

SERVICE MANUAL

for

**CHINON CP-7m
MULTI-PROGRAM**



CHINON INDUSTRIES INC.

SERVICE MANUAL

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MULTI-PROGRAM**



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INTRODUCTION

Information contained in this service manual refers to the CHINON CP-7m MULTI-PROGRAM camera and is prepared to aid repair and maintenance service at authorised service stations.

The information and specifications in this service manual are the most up-to-date at the time of publication. However, the Research, engineering, and QA Department of CHINON are constantly making efforts to further improve the products manufactured by the company. Modification, therefore, may become inevitable and we reserve the right to make any changes without further notice.

Before making attempts to repair or adjust the unit, read the manual thoroughly. Specifications and adjust procedures are described in detail and trouble-shooting may be used to diagnose problems. Electrical data and parts information are filed at the end of this service manual.

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Service Manual
for
CHINON CP-7m MULTI-PROGRAM CAMERA

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Service Department.

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HOW TO USE THIS SERVICE MANUAL

Chinon Service manual consists of the following seven sections: General, Repair Guide, Service Tool List, Electrical Data, Parts Information, Price List of the Spare Parts, and Service Manual Report. These seven sections are divided by index sheets for easy identification.

GENERAL

The General section consists of information useful to the repairman. It may consist of any or all of the following: technical specifications, design Principals, new or unusual repair technics, or any other information useful to the repairman.

REPAIR GUIDE

1. The Repair Guide contains the necessary instructions for complete repair and adjustment.
2. It may consist of circuit and/or mechanism explanations.

SERVICE TOOLS LIST

1. This list all special tools and test equipment required for service after sales and their uses.
2. For specifications, detailed explanation, and price of these, please refer to the distributed lists of "TOOLS & INSTRUMENTS".
3. Please typeout the tool No. and the necessary quantity on the orther sheets when you order the special tools or test equipment.

ELECTRICAL DATA

The Electrical Data consists of the schematic diagram, wiring diagram, and component location useful to the repairman.

PARTS INFORMATION

1. The Parts Information consists of the exploded view and containing parts list.
2. The parts list for each exploded view is on the facing page and botf pages have the same number.
3. The exploded views are arranged in the correct sequence of disassembly and/or assembly.
4. The parts list consists of five columns. The function of each column is:
Column 1. ORDER QTY: Please fill-in the necessary quantity in this column when you order the spare parts, and typeout your name and Order No. on the parts list.
Column 2. Parts name in Japanese.

PRICE LIST

1. Price List of Spare Parts presents the unitprice of the service parts you receive from us.
2. The page number on the parts information in which each part is described is shown on the right side of each part so that you may easily identify.
3. All the price of the spare parts on the price list section are subject to change without notice.

SERVICE MANUAL REPORT

In keeping with our policy of the best service after sale, we issur the Service Manual Reports and/or Technical Modification on Product when any change is made in the product such as design or production changes, added capabilities, or appearance changes. Please fill-in the these reports in this section.

SPECIFICATIONS

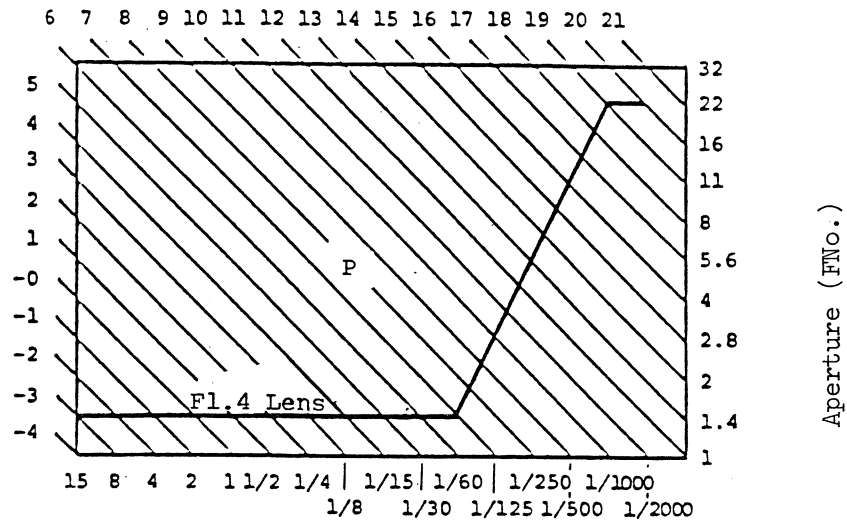
TECHNICAL SPECIFICATION	CHINON CP-7m
Type:	Three stage program AE, Aperture priority system AE and manual exposure system Micro computer controlled.
Picture Mount:	24 x 36 mm
Lens Mount:	Chinon bayonet mount
Mirror:	Swing back, quick return and Large mirror
Focusing Aid:	Penta prism, Split-micro screen system
Viewfinder Coverage:	Approx. 92%
Viewfinder Magnification:	Approx. 0.87 times with 50mm lens infinity setting.
Viewfinder Indication: Shutter	18 digital LEDs indicate for shutter speeds and changed three color 1/2000-1/60 sec. shutter speed: Green LED 1/30-1 sec. slow shutter speed warning: Orange LED, Over/Under exposure warning: Red LED Flash Position: Red LED Program: P, PA and PC indication
L C D Panel:	Shutter speed, Film speed(ASA/ISO), Film counter Self timer operation time(sec), Battery checker and Photo mode(Program: P, PA, PC., AE, M and B)
Shutter: Shutter speed	Electro-magnet vertical focal plane Manual speed: Bulb, 8-1/2000 sec. 15 steps Auto speed: 8-1/2000 sec. AE section: 15 sec. maximum
Synchronization:	"X" strobe synchro At 1/100 set-Automatic Manual mode only-1/60 sec. under
Release Wire release Release lock	Electro magnet type Built-in Built-in(Main switch)
Self timer:	Electronically controlled Self LED, LCD panel indication 1 sec-90 minute(usually 10 sec) Cancel: possible
Exposure mode:	Three stage program AE, Aperture priority system AE and Manual exposure
Photo cell:	1 x silicon photo diode EV +1 ~ EV +20(F 1.4/50 mm ISO 100)

Film speed:	ISO 25-500 with 1/3 EV segment DX priority, Automatic-DX coded film
AE lock:	Built-in exposure memory lock system
Exposure compensation:	-4EV ~ +4EV 1/2 Step Indication of LCD is DX film only
Multi-exposure:	Slide switch system (infinity multi-exposure)
Film loading:	Automatic film loading system
Film winding: Winding speed	Automatic winding, Single frame/Continuation Maximum 2 frame sec.
Film rewinding:	Automatic rewinding with push on the rewinding button
Film counter:	LCD panel indication with automatic
Interval timer:	Electronically controlled from 1 sec. to 90 minute.
Mode reset:	First position(return the first mode) that push the reset button
Battery on:	Kept 12 sec.
Back cover:	Possible-Charge Film check window Draw the program(P, PA and PC)
Battery checker:	Built-in LCD panel indication
Power source:	AM3 1.5V x 4 Battery and Lithium Battery(6V)
Dimensions:	152.5(W) x 89(H) x 51(D) mm
Weight:	520 g

THREE-STAGE PROGRAM AE CURVE
OF
CHINON CP-7m

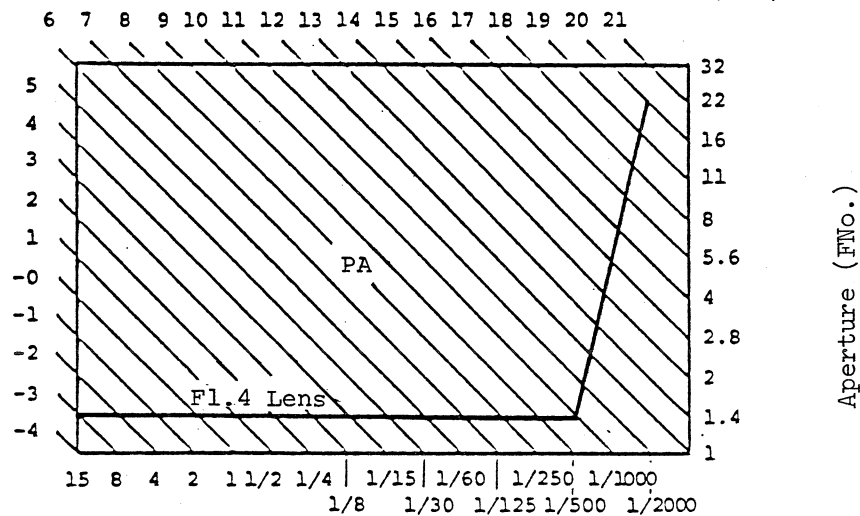
Program P (NORMAL)

EV (ASA/ISO 100)



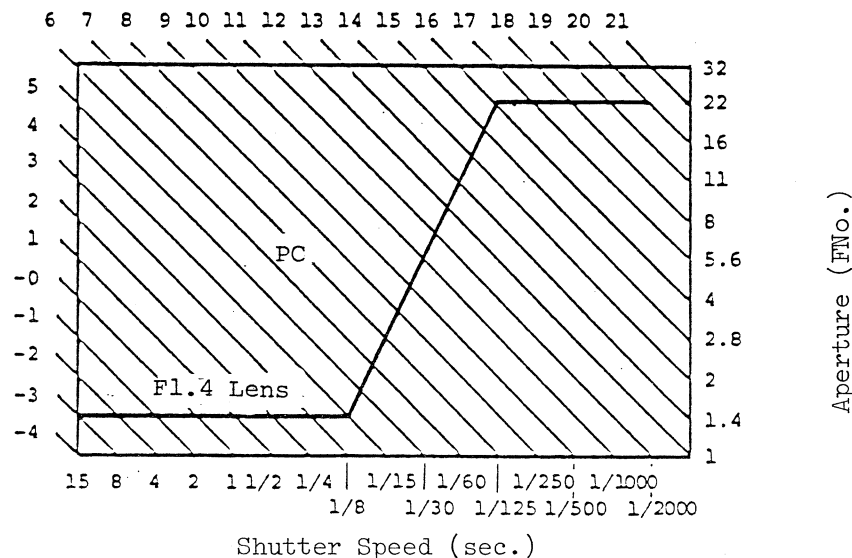
Program PA (ACTION)

EV (ASA/ISO 100)

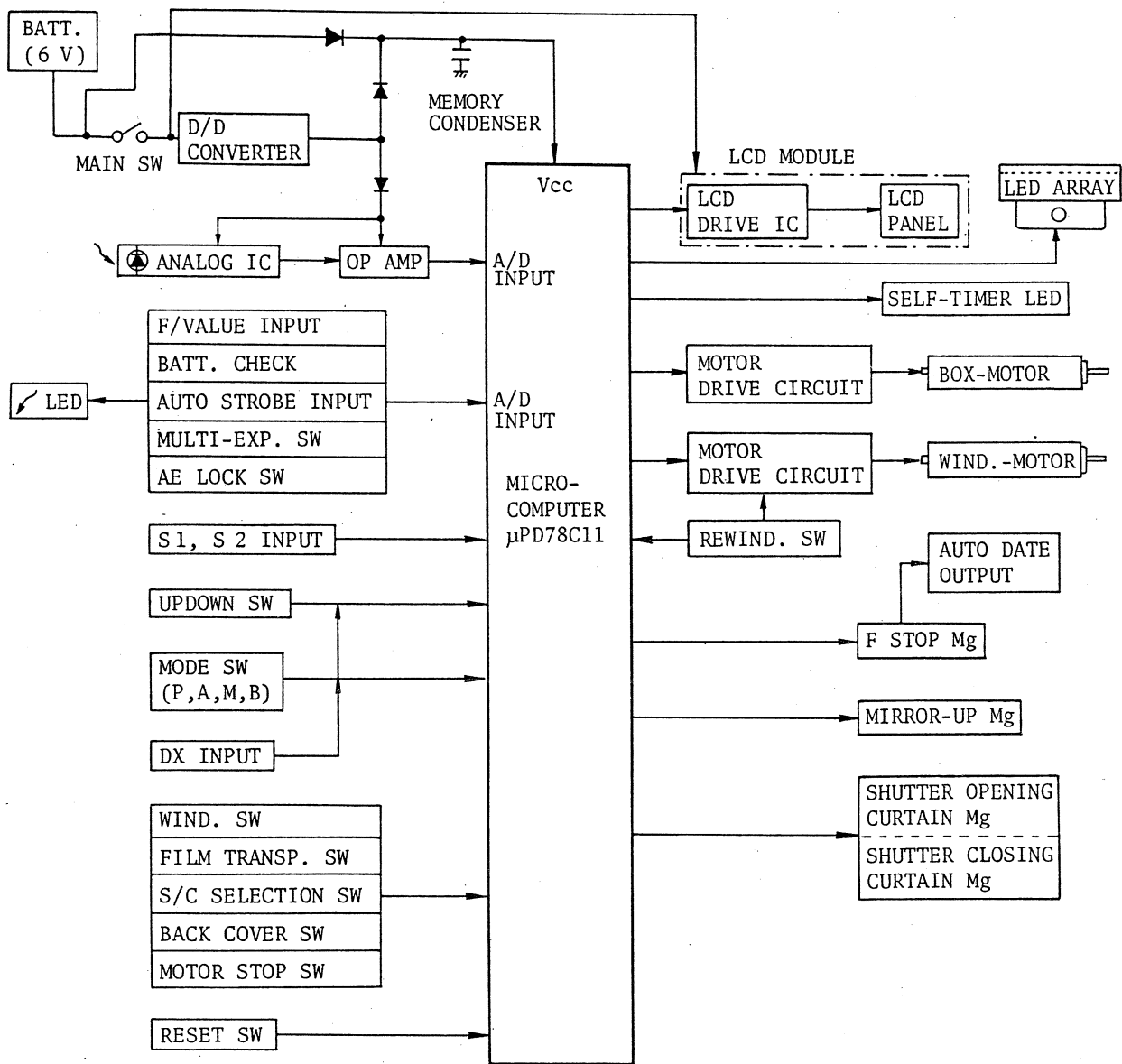


Program PC (CREATIVE)

EV (ASA/ISO 100)



MICRO-COMPUTER SYSTEM'S BLOCK DIAGRAM
OF
CHINON CP-7m



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I. DISASSEMBLY PROCEDURE

A. Top Cover, Bottom Cover & Front Cover Removal

In case of top cover removal.

- | | | | |
|--------------------------------------|---------------------------------|---------------------------------|-----------------------------|
| ① <u>name plate</u>
1471BOC-1085A | ② <u>Screw</u>
117-40014 x 2 | ③ <u>Screw</u>
117-40045 x 2 | ④ <u>Screw</u>
124-40014 |
| ⑤ <u>Screw</u>
127-30045 | ⑥ <u>Screw</u>
117-18014 | ⑦ <u>Screw</u>
317-18014 | |
| ⑧ <u>Top cover</u>
1471BOCS1061A | | | |

If you remove the top cover completely, unsolder the following three lead-wires from flexible pattern A and body side.

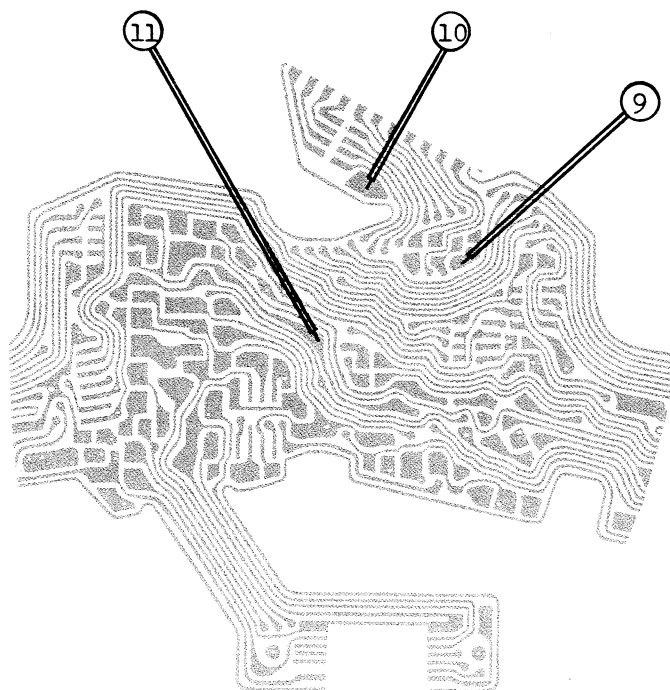
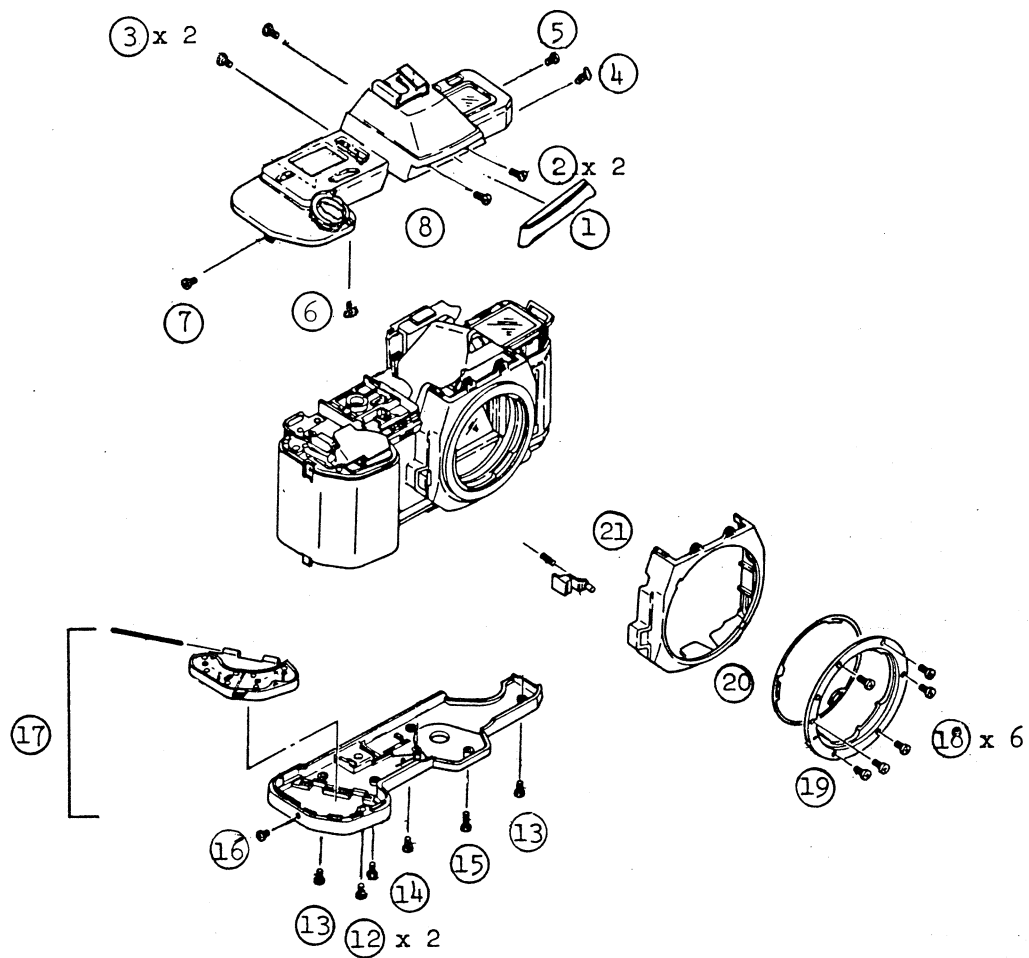
- | | | |
|-------------------|-------------------|-------------------|
| ⑨ Green lead-wire | ⑩ White lead-wire | ⑪ Black lead-wire |
|-------------------|-------------------|-------------------|

In case of bottom cover removal.

- | | | | |
|---------------------------------|---|-----------------------------|-----------------------------|
| ⑫ <u>Screw</u>
117-35114 x 2 | ⑬ <u>Screw</u>
127-40114 x 2 | ⑭ <u>Screw</u>
117-25114 | ⑮ <u>Screw</u>
112-60114 |
| ⑯ <u>Screw</u>
117-15114 | ⑰ <u>Bottom cover</u>
1471BOCS1051A with <u>Battery cap</u>
1471BOCS1221A and <u>Battery cap shaft</u>
1471BOC-1224A | | |

In case of front cover removal.

- | | | |
|--|---|--------------------------------------|
| ⑱ <u>Screw</u>
112-35134 x 6 | ⑲ <u>Bayonet mount</u>
0971BOC-4201A | ⑳ <u>Mount ring</u>
0971BOC-4202A |
| ㉑ <u>Front cover</u>
1471BOC-4205A with <u>Mount lock button</u>
1471BOCS4215A and <u>Mount lock spring</u>
0971BOC-4218A | | |



B. Mirror Housing and Frensel lens box Removal.

Follow the top, bottom and front covers removal. Then,

- | | | | |
|--|--|--|-----------------------------|
| ① <u>Front decoration plate (R)</u>
1471BOCS4209A | ② <u>Front decoration plate (L)</u>
1471BOCS4210A | | |
| ③ <u>Screw</u>
312-40121 x 4 | ④ <u>Screw</u>
322-40114 | ⑤ <u>Tripod baseplate</u>
1471BOCS1003A | ⑥ <u>Screw</u>
112-30121 |
| ⑦ <u>Screw</u>
112-22114 | ⑧ <u>Gum pressure plate</u>
1471BOC-2071A | ⑨ <u>Gum</u>
1471BOC-2072A | |
| ⑩ <u>Screw</u>
114-20514 x 2 | ⑪ <u>Screw</u>
127-35114 x 2 | ⑫ <u>AN baseplate</u>
1471BOCS2001A | |
| ⑬ <u>Screw</u>
117-30114 x 2 | ⑭ <u>Collar</u>
117;BOC-4014A | ⑮ <u>Screw</u>
122-40114 x 5 | |

If you remove the mirror housing unit completely, unsolder the thirteen lead-wires from the Flexible pattern A side and P.C.Board D side with following procedures.

- | | | |
|----------------------|--------------------------|--------------------|
| ⑬ Black lead-wire | ⑰ Pink lead-wire | ⑱ Blue lead-wire |
| ⑲ Sky blue lead-wire | ⑳ Gray lead-wire | ㉑ Orange lead-wire |
| ㉒ Black lead-wire | ㉓ Brown lead-wire | ㉔ Brown lead-wire |
| ㉕ Blue lead-wire | ㉖ Yellow green lead-wire | ㉗ Yellow lead-wire |
| ㉘ Red lead-wire | | |

Then, disconnect the position ⑳ ㉑ ㉒ ㉓ ㉔ ㉕ ㉖ ㉗ ㉘ ㉙

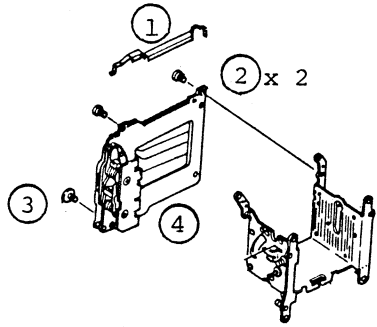
- | | |
|--|---|
| ㉙ <u>Screw</u>
124-30114 | ㉚ <u>Mirror housing</u>
1471BOCS4000A with <u>Penta prism</u>
1471BOCS4301A and <u>Screw</u>
127-40114 x 4 |
| and <u>Flexible pattern A</u>
1471BOCSEP27A | and <u>Flexible pattern B</u>
1471BOCSEP28A and <u>Shielding plate</u>
1471BOC-1502A |

Procedure ㉚ to ㉛ shows the lead-wires for Flexible pattern A removal. And frensel lens box.

