

Nikon FG

REPAIR MANUAL

修 理 指 針

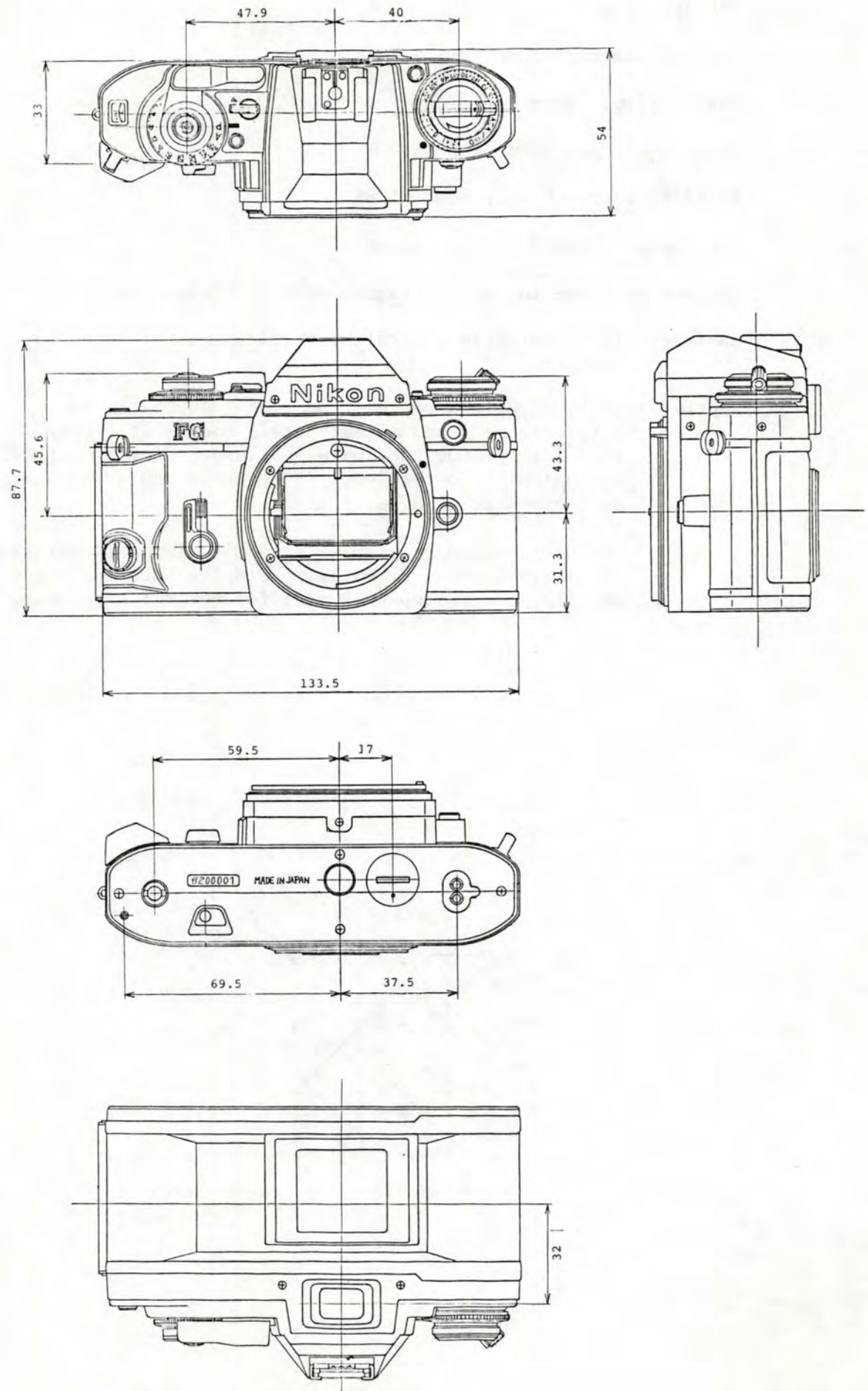


NIPPON KOGAKU K.K.

Tokyo, Japan

SPECIFICATIONS & MECHANISM

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[2] SPECIFICATIONS

Type of camera: 35mm single-lens reflex

Usable film: 35mm cartridge

Picture format: 24mm x 36mm

Standard lens: Nikkor 50mm F1.8S

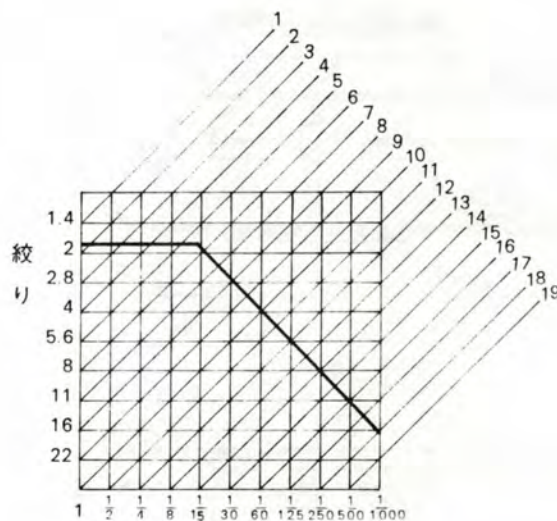
Lens mount: Nikon bayonet mount

Maximum aperture index: Automatic with AI Nikkor lenses

Shutter: Electronically controlled vertical-travel metal focal-plane shutter

Shutter speeds: Stepless speeds from 1 to 1/1000 sec. on P (Programmed) and A (Automatic) modes; 11 speeds from 1 to 1/1000 sec. on manual under quartz control; mechanically controlled, 1/90 sec. at M90 setting and long exposure at B setting

The prearranged program of the FG's microcomputer allows ideal combination of matching stepless shutter speed and stepless f/stop on P mode for correct exposures.



Self-timer: Provided; set for up to approx. 11 sec. exposure delay mechanically; setting cancellable before actual shutter release

Viewfinder: Fixed eyelevel pentaprism type

Frame coverage: Approx. 92%

Viewfinder information: Shutter speed scale with LED display, exposure warning signal, ready-light when used with electronic flash

Focusing screen: Fixed-type Nikon standard Type K screen

Finder magnification: 0.84X

Finder diopter: -1 ± 0.5 dp+

Reflex mirror: Quick-return non-lockable type

Film-advance: Via hinged type lever; wound in single stroke or series of shorter strokes; 144° winding angle

Motor drive coupling: Electrical contacts and mechanical coupler built in for operation with the MD-14 or MD-E Motor Drive

Exposure meter: TTL center-weighted full-aperture measurement for viewfinder information; meter incorporates one SPD (silicon photodiode); instant stop-down measurement for shutter control

Warning of over-and under exposure: Top triangular LED blinks when too much light, warning of overexposure; bottom triangular LED blinks when not enough light, warning of underexposure

Audio warning system: "Beep-beep" warning sound activated when shutter release button is pressed halfway if shutter speed is approx. 1/30 sec. and below, or approx. 1/1000 sec. and above; can be turned off via audio warning lever

P mode preparation alert: Top and bottom warning LEDs blink alternately when aperture is not set at its smallest opening or precisely when aperture set is more than $f/11 \pm 5/6$ AV

Metering range: EV1-EV18 at ASA/ISO 100 and with 50mm F1.8S lens

Film speed range: ASA/ISO 12-3200

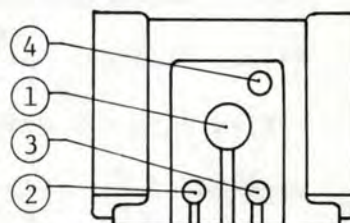
Exposure compensation dial: +2EV - -2EV in 1/2 increments;
0 - -2EV at ASA 12; +1 - -2EV at ASA 25;
0 - +2EV at ASA 3200; -1 - +2EV at ASA 1600

Exposure compensation button: Offers approx. +2EV when button is kept depressed as shutter is released

Power ON/OFF switch: Meter switched on when shutter release button is pressed halfway; stays switched on for 16 sec. after finger is lifted off button.

Accessory shoe: Standard ISO type accepts the SB-15 and other ISO type Nikon Speedlights directly

- (1) Hot-shoe contact
- (2) Ready-light contact
- (3) TTL-control contact
- (4) Monitor contact



Flash synchronization: Speeds up to 1/90 sec. with electronic flash; with the SB-15, SB-10 or SB-E, flash sync speed is automatically set to 1/90 sec. when shutter speed/mode selector is set at P,A or 1/125-1/1000 sec. setting; at 1-1/60 sec. setting, the shutter will operate at set speed

Ready-light LED: Shutter speed panel LEDs double as a ready-light; 1/125 and 1/60 LEDs turn on when flash sync speed is automatically set to 1/90 sec. 1/125 and 1/60 LEDs blink if TTL-control signal fails to flow into the SB-15 or if frame counter has not reached "1"

Frame counter: Shows number of frames exposed; automatically resets to "S" when camera back is opened; shutter speed delivery is set to approx. 1/90 sec. when selected to P, A, or 1-1/1000 sec.

Film rewind: Via film rewind crank rotated after rewind button is depressed

Power source: Two 1.55V silver-oxide batteries (S-76 or SR-44 type) or one 3V lithium battery (CR-13N type)

Power consumption rate at normal temperature:

Metering: approx. 6mA

TTL flash control: approx. 5.5mA

Shutter control: approx. 13mA

In storage: approx. 2.5 mA

Battery check reference voltage: Meter 16 sec.-hold will not operate when the battery voltage goes down to approx. 2.45V-2.35V; shutter is locked when less than approx. 2.35V

Camera back: Swings open when film rewind knob is pulled up; memo holder provided; interchangeable with the MF-15 Data Back

Dimensions: 136mm (W) x 87.5mm (H) x 54mm (D)

Weight: Approx. 490g (body only)

1. SHUTTER DIAL UNIT MECHANISMClick stop and lock

Turning Shutter dial #542 actuates Shutter dial gear #545, Shutter speed change over tube #541 and Shutter speed change over cam #552. Shutter dial #542 is provided with click groove, with which Click spring #550 is engaged, and is clicked at the pointer of shutter speeds set. Shutter dial gear #545 is engaged, and is locked at the settings "A" and "P".

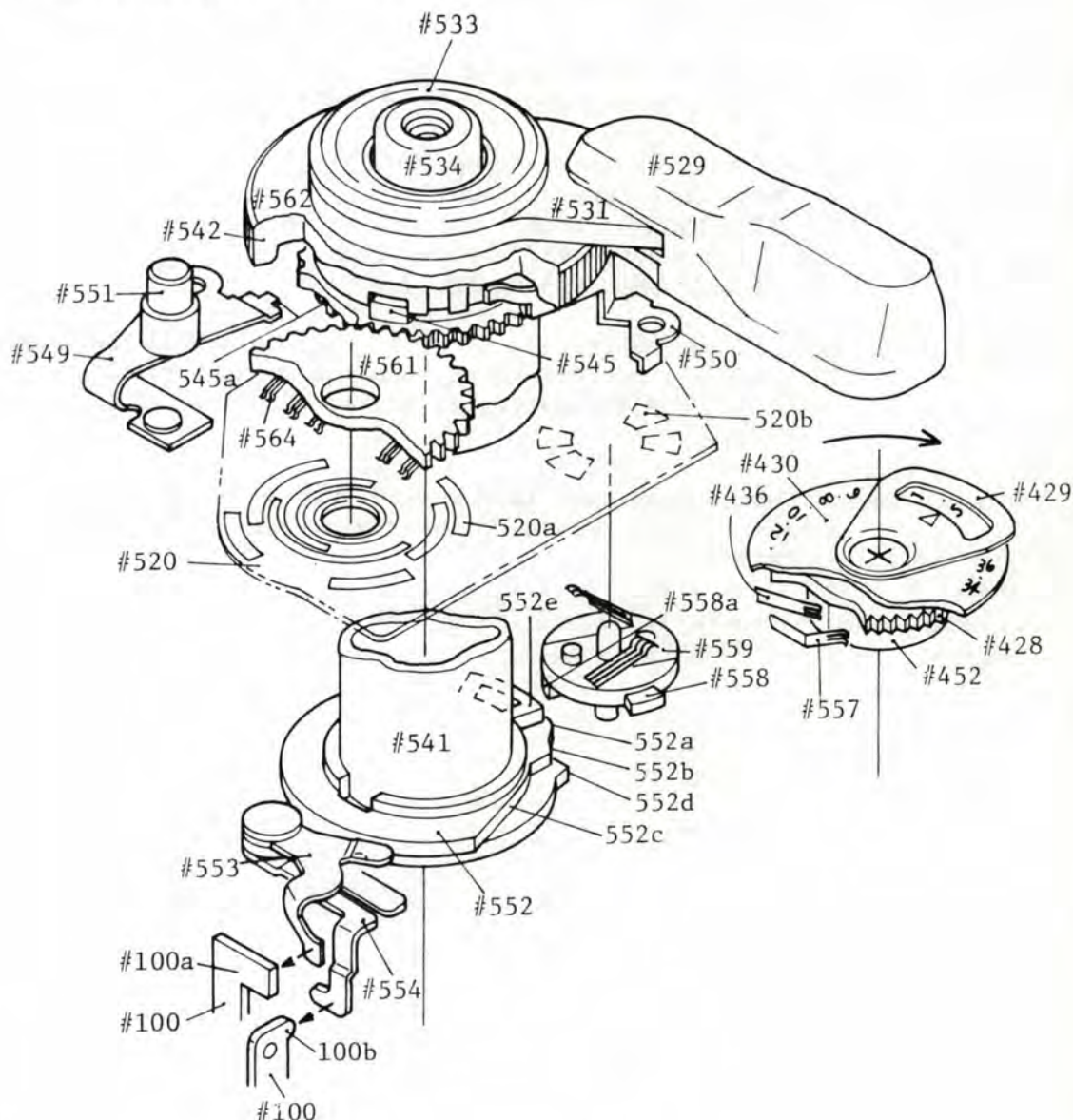


fig. 1

Shutter speeds setting

Shutter speed change over gear #561 is engaged with Shutter dial gear #545. Contact brush #564 installed on #561 slides along the pattern (#520a) on Circuit board #520 to set shutter speeds electronically controlled. Shutter speed change over lever #553 is coupled to the section (#552a) of Shutter speed change over cam #552 at the settings "P", "A", and 1-1/1000 sec., to the section (#552b) at the setting "M90", and to the section (#552c) at the setting "B", the changeover of the coupled position is transmitted through Shift lever (#100a) to the shutter unit mech.

Shutter release lock at battery exhaustion

Shutter release is locked at the settings "P", "A" and 1-1/1000 when batteries are exhausted. In order to unlock shutter release, Shutter dial #542 should be set to "M90". Then the section (#552b) of Shutter speed change over cam #552 pushes Lock release lever #552 and actuates the lever (#1006) of the shutter unit. At this time, the section (#552C) forces the section (#558a) of M90 switch #558 to turn. Contact spring #559 installed on #558 slides along the pattern (#520b) on Circuit board #520 to cancel the electromagnetic control and to put the mechanical control in operation.

Frame counter switch

Just before frame counter reaches "1", Switch blade #436 is contacted with Plate #452 to close frame counter switch.

2. MAXIMUM f-NUMBER (fo) COUPLING DEVICE

The Nikon FG is provided with the maximum f-number (fo) coupling device in succession to the Nikon EM, but the model employs the same device to control its programmed automatic exposure operation of new introduction.

See Figure 2. When the lens mounted, the fo tongue at the rear of lens turns fo coupler #356 clockwise in engagement with Projection #356a. fo brush #359 slides along the resistance pattern on fo plate #360 to set the resistance value against the maximum f-number of the mounted lens. But the resistance value settings step the gradations corresponding to the aperture values of the EV chart. Thus, for example, with the lenses of F1.2, F1.8 or F3.5 mounted, the resistance values should be set to the approximate aperture values F1.4, F2 or F4 in the EV range. To the contrary, if the lens mounted is not incorporated with the fo tongue (ex. modified AI-lens), fo coupler #356 is held by Spring #357 to the position where Step #356b is engaged with fo-signal switch #366. In this condition, fo-signal switch is closed so as to cancel the operation of the aperture selection checking device. And, fo brush #359 remains with the retracted position only to give the resistance value setting of F2.8 regardless of the maximum f-number of the mounted lens.

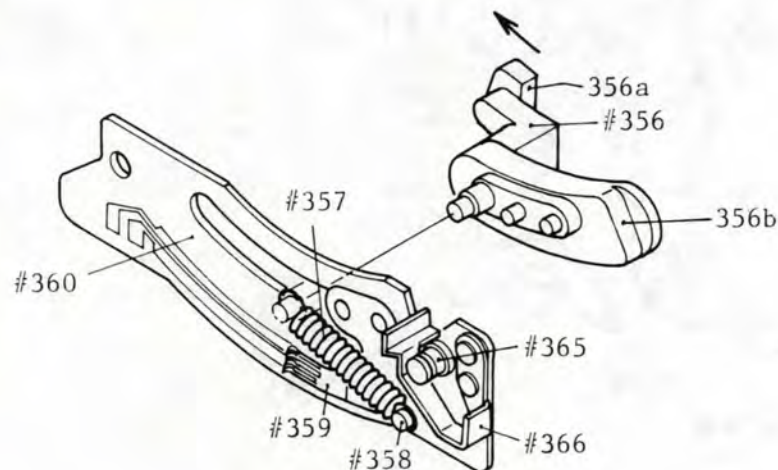
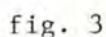


fig. 2

The Nikon FG's shutter release mechanism is similar to that of the EM, except for the modified section involving the programmed automatic exposure control. See Figure 3.

Stroking film-advance lever allows Shutter charge lever #405 to move in the direction A and back to the original position. Shutter is charged. At this time, Bend #405a turns Mirror charge lever #528 in the direction B. Mirror return lever #230 moves in the direction C to push Continuous charge lever #273 in the direction D. With Continuous release spring #279 loaded, Bend #273a pushes against each other. Then, when Continuous charge lever #273 is forced to the direction D, Continuous release lever #276 will be prepared to turn in the direction E and is held by the stopper herein not illustrated. Nearly at the completion of film winding, Post #277 installed on Continuous release lever #276 places the stopper aside and allows #276 to turn in the direction E. Continuous stroking lever #271 coupled to #276 moves in the direction F and its forked section pushes Release-charge lever #247 to turn in the direction G. At the same time, Mirror return lever #230 cocks the mirror box mech. Shutter and mirror are charged.



Shutter release sequence

Depressing shutter release button slides Release lever #522 down, and Pin #438 atop #522 forces See-saw lever #282 to turn in the direction H. See-saw lever #282 pushes Start lever #253 in the direction I. Start lever #253 and Slide key #255 turn in the coupling of Post #256. Edge #255a disengages Bend #250a, and Start key #250 will turn in the direction J, with Start spring #251, which is cocked by Release-charge lever #247, loaded. Step #2506 disengages Bend #238a to release mirror and shutter.

Continuous shutter release

Shutter release button is held down while continuous shooting with motor drive. See-saw lever #282 and Start lever #253 are rotating in the respective directions H and I. Slide key #255 is held up to the retracted position. At the completion of winding, Continuous stroking lever #271 moves in the direction F in the same manner as that of manual shooting. But, for Edge #255a is disengaged from Bend #250a, Start key #250 turns in the direction J upon movement of Release-charge lever #247.

Mirror Box Mechanism

Bend #238b is coupled to End #302a of Segment gear #302 on the bottom of mirror box. See Figure 4. Segment gear #302 is engaged with Delay gear A #307. Delay gear B #308 fixed on #308 is engaged with Delay gear C #309, with which Fly-wheel #310 is secured via friction. Bend #302b is loaded with Spring #305. In the sequence of shutter release, Bend #238a is disengaged from Step #250b. Then Advance lever #238 and Segment gear #302 turn in the respective directions K and L. At this time, turning Fly wheel #310 delays the rotation speed of Segment gear #302. After specified rotation of Advance lever #238 and Segment gear #302, End #238C forces Mirror start pin #220 to turn Mirror start key #202 in the direction M. Hook #202a disengages Bend #225a to turn Mirror up lever #225. Subsequently, mirror rises to the taking position.

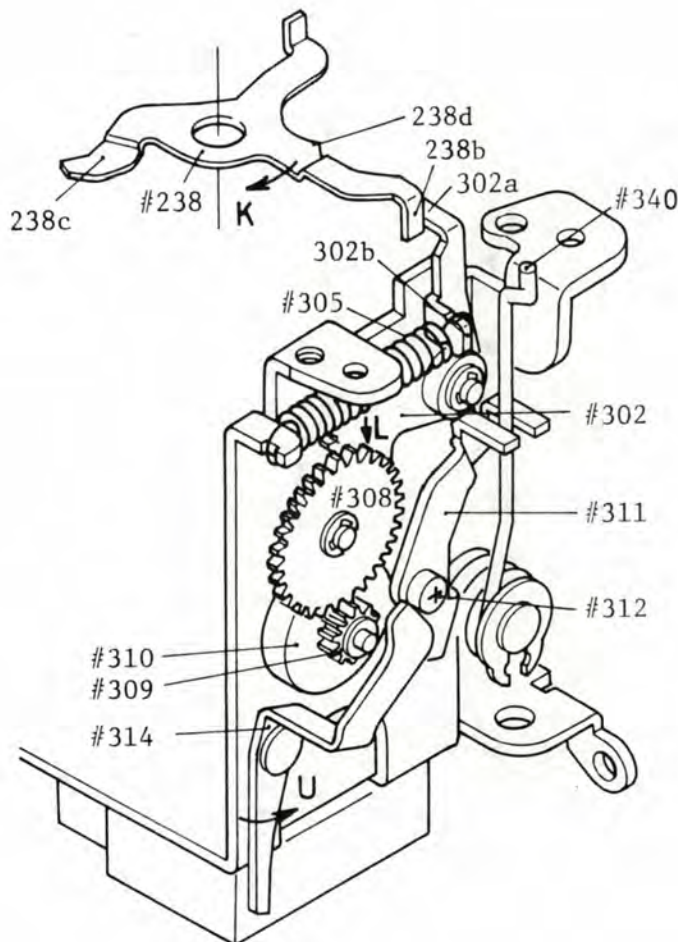


fig. 4

4. APERTURE OPENING CONTROL MECH.

The Nikon FG stops down the aperture and calculates the aperture opening on the program mode before mirror starts to rise. See Figures 4 and 5. Aperture lever #237 is secured through Spring #235 and Pin #236 with Aperture actuating lever #232. Bend #232a is coupled to Bend #238d and Aperture actuating pin #233 is loaded with Aperture actuating spring #219.

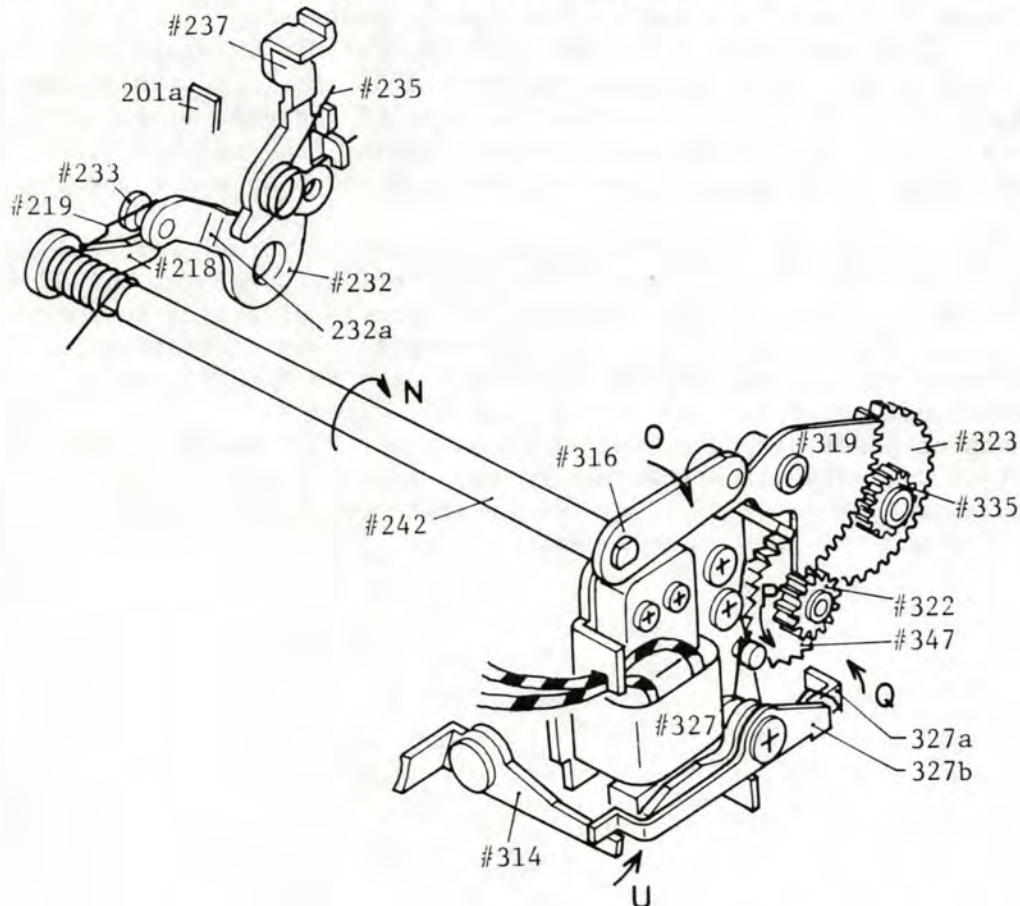


fig. 5

After release button is depressed, Advance lever #238 starts to turn in the direction K and Aperture actuating lever #232 turns in the same direction. Then Aperture actuating pin #233 forces Aperture coupling lever A #218 and Aperture coupling axle #242 to turn in the direction N. See Figure 5. At the same time, Aperture coupling lever B #316 located on the opposite side of mirror box turns in the direction O. Aperture lever #237 turns and its movement is transmitted via Aperture segment gear #319, Aperture control gear A #335, Aperture control gear B #323, Aperture control gear C #322 to Ratchet wheel #347 which turns in the direction P.

On the program mode, Aperture lever #237 is controlled by Ratchet wheel #347. When the aperture opening reaches the calculated value, the shutter control circuit provides the current flow to Aperture control magnet #327, which loses magnetic power holding Aperture latch lever #327a. Aperture latch lever #327a loaded with Aperture latch spring #327b turns in the direction Q and stops rotation of Ratchet wheel #347.

Subsequently, Aperture lever #237 stops down to the correct aperture opening. On the aperture-priority automatic and manual modes, Aperture lever #237 is not controlled by Ratchet wheel #347, as Aperture control magnet #327 holds Aperture latch lever #327a and Ratchet wheel continues to rotate. Aperture lever #237 moves freely until Protrusion #201a stops it. Thus, the aperture will be stopped down to the selected aperture opening.

The maximum rotational angle of Aperture actuating lever #232 is larger than that of Advance lever #238. Fly wheel #310 rotates to provide a delay time from release button depressing to mirror rising. These two devices make it possible for Mirror start key #202 to be unlatched after Aperture lever #237 completes its movement to the calculated/selected aperture opening of individual lenses of various f/numbers; namely, before mirror rising, the aperture is stopped down. This features the FG's mechanism of aperture opening control.

When shutter curtain travel is completed, Quick return lever #244 turns in the direction R. Then Actuating spring charge lever #209 and Mirror return lever #230 turn in the reverse direction to put #238, #232, #225 and #302 to the original positions respectively. At the same time, Actuating spring #340 hooked to #209 forces Return signal lever #311 to turn in the direction T.

By means of Reset pin #312, Magnet reset lever #314 turns in the direction U. #314 allow Aperture control magnet #327 to hold Aperture latch lever #327. So, the aperture control mechanism is ready for the next shutter release.

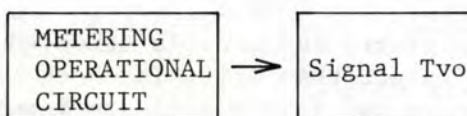
5. EXPOSURE CONTROL SYSTEM

The FC's exposure control system includes four separate modes of shooting operation; 1) programmed automatic mode, 2) aperture-priority automatic mode, 3) manual operation mode, 4) TTL flash control mode. The following illustrates its exposure control circuit operation in line with the circuit block diagram and the programmed automatic mode is the main subject.

Shutter speed determination

Exposure determinate factors are film-speed value(Sv), full-aperture value(Avo), selected aperture value(Avm) and brightness value(Bv), as the quantification of exposure conditions is based on the APEX system. The correct exposure time(shutter speed) is found by:

$$Tv^* = Bv + Sv - Av^*$$

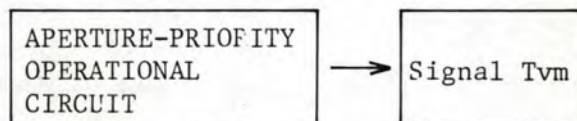


Where; Av^* = Aperture value of either the programmed or the aperture-priority automatic mode

Tv^* = Shutter speed corresponding to Av^*

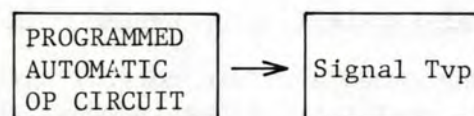
Thus, when the aperture is fully opened, $Av^*=Ave$ and $Tv^*=Tvo$. Similarly, when it is stopped down to the selected f/number (Avm):

$$Tvm = Tvo - (Avm - Avo) = Bv + Sv - Avm$$



Tvm is equal to the correct shutter speed on the aperture-priority automatic mode. However, the programmed shutter speed (Tvp) is found by:

$$Tvp = \alpha [(Bv + Sv - Avo) + Avo] + \beta = \alpha (Bv + Sv) + \beta = \alpha Ev + \beta$$



Shutter speed display

Those three signals, T_{vo} , T_{vm} and T_{vp} , are parallel-input into the shutter-speed panel/aperture control selector. On the programmed mode, the selector outputs the signals(T_{vs}) as follows;

$$T_{vs} = T_{vo} \quad (T_{vp} > T_{vo} > T_{vm})$$

$$T_{vs} = T_{vp} \quad (T_{vo} \geq T_{vp} > T_{vm})$$

$$T_{vs} = T_{vm} \quad (T_{vo} > T_{vm} \geq T_{vp})$$

On the automatic and manual modes, the mode selector provides the condition $T_{vs} = T_{vm}$. The signals(T_{vs}) are input into the shutter speed panel driver through the memory circuit so as to control the LED on the panel of viewfinder.

Programmed mode preparation alert

When the programmed mode is selected, the aperture should be stopped down to larger than f_{ll} . To check the selected aperture (A_{vm}), the signals A_{vo} and $(A_{vm} - A_{vo})$ are input into the selected aperture detection circuit. In the case of $A_{vm} = (A_{vm} - A_{vo}) + A_{vo} < f_{ll}$, the circuit provides the specified signal for the shutter speed panel driver to blink the LEDs ($\Delta \nabla$) as a warning for aperture selection error.

Shutter release

1) Programmed automatic mode

Shutter release initiates the memory circuit (I) to hold T_{vs} and the LEDs turn off. The aperture is stopped down to the point where the programmed aperture control circuit checks T_{v*} is equal to T_{vs} ; T_{v*} is stated as T_{vs}' hereat:

$$T_{vs}' = T_{vs} + \Delta T_{vs}$$

Where; T_{vs} = Aperture control error

With the mirror raised, the memory circuit (II) holds T_{vs}' and the trigger switch turns on the programmed/aperture-priority automatic shutter control circuit, which delivers the shutter speed corresponding to T_{vs}' through the shutter speed selector driver. Therefore, T_{vs} will not affect the exposure accuracy as a result.

2) Aperture-priority automatic mode

The programmed aperture control circuit is cancelled on the aperture-priority automatic mode, and thus the aperture will be stopped down simply to the selected f /number. The LED represents T_{vm} at this condition. As T_{vs} is equal to T_{vm} on this mode, $T_{vs}' = T_{vs} = T_{vm}$ and the shutter speed delivered is controlled by T_{vs}' in the same manner as that of the programmed automatic.

3) Manual mode

The aperture will be stopped down to the selected f/number, and the shutter is operated at the selected speed by the shutter speed selector driver. The LED of the selected shutter speed glows and that of the correct speed blinks.

Audio Warning

When shutter release button is depressed halfway on programmed/aperture-priority automatic modes, the signal buzzing is emitted to warn the shutter speed of either faster than 1/1000 sec. or slower than 1/30 sec.

Battery checking

In case the 16 sec.-hold fails to function; i.e. the circuit is held on only when the shutter release button is halfway depressed, it indicates the condition of battery weakening. In case meter fails to be turned on by halfway depressing the button, the batteries flatten, and the shutter release is prohibited, excepting the mechanical releases at the M90/B settings. Note that regardless of the battery condition, the M90/B settings cancel the whole circuit.

TTL flash control mode (for use of the Speed-light SB-15)

Attaching the SB-15 allows the LEDs of 125 and 60 to glow and the shutter is ready to delivery speed of 1/90 sec. on the programmed/aperture-priority automatic modes. But, on the manual mode, even if the selected shutter speed is faster than 1/125 sec., the shutter is automatically changed over to deliver speed of 1/90 sec. and the LEDs of 125 and 60 glow. The settings of slower than 1/60 sec. are not be checked for this change-over and should be indicated and delivered in the normal manner, although the LED of the correct speed blinking is cancelled. As soon as the SB-15 is fully charged, the ready-light LED in the viewfinder glows. If the film speed set is more than ASA400, the ready-light LED starts blinking as a warning signal for out-of-control.

The SPD (II) sitting on the bottom of mirror box accepts the light reflecting on the film plane and transfers the signal current to the TTL metering op. circuit. The signal current will be amplified by the circuit in response to the film speed and input in the integration op. circuit. The completion of the opening shutter curtain travel initiates the integration op. circuit just before the X-contact is turned on. Then the speed-light begins to fire. The light travels out to the subject and is reflected back through the lens to the film plane. When the integration op. circuit determinates that just the right amount of light has reached the film, it provides the speed-light with the signal to stop its light output.

Out of metering range warning

As the FG covers the metering range EV1 - 18 at ASA400/f1.4, it is necessary to emit a warning from the condition that the shutter speed to be delivered on the programmed/aperture-priority automatic modes cannot give the correct exposure corresponding to the extra low light.

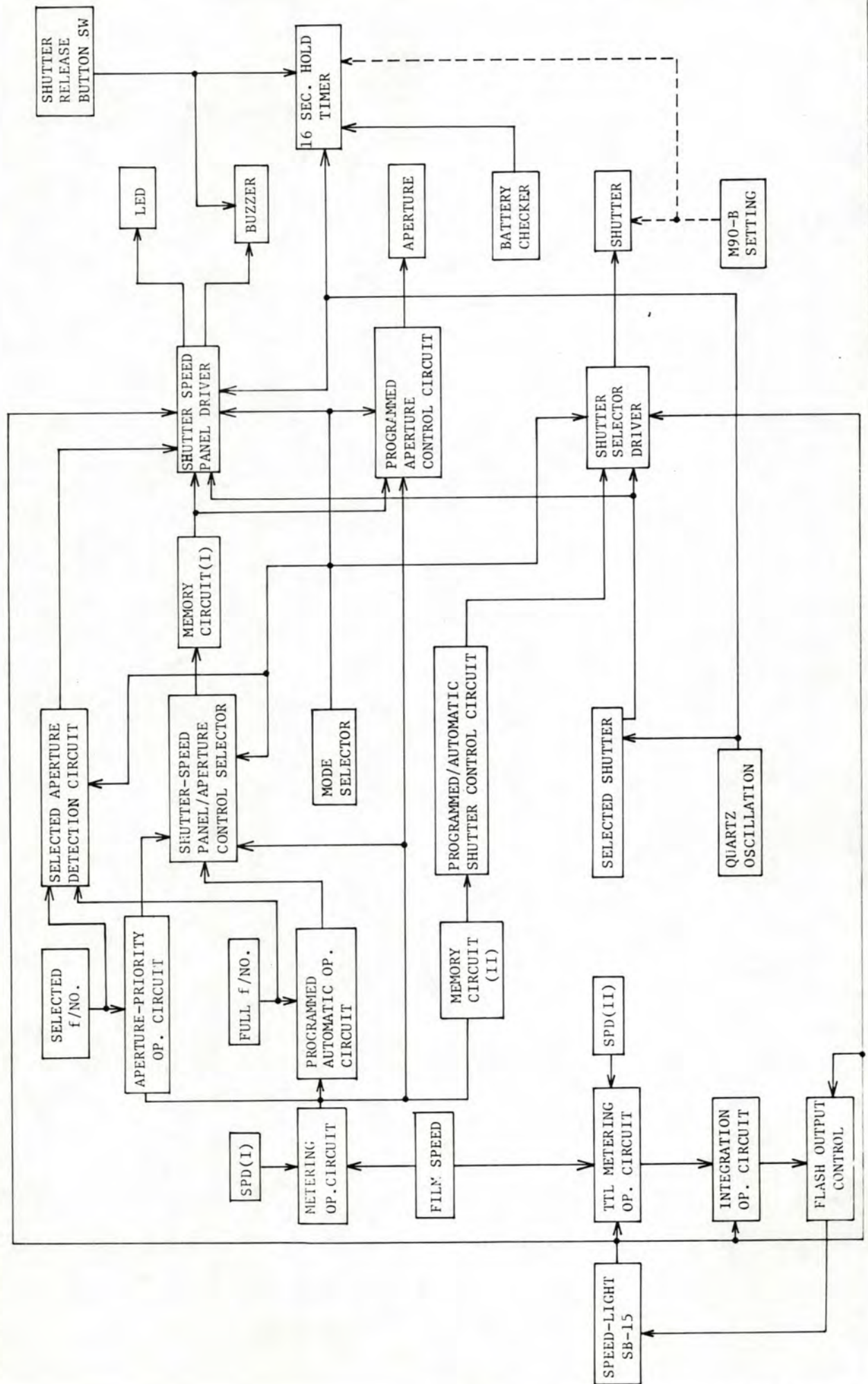
Metering range

ASA	100	200	400	800	1600	3200
SHUTTER SPEED DELIVERY LIMIT (sec.)	1	1/2	1/4	1/8	1/15	1/30

Warning operation range

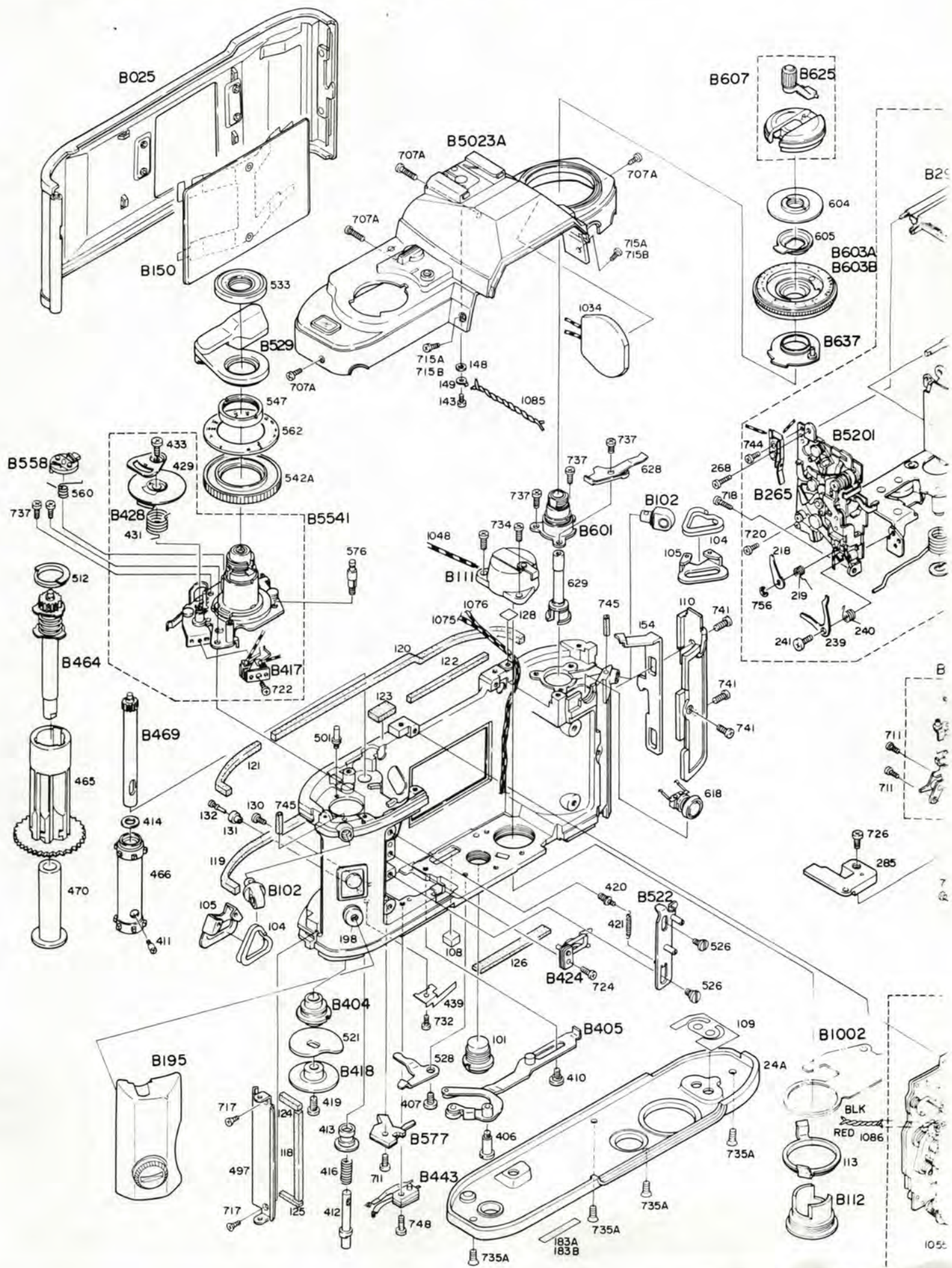
ASA	12-100	200-400	800-3200
SHUTTER SPEED DELIVERY LIMIT (sec.)	1	1/4	1/15

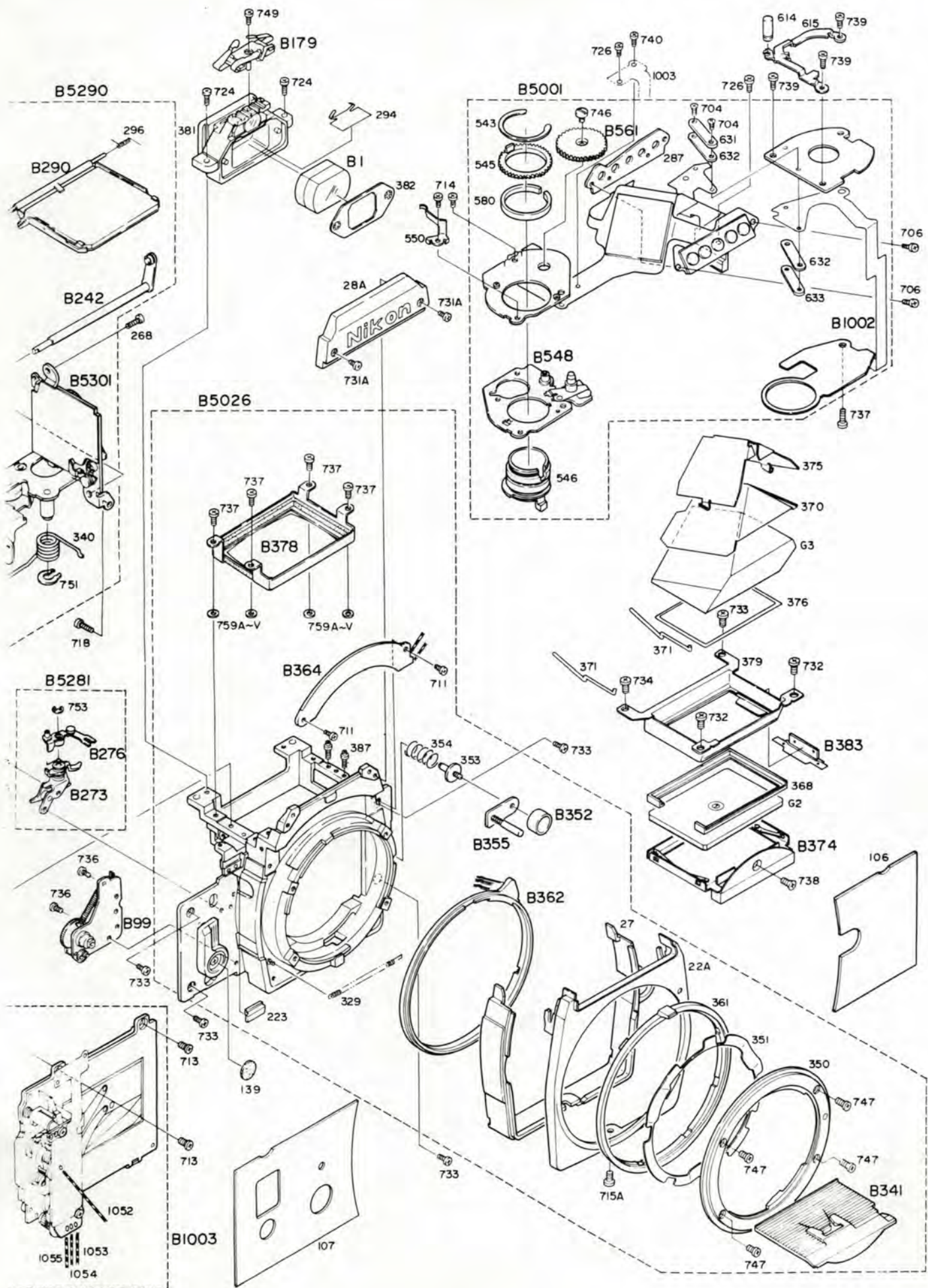
EXPOSURE CONTROL CIRCUIT BLOCK DIAGRAM



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Drawing of Complete Camera Section



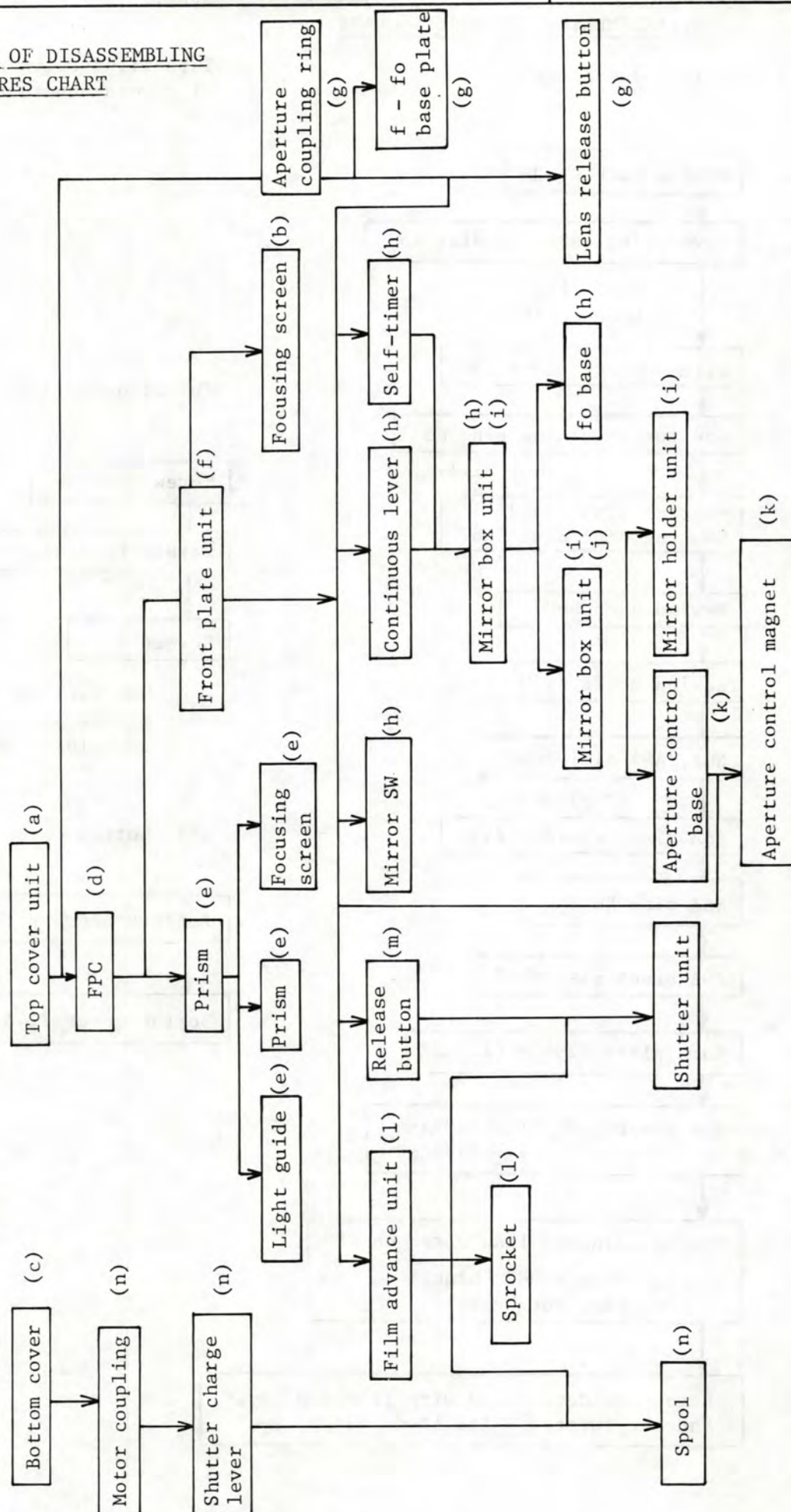
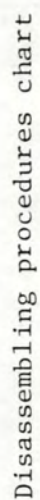


DISASSEMBLING & REASSEMBLING & ADJUSTMENTS

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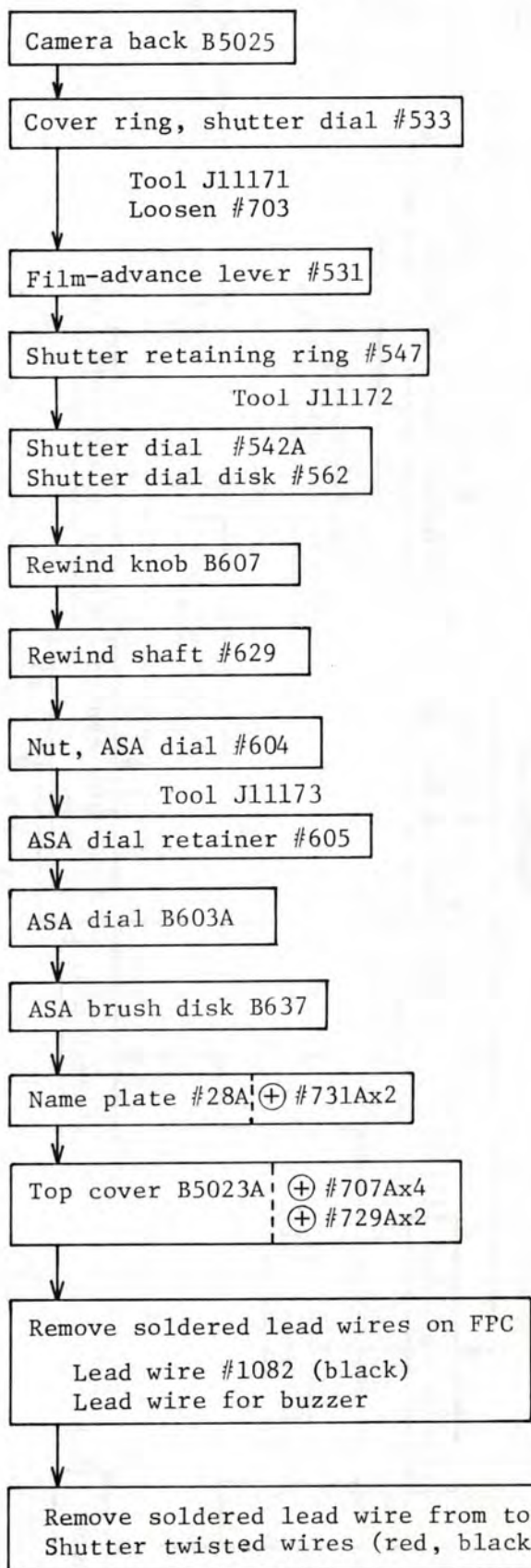
1. OUTLINE OF DISASSEMBLING PROCEDURES CHART



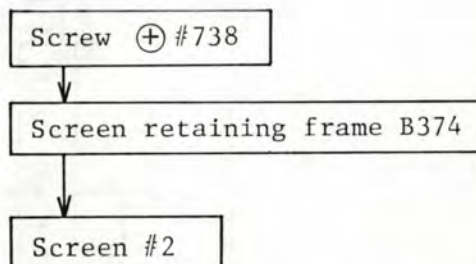
2. DISASSEMBLING PROCEDURES CHART

(a) Top cover

This illustrates disassembling of chrome camera body.

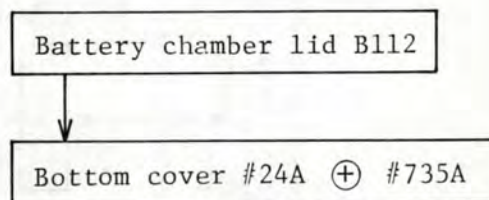


(b) Focusing Screen



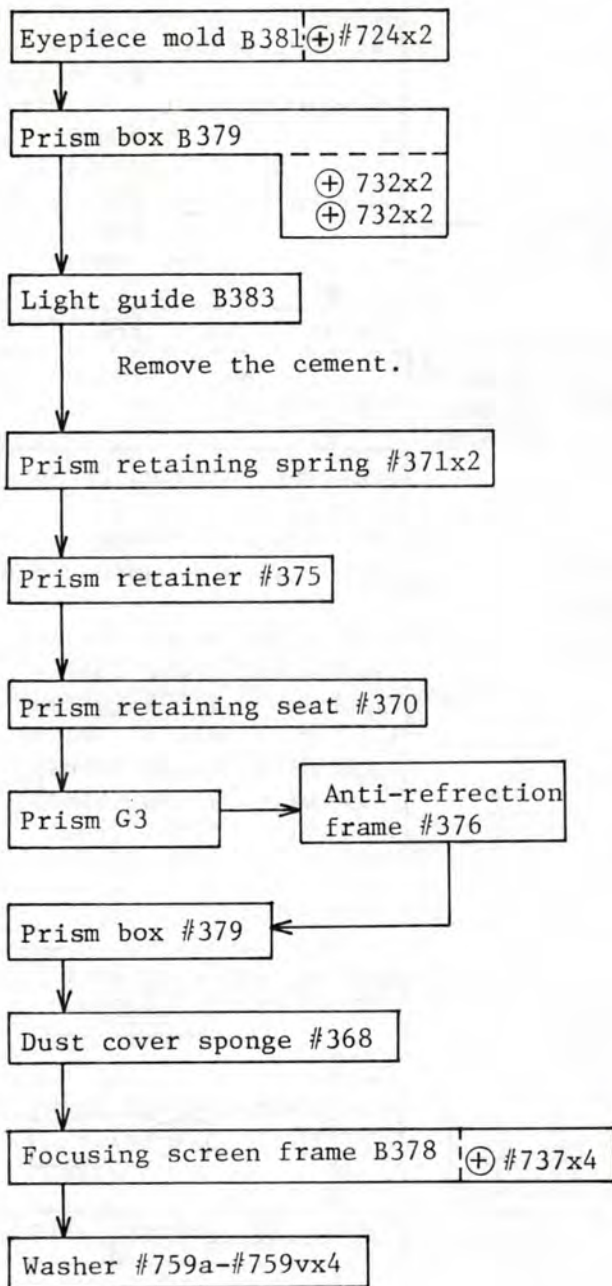
Use care not to scratch mirror as well as focusing screen.

(c) Bottom cover

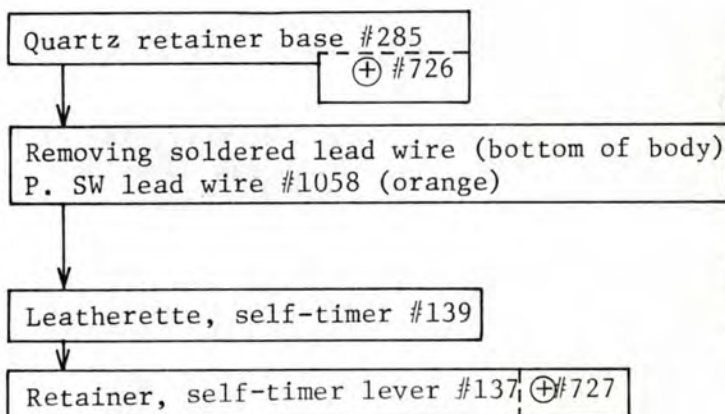


FPC stopper claw of #375
to break adhesion between
FPC and #375.

(e) Prism



(f) Front plate



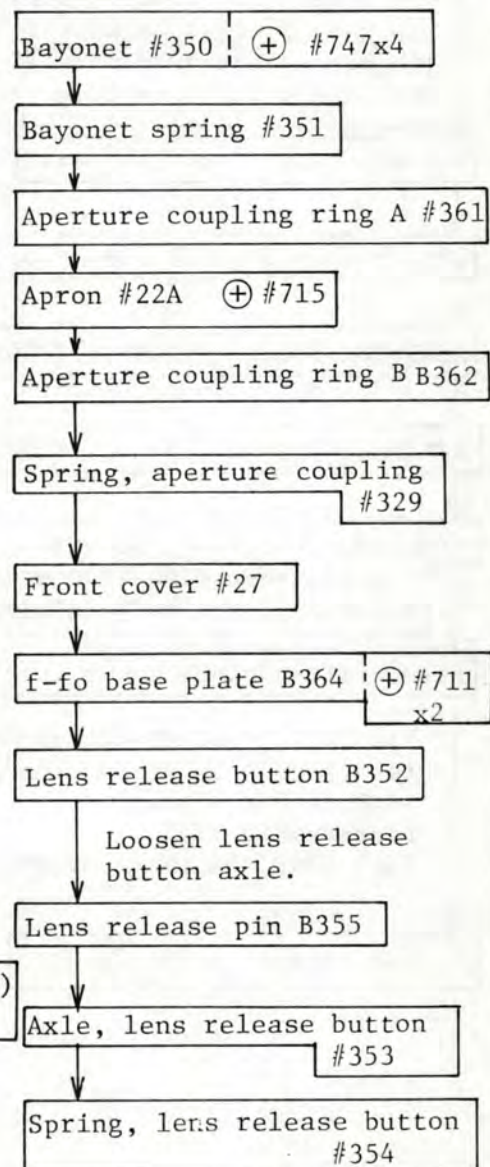
Self-timer lever B135

Leatherette, rewind-side #107

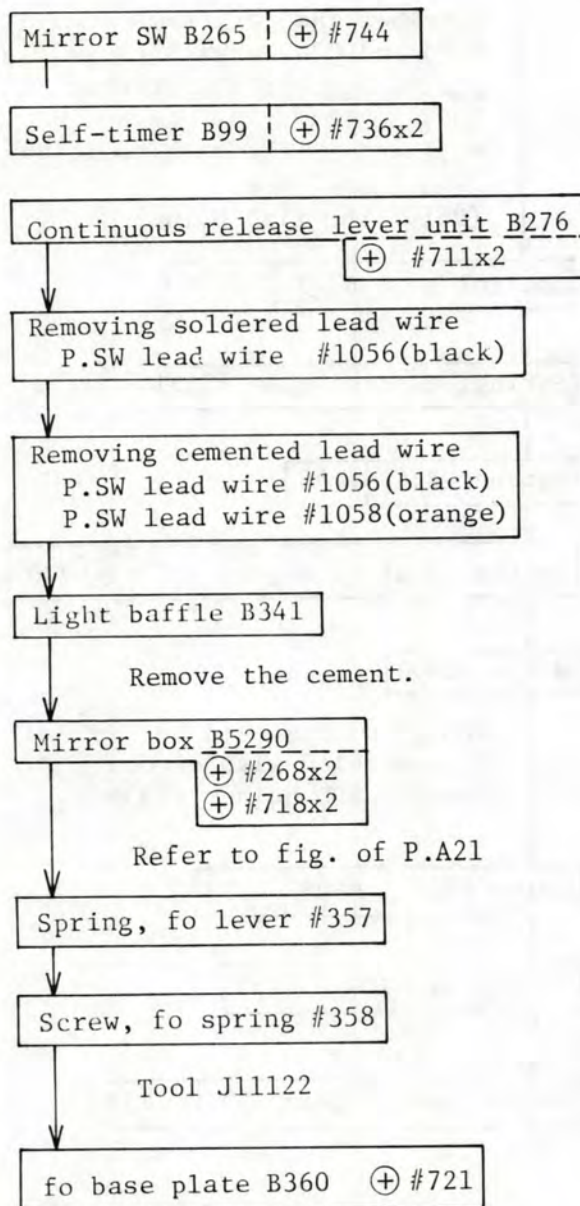
Front plate B5026A (+ #733x4
(+ #734x2)

Remove #734 only before
prism is disassembled.

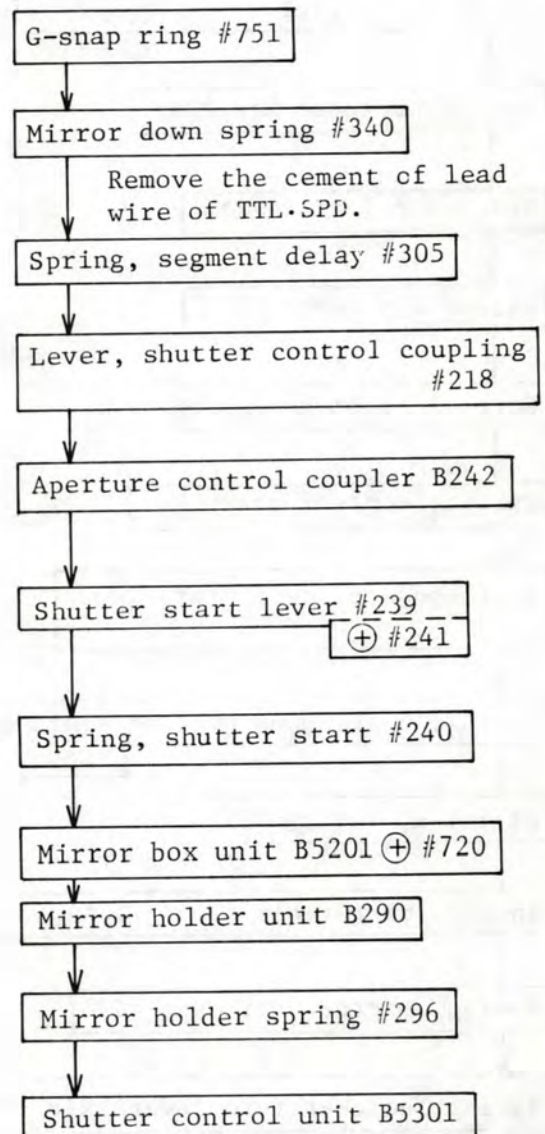
(g) Aperture coupling ring



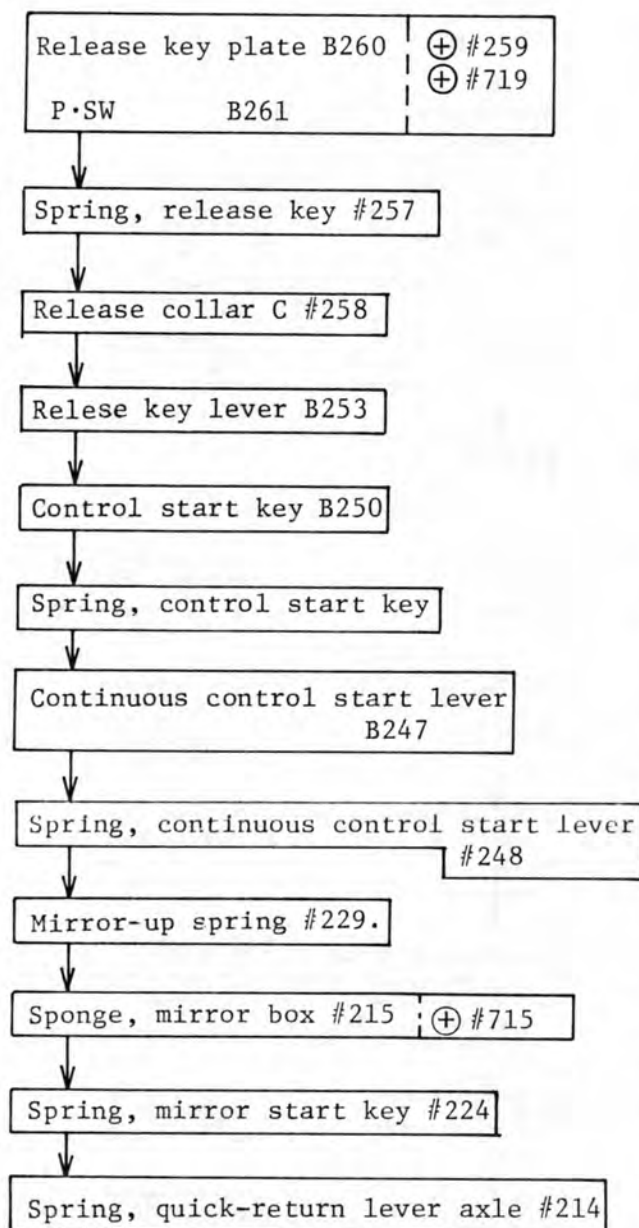
(h) Continuous lever, fo base plate



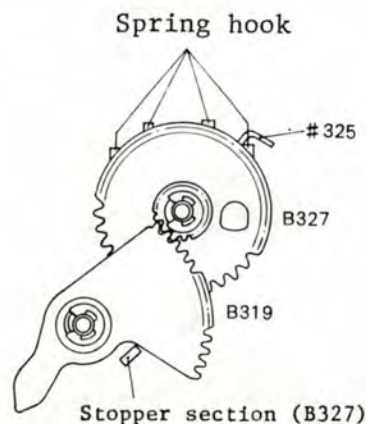
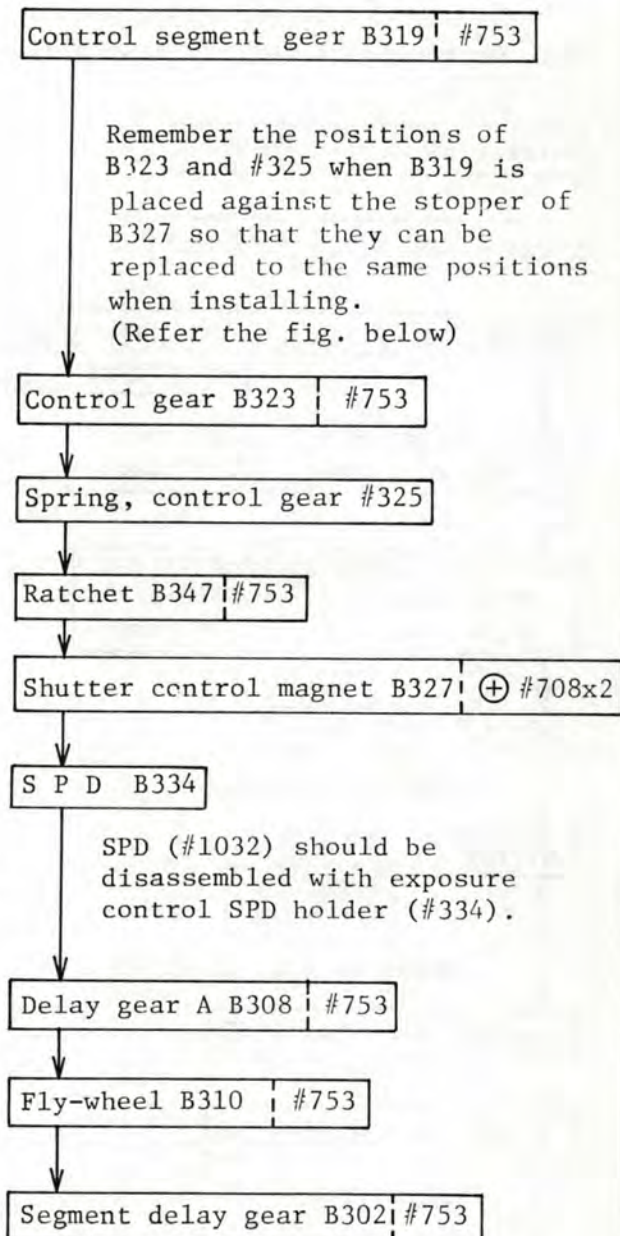
(i) Mirror box



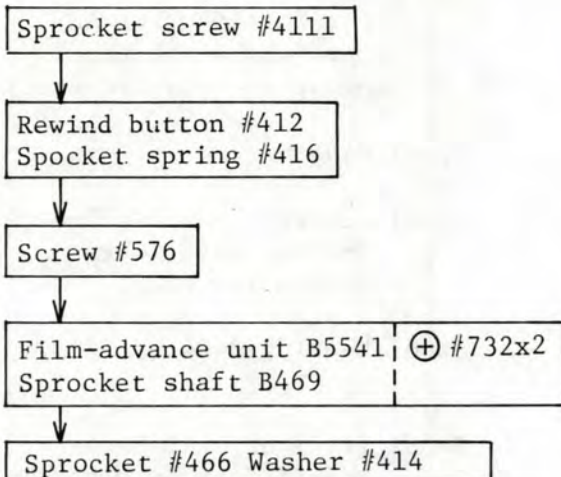
(j) Mirror box unit



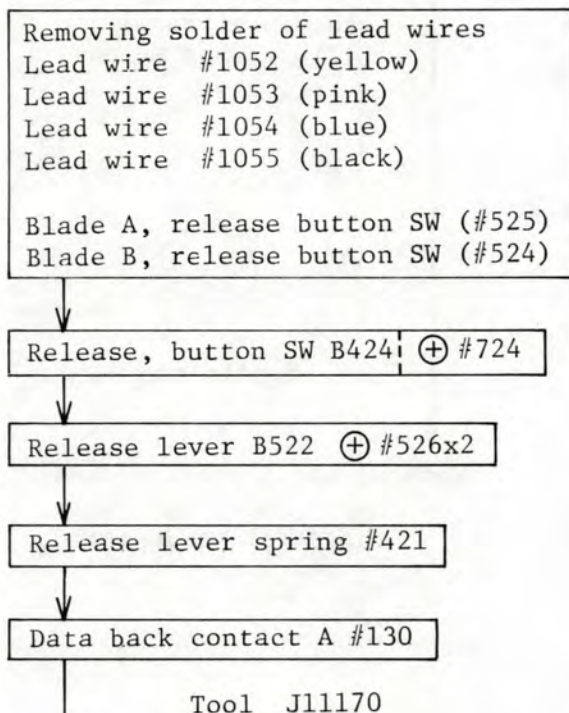
(k) Shutter control unit



(l) Film-advance unit / Sprocket

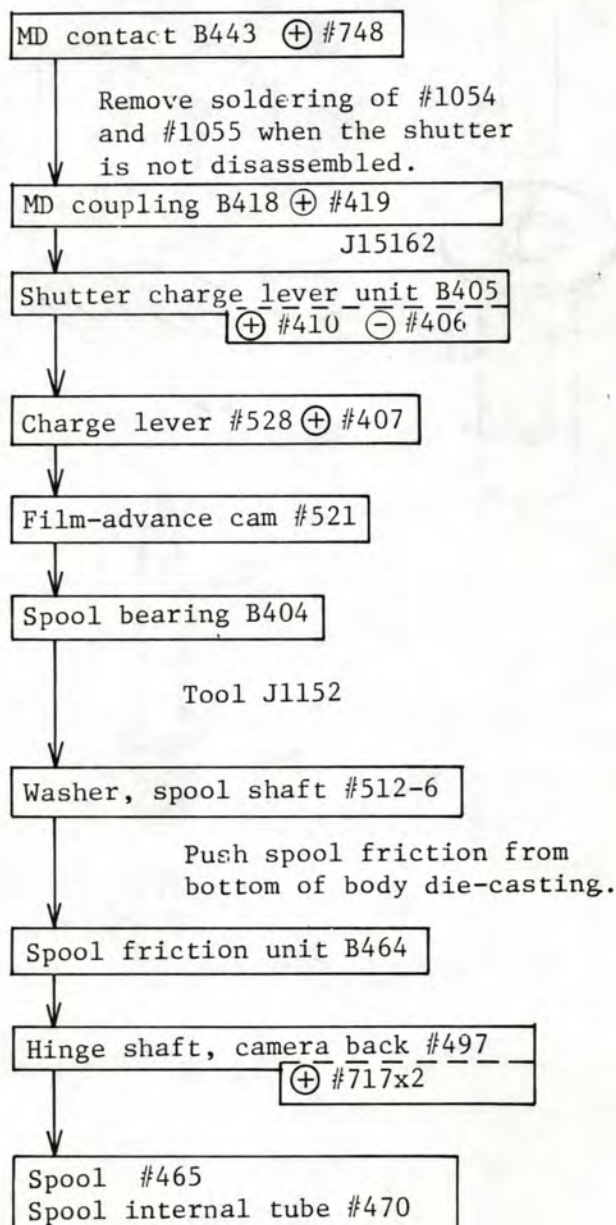


(m) Shutter unit



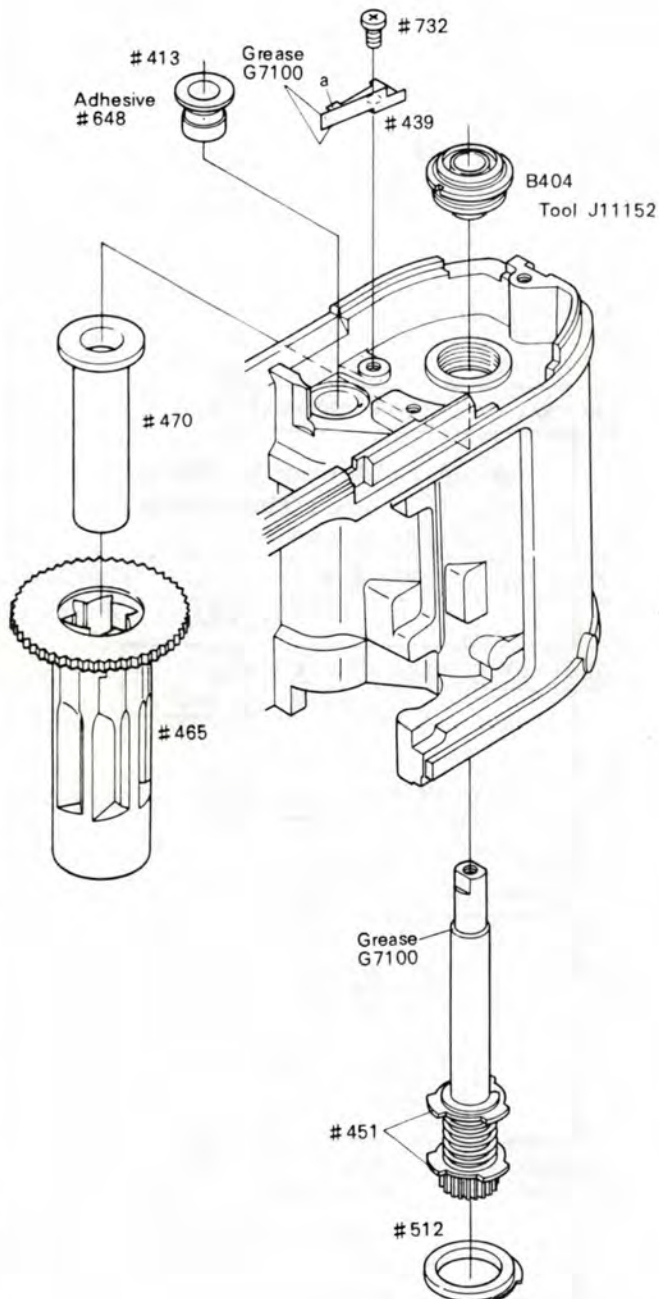
Shutter unit B1003 (+) #713x2

(n) Spool



1. SPOOL INSTALLATION

Hold body upside-down



Body die-casting
Hold the body upside down.

