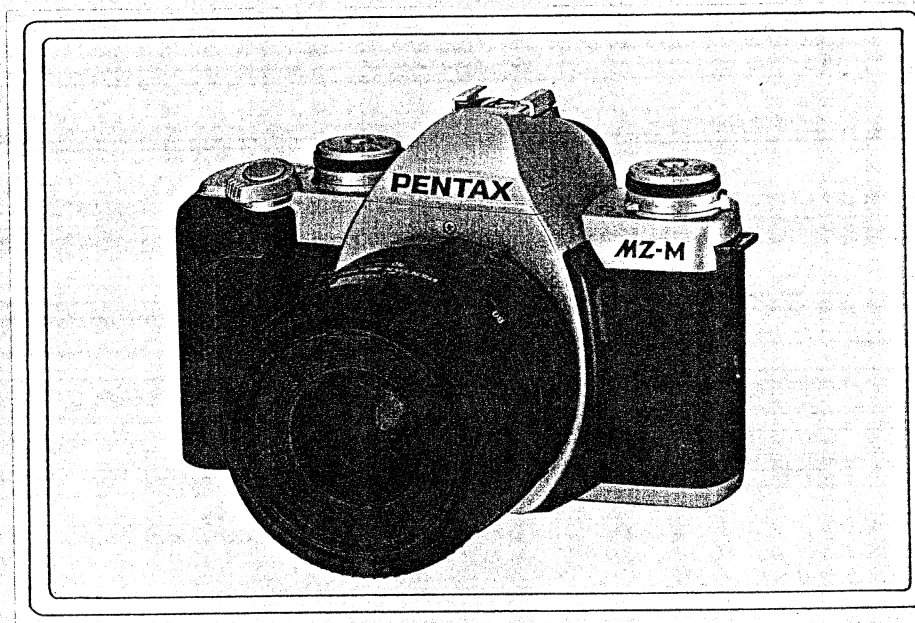


PENTAX®

Service Manual

ENGLISH

PENTAX MZ-M QUARTZ
DATE



PRODUCT No. 27390 M Z - M QUARTZ DATE

PRODUCT No. 27394 Z X - M

PRODUCT No. 27396 M Z - M

PRODUCT No. 27398 Z X - M QUARTZ DATE

LOCATION	QUANTITY	DELIVERY#
NOLOC	1	80624444 000020
88500.1000		
CAMERA SERVICE MANUAL		







©Asahi Optical Co., Ltd.
Service Engineering Section.

11.97 H.Y.

Table of contents

	Page
Specifications	1
LCD and viewfinder indications	2
Disassembly and assembly procedure	
Outline	2
1. Lead wires from Top cover	2
2. Main unit and soldering	3
3. Photo sensor position	4
4. Adjustment and check with computer program	5
Testers, jigs and tools	5
Program software flow chart	6