C. Shutter Removal

Refer following procedure after Body side removal.

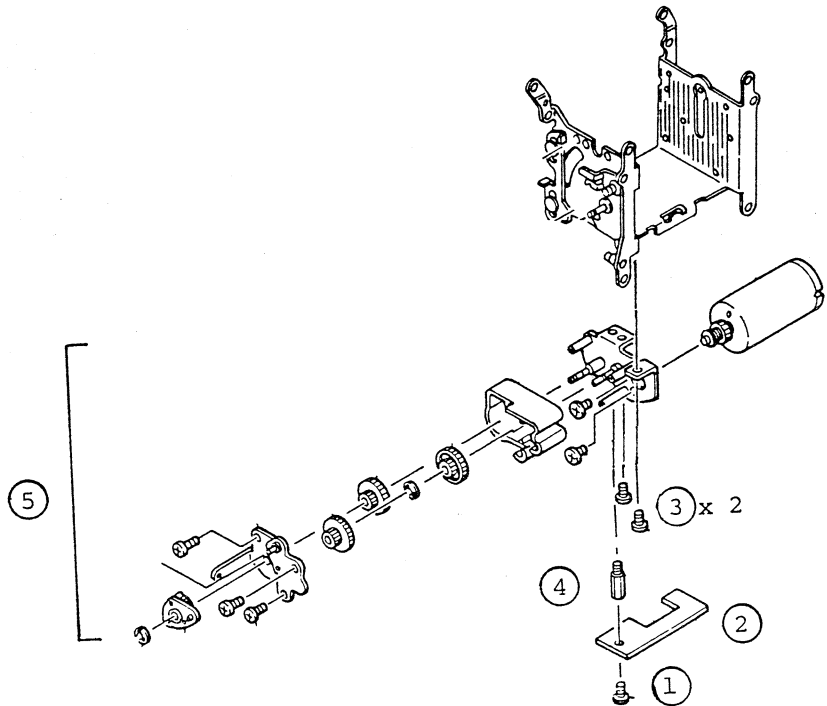
- | | | |
|---|---------------------------------|-----------------------------|
| ① <u>Shielding plate</u>
1471BOC-1502A | ② <u>Screw</u>
112-20121 x 2 | ③ <u>Screw</u>
917-20514 |
| ④ <u>Shutter</u>
1471BOCS1501A | | |



D. Box Motor Removal

Follow the Shutter removal. Then,

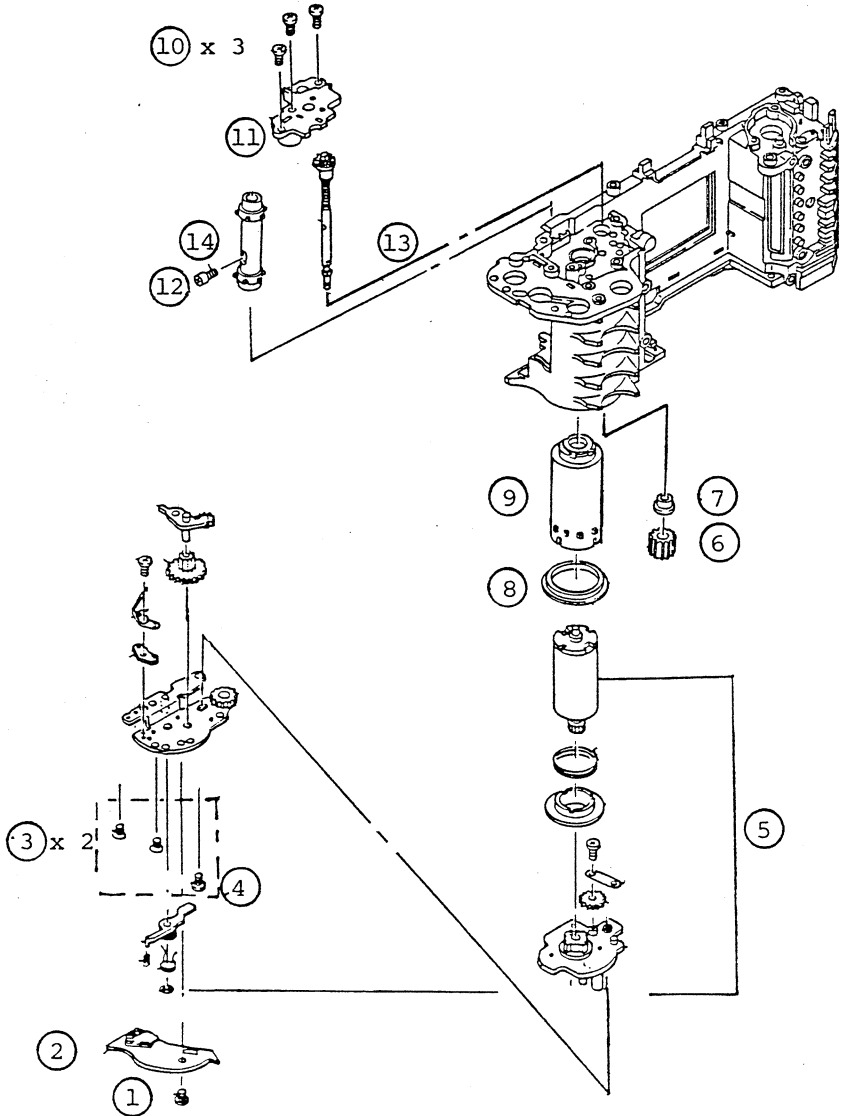
- | | | |
|--|---------------------------------------|-----------------------------|
| ① <u>Screw</u>
117-30114 | ② <u>P.C.Board A</u>
1471BOCSEP01A | ③ <u>Screw</u>
117-18114 |
| ④ <u>M Box pattern holder A</u>
1471BOC-4013A | ⑤ <u>Box motor</u>
1471BOCSEM01A | |



E. Sprocket Removal

Follow the Top cover, Flexible pattern A and Bottom removal. then,

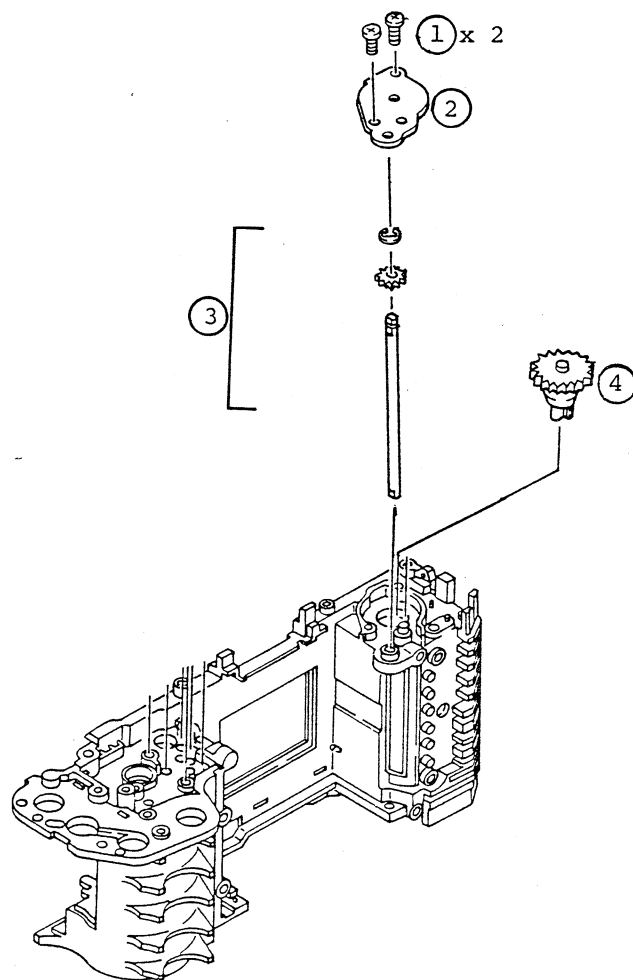
- | | | |
|---|--|---|
| ① <u>Screw</u>
117-15014 | ② <u>Batt. cap shaft retainer</u>
1471BOC-1220A | ③ <u>Screw</u>
327-28014 x 2 |
| ④ <u>Screw</u>
127-25014 | ⑤ <u>Winding baseplate</u>
1471BOCS3001A | ⑥ <u>Sprocket A gear</u>
1471BOC-3054A |
| ⑦ <u>Sprocket shaft holder</u>
1471BOC-3053A | ⑧ <u>Reel sleeve</u>
1471BOC-3073A | ⑨ <u>Take-up spool</u>
1471BOC-3071A |
| ⑩ <u>Screw</u>
127-35014 x 3 | ⑪ <u>Counter baseplate</u>
1471BOC-2301A | ⑫ <u>Screw</u>
0271WOC-0153A |
| ⑬ <u>Sprocket shaft</u>
1471BOCS3052A | ⑭ <u>Sprocket</u>
1471BOC-3051A | |



F. Rewinding Gear Removal

If you remove the rewinding gear.

- ① Screw 127-35114 x 2 ② Rewinding baseplate 1471B0C-3141A ③ Coupling shaft 1471B0C-3120A
with E ring XRET-01310 and R7 B-Gear 1471B0C-3131A ④ Rewinding gear 1471BOCS3133A



II. SHUTTER UNIT

A. Electro-Mechanical Shutter

Shutter speed, program AE, aperture-priority system AE and manual, are controlled by electromagnet system. In auto mode, shutter speed automatically and steplessly changes from 8 sec. to 1/2000 sec. depending upon film speed, F number and luminance of the subject. fifteen different shutter speed, B, 8 sec., to 1/2000 sec., are provided in manual mode.

The following supplies information about minute adjustment only to aid the reader to gain deeper understanding of the shutter mechanism. A shutter as spare parts is factory adjusted, and further adjustment need not be performed.

a. Curtain speed

the curtain speed is adjusted to neighborhood 7.8 m sec to need not the curtain speed adjustment.

b. Trigger switch

After connecting the standard control circuit adjust the eccentric adjustment screw to obtain correct shutter speed at 1/2000 sec.

Trigger switch adjusting screw has to adjust the factory, there is a defective, it is able to change the shutter unit.

c. Synchro contact adjustment

The adjustment is made by bending the contact "C" so that synchronization is made without fault at "X" (1/100 sec.) speed setting. The contact must be free from dust and corrosion. There is synchro contact "ON" condition with shutter charge before, "OFF" condition with shutter charge start to end. See Fig. II-1.

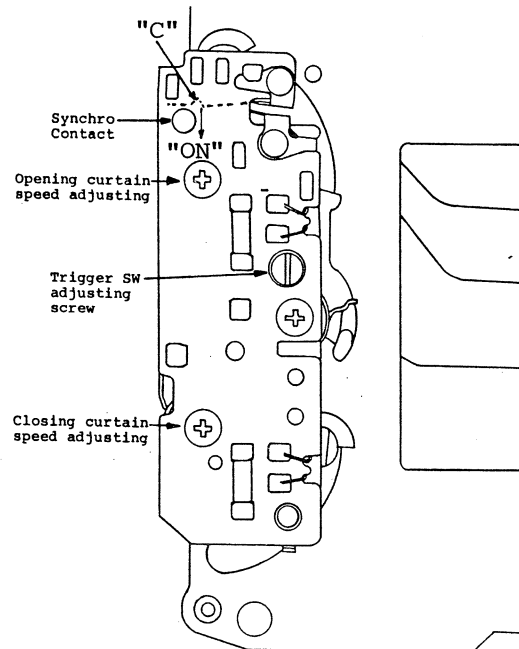


Fig. II-1.

Synchro time lag.

At slow speed of 10 m sec. long more, full open picture frame (vertical 24mm), fire contact 0.6m sec less and full open time of contact 1m sec more. See Fig. II-2.

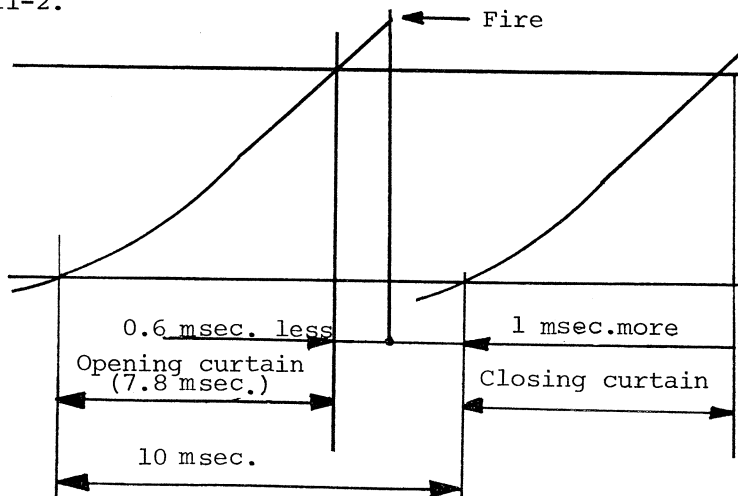
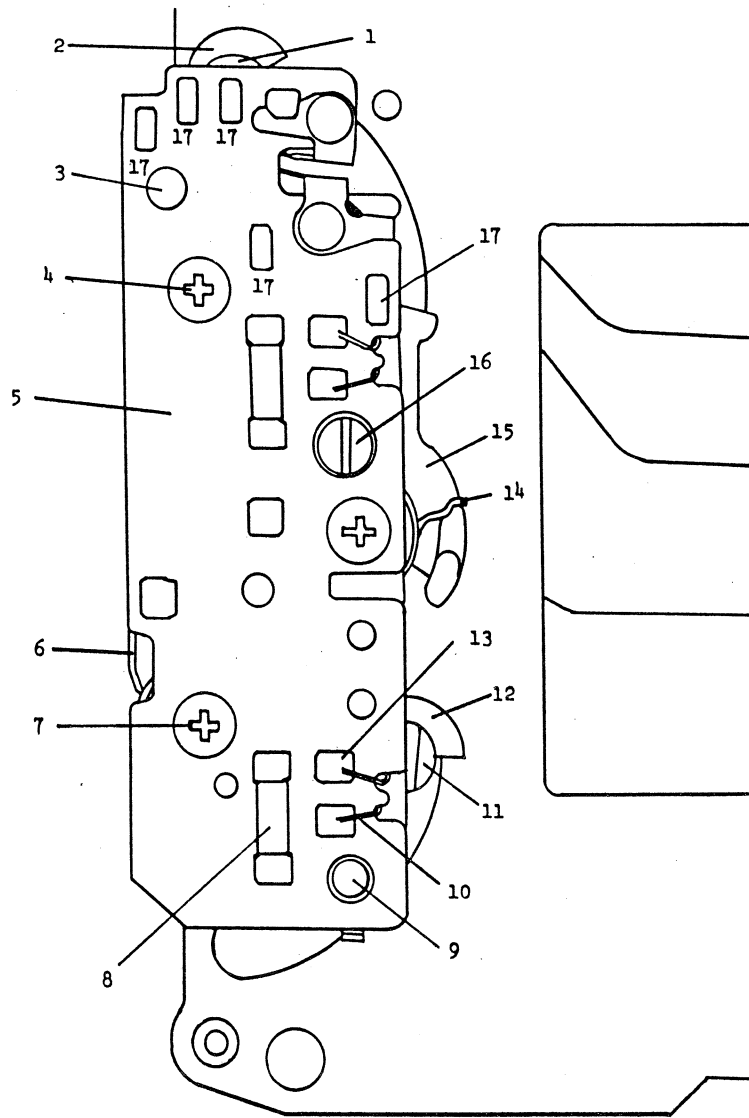


Fig. II-2.

B. Shutter Trouble-Shooting

DEFECTS	DESCRIPTION	CAUSE
Synchro contact efficiency defective		a. synchro contact dirty b. Worn out contact
Shutter curtain sunburnt	Sunshine	Keeped the mirror-up condition
Shutter curtain dirty	Dusts or finger prints on curtain	Wipe of the dust, Use cleaner of thin rubber
Shutter stays open		a. Set lever spring loose or bent b. P.C.Board defective C. Closing curtain lever spring loose
Shutter Speed too slow or too fast		L.C.D.panel IC or switch defective. Shutter speed is controlled the cause may be found in electronic components and adjustment
Shutter will not charge		Winding motor stoped, Shutter release lever spring loose
L.C.D.panel defective		Spring weak of L.C.D.panel switch, Out'side power or movement



1. Opening curtain lever
2. Opening curtain band protection rubber
3. Synchro contact
4. Opening curtain speed adjusting screw
5. P.C. Board
6. Shutter curtain stopping plate
7. Closing curtain speed adjusting screw
8. Condenser
9. Magnet shaft
10. Magnet lead wire
11. Closing curtain lever
12. Closing curtain band protection rubber
13. Magnet lead contact
14. Set lever spring
15. Set lever
16. Trigger Switch adjusting screw
17. Flexible pattern C, connecting contact

C. Modulate (LCD Panel)

- a. Give an outline of modulation and indication of camera informed.
There is the drive signal from camera side.
See Fig. II-3.

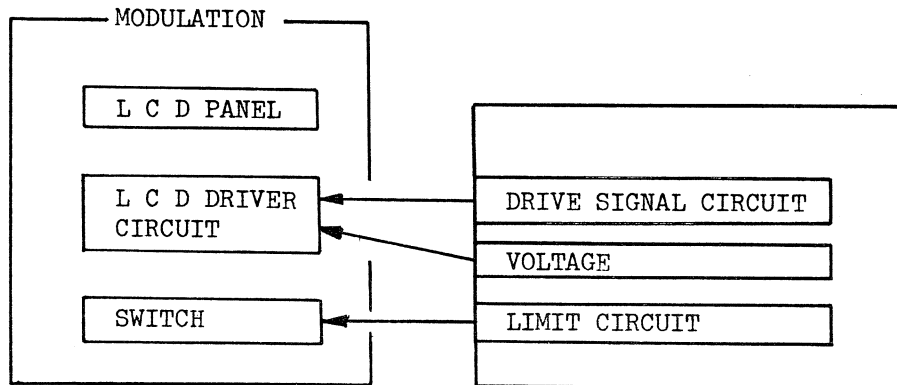


Fig. II-3.

b. L C D Connection

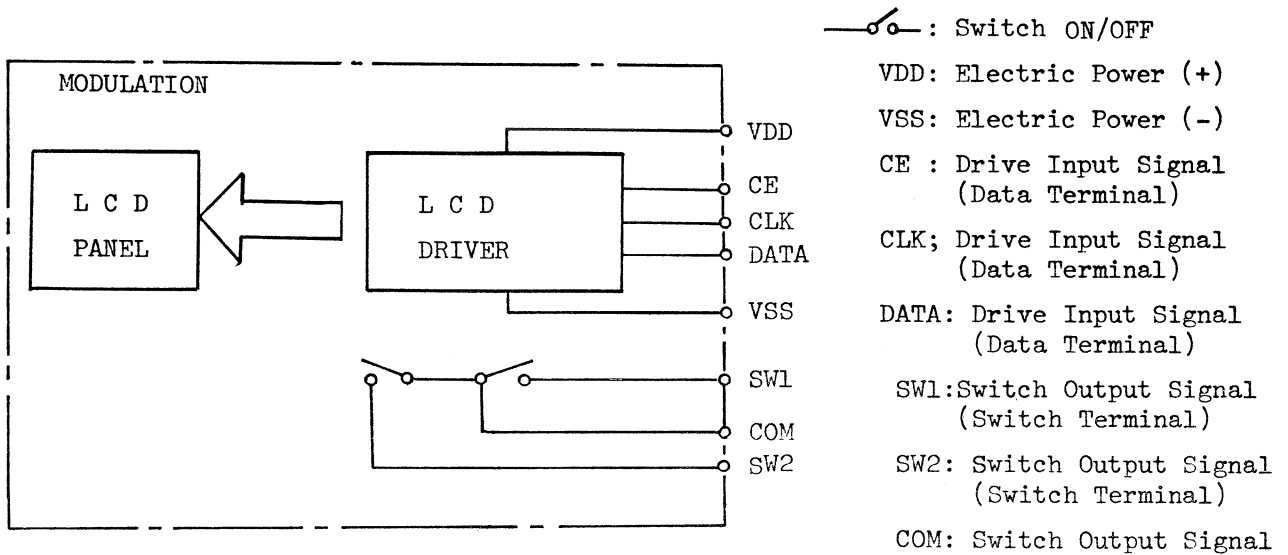
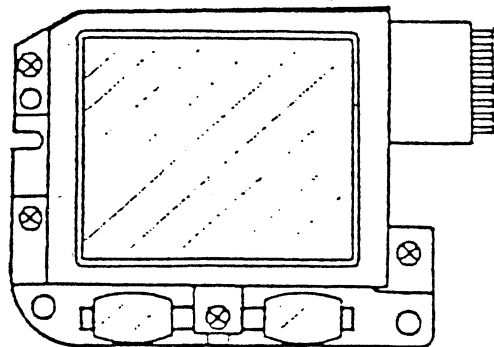


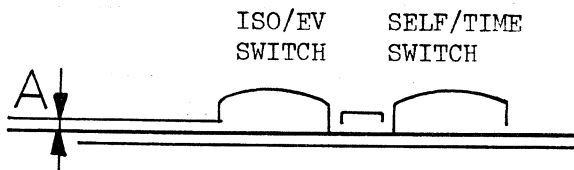
Fig. II-4.

c. Switching Contacts



ISO/EV
SWITCH SELF/TIME
SWITCH

Fig. II-5



A: Maximum 1.5 mm

Fig. II-6

d. LCD Circuit

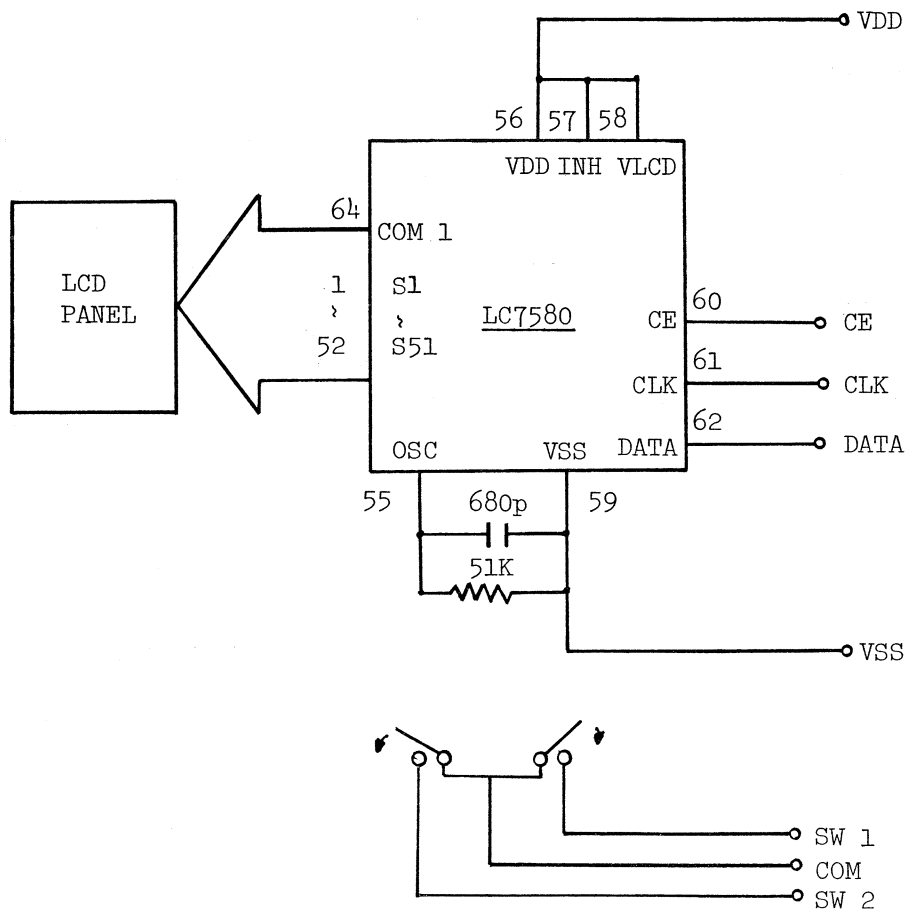


Fig. II-7

III. MIRROR HOUSING UNIT

MIRROR HOUSING

The mirror housing is one of the major components of the camera and it has many important function.