AR Lever #439 ⊕ #732
Place Portion @ of AR lever #439 along the contour of body die-casting.

Spool #465

Spool internal tube #470-6
Install #465, with #470-6 inserted.

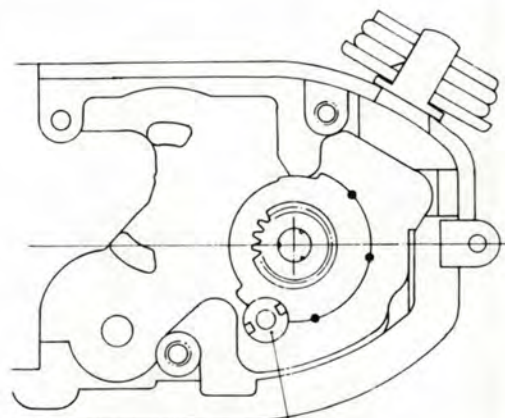
Spool bearing B404

Spool friction unit B464
Insert B464 into spool from the top of body die-casting, and fit #451-6 with internal grooves of spool (illustrated below).



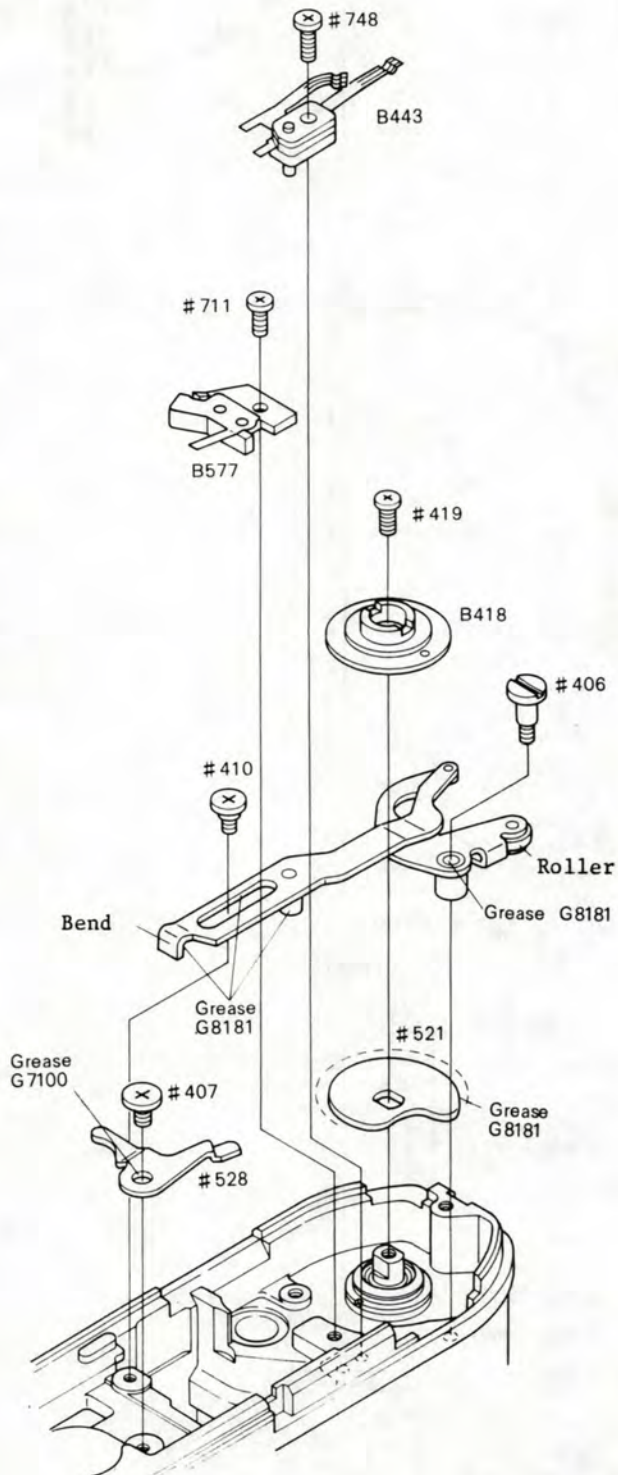
Spool; top view

Washer, spool shaft #512-6
Apply Lock-tight onto three points depicted.



Frame counter gear axle #501

2. CHARGE LEVER & MOTOR COUPLING INSTALLATION



Body die-casting

Lead wire retainer B577
| ⊕ #711

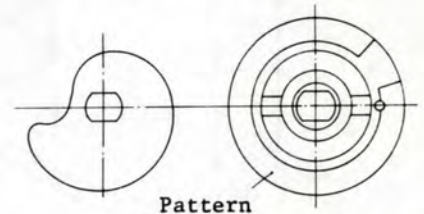
Charge lever #528
| ⊕ #407

Film advance cam #521
| Use care not to install
| #521 upside.

Shutter charge lever unit B405
The roller should come in
contact with #521.
Engage #528 with the bend
when installing B405.
Check B405 for smooth
operation.

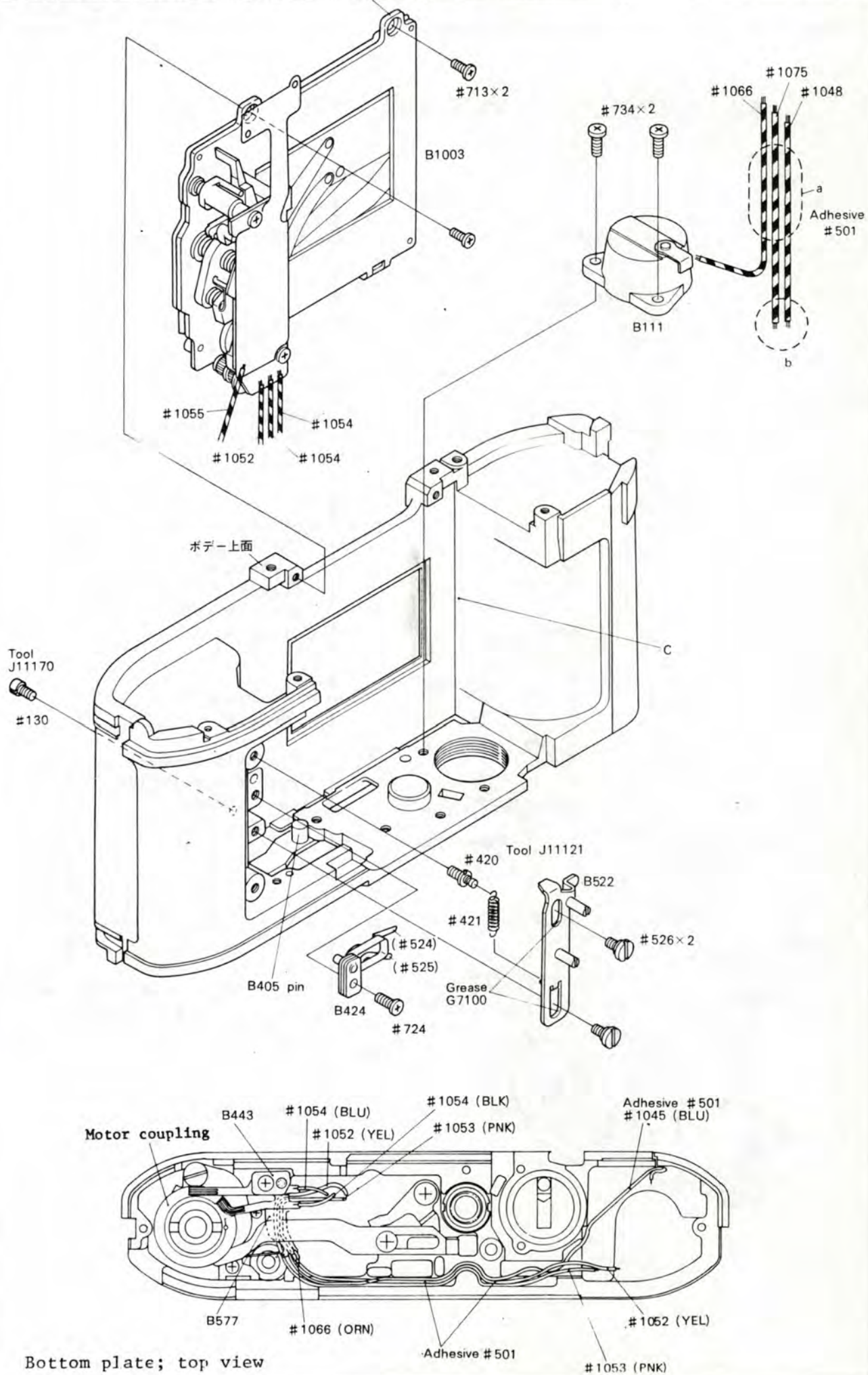
Motor coupling B418
| ⊕ #419

Fix B418 to #521 in accordance with the relative position as shown below.



Be sure to clean the pattern
on B418.

MD contact B443
⊕ #748



3. SHUTTER & RELEASE LEVER INSTALLATION

Body die-casting



Shutter B1003

⊕ #713x2

#130 (Data back contact A)
Before installing the shutter unit, place the pin on Shutter charge lever B405 all the way toward the rewind side. See that the top of shutter to be flush with the top edge of body die-casting.

Solder and route the lead wires as shown in the figure below.



Release lever spring stud #420



Release lever spring #421

Release lever B522

⊖ #526x2

Hook one end of #421 to B522 and the other end to #420 of body die-casting. Check B522 for smooth up-and-down movement.



Release button SW B424

Install B424, with B522 down.

Solder contact Blade A #525 and Blade B #524 referring to P. A35.



Battery chamber B111



Lead wires adhesion

#1076 #1075, #1048

Use the adhesive #501 to fix Portion a of wires to Section © of body die-casting.

The wires should extend approx. 15mm through the opening of body die-casting.

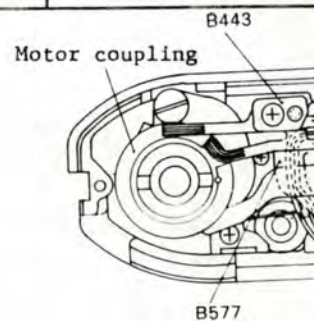


fig. 1 Body; bottom view

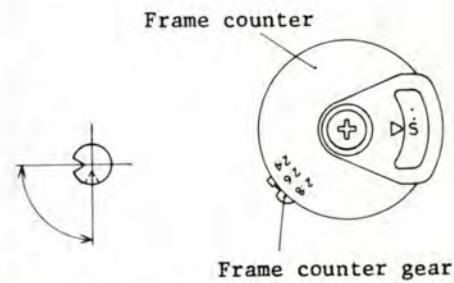


fig. 2 Frame counter; top view

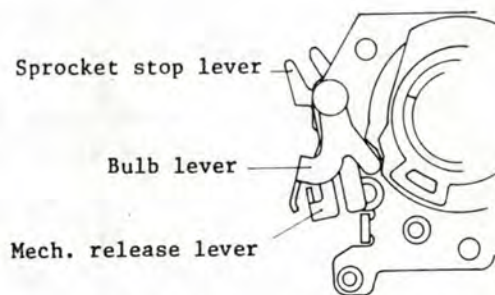


fig. 3 Film-advance mech. unit; top view

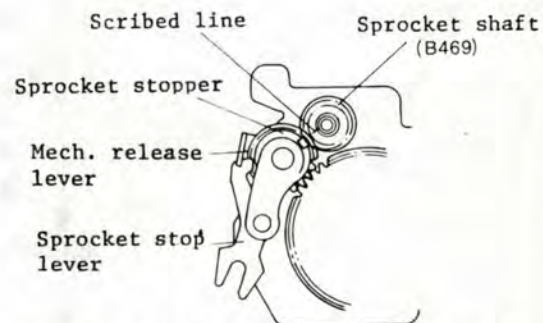
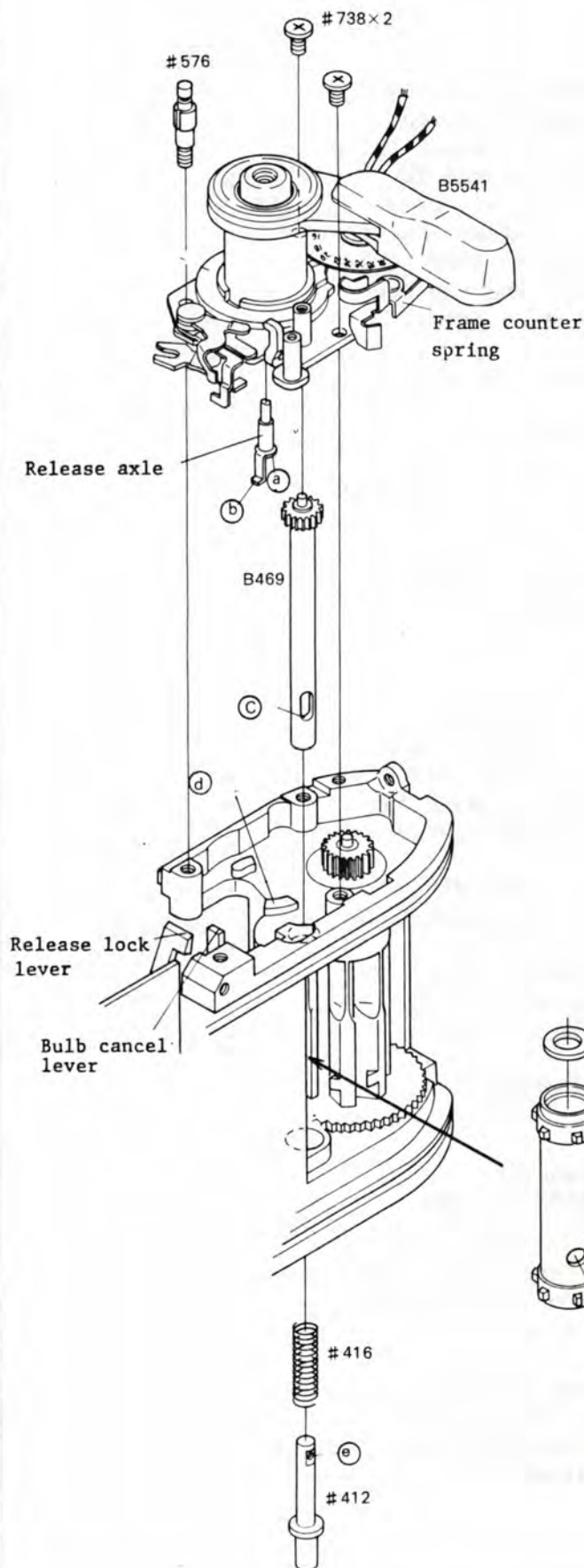


fig. 4 Film-advance mech. unit; bottom view

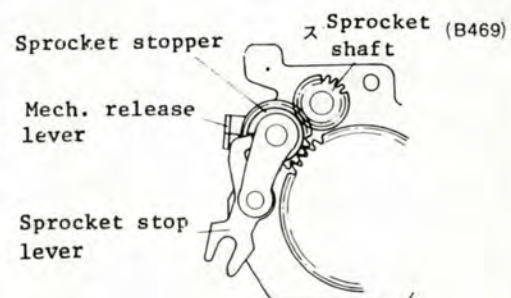


fig. 5 Film-advance mech. unit; bottom view

4. SPROCKET & FILM-ADVANCE UNIT INSTALLATION

Body die-casting



Washer sprocket #414
Sprocket #466



Apply a small amount of greese to
three grocves inside of the sprocket.

Film-advance unit B5541
Sprocket Shaft B469

⊕ #737x2

⊖ #576

(1) Mount body die-casting onto tool
J15222 with motor coupling set
as shown in fig. 1.

(2) Position the cutout of frame
counter gear as shown in fig. 2.

(3) Position T change-over click
and engage bulb lever with the
click as shown in fig. 3.

(4) Position sprocket stopper as
shown in fig. 4. Align cutout
of the stopper with the line
scribed on the gear of sprocket
shaft so as to provide the proper
engagement.

Apply Greese G8181 to circumference
and cutout of sprocket stopper.

(5) Use film-advance lever to turn
sprocket stopper until sprocket
stopper lever is engaged with
the cutout of sprocket stopper
as shown in fig. 5.

(6) Locate B5541 to put Portion
Ⓐ of B535 onto Portion
Ⓑ of body die-casting
as well as Portion Ⓒ
onto the top of B522,
with frame counter spring
aside.



(7) Insert friction axle into
opening of film-advance unit
base and then put frame
counter gear onto frame
counter gear axle so as
to make the engagement with
friction axle.
Put sprocket stopper lever
aside.

Remove body die-casting from
Tool J15222 and wind up
film-advance lever, with
holding film-advance unit,
to fix film-advance unit
down in place.

Check it bulb lever and
mechanical lever are
positioned between bulb
release lever and film-
advance unit base.

Sprocket spring #416
Rewind button #412



Sprocket screw #411

Align the hole of sprocket
with that of sprocket
shaft Ⓒ .

Put #411 through those holes
and screw it into Section Ⓐ
of #412.

1) Make sure that when
film-advance is completed,
MD coupling and frame
counter gear should be
positioned respectively
as shown in fig.1 and
fig.2.

2) Check if film-advance
lever is stroked smoothly.

3) Check if sprocket turns
smoothly.

4) Check if rewind button
moves up and down smoothly.

5) Make sure that B417 should
be turned on when frame
counter reaches the point
shown below.

S . . 1 2 .
↑
ON

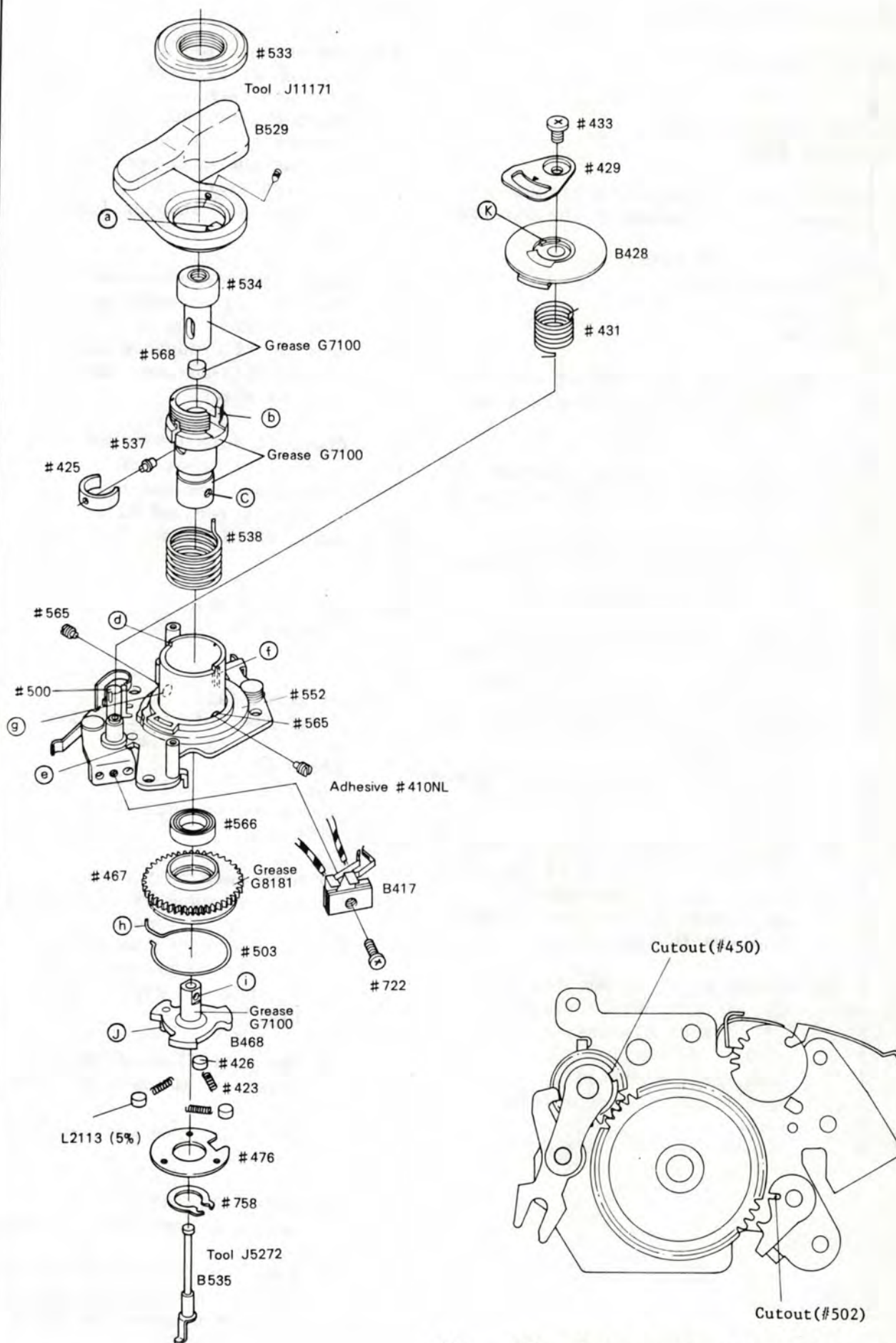
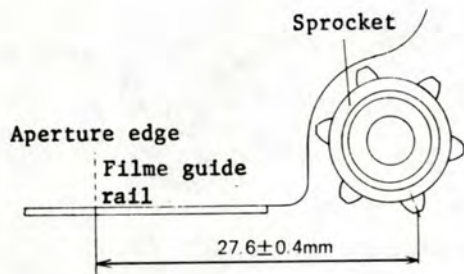


fig. Film-advance mech. unit; bottom view

6. SPROCKET TEETH POSITIONING



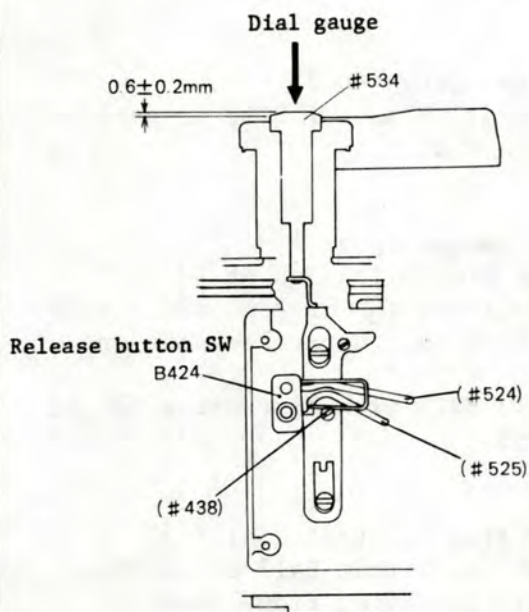
Sprocket teeth positioning tool
J18064-1

Check that when film-advance is completed, the center of one sprocket tooth is aligned with the reference line of J18064-1.

Play of the tip of sprocket teeth to be within 0.6mm after film-advance is completed.

Amount of the play can be measured by using the calibrations on J18064-1.

7. RELEASE BUTTON SWITCH ON/OFF ADJUSTMENT



Connect an ohm-meter to #524 and #525. Employ a dial gauge to slowly depress shutter release button. The needle of ohm-meter deflects toward $0\ \Omega$ when the switch is turned on. See if the stroke of $0.6 \pm 0.2\text{mm}$ can close the switch.

ON/OFF timing is adjustable by rotating eccentric pin #438.

5. FILM-ADVANCE BASE UNIT ASSEMBLY

Base, film-advance unit #541-6

Micro bearing #566

Clutch gear #467

When installing #467
cutout of #450 should
be positioned as shown
in the figure.

Spring, reverse stopper #503

Put Tip (h) of #503 into
cutout of #502.
See the figure.

Spring, film-advance lever #538

Hook one end of #538 to
Opening (f) of #539.

Release shaft bearing B536

#536, #534, #537
#425, #568

Hook the other end of #538
to opening of #539.

Clutch cam B468

Locate Pin (j) of B468
opposite to Groove (b) of #536.

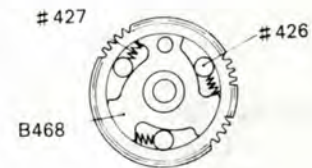
Align Opening (g) of #539 with
Section (c) of #536, as well as
Section (i) of B468.

Release shaft B535

Screw, clutch cam #562x2

After fastening one screw #562,
turn #552 half turn and then
fasten the other screw #562.

Film-advance cam roller #426x3
Cam roller spring #427x3



Film-advance cam cover #476

Film-advance shaft snap ring #758

Spring, frame counter #431

Hook #431 to Cutout (e).

Frame counter B428

Hook #431 to Spring shoe (k) of
B428.

Turn B428 clockwise two full turns.

Pointer, frame counter #429

⊕ #438

Align index 'Δ' on #429 with 'S'
on B428.

Counter switch B417

Install blade of B417 in parallel
with B428.

Film-advance lever B529

Put protrusion (a) of B529
to Groove (b) of #536 and then
turn B529 counterclockwise one
full turn.

Hold B529 with Protrusion (d) of
#539.

Cover ring, shutter dial #533

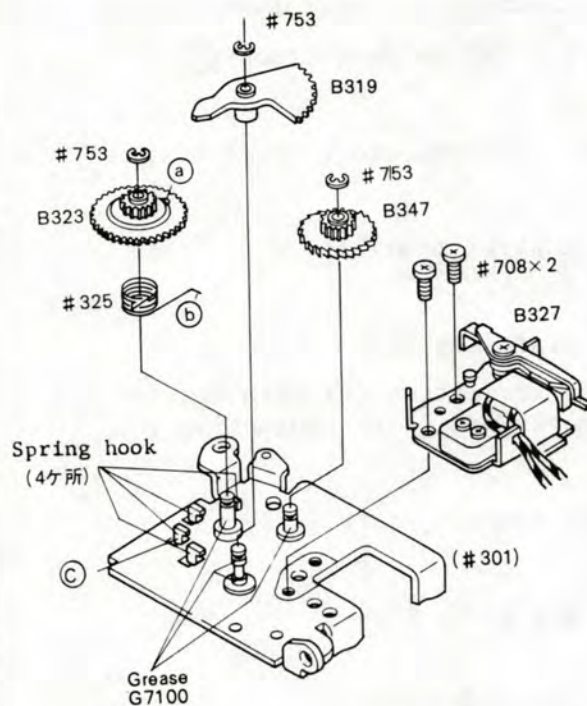
Make sure that B417 should be
turned on when frame counter
the point shown below.

S • • 1 2

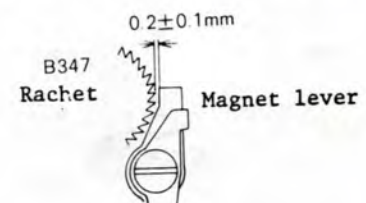
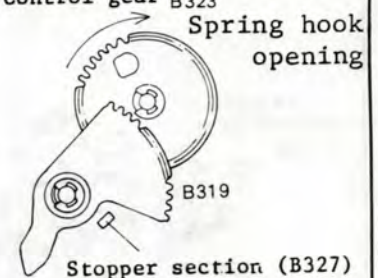
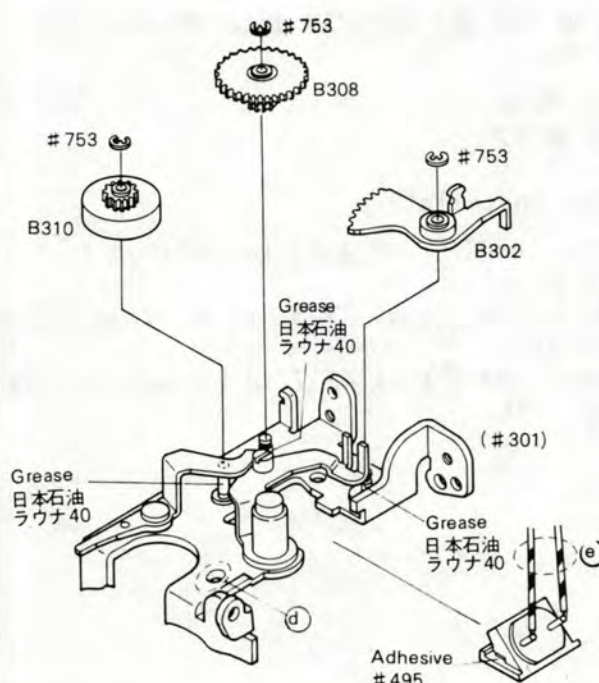
Δ

ON

8. APERTURE CONTROL BASE INSTALLATION



Aperture control base #301

Ratchet B347
#753Spring, Control gear #325
Hook the longer foot of #325
to Protrusion (c) of #301.Control gear B323
Hook the shorter foot of #325
to Opening (a) of B323.Shutter control magnet B327
+ #708x2
Shutter control magnet positioningControl segment gear B319
#753Turn B323 three fourth turn toward
the arrow direction and then engage
B313 (upper gear) with the third
tooth of B319. Control gear B323Re-hook End (a) of #325 to the same
opening as before disassembling.

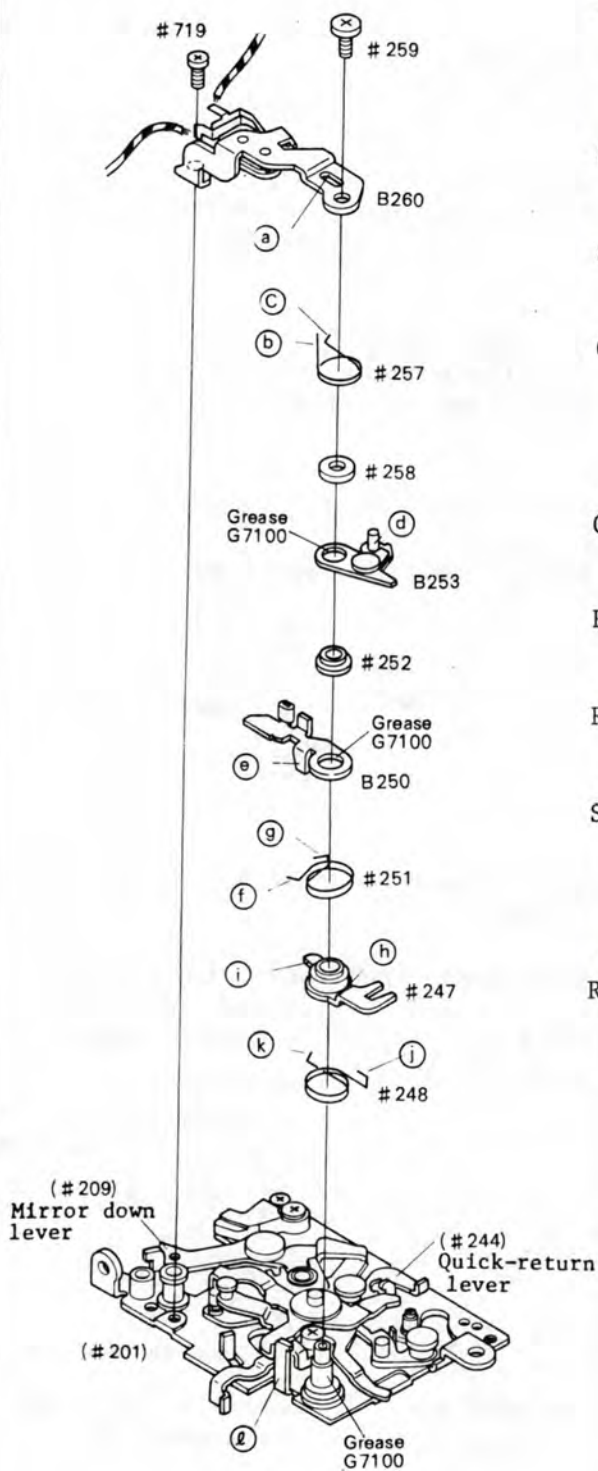
Fly-wheel B19 #753

Segment delay gear B302 #753

Delay gear A B308 #753

TTL, SPD B334

9. MIRROR BOX UNIT INSTALLATION



Mirror actuator #201

Spring, contrinuous control start lever #248
Hook End (k) to Projection (l).

Continuous control start lever B247

Spring, control start key #251

Control start key B250

Engage Projection (e) with Section (i)
and hook End (f) to Projection (e).

Collar B, control start #252

Release key lever B253

Release collar C #258

Spring, release key #257

Hook End (b) to Opening (d) and
cross Ends (b) and (c).

Release key plate B260

Insert Pin (d) of B253 into Opening (a)
of B260.

(+) #259
(+) #719

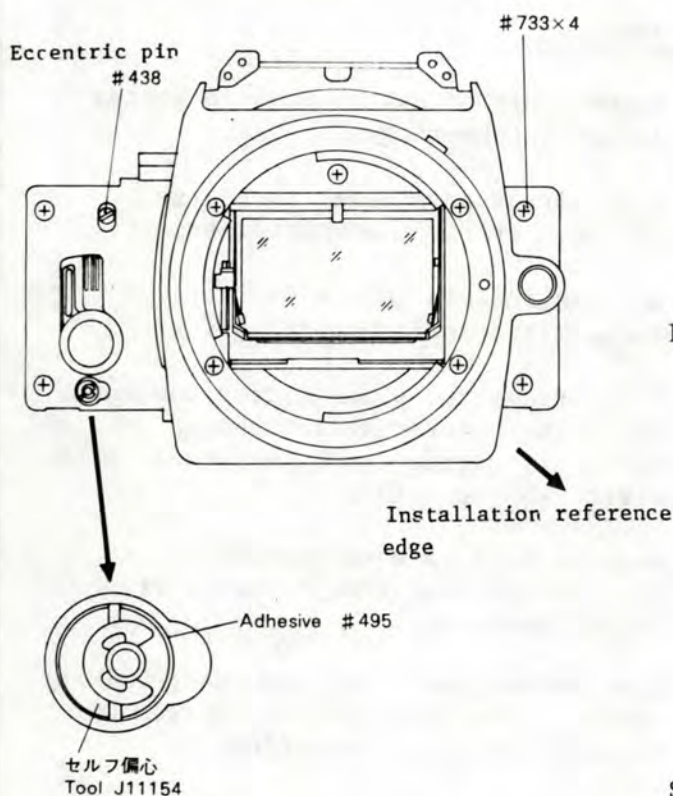
Spring Installation

Hook End (j) of #248 to Section (h)
of B247.

Hook End (g) of #251 to Section (h)
of B247.

Hook End (c) of #257 to Projection (l)
of #201.

20. FRONT PLATE UNIT INSTALLATION



Body Assembly

Be sure to set shutter unit to the charged condition before installing.

Place shutter charge lever as well as mirror charge lever, to the retracted position at the rewind side.

Front plate assembly

⊕ #733x4

Be sure to set mirror to the charged condition before installing.

When installing, closely fit the right lower part of front plate to body die-casting in the direction of arrow.

Put eight lead wires into cutout of body die-casting.

Shutter and mirror charge check

Stroke film-advance lever swiftly and slowly or strongly and weakly to check proper shutter charge.

Shutter release position check

Shutter should be released when mirror rises to the position 1-3mm from mirror sponge #372.

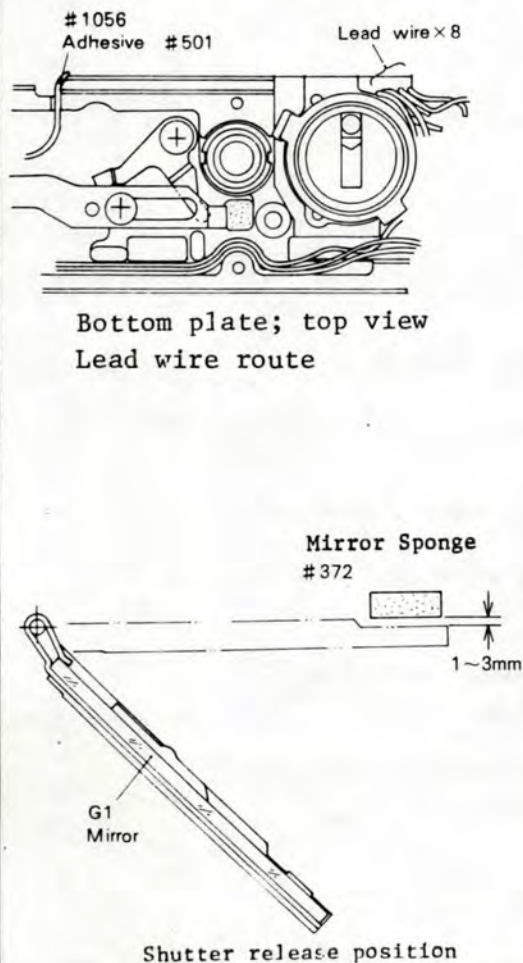
Turn self-timer eccentric pin for adjustment.

Shutter release button stroke

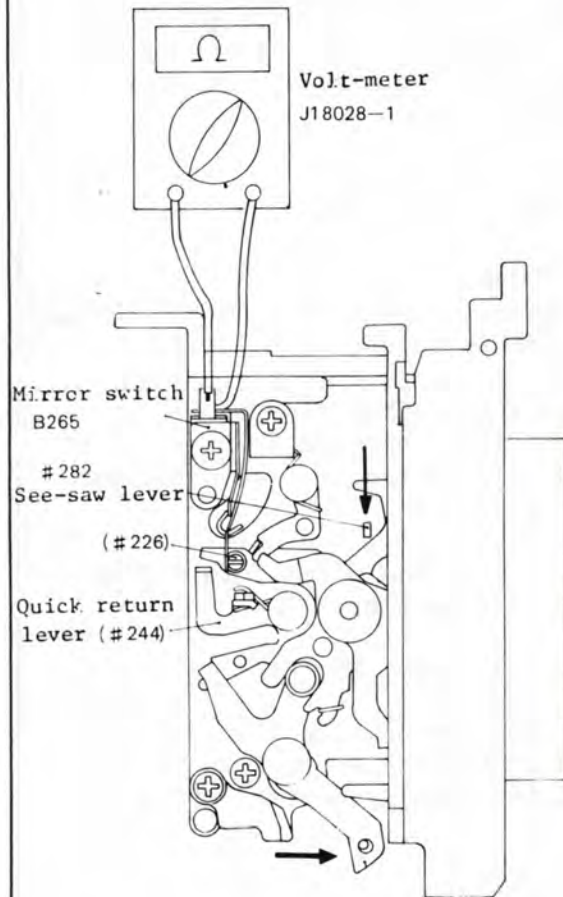
Tool: Dial gauge

Standard - - - $0.4 \pm 0.2\text{mm}$
from the top of #533

Turn release lever eccentric pin #438 for adjustment.



18. MIRROR SWITCH ON/OFF TIMING ADJUSTMENT



- 1) Connect Mirror Switch B265 to Tester J18028-1 (ohm-range).
- 2) Push mirror down lever to charge mirror. It turns on mirror switch.
- 3) Depress #282 to lock mirror up. Then, mirror switch turns off.
- 4) Use a finger to place mirror downward. Check that mirror switch should remain OFF until mirror comes in contact with mirror 45° acceptor.
- 5) Depress #244 to move down mirror to the viewing position. Then, mirror switch turns on.
- 6) Push mirror down lever to charge mirror again. Check that mirror remains ON steadily with no chattering.

Adjustments of mirror switch ON/OFF timing can be made by turning #226 to place contact blades of the switch.

19. APERTURE COUPLING RING MOVEMENT

Tool: J18063, J18058.

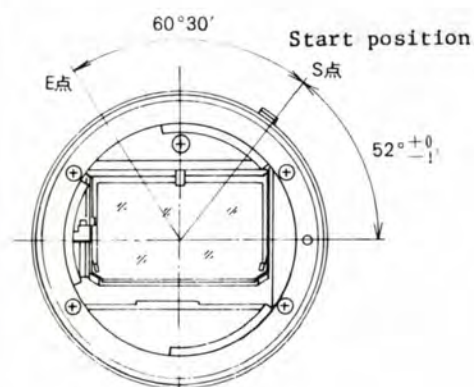
Coupling lever starting position: $52^{\circ} \begin{smallmatrix} +0 \\ -1 \end{smallmatrix}$

Maximum rotational angle: 60° or more

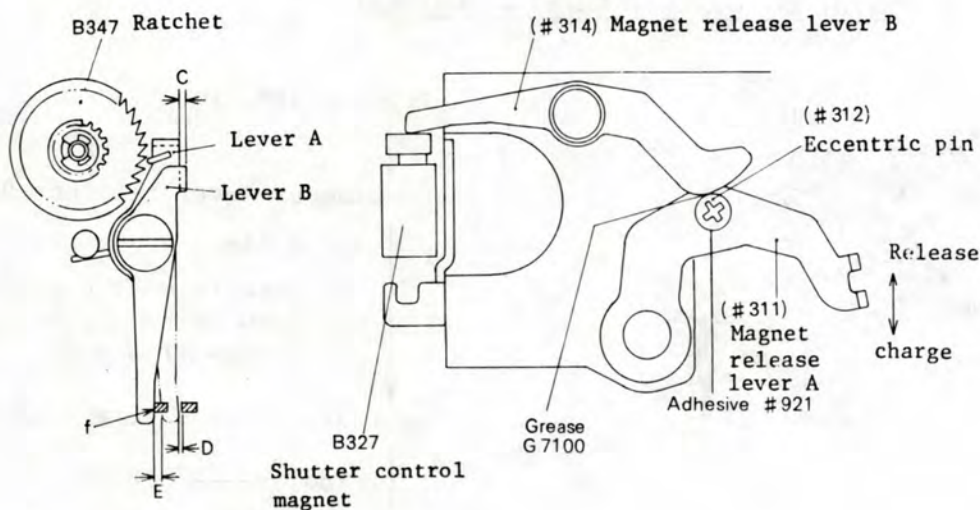
Forwarding torque at Point E:
750g-cm or less

Returning torque at Point E:
350g-cm or less

Returning torque at Point S:
60g-cm or more



16. CONTROL MAGNET REVERSE LEVER POSITION ADJUSTMENT



Adjustment:

#312 places #314 to be attracted by B327 when #311 returns to the released position from the charged position; the placement should be made more than 0.5mm(Stroke E) even after the magnet attraction.

- 1) Clearance C (released condition): 0.1mm or more
- 2) Clearance f (released condition): nil
- 3) Clearance D (charged condition): 0.1mm or more

17. MIRROR 45° ANGLE INSPECTION

Tools: Tool mirror J18074
Optical parallel J18037
Vertical Collimator

Standard: Vertically within $\pm 5'$
Horizontally within $\pm 20'$
Distortion within $\pm 10'$

Adjustment:

Vertical direction;
Rotate mirror acceptor eccentric pin. (Refer to P.A31)

Horizontal direction;
Adjust the installed position of B5290. (Refer to P.A21)

14. APERTURE COUPLING RING & BAYONET INSTALLATION

Front plate #26

f-fo base plate B364
⊕ #711x2

Spring, lens release button #354

Axle, lens release button #353

Lens release pin B355

Lens release button B352

Spring, aperture coupling ring #329

Hook End (f) of #329 to
Protrusion (d) of B362.

Aperture coupling ring B362

Place Protrusion (c)
against Section (e).

Front cover #27

Apron (chrome) #23A

⊕ #715A

Aperture coupling ring A #361

Fit Protrusion (a) of #361
into Cutout (b) of B362.

Bayonet #350

⊕ #747x4

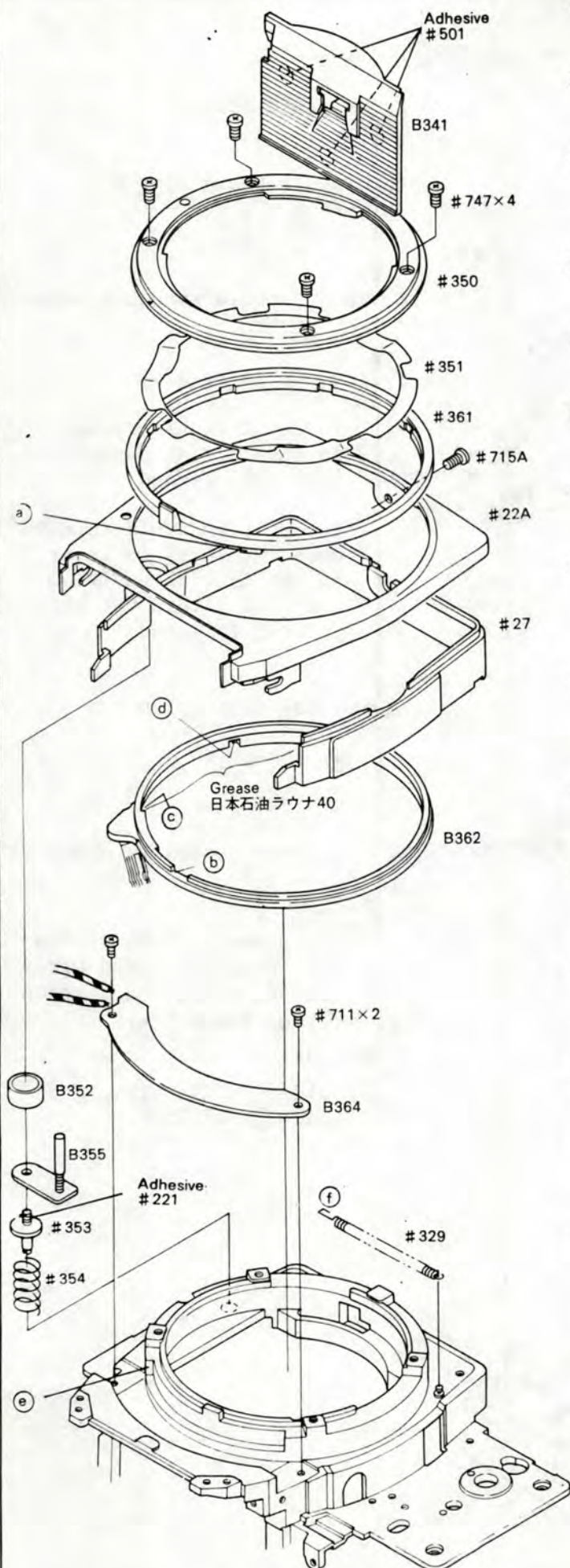
Check aperture coupling ring
for smooth movement.

Light baffle B341

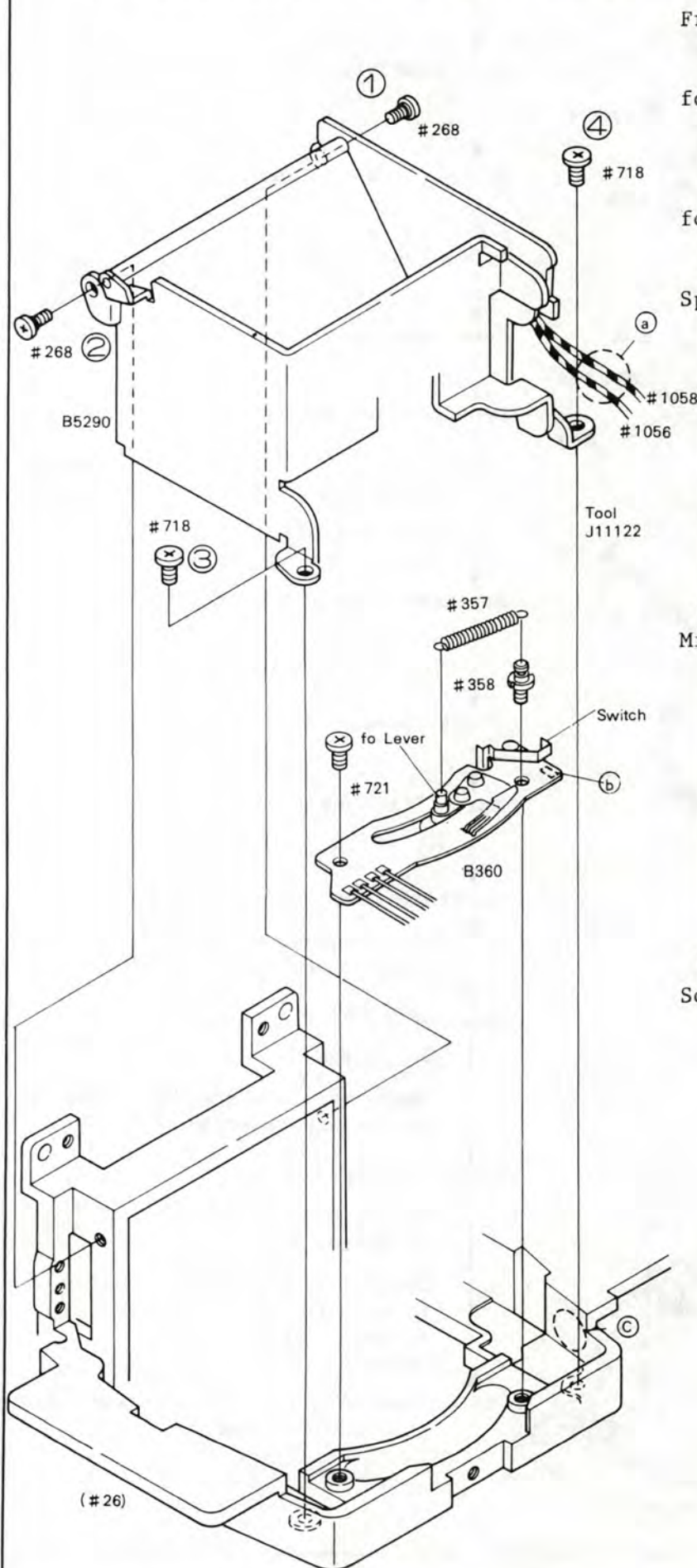
Cement B341 on the bottom
of mirror box.

Check if lens release button
is pressed to retract lens
release pin from surface of
bayonet.

Extending height of lens release pin:
0.7-1.2mm



13. fo CIRCUIT BOARD UNIT & MIRROR BOX INSTALLATION



Front plate #26

fo circuit board unit B360

⊕ #721
⊕ #358

fo lever should smoothly move.

Spring, fo lever #357

fo lever should return
to the initial position,
with #357 loaded.

The switch should turn ON
when returning fo lever
to the initial position
and should turn OFF when
pushing fo lever.

Mirror box unit B5290

⊕ #718x2

⊕ #268x2

Tighten screws in order

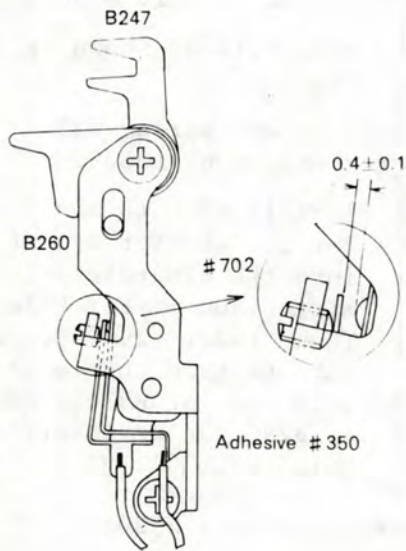
① - ④

Use adhesive tape to fix
Portion (a) of lead wires
(#1056, #1058) on Section
(c) of front plate.

Soldering

Solder #1056 with
Land (b) of B360.

11. P(PROGRAM) SWITCH ADJUSTMENT

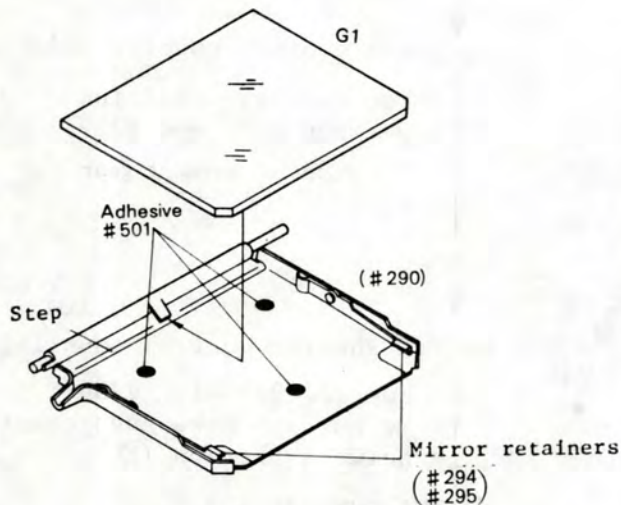


The clearance between the switch blades should be checked when B247 toward the arrow direction pushed. Standard clearance: 0.4 ± 0.1 mm

Adjustments can be made by screwing #702.

Apply adhesive onto #702 after adjustments.

12. MIRROR INSTALLATION



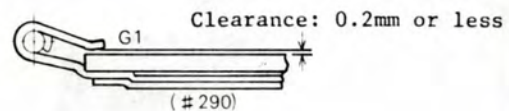
Mirror holder #290



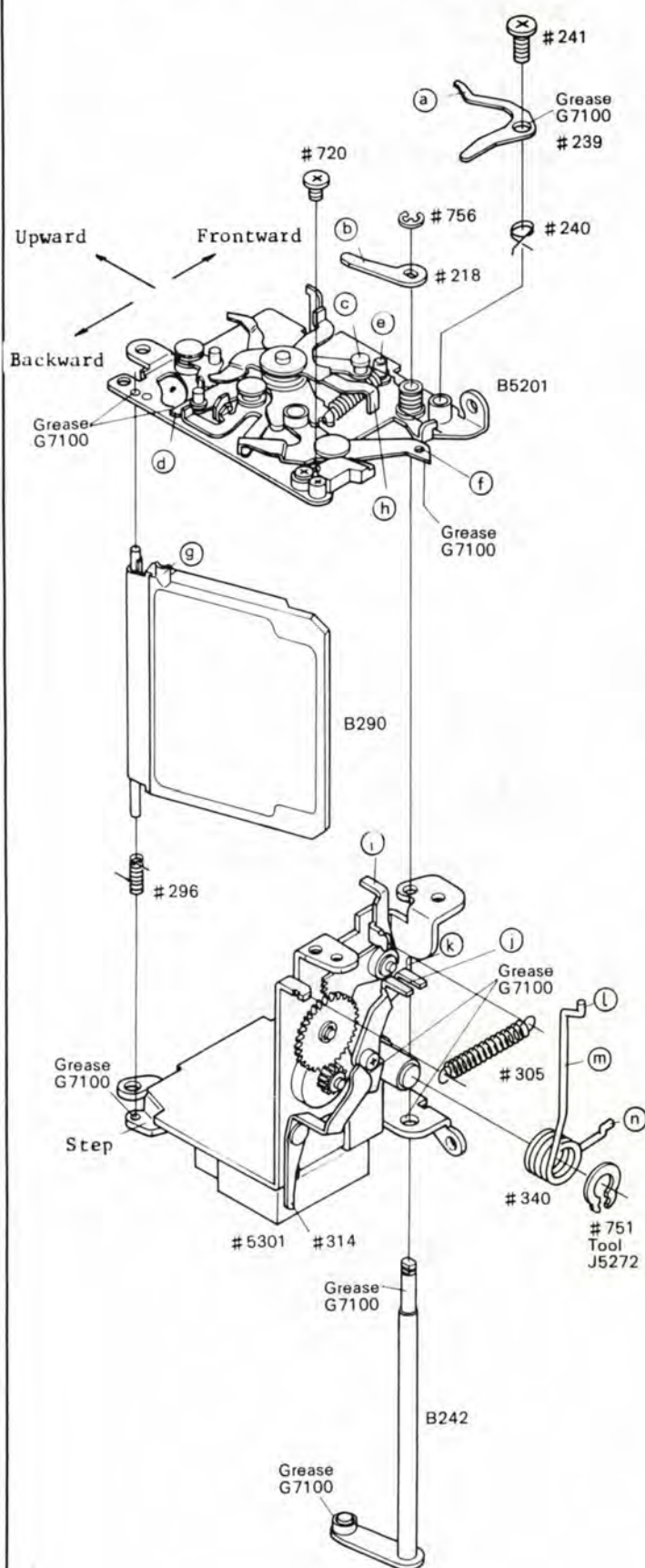
Mirror #1

Install #1 between #294 and #295 and butt #1 against the step of #290.

Clearance between #1 and #290 to be within 0.02mm. (See figure below)



10. MIRROR HOLDER INSTALLATION



Mirror control unit B5301

Hold #314 as shown in the figure.

Mirror holder spring #296

Mirror holder unit B290

Install #296 to shaft of B290. Put the shorter arm of #296 into the clearance between mirror and mirror holder. Then, twist #296 approx. 2/3 turn to hold the longer arm with side of B5301. So, shaft of B290 can be inserted into hole of B5301.

Mirror box unit B5201

⊕ #720

Be sure to make engagements between Sections (g) and (d), as well as (i) and (h), when installing B5201.

Spring, shutter start #240

Shutter start lever #239

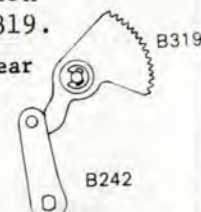
⊕ #241

Be sure to make engagement between Section (a) and (e).

Aperture control coupler B242

The relative position between B242 and B319.

Control segment gear



Lever, shutter control coupling #218

Secure #218 with #756.

Be sure to make engagement between Section (b) and (c).

Mirror down spring #340

Insert Section (l) into Hole (f).

Insert Section (m) to Fork (j).

Hook Section (n) to Section (k).

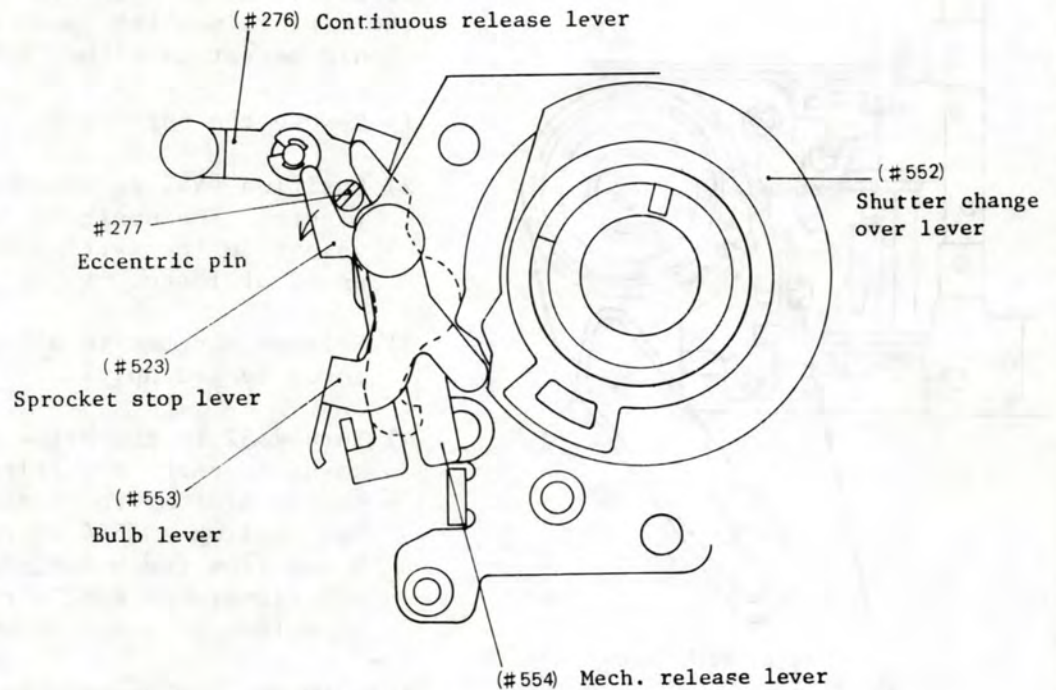
G-snap ring #751

Spring, Segment delay #305

Cement Portion (c) of load wire from SPD to Section (d) of B5301

(Refer to fig. of P.A17).

21. CONTINUOUS LEVER ADJUSTMENT



Adjustment procedure

- (1) Position #552 to M90 setting as shown in the figure.
- (2) Turn #277 counterclockwise with repeating shutter release until shutter release is prohibited.
- (3) Reverse #277 clockwise with depressing shutter release button until shutter release is permitted.
- (4) Reverse #277 further clockwise by 45 degree angle.

Checking after adjustment

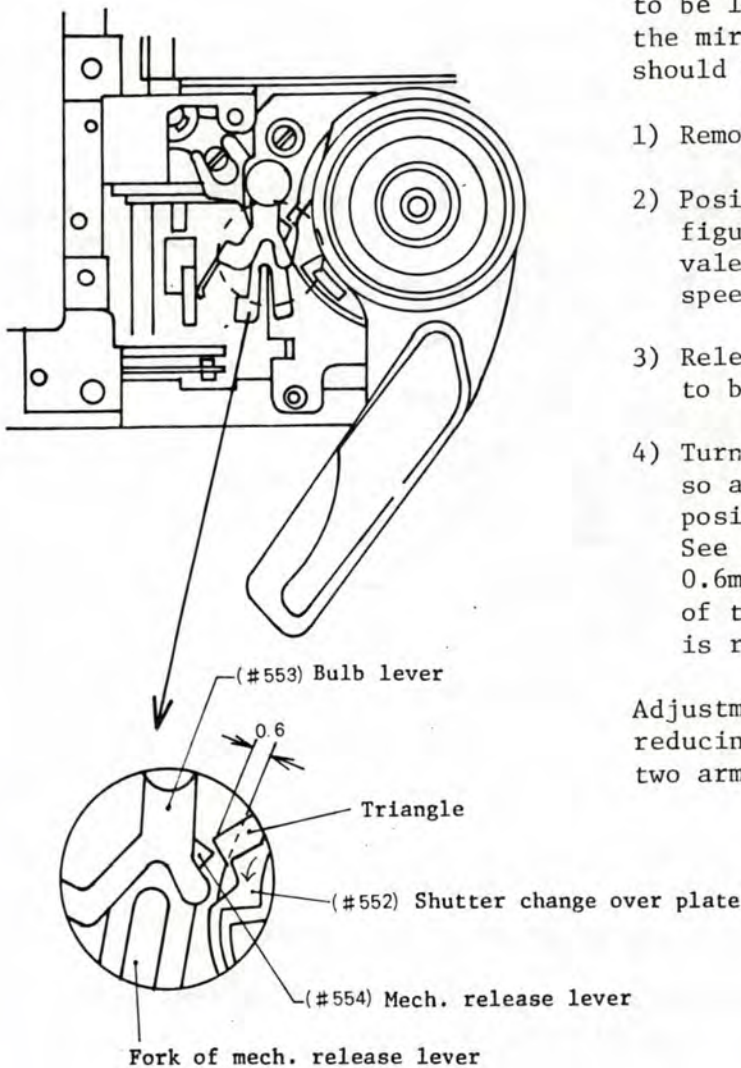
Hold shutter release button depressed and stroke film-advance lever slowly.
See if shutter is released even after #523 moves to the arrow direction.

22. SHUTTER LOCK RELEASE ADJUSTMENT

When the batteries are exhausted, shutter release will allow mirror to be locked up. In order to release the mirror, shutter speed selector should be set to either M90 or B.

- 1) Remove the batteries.
- 2) Position #552 as shown in the figure. The position is equivalent to the setting of shutter speed of 1 sec.
- 3) Release shutter to allow mirror to be locked up.
- 4) Turn #552 to the arrow direction so as to check the released position of mirror lock (M90 setting). See that when #554 is positioned 0.6mm from the base (broken line) of triangle on #552's claw, mirror is released to move down.

Adjustments can be made by increasing/reducing the clearance between the two arms of #554.



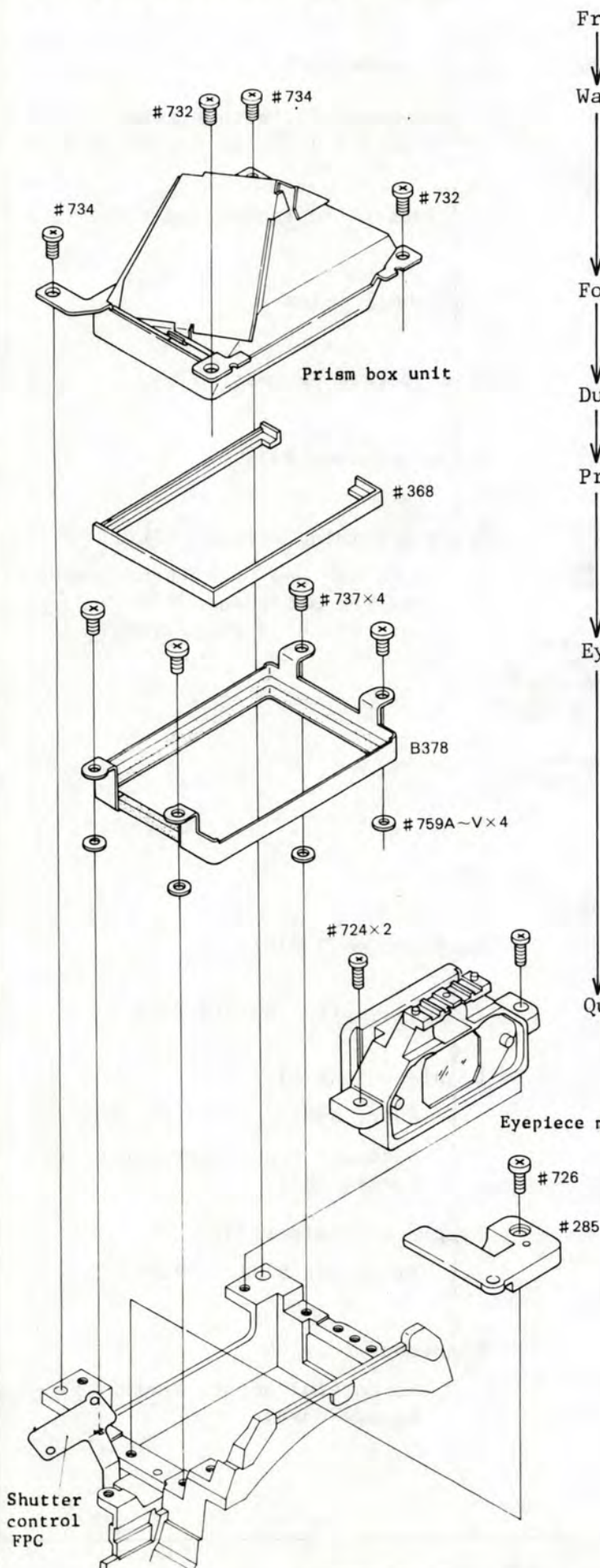
23. FLANGE FOCAL DISTANCE CHECK

Tool: J18001-1, J19004

Outer film rail: $46.67 \pm 0.02\text{mm}$

Parallel: 0.02mm or less

Balance of distance between inner and outer rails: $0.23 \pm 0.02\text{mm}$

24. PRISM BOX INSTALLATION

Front plate #26

Washer

#759A-Vx4

Washers #759A-V are used for adjusting either mirror 45° angle or infinity focusing. The thickness is 0.8mm.

Focusing screen frame B378

⊕ #737x4

Dust cover sponge #368

Prism box assembly

⊕ #732x2

⊕ #734x2

Refer the assembled parts to P.A30.

