

**NIKONOS V**

ニコノス V

**REPAIR MANUAL**

修理 指 針

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SPECIFICATIONS

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## SPECIFICATIONS

Type of camera: Electronically controlled 35mm amphibious focal plane shutter camera

Usable film: Standard 35mm cartridge-type film

Standard lens: UW-Nikkor 35mm F2.5 lens

Lens mount: Nikonos bayonet mount

Shutter: SEIKO MFCE226; electronically controlled vertical-travel metal focal-plane type

A(AUTO): Electronically controlled stepless speeds from 1/30 to 1/1000 sec.;

M(MANUAL): Quartz-controlled speeds from 1/30 to 1/1000 sec.;

M90(MECHANICAL): Mechanically controlled at 1/90 sec.;

B(BULB): Mechanical setting for long exposures

Viewfinder: Inverted Galilean type Albada finder built into camera for use with standard 35mm lens;

Film frame marks show approx. 85% picture coverage at infinity ( $\infty$ );

0.55X magnification

diopter -0.9;

long eyerelief allows viewing with eye 40mm away from finder

parallax correction marks provided

Viewfinder display: LED shutter speed indications 30, 60, 125, 250, 500, 1000;

LED over-and under exposure warning arrows ◀ ▶ ;

thunderbolt-shaped ready-light ⚡

Film-advance lever: Wound in single stroke or series of strokes;

144° winding angle;

hinged for compact storage

Frame counter: Additive type;

When shutter speed/mode selector dial is at "A", shutter releases at approx. 1/1500 sec. until film frame counter reaches frame "1"

Film rewind: Manual via film rewind crank after shutter speed/mode selector dial is set to "R" (Rewind);

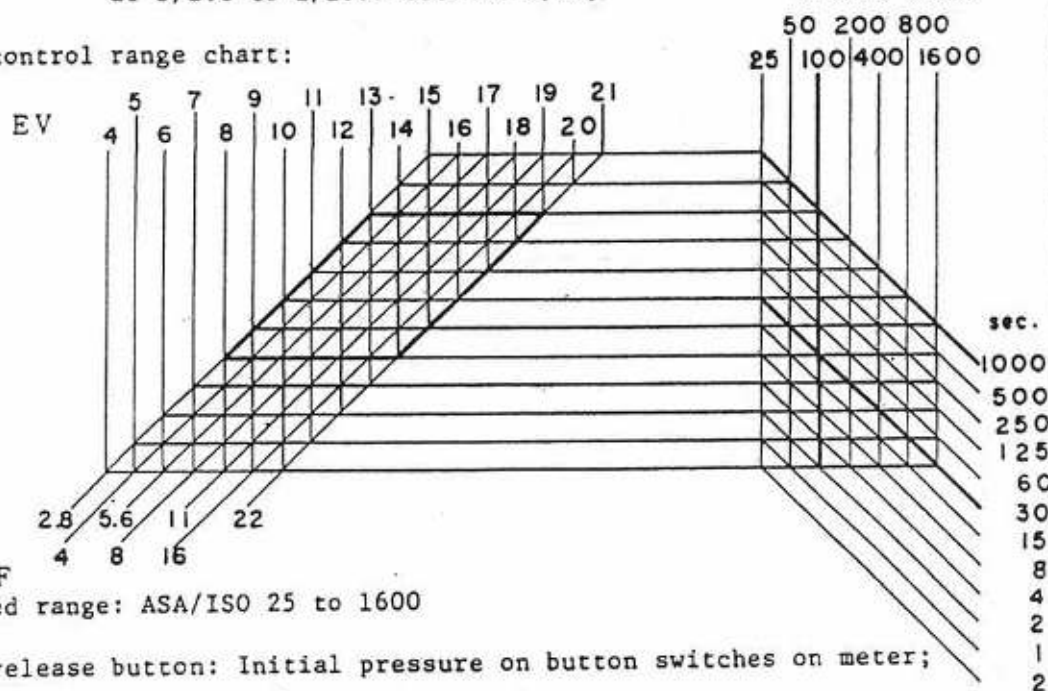
shutter release button is automatically locked

Exposure metering: Through-the-lens(TTL) light intensity feedback metering;

center-weighted metering rate 25%

Metering range: EV8 to EV19 at ASA/ISO 100 with F2.8 lens (from 1/30 sec. at f/2.8 to 1/1000 sec. at f/22)

Shutter control range chart:



Film speed range: ASA/ISO 25 to 1600

Shutter release button: Initial pressure on button switches on meter;

meter remains on for 16 sec. after finger is removed

Flash synchronization: X-sync only via five-pins flash socket in camera's base;

Synchronizes at 1/90 sec. or slower;

with Nikonos Speedlight SB-102, shutter speed automatically switches to 1/90 sec. when shutter speed/mode selector dial is at "A" or at 1/125 sec. or higher on manual mode;

at 1/60 sec. or slower on manual, shutter fires at speed set

Flash metering: TTL flash metering with SB-102

Flash ready-light: Thunderbolt-shaped LED in viewfinder lights when SB-102 and others have recycled;

blinks to warn of insufficient light output, improper shutter speed/mode selector dial setting, and film speed setting beyond ASA/ISO 400

Batteries: One 3V lithium battery (CR 1/3 type), two 1.55V silver-oxide batteries (SR-44 type) or one 1.5V alkaline-manganese battery (LR-44 type)

Battery check: Possible when shutter speed/mode selector dial is at any setting except M90, B or R, and frame counter is at or beyond "1";

viewfinder LED lights to indicate proper battery installation and sufficient battery power when shutter release button is depressed

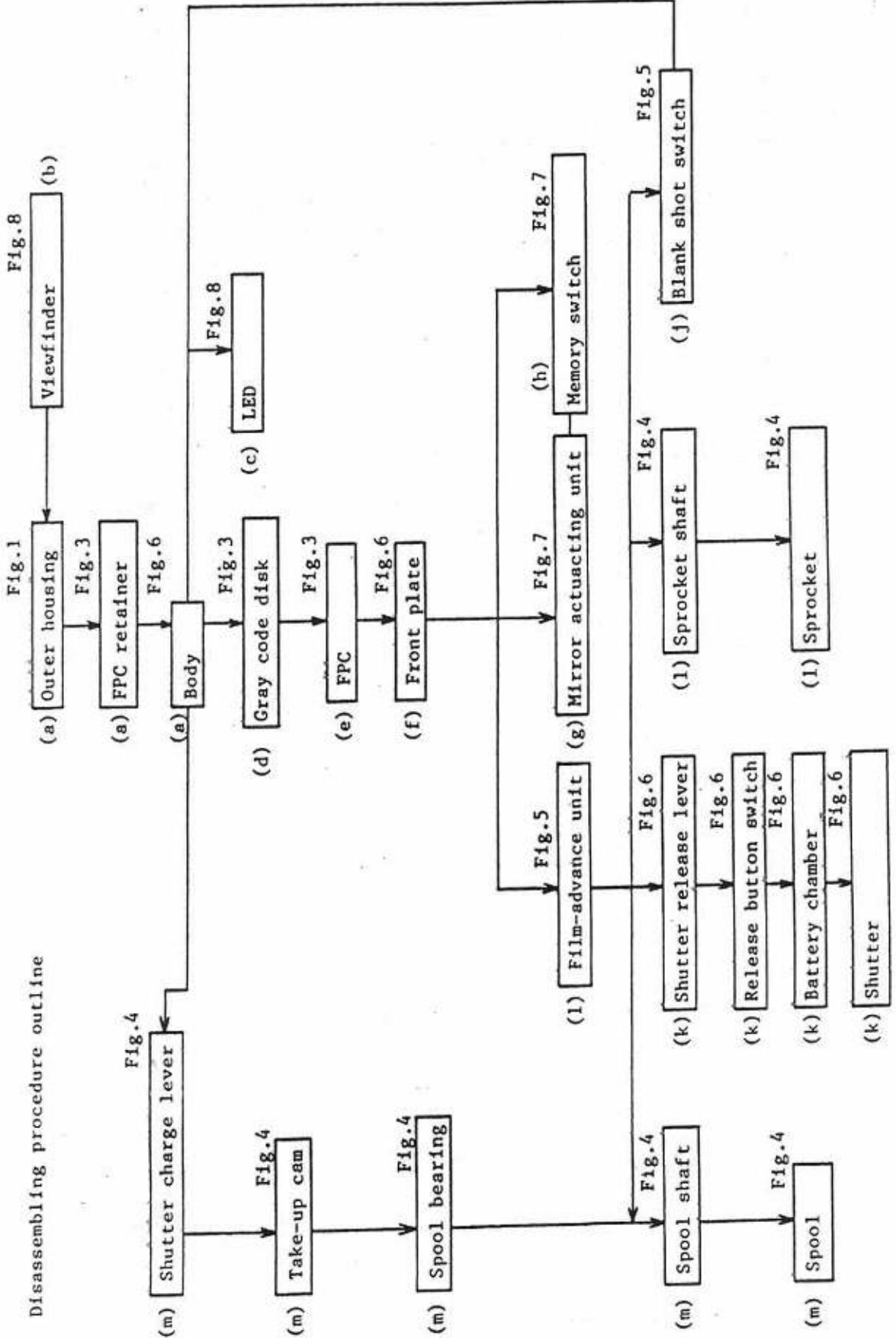
Withstand pressures: Up to  $6\text{kg/cm}^2$  at a depth of 50m

Dimensions: Approx. 146mm(W) x 99mm(H) x 58mm(D)

Weight: Approx. 695g (without lens)

DISASSEMBLING & ASSEMBLING & ADJUSTMENTS & DRAWINGS

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## Disassembling chart

Note: Remove batteries before disassembling.

## (a)-1 Outer housing

Fig.1

|                |           |
|----------------|-----------|
| Body cover B91 | ⊕ 821 x 4 |
|----------------|-----------|

Fig.3

|                    |           |
|--------------------|-----------|
| FPC retainer       | ⊕ 844 x 2 |
| LED base plate B71 |           |
| FPC B2001          |           |
| FPC retainer #72   |           |
| FPC spacer #73     |           |
| FPC retainer #77   |           |

Unsolder lead wires.

Lead wire #1097 (black)  
 - ditto - #1089 (green)  
 - ditto - #1087 (purple)  
 - ditto - #1084 (yellow)  
 - ditto - #1099 (blue)

Fig.2

|                          |
|--------------------------|
| Film-advance lever B2441 |
| Rubber #443              |
| Screw #438               |
| Film-advance lever B441  |
| Shutter dial B447        |

Fig.2

|                      |
|----------------------|
| Rewind knob          |
| ISO Stopper #675     |
| ISO Rewind knob B667 |
| O-ring #810          |
| Rewind shaft B652    |
| Spring #670          |
| ASA/ISO dial #668    |

Outer housing B112

⊕ 827 x 3

## (a)-2 Camera back lock knob

Fig.10

|                |      |
|----------------|------|
| Lock knob B213 | ⊖ 53 |
| Lock cam #216  |      |
| Washer #59 x 2 |      |
| O-ring #803    |      |

Fig.10

|                      |
|----------------------|
| Lock knob cover #212 |
| Release button #211  |
| ⊕ 828 x 2            |

Fig.10

|             |           |
|-------------|-----------|
| Spring #217 | ⊕ 822 x 2 |
|-------------|-----------|

## (a)-3 Sync terminal

Sync terminal cap B30

Fig.1

Fig.8

|                     |       |
|---------------------|-------|
| O-ring #811         | ⊕ 841 |
| Sync terminal B3001 |       |

## (a)-4 Camera back

Cover #220

Fig.9

Fig.9

|                  |           |
|------------------|-----------|
| Camera back B201 | ⊕ 836 x 2 |
|------------------|-----------|

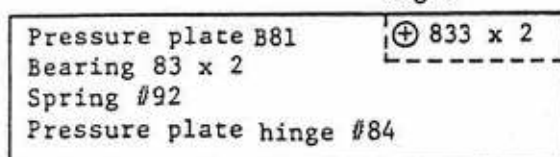
Camera back hinge #202

Fig.9

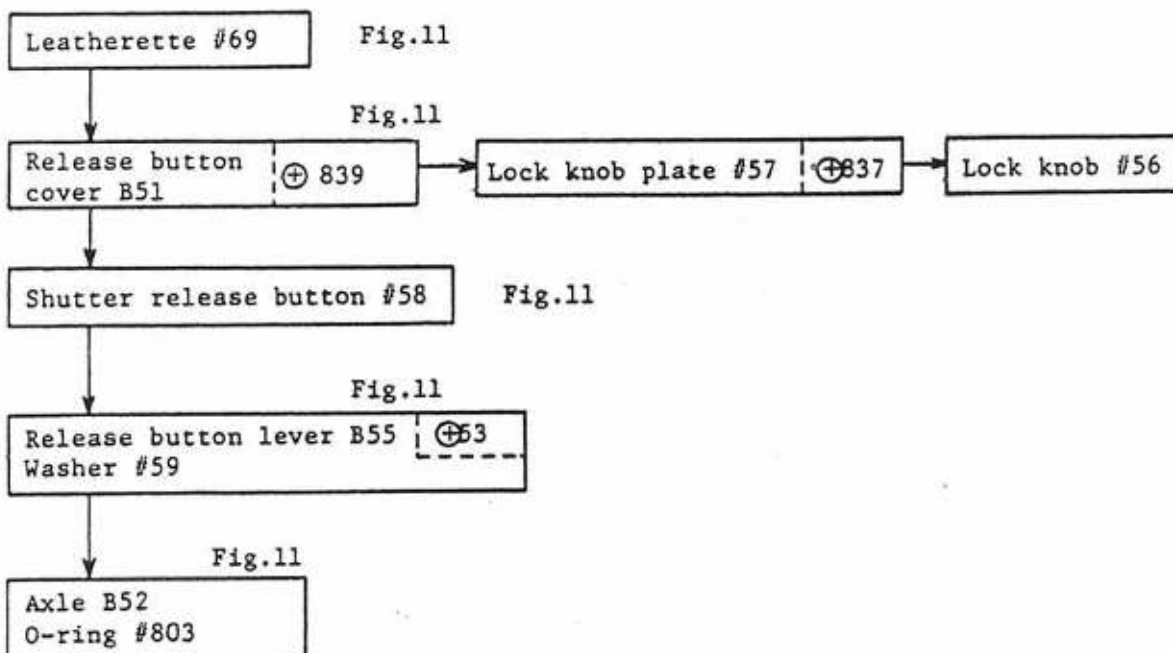
Note: Be careful of battery chamber.

## (a)-6 Pressure plate

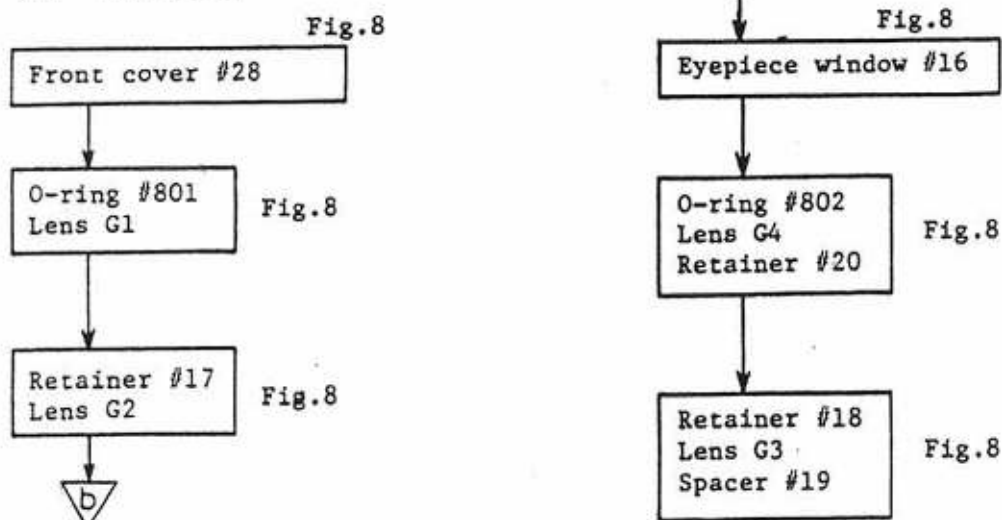
Fig.1



## (a)-7 Shutter release button



## (b) Viewfinder



## (c) LED

Fig.8

LED light-shield #65

LED base plate B71-1  $\oplus 822 \times 2$ 

## (d) Gray code disk

Fig.3

Gray code disk B493  $\ominus 504$ 

Click plate #495

## (e) FPC

Fig.3

Unsolder lead wires.

Lead wire, blank shot SW #485  
 - ditto - #486  
 Lead wire, M.SW #1081 (black)  
 - ditto - #1082 (blue)  
 Lead wire, battery chamber  
 #1091 (red)  
 - ditto - #1096 (black)  
 Lead wire, shutter #1083 (purple)  
 - ditto - #1085 (green)  
 - ditto - #1086 (brown)  
 - ditto - #1088 (blue)  
 - ditto - #1090 (white)  
 - ditto - #1098 (grey)  
 - ditto - #1100 (yellow)  
 Lead wire, SPD 1 #1092 (orange)  
 - ditto - #1093 (purple)  
 Lead wire, SPD 2 #1094 (brown)  
 - ditto - #1095 (green)

 $\oplus 822 \times 1$  $\oplus 831 \times 3$  $\oplus 839 \times 2$  $\ominus 502 \times 3$ 

Note: Use solvent on variable  
 resistors.

e

Fig.3

Gray code base plate B491  
Spring #498 $\oplus 822 \times 2$  $\oplus 842$ 

Note: Separate FPC and Gray code  
 base plate only when  
 replacing FPC.

## (f) Front plate

Fig. 6

Front plate B116  $\oplus 825 \times 3$  $\oplus 835$   $\oplus 832 \times 2$ SPD 1 B99  $\oplus 832 \times 2$ Spring #310  $\ominus 311$ SPD 2 B98  $\oplus 832$ 

## (g) Mirror actuating unit

Fig.7

Mirror actuating unit  $\oplus 824 \times 2$ B301  $\ominus 316$ 

Shutter start lever #315

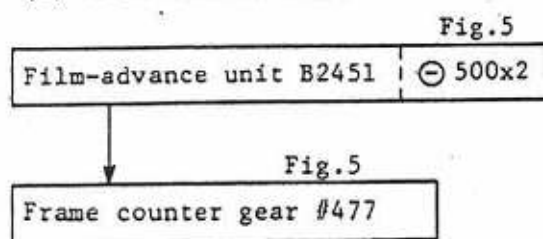
## (h) Memory switch

Memory switch B323

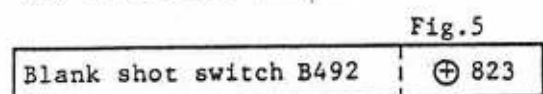
Fig.7

 $\oplus 823$

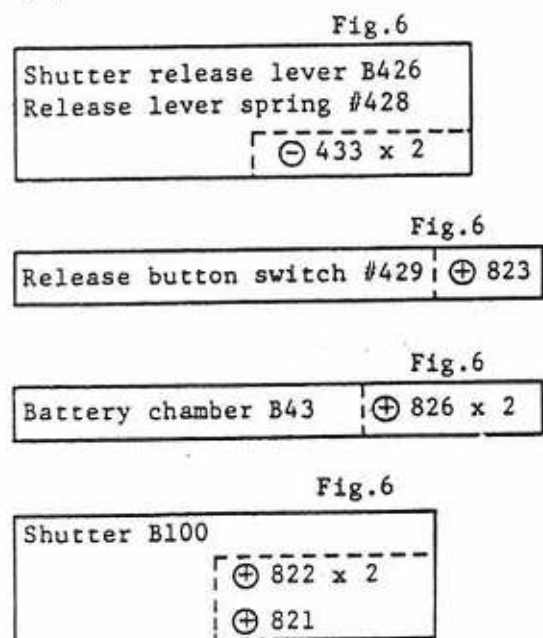
## (i) Film-advance unit



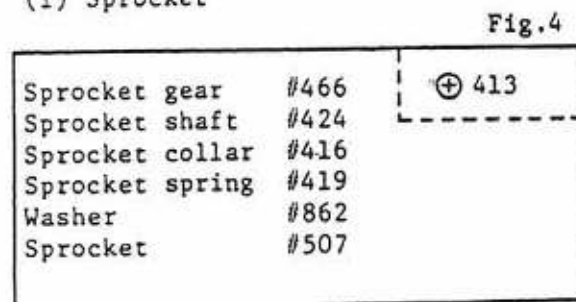
## (j) Blank shot switch



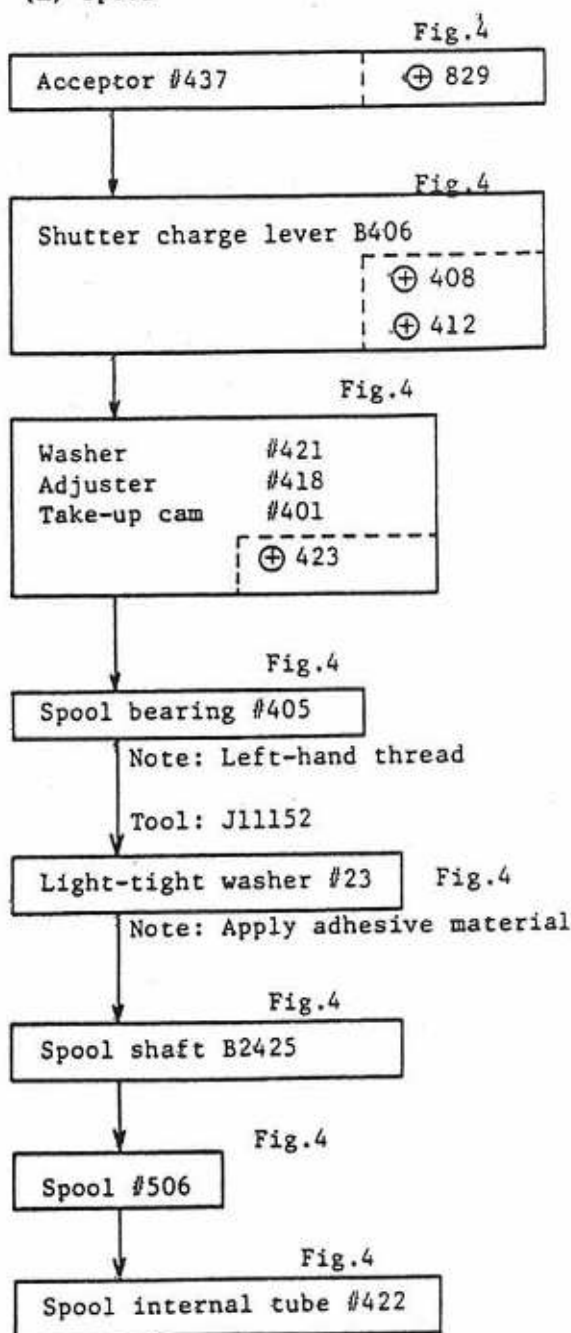
## (k) Shutter

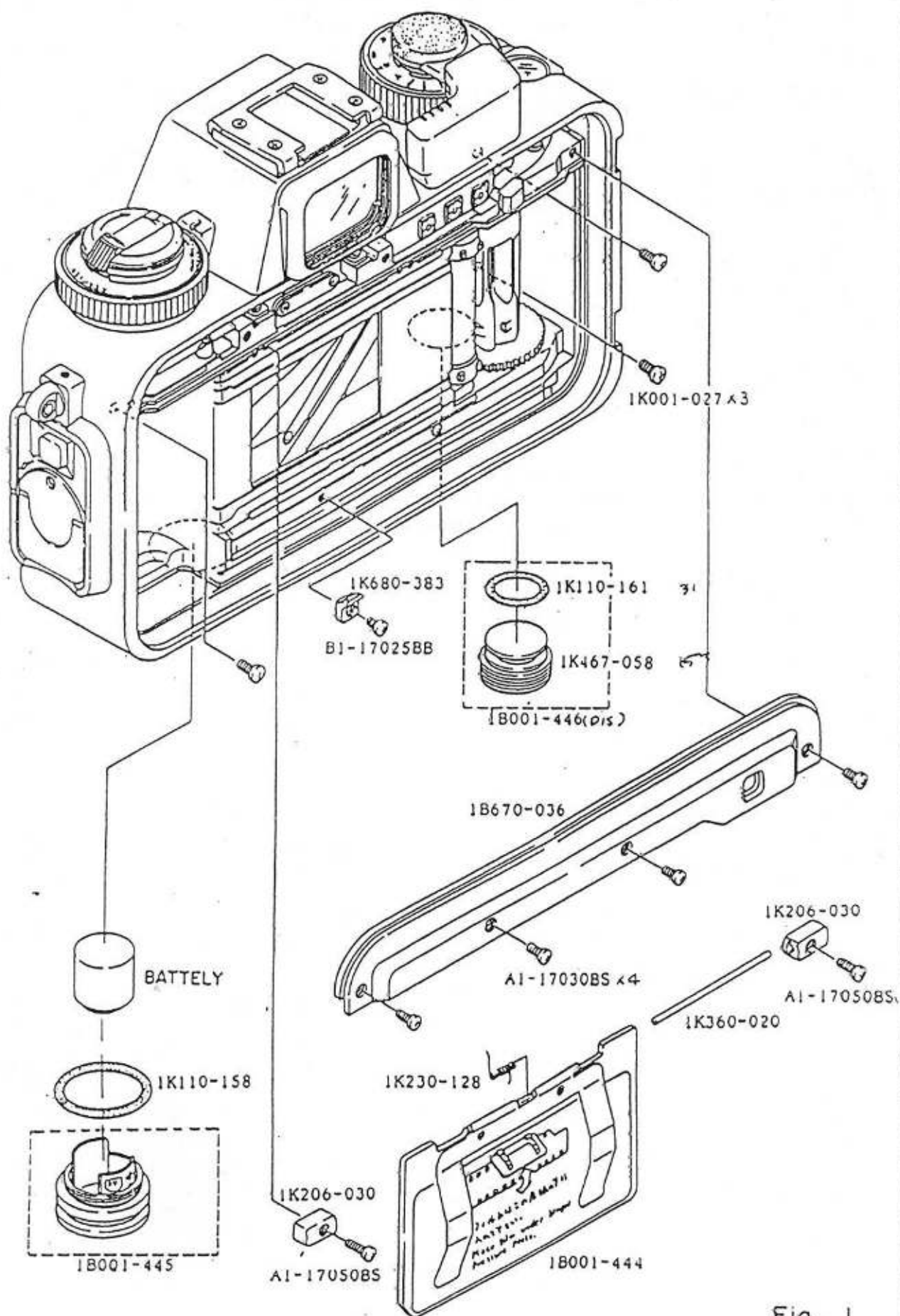


## (l) Sprocket



## (m) Spool





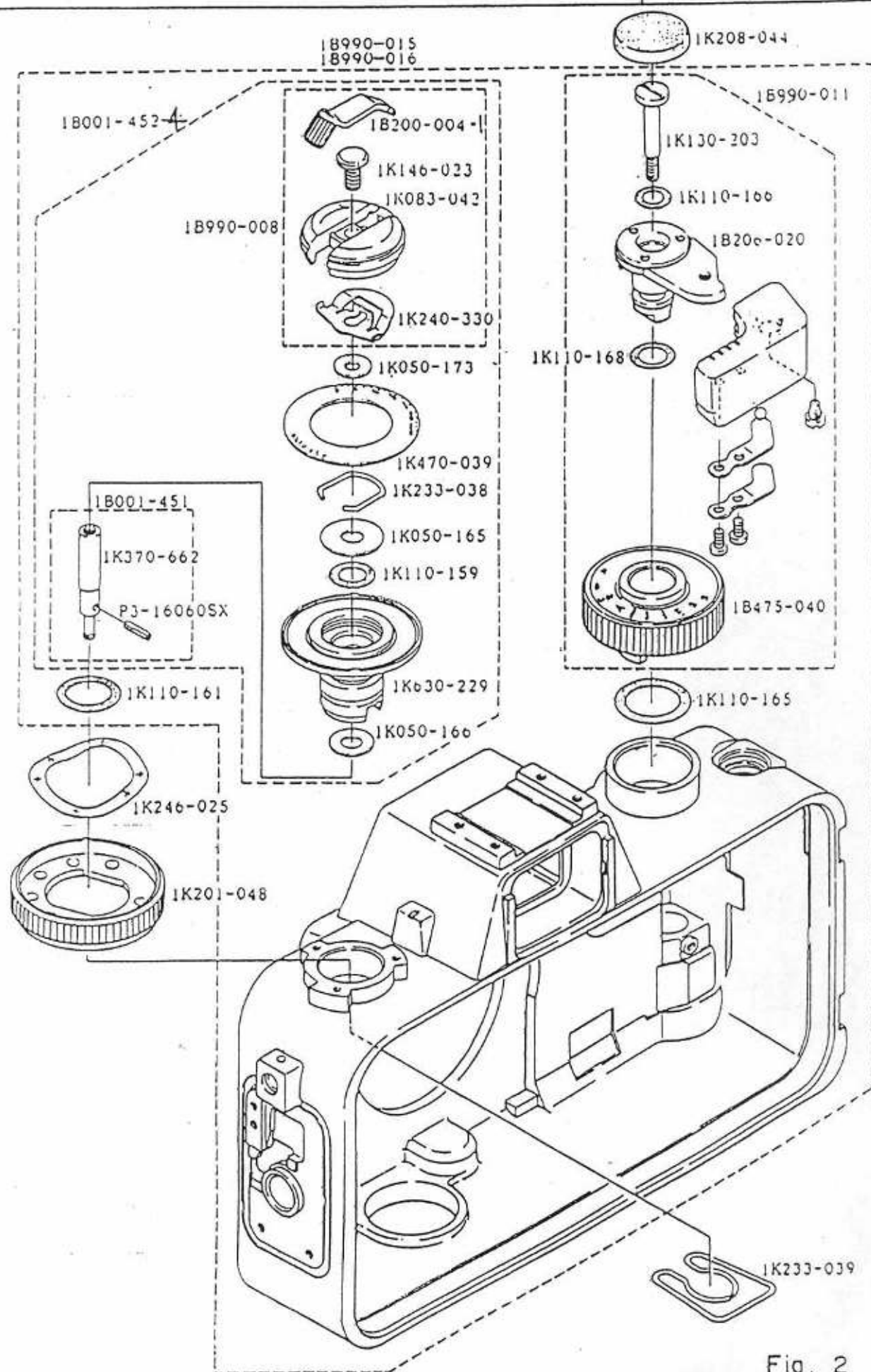


Fig. 2

Fig.2-1 Oil barrier application

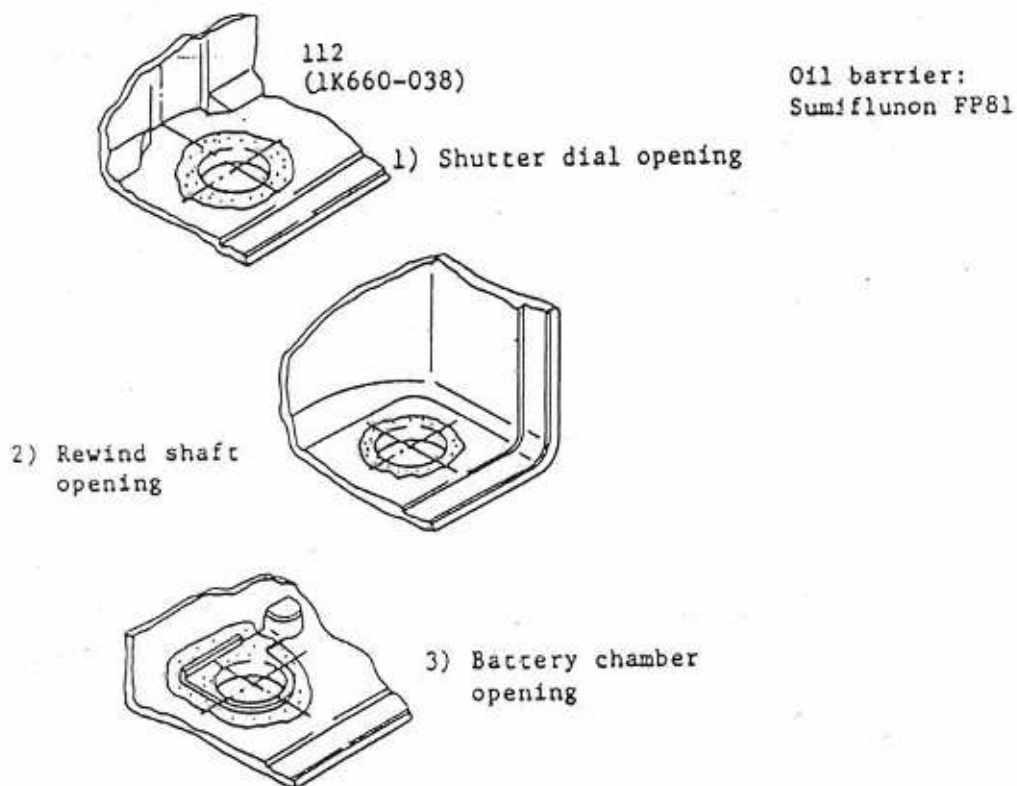


Fig.2-2 Shutter dial/film-advance lever installation

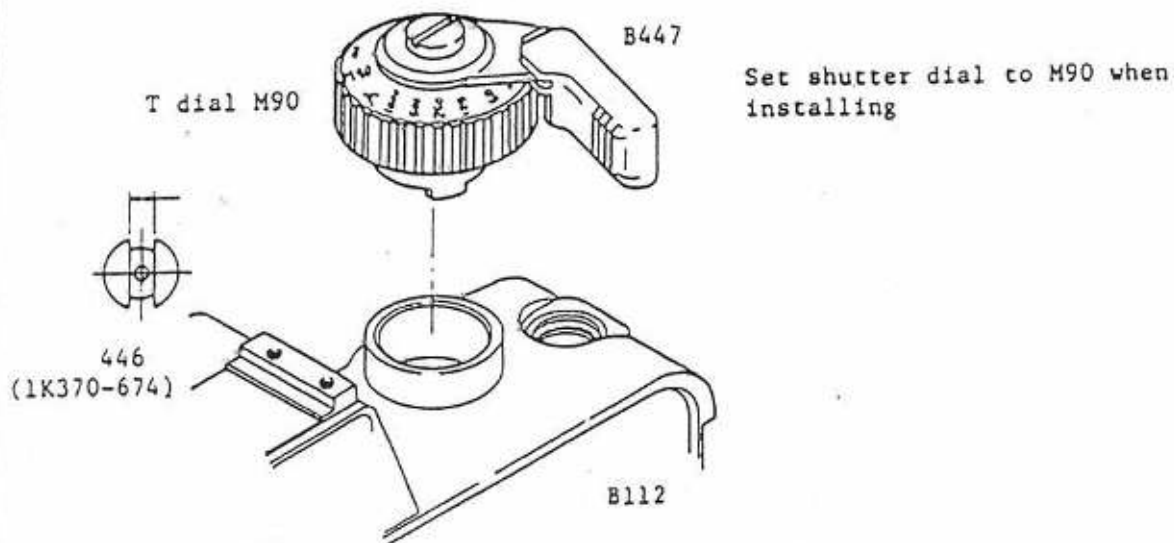
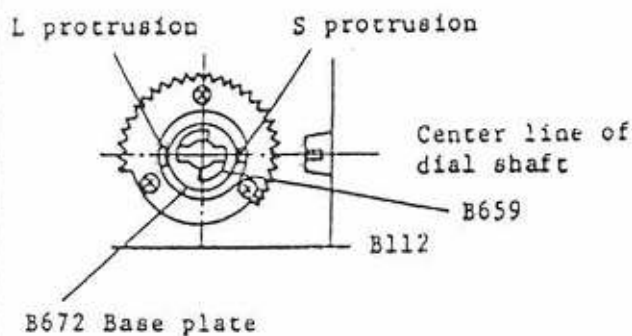
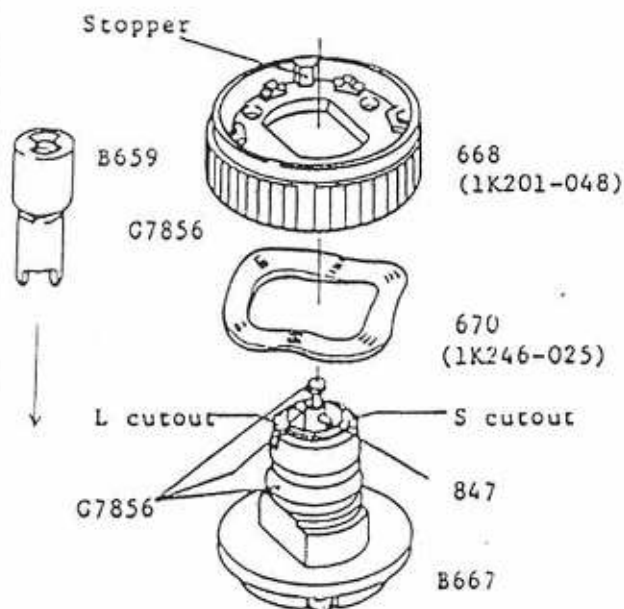


Fig.2-3 ASA/ISO dial installation



- 1) Align L protrusion and S protrusion of B672 with the center line of dial shaft.
- 2) Align forks of B659 with the center line of dial shaft.
- 3) Position stopper, of 668 near L cutout of B667.
- 4) Align Spring cotter 847 with L cutout and S cutout of B667.
- 5) Fit L protrusion of B672 with L cutout of B667.



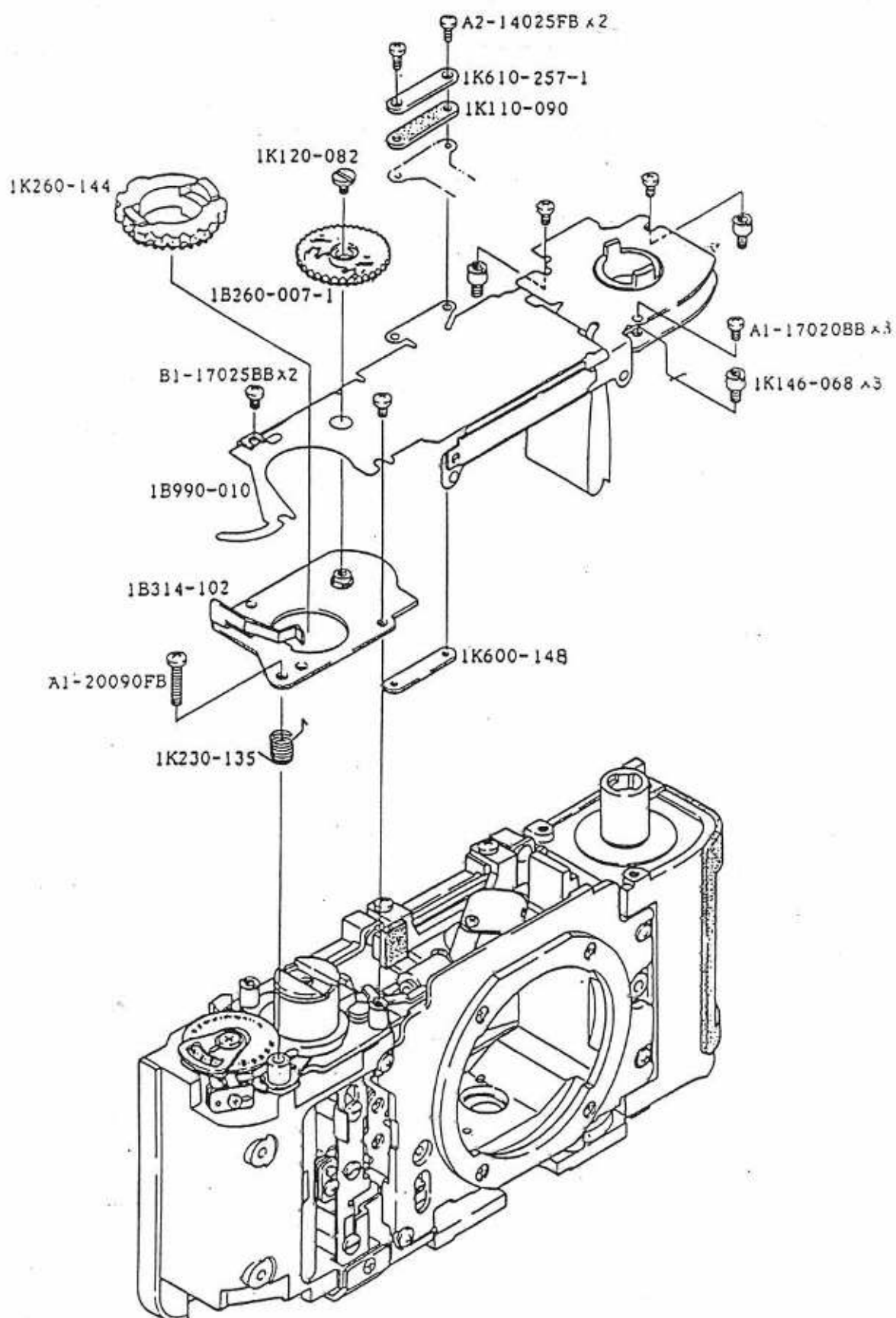
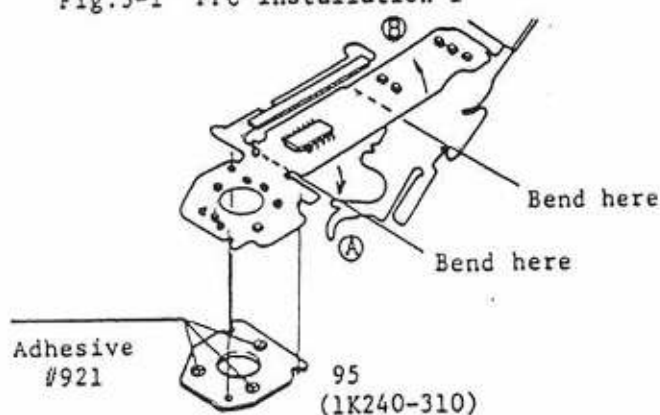


Fig. 3

Fig.3-1 FPC installation 1



Bend FPC 90° in the direction A and 180° in the direction B.

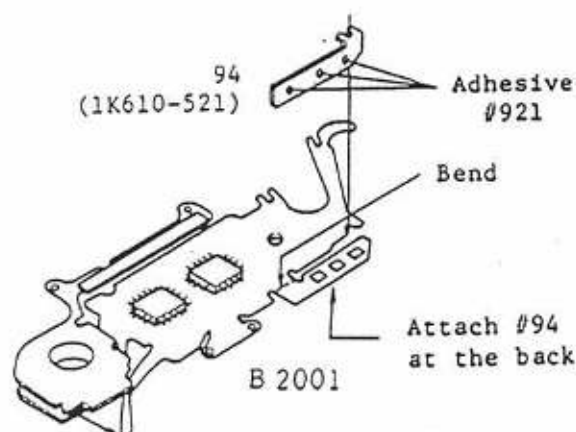
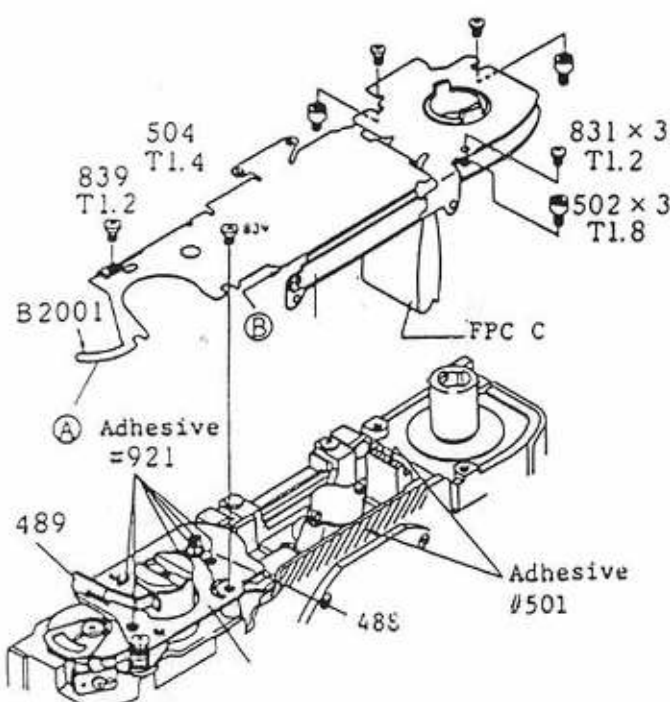


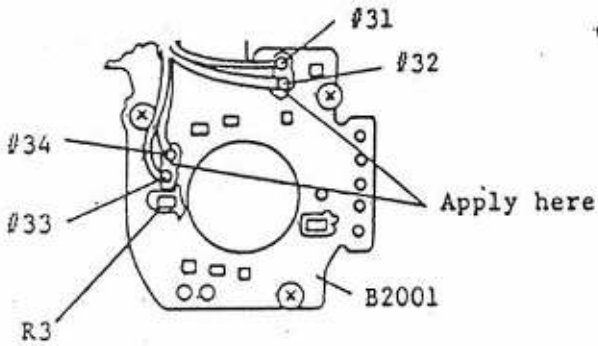
Fig.3-2 FPC installation 2



- 1) Apply #921 for six points on the top of B491 and for two points on the edge of front plate.
- 2) Insert FPC A into the space under #489 and fit it along #488. Screw #839 to fix FPC A.
- 3) Insert FPC C into the space between body and front plate.

