

作成承認印	配布許可印
	

FE 10

FAA 33051

PARTS LIST

修理部品表

Nikon | NIKON CORPORATION

Tokyo, Japan

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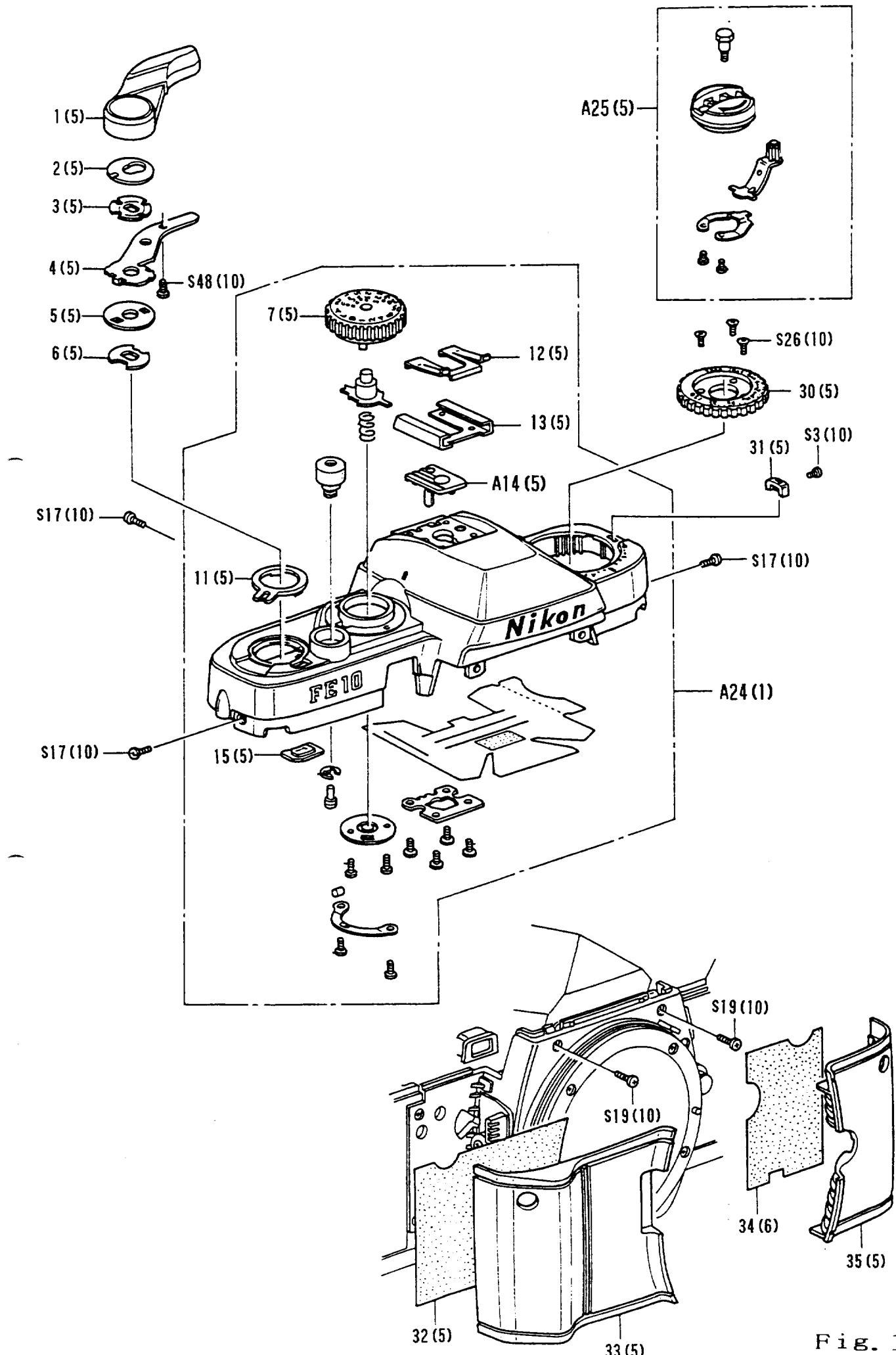
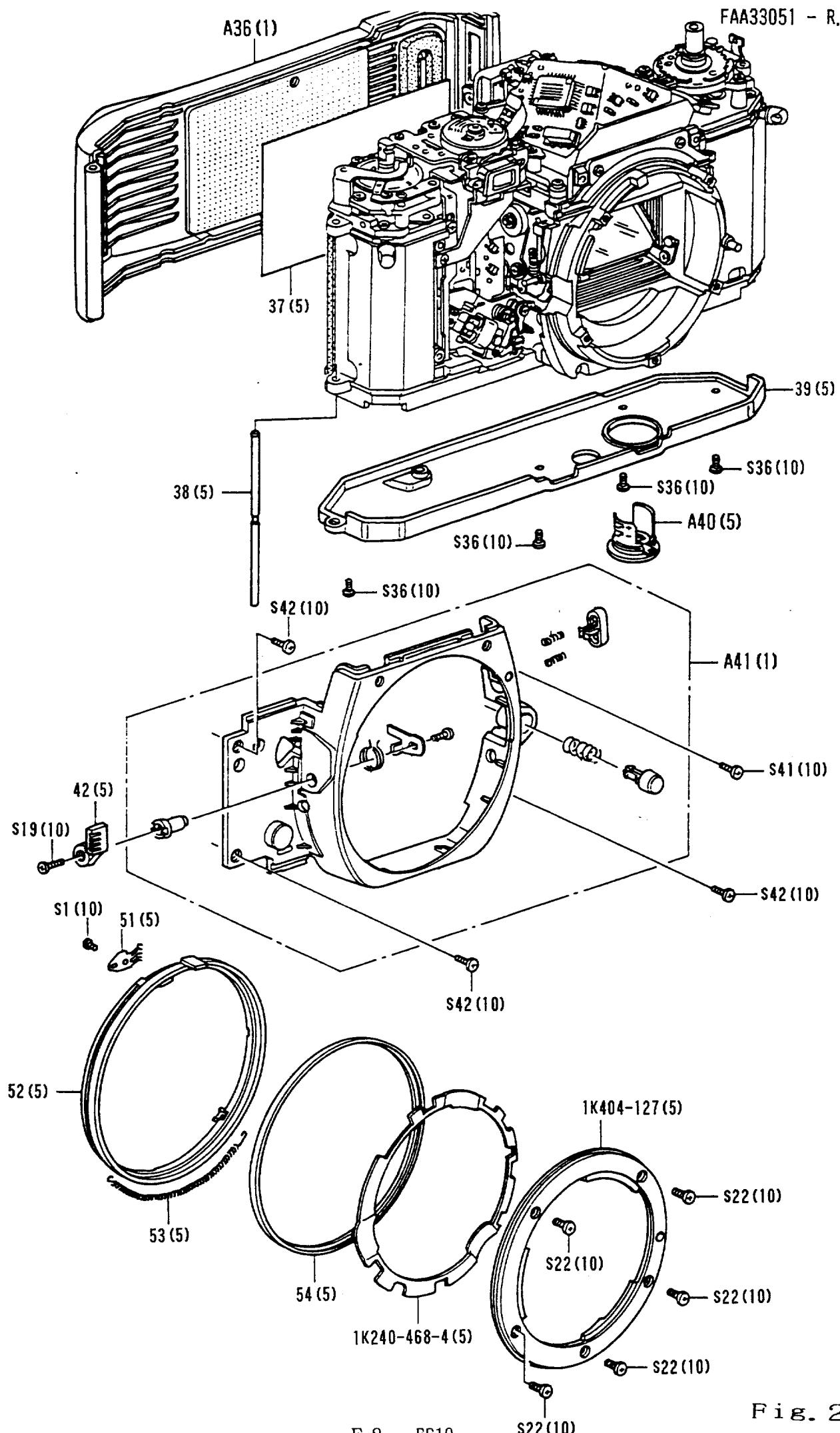