Eyepiece mold assembly

⊕ #724x2

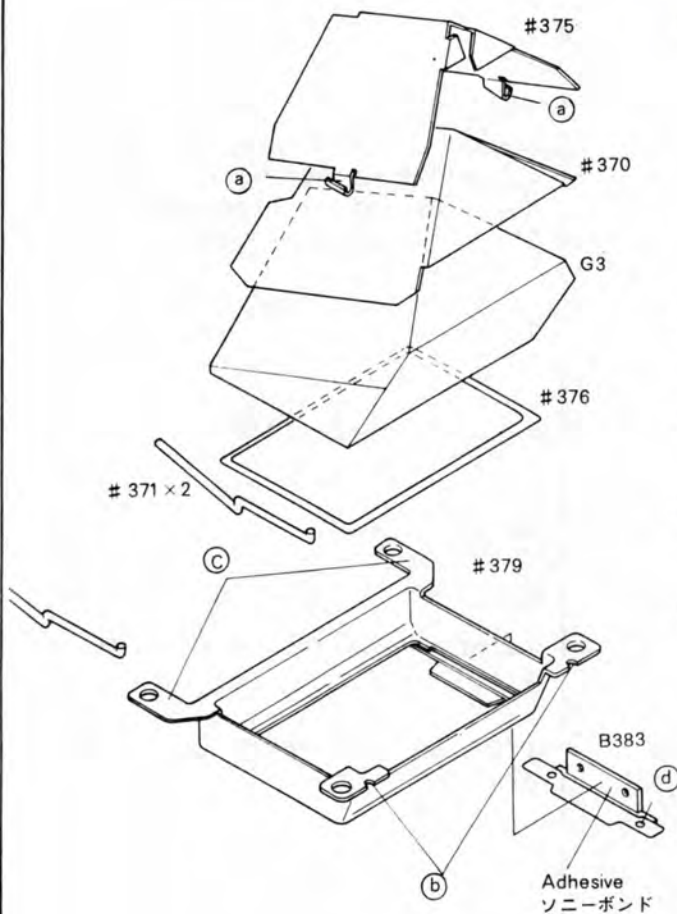
Refer the assembled parts to P.A30.

Quartz retainer base #285

When installing #285, bend FPC aside so as not to catch it.

Eyepiece mold unit

25. PRISM BOX UNIT ASSEMBLY



Prism box #379

Light guide B383

Cement B383, with fitting
Protrusion (d) to cutout of #379.

Anti-reflection frame #376

Pentagonal prism G3

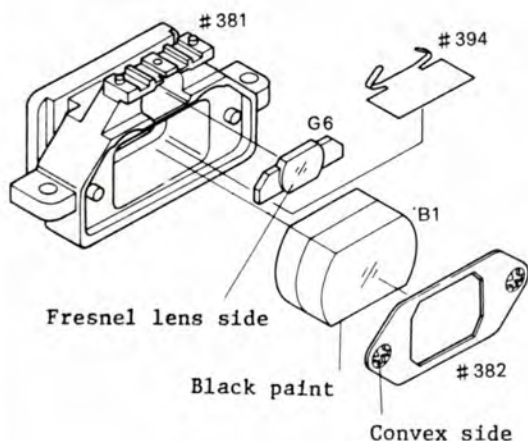
Prism retaining seat #370

Prism retainer #375

Prism retaining spring #371x2

Hook one end of #371 to Tongue (b)
and the other end of Tongue (c),
with catching Protrusion (a).

26. EYEPiece LENS INSTALLATION



Eyepiece mold #381

Plate, eyepiece shield #394

Eyepiece lens B1

Paint bottom of B1 black.

Face the convex surface of B1
toward #382.

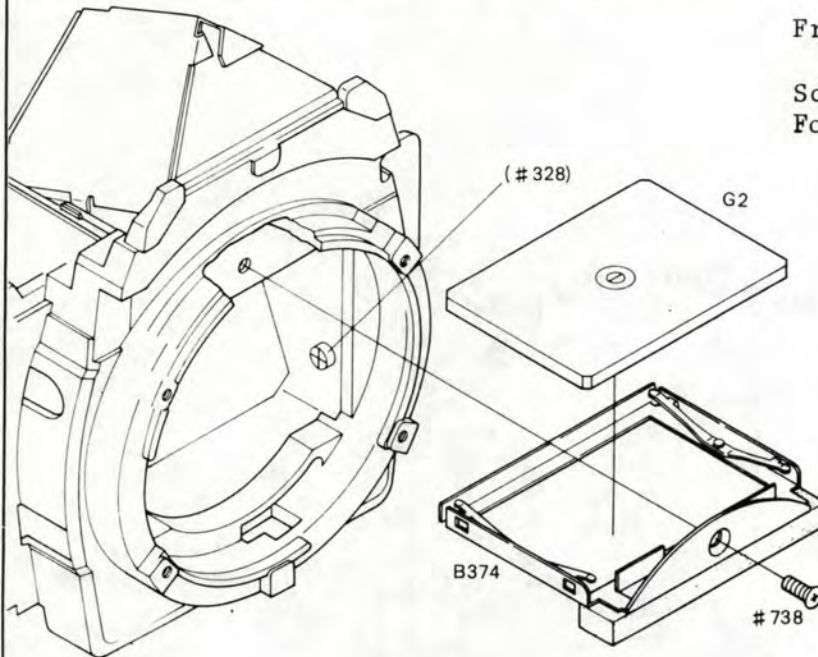
Eyepiece retainer #382

Press-fit B1 into #382.

Condensor lens G6

Be careful not to install G6
upside-down.

27. FRESNEL LENS INSTALLATION



Front plate #26

Screen retaining frame B374
Focusing screen G2

⊕ #738

Fit B374 to the step of front plate.

Be careful to avoid finger prints or scratch on fresnel lens.

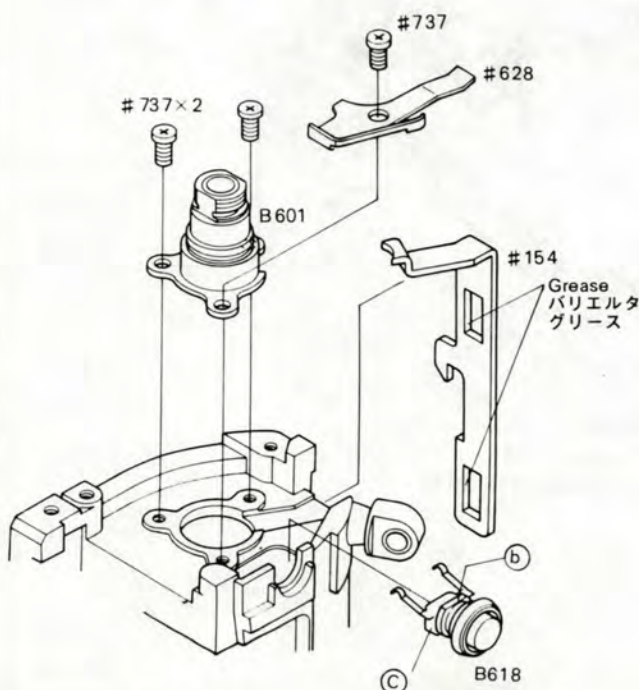
INFINITY FOCUS INSPECTION

Tools: Standard lens 50mm F2 J18010
Horizontal collimator (f=600mm) J19001-1

Standard: +30''
-0

Adjustments can be made by adding/removing Washers #759A-V or precisely by turning Mirror 45° acceptor eccentric pin #328. Refer Washers #759A-V to P.A29.

28. REWIND SHAFT BEARING & BACK LIGHT BUTTON INSTALLATION



Body die-casting

↓
Rewind shaft bearing B601

⊕ #737x2

↓
Latch B #154

↓
O/C spring #628

⊕ #737

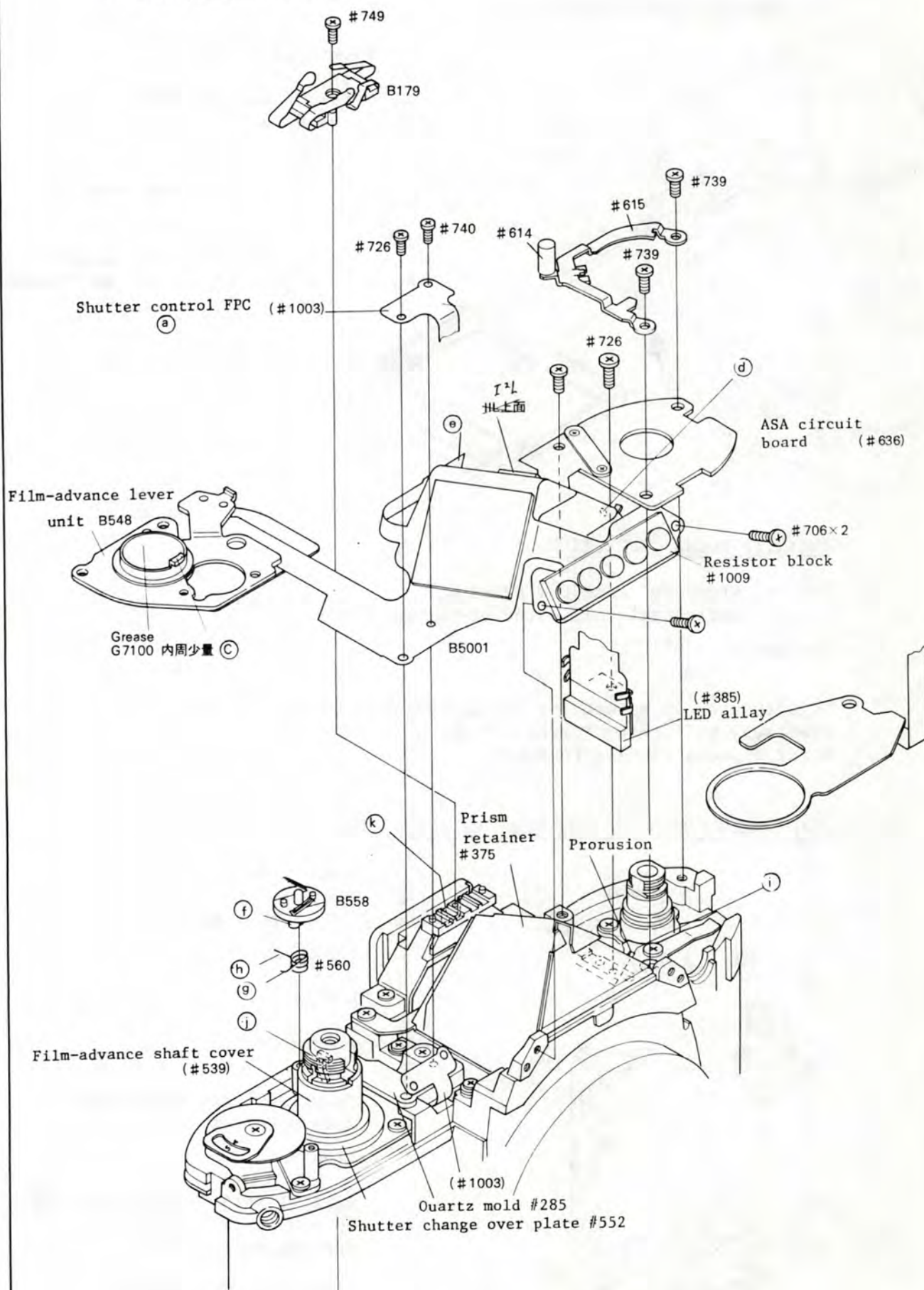
Check #154 for smooth up-and-down movement.

↓
B/L Button B618

Install B618, with Cutout (b) up and place Section (c) against Section (a).

Check button for smooth movement.

29. FPC INSTALLATION



FPC B5001

- (1) Insert LED alley into Opening (i) of body-die-casting.
- (2) Attach FPC on the top cover along side edges of #375.

LED alley #385

⊕ #726

ASA circuit board #636

⊕ #739 (eyepiece side)

Spring, ASA dial lock #615

⊕ #739x2

Shutter control FPC #1003

⊕ #726

⊕ #740 (Screw, FPC)

Install #1003, with bending Section (a).

Contact Section (a) of #1003 with Section (b) of B5001.

Solder-bridge between six patterns of Section (b) of B5001 and Section (a) of #1003.

Lead wires soldering (Refer to P.A35)

#1049 (pink)
 #1050 (blue)
 #1075 (green)
 #1076 (brown)
 #1048 (red)
 #1059 (black)
 #1060 (pink)

Apply silicon onto the solderjoints of #1075 and #1076 for moisture protection.

Sub-circuit Board B1083

Attach B1083 on the top of IC TTL.

Soldering (Refer to P.A35)

#1087 (orange)

#1088 (blue)

#1089 (yellow)

#1090 (black)

#1036 (orange)

#1037 (blue)

#1038 (yellow)

#1099 (red)

#1100 (red)

Resistor block #1009

⊕ #706x2

Strobo contact B179

Insert Sensor (e) of B5001 into Groove (k) of eyepiece. Soldering (Refer to P.A35).

#1036 (orange)

#1037 (blue)

#1038 (yellow)

Spring, A-M switch #560

Hook the longer arm (h) of #560 to Section (j) of body die-casting.

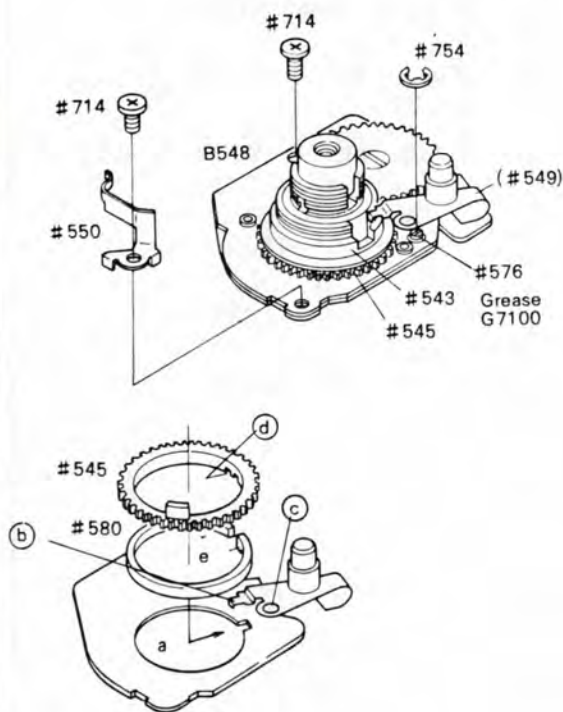
A/M SW B558

Hook Arm (g) of #560 to Protrusion (t) of B558.

Film advance lever unit B548

Insert B548 into #539, with the back side up. Insert Protrusion (c) of B5001 into groove of #552.

30. FILM ADVANCE LEVER UNIT INSTALLATION



Film advance lever unit B548

⊕ #714
#754

Spring, shutter dial click #550

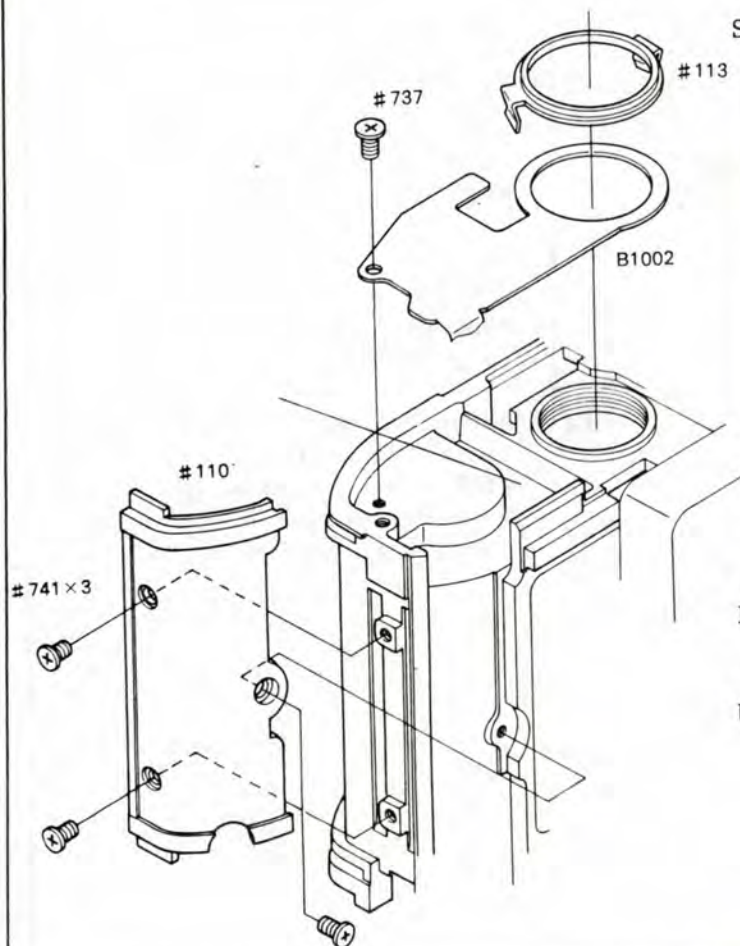
⊕ #714

(1) Align Cutout (d) of #545 and Cutout (e) of #580 with Section (a) of B548. (Refer to P.A36 of Cutouts (d) and (e))

(2) Tilt #549 to engage Section (b) with Cutouts (d) and (e), and fit Hole (c) to #576.

Lead wires soldering (Refer to P.A35)
#1061 (black) #1062 (yellow)

31. FPC (BOTTOM) INSTALLATION



FPC (bottom) B1002 ⊕ #737

Soldering lead wires (Refer to P.A35)

#1052 (yellow) #1053 (pink)
#1073 (green) #1074 (brown)
#1075 (green) #1076 (brown)
#1043 (orange) #1044 (black)
#1046 (yellow) #1047 (violet)

Control magnet lead wires (red, blue)

#1045 (blue)

#1045 should be routed through the groove of body die-casting.

#1058 (orange)

Solder #1058 to land of B557.

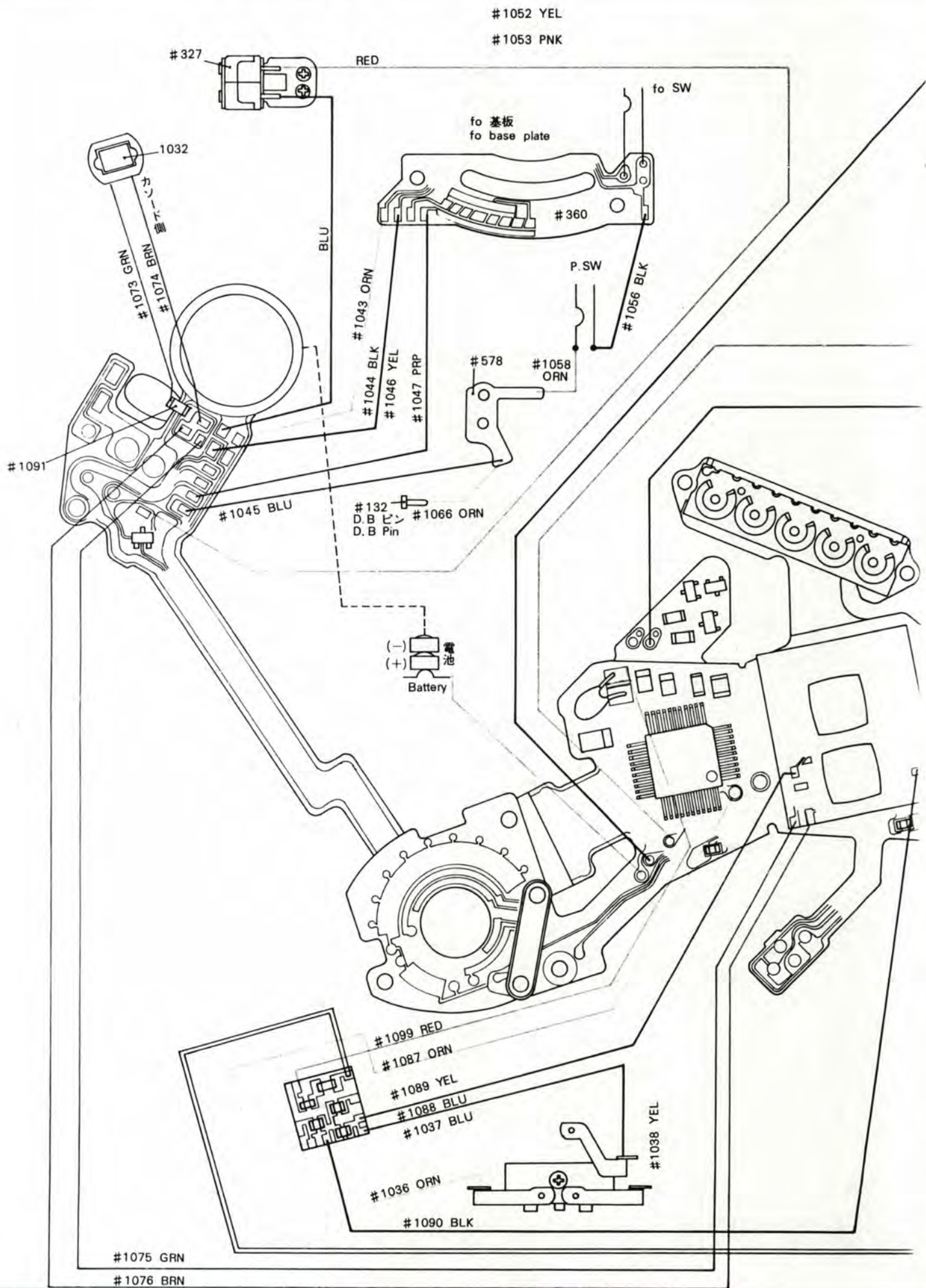
Apply silicon to solder joints of Lead wires #1073-1076 for moisture protection.

Battery earth connector #113

Upper claw cover #110

⊕ #741x3

③② 実体配線図 Wiring Diagram



#1082 BLK

#1034

圧電ブザー
Buzzer

RED

BLK

#142

セルフ音消SW基板
Circuit board.
Self-timer silencer
SW

BLK

RED

RED

BLK

RED

#1086

#1045 BLU

#1055 BLK

#1003

半押しSW

Release
button SW

BLK RED

#1049 PNK

#1050 BLU

#364

f-fo 基板
f-fo base plate

#1060 PNK

#1059 BLK

#1001

M. SW

#1100 WHT

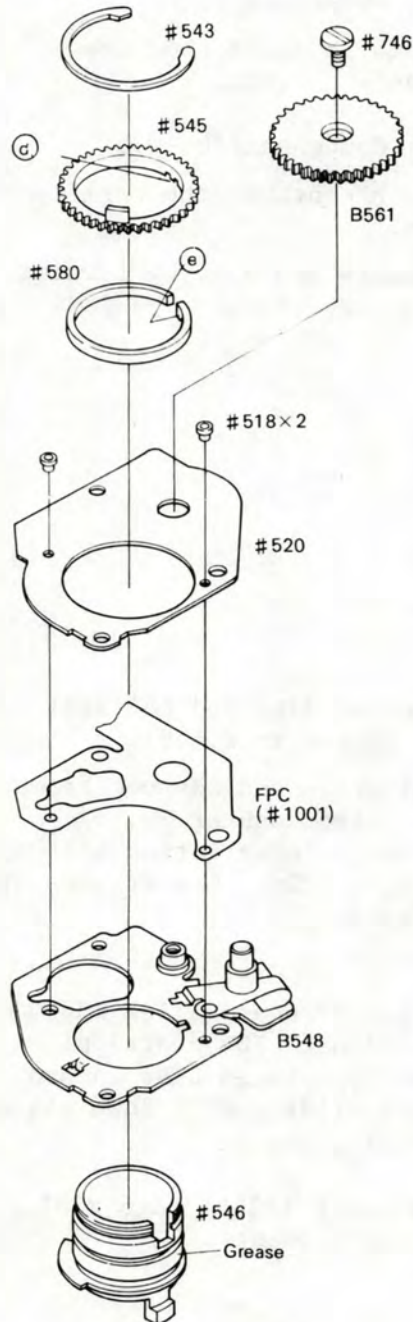
#1061

BLK

FC SW

#1062

YEL

33. EXPLOSION DRAWING OF FILM-ADVANCE LEVER UNIT

Film-advance lever unit B548

FPC #1001

Shutter dial circuit board #520

Align each through-hole of FPC
with each hole of #520 and then
solder ten points of circuit
pattern.

Rivet #518 to secure B548.

Disk B561

⊖ #746

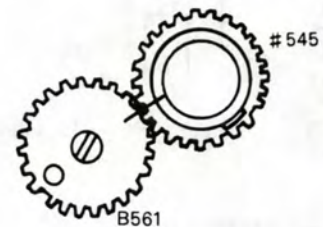
Shutter dial axle #546

Check #546 for smooth rotation.

Washer, shutter dial lock #580.

Gray cord gear #545

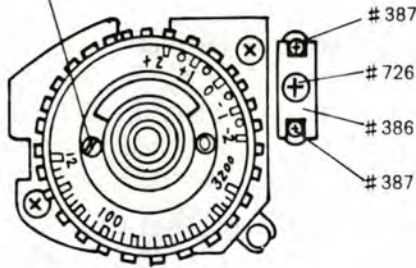
Align the scribed line on #545
with that of B561.



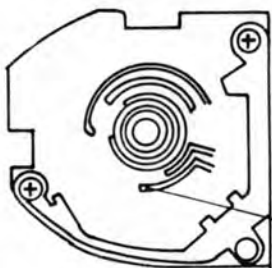
G-snap ring #543

34. ASA BRUSH POSITION ADJUSTMENT

Coupling axle



ASA dial; top view



Circuit pattern

ASA circuit; top view

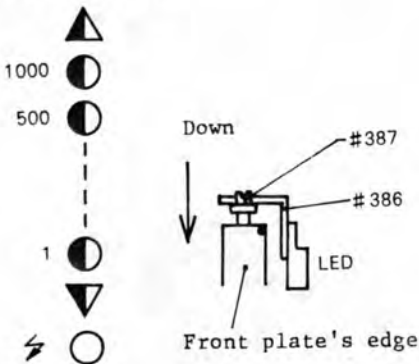
Adjustments should be made with the view from the back of camera body.

Standard:

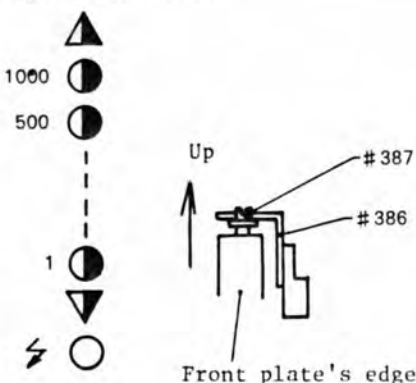
- 1) ASA100, Compensation 0
ASA brush is apart from the resistance pattern.
- 2) ASA100, Compensation -0.5
ASA brush contacts the resistance pattern.
Adjustments are made by turning ASA coupling shaft.

35. LEDs POSITION ADJUSTMENT

Left deviation



Right deviation



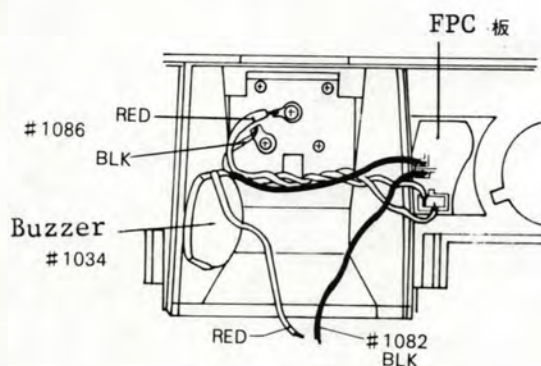
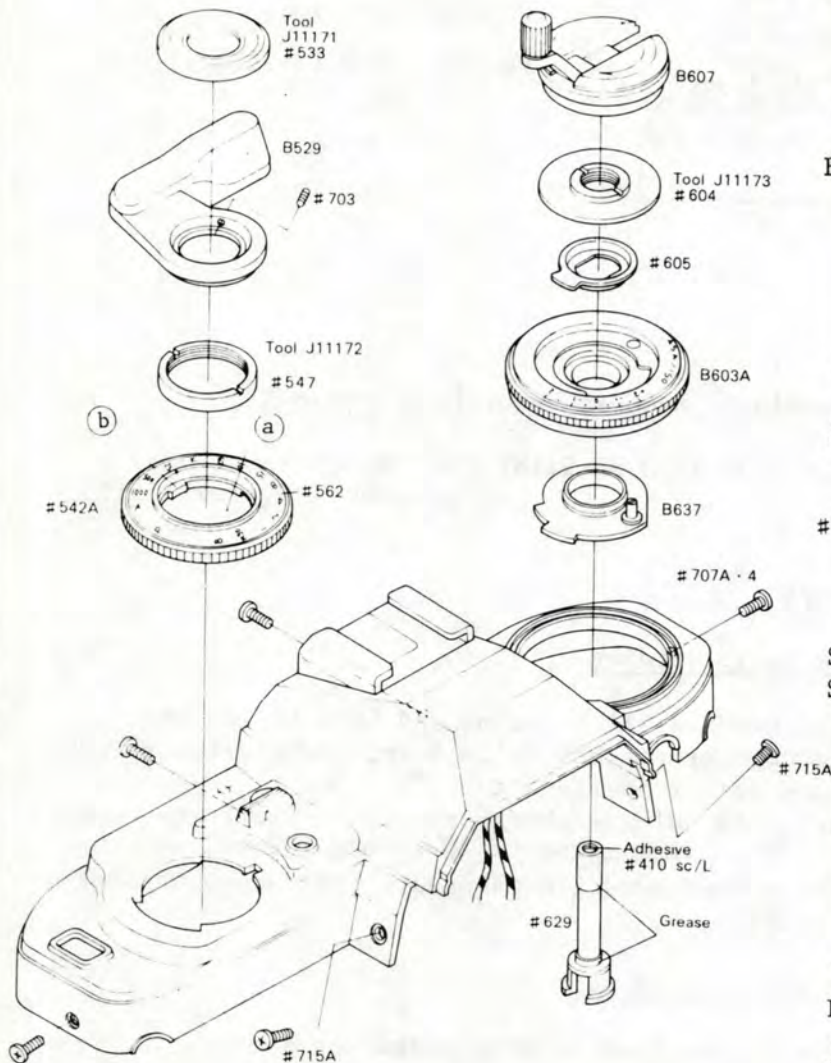
Replace shutter dial and ASA dial in place. (Refer to P.A38)

Install batteries and advance frame counter to close counter SW. Then, depress release button halfway so as to light LEDs. See if LEDs are clearly visible.

Turn #387 and #726 and slide #386 up/down to adjust LEDs position; sliding #386 up places LEDs toward the left and sliding #386 down places LEDs toward the right.

Apply lock-tight (#350) onto #387x2 and #726 after adjustments.

36. TOP COVER INSTALLATION



Body die-casting

Top cover unit B5023A

Soldering (Refer to P.A35)

#1082(black)

Buzzer lead wire(red)

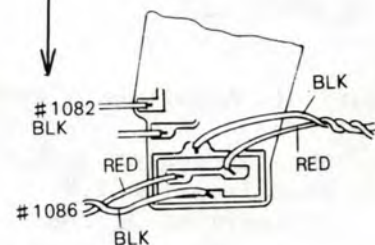
Shutter twist wire(red,blue)

Buzzer

⊕ #707Ax4

⊕ #715Ax2

Tightening torque: 1.8kg.cm



Shutter dial #542A

Shutter dial disk #562

Engage Cutout (a) of #562
with protrusion of #545
and insert Protrusion (b)
of #562 into groove of #546.

Be sure to fit #550 with
bottom circumference of
#542A.

Film-advance lever #531

Cover ring, shutter dial #533

Tighten #703 to secure #533.

ASA brush ring B637

ASA dial B603A

ASA dial retainer #605

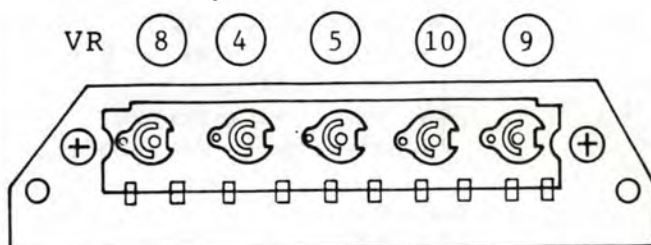
Nut, ASA dial #604

Rewind shaft #629

Rewind knob B607

37. SHUTTER SPEEDS & METER ACCURACY ADJUSTMENT

- VR (8) Auto level
- VR (4) fo-8
- VR (5) Program level
- VR (10) TTL level
- VR (9) LED level



Resistor block

Precaution: Adjustments should be made in order from (1) to (6).

Tool: Shutter tester J19036 (Kyoritsu EF-511N) Tool bottom cover J15226
 Tool lens (50/1.8) Standard reflector J15196
 Screwdriver J15188
 Time counter J18142
 Flash connector J15225

(1) Frame counter switch & Audio warning

Check that shutter delivers speeds of 11.7-11.9ms and LEDs of 125 and 60 are blinking until frame counter reaches "1". Next, set shutter speed selector to either P or A and select aperture to F22. Cover the lens from the light and release/charge shutter until frame counter reaches the second dot from "S". Then stroke film-advance lever, with shutter release button halfway depressed, to make sure that audio warning should be emitted at that point.

(2) Auto level of shutter delivery on auto mode

VR(8) should be turned clockwise to slow shutter speeds on A mode.
 Standard (ASA100/F5.6/LV12): 6.88-7.9ms (center value: 7.37ms $\pm 0.1\text{EV}$)

(3) LED level of shutter speeds panel

VR(9) should be turned clockwise to shift LED glowing to the lower shutter speed.

Standard (ASA100/F5.6/LV12): LED 125 be glowing

Adjustments should be made by repeating the following steps:

- Step 1 Turn VR(9) to light LED 125 at LV12.
- Step 2 Check if LED 1000 lights at LV15. If not, adjust VR(9) again at LV12.
- Step 3 Check if LED 2 lights at LV6. If not, adjust VR(9) again at LV12.

(4) fc- γ of P mode preparation alert

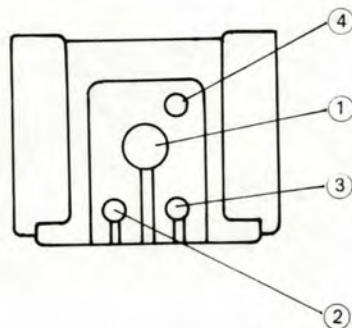
VR(4) should be turned clockwise to shift the alert position to the smaller aperture. Set shutter speed selector to P mode.

Standard (ASA100/F11/LV12): F11+1/6AV (alert emitting position)

(5) Program level of shutter delivery on P mode

VR(5) should be turned clockwise to slow shutter speed on P mode.

Standard (ASA100/F22/LV12): 6.67-7.66ms (center value: 7.15ms $\pm 0.1\text{EV}$)

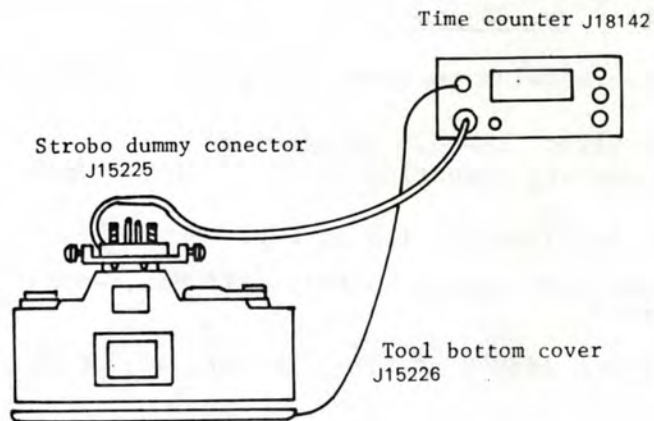
(6) TTL level of flash output control

- (1) Hot-shoe contact
- (2) Ready-light contact
- (3) TTL control contact
- (4) Monitor contact

Accessory shoe

TTL control contact passes a signal to the flash unit so that the light output may be ceased on TTL control.

Monitor contact passes a signal from the flash unit so that the camera may identify the unit as a TTL flash.



- SET-UP (1) Connect J15225 and J15226 to J18142.
 (2) Attach J15225 and J15226 to the test camera.

First, check that the sync speed is properly delivered.
 Standard: 10.0-15.2ms (reference value: 11.1ms)

Next, set shutter speed selector to P mode and put J15196 onto the aperture plane. VR(10) should be turned clockwise to shorten the output control time.
 Standard (ASA100/F1.8/LV15): 0.160-0.170ms

If the pilot lamp of J18142 fails to glow, press the initial reset button to reset the circuit.

(7) Shutter delivery on manual mode ASA 100 LV 5.6

SPEED SET	REFERENCE	STANDARD (ms)	LED		
1000	0.98 ms	0.69 - 1.38	1000 Glow	125 Blink	
500	1.95	1.58 - 2.40	500 "	125 "	
250	3.91	3.18 - 4.81	250 "	125 "	
125	7.81	6.34 - 9.62	125 "		
60	15.63	12.7 - 19.2	60 "	125 "	
30	31.25	25.4 - 38.5	30 "	125 "	
15	62.5	50.8 - 76.9	15 "	125 "	
8	125	102 - 154	8 "	125 "	
4	250	203 - 308	4 "	125 "	
2	500	406 - 616	2 "	125 "	
1	1000	812 - 1231	1 "	125 "	

(8) Shutter delivery on A mode

LV	ASA	APERTURE	SPEED SET	STANDARD (ms)
15	100	5.6	1/1000	0.58 - 1.65
12	100	5.6	1/125	4.98 - 12.3
9	100	5.6	1/15	39.8 - 98.1
9	100	16	1/2	319 - 785
6	100	8	1	637 - 1569

(9) LED indication on A mode

LV	ASA	APERTURE	SPEED SET	DISPLAY PANEL	LED INDICATION
15	100	5.6	1/1000	△	
				1000	
				500	
				250	
				125	
12	100	5.6	1/125		
				60	
				30	
				15	
				8	
9	100	11	1/4		
				4	
				2	
				1	
				▽	
6	100	16 F8	1		

(10) Shutter delivery on P mode

Set up
F11 or 16
for copier tester

LV	ASA	PROGRAMMED MODE	STANDARD	LED	LED INDICATION		
15	100	1/398	1.91 - 3.32	500 250	●	●	●
12	100	1/140	5.39 - 9.39	250 125	●	●	●
9	100	1/50	15.3 - 26.59	60 30	●	●	●

(11) Exposure compensation

Set A mode and determine shutter speed to 1/15 sec.
Standard (LV9/ASA100/F5.6): $\pm 2 \pm 0.4EV$

(12) Shutter speed deviation with self-timer release

Set A mode and determine shutter speed to 1/15 sec.
Standard (LV9/ASA100/F5.6): $\pm 0.25EV$

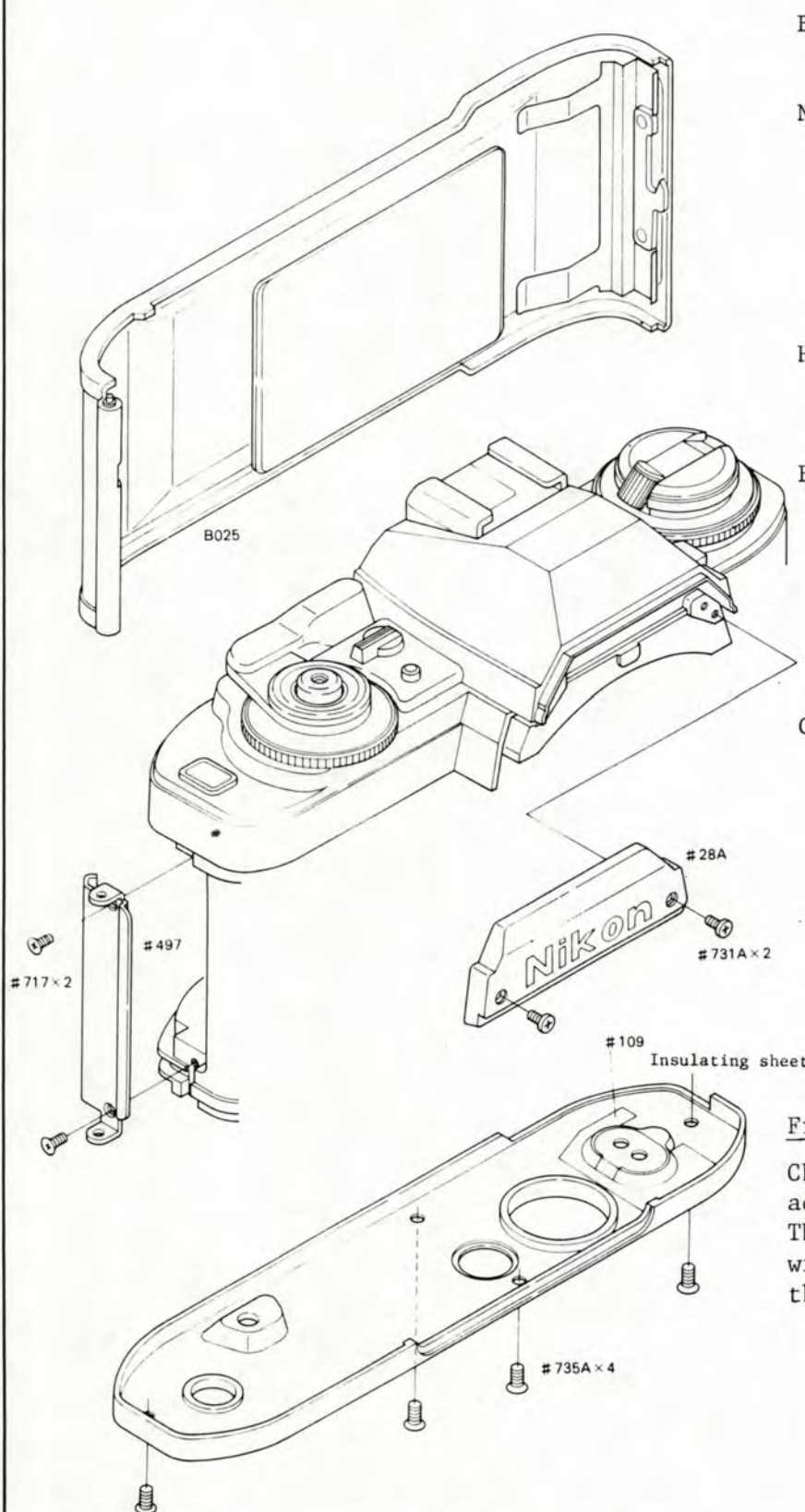
(13) Shutter speed on M90 setting

Standard: 10.0-15.2ms (reference value: 11ms $\begin{matrix} +0.15 \\ -0.45EV \end{matrix}$)

(14) Flash synchronization

Tool: J15166, J19028-1
Time lag: 0.3 - 10ms
Insulation resistance: 30M or more (500V)

38. CAMERA BACK & BOTTOM COVER INSTALLATION



Body assembly

Name plate (chrome) #28A
⊕ #731Ax2

The clearance between
top cover and apron
should be within 0.3mm.

High shaft, camera back #497-6
⊕ #717x2

Bottom cover #24A
⊕ #735Ax4

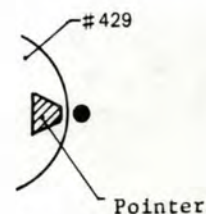
Be careful not to
catch lead wires
between #24A and
body assembly.

Camera back B025

Check camera back for
smooth swing-open and
latched-close.

Frame counter checking

Check frame counter for proper
advance and return.
The pointer should be aligned
with at least 1/3 portion of
the dot.

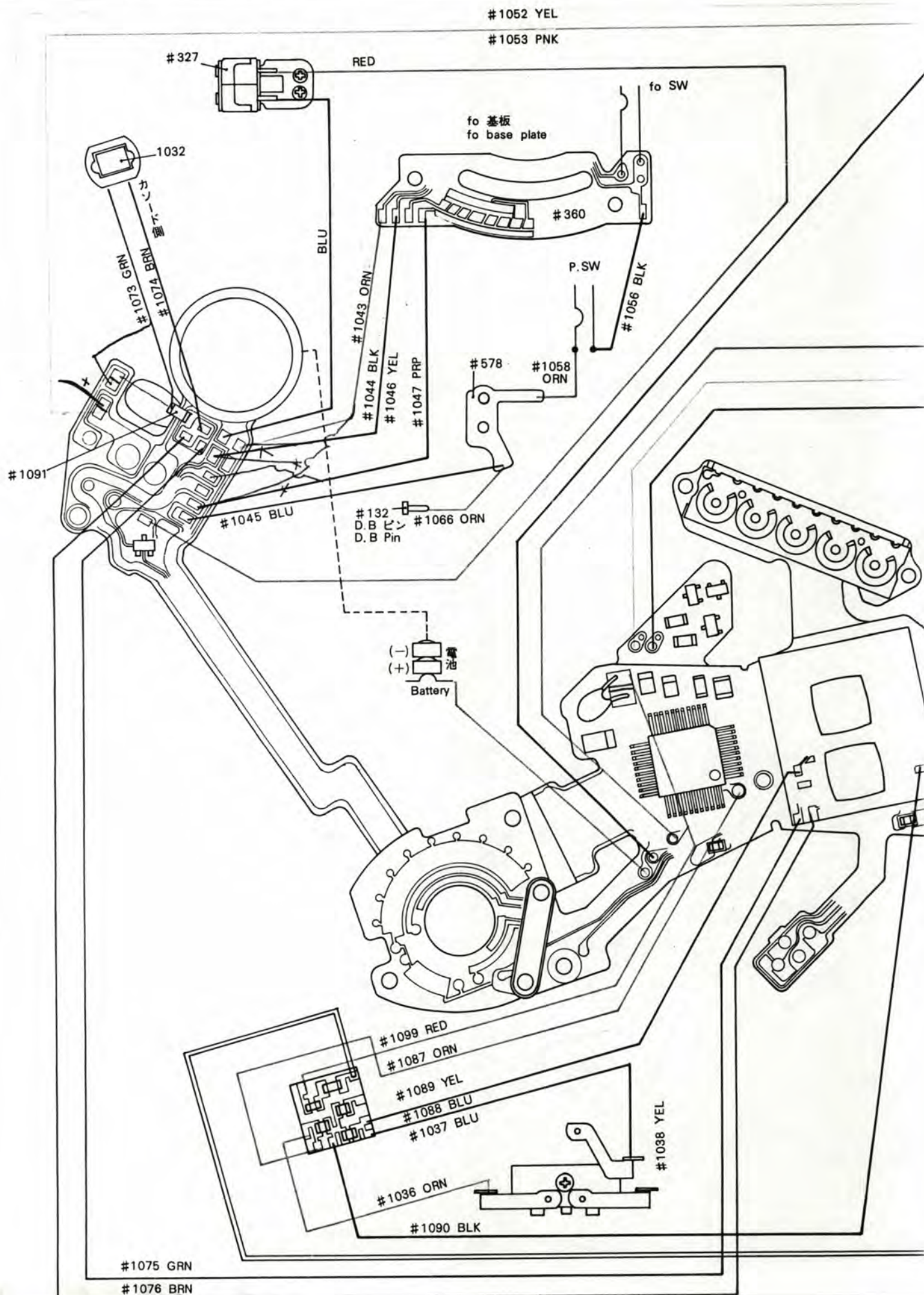


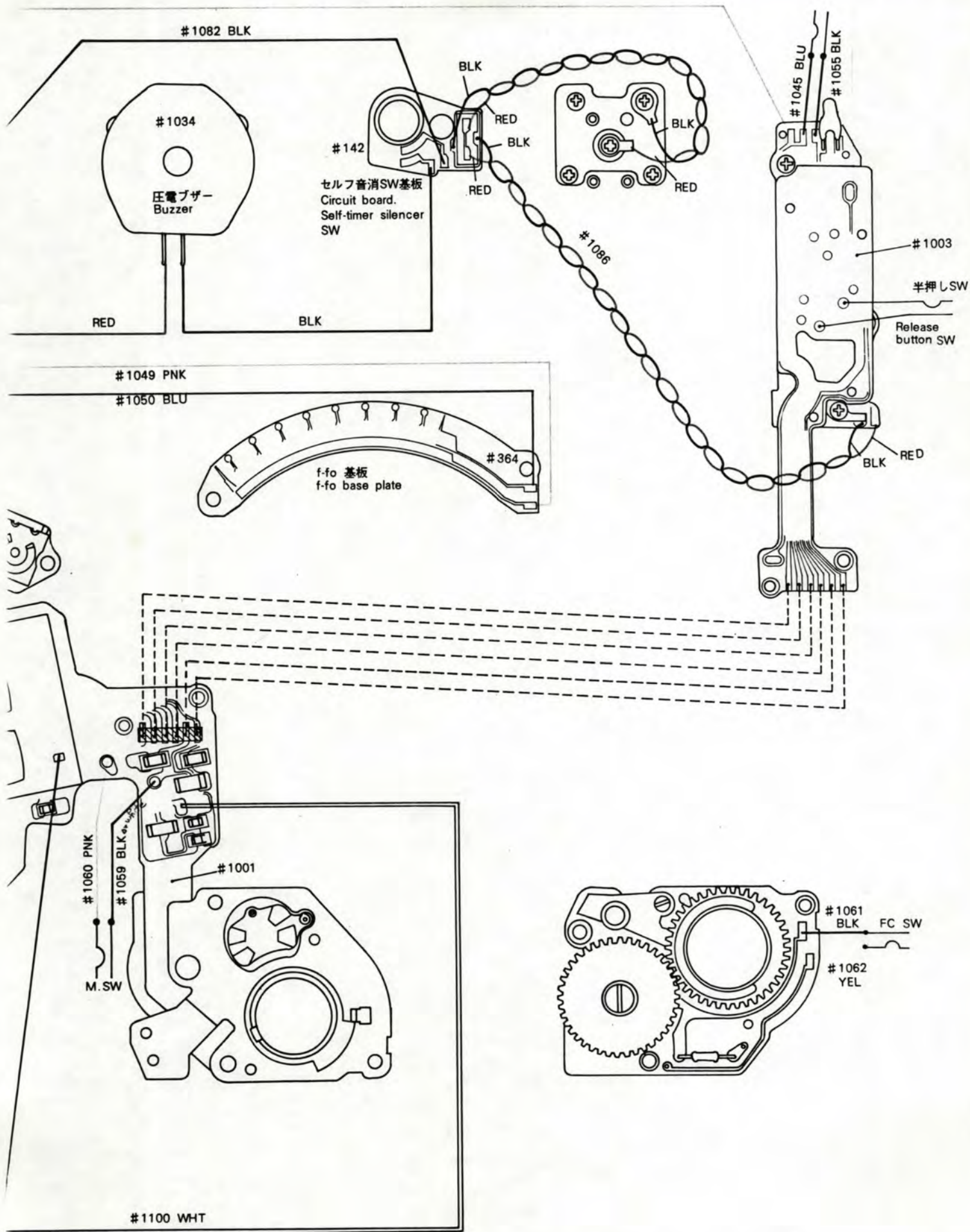
ELECTRIC CIRCUIT

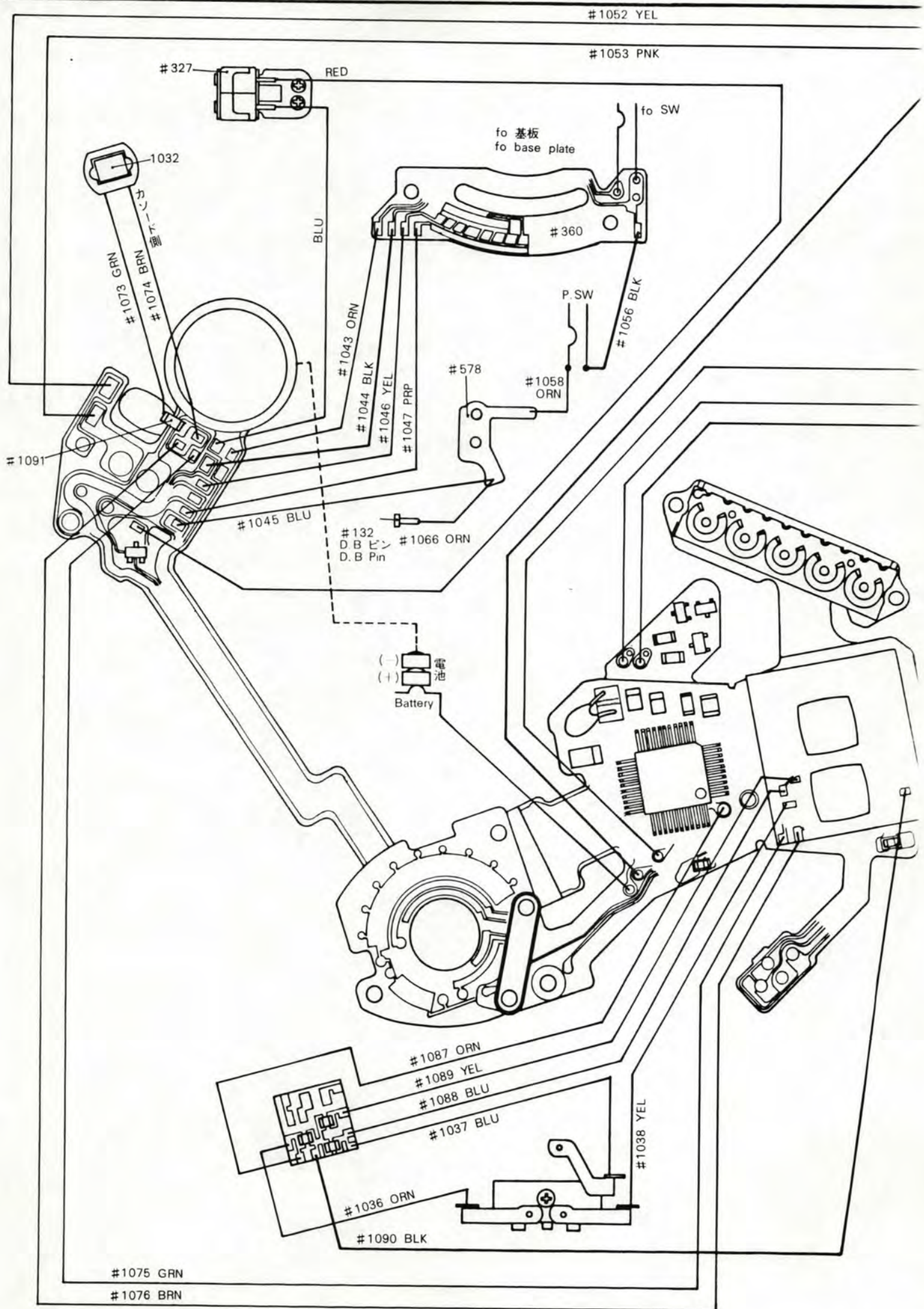
Contents

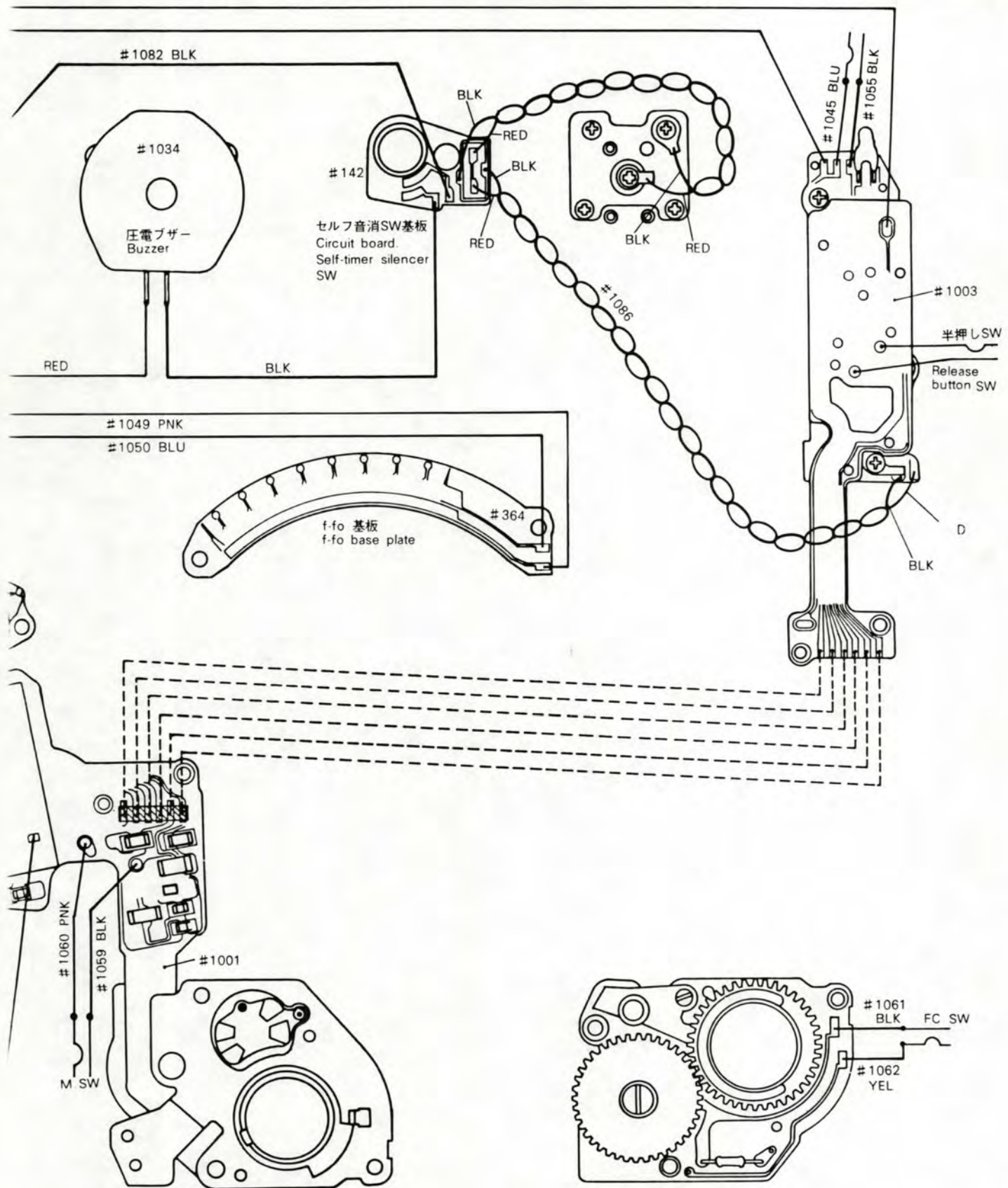
[1]	CHECK LANDS	
	Wiring Diagram	E1
	Wiring Diagram	E2
	Circuit Diagram	E3
	FPC (#1001)	E4
	FPC Check Lands	E5
	FPC (#1003)	E6
	Checking Lands (HIC)	E7
	Checking Lands (#636)	E8
	Checking Lands (#1002)	E8
[2]	CIRCUITRY TROUBLESHOOTING FLOECHART	E9

実体配線図 Wiring Diagram



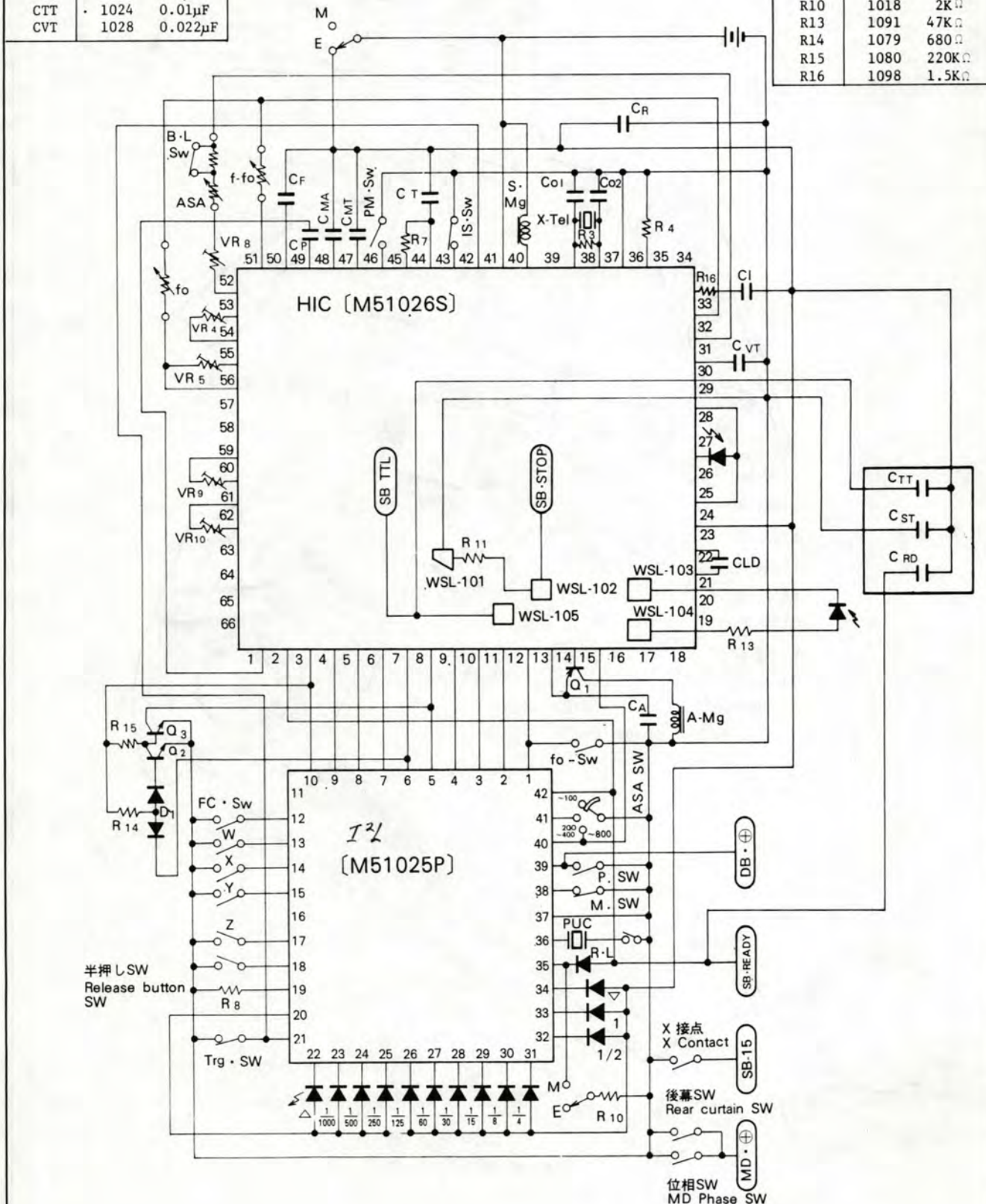


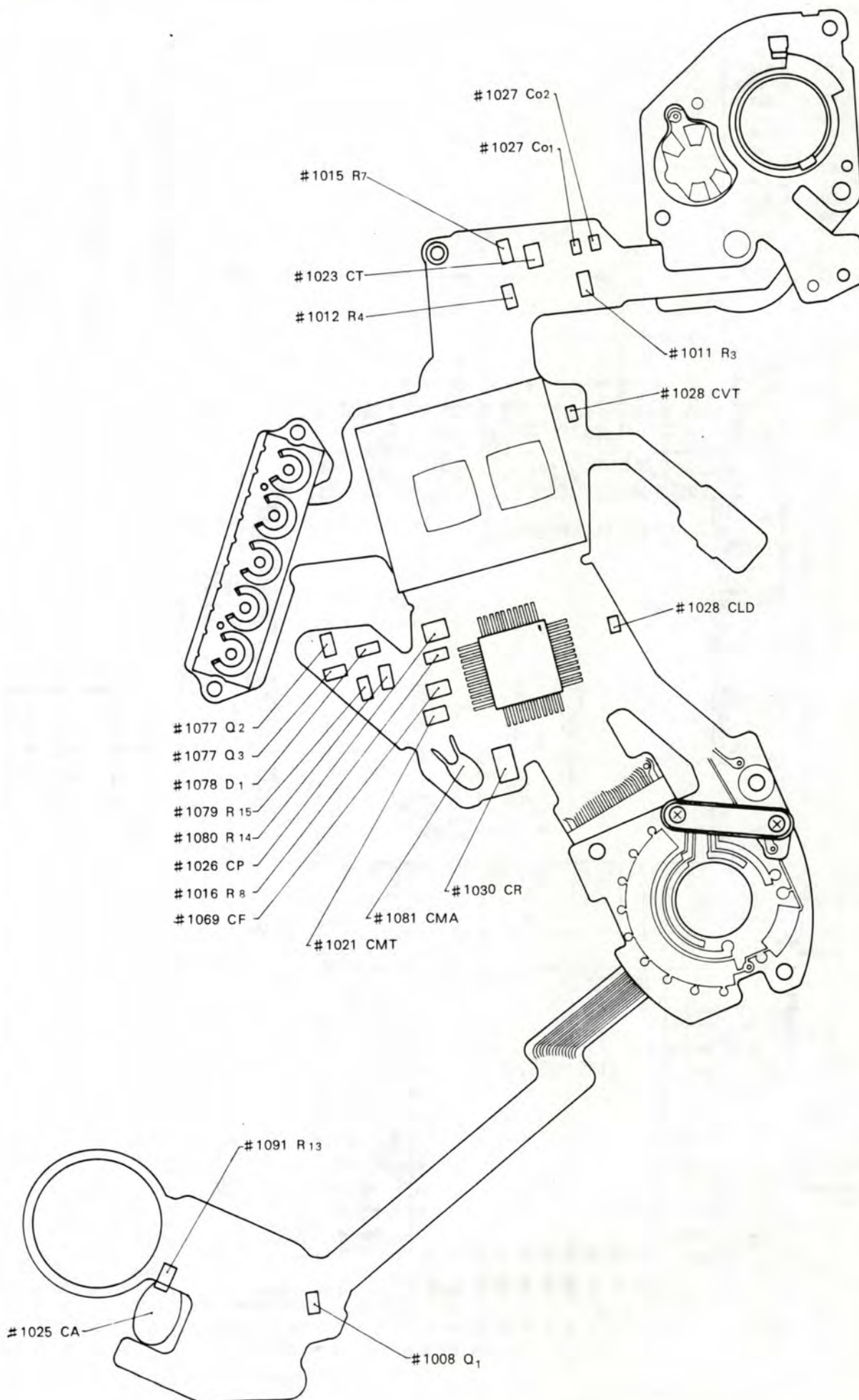


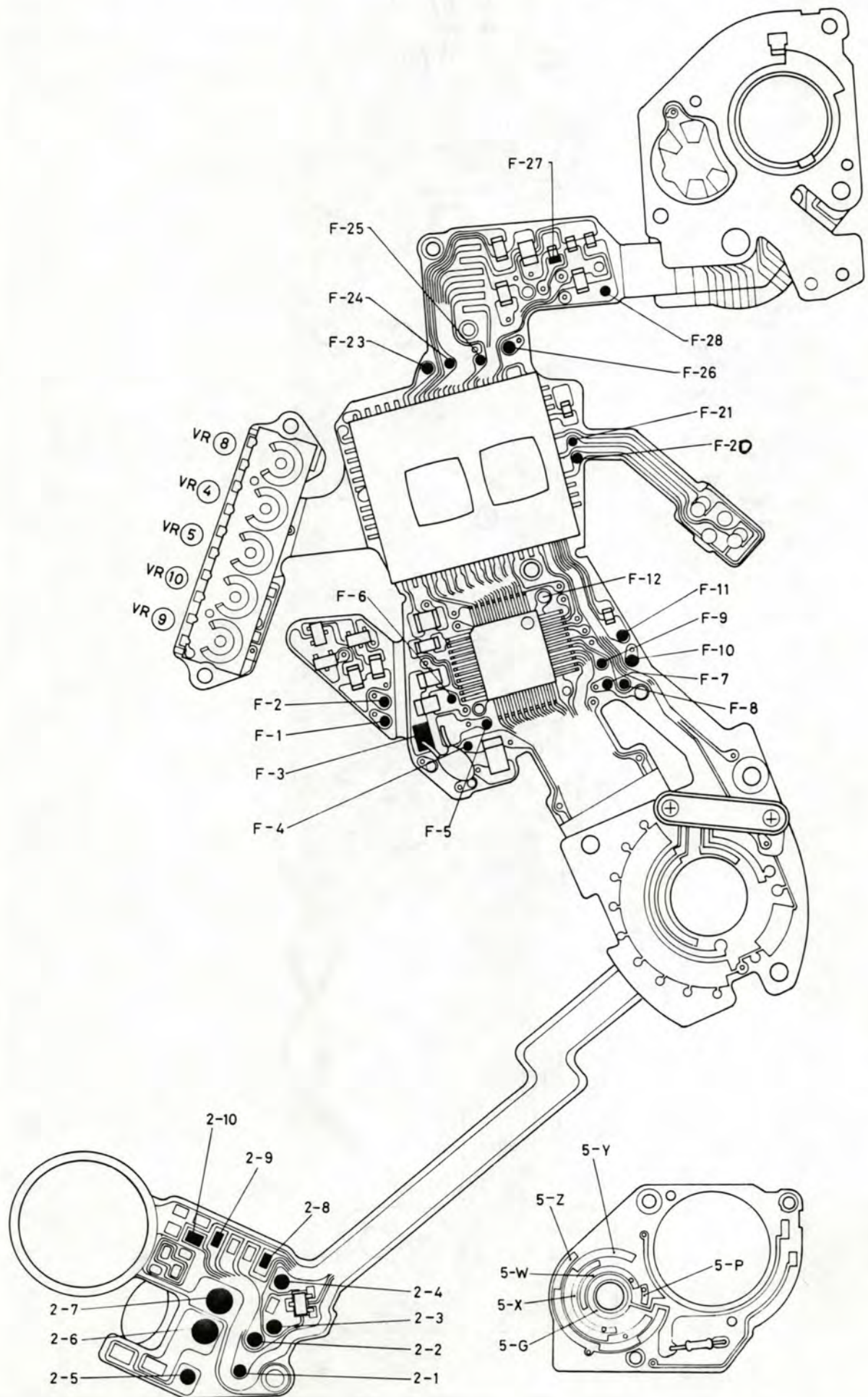


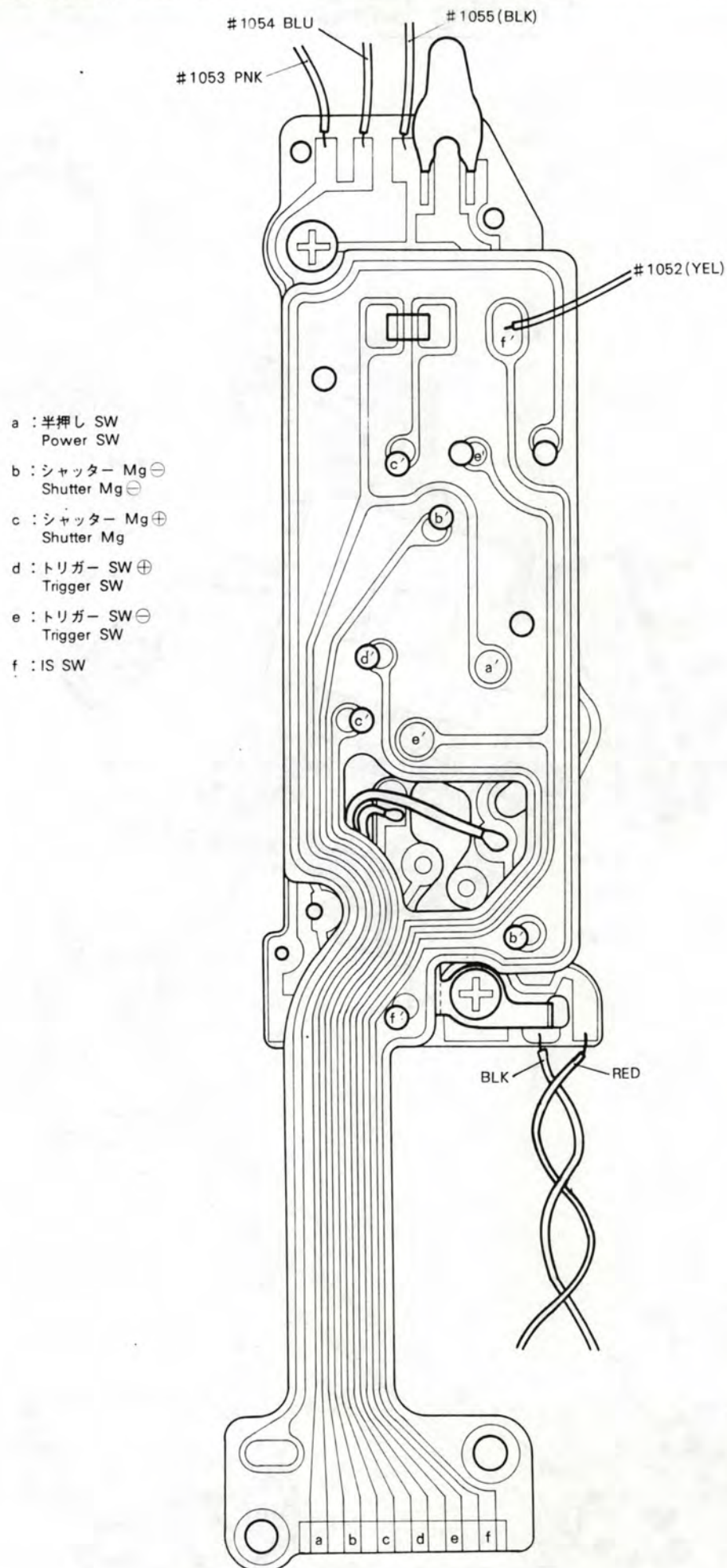
Marks	No.	
Condensor		
CA	#1025	100μF
CF	1069	1μF
CI	1024	0.01μF
CLD	1028	0.022μF
CMA	1081	10μF
CMT	1021	1μF
CO1	1027	15PF
CO2	1027	15PF
CP	1026	0.1μF
CR	1030	4.7μF
CRD	1024	0.01μF
CST	1084	2200PF
CT	1023	1μF
CTT	1024	0.01μF
CVT	1028	0.022μF

