

**FM2**

**FAA14001**

**FM2n**

**FAA14002**

**FM2/T**

**FAA14132**

REPAIR MANUAL



**NIPPON KOGAKU K.K.**

Tokyo, Japan

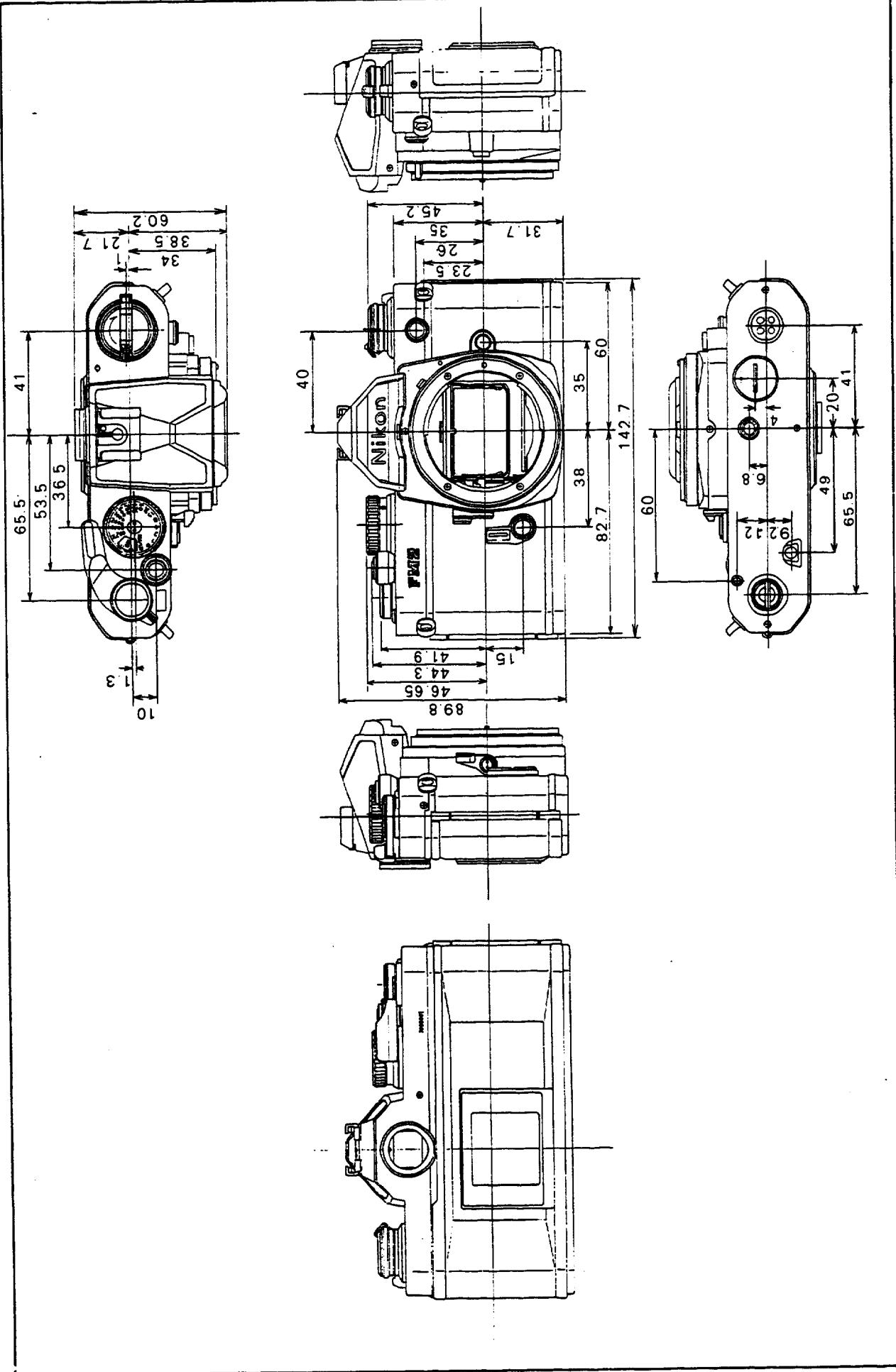
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SPECIFICATIONS & MECHANISM

Contents	Page
[1] FIGURE OF EXTERNAL .....	M1
[2] SPECIFICATIONS .....	M2
[3] MECHANISM OUTLINE	
1. Meter Coupling System .....	M4
2. Mirror Box Mecanism .....	M6

[1] 外観図 Figure of External

FAA14001-R.3110.A



[2] SPECIFICATIONS

Type of camera: 35mm single-lens reflex

Film: 35mm film

Picture format: 24mm x 36mm

Lens mount: Nikon bayonet mount

Lenses: Nikkor 50mm f/1.2, 50mm f/1.4 or 50mm f/1.8 as standard

Shutter: Vertically traveling metal focal-plane shutter; shutter speeds from 1 sec. to 1/4000 sec., including "B" and "X" (1/200 sec.)

Self-timer: 8 sec. - 14 sec. delayed exposure

Viewfinder: Eyelevel pentaprism type; 93% frame coverage

Focusing screen: Type K as standard; interchangeable with B and E type; clip-on type installation

Viewfinder display: Three LEDs display five exposure gradations; shutter speed in use; aperture in use shown through ADR window

Automatic Maximum Aperture Indexing: Provided

Reflex mirror: Automatic instant-return type

Depth-of-field preview lever: Provided

Film-advance lever: Wound in single stroke; 30° stand-off angle and 135° winding angle

Batteries: Two 1.5V silver-oxide button type cells or 3.0V lithium cell; LEDs viewfinder display doubles as battery checker

Motor drive usable: MD-11/12

Multiple exposure lever: Provided

Frame counter: Additive type; automatically reset when camera back is opened

Film rewind: By crank after film rewind button is depressed

Exposure metering: Through-the-lens center-weighted metering; two silicon Photo Diodes(SPD) incorporated

Metering range: EV1 to EV18 (with 50mm f/1.4 lens and ASA 100 film)

Film-speed setting: ASA 12 to ASA 6400

Shutter release button: Switches meter on when depressed halfway; meter then remains on for approx. 30 sec. after finger is taken off button

Flash synchronization: Speeds up to 1/200 sec.

Accessory shoe: Provided; ready-light contact incorporated

LED ready-light: Glows when SB-10 or SB-E is recycled; warns out-of-synchronization shutter speeds

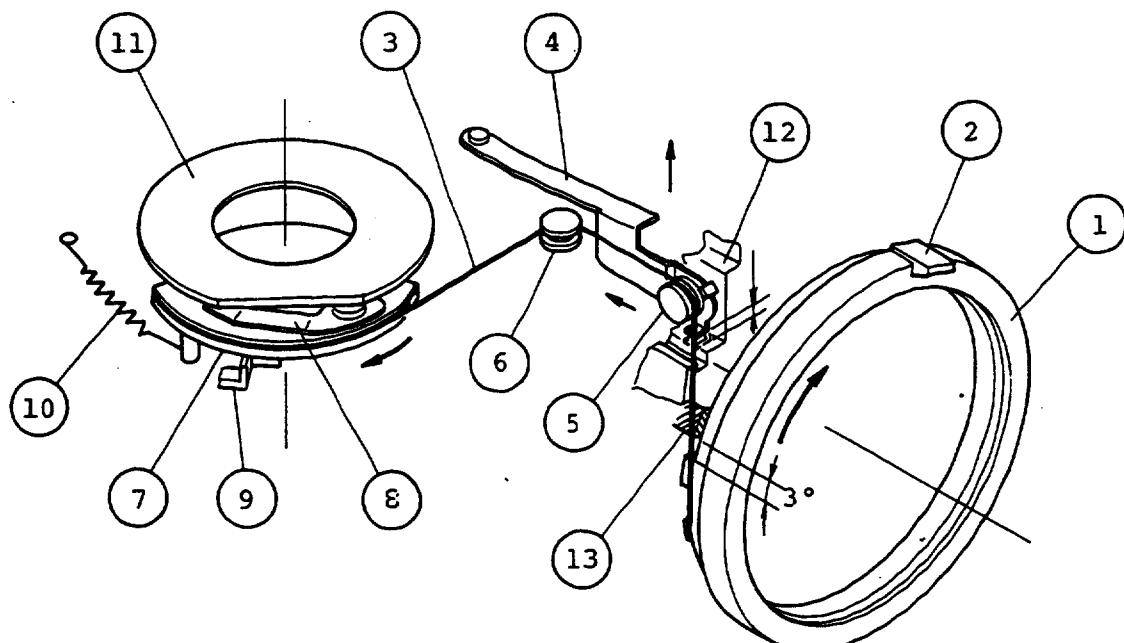
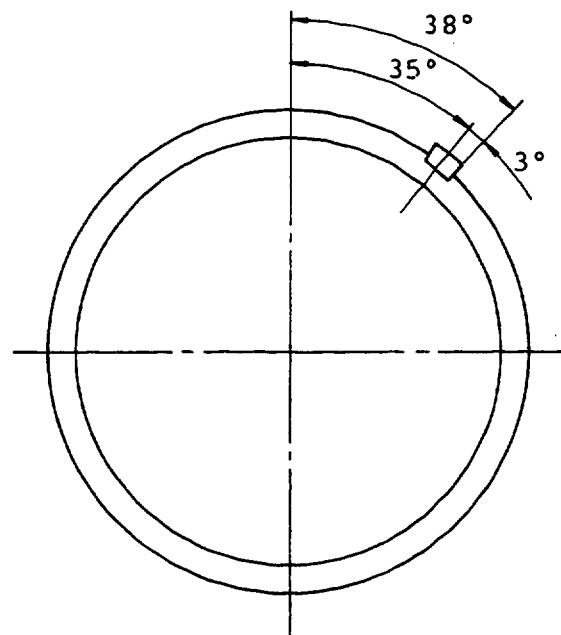
Camera back: Hinged; interchangeable type; opened by pushing safety lock while pulling up rewind knob; memo holder provided

Dimensions: Approx. 89.7(H) x 142.3 (W) x 60.2mm(D)

Weight: Approx. 590g (without lens)

[3] MECHANISM OUTLINE1. METER COUPLING SYSTEM

The meter coupling system is provided with the automatic maximum aperture indexing, which has been introduced into the earlier models such as Nikon FM and FE etc. But the meter coupling lever is not retractable for mounting the non-AI Nikkor lenses.



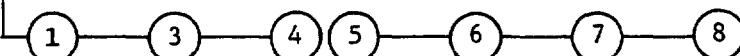
When mounting the lens onto camera body, the meter coupling ridge of lens is engaged with Meter coupling lever (2). Meter coupling ring (1) is connected to Pully (7) via String (3), which is loaded with Spring (10). Thus Meter coupling lever (2) is kept being drawn clockwise toward the largest aperture. Pully (7) is incorporated with Brush (8) moving along FRE (11), where the angle of aperture ring is converted, into resistance value in FRE (11). Rotation of Pully (7) comes to the limit when Stopper (9) located on shutter dial base restricts its rotation. The position is equivalent to the angle  $35^\circ$  where Meter coupling lever (2) reverses freely. Roller (5) is kept being drawn to the arrow direction, with Spring (4) of smaller tension than that of Spring (10) loaded. Then, when removing the lens, Meter coupling ring (1) reverses via String (3) tensioned by Spring (10). After Meter coupling lever (2) reverses to the angle of  $35^\circ$ , Pully (7) is stopped against Stopper (9). Thus there is a space gap of angle of  $3^\circ$  between Meter coupling lever (2) and Stopper (13). So the tension of Spring (4) reverses Meter coupling ring (1) further until the space gap of angle of  $3^\circ$  is eliminated.

When replacing the lens, rotation of Meter coupling ring (1) will bend Spring (4) against front plate die-casting. Further rotation allows Pully (7) to move along FRE (11) via String (3) and Rollers (5), (6). It changes resistance value in FRE (11) as mentioned above.

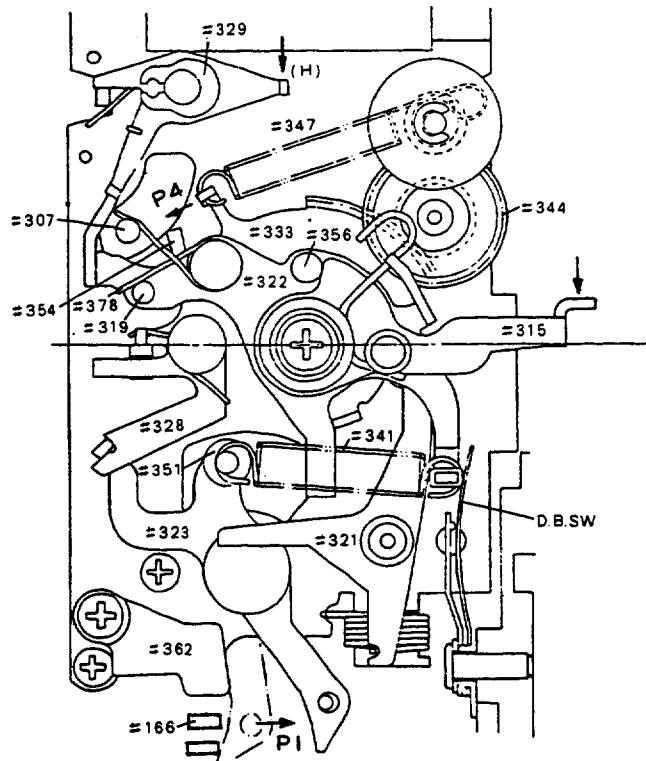
Meter coupling lever (2) is engaged with the meter coupling ridge of lens at the angle of  $37^\circ 30'$  when setting a lens of f/1.4 or f/1.2 to the largest aperture. This angle is reduced to  $35^\circ$  when mounting a lens of slower speeds than f/1.4 in the same sequence as Nikon FM, FE, EM and F3.

#### OPERATION FLOW-CHART

##### LENS APERTURE RING



## 2. MIRROR BOX MECHANISM



## (1) MIRROR CHARGE

Winding film-advance lever pushes Mirror charge lever (#166) toward the arrow (P1) direction. Mirror down spring (#343) and Mirror up spring (#341) are also charged in the same step. Mirror charge lever is cocked by Signal lever (#328).

## (2) MIRROR RELEASE

Depressing shutter release button allows see-saw lever to push Mirror-up stop lever (#329) at the end of (H). Mirror-up stop lever turns clockwise and disengages Mirror-up lever (#322). Mirror-up lever is loaded with Mirror-up spring (#341) and thus turns clockwise. Simultaneously, Aperture lever (#315) secured with

3.1 eccentric axle (#356) turns in accordance with Mirror-up lever. Soon after Mirror-up lever moves, Data back switch is closed. Mirror-up lever pushes Mirror holder pin (#307) to raise reflex mirror to the taking position. When reflex mirror moves up to the position which is 3-7mm from mirror box sponge, Unlatch axle (#319) installed atop Mirror-up lever unlatches Stop lever (#354). Stop lever frees Functional gear (#333) and Functional gear turns clockwise, with actuated by Spring (#347). The other half of functional gear forms a cam which is engaged with Shutter release lever (#321). Then, the rotation of functional gear allows Shutter release lever to turn counterclockwise along the cam section. Shutter release lever releases opening curtain lever of shutter unit. So shutter release is started. The rear section of Functional gear is engaged with Flv wheel (#335) via Idle gear (#344), which slows the rotation of Functional gear and provides a time lag from completion of mirror rising to start of shutter release.

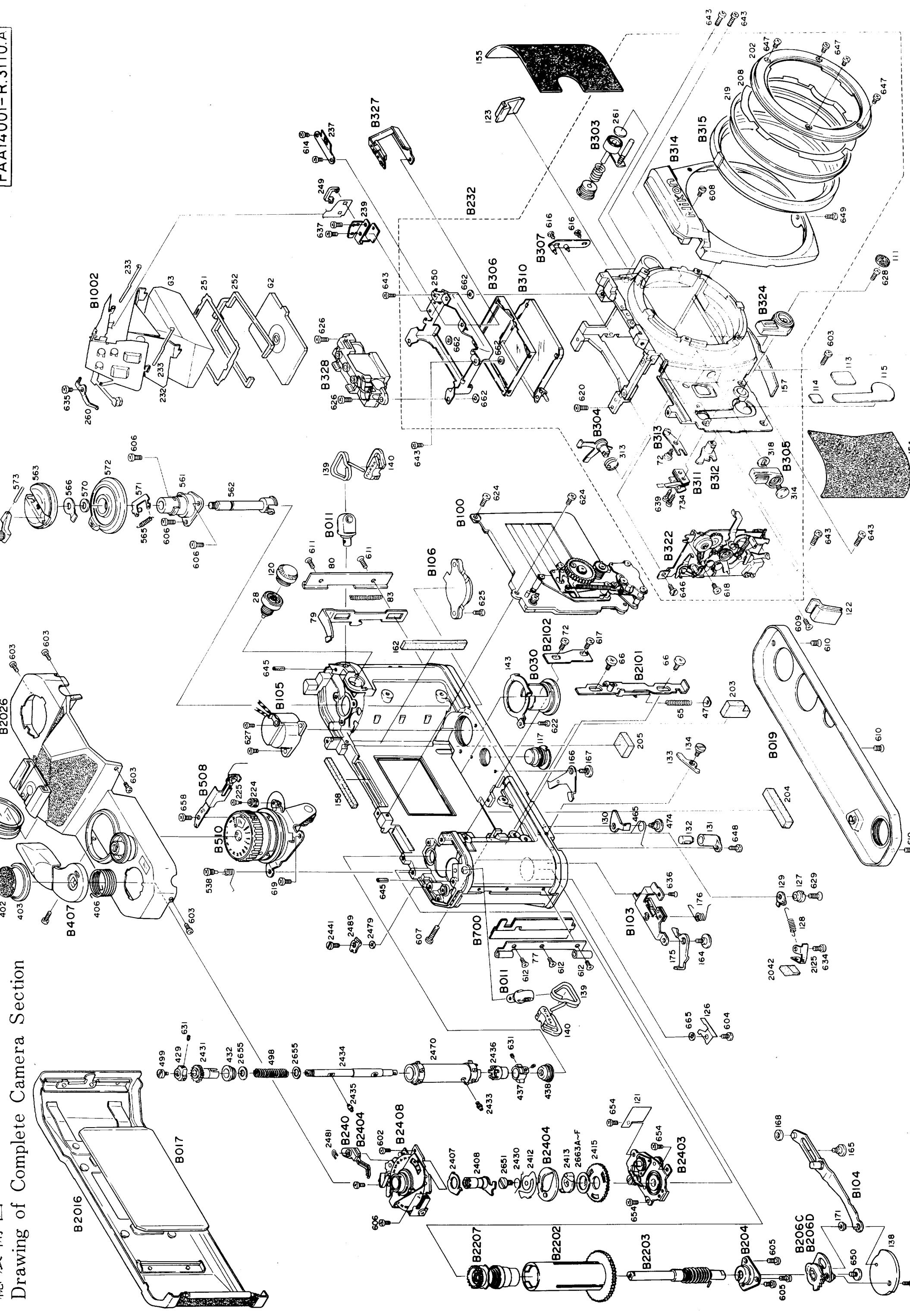
## (3) MIRROR DOWN

Closing curtain lever of shutter unit releases Signal lever (#328) after shutter release is completed. It unlatches Mirror down lever (#323) and the tension of Mirror down spring (#343) actuates Mirror-up lever (#322). Aperture lever (315), Shutter release lever (#321) and Functional gear (#333) to the original positions. Reflex mirror loaded with Spring (#378) moves down to the viewing position. After Mirror down lever (#323) returns completely, Mirror-up lever (#322) and Functional gear (#333) are cocked securely.

EXPLOSION DRAWINGS

Contents	Page
Drawings of Complete Camera Section	
Top Cover .....	F1
Film-advance Lever Unit .....	F3
Film-advance Mechanism Unit .....	F5
Film-advance shaft / Sprocket .....	F7
Shutter Control Unit .....	F9
Rewind .....	F11
Bayonet .....	F13
Pentagonal prism .....	F15
Front Plate (1) .....	F17
Front Plate (2) .....	F19
Body .....	F21
Bottom Cover .....	F23
Camera Back .....	F25
Camera Back Hinge .....	F27

Drawing of Complete Camera Section



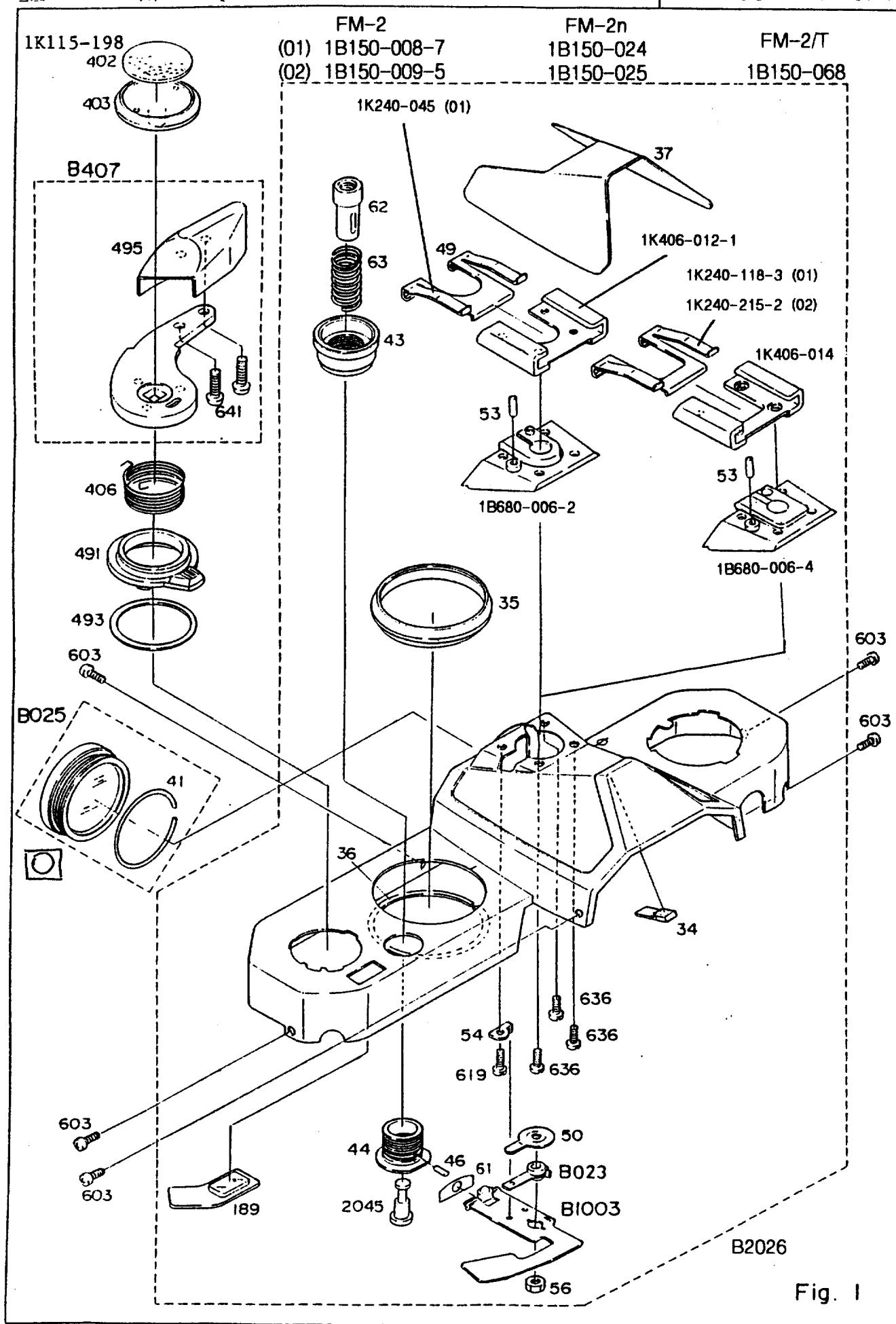


Fig. I

補助番号 Ckt.No.	部品番号 Part No.	名 称 Name	補助番号 Ckt.No.	部品番号 Part No.	名 称 Name
34	1K115-180	グンカン貼付ゴム Rubber, top cover	495	1K680-110	指あて Film-advance lever knob
35	1K640-189-1	飾り環 Cover ring, shutter dial	603A	A1-17030FC	Screw
36	1K248-001	飾り環座金 Washer, cover ring #35	603B	1K001-005	Screw (black)
37	1K115-181	ベンタ皮 Leatherette, top cover	619	B1-17035FA	Screw
41	1K233-014	接眼ガラス押えバネ Eyepiece glass clip	636	B1-17030FA	Screw
43	1K630-080	レリーズ釦飾り環 Release button cover ring	641	1K010-019	巻上レバービス Screw
44	1K640-190	かぶせレリーズ環 Release ring	2045	1K370-363	レリーズ内筒 Release inner tube
46	1K040-001-1	レリーズガイドビス Screw			
48	1K406-012-1	H シュー Hot shoe contact			
49	1K240-045	シューばね Shoe contact spring			
50	1K240-046	押え接点 Upper contact, shoe			
53	1K360-007	押 槌 Switch plunger			
54	1K610-166	アースラグ板 Earth lug plate	B022	1B680-006-1	シュー座モールド Shoe mount mold
56	1K030-001	六角ナット Nut	B023	1B240-003	接点モールド Contact mold
61	1K115-293	LED遮光板 Light-tight, LED	B025	1B100-067-1	接眼窓 Eyepiece ring
62	1K400-077-1	レリーズ釦 Release button	B407	1B206-004	巻上レバー Film-advance lever
63	1K220-036	レリーズボタンバネ Spring, shutter release button	B1003	1S005-002	レディライトプリント板 Circuit board, ready-light
189	1K625-007-1	枚数計窓 Frame counter window	B2026A	1B150-008-7	上 蓋 Top cover
402	1K115-198	巻上レバー用皮 Leatherette, film-advance lever	B2026B	1B150-009-X -5	上 蓋 Top cover (black)
403A	1K146-017	レバー押えネジ Film-advance lever screw			
403B	1K146-018	レバー押えネジ Film-advance lever screw			
406	1K230-039	レバー戻しバネ Spring, film-advance lever reverse			
491	1K206-002	多重撮りツマミ Multi-exposure knob			
493	1K160-181	多重撮りシートB Multi-exposure sheet B			

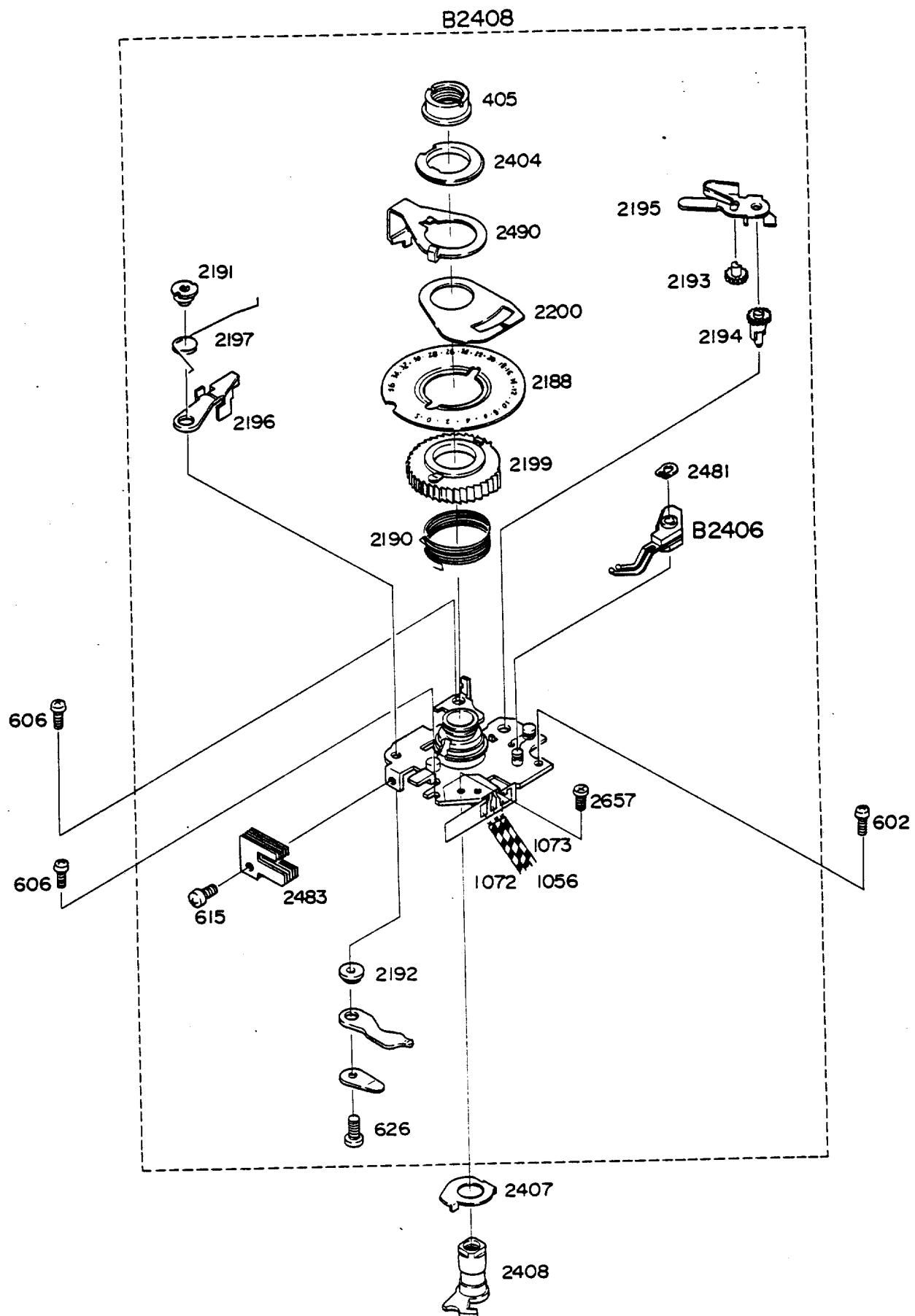


Fig. 2

補助番号 Ckt.No.	部品番号 Part No.	名 称 Name	補助番号 Ckt.No.	部品番号 Part No.	名 称 Name
405	1K150-008	レバー軸ナット Nut, film-advance lever shaft	2483	1K610-275	クリックレバーベネ G-snap ring
602A	A1-17030FA	Screw	2490	1K610-277-1	多重撮り連結レバー Multi-exposure lever
602B	A1-17030FC	Screw (black)	2657	1K001-012	クリックレバービス Screw
606	A1-20030FB	Screw			
615	1K123-051	Screw			
626	B1-20050FA	Screw			
1056	1S810-060	Lead wire (purple)			
1072	1S810-102	Lead wire (red)			
1073	1S810-103	Lead wire (orange)	B2406	1B001-131	上地スイッチ Lever switch
2188	1K470-011	枚数計 Frame-counter dial	B2408	1B060-034-4	上地板 Unit, film-advance lever
2190	1K230-076	カウンターベネ Counter spring	B2408	1B060-167-3	* NEW TYPE Unit, film-advance lever
2191	1K150-017	零戻しレバーナット Nut, frame counter reverse lever			
2192	1K330-007	クリックレバーカラー Click lever collar, unit B2408			
2193	1K260-049	送り爪ギア Advance claw gear			
2194	1K260-050	送り爪レバー Claw spring			
2195	1K610-267-1	送り爪ベネ Advance claw coupling gear			
2196	1K314-105	零戻しレバー Frame counter reset lever			
2197	1K230-077	零戻しレバー戻しベネ軸 Counter reset lever axle			
2199	1K275-009-1	ラチエット Ratchet, unit B2408			
2200	1K480-005	指標板 Frame counter index			
2404	1K640-253	枚数計押え板 Frame counter retainer			
2407	1K610-270	スプロcket制限除版 Sprocket stopper release plate			
2408	1K680-169	巻上軸 Film-advance shaft			
2481	1K060-013-1	クリップリング G-snap ring			

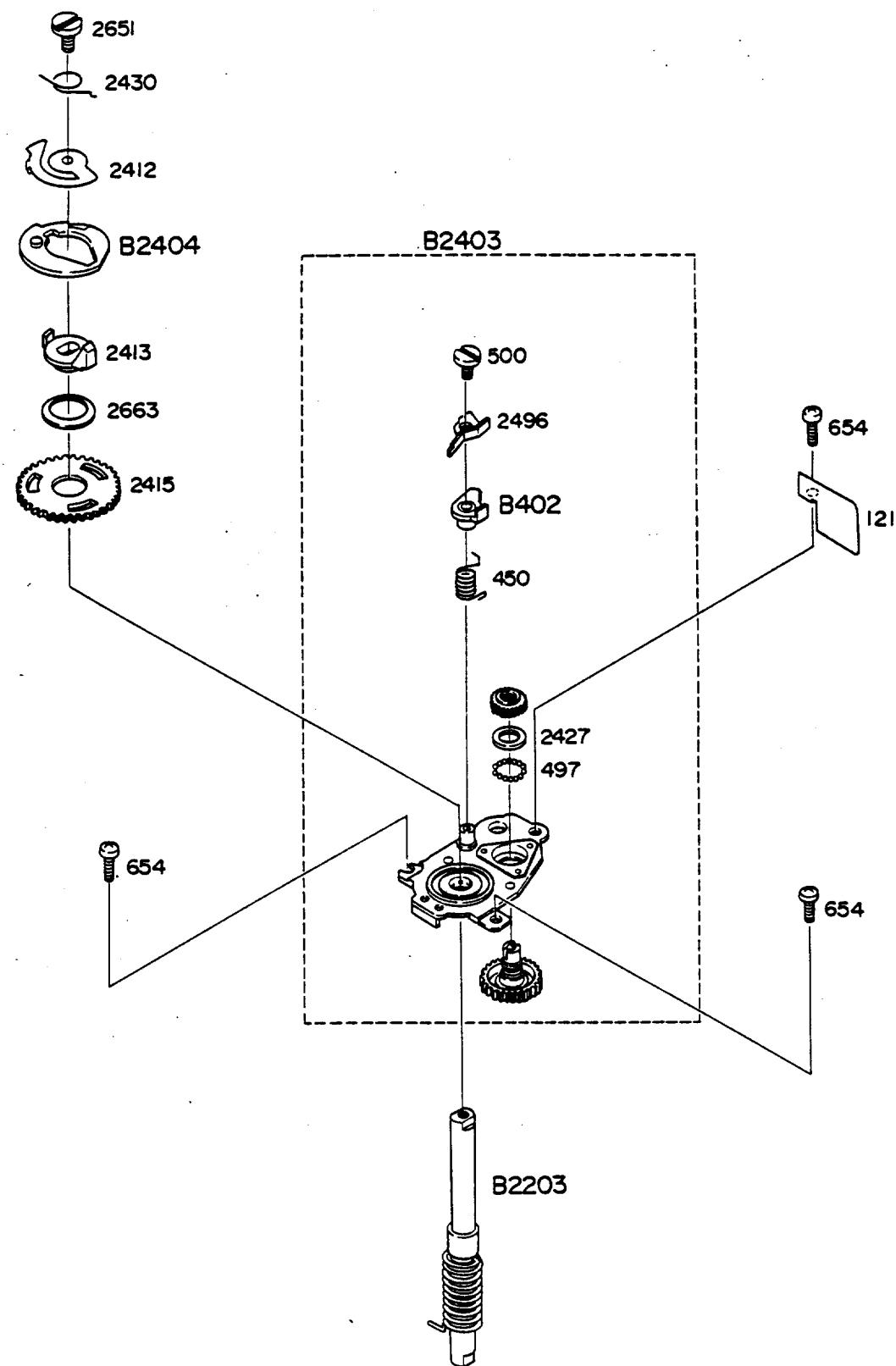


Fig. 3

補助番号 Ckt.No.	部品番号 Part No.	名 称 Name	補助番号 Ckt.No.	部品番号 Part No.	名 称 Name
121	1K610-281	曲げ板 Plate	B2203	1B001-132-1	スプール軸 Spool shaft
450	1K230-041	スプロットッハーバネ Spring, sprocket stopper reverse	B2403	1B001-129-2	下地板 Unit, film-advance mechanism
497	1K078-006	鋼 球 Steel ball	B2404	1B001-130-1	面カム Clutch cam
500	1K120-054	スプロットッハービス Sprocket stopper screw			
654	1K120-063	下地板ビスB Screw, lower unit base B2403			
2412	1K610-271	面カム板バネ Clutch cam spring			
2413	1K680-170	巻上カム Film-advance cam			
2415	1K260-052	巻上ギア Film-advance gear			
2427	1K050-072	アイドルギアAワッシャー <sup>一</sup> Washer, idle gear A			
2430	1K230-078	面カムねじりバネ Clutch spring DIS.			
2496	1K610-278	巻上ギア Film-advance gear			
2651	1K130-099	巻上軸ビス Film-advance shaft screw			
2663	1K050-075	巻上ギアワッシャー <sup>一</sup> Washer, wind gear			
2663	1K050-076	巻上ギアワッシャー <sup>一</sup> Washer, wind gear			
2663	1K050-077	巻上ギアワッシャー <sup>一</sup> Washer, wind gear			
2663	1K050-078	巻上ギアワッシャー <sup>一</sup> Washer, wind gear			
2663	1K050-079	巻上ギアワッシャー <sup>一</sup> Washer, wind gear			
2663	1K050-080	巻上ギアワッシャー <sup>一</sup> Washer, wind gear			

## Film-advance shaft • Sprocket

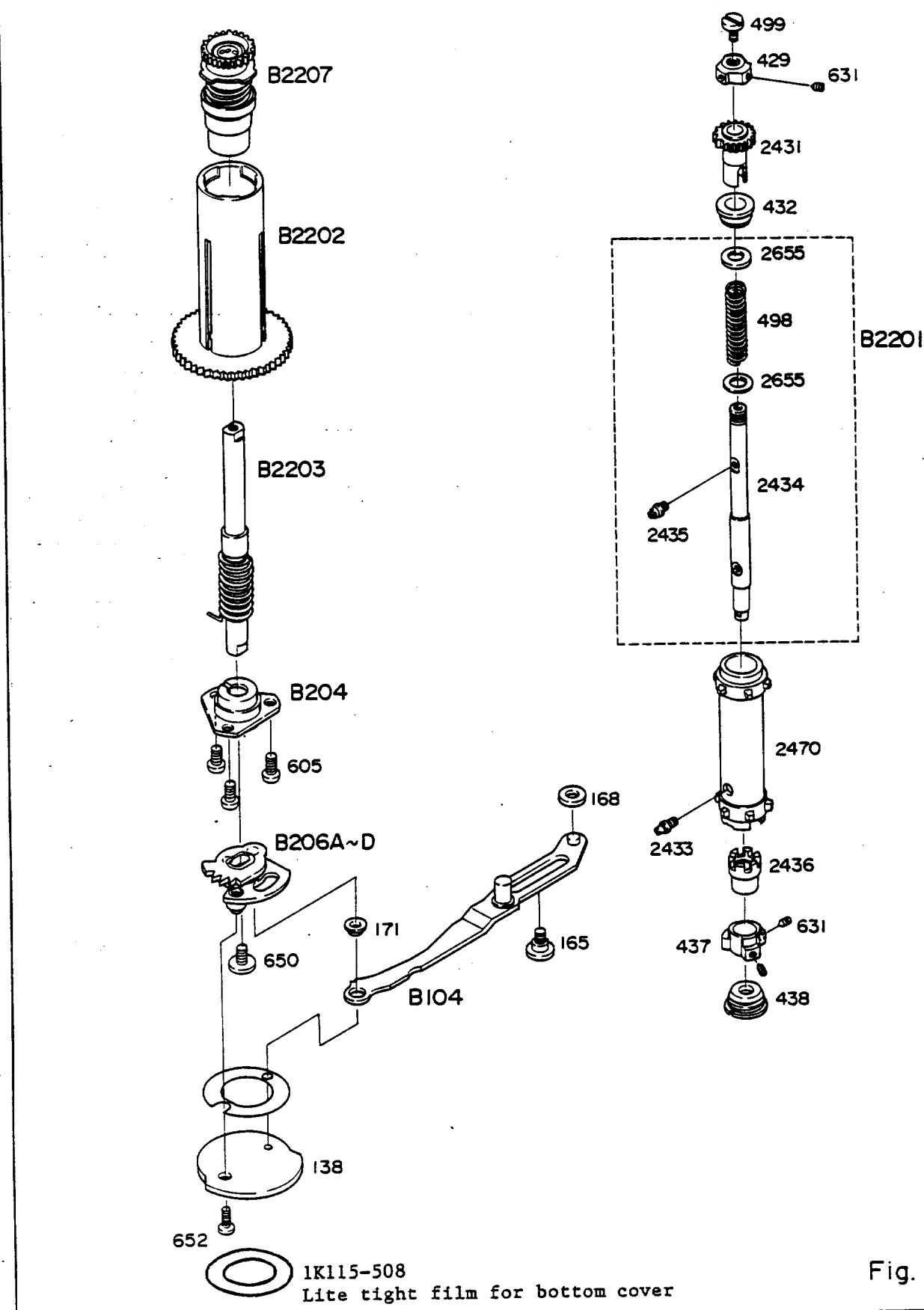


Fig. 4

補助番号 Ckt.No.	部品番号 Part No.	名 称 Name	補助番号 Ckt.No.	部品番号 Part No.	名 称 Name
138	1K680-102-1	モーターカップリング Motor coupling	29	1K115-312	ホリエスチルフィルム Polye film
165	1K130-056-1	チャージレバービス Screw, shutter charge lever			
168	1K340-019	チャージレバーカラー Charge lever collar			
171	1K340-020	セットカムカラー Set cam collar			
429	1K300-034	スプロケット制限カム Sprocket stopper cam			
432	1K640-198	スプロ軸受 Sprocket shaft bearing	B104	1B314-051-2 1B314-051	チャージレバー Shutter charge lever
437	1K630-085	スプロカラーAナット Sprocket collar A nut	B204	1B340-001-2	スプール軸受ケース Spool shaft bearing case
438	1K640-199	スプロト軸受 Sprocket shaft lower bearing	B206A	1B300-007-X 6	セットカムA Set cam A
498	1K220-039	スプロケットバネ Sprocket spring	B206B	1B300-008-2	セットカムB Set cam B
499	1K120-053	スプロケット左ネジ Sprocket screw (left-thread)	B206C	1B300-009-X 7	セットカムC Set cam C
605	A1-20022FB	Screw	B206D	1B300-010-X 8	セットカムD Set cam D
631	K2-14015FA	Set screw	B2201	1B001-127	スプロケット軸 Sprocket axle
650	1K120-060	巻上軸ビス Film-advance shaft screw (left-thread)	B2202	1B630-009	スプール Spool
652	1K120-061	カップリングビス Coupling screw	B2203	1B001-132-1	スプール軸 Spool shaft
2431	1K260-056	スプロ上ギア Sprocket upper gear	B2207	1B001-128-2	スプールヒギア Spool top gear
2433	1K130-096	スプロケットビス Sprocket screw			
2434	1K370-367	スプロケット軸 Sprocket shaft			
2435	1K130-097	スプロケットビス Sprocket screw			
2436	1K630-114	スプロケットローラーA Sprocket roller A			
2470	1K275-010	特殊歯車 Gear Sprocket			
2655	1K050-074	スプロケットバネ受座金 Washer, sprocket spring			

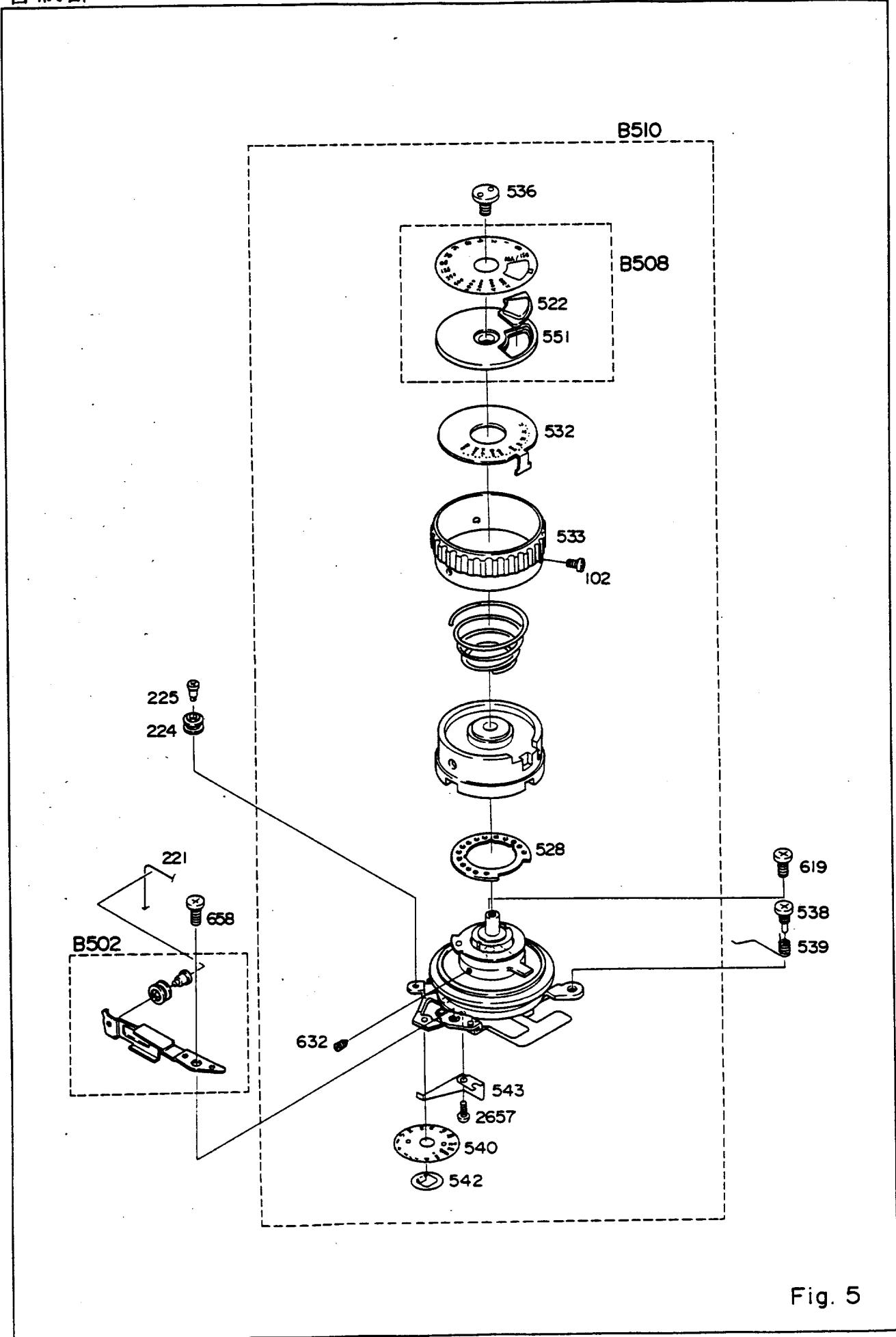


Fig. 5

補助番号 Ckt.No.	部品番号 Part No.	名 称 Name	補助番号 Ckt.No.	部品番号 Part No.	名 称 Name
102	1K010-017-2	タップタイトビス Screw	B502	1B001-106-1	コロバネ Roller spring
221	1K115-201	運動ひも Spring, aperture coupling	B508	1B470-001	シャッター目盛 Shutter speeds disk x200
224	1K640-209-1	ひもかけコロ Roller, aperture coupling string	B510	1B060-026-X 5	音制部 FRE Shutter control unit
225	1K130-072	ヒモカケコロビス Screw, roller #224	B508	1B470-005	New shutter speed disk (x250)
522	1K625-011	シャッター目盛板 Shutter dial index		1B060-159-3	New shutter control unit (x250)
528	1K160-195-1	クリック座金 Disk, shutter dial click			
532	1K470-003	ASA目盛環 ASA calibration disk			
533	1K201-012	シャッターダイヤル環 Shutter dial			
536	1K120-055	ダイアル上面ビス Screw, shutter dial			
538	1K130-065	音制部ビス Screw, shutter control unit			
539	1K230-046-1	アースばね Earth spring, shutter control unit			
540	1K470-005-1	Tフィルム Shutter speeds inner indicator			
542	1K248-003	Tフィルム押え Retainer, shutter speeds inner indicator			
543	1K240-071-2	クリックばね Click spring			
551	1K640-207	シャッター目盛基板 Base, shutter speeds calibration disk			
619	B1-17035FA	Screw			
632	K2-14025FA	Screw			
658	B1-20030FB	Screw			
2657	1K001-012	Screw			