When the shutter release is depressed mirror opens the light path to the shutter. As this mirror up is completed the mirror housing release a shutter trigger signal. When the shutter is closed the mirror release lever is actuated and starts mirror return.

The mirror housing also consists of lens diaphragm stop-down mechanism.

Moreover, CHINON CP-7m is equipped the multi-exposure controlled system, it say program "AE" (Automatic exposure).

For multi systems, the mirror housing is equipped the "F-Stop" mechanism.

Further more, the housing vital to the flange back focus and the viewfinder focus.

The focus adjustment procedure will be explained in later.

Each element of the mirror housing supplied as a spare part is factory adjusted and further adjustment need not be performed.

The information contained in the elements description is for the extensive repair only.

A. Mirror-up Magnet

General electric magnet works as magnet by magnetizing the iron core of coil with electricity.

The mirror-up magnet will turned "ON" by the shutter release and the armature lever will leave.

So during above operation F-Value is determined and mirror-up magnet will turned "ON" again.

Then, armature lever will leave again and mirror up will begin.

B. F Stop magnet

The CHINON CP-7m camera is designed with multi-program AE mode and new AE system is controlled by the Micro-Computer perfectly.

The F stop magnet determines the hour of the F Stop-Down systems activation by the Micro-Computers command.

When Aperture-Priority AE mode and manual exposure mode occur, the F stop magnet operates the F Stop-Down system by constant hour.

C. Mirror Housing Operation

Mirror housing mechanism operate by mirror box motor plate (1471BOCS4101A).

1. Operation of mirror housing charge

Mirror charge lever (1471BOCS4125A) will be actuated by the mirror lever (1471BOCS4033A). See Fig. III-1.

The mirror charge lever will be locked by the M4 Gear in the mirror box motor plate. See Fig. III-2.

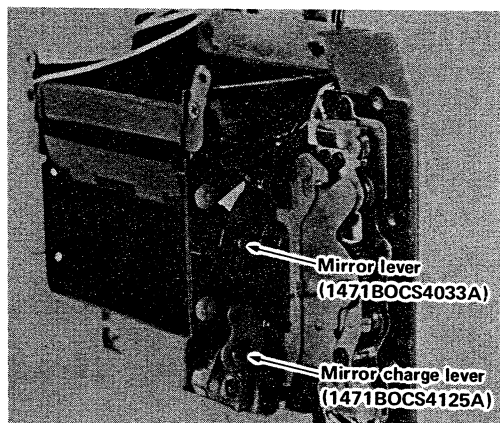


Fig. III-1

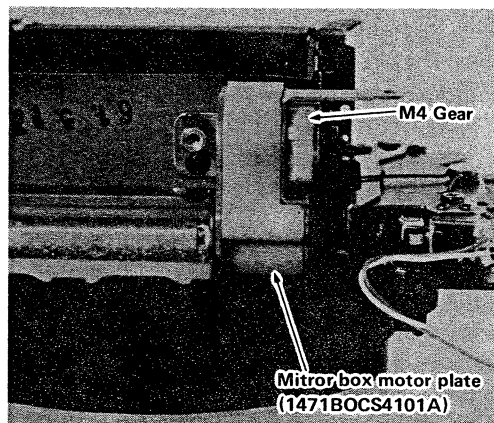


Fig. III-2

2. Operation of the F stop

When the mirror-up magnet is turned "ON", the mirror armature lever will be release from the mirror up magnet and push the mirror operation lever (1471BOCS4035A). See Fig. III-3.

Then, the mirror charge lever (1471BOCS4125A) operation and the Stop-Down baseplate A (1471BOCS4151A) is pushed by F/stop lever. See Fig. III-4.

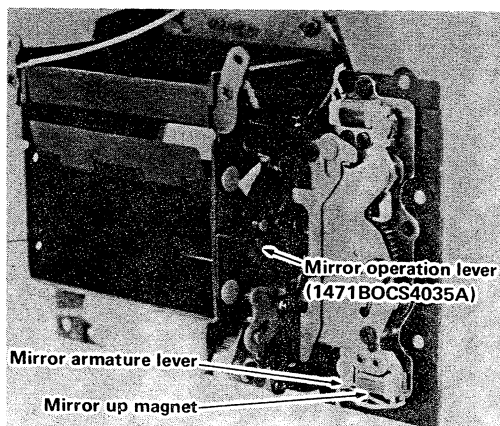


Fig. III-3

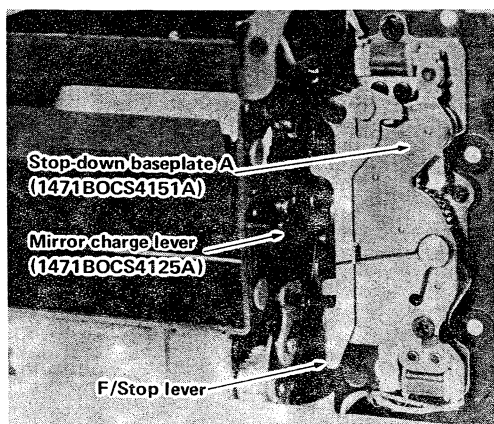


Fig. III-4

The F stop magnet is turned "ON" the moment that the shutter is release and the F armature lever A will be leaved. See Fig. III-5. Then, the F setting gear A moves the F value position and controlled. See Fig. III-6.

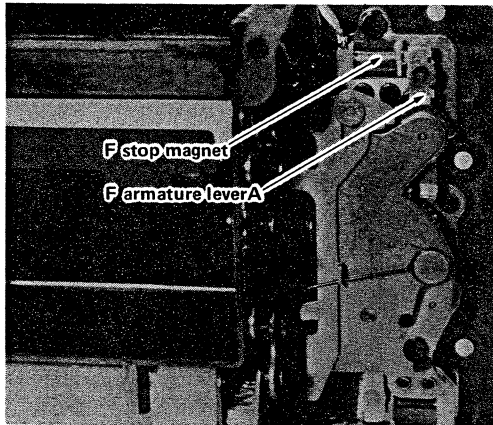


Fig. III-5

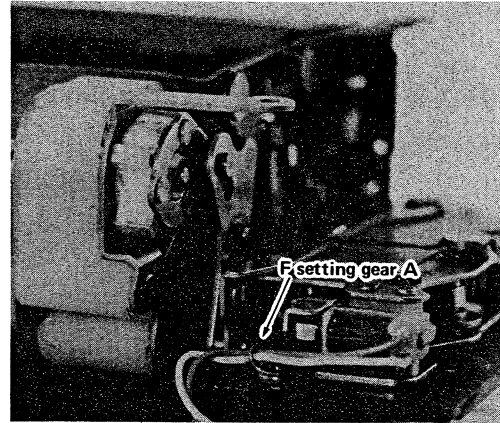


Fig. III-6

3. Operation of mirror-up

When the mirror-up magnet is turned "ON" again, the mirror armature lever will be released from the mirror up magnet and push the mirror operation lever by the box motor.

then, lock of the mirror lever (1471BOCS4033A). See Fig. III-7.

The mirror operation lever (1471BOCS4035A) lift up the mirror system, when the mirror up operation will come to an end.

Also the shutter charge lever and shutter function are sequenced to actuate the opening curtain lever. See Fig. III-8.

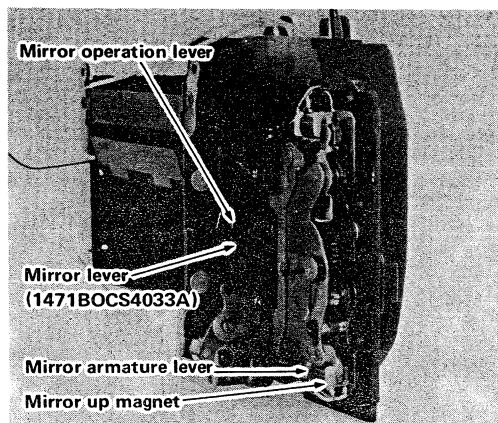


Fig. III-7

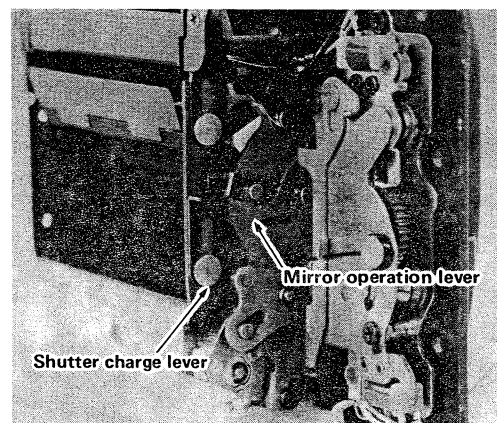


Fig. III-8

4. Operation of mirror-down

The shutter closing curtain release lever presses the shutter charge lever there by actuating the shutter charge lever position A and B in sequence. The mirror operation lever (1471BOCS4035A) should be released from the shutter charge lever position B. See Fig. III-9.

Also the housing will return the first position, when it will be finished all of the operations (mirror charge, F stop, mirror up and mirror down).

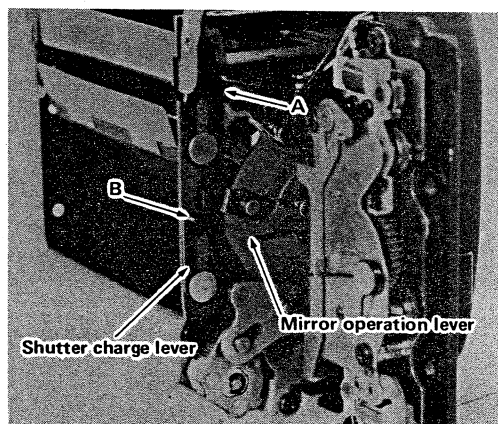


Fig. III-9

IV. WINDING MECHANISM

A. Operation of Winding Mechanism

Winding mechanism actuated by the winding motor (1471BOCSEM02A) and mirror housing mechanism actuated by the box motor (1471BOCSEM01A) with set the shutter.

The sprocket A gear (1471BOC-3054A) and Winding baseplate (1471BOCS3001A) should be connected with winding motor. See Fig. IV-1.



Fig. IV-1

By charging the mirror housing, the box motor to connected the mirror charge lever (1471BOCS4125A) will move and controlled the motor stop switch (1471BOCS4056A). See Fig. IV-2.

By charging the winding, the winding motor to connected the take-up spool (1471BOC-3071A) will move and controlled the winding switch (1471BOCSES02A). See Fig. IV-3.

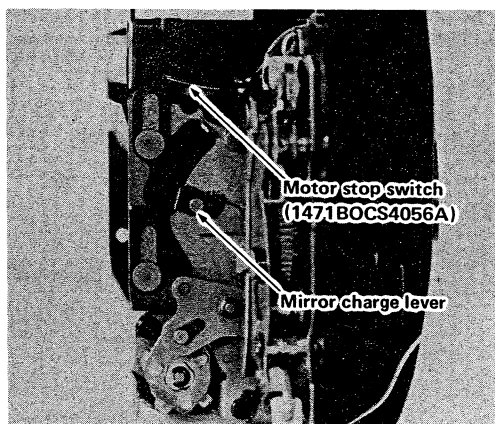


Fig. IV-2

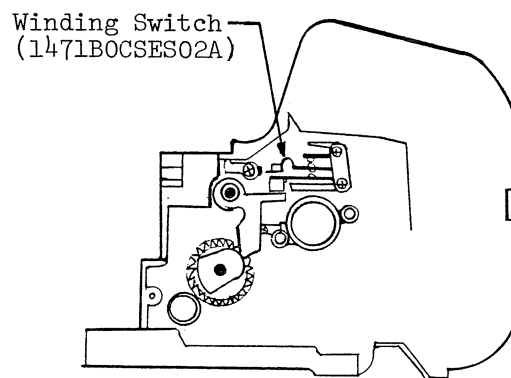


Fig. IV-3

V. FOCUS ADJUSTMENT

To the quality of the picture produced by at SLR camera, two focus adjustment is vital (excluding lens focus). One is called the "Flange Back Focus" and the other is called the "Viewfinder Focus".

The flange back focus is the distance between the lens mount hardware surface and the film plane. The distance should be correctly adjusted in order to focus clearly with any kind of interchangeable lenses. Improper adjustment of this focus will affect the viewfinder focus, too.

The viewfinder focus must be adjusted correctly so that film plane image precisely coincide. If this poorly adjusted, whenever focused through the viewfinder, the results on the film will be out focus in actual picture taking. See Fig. V-1.

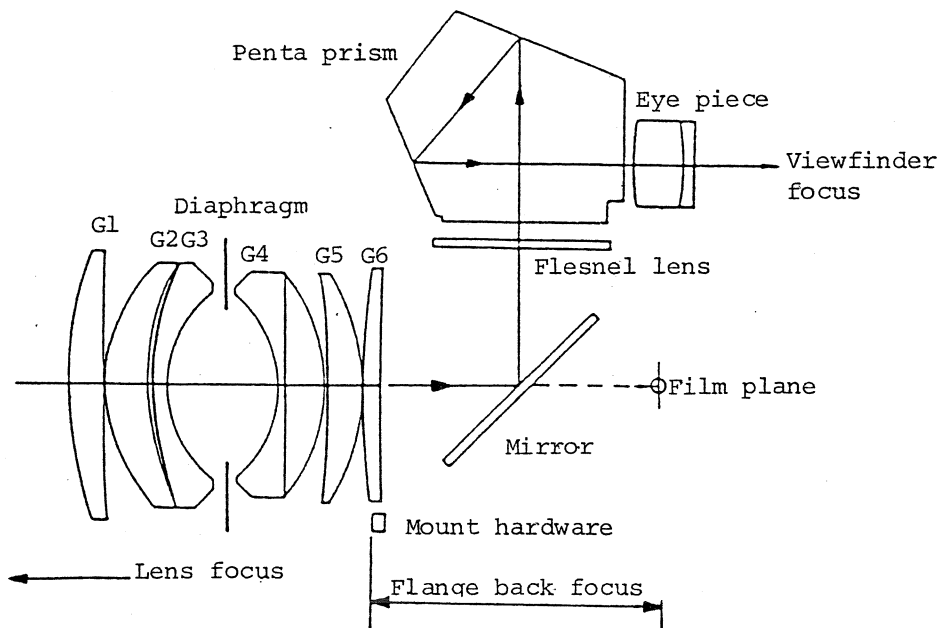


Fig. V-1

A. Flange Back Check and Adjustment

Tools Used: Dial gauge (T2-202)

- a. Place the camera on a dial gauge (T2-202) and insert a block gauge between the camera and dial gauge. Rotate the camera. See Fig. V-2.

The dial gauge reading should be:
 $55.5 \pm 0.01 \text{ mm}$ ($45.5 \pm 0.01 \text{ mm} + \text{Block gauge } 10.0 \text{ mm}$)

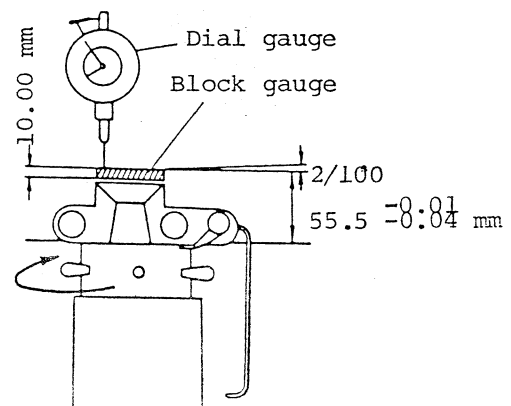


Fig. V-2

- b. The reading should not fluctuate more than 0.02 mm even it is within the specified range.

When adjustment is necessary, loosen the six set screws of the mount and insert or with draw the mount washers.

Three kinds of washers are available:
0.03, 0.05, 0.07 mm.

Tighten the six set screws securely after the adjustment.

See Fig. V-3.

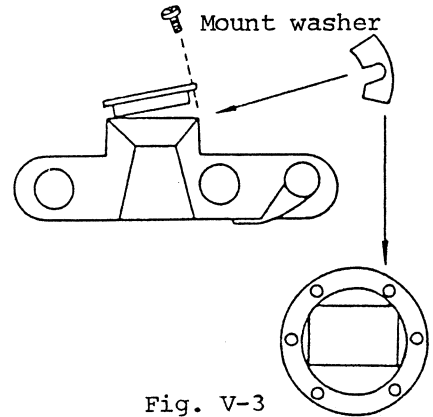


Fig. V-3

B. Viewfinder Focus Adjustment

Tools used: Infinity collimator (T0-055)
Focus calibrated lens ($f=50$ mm lens)

- a. Mount the lens to the body and turn the lens focusing ring to obtain sharpest collimator image on the viewfinder screen.

If the collimator is not available aim at a distant object more than 250 m away (with $f=50$ mm lens).

- b. When the sharpest image is obtained at near distance side of the focus ring, turn the three adjustment screws clockwise.

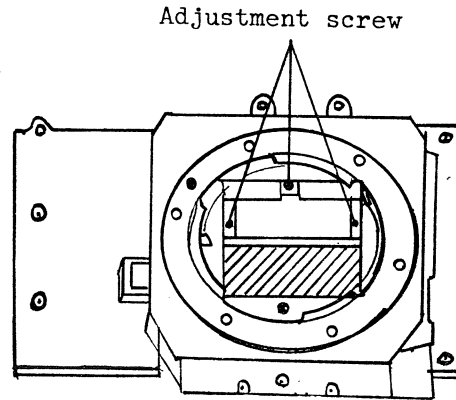


Fig. V-4

- c. When the sharpest image is not obtained even at " ∞ " position, turn the three adjustment screws counterclockwise.

See Fig. V-4.

- d. The image should be sharpest at the focus ring at " ∞ " position.

After the adjustment, release the shutter several times and check focus again.

- e. After adjustment, lock these screw with glue.

VI. EXPOSURE CONTROL

The Chinon CP-7m feature Multi-Program automatic exposure controlled system. Once the lens F stop is set to F/22 (50mm F/1.4 lens), the shutter speed and F stop most of the controlling circuit is integrated into the Micro-Computer.

A. Manual Shutter Speed Confirmation

Connect the DC connector to camera and set the power supply voltage to 5.0 V ± 0.1 .

Check the manual shutter speed with the shutter speed tester, so that the reading becomes within nominal ± 0.3 EV without 1/1000 sec. and 1/2000 sec. The 1/1000 sec., so that the reading becomes within nominal ± 0.35 EV. and the 1/2000 sec., so that the reading becomes within nominal ± 0.45 EV.

Center of Shutter Speed (msec.)

EV Speed	-0.3EV	Nominal	+0.3EV
1/500	1.58	1.95	2.40
1/250	3.18	3.91	4.18
1/125	6.34	7.81	9.62
1/60	12.7	15.6	19.2
1/30	25.4	31.3	38.5
1/15	50.8	62.5	76.9
1/8	102	125	154
1/4	203	250	308
1/2	406	500	616
1	812	1000	1231
2	1625	2000	2462
4	3250	4000	4925
8	6498	8000	9849

1/1000 sec.: 0.77 msec. (-0.35EV), 0.98 msec. (Nominal), 1.25 msec. (+0.35EV)
 1/2000 sec.: 0.33 msec. (-0.45EV), 0.49 msec. (Nominal), 0.71 msec. (+0.45EV)

B. Automatic Shutter Speed Adjustment

1. Connect the DC connector to camera and set the power supply voltage to 5.0 V ± 0.1 .

2. Off-Set Adjustment for SPD Input-Ope.-Amp.

Connect the voltmeter to Pin 9 of TA8623F and also Pin 10 of TA8623F and measure the Voltages. Adjust the potentiometer VR1 so that the voltage of Pin 9 becomes as belows.

See Fig. VI-1, Fig. VI-2.

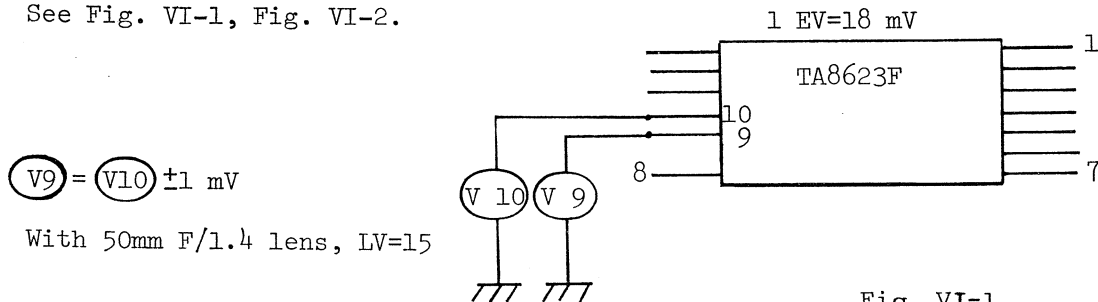


Fig. VI-1

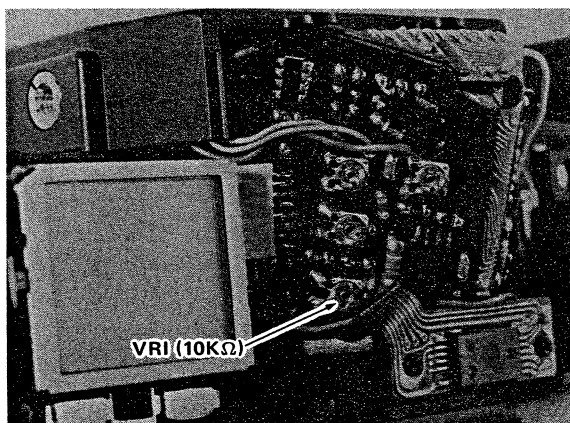


Fig. VI-2

3. γ Adjustment of A/D Compensation

a. Adjusting condition

Light source: LV 15, F/Number: F/5.6.

Adjust the potentiometer VR2 so that the reading becomes shutter speed 1/1000 sec. See Fig. VI-3.

b. LV 6 setting, adjust the potentiometer VR3 so that becomes shutter speed 1/2 sec. See Fig. VI-3.

Shutter speed confirm the LCD panel (0.5 EV steps).