Marks	No.	
Transistor		
Q1	#1008	
Q2	1077	
Q3	1077	
Diode		
D1	#1078	
Resistor		
R3	#1011	3.3M Ω
R4	1012	4.7M Ω
R7	1015	180 Ω
R8	1016	82K Ω
R10	1018	2K Ω
R13	1091	47K Ω
R14	1079	680 Ω
R15	1080	220K Ω
R16	1098	1.5K Ω

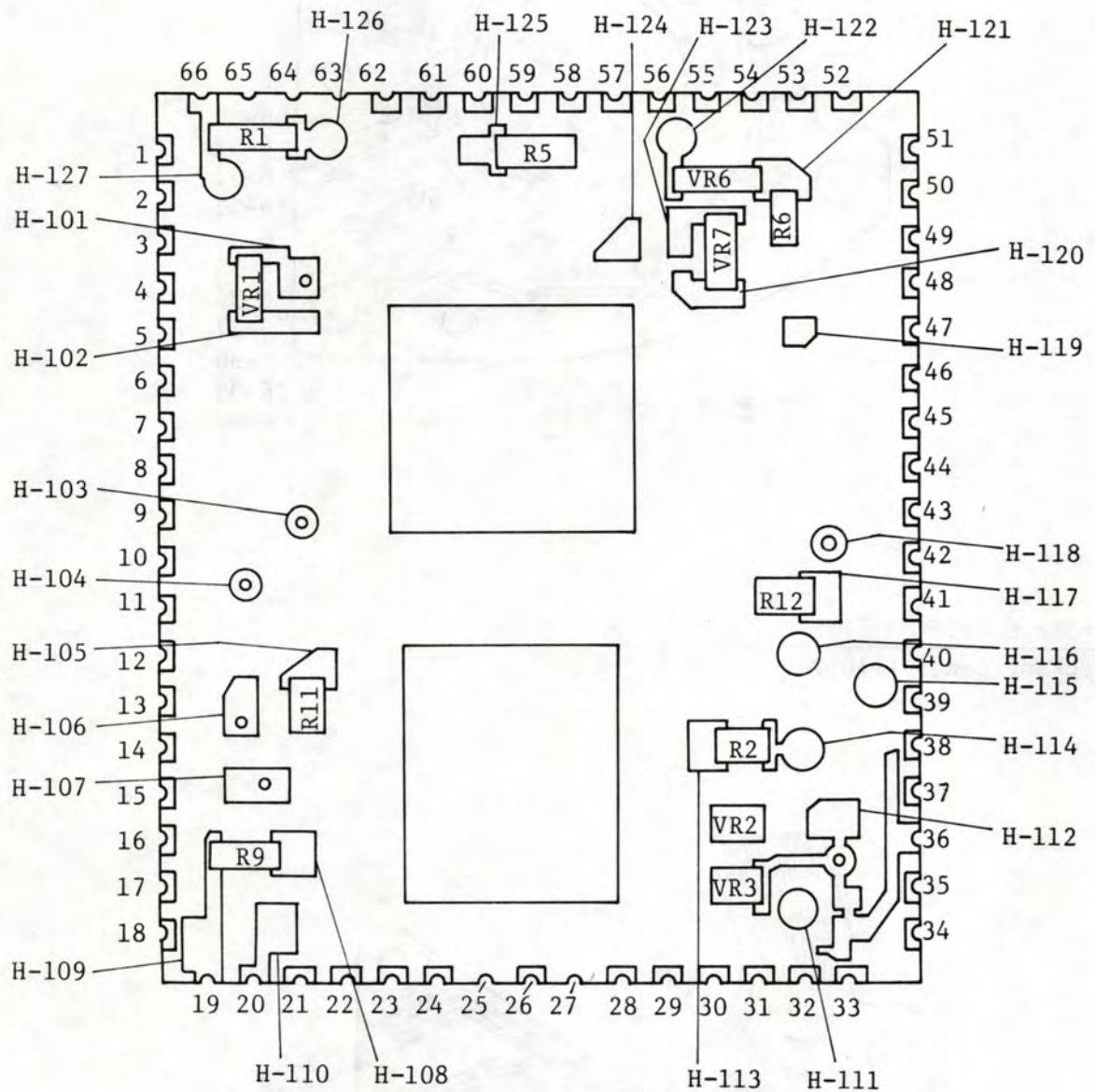




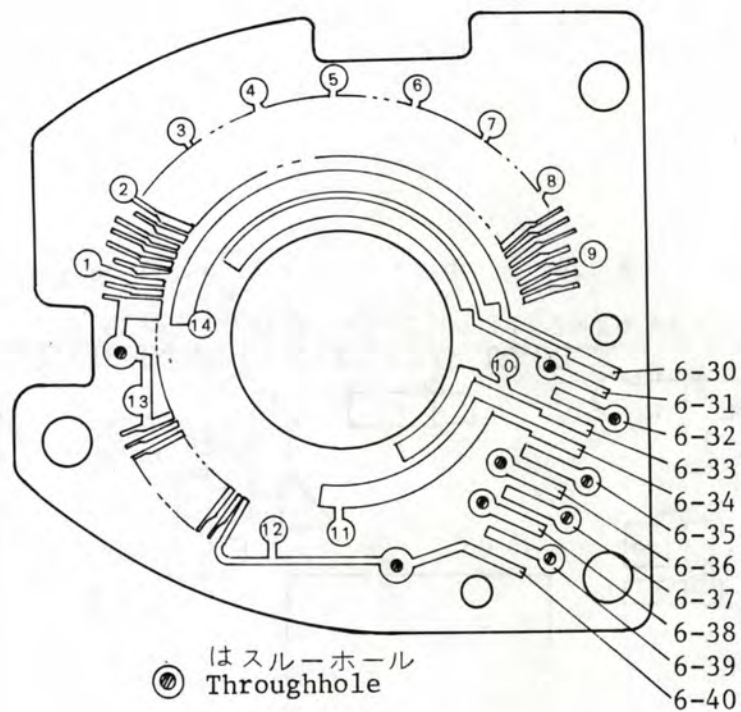




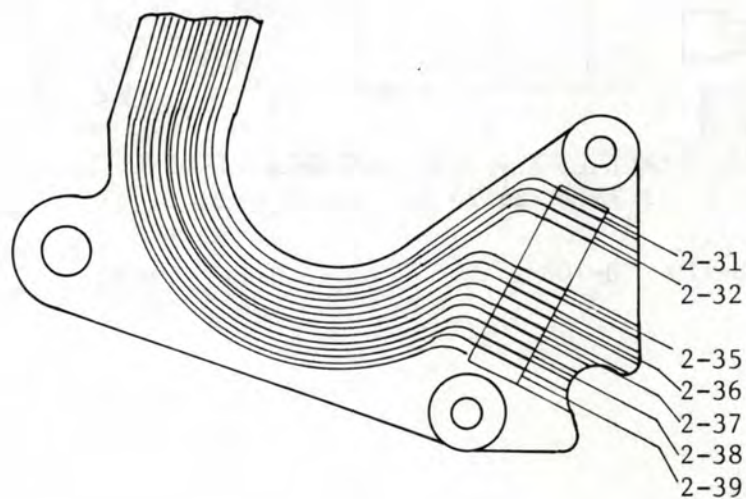
HIC 部チェックランド
Checking Lands (HIC)



#636 ASA プリント板チエックランド
Checking Lands (#636)



#1002 底側 FPC (圧接部) チエックランド
Checking Lands (#1002)



NOTICE TO READ THE TROUBLESHOOTING CHART OF THE FG

1) ADDRESS OF CHECKING LAND

- F-() = Checking lands on the FPC #1001
- H-() = Pins of IC M51026S(HIC); checking lands on the IC bear the address numbers of one hundred or more
- L-() = Pins of IC M51025 (I2L)
- 2-() = Checking lands on the FPC #1002
- 3-() = Checking lands on the FPC #1003
- 5-() = Checking lands on the circuit #520
- 6-() = Checking lands on the circuit #636

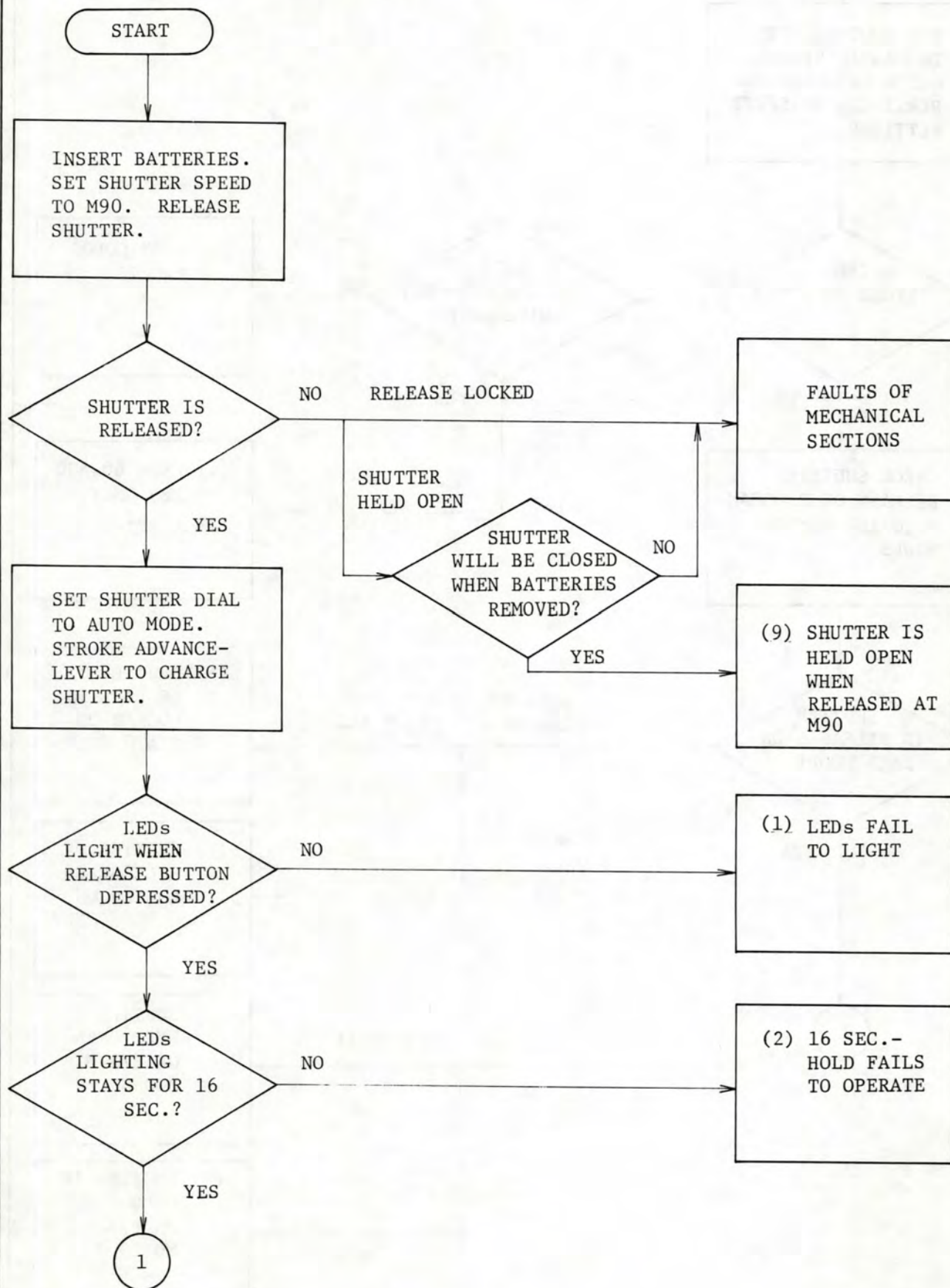
2) ABBREVIATION FOR THE SWITCHES

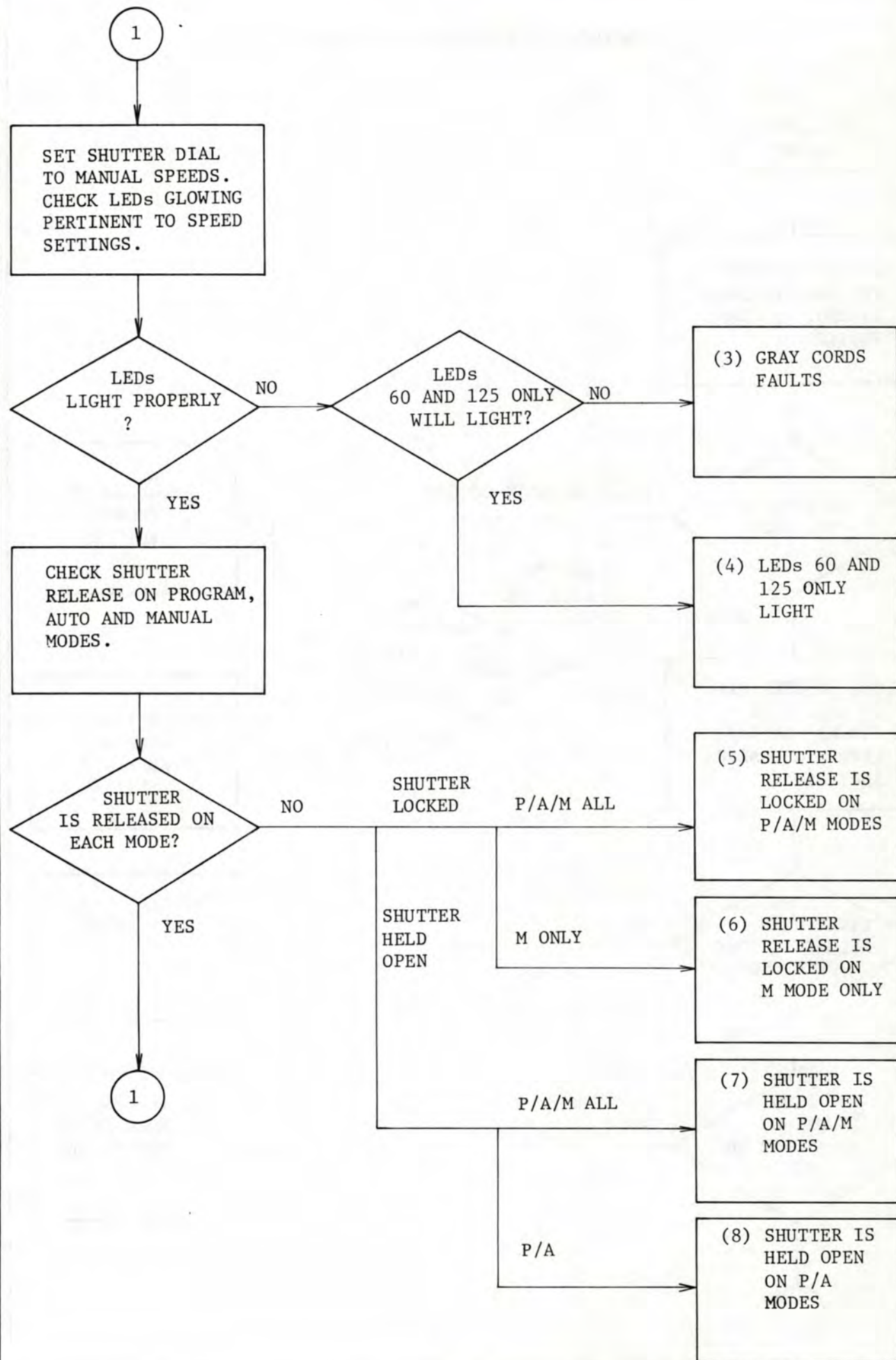
- EM.SW = To be turned on the P/A/M modes and off on the M90/Bulb
- Vcc = Power supply voltage (3V)
- Vcc' = Power supply voltage (3V) when the switch EM.SW is ON
- Mg = Magnet (for aperture and shutter control)
- A.Mg. = Auto magnet signal
- M.1/90.Mg. = Manual 1/90 magnet signal
- P.SW.Sig. = Program switch signal
- BC = Battery check
- FC.SW = Frame counter switch

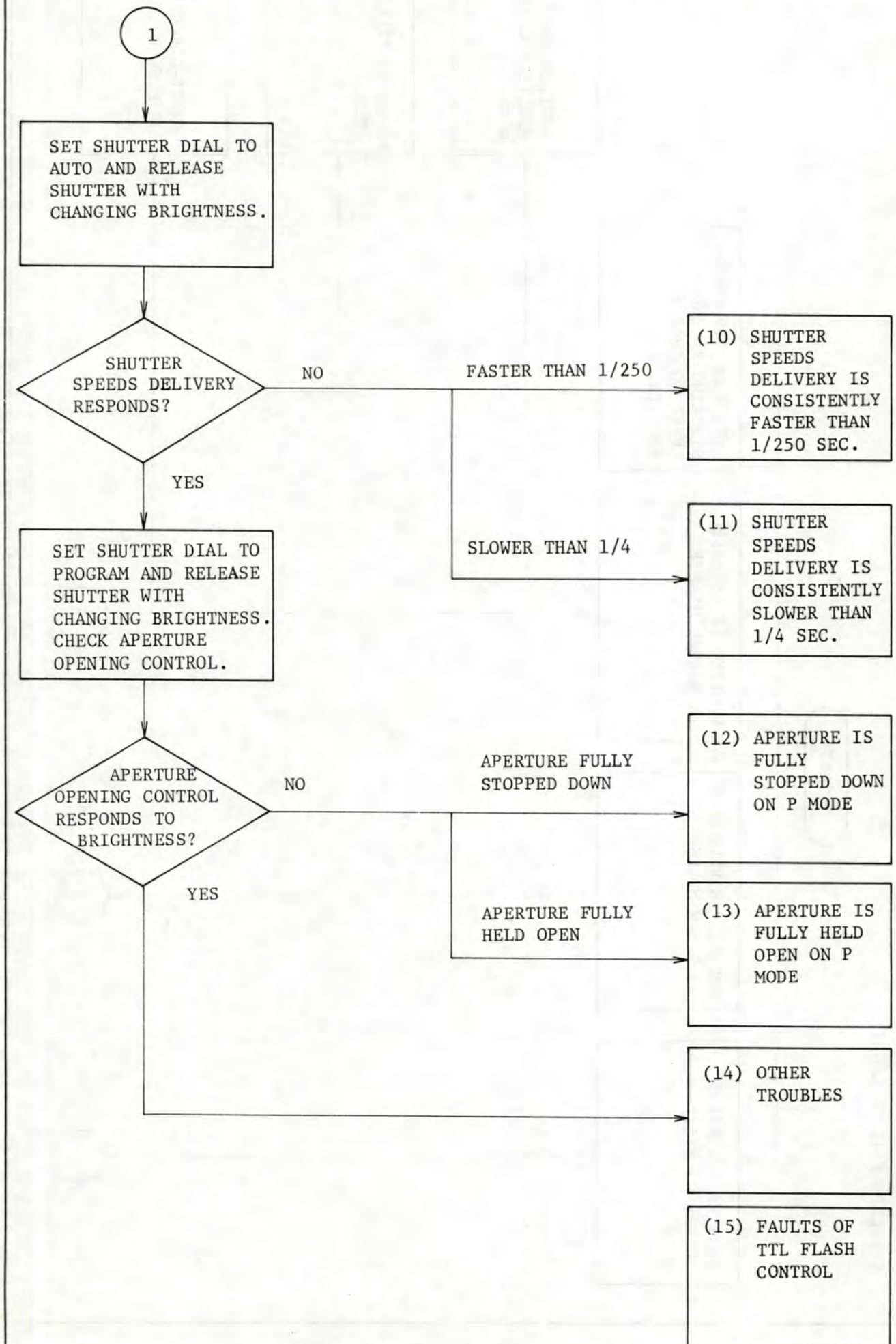
3) TEST EQUIPMENT NECESSARY TO PERFORM TROUBLESHOOTING

- a) Digital-multi meter
- b) Storage oscilloscope

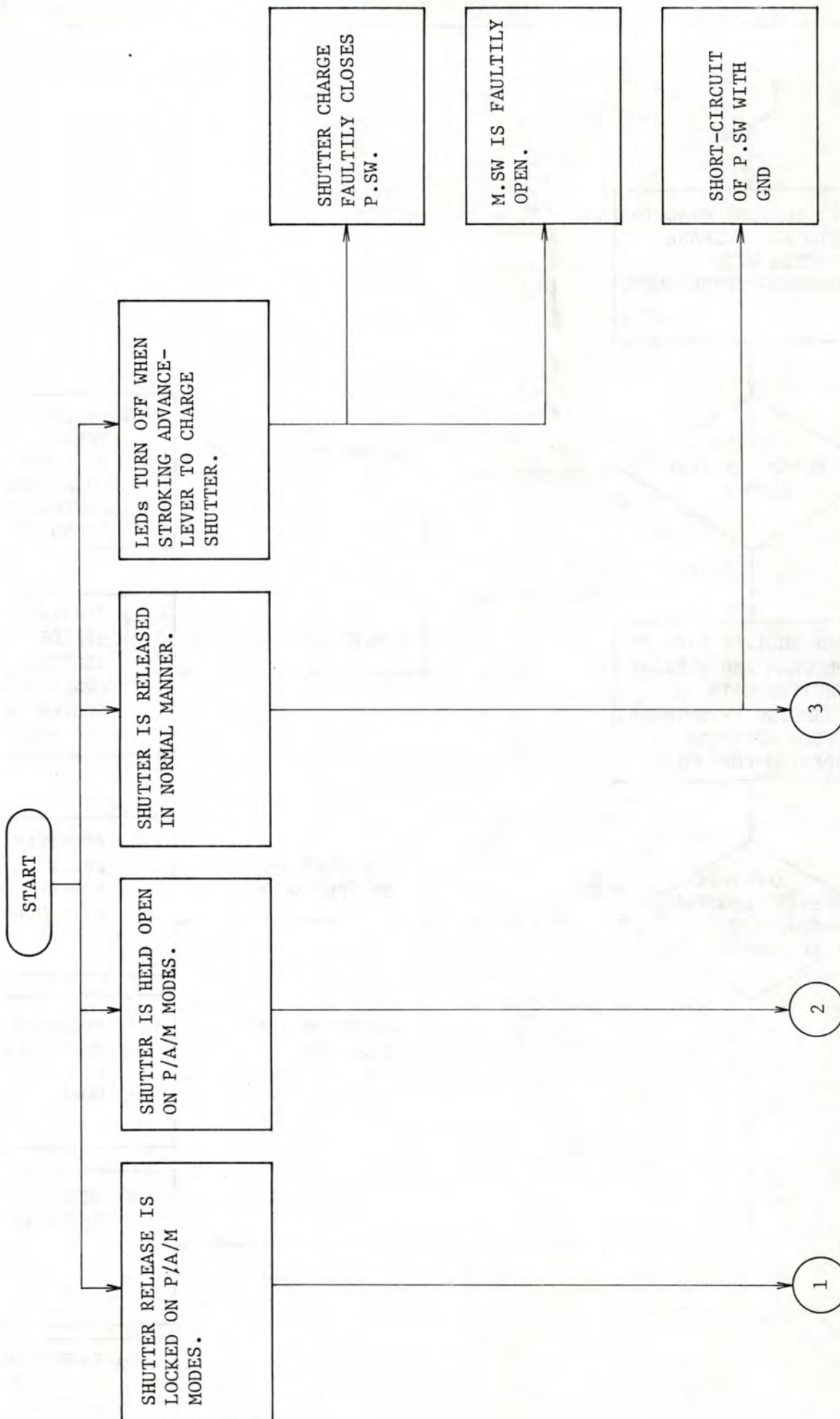
CIRCUITRY TROUBLESHOOTING FLOWCHART

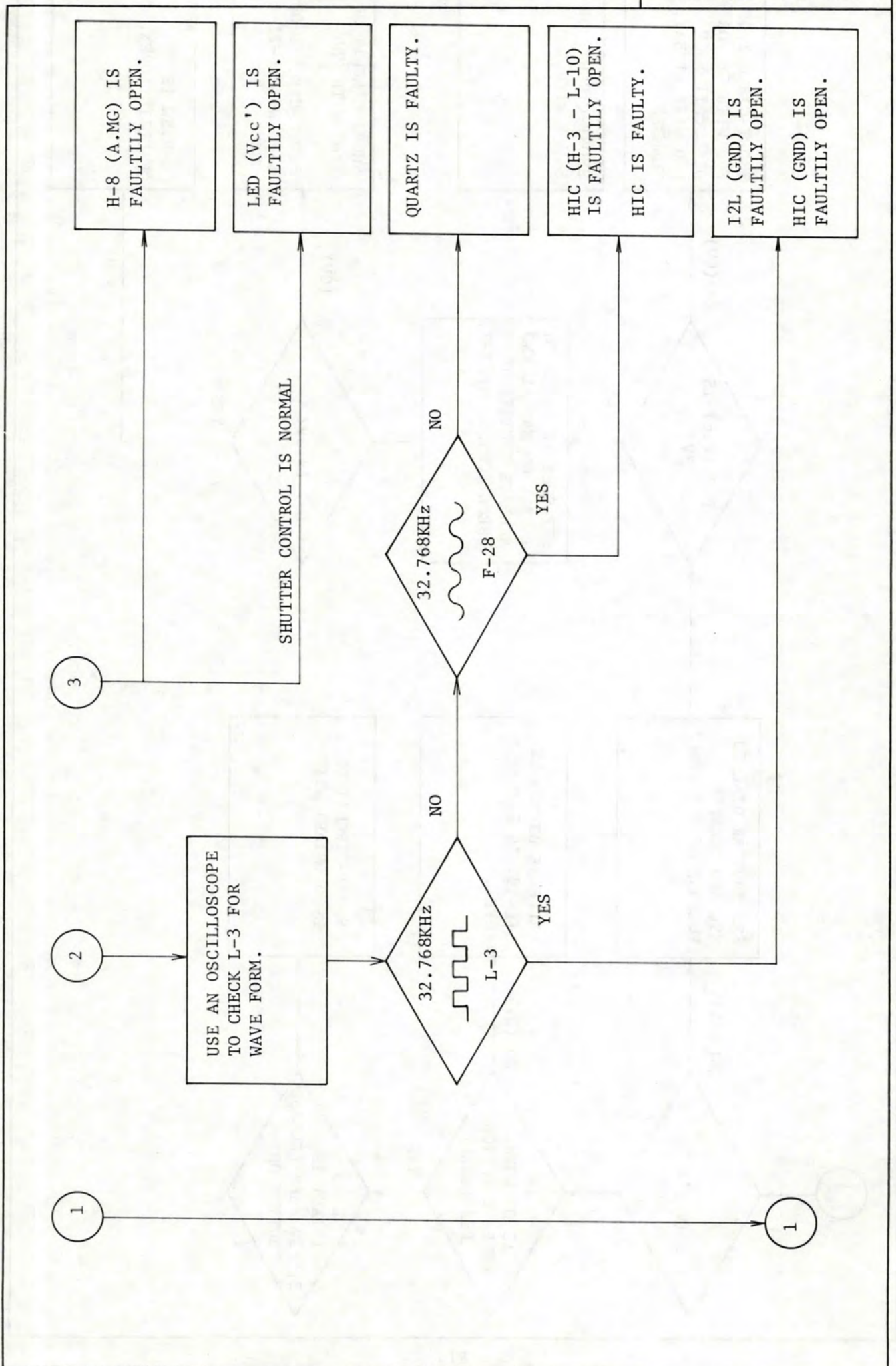


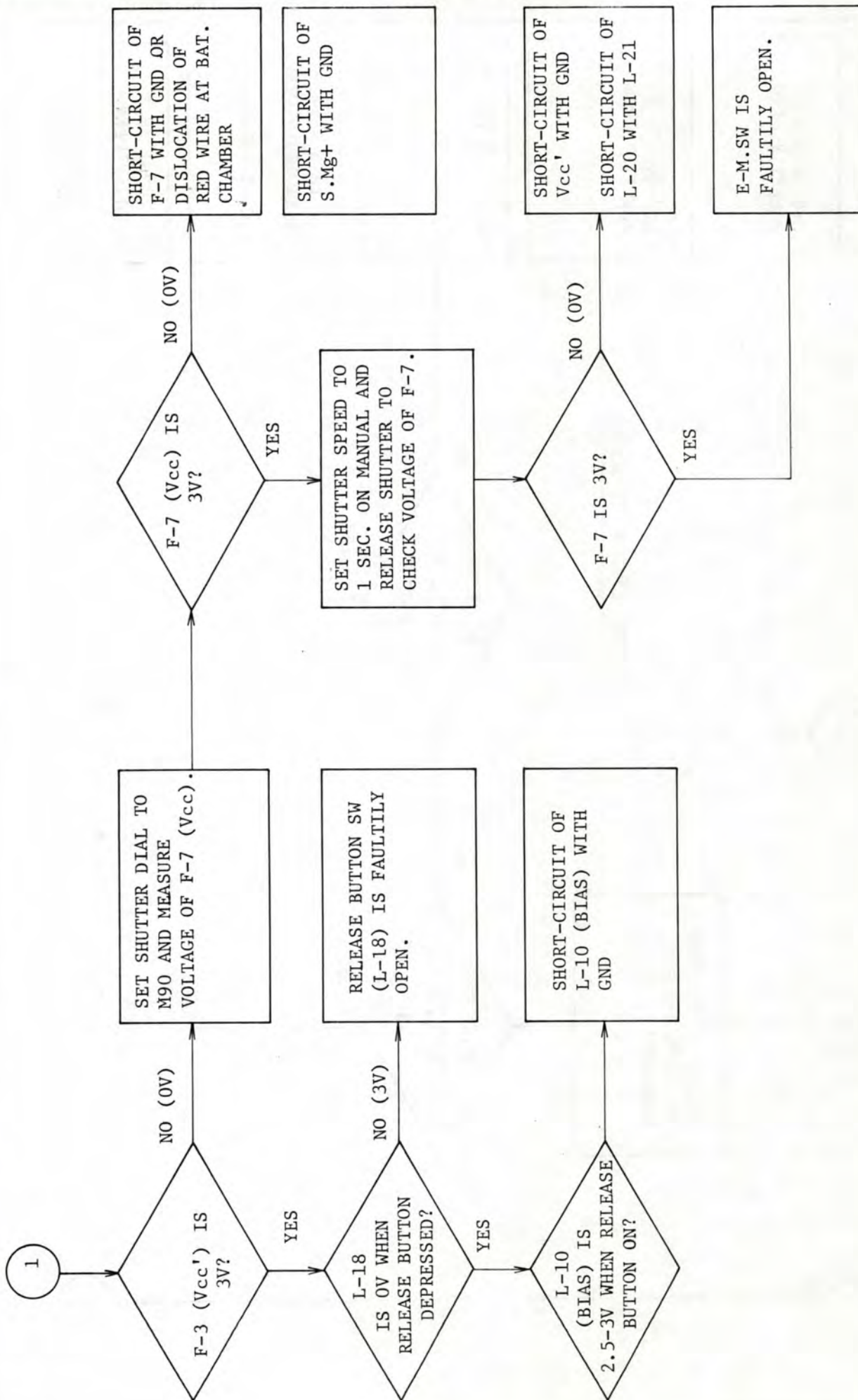




(1) LEDs FAIL TO LIGHT







(3) GRAY CORDS FAULTS

CROSS-REFERENCE TABLE OF CAUSES

SPEEDS CAUSES	1/ 1000	1/ 500	1/ 250	1/ 125	1/60	1/30	1/15	1/8	1/4	1/2	1
W OPEN	*	1	1/2	1/4	1/8	1/15					
W-GND SHORT							1/30	1/60	1/125	1/250	1/500
W-X SHORT	1/125	1/250					1/30	1/60	1/125	1/250	
X OPEN			1/500	1/1000	A	P	*	*	*	1	
X-GND SHORT	1/125	1/250									1/2
X-Y SHORT	1/125	1/250			1/125	1/250	1/2	1/4			1/2
Y OPEN	A	P	1/30	1/60					1/8	1/15	*
Y-GND SHORT					1/125	1/250	1/2	1/4			
Z OPEN	1/500			1/250	1/30			1/15	1/2		
Z-GND SHORT		1/1000	1/125			1/60	1/8			1/4	*

* CRITICAL SPEEDS

GRAY CORD COMBINATION

		P	A	1000	500	250	125	60	30	15	8	4	2	1
W	L-13	0	0	0	0	0	0	0	0	1	1	1	1	1
X	L-14	1	1	1	1	0	0	0	0	0	0	0	0	0
Y	L-15	1	1	0	0	0	0	1	1	1	1	0	0	0
Z	L-17	1	0	0	1	1	0	0	1	1	0	0	1	1

1 = GRAY CORD SW IS OPEN 0.6V

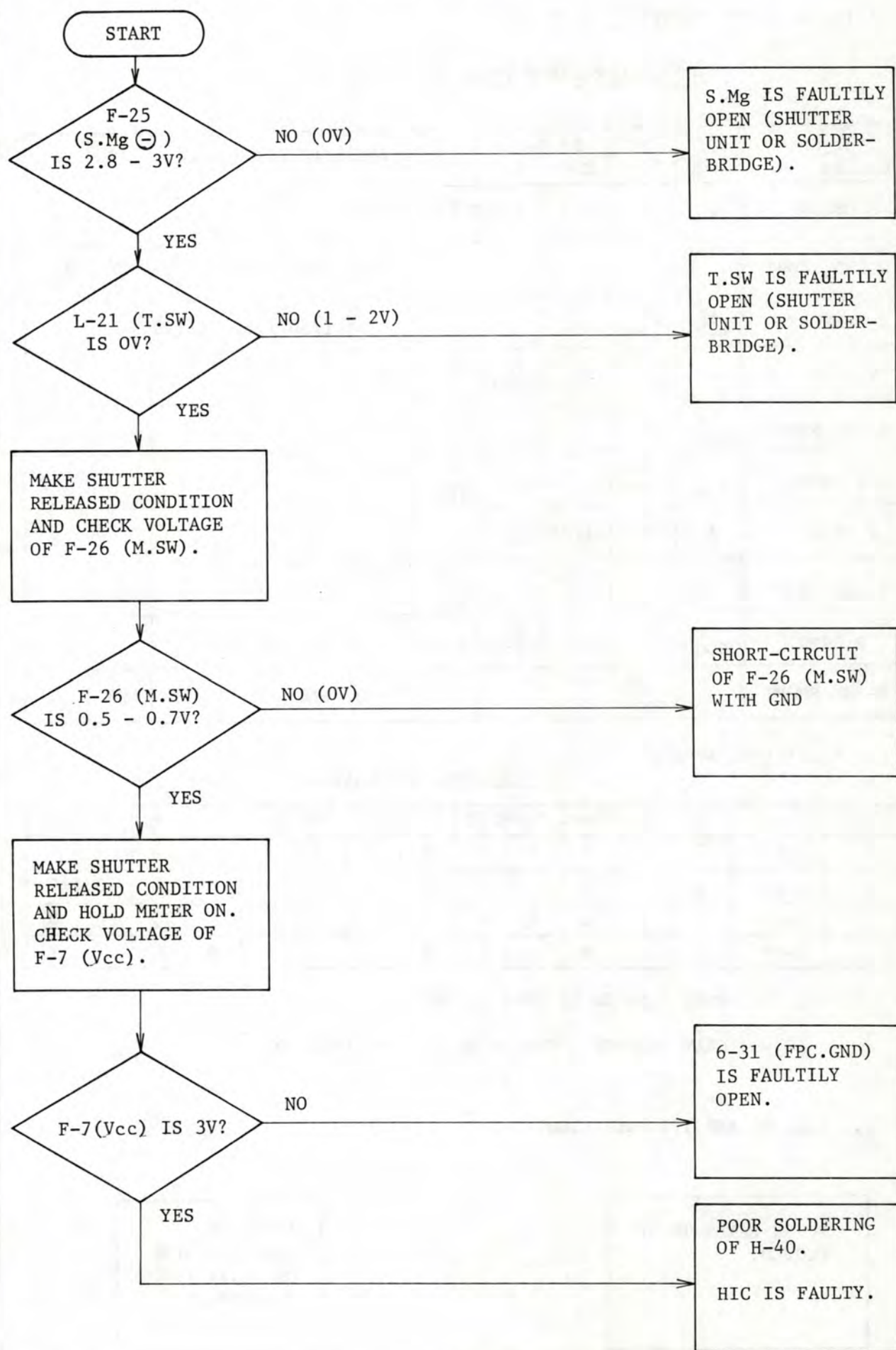
0 = GRAY CORD SW - GND IS SHORT-CIRCUITED 0V

(4) LEDs 60 AND 125 ONLY LIGHT

FC.SW FAILS TO BE
CLOSED.

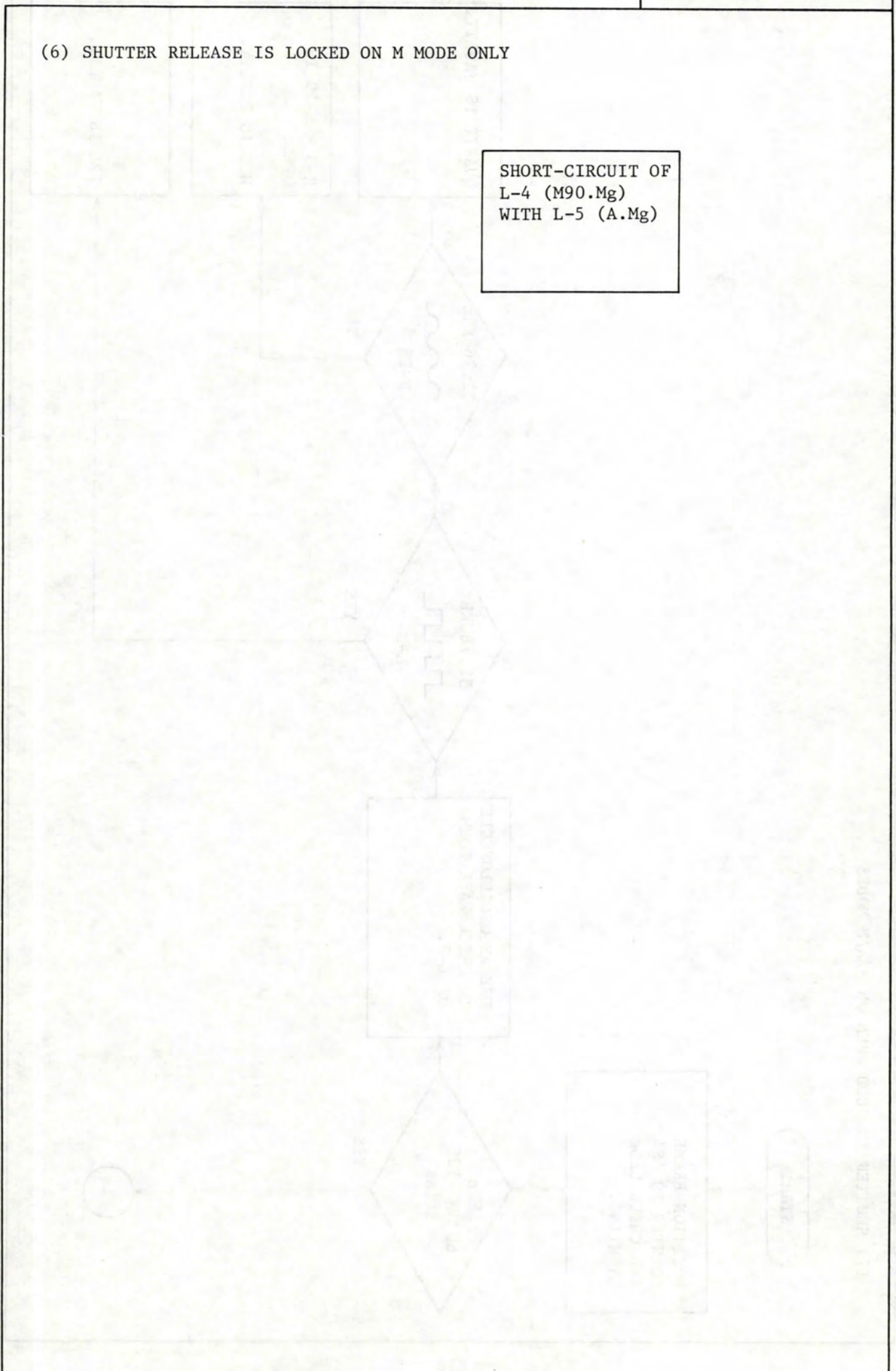
FC.SW IS
FAULTILY OPEN
OR FC.SW (GND)
IS OPEN.

(5) SHUTTER RELEASE IS LOCKED ON P/A/M MODES

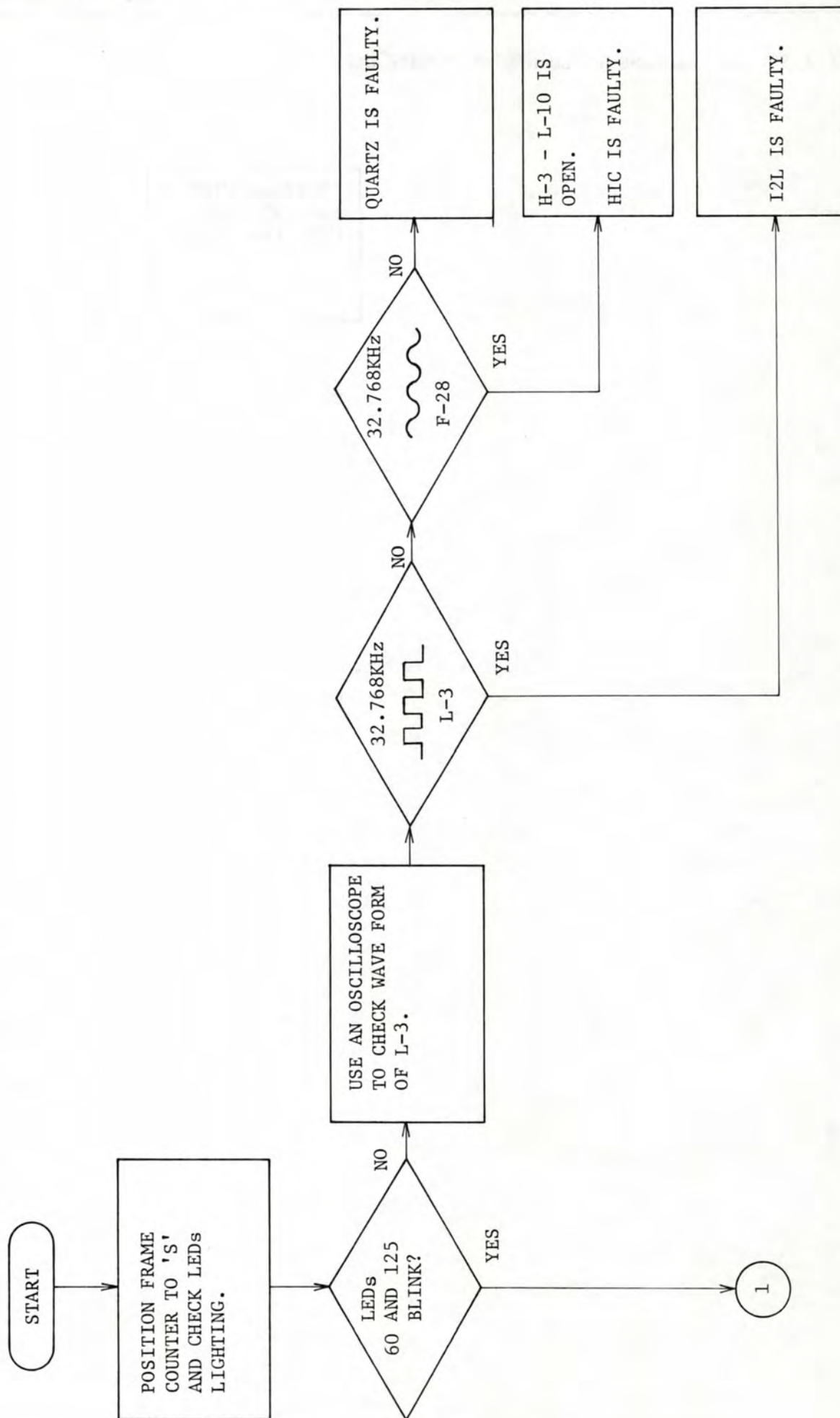


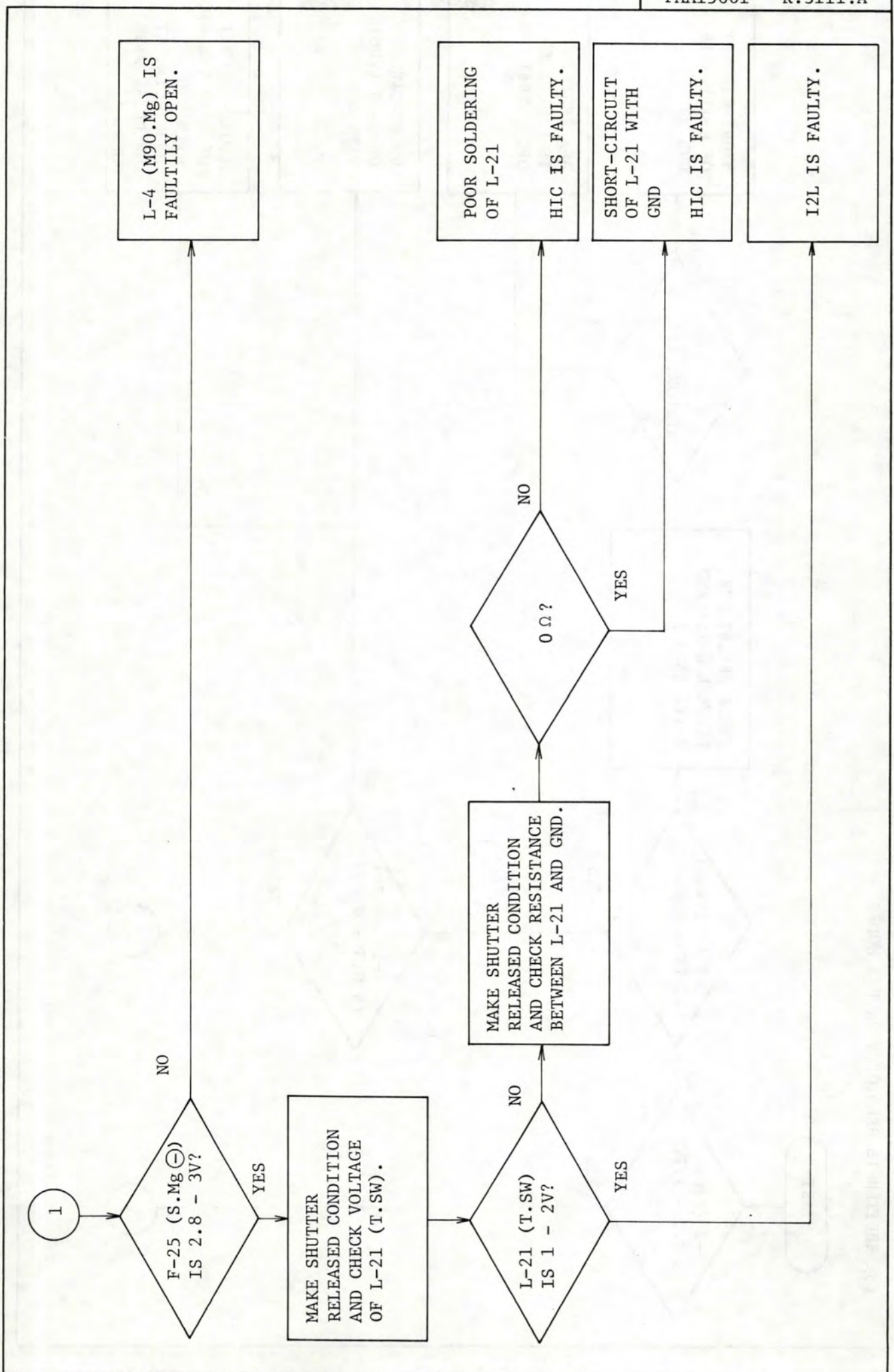
(6) SHUTTER RELEASE IS LOCKED ON M MODE ONLY

SHORT-CIRCUIT OF
L-4 (M90.Mg)
WITH L-5 (A.Mg)

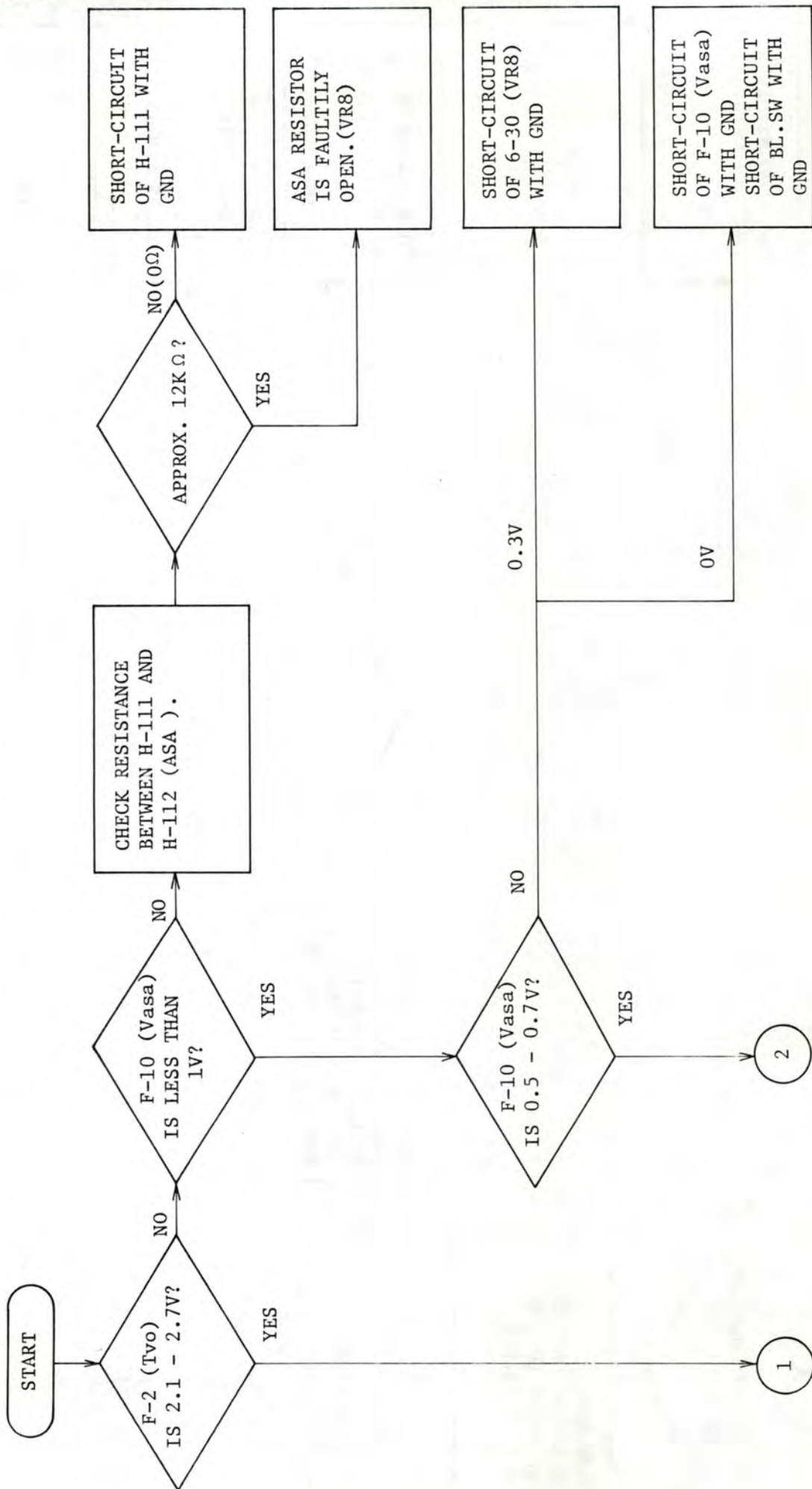


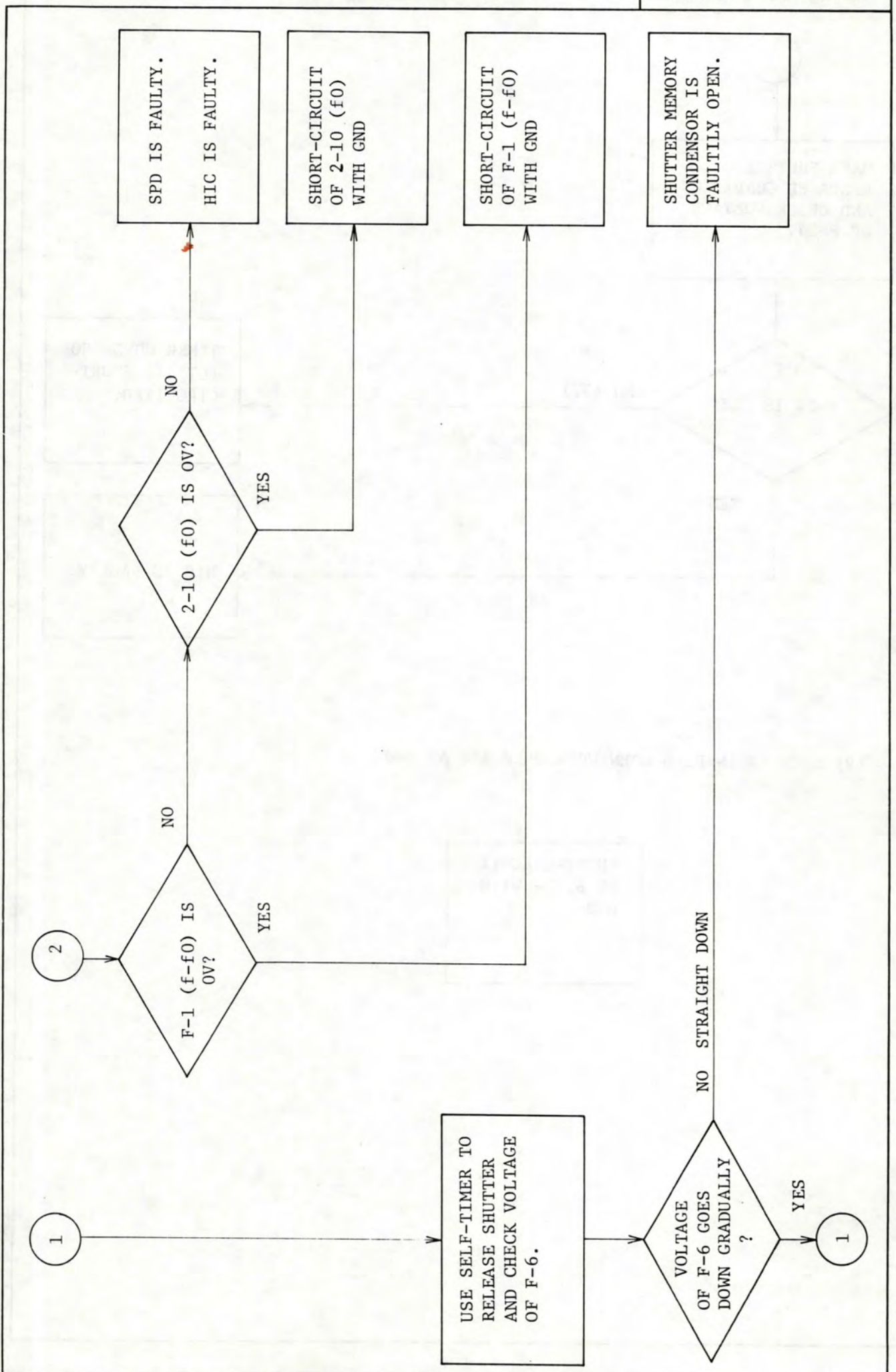
(7) SHUTTER IS HELD OPEN ON P/A/M MODES

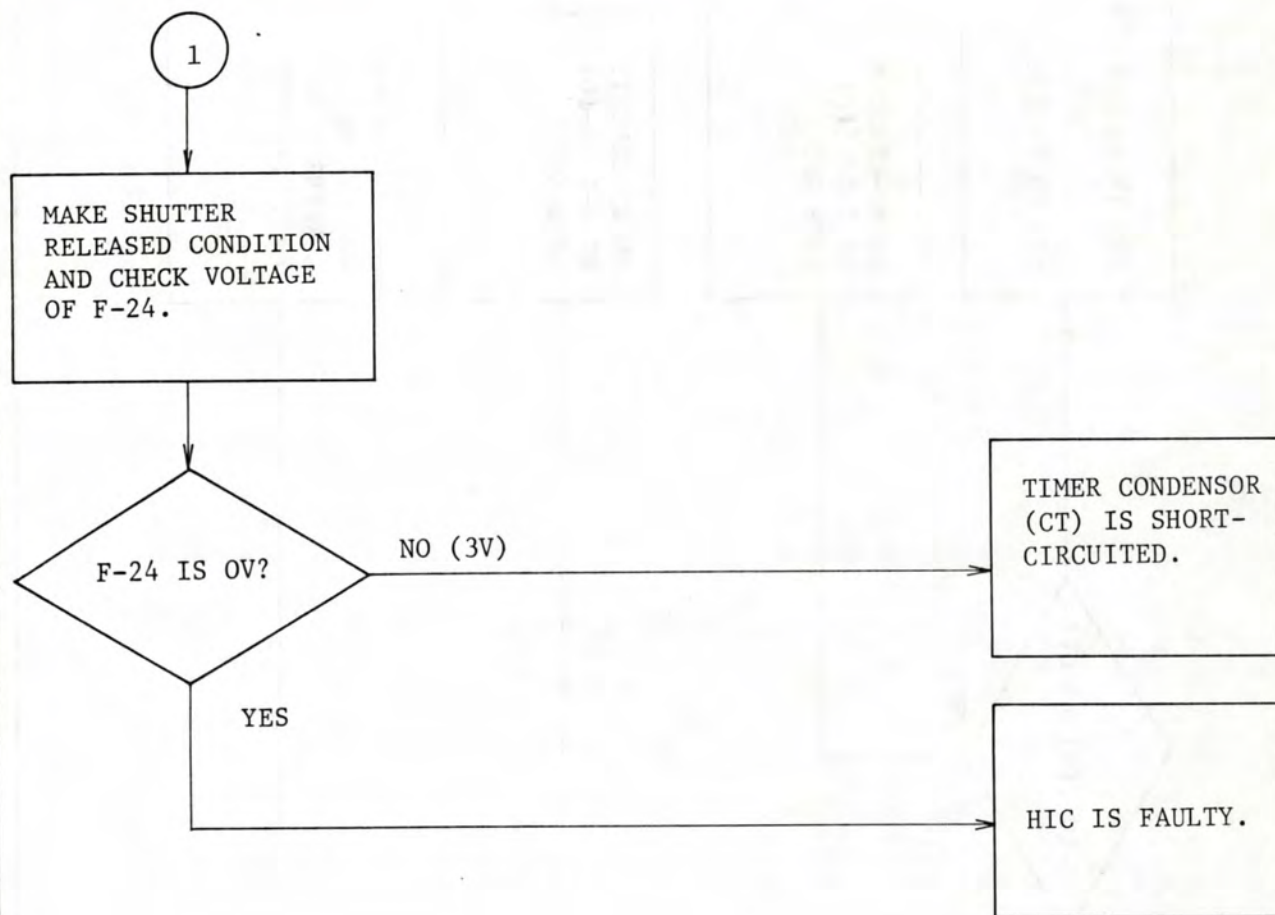




(8) SHUTTER IS HELD OPEN ON P/A MODES



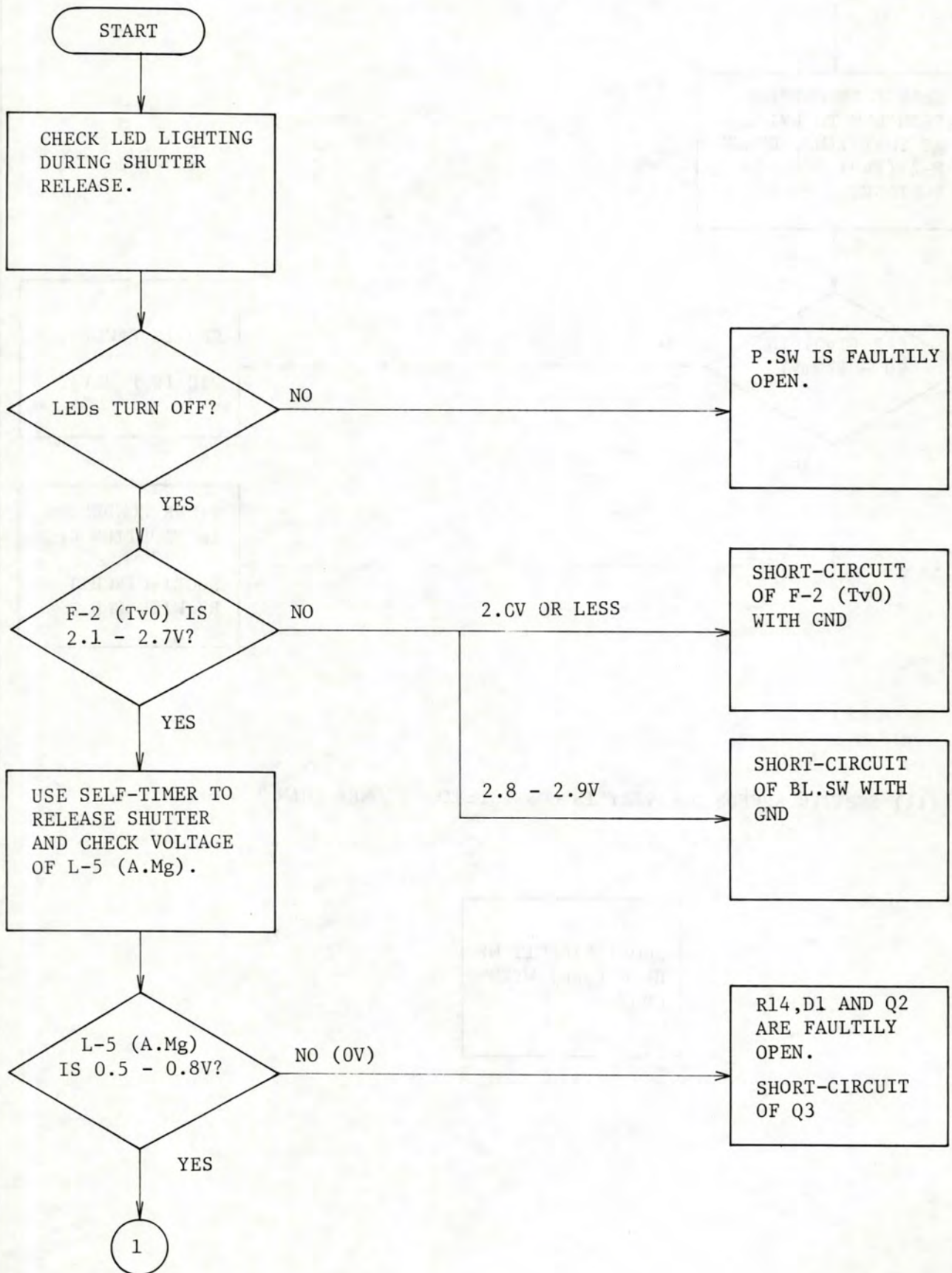


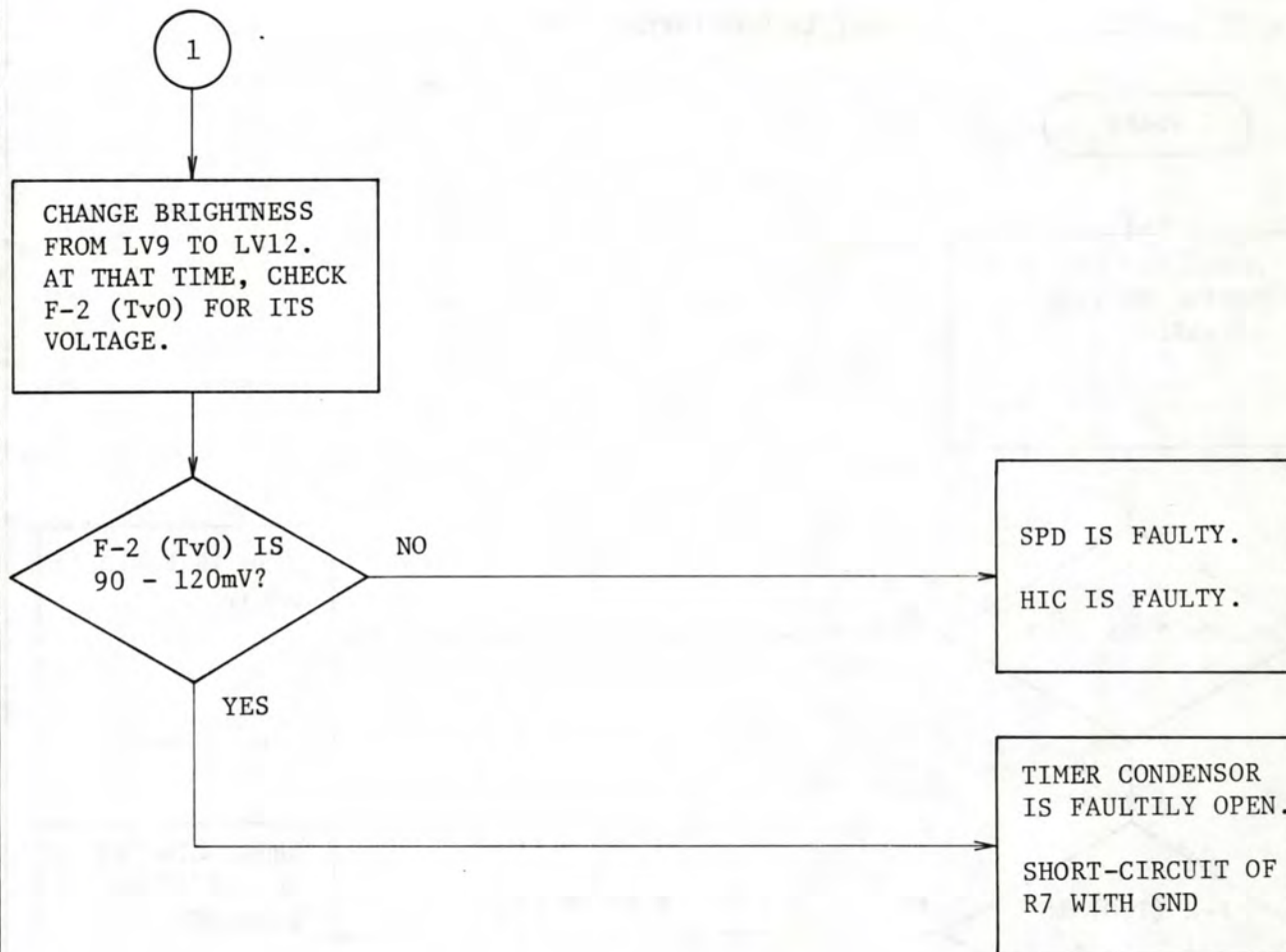


(9) SHUTTER IS HELD OPEN WHEN RELEASED AT M90

SHORT-CIRCUIT
OF S.Mg- WITH
GND

(10) SHUTTER SPEEDS DELIVERY IS CONSISTENTLY FASTER THAN 1/250 SEC.