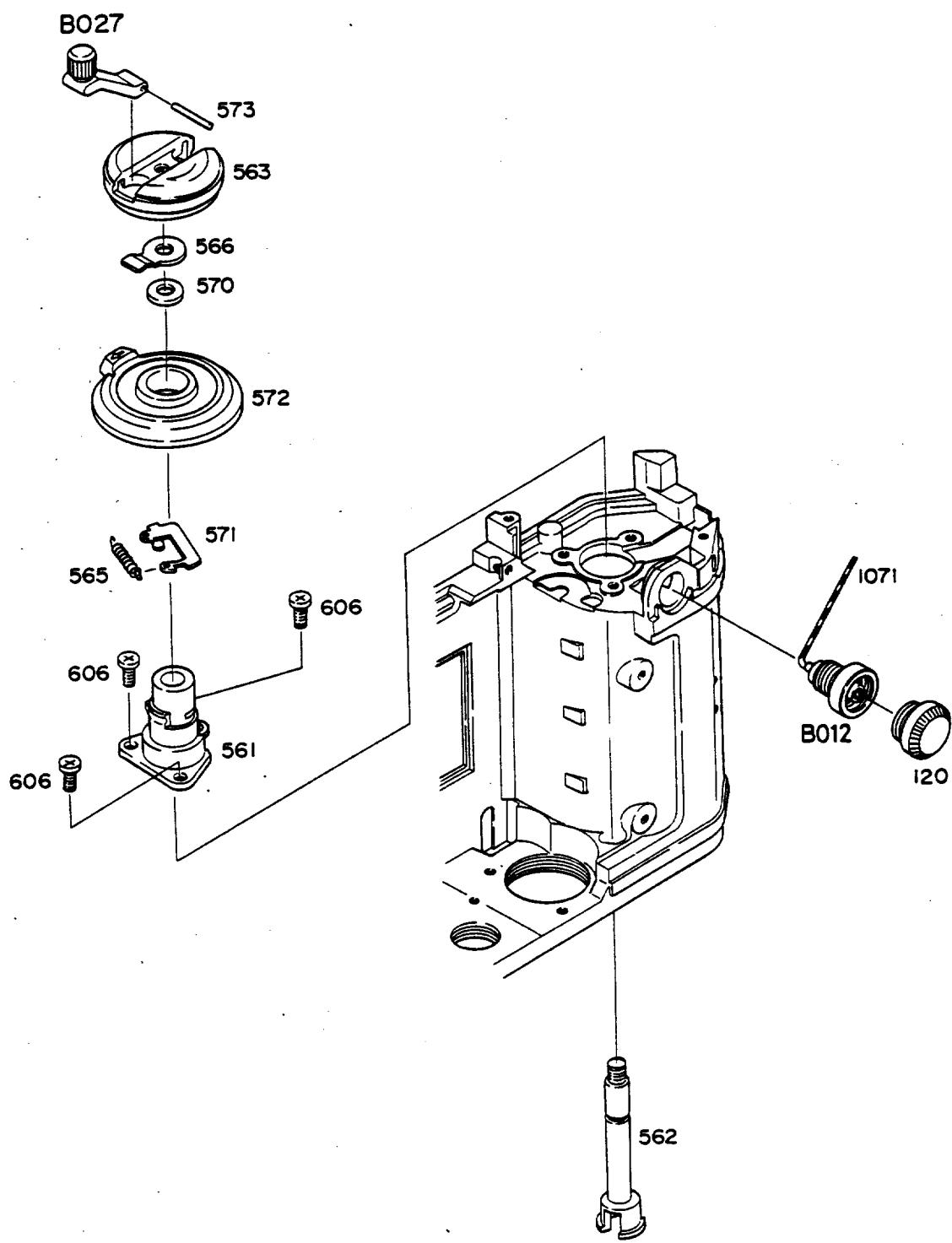


Fig. 6



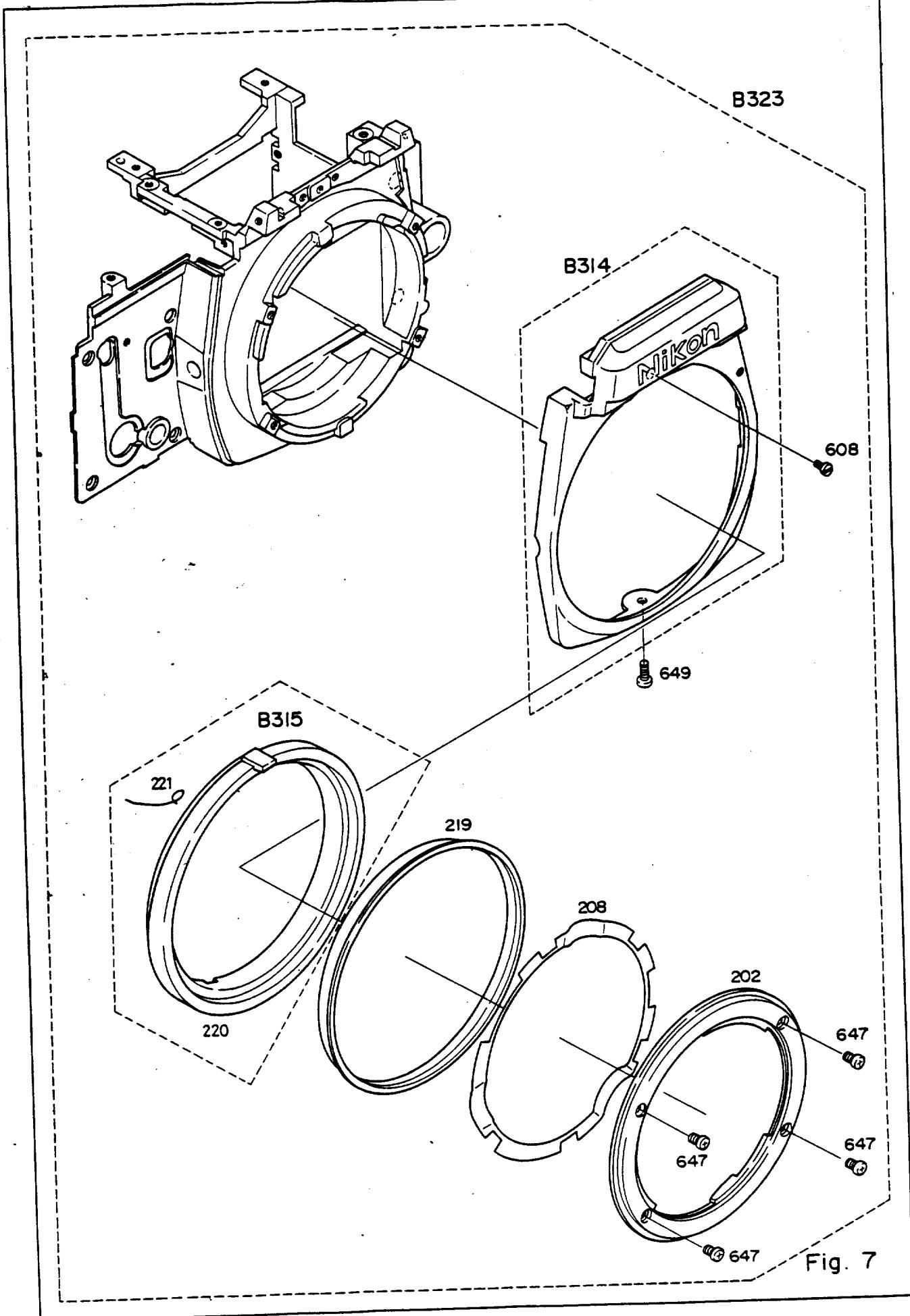


Fig. 7



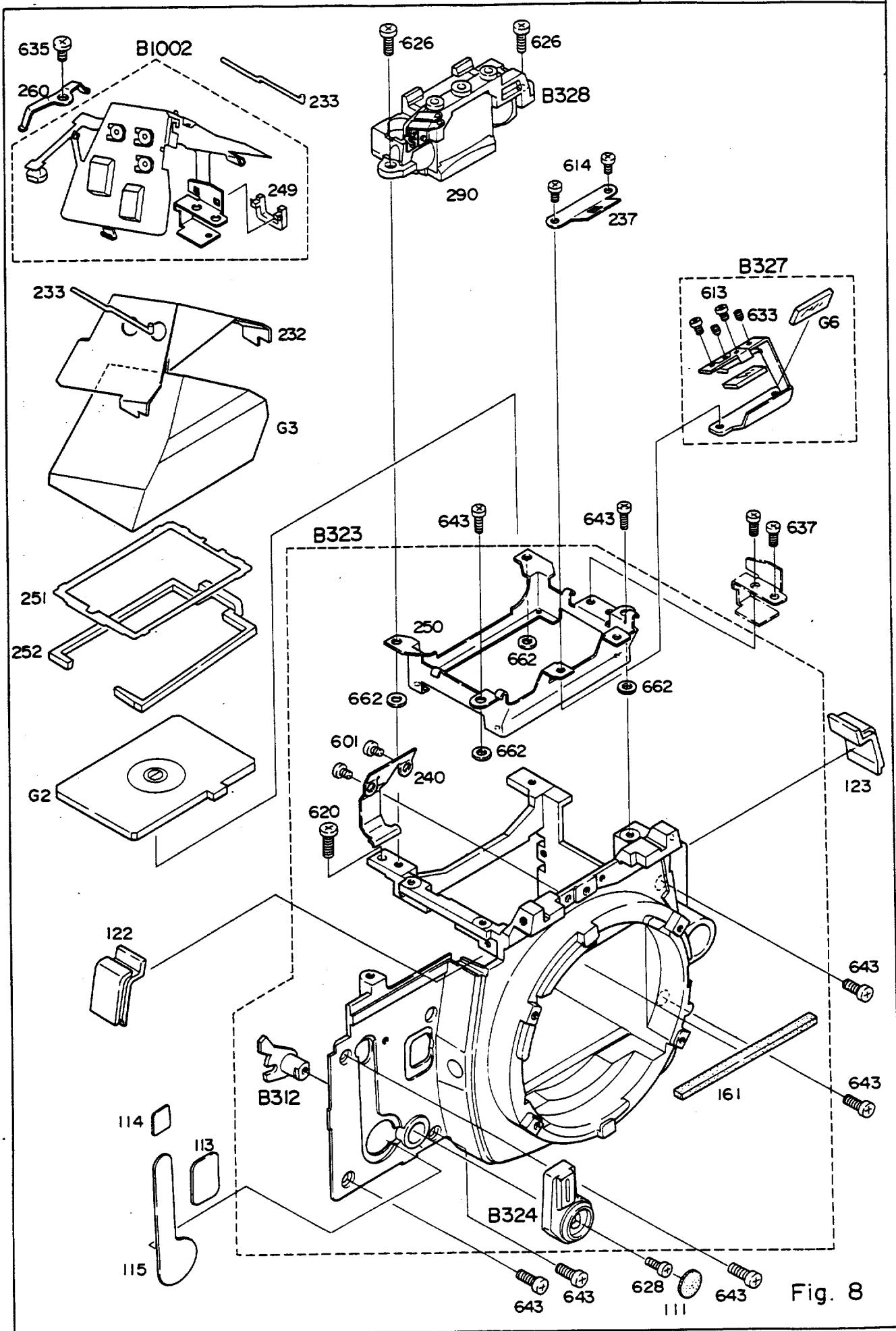


Fig. 8

補助番号 Ckt.No.	部品番号 Part No.	名 称 Name	補助番号 Ckt.No.	部品番号 Part No.	名 称 Name
111	1K115-183	セルフ皮 Leatherette, self-timer	633	K2-14025FB	Set screw
113	1K600-089	前板孔カバー A Cover A, front plate	635	E1-20028FB	Screw
114	1K600-090-1	前板孔カバー B Cover B, front plate	637	B1-17020FB	Screw
115	1K600-091	前板孔カバー C Cover C, front plate	643	1K123-042	前板取付ビス Screw, front plate
122	1K680-099	前板右肩カバー Shoulder block, front plate (rewind-side)	662	1K050-029 ~ 048	調整座金 Spacer
123	1K680-100	前板左肩カバー Shoulder block, front			
161	1K115-191-1	ミラーアップ受けモルト Sponge strip, mirror	G2	1G950-001	フレネルKタイプ Focusing screen K
232	1K115-202	プリズム押えシート Retainer, prism	G3	1G415-XXXX 007	プリズム Pentagonal prism
233	1K233-016-1	プリズム押えバネ Prism retainer spring	G6	1G550-008-1	反射ミラー ADR mirror
237	1K610-203	格板 ADR mask			
240	1K240-067	スクリーンロックばね Spring, focusing screen lock	B312	1B310-019	セルフレバー軸 Self-timer lever axle
249	1K680-124	プリント板押え Circuit board retainer	B323A	1B660-XXXX 009	前板 Front plate unit
250	1K620-033	プリズムボックス Prism box	B324	1B206-003	セルフレバー Self-timer lever
251	1K576-025-1	視野枠 Finder field frame	B327	1B100-070-1	ミラー保護基板 ADR mirror holder
252	1K680-112-1	中間枠 Spacer, screen frame	B328	1B100-071	接眼モールドメガネ Eyepiece mold
260	1K240-074	SPDプリント板押え SPD circuit board retainer	B1002	1B060-027-X 3	IC プリント板 IC circuit board
290	1K010-018	接点ビス Screw	B323B	1B660-XXXX 010	前板 Front plate unit (black)
601	A1-17015FB	Screw			
613	B1-14015FB	Screw			
614	B1-14020FB	Screw			
620	B1-17040FA	Screw			
626	B1-20050FA	Screw			
628	1K123-038	セルフビス Screw, self-timer			

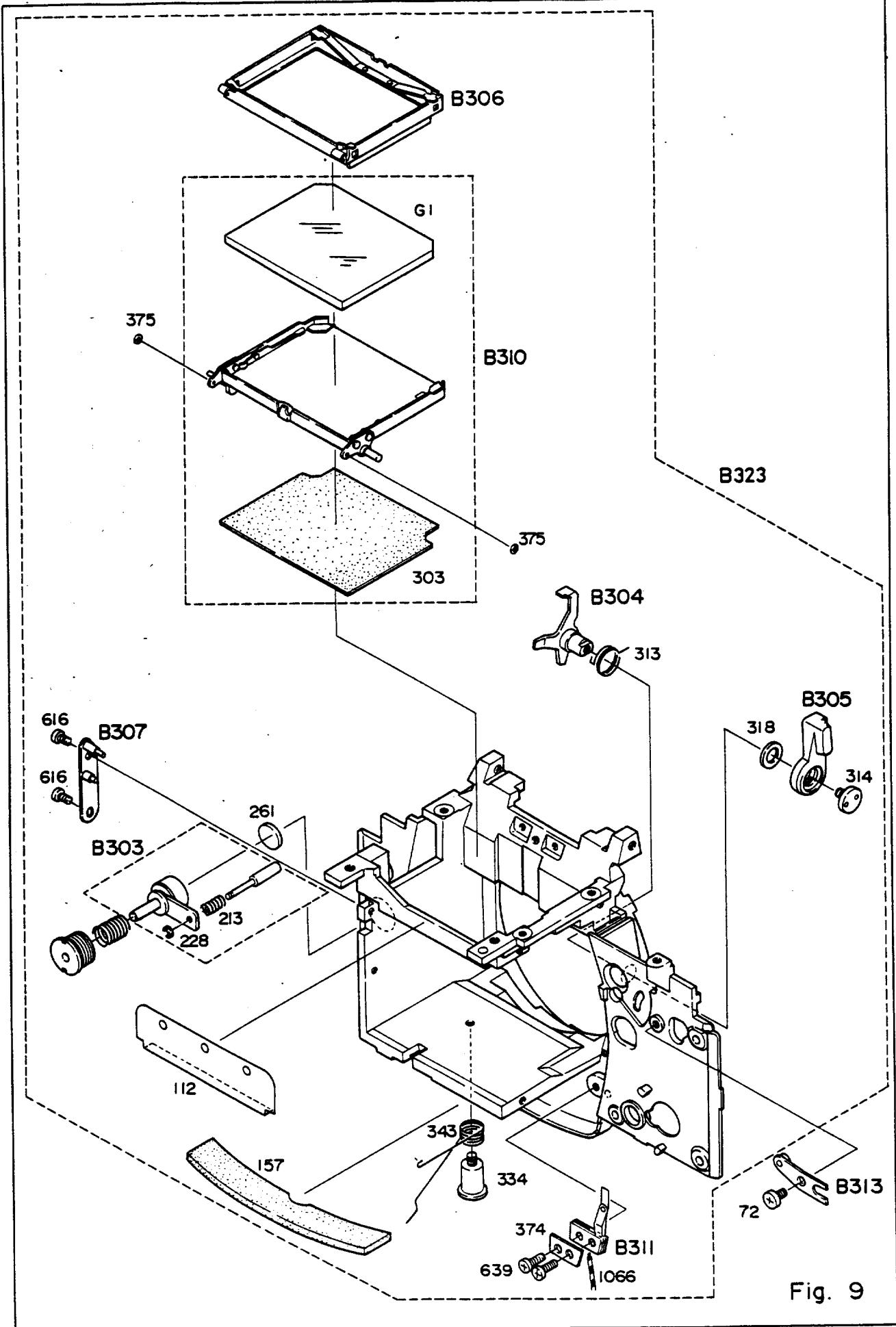


Fig. 9

補助番号 Ckt.No.	部品番号 Part No.	名 称 Name	補助番号 Ckt.No.	部品番号 Part No.	名 称 Name
72	1K130-053	プリント板ビス Screw, circuit board B2102	B303	1B001-098-1	着脱釦 Lens release button
112	1K610-170	遮光板 Light-tight	B304	1B314-052-1	手動絞りレバー Manual stop-down lever
157	1K115-187	上薄用モルトフレン Light-tight	B305	1B206-002-1	絞り込みレバー Stop-down lever
213	1K220-041	着脱ピン押えバネ Lens release spring	B306	1B001-099-1	スクリーン枠 Focusing screen frame
			B307	1B001-100	軸基板 Mirror axle base unit
			B310	1B100-068-4	チリトリ Mirro holder
228	1K060-003	E-リング E-ring	B311	1B060-022-2	スイッチ接片 Shutter switch
261	1K115-203	レンズ着脱釦飾り Cover, lens release button	B313	1B310-020	レリーズ調整レバー Release adjusting lever
303	1K115-220	植毛紙 Baffle cloth	B323A	1B660-005-8 1B660-009	前板 Front plate
313	1K230-028	手動絞りレバーばね Stop-down lever spring	B323A	1B660-006-8	前板 Front plate (black)
314	1K120-051	絞りレバービス Screw, aperture lever			
318	1K050-019	手動絞りレバー座 Base, stop-down lever			
334	1K130-058	ばねビス Screw, mirror down spring			
343	1K230-031-2	ダウンレバーバネ Mirror down spring			
374	1K600-099	シャッタースイッチ押え板 Shutter switch retainer			
375	1K050-022	Washer			
616	B1-17022FB	Screw			
639	1K120-057	ミラースイッチ止めビス Screw, mirror switch			
G1	1G551-004-1	ミラー Mirror			

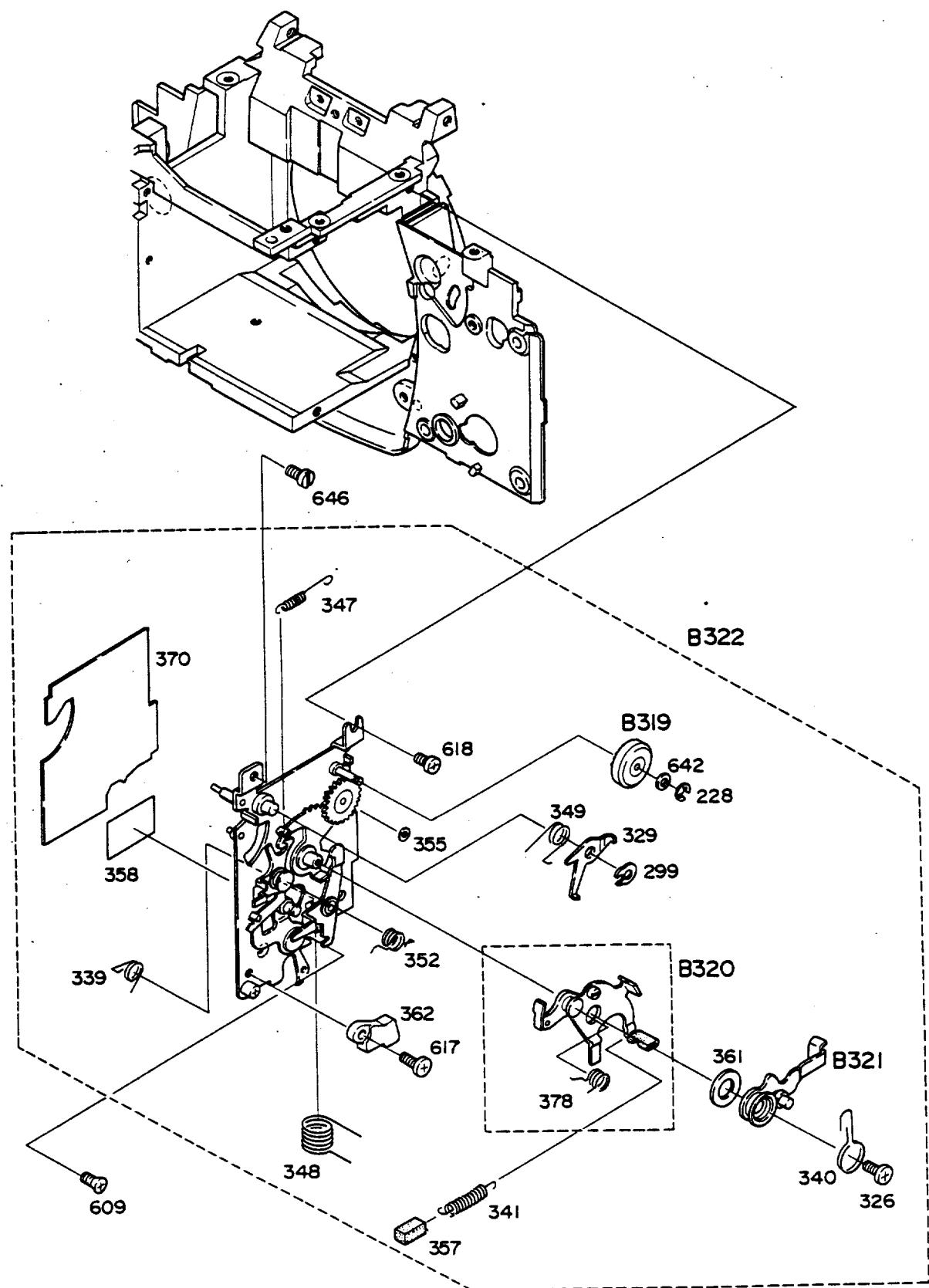


Fig. 10

補助番号 Ckt.No.	部品番号 Part No.	名 称 Name	補助番号 Ckt.No.	部品番号 Part No.	名 称 Name
228	1K060-003	E-snap ring	B320	1B314-053-2	ミラーアップレバー Mirror-up lever
299	1K060-004	G-snap ring	B321	1B314-054-1	絞りレバー Aperture lever
326	1K120-052	Screw	B322	1B001-102-6 1B001-222-6	横基板 Mirror box mechanism
329	1K314-064-1	ミラーアップ押えレバー Mirror-up stop lever	B319	1B260-002-1	平歛車 Gear
339	1K230-029	45°ストッパーべネ 45° stopper spring			
340	1K230-030-1	絞りレバーベネ Aperture lever spring			
341	1K225-043-1	アップベネ Spring, mirror-up lever			
347	1K225-044-2	慣性体ベネ Spring, mirror mechanism gear			
348	1K230-032	レリーズレバーベネ Release lever spring			
349	1K230-033-1	ミラーアップ押えベネ Spring, mirror-up stop lever			
352	1K230-034	係止レバーベネ Spring, latch lever			
355	1K050-050	Washer			
358	1K600-096	横基板カバー Cover, mirror box mechanism			
357	1K115-196	防しんモルト Sponge strip			
362	1K680-106	ダウンレバーかんじょう板 Shock absorber, mirror-down lever			
370	1K115-197	檀毛紙 Baffle cloth			
361	1K050-020	Washer			
378	1K230-035	チリ取りベネ Spring, mirror-up lever			
609	A2-17025FB	Screw			
617	B1-17025FA	Screw			
618	B1-17025FB	Screw			
642	1K050-024	Washer			
646	1K130-067	側面基板止めビス Screw, mirror mechanism unit			

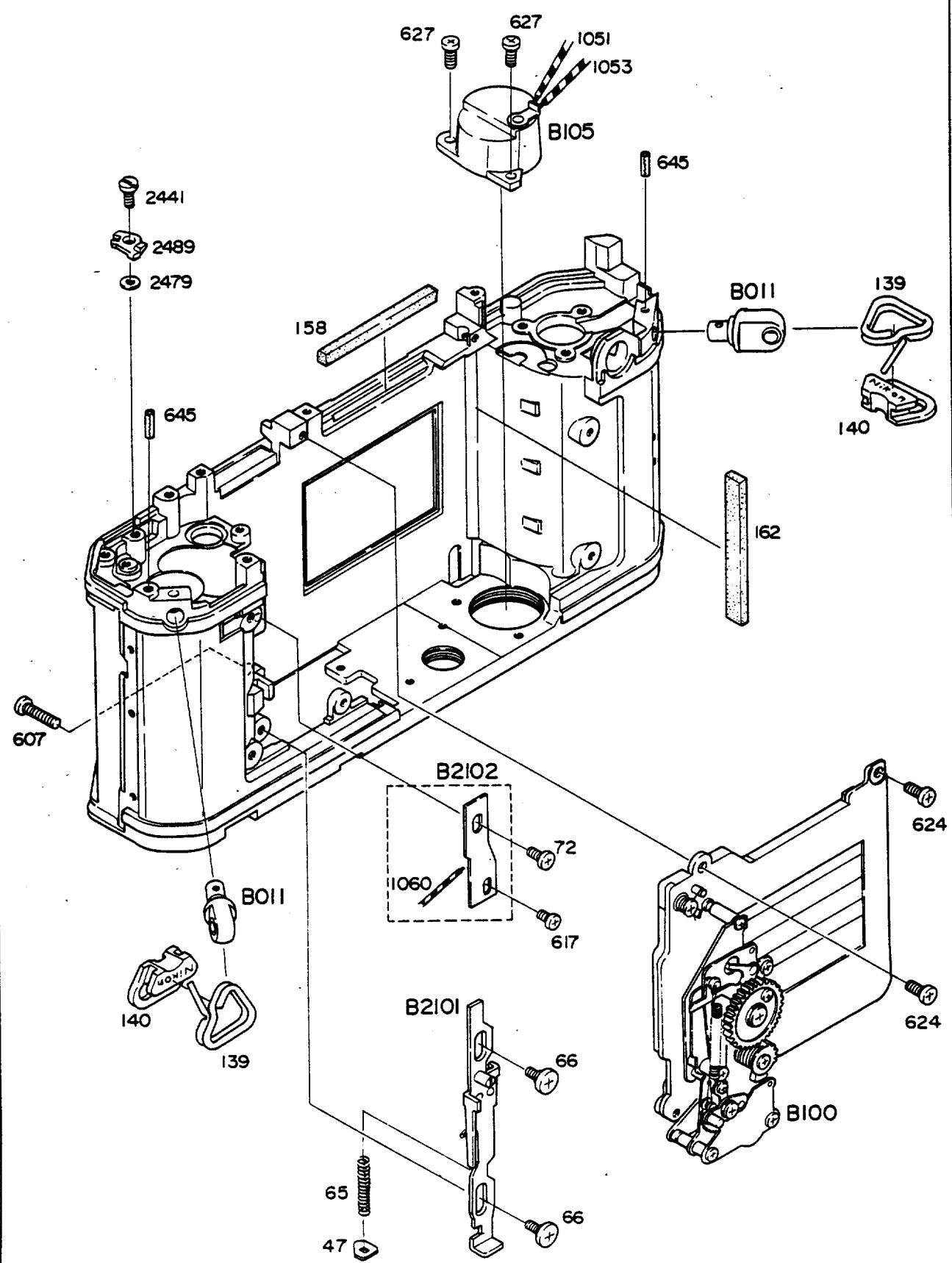


Fig. 11

補助番号 Ckt. No.	部品番号 Part No.	名 称 Name	補助番号 Ckt. No.	部品番号 Part No.	名 称 Name
47	1K600-130	制限コマ Retainer, spring #65	B011	1B001-085	耳環 Eyelet
65	1K220-037-1	レリーズ板バネ Spring, release plate	B100	1B001-090-2	シャッター Shutter
66	1K130-052	レリーズ板ビス Screw, release plate	8105	1B060-021	電池ケース Battery chamber
72	1K130-053	プリント板ビス Screw, circuit board B2102	B2101	1B314-056- 4	レリーズ板 Release plate
139	1K100-035	三脚環 Neckstrap ring	82102	1S007-010	半押しプリント板 Circuit board, meter switch
140	1K080-005	銘板 Neckstrap protector			
158	1K115-188	接眼下部遮光モルト Light-tight, eyepiece			
162	1K115-192	シャッター上遮光モルト Sponge strip, eyepiece			
607	A1-20070FT	Screw			
617	B1-17025FA	Screw			
624	A1-20030BX	Screw			
627	B1-20045FB	Screw			
645	1K044-003	スプリングピン Spring pin			
1051	1S810-055	Lead wire (Red)			
1053	1S810-057	Lead wire (Red)			
1060	1S810-064	Lead wire (Red)			
2441	1K130-098	面カム外しレバー軸 Clutch cam release lever axle			
2479	1K050-073	面カム外しレバー座金 Washer, axle #2441			
2489	1K680-172-1	三羽根爪外しレバー Coupling lever, multi- exposure			

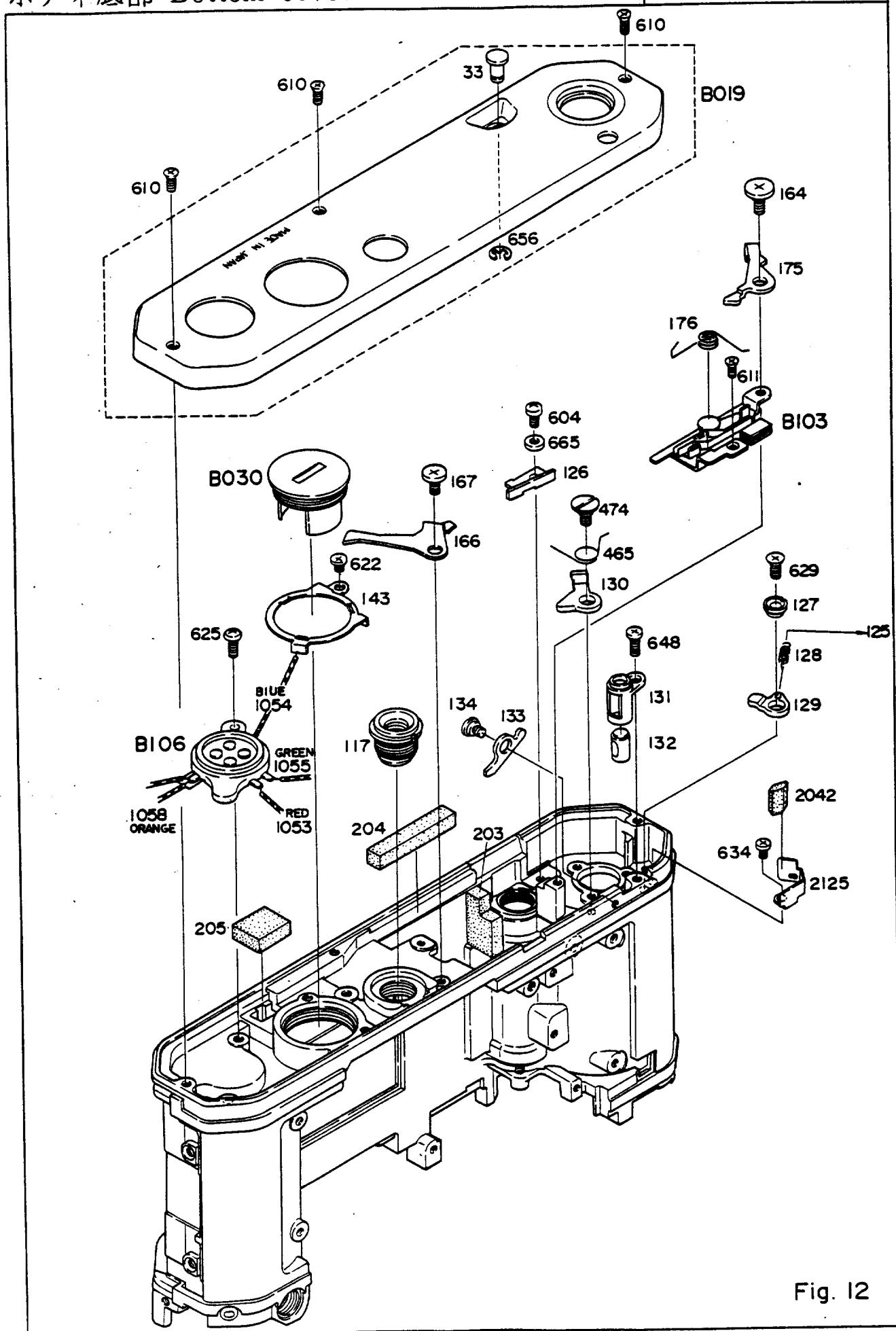


Fig. 12

補助番号 Ckt.No.	部品番号 Part No.	名 称 Name	補助番号 Ckt.No.	部品番号 Part No.	名 称 Name
33	1K370-189	巻戻釦 Rewind button	610A	A2-17025FC	Screw
117	1K400-078	三脚座 Tripod socket	610B	1K001-006	Screw (black)
126	1K610-172	AR レバー AR lever	611	A2-17030FB	Screw
127	1K650-003	振り子偏心軸 Pendulum eccentric axle	622	B1-20025FA	Screw
128	1K225-042-1	振り子ばね Pendulum spring	625	B1-20040FB	Screw
129	1K314-051-1 -2	振り子 Pendulum	629	B2-20045FA	Screw
130	1K314-052-1	ロックレバー Lock-lever, MD see-saw lever	634	A1-17018FB	Screw
131	1K340-018	MD 軸受け MD shaft bearing	648	1K123-040	ビス Screw, MD shaft holder
132	1K370-196	MD 軸 MD shaft	656	1K060-005-1	E-snap ring
133	1K600-092	MD シーソーレバー MD see-saw lever	1053	1S810-057	Lead wire (red)
134	1K130-054	MD シーソーレバーアー Axe, MD see-saw lever	1054	1S810-058	Lead wire (blue)
			1055	1S810-059	Lead wire (green)
143	1K610-173	電池アース Battery chamber earth contact	1058	1S810-062	Lead wire (white)
164	1K130-055	二重巻上防止ビス Screw, lever #175	2042	1K110-082	緩衝ゴム A Shock absorber A
166	1K314-053-2	ミラーチャージレバー Mirror charge lever	2125	1K610-266-1	緩衝板 Shock absorber
167	1K130-057	ミラーチャージレバービス Screw, mirror charge lever	665	1K050-039	Spacer
175	1K314-056	二重巻上防止レバー Lever, double-exposure preventing			
176	1K230-025-1	二重巻上防止バネ Spring, double-exposure preventing	B030	1B467-007-1	電池キャップ Battery chamber lid
203	1K115-355	モルトフレン Light-tight	B103	1B001-091-2	MD スイッチ基板 MD switch circuit board
204	1K115-356	モルトフレン Light-tight	B019A	1B620-008-X	底蓋 Bottom cover (black)
205	1K115-357	モルトフレン Light-tight	B019B	1B620-010-1	底蓋 Bottom cover (black)
465	1K230-043	ロックレバーバネ Lock lever spring	B106	1B001-092	外部接点 MD external contact
474	1K130-063	ロックレバーアー Lock lever axle			
604	A1-20025FB	Screw			

B2016

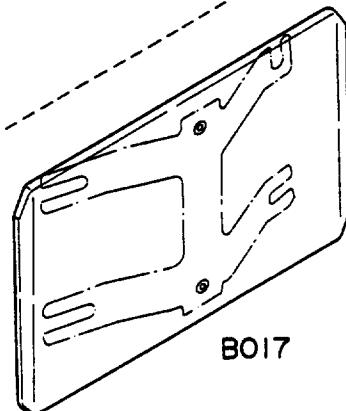
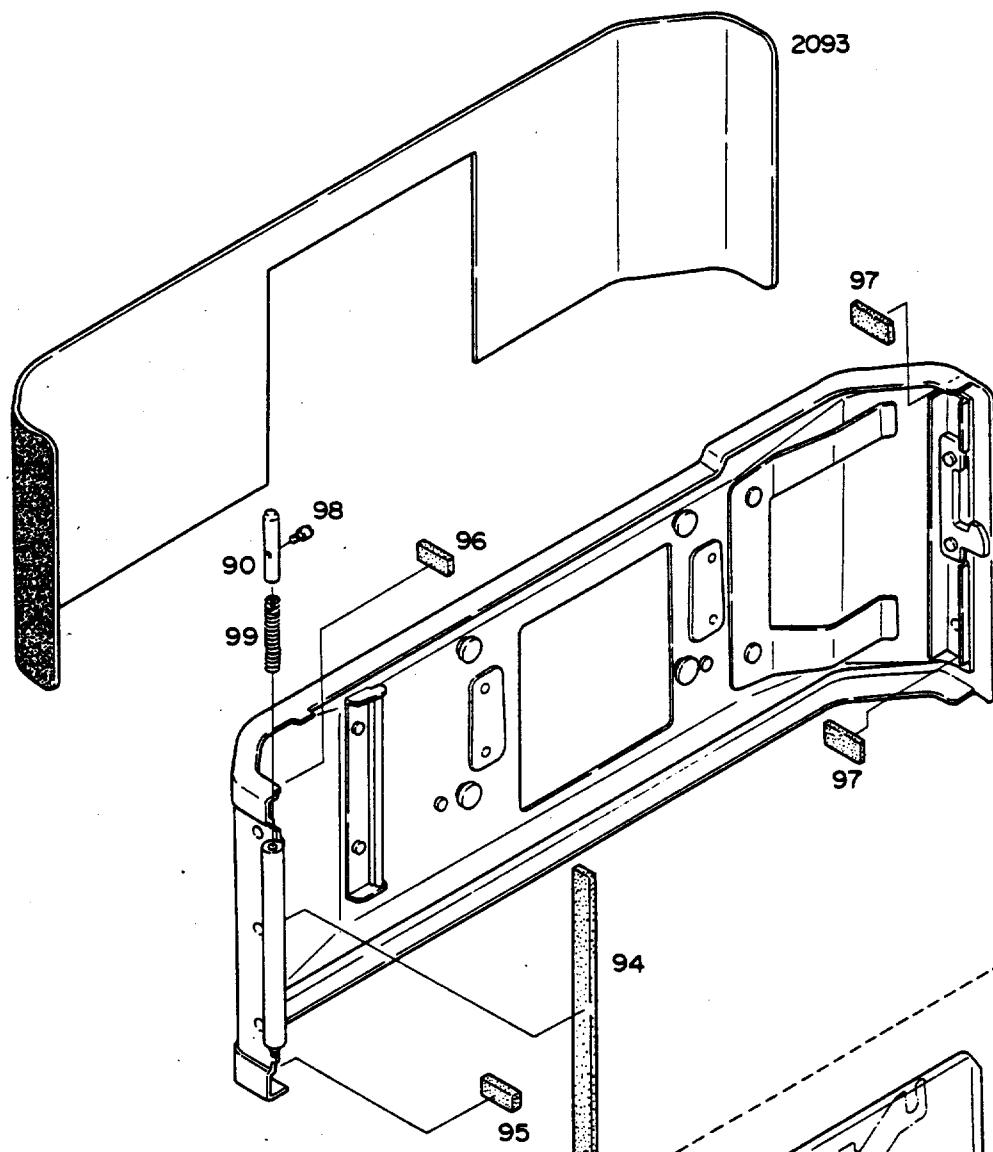


Fig. 13



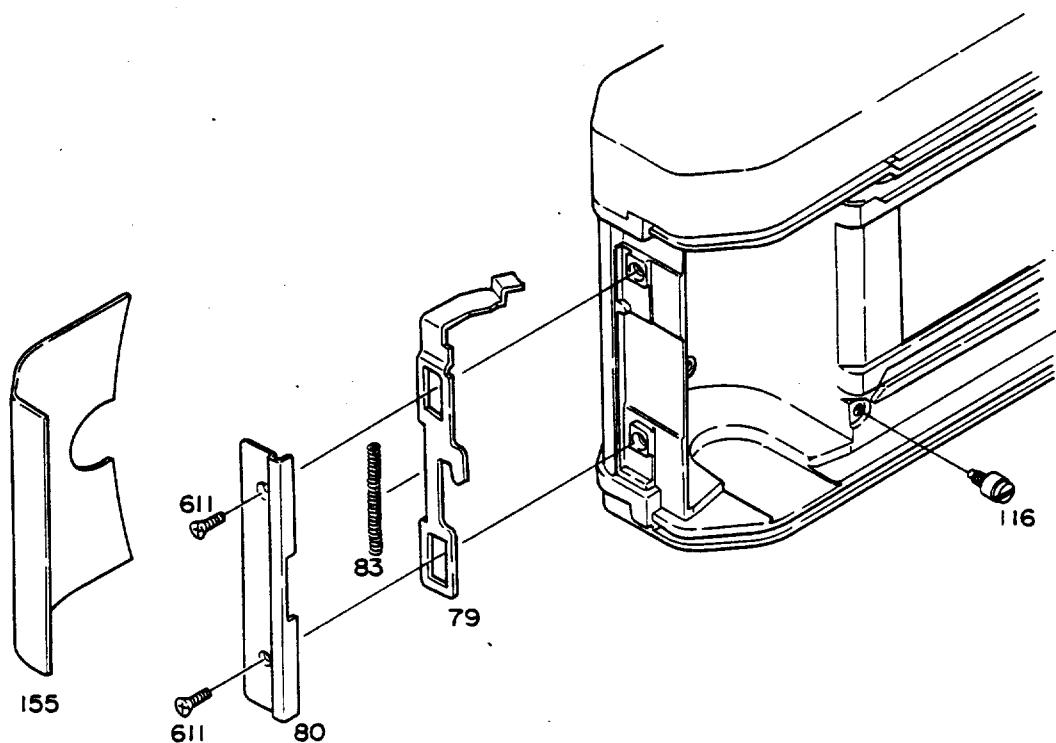
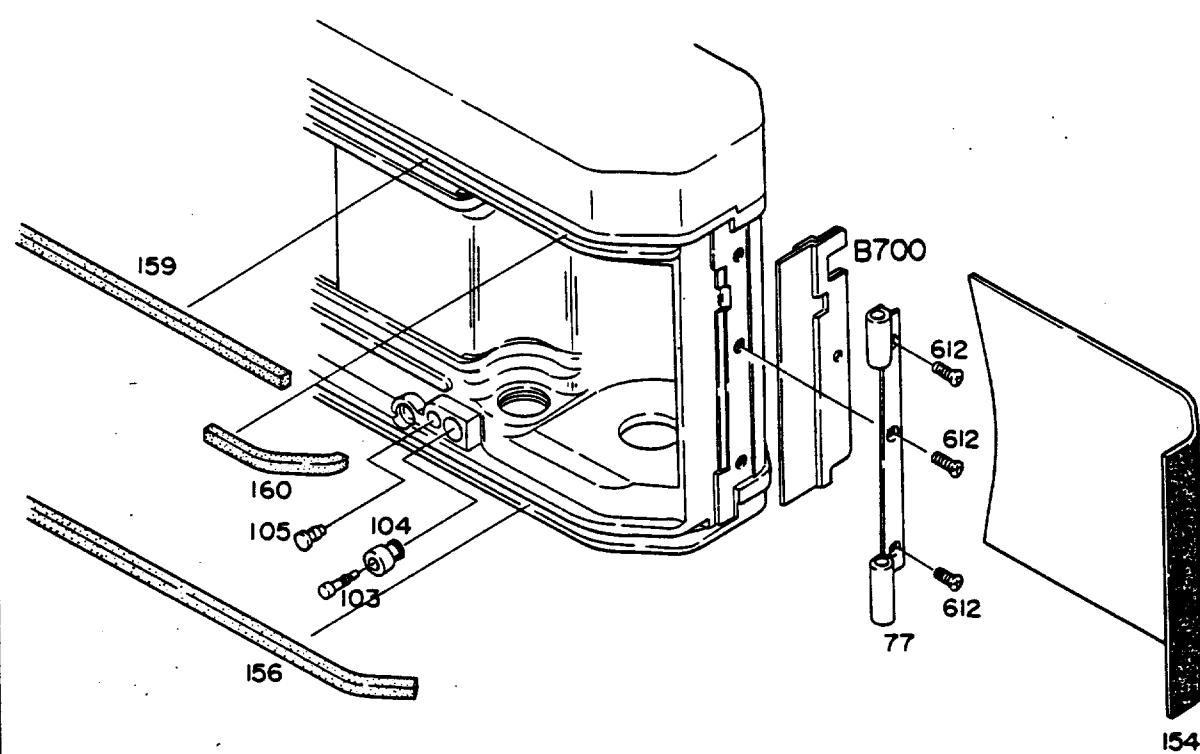