Note: Be careful not to extend FPC B from the edge of front plate

Fig.3-3 Moisture-proof coating application



Coating material: Fumiseal 1B66

Fig.3-4 FPC retainer

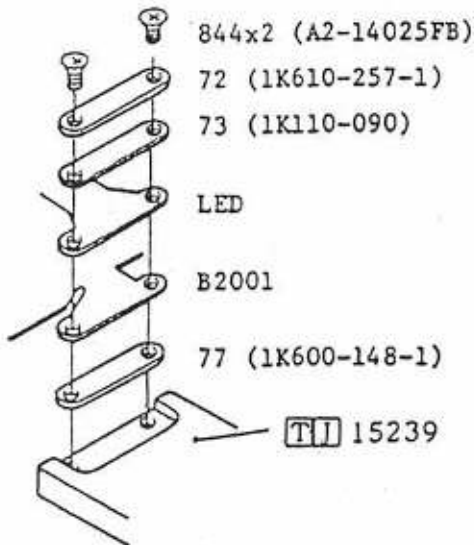
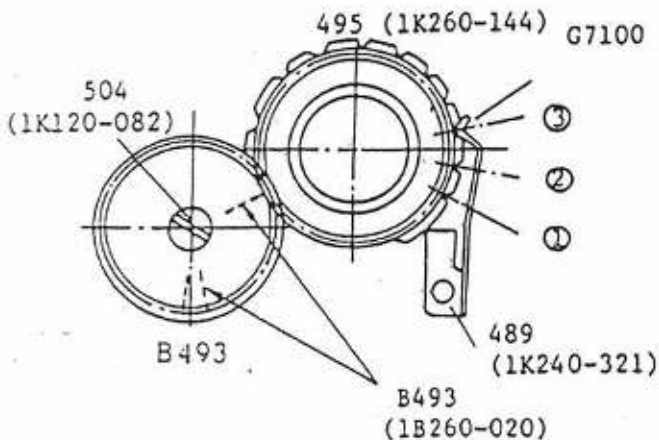


Fig.3-5 Gray code disk



- 1) Set #489 aside from #445 and fit protrusion under #495 in cutout of cam on B2451. Engage #489 with the third step of #495.
- 2) Clean gray code patterns and brushes.
- 3) Fit B493 onto #488 and engage #493 with #495.

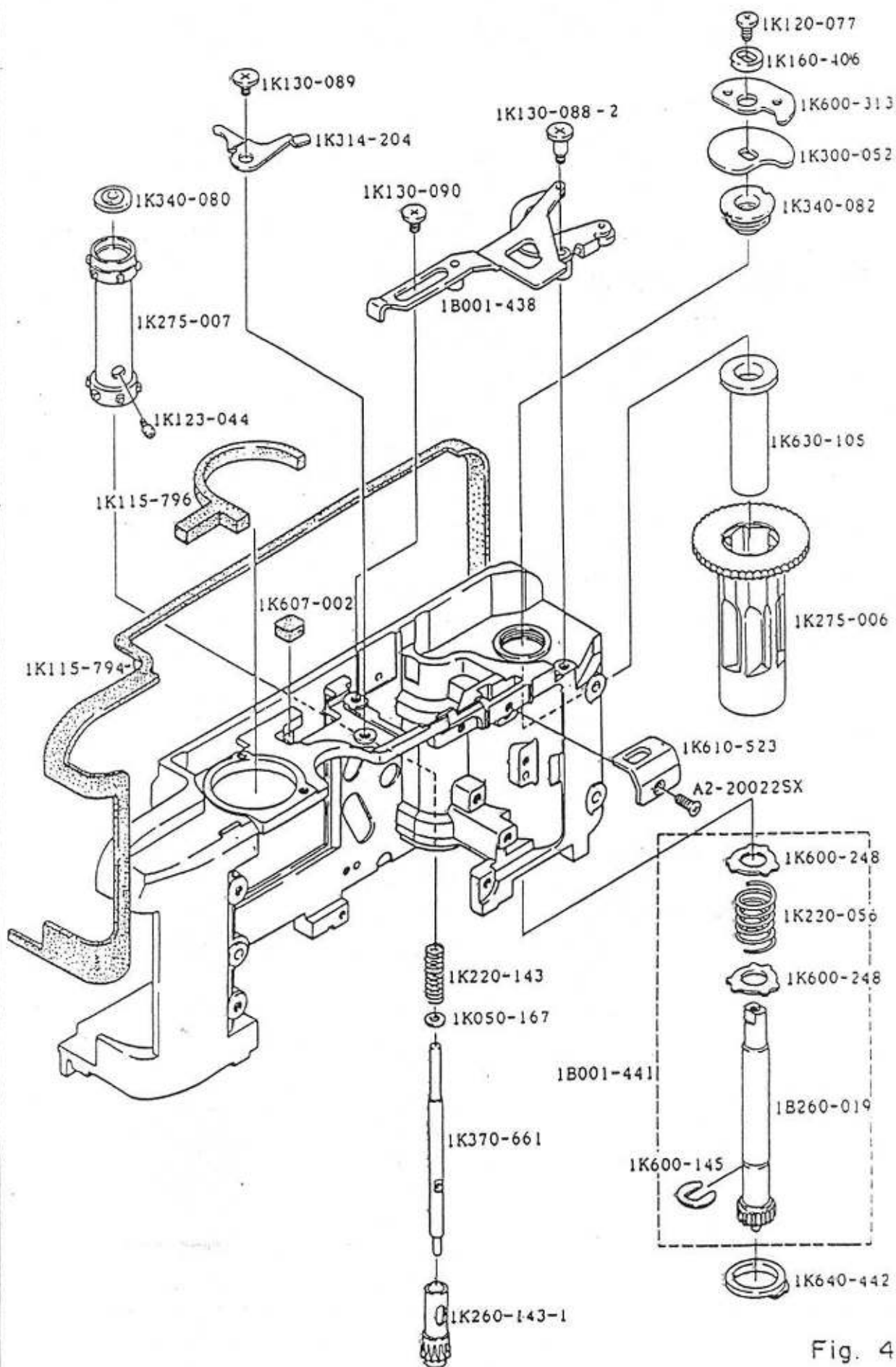


Fig. 4

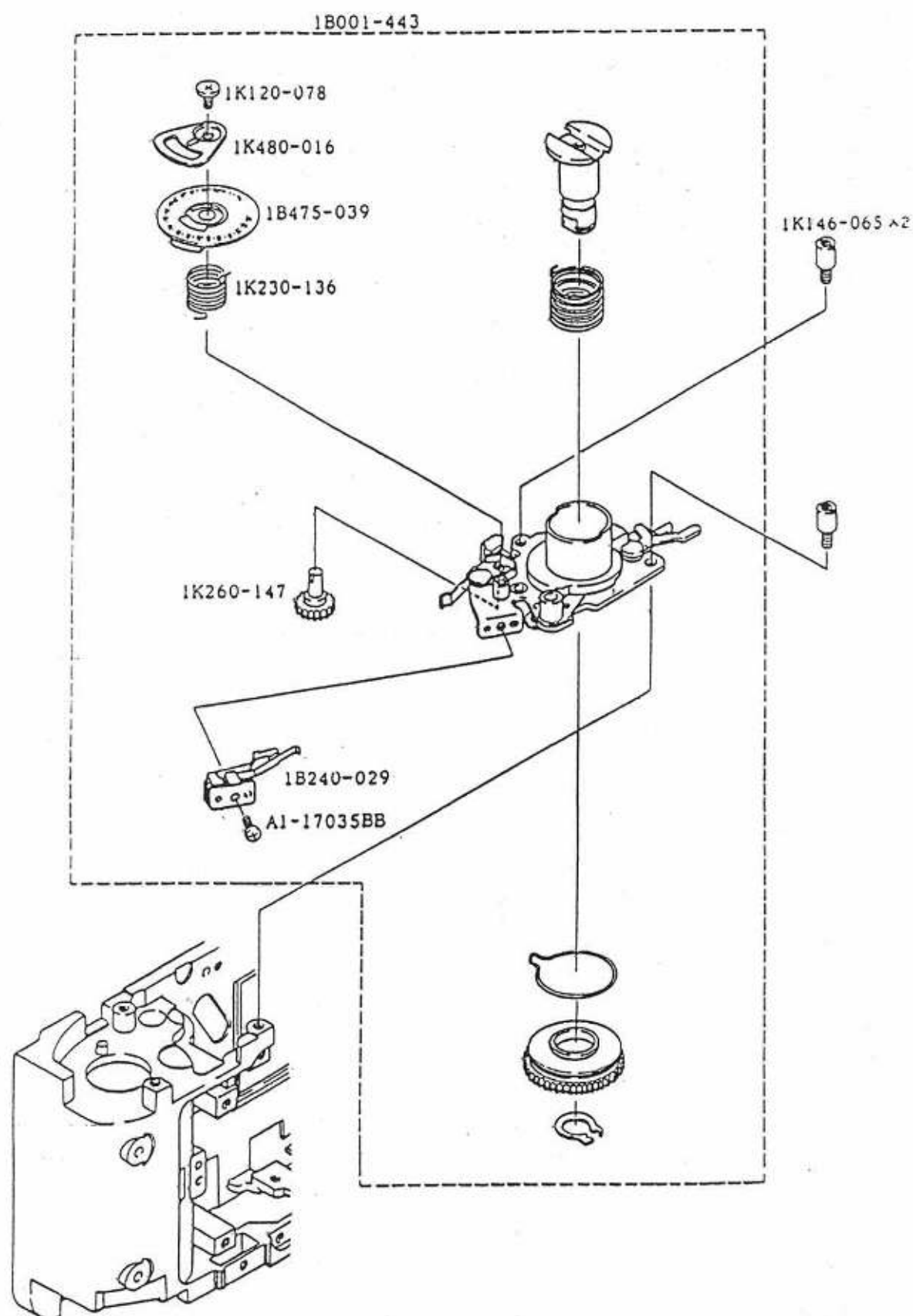
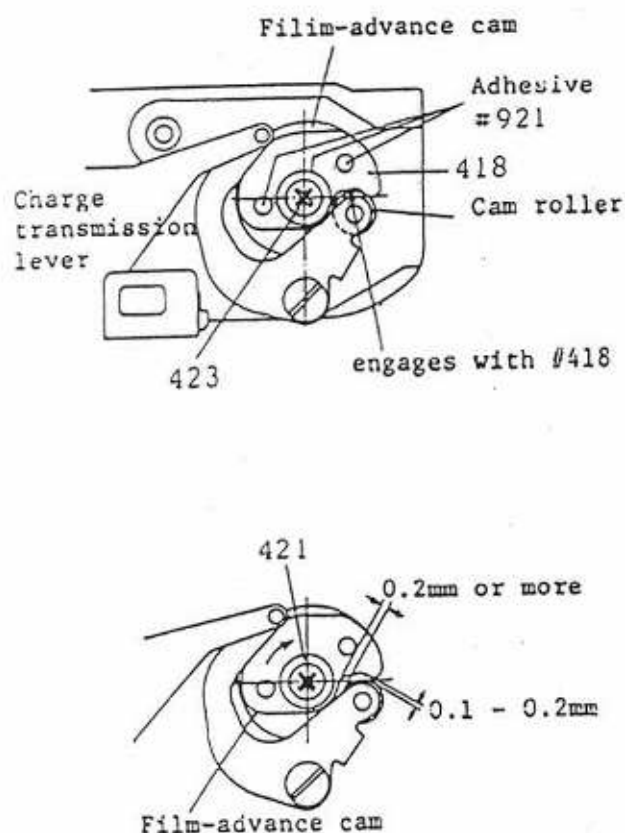


Fig. 5

Fig 4-1 Film-advance timing adjustment



- 1) Use fingers to hold sprocket and spool slightly. Then stroke film-advance lever slowly.

Cam roller should engage with #418 when film-advance is completed.

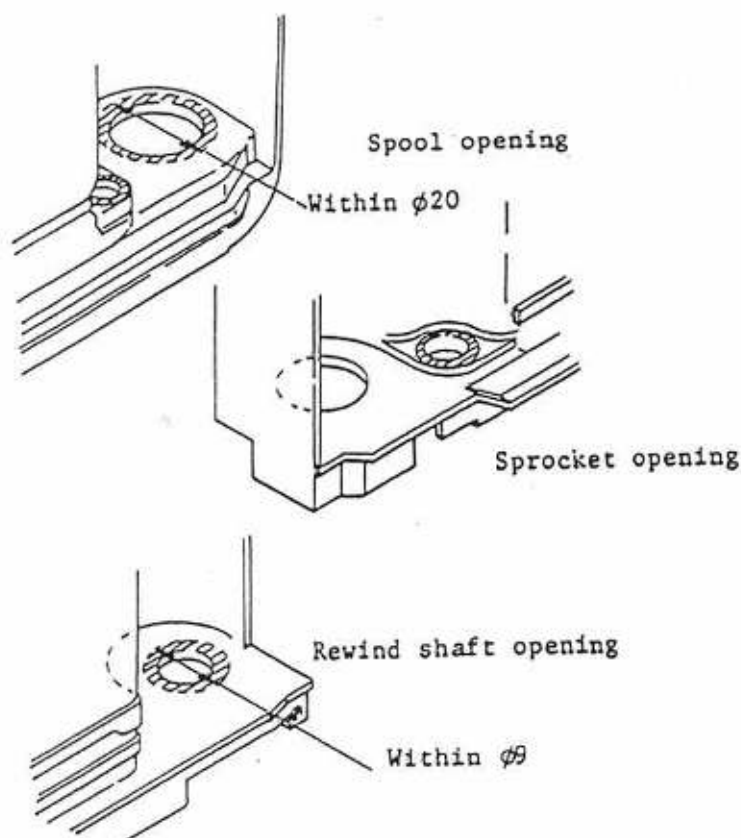
- 2) After film-advance completion, clearance between shutter release lever and shutter charge lever should be 0.5 - 1mm.
- 3) Charge transmission lever should not come in contact with #421.
- 4) Clearance between cam roller and film-advance cam should be 0.2mm or more.

Tighten Film-advance set screw #423 temporarily.

After adjustment, apply Adhesive #921 onto the sections of #418 indicated in Figure 4-1. Then tighten #423 securely.

Fig 4-2 Oil barrier application

Oil barrier:  
Sumiflunon FP81



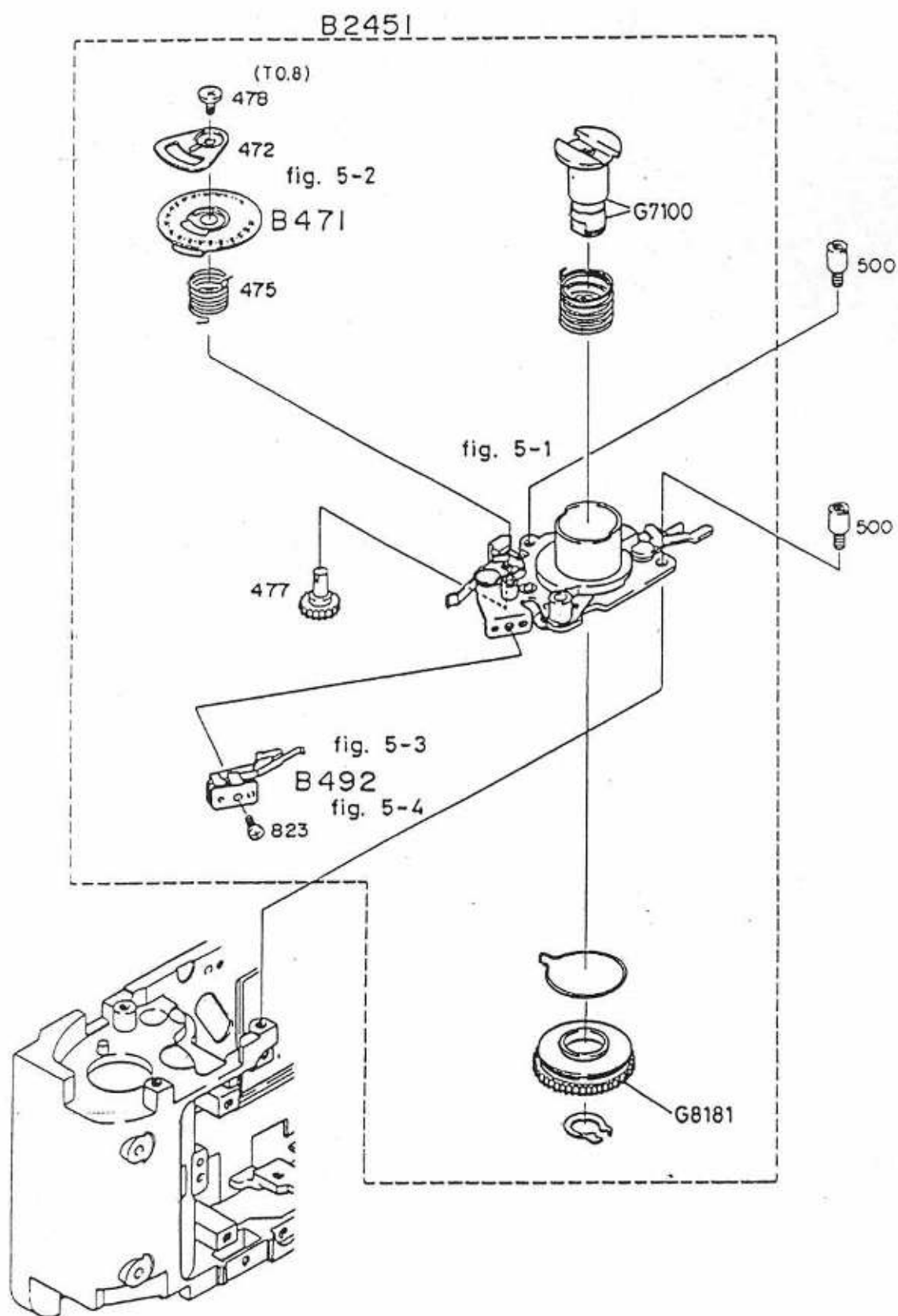
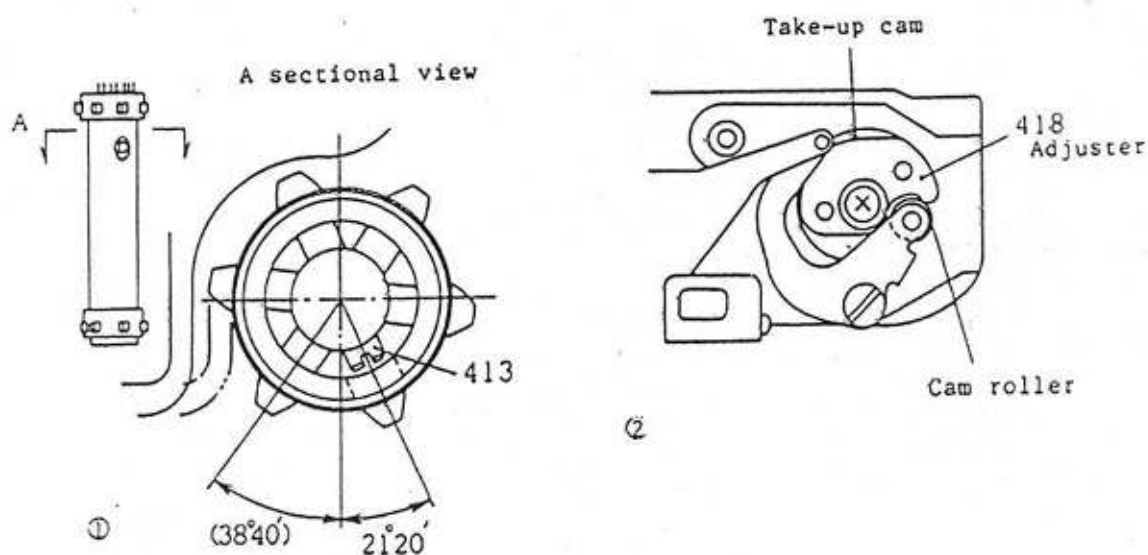


Fig. 5

Fig.5-1 Film-advance unit



- 1) Tighten #438 temporarily to fix film-advance lever.
- 2) Position sprocket and take-up cam as shown above.
- 3) Position kerf of #477 in the counter direction of frame counter.
- 4) Turn film-advance lever one and half turn counterclockwise to put sprocket stopper lever into sprocket stopper hole.
- 5) Place coupling lever against change-over shaft.
- 6) Fit spool and sprocket shafts with openings of film-advance unit and engage gears.

Check if frame counter advances during one stroke of film-advance lever.

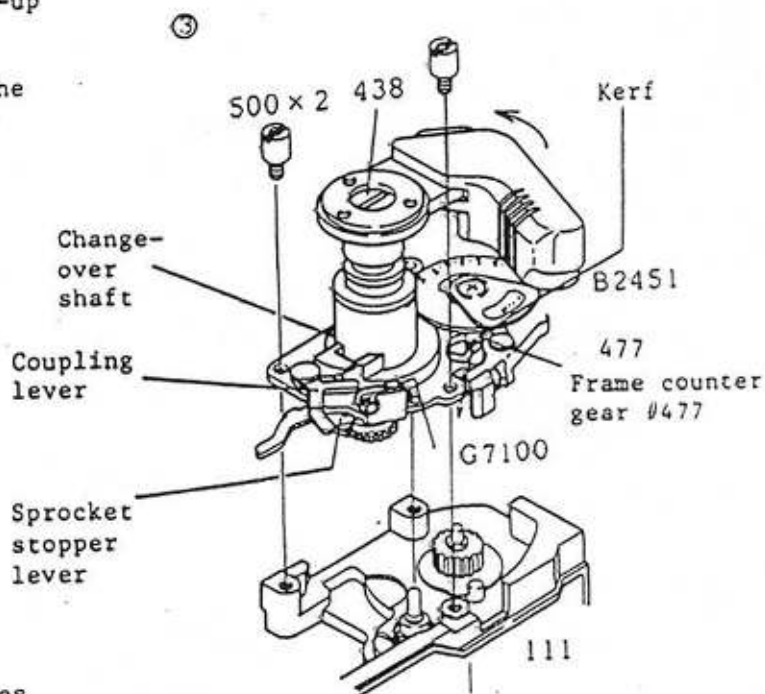


Fig.5-2 Frame counter index position

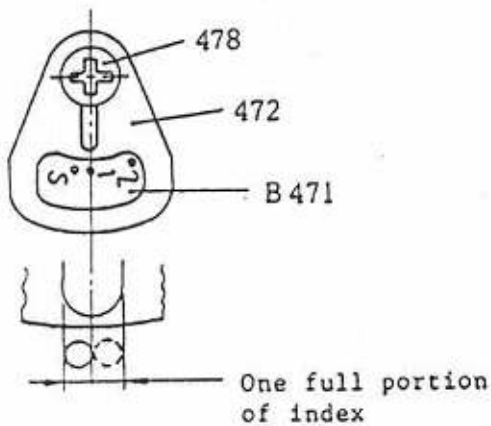
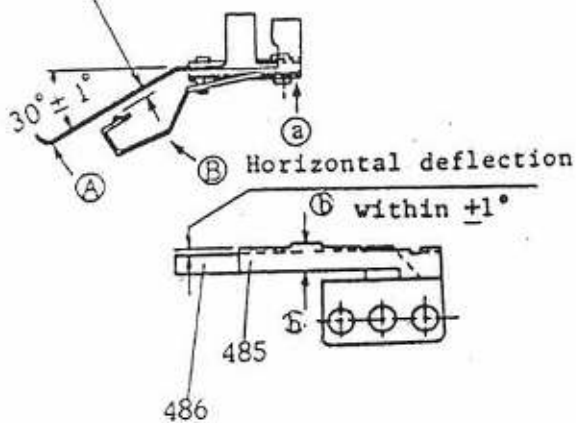


Fig.5-3 Frame counter switch 1

Switch blade clearance  
0.6 - 1.0mm



- 1) Insurance resistance between #486 and #485: 100M $\Omega$  or more
- 2) Resistance between #486 and #485: 0.2M $\Omega$  or less

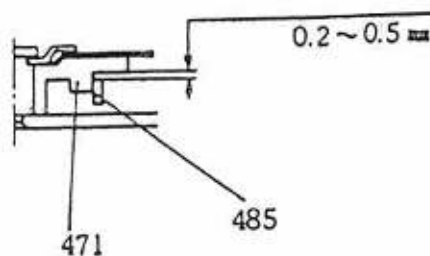
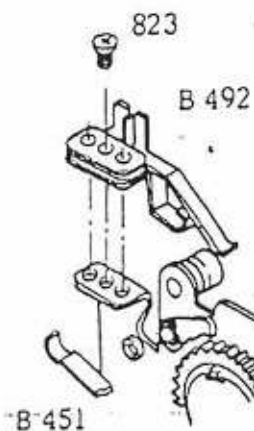
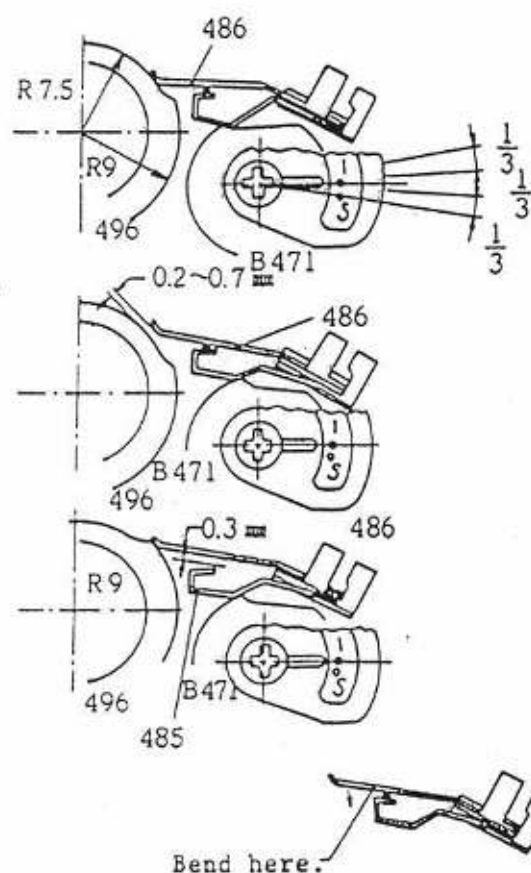


Fig.5-4 Frame counter switch 2



- 1) Set shutter dial to A.  
Frame counter switch should turn on when frame counter reaches the  $\frac{1}{3}$  -  $\frac{2}{3}$  point between the second dot and "1".
- 2) Clearance between #486 and #496 should be 0.2 - 0.7mm when frame counter advances from "1" to "36".
- 3) Set shutter dial to B or M90.  
Clearance between #485 and #486 should be 0.3mm or more when frame counter advances from "1" to "36".

## Shutter, Release Button SW &amp; Battery Chamer

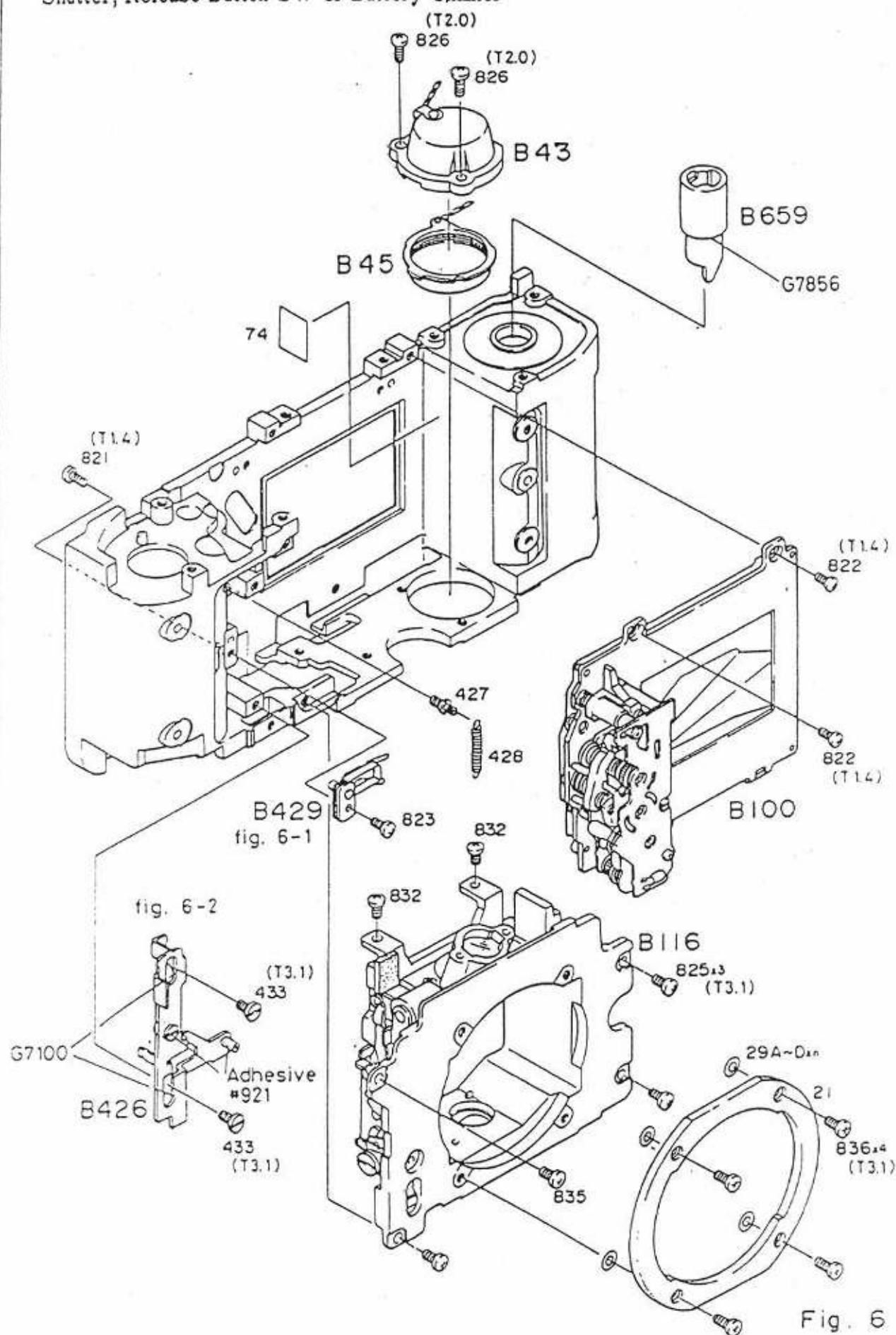


Fig.6-1 Release button switch

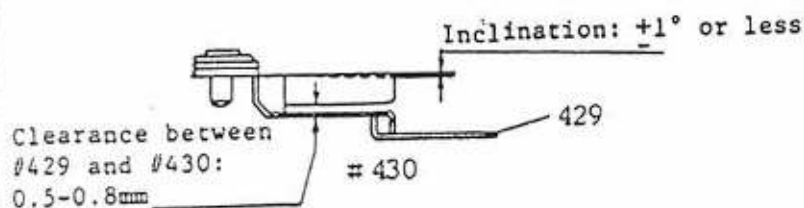
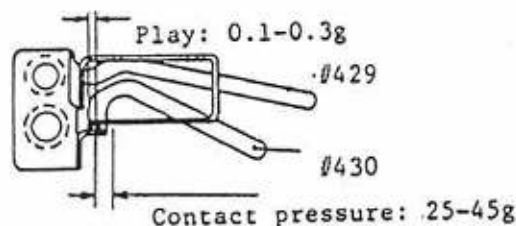
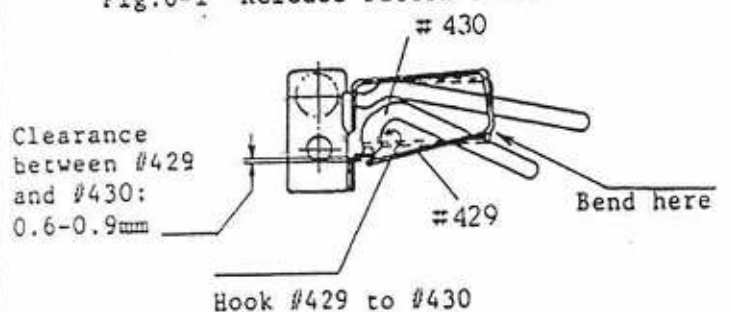
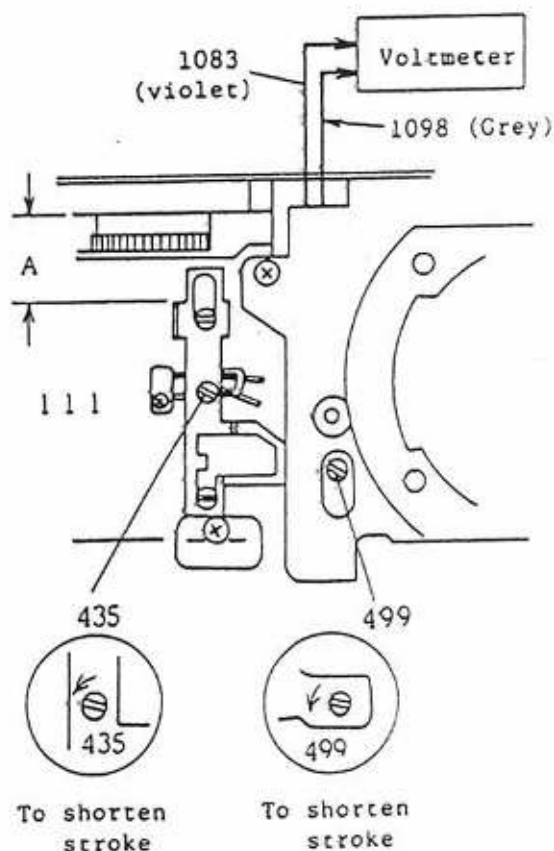


Fig.6-2 Release button stroke

- 1) Connect a voltmeter to Lead wires #1083 (violet) and #1098 (grey)
- 2) Set shutter charged condition.
- 3) Use a slide caliper to measure the distance (A) from top of body to step of B426.
- 4) Slide the caliper down to turn release switch on and move the voltmeter's needle. Measure this stroke (B).  
(A) - (B): 1.0 - 1.2mm  
To adjust, turn #435.
- 5) Slide the caliper down to release shutter. Measure this stroke (C).  
(A) - (C): 3.1 - 3.2mm  
To adjust, turn #499.



Note: (B) - (C): 2mm or more

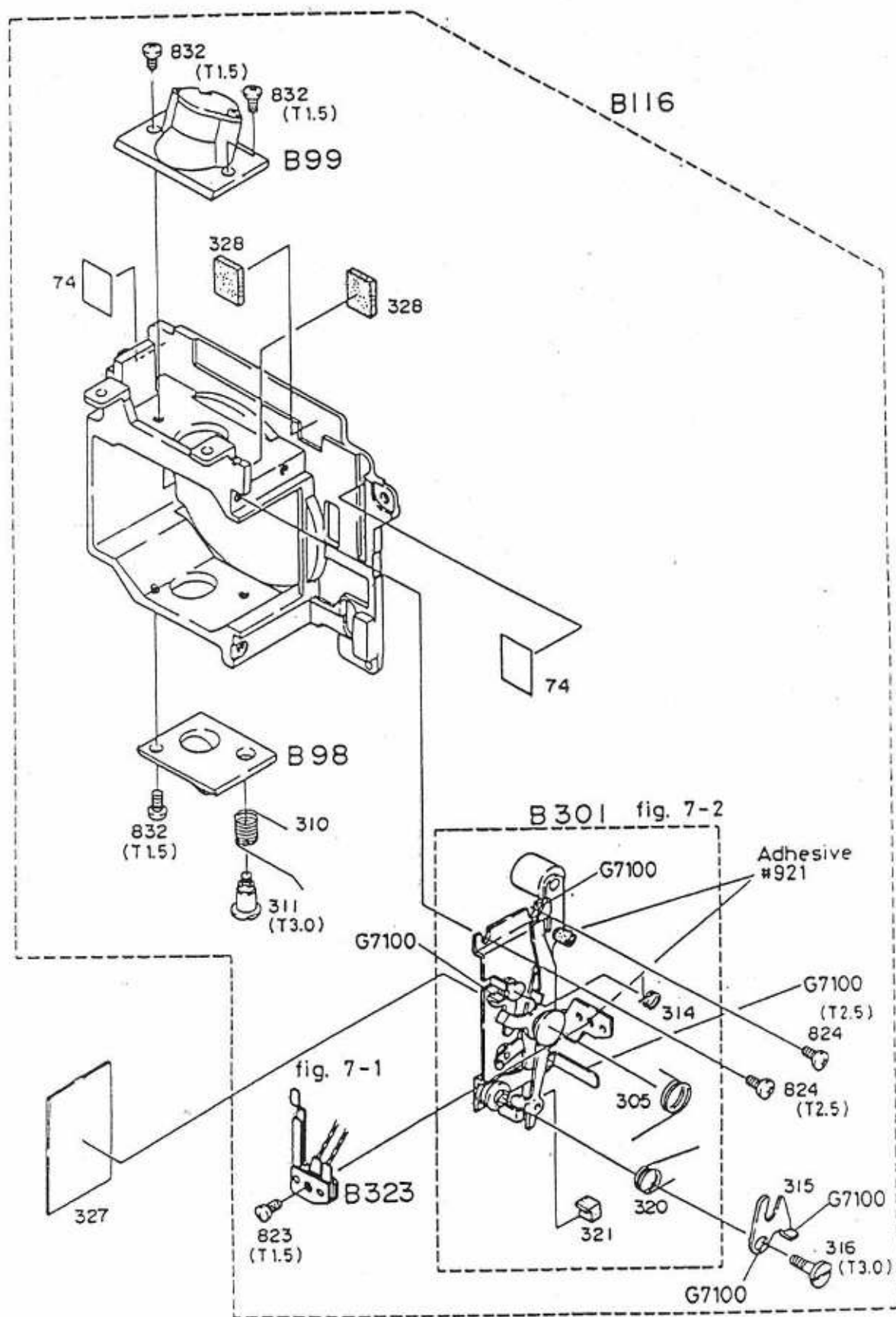
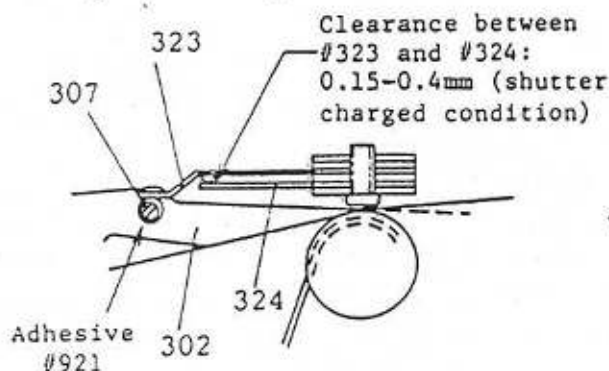


Fig. 7

Fig.7-1 Memory switch



To adjust the clearance, turn #307.

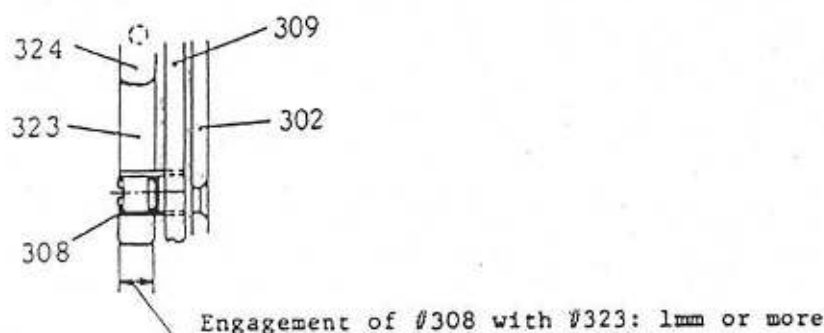
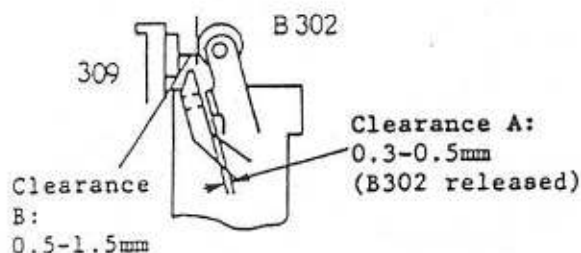
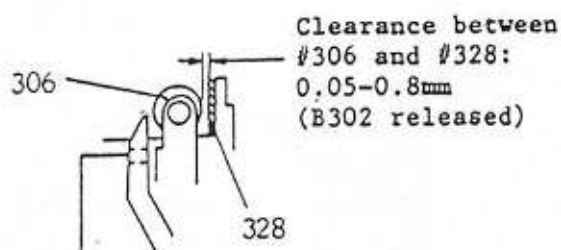


Fig.7-2 Mirror actuating lever



To adjust the clearance, change  
the installed position of B301.



B112

共用

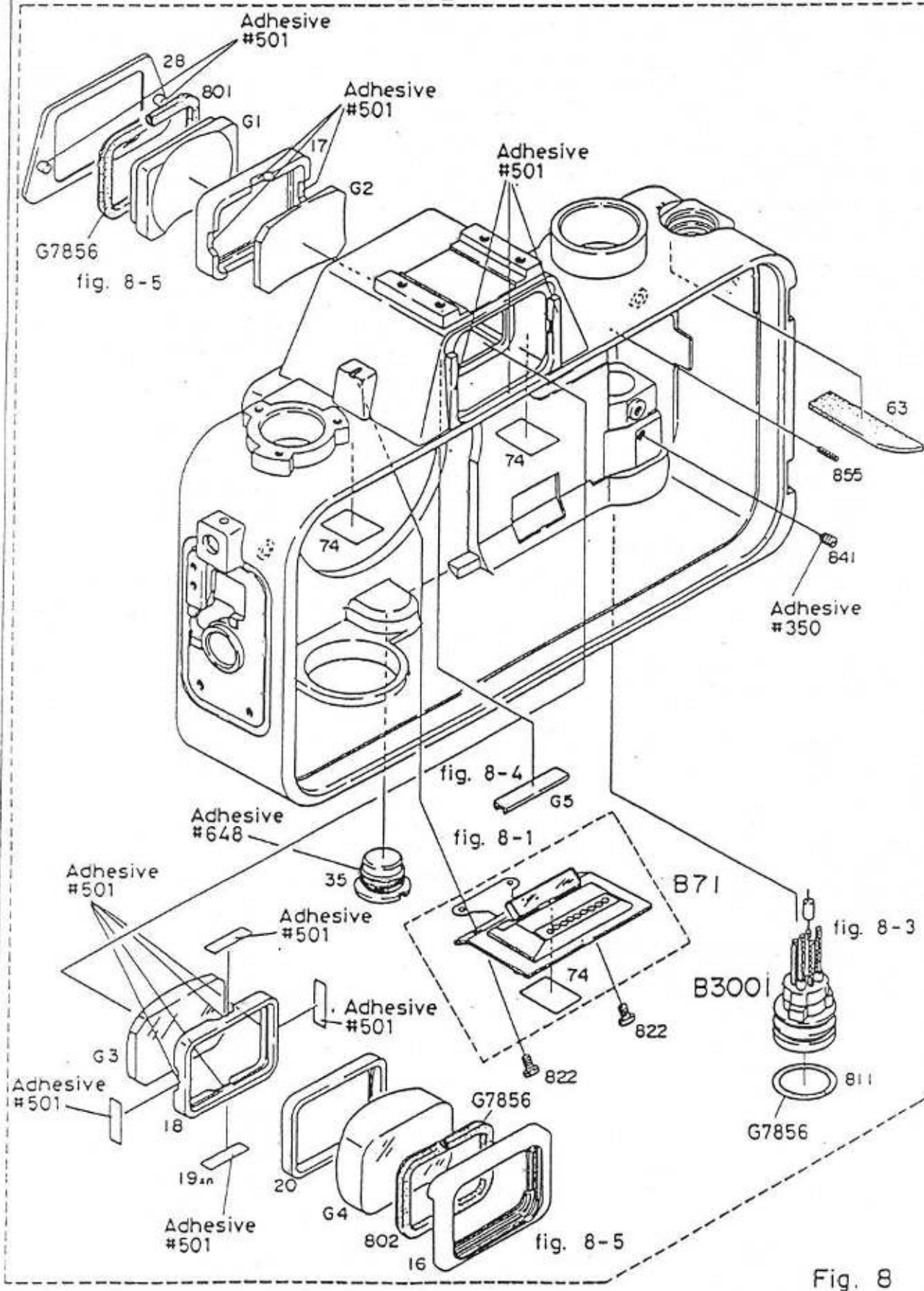
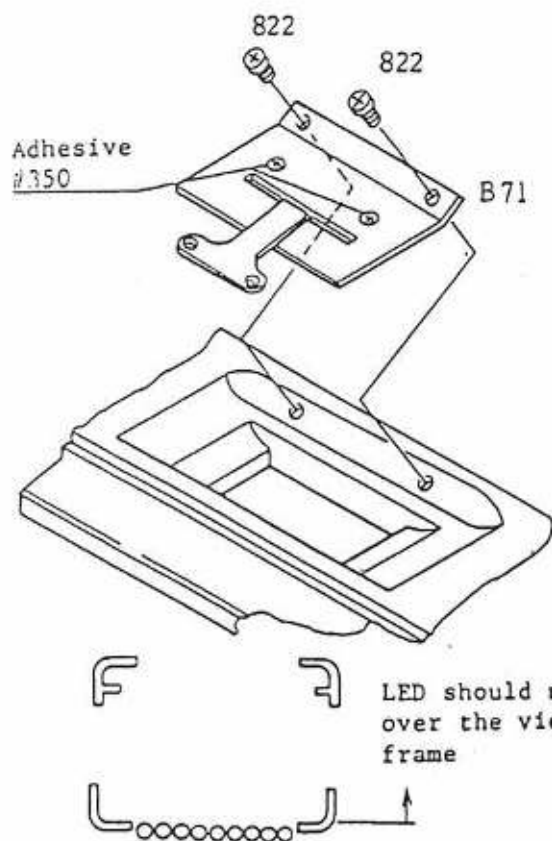


Fig. 8

Fig.8-1 LED panel position



LED panel should be visible.  
To adjust, loosen #843 x 2 and  
change the installed position  
of B71.