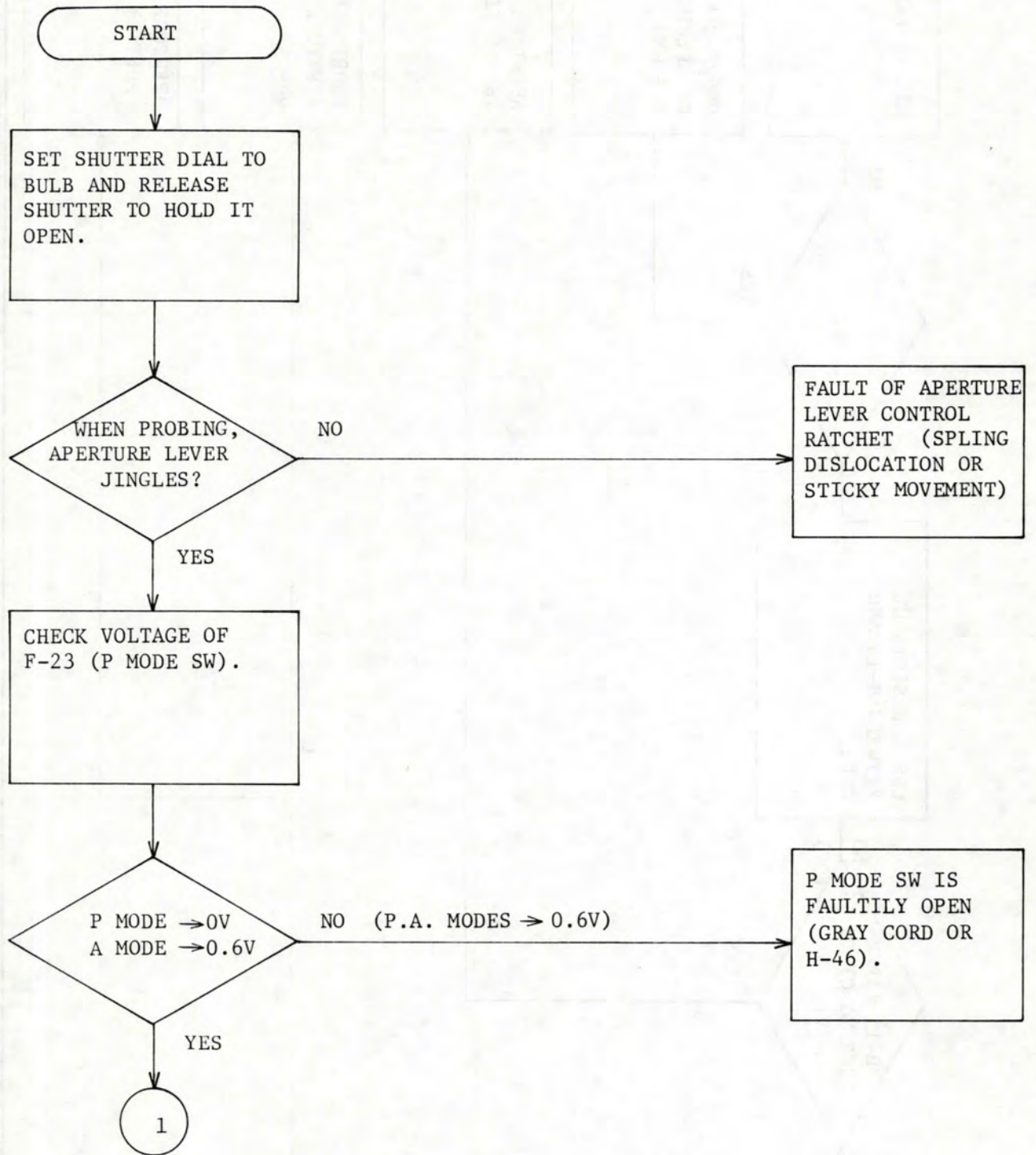


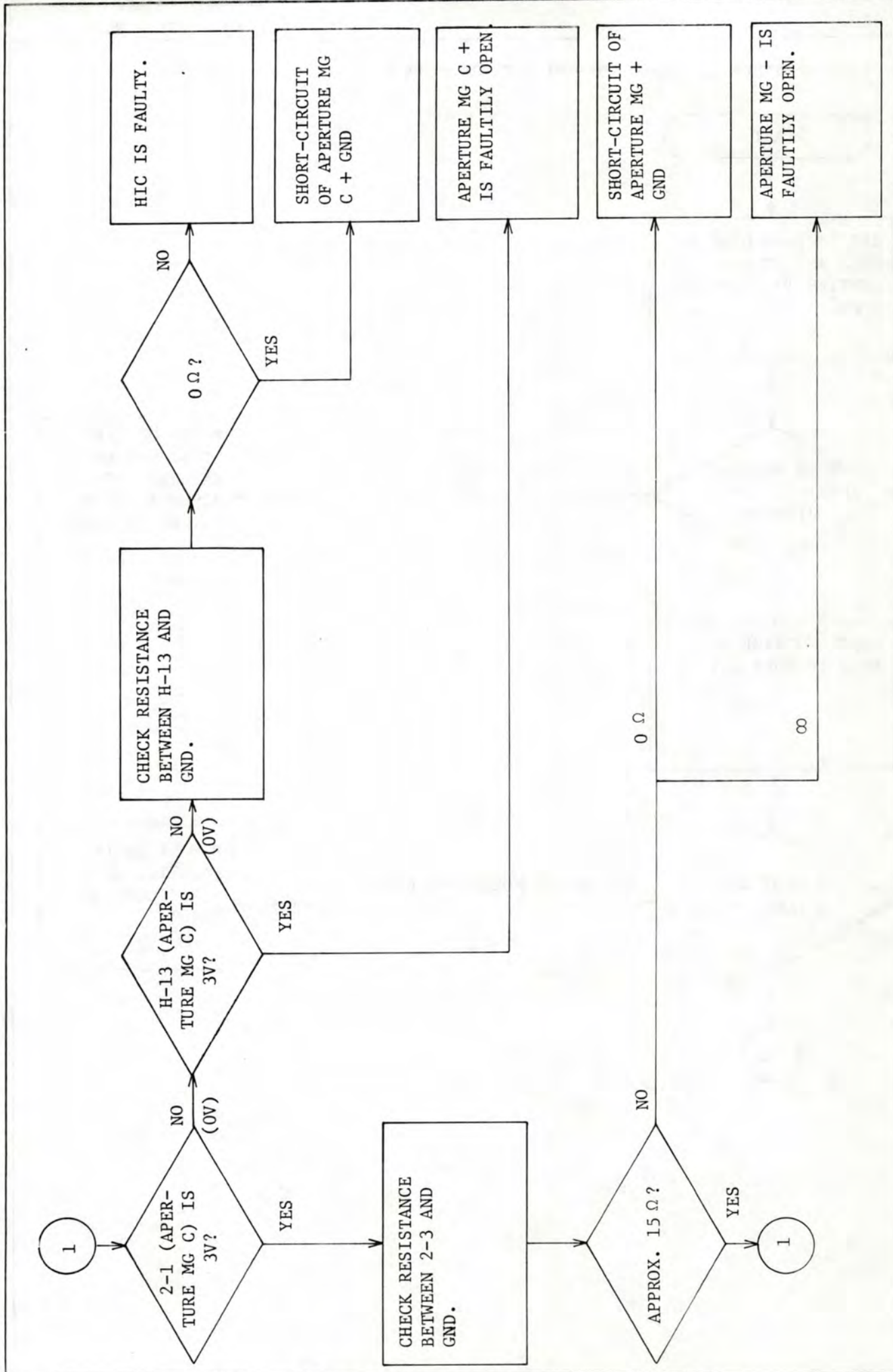


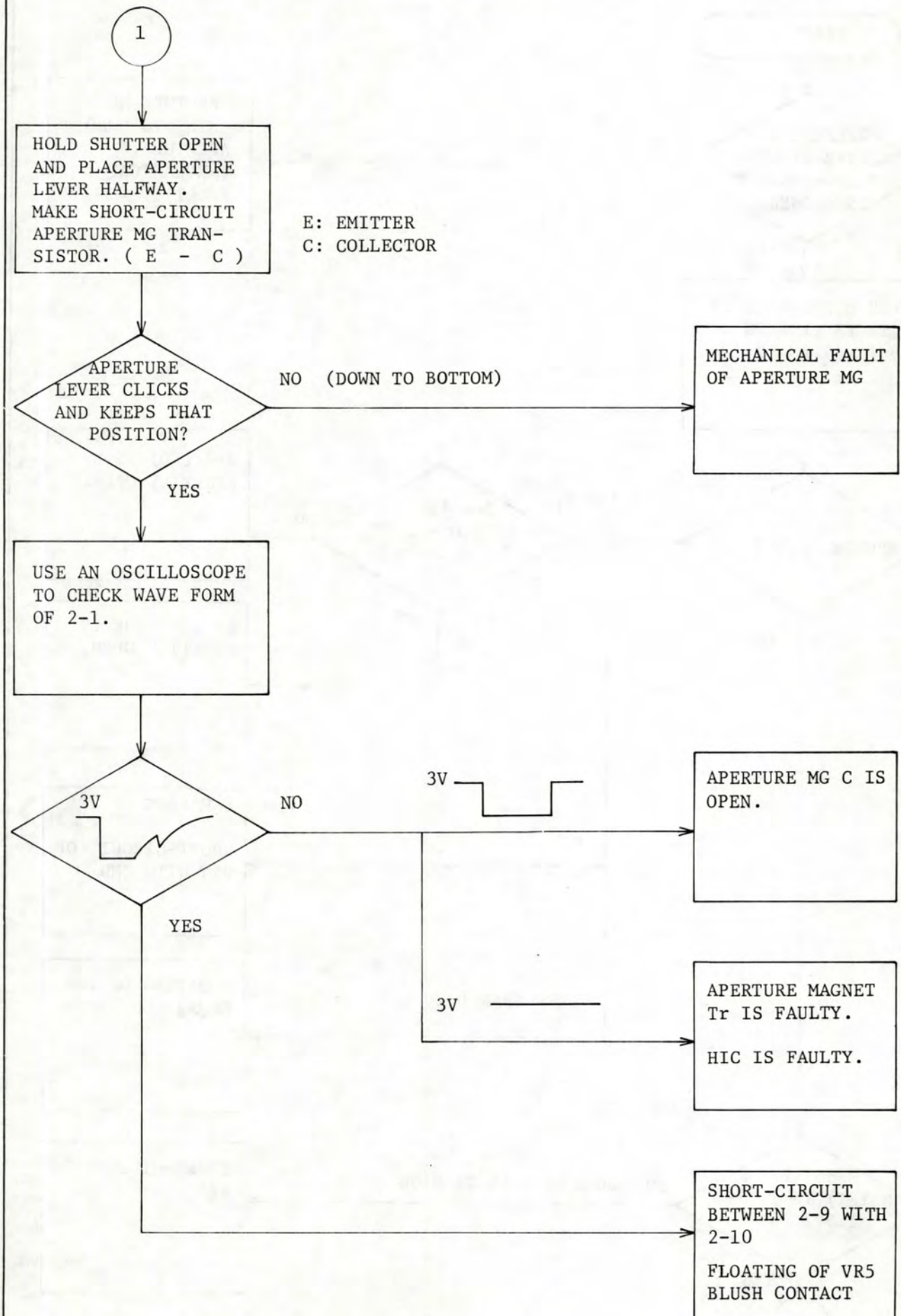
(11) SHUTTER SPEEDS DELIVERY IS CONSISTENTLY SLOWER THAN 1/4 SEC.

SHORT-CIRCUIT OF
H-26 (SPD) WITH
GND

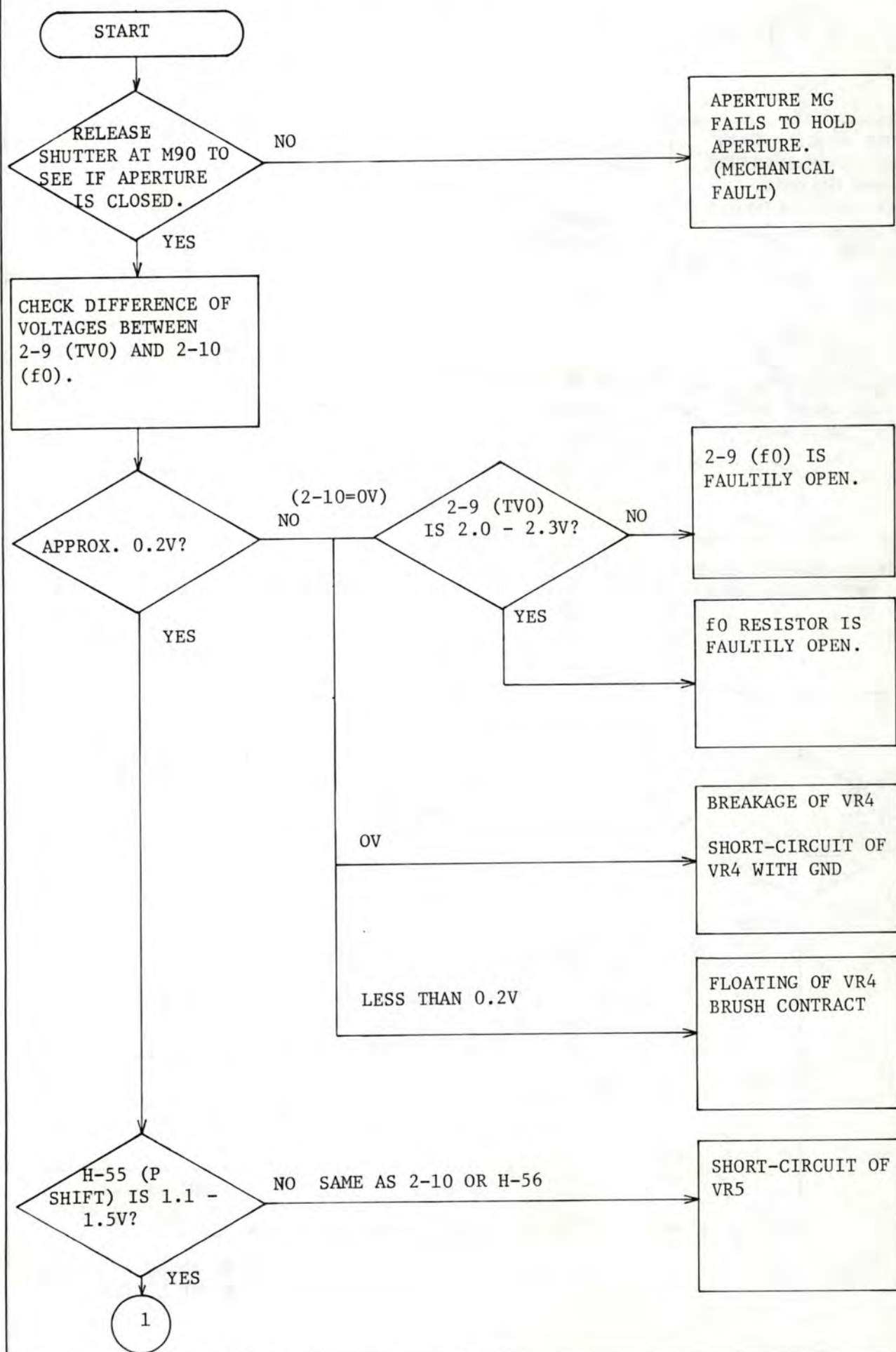
(12) APERTURE IS FULLY STOPPED DOWN ON P MODE

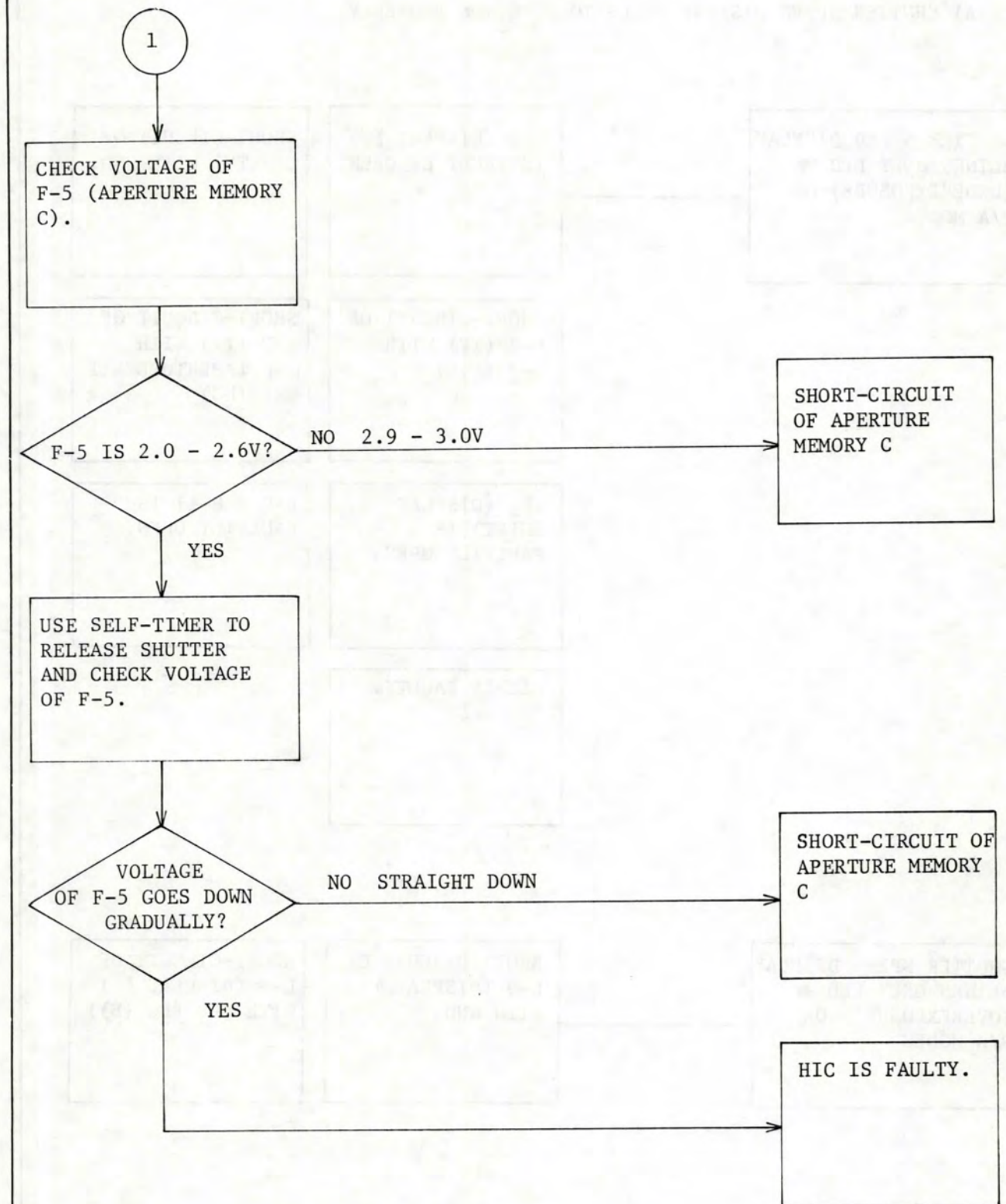






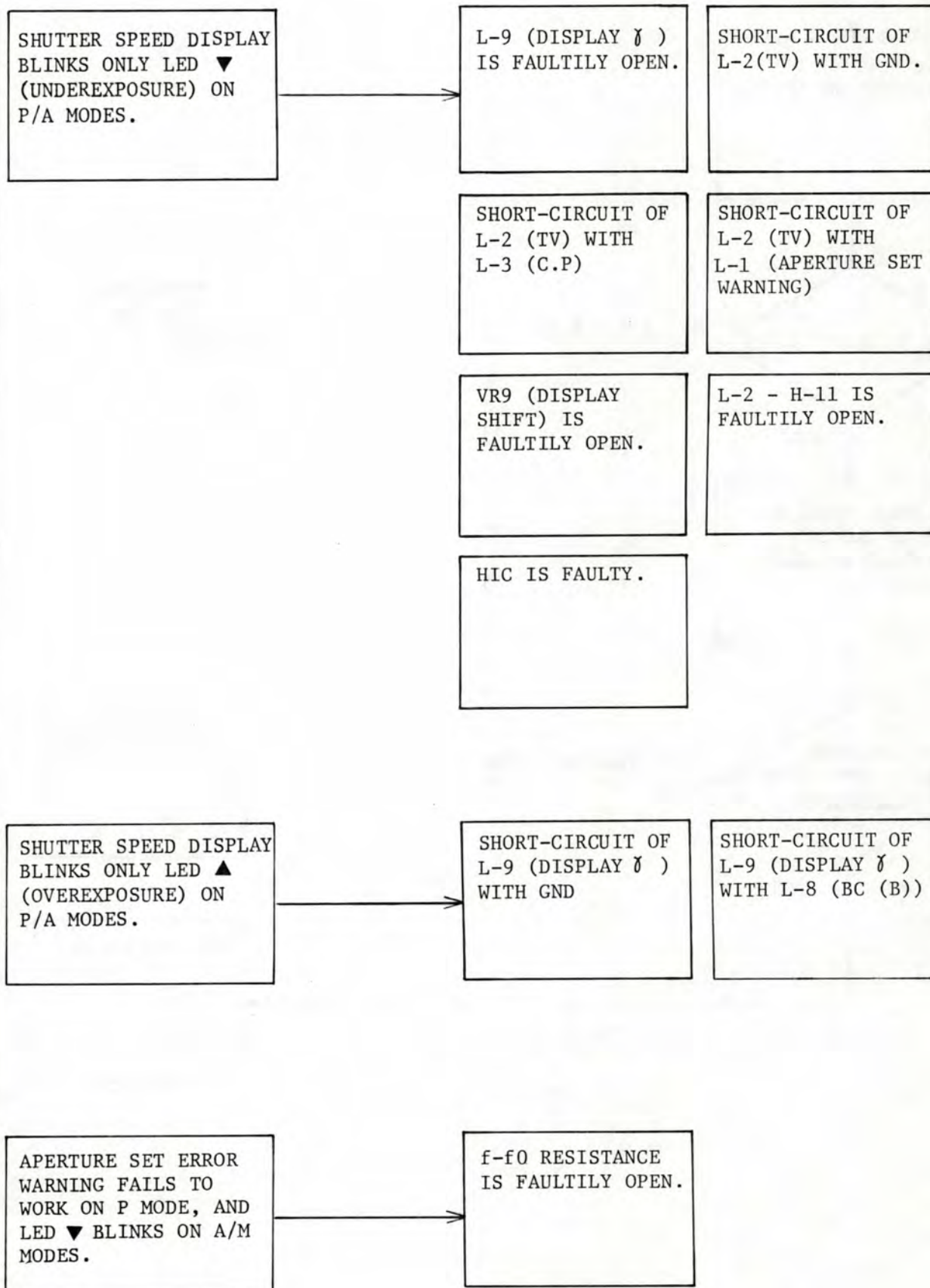
(13) APERTURE IS FULLY HELD OPEN ON P MODE





(14) OTHER TROUBLES

A) SHUTTER SPEED DISPLAY FAILS TO FUNCTION PROPERLY



APERTURE SET ERROR
WARNING FAILS TO
WORK ON P MODE.

SHORT-CIRCUIT OF
L-1 AND H-12
WITH GND

f0 SW FAILS TO
TURN OFF.

B) BATTERY CONSUMPTION RATE IS EXCESSIVELY HIGH

CHECK AMPERAGE WHEN
EM.SW IS TURNED OFF.

APPROX. 1.4mA?

NO SEVERAL MICRO AMPERE - 1mA

LEAK OF CA
APERTURE MG C

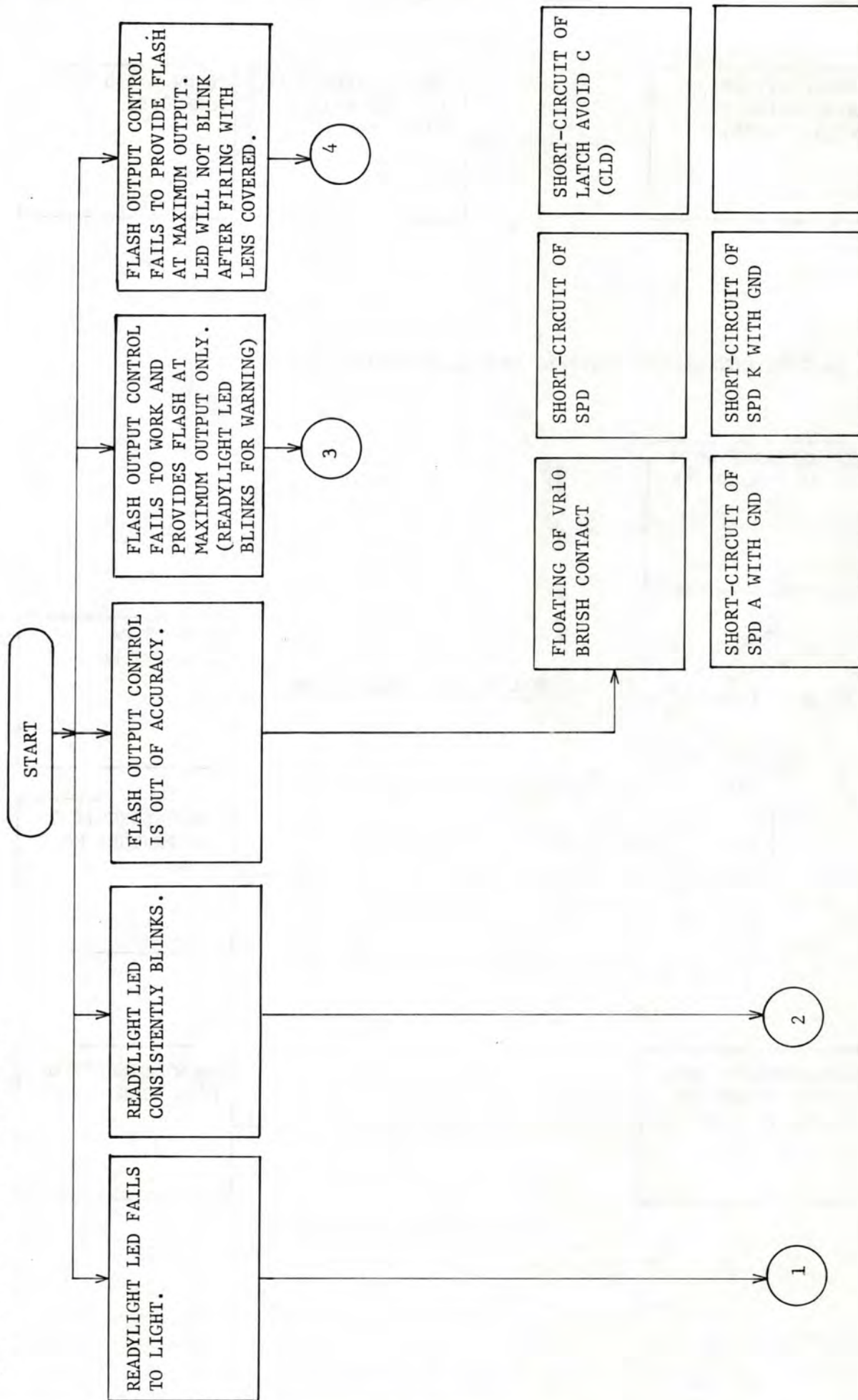
YES

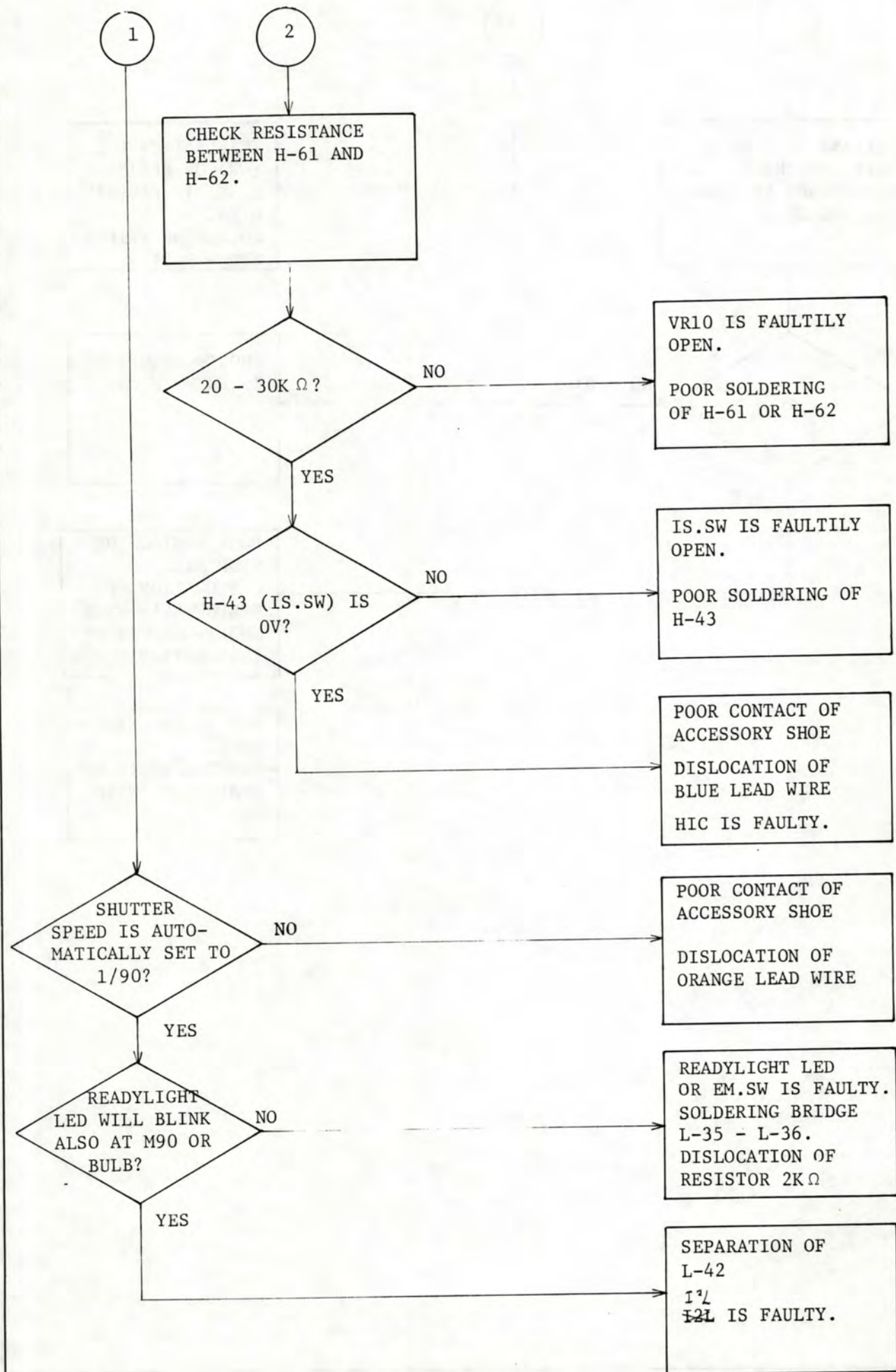
SHORT-CIRCUIT OF
CA APERTURE MG C
+ GND

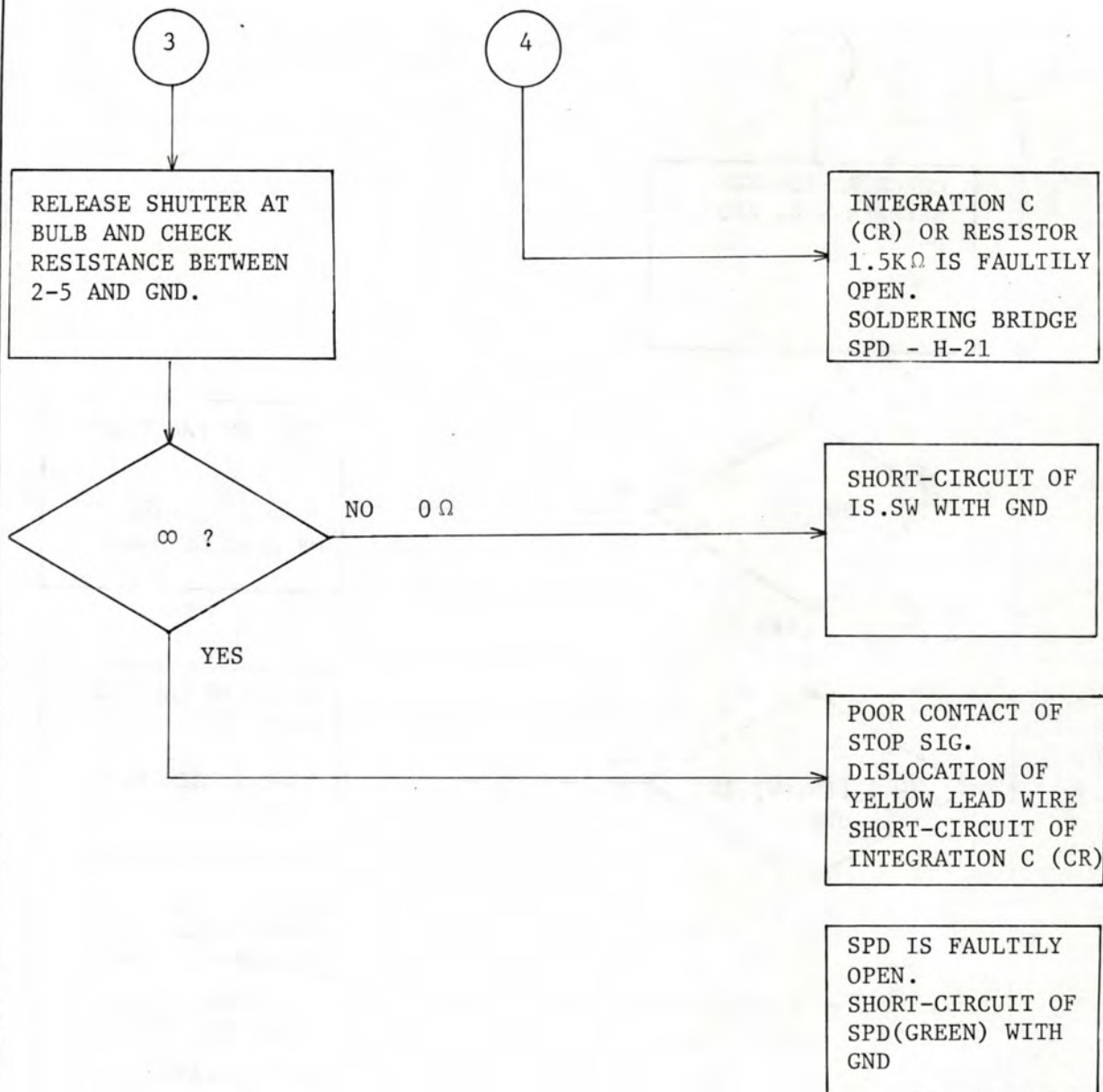
CHECK AMPERAGE WHEN
EM.SW IS TURNED ON.
IT READS 15 - 30 μ A.

SHORT-CIRCUIT OF
H-21 WITH H-110

(15) FAULTS OF TTL FLASH CONTROL







INSPECTION STANDARD FOR REPAIR

INSPECTION STANDARDS FOR REPAIR

	ITEM	STANDARD						REMARKS
SHUTTER SPEEDS ON A MODE	Exposure time	LV	ASA	F NO.	SETTING	REFERENCE VALUE(MS)	TOLERANCE	Tool lens 50/1.8S J19036
		15	100	5.6	1/1000	0.98	0.58-1.65	
		15	100	8	1/500	1.95	1.24-3.05	
		12	100	5.6	1/125	7.81	4.98-12.3	
		12	100	8	1/60	15.6	9.94-24.5	
		9	100	5.6	1/15	62.5	39.8-98.1	
		9	100	16	1/2	500	319- 785	
		6	100	8	1	1000	637-1569	
		15	100	4	Limitter	-	0.24-0.82	
	1/1000: $\pm 0.75\text{EV}$ 1/500 - 1S: $\pm 0.65\text{EV}$							
SHUTTER SPEEDS ON A MODE	Shutter speed difference between two adjacent settings	1/1000 - 1/125: $\pm 0.65\text{EV}$ 1/60 - 1: $\pm 0.45\text{EV}$						
	Auto limiter	Exposure be provided even at shutter speed of from 1/2000 to 1/4000						
	Sync speed	1/90 (11.1ms) $\pm 0.15\text{EV}$: 10.0-15.2ms J15147 -0.45						J15147
	Shutter speed variation	Measure automatic shutter speed delivered on LV9/ASA100/F5.6 when shutter is released five times sequence 15ms or less						
	Exposure compensation dial set	Auto model LV9/ASA100/F5.6 (1/15) $\begin{matrix} \text{To} + 2 \\ \text{To} - 2 \end{matrix} \rightarrow \frac{\text{Tx}}{\text{To}} \leq \pm 0.25\text{EV}$ Tx: Shutter speed delivered with compensation set						
	Back-light button	Auto mode/LV9/ASA100/F5.6 (1/15) $\pm 2 \pm 0.4\text{EV}$						

		ITEM										STANDARD										REMARKS														
SHUTTER SPEEDS ON A MODE	Self-timer		Delay time: 7 - 15 sec. LV9 ASA100 F5.6 (1/15) $\left| \log_2 \frac{T_s}{T_o} \right| \leq 0.25EV$ Ts: Shutter speed delivered with self-timer set Note: Eyepiece be covered against light entrance																																	
	Exposure measurement display on A mode		LV	ASA	F NO.	SPEED SETTING	DISPLAY PANEL	LED INDICATION								Tool lens 50/1.8S J19036																				
			15	25	2.8	1/1000	△ 1000	●	●	△	△																									
			12	100	5.6	1/125	500 250 125	●	●	●	●																									
			12	100	11	1/30	60 30 15	●	●	●	●																									
							8		●																											
			9	100	11	1/4	4	●	●	●	●																									
			6	400	8 16	1 s	2 1 ▽ ⚡	●	●	▽	▽																									
	Audio warning		To be emitted when either LEDs 30•60 or 15•30 light up To be emitted also when LEDs △▽ blinking																																	
	Out of metering range warning		LV6 ASA400 F22										LED ▽ blinking																							
			LV15 ASA25 F2										LED △ blinking																							
			ASA100 F5.6																																	
			LV5 +0.25 -0.75										LED ▽ blinking																							
Metering range change-over		LV15 +0.75 -0.25										LED △ blinking																								
		Deviation: ±0.5EV																																		
		ASA160 or more 1/4 - 1/1000 ASA640 or more 1/15 - 1/1000																																		
Meter hold		16 ±1 sec.																																		

ITEM		STANDARD						REMARKS		
VIEWFINDER	Infinity focus	<u>+30"</u> Shutter charge should not affect the infinity focus accuracy						J19001 J18010		
	Frame coverage	92 $\begin{smallmatrix} +3 \\ -1 \end{smallmatrix}$ %								
	Parallax	0.5mm or less								
	Diopter	-1 $\pm$ 0.5 dpt.								
	Image inclination	1° or less								
	Image centering	0.3mm or less								
	Shutter speed panel viewing	1. To be with no shading 2. The brightness of LEDs be even								
	Shutter speed panel indication	1°30' or less								
SHUTTER SPEEDS ON P MODE	Exposure time	LV	ASA	EV	PROGRAMMED SPEED	TOLERANCE(ms)			Tool lens 50/1.8s J19036	
		15	100	15	1/398	1.91 - 3.32				
		12	100	12	1/140	5.39 - 9.39				
		9	100	9	1/50	15.3 - 26.59				
		6	100	6	1/15	49.98 - 87.05				
		Tolerance of shutter speed $\pm$ 0.4EV								
	Exposure amount of aperture plane	$\pm$ 0.5EV or less								
	Shutter speeds panel LED	LV15/ASA100/EV15								
		REFERENCE		NORMAL		FAULT				
		SPEED	LED							
1000		●	●	●	●	●				
500										
250										
125										
P mode preparation alert	F11 $\pm$ 1/6AV LEDs $\Delta \nabla$ blinking									

ITEM	STANDARD			REMARKS
SHUTTER SPEEDS ON MANUAL MODE	Exposure time	SET SPEED	REFERENCE	TOLERANCE
		1000	0.98	0.69-1.38ms (+0.5EV)
		500	1.95	1.58-2.40 (+0.3EV)
		250	3.91	3.18-4.81 (")
		125	7.81	6.34-9.62 (")
		60	15.63	12.7-19.2 (")
		30	31.25	25.4-38.5 (")
		15	62.5	50.8-76.9 (")
		8	125	102- 154 (")
		4	250	203- 308 (")
		2	500	406- 616 (")
		1	1000	812-1231 (")
	Mechanical speed	M90	11.1	10. -15.2ms (+0.15EV) -0.45
	Sync speed	1000-125	11.1	10.0-15.2ms (+0.15EV) -0.45
	Speed variation at 1/1000 sec.	0.25ms or less		
FILM FRAME COUNTER	Frame counter SW	To be on when frame counter reaches the position between "1" and the second dot from "S"		
		LEDs 60 and 125 should blink alternately when frame counter SW is OFF on P/A/M modes		
SYNCHRONIZATION	Time-lag	Sync Shutter speed of 1/90 sec.		
	Contact efficiency	0.3 - 1.0ms (after ON: 1.5ms or more)		
	Insulation resistance	60% or more (gate time: 1ms or more)		
		70% or more (gate time: 25ms or more)		
TTL LIGHT OUTPUT CONTROL	Ready-light	To be turned on when fully charged		
	ASA setting error warning	ASA400 or lower: ready-light glows ASA400 or higher: ready-light blinks		
	Flash stop signal time	LV15/ASA100/F1.8 (Shutter speed of) 0.160+0.005ms 1 sec. on manual)		

J19036

J19028-1

J15166

J18142

J15225

J15226

	ITEM	STANDARD	REMARKS
TTL LIGHT OUTPUT CONTROL	Ready-light LED blinking after flash Sync. speed LEDs glowing	1. To be blinking when the SB-15 provides a full output on A1/A2 modes 2. To be blinking while the SB-15 is charged To be checked at speed of 1/90 sec. on P/A/M modes or 1/30 sec. on manual mode LEDs 60 and 125 light up on A mode	
BATTERY CONSUMPTION	Consumption rate (normal temperature)	Metering: 5 - 7 mA Audio warning: 8 - 10 mA Shutter releasing: 12 - 15 mA In storage: 5 μ A or less	J9001-5 J9003-1 J15148-1
BATTERY CHECK	Check voltage	2.29V: Mirror be locked up 2.51V: Meter 16 sec.-hold be in operation Shutter is released normally whenever LEDs light	J9001-5 J9003-1 J15148-1
DATA BACK CONTACT	Sync. time Contact efficiency	90 ms or more 30% or more	
FILM-GUIDE RAIL	Flange focal distance	Flange focal distance: 46.67 $\pm$ 0.02mm Parallel: 0.02mm or less Balance between outer/inner rails: 0.23 $\pm$ 0.02mm	J19004
FILM-ADVANCE MECH./SHUTTER RELEASE MECH.	Film-winding torque	Film unloaded: 2.5 kg-cm or less Film loaded: 3.5 kg-cm or less	
	Spool	Slipping load: 140-240g	J15003
	Sprocket	Play of the tip of sprocket teeth: 0.8mm or less (film-advance is completed)	J18064-1
		Frame-to-frame space: 2 $\pm$ 1mm	
	Motor drive coupling	Winding torque: 1.2kg-cm or less (film unloaded) 1.6kg-cm or less (film loaded)	
		Winding angle: 360°	
	Motor drive contact	Distance from bottom cover to coupling: 0.5 $\pm$ 0.4mm	

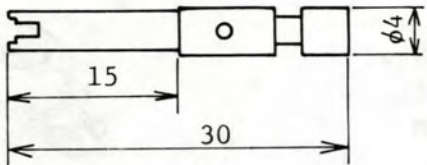
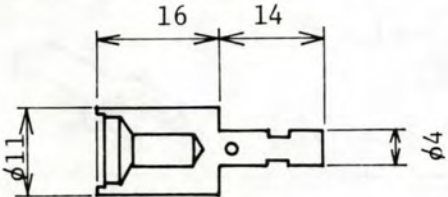
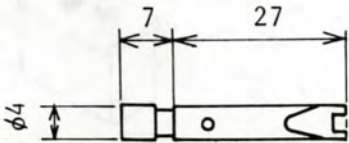
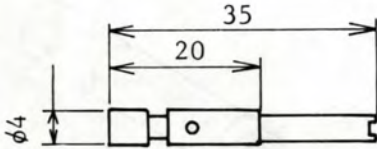
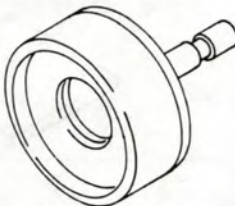
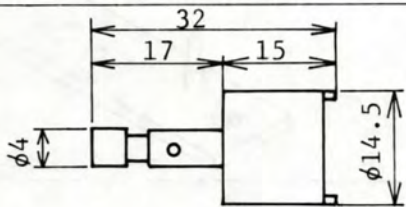
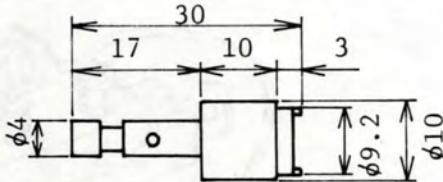
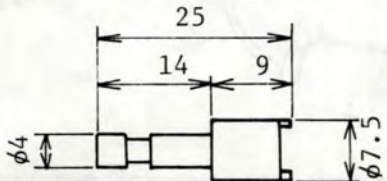
	ITEM	STANDARD	REMARKS
FILM-ADVANCE MECH./SHUTTER RELEASE MECH.	Motor drive contact	Distance from bottom cover to contact: 2.4+0.15mm	
	Shutter release button	Meter SW-ON power: 200g or less Release power: 250-400g	J5019
		Release stroke Meter SW-ON: 0.6+0.2mm Shutter release: 1.7+0.2mm Whole stroke: 2.3mm	
	Rewind button	Distance from bottom cover: Original position: 0.2+0.2mm Latched position: 2.3 ^{+0.4} _{-0.3} mm Whole stroke: 2.8mm or more	
	Rewind knob	Friction torque 5-25 g-cm 5-25g	
LENS MOUNT		Height Shutter charged: 3.1 ^{+0.1} ₋₀ mm Shutter released: 3.9mm or less Balance between before/after shutter release: Whole stroke: 7.1mm or more Reverse power: 90-120g	J18004
	Aperture coupling ring.	Start angle: 52° ⁺⁰ _{-1°}	J18058
		Rotation angle: 61.5° or more	
		Reverse torque at start angel: 60g-cm or more	J18058
	Lens release/lock pin	Extending height from bayonet surface: 0.7-1.2mm	

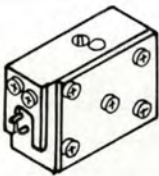
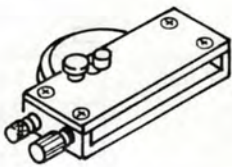
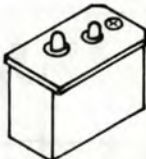
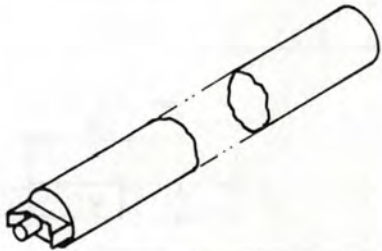
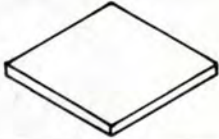
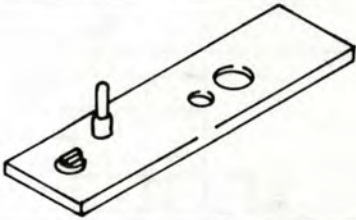
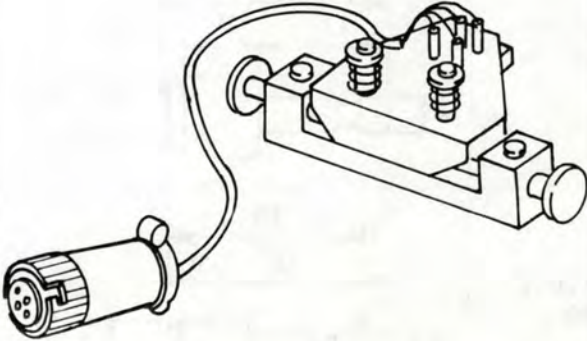
TOOLS

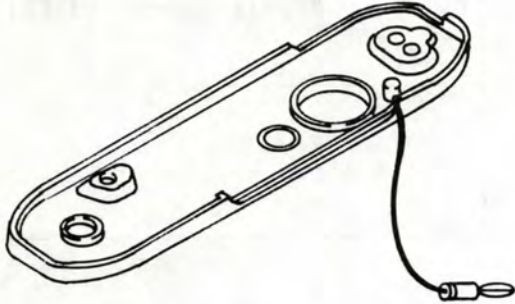
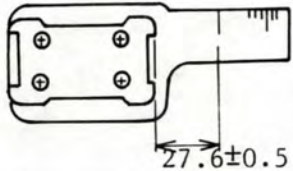
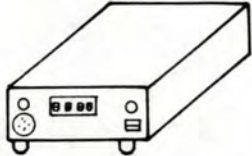
Contents

[1] Tool & Gauge List	T1
[2] List of Measuring Instrument for General Use	T5
Lubricant & Binding Agent List	

[1] Tool & Gauge List

Tool No.	Name	Illustration (mm)	Class	Remarks
J11122	Screwdriver for #420 & #358		A	F2, F3
J11152	Screwdriver for #404		A	EM
J11154	Screwdriver for eccentric nut of B99		A	EM
J11170	Screwdriver for #130		A	
J11171	Screwdriver for #533		A	
J11172	Screwdriver for #547		A	
J11173	Screwdriver for #640		A	
J11174	Screwdriver for #609		A	

Tool No.	Name	Illustration	Class	Remarks
J15147	Strobe substitute tool		B	FE, FM EM
J15148-1	Tool battery for circuit inspection		B	F3, FE FM, EM
J15162	Retaining tool for #421		B	EM
J15166	Synch inspecting tool		B	FE, FM EM
J15188	Screwdriver for VR adjustment		A	F3
J15196	Standard reflector		A	F3
J15222	Positioning Tool #421		B	
J15225	Strobo dummy connector		A	J15226 J18142

Tool No.	Name	Illustration (mm)	Class	Remarks
J15226	Tool bottom cover		A	J15225 J18142
J18064-1	Sprocket teeth positioning gauge		A	FE, FM EM
J18074	45° degree positioning tool mirror		C	EM
J18142	Time counter		A	J15225 J15226
J18001-1	Body back focus gauge	Refer to Tool List	A	
J18004	Aperture lever Positioning gauge	- ditto -	B	
J18006	Test chart	- ditto -	C	
J18010	Standard Lens 50/2	- ditto -	C	
J18033	Focusing screen tool	- ditto -	C	
J18037	Mirror 45° inspecting tool	- ditto -	C	

Tool No.	Name	Illustration	Class	Remarks
J18058	Torque gauge AI lens & body	Refer to Repair Manual (35FB)	C	FM, FE
J5272	Stop ring pliers	- ditto -	A	FE, EM FM, EL2

[2] List of Measuring Instrument for General Use

Tool No.	Name	Remarks	Substitutive with
J5018	Cylindrical spring balance	0 - 110g	
J5019	- ditto -	0 - 500g	
J9001-5	DC regulated power supply Model No. 526	0 - 18V Variable Max. 2A	J9001-1
J9003-3	Digital voltage meter		J9003-2
J9004	DC ampere meter	Type 2011	
J9006	Tester	501-ZXTR	
J19001	Collimator	f=600mm D=120mm	
J19004	Dial indicator & stand	Scale Div. 0.01mm	
J19008-1	Flash synchro tester	F-3032A Time lag variable	J19008-2
J19036	Multi shutter tester	EF-511N	
J19028-1	Contact & insulation tester	1E - 2A3 6V-% 500V-M Ω	J19028

LUBRICANT AND BINDING AGENT LIST 潤滑油・接着剤一覧表

LUBRICANTS 潤滑油

Oil 油	Usage 用 途	Items number 番 号	Items 商 品 名			
			Japanese	日 本	Material Code No. 資材コード	Remarks 備 考
Liquid oil 液体油	At a normal temperature 常 温 用	L 1212	日本石油	白スピンドル油 No.5	E 205	
		L 1233	シエル石油	トナオイル #33	E 216	
		L 1309	モービル石油	モービループ HD 80-90	E 223	
		L 1314	モービル石油	モービループ HD 140	E 224	
	At a low temperature 低 温 用	L 2010	ウイリアム・エフ・ナイ(木村産業)	アストロオイル	E 269	
		L 2113	三建化工	セバケイト D. O. S	E 274	
		L 2215	エクリプス・バイオニア	エクリプス・バイオニア #10(ジャイロ油)		
		L 3016	理研製油	スクワレル LA-10	E 261	
		L 3025	理研製油	スクワレル M-1	E 262	
		L 3034	理研製油	スクワレル M-2	E 263	
		L 3044	理研製油	スクワレル M-5	E 264	
		L 3047	理研製油	スクワレル H-1	E 265	
Grease oil グリース	At a normal temperature 常 温 用	G 5201	社 内 調 合			
		G 5204	社 内 調 合			
		G 5214	社 内 調 合			
		G 6053	日本鉱油	パーマルブ H1003	E 275	
		G 6252	出光興産	ダフニコロネックス 2	E 2836	
		G 6372	シエル石油	シエルアルバニア 2	E 218	
		G 6414	杉浦研究所	光学用グリース Z-2		
		G 6433	杉浦研究所	光学用グリース X-2	E 2837	
		G 7821	丸善石油	リマックス 2	E 225	
		G 8681	ロックレー(大東商事)	オートトリキモリ LM-81	E 277	
	At a low temperature 低 温 用	G 7100	理研製油	スクワグリース L-2	E 266	
		G 7811	日本鉱油	フォートルブ 024	E 272	
		G 7812	日本鉱油	フォートルブ 025		
		G 7813	社 内 調 合		E 280	
		G 7814	協同油脂	マルテンブPS No.1	E 267	
		G 7815	協同油脂	マルテンブPS No.2	E 2844	
		G 7833	東レシリコーン	シリコーンSH, 33(F)グリース	E 2845	
		G 7848	日本石油	ユニテンブグリース	E 2846	
		G 7854	日本鉱油	パーマルブ C-1	E 2847	
		G 7855	日本鉱油	パーマルブ C-2	E 2848	
		G 7816	トーオーポリマー	ホワイトグリースA	E 2842	FL-LUBE-A

LUBRICANTS 潤滑油

Oil 油	Usage 用途	Items number 番 号	Items 商 品 名		
			Japanese 日 本	Material Code No. 資材コード	Remarks 備 考
Grease oil グリース	At a low temperature 低 温 用	G 7856	日本鉱油 パーマルブ C-3	E 2849	
		G 7862	日本鉱油 パーマルブ F-2		
		G 7866	日本鉱油 フォートルブ 023	E 271	
		G 7870	モービル石油 モービルグリース 28	E 2851	
		G 8181	社 内 調 合	E 281	
		G 8610	ロックレー(大東商事) リキモリペースター LM-83	E 276	
		G 8613	ロックレー(大東商事) リキモリパウダー LM-13	E 2853	
		IJ-10	日本鉱油		

BINDING AGENTS 接着剤

Usage 用途	Items number 番 号	Items 商 品 名		
		Japanese 日 本	Material Code No. 資材コード	Remarks
For leather or rubber goods. 皮類, ゴム類	# 501	ブライオボンド #30	E 154	
For make metal goods together with metal goods or glass with metal 一般金属相互 ガラスと金属	# 616	セメダインスーパー (家庭用)		
	# 648	セメダイン #1500 (工業用)		
	# 621	セメダイン #1565	E 175	
	# 631	アラルダイト AT 1	E 180	
	# 634	主剤 アラルダイト AY 101 硬化剤 ハードナー HY 951		
	#645HB, #645HE	DM K 5	E 160	
For temporary adhesion in the process 工程上の仮止め	# 201	セラック オレンジ色, レモン色可	E 375	
	# 350	ねじロック 赤, 白	E 157	
	# 410	ロックタイト (B/M黄, ST/L 赤 SC/L 紫, N/L 青,	E 163 E 166	
	# 921	アロンアルファ # 201	E 155	(20g入)
	# 922	アロンアルファ # 202	E 156	(20g入)
For replenishment 充填を主とする接着	# 503	ウェザーバンシーラー	E 185	
	# 506	スリーボンド No.4		
	# 508	シラシール 3 DW		
	# 515	KE45RTV	E 186	
	#646HB, #646HE	DM D 6		
	#647HB, #647HE	DM K 3		
	# 518	KE1202LTV		
	# 710	セメダイン1001	E 179	
	# 703	セメダイン1003		

PARTS LIST

Contents

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[2]	ASSEMBLY LIST	P34

Marks in the Parts List

[1] 部 品 表 Parts list

FAA15001 - R.3111.A

補助番号 Ckt.No.	部 品 番 号 Part No.	1台分 個 数 Pcs. per Unit	部 組 品 番 号 Assembly	参照図番 Figure	販 売 区 分 Term of Delivey	備 考 Remarks
707B	1K001-007	4		1	○	
715B	1K001-008	3	1B150-012-3	1,6	○△	
731B	1K001-010	2		6	○	
735B	1K001-011	4		12	○	
740	* 1K010-002-1	1		10	○	
749	1K010-025	1		5	○	
728	1K010-027	2	1B001-167-1	11	○△	
103	* 1K044-001	2	1B001-163		△	
745	* 1K044-003	2		11	○	
293	1K048-010	2	1B100-099		△	
367	1K048-011	2	1B060-041		△	
518	1K048-012	2	1B060-066-4	10	○△	
759A	* 1K050-029	0~4	1B150-011-3 1B150-012-3	5	○△	t=0.05
759B	* 1K050-030	0~4	1B150-011-3 1B150-012-3	5	○△	23FB#854B
759C	* 1K150-031	0~4	1B150-011-3 1B150-012-3	5	○△	23FB#854C
759D	* 1K050-032	0~4	1B150-011-3 1B150-012-3	5	○△	23FB#854D
759E	* 1K050-033	0~4	1B150-011-3 1B150-012-3	5	○△	23FB#854E
759F	* 1K050-034	0~4	1B150-011-3 1B150-012-3	5	○△	23FB#854F
759G	* 1K050-035	0~4	1B150-011-3 1B150-012-3	5	○△	23FB#854G

補助番号 Ckt.No.	部 品 番 号 Part No.	1台分 個 数 Pcs. per Unit	部 組 品 番 号 Assembly	参照図番 Figure	販 売 分 区 分 Term of Delivery	備 考 Remarks
759H	* 1K050-036	0~4	1B150-011-3 1B150-012-3	5	○△	23FB#854H
759i	* 1K050-037	0~4	1B150-011-3 1B150-012-3	5	○△	23FB#854i
759J	* 1K050-038	0~4	1B150-011-3 1B150-012-3	5	○△	23FB#854J
759K	* 1K050-039	0~4	1B150-011-3 1B150-012-3	5	○△	23FB#854K
759M	* 1K050-040	0~4	1B150-011-3 1B150-012-3	5	○△	23FB#854M
759N	* 1K050-041	0~4	1B150-011-3 1B150-012-3	5	○△	23FB#854N
759P	* 1K050-042	0~4	1B150-011-3 1B150-012-3	5	○△	23FB#854P
759Q	* 1K050-043	0~4	1B150-011-3 1B150-012-3	5	○△	23FB#854Q
759Y	* 1K050-044	0~4	1B150-011-3 1B150-012-3	5	○△	23FB#854Y
759S	* 1K050-045	0~4	1B150-011-3 1B150-012-3	5	○△	23FB#854S
759T	* 1K050-046	0~4	1B150-011-3 1B150-012-3	5	○△	23FB#854T
759U	* 1K050-047	0~4	1B150-011-3 1B150-012-3	5	○△	23FB#854U
759V	* 1K050-048	0~4	1B150-011-3 1B150-012-3	5	○△	23FB#854V
203	1K050-060	1	1B001-172		△	
258	1K050-061	1	1B001-172	8	○△	
390	1K050-062	1	1B260-003		△	
414	1K050-063	1		3	○	
613	1K050-065	1	1B001-142-1		△	
395	1K050-083	1	1B260-003		△	

部 品 表 Parts list

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補助番号 Ckt.No.	部 品 番 号 Part No.	1 台分 個 数 Pcs. per Unit	部 組 品 番 号 Assembly	参照図番 Figure	販 売 区 分 Term of Delivey	備 考 Remarks
755	* 1K060-003	1	1B001-170	6	○△	
543	1K060-007	1	1B060-066-4	10	○△	
751	1K060-008	1	1B150-010-1	7	○△	
758	* 1K060-009	1	1B001-169-1	2	○△	23FB#867
756	1K060-010	1	1B150-010-1	7	○△	
403	1K070-001	1	1B314-062		△	
448	1K070-002	1	1B340-003		△	
566	1K070-003	1	1B001-169-1	2	○△	
147	* 1K078-004	1	1B060-046-2 1B060-047-2	1	○△	
105	1K080-005	2		11	○	40FB#50
28A	1K080-011	1		6	○	
28B	1K080-013	1		6	○	Black
183A	1K082-001	1		12	○	
183B	1K082-002	1		12	○	Black
607	1K083-007	1	1B001-165	4	○△	
104	* 1K100-035	2		11	○	23FB#24
102	1K100-050	2	1B001-163		△	
632	1K110-090	2	1B060- 066-4	10	○△	
227	* 1K115-193	1	1B314-060	8	○△	23FB#328

補助番号 Ckt.No.	部 品 番 号 Part No.	1台分 個 数 Pcs. per Unit	部 組 品 番 号 Assembly	参照図番 Figure	販 売 区 分 Term of Delivey	備 考 Remarks
333	*1K115-203	1	1B208-007	6	○△	P33FB#261
346	1K115-268	1	1B060-049-1	9	○△	
245	1K115-269	1	1B001-172	8	○△	
292	1K115-270	1	1B100-099	7	○△	23FB#348
369	1K115-271	1	1B576-003	5	○△	
372	1K115-272	1	1B001-155	6	○△	
377	1K115-274	1	1B576-003	5	○△	
106	1K115-278	1		14	○	
107	1K115-279	1		14	○	
109	1K115-280	1		12	○	
119	1K115-281	1		14	○	
120	1K115-282	1		14	○	
121	1K115-283	1		14	○	23FB#62
122	1K115-284-1	1		11	○	23FB#63
139	1K115-285	1		5	○	23FB#20-5
159	1K115-286	1	1B620-016-1	13	○△	23FB#726
169	1K115-287	1	1B620-016-1	13	○△	
184	1K115-288	1	1B620-016-1	13	○△	23FB#722
185	1K115-289 -1	1	1B060-046- 2 1B060-047- 2	1	○△	

部 品 表 Parts list

FAA15001 - R.3111.A

補助番号 Ckt.No.	部 品 番 号 Part No.	1 台分 個 数 Pcs. per Unit	部 組 品 番 号 Assembly	参照図番 Figure	販 売 区 分 Term of Delivery	備 考 Remarks
186	1K115-290	1	1B060-046-2 1B060-047-2	1	○△	
118	1K115-353-1	1		14	○	
123	1K115-354	1		11	○	
388	1K115-390	2	1B150-011-3	6	○△	40FB#1095
124	1K115-452	1		14	○	
125	1K115-453	1		14	○	
126	1K115-454	1		12	○	
127	1K115-455-1	1		10	○	
128	1K115-456-1	1		11	○	
517	1K115-457	1	1B001-218-1 1B060-066-4	10	○△	
133	1K115-492	2	1B620-016-1	13	○△	
725	* 1K120-003	1	1B001-172	8	○△	
706	* 1K120-041	2		10	○	
419	1K120-077	1		12	○	23FB#423
433	1K120-078	1	1B001-169-1	2	○△	23FB#478
723	1K120-080	1	1B001-164	8	○△	
744	1K120-081	1	1B150-011-3 1B150-012-3	7	○△	
746	1K120-082	1	1B060-066-4	10	○△	
748	1K120-083	1		12	○△	23FB#827

補助番号 Ckt.No.	部 品 番 号 Part No.	1台分 個 数 Pcs. per Unit	部 組 品 番 号 Assembly	参照図番 Figure	販 売 区 分 Term of Delivety	備 考 Remarks
712	1K120-084	4	1B060-046-2 1B060-047-2	1	○△	
750	1K120-089-1	1	1B060-046-2 1B060-047-2	1	○△	
743	1K120-093	1		1	○	
411	1K123-044	1		3	○	
747	1K123-046	4	1B150-011-3 1B150-012-3	6	○△	23FB#819
164	1K123-052	1	1B620-016-1	13	○△	
130	1K123-048	1		14	○	
241	1K130-082	1	1B150-010-1	7	○△	
259	1K130-083	1	1B001-172	8	○△	
268	1K130-084	2	1B150-011-3 1B150-012-3	7	○△	
353	1K130-085	1	1B150-011-3 1B150-012-3	6	○△	
358	1K130-086	1	1B150-011-3 1B150-012-3	5	○△	
387	1K130-087	2	1B150-011-3 1B150-012-3	6	○△	
406	1K130-088-1	1		12	○	23FB#408
407	1K130-089	1		12	○	23FB#409
410	1K130-090	1		12	○	23FB#412
526	1K130-091	2		11	○	
576	1K130-092-2	1		2	○	
501	1K130-100	1		2	○	

部 品 表 Parts list

FAA15001 - R.3111.A

補助番号 Ckt.No.	部 品 番 号 Part No.	1台分 個 数 Pcs. per Unit	部 組 品 番 号 Assembly	参照図番 Figure	販 売 区 分 Term of Delivery	備 考 Remarks
530	1K136-009	2	1B001-168-2	2	○△	
565	1K136-010	2	1B001-169 -1	2	○△	
420	1K146-022	1		11	○	23FB#427
608	1K146-023	1	1B001-165	4	○△	
604	1K150-015-1	1		4	○	
609	1K150-016-1	1	1B001-165	4	○△	
544	1K156-012	1	1B001-218-1 1B060-066-4		△	
198	1K156-013	1			X	
146	1K160-251	1	1B060-046-2 1B060-047-2	1	○△	
580	1K165-020	1		10	○	
148	1K165-021	1		1	○	
602A	1K201-019-1	1	1B201-007		△	
602B	1K201-020-1	1	1B201-008		△	
529	1K206-003	1	1B001-168-2	2	○△	
531	1K206-004-1	1	1B001-168-2		△	
141	1K206-006	1	1B060-046-2 1B060-047-2	1	○△	
352	1K208-011	1	1B208-007	6	○△	
534	1K208-012	1	1B001-171	2	○△	
551	1K208-013	1	1B060-066-4	10	○△	

補助番号 Ckt.No.	部品番号 Part No.	1台分 個数 Pcs. per Unit	部組品番号 Assembly	参照図番 Figure	販 区 分 Term of Delivey	備 考 Remarks
614	1K208-015	1		10	○	
619	1K208-016	1	1B001-166	4	○△	
161	*1K220-031	1	1B620-016-1	13	○△	23FB #732
332	*1K220-041	1	1B001-170	6	○△	35FB#214A-6
354	1K220-053	1	1B150-011-3 1B150-012-3	6	○△	
416	1K220-054	1		3	○	23FB#419-1
427	1K220-055	3	1B001-169-1	2	○△	23FB#463
481	1K220-056	1	1B001-136	3	○△	23FB#503
229	1K225-050	1	1B001-172	8	○△	
305	1K225-051	1	1B150-010 -1	7	○△	
329	1K225-052	1	1B150-011-3 1B150-012-3	6	○△	
357	1K225-053	1	1B150-012-3 1B150-011-3	5	○△	
421	1K225-054	1		11	○	23FB#428
214	1K230-054	1	1B001-172	8	○△	
219	1K230-055	1	1B150-010 -1	7	○△	
224	1K230-056	1	1B001-172	8	○△	
235	1K230-057	1	1B001-172		△	
240	1K230-058	1	1B150-010-1	7	○△	
248	1K230-059	1	1B001-172	8	○△	

部 品 表 Parts list

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補助番号 Ckt.No.	部 品 番 号 Part No.	1台分 個 数 Pcs.per Unit	部 組 品 番 号 Assembly	参照図番 Figure	販 売 区 分 Term of Delivey	備 考 Remarks
251	1K230-060	1	1B001-172	8	○△	
257	1K230-061	1	1B001-172	8	○△	
275	1K230-062	1	1B001-173-2	7	○△	
279	1K230-063	1	1B001-173-2	7	○△	
296	1K230-064	1	1B150-010-1	7	○△	23FB#361
325	1K230-065-1	1	1B060-049-1	9	○△	
340	1K230-066	1	1B150-010-1	7	○△	
344	1K230-067	1	1B060-049-1	9	○△	
431	1K230-068	1	1B001-169-1	2	○△	
538	1K230-070	1	1B001-169-1	2	○△	
560	1K230-071-1	1		2	○	
509	1K230-086	1	1B001-169-1	2	○△	
371	1K233-017	2		5	○	23FB#233
503	1K233-018	1	1B001-169-1	2	○△	
622	1K233-019	1	1B630-010	4	○△	
115	*1K240-050	1	1B001-143		△	
351	*1K240-065-1	1	1B150-011-3 1B150-012-3	6	○△	P33FB#208-7
262	1K240-082	1	1B001-150		△	
263	1K240-083	1	1B001-150		△	

補助番号 Ckt.No.	部 品 番 号 Part No.	1 台 分 個 数 Pcs. per Unit	部 組 品 番 号 Assembly	参照図番 Figure	販 売 区 分 Term of Delivey	備 考 Remarks
266	1K240-084	1	1B001-151		△	
267	1K240-085	1	1B001-151		△	
294	1K240-086-1	1	1B100-099		△	
295	1K240-087-1	1	1B100-099		△	
337	1K240-088	1	1B680-007-1		△	
359	1K240-089	1	1B060-041		△	
363	1K240-090-1	1	1B640-012		△	
366	1K240-091	1	1B060-041		△	
392	1K240-092	2	1B001-155		△	
432	1K240-093	1	1B001-169-1		△	
436	1K240-094-1	1	1B001-145		△	
439	1K240-095	1		3	○	23FB#508-2
440	1K240-096	1	1B001-144		△	
441	1K240-097	1	1B001-144		△	
524	1K240-098	1	1B001-148		△	
525	1K240-099	1	1B001-148		△	
549	1K240-100	1	1B001-218-1 1B060-066-4		△	
550	1K240-101	1		10	○	
557	1K240-102	1	1B001-145		△	

部 品 表 Parts list

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補助番号 Ckt.No.	部 品 番 号 Part No.	1台分 個 数 Pcs.per Unit	部 組 品 番 号 Assembly	参照図番 Figure	販 売 区 分 Term of Delivey	備 考 Remarks
559	1K240-103-1	1	1B001-140		△	
564	1K240-105	1	1B260-007 1B060-066-4		△	
615	1K240-106	1		10	○	
621	1K240-107	1	1B001-141		△	
624	1K240-108	1	1B001-165	4	○△	23FB#656 23FB#655-5
628	1K240-109	1		4	○	23FB#655-5 23FB#656
634	1K240-110-1	1	1B001-142-1		△	
635	1K240-111	1	1B001-142-1		△	
151	1K240-112	1	1B001-146		△	
156	1K240-113	1	1B620-016-1		△	
173	1K240-115-1	1	1B001-139- 2		△	
174	1K240-116-1	1	1B001-139- 2		△	
175	1K240-117-1	1	1B001-139- 2		△	
181	1K240-118	1	1B060-046- 2 1B060-047- 2	1	○△	
144	1K240-120	1	1B060-046- 2 1B060-047- 2	1	○△	
145	1K240-121	1	1B060-046- 2 1B060-047- 2	1	○△	
394	1K240-123	1		5	○	
532	1K245-009-1	1	1B001-168-2	2	○△	
391	1K246-008	1	1B260-003		△	

補助番号 Ckt.No.	部 品 番 号 Part No.	1台分 個 数 Pcs. per Unit	部 組 品 番 号 Assembly	参照図番 Figure	販 売 期 間 Term of Delivey	備 考 Remarks
617	1K246-010	1	1B201-002 1B201-008		△	
302	1K260-030	1	1B260-005		△	
307	1K260-031	1	1B277-006		△	
308	1K260-032	1	1B277-006		△	
309	1K260-033	1	1B260-003		△	
319	1K260-034	1	1B260-004		△	
322	1K260-035	1	1B277-004		△	
323	1K260-036	1	1B277-005		△	
335	1K260-037-1	1	1B277-005		△	
449	1K260-038	1	1B001-169-1		△	
467	1K260-039	1	1B001-169-1	2	○△	
472	1K260-041	1	1B260-006		△	
475	1K260-044	1	1B001-136		△	
500	1K260-045	1	1B001-169-1	2	○△	
545	1K260-046-1	1	1B060-066-4	10	○△	
561	1K260-047	1	1B260-007 1B060-066-4		△	
347	1K275-004	1	1B277-004		△	
428	1K275-005	1	1B475-013		△	
465	1K275-006	1		3	○	23FB#506