Fig. 1



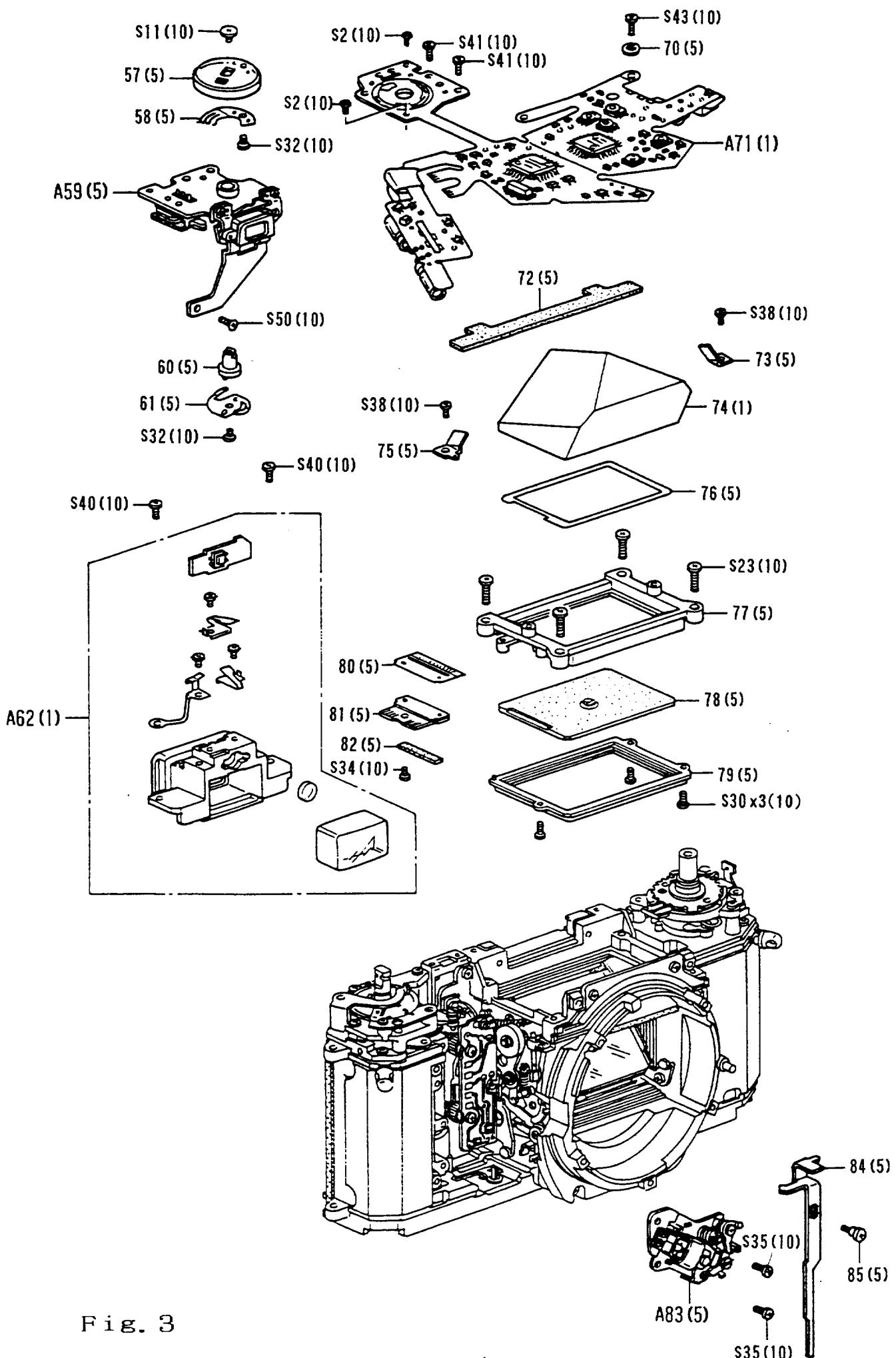


Fig. 3

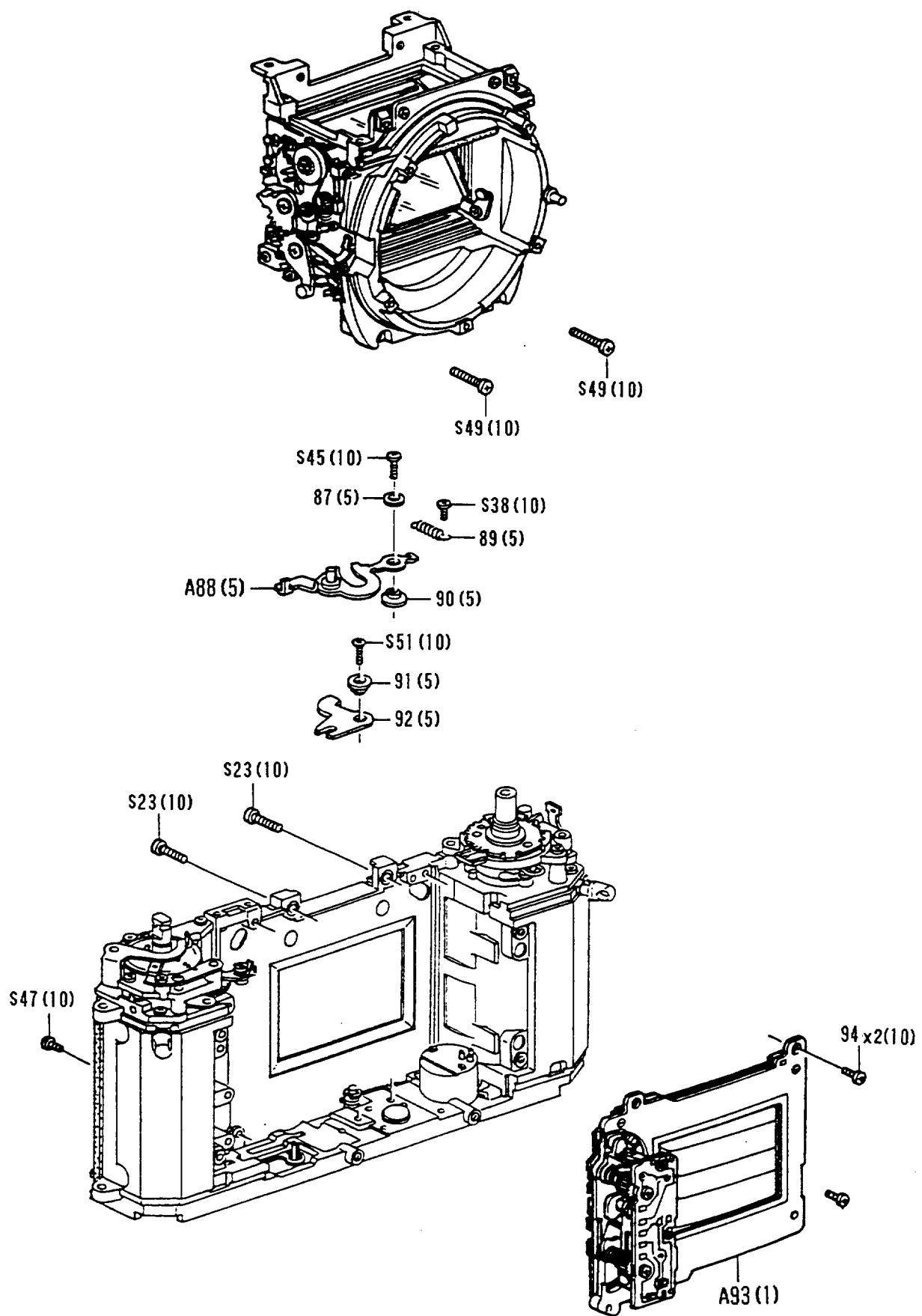


Fig. 4

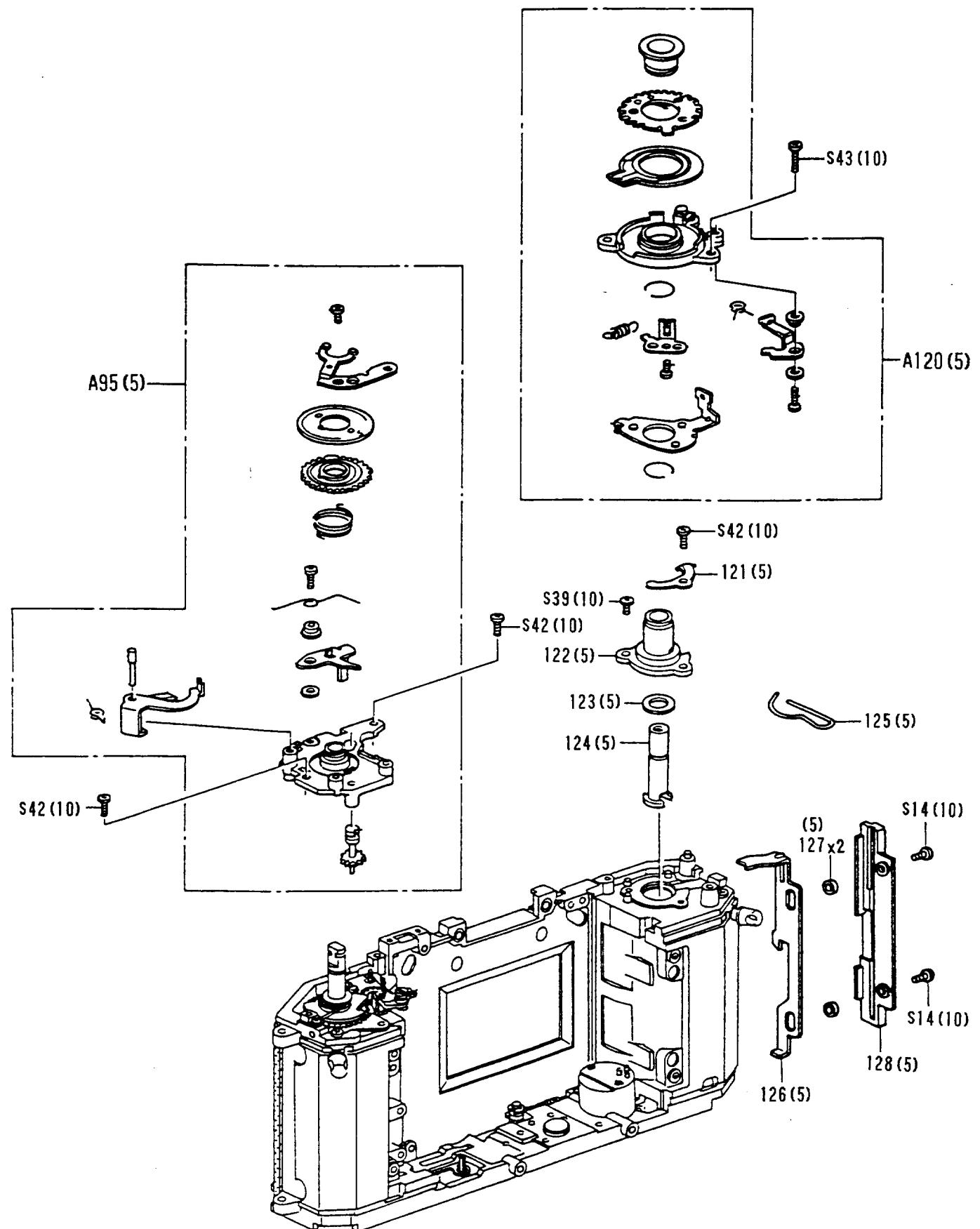


Fig. 5

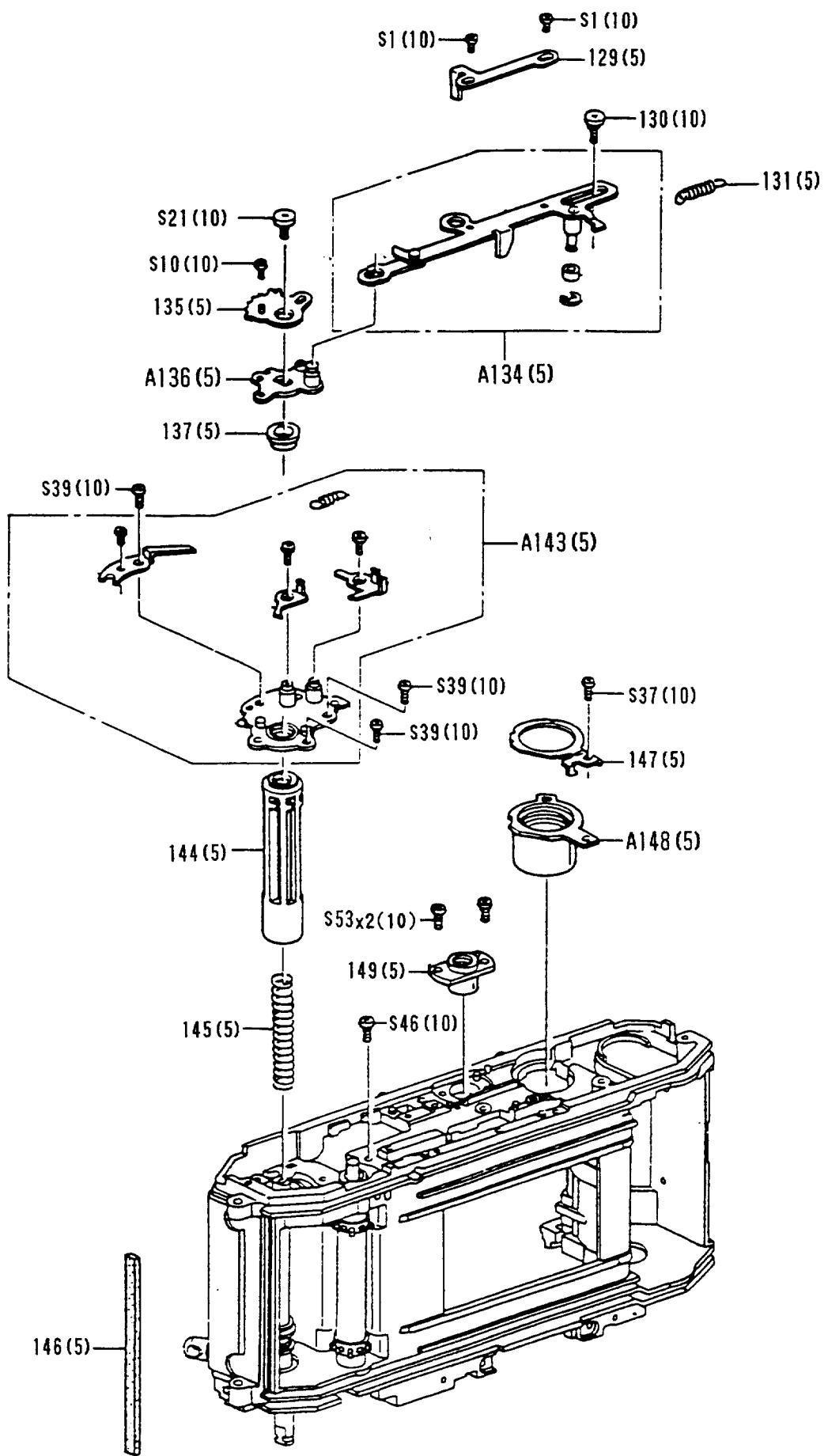


Fig. 6

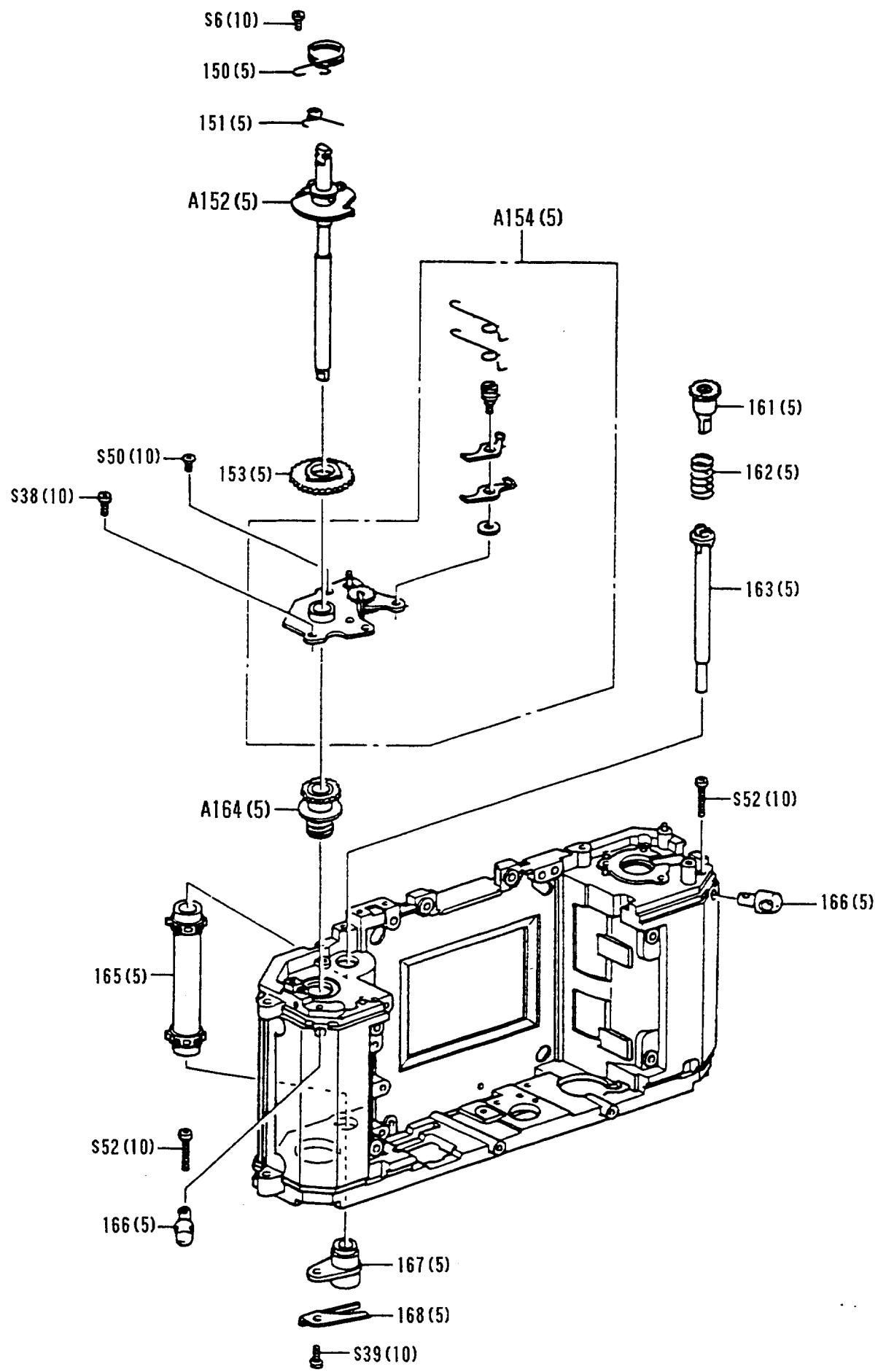


Fig. 7

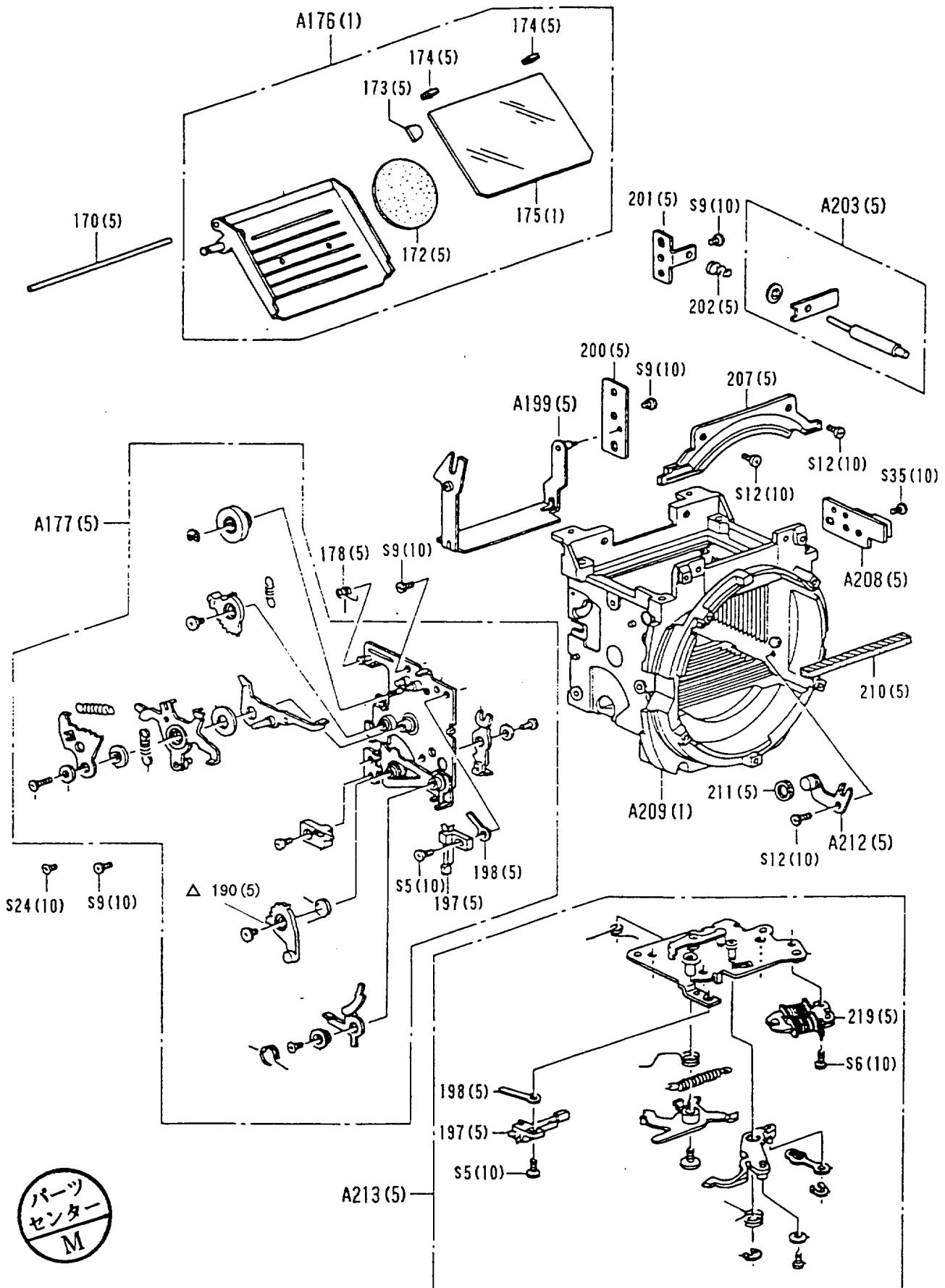


Fig. 8

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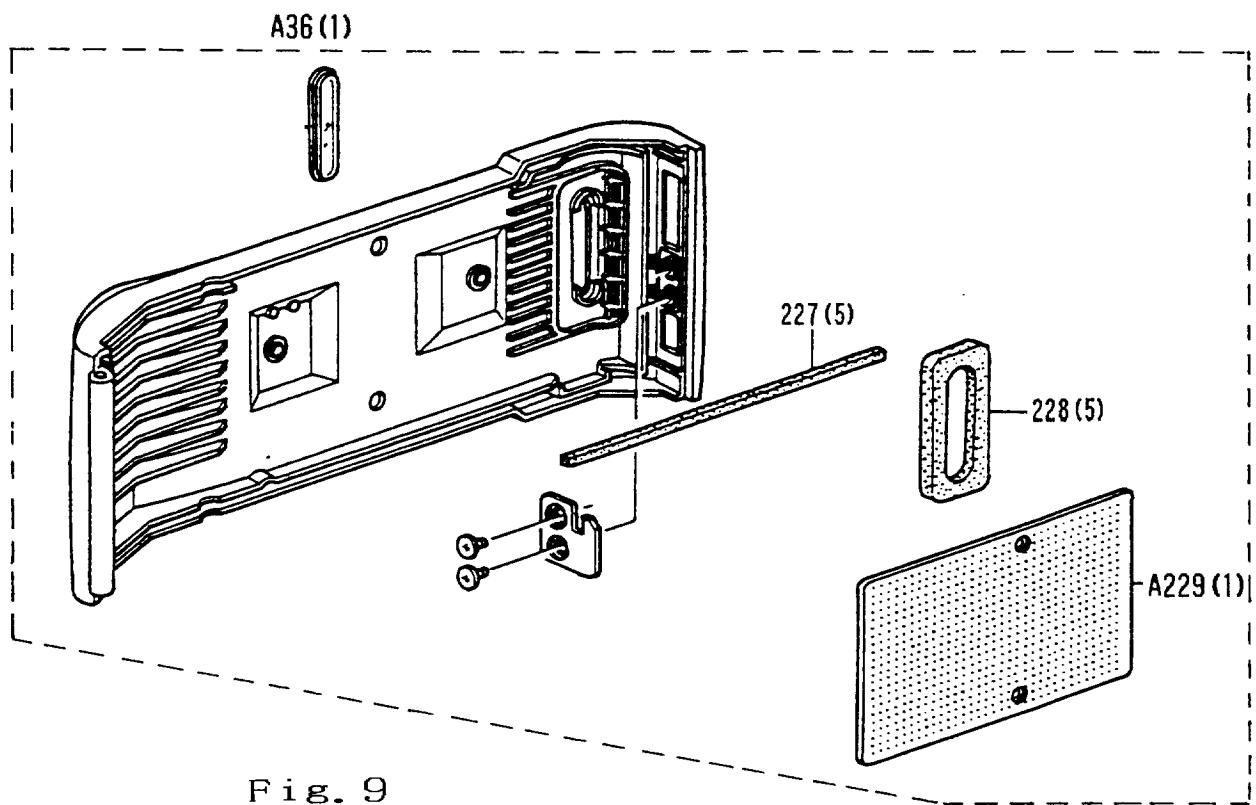


Fig. 9

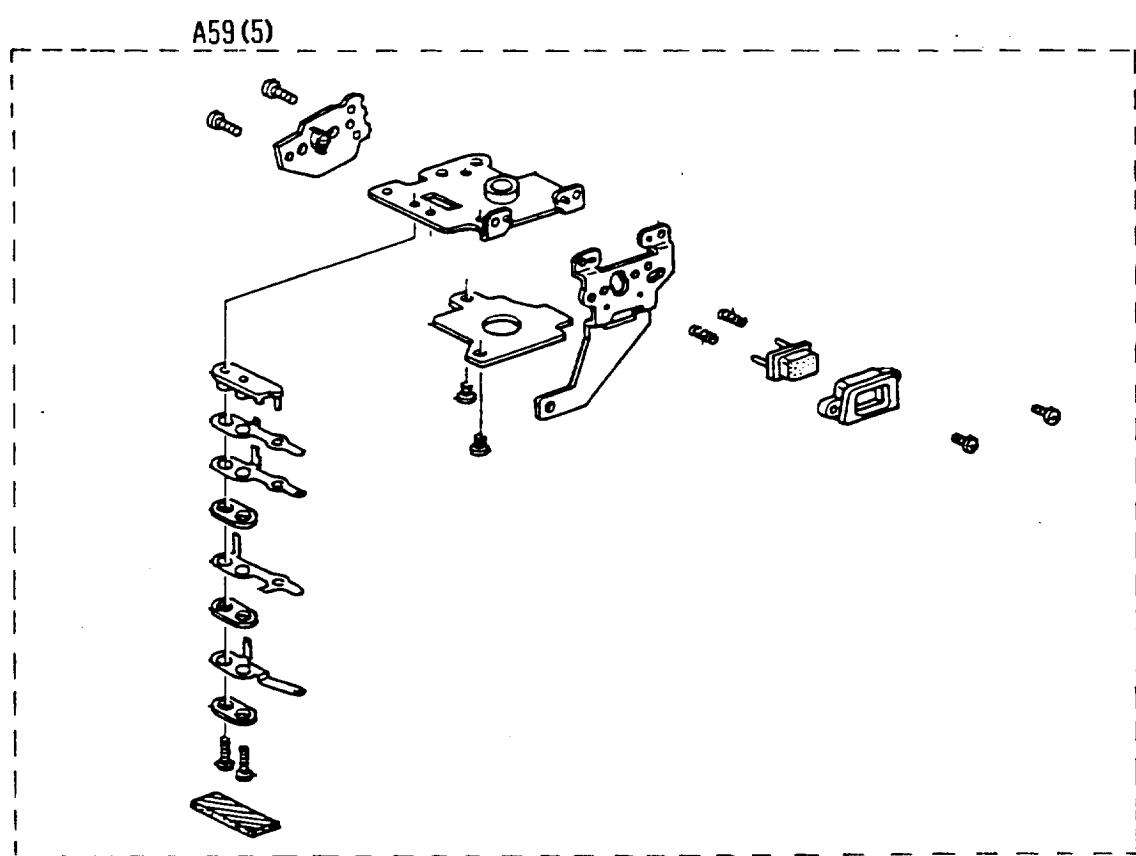


Fig. 10

部品表 Parts List

FAA33051-R. 3416. A

部品番号 Part No.	補助番号 Ckt No.	名 称 Name	1台分 個 数 Pcs. Per Unit	部組品番号 Assembly No.	参照 図番 Fig. No.	販売区分 Term of Delivery	備 考 Remarks	要求単位 Q'ty per order
* 1 (FAA31051-1)		巻き上げレバー FILM ADVANCE LEVER	1		1	○		5
* 2 (FAA31051-2)		巻き上げレバーワッシャー FILM ADVANCE LEVER WASHER	1		1	○		5
* 3 (FAA31051-3)		巻き上げレバーバネ FILM ADVANCE LEVER SPRING	1		1	○		5
* 4 (FAA31051-4)		巻き上げレバー板 FILM ADVANCE LEVER PLATE	1		1	○		5
5 (FAA33051-5)		巻き上げワッシャー FILM ADVANCE WASHER	1		1	○		5
* 6 (FAA31051-6)		カム CAM	1		1	○		5
7 (FAA33051-7)		シャッターダイヤル SHUTTER DIAL	1	A 2 4	1	○△		5
11 (FAA33051-11)		多重露光レバー MULTIPLE EXPOSE LEVER	1	A 2 4	1	○△		5
12 (FAA33051-12)		シューバネ SHOE SPRING	1	A 2 4	1	○△		5
