

FM2

FAA14001

FM2n

FAA14002

FM2/T

FAA14132

REPAIR MANUAL



NIPPON KOGAKU K.K.

Tokyo, Japan

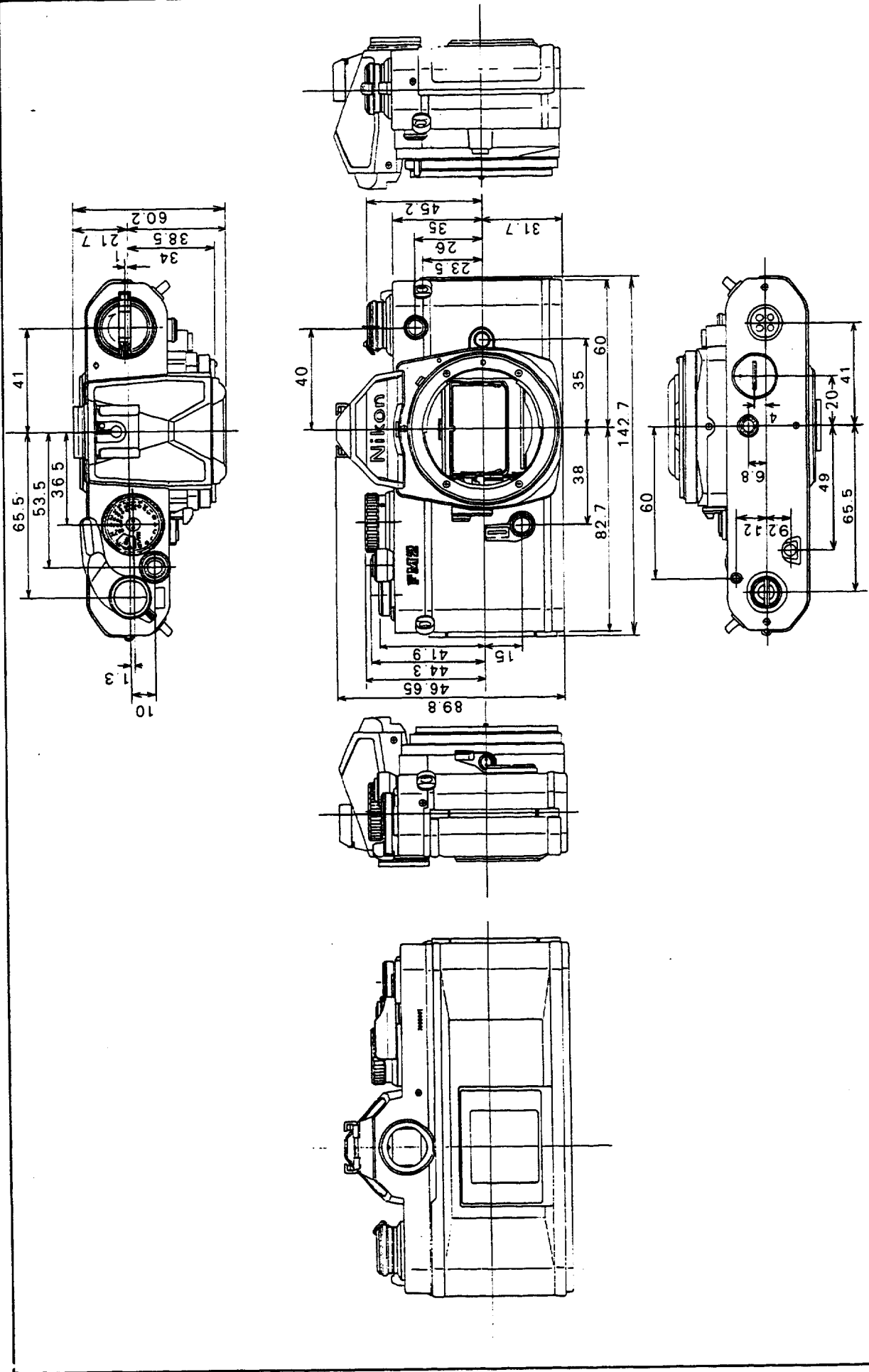
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SPECIFICATIONS & MECHANISM

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[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

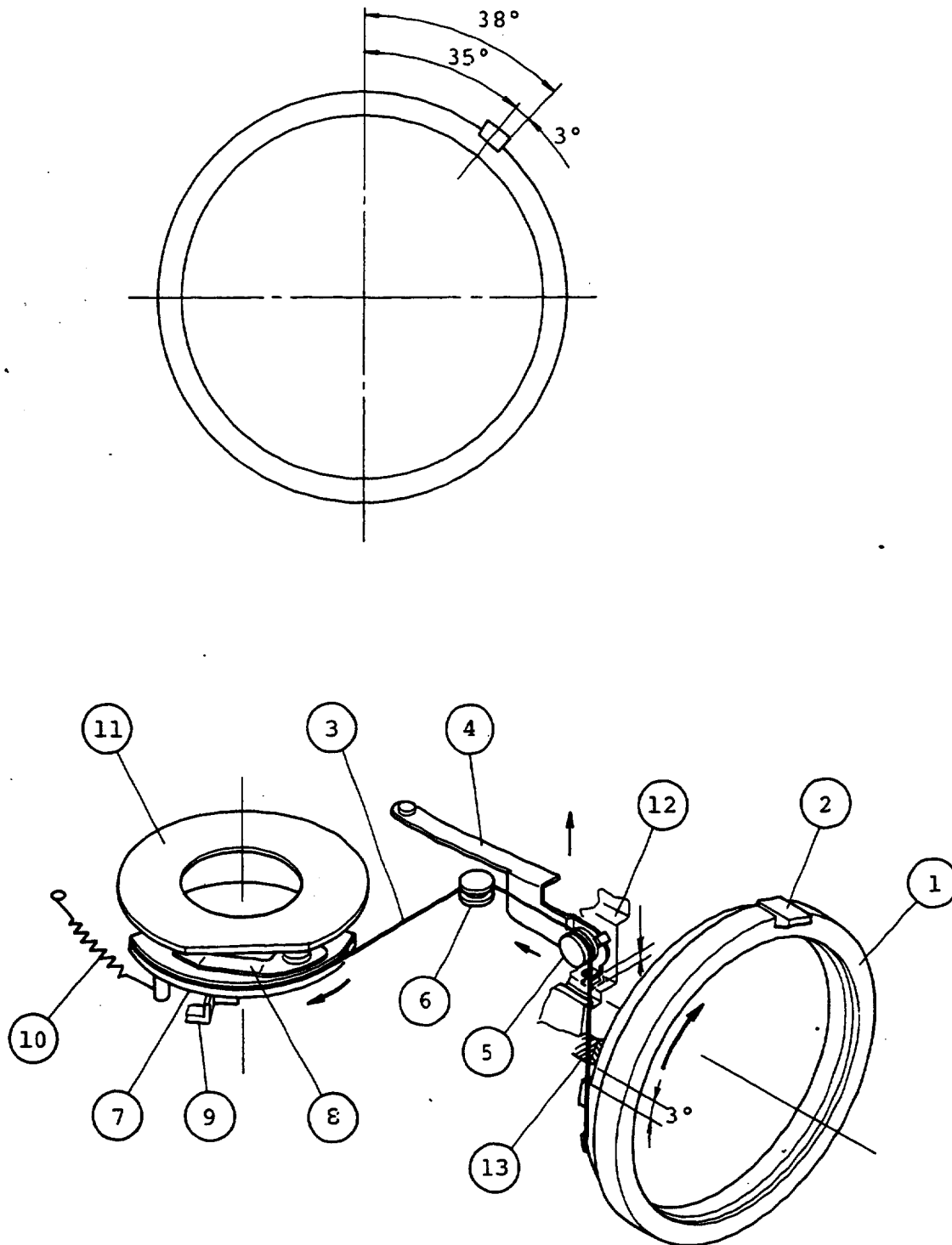
Camera back: Hinged; interchangeable type; opened by pushing safety lock while pulling up rewind knob; memo holder provided

