6) The second indication is initiated by SW201 (the switch at the seat of release button).

3-8. Circuits Related to Strobo



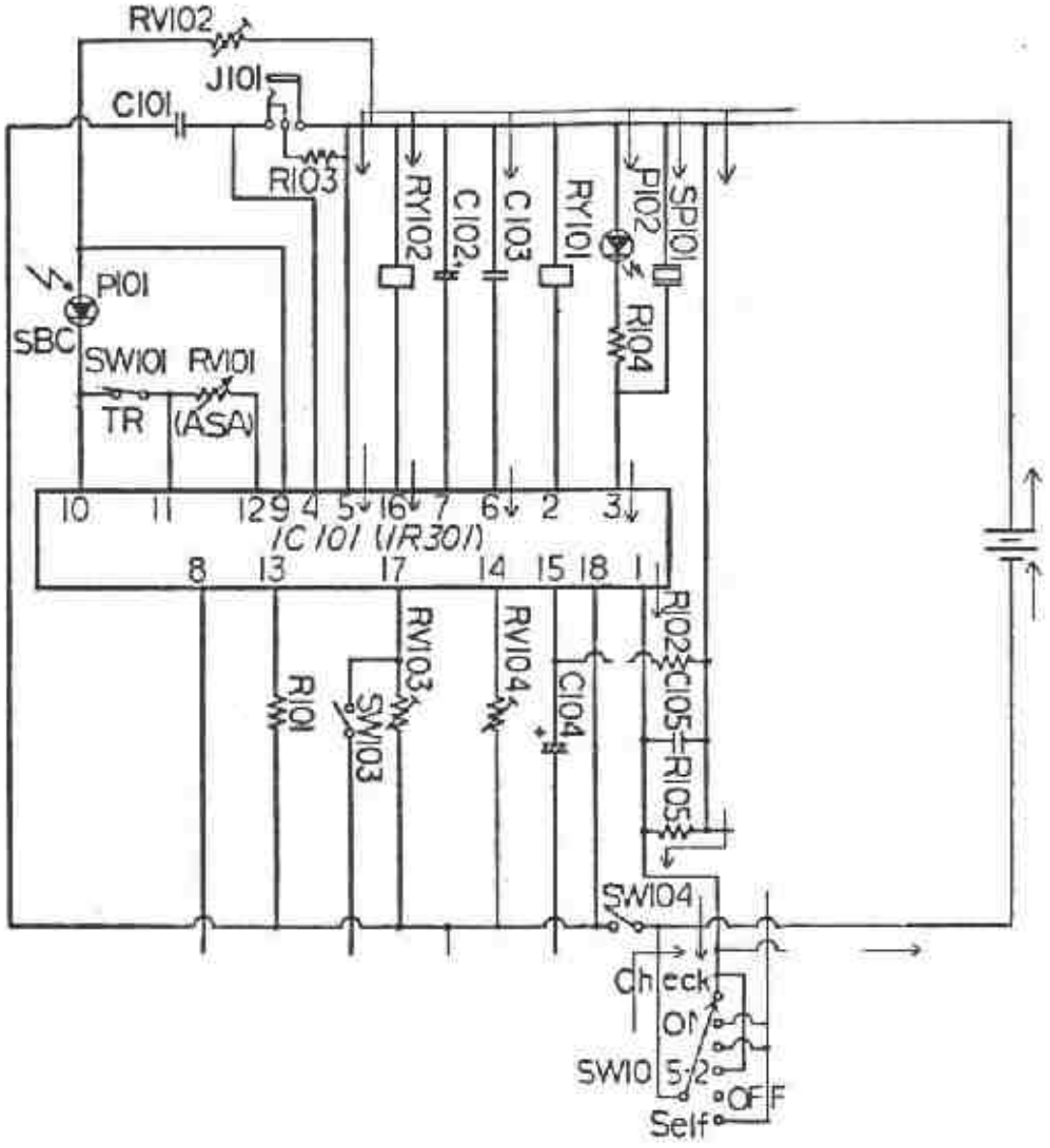
3-8-1. Automatic switch-over to X timing

1) Assume that a proper strobo (such as a T20 strobo) is attached to the camera. Turning on the strobo power on-off switch introduces current through the terminals of J102 (which the shoe of the camera), as shown by arrow lines.
2) As current flows from terminal 3 to terminal (A), the transistor connected to terminal 4 switches on, thereby establishing continuity from terminal 19 to terminal 4.
3) The voltage (3 volts) of terminal 4 applies to terminal 8 of IC101, and this automatically induces X timing.

3-8-2. Strobo-charge indication and light check indication

1) The current that flows from terminal 3 of IC102 to terminal (A) is small before strobo charging starts: since this current is small then, another transistor inside IC102, which is connected to terminal 6, does not switch on.
2) As the strobo becomes increasingly charged, the current, too, increases to switch on the transistor, thereby causing P313 to light up.
3) As the strobo checks the incident light, current flows intermittently to it and P313 flickers.

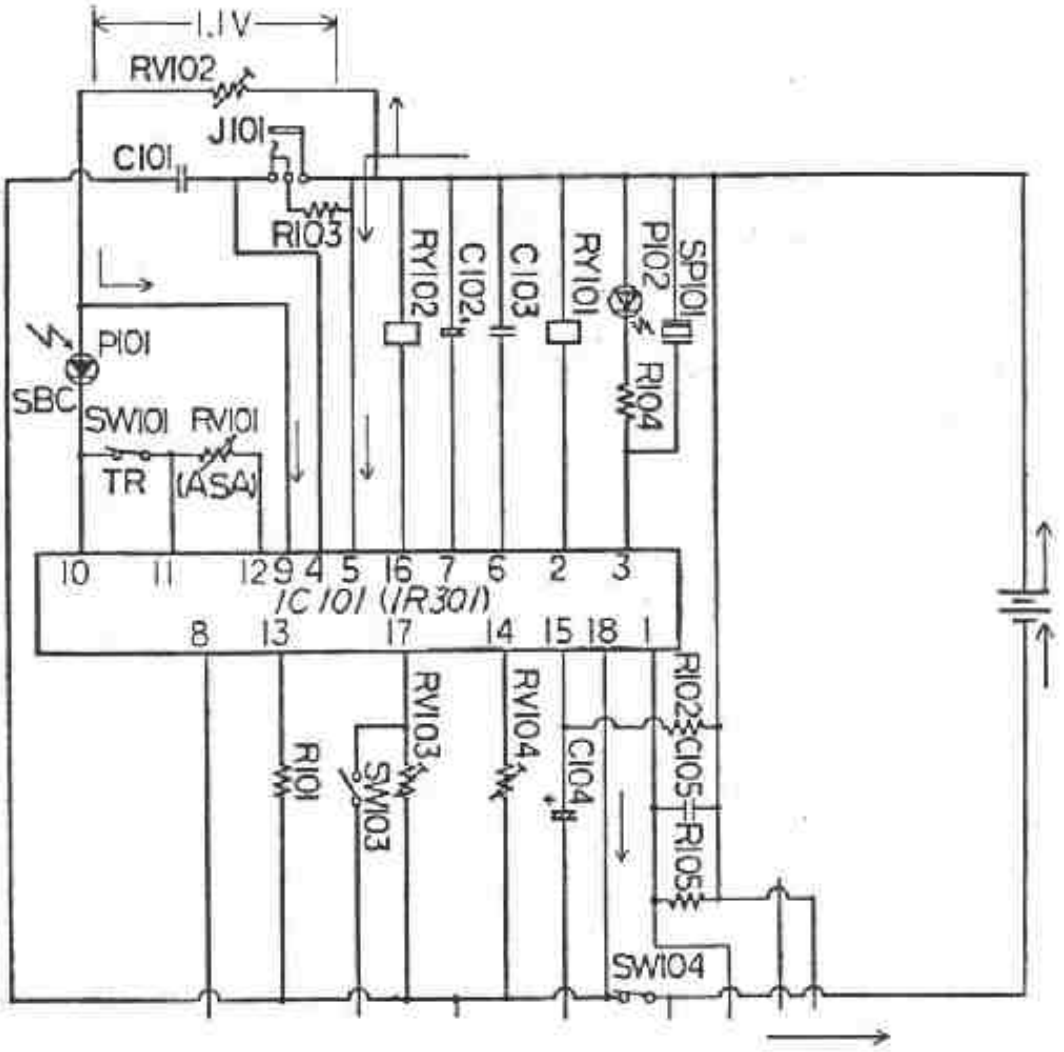
3-7. Battery Checker



1) Turning the switch (SW105) to Check position, the internal circuit of IC101 goes into a condition close to full operating condition.
2) The resistance of R105 is approximately equal to the ohmic resistance of RY101. The moment SW105 goes into Check position, current starts flowing through R105.
3) In battery checking, RY101 becomes de-energized and current is permitted to flow through R105 instead of RY101. The reason of this scheme is as follows:

   Once RY101 is energized, mirror lock becomes released. Thus, if SW105 is moved to Check position with RY101 kept energized, shutter lock as well as self-timer remains defeated after checking. In order to hold both shutter lock and self-timer effective, R105 is used in place of RY101.

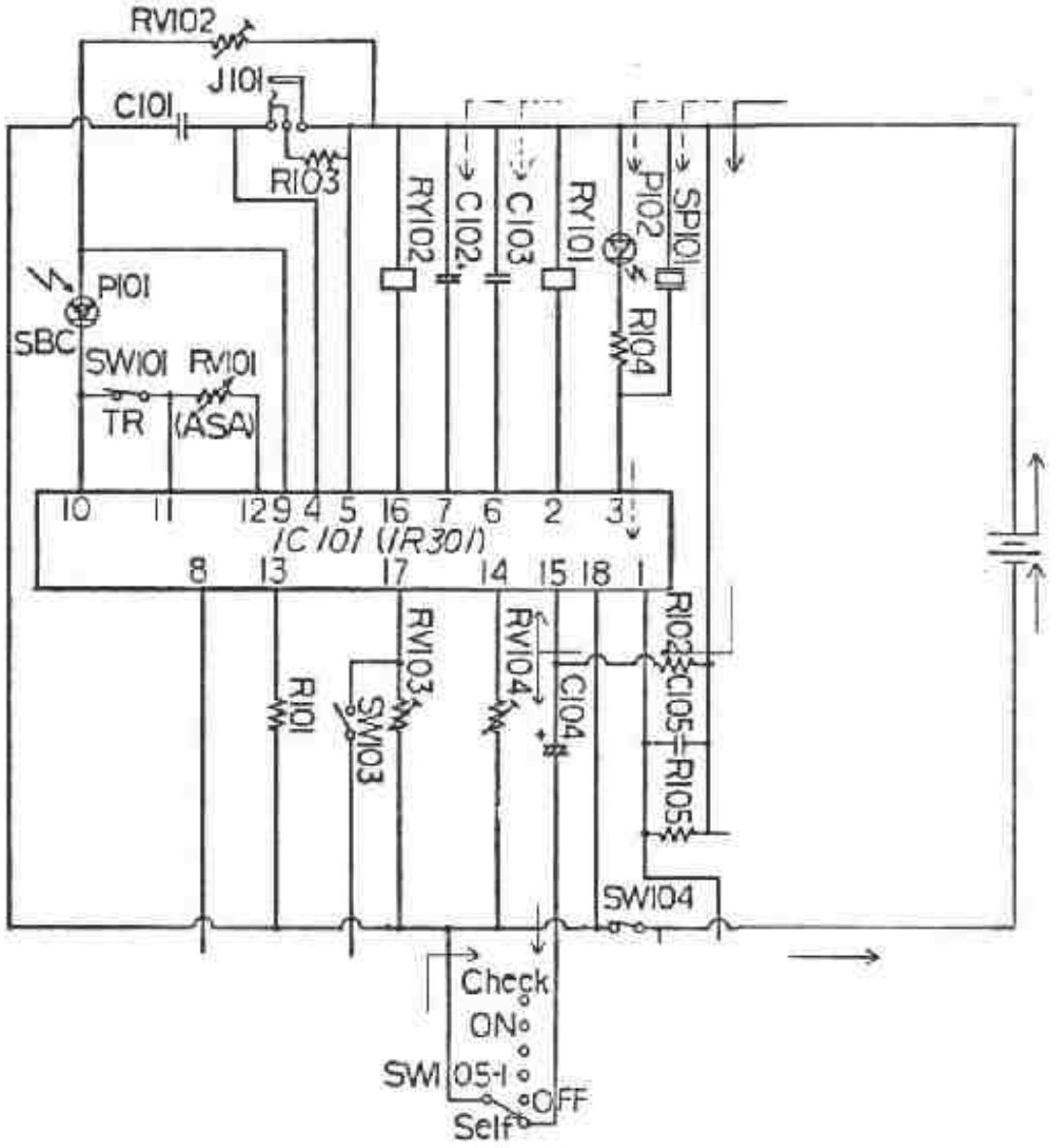
3-6. Shutter-Lock (Mirror-Lock) Circuit



1) The potential level of terminal 9 is maintained at a steady level lower by 1.1 volts than the plus side of the voltage source even when the battery voltage changes. It is the voltage regulator circuit inside IC101 and the resistance of RV102 that holds terminal 9 at the steady level.
2) The voltages of terminals 5 and 9 are compared inside IC101.
3) If the source voltage is 2 volts or higher, terminal 2 goes to 0 volt, turning RY101 on to defeat mirror locking.
4) If the source voltage is lower than 2 volts, terminal 2 comes up to the level of the source voltage. Under this condition, RY101 does not turn on.
5) If RY101 does not go on, as in the case 4) above, then the mirror refuses to get unlocked. Releasing results in mirror locking.

40

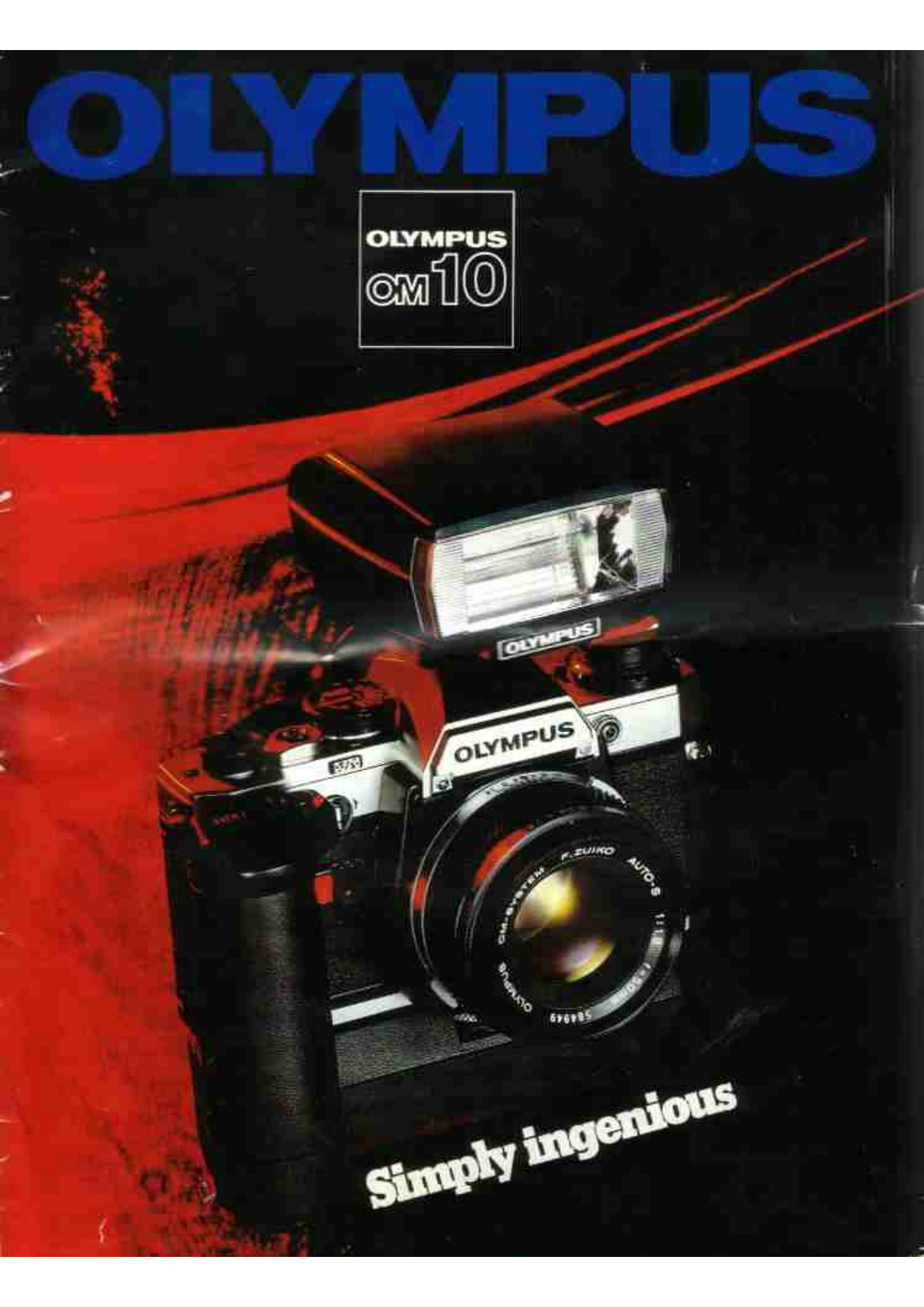
3-5. Self Timer



1) C104 is in discharged condition, so that terminal 15 is at a lower potential. Turning the switch (SW105) to Self position under this condition allows terminal 2 to reach a potential level of 3 volts to turn off RY101, thus introducing a mirror-lock condition. At the same time, current begins to flow through terminal 3, causing the Self LED to flicker and the beep sound to issue forth.
2) As the voltage of C104 getting charged rises to about 1.8 volts, terminal 2 goes down to 0 volt to turn on RY101, thus unlocking the mirror and releasing the shutter. When this occurs, both the flicker of LED and the beep sound cease.
3) Inside the circuit of IC101, 2-Hz oscillation is induced by C102 connected to terminal 7 and 3-kHz oscillation by C103 connected to terminal 6. These oscillations are combined in IC101 to make the LED flicker and produce the beep sound by means of piezo-electric element.

OLYMPUS

OLYMPUS
OM10

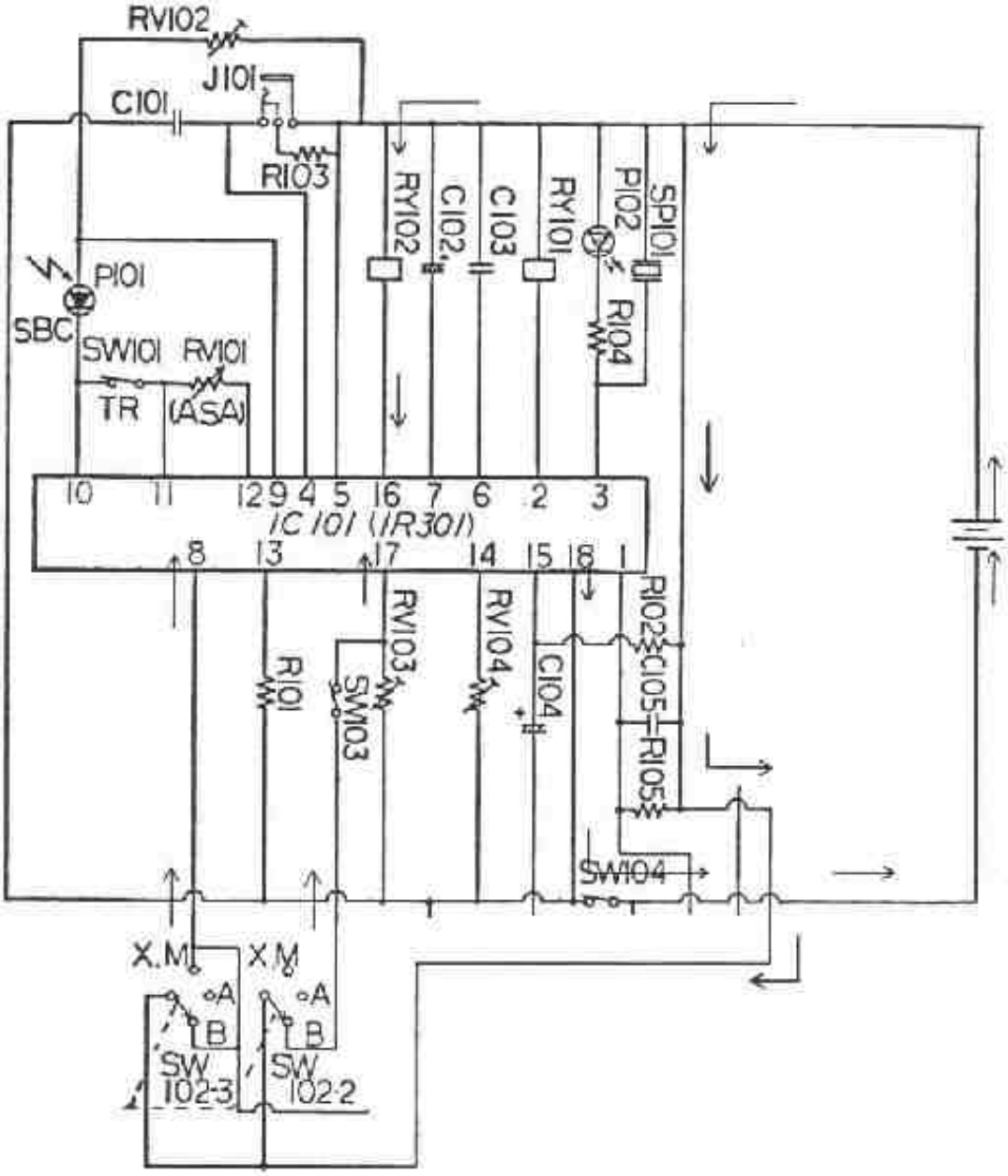


Simply ingenious

3-3. MANUAL Timing Circuit

This circuit is essentially the same as the X timing circuit, the difference being that a manual adaptor is inserted into J101. Each exposure time is obtained by varying the resistance corresponding to that of R103.

3-4. Bulb



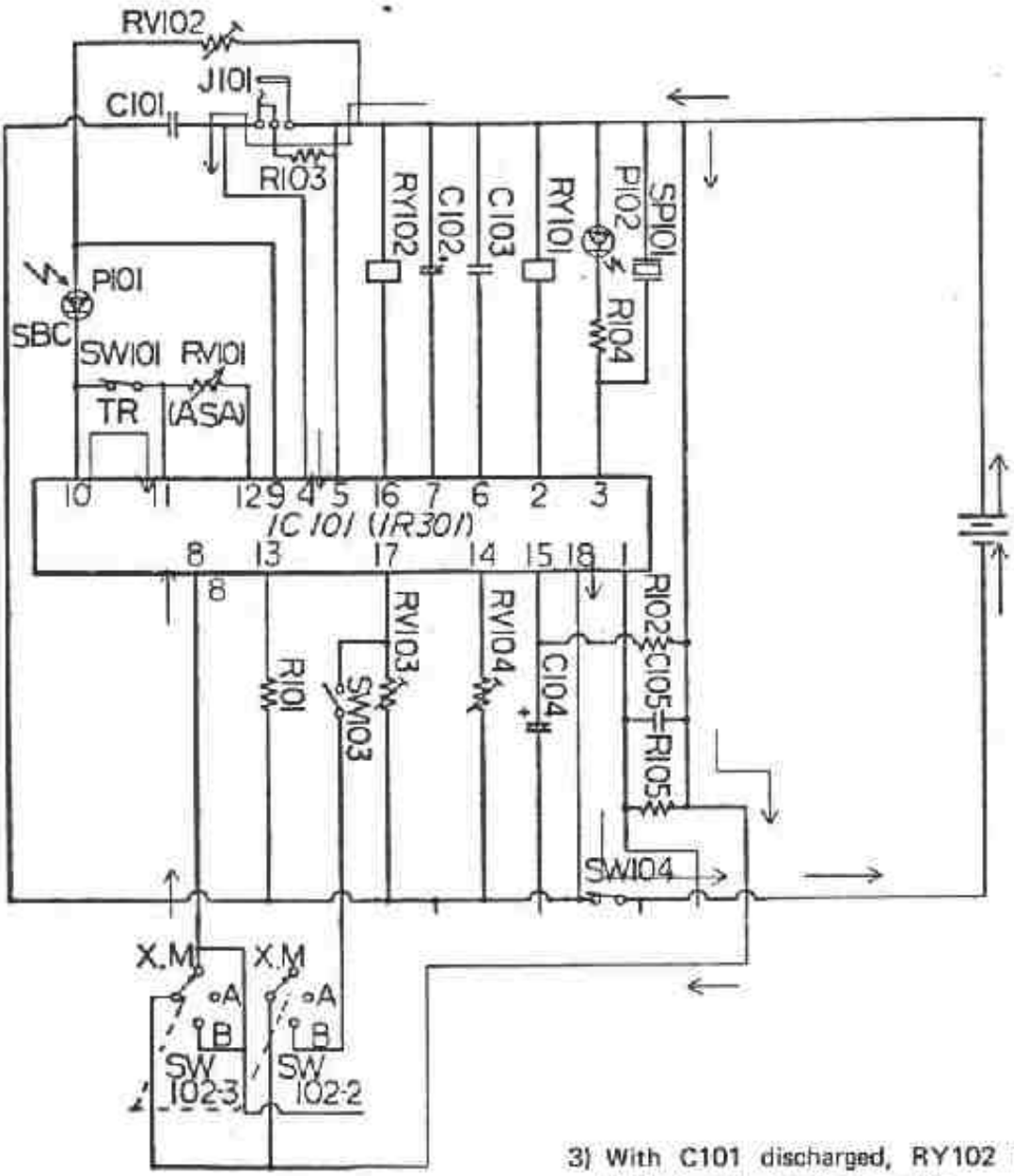
1) Turning the switches (SW102) to B position applies 3 volts to terminal 8, and this alters the internal circuit of IC101, thereby introducing a manual circuit in this IC. (If the manual adaptor is off, manual control is completed in about 1/45 second of X timing and, thereafter, RY102 comes under control of SW103.)

2) With IC101 set for MANUAL, application of 3 volts to terminal 7 turns on RY102, so that the trailing curtain becomes held up rigidly to leave the shutter in released state.

3) Removing the finger from the release button opens SW103, causing the shutter to close.

38

3-2. X Timing Circuit



1) Turning the switches (SW102) to X.M. position isolates S.B.C. and RV101 from the rest of the circuit and, at the same time, connects C101 to R103. (In other words, MANUAL is selected by applying voltage (+) to terminal 8.

2) From the moment of turning-on of SW104 (following the shutter releasing) to the moment of turning-off of SW101, terminal 4 remains connected to terminal 18: during this period, C101 is in discharged state.

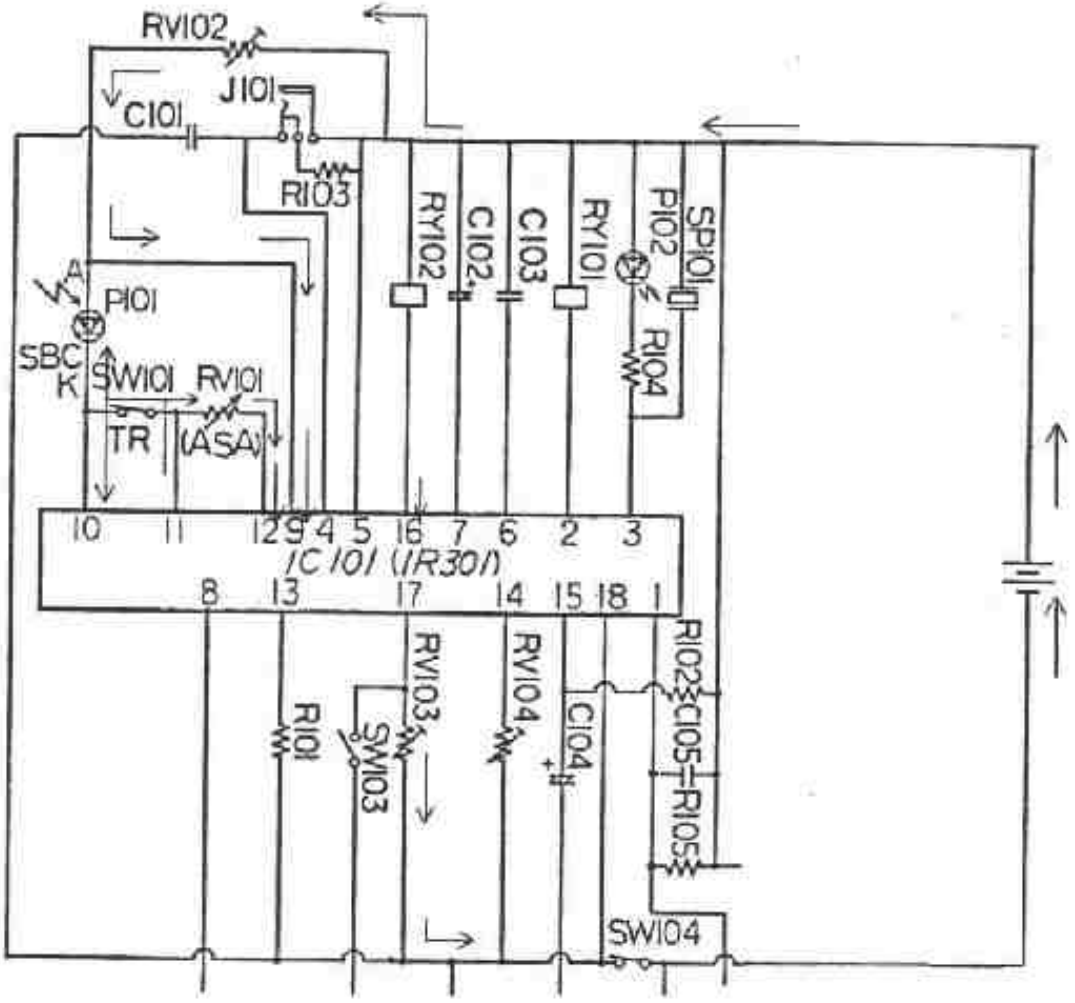
3) With C101 discharged, RY102 is on and holds fast the trailing curtain.

4) As the leading curtain runs to turn off SW101, terminal 4 becomes disconnected from terminal 18, and C101 gets charged through R103.

5) While the charging of C101 is in progress, terminals 10 and 4 become equal in potential level. When this equality occurs, the potential of terminal 16 reaches 3 volts to turn off RY102, thereby closing the shutter. The time that C101 takes to get charged is about 1/60 second.

3. Operational description of circuits

3-1. AUTO Circuit



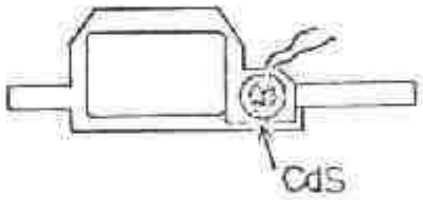
1) Main switch (SW104) closes as the shutter is released. From the moment of this closure to the moment of turning-off of trigger switch (SW101), S.B.C. becomes charged from terminal 11 through switch (SW104). Note that the cathode side of S.B.C. is indicated as K and the anode side as A. (After each picture-taking, the potential of K side is low.)

2) As the leading curtain runs to turn off switch (SW101), current begins to flow through S.B.C.: this is equivalent to discharging. As a result, the potential of K side gradually falls. This means that the potential of terminal 10 falls. The speed of this potential fall is proportional to the light intensity.

3) On the other hand, terminal 12 (which is connected to terminal 11 through RV101) has been lower in potential than terminal 10. When the potential of terminal 12 is low, RY102 is in closed condition (ON) and holds fast the trailing curtain.

4) As discharging action proceeds in S.B.C., terminals 12 and 10 become equal in potential level. When this occurs, the potential of terminal 16 reaches 3 volts to turn off RY102, thereby closing the shutter.

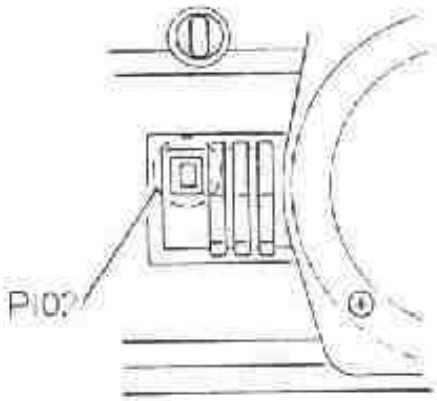
2) P201 (CdS)



This photocell is on the left-side part of the frame. It has two lead wires. It is the light receiver for indication inside the finder. Matching for high and low intensities of light (brightness) is effected by means of R203 and R204.

2-10. LEDs (light-emitting diodes)

1) P102 (self-timer LED)



The location of this LED is as shown on the right, that is, on the front plate. It flickers with a frequency of 2 Hz when the self-timer is running. It remains lit during B (battery) checking.

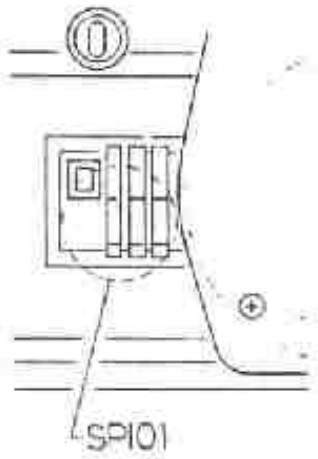
2) P302 ~ P312 (shutter speed indicating LEDs)
These LEDs are installed on and soldered to the flexible board. The numerical value next to a speed indicating LED is a denominator, whose numerator is unity. When LED P302 is on, for example, it means that the shutter speed is 1/1000 second.

P313 ..... ● ≷ 60
P301 ..... ● (OVER)
P302 ..... ● 1000
P303 ..... ● 500
P304 ..... ● 250
P305 ..... ● 125
P306 ..... ● 60
P307 ..... ● 30
P308 ..... ● 15
P309 ..... ● 8
P310 ..... ● 4
P311 ..... ● 2
P312 ..... ● 1
(LED)

3) P301 (overspeed LED)
This LED is included in the array of speed indicating LEDs and, by lighting up, signifies overspeeding, that is, a shutter speed faster than 1/1000 second. It lights up whenever this maximum speed is exceeded.

4) P313 (flash indicating LED)
As one of the array of speed indicating LEDs, this one is effective when an exclusive-use strobo (such as T20) is connected to the camera. It remains on or flickers to signify the action related to strobo flashing:
(a) P313 remains on to mean that the strobo has been charged.
(b) P313 flickers to mean that the flashed exposure was satisfactory.

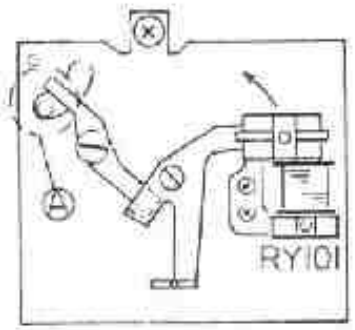
2-7. SP101 (piezoelectric element)



This element is built on the front casting, at the location indicated on the right. When voltage is impressed in a rapid on-off manner upon this element, it physically expands and contracts in rapid succession to make a buzzing sound. The frequency of this sound is set at a level of about 3 KHz by means of capacitor C103.

2-8. Relays (M.G.)

1) RY101 (combination magnet)

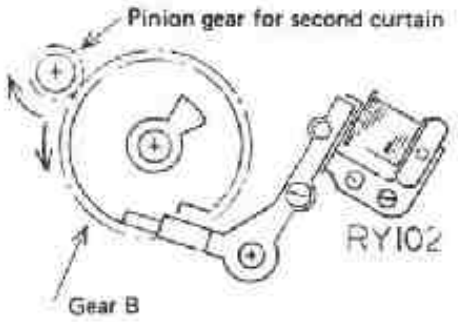


Mirror locking action is made at Ⓐ. Emergizing RY101 causes the support plate move in the arrow direction to separate itself from the hook, thereby unlocking the mirror.

Composed of a permanent magent and an electromagent, this relay (RY101) is mounted on the side plate R. With this relay in de-energized state, pressing the shutter release button results in mirror locking: the shutter refuses to be released. As the electromagnet becomes energized, the mirror then gets unlocked, allowing the shutter to be released for making an exposure.

(The polarity of the electromagnet is such that, when it is energized, it kicks up the permanent magnet on the lever arm, thereby separating the supporting plate.)

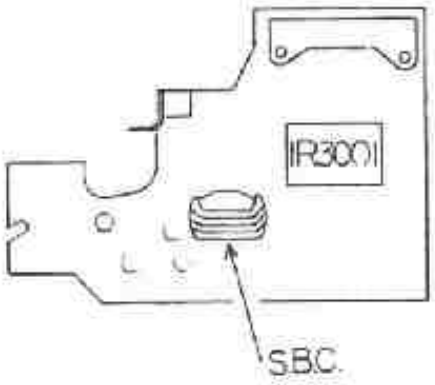
2) RY102 (Second curtain magnet)



This electromagnet is secured to "S" plate by mounting screws. It is this magnet by which the second curtain in charged condition is held up. De-energizing RY102 frees the second curtain, allowing it to run for making an exposure.

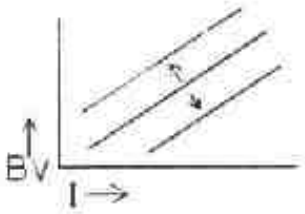
2-9. Light receivers

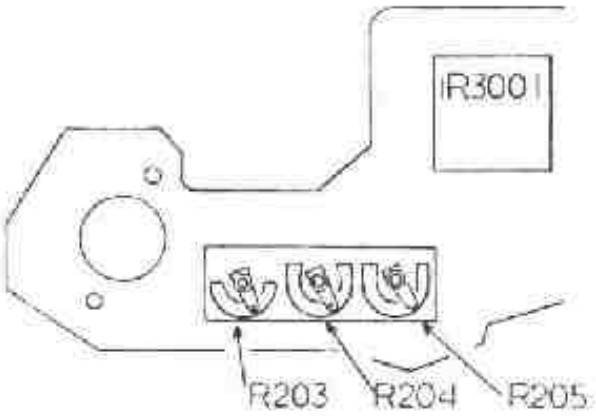
1) P101 (S.B.C.)



This photoelectric element is located at the middle of JM board. It is a part of the automatic circuit.

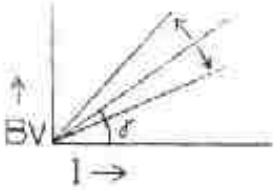
7) RV203 (level adjusting resistor)





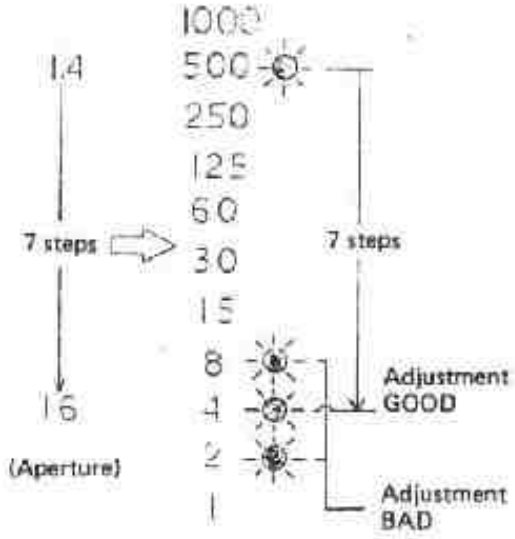
This is one of the three variable resistors forming a gang on the flexible board. The setting of this resistor is to be changed to adjust the brightness of the LEDs inside the finder. Changing its ohmic value shifts the lighting level for all of the LEDs at a uniform rate, as will be noted in this graph:

8) RV204 (gamma adjusting resistor)



This variable resistor is located right next to R203, as shown above. It is used to compensate the current for changes in the intensity of light falling on CdS. In other words, it is a variable resistor for gamma compensation.

9) RV205 (aperture resistance matching resistor)

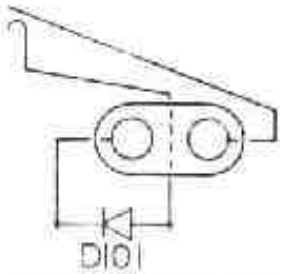


Match the number of aperture stops to the LED steps.

Located right next to R204, shown above, this variable resistor is used to match the successive aperture positions to the corresponding successive steps of indication inside the finder. (This matching adjustment is necessary because of some variations that are unavoidable in resistance values (on F board) and also in IC102.)

2-6. Diodes

1) D101 (motor drive diode)



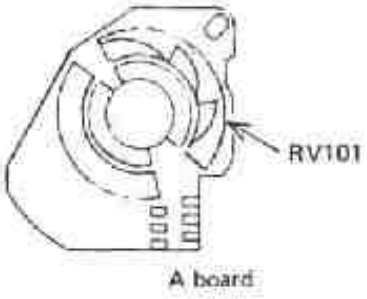
Winder contact circuit

This diode is provided on the winder contact. During winding action, current flows in the normal direction (through this diode). Motor drive needs current in reverse direction, but diode D101 blocks this current so that the motor does not run.

The camera itself does not withstand such a fast drive as 5 frames per second. In this regard, D101 is a safety device.

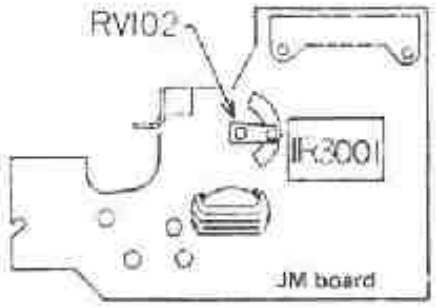
2-5. Variable resistors

1) RV101 (Auto ASA resistor)



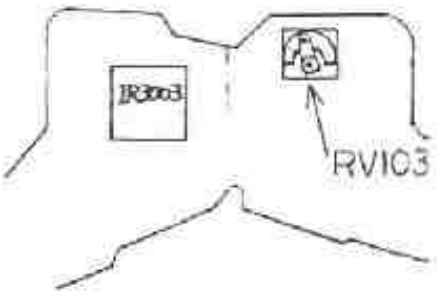
This resistor is printed on the board (A board) under the ASA dial. The ASA sensitivity depends on the setting of this variable resistor in AUTO.

2) RV102 (mirror locking voltage adjusting resistor)



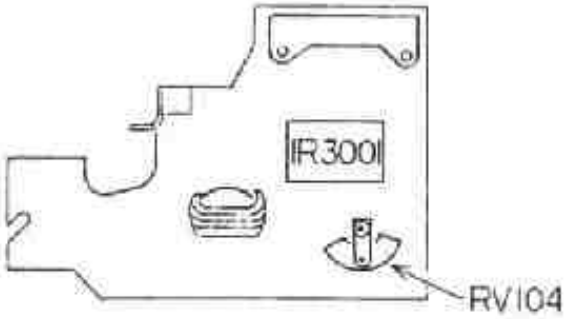
This variable resistor, too, is printed on JM board. The locking voltage can be adjusted by means of this resistor.

3) RV103 (EE level adjusting resistor)



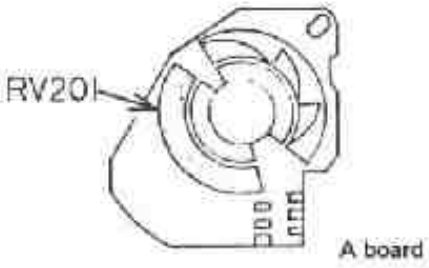
Soldered to the flexible board above the penta prism, this variable resistor serves as the means of adjusting the EE level.

4) RV104 (offset variable resistor)



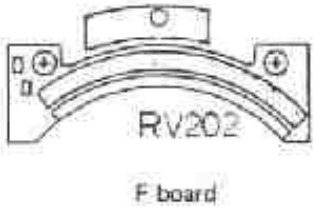
RV104 is a printed variable resistor on JM board. The offset in the AUTO comparator is adjusted by means of this resistor.

5) RV201 (ASA resistor for indication)



RV201 is a printed variable resistor on A board under the ASA dial. ASA sensitivity for indication inside the finder is adjusted by means of this resistor.

6) RV202 (F resistor)



This variable resistor is printed on F board under the ZJ130600 (CONNECTING RING). It is a means of translating the lens aperture setting into an ohmic value to related the aperture ring to the LED inside the finder.

32

2-4. Resistors

1) R101 (bias resistor)
This is a printed resistor on JM board. It reduces the input current of the comparator inside IC101.

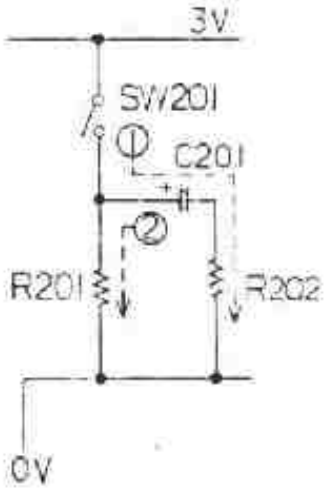
2) R102 (self-timer resistor)
This, too, is a printed resistor on JM beord. It is associated with C104 for the time constant for the timing action of the self-timer.

3) R103 (X timing resistor)
Printed on JM board, this resistor works with C101 to time the X duration.

4) R104 (LED resistor)
This resistor is soldered to JM board. It is used to adjust the brightness of LED turned on for and at the time of self-timing or battery checking.

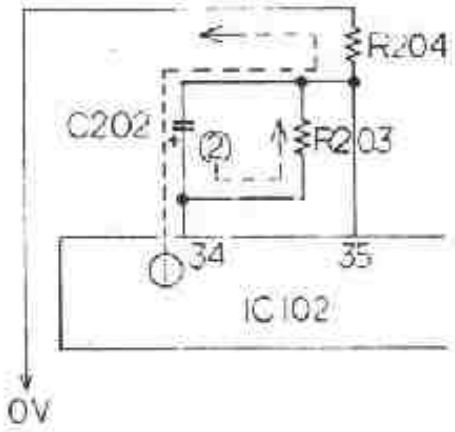
5) R105 (alternative resistor for combination M.G.)
This resistor is soldered to the flexible board above the penta prism. It serves as a substitute for the combination M.G. during B checking since no current flows in the M.G. dur this duration.
The ohmic value of this resistor is just about equal to that of the M.G. As the M.G. becomes energized, the supporting plate separates to defeat mirror locking, thereby taking the self-timer out of service: this is the reason why the M.G. is not energized during B checking.

6) R201 (discharging circuit resistor)
R202 (charging circuit resistor)



Both R201 and R202 are soldered to the flexible board above the penta prism. With the turning on of SW201, charging current flows through R202 into C201. With the turning off of SW201, discharging current flows through R201.

7) R203 (discharging circuit resistor)
R204 (charging circuit resistor)



Charging current is indicated as (1), and discharging current as (2), in the diagram on the right. Charging of C202 is initiated by the turning on of SW105, discharging by the switching action of a transistor inside IC102. These resistors are soldered to the same flexible board.

8) R205 (temperature-compensation resistor)
Soldered to the flexible board above the penta prism, this resistor works in conjunction with IC102 to maintain a constant amount of exposure light under varying temperature condition. Its ohmic value is approximately equal to that of CdS at the battery voltage of 9.5 volts (BV 9.5).

7) SW202 (X contact)
Interconnected to the leading curtain brake, this switch turns on (closes) instantly when the shutter has opened fully (not over 1/60 second) following the running of the leading curtain. (The same as in OM-1 and OM-2.)

8) SW203 (OFF switch for X contact)
This switch is interconnected to the movable mirror. It closes when the mirror goes UP, and opens when the mirror goes DOWN. (This action is the same as that of FP contact in OM-2.)
Switch 203 is in series with switch 202, mentioned above: it is provided because SW202 remains on after the shutter is released.

9) SW204 (winder switch)
This switch operates in conjunction with the movable mirror. It has two positions: wind-up side (D101 side) and brake side (body ground side). On mirror DOWN, it moves to wind-up side; on mirror UP, it moves to brake side. (This feature is the same as in OM-1 and OM-2.)

NOTE:
Closure on wind-up side does not set motor drive in operation because a diode (D101) is provided on that side. (This feature, too, is the same as in OM-1 and OM-2.)

2-3. Capacitors

1) C101 (manual-timing capacitor)
This capacitor is secured to the flexible board above the penta prism by soldering. The timed duration for X timing and manual timing is determined by this capacitor.

2) C102 (2-Hz oscillation capacitor)
Installed on and secured by soldering to JM board, this capacitor times the flickering action of the LED during the clocking action of the self-timer.

3) C103 (3-KHz oscillation capacitor)
This capacitor, too, is soldered to JM board; it takes part in generation of buzzer sound during the clocking action of the self-timer (and also for B CHECK).

4) C104 (self-timer capacitor)
Pressing the shutter release button on self-timing initiates recharging of this capacitor and, when its charging voltage rises to about 1.8 volts, the shutter gets released to make an exposure. The timed duration terminates with the capacitor voltage reaching the level of 1.8 volts. This capacitor is soldered to and installed on JM board.

5) C105 (anti-misoperatio capacitor)
Soldered to the flexible board above the penta prism, this capacitor serves to prevent the battery checker circuit from misoperation upon turning on of main switch.

6) C201 (indication-start capacitor)
Soldered to the flexible board above the penta prism, this capacitor permits current to flow upon turning on of SW105 or SW201, in order to bring up indication inside the finder. This current persists until C201 becomes fully charged, even when SW105 or SW201 remains on. For this reason, it is located in the subsequent stage. The indication disappears in about one minute and a half as a result of the action of time-constant circuit.

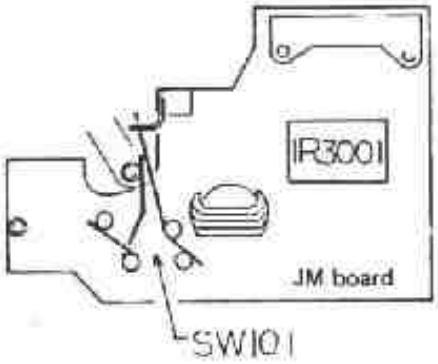
7) C202 (indication time-constant capacitor)
This capacitor is located close to the gang of three variable resistors on the flexible board, and secured to the board by soldering. It takes part in timing the 1 and 1/2 minutes duration for indication in the finder.
Its recharging commences with the turning on of SW105 (power on-off switch) and, before C201 becomes charged, it becomes fully charged. Its discharging action takes place after C201 gets fully charged: the 1 and 1/2 minute duration corresponds to the time this capacitor takes to discharge.

8) C203 (anti-resonance capacitor)
This capacitor, too, is soldered to the flexible board above the penta prism, and prevents IC102 from developing resonance.

9) C204
This capacitor for preventing misoperation in strobo flashing. It is secured to the flexible board above the penta prism by soldering.

2-2. Switches

1) SW101 (trigger switch)

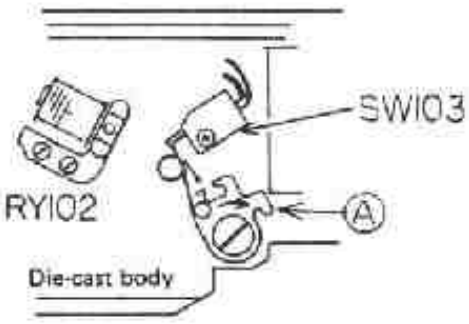


This switch is on JM board. It closes on shutter charging and opens on shutter releasing. The moment the shutter is released for exposure, light measuring action commences.

2) SW102 (mode selector switch)

This switch is located near ASA dial on the upper plate. It has three positions: B (for bulb), AUTO and MANUAL. With this switch set in MANUAL, the timed duration for X is about 1/45 second.

3) SW103 (bulb switch)



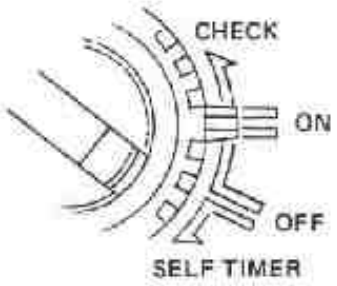
This switch is secured to the die-cast body of the camera by means of a screw, and is accessible when JM board is removed. Pressing the release button causes the actuator Ⓐ to turn in the arrow direction, thereby closing the switch; releasing the button opens the switch.

As long as this switch (SW103) is on, the shutter stays in released condition because M.G. (RY102) remains on.

4) SW104 (main switch)

Interconnected to the lever for automatic aperture control, this switch closes when the aperture begins to be narrowed. By its closure, the shutter circuit is energized to operate the shutter.

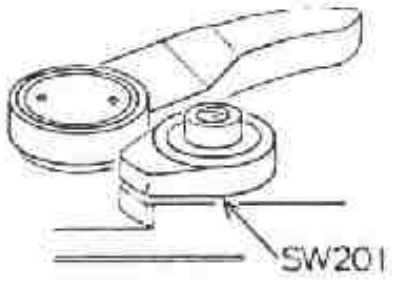
5) SW105 (power on-off switch)



Located below R knob, this switch has four positions:

OFF .....Finder indication is off.
ON .....Finder indication is on.
CHECK.....Battery is checked, resulting in LED lighting and buzzer sounding if the battery is satisfactory.
SELF-TIMER ....The timer starts clocking for the self-timed duration of about 12 seconds.

6) SW201 (indication starting switch)

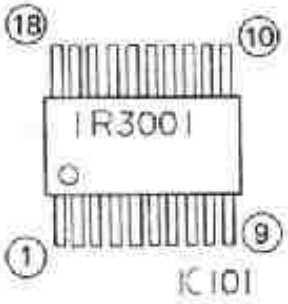


The seat of the shutter release button has this switch built in it. Actually, the switch is a pressure-sensitive element, which presents an ohmic resistance of several megohms when it is in relaxed (not pressed) state. Even a small thumb pressure causes its resistance to decrease drastically, making the element conductive.

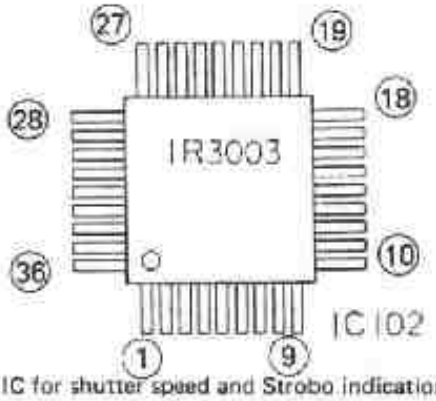
(8) CIRCUIT DESCRIPTION

1. Circuitry

The circuitry may be viewed as being composed of a shutter circuit and a finder indication circuit. In terms of hardware, these circuits are implemented by ICs soldered to a printed-circuit board. The IC for shutter circuit is IC101 (IR3001), and that of finder indication circuit is IC102 (IR3003). It is inside these ICs that the two circuits are formed respectively.



IC for shutter circuit



IC for shutter speed and Strobo indication (in the finder)

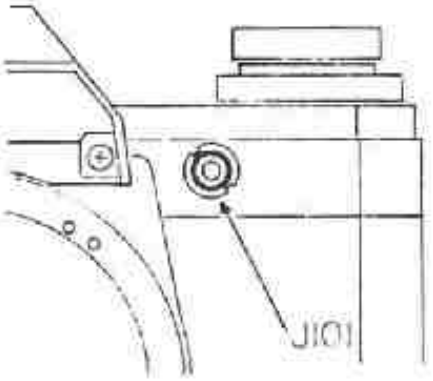
2. Circuit elements and parts

2-1. Terminals

1) J101 (manual adaptor jack)

When the manual adaptor is not inserted, R103 is in service and, by this resistor, the effective timing action is that of X (X timing). Inserting the adaptor into this jack, however, cuts R103 out of the circuit but places a resistor corresponding to a speed of 1 second up to and including 1/1000 second. The ohmic values of the resistors, one of which goes into the circuit, are as follows:

Shutter speed		Resistor
1 sec.	——	8.3 MΩ
1/2 sec.	——	4.15 MΩ
1/4 sec.	——	2.1 MΩ
1/8 sec.	——	1.0 MΩ
1/15 sec.	——	0.52 MΩ
1/30 sec.	——	0.26 MΩ
1/60 sec.	——	0.13 MΩ
1/125 sec.	——	65 KΩ
1/250 sec.	——	32 KΩ
1/500 sec.	——	16 KΩ
1/1000 sec.	——	8 KΩ



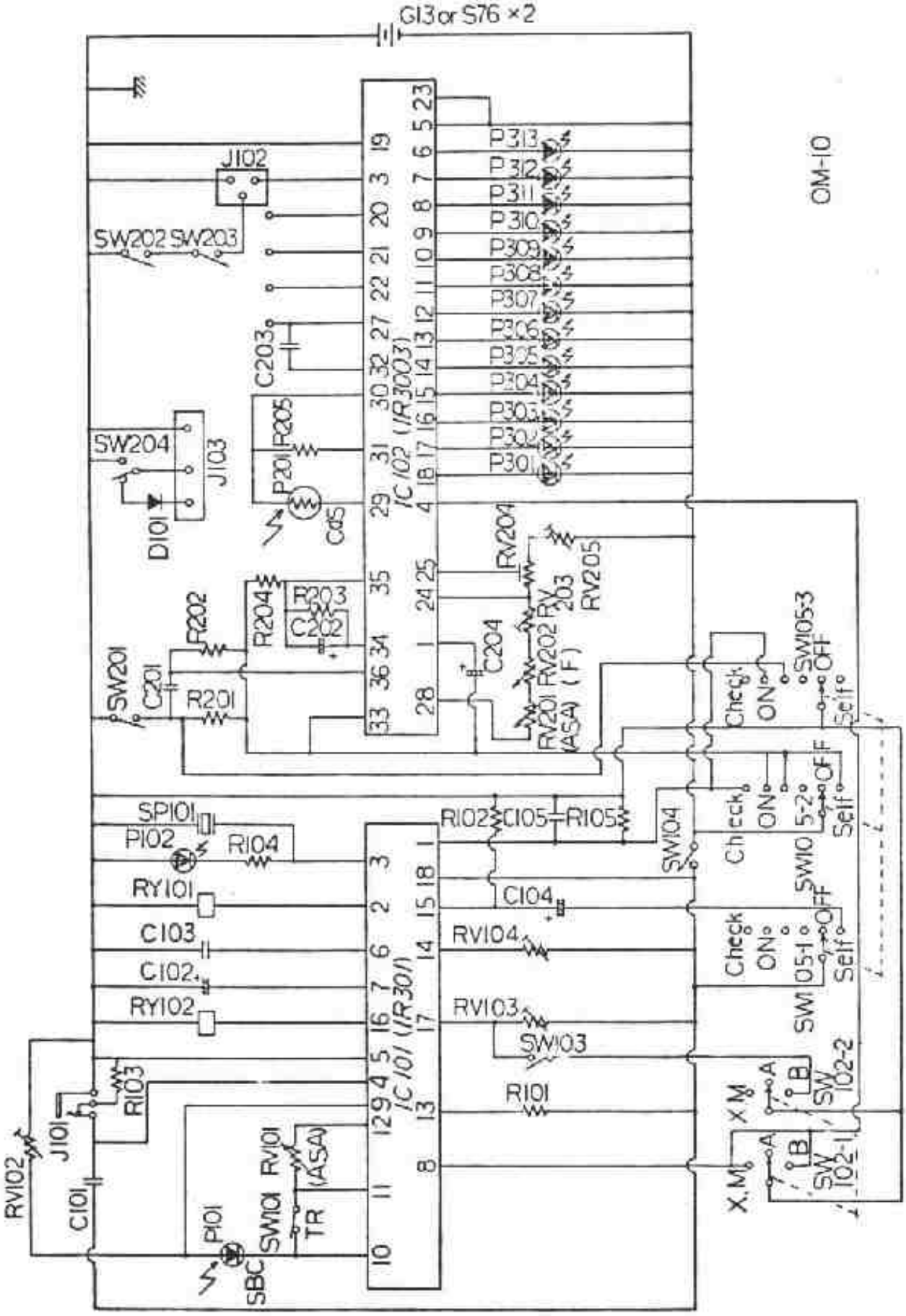
2) J102 (shoe)

The shoe has a terminal for the flasher and another for the indication inside the finder. The only synchro contact is X.

3) J103 (winder contacts)

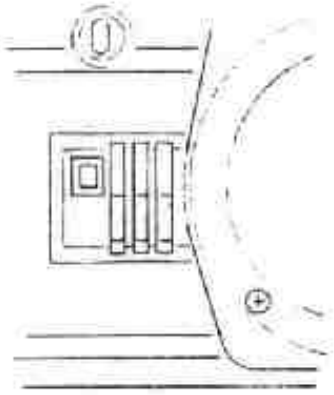
Diode D101 is included in J103 to keep motor drive out of service. (Do not cut motor drive into service even with the diode removed.)

(7) CIRCUIT DIAGRAM



(4) SELF-TIMER

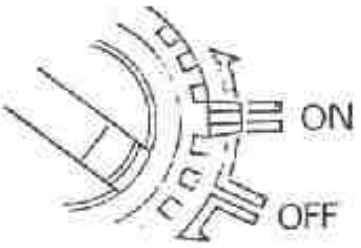
Timing action of the self-timer is electrically induced. With the power on-off switch set in SELF-TIMER position, pressing the release button does not result in energization of the electromagnet RY101 for releasing the mirror from locked condition, so that the mirror remains locked.
As the self-timer times out, the electromagnet becomes energized to unlock the mirror and then the shutter operates to make an exposure. While the self-timer is clocking, the LED (shown in the illustration on the right) flickers and concurrently a buzzer sound issues forth.



Indicating window of self-timer.

(5) Power saving circuit for shutter speed indicating LED unit in viewfinder

In order to minimize power consumption by the shutter speed indicating LED unit in the viewfinder, the circuit is designed to automatically turn off the LED unit in about 1.5 minutes even if the LED unit switch is kept turned on.

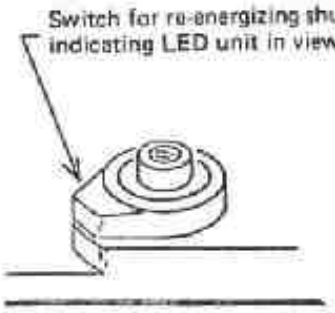


Switch for shutter speed indicating LED unit in viewfinder

(6) Switch for re-energizing shutter speed indicating LED unit in viewfinder

The shutter releasing button seat serves as the switch.
When the LED unit is turned off by the power saving circuit described in (5) above, the LED unit can be turned on again by slightly touching the shutter releasing button seat.

- The power saving circuit is automatically cut off in about 1.5 minutes after the LED unit is turned on.
- The circuit will be cut off in about 1.5 minutes, even if the shutter releasing button seat is kept pressed.



Switch for re-energizing shutter speed indicating LED unit in viewfinder

24

(3) RELATION BETWEEN STROBO T20 AND INDICATION INSIDE THE FINDER

1. Three on-off actions of LED

1-1. On-off cycles equal in number to that of strobo on-off cycles

This manner of lighting signifies that the main capacitor is taking more time than usual in getting recharged after a strobo flashing.

1-2. Flickering for about 1.5 seconds

This short flickering signifies that the strobo bulb did not produce enough light flux in flashing. (After each strobo flashing, the charge lamp will light up first, followed by the finder's LED: the charge lamp has priority over this LED.)

1-3. Flickering for less than 1.5 seconds

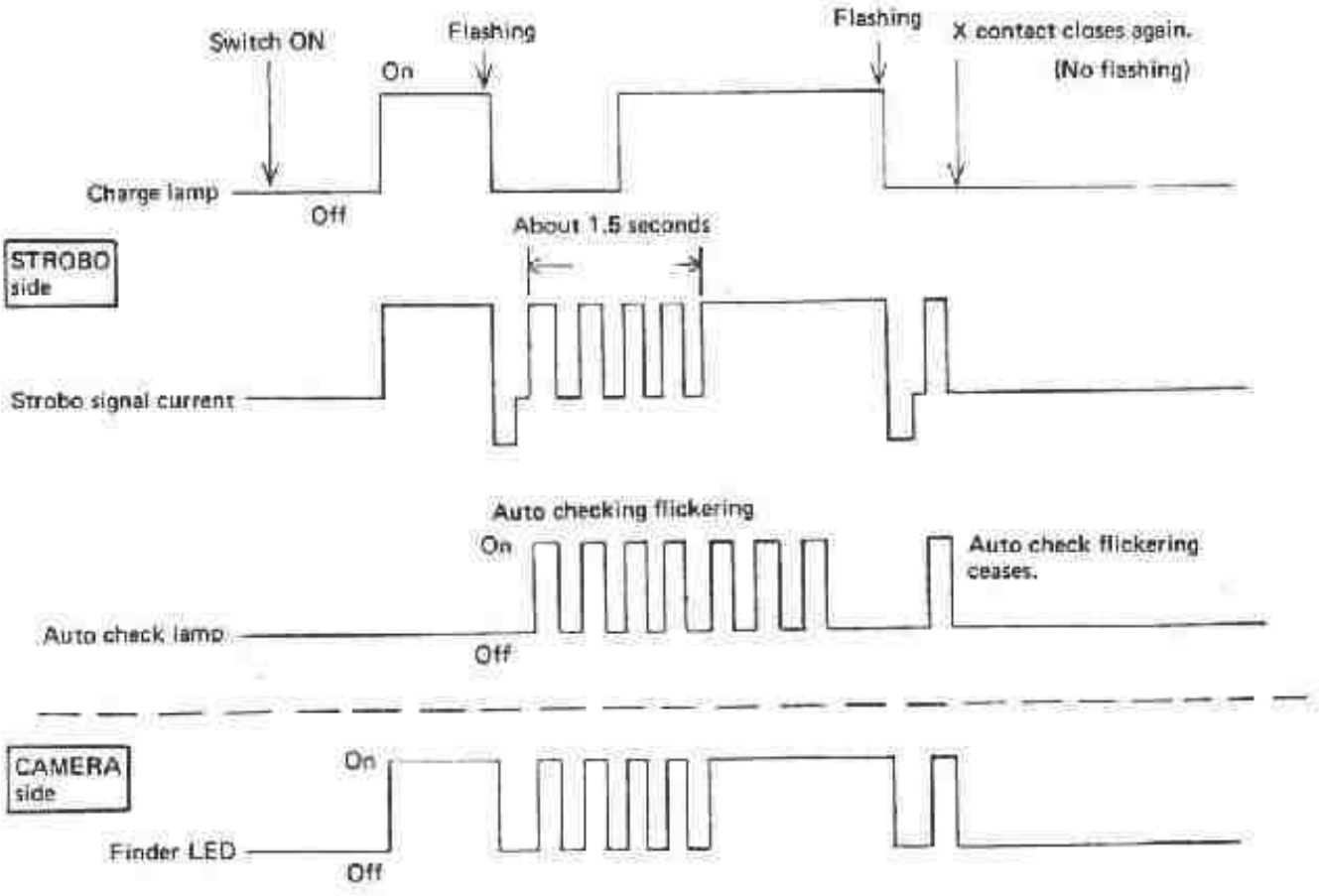
This manner of flicker could occur when two flashes have been made in succession. It means that the main capacitor is not charged adequately. If the shutter button is pressed under this condition, no flashing might occur. Whenever the LED ceases to flicker upon pressing down of the shutter button, it means inadequate recharging.

NOTE:

Under the condition of inadequate charge, the auto lamp on the strobo, too, stops flickering.

If X contact happens to be unsteady and should chatter, the flickering will cease even when the strobo has flashed satisfactorily. This is because such chatter produces the same effect as two contact closures in rapid succession.

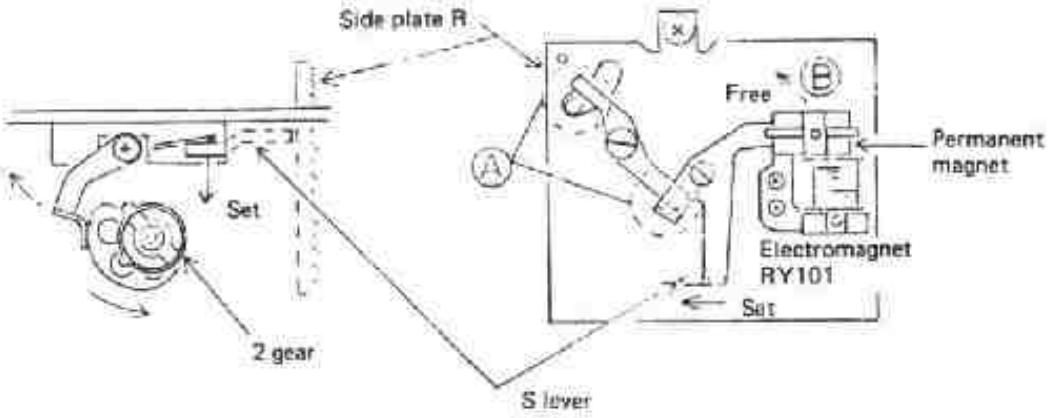
2. Signal patterns



25

(1) SHUTTER LOCK MECHANISM (MIRROR LOCK MECHANISM)

This mechanism is so arranged that, when the shutter fails to operate in the normal manner because of such as battery trouble, the mirror becomes locked and, consequently, the shutter becomes locked.
It is due to this relationship that an electromagnet (RY101) is provided on the side plate R as a means of unlocking the mirror.



Sequential actions

1) By the cam of 2 gear, the mechanism gets set, that is, shifts to the condition shown on the above, in which the mirror is set in locked state.
2) As electromagnet RY101 gets energized, S lever disengages by moving in the direction Ⓑ thereby releasing the mirror from locked state. (The polarity of RY101 is the same as that of its permanent magent: when energized, it develops repulsive force.)

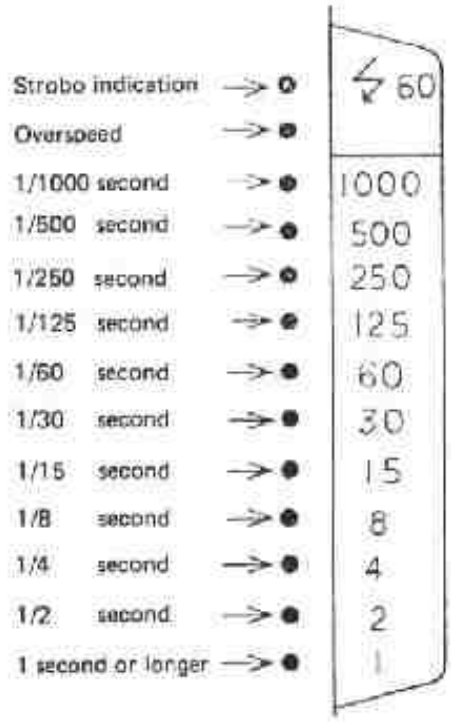
(2) FINDER INDICATION

1. **Shutter speed indication**
The speed is indicated not as an analog quantity (as when a pointer is provided so that the user has to "read" speed from pointer position) but as a digital quantity. As illustrated on the right, one of the LEDs lights up to tell the speed.

2. **Strobo indication**
With an exclusive-use strobo (such as T20) connected to the shoe, the light (shown in the illustration on the right) signifies either of the two consequences:

2-1. Light remaining on
This means that "strobo charging is completed."

2-2. Light flickers
This means that "flashing was satisfactory."



2. MECHANICAL FEATURES

CHECK POINTS
(INSPECTION STANDARD)

B. CHECK POINTS (INSPECTION STANDARD)

CONTENTS

33. Accuracy of focal plane position

Optical difference between film rail race and focal plane to be within the following limit:

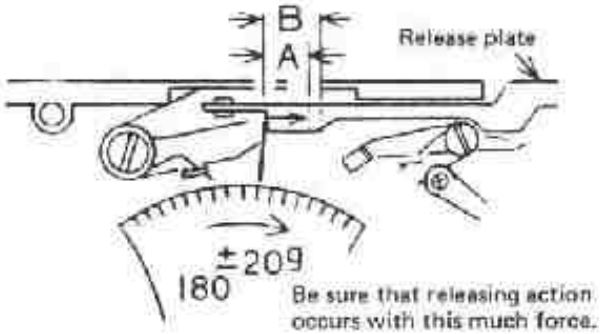
1) When tool is fitted. . . . . +0.51 ±0.02 mm
2) At center, when optical path is through focussing glass. +0.05 ±0.02 mm

34. Winder

Operating force and stroke of release plate. (Check with bottom plate removed.)

A = Shutter releasing position . . . . . 2 ±0.4 mm

B = Stopping position . . . . . 2.5 mm max.



18. **ASA selecting accuracy**
The following tabulated requirements are deviations from actually measured value under BV8, F5.6 and ASA 100:

ASA selected	Reference value for adjustment	Requirement on camera in use
400	−0.35 ~ +0.65EV	−0.35 ~ +0.65EV
800 *1	−0.75 ~ +1.25EV	−0.75 ~ +1.25EV
1600 *2		

NOTE:
*1. There must be a deviation of at least EV from actually measured value at ASA400.
*2. There must be a deviation of at least 0.3 EV from actually measured value at ASA800.

19. **Temperature characteristics**
Deviations from the values at normal temperature must be within the following limits:
1) MANUAL and X exposure
0.2 EV max. at −10°C
2) AUTO (ASA25 ~ 400)
At −20°C ~ +50°C
Equivalent of 1/250 and under 0.3 EV
Equivalent of 1/500 and under 0.4 EV
ASA800 ~ 1600
The limit is higher by 0.3 EV than the above-indicated limit.

20. **Humidity characteristics**
Leave the camera in a controlled atmosphere held at 20°C ~ 25°C and 90 ±5% relative humidity for 2 hours, after which the exposure time is to be measured to determine the deviation from the reference value noted before the camera is put to the test.
The deviation must be not greater than 1 EV for equivalent of AUTO, ASA100, 2 sec.

NOTE:
There should be no evidence of abnormal condition with respect to releasing action and speed.

21. **Release lock voltage**
2 ±0.05 V

22. **Battery check voltage**
This voltage to be not lower than the lock voltage but not higher than 2.2 volts.
(Check indication should cease in the above voltage range.)

23. **Change in exposure for voltage change**
This change must be less than 0.3 EV for the range from 3.2 V to pre-lock voltage in both AUTO and MANUAL modes.

24. **Current consumption**

Selector switch position	Current
OFF	mA
ON	mA
CHECK	mA
SELF TIMER	mA

25. **Leakage current**
Not greater than 1 μA when selector switch is OFF.

26. **Protective circuit**
Put in the batteries the other way around to reverse the polarity: under this condition, no rupture should occur in IC and capacitor.

27. **Maximum exposure time**
The shutter should close in 2 to 20 seconds in complete dark when operated in AUTO and ASA100.

28. **Finder-indication limiter time**
45 ~ 120 sec. (tentative)

29. **Self-timer interval**
12 ±3 sec.

30. **SELF flicker interval**
ON 250 ±100 ms; OFF 250 ±100 ms; and Total 500 ±150 ms.

31. **Finder viewing**
−0.5 dioptric value

32. **One-side blur**
Not greater than 0.25 mm as compared to the center.

8. **Curtain speed**
Standard speed: 12.0 ms
Difference in speed between first curtain and second curtain to be 0^{+8}_{-15}, with the former being faster.

9. **MANUAL timing**
With the tool manual adaptor, whose error is not greater than 1%, the following requirements should be met:

Time in second	Reference value for adjustment	Requirement on camera in use
1/8	74.8~209 ms (±0.75)	(Same as the left)
1/500	1.17~3.27 ms (±0.75)	(Same as the left)
1/1000	0.5 ~ 2 ms (±1.0)	(Same as the left)
MINI	0.3 ~ 2.0 ms	
X	15 ~ 3· ms	

(Tentative)

10. **Exposure time variation**
1 ~ 1/1000 sec.
X
AUTO
} 0.35 EV max.
(Use the tool manual adaptor to check for 1 ~ 1/1000 second range.)

11. **Erratice exposure**

12. **Delay time**
The first curtain to start closing immediately upon the full opening of second curtain; and the switching-in to occur within 1.5 ms.

13. **Contact efficiency**
50% or greater for Int. 1 ms; the permissible minimum being 40%.

14. **Contact resistance**
The resistance is statisfactory if continuity can be noted at 3 volts.

15. **Insulation resistance**
At least 30 megohms at 50 volts

16. **MANUAL exposure time where voltage varies**
Time variation for 3.2 V down to lock voltage should be within 0.3 EV.

17. **Auto exposure accuracy**
The following requirements should be satisfied under the conditions of ASA100, F5.6, two new batteries of 3.15 ±0.01 V and no previous illumination:

Brightness	Center value	Reference value for adjustment	Requirement on camera in use
BV 15	+0.3	−0.15 ~ +1.2 EV	−0.45 ~ +1.5 EV
BV 14	+0.3	−0.15 ~ +1.2 EV	−0.45 ~ +1.5 EV
EV 12	+0.1	−0.5 ~ +0.9 EV	
EV 11	0	−0.6 ~ −0.85 EV	−0.75 ~ +1.0 EV
EV 10	−0.1	−0.7 ~ +0.75 EV	
EV 8	−0.25	−0.9 ~ +0.65 EV	−1.0 ~ +0.75 EV
BV 6	−0.3	−1.2 ~ +0.4 EV	

60

7. Indicating accuracy of exposure meter

7-1. Test conditions:

Voltage: 3.15 ±0.005 V
Previous illumination: 20,000 lux for 30 minutes or longer
K value of light source box: K = 1.3

7-2. Indicating accuracy requirement:

LEDs should light for the combinations, as follows:

(a) Brightness accuracy (ASA100 F5.6)

Brightness	BV4	BV6	BV8	BV10	BV12	BV14	BV15
LED	1	2	8	30	125	500	1000

(b) Aperture actuating accuracy (ASA100 BV10)

Aperture	F1.8	F2	F2.8	F4	F5.6	F8	F11	F16
LED	250	250	125	60	30	15	8	4

Alternatively (ASA100 BV12)

Aperture	F1.8	F2	F2.8	F4	F5.6	F8	F11	F16
LED	1000	1000	500	250	125	60	30	15

(c) ASA conversion accuracy (F5.6 BV10)

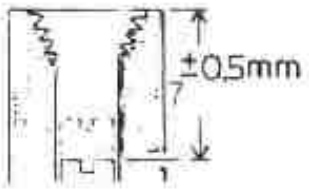
ASA	25	50	100	200	400	800	1600
LED	8	15	30	60	125	125 250 500	250 500 1000

Alternatively (F5.6 BV12)

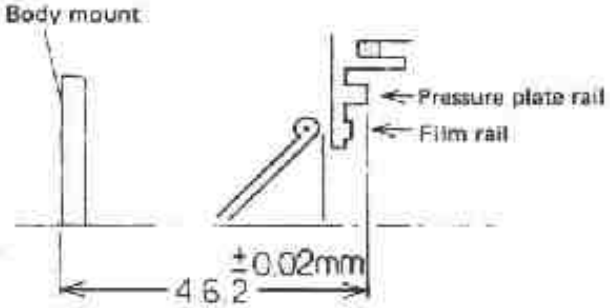
ASA	25	50	100	200	400	800	1600
LED	30	60	125	250	500	500 1000 and over	1000 and over

II. FUNCTIONAL PERFORMANCE QUALITY

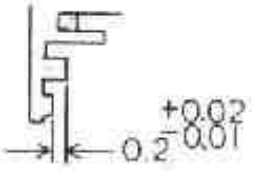
1. **Depth for initiating release in the core**
   Releasing action to be initiated at the indicated depth.



2. **Flange back**
   From pressure plate to film rail face

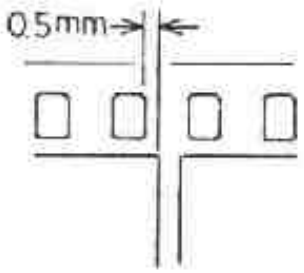


3. **Tunnel distance**

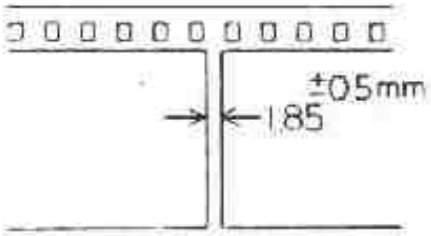


4. **Vertical deviation of picture image face**
   The picture image face (frame) to be off perforations.

5. **Perforation position**
   Picture frame must be at least 0.5 mm off the perforation.