13 (FAA33051-13)		シュー SHOE	1	A 2 4	1	○△		5
15 (FAA33051-15)		枚数計窓 FILM COUNTER WINDOW	1	A 2 4	1	○△		5
30 (FAA33051-30)		ISOダイアル ISO DIAL	1		1	○		5
31 (FAA33051-31)		ISO鈕 ISO BUTTON	1		1	○		5
* 32 (FAA31051-32)		グリップ接着テープA GLIP ADHESIVE TAPE A	1		1	○		5
33 (FAA33051-33)		グリップ GLIP	1		1	○		5
* 34 (FAA31051-34)		右ラバー接着テープA RIGHT RUBBER ADHESIVE TAPE A	1		1	○		5

部品表 Parts List

FAA33051-R. 3416. A

部品番号 Part No.	補助番号 Ckt No.	名 称 Name	1台分 個 数 Pcs. Per Unit	部組品番号 Assembly No.	参照 図番 Fig. No.	販売区分 Term of Delivery	備 考 Remarks	要求数量 Q'ty per order
* 35 (FAA31051-35)		右ラバー RIGHT RUBBER	1		1	○		5
* 37 (FAA31051-37)		保護紙 PROTECT PAPER	1		2	○		5
* 38 (FAA31051-38)		蝶番軸 HINGE SHAFT	1		2	○		5
* 39 (FAA31051-39)		下カバー LOWER COVER	1		2	○		5
* 42 (FAA31051-42)		絞り込みレバー PREVIEW LEVER	1		2	○		5
* 51 (FAA31051-55)		絞りブラシ APERTURE BRUSH	1		2	○		5
* 52 (FAA31051-56)		絞り環 APERTURE RING	1		2	○		5
* 53 (FAA31051-57)		絞りバネ APERTURE SPRING	1		2	○		5
* 54 (FAA31051-58)		絞り連動環 APERTURE COUPLING RING	1		2	○		5
57 (FAA33051-57)		接片台 CONTACT PLATE	1		3	○		5
58 (FAA33051-58)		ブラシ BRUSH	1		3	○		5
60 (FAA33051-60)		メインSW軸 MAIN SW SHAFT	1		3	○		5
61 (FAA33051-61)		メインSW MAIN SW	1		3	○		5