Specifications

Type	Multi-Exposure Mode 35mm SLR
Format	24x36mm
Usable Film	35mm perforated cartridge film. DX-coded film with ISO 25-5000; non-DX coded films with ISO 6-6400
Exposure Modes	Programmed AE Mode, Shutter-Priority AE Mode, Aperture-Priority AE Mode, Metered Manual Mode, Bulb Mode,
Shutter	Electronically controlled vertical-run focal-plane shutter, Electromagnetic release, Speed range: (1) Auto 1/2000-30 sec. (stepless), (2) Manual 1/2000-2 sec. (3) Bulb,
Lens Mount	Pentax K ₂ bayonet mount (K-mount with lens information contacts)
Compatible Lens	Pentax K _{AF2} -, K _{AF} -, K _A -, and K-mount lenses are usable.
Viewfinder	Pentamirror finder, Matte field and split-image spot with microprism collar focusing screen, Field of view: 92%, Magnification:0.77X (with 50mm lens at infinity), - 1.0 diopter eyepiece
Viewfinder Indication	Shutter speed indication, Aperture indication, Flash ready indication, [] Bar graph (exposure compensation), Over or Under exposure indication in Manual Exposure Mode, [] exposure compensation indication, [] memory lock indicator
External LCD panel Indication	[P]=ProgrammedAE Mode, [Tv]=Shutter-Priority AE Mode, [Av]=Aperture-Priority AE Mode, [M]=Manual Exposure Mode, Film speed=6 - 6400, ISO indication, []=Film status information, []=Battery exhaustion warning, Film counter=0-99
Preview Button	Electronically controlled. Useable in all exposure modes
Self-timer	Electronically-controlled type with delay time of 12 sec. Start by depressing of shutter release button, Operation confirmation: by PCV beep tone. Cancelable after starting.
Mirror	Quick-return mirror
Film Loading	Film advances automatically to 1st frame after back cover is closed, Film information window is provided
Film Wind & Rewind	Auto wind/rewind by built-in motor, Consecutive or Single advance mode, Approx.2 frames/sec.(consecutive mode), Auto rewinding starts at end of roll, Film rewind/completion of rewinding is displayed on the LCD panel, mid-roll rewind button will rewind film in mid-roll
Exposure Meter	With FA-, F-, or A-series lenses: TTL multi (2)-segment metering, Metering range from EV1 to EV17.5 at ISO100 with 50mm f/1.4 lens With M-series, screw-mount, or any other lens that does not have information contacts: Center-weighted metering.
Exposure Compensation	+/- 3EV in 0.5EV step increments
Flash sync	Hot shoe with X-contact with couplings for Pentax dedicated auto flashes (except FTZ-series flashes), ISO range=25-800
Flash sync speed	1/100 sec. or slower
Power Source	Two 3V lithium battery (CR2 or equivalent)
Battery Exhaustion Warning	Battery exhaustion symbol [] is lit (blinking when the shutter is locked).
Dimension and Weight	135.0mm (W) x 90.5mm (H) x 55mm (D) (5.3"x3.6"x2.2") 305g (10.8 oz) body only without batteries

Date Model ——— Crystal quartz controlled LCD with digital clock, auto calendar up to 2019. 7-segment, 6-digit liquid crystal display

Date mechanism ——— Crystal quartz controlled LCD with digital clock, auto calendar up to 2019. 7-segment, 6-digit liquid crystal display

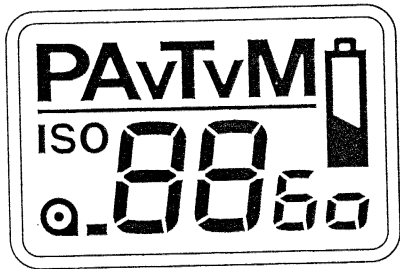
Imprinting mode ——— Year / Month / Day, Day / Month / Year, Month / Day / Year, Day / Hour / Minute, and " ----- " (blank)

Dimension and Weight—135.00mm (W) x 90.5mm (H) x 55mm (D) (5.3"x3.6"x2.2") 320g (11.3 oz)

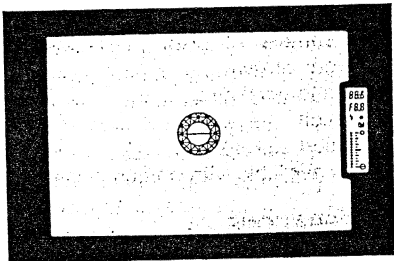
Supplied Accessories — Hot Shoe Cover FC, Release Socket Cap F, Camera Strap FG, Eye Cup FH, Finder Cap

Back cover ——— Interchangeable for replacing Data Back FJ

LCD and viewfinder indications



- P : Programmed AE
- Av : Aperture-Priority AE
- Tv : Shutter-Priority AE
- M : Metered Manual Mode
- 88 : Frame Counter
- 0 : Film Status Information
- 60 : Battery Exhaustion Warning
- ISO : Film Speed Setting Signal
- 8860 : Film Speed Information



- : Microprism
- ⊖ : Split-image
- 885 : Shutter Speed
- f8.8 : Aperture Value
- ⚡ : Flash Status Information
- ☑ : Exposure Compensation
- Bar Graph (p.31, 33)
- * : Memory lock (p.34)

Disassembly and assembly procedure

Outline:

Disassembly and assembly procedures for MZ-M are almost the same as MZ-5N (Prod. No. 27380) except autofocus, panorama mech., flash unit and their related parts.