Fig. 14

PARTS LIST

Contents	Page
[1] PARTS LIST .....	P1
[2] ASSEMBLY LIST .....	P32

## Marks in the Parts List

[1] PARTS LIST FM2n .....	1-6
[1] PARTS LIST FM2/T .....	P1-P8

## (1) 部品表 Parts list

FAA14001-R.3110.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
612	1K001-004	3		14	o	P33FB#804B
603B	1K001-005	5		1	o	Black P33FB#803
610B	1K001-006	3			o	Black P33FB#804A
2657	1K001-012	2	1B060-034-4 1B060-026-7	2	oΔ	P33FB#954
101	1K010-016	1	1B060-026-7	1	Δ	
102	1K010-017-2	1	1B060-026-7	5	oΔ	
290	1K010-018	2	1B100-071	8	oΔ	35FB#940
641	1K010-019	2	1B206-004	1	oΔ	P33FB#832
56	1K030-001	1	1B150-008-7	1	oΔ	35FB#76-1
46	1K040-001-1	1	1B150-008-7	1	oΔ	P33FB#535B
119	1K044-001-1	2	1B001-085-7		Δ	P33FB#12
645	1K044-003	2		11	o	P33FB#848-1
318	1K050-019	1	1B660-005-8	9	oΔ	P33FB#318-6
361	1K050-020	1	1B001-102-6	10	oΔ	
375	1K050-022	1	1B660-005-8	9	oΔ	33FB#375-5
570	1K050-023	1		6	o	35FB#660
642	1K050-024	1	1B001-102-6	10	oΔ	
662	1K050-029	0-4	1B660-005-8	8	oΔ	P33FB#842a
662	1K050-030	0-4	1B660-005-8	8	oΔ	P33FB#842b

## 部品表 Parts list

FAA14001-R.3110.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	販売期 限区分 Term of Delivey	備考 Remarks
662	1K050-031	0~4	1B660-005-8	8	oΔ	P33FB#842c
662	1K050-032	0~4	1B660-005-8	8	oΔ	P33FB#842d
662	1K050-033	0~4	1B660-005-8	8	oΔ	P33FB#842e
662	1K050-034	0~4	1B660-005-8	8	oΔ	P33FB#842f
662	1K050-035	0~4	1B660-005-8	8	oΔ	P33FB#842g
662	1K050-036	0~4	1B660-005-8	8	oΔ	P33FB#842h
662	1K050-037	0~4	1B660-005-8	8	oΔ	P33FB#842i
662	1K050-038	0~4	1B660-005-8	8	oΔ	P33FB#842j
662	1K050-039	0~4	1B660-005-8	12	oΔ	P33FB#842k-5
665		1		8	o	
662	1K050-040	0~4	1B660-005-8	8	oΔ	P33FB#842m
662	1K050-041	0~4	1B660-005-8	8	oΔ	P33FB#842n
662	1K050-042	0~4	1B660-005-8	8	oΔ	P33FB#842p
662	1K050-043	0~4	1B660-005-8	8	oΔ	P33FB#842q
662	1K050-044	0~4	1B660-005-8	8	oΔ	P33FB#842r
662	1K050-045	0~4	1B660-005-8	8	oΔ	P33FB#842s
662	1K050-046	0~4	1B660-005-8	8	oΔ	P33FB#842t
662	1K050-047	0~4	1B660-005-8	8	oΔ	P33FB#842u
662	1K050-048	0~4	1B660-005-8	8	oΔ	P33FB#842v
355	1K050-050	1	1B0J1-102-6	10	oΔ	

## 部品表 Parts list

FAA14001-R.3110.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
2427	1K050-072	1	1B001-129-2	3	oΔ	P33FB#427
2479	1K050-073	1		11	o	P33FB#489A
2655	1K050-074	2	1B001-127	4	oΔ	P33FB#843-5
2663	1K050-075	0~1		3	o	P33FB#897A
2663	1K050-076	0~1		3	o	P33FB#897B
2663	1K050-077	0~1		3	o	P33FB#897C
2663	1K050-078	0~1		3	o	P33FB#897D
2663	1K050-079	0~1		3	o	P33FB#897E
2663	1K050-080	0~1		3	o	P33FB#897F
228	1K060-003	2	1B001-102-6 1B001-098-1	10 9	oΔ	35FB#642
299	1K060-004	1	1B001-102-6	10	oΔ	35FB#952-5
656	1K060-005-1	1	1B620-008-2	12	oΔ	P33FB#883
2481	1K060-013-1	1	1B060-034-4	2	oΔ	P33FB#831-6
497	1K078-007	48	1B340-001-2 1B060-026-1 1B001-129-2 1B001-128-2	3	oΔ	
525	1K078-008	1	1B060-026-7		Δ	
140	1K080-005	1		11	o	
22A	1K080-006	1	1B100-069-1		Δ	33FB#2-1
22B	1K080-007	1	1B100-072-1		Δ	Black 33FB#2-1
118	1K100-034	2	1B001-085		Δ	P33FB#11-1

## 部品表 Parts list

FAA14001-R.3110.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	販売期 区 限 Term of Delivery	備考 Remarks
139	1K100-035	2		11	o	S-8219
2042	1K110-082	1		12	o	P33FB#64
94	*1K115-154	1	1B620-014-2	13	oΔ	P33FB#726-1
95	*1K115-155	1	1B620-014-2	13	oΔ	P33FB#727
96	*1K115-156	1	1B620-014-2	13	oΔ	P33FB#728
97	*1K115-157	2	1B620-014-2	13	oΔ	P33FB#730
34	1K115-180	1	1B150-008-7	1	oΔ	35FB#944A
37	1K115-181	1	1B150-008-7	1	oΔ	
111	1K115-183	1		8	o	
154	1K115-184	1		14	o	33FB#56
155	1K115-185-1	1		14	o	
156	1K115-186	1		14	o	P33FB#58-1
157	1K115-187	1	1B660-005-8	9	oΔ	P33FB#59
158	1K115-188	1		11	o	P33FB#60
159	1K115-189	1		11	o	P33FB#58A-1
160	1K115-190	1		14	o	P33FB#58B-1
161	1K115-191	1	1B660-005-8	8	oΔ	
162	1K115-192	2		11	o	P33FB#82-1
177	1K115-193	2	1B001-091-2		Δ	
40	1K115-297	1	1B150-008-7		Δ	

## 部品表 Parts list

FAA14001-R.3110.A

補助番号 Ckt.No.	部品番号 Part No.	1台分 個數 Pcs. per Unit	部組品番号 Assembly	参照図番 Figure	販売区分 Term of Delivey	備考 Remarks
181	1K115-194	2	1B001-091-2		△	
327	1K115-195	1	1B314-053-2		△	35FB#327
357	1K115-196	1	1B001-102-6	10	○△	
370	1K115-197	1	1B001-102-6	10	○△	
402	1K115-198	1		1	○	P33FB#402
515	1K115-200	1	1B060-026-7		△	33FB#558
221	1K115-201	1	1B640-011-1	5,7	○△	
232	1K115-202	1		8	○	35FB#232
261	1K115-203	1	1B660-005-8	9	○△	P33FB#261
303	1K115-220	1	1B100-068-4	9	○△	
52	1K115-233	8	1B660-005-8		○△	9F4B#74
61	1K115-293	1	1B150-008-7	1	○△	最小要求単位：10個 Min. Order Q'ty:10pcs.
2093	1K115-301	1	1B620-014-2	13	○△	
106	1K115-322	1	1B610-012-2		△	
107	1K115-323-1	1	1B610-012-2		△	
203	1K115-355	1		12	○	
204	1K115-356	1		12	○	
205	1K115-357	1		12	○	
314	1K120-051	1	1B660-005-8	9	○△	35FB#314
29	1K115-312	1		4	○	

## 部品表 Parts list

FAA14001-R.3110.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
326	1K120-052	1	1B001-102-6	10	○Δ	
499	1K120-053	1		4	○	P33FB#887-1
500	1K120-054	1	1B001-129-2	3	○Δ	P33FB#888
536	1K120-055	1	1B060-026-7	5	○Δ	33FB#578-1
557	1K120-056-1	2	1B060-026-7		Δ	
650	1K120-060	1		4	○	P33FB#815-5
652	1K120-061	1		4	○	P33FB#820
654	1K120-063	3		3	○	P33FB#835
649B	1K120-064	1	1B660-006-8		○Δ	Black P33FB#813
649A	1K120-092	1	1B660-005-8	7	○Δ	P33FB#813
98	*1K123-034	1	1B620-014-2	13	○Δ	P33FB#731
628	1K123-038	1	1B660-005-8	8	○Δ	
647	1K123-039	3	1B660-005-8	7	○Δ	P33FB#805
648	1K123-040	1		12	○	
643	1K123-042	7	1B660-005-8	8	○Δ	P33FB#810
66	1K130-052	2		11	○	
72	1K130-053	2		9, 11	○	
134	1K130-054	1		12	○	P33FB#914
615	1K123-051	1	1B060-034-4	2	○Δ	

## 部品表 Parts list

FAA14001-R.3110.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	販売期 限区分 Term of Delivery	備考 Remarks
164	1K130-055	1		12	o	
165	1K130-056-1	1		4	o	
167	1K130-057	1		12	o	
334	1K130-058	1	1B660-005-8	9	o△	
474	1K130-063	1		12	o	P33FB#539
538	1K130-065	1		5	o	
646	1K130-067	1	1B660-005-8	10	o△	35FB#886-5
225	1K130-072	1		5	o	
2433	1K130-096	1		4	o	P33FB#435A
2435	1K130-097	1	1B001-127	4	o△	P33FB#435
2441	1K130-098	1		11	o	P33FB#441-6
2651	1K130-099	1		3	o	P33FB#815A-5
116	1K146-016	1		14	o	
403A	1K146-017	1	1B060-034-4	1	o△	P33FB#403-1
403B	1K146-018	1	1B060-051-2		o△	Black P33FB#403-1
405	1K150-008	1	1B060-034-4	2	o△	P33FB#405-2
526	1K150-010	1	1B060-026-7		△	
2191	1K150-017	1	1B060-034-4	2	o△	P33FB#508-6
493	1K160-180	1	1B150-008-7	1	o△	35FB#493A

## 部品表 Parts list

FAA14001-R.3110.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
493	1K160-181	1	1B150-008-7	1	oΔ	35FB#493B
493	1K160-182	1	1B150-008-7	1	oΔ	35FB#493C
534	1K160-183	1	1B060-026-7		Δ	33FB#544-1
528	1K160-195-1	1	1B060-026-7	5	oΔ	
533	1K201-012	1	1B060-026-7	5	oΔ	
563	1K201-013	1		6	o	35FB#653
567	1K201-014	1	1B314-049		Δ	35FB#657
401	1K206-001	1	1B206-004		Δ	P33FB#401-1
491	1K206-002	1	1B150-008-7	1	oΔ	35FB#491
217	1K208-009	1	1B001-098-1		Δ	P33FB#217-6
99	*1K220-031	1	1B620-014-2	13	oΔ	P33FB#732
63	1K220-036	1	1B150-008-7	1	oΔ	
65	1K220-037-1	1		11	o	
83	1K220-38-1	1		14	o	P33FB#714
498	1K220-039	1	1B001-127	4	oΔ	P33FB#498
213	1K220-041	1	1B001-098-1	9	oΔ	35FB#214A-6
216	1K220-042	1	1B660-005-8		Δ	P33FB#216
535	1K220-043	1	1B060-026-7		Δ	33FB#557-1
2446	1K220-064	1	1B001-128-2		Δ	P33FB#456A

## 部品表 Parts list

FAA14001-R.3110.A

補助番号 Ckt.No.	部品番号 Part No.	1台分 個數 Pcs. per Unit	部組品番号 Assembly	参照図番 Figure	販売 区分 Term of Delivery	備考 Remarks
128	1K225-042-1	1		12	○	P33FB#538A
341	1K225-043-1	1	1B001-102-6	10	○Δ	
347	1K225-044-2	1	1B001-102-6	10	○Δ	
565	1K225-045	1		6	○	35FB#655
176	1K230-025-1	1	1B001-091-2	12	○Δ	
313	1K230-028	1	1B660-005-8	9	○Δ	P33FB#313-6
339	1K230-029	1	1B001-102-6	10	○Δ	35FB#339-6
340	1K230-030-1	1	1B001-102-6	10	○Δ	
343	1K230-031-2	1	1B610-005-8	9	○Δ	
348	1K230-032	1	1B001-102-6	10	○Δ	
349	1K230-033-1	1	1B001-102-6	10	○Δ	
352	1K230-034	1	1B001-102-6	10	○Δ	
378	1K230-035	1	1B660-005-7	10	○Δ	
406	1K230-039	1	1B060-034-4	1	○Δ	35FB#406-2
450	1K230-041	1	1B001-129-2	3	○Δ	P33FB#450
465	1K230-043	1		12	○	P33FB#465
466	1K230-044-1	1	1B001-132-1		Δ	P33FB#529-1
539	1K230-046-1	1		5	○	
2190	1K230-076	1	1B060-034-3	2	○Δ	P33FB#505-6

## 部品表 Parts list

FAA14001-R.3110.A

辅助番号 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 Term of Delivery	備考 Remarks
2197	-1K230-077	1	1B060-034-4	2	oΔ	P33FB#522A-5
2430	1K230-078	1		3	o	P33FB#414B-5
2476	1K230-079	1	1B060-034-4		Δ	P33FB#476
41	1K233-014	1	1B100-067-1	1	oΔ	P33FB#9
518	1K233-015	6	1B060-026-7		Δ	33FB#560
233	1K233-016-1	2		8	o	35FB#233
84	*1K240-033-1	1	1B620-014-2		Δ	
49	1K240-045	1	1B150-008-7	1	oΔ	35FB#68
50	1K240-046	1	1B150-008-7	1	oΔ	P33FB#47
51	1K240-047	1	1B240-003		Δ	P33FB#70-1
69	1K240-048	1	1B314-056-2		Δ	
74	1K240-049	1	1B001-086		Δ	P33FB#703-1
146	1K240-050	1	1B060-021		Δ	P33FB#47
178	1K240-051	1	1B001-091-2		Δ	
179	1K240-052	1	1B001-091-2		Δ	
345	1K240-054	1	1B100-068-4		Δ	P33FB#345
346	1K240-055	1	1B100-068-4		Δ	P33FB#346
364	1K240-056-1	1	1B060-022-2		Δ	
365	1K240-057-1	1	1B060-022-2		Δ	35FB#926

## 部品表 Parts list

FAA14001-R.3110.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
520	1K240-061	1	1B060-026-7		Δ	33FB#567-1
524	1K240-062	0~1	1B060-026-7		Δ	
527	1K240-063-1	1	1B060-026-7		Δ	
566	1K240-064-1	1		6	○	P33FB#656
208	1K240-065-1	1	1B660-005-8	7	○Δ	P33FB#208-8
222	1K240-066	1	1B001-106-1		Δ	
240	1K240-067	1	1B660-005-8	8	○Δ	35FB#240-5
244	1K240-068	2	1B001-099-1		Δ	35FB#244-2
288	1K240-069	1	1B100-071		Δ	35FB#941-1
289	1K240-070	1	1B100-071		Δ	35FB#942-1
543	1K240-071-2	1	1B060-026-7	5	○Δ	
519	1K240-072	1	1B060-026-7		Δ	33FB#561
49	1K240-073	1	1B150-009-7	1	○Δ	35FB#68
260	1K240-074	1		8	○	35FB#260
524	1K240-119-1	0~1	1B060-026-7		Δ	
512	1K245-001	1	1B060-026-7		Δ	
516	1K246-005	1	1B060-026-7		Δ	33FB#559-1
36	1K248-001	1	1B150-008-7	1	○Δ	
517	1K248-002	1	1B060-026-7		Δ	

## 部品表 Parts list

FAA14001-R.3110.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	版光 区 Term of Delivery	備考 Remarks
542	1K248-003	1	1B060-026-7	5	oΔ	
333	1K260-008-1	1	1B001-102-6		Δ	
336	1K260-009-1	1	1B260-002-1		Δ	
338	1K260-010-2	1	1B001-102-6		Δ	
344	1K260-011-1	1	1B001-102-6		Δ	
509	1K260-017-1	1	1B060-026-7		Δ	
541	1K260-018	1	1B060-026-7		Δ	
545	1K260-019-1	1	1B060-026-7		Δ	
2193	1K260-049	1	1B060-034-4	2	oΔ	P33FB#510-6
2194	1K260-050	1	1B060-034-4	2	oΔ	P33FB#511-6
2411	1K260-051	1	1B001-129-2		Δ	P33FB#418
2415	1K260-052	1		3	o	P33FB#415-6
2416	1K260-053	1	1B001-129-2		Δ	P33FB#416-1
2417	1K260-054	1	1B001-129-2		Δ	P33FB#417-6
2420	1K260-055-1	1	1B001-128-2		Δ	P33FB#420-2
2431	1K260-056	1		4	o	P33FB#431-6
530	1K267-001-1	1	1B060-026-7		Δ	
531	1K267-002	1	1B060-026-7		Δ	
2199	1K275-009-1	1	1B060-034-4	2	oΔ	P33FB#532-6

## 部品表 Parts list

FAA14001-R.3110.A

補助番号 Ckt.No.	部品番号 Part No.	1台分 個數 Pcs.per Unit	部組品番号 Assembly	参照図番 Figure	販売区分 Term of Delivery	備考 Remarks
507	1K277-003-1	1	1B060-026-7		Δ	
544	1K277-004-1	1	1B060-026-7		Δ	
429	1K300-034	1		4	○	P33FB#429
443	1K310-019	1	1B001-129-2		Δ	P33FB#443
554	1K310-020	1	1B310-020		Δ	
79	1K314-050	1		14	○	35FB#708-1
129	1K314-051-1	1		12	○	P33FB#462
2470	1K275-010	1		4	○	P33FB#531-6
130	1K314-052-1	1		12	○	
166	1K314-053	1		12	○	
169	1K314-054	1	1B314-051		Δ	
174	1K314-055-1	1	1B001-091-2		Δ	
175	1K314-056	1		12	○	
310	1K314-057-1	1	1B314-052-1		Δ	
315	1K314-058	1	1B314-054-1		Δ	
317	1K314-059	1	1B001-102-6		Δ	
321	1K314-060	1	1B001-102-6		Δ	
322	1K314-061-1	1	1B314-053-2		Δ	
323	1K314-062	1	1B001-102-6		Δ	

## 部品表 Parts list

FAA14001-R.3110.A

補助番号 Ckt.No.	部品番号 Part No.	1台分 個數 Pcs. per Unit	部組品番号 Assembly	参照図番 Figure	販売区 Term of Delivery	備考 Remarks
328	1K314-063	1	1B001-102-6		Δ	
329	1K314-064-1	1	1B001-102-6	10	oΔ	
354	1K314-065	1	1B001-102-6		Δ	
444	1K314-069	1	1B001-129-2		Δ	P33FB#444
553	1K314-072	1	1B060-026-7		Δ	
418	1K314-080	1	1B060-034-4		Δ	
2064	1K314-104-1	1	1B314-056-2		Δ	
2196	1K314-105	1	1B060-034-4	2	oΔ	P33FB#522-6
2484	1K314-106	1	1B060-034-4		Δ	P33FB#484-6
2192	1K330-007	1	1B060-034-4	2	oΔ	P33FB#509-6
561	1K333-003	1		6	o	
131	1K340-018	1		12	o	
168	1K340-019	1		4	o	
171	1K340-020	1		4	o	P33FB#460
449	1K340-023	1	1B001-129-2		Δ	P33FB#449
503	1K340-025-1	1	1B060-026-7		Δ	
2409	1K340-040	1	1B060-034-4		Δ	P33FB#409-6
53	1K360-007	1	1B150-008-7	1	oΔ	P33FB#73
90	*1K362-007-1	1	1B620-014-2	13	oΔ	P33FB#722

## 部品表 Parts list

FAA14001-R.3110.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	販売期 限 Term of Delivery	備考 Remarks
2087	1K362-014	1	1B620-014-2		Δ	P33FB#718
67	1K366-010	1	1B314-056-2		Δ	
356	1K366-011-1	1	1B314-053-2		Δ	
363	1K366-012	1	1B001-102-6		Δ	
391	1K366-013	1	1B001-102-6		Δ	P33FB#391
	*1K370-042	1	1B400-001-1		Δ	
	*1K370-043	1	1B400-001-1		Δ	
81	*1K370-176-1	1	1B620-014-2		Δ	P33FB#710
82	*1K370-177	2	1B620-014-2		Δ	P33FB#711-1
86	*1K370-179-1	2	1B620-014-2		Δ	
89	*1K370-181	3	1B620-014-2		Δ	P33FB#721
33	1K370-189	1	1B620-008-2	12	○Δ	P33FB#439
57	1K370-191	1	1B680-006-1		Δ	35FB#77
75	1K370-192	2	1B001-086		Δ	P33FB#704-2
76	1K370-193	4	1B620-014-2		Δ	P33FB#705
103	1K370-194	1		14	○	
108	1K370-195	1	1B310-019		Δ	
132	1K370-196	1		12	○	P33FB#911
147	1K370-197	1	1B060-021		Δ	P33FB#48

## 部品表 Parts list

FAA14001-R.3110.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
170	1K370-198	1	1B314-051		Δ	
172	1K370-199	1	1B314-051		Δ	
173	1K370-200-1	1	1B001-091-2		Δ	
302	1K370-203	1	1B001-100		Δ	
306	1K370-204	4	1B100-068-4		Δ	P33FB#306
307	1K370-205-2	1	1B100-068-4		Δ	
311	1K370-206	1	1B314-052-1		Δ	
312	1K370-207-1	1	1B314-054-1		Δ	
319	1K370-208	1	1B314-053-2		Δ	
324	1K370-209	1	1B314-054-1		Δ	
325	1K370-210	1	1B001-102-6		Δ	
330	1K370-211	1	1B001-102-6		Δ	
331	1K370-212	1	1B001-102-6		Δ	
337	1K370-213	1	1B001-102-6		Δ	
342	1K370-214	1	1B001-102-6		Δ	
351	1K370-215	1	1B001-102-6		Δ	
353	1K370-216	1	1B001-102-6		Δ	
373	1K370-217	1	1B100-068-4		Δ	P33FB#373-1
380	1K370-218	1	1B314-053-2		Δ	

## 部品表 Parts list

FAA14001-R.3110.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
389	1K370-220	1	1B001-102-6		Δ	
440	1K370-224	1	1B001-129-2		Δ	P33FB#440
448	1K370-225	1	1B001-129-2		Δ	P33FB#448
458	1K370-227	1	1B300-010-2 1B300-009 1B300-008-2 1B300-007		Δ	P33FB#458
504	1K370-232	1	1B060-026-7		Δ	
506	1K370-233	1	1B060-026-7		Δ	
510	1K370-234-1	1	1B060-026-7		Δ	
546	1K370-235	1	1B060-026-7		Δ	
547	1K370-236	1	1B060-026-7		Δ	
548	1K370-237-2	1	1B060-026-7		Δ	
556	1K370-238	1	1B310-020		Δ	
562	1K370-239	1		6	○	
568	1K370-240	1	1B314-049		Δ	35FB#658
212	1K370-241-1	1	1B001-098-1		Δ	35FB#212-6
215	1K370-242	1	1B001-098-1		Δ	P33FB#215-6
243	1K370-244-1	4	1B001-099-1		Δ	35FB#243
246	1K370-245	1	1B001-102-6		Δ	
247	1K370-246	1	1B001-102-6		Δ	
248	1K370-247	1	1B001-100		Δ	

## 部品表 Parts list

FAA14001-R.3110.A

辅助番号 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 Term of Delivery	備考 Remarks
226	1K370-355-1	1	1B001-106-1		Δ	
2045	1K370-363	1	1B150-008-7	1	oΔ	35FB#470-5
2419	1K370-364	1	1B001-129-2		Δ	P33FB#419
2426	1K370-365	1	1B001-129-2		Δ	P33FB#426
2428	1K370-366-1	1	1B001-130-1		Δ	P33FB#414A-5
2434	1K370-367	1	1B001-127	4	oΔ	P33FB#434-6
2453	1K370-368-1	1	1B001-132-1		Δ	
2473	1K370-369	1	1B060-034-4		Δ	P33FB#473-6
2477	1K370-370	1	1B060-034-4		Δ	P33FB#477-6
2482	1K370-371	2	1B060-034-4		Δ	P33FB#482-6
2485	1K370-372	1	1B060-034-4		Δ	P33FB#485-6
55	1K380-007	1	1B680-006-1		Δ	P33FB#75
	1K400-016-1	1	1B400-001-1		Δ	
39	1K400-076-1	1	1B100-067-1		Δ	P33FB#8-1
62	1K400-077-1	1	1B150-008-7	1	oΔ	
117	1K400-078	1		12	o	23FB#10
38A	1K400-079-1	1	1B150-008-7		Δ	35FB#7
38B	1K400-082	1	1B150-009-7		Δ	Black 35FB#7
202	1K404-030	1	1B660-005-8	7	oΔ	P33FB#202-6
105	1K370-358-1	1		14	o	

## 部品表 Parts list

FAA14001-R.3110.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	販売期 限区分 Term of Delivery	備考 Remarks
48	1K406-012-1	1	1B150-008-7	1	○Δ	35FB#67-1
120	1K467-016	1		6	○	P33FB#13
142	1K467-017-1	1	1B467-007-1		Δ	P33FB#44
532	1K470-003	1	1B060-026-7	5	○Δ	
537	1K470-004	1	1B470-001		Δ	
540	1K470-005-1	1	1B060-026-7	5	○Δ	
2188	1K470-011	1	1B060-034-4	2	○Δ	P33FB#502-1
2200	1K480-005	1	1B060-034-4	2	○Δ	P33FB#533
572	1K485-036	1		6	○	
251	1K576-025-1	1	1B100-076	8	○Δ	
257	1K576-027	2	1B100-071		Δ	P33FB#257
78	*1K600-079	1	1B620-014-2		Δ	P33FB#707-1
71	1K600-086	1	1B314-056-2		Δ	
73	1K600-087	1	1B001-086		Δ	P33FB#702-2
109	1K600-088	1	1B310-019		Δ	
113	1K600-089	1		8	○	
114	1K600-090-1	1		8	○	
115	1K600-091	1		8	○	
133	1K600-097	1		12	○	

## 部品表 Parts list

FAA14001-R.3110.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
137	-1K600-093	1	1B001-092		Δ	P33FB#924-1
304	1K600-094-1	2	1B100-068-4		Δ	
332	1K600-095	1	1B001-100		Δ	
358	1K600-096	1	1B001-102-6	10	oΔ	
369	1K600-097	1	1B060-022-2		Δ	35FB#931
374	1K600-099	1	1B660-005-7	9	oΔ	35FB#946
468	1K600-101	0~1	1B300-009 1B300-007		Δ	P33FB#530A
468	1K600-102-1	0~1	1B300-010-2 1B300-008-2		Δ	P33FB#530B-1
214	1K600-104	1	1B001-098-1		Δ	
47	1K600-130	1		11	o	
2456	1K600-151	1	1B001-128-2		Δ	P33FB#456-1
2472	1K600-152	1	1B001-131		Δ	P33FB#472-6
2475	1K600-153	1	1B001-131		Δ	P33FB#540A-6
2486	1K600-154	1	1B001-131		Δ	P33FB#487A-5
88	*1K610-163	1	1B620-014-2		Δ	P33FB#720
54	1K610-166	1	1B150-008-7	1	oΔ	35FB#84
77	1K610-168	1		14	o	35FB#706
80	1K610-169	1		14	o	P33FB#709
112	1K610-170	1	1B660-005-8	9	oΔ	

253	1K610-204	1	1B000-021-3		Δ	
254	1K610-205	2	1B100-071		Δ	35FB#254

## 部品表 Parts list

FAA14001-R.3110.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
2195	1K610-267-1	1	1B060-034-4	2	oΔ	P33FB#521-6
2198	1K610-268	1	1B060-034-4		Δ	P33FB#526
2393	1K610-269-1	1	1B610-012-2		Δ	
2407	1K610-270	1	1B060-034-4	2	oΔ	P33FB#408A
2412	1K610-271	1		3	o	P33FB#412-7
2414	1K610-272-1	1	1B001-130-1		Δ	P33FB#414-6
2445	1K610-273	1	1B001-129-2		Δ	P33FB#445
2451	1K610-274-1	1	1B060-034-4		Δ	P33FB#451-7
2483	1K610-275	6	1B060-034-4	2	oΔ	P33FB#483-6
2487	1K610-276	1	1B001-131		Δ	P33FB#487-6
2490	1K610-277-1	1	1B060-034-4	2	oΔ	35FB#490-1
2496	1K610-278	1	1B001-129-2	3	oΔ	P33FB#496-6
2085	1K610-280	1	1B620-014-2		Δ	P33FB#716
121	1K610-281	1		3	o	
23A	1K620-018-1	1	1B150-008-7		Δ	
24A	1K620-019	1	1B620-008-2		Δ	P33FB#4
136	1K620-021	4	1B001-092		Δ	P33FB#919-1
523	1K620-022-1	1	1B060-026-7		Δ	

## 部品表 Parts list

FAA14001-R.3110.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
245	1K620-032	1	1B001-099-1		Δ	35FB#245
250	1K620-033	1	1B660-005-8	8	oΔ	
23B	1K620-034-1	1	1B150-009-7		Δ	Black
24B	1K620-035	1	1B620-010-1		Δ	Black P33FB#4
2462	1K620-047	1	1B001-128-2		Δ	
110	1K625-006	1	1B206-003		Δ	
189	1K625-007-1	1	1B150-008-7	1	oΔ	
459	1K625-008-1	0~1	1B300-008-2 1B300-007		Δ	P33FB#459A
459	1K625-009-1	0~1	1B300-010-2 1B300-009		Δ	P33FB#459B
564	1K625-010	1	1B314-049		Δ	P33FB#654-1
522	1K625-011	1	1B470-001	5	oΔ	33FB#541B
2452	1K625-017-1	1	1B001-129-2		Δ	P33FB#452-6
43	1K630-080	1	1B150-008-7	1	oΔ	
104	1K630-081	1		14	o	
144	1K630-082	1	1B467-007-1		Δ	P33FB#46
424	1K630-083	1	1B001-128-2		Δ	P33FB#424-1
437	1K630-085	1		4	o	P33FB#437
461	1K630-087	1	1B300-010-2 1B300-009 1B300-008-2 1B300-007		Δ	P33FB#461
529	1K630-089	1	1B060-026-7		Δ	
2025	1K620-046-2	1	1B620-014-2		Δ	

## 部品表 Parts list

FAA14001-R.3110.A

補助番号 Ckt.No.	部品番号 Part No.	1台分 個數 Pcs. per Unit	部組品番号 Assembly	参照図番 Figure	販売期 限 Term of Delivery	備考 Remarks
218	1K630-090	1	1B660-005-8		Δ	P33FB#218
2421	1K630-113	1	1B001-128-2		Δ	P33FB#421-1
2436	1K630-114	1		4	○	P33FB#436-1
2455	1K630-115	1	1B630-009		Δ	P33FB#455
2460	1K630-116	1	1B630-009		Δ	P33FB#528
31	1K640-187	1	1B620-010-1 1B620-008-2		Δ	P33FB#922
32	1K640-188	1	1B620-010-1 1B620-008-2		Δ	P33FB#540
35	1K640-189-1	1	1B620-010-1 1B150-008-7	1	○Δ	
44	1K640-190	1	1B150-008-7	1	○Δ	
320	1K640-191	1	1B001-102-6		Δ	
335	1K640-192	1	1B260-002-1		Δ	
423	1K640-196	2	1B340-001-2 1B001-129-2		Δ	23FB P33FB#423
432	1K640-198	1		4	○	
438	1K640-199	1		4	○	P33FB#438-6
454	1K640-201-1	1	1B340-001-2		Δ	P33FB#454
457	1K640-202	2	1B340-001-2 1B001-129-2		Δ	P33FB#457
513	1K640-205-1	1	1B060-026-7		Δ	
514	1K640-206	1	1B060-026-7		Δ	33FB#614A-1
551	1K640-207	1	1B470-001	5	○Δ	33FB#541-3

## 部品表 Parts list

FAA14001-R.3110.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	販売期 限区分 Term of Delivery	備考 Remarks
220	1K640-208-1	1	1B640-011-1	7	○Δ	
224	1K640-209-1	1		5	○	
223	1K640-250-1	1	1B001-106-1		Δ	
2404	1K640-253	1	1B060-034-4	2	○Δ	35FB#404A
2422	1K640-254	1	1B001-129-2		Δ	P33FB#422-6
2425	1K640-255	1	1B001-129-2		Δ	P33FB#425
2442	1K640-256	1	1B630-009		Δ	P33FB#455A
127	1K650-003	1		12	○	P33FB#538
26	1K660-015-1	1	1B660-005-8		Δ	
2021	1K660-022-2	1			×	
68	1K680-097-1	1	1B314-056-2		Δ	
91	1K680-098-1	1	1B620-014-2		Δ	
122	1K680-099	1		8	○	33FB#39
123	1K680-100	1		8	○	33FB#40
135	1K680-101	1	1B001-092		Δ	P33FB#916-1
138	1K680-102-1	1		4	○	
145	1K680-103	1	1B060-021		Δ	
180	1K680-104	1	1B001-091-2		Δ	
362	1K680-106	1	1B001-102-6	10	○Δ	
219	1K640-261	1	1B660-005-8	7	○Δ	

## 部品表 Parts list

FAA14001-R-3110.A

## 部品表 Parts list

FAA14001-R.3110.A

補助番号 Ckt.No.	部品番号 Part No.	1台分 個數 Pcs. per Unit	部組品番号 Assembly	参照図番 Figure	搬 送 区 分 Term of Delivery	備 考 Remarks
1011	1S237-002	1	1B060-027-3		Δ	
1012	1S250-002	2	1B060-027-3		Δ	35FB#258
1013	1S260-004-1	1	1B060-027-3		Δ	
1014	1S260-005	1	1S005-002		Δ	
1021	1S310-009	1	1B060-027-3		Δ	3.3MΩ 1/8W
1022	1S310-010	1	1B060-027-3		Δ	39KΩ 1/8W
1023	1S310-011	1	1B060-027-3		Δ	82KΩ 1/8W
1024	1S310-012	1	1B060-027-3		Δ	4.7KΩ 1/8W
1031	1S322-006	1	1B060-027-3		Δ	47KΩ 0.15W
552	1S322-003-1	1	1B060-026-7		Δ	P33FB#680G
1033	1S322-007	2	1B060-027-3		Δ	10KΩ 0.15W
1045	1S335-011	1	1B060-027-3		Δ	2200PF 25V
1041	1S340-006	1	1B060-027-3		Δ	6.8μF 6.3V
1042	1S340-007	1	1B060-027-3		Δ	1.5μF 10V
1043	1S340-008	1	1B060-027-3		Δ	3.3μF 16V
1044	1S340-009	1	1B060-027-3		Δ	10μF 16V
70	1S700-009	1	1S007-010		Δ	
549	1S705-002-1	1	1B060-026-7		Δ	
550	1S705-003-1	1	1B060-026-7		Δ	

## 部品表 Parts list

FAA14001-R.3110.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
1001	1S705-004-1	1	1B060-027-3		△	
1002	1S705-005	1	1S005-002		△	35FB #109
2488	1S705-009	1	1B060-034-4		△	
1051	1S810-055	1	1B060-021	11	x	W-0056RE
1052	1S810-056	1		12	x	W-0056BK
1053	1S810-057	1	1B060-021	11	x	W-0056RE
1054	1S810-058	1		12	x	W-0056BE
1055	1S810-059	1	1B001-091-2	12	x	W-0056GN
1056	1S810-060	1	1B060-034-4	2	x	W-0056PU
1057	1S810-061	1			x	W-0056WH
1058	1S810-062	1		12	x	W-0056WH
1060	1S810-064	1	1S007-010		x	W-0056RE
1061	1S810-065	1	1B060-026-7		x	W-0056PU
1062	1S810-066	1	1B060-026-7		x	W-0056BK
1063	1S810-067	1	1B060-026-7		x	W-0056BN
1064	1S810-068	1	1B060-026-7		x	W-0056YE
1066	1S810-070	1	1B060-022-2		x	W-0056WH
1071	1S810-072	1		6	x	W-0056BE
1072	1S810-102	1	1B060-034-4	2	x	W-0056RE
1073	1S810-103	1	1B060-034-4	2	x	W-0056OE

## 部品表 Parts list

FAA14001-R.3110.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
602A	A1-17030FA	1		2	○	
601	A1-17015FB	2	1B660-005-8	8	○△	
634	A1-17018FB	1		12	○	
608A	A1-17022FC	1	1B660-005-8	7	○△	
608B	A1-17022FT	1		7	○	Black
602B	A1-17030FC	1		2	○	Black
603A	A1-17030FC	5		1	○	
624	A1-20030BX	2		11	○	
605	A1-20022FB	3		4	○	
604	A1-20025FB	1		12	○	
606	A1-20030FB	5		2,3	○	
607	A1-20070FT	1		11	○	
609	A2-17025FB	1	1B660-005-8	10	○△	
611	A2-17030FB	3		12,14	○	
610A	A2-17025FC	3		12	○	
613	B1-14015FB	2	1B100-070-1	8	○△	
614	B1-14020FB	2		8	○	
617	B1-17025FA	2	1B001-102-6	10,11	○△	

## 部品表 Parts list

FAA14001-R.3110.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	販売期 限区分 Term of Delivery	備考 Remarks
619	B1-17035FA	2	1B150-008-7	5 1	oΔ	
636	B1-17030FA	3	1B150-008-7	1	oΔ	
620	B1-17040FA	3		8	o	
637	B1-17020FB	2		8	o	
616	B1-17022FB	2	1B660-005-8	9	oΔ	
618	B1-17025FB	1	1B660-005-8	10	oΔ	
622	B1-20025FA	1		12	o	
626	B1-20050FA	3	1B060-034-4	8,2	oΔ	
658	B1-20030FB	1		5	o	
625	B1-20040FB	1		12	o	
627	B1-20045FB	2		11	o	
629	B2-20045FA	1		12	o	
635	E1-20028FB	1		8	o	
631	K2-14015FA	3		4	o	
632	K2-14025FA	2	1B060-026-7	5	oΔ	
633	K2-14025FB	2	1B100-070-1	8	oΔ	
573	P1-10080SX	1		6	o	

## 部品表 Parts list

FAA14001-R.3110.A

## [2] 部組品一覧表 Assembly List

FAA14001-P.3110.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.
B011	1B001-085	2	1K100-034 , 1K044-001	11	P33FB-#A2-1
B017	1B001-086	1	1K240-049 , 1K370-192 1K600-087	13	P33FB-#E2-1
B100	1B001-090-2	1		11	
B103	1B001-091-2	1	1K610-175 , 1K370-200-1 1K314-055-1 , 1K115-193 1K240-052 , 1K240-051 1K680-104 , 1K115-194 1K230-025-1 , 1S810-059	12	
B106	1B001-092	1	1K680-101 , 1K620-021×4 1K600-093	12	
B303	1B001-098-1	1	1K208-009 , 1K370-241-1 1K220-041 , 1K600-104 1K370-242 , 1K060-003	9	35FB-#B6-6
B306	1B001-099-1	1	1K620-032 , 1K370-244-1×4 1K240-068×2	9	35FB-B22-1
B307	1B001-100	1	1K600-095 , 1K370-247 1K370-203	9	
B322	1B001-102-6	1	1K610-192-1 , 1K314-059 1K366-013 , 1K640-191 1K314-060 , 1K314-062 1K370-210 , 1K314-063 1K370-211 , 1K370-212 1K260-008-1 , 1K370-213 1K260-010-2 , 1K260-011-1 1K370-214 , 1K370-216 1K314-065 , 1K366-012 1K370-220 , 1K370-245 1K370-246 , 1K230-029 1K050-050 , 1K370-215 1K060-003 , 1K060-004 1K120-052 , 1K314-064-1 1K230-030-1 , 1K225-043-1 1K225-044-2 , 1K230-032 1K230-033-1 , 1K230-034 1K115-196 , 1K600-096 1K050-020 , 1K680-106 1K115-197 , 1K050-024 B1-17025FA , 1B314-053-2 1B260-002-1 , 1B314-054-1	10	

## 部組品一覧表 Assembly List

FAA14001-R.3110.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.
B502	1B001-106-1	1	1K240-066 , 1K370-355-1	1K640-250-1	5
B2201	1B001-127	1	1K370-367 , 1K220-039	1K130-097 1K050-074×2	4 P33FB-#A21-6
B2207	1B001-128-2	1	1K260-055-1 , 1K630-083 , 1K600-151 , 1K078-007×16	1K630-113 1K220-064 1K620-047	4 P33FB-#A7-1
B2403	1B001-129-2	1	1K625-017-1 , 1K260-054 , 1K640-196 , 1K370-364 , 1K370-365×3 , 1K370-224 , 1K314-069 , 1K370-225 , 1K640-202 , 1K078-007×24 , 1K610-187	1K260-053 1K260-051 1K640-254 1K640-255 1K050-072 1K310-019 1K610-273 1K230-041 1K610-278 1K120-054 1K340-023	3 P33FB-#A11-6
B2404	1B001-130-1	1	1K610-272-1 1K370-366-1		3 P33FB-#A13-5
B2406	1B001-131	1	1K610-276 , 1K680-171 , 1K600-154	1K600-152 1K600-153	2 P33FB-#K1-6
B2203	1B001-132-1	1	1K370-368-1 1K230-044-1		3,4
B105	1B060-021	1	1K680-103 , 1K370-197 , 1S810-057	1K240-050 1K610-174 1S810-055	11
B311	1B060-022-2	1	1K680-107 , 1K240-057-1 , 1S810-070	1K240-056-1 1K600-097	9

## 部組品一覧表 Assembly List

FAA14001-R.3110.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.
B510	-1B060-026-7	1	1K010-017-2 , 1K277-003-1 , 1K245-001 , 1K240-062 , 1K150-010 , 1K267-002 , 1K201-012 , 1K220-043 , 1K470-005-1 , 1K248-003 , 1K314-072 , 1K160-195-1 , 1K240-061 , 1K340-025-1 , 1K370-235 , 1K370-237-2 , 1K630-089 , 1K370-232 , 1K233-015×6 , 1K115-200 , 1K248-002 , 1S705-002-1 , 1S810-065 , 1S810-067 , K2-14025FA×2 , 1B470-001 , 1K001-012 , 1K370-233 , 1K260-017-1 , 1K640-206 , 1K620-022-1 , 1K078-008 , 1K267-001-1 , 1K470-003 , 1K160-183 , 1K120-055 , 1K260-018 , 1K277-004-1 , 1K120-056-1×2 , 1K010-016 , 1K610-193-1 , 1K370-234-1 , 1K260-019-1 , 1K370-236 , 1K680-111-1 , 1K240-063-1 , 1K240-072 , 1K640-205-1 , 1K246-005 , 1S322-003-1 , 1S705-003-1 , 1S810-066 , 1S810-068 , 1K240-071-2	5	
B1002	1B060-027-3	1	1K610-200 , 1K680-124 , 1S705-004-1 , 1S250-002×2 , 1S310-009 , 1S310-011 , 1S322-006 , 1S340-009 , 1S340-007 , 1S335-011 , 1K610-204 , 1S237-002 , 1S260-004-1 , 1S310-010 , 1S310-012 , 1S322-007×2 , 1S340-006 , 1S340-008	8	

## 部組品一覧表 Assembly List

FAA14001-R.3110.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.
B2408B	1B060-051-3	1	1K146-018 1B060-034-4 (1K146-017 を除く。 exception: 1K146-017),	2	Black
B2408A	1B060-034-4	1	1K610-274-1 , 1K340-040 1K370-369 , 1K370-370 1K370-371×2 , 1K314-106 1K370-372 , 1K001-012 1K146-017 , 1K640-253 1K150-008 , 1K230-039 1K680-169 , 1K610-270 1K314-080 , 1K230-079 1K610-275×6 , 1K610-277-1 1K470-011 , 1K230-076 1K150-017 , 1K330-007 1K260-049 , 1K260-050 1K610-267-1 , 1K314-105 1K230-077 , 1K610-268 1K275-009-1 , 1K480-005 1K060-013-1 , 1S705-009 1S810-102 , 1S810-103 1B001-131 , 1B206-004 1S810-060 , B1-20050FA 1K123-051	2	
B025	1B100-067-1	1	1K233-014 1G710-003	1	P33FB-#C4
B310	1B100-068-4	1	1K610-177 1K240-055 1K115-220 1K370-205-2 1G551-004-1	9	
B314A	1B100-069-1	1	1K080-006 1G218-001-1	7	33FB-#B30-1
B327	1B100-070-1	1	1K610-201 1G550-008-1×2, B1-14015FB×2	8	33FB-#N1
B328	1B100-071	1	1K680-113 1K610-206 1K240-069 1K010-018×2 1G308-001×2	8	35FB-#N4
B314B	1B100-072-1	1	1K080-007 1G218-001-1	7	33FB-#B30-1 Black

## 部組品一覧表 Assembly List

FAA14001-R.3110.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	参照図書 Figure	備考 Remarks.
B2026A	1B150-008-7	1	1K620-018-1 1K630-080 1K370-363 1K115-293 1K220-036 1K400-079-1 1K248-001 1K406-012-1 1K240-046 1K610-166 1K206-002 1K160-181 B1-17035FA 1B240-003 B1-17030FA×3 1K115-297	1K115-180 1K640-190 1K040-001-1 1K400-077-1 1K625-007-1 1K640-189-1 1K115-181 1K240-045 1K360-007 1K030-001 1K160-180 1K160-182 1S005-002 1B680-006-1 1B100-067-1	
B2026B	1B150-009-7	1	1K620-034-1 1B150-008-7 (1K620-018-1 1K400-079-1, 1K240-045 を除く. exception: 1K620-018-1 1K240-045, 1K400-079-1)	1K400-082 1K240-073	Black 1
B305	1B206-002-1	1	1K610-178-1	9	35FB-#309
B324	1B206-003	1	1K625-006	8	
B407	1B206-004	1	1K206-001 1K680-110	1K610-185 1K010-019×2	1 35FB-#P3-1
B023	1B240-003	1	1K240-047	1	P33FB-#71-1
B319	1B260-002-1	1	1K640-192	1K260-009-1	10

## 部組品一覧表 Assembly List

FAA14001-R.3110.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.
B206A	1B300-007	0~1	1K625-008 1K630-087 1K370-227 1K600-101	4	P33FB-#A10A
B206B	1B300-008-2	0~1	1K625-008-1 1K630-087 1K370-227 1K600-102-1	4	P33FB-#A10B
B206C	1B300-009	0~1	1K625-009 1K630-087 1K370-227 1K600-101	4	P33FB-#A10C
B206D	1B300-010-2	0~1	1K625-009-1 1K630-087 1K370-227 1K600-102-1	4	P33FB-#A10D
B312	1B310-019	1	1K370-195 1K600-088	8	
B313	1B310-020	1	1K310-020 1K370-238	9	
B027	1B314-049	1	1K625-010 1K370-240 1K201-014	6	35FB-#H1-1
B104	1B314-051	1	1K314-054 1K370-198 1K370-199	4	
B304	1B314-052-1	1	1K314-057-1 1K370-206	9	
B320	1B314-053-2	1	1K314-061-1 1K370-218 1K115-195 1K370-208 1K366-011-1	10	
B321	1B314-054-1	1	1K314-058 1K370-209 1K370-207-1	10	
B2101	1B314-056-2	1	1K314-104-1 1K680-097-1 1K600-086 1K366-010 1K240-048	11	
B204	1B340-001-2	1	1K640-201-1 1K640-202 1K640-196 1K078-007×8	4	P33FB-#A14
B012	1B400-001-1	1	1K400-016-1 1K370-042 1K370-043	6	S-8504
B030	1B467-007-1	1	1K467-017-1 1K630-082	12	P33FB-#P5
B508	1B470-001	1	1K470-004 1K625-011 1K640-207	5	
B019A	1B620-008-2	1	1K620-019 1K640-188 1K060-005-1 1K640-187 1K370-189	12	P33FB-#D-1
B700	1B610-012-2	1	1K610-269-1 1K115-323-1 1K115-322	14	