70 (FAA33051-70)		ワッシャー WASHER	1		3	○		5
* 72 (FAA31051-62)		モルト SPONGE	1		3	○		5
* 73 (FAA31051-63)		プリズム押えバネA PRISM RETAINER SPRING A	1		3	○		5

部品表 Parts List

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部品番号 Part No.	補助番号 Ckt No.	名 称 Name	1台分 個 数 Pcs. Per Unit	部組品番号 Assembly No.	参照 図番 Fig. No.	販売区分 Term of Delivery	備 考 Remarks	要求単位 Q'ty per order
* 7 4 (FAA31051-64)		ペンタプリズム PENTA PRISM	1		3	○		1
* 7 5 (FAA31051-65)		プリズム押えバネB PRISM RETAINER SPRING A	1		3	○		5
7 6 (FAA33051-76)		ファインダーマスク FINDER MASK	1		3	○		5
7 7 (FAA33051-77)		プリズム台 PRISM PLATE	1		3	○		5
7 8 (FAA33051-78)		フレネルレンズ FRESNEL LENS	1		3	○		5
* 7 9 (FAA31051-72)		フレネル押え FRESNEL RETAINER	1		3	○		5
8 0 (FAA33051-80)		Sメモリー板 S MEMORY PLATE	1		3	○		5
8 1 (FAA33051-81)		LED LED	1		3	○		5
8 2 (FAA33051-82)		モルト SPONGE	1		3	○		5
8 4 (FAA33051-84)		レリーズ板 RELEASE PLATE	1		3	○		5
* 8 5 (FAA31051-87)		SCREW SCREW	1		3	○		10
8 7 (FAA33051-87)		ワッシャー WASHER	1		4	○		5
8 9 (FAA33051-89)		セットレバーバネ SET LEVER SPRING	1		4	○		5
9 0 (FAA33051-90)		セットレバーB軸 SET LEVER B SHAFT	1		4	○		5
9 1 (FAA33051-91)		セットレバーB押え SET LEVER B RETAINER	1		4	○		5
9 2 (FAA33051-92)		セットレバーA SET LEVER A	1		4	○		5