Fig.8-2 Sync terminal wires

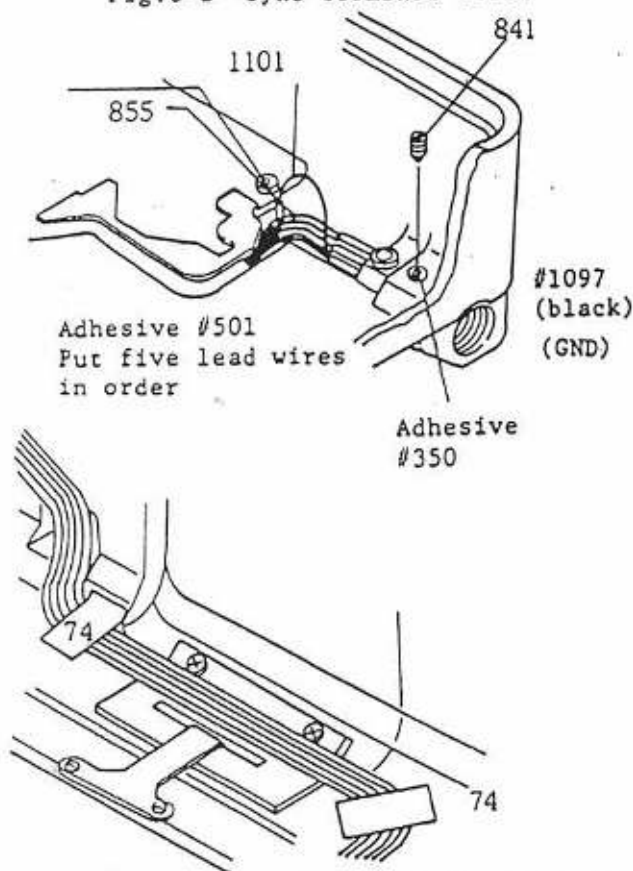


Fig.8-3 Sync terminal

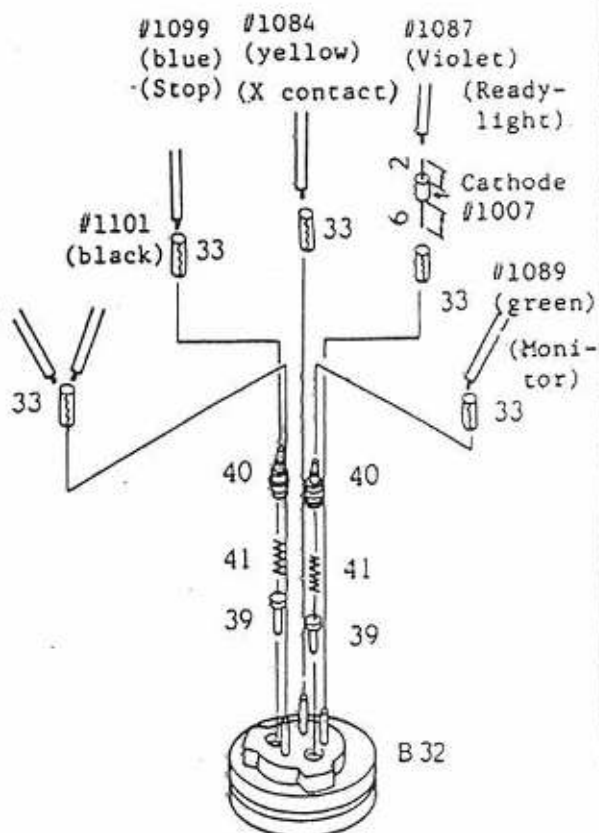
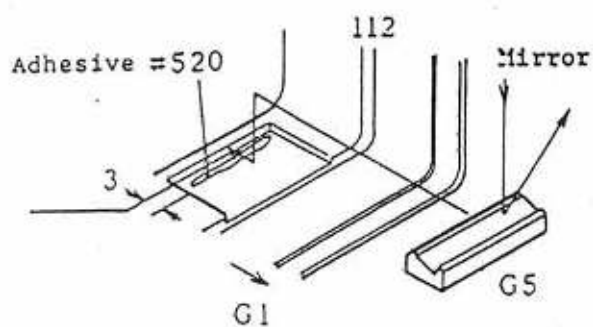
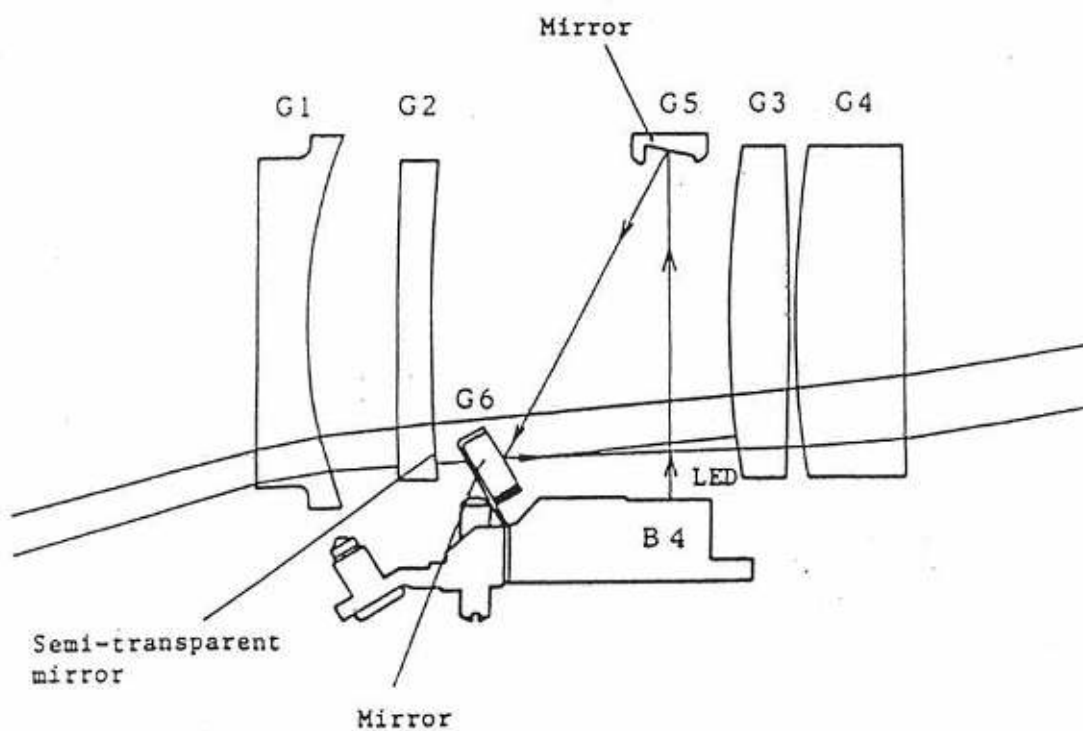


Fig.8-4 Mirror G5 installation



- 1) Apply adhesive material on the area of within 3mm from the step.
- 2) Mirror should face G1.

Fig.8-5 Viewfinder optical construction



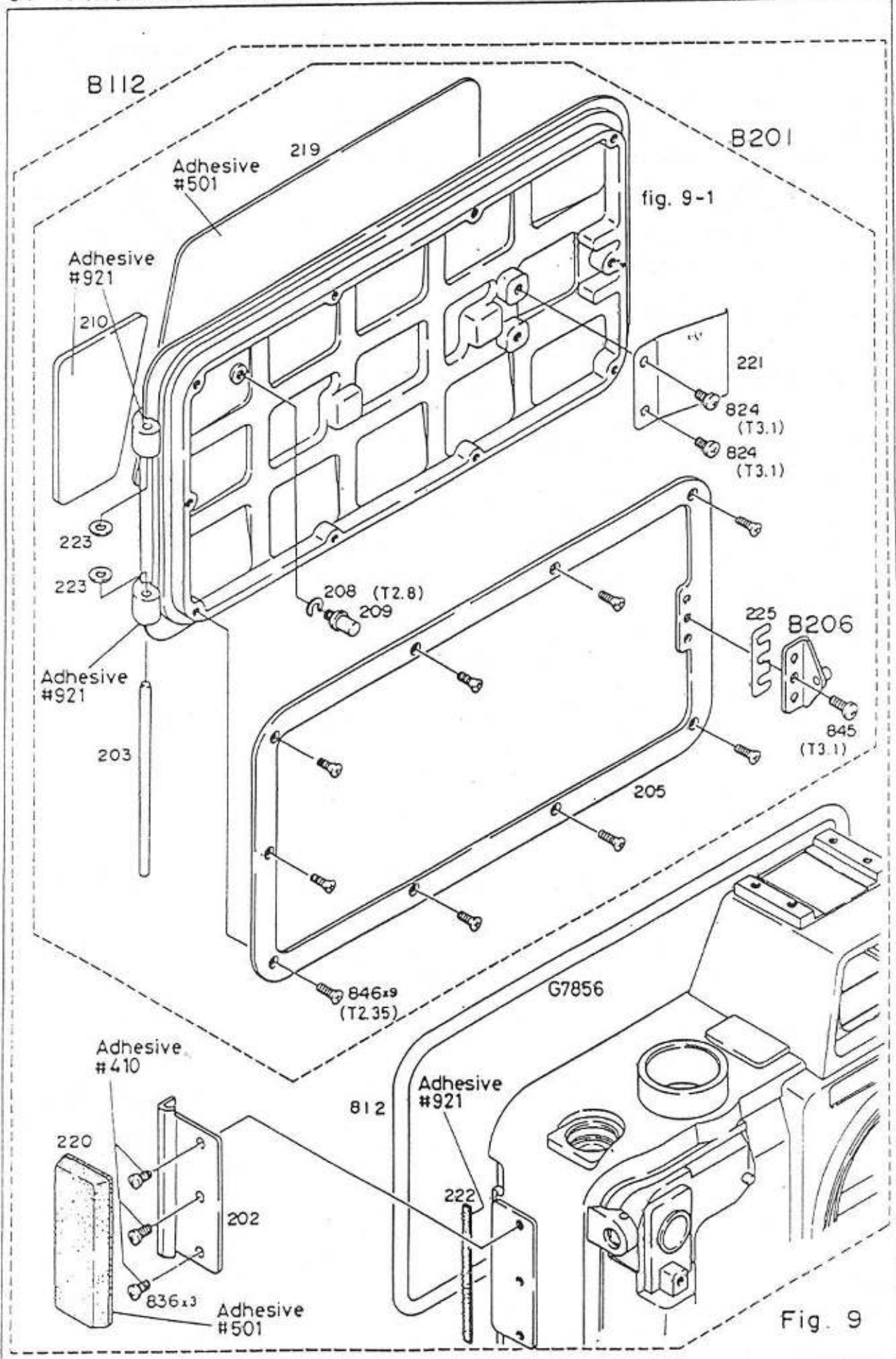
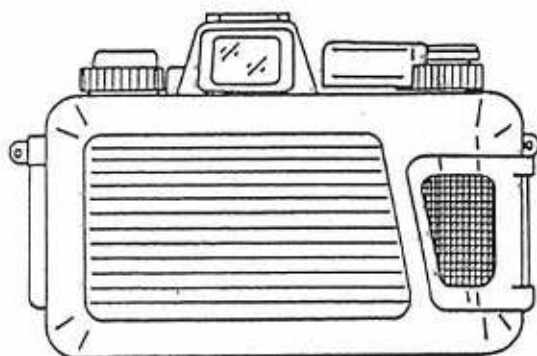
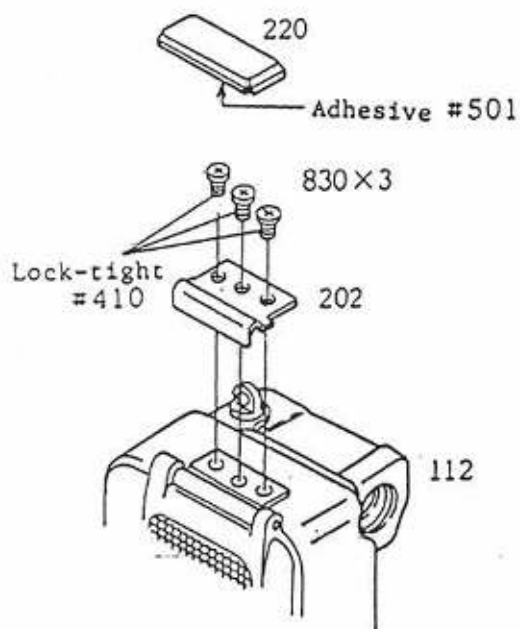


Fig.9 Camera back



- 1) Fit B201 with B112.
- 2) With #211 depressed, screw B213 clockwise.
- 3) Tighten #836 x 3 to fix #202.
- 4) Cement #202 with adhesive material #501.

Be sure to install B201 before fixing #202.



B112

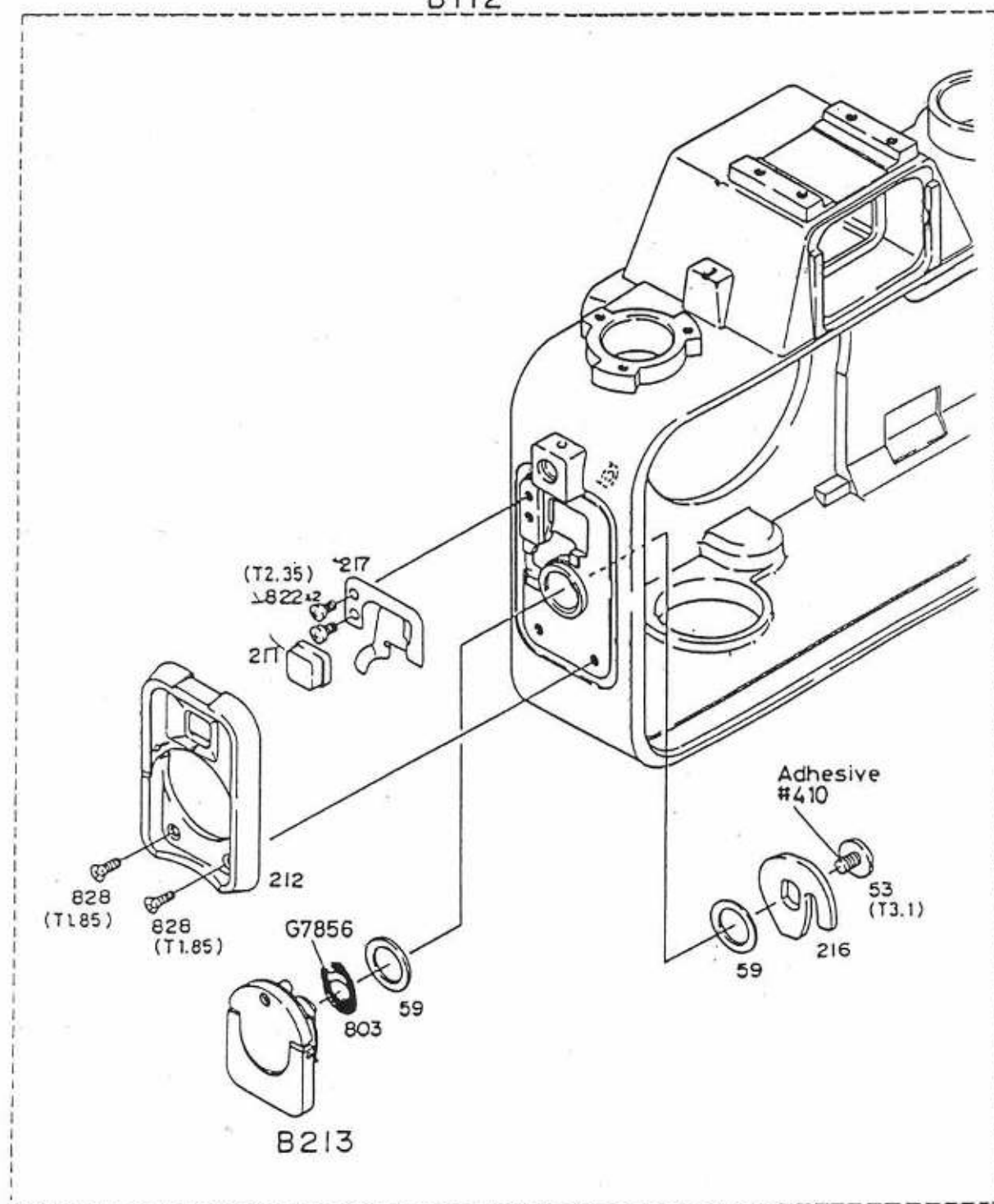
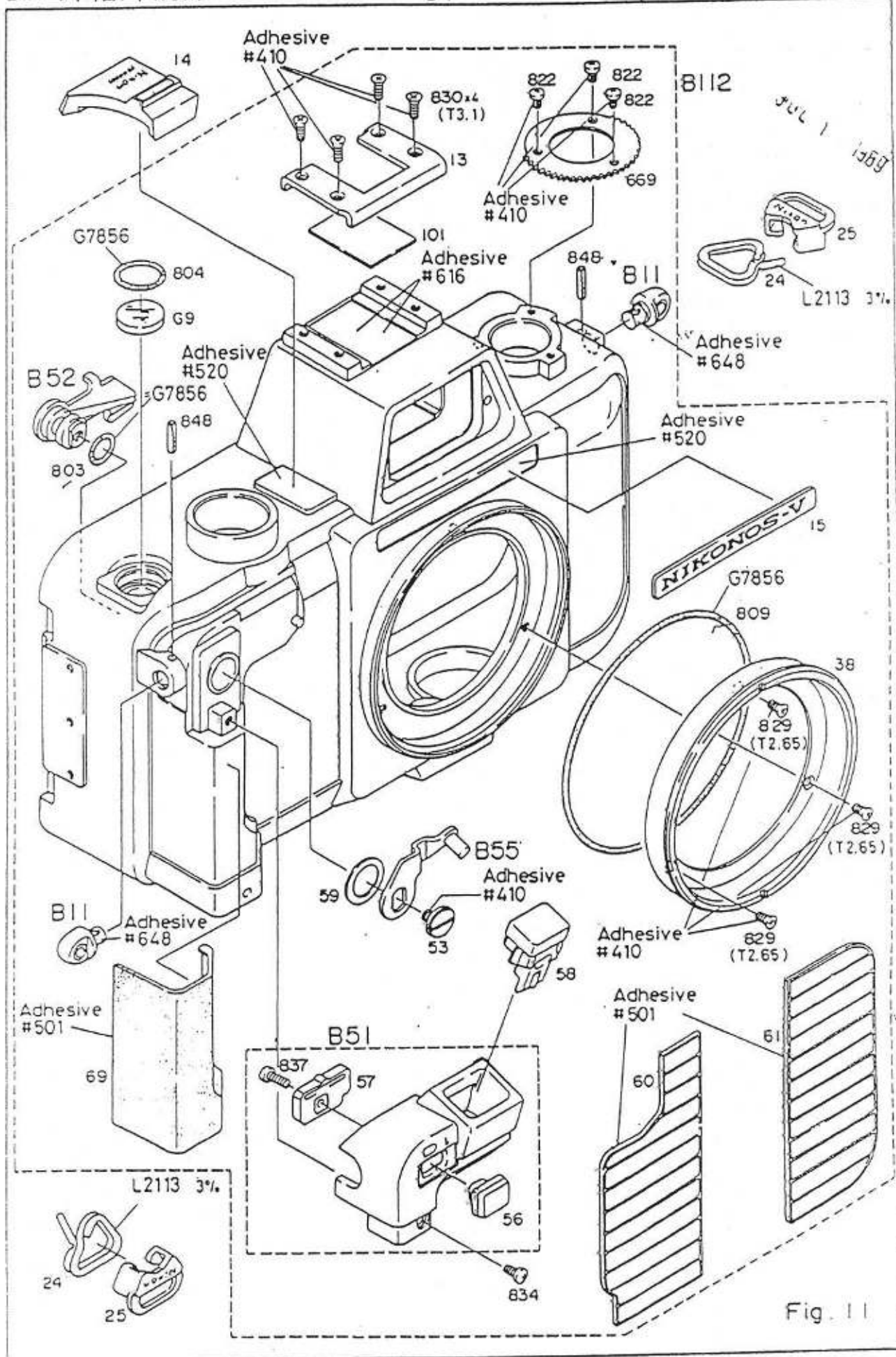
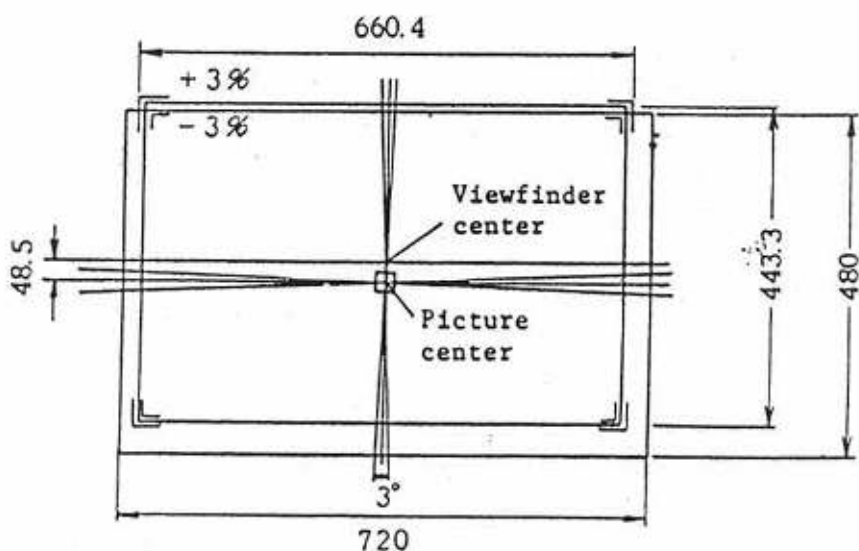


Fig. 10



### (3) Adjustments

### 1. Parallax adjustments



## Tool

- 1) Test chart J18166
  - 2) Tripod
  - 3) 35/2.5 lens (0.8mm focused)
  - 4) Eyepoint viewer J15205
  - 5) Focusing screen J18033
- 
- 1) Mount camera in test onto tripod and hold shutter open.
  - 2) Set J18033 to camera.
  - 3) Use J15205 to check the alignment of viewfinder frame with test chart.
  - 4) Add or remove #19 to adjust the alignment.
  - 5) Apply adhesive material (#501) to fix #19.

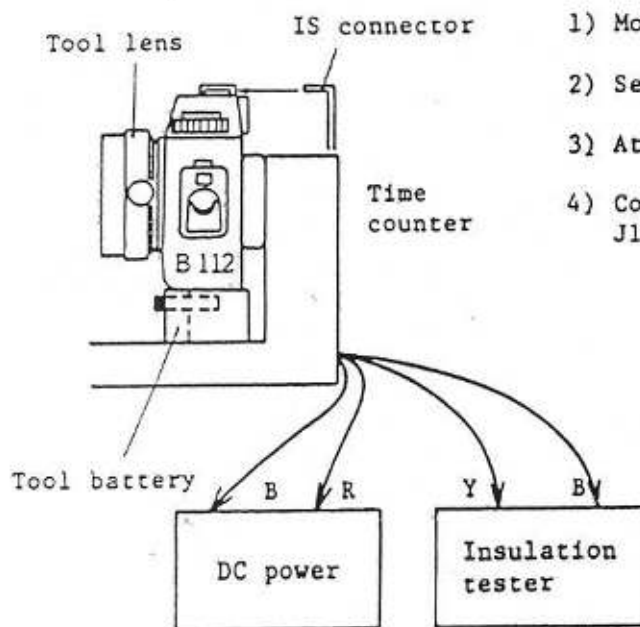
Test chart J18087 for the former IV-A camera is not usable except the alignment of viewfinder center.

## 2.. Shutter speed adjustments

### 2-1. Tool

- 1) Shutter tester J19036
- 2) Time counter J18142
- 3) Tool lens (35mm/f5.6) J18085
- 4) Tool battery J15238
- 5) IS connector J15240
- 6) Screwdriver J5135
- 7) Test film (Fuji Neopan SS)
- 8) DC regulated power supply J18084 or J9001-5
- 9) Contact tester J19028-1
- 10) Digital multi-meter J9003-2

### 2-2. Set-up



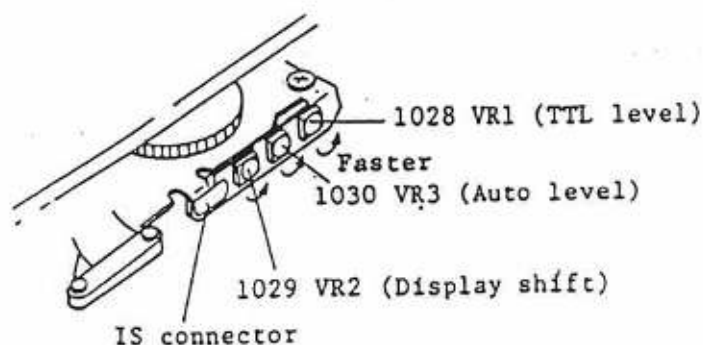
- 1) Mount J18085 to camera in test.
- 2) Set J15238 to camera.
- 3) Attach J15240 to accessory shoe.
- 4) Connect four wires from J15238 to J18084 and J19028-1.

### 2-3. Check

- 1) Set shutter dial to A.
- 2) Set shutter tester to LV12.
- 3) Release shutter until frame counter reaches "1".  
See if LED will not light up and shutter speed is fixed at 1/500 sec. during those releases.

- 4) After frame counter reaches "1", see if depressing release button halfway lights LED up.
- 5) See if shutter speeds can be delivered responding to the light.
- 6) Set DC power to 2.29V. See if depressing release button halfway lights LED up.
- 7) Set DC power to 2.56V. See if LED continue to light for 16 sec. after finger is taken off release button.

#### 2-4. Adjustment



##### 1) Auto level

Adjustments can be made by turning VR3. Set DC power to 3V. Turn VR3 counter clockwise to accelerate shutter speeds.

| LV | ISO | Standard(ms) | Tolerance(ms) |
|----|-----|--------------|---------------|
| 12 | 100 | 7.81         | 7.05 - 8.66   |

| Step | LV | ISO  | Standard(ms) | Tolerance(ms) |
|------|----|------|--------------|---------------|
| 1    | 12 | 25   | 31.25        | 25.4 - 38.4   |
| 2    | "  | 800  | 0.98         | 0.74 - 1.28   |
| 3    | 9  | 1600 | 3.91         | 3.17 - 4.80   |
| 4    | "  | 200  | 31.25        | 25.4 - 38.4   |
| 5    | 15 | 100  | 0.98         | 0.74 - 1.28   |
| 6    | "  | 25   | 3.91         | 3.17 - 4.80   |

## 2) Manual shutter speed

| Step | LV | Shutter dial | Standard(ms) | Tolerance(ms) |
|------|----|--------------|--------------|---------------|
| 1    | 12 | 1/30         | 31.25        | 25.4 - 38.5   |
| 2    | "  | 1/125        | 7.81         | 6.34 - 9.62   |
| 3    | "  | 1/1000       | 0.98         | 0.69 - 1.39   |

## 3) Display shift

Adjustments can be made by turning VR2. Counter clockwise to increase the shift.

| LV | ISO       | Tolerance |                     |
|----|-----------|-----------|---------------------|
| 12 | 100 + 1/3 | 1/125 ON  | Near to light 1/250 |

| Step | LV | ISO | Tolerance |                  |
|------|----|-----|-----------|------------------|
| 1    | 12 | 400 | 1/500 ON  | 1/500, 1/250 ON  |
| 2    | "  | 25  | 1/30 "    | ► ON             |
| 3    | 9  | 800 | 1/125 "   | 1/125, 1/60 ON   |
| 4    | "  | 200 | 1/30 "    | ► ON             |
| 5    | 15 | 100 | 1/1000 "  | 1/1000, 1/500 ON |
| 6    | "  | 25  | 1/250 "   | 1/250, 1/125 ON  |

## 4) TTL level

- 1) Turn J18142 on to set automatic sync speed 1/90 sec.
- 2) Set shutter dial to A and then 1/125 - 1/1000 sec.  
Standard: 11.1ms (9.02 - 13.67 ms)
- 3) See if ready-light LED lights up.

It is normal that automatic sync speed 1/90 sec. is not displayed on LED panel.

Load camera with a test film (Fuji Neopan SS or equivalent).  
Adjustments can be made by turning VR1. Counter clockwise to  
accelerate sync speed.

| LV | ISO | Tolerance ( $\mu$ s)    | LED display                 |
|----|-----|-------------------------|-----------------------------|
| 15 | 100 | Standard ( $\mu$ s) 820 | 1/1000 BLINK Ready-light ON |

Notes:

- 1) Ready-light will turn on when release button switch halfway depressed.
- 2) If LED of J18142 is off, press reset button.
- 3) Standard reflector J15196 is less accurate than Fuji Neopan SS in this check.
- 5) M90 check

Standard: 9.0 - 14.0ms

6) Synchronization check

Time lag: 0.3 - 1.2ms

After sync on: 1.5ms or more

Contact efficiency: 50% or more

Insulation resistance: 30M $\Omega$  or more

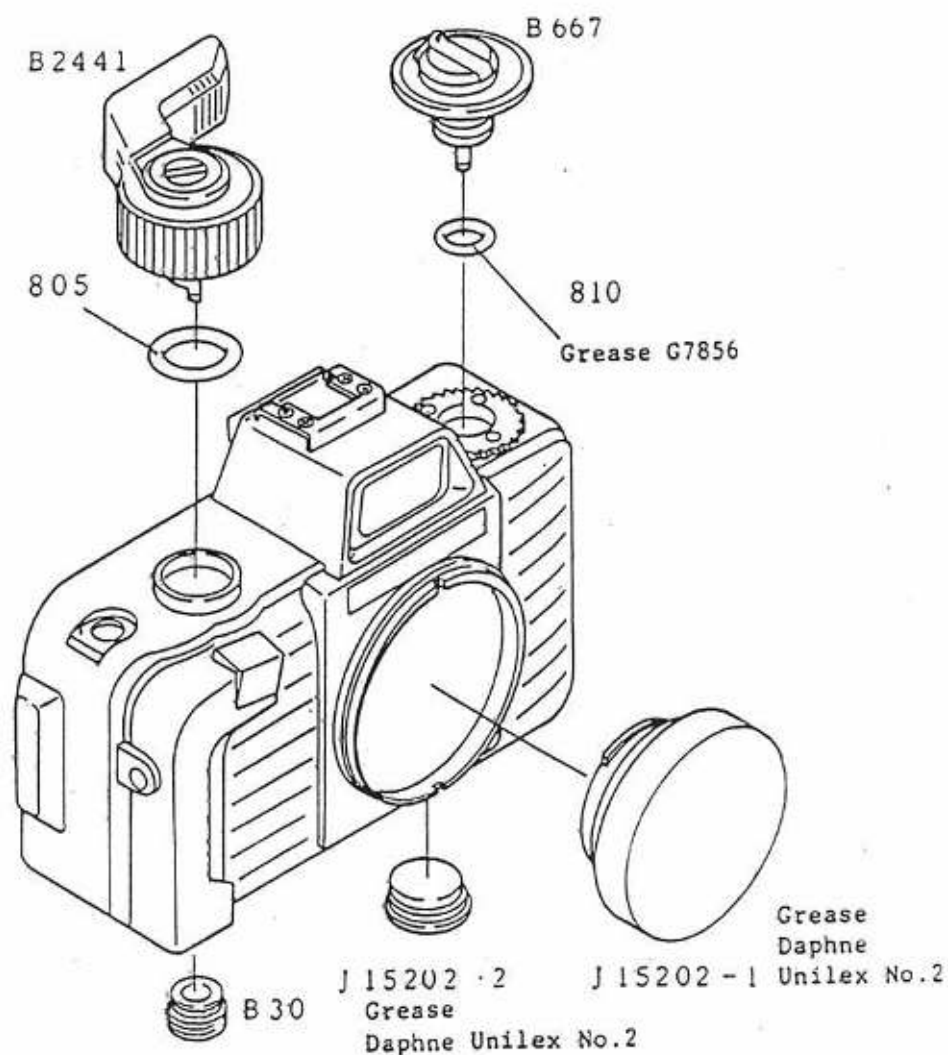
## 3. Outer housing waterproof test

## Tool

- 1) Water tank J18026-1
- 2) Waterproof cap J15202-1
  - ditto - J15202-2
  - ditto - (J15202-4)
  - ditto - (J15241 )

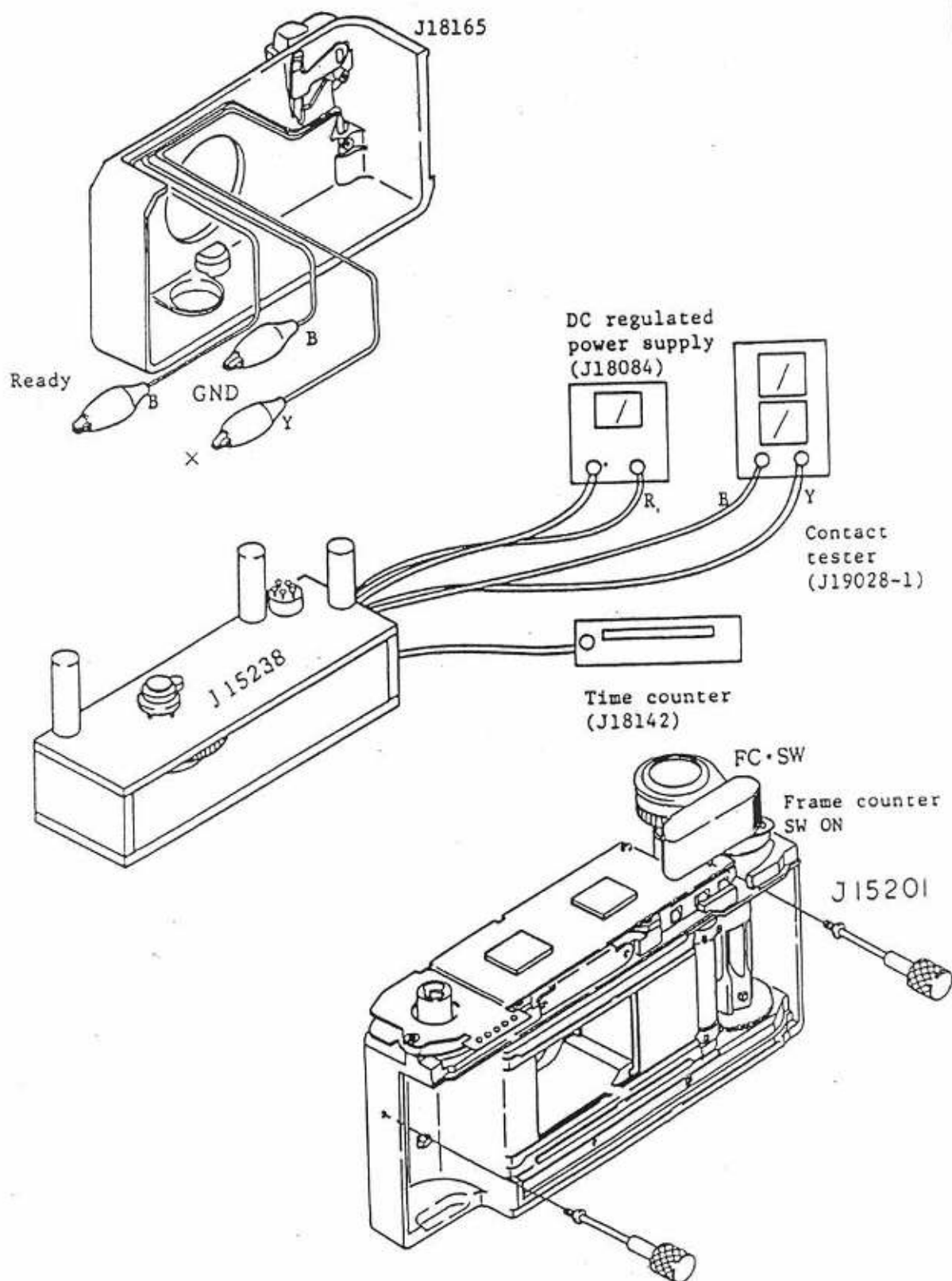
Install Film-advance lever B2441, Rewind knob B667; Sync terminal cap B30, O-ring #805, O-ring #810, Caps J15202-1 and J15202-2 to outer housing in test.

- 1) Put outer housing in water tank and apply a pressure of  $5\text{kgcm}^2$  gradually; it should take 30 sec. or more to apply pressure.
- 2) Leave outer housing pressured for 30 min.
- 3) Relieve pressure gradually; it should take 30 sec. or more.



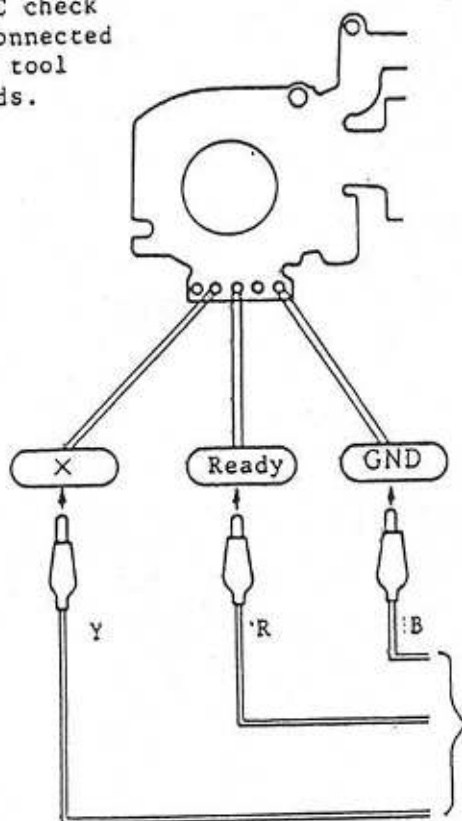
## 4. Tool battery and tool outer housing

## 4-1. Set-up



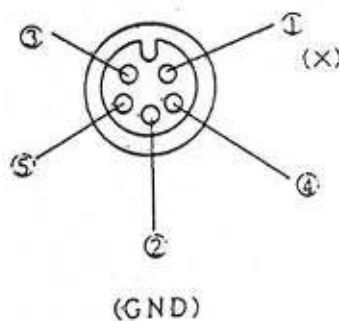
## 4-2. FPC check lands

Use three lead wires to be soldered to FPC check lands and to be connected with each clip of tool outer housing cords.