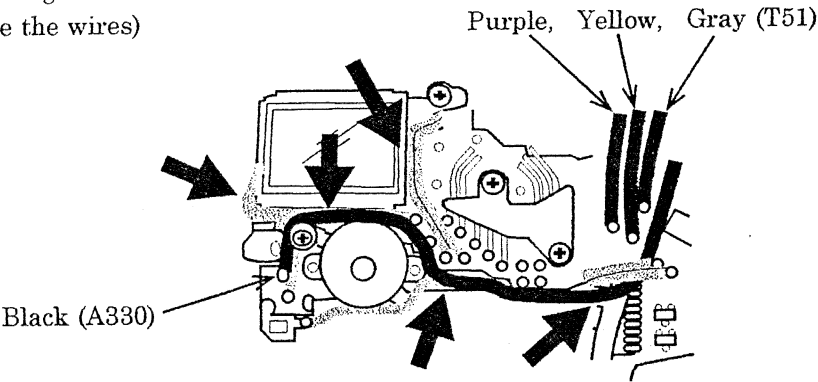
The only exclusive notice of assembly for MZ-M is mentioned below.

For others, refer to the service manual for MZ-5 (Prod. No. 27250) and the service parts list (Exploded illustration and Distributing wires) for MZ-M.

1. Lead wires from Top cover

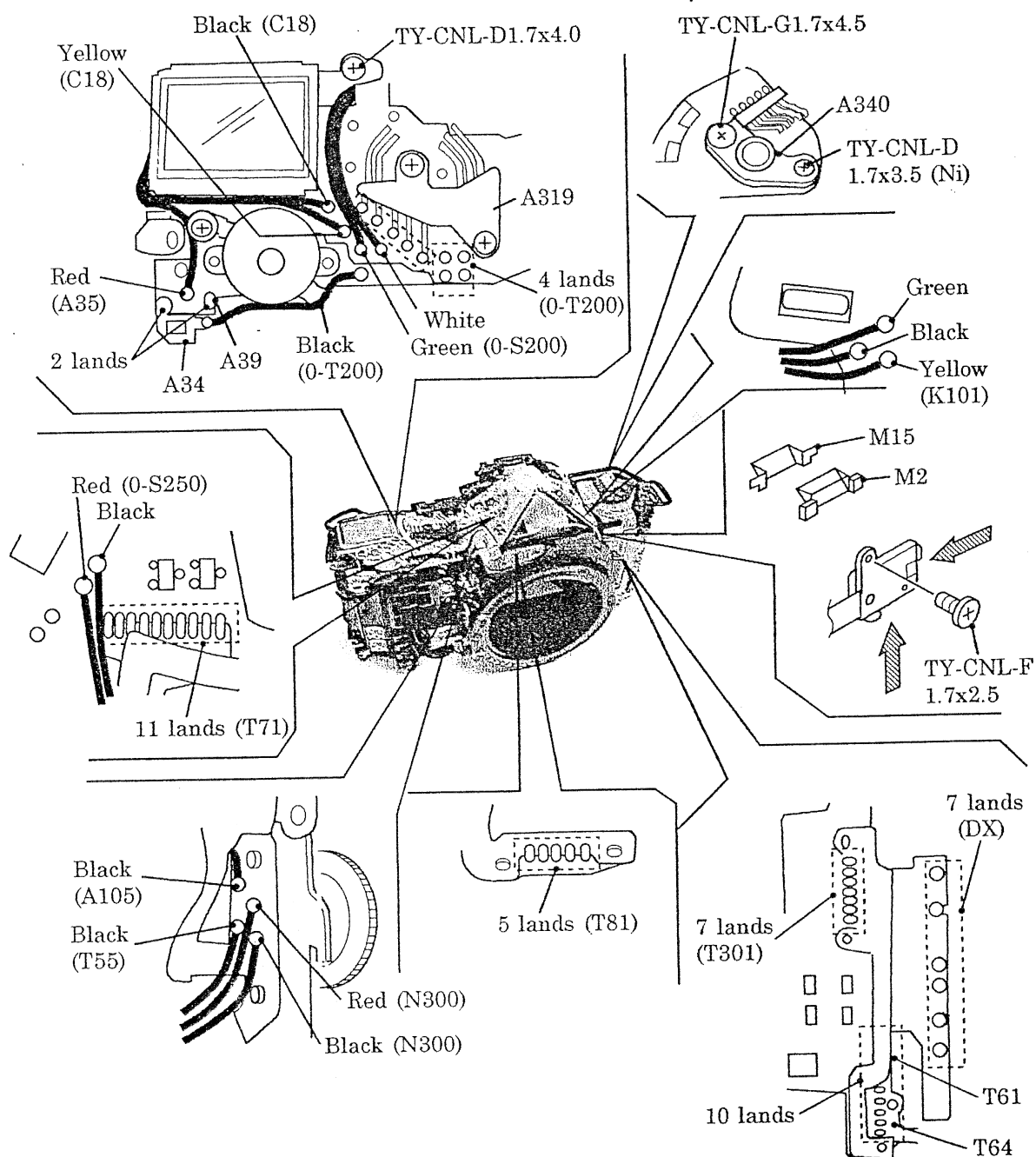
Refer to the diagram right.