部品表 Parts List

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部品番号 Part No.	補助番号 Ckt No.	名 称 Name	1台分 個 数 Pcs. Per Unit	部組品番号 Assembly No.	参照 図番 Fig. No.	販売区分 Term of Delivery	備 考 Remarks	要求単位 Q'ty per order
* 94 (FAA31051-89)		SCREW SCREW	2		4	○		10
* 121 (FAA31051-104)		裏蓋開閉バネ BACK DOOR OPENER SPRING	1		5	○		5
* 122 (FAA31051-105)		巻き戻し軸受 REWIND SHAFT HOLDER	1		5	○		5
* 123 (FAA31051-106)		巻き戻し軸カラー REWIND SHAFT COLLER	1		5	○		5
* 124 (FAA31051-107)		巻き戻し軸 REWIND SHAFT	1		5	○		5
* 125 (FAA31051-108)		巻き戻しバネ REWIND SPRING	1		5	○		5
126 (FAA33051-126)		開閉鍵板 OPENER KEY PLATE	1		5	○		5
* 127 (FAA31051-110)		開閉鍵板カラー OPENER KEY PLATE COLLER	2		5	○		5
* 128 (FAA31051-111)		裏蓋止めカバー BACK DOOR STOPPER COVER	1		5	○		5
129 (FAA33051-129)		Mgセット板 Mg SET PLATE	1		6	○		5
* 130 (FAA31051-112)		SCREW SCREW	1		6	○		10
* 131 (FAA31051-114)		チャージレバーバネ CHARGE LEVER SPRING	1		6	○		5
* 135 (FAA31051-116)		チャージ板 CHARGE PLATE	1		6	○		5
* 137 (FAA31051-118)		チャージ板カラー CHARGE PLATE COLLER	1		6	○		5
* 144 (FAA31051-124)		スプール SPOOL	1		6	○		5
* 145 (FAA31051-125)		スプールバネ SPOOL SPRING	1		6	○		5

部品表 Parts List

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部品番号 Part No.	補助番号 Ckt No.	名 称 Name	1台分 個 数 Pcs. Per Unit	部組品番号 Assembly No.	参照 図番 Fig. No.	販売区分 Term of Delivery	備 考 Remarks	要求単位 Q'ty per order
* 146 (FAA31051-126)		モルト SPONGE	1		6	○		5
* 147 (FAA31051-127)		電池接片 BATTERY CONTACT	1		6	○		5
* 149 (FAA31051-129)		三脚座 TRIPOD SOCKET PEDESTAL	1		6	○		5
* 150 (FAA31051-130)		巻き上げレバー戻しバネ FILM ADVANCE RETURN SPRING	1		7	○		5
* 151 (FAA31051-131)		巻き上げ爪バネ FILM ADVANCE CLOW SPRING	1		7	○		5
* 153 (FAA31051-133)		巻き上げ歯車 FILM ADVANCE GEAR	1		7	○		5
* 161 (FAA31051-142)		スプロケットギア SPOCKET GEAR	1		7	○		5
* 162 (FAA31051-143)		スプロケットバネ SPOCKET SPRING	1		7	○		5
* 163 (FAA31051-144)		スプロケット軸 SPOCKET SHAFT	1		7	○		5
* 165 (FAA31051-146)		スプロケット SPOCKET	1		7	○		5
* 166 (FAA31051-147)		吊り環 EYELET RING	2		7	○		5
* 167 (FAA31051-148)		スプロケット軸受 SPOCKET SHAFT HOLDER	1		7	○		5
* 168 (FAA31051-149)		スプロケット解除バネ SPOCKET RELEASE SPRING	1		7	○		5
* 170 (FAA31051-151)		ミラー軸 MIRROR SHAFT	1		8	○		5
172 (FAA33051-172)		ミラー接着テープB MIRROR ADHESIVE TAPE B	1	A176	8	○△		5
173 (FAA33051-173)		ミラー遮光板 MIRROR LIGHT SHIELD PLATE	1	A176	8	○△		5

部品表 Parts List

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部品番号 Part No.	補助番号 Ckt No.	名 称 Name	1台分 個 数 Pcs. Per Unit	部組品番号 Assembly No.	参照 図番 Fig. No.	販売区分 Term of Delivery	備 考 Remarks	要求単位 Q'ty per order
174 (FAA33051-174)		モルト SPONGE	2	A176	8	○△		5
175 (FAA33051-175)		ミラー MIRROR	1	A176	8	○△		1
* 178 (FAA31051-157)		ミラーバネ MIRROR SPRING	1		8	○		5
197 (FAA33051-197)		巻き上げ完了SW FILM ADVANCE COMPLETE SW	2	A177 A213	8	○△		5
198 (FAA33051-198)		ラグ板 LAG PLATE	2	A177 A213	8	○△		5
* 200 (FAA31051-176)		遮光板受 LIGHT SHIELD PLATE HOLDER	1		8	○		5
* 201 (FAA31051-177)		ピン受 PIN HOLDER	1		8	○		5
* 202 (FAA31051-178)		レンズロックバネ LENS LOCK SPRING	1		8	○		5
207 (FAA33051-207)		抵抗体 RESIATER	1		8	○		5
* 210 (FAA31051-186)		モルト SPONGE	1		8	○		5
* 211 (FAA31051-187)		ミラー受ゴム MIRROR FOLDER RUBBER	1		8	○		5
219 (FAA33051-219)		ミラーMg MIRROR Mg	1	A213	8	○△		5
227 (FAA33051-227)		モルト SPONGE	1	A36	8	○△		5
228 (FAA33051-228)		モルト SPONGE	1	A36	8	○△		5
* 1K240-468-4 (1K240-468-2)	55	バヨネットバネ BAYONET SPRING	1		2	○		5
* 1K404-127 (1K404-127)	56	バヨネット BAYONET	1		2	○		5
190 (FAA33051-190)		SギアA S GEAR A	1	A177	8	○△	RP-9804	5

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部品表 Parts List

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部品番号 Part No.	補助番号 Ckt No.	名 称 Name	1台分 個 数 Pcs. Per Unit	部組品番号 Assembly No.	参照 図番 Fig. No.	販売区分 Term of Delivery	備 考 Remarks	要求単位 Q'ty per order
* S 1 (FAA31051-S1)		SCREW SCREW	3		2 6	○		1 0
S 2 (FAA33051-S2)		SCREW SCREW	7		3	○		1 0
S 3 (FAA33051-S3)		SCREW SCREW	2		1	○		1 0
S 5 (FAA33051-S5)		SCREW SCREW	2		8	○		1 0
* S 6 (FAA31051-S4)		SCREW SCREW	2		7 8	○		1 0
* S 9 (FAA31051-S6)		SCREW SCREW	4		8	○		1 0
* S 10 (FAA31051-S7)		SCREW SCREW	1		6	○		1 0
S 11 (FAA33051-S11)		SCREW SCREW	1		3	○		1 0
* S 12 (FAA31051-S8)		SCREW SCREW	6		8	○		1 0
* S 14 (FAA31051-S9)		SCREW SCREW	2		5	○		1 0
* S 17 (FAA31051-S12)		SCREW SCREW	4		1	○		1 0
* S 19 (FAA31051-S14)		SCREW SCREW	3		1 2	○		1 0
* S 21 (FAA31051-S17)		SCREW SCREW	1		6	○		1 0
* S 22 (FAA31051-S18)		SCREW SCREW	5		2	○		1 0
* S 23 (FAA31051-S19)		SCREW SCREW	6		3 4	○		1 0
* S 24 (FAA31051-S20)		SCREW SCREW	1		8	○		1 0

部品表 Parts List

FAA33051-R. 3416. A

部品番号 Part No.	補助番号 Ckt No.	名 称 Name	1台分 個 数 Pcs. Per Unit	部組品番号 Assembly No.	参照 図番 Fig. No.	販売区分 Term of Delivery	備 考 Remarks	要求単位 Q'ty per order
S 2 6 (FAA33051-S26)		SCREW SCREW	3		1	○		1 0
* S 3 0 (FAA31051-S25)		SCREW SCREW	1		3	○		1 0
S 3 2 (FAA33051-S32)		SCREW SCREW	2		3	○		1 0
S 3 4 (FAA33051-S34)		SCREW SCREW	1		3	○		1 0
* S 3 5 (FAA31051-S29)		SCREW SCREW	7		3 8	○		1 0
* S 3 6 (FAA31051-S30)		SCREW SCREW	4		2	○		1 0
* S 3 7 (FAA31051-S31)		SCREW SCREW	1		6	○		1 0
* S 3 8 (FAA31051-S32)		SCREW SCREW	4		3 4 7	○		1 0
* S 3 9 (FAA31051-S33)		SCREW SCREW	5		5 6 7	○		1 0
* S 4 0 (FAA31051-S34)		SCREW SCREW	2		3	○		1 0
* S 4 1 (FAA31051-S35)		SCREW SCREW	2		2 3	○		1 0
* S 4 2 (FAA31051-S36)		SCREW SCREW	6		2 3 5	○		1 0
S 4 3 (FAA33051-S43)		SCREW SCREW	2		5	○		1 0
S 4 5 (FAA33051-S45)		SCREW SCREW	1		4	○		1 0
* S 4 6 (FAA31051-S37)		SCREW SCREW	1		6	○		1 0
S 4 7 (FAA33051-S47)		SCREW SCREW	1		4	○		1 0