LV 15(F5.6)	LV 6(F5.6)
LCD Panel 1/1000	LCD Panel 1/2

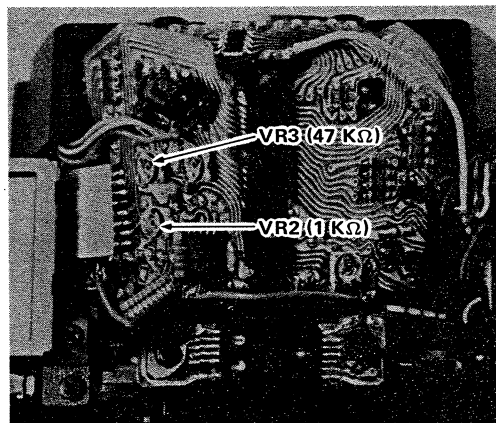


Fig. VI-3

4. γ Adjustment of F/No. VR.

a. Adjusting condition

Light source: LV 9, F/Number: F/2.

Adjust the potentiometer VR2 so that the reading becomes shutter speed 1/125 sec. See Fig. VI-4.

b. F/16 setting, adjust the potentiometer VR4 so that the reading becomes shutter speed 1/2 sec. See Fig. VI-4.

LV 9(F2)	(F16)
LCD panel 1/125	LCD panel 1/2

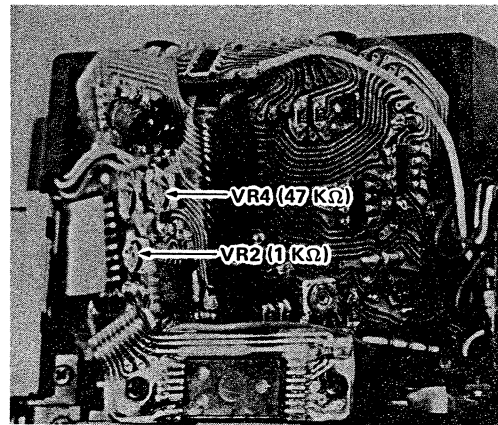


Fig. VI-4

5. Adjustment of Battery Checker Voltage

Adjust the potentiometer VR5 for battery checker voltage.
Checker Voltage $4.0V \pm 0.1$.

Set the power supply voltage 4.0 V and adjust the potentiometer VR5 that the LCD panel switch ON/OFF stare "OFF" moment by shutter release button. See Fig. VI-5.

Checker Voltage	LCD Switch "ON"	4.4 V. Over
	LCD Switch "ON/OFF"	4.2 - 4.1 V
	LCD Switch "OFF"	3.9 V Less

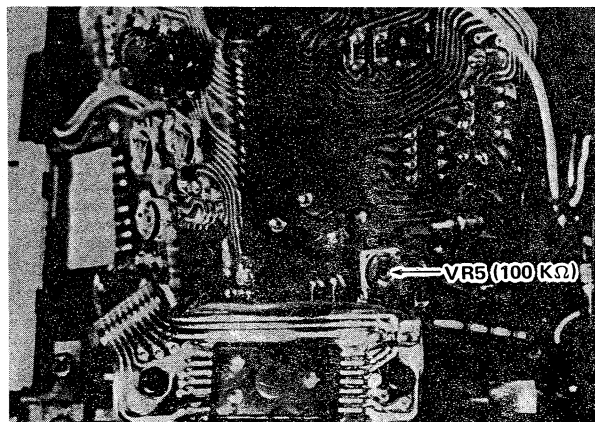


Fig. VI-5.

6. γ Fine adjustment of A/D compensation (with EE camera tester).

a. Adjusting condition

Light source: LV 12, Film speed: ASA/ISO 100, F/Number: F/5.6.

Adjust the potentiometer VR2 so that the reading becomes within nominal ± 0.15 EV. See Fig. VI-6.

Shutter Speed 1/125 sec.

LV	-0.15 EV	0 EV	+0.15 EV
12	7.04msec.	7.81msec.	8.66msec.

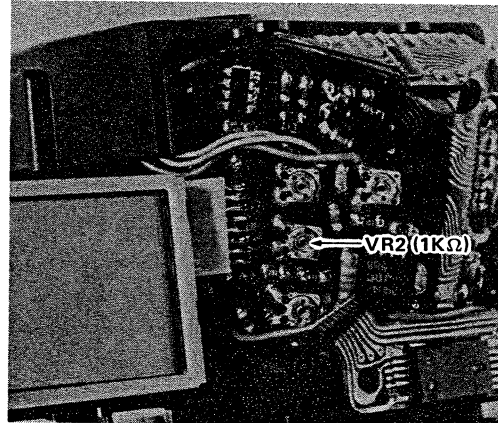


Fig. VI-6

b. Adjusting condition

Film Speed: ASA/ISO 100, F/Number: F/5.6.

Adjust the potentiometer VR3 so that the reading becomes each light source of LV 15, LV 12, LV 9, and LV 6. See Fig. VI-7.

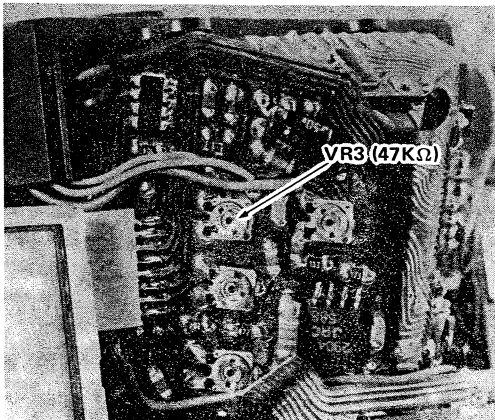
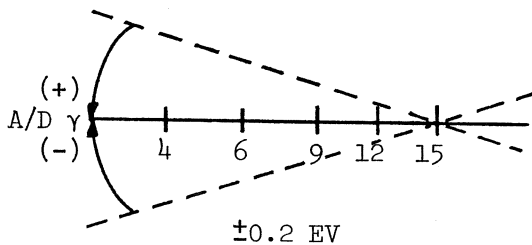


Fig. VI-7

Shutter Speed (msec.)

LV	-0.2 EV	0 EV	+0.2 EV	Shutter Speed
15	0.85	0.98	1.12	1/1000
12	6.80	7.81	8.97	1/125
9	54.4	62.5	71.8	1/15
6	435	500	574	1/2
4	1741	2000	2297	2 sec.

7. γ Fine adjustment of F/No. compensation

a. Adjusting condition

Light source: LV 9, Film speed: ASA/ISO 100.

Set the aperture F/2, adjust the potentiometer VR2 so that the reading becomes nominal ± 0.2 EV.

b. Next set the aperture F/16, adjust the potentiometer VR4 so that the reading becomes nominal ± 0.2 EV.

See Fig. VI-8.

Shutter Speed (msec.)

F	-0.2 EV	0 EV	+0.2 EV
2	6.80	7.81	8.97
5.6	54.4	62.0	71.8
16	435	500	574

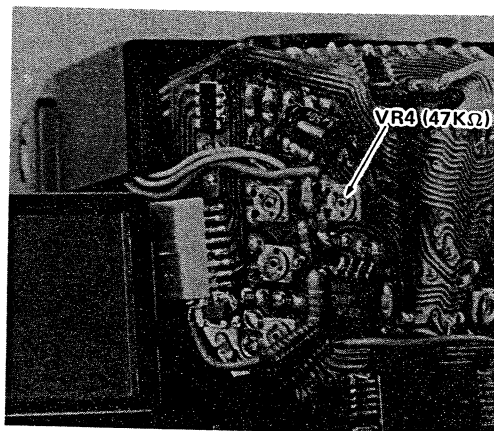


Fig. VI-8

8. Final Confirmation of AE

Then, change the light source (LV), F/No. and film speed of each combination that the reading becomes within nominal ± 0.3 EV in the range of interlocked operation.

If it is not correctly, repeat from procedure 6 and 7.

Change the LV.

Set the ASA/ISO 100, and F/5.6. (msec.)

LV	-0.3 EV	0 EV	+0.3 EV
15	0.79	0.98	1.20
12	6.35	7.81	9.62
9		62.5	
6	406	500	616
4	1625	2000	2462

Change the F/No.

Set the ASA/ISO 100, and LV 9. (msec.)

F/No	-0.3 EV	0 EV	+0.3 EV
2	6.35	7.81	9.62
5.6		62.5	
16	406	500	616

9. Program Mode AE Confirmation

Set the 50mm F/1.4 lens at F/22 position, change the light source to LV4, 6, 9, 12, and 15 at P-mode, confirm the AE so that the reading becomes with ± 0.5 EV in the range of interlocked operating and confirm the P, PA and PC-Mode, then, it is right that -0.55 EV limited to LV9 at P-Mode, LV12 at PA-Mode, and LV6 at PC-Mode.

If it is not correctly, repeat from 6 and 7 and 8.

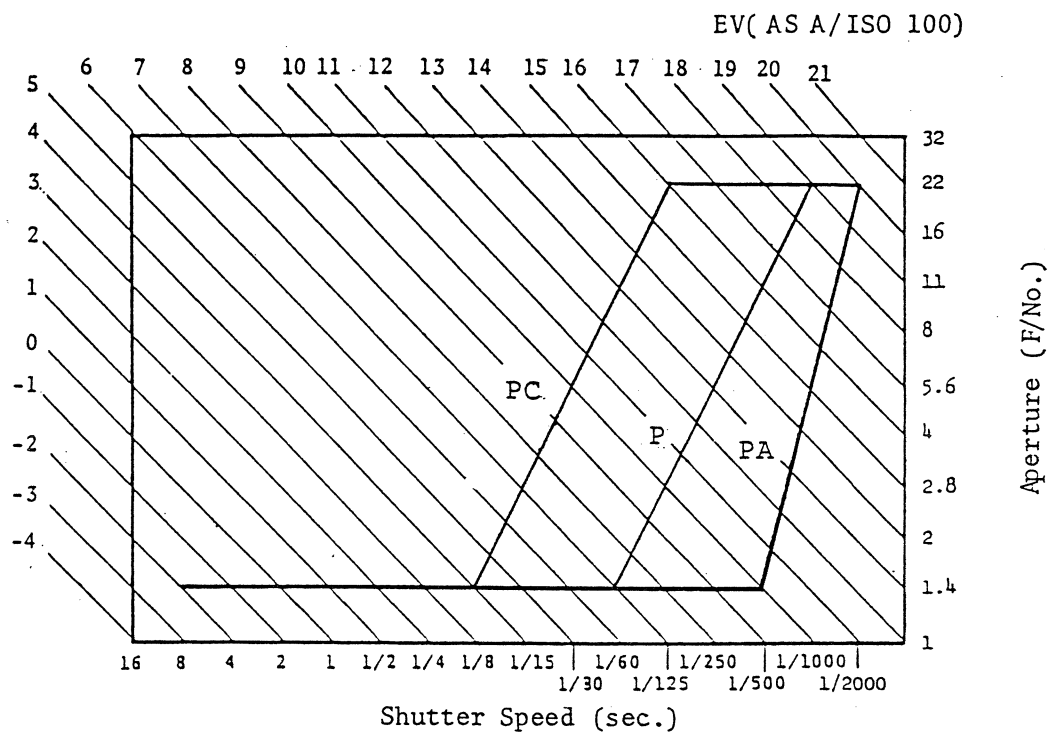
10. Program-Mode P, PA and PC for Shutter Speed.

With 50mm F/1.4 lens, ASA/ISO 100

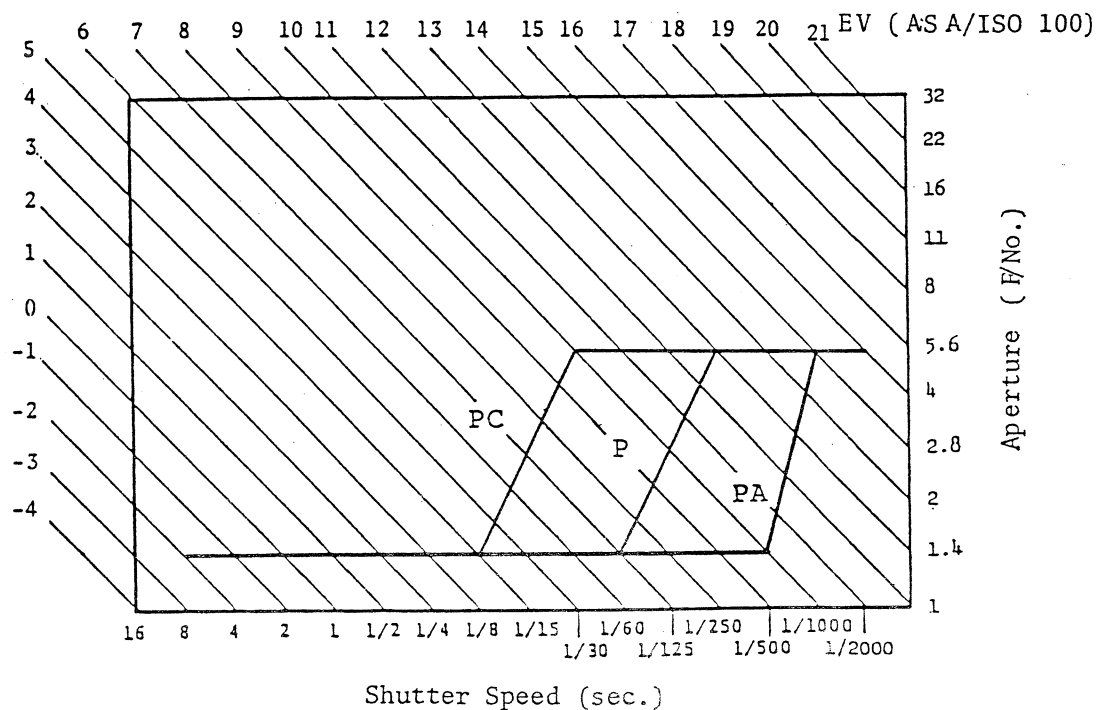
LV	EV Range	Shutter speed (msec.)		
		P	PA	PC
4	± 0.7	125	125	125
6	± 0.7	31.3	31.3	77.1
9	± 0.7	9.58	3.91	38.4
12	± 0.7	4.81	1.72	19.2
15	± 0.7	2.40	0.98	9.61

C. PROGRAM CURVE

1. Program P, PA and PC (With 50mm F/1.4 lens, it is aperture set at F/ 22.)



2. Program P, PA and PC (With 50mm F/1.4 lens, it is aperture set at F/ 5.6)



D. Exposure Control Indication

1. Shutter speed control indication

Shutter speed indication, LED of 1 step within viewfinder and LED 1/2 step within LCD panel. but the manual position of LCD panel is 1 step.

LCD Panel	LED Indication	LCD Panel	LED Indication	LCD Panel	LED Indication
2000	2000	90		4	4
1450		60	60	3	
1000	1000	45		2	2
750		30	30	1	1
500	500	20		2 sec	A,Program
350		15	15	3 sec	light ON
250	250	10		4 sec	Manual
180		8	8	6 sec	ON/OFF
125	125	6		8 sec	

2. Aperture-Priority system AE-Mode Checking

Check the aperture ring.

LV	Master Lens	Shutter Speed	EV Range
6	F/5.6	2	± 0.5
9	F/5.6	15	± 0.5
12	F/5.6	125	± 0.5
15	F/5.6	1000	± 0.5

3. Program AE-Mode

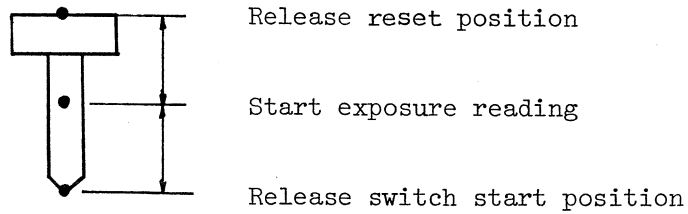
Aperture set at F/22 With 50mm F/14 Lens.

LV	Shutter Speed						EV Limit
	PA		P		PC		
	LED	LCD	LED	LCD	LED	LCD	
6	30	30	30	30	15	10	±1 step
9	250	250	125	90	30	20	
12	500	750	250	180	60	45	
15	1000	1000	500	350	125	90	

VII. SHUTTER RELEASE MECHANISM

CHINON CP-7m camera is furnished with electromagnetic shutter release system. The electromagnetic shutter release, which enable us to take picture intantly without any time lag mode by long stroke of traditional cameras. Sine the electromagnetic shutter release can cocked only with slight touch, we can prevent shutter blurring.

Release stroke (Standard)



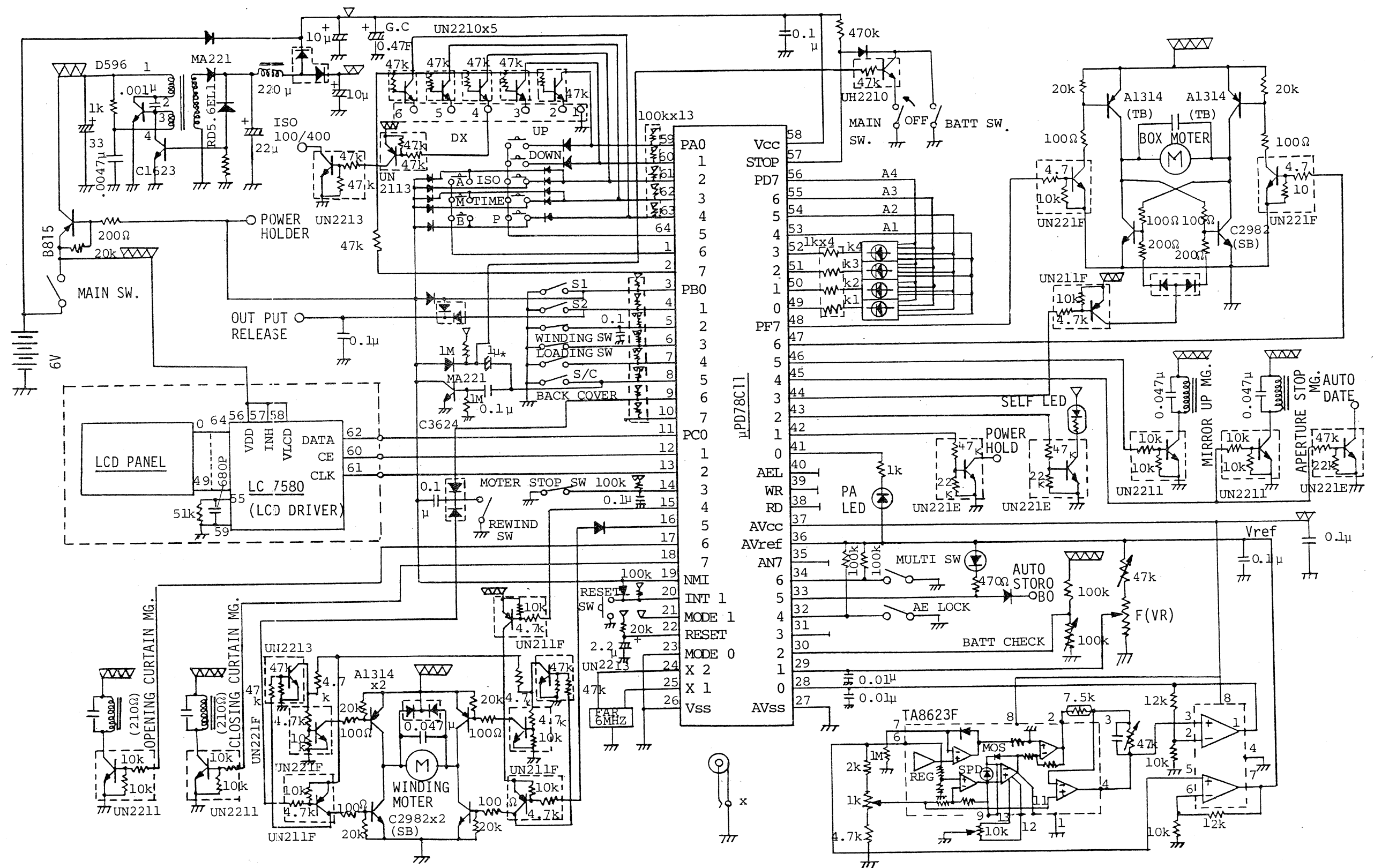
SERVICE TOOLS LIST
OF
CHINON CP-7m

Tool No.	Tool Name	Application
T0-001	(-)Screwdriver set (#1 - 6)	Excellent for all fine work.
T0-002	(+)Screwdriver set (#4 - 6)	
T0-003A	Screwdriver handle: Type A	Interchangeable with various bits.
T0-003B	Screwdriver handle: Type B	"
T0-004A	Screwdriver bit: Type A	For very fine work.
T0-004B	Screwdriver bit: Type B	For fine work.
T0-004C	Screwdriver bit: Type C	For very fine work with long shaft.
T0-011	Precision set	For delicate work.
T0-013	Micro nipper	
T0-015	Plier	
T0-019A	Tweezers: Type A	"AA" size for fine work.
T0-019B	Tweezers: Type B	"MM" size for very fine work.
T0-025	Blower	Safely clean lens surface.
T0-027	Injector	For oiling or glueing.
T0-028	Glue	Special glue for screws bolts.
T0-029A	Cement: Type A	For bonding the metals.
T0-029B	Cement: Type B	"
T0-032	Cement	For light intercepting
T0-050	Auto collimator (f=80 mm)	For very short focus lenses.
T0-051	Auto collimator (f=120 mm)	For short focus lenses.
T0-052	Auto collimator (f=193.5 mm)	For all lenses.
T0-053	Auto collimator (f=300 mm)	For long focus lenses.
T0-054	Auto collimator (f=500 mm)	For very long focus lenses.
T0-055	Infinity collimator	Checking or adjusting viewfinder focus.
T0-056	Lens micro-meter	Equiped with auto collimator.
T0-057	DC power source (2A)	Regulated DC power supply.
T0-058	Tester	All purpose.
T0-059	Digital multimeter	For measuring the voltage and resistance.
T0-060	Mega ohm tester	For checking electric leakage.
T0-064	Shutter tester	For measuring the shutter speed.
T0-065	Multi camera tester	For measuring the exposure.
T0-066	EE tester	"
T0-067	F number tester	Measuring the difference of value against the standard F.
T2-201	Camera stand	
T2-202	Dial gauge	For checking the level of camera mount.
T2-204B	Flange back gauge: Type B	For bayonet mount.
T2-205	Mirror stand	For checking or adjusting focus and equiped with auto collimator.
T2-301	DC connector	For much easy using this connector with Combination of the stabilized power supply.