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

Weight: Approx. 590g (without lens)

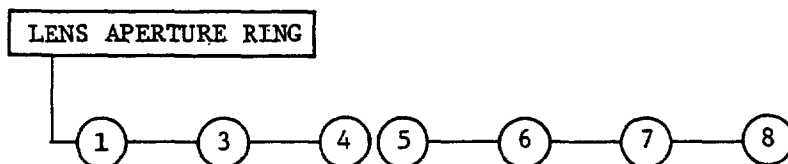
[3] MECHANISM OUTLINE**1. METER COUPLING SYSTEM**

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° 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° , Pully (7) is stopped against Stopper (9). Thus there is a space gap of angle of 3° 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° 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° 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



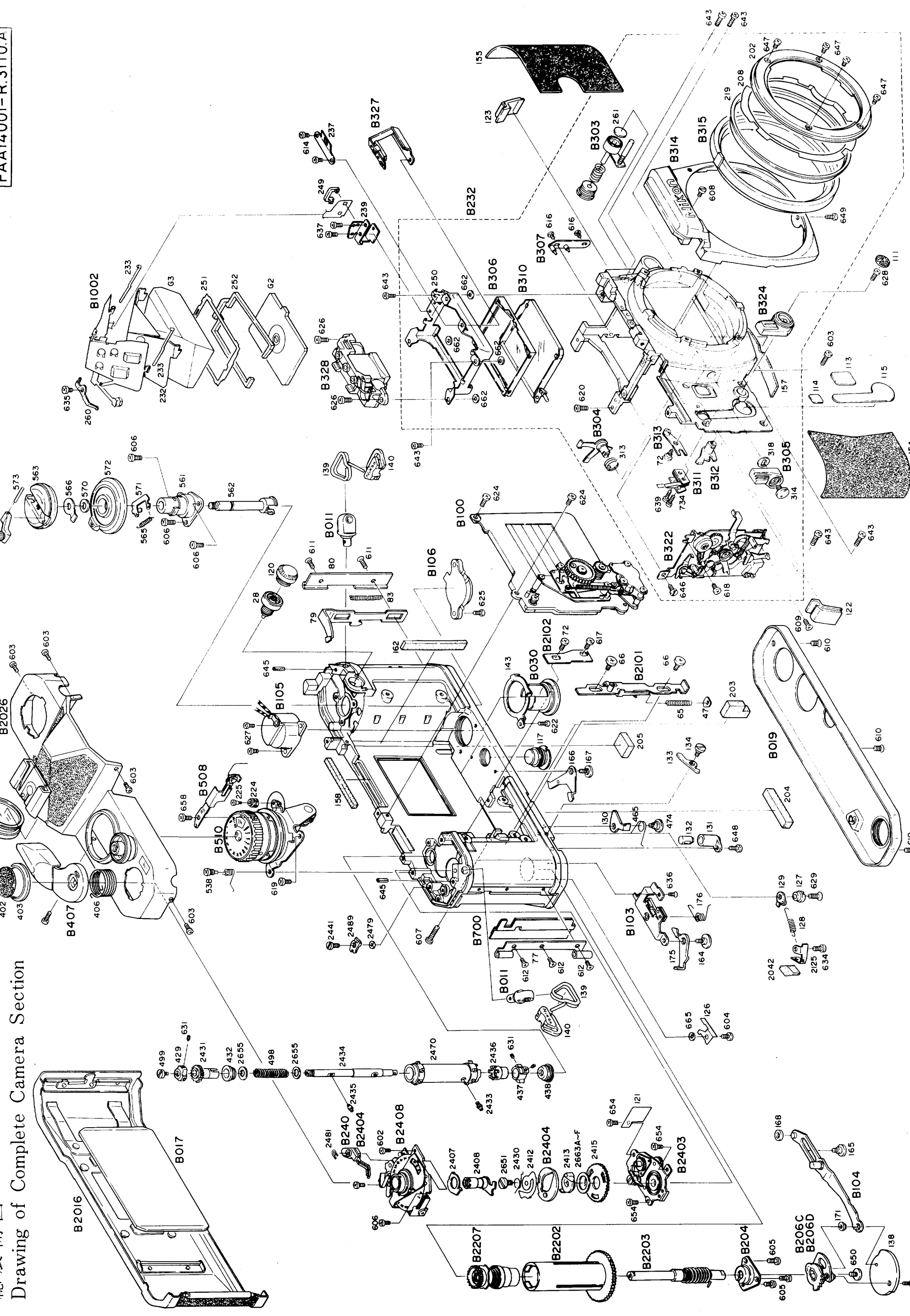
(3) MIRROR DOWN

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

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Shutter Control Unit	F9
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Front Plate (1)	F17
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Drawing of Complete Camera Section