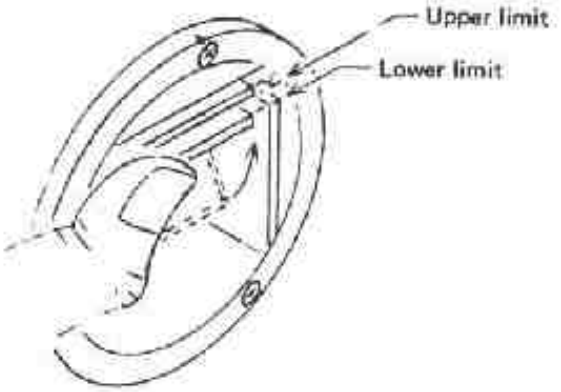


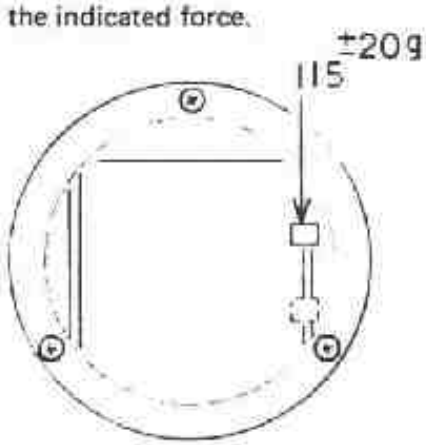
6. **Distance between picture frames**



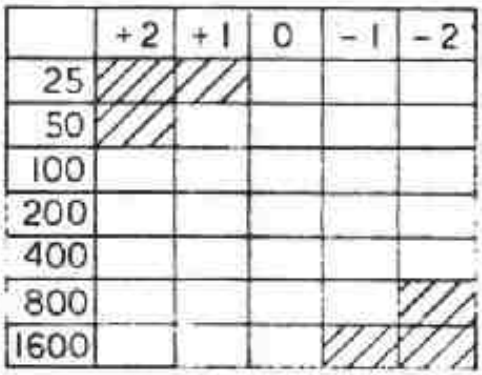
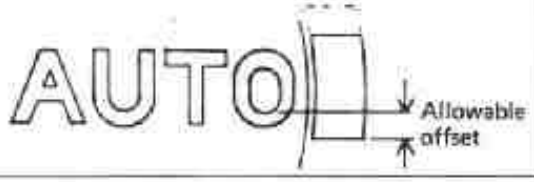
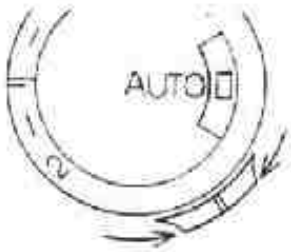
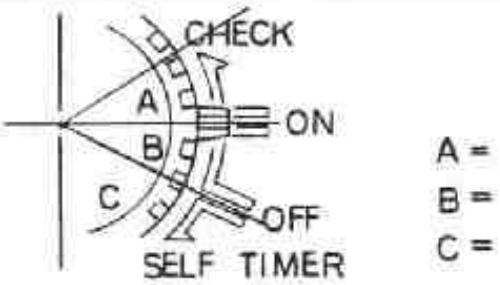
58

What to inspect	What to check	Checking method or criteria
(Winder)	2) Reliability of action	Check to be sure that no action occurs when the motor drive is attached and that the action takes place for certain when the winder is attached.
	3) Circuit continuity between contact points and insulation resistance	(1) Continuity to be noted with not more than 0.2 ohm indicated by the tester. (2) Insulation resistance to be at least 50 megohms at 500 volts.

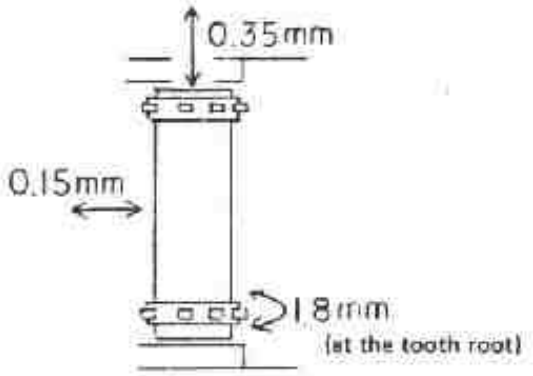
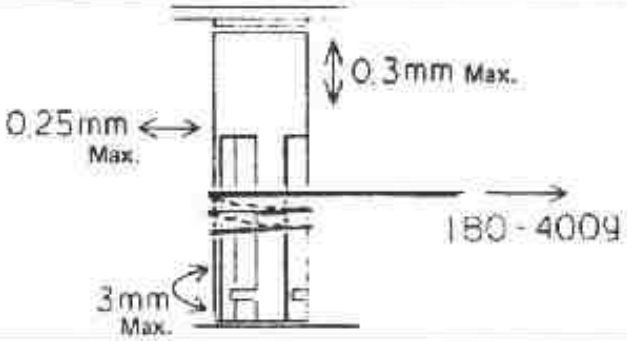
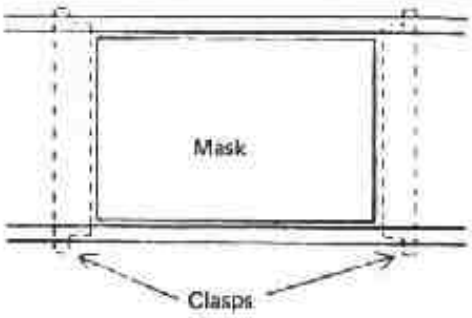
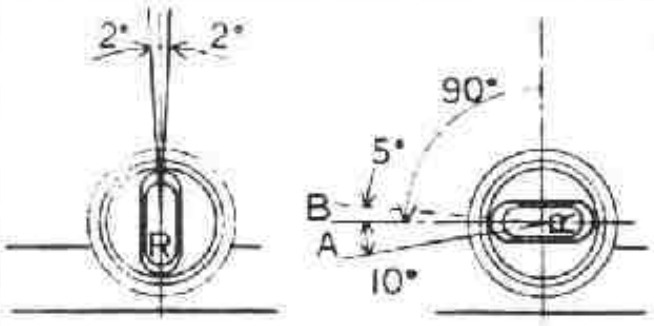
What to inspect	What to check	Checking method or criteria
17. Movable mirror	1) Smoothness of movement	There should be no hesitation, abnormal noise or hitch in its movement.
	2) Shutter releasing position	
	3) Mirror rebound upon rising	
18. B mount	1) Condition of mount screw	Be sure that the screw is free from any sign of stripping or other malcondition.
	2) Smoothness of removal and fitting	Check to be sure that the reference lens fits and comes off smooth, without any sticking or abrading tendency.
	3) Turning effort	The force required to turn the reference lens should be from 4 to 7 kg-cm (tentative).
19. Mounting seat of manual adaptor	1) Nicks and scratches	There should be neither nicks nor scratch marks in the mounting parts.
	2) Force for pushing in the adaptor	500 ~ 1400 g
	3) Force for pulling out the adaptor	400 ~ 1300 g
20. Release lock	1) Lock voltage	2 ±0.05 V
	2) Accuracy of locking	Operate the select switch on and off and check to be sure that, at any position of SELF, — (a) Releasing is possible at any voltage from 3.2 V down to the lock voltage indicated above. (b) Locking occurs positively at a voltage level below the lock voltage.
21. Winder	1) Contact	(1) Be sure that the point face is below the contact seat by 0 ±0.05 mm.
		(2) Contact seat should be below the lower plate by 0.1 ±0.2 mm.

What to inspect	What to check	Checking method or criteria
(Select knob)	2) Knob operating force	Force for disengagement from arresting position (click): 350 ±50g Force for turning from one arresting position to another: 90 ±20g
	3) Confirmation of ON-OFF action	Be certain that the indicating LED in the finder lights up when the change is being made from OFF to ON.
	4) Reliability of CHECK action	Audible sounding and LED lighting should occur without fail.
	5) Reliability of self-timer action	Be sure that the timer starts up upon releasing and operates as accompanied by the audible (sound) and visual (LED) indications.
	6) Self-timer delay	12 ±3 seconds
	7) LED brightness	In the ambient conditions equivalent to BV15, the light should be clearly recognizable against the sun from a distance of 3 meters.
	8) Flickering interval for SELF mode	ON 250 ±100 ms; OFF 250 ±100 ms; Total 500 ±150 ms
	9) Indication limiter time	45 ~ 120 sec. (tentative)
15. Aperture lever	1) Operating force	Aperture lever should move downward when subjected to the indicated force. 
16. Aperture link ring	1) Operating force	

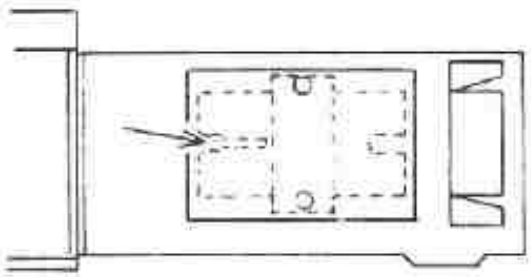
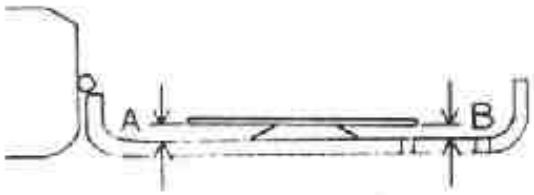
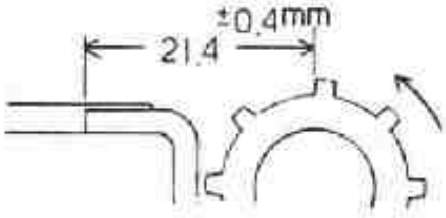
55

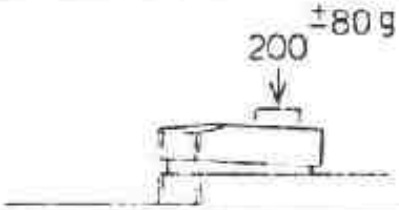
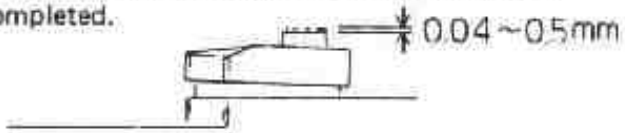
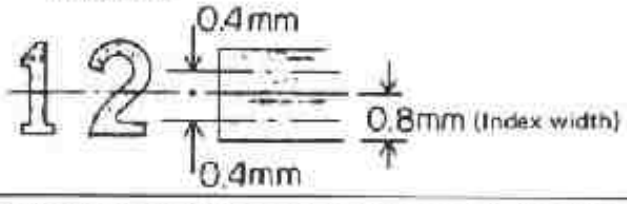
What to inspect	What to check	Checking method or criteria
(Rewinding clutch)	2) Accuracy of setting on R side	Be sure that the clutch, when turned by more than 90°, stays firmly set without any tendency to move back. (The clutch should so stay also during winding.)
	3) Reliability of clutch action	Be sure that, with the clutch set on R side, its sprocket freewheels.
	4) Smoothness of action	Make sure that the clutch restores itself smoothly when the subsequent winding action is started.
13. Mode knob	1) Reliability of ASA dial	 Each blank box represents a combination. Be sure that all combinations are available.
	2) Offset between index and graduation mark	
	3) Accuracy of mode lever action	Make sure that a switch-over occurs for certain at each click position.
	4) Smoothness of mode lever motion	The lever should move without any hitch.
	5) Mode lever operating force	 The mode lever should get out of arresting (click) position when acted on with a force of 0.57 ~ 0.82 kg at the arrowhead.
14. Select knob	1) Angle of selecting action	

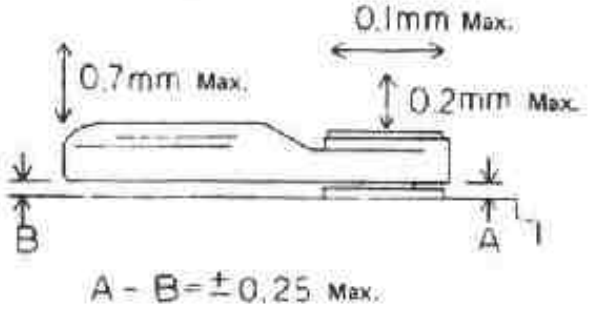
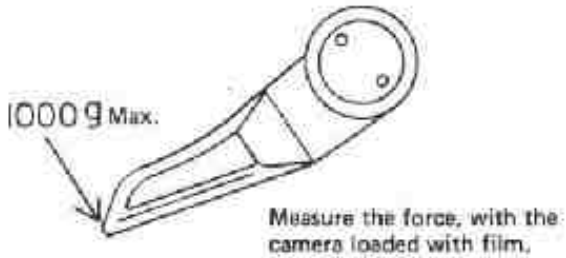
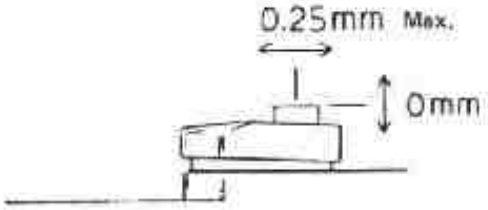
54

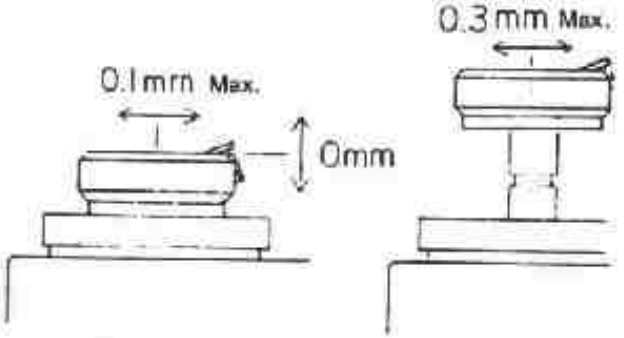
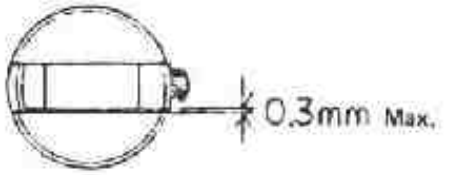
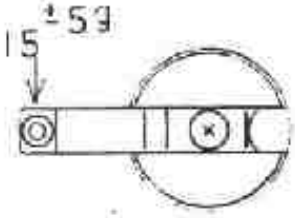
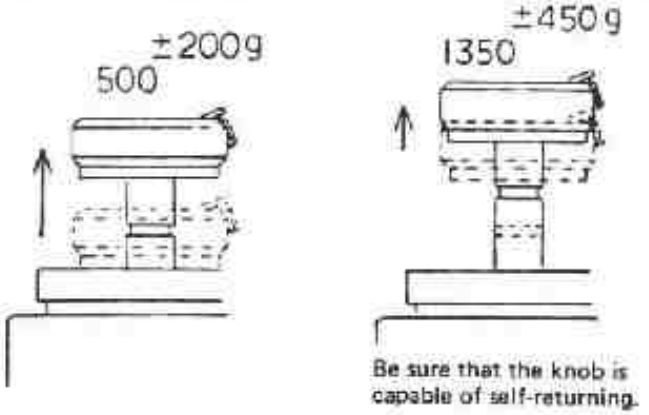
What to inspect	What to check	Checking method or criteria
(Sprocket)	2) Rattle	
10. Spool	1) Rattle	
	2) Preload	
11. Shutter curtains	1) Curtain frame position	 Be sure that, before and after charging, the clasps shy away from the mask.
	2) Blur, fading and moire due to leading curtain	There should not be any appreciable blur, fading or moire.
	3) Curtain tensioning	Make sure that the curtain is neither tilted nor sagged and that it is properly tensioned.
12. Rewinding clutch	1) Trueness of rewinding clutch	 A = ordinary range B = (seldom)

53

What to inspect	What to check	Checking method or criteria
(Rear cover)	2) Rattle in fore-aft direction at the time of locking	With or without patrone, the key part should have no rattle.
	3) Hinge rattle	(1) Wooble: There should be no rubbing of the edges of the camera body.
		(2) Vertical: 0.15 max.
	4) Smoothness of open-close movement	Be sure that the cover moves without any hitch and that it moves smoothly with its own weight.
7. Key	1) Accuracy of action	Make sure that pulling the winding knob out to second position opens the back cover positively and that releasing the pull-out knob allows the key to return home.
	2) Force for closing the rear cover	With the patrone in, a force of 1 to 2.5 kg applied to the patrone part of the cover should close the cover.
8. Pressure plate	1) Direction of plate in place	Be sure that the fixed side is on the hinge side. 
	2) Trueness of plate in place	 A − B = 2mm Max.
9. Sprocket	1) Tooth position	 Measure the amount of rattle by pushing it to the mask side.

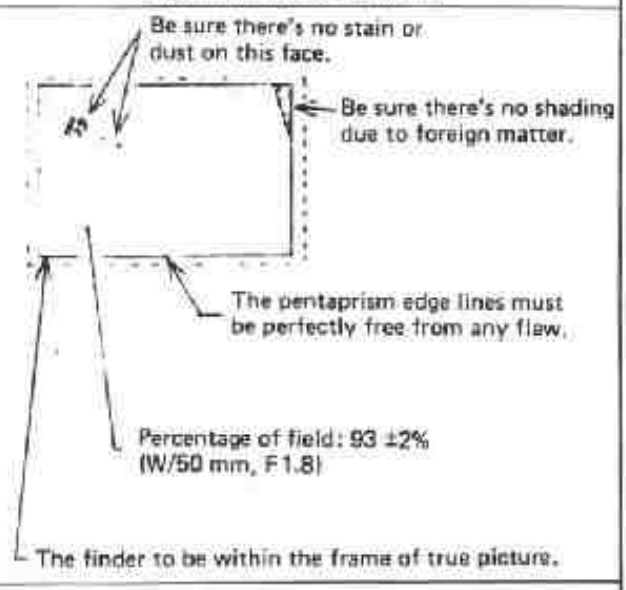
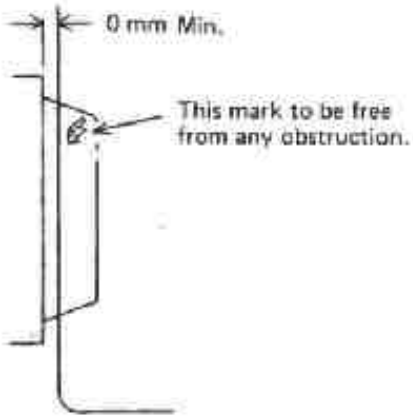
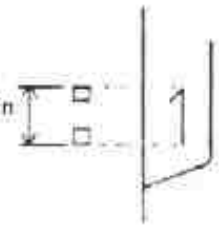
What to inspect	What to check	Checking method or criteria
(Release button)	5) Releasing force	
	6) Releasing position	Be sure that releasing action occurs when, with 240 grams applied to its boss, the button is pressed to the indicated height. 
	7) Locking position	Make sure that the button becomes locked at the indicated position before the winding action is completed. 
5. Film counter	1) Correspondence between index and graduated marks	(1) Where "S" letter is provided, be sure that the index is within the width of this letter, when the back lid is opened and closed. 
		(2) Where letter "S" or an odd number is used, the deviation, if any, must be within the value indicated. 
	2) "No.1" indication	After or before chargin, open and close the back lid and advance three frames of film to see if "No.1" indication occurs as it should.
	3) Stopping position	Requirement: Pointing to (37) and "E" clearly visible.
	4) Accuracy of returning action	Open the back lid to be sure that the counter returns to "S" from any position.
6. Rear cover	1) Condition of skin	(1) Clearance: 0.2 mm max.
		(2) Swells and dents: Not to be appreciably large.
		(3) Bond: The skin should be free from any evidence of coming off.

What to inspect	What to check	Checking method or criteria
(Winding lever)	2) Winding lever rattle	
	3) Accuracy of winding action	(1) Make sure that a single stroke of the lever accurately advances the film by one frame and charges the shutter and mirror.
		(2) Operate the lever rapidly to be sure that the shutter gets charged positively at each turning of the lever.
	4) Smoothness of winding action	There shall be no initial sticking; and the lever shall move without any abnormal noise, squeak or hitch through its full stroke.
	5) Operating force	
	6) Accuracy of partial winding	Wind the film by operating the lever by repeating partial stroke, and be sure that each stroke advances the film by a corresponding amount and locking the film in partially advanced position.
4. Release button	1) Button rattle	
	2) Accuracy of releasing action	(1) Make sure that the shutter is positively released when the button is pressed.
		(2) Press the button hard and let it go gently to see the returning action occurs properly.
	3) Smoothness of releasing motion	Be sure that the button moves without any sticking, squeaking or hitch.
	4) Button rotation	Be sure that the button will not rotate.

What to inspect	What to check	Checking method or criteria
2. R knob	1) R knob rattle	 When in home position　When pulled out
	2) Clearance between R knob and crank	
	3) Smoothness of re-winding motion	Whether the camera is loaded with film or not, this motion must be smooth, free of any sticking.
	4) Friction	With the film removed, be sure that no more cranking force than is indicated is required. 
	5) Force for pulling out the knob	 Be sure that the knob is capable of self-returning.
3. Winding lever	1) Lever retainer	 Be sure there is no evidence of galling at these parts.

19

I. APPERANCE AND FUNCTIONAL QUALITY

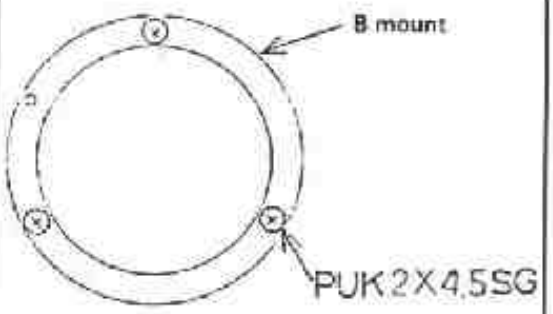
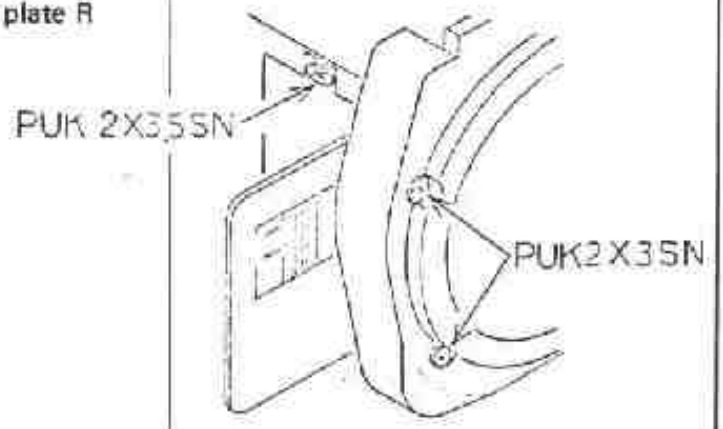
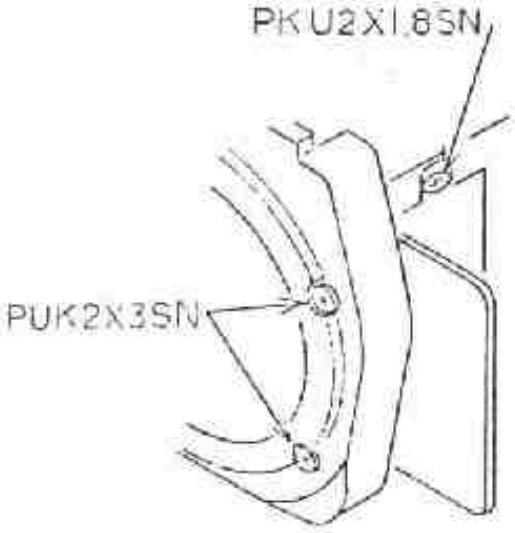
What to inspect	What to check	Checking method or criteria
1. Finder	1) Field of view	
	2) Indicating plate	 Be sure the plate is trued up as observed with naked eyes.
	3) Indicating LED	Position  (1) Be sure that light comes on always at one point. (Sometimes at two points.) (2) With a prescribed strobo connected to camera, be sure that the indicating LED for the strobo lights up upon the charging up of the strobo, i.e., when the strobo power source is turned on. Also, be sure that this LED flickers when light-checking action is in progress after the release button has been pressed.

ORDER OF DISASSEMBLY

C. ORDER OF DISASSEMBLY

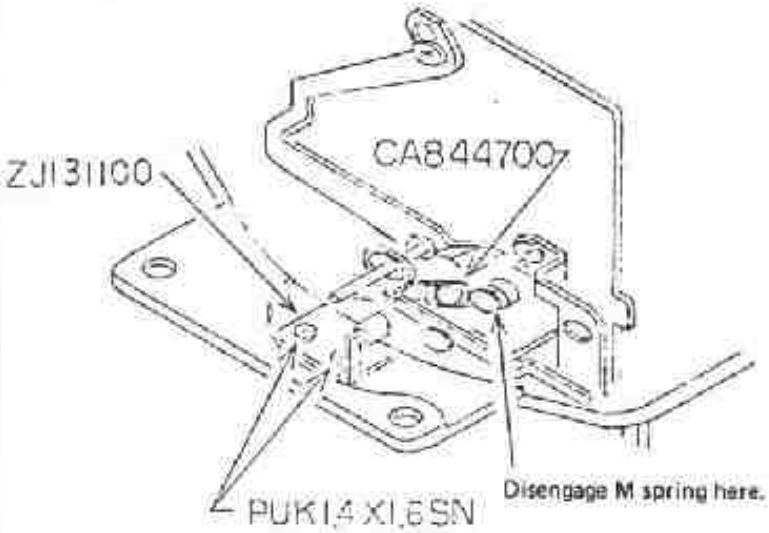
CONTENTS

10. ZJ130400 Side Plate L, ZK205100 Side Plate R (ZJ131000 Front casting is assumed to be off.)

Parts of remove	Q'ty	Tool to use	Parts coming off	Remarks
(PUK2x4.5SG) Screw	3		CE254600 B mount CE254500 Front cover	
PUK2x3SN Screw	2		ZC205100 Side plate R	
PUK2x3.5SN Screw	1			
PUK2x3SN Screw	2		ZJ130400 Side plate L	
PUK2x1.8SN Screw	1			

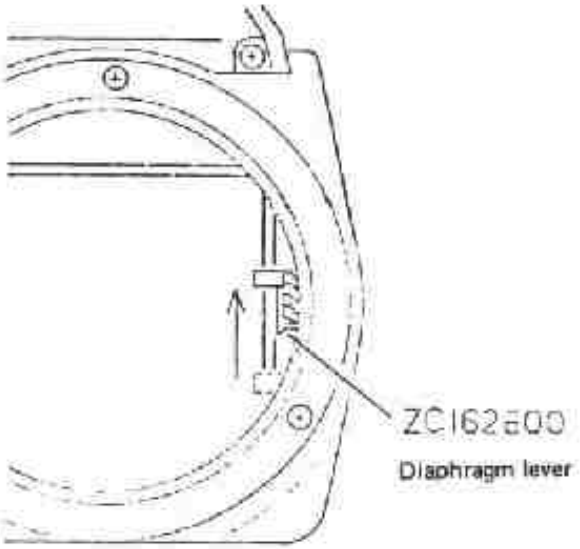
28

9. ZJ131100 MS Base Plate (Main Switch) (ZJ131000 Front casting is assumed to be off.)

Parts of remove	Q'ty	Tool to use	Parts coming off	Remarks
CE058200 F screw	2		CE057900 F contact CE066500 Insulator CA890000 Insulation washer	
CA844700 M spring (Disengage only one end of the spring, as shown.)	1/2			
PUK1.4x1.6SN Screw	2	ZJ131100 MS base plate		

9-1

Tips on removal of ZJ131100 M base plate:
Have the diaphragm lever, ZC162600, raised as shown on the left before removing ZJ131100 M base plate.

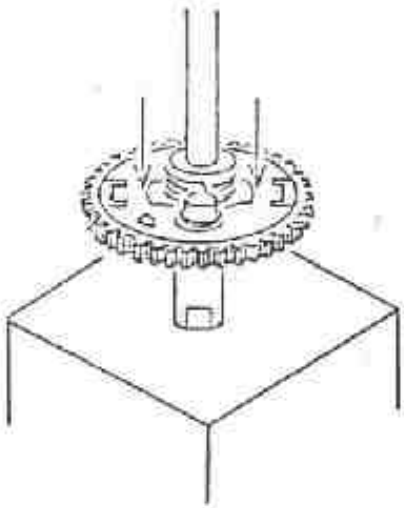
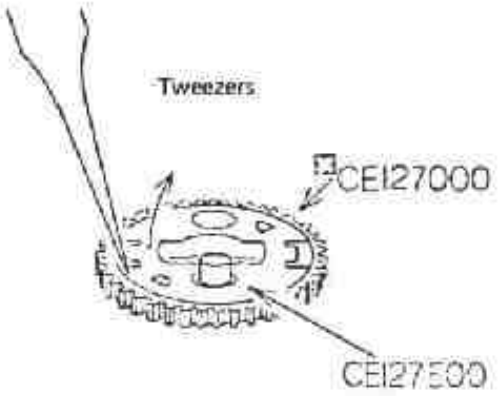


9-2

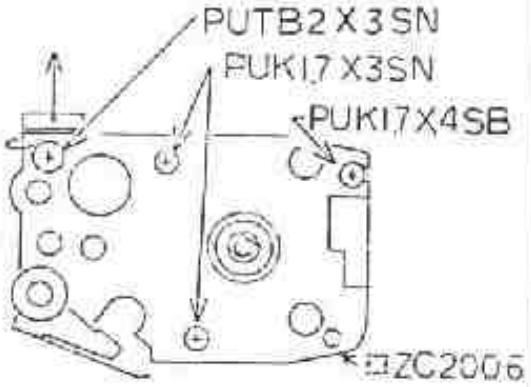
The job of re-hitching the hook eye of M spring, CA844700, onto the stud will be facilitated if a tool like this one is used.

Spring hitching tool

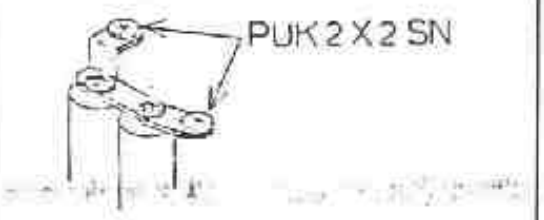
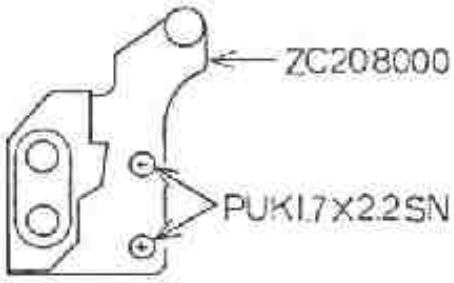
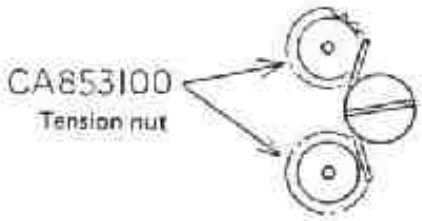
(Use this when re-hitching M spring.)

Parts of remove	Q'ty	Tool to use	Parts coming off	Remarks
			Winding shaft and widing gear come off.	 1. Rest the winding shaft on the block, as shown. 2. Using such as forceps, push down the gear by putting the forceps to the two spots indicated by arrows.
			CE127500 Roll spring CE236500 Roll spring 2 CE236400 Film counter CE127400 Spring ZJ131600 Winding pawl ⊡ CE127000 Winding gear	 Using tweezers, lift CE127500 Roll spring and pick it out. For the method of reassembly, refer to the repair procedure.

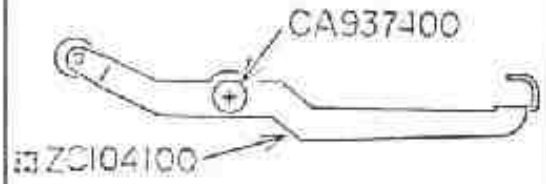
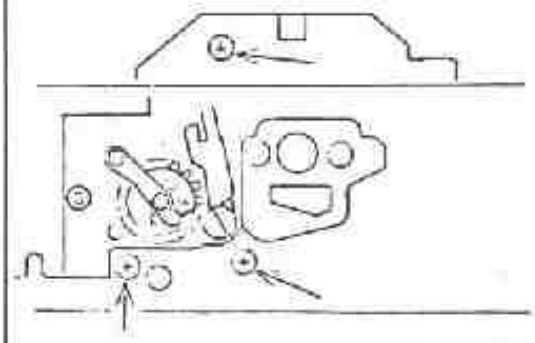
B. CE127000 Winding Gear (ZC200200 Top cover is assumed to have been removed.)

Parts of remove	Q'ty	Tool to use	Parts coming off	Remarks
CE128900 Film counter stopper	1		CE236400 Fil counter CE128800 Film counter spring 2	 1. Push out CE128900 in the arrow direction. 2. Raise CE236400 Film counter and then let it go to remove tension from Film counter spring. 3. Raise lug plate again, and take out lug spring. 4. For the method of reassembly, refer to the repair procedure.
PUK1.7x3SN Screw PUK1.7x4SB Screw PUTB2x3SN Screw	2 1 1		⊡ ZC200600 FW base ZC202700 K knob	 Pull out K knob in the arrow direction, and pick out FW base.
PUTB1.7x3SB Screw	2		CE126600 Lower base plate ZJ131700 Winding gear 1 ZC201000 Idler CE128300 Film counter gear	Tightening torque:  Removal of the screws indicated allows Upper base plate and Lower base plate to separate.

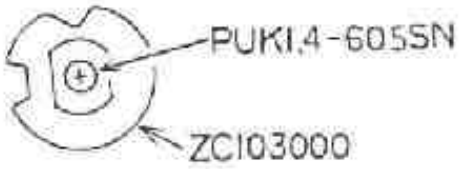
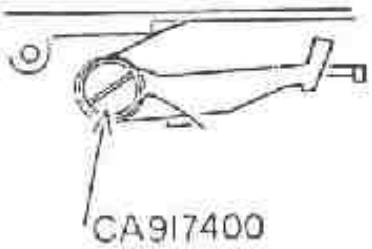
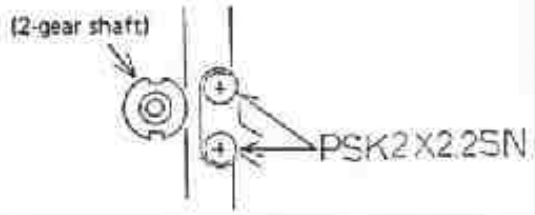
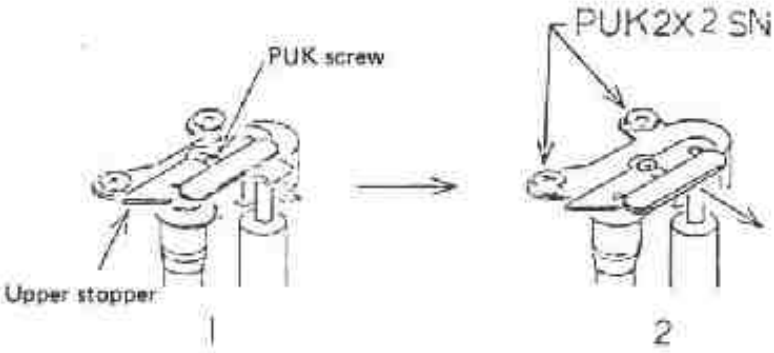
75

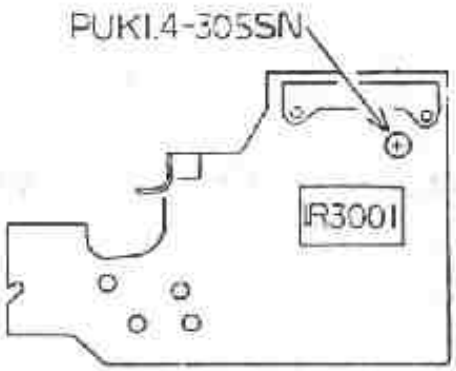
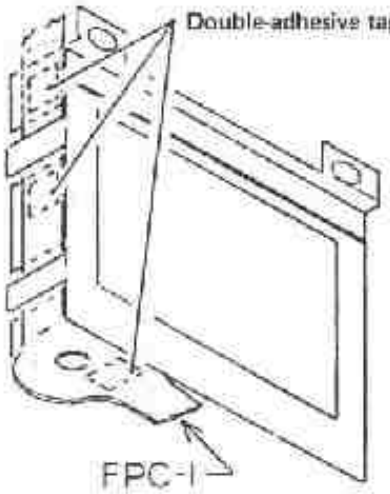
Parts of remove	Q'ty	Tool to use	Parts coming off	Remarks
PUK2x2SN Screw	2			
PUK1.7x2.2SN Screw	2		ZC208000 SW base plate	
CA853100 Tension nut	2		ZJ132400 Shutter curtain CA852900 Roller B NW1.5–425UO	 CA853100 Tension nut is secured rigid by means of ALON ALPHA, and may not come off easily: if so, prise it with No.4 screwdriver and break the shaft to permit its removal.

7. ZJ132300 S base plate(The parts mentioned in the preceding pages are assumed to be all off.)

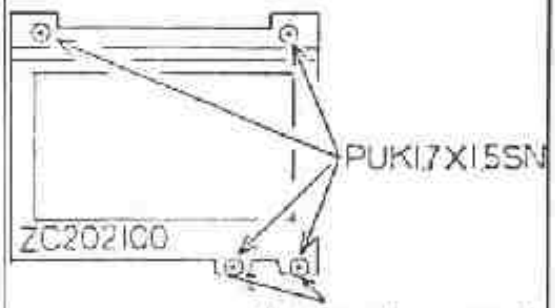
Parts of remove	Q'ty	Tool to use	Parts coming off	Remarks
CA937400 M lever shaft	1		⊠ZC104100 KM lever	
PSK2x2.8SN Screw	3		ZJ132400 S base plate	
Undo the soldered connection of the black lead wire.	1			

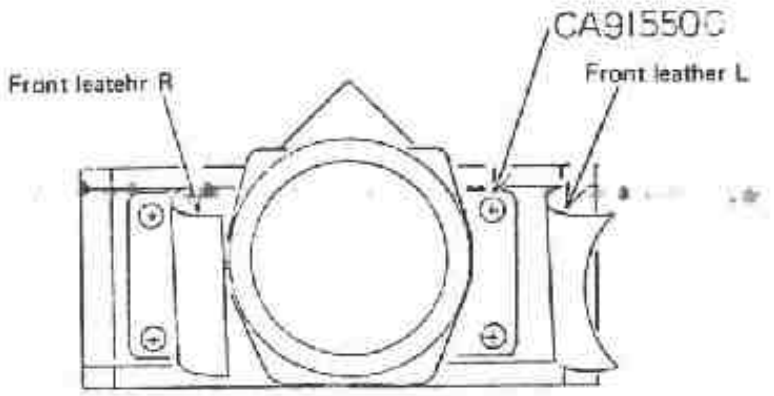
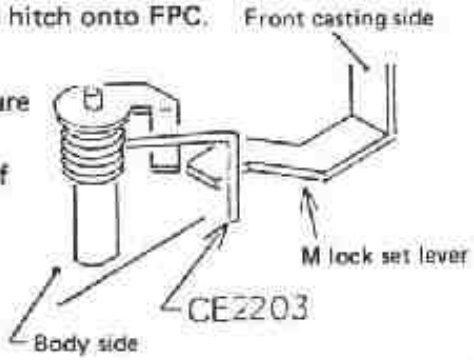
74

Parts of remove	Q'ty	Tool to use	Parts coming off	Remarks
PUK1.4–605SN Screw	1		ZC103000 3 gear CA885100 3 gear spring	
CA917400 L holder	1		CA882600 Lock spring CA882400 Lock lever CA917600 L holder washer CA882100 Lock spring	
CE222700 ME guide	1		ZC201700 2 gear B1 (11 pieces)	
PSK2x2.2SN Screw	2			
PUK2x2SN Screw	2			 Displace the upper stopper in sliding direction while securing A and B; and then remove the two screws, PUK2x2SN.

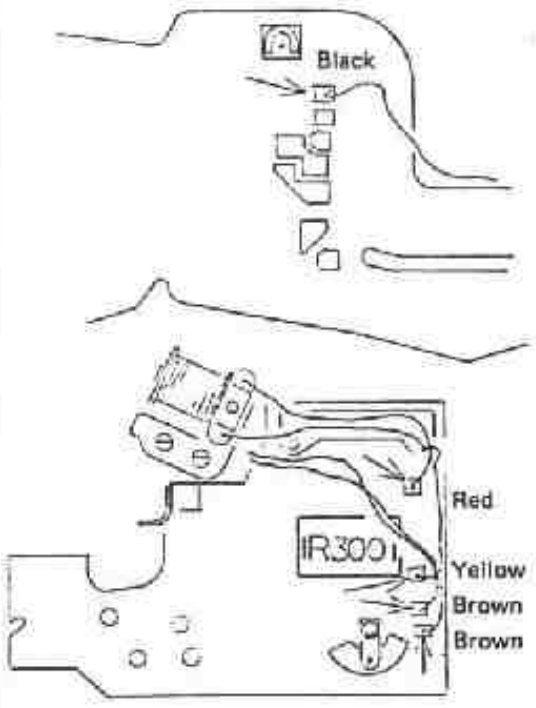
Parts of remove	Q'ty	Tool to use	Parts coming off	Remarks
PUK1.4–305SN Screw	1		ZJ200300 FPC-1 (Bear in mind that tape whose both faces are adhesive is used in securing FPC-1 at the indicated locations.)	 

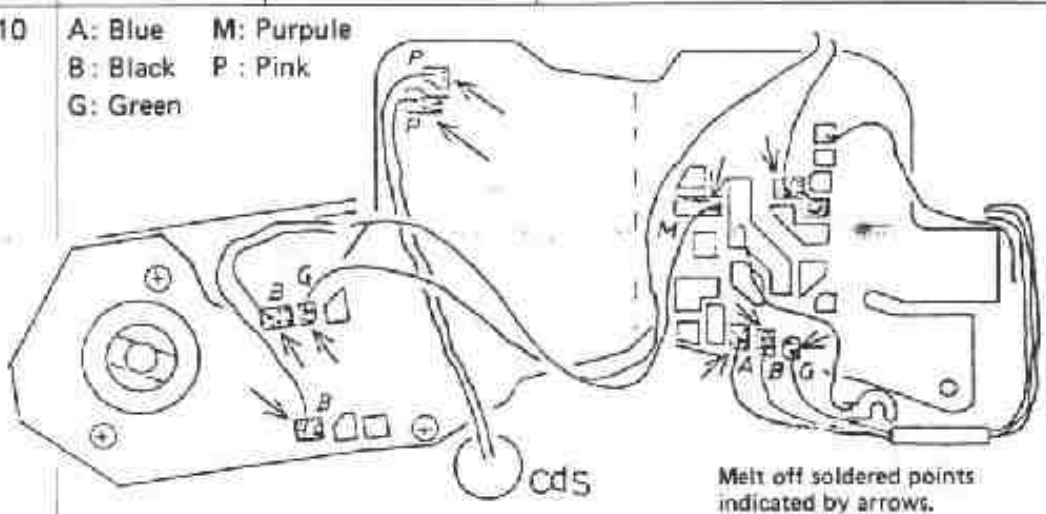
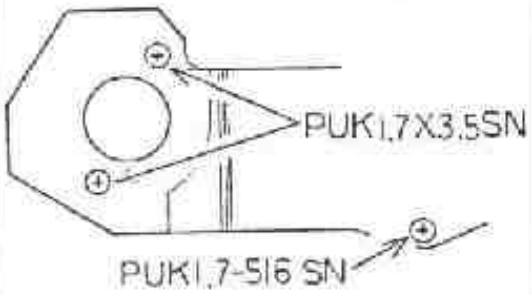
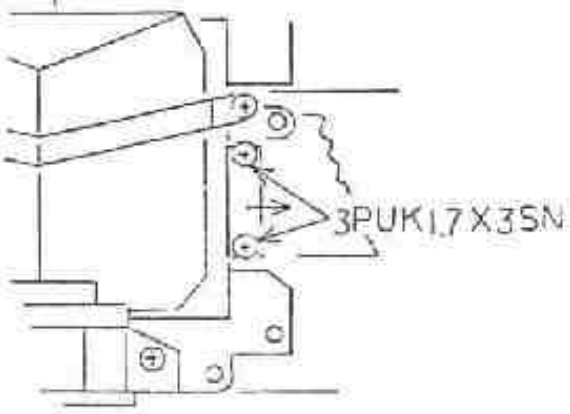
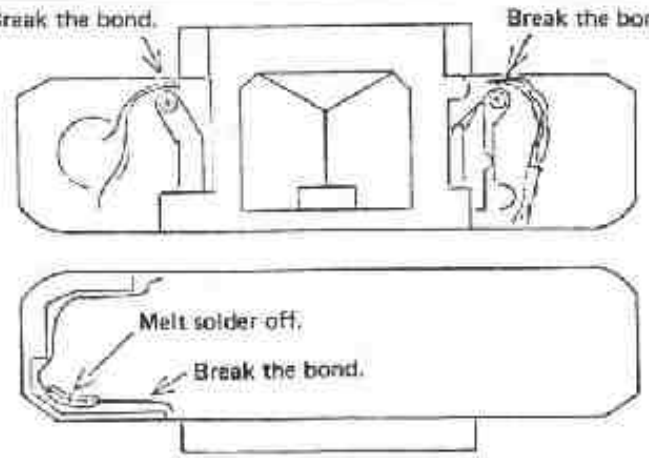
6. ZJ132400 Shutter Curtains (Be sure that ZJ200300 FPC-1 is in place.)

Parts of remove	Q'ty	Tool to use	Parts coming off	Remarks
PUK1.7x1.5SN Screw	4		ZK202100 Frame	 (Just loosen these screws.)

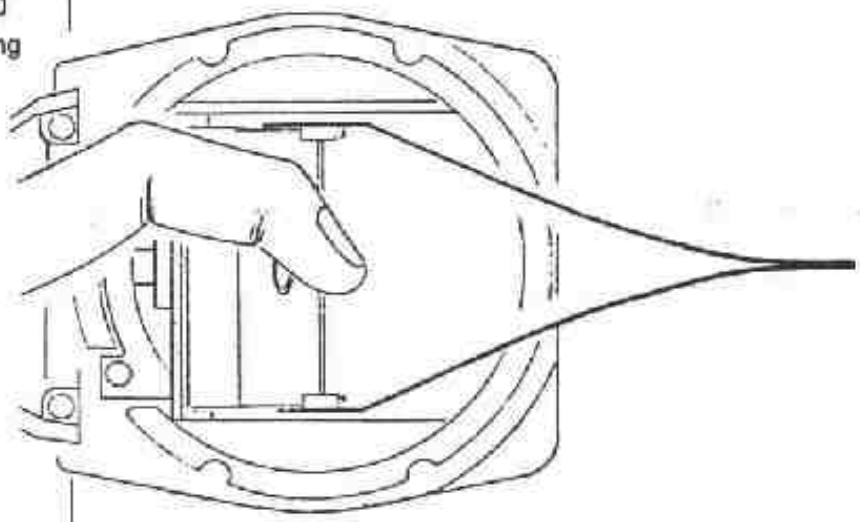
Parts to remove	Q'ty	Tool to use	Parts coming off	Remarks
CE211500 Front leather L	1		 • Remove the fornt cover by pulling it out from top side. • Be sure not allow it to hitch onto FPC.	
CE211600 Front leather R	1			
CE915500 Front screw	4			
			NOTE: When reassembling, be sure to hitch the M set lock lever onto the free end of CE220300. 	

5. ZC200300 FPC-1 (ZJ131000 Front casting is assumed to be off.)

Parts of remove	Q'ty	Tool to use	Parts coming off	Remarks
Undo soldered connections and disconnect lead wires.			(Brown lead wires need not be discriminated from each other when soldering them to the spots indicated.)	

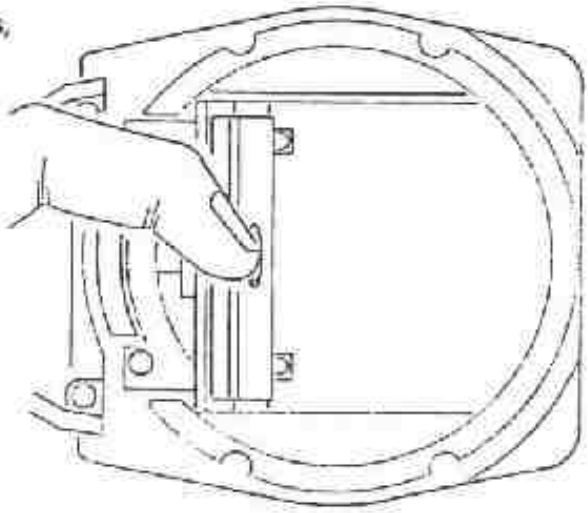
Parts to remove	Q'ty	Tool to use	Parts coming off	Remarks
Undo soldered connections and disconnect lead wires.	10	A: Blue M: Purpule B : Black P : Pink G: Green		 Melt off soldered points indicated by arrows.
PUK1.7x3.5SN Screw PUK1.7–516SN Screw	2 1		CE211800 R shaft holder CE211900 R shaft Others	
3PUK1.7x3SN Screw	2		CE231400 L frame	
Break the bond securing lead wires. Undo sholdered connections.	3 1			

120

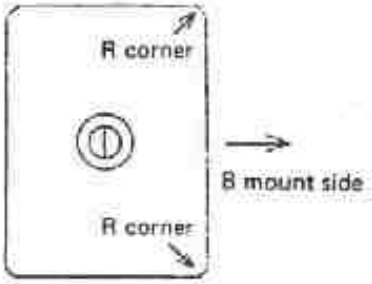
Parts to remove	Q'ty	Tool to use	Parts coming off	Remarks
		LC409100 Focussing screen		Pick the focussing screen with the forceps, as shown, and pull it up.

Fitting and setting the focussing screen in place.

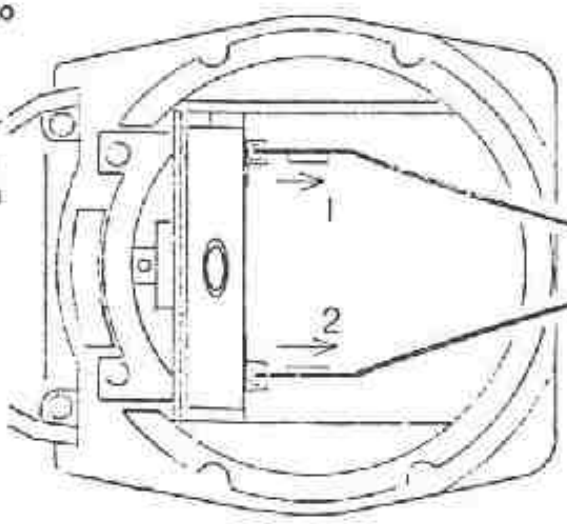
(1) Using the tweezers, set the screen in place, as shown.



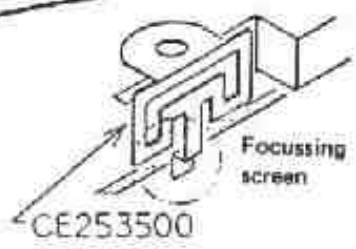
Position the screen with its matted face coming on pentaprism side, and insert it as shown.



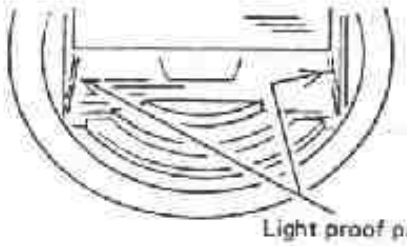
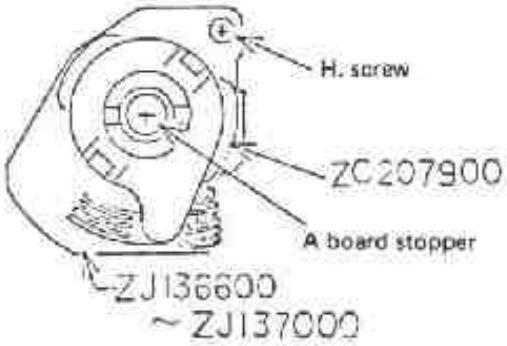
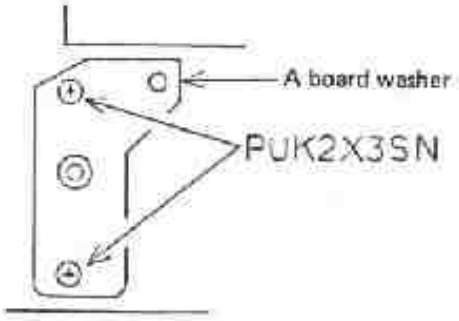
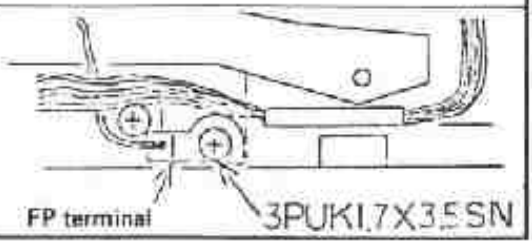
(2) Hitch the tweezers to holes 1 and 2, and give a pull to these holes in the numbered order in order to true up the screen in place.



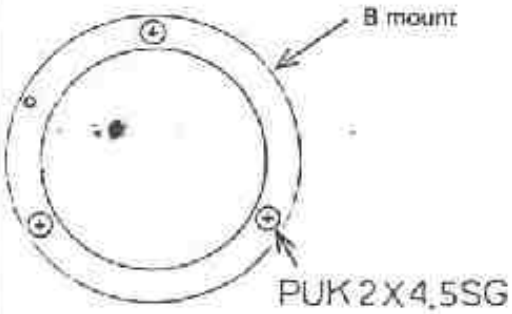
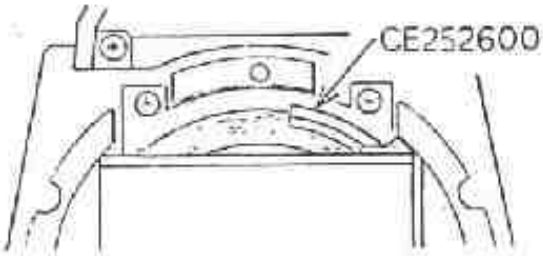
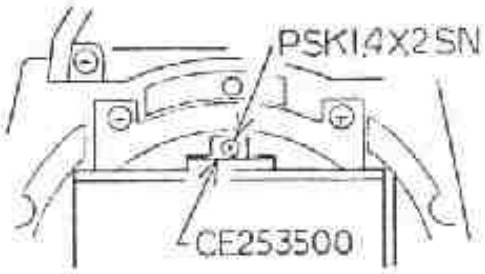
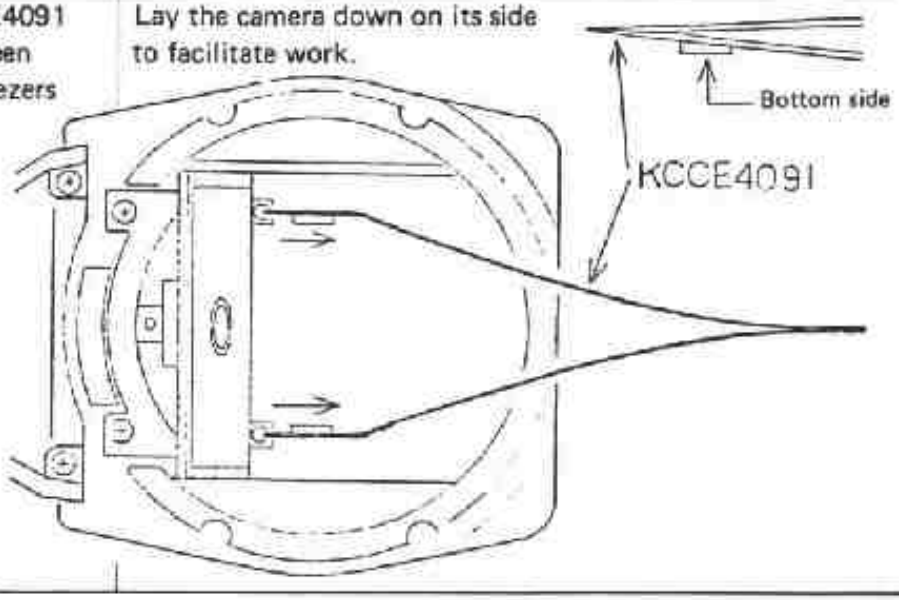
(3) Position CE253500 F Fastener, as shown below:



4. ZJ131000 Front Casting (Top cover, ZC2002, is assumed to be off.)

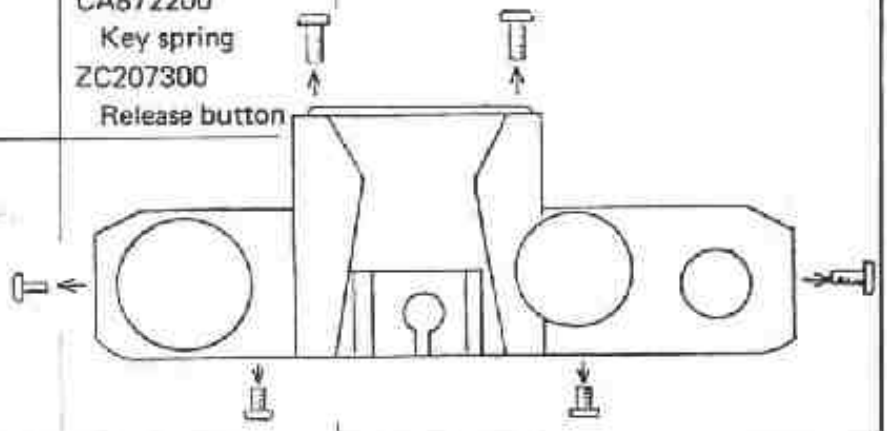
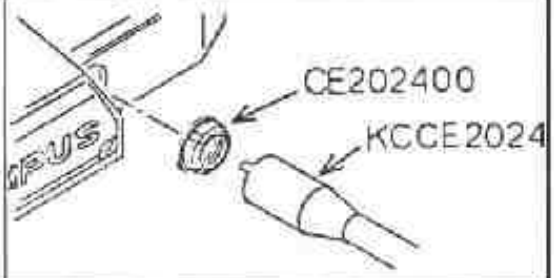
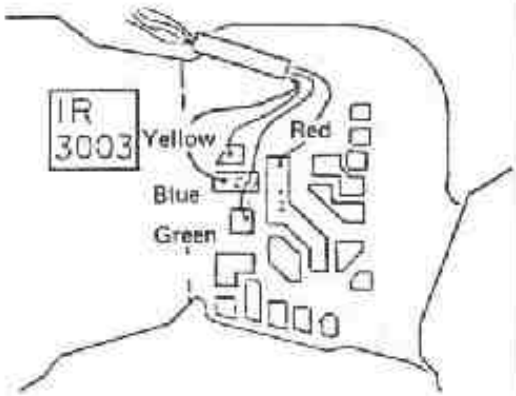
Parts to remove	Q'ty	Tool to use	Parts coming off	Remarks
CA915600 Light proof padding	2			
ZC208400 Cover plate	1			1. Push up the mirror with a fingertip. (Be sure that the shutter is not in charged condition.)  2. Lift it in the arrow direction and take it out.
CE202800 H. screw CE203400 A board stopper	1 1		ZC207900 A holder ZJ136600 ~ ZJ137000 A board	
PUK2x3SN Screw	2		CE202500 A board washer	
3PUK1.7x3.5SN (Be sure to remove this.)	1		CA889700 FP terminal	

3. LC409100 Focussing Screen

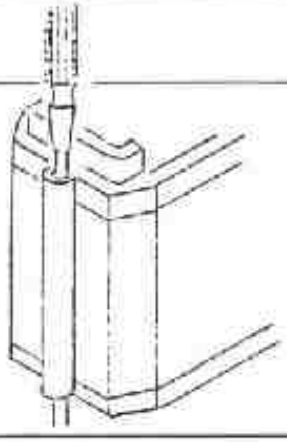
Parts to remove	Q'ty	Tool to use	Parts coming off	Remarks
PUK2x4.5SG Screw	3		CE254600 B mount CE254500 Front cover ZJ130600 Connecting ring	
CE252600 L cover	1		CE252600 L Cover might not come off easily because it is attached with PLYOBOND. To facilitate its removal, apply a small amount of the mixture liquid. 	
PSK1.4x2SN Screw	1		CE253500 F fastener	
LC409100 Focussing screen	1	KCCE4091 Screen tweezers	Lay the camera down on its side to facilitate work. 	

IMPRINT THE DATE

The OM-10 QUARTZ incorporates an LSI circuit, Once the date is correctly set, it keeps the time up to the year 2009, automatically correcting for leap years as well as the number of days in month. (Accuracy within 15 seconds per month at 15°C to 35°C [50°F to 95°F]);

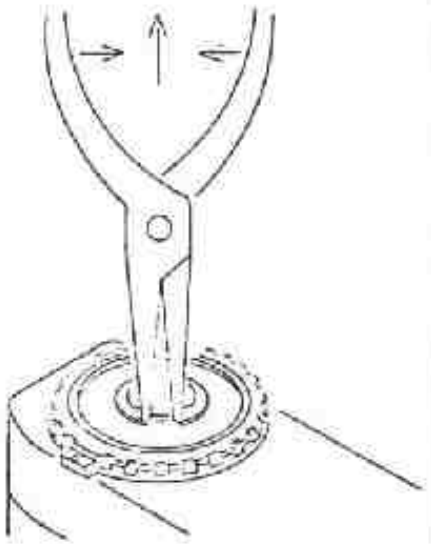
Parts to remove	Q'ty	Tool to use	Parts coming off	Remarks
PUK1.7–410SG Screw	4		CA872200 Key spring ZC207300 Release button	
PUK1.7–416SG M washer	2			
CE202400 M washer	1	KCCE2024 Driver		
Undo soldered connection of FPC.	4		ZC200200 Top cover	
CAUTION: Be sure to refer to VI-2, in which how to put on the top cover is explained. Putting on this cover incorrectly is likely to give rise to trouble.				

2. ZC200500 Rear Cover (Top cover, ZC200200, is assumed to be off.)

Parts to remove	Q'ty	Tool to use	Parts coming off	Remarks
PSK2x4SE Screw	2		ZJ133700 Bottom plate	
CE210800 Shaft	1	No. 2 screwdriver	ZC200500 Rear cover	

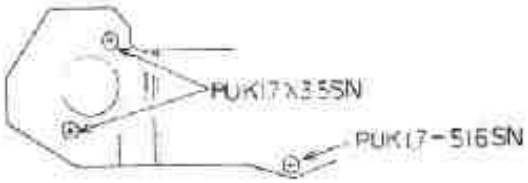
NOTE: ⊠ Indicates parts that should not be touched directly by bare hand because special surface treatment is applied. Wear fingerstalls or use tweezers.

1. ZC200200 Top Cover

Parts to remove	Q'ty	Tool to use	Parts coming off	Remarks
CE200900 FW lever holder	1	KCCE 2009	ZC207200 Winding lever CE204200 FW lever washer	
CE201800 R screw	1	KCCE2119 R shaft holder	CE201700 R spring ZC208300 R knob	
SC0158 MR90	1	OT0065 Stop ring pliers	CE201600 (204300) R plate ZC208500 R change	

1-7. Install the prism.

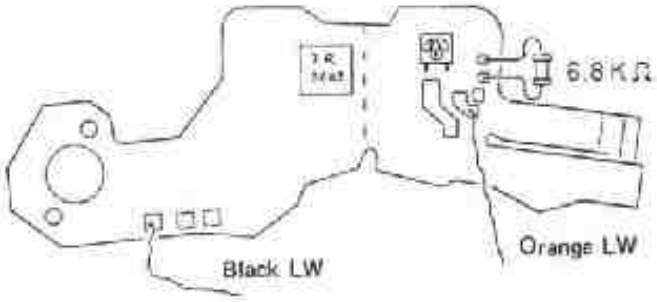
1-8. Rest FPC on R shaft bearing, and secure it with two screws (PUK1.7x3.5SN).



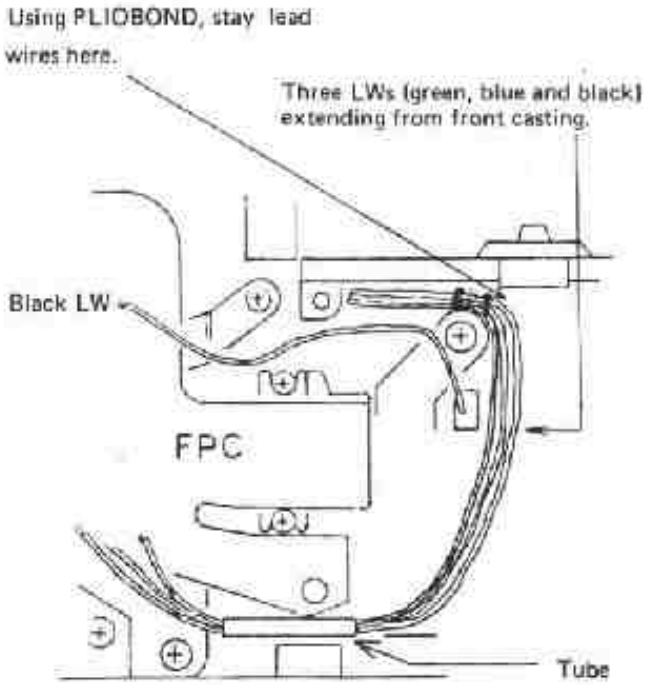
NOTE:
Be sure that FPC is properly formed.

1-9. Fasten down FPC by tightening PUK1.7-516SN screw.

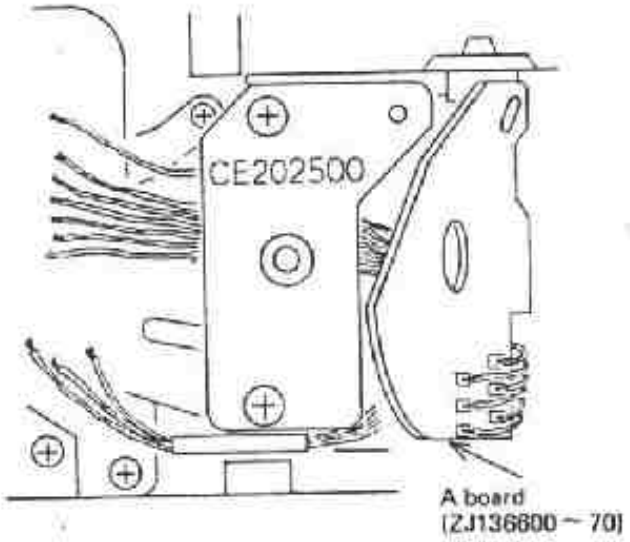
1-10. Disconnect the two lead wires and 6.8-kilohm resistor.



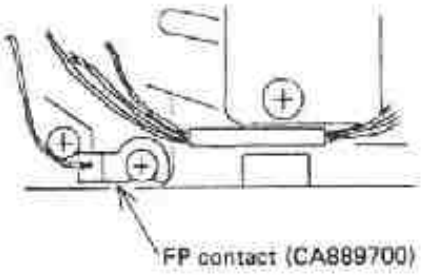
1-11. Route the lead wires neatly.



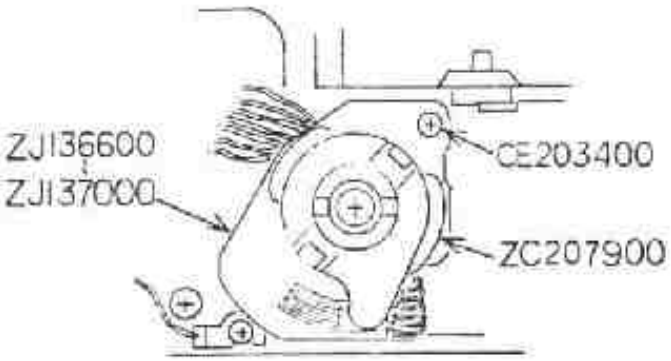
1-12. Install A board washer (CE202500).
Route A board lead wires through under the washer, making sure that these wires do not cross over one another.



1-13. Install FP contact.
Be sure that FP contact does not protrude from the body.

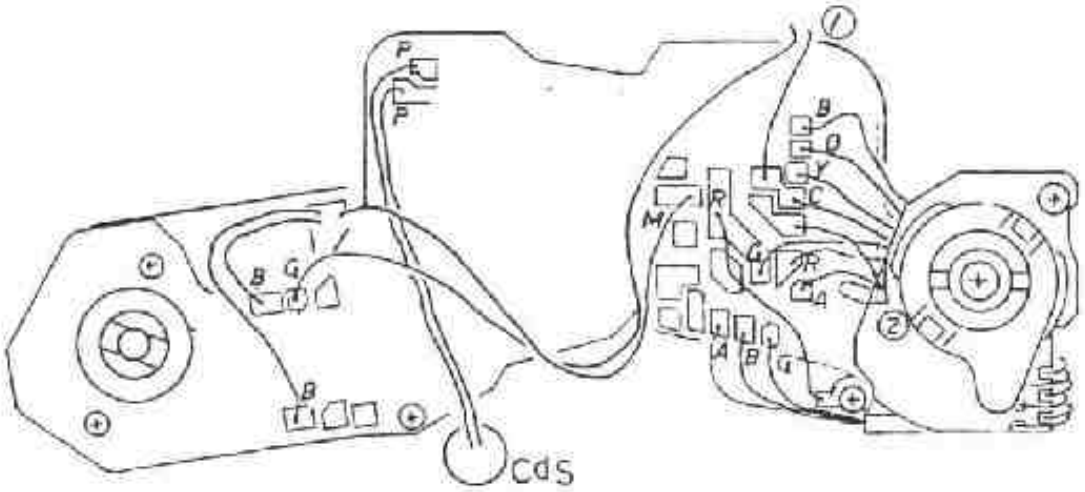


1-14. Install A boards (ZJ136600 ~ ZJ137000) and A holder (ZC207900).



NOTE:
Clean A board with DYFRON S3E before mounting it on A holder (ZC207900).

1-15. Solder lead wires.



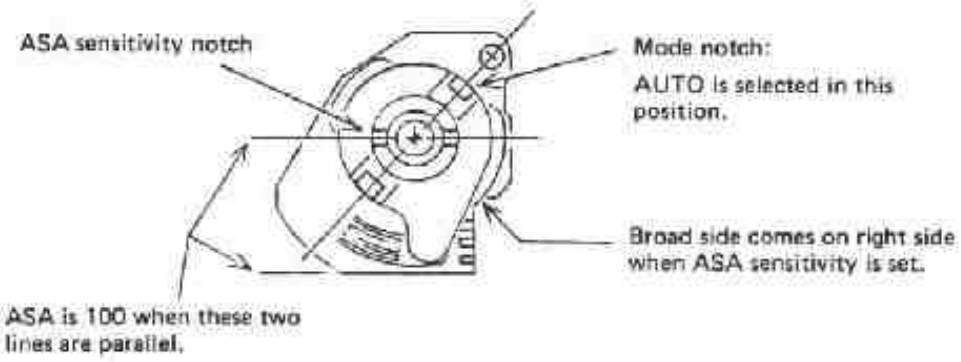
Refer to Page D-22 for lead wires ① and ②.

NOTE:
Letter symbols stand for lead wire colors:

A for blue LW
B for black LW
C for brown LW
G for green LW
M for purple LW
O for orange LW
P for pink LW
R for red LW

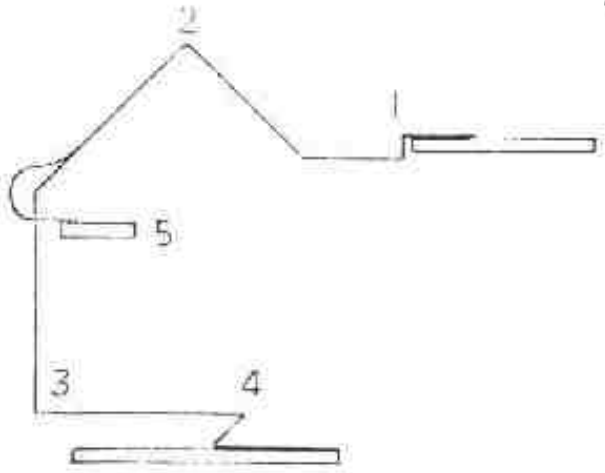
2. EE adjustment

2-1. Set the camera for AUTO and ASA 100.

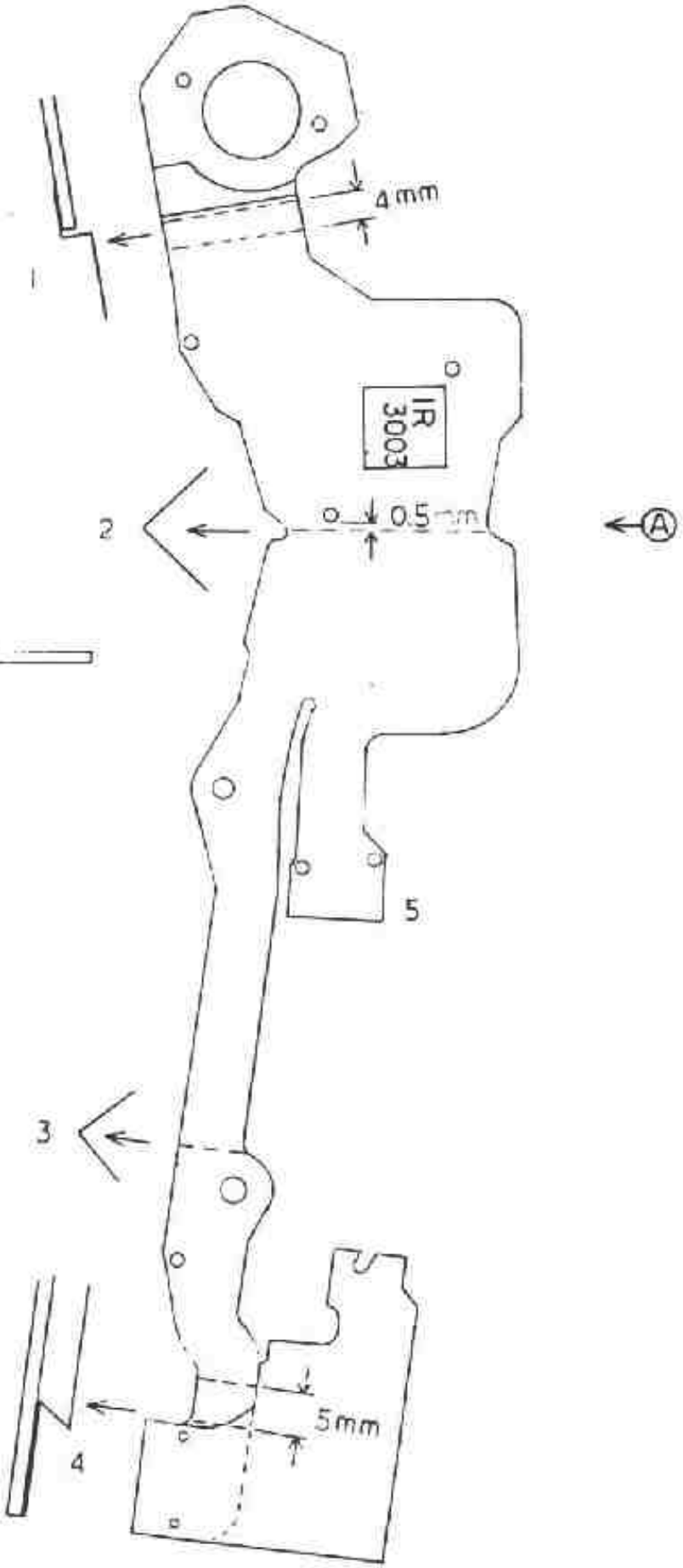


1. FPC installation

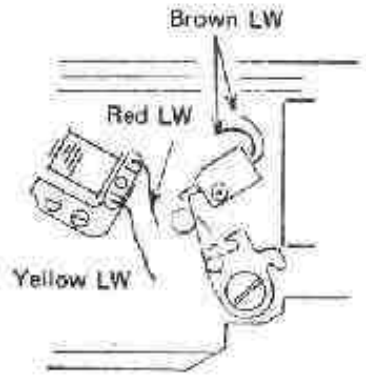
1-1. Bend as shown on the right.



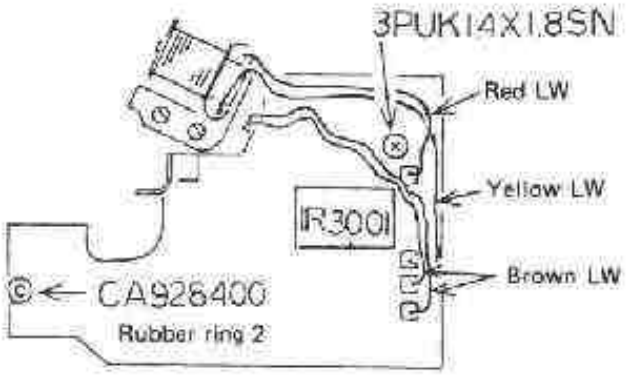
As seen in the arrow (A) direction.



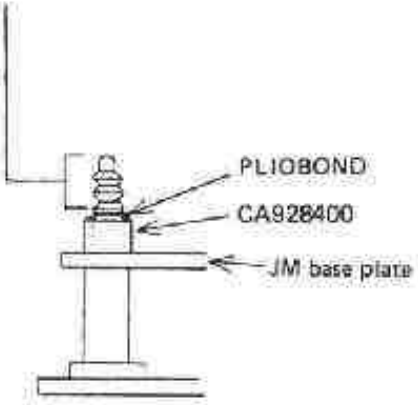
1-2. Connect lead wires (see the sketch) by soldering.



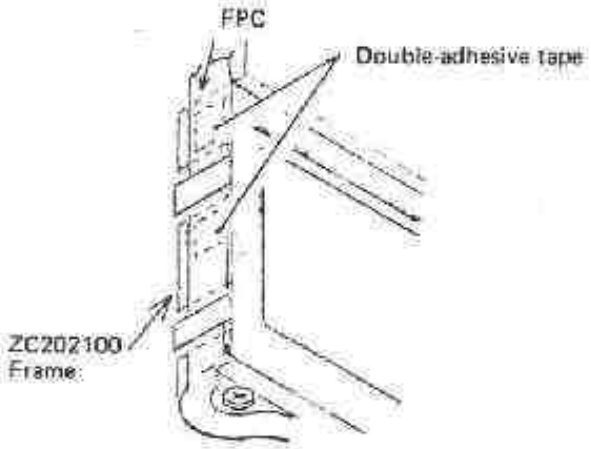
1-3. a. Route the lead wires neatly.
b. Secure JM board by tightening the screw (3PUK1.4x1.8SN) and rubber ring 2 (CA928400).



NOTE:
Do not use a bonding dope or electrical continuity to cover plate (ZC208400) will deteriorate.

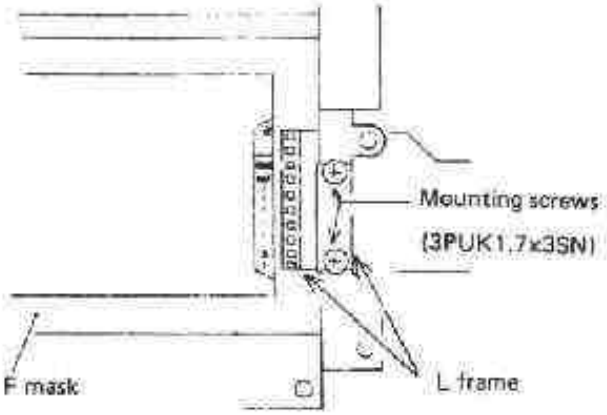


1-4. a. Stick pieces of double-adhesive tape to frame (ZC202100).
b. Insert FPC into frame (ZC202100) in an inserting manner.
c. Stick FPC to the adhesive tape.

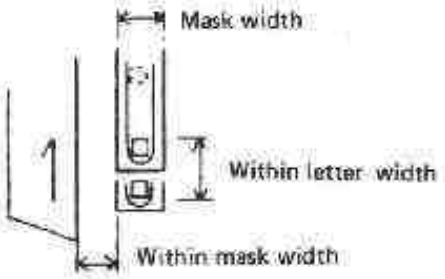


1-5. Fit front casting to die-cast body.

1-6. Position L frame in place and secure it.
Positioning of L frame will be easier when the prism has been removed.



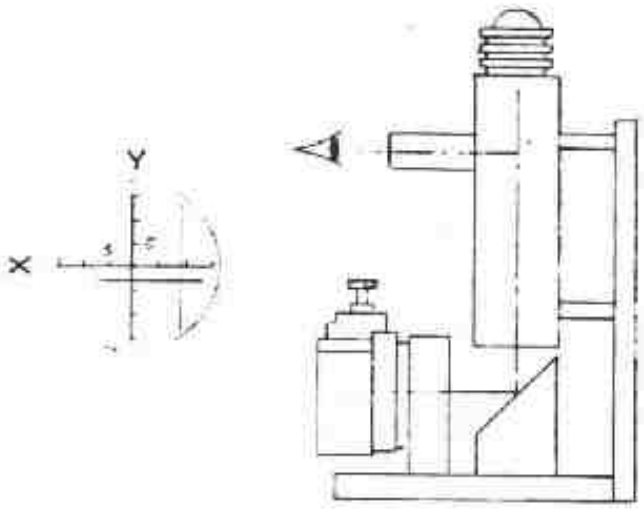
NOTE:
When positioning L frame, be sure to:—
a. True it up.
b. Observe these limits:



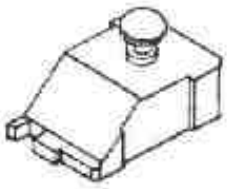
- Corner radius portion of the screen comes on B mount side.
- Bring F mask toward right-hand front.