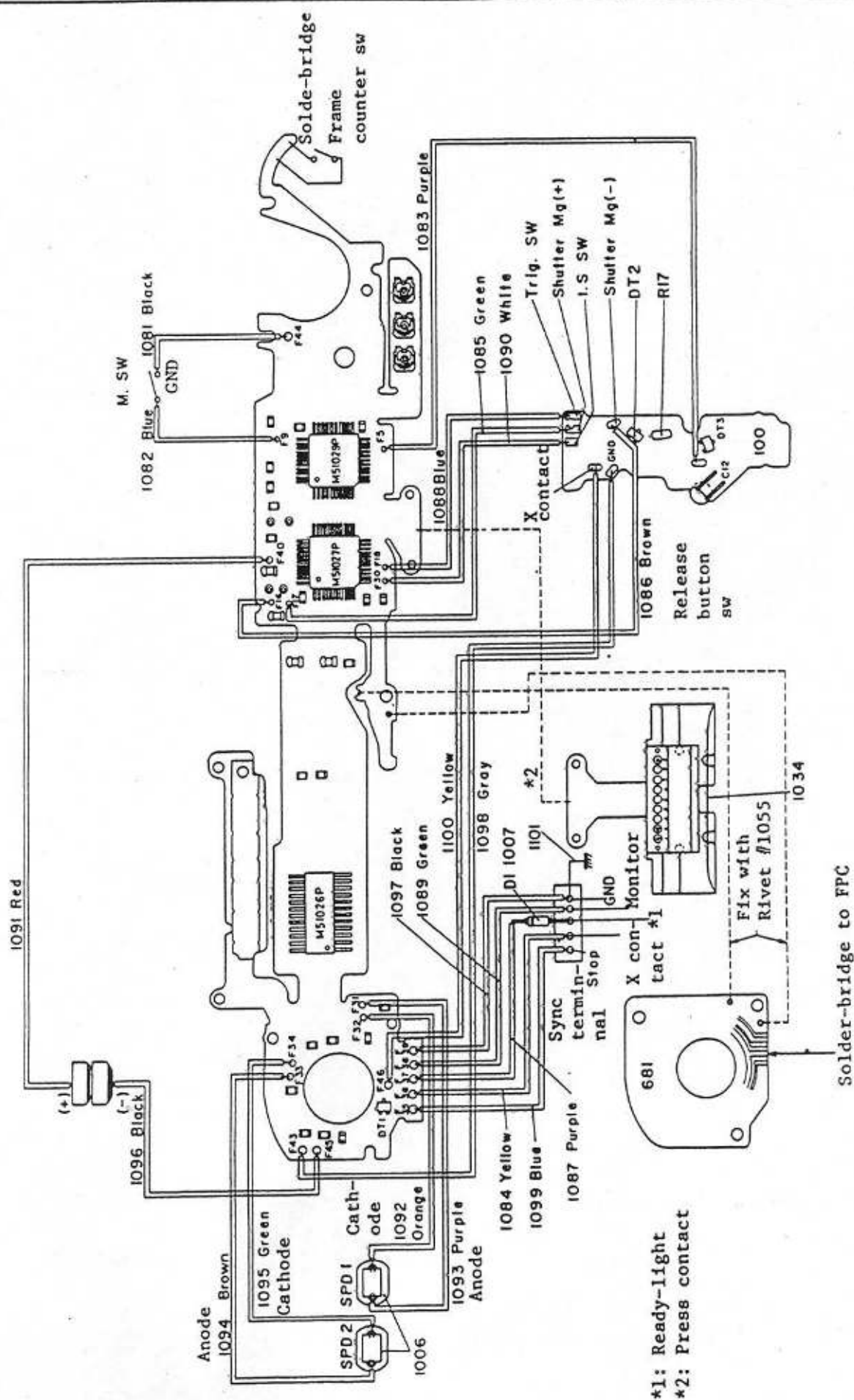
## Sync terminal

- 1) X contact
- 2) GND contact
- 3) Ready-light contact  
Automatic sync speed set
- 4) TTL stop signal contact
- 5) Monitor contact



ELECTRIC CIRCUIT

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| [2] CIRCUIT DIAGRAM .....                  | E2   |
| [3] CHECKING LANDS .....                   | E3   |
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| [7] TROUBLESHOOTING FLOWCHART .....        | C1   |



\*1: Ready-light  
\*2: Press contact

Solder-bridge to FPC





FPC check lands table

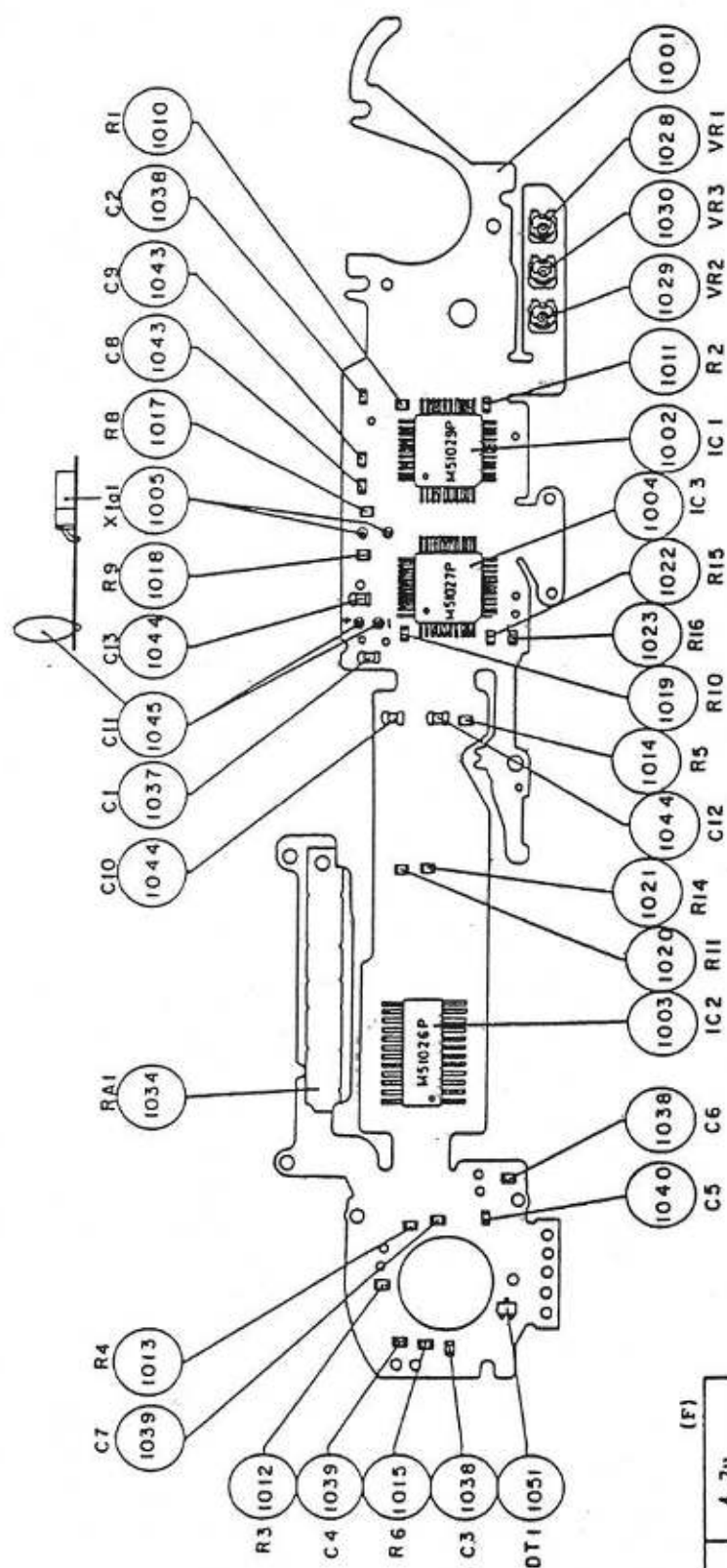
| No.  | Name                        | No.  | Name                   |
|------|-----------------------------|------|------------------------|
| F-1  | 1/60 LED                    | F-25 | Latch release          |
| F-2  | 1/1000 LED                  | F-26 | Latch release          |
| F-3  | Ready-light (cathode)       | F-27 | TTL shift level        |
| F-4  | LED SW                      | F-28 | Input reference 237mv  |
| F-5  | Release button SW           | F-29 | Auto $\gamma$          |
| F-6  | Gray code Z                 | F-30 | IS SW                  |
| F-7  | - ditto - Y                 | F-31 | SPD 1 Anode            |
| F-8  | - ditto - X                 | F-32 | SPD 1 Cathode          |
| F-9  | Memory SW                   | F-33 | SPD 2 Anode            |
| F-10 | LED TVs                     | F-34 | SPD 2 Cathode          |
| F-11 | Clock pulse                 | F-35 | TTL stop signal        |
| F-12 | LED A/D                     | F-36 | X (sync terminal)      |
| F-13 | LED $\gamma$                | F-37 | Ready-light signal     |
| F-14 | Memory condenser            | F-38 | TTL monitor signal     |
| F-15 | LED filter condenser        | F-39 | Flash GND              |
| F-16 | Shutter Mg(-)               | F-40 | Vcc (battery)          |
| F-17 | Shutter Mg(+)               | F-41 | Vcc (frame counter SW) |
| F-18 | Trigger SW                  | F-42 | Vcc '                  |
| F-19 | Timer condenser             | F-43 | Shutter GND            |
| F-20 | TVo                         | F-44 | Memory switch GND      |
| F-21 | VISO                        | F-45 | Battery GND            |
| F-22 | ISO $\gamma$                | F-46 | X (Shutter)            |
| F-23 | Integrating condenser input | F-47 | Vcc '                  |
| F-24 | Latch release               |      |                        |

ASA/ISO check lands table

| No. | Name              | No. | Name    |
|-----|-------------------|-----|---------|
| 1-a | ISO (a)           | 1-2 | ISO 800 |
| 1-b | ISO (b)           | 1-3 | ISO 400 |
| 1-c | ISO (c)           | 1-4 | ISO 200 |
| 1-d | ISO warning (GND) | 1-5 | ISO 100 |
| 1-e | ISO warning       | 1-6 | ISO 50  |
| 1-1 | ISO 1600          | 1-7 | ISO 25  |

LED panel check lands table

| No. | Name                  | No. | Name                 |
|-----|-----------------------|-----|----------------------|
| 2-1 | Ready-light           | 2-6 | 1/250 LED            |
| 2-2 | Underexposure warning | 2-7 | 1/500 LED            |
| 2-3 | 1/30 LED              | 2-8 | 1/1000 LED           |
| 2-4 | 1/60 LED              | 2-9 | Overexposure warning |
| 2-5 | 1/125 LED             |     |                      |

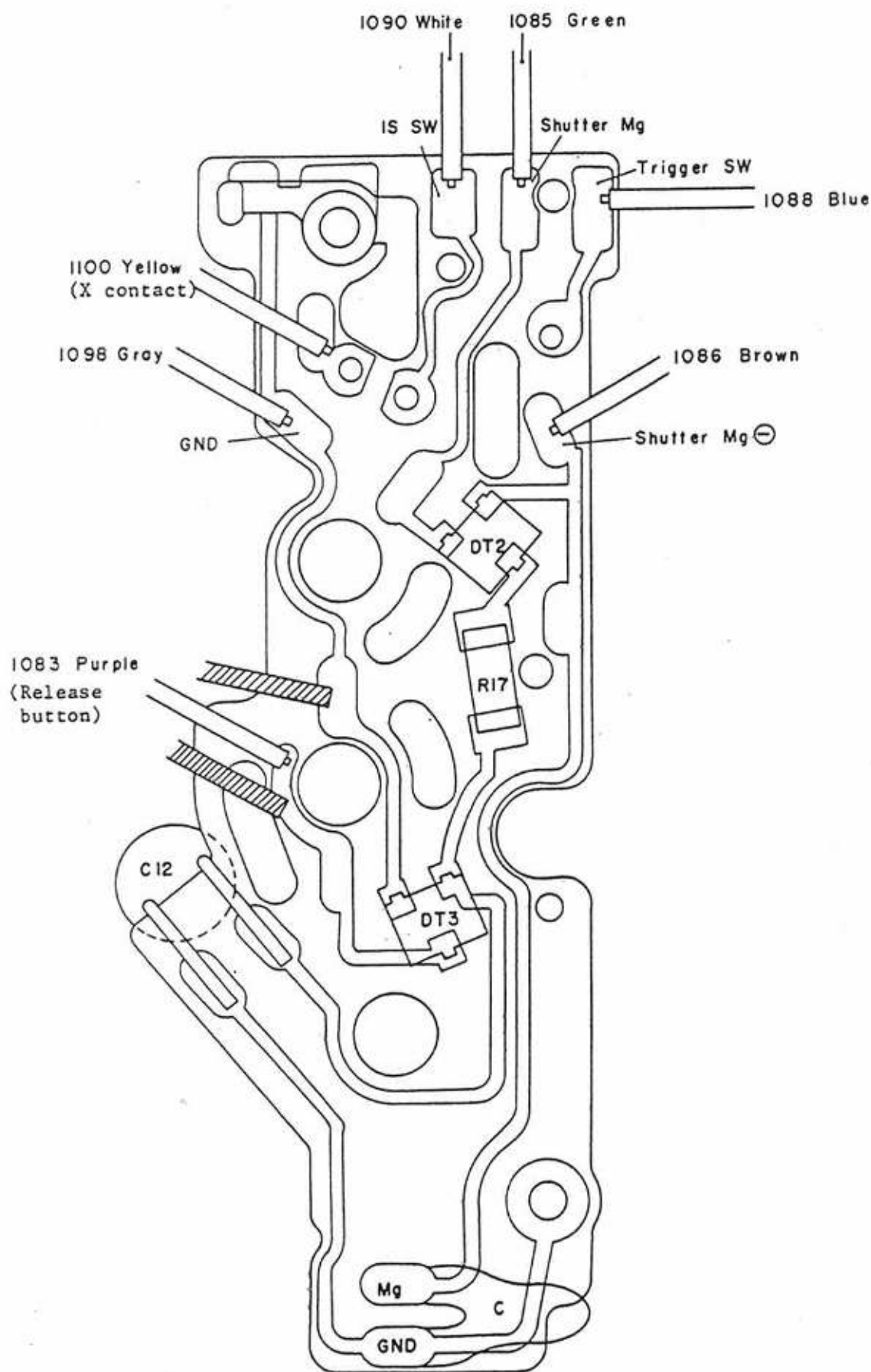


(n)

|    |      |     |      |
|----|------|-----|------|
| R1 | 2K   | R9  | 4.7M |
| R2 | 82K  | R10 | 180  |
| R3 | 4.7K | R11 | 1.0K |
| R4 | 150K | R14 | 20K  |
| R5 | 10K  | R15 | 2.4K |
| R6 | 1.5K | R16 | 2.7K |
| R8 | 3.3M | R17 | 470  |

(F)

|     |             |
|-----|-------------|
| C1  | 4.7 $\mu$   |
| C2  | 0.01 $\mu$  |
| C3  | 0.01 $\mu$  |
| C4  | 0.022 $\mu$ |
| C5  | 2200P       |
| C6  | 0.01 $\mu$  |
| C7  | 0.022 $\mu$ |
| C8  | 15P         |
| C9  | 15P         |
| C10 | 1 $\mu$     |
| C11 | 10 $\mu$    |
| C12 | 1 $\mu$     |
| C13 | 1 $\mu$     |



## [6] Circuitry outlines

## 1. Abbreviations

## (1) Check land

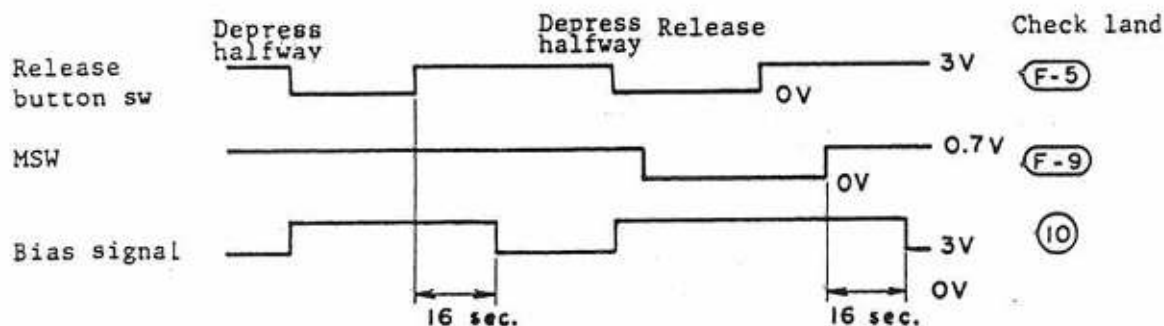
|           |       |                    |
|-----------|-------|--------------------|
| F - (No.) | ----- | FPC (B2001)        |
| A - (No.) | ----- | IC (1003) M51026   |
| B - (No.) | ----- | IC (1004) M51027   |
| ○         | ----- | IC (1002) M51029   |
| 1 - (No.) | ----- | ASA/ISO base plate |
| 2 - (No.) | ----- | LED panel          |

## (2) Switch/signal

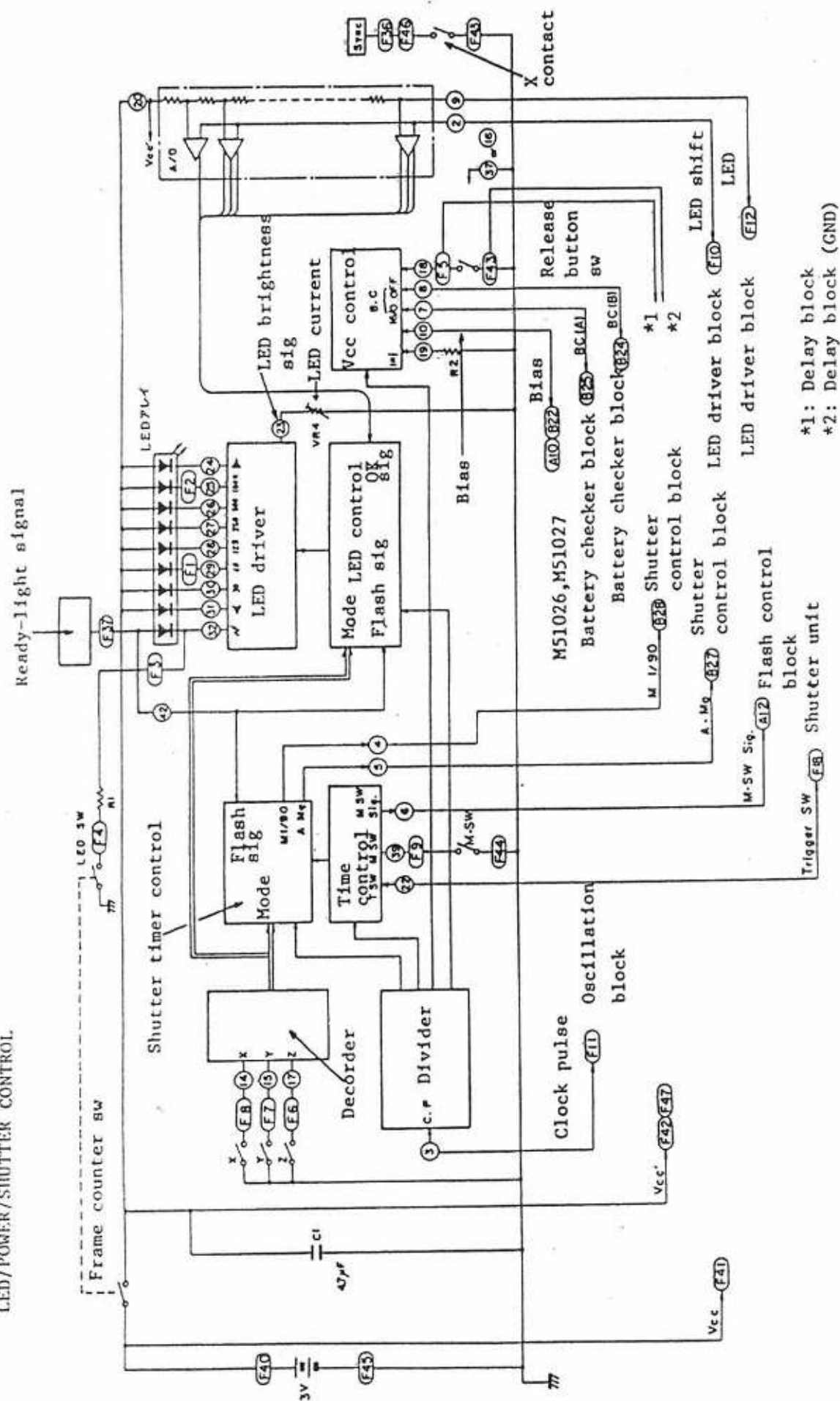
|         |       |                                                      |
|---------|-------|------------------------------------------------------|
| FC. SW  | ----- | Frame counter switch (Auto, Manual: ON, M90, B: OFF) |
| LED SW  | ----- | Ready-light switch (Auto, Manual: OFF, M90, B: ON)   |
| Vcc     | ----- | Battery voltage 3V                                   |
| Vcc'    | ----- | Battery voltage 3V supplied when FC.SW is ON         |
| Mg      | ----- | Magnet                                               |
| A. Mg   | ----- | Auto magnet signal                                   |
| M1/90Mg | ----- | Manual.1/90 magnet signal                            |
| MSW sig | ----- | Memory switch signal                                 |
| BC      | ----- | Battery check                                        |
| TSW     | ----- | Trigger switch                                       |
| IS.SW   | ----- | Integrating switch                                   |

## (3) Meter hold

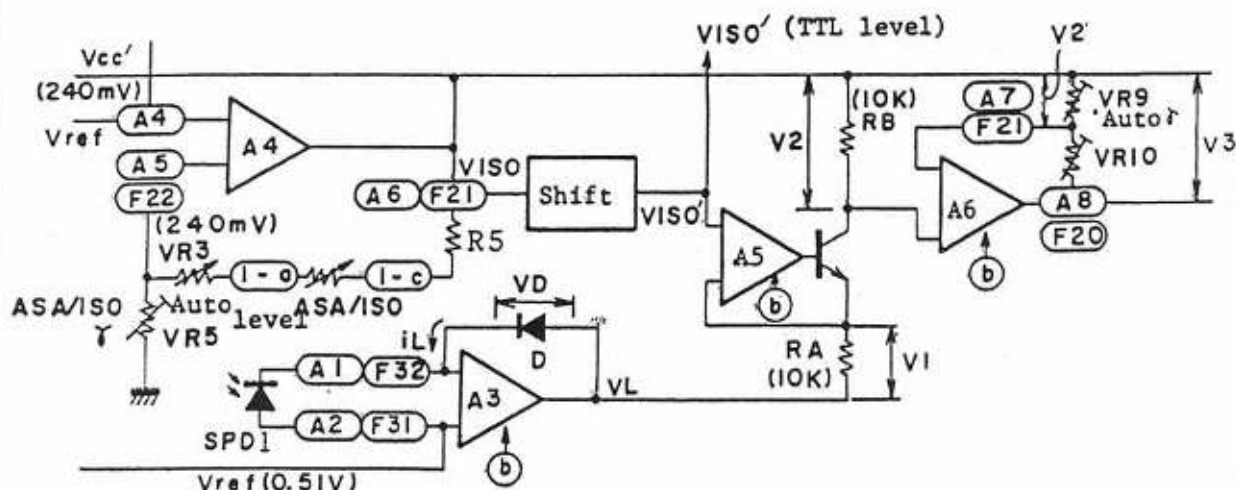
Depressing release button halfway turns release button SW on. Bias signal goes high and the circuitry becomes operative. Bias signal remains high for 16 sec. after either release button SW or MSW turns off.



## LED/POWER/SHUTTER CONTROL



## 3. Metering block



## (1) Metering section

The SPD generates the current  $i_L$  in response to the light available. The current  $i_L$  allows the diode D to provide the voltage  $V_D$ . Operation amplifier A3 converts the current  $i_L$  into the voltage  $V_L$ .

The voltage  $V_L$  is the sum of  $V_{ref}$  (0.51V) and  $V_D$ . The voltage  $V_D$ , as well as the voltage  $V_L$ , shifts by 18mV per 1LV.

## (2) ASA/ISO section

The resistor  $VR_5$  adjusts the current for the resistor ASA/ISO so that the voltage  $V_{ISO}$  can shift by 18mV/1LV per 0.9K $\Omega$ /film speed. The shift rate of  $V_{ISO}$  is equivalent to that of  $V_L$ .

The resistor  $VR_3$  adjusts the level of  $V_{ISO}$ .

## (3) Shift section

Approx. 0.6V is added to  $V_{ISO}$  and  $V_{ISO}$  becomes  $V_{ISO}'$ .

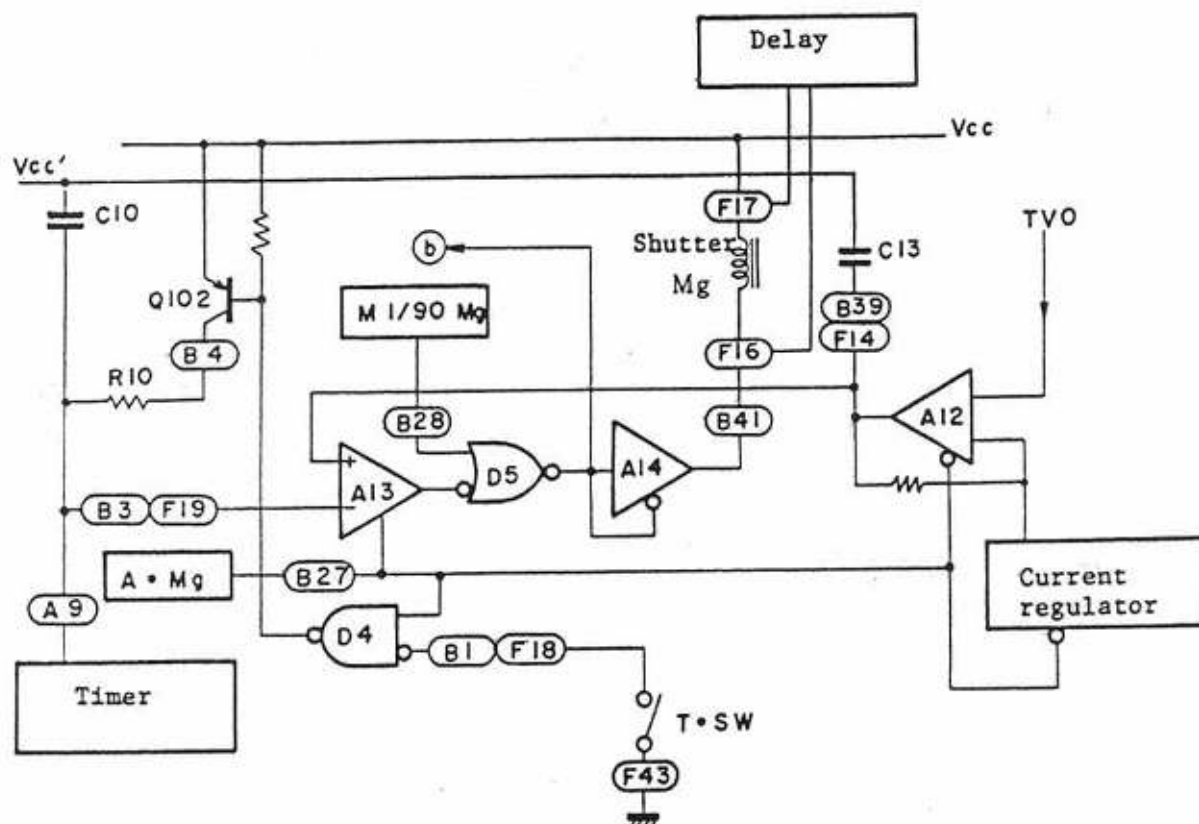
## (4) Arithmetic logic

The voltage  $V_1$  is the difference between the voltages  $V_{ISO}'$  and  $V_L$  at the resistor  $RA$ . The same voltage  $V_2$  and  $V_2'$  are held respectively at the resistors  $RB$  and  $VR_9$ . The resistors  $VR_9$  and  $VR_{10}$  adjust the voltage  $V_3$  as twice as the voltage  $V_2'$ . The voltage  $V_3$  is TVO for shutter speed control.

## (5) b signal (bias cutter)

During shutter release (shutter magnet charged) the b signal is L and the amplifiers A3, A5, A6 turn off.

## 4. Shutter control block



## (1) Auto mode

When shutter is released, M.SW turns on, but A.Mg sig and M1/90Mg become H. The amplifier A12 turns off to hold the voltage TVO at the condenser C13. The comparator A13 turns on and accepts TVO at its positive terminal and the voltage near VCC at its negative terminal as the transistor Q102 is on. Thus the output voltage of A13 becomes L. The amplifier A14 turns on and its output becomes L. The shutter Mg is charged. In other words, the shutter Mg is charged when either A.Mg sig or M1/90Mg sig is H.

The travel of opening curtain turns the trigger SW off and the input and output of the diode D4 become H. Then the transistor Q102 turns off and the condenser C10 is charged. The voltage at the land B3 goes low and crosses over the voltage of the condenser C13. At the moment, the comparator becomes H. The output of the diode D5 becomes H and the amplifier A14 turns off. The shutter Mg turns off to start the travel of closing curtain.

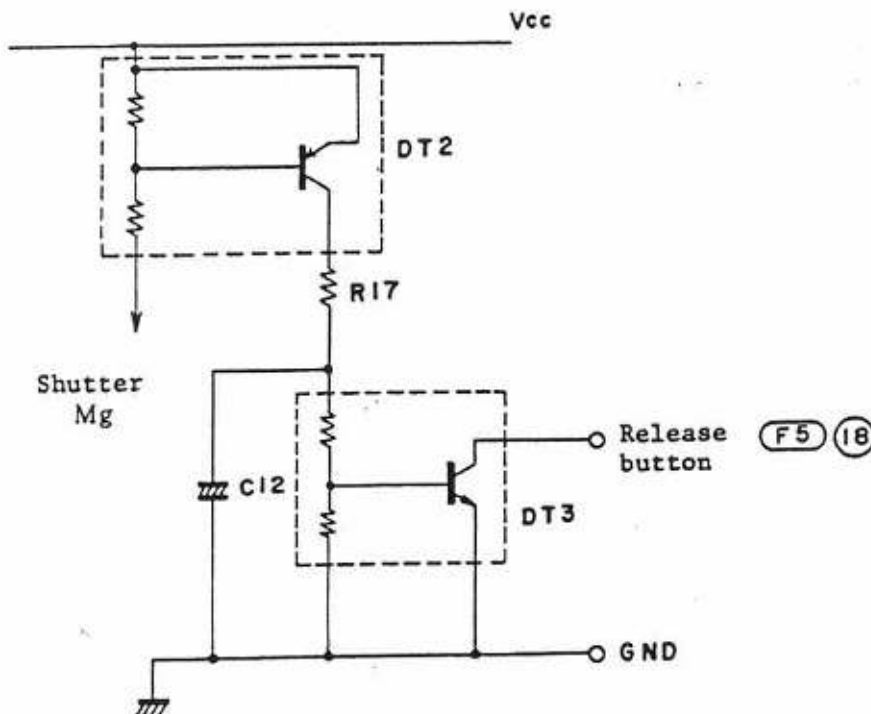
## (2) Manual mode

When M.SW is ON, A.Mg sig remains L and M.1/90Mg only becomes H. So, the comparator A13 and transistor Q102 will not turn on, but the input to the diode D5 (B28) is H and the output of D5 is L. The amplifier A14 turns on and the shutter Mg is charged. The travel of opening curtain turns the trigger SW off and M1/90 Mg sig remains H as long as set in the gray code for manual shutter speed control. After this, M1/90 Mg sig turns L and the output of the diode D5 becomes H. The amplifier A14 and shutter Mg turns off to start the travel of closing curtain.

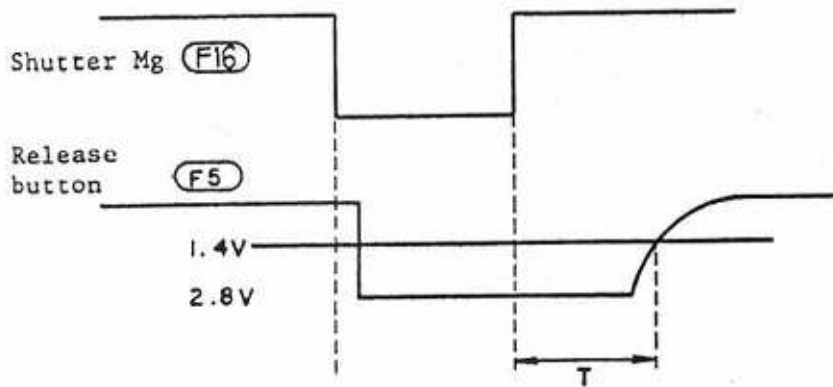
## (3) b signal

On auto mode, the b signal is L while the output of the comparator A13 is L. On manual mode, the b signal is L while M1/90 Mg sig is H.

## 5. Release button switch delay block



In order to ensure proper operation of slow speed shutter, this block holds release button switch on for 580ms after the shutter Mg turns off.



$T = 580\text{ms}$   
Max = 900ms  
Min = 300ms





- 3) The ready-lights of speedlight and camera will light up at the same time. When the shutter dial is set to M90 or B, the LED SW, coupled with the FC SW, turns on to light the ready-light.

## (2) Metering

- 1) Shutter release turns the X-contact on and fires the speedlight. The light reflected back through the lens reaches the film plane and then the TTL.SPD.
- 2) The TTL.SPD generates the current iL and the metering section provides the voltage in response to iL for the integration section.

## (3) Integration

- 1) Before shutter release, the IS SW turns on to increase the voltage of the integrating condenser (A20, F23) up to VCC. After shutter release, the IS SW turns off. to charge the condenser and the voltage becomes lower.
- 2) The lowering rate of the voltage (A20, F23) depends on the input voltage from the metering section and TTL level section (A10). If the light is strong or the film speed is fast, the output voltage of metering section is high and the voltage of condenser goes low faster.

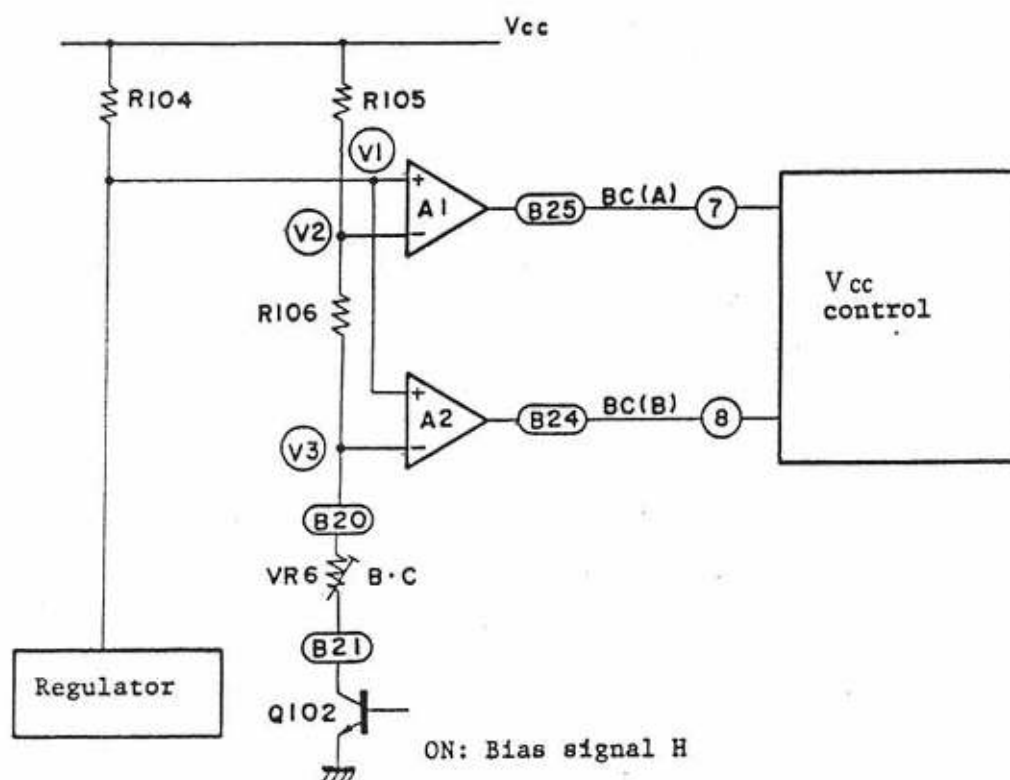
## (4) Flash output control

The flash output control section holds the reference voltage to be compared with the input voltage from the integration section. When the speedlight fires, the input voltage of the integration section goes low to cross with the reference voltage. Then the output voltage of the flash output control section turns H to stop the output of the speedlight.

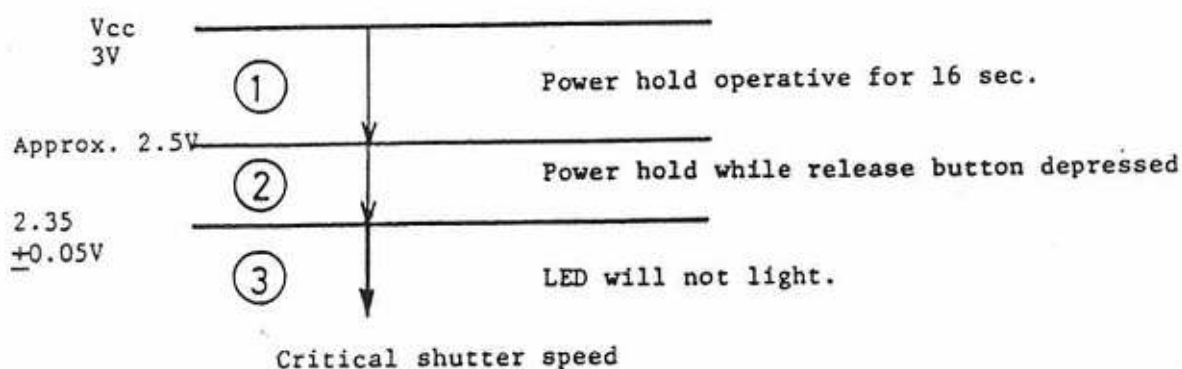
## (5) ASA/ISO warning

If the film speed is set to ASA/ISO 800, the monitor, M.SW and ASA/ISO warning signals turn L and the diode D8 turns H. But the output of the diode D9 turns L to provide the stop signal. Then the ready-light LED blinks to warn the film speed set error.

## 8. Battery checker block

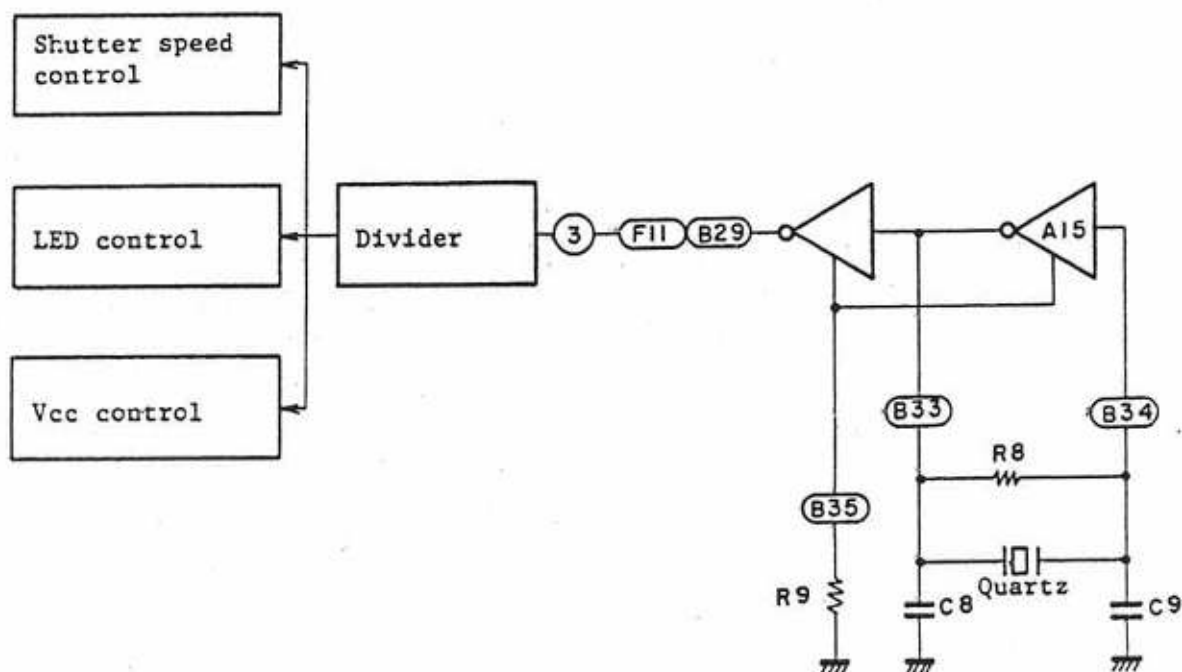


The battery power voltage VCC goes low and the voltage V1, V2 and V3 will go low accordingly. When V1 is equal to V2, the output of the amplifier A1 turns L. When V1 is equal to V3, the output of the amplifier A2 turns L.



| VCC | V1, V2, V3     | A1 | A2 |
|-----|----------------|----|----|
| ①   | $V1 > V2 > V3$ | H  | H  |
| ②   | $V2 > V1 > V3$ | L  | H  |
| ③   | $V2 > V3 > V1$ | L  | L  |

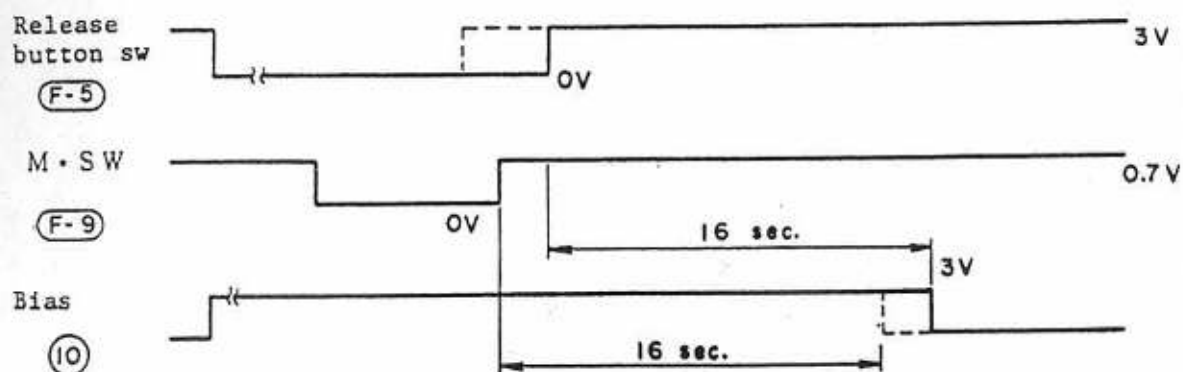
## 9. Oscillation block



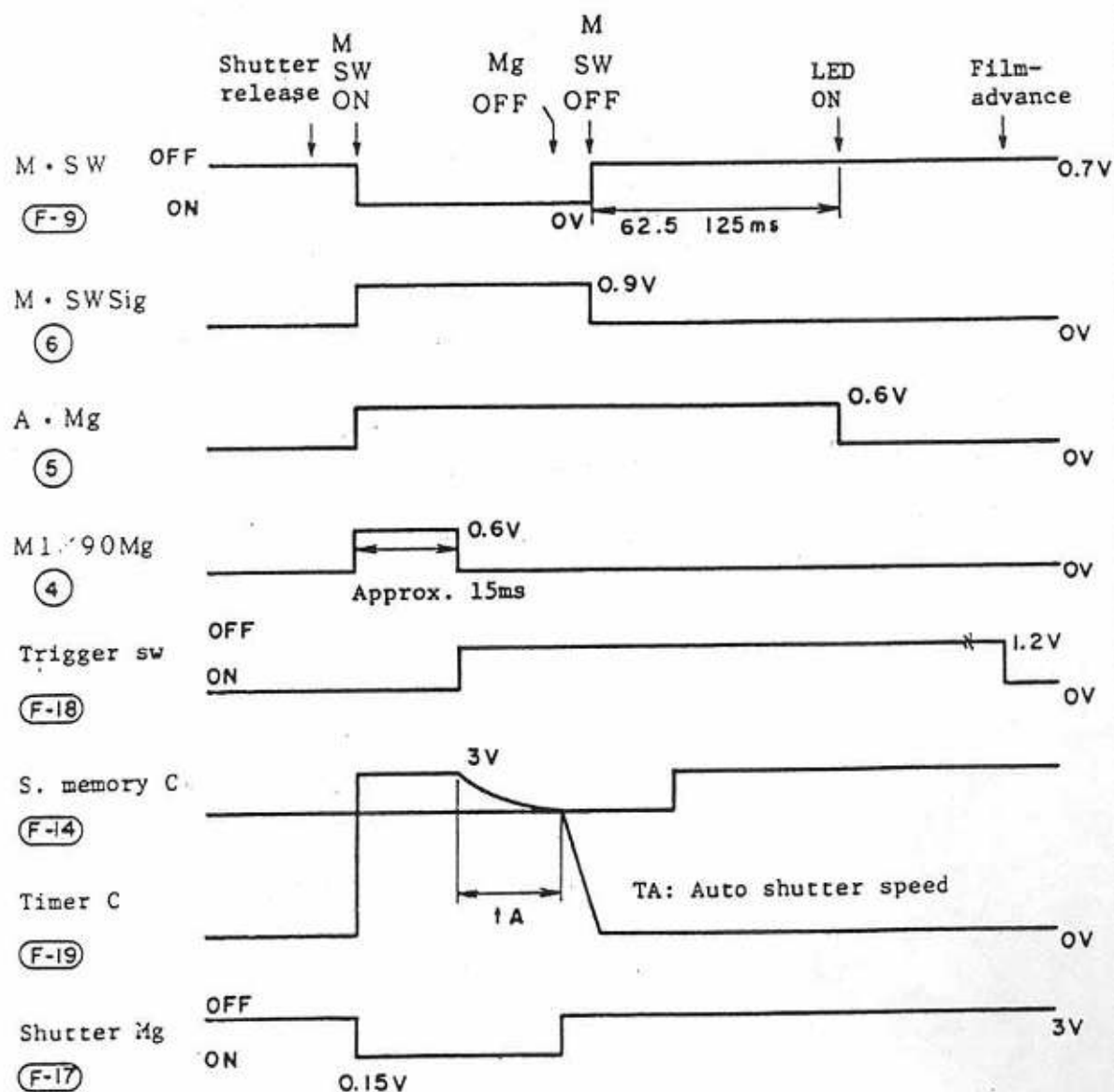
The oscillation block is in operation whenever batteries are installed. The substantially sinusoidal waveform of 32.768 KHZ can be observed at the check lands B33 and B34. The same waveform will be observed at the check land B29 while power is held for 16 sec.