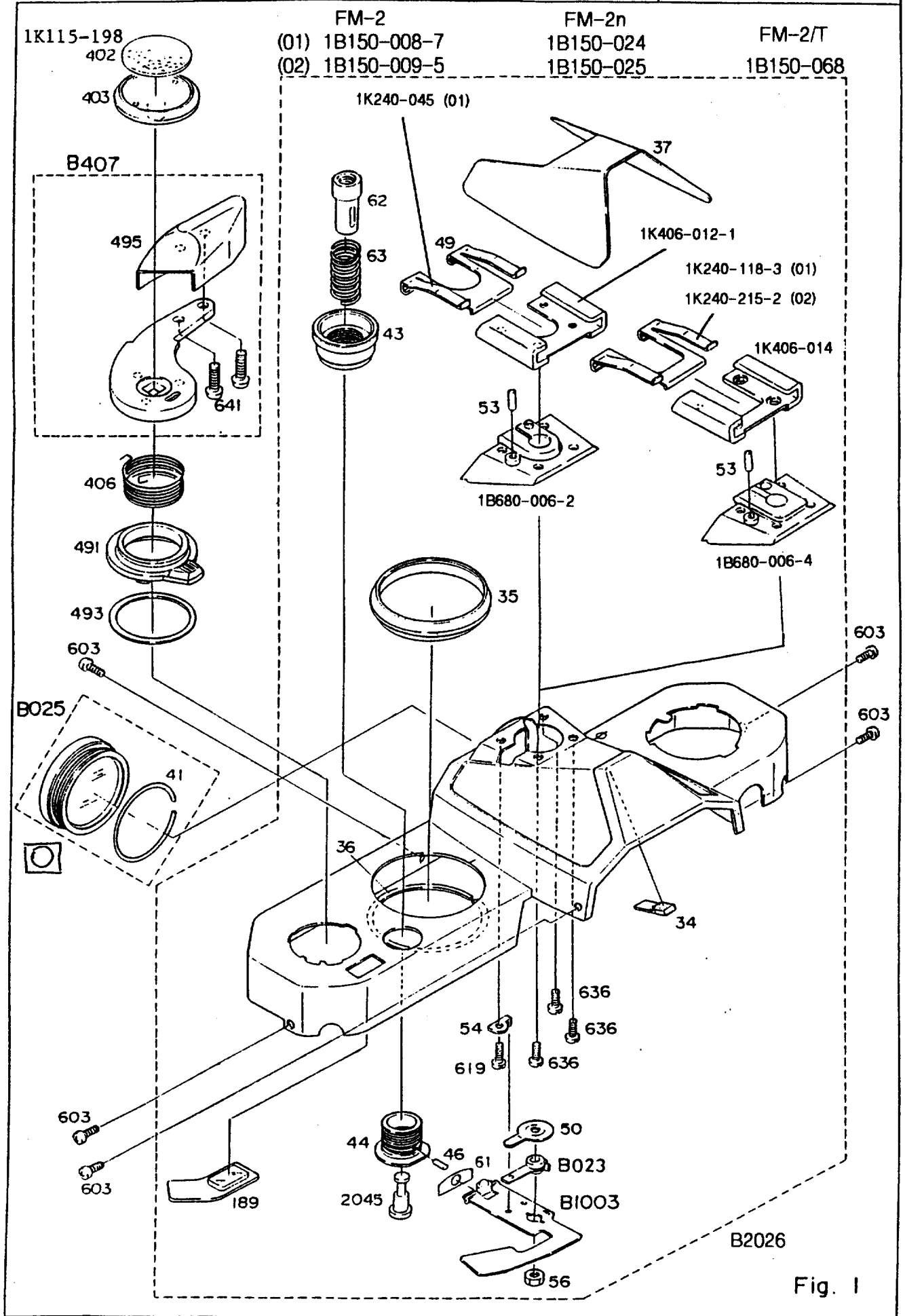


Fig. 1

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	ベント皮 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	リリース釦飾り環 Release button cover ring	641	1K010-019	巻上レバービス Screw
44	1K640-190	かぶせリリース環 Release ring	2045	1K370-363	リリース内筒 Release inner tube
46	1K040-001-1	リリースガイドビス Screw			
48	1K406-012-1	Hシュー Hot shoe contact			
49	1K240-045	シューバネ Shoe contact spring			
50	1K240-046	押え接点 Upper contact, shoe			
53	1K360-007	押 棒 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	リリース釦 Release button	B407	1B206-004	巻上レバー Film-advance lever
63	1K220-036	リリースボタンバネ 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- -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			