2-2. Finder focussing adjustment involving CE-253700 F washer adjustment.

2-2-1. Remove CE253700 F washer. Put on test mirror to locate the 45° position. (This is to be effected for Y direction only.)

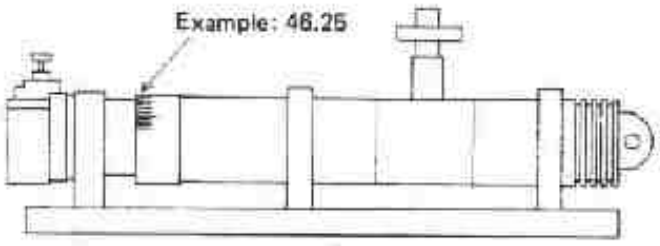


NOTE:
Approximately within ±5'.
(No need to adjust for X direction.)

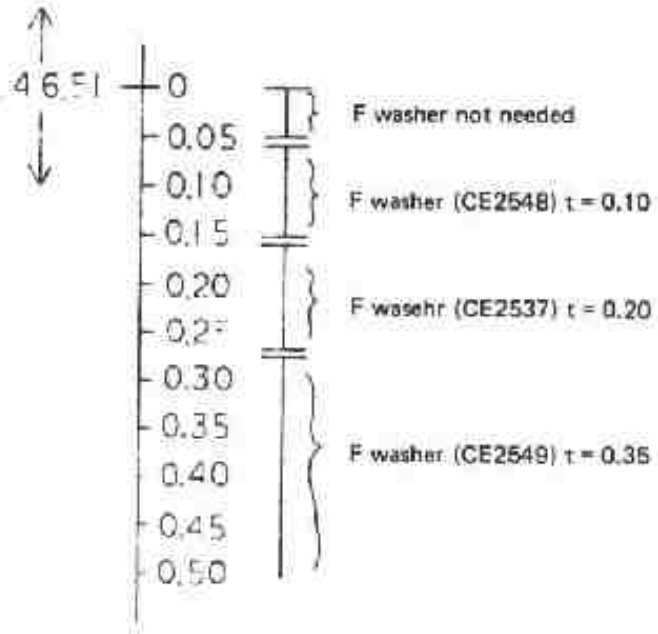


Test mirror

2-2-2. Mount the camera on the photoelectric collimator, put on the test mirror, and measure the focus position.



2-2-3. Select the washer by referring the measurements taken in 2-2-2. to the table below.
Example: t = 0.20



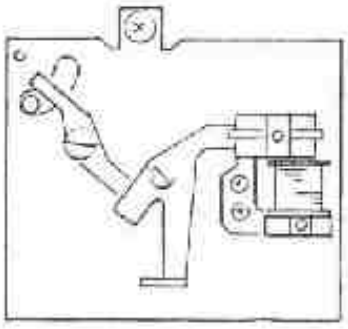
NOTE:
If t = 0.50 or larger, check on one-side blur after adjusting the focus.
The blur must be within ±30'.

2-2-4. Install F washer, focussing screen, F mask (ZC2081), P frame (CE2534), penta prism, P cover (CE2547) and P retainer (CE 2533).

2-2-5. Determine the focus by normal finder focus adjustment. Refer to 2-1.

1. Side plate R (ZC205100)

1-1. If side plate R (ZC205100) is in faulty condition, replace the plate and what are on it. This is because the permanent magnet does not lend itself to easy adjustment: when malcondition is noted in this section, it is better to replace the whole as a set.



1-2. Check to be sure that –

1) Winding-up motion will lock the mirror if the battery is absent.

2) The electromagnet will exhibit about 380 ohms when tested for continuity through its coil by using a tester on 10X ohmic range.

(Internal resistance of the magnet.)

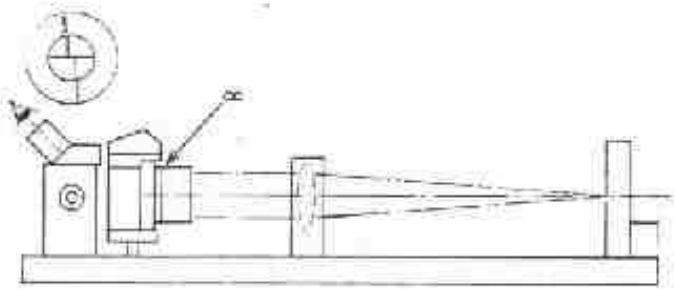
3) The mirror will get unlocked (released) when 2 volts is applied to the blue lead wire (–) of RY101 and to the die-cast body.

NOTE:
While measuring, do not turn the regulated source voltage on and off.

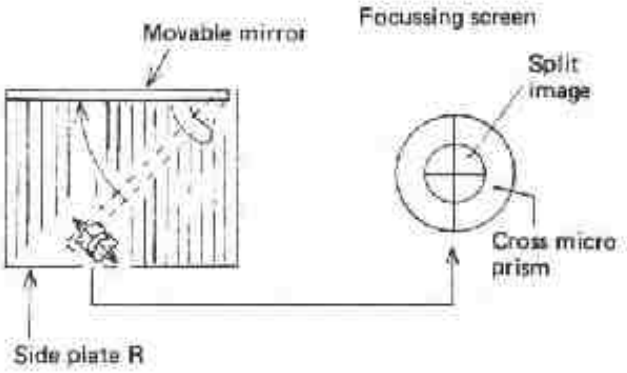
2. Finder Focussing

2-1. Normal finder focus adjustment

2-1-1. Attach the focussing lens (adjusting tool) to the camera, mount the camera on the collimator, and measure focussing error.



2-1-2. Adjust the 45° position of movable mirror to line up the split images straight in the finder.



Use the collimator as explained in 2-1-1 to make this adjustment.

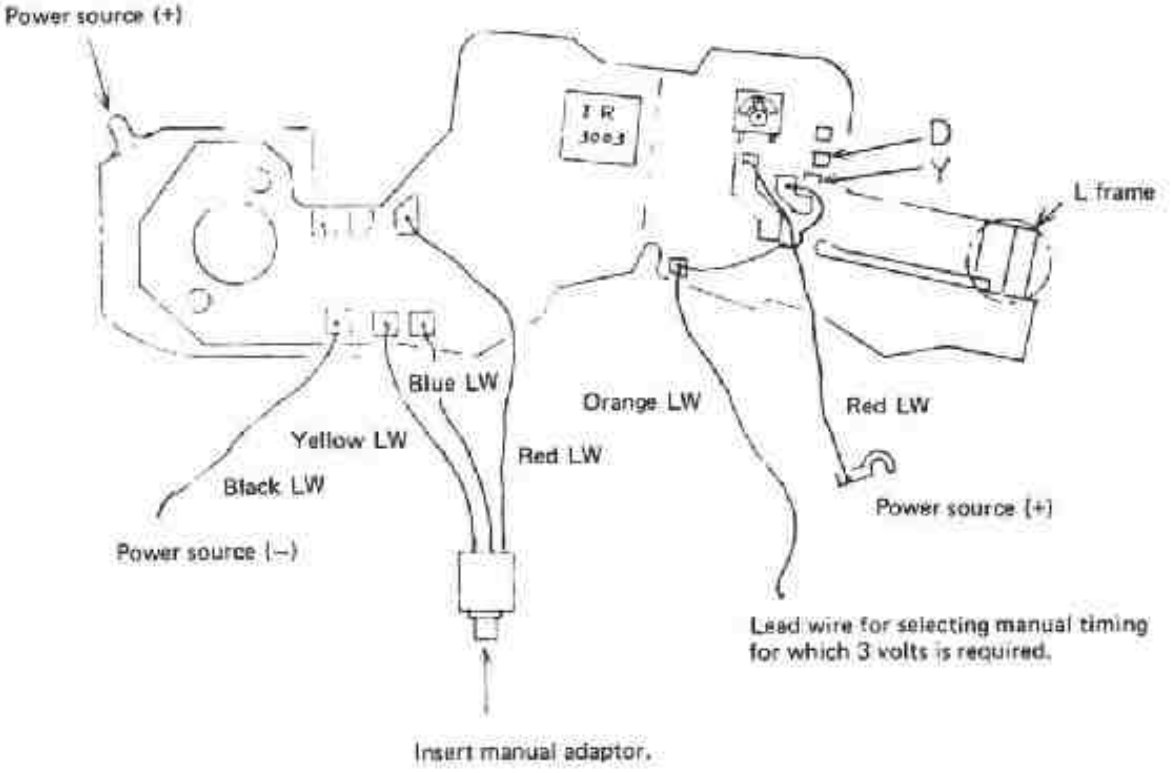
NOTE:
Displace the 45° position and if blur on one side exceeds ±30′ in Y direction, replace washer.

Displacing the focus position by 0.01mm shifts one-side blur by 1.2′.

2-3. Manual timing adjustment where front casting is not attached

1) Wiring
   a. Connect the body and red lead wire to voltage source 3 V (+).
   b. Connect black lead wire to voltage source 0 V (–).
   c. Insert manual adaptor.
   d. Connect orange lead wire to 3 V (+), as shown.

NOTE:
In the case of AUTO timing.
a. Same as in MANUAL.
b. Same as in MANUAL.
c. Manual adaptor pulled out.
d. Orange lead wire disconnected from (+).



2) Carry out adjustment for each timing in a manner already explained for the case in which the front casting is attached.

3) In making this adjustment, take these precautions:
   a. Do not allow lead wires and terminals to touch one another or come in contact with the shutter tester.
   b. Handle L frame carefully: this frame is easy to injure.
   c. Note that the shutter will be left open if the power source voltage is too low.

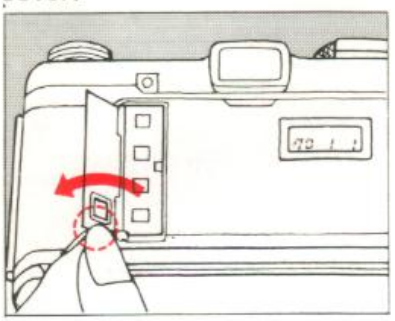
4) MINI time checking and adjustment
Referring to the diagram above, disconnect orange LW from 3 V; insert 6.8-kilohm res.s or (ASA100) between Y and D; and check to see if adjustment is necessary.

NOTE:
Refer to page D-20, 1-15, and solder at A on the board.
This permits omission of soldering orange LW and 6.8-kilohm resistor.

93

SELECTION OF IMPRINT DATA

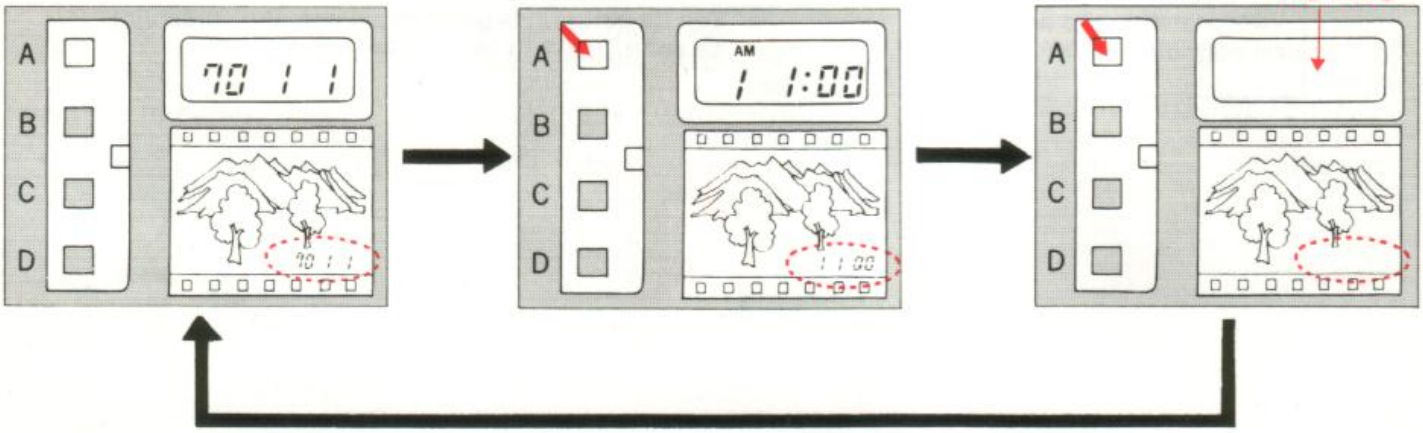
① Flip up the control panel cover.



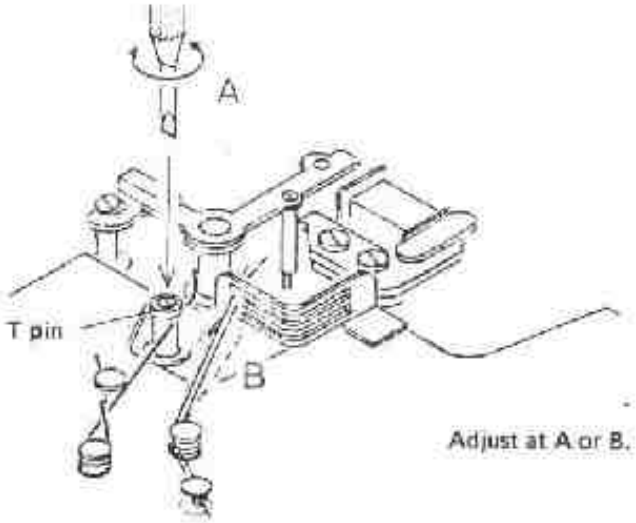
*See p. 47 and following for use of the buttons B, C & D.

② To imprint the time: Press "A" until the date appears. AM or PM can not be imprinted.

③ To prevent date imprinting: Press "A", until there is no visible readout.

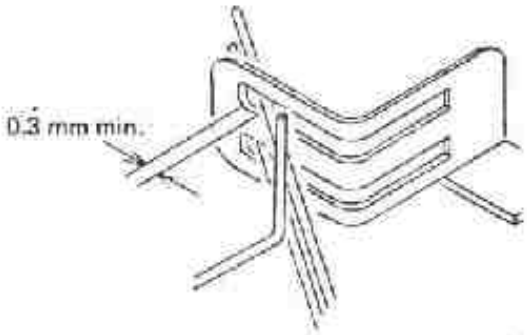


3) Turn T pin to adjust for 1/500 second. (If this pin will not rotate, bend the trigger piece.)



Adjust at A or B.

NOTE:
Adjust to anywhere between 1.17 ~ 3.27mS.



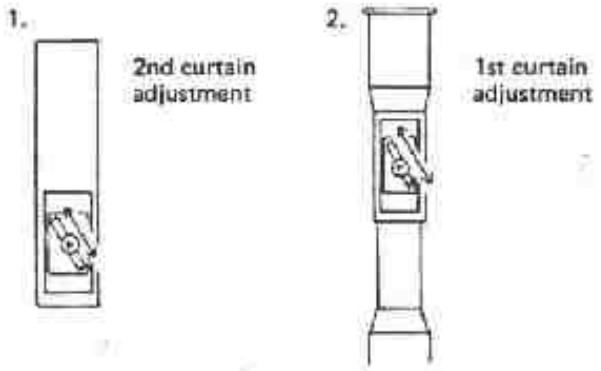
Of this two, refer to the narrow one.

4) Check the 1/1000-second adjustment again and if necessary, repeat the steps 1) through 3), above.

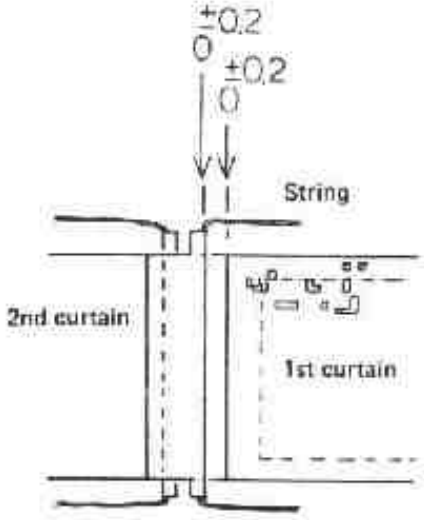
5) Check each timing to be sure that the shutter speed is within the specified range:

Timing	Speed
1/1000 second	0.5 ~ 2 milliseconds
1/500 second	1.17 ~ 3.27 milliseconds
1/8 second	74.8 ~ 209 milliseconds
X timing	15 ~ 30 milliseconds
Mini timing (Check on AUTO.)	0.3 ~ 2.0 milliseconds

3) Position the curtains accurately (fine adjustment).



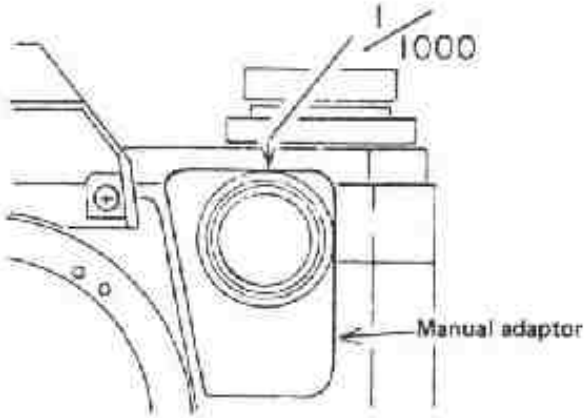
NOTE:
Refer to the scribed lines.



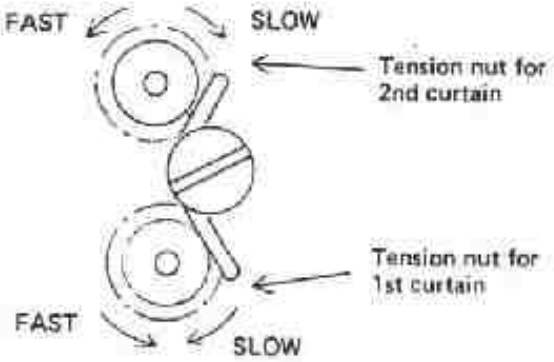
2. Manual timing adjustment

2-1. Curtain speed adjustment

1) Fit the manual adaptor, and set the speed at 1/1000 sec.



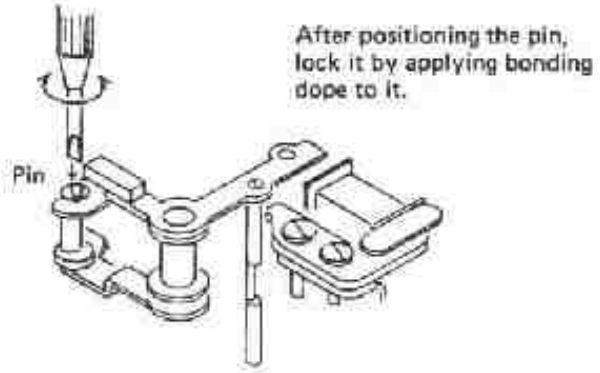
2) Turn tension nuts to set the respective speeds to the values stated on the right.



NOTE:
2nd curtain speed: 12.0 ±0.1 milliseconds
1st curtain speed: 12.0 ±0.1 milliseconds

2-2. Timing adjustment

1) Turn the pin to set the timed duration to MANUAL 1/1000 second.



NOTE:
If disturbed curtain speed is complained of the camera brought in, adjust the speed in the foregoing manner.

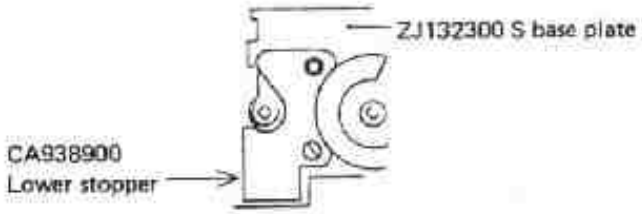
If adjustment by the pin is not successful, replace the trailing pawl assembly. (Refer to page D-6 and D-7.)

Adjust to anywhere between 0.5 and 2 mS.

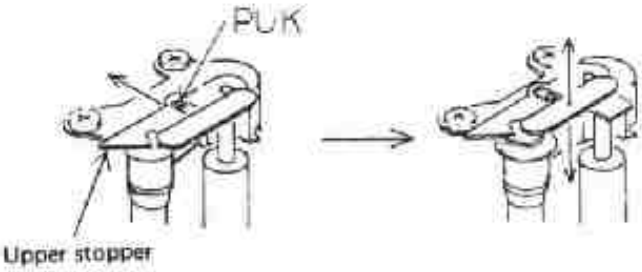
2) Check AUTO MINI time.
Adjust by means of the pin, as before, distinct from 1/1000-second adjustment.

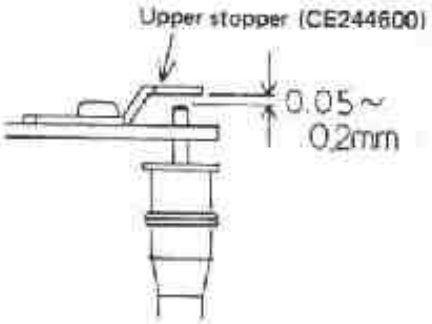
NOTE:
Be sure that AUTO mini time (center exposure time) is between 0.3 and 2 mS.

1-4. Install lower stopper (CA938900), as shown.

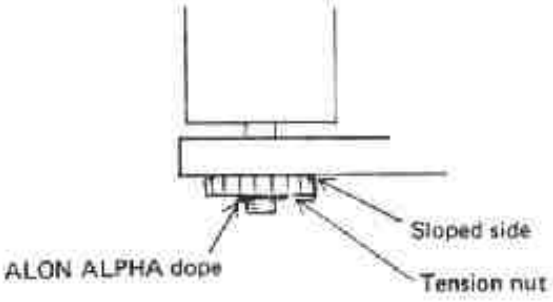


1-5. Displace upper stopper (CE244600), as shown, to eliminate the rattle, if any, of the curtain shaft.

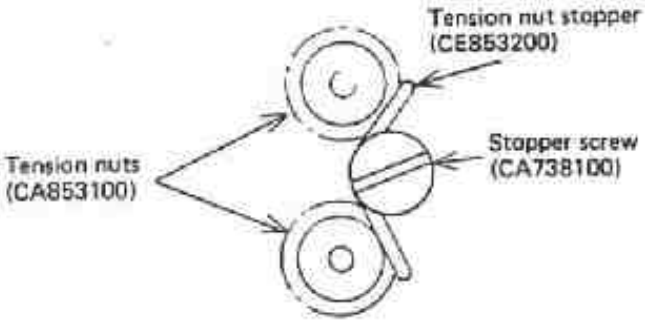




1-6. Fit the tension nut. After tightening this nut, lock it by applying ALON ALPHA 202. (There are two tension nuts to tighten. Be sure to apply ALON ALPHA in a dot amount.)

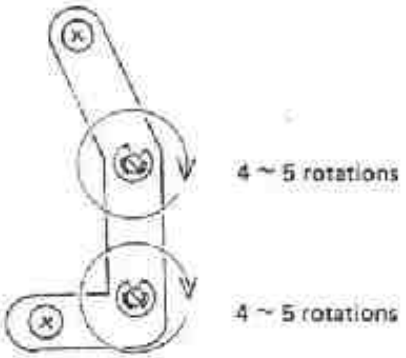


1-7. Install tension nut stopper (CA853200) and stopper screw (CA738100), as shown.

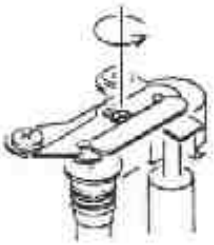


1-8. Tentatively position the curtains in the following sequence of steps:

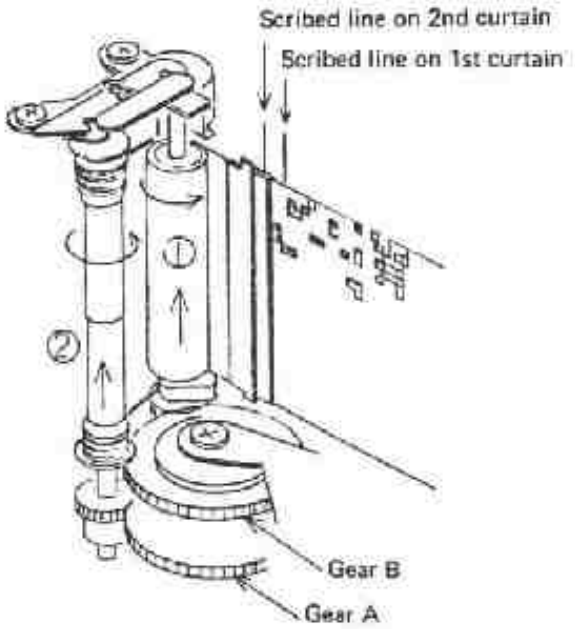
1) Tension first curtain and second curtain by making 4 to 5 rotations: this is tentative tensioning.



2) Loosen PUK screw holding down upper stopper (CE244600).

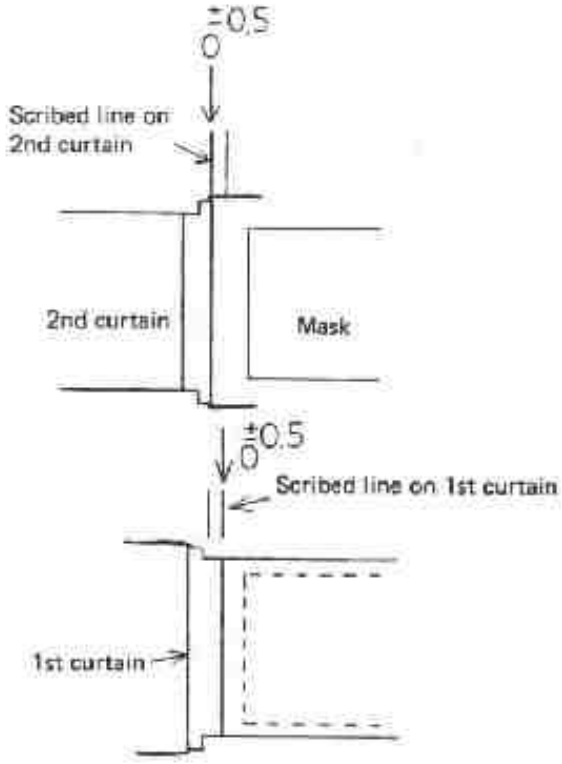


3) Disengage curtain shaft B (CE242300) from gear B, and adjust 2nd curtain: this is for coarse positional adjustment. Next, similarly adjust curtain shaft A and gear A.



Each tooth of the shaft corresponds to a 1.4-mm displacement.

NOTE:
Coarse positioning of curtains is illustrated in the sketches below:



4) Tighten PUK screw to secure upper stopper (CE244600).

1-9. The curtains have been roughly positioned. The next step is to position them accurately (fine adjustment), in the following manner:

1) Reduce the tension to naught (zero) by turning back, as shown.

4 ~ 5 rotations . . . . . .
Turn back until 1st curtain becomes slackened.

4 ~ 5 rotations . . . . . .
Turn back until the curtain string (CA8531) slackens.

2) Tension both curtains by turning exactly 5 and 7 rotations, as shown.

5 rotations
(1st curtain)

7 rotations
(2nd curtain)

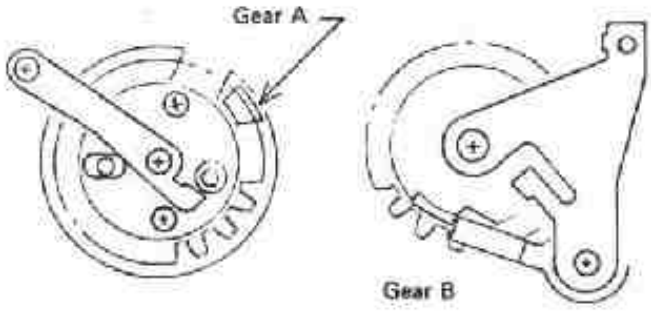
90

III. SHUTTER MECHANISM

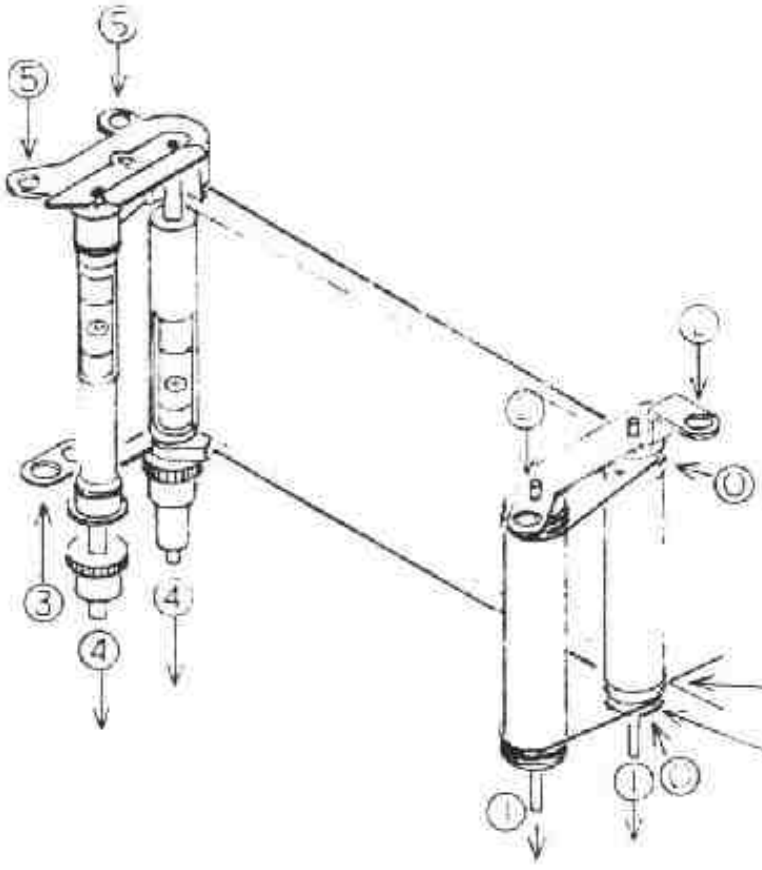
1. Shutter curtain replacement

1-1. Assuming that the existing curtains are in faulty condition and are to be replaced, it may occur that the tension nut (CA853100) will not come off. In such a case, raise the nut by prising it with a screwdriver and break the curtain shaft to permit removal of the curtains.

1-2. Positions of gear A and gear B



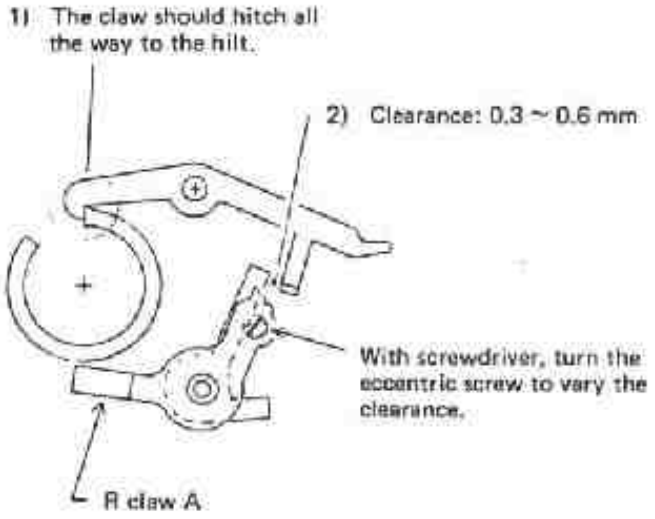
1-3. Install the replacement curtains in the following order:
The parts to be set in the camera body are given reference numbers in this sketch according to the sequential order of installation: part ① goes in first, for example. After installing the curtains, be sure to apply BELL LOCK to each screw.



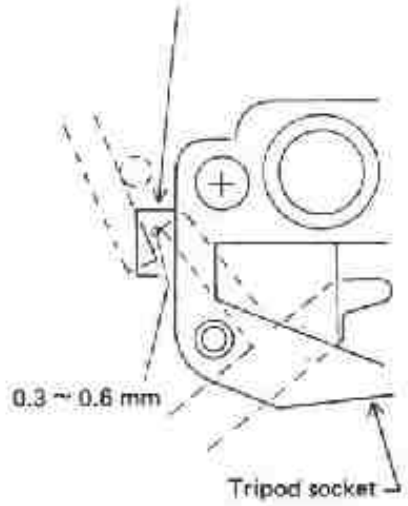
NOTE:
Apply a small amount of COSMOLUBRIC to the indicated portions.

No distinction between top and bottom is made here.

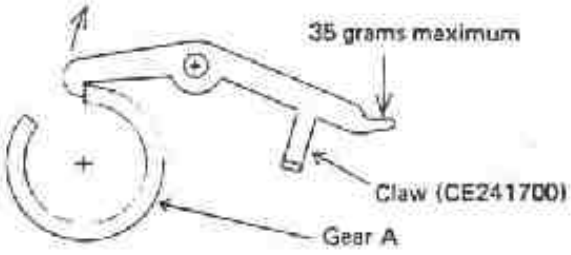
4. Adjustment of clearance between claw (CE-241700) and plate (CE244400)



NOTE:
Check the clearance by observing through the side hole of tripod socket (CE051400).

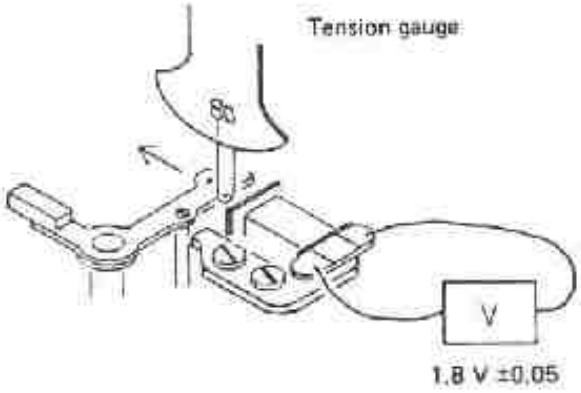


5. Checking the releasing force required of claw (CE241700)



NOTE:
Check to be sure that no greater force than 35 grams is needed to disengage the claw from gear A.
Be sure, also, that leading pawl disengages too easily.
Use a tension gauge to measure this force.

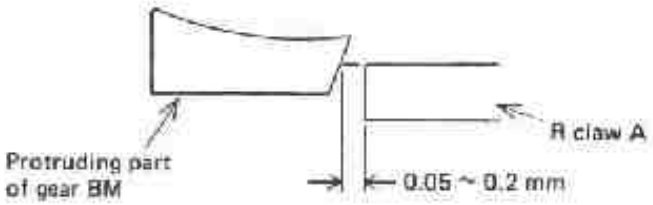
6. Testing the electromagnet for attractive force and continuity



NOTE:
From a regulated-voltage power source, apply 1.8 ±0.05 volts to the electromagnet. In this condition, the electromagnet should develop a force of at least 80 grams, as measured with a tension gauge.
To check the circuit continuity through the coil, measure its ohmic resistance with a circuit tester. The coil is in sound condition if the tester shows 600 ohms or thereabout on its 100X range.

2-2. Clearance adjustment

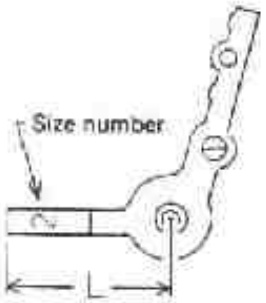
R claw A is available in five sizes listed below. Use the one that will provide the prescribed clearance (0.05 ~ 0.2 mm).



R claw A1	(ZC202200)	L = 7.8
R claw A2	(ZC202300)	L = 8.1
R claw A3	(ZC202400)	L = 8.4
R claw A4	(ZC202500)	L = 7.95
R claw A5	(ZC206000)	L = 8.25

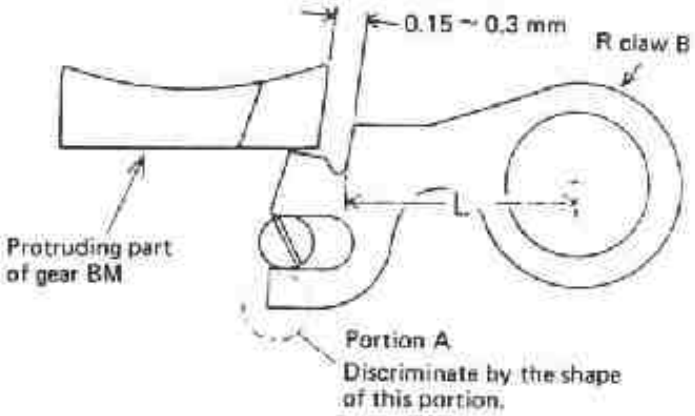
NOTE:

- Check this clearance upon winding up.
- Trailing R claw A is constructed as shown below. It is combined with trailing R claw B. Selection must be made by taking R claw B into account.
- L dimension and size number.



3. Positional adjustment of gear BM and R claw B

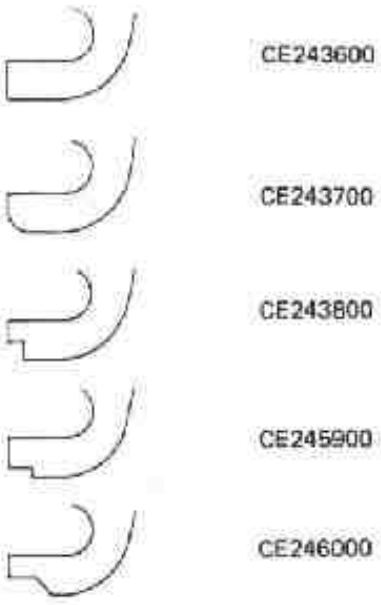
R claw B is available in five sizes listed below. Use the one that will provide the prescribed clearance (0.15 ~ 0.3 mm) between the protruding part of gear BM and R claw B.



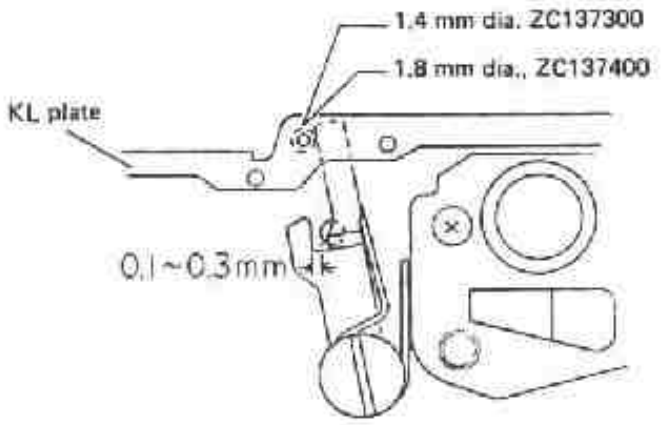
R claw A1 and R claw B1 (CE243600) L = 6.65
R claw A2 and R claw B2 (CE243700) L = 6.95
R claw A3 and R claw B3 (CE243800) L = 7.25
R claw A4 and R claw B4 (CE245900) L = 6.8
R claw A5 and R claw B5 (CE246000) L = 7.1

The two are punched. Consider the balance between the two in replacing the claw.

NOTE:
To check the clearance, wind up and remove R claw A from gear BM.
The portion A of is shaped as follows:



5. **Adjustment of bulb plate (CA946400) and KL plate pin**



5-1. Obtain the clearance (0.1 ~ 0.3 mm) by using a KL plate (ZC137300 or ZC137400) whose pin is of the right size for keeping the clearance between 0.1 and 0.3 mm.

5-2. If the above adjustment is not possible, replace plate CA968800.

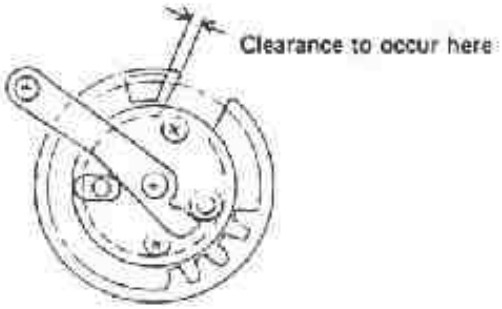
CA946400

CA968600

6. **First curtain adjustment**

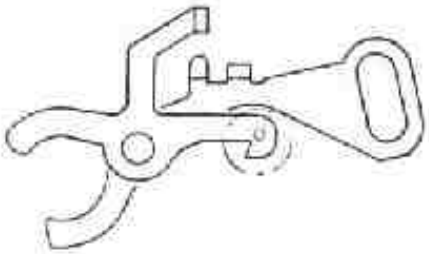
This brake is not provided with an eccentrically shaped means for adjusting the braking force, but its A pinch (ZC201800) is of such a shape that no contact occurs between the protrusion of gear A and S base plate.

1) Check to be sure that, after shutter releasing, a clearance occurs at the indicated location.

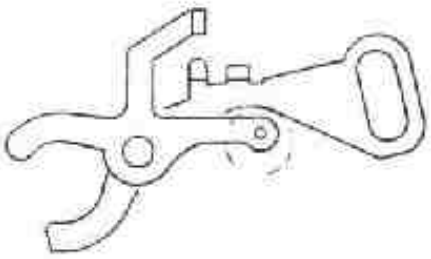


2) Brake replacement

There is no interchangeability between the first curtain brake of OM-10 and those of other models. See the difference in the two sketches:



A pinch for OM-10 (ZC201800)



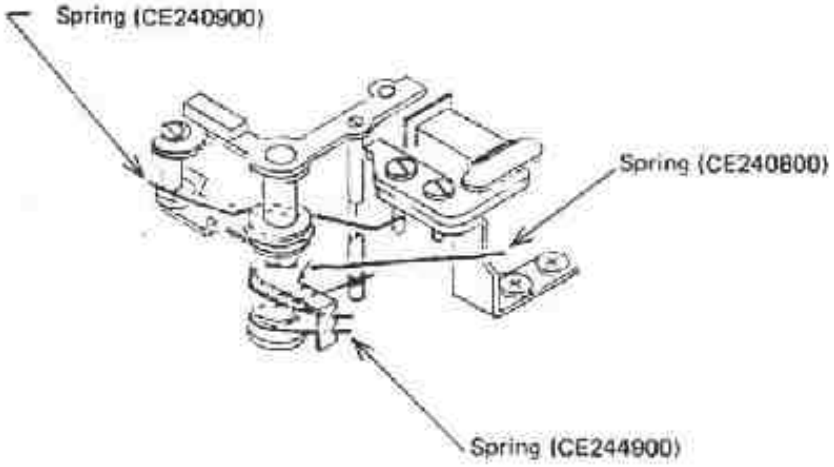
A pinch for OM-1 and OM-2

94

II. ADJUSTMENTS RELATED TO S BASE PLATE (ZJ132300)

1. How to hitch springs

Hitch the three spring as illustrated.

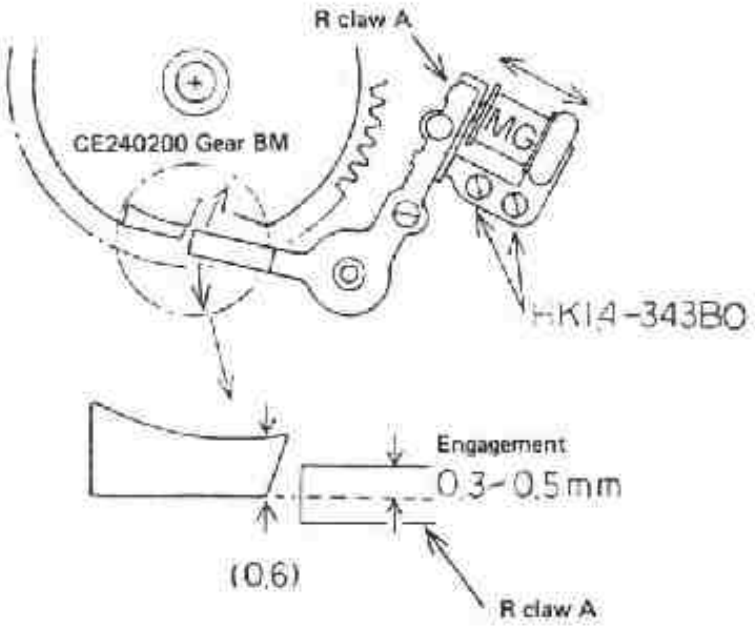


2. Positional adjustment of gear BM (CE240200) and R claw

2-1. Adjusting the amount of claw engagement

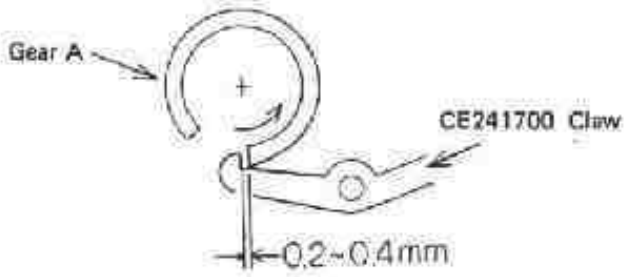
The prescribed amount of engagement is from 0.3 to 0.5 mm, as shown. To obtain this much engagement of the claw with gear BM (CE240200), displace the magnet.
Loosening the magnet securing screws (HK 1.4 - 343 BO) permits the magnet to be moved.

NOTE:
After repositioning the magnet in place, be sure that the magnet and upper plate (CE-081100) are nearly parallel to each other, and that the contact is made under spring force.

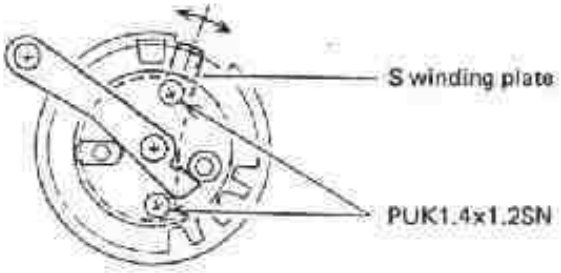


3. **Adjusting marginal clearance on Gear A**

Gently wind up to see if the clearance, indicated in the sketch, occurs after the leading claw (CE241700) has passed over the end of gear A; if not, make the following adjustment to produce the indicated amount of clearance.



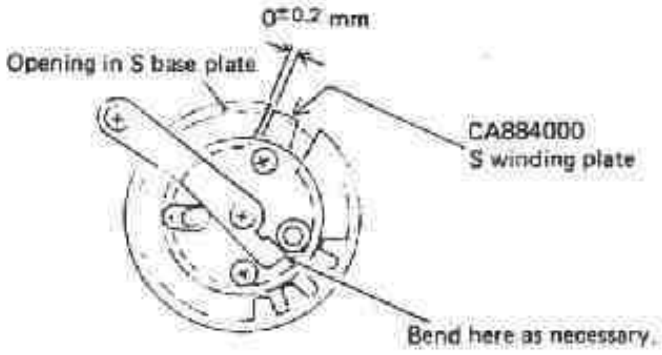
To adjust, reposition S winding plate (CA-884000) in the following manner:



Loosen two screws (PUK 1.4 x 1.2 SN), and angularly displace S winding plate to produce a clearance of anywhere between 0.2 and 0.4 mm.

NOTE:
After completing the adjustment, lock with ALON ALPHA.
To be locked are:
Two PUK1.4x1.2SN and slot (indicated by an arrow).

4. **Positional adjustment of 4-gear (ZC102700)**



The clearance of S winding plate (CA884000) relative to the hole edge of S base plate should be $0^{\pm 0.2}$ mm; if not, bend the 4-gear stopper.

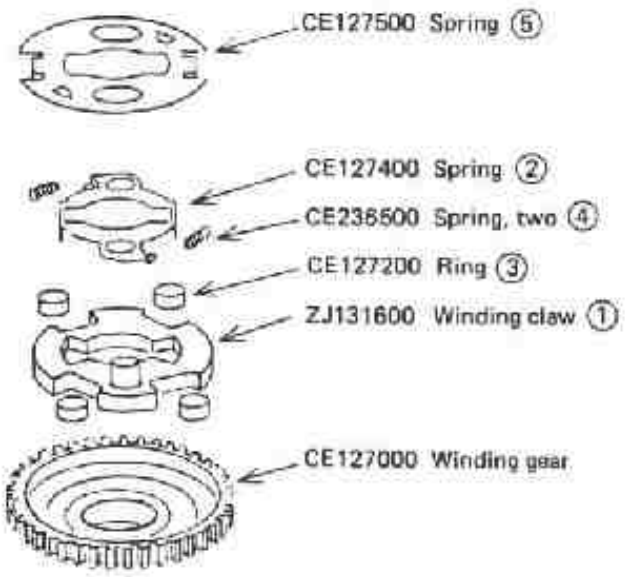
NOTE:
After making this adjustment, make sure the bent portion will not rub the high spots of 4-tooth gear.


82 7 19

I. WINDER MECHANISM

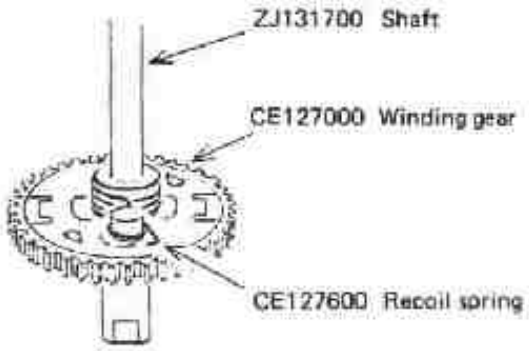
1. CE1270 winding gear re-assembly

1-1. Combine winding gear (CE127000) and ring (CE127200) together by fitting the reference-numbered parts ① through ⑤, sequentially and in ascending order, to the winding gear.

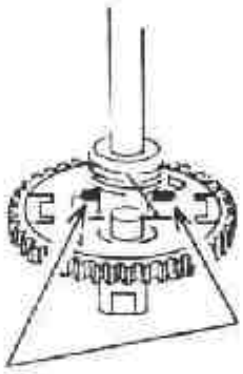


NOTE:
Assembly of ① , ② , ③ and ④.

1-2. Insert winding shaft (ZJ131700) into the winding gear assembled as above, and mount spring (CE127600), hitching its free end onto the stud, as shown, to produce a proper biasing force.

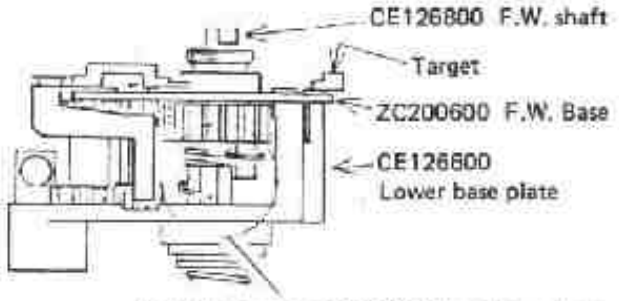


NOTE:
So that the winding gear will not break apart when hitching the return spring, hold down the roll spring and set the spring as shown.



NOTE:
Equalize the amounts of protrusions, right and left, and push in the winding shaft.

1-3. Insert F.W. shaft sub-assembly (CE126800) into lower base plate (CE126600), put on F.W. base (ZC200600), and fasten down the base with screws.

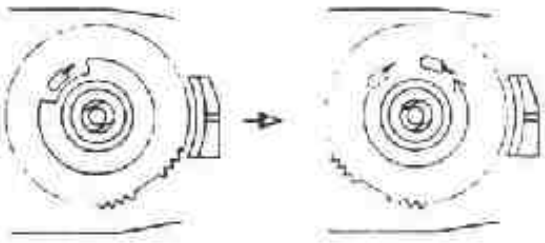


Returning spring (CA886100) is shown here as hitched onto the protrusion.

NOTE:
There are two protrusions. Be sure to hook the spring onto the one shown.

1-4. Referring to the above sketch, hitch spring (CE127600) onto the protrusion of lower base plate (CE126600).

1-5. Put on film counter spring (CE128800) and film counter LC (CE128700), and tension the counter spring.

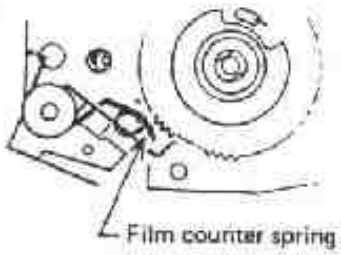


Hitch film counter spring onto the notch formed of film counter LC.

Turn the counter LC about one rotation to override the stopper and set it beyond the stopper.

1-6. Push film counter stopper (CE128900) into the groove of washer (CE126700), guiding the stopper through the recess formed of film counter LC (CE128700).

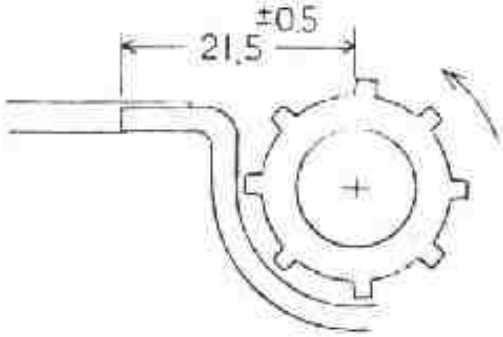
1-7. Put on film counter spring 1 (CE128600).



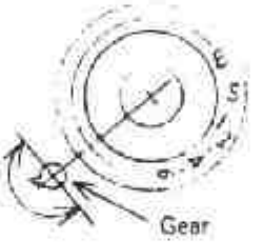
2. Sprocket positioning

Positioning adjustment is to be made by displacing gear No. 2 (CA883400) in place. To do so, gear No. 1 (CA881600) must be removed.

NOTE:
Check the dimensions while urging the gear toward mask side.



NOTE:
Locate the gear as shown here.



Position the gear so that its protrusion will come within the range indicated by arrows.

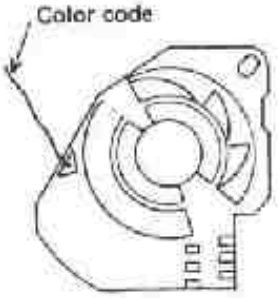
D. OUTLINE OF REPAIR

CONTENTS

OUTLINE OF REPAIR

3. Selective use of A board and F board

3-1. For A board, resistance values are in ranks, 1 through 5, identified by the colors of lead wires, as follows:



A board

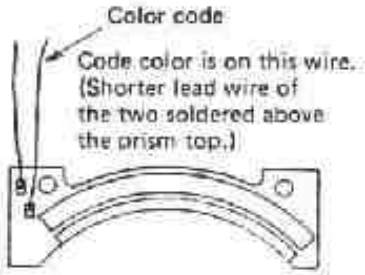
Rank	Set number	Color
1	ZJ136600	Orange
2	ZJ136700	Blue
3	ZJ136800	Red
4	ZJ136900	Green
5	ZJ137000	Black

(In camera of earlier production, colors are painted on the board and purple code color is used.)

NOTE: Rank and resistance

Rank	Resistance (KΩ)
1	2.86 ~ 3.06
2	3.06 ~ 3.26
3	3.26 ~ 3.46
4	3.46 ~ 3.66
5	3.66 ~ 3.86

3-2. Resistance values are similarly in for F board, as follows:



F board

Rank	Set number	Color
1	ZJ136100	Orange
2	ZJ136200	Blue
3	ZJ136300	Red
4	ZJ136400	Green
5	ZJ136500	Black

(In cameras of earlier production, color code is WHITE, which is painted.)

NOTE: Rank and resistance

Rank	Resistance (KΩ)
1	3.66 ~ 3.92
2	3.92 ~ 4.18
3	4.18 ~ 4.43
4	4.43 ~ 4.69
5	4.69 ~ 4.96

3-3. Combination of A board and F board

A BOARD		
Rank	Set number	Color
1	ZJ136600	Orange
2	ZJ136700	Blue
3	ZJ136800	Red
4	ZJ136900	Green
5	ZJ137000	Black

F BOARD		
Rank	Set number	Color
1	ZJ136100	Orange
2	ZJ136200	Blue
3	ZJ136300	Red
4	ZJ136400	Green
5	ZJ136500	Black

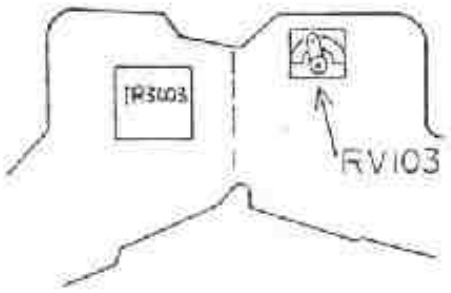
- Five combinations are indicated by solid lines drawn between the two tables, below. If necessary, however, different combinations may be formed as shown by dot lines. No other combinations are permitted.
- Wrong combinations will deteriorate the follow-up action of the indicating LED for each combination of brightness, ASA, aperture and S.S.

2-2. Install temporary upper plate.

2-3. Install jig lens.

2-4. Be sure that DC 3 volts is available from the camera power source.

2-5. Check EE level with EE tester, and, as necessary adjust the level to the reference value by changing the setting of RV103.



Upper portion of penta prism

Criteria for adjustment

BV11 F5.6 ASA100 ±0.04 EV

- Measure five times, and be sure that 5 readings are within the above limits.
- Try to obtain zero readings.

Tentative

(In the absence of BV11, use BV12, set to +0.1 ±0.04 EV, and check the whole for balance.)

2-6. Vary the brightness under the conditions of ASA 100 and F5.6, and check the EE at each level of BV against the following reference values:

ASA 100	F5.6	BV 4	+0.2 EV −1.5 EV
ASA 100	F5.6	BV 8	+0.65 EV −0.9 EV
ASA 100	F5.6	BV14	+1.2 EV −0.15 EV
ASA 100	F5.6	BV15	+1.2 EV −0.15 EV
		(BV 6	+0.4 EV) −1.2 EV)
		(BV10	+0.75 EV) −0.7 EV)
		(BV12	+0.9 EV) −0.5 EV)
		(BV15	+1.2 EV) −0.15 EV)

2-7. Check the accuracy of ASA sensitivity.
Be sure that actual measurements on ASA 100 F5.6 BV8 do not differ from the standard value by more than what are shown below:

ASA 400 F5.6 BV8 −0.35 ~ +0.65 EV

ASA 800 F5.6 BV8 −0.75 ~ +1.25 EV

ASA1600 F5.6 BV8 1) A distinct offset of at least 0.3 EV relative the actually measured value of ASA800 is required.

2) There should be no shuter jumping, sticking open, M locking, or any other erratic action.

NOTE:
When turning the ASA dial, hold down the temporary upper plate, so that the dial will not slide away from the set position.

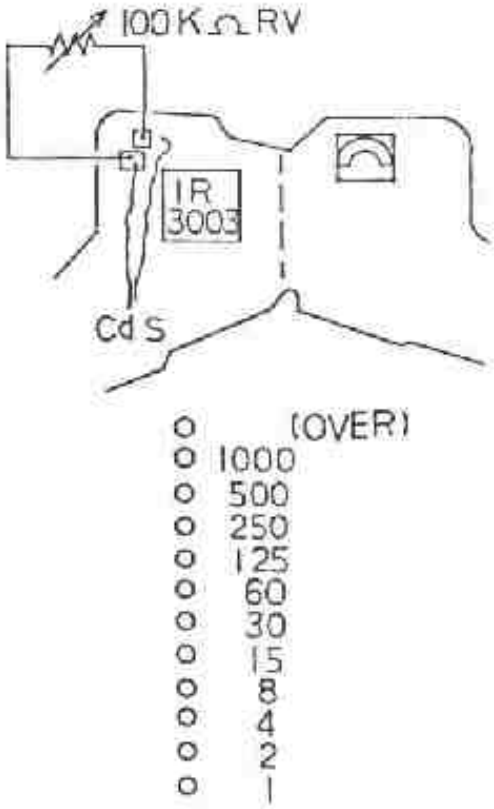
100

3-6. Checking LEDs for lighting action

a. Disconnect one of the CdS lead wires, and reconnect the wire with a 100 KΩ variable resistor inserted, as shown.

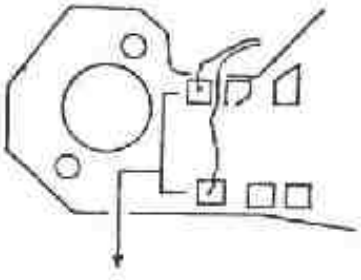
b. Turn the variable resistor gradually to see the LEDs light up sequentially, starting with OVER.
The LEDs are satisfactory if they lights up in the above-mentioned manner.

c. If sequential lighting ceases at a halfway point, ASA resistor (RV201) or F resistor (RV202) should be re-adjusted.



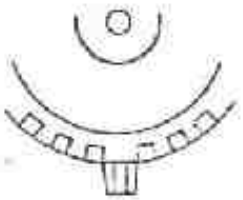
3-7. Self-timing action checking and adjustment

1) a. Remove the jumper used in step 3-3 -2).



Remove the jumper.

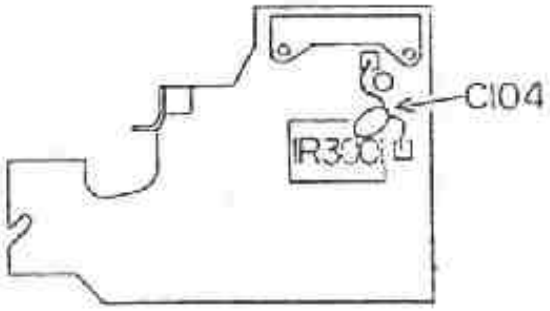
b. Move power on-off switch to SELF TIMER.



(SELF TIMER).

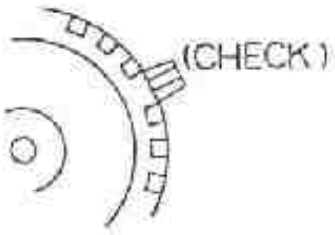
2) Release to turn on main switch. Check to be sure that the combination magnet becomes energized in 9 to 15 seconds of the turning on of main switch to run the shutter.

3) The duration of this delay is to be adjusted by means of C104.



3-8. Battery checking and adjustment

1) Move power on-off switch to CHECK side.



2) Lower the camera input voltage from 3 volts. Be sure the buzz ceases at about 2.07 volts of falling voltage.

3) Adjust the buzzer with RV102 (also used for lock voltage adjustment), taking the lock voltage into account.

3. FPC board matching

3-1. Preparation for matching.

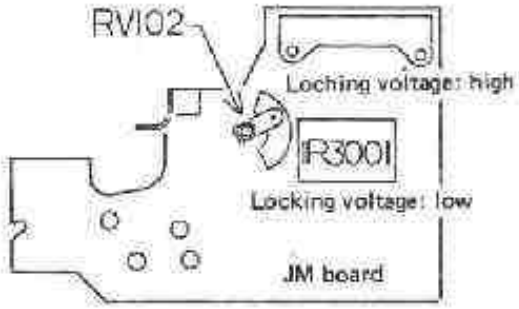
1) Check and match the board in installed condition.

2) Remove the battery and, instead, make necessary connections to apply power from a constant voltage source.

NOTE:
The source voltage should be variable.

3-2. Locking voltage adjustment

1) Set RV102 as shown.



Set RV102 on high locking voltage side.

2) Set the camera input voltage at 2.05 volts.

3) Lock the mirror by releasing.

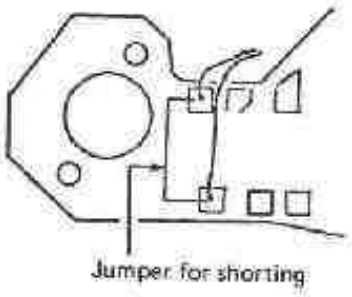
4) Turn RV102 slowly (see above) until the mirror becomes unlocked.
Use a non-conductor tool.

5) Change the input voltage to 2.00 volts to see if the mirror gets locked as it should.

3-3. Offset adjustment

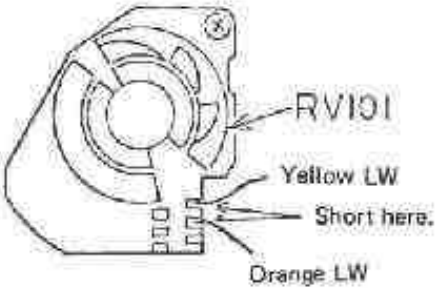
1) Set the camera input voltage at 3.1 volts.

2) Short the two black lead wires extending from main switch.

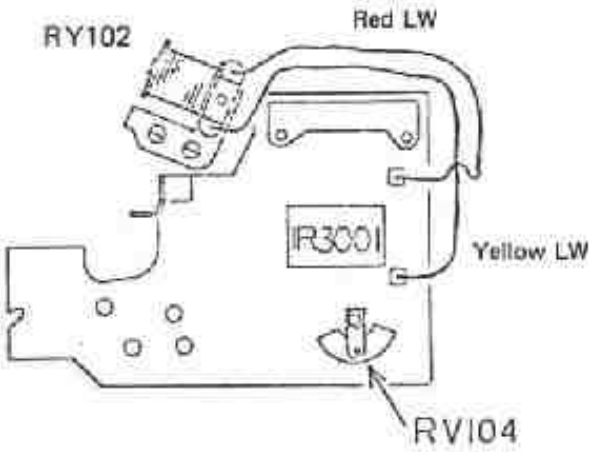


3) Turn on trigger switch.

4) Short the two ends of AUTO ASA resistor (RV101).



5) Turn RV104 until the voltage on RY102 changes from 3 V to 0 V or from 0 V to 3 V, and hold it there.



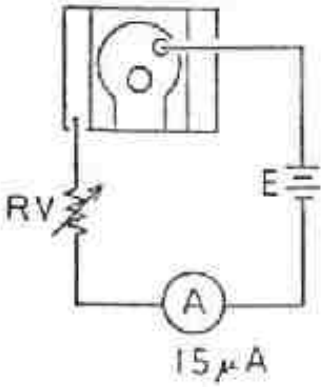
NOTE:
Accuracy is required of this adjustment because high ASA setting results in S locking.

This adjustment is not easy. If it is too difficult to make, then RV104 may be set in the following manner in lieu of the adjustment:
With lever (SW105) in SELF position, turn RV104 to the position past which the 2-Hz sound starts or stops.

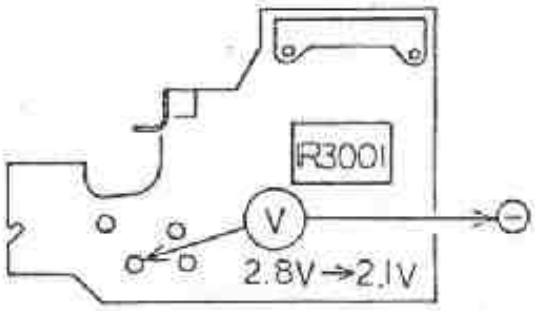
2-Hz sounding . . . . . RV102 OFF
No sounding . . . . . RY102 ON

3-4. Checking auto selection of strobo X timing

1) Form a test circuit, as shown, using an RV for regulating the current.



2) Be sure that, with 15 μA, the voltage should shift from 2.8 V to 2.1 V.

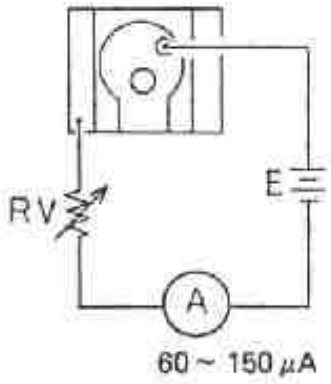


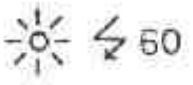
2.8 V. . . . . AUTO reference voltage
2.1 V. . . . . MANUAL reference voltage

NOTE:
15 μA is prescribed as the maximum current for inducing this voltage change.

3-5. Checking the LED for indicating strobo charging.

a. Form a test circuit, as shown. (The circuit is the same as that of (4) above.)
b. Be sure that the LED, shown, lights up in the finder with a current of anywhere between 60 and 150 μA.



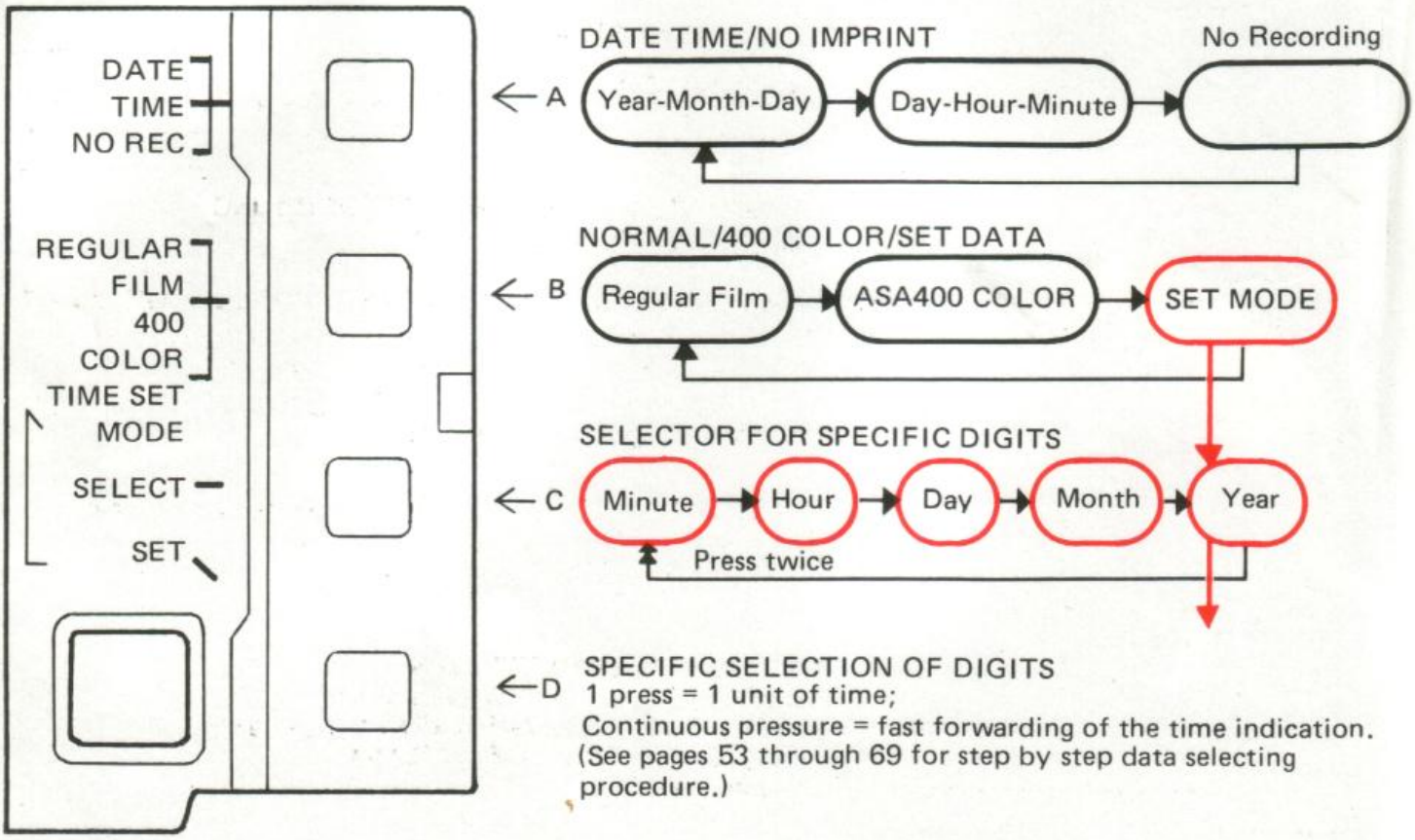


1000
500

110

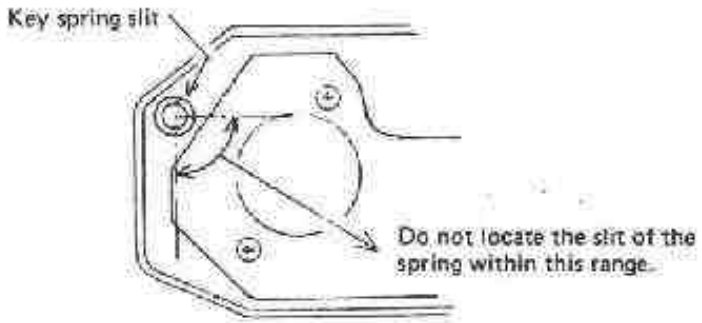
CONTROL BUTTONS AND THEIR FUNCTIONS

Control panel



SPECIFIC SELECTION OF DIGITS
1 press = 1 unit of time;
Continuous pressure = fast forwarding of the time indication.
(See pages 53 through 69 for step by step data selecting procedure.)

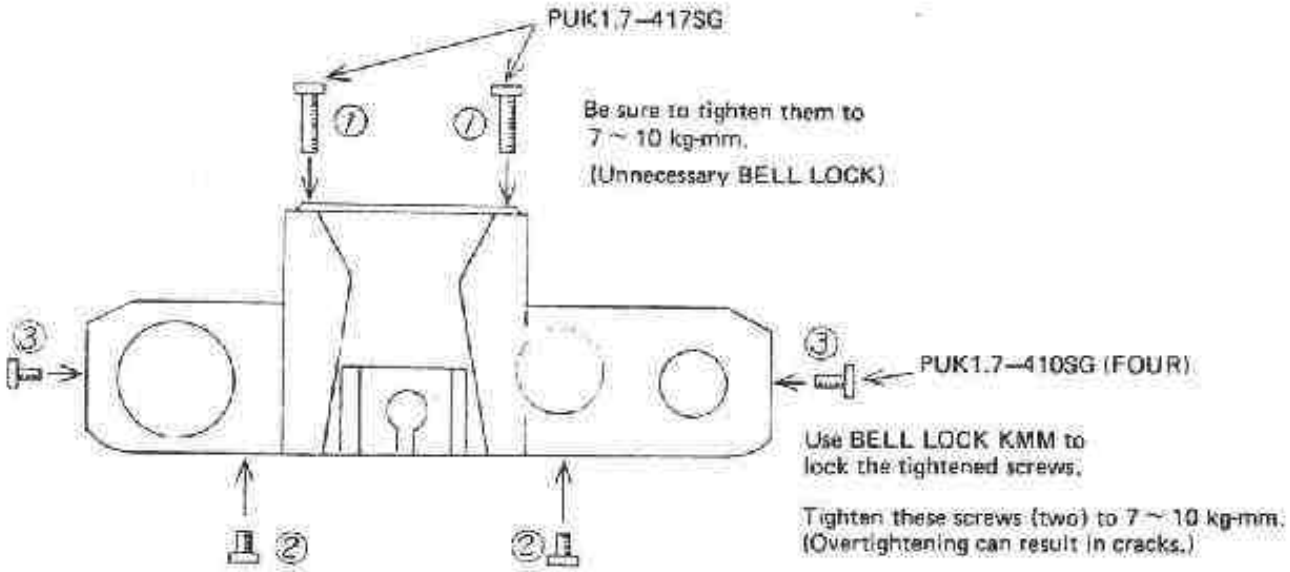
2-5. Set key spring (CA872200) in place, as shown.



NOTE:
Be sure that hook spring does not touch FPC board.

2-6. Put on top cover (ZC200200), brining it in from B mount side.

2-7. Secure the top cover with screws. Tighten them from ① to ③.

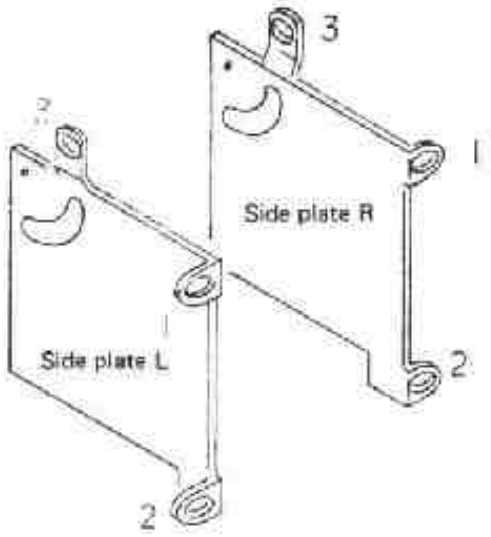


108

VI. OTHERS

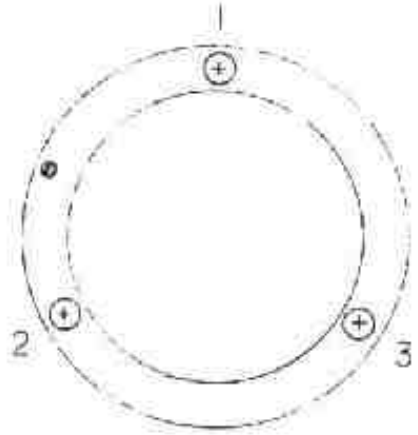
1. Sequence of tightening parts

1-1. Side plates L and R.



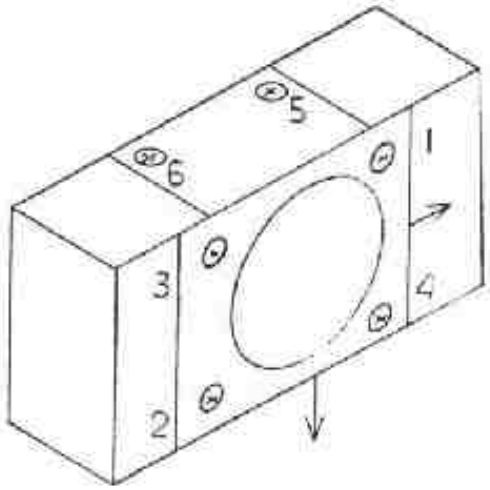
NOTE:
Tightening force: at least 20 kg-mm

1-2. Mount



NOTE:
Tightening force: at least 20 kg-mm

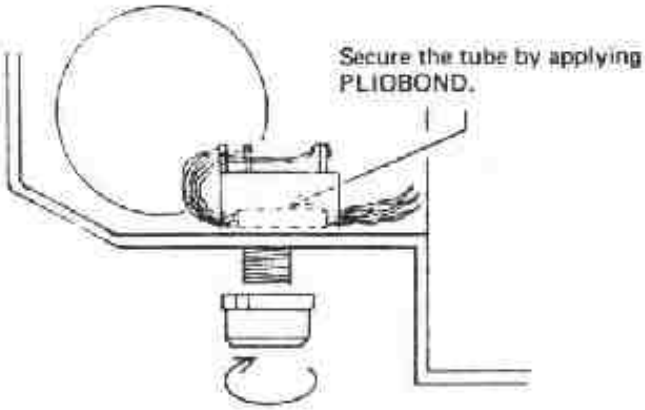
1-3. Front casting and die-cast body



NOTE:
Tightening force: at least 15 ~ 20 kg-m

2. Installing top cover

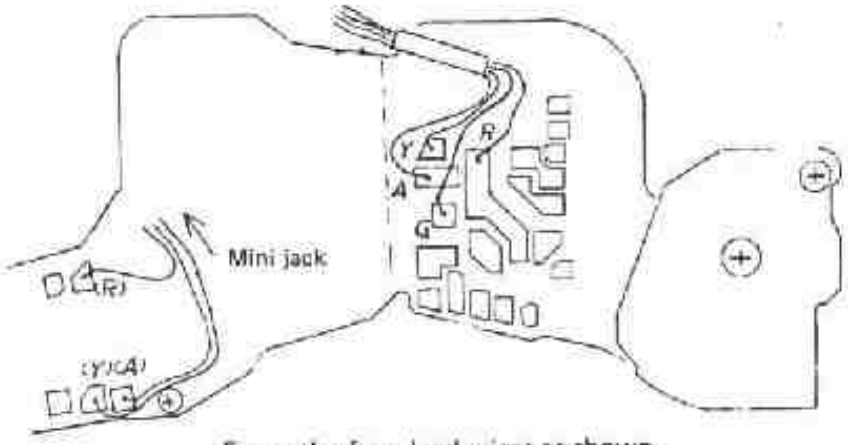
2-1. Install mini jack (ZJ132600).



NOTE:
Overtightening could strip screw threads. Be careful when installing the mini jack.

106

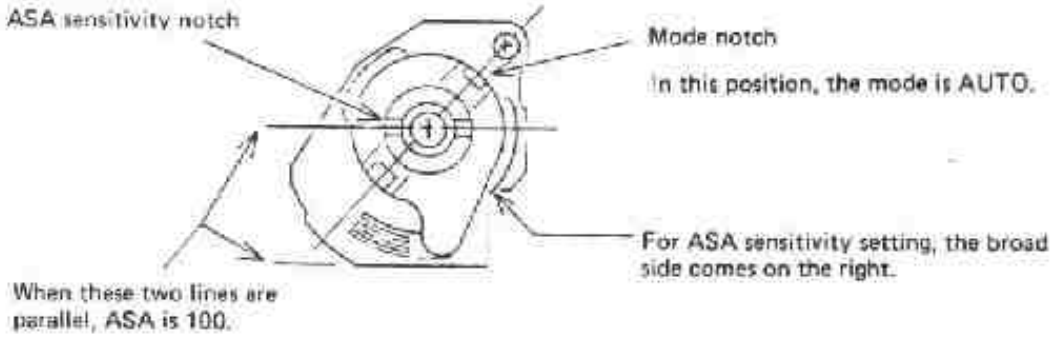
2-2. Solder lead wires (four) to upper plate.



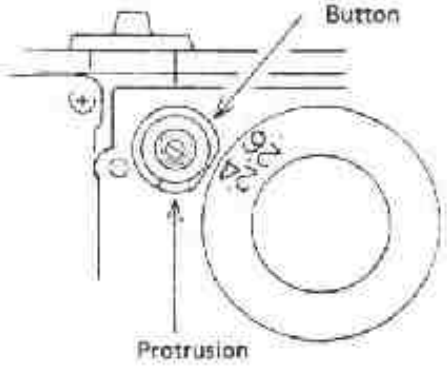
A – Blue
G – Green
R – Red
Y – Yellow

Form the four lead wires as shown.