部 品 表 Parts list

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補助番号 Ckt.No.	部 品 番 号 Part No.	1台分 個 数 Pcs. per Unit	部 組 品 番 号 Assembly	参照図番 Figure	販 売 区 分 Term of Delivey	備 考 Remarks
466	1K275-007	1		3	○	
468	1K275-015	1	1B001-154		△	
521	1K300-037-1	1		12	○	
202	1K310-023	1	1B001-172		△	
218	1K310-024	1	1B150-010-1	7	○△	
239	1K310-025	1	1B150-010-1	7	○△	
253	1K310-026	1	1B310-023		△	
255	1K310-027	1	1B310-023		△	
271	1K310-028-1	1	1B314-061-1		△	
282	1K310-029	1	1B001-173-2	7	○△	
316	1K310-030	1	1B310-024		△	
502	1K310-031	1	1B001-169-1		△	
209	1K314-081	1	1B001-172		△	
225	1K314-082	1	1B001-172		△	
230	1K314-083	1	1B001-172		△	
232	1K314-084	1	1B001-172		△	
237	1K314-085	1	1B001-172		△	
238	1K314-086	1	1B001-172		△	
244	1K314-087-1	1	1B001-172		△	

補助番号 Ckt.No.	部 品 番 号 Part No.	1 台 分 個 数 Pcs. per Unit	部 組 品 番 号 Assembly	参照図番 Figure	販 売 区 分 Term of Delivey	備 考 Remarks
247	1K314-088	1	1B314-059		△	
250	1K314-089	1	1B314-060		△	
273	1K314-090	1	1B314-058		△	
276	1K314-091	1	1B314-061-1		△	
311	1K314-092	1	1B060-049-1		△	
314	1K314-093	1	1B060-049-1		△	
342	1K314-094	1	1B060-049-1		△	
401	1K314-095	1	1B314-062		△	
405	1K314-096	1	1B314-062		△	
522	1K314-098	1	1B314-057		△	
523	1K314-099	1	1B001-169-1		△	
528	1K314-100	1		12	○	
553	1K314-101	1	1B001-169-1		△	
554	1K314-102	1	1B001-169-1		△	
154	1K314-103	1		14	○	23FB#708
207	1K330-003	1	1B001-172		△	
208	1K330-004	1	1B001-172		△	
252	1K330-005	1	1B001-172	8	○△	
555	1K330-006	1	1B001-169-1		△	

部 品 表 Parts list

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補助番号 Ckt.No.	部 品 番 号 Part No.	1 台分 個 数 Pcs. per Unit	部 組 品 番 号 Assembly	参照図番 Figure	販 売 区 分 Term of Delivery	備 考 Remarks
243	1K340-027	1	1B001-172		△	
249	1K340-028-1	1	1B314-059		△	
274	1K340-029	1	1B314-058		△	
278	1K340-030	1	1B314-061-1		△	
303	1K340-031	1	1B260-005		△	
320	1K340-032	1	1B260-004		△	
418	1K340-033	1	1B060-037		△	
490	1K340-034	1	1B001-169-1		△	
507	1K340-035	1	1B001-169-1		△	
539	1K340-036	1	1B001-169-1		△	
415	1K340-037	1	1B314-062		△	
413	1K340-039	1		3	○	
291	1K360-009	1	1B100-099		△	
426	1K362-012	3	1B001-169-1	2	○△	23FB#462
163	1K362-013	1	1B620-016-1	13	○△	
216	1K366-015	1	1B001-172		△	
226	1K366-016-1	1	1B001-172		△	
236	1K366-017	1	1B001-172		△	
277	1K366-018-1	1	1B314-061-1		△	

補助番号 Ckt.No.	部 品 番 号 Part No.	1台分 個 数 Pcs. per Unit	部 組 品 番 号 Assembly	参照図番 Figure	販 売 区 分 Term of Delivey	備 考 Remarks
312	1K366-019-1	1	1B060-049-1		△	
328	1K366-020	1	1B060-049-1		△	
438	1K366-021	1	1B314-057		△	
612	1K366-024	1	1B001-142-1		△	
155	* 1K370-177	2	1B620-016-1		△	
152	* 1K370-192	2	1B001-146		△	
117	1K370-197	1	1B001-143		△	
331	* 1K370-241-1	1	1B001-170		△	
393	* 1K370-244-1	2	1B001-155		△	
204	1K370-291	1	1B001-172		△	
205	1K370-292	1	1B001-172		△	
206	1K370-293	1	1B001-172		△	
210	1K370-294	1	1B001-172		△	
304	1K370-295	1	1B060-049-1		△	
212	1K370-296-1	1	1B001-172		△	
213	1K370-297	1	1B001-172		△	
220	1K370-298	1	1B001-172		△	
228	1K370-299	1	1B001-172		△	

部 品 表 Parts list						FAA15001 - R.3111.A
補助番号 Ckt.No.	部 品 番 号 Part No.	1台分 個 数 Pcs.per Unit	部 組 品 番 号 Assembly	参照図番 Figure	販 売 区 分 Term of Delivey	備 考 Remarks
231	1K370-300	1	1B001-172		△	
233	1K370-301	1	1B001-172		△	
234	1K370-302	1	1B001-172		△	
242	1K370-303	1	1B310-024		△	
246	1K370-304-1	1	1B001-172		△	
254	1K370-305	1	1B310-023		△	
256	1K370-306	1	1B310-023		△	
272	1K370-307	1	1B314-061-1		△	
280	1K370-308	1	1B001-173-2		△	
283	1K370-309-1	1	1B001-173-2		△	
306	1K370-311	2	1B060-049-1		△	
313	1K370-312	1	1B060-049-1		△	
315	1K370-313	1	1B060-049-1		△	
318	1K370-314	1	1B310-024		△	
321	1K370-315	1	1B060-049-1		△	
324	1K370-316	1	1B060-049-1		△	
326	1K370-317	1	1B060-049-1		△	
330	1K370-318-1	1	1B150-011-3 1B150-012-3		△	
343	1K370-319	1	1B060-049-1		△	

補助番号 Ckt.No.	部 品 番 号 Part No.	1台分 個 数 Pcs.per Unit	部 組 品 番 号 Assembly	参照図番 Figure	販 売 区 分 Term of Delivey	備 考 Remarks
365	1K370-320	1	1B060-041		△	
402	1K370-321	1	1B314-062		△	
408	1K370-322	1	1B314-062		△	
409	1K370-323	1	1B314-062		△	
412	1K370-324	1		3	○	
434	1K370-325	1	1B001-169-1		△	
435	1K370-326	1	1B001-169-1		△	
464	1K370-327	1	1B001-136		△	
469	1K370-328	1	1B260-006		△	
504	1K370-332	1	1B001-169-1		△	
505	1K370-333	1	1B001-169-1		△	
506	1K370-334	1	1B001-169-1		△	
535	1K370-335	1	1B370-007		△	
537	1K370-336	1	1B001-171	2	○△	
540	1K370-337	2	1B001-169-1		△	
556	1K370-338	1	1B001-169-1		△	
579	1K370-339	1	1B001-218-1 1B060-066-4		△	
627	1K370-340	1	1B200-001		△	

部 品 表 Parts list

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補助番号 Ckt.No.	部 品 番 号 Part No.	1 台分 個 数 Pcs. per Unit	部 組 品 番 号 Assembly	参照図番 Figure	販 売 区 分 Term of Delivey	備 考 Remarks
629	1K370-341	1	1K370-341	4	○	23FB#652
132	1K370-342	1		14	○	
136	1K370-343	1	1B150-011-3 1B150-012-3	5	○△	
162	1K370-344	1	1B620-016-1		△	
176	1K370-347	1	1B001-137		△	
177	1K370-348	3	1B001-137		△	
199	1K370-361	1			×	
567	1K370-362	1	1B001-154		△	
197	1K380-011-1	1	1B001-167-1		○△	
101	* 1K400-078	1		12	○	23FB#10
350	1K404-033	1	1B150-011-3 1B150-012-3	6	○△	23FB#202-1
182	1K406-013	1	1B060-046-2 1B060-047-2	1	○△	
112	* 1K467-017-1	1	1B467-007-1		△	
384	1K470-008	1	1B470-002		△	
430	1K470-009	1	1B475-013		△	
562	1K470-010-1	1		2	○	
603	1K475-169-1	1	1B201-007 1B201-008		△	
429	1K480-004	1	1B001-169-1	2	○△	
381	1K500-199	1		5	○	

補助番号 Ckt.No.	部 品 番 号 Part No.	1台分 個 数 Pcs. per Unit	部 組 品 番 号 Assembly	参照図番 Figure	販 売 分 区 Term of Delivey	備 考 Remarks
547	1K520-305-1	1		2	○	
376	1K576-029	1		5	○	
380	1K576-030	1	1B576-003		△	
383	1K580-003	1	1B470-002		△	
153	* 1K600-079	1	1B620-016-1		△	
264	1K600-135	2	1B001-151		△	
270	1K600-137	1	1B001-150		△	
287	1K600-138	1		10	○	
355	1K600-139	1	1B001-170	6	○△	
370	1K600-140	1		5	○	23FB#232
389	1K600-141	1		10	○	
422	1K600-142	1	1B001-148		△	
437	1K600-143	2	1B001-169-1 1B001-145		△	
445	1K600-144	1	1B001-144		△	
456	1K600-145	1	1B001-136	3	○△	23FB#505
476	1K600-146	1	1B001-169-1	2	○△	23FB#461
519	1K600-147-1	1	1B001-218-1 1B060-066-4	10	○△	
633	1K600-148	1	1B060-066-4	10	○△	
150	1K600-149	1	1B001-146		△	
269	1K600-136	1	1B001-150		△	

部 品 表 Parts list

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補助番号 Ckt.No.	部 品 番 号 Part No.	1台分 個 数 Pcs. per Unit	部 組 品 番 号 Assembly	参照図番 Figure	販 売 区 分 Term of Delivery	備 考 Remarks
451	1K600-156	2	1B001-136	3	○△	23FB#504
108	1K607-002	1		12	○	23FB#5
568	1K607-003	1	1B001-171	2	○△	
116	* 1K610-174	1	1B001-143		△	
606	1K610-225-1	1	1B201-008		△	
201	1K610-235	1	1B001-172		△	
260	1K610-236-1	1	1B001-164	8	○△	
281	1K610-237	1	1B001-173-2		△	
290	1K610-238	1	1B100-099		△	
301	1K610-239-1	1	1B060-049-1		△	
375	1K610-240	1		5	○	
382	1K610-241	1		5	○	
386	1K610-242	1		10	○	
425	1K610-244	1	1B001-171	2	○△	23FB#436-1
452	1K610-245-1	1	1B475-013		△	
497	1K610-249-1	1		14	○	
508	1K610-250	1	1B001-169-1		△	
527	1K610-251	1	1B370-007		△	

補助番号 Ckt.No.	部 品 番 号 Part No.	1台分 個 数 Pcs. per Unit	部 組 品 番 号 Assembly	参照図番 Figure	販 売 区 分 Term of Delivey	備 考 Remarks
541	1K610-252	1	1B001-169-1		△	
548	1K610-253-1	]	1B001-218-1 1B060-066-4		△	
578	1K610-254	1	1B001-149		△	
606	1K610-255-1	1	1B201-007		△	
625	1K610-256	1	1B200-001		△	
631	1K610-257	1	1B060-066-4	10	○△	
113	1K610-258	1		12	○	
143	1K610-264	1	1B060-046-2 1B060-047-2	1	○△	
196	1K610-265	1	1B001-167-1	11	○△	
396	1K610-291	1	1B470-002	5	△	
149	1K610-307	1		1	○	
178	1K610-384-1	1	1B060-046-2 1B060-047-2	1	○△	
374	1K630-041	1	1B001-155		△	
378	1K620-042	1	1B576-003		△	
379	1K620-043	1		5	○	
605	1K620-044	1		4	○	
25	1K620-045-1	1	1B620-016-1		△	
637	1K625-014	1	1B001-142-1		△	
140	1K625-015	1	1B206-005		△	

部 品 表 Parts list

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補助番号 Ckt.No.	部 品 番 号 Part No.	1台分 個 数 Pcs.per Unit	部 組 品 番 号 Assembly	参照図番 Figure	販 売 区 分 Term of Delivery	備 考 Remarks
171	1K625-016	1	1B060-046-2 1B060-047-2	1	○△	
114	* 1K630-082	1	1B467-007-1		△	
217	1K630-103	1	1B001-172		△	
317	1K630-104	1	1B310-024		△	
470	1K630-105	1		3	○	23FB#422
536	1K630-106	1	1B001-171	2	○△	
546	1K630-107-1	1	1B060-066-4	10	○△	
601	1K630-108	1	1B630-010	4	○△	
618	1K630-109	1	1B001-166	4	○△	
626	1K630-110	1	1B200-001		△	
630	1K630-111	1	1B630-010	4	○△	23FB#665
131	1K630-112	1		14	○	
211	1K640-238	1	1B001-172		△	
310	1K640-239	1	1B260-003		△	
361	1K640-240	1	1B150-011-3 1B150-012-3	6	○△	
362	1K640-241-1	1	1B640-012		△	
404	1K640-242	1	1B340-003		△	
450	1K640-243	1	1B001-169-1		△	
533	1K640-245 X	1		2	○	

補助番号 Ckt.No.	部 品 番 号 Part No.	1台分 個 数 Pcs. per Unit	部 組 品 番 号 Assembly	参照図番 Figure	販 売 分 区 分 Term of Delivey	備 考 Remarks
542A	1K640-246	1		2	○	
542B	1K640-247	1		2	○	Black
552	1K640-248-1	1	1B001-169-1		△	
137	1K640-249	1	1B150-011-3 1B150-012-3	5	○△	
512	1K640-259-1	1		3	○	23FB#23
21	1K660-021-1	1			×	
23A	1K670-011-1	1	1B060-046-2		△	
23B	1K670-012-1	1	1B060-047-2		△	Black
26	1K670-013-1	1	1B150-011-3 1B150-012-3		△	
158	* 1K680-098-1	1	1B620-016-1		△	
223	1K680-139	1	1B150-011-3 1B150-012-3	6	○△	
261	1K680-140	1	1B001-150		△	
265	1K680-141	1	1B001-151		△	
285	1K680-142-1	1		5	○	
215	1K680-143	1	1B001-172	8	○△	
334	1K680-144	1	1B060-036		△	
341	1K680-145-2	1	1B680-007-1		△	
356	1K680-146-1	1	1B060-041		△	
368	1K680-147	1		5	○	

部 品 表 Parts list

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補助番号 Ckt.No.	部 品 番 号 Part No.	1 台 分 個 数 Pcs. per Unit	部 組 品 番 号 Assembly	参照図番 Figure	販 売 区 分 Term of Delivey	備 考 Remarks
417	1K680-148	1	1B001-169 1B001-145		△	
423	1K680-149	1	1B001-148		△	
424	1K680-150	1	1B001-148		△	
442	1K680-151	1	1B001-144		△	
443	1K680-152	1	1B001-144		△	
558	1K680-153	1	1B001-140		△	
577	1K680-154	1	1B001-149		△	
620	1K680-155	1	1B001-141		△	
110	1K680-156	1		14	○	
111	1K680-157	1	1B001-143		△	
179	1K680-158	1	1B001-139-2		△	
180	1K680-159	1	1B001-137		△	
22A	1K680-160	1	1B150-011-3	6	○△	
22B	1K680-161	1	1B150-012-3	6	○△	Black
24A	1K680-162	1		12	○	
24B	1K680-163-1	1		12	○	Black
27	1K680-164-1	1	1B150-011-3 1B150-012-3	6	○△	
195	1K680-168	1	1B001-167-1	11	○△	

補助番号 Ckt.No.	部 品 番 号 Part No.	1台分 個 数 Pcs.per Unit	部 組 品 番 号 Assembly	参照図番 Figure	販 売 区 分 Term of Delivey	備 考 Remarks
1078	1S110-003	0~1	1B060-066-4		△	
1078	1S110-004	0~1			△	
1008	1S125-005	1	1S007-008		○△	
1077	1S130-006	0~2	1B060-066-4		△	
1077	1S130-007	0~2			△	
1005	1S210-001	1	1B060-066-4		△	
1006	1S237-003	1	1B060-066-4		△	
1007	1S237-004	1	1B060-066-4		△	
1031	1S250-003	1	1B060-066-4		△	
1032	1S250-004	1	1B060-036		△	
385	1S263-001 -1	1	1B060-066-4		△	
1018	1S300-046	1	1B060-066-4	10	○△	
1091	1S310-012	1	1S007-008		△	
1011	1S310-013	1	1B060-066-4		△	
1012	1S310-014	1	1B060-066-4		△	
1015	1S310-015	1	1B060-066-4		△	
1016	1S310-016	1	1B060-066-4		△	
1079	1S310-018	1	1B060-066-4		△	
1080	1S310-019	1	1B060-066-4		△	

補助番号 Ckt.No.	部 品 番 号 Part No.	1台分 個 数 Pcs.per Unit	部 組 品 番 号 Assembly	参照図番 Figure	販 売 区 分 Term of Delivey	備 考 Remarks
1098	1S310-020	1	1S007-013-1		△	
1009	1S322-008	1	1B060-066-4		○△	
360	1S322-009	1	1B060-041		△	
364	1S322-010	1	1S007-001		△	
636	1S322-011	1	1B060-066-4		△	
1024	1S335-006	3	1S007-013-1		△	
1026	1S335-007	1	1B060-066-4		△	
1027	1S335-008	2	1B060-066-4		△	
1028	1S335-009	3	1B060-066-4		○△	
1084	1S335-011	1	1S007-013		△	
1021	1S340-010	1	1B060-066-4		△	
1023	1S340-011	1	1B060-066-4		△	
1025	1S340-012	1	1S007-008		○△	40FB#1046
1030	1S340-013	1	1B060-066-4		△	
1081	1S340-014	1	1B060-066-4		△	
1069	1S340-021	1	1B060-066-4		△	
1020	1S382-001	1	1B060-066-4		△	
1034	1S542-001 -1	1		1	○	23FB#175
520	1S700-013 -1	1	1B060-066-4		○△	

補助番号 Ckt.No.	部 品 番 号 Part No.	1台分 個 数 Pcs. per Unit	部 組 品 番 号 Assembly	参照図番 Figure	販 売 区 分 Term of Delivey	備 考 Remarks
444	1S700-014	1	1B060-037		△	
142	1S700-015	1	1B060-047-2 1B060-046-2	1	○△	
1083	1S700-018	1	1S007-013-1		△	
1001	1S705-006	1	1B060-066-4		△	
1002	1S705-007	1	1S007-008		△	
1003	1S705-008	1	1B060-029		○△	
1004	1S708-001	1	1B060-066-4		△	
1035	1S810-074	1			×	W-0056RE
1036	1S810-075	1	1B001-139- 2		×	W-00560R
1037	1S810-076 -1	1	1B001-139- 2		×	W-0056BE
1038	1S810-077	1	1B001-139- 2		×	W-0056YE
1043	1S810-078	1	1B060-041		×	W-00560R
1044	1S810-079	1	1B060-041		×	W-0056BK
1045	1S810-080	1			×	W-0056BE
1046	1S810-081	1	1B060-041		×	W-0056YE
1047	1S810-082	1	1B060-041		×	W-0056PU
1048	1S810-083	1	1B001-143		×	W-0056RE
1049	1S810-084	1	1S007-017		×	W-0056PU

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補助番号 Ckt.No.	部 品 番 号 Part No.	1台分 個 数 Pes. per Unit	部 組 品 番 号 Assembly	参照図番 Figure	販 売 区 分 Term of Delivey	備 考 Remarks
1050	1S810-085	1	1S810-085		×	W-0056BE
1052	1S810-086 -1	1			×	W-0056YE
1053	1S810-087	1			×	W-0056PU
1054	1S810-088	1			×	W-0056BE
1055	1S810-089	1			×	W-0056BK
1056	1S810-090	1	1B001-150		×	W-0056BK
1058	1S810-091	1	1B001-150		×	W-0056OR
1059	1S810-092	1	1B001-151		×	W-0056BK
1060	1S810-093	1	1B001-151		×	W-0056PU
1061	1S810-094	1	1B001-145		×	W-0056BK
1062	1S810-095	1	1B001-145		×	W-0056YE
1066	1S810-096	1			×	W-0056OR
1073	1S810-098	1	1B060-036	9	○△	Green
1074	1S810-099	1	1B060-036	9	○△	Brown
1075	1S810-100	1			○	Green
1076	1S810-101	1			○	Brown
1082	1S882-115	1			×	Black
1085	1S882-001	1		1	○	
1086	1S810-002	1		11	○	

部 品 表 Parts list

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補助番号 Ckt.No.	部 品 番 号 Part No.	1 台分 個 数 Pcs.per Unit	部 組 品 番 号 Assembly	参照図番 Figure	販 売 区 分 Term of Delivey	備 考 Remarks
708	A1-17016FB	2	1B060-049-1	9	○△	
711	A1-17025FB	5	1B150-011-3 1B150-012-3	6, 7 12	○△	
707A	A1-17025FC	4		1	○	
713	A1-17030BX	2		11	○	
714	A1-17035FB	2		10	○	
715A	A1-17035FC	3	1B150-011-3	1,6	○△	
731A	A1-17060FC	2		6	○	
732	A1-20028FB	3		3, 5	○	
733	A1-20035FB	6		5	○	
734	A1-20045FA	2		11	○	
741	A1-20025FB	3		14	○	
704	A2-14035FA	2	1B060-066-4	10	○△	
717	A2-17030FB	2		14	○	
735A	A2-20035FC	4		12	○	
718	B1-17030FB	2	1B150-011-3 1B150-012-3	7	○△	
719	B1-17018FA	1	1B001-172	8	○△	
720	B1-17020FB	1	1B150-010 -1	7	○△	
721	B1-17025FA	1	1B150-011-3 1B150-012-3	5	○△	
722	B1-17028FA	1	1B001-169 -1	2	○△	

補助番号 Ckt.No.	部 品 番 号 Part No.	1台分 個 数 Pcs. per Unit	部 組 品 番 号 Assembly	参照図番 Figure	販 売 区 分 Term of Delivey	備 考 Remarks
724	B1-17040FB	3		5,11	○	
726	B1-17035FB	3		10,5	○	
736	B1-20020FB	2	1B150-011-3 1B150-012-3	7	○△	
737	B1-20030FB	10		2,4 5,10	○	
739	B1-20035FB	3		10	○	
727	B2-17040FA	1	1B150-011-3 1B150-012-3	5	○△	
738	B2-20030FR	1	1B150-011-3 1B150-012-3	6	○△	
702	K1-14020FA	1	1B001-164	8	○△	
703	K2-14030FB	1	1B001-168-1	2	○△	
138	P3-10040SX	1	1B150-011-3 1B150-012-3	5	○△	
753	S1-01200SX	7	1B001-173-2 1B060-049-1	7,9	○△	
754	S1-01500SX	2	1B001-173-2	7,10	○△	

Parts list

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[illegible]

補助番号 Ckt. No.	部 組 品 番 号 Assembly No.	1台分 個数 Pcs. per Unit	構 成 部 品 番 号 Constituent Parts	参照図番 Figure	備 考 Remarks.
B327	1B001-119	1		9	
B99	1B001-121	1		7	
B464	1B001-136	1	1K220-056, 1K260-044 1K370-327, 1K600-145 1K600-156,	3	
B180	1B001-137	1	1K370-347, 1K370-348 1K680-159.	1	
B179	1B001-139-2	1	1K240-115-1, 1K240-116-1 1K240-117-1, 1K680-158 1S810-075, 1S810-076-1 1S810-077	5	
B558	1B001-140	1	1K240-103-1, 1K680-153	2	
B620	1B001-141	1	1K240-107, 1K680-155	4	
B637	1B001-142-1	1	1K050-065, 1K240-110-1 1K240-111, 1K366-024 1K625-014	4	
B111	1B001-143	1	1K240-050, 1K370-197 1K610-174, 1K680-157 1S810-083	11	
B443	1B001-144	1	1K240-096, 1K240-097 1K600-144, 1K680-151 1K680-152	12	23FB-A15
B417	1B001-145	1	1K680-148, 1K240-094-1 1K240-102, 1K600-143 x2 1S810-094, 1S810-095	2	

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補助番号 Ckt. No.	部 組 品 番 号 Assembly No.	1台分 個数 Pcs. per Unit	構 成 部 品 番 号 Constituent Parts	参照図番 Figure	備 考 Remarks.
B150	1B001-146	1	1K240-112, 1K370-192 1K600-149	13	23FB-E2
B424	1B001-148	1	1K240-098, 1K240-099 1K600-142, 1K680-149 1K680-150	11	23FB-A10
B577	1B001-149	1	1K610-254, 1K680-154	12	
B261	1B001-150	1	1K240-082, 1K240-083 1K600-135, 1K600-137 1K680-140, 1S810-090 1S810-091	8	
B265	1B001-151	1	1K240-084, 1K240-085 1K600-135, 1K680-141 1S810-092, 1S810-093	7	
B468	1B001-154	1	1K370-362, 1K275-015	2	
B374	1B001-155	1	1K115-272, 1K240-092 1K370-244-1, 1K620-041	6	
B102	1B001-163	2	1K044-001, 1K100-050	11	23FB-A1A
B260	1B001-164	1	1B001-150, 1K120-080 1K610-236-1, K1-14020FA	8	
B607	1B001-165		1B200-001, 1K083-007 1K146-023, 1K150-016-1 1K240-108	4	
B618	1B001-166	1	1B001-141, 1K208-016 1K630-109	4	
B195	1B001-167-1	1	1K010-027, 1K380-011-1 1K610-265, 1K680-168	11	

補助番号 Ckt. No.	部 組 品 番 号 Assembly No.	1台分 個数 Pcs. per Unit	構 成 部 品 番 号 Constituent Parts	参照図番 Figure	備 考 Remarks.
B5541	1B001-169-1	1	1B001-145, 1B001-154 1B001-171, 1B370-007 1B475-013, 1K060-009 1K070-003, 1K120-078 1K136-010, 1K220-055 1K230-068, 1K230-070 1K230-086, 1K240-093 1K233-018, 1K260-038 1K260-039, 1K260-045 1K310-031, 1K314-099 1K314-101, 1K314-102 1K330-006, 1K340-034 1K340-035, 1K340-036 1K362-012, 1K370-325 1K370-326, 1K370-332 1K370-333, 1K370-334 1K370-337, 1K370-338 1K480-004, 1K600-146 1K610-250, 1K610-252 1K640-243, 1K640-248-1 B1-17028FA	2	
B529	1B001-168-2	1	1K206-003, 1K136-009 x2 1K206-004-1, 1K245-009-1 K2-14030FB	2	
B355	1B001-170	1	K060-003, 1K220-041 1K370-241-1, 1K600-139	6	
B536	1B001-171	1	1K208-012, 1K370-336 1K607-003, 1K610-244 1K630-106	2	

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補助番号 Ckt. No.	部 組 品 番 号 Assembly No.	1 台分 個数 Pcs. per Unit	構 成 部 品 番 号 Constituent Parts	参照図番 Figure	備 考 Remarks.
B5201	1B001-172	1	1B001-164, 1B310-023 1B314-059, 1B314-060 1K050-060, 1K050-061 1K115-269, 1K120-003 1K130-083, 1K225-050 1K230-054, 1K230-056 1K230-057, 1K230-059 1K230-060, 1K230-061 1K310-023, 1K314-081 1K314-082, 1K314-083 1K314-086, 1K314-084 1K314-085, 1K314-087-1 1K330-003, 1K330-004 1K330-005, 1K340-027 1K366-015, 1K366-016-1 1K366-017, 1K370-292 1K370-293, 1K370-294 1K370-296-1, 1K370-297 1K370-298, 1K370-299 1K370-300, 1K370-301 1K370-302, 1K370-304-1 1K610-235, 1K630-103 1K640-238, 1K680-143 B1-17018FA, 1K370-291	7,8	
B5281	1B001-173-2	1	1B314-058, 1B314-061-1 1K230-062, 1K230-063 1K310-029, 1K370-308 1K370-309-1, 1K610-237 S1-01200SX, S1-01500SX	7	
B548	1B001-218-1	1	1K156-012, 1K240-100 1K370-339, 1K600-147-1 1K610-253-1, 1K115-457	10	
B1003	1B060-029	1	1S705-008	11	

補助番号 Ckt. No.	部 組 品 番 号 Assembly No.	1台分 個数 Pcs. per Unit	構 成 部 品 番 号 Constituent Parts	参照図番 Figure	備 考 Remarks.
B334	1B060-036	1	1K680-144, 1S250-004 1S810-098, 1S810-099	9	
B418	1B060-037	1	1K340-033, 1S700-014	12	23FB-A8
B360	1B060-041	1	1K048-011, 1K240-089 1K240-091, 1K370-320 1K680-146-1 1S322-009 1S810-078, 1S810-079 1S810-081, 1S810-082	5	
B5023A	1B060-046-2	1	1B001-137, 1K078-004 1K115-289-1 1K115-290 1K120-084, 1K120-089-1 1K160-251, 1K206-006 1K240-118, 1K240-120 1K240-121, 1K406-013 1K610-264, 1K625-016 1S700-015, 1K670-011-1 1K610-384-1	1	
B5023B	1B060-047-2	1	1B001-137, 1K050-071 1K078-004, 1K115-289-1 1K115-290, 1K120-084 1K120-089-1, 1K160-251 1K206-006, 1K240-118 1K240-120, 1K240-121 1K406-013, 1K610-264 1K625-016, 1S700-015 1K670-012-1, 1K610-384-1	1	Black

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補助番号 Ckt. No.	部 組 品 番 号 Assembly No.	1台分 個数 Pcs. per Unit	構 成 部 品 番 号 Constituent Parts	参照図番 Figure	備 考 Remarks.
B5001	1B060-066-4		1K370-339 , 1K600-147-1 1K048-012, 1K060-007 1K110-090, 1K156-012 1K120-082, 1K208-013 1K260-046-1, 1K240-105 1K240-100 , 1K600-148 1K260-047 , 1K610-257 1K630-107-1 1S007-008 1S110-003, 1K610-253-1 1S130-006, 1S210-001 1S237-003, 1S237-004 1S250-003, 1S263-001-1 1S300-046, 1S310-013, 1S310-014 1S310-015, 1S310-016 1S310-018, 1S310-019 1S322-008, 1S322-011 1S335-007, 1S335-008 1S335-009, 1S340-010 1S340-011, 1S340-013 1S340-014, 1S340-021 1S382-001, 1S700-013-1 1S705-006, 1S705-008 1S708-001, A2-14035FA	10	

補助番号 Ckt. No.	部 組 品 番 号 Assembly No.	1 台分 個数 Pcs. per Unit	構 成 部 品 番 号 Constituent Parts	参照図番 Figure	備 考 Remarks.
B5301	1B060-049-1	1	1B001-119, 1B060-036 1B260-003, 1B260-004 1B260-005, 1B277-004 1B277-005, 1B277-006 1K115-268, 1K230-065-1 1K230-067, 1K314-092 1K314-093, 1K314-094 1K366-019-1, 1K366-020 1K370-295, 1K370-311 1K370-312, 1K370-313 1K370-315, 1K370-316 1K370-317, 1K370-319 1K610-239-1, A1-17016FB S1-01200SX	7,9	
B290	1B100-099	1	1K048-010, 1K115-270 1K240-086-1 1K240-087-1 1K360-009, 1K610-238 1G551-005	7	23FB-B6
B5290	1B150-010-1	1	1B001-172, 1B060-049-1 1B100-099, 1B310-024 1K060-008, 1K060-010 1K130-082, 1K225-051 1K230-055, 1K230-064 1K230-066, 1K230-058 1K310-024, 1K310-025 B1-17020FB,	7,8 9	

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補助番号 Ckt. No.	部 組 品 番 号 Assembly No.	1台分 個数 Pcs. per Unit	構 成 部 品 番 号 Constituent Parts	参照図番 Figure	備 考 Remarks.
B5026A	1B150-011-3	1	1B001-121, 1B001-151 1B001-170, 1B001-173-2 1B060-041, 1B150-010-1 1B206-005, 1B208-007 1B576-003, 1B640-012 1B680-007-1, 1K050-029 ~ 1K050-048 1K115-390, 1K120-081 1K123-046, 1K130-084 1K130-085, 1K130-086 1K130-087 1K220-053 1K225-052, 1K225-053 1K240-065-1, 1K370-318-1 1K370-343, 1K404-033 1K640-240, 1K640-249 1K670-013-1, 1K680-139 1S007-017, A1-17025FB B1-17025FA, B1-17030FB B1-20020FB, B1-20030FB B2-20030FR, B2-17040FA P3-10040SX, 1K680-160 A1-17035FC, 1K680-164-1	5,6	

補助番号 Ckt. No.	部 組 品 番 号 Assembly No.	1台分 個数 Pcs. per Unit	構 成 部 品 番 号 Constituent Parts	参照図番 Figure	備 考 Remarks.
B5026B	1B150-012-3	1	1B001-121, 1B001-151 1B001-170, 1B001-173-2 1B060-041, 1B150-010-1 1B206-005, 1B208-007 1B576-003, 1B640-012 1B680-007-1 1K001-008 1K050-029 ~ 1K050-048 1K120-081, 1K123-046 1K130-084, 1K130-085 1K130-086, 1K130-087 1K220-053, 1K225-052 1K225-053, 1K240-065-1 1K370-318-1, 1K370-343 1K404-033, 1K640-240 1K640-249, 1K670-013-1 1K680-139, 1K680-164-1 1S007-017, A1-17025FB B1-17025FA, B1-17030FB B1-20020FB, B1-20030FB B2-20030FR, B2-17040FA P3-10040SX, 1K680-161	5,6	Black

部組品一覽表 Assembly List

FAA15001 - R.3111.A

補助番号 Ckt. No.	部 組 品 番 号 Assembly No.	1台分 個数 Pcs. per Unit	構 成 部 品 番 号 Constituent Parts	参照図番 Figure	備 考 Remarks.
B625	1B200-001	1	1K370-340, 1K630-110 1K610-256	4	23FB-A22A
B603A	1B201-007	1	1K475-169-1, 1K246-010 1K201-019-1, 1K610-255-1	4	
B603B	1B201-008	1	1K475-169-1, 1K246-010 1K201-020-1, 1K610-225-1	4	Black
B135	1B206-005	1	1K625-015	5	
B352	1B208-007	1	1K208-011, 1K115-203	6	
B310	1B260-003	1 1	1K640-239, 1K246-008 1K260-033, 1K050-062 1K050-083	9	
B319	1B260-004	1	1K260-034, 1K340-032	9	
B302	1B260-005	1	1K260-030, 1K340-031	9	
B469	1B260-006	1	1K260-041, 1K370-328	3	
B561	1B260-007	1	1K260-047, 1K240-105	10	
B347	1B277-004	1	1K275-004, 1K260-035	9	
B323	1B277-005	1	1K260-036, 1K260-037-1	9	
B308	1B277-006	1	1K260-031, 1K260-032	9	
B253	1B310-023	1	1K310-027, 1K370-306 1K370-305, 1K310-026	8	
B242	1B310-024	1	1K370-303, 1K310-030 1K630-104, 1K370-314	7	
B522	1B314-057	1	1K366-021, 1K314-098	11	
B273	1B314-058	1	1K340-029, 1K314-090	7	

補助番号 Ckt. No.	部 組 品 番 号 Assembly No.	1台分 個数 Pcs. per Unit	構 成 部 品 番 号 Constituent Parts	参照図番 Figure	備 考 Remarks.
B247	1B314-059	1	1K314-088, 1K340-028-1	8	
B250	1B314-060	1	1K314-089, 1K115-193	8	
B276	1B314-061-1	1	1K310-028-1, 1K370-307 1K314-091, 1K340-030 1K366-018-1	7	
B405	1B314-062	1	1K314-096, 1K314-095 1K370-323, 1K370-321 1K070-001, 1K370-322 1K340-037	12	23FB-A7
B404	1B340-003	1	1K070-002, 1K640-242	12	
B535	1B370-007 X	1	1K370-335, 1K610-251	2	
B112	1B467-007-1	1	1K467-017-1, 1K630-082	12	23FB-A23A
B383	1B470-002	1	1K580-003, 1K470-008 1K610-291	5	
B428	1B475-013	1	1K470-009, 1K275-005 1K610-245-1	2	
B378	1B576-003	1	1K115-271, 1K115-274 1K576-030, 1K620-042	5	
B025	1B620-016-1	1	1K123-052, 1K115-286 1K115-287, 1K115-288 1K115-492, 1K220-031 1K240-113, 1K362-013-1 1K370-177, 1K370-344 1K600-079, 1K620-045-1 1K680-098-1	13	
B601	1B630-010	1	1K233-019, 1K630-108 1K630-111	4	

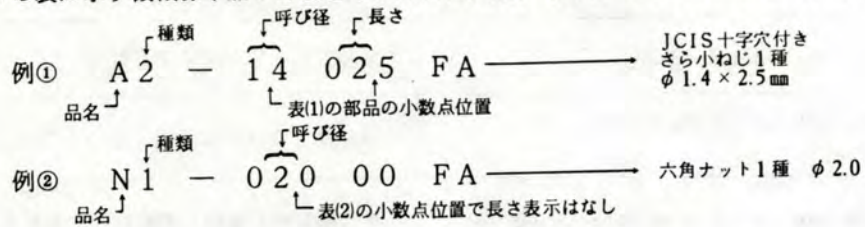
FAA15001 - R.3111.A

[illegible]

記号説明 MARKS IN THE PARTS LIST

(1) 機械標準品

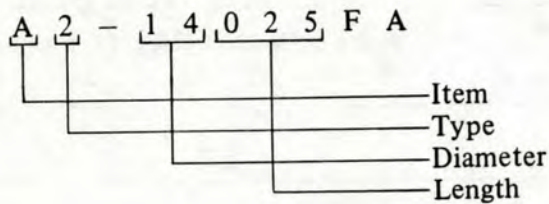
下の表に示す機械標準品の部品番号は品名、種類、呼び径、長さを示しています。



(1) Standard mechanical parts

Reference Number in the Parts List

A. Screw · pin



B. Nut · Washer · Snap ring

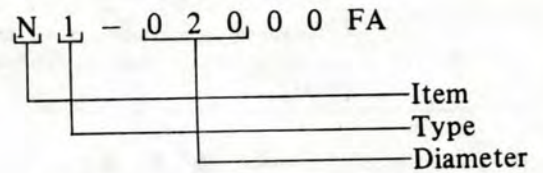


表 1

品名 Item	種類 Type	品名 Item	種類 Type
JCIS 十字穴付き小ねじ 1種 Cross-point screw 1	A なべ Pan さら Countersunk 丸さら Oval	すりわり付き止ねじ Splitted set screw	K 丸先 Round point とがり先 Cone point くぼみ先 Half point
JCIS 十字穴付き小ねじ 3種 " screw 3	B なべ Pan さら Countersunk 丸さら Oval	六角穴付き止ねじ Hexagon socket head set screw	L くぼみ先 Half point
十字穴付き小ねじ " Cross-point screw	C なべ Pan さら Countersunk 丸さら Oval トラス Truss	六角穴付きボルト Hexagon socket head bolt	M 1
十字穴付き タッピンねじB型 1種 Cross-point tapped screw B1	D なべ Pan さら Countersunk 丸さら Oval	平行ピン Straight pin	1
十字穴付き タッピンねじB型 3種 " screw B3	E なべ Pan さら Countersunk 丸さら Oval	テーパピン Taper pin	2
十字穴付き タッピンねじ 2種 " screw 2	F なべ Pan さら Countersunk 丸さら Oval	スプリングピン Spring cotter	P 一般用 Normal 軽荷重用 Light
		表 2	
		六角ナット Hexagon nut	1種 1 3種 3
		平座金 Washer	R 小形丸 1 みがき丸 2
		ばね座金 Spring washer	5
		E型止め輪 E-snap ring	S 1

(2) The term of sale column 販売区分欄

Mark 記 号	Explanation 説 明
○	Can be supplied individually 単独部品として販売するもの
△	Not supplied individually but only as subassembly 部組品でなければ販売しないもの
○△	Supplied either as part or subassembly 単独部品でも部組品でも販売するもの
×	Not considered as repair part 修理部品とは考えないもの
※	Should be sent to the factory if the repair is needed 単体では交換できないので、組む場合に工場での加工が必要なもの
☐	Delivered as a product from the sales department (i.e., not supplied as repair part) 商品として販売店で販売しているもの（修理部品扱いではない）

(3) The remarks column 備 考 欄

32FB1 #664	Part number used in common 共通部品番号
(Blue×125mn)	Lead wire (color×length) コードの色と長さ
53F2013 (FM-780028)	Technical information ref. number (number in parenthesis; English edition) 製品技術資料番号, () 内は英文 No.
(2.1×3.8×0.007)	Washer (internal diameter ×external diameter×thickness) ワッシャーの（内径×外径×厚さ）
(Black)	Black-finished parts 黒部品
(d=0.2)	Diameter of wire. 線径=0.2
(t=1)	Thickness 厚さ=1
Rev.	Revision 訂正
Add.	Addition 追加
Dis.	Discontinuation 廃止
Ⓟ	Plastic part プラスチック部品
OLD	Part of the initial design 旧部品
R1 ..., D1 ... C1 ..., Q1 ... W1 ..., P1 ...	Abbreviation for electronic part 電気部品記号

*..... VERSATILE PART

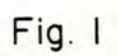
*..... 既出部品

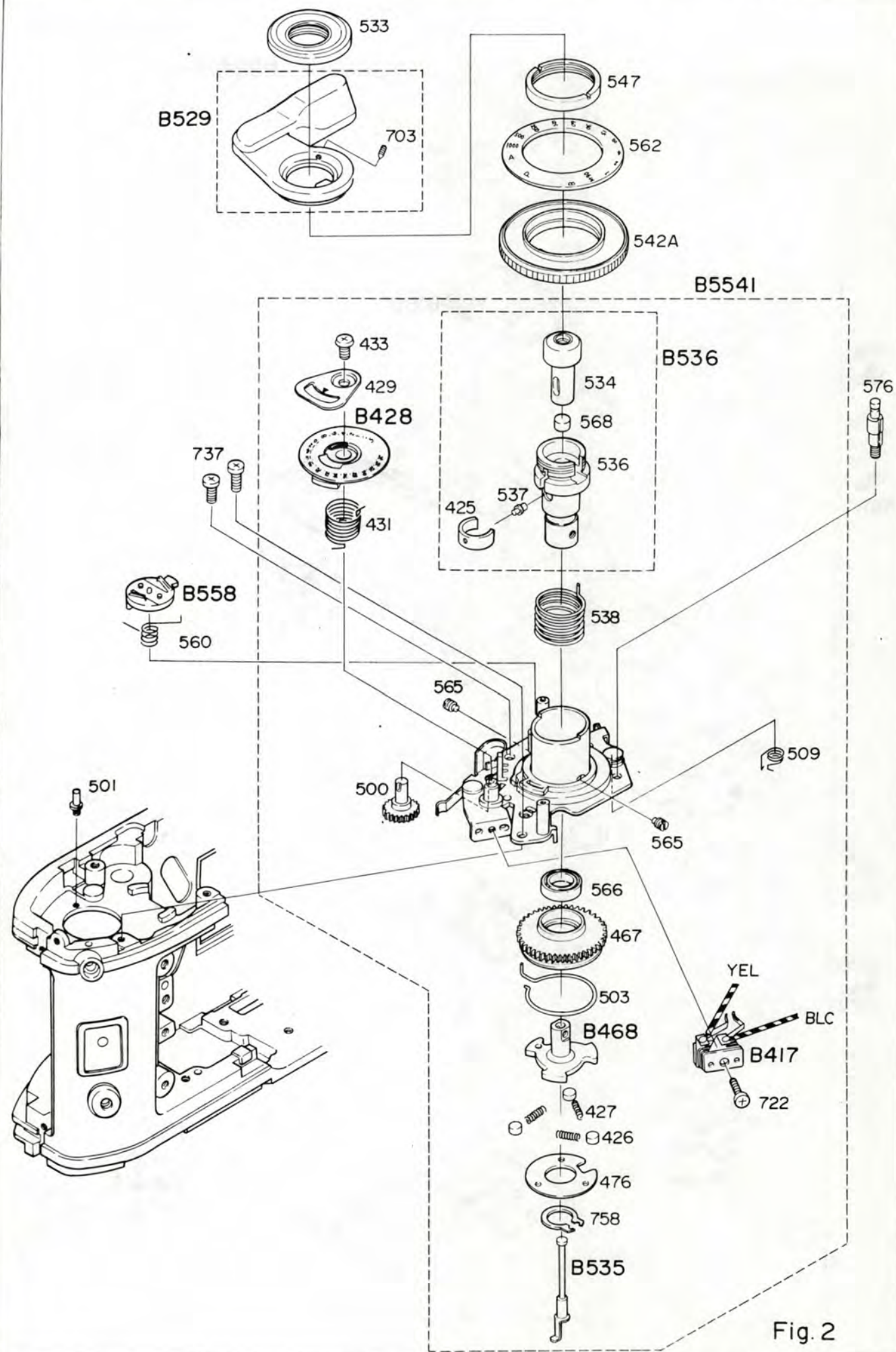
A part marked with this pentagonal symbol is used commonly in the architecture of other products. That is called "VERSATILE PART". Note that every part, bearing new part number of eleven places, will turn into a VERSATILE PART when it is used in the design of future product.

EXPLOSION DRAWINGS

Contents

Top cover	.....	F1
Film-advance mech. assembly	.....	F2
Spool/ Sprocket	.....	F3
Rewind shaft	.....	F4
Viewfinder assembly	.....	F5
Bayonet mount	.....	F6
Front plate assembly	.....	F7
Mirror box mech. assembly (1)	.....	F8
Mirror box mech. assembly (2)	.....	F9
Circuitry	.....	F10
Shutter unit	.....	F11
Bottom cover	.....	F12
Camera back	.....	F13
Camera back latch	.....	F14
Parts Number Reference table	.....	F15