部品表 Parts List

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部品組合表 Assembly List

FAA33051-R. 3416. A

部品番号 Part No.	補助番号 Ckt No.	名 称 Name	1台分 個 数 Pcs. Per Unit	大部組品番号 Main assembly No.	参照 図番 Fig. No.	備 考 Remarks	要求単位 Q'ty per order
A 1 4 (FAA33051-A14)	14	接点座部組 CONTACT PLATE UNIT	1	A 2 4	1		5
A 2 4 (FAA33051-A24)	24	上カバー部組 TOP COVER UNIT	1		1		1
* A 2 5 (FAA31051-A27)	25	巻き戻しノブ部組 REWIND KNOB UNIT	1		1		5
* A 3 6 (FAA31051-A36)	36	裏蓋部組 BACK DOOR UNIT	1		2 9		1
* A 4 0 (FAA31051-A40)	40	電池蓋部組 BATTERY LID UNIT	1		2		5
A 4 1 (FAA33051-A41)	41	前カバー部組 FRONT COVER UNIT	1		2		1
A 5 9 (FAA33051-A59)	59	シャッターダイヤル基板部組 SHUTTER DIAL BASE PLATE UNIT	1		3 9		5
A 6 2 (FAA33051-A62)	62	接眼枠部組 EYEPiece FRAME UNIT	1		3		1
A 7 1 (FAA33051-A71)	71	F P C部組 FPC UNIT	1		3		1
A 8 3 (FAA33051-A83)	83	レリーズM g部組 RELEASE Mg UNIT	1		3		5
A 8 8 (FAA33051-A88)	88	セットレバーB部組 SET LEVER B UNIT	1		4		5
A 9 3 (FAA33051-A93)	93	シャッター部組 SHUTTER UNIT	1		4		1
* A 9 5 (FAA31051-A90)	95	枚数計部組 FILM COUNTER UNIT	1		5		5
A 1 2 0 (FAA33051-A120)	120	I S O補正抵抗体部組 ISO COMPENSATION RESISTER UNIT	1		5		5
A 1 3 4 (FAA33051-A134)	134	チャージレバー部組 CHARGE LEVER UNIT	1		6		5
* A 1 3 6 (FAA31051-A117)	136	チャージ補助板部組 CHARGE SUPPORT PLATE UNIT	1		6		5

部品組合品表 Assembly List

FAA33051-R. 3416. A

部品番号 Part No.	補助番号 Ckt No.	名 称 Name	1台分 個 数 Pcs. Per Unit	大部組品番号 Main assembly No.	参照 図番 Fig. No.	備 考 Remarks	要求単位 Q'ty per order
A 1 4 3 (FAA33051-A143)	143	巻き上げ軸受部組 FILM ADVANCE SHAFT HOLDER UNIT	1		6		5
* A 1 4 8 (FAA31051-A128)	148	電池ケース部組 BATTERY CASE UNIT	1		6		5
* A 1 5 2 (FAA31051-A132)	152	巻き上げ軸部組 FILM ADVANCE SHAFT UNIT	1		7		5
* A 1 5 4 (FAA31051-A134)	154	巻き上げ地板部組 FILM ADVANCE PLATE UNIT	1		7		5
* A 1 6 4 (FAA31051-A145)	164	スプールギア部組 SPOOL GEAR UNIT	1		7		5
* A 1 7 6 (FAA31051-A305)	176	ミラーholder部組 MIRROR HOLDER UNIT	1		8		1
A 1 7 7 (FAA33051-A177)	177	作動基板部組 OPERATING BASE PLATE UNIT	1		8		5
* A 1 9 9 (FAA31051-A175)	199	遮光板部組 LIGHT SHIELD PLATE UNIT	1		8		5
* A 2 0 3 (FAA31051-A179)	203	ロックピン部組 LOCK PIN UNIT	1		8		5
A 2 0 8 (FAA33051-A208)	208	AEロックSW部組 AE ROCK SW UNIT	1		8		5
A 2 0 9 (FAA33051-A209)	209	ミラーボックス部組 MIRROR BOX UNIT	1		8		1
* A 2 1 2 (FAA31051-A188)	212	ミラー調整板部組 MIRROR ADJUSTING PLATE UNIT	1		8		5
A 2 1 3 (FAA33051-A213)	213	ミラーチャージ基板部組 MIRROR CHARGE BASE PLATE UNIT	1		8		5
* A 2 2 9 (FAA31051-A200)	229	圧板部組 PRESSURE PLATE UNIT	1	A 3 6	9		1

作成承認印	配布許可印
	

FE 10

FAA 33051

REPAIR MANUAL

Nikon | NIKON CORPORATION
Tokyo, Japan

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SPECIFICATIONS

Type of camera :	Electronically-controlled 35mm single-lens reflex(SLR) focal plane shutter camera
Picture format :	24mm × 36mm
Usable film :	Any cartridge-type 35mm film
Viewfinder :	93% ± 2% frame coverage
Diopter :	-1±0.4 dpt
Magnification :	Approx. 0.84X (50mm,∞)
Viewfinder display :	16 red LED indicator lamps (lighting up or blinking)
Mirror :	Quick-return type
Shutter speed :	8 to 1/2000sec. in A(auto) mode 1 to 1/2000sec. and B(bulb) in manual mode
Exposure metering :	Through-the-lens(TTL), center-weighted, full-aperture, stop-down exposure measurement
Exposure mode :	Aperture-priority auto/manual exposure modes
Metering range :	EV1 to EV18 (1 sec. at f/1.4 to 1/2000 sec. at f/11 using 50mm f/1.4 lens)
Film speed range :	ISO 25 to 3200, in 1/3 steps with lock (ISO 100, 400 (red) in manual mode)
Exposure compensation :	By ISO/film speed set ring within a range of ±2 steps (in 1/3 increments) with scale.
Power switch :	Power is turned OFF by setting the shutter speed dial to L, Turned ON by pressing shutter release button halfway.
AE-L (lock) :	Via AE-L (lock) button in A mode
Sync. shutter speed :	Automatically set to 1/90 sec. in auto mode (LED indicator lamp lights up next to X90 in the viewfinder) 1/60 sec. or slower set manually (automatically switches to X90 when the shutter speed is set to between 1/2000 and 1/125 sec.)
Multiple exposure :	Provided via lever
Power source :	Two 1.5 alkaline batteries (LR44), two silver batteries (SR44) or one 3V lithium battery (CR-1/3N)
Dimensions :	Approx. 135mm(W) × 86mm(H) × 53mm(D)
Weight :	Approx. 420g (without batteries)