## 10. Timing chart

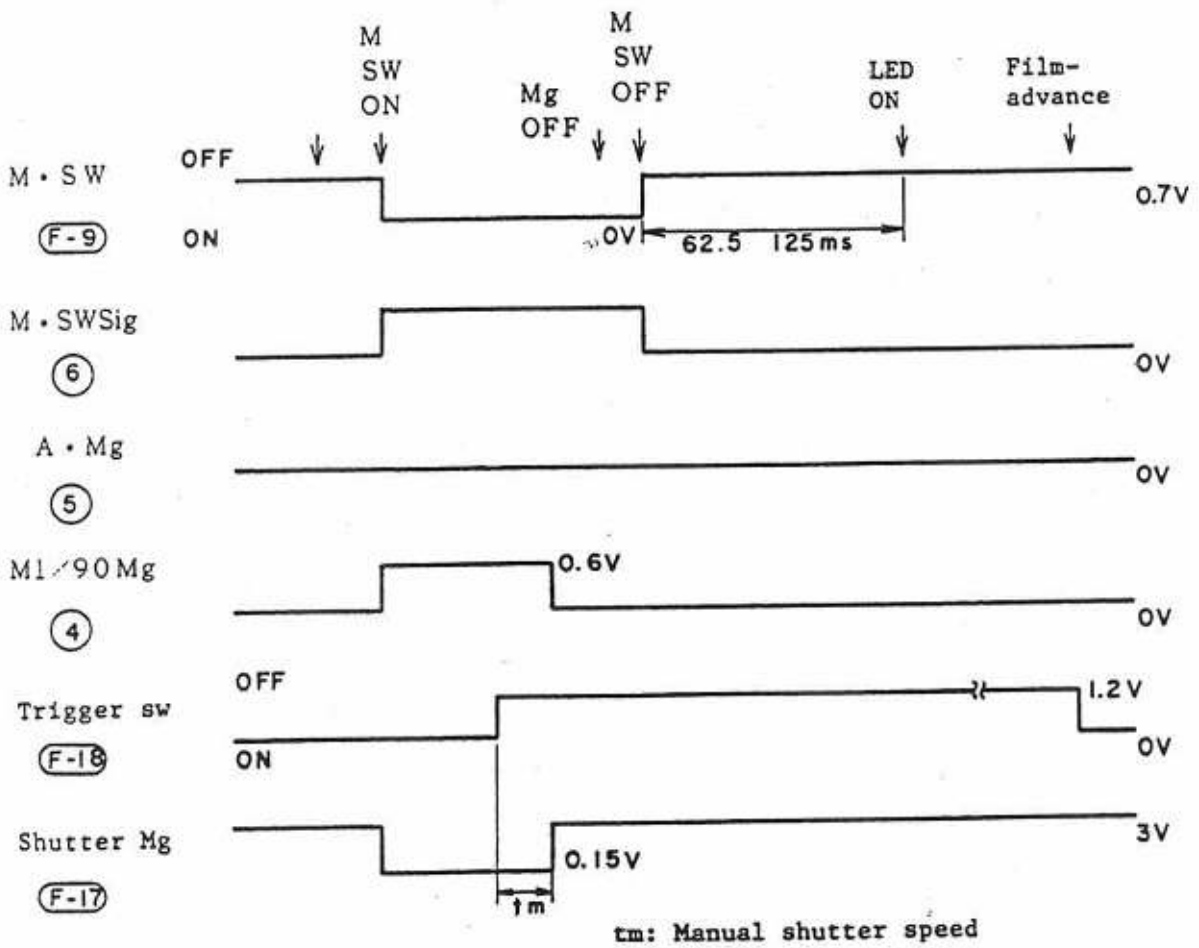
## (1) Power hold



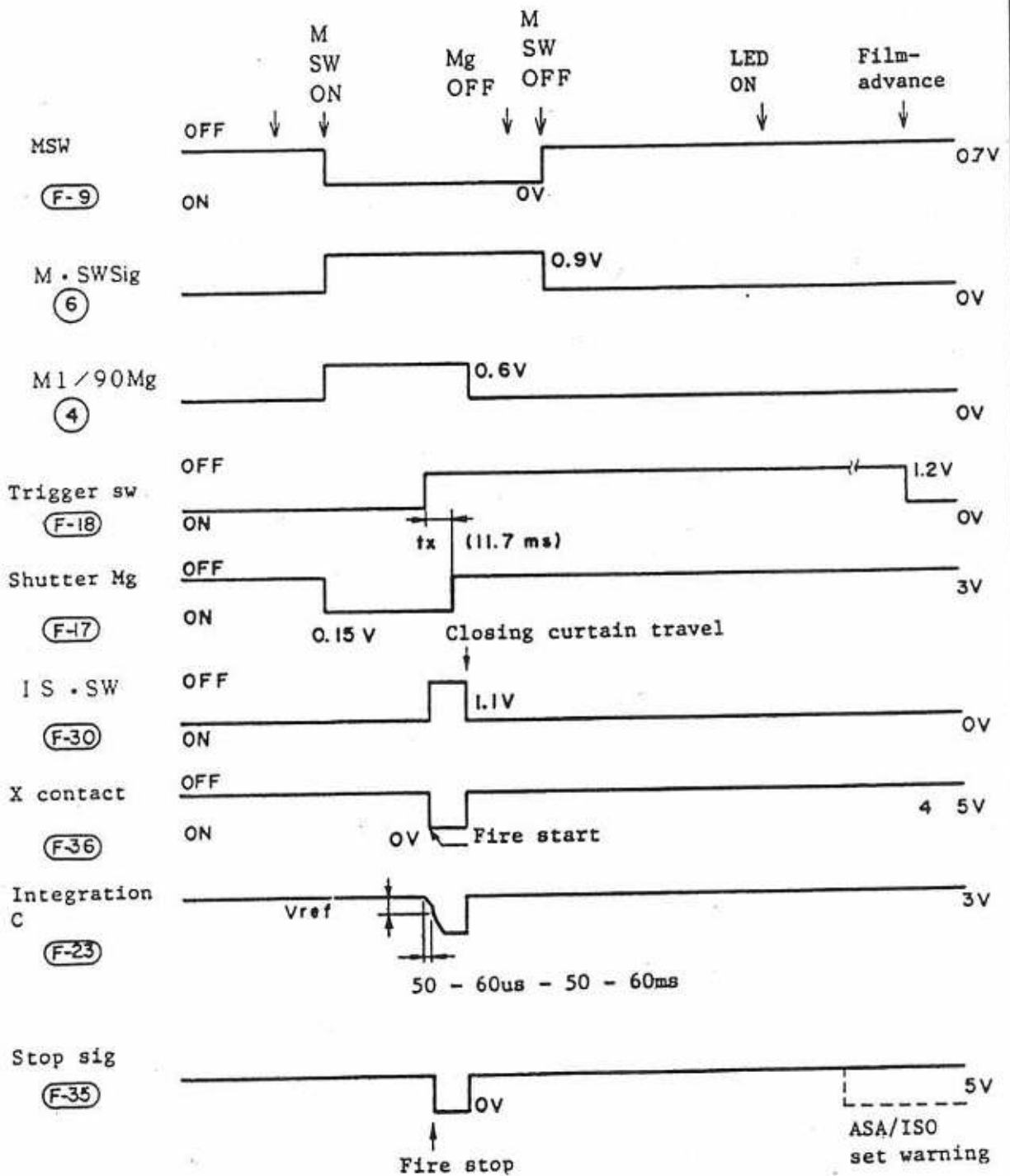
## (2) Auto mode



## (3) Manual mode



## (4) TTL mode



## 11. Gray code table

| Gray code |     | Check land                    | Shutter dial |      |     |     |     |    |    |
|-----------|-----|-------------------------------|--------------|------|-----|-----|-----|----|----|
|           |     |                               | A            | 1000 | 500 | 250 | 125 | 60 | 30 |
| X         | F-8 | 1 <sup>Hi</sup> <sub>Lo</sub> | 1            | 1    | 1   | 0   | 0   | 0  | 0  |
| Y         | F-7 | 1                             | 0            | 0    | 0   | 0   | 0   | 1  | 1  |
| Z         | F-6 | 0 <sup>Hi</sup> <sub>Lo</sub> | 0            | 1    | 1   | 0   | 0   | 0  | 1  |

0 = 0n  
1 = 1n

## (8) Troubleshooting

## (1) Check conditions

35/2.5 lens or Tool lens J18085

ASA/ISO 100

Aperture F5.6

Shutter Auto mode

Frame counter 1 or more

Power 3V

Brightness LV12

The voltage and amperage should be checked while power is held for 16 sec., but the resistance should be checked while power is off.

## (2) Check lands

F - (No.) ----- FPC B2001

A - (No.) ----- IC M51026 #1003

B - (No.) ----- IC M51027 #1004

○ ----- IC M51029 #1002

1 - (No.) ----- ASA/ISO circuit

2 - (No.) ----- LED panel circuit

## (3) Test equipment

Digital multimeter J9003-3

Oscilloscope J9001-5

DC regulated power supply J9001-5

Tool battery J15238

Tool outerhousing J18165

Time counter J18142

## (4) Abbreviations

FC. SW ----- Frame counter switch

M. SW ----- Memory switch

T. SW ----- Trigger switch

IS. SW ----- Integration switch

Mg ----- Magnet

## IC reference voltages

1. Measuring reference: GND

2. Tolerance:  $\pm 10\%$ 

3. 0V tolerance: 50mv - 100mv

4. \*(v): Time counter J18142 in operation

## 1. IC M51026P #1003

| Pin No. | Voltage(v)   | Check land         | Note                                 |
|---------|--------------|--------------------|--------------------------------------|
| A1      | 530m         | F32                |                                      |
| A2      | 530m         | F31                |                                      |
| A3      | 0 (50m)      |                    |                                      |
| A4      | 240m         | F28                |                                      |
| A5      | 240m         | VR5(Down), VR3(Up) |                                      |
| A6      | 650m         | 1-a                | Variable by Auto level; ISO $\delta$ |
| A7      | 2.7          | F29                | Variable by Auto $\delta$            |
| A8      | 2.4 - 2.3    | R15 Left           | Variable by Auto $\delta$            |
| A9      | 0            |                    |                                      |
| A10     | 2.8          |                    |                                      |
| A11     | 0            |                    |                                      |
| A12     | 0            |                    |                                      |
| A13     | 1.5          | 1-e                |                                      |
| A14     | * 1.5 (0.5)  | F38                |                                      |
| A15     | * 0 (5)      | F35                |                                      |
| A16     | 3            |                    |                                      |
| A17     | * 1.1 (1.2)  |                    | Variable by TTL level                |
| A18     | * 0.7 (0.75) | F27                | - ditto -                            |
| A19     | 0            | F30                |                                      |
| A20     | * 0 (3)      | F23                |                                      |
| A21     | 3            | F24                |                                      |
| A22     | * 0 (240m)   | F25                |                                      |
| A23     | * 0 (240m)   | F26                |                                      |
| A24     | * 0 (240m)   | F34                |                                      |

## 2. IC M51027P #1004

| Pin No. | Voltage(v) | Pin No. | Voltage(v) | Pin No. | Voltage(v)  |
|---------|------------|---------|------------|---------|-------------|
| B1      | ■ 0 → 1.5  | B15     | 240m       | B29     | Clock pulse |
| B2      | N.C        | B16     | N. C       | B30     | 2.1         |
| B3      | 0          | B17     | N. C       | B31     | Blank       |
| B4      | 0          | B18     | 0 (50m)    | B32     | △ 2.1       |
| B5      | Blank      | B19     | ▲ 2.45     | B33     | 0.6         |
| B6      | Blank      | B20     | 2.3        | B34     | 0.5         |
| B7      | Blank      | B21     | 0          | B35     | 2.5         |
| B8      | Blank      | B22     | 2.8        | B36     | Blank       |
| B9      | Blank      | B23     | ▲ 1.9      | B37     | 0           |
| B10     | △ 2.35     | B24     | 0.65       | B38     | Blank       |
| B11     | ▲ 2.1      | B25     | 0.65       | B39     | △ 2.6       |
| B12     | 240m       | B26     | 0          | B40     | △ 2.1       |
| B13     | Blank      | B27     | 0          | B41     | 3           |
| B14     | Blank      | B28     | 0          | B42     | 3           |

■ Before release → After release

▲ Variable by LED level, LED f

## 3. IC M51029P #1002

| Pin No. | Voltage(v)  | Pin No. | Voltage(v)                    | Pin No. | Voltage(v) |
|---------|-------------|---------|-------------------------------|---------|------------|
| 1       | N. C        | 15      | ● 0.6                         | 29      |            |
| 2       | △ 2.1       | 16      | ● 0                           | 30      |            |
| 3       | Clock pulse | 17      | ● 0                           | 31      |            |
| 4       | 0           | 18      | 2.7                           | 32      | * 0 (1.5)  |
| 5       | 0           | 19      | 0.6                           | 33      | N. C       |
| 6       | 0           | 20      | 3                             | 34      | N. C       |
| 7       | 0.65        | 21      | N. C                          | 35      | N. C       |
| 8       | 0.65        | 22      | 0 → 1.5(=B1)                  | 36      | N. C       |
| 9       | ▲ 1.9       | 23      | 50 - 60mv                     | 37      | 0          |
| 10      | △ 2.8       | 24      | LED ON 1.1<br><br>LED OFF 1.8 | 38      | N. C       |
| 11      | N. C        | 25      |                               | 39      | 1.1        |
| 12      | N. C        | 26      |                               | 40      | 0          |
| 13      | N. C        | 27      |                               | 41      | 0          |
| 14      | ● 0.6       | 28      |                               | 42      | * 0 (3)    |

▲ Variable by LED

● Gray code: Auto

## IC pin nomenclature

## 1) IC M51026P #1003

| Pin No. | Name              | Pin No. | Name             |
|---------|-------------------|---------|------------------|
| 1       | SPD 1 (anode)     | 13      | ISO warning      |
| 2       | SPD 1 (cathode)   | 14      | TTL monitor      |
| 3       | Bias cutter       | 15      | TTL stop         |
| 4       | Regulated voltage | 16      | Vcc'             |
| 5       | ISO ⌋             | 17      | TTL shift input  |
| 6       | VISO              | 18      | TTL shift output |
| 7       | Auto ⌋            | 19      | IS SW input      |
| 8       | TVO               | 20      | Int. condenser   |
| 9       | Timer condenser   | 21      | Latch release    |
| 10      | Bias              | 22      | Latch release    |
| 11      | GND               | 23      | SPD 2 (anode)    |
| 12      | MSW sig           | 24      | SPD 2 (cathode)  |

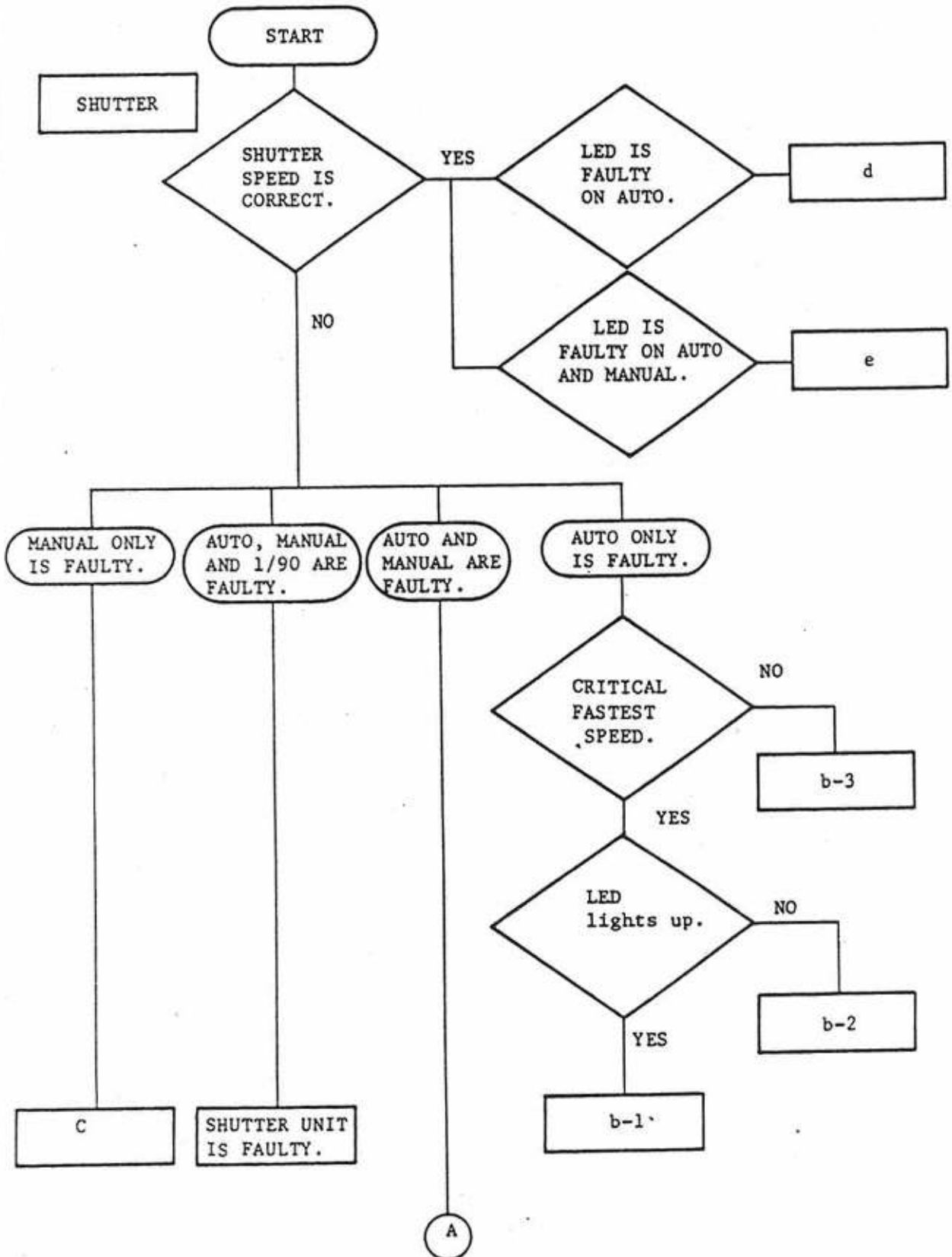
## 2) IC M51027P #1004

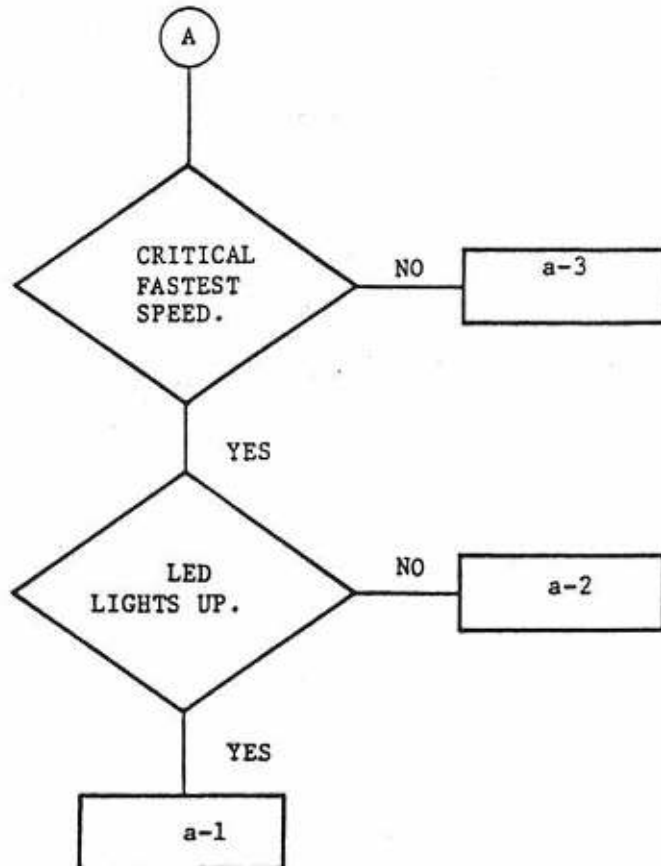
| Pin No. | Name              | Pin No. | Name             |
|---------|-------------------|---------|------------------|
| 1       | T. SW             | 22      | Bias             |
| 2       | NC                | 23      | LED ⌋ (2)        |
| 3       | Timer condenser   | 24      | BCA              |
| 4       | Timer condenser   | 25      | BCB              |
| 5       | Blank             | 26      | M.SW sig         |
| 6       | Blank             | 27      | A.Mg sig         |
| 7       | Blank             | 28      | M1/90 sig        |
| 8       | Blank             | 29      | C.P              |
| 9       | Blank             | 30      | LED output (1)   |
| 10      | TVO               | 31      | Blank            |
| 11      | LED shift         | 32      | LED output (2)   |
| 12      | Regulated voltage | 33      | OSC (1)          |
| 13      | Blank             | 34      | OSC (2)          |
| 14      | Blank             | 35      | OSC (3)          |
| 15      | T reference       | 36      | Blank            |
| 16      | NC                | 37      | GND              |
| 17      | NC                | 38      | Blank            |
| 18      | Bias cutter       | 39      | Memory condenser |
| 19      | LED ⌋ (1)         | 40      | LED filter C     |
| 20      | Battery check     | 41      | Shutter Mg       |
| 21      | Battery check     | 42      | Vcc              |

## 3) IC M51029P #1002

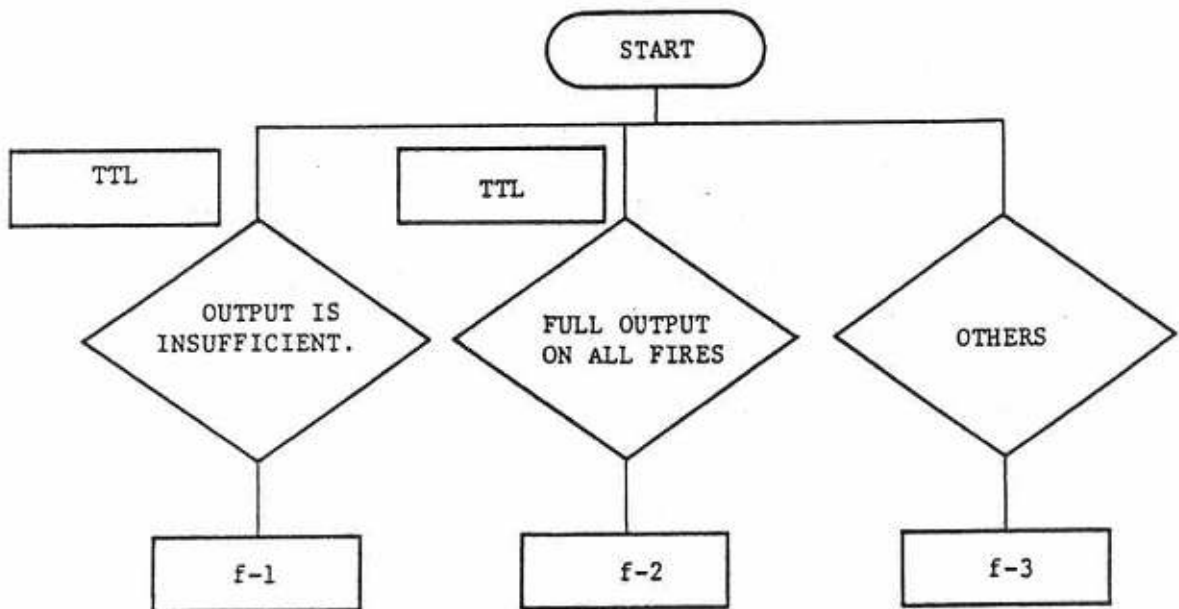
| Pin No. | Name        | Pin No. | Name           |
|---------|-------------|---------|----------------|
| 1       | NC          | 22      | Trigger        |
| 2       | LED output  | 23      | LED.R          |
| 3       | C.P         | 24      | ▲ signal       |
| 4       | M1/90 sig   | 25      | 1/1000 signal  |
| 5       | A.Mg sig    | 26      | 1/500 signal   |
| 6       | M.SW        | 27      | 1/250 signal   |
| 7       | BCA         | 28      | 1/125 signal   |
| 8       | BCB         | 29      | 1/60 signal    |
| 9       | LED r       | 30      | 1/30 signal    |
| 10      | Bias        | 31      | ▼ signal       |
| 11      | NC          | 32      | Ready K signal |
| 12      | NC          | 33      | NC             |
| 13      | NC          | 34      | NC             |
| 14      | Gray code X | 35      | NC             |
| 15      | Gray code Y | 36      | NC             |
| 16      | NC          | 37      | GND            |
| 17      | Gray code Z | 38      | NC             |
| 18      | Power hold  | 39      | M.SW           |
| 19      | Inj         | 40      | NC             |
| 20      | Vcc'        | 41      | NC             |
| 21      | NC          | 42      | Ready A signal |

## A) SHUTTER OR LED IS FAULTY

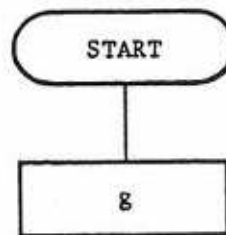




## B) TTL OUTPUT CONTROL IS FAULTY

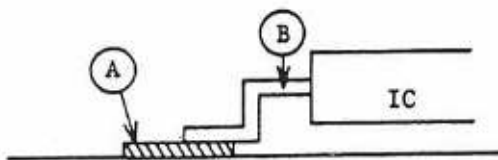


## C) BATTERY DRAIN



## Precautions

## 1) IC voltage check points

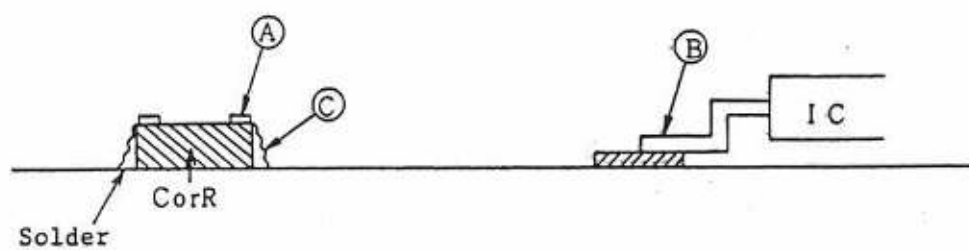


Output voltage: (A)

Input voltage : (A) and (B)

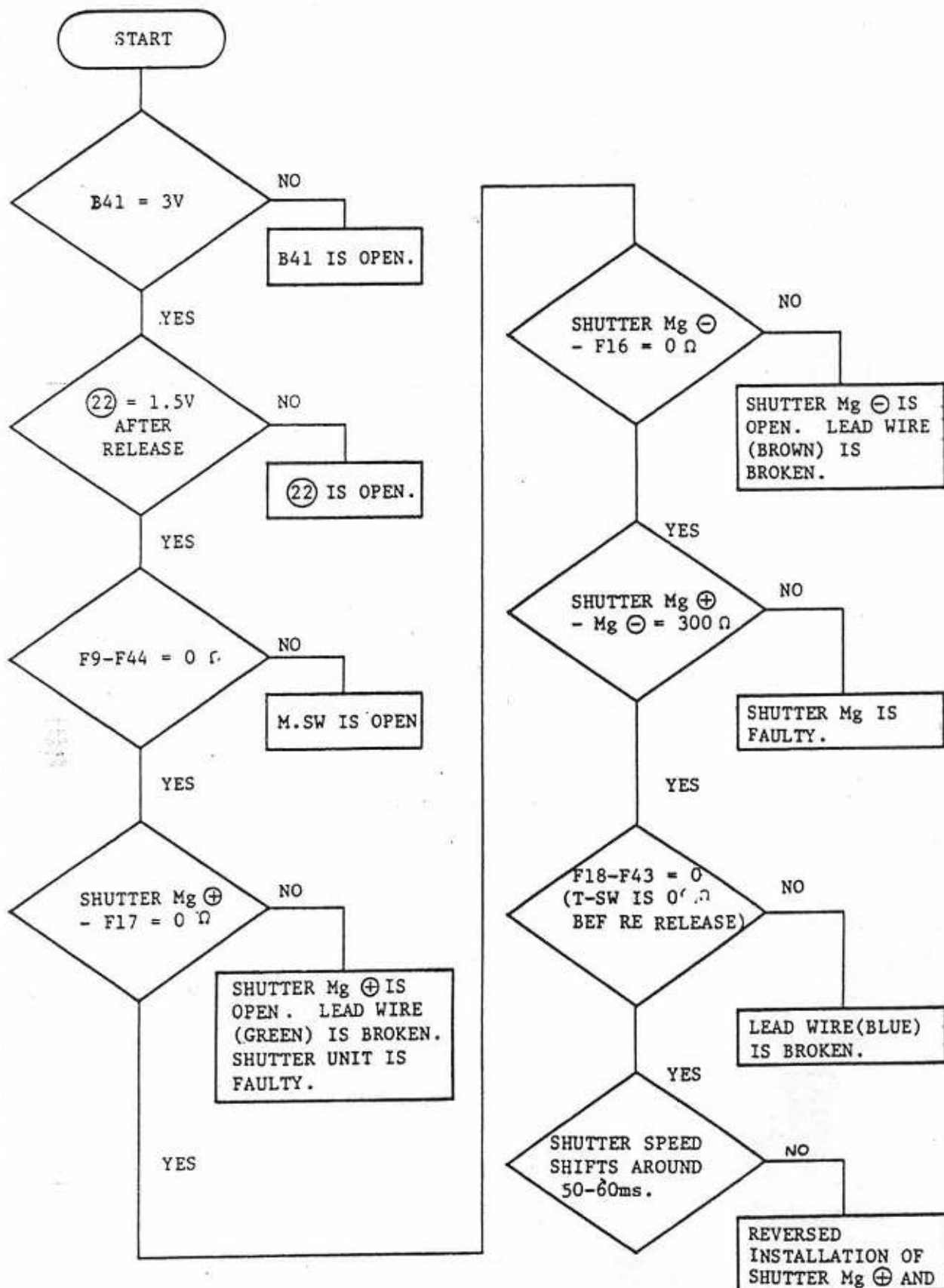
In case the voltage reading is not clear, measure the resistance.

## 2) Resistance check points

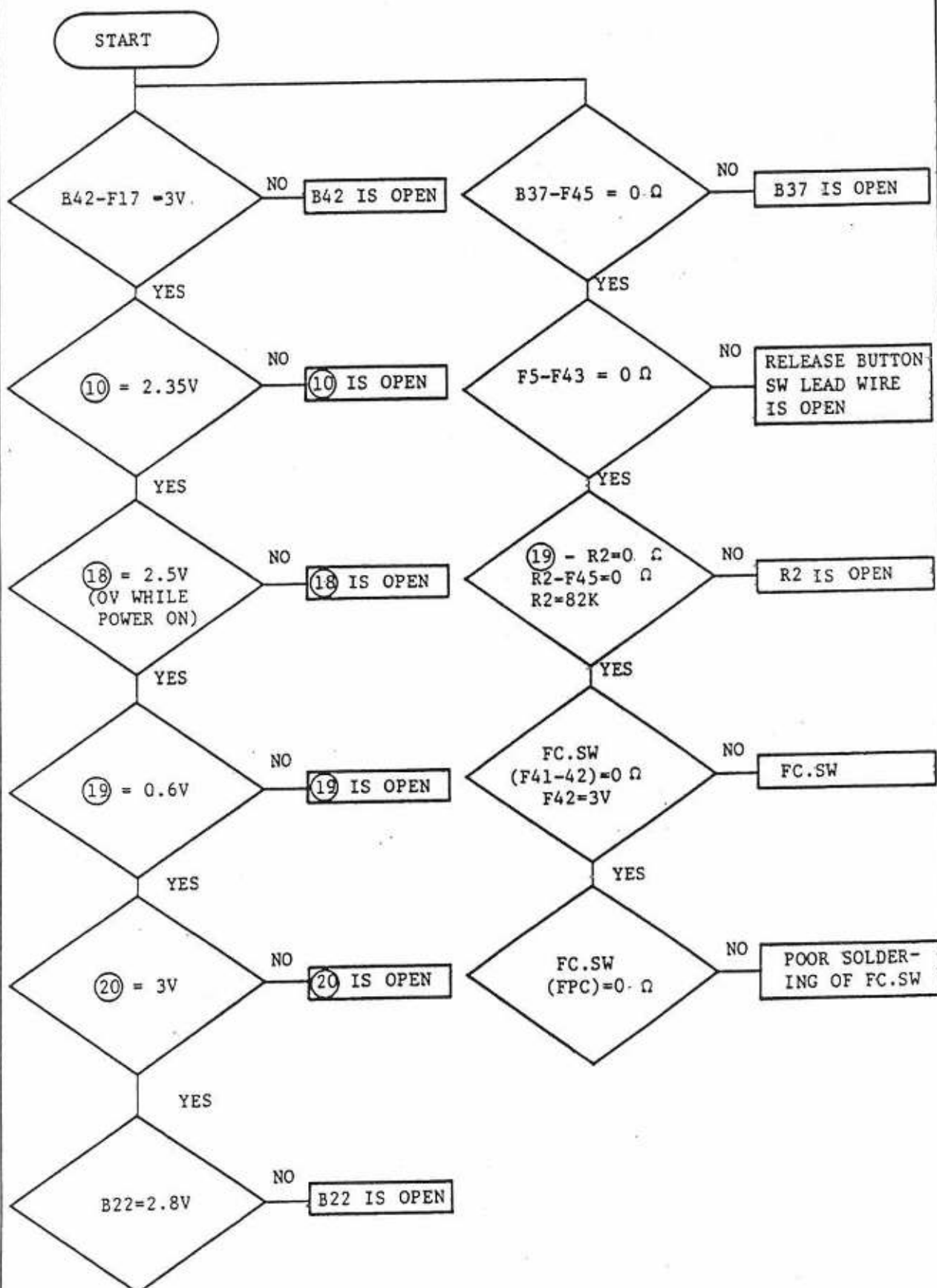


Avoid check on the point (C)

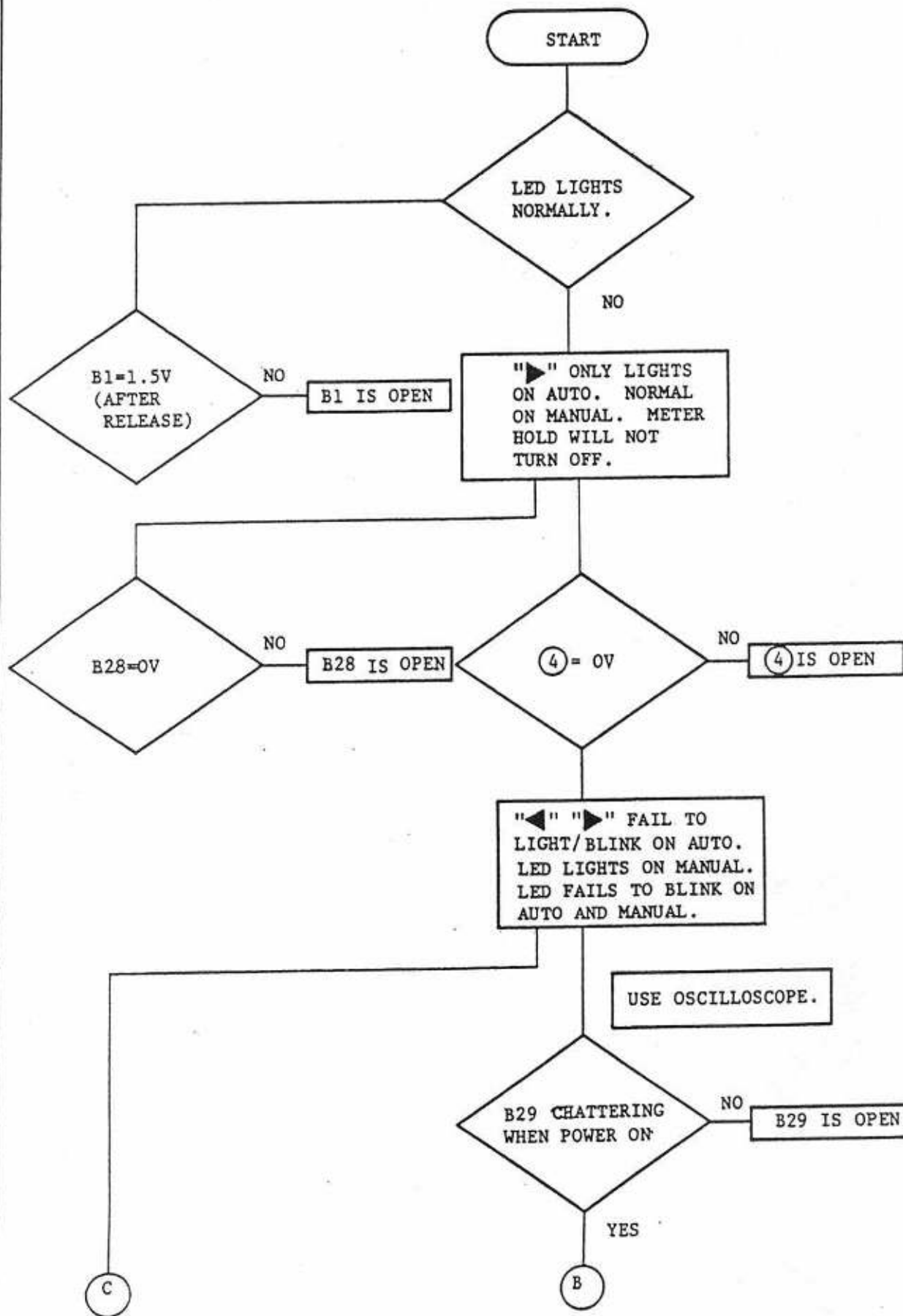
## a-1 CRITICAL FASTEST SHUTTER SPEED ON AUTO AND MANUAL