2-3. Set A holder to ASA 100.



2-4. Fit button (ZC207300) to button shaft (CA908400).



Locate the protrusion of release button at the position indicated by the arrow.

107

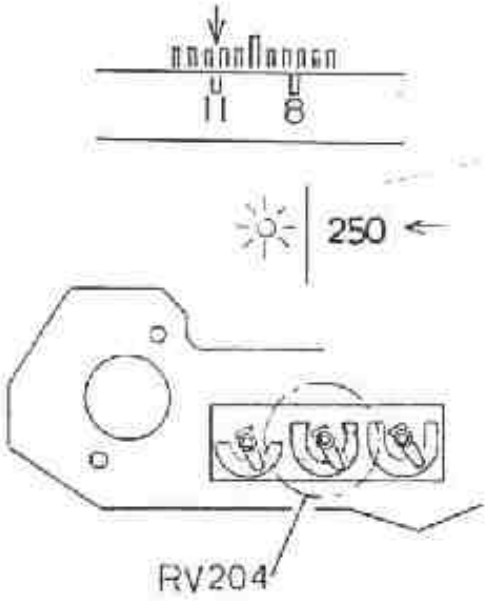
With whole matching work completed, LED switches over from 4 to 2 at a point intermediate between F8 and F11 when brightness (BV) is 8.
(LED for 2 should light up at F11.)

4) Set brightness to BV 15.

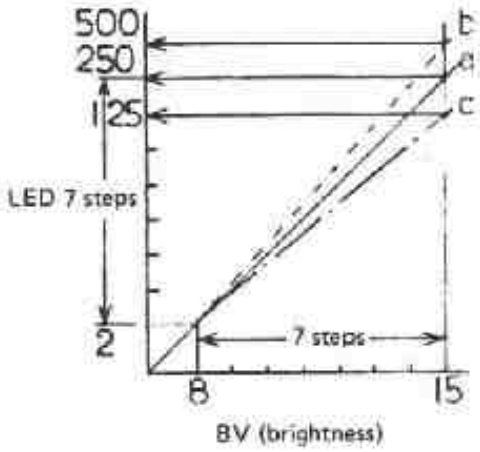
With BV15, switch-over should take place, as above, from 500 to 250.
(LED for 250 should light up at F11.)

5) a. Matching is satisfactory if the switch-over from 500 to 250 occurs at the same position that's shown in 3).
b. Turn RV 204 clockwise if the shift occurs too early become coming to the said position.

If stroke is not enough, turn clockwise.
Adjust within ± 0.1 of aperture.



If LED will not switch over at a halfway point between F8 and F11, even with the gamma adjustment completed, it means that the lighting level is off the correct level. In such a case, adjust the level once again according to 4-3.



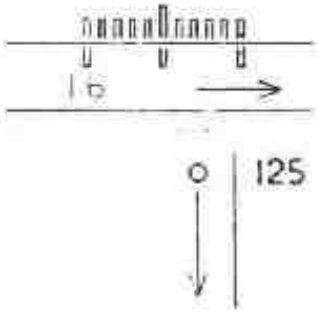
a = matching OK
b = matching no good
c = matching no good

4-5. Confirm the step number of F board and also lighting level. If any deviation is noted, re-adjust from the deviated point down to 4-4.

NOTE:
Matching completed.

105

4) Turn the aperture ring to shift the lighted LED shifts five times from the position noted in 3).

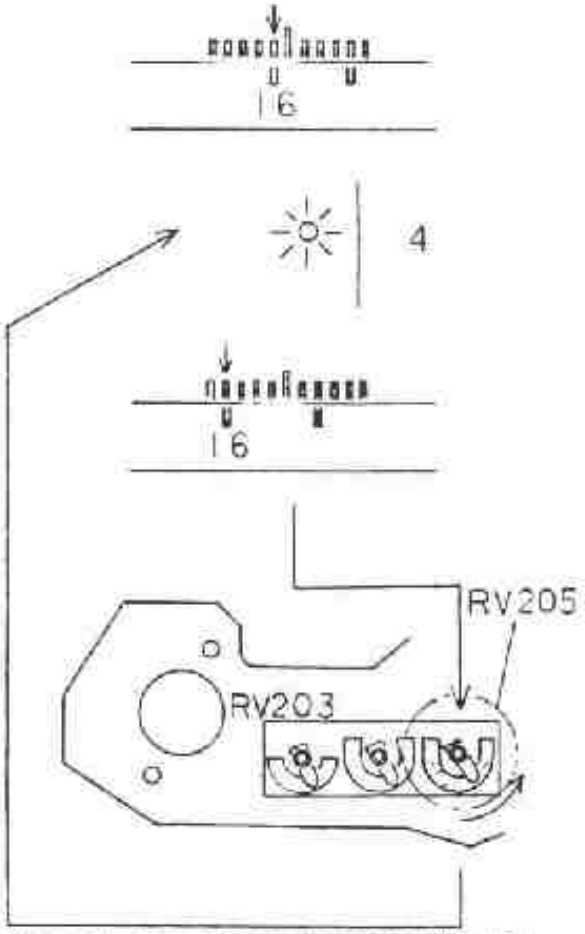


5) a. Upon making the 5-step change, read the F16 position on the scale.

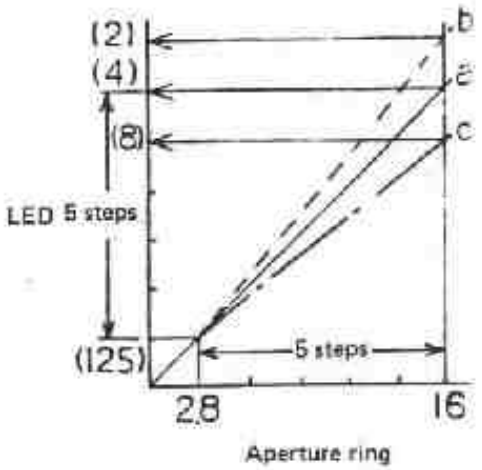
Matching is satisfactory if the position of F16 comes to the same graduated mark as 3).

Read on reference to 0.1 aperture setting.

b. If F16 happens to be in the position indicated in this example, turn RV205 in the arrow direction.



This adjustment is to be made with ±0.1 aperture.



a = matching OK
b = matching no good
c = matching no good

NOTE:

With whole matching work completed, LED for 4 lights up at BV10 and F16.

103

6) Turn the aperture ring from F2.8 to F16 one more to check and see if the adjustment is satisfactory or not; if not, repeat the steps 2) through 5).

NOTE:
Limit error, if any, to within ±0.1 of aperture.

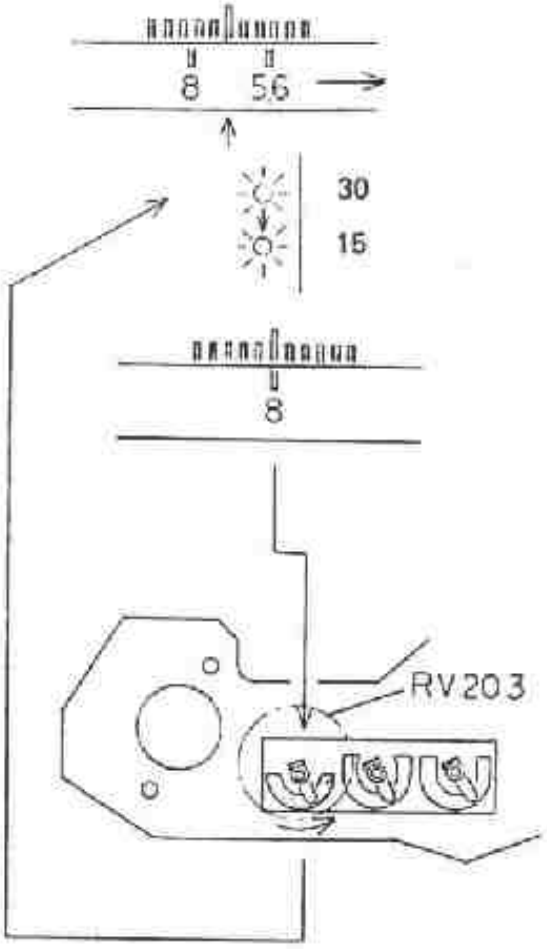
4-3. Matching lead lighting level

1) Set the brightness chamber to BV 10.

2) a. Squeeze from F5.6 to F8. See if the light shifts from 30 to 15 just when the aperture setting comes to the halfway point between 8 and 5.6; if so, the matching is satisfactory.

NOTE:
Read in reference to 0.1 aperture setting.
LED for 15 should slight up at F8.

b. If the shift occurs elsewhere, as shown in the example given here, change the setting of RV203 to shift the light as below.



NOTE:
Make this adjustment with (±0.1 of aperture.

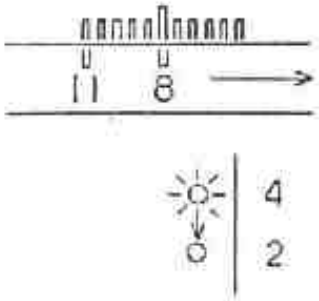
REFERENCE:
After RV203 has been adjusted, there is no need to make a re-adjustment in regard to the offset that will necessarily occur in the lighting position mentioned in 4-2.
Notwithstanding the offset, proceed to 4-4.

(Even when lighting position is deviated, no change will occur in the number of aperture steps or of lighting steps.)

4-4. CdS gamma adjustment

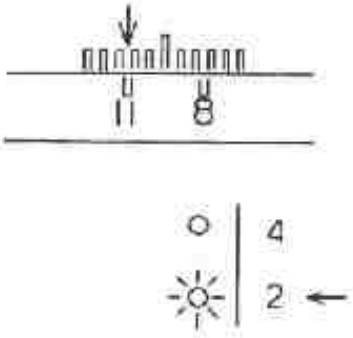
1) Set brightness to BV 8.

2) Start turning the aperture ring at F8 and keep on turning until the LED light in the finder shifts by one step.



3) Read the position of F8 on the scale just when the shift occurs, and memorize this reading.

Read in reference to 0.1 aperture setting.

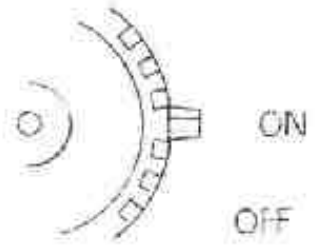


104

4. Finder indication matching

4-1. Preparation for matching

1) Remove top cover, so that the variable resistor can be adjusted.



2) Put in a new battery, and turn on power on-off switch.

3) Set the ASA dial to 100.

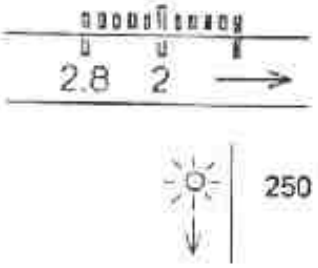
4) Install the matching jig lens.

4-2. F board aperture step matching
(Matching of F board resistance to IC102.)

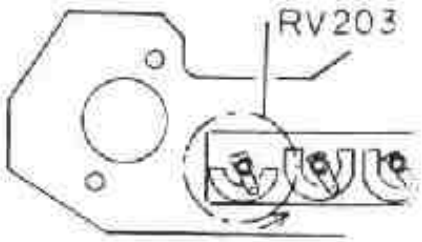
1) Set the brightness chamber to BV 11.

2) Starting from F2, squeeze the aperture slowly until the lighted finder LED shifts by one step.

(In this adjustment, the LED lighting position is permitted to be anywhere between 60 and 1000.)



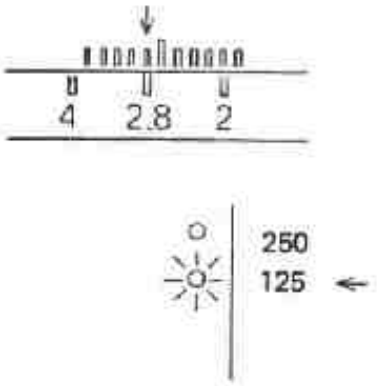
NOTE:
If the lighting position (which is shown at 250 on the above) is 1000 or higher, turn RV203 to bring the position down to and below 1000.



With whole matching work completed, LED for 125 lights up at BV10 and F2.8.

3) a. Just when the lighted LED has so shifted, read the aperture setting on the scale in reference to 0.1.

b. Memorize the position of the lighted LED. (In this example, the LED is 125.)



NOTE:
When checking the number of steps, one-step change will not occur with LED even if the aperture ring is turned from F1.4 to F2. (This is because of the principle involved in TTL number.)

102

PARTS WHERE OIL, GREASE, ETC. SHALL BE USED

E. PARTS WHERE OIL, GREASE, ETC. SHALL BE USED

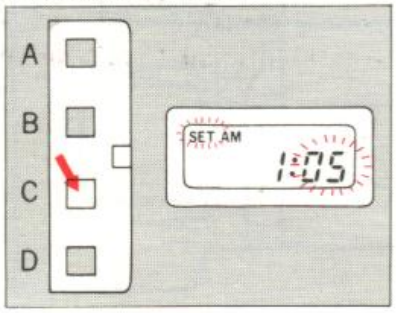
CONTENTS

ADJUSTMENT OF THE DATE AND TIME

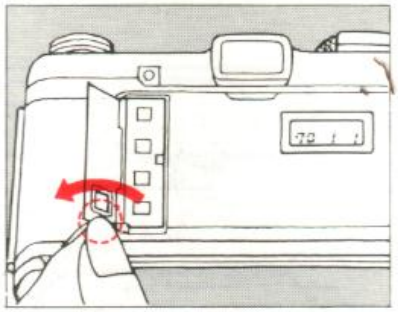
For instance, set "10:15 AM Oct., 12th '83" in the following steps:

Set the minute.

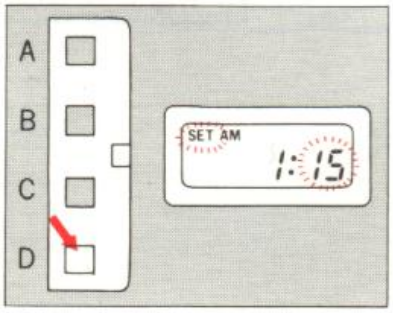
③ Press Button C once and the minute indication blinks.
If you miss this mode continue pressing Button C until the minute blinks.



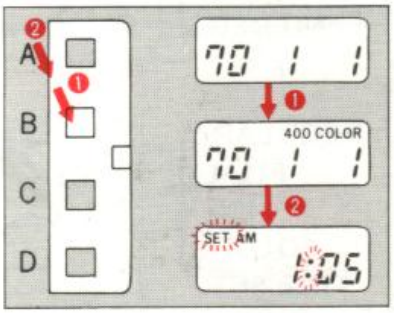
① Flip up the control panel cover.



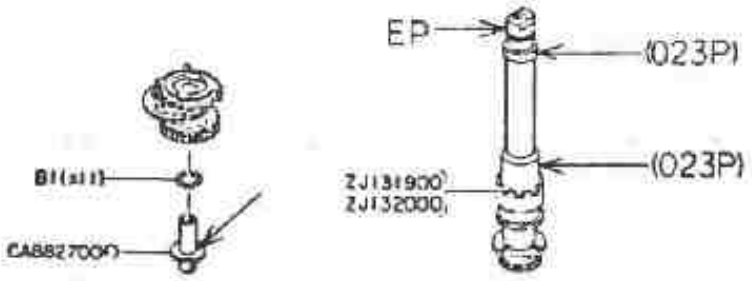
④ Press Button D repeatedly until the minute indicates 15.
1 pressure = 1 minute.
Continous pressure = fast forwarding of the minute indication.
To set the time accurately up to the second, see page 69.



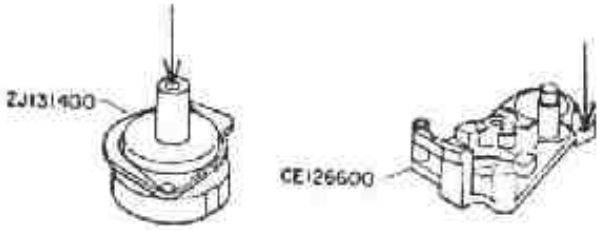
② Press Button B twice and the sign SET starts blinking.
If you miss the blinking mode by pressing too many times, continue pressing Button B until the SET sign blinks.



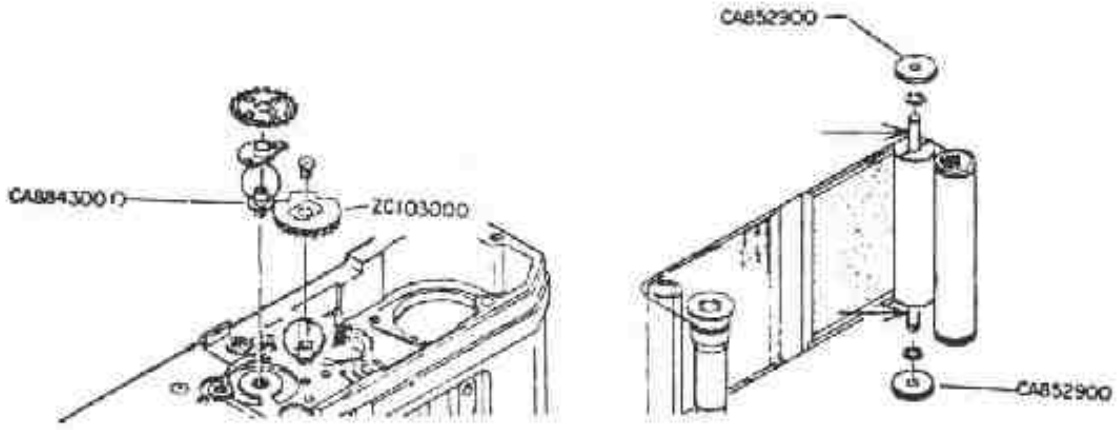
EP GREASE (EP)
PHOTOLUBE 023P (023P)



G50 GREASE



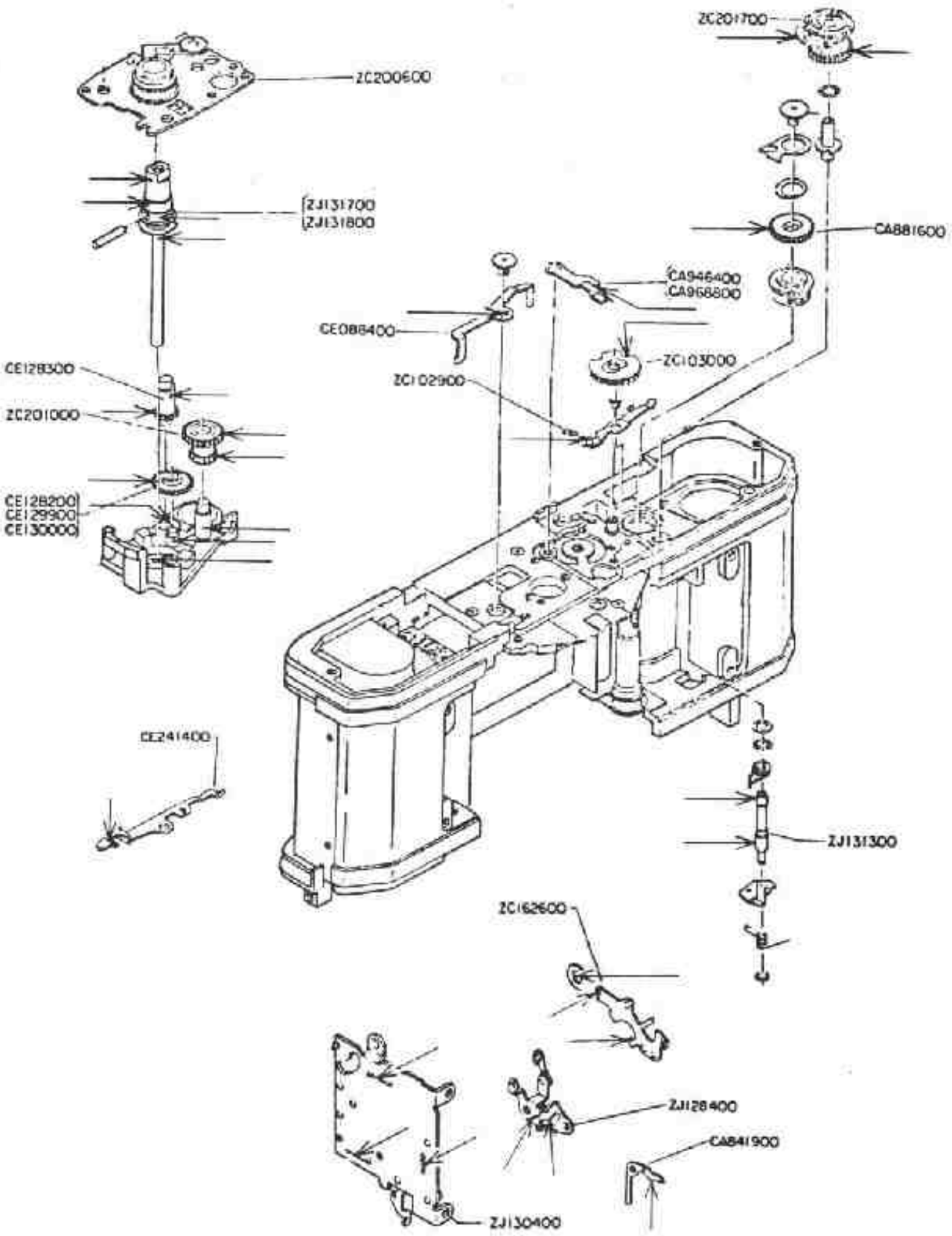
COSMORUBLIC 270A



124

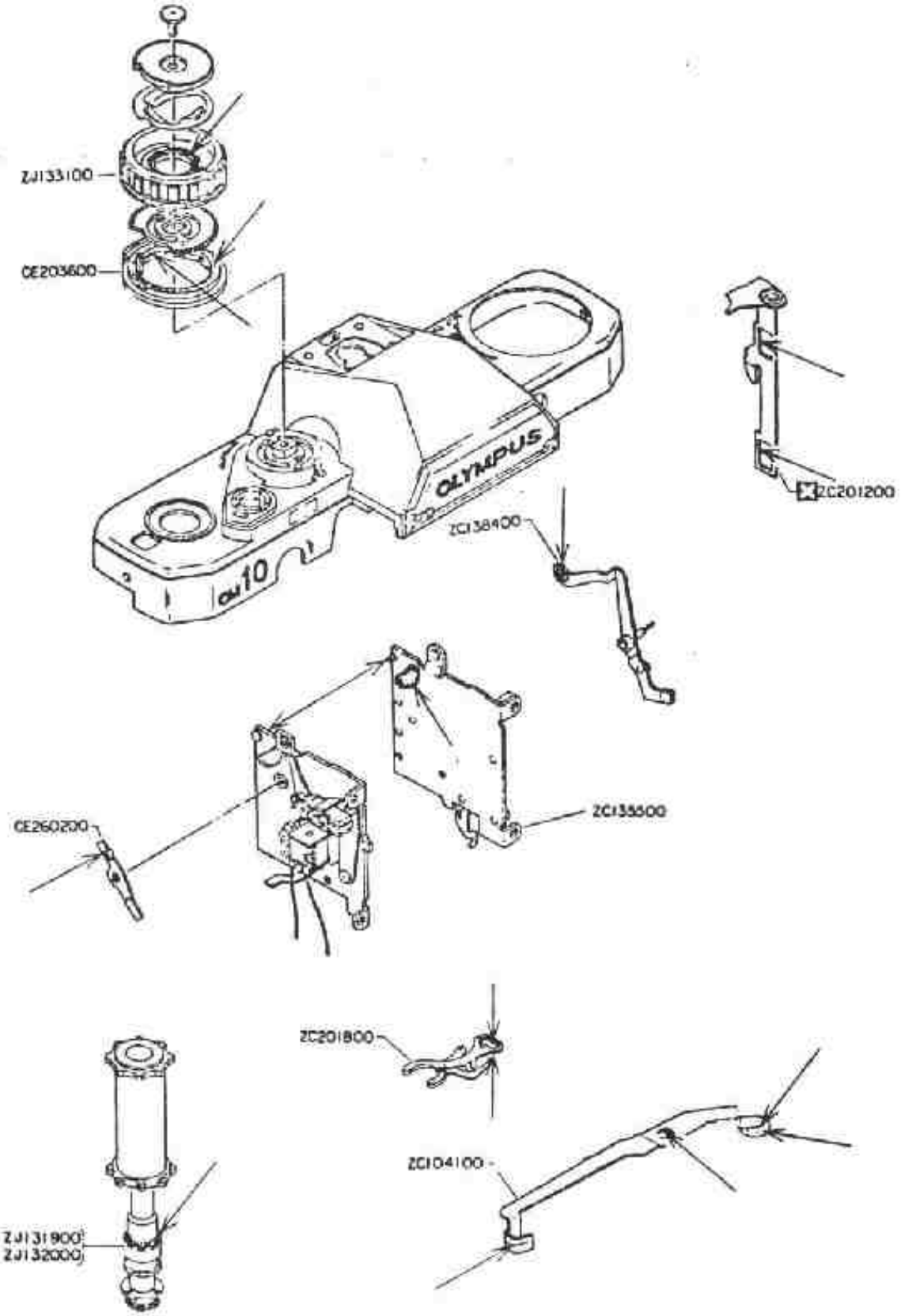
020P MOLYKOTE GREASE

(017P 50% / 023P 50% + Molykote powder)



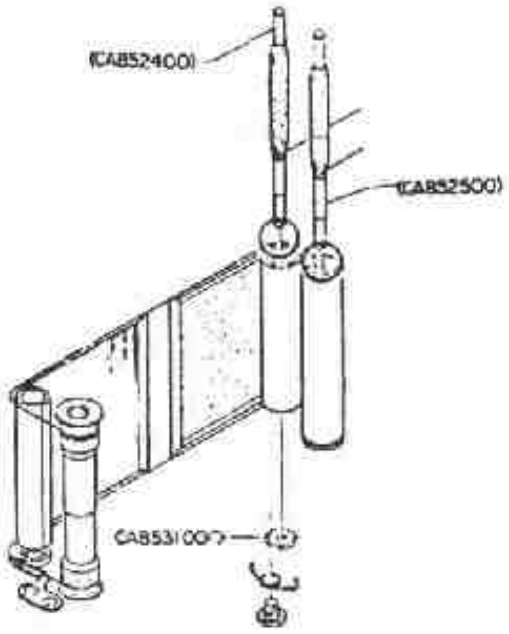
122

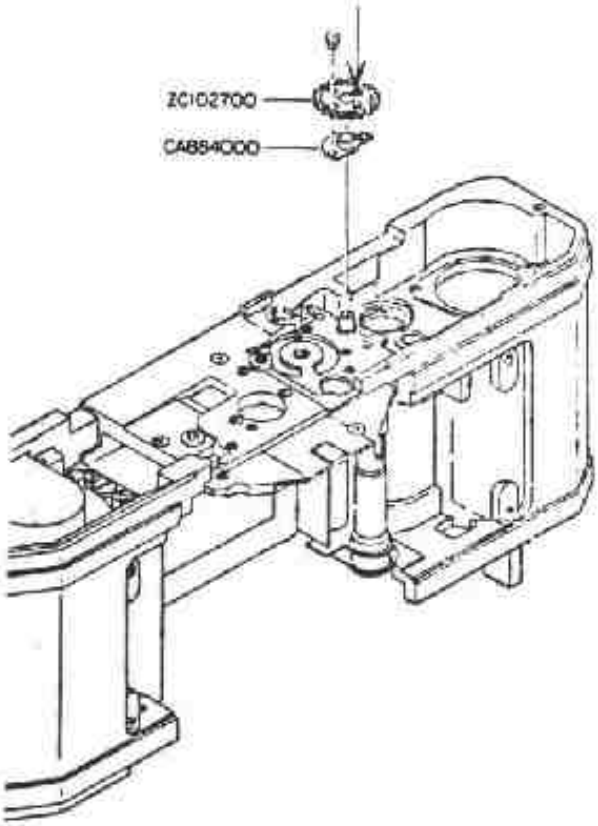
ED16 GREASE



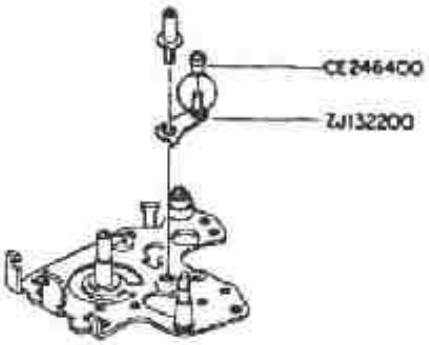
123

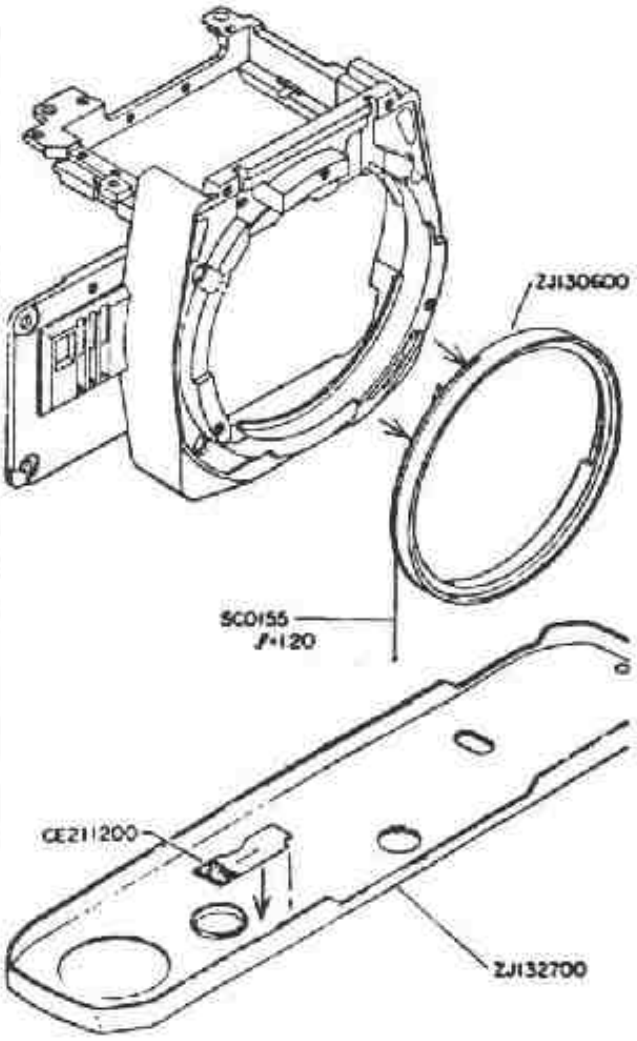
ALON ALPHA (Cement)





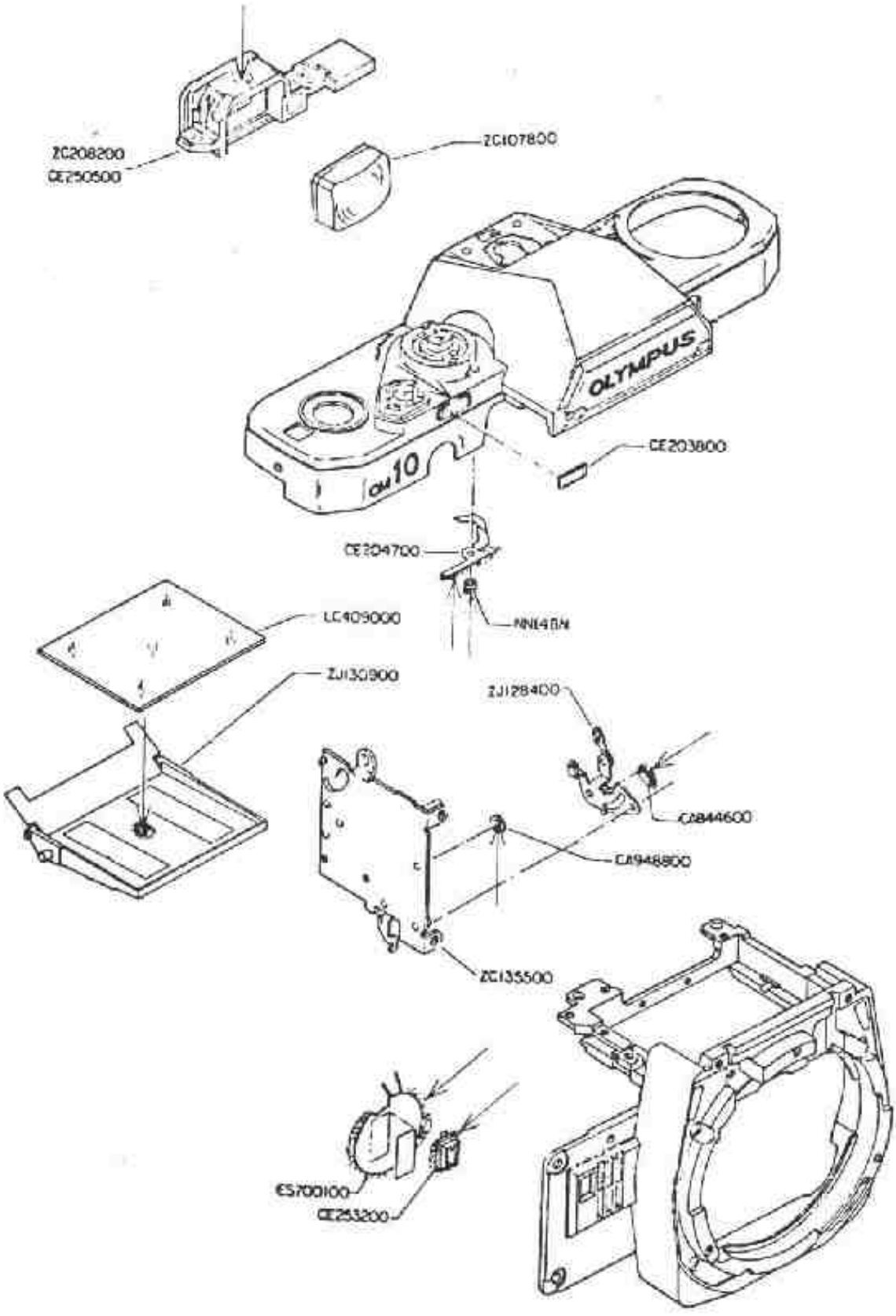
CEMEDINE 3000 (Cement)





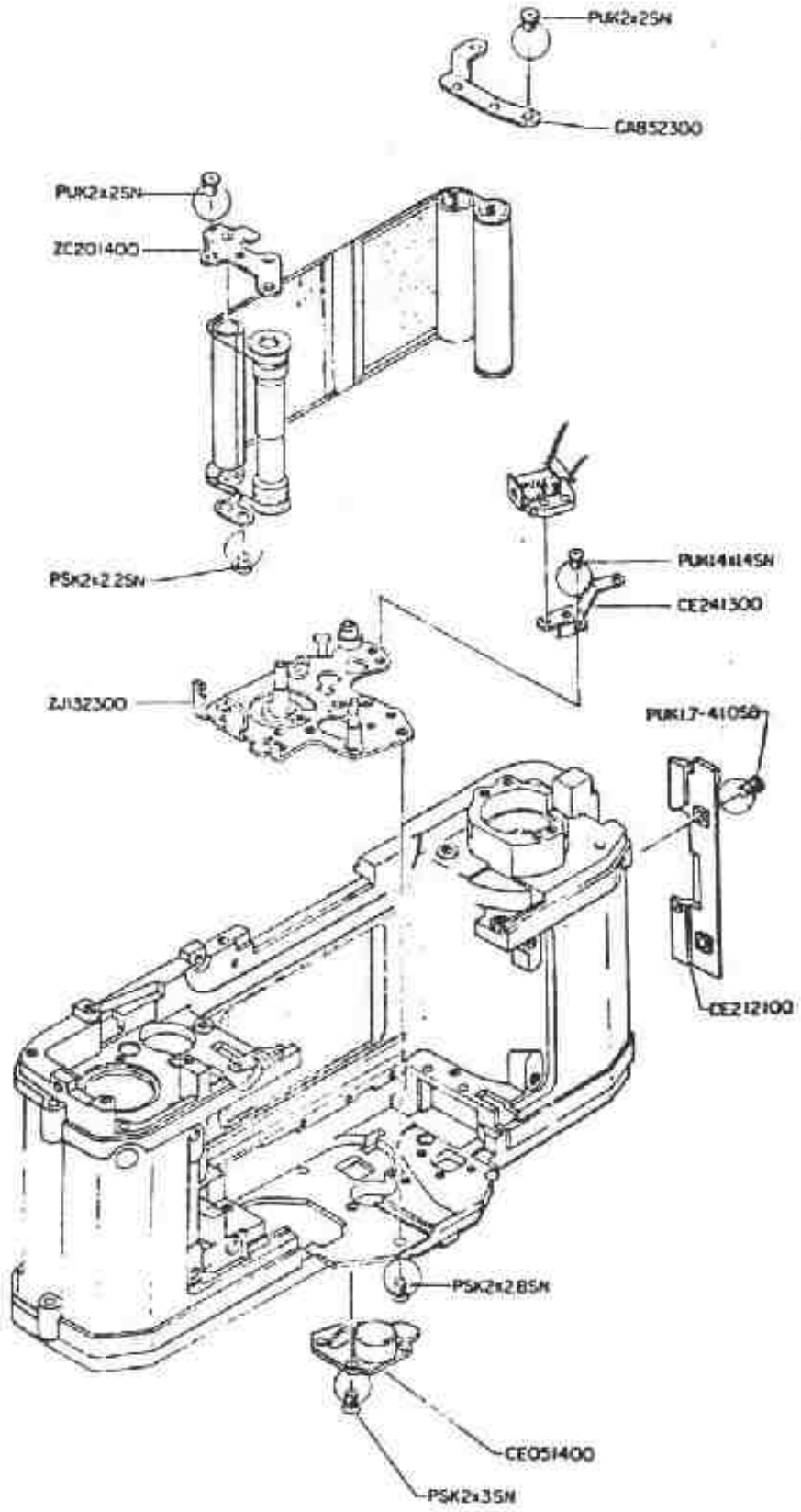
121

ARALDITE (Cement)



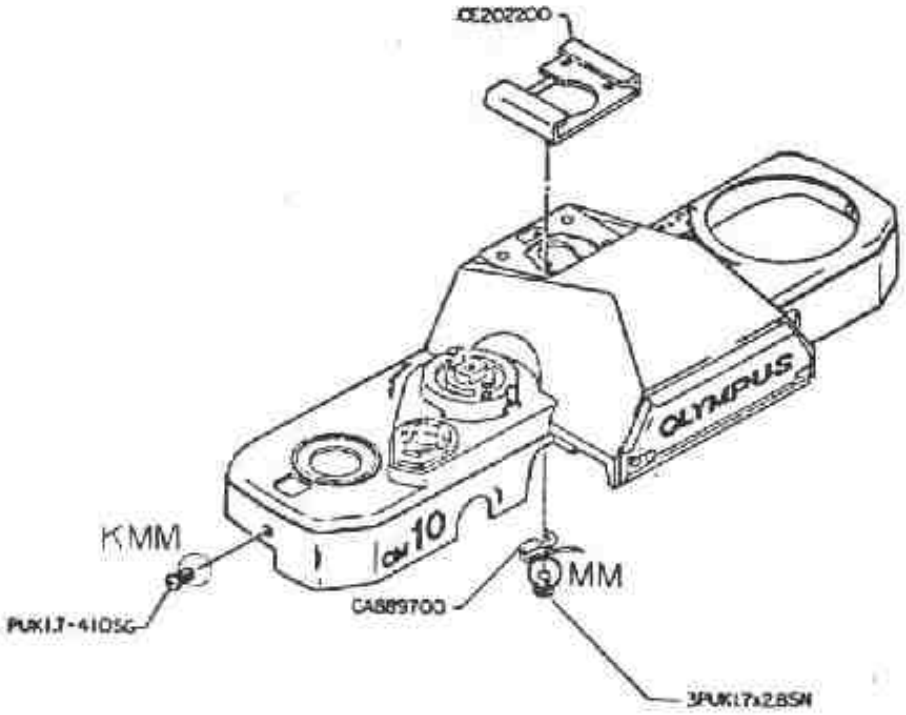
120

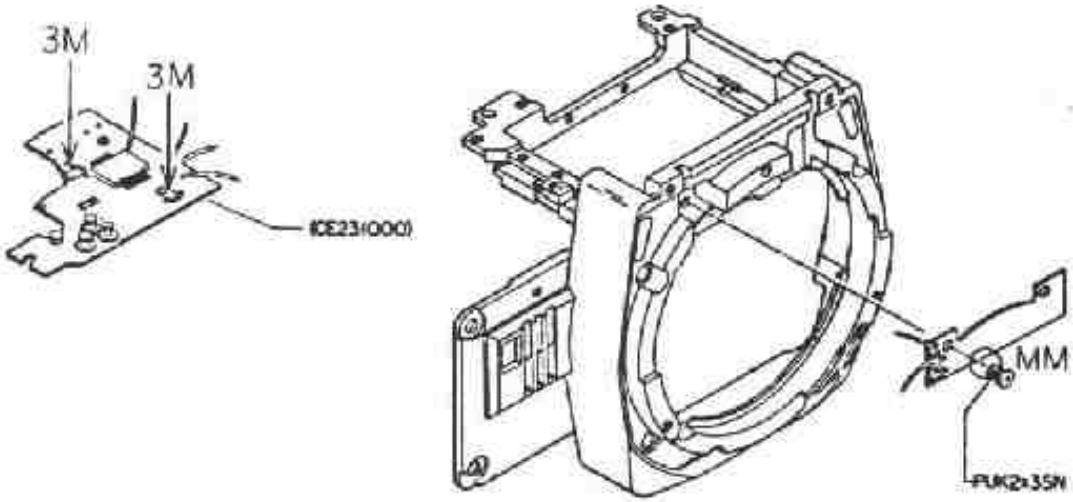
BELL LOCK SM (Cement)



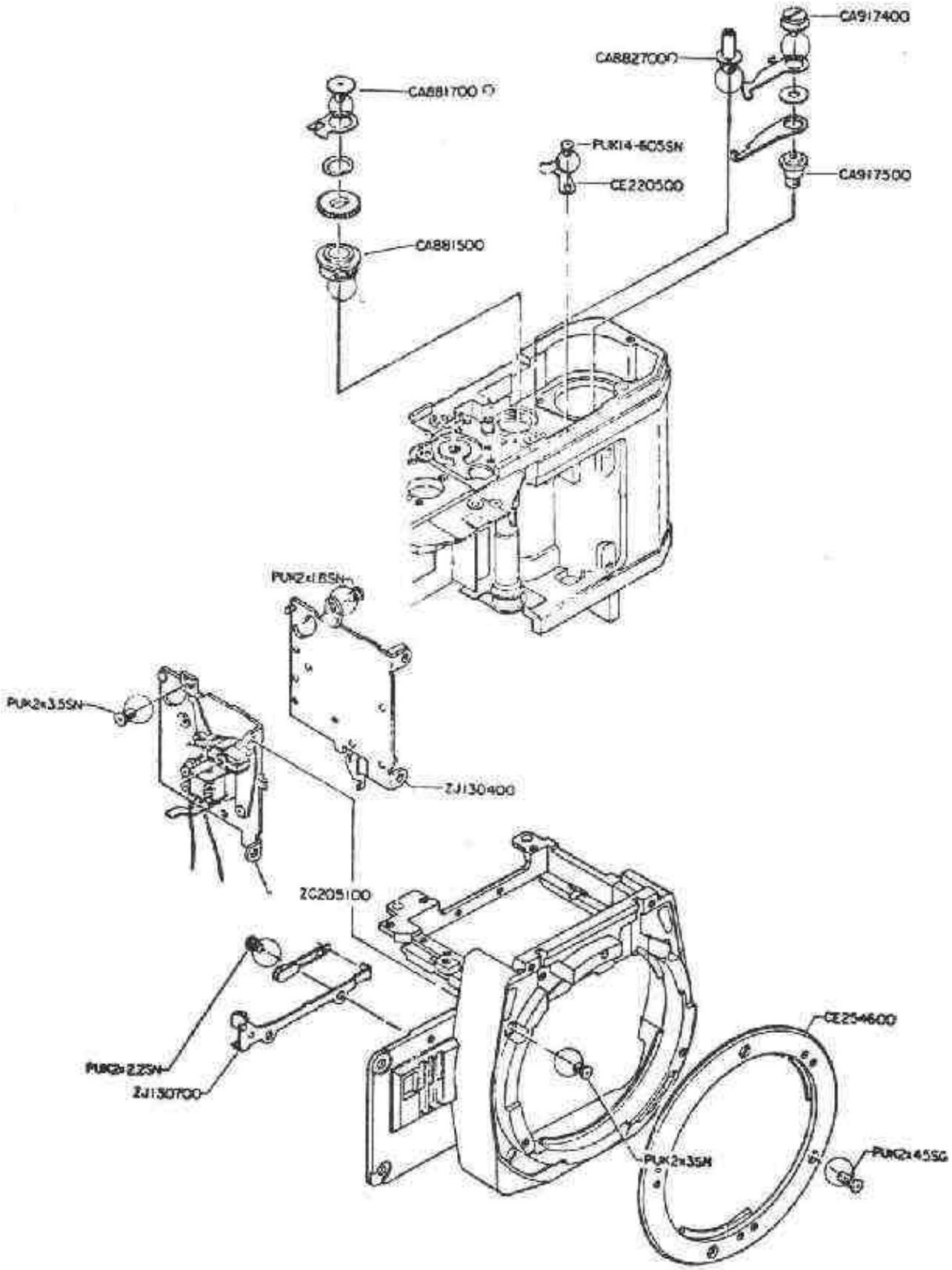
119

BELL LOCK MM (Cement)
BELL LOCK 3M (Cement)
BELL LOCK KMM (Cement)



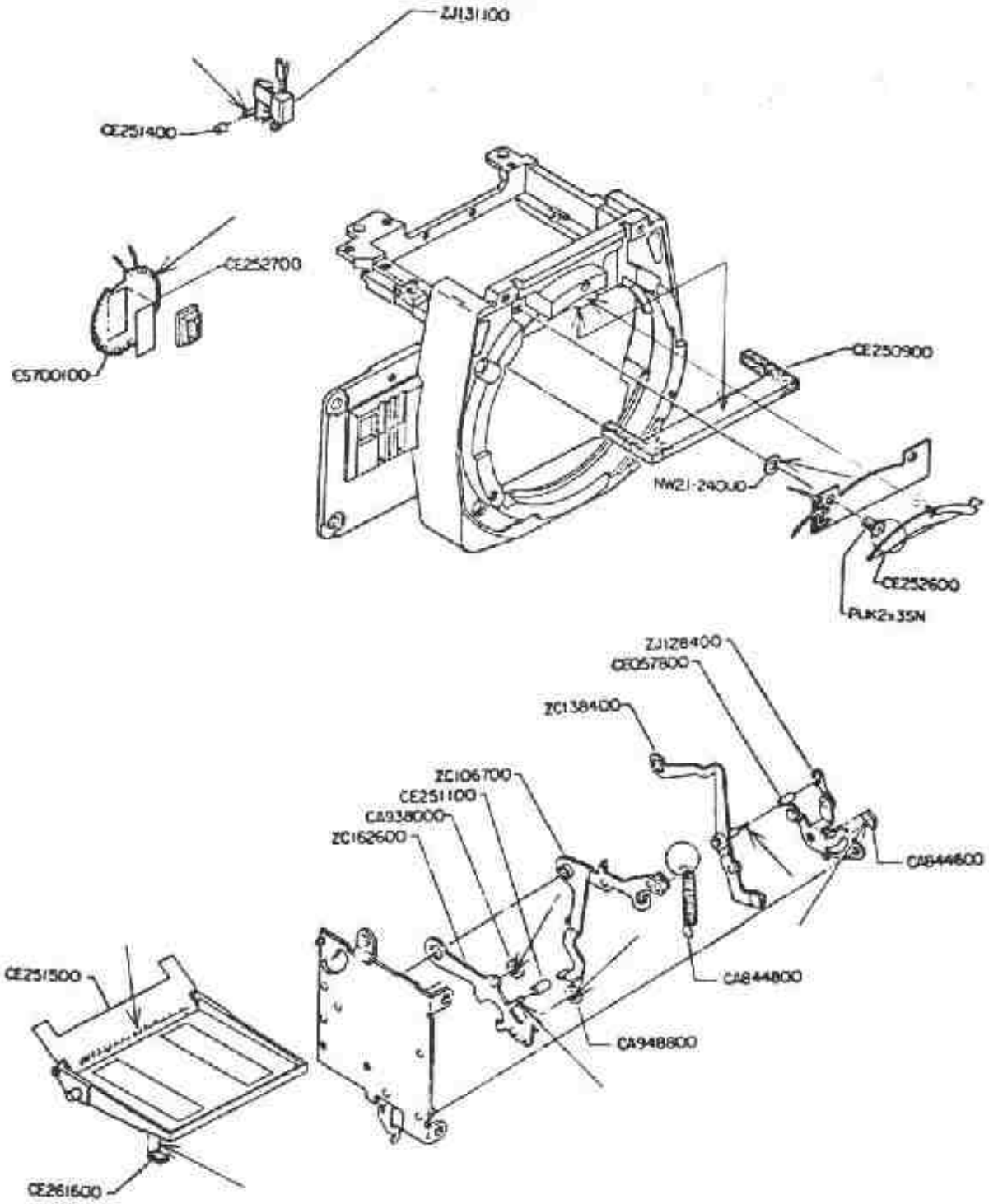


BELL LOCK SM (Cement)

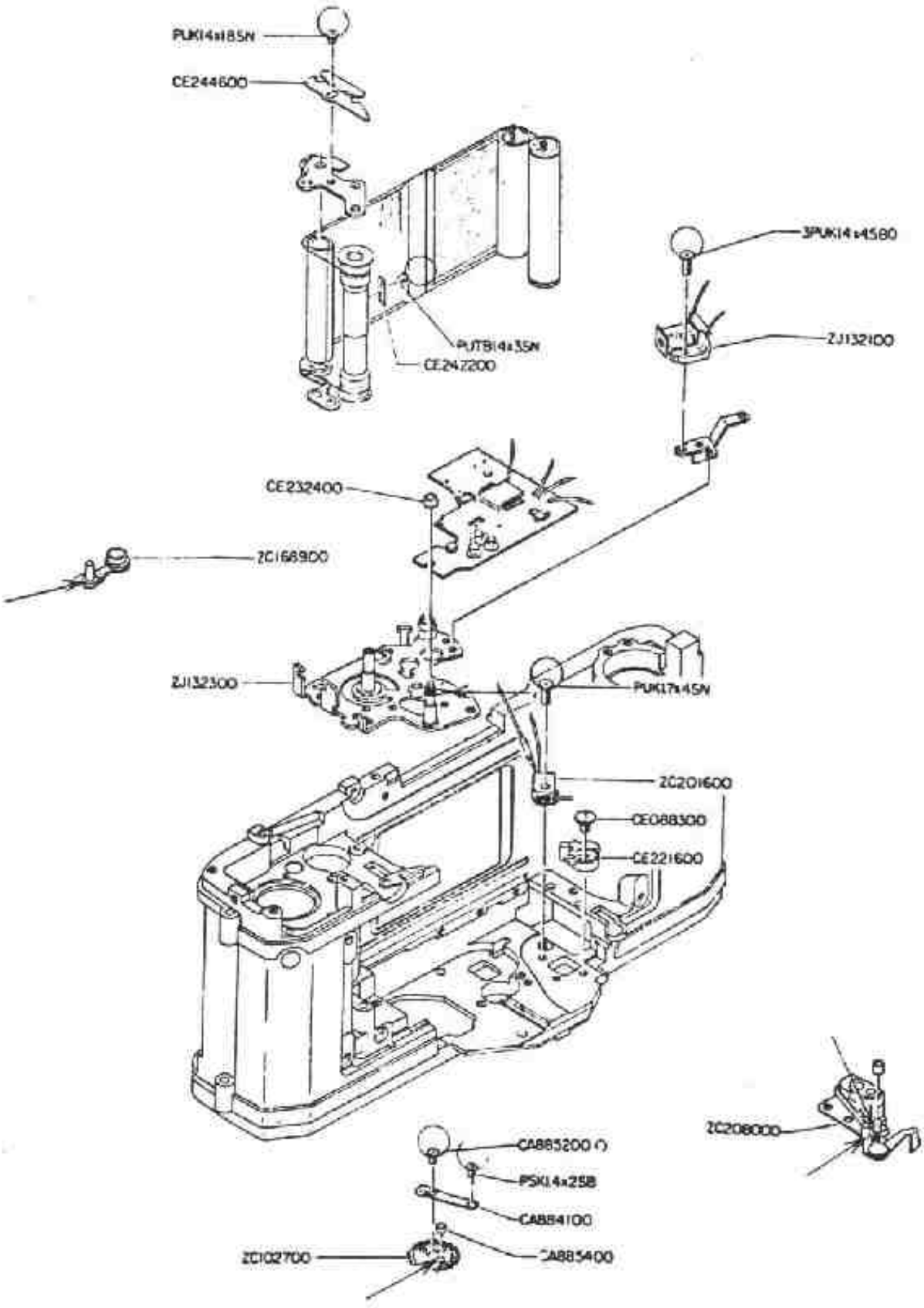


118

PLIOBOND (Cement)



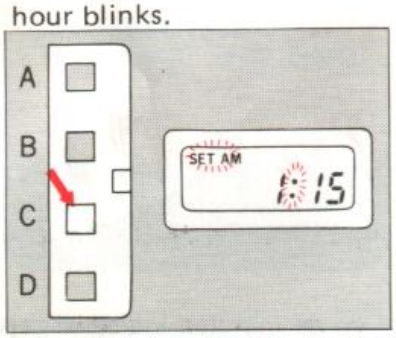
PLIOBOND (Cement)



115

Adjust the hour.

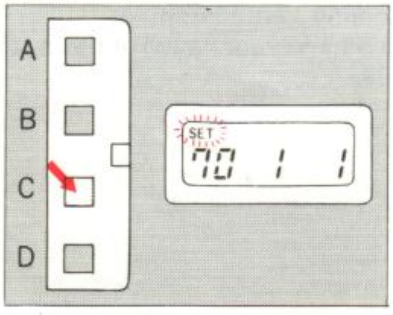
① Press Button C once and the hour blinks.



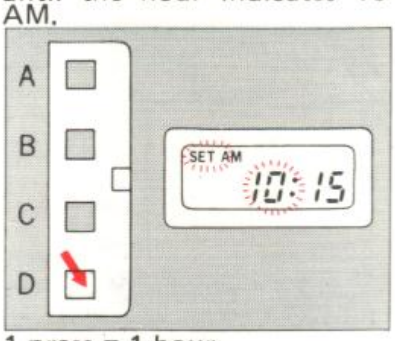
Pay attention to the AM or PM indication, which changes at 12 o'clock.

Adjust the day.

③ Press Button C once and the day blinks.

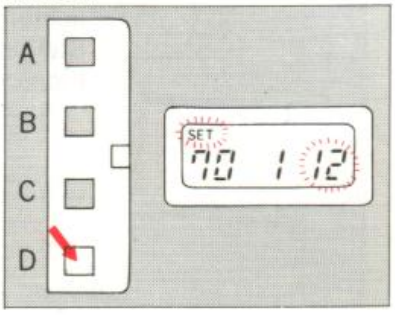


② Press Button D repeatedly until the hour indicates 10 AM.

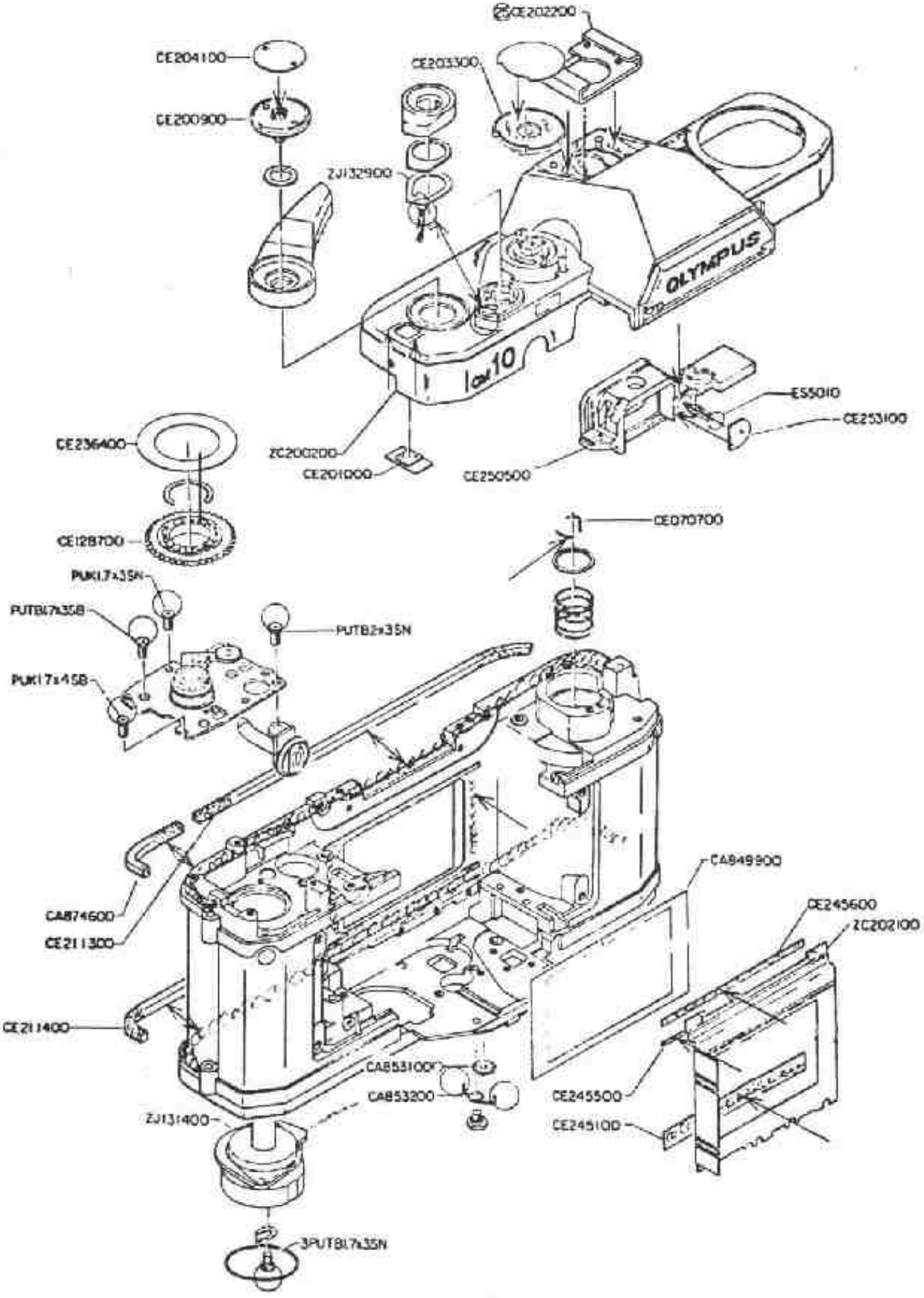


1 press = 1 hour.
Continuous pressure = fast forwarding of the hour indication.

④ Press Button D repeatedly until the day indicates 12.
1 press = 1 day.
Continous pressure = fast forwariding of the day indication.

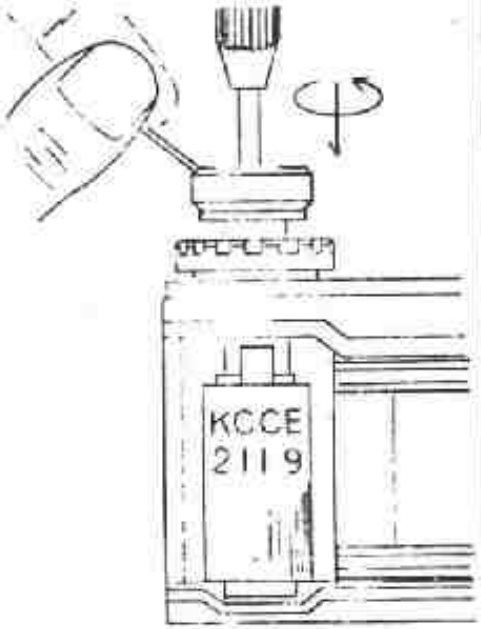
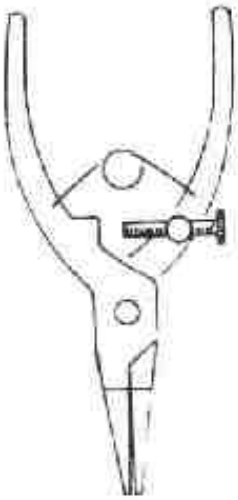
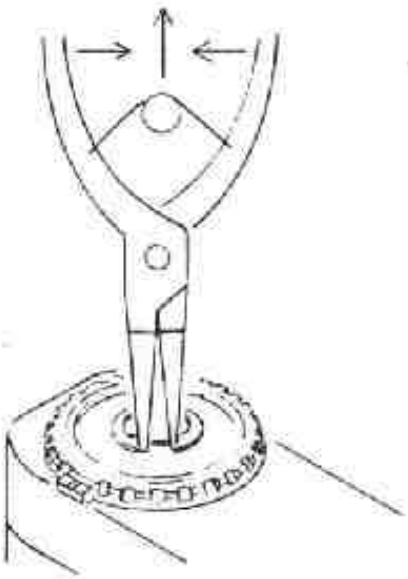
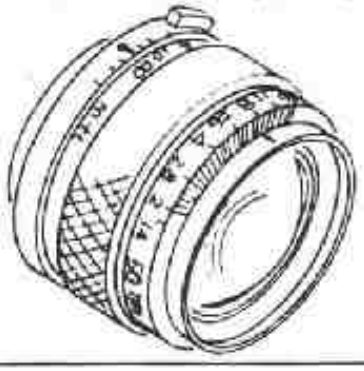


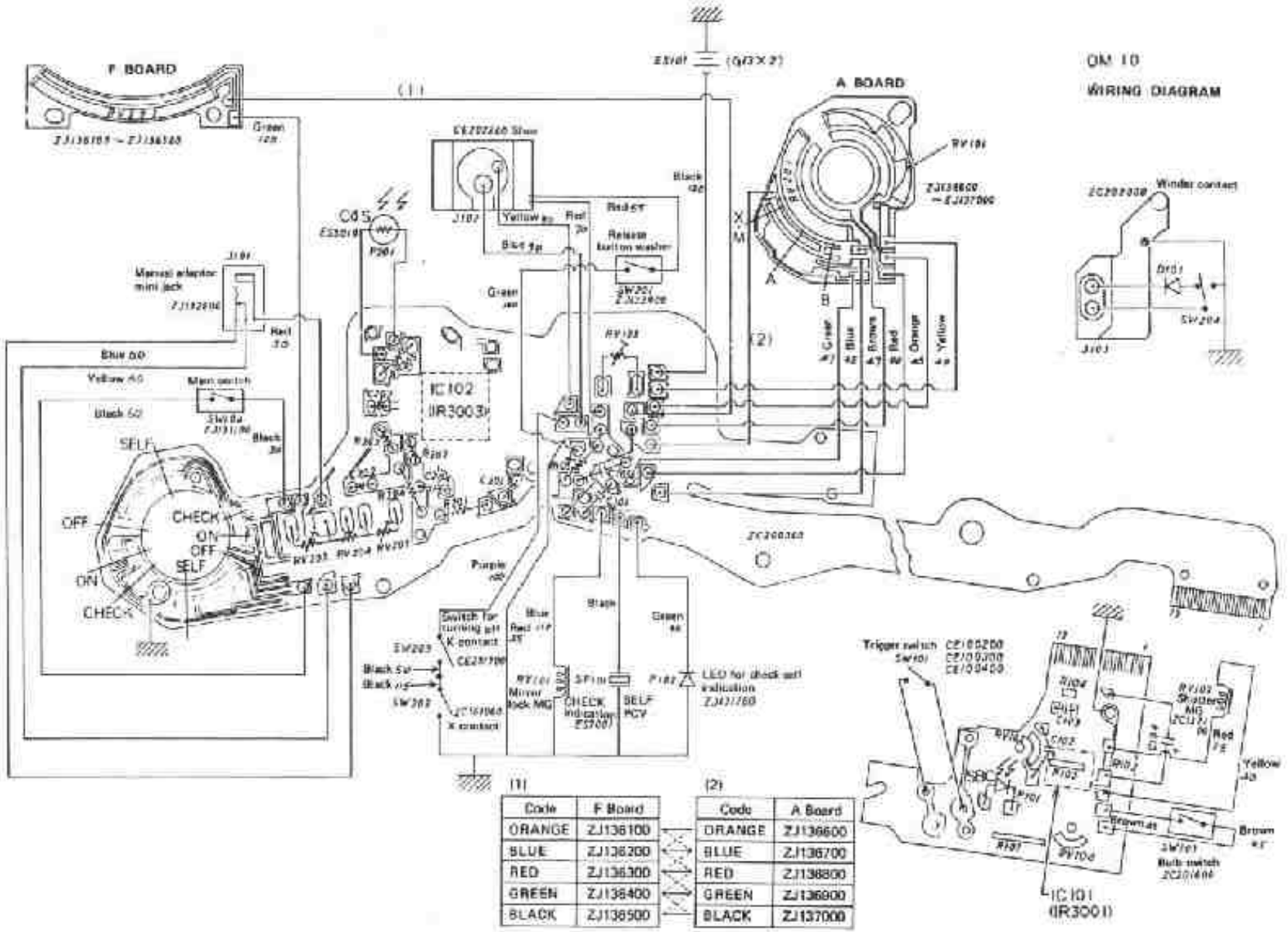
PLIOBOND (Cement)



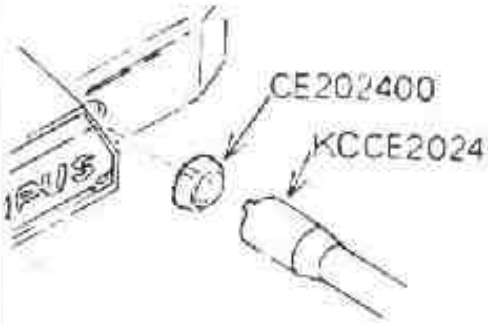
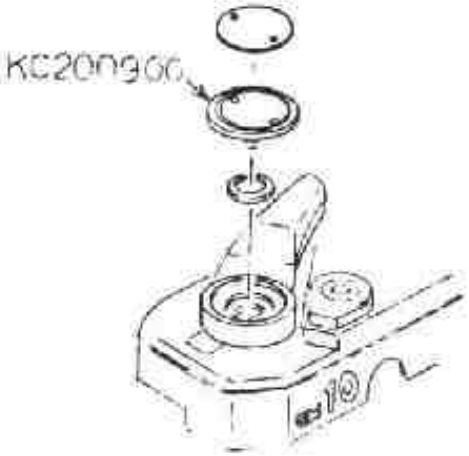
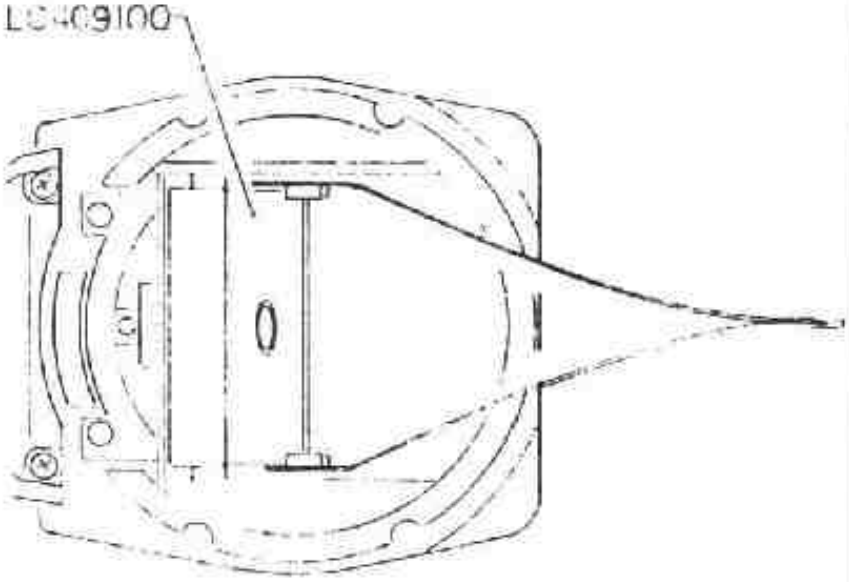
SPECIAL TOOLS

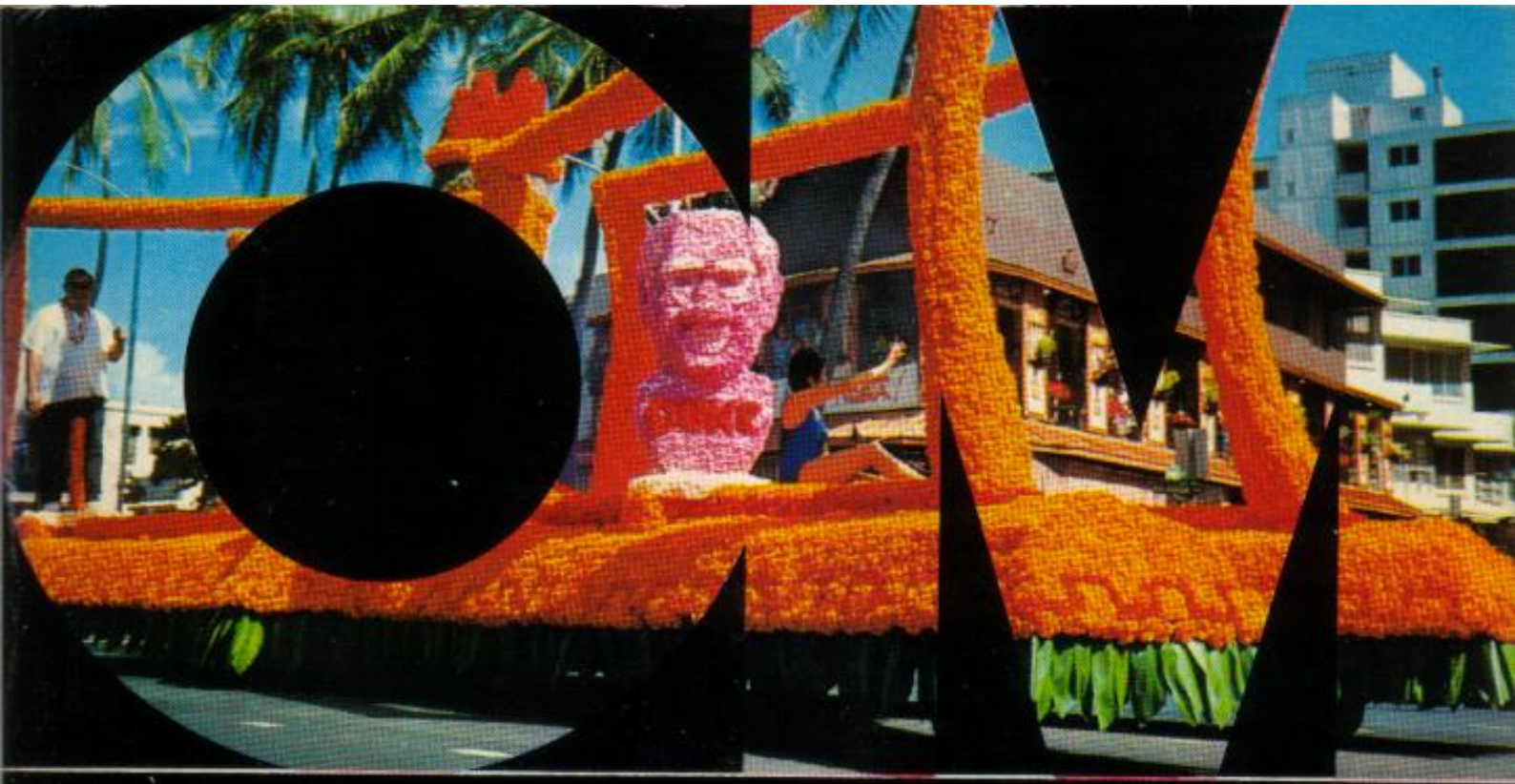
F. SPECIAL TOOLS

Tool No. & Name	Place Used & Usage	Remarks
KCCE2119 R. SHAFT HOLDER 		To be newly manufactured.
OT0065 STOP RING NIPPER 		New Tool
FINDER JIG LENS (OM-10) 	For use Finder indication matching. How to use is explained in REPAIR DATA.	To be newly manufactured.



(1) Code	F Board	(2) Code	A Board
ORANGE	ZJ136100	ORANGE	ZJ136600
BLUE	ZJ136200	BLUE	ZJ136700
RED	ZJ136300	RED	ZJ136800
GREEN	ZJ136400	GREEN	ZJ136900
BLACK	ZJ136500	BLACK	ZJ137000

Tool No. & Name	Place Used & Usage	Remarks
KCCE2024 DRIVER 		To be newly manufactured.
KCCE2009 DRIVER 		To be newly manufactured.
KCLC4091 SCREEN TWEEZERS 	 For the method of use, refer to the disassembly procedure.	To be newly manufactured.



E

OLYMPUS

OM SYSTEM

MANUAL FOR ZUIKO INTERCHANGEABLE LENSES GROUP

CHANGE OF ANGLE OF VIEW

16 mm

21 mm

24 mm

28 mm

35 mm

50 mm

100 mm

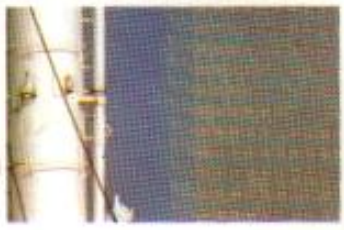
135 mm

200 mm

400 mm

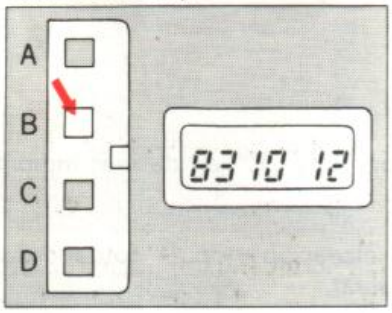
600 mm

1000 mm



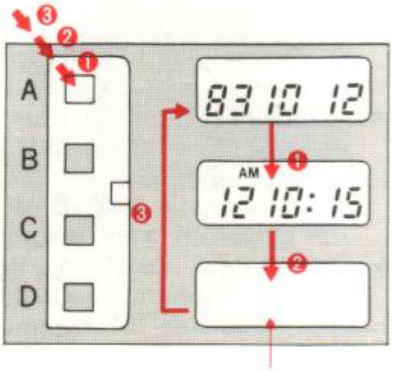
Release the SET MODE.

① After complete setting of the date and time, press Button B.
Now set the present date and time correctly.

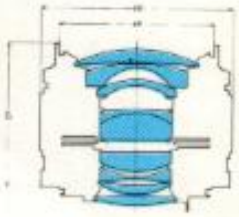


Confirm the present date and time.

② Press Button A repeatedly to confirm the settings.
If the display window fails to show data during setting of the date and time, press Button A for data display.



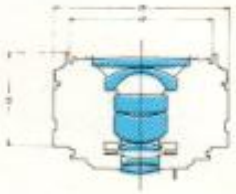
ZUIKO 28mm F2 ZUIKO 28mm F3.5



▪ZUIKO 28mm F2

This retrofocus type lens has an unusually fast speed of F2 and is designed to be more compact and higher in resolution and contrast than conventional 28mm lenses. A special correcting lens group compensates for aberrations at close focusing distances. It is an excellent lens for night photography and shooting in cramped interiors. The lens accepts a 49mm threaded filter.

•Focal length: 28mm •Angle of view: 75° •Optical construction: 9 elements in 8 groups •Diaphragm operation: Automatic •F/stop range: 2-16 •Minimum focus: 0.3m (11.8") •Min. photographic range: 18cm x 27cm (7.1" x 10.6") •Focusing: Straight helicoid •Weight: 240g (8.5 oz.) •Length: 43mm (1.7") •Maximum diam: 60mm (2.4") (Automatic correction mechanism against close distance aberration)



▪ZUIKO 28mm F3.5

Designed to be more compact than the 28mm F2 this lens is the smallest, lightest retrofocus type among 28mm lenses. High resolving power with ample marginal illumination makes it suitable for color photography. Its moderate perspective appeals to many photographers. Accepts a 49mm threaded filter.

•Focal length: 28mm •Angle of view: 75° •Optical construction: 7 elements in 7 groups •Diaphragm operation: Automatic •F/stop range: 3.5-16 •Minimum focus: 0.3m (11.8") •Min. photographic range: 18cm x 27cm (7.1" x 10.6") •Focusing: Straight helicoid •Weight: 180g (6.3 oz.) •Length: 31mm (1.2") •Maximum diam: 59mm (2.3")

WIDE ANGLE LENSES

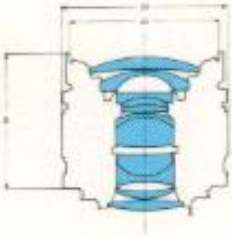
As the most popular among wide-angle lenses, the 35mm is now recognized as an all-purpose and extremely convenient lens for everyday use. With an angle of view approximately 20% wider than a standard lens, the ability of the 35mm to include more of the total picture area with near-natural perspectives has made it one of the most sought-after wide-angle lenses available.

Since the 35mm is now considered more of a "standard" lens, the 28mm lens has become a favorite among most photographers as their principal wide-angle. Although considered the perfect choice for general wide-angle purposes, the wide 75° angle of view can often be used with the expressive power and dramatic impact of a "super" wide-angle. The fast speed of F2 and great depth of field characteristics of the lens makes the 28mm extremely useful when photographing dimly lit subjects and night scenes.

Also, under development in this group is the unique ZUIKO Shift 35mm F2.8 for perspective control. With this lens, the photographer can correct deformed images in architectural and composite photographs. ZUIKO "shift" is a term for the shifting, rising, and falling adjustment capabilities of the lens. An ordinary lens is designed to cover the area of the 35mm film frame and if the lens position were changed coverage would be uneven. The Shift Lens, however, is designed to distribute the light patterns evenly over an area greater than that of the film maintaining high resolving power. This is accomplished by increasing the angle of view of the regular 35mm lens (63°) to that normally found on a 24mm lens (84°). This ability to shift perspective makes this lens extremely well suited to architectural and still life photography in which the top image tends to taper, as well as for composite panoramic pictures.


OLD WHALERS
GROG SHOPPE

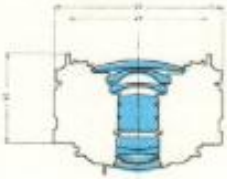
ZUIKO 24mm F2 ZUIKO 24mm F2.8



▪ZUIKO 24mm F2

This is the fastest 24mm lens available today. It is particularly effective in low light photography and helps overcome the difficulty of focusing wide-angle lenses with a 35mm SLR camera. The close distance aberration correction group of elements provides superior image quality at close focusing distances. The epochal performance was achieved by the excellent lens designing and newly introduced optical glass.

•Focal length: 24mm •Angle of view: 84° •Optical construction: 10 elements in 8 groups •Diaphragm operation: Automatic •F/stop range: 2-16 •Minimum focus: 0.25m (9.8") •Min. photographic range: 15cm x 23cm (5.9" x 9") •Focusing: Straight helicoid •Weight: 270g (9.5 oz.) •Length: 48mm (1.9") •Maximum diam: 60mm (2.4") (Automatic correction mechanism against close distance aberrations)

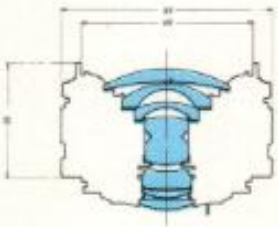


▪ZUIKO 24mm F2.8

This lens is amazingly compact and, except for the 24mm F2 lens, is the fastest lens in the super wide-angle lens group. Same as the 24mm F2, it produces dynamic images with exaggerated perspective and, even at close focusing distances, creats razor-sharp pictures. This wide-angle is extremely useful for architectural and interior photography as well as illustrative photography.

•Focal length: 24mm •Angle of view: 84° •Optical construction: 8 elements in 7 groups •Diaphragm operation: Automatic •F/stop range: 2.8-16 •Minimum focus: 0.25m (9.8") •Min. photographic range: 15cm x 23cm (5.9" x 9") •Focusing: Straight helicoid •Weight: 180g (6.3 oz.) •Length: 31mm (1.2") •Maximum diam: 59mm (2.3")

ZUIKO 21mm F3.5



▪ZUIKO 21mm F3.5

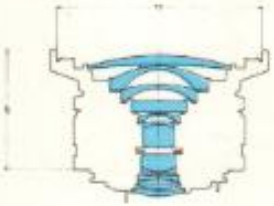
The 21mm lens is the smallest and lightest in this super wide-angle lens group. It consists of 7 elements in 7 groups and has unusually high resolving power with excellent contrast even at full aperture. In close distance work the lens discloses superb portrayal power, for much consideration was taken for compensating aberrations. The 92° angle of view is suitable for architectural and interior photography. The lens accepts a 49mm threaded filter.