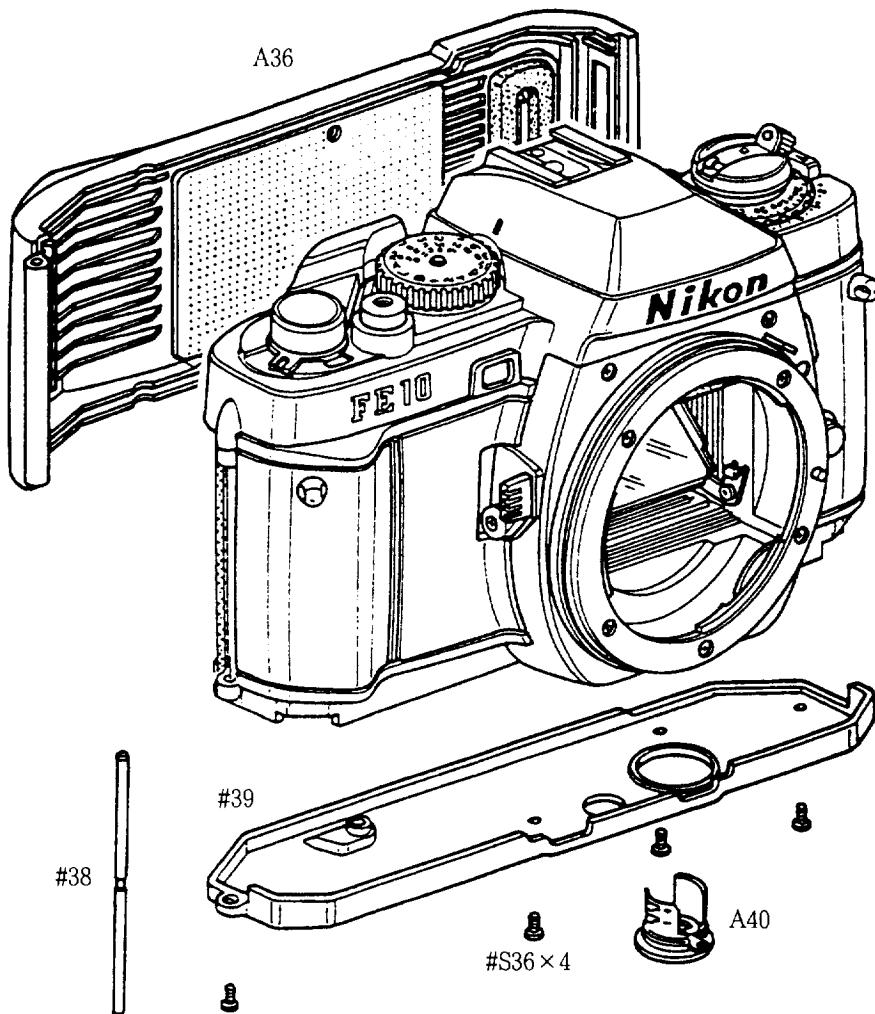
DISASSEMBLING / ASSEMBLING / ADJUSTMENT

1. DISASSEMBLING

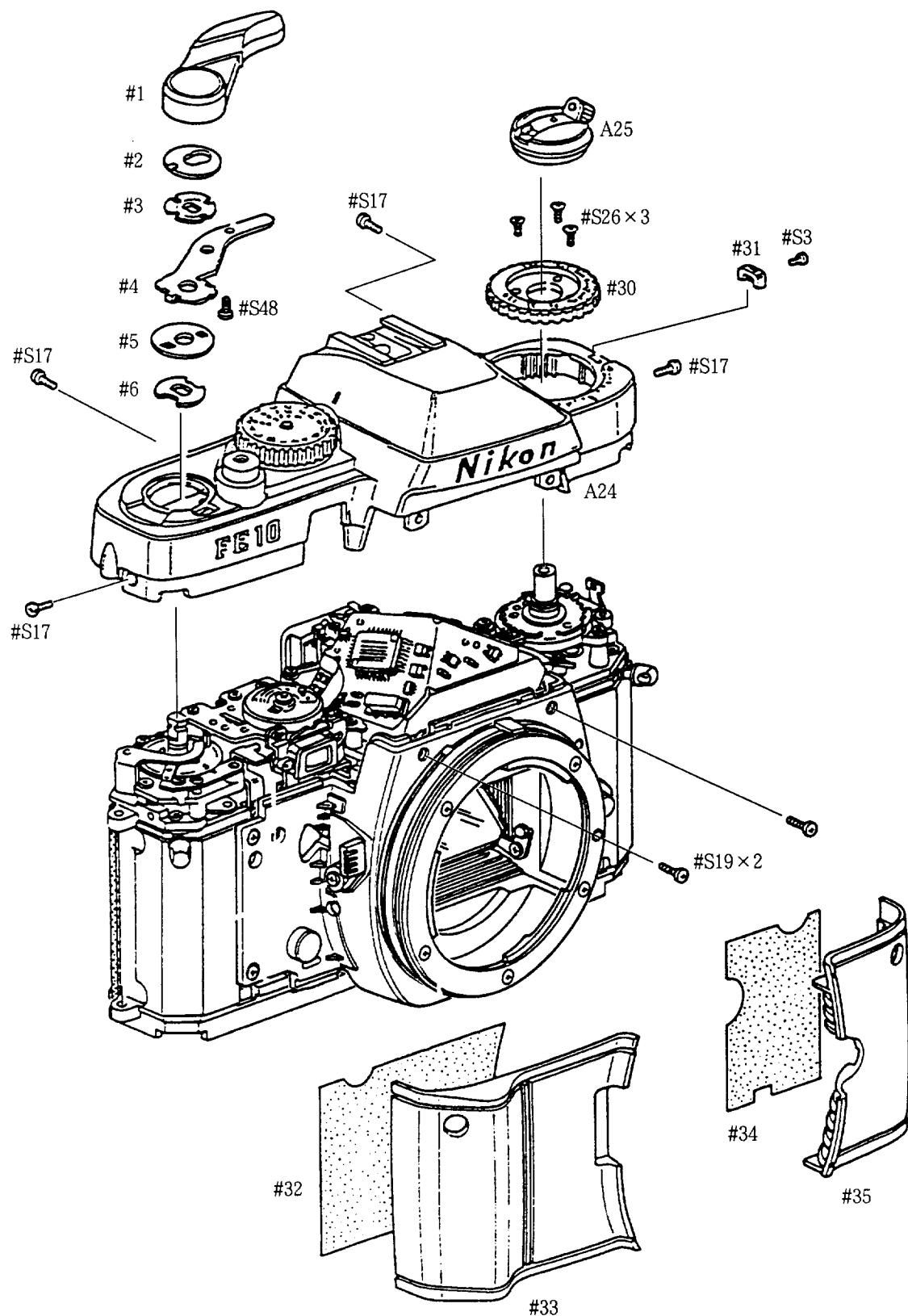
NOTE: ① Disassembling should be started after batteries are removed.

② Be sure to learn how the lead wires are arranged.

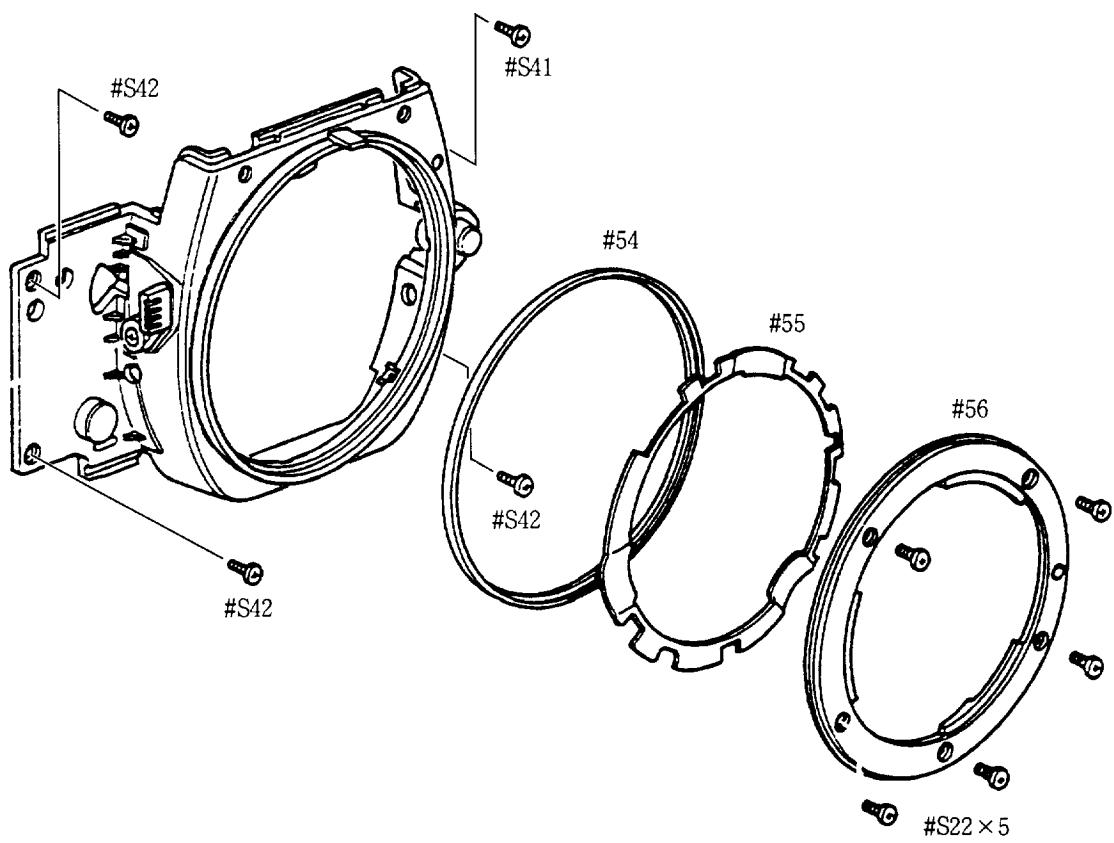
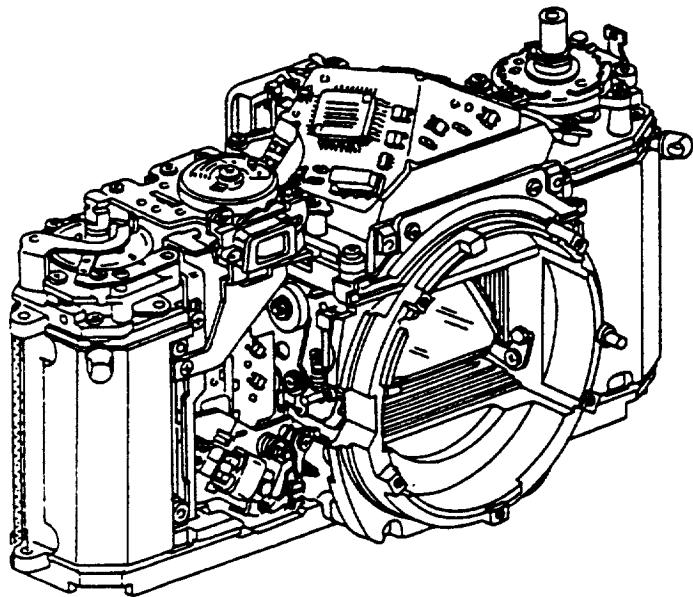
BOTTOM COVER / CAMERA BACK UNIT