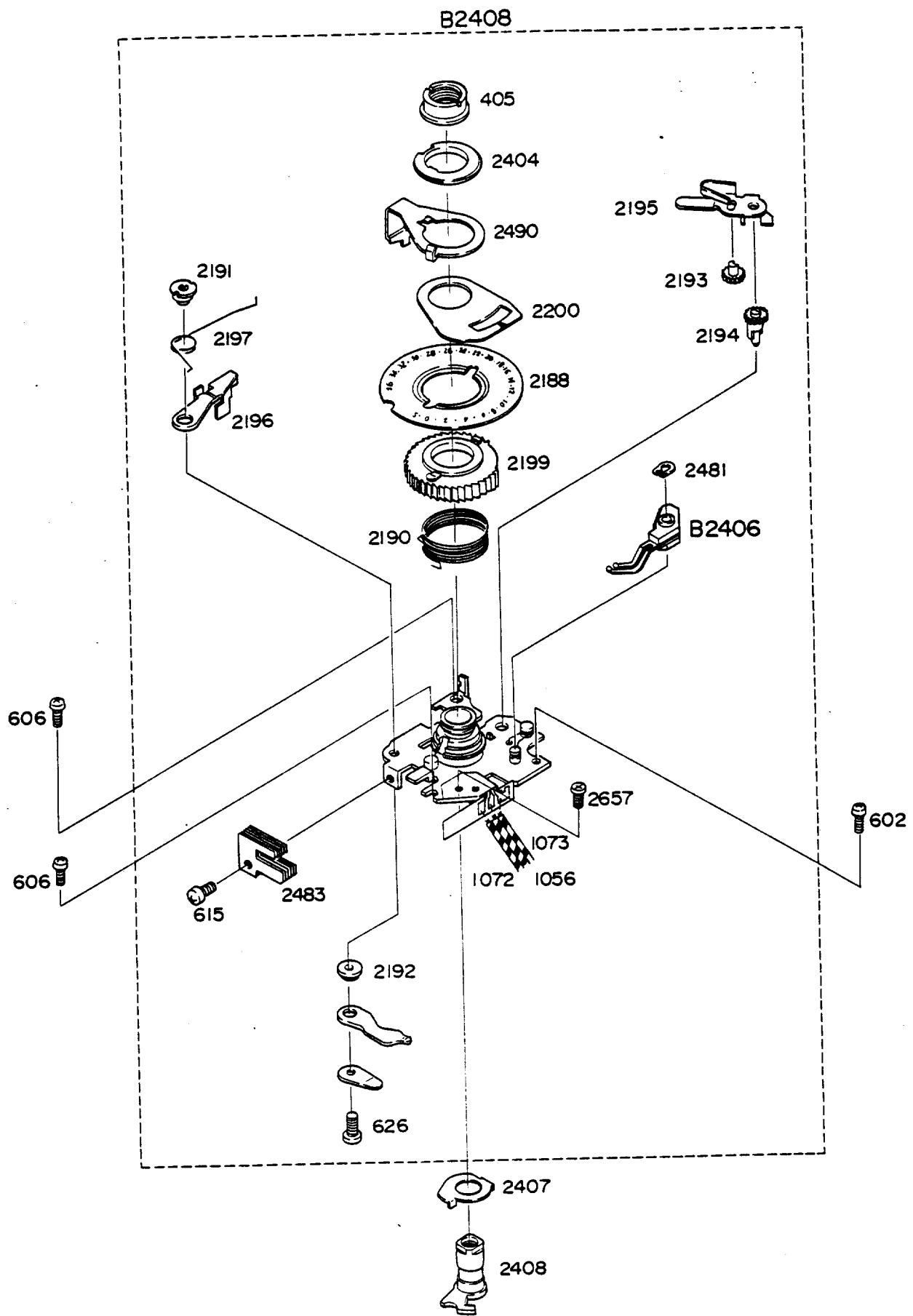


Fig. 2

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	クリックレバーバネ 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	カウンターバネ 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	送り爪バネ Advance claw coupling gear			
2196	1K314-105	零戻しレバー Frame counter reset lever			
2197	1K230-077	零戻しレバー戻しバネ軸 Counter reset lever axle			
2199	1K275-009-1	ラチェット 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	スプロケット制限除板 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			

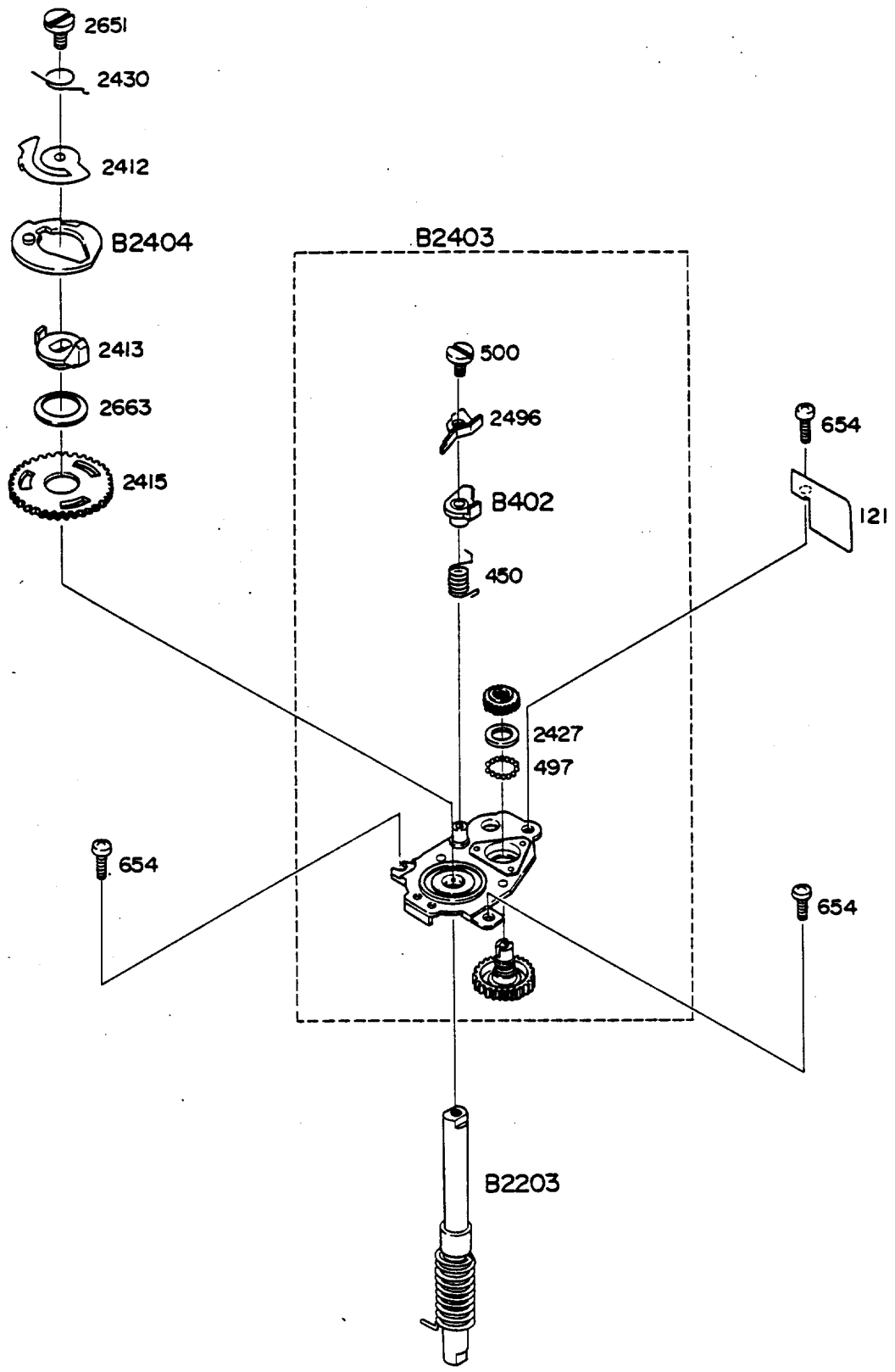


Fig. 3

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	スプロック止りバネ 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	スプロック止りビス 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 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 Washer, wind gear			
2663	1K050-076	巻上ギアワッシャー Washer, wind gear			
2663	1K050-077	巻上ギアワッシャー Washer, wind gear			
2663	1K050-078	巻上ギアワッシャー Washer, wind gear			
2663	1K050-079	巻上ギアワッシャー Washer, wind gear			
2663	1K050-080	巻上ギアワッシャー Washer, wind gear			