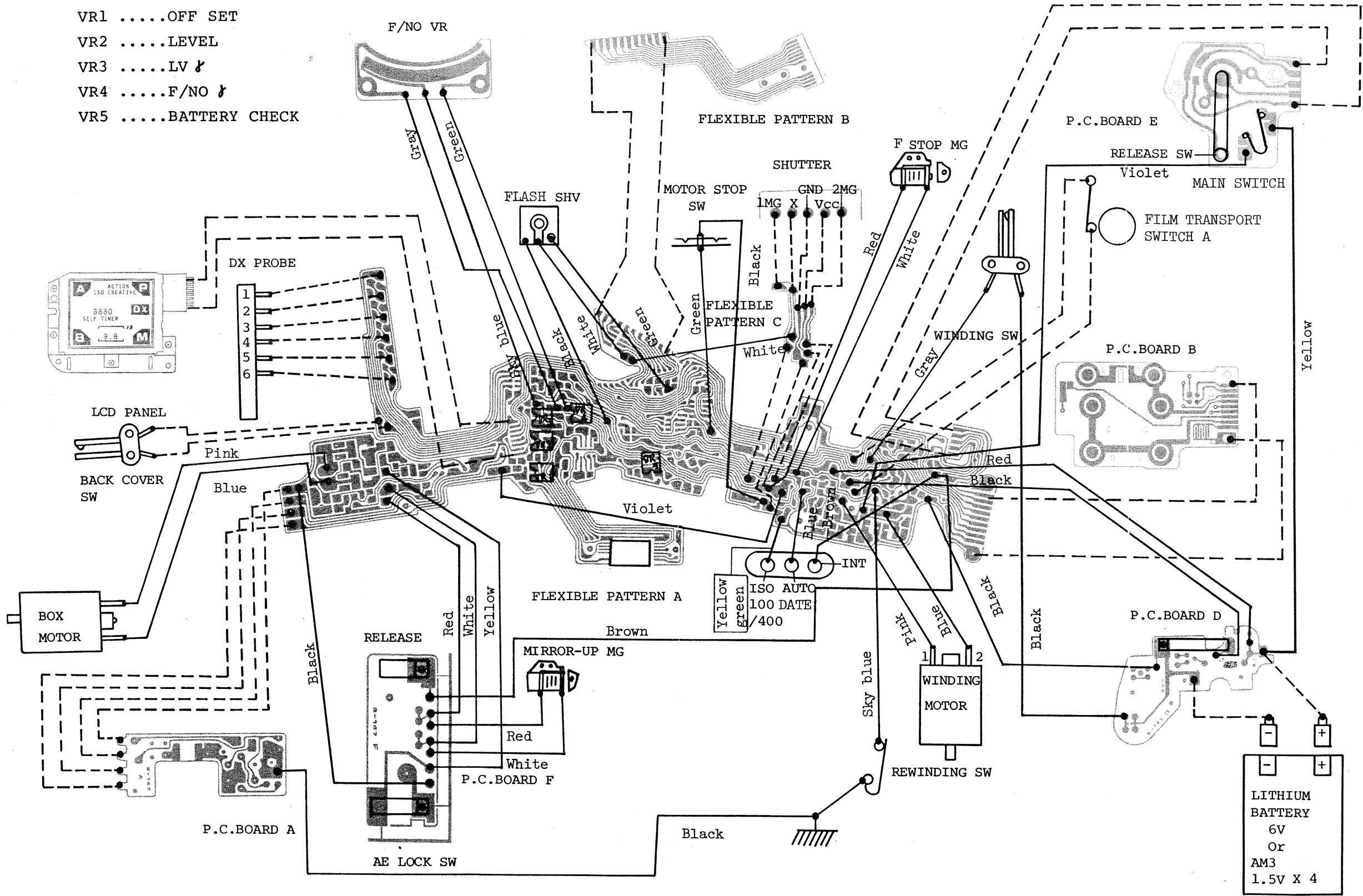
* For specifications, detailed explanation, and price of these,
please refer to already distributed lists of "TOOLS & INSTRUMENTS".

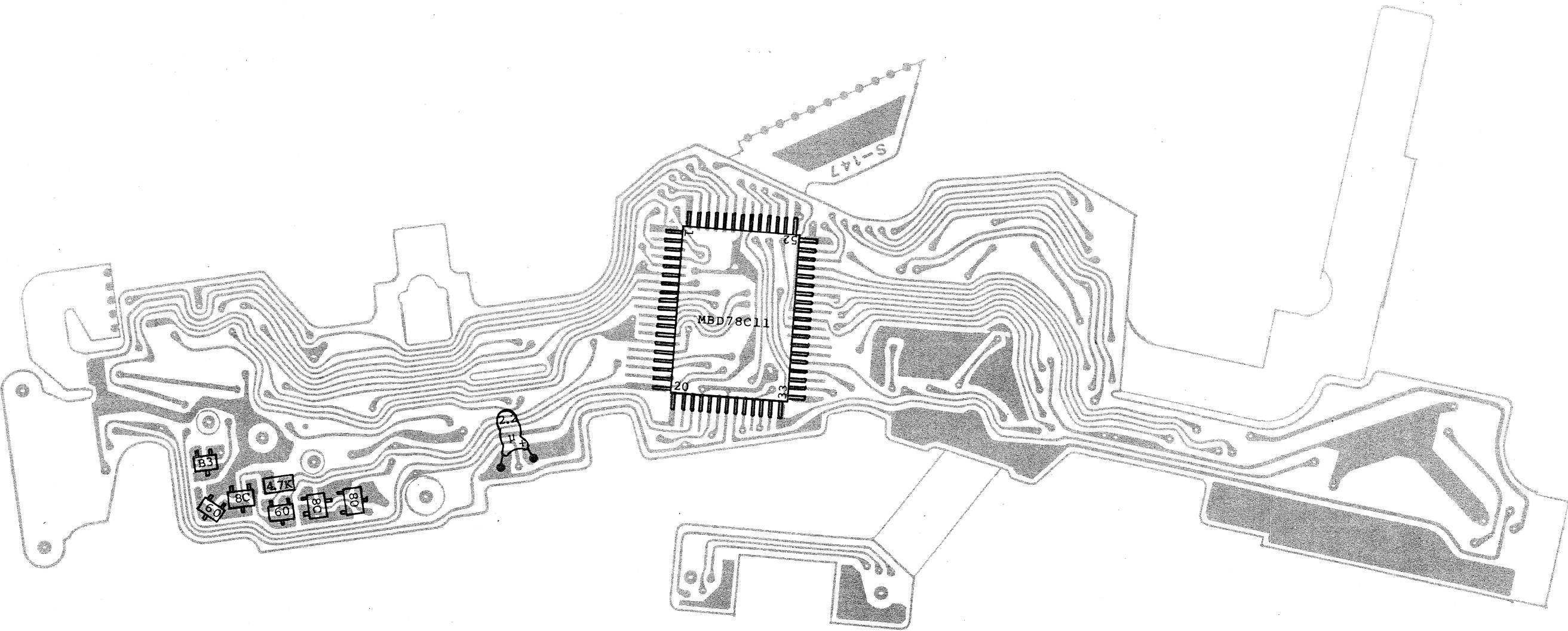
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FLEXIBLE PATTERN A (Rear View)	5
P.C.BOARD A (Front & Rear Views)	6
P.C.BOARD B	6
CONNECTION OF FLEXIBLE PATTERN B AND 18 DOT LEDs	6
TIMING CHART	7



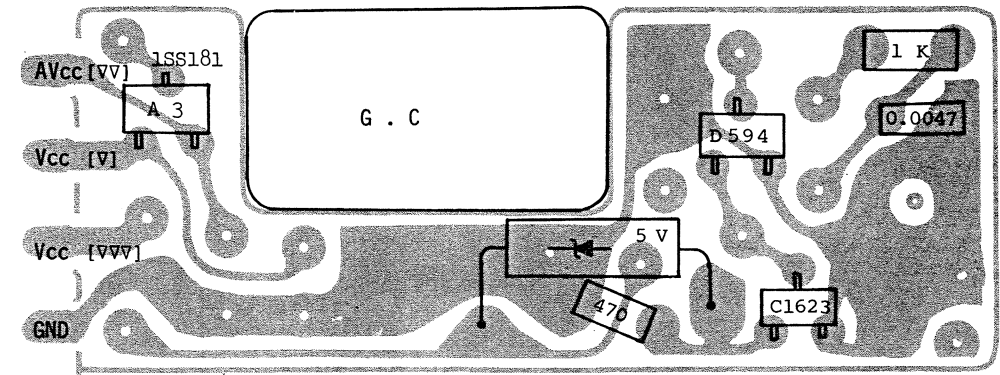
*Bipolar condencer



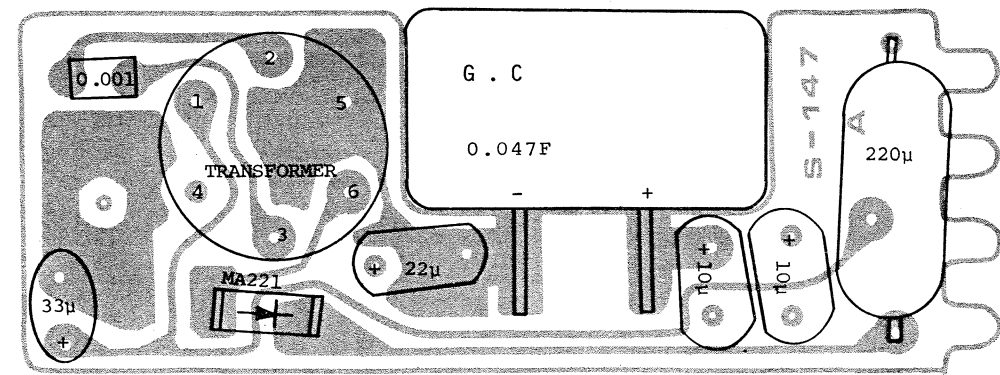


(Rear view)

P.C.BOARD A

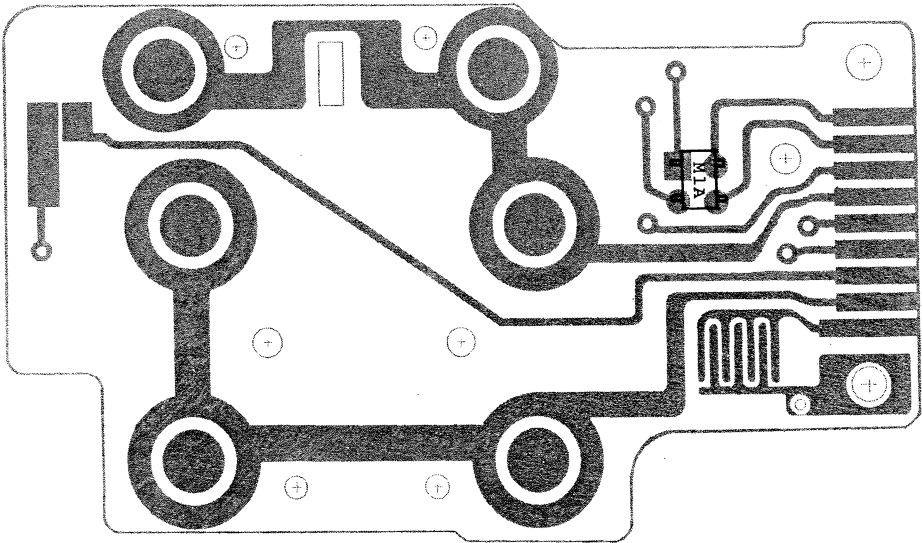


P.C.BOARD A (Front View)

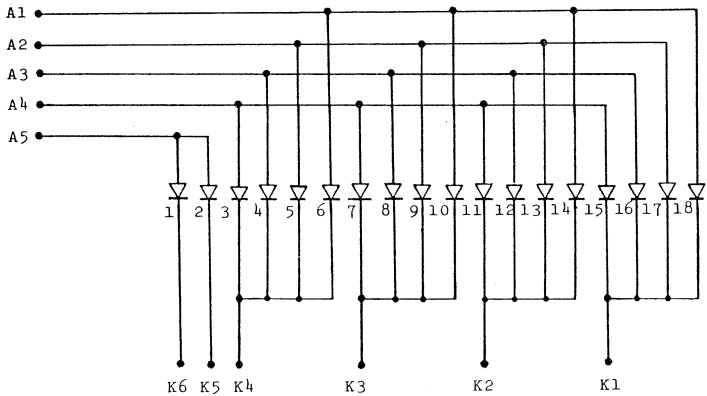
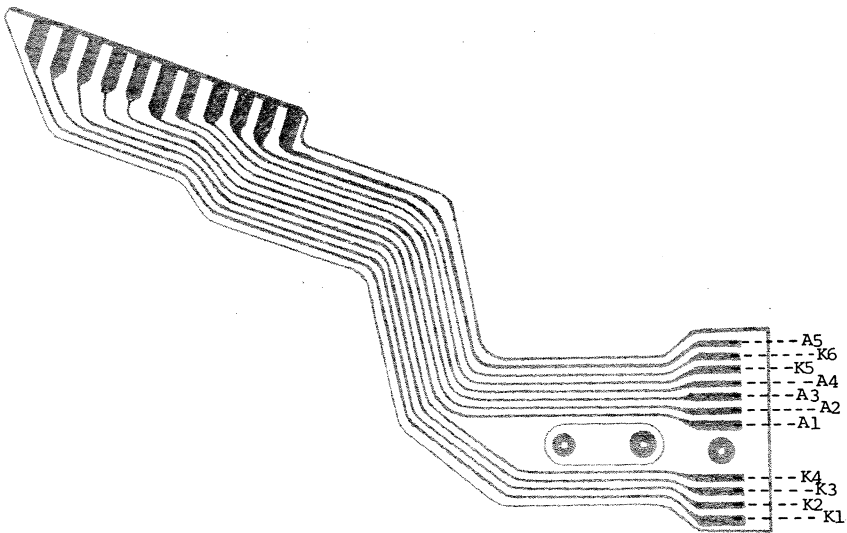


P.C.BOARD A (Rear View)

P.C.BOARD B

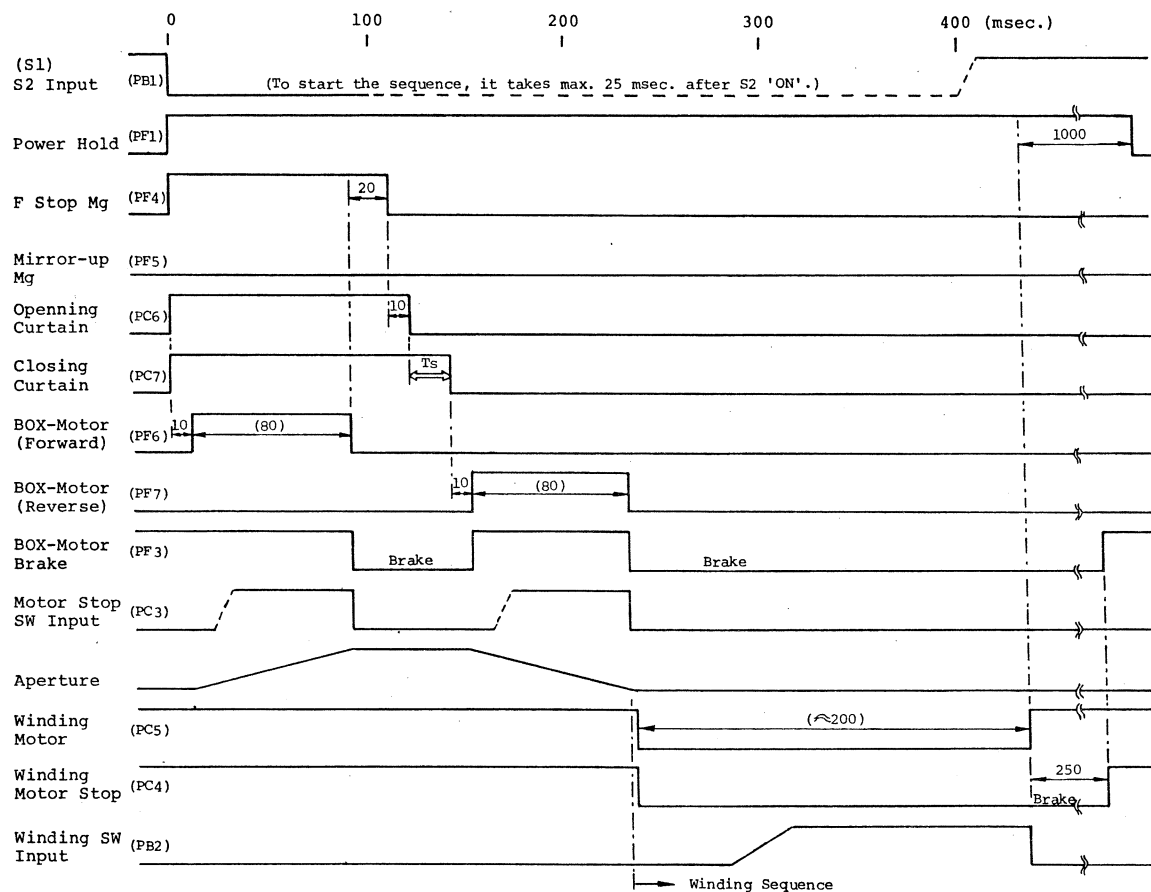


CONNECTION OF FLEXIBLE PATTERN B AND 18 DOT LEDs

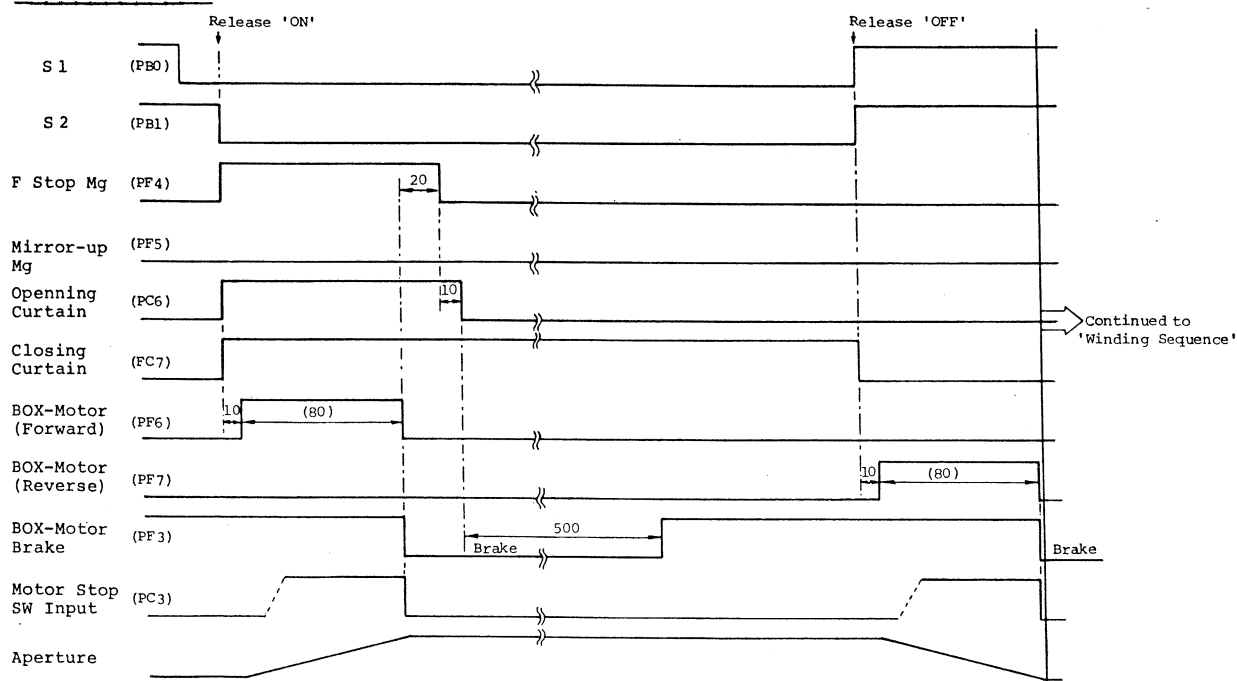


TIMING CHART

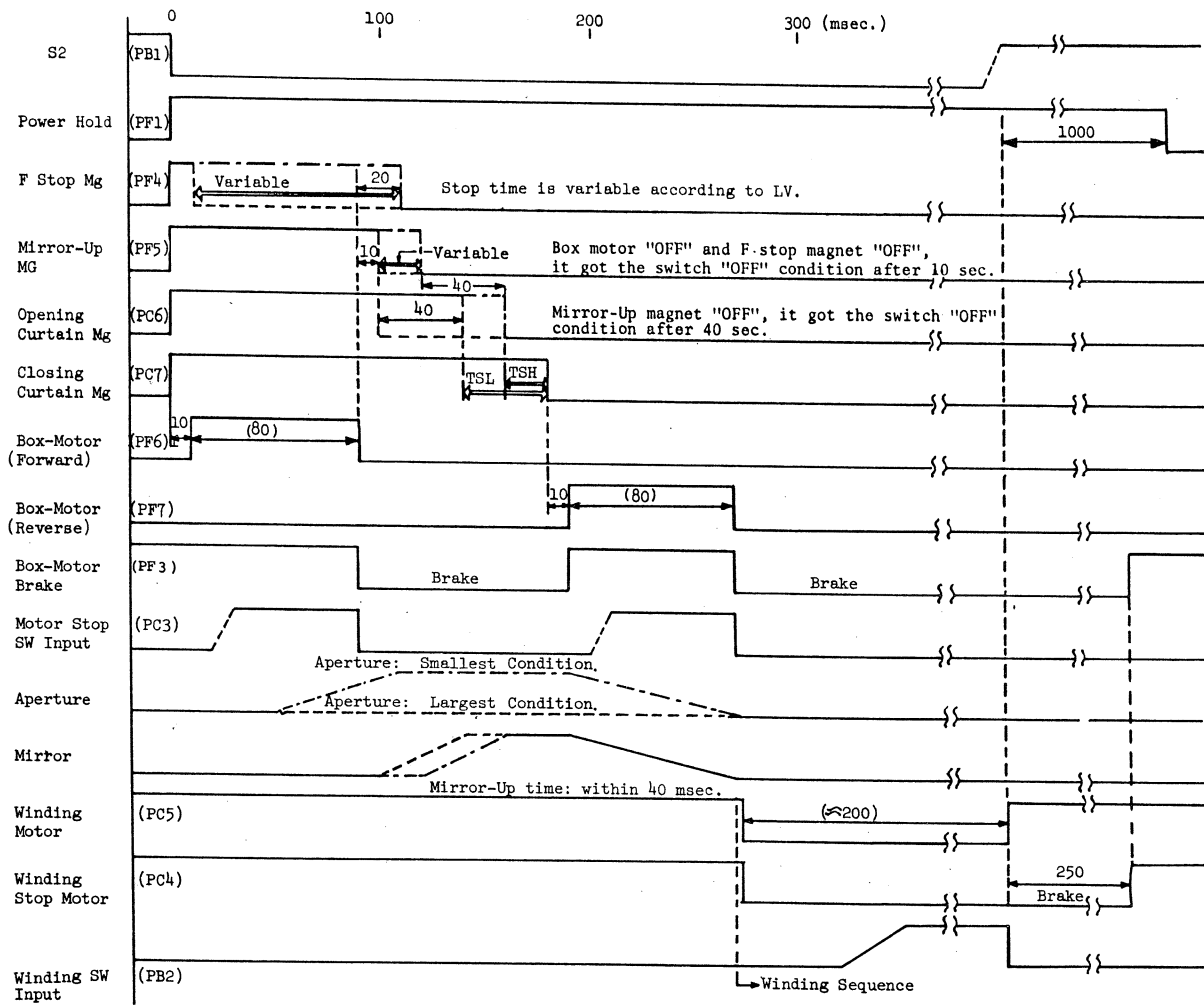
Mode: M (Manual) & A (Auto)