## 部組品一覧表 Assembly List

FAA14001-R.3110.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	参照図書 Figure	備考 Remarks.
B019B	1B620-010-1	1	1K620-035 1K640-188 1K060-005-1  1K640-187 1K370-189		P33FB-#D-1 Black
B2016	1B620-014-2	1	1K620-046-2 1K600-079 1K370-177×2 1K610-280 1K362-014 1K370-181×3 1K680-098-1 1K115-154 1K115-156 1K123-034  1K370-193×4 1K370-176-1 1K240-033-1 1K370-179-1×2 1K610-163 1K362-007-1 1K115-301 1K115-155 1K115-157×2 1K220-031	13	
B2202	1B630-009	1	1K630-116 1K640-256	4	P33FB-#A8
B315	1B640-011-1	1	1K640-208-1 1K115-201	7	
B323A	1B660-005-8	1	1K660-015-1 1K115-191 1K404-030 K220-042 1K115-233×3 1K620-033 1K230-028 1K050-019 1K230-031-2 1K600-099 1K123-038 1K130-067 1K123-042×4 A1-17015FB×2 A2-17025FB B1-17025FB 1B001-098-1 1B206-002-1 1B001-100 1B060-022-2 1B100-069-1 1B001-102-6 1K050-029~1K050-048  1K640-261	7 8 9	

## 部組品一覽表 Assembly List

FAA14001-R.3110.A

FAA140FC

## **NIKON New FM2**

ニコン New FM2

### **PARTS LIST**

部品表



**NIPPON KOGAKU K.K.**

Tokyo, Japan

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## 部品表 Parts list

(New FM2)

FAA14002 - R.3110.A

部品番号 Part No.	補助番号 Ckt. No.	名 称 Name	1台分 個 Pcs.per Unit	部組品番号 Assembly	参照図番 Figure	販売区分 Term of Delivery	備考 Remarks
1K050-152	3578	Washer	2	1B060-159-7		○△	
1K115-480	370	植毛シート Baffle sheet	1	1B060-089-8 1B660-026 1B660-027		○△	
1K115-592	2480	テープ Tape	1			○	
1K130-174-1	3538	管制部ネジ Screw shutter control unit	1			○	
1K130-176	2473	Screw	1	1B060-167-9		○△ FE2	
1K230-076-2 (1K230-076)	2190	カウンターパネ Counter spring	1	1B060-167-9		○△ FE2	
1K240-118-2 (1K240-118-1)	49A	シューパネ 白 Shoe contact spring	1	1B150-024-2		○△ FE2	(4)
1K240-215-1 (1K240-215-2)	49B	シューパネ 黒 Shoe contact spring	1	1B150-025-2		○△ FG	(4)
1K275-026-2	2199	枚数計ギヤ Counter Gear	1	1B060-167-9		○△ FE2	
1K406-014	48	ホットシューア Hot shoe contact	1	1B150-024-2 1B150-025-2		○△ FE2	(4)
1K470-033	3532	ASA 目盛環 ASA calibration disk	1	1B060-159-7		○△	
1K475-158-1	2188	枚数計 Frame counter dial	1	1B060-167-9		○△ FE2	
1K610-489	3555	ラグ板 Lug	1			○	

## 部品表 Parts list

FAA14002 - R.3110.A

## 部組品一覧表 Assembly List

FAA14002 - R.3110.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	構成部品番号 Constituent Parts	参照図番 Figure	備考 Remarks
Depleted 1B001-380-1 (1B001-380) OLD	B100	シャッター Shutter → NEW. 1B001-380-1	1		5705 NO. 8426 ¥ 4480-	9430
1B001-265-1 (1B001-265)	B3382	遮光板 Light baffle plate	1	1K115-460 , 1K115-461 1K115-462 , 1K370-483-1 1K370-485 , 1K610-379		FE2
1B060-089-8 (1B060-089-2)	B3300	横基板 Mirror box mechanism	1	1K050-020 , 1K050-024 1K050-050 , 1K050-132 1K060-003 , 1K060-004 1K115-196 , 1K115-480 1K120-029-1 , 1K120-052 1K225-043-2 , 1K225-044-2 1K230-029 , 1K230-030-3 1K230-032 , 1K230-033-1 1K230-034 , 1K260-008-5 1K260-010-2 , 1K260-011-2 1K314-059 , 1K314-060 1K314-062 , 1K314-063 1K314-064-1 , 1K314-065-1 1K366-012 , 1K366-013-1 1K370-210-1 , 1K370-211-1 1K370-212 , 1K370-213-1 1K370-214-1 , 1K370-215-2 1K370-216-1 , 1K370-220 1K370-245-2 , 1K370-246-1 1K600-096 , 1K610-192-2 1K640-191 , 1K680-106 1B260-002-1 , 1B314-053-2 1B314-112 ,		
1B001-313-6		UNIT, FILM ADVANCE MECHANISM			¥450 NO. 8425	
(DEP) 1B001-604 1B001-604-1		SPPOOL TOP GEAR				5705 NO. 8426
*	1B001-946	— ALUMINUM — SHUTTER UNIT		¥ 35.77	NO. 8437	
*	1B999-344	— ALUMINUM — OPENING CURTAIN		¥ 7.62	NO. 8437	
*	1B999-345	— ALUMINUM — CLOSING CURTAIN		¥ 7.62	NO. 8437	
	1B999-018	先幕 opening curtain				NO. 8437 \$4-
	1B999-019	後幕 closing curtain				NO. 8437 \$4-
	1K999-011	中間板 A			FE2. FA ¥共用	
	1K999-012	中間板 B			¥ 380- N 8549	
	1K999-009	カバー板			¥ 340- N 8549	
	1K999-013	遮光板			¥ 230- N 8549	

## 部組品一覧表 Assembly List

FAA14002 - R.3110.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	構成部品番号 Constituent Parts	参照図番 Figure	備考 Remarks
1B060-159-7 (1B060-159-3)	B510	管制部 Shutter control unit <i>Y250</i>	1	1K010-050 , 1K078-008 1K050-152 x2 1K115-393 , 1K115-657 1K115-671 , 1K120-055 1K120-056-1x2 1K120-156 , 1K150-010 1K146-037 x2 1K160-183 , 1K160-195-1 1K201-012 , 1K220-043 1K233-015x6, 1K240-078 1K240-062-3, 1K240-063-1 1K240-071-4, 1K240-072 1K240-119-3, 1K240-275-1 1K240-276 , 1K240-277 1K240-279-2, 1K245-001 1K248-003-1, 1K260-069-1 1K260-017-2, 1K260-018-1 1K260-019-2, 1K267-002 1K277-003-2, 1K300-045-2 1K314-072-1, 1K340-066 1K340-067 , 1K370-233 1K370-234-1, 1K370-235 1K370-236 , 1K370-237-2 1K370-595 , 1K370-596 1K370-597-1, 1K470-005-3 1K470-033 , 1K610-193-4 1K620-087 , 1K630-089-2 1K640-380 , 1K640-381-2 1K680-314 , 1S322-003-1 1S705-033 , 1S705-034 1S810-065 , 1S810-067 1S810-068 , 1S810-351 1S810-352 , 1S810-353 G1-14025FT , 1B470-005		
1B060-167-9 (1B060-167-3)	B2408	上地板 Unit, film-advance lever	1	1K001-012 , 1K050-058 1K123-051 , 1K130-176 1K150-008 , 1K275-026-2 1K230-076-2, 1K230-077 1K230-108 , 1K260-050-1 1K260-078 , 1K314-080 1K314-105-1, 1K314-106-1 1K340-026 , 1K340-040-3 1K370-371 x2 1K370-519-1, 1K370-520-1 1K475-158-1, 1K480-005 1K610-267-3, 1K610-270 1K610-275 x6 1K610-277-2, 1K610-413-3 1K640-253 , 1K680-169-2 1S705-009-3, 1S810-060 1S810-102 , 1S810-103		

## 部組品一覧表 Assembly List

FAA14002 - R.3110.A

部品番号 Assembly No.	補助番号 Ckt. No.	名 称 Name	1台分 個数 Pcs.per Unit	構成部品番号 Constituent Parts	参照図番 Figure	備考 Remarks
1B100-138-2 (1B100-138-1)	B3301	チリ取り Mirror holder	1	1K115-220-3, 1K240-054 1K115-391-1, 1K240-055 1K370-204 x4 1K370-217 , 1K370-499 1K600-094-1x2 1K610-177 , 1G551-004-1		
1B150-024-2 (1B150-024)	B2026A	上蓋 Top cover	1	1K030-001 , 1K040-001-1 1K115-180 , 1K115-181 1K115-293 , 1K160-180 1K160-181 , 1K160-182 1K206-002 , 1K220-036-1 1K233-014 , 1K240-046-1 1K240-118-2, 1K248-001 1K360-007 , 1K370-363-1 1K400-076-1, 1K400-077-1 1K400-079-1, 1K406-014 1K610-166 , 1K620-089 1K625-007-2, 1K630-080 1K640-189-1, 1K640-190-1 B1-17035FA , 1G710-003 1S005-002 , 1B680-006-4 B1-17030FAx3		
1B150-025-2 (1B150-025)	B2026B	上蓋(黒) Top cover (black)	1	1K030-001 , 1K040-001-1 1K115-180 , 1K115-181 1K115-293 , 1K160-180 1K160-181 , 1K160-182 1K206-002 , 1K233-014 1K220-036-1, 1K240-215-1 1K240-046-1, 1K248-001 1K360-007 , 1K370-363-1 1K400-076-1, 1K400-077-1 1K400-082 , 1K406-014 1K610-166 , 1K620-094 1K625-007-2, 1K630-080 1K640-189-1, 1K640-190-1 1S005-002 , 1G710-003 B1-17030FAx3 B1-17035FAx3 1B240-003 , 1B680-006-4		
1B470-005	B508	X250 シャッター目盛 Shutter speed disk	1	1K470-032 , 1K625-011-1 1K640-207		
1B001-946		SHUTTER (ALM)		\$25.77-		NO 900/
1B999-344		SHUTTER OPENING CURTAIN (ALM)		\$ 7.62-		NO 900/
1B999-345		SHUTTER CLOSING CURTAIN (ALM)		\$ 7.62-		NO 900/

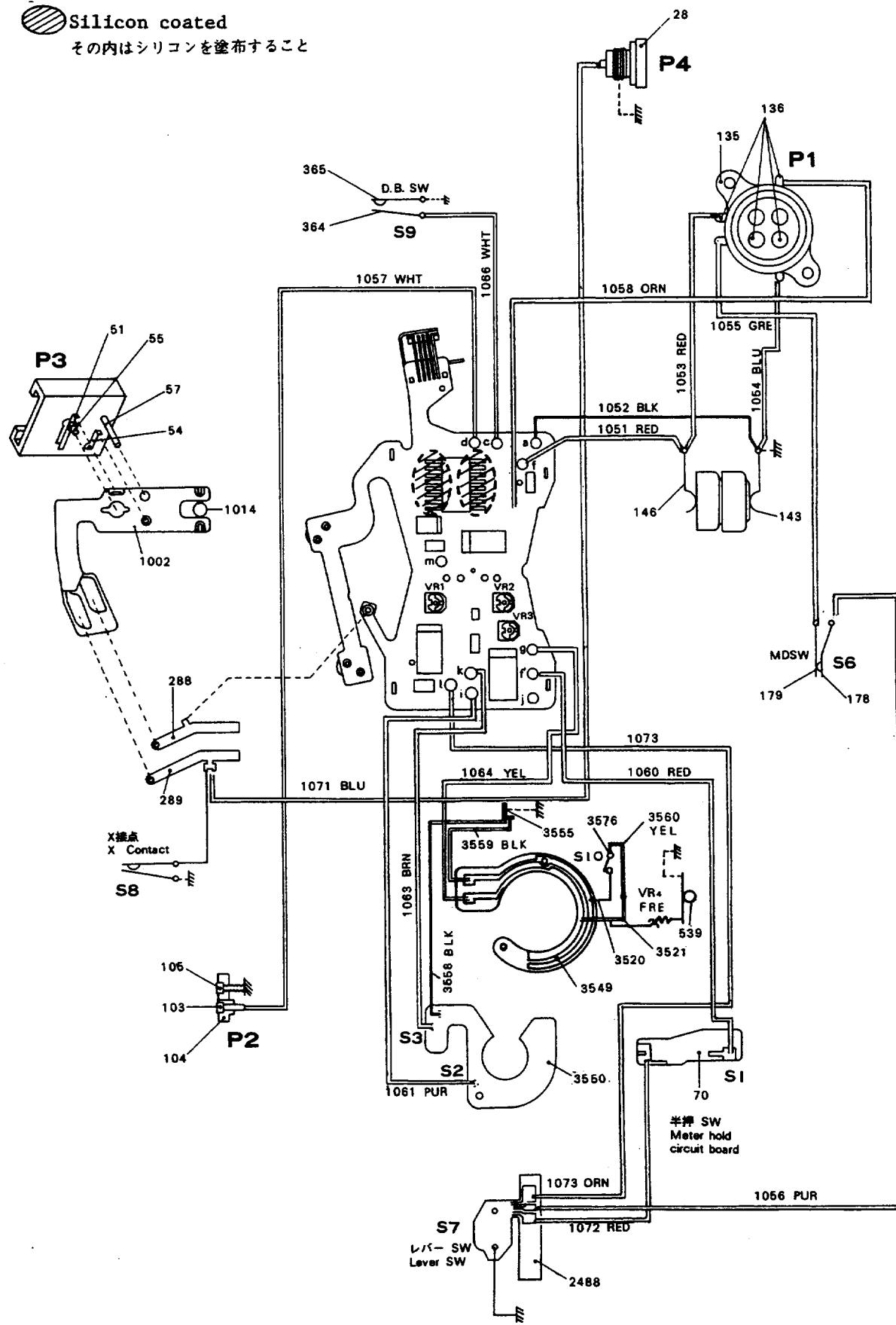
## 部組品一覧表 Assembly List

FAA14002 - R.3110.A

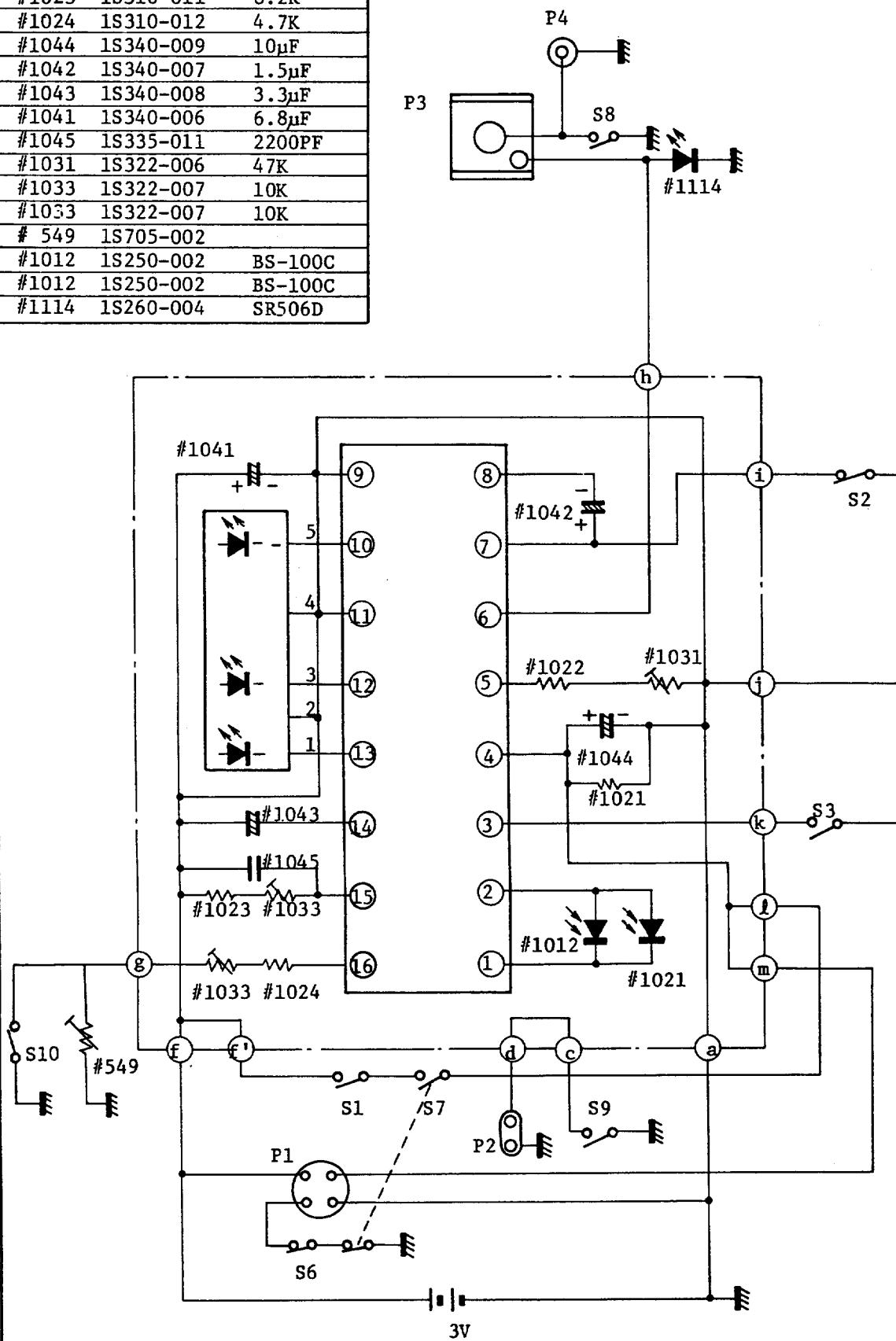
部組品番号 Assembly No.	補助番号 Ckt. No.	名 称 Name	1台分 個数 Pcs.per Unit	構成部品番号 Constituent Parts	参照図番 Figure	備考 Remarks
1B660-026 (1B660-015-4)	B323A	前板 Front plate unit	1	1K050-019 , 1K050-022 1K050-029 ~ 1K050-048 1K050-112 , 1K050-144 1K115-187 , 1K115-191-1 1K115-203 1K115-233 x2 1K120-051-1, 1K120-092 1K123-038 , 1K123-039x4 1K123-042 x2 1K130-058-1, 1K220-042 1K230-028 , 1K230-031-2 1K230-035-1, 1K240-065-1 1K240-067-1, 1K404-030-1 1K600-099 , 1K610-170 1K620-033-1, 1K630-090 1K640-261-1, 1K660-033-1 A1-17015FBx2 A1-17022FC , A2-17025FB B1-17022FBx2 B1-17025FB , B1-17040FAX2 1B001-098-2, 1B001-099-2 1B001-265-1, 1B001-432 1B060-022-4, 1B060-089-8 1B100-069-2, 1B100-138-1 1B206-002-1, 1B206-003-1 1B310-019 , 1B314-052-1 1B640-011-2		
1B660-027-1 (1B660-016-4)	B323B	前板(黒) Front plate unit (black)	1	1K050-019 , 1K050-022 1K050-029 ~ 1K050-048 1K050-144 , 1K115-187 1K115-191-1, 1K115-203 1K115-233 x2 1K120-051-1, 1K120-064 1K123-038 , 1K130-058-1 1K123-039 x4 1K123-042 x2 1K220-042 , 1K230-028 1K230-031-2, 1K230-035-1 1K240-065-1, 1K240-067-1 1K404-030-1, 1K600-099-1 1K610-170 , 1K620-033-1 1K630-090 , 1K640-261-1 1K660-033-1 A1-17015FBx2, A1-17022FT A2-17025FB, B1-17022FBx2 B1-17025FB, B1-17040FAX2 1B001-098-2, 1B001-099-2 1B001-265-1, 1B001-432 1B060-022-4, 1B060-089-8 1B100-072-4, 1B100-138-1 1B206-002-1, 1B206-003-1 1B310-019 , 1B314-052-1 1B640-011-2		
1B680-006-5 (1B680-006-4)	B022	シュー座モールド Shoe mount mold	1	1K380-014-1, 1K370-191-2		

半田づけの注意は他のボディに準ずる

 Silicon coated  
その内はシリコンを塗布すること



#1021	1S310-009	3.3M
#1022	1S310-010	39K
#1023	1S310-011	8.2K
#1024	1S310-012	4.7K
#1044	1S340-009	10µF
#1042	1S340-007	1.5µF
#1043	1S340-008	3.3µF
#1041	1S340-006	6.8µF
#1045	1S335-011	2200PF
#1031	1S322-006	47K
#1033	1S322-007	10K
#1033	1S322-007	10K
# 549	1S705-002	
#1012	1S250-002	BS-100C
#1012	1S250-002	BS-100C
#1114	1S260-004	SR506D



作成承認印	配布許可印
	

## Nikon New FM2/T

PARTS LIST (REVISED-1)

修理部品表(改訂-1)

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Feb. 17, 1994

上カバー部 Top cover

FM 2/T

FAA14132 - R. 3345. A

No. xx or Bxx --- Part Number  
補助番号(Ckt No.) of New FM2

No. 1Kxxx-xxx  
1Bxxx-xxx

) --- Part Number of  
New FM2/T & FM2/T

**1B150-068 (1)**

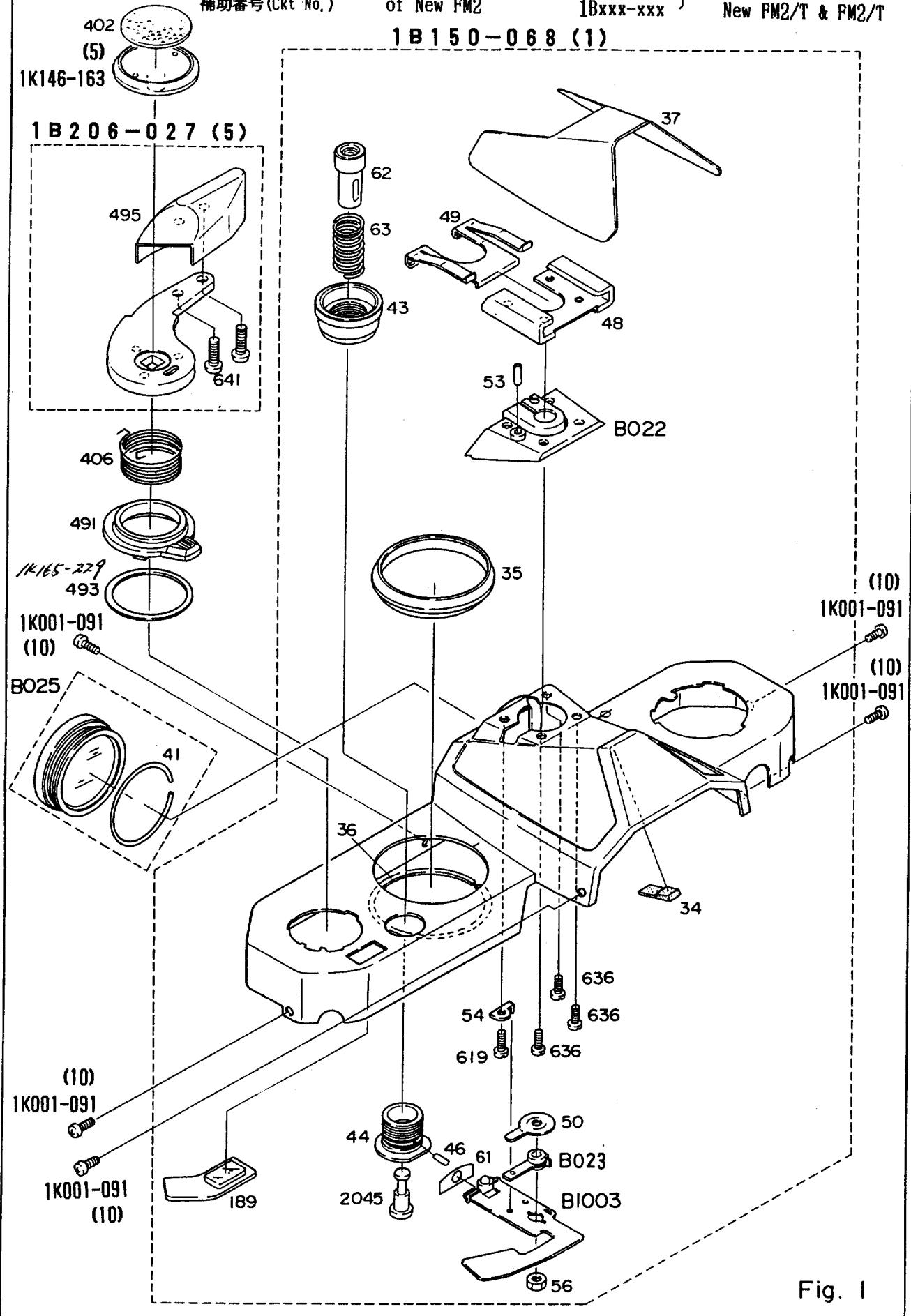


Fig. 1

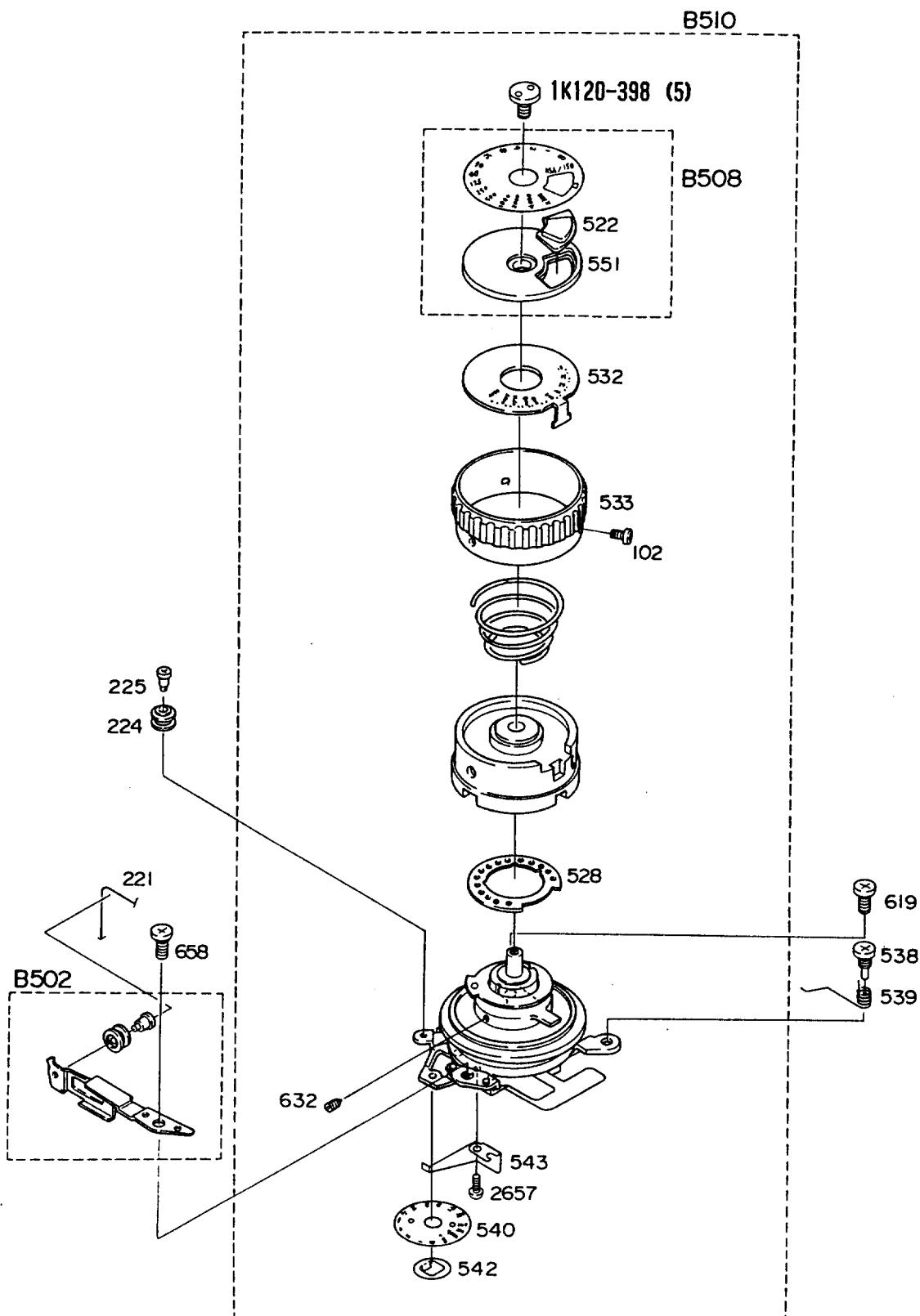


Fig. 5

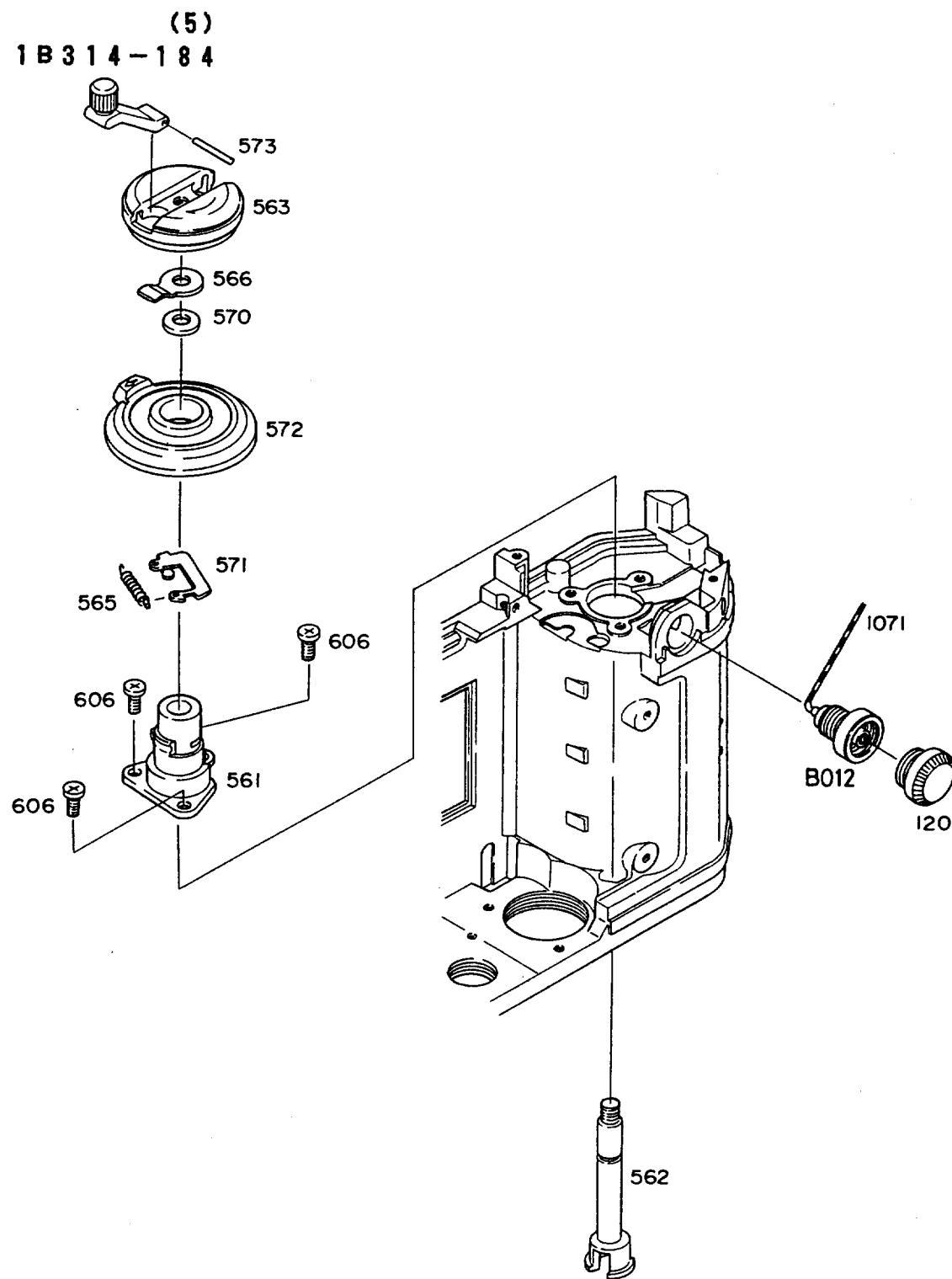
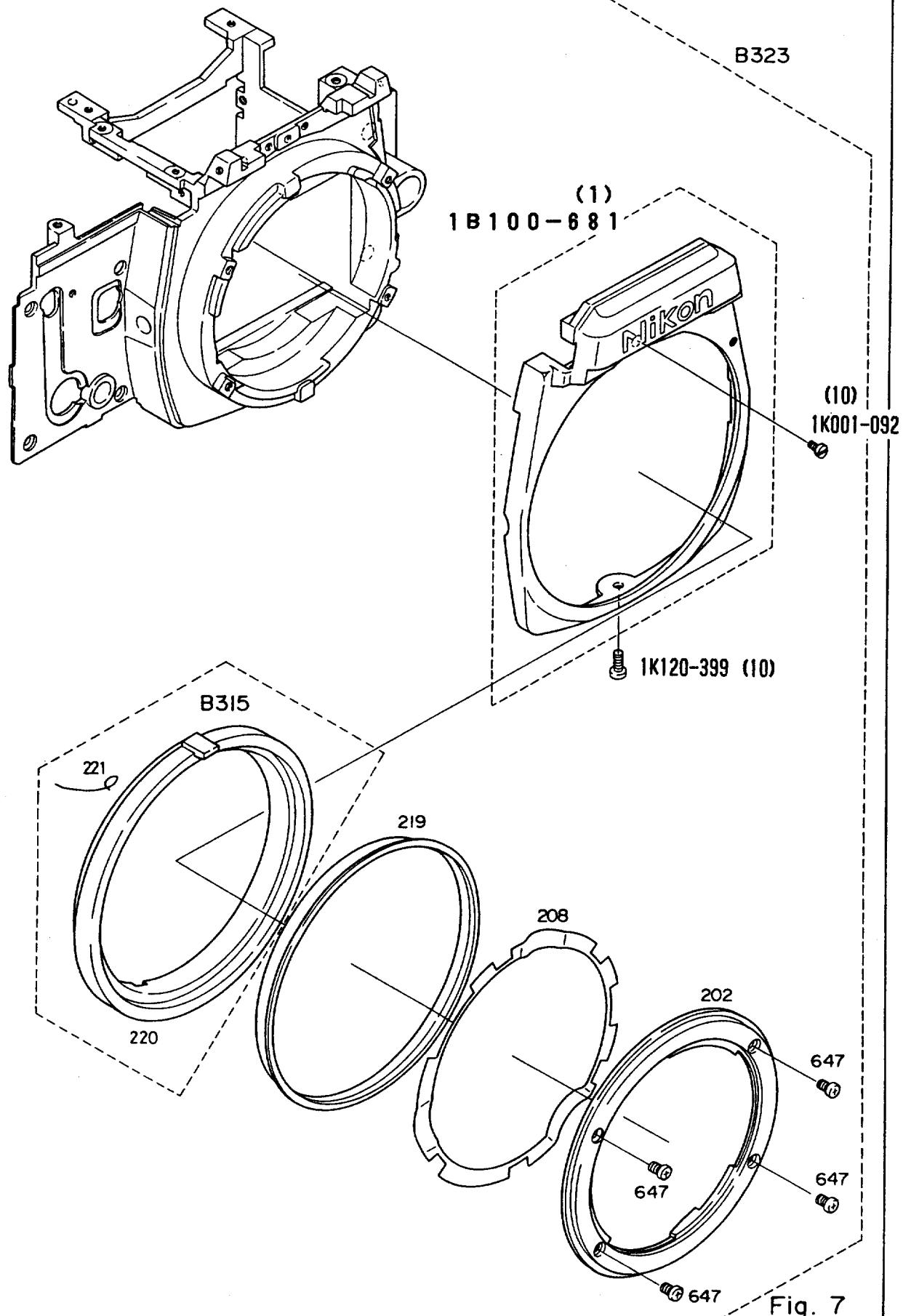


Fig. 6



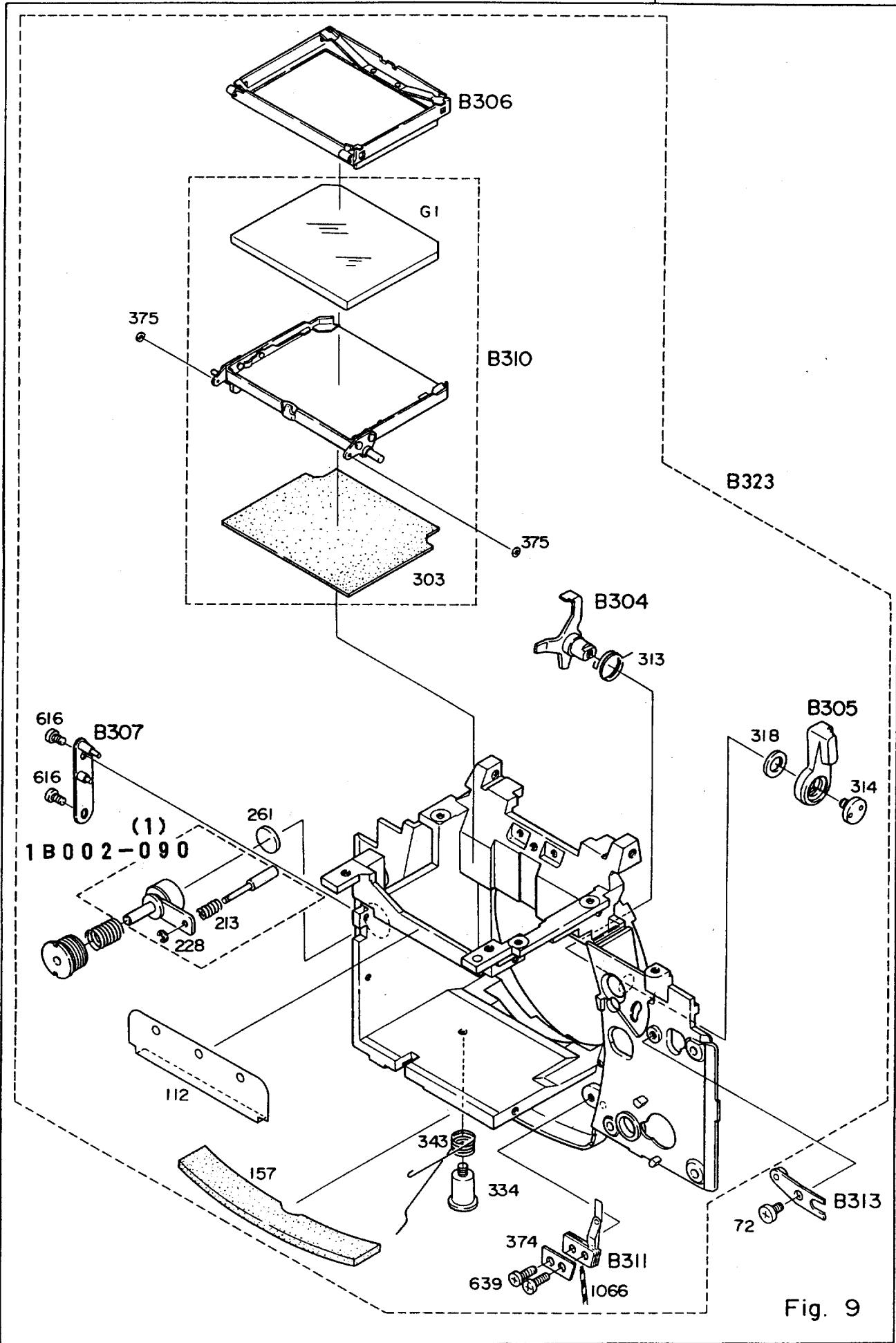


Fig. 9

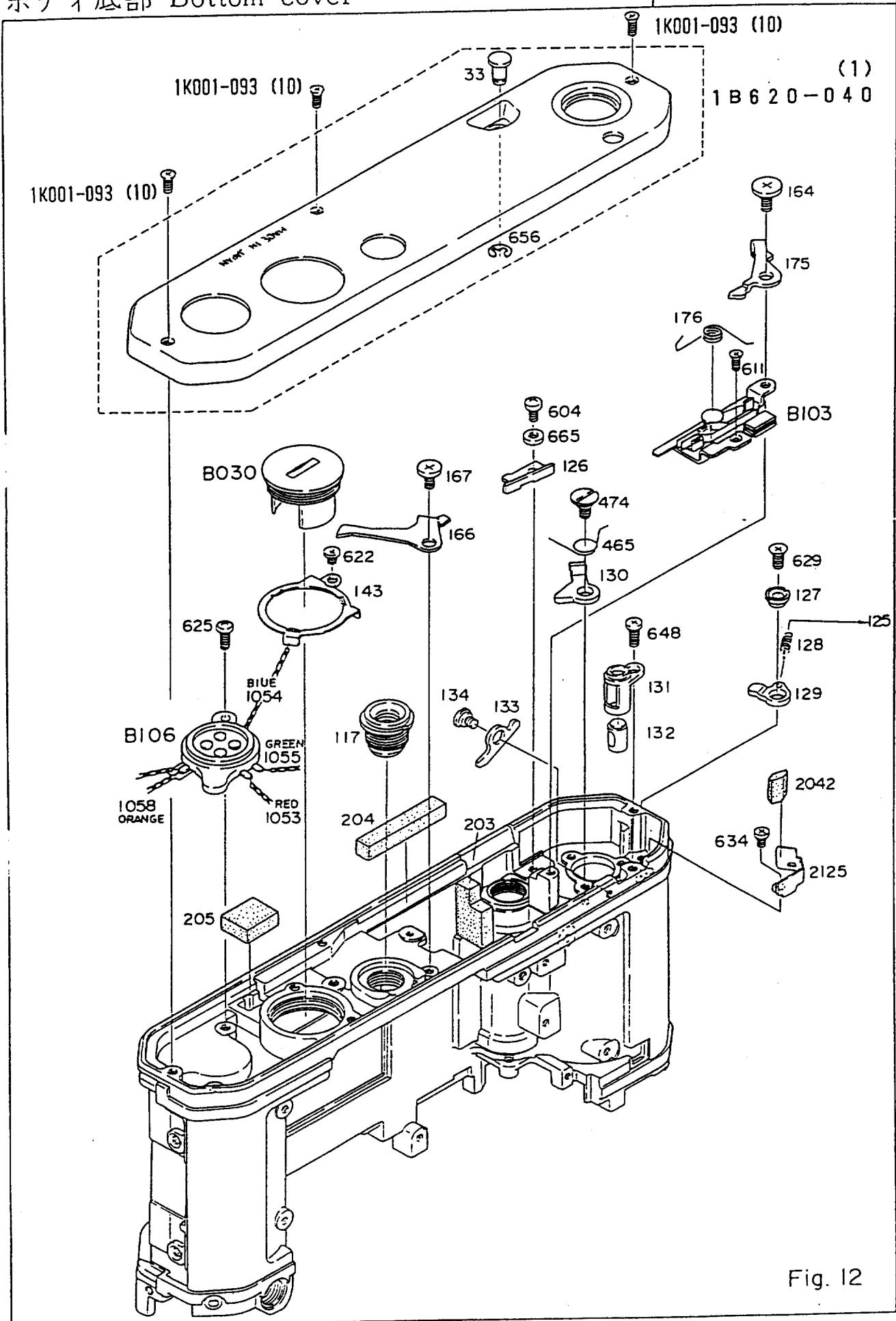


Fig. 12

## ~~Part~~ Parts List

F M 2 / T

FAA 14132-R. 3345. B

## 部組品表 Assembly List

FM 2-T

FAA 14132-R. 3345. B

## 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。

例① A 2 - 1 4 0 2 5 FA → 呼び径  
 品名 種類 長さ  
 表(1)の部品の小数点位置

例② N 1 - 0 2 0 0 0 FA → 六角ナット1種 φ 2.0  
 品名 種類 呼び径  
 表(2)の小数点位置で長さ表示はなし

### (1) Standard mechanical parts

#### Reference Number in the Parts List

##### A. Screw · pin

A 2 - 1 4, 0 2 5 FA

Item	Type	Diameter	Length
------	------	----------	--------

##### B. Nut · Washer · Snap ring

N 1 - 0 2 0 0 0 FA

Item	Type	Diameter
------	------	----------

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	A	なべ Pan	1	すりわり付き止ねじ Splittered set screw	K	丸先 Round point	1	
		さら Countersunk	2			とがり先 Cone point	2	
		丸さら Oval	3			くぼみ先 Half point	3	
JCIS 十字穴付き小ねじ 3種 " screw 3	B	なべ Pan	1	六角穴付き止ねじ Hexagon socket head set screw	L	くぼみ先 Half point	3	
		さら Countersunk	2			六角穴付きボルト Hexagon socket head bolt	1	
		丸さら Oval	3			平行ピン Straight pin	1	
" Cross-point screw	C	なべ Pan	1	テーパーピン Taper pin	P		2	
		さら Countersunk	2			スプリングピン Spring cotter	3	
		丸さら Oval	3			一般用 Normal	4	
" Cross-point tapped screw B1	D	なべ Pan	1	表 2				
		さら Countersunk	2	品 名 Item				
		丸さら Oval	3	種 類 Type				
" Cross-point tapped screw B3	E	なべ Pan	1	六角ナット Hexagon nut		1種 1	1	
		さら Countersunk	2	3種 3		3種 3	3	
		丸さら Oval	3	平座金 Washer		小形丸 みがき丸	1	
" screw 2	F	なべ Pan	1	ばね座金 Spring washer			5	
		さら Countersunk	2	E型止め輪 E-snap ring		S	1	
		丸さら Oval	3	R				

## (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（修理部品扱いはしない）

## (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

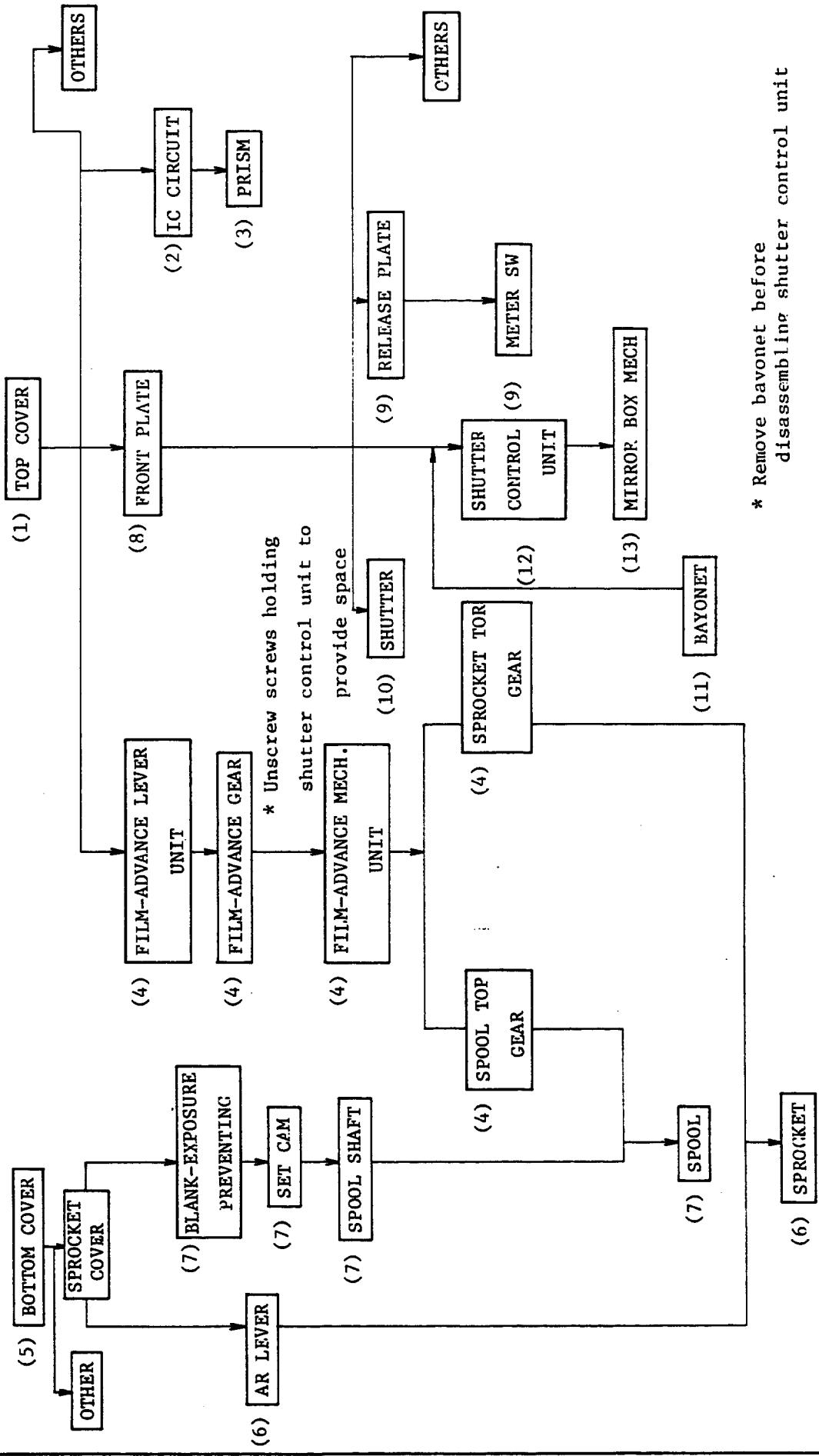
A part marked with this pentagonal symbol is used commonly in the architecture of other products. That is called "VERSATILE PART". Note that every part, bearing new part number of eleven places, will turn into a VERSATILE PART when it is used in the design of future product.