(➡ : Arrange the wires)



2. Main unit and soldering
Refer to the diagram below.

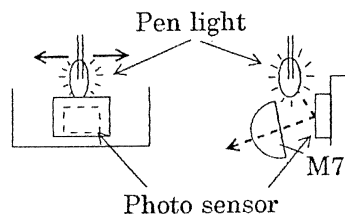
2. Main unit and soldering
Refer to the diagram below.



3. Photo sensor position

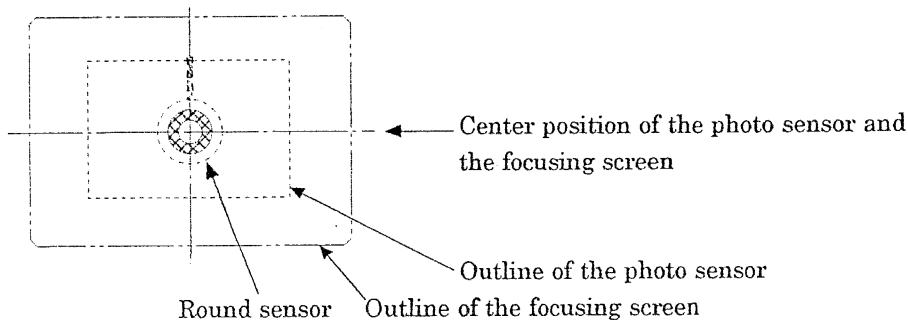
【 Required equipment 】 Pen light or equivalent

- 1) Remove M16 (Flat lens) from the eyepiece.
- 2) Cover the eyepiece with a black tape.
- 3) Strike light by a pen light to the photo sensor as shown in the diagram right, and search the position where the pattern of the photo sensor can be seen on the mirror from the mount ring side.



4) 【 Confirmation 】

Confirm the photo sensor in which should be positioned as shown in the diagram below.

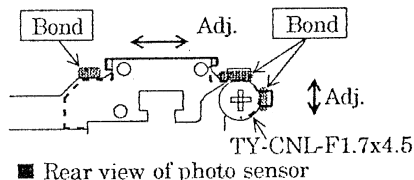


【 Reference 】 If a lens with a large aperture (ex. FA 50mm f/1.4) is mounted on the body, the pattern of the photo sensor will be seen easily on the mirror.

4) 【 Adjustment 】

Loosen the screw (TY-CNL-F1.7x4.5), and then move the entire photo sensor for the positioning adjustment.

- 5) After the adjustment is done, tighten the screw and confirm the position again. Then apply a bond to fix the photo sensor as shown in the diagram right.
- 6) Re-install M16 and apply a bond to fix it.