•Focal length: 21mm •Angle of view: 92° •Optical construction: 7 elements in 7 groups •Diaphragm operation: Automatic •F/stop range: 3.5-16 •Minimum focus: 0.2m (7.9") •Min. photographic range: 14cm x 21cm (5.5" x 8.3") •Focusing: Straight helicoid •Weight: 180g (6.3 oz.) •Length: 31mm (1.2") •Maximum diam: 59mm (2.3")

▪Alphabetical Coding

Each ZUIKO Lens is described with an alphabetical prefix and suffix such as F. ZUIKO AUTO-S, AUTO-T, etc. The prefix represents the number of elements in a lens in alphabetical order. For instance, A=1 element, B=2 elements, D=4 elements, and so forth. "AUTO" signifies automatic diaphragm. The suffix represents the type of lens: S=Standard, W=Wide Angle, and T=Telephoto.

ZUIKO 18mm F3.5



■ZUIKO 18mm F3.5

This lens has the widest angle of view (100°) in the ZUIKO Super Wide Angle Lens Group. Despite its super wide-angle, the lens has been internally corrected for distortion aberrations. In addition to the fast lens speed of F3.5, it is extremely compact and does not require mirror lock-up in use. Particularly well-suited for architectural and indoor photography, the extremely exaggerated perspective is advantageous in creating dramatic effects. The quality of the lens is comparable to a conventional 28mm and an automatic correction mechanism was built in to prevent degradation of lens performance at close focusing distances. The lens accepts a 72mm threaded filter.

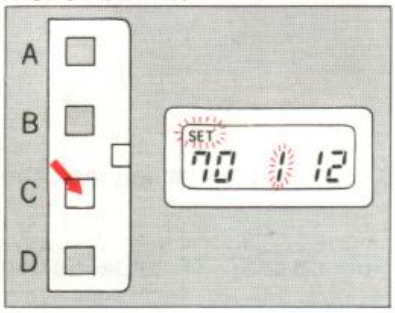
●Focal length: 18mm ●Angle of view: 100° ●Optical construction: 12 elements in 10 groups ●Diaphragm operation: Automatic ●F/stop range: 3.5-16 ●Minimum focus: 0.2m (7.9") ●Min. photographic range: 14cm x 21cm (5.5" x 8.3") ●Focusing: Straight helicoid ●Weight: 250g (8.8 oz.) ●Length: 42mm (1.7") ●Maximum diam: 75mm (3") (Automatic correction mechanism against close distance aberrations)

■Etymology of "ZUIKO"

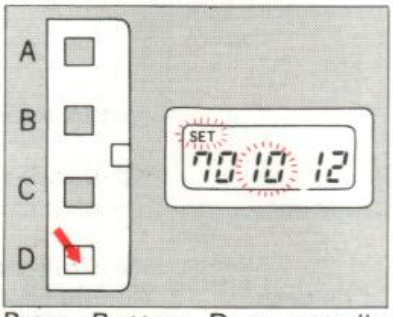
The Olympus Optical Company was established in 1919 under the name of "Takachiho"—mythical mountain ruled by the Goddess of Sun which may be compared to Greece's Mount Olympus. In 1936, it began the production of camera lenses and selected the name of "ZUIKO", meaning "blissful light." Since then, ZUIKO lenses have been widely acclaimed throughout the world.

Adjust the month.

① Press Button C once, and the month blinks.

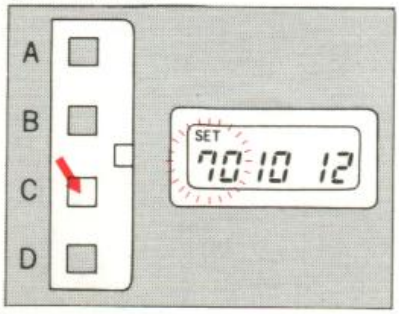


② Press Button D repeatedly until the month indicates 10 (= Oct.). 1 press = 1 month. Continous pressure = fast forwarding of the month indication.

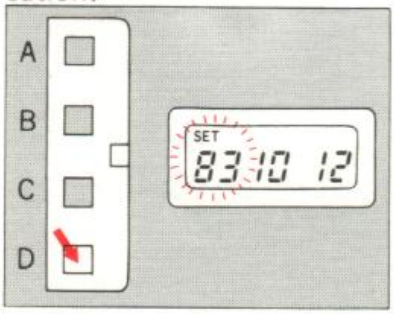


Adjust the year.

③ Press Button C once and the year blinks.



④ Press Button D repeatedly until the year indicates 83. 1 press = 1 year.
Continous pressure = fast forwarding of the year indication.



SUPER WIDE ANGLE LENSES

Generally speaking, a wide-angle lens is used for producing panoramic landscapes and shooting in cramped interiors. The super wide-angle amplifies the effect by intensifying perspective and providing greater depth of field.

The 28mm lens, not long ago looked upon as the typical "super" wide-angle, is now considered almost a "normal" wide-angle lens. Today, a super wide-angle lens group usually ranges from 15mm to 25mm. For practical applications, the most popular focal lengths are about 20mm.

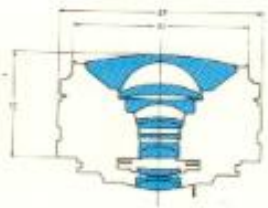
The ZUIKO Super Wide Angle Lens Group includes four lenses: an 18mm, a 21mm, and two 24mm. Of this group, probably the most noteworthy is the 24mm lens which, in addition to its wide 84° angle of view, features an unusually fast speed of F2. Also of special interest is the 18mm which enables the photographer to employ greater perspective control to achieve very dramatic results.

OM SYSTEM ZUIKO FISHEYE 8mm F2.8 ZUIKO FISHEYE 16mm F3.5

■ZUIKO FISHEYE 8mm F2.8

This lens establishes the relationship between cubical angle and area size of images in equisolid angle projection. Despite a lens speed of F2.8, it is designed to be extremely compact and requires no mirror lock-up in use. The automatic diaphragm enables the photographer to compose on the bright focusing screen. Covering an angle of 180°, the picture is formed in a circle 23mm in diameter. The distorted, special effect peculiar to the fisheye can be used effectively for highly creative photographic results.

•Focal length: 8mm •Angle of view: 180° (a circular image of 23mm in diam) •Optical construction: 11 elements in 7 groups •Diaphragm operation: Automatic •F/stop range: 2.8-22 •Minimum focus: 0.2m (7.9") •Focusing: Straight helicoid •Weight: 690g (24.3 oz.) •Length: 72mm (2.8") •Maximum diam: 102mm (4") •Filter: Built-in (L39, Y48, 056, R60)



■ZUIKO FISHEYE 16mm F3.5

This lens has an angle of view of 180°, yet produces an image that covers the full 35mm format. Fully automatic diaphragm allows focusing on a bright focusing screen without locking up the mirror. The innovative optical design to deliver unique photographs with high resolution and contrast uses a positive element in the second group that not only reduces chromatic aberration and increases definition, but also makes a shorter overall length possible. Three filters are built in.

•Focal length: 16mm •Angle of view: 180° (an image covering the full 35mm film size) •Optical construction: 11 elements in 8 groups •Diaphragm operation: Automatic •F/stop range: 3.5-22 •Minimum focus: 0.2m (7.9") •Focusing: Straight helicoid •Weight: 180g (6.3 oz.) •Length: 31mm (1.2") •Maximum diam: 59mm (2.3") •Filters: Built-in (L39, Y48, 056)


PAN AM

FISHEYE LENSES

The fisheye lens produces some extremely unusual photographs. Deriving its name from an angle of view closely associated with that of a fish's eye, this type of lens was originally manufactured because its 180° angle could record celestial observations of an entire hemisphere. With a fisheye lens, the horizon appears farther away, objects bulge into a barrel shape, and the picture itself—replete with deformed images peculiar to the super wide-angle lens—produces a weird, circular effect. This exaggerated fisheye world can be seen in the finder system of the SLR camera and this lens is now commonly used for creative photography.

The construction of the fisheye is similar to the retrofocus type lens in which rays of light from a full 180° angle are first refracted into a cone by the concave front element and next formed into a circular image by the convex rear element. If a subject covering an angle of 180° were to be photographed by a super wide-angle lens having no distortion, theoretically the peripheral image would be infinitely large—regardless of the focal length—and an infinitely large flat film would be needed to record it. This is where the fisheye differs from the super wide-angle lens. Because of the −100% distortion, the lens is not affected by the cosine law and uniform illumination is distributed over the entire lens surface.

There are different types of fisheye's distortion. ZUIKO Fisheye Lenses use equisolid angle projection. The advantage of this type is that the cubical angle of the image is easily calculated based on image size making it an excellent choice for scientific and technical applications. Because of the distortion, a circular picture is formed and the film format is not fully utilized. Another fisheye is designed to crop a rectangle out of the circular image. Fisheyes of both kinds are available in the ZUIKO Lens Group; the 8mm Fisheye which forms an image 23mm in diameter, and the 16mm which produces images covering the full film size by cropping a circular image of 44mm in diameter.

Because of the extraordinary angle of view, the photographer has to take certain precautions when using a fisheye lens. Naturally, the protruding front surface must be protected with a cap when changing lenses and film. But more important, before taking the picture he must check the viewfinder to make sure the legs of his tripod, his head and his feet do not appear.

WHY INTERCHANGEABLE LENSES

A lens is good enough to take pictures. In reality, however, cameras capable of replacing lenses and lenses of different focal lengths are supplied in quantity. So why interchangeable lenses? The answer is that every lens has its own angle of view which corresponds to its focal length. This allows the photographer to interpret and/or record each subject individually.

Angle of view is the angle in a lens between imaginary lines drawn from opposite edges of the image on the film plane to the optical center (second nodal point) of the lens. The object size and focal length determine the angle of view and only objects within this angle will appear in the final picture.

The human eye, when focused at a given point, has a field of vision of approximately 140°. When the eye is moved it then covers about 180°. Naturally, everything within this field of vision is not clearly in focus, and in reality the human eye can only discern colors and shapes within an angle of 50°, about 20° for absolute identification. In other words, the function of the retina of the eye, the human "lens", varies depending on whether a person sees things consciously or unconsciously. However, since the angle of view of a lens is fixed and determined solely by the focal length, what

the human eye identifies in a given photographic situation is different from what the lens will capture on film.

Practically speaking, angle of view is directly related to focal length. The shorter the focal length, the greater the angle and the smaller the image on the film. The longer the focal length, the narrower the angle and the larger

the image on the film. For example, when the focal length is doubled, the angle of view is reduced by approximately one half and the image size in the picture becomes larger. When replaced, the new lens of a certain focal length offers not only a different angle of view, but also different effects of

perspective and depth of field.

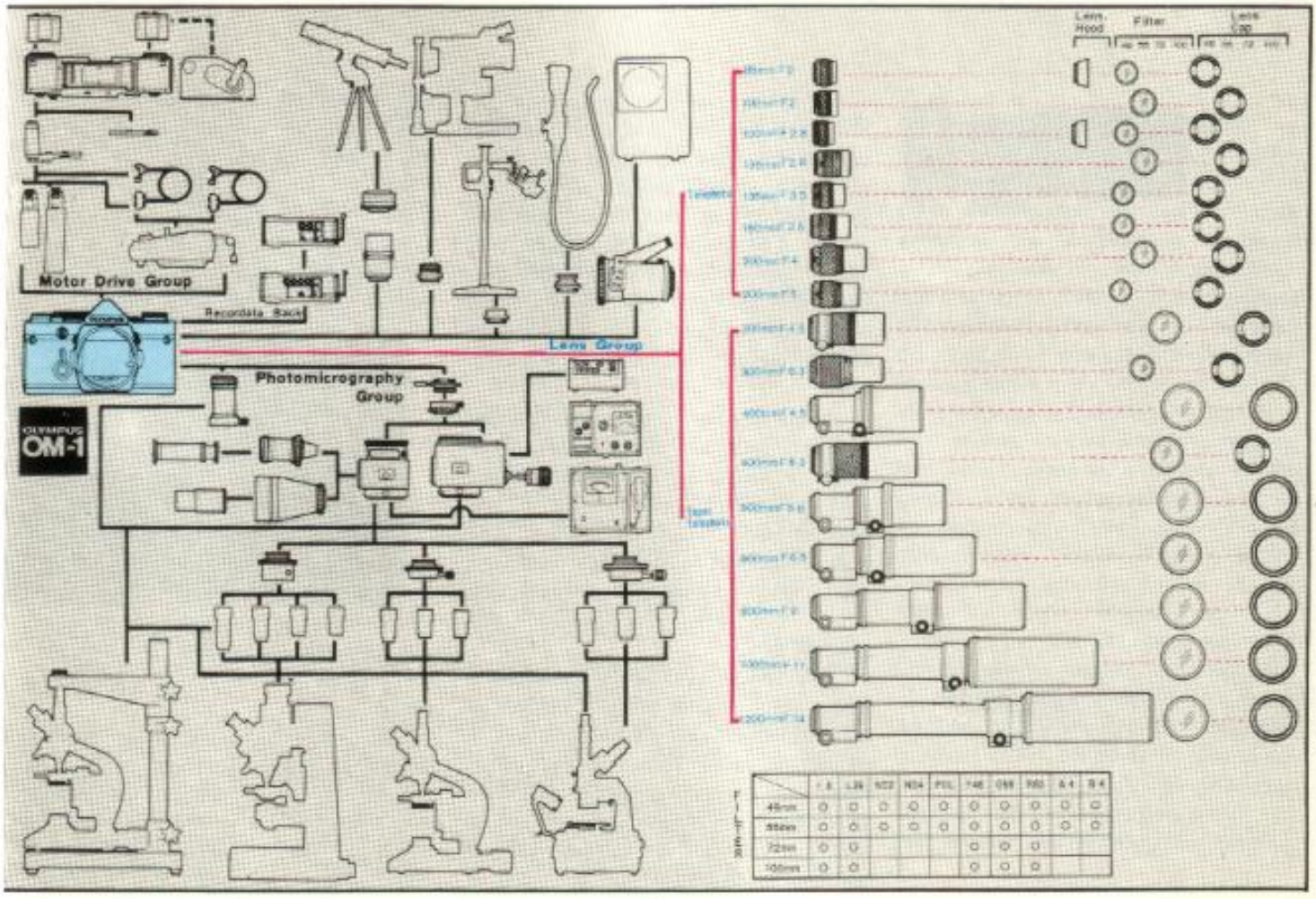
Perspective means the distorted effect in the space relationship of objects, i.e. a distant object seems smaller than it actually is. With a wide-angle lens, perspective is more exaggerated and is increasingly apparent as the angle of view becomes greater. With telephoto lenses, however, perspective is almost lost as the focal length becomes larger. You can see the effect of a lens on perspective as you look through the viewfinder of an SLR camera. To make the most of this phenomenon, remember that a wide-angle lens expands the vista and makes faraway objects appear smaller. If the main subject is important, you must get as close to the subject as possible to maintain a proper balance in the photograph.

Depth of field is the area in acceptable sharpness in front of and behind the subject in focus. This depth is determined by the aperture selected and by the distance from the subject in focus to the film plane and by the focal length of a lens. As the camera-to-subject distance decreases or as the aperture is made larger, depth of field becomes shallower. By making the aperture smaller or by increasing the camera-to-subject distance, this depth is increased.

Another factor in depth of field is the focal length of a lens. The shorter the focal length, the greater the depth of field. The longer the focal length, the shallower the depth of field.

The beginning photographer often chooses a wide-angle lens because it takes in a greater total picture area. Likewise, he chooses a telephoto simply because it makes a distant object appear closer. The advanced photographer, however, understands the illustrative characterstics of lenses and considers such factors as controlling perspective and varying depth of field effects. In particular, the perspective effect presents a variety of descriptions by photographic techniques on camera-to-subject distance and camera angle. The key to utilize the lenses most effectively lies in the mastery of these characteristics.

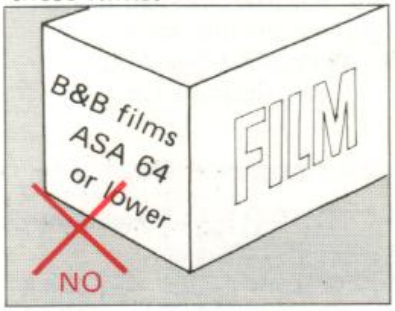
Since the ZUIKO Interchangeable Lenses are abundant, compact and lightweight, they enable the photographer, in conjunction with the super compact OM-1, to perform easy hand-held photography and acquire a good command of camera angles, which will help broaden his photographic horizon.


Motor Drive Group
Recordata Back
Lens Group
Photomicrography Group
OM-1
Lens Hood
Filter
Lens Cap

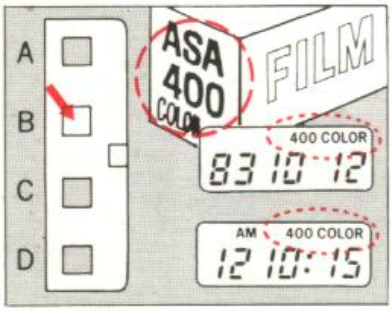
TAKING A PICTURE

FILM SPEED SETTING.

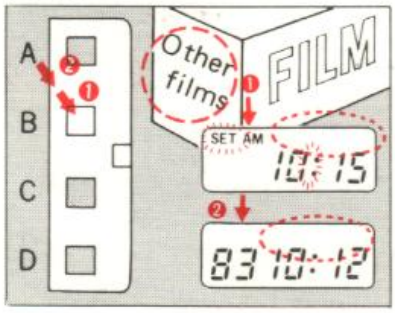
① B&W films ASA64 or lower cannot be used for imprinting. No data can be imprinted due to low sensitivity of these films.



② When ASA 400 color film is used: Press Button B once.



③ If the Back is set for 400 color, and you are using a different film, press "B" until the "400 COLOR" disappears.



CHARACTERISTICS OF ZUIKO INTERCHANGEABLE LENSES

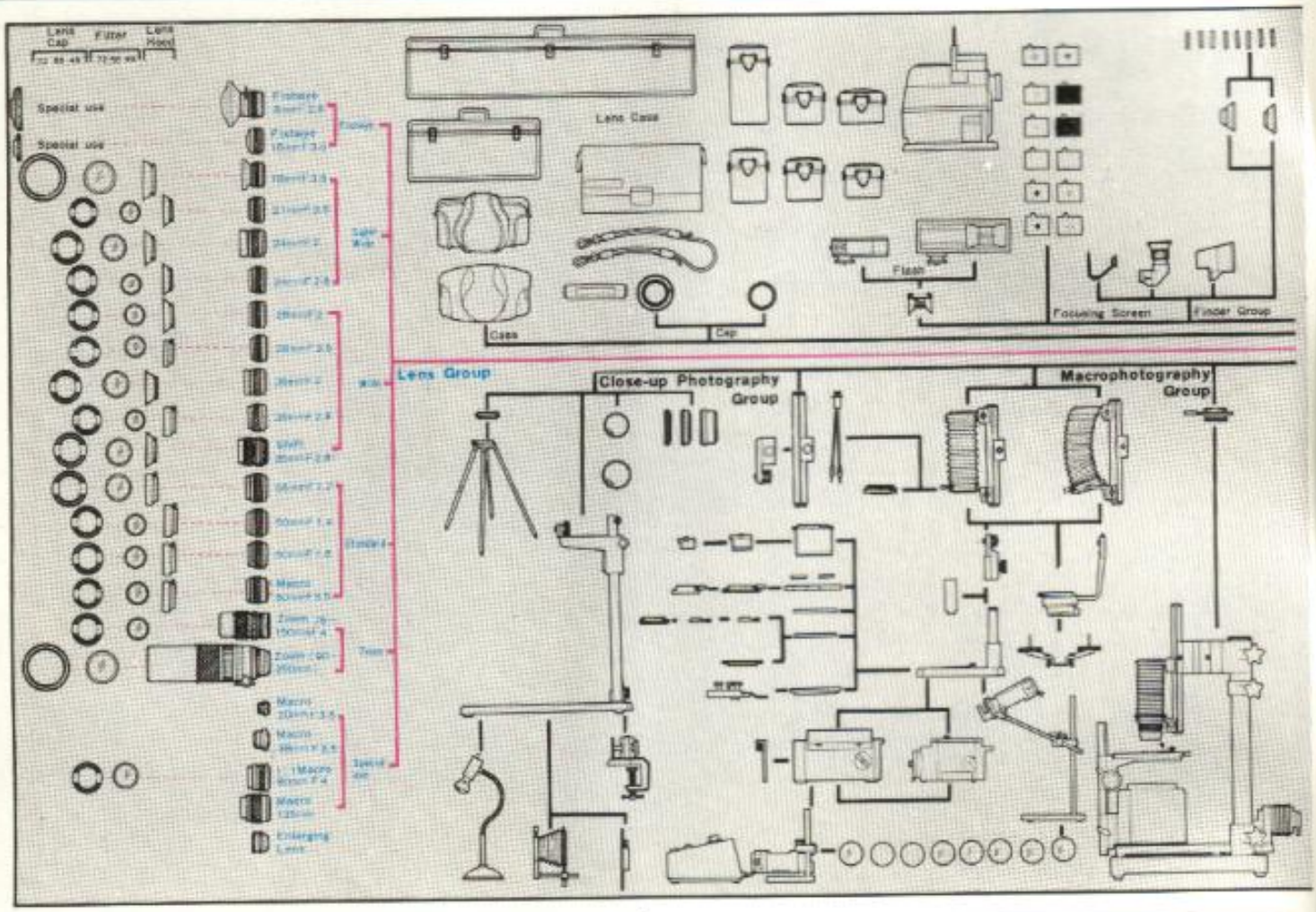
The Olympus OM-System was developed to provide both the advanced photographer and the scientist with the world's most versatile and sophisticated 35mm photographic system. The OM-System interchangeable lenses range from the 8mm fisheye to the 1000mm telephoto and also include a variety of unique and special purpose lenses.

ZUIKO lenses, manufactured by Olympus Optical Company, have long enjoyed a world wide reputation for excellence. Building upon this accumulated experience and employing the most up-to-date innovative technologies such as computerized designing, image evaluating simulation based on the Modulation Transfer Function, etc., the task force of Olympus engineers has produced a new generation of superb lenses and optical instruments.

These lenses which emphasize close distance ability utilize a group of correcting elements that automatically compensate for aberrations created at close distance focusing distances, maintaining unusually high performance even at short focusing distances. Careful attention was paid to color photography, including special coatings applied to certain lens surfaces. Simultaneously, efforts were concentrated on shortening the overall length to achieve the world's most compact and lightweight lens designs, permitting hand-held photography even with super telephotos, and most lenses from the 21mm to the 200mm accept the same 49mm filter. Except for a few special lenses, all lenses are equipped with automatic diaphragms. Lenses up to the 800mm are designed to eliminate viewfinder image cut-off. And, where possible, the maximum aperture ratio of the lens was increased to facilitate photography in dim light. For example, the 24mm wide-angle lens is the world's first lens of that focal length with an aperture of F2.

CONTENTS

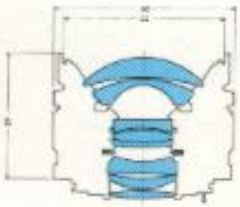
OLYMPUS OM-SYSTEM



HANGEABLE LENSES GROUP


ZUIKO INTERCH
OLYMPUS

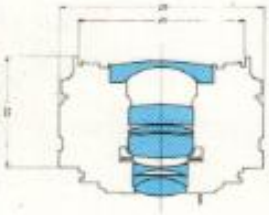
ZUIKO 35mm F2 ZUIKO 35mm F2.8



•ZUIKO 35mm F2

Most popular among wide-angle lenses, the 35mm is so versatile that it is often used as a standard lens. Innovative mechanical and optical engineering designs have resulted in one of the smallest models to be found in this class. Definition is superb and the lens is extremely bright, compact and lightweight. It is ideal for interiors and night photography.

•Focal length: 35mm •Angle of view: 63° •Optical construction: 8 elements in 7 groups •Diaphragm operation: Automatic •F/stop range: 2-16 •Minimum focus: 0.3m (11.8") •Min. photographic range: 14cm x 21cm (5.5" x 8.3") •Focusing: Straight helicoid •Weight: 230g (8.1 oz.) •Length: 42mm (1.7") •Maximum diam: 60mm (2.4")



•ZUIKO 35mm F2.8

This 35mm is a retrofocus type lens that uses a deluxe construction of seven elements in six groups to minimize the coma flare inherent in wide-angle lenses. To the photographer, this means wide angle photographs with excellent definition. The lens itself is as compact as a conventional F1.8 standard lens and accepts a 49mm threaded filter.

•Focal length: 35mm •Angle of view: 63° •Optical construction: 7 elements in 6 groups •Diaphragm operation: Automatic •F/stop range: 2.8-16 •Minimum focus: 0.3m (11.8") •Min. photographic range: 14cm x 21cm (5.5" x 8.3") •Focusing: Straight helicoid •Weight: 170g (6 oz.) •Length: 33mm (1.3") •Maximum diam: 59mm (2.3")

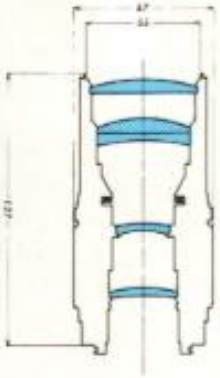
SUPER TELEPHOTO LENSES

The 300mm, 400mm, 600mm, and 1000mm lenses produce the most dramatic telephoto effects. Where the 100mm or 200mm gently changes the perspective, these super telephotos startle the eye by drastically compressing the space relationship of objects in the picture. And in situations that do not allow the photographer to get close to his subject, these super telephotos can produce images 6 to 20 times the size of those produced by a standard lens without ever changing the camera position.

Because of their extremely compact and lightweight design, hand-held shooting is possible with both the ZUIKO 300mm F4.5 and 400mm F6.3 super telephotos. The new ZUIKO 600mm and 1000mm lenses have also been designed to be smaller than conventional lenses of equal focal lengths. However, these lenses should be used on a tripod for best results.

Because of their extremely long-focal lengths, using any of the ZUIKO telephoto lenses where atmospheric conditions are poor requires the use of filters. Even if these precautions are taken, lens performance will generally fall off on extremely hazy or smoggy days.

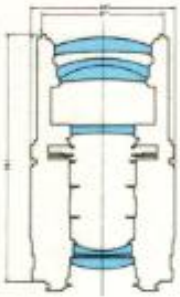
ZUIKO 200mm F4 ZUIKO 200mm F5



•ZUIKO 200mm F4

This relatively fast and very compact 200mm lens is ideal for hand-held telephoto photography. The ingenious lens designing well corrected aberrations and the lens displays superb resolution all over the picture. The 4 times image size that of a standard lens makes it a perfect choice for shooting landscapes, animals, and candid portraits taken from a distance. It has a built-in retractable lens hood and accepts a 55mm threaded filter.

•Focal length: 200mm •Angle of view: 12° •Optical construction: 5 elements in 4 groups •Diaphragm operation: Automatic •F/stop range: 4-32 •Minimum focus: 2.5m (8'2 3/8") •Min. photographic range: 24cm x 36cm (9.4" x 14.2") •Focusing: Straight helicoid •Weight: 490g (17.3 oz.) •Length: 127mm (5") •Maximum diam: 67mm (2.6")



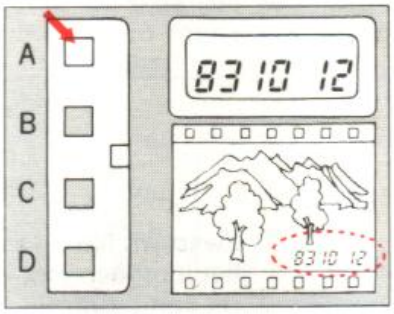
•ZUIKO 200mm F5

Amazingly short, 105mm (4.1"), for a 200mm telephoto—actually it accepts a 49mm filter in common with the F1.8 Standard Lens—the extremely compact size and lightweight configuration of this lens makes it ideal for hand-held telephoto shooting. Equally important, it features a deluxe optical construction of 6 elements in 5 groups which successfully corrected various aberrations to insure high resolution all over the picture as well as high performance in close distance photography.

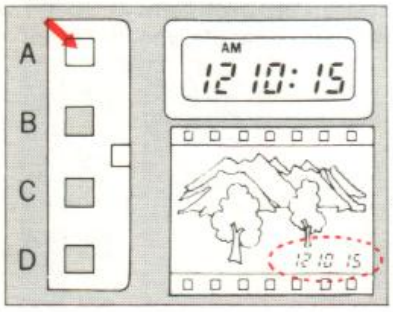
•Focal length: 200mm •Angle of view: 12° •Optical construction: 6 elements in 5 groups •Diaphragm operation: Automatic •F/stop range: 5-32 •Minimum focus: 2.5m (8'2 3/8") •Min. photographic range: 24cm x 36cm (9.4" x 14.2") •Focusing: Straight helicoid •Weight: 370g (13.1 oz.) •Length: 105mm (4.1") •Maximum diam: 62mm (2.4")

SELECTION OF IMPRINT DATA.

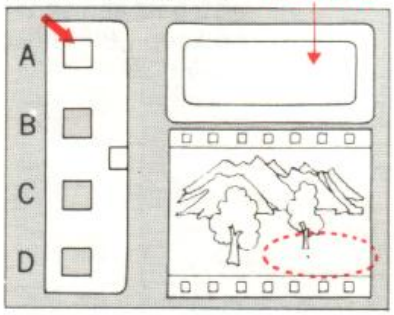
① To imprint the date: Press "A" until the date appears.



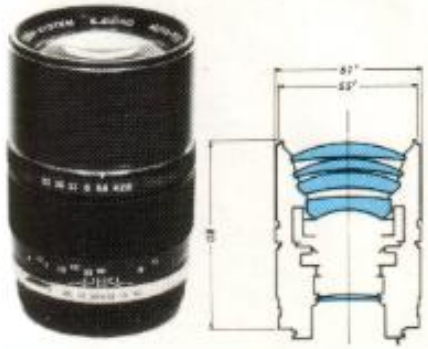
②To imprint the time: Press "A" until the date appears. AM or PM can not be imprinted.



③To prevent date imprinting: Press "A" until there is no visible readout.



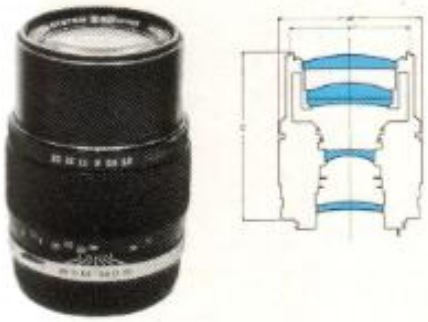
ZUIKO 135mm F2.8 ZUIKO 135mm F3.5



•ZUIKO 135mm F2.8

An extremely compact (telephoto ratio 0.93) and lightweight lens, this 135mm medium telephoto incorporates 5 elements in 5 groups to assure high resolution and contrast for maximum edge-to-edge sharpness in the picture. Its relatively fast F2.8 lens speed makes it an excellent choice for indoor sports and stage photography as well as portrait and landscape photography. As one of the smallest lenses capable of producing true telephoto effects, it is an ideal addition to any photographer's equipment.

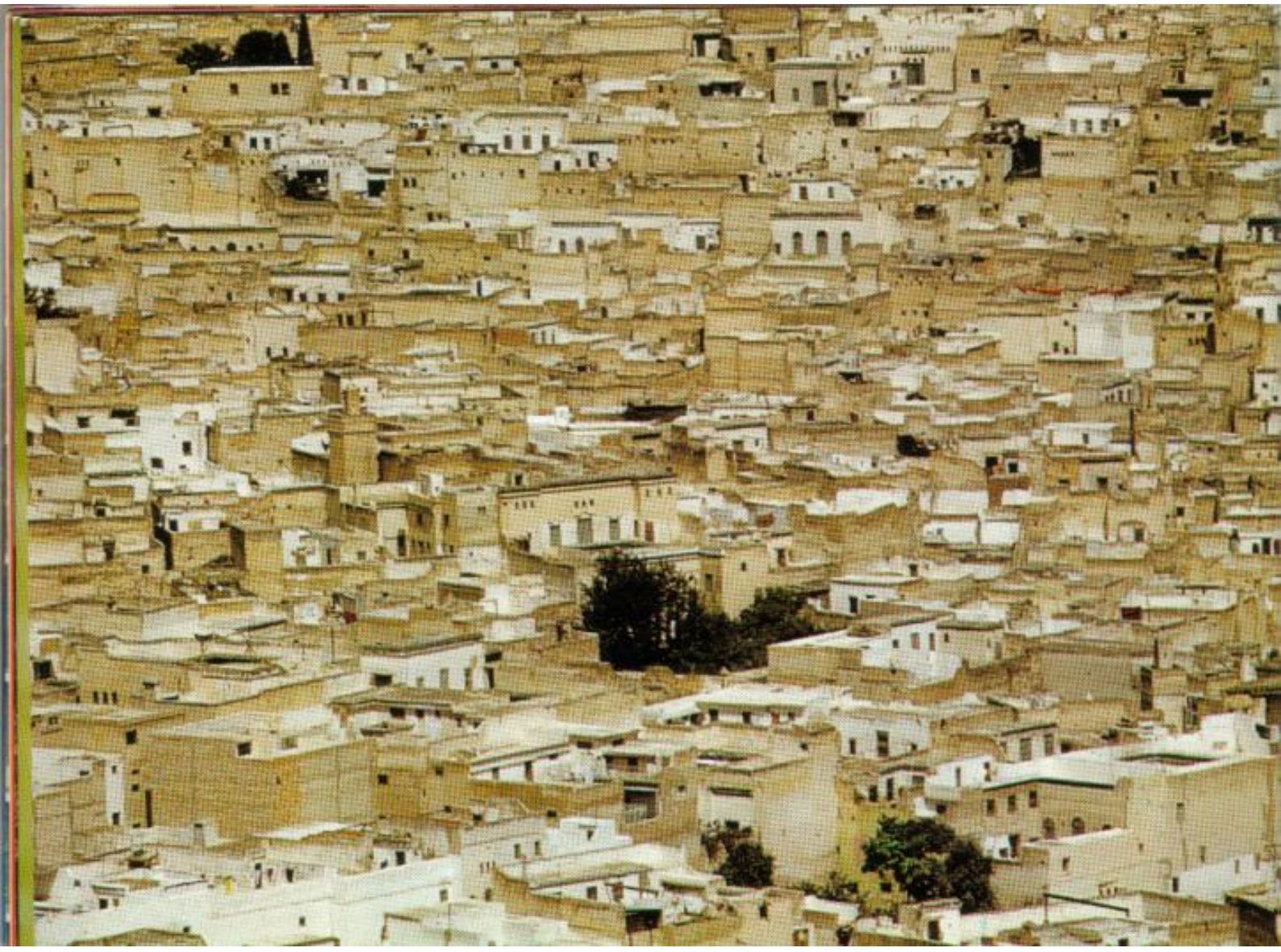
•Focal length: 135mm •Angle of view: 18° •Optical construction: 5 elements in 5 groups •Diaphragm operation: Automatic •F/stop range: 2.8-22 •Minimum focus: 1.5m (4'10 3/4") •Min. photographic range: 21cm x 32cm (8.3" x 12.6") •Focusing: Straight helicoid •Weight: 360g (12.7 oz.) •Length: 80mm (3.1") •Maximum diam: 61mm (2.4")



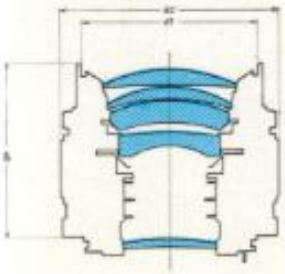
•ZUIKO 135mm F3.5

Although slightly slower in lens speed, Olympus design engineers were able to produce a medium telephoto lens that is even more compact than the 135mm F2.8 (telephoto ratio 0.87). To assure superior image quality, 5 elements rather than the normal 4 were used. This additional element when tested through MTF has resulted in measurable improvement in resolution and contrast. Same as with the 135mm F2.8, the lens features a built-in retractable lens hood and accepts a 49mm threaded filter.

•Focal length: 135mm •Angle of view: 18° •Optical construction: 5 elements in 4 groups •Diaphragm operation: Automatic •F/stop range: 3.5-22 •Minimum focusing: 1.5m (4'10 3/4") •Min. photographic range: 21cm x 32cm (8.3" x 12.6") •Focusing: Straight helicoid •Weight: 280g (9.9 oz.) •Length: 73mm (2.9") •Maximum diam: 60mm (2.4")



ZUIKO 100mm F2.8



▪ZUIKO 100mm F2.8

Although its focal length is twice as long, this 100mm lens is approximately the same size (telephoto ratio 0.93) and weight as a conventional standard 50mm lens. However, because of its 24° angle of view, it produces images twice as large. It has been designed to deliver the same high resolution and contrast as a standard lens yet it yields a better perspective that is ideal for portraits and all other situations where a moderate telephoto focal length is required. Accepts a 49mm filter.

•Focal length: 100mm •Angle of view: 24° •Optical construction: 5 elements in 5 groups •Diaphragm operation: Automatic •F/stop range: 2.8-22 •Minimum focus: 1m (3'3 5/8") •Min. photographic range: 19cm x 29cm (7.5" x 11.4") •Focusing: Straight helicoid •Weight: 230g (8.1 oz.) •Length: 48mm (1.9") •Maximum diam: 60mm (2.4")

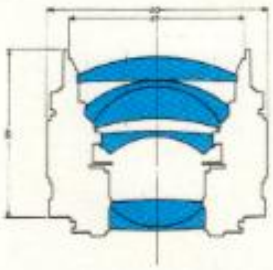
▪Telephoto Ratio

Telephoto ratio is derived by dividing the distance from the front vertex of a lens to the film plane by the focal length. The smaller the telephoto ratio, the smaller the total length of the lens.

▪Angle of View

The total subject area which can be photographed by a particular lens is expressed as an angle. Though there are three types of angles which can be measured (based on horizontal, vertical, and diagonals of the film frame), the lens must be designed to cover the widest angle in the diagonal direction. Therefore, the angle of view is the angle between imaginary lines drawn from the opposite ends of the film plane to the second nodal point of the lens. All objects within this angle will be recorded by the lens on the film.

OM SYSTEM ZUIKO 85mm F2



▪ZUIKO 85mm F2

This lens produces images 1.5 times as large as those of a standard lense yet is almost the same size (telephoto ratio 1.06) as conventional standard lenses. It produces photographs with a natural perspective making it ideal for portrait and still life photography. A built-in automatic correction mechanism compensates for aberrations at close focusing distances. The fast F2 lens speed and inherent shallow depth-of-field is extremely useful for creating pleasing out-of-focus foregrounds and backgrounds in portrait photography. It is a perfect lens for low light situations such as interiors and night scenes and the fast speed enables the photographer to focus quickly and easily. It accepts a 49mm threaded filter.

•Focal length: 85mm •Angle of view: 29° •Optical construction: 6 elements in 4 groups •Diaphragm operation: Automatic •F/stop range: 2-16 •Minimum focus: 0.85m (2'8 3/8") •Min. photograph range: 17cm x 25cm (6.7" x 9.8") •Focusing: Straight helicoid •Weight: 270g (9.5 oz.) •Length: 46mm (1.8") •Maximum diam: 60mm (2.4") (Automatic correction mechanism against close distance aberrations)

▪Modulation Transfer Function

Subject matters reveal themselves in a multitude of contrast levels and fabrics corresponding to time and places. Irrespective of circumstances of subjects, the lens performance is best expressed in terms of spatial frequency response (Modulation Transfer Function). With this method, resolution is expressed as a plot of response versus line separation (spatial frequency). The higher the MTF, the better lens performance in reproducing detailed and faithful contrast of a subject. Through the use of MTF curve, the high performance of all ZUIKO lenses can be objectively illustrated.

TELEPHOTO LENSES

Generally speaking, lenses having a focal length longer than that of a standard lens are called telephotos. They fall into two catagories: first, those of the "long focus" variety with constructions similar to those of standard lenses. With telephotos of this nature, focal length is measured from the second nodal point of the lens to the film plane with the focus set at infinity. The second type of telephoto is the "short barrel" or "telephoto" variety where the distance from the front vertex to the focus of the lens is much shorter than its actual focal length. All ZUIKO telephoto lenses are of the "short barrel" type and are extremely lightweight and compact.

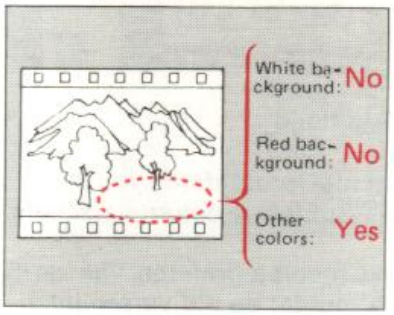
Among telephotos, the 85mm lens has become widely known as an ideal lens for portraits and still life photography because it provides moderate perspective with negligible distortion. Because this lens has a maximum aperture of F2, the photographer can take full advantage of the extremely shallow depth-of-field and use it creatively to produce pleasing out-of-focus backgrounds or foregrounds.

In addition to the many innovative optical and mechanical designs incorporated into OM-System ZUIKO lenses, Olympus engineers have made great strides in reducing the overall size of telephoto lenses. For example, the ZUIKO 100mm and 135mm lenses have been reduced to the size of conventional standard lenses. These ultra-compact telephoto lens designs enable the photographer to take hand-held photographs at slower shutter speeds.

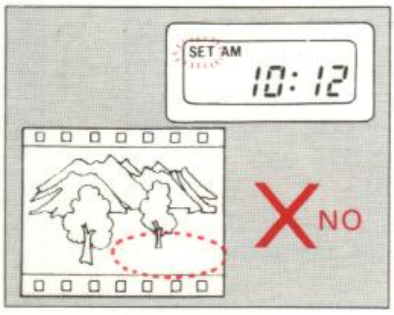
There is a wide variety of ZUIKO telephoto lenses in the Olympus OM-System allowing the photographer to choose a lens to match each and every photographic situation.

IF YOU ARE UNABLE TO IMPRINT DATA ...

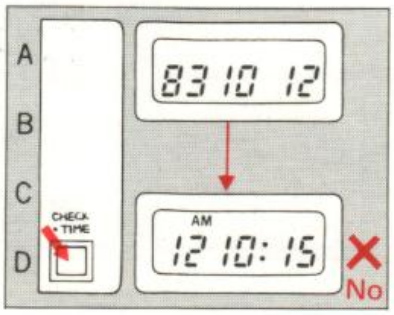
① Check the color of the imprinting area.

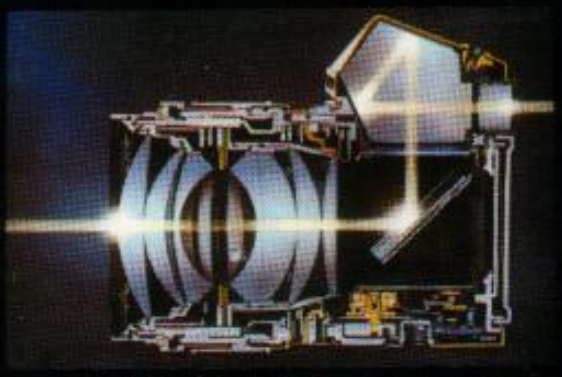


② NOTE: No data can be imprinted while the "SET" sign is blinking.



③ No data can be imprinted while you are pressing Button D.





OLYMPUS

OLYMPUS OPTICAL CO., LTD.
43-2 Hatagaya 2-chome, Shibuya-ku, Tokyo, Japan

PRINTED IN JAPAN (EMZLG-0171-10M)

CHANGE OF BACKGROUND BY ANGLE OF VIEW

16mm (180°)

21mm (92°)

28mm (75°)

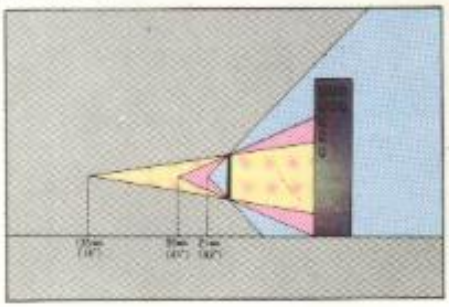
50mm (47°)

100mm (24°)

135mm (18°)

200mm (12°)

300mm (8°)



Specifications subject to change without notice.

Type	Interchangeable lenses		Angle of view	Lens Component element group	Dia-phragm	F-stop Range	Min. Focus	Field size	Weight	Length	Max. diameter	Hood	Filter			
													49mm	55mm	72mm	100mm
Telephoto	E Zuiko Auto-T	100mm F2.8	24°	5–5	Auto.	2.8–22	1 m	29x19cm	230g	48mm	60mm	49mm Screw-in	○			
	E Zuiko Auto-T	135mm F2.8	18°	5–5	Auto.	2.8–22	1.5 m	32x21cm	360g	80mm	61mm	Built-in		○		
	E Zuiko Auto-T	135mm F3.5	18°	5–4	Auto.	3.5–22	1.5 m	32x21cm	260g	73mm	60mm	〃	○			
	E Zuiko Auto-T	200mm F4	12°	5–4	Auto.	4 –32	2.5 m	38x24cm	490g	127mm	67mm	〃		○		
	F Zuiko Auto-T	200mm F5	12°	6–5	Auto.	5 –32	2.5 m	38x24cm	370g	105mm	62mm	〃	○			
Super Telephoto	F Zuiko Auto-T	300mm F4.5	8°	6–4	Auto.	4.5–32	3.5 m	33x22cm	1,000g	181mm	80mm	〃			○	
	E Zuiko Auto-T	400mm F6.3	6°	5–5	Auto.	6.3–32	5 m	36x24cm	1,300g	255mm	80mm	〃			○	
	F Zuiko Auto-T	600mm F6.5	4°	6–4	Auto.	6.5–32	11 m	55x37cm	2,800g	377mm	110mm	〃				○
	E Zuiko Auto-T	1000mm F11	2.5°	5–5	Auto.	11–45	30 m	98x65cm	4,000g	662mm	110mm	〃				○
Special Use	Zuiko Shift	35mm F2.8	63°-84°	8–7	Manual	2.8–22	0.3 m	21x14cm	350g	57mm	70mm	49mm Screw-in	○			
	Zuiko Auto-Macro	50mm F3.5	47°	5–4	Auto.	3.5–22	0.23m	72x48cm	200g	40mm	60mm	–	○			
	*Zuiko Macro	20mm F3.5		4–3	Manual	3.5–16	0.13m	max. 8x 5mm min. 3x 2mm	50g	20mm	26mm	–	21mm Slide-on			
	*Zuiko Macro	38mm F3.5		5–4	Manual	3.5–16	0.16m	max.20x13mm min. 6x 4mm	70g	28mm	37mm	–	32mm Slide-on			
	*Zuiko 1:1 Macro	80mm F4		6–4	Manual	4 –22	0.35m	max.72x48mm min.18x12mm	200g	46mm	59mm	–	○			
	(*Used with Auto Bellows.)															

Olympus OM-System Interchangeable Lenses

Type	Interchangeable lenses		Angle of view	Lens Component element group	Dia-phragm	F-stop Range	Min. Focus	Field size	Weight	Length	Max. diameter	Hood	Filter			
													49mm	55mm	72mm	100mm
Fisheye	Zuiko Auto-Fisheye	8mm F2.8	180°	11 – 7	Auto	2.8 – 22	0.2 m		690g	72mm	102mm	–	Built-in(L39,Y48,O56,R60)			
	Zuiko Auto-Fisheye	16mm F3.5	180°	11 – 8	Auto	3.5 – 22	0.2 m		180g	31mm	59mm	–	〃 (L39,Y48,O56)			
Super Wide	L Zuiko Auto-W	18mm F3.5	100°	12 – 10	Auto	3.5 – 16	0.2 m	21x14cm	260g	42mm	75mm	72mm Screw-in			○	
	G Zuiko Auto-W	21mm F3.5	92°	7 – 7	Auto	3.5 – 16	0.2 m	21x14cm	180g	31mm	59mm	49mm 〃	○			
	J Zuiko Auto-W	24mm F2	84°	10 – 8	Auto	2 – 16	0.25m	23x15cm	270g	48mm	60mm	55mm 〃		○		
	H Zuiko Auto-W	24mm F2.8	84°	8 – 7	Auto	2.8 – 16	0.25m	23x15cm	180g	38mm	59mm	49mm 〃	○			
Wide	I Zuiko Auto-W	28mm F2	75°	9 – 8	Auto	2 – 16	0.3 m	27x18cm	240g	43mm	60mm	49mm 〃	○			
	G Zuiko Auto-W	28mm F3.5	75°	7 – 7	Auto	3.5 – 16	0.3 m	27x18cm	180g	31mm	59mm	49mm 〃	○			
	H Zuiko Auto-W	35mm F2	63°	8 – 7	Auto	2 – 16	0.3 m	21x14cm	230g	42mm	60mm	55mm 〃		○		
	G Zuiko Auto-W	35mm F2.8	63°	7 – 6	Auto	2.8 – 16	0.3 m	21x14cm	170g	33mm	59mm	51mm Slide-on	○			
Standard	G Zuiko Auto-S	55mm F1.2	43°	7 6	Auto	1.2 – 16	0.45m	23x15cm	310g	47mm	65mm	52mm 〃		○		
	G Zuiko Auto-S	50mm F1.4	47°	7 6	Auto	1.4 16	0.45m	24x16cm	230g	36mm	60mm	51mm 〃	○			
	F Zuiko Auto-S	50mm F1.8	47°	6 5	Auto	1.8 – 16	0.45m	24x16cm	170g	31mm	59mm	51mm 〃	○			
Zoom	Zuiko Auto-Zoom 75 – 150mm F4		32° 16°	15 – 11	Auto	4 – 22	1.6 m	32x21cm 64x42cm	430g	115mm	63mm	Built-in	○			
Telephoto	G Zuiko Auto-T	85mm F2	29°	6 – 4	Auto	2 – 16	0.85m	25x17cm	270g	46mm	60mm	49mm Screw-in	○			

SELECTING INTERCHANGEABLE LENSES

When selecting an interchangeable lens, the telephoto is often the photographer's first choice. Generally speaking, the most popular are those having focal lengths from 85mm to 150mm. Because they are small, lightweight, easy to handle, and capable of producing excellent telephoto effects, 135mm lenses are among the top favorites.

Among telephoto lenses, zoom lenses are becoming more popular every day. For example, the ZUIKO 75-150mm Zoom provides the photographer with many focal lengths from which to choose and can be used for virtually all forms of photography.

Most photographers also find that a wide-angle lens is a welcome addition to their equipment. The 28mm and 35mm are among the most popular. Due to their great depth of field, the photographer can obtain sharp crisp photographs from foreground to infinity even with an aperture of F5.6.

One of the prime goals of Olympus designers was to produce wide-angle lenses that would be extremely compact and lightweight. As a result, all ZUIKO wide-angle lenses combine high resolution and contrast in easy-to-handle designs.

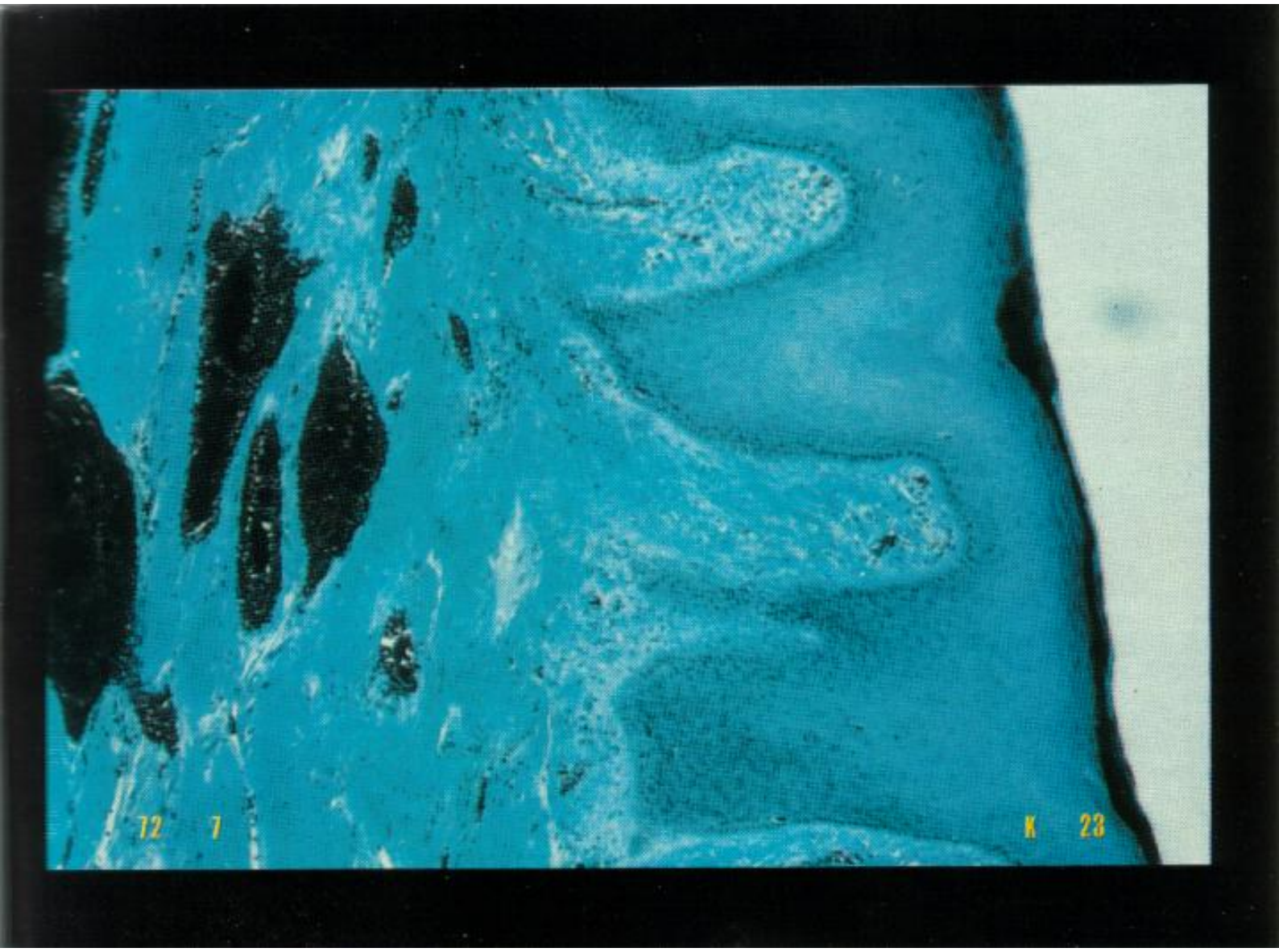
The tremendous variety of ZUIKO interchangeable lenses for the OM-1 open new creative doors for the photographer. In selecting right lenses effectively from such an abundance, a series of 1.6X focal lengths may be a helpful guide.

For example, with telephoto lenses:
85mm → 135mm → 200mm → 300mm → 500mm or, 100mm → 160mm → (300-mm) → 400mm

and with wide-angle lenses:
35mm → 24mm → 18mm or, 28mm → 21mm → 18mm

Primarily the photographer should be guided by the subject matters he likes to shoot most. If he is interested in portrait photography and shooting stage shows, his best choice would be an 85mm or 100mm; for sports events, landscapes and mountain scenery, a 75-150mm Zoom, 135mm or 200mm is recommended.

Additionally, selection may be based on characteristics of the lenses. For example, the 24mm F2 has the fastest maximum aperture in the 24mm lens class and would be particularly useful in low light level wide-angle photography.

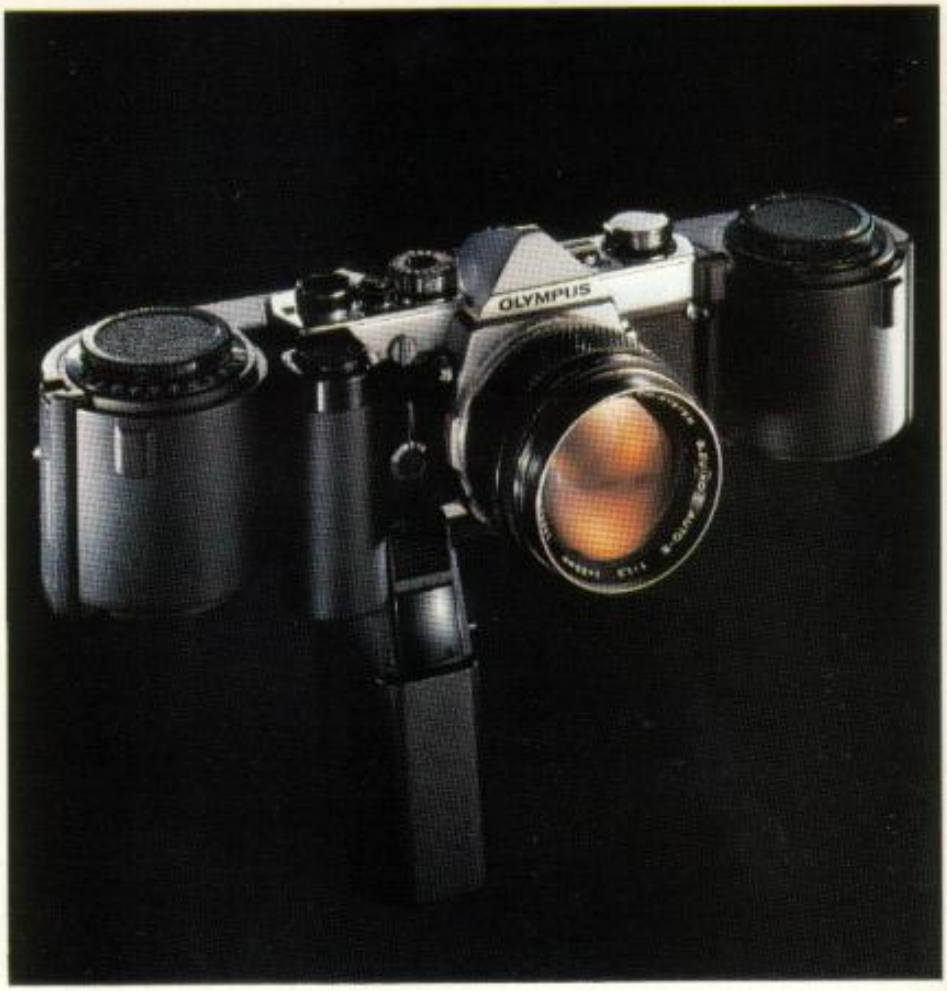

72 7
K 23

RECORDATA BACK

The Olympus OM-1 camera features yet another outstanding advantage—the rear back, now in the course of development, is removable and easily interchanged with the Recordata Back. Once in place, the back automatically imprints data such as date, number, alphabet code, etc., directly on the picture when the exposure is made. This information can be particularly important when classifying photographs taken with the eye fundus camera, stereoscopic operation microscope, or fiberoptic endoscope, etc.

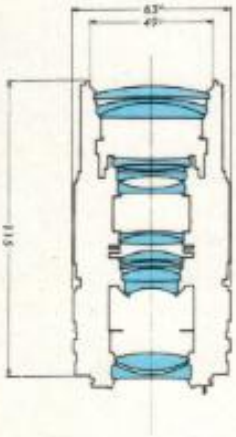
MOTOR DRIVE GROUP

Even in its conceptual stage, the OM-System was designed to incorporate a motor drive and all the related units. The motor drive is an invaluable tool when shooting fast moving objects or taking a series of exposures. The speed of the motor drive can be set for a single series of shots, or a burst of shots five frames per second in sequential photography. Battery packs, a 250-Film Back, AC adapter, and other units are available in this group. The motor drive has many uses which encompass such varied fields as photo journalism, sports, wild life, and fashion photography. Compact enough for hand-held photography even with a 300mm telephoto lens, the motor drive is perfect for taking photographs of sports and other action subjects. The Olympus OM-1 must be modified to accept the motor drive.




6
5
4
3
2
1
EKTACHROME X FILM
KODAK SAFETY
3
3A
4
4A
5
5A
6
6A

OM ZUIKO ZOOM 75-150mm F4



●f=150mm

●ZUIKO ZOOM 75-150mm F4

With an ordinary lens, the angle of view changes only slightly because its focal length is fixed. A zoom lens, on the other hand, is specially designed to allow the photographer to freely vary the focal length. This enables him to produce the effects of many telephoto lenses. Because of the unique optical design, subjects remain in focus throughout the zoom range and the photographer can expect the high resolution and contrast once associated only with fixed focal length lenses. Extremely compact, lightweight and easy to operate, this zoom is convenient for general photography such as portraits, landscapes, particularly efficient when shooting mountain scenery from a tight place. Accepts a 49mm filter.

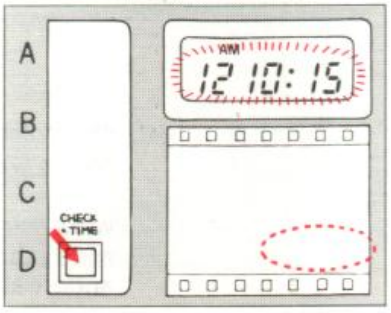
●Focal length: 75-150mm ●Angle of view: 32°-16° ●Optical construction: 15 elements in 11 groups ●Diaphragm operation: Automatic ●F/stop range: 4-22 ●Minimum focus: 1.6m (5'2 3/8") ●Min. photographic range: 21cm x 32cm–42cm x 64cm (8.3" x 12.6"–16.5" x 25.2") ●Focusing: Revolving helicoid ●Weight: 430g (15.2 oz.) ●Length: 115mm (4.5") ●Maximum diam: 63mm (2.5")

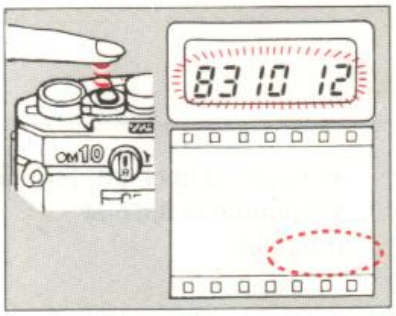
●f=75mm

●f=100mm

WHEN TO REPALCE THE BATTERIES:

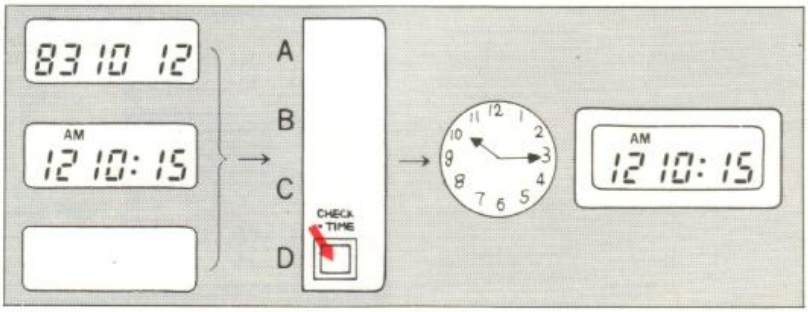
① If the data indication blinks when you press Button D or after taking a picture ...
No data can be imprinted.
Recommended to replace the batteries.





HOW TO DISPLAY THE TIME.

❶ If you press Button D, the display window indicates the time for as long as the button is pressed.

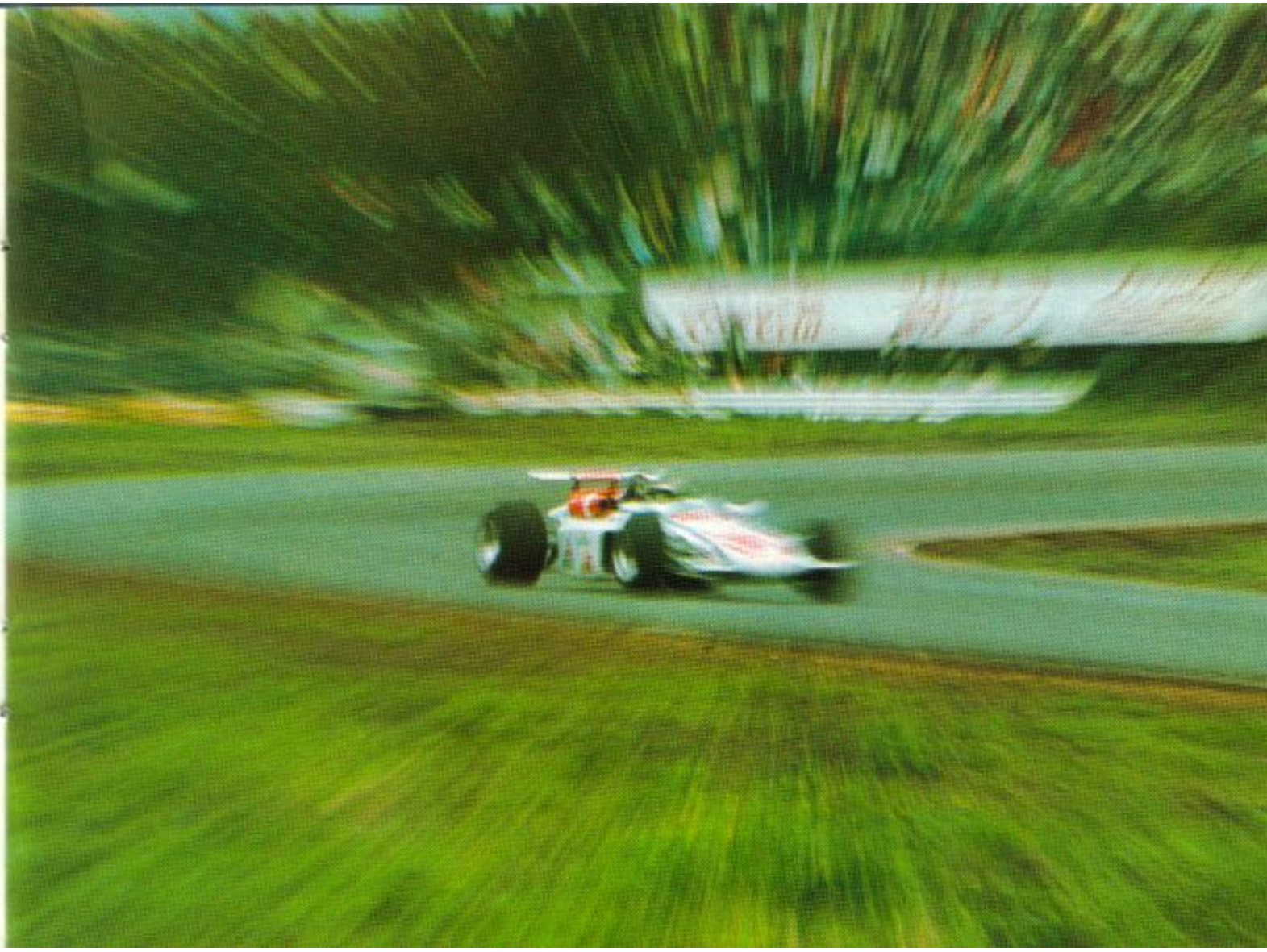


OM SYSTEM ZOOM LENSES

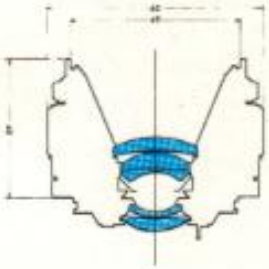
Many photographers still believe that a zoom lens is bulky, heavy, and has resolving powers inferior to those of fixed focal length lenses. However, technological advancement in both optics and mechanical configurations as well as newly-introduced optical glass now make it possible to design zoom lenses that are compact, lightweight, and most important, able to deliver image quality comparable to lenses with fixed focal lengths.

The time saved in changing lenses is only one of the advantages of a zoom lens. Because the photographer can choose from a large number of focal lengths, the zoom provides him with extraordinary opportunities for composing his pictures. The ability to change quickly from one focal length to another allows him to pick the one focal length that is perfect for his subject—instantly and without changing the camera position.

The compact, lightweight ZUIKO 75—150mm F4 zoom lens is ideal for portraits, landscapes and sports events as well as general photography. A ZUIKO 90—250mm Zoom is currently under development.



OM SYSTEM ZUIKO MACRO 50mm F3.5



■ZUIKO MACRO 50mm F3.5

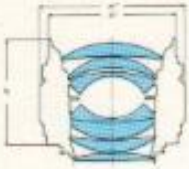
Primarily designed for close focusing, this lens meets the photographer's most exacting definition demands for close-ups, copying work and macrophotography. Usually in lenses of this type the lens barrel tends to become elongated at the closest focusing distance, but the new design of the ZUIKO Macro 50mm makes a very compact configuration possible. Additionally, this is the first time that an automatic correction lens group that compensates for close distance aberrations has been built into a macro lens. Because of this new design, this lens produces resolution comparable to that of a standard focal length lens throughout the focusing range. (49mm filter)

•Focal length: 50mm •Angle of view: 47° •Optical construction: 5 elements in 4 groups •Diaphragm operation: Automatic •F/stop range: 3.5-22 •Minimum focus: 0.23m (9.1") •Min. photographic range: 48mm x 72mm (1.9" x 2.8") •Focusing: Straight helicoid •Weight: 200g (7.1 oz.) •Length: 40mm (1.6") •Maximum diam: 60mm (2.4") (Automatic correction mechanism to compensate for close distance aberrations)

■Correction of Aberrations at Close Distance Focusing

In general, lenses are designed for maximum performance at infinity. Accordingly, when the lens barrel is fully extended to the shortest focusing distance, resolution is reduced. Although this is negligible for ordinary lenses, it becomes increasingly important in lenses specially designed for close distance photography. The new ZUIKO mechanism moves certain lens components as a unit automatically correcting for aberrations. This assures high lens performance throughout the focusing range.

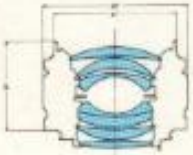
ZUIKO 55mm F1.2 ZUIKO 50mm F1.4 ZUIKO 50mm F1.8



▪ZUIKO 55mm F1.2

Optically designed to correct aberrations by using a distinctive construction in which the fourth group of elements is arranged to act as a concave with the cemented surface facing the object. Despite the fast lens speed, high resolving power shows no edge fall-off in the picture; ideal for interiors, and low light situations. Accepts a 55mm filter.

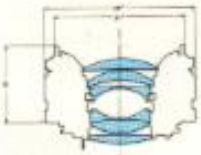
•Angle of view: 43° •Optical construction: 7 elements in 6 groups •Diaphragm operation: Automatic •F/stop range: 1.2-16 •Min. focus: 0.45m (17.7") •Min. photographic range: 15cm x 23cm (5.9" x 9.1") •Focusing: Straight helicoid •Weight: 310g (10.9 oz.) •Length: 47mm (1.9") •Max. diam: 65mm (2.6")



▪ZUIKO 50mm F1.4

Designed to minimize the total length of lens, the sophisticated seven elements in six groups design of this standard lens produces high resolution and high contrast throughout the picture area even at full aperture. Accepts a 49mm filter.

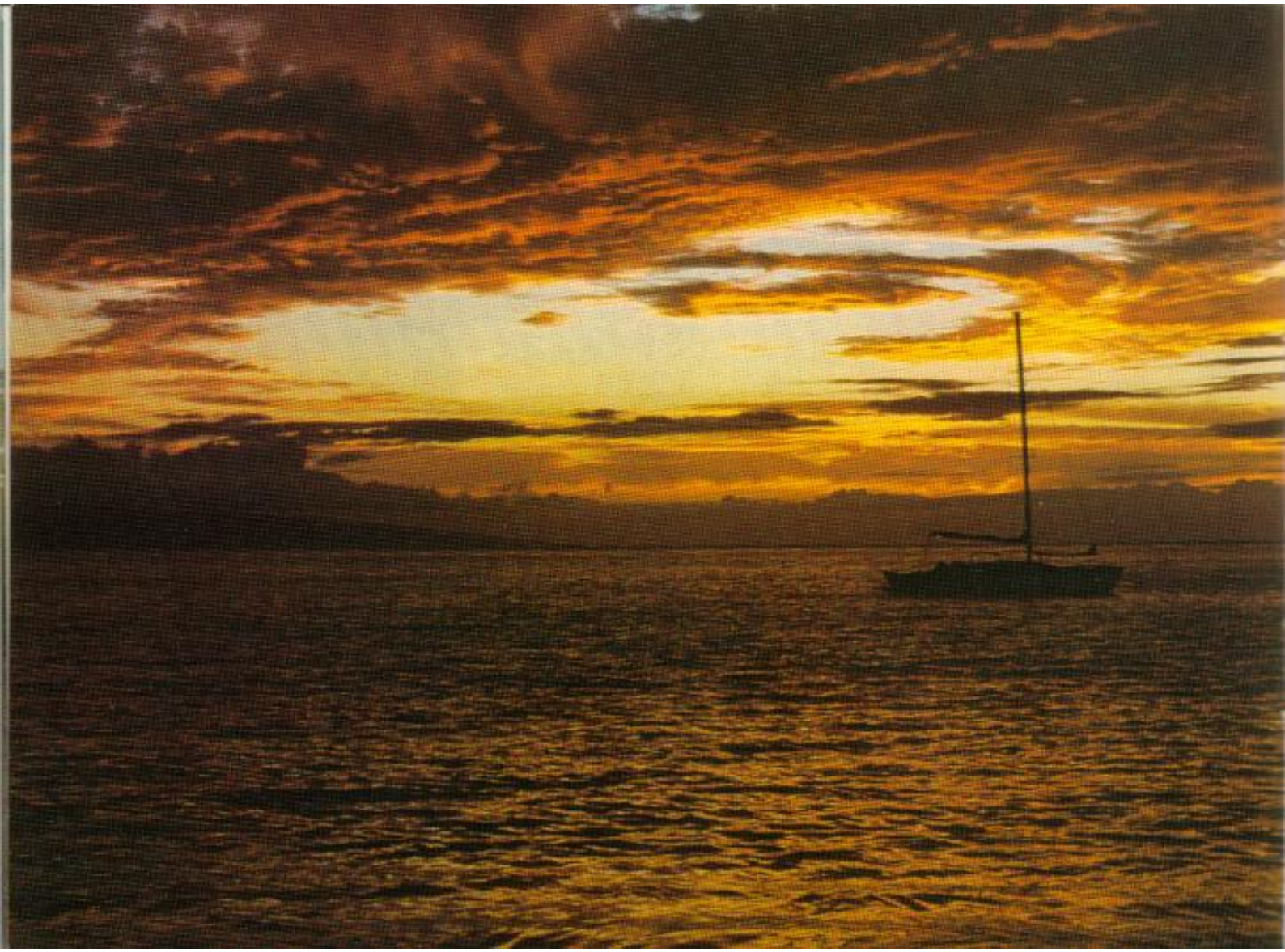
•Angle of view: 47° •Optical construction: 7 elements in 6 groups •Diaphragm operation: Automatic •F/stop range: 1.4-16 •Min. focus: 0.45m (17.7") •Min. photographic range: 16cm x 24cm (6.3" x 9.4") •Focusing: Straight helicoid •Weight: 230g (8.1 oz.) •Length: 36mm (1.4") •Max. diam: 60mm (2.4")



▪ZUIKO 50mm F1.8

This standard lens is extremely compact and its optical design provides superb definition for maximum edge-to-edge sharp images throughout the focusing range. The fast F1.8 maximum aperture is ideal for most low light level photographic applications. Accepts a 49mm filter.

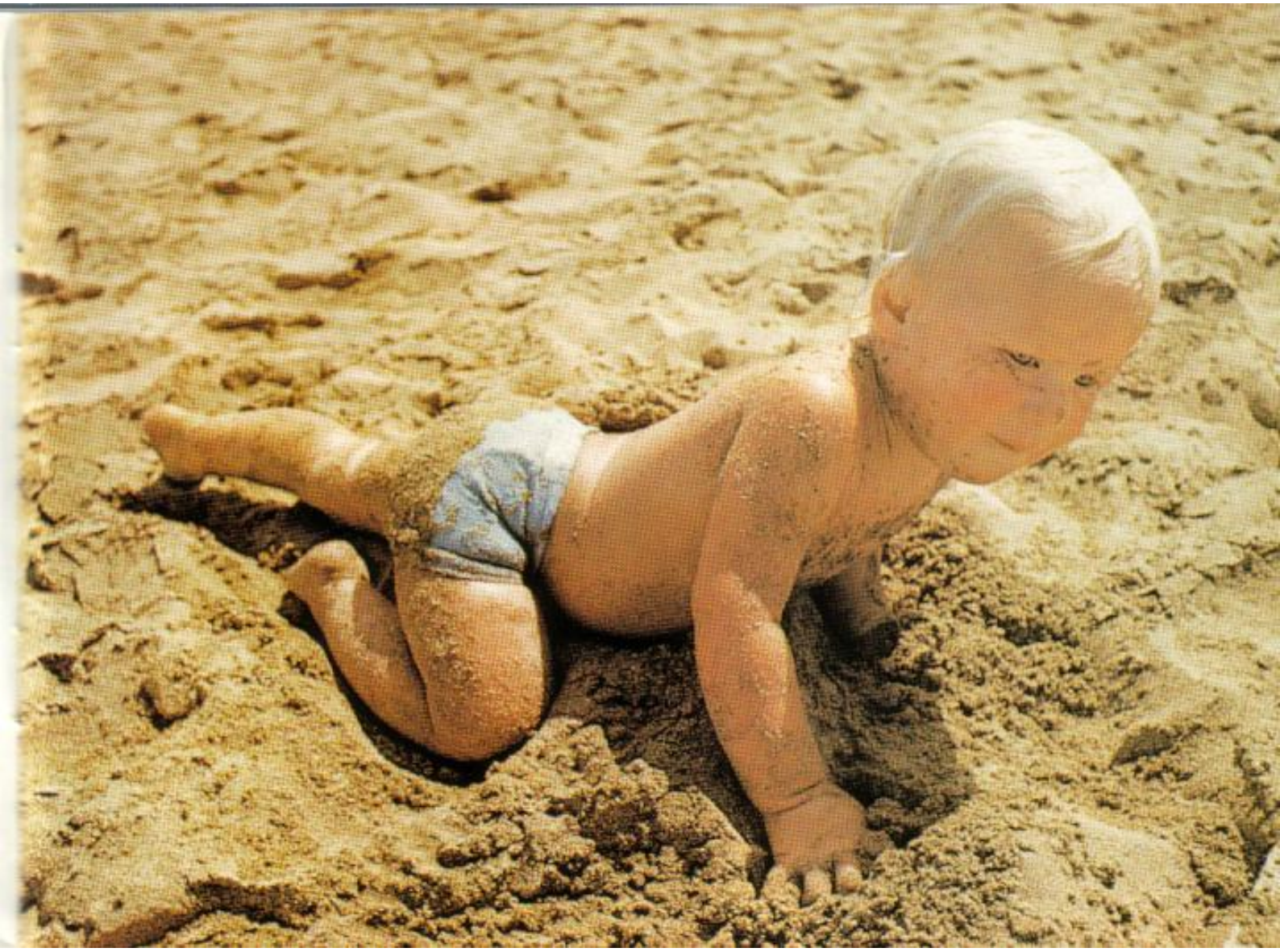
•Angle of view: 47° •Optical construction: 6 elements in 5 groups •Diaphragm operation: Automatic •F/stop range: 1.8-16 •Min. focus: 0.45m (17.7") •Min. photographic range: 16cm x 24cm (6.3" x 9.4") •Focusing: Straight helicold •Weight: 170g (6 oz.) •Length: 31mm (1.2") •Max. diam: 59mm (2.3")



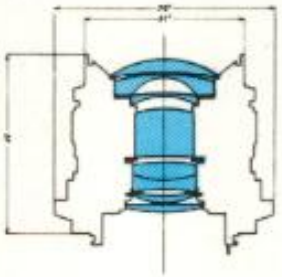
STANDARD LENSES

The angle of vision within which the human eye discerns colors and shapes is about 50°. This angle is slightly greater than that of a standard lens with a focal length of 50mm. Because of this the standard lens reproduces natural perspective and is one of the most versatile lenses used by the photographer. No other lens group in the Olympus OM-System can rival the standard lenses in terms of fast lens speed, and whether the photographer chooses an F1.2, F1.4 or F1.8 standard lens his opportunities for shooting in low available light are increased considerably.

Also included in the ZUIKO standard lens group is a 50mm focal length lens that is quite unusual. This lens, the Zuiko Macro 50mm F3.5, is specially designed for copying and other close-up photographic applications. Although not as fast as other standard lenses, the 50mm Macro is highly efficient in correcting aberrations at close focusing distances while delivering high resolution and accurate tonal color rendition. In close-up photography its magnification range is from 1/10 to 1/2 life size without attachments. When used with Extension Tube 25 the Macro 50mm can extend the range from 1/2 to 1:1 life size with good results. However, to get the most precise image quality in this range, it is recommended to use Zuiko 1:1 Macro 80mm F4 in conjunction with Auto Bellows.