DISASSEMBLING & ASSEMBLING & ADJUSTMENTS

Contents	Page
<b>[1] DISASSEMBLING</b>	
1. Disassembling Outline .....	A1
2. Disassembling Details .....	A2-A6
<b>[2] ASSEMBLING ADJUSTMENTS</b>	
1. Sprocket Installation (Hold the Camera Body Upside Down).....	A7
2. Spool Installation .....	A8
3. Look Lever Installation .....	A9
4. Set Cam Installation .....	A10
5. Spool Top Gear/Unit, Film-Advance Mechanism/Film-Advance Gear Installation .....	A11-A12
6. Film-Advance Lever, Unit Installation .....	A13
7. Sprocket Stopper/Sprocket Positioning .....	A14
8. Film-Advance Lever Unit/Advance Claw-Coupling Gear Installation .....	A15
9. Film-Advance Lever Unit Base/Frame-Counter Dial Installation .....	A16
10. Film-Advance Lever Installation (Temporary) ....	A17
11. Soldering Wires to Lever Switch B2406 .....	A18
12. Ratchet Cam, Pendulum Adjustment .....	A19
13. Shutter Charge Lever, Motor Coupling Installation .....	A19
14. MD Switch Circuit Board, Double-Exposure Preventing Installation .....	A20
15. Release Plate and Meter Switch, Circuit Board Installation .....	A21
16. Front Plate Unit (Lens Release Button and Manual Stop-Down Lever) .....	A22
17. Front Plate Unit (Focusing Screen Frame and Mirror) .....	A23
18. Mirror Box Mechanism Installation B322 .....	A24
19. Spring Hooking Position and Engaged Condition of Levers .....	A25
20. Aperture Lever Height Positioning .....	A26

Contents	Page
21. Mirror Box Mechanism Specifications .....	A27
22. Front Plate Unit (Front Cover, Coupling Ring, Bayonet) .....	A28
23. Pentagonal Prism, Eyepiece and IC Printed Circuit Installation .....	A29
24. Mirror 45° Angle, Infinity Focus and Picture Angle Adjustment .....	A30
25. ADR Window Positioning .....	A31
26. Shutter Control Unit Installation .....	A32
27. Aperture Coupling String Tying .....	A33
28. FRE Positioning with Use of Collar #529 .....	A34
29. Aperture Coupling Piece Positioning .....	A35
30. Dial Pully Installation .....	A36
31. FRE Installation .....	A37
32. Shutter Dial Installation .....	A38
33. Front Plate Unit Installation .....	A39
34. Shutter Unit Gear Position .....	A40
35. Wiring Diagram .....	A41
36. Meter Accuracy Adjustment .....	A42
37. Focusing Screen and Mirror Replacement .....	A43
38. MD Switch Function Check .....	A44
39. Accessory Shoe Function Check .....	A44
40. Shutter Release Stroke Check .....	A45

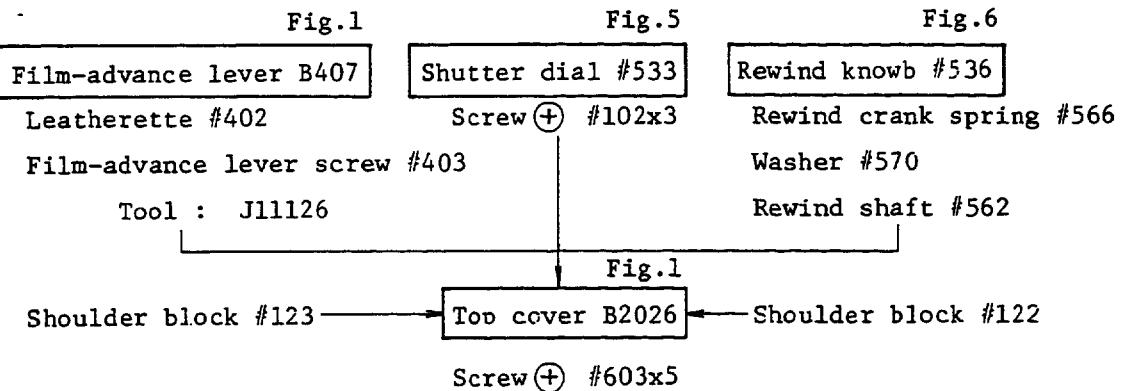
## 1. DISASSEMBLING OUTLINE



\* Remove bavonet before disassembling shutter control unit

## 2. DISASSEMBLING DETAILS

(1) TOP COVER

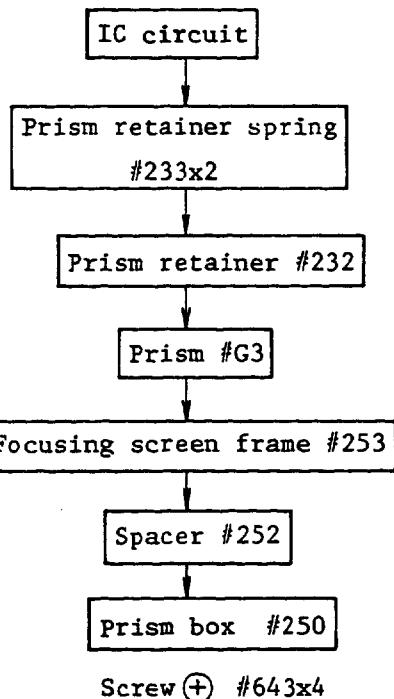


(2) IC CIRCUIT

Unsolder:

Lead wire, battery chamber #1051 (red)  
Lead wire, battery chamber #1052 (black)  
Lead wire, data back switch #364 (white)  
Lead wire, data back contact #1057 (white)  
Lead wire, meter switch #1073 (orange)  
Lead wire, meter switch #1060 (red)  
Lead wire, shutter control #1061 (violet)  
" " #1062 (black)  
" " #1063 (brown)  
" " #1064 (yellow)  
Lead wire, MD external contact #1058 (orange)

(3) PRISM Fig. 8



Unsolder:

Lead wire, synch terminal #1071 (blue)  
Lead wire, shutter #1070 (green)

Note: Use care to two washers #66 sitting under prism box.

SBD circuit board retainer #260

Screw + #635x1

Screw #637x2

IC circuit B1002

Byjus

Eye piece mold B328

Screw #636x2

(4) FILM-ADVANCE LEVER UNIT/FILM-ADVANCE MECH. UNIT

Fig.1

TOP COVER

Note: Replace film-advance lever

Unsolder:

- Fig.2**
- Lead wire #1056 (violet)
  - Lead wire #1073 (orange)
  - Lead wire #1072 (red)

Fig.2

Film-advance lever unit B2408

Screw + #606x2

Screw + #602x1

Fig.3

Sprocket stopper spring #2496

Screw - #500x1

Fig.4

Sprocket stopper cam #429

Tool : J11155

Screw - #499x1 (left-thread)

Screw - #631x1

Fig.3

Film-advance shaft screw - #2651 (left-thread)

Clutch spring #2430

Clutch cam spring #2412

Clutch cam #2414

Film-advance cam #2413

Washer #2663 A-F

Film-advance gear #2415

Fig.3

Film-advance meth. unit

B2403

Note: Unscrew Screws #538 and #648 holding shutter control unit and make a space for removing B2403, with shutter control unit floated.

Screw + #654x3

#121

Fig.4

Spool top gear B2207

Fig.4

Sprocket upper gear #2431

(5) BOTTOM COVER(7) SPOOL

Fig.12

Battery chamber lid B030

Bottom cover B019

Screw + #610x3

(6) SPROCKET

Fig.12

AR lever #126

Screw + #622x1

Washer #662x1

Sprocket screw #2433

Spool top gear

Sprocket shaft bearing #438

Tool : J11118

Note: Lift off #438, with  
sprocket shaft tilted  
and retracted.

Sprocket #2470  
Sprocket shaft B2201

Fig.12

Double-exposure preventing  
lever #175

Screw + #164x1

Fig.4

Motor coupling #138

Screw + #652x1

Shutter charge lever B104

Set cam collar #171

Screw + #165x1

Set cam B206

Screw - #650 (left-thread)

Spool top gear

Fig.4

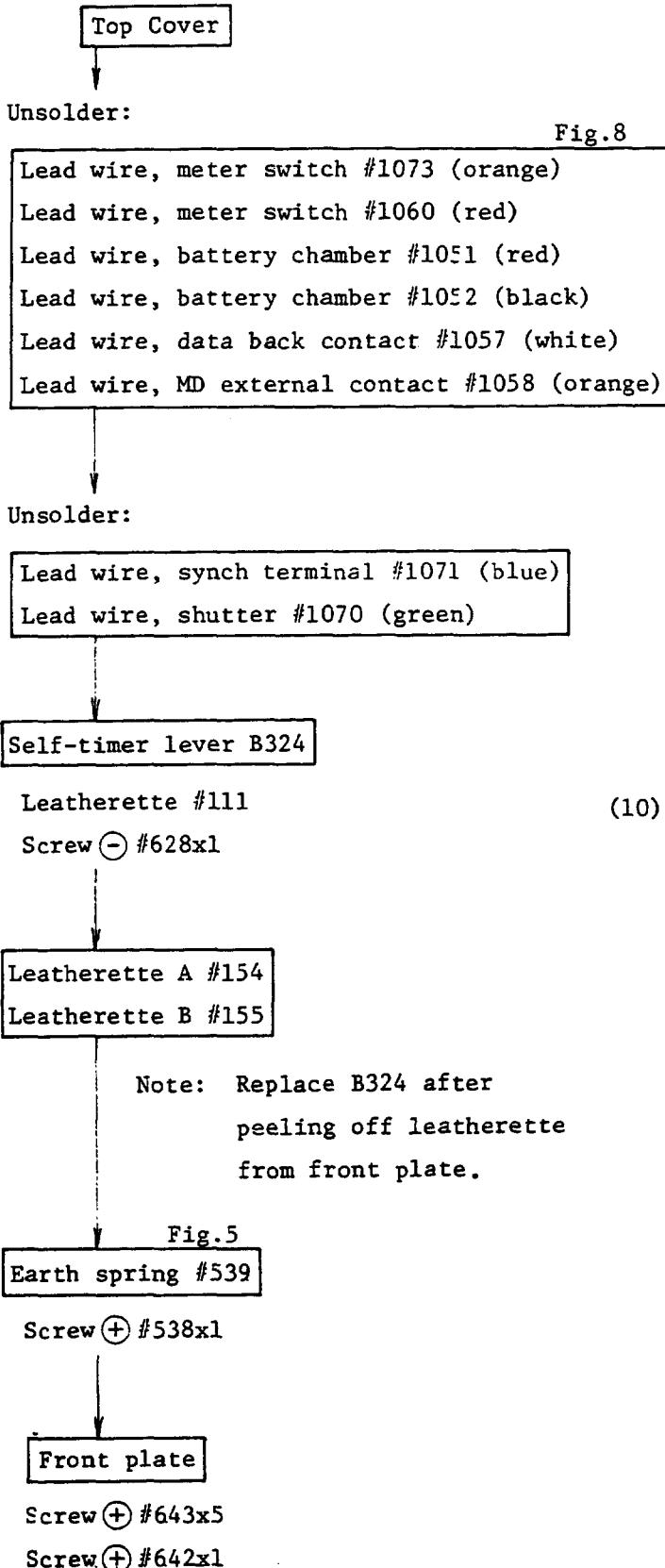
Spool shaft bearing case  
B204

Screw + #605x3

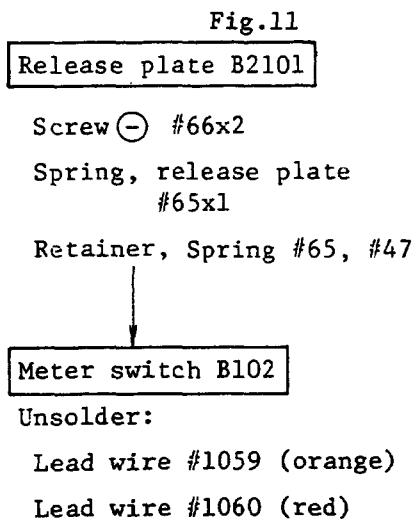
Spool shaft B2203

Spool #2460

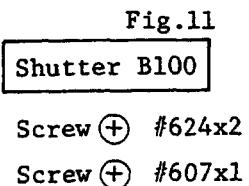
## (8) FRONT PLATE



## (9) RELEASE PLATE/METER SWITCH



## (10) SHUTTER



(11) BAYONET

Fig.7

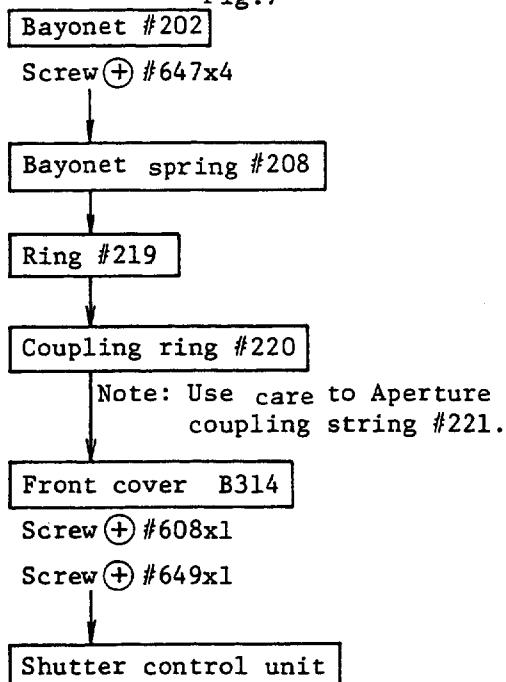
(13) MIRROR BOX MECHANISM

Fig.10

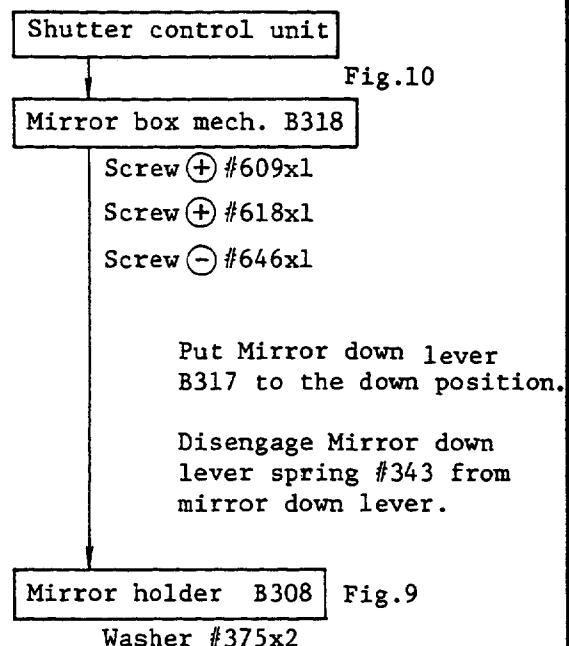
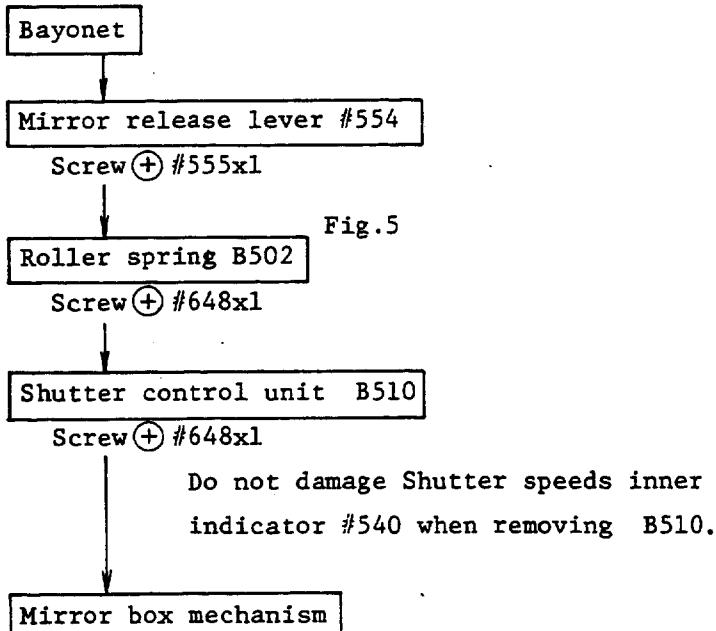
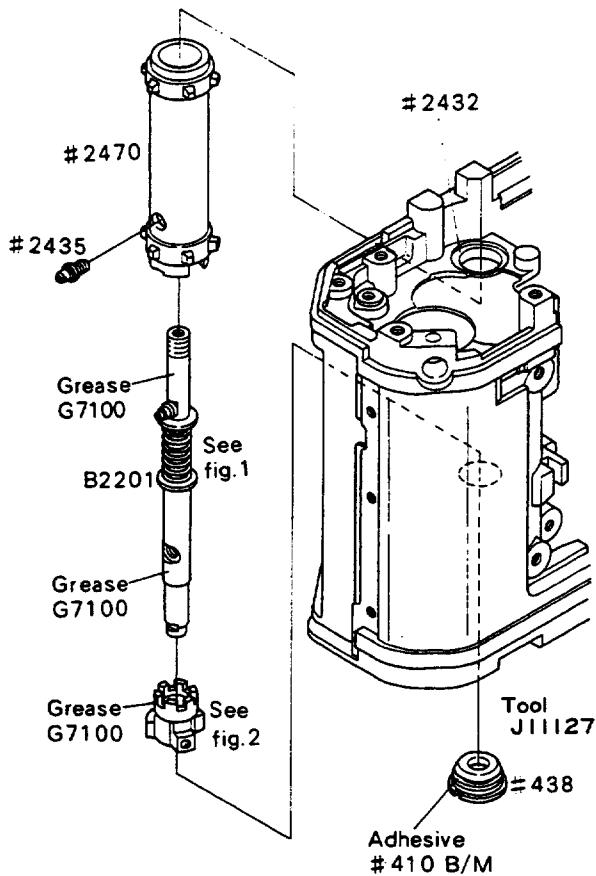
(12) SHUTTER CONTROL UNIT

Fig.5



1. SPROCKET INSTALLATION (HOLD THE CAMERA BODY UPSIDE DOWN)

## (2) Sprocket Collar A

Sprocket collar A #2436

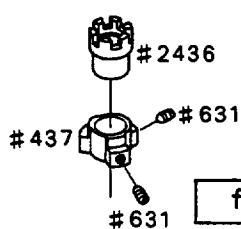
↓  
Sprocket collar A nut #437↓  
Screw #631 x 2

fig. 2

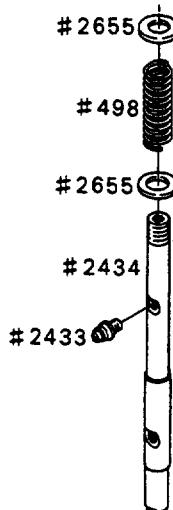


fig. 1

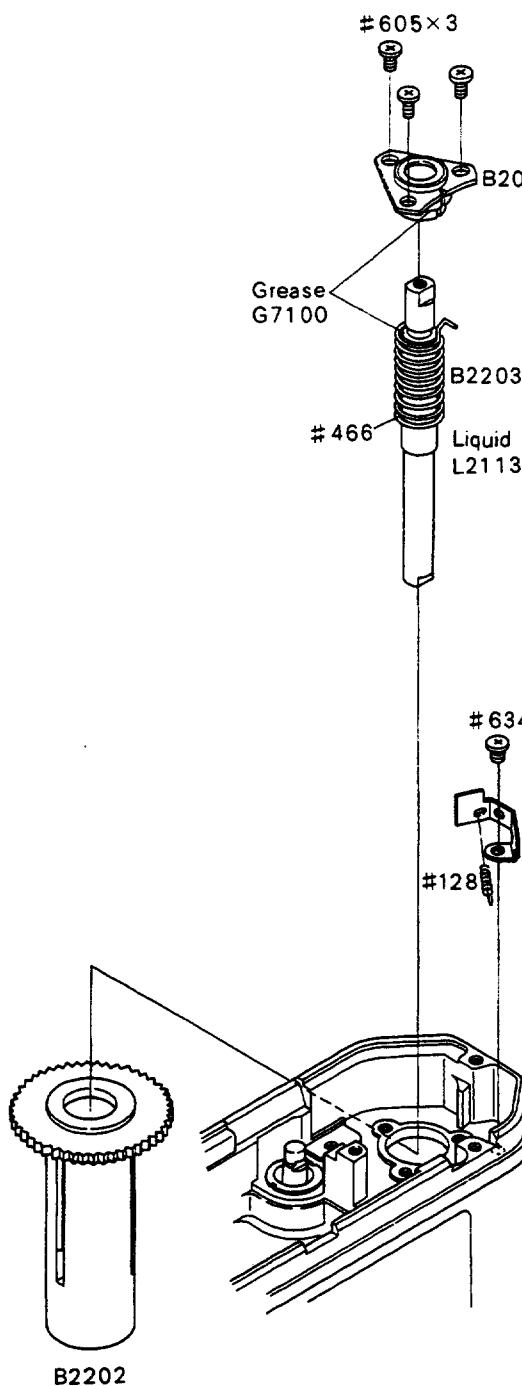
Body die-casting #2021

↓  
Sprocket #2470↓  
Sprocket shaft B2201Before installation of  
Sprocket shaft #2434, put  
Spring #498 to the sprocket  
shaft as shown in Fig. 1.↓  
Sprocket collar A #2436Before installation of  
sprocket collar A #2436, put  
Sprocket collar A nut #437  
to the sprocket collar A as  
shewn in Fig. 2.When installing the sprocket  
with the sprocket shaft  
inserted to the camera body,  
first bring the top of  
sprocket close to the hole  
of lower plate and then pull  
the head of sprocket shaft,  
extending through the hole  
so that the tail of sprocket  
can be dropped into Bearing  
#2432 of the upper plate.↓  
Sprocket shaft bearing #438Screw sprocket shaft bearing  
#438 into Body die-casting  
#2021.↓  
Sprocket screw #2435Screw Sprocket screw #2435  
into the hole of sprocket  
to fix the sprocket shaft.

## (1) Sprocket shaft B2201

Sprocket shaft #2434

↓  
Washer #2655↓  
Spring #495↓  
Washer #2655↓  
Screw #2433

2. SPOOL INSTALLATION

Body die-casting #2021

Spool B2202

Spool shaft B2203

Spool shaft bearing case B204 + #605x3

After installing the spool in place, insert the top end of Spool shaft spring #466 into the slit of the spool shaft bearing case as shown in Fig. 3.

Shock absorber #2125 + #634

Hook the end of Pendulum spring #128 to the shock absorber, with placed toward Shock absorber A #2042.

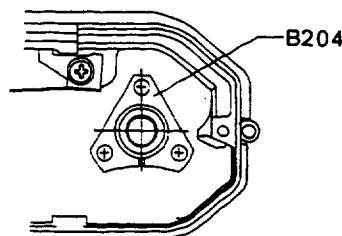


fig. 3 B204 Positioning

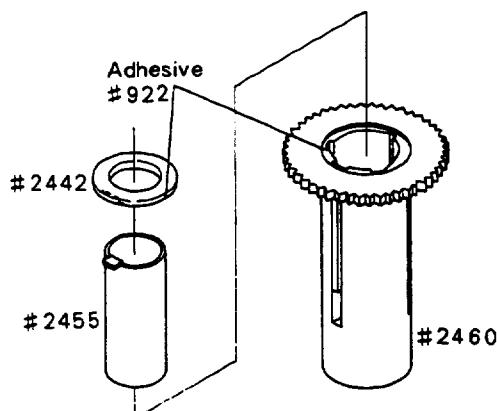
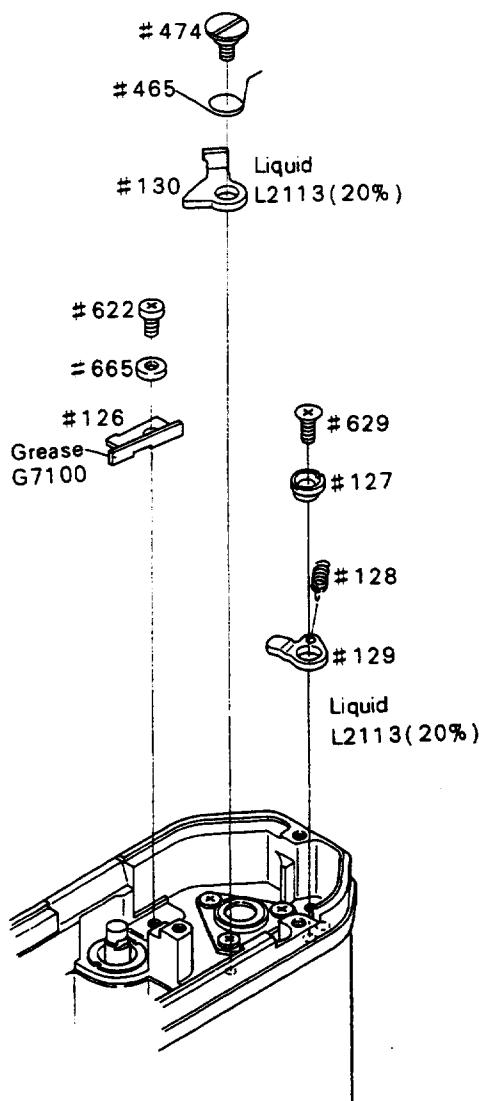


fig. 4 B2202 Exploded

3. LOCK LEVER INSTALLATION

Body die-casting #2021

Lock lever #130

Lock lever spring #465

Lock lever axle #474

After installation of the lock lever,  
hook Lock lever spring #465 to Lock  
lever #130.

(1) Pendulum installation

Pendulum #129

Pendulum eccentric axle #127

Screw #629

After installation of the pendulum,  
hook the other end of Pendulum spring  
#128 to the pendulum.

Check Pendulum #129 for smooth  
movement.

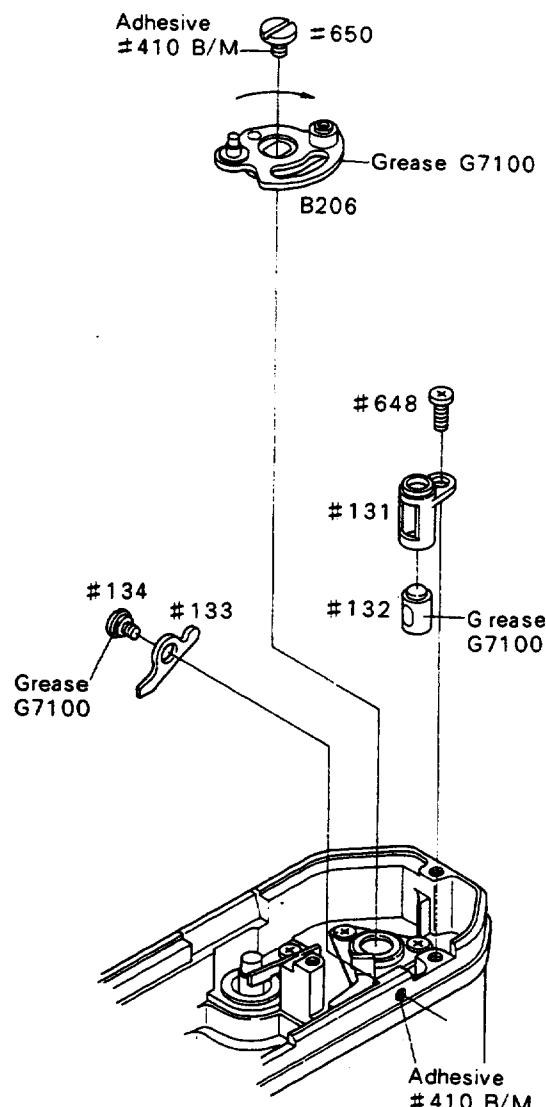
Put the pendulum to the drawn back  
portion with use of the eccentricity.

(2) AR lever installation

AR lever #126

Spacer #665

Screw #622

4. SET CAM INSTALLATION

Body die-casting #2021

Set cam B206

On installation of the set cam,  
turn Spool shaft B2203 one turn  
clockwise.

Wash Set cam B206 to remove grease.

Film-advance shaft screw (left-thread)  
(- #650)

(1) MD shaft bearing installation

MD shaft #132

MD shaft bearing #131 (+) #648

Put MD shaft #132 into MD shaft  
bearing #131.

Bottom cover B019 gives the guidance  
for installing position of MD shaft  
bearing #131.

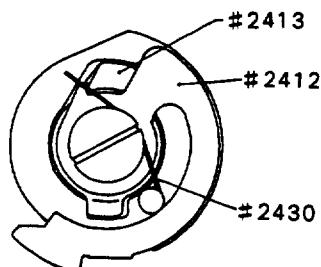
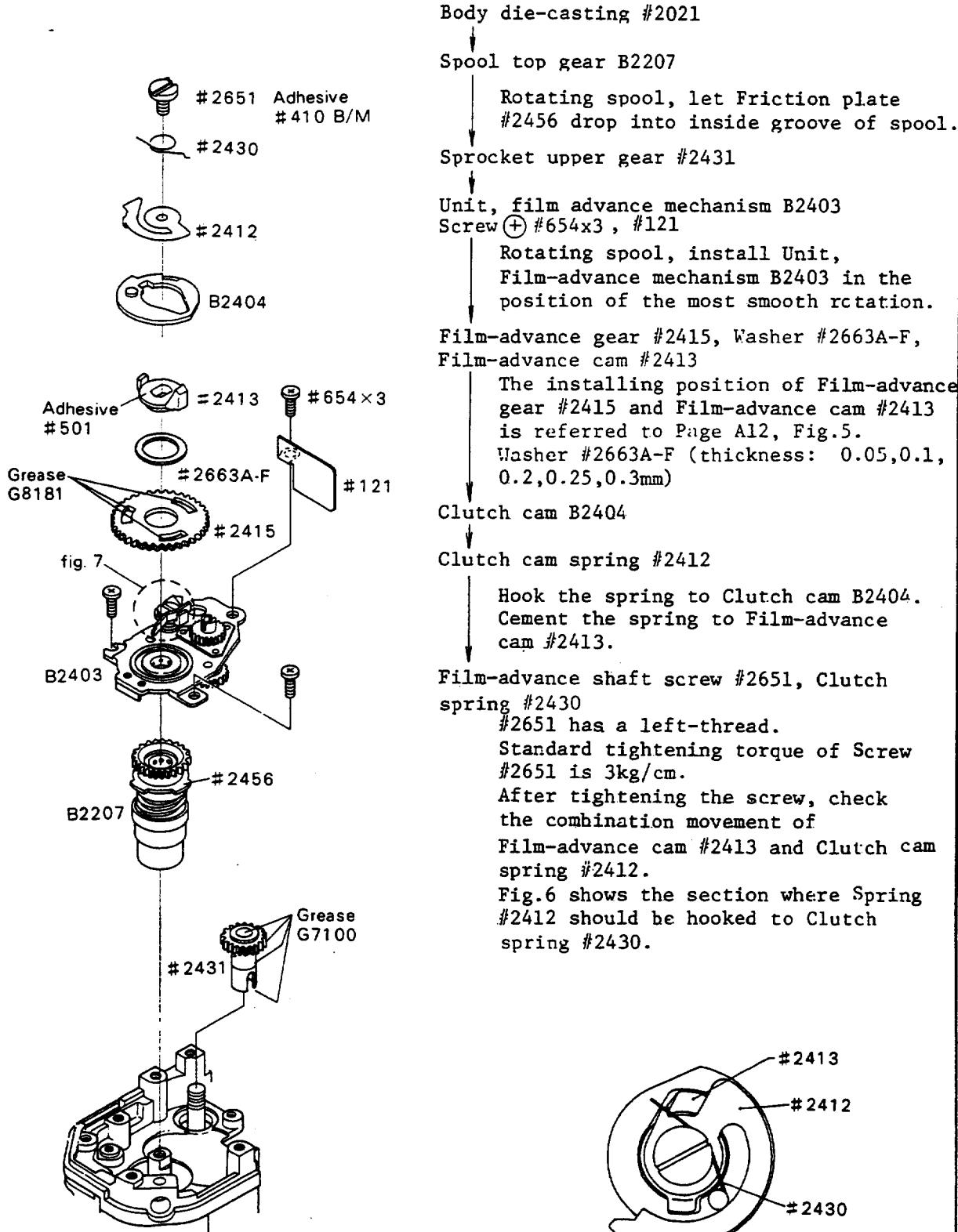
(2) MD see-saw lever installation

MD see-saw lever #133

Install #133 into the slot of  
MD shaft #132.

MD see-saw lever axle #134

**5. SPOOL TOP GEAR/UNIT, FILM-ADVANCE MECHANISM/FILM-ADVANCE GEAR  
INSTALLATION**



**fig. 6-1**

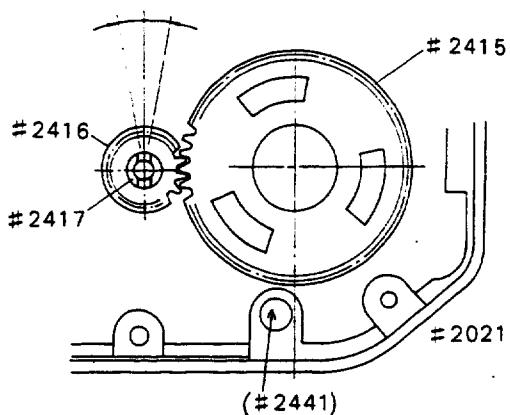
Film-advance gear positioning

fig. 5

When one of the fan-shaped openings of Film-advance gear #2415 is aligned with the center of screw hole for #2441, the slots of #2416/#2417 should locate toward the body line at a right angle.

Positioning allowance is within a one full portion of the slot #2416.

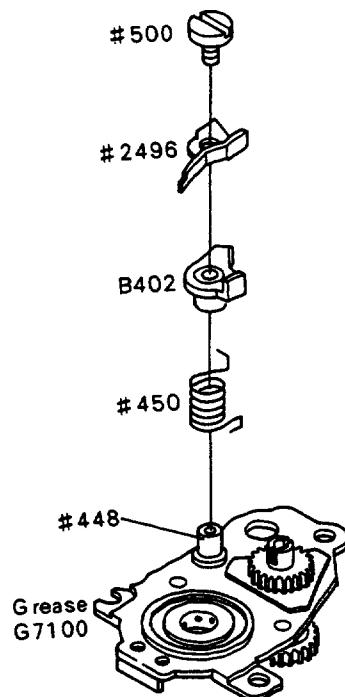


fig. 7 B2403

## 6. FILM-ADVANCE LEVER UNIT INSTALLATION

Body die-casting #2021

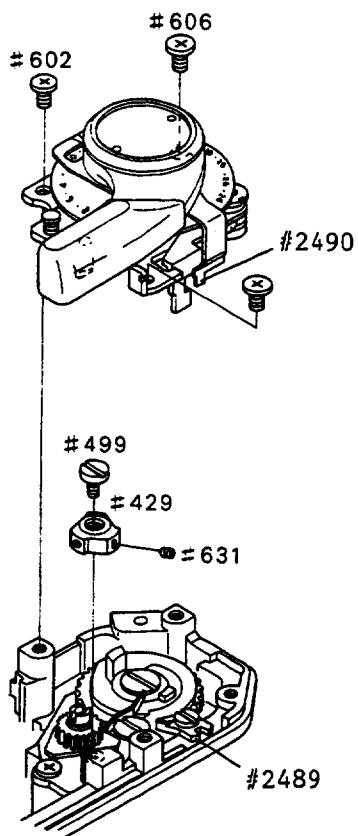
Unit, film-advance lever B2408

When installing Unit, film-advance lever B2408, bring Clutch cam B2404 in engagement with Film-advance gear #2415.

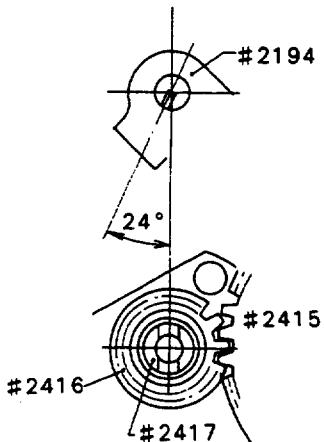
The relative position between Advance claw lever #2194 and Idle gear B#2417 is as shown in Fig.8. Put Multi-exposure lever #2490 into the fcrk of Coupling lever #2489.

Screw  $\oplus$  #602

Screw  $\oplus$  #606x2



**fig. 8**



### Sprocket stopper cam installation

#### Sprocket stopper cam #429

Temporarily tighten Screw #631 for adjustment in the next step.

Screw Sprocket stopper cam #429 in place to go as high as Sprocket shaft #2434.

Sprocket screw (left-threaded)  $\oplus$  #499

Sprocket stopper cam positioning should be referred to Fig. 9.

## 7. SPROCKET STOPPER / SPROCKET POSITIONING

### (1) Sprocket stopper positioning

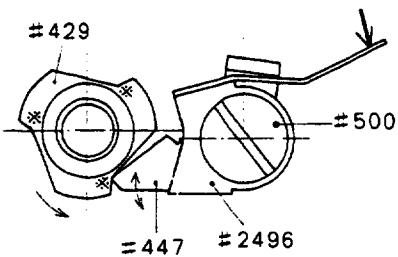


fig. 9

Sprocket teeth positioning gauge J18064

Set sprocket teeth positioning gauge (J18064) onto body-aperture frame and holding film-advance lever fully stroked, measure the sprocket play on the scale of J18064 as shown in Fig.10.

The play to be within 0.8mm

Repeat the measurement three times in the same manner to make sure the proper operation of #429 at each area shown.

Adjust the play by rotating #429 after removing #499 (left-thread) and loosening #631 as shown in Fig.9, Fig.11. Be sure to provide 0.1 to 0.2mm clearance between #429 and #2434 on positioning.

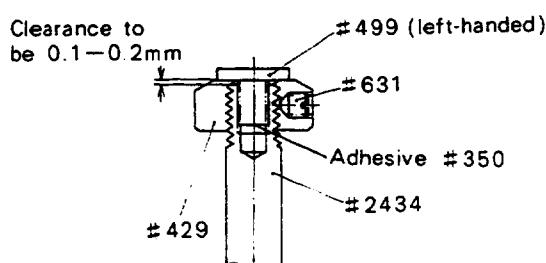


fig. 11

### (2) Sprocket Positioning

Sprocket teeth positioning gauge J18064

Check to see if end of the sprocket teeth comes to the position as depicted in Fig. 10.

Set the film-advance lever to the stand-off position.

Adjust #429 after loosening

Screws #631x2

(Refer to fig. 12-1)

After adjustment, drill a bit hole of  $\frac{1}{16}$ in to secure one Setscrew #631 firmly.

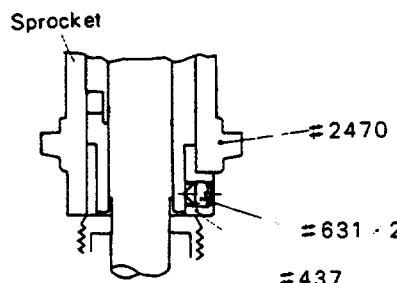


fig. 11-1 Cross section of lower part of sprocket

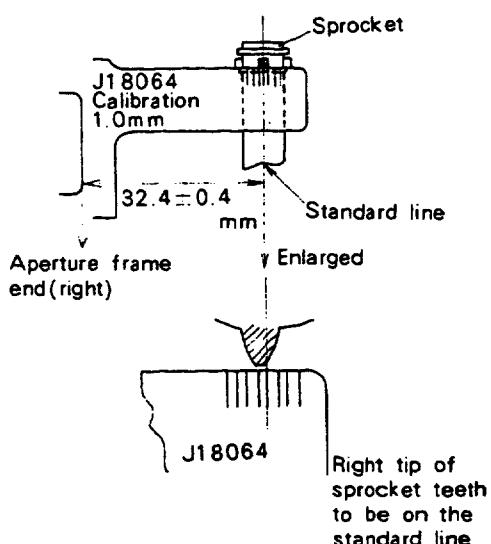
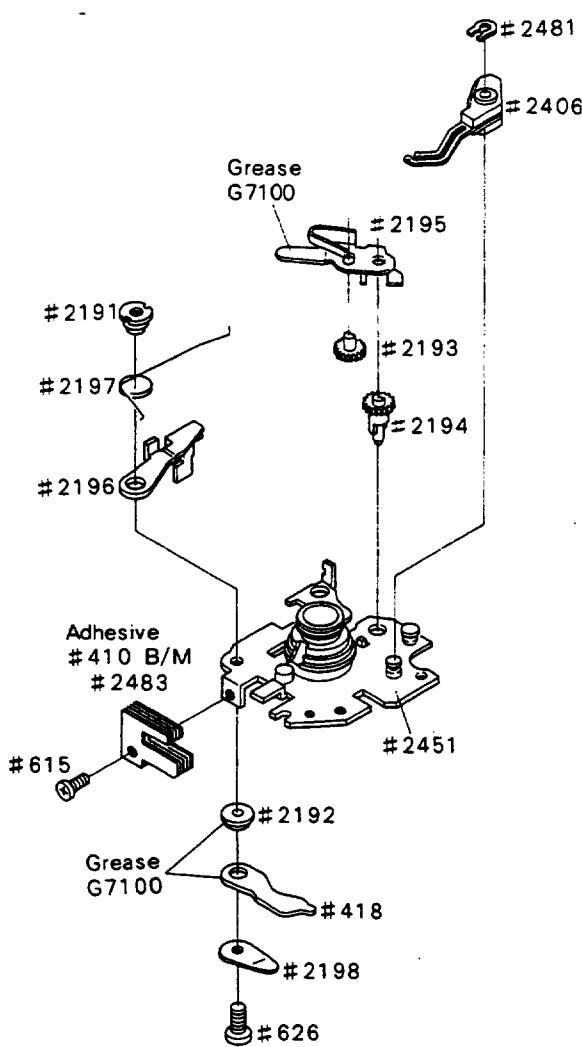


fig. 10

Measurement with J18064

8. FILM-ADVANCE LEVER UNIT / ADVANCE CLAW-COUPLING GEAR INSTALLATION

Base, film-advance lever unit #2451  
 ↓  
 Advance claw coupling gear #2194  
 ↓  
 Claw spring #2195  
 After installing Advance claw gear #2193, fix Claw spring #2195 in place.  
 The cutout of the gear shaft #2193 should face the spring in the shutter-cocked condition for proper operation of the frame counter.  
 (Refer to fig.12)

(1) Counter reset lever installation

Click lever collar, unit B2408 #2192  
 ↓  
 Click lever #418  
 ↓  
 Click lever stopper #2198  
 ↓  
 Screw #626  
 ↓  
 Frame counter reset lever #2196  
 ↓  
 Counter reset lever axle #2197  
 ↓  
 Nut, frame counter reverse lever #2191  
 Hook Claw spring #2195 to Counter reset lever axle #2197.

(2) Click lever spring installation

Click lever spring #2483x5  
 ↓  
 Screw #615

(3) Switch installation

Switch spring #2476  
 ↓  
 Lever switch B2406

For proper contact of Switch B2406, use a thinnest metal plate (0.081) to provide a clearance between B2406 and G-ring #2481, when fixing the G-ring.  
 Do not use the G-ring once removed.  
 Hook each end of Switch spring #2476 to cutout of the upper bracket and the switch.