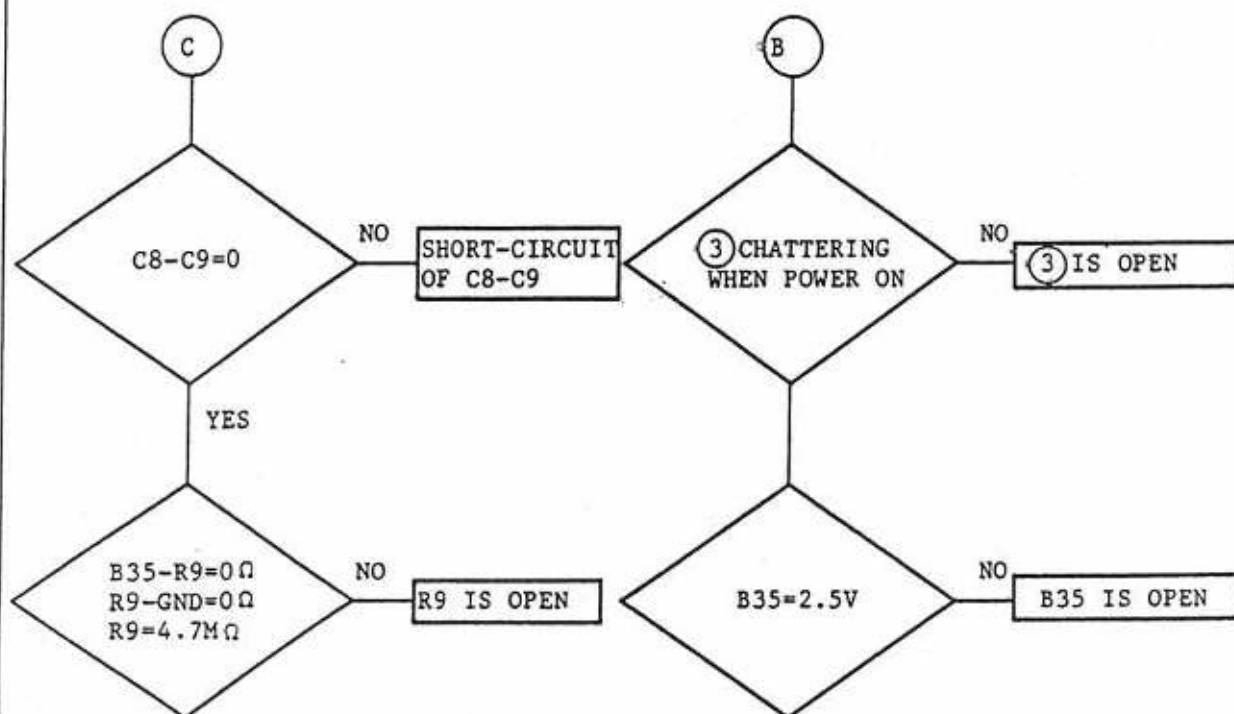


## a-2 CRITICAL FASTEST SHUTTER SPEED ON AUTO AND MANUAL

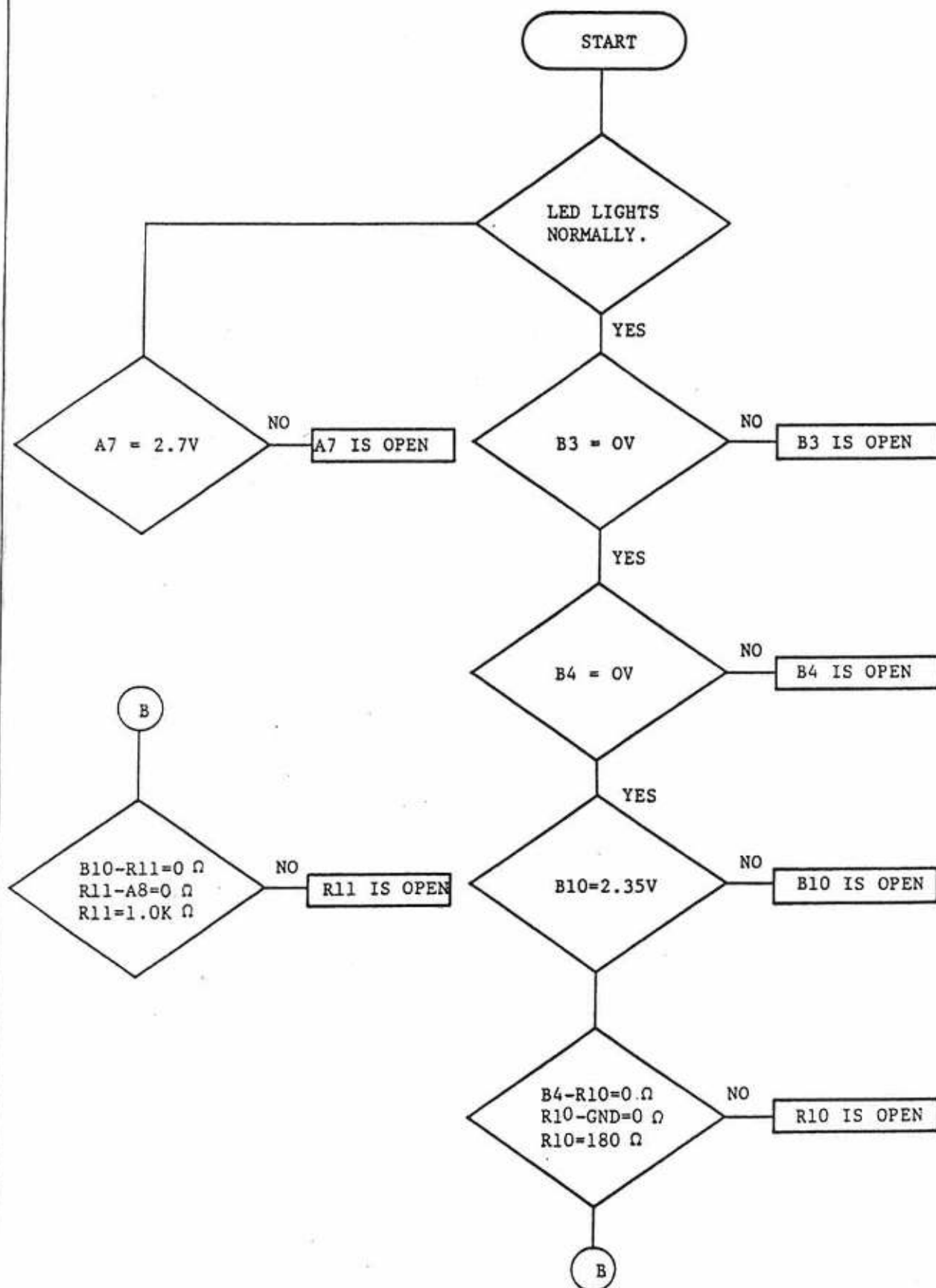


## a-3 SHUTTER IS HELD OPEN ON AUTO AND MANUAL

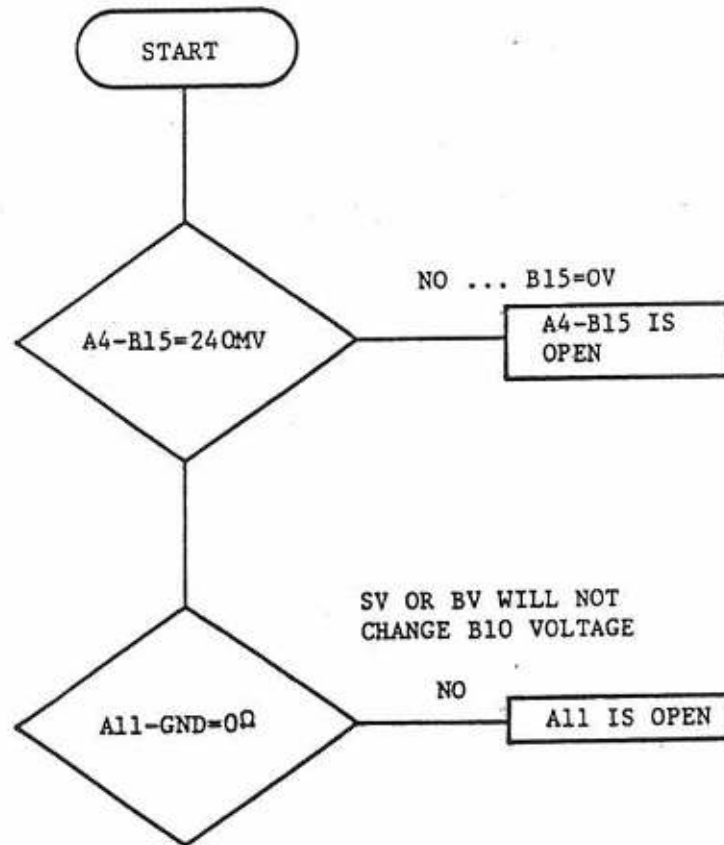




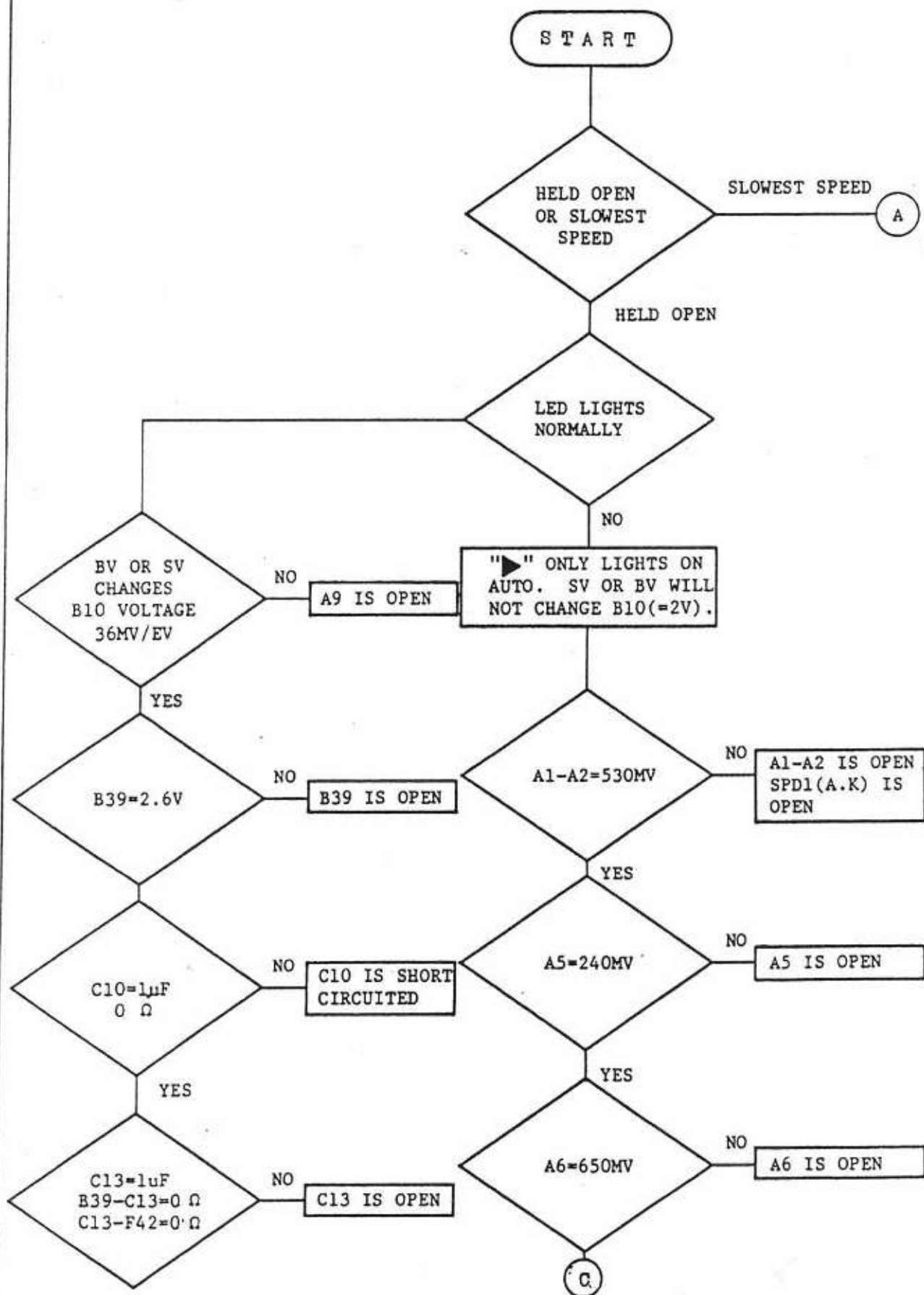
## b-1 CRITICAL FASTEST SHUTTER SPEED

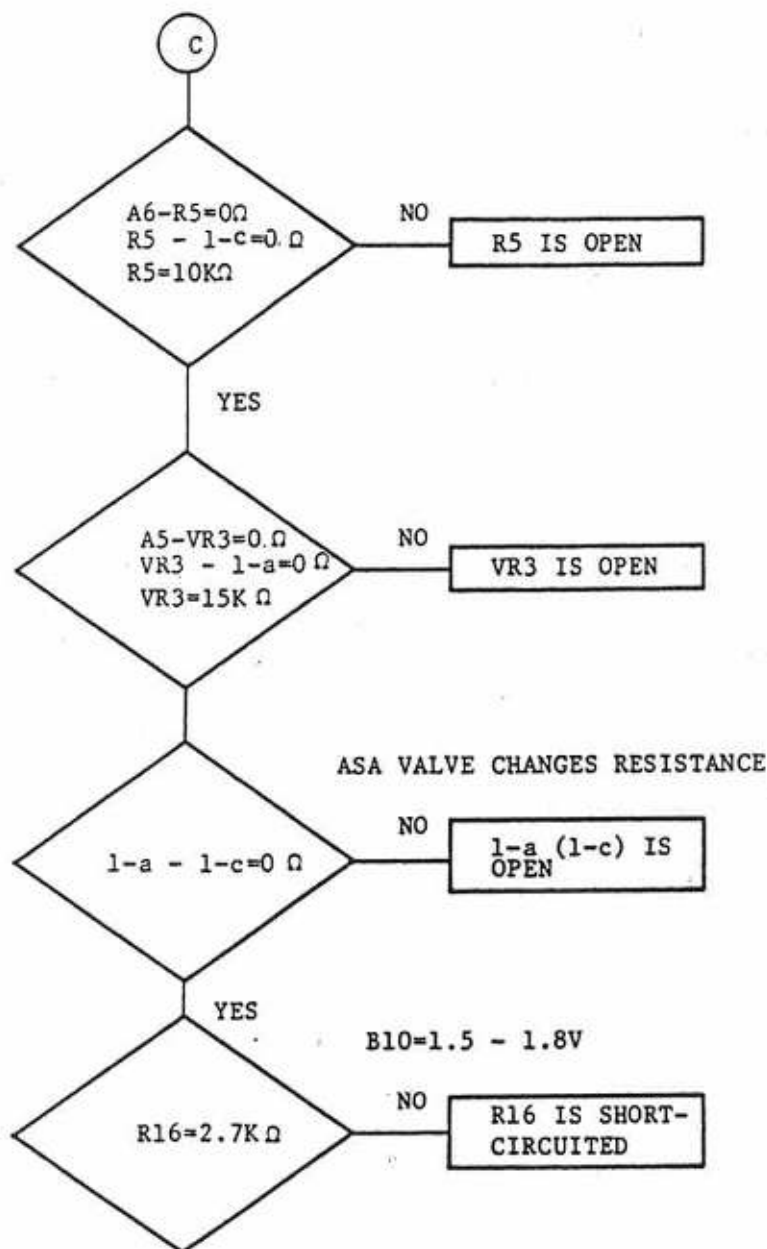


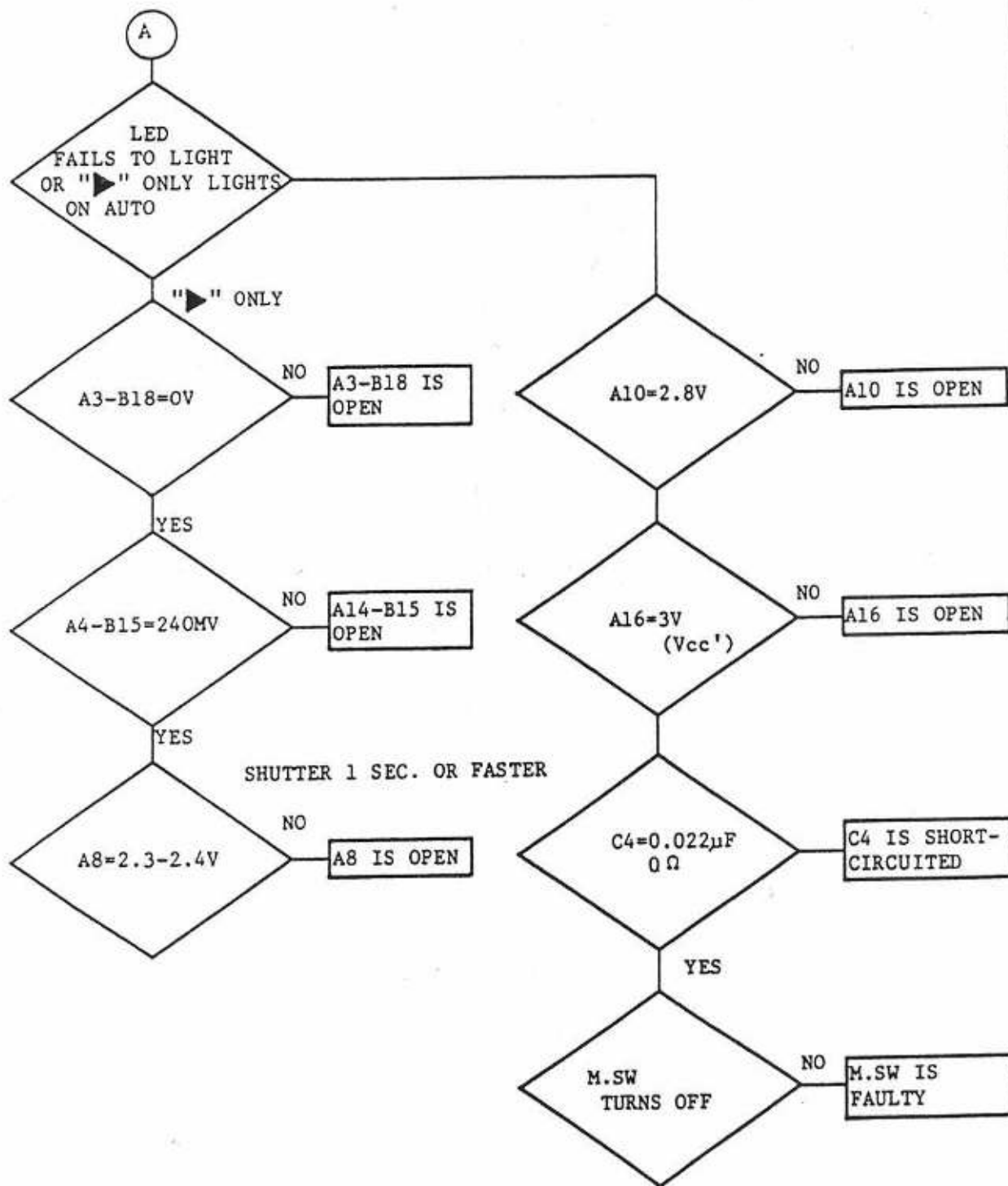
## b-2 CRITICAL FASTEST SHUTTER SPEED ON AUTO



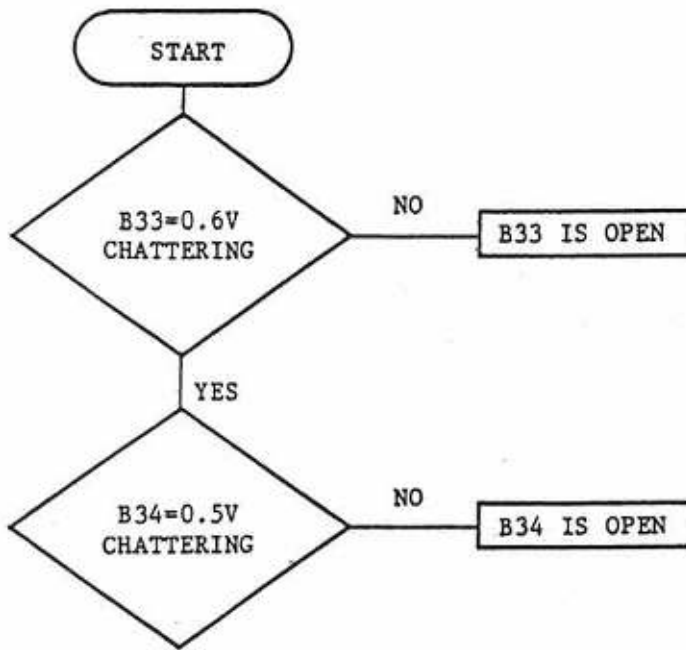
## b-3 SHUTTER IS HELD OPEN OR SLOWEST SPEED ON AUTO







## C. INCORRECT SHUTTER SPEED

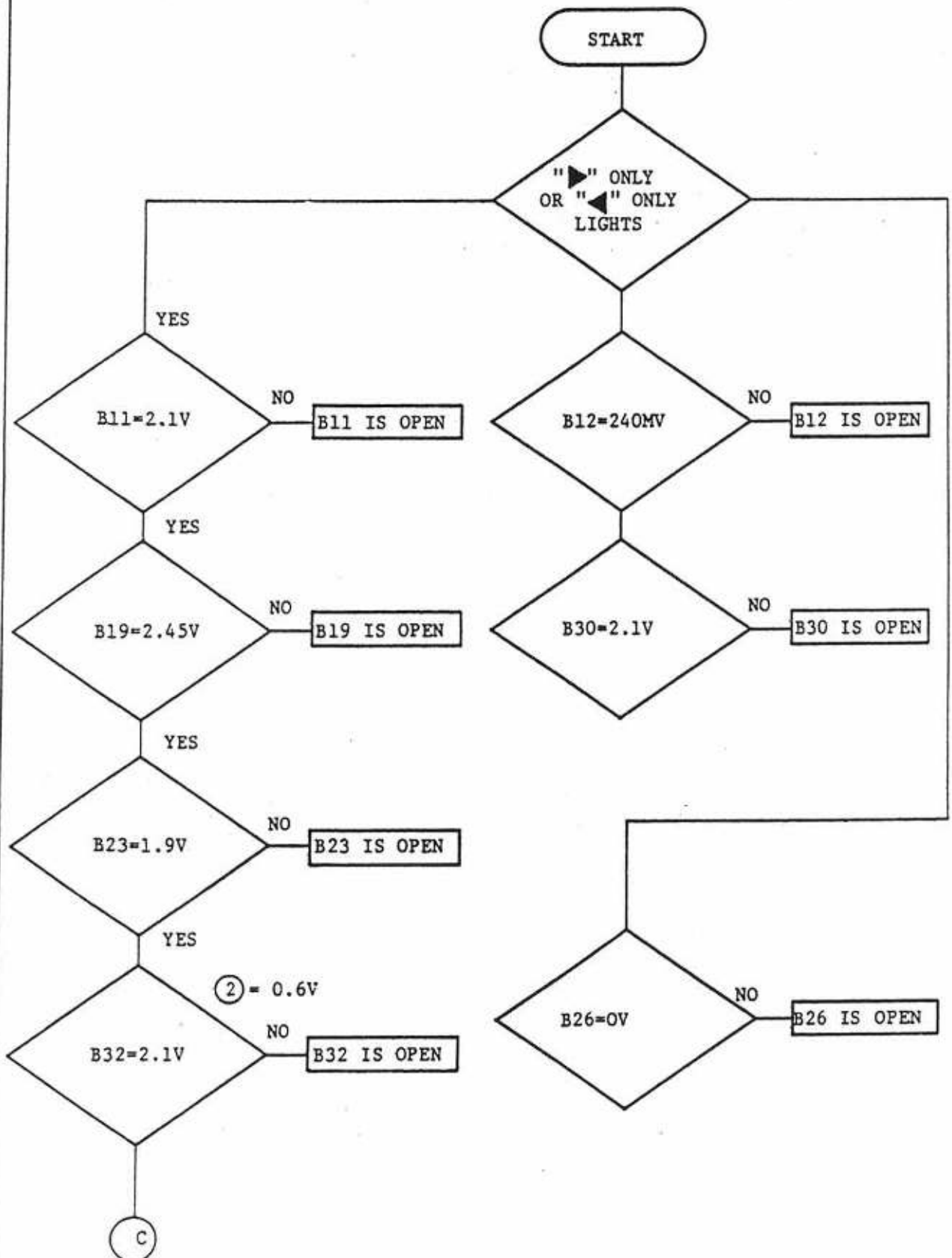


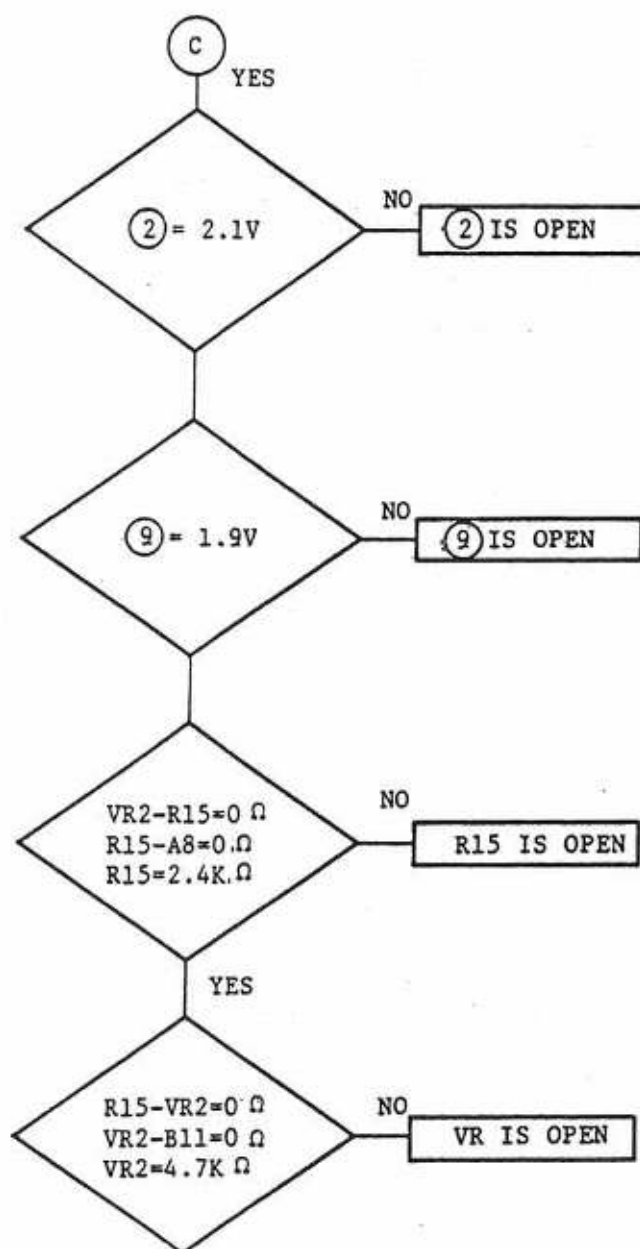
## GRAY CODE

| FAULT \ SPEED | 1/1000 | 1/500 | 1/250 | 1/125  | 1/60 | 1/30 |
|---------------|--------|-------|-------|--------|------|------|
| (14) OPEN (X) |        |       | 1/500 | 1/1000 | A *  | A    |
| (15) OPEN (Y) | A      | A *   | 1/30  | 1/60   |      |      |
| (17) OPEN (Z) | 1/500  |       |       | 1/250  | 1/30 |      |

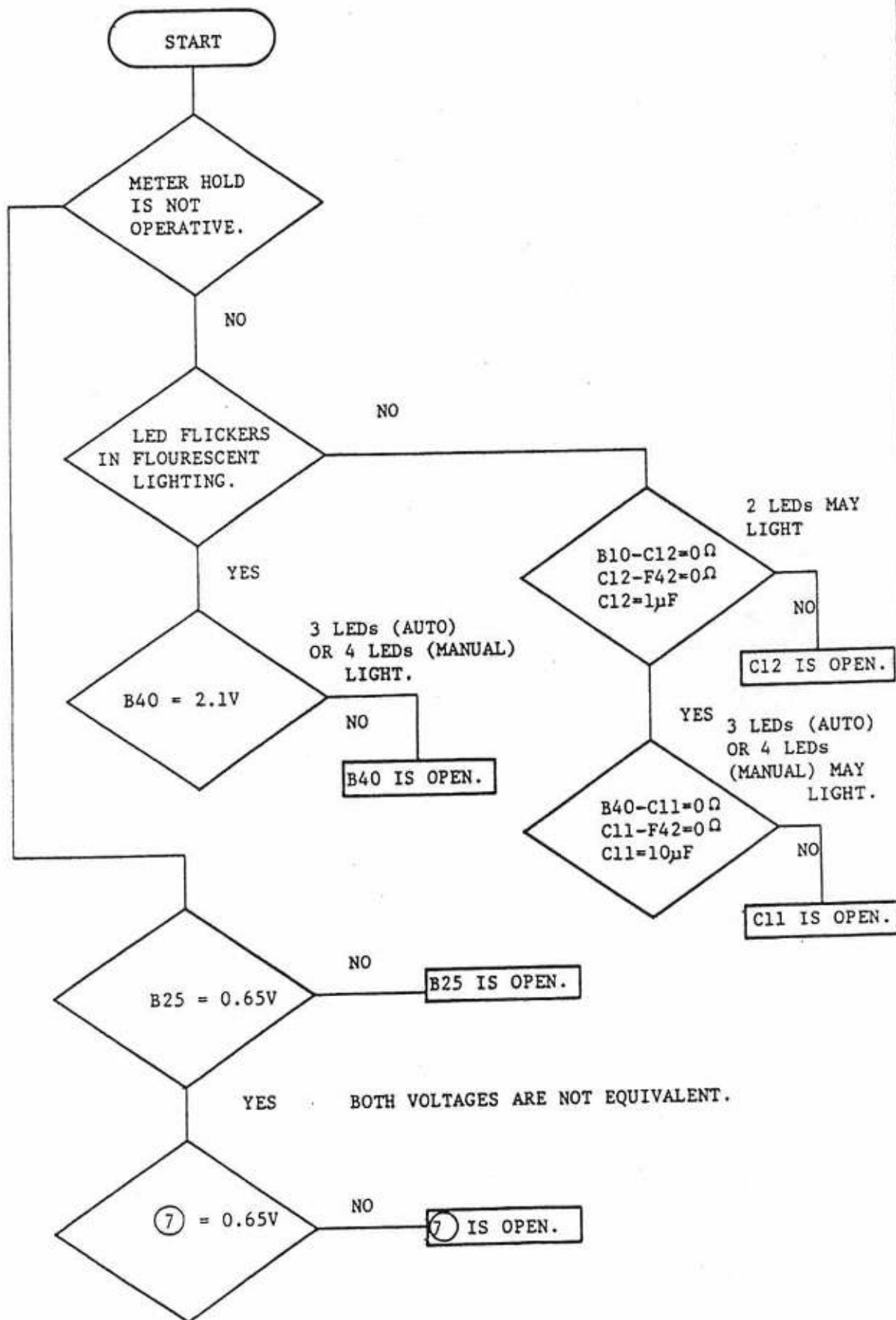
\* --- VARIABLE

## d. LED IS FAULTY ON AUTO

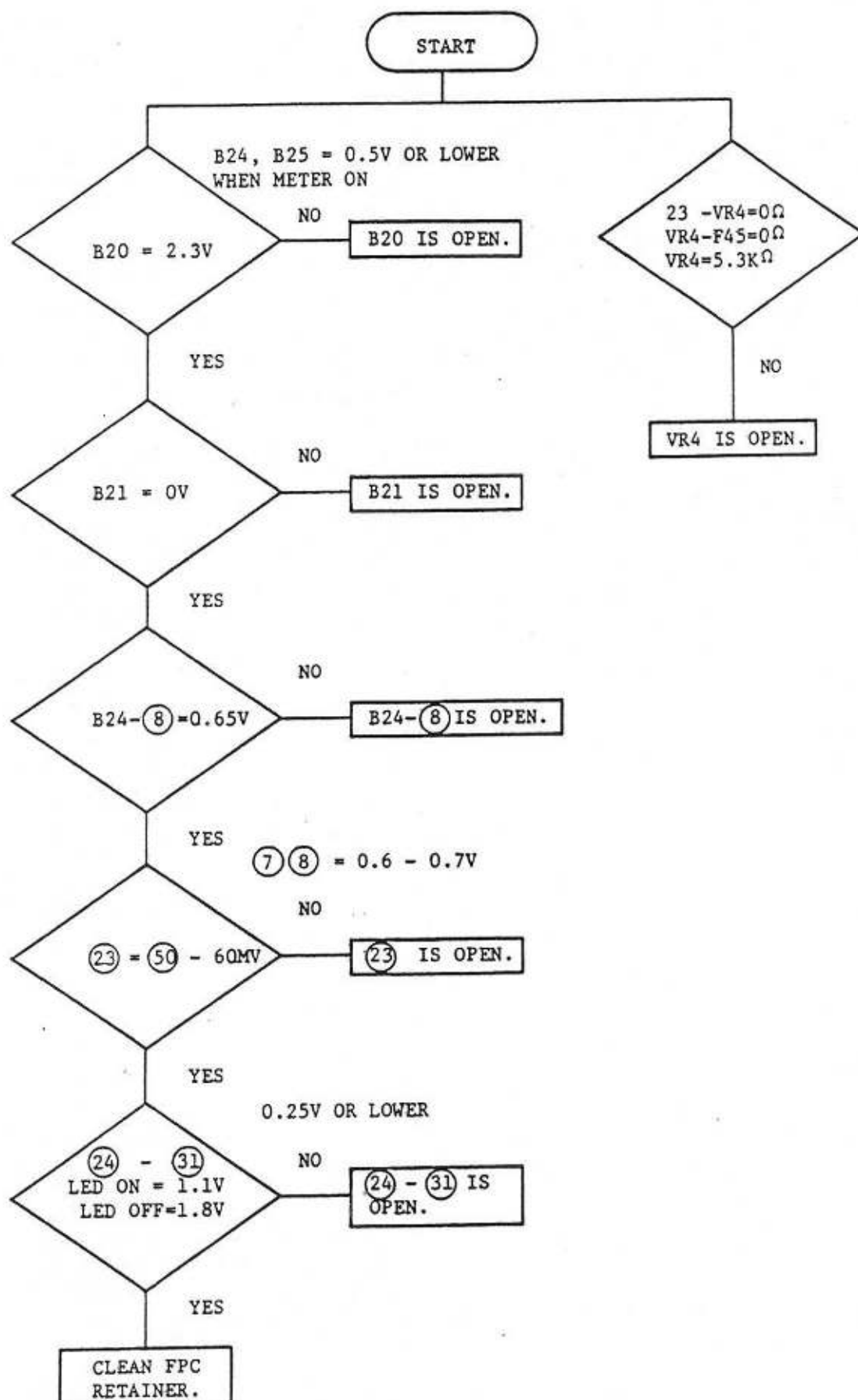




e. LED IS FAULTY ON AUTO AND MANUAL

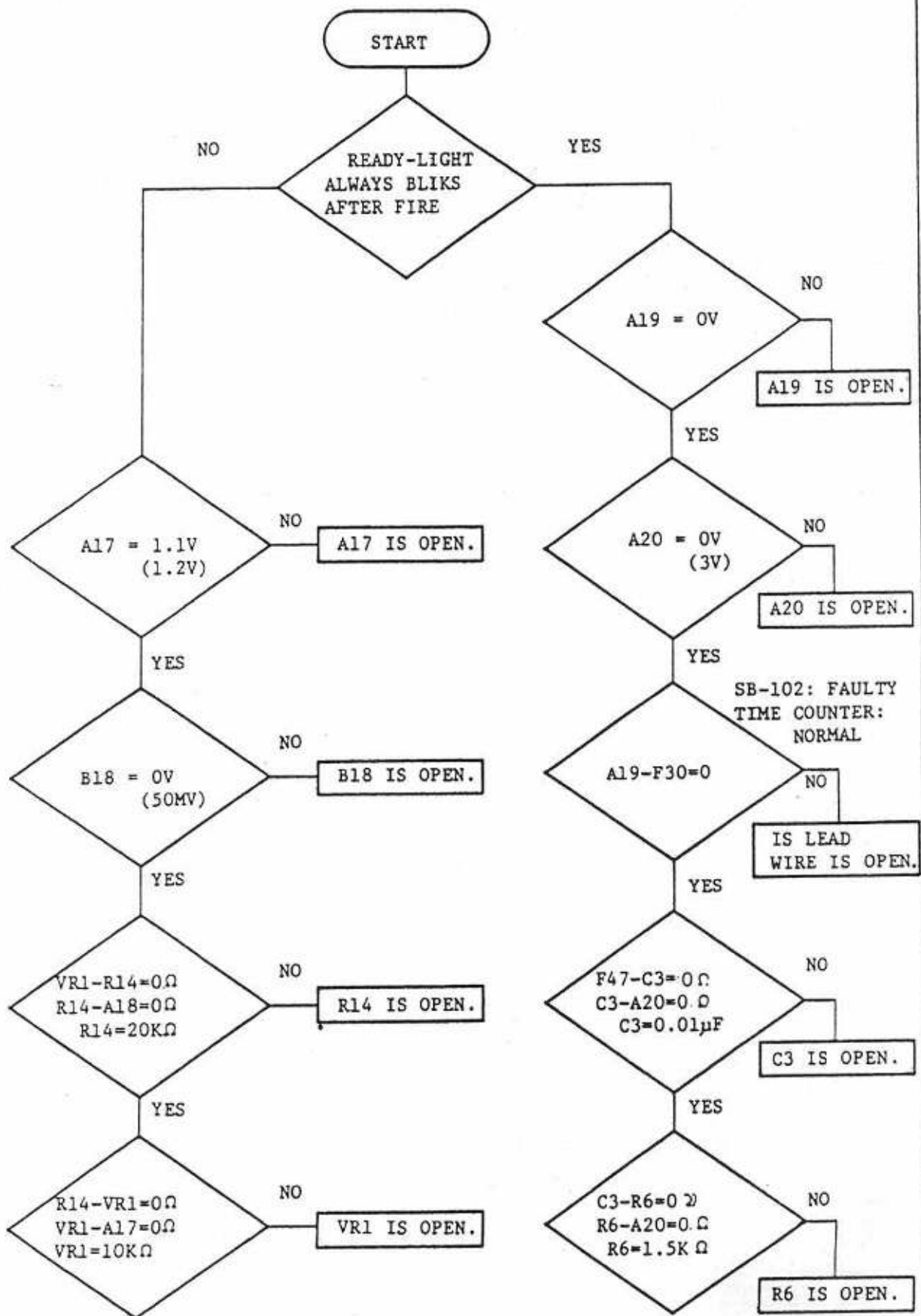


## LED FAILS TO LIGHT ON AUTO AND MANUAL

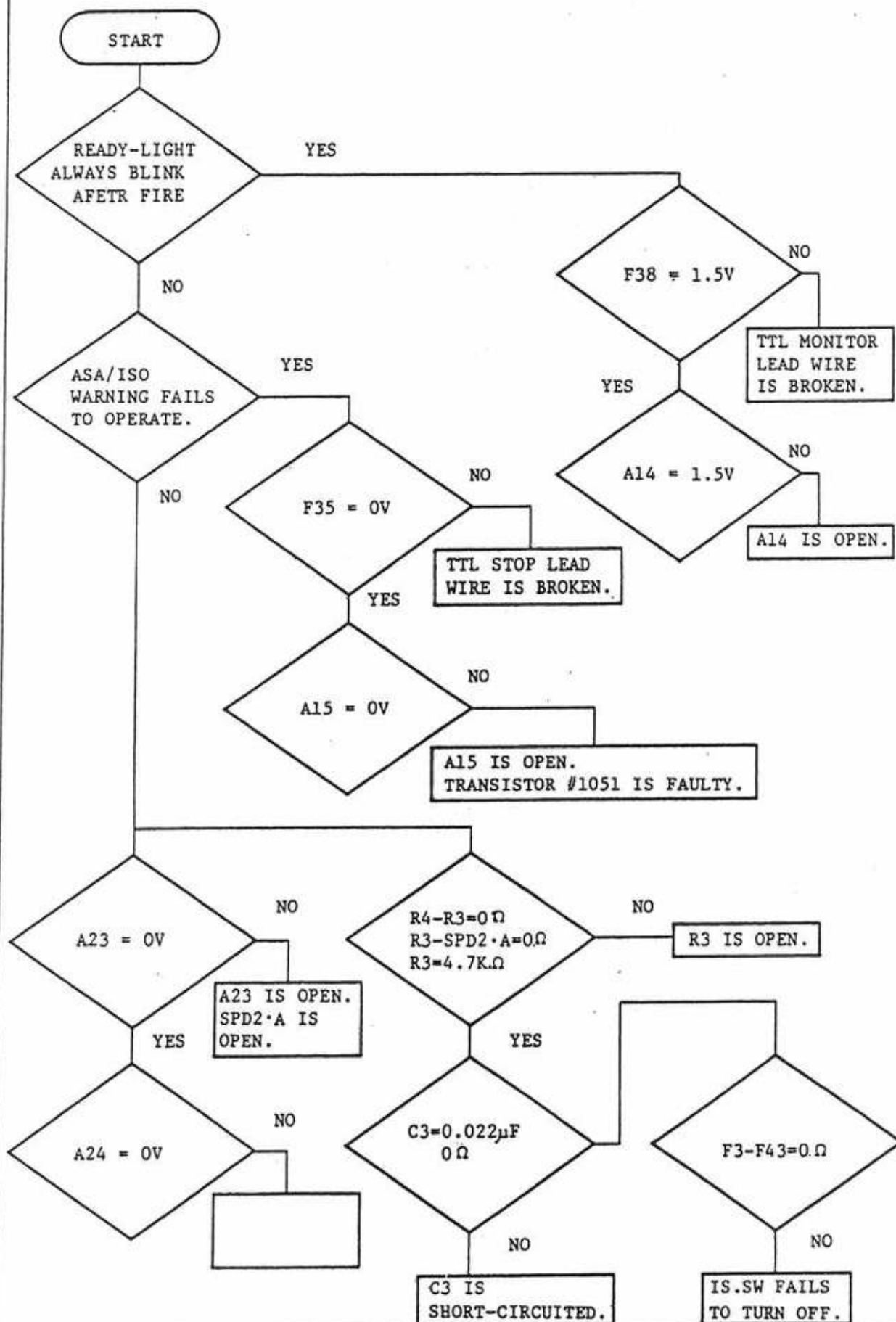


f-1. TTL OUTPUT CONTROL IS FAULTY.

( ) VOLTAGE WHEN TIME COUNTER IN OPERATION

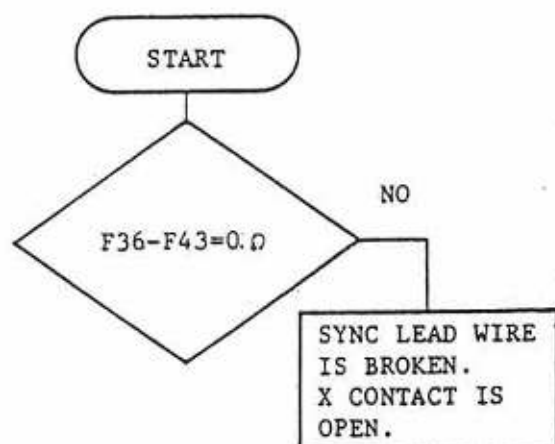


## f-2. FULL OUTPUT ON ALL FIRES

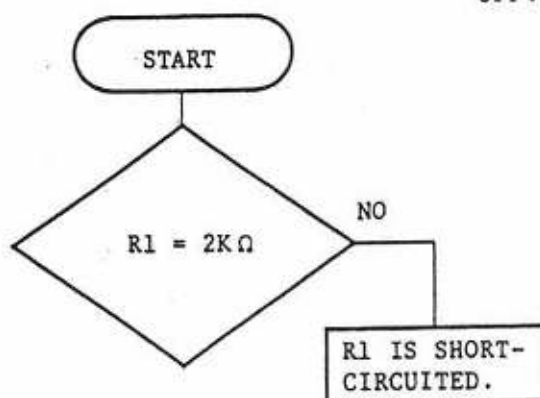


## f-3. OTHERS

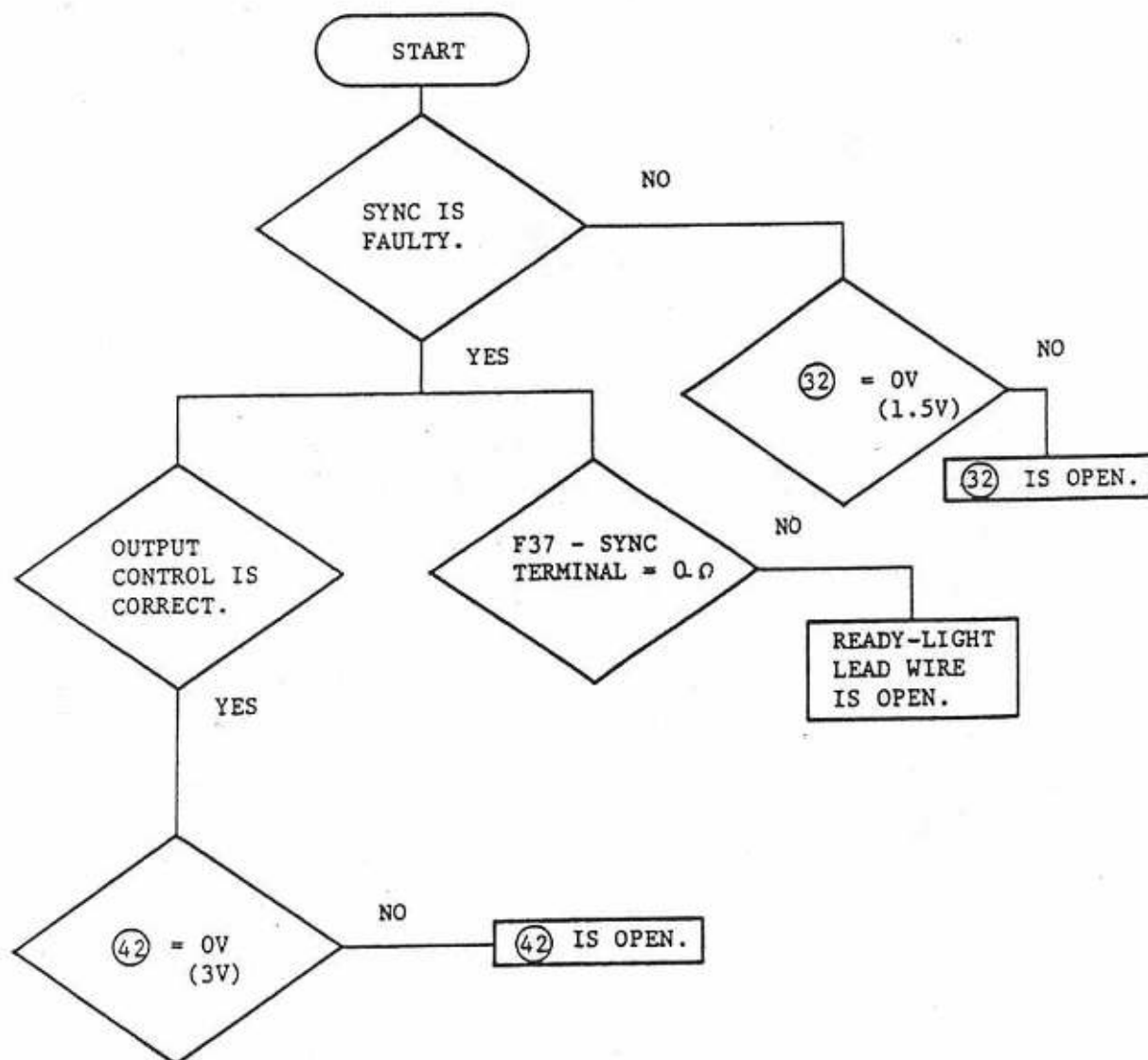
## 1) FAULTY FIRE



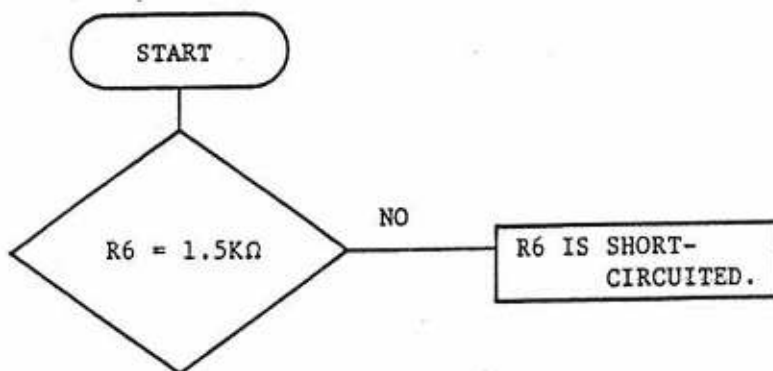
## 2) READY-LIGHT IS TOO BRIGHT WHEN FC.SW IS OFF.