Film-advance shaft • Sprocket

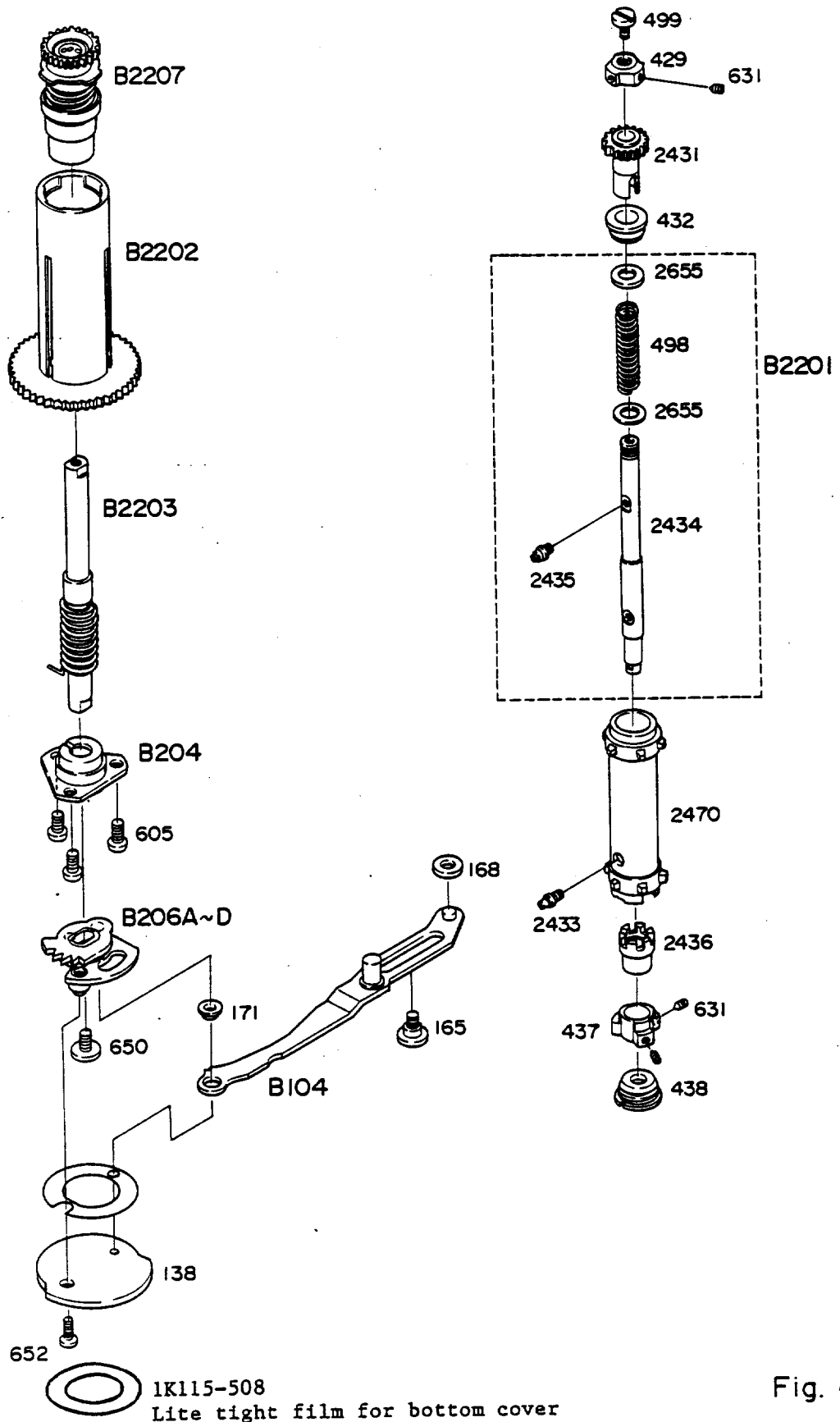


Fig. 4

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	ポリエステルフィルム 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			

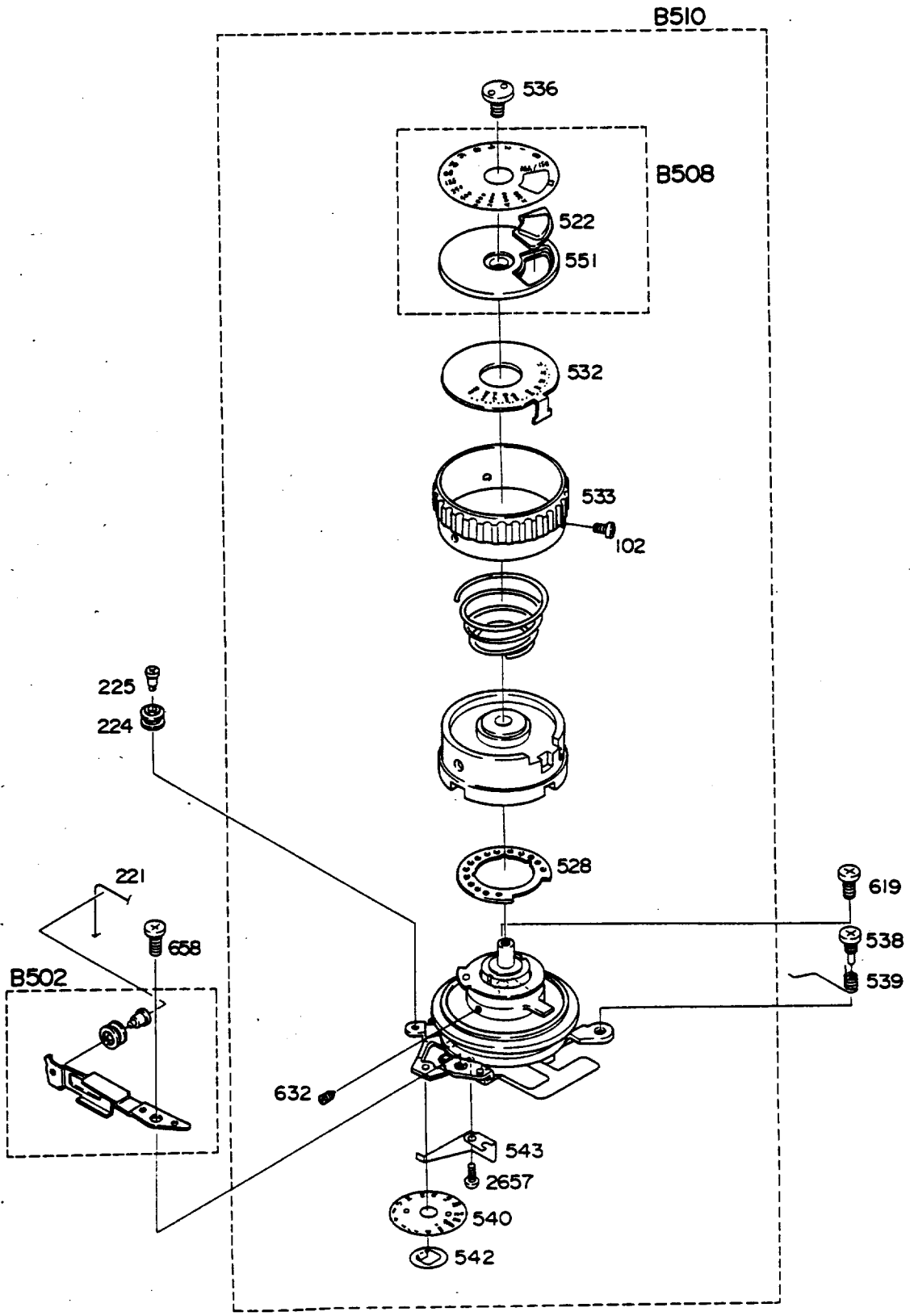


Fig. 5

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	連動ひも 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- 5 ₅	管制部 FRE Shutter control unit
225	1K130-072	ヒモかけコロビス 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	ダイヤル上面ビス Screw, shutter dial			
538	1K130-065	管制部ビス 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			