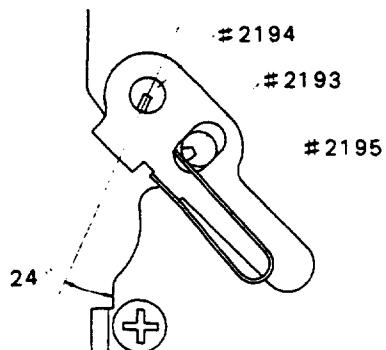
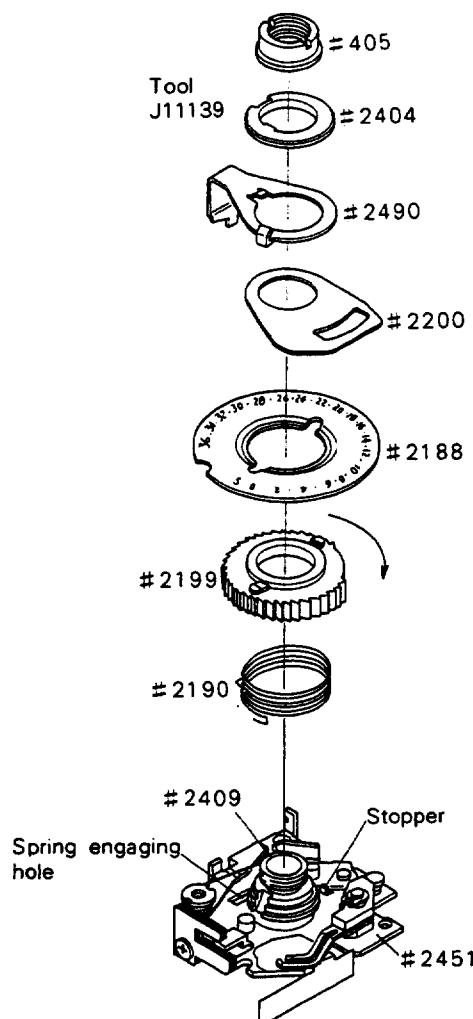


fig. 12

9. FILM-ADVANCE LEVER UNIT BASE / FRAME-COUNTER DIAL INSTALLATION

- Base, film-advance lever unit #2451
- Counter spring #2190
- Hook the one end of the spring to the cutout of Unit #2451.
- Ratchet, unit B2408 #2199
- First hook the other end of Counter spring #2190 to Ratchet #2199, and then turn the ratchet one turn clockwise. Use the stopper to hold the ratchet in this position.
- Frame-counter dial #2188
- When installing Frame-counter dial #2188, place the letter 'S' (Start) toward Lever switch B2406.
- Frame-counter index #2200  
Multi-exposure lever #2490  
Frame counter retainer #2404
- Put the protrusion of #2404 into the cutout of #2409.
- Nut, film-advane lever shaft #405  
After aligning the 'S' of the frame-counter dial with the pointer of the frame counter index #2200, tighten Nut #405 strongly.  
Check frame-counter dial (#2188, #2199) for smooth operation.

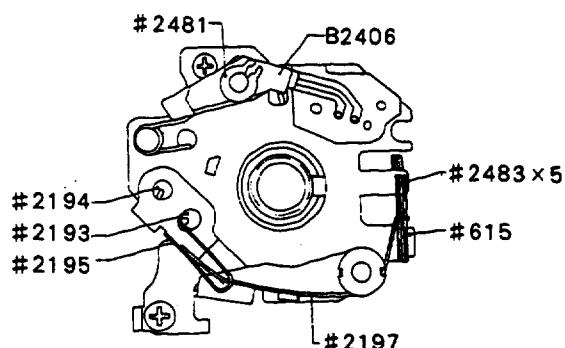
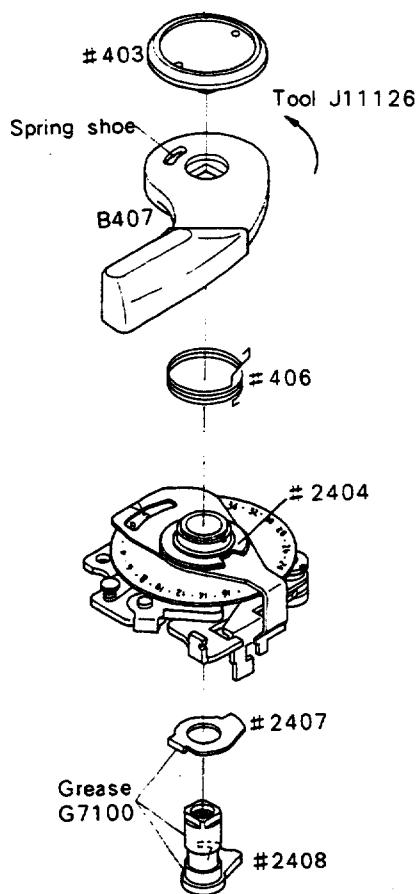
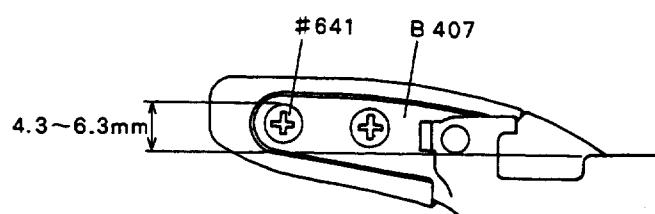
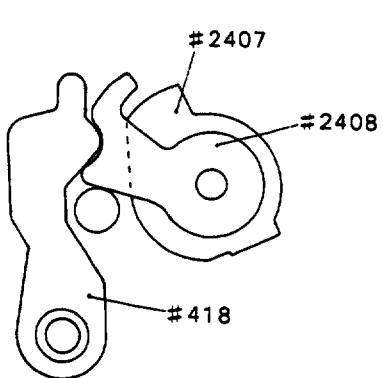


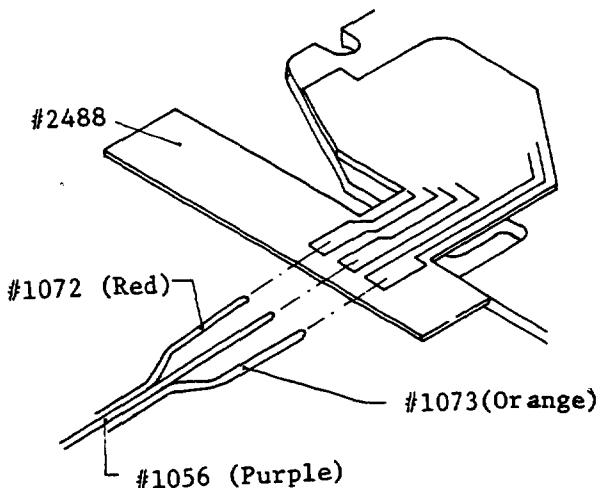
fig. 13

10. FILM-ADVANCE LEVER INSTALLATION (TEMPORARY)

Unit, film-advance lever B2408  
 ↓  
 Sprocket stopper release plate #2407  
 ↓  
 Film-advance shaft #2408  
 ↓  
 Spring, film-advance lever reverse #406  
 ↓  
 Hook one end of #406 to the cutout of Frame counter retainer #2404.  
 ↓  
 Film-advance lever B407  
 ↓  
 Hook the other end of #406 to the cutout of Film-advance lever B407, and then turn it one turn counterclockwise.  
 ↓  
 Film-advance lever screw (black) #403  
 ↓  
 Check the smooth movement of Film-advance lever B407.  
 Standard torque to pull out the lever: 1 - 2 kg/cm  
 Standard play in a vertical direction: within 0.13mm  
 ↓  
 The Fig.14 shows the rest position of film-advance lever.



**fig. 14** Film-advance lever in the rest position

11. SOLDERING WIRES TC LEVER SWITCH B2406

Circuit board, lever switch #2488

Lead wires #1056, #1072, #1073

Solder the wires as shown  
in the figure.

Check the solder joints, referring  
to the table.

The film-advance lever should not  
catch at the switch blade in  
the movement.

Film-advance lever	Violet wire/Switch #2451	Red wire/Orange wire
the rest position	On	Off
the stand-off position	Off	On

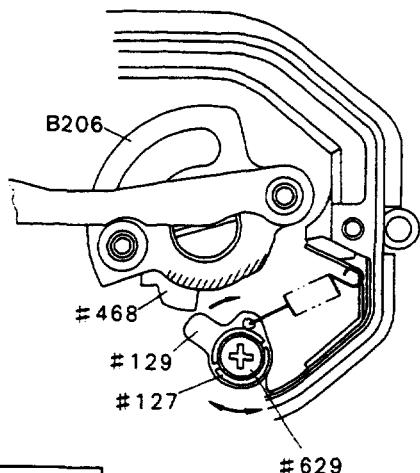
12. RATCHET CAM, PENDULUM ADJUSTMENT

fig. 15

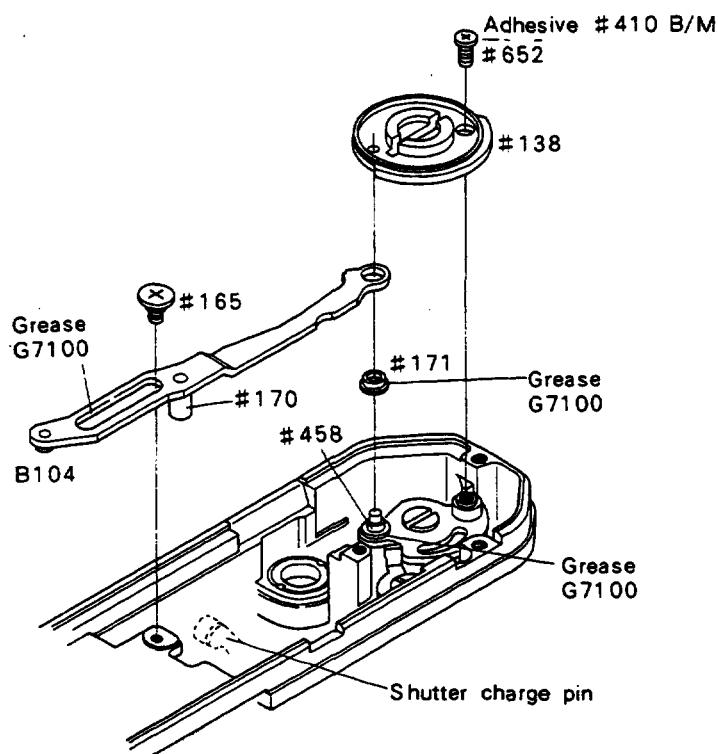
Relative movement of Film-advance stopper with Pendulum

From when Pendulum #129 disengages from Ratchet cam #468 until the film-advance lever is fully stroked, movement of ratchet cam should be within 0.3mm.

Loosen Screw #629 and adjust Ratchet cam #468 by rotating Pendulum eccentric axle. Be sure to re-tighten Screw #629.

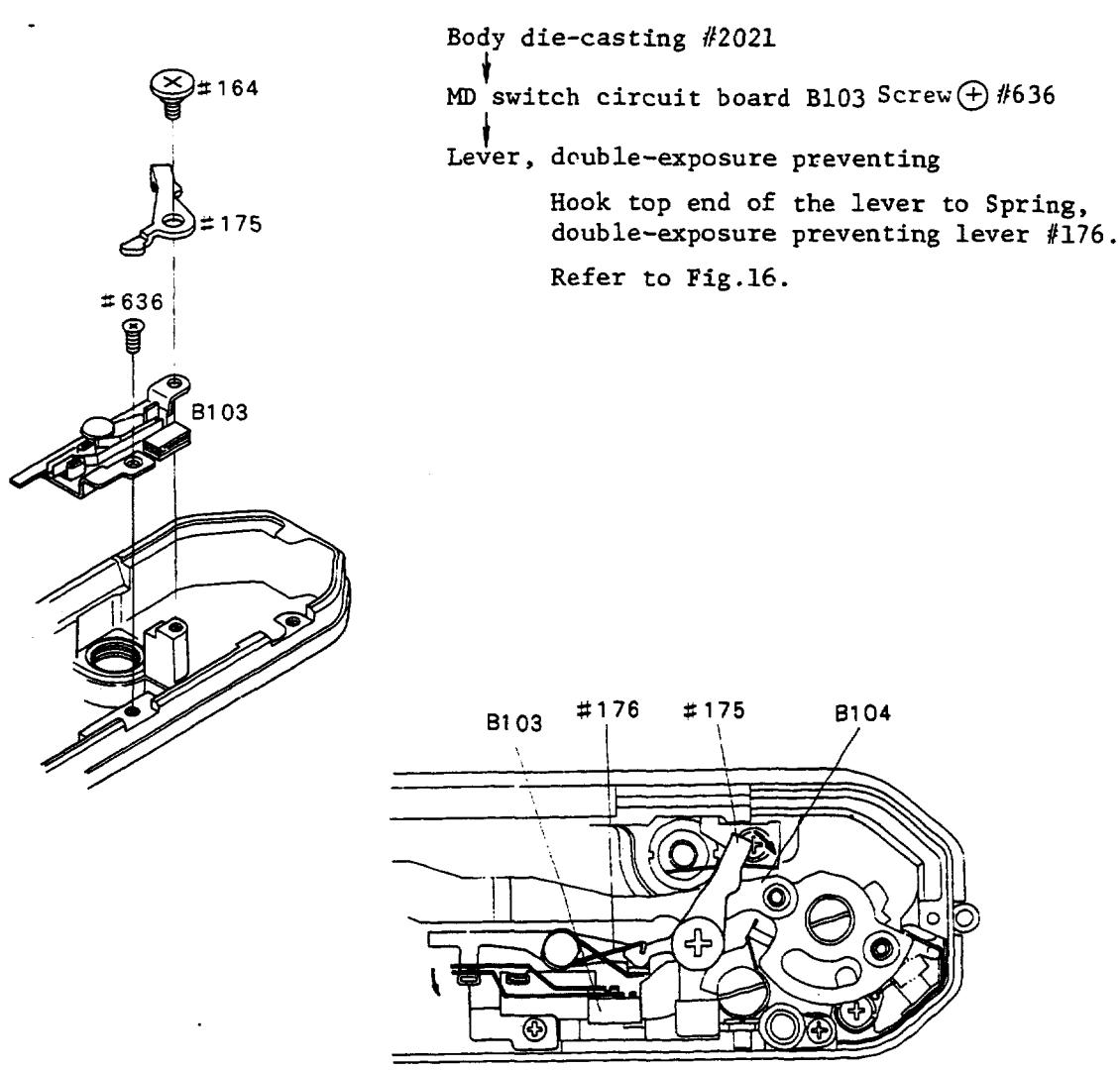
Make sure proper shutter charge or film-advance operation when film-advance lever is stroked slowly or quickly, and weakly or strongly.

Return set cam slowly to check if it moves 0.3 - 0.7mm after being disengaged from Pendulum #127.



Set cam collar #171  
↓  
Shutter charge lever B104  
Screw (+) #165  
Fitting B104 onto #171, position Charge lever pin #170 at right side of shutter charge pin.  
↓  
Motor coupling #138  
↓  
Coupling screw #820

Check that shutter cocks certainly when film-advance lever is slowly stroked, and that set cam returns to its original position.

14. MD SWITCH CIRCUIT BOARD; DOUBLE-EXPOSURE PREVENTING INSTALLATION

**fig. 16** After the shutter is released

When stroking the film-advance lever, MD switch and Lever, double-exposure preventing move to the allow direction.

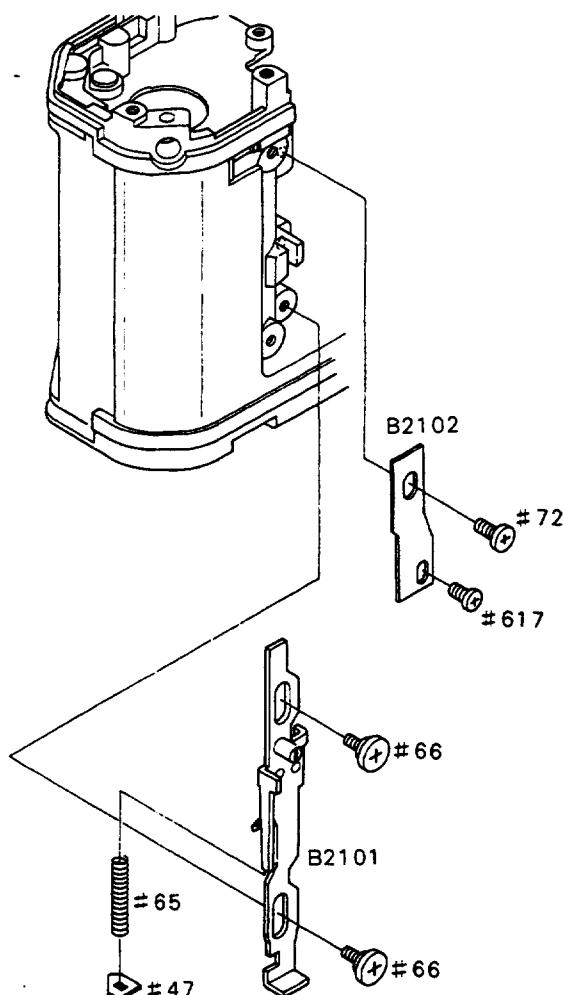
(1) Check of MD Switch

MD switch should switch off when film-advancing is completed.  
Clearance of the contact blades should be more than 1.5mm.

(2) Double-exposure preventing lever movement check

When the film-advance lever is returning from the full stroke, see if double-exposure preventing lever couples to shutter charge lever before releasing the pendulum.

## 15. RELEASE PLATE AND METER SWITCH, CIRCUIT BOARD INSTALLATION



Body die-casting #2021

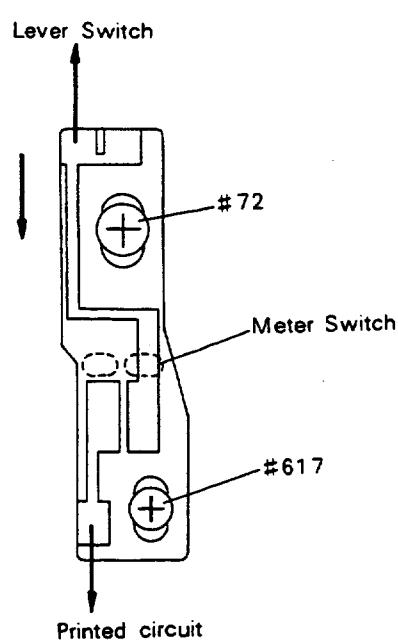
Circuit board, meter switch B2102  
Screw + #72 + #617

Installing position of the meter switch, circuit board is adjusted by loosening Screw #617. This work can be done either after fixing the release plate or after replacing front plate which has the necessary access opening.

Release plate B2101  
Screw - #66x2

Use tweezers to hold Spring #65 and Retainer, spring #65 #47 in place before installing the release plate onto the body.

Make sure that the meter switch blades should not bend.

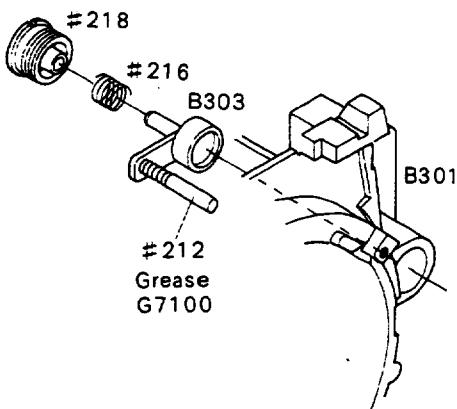
Meter switch circuit board installation

Install circuit board, with meter switch off. See Fig.17. Meter switch is located preferably closer to contact on circuit board.

Accurate positioning should be made by release button stroke adjustment after replacing top cover.

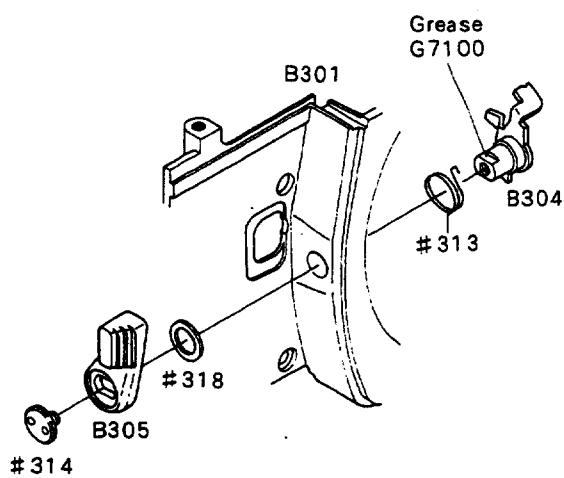
fig. 17

## 16. FRONT PLATE UNIT (LENS RELEASE BUTTON AND MANUAL STOP-DOWN LEVER)



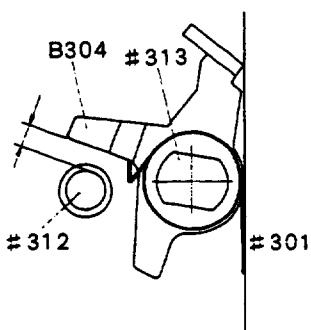
Front plate unit B301  
↓  
Lens release button B303  
↓  
Lens release button spring #216  
↓  
Lens release button sleeve #218

Check lens release lever for smooth operation.



Front plate unit B301  
↓  
Stop-down lever Spring #313  
Manual stop-down lever B304  
↓  
Fig.18 shows how to hook #313 in place.  
↓  
Manual stop-down lever washer #318  
Stop-down lever B305  
↓  
Put B305 onto B304.  
↓  
Stop-down lever screw #314

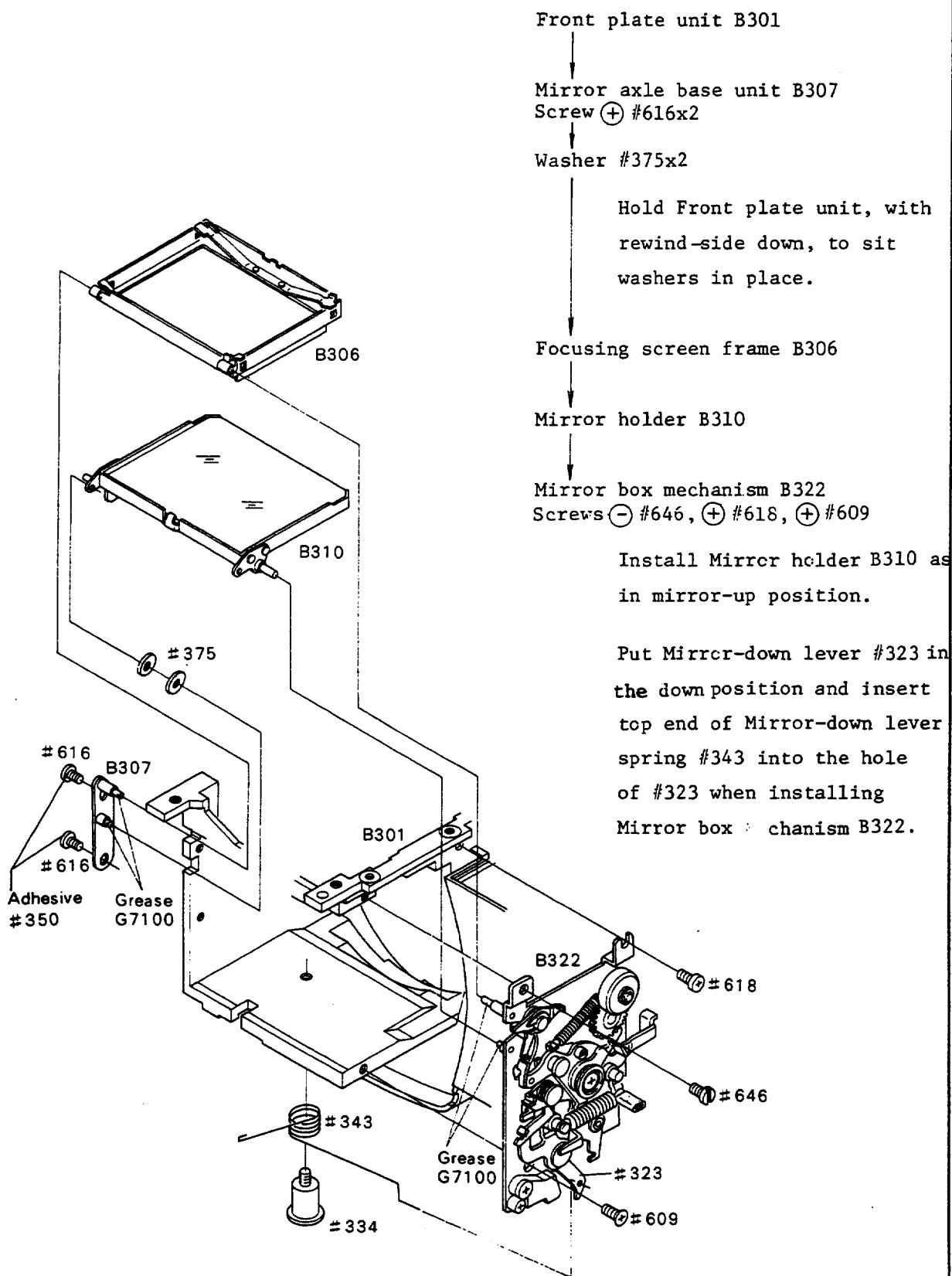
Make sure of smooth movement and spring-loaded return of Stop-down lever B305.

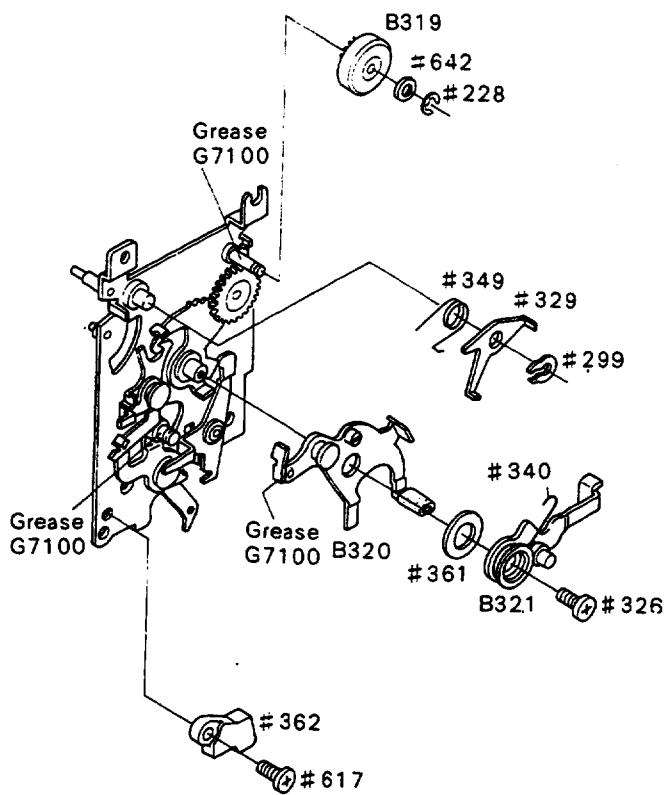


Check stop down lever for vertical play: less than 0.2mm  
There should be a clearance between Manual stop down lever B304 and aperture lever collar #324, when B304 is free.

fig. 18 =313 Spring shoe

## 17. FRONT PLATE UNIT (FOCUSING SCREEN FRAME AND MIRROR)



18. MIRROR BOX MECHANISM INSTALLATION B322

Mirror box mechanism B322

Mirror-up stop lever #329

Spring, mirror-up stop lever #349

G-snap ring #299

Place the cutout of ring toward inside.

Fly wheel B319

Washer #642

E-snap ring #228

Mirror-up lever B320

Washer #361

Aperture lever B321

Screw + #326

Shock absorber, mirror-down lever #362

Screw + #617

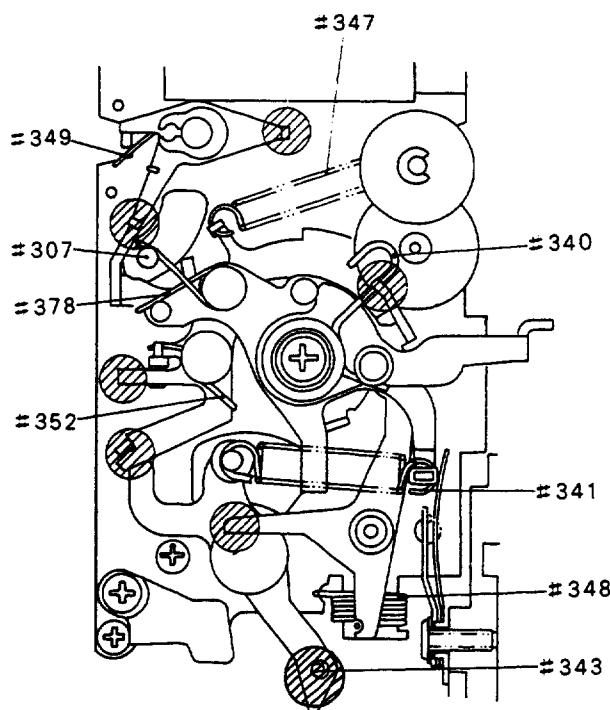
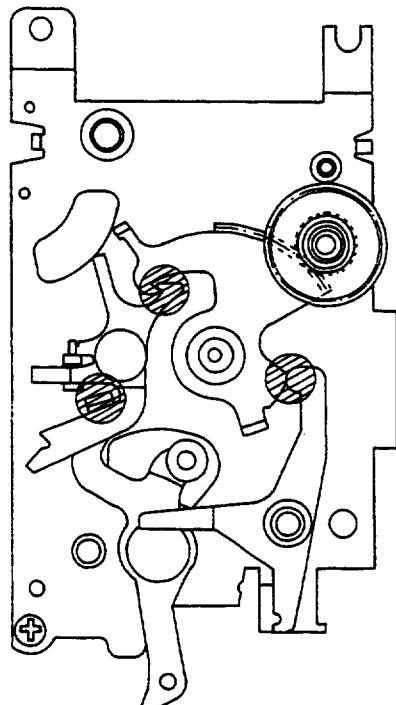
19. SPRING HOOKING POSITION AND ENGAGED CONDITION OF LEVERS

fig. 19

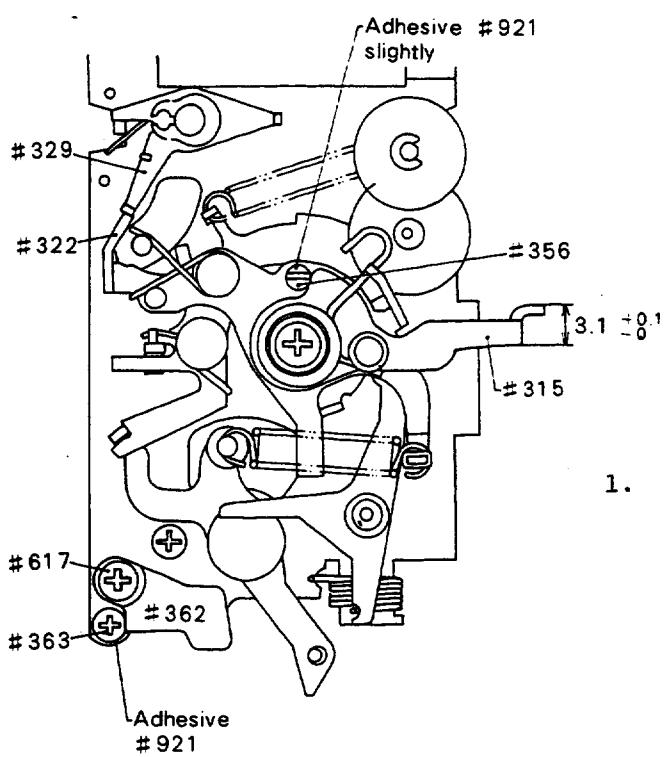


Apply G7100 to  
parts hatched  
in Fig.19 and  
Fig.20.

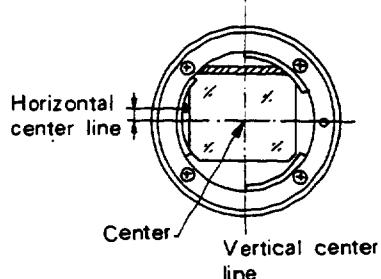
fig. 20

## 20. APERTURE LEVER HEIGHT POSITIONING

## (1) Measurement



Use Tool J18004 to measure aperture lever height from the horizontal center line of camera bayonet mount.



- Aperture lever height of mirror charged condition

Specification:  $3.1^{+0.1}_{-0}$  mm

Adjustments can be made by turning 3.1 eccentric axle #356. After this, apply a little Lock-tight #921 to axle #356. Be careful not to exude #92 onto Aperture lever #315.

- Aperture lever height of mirror released condition

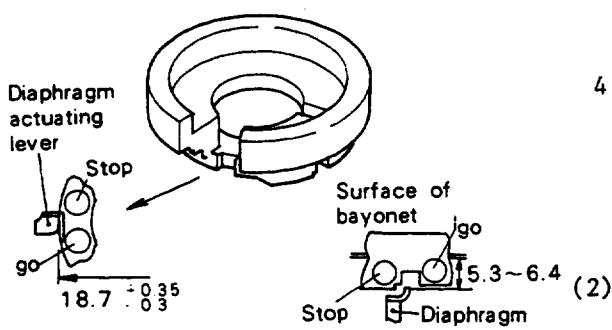
Specification:  $3.1^{+0.4}_{-0.15}$  mm

Adjustments can be made by turning Eccentric axle, mirror box mechanism #363, after loosening Screw #617. Apply a little Lock-tight #921 to axle #363.

- Aperture lever height difference between mirror charged and released conditions.

Specification: more than 0.15mm

- The clearance between Mirror-up lever #322 and Mirror-up stop lever #329 should be more than 0.15mm. (Refer to next page)



**Position of Aperture lever**  
Check the distance from vertical center line and the depth from bayonet surface. See Fig.23

The tip of Aperture lever should not contact the "stop" side of Aperture lever depth gauge J18042, and should not contact with "go" side. Adjust the lever position by bending Aperture lever.

fig. 22

fig. 23

## 21. MIRROR BOX MECHANISM SPECIFICATIONS

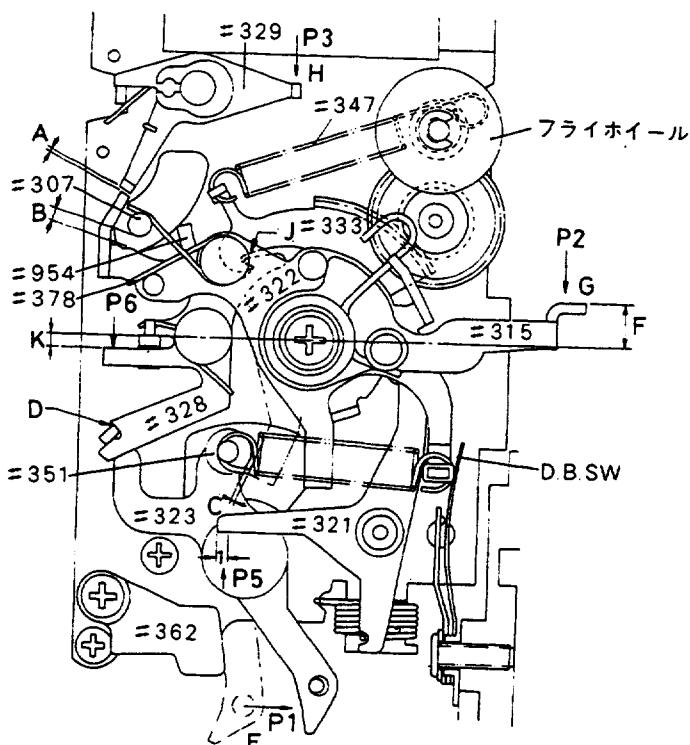


fig. 24

## (1) Mirror-up lever #322

Clearance (A): More than 0.15mm  
(in mirror-down position)

Clearance (B): More than 0.8mm  
(after film-advancing)

Clearance (C): More than 0.1mm  
(in mirror-up position)

## (2) Mirror-down lever #323

Engaging length (D): 0.9mm  
Reverse torque (E): P1=490g

## (3) Aperture lever #315

Height of aperture lever (F)  
Charged-position:  $3.1^{+0.1}_{-0}$  mm  
Released-position: Less than 3.5mm

Balance between the both positions: More than 0.15mm

Reverse torque (G): 90-120g

Stroke: More than 7.1mm

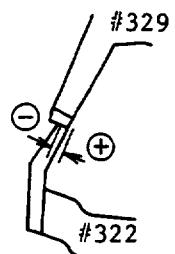
Stop-down measurement:  
More than 7.4mm

## (4) Mirror-up stop lever #329

Engaged position with Mirror-up lever #322: #329 should meet the whole working face of #322.

Allowance: +0.2 - 0.1mm

Disengage torque (H): More than 25g (before charging)  
35g  $\pm$  8g (after charging)



## (5) Functional gear #333

Clearance (J): More than 0.05mm (after charging)

## (6) Shutter release lever #321

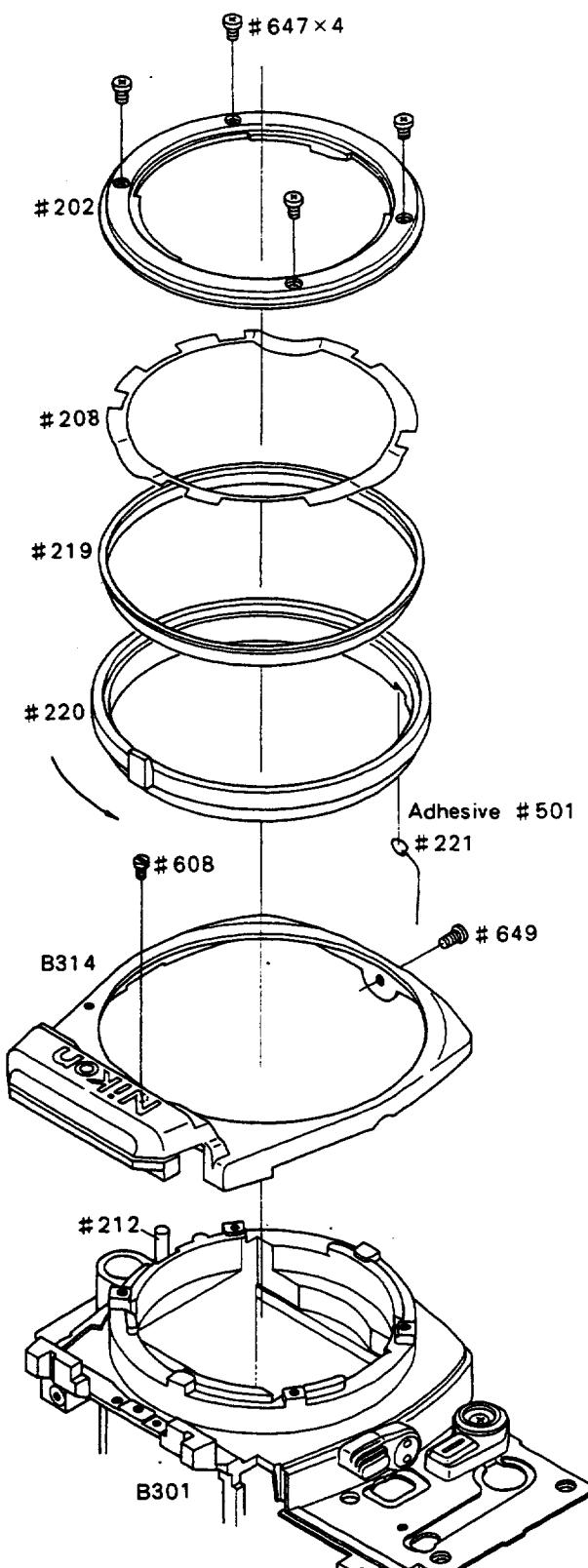
Torque: More than 85g (at the point of 1mm from the lever end)

## (7) Signal lever #328

Distance (K): 1 $\pm$ 0.15mm (after charging)

Release torque (P6): Less than 100g  
(at the point of 1mm from the lever end)

## 22. FRONT PLATE UNIT (FRONT COVER, COUPLING RING, BAYONET)



Front plate unit B301

Front cover B314

+ #608  
+ #649

Coupling #220

Hook Meter coupling, string #221 to projection of #220 as shown in fig.26.  
After installation, cement top of #221.

Ring #219

Bayonet spring #208

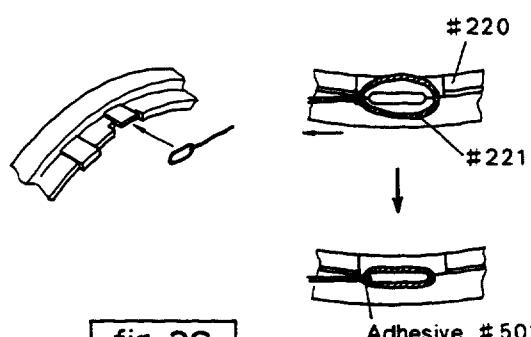
Align the cutouts with the front plate.

Bayonet #202

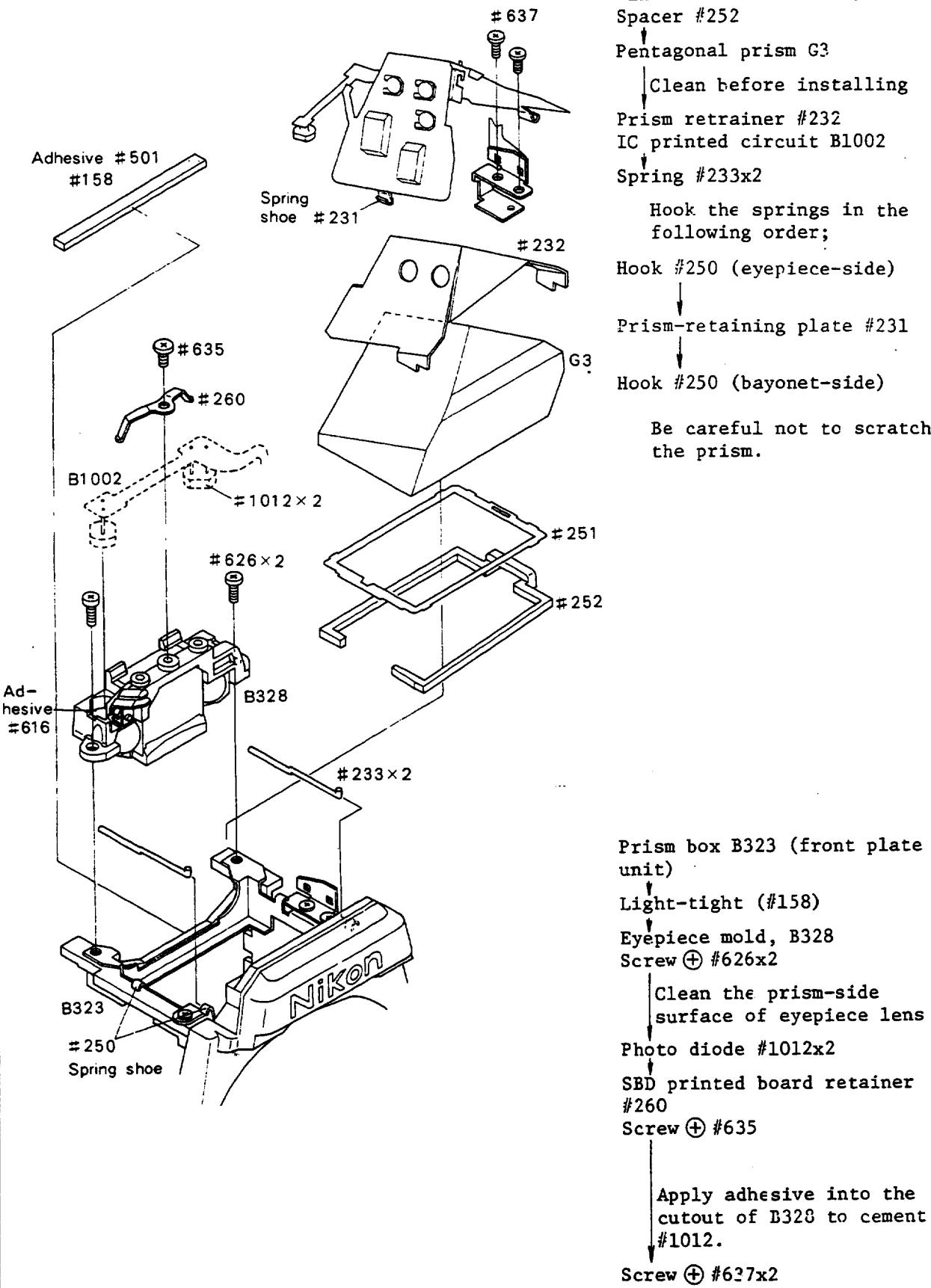
+ #647x4

Fix Bayonet #202 after making suer that Lens release pin #212 is positioned in place.

Do not catch Bayonet speing #208 under Bayonet #202.



## 23. PENTAGONAL PRISM, EYEPIECE AND IC PRINTED CIRCUIT INSTALLATION



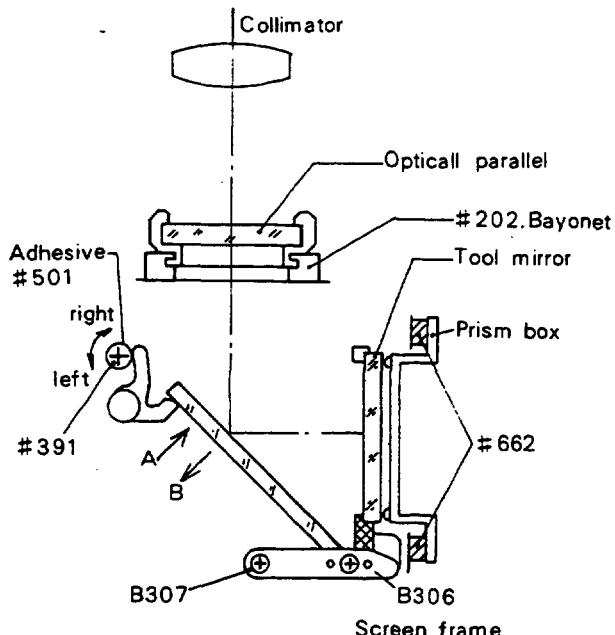
24. MIRROR 45° ANGLE, INFINITY FOCUS AND PICTURE ANGLE ADJUSTMENT

fig. 27

(1) Mirror 45° angle adjustment

Tools: Optical parallel J18037  
Mirror tool J18070  
Collimator(f=500mm) J19002

Set J18037 on bayonet mount, install J18070 in screen frame (#245) and look through collimator J19002 to see if the images both on J18037 and on J18070 align. If not aligned, adjust as explained in table below. After adjustment, apply adhesive #501 on #391.

Note: 1) Place the camera back on the work surface with body top toward the collimator's post. If camera positioning is wrong images in the collimator will be varied.  
2) Image view should not vary in several shutter releasing, nor before and after shutter cocking.

(2) Mirror 45° Adjusting Table:

	Upper	Lower	Left	Right
— Image A — Image B				
How to align Image B on Image A	Rotate #391 clockwise, and mirror moves in B direction.	Rotate #391 counterclockwise, and mirror moves in A direction.	Add #662 washer to #662 at two positions on FRE side, but one only at each place.	Move B307 in the direction of arrow.

Image A — : Image on J18037    Image B — : Image on J18070

(3) Infinity ( $\infty$ ) focus adjustment

Tools: Lens tool 50mm F2(J18010), Collimator f=600mm(J19001)  
Standard: Within 30"

Coarse-adjust the focus by evenly raising or lowering the washers (#662A - U) located at four places under Mirror box. Then, fine-adjust the focus with Mirror 45°adjusting pin (eccentric) #391. After adjustment, be sure to secure #391 with adhesive #501.