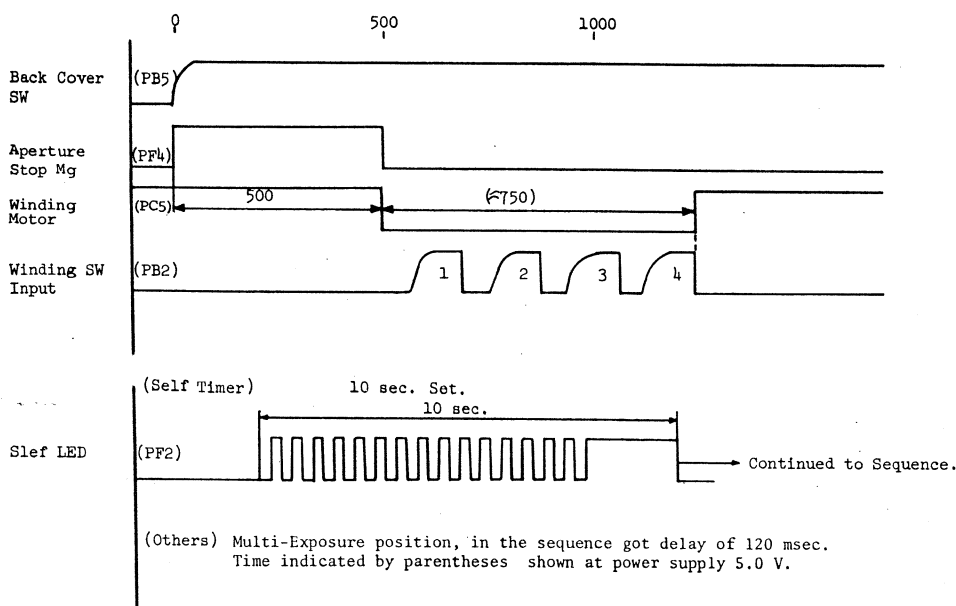
Mode: B (Bulb)



Mode: P (Program)



Mode: Loading

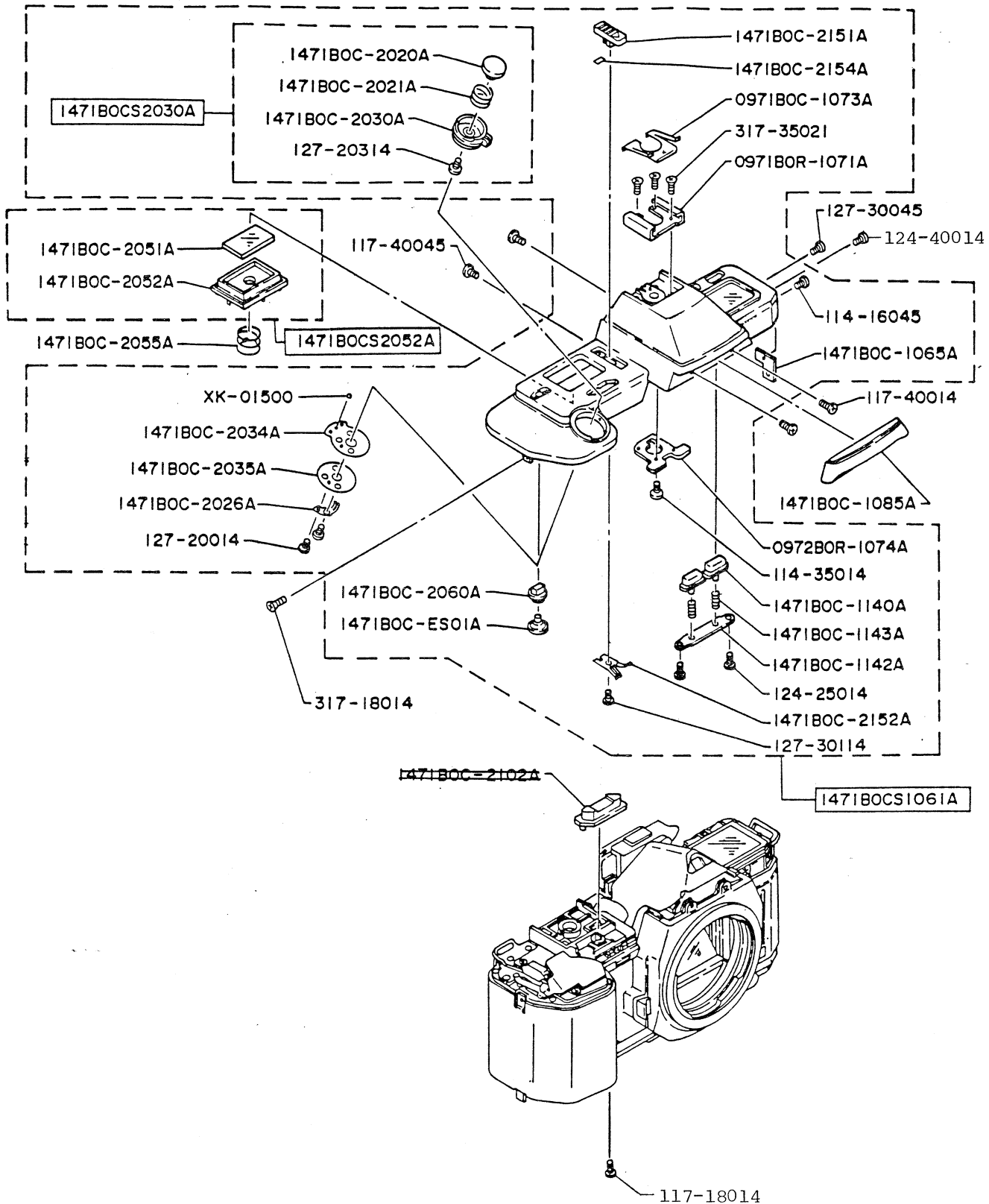


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1

EXPLODED VIEW OF CHINON CP-7M MULTI PROGRAM



PARTS LIST

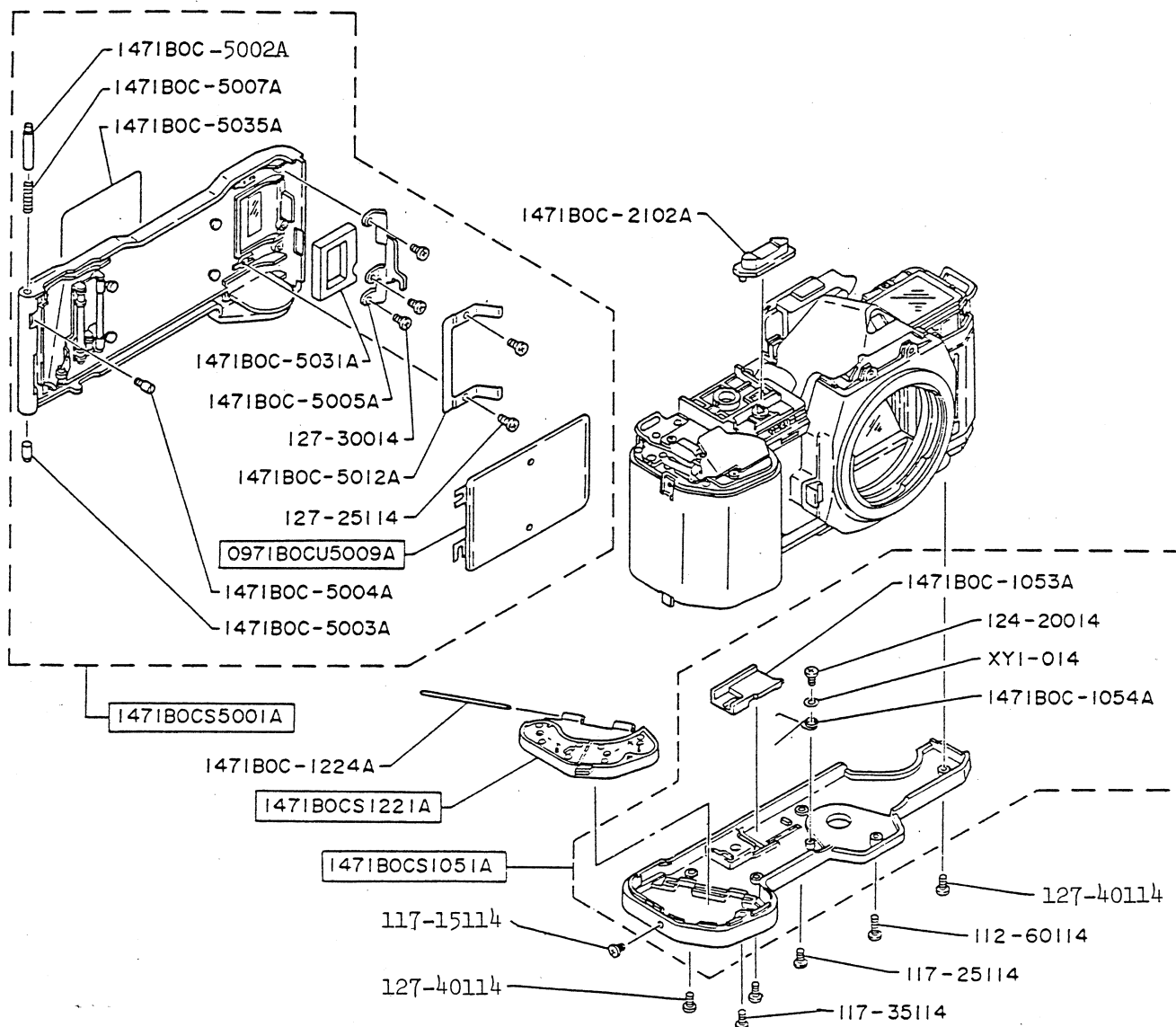
1

OUTER COVER(TOP COVER)

<u>ORDER Q'TY</u>	<u>部 品 名 称</u>	<u>PARTS CODE</u>	<u>QTY</u>	<u>PARTS NAME</u>
	ウカバ- セット	1471B0CS1061A	1	Top cover
	SCキリカイダイヤル セット	1471B0CS2030A	1	SC change dial
	モードボタン セット	1471B0CS2052A	1	Mode button
	ウカバ-トメイタ	1471B0C-1065A	1	Top cover set plate
	ACシュー-	0971B0R-1071A	1	Hot shoe
	シューバネ	0971B0C-1073A	1	Hot shoe spring
	シュートリツカサ	0971B0C-1074A	1	Hot shoe mount base
	ランドパン	1471B0C-1085A	1	Name plate
	ITボタン	1471B0C-1140A	1	IT button
	ITプレート	1471B0C-1142A	1	IT Plate
	ITボタンSP	1471B0C-1143A	2	IT button spring
	リリースボタン	1471B0C-2020A	1	Release button
	リリースボタンSP	1471B0C-2021A	1	Release button spring
	SCキリカイセッペン	1471B0C-2026A	1	SC change-over contact
	SCキリカイダイヤル	1471B0C-2030A	1	SC change-over dial
	クリックオサエイタ	1471B0C-2034A	1	Click pressure plate
	モツインシート	1471B0C-2035A	1	Insulation sheet
	モードパン	1471B0C-2051A	1	Mode plate
	モードボタン	1471B0C-2052A	1	Mode button
	モードボタンSP	1471B0C-2055A	1	Mode button spring
	リセットボタン	1471B0C-2060A	1	Reset button
	タジュウボタン	1471B0C-2151A	1	Multi-exposure button
	タジュウSWセッペン	1471B0C-2152A	1	Multi-exposure SW. contact
	タジュウメイパン	1471B0C-2154A	1	Multi-exposure trim plate
	ラバーキー	1471B0C-ES01A	1	Rubber key
	スチールボール 1.5	XK-01500	1	Steel ball
	PHK1.4X1.6-2.5X0.5	114-16045	1	Screw
	PHK1.4X3.5-2.5X0.5	114-35014	1	Screw
	PHK1.7X1.8-2.5X0.5	117-18014	2	Screw
	PHK1.7X4.0-2.5X0.5	117-40014	2	Screw
	THK1.7X4.0-2.5X0.5	117-40045	2	Screw
	THK1.4X2.5-2.5X0.5	124-25014	2	Screw
	THK1.4X4.0-2.5X0.5	124-40014	1	Screw
	THK1.7X2.0-2.5X0.5	127-20014	2	Screw
	THK1.7X2.0-4.0X0.8	127-20314	1	Screw
	THK1.7X3.0-2.5X0.5	127-30045	1	Screw
	THK1.7X3.0-3.0X0.6	127-30114	1	Screw
	PSK1.7X1.8-2.5X0.5	317-18014	1	Screw
	PSK1.7X3.5-2.5X0.5	317-35021	3	Screw

2

EXPLODED VIEW OF CHINON CP-7M MULTI PROGRAM



PARTS LIST

OUTER COVERS(BOTTOM & BACK COVERS)

ORDER Q'TY	部 品 名 称	PARTS CODE	QTY	PARTS NAME
	シタカバー セット	1471BOCS1051A	1	Bottom cover
	デンチキャップ セット	1471BOCS1221A	1	Battery cap
	ウラフタ セット	1471BOCS5001A	1	Back cover
	アッパン セット	0971BOCU5009A	1	Pressure plate
	スプロカバ-	1471BOC-1053A	1	Sprocket cover

	スプロカバ-SP	1471BOC-1054A	1	Sprocket cover spring
	デンチキャップジク	1471BOC-1224A	1	Battery cap shaft
	UP DOWN ボタン	1471BOC-2102A	1	Up-down button
	チョウバンジクA	1471BOC-5002A	1	Hinge shaft A
	チョウバンジクB	1471BOC-5003A	1	Hinge shaft B

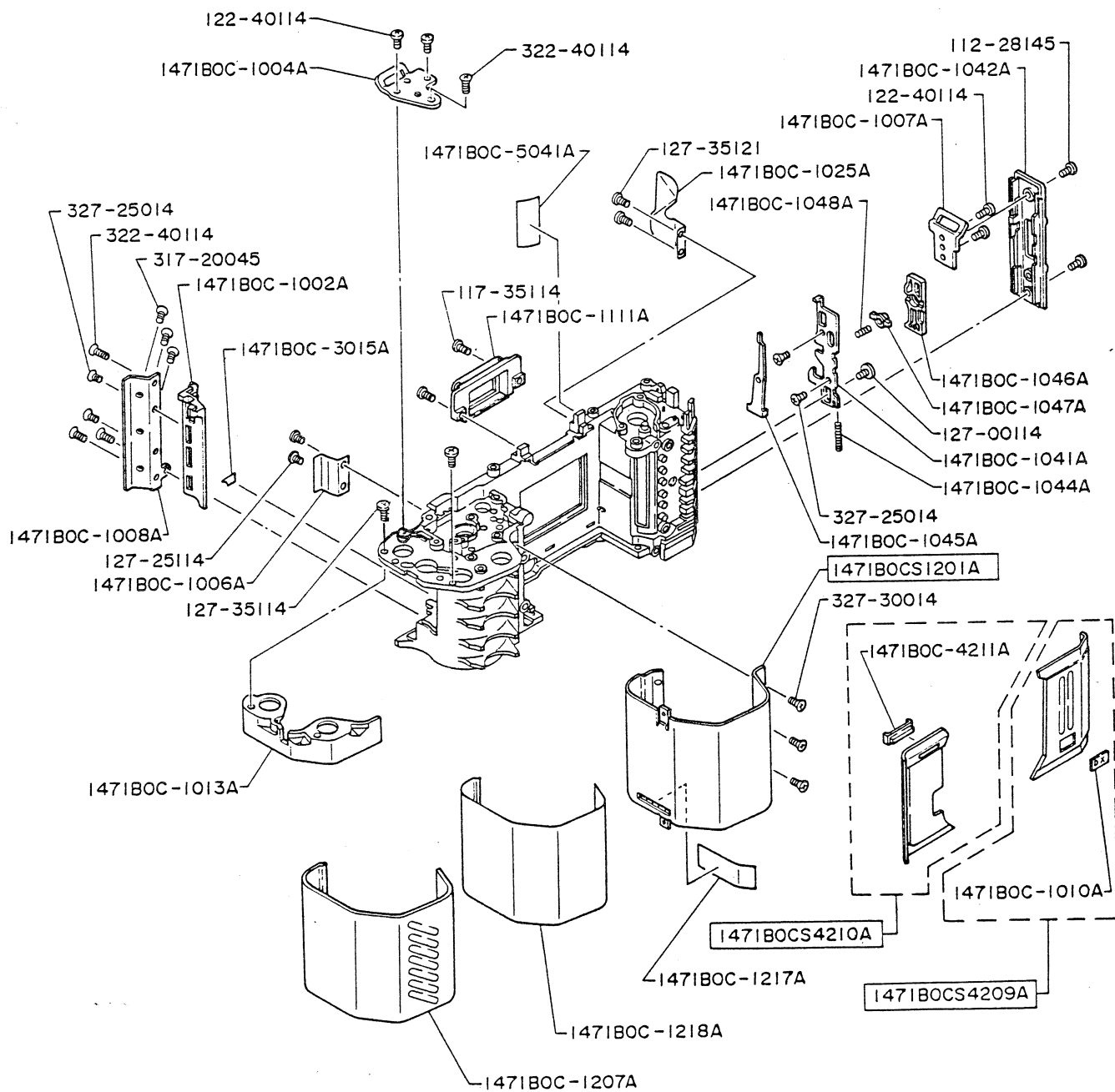
	ウラフタジクビス	1471BOC-5004A	1	Hinge shaft screw
	ウラフタツメ	1471BOC-5005A	1	Back cover claw
	ウラフタジクSP	1471BOC-5007A	1	Hinge shaft spring
	パトロ-ネオサI	1471BOC-5012A	1	Patrone holder
	フィルムマドパッキン	1471BOC-5031A	1	Sponge

	ウラフタヒョウジバン	1471BOC-5035A	1	Program indication plate
	ワッシャー 1.5X4.0-0.2	XY1-014	1	Washer
	PHK2.0X6.0-3.0X0.6	112-60114	1	Screw
	PHK1.7X1.5-3.0X0.6	117-15114	1	Screw
	PHK1.7X2.5-3.0X0.6	117-25114	1	Screw

	PHK1.7X3.5-3.0X0.6	117-35114	2	Screw
	THK1.4X2.0-2.5X0.5	124-20014	1	Screw
	THK1.7X2.5-3.0X0.5	127-25114	2	Screw
	THK1.7X3.0-2.5X0.5	127-30014	3	Screw
	THK1.7X4.0-3.0X0.6	127-40114	2	Screw

3

EXPLODED VIEW OF CHINON CP-7M MULTI PROGRAM

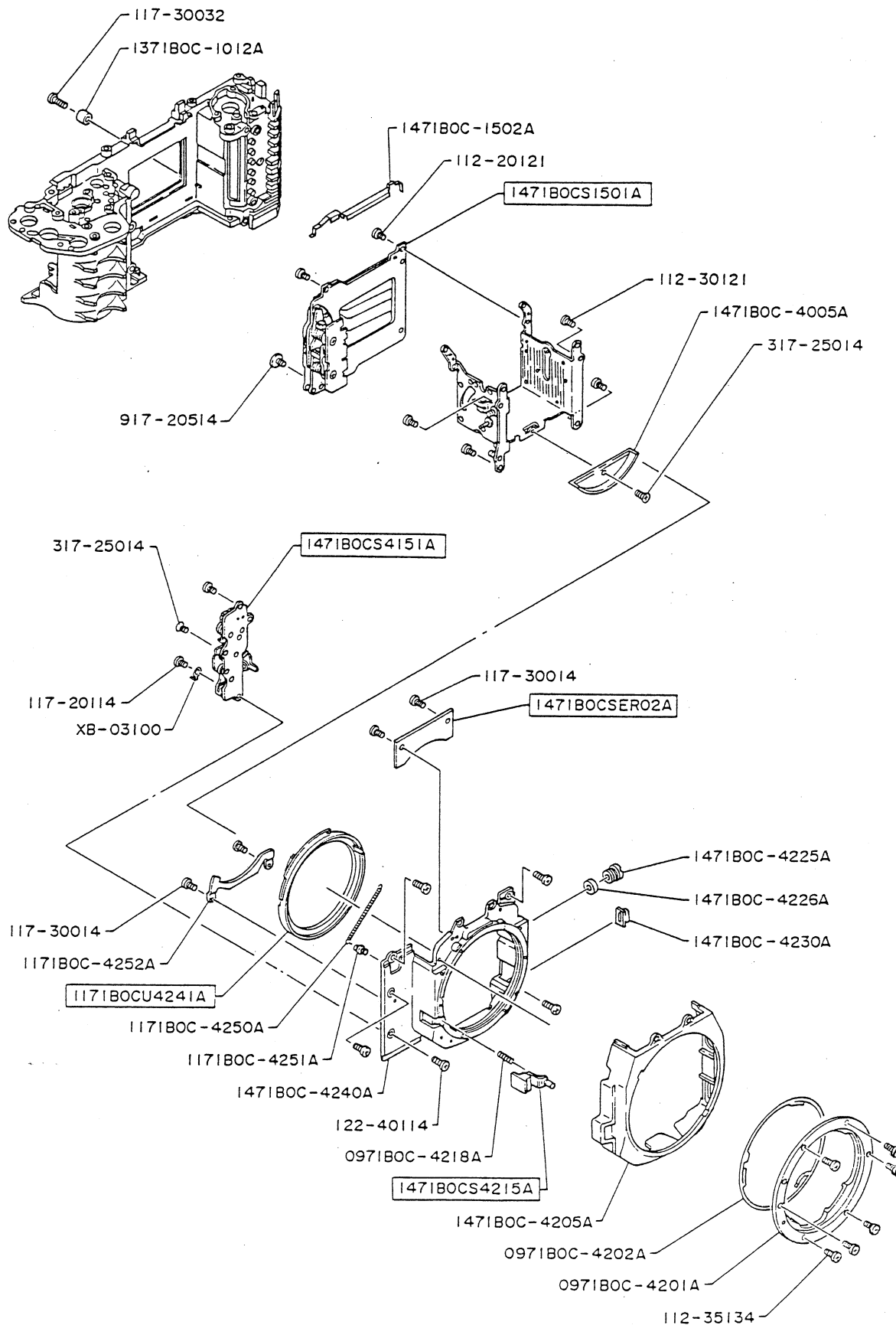


BATTERY CASE & DOOR LATCH

ORDER Q'TY	部 品 名 称	PARTS CODE	QTY	PARTS NAME
	グリップキバン セット	1471B0CS1201A	1	Grip baseplate
	マエカザリイタミキ セット	1471B0CS4209A	1	Front decoration plate (R)
	マエカザリイタヒタリ セット	1471B0CS4210A	1	Front decoration plate (L)
	フィルムシヅカバ-	1471B0C-1002A	1	Film chamber cover
	ツリカンA	1471B0C-1004A	1	Wrist strap lug A
	フィルムガイドC	1471B0C-1006A	1	Film guide C
	ツリカンB	1471B0C-1007A	1	Wrist strap lug B
	ウラブタジクウカ	1471B0C-1008A	1	Back cover shaft holder
	DXマーク	1471B0C-1010A	1	DX mark
	本タイデンチガイド	1471B0C-1013A	1	Battery guide
	パトロ-ネバネ	1471B0C-1025A	1	Patrone spring
	ウラブタカイヘイレバ-	1471B0C-1041A	1	Door latch lever
	カイヘレバ-	1471B0C-1042A	1	Door latch cover
	ウラブタカイヘイレバ-SP	1471B0C-1044A	1	Door latch lever spring
	ウラブタロックバン	1471B0C-1045A	1	Door lock plate
	ウラブタカイヘイレバ	1471B0C-1046A	1	Door latch plate
	ロックカイズボタン	1471B0C-1047A	1	Door latch button
	ロックカイズボタンSP	1471B0C-1048A	1	Door latch button spring
	セツガンサ	1471B0C-1111A	1	Eyepiece baseplate
	クリップラバ-	1471B0C-1207A	1	Grip rubber
	グリップシール	1471B0C-1217A	1	Grip seal
	グリップテープ	1471B0C-1218A	1	Tape
	W4ギヤキバン	1471B0C-3015A	1	W4 gear plate
	セルフマフ	1471B0C-4211A	1	Selftimer window
	FMマーク	1471B0C-5041A	1	FM mark
	THK2.0X2.8-3.0X0.6	112-28145	2	Screw
	PHK1.7X3.5-3.0X0.6	117-35114	2	Screw
	THK2.0X4.0-3.0X0.6	122-40114	4	Screw
	THK1.7X2.5-5.5X0.7	127-00114	1	Screw
	THK1.7X2.5-3.0X0.5	127-25114	2	Screw
	THK1.7X3.5-3.5X0.6	127-35114	2	Screw
	THK1.7X3.5-3.0X0.6	127-35121	2	Screw
	PSK1.7X2.0-2.5X0.5	317-20045	3	Screw
	TSK2.0X4.0-3.0X0.6	322-40114	4	Screw
	TSK1.7X2.5-2.5X0.5	327-25014	4	Screw
	TSK1.7X3.0-2.5X0.5	327-30014	3	Screw