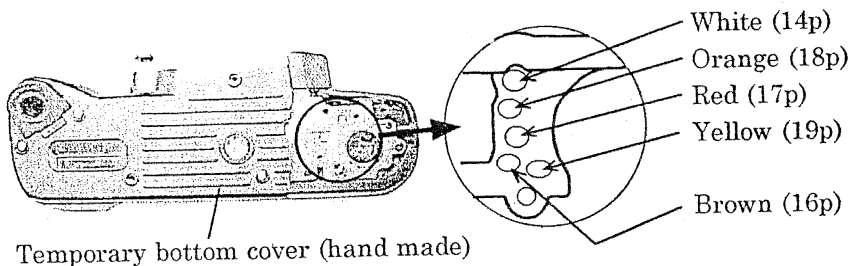


4.Adjustment and check with computer program (AE)

【 Required equipment 】

- ☐ Programmed software for 27390 (exclusive equipment) ,
- ☐ Personal computer, ☐ Color display, ☐ Serial interface, ☐ Interface buffer,
- ☐ I/F buffer cable for 27250 (MZ-5), ☐ Regulated DC power supply, ☐ Battery (CR2),
- ☐ Power SW adapter, ☐ Shutter tester (7PE-25A3, EC-5000/8000 type),
- ☐ Light measuring master lens for LX, ☐ Diaphragm F8 setting ring K,
- ☐ DC power adapter (hand made, refer to the service manual for 27250 on page 24),
- ☐ Temporary bottom cover (hand made) and a battery cover,

1) Solder 5 lead wires from the I/F buffer cable for 27250.



- 2) Install a temporary bottom cover and a battery cover, set the battery to the body, and install the power SW adapter to the release socket.
- 3) Using the programmed software for 27390, check and adjust by following the flow chart. (Refer to the Program software flow chart on page 6)