(4) Picture angle adjustment

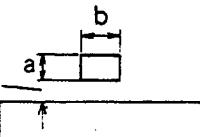
Tools: Appropriate standard lens 50mm F1.4 as a tool. Test chart (J18006). Stage, focusing screen tool (J18033)

Standard: Parallax... Within 0.5mm in the aperture plane, vertically and horizontally

Finder view ... Inclination of Finder image against aperture plane to be within 1°30'

## 25. ADR WINDOW POSITIONING

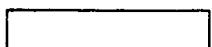
Specified position  $\frac{1}{2}b \sim 1b$   
of F-figure window



No remarkable tilting of window  
relative to viewfield frame is  
permitted.

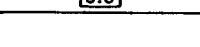
Position of window relative to viewfield frame

**5.6** Tilted



Shift F-mask plate #237,  
or tilt F-mirror holder  
N1.

**5.6** Too low



Tighten or loosen F-mirror adjusting  
screws  $\oplus$  #875x2

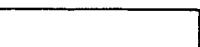
**5.6** Too high

Position of F-figure relative to window

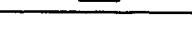
**5.6** Right-sided



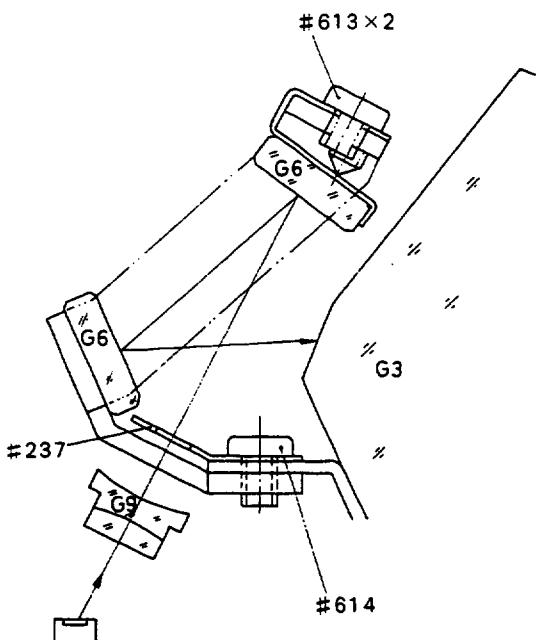
**5.6** Left-sided



**5.6** Too low

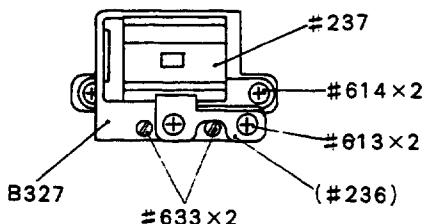
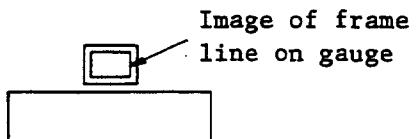


Shift F-mask plate #237

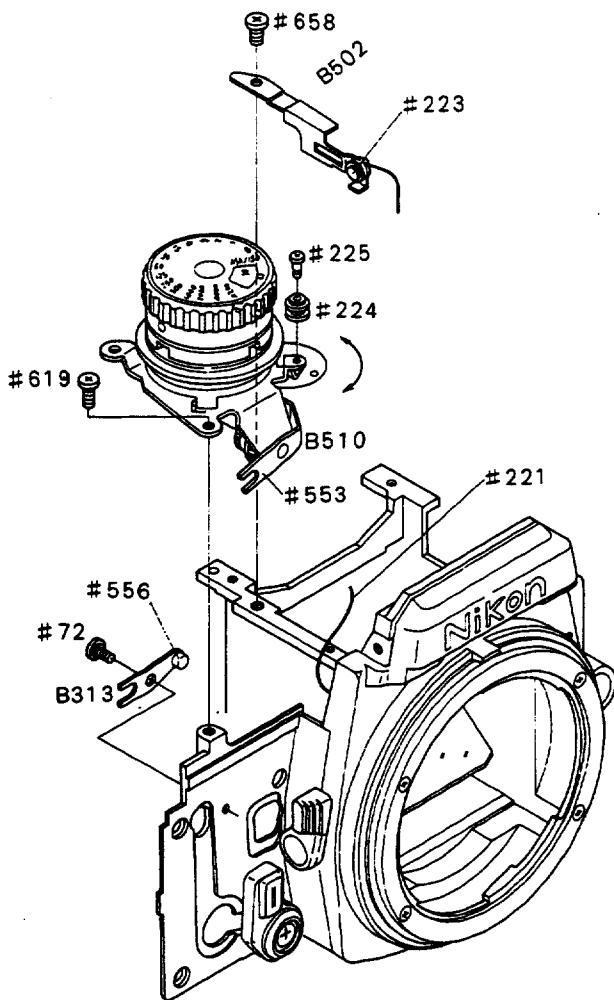


Ordinary AI lens, F-figure check gauge  
J18065, AI F-figure window check gauge  
J18063

When checking for correct position of  
the window, attach gauge J18063 onto  
camera bayonet. See that image of  
window frame line on the gauge appears  
in the F-figure window.



## 26. SHUTTER CONTROL UNIT INSTALLATION



Front plate unit B323

Shutter control unit B510

Screw (+) #619

Place the tip of See-saw lever #553 on Mirror-up stop lever #329.

Be careful not to scratch the shutter speeds inner indicator.

Roller spring B502

Screw (+) #658

Route String #221 on Roller #223 installed atop Roller spring B502.

Roller, aperture coupling string #224

Screw (+) #225

Make sure smooth rotation of the roller.

Release adjusting lever B313

Screw (+) #72

Release lever pin #556 installed atop the release adjusting lever should be coupled to the fork of See-saw lever #553.

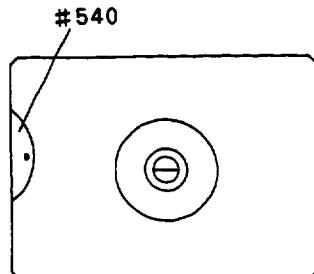
Shutter speed inner indicator #540

Turn shutter dial from B to X 200 and revere.

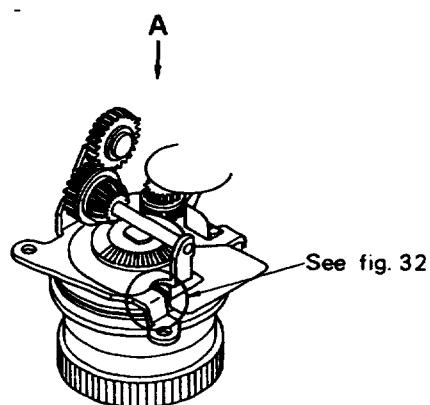
Specification: Shutter speed figures be entirely visible.

Inclination of figures be within 5°.

Adjustments can be made by positioning Shutter speed inner indicator #540 with inserting screwdriver blade through the access holes. After adjustments, cement Retainer #542 to secure the position.



## 27. APERTURE COUPLING STRING TYING



Roller, aperture coupling string #223  
 ↓  
 Roller, aperture coupling string #224  
 ↓  
 Dial pulley #511  
 ↓  
 Dial pulley axle #529

Hook the knot of the string to Dial pulley axle #529 as shown in Figure 32.

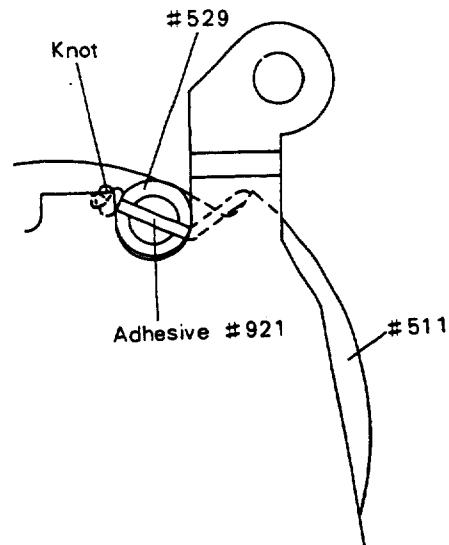
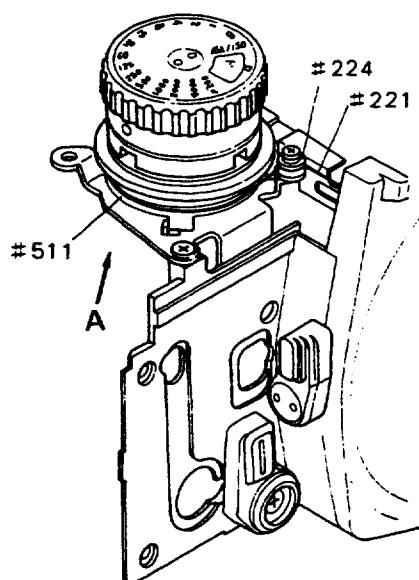
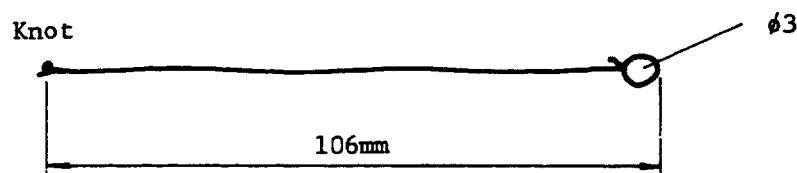
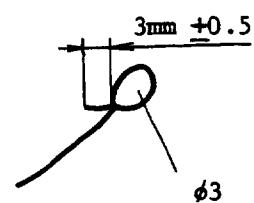
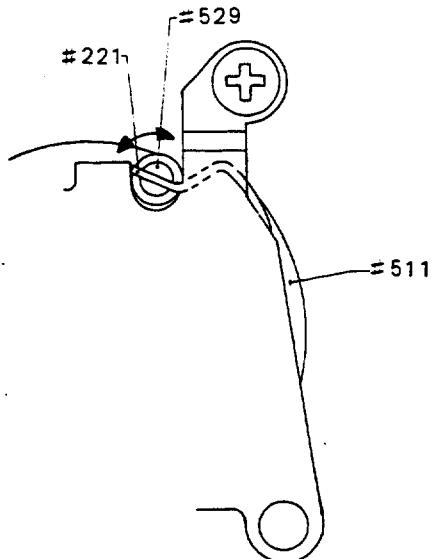


fig. 32

HOW TO TIE #211

28. FRE POSITIONING WITH USE OF COLLAR #529

Tool: J18065

Mount tool J18065 to camera body and set click stop 1/3 by moving aperture ring from f/1.4 to f/2.

Make sure that Dial pulley #511 should not turn at this setting. Adjustments can be made by turning Collar #529. Then, check if Dial pulley #511 starts to turn when moving aperture ring from click stop 1/3 further to f/2.

Dial pulley #511 should turn back smoothly when reversing aperture ring from f/16 to f/1.4.

FRE resistance value adjustment

Tool: J9003-2 (Digital Multi-meter)  
J18065

Use J9003-2 to measure resistance between GND and Lead wire (yellow) #1064.

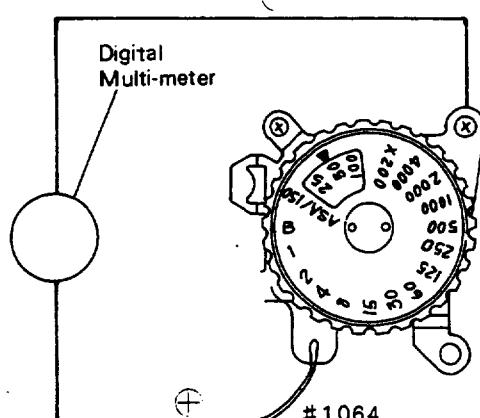
## Specification:

$$f=2 \quad 1.35k\Omega \pm 0.2k\Omega$$

$$f=1.6 \quad 0.6k\Omega \pm 0.1k\Omega$$

(Shutter speed - 1 sec. ASA=100)

Adjustments can be made by turning FRE #552 after loosening Screw #634x2.



Check if the resistance value changes by degrees when turning aperture ring or shutter dial (especially when turning/reversing aperture ring).

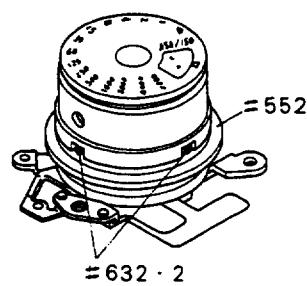


fig. 38

## 29. APERTURE COUPLING PIECE POSITIONING

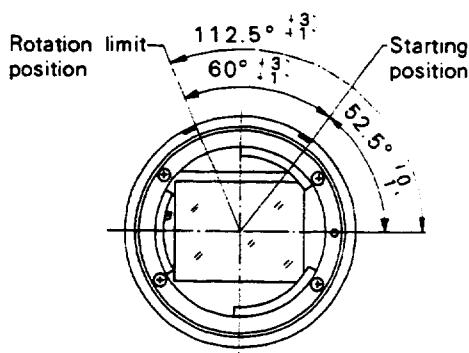


fig. 33

Positioning standard of aperture coupling ring

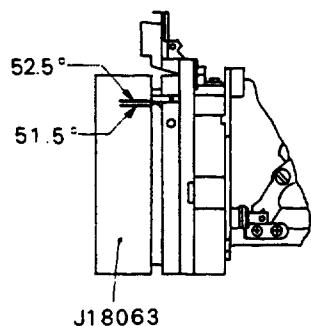


fig. 34

Aperture coupling piece starting position

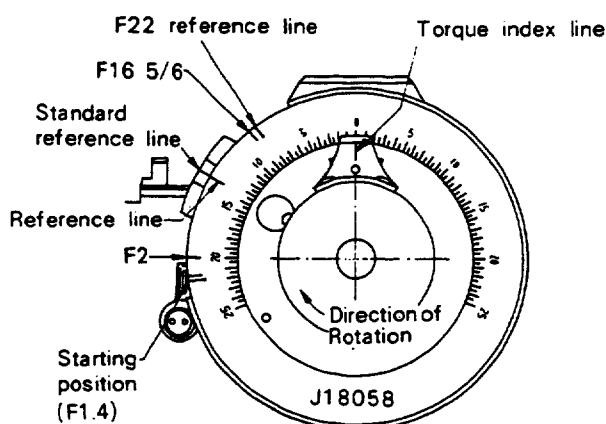


fig. 35

Torque index

Standard for  
Aperture Coupling Piece Starting  
Position and Maximum Angle of Rotation

Starting position:  $52.5^\circ$   $+0^\circ$   
 $-1^\circ$

Maximum angle of rotation:

$112.50^\circ$   $+3^\circ$   
 $+1^\circ$

Tool J18063

Refer to Figure 33.

Starting position checking

Mount F-number window checking gauge (J18063) onto bayonet.

Check that the right edge of #209 (lens release pin-side) is between two scales ( $52.5^\circ$  &  $51.5^\circ$ ) on J18063. If out of the scales, adjust by dislocating #222.

Refer to Figure 34.

Torque Standard

When rotating toward F22

at F16 5/6: 750g.cm or less

When rotating back toward max aperture

at F2 : 60g.cm or less

F1.4 reference line should surely return to align with the standard reference line.

How to measure

Mount the tool J18058 onto the bayonet. Align each reference line with the standard reference line, then rotate the tool's ring further to measure the torque when two lines separate.

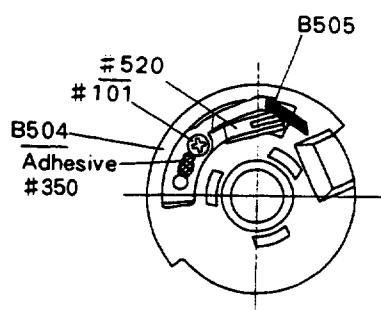
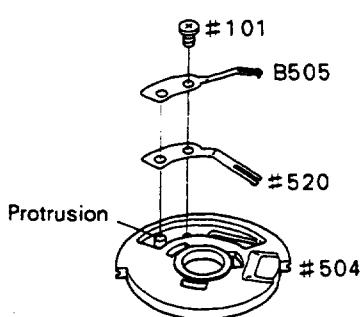
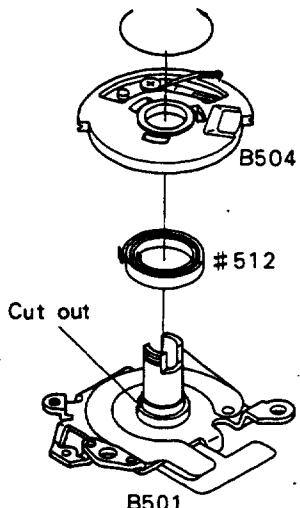
30. DIAL PULLY INSTALLATION

fig. 28



Dial pulley B504

FRE brush #520

Brush A FRE, B505

Screw  $\oplus$  #101

Align the openings of the brushes  
with the bosses of the pulley.

Be careful not to deform the brushes

Apply Bond #350 onto the place as shown  
in Figure 28.

Shutter control base installation

Shutter control base B501

Dial pulley B504

Hook one end of Pully spring #512 to Dial  
pully #511 as shown in Figure 29.

Hook the other end of the spring to the  
cutout of Shutter control base B501 and  
turn the pulley counterclockwise about  
one full turn.

Be careful not to bend FRE brush #520.

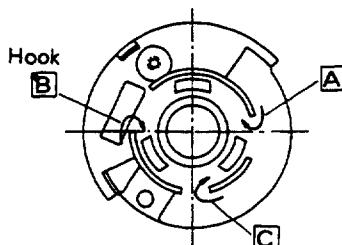
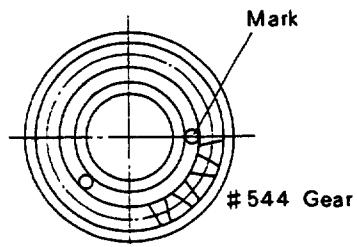
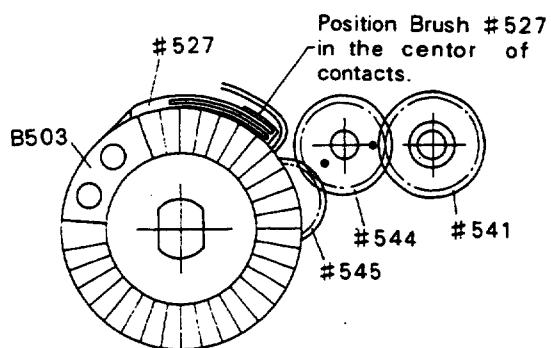
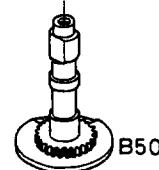
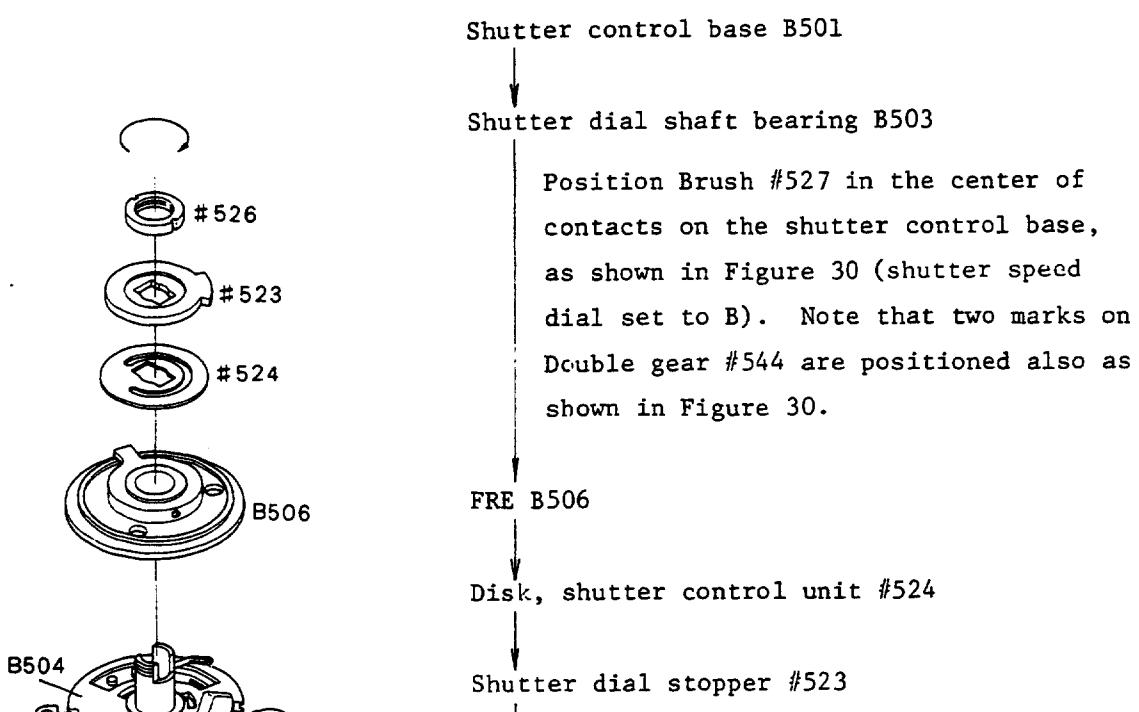
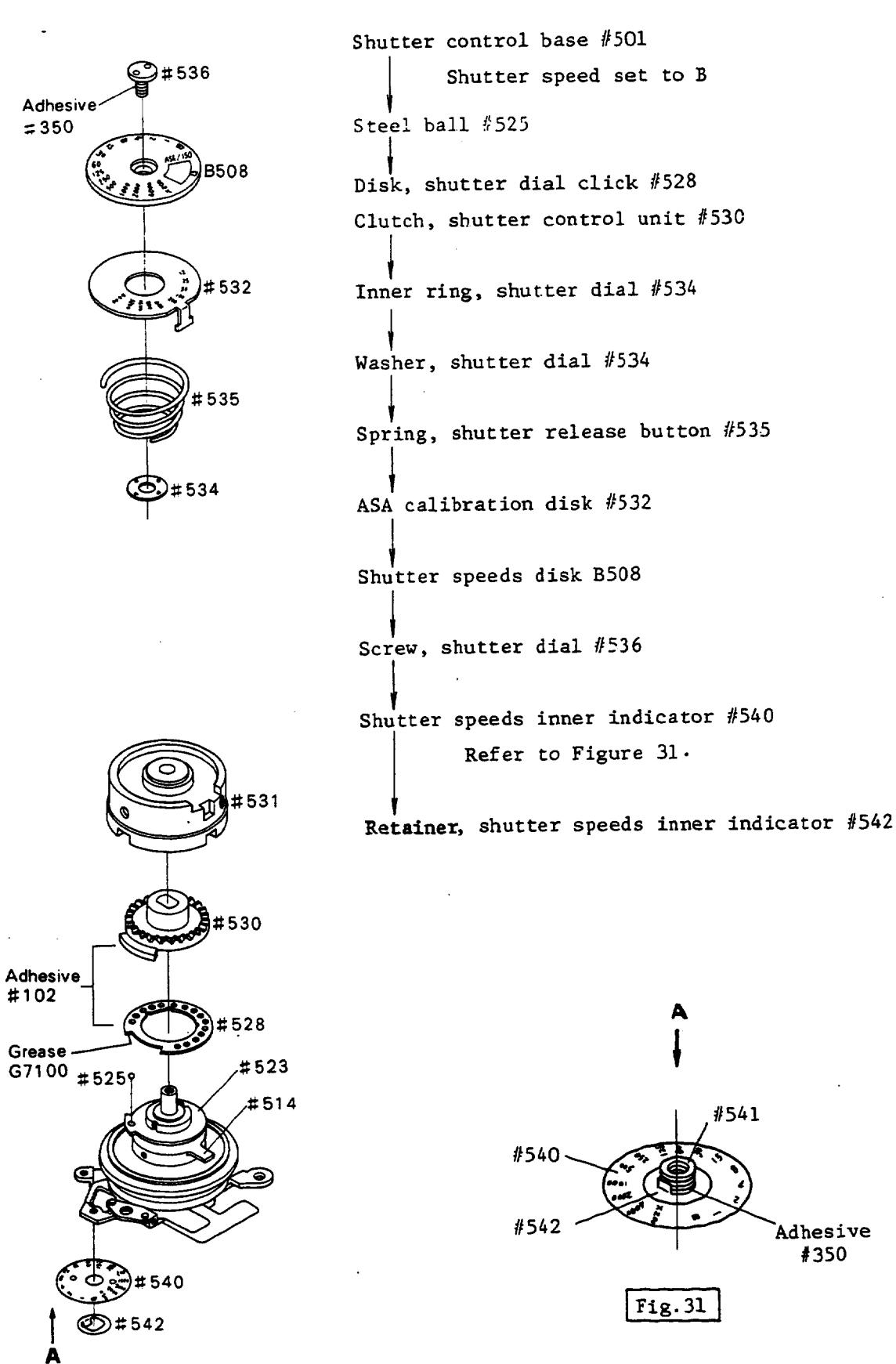


fig. 29

Spring hanging position

31. FRE INSTALLATION

**fig. 30** Shutter speed dial set to B

32. SHUTTER DIAL INSTALLATION

## 33. FRONT PLATE UNIT INSTALLATION

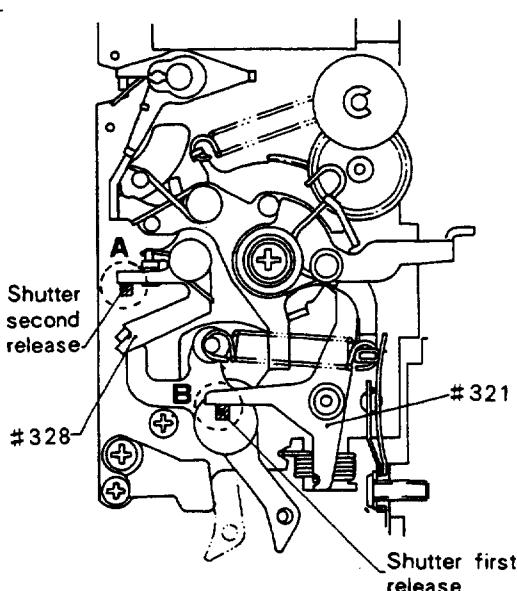


fig. 39

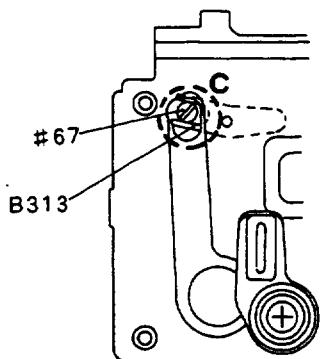
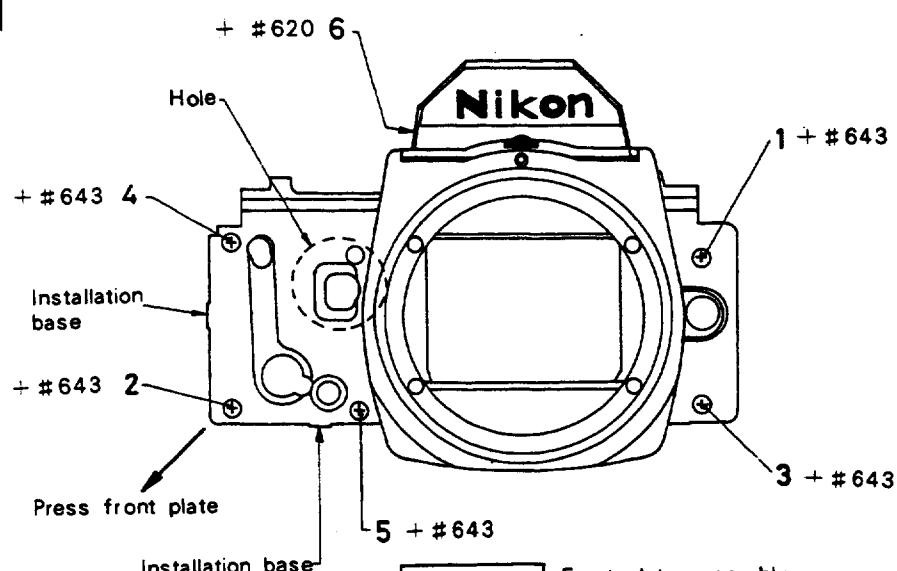
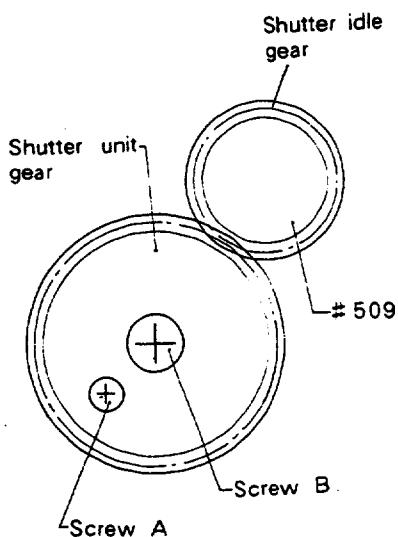


fig. 40

Screws #643 and #620 should be tightened in the order as shown in Figure 41.

fig. 41 Front plate assembly  
Fixing Sequence

34. SHUTTER UNIT GEAR POSITIONING

1. Turn shutter dial to set 1/30 and stop shutter unit gear to 1/30 click.
2. Loosen two screws securing shutter unit gear, with holding shutter dial to help stop the gear.
3. Turn shutter dial to stop Shutter idle gear #509 to 1/30 click.
4. Tighten two screws securing shutter unit, with holding shutter dial to help stop the gear engagement adjusted.
5. After positioning, turn shutter dial to check click stops at all shutter speeds from X200 to B.

fig. 42

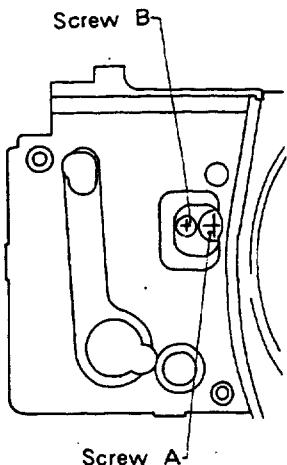


fig. 43

Checking after front plate unit installation

## a. Flange focal distance

Tool: J18001-1, J19004  
Specification:  $46.67 \pm 0.02\text{mm}$  (outer film rail)

## b. Blank-exposure preventing lever

After returning the film-advance lever slowly, make sure that the film-advance lever is not be wound again with reverse of pendulum.

## c. Mirror charge

Use Tool J18065 and set aperture to f/16. Then, wind film-advance lever. Repeat slow chargings several times to make sure that mirror is charged properly.

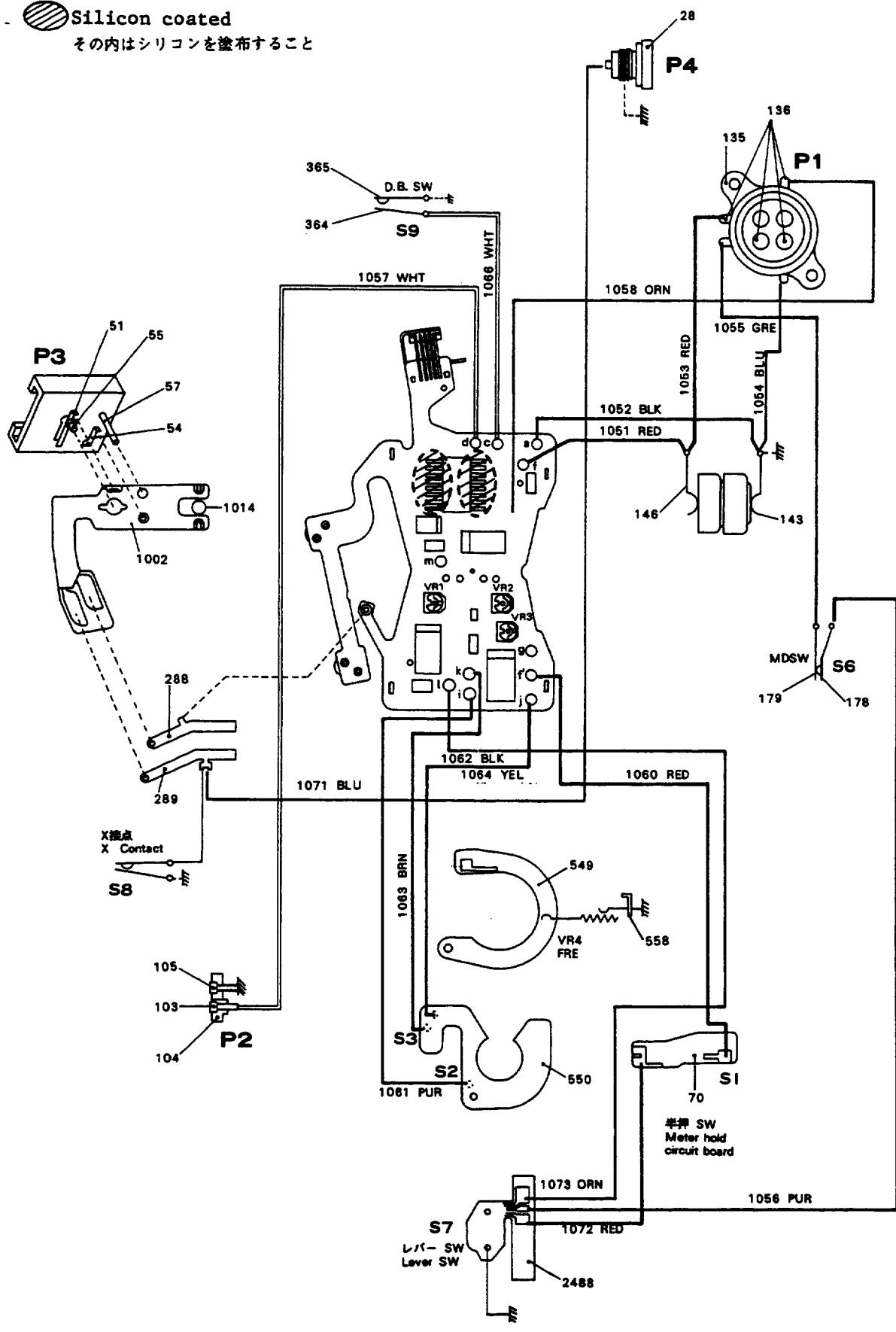
### 35. 配線図 Wiring Diagram

FAA14001-R.3110.A

半田づけの注意は他のボディに準ずる

 Silicon coated

その内はシリコンを塗布すること



36. METER ACCURACY ADJUSTMENT1)  $\gamma$ -adjustment (At EV 15)Measuring method

Using 50mm/1.4 lens, set ASA to 100, shutter speed to 1/500 sec. and aperture to f/8.

+ ○

○ ● Control VR #105 so that only this LED lights.

- ○

● represents lighting of LED

## 2) Shift-adjustment (At EV 4)

Measuring method

Using 50mm/1.4 lens, set ASA to 100, shutter speed to 1/2 sec. and aperture to f/2.8.

+ ○

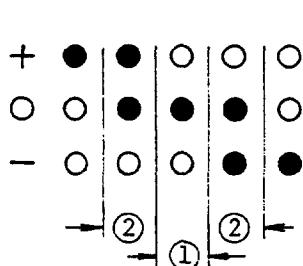
○ ● Control VR #106 so that only this LED lights.

- ○

## 3) Checking all accuracies at EV 4, 6, 9, 11 and 15

Measuring method

Using 50mm/1.4 lens, set ASA to 100, setting shutter speed and aperture to all combination values.

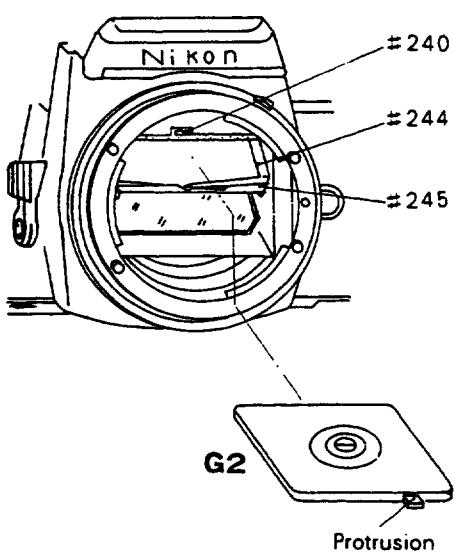


Zone- ① , correct exposure point  $\pm 0.5EV$

Dead zone, 0.3 - 0.6EV

Zone- ② , Two-LEDs lighting range - 0.7 - 1.1EV

Make sure that 5 step indications are accomplished positively. Though the dial or ring is turned within their click slacks or other slacks, no other LED lights.

37. FOCUSING SCREEN AND MIRROR REPLACEMENT(1) Focusing screen (G2)

To remove G2, pull screen lock spring (#240) toward you, and screen frame (#245) falls down, ready for G2 removal.

Hold the protrusion on G2 with tweezers to prevent G2 from scratch.

Cleaning G2, place G2 on #245 with split plane up and the protrusion toward you.

Press up #245 until #245 locked with #240, being careful of G2 not to disengage from screen frame spring (#244).

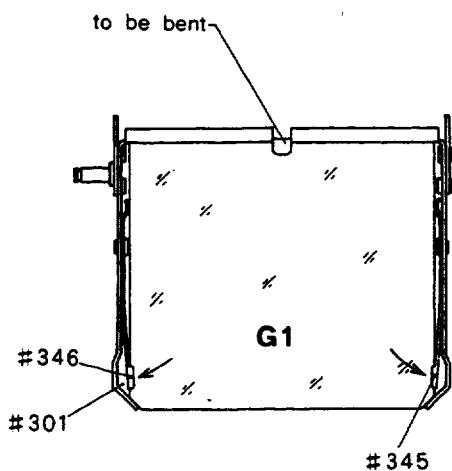


fig. 44 Mirror holder

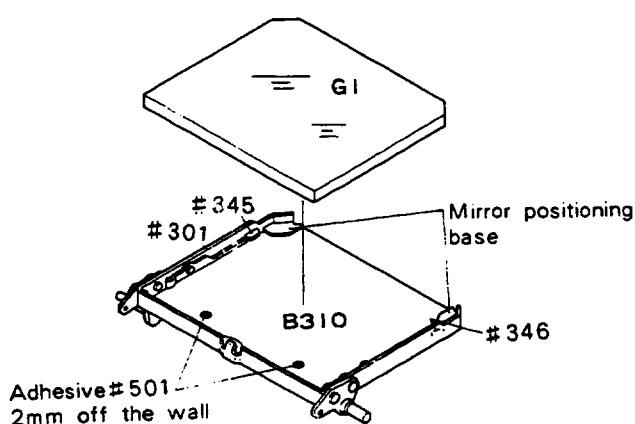


fig. 45 Mirror replacement

(2) Mirror (G1)

Remove Mirror(G1) by pressing mirror holder A(#345) and B(#346) with a small screwdriver in the direction of arrow (See Fig.44).

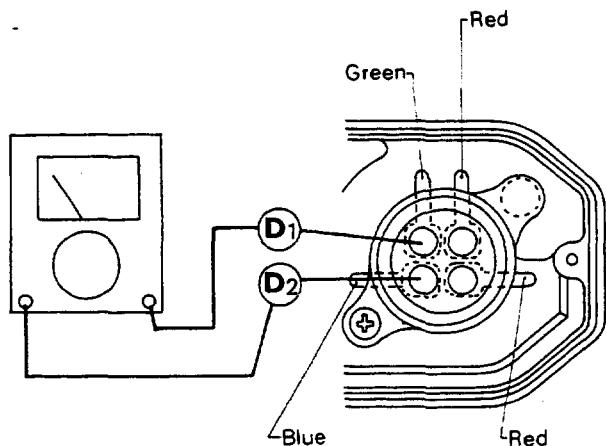
Reinstall G1 in place as follows; Clean the faying surfaces of G1 and mirror holder(#301).

Apply adhesive #501 at two places on #301 (See Fig.45).

Place mirror in place.

Be careful not to transform #345 nor #346 and not to scratch mirror

To make sure the proper mirror installation, look through view-finder for blur-free image at four corners.

38. MD SWITCH FUNCTION CHECK

Connect an ohm-meter to terminals D1 and D2 as shown in Figure 46.

Adjustments can be made by bending switch blades to increase/reduce the contact space.

Contact space: 1.5mm (OFF)

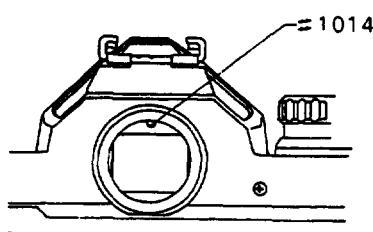
**fig. 46**

MD WINDING SWITCH		MD SWITCH FILM-ADVANCE LEVER SWITCH		METER READING
WINDING	SWITCH	RETRACT	ON	0 Ω
BEFORE	ON	STAND-OFF	OFF	∞
		RETRACT	ON	0 Ω
IN	ON	STAND-OFF	OFF	∞
		RETRACT	ON	∞
AFTER	OFF	STAND-OFF	OFF	∞
		RETRACT	ON	∞

39. ACCESSORY SHOE FUNCTION CHECK

Tool: J15147

- 1) Check ready-light LED glow



SHUTTER SPEED SETTINGS	LED
1/4000-1/250	BLINKING
1/125,B,X200	GLOW

- 2) Check conductivity of accessory shoe against LED's glow of Tool J15147

**fig. 47**

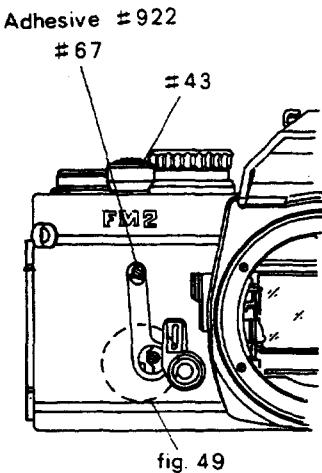
40. SHUTTER RELEASE STROKE CHECK.

fig. 48

Specification:Whole stroke:  $2.5 \pm 0.3\text{mm}$ Release stroke: 0 - -0.4mm  
(from the top of Release button cover ring #43)

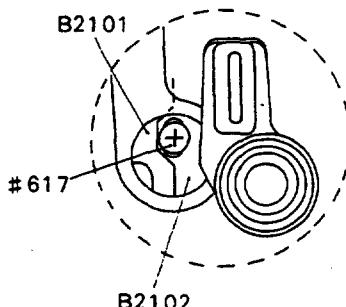
Adjustments can be made by turning Eccentric screw #67.

Meter switch checkSpecification:

Switch-ON stroke: 0.3mm (from the top of Release button cover ring #43)

Adjustments can be made by re-positioning Circuit board B2102 after loosening Screw #617.

Make sure that retracting film-advance lever cancels meter switch when shutter release button is halfway depressed.



ELECTRIC CIRCUIT

Contents	Page
[1] PRECAUTIONS .....	E1
[2] CHECK LANDS	
1. Circuit Diagram .....	E2
2. #1001 Checking Lands .....	E3
3. IC's Pins : Reference Voltage .....	E4
4. Wiring Diagram .....	E5
[3] EXPOSURE METER BLOCK DIAGRAM .....	E6
[4] CIRCUIT OPERATION OUTLINE .....	E7
[5] EXPOSURE READOUT LED .....	E8
[6] READY-LIGHT LED .....	E13
[7] MOTOR DRIVE .....	E14
[8] SPEED LIGHT FAILS TO FIRE	
[9] DATA BACK SW (S9) FAILS TO TURN ON	

[1] PRECAUTIONS

1. IC circuit board should not be touched barely. Use cotton gloves.
2. Be careful neither to deform leads of LEDs nor to move brushes of variable resistor.
3. Stick test prod into moisture-proof silicon coating to reach the terminal checked. Otherwise, the measurement results in error.
4. Voltage checking should be made on GND basis in principle.
5. VR1 for battery checker as a spare part is completely adjusted when shipped out from factory. Thus, it is not necessary to make adjustments after installation.
6. If necessary:

6-1. VBC (Voltage of Battery Checker) =  $2.34 \pm 60\text{mV}$

At temperatures  $20^\circ\text{C}-28^\circ\text{C}$

Use Tool J15148 and a voltmeter (tracing capacity: 1mV) to check VBC.

6-2. When VBC is out of standards, first measure the environment temperature and figure out the reference value of VBC in the following formula:

$$\text{VBC} = 2.34 + 0.004(T-25) + 25\text{mV}$$

T:temperature ( $^\circ\text{C}$ )

Then, make adjustments against the reference value calculated.