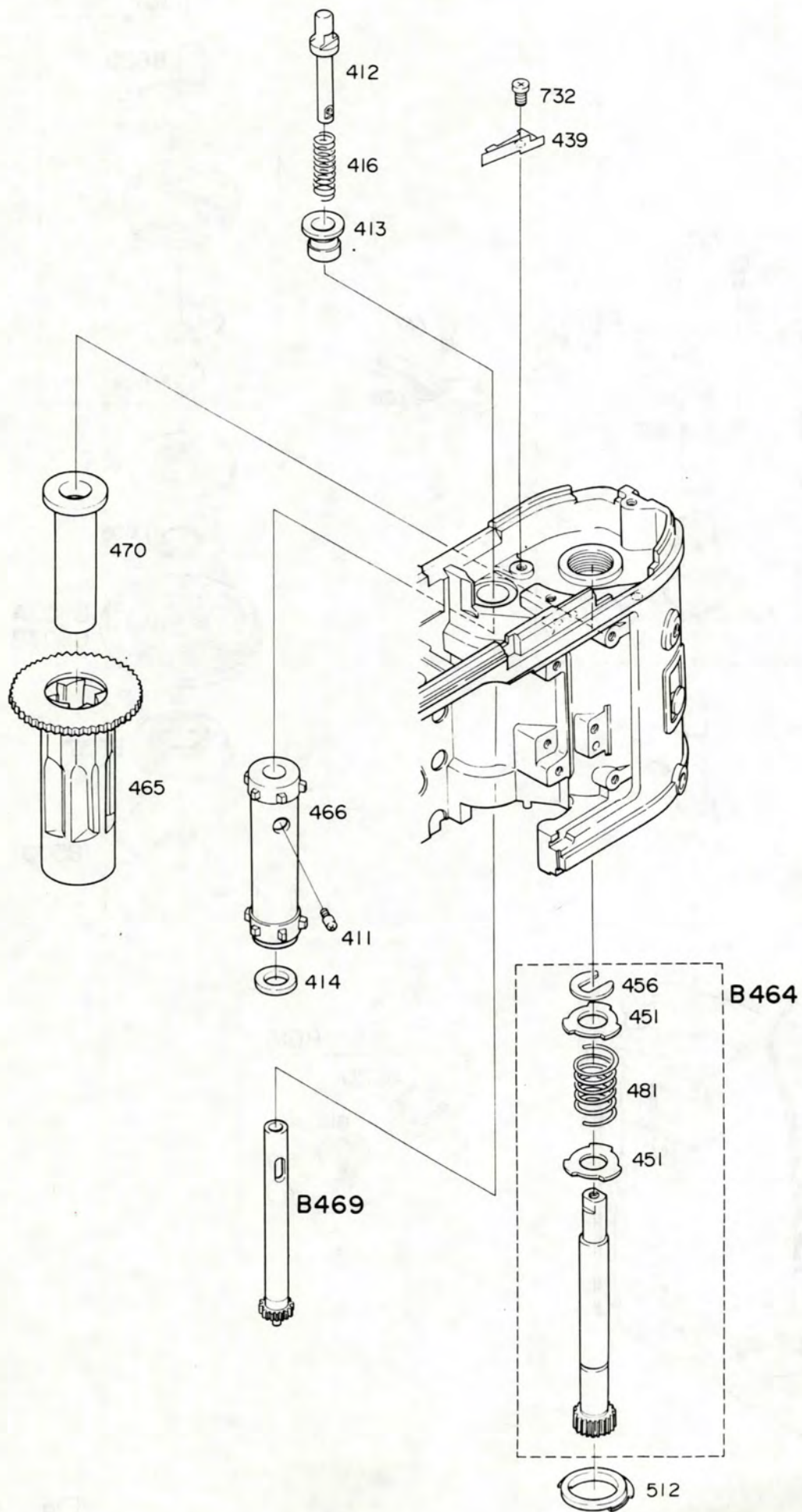


Fig. 3

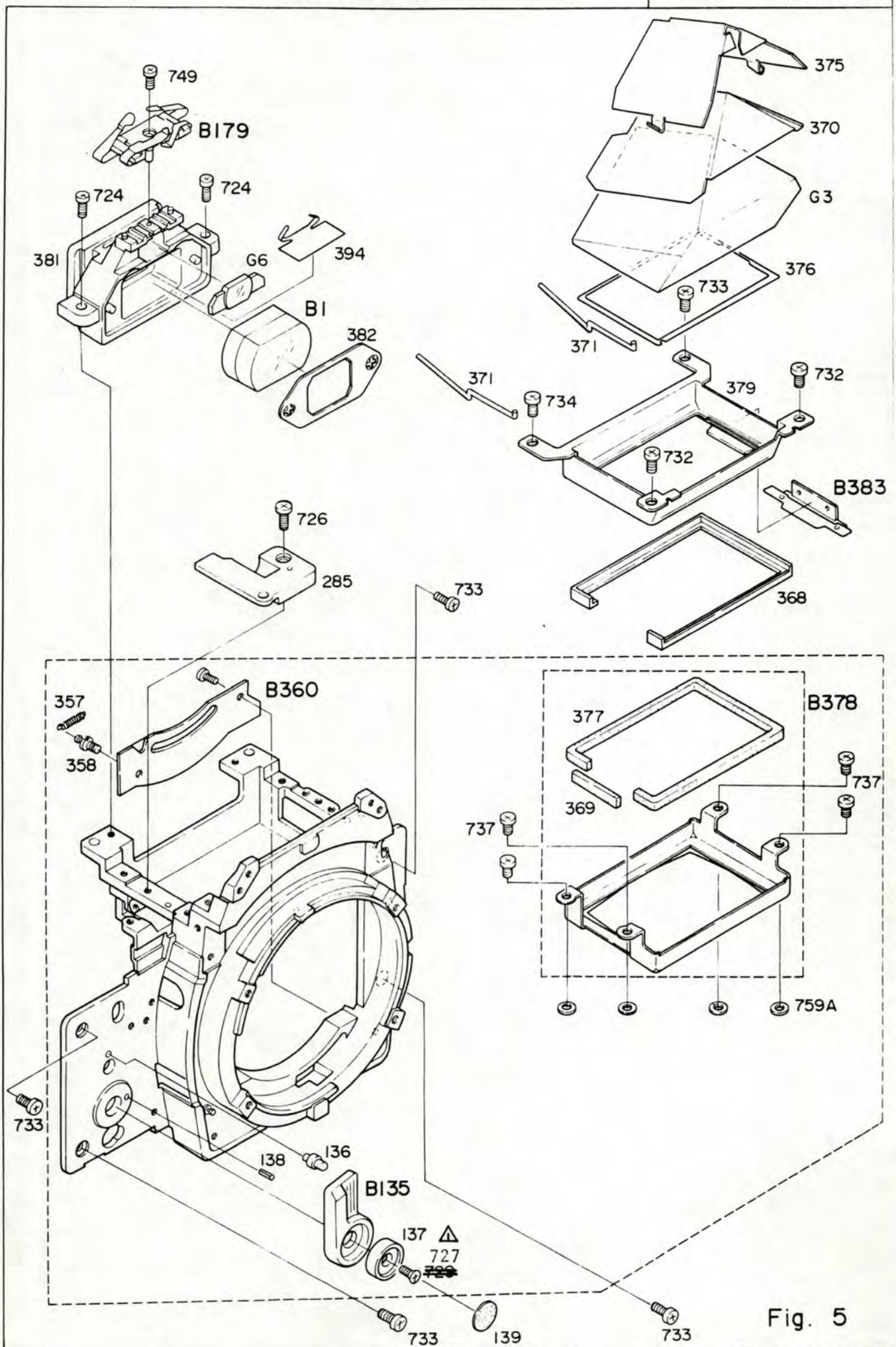


Fig. 5

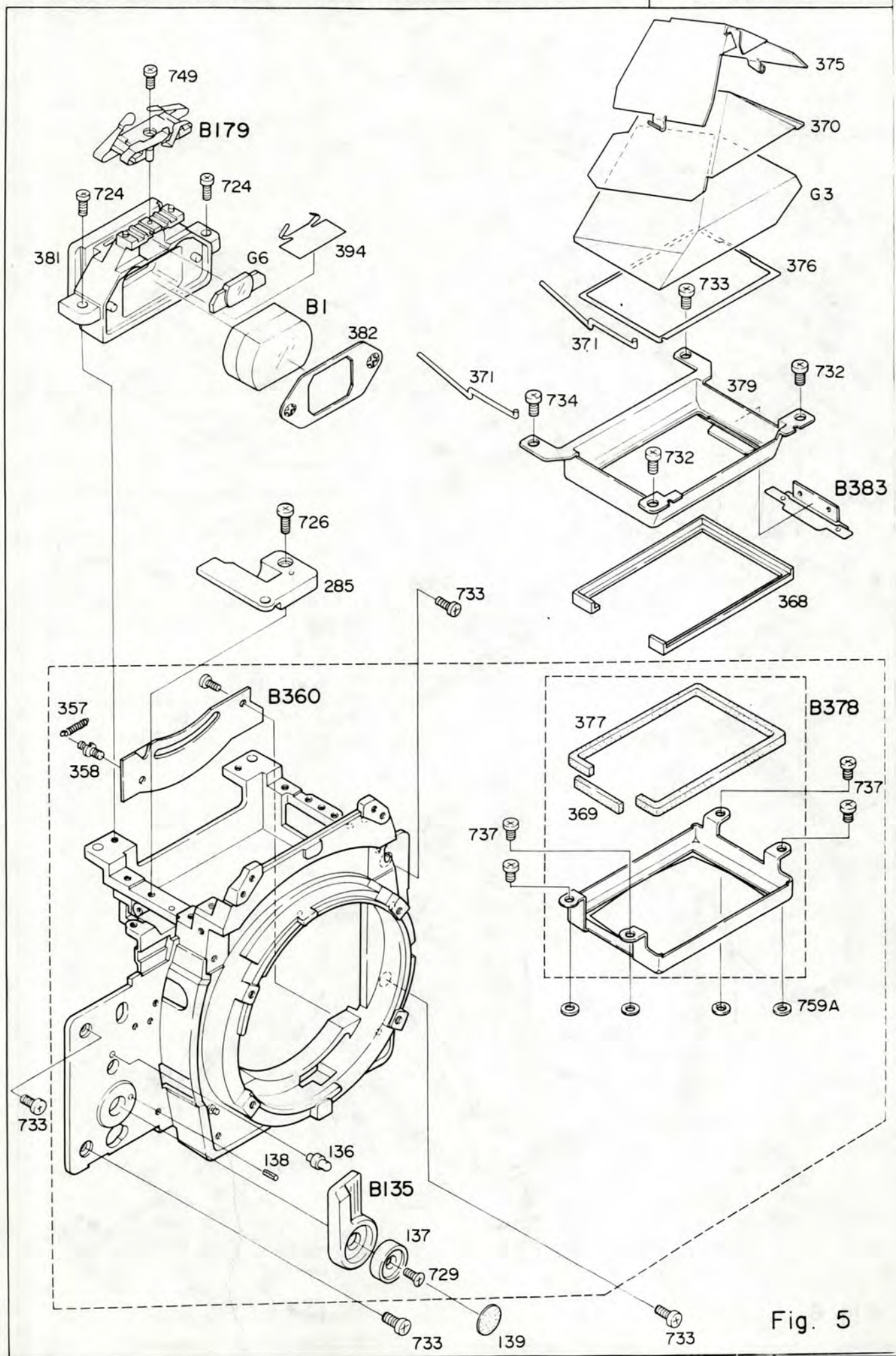


Fig. 5

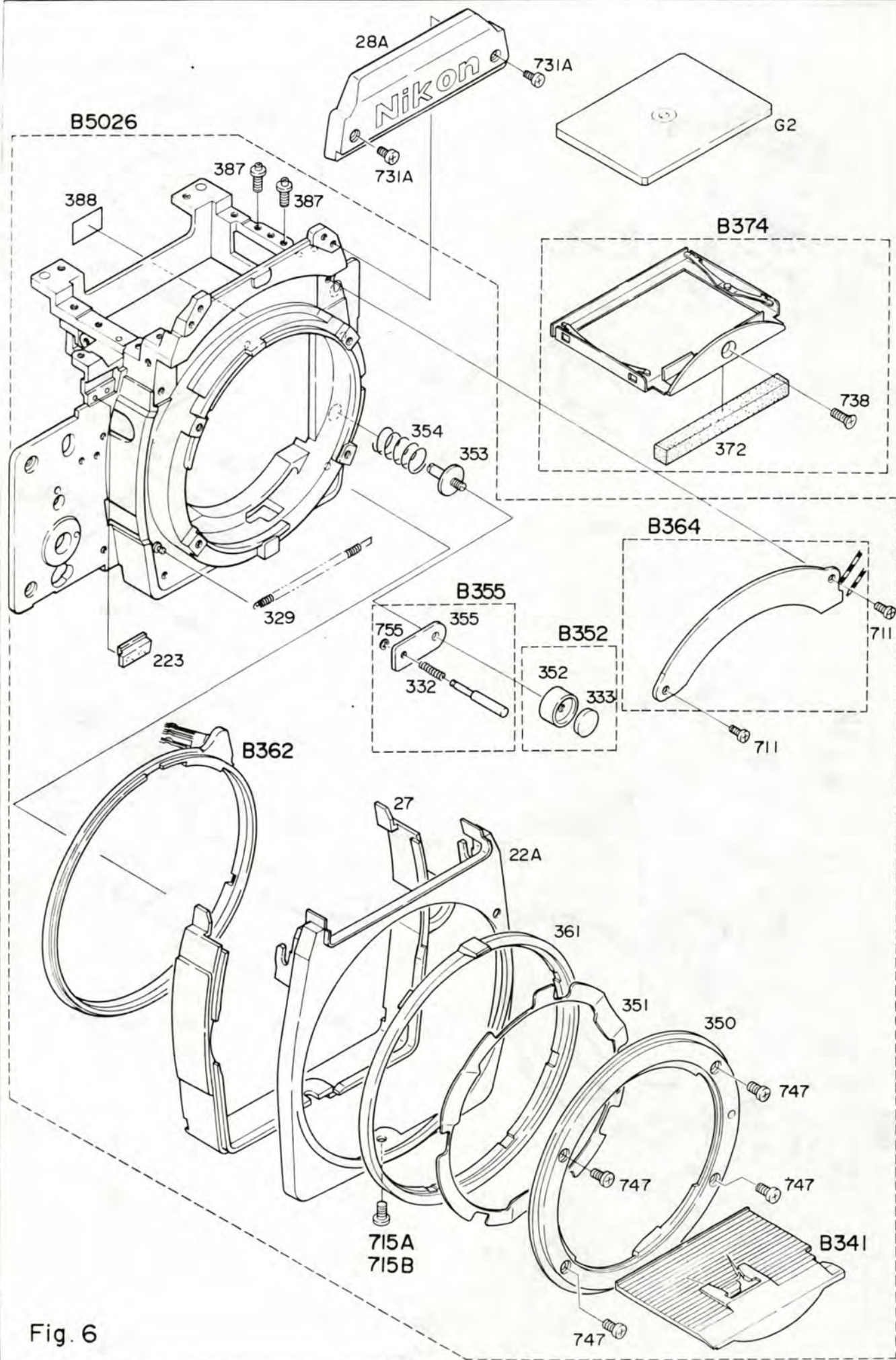


Fig. 6

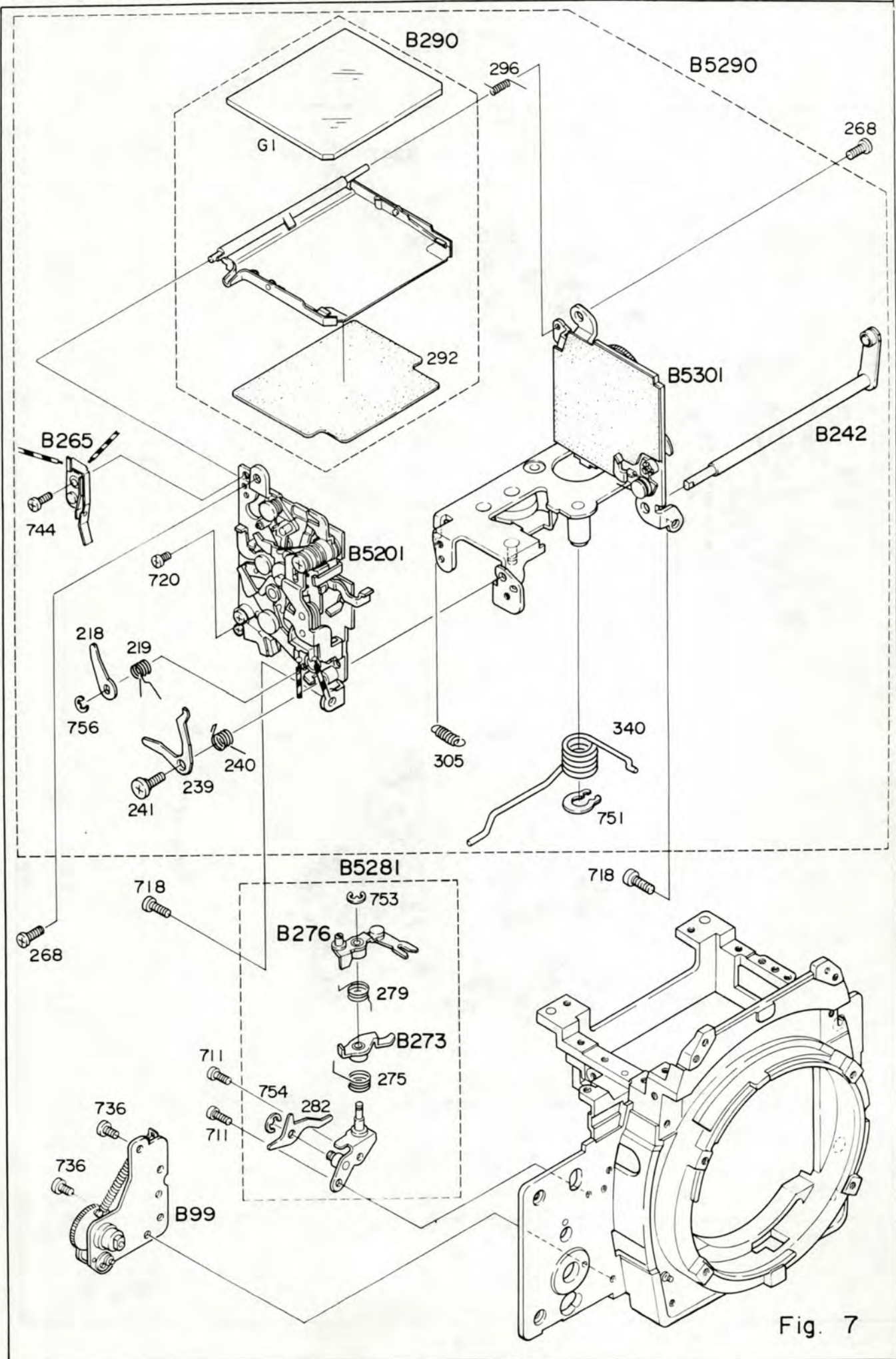


Fig. 7

B5290

B5201

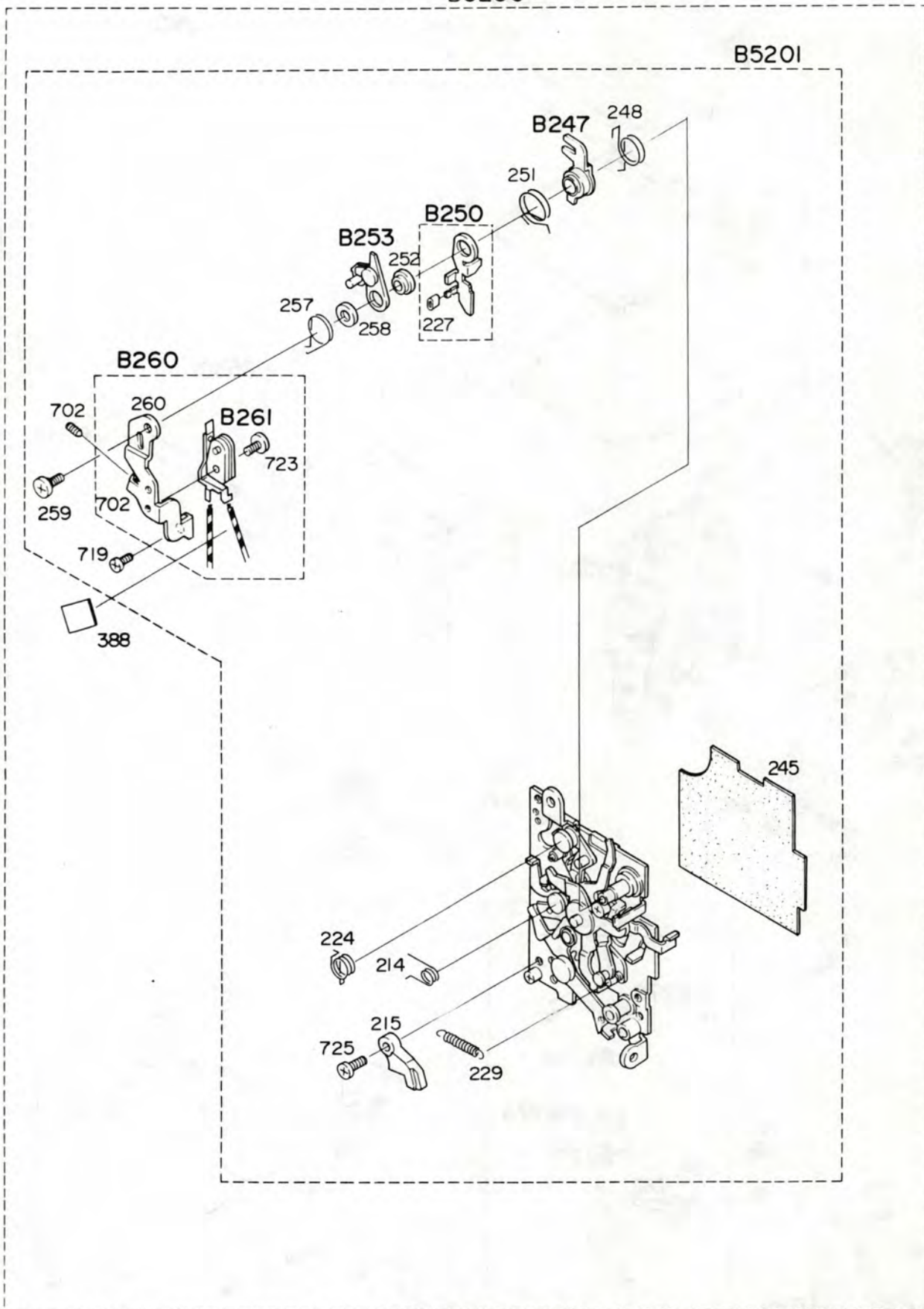


Fig. 8

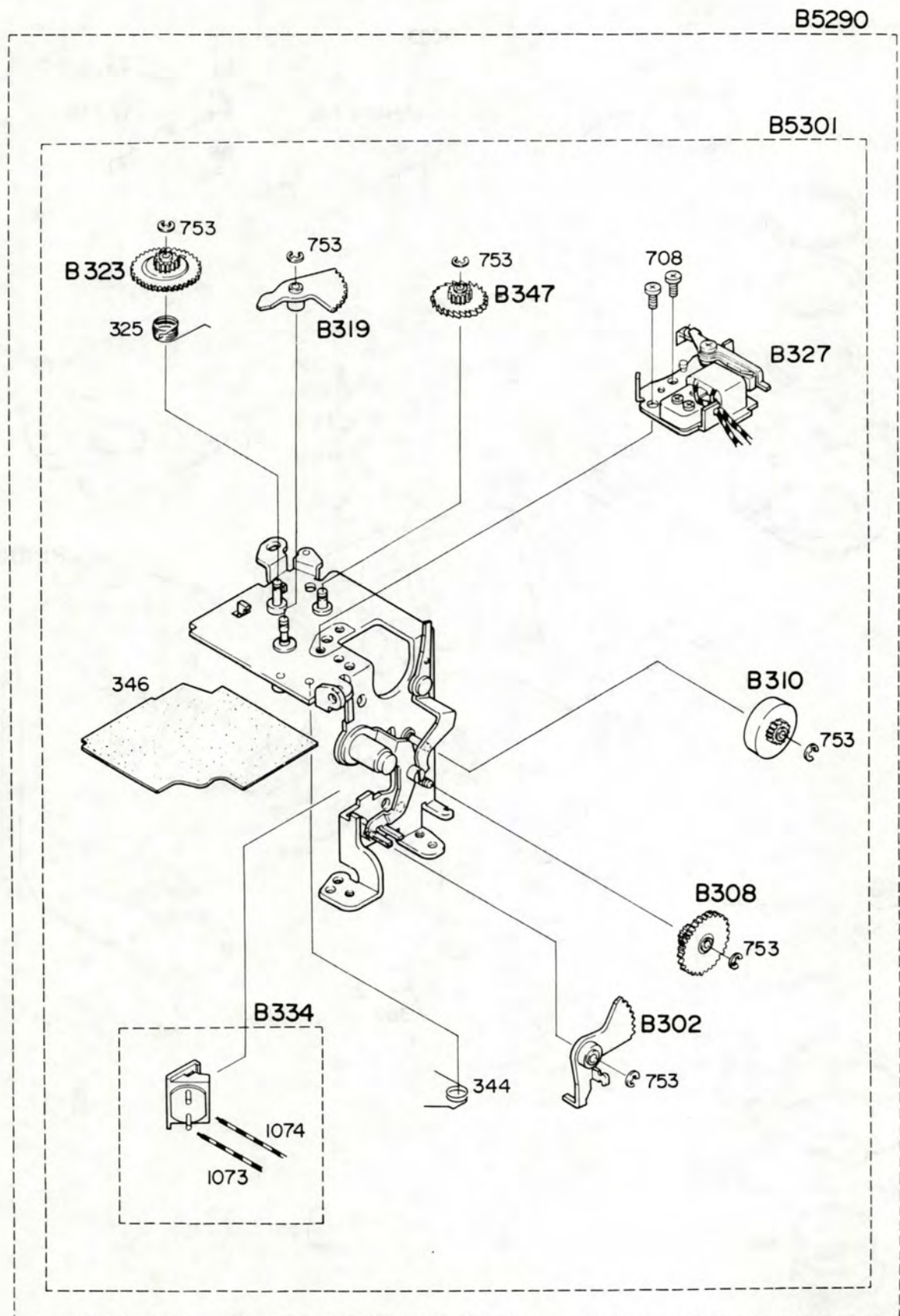


Fig. 9

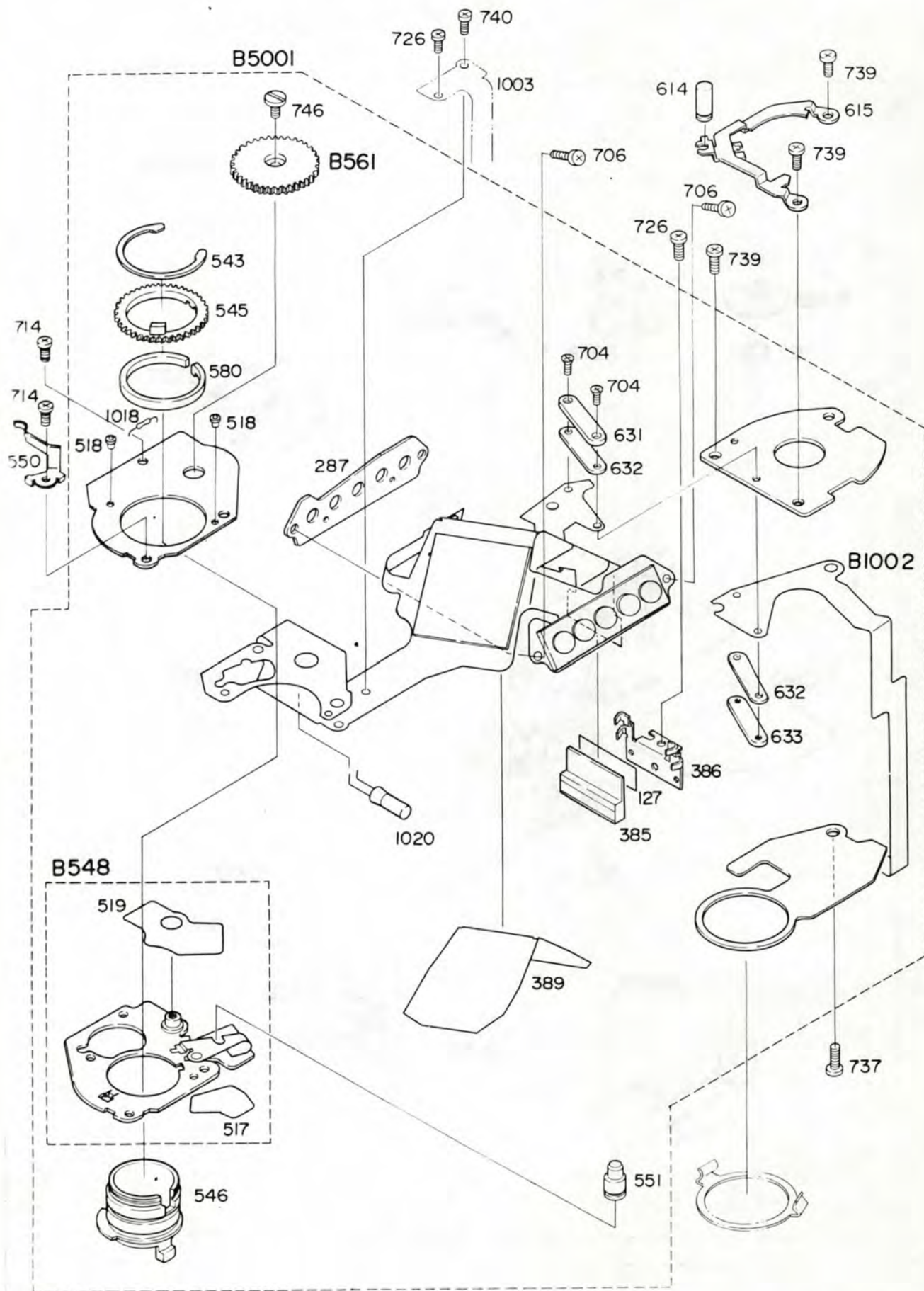


Fig. 10

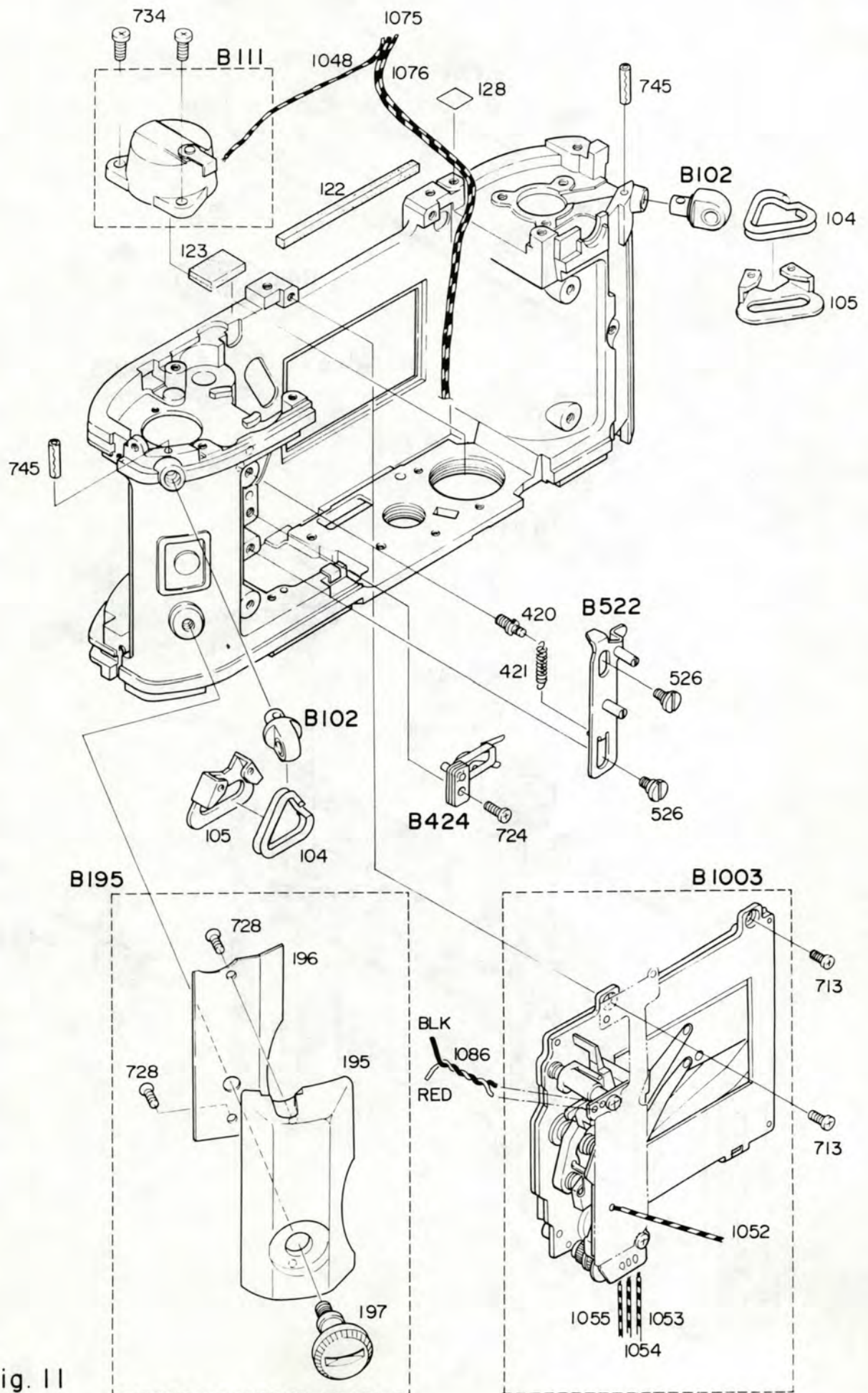


Fig. 11

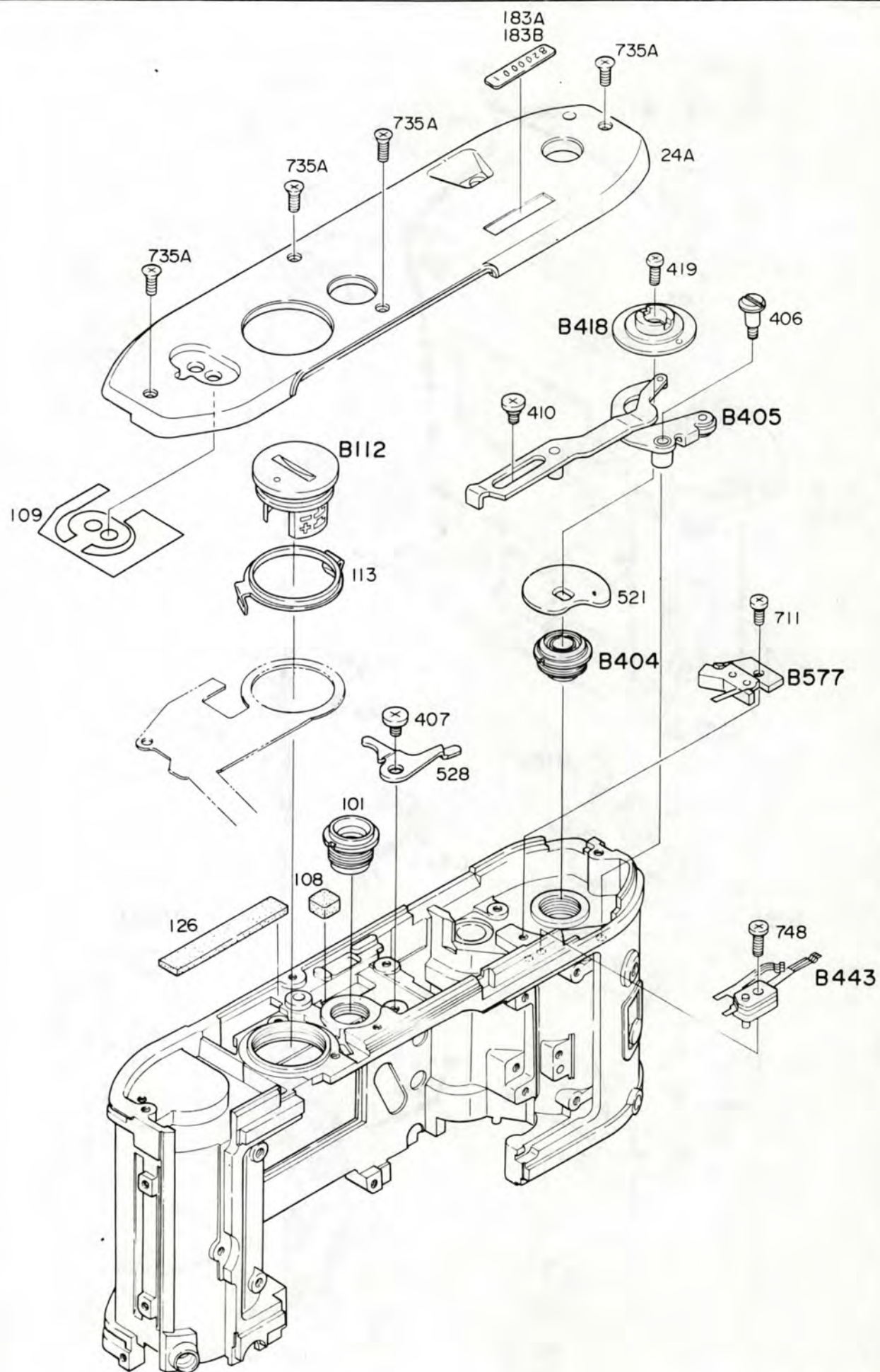


Fig.12

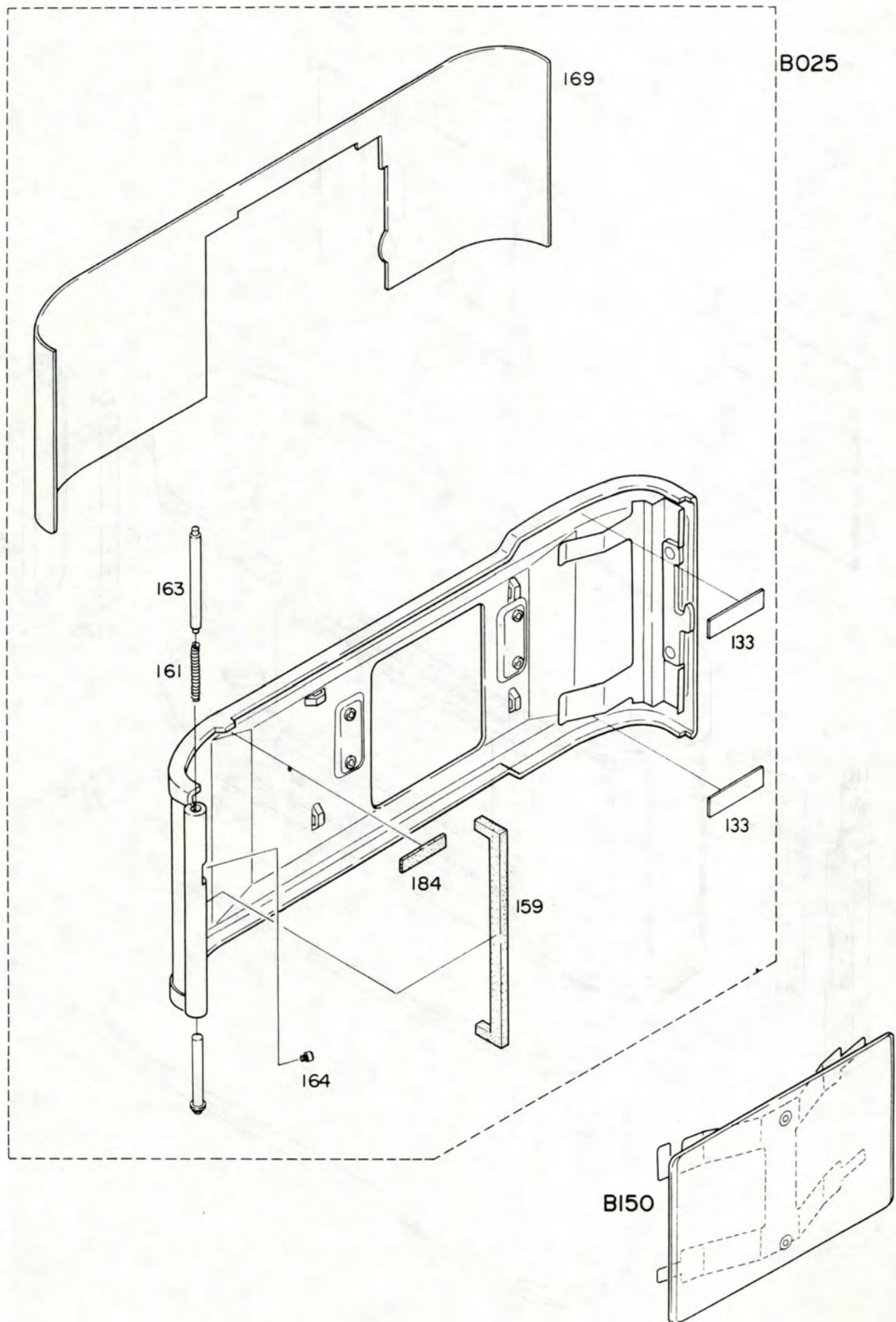


Fig. 13

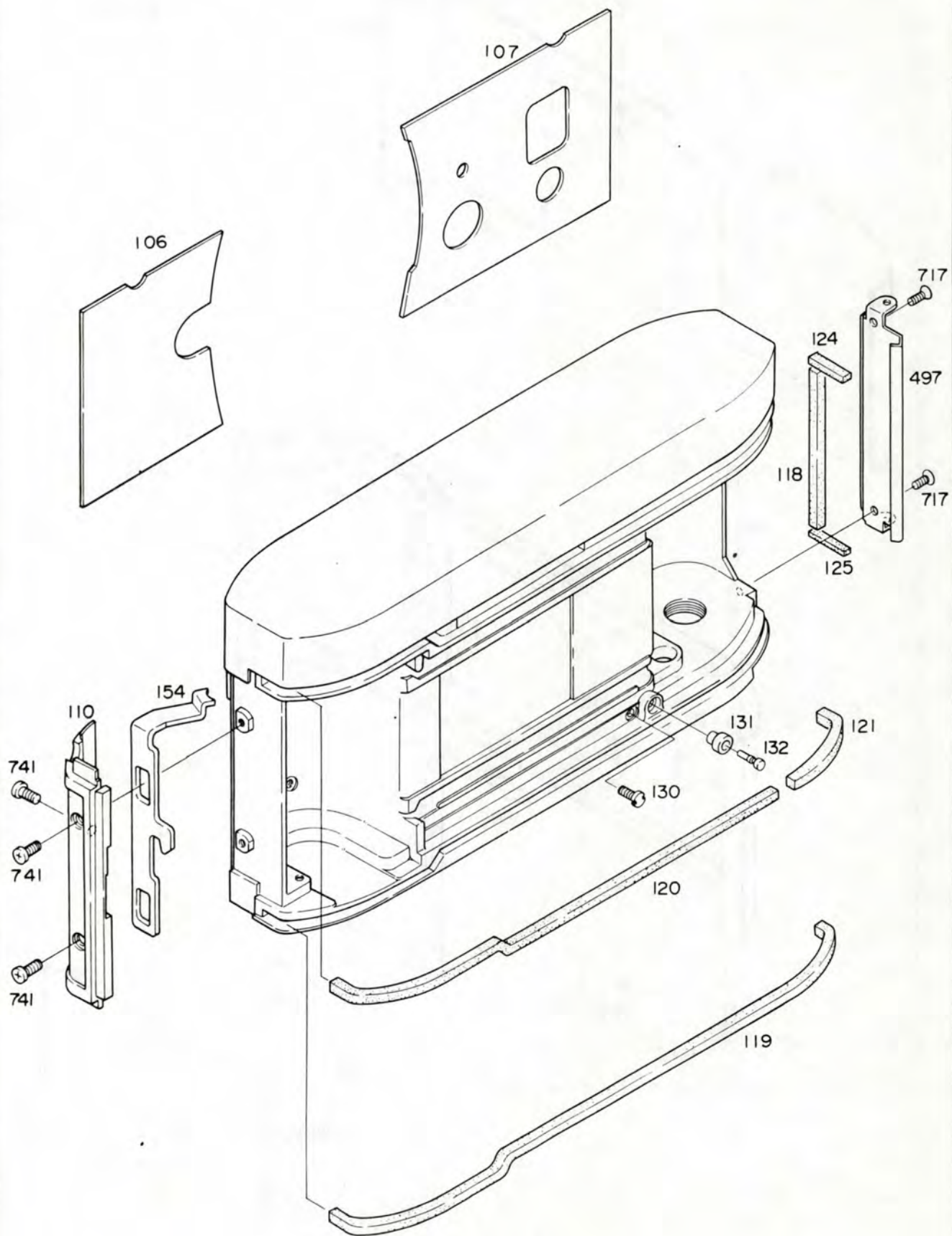


Fig. 14

部品对照表

Parts Number Reference Table

補助番号 Auxiliary Number	部 品 番 号 Part Number	補助番号 Auxiliary Number	部 品 番 号 Part Number	補助番号 Auxiliary Number	部 品 番 号 Part Number
G1	1G551-005	123	1K115-354	161	1K220-031
G2	1G950-002	124	1K115-452	162	1K370-344
G3	1G415-003-1	125	1K115-453	163	1K362-013-1
G4	1G104-018	126	1K115-454	164	1K123-052
G5	1G247-017	127	1K115-455-1		
G6	1G138-001	128	1K115-456-1		
				169	1K115-287
21	1K660-021-1	130	1K123-048		
22	1K680-160	131	1K630-112	171	1K625-016
23	1K670-011-1	132	1K370-342		
24	1K680-162	133	1K115-492	173	1K240-115-1
25	1K620-045-1			174	1K240-116-1
26	1K670-013-1			175	1K240-117-1
27	1K680-164-1	136	1K370-343	176	1K370-347
28	1K080-011	137	1K640-249	177	1K370-348
		138	P3-10040SX	178	1K610-384-1
101	1K400-078	139	1K115-285	179	1K680-158
102	1K100-050	140	1K625-015	180	1K680-159
103	1K044-001	141	1K206-006	181	1K240-118
104	1K100-035	142	1S700-015	182	1K406-013
105	1K080-005	143	1K610-264	183	1K082-001
106	1K115-278	144	1K240-120	184	1K115-288
107	1K115-279	145	1K240-121	185	1K115-289-1
108	1K607-002	146	1K160-251	186	1K115-290
109	1K115-280	147	1K078-004		
110	1K680-156	148	1K165-021		
111	1K680-157	149	1K610-307	195	1K680-168
112	1K467-017-1	150	1K600-149	196	1K610-265
113	1K610-258	151	1K240-112	197	1K380-011-1
114	1K630-082	152	1K370-192	198	1K156-013
115	1K240-050	153	1K600-079	199	1K370-361
116	1K610-174	154	1K314-103		
117	1K370-197	155	1K370-177		
118	1K115-353-1	156	1K240-113	201	1K610-235
119	1K115-281			202	1K310-023
120	1K115-282	158	1K680-098-1	203	1K050-060
121	1K115-283	159	1K115-286	204	1K370-291
122	1K115-284-1			205	1K370-292

部 品 对 照 表

Parts Number Reference Table

辅助番号 Auxiliary Number	部 品 番 号 Part Number	辅助番号 Auxiliary Number	部 品 番 号 Part Number	辅助番号 Auxiliary Number	部 品 番 号 Part Number
206	1K370-293	244	1K314-087-1	282	1K310-029
207	1K330-003	245	1K115-269	283	1K370-309 -1
208	1K330-004	246	1K370-304-1		
209	1K314-081	247	1K314-088	285	1K680-142-1
210	1K370-294	248	1K230-059		
211	1K640-238	249	1K340-028-1	287	1K600-138
212	1K370-296-1	250	1K314-089		
213	1K370-297	251	1K230-060		
214	1K230-054	252	1K330-005	290	1K610-238
215	1K680-143	253	1K310-026	291	1K360-009
216	1K366-015	254	1K370-305	292	1K115-270
217	1K630-103	255	1K310-027	293	1K048-010
218	1K310-024	256	1K370-306	294	1K240-086-1
219	1K230-055	257	1K230-061	295	1K240-087-1
220	1K370-298	258	1K050-061	296	1K230-064
		259	1K130-083		
		260	1K610-236-1		
223	1K680-139	261	1K680-140	301	1K610-239-1
224	1K230-056	262	1K240-082	302	1K260-030
225	1K314-083	263	1K240-083	303	1K340-031
226	1K366-016-1	264	1K600-135	304	1K370-295
227	1K115-193	265	1K680-141	305	1K225-051
228	1K370-299	266	1K240-084	306	1K370-311
229	1K225-050	267	1K240-085	307	1K260-031
230	1K314-082	268	1K130-084	308	1K260-032
231	1K370-300	269	1K600-136	309	1K260-033
232	1K314-084	270	1K600-137	310	1K640-239
233	1K370-301	271	1K310-028-1	311	1K314-092
234	1K370-302	272	1K370-307	312	1K366-019 -1
235	1K230-057	273	1K314-090	313	1K370-312
236	1K366-017	274	1K340-029	314	1K314-093
237	1K314-085	275	1K230-062	315	1K370-313
238	1K314-086	276	1K314-091	316	1K310-030
239	1K310-025	277	1K366-018-1	317	1K630-104
240	1K230-058	278	1K340-030	318	1K370-314
241	1K130-082	279	1K230-063	319	1K260-034
242	1K370-303	280	1K370-308	320	1K340-032
243	1K340-027	281	1K610-237	321	1K370-315

部品对照表

Parts Number Reference Table

補助番号 Auxiliary Number	部 品 番 号 Part Number	補助番号 Auxiliary Number	部 品 番 号 Part Number	補助番号 Auxiliary Number	部 品 番 号 Part Number
322	1K260-035	360	1S322-009		
323	1K260-036	361	1K640-240	401	1K314-095
324	1K370-316	362	1K640-241-1	402	1K370-321
325	1K230-065-1	363	1K240-090-1	403	1K070-001
326	1K370-317	364	1S322-010	404	1K640-242
		365	1K370-320	405	1K314-096
328	1K366-020	366	1K240-091	406	1K130-088-1
329	1K225-052	367	1K048-011	407	1K130-089
330	1K370-318-1	368	1K680-147	408	1K370-322
331	1K370-241-1	369	1K115-271	409	1K370-323
332	1K220-041	370	1K600-140	410	1K130-090
333	1K115-203	371	1K233-017	411	1K123-044
334	1K680-144	372	1K115-272	412	1K370-324
335	1K260-037-1			413	1K340-039
		374	1K620-041	414	1K050-063
337	1K240-088	375	1K610-240	415	1K340-037
		376	1K576-029	416	1K220-054
		377	1K115-274	417	1K680-148
340	1K230-066	378	1K620-042	418	1K340-033
341	1K680-145-2	379	1K620-043	419	1K120-077
342	1K314-094	380	1K576-030	420	1K146-022
343	1K370-319	381	1K500-199	421	1K225-054
344	1K230-067	382	1K610-241	422	1K600-142
		383	1K580-003	423	1K680-149
346	1K115-268	384	1K470-008	424	1K680-150
347	1K275-004	385	1S263-001-1	425	1K610-244
		386	1K610-242	426	1K362-012
		387	1K130-087	427	1K220-055
350	1K404-033	388	1K115-390	428	1K275-005
351	1K240-065-1	389	1K600-141	429	1K480-004
352	1K208-011	390	1K050-062	430	1K470-009
353	1K130-085	391	1K246-008	431	1K230-068
354	1K220-053	392	1K240-092	432	1K240-093
355	1K600-139	393	1K370-244-1	433	1K120-078
356	1K680-146-1	394	1K240-123	434	1K370-325
357	1K225-053	395	1K050-083	435	1K370-326
358	1K130-086	396	1K610-291	436	1K240-094-1
359	1K240-089			437	1K600-143

部品对照表

Parts Number Reference Table

補助番号 Auxiliary Number	部 品 番 号 Part Number	補助番号 Auxiliary Number	部 品 番 号 Part Number	補助番号 Auxiliary Number	部 品 番 号 Part Number
438	1K366-021	501	1K130-100	541	1K610-252
439	1K240-095	502	1K310-031	542	1K640-246
440	1K240-096	503	1K233-018	543	1K060-007
441	1K240-097	504	1K370-332	544	1K156-012
442	1K680-151	505	1K370-333	545	1K260-046-1
443	1K680-152	506	1K370-334	546	1K630-107-1
444	1S700-014	507	1K340-035	547	1K520-305-1
445	1K600-144	508	1K610-250	548	1K610-253-1
		509	1K230-086	549	1K240-100
				550	1K240-101
448	1K070-002			551	1K208-013
449	1K260-038	512	1K640-259-1	552	1K640-248
450	1K640-243			553	1K314-101
451	1K600-156			554	1K314-102
452	1K610-245-1	517	1K115-457	555	1K330-006
456	1K600-145	518	1K048-012	556	1K370-338
		519	1K600-147-1	557	1K240-102
		520	1S700-013-1	558	1K680-153
464	1K370-327	521	1K300-037-1	559	1K240-103-1
465	1K275-006	522	1K314-098	560	1K230-071-1
466	1K275-007	523	1K314-099	561	1K260-047
467	1K260-039	524	1K240-098	562	1K470-010-1
468	1K275-015	525	1K240-099		
469	1K370-328	526	1K130-091	564	1K240-105
470	1K630-105	527	1K610-251	565	1K136-010
472	1K260-041	528	1K314-100	566	1K070-003
475	1K260-044	529	1K206-003	567	1K370-362
476	1K600-146	530	1K136-009	568	1K607-003
		531	1K206-004-1		
		532	1K245-009-1		
481	1K220-056	533	1K640-245	576	1K130-092-2
		534	1K208-012	577	1K680-154
		535	1K370-335	578	1K610-254
490	1K340-034	536	1K630-106	579	1K370-339
497	1K610-249-1	537	1K370-336	580	1K165-020
		538	1K230-070		
		539	1K340-036		
500	1K260-045	540	1K370-337		

部品对照表

Parts Number Reference Table

補助番号 Auxiliary Number	部 品 番 号 Part Number	補助番号 Auxiliary Number	部 品 番 号 Part Number	補助番号 Auxiliary Number	部 品 番 号 Part Number
601	1K630-108			738	B2-20030FR
602	1K201-019-1	702	K1-14020FA	736	B1-20020FB
603	1K475-169-1	703	K2-14030FB	737	B1-20030FB
604	1K150-015 -1	704	A2-14035FA	739	B1-20035FB
605	1K620-044			740	1K010-002-1
606	1K610-255-1	706	1K120-041	741	A1-20025FB
607	1K083-007	707	A1-17025FC		
608	1K146-023			743	1K120-093
609	1K150-016-1	708	A1-17016FB	744	1K120-081
				745	1K044-003
				746	1K120-082
612	1K366-024	711	A1-17025FB	747	1K123-046
613	1K050-065	712	1K120-084	748	1K120-083
614	1K208-015	713	A1-17030BX	749	1K010-025
615	1K240-106	714	A1-17035FB	750	1K120-089-1
		715	A1-17035FC	751	1K060-008
617	1K246-010				
618	1K630-109			753	S1-01200SX
619	1K208-016	717	A2-17030FB	754	S1-01500SX
620	1K680-155	718	B1-17030FB	755	1K060-003
621	1K240-107	719	B1-17018FA	756	1K060-010
622	1K233-019	720	B1-17020FB		
		721	B1-17025FA	758	1K060-009
624	1K240-108	722	B1-17028FA	759	1K050-029
625	1K610-256	723	1K120-080	759	1K050-030
626	1K630-110	724	B1-17040FB	759	1K050-031
627	1K370-340	725	1K120-003	759	1K050-032
628	1K240-109	726	B1-17035FB	759	1K050-033
629	1K370-341	727	B2-17040FA	759	1K050-034
630	1K630-111	728	1K010-027	759	1K050-035
631	1K610-257			759	1K050-036
632	1K110-090			759	1K050-037
633	1K600-148	731	A1-17060FC	759	1K050-038
634	1K240-110-1			759	1K050-039
635	1K240-111	732	A1-20028FB	759	1K050-040
636	1S322-011	733	A1-20035FB	759	1K050-041
637	1K625-014	734	A1-20045FA	759	1K050-042
		735	A2-20035FC	759	1K050-043

部品对照表

Parts Number Reference Table

補助番号 Auxiliary Number	部 品 番 号 Part Number	補助番号 Auxiliary Number	部 品 番 号 Part Number	補助番号 Auxiliary Number	部 品 番 号 Part Number
759	1K050-044	1032	1S250-004	1077	1S130-007
759	1K050-045			1078	1S110-003
759	1K050-046	1034	1S542-001-1	1078	1S110-004
759	1K050-047			1079	1S310-018
759	1K050-048	1036	1S810-075	1080	1S310-019
		1037	1S810-076-1	1081	1S340-014
		1038	1S810-077	1082	1S810-115
1001	1S705-006			1083	1S700-018
1002	1S705-007			1084	1S335-011
1003	1S705-008	1043	1S810-078	1085	1S882-001
1004	1S708-001	1044	1S810-079	1086	1S882-002
1005	1S210-001	1045	1S810-080	1087	1S810-116
1006	1S237-003	1046	1S810-081	1088	1S810-117
1007	1S237-004	1047	1S810-082	1089	1S810-118
1008	1S125-005	1048	1S810-083	1090	1S810-119
1009	1S322-008	1049	1S810-084	1091	1S310-012
		1050	1S810-085	1098	1S310-020
1011	1S310-013			1099	1S810-146
1012	1S310-014	1052	1S810-086	1100	1S810-136
		1053	1S810-087		
		1054	1S810-088		
1015	1S310-015	1055	1S810-089		
1016	1S310-016	1056	1S810-090	B1	1G013-010
				B025	1B620-016-1
1018	1S300-046	1058	1S810-091	B099	1B001-121
		1059	1S810-092		
1020	1S382-001	1060	1S810-093	B102	1B001-163
1021	1S340-010	1061	1S810-094	B111	1B001-143
		1062	1S810-095	B112	1B467-007-1
1023	1S340-011	1066	1S810-096	B135	1B206-005
1024	1S335-006	1069	1S340-021	B150	1B001-146
1025	1S340-012			B179	1B001-139-2
1026	1S335-007			B180	1B001-137
1027	1S335-008	1073	1S810-098	B195	1B001-167-1
1028	1S335-009	1074	1S810-099		
		1075	1S810-100	B242	1B310-024
1030	1S340-013	1076	1S810-101	B247	1B314-059
1031	1S250-003	1077	1S130-006	B250	1B314-060

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Parts Number Reference Table

補助番号 Auxiliary Number	部 品 番 号 Part Number	補助番号 Auxiliary Number	部 品 番 号 Part Number	補助番号 Auxiliary Number	部 品 番 号 Part Number
B253	1B310-023	B535	1B370-007		
B260	1B001-164	B536	1B001-171		
B261	1B001-150	B548	1B001-218-1		
B265	1B001-151	B558	1B001-140		
B276	1B314-061-1	B561	1B260-007		
B290	1B100-099	B577	1B001-149		
B302	1B260-005	B601	1B630-010		
B308	1B277-006	B603A	1B201-007		
B310	1B260-003	B603B	1B201-008		
B319	1B260-004	B607	1B001-165		
B323	1B277-005	B618	1B001-166		
B327	1B001-119	B620	1B001-141		
B334	1B060-036	B625	1B200-001		
B341	1B680-007-1	B637	1B001-142-1		
B347	1B277-004				
B352	1B208-007	B1002	1S007-008		
B355	1B001-170	B1003	1B060-029		
B360	1B060-041				
B362	1B640-012	B5001	1B060-066-4		
B364	1S007-017	B5023A	1B060-046-2		
B374	1B001-155	B5023B	1B060-047-2		
B378	1B576-003	B5026A	1B150-011-3		
B383	1B470-002	B5026B	1B150-012-3		
		B5201	1B001-172		
B404	1B340-003	B5281	1B001-173-2		
B405	1B314-062	B5290	1B150-010-1		
B417	1B001-145	B5301	1B060-049-1		
B418	1B060-037	B5541	1B001-169-1		
B424	1B001-148	B5026B	1B150-012-1		
B428	1B475-013				
B443	1B001-144				
B464	1B001-136				
B468	1B001-154				
B469	1B260-006				
B522	1B314-057				
B529	1B001-168-2				

部品番号 Part No	補助番号 Ckt. No.	名 称 Name	1 台 分 個 数 Pcs. Per Unit	部組品番号 Assembly	参照 図番 Fig.	販 売 区 分 Term of Delivery	備 考 Remarks	要 求 単 位 Q'ty per order
1K001-007	707B	Screw	4		1	○	Black	10
1K001-008	715B	上カバー止めビス Screw, top cover	3	1B150-017-7	1, 6	○△	Black	10
1K001-010	731B	銘板止めビス Screw, name plate	2		6	○	Black	10
1K001-011	735B	底カバー上ビス Screw, bottom cover	4		12	○	Black	10
1K010-016	740	フレキ押さえ用タップネジ Screw	1		10	○	Add.	10
1K010-025	749	ストロボ接片用タップネジ Screw, speedlight contact	1		5	○		10
1K010-027	728	グリップ用タップネジ Screw, grip	2	1B001-167-1	11	○△		10
1K048-012	518	ハトメ Rivet	2	1B060-066-4	10	○△		10
*1K050-029	759A	Washer (t=0.05)	0-4	1B150-016-7 1B150-017-7	5	○△		10
*1K050-030	759B	Washer (t=0.06)	0-4	1B150-016-7 1B150-017-7	5	○△	23FB#854B	10
*1K050-031	759C	Washer (t=0.07)	0-4	1B150-016-7 1B150-017-7	5	○△	23FB#854C	10
*1K050-032	759D	Washer (t=0.08)	0-4	1B150-016-7 1B150-017-7	5	○△	23FB#854D	10
*1K050-033	759E	Washer (t=0.09)	0-4	1B150-016-7 1B150-017-7	5	○△	23FB#854E	10
*1K050-034	759F	Washer (t=0.1)	0-4	1B150-016-7 1B150-017-7	5	○△	23FB#854F	10
*1K050-035	759G	Washer (t=0.11)	0-4	1B150-016-7 1B150-017-7	5	○△	23FB#854G	10
*1K050-036	759H	Washer (t=0.12)	0-4	1B150-016-7 1B150-017-7	5	○△	23FB#854H	10
*1K050-037	759I	Washer (t=0.2)	0-4	1B150-016-7 1B150-017-7	5	○△	23FB#854I	10
1K050-038	759J	Washer (t=0.3)	0-4	1B150-016-7 1B150-017-7	5	○△	23FB#854J	10
1K050-039	759K	Washer (t=0.4)	0-4	1B150-016-7 1B150-017-7	5	○△	23FB#854K	10

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部品番号 Part No	補助番号 Ckt. No.	名 称 Name	1台分 個 数 Pcs. Per Unit	部組品番号 Assembly	参照 図番 Fig.	販 売 区 分 Term of Delivery	備 考 Remarks	要 求 単 位 Q'ty per order
1K050-040	759M	Washer (t=0.5)	0-4	1B150-016-7 1B150-017-7	5	○△	23FB#854M	10
1K050-041	759N	Washer (t=0.6)	0-4	1B150-016-7 1B150-017-7	5	○△	23FB#854N	10
1K050-042	759P	Washer (t=0.7)	0-4	1B150-016-7 1B150-017-7	5	○△	23FB#854P	10
1K050-043	759Q	Washer (t=0.8)	0-4	1B150-016-7 1B150-017-7	5	○△	23FB#854Q	10
1K050-044	759Y	Washer (t=0.9)	0-4	1B150-016-7 1B150-017-7	5	○△	23FB#854Y	10
1K050-045	759S	Washer (t=1.0)	0-4	1B150-016-7 1B150-017-7	5	○△	23FB#854S	10
1K050-046	759T	Washer (t=1.1)	0-4	1B150-016-7 1B150-017-7	5	○△	23FB#854T	10
1K050-047	759U	Washer (t=1.2)	0-4	1B150-016-7 1B150-017-7	5	○△	23FB#854U	10
1K050-048	759V	Washer (t=1.3)	0-4	1B150-016-7 1B150-017-7	5	○△	23FB#854V	10
1K050-061	258	リリースカラーC Release collar C	1	1B001-172	8	○△		10
1K050-063	414	スプロケット座金 Washer, sprocket	1		3	○		10
1K050-162	297	カラー Collar	1			○	23FB#722 Add.	10
1K060-003	755	E リング E-snap ring	1	1B001-170	6	○△		10
1K060-007	543	グリセント型止め輪 G-snap ring	1	1B060-066-4	10	○△	OLD	10
1K060-008	751	G. S リング G-snap ring	1	1B150-010-1	7	○△		10
1K060-009	758	捲き上げカムカバー止めリング Film-advance shaft snap ring	1	1B001-169-1	2	○△	23FB#867	10
1K060-010	756	E リング E-snap ring	1	1B150-010-1	7	○△		10
1K070-003	566	マイクロベアリング Micro bearing	1	1B001-169-1	2	○△		10

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部品番号 Part No	補助番号 Ckt. No.	名 称 Name	1 台分 個 数 Pcs. Per Unit	部組品番号 Assembly	参照 図番 Fig.	販 売 区 分 Term of Delivery	備 考 Remarks	要 求 単 位 Q'ty per order
*1K078-004	147	クリックボール Click ball	1	1B060-046-2 1B060-047-2	1	○△		10
1K080-005	105	三角環保護カバー Protector, trianguler ring	2		11	○	40FB#50	10
1K080-011	28A	銘 板 Name plate	1		6	○		5
1K080-013	28B	銘 板 Name plate	1		6	○	Black	5
1K082-001	183A	ナンバープレート(白) Number plate (chrome)	1		12	○		1
1K082-002	183B	ナンバープレート(黒) Number plate (black)	1		12	○		1
1K083-007	607	巻き戻しノブ Rewind knob	1	1B001-165	4	○△		5
*1K100-035	104	三角環 Triangular ring	2		11	○	23FB#24	10
1K110-090	632	圧接ゴム Rubber spacer	2	1B060-066-4	10	○△		10
*1K115-193	227	ヒシチューブ Mirror switch insulating tube	1	1B314-060	8	○△	23FB#328	10
*1K115-203	333	着脱鈕飾り Lens release button pad	1	1B150-016-7 1B150-017-7	6	○△	P33FB#261	10
1K115-268	346	遮光シート (制御基板) Light baffle	1	1B060-049-1	9	○△		10
1K115-269	245	遮光シート Light baffle	1	1B001-172	8	○△		10
1K115-270	292	チリトリ遮光板 Mirror holder light-shield	1	1B100-099	7	○△	23FB#348	10
1K115-271	369	防塵モルトブレン (B) Sponge pad (B)	1	1B576-003	5	○△		10
1K115-272	372	ミラー受けモルト Mirror sponge	1	1B001-155	6	○△		5
1K115-274	377	防塵モルトブレン (A) Sponge pad (A)	1	1B576-003	5	○△		10
1K115-278	106	ボディ擬革 (右) Leatherette, wind-side	1		14	○		10

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部品番号 Part No	補助番号 Ckt. No.	名 称 Name	1台分 個 数 Pcs. Per Unit	部組品番号 Assembly	参照 図番 Fig.	販 売 区 分 Term of Delivery	備 考 Remarks	要 求 単 位 Q'ty per order
1K115-279	107	ボディ擬革 (左) Leatherette, rewind-side	1		14	○		10
1K115-280	109	底蓋絶縁シート Insulating seat, bottom cover	1		12	○		10
1K115-281	119	下溝用モルト Sponge pad, body die-casting (lower)	1		14	○		10
1K115-282	120	上溝用モルト Sponge pad, body die-casting (upper)	1		14	○		10
1K115-283	121	上溝モルトB Sponge pad B	1		14	○	23FB#62	10
1K115-284-1 (1K115-284)	122	接眼下部遮光モルト Light-shield sponge l=42mm	1		11	○	23FB#63 Dis.	
1K115-284-3	122	接眼下部遮光モルト Light-shield sponge l=45mm	1		11		Add.	10
1K115-285	139	セルフレバー用擬革 Leatherette, self-timer	1		5	○	23FB#20-5	10
1K115-286-2	159	遮光モルト A Light-shield sponge	1	1B620-016-1	13	○△		10
1K115-287	169	裏蓋用擬革 Leatherette, camera back	1	1B620-016-1	13	○△		10
1K115-288	184	遮光紙 Light baffle	1	1B620-016	13	○△	23FB#722	10
1K115-289-1	185	絶縁シートA Insulating sheet A	1	1B060-046-2 1B060-047-2	1	○△		10
1K115-290	186	絶縁シートB Insulating sheet B	1	1B060-046-2 1B060-047-2	1	○△		10
1K115-353-1	118	モルトブレン Sponge	1		14	○	Dis.	
1K115-354	123	モルトブレン Sponge	1		11	○		10
1K115-390-1	388	アセテートテープ Tape, lead wire retaining	1	1B150-016-7	6	○△	58F2021 (FG-830014) 40FB#1095	10
1K115-452-1	124	モルトブレン Sponge	1		14	○		10
1K115-453	125	モルトブレン Sponge	1		14	○	Dis.	
1K115-454	126	モルトブレン Sponge	1		12	○		10

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部品番号 Part No	補助番号 Ckt. No.	名 称 Name	1台分 個 数 Pcs. Per Unit	部組品番号 Assembly	参照 図番 Fig.	販 売 区 分 Term of Delivery	備 考 Remarks	要 求 単 位 Q'ty per order
1K115-455-1	127	絶縁シート Insulating sheet	1		10	○		10
1K115-456-1	128	シート Sheet	1		11	○		10
1K115-457	517	シート Sheet	1	1B001-218-1 1B060-066-4	10	○△		10
1K115-492	133	遮光板 Light baffle	2	1B620-016-1	13	○△		10
1K115-528	172	ポリフィルム Spacer	1			○	Add.	10
1K115-534	129	モルトブレン Moltplane	2			○	57F2028 No.11 (FG-820011~ 820014)	10
1K115-535	134	モルトブレン Moltplane	2			○	57F2028 No.11 (FG-820011~ 820014)	10
1K115-536-1	135	モルトブレン Moltplane	1			○	57F2028 No.11 (FG-820011~ 820014)	50
1K115-985	396	塩ビシート Vnyle tape	1			○		5
*1K120-003	725	前後差調整モールド止めビス Screw, sponge #125	1	1B001-172	8	○△		10
*1K120-041	706	抵抗ブロック止めビス Screw, resistor block	2		10	○		10
1K120-077	419	モーターカップリング止めビス Screw, motor coupling	1		12	○	23FB#423	10
1K120-078	433	枚数計ビス Screw, frame counter	1	1B001-169-1	2	○△	23FB#478	10
1K120-080	723	プログラムスイッチ止めビス Screw, program SW	1	1B001-164	8	○△		10
1K120-081	744	ミラースイッチ止めビス Screw, mirror SW	1	1B150-016-7 1B150-017-7	7	○△		10
1K120-082	746	グレーコード止めビス Screw, gray cord	1	1B060-066-4	10	○△		10
1K120-083	748	MD接片止めビス MD contact screw	1		12	○△	23FB#827	10
1K120-084	712	ホットシュー止めビス Screw, hot-shoe	4	1B060-046-2 1B060-047-2	1	○△		10

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部品番号 Part No	補助番号 Ckt. No.	名 称 Name	1台分 個 数 Pcs. Per Unit	部組品番号 Assembly	参照 図番 Fig.	販 売 区 分 Term of Delivery	備 考 Remarks	要 求 単 位 Q'ty per order
1K120-089-1	750	消音スイッチ用タップネジ Screw, buzzer cancel SW	1	1B060-046-2 1B060-047-2	1	○△		50
1K120-093	743	Screw	1		1	○		10
1K123-044	411	スプロケットビス Sprocket screw	1		3	○		10
1K123-046	747	バヨネット取付ビス Bayonet set screw	4	1B150-016-7 1B150-017-7	6	○△	23FB#819	10
1K123-048	130	データバック接片A Data back contact A	1		14	○		10
1K123-052	164	裏蓋着脱ピン Upper rod, camera back hinge	1	1B620-016-1	13	○△		10
1K130-082	241	段ビス Screw	1	1B150-010-1	7	○△		10
1K130-083	259	段ビス Screw	1	1B001-172	8	○△		10
1K130-084	268	段ビス Screw	2	1B150-016-7 1B150-017-7	7	○△		10
1K130-085	353	着脱鉤軸 Axle, lens release button	1	1B150-016-7 1B150-017-7	6	○△		10
1K130-086	358	foバネ掛け用ビス Screw, fo spring	1	1B150-016-7 1B150-017-7	5	○△		10
1K130-087	387	LED 位置決めピン Pin, LED positioning	2	1B150-016-7 1B150-017-7	6	○△		10
1K130-088-1	406	段ビス Charge transmission lever shaft	1		12	○	23FB#408	10
1K130-089	407	段ビス Mirror charge lever shaft	1		12	○	23FB#409	10
1K130-090	410	段ビス Shutter charge lever shaft	1		12	○	23FB#412	10
1K130-091	526	段ビス Screw	2		11	○		10
1K130-092-2	576	段ビス Screw	1		2	○		5
1K130-100	501	枚数計ギア軸 Axle, frame counter gear	1		2	○	OLD	10
1K130-146-1	399	ローラー軸 Shaft	1			○	Add.	10

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1K136-009	530	段ビス Screw	2	1B001-168-2	2	○△		10
1K136-010	565	クラッチカム止めビス Screw, clutch cam	2	1B001-169-1	2	○△		10
1K146-022	420	リリースレバーバネ掛けピン Release lever spring stud	1		11	○	23FB#427	10
1K146-023	608	捲き戻しノブ取付ビス Screw, rewind knob	1	1B001-165	4	○△	OLD	10
1K146-075		Add.					10	
1K150-015-2	604	ASA ダイアル押さえ環 Nut, ASA dial	1		4	○		10
1K150-016-2	609	レバー受けバネ押さえナット Nut, lever spring shoe	1	1B001-165	4	○△		10
1K160-251	146	Washer	1	1B060-046-2 1B060-047-2	1	○△		10
1K165-020	580	S ダイアルロック受け座 Washer, shutter dial lock	1		10	○		10
1K165-021	148	Washer	1		1	○		10
1K165-045	610	Washer	1			○	Add.	10
1K206-003	529	捲き上げレバー軸 Self, film-advance lever	1	1B001-168-2	2	○△		10
1K206-006	141	消音SWレバー Buzzer cancel SW	1	1B060-046-2 1B060-047-2	1	○△		5
1K206-027	531	捲き上げレバー Film-advance lever	1				Add.	5
1K208-011	352	着脱釦 Lens release button	1	1B150-021 1B150-022	6	○△		10
1K208-012	534	リリース釦 Shutter release button	1	1B001-171	2	○△	Dis.	
1K208-013	551	ダイアルロック解除釦 Release button, shutter dial lock	1	1B060-066-4	10	○△		5
1K208-015	614	ASA ロック解除釦 Release button, ASA dial lock	1		10	○		5
1K208-016	619	バックライト釦 Back light button	1	1B001-166	4	○△		5
1K208-040	534	リリース釦 Shutter release button	1		2	○	Add.	5

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*1K220-031	161	裏蓋着脱バネ Spring, camera back	1	1B620-016-1	13	○△		10
*1K220-041	332	着脱ピンバネ Spring, lens release pin	1	1B001-170	6	○△	35FB#214A-6	10
1K220-053	354	着脱釦戻しバネ Spring, lens release button	1	1B150-016-7 1B150-017-7	6	○△		10
1K220-054	416	R 釦戻しバネ Sprocket spring	1		3	○	23FB#419-1	10
1K220-055	427	クラッチギアバネ Cam roller spring	3	1B001-169-1	2	○△	23FB#463	10
1K220-056	481	スプールフリクションバネ Spool friction spring	1	1B001-136	3	○△	23FB#503	10
1K225-050	229	ミラーアップバネ Mirror up spring	1	1B001-172	8	○△		10
1K225-051	305	セグメント遅延バネ Spring, segment delay	1	1B150-010-1	7	○△		10
1K225-052	329	連動環戻しレバーバネ Spring, aperture coupling ring	1	1B150-016-7 1B150-017-7	6	○△	OLD	10
1K225-052-2	329	連動環戻しレバーバネ Spring, aperture coupling ring	1	1B150-016-7 1B150-017-7	6	○△	Add.	10
1K225-114	357	foレバーバネ Spring, fo lever	1	1B150-016-7 1B150-017-7	5	○△		10
1K225-054	421	リリースレバーバネ Release lever spring	1		11	○	23FB#428	10
1K230-054	214	掛け外しレバー軸バネ Spring, quick-return lever axle	1	1B001-172	8	○△		10
1K230-055	219	連結レバーバネ Spring, coupling lever	1	1B150-010-1	7	○△		10
1K230-056	224	ミラースタート鍵バネ Spring, mirror start key	1	1B001-172	8	○△		10
1K230-058	240	シャッタースタートバネ Spring, shutter start	1	1B150-010-1	7	○△		10
1K230-059	248	連続制御スタートレバーバネ Spring, continuous control start lever	1	1B001-172	8	○△		10
1K230-060	251	制御スタート鍵バネ Spring, control start key	1	1B001-172	8	○△		10
1K230-061	257	リリース鍵バネ Spring, release key	1	1B001-172	8	○△		10

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1K230-062	275	チャージレバーバネ Spring, charge lever	1	1B001-173-6	7	○△		10
1K230-063	279	リリースレバーバネ Spring, release lever	1	1B001-173-6	7	○△		10
1K230-064	296	ミラーチリトリバネ Mirror holder spring	1	1B150-010-1	7	○△	23FB#361	10
1K230-065-1	325	制御ギアバネ Spring, control gear	1	1B060-049-1	9	○△		10
1K230-066	340	ダウンバネ Mirror down spring	1	1B150-010-1	7	○△		10
1K230-067	344	45° 受けレバーバネ Spring, 45° acceptor	1	1B060-049-1	9	○△		10
1K230-068	431	枚数計バネ Spring, frame counter	1	1B001-169-1	2	○△		10
1K230-070	538	巻上げレバー戻しバネ Spring, film-advance lever	1	1B001-169-1	2	○△		10
1K230-071-1	560	A-M SW バネ Spring, A-M switch	1		2	○		10
1K230-086	509	ねじり線バネ Spring	1	1B001-169-1	2	○△		10
1K233-017	371	プリズム押さえバネ Prism, retaining spring	2		5	○	23FB#233	10
1K233-018	503	逆転防止バネ Spring, reverse stopper	1	1B001-169-1	2	○△		10
1K233-019	622	巻き戻し軸クリックバネ Spring, rewind shaft click	1	1B630-010	4	○△		10
1K240-065-1	351	バヨネットバネ Bayonet spring	1	1B150-016-7 1B150-017-7	6	○△	P33FB#208-7	10
1K240-095	439	ARレバー AR lever	1		3	○	23FB#508-1	10
1K240-101	550	シャッタークリックバネ Spring, shutter dial click	1		10	○		5
1K240-106-2	615	バネ Spring	1		10	○	57F2028 (FG-820011~14)	10
1K240-108	624	捲戻しリリース受けバネ Lever spring shoe	1		4	○△	23FB#656 9F4B#656	10
1K240-109	628	裏蓋開閉バネ O/G spring	1		4	○	23FB#655-5 Dis.	

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1K240-109-1	628	裏蓋開閉バネ O/C spring	1		4	○	57F2038 Add.	10
1K240-118-3	181	シューバネ Spring, hot shoe	1	1B060-046-2 1B060-047-2	1	○△		10
1K240-120	144	消音SW接点 Contact, buzzer cancel SW	1	1B060-046-2 1B060-047-2	1	○△		10
1K240-121	145	SWクリック板 Plate, switch click	1	1B060-046-2 1B060-047-2	1	○△		10
1K240-123	394	接眼部シールド板 Plate, eyepiece shield	1		5	○		10
1K245-009-3	532	捲上げレバークリックバネ Spring, film-advance lever click	1	1B001-168-2	2	○△		10
1K260-039	467	クラッチギア Clutch gear	1	1B001-169-1	2	○△		5
1K260-045	500	枚数計ギア Frame-counter gear	1	1B001-169-1	2	○△		5
1K260-046-4	545	グレーコード回転ギア Gray cord gear	1	1B060-066-4	10	○△	57F2028 No. 1 (FG-820011~14)	5
1K275-006	465	スプール Spool	1		3	○	23FB#506	5
1K275-007	466	スプロケット Sprocket	1		3	○		5
1K300-037-1	521	捲上げカム Film-advance cam	1		12	○		5
1K310-024	218	制御連結レバー Lever, shutter control coupling	1	1B150-010-1	7	○△		10
1K310-025	239	シャッタースタートレバー Shutter start lever	1	1B150-010-1	7	○△		10
1K310-029	282	シーソーレバー See-saw lever	1	1B001-173-6	7	○△		10
1K314-100-2	528	チャージレバー Charge lever	1		12	○		5
1K314-103	154	止め爪 B Latch B	1		14	○	23FB#708	10
1K330-005	252	制御スタートカラーB Collar B, control start	1	1B001-172	8	○△		10
1K340-039	413	スプロケット軸受け Sprocket bearing	1		3	○		10

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1K362-012	426	クラッチギアコロ Film-advance cam roller	3	1B001-169-1	2	○△	23FB#462	10
1K362-013	163	蝶番芯金 B Hinge shaft B	1	1B620-016-1	13	○△		10
1K370-324	412	R 釦 Rewind button	1		3	○		5
1K370-336	537	レリーズ釦用ピン Pin, shutter release pin	1	1B001-171	2	○△	Dis.	
1K370-341	629	捲戻し軸 Rewind shaft	1		4	○	23FB#652	5
1K370-342	132	データバック接点 B Contaxt B, data back	1		14	○		10
1K370-343	136	セルフクリックピン Pin, self-timer lever click	1	1B150-016-7 1B150-017-7	5	○△		10
1K380-011-1	197	グリップ取付ビス Grip screw	1	1B001-167-1	11	○△		10
*1K400-078	101	三脚ネジ Tripod screw	1		12	○	23FB#10	5
1K404-033	350	バヨネット Bayonet ring	1	1B150-016-7 1B150-017-7	6	○△	23FB#202-1	5
1K406-013	182	ホットシュー Hot shoe	1	1B060-046-2 1B060-047-2	1	○△		5
1K470-010-1	562	シャッターダイヤル目盛 Shutter dial disk	1		2	○		5
1K480-004	429	枚数計指標 Pointer, frame counter	1	1B001-169-1	2	○△		10
1K500-199	381	接眼モールド Eyepiece mold	1		5	○		5
1K520-305-1	547	シャッター押さえ環 Shutter retaining ring	1		2	○		5
1K576-029	376	反射防止枠 Anti-reflection frame	1		5	○		10
1K600-138	287	抵抗ブロック保持板 Retainer, resistor block	1		10	○	Dis.	
1K600-139	355	着脱釦作動連結板 Coupler, lens release pin	1	1B001-170	6	○△		10
1K600-140	370	プリズム押さえシート Prism retaining seat	1		5	○	23FB#232	10

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1K600-141-1	389	フレキ保持板 FPC retaining plate	1		10	○		10
1K600-145	456	V 型止め輪 Friction spring shoe ring	1	1B001-136	3	○△	23FB#505	10
1K600-146	476	捲き上げカムカバー Film-advance cam cover	1	1B001-169-1	2	○△	23FB#461 Dis.	
1K600-147-1	519	絶縁シート Insulator, film-advance lever unit	1	1B001-218-1 1B060-066-4	10	○△		10
1K600-148	633	圧接板 B Press-connector B	1	1B060-066-4	10	○△		10
1K600-156	451	フリクション板 Friction ring	2	1B001-136	3	○△	23FB#504 Dis.	
1K600-248	453	フリクション板 A Friction plate A	1			○		50
1K600-255	170	平 板 Plate	2			○	57F2028 (FG-820011~14)	10
1K600-256	623	Washer (t=0.2)	1			○	57F2028 (FG-820011~14)	10
1K607-002	108	消音ゴム Shock absorb rubber	1		12	○	23FB#5	10
1K607-003	568	リリース軸カバー Release shaft cover	1	1B001-171	2	○△		10
1K610-236-1	260	リリース鍵基板 Release key plate	1	1B001-164	8	○△		10
1K610-240	375	プリズム押さえ板 Prism retainer	1		5	○		10
1K610-241-1	382	接眼止め枠 Eyepiece retainer	1		5	○		10
1K610-242	386	LED 押さえ LED retainer	1		10	○		10
1K610-244	425	リリース釦用ピン押さえ Release button guide pin	1	1B001-171	2	○△	23FB#436-1 Dis.	
1K610-249-1	497	裏蓋蝶番ヒンジ Hinge shaft, camera back	1		14	○		10
1K610-257	631	圧接板 A Press-connector A	1	1B060-066-4	10	○△		10
1K610-258	113	電池アース接続板 Battery earth connector	1		12	○		5
1K610-264	143	セルフSW制限板 Self-timer SW atopper	1	1B060-046-2 1B060-047-2	1	○△		10

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1K610-307	149	ラグ板 Lug plate	1		1	○		10
1K610-384-1	178	シュー座金 Shoe washer	1	1B060-046-2 1B060-047-2	1	○△		10
1K610-478	476	巻き上げカムカバー Film-advance cam cover	1	1B001-169-1	2	○△	58F2010 (FG-830005) Add.	5
1K620-043	379	プリズムボックス Prism box	1		5	○		5
1K620-044	605	ASA ダイアル押さえ板 ASA dial retainer	1		4	○		5
1K625-016	171	枚数計窓 Frame counter window glass	1	1B060-046-2 1B060-047-2	1	○△		5
1K630-105	470	スプール内筒 Spool internal tube	1		3	○	23FB#422	5
1K630-106-3	536	リリース軸受け Release shaft bearing	1	1B001-171	2	○△		5
1K630-107-1	546	シャッターダイアル軸 Shutter dial axle	1	1B060-066-4	10	○△		5
1K630-108-1	601	巻き戻し軸受け Rewind shaft bearing	1	1B630-010	4	○△	57F2038 Add.	5
1K630-109	618	バックライト釦ガイド Back-light button guide	1	1B001-166	4	○△	OLD	10
1K630-109-1							Add.	10
1K630-111	630	巻き戻し軸受内筒 Rewind shaft internal tube	1	1B630-010	4	○△	23FB#665	5
1K630-112	131	データバックモールド Data-back mold	1		14	○		5
1K630-158	398	ローラー Rollar	1			○	Add.	10
1K640-240	361	絞り連動環 A Aperture coupling ring A	1	1B150-016-7 1B150-017-7	6	○△	OLD	1
1K640-245-1	533	飾り環 Cover ring, shutter dial	1		2	○		5
1K640-246	542A	シャッターダイアル Shutter dial	1		2	○		5
1K640-247	542B	シャッターダイアル Shutter dial	1		2	○	Black	5

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1S125-005	1008	ミニモールドトランジスタ Mini-mold trnsistor	1	1S007-008		○△		10
1S300-046	1018	ソリッド抵抗 (2K Ω) Resistor	1	1B060-066-4	10	○△		10
1S322-008	1009	5 連抵抗ブロック Resistor block	1	1B060-066-4		○△		5
1S335-009	1028	積層セラミックコンデンサ (0.022 μF) Ceramic condensor	3	1B060-066-4		○△		10
1S340-012	1025	ニチコンスプラーグ (100 μF) Condensor	1	1S007-008		○△	40FB#1046	5
1S542-001-1	1034	圧電ブザー Buzzer	1		1	○	23FB#175	5
1S700-013-1	520	ダイヤルプリント板 Shutter dial circuit board	1	1B060-066-4		○△		5
1S700-015	142	セルフ消音SW基板 Circuit board, self-timer silencer SW	1	1B060-046-2 1B060-047-2	1	○△		10
1S705-008	1003	シャッターフレキ板 Shutter control FPC	1	1B060-029		○△		1
1S810-074	1035	Lead wire	1			×	W-0056RE	
1S810-075	1036	Lead wire	1	1B001-139-2		×	W-0056OR	
1S810-076-1	1037	Lead wire	1	1B001-139-2		×	W-0056BE	
1S810-077	1038	Lead wire	1	1B001-139-2		×	W-0056YE	
1S810-078	1043	Lead wire	1	1B060-041		×	W-0056OR	
1S810-079	1044	Lead wire	1	1B060-041		×	W-0056BK	
1S810-080	1045	Lead wire	1			×	W-0056BE	
1S810-081	1046	Lead wire	1	1B060-041		×	W-0056YE	
1S810-082	1047	Lead wire	1	1B060-041		×	W-0056PU	
1S810-083	1048	Lead wire	1	1B001-143		×	W-0056RE	

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部品番号 Part No	補助番号 Ckt. No.	名 称 Name	1台分 個 数 Pcs. Per Unit	部組品番号 Assembly	参照 図番 Fig.	販 売 区 分 Term of Delivery	備 考 Remarks	要 求 単 位 Q'ty per order
1S810-084	1049	Lead wire	1	1S007-017		×	W-0056PU	
1S810-085	1050	Lead wire	1			×	W-0056BE	
1S810-086-1	1052	Lead wire	1			×	W-0056YE	
1S810-087	1053	Lead wire	1			×	W-0056PU	
1S810-088	1054	Lead wire	1			×	W-0056BE	
1S810-089	1055	Lead wire	1			×	W-0056BK	
1S810-090	1056	Lead wire	1	1B001-150		×	W-0056BK	
1S810-091	1058	Lead wire	1	1B001-150		×	W-0056OR	
1S810-092	1059	Lead wire	1	1B001-151		×	W-0056BK OLD	
1S810-092-2				1B001-151-2		×	W-0056WH Add.	
1S810-093	1060	Lead wire	1	1B001-151		×	W-0056PU	
1S810-094	1061	Lead wire	1	1B001-145		×	W-0056BK	
1S810-095	1062	Lead wire	1	1B001-145		×	W-0056YE	
1S810-096	1066	Lead wire	1			×	W-0056OR	
1S810-098	1073	Lead wire (green)	1	1B060-036	9	○△	Green	10
1S810-099	1074	Lead wire (brown)	1	1B060-036	9	○△	Brown	10
1S810-100	1075	Lead wire (green)	1			○	Green	10
1S810-101	1076	Lead wire (brown)	1			○	Brown	10
1S882-001	1085	ツイストペアケーブル Wire (red, brack)	1			○		10
1S882-002	1086	ツイストペアケーブル Wire (red, brack)	1		11	○		10

部 品 表 Parts List

FAA15001-R. 3111. A

部品番号 Part No	補助番号 Ckt. No.	名 称 Name	1台分 個 数 Pcs. Per Unit	部組品番号 Assembly	参照 図番 Fig.	販 売 区 分 Term of Delivery	備 考 Remarks	要 求 単 位 Q'ty pe. order
A1-17016FB	708	Screw	2	1B060-049-1	9	○△		50
A1-17025FB	711	Screw	5	1B150-016-7 1B150-017-7	6, 7 12	○△		50
A1-17025FC	707A	Screw	4		1	○		50
A1-17030FA	713	Screw	2		11	○		50
A1-17035FB	714	Screw	2		10	○		50
A1-17035FC	715A	Screw	3	1B150-016-7	1, 6	○△		50
A1-17060FC	731A	Screw	2		6	○		50
A1-20028FB	732	Screw	3		3, 5	○		50
A1-20035FB	733	Screw	6		5	○		50
A1-20045FA	734	Screw	2		11	○		50
A1-20025FB	741	Screw	3		14	○		50
A2-14035FA	704	Screw	2	1B060-066-4	10	○△		50
A2-17030FB	717	Screw	2		14	○		50
A2-20035FC	735A	Screw	4		12	○		50
B1-17030FB	718	Screw	2	1B150-016-7 1B150-017-7	7	○△		50
B1-17018FA	719	Screw	1	1B001-172	8	○△		50
B1-17020FB	720	Screw	1	1B150-010-1	7	○△		50
B1-17025FA	721	Screw	1	1B150-016-7 1B150-017-7	5	○△		50
B1-17028FA	722	Screw	1	1B001-169-1	2	○△		50

部 品 表 Parts List

FAA15001-R. 3111. A

部品番号 Part No	補助番号 Ckt. No.	名 称 Name	1台分 個 数 Pcs. Per Unit	部組品番号 Assembly	参照 図番 Fig.	販 売 区 分 Term of Delivery	備 考 Remarks	要 求 位 Q'ty per order
B1-17035FB	726	Screw	3		5,10	○		50
B1-17040FB	724	Screw	3		5,11	○		50
B1-20020FB	736	Screw	2	1B150-016-7 1B150-017-7	7	○△		50
B1-20030FB	737	Screw	13	1B150-016-7 1B150-017-7	2, 4 5,10	○		50
B1-20035FB	739	Screw	3		10	○		50
B2-17040FA	727	Screw	1	1B150-016-7 1B150-017-7	5	○△		50
B2-20030FR	738	Screw	1	1B150-016-7 1B150-017-7	6	○△		50
K1-14020FA	702	Screw	1	1B001-164	8	○△		50
K2-14030FB	703	Screw	1	1B001-168-1	2	○△		50
P3-10040SX	138	Pin	1	1B150-016-7 1B150-017-7	5	○△		50
P3-16060SX	745	Spring pin	2		11	○	Add.	50
S1-01200SX	753	E-snap ring	7	1B001-173-6 1B060-049-1	7, 9	○△		50
S1-01500SX	754	E-snap ring	2	1B001-173-6	7,10	○△		50
1G138-001	G6	集光レンズ Condensor lens	1		5	○		5
1G415-003-1	G3	ペンタプリズム Pentagonal prism	1		5	○		1
1G551-005	G1	ミラー Mirror	1	1B100-099	7	○△	23FB G1	5
1G950-002-2	G2	スクリーン(フレネル) Focusong screen	1		6	○	59F1043 (FG-20-840028) OLD	5
1G950-039							59F1043 (FG-20-840028) Add.	5

部 組 品 表 Subassembly List

FAA15001-R. 3111. A

部組品番号 Assembly No.	補助番号 Ckt. No.	名 称 Name	1 台分 個 数 Pcs. Per Unit	大部組品番号 Main Assembly No.	参照 図番 Fig.	備 考 Remarks	要求単位 Q'ty per order
1B001-119	B327	制御マグネット Shutter control magnet	1		9		5
1B001-121	B99	セルフタイマー Self-timer	1	1B150-016-7 1B150-017-7	7		5
1B001-136	B464	スプールフリクション Spool friction unit	1		3		5
1B001-137	B180	シュー接点部 Accessory shoe	1	1B060-046-2 1B060-047-2	1		5
1B001-137-2						58F1053 Add.	5
1B001-139-2	B179	ストロボ接片 Strobo contact	1		5		5
1B001-140	B558	E・M スイッチ E/M SW	1		2		5
1B001-141	B620	B・L 接点 B/L contact	1	1B001-166	4		5
1B001-142	B637	ASA ブラシ環 ASA brush ring	1		4		5
1B001-143	B111	電池ボックス Battery chamber	1		11		5
1B001-144	B443	MD 接片 MD contact	1		12		5
1B001-145	B417	カウンタースイッチ Counter sw	1	1B001-367	2		5
1B001-146	B150	圧 板 Pressure plate	1		13	23FB-E2 OLD	5
1B001-146-1						Add.	5
1B001-148	B424	押し釦スイッチ Release button switch	1		11		5
1B001-149	B577	コード押さえモールド Lead wire retainer	1		12		5
1B001-150	B261	P スイッチ Program switch	1	1B001-164	8		5
1B001-151	B265	ミラースイッチ Mirror switch	1	1B150-016-7 1B150-017-7	7		5
1B001-154	B468	クラッチカム Clutch cam	1	1B001-367	2		5

部 組 品 表 Subassembly List

FAA15001-R. 3111. A

部組番号 Part No.	補助番号 Ckt. No.	名 称 Name	1 台 分 個 数 Pcs. Per Unit	大部組品番号 Main Assembly No.	参照 図番 Fig.	備 考 Remarks	要求単位 Q'ty per order
B001-155	B374	スクリーン保持枠 Screen retaining frame	1		6		5
B001-163	B102	吊り環 Eyelet	2		11	23FB-A1A OLD	5
B001-163-1						Add.	5
B001-164	B260	リリース鍵基板 Release key plate	1	1B001-172	8		5
B001-165	B607	巻き戻しノブ Rewind knob	1		4		5
B001-166	B618	B. L 釦 B/L button	1		4		5
B001-167-1	B195	グリップ Grip	1		11		5
B001-168-9	B529	巻き上げレバー Take up lever	1		2		5
B001-169-1	B5541	巻き上げ基板部 Film-advance unit	1		2	OLD	5
B001-367						Add.	5
B001-170	B355	レンズ着脱ピン Lens release pin	1	1B150-016-7 1B150-017-7	6		10
B001-171-2	B536	リリース軸受け Release shaft bearing	1		2	Dis.	
B001-172	B5201	ミラー駆動基板 Mirror box unit	1		7, 8		5
B001-173-6	B5281	連続レバー支持台 Continuous lever retainer	1	1B150-016-7 1B150-017-7	7	57F2037	5
B001-218-1	B548	上地板 Film-advance lever unit	1		10		5
B060-029	B1003	シャッター (FPC 付) Shutter unit	1		11		1
B060-036	B334	TTL, SPD SPD	1		9		5
B060-037	B418	モーターカップリング Motor coupling	1		12	23FB-A8	5
B060-041-5	B360	f o 基板 fo circuit board unit	1	1B150-016-7 1B150-017-7	5		5

部 組 品 表 Subassembly List

FAA15001-R. 3111. A

部組品番号 Part No.	補助番号 Ckt. No.	名 称 Name	1 台 分 個 数 Pcs. Per Unit	大部組品番号 Main Assembly No.	参照 図番 Fig.	備 考 Remarks	要求単位 Q'ty per order
1B060-046	B5023A	上カバー (白) Top cover unit (chrome)	1		1	Chrome	1
1B060-047	B5023B	上カバー (黒) Top cover unit (black)	1		1	Black	1
1B060-066-3	B5001	F P C	1		10		1
1B060-049	B5301	制御基板 Shutter control unit	1		7, 9		1
1B100-099	B290	ミラーチリトリ Mirror holder unit	1		7	23FB-B6	5
1B150-010-1	B5290	ミラーボックス Mirror box unit	1	1B150-016-7 1B150-017-7	7, 8 9		1
1B150-016-7	B5026A	前 板 (白) Front plate unit(chrome)	1		5,6	57F2037 Chrome	1
1B150-017-7	B5026B	前 板 (黒) Front plate unit (black)	1		5,6	57F2037 Black	1
1B200-001	B625	捲き戻しレバー Rewind lever	1		4	23FB-A22A	5
1B201-007	B603A	ASA ダイアル (白) ASA dial (chrome)	1		4	Chrome OLD	5
1B201-007-2						Add.	5
1B201-008	B603B	ASA ダイアル (黒) ASA dial (black)	1		4	Black OLD	5
1B201-008-2						Add.	5
1B206-005-1	B135	セルフレバー Self-timer lever	1	1B150-016-7 1B150-017-7	5	57F1040	5
1B208-007	B352	着脱釦 Lens release button	1	1B150-016-7 1B150-017-7	6		5
1B260-003	B310	フライホイール Fly-wheel	1		9		5
1B260-004	B319	制御セグメントギア Control segment gear	1		9		5
1B260-005	B302	セグメント遅延ギア Segment delay gear	1		9		5
1B260-006	B469	スプロケット軸 Sprocket shaft	1		3		5

部 組 品 表 Subassembly List

FAA15001-R. 3111. A

部組品番号 Part No.	補助番号 Ckt. No.	名 称 Name	1台分 個 数 Pcs. Per Unit	大部組品番号 Main Assembly No.	参照 図番 Fig.	備 考 Remarks	要求単位 Q'ty per order
1B260-007	B561	レコード盤 Disk	1		10		5
1B277-004	B347	ラチェット Ratchet	1		9		5
1B277-005	B323	制御ギア Contror gear	1		9		5
1B277-006	B308	遅延ギア A Delay gear A	1		9		5
1B310-023	B253	リリースカギレバー Release key lever	1	1B001-172	8		5
1B310-024	B242	絞り制御縦軸 Aperture control coupler	1		7		5
1B314-057	B522	リリースレバー Release lever	1		11		5
1B314-058	B273	連続チャージレバー Continuous charge lever	1	1B001-173-6	7		5
1B314-059-1	B247	連続制御スタートレバー Continuous control lever	1	1B001-172	8	57F1040	5
1B314-060	B250	制御スタート鍵 Control start key	1	1B001-172	8		5
1B314-061-4	B276	連続リリースレバー Continuas release lever unit	1	1B001-173-6	7	57F2037 OLD	5
1B314-061-5						Add.	5
1B314-062	B405	シャッターチャージレバー Shutter charge lever unit	1		12	23FB-A7	5
1B340-003	B404	スプール軸受 Spool bearing	1		12		5
1B370-007	B535	リリース軸 Release shaft	1	1B001-367	2		5
1B467-007-1	B112	電池キャップ Battery chamber lid	1		12	23FB-A23A	5
1B470-002-3	B383	ライトガイド Light guide	1		5	57F1040	5
1B475-013	B428	枚数計 Frame counter	1	1B001-367	2		5
1B576-003	B378	スクリーン枠 Focusing screen frame	1	1B150-016-7 1B150-017-7	5		5

FAA15001-R. 3111. A

Nikon

TECHNICAL INFORMATION

Product Name: Nikon FG (FAA-15001/FAA-15051)

Ref. No. FG-830005

Modified From:

Date: May 1983

Subject: FILM-ADVANCE LEVER FAILS TO RETURN TO STANDOFF POSITION

Repair Manual

Assembly line has reported that the film-advance lever fails to return to the standoff position from the full-stroked position. As a temporary solution, Roller 1K362-012 and Film-advance cam cover 1K610-478 have been modified and installed. For a permanent solution, Film-advance lever unit 1B001-367 will be re-modified.