OM SYSTEM ZUIKO SHIFT 35mm F2.8



▪ZUIKO SHIFT 35mm F2.8

This unique wide-angle lens is capable of correcting extreme perspective effects by allowing the photographer to shift the lens position parallel to the film plane. Though 35mm in focal length, it is substantially on a par with the conventional 24mm in regard to angle coverage. Its versatility allows shifting the lens as far as 12mm laterally, 12mm rising, and 15mm falling. Using this lens enables the photographer to correct the leaning and tilting deformations often found in architectural photography. Accepts a 49mm filter.

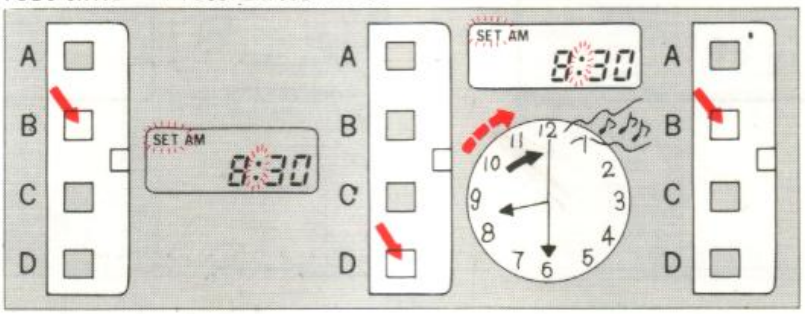
•Focal length: 35mm •Angle of view: 63° (84° at maximum shift) •Shift: 12mm laterally, 12mm rising and 15mm falling •Optical construction: 8 elements in 7 groups •Diaphragm operation: Manual •F/stop range: 2.8-22 •Minimum focus: 0.3m (11.8") •Min. photographic range: 14cm x 21cm (5.5" x 8.3") •Focusing: Straight helicoid •Weight: 350g (12.3 oz.) •Length: 57mm (2.2") •Maximum diam: 70mm (2.8")

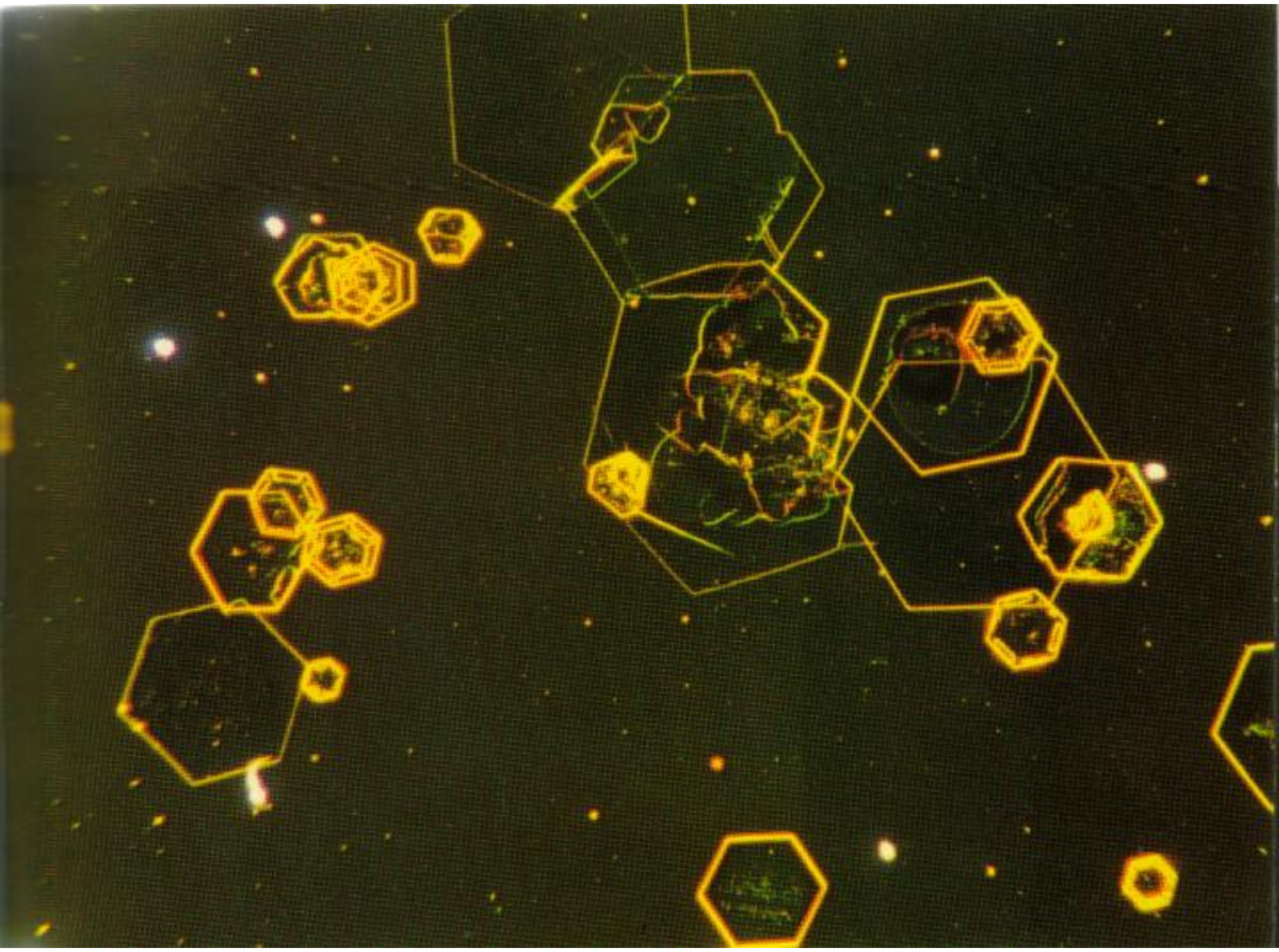
•Ordinary 35mm wide-angle lens.

ACCURATE ADJUSTMENT OF THE SECOND.

Adjust the second if required, before setting the minute.

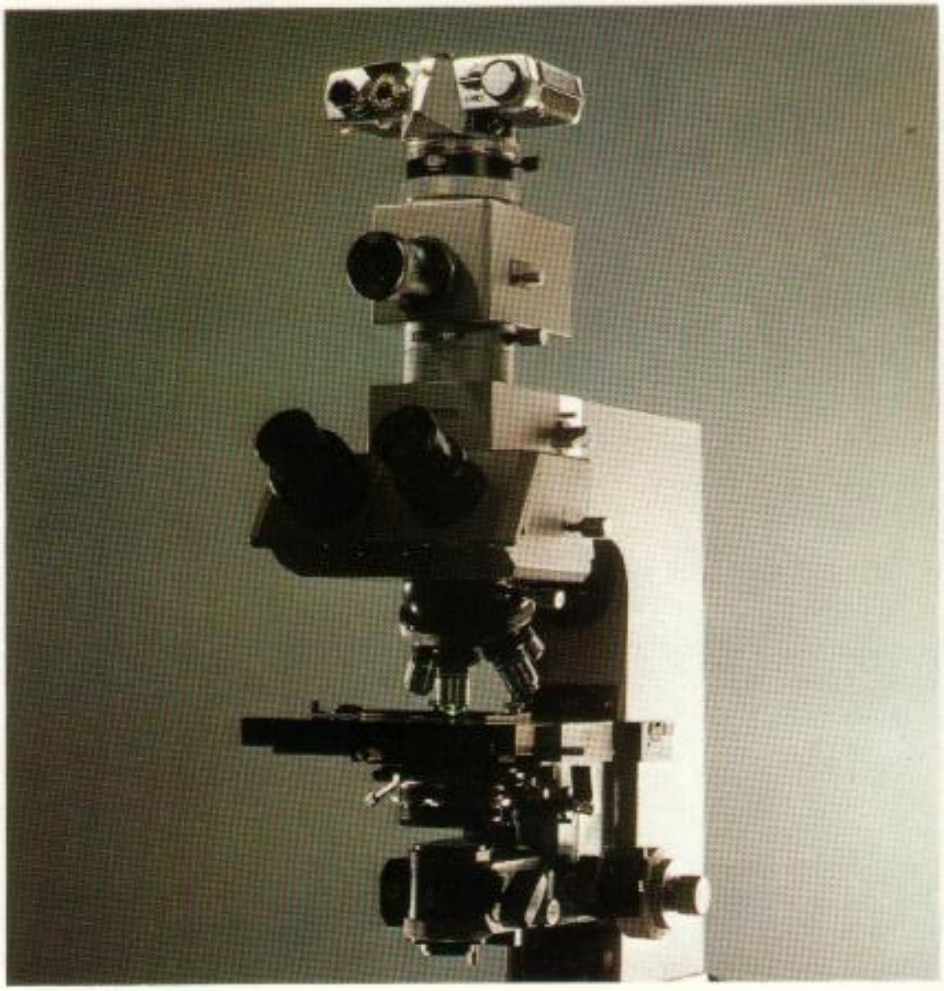
① Press Button B to blink the "SET" sign → Press Button D to synchronize with the correct time → Press Button B to release the SET mode at the exact start of the indicated minute.





PHOTOMICRO GROUP

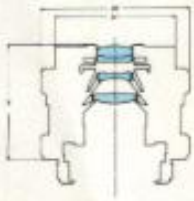
Olympus has an outstanding reputation for manufacturing precision microscopes used by scientists throughout the world. Naturally, when Olympus developed the OM-System, it included a sophisticated array of units for photomicrography. The system includes a variety of microscope adapters, rugged stands, a special shutter to prevent vibration at high magnification, and an automatic exposure mechanism operated by an electronic shutter which successfully solves the difficult problem of microscopic exposures. Emphasis has been placed on creating accurate and convenient tools for photomicrography and this group will be continually expanded as the study and research of micro-organism bionomics and other scientific applications and techniques progress.

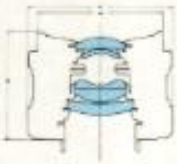


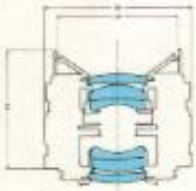
MACROPHOTO GROUP

The Macrophoto Group includes five macro lenses, Auto Bellows, Macrophoto Stand, Mechanical Stage, trans-illuminators, color temperature compensation filters, and other equipment designed to meet the highest standards of the macrophotographer. The PMT-35, which consists of approximately 46 macrophotographic units, is available for professionals and advanced amateurs. Also included are interchangeable focusing screens which can be used selectively for focusing at specific image magnifications, and the Varimagni Finder for critical focusing needs.

MACRO 20mm F3.5 MACRO 38mm F3.5 1:1 MACRO 80mm F4







One of the major problems of macrophotography is that lens quality suffers at magnification of 1:1 or greater. However, an additional consideration is the fact that many times higher magnifications cannot be attained because the lens extension possible is limited by the length of the bellows itself. The three ZUIKO Macro Lenses, however, were designed exclusively for macrophotography, recopying and close-up work in conjunction with the Auto Bellows. (A mounting attachment is necessary for the Macro 20mm and 38mm.) By offering a choice of three focal lengths, the ZUIKO Macro Lens Group enables the photographer to achieve the highest possible resolution throughout the magnification range of each individual lens. The magnification range for each lens is as follows:

•Macro 20mm F3.5 . . . . . 4X to 12X
•Macro 38mm F3.5 . . . . . 1.8X to 6X
•1:1 Macro 80mm F4 . . . 1/2X to 2X

A Macro 135mm is in the course of development which is suitable for shooting a subject with a great depth at close distances.

Specifications

▪ZUIKO Macro 20mm F3.5

•Angle of view: 9° (highest magnification) •Optical construction: 4 elements in 3 groups •Diaphragm operation: Manual •F/stop range: 3.5-16 •Minimum focus: 0.13m (5.1") •Min. range: 5mm x 8mm–2mm x 3mm •Focusing: With bellows •Weight: 50g (1.8 oz.) •Length: 20mm (0.8") •Max. diam: 26mm (1")

▪ZUIKO Macro 38mm F3.5

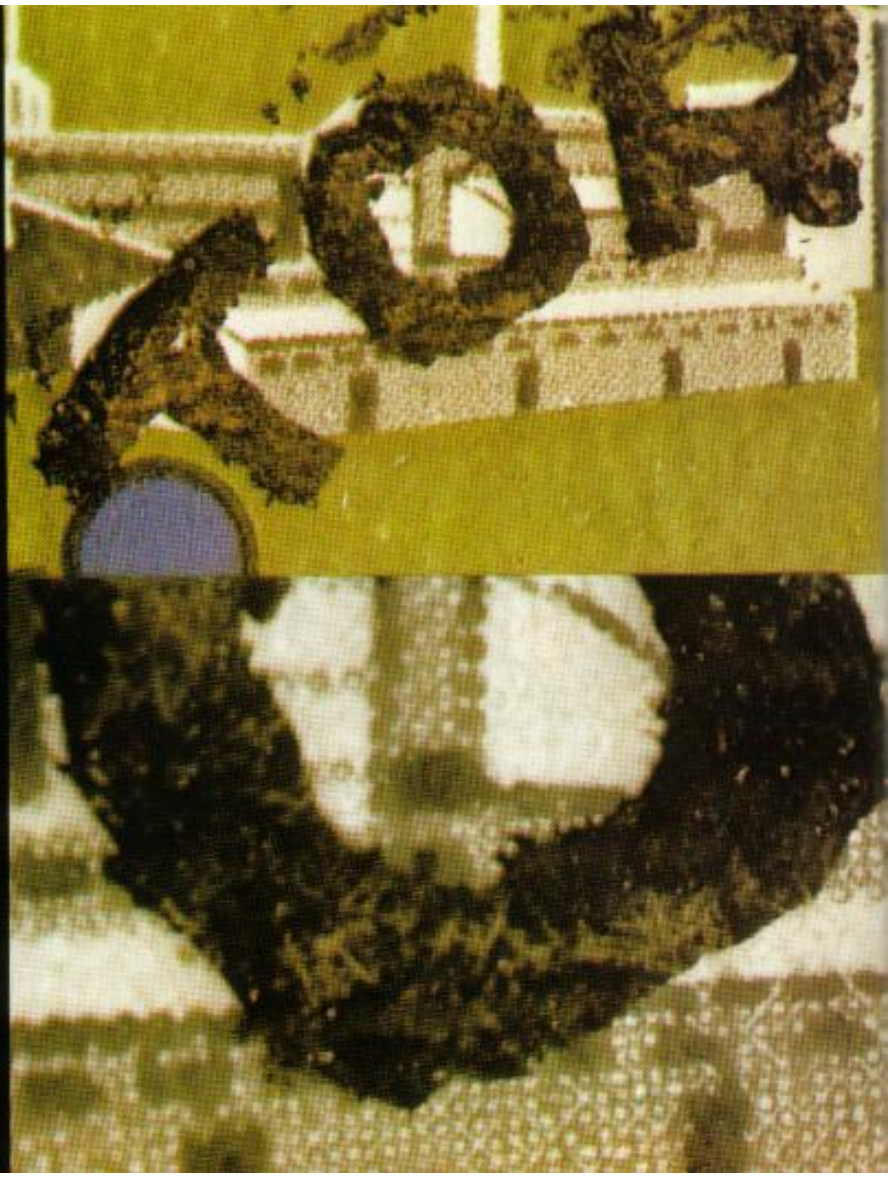
•Angle of view: 9° (highest magnification) •Optical construction: 5 elements in 4 groups •Diaphragm operation: Manual •F/stop range: 3.5-16 •Minimum focus: 0.16m (6.3") •Min. range: 13mm x 20mm–4mm x 6mm •Focusing: With bellows •Weight: 70g (2.5 oz.) •Length: 28mm (1.1") •Max. diam: 37mm (1.5")

▪ZUIKO 1:1 Macro 80mm F4

•Angle of view: 9° (highest magnification) •Optical construction: 6 elements in 4 groups •Diaphragm operation: Manual •F/stop range: 4-22 •Min. range: 48mm x 72mm–12mm x 18mm •Focusing: With bellows •Weight: 200g (7.1 oz.) •Length: 46mm (1.8") •Max. diam: 59mm (2.3")

Macro38mmF3.5▶

Macro20mmF3.5▶




KEMIAN PERUSTEOLLISUUS
KEMISK BASINDUSTRI
TORNIO
24 6 70 0,50
SUOMI–FINLAND

OTHER LENSES FOR SPECIAL USE

The Olympus OM-1 35mm SLR System was specifically designed to meet a great variety of photographic requirements. In keeping with this concept, the ZUIKO Interchangeable Lens Group was designed to provide many exclusive and special lenses to satisfy even the most exacting demands of the professional photographer. Among these lenses, the Macro Lens Group is extremely significant. The extensive experience of Olympus as a world-wide supplier of precision microscopes has enabled them to design macro lenses that deliver high resolution and contrast even at extremely high magnification.

Although an SLR with a standard lens can be used in close-up photography, one lens can never be expected to satisfy all the needs of the expert in the field. Usually lenses are designed to deliver best performance at specific focusing distances. Because of this, the lens quality inevitably falls off as the distance to the subject changes. Most lenses are optimized for best performance at infinity, but in practice, for example, a standard lens performs well up to distances as close as 1m from the film plane. However, as the focusing distance becomes closer, the magnification of the image increases to such a great extent that it becomes increasingly difficult for the lens to deliver high resolution.

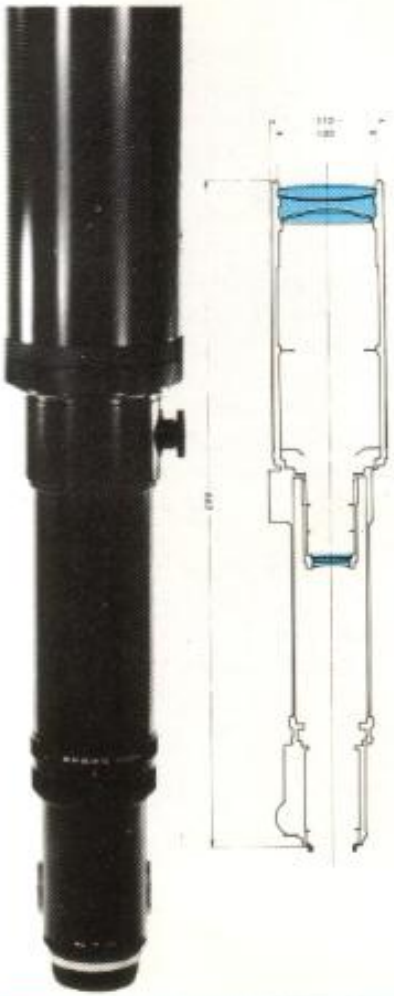
Conventional macro lenses are designed to deliver their best performance at magnifications up to 1/10 life size and can be used with good results for general close-up photography. As magnification increases to life size or beyond, the lens performance drops sharply. To overcome this problem, Olympus optical engineers created three special macro lenses designed to meet the resolution demands of high magnification photography.

Three types of macro lenses are available in the ZUIKO Lens Group, each designed specifically for use with the OM-System Auto Bellows. The ZUIKO Macro 20mm F3.5 is designed for magnifications from 4X to 12X, the ZUIKO Macro 38mm F3.5 for magnifications from 1.8X to 6X, and the ZUIKO 1:1 Macro 80mm F4 which is optimized to deliver the highest possible resolution at life size magnifications.

Of special interest is the ZUIKO 1:1 Macro 80mm F4. Unlike most lenses of its kind, it was designed by Olympus to be used with an SLR to achieve life size reproduction with resolution and contrast standards higher than any other lens of its type.

These lenses, when used in conjunction with the Auto Bellows, provide the photographer with all the tools required to deliver macro photographs with maximum edge-to-edge sharpness at all magnifications.

ZUIKO 1000mm F11



▪ZUIKO 1000mm F11

This unique long focus lens has an optical construction of 5 elements in 5 groups. The front component consists of apochromatic type elements having minimum chromatic aberration designed to provide superior definition and contrast. It is probably the smallest (telephoto ratio 0.7) and lightest lens in its class, and to further its versatility it features an automatic diaphragm that contributes to its mobility and portability. Image cut-off in the viewfinder is almost unnoticeable. The lens is expected to open up photographic possibilities.

•Focal length: 1000mm •Angle of view: 2.5° •Optical construction: 5 elements in 5 groups •Diaphragm operation: Automatic •F/stop range: 11-45 •Minimum focus: 30m (98'5") •Min. photographic range: 65cm x 98cm (25.6" x 38.6") •Focusing: Rack and pinion •Weight: 4000g (8 lbs. 13 oz.) •Length: 662mm (26") •Maximum diam: 110mm (4.3")

▪Aberrations (2)

4) Coma

This optical defect causes the image of an off-axis point of light to appear as a comet-shaped blur of light. Coma, as well as curvature of field and astigmatism, degenerate the image forming ability of the lens at the rims of the picture.

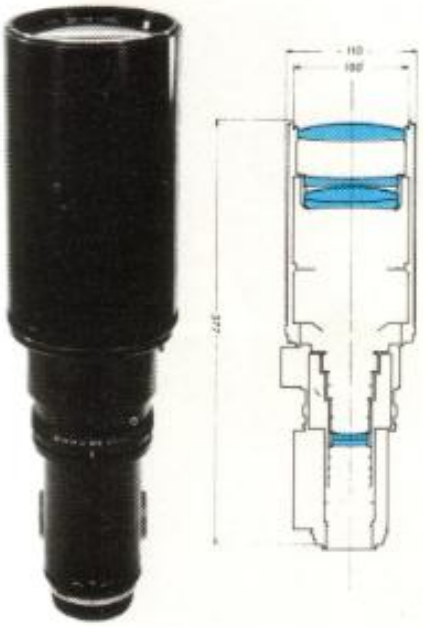
5) Distortion

Even if the first four aberrations were totally eliminated, images could result that still have a distorted appearance. For example, a rectangle may appear as a barrel or pin cushion-shaped object.

6) Chromatic aberration

This aberration is caused by light rays of different wavelengths coming to focus at different distances from the lens. Blue will focus at the shortest distance and red at the greatest distance. Since the natural rays of light are a mixture of colors, each aberration will give a different value corresponding to each color thus producing blurred images.

ZUIKO 600mm F6.5



▪ZUIKO 600mm F6.5

With an angle of view of only 4°, the 600mm super telephoto produces images 12 times the size of those produced by a standard lens. As with most lenses of this focal length, the considerable increase in size and weight was unavoidable. However, due to the original ZUIKO optical design, an unprecedented telephoto ratio of 0.7 was achieved. Although extremely compact in size, the incorporation of newly-introduced optical glass makes possible superb image quality even at minimum focusing distances. And unlike some super telephoto lenses, there is no image cut-off in the viewfinder. This makes the 600mm F6.5 an ideal lens for sports, wild life, landscape, etc. Features a built-in retractable lens hood and accepts a 100mm filter.

•Focal length: 600mm •Angle of view: 4° •Optical construction: 6 elements in 4 groups •Diaphragm operation: Automatic •F/stop range: 6.5-32 •Minimum focus: 11m (36'1") •Min. photographic range: 37cm x 55cm (14.6" x 21.7") •Focusing: Rack and pinion •Weight: 2800g (6 lbs. 3 oz.) •Length: 377mm (14.8") •Maximum diam.: 110mm (4.3")

▪Aberrations (1)

The "ideal" lens would reproduce a subject in a faithful, clearly defined image on film. Aberrations, which can be divided into six basic faults, affect the ideal performance in an optical system.

1) **Spherical aberration**
Basically, a beam of light passing through a lens parallel to the optical axis converges to form a focused image on the film. Spherical aberration is the term for an optical fault caused by the spherical form of a lens that produces different focus points along the axis for central and marginal rays.

2) **Curvature of field**
This optical defect causes points on an object plane perpendicular to the lens axis to focus on a curved surface rather than a plane.

3) **Astigmatism**
Rays of light from a single point of an object which is not on the axis of a lens fail to meet in a single focus thus causing the image of a point to be drawn out into two sharp lines, one radial to the optical axis and another perpendicular to this line, in two different planes near the curvature of field.

MANUAL ADAPTER OPERATING INSTRUCTIONS

The OM-10's TTL Direct (OTF) Light Measuring system provides accurate automatic exposures under most circumstances. Using the camera's "+" or "–" 2 stop exposure compensation setting you can adjust for those special lighting circumstances that can sometimes mislead a light meter.

Advanced photographers at times require totally different exposure settings than those provided by an automatic exposure camera. A student at photographic workshop may be required to manually set the shutter speed and aperture. The fully automatic Olympus OM-10, however, can handle even the most difficult exposure situations with its optional Manual Adapter. With the adapter you can set the precise aperture and shutter speed you require.

The Manual Adapter is designed to allow you full exposure control. Shutter speeds of 1 sec., 1/2 sec., 1/4 sec., 1/8 sec., 1/15 sec., 1/30 sec., 1/60 sec., 1/125 sec., 1/250 sec., 1/500 sec., 1/1000 sec. are provided.

The first step in utilizing the Manual Adapter is to properly mount it on the OM-10. Simply plug the adapter into its receptacle (on the camera's front panel) while making sure it also mounts onto the camera's chrome guide knob. It will mount with a "snap". To operate slide the mode selector lever to the "MANUAL ADAPTER" position. Align the selected shutter speed to the white line on top of the adapter.

Please note: The OM-10 will still indicate what it thinks is the proper shutter speed (through the viewfinder display) in relation to the selected aperture. This reading can be used as a guide or completely disregarded.

GEBRAUCHSANLEITUNG FÜR MANUELLEN ZEITADAPTER

wir beglückwünschen Sie zum Kauf des manuellen Zeitadapters, der speziell zur Verwendung mit der Spiegelreflexkamera OM-10 bestimmt ist. Mit diesem Adapter können Sie von Belichtungsautomatik auf manuelle Zeiteinstellung umschalten und individuelle Aufnahmetechniken nutzen.

1. Ansetzen des Zeitadapters an der OM-10.

1) Anschlußstecker des Zeitadapters in die Buchse an der OM-10 einsetzen.
2) Betriebsartenschalter auf MANUAL ADAPTER stellen.
Anmerkung: Obige Reihenfolge ist beliebig wählbar.

2. Anwendung des Zeitadapters

- Bei Blendenpriorität:
  - OM-10 in ON-Stellung einschalten.
  - Blendeneinstellung der Aufnahmesituation anpassen.
  - Die zu erwartende Verschlußzeit wird über LED-Signal im Sucher angezeigt. Entsprechenden Wert am Zeitadapter einstellen.
- Bei Verschlußzeitenpriorität:
  - OM-10 in ON-Stellung einschalten.
  - Beabsichtigte Verschlußgeschwindigkeit am Zeitadapter einstellen.
  - Blendeneinstellring drehen, bis die am Zeitadapter vorgewählte Verschlußgeschwindigkeit als LED-Anzeige im Sucher aufleuchtet.

3. Funktionshinweise

- Bei Verwendung des Zeitadapters ist zu beachten, daß die OM-10 in ON-Stellung eingeschaltet ist. Steht der Funktionsschalter auf OFF, wird im Sucher keine Verschlußzeit angezeigt.

MODE D'EMPLOI DE L'ADAPTEUR POUR FONCTIONNEMENT MANUEL

Nous vous remercions d'avoir acquis l'adaptateur pour fonctionnement manuel spécial pour L'OLYMPUS OM-10. Cet adaptateur vous permettra de modifier le comportement entièrement automatique de l'OM-10 pour vous permettre d'opérer de façon totalement manuelle, ceci afin de réaliser tous les effets ou toutes les recherches photographiques que vous pouvez souhaiter.

1. Montage de l'adaptateur sur le boîtier OM-10.

1) Enfoque la fiche jack de l'adaptateur dans la prise du boîtier de manière à ce qu'il se solidarise sur le tenon prévu à cet effet.
2) Placer le levier du sélecteur du mode de fonctionnement de l'OM-10 sur la position "Manual adapter".
Nota: Il est également possible de procéder aux opération ci-dessus dans l'ordre inverse.

2. Mode d'emploi de l'adaptateur

- Dans le cas du choix prioritaire de l'ouverture du diaphragme:
  - Placer l'interrupteur de l'OM-10 sur "ON".
  - Afficher sur l'objective l'ouverture de diaphragme désirée.
  - Lire dans le viseur l'indication de la vitesse marquée par l'éclairage de la diode électroluminescente et l'afficher sur l'adaptateur pour fonctionnement manuel.
- Dans le cas du choix prioritaire de la vitesse d'obturation:
  - Placer l'interrupteur de l'OM-10 sur "ON".
  - Afficher la vitesse désirée sur l'adaptateur pour fonctionnement manuel.
  - Tourner la bague des diaphragmes de l'objectif, jusqu'à ce qu'apparaisse dans le viseur la lumière de la diode en face de l'indication de la vitesse affichée sur l'adaptateur pour fonctionnement manuel.

3. Précautions de manipulation:

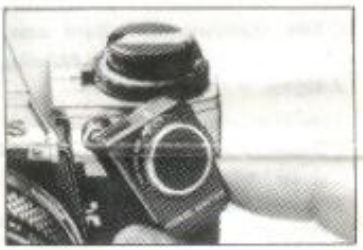
- Quand l'adaptateur pour fonctionnement est en cours d'utilisation, s'assurer que l'interrupteur de l'OM-10 est bien posi-

OLYMPUS MANUAL ADAPTER INSTRUCTIONS

El método de Medición de la Luz Directamente a Través del Objetivo pone en sus manos el control automático de la exposición en la gran mayoría de las situaciones. Valiéndose de las correcciones de la exposición desde +2 hasta –2 números F, es posible adaptar la cámara a aquellas condiciones de iluminación que pueden conducir el exposímetro a errores.

Los fotógrafos expertos requieren a veces ajustes de exposición distintos de los que ofrece una cámara de exposición automática. Un estudiante en un taller de fotografía a veces tiene que ajustar manualmente la velocidad de obturador y la abertura. La Olympus OM-10, enteramente automática, puede, no obstante, hacer frente a las situaciones más difíciles con su Adaptador Manual opcional. Con el adaptador, es posible ajustar a mano la velocidad de obturador y la abertura que se deseen.

El Adaptador Manual ha sido diseñado para permitirle controlar plenamente la exposición, con velocidades de 1 segundo, 1/2 segundo, 1/4 de segundo, 1/8 de segundo, 1/15 de segundo, 1/30 de segundo, 1/60 de segundo, 1/125 de segundo, 1/250 de segundo, 1/500 de segundo, y 1/1.000 de segundo. El

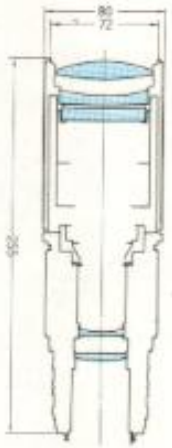


primer paso a dar es montar el adaptador en la cámara en la forma debida. Simplemente se enchufa en su conexión (en el panel frontal de la cámara), en tanto que se asegura también de que quede montado en la perilla guía cromada de la cámara. Al quedar montado bien, se oye un sonido seco distintivo.

Para operarlo, mueva el conmutador de modos de la cámara a la posición "MANUAL". Alinee la velocidad de obturador que ha elegido con la línea blanca en la parte de arriba del adaptador. Tenga presente que la OM-10, incluso entonces, indicará lo que su cerebro estima que es la velocidad de obturador correcta (en la lectura


京銀行
BANK OF TOKYO
画材

ZUIKO 400mm F6.3

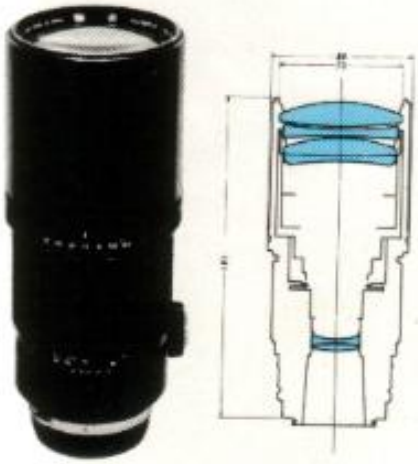


•ZUIKO 400mm F6.3

The design conception of this lens was to bring. out a compact 400mm which can exert fully the versatility of OM-1 in super-telephotography. The compact construction and automatic diaphragm and straight helicoid focusing mechanism should facilitate hand-held shooting with a 400mm previously thought impossible. Ideal for outdoor photography, particularly sports, photojournalism, etc. which require fast action of the photographer. The lens has a built-in retractable lens hood and accepts a 72mm threaded filter.

•Focal length: 400mm •Angle of view: 6° •Optical construction: 6 elements in 5 groups •Diaphragm operation: Automatic •F/stop range: 6.3-32 •Min. focus: 5m (16.4') •Min. photographic range: 24cm x 36cm (9.4" x 14.2") •Focusing: Straight helicoid •Weight: 1300g (2 lbs. 14oz) •Length: 255mm (10") •Max. diam: 80mm (3.2")

OM ZUIKO 300mm F4.5



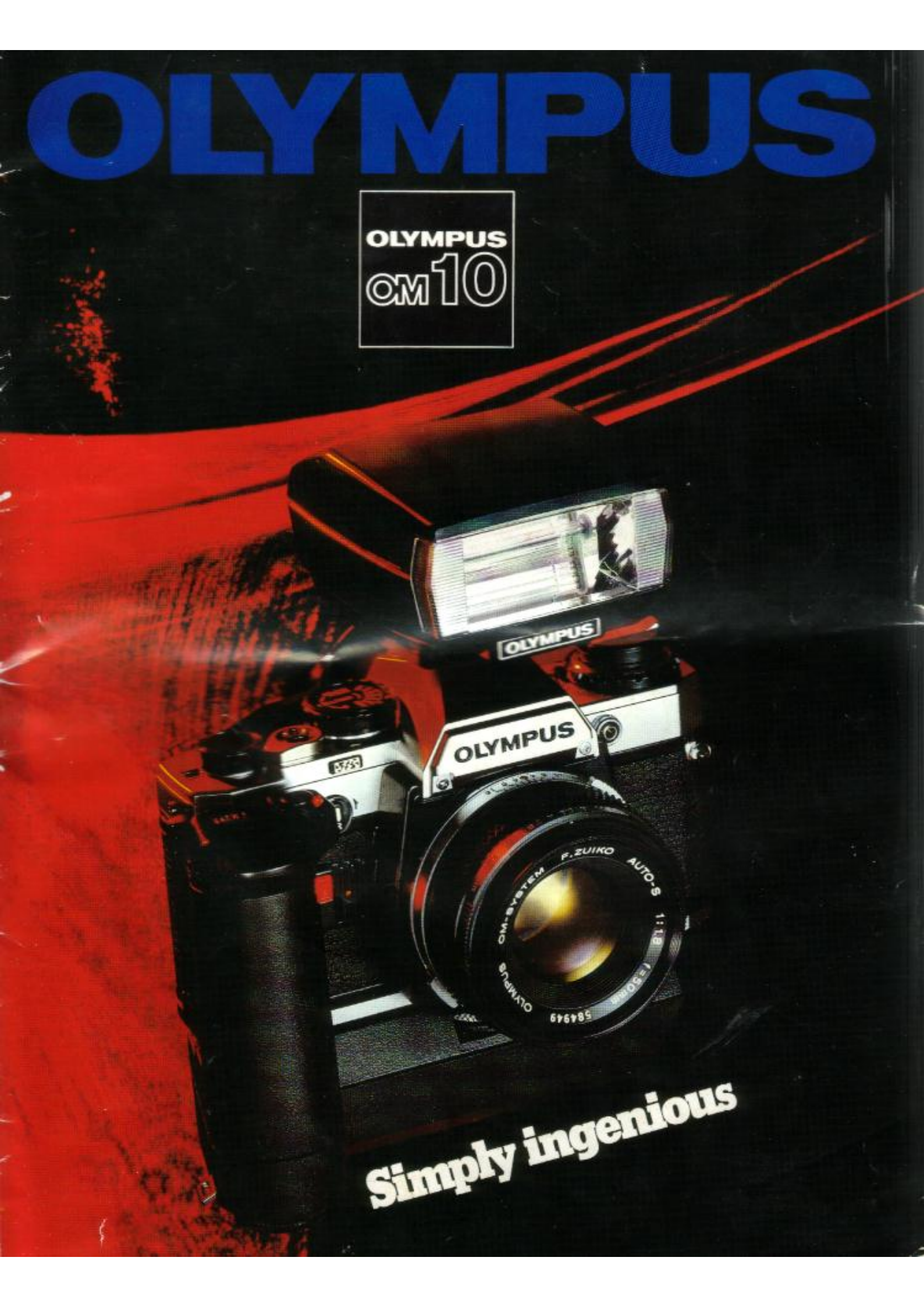
•ZUIKO 300mm F4.5

This lens produces an image size 6 times that of a standard lens. Although designed to be smaller (telephoto ratio 0.75) and lighter than other 300mm lenses, the incorporation of newly-developed optical glass provides higher resolving power and a minimum of chromatic aberration. The compact styling and superior performance makes this ZUIKO 300mm an ideal lens for sports, wild life, and mountain photography even when it is hand-held. Features a built-in retractable lens hood and accepts a 72mm threaded filter.

•Focal length: 300mm •Angle of view: 8° •Optical construction: 6 elements in 4 groups •Diaphragm operation: Automatic •F/stop range: 4.5-32 •Minimum focus: 3.5m (11'6") •Min. photographic range: 21cm x 32cm (8.3" x 12.6") •Focusing: Straight helicoid •Weight: 1000g (35.3 oz.) •Length: 181mm (7.1") •Maximum diam: 80mm (3.1")

OLYMPUS

OLYMPUS
OM10



Simply ingenious

- For use with the electronic flash T32 (or T20)
  To use the T32 (or T20) with the Manual Adapter attached to the OM-10, set the mode selector lever to the AUTO position and the Manual Adapter between 1 and 1/30 sec. (printed in light blue). The shutter will be synchronized at approx. 1/60 sec. with the T32 (or T20). If the Adapter is set faster than 1/30 sec. (printed in white), the shutter will be released at the shutter speed set on the Adapter, and the flash will not be synchronized. If you switch T32 (or T20) off, it will not fire, and the camera will take the picture on AUTO mode (without flash).
- For use with electronic flashes except the T32 (or T20)
  Set the mode selector lever to the MANUAL ADAPTER position and the Adapter at 1/30 sec. (Although the flash is synchronized between 1 and 1/30 sec., 1/30 sec. is most recommended to avoid camera vibration.)
- For accurate shutter speed setting
  To set the shutter speed on the Manual Adapter, make sure to click the Adapter into place; otherwise an accurate shutter speed cannot be obtained.

< The standard semi hard case will accommodate the Manual Adapter. >

Specifications:

- **Dimensions:** 30 x 25 x 23mm. (1.18" x 0.98" x 0.91").
- **Weight:** 7g (0.25 oz.).
- **Shutter speeds:** 1 sec., 1/2 sec., 1/4 sec., 1/8 sec., 1/15 sec., 1/30 sec., 1/60 sec., 1/125 sec., 1/250 sec., 1/500 sec., 1/1000 sec.
- **Flash synch shutter speed:** 1/30 sec.
- **Mounting procedure:** Plug manual adapter into OM-10 while making sure it also mounts onto the camera's chrome mount shoe.
- **Dismounting procedure:** Simply pull the manual adapter straight out and it will disconnect from the OM-10.

(Same for OM-10 QUARTZ)

- Betriebsartenschalter muß auf Position MANUAL ADAPTER stehen. In Stellung AUTO (Automatik) ist der Zeitadapter für manuelle Belichtungen wirkungslos.
- Andere Elektronenblitzgeräte als Olympus T20: Betriebsartenschalter auf MANUAL ADAPTER und Zeitadapter auf 1/30 Sek. stellen. Verschlußzeiten von 1/60 Sek. oder schneller haben keine Blitzsynchronisierung.

Hauptmerkmale:

- **Passende Kamera:** Olympus OM-10
- **Adapter-Anschluß:** Durch Einsetzen des Anschlußsteckers (2,5 mmφ) in die Adapter-Buchse der OM-10, ausgestattet mit Gleitschutz.
- **Verschlußzeiten-Einstellung:** Uber Klick-Stop-Wählscheibe.
- **Verschlußzeiten-Bereich:** Elfstufig von 1 – 1/1000 Sek. (Eingravierte Zeiten: 1, 2, 4, 8, 15, 30, 60, 125, 250, 500 und 1000)
- **Verschlußzeiten-Anzeige:** LED-Signalkette im Sucher zum bequemen Ausrichten auf die am Zeitadapter vorgewählte Verschlußgeschwindigkeit.
- **Maße und Gewicht:** 30 mm x 25 mm x 23 mm, 7 g.

sionné sur "ON". Si cet interrupteur reste positionné sur "OFF", aucune diode ne s'éclairera dans le viseur.

- Bien veiller à la position correcte du sélecteur de mode de fonctionnement de l'OM-10 pour opérer avec l'adaptateur pour fonctionnement manuel. Si le levier de ce sélecteur reste par inadvertance sur la position "AUTO", alors que l'adaptateur pour fonctionnement manuel doit être utilisé, le boîtier OM-10 n'opèrera pas en manuel, mais en automatique intégral.
- Régler l'adaptateur pour fonctionnement manuel sur le 1/30 ème de sec. pour photographier à la lumière d'un flash électronique. Aux vitesses de 1/60 ème et au dessus la synchronisation avec l'éclair électronique n'est pas établie.

Caracteristiques techniques:

- **Boîtier utilisable:** OLYMPUS OM-10
- **Couplage:** par introduction d'un mini-jack de 2,5 mm de diamètre dans la prise spéciale de l'OM-10 (avec accrochage sur téton support de fixation).
- **Sélection de la vitesse d'obturation:** par commande manuelle de la rotation d'un disque sélecteur à encliquetage.
- **Gamme de vitesses utilisables:** 11, de 1 seconde à 1/1000 ème de sec. (gravées 1. 2. 4. 8. 15. 30. 60. 125. 250. 500. 1000)
- **Indication de la vitesse d'obturation:** dans le viseur, par éclairage d'une lampe diode en face de la référence de la vitesse sélectionnée par l'adaptateur manuel.
- **Dimensions et poids:** 30 mm x 25 mm x 23 mm, 7 grammes.

del visor) en relación con la abertura elegida. Dicha lectura puede tomarse como guía o ignorarse por completo si se quiere.

El adaptador Manual funcionará únicamente cuando la palanca selectora de modos esté en la posición "MANUAL". Se cancela si se mueve la palanca a otra posición. El adaptador debe permanecer montado en la cámara para poder ejercer el control manual siempre que las condiciones lo exijan.

Especificaciones principales:

- Cámara a usar: Olympus OM-10.
- **Montaje del adaptador:** Insertando el minienchufe de 2,5 mm. de diámetro en la conexión de la OM-10 (que tiene una guía para el montaje).
- **Selección de velocidades de obturador:** Manual, a base de cuadrante con posiciones enclavables fijas.
- **Gama de velocidades de obturador:** 11 graduaciones, desde un segundo hasta 1/1000 de segundo.
  (Graduaciones grabadas: 1, 2, 4, 8, 15, 30, 60, 125, 250, 500 y 1000).
- **Indicación de la velocidad de obturador:** Información en el visor con diodo emisor de luz, conveniente para hacerla coincidir con la velocidad elegida previamente en el adaptador.
- **Dimensiones y peso:** 30 mm. x 25 mm. x 23 mm.; 7 gramos.

OLYMPUS OPTICAL CO., LTD. **OLYMPUS** San-Ei Building, 22-2, Nishi Shinjuku 1-chome, Shinjuku-ku, Tokyo, Japan Tel. 03-340-2211

Printed in Japan

A Masterpiece of Engineering Efficiency

1 Shoulder Strap Eyelet
(left and right)

2 Rewind Release Lever

3 Audio-Visual Indicator Module
Emits intermittent light and electronic tone during Self-Timer operation, continuous light and tone for battery check.

4 Manual Adapter Socket
Accommodates the special OM-10 Manual Adapter. (Optional, available shortly.)

5 Easy Grip Focusing Ring
Covered with hard, grooved rubber for positive, slip-proof focusing.

6 Lens Release Button
To detach or change the lens, press this button and twist the lens 70° counterclockwise. To attach a lens, align the red spot with the red spot on the bayonet-type lens mount, and twist clockwise until locked in position.

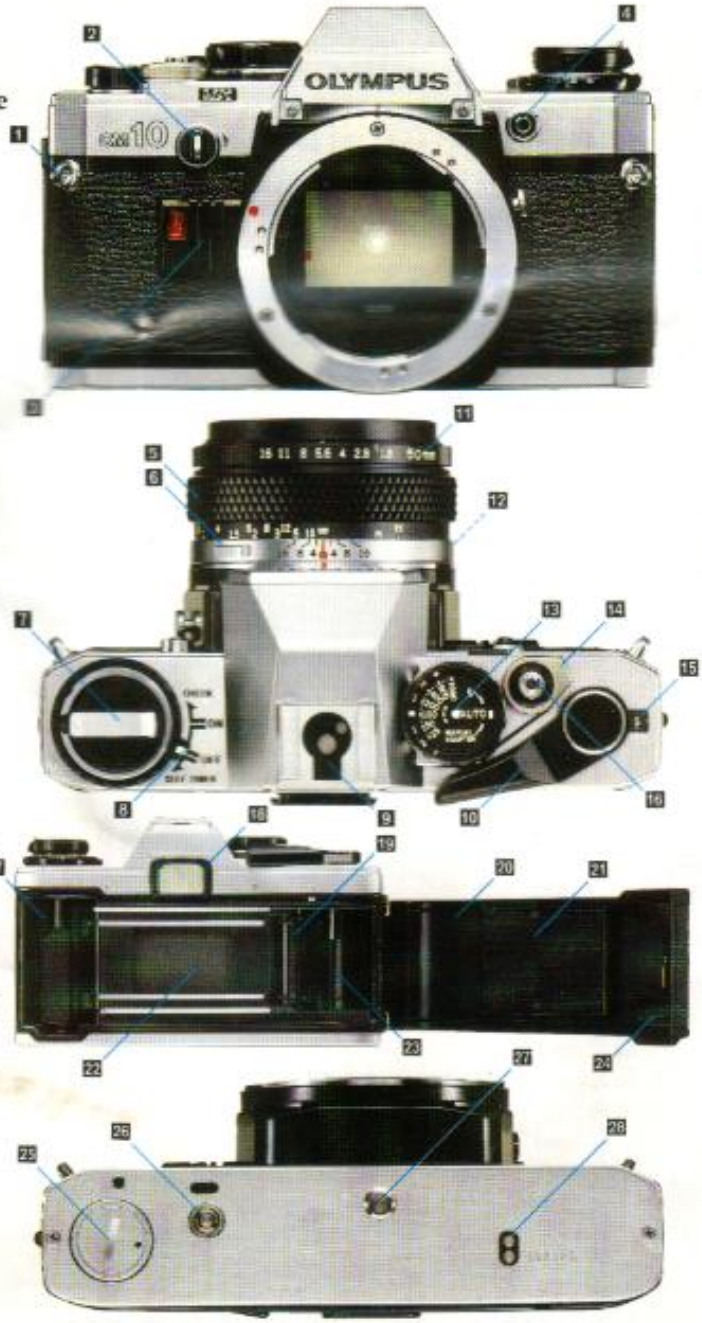
7 Rewind Crank. Rewind Knob. Camera Back Release.

8 Selector Dial
(SELF TIMER/OFF/ON/CHECK)

9 Accessory Shoe
With hot shoe and viewfinder indication flash contacts.

10 Film Advance Lever

11 Aperture Ring
To set the lens opening. The OM-10 features open aperture viewing for maximum image brightness. The lens closes down to the set aperture when you press the shutter release button.



12 Preview Button

13 Film Speed Dial. Exposure Compensation Dial. Mode Selector Lever

14 Activator Switch

15 Exposure Counter
Progressive type, showing S (Start) . . 1, 2. 4. and all even numbers to 36, E (End).

16 Shutter Release Button

17 Film Cassette Compartment

18 Viewfinder Eyepiece
The Eyepiece frame projects slightly from the back of the camera for more comfortable viewing. It is grooved along the sides to allow attachment of dioptric correction lenses, the unique Varimagni Finder (see page 13), etc.

19 Sprocket

20 Camera Back
Hinged type, springs open when Camera Back Release is pulled up sharply, snaps shut with firm finger pressure.

21 Film Pressure Plate
Makes sure the film is retained firmly against the guide rails.

22 Shutter Curtain

23 Take-Up Spool
Specially slotted for OLYMPUS Easy Loading.

24 Cassette Pressure Spring
Hold the film cassette snugly in position.

25 Battery Chamber
Contains two 1.5V silver oxide batteries.

26 Winder Coupling Socket
Connects the Winder 1 to the camera mechanically.

27 Tripod Socket
Accepts tripod screw, Winder retaining screw, etc.

28 Winder Coupling Terminal
When Winder 1 unit is attached, this terminal automatically completes the electrical circuit. An electrical safety device prevents film advance while the shutter is open.


OLYMPUS
OM10
F.ZUIKO AUTO-S 1:1.8
f=50mm
OM-SYSTEM
OLYMPUS

Performance. Factor" Solved!

Light and Sound — Unique Twin Indicator System

The OM-10 is the first camera in the world to feature a foolproof audio-visual indicator system. A Piezoelectric Ceramic Vibrator (PCV) combines with a super bright GaAlAs LED to indicate battery check and self-timer operation, emitting continuous or intermittent electronic tone and warning light. This provides an unmistakable dual function check in light or dark conditions.

Automatic Flash Setting

The OM-10's electronic brain automatically sets the correct shutter speed of 1/60 sec. when the special T20 electronic flash unit is fitted to the camera hot shoe and switched on.

Multi-Function Viewfinder Display

The viewfinder of the OM-10 is designed to be as simple as possible in order to avoid distracting the photographer. But it also conveys a wealth of useful information. A series of LEDs along the left hand margin provides an instant shutter speed indication (from 1/1,000 sec. to 1 sec.). Another LED above this display indicates over-exposures. Above the shutter speed indication is one more LED, which lights up to show when the T20 electronic flash is fully charged. A unique feature is the correct flash exposure check function. After the flash has been correctly exposed, the LED blinks repeatedly to confirm the picture will turn out as expected.

Special, Energy-Saving Preview Switch

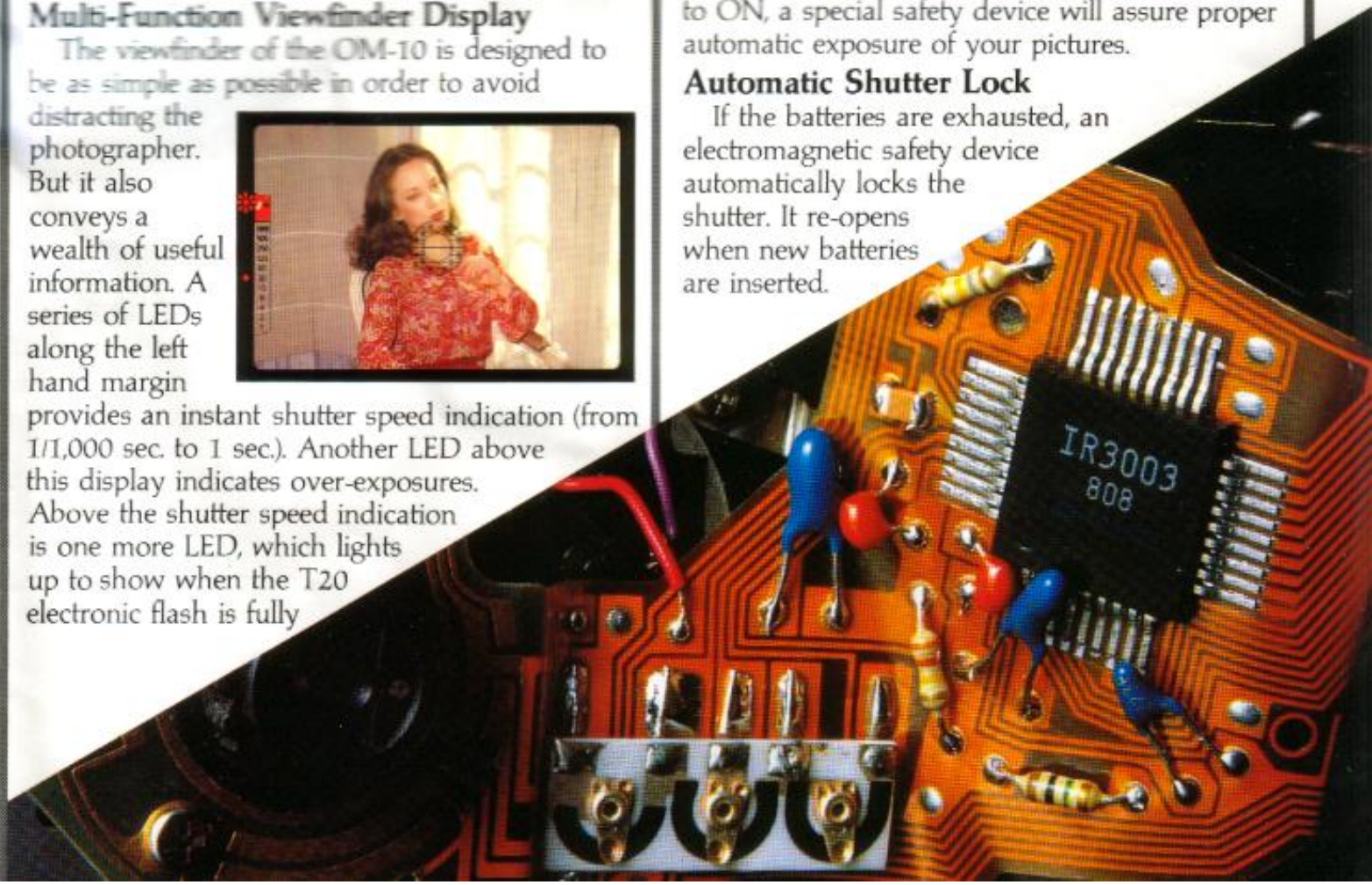
The viewfinder LED display is activated in three different ways: by turning the Selector Dial to ON, by lightly pressing the shutter release button prior to taking the picture, or by lightly touching the special switch projecting alongside the release button. The display switches off automatically 90 seconds later in order to conserve the batteries.

Mode-Override Safety Device

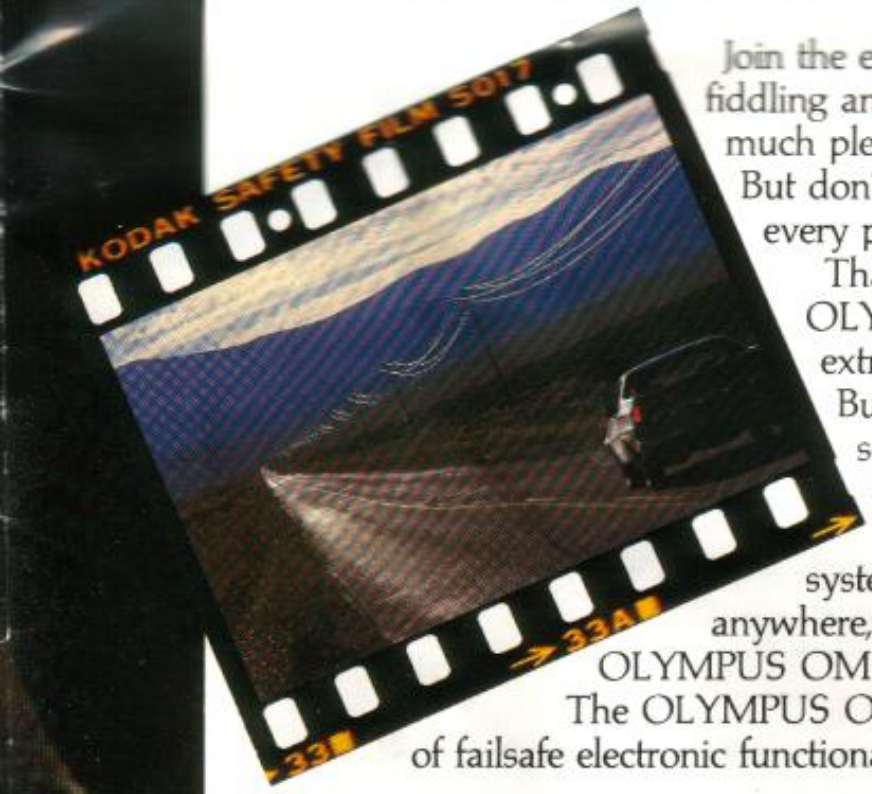
Even if you forget to switch the Selector Dial to ON, a special safety device will assure proper automatic exposure of your pictures.

Automatic Shutter Lock

If the batteries are exhausted, an electromagnetic safety device automatically locks the shutter. It re-opens when new batteries are inserted.



You Take the Pictures. OM-10 Makes Them Perfect.



Join the electronic camera age. Forget the fiddling and worrying that rob photography of so much pleasure — and far too many fine pictures. But don't forget the performance and versatility every professional rightly insists on.

That's the invitation of the fantastic OLYMPUS OM-10. A 35SLR camera that's extraordinarily light and compact. But utilizes electronic circuitry so sophisticated and reliable, exposure errors and photographer slip-ups are next to impossible. A camera with superb system versatility to bring any subject, anywhere, into your range — in the acclaimed OLYMPUS OM tradition.

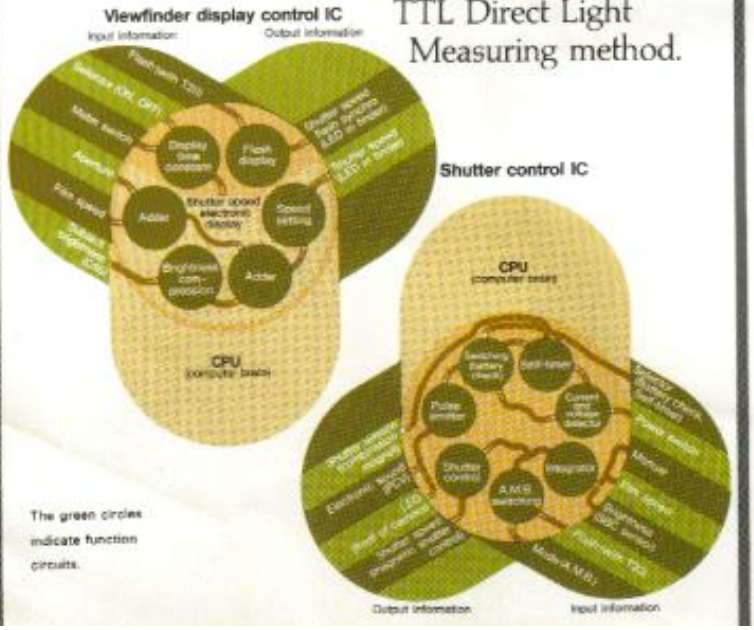
The OLYMPUS OM-10. A masterpiece of failsafe electronic functionality.

Failsafe Electronics
The "Forgetfulness"

Nothing is quite so frustrating as capturing a unique photographic opportunity – only to find you forgot a setting, and ruined the picture. Everyone forgets sometimes, but the unparalleled array of electronic monitor and control devices built into the OM-10 guarantees it won't cause you any lost opportunities.

Extra Powerful Twin Electronic Brains

To handle its various automatic functions, the OM-10 utilizes two newly developed, high input impedance, high speed bipolar MSI Central Processing Units as twin electronic brains, which control shutter speeds and viewfinder display independently. Highly efficient and reliable new circuitry eliminates the need for the exposure control condenser of conventional auto SLRs. A unique feature of the input mechanism is ultra fast response utilizing the TTL Direct Light Measuring method.



The green circles indicate function circuits.

TTL Direct Light Measuring

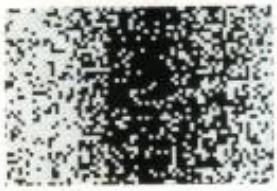
Created and perfected by OLYMPUS, pioneered in the sensational OM-2, TTL Direct Light Measuring is the only auto exposure system that works on real time.

In the viewfinder of a single lens reflex camera (SLR), you see an image captured by the lens, then reflected up by the mirror and through the pentaprism. When you press the shutter button, the mirror swings up to allow this image to reach the film. In normal SLRs, the light measuring cells are located in the viewfinder section, so when the mirror swings up, they are cut off from the image and can no longer read the light value. To control the exposure, they have to read the light before you take the picture, and store the information in a memory device. If the light changes suddenly, they get the exposure wrong.

In the OM-10 the light cell, an ultra-sensitive SBC, is located in the front of the camera pointing backwards. It starts working AFTER the mirror is raised, and directly reads the light that hits the film plane, DURING the exposure. This SBC is monitored by the electronic brain, which flicks the shutter closed at the exact instant enough light has been allowed through. Naturally TTL Direct Light Measuring needs no memory device, making it not only more accurate, but simpler and more reliable too. It's a system that just can't go wrong.

Random Pattern Shutter

A computer-generated random digital pattern on the shutter curtain enables the SBC light cell to obtain a perfectly balanced exposure reading.



tip Control System

Selector Dial

Large and notched for quicker action, this dial has click stops at each of the four positions: SELF TIMER/ OFF/ON/CHECK. With the indicator at SELF-TIMER, there is an automatic 12-sec. pause between releasing the shutter and taking the picture, with audio-visual reminder. In the SELF TIMER position, the dial indicator projects behind the camera back, a precaution to prevent accidental setting. With the Selector at OFF, all power circuits are switched off, but even then a safety device insures correct auto exposures. ON is the normal picture taking mode. At CHECK, an audio-visual indication shows the batteries are properly charged.

Large Rewind Knob

A big help for smoother, faster film rewinding. The Rewind Crank hinges out easily. This knob also functions as the Camera Back Release. Pulling out gently disengages the film cassette, then a firm tug unlocks the hinged camera back.

Although the OM-10 is so compact — and the lightest Auto 35SLR in the world — convenient, 'full-size' controls are a prime design consideration.

Audio-Visual Indicator Module

This OM-10 exclusive is an exciting advance in camera applications technology. It serves as a dual-function indicator unmistakable in either dark or bright surroundings. A super bright GaAlAs LED and a Piezoelectric Ceramic Vibrator (PCV) simultaneously emit a bright red light and an electronic tone. During battery check the indication is continuous, during operation of the electronic 12-second Self-Timer it works as an intermittent countdown device and reminder.

Convenient Rewind Release Lever

Located on the front of the camera for immediate access even when other OM System units or tripod are attached, this lever releases the film for rewinding simply by rotating in the direction of the arrow. It automatically returns to the vertical position when the Film Advance Lever is opened out.

Manual Adapter Socket

For the great majority of photos, Auto exposure control is the fastest, easiest and most accurate method. However, in a few exceptional cases Manual allows the photographer greater control over the final result. For normal photography you'll probably never need it, but if you do, plug the special Manual Adapter (optional, available shortly) in this socket. The adapter permits choice of a full range of manual shutter speeds (1-1/1,000 sec.).

Depth of Field Check

When you set a focusing distance on the lens, the range of distances in clear focus will depend on the lens aperture (marked on the ring on the front of the lens). This range is called the depth of field. You can check it visually by depressing the Preview Button, or by looking at the depth of field markings around the red lens alignment spot.

Amazingly Simple

– With Foolproof Results

Although the T20 Electronic Flash gives you a versatile choice of two Auto Flash settings, or Manual Flash, it's cordless, so the only preparation you need is to slip it directly into the OM-10's built-in accessory shoe. This connects it electrically with the camera to assure proper X synchronization. It also makes a direct link with the OM-10's electronic brain. The results:

1. As soon as you switch the flash unit ON, the camera shutter speed is automatically set to 1/60 sec. the correct speed for flash.
2. When the unit is fully charged the LED viewfinder indicator lights up, together with the CHARGE indicator on the back of the T20.
3. A big world first: AFTER you take the picture, correct exposure is confirmed by the LED viewfinder indicator and the flash unit AUTO CHECK indicator blinking for several seconds.

Use AUTO Flash for Normal Flash Pictures

For most flash pictures the AUTO mode is the simplest and quickest. Set the ASA film speed along the top panel, then set the lower indicator to one of the two AUTO positions. The one on the left (F4 with ASA100 film) gives the biggest operating distance, the one on the right (F8) allows you greater depth of field for relatively close subjects. The numbers along the center indicate the maximum flash distance in meters (or feet), but for closer distances the T20's auto sensor will automatically cut short the flash emission to assure correct exposures.

MANUAL Flash for Fill-In Shots

Flash is not only the most versatile lighting for dark conditions: it is also an ideal supplementary light source for getting rid of unwanted daylight shadows. In this case the use of MANUAL flash leaves you in full control over the lighting effects of the final picture.

Instant Switch-off

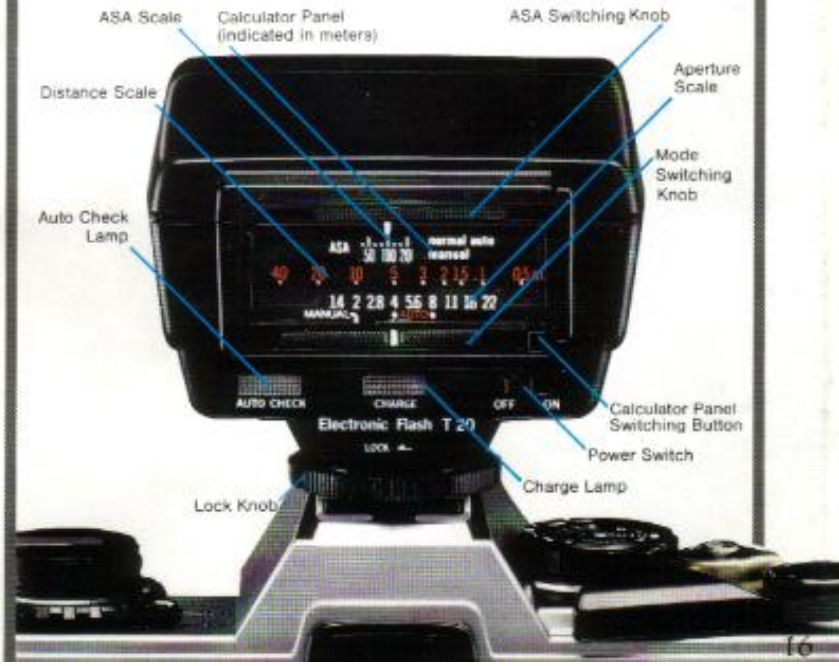
If you don't want to use the flash, you can still leave it on the camera. Just flick the T20 switch to "OFF" and the camera will revert to normal automatic mode.

Switching the flash "OFF" instantly extinguishes the "Charge" lamps on the flash and in the viewfinder, and prevents flash from firing. It's a big convenience feature when you make a quick switch to available light shooting.

In addition to the flash indication, the viewfinder features a useful shutter speed display for normal auto photography.

Electronic Flash T20

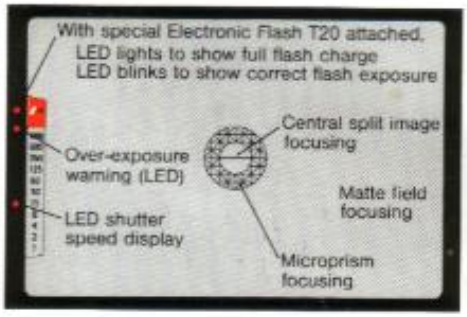
*Note: Calculator Panel calibrated in feet is also available.



Swift and Sure The OM-10 Finger

Soft Release Shutter Button with Switch

Releasing the OM-10 shutter is soft and smooth thanks to the cupped outer supporting ring. Release is a two-stage type: touching the button and supporting ring lightly activates the viewfinder LED display, depressing the button fully releases the shutter. To get a shutter speed reading without any risk of mistakenly taking a picture, the display can also be turned on by lightly touching the exclusive projecting switch of the supporting ring.



Large, Bright, Triple Focusing System Viewfinder

The OM-10 boasts an unusually large, bright viewfinder image. This is especially important for fast, accurate focusing in close-up and telephoto work, etc. Focusing is also made extra easy by the special triple system, with a split-image center section surrounded by a microprism ring, set on an overall matte surface.

B/AUTO/MANUAL ADAPTER Mode Selector Lever

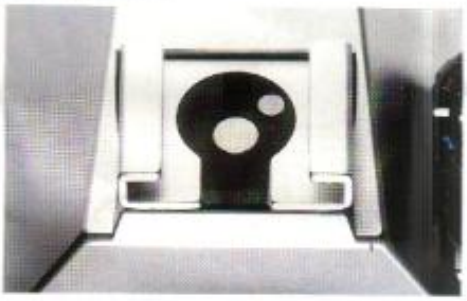
Operated by a lever on the base of the Film Speed Dial. For all normal photography the switch should be set to AUTO. For manual shutter speed setting with the Manual Adapter, set to MANUAL ADAPTER. This mode should also be used for flash, except with the Electronic Flash T20. It will then set the shutter speed automatically to 1/60 sec. The B setting is mostly used for long exposure available light shots with a tripod. In this mode the shutter remains open until the shutter button is released.

Film Speed Dial with Exposure Compensation Marks

Any film speed from ASA 25-1600 can be set by pulling up the outside ring and rotating to the desired position. To compensate for strong backlighting (e.g., in photos taken against bright sunlight), or for other special effects, exposure factors of +2 to −2 can be set against the speed of the film by aligning the ring the same way.

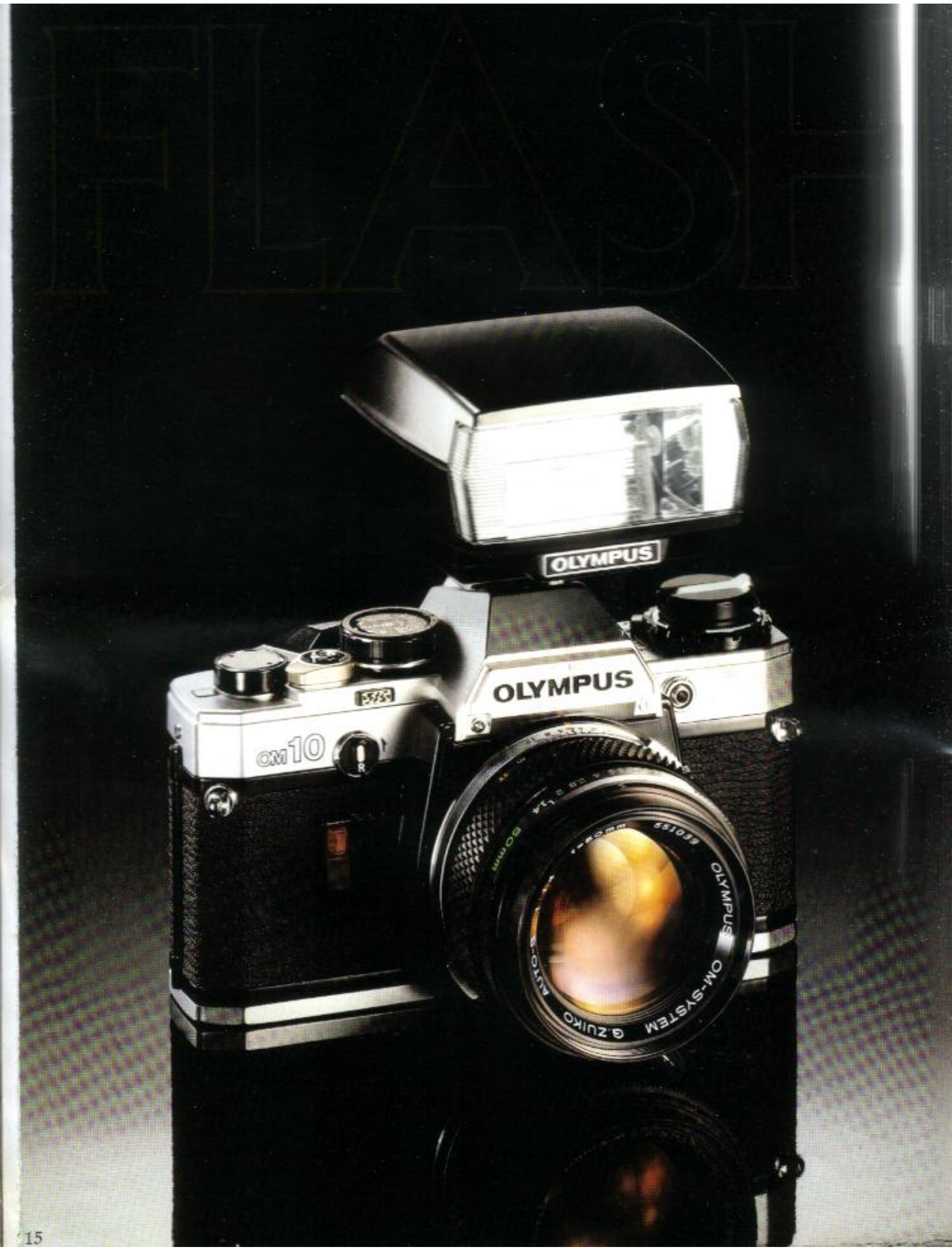
Accessory Shoe with special flash contacts

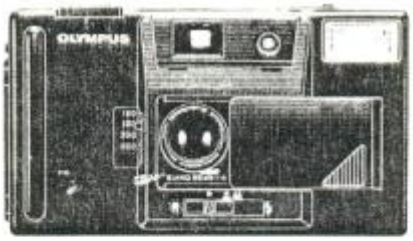
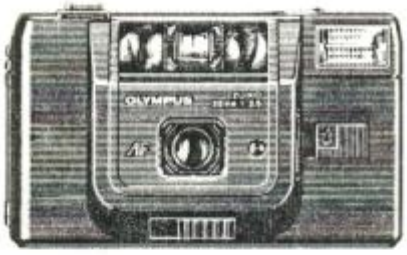
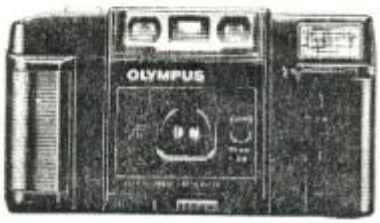
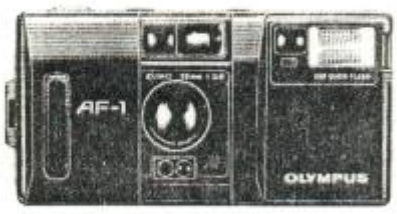
Most modern cameras have 'Hot Shoes,' but only the OM-10 provides these special contacts to connect the Electronic Flash T20 both to the camera electrical circuit and directly to the electronic brain. This makes possible the dual FLASH CHARGE/ CORRECT FLASH EXPOSURE indication in the OM-10 viewfinder, and allows automatic selection of 1/60 sec. shutter speed when the T20 is switched ON.

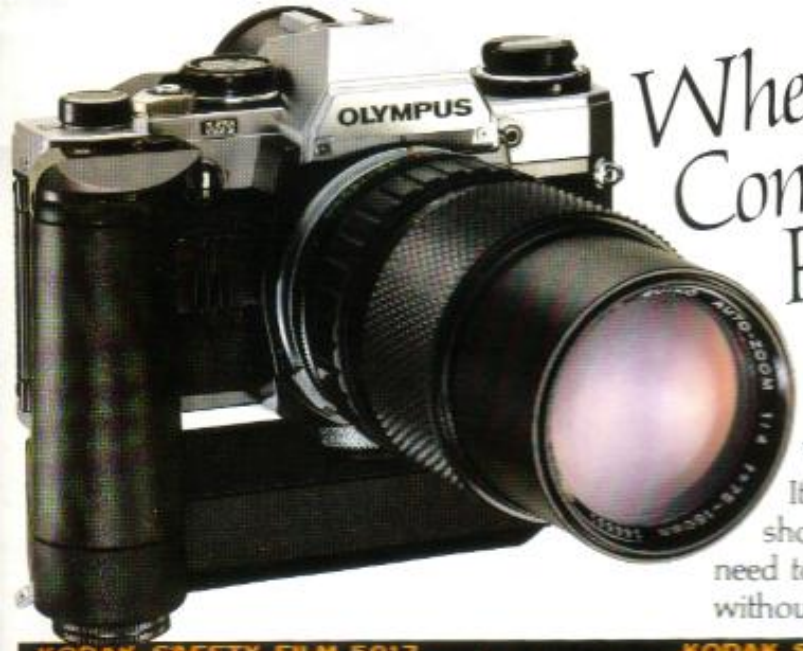


Quick Action Wind-On Lever

Another example of the OM-10's attention to details, the film advance lever is carefully shaped to be unobtrusive but instantly accessible. A convenient feature lets you advance the film by repeated small movements, or by a quick flick over the short 130° winding angle. The 30° pre-advance angle lets you keep the lever open for fast repeat shots.


OLYMPUS
OLYMPUS
OM10
OLYMPUS
OM-SYSTEM G.ZUIKO AUTO-S

TYPE AFBEELDING	ART. NR.	BHUTO ADVIESPRIJS	OMSCHRIJVING
HALF SIZE CAMERA'S  **67375 Olympus Pen EE-3**	67375	285,--	**Olympus Pen EE-3** Volautomatische halfkleinbeeldcamera met F3,5-28 mm. objectief. Programmasluiter 1/40 of 1/200 sec. Waarschuwingssignaal voor onderbelichting. Fixed focus. Filtermaat 43,5 schroef. Incl. buidel. Afmetingen 108 x 66 x 42 mm. Gewicht 335 gram.
	50584	249,--	**Olympus Supertrip** Kleinbeeld compact camera met ingebouwde flitser, Zuiko 35 mm. F4.0 objectief. Vaste scherpstelling vanaf 2.7 meter. Doorzichtzoeker en handtransport. Voeding: 2 × 1.5 volt „AAA" batterijen. Gewicht: 170 gram Afmetingen: 115 × 66 × 46 mm.
	51664	35,--	**Tas voor Supertrip**
 **30814 Olympus Trip AF** **Batterij: 2x AAA batterijen 1.5V**	30814	410,--	**Olympus Trip - AF** Volautomatische kleinbeeldcamera met ingebouwde flitser, Zuiko 3,5-35 mm autofocus objectief*. Electronische programmasluiter F3.5, 1/85 sec. — F11,1/250 sec. Ingebouwde objectief beschermer. Flitser: richtgetal 11 (100 ASA). Oplaadtijd ca. 6 sec. Voeding: 2 x 1.5 volt „AAA" batterijen. Compleet met handriem. Afmetingen 115 x 66 x 43 mm. Gewicht 210 gram. * Scherpstelbereik autofocus objectief 1.2 m — oneindig.
 **42671 Trip AF-MD**	42671	459,--	**Olympus Trip AF MD** Volautomatische autofocus kleinbeeldcamera met motortransport en ingebouwde flitser, zuiko F3.8/35 mm objectief. Electronische programmasluiter, ingebouwde objectief beschermer. Flitser: richtgetal 12 (100 ISO). Oplaadtijd ca. 6 sec. Flitsgebruiksignaal, flitsklaar/laad indicatielamp, DX instelling, automatische filminleg. — transport en — terugspoeling. Afmetingen: 132 x 71 x 47,3 mm. Gewicht 295 gram (zonder batterijen).
	41575	50,--	**Tas en Riem**
NIEUW  **48756**	48756	571,--	**Olympus AF-1 incl. tas** Volautomatische autofocus kleinbeeldcamera met, ingebouwde flitser en automatische filminleg. — transport, — belichting, — DX instelling, — flitsen, — tegenlicht flitsen (E.S.P.) — scherpstelling, — terugwikkelen, zelfontspanner, Lithiumbatterij (5 jaar)*; Asferisch F2.8/35 mm objectief, Autofocus lock en is weerbestendig. Flitser: richtgetal 11, oplaadtijd 1 —1.5 sec., electronische programma sluiter. Afmetingen: 124 x 62,5 x 45 mm. Gewicht 225 gram (zonder batterij). *Berekend: 5 jaar, 24 opnamen per maand waarvan 50% geflitst.

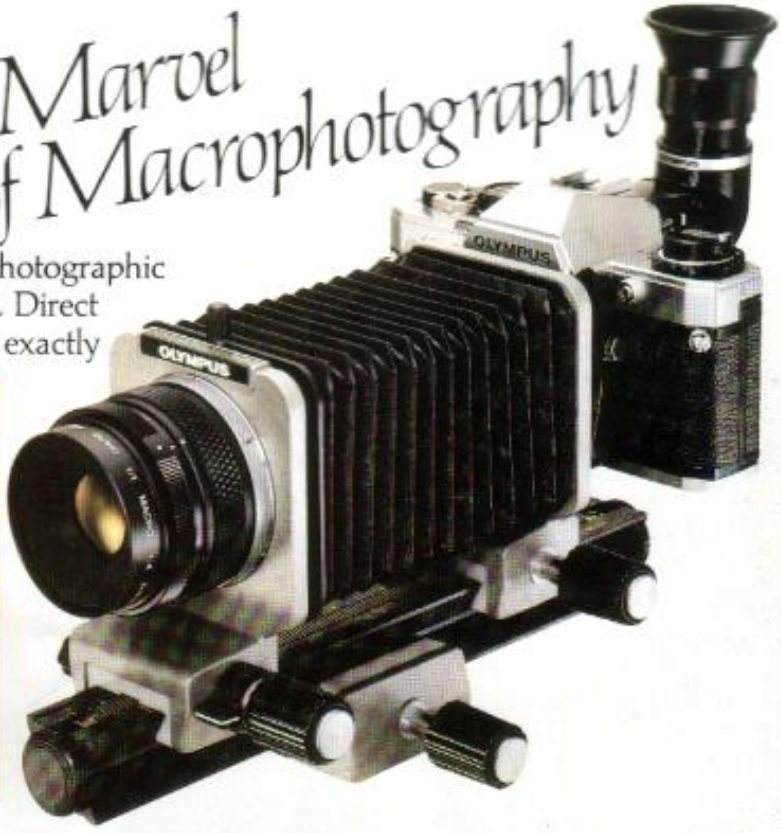


When the Action Comes Fast and Furious...