Testers, jigs and tools

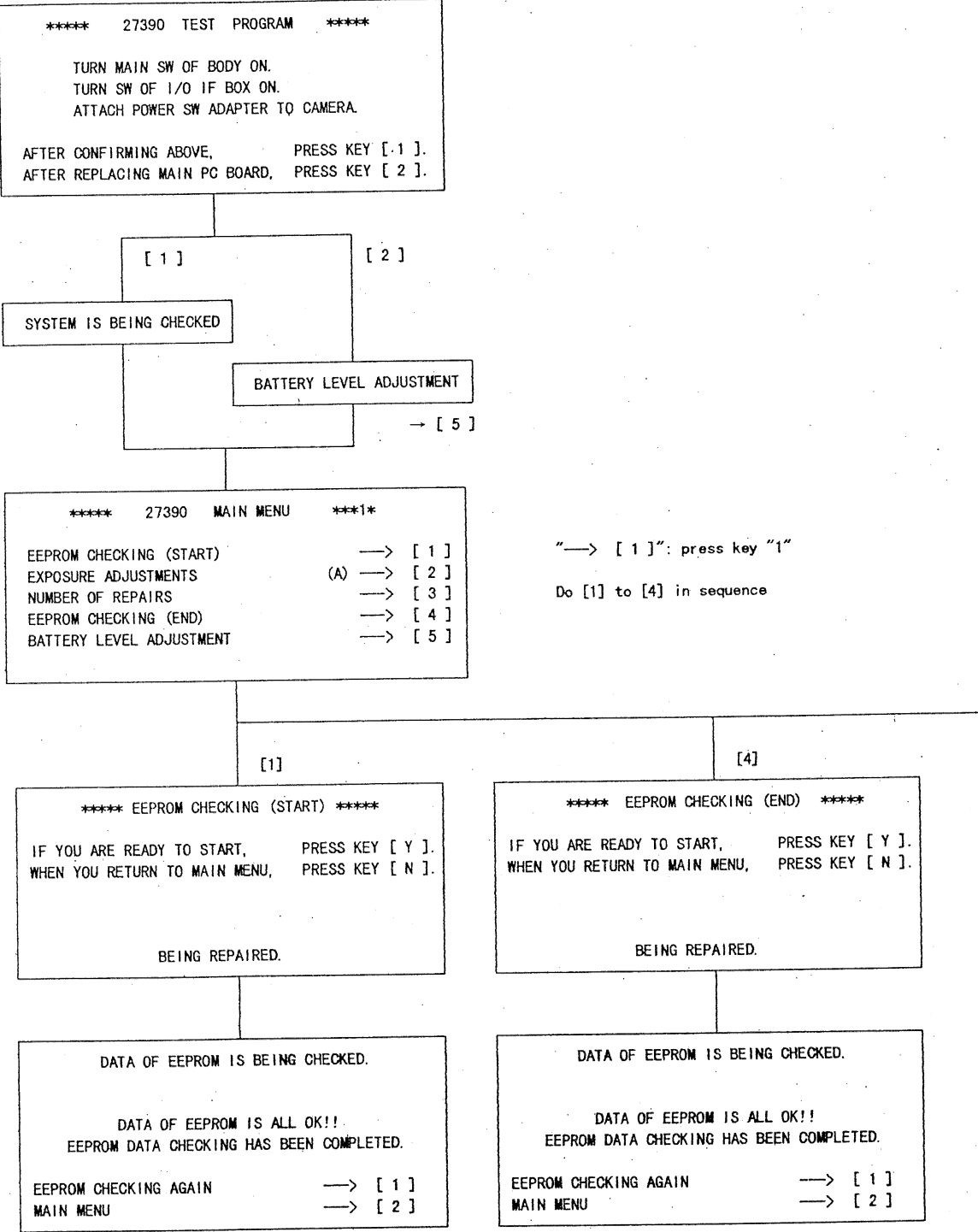
☆ Exclusively used for MZ-M/ZX-M

1) Program software for 27390

Description of order	Order No.	Remark
PROGRAMMED SOFT PC/AT 27390 (5 inch)	95901-M246-00A	5 inch FD for PC/AT
" (3.5 inch)	95901-M246-00B	3.5 inch FD "

☆ Others are used in common with MZ-5 except items for AF and TTL-flash adjustments. Refer to the service manual for MZ-5 (Prod. No.27250).

Programed software flow chart



[2]

***** SELECT AE TYPE *****

TYPE 1 (LV6, 8, 10, 12, 16) — [1]

TYPE 2 (LV6, 9, 12, 15) — [2]

[Note]: Select 1 or 2 for your light source.

***** 27390 < A GROUP > *****

TEMP. ADJUSTMENT —→ [1]

AV AND BV ADJUSTMENTS —→ [2]

MAIN MENU —→ [3]

[1]

***** TEMP. ADJUSTMENT *****

CHECK ROOM TEMPERATURE

AFTER CONFIRMING ABOVE, PRESS KEY [Y].

WHEN YOU RETURN TO FRONT MENU, PRESS KEY [N].

BEING ADJUSTED

INPUT ROOM TEMPERATURE

<C> —→ PRESS KEY [1]

<F> —→ PRESS KEY [2]

INPUT ROOM TEMPERATURE <C> ? **

BEING ADJUSTED

TEMP. ADJUSTMENT HAS BEEN COMPLETED.

TEMP. ADJUSTMENT AGAIN —→ [1]

NEXT OF AV AND BV ADJUSTMENTS —→ [2]

A GROUP MENU —→ [3]

[2]

***** AV AND BV ADJUSTMENTS *****

MOUNT F-8 SET RING ONTO CAMERA.

ATTACH LIGHT MEASURING MASTER LENS

FOR LX WITH WIDE OPENED POSITION.

SET LIGHT SOURCE TO LV 6.

AFTER CONFIRMING ABOVE, PRESS KEY [Y].

WHEN YOU RETURN TO FRONT MENU, PRESS KEY [N].

BEING ADJUSTED

SET LIGHT SOURCE TO LV 16 (or 15).

AFTER CONFIRMING ABOVE, PRESS KEY [Y].

WHEN YOU RETURN TO FRONT MENU, PRESS KEY [N].

BEING ADJUSTED

AV AND BV ADJUSTMENTS HAVE BEEN COMPLETED.

AV AND BV ADJUSTMENTS AGAIN —→ [1]

A GROUP MENU —→ [2]

MAIN MENU —→ [3]

*** MAIN MENU ***