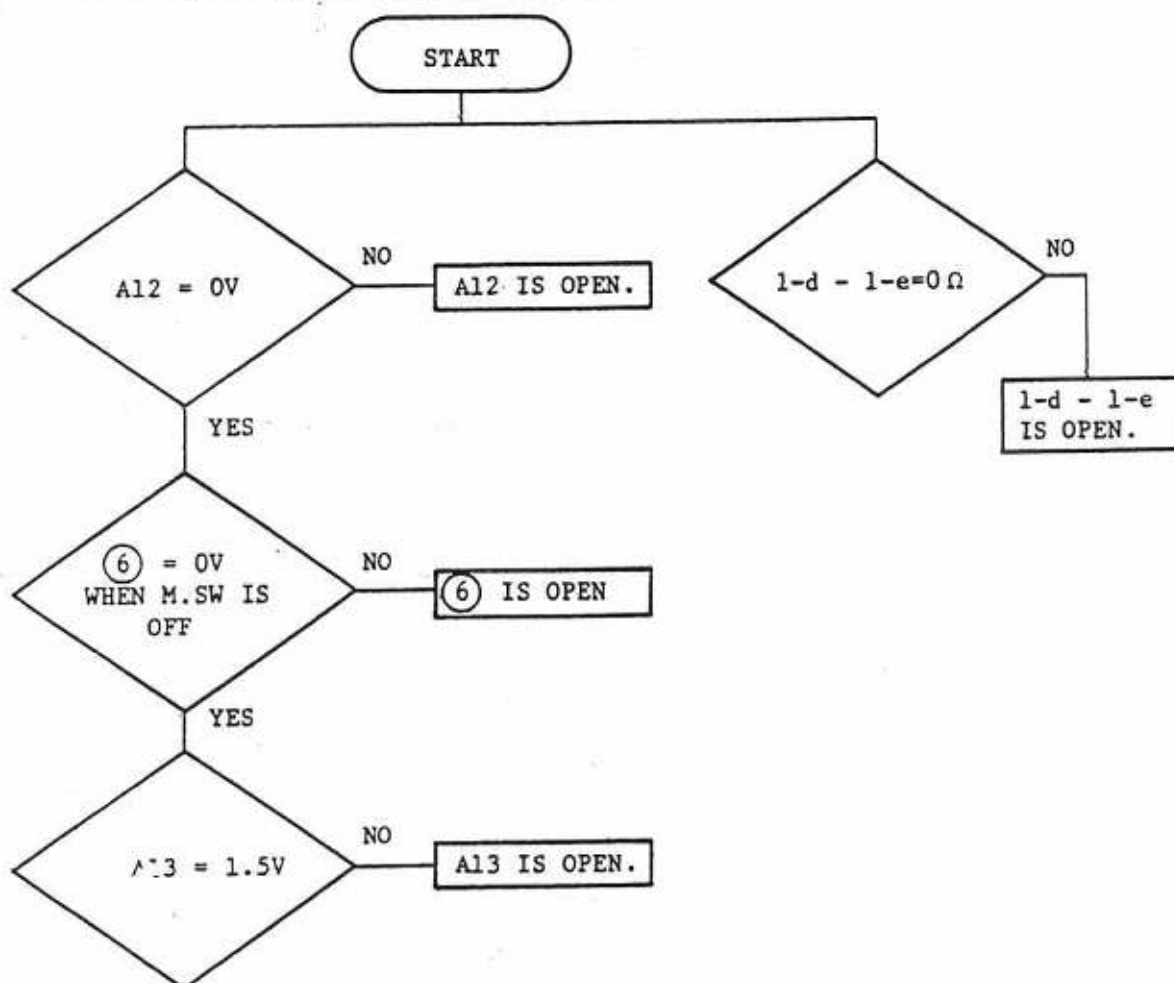
## 3) READY-LIGHT FAILS TO FIRE



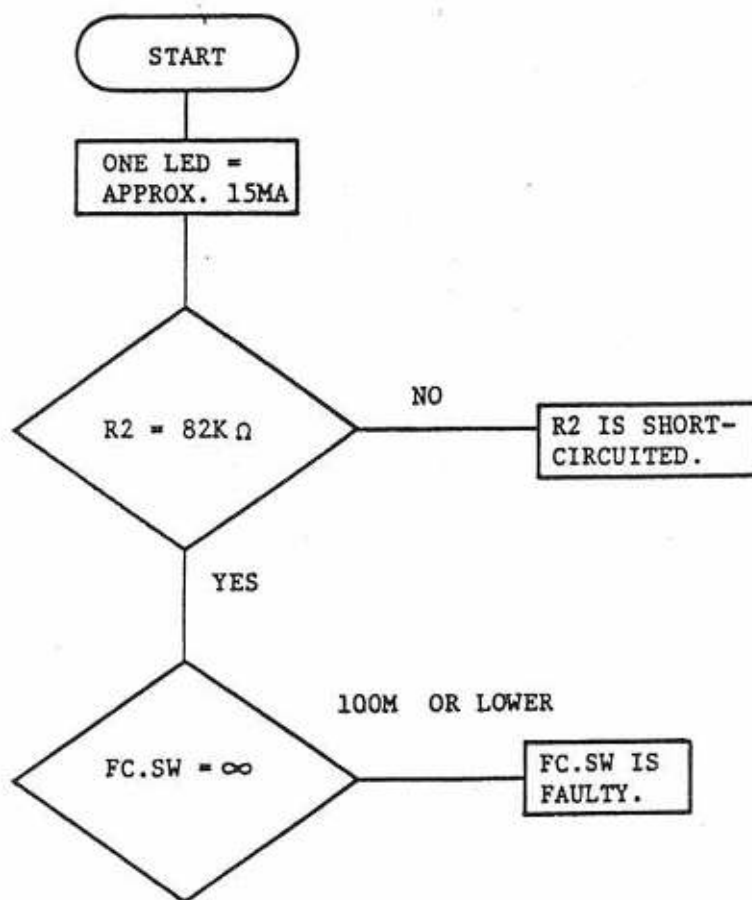
## 4) OVEREXPOSURE ON TTL CONTROL



## 5) ASA/ISO WARNING FAILS TO OPERATE

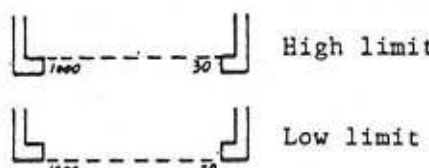
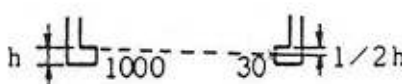
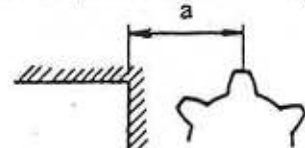


## g. BATTERY DRAIN



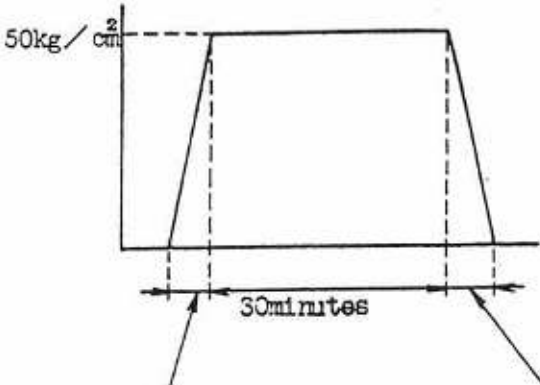
INSPECTION STANDARDS FOR REPAIR & TOOLS

| Contents                                  | Page |
|-------------------------------------------|------|
| [1] INSPECTION STANDARDS FOR REPAIR ..... | R1   |
| [2] TOOLS .....                           | R5   |

|                              | Item                   | Standard                                                                                                                                                                                                                                                                                                                                                   | Tool                                        |
|------------------------------|------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|
| Viewfinder/LED panel         | Viewframe coverage.    | $85 \pm 3\%$ ( $\infty$ )                                                                                                                                                                                                                                                                                                                                  | J18166<br>J15205<br>J18033<br>Standard lens |
|                              | Parallax error         | 0.8mm or less vertically and horizontally on film frame                                                                                                                                                                                                                                                                                                    |                                             |
|                              | Inclination            | Within $1.5^\circ$                                                                                                                                                                                                                                                                                                                                         |                                             |
|                              | Diopter                | $-0.9 \pm 0.5$ dpt.                                                                                                                                                                                                                                                                                                                                        | Diopter scope                               |
|                              | Magnification          | $0.55 \pm 0.05X$                                                                                                                                                                                                                                                                                                                                           |                                             |
|                              | LED panel              | <p>Position: Tops of LED figures should be aligned the bottom of viewfinder frame.</p>  <p>Inclination: Within the half of frame's width</p>  <p>Visible: At the eyepoint of 40mm</p> | J15205                                      |
| Shutter release/film advance | Winding angle          | $144^\circ$ (Stand-off position: $30^\circ$ )                                                                                                                                                                                                                                                                                                              |                                             |
|                              | Winding torque         | Film unloaded: 3kg/cm or less<br>Film loaded: 4kg/cm or less                                                                                                                                                                                                                                                                                               | Torque meter                                |
|                              | Shutter release button | Release power: 450 - 1200g                                                                                                                                                                                                                                                                                                                                 | J5029                                       |
|                              |                        | Release stroke                                                                                                                                                                                                                                                                                                                                             | J19004                                      |
|                              |                        | Power switch ON: $0.8 \pm 0.2$ mm                                                                                                                                                                                                                                                                                                                          |                                             |
|                              |                        | Shutter release: $1.8 \pm 0.3$ mm                                                                                                                                                                                                                                                                                                                          |                                             |
|                              |                        | After release: 0.5mm or more                                                                                                                                                                                                                                                                                                                               |                                             |
|                              | Rewinding torque       | Film loaded: 1.5kg/cm or less                                                                                                                                                                                                                                                                                                                              | Torque meter                                |
|                              | Sprocket               | <p>Sprocket teeth position: <math>27.7^{+0.8}_{-0.4}</math>mm(a)</p>                                                                                                                                                                                                    | J18064-1                                    |
|                              |                        | Sprocket play: 0.8mm or less (winding limit)                                                                                                                                                                                                                                                                                                               |                                             |
|                              |                        | Frame-to-frame space: $2 \pm 1$ mm                                                                                                                                                                                                                                                                                                                         | Slide calliper                              |

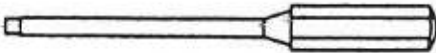
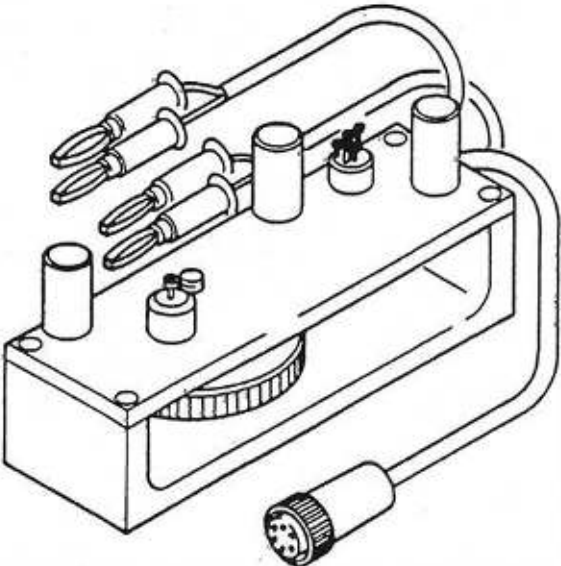
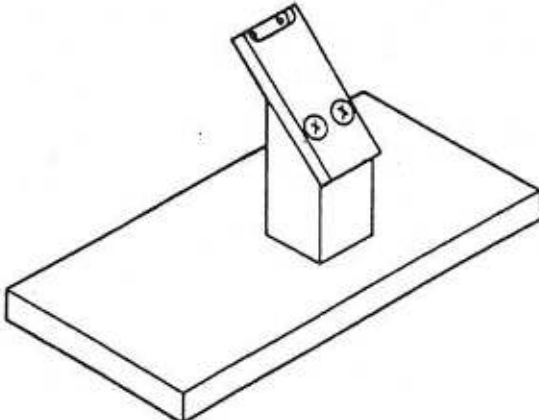
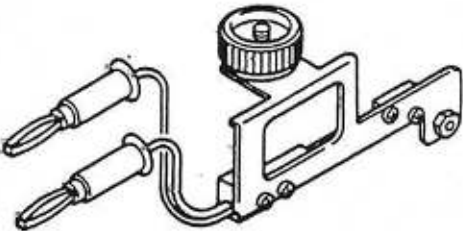
|                                 | Item                     | Standard                                                                                                                                                 |                           |                             | Tool                         |
|---------------------------------|--------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|-----------------------------|------------------------------|
|                                 | Spool                    | Torque: 90 - 140g/cm<br>Slipping load: 144 - 267g                                                                                                        |                           |                             | J15003<br>J5019              |
|                                 | Aperture                 | Picture size: $24^{+0.8}_{-0} \times 36^{+0.8}_{-0}$ mm                                                                                                  |                           |                             | Slide<br>calliper            |
| Flange local<br>distance        | Flange focal<br>distance | Flange focal distance: $27.02 \pm 0.03$ mm<br>Parallel: 0.04 mm or less<br>Height difference between film guide rails:<br>$0.23 \pm 0.02$ mm             |                           |                             | J18086<br>J19004             |
| Power                           | Power duration           | 16 $\pm$ 2 sec. after finger is taken off release<br>button                                                                                              |                           |                             | Stopwatch                    |
|                                 | Battery check            | Power hold: 2.56V<br>LED off: 2.29V                                                                                                                      |                           |                             | J9001-5<br>J9003-3<br>J15238 |
|                                 | Power                    | LED panel: 8.4mA or less (one LED lighting)<br>11.8mA or less (two LEDs lighting)<br>Shutter release: 15.2mA or less<br>TTL flash control: 9.5mA or less |                           |                             | J9001-5<br>J9004<br>J15238   |
|                                 | Power drain              | 4.2 $\mu$ A or less                                                                                                                                      |                           |                             | J9003-1                      |
| Manual shutter                  | Exposure time            | Shutter dial                                                                                                                                             | Standard(ms)              | Tolerance(ms)               | J19036                       |
|                                 |                          | 1000                                                                                                                                                     | 0.98                      | 0.69 - 1.39 ( $\pm 0.5$ EV) |                              |
|                                 |                          | 500                                                                                                                                                      | 1.95                      | 1.58 - 2.40 ( $\pm 0.3$ EV) |                              |
|                                 |                          | 250                                                                                                                                                      | 3.91                      | 3.18 - 4.81 ( $\pm 0.3$ EV) |                              |
|                                 |                          | 125                                                                                                                                                      | 7.81                      | 6.34 - 9.62 ( $\pm 0.3$ EV) |                              |
|                                 |                          | 60                                                                                                                                                       | 15.63                     | 12.7 - 19.2 ( $\pm 0.3$ EV) |                              |
|                                 |                          | 30                                                                                                                                                       | 31.25                     | 25.4 - 38.5 ( $\pm 0.3$ EV) |                              |
|                                 |                          | M(90)                                                                                                                                                    | 11.1                      | 9.0 - 14.0 ( $\pm 0.3$ EV)  |                              |
|                                 | High limit               | 0.67                                                                                                                                                     | 0.33 - 1.33 ( $\pm 1$ EV) |                             |                              |
|                                 | Variation                | 1/1000 sec.: 0.45EV or less<br>1/500 - 1/30 sec.: 0.3EV or less                                                                                          |                           |                             |                              |
| Shutter curtain<br>travel speed | 6.5 - 7ms                |                                                                                                                                                          |                           |                             |                              |
| Synchronization                 | Time-lag                 | 0.3 - 1.2ms (M90 or sync speeds),<br>1.5ms or more after sync-on                                                                                         |                           |                             | J19008-2                     |
|                                 | Contact<br>efficiency    | 50% or more                                                                                                                                              |                           |                             | J19028-1                     |
|                                 | Insulation<br>resistance | 30M $\Omega$ or more (DC500V)                                                                                                                            |                           |                             |                              |

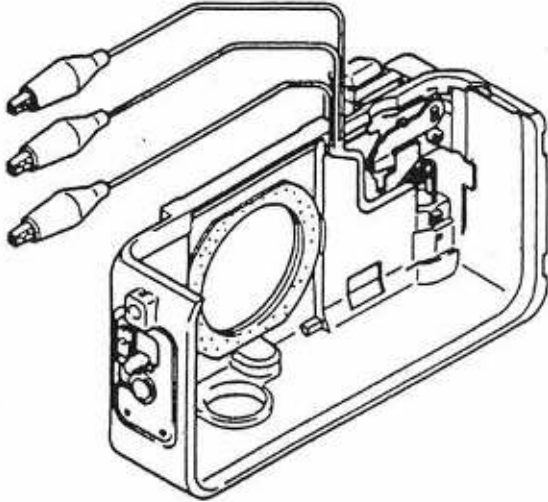
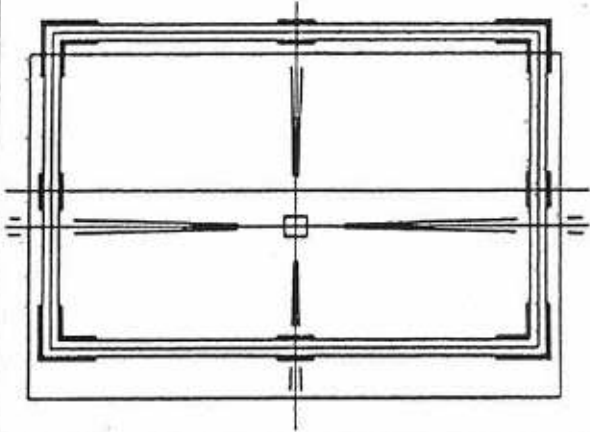
|                                                | Item                                                                                 | Standard                                                     |      |        |               |               | Tool                                                                    |   |   |   |   |   |
|------------------------------------------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------|------|--------|---------------|---------------|-------------------------------------------------------------------------|---|---|---|---|---|
| Auto shutter                                   | Exposure time                                                                        | LV                                                           | ISO  | Dial   | Standard (ms) | Tolerance(ms) | Tool lens (35mm F5.6)<br>J18085<br>J19036<br>J15238<br>J18084<br>J18142 |   |   |   |   |   |
|                                                |                                                                                      | 9                                                            | 1600 | 1/250  | 3.91          | 2.76 - 5.52   |                                                                         |   |   |   |   |   |
|                                                |                                                                                      | 9                                                            | 800  | 1/125  | 7.81          | 5.52 - 11.0   |                                                                         |   |   |   |   |   |
|                                                |                                                                                      | 9                                                            | 100  | 1/15   | 62.5          | 44.2 - 88.4   |                                                                         |   |   |   |   |   |
|                                                |                                                                                      | 12                                                           | 800  | 1/1000 | 0.98          | 0.64 - 1.48   |                                                                         |   |   |   |   |   |
|                                                |                                                                                      | 12                                                           | 100  | 1/125  | 7.81          | 5.52 - 11.0   |                                                                         |   |   |   |   |   |
|                                                |                                                                                      | 12                                                           | 25   | 1/30   | 31.3          | 22.1 - 44.2   |                                                                         |   |   |   |   |   |
|                                                |                                                                                      | 15                                                           | 100  | 1/1000 | 0.98          | 0.64 - 1.48   |                                                                         |   |   |   |   |   |
|                                                |                                                                                      | 15                                                           | 25   | 1/250  | 3.91          | 2.76 - 5.52   |                                                                         |   |   |   |   |   |
|                                                |                                                                                      | 1/1000 sec.: $\pm 0.6$ EV<br>1/500 - 1/30 sec.: $\pm 0.5$ EV |      |        |               |               |                                                                         |   |   |   |   |   |
| Speed difference between two adjacent settings | 1/1000 - 1/250 sec.: $\pm 0.65$ EV<br>1/125 - 1/30 sec.: $\pm 0.45$ EV               |                                                              |      |        |               |               |                                                                         |   |   |   |   |   |
| Variation                                      | 1/1000 sec.: 0.45EV or less<br>1/500 - 1/30 sec.: 0.3EV or less                      |                                                              |      |        |               |               |                                                                         |   |   |   |   |   |
| Sync speed (1/90 sec.)                         | Exposure time: 9 - 15.6ms<br>Variation: 0.3EV or less                                |                                                              |      |        |               |               |                                                                         |   |   |   |   |   |
| Exposure metering on auto                      | LED display accuracy                                                                 | Tolerance: $\pm 0.5$ EV                                      |      |        |               |               | Tool lens (35mm F5.6)<br>J19036<br>J18085                               |   |   |   |   |   |
|                                                |                                                                                      | Dial                                                         | LV   | ISO    | LED display   |               |                                                                         |   |   |   |   |   |
|                                                |                                                                                      | 1/1000                                                       | 15   | 100    | ▲             | ○             |                                                                         | ○ | ○ |   |   |   |
|                                                |                                                                                      |                                                              |      |        | 1000          |               |                                                                         |   |   | ○ | ○ | ○ |
|                                                |                                                                                      |                                                              |      |        | 500           |               |                                                                         |   |   |   |   |   |
|                                                |                                                                                      | 1/125                                                        | 12   | 100    | 250           | ○             |                                                                         | ○ | ○ |   |   |   |
|                                                |                                                                                      |                                                              |      |        | 125           |               |                                                                         |   |   | ○ | ○ | ○ |
|                                                |                                                                                      |                                                              |      |        | 60            |               |                                                                         |   |   |   |   |   |
|                                                |                                                                                      | 1/30                                                         | 12   | 25     | 30            | ○             |                                                                         | ○ | ○ |   |   |   |
|                                                |                                                                                      |                                                              |      |        | ▼             |               |                                                                         |   |   | ○ | ○ | ○ |
| Out of metering range warning                  | LV10 $^{+0.75}_{-0.75}$ : LED ► blinking<br>LV15 $^{+0.75}_{-0.25}$ : LED ◄ blinking |                                                              |      |        |               |               |                                                                         |   |   |   |   |   |
|                                                |                                                                                      |                                                              |      |        |               |               |                                                                         |   |   |   |   |   |

| Item                                                                                                                                      | Standard                                                                                                                                                      |              |       |       |       |       | Tool                                 |
|-------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|-------|-------|-------|-------|--------------------------------------|
| Ready-light ⚡                                                                                                                             | Ready-light should turn on when the flash unit is fully charged                                                                                               |              |       |       |       |       | Flash unit                           |
|                                                                                                                                           | Frame counter SW                                                                                                                                              |              | ON    |       | OFF   |       |                                      |
|                                                                                                                                           | Power SW                                                                                                                                                      |              | ON    | OFF   | ON    | OFF   |                                      |
|                                                                                                                                           | M90, B                                                                                                                                                        | TTL          | BLINK | BLINK | BLINK | BLINK |                                      |
|                                                                                                                                           |                                                                                                                                                               | Non-TTL      | ON    | ON    | ON    | ON    |                                      |
|                                                                                                                                           | Manual                                                                                                                                                        | TTL, Non-TTL | ON    | ON    | ON    | OFF   |                                      |
| Auto                                                                                                                                      |                                                                                                                                                               |              |       |       |       |       |                                      |
| Automatic Sync speed set                                                                                                                  | Auto: A 1/90 sec.<br>Manual 1/1000 - 1/125 sec.: A 1/90 sec.<br>Manual 1/60 - 1/30 sec.: Same<br>(Frame counter SW: ON, Power SW: ON, Flash unit's power: ON) |              |       |       |       |       |                                      |
| LED display                                                                                                                               | Auto: Normal operation<br>Manual: Normal operation<br>M90, B: Off                                                                                             |              |       |       |       |       |                                      |
| EV tolerance on TTL control                                                                                                               | ±1EV                                                                                                                                                          |              |       |       |       |       |                                      |
| Flash stop signal time                                                                                                                    | 765 - 879μs                                                                                                                                                   |              |       |       |       |       | J19036<br>J18142<br>J15238<br>J15240 |
| ASA/ISO set error warning on TTL control                                                                                                  | ASA/ISO 400 or less: Ready-light ON<br>ASA/ISO 800 or more: Ready-light BLINK                                                                                 |              |       |       |       |       |                                      |
| Waterproof                                                                                                                                | 50kg/cm <sup>2</sup> in 30 minutes                                                                                                                            |              |       |       |       |       | J18026                               |
| <div><p>30 sec. or more      30 sec. or more</p></div> |                                                                                                                                                               |              |       |       |       |       |                                      |

## (1) NIKONOS-V用工具ゲージ一覧表

## Tool List

| 工具番号<br>Tool No. | 名 称<br>Name                               | 略<br>Illustration                                                                    | 区分<br>Class | 備 考<br>Remarks |
|------------------|-------------------------------------------|--------------------------------------------------------------------------------------|-------------|----------------|
| J5135            | 調整用ドライバー<br>Screwdriver                   |    | A           | FG-20<br>⑤     |
| J15238           | 回路点検電池<br>工具<br>Tool battery              |   | A           |                |
| J15239           | FS 圧接部組込<br>工具<br>FPC assembling<br>stand |  | A           |                |
| J15240           | タイムカウンター<br>IS接続コネクタ<br>IS connector      |  | A           |                |

| 工具番号<br>Tool No. | 名 称<br>Name                                  | 略 図<br>Illustration                                                                  | 区 分<br>Class | 備 考<br>Remarks |
|------------------|----------------------------------------------|--------------------------------------------------------------------------------------|--------------|----------------|
| J15241           | 水漏れチェック<br>工具<br>Cap for water<br>proof test |     | A            |                |
| J18165           | 工具用外箱<br>Tool outer<br>housing               |    | A            |                |
| J18166           | 画角出し用標板<br>Plate for<br>parallax check       |  | C            |                |

PARTS LIST

| Contents                               | Page |
|----------------------------------------|------|
| [1] PARTS NUMBER REFERENCE TABLE ..... | 1    |
| [2] PARTS LIST .....                   | 4    |
| [3] ASSEMBLY LIST .....                | 18   |

部品对照表

Parts Number Reference Table

| 補助番号<br>Auxiliary<br>Number | 部品番号<br>Part Number | 補助番号<br>Auxiliary<br>Number | 部品番号<br>Part Number | 補助番号<br>Auxiliary<br>Number | 部品番号<br>Part Number |
|-----------------------------|---------------------|-----------------------------|---------------------|-----------------------------|---------------------|
| G1                          | 1G226-002           | 61                          | 1K110-153           | 316                         | 1K120-176           |
| G2                          | 1G234-001           | 61                          | 1K110-179           | 320                         | 1K230-131           |
| G3                          | 1G133-002           | 63                          | 1K115-793           | 321                         | 1K115-799           |
| G4                          | 1G133-003           | 64                          | 1K115-794           | 327                         | 1K115-800           |
| G5                          | 1G580-002           | 68                          | 1K115-796           | 328                         | 1K115-801           |
| G9                          | 1G122-002           | 69                          | 1K115-797           | 401                         | 1K300-052           |
| 13                          | 1K610-519           | 72                          | 1K610-257-1         | 405                         | 1K340-082           |
| 14                          | 1K087-124           | 73                          | 1K110-090           | 407                         | 1K314-204           |
| 15                          | 1K081-003           | 74                          | 1K115-233           | 408                         | 1K130-088-2         |
| 16                          | 1K646-004           | 77                          | 1K600-148           | 409                         | 1K130-089           |
| 17                          | 1K646-005           | 83                          | 1K206-030           | 412                         | 1K130-090           |
| 18                          | 1K646-006           | 84                          | 1K360-020           | 413                         | 1K123-044           |
| 19                          | 1K600-306           | 92                          | 1K230-128           | 416                         | 1K340-080           |
| 19                          | 1K600-307           | 93                          | 1K680-383           | 418                         | 1K600-313           |
| 19                          | 1K600-308           | 101                         | 1K600-311           | 419                         | 1K220-143           |
| 19                          | 1K600-309           | 202                         | 1K610-527           | 421                         | 1K160-406           |
| 20                          | 1K646-007           | 203                         | 1K362-040           | 422                         | 1K630-105           |
| 21                          | 1K160-405           | 205                         | 1K600-327           | 423                         | 1K120-077           |
| 23                          | 1K640-442           | 208                         | 1K160-416           | 424                         | 1K370-661           |
| 24                          | 1K100-035           | 209                         | 1K130-202           | 427                         | 1K146-022-1         |
| 25                          | 1K080-005           | 210                         | 1K110-163           | 428                         | 1K225-086           |
| 28                          | 1K680-401           | 211                         | 1K208-043           | 433                         | 1K130-200           |
| 29                          | 1K050-035           | 212                         | 1K480-018           | 437                         | 1K610-523           |
| 29                          | 1K050-031           | 216                         | 1K310-053           | 438                         | 1K130-203           |
| 29                          | 1K050-029           | 217                         | 1K240-317           | 443                         | 1K208-044           |
| 29                          | 1K050-048           | 219                         | 1K110-164           | 464                         | 1K233-038           |
| 30                          | 1K467-058           | 219                         | 1K110-180           | 466                         | 1K260-143-1         |
| 34                          | 1K607-002           | 220                         | 1K680-393           | 472                         | 1K480-016           |
| 35                          | 1K400-078           | 221                         | 1K240-318           | 475                         | 1K230-136           |
| 38                          | 1K640-426           | 222                         | 1K115-807           | 477                         | 1K260-147           |
| 53                          | 1K120-175           | 223                         | 1K165-066           | 478                         | 1K120-078           |
| 56                          | 1K206-028           | 225                         | 1K600-328~329       | 495                         | 1K260-144           |
| 57                          | 1K680-382           | 305                         | 1K230-129           | 498                         | 1K230-135           |
| 58                          | 1K206-029           | 310                         | 1K230-133           | 500                         | 1K146-065           |
| 59                          | 1K165-065           | 311                         | 1K130-206           | 502                         | 1K146-068           |
| 60                          | 1K110-152           | 314                         | 1K230-130           | 503                         | 1K220-056           |
| 60                          | 1K110-178           | 315                         | 1K314-197           | 504                         | 1K120-082           |
|                             |                     |                             |                     | 505                         | 1K600-145           |

部品对照表

Parts Number Reference Table

| 補助番号<br>Auxiliary<br>Number | 部品番号<br>Part Number | 補助番号<br>Auxiliary<br>Number | 部品番号<br>Part Number | 補助番号<br>Auxiliary<br>Number | 部品番号<br>Part Number |
|-----------------------------|---------------------|-----------------------------|---------------------|-----------------------------|---------------------|
| 506                         | 1K275-006           | 828                         | 1K001-032           | B201                        | 1B990-012           |
| 507                         | 1K275-007           | 829                         | A2-20022SX          | B201                        | 1B990-017           |
| 509                         | 1K600-248           | 830                         | A2-20035SX          | B206                        | 1B610-018           |
| 652                         | 1K370-662           | 831                         | A1-17020BB          | B213                        | 1B001-450           |
| 653                         | 1K083-042           | 832                         | B1-20030BB          | B301                        | 1B001-448           |
| 656                         | 1K240-330           | 833                         | A1-17050BS          | B323                        | 1B060-181           |
| 661                         | 1K146-023           | 834                         | B1-20040SX          | B406                        | 1B001-438           |
| 662                         | 1K050-173           | 835                         | A1-20040BB          | B425                        | 1B260-019           |
| 663                         | 1K050-165           | 836                         | 1K123-004           | B426                        | 1B060-177           |
| 664                         | 1K233-038           | 837                         | G1-17040SX          | B429                        | 1B001-440           |
| 667                         | 1K630-229           | 839                         | B1-17025BB          | B441                        | 1B206-020           |
| 668                         | 1K201-048           | 841                         | K2-20030BB          | B447                        | 1B475-040           |
| 669                         | 1K275-033           | 842                         | A1-20090FB          | B471                        | 1B475-039           |
| 670                         | 1K246-025           | 844                         | A2-14025FB          | B491                        | 1B314-102           |
| 673                         | 1K470-039           | 845                         | B1-20050SX          | B492                        | 1B240-029           |
| 675                         | 1K233-039           | 846                         | A2-17030SX          | B493                        | 1B260-007-1         |
| 676                         | 1K050-166           | 847                         | P3-16060SX          | B652                        | 1B001-451           |
| 801                         | 1K110-154           | 848                         | 1K044-013           | B653                        | 1B990-008           |
| 802                         | 1K110-155           | 855                         | 1K044-012           | B654                        | 1B200-004           |
| 803                         | 1K110-156           | 862                         | 1K050-167           | B659                        | 1B001-439           |
| 804                         | 1K110-157           | B11                         | 1B001-085           | B667                        | 1B001-452-1         |
| 805                         | 1K110-165           | B30                         | 1B001-446           | B2001                       | 1B990-010           |
| 806                         | 1K110-166           | B43                         | 1B060-178           | B2425                       | 1B001-441           |
| 807                         | 1K110-158           | B44                         | 1B001-445           | B2441                       | 1B990-011           |
| 808                         | 1K110-159           | B45                         | 1B060-179           | B2451                       | 1B001-443           |
| 809                         | 1K110-160           | B51                         | 1B670-038           | B3001                       | 1B060-182           |
| 810                         | 1K110-161           | B52                         | 1B314-105           |                             |                     |
| 811                         | 1K110-162           | B55                         | 1B314-113           |                             |                     |
| 812                         | 1K110-167           | B71                         | 1B100-250           |                             |                     |
| 813                         | 1K110-168           | B81                         | 1B001-444           |                             |                     |
| 821                         | A1-17030BS          | B91                         | 1B670-036           |                             |                     |
| 822                         | A1-17025SX          | B98                         | 1B060-206           |                             |                     |
| 823                         | A1-17035BB          | B99                         | 1B150-031           |                             |                     |
| 824                         | A1-20025SX          | B100                        | 1B990-014           |                             |                     |
| 825                         | A1-20030SX          | B112                        | 1B990-015           |                             |                     |
| 826                         | A1-20045FA          | B112                        | 1B990-016           |                             |                     |
| 827                         | 1K001-027           | B116                        | 1B990-013           |                             |                     |
|                             |                     |                             |                     |                             |                     |

## Parts Number Reference Table

[illegible]

## 部 品 表 Parts list

FEA04051-R.3145. A

| 部 品 番 号<br>Part No.             | 補助番号<br>Ckt. No. | 名 称<br>Name                              | 1台分<br>個 数<br>Pcs. per<br>Unit | 部 組 品 番 号<br>Assembly               | 参照図番<br>Figure | 販 売<br>区 分<br>Term of<br>Delivery | 備 考<br>Remarks |
|---------------------------------|------------------|------------------------------------------|--------------------------------|-------------------------------------|----------------|-----------------------------------|----------------|
| 1K001-027                       | 827              | Screw                                    | 3                              |                                     | 1              | ○                                 | 9F4B # 827     |
| 1K001-032                       | 828              | Screw                                    | 2                              | 1B990-016<br>1B990-015              | 10             | ○△                                |                |
| 1K044-012                       | 855              | スプリングピン<br>Spring cotter                 | 1                              | 1B990-016<br>1B990-015              | 8              | ○△                                | 9F4B # 855     |
| 1K044-013                       | 848              | スプリングピン<br>Spring cotter                 | 2                              | 1B990-016<br>1B990-015              | 11             | ○△                                |                |
| 1K050-029                       | 29               | Washer (t = 0.05)                        | 0-1                            |                                     | 6              | ○                                 | 9F4B # 37B     |
| 1K050-031                       | 29               | Washer (t = 0.07)                        | 0-1                            |                                     | 6              | ○                                 | 9F4B # 37C     |
| 1K050-035                       | 29               | Washer (t = 0.11)                        | 0-1                            |                                     | 6              | ○                                 | 9F4B # 37D     |
| 1K050-048                       | 29               | Washer (t = 0.03)                        | 0-1                            |                                     | 6              | ○                                 | 9F4B # 37A     |
| 1K050-165-1<br>1K050-165<br>Dis | 663              | 巻戻リング板<br>Washer, rewind<br>shaft O-ring | 1                              | 1B990-016<br>1B990-015<br>1B001-452 | 2              | ○△                                | 9F4B # 663     |
| 1K050-166Dis<br>1K050-166-1     | 676              | 巻戻クラッチ座金<br>Washer, rewind<br>clutch     | 1                              | 1B990-016<br>1B990-015<br>1B001-452 | 2              | ○△                                | 9F4B # 676     |
| 1K050-167                       | 862              | スプロケットバネ座金<br>Washer, sprocket<br>spring | 1                              |                                     | 4              | ○                                 |                |
| * 1K050-173                     | 662              | 巻戻軸座金<br>Washer, rewind<br>shaft         | 1                              | 1B990-016<br>1B990-015<br>1B001-452 | 2              | ○△                                |                |
| * 1K080-005                     | 25               | 三角環保護カバー<br>Triangular ring<br>protector | 2                              |                                     | 11             | ○                                 | 9F4B # 25      |
| 1K081-003                       | 15               | 銘 板<br>Name plate                        | 1                              | 1B990-016<br>1B990-015              | 11             | ○△                                |                |
|                                 |                  |                                          |                                |                                     |                |                                   |                |

## 部 品 表 Parts list

FEA04051-R.3145. A

| 部 品 番 号<br>Part No. | 補助番号<br>Ckt. No. | 名 称<br>Name                                 | 1台分<br>個 数<br>Pcs. per<br>Unit | 部 組 品 番 号<br>Assembly                            | 参照図番<br>Figure | 販 売<br>区 分<br>Term of<br>Delivery | 備 考<br>Remarks |
|---------------------|------------------|---------------------------------------------|--------------------------------|--------------------------------------------------|----------------|-----------------------------------|----------------|
| * 1K083-042         | 653              | 巻戻ノブ<br>Rewind knob                         | 1                              | 1B001-452<br>1B990-009<br>1B990-015<br>1B990-016 | 2              | ○△                                |                |
| 1K087-124           | 14               | T指標板<br>Index, shutter dial                 | 1                              |                                                  | 11             | ○                                 |                |
| * 1K100-035         | 24               | 三角環<br>Triangular ring                      | 2                              |                                                  | 11             | ○                                 | 9F4B # 24      |
| * 1K110-090         | 73               | 圧接ゴム<br>FPC spacer                          | 1                              |                                                  | 3              | ○                                 |                |
| 1K110-152           | 60               | 右前撥革 (オレンジ)<br>Leatherette (orange)         | 1                              | 1B990-015                                        | 11             | ○△                                |                |
| 1K110-153           | 61               | 左前撥革 (オレンジ)<br>Leatherette (orange)         | 1                              | 1B990-015                                        | 11             | ○△                                |                |
| 1K110-154           | 801              | G1 Oリング<br>O-ring, G1                       | 1                              | 1B990-016<br>1B990-015                           | 8              | ○△                                | 9F4B # 801     |
| 1K110-155           | 802              | G3 Oリング<br>O-ring, G3                       | 1                              | 1B990-016<br>1B990-015                           | 8              | ○△                                | 9F4B # 802     |
| 1K110-156           | 803              | 巻上軸Oリング<br>O-ring, film-advance<br>shaft    | 2                              | 1B990-016<br>1B990-015                           | 10, 11         | ○△                                | 9F4B # 803     |
| 1K110-157           | 804              | 枚数計窓Oリング<br>O-ring, frame counter<br>window | 1                              | 1B990-016<br>1B990-015                           | 11             | ○△                                | 9F4B # 804     |
| 1K110-158           | 807              | 電池キャップOリング<br>O-ring, battery<br>chamber    | 1                              | 1B001-445                                        | 1              | ○△                                | 9F4B # 807     |
| 1K110-159           | 808              | 巻戻軸Oリング<br>O-ring, rewind<br>shaft          | 1                              | 1B990-016<br>1B990-015<br>1B001-452              | 2              | ○△                                | 9F4B # 808     |
| 1K110-160           | 809              | マウントOリング<br>O-ring, lens mount              | 1                              | 1B990-016<br>1B990-015                           | 11             | ○△                                | 9F4B # 809     |
| 1K110-161           | 810              | シンクロソケットOリング<br>O-ring, sync socket         | 2                              | 1B001-446<br>1B990-016<br>1B990-015              | 1              | ○△                                | 9F4B # 810     |
|                     |                  |                                             |                                |                                                  |                |                                   |                |

## 部 品 表 Parts list

FEA04051-R.3145. A

| 部 品 番 号<br>Part No. | 補助番号<br>Ckt. No. | 名 称<br>Name                          | 1台分<br>個 数<br>Pcs. per<br>Unit | 部 組 品 番 号<br>Assembly                            | 参照図番<br>Figure | 販 売<br>区 分<br>Term of<br>Delivery | 備 考<br>Remarks  |
|---------------------|------------------|--------------------------------------|--------------------------------|--------------------------------------------------|----------------|-----------------------------------|-----------------|
| 1K110-162           | 811              | シンクロコネクタリング<br>O-ring, sync terminal | 1                              | 1B990-016<br>1B990-015                           | 8              | ○△                                | 9F4B # 811      |
| 1K110-163           | 210              | 裏蓋指当ゴム<br>Rubber pad                 | 1                              | 1B990-012<br>1B990-015<br>1B990-016<br>1B990-017 | 9              | ○△                                |                 |
| 1K110-164           | 219              | 裏蓋擬革 (オレンジ)<br>Leatherette (orange)  | 1                              | 1B990-015<br>1B990-012                           | 9              | ○△                                |                 |
| 1K110-165           | 805              | Tダイヤルリング<br>O-ring, shutter dial     | 1                              | 1B990-016<br>1B990-015                           | 2              | ○△                                |                 |
| 1K110-166           | 806              | 巻上軸リング<br>O-ring, film-advance shaft | 1                              | 1B990-016<br>1B990-015<br>1B990-011              | 2              | ○△                                |                 |
| 1K110-167           | 812              | 裏蓋リング<br>O-ring, camera back         | 1                              | 1B990-016<br>1B990-015                           | 9              | ○△                                |                 |
| 1K110-168           | 813              | 巻上軸リング<br>O-ring, film-advance shaft | 1                              | 1B990-016<br>1B990-015<br>1B990-011              | 2              | ○△                                |                 |
| 1K110-178           | 60               | 右前擬革 (グリーン)<br>Leatherette (green)   | 1                              | 1B990-016                                        |                | ○△                                |                 |
| 1K110-179           | 61               | 左前擬革 (グリーン)<br>Leatherette (green)   | 1                              | 1B990-016                                        |                | ○△                                |                 |
| 1K110-180           | 219              | 裏蓋擬革 (グリーン)<br>Leatherette (green)   | 1                              | 1B990-016<br>1B990-017                           |                | ○△                                |                 |
| 1K115-233           | 74               | コード押えテープ<br>Tape                     | 7                              | 1B990-013<br>1B990-015<br>1B990-016              | 6, 7, 8        | ○△                                |                 |
| 1K115-793           | 63               | 枚数計窓遮光モルト<br>Light-shield sponge     | 1                              | 1B990-016<br>1B990-015                           | 8              | ○△                                |                 |
| 1K115-794-1         | 64               | 外箱遮光モルト<br>Light-shield sponge       | 1                              |                                                  | 4              | ○                                 |                 |
| 1K115-796           | 68               | 電池室遮光モルト<br>Light-shield sponge      | 1                              |                                                  | 4              | ○                                 | 9F4B # 68       |
| 1K115-792           |                  | Light-shield sponge                  |                                |                                                  |                |                                   | NO.8431<br>¥10- |