You can keep up easily. Just screw the Winder 1 unit to the base of the OM-10. It's the fastest winder on the market, and it can shoot more than three frames per second. All you need to do is press the button when you want a picture without taking your eye from the viewfinder.

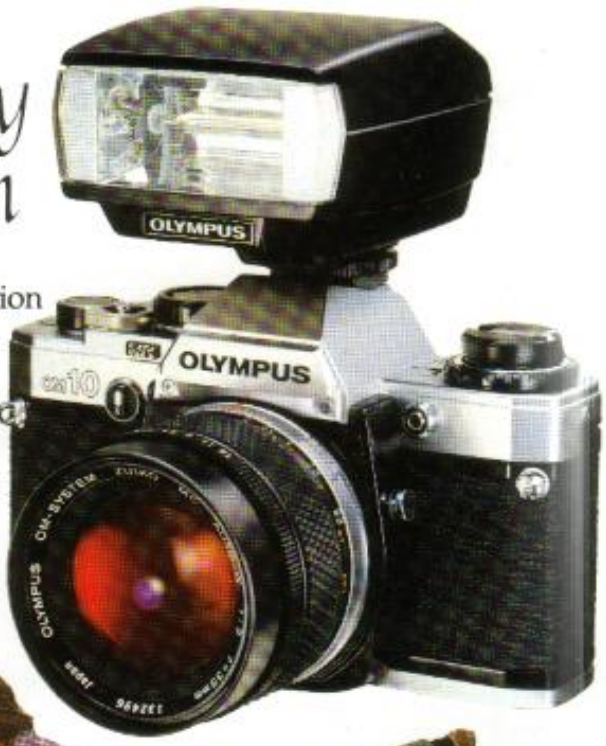
The Marvel of Macrophotography

All around you is a wonderful world you hardly notice, because it's so small. But fit a macro lens (and maybe the Auto Bellows) to your OM-10, and you can add tiny, fascinating flowers and insects to your photographic repertory. It's surprisingly simple — thanks to TTL Direct Light Measuring, which always gets the exposure exactly right. And thanks to the OM System Macro-photo Group, the most comprehensive selection of macro and close-up photography units ever devised.



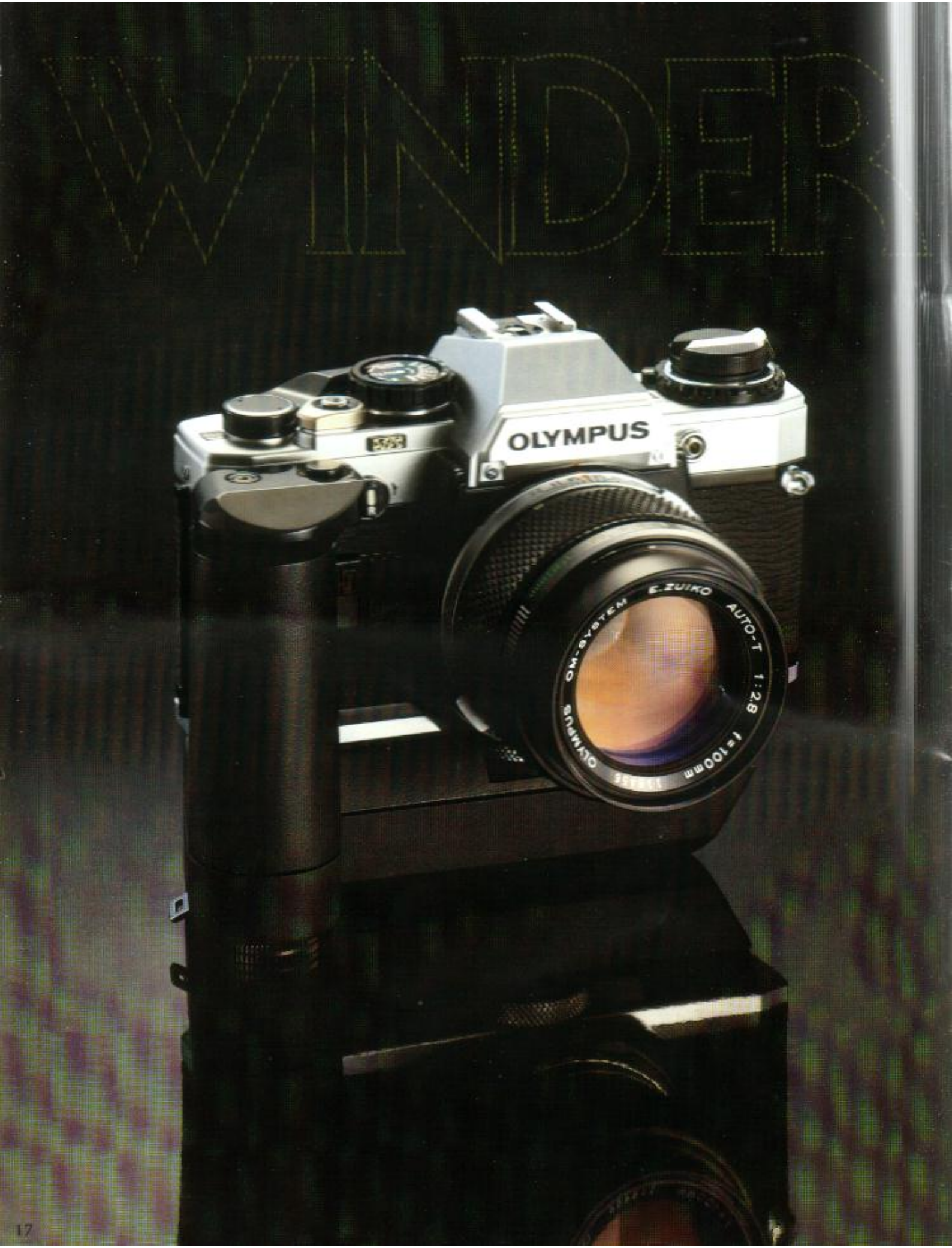
Instant Mastery of Flash

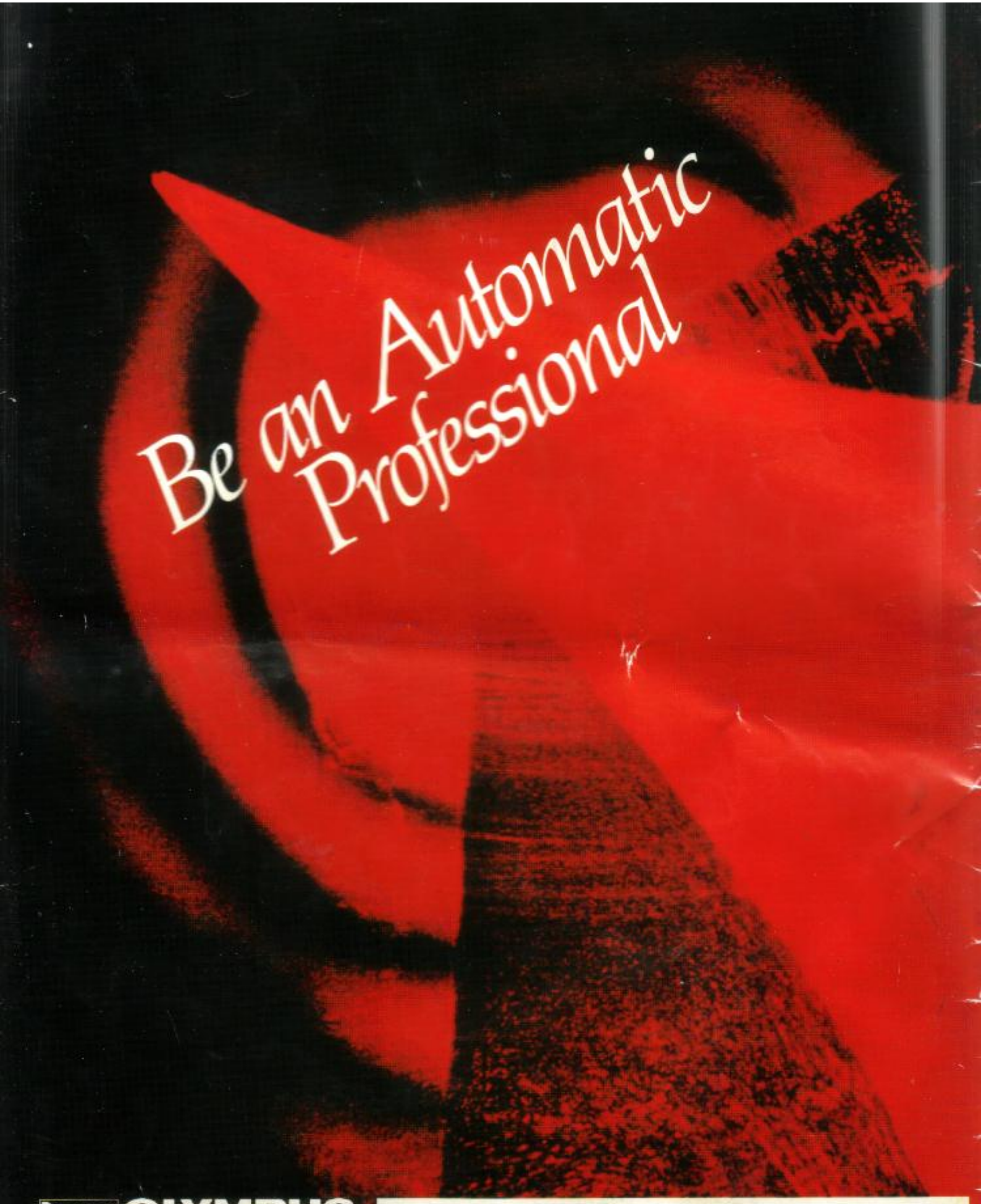
Flash can be a revelation in candid indoor photography ... when it works properly. The OM-10 and the special T20 electronic flash unit make sure everything will go without a hitch — and even confirm the exposure was correct, after you take the picture!



Conquering Distances with Telephotography

Leap across valleys, squeeze into the center of the action in sports stadiums, be instantly on the other side of the street — all without moving an inch. That's the dramatic effect of a telephoto lens. And the OM System gives you a thorough selection to choose from, right up to 1,000mm, the equivalent of 20 times the normal image size. In fact, the OM System Zuiko lenses are so light and compact you can take along several without strain. Or you can choose from the range of zooms, and get one lens to do the work of many.


WANDER
OLYMPUS
OM-SYSTEM E.ZUIKO AUTO-T 1:2.8 f=100mm



Progress through Precision

OLYMPUS

OLYMPUS OPTICAL CO., LTD.
TOKYO, NEW YORK, HAMBURG, LONDON

Printed in Japan C19E-379D

The OLYMPUS OM System

OM SYSTEM

OM-2 Black Body

ZUIKO INTERCHANGEABLE LENS GROUP

Fisheye
Zuiko Fisheye 8mm F2.8
Zuiko Fisheye 16mm F3.5

Super wide angle
Zuiko MC 18mm F3.5
Zuiko MC 21mm F2
Zuiko 21mm F3.5
Zuiko MC 24mm F2
Zuiko 24mm F2.8

Wide angle
Zuiko MC 28mm F2
Zuiko 28mm F3.5
Zuiko MC 35mm F2
Zuiko 35mm F2.8
Zuiko Shift 35mm F2.8

Standard
Zuiko 55mm F1.2
Zuiko 50mm F1.4
Zuiko 50mm F1.8
Zuiko MC Macro 50mm F3.5

Zoom
Zuiko MC Zoom 35–70mm F3.5
Zuiko Zoom 75–150mm F4
Zuiko MC Zoom 65–250mm F5

Telephoto
Zuiko MC 85mm F2
Zuiko 100mm F2.8
Zuiko MC 135mm F2.8
Zuiko 135mm F3.5
Zuiko MC 180mm F2.8
Zuiko MC 200mm F4
Zuiko 200mm F5

Super telephoto
Zuiko 300mm F4.5
Zuiko MC 400mm F6.3
Zuiko MC 600mm F6.5
Zuiko MC 1000mm F11

Special Use
Zuiko MC Macro 20mm F3.5
Zuiko MC Macro 38mm F3.5
Zuiko MC 1:1 Macro 80mm F4

Filter
49mm/55mm
Skylight (1A), L39 (UV), ND2, ND4, POL, Y48 (Y2), O56 (O2), R60 (R1), A4 (81C), B4 (82C)
72mm/100mm
Skylight (1A), L39 (UV), Y48 (Y2), O56 (O2), R60 (R1)

Lens Hood
3.5/21 • 2.8/35 Shift, 2/24, 2.8/35 •1.8/50 •1.4/50, 1.2/55, 2/21
Adapter Ring 49→72mm (for 3.5/18)

Lens Cap
Front Lens Cap
49mm, 55mm, 72mm, 100mm
Rear Lens Cap

FINDER GROUP
Varimagni Finder
Eyecup 1
Eyecoupler
Dioptric Correction Lens 1 (+2, +1, 0, –1, –2, –3, –4, –5)

Focusing Screen *
1-1 (Microprism-matte type)
1-2 (Microprism-matte type)
1-3 (Split image-matte type)
1-4 (All matte type)
1-5 (Microprism-clear field type)
1-6 (Microprism-clear field type)
1-7 (Microprism-clear field type)
1-8 (All matte type)
1-9 (Clear field type)
1-10 (Checker-matte type)
1-11 (Cross hairs-matte type)
1-12 (Cross hairs-clear field type)
1-13 (Microprism/split image-matte type)
1-14 (Microprism/split image-matte type)

FLASHPHOTO GROUP
Electronic Flash T20
Quick Auto 370
Remote Sensor
Bounce Grip
315V Power Pack 1
F. AC. Adapter 1
F. AC. Adapter 2
PS200, PS200 Quick
Synchro Cord 0.6m *
Synchro Cord 5m *
TTL Auto Cord 0.6m *
Accessory Shoe 1, 2, 3, 4 *

MOTOR DRIVE GROUP
Winder 1
M.6V Battery Holder 1
M.6V Power Pack 1
M. Remote Cord 1.2m
M. Remote Cord 5m
Motor Drive 1 *
M.18V Control Grip 1 *
M.18V Battery Holder 1 *
M.15V Ni-Cd Control Pack 1 *
M.15V Ni-Cd Charger 1 *
M.AC Control Box *
Relay Cord 1.2m, 10m *
250 Film Back 1 *
250 Film Magazine *
250 Film Loader *

MACROPHOTO GROUP
Close-up Lens 49mm f=40cm
Close-up Lens 55mm f=40cm
Extension Tube 7
Extension Tube 14
Extension Tube 25
Adapter Ring 55 → 49mm
Handy Copy Stand
Copy Stand
Lighting Set
Table Clamp
Auto Bellows
Slide Copier
Roll Film Stage
Focusing Rail
Focusing Stage
Macrophoto Stand VST-1
Macrophoto Stand Extension Bar VST-E
Macrophoto Stand B Adapter
Trans-Illuminator Base X-DE
Trans-Illuminator LSD
Objective Lens Mount PM-MTob
Stage Glass (clear)
Stage Glass (frosted-&-black)
Stage Plate 45
Stage Plate 28
Shade Stage Plate
Mechanical Stage FM
Epi-Illuminator PM-LSD2
Spare Bulb 6V5ATP-1 (for PMT-35), 6V5ATAB-1 (for PM-LSD2 & LSD)
Adapter PM-EA
Lieberkühn Reflector PM-LM20, PM-LM38
Incident Illuminator Mirror Housing PM-EL20, PM-EL38, PM-EL80
Centering Mirror PM-ELCS

Photomicrographic Equipment
PMT-35
Filter 45LB-45, 45LB-100, 45LB-200
Filter 45G-53, 45Y-48
Filter 43ND-6, 43ND-12, 43ND-50
Filter 60x45LB-45, 60x45LB-100, 60x45LB-200
Filter 60x45Y48, 60x45G53
60x45 WT Filter, B-76 Filter

PHOTOMICRO GROUP
OM-Mount Photomicro Adapter L
OM-Mount Photomicro Adapter H
35mm SLR Camera Adapter PM-D35S
Eyepiece Adapter PM-ADF, PM-ADP, PM-ADG-3
Photomicrographic Supporting Stand PM-PSS
Light Shield Tube PM-SDM
Photomicrographic Exposure Meter EMM-7
Auto Photomicrographic System PM-10-A
Automatic Exposure Body PM-PBA
Automatic Exposure Control Box PM-CBA
Manual Photomicrographic System PM-10-M
Manual Exposure Body PM-PBM
Screen Viewer PM-VSC
3x Magnifier
Focusing Telescope PM-VS
Focusing Magnifier FT

PHOTOTECHNICAL GROUP
OM-Mount Astroscope Adapter
OM-Mount Endoscope Adapter
Cable Release SR-II
Double Cable Release
Recordata Back 2 *
OM-Mount Lens Adapter for Pen F *
Body Cap

CASE GROUP
Hard Case w/strap and pad 2
Hard Case 1.2 w/strap and pad 2
Semi-hard Case w/strap and pad 1
Semi-hard Case 1.2 w/strap and pad 1
Soft Case
Soft Case 1.2
Leatherette Shoulder Strap w/shoulder pad 1
Leather Shoulder Strap w/shoulder pad 2
Round Braid Shoulder Strap
Flat Braid Shoulder Strap
Lens Pouch 100
Lens Pouch 200
Lens Pouch 300
Compartment Case S
Compartment Case M
Compartment Case L
Partitioned Insert
Standard Lens Case (for F1.8, F1.4, F1.2)
Semi-hard Case Front Cover 135

*Units marked with an asterisk can not be used with the OM-10.

Dynamic Response

— The Key to Action Photography

Timing is the essence of fine photographs. But picking the exact split second to press the shutter button demands more than experience and flair — it calls for instant readiness on the part of the equipment too.

This is the value of the super fast OM System Winder. It takes just 0.3 sec. to advance the film, meaning you can take as many as three frames in a second. It's far faster than most winders, and at least twice as fast as you can advance the film by hand. Another vital point: when you use the Winder 1, you can keep your eye glued to the viewfinder, and be sure never to miss a shot.

Superior OLYMPUS Wind-On System

Most winder and motor drive units will not advance the film until you release the shutter button. The OM System Winder 1 advances the film immediately, but never before, the shutter closes. This is made possible by an electronic safety device that locks the wind-on action until the shutter is closed. And advance stops automatically when the whole film has been exposed. It's another big OLYMPUS contribution to the goal of instant readiness and dynamic response.

Fantastically Compact and Convenient

The Winder 1 is so small and light, you can keep it attached to the OM-10 permanently. The combination will still weigh less than many traditional 35SLR system cameras on their own! But if you prefer to keep it for special occasions, you can still attach it in seconds. All you have to do is align it with the base of the camera, and secure it to the tripod socket with the comfortably large retaining screw.

Exact Exposures for Every Frame

Even when you use the Winder 1 to shoot a long series of action pictures, every frame is exposed individually, precisely, with the OM-10's

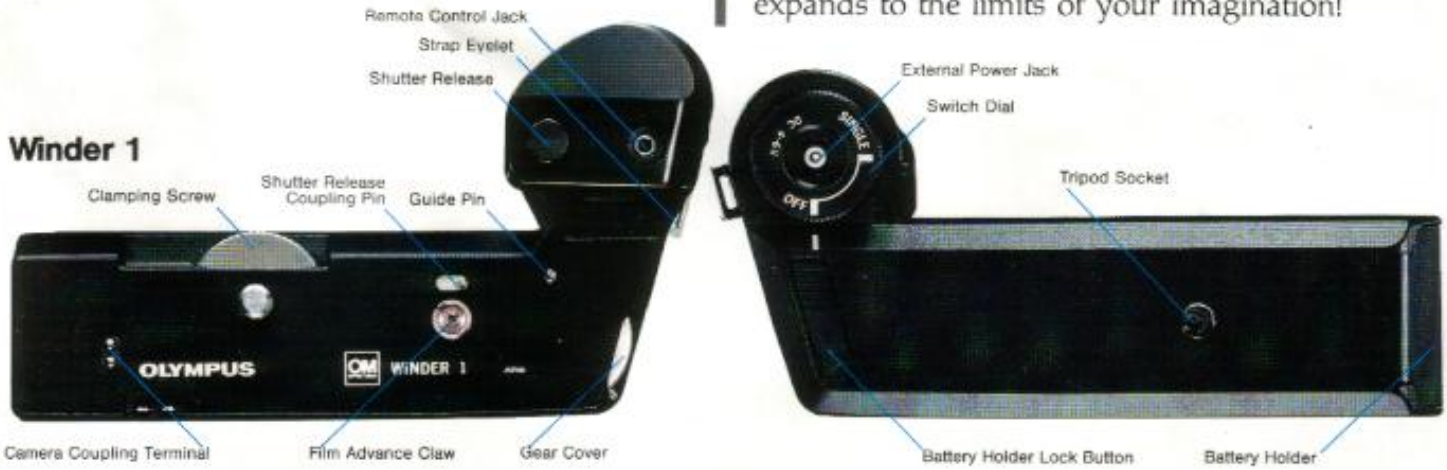
TTL Direct Light Measuring System. It takes away all the worry from sudden changes in picture composition or lighting conditions.

A Completely New Creative Outlook

That's one of the benefits of mechanized film advance. With portraits, for example, the subject is often tense until you press the shutter — then he relaxes in a candid, natural pose. It's the perfect opportunity for you to take a quick follow-up picture, capturing expressions and emotions you could never get in any other way.

Or consider the possibilities opened up by winder-driven remote control operation in nature or scientific photography. Your subject range expands to the limits of your imagination!

Winder 1



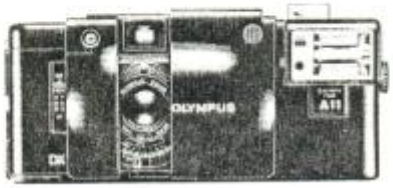
The Start of Something Endless

The OM-10 is much more than just another "Auto" camera. It has

The OM Vision– Infinite Variety

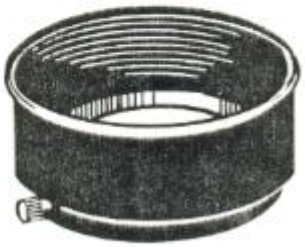
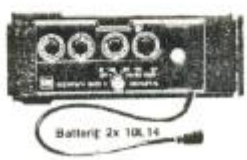
The most basic advantage of the 35SLR lies in its huge choice of lenses: fisheyes that give you a full 180° coverage of everything in front of you, wide angles with their exciting special perspective effects, super fast standard lenses for night and interior shots, macro and shift lenses for specialized work in scientific, architectural and other fields, versatile zooms, dramatic telephotos ... The Zuiko Interchangeable Lens Group of the OM System opens up all these infinite possibilities. And Zuiko lenses are renowned not just for their peerless performance, but for brilliantly innovative optics that get you better results and brighter vision — yet also set new standards in lightness and compactness.

Wide Angle — Try a New Perspective The familiar world looks

TYPE AFBEELDING	ART. NR.	BRUTO ADVIESPRIJS	OMSCHRIJVING
	83612	660,--	**Olympus XA** Automatische kleinbeeldcamera met diafragma voorkeuze. F2,8-35 mm. objectief. Electronische sluiter van 10 sec. tot 1/500 sec. Gekoppelde afstandmeter. Electronische zelfontspanner met tweetonige audio/visuele indicator. Voedingsbron twee 1,5V zilveroxyde batterijen. Afmetingen 102 x 64,5 x 40 mm. Gewicht 225 gram zonder batterijen.
	83625	126,--	**Flitser A 11** Flitser: richtgetal 11 (100 ASA). Oplaadtijd ca. 10 sec., aantal flitsen ca. 120 met gebruikmaking van 1 alkaline batterij. Afmetingen 60 x 36 x 33 mm. Gewicht 65 gram zonder batterij.
83612 Olympus XA camera **83625 Olympus A11 flitser** **Batterij: 2x 10L14 (camera)** **1x penlight (flitser A11)** **2x penlight (flitser A16)**	15404	191,--	**Flitser A 16** Flitser: richtgetal 16 (100 ASA). Oplaadtijd ca. 5 sec. Aantal flitsen ca. 150 met gebruikmaking van 2 alkaline batterijen. Afmetingen 60 x 51,5 x 38 mm. Gewicht 80 gram zonder batterijen.
	34953	177,--	**Flitser A-1-L** Flitser: richtgetal 9 (100 ASA). Oplaadtijd 1.5 sec. Twee 3V lithium batterijen zijn ingebouwd. Afmetingen 60 x 37,5 x 29,5 mm. Gewicht 70 gram inclusief batterijen.
	39479	459,--	**Olympus XA-3** Volautomatische kleinbeeldcamera met 35 mm objectief. Electronische programmasluiter van 2 sec. (3,5) tot 1/750 sec. (F.14). Scherpstellen d.m.v. 3 instelzones. DX instelling (ISO 25-1600). Electronische zelfontspanner met audio en visuele indicator. Automatische filminleg. Afmetingen 104 x 65 x 40 mm. Gewicht 220 gram (zonder batterijen).
39479 **34953**	83625	126,--	**Flitser A11:** zie bij XA
	15404	191,--	**Flitser A16:** zie bij XA
	34953	177,--	**Flitser A1L:** zie bij XA
	39466	575,--	**Olympus XA-4 Macro** Volautomatische kleinbeeldcamera met zuiko F3.5/28 mm objectief. Electronische programmasluiter. Scherpstellen van 0,3 tot oneindig. DX instelling (ISO 25-1600). Electronische zelfontspanner met audio en visuele indicatie. Parallax aanduiding in de zoeker. Automatische filminleg. Afmetingen: 104 x 64,5 x 38,5 mm. Gewicht 230 gram (zonder batterijen).
39466 **83625**	83625	126,--	**Flitser A11:** zie bij XA
	15404	191,--	**Flitser A16:** zie bij XA
	34953	177,--	**Flitser A1L:** zie bij XA
DIVERSE ACCESSOIRES VOOR COMPACT			**Pen en Trip 35**
	05807	44,--	Zonnekap 45 Ø
	66464	8,--	Lensdop 45 Ø
	18814	38,--	UV filter 43.5 mm
	06073	38,--	Skylight filter 43.5 mm.
	06060	38,--	Geelfilter 43,5 mm.
	06099	38,--	Grijsfilter 43,5 mm.
	06086	38,-	A filter 43,5 mm.
	25650	57,--	Close-up lens 43,5 mm.
	05948	9,--	Polsriem voor Pen EE-3 en EES-2
	05849	53,--	Zachtlederen tas voor EE-3 en EES-2
	21467	53,--	Zachtlederen tas voor Trip 35
	21470	82,--	Harde tas voor Trip 35
			XA serie
	39169	56,--	Flitsadapter voor XA-4
	04277	9,--	Polsriem voorXA-camera's
	04280	53,--	Halsriem voor XA-camera's
	21032	134,--	VIP tas voor XA met A11 flitser, zwart en naturel

TYPE AFBEELDING	ART. NR	BRUTO ADVIESPRIJS	OMSCHRIJVING
	43920	46,--	Zachte tas L voor XA serie
	43933	85,--	Harde tas L voor XA serie
			AFL en AFL-S
	34560	53,--	Skylight filter AFL
	39172	53,--	Skylight filter AFL-S
	39185	155,--	Teleconverter voor AFL-S
	39198	155,--	Close-up voor AFL-S
	39200	53,--	Lithiumbatterij voor AFL-S en AF-1
	29393	15,--	Schouderriem AFL
	41575	56,--	Tas voor AFL-S en Trip AF-MD
			AF-1
	50258	123,--	Teleconverter AF-1
	50261	123,--	Close-up lens voor AF-1
	50245	12,--	Draagkoord AF-1
	50274	57,--	Tas voor AF-1
	29405	56,--	Tas compact universeel voor AFL-Trip AF en Trip AF-MD
	51664	35,--	Tas voor Supertrip
SPIEGELREFLEX CAMERA'S	79637	580,--	**Olympus OM 10 body chroom**
	79637/ 43553	820,--	**Olympus OM 10 body + 1.8/50** Eenogige automatische kleinbeeld spiegelreflexcamera met electronische spleetsluiter, tijden B-2-1/1000 sec. DDL-OTF lichtmeetsysteem met diafragma voorkeuze meet en regelt de belichting tijdens de opname. D.m.v. manual adapter is handbediening mogelijk. Middenflitscontact. Electronische zelfontspanner van 12 sec. met tweetonige audio/visuele indicator. Aansluiting voor winder. Afmetingen body 135 x 84 x 50 mm. Gewicht 450 gram.
 **79637 Olympus OM 10** **Batterij: 2x 10L14**	15392	586,--	**Olympus OM 10 body zwart**
	38571	805,--	**OM 10 Kit 2** Bestaat uit: OM-10 body chroom + 1.8/50 + paraattas + zonnekap + halsriem
	20019	690,--	**Olympus OM 20 body chroom**
	20019/ 43553	933,--	**Olympus OM 20 body** + 1.8/50 De Olympus OM 20 spiegelreflexcamera met: automatische sluitertijdenkeuze na diafragmavoorkeuze tussen 2-1/1000 sec. volgens het DDL-OTF systeem, meet dus tijdens de opname. Volledige driekleurige digitale uitlees mogelijkheid. NIEUW helder Lumimicron matglas. Automatische en manual (handinstelbaar tussen 1-1/1000 sec.) schakelmogelijkheid ingebouwd. Belichtingscompensatieknop instelbaar tussen ± 2 stops (op 1/3 stop nauwkeurig). Keuzemogelijkheid uit verschillende stabiele handgrepen voor een perfecte voeling met de camera. Flitscontrole in de zoeker met Olympus T-flitsers. Audio/visuele zelfontspanner. Motordrive aansluiting. Memo houder. Afmetingen body 135 x 84 x 50 mm. Gewicht 430 gram.
 **20019 Olympus OM 20** **Batterij: 2x 10L14**	34995	1 106,--	**Olympus OM 20 Kit III** Bestaat uit: OM 20 body chroom + Zuiko 1.8/50 mm. + T20 flitser + OM 20 paraattas + halsriem en camera-grip.
	39440	748,--	**Olympus OM 40 body**
	39440/ 43553	990,--	**Olympus OM 40 body + 1.8/50 mm** De Olympus OM-40 spiegelreflexcamera met Program, Auto en Manual instelling. Meetbereik van 2-1/1000 sec. op Manual B,1-1/1000 sec. ESP (Elektronisch Selectief Patroon) meting, TTL direct van de film meting. Electronische zelfontspanner met audio en visuele indicatie. TTL flitsen op Program en Auto stand. DX code instelling met film venster. Motordrive aansluiting. Afmetingen: 135,5 x 86 x 53 mm (alleen body) Gewicht: 460 gram.
 **39440 Olympus OM 40** **Batterij: 2x 10L 14**			

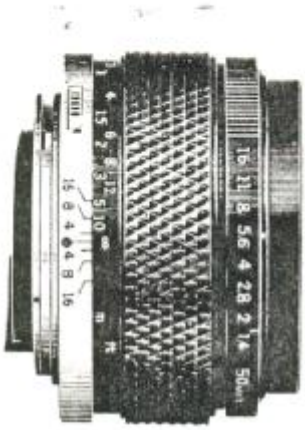
TYPE AFBEELDING	ART. NR.	BRUTO ADVIESPRIJS	OMSCHRIJVING
	79442	858,--	**Olympus OM-1N body chroom**
	79442/ 43553	1.100,--	**Olympus OM-1N body + 1.8/50** Eenogige kleinbeeld spiegelreflexcamera met spleetsluiter van B, 1-1/1000 sec. DDL lichtmeting bij volle lensopening d.m.v. 2 CDS cellen. Handinstelling. Flitsaansluiting: omschakelbaar FP-X contact. Verwisselbaar matglas. Aansluiting voor motordrive of winder. Zelfontspanner 4-12 sec. Verwisselbare achterwand. Afmetingen body 136 x 83 x 50 mm. Gewicht 510 gram.
79442 Olympus OM-1N **Batterij: 1x PX625**	79439	910,--	**Olympus OM-1N body zwart**
	34982	1.135,--	**Olympus OM-2 Spot/Program body zwart** Eenogige kleinbeeld spiegelreflex camera met automatische spleetsluiter van 60 sec. tot 1/1000 sec., meet en regelt de belichting tijdens de opname, handinstelling van 1-1/1000 sec. en mechanische 1/60 + B. Op de stand Manual schakelt de belichtingsmeter over van integraal naar 2% Spotmeting. Automatische DDL-OTF belichtingsregeling met diafragma voorkeuze op de stand Auto voor zowel normale als flitsmeting met Olympus flitsers. In de stand Program wordt, na het sluiten van het diafragma, automatisch de sluitertijd alsmede het diafragma ingesteld volgens het DDL-OTF principe. Verwisselbaar matglas. Aansluiting voor Motordrive of Winder. Zelfontspanner 12 sec. Verwisselbare achterwand met Memo houder. Voeding: 2 x 1.5 volt 10L14 batterijen. Afmetingen body 136 x 84 x 50 mm. Gewicht 540 gram (zonder batterijen).
34982 Olympus OM-2 **Batterij: 2x 10L14**	34982/ 43553	1.380,--	**Olympus OM-2 Spot/Program body + 1.8/50 mm.**
	34966	1.959,--	**Olympus OM-3 body zwart** Eenogige kleinbeeld spiegelreflex camera met mechanische spleetsluiter van B, 1-1/2000 sec., meet DDL integraal met nadruk op het centrum. Spotmeter ingebouwd die van 1 tot maximaal 8 spotmetingen kan verrichten. Hoge en Lage lichtmeet mogelijkheid ingebouwd. Het meetgebied van de spotmeter is ca. 2% van het totale beeldveld. Flitscontrole in de zoeker met Olympus flitsers. Verwisselbaar matglas. Aansluiting voor Motordrive of Winder. Verwisselbare achterwand met Memo houder. Voeding: 2 x 1.5 volt 10L14 batterijen. Afmetingen body: 136 x 84 x 50 mm. Gewicht 540 gram (zonder batterijen).
34966 Olympus OM-3 **Batterij: 2x 10L14**	34966/ 43553	2.200,--	**Olympus OM-3 body + 1.8/50 mm.**
	29476	1.959,--	**Olympus OM-4 body zwart** Eenogige kleinbeeld spiegelreflex camera met automatische spleetsluiter van 60 sec. tot 1/2000 sec., meet en regelt de belichting tijdens de opname, handinstelling van 1-1/2000 sec. en mechanische 1/60 sec. + B. Spotmeter ingebouwd die van 1 tot maximaal 8 spotmetingen kan verrichten. Hoge en lage alsmede een memory meting kan worden verricht, geheugen in memory stand 1 uur. Maximale belichtingstijd met spotmeting ca. 4 minuten. Automatische DDL-OTF belichtingsmeter met diafragma voorkeuze voor zowel normale alsmede flitsmeting met Olympus flitsers. Verwisselbaar matglas. Aansluiting voor Motordrive of winder. Zelfontspanner 12 sec. Verwisselbare achterwand met MEMO houder. Voeding: 2 x 1.5 volt 10L14 batterijen. Afmetingen body: 136 x 84 x 50 mm. Gewicht 540 gram.
29476 Olympus OM-4 **Batterij: 2x 10L14**	29476/ 43553	2.200,--	**OM-4 body + 1.8/50**

TYPE AFBEELDING	ART. NR.	BRUTO ADVIESPRIJS	OMSCHRIJVING
OM ZONNEKAPPEN			
	10537	51,--	Zonnekap voor 2.0/21 mm
	55505	46,--	Zonnekap voor 3.5/21 mm + 2.8/35 mm Shift
	55521	46,--	Zonnekap voor 2.0/24 mm
	55518	46,--	Zonnekap voor 2.8/24 mm
	74533	46,--	Zonnekap voor 2.0/28 mm
	74546	46,--	Zonnekap voor 3.5/28 mm + 2.8/28 mm
	62411	46,--	Zonnekap voor 2.0/35 mm
	46525	52,--	Zonnekap voor 1.8-1.4/50 mm, 2.8/35 mm, 3.5/4.5 35-70 mm
	26376	54,--	Zonnekap voor 1.2/50 mm
	74559	54,--	Zonnekap voor 2.0/85 en 2.8/100 mm
	12531	49,--	Zonnekap voor 4.5/135 mm macro
	26363	46,--	Zonnekap voor 4.0-28/48 mm
	10540	52,--	Zonnekap voor 3.6/35-70 mm
	12528	49,--	Zonnekap voor 4.0/35-70 mm
	20064	51,--	Zonnekap voor 3.5-4.5/35-105 mm
46525 Zonnekap voor 1.8-50			
OM FILTERS			
	31965	56,--	UV filter 49 mm
	31879	56,--	Skylight filter 49 mm
	31952	56,--	Geelfilter 49 mm
	45445	56,--	Grijsfilter ND 2 49 mm
	45458	56,--	Grijsfilter ND 4 49 mm
	45403	56,--	Oranjefilter 49 mm
	45416	56,--	Roodfilter 49 mm
	45429	56,--	A (81 C) 49 mm
	45432	56,--	B (82 C) 49 mm
	45461	185,--	Polarisatiefilter 49 mm
	45487	68,--	UV filter 55 mm
	45474	68,--	Skylightfilter 55 mm
	45490	68,--	Geelfilter 55 mm
	45544	68,--	Grijsfilter ND 2 55 mm
	45557	68,--	Grijsfilter ND 4 55 mm
	45502	68,--	Oranjefilter 55 mm
	45515	68,--	Roodfilter 55 mm
	45528	68,--	A (81 C) 55 mm
	45531	68,--	B (82 C) 55 mm
	45560	235,--	Polarisatiefilter 55 mm
	45586	176,--	UV filter 72 mm
	45573	176,--	Skylightfilter 72 mm
	45599	176,--	Geelfilter 72 mm
	45601	176,--	Oranjefilter 72 mm
	45614	176,--	Roodfilter 72 mm
	45630	340,--	UV filter 100 mm
	45627	340,--	Skylightfilter 100 mm
	45643	340,--	Geelfilter 100 mm
	45656	340,--	Oranjefilter 100 mm
	45669	340,--	Roodfilter 100 mm
	50287	227,--	Filterhouder 250 - 350 mm
OM DIVERSE ACCESSOIRES			
	12544	34,--	Lensdop 8 mm Fisheye
	10553	15,--	Lensdop voor 16 en 18 mm objectief
	45672	10,--	Lensdop 49 mm
	45685	10,--	Lensdop 55 mm
	45698	75,--	Lensdop 72 mm
	45700	108,--	Lensdop 100 mm
	45713	10,--	Achterlensdop
	10566	15,--	Achterlensdop 80 en 135 mm Macro objectief
	45726	10,--	Bodydop
	79570	421,--	Recordata achterwand II
	29418	498,--	Recordata achterwand 4
	57413	195,--	Lensadapter Pen FT
	82376	85,--	Manual adapter OM-10
	84578	581,--	Astro-adapter
	20093	31,--	OM grip 2 v. OM-20
	29492	41,--	OM grip I voor OM 4/OM 3 & OM/2 S/P
	23940	137,--	3 V batterijhouder voor OM 2
 **82376 Manual adapter OM-10**			
 **45672 Lensdop 49 mm**			
 **29418 Recordata achterwand IV Batterij: 2x 10L14**			
 **Batterij: 2x 10L14** **79570 Recordata achterwand II**			

OBJECTIEVEN

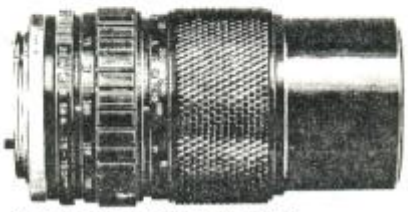
45164 Zuiko Fisheye 8 mm F2.8

TYPE AFBEELDING	ART. NR.	BRUTO ADVIESPRIJS	OMSCHRIJVING	elementen groepen	aantal graden	gewicht	filter-maat
			Fisheye				
	45164	3.222,--	2.8/ 8 mm	11-7	180	640 gr	ingeb.
	45177	1.783,--	3.5/16 mm	11-8	180	180 gr	ingeb.
			Supergroothoek				
	69704	1.815,--	3.5/18 mm	11-9	100	250 gr	72 mm
	71660	1.820,--	2.0/21 mm	11-9	92	250 gr	55 mm
	45193	1.000,--	3.5/21 mm	7-7	92	180 gr	49 mm
	45205	1.418,--	2.0/24 mm	10-8	84	280 gr	55 mm
	45218	594,--	2.8/24 mm	8-7	84	180 gr	49 mm
			Groothoek				
	45221	1.318,--	2.0/28 mm	9-8	75	250 gr	49 mm
	08275	450,--	2.8/28 mm	6-6	75	170 gr	49 mm
	43652	755,--	2.0/35 mm	8-7	63	249 gr	55 mm
	43582	395,--	2.8/35 mm	7-6	63	180 gr	49 mm



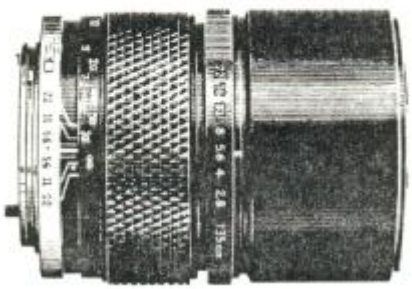
43566 Zuiko 50 mm F1.4

				elementen groepen	aantal graden	gewicht	filter-maat
			Standaard				
	27076	470,--	2.0/40 mm	6-6	56	140 gr	49 mm
	18562	1.015,--	1.2/50 mm	7-6	43	310 gr	49 mm
	43566	510,--	1.4/50 mm	7-6	47	230 gr	49 mm
	43553	242,--	1.8/50 mm	6-5	47	170 gr	49 mm
			Speciaal Shift				
	69692	1.850,--	2.8/35 mm	8-7	63	310 gr	49 mm
	31246	4.620,--	3.5/24 mm	12-10	84	510 gr	ingeb.
			Macro				
	29038	1.055,--	2.0/20 mm macro	6-4	9	170 gr	
	29041	1.055,--	2.8/38 mm macro	6-4	9	176 gr	
	43665	653,--	3.5/ 50 mm	5-4	47	200 gr	49 mm
	40185	1.250,--	2.0/ 50 mm	9-7	47	320 gr	55 mm
	08501	895,--	4.0/ 80 mm	6-4	9	170 gr	49 mm
	89797	1.065,--	4.5/135 mm	5-4	18	320 gr	55 mm
	08431	485,--	Teleconverter 2xA*	6-6	-	200 gr	N.V.T.
			* Speciaal voor: 100-135 en 200 mm objectieven.				
	27047	1.036,--	Teleconverter X1.4	5-4	-	180 gr	N.V.T.



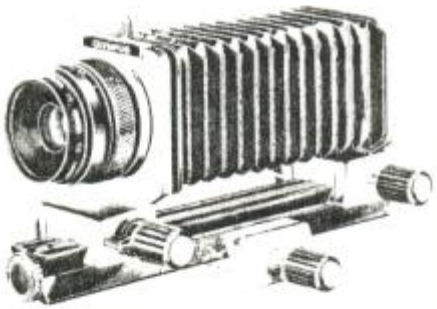
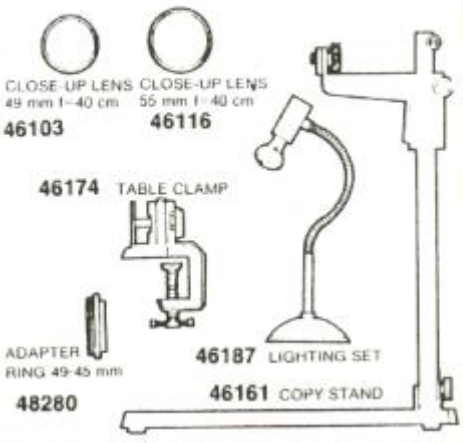
43719 Zuiko 4.0/75-150 mm

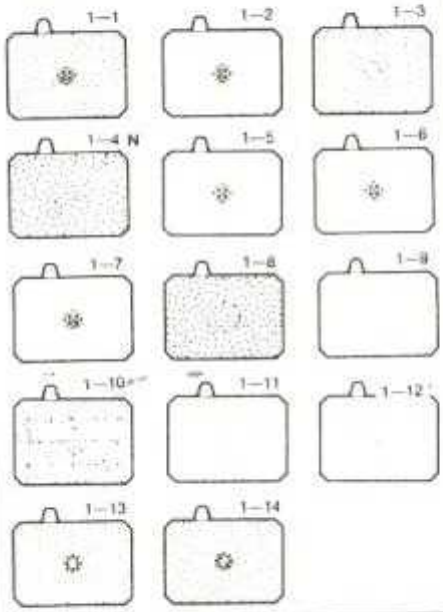
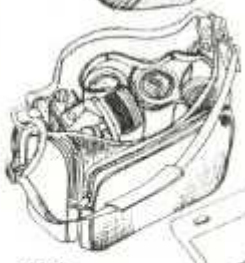
				elementen groepen	aantal graden	gewicht	filter-maat
			Zoom				
	71673	1.470,--	3.6/ 35- 70 mm	10-8	64-34	400 gr	55 mm
	08019	594,--	4.0/35- 70 mm	7-7	64-34	380 gr	55 mm
	39028	650,--	3.5-4.5/35-70 mm	9-8	63 -34	190 gr	49 mm
	20077	1.120,--	3.5-4.5/35-105 mm	16-12	63-23	470 gr	55 mm
	29434	1.145,--	4.0/ 65-200 mm	14-11	12-37	690 gr	55 mm
	43719	858,--	4.0/ 75-150 mm	15-11	32-16	440 gr	49 mm
	71699	2.275,--	5.0/ 85-250 mm	15-11	29-10	890 gr	55 mm
	50597	1.475,--	5.0/ 50-250 mm	13-10	47-10	760 gr	55 mm



45250 Zuiko 135 mm F2.8

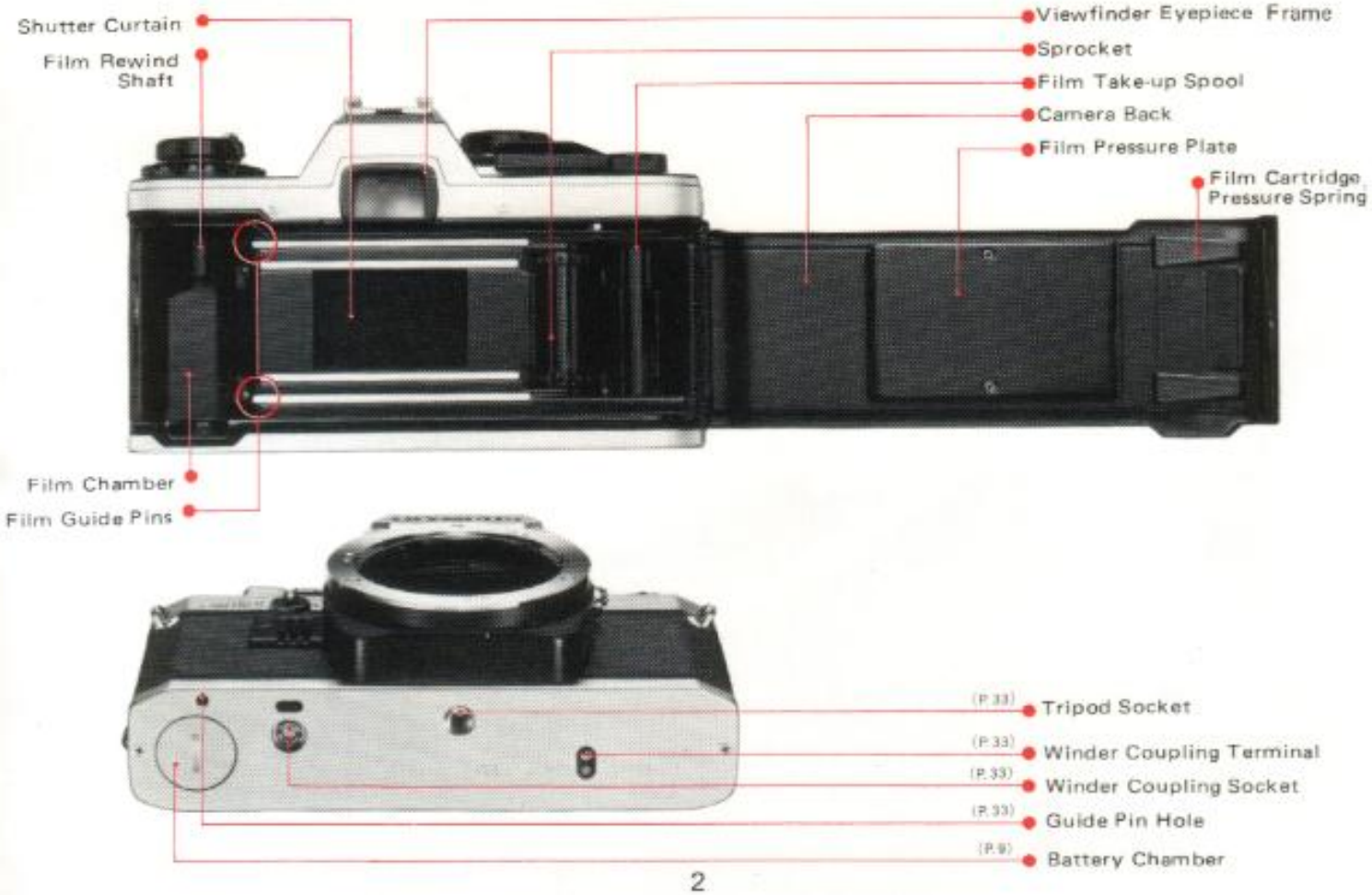
				elementen groepen	aantal graden	gewicht	filter-maat
			Tele				
	45234	939,--	2.0/ 85 mm	6-4	29	260 gr	49 mm
	31220	1.590,--	2.0/100 mm	7-6	24	520 gr	55 mm
	43595	590,--	2.8/100 mm	5-5	24	230 gr	49 mm
	45250	653,--	2.8/135 mm	5-5	18	360 gr	55 mm
	43607	355,--	3.5/135 mm	5-4	18	290 gr	49 mm
	37079	10.000,--	2.0/180 mm	10-8	14	1900 gr	100 mm
	71686	2.195,--	2.8/180 mm	5-5	14	700 gr	72 mm
	43610	530,--	4.0/200 mm	5-4	12	510 gr	55 mm
			Supertele				
	31233	17.190,--	2.0/ 250 mm	12-9	10	3700 gr	insteek
	45276	1.617,--	4.5/ 300 mm	6-4	8	1100 gr	72 mm
	27050	15.945,--	2.8/ 350 mm	9-7	7	3900 gr	insteek 46 mm
	45304	3.950,--	6.3/ 400 mm	5-5	6	1300 gr	72 mm
	27063	1.765,--	8.0/ 500 mm	5-2	5	590 gr	72 mm
	45317	6.540,--	6.5/ 600 mm	6-4	4	2800 gr	100 mm
	45320	8.000,--	11.0/1000 mm	5-5	2.4	4000 gr	100 mm

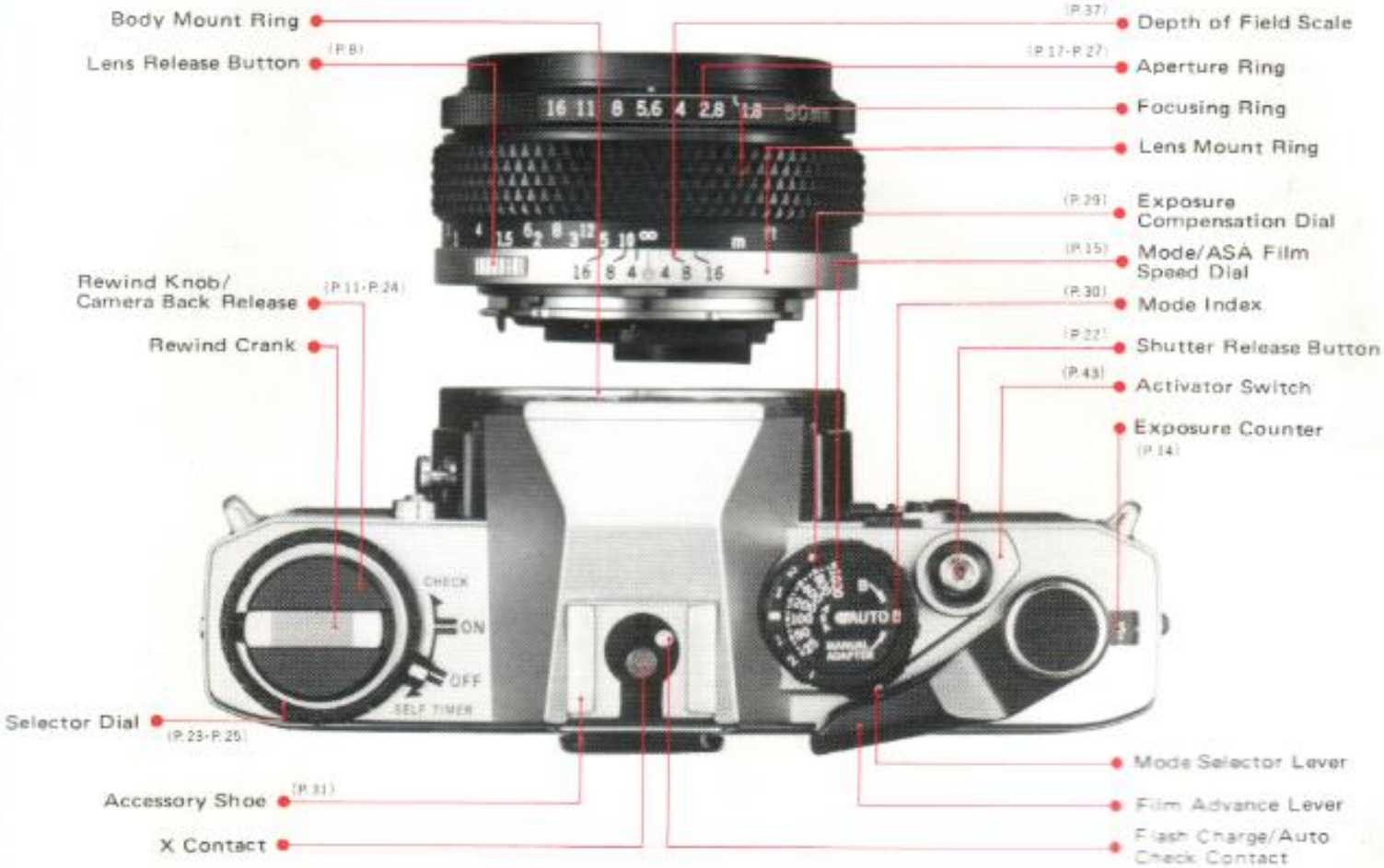
TYPE AFBEELDING	ART. NR	BRUTO ADVIESPRIJS	OMSCHRIJVING
OM MICROGROEP			
 L-MOM-L 46471	46471	293,--	**Microscoopadapter L-MOM-L,** voor bevestiging van OM-body op een microscoop
	46484	210,--	**Microscoopadapter H,** voor bevestiging van OM-body op macro-unit PM-10 en PMT-35
	46497	368,--	**Camera-adapter PM-D 35 S,** wordt gebruikt in combinatie met de microscoopadapter H, voor bevestiging op de units PM-PBA of PM-PBM
	48954	265,--	**Oculairadapter ADG,** wordt gebruikt in combinatie met de L-MOM-L en oculair G
	48967	200,--	**Oculairadapter ADP,** wordt gebruikt in combinatie met de L-MOM-L en oculair P
 ADF adapter 48970	48970	200,--	**Oculairadapter ADF, wordt gebruikt in** combinatie met de L-MOM-L en oculair F
			Microfotostandaard PM-PSS 2)
			Systeem OM-10-AD, 17 delen incl. PM-PBS, OM-CBAD etc. 2)
			Automatische belichtingsbody PM-PBS, unit voor automatische belichtingsregeling 2)
			PM-CBAD 2)
			Handbediend microfotosysteem PM-10 M, 8 delen 2)
			Handbediende belichtingsbody PM-PBM 2)
			Lichtmeter voor microfotografie EMM-7 2)
			Loep 5x 2)
			Insteloculair PM-VS 2)
			Instelloep FT 2)
			2) wordt geleverd door Olympus microscoop leverancier.
OM MACROGROEP			
 46215	46215	755,--	**Balg** met instelrail (semi automatisch)
	46231	403,--	**Diacopieerapparaat** voor balg
	46228	77,--	**Dubbele draadontspanner** voor balg
	46244	160,--	**Filmstrookhouder** voor diacopieerapparaat
	46257	335,--	**Instelrail**
	46260	196,--	**Camerahouder** voor idem
	46273	252,--	**Macro statief VST 1**
	46299	147,--	**Camera B adapter** voor idem
	46286	56,--	**Verlengzuil** voor macro statief VST 1
	46327	56,--	**Tafelglas** (helder) voor VST 1
	46330	56,--	**Tafelglas** (mat) voor VST 1
	46343	118,--	**Tafelplaat 28 o** (zwart metaal) voor VST 1
	46356	118,--	**Tafelplaat 45 o** (zwart metaal) voor VST 1
	67896	153,--	**Ontspiegelde tafelplaat** met 2 sluiteronderbrekers voor VST 1
	46413	111,--	**Lieberkuhn reflector PM-LM 20** voor 20 mm objectief
	46426	123,--	**Lieberkuhn reflector PM-LM 38** voor 35 mm objectief
	46439	421,--	**Spiegelhuis voor opvallend licht PM-EL 20** voor 20 mm objectief
	46442	409,--	**Spiegelhuis voor opvallend licht PM-EL 38** voor 38 mm objectief
	46455	682,--	**Spiegelhuis voor opvallend licht PM-EL 80** voor 80 mm objectief
	57244	160,--	**Centreerspiegel voor OM-EL/PM-ELO**
	46468	186,--	**Objectiefmontuur PM-MTob** voor 20 en 38 mm objectief bij gebruik van balg en macro tubes
OM CLOSE-UP GROEP			
	46103	92,--	**Close-up lens 49 mm** F = 40 cm
	46116	119,--	**Close-up lens 55 mm** F = 40 cm
	48280	38,--	**Adapterring** 55 mm - 49 mm
	70650	58,--	**Adapterring** 49 mm - 72 mm
	47100	272,--	**Handy copy reprostandaard**
	46161	1.210,--	**Reproductie apparaat**
	46174	250,--	**Tafelklem** voor idem
	46187	515,--	**Verlichtingsset** voor idem
	89742	169,--	**Automatische tussenring 7 mm**
	89755	176,--	**Automatische tussenring 14 mm**
	89768	180,--	**Automatische tussenring 25 mm**
	89784	193,--	**Close-up lens 80 mm macro** F 17 cm
	89771	630,--	**Macro tube** 65 - 116 mm

TYPE AFBEELDING	ART. NR.	BRUTO ADVIESPRIJS	OMSCHRIJVING
OM ZOEKERGROEP			
 45768 Variohoekzoeker	45742	38,--	Oogschelp 1
	45768	420,--	Variohoekzoeker
	50063	28,--	M verlengstuk v. vario hoekzoeker of oogschelp bij gebruik van 250 opn. achterwand
	45809	27,--	Oogcorrectie +2
	45812	27,--	Oogcorrectie +1
	45825	27,--	Oogcorrectie 0
	45838	27,--	Oogcorrectie —1
	45841	27,--	Oogcorrectie —2
	45854	27,--	Oogcorrectie —3
	46538	27,--	Oogcorrectie —4
	45867	27,--	Oogcorrectie —5
	45870	75,--	1— 1, mat met microprisma (universeel)
	45883	75,--	1— 2, mat met microprisma (voor tele)
	45896	75,--	1— 3, mat met instelwig
	39031	75,--	1— 4, N, mat
	45911	75,--	1— 5, helder met microprisma (voor groothoek)
	45924	75,--	1— 6, helder met microprisma (voor standaard- en telelenzen)
	45937	75,--	1— 7, helder met microprisma (voor supertelelenzen)
	61836	75,--	1— 8, geheel mat (voor supertelelenzen)
	42093	87,--	1— 9, geheel microprisma (voor fiberscope)
	69717	75,--	1—10, mat met schaakpatroon
	45979	75,--	1—11, mat met draadkruis
	45982	75,--	1—12, helder met draadkruis
	64501	75,--	1—13, mat met instelwig en prisma
	82363	75,--	1—14, mat met 45° instelwig en prisma
OM TASSEN			**OM-1/OM-2/OM-2 Spot Program**
	43540	108,--	Zachtlederen paraattas
	67911	69,--	Achterzijde idem
	12502	72,--	Achterzijde idem voor body met databack 3
	26347	99,--	Voorklep idem voor 85 mm objectief
	26334	99,--	Voorklep idem voor 135 mm objectief
	53961	72,--	Zachtlederen buidel
	04251	100,--	Zachtlederen buidel voor OM met winder
			OM-10
	82318	80,--	Zachtlederen paraattas OM-10
	26305	43,--	Achterzijde idem
	26321	54,--	Voorklep met 1.8-1.4 objectief
	26280	99,--	Voorklep voor 135 mm objectief
			OM-20/OM-30
	20022	103,--	Zachtlederen paraattas voor OM 20/OM 30
	26264	53,--	Achterzijde idem
	26277	72,--	Voorklep voor 1.8/1.4 objectief
	23924	99,--	Voorklep voor 85 mm objectief
54029 Combitas M			**OM-40**
	39099	108,--	OM-40 paraattas
	42316	49,--	Achterzijde voor OM-40
	39127	68,--	Voorklep 1.8 voor OM-40
	39130	86,--	Voorklep 85 mm voor OM 40
	39143	86,--	Voorklep 135 mm voor OM 40
54032 Combitas L			**OM 3-4**
	29489	188,--	OM hard case 2
	39044	137,--	Paraattas Nr.3 (geschikt voor OM-1/2SP/3/4)
	39057	60,--	Achterzijde tas 3
	39060	86,--	Voorklep 1.8 voor tas 3
54016 Combitas S	39073	103,--	Voorklep 135mm voor tas 3
	39086	68,--	Achterzijde tas 3 voor data back
			Diversen
	53994	46,--	Lensbuidel 100
	54003	46,--	Lensbuidel 200
	72469	43,--	Lederen prof. halsriem 5 cm.
	31048	43,--	Hunter strap
	29504	43,--	Halsriem OM 3-4
10368 Medical case B	54016	191,--	Combitas S
	54029	220,--	Combitas M
	54032	409,--	Combitas L
	12515	98,--	Vakindeling Combitas L
10371 Medical case A	10371	383,--	Medical case A
	10368	532,--	Medical case B

TYPE AFBEELDING	ART. NR.	BRUTO ADVIESPRIJS	OMSCHRIJVING
OM MOTORDRIVE GROEP			**MOTORDRIVE GROEP**
	31262	1.346,--	**Motordrive II** voor OM 1, 2, 2-SP 20, 30, 3, 4
	31259	571,--	**M 18V controle grip II**
	46091	124,--	**M 18V batterijhouder** v. idem
	31275	637,--	**M 15V controle pack II**
	61810	176,--	**M 15V lader** voor idem
CONTROLGRIP **50076**	46046	1.582,--	**M AC controle box**
	46059	222,--	**1.2 m verlengkabel** voor idem
	46062	268,--	**10 m verlengkabel** voor idem
	04293	38,--	**Kabel afstandbediening** 1.2 m
	04264	51,--	**Kabel afstandbediening** 5 m
	35257	435,--	**M Quartz remote control I**
	35260	58,--	**M Remote control kabel** 10 m
	20080	75,--	**M in-focus triggercord** v. OM-30
	86585	450,--	**Winder II** voor alle OM-camera's
	69014	56,--	**M 6V batterijhouder I** v. winder
	12557	64,--	**M 6V powerpack I** v. winder
	46004	1.785,--	**250 opn. achterwand I**
	46017	200,--	**250 opn. filmcassette**
	46033	850,--	**250 opn. filmcassette lader**
			OM SYSTEEM FLITSGROEP
	79400	286,--	**T-20 elektronen flitser**
	86460	528,--	**T-32 elektronen flitser**
	30210	1.400,--	**T-45 elektronen flitser**
	27089	625,--	**T-8 ringflits II** met reflector 15 + 20
	89809	323,--	**T-10 ringflits I**
	27092	275,--	**T-28 macro flitser**
	27104	487,--	**T-28 macro twin flitser**
FLITSGROEP			**ACCESSOIRES VOOR T 20 EN T 32**
	86499	74,--	**TTL autoconnector type 3** v. OM-2 in combinatie met T 32 - T 20 - bouncegrip II
	86501	74,--	**TTL autoconnector type 4** v. OM-2 N in combinatie met T 32 - T 20 - bouncegrip II
	86527	82,--	**TTL autocord T** 0.3 m
	86530	92,-	**TTL autocord T** 0.6 m
	86543	99,--	**TTL autocord T** 2.0 m
	86556	111,--	**TTL autocord T** 5.0 m
89812	86473	536,--	**Power bounce grip II** v. T 20 - T 32
	04248	65,--	**Grip strap** v. winder en bounce grip
	82347	117,--	**AC adapter II** v. T 20 - T 32
	23854	356,--	**AC adapter III** v. T 10 - T 28
	86486	106,--	**TTL auto multi connector** v. 3 flitsers
	86514	74,--	**TTL auto connector T 20/T 32**
89809	86569	28,--	**M gripcord I** v. winder + motordrive + bounce grip
	29421	34,--	**M grip cord II** v. winder of motordrive + T 45
	08499	128,--	**Zoomadapter T-32**
	10595	89,--	**Kleurenfilterset T-32**
	08486	52,--	**Groothoek adapter/ND filterset T 32**
	12573	72,--	**Flits extender** v. T 20 - T 32
	32847	25,--	**Calculator paneel** voor T-20
	32850	25,--	**Calculator paneel** voor T-32
ACCESSORY SHOE 4 **79426**			**ACCESSOIRES VOOR T-45**
	29450	89,--	**TTL autocord T-2** 0.1 m
	29447	89,--	**TTL autocord T-2** 0.15 m
	30223	340,--	**T-45 Ni-Cd pack I**
	30207	340,--	**T-45 Ni-Cd lader** voor idem
86460			**ACCESSOIRES VOOR T-10, T-8 EN T-28 FLITSERS**
	89812	625,--	**T power control I** (stuur-unit voor T-8/T-10/T-28)
	12560	30,--	**Calculator paneel** 50 mm
BOUNCE GRIP (GRIP UNIT)	10582	30,--	**Calculator paneel** 80 mm macro
	10579	30,--	**Calculator paneel** 135 mm macro
	89825	450,--	**Polarisatie ringfilter** v. T-10
	89838	143,--	**6V powerpack** v. T-10
	27117	172,--	**Bevestigingsring T-28**
			ACCESSOIRESCHOENEN
BOUNCE GRIP (BRACKET UNIT)	45739	47,--	**Schoen I** v. OM 1 - OM 2
	65623	51,--	**Schoen II** v. OM-2 TTL met 310 flitser
	79413	58,--	**Schoen II** v. OM-2 TTL met T 32 - T 20
	79426	58,--	**Schoen IV** v. OM 1 N, OM 2 N op TTL met T 20 - T 32
86473	65636	46,--	**Autocord 0.6** v. 310 flitser

DESCRIPTION OF CONTROLS




Body Mount Ring
Lens Release Button (P.8)
Rewind Knob/ Camera Back Release (P.11-P.24)
Rewind Crank
Selector Dial (P.23-P.25)
Accessory Shoe (P.31)
X Contact
(P.37) Depth of Field Scale
(P.17-P.27) Aperture Ring
Focusing Ring
Lens Mount Ring
(P.29) Exposure Compensation Dial
(P.15) Mode/ASA Film Speed Dial
(P.30) Mode Index
(P.22) Shutter Release Button
(P.43) Activator Switch
Exposure Counter (P.14)
Mode Selector Lever
Film Advance Lever
Flash Charge/Auto Check Contact
16 11 8 5.6 4 2.8 1.8 50mm
CHECK
ON
OFF
SELF TIMER
AUTO

The photo indicates the OM-10 camera body with the 50mm F1.8 standard lens.

PREPARATIONS BEFORE TAKING PICTURES

The OM-10's circuits
are powered by two 1.5V silver oxide batteries.
Without them, the shutter of this electronic
single lens reflex camera will not function.
This section
is devoted to explaining the preparations
which you must go through before proceeding to take pictures.
Please keep in mind that they are indispensable
for obtaining good results.

TABLE OF CONTENTS

We appreciate very much that you have acquired an OM-10, a camera designed to allow you to take good pictures automatically and with the greatest ease.
The Olympus OM-10 is a single lens reflex camera of the finest quality in which the automation of photographic functions has been made possible by employing the most advanced electronics. To its acceptability of Olympus interchangeable lenses, a special film winder, a flash, and a host of other accessories are added to make it a complete system of photography. With the OM-10 you can gradually widen your enjoyment of the photographic art.
We sincerely wish that it will become for you a source of unending satisfaction. To this effect, please read this instruction manual carefully before using the camera, so that you may be sure of taking correct, beautiful pictures every time you use your OM-10.

MOUNTING AND DETACHING THE LENS

① Remove the body cap and the rear lens cap.*

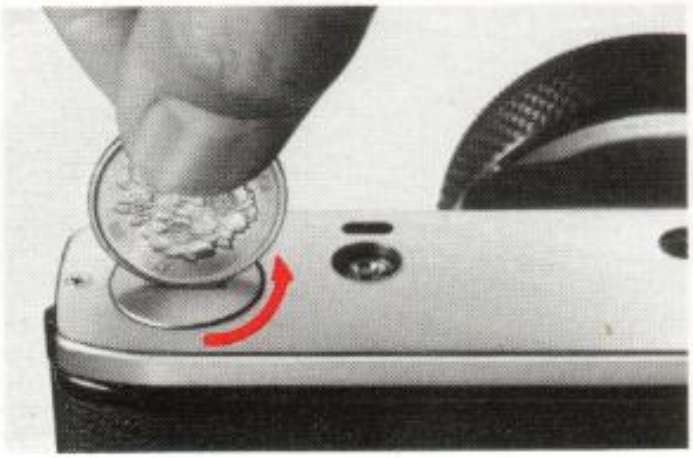
② Remove the front lens cap.

* If you have purchased an OM-10 in conjunction with a 50 mm F1.4 lens, the body cap and rear lens cap are not provided.

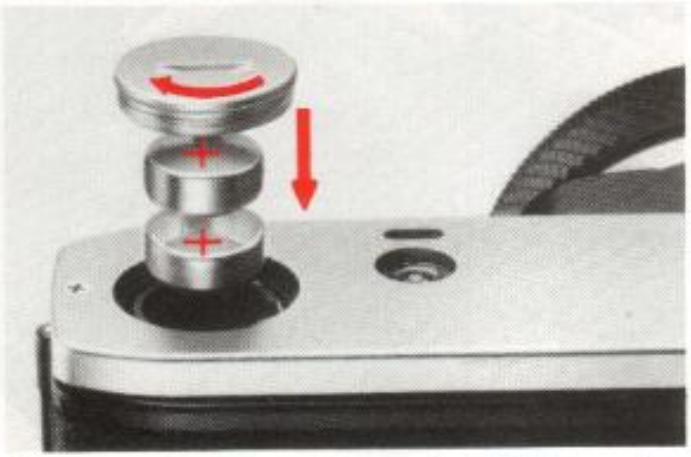
③ Mount the lens.

④ Detach the lens.

INSERTING THE BATTERIES

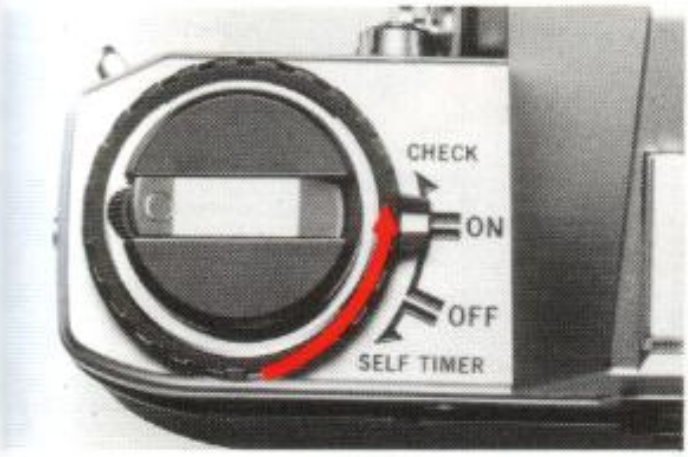


① Remove the cover of the battery chamber.



② Insert two 1.5V silver oxide batteries SR44 (Eveready or UCAR EPX-76) or equivalents.
③ Replace the cover.

CHECKING THE BATTERIES



① Move the selector dial to "CHECK".

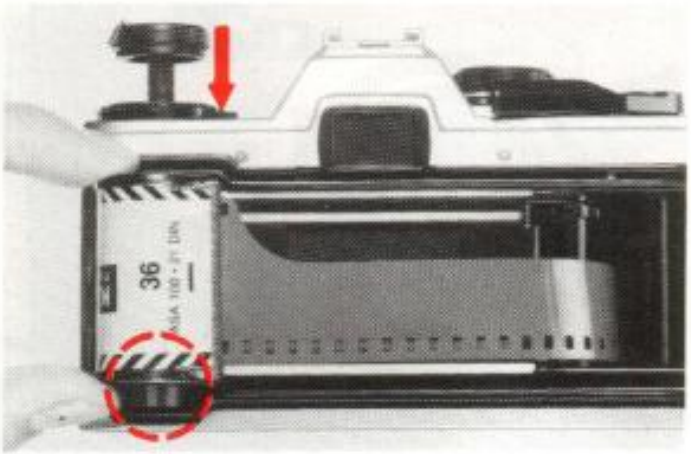
② A beeping sound is heard and the battery check light turns on.

③ After the check set back the dial.

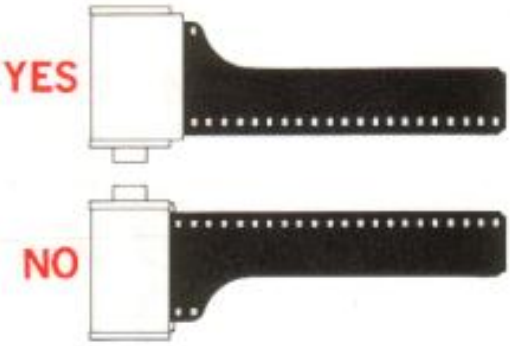
(Attention)·
If no sound is heard and the light does not turn on, the batteries have not been correctly inserted, or their charge is exhausted. In this case they must be replaced.

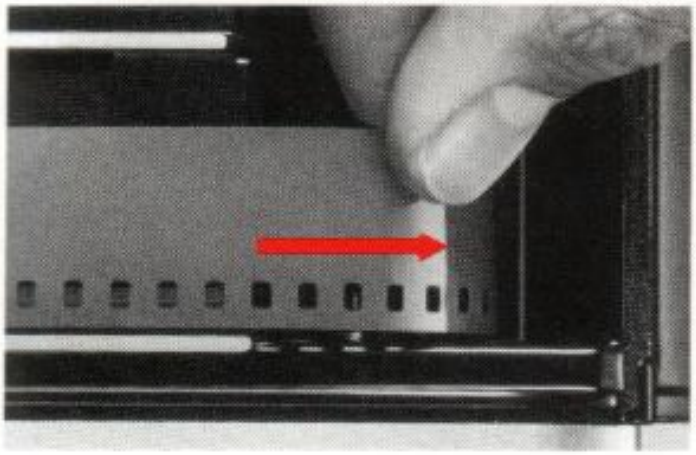
LOADING THE FILM

① Open the camera back.
(Never load or unload the camera in direct sunlight.)

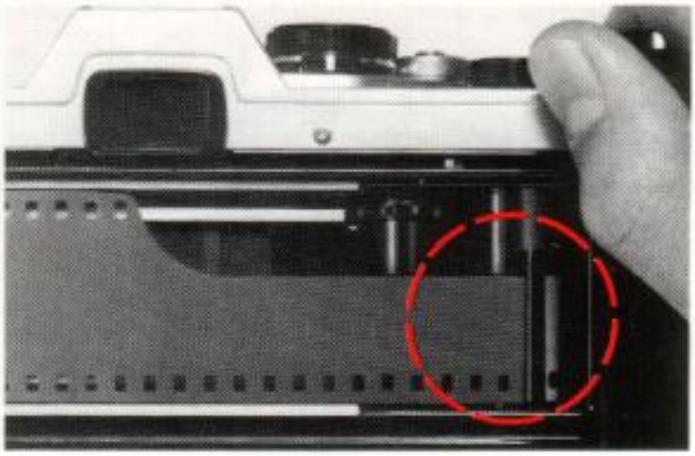


② Load the film.



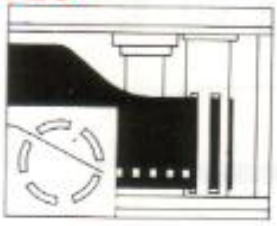


③ Insert the film leader in one of the slots of the take-up spool.

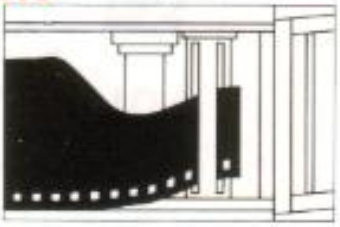


④ The film leader must not be excessively drawn out.

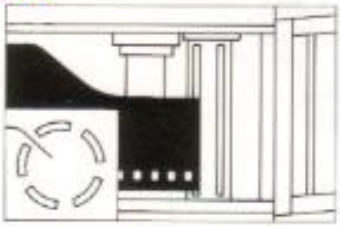
YES



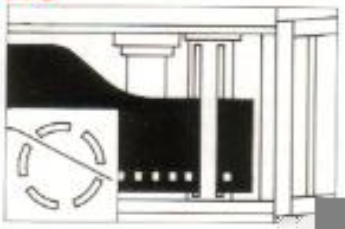
NO (The film leader is twisted.)

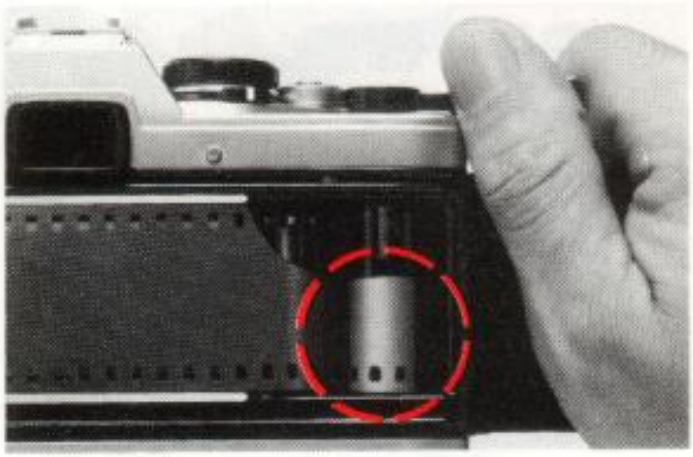


NO (The film leader does not enter completely.)

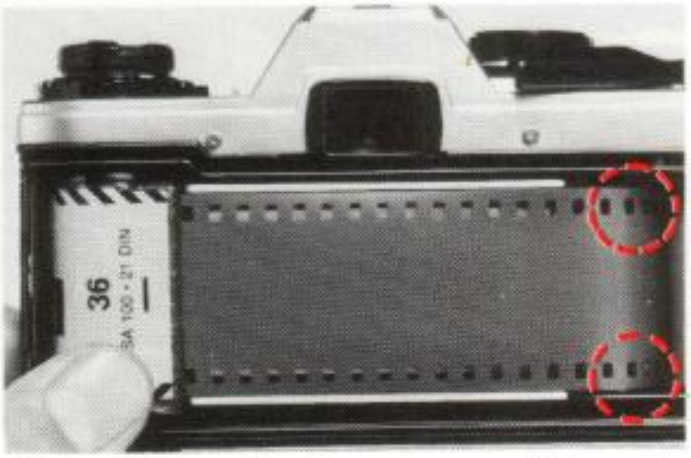


NO (The film leader is excessively drawn out.)