ABBREVIATIONS

ICC : Power current

V  $\textcircled{16}$  : Voltage of  $\textcircled{16}$  pin of IC

VCC : Power voltage

VBC : Battery checker voltage

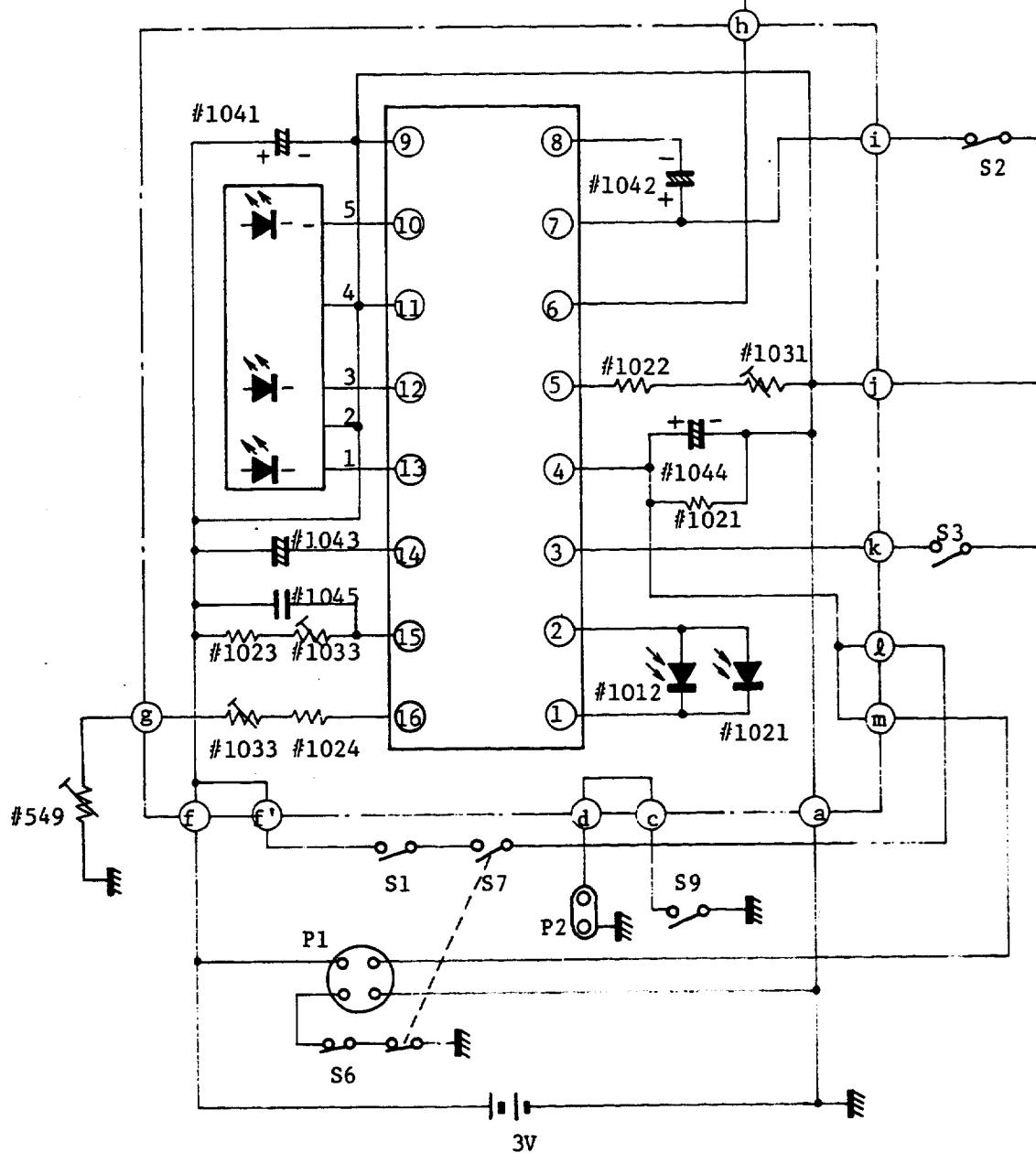
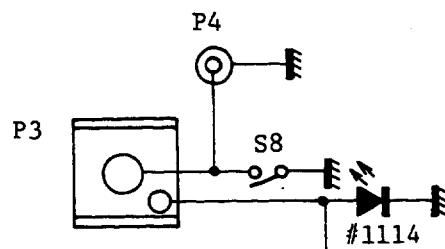
$\textcircled{16}$  : Number of pin of IC

$\textcircled{9}$  : Number of check land of FPC

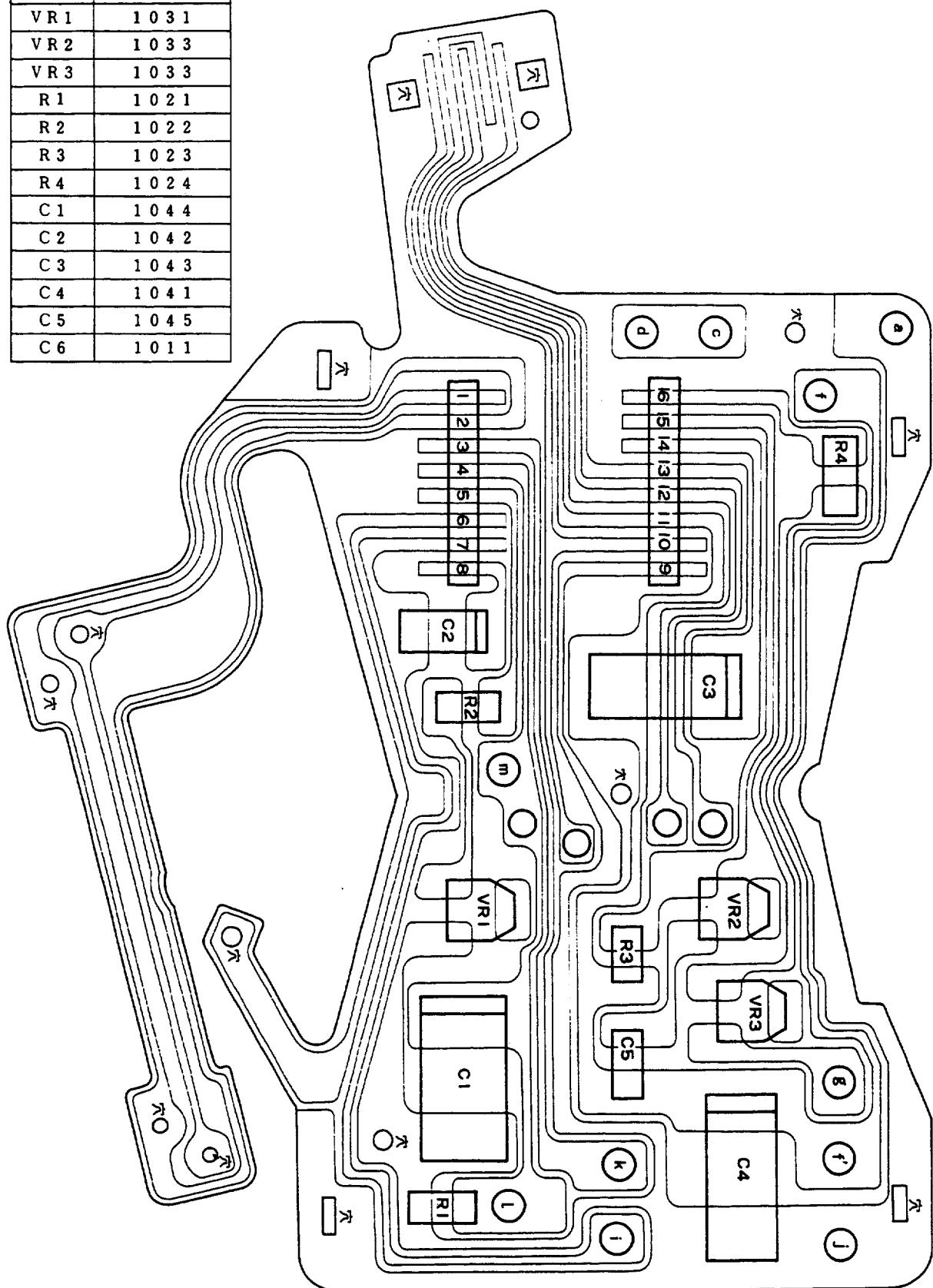
## 1. 回路図 Circuit Diagram

FAA14001 - R.3110.A

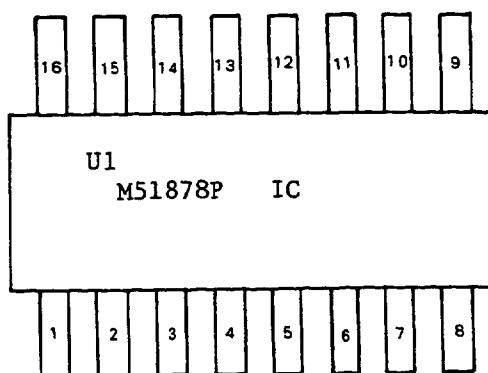
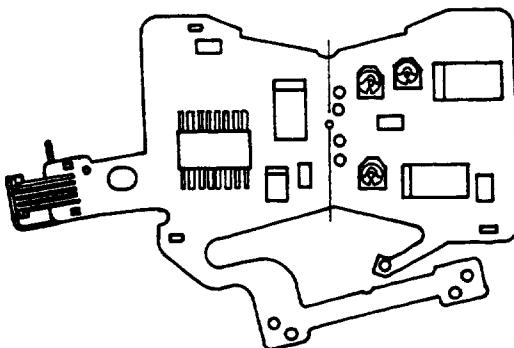
#1021	1S310-009	3.3M
#1022	1S310-010	39K
#1023	1S310-011	8.2K
#1024	1S310-012	4.7K
#1044	1S340-009	10 $\mu$ F
#1042	1S340-007	1.5 $\mu$ F
#1043	1S340-008	3.3 $\mu$ F
#1041	1S340-006	6.8 $\mu$ F
#1045	1S335-011	2200PF
#1031	1S322-006	47K
#1033	1S322-007	10K
#1033	1S322-007	10K
#549	1S705-002	
#1012	1S250-002	BS-100C
#1012	1S250-002	BS-100C
#1114	1S260-004	SR506D



部品名 Mark	補助番号 Ckt. No.
VR1	1031
VR2	1033
VR3	1033
R1	1021
R2	1022
R3	1023
R4	1024
C1	1044
C2	1042
C3	1043
C4	1041
C5	1045
C6	1011



## 3. IC'S PINS: REFERENCES VOLTAGE



VCC=3V (GND BASIS)

PIN	REFERENCE VOLTAGE	OPERATION OF CIRCUITRY
(1)	380 mV	MOS logarithmic compression
(2)	380 mV	MOS logarithmic compression
(3)	0.6 V	Input signal terminal: B, X200
(4)	3.0 V	Meter hold
(5)	2.2 V	Battery checker
(9)	0 V	GND
(10)	ON 1.5V OFF 2.0V	LED —
(11)	3.0 V	VCC
(12)	ON 1.5V OFF 2.0V	LED ⊖
(13)	ON 1.5V OFF 2.0V	LED +
(14)	1.6V - 2.7V	Process output: 72mV/EV
(15)	2.75V	- adjustments voltage
(16)	0.2V - 0.6V	Exposure factors setting 18mV/EV

	STROBO		Recycling	
	OFF	ON		
(6)	0 V	2 V	2 V — 1.4V	Input terminal
(7)	0 V	0 V	0.6V — 0 V	Oscillation terminal
(8)	0 V	0.6V	0.6V — 0 V	Oscillation terminal

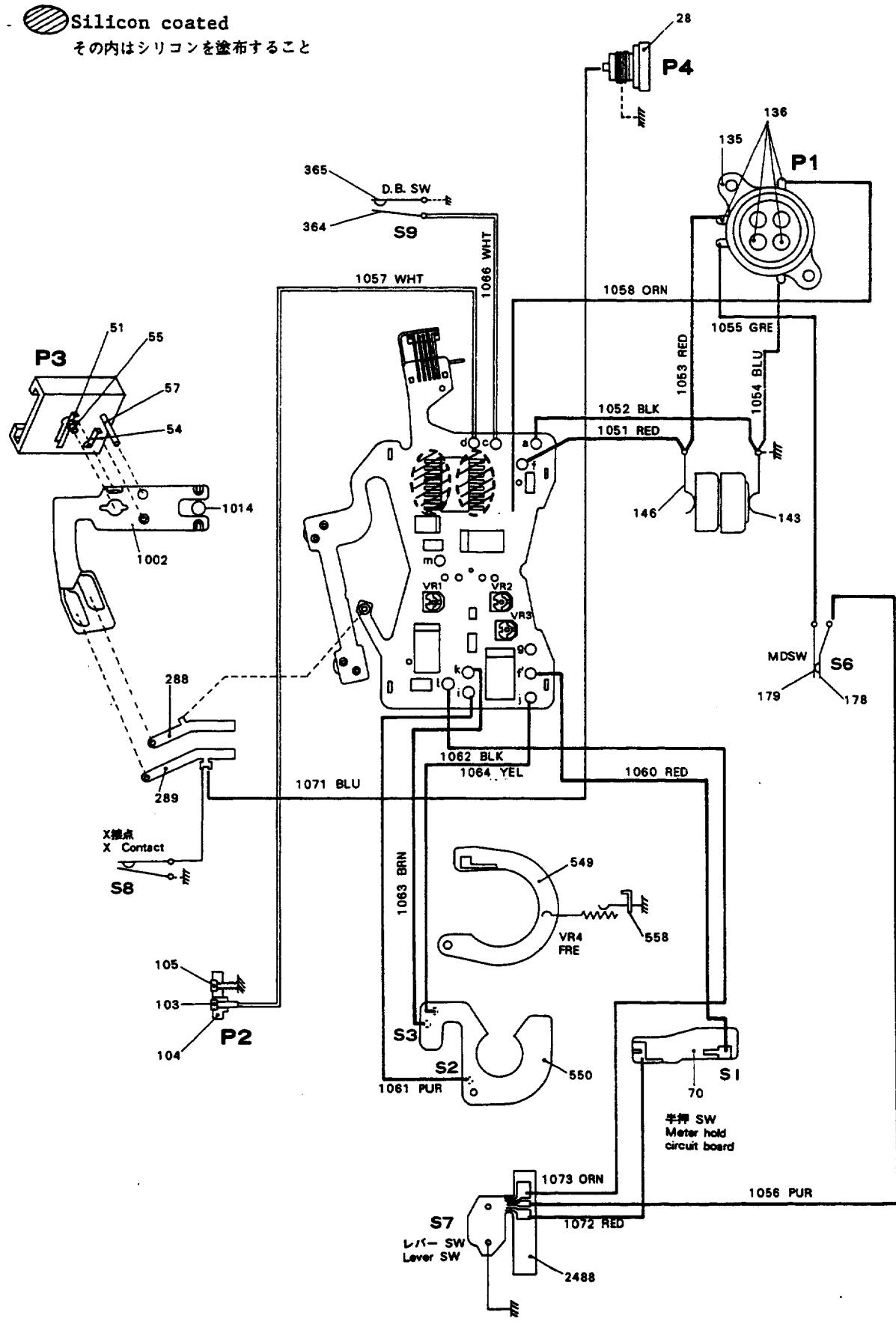
# 4. 配線図 Wiring Diagram

FAA14001-R.3110.A

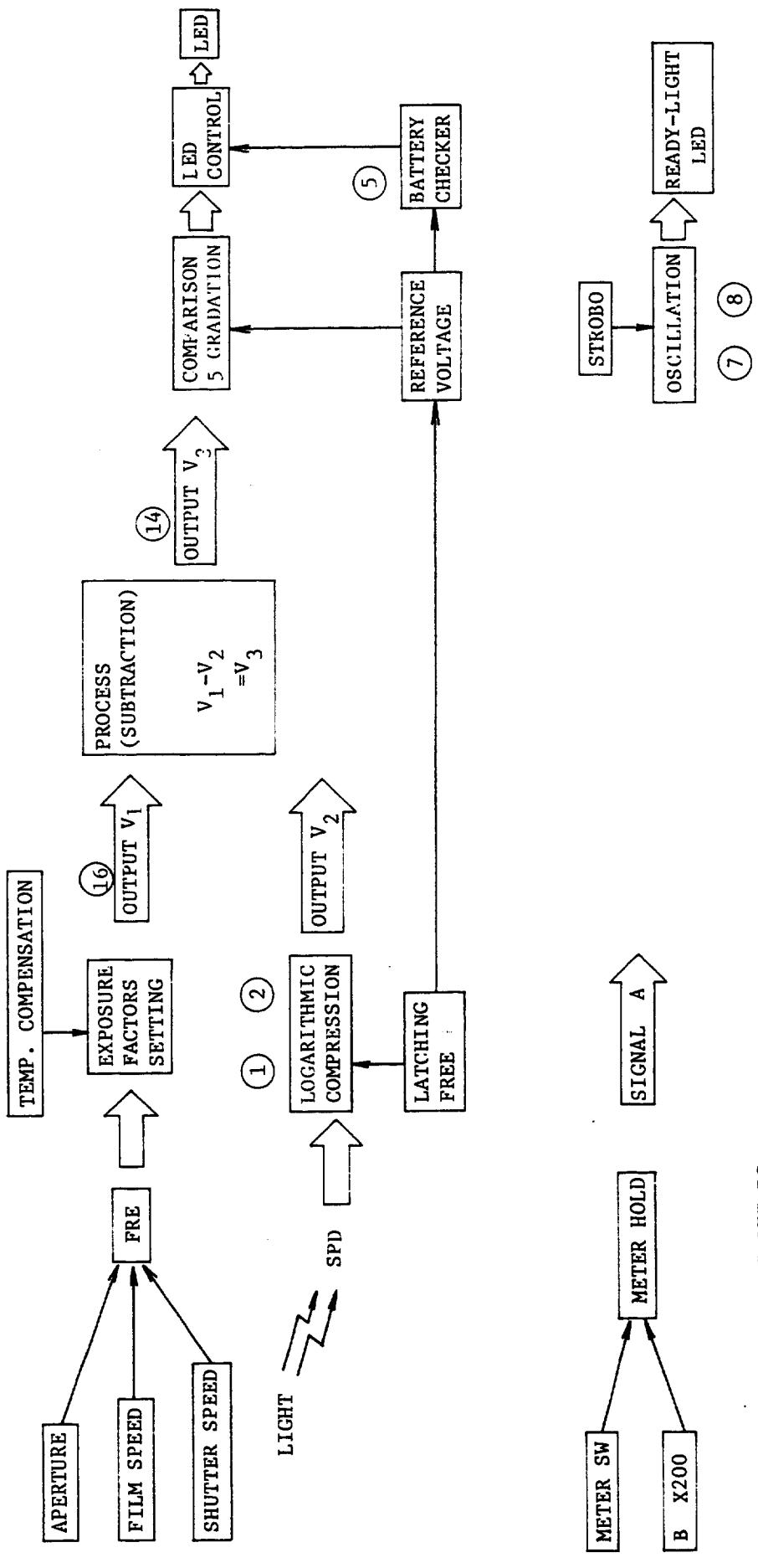
半田づけの注意は他のボディに準ずる

 Silicon coated

その内はシリコンを塗布すること



## [13] EXPOSURE METER BLOCK DIAGRAM



[4] CIRCUIT OPERATION OUTLINE

This exposure meter checks the lighting situations against the correlation of film speed, shutter speed and aperture in use. Exposure readout is through the triple LED display. The three LED's combine to provide five different gradations.

SPD changes the light energy into the current flow. The current flow is converted through the MOS logarithmic time compression circuit into the voltage (V2). On the other hand, film speed, shutter speed and aperture in use are converted through FRE into the resistance value, which is changed again into the voltage (V1) in the exposure factors setting circuit. V1 and V2 are combined in the process circuit to output the voltage (V3). V3 is related to four reference voltages in the comparison circuit and sorted to five different gradations;  $\pm$ ,  $\pm\odot$ ,  $\odot$ ,  $\odot-$ ,  $=$ . It allows the pertaining LED's to glow in the viewfinder.

The exposure factors setting circuit is provided with the temperature compensation circuit in order to avoid the temperature influence on the accuracy of metering.

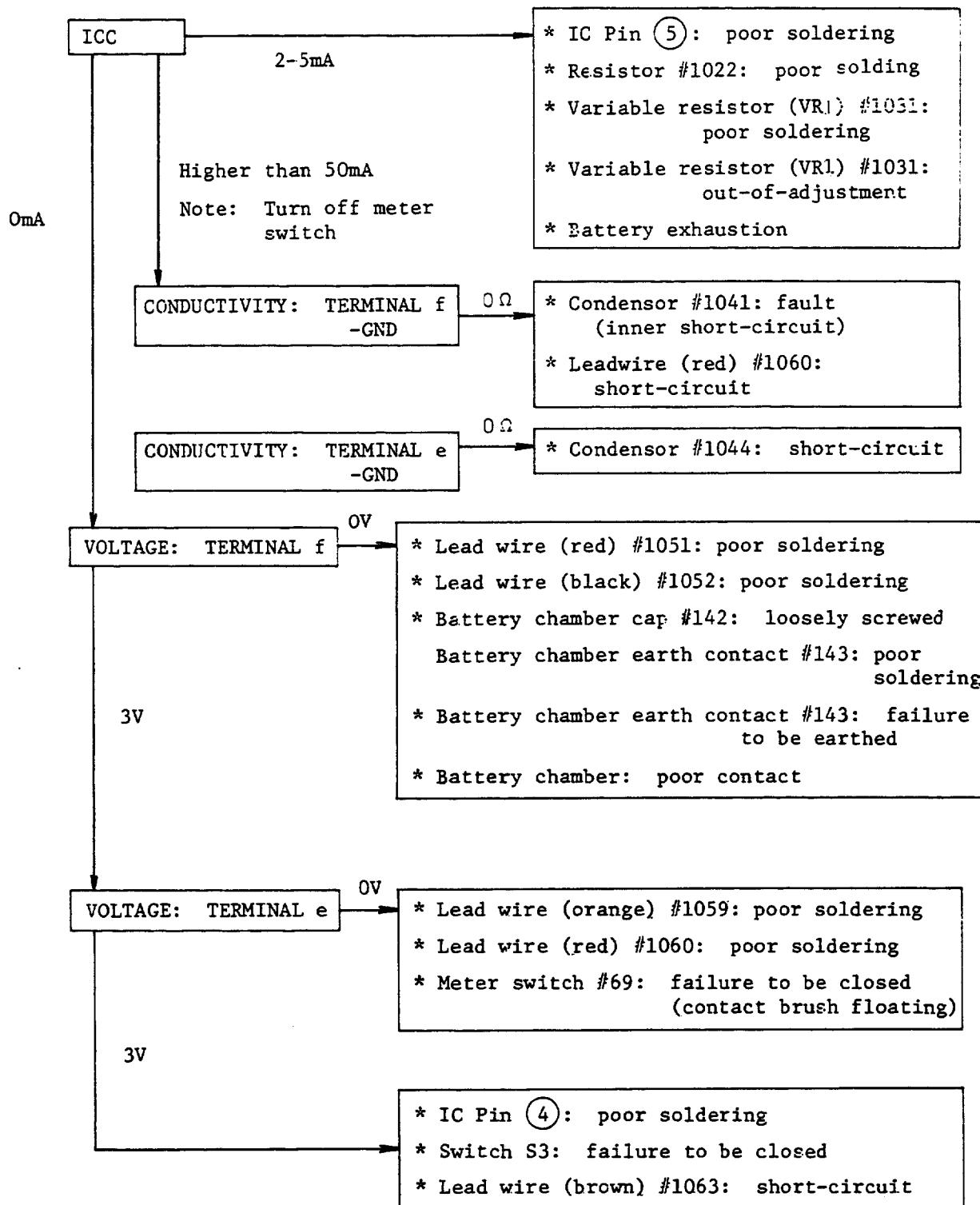
The latching free circuit makes the whole circuit operation stable instantly when the light situation is of low luminosity or when the batteries are exchanged.

The battery checker circuit turns off LED's when the voltage of batteries installed goes down to approx. 2.34V (25°C). The reference voltage will be reduced at low temperatures so that the battery checker may not cut off the life of batteries temporarily incapacitated.

Shutter release button switches meter on when depressed halfway: the meter hold circuit permits meter to remain on for approx. 30 sec. after finger is taken off button. This device is canceled by turning shutter dial to Bulb or X200. When the speed-light mounted, the ready-light glows at the finder eyepiece. It blinks to warn out-of-synchronization shutter speeds from 1/250 sec. to 1/4000 sec.

[5] EXPOSURE READOUT LED

1. FAILURE TO GLOW → CHECK POWER SUPPLY CIRCUIT



## 2. LED FAILS TO CHANGE READOUT → → CHECK FRE AND SPD

WITH TURNING SHUTTER DIAL,  
MEASURE VOLTAGE IC PIN 14

VOLTAGE CHANGES BY 72mV  
PER ONE-f-STOP DIFFERENCE

Failure to change  
approx. 1.2V

VOLTAGE: TERMINAL g

OV

- \* IC PIN 1: poor soldering
- \* IC FIN 2: poor soldering
- \* SPD: poor soldering
- \* SPD: installed, with polarity reversed
- \* FRE: fault

2V

- \* Lead wire (yellow) #1064: poor soldering
- \* Brush A #518: poor contact (FRE)
- \* FRE brush #520: poor contact
- \* FRE #552, FRE axle #513, Earth contact #516,  
FRE retainer spring #517, Screw #538,  
Earth spring #539: failure to be earthed

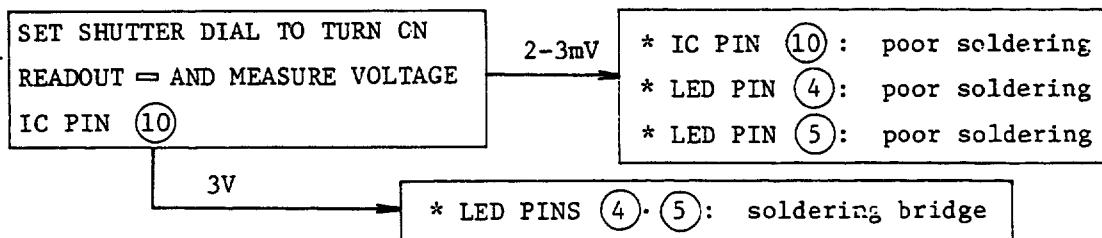
## 3. LED FAILS TO CHANGE READOUT + → CHECK IC PIN 15

- \* IC PIN 15: poor soldering
- \* Resistor #1023: poor soldering
- \* Variable resistor #1033 (VR2): poor soldering
- \* Condensor #1043: fault (inner short-circuit)
- \* Lead wire (yellow) #1064: short-circuit

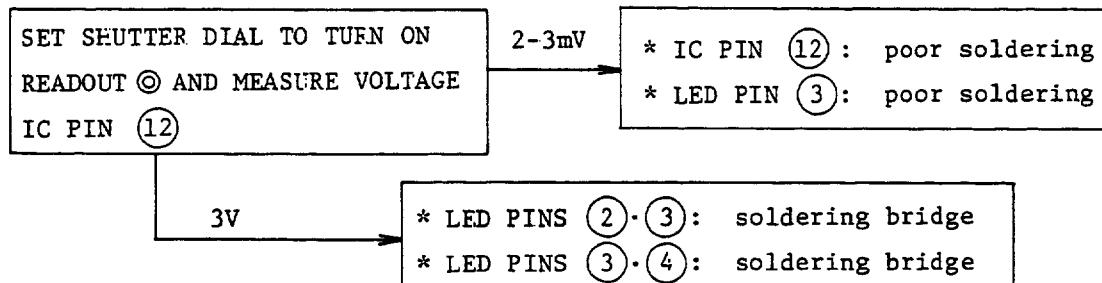
(1) LED FAILS TO CHANGE READOUT + AT SHUTTER SPEED SETTINGS  
FROM B TO 125, X200 (LED WILL TURN OFF AT SETTINGS FROM  
250 TO 4000)

- \* IC PIN 9: poor soldering

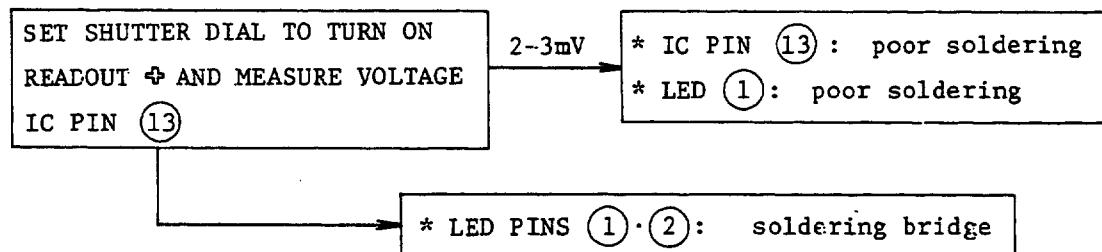
## 4. LED FAILS TO TURN ON READOUT =



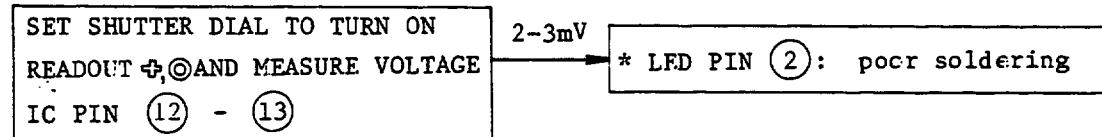
## 5. LED FAILS TO TURN ON READOUT ⊖



## 6. LED FAILS TO TURN ON READOUT +



## 7. LED FAILS TO TURN ON READOUTS + ⊖



## 8. LED FAILS TO TURN ON READOUTS = ⊖

* IC PIN 9 : poor soldering
* LED PINS 3 · 4 · 5 : poor soldering

## 9. LED TURNS ON ALL READOUTS + ⓐ - SIMULTANEOUSLY

- \* IC PIN 11: poor soldering
- \* IC PIN 14: poor soldering
- \* Condenser #1043: poor soldering or fault

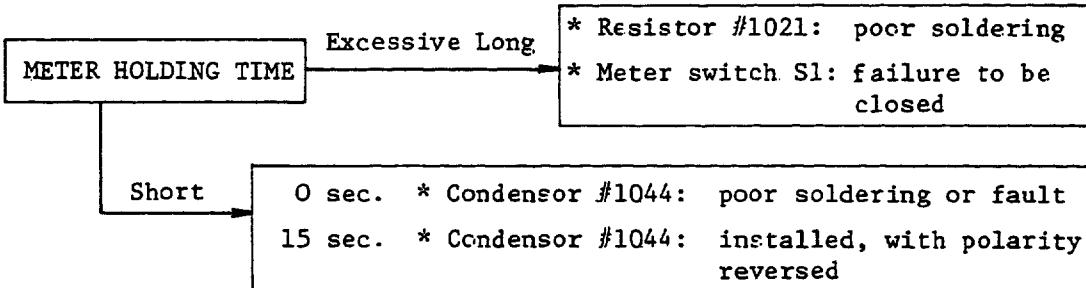
## (1) LED TURNS ON ALL READOUTS + ⓐ - SIMULTANEOUSLY AT SHUTTER SPEED SETTINGS B OR X200

- \* Lead wire (black) #1062: poor soldering
- \* Brush, shutter control unit #527: poor contact

## 10. IC TURNS ON AT SHUTTER SPEED SETTINGS B OR X200

- \* IC PIN 3: poor soldering
- \* Lead wire (black) #1062: poor soldering
- \* Lead wire (brown) #1063: poor soldering
- \* Switch S3: failure to be closed
- \* Brush, shutter control unit #527: poor soldering

## 11. METER HOLDING TIME IS INCORRECT



## 12. LED'S GLOW FLUCTUATING

- \* Brush A, FRE #518: instable contact
- \* FRE brush #520: instable contact
- \* FRE #552, FRE axle #513, Earth contact #516, FRE retainer spring #517, Screw #538, Earth spring #539: failure to be earthed
- \* FRE: dirt or breakage of resistor element

## 13. METER ACCURACY IS OUT-OF-ADJUSTMENT

## (1) BATTERY CHECKER VOLTAGE

- \* Variable resistor #1031 (VR1): soldering bridge
- \* Variable resistor #1031 (VR1): connector floating

(2)  $\gamma$  VOLTAGE

- \* Variable resistor #1033 (VR2): soldering bridge
- \* Variable resistor #1033 (VR2): connector floating
- \* IC: incorrect  $\gamma$  voltage (Specification;  $250 \pm 21\text{mV}$ )  
check voltage between Vcc and PIN (15)
- \* FRE: incorrect installation

## (3) SHIFT VOLTAGE

- \* Variable resistor #1033 (VR3): soldering bridge
- \* Variable resistor #1033 (VR3): connector floating
- \* SPD: poor soldering
- \* SPD: installed, with polarity reversed
- \* IC: incorrect Rf (exposure meter resistance value)
- \* FRE: out-of-adjustment

## [6] READY-LIGHT LED

## 1. LED FAILS TO GLOW/FLICKER

- \* IC PIN (7): poor soldering
- \* Condensor #1042: fault (inner short-circuit)
- \* LED: installed, with polarity reversed
- \* Signal contact #57: poor soldering with Ready-light circuit board #1002
- \* Earth lug plate #54: poor soldering with Ready-light circuit board #1002

## 2. LED FAILS TO FLICKER AT SHUTTER SPEED SETTINGS FROM 250 TO 4000

- \* IC PIN (6): poor soldering
- \* Switch S2: failure to be opened
- \* Lead wire (violet) #1061: short-circuit
- \* Shoe connecting contact A #288: poor soldering with terminal h on Ready-light circuit board #1002
- \* Shoe connecting contact A #288: poor contact with Ready-light circuit board #1002

## 3. LED CONTINUES TO FLICKER

- \* Lead wire (violet) #1061: poor soldering
- \* Switch S2: failure to be closed
- \* Brush, shutter control unit #527: poor contact

## 4. LED TURNS OFF AT SHUTTER SPEED SETTINGS FROM 250 TO 4000

- \* IC PIN (8): poor soldering
- \* Condensor #1042: poor soldering or inner fault

## [7] MOTOR DRIVE

## 1. MOTOR DRIVE FAILS TO WORK

- \* Lead wire (green) #1055: poor soldering
- \* Lead wire (violet) #1056: poor soldering
- \* MD switch (S6): failure to be closed or opened
- \* Lever switch (S7): failure to be closed
- \* Blade A, MD switch #179: short-circuit with bottom cover

## 2. OTHERS

## (1) METER HOLD FAILS TO BE CANCELED BY ATTACHING MD 11

- \* Lead wire (orange) #1058: poor soldering

## (2) METER HOLD IS CANCELED BY ATTACHING MOTOR DRIVE

- \* Lead wire (red) #1053: poor soldering

## (3) MOTOR DRIVE FAILS TO WORK WHEN FILM-ADVANCE LEVER IS IN STAND-OFF POSITION

- \* Lever switch (S7): failure to be opened

## [8] SPEED LIGHT FAILS TO FIRE

- \* Lead wire (green) #1070: poor soldering
- \* Lead wire (blue) #1071: poor soldering
- \* X-contact (S8): failure to be ON
- \* Shoe connecting B #289: poor contact with Ready-light circuit board #1002
- \* Lower contact, shoe #51: poor soldering with Ready-light circuit board #1002

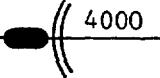
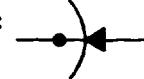
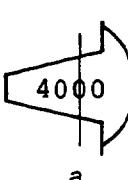
## [9] DATA BACK SWITCH (S9) FAILS TO TURN ON

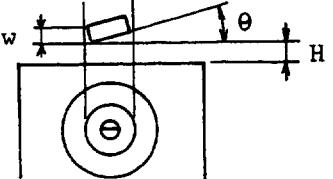
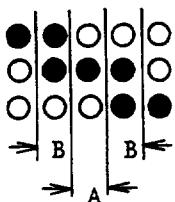
- \* Lead wire (white) #1057: poor soldering
- \* Lead wire (white) #1066: poor soldering
- \* Shutter switch A #364: settling
- \* Shutter switch B #365: failure to be earthed

INSPECTION STANDARD FOR REPAIR

INSPECTION STANDARD FOR REPAIR

	Item	Standard			Tool	
WINDING MECHANISM/SHUTTER RELEASE	Film advance lever torque	Film unloaded : 2.0 kg-cm or less Film loaded : 3.5 kg-cm or less			Torque meter	
	Spool	Torque : 90 - 140g-cm Slipping load : 144 - 224g			J15003 J5019	
	Sprocket	Play of the tips of sprocket teeth : 0.8mm or less			J18064-1	
		Reverse action after winding: 1.2mm or less				
	MD coupling	Start angle : -1° - 2° Wound angle : 132° - 138° Torque : Equivalent to those of film advance lever			Torque meter	
	Rewind button	To be set : 2.7mm from the surface of bottom cover			Slide caliper	
	Rewind knob torque	Film unloaded : 25 - 40g-cm			J5018	
	Shutter button	Release power : 250 - 400g			J5019	
		Whole stroke : 2.5 ± 0.3mm Release stroke : 0.4mm or less from the surface of button guide Switch ON stroke: 0.3mm or more from the surface of button guide				
	MD plunger	Height from the surface of bottom cover : 0.5 +0.3mm -0.2mm  Release power : 500g or less  Release stroke from the surface of bottom cover: 3.4mm or less			Slide caliper	
SHUTTER SPEEDS DELIVERY	Exposure time	Shutter speed	Upper limit	Standard	Lower limit	Shutter tester J19033
		1	1320ms	1000ms	755ms	
		2	660	500	377	
		4	330	250	188	
		8	165	125	94	
		15	82.5	62.5	47	
		30	41.25	31.25	23.5	
		60	20.62	15.63	11.8	
		125	10.31	7.81	5.92	
		250	5.63	3.91	2.72	
		500	2.81	1.95	1.36	
		1000	1.41	0.98	0.68	
		2000	0.71	0.49	0.34	
		4000	0.36	0.25	0.174	
		X200	6.2	5.05	4.07	

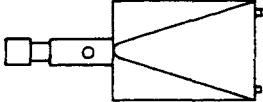
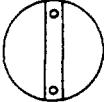
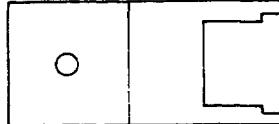
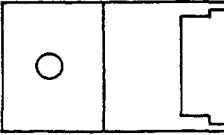
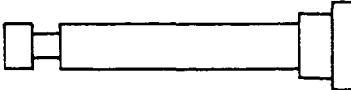
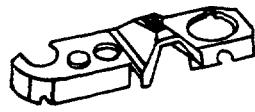
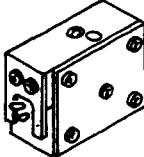
	Item	Standard	Tool
SHUTTER SPEEDS DELIVERY	Shutter speed difference (measured at the center of aperture plane) between two adjacent settings	1/500 - 1/1000 : 0.35ms or more 1/1000 - 1/2000 : 0.18ms or more 1/2000 - 1/4000 : 0.09ms or more	Shutter tester J19033
	Exposure variation	1 - 1/1000 : 0.3EV or less 1/2000 - 1/4000 : 0.5EV or less	
	Self-timer	Delayed action time : 8 - 14sec To be reset by reversing lever	Stop watch
	X contact	Time lag : 0.05 - 0.2ms Contact rate : 60% or more (1ms) Insulation : 30M or more	J19028-1 J9006
SHUTTER DIAL	Click out torque	600 ± 200g-cm	Torque meter
	Setting alignment	Shutter speeds : 	
	ASA	: 	
VIEWFINDER	Infinity focus	± 20" (Not to be varied after/before winding)	J18010 J19001
	Parallax error	0.5mm or less vertically/horizontally	
	Viewfinder coverage	93% or more	
	Viewfinder frame inclination	1° or less	
	LED	To be visible clearly Not to protrude in the view frame	
	Shutter speeds indication	To be visible clearly Not to excessively protrude in the view frame Not to incline by more than 5° against the side line of frame	
			

	Item	Standard	Tool
VIEWFINDER	ADR window position	Height (H) = $0.5W - 1.5W$ Inclination ( $\theta$ ) = $2^\circ$ or less 	
	Ready-light LED	X200 - 1, B = Glowing 1/250 - 1/4000 = Blinking	J15147
	ASA setting	ASA 12 - 3200 settings should be checked at the combinations F1.4/B and F22/l/1000.	
EXPOSURE METER ACCURACY	Accuracy allowance ASA100	Brightness Cd/m <sup>2</sup>	K=1.16
		2      8      64      256      4096	Light box
		EV      4      6      9      11      15	Tool lens (50/1.4)
		F      2.8      2.8      4      4      8	
		Shutter      2      8      30      125      500	J18072
		Level A : $\pm 0.5$ EV	
		Dead range : 0.3 - 0.5 EV	
		Level B : 0.7 - 1.1 EV	
			
LENS MOUNT	Aperture lever height	After mirror charge : $3.1 \pm 0.1$ mm Before mirror charge : 3.6mm or less Balance between before/after charge : 0.15mm or more Full stroke : 7.1mm or more Tension (mirror charged) : 90 - 120g	J18004
	Aperture coupling ring	Rotation angle : $52.5^\circ - 112.5^\circ$	J18063
		Torque : 750g-cm or less (forward) 350g-cm or less (reversed)	J18058
	Metal back focus	$46.67 \pm 0.02$ mm Parallelness : 0.2mm	J18001-1 J19004

Item	Standard	Tool
	Balance of height between internal and external film rails : $0.23 \pm 0.02\text{mm}$	
Pressure plate	Leveling : 0.02mm or less	
Battery checker	Battery checker LED turns on at 2.40V and off at 2.28V.	
Meter-On duration	$30 \pm 10$ sec. after finger is taken off the shutter release button	

TOOLS

## (1) FM2用工具ゲージ一覧表 Tool List

工具番号 Tool No.	名 称 Name	略 図 Illustration	区分 Class.	備考 Commeon use
J11126	レバー押えネジ #403用 回螺器 Screwdriver (Film-advance lever)	 	A	FM, FE
J11118	スプロケット軸受 #438用 回螺器 Screwdriver (Sprocket shaft lower bearing #438)		B	FM, FE
J11132	ダイアル上面ビス #536用 回螺器 Screwdriver (Shutter dial screw #536)	 	A	FM
J11135	絞りレバービス #314用 回螺器 Screwdriver (Aperture lever screw #314)	 	B	FM
J11139	レバー軸ナット #405用 回螺器 Screwdriver (Film-advance lever shaft nut #405)		B	FM, FE
J11155	スプロ制限カム #429用 回螺器 Screwdriver (Sprocket stopper cam #429)	 		FM, FE
J15138	輝度校正用 Tool top cover		A	FM用を 加工 FM
J15147	ストロボ代用工具 Tool speed-light		B	FE

工具番号 Tool No.	名 称 Name	略 図 Illustration	区分 Class.	備 考 Commeon use
J15148	回路点検用工具電池 Tool battery		A	FM, FE
J15135	高周波ドライバー High-frequency screwdriver		A	先端を加工して使用 When using modify the tip
J 5127	回螺器ホルダー Screwdriver blade holder		A	
J 5272	ミラーアップレバー Gクリップ #299用 回螺器 Pliers (G-snap ring #299 the mirror-up lever)		A	FM, FE

Tool No.	Name	Illustration	Class.	Common use
J18004	Aperture lever positioning gauge	Refer to tool instruction manual	B	All cameras
J18006	Test chart		C	
J18010	Standard lens 50mm f2		C	
J18033	Focusing screen tool		C	
J18037	Mirror 45° inspecting tool		A	
J18041-1	Tool lens for shutter tester 50mm f1, 4		A	EL2 FM FE
J18042	Aperture lever depth gauge	Refer to tool instruction manual	C	All cameras
J18058	Torque gauge for AI lens & body		C	AI lenses FM EL2 FE
J18063	F-number window checking gauge		B	FM FE
J18064	Sprocket teeth positioning gauge		B	FM FE
J18065	F-number checking gauge		A	FM EL2 FE
J18070	45 degree positioning tool mirror		C	FE

## (2) General purpose instruments

Tool No.	Title	Remarks	Usable other tool
J19033	Shutter tester	For 35mm focal-plane shutter camera	J19006-1
J19028-1	Megger	500MΩ	J19028
J19009-2	Brightness box		J19001-1 J19009-3 J19009-4 J19022-1
J9003-2	Digital multi-meter	Resolving power: $1\mu V/DCV$	J 9003-3
J19001	Collimator (f=600mm, D=120mm)	With stand	J19001-1
J19004	Dial indicator (with stand)	Scale div. 0.01mm, stroke 5mm	
J19006	Test meter		
J9001-5	DC regulated power supply	0 — 18V variable, Max. 2A	J9001 J9001-1

# 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
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 N.5	E 205
		L 1233	シェル石油	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	三達化工	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
Grease oil グリース	At a normal temperature 常温用	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
		G 5201	社内調合		
		G 5204	社内調合		
	常温用	G 5214	社内調合		
		G 6053	日本鉛油	パーマルブ H 1003	E 275
		G 6252	出光興産	ダフニコロネックス 2	E 2836
		G 6372	シェル石油	シェルアルバニア 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
	低温用	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) オートリキモリ LM-81		E 277
		G 7100	理研製油	スクワグリース L-2	E 266
		G 7811	日本鉛油	フォートルブ 024	E 272
		G 7812	日本鉛油	フォートルブ 025	
		G 7813	社内調合		E 280
	低温用	G 7814	協同油脂	マルテンブ PS N.1	E 267
		G 7815	協同油脂	マルテンブ PS N.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	ユニチップグリース	E 2846
		G 7854	日本鉛油	パーマルブ C-1	E 2847
	低温用	G 7855	日本鉛油	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 オイル	At a low temperature 低 温 用	G 7856	日本鉛油 パーマルブ C-3	E 2849	
		G 7862	日本鉛油 パーマルブ F-2		
		G 7866	日本鉛油 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) リキモリブースター 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	日本鉛油		

## 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	プライオボンド #30	E 154	
For make metal goods together with metal goods or glass with metal	# 616	セメダインスーパー (家庭用) セメダイン #1500 (工業用)		
	# 648	セメダイン #1590ハイスーパー		
	# 621	セメダイン #1565	E 175	
	# 631	アラルダイト AT 1	E 180	
一般金属相互 ガラスと金属	# 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	# 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	
工程上の仮止め	# 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 #64		
	# 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		

# Nikon FM2n Specifications

Type of camera:	35mm single-lens reflex
Picture format:	24mm x 36mm standard 35mm film format.
Lens mount:	Nikon F mount; meter coupling lever provided; meter coupling lever release button not provided.
Lenses:	Lenses with Nikon F mount (with some limitations); AF lenses.
Shutter:	Vertical-travel, metal focal-plane mechanical shutter with aluminium alloy curtains.
Shutter release button:	Mechanical; centre-threaded shutter release button accepts standard cable release such as the Nikon AR-3; button locked when film advance lever is flush with the camera body.
Shutter speed settings:	1/4000 sec to 1 sec, B bulb; 14 discreet settings in all.
Exposure meter switch:	Light pressure on shutter release button switches meter on; meter stays on for approx 30 sec after finger is removed from button, then automatically switches off; meter automatically turned off when shutter speed dial is set to B.
Film advance lever:	Single stroke type; 30 degrees stand-off angle and 135 degrees winding angle.
Self-timer:	Set/cancel mechanical type provided; approx 10 sec shutter release delay.
Viewfinder:	Eye level pentaprism type; 0.86 x magnification (with 50mm lens set at infinity); finder coverage approx 93% of picture field.
Viewfinder display:	Shutter speed, aperture direct readout (ADR) f/number in use, and five different LED exposure displays using +, o and - signs.
Focusing screen:	Split-image microprism Type K2 provided as standard; interchangeable with matte Type B2 and matte with horizontal and vertical line etchings Type E2.
Reflex mirror:	Automatic quick return type incorporating special control gear and wheel-and-brake mechanism for reduced vibration and noise; non-lockable type.
Depth-of-field preview:	Via lever.
Motor drive coupling:	Electrical contact and coupler built-in for operation with MD-12 Motor Drive, which is operable when film advance lever is flush with body.
Multiple exposure lever:	Provided; disengages frame counter for correct count.
Frame counter:	Additive type (S..1-36); automatically resets to S when camera back is opened.
Film rewind:	By crank provided after film rewind button is pressed.
Accessory shoe:	Standard ISO type; ready-light contact provided.
Flash synchronisation:	Built-in ISO-type hotshoe; threaded sync cord terminal provided for off-camera or multiple-flash synchronisation with electronic flash units at all speeds up to 1/250 sec.
Ready-light:	LED visible inside viewfinder lights up when Nikon dedicated Speedlight is fully charged; blinks to warn that the shutter speed set is beyond the sync range of the electronic flash.

Exposure metering:	TTL centre-weighted (60/40) full-aperture exposure metering system using a pair of silicon photodiodes (SPDs) and metering monolithic IC circuit.
Metering range:	EV 1 to EV 18 (at ISO 100 with f/1.4 lens).
Film sensitivity range:	ISO 12 to 6400
Power source:	Choice of one 3V lithium battery CR-1/3N type, two 1.55V silver-oxide batteries SR-44 type, or two 1.5V alkaline batteries LR-44 type; optional Anti-Cold Battery Holder DB-2 accepts two AA alkaline, Ni-Cd or manganese batteries. Note: for Nikon products using AA batteries, do not use lithiums unless specifically stated.
Battery power check:	LED exposure display inside viewfinder lights up when exposure meter is switched on if there is sufficient power (ie, shutter speed dial is set anywhere except B).
Camera back:	Hinged; pops open when the film rewind knob is pulled up as the camera back lock is pushed; interchangeable with Data Back MF-16; memo holder provided.
Body finish:	Chrome and black.
Body dimensions:	142.5 x 90 x 60mm approx. (W x H x D):
Body weight:	540g approx.