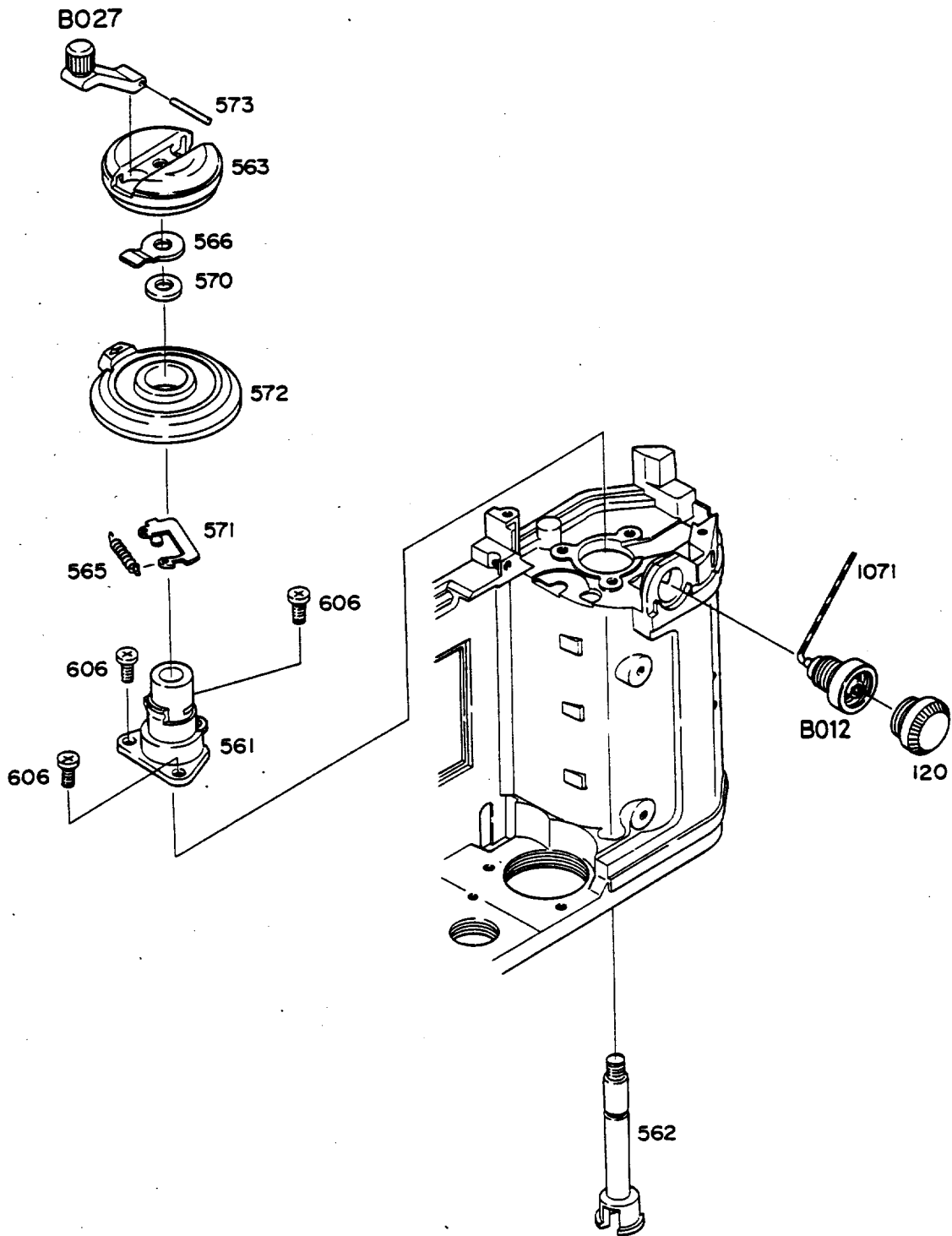


Fig. 6

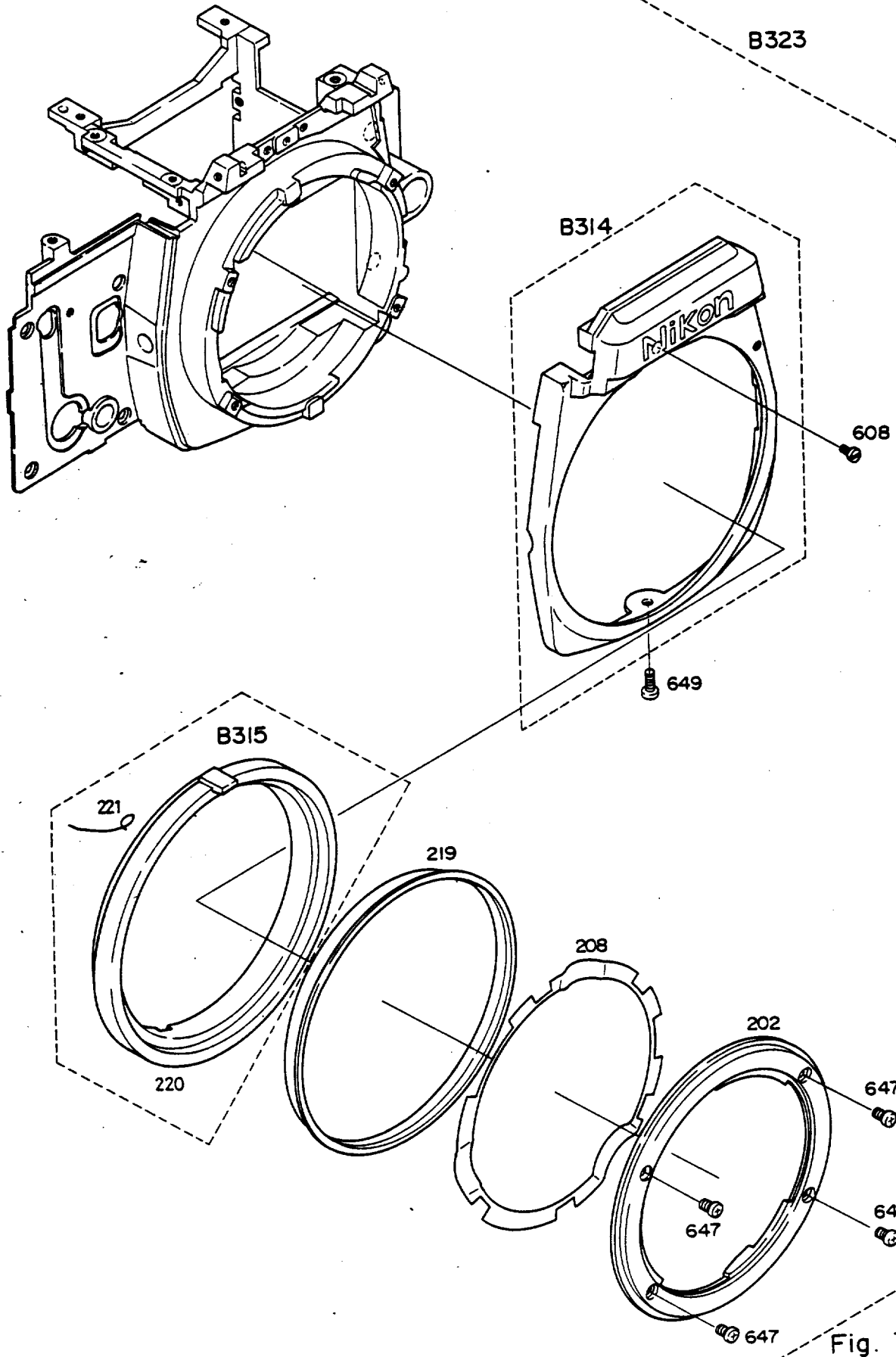


Fig. 7

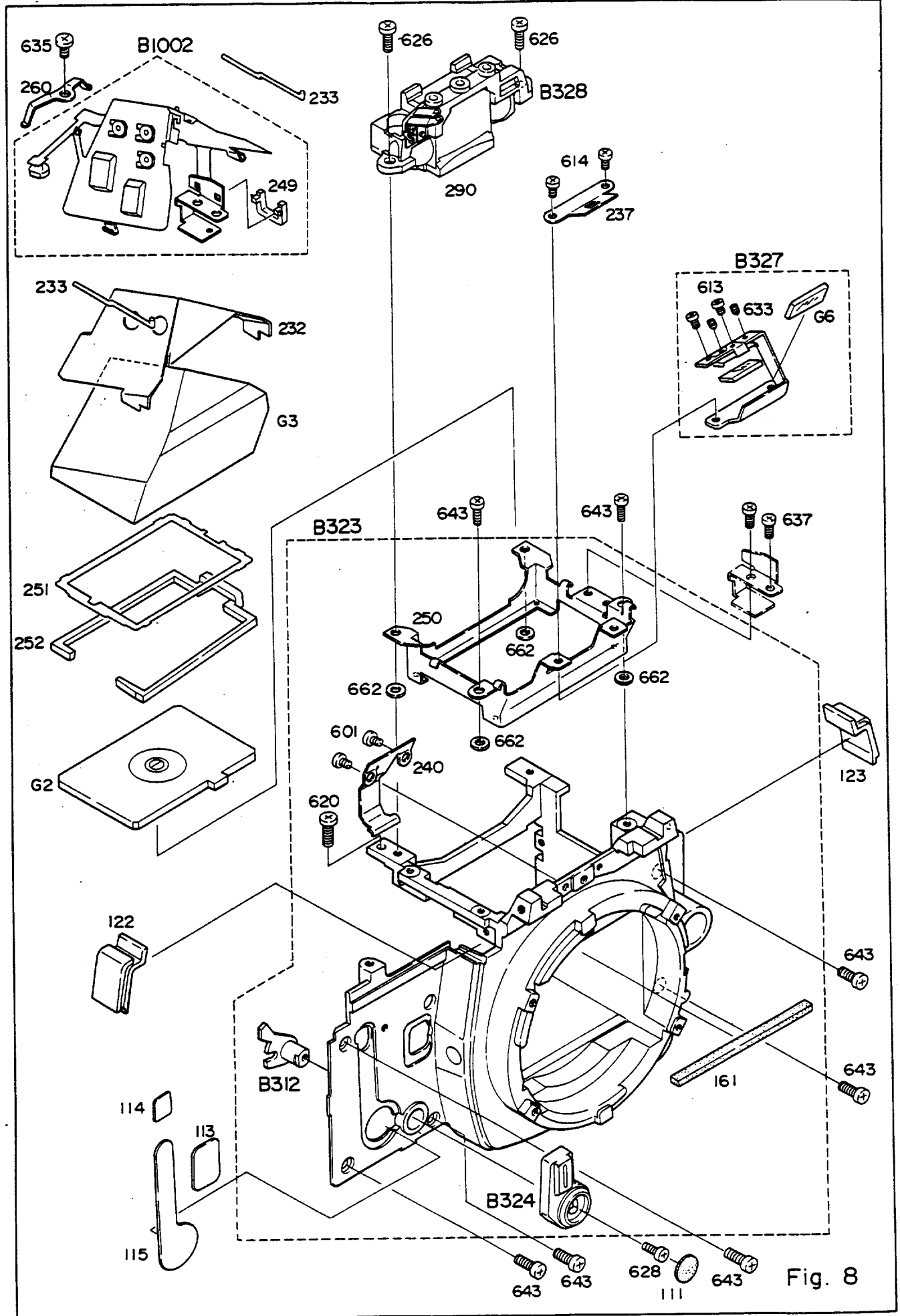


Fig. 8

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- 002 007	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	枠板 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- 005X 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 フリント板 IC circuit board
290	1K010-018	接点ビス Screw	B323B	1B660- 006X 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			