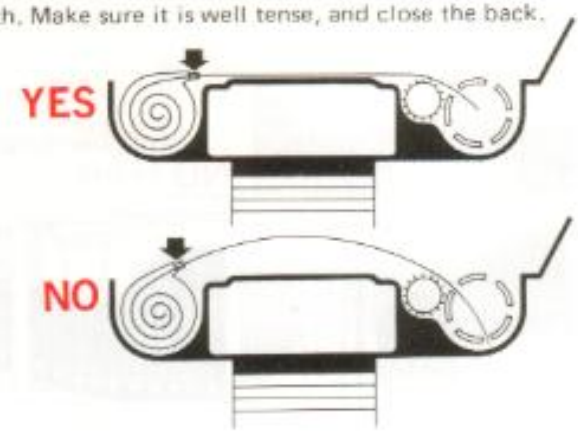


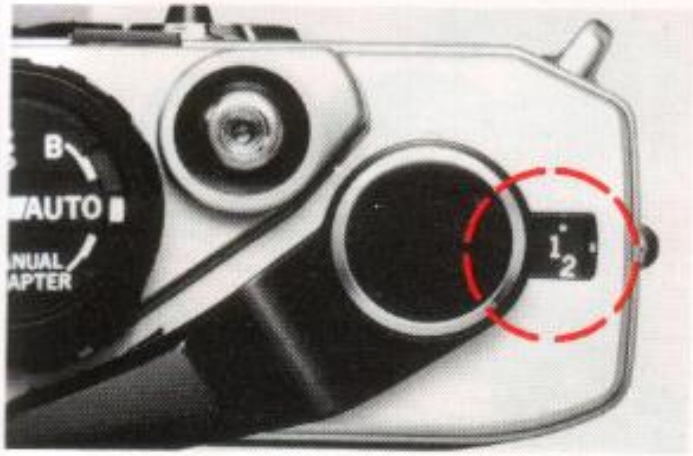


⑤ Wind the film once.

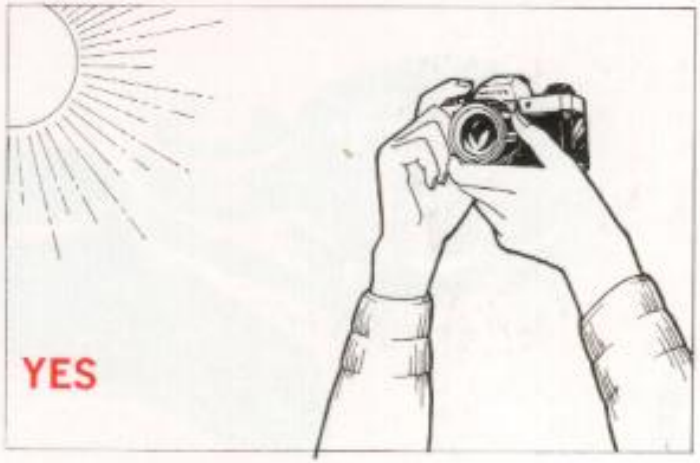


⑥ The perforations of the film must engage with the sprocket teeth. Make sure it is well tense, and close the back.

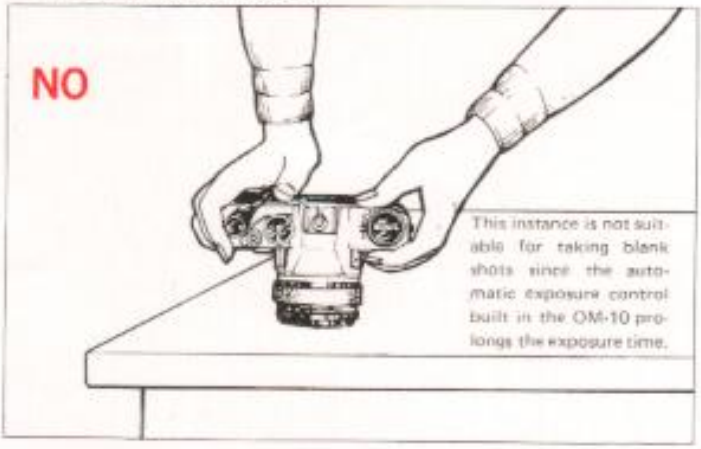




⑦ Take blank shots until the exposure counter shows "1".



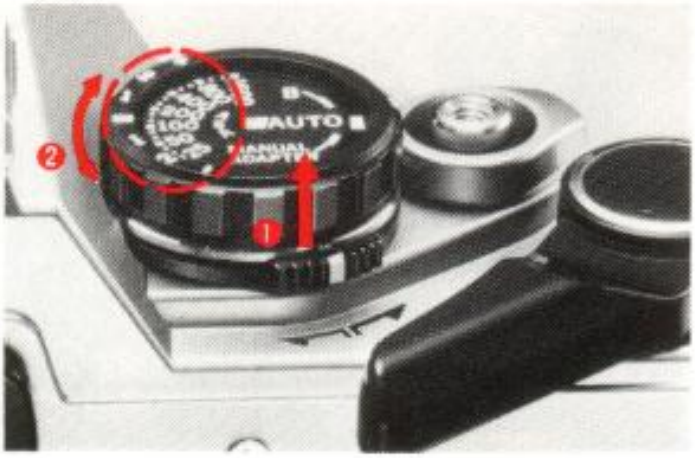
(Ways of taking blank shots)



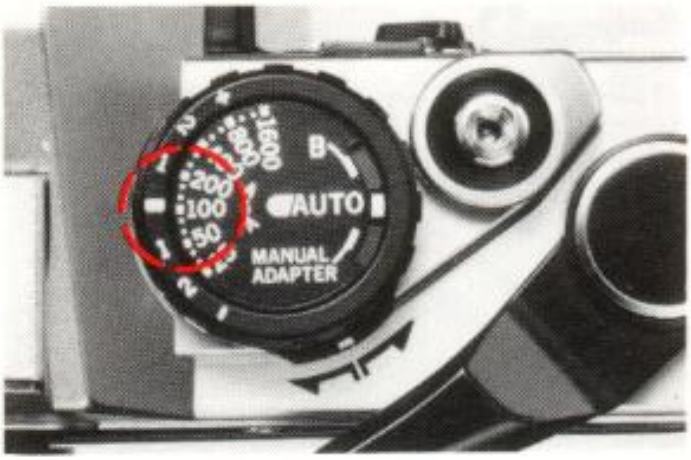
THE WAY TO AUTOMATIC PHOTOGRAPHY

All the problems
of exposure are electronically taken care
by the OM-10.
It is a single lens reflex camera
which can be set for automatic control of exposure,
and when set so taking correctly exposed,
beautiful pictures could not
be simpler.

SETTING THE ASA FILM SPEED



Set the ASA film speed.



(The ASA film speed dial is set at ASA 100.)

SETTING THE APERTURE

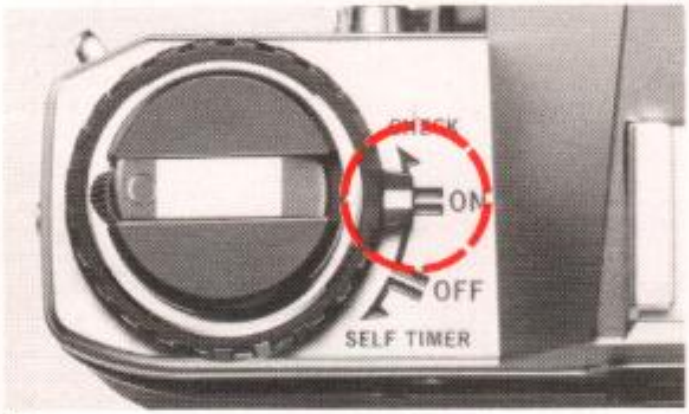
① Set the desired aperture.

(Aperture guideline)

Weather			
F/stop	16	8	4

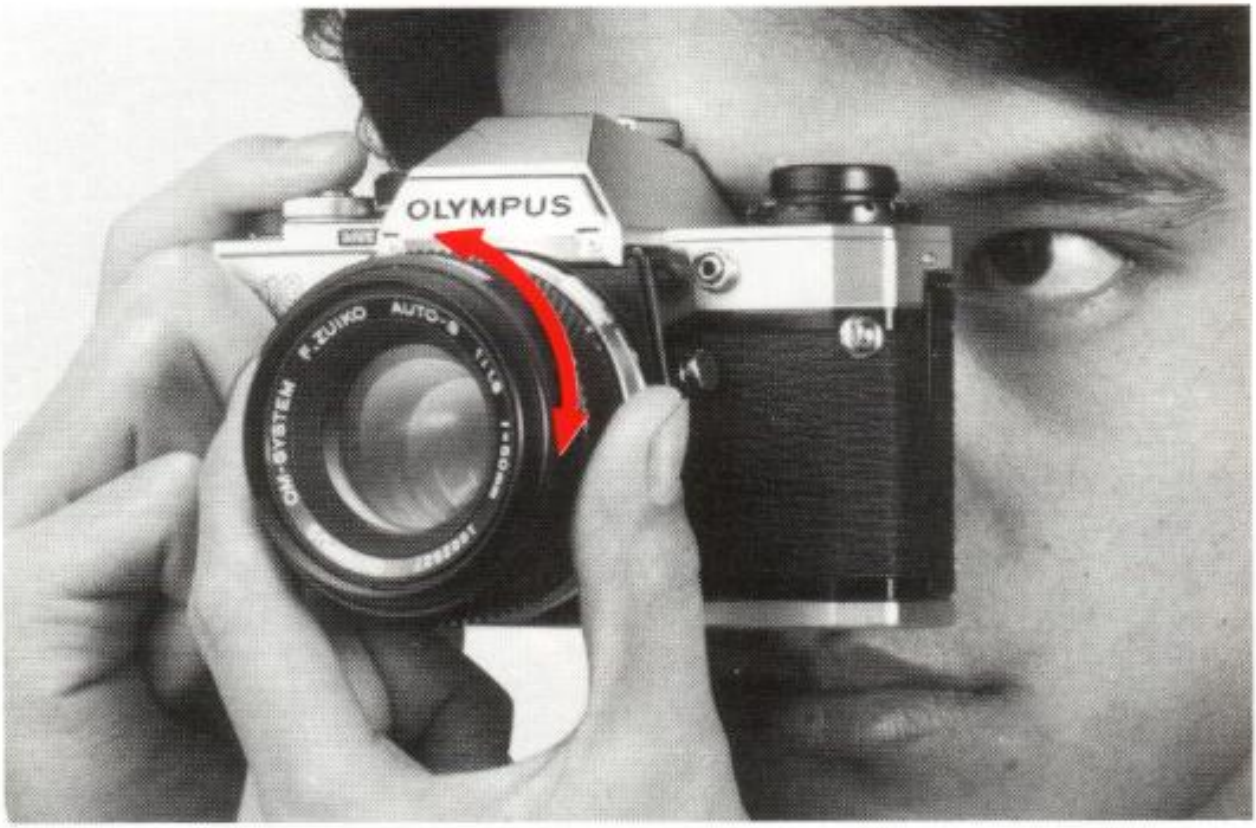
NOTE: To make full use of the aperture ring, read page 27.

② Confirm that the camera is set at the "AUTO" position.

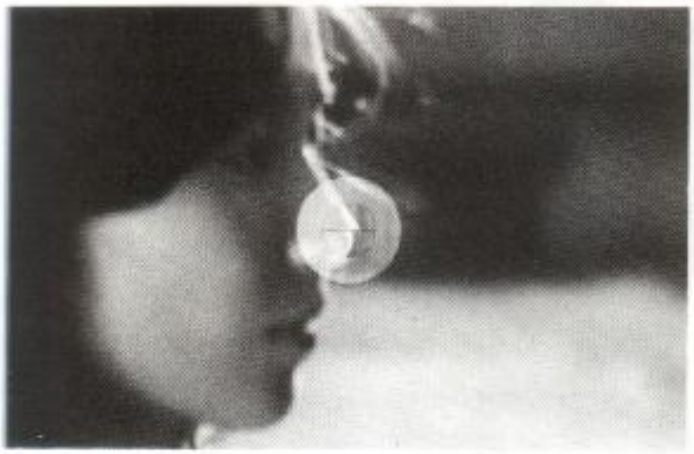


③ Set the selector dial at the "ON" position.

④ The proper shutter speed lights up in the viewfinder.



Focus.



Out of focus.

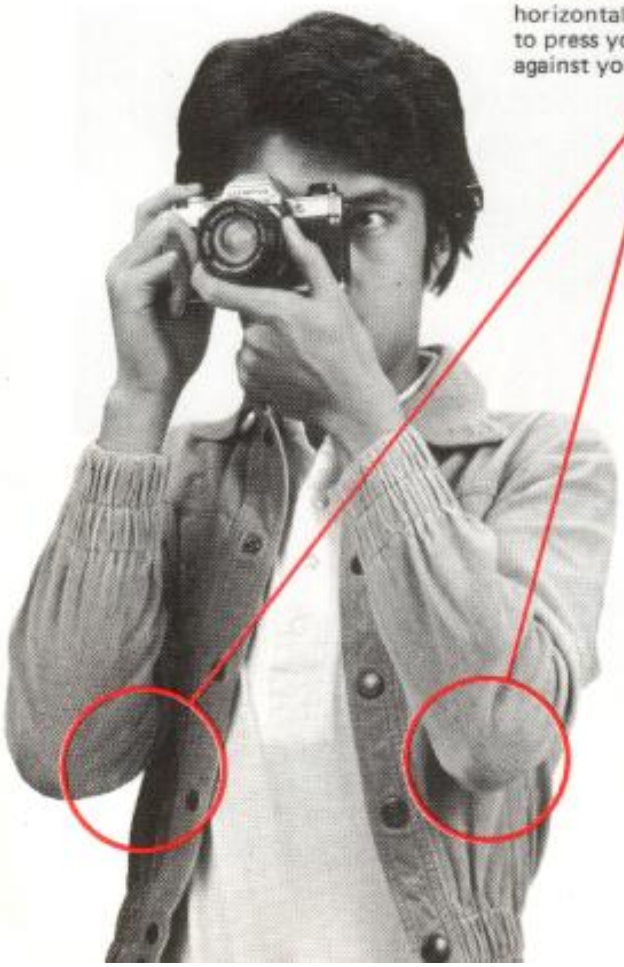
NO

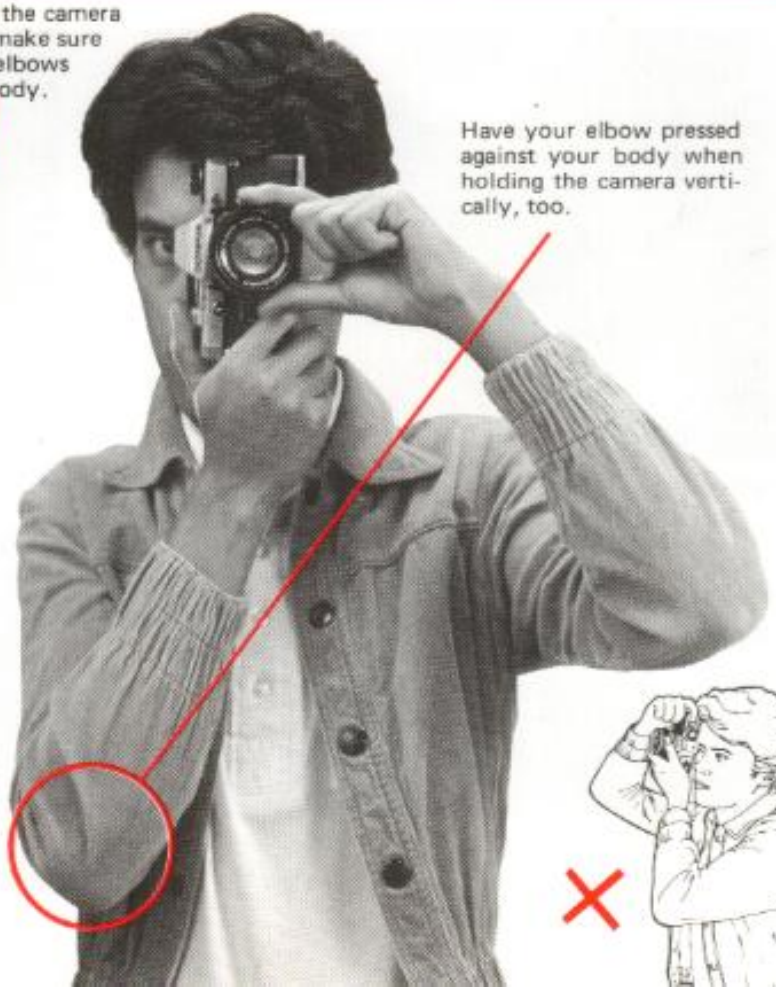
Correct focus.

YES

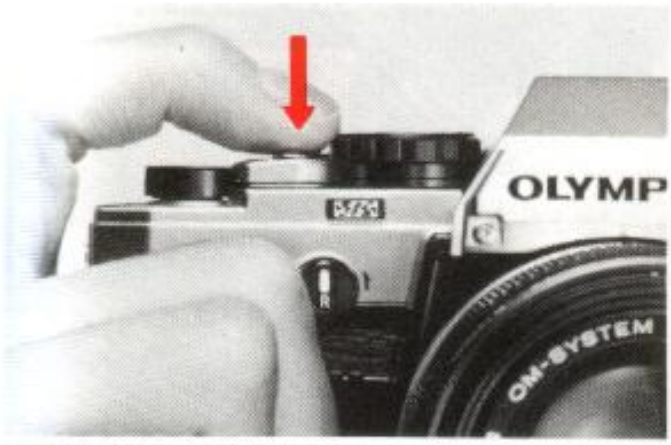
When holding the camera horizontally, make sure to press your elbows against your body.

Have your elbow pressed against your body when holding the camera vertically, too.





THE OM-10: DESIGNED TO SAVE BATTERY CONSUMPTION



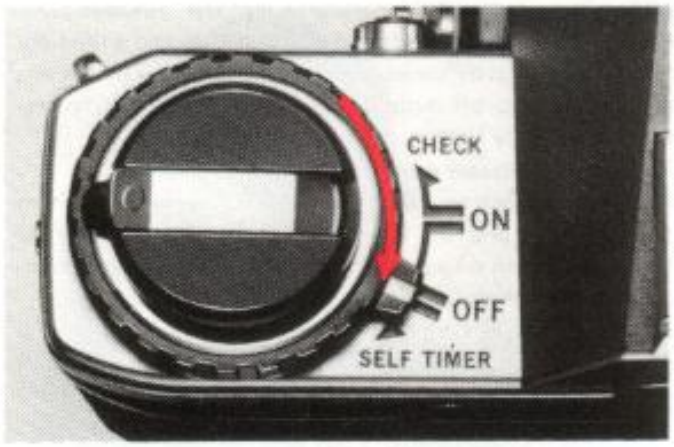
Gently press the shutter release button.

<When the selector dial is turned to the "ON" position ...>
Energy flows from the silver oxide batteries and a light appears by the shutter speed scale in the viewfinder. However, this light will go off automatically after 90 seconds, to prevent unnecessary battery consumption.

<When the activator switch is touched ...>
With a light touch on the activator switch, energy will begin flowing again, and the light which had gone out after 90 seconds will turn on again. This means that it is always possible to verify the shutter speed.

<When the selector dial is set at the "OFF" position ...>
No energy will be supplied to the camera's circuits and the light will not turn on. However, if you forget to turn the selector dial to the "ON" position and suddenly you press the shutter release button, energy will flow only during the time the shutter is open, and properly exposed photographs can be taken. Once the picture is taken, all circuits are disconnected as a safety measure to prevent unnecessary battery consumption.

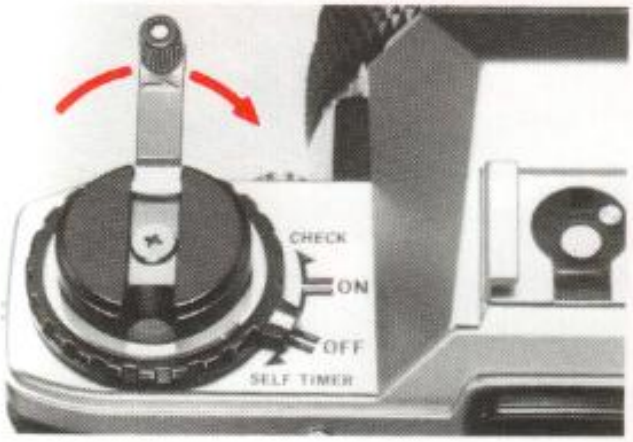
SWITCHING THE CAMERA OFF



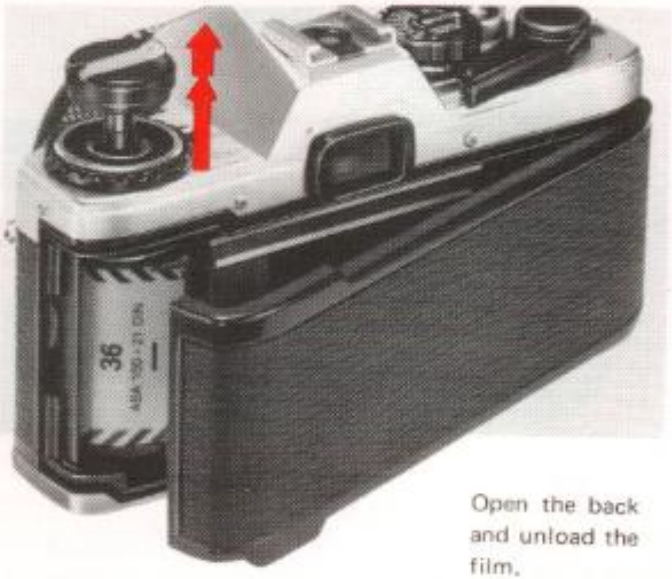
Move the selector dial to the "OFF" position when you are not going to take any more pictures.

REWINDING THE FILM

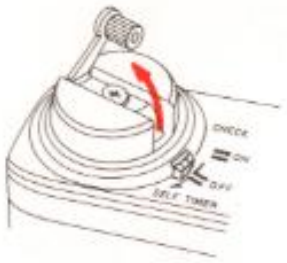
① Turn the rewind release lever when the film ends.



2 Keep rewinding the film until you feel no more resistance.



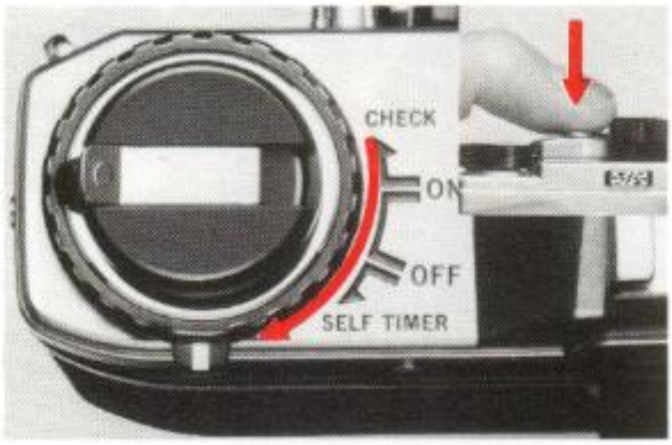
Open the back and unload the film.



PHOTOGRAPHIC TECHNIQUES

The various functions of the OM-10 and the wide variety of lenses, flash, winder, and system accessories which can be used with it allow you to fully master all the techniques which automatic photography can make possible.
We shall devote the following section to some of these photographic techniques.

THE USE OF THE SELF-TIMER



① Click the selector dial to the position "SELF TIMER".
② Press the shutter release button.

③ A beeping sound is heard and the self-timer light blinks. The shutter will be released after about 12 seconds.
④ Return the selector dial to its original position.

CONTROLLING THE EXPOSURE

When taking pictures in a place which is either too dark or too bright, even if you follow the aperture guidelines given on page 17, there will be a tendency to result in whitish photographs (overexposure), or darkened ones (underexposure), or even blurred images. In these circumstances, make full use of the aperture ring in order to control exposure so as to obtain properly exposed photographs.

① When a red light turns on in the red zone at the top of the shutter speed scale in the viewfinder it indicates overexposure.

② In such a case, turn the aperture ring to the higher f-numbers (toward F16) until the light appears within the proper exposure range, and then proceed to take the picture.

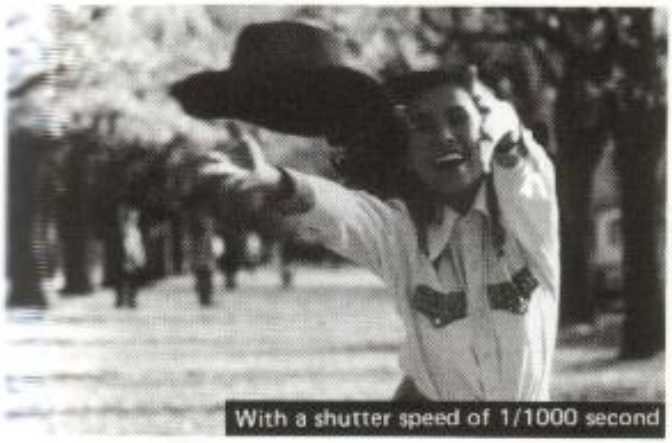
③ When the light appears below "30" (1/30 of a second), blur may easily occur.

④ In this case, use a tripod or turn the aperture ring to the lower f-numbers (toward F1.8) until the light goes higher within a range in which blur is not likely to occur, and then proceed to take the picture.

⑤ When the light appears at "1" (1 sec.), the shutter speed is 1 sec. or longer. In such a case it is recommended to turn the aperture ring to the lower f-numbers within the proper exposure range.


OM-10
OLYMPUS
OM10
QUARTZ
INSTRUCTIONS

PHOTOGRAPHY WITH SHUTTER-SPEED PRIORITY



With a shutter speed of 1/1000 second

When photographing fast moving subjects, there is a marked tendency to obtain a blurred image of the subject. This can be made use of as a technique to give the impression of movement, by intentionally allowing the image to be blurred, while making use of the shutter speed priority function.

With a shutter speed of 1/15 second

Pictures taken with this technique offer an interesting challenge. Turn the aperture ring until the light in the viewfinder appears by the shutter speed value suitable for the photographic situation, and then press the shutter release button.

EXPOSURE COMPENSATION

When shooting against the light, or if the subject is standing before a window, the face tends to appear dark on the image. In this case, use the exposure compensation dial to obtain a correctly exposed photograph.

① Lift the exposure compensation dial and change the film speed set on the dial to the position (+2).
By this means, it is possible to obtain high or low key effects. (+) is for high key (overexposure) and (—) is for low key (underexposure). However it is not possible to obtain the (+) compensation for ASA 1600 or the (—) compensation for ASA 25.

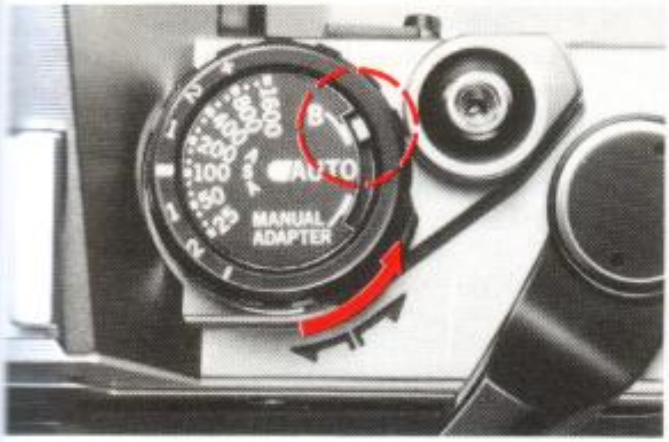
② When you finish taking the picture, return the compensation dial to its original position.

Before compensation

Compensated +2 full stops.

(For example, ASA 100 compensated +2 full stops.)

LONG EXPOSURES



Indoors when it is dark, or when photographing at night, use the "BULB" setting and take the pictures by resorting to long exposures. Of course, blur can easily occur in long exposures so it is recommended to use a tripod and a cable release.

1. Set the mode selector lever to B, and press the shutter release button.
2. The shutter will remain open as long as the shutter button is being pressed.
3. Do not forget to reset at the "AUTO" position after you finish taking pictures.
4. For long exposure photography within 2 sec., however, you can take pictures on AUTO mode.

With a shutter speed of 2 seconds

With a shutter speed of 8 seconds


1000
500
250
125
60
30
15
8
4
2
1

FLASH PHOTOGRAPHY

Electronic Flash T32

Electronic Flash T20

The T32 and T20, electronic flash units specifically designed for OM cameras, provide artificial illumination when you take pictures at night or indoors.

< Characteristics of flash photography using the T32·T20 >

① Mount the Electronic Flash T32 (or T20) on the accessory shoe of the camera. When the ON-OFF switch of the T32 (or T20) is turned on, the normal auto flash control begins working. When turned off, it reverts to the camera's AE photography. It takes but a flick of a finger to change it from one to the other.

② When the ON-OFF switch of the T32 (or T20) is turned on, the shutter speed of the camera is automatically set at 1/60 of a second.

③ It is possible to verify when the flash is ready because a full charge signal lights in the viewfinder.

④ In addition to the charge signal automatically lighting at 1/60 sec. you can refer to the shutter speed indicated by another red light in the viewfinder as required by the available light.

⑤ It is possible to check a correct flash exposure in the viewfinder if the signal light blinks.

(CAUTION)

① If any electronic flash other than the T32 and T20 is used, set the mode selector lever to the "MANUAL ADAPTER" position. (If the mode selector lever is set to "AUTO", the shutter speed responds to available light and may sometimes not synchronize with flash.)

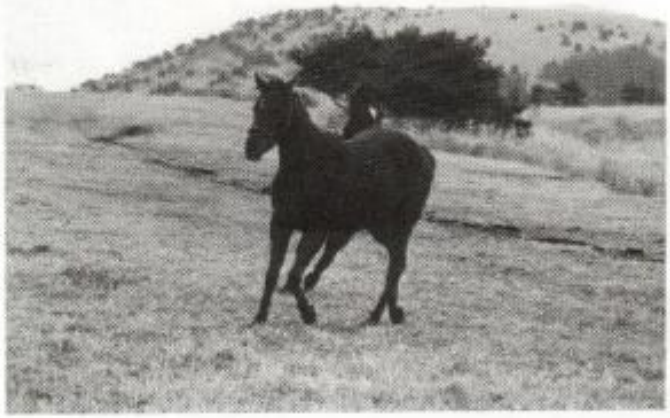
② In this case, the viewfinder does not indicate the full flash charge and correct flash exposure.

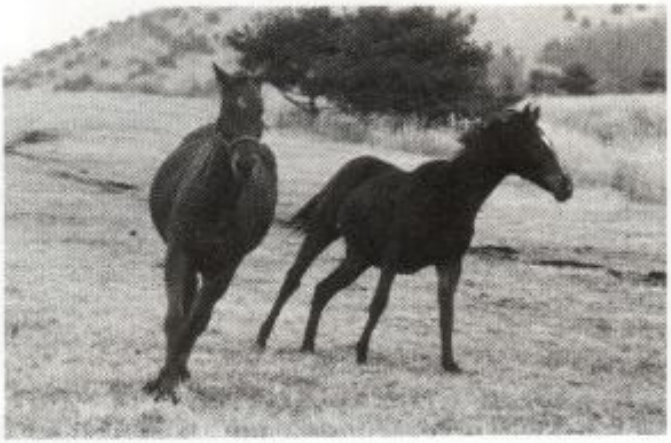
③ For further information, refer to the instruction manual supplied with your electronic flash unit.

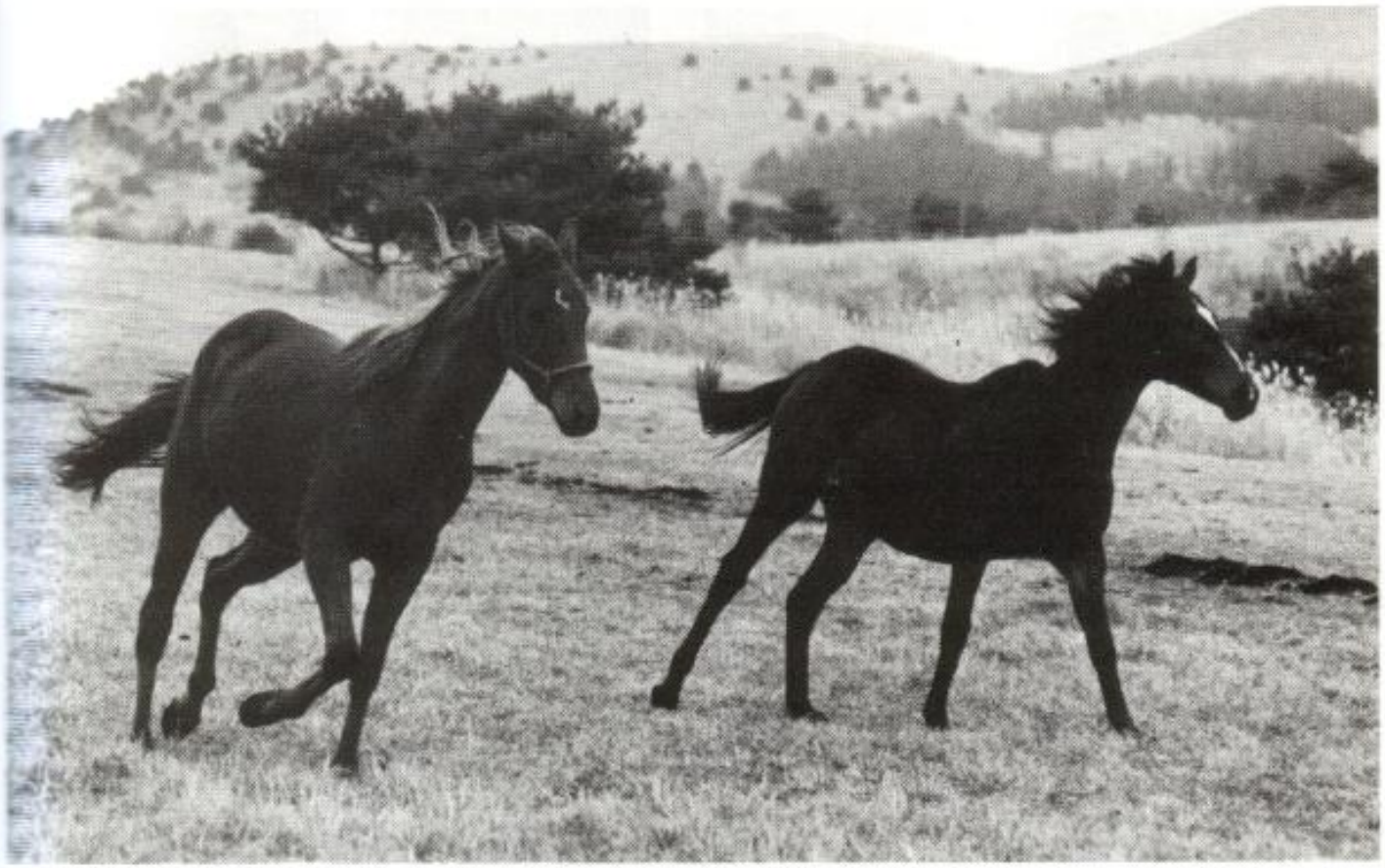
④ If an electronic flash is used while the optional Manual Adapter is attached, set the shutter speed at 1/30 sec. or slower. For details, read the instruction manual supplied with the Manual Adapter.

USING THE WINDER 2

Fast moving subjects, such as in sports, car racing, and the like, make you wish to take pictures at a faster pace.
The time spent winding the film may mean that a great chance is lost. In these cases, an accurate, reliable power winder for automatic film winding can well be the perfect answer, such as the Olympus Winder 2 which can be attached on the OM-10 very simply, and switched to the single or sequence mode photography. On single mode, it can wind film at a rate of 0.3 seconds per frame immediately after exposure, ready for next chance to release the shutter at any moment, and on sequence mode, it can make sequential filming as fast as 2.5 frames per second. It is not possible to use a Motor Drive 1 with the OM-10.







FROM GENERAL PHOTOGRAPHY TO THE USE OF INTERCHANGEABLE LENSES

The main characteristic of the single lens reflex camera is the possibility of using a plurality of different lenses on the same body. From photography with a standard lens to the feeling obtained with a telephoto lens by blurring the background or, on the other hand, by stressing the perspective, giving a special effect to the background by means of a wide angle lens, the world of images which unfolds before you with the OM-10 becomes richer and wider. Olympus Zuiko interchangeable lenses included in the OM System are highly reputed for their sharpness and resolving power. It is a world which the OM-10 will allow you to discover.

Wide angle 28mm

Telephoto 200mm

MAKING USE OF THE DEPTH OF FIELD

When you have a subject in focus, there is a range in the fore and the background which is clearly defined in the picture. This range is called depth of field. The larger the F number becomes, the wider this clearly defined range becomes, and the background becomes sharper. On the contrary, the smaller the F number becomes, this range becomes less wide, while the background loses contrast and out of focus. By using these properties of the depth of field with creativity and imagination, you will be able to take pictures which will have your own personal imprint.

E

INSTRUCTIONS

OLYMPUS OM10

<How to check the depth of field>

① The photograph is focused at a distance of about 4m (13 ft).
② In this case, if the aperture is set at F 4, the range which appears clearly defined will be approximately from 3m (10 ft) to about 4.5m (15 ft).
③ If an F 16 is used, the range will be approximately between about 2m (6.6 ft) and 10m (33 ft).

● When you want to check inside the viewfinder the correct focusing range, it simply requires pressing this preview button.

MANUAL EXPOSURE CONTROL

When the optional Manual Adapter is attached to the OM-10, it is possible to revert to manual exposure control. When photographing fast moving subjects, when there is a possibility of camera shake, or when you want to capture the subject in its natural tones no matter what the illumination behind may be, this accessory proves to be very useful. In order to control exposure in such a way as to obtain special effects to match the photographic situation or your own intentions, you must rely on your own expertise and practice. In photography with manual control of exposure, the mode selector lever must be set at the "MANUAL ADAPTER" position.

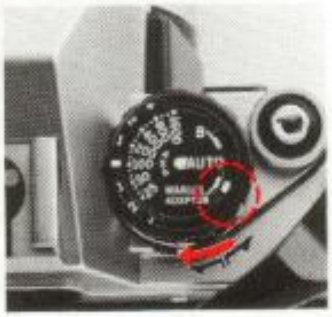


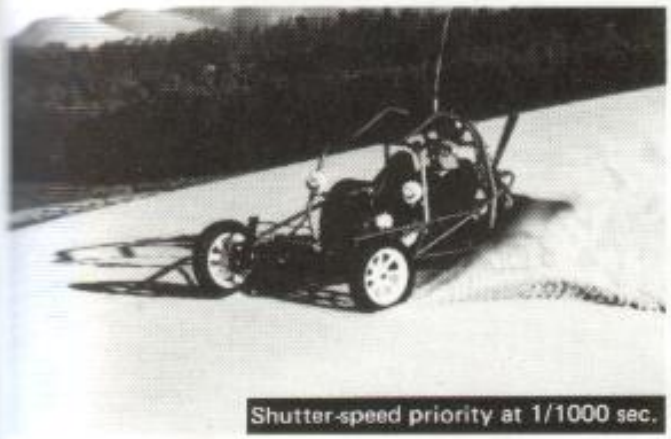
TABLE OF INTERCHANGEABLE LENSES

TYPE	INTERCHANGEABLE LENSES	ANGLE OF VIEW	OPTICAL CONSTRUCTION ELEMENT-GROUP	F-STOP RANGE	MIN. FOCUS (ft.)	WEIGHT (oz.)	LENGTH	FILTER
FISHEYE	ZUIKO FISHEYE 8mm F2.8	180°(circle)	11-7	2.8-22	0.2 m (0.7)	640g(22.6)	82mm	Built-in
	ZUIKO FISHEYE 16mm F3.5	180°	11-8	3.5-22	0.2 m (0.7)	180g (6.3)	31mm	Built-in
SUPER WIDE ANGLE	ZUIKO MC 18mm F3.5	100°	11-9	3.5-16	0.25m (0.8)○	250g (8.8)	42mm	72mm
	ZUIKO MC 21mm F2	92°	11-9	2-16	0.2 m (0.8)○	250g (8.8)	43.5mm	55mm
	ZUIKO 21mm F3.5	92°	7-7	3.5-16	0.2 m (0.7)	180g (6.3)	31mm	49mm
	ZUIKO MC 24mm F2	84°	10-8	2-16	0.25m (0.8)○	280g (9.9)	48mm	55mm
	ZUIKO 24mm F2.8	84°	8-7	2.8-16	0.25m (0.8)	180g (6.3)	31mm	49mm
WIDE ANGLE	ZUIKO MC 28mm F2	75°	9-8	2-16	0.3 m(1.0)○	250g (8.8)	43mm	49mm
	ZUIKO 28mm F3.5	75°	7-7	3.5-16	0.3 m (1.0)	180g (6.3)	31mm	49mm
	ZUIKO MC 35mm F2	63°	8-7	2-16	0.3 m (1.0)	240g (8.5)	42mm	55mm
	ZUIKO 35mm F2.8	63°	7-6	2.8-16	0.3 m (1.0)	180g (6.3)	33mm	49mm
	ZUIKO SHIFT 35mm F2.8	63°(83° at max.shift)	8-7	2.8-22	0.3 m (1.0)	310g(10.9)	58mm	49mm
STANDARD	ZUIKO 55mm F1.2	43°	7-6	1.2-16	0.45m (1.5)	310g(10.9)	47mm	55mm
	ZUIKO MC 50mm F1.4	47°	7-6	1.4-16	0.45m (1.5)	230g (8.1)	39mm	49mm
	ZUIKO 50mm F1.8	47°	6-5	1.8-16	0.45m (1.5)	170g (6.0)	31mm	49mm
	ZUIKO MC MACRO 50mm F3.5	47°	5-4	3.5-22	0.23m (0.8)○	200g (7.1)	40mm	49mm
ZOOM	ZUIKO MC ZOOM 35-70mm F3.6	64°-34°	10-8	3.6-22	0.8 m (2.7)	420g(14.8)	74mm	55mm
	ZUIKO ZOOM 75-150mm F4	32°-16°	15-11	4-22	1.6 m (5.2)	440g(15.5)	115mm	49mm
	ZUIKO MC ZOOM 85-250mm F5	29°-10°	15-11	5-32	2 m (6.0)	890g(31.4)	196mm	55mm
TELEPHOTO	ZUIKO MC 85mm F2	29°	5-4	2-16	0.85m(2.8)○	260g (9.5)	48mm	49mm
	ZUIKO 100mm F2.8	24°	5-5	2.8-22	1 m (3.3)	230g (8.1)	48mm	49mm
	ZUIKO MC 135mm F2.8	18°	5-5	2.8-22	1.5 m (4.9)	360g(12.7)	80mm	55mm
	ZUIKO 135mm F3.5	18°	5-4	3.5-22	1.5 m (4.9)	290g(10.2)	73mm	49mm
	ZUIKO MC 180mm F2.8	14°	5-5	2.8-32	2 m (6.0)	700g(24.7)	124mm	72mm
	ZUIKO MC 200mm F4	12°	5-4	4-32	2.5 m (8.2)	510g(18.0)	127mm	55mm
	ZUIKO 200mm F5	12°	6-5	5-32	2.5 m (8.2)	380g(13.4)	105mm	49mm
SUPER TELEPHOTO	ZUIKO 300mm F4.5	8°	6-4	4.5-32	3.5 m (11.5)	1100g(38.8)	181mm	72mm
	ZUIKO MC 400mm F6.3	6°	5-5	6.3-32	5 m (16.4)	1300g(46.0)	255mm	72mm
	※ ZUIKO MC 600mm F6.5	4°	6-4	6.5-32	11 m (36.1)	2800g(98.8)	377mm	100mm
	※ ZUIKO MC 1000mm F11	2.5°	5-5	11-45	30 m (98.4)	4000g(141.0)	662mm	100mm
SPECIAL USE	ZUIKO MC MACRO 20mm F3.5	9° at highest mag.	4-3	3.5-16	W/Auto Bellows & PM-MT ob	70g (2.5)	20mm	21mm Slide-on
	ZUIKO MC MACRO 38mm F3.5	9° at highest mag.	5-4	3.5-16	W/Auto Bellows & PM-MT ob	90g (3.2)	28mm	32mm Slide-on
	ZUIKO MC 1:1 MACRO 80mm F4	9° at highest mag.	6-4	4-22	W/Auto Bellows	200g (7.1)	46mm	49mm

○ MC stands for multicoating.

※ A picture will be cut off slightly when OM-10 is used with these 600mm and 1000mm lenses.

(Specifications subject to change without notice.)



Shutter-speed priority at 1/1000 sec.

Aperture priority, high keyed

< When shutter-speed priority is advisable >

1 Set the necessary shutter speed in the Manual Adapter.
2 Turn the aperture ring while looking through the viewfinder until the light on the shutter speed scale turns on at the shutter speed which was set in the Manual Adapter. Then, press the shutter release button.

<How to apply aperture priority to your photographic needs>

① Set the aperture as preferred.
② Look through the viewfinder to see the shutter speed which the light indicates, and set that speed in the Manual Adapter. Then, press the shutter release button.
* By intentionally ignoring the indicated shutter speed, and setting a different one in the Manual Adapter it is possible to obtain high key or low key results as desired.

CARE AND STORAGE OF THE CAMERA

General

- Dust and moisture are primary harmful agents affecting your camera. When you do not use the camera, remove it from the case and store in a dry, ventilated place, making sure that the shutter is set free from tension and the selector lever at the OFF position.
- When storing the camera for a long period of time, remove the batteries. Wipe all battery surfaces with a dry cotton cloth before re-inserting them into the camera.
- Avoid dropping or hitting the camera.
- Never store the camera where temperatures exceed 50°C (122°F). When you use the camera in temperatures under −20°C (−4°F), it may sometimes fail to operate properly. To avoid this, warm the camera before use. Protect against excess moisture by using silica gel or other desiccant.
- Generally speaking, a battery voltage may be reduced when an ambient temperature lowers. As the batteries that activate the camera at normal temperature regularly, sometimes fail to in low temperature, it is recommended to use fresh batteries in a cold district.
- Take care of the camera when taking pictures in the rain or snow, especially near sea-water spray, as water drops may easily have a chance to enter the camera through small orifices.
- After use near the ocean, wipe the camera surfaces clean with a soft cloth; never leave salt on the camera. (Salt may be airborne near the ocean and collect on the camera even though it has not been in direct contact with water.)
- Avoid excessive force when mounting on a tripod.
- Never expose the camera to direct sunlight. Avoid areas exposed to salt water, radios, TV sets, or magnets.
- Have all repairs performed by an authorized OLYMPUS Service Center. You may send it directly or through the store where you bought your camera.

Parts

- Do not press the release button at random.
- Do not touch any part that moves at high speed such as the shutter, instant return mirror, diaphragm, etc.
- Avoid touching the surfaces of the lens. Clean only with an air brush, antistatic brush, or wipe it lightly with a camel hair brush or lens tissue. In EXTREME cares, use a clean, soft cotton cloth moistened with denatured alcohol. NEVER rub the lens surfaces with your finger, clothing, or other abrasive material.
- If dust of fingerprints collect on the mirror, focusing screen, or prism, take the camera to an authorized OLYMPUS Service Center. It needs professional attention.

QUESTIONS AND ANSWERS

Q : I can neither release the shutter even by pressing the shutter release button, nor advance the film. Why?

A : Because no batteries are loaded. Load fresh batteries.

Q : Why is the field of view dark and the image obscure?

A : Because the batteries are exhausted. Replace them.

Q : Why can't I move the film advance lever?

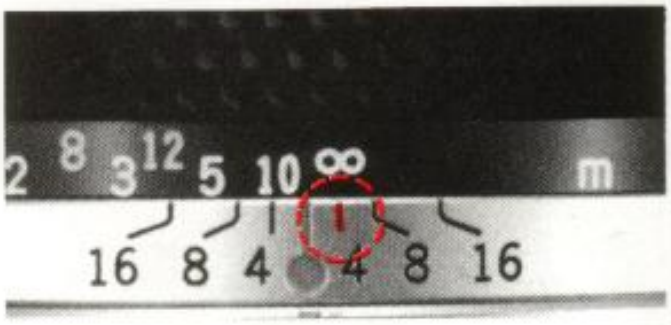
A : The self-timer may be set, or the shutter release may be cocked and ready but it has not been pressed yet. If you press the shutter release button, film will advance to the next frame. Has the film reached its end? Check the exposure counter and, if it shows that the film has ended, rewind the film. Are the silver oxide batteries charged? Check the batteries, and if you hear the beeping sound and see the red light flashing, but cannot move the lever, take your camera to an authorized OLYMPUS Service Center.

Q : Why doesn't the rewind knob rotate when I try to advance the film?

A : The film leader is not properly engaged on the film take-up spool. Insert the film leader again.

Q : Why won't the rewind crank turn?

A : Set the rewind release lever once more in the direction of the arrow, and the problem will be solved.



Q : Is infrared photography also possible with the OM-10?

A : Yes, it is if you use the manual adapter and set the mode selector lever to the MANUAL ADAPTER position. Then, take the following steps: ① Focus without a filter. ② Move the focusing ring to coincide with the infrared mark. Mount a filter for infrared photography, and proceed to take the picture. (Photo above: Taken with the subject distance set at infinity.)

Q : When should I check the batteries?

A : ① When new batteries are inserted.
② After the camera has been stored for a long time.
③ When you think batteries may be exhausted. (The life of silver oxide batteries is approximately one year.)
④ When the temperature is extremely low.

Q : **I pressed the shutter release button with the selector dial at the "OFF" position. Will the photograph be properly exposed?**

A : Even at the "OFF" position, the camera's circuits will be activated for a proper exposure. Recommended to develop the film and see.

Q : **When set at the "AUTO" position, the actual shutter speed is much slower than the one indicated in the viewfinder. Why does this happen?**

A : If film is not loaded or the film surface is not properly positioned behind the shutter, the shutter speed will be slower than that indicated in the viewfinder.

Q : **What batteries should I use?**

A : Use two 1.5V silver oxide batteries SR44 (Eveready (or UCAR) EPX-76 or equivalents). Batteries of a different type (1.3V mercury batteries) cannot be used, though they may be of the same size.

Q : **A shadow appears darkening the central area of the viewfinder. Why does this happen?**

A : This is quite usual when a lens with a maximum aperture smaller than F5 is mounted on the camera, and the preview button is pressed with the diaphragm closed down beyond F5. There is nothing wrong with the microprism.

Q : **If I return the selector lever to the ON position, while the self-timer in operation, what will become of the shutter?**

A : The shutter will be released. After the use of the self-timer, make it a point to return the selector lever to original position.

Q : **While I was operating the Winder 1, the light in the viewfinder went out ... why?**

A : The light goes out in 90 sec. even the selector lever is ON, in order to save the batteries from unnecessary consumption. Touch the activator switch lightly, and the light is on again.

MAIN SPECIFICATIONS

Camera type:	35mm SLR single lens reflex camera with electronic control automatic exposure and focal plane shutter.
Image format:	24 x 36mm.
Lens mount:	Olympus OM Mount, bayonet type.
Shutter:	Electronically controlled focal plane shutter.
Flash synchronization:	X contact. Direct contact only.
Automatic exposure control:	Aperture-priority electronically controlled shutter. TTL direct light measuring system. Light measuring range: EV -0.5 to 18 from 2 sec. to 1/1000 sec. at normal temperatures and humidity with ASA 100 and F1.2 standard lens. Exposure compensation : ± 2 EV. Automatic flash exposure: Normal auto flash (at 2 aperture settings F4 and F8 with ASA 100 film) is automatically set to X synch. (1/60 sec.) in conjunction with the electronic flash T20.
Manual exposure control:	The optional Manual Adapter attached to the OM-10 permits a full range of 11 manual shutter speeds. (1 to 1/1,000 sec.) By setting the mode selector lever to the manual mode, the shutter speed can be set to 1/60 sec.
Film speed range:	ASA 25 to 1600.
Battery checker:	Battery voltage can be checked by both LED and PCV. Mirror lock to limit drainage.
Power source:	Two 1.5V silver oxide batteries SR 44 (Eveready EPX-76 or equivalents).
Viewfinder:	Pentaprism type.
Focusing screen:	Microprism/split image-matte type.
Finder View-field:	93% of actual picture field.
Viewfinder magnification:	0.92X with the 50mm lens at infinity.
Viewfinder information:	12-step shutter speed scale and flash charge indicated by LEDs.
Mirror:	Oversize, quick return mirror.
Film advance:	Lever type with 130° angle. It can be wound with one long or several short strokes. 30° pre-advance angle. Power winding is possible with the Olympus OM System Winder 2.
Self-timer:	Electronic self-timer with about 12 second delay.
Accessory shoe:	Built-in type, with direct contact.
Dimensions and weights:	Body only: 135(W) x 84(H) x 50(D) mm (5.3" x 3.3" x 2") 450gr. (15.9 oz) With F 1.8 lens: 135(W) x 84(H) x 81 (D)mm (5.3" x 3.3" x 3.2") 620gr. (21.9 oz) With F1.4 lens: 135(W) x 84(H) x 86 (D)mm (5.3" x 3.3" x 3.4") 680gr. (24 oz)

(Specifications subject to change without notice.)

OLYMPUS
OM-10
REPAIR MANUAL

OLYMPUS OPTICAL CO., LTD. TOKYO, JAPAN

OLYMPUS
OM-10
REPAIR MANUAL

OLYMPUS OPTICAL CO., LTD. TOKYO, JAPAN

PARTS LIST

AND

EXPLODED PARTS DIAGRAM

PARTS NO.	NAME OF PARTS	NOTE	(Q'ty used/ per unit
ZJ132600	MINI JACK ASS'Y	1 - D2	(1)
ZJ132700	BOTTOM PLATE	Not on sale 1 - D4	(1)
ZJ132800	INSULATION WASHER ASS'Y	1 - B1	(1)
ZJ132900	FPC-3 ASS'Y	1 - B2	(1)
ZJ133000	BUTTON WASHER ASS'Y	1 - B1	(1)
ZJ133100	A KNOB ASS'Y	1 - B1	(1)
ZJ136100	F BOARD ASS'Y	Lead wire orange 6 - D3	(1/5)
ZJ136200	F BOARD ASS'Y	Lead wire blue 6 - D3	(1/5)
ZJ136300	F BOARD ASS'Y	Lead wire red 6 - D3	(1/5)
ZJ136400	F BOARD ASS'Y	Lead wire green 6 - D3	(1/5)
ZJ136500	F BOARD ASS'Y	Lead wire black 6 - D3	(1/5)
ZJ136600	A BOARD ASS'Y	Lead wire orange 7 - A2	(1/5)
ZJ136700	A BOARD ASS'Y	Lead wire blue 7 - A2	(1/5)
JZ136800	A BOARD ASS'Y	Lead wire red 7 - A2	(1/5)
ZJ136900	A BOARD ASS'Y	Lead wire green 7 - A2	(1/5)
ZJ137000	A BAORD ASS'Y	Lead wire black 7 - A2	(1/5)

PUK1.4 x 1SN	SCREW
PUK1.4 x 1.2SN	SCREW
PUK1.4 x 1.4SN	SCREW
PUK1.4 x 1.6SN	SCREW
PUK1.4 x 1.8SN	SCREW
PUK1.4 x 3SN	SCREW
PUK1.4 - 305SN	SCREW
PUK1.4 - 605SN	SCREW
PUK1.7 x 1.3SN	SCREW
PUK1.7 x 1.5SN	SCREW
PUK1.7 x 2.2SN	SCREW
PUK1.7 x 3SN	SCREW
PUK1.7 x 3.5SN	SCREW
PUK1.7 x 4SN	SCREW
PUK1.7 x 4SB	SCREW
PUK1.7 - 308SN	SCREW
PUK1.7 - 410SB	SCREW
PUK1.7 - 410SG	SCREW
PUK1.7 - 416SG	SCREW
PUK1.7 - 512SN	SCREW
PUK1.7 - 516SN	SCREW
PUK2 x 1.8SN	SCREW
PUK2 x 2SN	SCREW
PUK2 x 2.2SN	SCREW
PUK2 x 2.5SN	SCREW
PUK2 x 3SN	SCREW
PUK2 x 4.5BO	SCREW
3PUK1.4 x 1.8SN	SCREW
3PUK14. x 2.5SN	SCREW
3PUK1.4 x 4.5SN	SCREW
3PUK1.7 x 1.8SN	SCREW
3PUK1.7 x 2.8SN	SCREW
3PUK1.7 x 3.5SN	SCREW

PSK1.4 x 2SN	SCREW
PSK1.4 x 2SB	SCREW
PSK2 x 2.2SN	SCREW
PSK2 x 2.8SN	SCREW
PSK2 x 3SN	SCREW
PSK2 x 4SE	SCREW
PUTB1.4 x 3SN	SCREW
PUTB1.7 x 3SN	SCREW
PUTB2 x 3SN	SCREW
NW1.4 - 3340O	WASHER
NW1.4 - 3400O	WASHER
NW15. - 4250O	WASHER
NW2.1 - 2400O	WASHER
NW2.2 - 4340O	WASHER
NW6 - 280PB	WASHER
NW6 - 380PB	WASHER
ER1.2	
ER1.6	
NN1.4BN	
B 1	BALL

PARTS NO.	NAME OF PARTS	NOTE	(Q'ty used/ per unit)
ZC200300	FPC-1 ASS'Y	2 - D2, 7 - A1	(1)
ZC200500	REAR COVER ASS'Y	1 - A3	(1)
ZC200600	FW BASE ASS'Y	2 - C1	(1)
ZC200800	RELEASE PLATE ASS'Y	3 - D4	(1)
ZC201000	IDLER ASS'Y	2 - B3	(1)
ZC201200	KEY PLATE ASS'Y	1 - D3	(1)
ZC201400	U GUIDE ASS'Y	4 - B2	(1)
ZC201500	L GUIDE ASS'Y	4 - B2	(1)
ZC201600	SW 2 ASS'Y	5 - C3	(1)
ZC201700	2 GEAR SHAFT ASS'Y	3 - C1	(1)
ZC201800	A PINCH ASS'Y	5 - B2	(1)
ZC202100	FRAME ASS'Y	4 - D3	(1)
ZC202200	R CLAW A1 ASS'Y	No.1 L 7.8 5 - C1	(1/5)
ZC202300	R CLAW A2 ASS'Y	No.2 L 8.1 5 - C1	(1/5)
ZC202400	R CLAW A3 ASS'Y	No.3 L 8.4 5 - C1	(1/5)
ZC202500	R CLAW A4 ASS'Y	No.4 L 7.95 5 - C1	(1/5)
ZC202600	R CLAW A5 ASS'Y	No.5 L 8.25 5 - C1	(1/5)
ZC202700	K KNOB ASS'Y	2 - C1	(1)
ZC205100	SIDE PLATE R ASS'Y	8 - B3	(1)
ZC207200	WINDING LEVER ASS'Y	1 - A2	(1)
ZC207300	BUTTON ASS'Y	1 - B2	(1)
ZC207500	R LEVER ASS'Y	1 - D1	(1)
ZC207900	A HOLDER ASS'Y	7 - B2	(1)
ZC208000	SW BASE PLATE ASS'Y	3 - A3	(1)
ZC208100	F MASK ASS'Y	7 - C3	(1)
ZC208200	S FRAME ASS'Y	7 - B2	(1)
ZC208300	R KNOB ASS'Y	1 - D1	(1)
ZC208400	COVER PLATE ASS'Y	2 - D2	(1)
ZC208500	R CHANGE ASS'Y	1 - D1	(1)
ZJ128400	M BASE PLATE ASS'Y	8 - C1	(1)
ZJ130400	SIDE PLATE L ASS'Y	8 - C3	(1)
ZJ130600	CONNECTING RING ASS'Y	6 - B3	(1)
ZJ130700	SPRING HOLDER ASS'Y	6 - A2	(1)
ZJ130800	R SPRING ASS'Y	6 - B1	(1)
ZJ130900	M FRAME ASS'Y	8 - B2	(1)
ZJ131000	FRONT CASTING ASS'Y	6 - C2, 8 - B3	(1)
ZJ131100	MS BASE PLATE ASS'Y	6 - C1	(1)
ZJ131200	LED ASS'Y	6 - A1	(1)
ZJ131300	CC SHAFT ASS'Y	3 - C4	(1)
ZJ131400	CELL CASE ASS'Y	4 - A3	(1)
ZJ131500	SPOOL GEAR ASS'Y	2 - B2	(1)
ZJ131600	WINDING CLAW ASS'Y	2 - C1	(1)
ZJ131700	WINDING GEAR 1 ASS'Y	Diameter: < ZJ1318 2-C2	(1/2)
ZJ131800	WINDING GEAR 12 ASS'Y	Diameter: > ZJ1317 2-C2	(1/2)
ZJ131900	SP SHAFT ASS'Y	Diameter: < ZJ1320 3-B4	(1/2)
ZJ132000	SP SHAFT ASS'Y	Diameter: > ZJ1319 3-B4	(1/2)
ZJ132100	MG BASE ASS'Y	5 - D3	(1)
ZJ132200	TR PLATE ASS'Y	5 - C2	(1)
ZJ132300	S BASE PLATE ASS'Y	5 - B3	(1)
ZJ132400	CURTAIN J ASS'Y	4 - B1	(1)
ZJ132500	L BASE ASS'Y	2 - D2	(1)

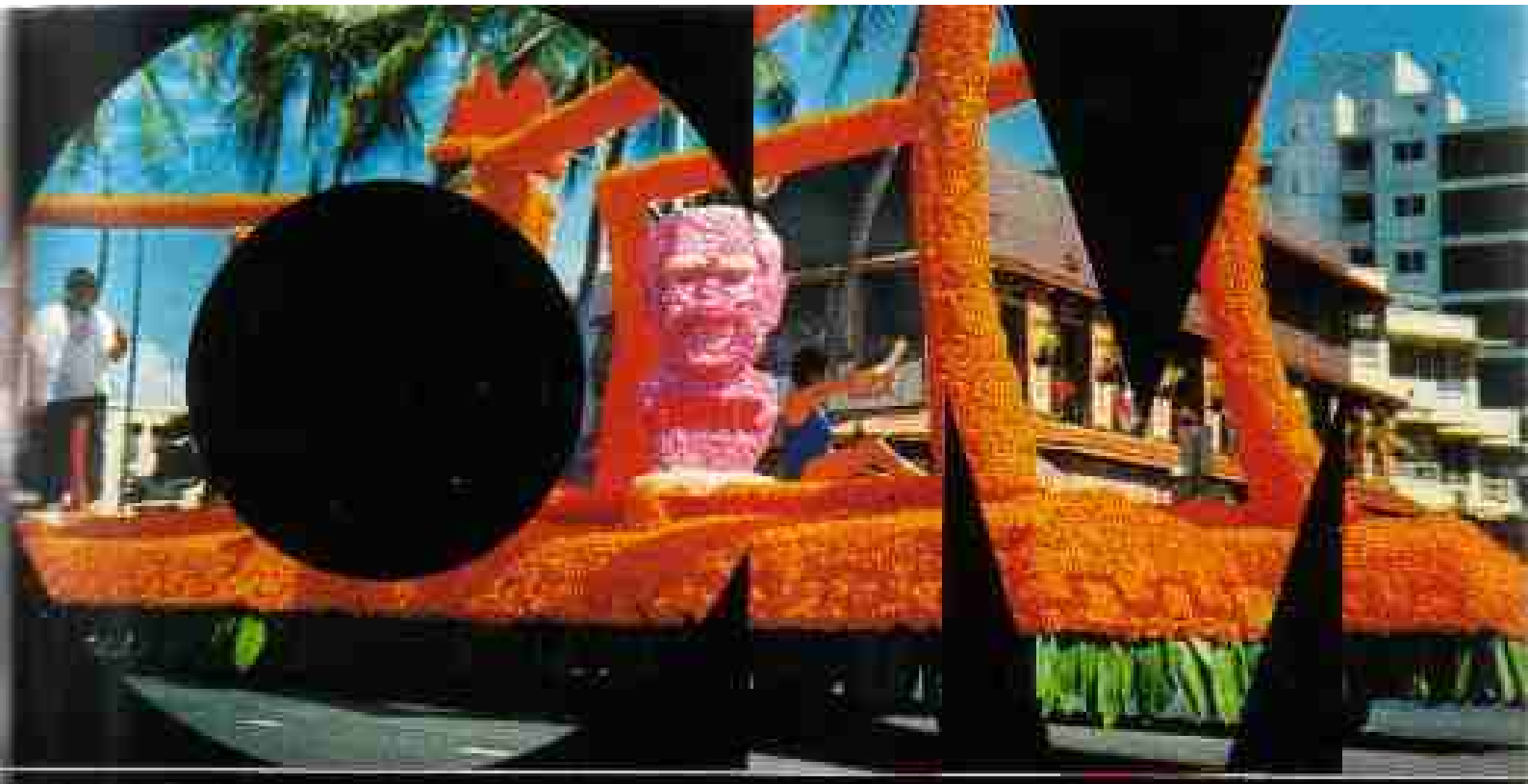
PARTS NO.	NAME OF PARTS	NOTE	(Q'ty used/ per unit
DS8003	V. RESISTOR	RV103	(1)
DS8004	V. RESISTOR	RV203, 204, 205	(3)
KS0033	CONDENSER	C101	(1/4)
KS0034	CONDENSER	C101	(1/4)
KS0035	CONDENSER	C101 0.1μF 35V TANTALUM	(1/4)
KS0036	CONDENSER	C102, C204 3.3μF 6.3V TANTALUM	(2)
KS0037	CONDENSER	C103 6800pF 50V CERRAMIC	(1)
KS0038	CONDENSER	C104 1.5μF 6.3V TANTALUM	(1)
KS0039	CONDENSER	C105, C201 0.022μF TANTALUM	(2)
KS0040	CONDENSER	C202 10μF TANTALUM	(1)
KS0041	CONDENSER	C203 1000pF CERRAMIC TIP	(1)
KS0056	CONDENSER	C101	(1/4)
RS0120	RESISTOR	R201 C.1MΩ 1/8W	(1)
RS0121	RESISTOR	R202, R203 C.10MΩ 1/16W	(2)
RS0122	RESISTOR	R204 C.330KΩ 1/8W	(1)
RS0123	RESISTOR	R205 C.180KΩ 1/8W	(1)
RS0124	RESISTOR	R105 C.160Ω 1/8W	(1)
RBJ-A	LEAD WIRE (BLUE)	Length: 10m	
RBJ-B	LEAD WIRE (BLACK)	Length: 10m	
RBJ-C	LEAD WIRE (BROWN)	Length: 10m	
RBJ-D	LEAD WIRE (ORANGE)	Length: 10m	
RBJ-G	LEAD WIRE (GREEN)	Length: 10m	
RBJ-M	LEAD WIRE (VIOLET)	Length: 10m	
RBJ-R	LEAD WIRE (RED)	Length: 10m	
RBJ-W	LEAD WIRE (WHITE)	Length: 10m	
RBJ-Y	LEAD WIRE (YELLOW)	Length: 10m	
TBJ-Y	TUBE (YELLOW)	Inside diameter: 0.7φ length: 5m	
TXJ-Y	TUBE (YELLOW)	Inside diameter: 1.0φ length: 5m	
TE-N	TUBE	Inside diameter: 3.0φ length: 5m	
ZC102700	4 GEAR ASS'Y	3 - B2	(1)
ZC102900	KS LEVER ASS'Y	3 - B2	(1)
ZC103000	3 GEAR ASS'Y	3 - C2	(1)
ZC104100	KM LEVER ASS'Y	3 - A1	(1)
ZC106700	M CHARGE LEVER ASS'Y	8 - C2	(1)
ZC107800	EYE PIECE ASS'Y	7 - C2	(1)
ZC133200	B PINCH ASS'Y	5 - A2	(1)
ZC135500	SIDE PLATE L ASS'Y	8 - C3	(1)
ZC137300	KL PLATE 3 ASS'Y	Pin 1.4φ 3 - A1	(1/2)
ZC137400	KL PLATE 3 ASS'Y	Pin 1.8φ 3 - A1	(1/2)
ZC138400	M LEVER ASS'Y	8 - C1	(1)
ZC161000	FX BASE ASS'Y	5 - C3	(1)
ZC162600	DIAPHRAGM LEVER ASS'Y	8 - B2	(1)
ZC164100	PRESSURE PLATE ASS'Y	1 - A2	(1/5)
ZC168900	LEVER ASS'Y	5 - C1	(1)
ZC182700	PRESSURE PLATE 4 ASS'Y	1 - A3	(1/5)
ZC182800	PRESSURE PLATE 5 ASS'Y	1 - A3	(1/5)
ZC182900	PRESSURE PLATE 6 ASS'Y	1 - A3	(1/5)
ZC183000	PRESSURE PLATE 7 ASS'Y	1 - A3	(1/5)
ZC200200	TOP COVER ASS'Y	1 - A2	(1)

PARTS NO.	NAME OF PARTS	NOTE	(Q'ty used/ per unit
CE250800	L INSULATOR	7 - A1	(1)
CE250900	U. MOLT	6 - D2	(1)
CE251100	MS TUBE	8 - C2	(1)
CE251400	MF INSULATOR	6 - B1	(1)
CE251500	LIGHTPROOF	8 - A2	(1)
CE251600	F INSULATOR	6 - B1	(1)
CE251700	F CONTACT	6 - B1	(1)
CE251800	M LEVER SHAFT	8 - C1	(1)
CE251900	SW TUBE	6 - B1	(2)
CE252600	L. COVER	6 - D2	(1)
CE252700	PC INSULATOR	6 - A1	(1)
CE253000	RIGHT SIDE COVER	8 - B3	(1)
CE253100	C COVER 2	7 - C2	(1)
CE253200	L COVER	6 - A2	(1)
CE253300	P FASTENER	7 - C2	(1)
CE253400	P FRAME	7 - C2	(1)
CE253500	F FASTENER	6 - D2	(1)
CE253600	F FASTENER 2	6 - C1	(1)
CE253700	F WASHER	t 0.2 7 - C3	(1/3)
CE253900	PC COVER	6 - A2	(1)
CE254500	FRONT COVER	6 - C3	(1)
CE254600	B MOUNT	6 - D3	(1)
CE254700	P COVER	7 - C2	(1)
CE254800	F WASHER 10	t 0.1 7 - C3	(1/3)
CE254900	F WASHER 35	t 0.35 7 - C3	(1/3)
CE255000	L MASK	7 - A2	(1)
CE255100	F COVER WASHER	6 - C2	(4)
CE260200	M STOPPER	8 - A3	(1)
CE260300	SPRING	8 - A3	(1)
CE260400	STOPPER SHAFT	8 - A3	(1)
CE261500	CUSHION	8 - A2	(1)
CE261600	45 RUBBER	8 - A2	(1)
CE261800	45 PLATE	8 - A3	(1)
CE261900	45 SCREW	8 - A3	(1)
CE262200	ML SPRING	8 - A3	(1)
CE262300	K STOPPER PLATE	8 - B3	(1)
LC408600	PENTAPRISM	7 - C2	(1)
LC409000	MIRROR (IM)	8 - B2	(1)
LC409100	M SPLIT	7 - C3	(1)
SC0155	B THREAD	Length 10m 6 - A3	(1)
SC0156	CLIP 15	8 - B3	(1)
SC0157	CLIP 20	2 - B3	(1)
SC0158	MR 90	1 - D1	(1)
ES1008	DIODE	D101 1SS53	(1)
ES5010	CdS CELL	P201	(1)
ES7001	PCV	SP101 7PB-206A	(1)

PARTS NO.	NAME OF PARTS	NOTE	(Q'ty used/ per unit)
CE212100	KEY COVER	1 - D3	(1)
CE212700	SPRING	4 - A4	(1)
CE212800	COVER	1 - B4	(1)
CE213100	BLACK TAPE	2 - B3	(2)
CE213300	STRAP EYELET	1 - D3	(1)
CE213400	SP 18	1 - C3	(1)
CE213500	LIGHT PROOF TAPE	2 - C3	(1)
CE214000	P LIGHT PROOF	1 - B3	(2)
CE214100	CELL BASE	4 - A4	(1)
CE220100	CC LEAD	3 - C4	(1)
CE220200	SPRING	3 - C3	(1)
CE220300	SPRING	3 - C4	(1)
CE220500	CC CAM HOLDER	3 - C2	(1)
CE221600	M RELEASE	5 - C3	(1)
CE222700	ME GUIDE	3 - C1	(1)
CE223100	TUBE	3 - A2	(1)
CE230300	T INSULATOR	2 - D2	(1)
CE230400	T TAPE	2 - C2	(1)
CE231400	L FRAME	7 - A1	(1)
CE232100	FPC HOLDER	2 - D2	(1)
CE232200	CONNECTOR 182	2 - C2	(2)
CE232400	JM FASTENER	2 - C3	(1)
CE236400	FILM COUNTER	2 - A1	(1)
CE236500	SPRING 2	2 - B2	(2)
CE240100	S UPPER PLATE	5 - C1	(1)
CE240200	GEAR BM	5 - B2	(1)
CE240300	GEAR AM	5 - B2	(1)
CE240800	SPRING	5 - C2	(1)
CE240900	SPRING	5 - C1	(1)
CE241300	MG BASE	5 - D3	(1)
CE241400	M HOOK	5 - A2	(1)
CE241600	M HOOK SPRING	5 - A2	(1)
CE241700	CLAW	5 - A2	(1/2)
CE241800	SHAFT	5 - A2	(1)
CE241900	KS WASHER	3 - C2	(1)
CE242000	CURTAIN SHAFT	4 - B2	(1)
CE242200	GUIDE	4 - B2	(2)
CE242300	CURTAIN SHAFT BM	4 - B2	(1)
CE244200	REAR RING	5 - C2	(1)
CE244400	PLATE	5 - C2	(1)
CE244600	U. STOPPER	4 - B1	(1)
CE244900	SPRING	5 - C2	(1)
CE245100	FELT D	4 - C4	(1)
CE245300	WASHER	5 - D3	(1)
CE245500	FELT A	4 - C4	(1)
CE245600	FELT B	4 - D3	(1)
CE246100	A LEVER SPRING	5 - C2	(1)
CE246200	B LEVER SPRING	5 - A2	(1)
CE246300	CLAW 2	5 - A2	(1/2)
CE246400	T TUBE	5 - C2	(1)
CE250200	1M TAPE	8 - A2	(2)
CE250300	F COVER 1	6 - C1	(1)
CE250400	F COVER 2	6 - A2	(1)
CE250500	S FRAME	7 - B2	(1)
CE250700	INDICATOR BASE	7 - A1	(1)

PARTS NO.	NAME OF PARTS	NOTE	(Q'ty used/ per unit)
CE127500	SPRING	2 - C2	(1)
CE127600	SPRING	2 - C2	(1)
CE128200	IDLER 2	2 - B3	(1/3)
CE128300	FILM COUNTER GEAR	2 - B3	(1)
CE128600	FILM COUNTER SPRING 1	2 - C1	(1)
CE128700	FILM COUNTER LC	2 - A1	(1)
CE128800	FILM COUNTER SPRING 2	2 - A1	(1)
CE128900	FILM COUNTER STOPPER	2 - A1	(1)
CE129300	SPROCKET	3 - A2	(1)
CE129400	TAPE	t 0.5 2 - C3	(0 ~ 1/2)
CE129600	WASHER	2 - B1	(1)
CE129700	WINDING GEAR 12	2 - C1	(1/2)
CE129900	IDLER 22	2 - B3	(1/3)
CE130000	IDLER 23	2 - B3	(1/3)
CE200100	DIECAST BODY	Not on sale 1 - D3	(1)
CE200700	B RUBBER	1 - B2	(1)
CE200900	FW LEVER HOLDER	1 - A1	(1)
CE201000	FILM COUNTER COVER	1 - B2	(1)
CE201400	R KNOB	1 - D1	(1)
CE201600	R PLATE	1 - D1	(1/2)
CE201700	R SPRING	1 - C1	(1)
CE201800	R SCREW	1 - C1	(1)
CE202200	HOT SHOE	1 - B1	(1)
CE202400	M WASHER	1 - D2	(1)
CE202500	A BOARD WASHER	7 - B3	(1)
CE202800	H, SCREW	1 - B1, 7 - A2	(2)
CE203100	SW FASTENER	1 - B1	(1)
CE203200	A NAME PALTE	1 - B1	(1)
CE203300	KNOB FASTENER	1 - B1	(1)
CE203400	A BOARD STOPPER	7 - B3	(1)
CE203600	SW KNOB	1 - B1	(1)
CE203700	M PIN	6 - D1	(1)
CE203800	R.P. MARK	1 - C2	(1)
CE204100	DISK	1 - A1	(1)
CE204200	FW LEVER WASHER	1 - A2	(1)
CE204300	R PLATE 2	1 - D1	(1/2)
CE204400	SPRING	1 - B1	(1)
CE204700	SW CLICK	1 - B2	(1)
CE205000	U INSULATOR 1	1 - C2	(1)
CE205100	U INSULATOR 2	1 - C2	(1)
CE205400	U INSULATOR 3	1 - C2	(1)
CE210300	REAR LEATHER	1 - B2	(1)
CE210800	SHAFT	1 - A4	(1)
CE211000	KEY TAPE	1 - B3	(1)
CE211100	SIDE TAPE	1 - A4	(1)
CE211200	RUBBER TAPE	1 - B4	(1)
CE211300	UPPER TAPE L	1 - A3	(1)
CE211400	LOWER TAPE	1 - A4	(1)
CE211500	FRONT LEATHER L	6 - D2	(1)
CE211600	FRONT LEATHER R	6 - A2	(1)
CE211700	SPOOL B	2 - B3	(1)
CE211800	R SHAFT HOLDER	7 - C1	(1)
CE211900	R SHAFT	1 - B3	(1)

PARTS NO.	NAME OF PARTS	NOTE	(Q'ty used/ per unit)
CA910700	SHIM 2	t 0.03 6 - B2	(0 ~ 4/3)
CA915400	LIGHT PROOF PADDING (UPPER)	6 - B2	(2)
CA915500	FORNT SCREW	6 - B2	(4)
CA915600	LIGHT PROOF PADDING	8 - B3	(2)
CA917000	SHIM 3	t 0.08 6 - B2	(0 ~ 4/3)
CA917400	L HOLDER	3 - D1	(1)
CA917500	M HOLDER	3 - D2	(1)
CA917600	L HOLDER WASHER	3 - D1	(1)
CA919200	ADJUSTING PLATE	3 - C2	(0~1)
CA937400	M LEVER SHAFT	3 - B1	(1)
CA937700	GUIDE	1 - B3	(1)
CA937900	3G SPRING HOLDER	3 - C2	(1)
CA938000	RUBBER BAND	8 - B2	(1)
CA938900	LOWER STOPPER	3 - C2	(1)
CA946400	BULB PLATE	Without punch 3 - C1	(1/2)
CA947200	SW WASHER	3 - A3	(0~1)
CA948800	RUBBER BAND 3	8 - C2	(2)
CA949100	LOCK LEVER 2	w/oval hole 3 - D1	(1/2)
CA949400	FELT C	4 - B4	(1)
CA961100	TAPE		(0~2)
CA965500	STOPPER PLATE	t 0.4 2 - C3	(0 ~ 1/2)
CA968800	BULB PLATE 2	With punch 3 - C1	(1/2)
CA989700	X CONTACT POINT	5 - C3	(1)
CE051400	TRIPOD SOCKET	1 - C4	(1)
CE057800	SR TUBE	8 - C1	(1)
CE057900	F CONTACT (UPPER)	6 - B1	(1)
CE058200	F SCREW	6 - B1	(2)
CE066500	INSULATOR	6 - B1	(1)
CE067300	B LIGHT PROOF	4 - D3	(2)
CE070600	COLLAR SPRING HOLDER	7 - C1	(1)
CE070700	R SPRING	7 - C1	(1)
CE071600	R COLLAR	1 - C2	(1)
CE073000	TUBE		(3)
CE081100	UPPER PLATE	5 - C1	(1)
CE082300	REAR SHAFT	5 - C2	(1)
CE086100	GEAR SCREW	5 - B1	(1)
CE086700	GEAR SHAFT	5 - B2	(1)
CE088300	MR SHAFT	5 - C3	(1)
CE088400	PLATE	3 - A1	(1)
CE089900	GEAR SHAFT	5 - B3	(1)
CE094000	TOOTH STOPPER 18	2 - C3	(3)
CE100100	T FASTENER	2 - C3	(1)
CE100200	T CONTACT A	2 - C3	(1)
CE100300	T CONTACT B	2 - D3	(1)
CE100400	T CONTACT C	2 - D3	(1)
CE112200	CELL PLATE	4 - A4	(1)
CE126600	LOWER BASE PLATE	2 - B3	(1)
CE126900	WINDING PIN	2 - B2	(1)
CE127000	WINDING GEAR 1	2 - C1	(1/2)
CE127200	RING	2 - C1	(4)
CE127400	SPRING	2 - C2	(1)



E

OLYMPUS

OM SYSTEM

MANUAL FOR ZUIKO INTERCHANGEABLE LENSES GROUP