For service:

When a claim is received in this matter, replace the film-advance lever unit with a new one. The blue paint applied on the top of Pin 1K370-338 can tell you the temporary solution.

NIPPON KOGAKU K.K.

Nikon

TECHNICAL INFORMATION

Product Name: Nikon FG (FAA15001/FAA15051)

Ref. No. FG-830003

Modified From:

Date: April 1983

Subject:

APERTURE LEVER IS LIABLE TO DULLY MOVE AT
LOWER TEMPERATURES

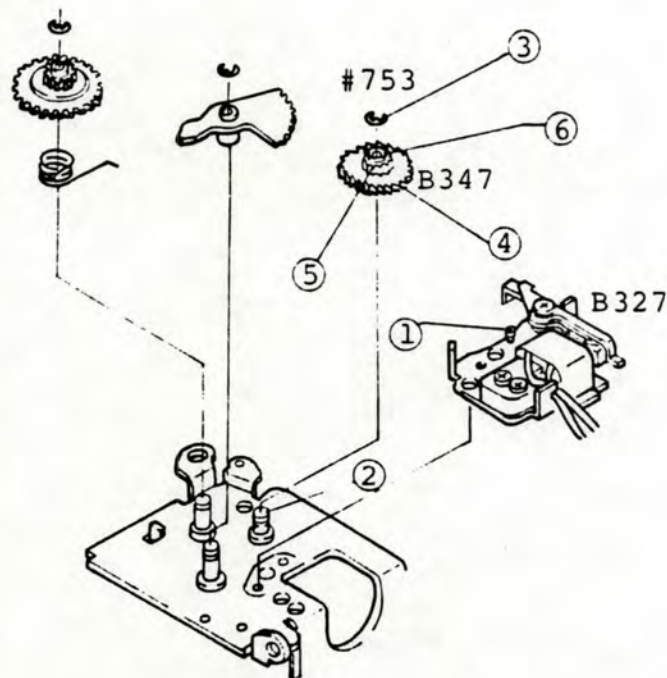
Repair Manual

Factory test has reported that the aperture lever is liable to dully move at temperatures lower than 10°C due to exudation of grease from Shutter control magnet B327 (Section ①) to Ratchet B347 (Sections ② - ⑥) and can affect exposure control on all modes.

Cameras involved with this problem have born the batch codes from 13KE,F to 13JE,F or 23KE,F to 23JE,F.

For service:

When a camera is broght for repairs, observe the movement of the aperture lever on shutter release at Bulb after leaving the camera in test for 30min. at 0°C. Then, disengage Ratchet B347 from Aperture control base #301 and degrease Sections ②, ③ and ⑥ in the figure with solvent.



NIPPON KOGAKU K.K.

TECHNICAL & REPAIR SERVICE DEPT

(1) POWER SUPPLY

Vcc --- The current flow of 3V is supplied direct from the batteries installed to the oscillation circuit.

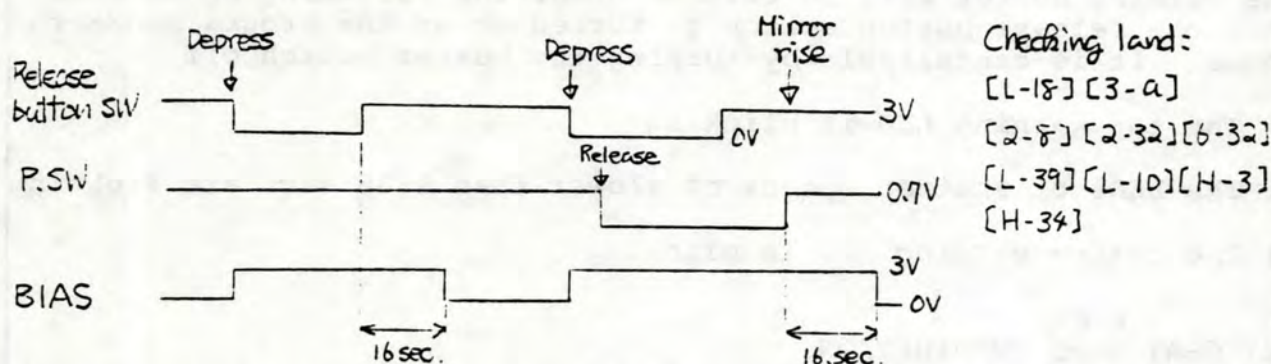
Checking land: [F-7] [H-41]

Vcc' --- The current flow of 3V is supplied to the circuit while the switch (EM.SW) is turned on. The switch (EM.SW) is turned on with setting the programmed/auto/manual modes and is turned off with setting M90 and Bulb.

Checking land: [F-3] [F-4] [H-23] [H-39] [H-115] [H-121]

(2) METER 16 SEC. HOLD

Depressing the release button halfway turns the release button switch on to make the bias signal HIGH. The whole circuit is in operation while the bias signal is held HIGH.



The bias signal holds the circuit in operation for 16 sec. after either the release button switch or the power switch (P.SW) is turned off.

(3) FRAME COUNTER SWITCH (FC.SW)

S2: the second dot from "S."

Calibrations	FC.SW	Shutter speed	LED
S ~ S2	OFF	1/90 sec.	LEDs 60 and 125 are blinking (Ready-light LED can light)
1 ~ 36	ON	Normal	Normal

Checking land: [L-12]

(4) ASA WARNING

In response to the film speed setting, the shutter speed delivery range will be changed. The top/bottom warning LEDs start blinking when the shutter speed to be delivered is out of the normal range.

* Exposure compensation is not used.

MODE	ASA	Checking land		LED (Shutter speed delivery range)
		L-41	L-40	
P.A	~ 100	H	H	▲ 1/1000 ~ 1S ▼
	200 ~ 400	L	H	▲ 1/1000 ~ 1/4 ▼
	800 ~	L	L	▲ 1/1000 ~ 1/15 ▼
M	12 ~ 3200	-	-	▲ 1/1000 ~ 1S ▼

(5) AUDIO WARNING BUZZER

The warning buzzer will be emitted under the following conditions when the release button switch is turned on on the programmed/auto modes. It is cancellable by turning the buzzer switch off.

- The top warning LED is blinking
- The LEDs of shutter speeds of slower than 1/30 sec. are lighting
- The bottom warning LED is blinking

(6) GRAY CORD COMBINATION

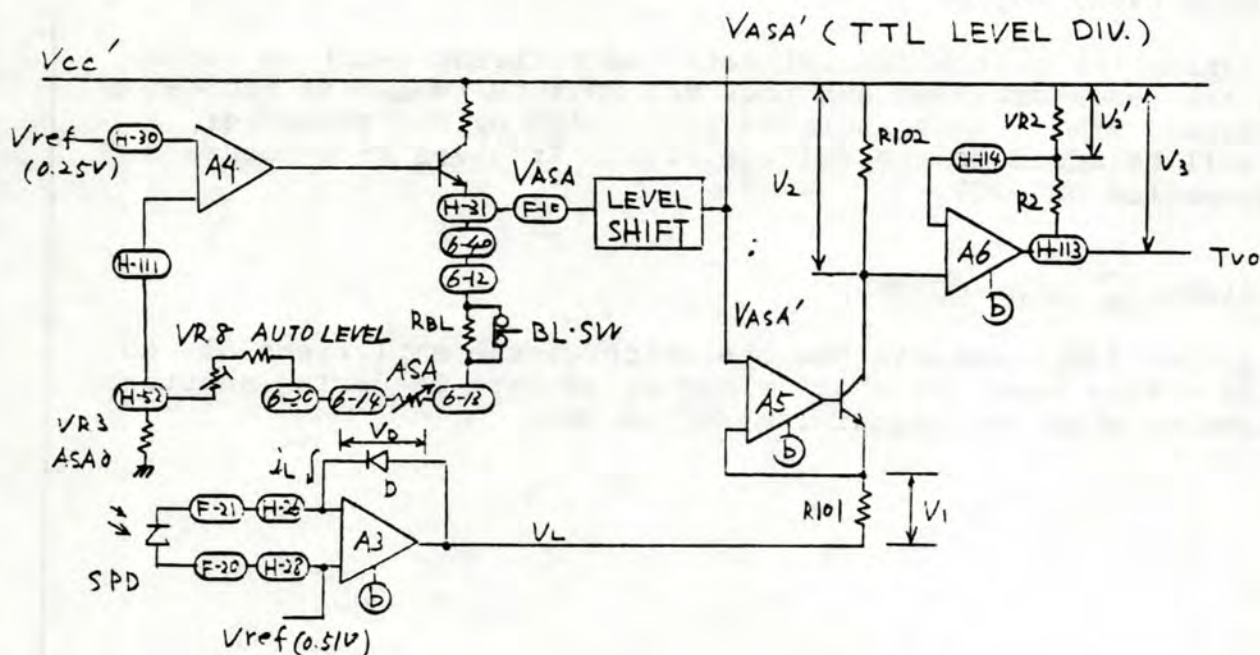
SW	Checking land	Shutter dial set												
		P	A	1/1000	1/500	1/250	1/125	1/60	1/30	1/15	1/8	1/4	1/2	1S
Gray cord	W [5-W][L-13]	0	0	0	0	0	0	0	0	1	1	1	1	1
	X [5-X][L-14]	1	1	1	1	0	0	0	0	0	0	0	0	1
	Y [5-Y][L-15]	1	1	0	0	0	0	1	1	1	1	0	0	0
	Z [5-Z][L-17]	1	0	0	1	1	0	0	1	1	0	0	1	1
P.S.W	[5-P][F-23][H-46]	0	1	1	1	1	1	1	1	1	1	1	1	1

0 ... Gray cord switch is ON (LOW) = GND is short-circuited → 0V

1 ... Gray cord switch is OFF (HIGH) = Gray cord SW → 0.6V

P.S.W → 0.8V

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(1) METER

SPD (1) generates the current (I_L) in response to the light intensity and passes it to the diode (D). The meter output voltage (V_L) is found by ($V_{ref} + V_D$). As the current flow (V_D) from the diode (D) is increased by 18mV/LV, the voltage (V_L) is shifted at the same rate.

(2) ASA

Variable resistor (VR3) is used to adjust the current flow (I_{ASA}) to the resistor (ASA) so that the voltage (V_{ASA}) may be increased by 18mV/EV per 0.9k Ω /EV of ASA resistance shift; the shifting rate should be equivalent to that of the meter output voltage (V_L).

Variable resistor (VR8) is used to adjust the voltage (Auto level) to the resistor (ASA) so that the voltage (V_{ASA}) may determine the correct shutter speed for the specified brightness and aperture value.

(3) COMPUTATION

The resistor (R101) provides the voltage (V1) ($=V_{ASA}' - V_L$) and the resistor (R102) of the same condition generates the voltage (V2) that is equivalent to the voltage (V1). The amplifier (A4) will supply the voltage (V2') ($=V_2$) to the variable resistor (VR2). The variable resistor (VR2) is used to adjust the current flow (Auto) to determine the voltage (V3) ($=V_{TVO}$). The voltage (V3) is found by: $VR3 = VR2 + R2/VR2 \times V2'$. If VR2 is equal to R2, V3 takes $2v2'$. That is the variable resistor (VR2) changes the rate of shifting the voltage (V2) from 18mV/EV into 36mV/EV for a determination of shutter speed.

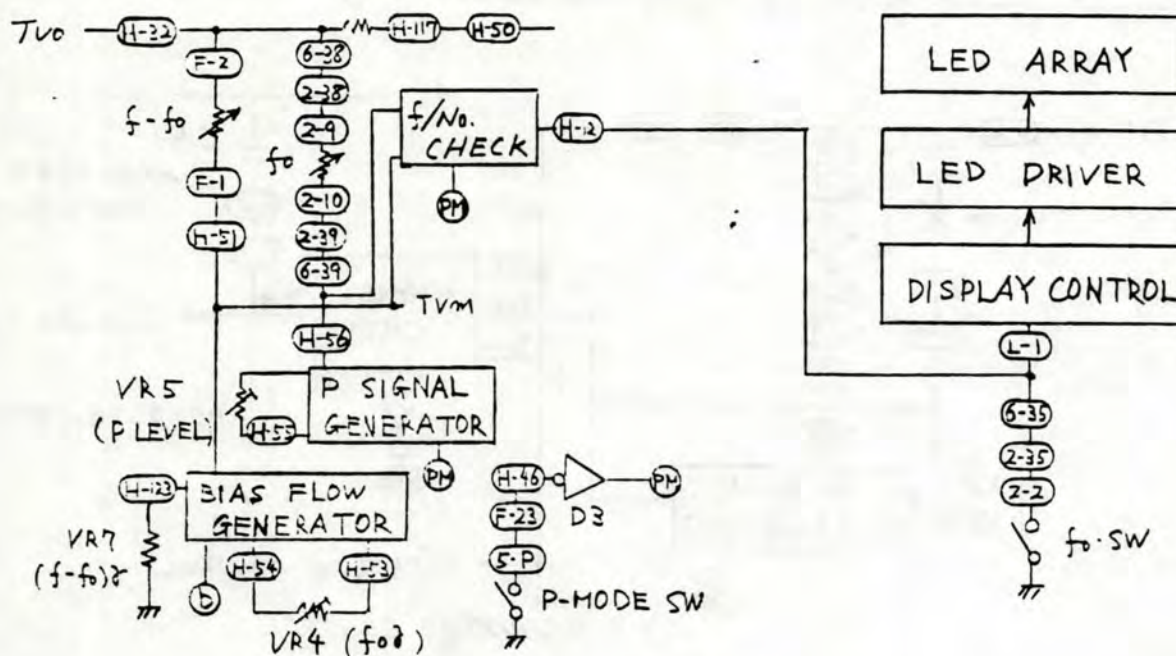
(4) BACK LIGHT BUTTON

Depressing the switch (BL.SW) sets the resistor (RBL) in series with the resistor (ASA) and thus the voltage (V_{ASA}) is increased by approx. 36mV. This increase is doubled by the amplifier (A4) and will be added to the voltage (V3). It gives an exposure compensation of +2EV.

(5) SIGNAL (b) (BIAS CUTTER)

The signal (b) cancels the operation of the amplifiers A3, A5 and A6 either when the shutter magnet is kept ON during shutter release or when the signal (ready) is ON.

(3) BLOCK DIAGRAM OF f/NO CHECK/BIAS GENERATOR



(1) BIAS CURRENT GENERATOR

The resistance of the resistor $(f-f_0)$ will shift by $0.9\text{ k}\Omega$ per one f/stop value (ΔV). The variable resistor $VR7 [(f-f_0)\gamma]$ is used to adjust the current flow (BIAS) to the resistor $(f-f_0)$ so that its resistance shift ($0.9\text{ k}\Omega/\Delta V$) may provide the voltage shift of $36\text{ mV}/\Delta V$.

The resistance of the resistor (f_0) will shift by $0.9\text{ k}\Omega$ per one f/stop difference of the maximum aperture of the lens used. The variable resistor $VR4 (f_0\gamma)$ is used to adjust the current flow (BIAS) to the resistor (f_0) so that its resistance shift ($0.9\text{ k}\Omega/\Delta V$) may provide the voltage shift of $36\text{ mV}/\Delta V$.

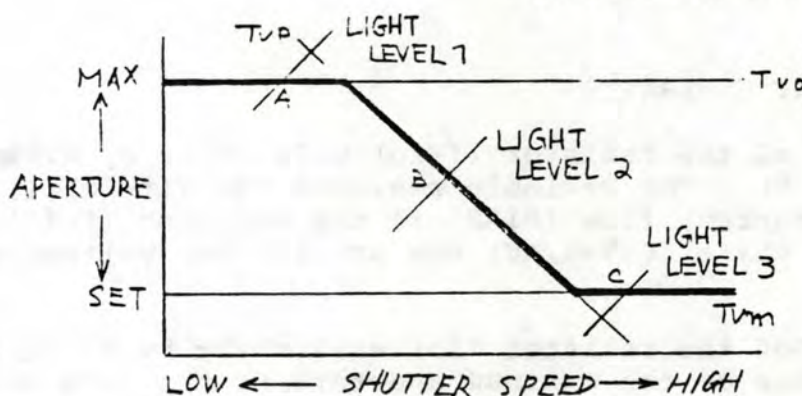
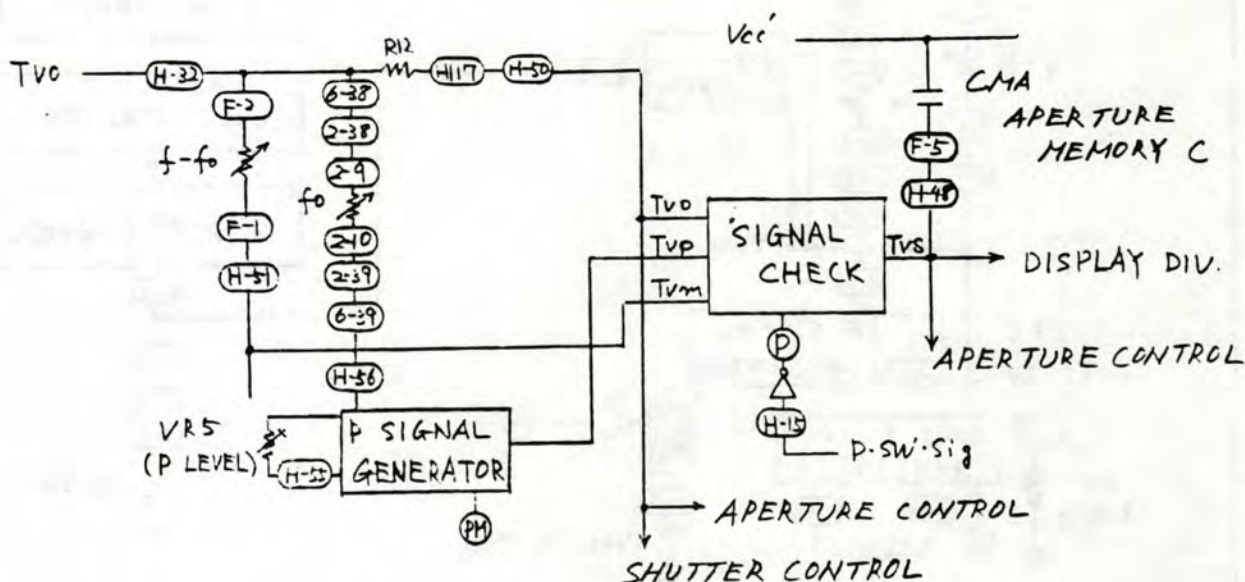
(2) RESISTOR $f-f_0$

The resistance of the resistor $(f-f_0)$ will be shifted in response to the f/stop value set by the aperture ring of lens. It is 0Ω when the maximum aperture is selected, and will be increased by $0.9\text{ k}\Omega$ whenever the aperture ring is turned to the smaller aperture. This rate of the resistance shift is replaced with the voltage shift of $36\text{ mV}/\Delta V$; the reference voltage (T_{vo}) will be decreased by 36 mV (T_{vm}) whenever the smaller aperture is selected.

(3) RESISTOR f_0

The resistance of the resistor (f_0) is set by the maximum aperture of the lens mounted that should be checked by the coupling of the f_0 levers. It is 0Ω at $f/11$ and will be increased by $0.9\text{ k}\Omega$ whenever the larger aperture is selected. This shift determines the voltage (V_{f_0}) against the reference voltage (T_{vo}).

(4) BLOCK DIAGRAM OF P SIGNAL GENERATOR/SIGNAL CHECK



(1) P SIGNAL GENERATOR

The signal (Tvo) is put into the P SIGNAL GENERATOR through the resistor (fo). The P SIGNAL GENERATOR will provide the signal (Tvp) along the programmed line in response to the level of the input voltage (Tvo). The variable resistor (VR5) is used to adjust the voltage level of the signal (Tvp) so that the correct shutter speed can be delivered on the programmed mode.

(2) SIGNAL CHECK

The section (SIGNAL CHECK) receives the three signals Tvo, Tvp, Tvm and selects one of them as the output signal (Tvs), using the following logics:

LOGIC 1 $Tvp \geq Tvo > Tvm \longrightarrow Tvs = Tvo$

LOGIC 2 $Tvo > Tvp > Tvm \longrightarrow Tvs = Tvp$

LOGIC 3 $Tvo > Tvm \geq Tvp \longrightarrow Tvs = Tvm$

LOGIC 1

The signal (Tvp) requires the larger aperture value than the maximum aperture. Thus, instead, the slower shutter speed should be selected at the crosspoint (A) of the brightness with the signal (Tvo), with holding the aperture fully open.

LOGIC 2

The adequate aperture opening is selected at the crosspoint (B) of the brightness with the signal (Tvp); with controlling the shutter delivery at any intermediate speed.

LOGIC 3

The signal (Tvp) requires the smaller aperture value than the minimum aperture. Thus, instead, the faster shutter speed should be selected at the crosspoint (C) of the brightness with the signal (Tvm), with stopping the aperture fully down.

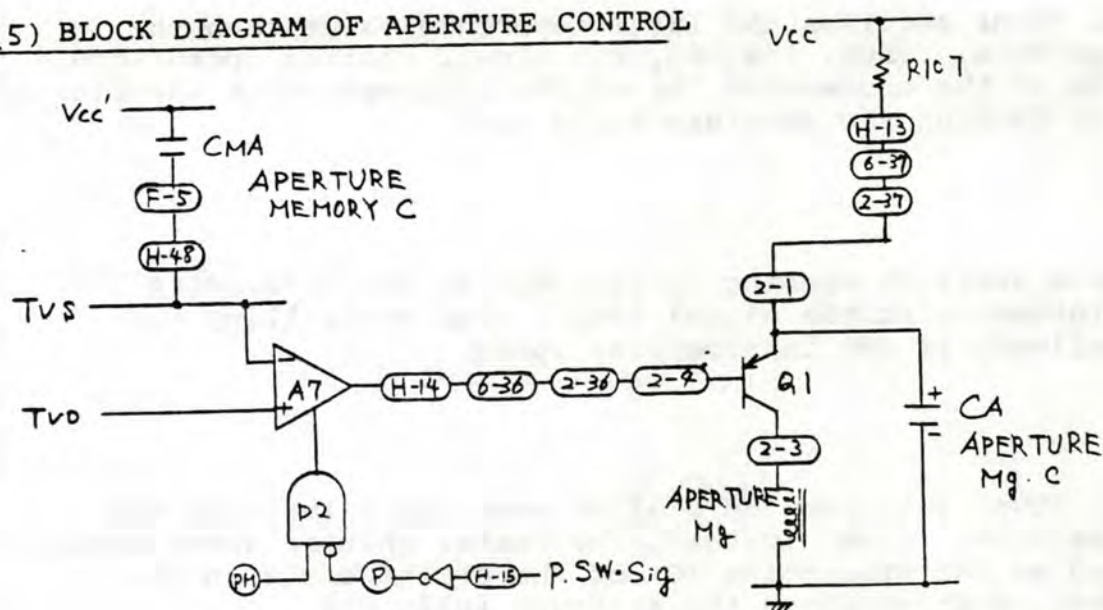
(3) SIGNAL CHECK ON AUTO/MANUAL MODES

The switch (P.SW) stays OFF when either the AUTO or MANUAL mode is selected. Then the signal (PM) is LOW and the P SIGNAL GENERATOR will not operate. At that time, the section (SIGNAL CHECK) will offer the logic: $Tvo > Tvm > Tvp \rightarrow Tvs = Tvm$. The adequate shutter speed is selected, with stopping the aperture down to the f/number manually set.

(4) APERTURE MEMORY

When the shutter is released, the signal (P.SW.Sig.) becomes HIGH and the signal (Ⓟ) turns LOW. This condition stops the function of the SIGNAL CHECK. So the condensor (CMA) holds the output voltage (Tvs) that was made before the shutter release.

(5) BLOCK DIAGRAM OF APERTURE CONTROL



(1) APERTURE CONTROL

This device will operate only when the shutter is released on the programmed mode; i.e. the signals (PM and P.SW.Sig.) are HIGH, but the signal (P) is LOW. The light level (2) should be taken for an example to illustrate the operation.

Shutter release allows the signal (Tvs) to be memorized at the condensor (CMA), before the aperture lever moves down. But when the aperture is stopped down, the SPD will sense less light and the lever of the signal (Tvo) will be lower accordingly. As soon as the level of the signal (Tvo) becomes equivalent to that of the signal (Tvs), the output of the comparator (A7) turns LOW to switch the transistor (Q1) on. Then the current charged at the condensor (CA) flows to the coil of the aperture control magnet and it turns off to hold the aperture lever.

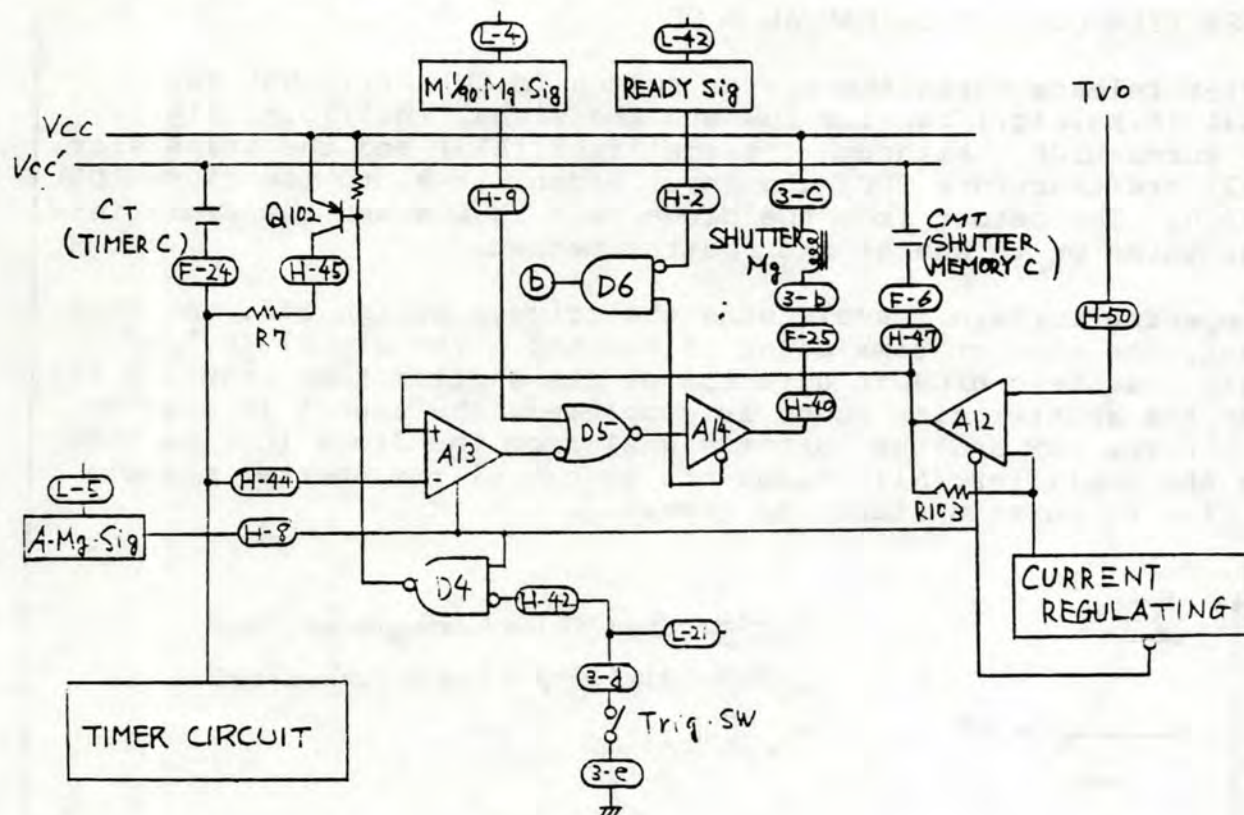
* The light level can be referred to the program chart on p. 8.

LIGHT LEVEL	BEFORE RELEASE	AFTER RELEASE	APERTURE	SHUTTER SPEED
(1)	$T_{vo} = T_{vs}$		FULL OPEN	T_{vo}
(2)		$T_{vo} \rightarrow T_{vs}$	STOP DOWN	T_{vs}
(3)	$T_{vm} = T_{vs}$	$T_{vo} \rightarrow T_{vm}(=T_{vs})$	FULL STOP	T_{vm}

(2) CHARGE OF APERTURE CONTROL MAGNET CONDENSOR

The condensor (CA) is always charged regardless of the shutter control mode selection, and its re-charging starts when the signal (P.SW.Sig.) is LOW.

(6) BLOCK DIAGRAM OF SHUTTER CONTROL



(1) SHUTTER CONTROL ON PROGRAMMED/AUTO MODES

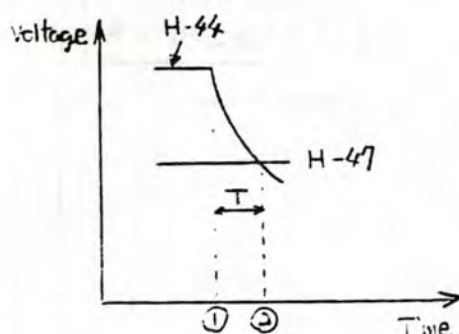
The signal (Tvo) is put into the amplifier (Al2) after the aperture is stopped down. Shutter release turns the mirror switch (M.SW) off just before mirror rise and the both signals (A.Mg.Sig.) and (M.l/90.Mg.Sig.) become HIGH. Then the amplifier (Al2) is switched off to memorize the signal (Tvo) at the shutter memory condensor (CMT), but the comparator (Al3) is simultaneously switched on — the signal (Tvo) is put into the terminal (+) and the voltage [H-44] amplified by the transistor (Ql02) into the terminal (-), thus the output signal should be LOW. At the diode (D5), as the signal from the comparator (Al3) is LOW and the signal (M.l/90.Mg.Sig.) is HIGH, the output signal should be also LOW. So the amplifier (Al4) turns on to charge the shutter magnet.

The opening curtain travel turns the trigger switch off. The output signal from the diode (D4) is HIGH and the transistor (Q102) is turned off. Then the timer condensor (C_T) begins to be charged. The voltage [H-44] will be lower. Exactly when the voltage [H-44] is crossed with the voltage of the shutter memory condensor (C_{MT}), the comparator (A13) turns HIGH. The diode (D5) accordingly turns HIGH — the signal (M.1/90.Mg.Sig.) has been LOW since the opening of the trigger switch. The amplifier (A14) turns off to cancel the shutter magnet. The closing curtain starts to travel.

(2) SHUTTER CONTROL ON MANUAL MODE

Shutter release turns the mirror switch (M.SW) off. But the signal (A.Mg.Sig.) remains LOW and the signal (M.1/90.Mg.Sig.) only turns HIGH. Although the amplifier (A13) and the transistor (Q102) are therefore OFF, the input signal [H-9] to the diode (D5) is HIGH. The output from the diode (D5) is LOW and the amplifier (A14) turns on to charge the shutter magnet.

The opening curtain travel turns the trigger switch off. At that moment, the shutter time count is started. The signal (M.1/90.Mg.Sig.) is held HIGH in duration of the shutter time manually set. After the shutter time count is completed, the signal (M.1/90.Mg.Sig.) turns LOW and the output signal from the diode (D5) is HIGH. Then the amplifier (A14) turns off to cancel the shutter magnet. The closing curtain starts to travel.

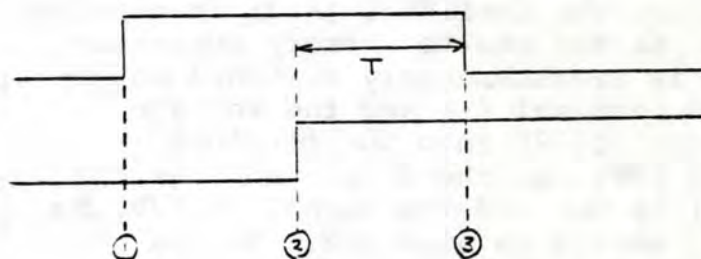


① Trigger Sw (OFF) = Opening curtain travel

② Shutter Mg (OFF) = Closing curtain travel

T: Shutter time

PROGRAMMED/AUTO MODE



MANUAL MODE

① Mirror SW (OFF)

② Trigger SW (OFF)

Opening curtain travel

Shutter time count start

③ Signal (M.1/90.Mg.L)

Shutter time count complete

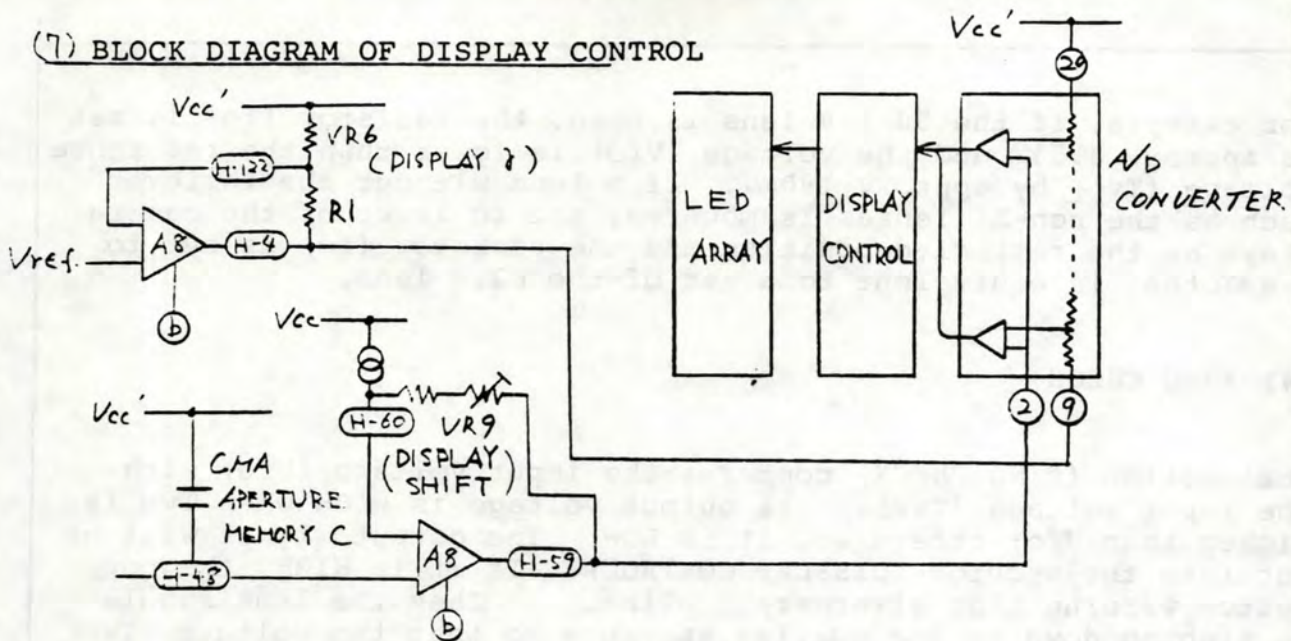
Closing curtain travel

T: Shutter time

(3) SIGNAL (b)

On the programmed and auto modes, the signal (b) is LOW while the output signal from the comparator (A13) is LOW. On the manual mode, the signal (b) is LOW while the signal (M.1/90.Mg.Sig.) is HIGH. The signal (READY) is LOW in the both conditions.

(7) BLOCK DIAGRAM OF DISPLAY CONTROL



(1) DISPLAY γ

The variable resistor (VR6) is used to adjust the current flow (Display γ) (=the amperage of the resistor ladder) that will provide the AD converter in the IC (T^3L) with the reference voltage. The shifting rate of the reference voltage should be equivalent to that of the signal (Tvs) determined by the current flow (Auto γ).

(2) DISPLAY SHIFT

The variable resistor (VR9) is used to adjust the voltage (Display shift) and determine the voltage added to the signal (Tvs). The AD converter should drive the shutter speed display in accordance with the actual shutter speed checked by the voltage (Auto level).

(3) LED

The LEDs turn off as soon as shutter release closes the switch (P.SW), and turn on in 62.5 - 125ms after mirror down opens the switch.

For example, if the 50/1.8 lens is used, the resistor (fo) is set to approx. 4.5 k Ω and the voltage (Vfo) is lower than the reference voltage (Tvo) by approx. 180mV. If a lens without the fo lever such as the non-AI lenses is mounted, the fo lever of the camera stays at the retracted position and the resistor (fo) is set to 3.6 k Ω that is equivalent to a set of the F2.8 lens.

(4) f/NO CHECK

The section (f/NO CHECK) compares the input voltage (Vfo) with the input voltage (Tvm). Its output voltage is HIGH when Tvm is higher than Vfo; otherwise, it is LOW. The output signal will be put into the section (DISPLAY CONTROL). If it is HIGH, the top/bottom warning LEDs alternately blink. Then the lens should be stopped down to the smaller aperture so that the voltage (Tvm) may be lowered. This function is to be initiated when the aperture of the 50/1.8S standard lens is moved by 1/6 f/stop from f/11 to f/8. Adjustments can be made by the variable resistor VR4 (fo $\bar{J}$).

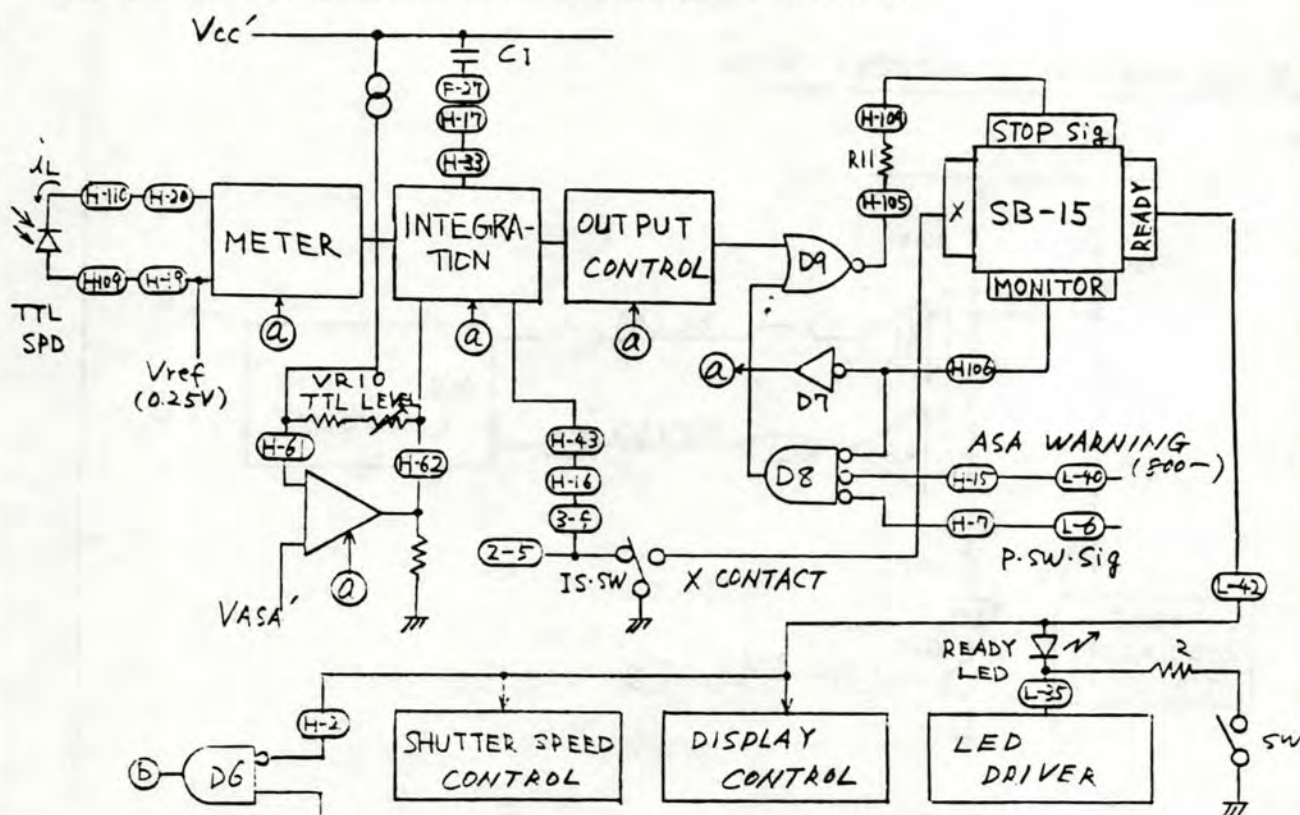
(5) fo SW

The switch (fo SW) remains ON while the fo lever of the camera is at the retracted position; i.e. while a lens without the fo lever such as the non-AI lenses is mounted. If the switch (fo SW) is ON, the input signal to the DISPLAY CONTROL stays LOW and the top/bottom LEDs will not blink regardless of aperture set.

(6) P.SW

The switch (P.SW) turns on with setting the shutter dial to "P". It provides the signal (PM) for the f/NO CHECK and the P SIGNAL GENERATOR that should operate only on the programmed mode.

(8) BLOCK DIAGRAM OF TTL FLASH OUTPUT CONTROL



(1) SHUTTER SPEED SET/READY-LIGHT

Switching on the speedlight SB-15 of the TTL mode set makes the signal (MONITOR) LOW. The diode (D7) inverts the signal (MONITOR) HIGH. This signal (a) initiates the circuit operation for the TTL metering, integration, flash output control, and the amplifier (A10).

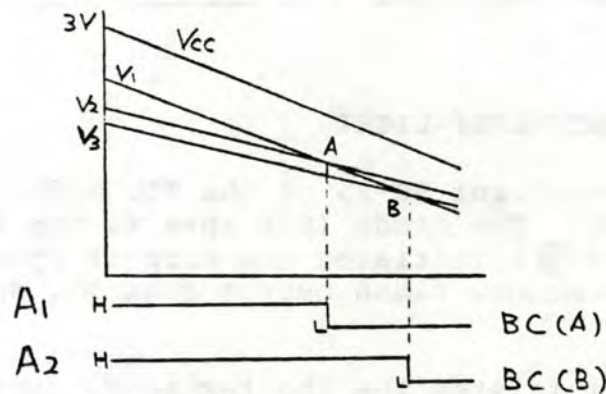
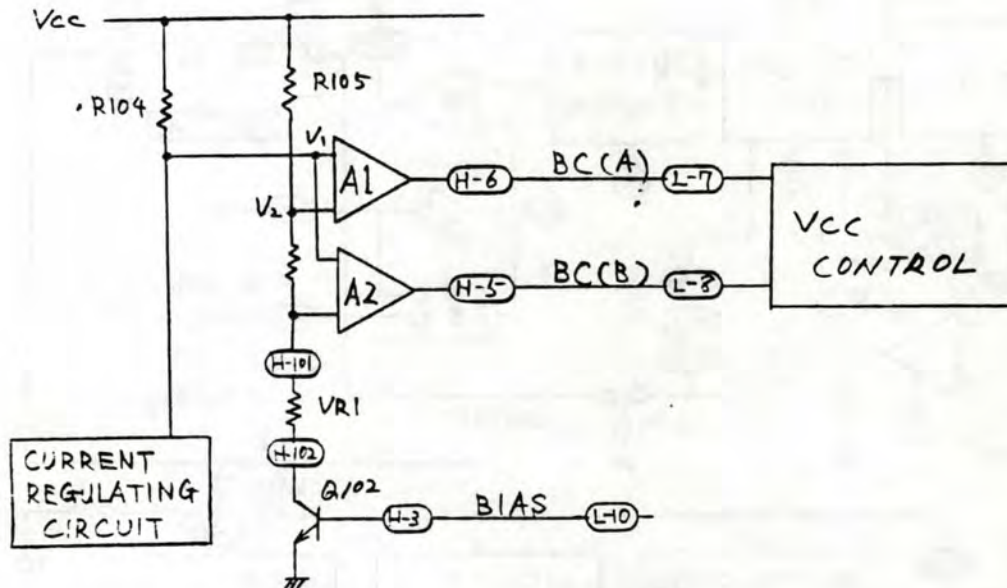
The signal (READY) initiates the shutter speed control and display control; the shutter speed is automatically set to 1/90 sec. and the LEDs 60 and 125 on the display panel will light up, unless shutter speeds of 1/60 - 1 sec. are manually selected. The signal (READY) is put into the diode (D6) and the signal (b) turns LOW to cancel the operation of the normal metering circuit.

As soon as the ready-light of the SB-15 lights up, that of the camera should be turned on. If shutter speeds of M90 and Bulb are selected, the whole TTL control circuit will not be in operation. Instead, the switch (R.SW) will be closed only to turn the ready-light on.

TTL METERING CIRCUIT

Shutter release turns the X contact on and the SB-15 begins to fire. The light travels out to the subject and is reflected back through the lens to the film plane and even to the SPD (TTL) located in the mirror cage. The SPD (TTL) generates the current flow (IL) in response to the light intensity. The TTL metering circuit will provide the voltage adequate to the amount of the

(9) BLOCK DIAGRAM OF BATTERY CHECK



Decrease of the power supply voltage (V_{cc}) allows the voltages (V_1), (V_2) and (V_3) to go down accordingly. When the voltage (V_1) becomes equivalent to (V_2) at the point (A), the output voltage BC(A) of the amplifier (A1) turns LOW. In the same manner, the output voltage BC(B) turns LOW when the voltage (V_2) is crossed with (V_3). The power supply voltage (V_{cc}) can be related to the LED lighting, meter hold and shutter speed delivery as follows:

V_{cc}	V_1, V_2, V_3	BC(A)	BC(B)	LED	METER HOLD	SHUTTER
3V ~ 2.45V	$V_1 > V_2 > V_3$	H	H	ON	16 sec.	Normal
2.45 ~ 2.35V	$V_2 > V_1 > V_3$	L	H	ON	0 sec.	Normal
2.35V ~	$V_2 > V_3 > V_1$	L	L	OFF	—	Locked

The relations have been fixed in the circuitry itself and can't be adjusted. For a test, set the voltage (V_{cc}) at 2.51V to see if the meter hold is in duration 16 sec. Then change it to 2.29V and release the shutter can be delivered normally even if the meter hold does not work.

current flow ($\dot{I}_L$) and put it into the integration circuit.

INTEGRATION CIRCUIT

The switch (IS.SW) is closed to raise the voltage [H-33] of the integration condensor (CI) up to the level of V_{cc} before shutter release. Shutter release turns the switch (IS.SW) off to charge the condensor (CI) and the voltage [H-33] will be lower. The velocity of the voltage [H-33] lowering is determined by the level of the input voltage from the TTL metering circuit and the amplifier (A10). The more the light is sensed, the higher the output voltage of the metering circuit becomes. Thus the more the voltage [H-33] goes down quickly. Also the higher ASA setting allows the voltage [H-33] to be lower quickly. This shift of the voltage is put into the flash output control circuit.

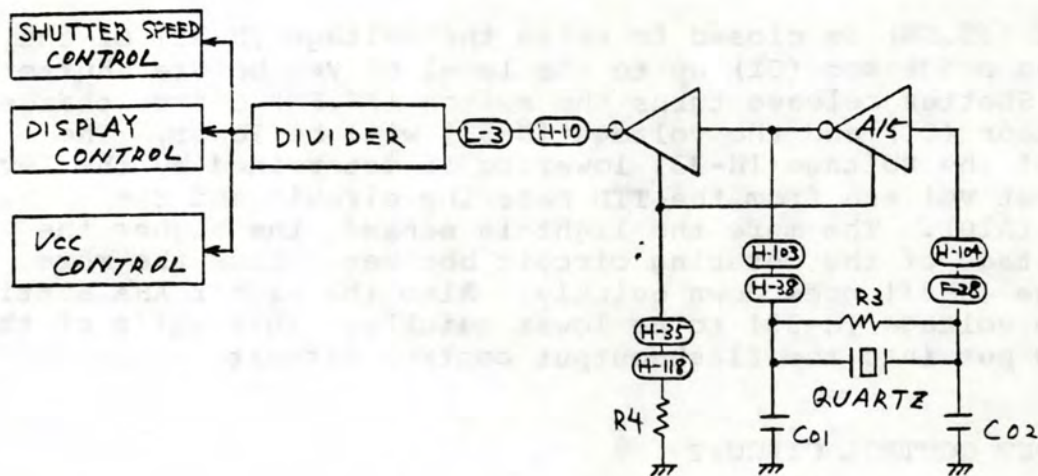
FLASH OUTPUT CONTROL CIRCUIT

The flash output control circuit holds the reference voltage and will compare it with the input voltage from the integration circuit. The output signal of this circuit is LOW before shutter release. But firing the SB-15 will lower the output voltage of the integration circuit. When the output is crossed with the reference voltage, the output signal of the flash output control circuit will turn HIGH. Then the output signal of the diode (D9) becomes LOW. This is the stop signal for firing. It is several microseconds to several milliseconds from the firing start to the delivery of the stop signal.

ASA SET ERROR WARNING

Setting the ASA dial to 800 or more makes the input signals (MONITOR), (P.SW.Sig.) and (ASA WARNING) to the diode (D8) LOW. The output signal of the diode (D8) is HIGH and that of the diode (D9) is LOW. So the stop signal is kept provided to the SB-15. Then the speedlight will put the signal back to the camera so that the ready-light may blink for a warning on the ASA set error.

(C) BLOCK DIAGRAM OF OSCILLATION CIRCUIT

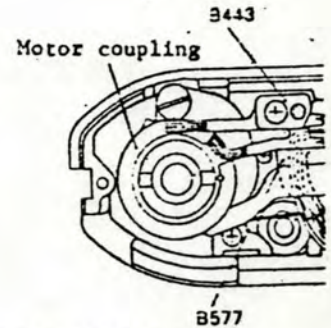


The oscillation circuit is always in operation when the batteries are installed. The checking lands [H-108], [H-38], [H-104] and [F-28] will show the wave form (~~~~~)(32.768KHz).

The circuit provides the clock pulse (□□□□)(32.768KHz) as the reference signal for the digital circuit when the meter is held ON.

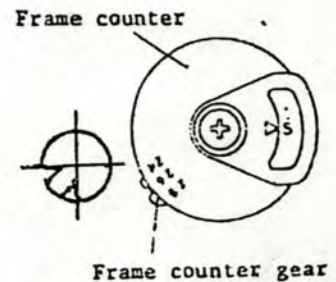
1. Install motor coupling in right position as shown in Figure 1 and mount auto tool J152222.
2. Put the counter gear in the position as shown in Figure 2.
3. Put T change over click as bulb position and engage bulb lever with click as shown in Figure 3.
4. Turn film-advance lever until sprocket stopper lever is engaged with cut out of sprocket stopper.
5. Put release axle in the position that can go on the top of shutter release brocket B522.
6. Install sprocket shaft with scribed line in the middle of mech. release lever.
7. Put sprocket in the body of camera and install film-advance and counter assembly. Lock assembly with one screw.
8. Remove body from the tool J15222 and winding up film advance lever make adjustment for film-advance unit until all pieces fall in place. Put remaining screws on.
9. After, put AR shaft with spring in the sprocket. Adjust the sprocket in the right position and tight the screw.

Figure 1



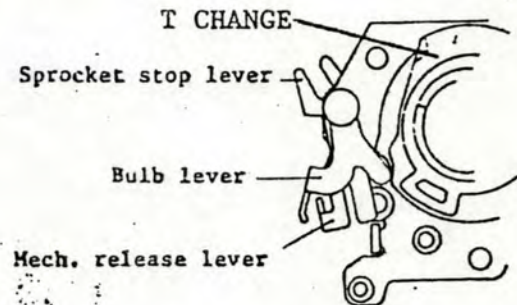
Body; bottom view

Figure 2



Frame counter; top view

Figure 3

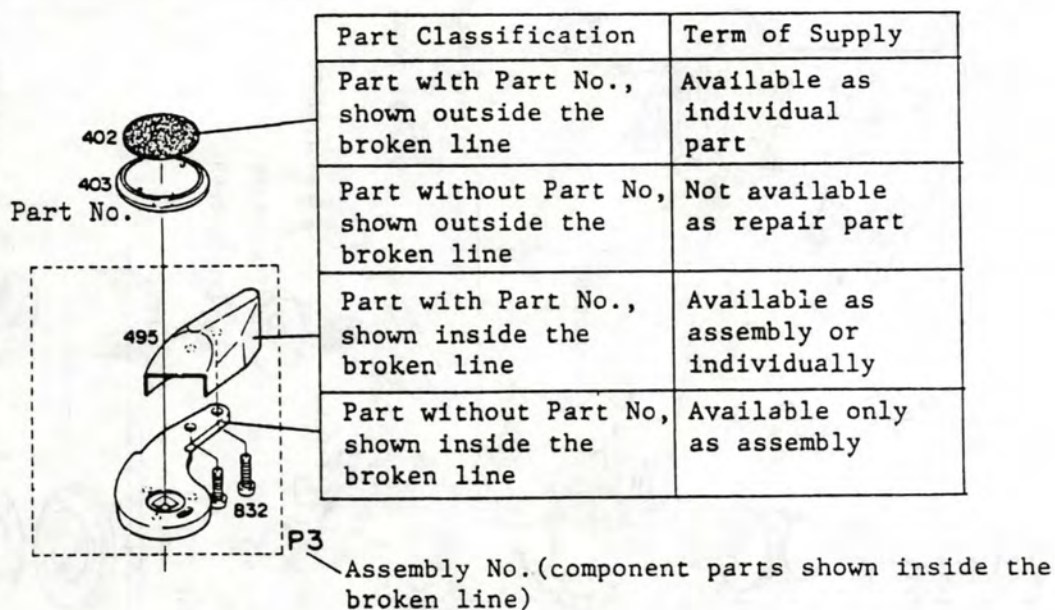


Film-advance mech. unit;
top view

Nikon FG

MODEL PREFIX CODE (FAA15001)

How to use explosion drawings:



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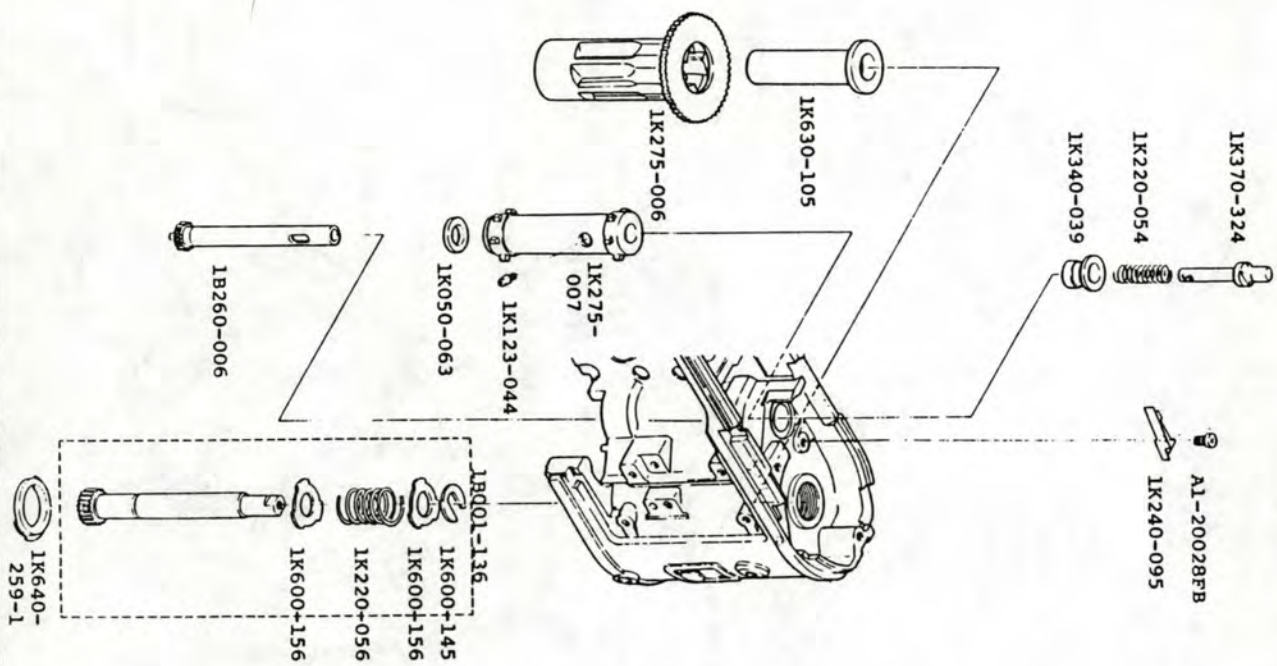


Fig. 3

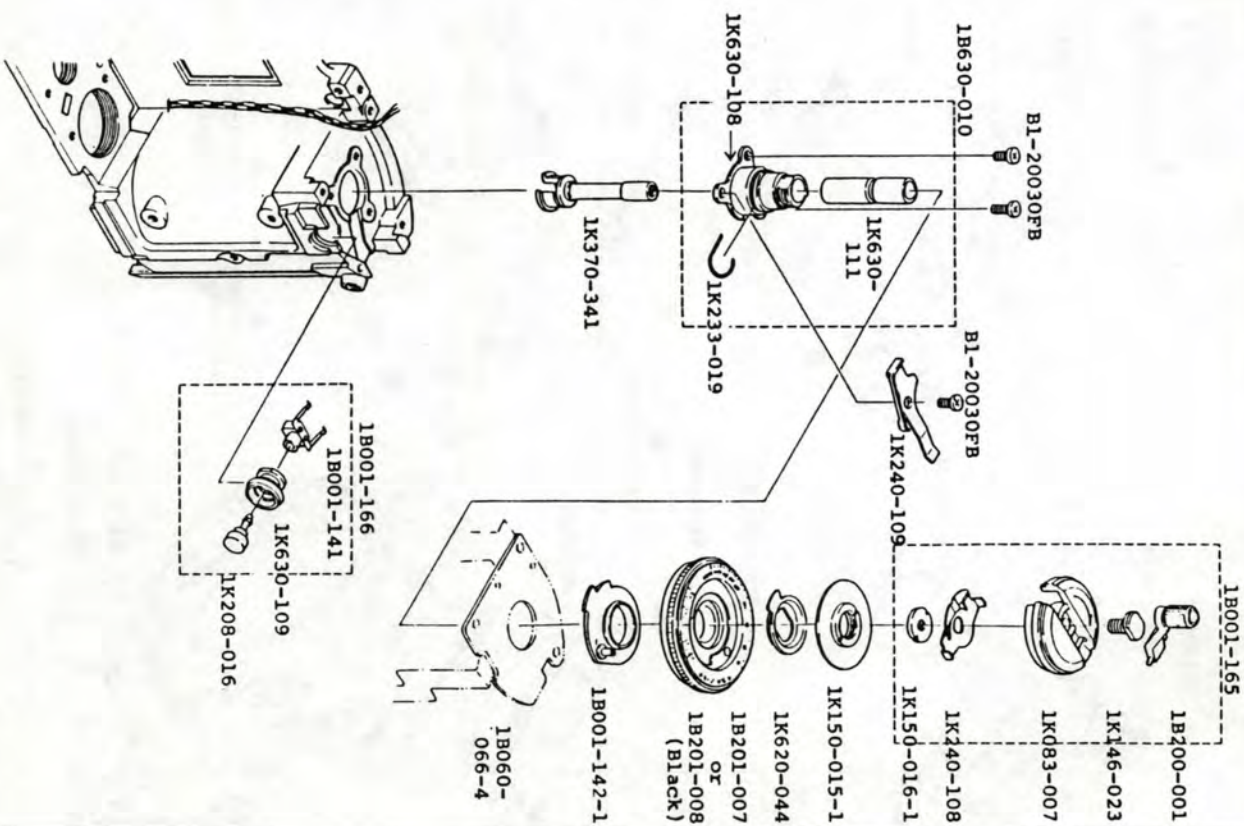


Fig. 4



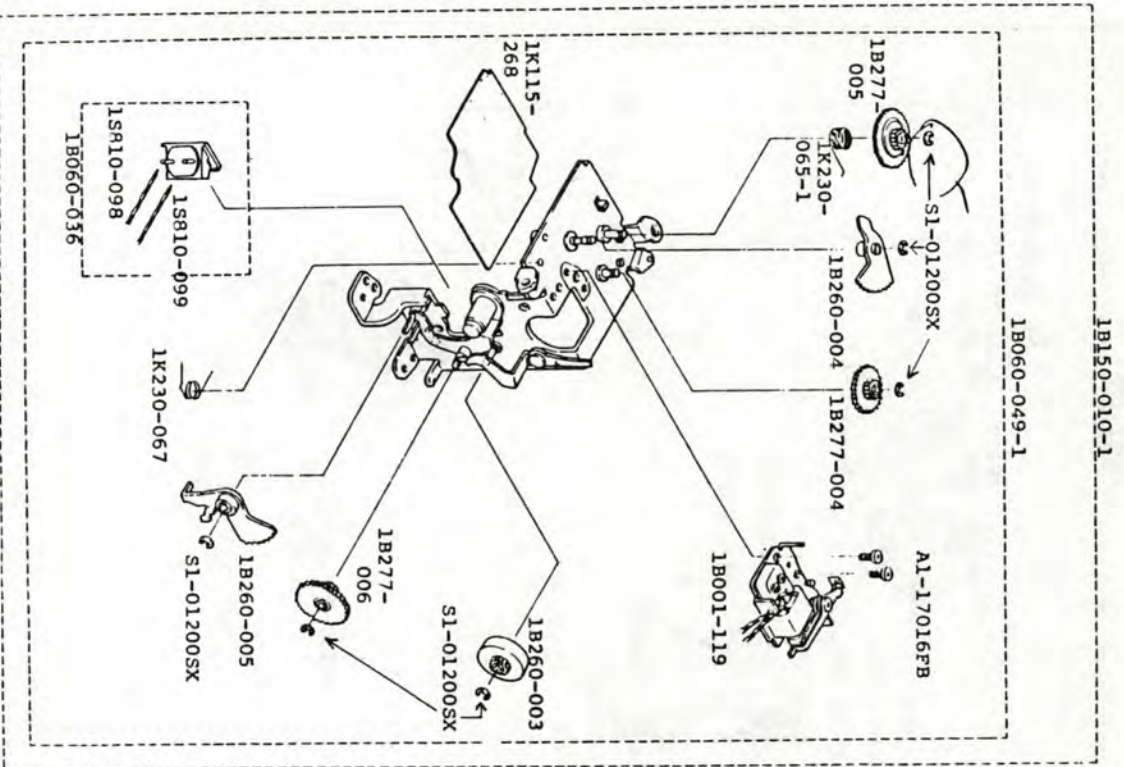


Fig. 9

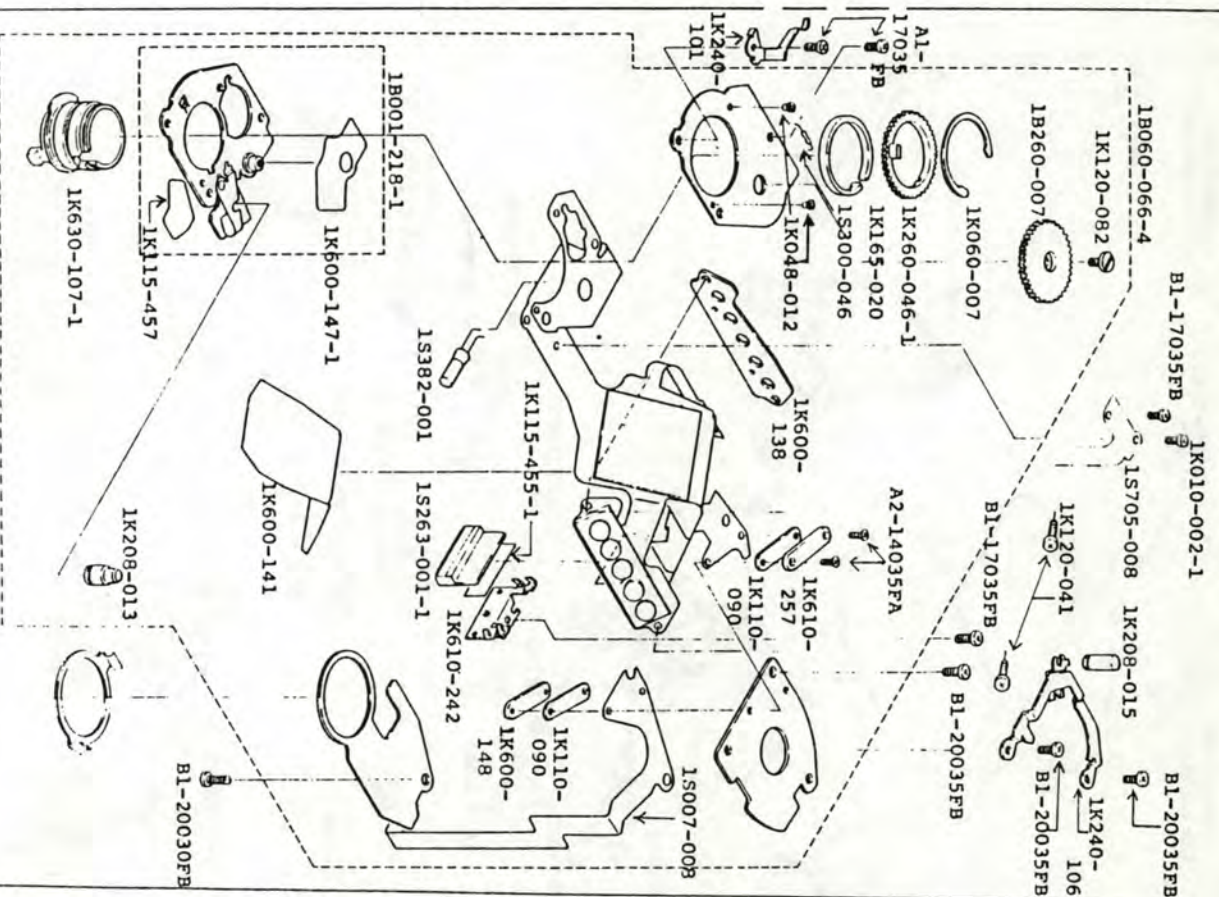


Fig. 10



-111-