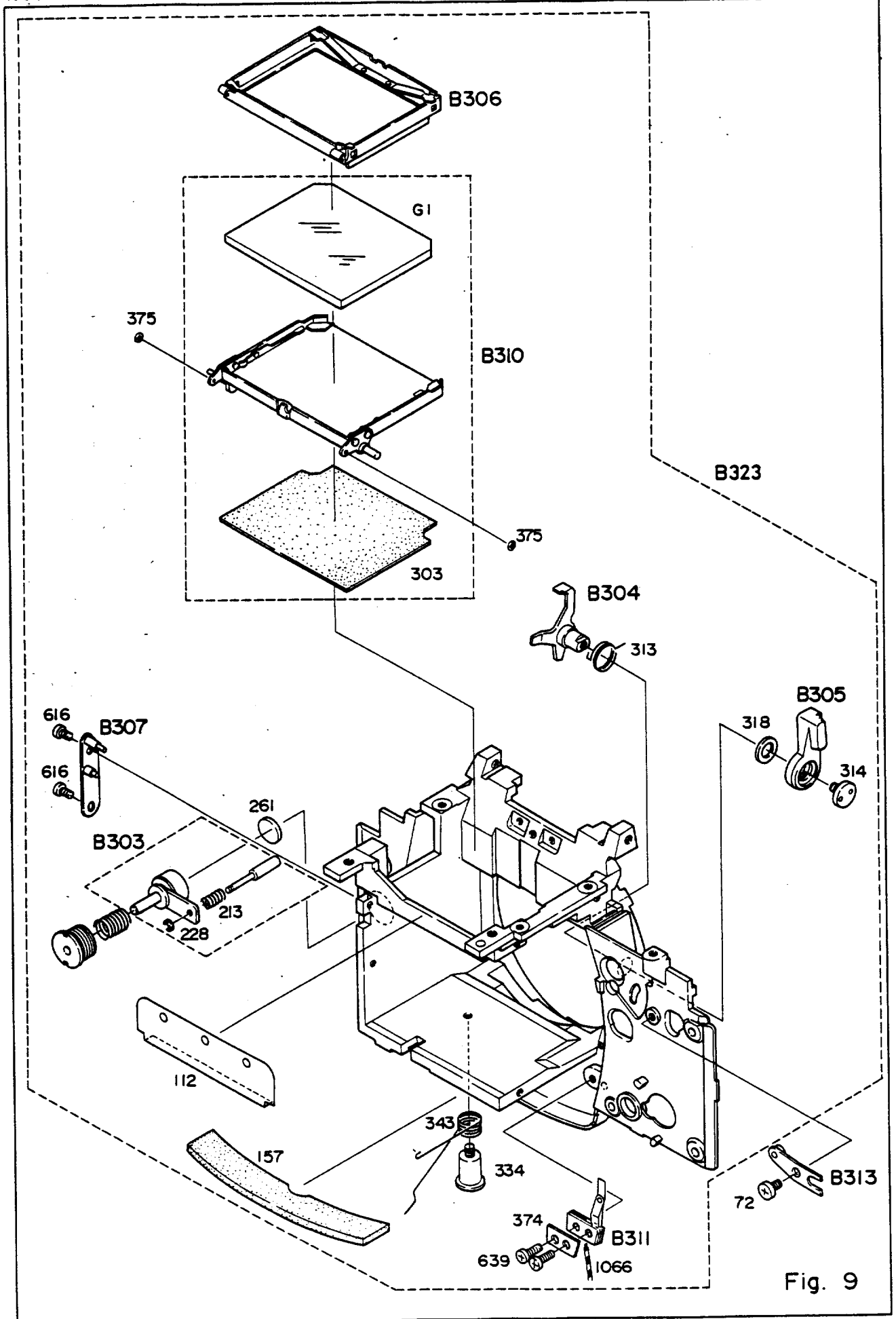


Fig. 9

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	上溝用モルトフレン 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 Mirror 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	リリース調整レバー 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			

Product: Nikon FM2,FM2n,FM2/T Digital Camera Service Repair Workshop Manual
Full Download: <https://www.arepairmanual.com/downloads/nikon-fm2fm2nfm2-t-digital-camera-service-repair-workshop-manual/>

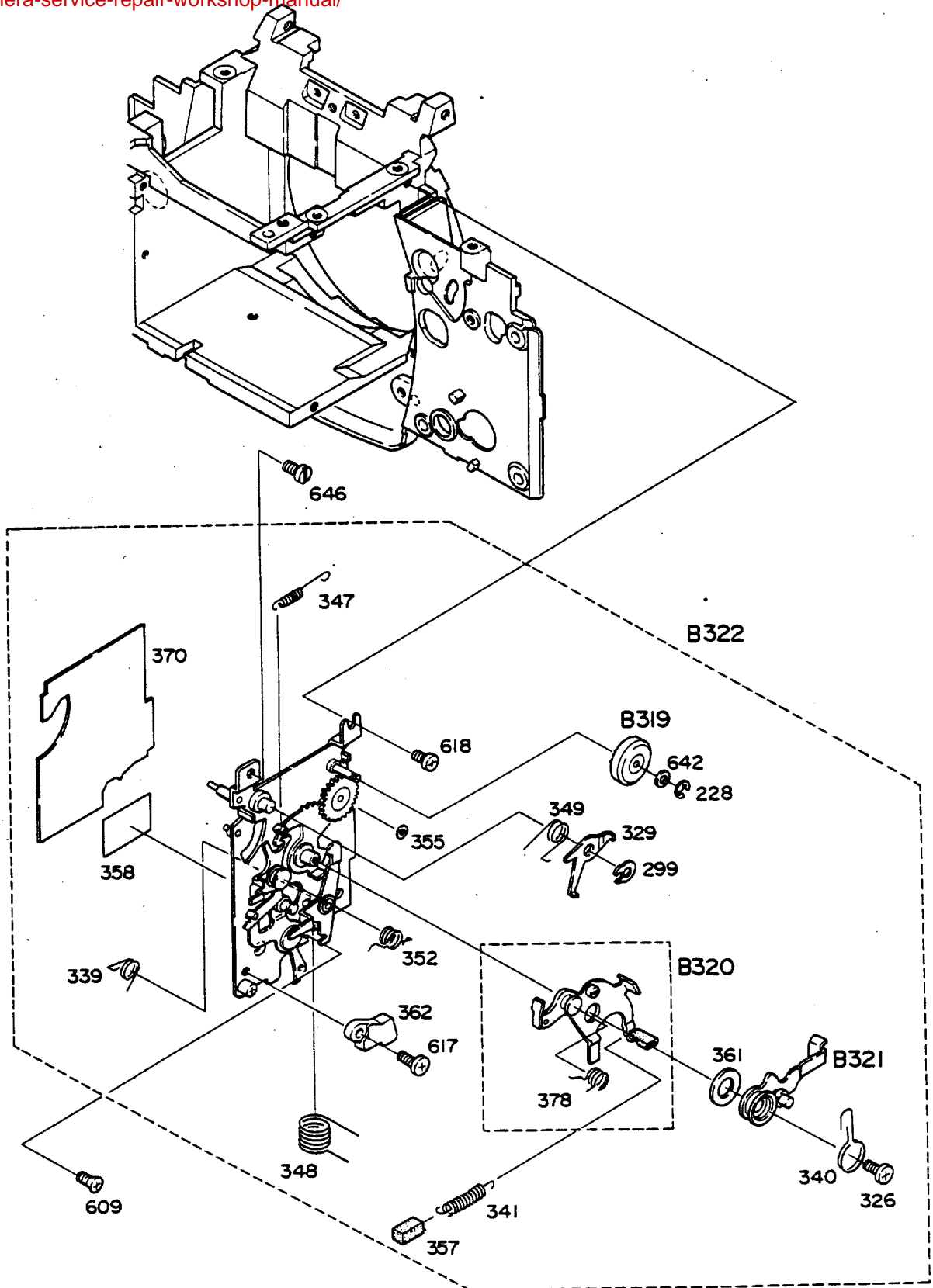


Fig. 10