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EXPLODED VIEW OF CHINON CP-7M MULTI PROGRAM



MIRROR HOUSING DISASSEMBLY (1)

ORDER Q'TY	部 品 名 称	PARTS CODE	QTY	PARTS NAME
	シャッター セット	1471BOCS1501A	1	Shutter
	ミラーボックス-シャッター セット	1471BOCS4000A	1	Mirror housing
	シボリキバンA セット	1471BOCS4151A	1	Stop-down baseplate A
	マウントロックボタス セット	1471BOCS4215A	1	Mount lock button
	Fチレンドウリング セット	1171BOCU4241A	1	F/No. information ring

	FILメント セット	1471BOCSER02A	1	F element
	ミラーボックスD	1471BOC-4005A	1	Mirror box D
	バヨネットマウント	0971BOC-4201A	1	Bayonet mount
	マウントバネ	0971BOC-4202A	1	Nount spring
	フイカバー	1471BOC-4205A	1	Front cover

	ロックピンSP	0971BOC-4218A	1	Spring
	ケーブルネジウケ	1471BOC-4225A	1	"X" contact plug
	ケーブルネジウケパッキン	1471BOC-4226A	1	Sponge
	AELボタン	1471BOC-4230A	1	AE lock button
	マウントベース	1471BOC-4240A	1	Mount baseplate

	FチSP	1171BOC-4250A	1	Spring
	FチSPカケ	1171BOC-4251A	1	Spring anchor
	Fチレンドウリングホルダー	1171BOC-4252A	1	Ring holder
	リードセンホルダー	XB-03100	1	Lead-wire holder
	THK2.0X2.0-3.0X0.6	112-20121	2	Screw

	PHK2.0X3.0-3.0X0.6	112-30121	4	Screw
	PHK2.0X3.5-3.0X0.6	112-35134	6	Screw
	PHK1.7X2.0-3.0X0.6	117-20114	1	Screw
	PHK1.7X3.0-2.5X0.5	117-30014	4	Screw
	THK2.0X4.0-3.0X0.6	122-40114	5	Screw

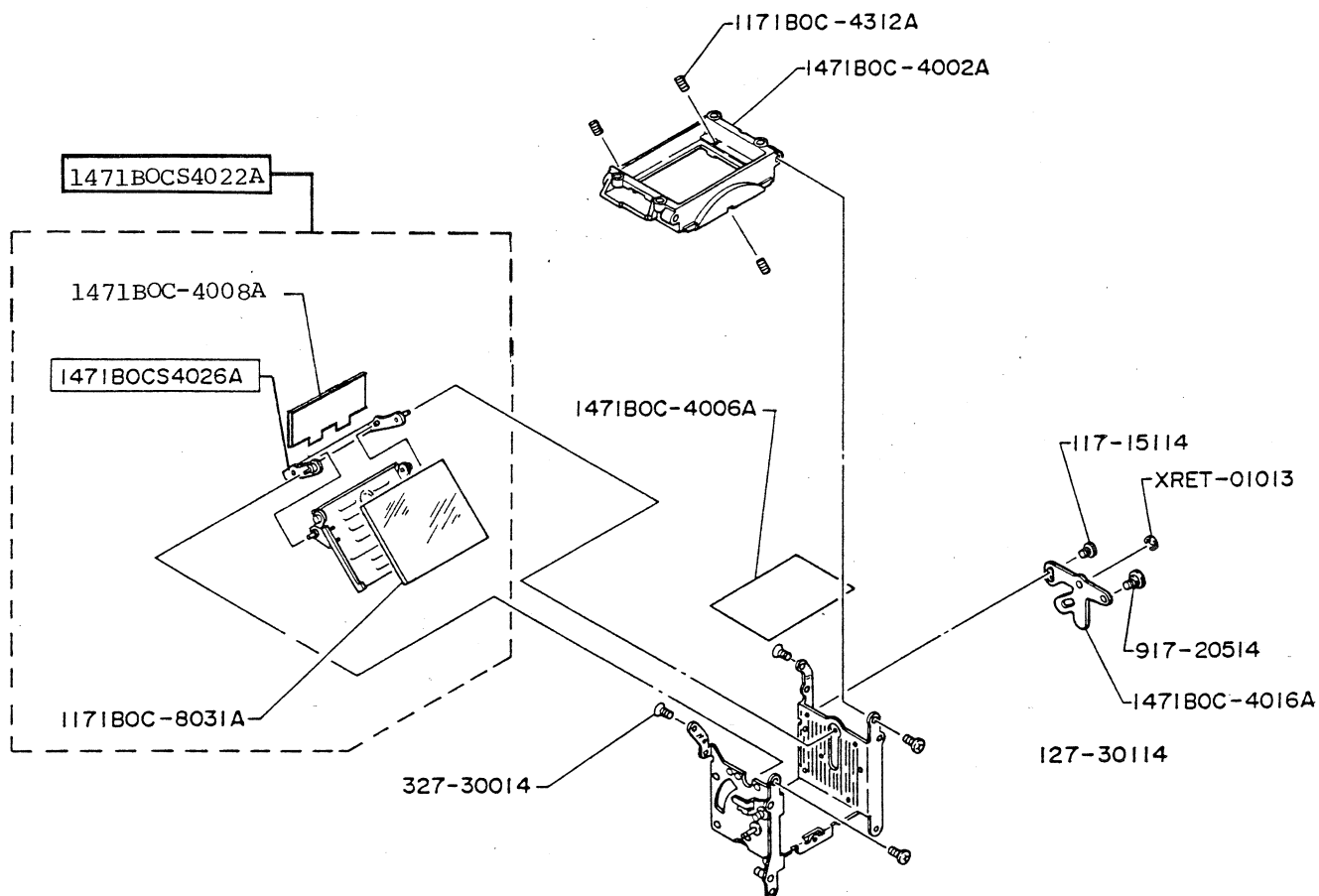
	PSK1.7X2.5-2.5X0.5	317-25014	3	Screw
	PDK1.7X1.6-2.5X0.45	917-20514	1	Screw

Mirror Housing(1471BOCS4000A) is composed of parts shown on page 4, 5, and 6 without followings.				

	フィルムガイドカラー	1371BOC-1012A	1	Film guide collar
	Sシールドプレート	1471BOC-1502A	1	Shielding plate
	PHK1.7X3.0-2.5X0.5	117-30032	1	Screw

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EXPLODED VIEW OF CHINON CP-7M MULTI PROGRAM



PARTS LIST

5

MIRROR HOUSING DISASSEMBLY (2)

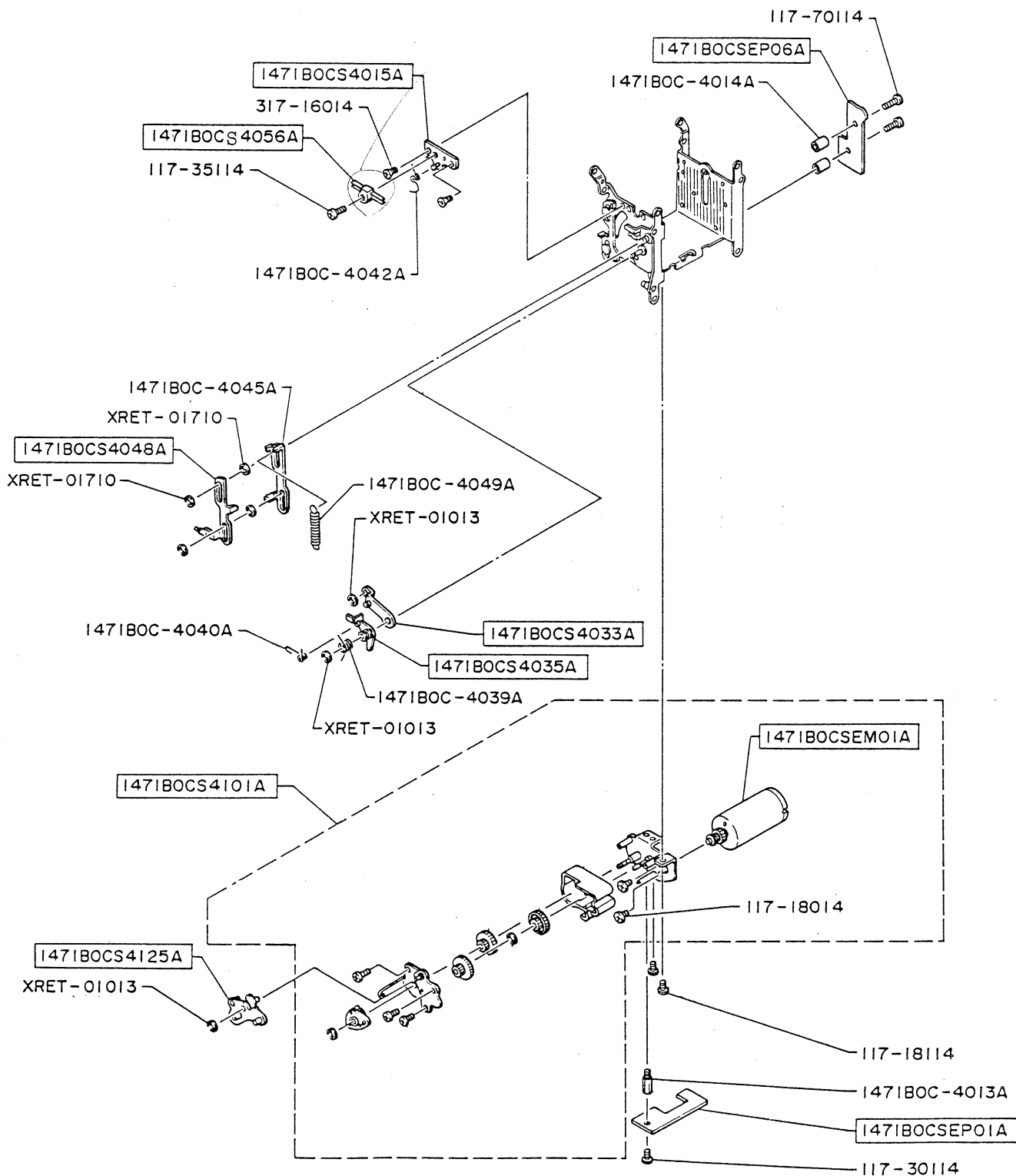
ORDER Q'TY	部 品 名 称	PARTS CODE	QTY	PARTS NAME
	ミラ-ワウ セット	1471B0CS4022A	1	Main mirror frame
	ミラ-ジワウ セット	1471B0CS4026A	1	Main mirror holder
	ミラ-ボックスB	1471B0C-4002A	1	Mirror box B
	ミラ-ボックスシート	1471B0C-4006A	1	Box sheet
	ミラ-シヤコウバン	1471B0C-4008A	1	Mirror shielding plate

	ジワウケミキ	1471B0C-4016A	1	Mirror box holder (R)
	ピントジョウセイビス	1171B0C-4312A	3	Adjustment screw
	メインミラ-	1171B0C-8031A	1	Main mirror
	Eリング 10	XRET-01013	1	E ring
	PHK1.7X1.5-3.0X0.6	117-15114	1	Screw

	THK1.7X3.0-3.0X0.6	127-30114	2	Screw
	TSK1.7X3.0-2.5X0.5	327-30014	2	Screw
	PDK1.7X1.6-2.5X0.45	917-20514	1	Screw

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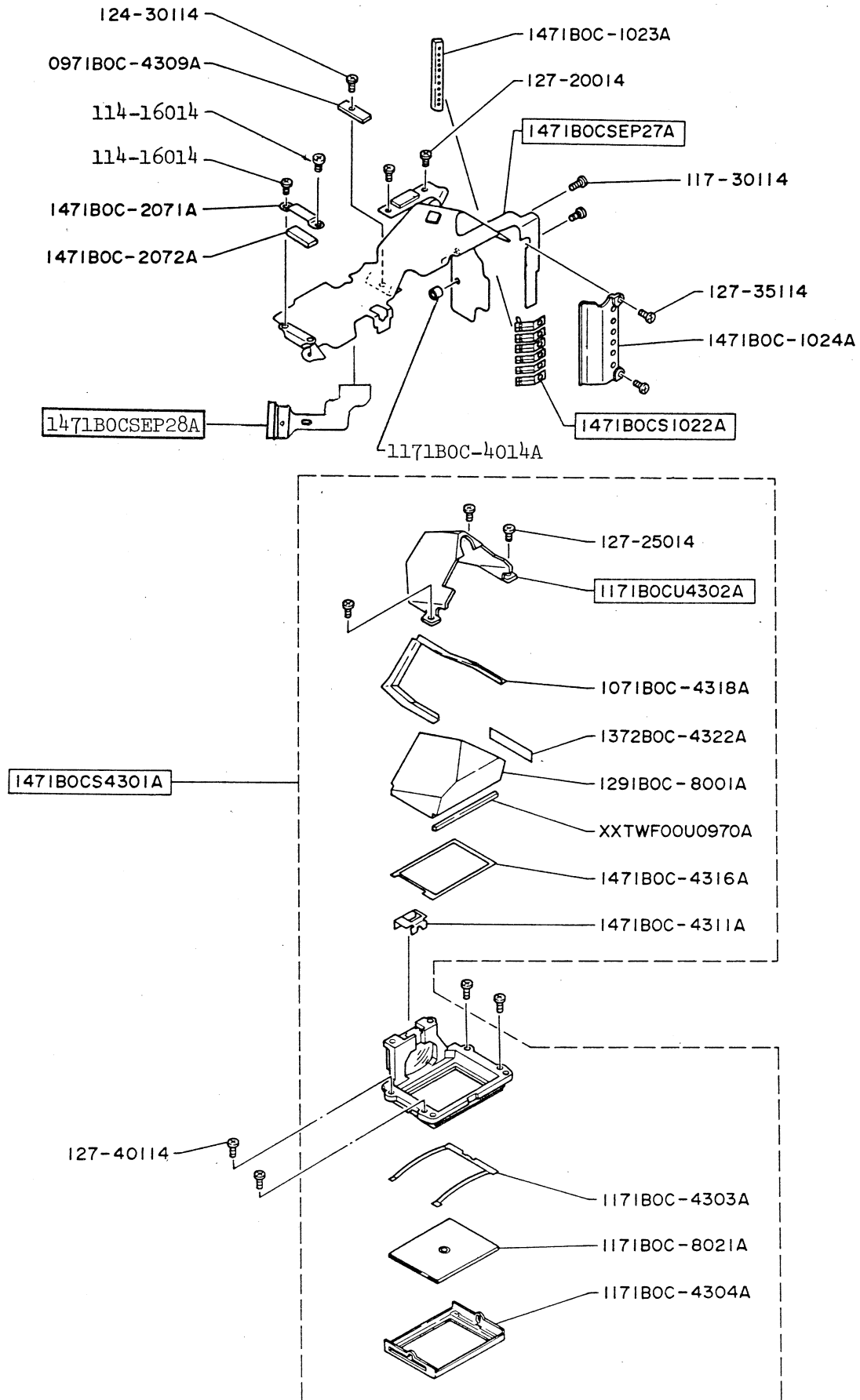
EXPLODED VIEW OF CHINON CP-7 M MULTI PROGRAM



MIRROR HOUSING DISASSEMBLY (3)

ORDER Q'TY	部 品 名 称	PARTS CODE	QTY	PARTS NAME
	ジワクウケヒタリ セット	1471BOCS4015A	1	Mirror box frame holder (L)
	ミラ-レバ- セット	1471BOCS4033A	1	Mirror lever
	ミラ-クドウレバ- セット	1471BOCS4035A	1	Mirror operation lever
	シボリレバ- セット	1471BOCS4048A	1	Diaphragm lever
	モ-タ-ストップSW セット	1471BOCS4056A	1	Motor stop switch
	ME-タ-プレート セット	1471BOCS4101A	1	Mirror box motor plate
	ミラ-チャ-ジレバ- セット	1471BOCS4125A	1	Mirror charge lever
	ボックスモ-タ- セット	1471BOCSEM01A	1	Box motor
	プリント基板A セット	1471BOCSEP01A	1	P.C.Board A
	プリント基板F セット	1471BOCSEP06A	1	P.C.Board F
	ミラ-ボックスパターンソウケA	1471BOC-4013A	1	Mirror box pattern holder A
	ミラ-ボックスパターンソウケB	1471BOC-4014A	2	Mirror box pattern holder B
	ミラ-アップSP	1471BOC-4039A	1	Mirror-up spring
	ミラ-ダウンSP	1471BOC-4040A	1	Mirror-down spring
	ミラ-フックSP	1471BOC-4042A	1	Mirror hook spring
	カイホウレバ-	1471BOC-4045A	1	Opening lever
	カイホウレバ-SP	1471BOC-4049A	1	Opening lever spring
	Eリング 10	XRET-01013	3	E ring
	Eリング 1.7	XRET-01710	4	E ring
	PHK1.7X1.8-2.5X0.5	117-18014	2	Screw
	PHK1.7X1.8-3.0X0.6	117-18114	2	Screw
	PHK1.7X3.0-3.0X0.6	117-30114	1	Screw
	PHK1.7X3.5-3.0X0.6	117-35114	1	Screw
	THK1.7X7.0-3.6X0.6	117-70114	2	Screw
	PSK1.7X1.6-2.5X0.5	317-16014	2	Screw

EXPLODED VIEW
OF
CHINON CP-7M MULTI PROGRAM



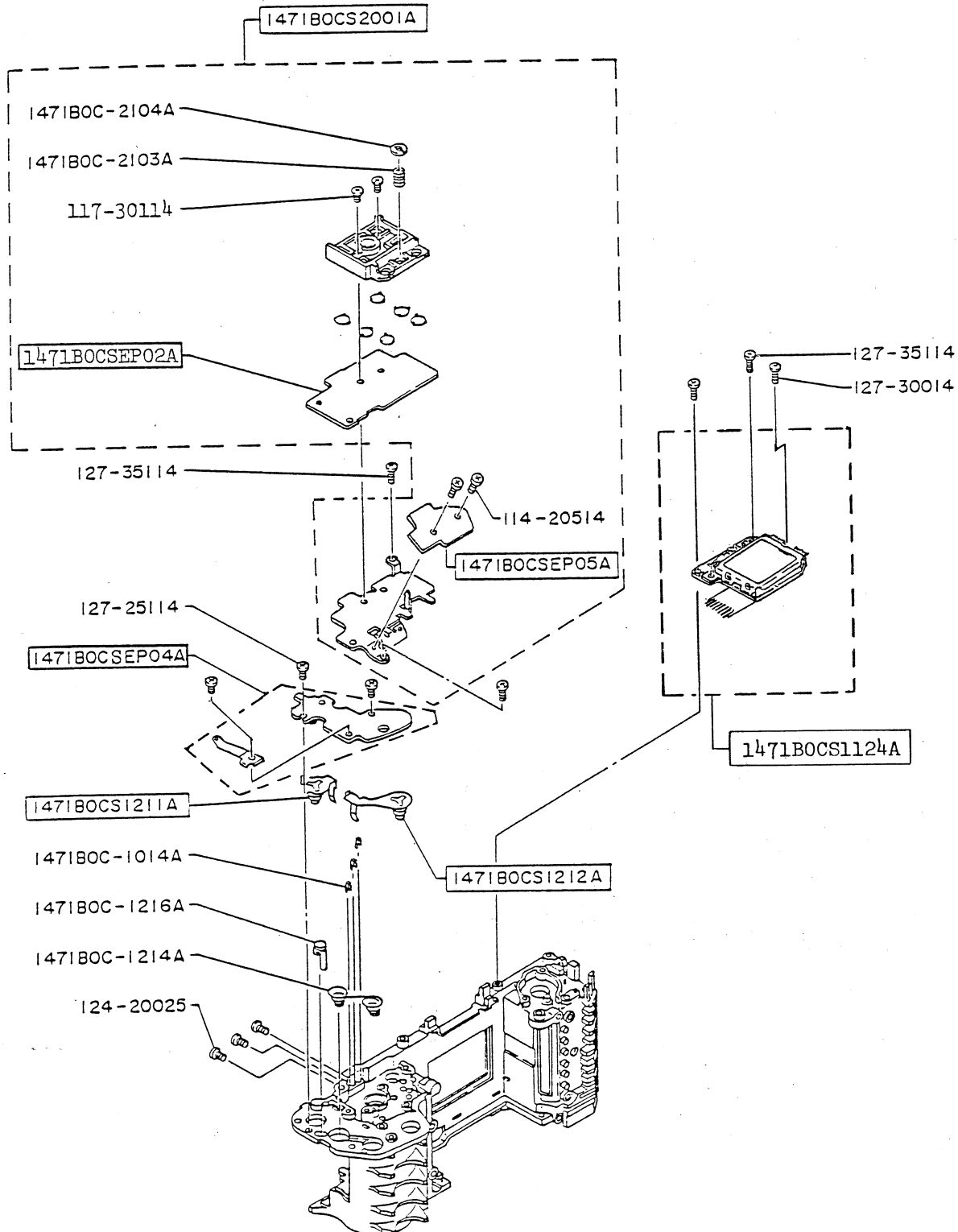
PARTS LIST

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FRESNEL LENS BOX & FLEXIBLE PATTERN A