## 部 品 表 Parts list

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| 部 品 番 号<br>Part No.          | 補助番号<br>Ckt. No. | 名 称<br>Name                                       | 1 台 分<br>個 数<br>Pcs. per<br>Unit | 部 組 品 番 号<br>Assembly        | 参照図番<br>Figure | 販 売<br>期 間<br>Term of<br>Delivery | 備 考<br>Remarks |
|------------------------------|------------------|---------------------------------------------------|----------------------------------|------------------------------|----------------|-----------------------------------|----------------|
| 1K115-797                    | 69               | グリップ擬革<br>Leatherette, grip                       | 1                                | 1B990-016<br>1B990-015       | 11             | ○△                                |                |
| 1K115-799                    | 321              | 復元レバーゴム<br>Cushion, mirror down lever             | 1                                | 1B990-013<br>1B001-448       | 7              | ○△                                | 9F4B # 321     |
| 1K115-800                    | 327              | 遮光シート<br>Light-shield seal                        | 1                                |                              | 7              | ○                                 | 9F4B # 327     |
| 1K115-801                    | 328              | カン衝ゴム<br>Shock absorber                           | 2                                | 1B990-013                    | 7              | ○△                                | 9F4B # 328     |
| 1K115-807                    | 222              | ヒンジガタ取ゴム<br>Spacer                                | 1                                | 1B990-016<br>1B990-015       | 9              | ○△                                |                |
| * 1K120-077                  | 423              | 巻上カム止めネジ<br>Set screw, film<br>advance cam        | 1                                |                              | 4              | ○                                 | 9F4B # 423     |
| * 1K120-078                  | 478              | 枚数計軸ネジ<br>Screw, frame<br>counter shaft           | 1                                | 1B001-443                    | 5              | ○△                                | 9F4B # 478     |
| * 1K120-082                  | 504              | 止めネジ<br>Set screw                                 | 1                                |                              | 3              | ○                                 |                |
| 1K120-175                    | 53               | 押釦レバーネジ<br>Screw, shutter<br>release button       | 2                                | 1B990-016<br>1B990-015       | 10, 11         | ○△                                | 9F4B # 53      |
| 1K120-176                    | 316              | シャッタースタートレバー軸<br>Axle, shutter<br>release lever   | 1                                | 1B990-013                    | 7              | ○△                                | 9F4B # 316     |
| * 1K123-004                  | 836              | バヨネット止めネジ<br>Screw, bayonet mount                 | 7                                | 1B990-016 x3<br>1B990-015 x3 | 6, 9           | ○△                                | 9F4B # 836     |
| * 1K123-044                  | 413              | スプロケットネジ<br>Sprocket screw                        | 1                                |                              | 4              | ○                                 |                |
| * 1K130-088-2<br>(1K130-088) | 408              | チャージ伝達レバー軸<br>Shaft, charge<br>transmission lever | 1                                |                              | 4              | ○                                 | 9F4B # 408     |
| * 1K130-089                  | 409              | チャージレバー軸<br>Charge lever shaft                    | 1                                |                              | 4              | ○                                 | 9F4B # 409     |
| 1K120-187                    |                  | Screw                                             |                                  |                              |                |                                   | Y10- No 9429   |
| 1K120-188                    |                  | Screw                                             |                                  |                              |                |                                   | Y10- No 9429   |

| 部 品 番 号<br>Part No.          | 補助番号<br>Ckt. No. | 名 称<br>Name                                     | 1台分<br>個 数<br>Pcs. per<br>Unit | 部 組 品 番 号<br>Assembly                            | 参照図番<br>Figure | 取 付<br>区 分<br>Term of<br>Delivery | 備 考<br>Remarks         |
|------------------------------|------------------|-------------------------------------------------|--------------------------------|--------------------------------------------------|----------------|-----------------------------------|------------------------|
| 1K130-090                    | 412              | シャッターチャージレバー軸<br>Shaft, shutter<br>charge lever | 1                              |                                                  | 4              | ○                                 | 9F4B # 412             |
| 1K130-200                    | 433              | リリースレバーネジ<br>Release lever screw                | 2                              |                                                  | 6              | ○                                 | 9F4B # 433             |
| 1K130-202                    | 209              | 枚数計リセットピン<br>Pin, frame counter reset           | 1                              | 1B990-012<br>1B990-015<br>1B990-016<br>1B990-017 | 9              | ○△                                |                        |
| 1K130-203                    | 438              | 巻上レバーネジ<br>Screw, film-advance lever            | 1                              | 1B990-016<br>1B990-015<br>1B990-011              | 2              | ○△                                |                        |
| 1K130-206                    | 311              | 復元バネネジ<br>Screw, mirror down spring             | 1                              | 1B990-013                                        | 7              | ○△                                |                        |
| * 1K146-022-1<br>(1K146-022) | 427              | リリースレバーバネ掛け<br>Spring stud, release lever       | 1                              |                                                  | 6              | ○                                 | 9F4B # 427             |
| * 1K146-023                  | 661              | 巻戻ノブ取付ネジ<br>Set screw, rewind knob              | 1                              | 1B001-452<br>1B990-009<br>1B990-015<br>1B990-016 | 2              | ○△                                |                        |
| 1K146-065                    | 500              | グレイコード支柱<br>Axle, printed circuit board         | 2                              |                                                  | 5              | ○                                 |                        |
| 1K146-068                    | 502              | プリント板支柱<br>Axle, printed circuit board          | 3                              |                                                  | 3              | ○                                 |                        |
| 1K160-405                    | 21               | 内側バヨネット<br>Bayonet mount (inner)                | 1                              |                                                  | 6              | ○                                 | 9F4B # 21              |
| 1K160-406                    | 421              | 巻上軸止め座金<br>Washer, film-advance shaft           | 1                              |                                                  | 4              | ○                                 | 9F4B # 421             |
| 1K160-416                    | 208              | 枚数計リセットピン調整座<br>Spacer, frame counter reset     | 0-1                            | 1B990-012<br>1B990-015<br>1B990-016<br>1B990-017 | 9              | ○△                                |                        |
| 1K165-065                    | 59               | 裏蓋カギ座金<br>Washer, lock knob                     | 3                              | 1B990-016<br>1B990-015                           | 10, 11         | ○△                                |                        |
| Disc<br>1K165-066            | 223              | 蝶番軸座金<br>Washer, hinge shaft                    | 2                              | 1B990-012<br>1B990-015<br>1B990-016<br>1B990-017 | 9              | ○△                                | No. 8508<br>9F4B # 223 |
|                              |                  |                                                 |                                |                                                  |                |                                   |                        |

| 部 品 番 号<br>Part No. | 補助番号<br>Ckt. No. | 名 称<br>Name                                   | 1台分<br>個 数<br>Pcs. per<br>Unit | 部 組 品 番 号<br>Assembly  | 参照図番<br>Figure | 販 売<br>区 分<br>Term of<br>Delivery | 備 考<br>Remarks |
|---------------------|------------------|-----------------------------------------------|--------------------------------|------------------------|----------------|-----------------------------------|----------------|
| 1K201-048           | 668              | ASA/ ISO 目盛環<br>ASA/ ISO dial                 | 1                              |                        | 2              | ○                                 |                |
| 1K206-028           | 56               | 押釦ロック<br>Lock knob, shutter<br>release button | 1                              | 1B670-038              | 11             | ○△                                |                |
| 1K206-029           | 58               | 押釦指当<br>Shutter release button                | 1                              | 1B990-016<br>1B990-015 | 11             | ○△                                |                |
| 1K206-030           | 83               | 圧板蝶番軸受<br>Bearing, pressure plate hinge       | 2                              |                        | 1              | ○                                 |                |
| 1K208-043           | 211              | 裏蓋ノブ解除釦<br>Release button, lock knob          | 1                              | 1B990-016<br>1B990-015 | 10             | ○△                                |                |
| 1K208-044           | 443              | 巻上レバーゴム<br>Rubber, film-advance lever         | 1                              |                        | 2              | ○                                 |                |
| * 1K220-056         | 503              | スプールフリクションバネ<br>Spool friction spring         | 1                              | 1B001-441              | 4              | ○△                                | 9F4B # 503     |
| 1K220-143           | 419              | スプロケットバネ<br>Sprocket spring                   | 1                              |                        | 4              | ○                                 |                |
| 1K225-086           | 428              | リリースレバーバネ<br>Release lever spring             | 1                              |                        | 6              | ○                                 | 9F4B # 428     |
| 1K230-128           | 92               | 圧板蝶番バネ<br>Spring, pressure plate hinge        | 1                              |                        | 1              | ○                                 | 9F4B # 92      |
| 1K230-129           | 305              | 駆動レバーバネ<br>Spring, mirror actuating lever     | 1                              | 1B990-013<br>1B001-448 | 7              | ○△                                | 9F4B # 305     |
| 1K230-130           | 314              | 掛け外しレバーバネ<br>Spring, quick return lever       | 1                              | 1B990-013<br>1B001-448 | 7              | ○△                                | 9F4B # 314     |
| 1K230-131           | 320              | リリースカギレバーバネ<br>Spring, shutter release hook   | 1                              | 1B990-013<br>1B001-448 | 7              | ○△                                | 9F4B # 320     |
| 1K230-133           | 310              | 復元バネ<br>Spring, mirror down lever             | 1                              | 1B990-013              | 7              | ○△                                |                |
|                     |                  |                                               |                                |                        |                |                                   |                |

## 部 品 表 Parts list

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| 部 品 番 号<br>Part No. | 補助番号<br>Ckt. No. | 名 称<br>Name                                      | 1台分<br>個 数<br>Pcs. per<br>Unit | 部 組 品 番 号<br>Assembly                            | 参照図番<br>Figure | 販 売<br>区 分<br>Term of<br>Delivery | 備 考<br>Remarks |
|---------------------|------------------|--------------------------------------------------|--------------------------------|--------------------------------------------------|----------------|-----------------------------------|----------------|
| 1K230-135           | 498              | リリースロックバネ<br>Spring, shutter<br>release lock     | 1                              |                                                  | 3              | ○                                 |                |
| 1K230-136           | 475              | 枚数計バネ<br>Frame counter spring                    | 1                              | 1B001-443                                        | 5              | ○△                                | 9F4B # 475     |
| 1K233-038           | 664              | 巻止リング板止め<br>Stopper, rewind<br>shaft O-ring      | 1                              | 1B990-016<br>1B990-015<br>1B001-452              | 2              | ○△                                | 9F4B # 664     |
| 1K233-039           | 675              | ASA/ ISO 目盛軸止め<br>Stopper, ASA/ISO<br>dial shaft | 1                              |                                                  | 2              | ○                                 |                |
| 1K240-317           | 217              | ロックバネ<br>Spring, camera back<br>lock knob        | 1                              | 1B990-016<br>1B990-015                           | 10             | ○△                                |                |
| 1K240-318           | 221              | パトローネ押えバネ<br>Film cartridge<br>retainer          | 1                              | 1B990-012<br>1B990-015<br>1B990-016<br>1B990-017 | 9              | ○△                                |                |
| 1K240-330           | 656              | 巻戻レバー受バネ<br>Spring, rewind knob                  | 1                              | 1B001-452<br>1B990-009<br>1B990-015<br>1B990-016 | 2              | ○△                                |                |
| 1K246-025           | 670              | ASA/ ISO 目盛バネ<br>Spring, ASA/ISO dial            | 1                              |                                                  | 2              | ○                                 | 9F4B # 670     |
| 1K260-143-Z         | 466              | スプロケットギア<br>Sprocket gear                        | 1                              |                                                  | 4              | ○                                 |                |
| 1K260-144           | 495              | T切換クリック板<br>Click plate, shutter dial            | 1                              |                                                  | 3              | ○                                 |                |
| 1K260-147           | 477              | 枚数計ギア<br>Frame counter gear                      | 1                              | 1B001-443                                        | 5              | ○△                                | 9F4B # 477     |
| * 1K275-006         | 506              | スプール<br>Spool                                    | 1                              |                                                  | 4              | ○                                 | 9F4B # 506     |
| * 1K275-007         | 507              | スプロケット<br>Sprocket                               | 1                              |                                                  | 4              | ○                                 |                |
| 1K275-033           | 669              | ASA/ ISO クリック板<br>Click plate, ASA/ISO dial      | 1                              | 1B990-016<br>1B990-015                           | 11             | ○△                                | 9F4B # 669     |
|                     |                  |                                                  |                                |                                                  |                |                                   |                |

## 部 品 表 Parts list

FEA04051-R.3145. A

| 部 品 番 号<br>Part No. | 補助番号<br>Ckt. No. | 名 称<br>Name                            | 1台分<br>個 数<br>Pcs. per<br>Unit | 部 組 品 番 号<br>Assembly                            | 参照図番<br>Figure | 販 売<br>区 分<br>Term of<br>Delivery | 備 考<br>Remarks |
|---------------------|------------------|----------------------------------------|--------------------------------|--------------------------------------------------|----------------|-----------------------------------|----------------|
| 1K300-052           | 401              | 巻上カム<br>Take-up cam                    | 1                              |                                                  | 4              | ○                                 | 9F4B # 401     |
| 1K310-053           | 216              | 裏蓋ロックカム<br>Lock cam, camera back       | 1                              | 1B990-016<br>1B990-015                           | 10             | ○△                                |                |
| 1K314-197           | 315              | シャッタースタートレバー<br>Shutter release lever  | 1                              | 1B990-013                                        | 7              | ○△                                | 9F4B # 315     |
| 1K314-204           | 407              | 駆動部チャージレバー<br>Mirror charge lever      | 1                              |                                                  | 4              | ○                                 | 9F4B # 407     |
| 1K340-080           | 416              | スプロケットカラー<br>Sprocket collar           | 1                              |                                                  | 4              | ○                                 | 9F4B # 416     |
| 1K340-082           | 405              | スプール軸受<br>Spool bearing                | 1                              |                                                  | 4              | ○                                 |                |
| 1K360-020           | 84               | 圧板蝶番軸<br>Pressure plate hinge          | 1                              |                                                  | 1              | ○                                 | 9F4B # 84      |
| 1K362-021           | 203              | 裏蓋軸<br>Camera back shaft               | 1                              | 1B990-012<br>1B990-015<br>1B990-016<br>1B990-017 | 9              | ○△                                |                |
| 1K370-661           | 424              | スプロケット軸<br>Sprocket shaft              | 1                              |                                                  | 4              | ○                                 | 9F4B # 424     |
| 1K370-662<br>Diss   | 652              | 巻戻軸<br>Rewind shaft                    | 1                              | 1B001-451<br>1B001-452<br>1B990-015<br>1B990-016 | 2              | ○△                                |                |
| 1K400-078           | 35               | 三脚ネジ<br>Tripod screw                   | 1                              | 1B990-016<br>1B990-015                           | 8              | ○△                                |                |
| 1K467-058           | 30               | シンクロキャップ<br>Sync terminal cap          | 1                              | 1B001-446                                        | 1              | ○△                                |                |
| 1K470-039           | 673              | ASA/ISO 目盛板<br>ASA/ISO scale ring      | 1                              | 1B990-016<br>1B990-015<br>1B001-452              | 2              | ○△                                |                |
| * 1K480-016         | 472              | 枚数計指標<br>Index plate,<br>frame counter | 1                              | 1B001-443                                        | 5              | ○△                                |                |
|                     |                  |                                        |                                |                                                  |                |                                   |                |

| 部 品 番 号<br>Part No.          | 補助番号<br>Ckt. No. | 名 称<br>Name                                         | 1 台分<br>個 数<br>Pcs. per<br>Unit | 部 組 品 番 号<br>Assembly                            | 参照図番<br>Figure | 販 売<br>区 分<br>Term of<br>Delivery | 備 考<br>Remarks |
|------------------------------|------------------|-----------------------------------------------------|---------------------------------|--------------------------------------------------|----------------|-----------------------------------|----------------|
| 1K480-018                    | 212              | 裏蓋ロック軸カバー<br>Lock knob cover,<br>camera back        | 1                               | 1B990-016<br>1B990-015                           | 10             | ○△                                |                |
| 1K600-145                    | 505              | スプールフリクションパネ受<br>Acceptor, spool<br>friction spring | 1                               | 1B001-441                                        | 4              | ○△                                | 9F4B # 505     |
| * 1K600-148-1<br>(1K600-148) | 77               | 圧接板<br>FPC retainer                                 | 1                               |                                                  | 3              | ○                                 |                |
| * 1K600-248                  | 509              | フリクション板<br>Friction plate                           | 2                               | 1B001-441                                        | 4              | ○△                                | 9F4B # 504A    |
| 1K600-306                    | 19               | フレーム調整座 (t = 0.2)<br>Viewfinder spacer              | 0-1                             | 1B990-016<br>1B990-015                           | 8              | ○△                                | 9F4B # 19A     |
| 1K600-307                    | 19               | フレーム調整座 (t = 0.15)<br>Viewfinder spacer             | 0-1                             | 1B990-016<br>1B990-015                           | 8              | ○△                                | 9F4B # 19B     |
| 1K600-308                    | 19               | フレーム調整座 (t = 0.1)<br>Viewfinder spacer              | 0-1                             | 1B990-016<br>1B990-015                           | 8              | ○△                                | 9F4B # 19C     |
| 1K600-309                    | 19               | フレーム調整座 (t = 0.05)<br>Viewfinder spacer             | 0-1                             | 1B990-016<br>1B990-015                           | 8              | ○△                                | 9F4B # 19D     |
| 1K600-311                    | 101              | シュー補助板<br>Shoe mount spacer                         | 1                               | 1B990-016<br>1B990-015                           | 11             | ○△                                | 9F4B # 101     |
| 1K600-313                    | 418              | 巻上カム調整板<br>Adjuster, film-advance cam               | 1                               |                                                  | 4              | ○                                 | 9F4B # 418     |
| 1K600-327                    | 205              | 裏蓋リング押え板<br>Retainer, camera back                   | 1                               | 1B990-012<br>1B990-015<br>1B990-016<br>1B990-017 | 9              | ○△                                |                |
| 1K600-328                    | 225              | 裏蓋ロックピン調整座(t=0.1)<br>Spacer, camera back lock       | 0-1                             | 1B990-012<br>1B990-015<br>1B990-016<br>1B990-017 | 9              | ○△                                |                |
| 1K600-329                    | 225              | 裏蓋ロックピン調整座(t=0.2)<br>Spacer, camera back lock       | 0-1                             | 1B990-012<br>1B990-015<br>1B990-016<br>1B990-017 | 9              | ○△                                |                |
| * 1K607-002                  | 34               | 消音ゴム<br>Shock absorber                              | 1                               |                                                  | 4              | ○                                 |                |
|                              |                  |                                                     |                                 |                                                  |                |                                   |                |

## 部 品 表 Parts list

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| 部 品 番 号<br>Part No.          | 補助番号<br>Ckt. No. | 名 称<br>Name                                     | 1台分<br>個数<br>Pcs. per<br>Unit | 部 組 品 番 号<br>Assembly               | 参照図番<br>Figure | 販 売 分<br>区<br>Term of<br>Delivery | 備 考<br>Remarks         |
|------------------------------|------------------|-------------------------------------------------|-------------------------------|-------------------------------------|----------------|-----------------------------------|------------------------|
| * 1K610-257-1<br>(1K610-257) | 72               | 圧接板<br>FPC retainer                             | 1                             |                                     | 3              | ○                                 |                        |
| 1K610-519                    | 13               | シュー<br>Accessory shoe                           | 1                             | 1B990-016<br>1B990-015              | 11             | ○△                                | 9F4B # 13              |
| 1K610-523                    | 437              | リリースレバー受け<br>Acceptor, shutter<br>release lever | 1                             |                                     | 4              | ○                                 | 9F4B # 437             |
| 1K610-527                    | 202              | 裏蓋ヒンジ板<br>Camera back hinge                     | 1                             | 1B990-016<br>1B990-015              | 9              | ○△                                |                        |
| * 1K630-105                  | 422              | スプール内筒<br>Spool internal tube                   | 1                             |                                     | 4              | ○                                 | 9F4B # 422             |
| 1K630-229DYS<br>[K630-229-]  | 667              | ASA/ISO 目盛軸<br>ASA/ISO dial shaft               | 1                             | 1B990-016<br>1B990-015<br>1B001-452 | 2              | ○△                                | 9F4B # 667             |
| 1K640-426                    | 38               | 外箱マウント<br>Lens mount,<br>outer housing          | 1                             | 1B990-016<br>1B990-015              | 11             | ○△                                | 9F4B # 38              |
| 1K640-442                    | 23               | 遮光板<br>Light-tight washer                       | 1                             |                                     | 4              | ○                                 | 23F8 # 23<br>9F4B # 23 |
| 1K646-004-]                  | 16               | 接眼窓<br>Eyepiece window                          | 1                             | 1B990-016<br>1B990-015              | 8              | ○△                                |                        |
| 1K646-005                    | 17               | G 2 受け<br>Retainer, G 2                         | 1                             | 1B990-016<br>1B990-015              | 8              | ○△                                |                        |
| 1K646-006                    | 18               | G 3 受け<br>Retainer, G 3                         | 1                             | 1B990-016<br>1B990-015              | 8              | ○△                                |                        |
| 1K646-007                    | 20               | G 4 受け<br>Retainer, G 4                         | 1                             | 1B990-016<br>1B990-015              |                | ○△                                |                        |
| 1K680-382                    | 57               | 押釦ロック板<br>Lock knob plate,<br>release button    | 1                             | 1B680-382                           | 11             | ○△                                |                        |
| 1K680-383                    | 93               | 圧板押え<br>Retainer, pressure<br>plate             | 1                             |                                     | 1              | ○                                 |                        |
|                              |                  |                                                 |                               |                                     |                |                                   |                        |

## 部 品 表 Parts list

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| 部 品 番 号<br>Part No. | 補助番号<br>Ckt. No. | 名 称<br>Name                          | 1台分<br>個 数<br>Pcs. per<br>Unit | 部 組 品 番 号<br>Assembly  | 参照図番<br>Figure | 販 売<br>区 分<br>Term of<br>Delivery | 備 考<br>Remarks       |
|---------------------|------------------|--------------------------------------|--------------------------------|------------------------|----------------|-----------------------------------|----------------------|
| 1K680-393           | 220              | 裏蓋ヒンジカバー<br>Cover, camera back hinge | 1                              | 1B990-016<br>1B990-015 | 9              | ○△                                |                      |
| 1K680-401           | 28               | ファインダー前枠<br>Front cover, finder      | 1                              | 1B990-016<br>1B990-015 | 8              | ○△                                |                      |
| 1G226-002           | G1               | Lens                                 | 1                              | 1B990-016<br>1B990-015 | 8              | ○△                                | 9F4B # G1            |
| 1G234-001           | G2               | Lens                                 | 1                              | 1B990-016<br>1B990-015 | 8              | ○△                                |                      |
| 1G133-002           | G3               | Lens                                 | 1                              | 1B990-016<br>1B990-015 | 8              | ○△                                |                      |
| 1G133-003           | G4               | Lens                                 | 1                              | 1B990-016<br>1B990-015 | 8              | ○△                                |                      |
| 1G580-002           | G5               | Mirror                               | 1                              | 1B990-016<br>1B990-015 | 8              | ○△                                |                      |
| 1G122-002           | G9               | 駒数計窓<br>Frame counter window         | 1                              | 1B990-016<br>1B990-015 | 11             | ○△                                |                      |
| 1S810-440           | 1081             | リード線<br>Lead wire                    | 1                              | 1B060-181              |                | △                                 | W-0056BK             |
| 1S810-441           | 1082             | リード線<br>Lead wire                    | 1                              | 1B060-181              |                | △                                 | W-0056BE             |
| 1S810-442           | 1083             | リード線<br>Lead wire                    | 1                              | 1B990-014              |                | △                                 | W-0056PU             |
| 1S810-443           | 1084             | リード線<br>Lead wire                    | 1                              | 1B060-182              |                | △                                 | W-0056YE             |
| 1S810-444           | 1085             | リード線<br>Lead wire                    | 1                              | 1B990-014              |                | △                                 | W-0056GN             |
| 1S810-445           | 1086             | リード線<br>Lead wire                    | 1                              | 1B990-014              |                | △                                 | W-0056BN             |
| 1S310-067           |                  | Resistor (1k $\Omega$ )              |                                |                        |                |                                   | N-850003<br>F20-8205 |
|                     |                  |                                      |                                |                        |                |                                   |                      |

部 品 表 Parts list

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| 部 品 番 号<br>Part No. | 補助番号<br>Ckt. No. | 名 称<br>Name       | 1台分<br>個 数<br>Pcs. per<br>Unit | 部 組 品 番 号<br>Assembly | 参照図番<br>Figure | 現 貨<br>区 分<br>Term of<br>Delivery | 備 考<br>Remarks |
|---------------------|------------------|-------------------|--------------------------------|-----------------------|----------------|-----------------------------------|----------------|
| 1S810-446           | 1087             | リード線<br>Lead wire | 1                              | 1B060-182             |                | △                                 | W-0056PU       |
| 1S810-447           | 1088             | リード線<br>Lead wire | 1                              | 1B990-014             |                | △                                 | W-0056BE       |
| 1S810-448           | 1089             | リード線<br>Lead wire | 1                              | 1B060-182             |                | △                                 | W-0056GN       |
| 1S810-449           | 1090             | リード線<br>Lead wire | 1                              | 1B990-014             |                | △                                 | W-0056WH       |
| 1S810-450           | 1091             | リード線<br>Lead wire | 1                              | 1B060-178             |                | △                                 | W-0056RE       |
| 1S810-451           | 1092             | リード線<br>Lead wire | 1                              | 1B150-031             |                | △                                 | W-0056OR       |
| 1S810-452           | 1093             | リード線<br>Lead wire | 1                              | 1B150-031             |                | △                                 | W-0056PU       |
| 1S810-453           | 1094             | リード線<br>Lead wire | 1                              | 1B060-206             |                | △                                 | W-0056BN       |
| 1S810-454           | 1095             | リード線<br>Lead wire | 1                              | 1B060-206             |                | △                                 | W-0056GN       |
| 1S810-455           | 1096             | リード線<br>Lead wire | 1                              | 1B060-179             |                | △                                 | W-0056BK       |
| 1S810-456           | 1097             | リード線<br>Lead wire | 1                              | 1B060-182             |                | △                                 | W-0056BK       |
| 1S810-457           | 1098             | リード線<br>Lead wire | 1                              | 1B990-014             |                | △                                 | W-0056GY       |
| 1S810-458           | 1099             | リード線<br>Lead wire | 1                              | 1B060-182             |                | △                                 | W-0056BE       |
| 1S810-459           | 1100             | リード線<br>Lead wire | 1                              | 1B990-014             |                | △                                 | W-0056YE       |
|                     |                  |                   |                                |                       |                |                                   |                |

## 部 品 表 Parts list

FEA04051-R.3145. A

| 部 品 番 号<br>Part No. | 補助番号<br>Ckt. No. | 名 称<br>Name       | 1台分<br>数<br>Pcs. per<br>Unit | 部 組 品 番 号<br>Assembly                                             | 参照図番<br>Figure | 販 売<br>区 分<br>Term of<br>Delivery | 備 考<br>Remarks |
|---------------------|------------------|-------------------|------------------------------|-------------------------------------------------------------------|----------------|-----------------------------------|----------------|
| 1S810-483           | 1101             | リード線<br>Lead wire | 1                            | 1B060-182                                                         |                | △                                 | W-0056BK       |
| (D15)<br>A1-17020BB | 831              | Screw             | 3                            |                                                                   | 3              | ○                                 |                |
| A1-17025SX          | 822              | Screw             | 11<br>↓<br>9                 | 1B990-016 x 7<br>1B990-015 x 7                                    | 5.8.<br>10     | ○△                                |                |
| A1-17030BS          | 821              | Screw             | 5                            |                                                                   | 1.5            | ○                                 | 9F4B # 821     |
| (D15)<br>A1-17035BB | 823              | Screw             | 3                            | 1B990-013<br>1B001-443 x 1                                        | 5.6.7          | ○△                                |                |
| A1-17050BS          | 833              | Screw             | 2                            |                                                                   | 1              | ○                                 | 9F4B # 833     |
| A1-20025SX          | 824              | Screw             | 4                            | 1B990-012<br>1B990-013 x 2<br>1B990-015<br>1B990-016<br>1B990-017 | 7.9            | ○△                                | 9F4B # 824     |
| A1-20030SX          | 825              | Screw             | 3                            |                                                                   | 6              | ○                                 | 9F4B # 825     |
| A1-20040SX          | 835              | Screw             | 1                            |                                                                   | 6              | ○                                 | Y10- No 8429   |
| A1-20045FA          | 826              | Screw             | 2                            |                                                                   | 6              | ○                                 |                |
| A1-20090FB          | 842              | Screw             | 1                            |                                                                   | 3              | ○                                 |                |
| A2-14025FB          | 844              | Screw             | 2                            |                                                                   | 3              | ○                                 |                |
| A2-17030SX          | 846              | Screw             | 9                            | 1B990-012<br>1B990-015<br>1B990-016<br>1B990-017                  | 9              | ○△                                |                |
| A2-20022SX          | 829              | Screw             | 4                            | 1B990-016 x 3<br>1B990-015 x 3                                    | 4.11           | ○△                                | 9F4B # 829     |
|                     |                  |                   |                              |                                                                   |                |                                   |                |

## 部 品 表 Parts list

FEA04051-R. 3145. A

| 部 品 番 号<br>Part No. | 補助番号<br>Ckt. No. | 名 称<br>Name              | 1台分<br>個 数<br>Pcs. per<br>Unit | 部 組 品 番 号<br>Assembly                            | 参照図番<br>Figure | 販 売<br>期 間<br>Term of<br>Delivery | 備 考<br>Remarks |
|---------------------|------------------|--------------------------|--------------------------------|--------------------------------------------------|----------------|-----------------------------------|----------------|
| A2-20035SX          | 830              | Screw                    | 4                              | 1B990-016<br>1B990-015                           | 11             | ○△                                |                |
| (DIS)<br>B1-17025BB | 839              | Screw                    | 1<br>↓<br>3                    |                                                  | 3, 1           | ○                                 |                |
| B1-20030BB          | 832              | Screw                    | 5                              | 1B990-013 x 3                                    | 6, 7           | ○                                 | 9F4B # 832     |
| B1-20040SX          | 834              | Screw                    | 1                              | 1B990-016<br>1B990-015                           | 11             | ○△                                |                |
| B1-20050SX          | 845              | Screw                    | 1                              | 1B990-012<br>1B990-015<br>1B990-016<br>1B990-017 | 9              | ○△                                |                |
| G1-17040SX          | 837              | Screw                    | 4<br>↓<br>3                    | 1B990-013<br>1B150-031<br>1B670-038<br>1B060-206 | 11             | ○△                                |                |
| K2-20030BB          | 841              | Screw                    | 1                              | 1B990-016<br>1B990-015                           | 8              | ○△                                | 9F4B # 841     |
| P3-16060SX          | 847              | スプリングピン<br>Spring cotter | 1                              | 1B001-451<br>1B001-452<br>1B990-015<br>1B990-016 | 2              | ○△                                | 9F4B # 847     |
| B1-17035BB          |                  |                          |                                |                                                  |                |                                   | 50-2029        |
|                     |                  |                          |                                |                                                  |                |                                   |                |
|                     |                  |                          |                                |                                                  |                |                                   |                |
|                     |                  |                          |                                |                                                  |                |                                   |                |
|                     |                  |                          |                                |                                                  |                |                                   |                |
|                     |                  |                          |                                |                                                  |                |                                   |                |
|                     |                  |                          |                                |                                                  |                |                                   |                |
|                     |                  |                          |                                |                                                  |                |                                   |                |

| 部組品番号<br>Assembly No.   | 補助番号<br>Ckt. No. | 名 称<br>Name                          | 1台分<br>個数<br>Pcs. per<br>Unit | 構 成 部 品 番 号<br>Constituent Parts                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 参照図番<br>Figure | 備 考<br>Remarks      |
|-------------------------|------------------|--------------------------------------|-------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|---------------------|
| * 1B001-085             | B11              | つり環<br>Eyelet                        | 2                             | 1K044-001<br>1K100-034                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 11             |                     |
| 1B001-438               | B406             | シャッターチャージレバー<br>Shutter charge lever | 1                             | 1K314-199 , 1K314-206<br>1K340-037 , 1K370-321<br>1K370-322 , 1K370-323<br>1K640-436                                                                                                                                                                                                                                                                                                                                                                                                                                          | 4              |                     |
| 1B001-439               | B659             | 巻戻フォーク軸<br>Rewind fork axle          | 1                             | 1K370-675<br>1K630-231                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 6              |                     |
| 1B001-440               | B429             | 半押スイッチ<br>Release button switch      | 1                             | 1K240-324 , 1K240-325<br>1K600-142 , 1K680-149<br>1K680-150 ,                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 6              |                     |
| 1B001-441               | B2425            | スプール軸<br>Spool shaft                 | 1                             | 1K220-056 , 1K600-145<br>1K600-248 x2<br>1B260-019                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 4              | 9F4B<br>FA2-<br>425 |
| 1B001-443               | B2451            | 巻上基板部<br>Film-advance unit           | 1                             | 1K060-030 , 1K120-078<br>1K220-139 x3<br>1K230-132 , 1K230-134<br>1K230-136 , 1K233-036<br>1K240-320 , 1K260-038<br>1K260-132 , 1K260-147<br>1K275-034 , 1K310-050<br>1K314-189 , 1K314-200<br>1K314-203 , 1K340-072<br>1K340-083 , 1K340-086<br>1K340-088 , 1K340-089<br>1K362-012 x3<br>1K370-326 , 1K370-673<br>1K370-674 , 1K370-678<br>1K370-679 , 1K370-680<br>1K370-681 , 1K370-682<br>1K480-016 , 1K600-146<br>1K610-529 , 1K610-530<br>1K640-437 , 1B240-028<br>1B240-029 , 1B475-039<br>A1-17035BB<br>S1-01200SX x2 | 5              |                     |
| 1B001-444               | B81              | 圧板<br>Pressure plate                 | 1                             | 1K083-040 , 1K240-309<br>1K340-077 x2<br>1K600-310                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 1              |                     |
| 1B001-445               | B44              | 電池キャップ<br>Battery cap                | 1                             | <del>1K110-148</del> , 1K467-059<br>1K630-082<br>no. 8909                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 1              |                     |
| (DELETION)<br>1B001-446 |                  | Snc Terminal cap                     |                               | To be order as<br>1K110-161 and 1K467-059                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                |                     |
|                         |                  |                                      |                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                |                     |

| 部組品番号<br>Assembly No.                      | 補助番号<br>Ckt. No. | 名 称<br>Name                         | 1台分<br>個 数<br>Pcs. per<br>Unit | 構 成 部 品 番 号<br>Constituent Parts                                                                                                                                                                                    | 参照図番<br>Figure | 備 考<br>Remarks                 |
|--------------------------------------------|------------------|-------------------------------------|--------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|--------------------------------|
| 1B001-448 ✓                                | B301             | 駆動基板部<br>Mirror actuating unit      | 1                              | 1K115-799 , 1K230-129<br>1K230-130 , 1K230-131<br>1K314-194 , 1K314-195<br>1K314-196 , 1K314-198<br>1K340-078 , 1K340-079<br>1K366-045 , 1K366-046<br>1K370-658 , 1K370-659<br>1K370-660 , 1K610-522<br>1S720-036 , | 7              |                                |
| 1B001-450 ✓                                | B213             | 裏蓋ロック軸<br>Lock knob,<br>camera back | 1                              | 1K044-014 x2<br>1K206-031 , 1K240-319<br>1K370-670 , 1K370-671                                                                                                                                                      | 10             |                                |
| 1B001-451 <sup>Dis</sup><br>(B001-451-1) ✓ | B652             | 巻戻軸<br>Rewind shaft                 | 1                              | 1K370-662<br>P3-16060SX                                                                                                                                                                                             | 2              |                                |
| 1B001-452-1 <sup>Dis</sup><br>1B001-452-4  | B667             | 巻戻ノブ<br>Rewind knob                 | 1                              | 1K050-165 , 1K050-166<br>1K050-173 , 1K083-042<br>1K110-159 , 1K146-023<br>1K233-038 , 1K240-330<br>1K470-039 , 1K630-229<br>1B001-451 , 1K200-004                                                                  | 2              |                                |
| (DET)<br>1B001-446                         | B30              | シンクロキャップ<br>Sync terminal cap       | use<br>17                      | 1K110-161<br>1K467-058                                                                                                                                                                                              | 1              | these can order<br>single part |
| 1B060-177                                  | B426             | リリースレバー<br>Shutter release lever    | 1                              | 1K314-202 , 1K366-047<br>1K366-048 , 1S720-037                                                                                                                                                                      | 6              |                                |
| 1B060-178                                  | B43              | 電池ケース<br>Battery chamber            | 1                              | 1K048-068 , 1K240-050-2<br>1K610-174 , 1K680-381<br>1S810-450                                                                                                                                                       | 6              |                                |
| 1B060-179                                  | B45              | 電池アース接片<br>Battery earth contact    | 1                              | 1K156-040<br>1S810-455                                                                                                                                                                                              | 6              |                                |
| 1B060-181                                  | B323             | 記憶スイッチ<br>Memory switch             | 1                              | 1K240-311 , 1K240-312<br>1K600-312 x2<br>1K680-386 , 1S810-440<br>1S810-441                                                                                                                                         | 7              |                                |
| 1B060-182                                  | B3001            | シンクロガイド<br>Sync terminal            | 1                              | 1K044-011 x5<br>1K220-142 x2<br>1K370-653 x3<br>1K370-654 x2<br>1K370-655 x2<br>1S110-007 , 1S810-443<br>1S810-446 , 1S810-448<br>1S810-456 , 1S810-458<br>1S810-483                                                | 8              |                                |

| 部組品番・号<br>Assembly No.      | 補助番号<br>Ckt. No. | 名 称<br>Name                               | 1台分<br>個 数<br>Pcs. per<br>Unit | 構 成 部 品 番 号<br>Constituent Parts                                                   | 参照図番<br>Figure | 備 考<br>Remarks      |
|-----------------------------|------------------|-------------------------------------------|--------------------------------|------------------------------------------------------------------------------------|----------------|---------------------|
| 1B060-206                   | B98              | TTL 測光用受光素子<br>SPD 2                      | 1                              | 1K680-384 .1S250-004<br>1S700-071 .1S810-453<br>1S810-454<br>G1-17040SX            | 7              |                     |
| 1B100-250                   | B71              | LED 基板<br>LED base plate                  | 1                              | 1K008-001 x2<br>1K115-795 .1K240-308<br>1K340-077 .1K610-520<br>1G550-019          | 8              |                     |
| 1B150-031                   | B99              | 測光用受光素子<br>SPD 1                          | 1                              | 1K680-385 .1S250-004<br>1S700-071 .1S810-451<br>1S810-452 .1G120-001<br>G1-17040SX | 7              |                     |
| *1B200-004-1                | B654             | 巻戻レバー<br>Rewind lever                     | 1                              | 1K370-340 .1K610-250<br>1K630-233                                                  | 2              |                     |
| 1B206-020                   | B441             | 巻上レバー<br>Film-advance lever               | 1                              | 1K048-069 x3<br>1K340-085 .1K625-032                                               | 2              |                     |
| 1B240-029                   | B492             | 空撮スイッチ<br>Blank shot switch               | 1                              | 1K240-327 .1K240-328<br>1K600-143 x2<br>1K680-148                                  | 5              |                     |
| *1B260-007-1<br>(1B260-007) | B493             | グレーコード板<br>Gray code disk                 | 1                              | 1K240-105<br>1K260-047-1                                                           | 3              |                     |
| 1B260-019                   | B425             | スプール軸<br>Spool shaft                      | 1                              | 1K260-146<br>1K370-677                                                             | 4              | 9F4B<br>FA1-<br>425 |
| 1B314-102                   | B491             | グレーコード基板<br>Gray code base plate          | 1                              | 1K156-045 .1K240-321<br>1K625-033                                                  | 3              |                     |
| 1B314-105                   | B52              | 押釦レバー軸<br>Axle, shutter<br>release button | 1                              | 1K314-192<br>1K370-657                                                             | 11             |                     |
| 1B314-113                   | B55              | 押釦外レバー<br>Release button lever            | 1                              | 1K314-193<br>1K370-656                                                             | 11             |                     |
| 1B475-039                   | B471             | 枚数計ラチェット<br>Frame counter ratchet         | 1                              | 1K275-035<br>1K470-042                                                             | 5              |                     |
| 1B475-040                   | B447             | T切換ダイヤル<br>Shutter dial                   | 1                              | 1K201-047 .1K340-084<br>1K470-040                                                  | 2              |                     |
| 1B610-018                   | B206             | 裏蓋ロックピン<br>Lock pin, camera back          | 1                              | 1K370-669<br>1K610-528                                                             | 9              |                     |

## 部組品一覧表 Assembly List

FEA04051-R.3145. A

| 部組品番号<br>Assembly No.             | 補助番号<br>Ckt. No. | 名 称<br>Name                              | 1台分<br>個数<br>Pcs. per<br>Unit | 構 成 部 品 番 号<br>Constituent Parts                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 参照図番<br>Figure                      | 備 考<br>Remarks |
|-----------------------------------|------------------|------------------------------------------|-------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|----------------|
| 1B670-036                         | B91              | 本体カバー<br>Body cover                      | 1                             | 1K115-812<br>1K670-040                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 1                                   |                |
| 1B670-038                         | B51              | 押釦カバー<br>Shutter release<br>button cover | 1                             | 1K206-028 , 1K670-039<br>1K680-382 , G1-17040SX                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 11                                  |                |
| 1B990-008                         | B653             | 巻戻ノブ<br>Rewind knob                      | 1                             | 1K083-042 , 1K146-023<br>1K240-330 , 1B200-004                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 2                                   |                |
| 1B990-010                         | B2001            | FPC                                      | 1                             | 1K050-169 , 1K240-110-2<br>1K240-310 , 1K240-323<br>1K610-521 , 1K640-438<br>1S120-013 , 1S210-007<br>1S237-038 , 1S237-042<br>1S310-057 , 1S310-058<br>1S310-059 , 1S310-060<br>1S310-061 , 1S310-062<br>1S310-064 , 1S310-065<br>1S310-066 , 1S310-067<br>1S310-068 , 1S310-069<br>1S310-070 , 1S322-031<br>1S322-034 , 1S322-037<br>1S335-006 x3<br>1S335-008 x2<br>1S335-011 , 1S340-051<br>1S335-042 x2<br>1S340-052 x3<br>1S340-053 , 1S382-004<br>1S705-038 , 1S708-006<br>1S730-002 x2<br>1S700-072 | 3                                   |                |
| 1B990-011<br>↓ (DIS)<br>1B999-161 | B2441            | 巻上レバー<br>Film-advance<br>lever           | 1                             | 1K110-166 , 1K110-168<br>1K130-203 , 1K136-030<br>1K206-032 , 1K607-017<br>1K240-322 x2<br>G1-20030SX x2<br>1B206-020 , 1B475-040                                                                                                                                                                                                                                                                                                                                                                           | 2                                   | ¥590- No 28/5  |
| 1B990-012                         | B201             | 裏蓋 (オレンジ)<br>Camera back<br>(orange)     | 1                             | 1K110-163 , 1K110-164<br>1K130-202 , 1K160-416<br>1K165-066 x2<br>1K240-318 , 1K362-021<br>1K600-327 , 1K600-328<br>1K600-329 , 1K670-042<br>A1-20025SX x2<br>A2-17030SX x9<br>B1-20050SX , 1B610-018                                                                                                                                                                                                                                                                                                       | 9                                   |                |
| 1B999-021                         |                  | Drive Housing<br>中箱組品                    |                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 16.380-<br>↓<br>12.460-<br>1998.1.1 | 8435           |
|                                   |                  |                                          |                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                     |                |

| 部組品番号<br>Assembly No.             | 補助番号<br>Ckt. No. | 名 称<br>Name                             | 1台分<br>個数<br>Pcs. per<br>Unit | 構 成 部 品 番 号<br>Constituent Parts                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 参照図番<br>Figure            | 備 考<br>Remarks |
|-----------------------------------|------------------|-----------------------------------------|-------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|----------------|
| 1B990-013(OLD)<br>1B998-050       | B116             | 前 板<br>Front plate                      | 1                             | 1K115-801 x2<br>1K120-176 .1K130-206<br>1K230-133 .1K314-197<br>1K670-043 .A1-17035BB<br>1K115-233<br>A1-20025SX x2<br>B1-20030BB x3<br>1B001-448 .1B060-181<br>1B060-206 .1B150-031                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 6. 7<br>¥2,100-<br>No8549 |                |
| 1B990-014                         | B100             | シャッター<br>Shutter                        | 1                             | 1S810-442 .1S810-444<br>1S810-445 .1S810-447<br>1S810-449 .1S810-457<br>1S810-459                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 6                         |                |
| (OLD)<br>1B990-015<br>1B990-015-1 | B112             | 外 箱 (オレンジ)<br>Outer housing<br>(orange) | 1                             | 1K001-032 x2<br>1K044-012 .1K081-003<br>1K044-013 x2<br>1K110-152 .1K110-153<br>1K110-154 .1K110-155<br>1K110-156 x2<br>1K110-157 .1K110-160<br>1K110-161 .1K110-162<br>1K110-165 .1K110-167<br>1K115-792 .1K115-793<br>1K115-797 .1K115-807<br>1K120-175 x2<br>1K123-004 x3<br>1K165-065 x3<br>1K206-029 .1K208-043<br>1K240-317 .1K275-033<br>1K310-053 .1K400-078<br>1K480-018 .1K600-306<br>1K600-307 .1K600-308<br>1K600-309 .1K600-311<br>1K600-328 .1K600-329<br>1K610-519 .1K610-527<br>1K640-426 .1K646-004<br>1K646-005 .1K646-006<br>1K646-007 .1K660-038<br>1K680-393 .1K680-401<br>1K115-233<br>1G122-002 .1S133-002<br>1G133-003 .1G226-002<br>1G234-001 .1G580-002<br>A1-17025SX x7<br>A2-20022SX x3<br>A2-20035SX x4<br>B1-20040SX .K2-20030BB<br>1B001-085 x2<br>1B001-450 .1B100-250<br>1B314-105 .1B314-113<br>1B670-038 .1B990-011<br>1B990-012 | 2. 8<br>9. 10<br>11       | 7<br>17,640-   |
|                                   |                  |                                         |                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                           |                |

| 部組品番号<br>Assembly No.             | 補助番号<br>Ckt. No. | 名 称<br>Name                         | 1台分<br>個数<br>Pcs. per<br>Unit | 構 成 部 品 番 号<br>Constituent Parts                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 参照図番<br>Figure | 備 考<br>Remarks |
|-----------------------------------|------------------|-------------------------------------|-------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|----------------|
| (C4D)<br>1B990-016<br>1B990-016-1 | B112             | 外 箱 (グリーン)<br>Outer housing (green) | 1                             | 1K001-032 x2<br>1K044-012 ,1K081-003<br>1K044-013 x2<br>1K110-154 ,1K110-155<br>1K110-156 x2<br>1K110-157 ,1K110-160<br>1K110-161 ,1K110-162<br>1K110-165 ,1K110-167<br>1K110-178 ,1K110-179<br>1K115-792 ,1K115-793<br>1K115-797 ,1K115-807<br>1K120-175 x2<br>1K123-004 x3<br>1K165-065 x3<br>1K206-029 ,1K208-043<br>1K240-317 ,1K275-033<br>1K310-053 ,1K400-078<br>1K480-018 ,1K600-306<br>1K600-307 ,1K600-308<br>1K600-309 ,1K600-311<br>1K600-328 ,1K600-329<br>1K610-519 ,1K610-527<br>1K640-426 ,1K646-004<br>1K646-005 ,1K646-006<br>1K646-007 ,1K660-044<br>1K680-393 ,1K680-401<br>1K115-233 .<br>1G122-002 ,1G133-002<br>1G133-003 ,1G226-002<br>1G234-001 ,1G580-002<br>A1-17025SX x7<br>A2-20022SX x3<br>A2-20035SX x4<br>B1-20040SX ,K2-20030BB<br>1B001-085 x2<br>1B001-450 ,1B001-452<br>1B060-182 ,1B100-250<br>1B314-105 ,1B314-113<br>1B990-011 ,1B990-017<br>1B670-038 |                | 17.640         |
| 1B990-017                         | B201             | 裏 蓋 (グリーン)<br>Camera back (green)   | 1                             | 1K110-163 ,1K110-180<br>1K130-202 ,1K160-416<br>1K165-066 x2<br>1K240-318 ,1K362-040<br>1K600-327 ,1K600-328<br>1K600-329 ,1K670-046<br>A1-20025SX x2<br>A2-17030SX x9<br>B1-20050SX ,1B610-018                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                |                |
|                                   |                  |                                     |                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                |                |
|                                   |                  |                                     |                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                |                |