ORDER Q'TY	部 品 名 称	PARTS CODE	QTY	PARTS NAME
	ニモンテ-フヨリ 097	XXTWFO0U0970A	1	Tape
	DXセッペン セット	1471BOCS1022A	1	DX contact
	ペンタワク セット	1471BOCS4301A	1	Fresnel lens box
	ペンタカバー-テ-フ セット	1171BOCU4302A	1	Prism cover
	フレキシブルパターンA セット	1471BOCSEP27A	1	Flexible pattern A
	フレキシブルパターンB セット	1471BOCSEP28A	1	Flexible pattern B
	DXセッペンウケ	1471BOC-1023A	1	DX contact holder
	DXセッペンオサI	1471BOC-1024A	1	DX contact plate
	ゴムオサI	1471BOC-2071A	1	Gum pressure plate
	フレキオサIゴム	1471BOC-2072A	1	Gum
	ミラーボックスパターンウケ	1171BOC-4014A	1	Collar
	フレネルオサIバネ	1171BOC-4303A	1	Spring
	フレネルボックス	1171BOC-4304A	1	Box
	LEDオサI	0971BOC-4309A	1	LED holder
	ジュコウレンズカバー	1471BOC-4311A	1	Lens cover
	フレネルマスク	1471BOC-4316A	1	Fresnel lens mask
	ペンタワクヒメロシ	1071BOC-4318A	1	Shielding tape
	ペンタスベ-サ-	1372BOC-4322A	1	Prism sheet
	ペンタプリズム	1291BOC-8001A	1	Prism
	フレネルレンズ	1171BOC-8021A	1	Fresnel lens
	PHK1.4X1.6-2.5X0.5	114-16014	2	Screw
	PHK1.7X3.0-3.0X0.6	117-30114	2	Screw
	THK1.4X3.0-3.0X0.6	124-30114	1	Screw
	THK1.7X2.0-2.5X0.5	127-20014	2	Screw
	THK1.7X2.5-2.5X0.5	127-25014	3	Screw
	THK1.7X3.5-3.5X0.6	127-35114	2	Screw
	THK1.7X4.0-3.0X0.6	127-40114	4	Screw

EXPLODED VIEW
OF
CHINON CP-7M MULTI PROGRAM



PARTS LIST

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LIQUID CRYSTAL DIODE

<u>ORDER Q'TY</u>	<u>部 品 名 称</u>	<u>PARTS CODE</u>	<u>QTY</u>	<u>PARTS NAME</u>
	LCDキバン セット	1471BOCS1124A	1	LCD baseplate
	デンチセッペンA セット	1471BOCS1211A	1	Battery contact A
	デンチセッペンB セット	1471BOCS1212A	1	Battery contact B
	ANキバン セット	1471BOCS2001A	1	AN baseplate
	プリントキバンB セット	1471BOCSEP02A	1	P.C.Board B

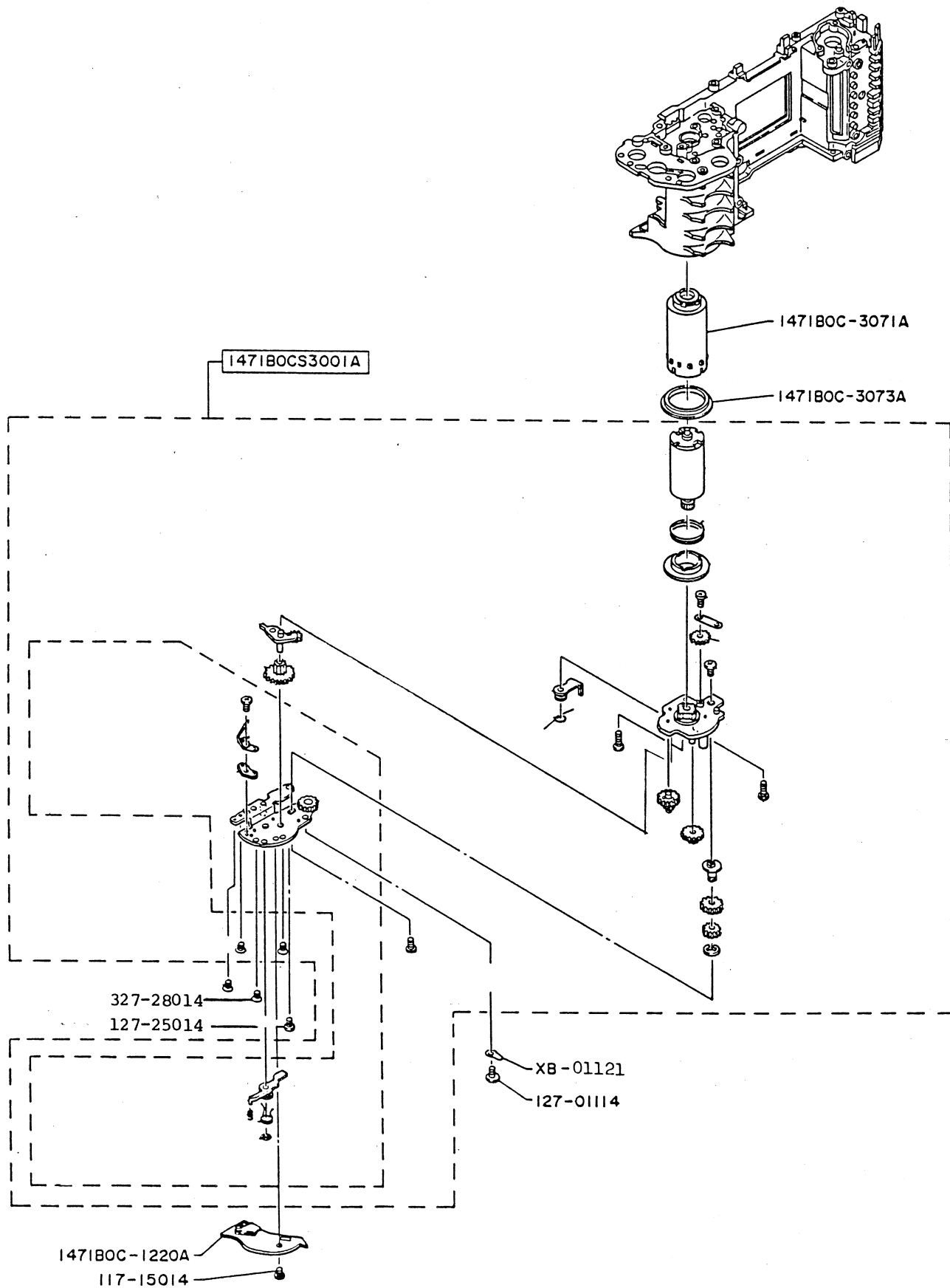
	プリントキバンD セット	1471BOCSEP04A	1	P.C.Board D
	プリントキバンE セット	1471BOCSEP05A	1	P.C.Board E
	オートデートセッペン	1471BOC-1014A	1	Auto date contact
	デンチSPB	1471BOC-1214A	1	Battery spring B
	デンチリセットボタン	1471BOC-1216A	1	Battery reset button

	UP DOWN SP	1471BOC-2103A	1	Up-down spring
	S08314	1471BOC-2104A	1	Spring pressure ring
	PHK1.4X2.0-2.5X0.8	114-20514	2	Screw
	PHK1.4X2.5	114-25414	5	Screw
	PHK1.7X3.0-3.0X0.6	117-30114	2	Screw

	THK1.4X2.0-2.5X0.5	124-20025	3	Screw
	THK1.7X2.5-3.0X0.5	127-25114	3	Screw
	THK1.7X3.0-2.5X0.5	127-30014	1	Screw
	THK1.7X3.5-3.5X0.6	127-35114	4	Screw

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EXPLODED VIEW
OF
CHINON CP-7M MULTI PROGRAM



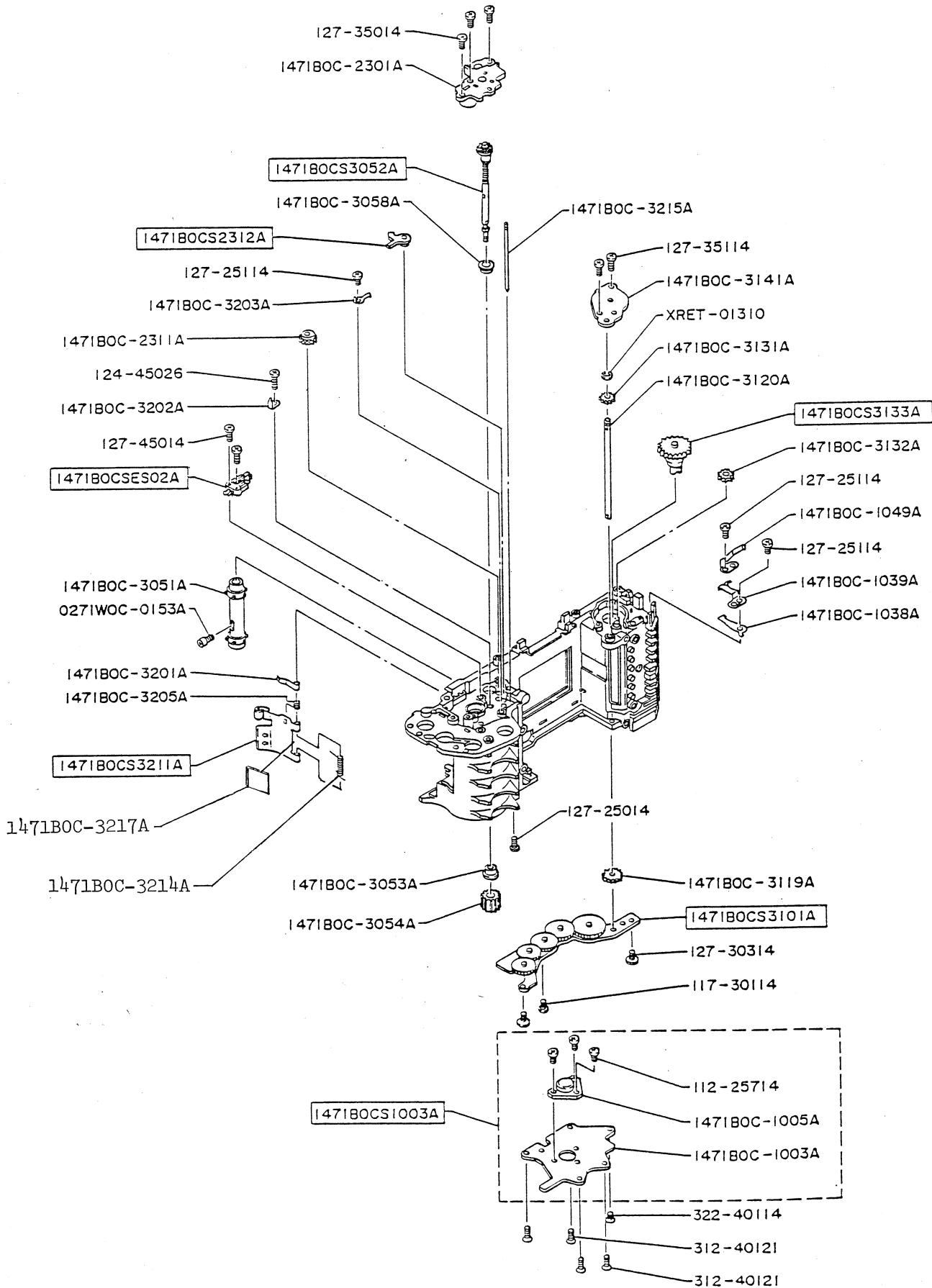
PARTS LIST

WINDING MECHANISM

<u>ORDER Q'TY</u>	<u>部 品 名 称</u>	<u>PARTS CODE</u>	<u>QTY</u>	<u>PARTS NAME</u>
	マキアゲギパン セット	1471BOCS3001A	1	Winding baseplate
	デンチキャップジクオサI	1471BOC-1220A	1	Battery cap shaft retainer
	リ-ルトウ	1471BOC-3071A	1	Take-up spool
	リ-ルスリーブ	1471BOC-3073A	1	Reel sleeve
	ラグパン(タマゴ)	XB-01121	1	Lug plate

	PHK1.7X1.5-2.5X0.5	117-15014	1	Screw
	THK1.7X3.0-5.0X0.8	127-01114	1	Screw
	THK1.7X2.5-2.5X0.5	127-25014	1	Screw
	TSK1.7X2.8-2.5X0.5	327-28014	2	Screw

EXPLODED VIEW OF CHINON CP-7M MULTI PROGRAM



WINDING & REWINDING MECHANISM

ORDER Q'TY	部 品 名 称	PARTS CODE	QTY	PARTS NAME
	サンキヤクキバン セット	1471BOCS1003A	1	Tripod baseplate
	カウンターレバー セット	1471BOCS2312A	1	Counter lever
	スプロケットジク セット	1471BOCS3052A	1	Sprocket shaft
	Rキバン セット	1471BOCS3101A	1	Winding baseplate
	マキモジキヤ セット	1471BOCS3133A	1	Rewinding gear
	フィルムオサIA セット	1471BOCS3211A	1	Film pressure A
	リフスイッチ セット	1471BOCSES02A	1	Winding switch
	スプロケットレンドウネジ	0271WOC-0153A	1	Screw
	サンキヤクキバン	1471BOC-1003A	1	Tripod baseplate
	サンキヤクサ	1471BOC-1005A	1	Tripod socket
	ウラタカイハISWA	1471BOC-1038A	1	Door latch switch A
	ウラタカイハISWB	1471BOC-1039A	1	Door latch switch B
	ウラタロックバネ	1471BOC-1049A	1	Door lock spring
	カウンターキバン	1471BOC-2301A	1	Counter baseplate
	カウンターギヤ	1471BOC-2311A	1	Counter gear
	スプロケット	1471BOC-3051A	1	Sprocket
	スプロケットジクウケ	1471BOC-3053A	1	Sprocket shaft holder
	スプロAギヤ	1471BOC-3054A	1	Sprocket A gear
	スプロCギヤウケ	1471BOC-3058A	1	Sprocket C gear holder
	R7Aギヤ	1471BOC-3119A	1	R7 A-gear
	レナゲジク	1471BOC-3120A	1	Coupling shaft
	R7Bギヤ	1471BOC-3131A	1	R7 B-gear
	R8ギヤ	1471BOC-3132A	1	R8 gear
	マキモジキバン	1471BOC-3141A	1	Rewinding baseplate
	キュウウメSWA	1471BOC-3201A	1	Film transport SW. A
	キュウウメSWセッペンB	1471BOC-3202A	1	Film transport SW. contact B
	キュウウメSWセッペンA	1471BOC-3203A	1	Film transport SW. contact A
	キュウウメSWSP	1471BOC-3205A	1	Film transport SW. spring
	フィルムオサIASP	1471BOC-3214A	1	Film pressure-A spring
	フィルムオサIAジク	1471BOC-3215A	1	Film pressure-A shaft
	フィルムガイドFAテープ	1471BOC-3217A	1	Film guide A tape
	Eリング 1.3	XRET-01310	1	E ring
	PHK2.0X2.5-3.5X1.0	112-25714	3	Screw
	PHK1.7X3.0-3.0X0.6	117-30114	2	Screw
	THK1.4X4.5-2.5X0.5	124-45026	1	Screw
	THK1.7X2.5-2.5X0.5	127-25014	1	Screw
	THK1.7X2.5-3.0X0.5	127-25114	3	Screw
	THK1.7X3.0-4.0X0.8	127-30314	1	Screw
	THK1.7X3.5-2.5X0.5	127-35014	3	Screw
	THK1.7X3.5-3.5X0.6	127-35114	2	Screw
	THK1.7X4.5-2.5X0.5	127-45014	2	Screw
	PSK1.7X4.0-3.0X0.6	312-40121	4	Screw
	TSK2.0X4.0-3.0X0.6	322-40114	1	Screw

TECHNICAL MODIFICATION NOTICE

DATE: June 17, 1986

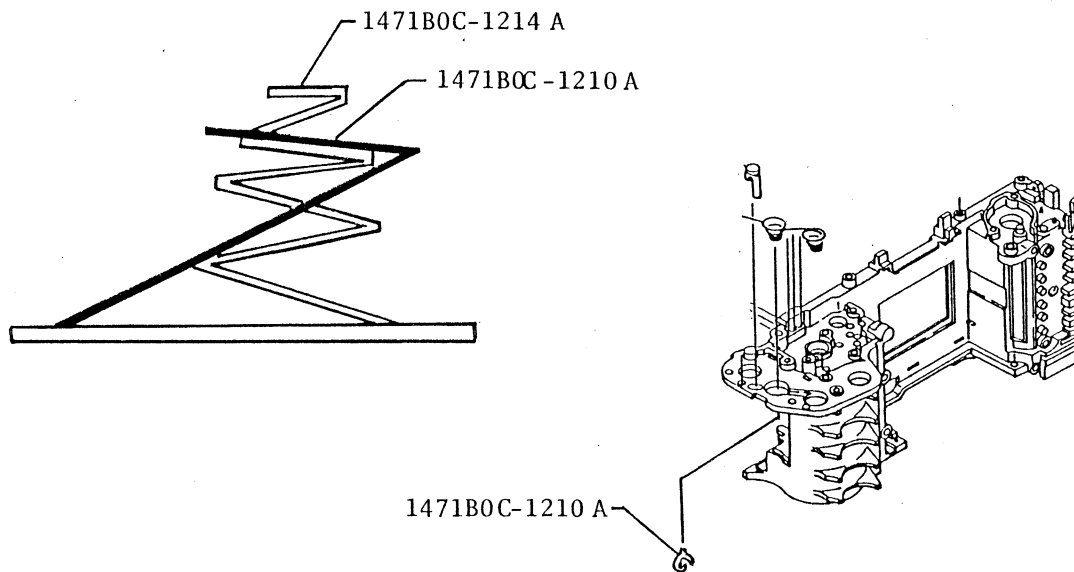
NO: CP7m-001

MODEL: Chinon CP-7m.

PARTS NAME	PARTS INF. PAGE NO.	OLD PARTS NO.	PRICE	NEW PARTS NO.	PRICE
Battery Reset Spring	8	_____	_____	1471B0C-1210 A	¥ 10.-

ILLUSTRATIONS (DRAWINGS OR PHOTOGRAPHS)

NEW STYLE



REASON FOR CHANGE:

The battery spring B(1471B0C-1214A) supplement the battery reset spring for come in contact with the duracell battery.

EFFECTIVE DATE OF CHANGE: From Production of May. 1986.

INTERCHANGEABILITY:

New parts usable in old products: ☒ Yes. ☐ No.

~~Can old parts be used in old and new products: Yes. No.~~

REMARKS: SA-2497 (M.T)

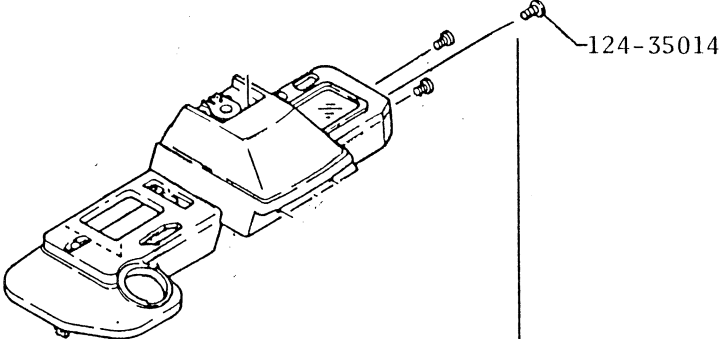
ORIGINATOR: Service Dept.

TECHNICAL MODIFICATION NOTICE

DATE: June 17, 1986

NO: CP7m-002

MODEL: Chinon CP-7m.					
PARTS NAME	PARTS INF. PAGE NO.	OLD PARTS NO.	PRICE	NEW PARTS NO.	PRICE
Screw	1	124-40014	¥ 3.-	124-35014	¥ 3.-

ILLUSTRATIONS (DRAWINGS OR PHOTOGRAPHS)	
OLD STYLE	NEW STYLE
	

REASON FOR CHANGE: The top cover(1471B0CS1061A) fitted a correct by driven the screw.
EFFECTIVE DATE OF CHANGE: Running change
INTERCHANGEABILITY: New parts usable in old products: <u>Yes</u>. No. Can old parts be used in old and new products: <u>Yes</u>. No.
REMARKS: SA-2491(M.T)
ORIGINATOR: Service Dept.

TECHNICAL MODIFICATION NOTICE

DATE: June 17, 1986

NO: CP7m-003

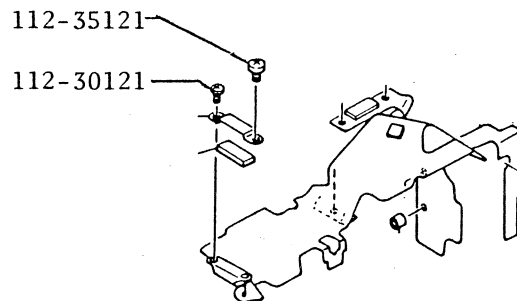
MODEL: Chinon CP-7m.

PARTS NAME	PARTS INF. PAGE NO.	OLD PARTS NO.	PRICE	NEW PARTS NO.	PRICE
Screw	7	114-16014	¥ 3.-	112-35121	¥ 3.-
Screw	7	114-16014	¥ 3.-	112-30121	¥ 3.-

ILLUSTRATIONS (DRAWINGS OR PHOTOGRAPHS)

OLD STYLE

NEW STYLE



REASON FOR CHANGE:

There are sure that prevent come loose of the screw.

EFFECTIVE DATE OF CHANGE: From production of May. 1986.

INTERCHANGEABILITY:

New parts usable in old products: ☒ Yes. ☐ No.

~~Can old parts be used in old and new products:~~

REMARKS: SA-2489 (M.T)

ORIGINATOR: Service Dept.

TECHNICAL MODIFICATION NOTICE

DATE: June, 20, 1986

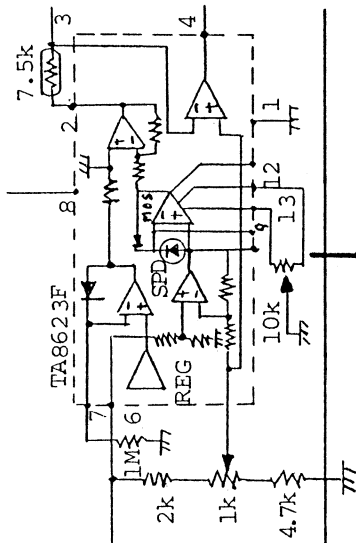
NO: CP7m-004

MODEL: Chinon CP-7m.

PARTS NAME	PARTS INF. PAGE NO.	OLD PARTS NO.	PRICE	NEW PARTS NO.	PRICE
Potentiometer VR1	—	10 k Ω	—	—	—

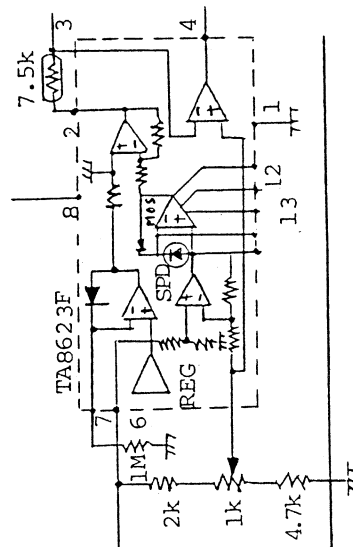
ILLUSTRATIONS (DRAWINGS OR PHOTOGRAPHS)

OLD STYLE



Abolition

NEW STYLE



REASON FOR CHANGE:

Off-Set adjustment abolition, there is no problem to take out the potentiometer VR1(10 k Ω) and it is not necessary to adjust the potentiometer VR1.

EFFECTIVE DATE OF CHANGE: From production of July, 1986.

INTERCHANGEABILITY:

New parts usable in old products: ☒ Yes. ☐ No.

Can old parts be used in old and new products: ☒ Yes. ☐ No.

REMARKS: SA-2492(M.T)

ORIGINATOR: Service Dept.