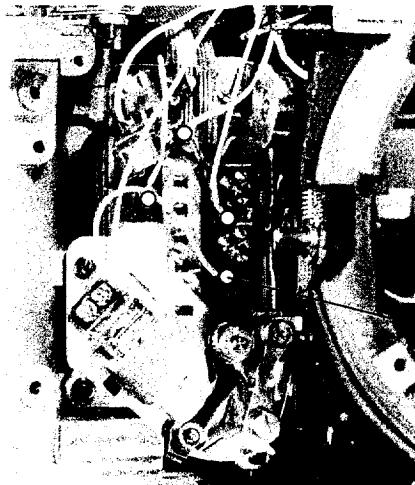
TOP COVER/FRONT COVER



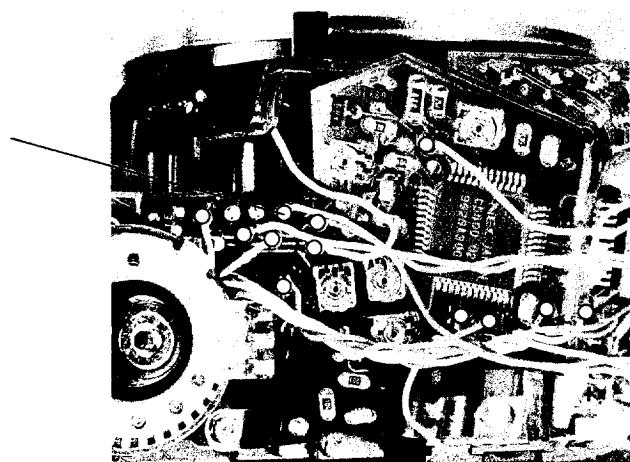
FRONT COVER UNIT/BAYONET MOUNT



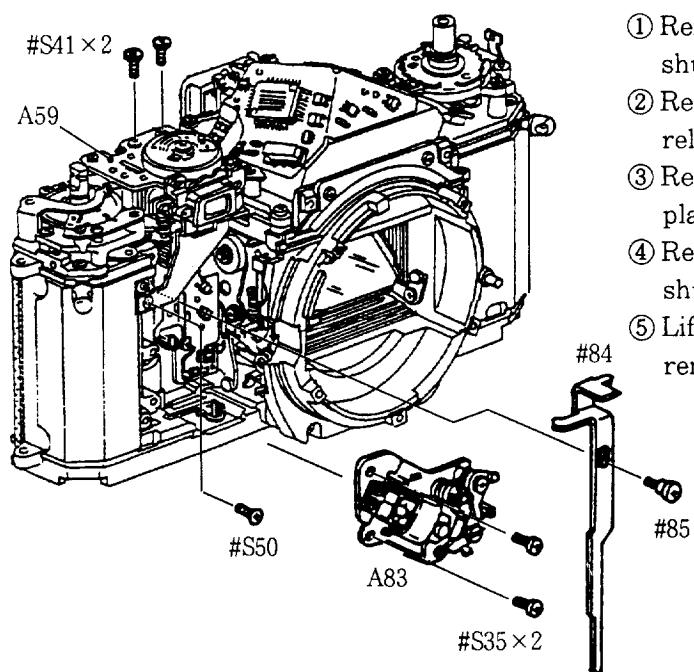
RELEASE Mg/RELEASE PLATE



Green: Release Mg



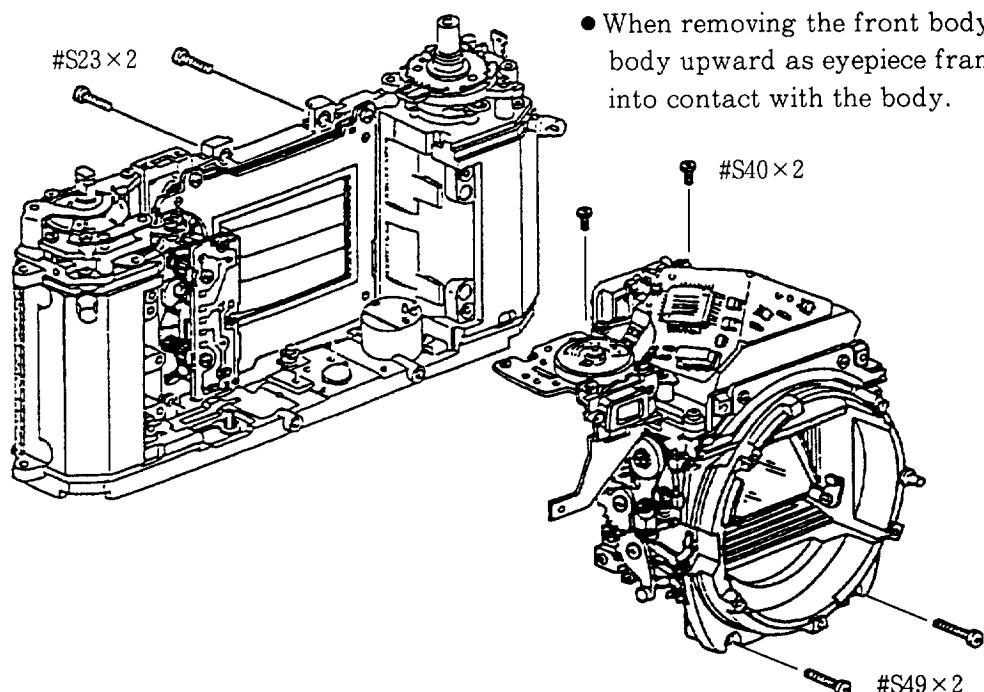
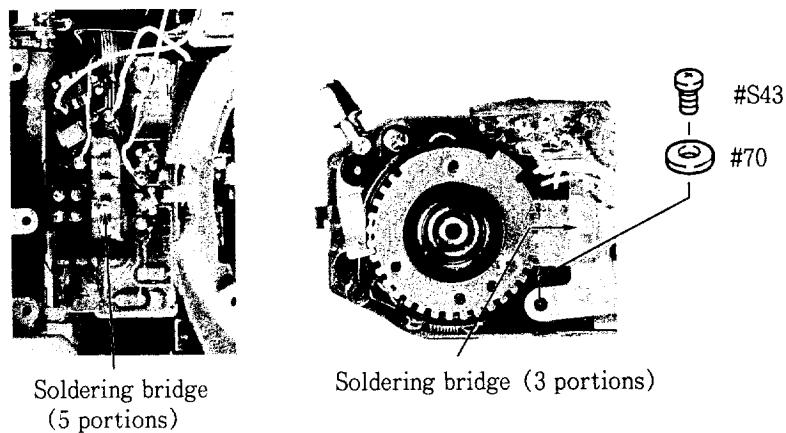
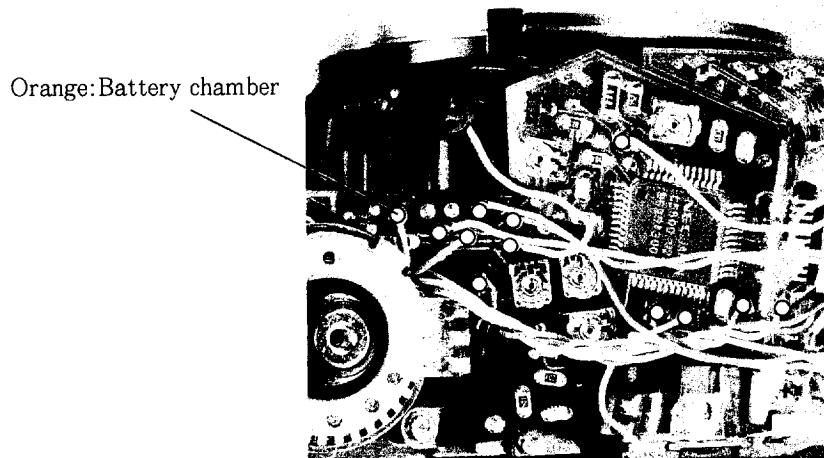
Red: Release Mg



- ① Remove red and green wires from the shutter release Mg (A83) on the main FPC.
- ② Remove screws #S35 x 2 to detach shutter release Mg (A83).
- ③ Remove screw #85 securing shutter release plate #84.
- ④ Remove screws #S41 x 2 and #S50 securing shutter dial base plate unit A59.
- ⑤ Lift shutter dial base plate unit A59 and remove shutter release plate #84.

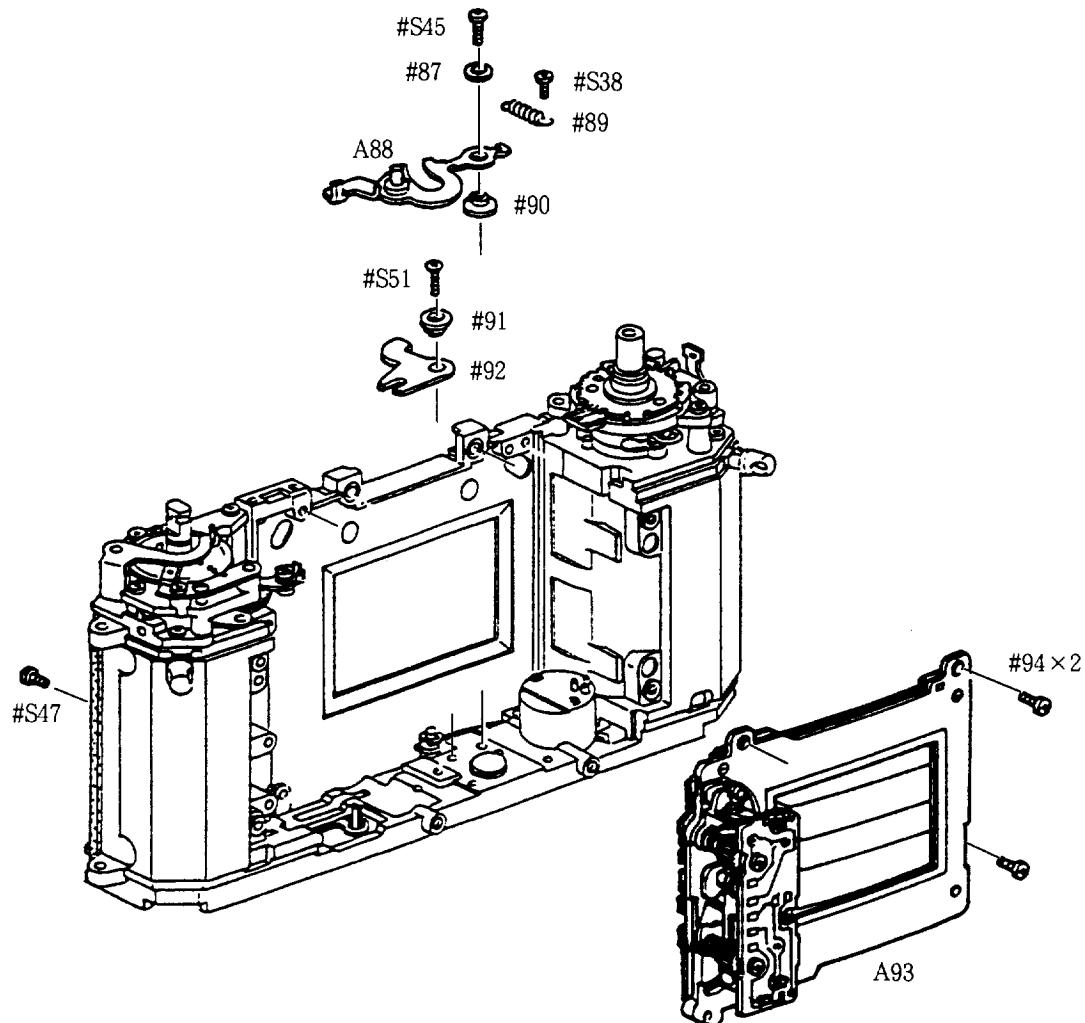
FRONT BODY

- Remove wire orange from the battery chamber on the main FPC.

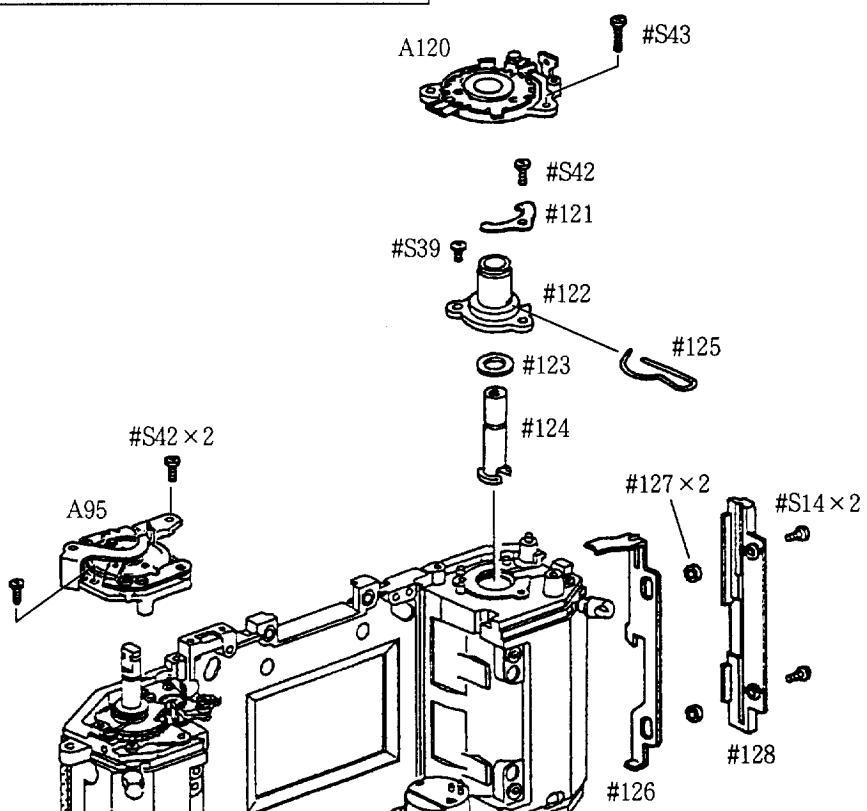


- When removing the front body, move the body upward as eyepiece frame comes into contact with the body.

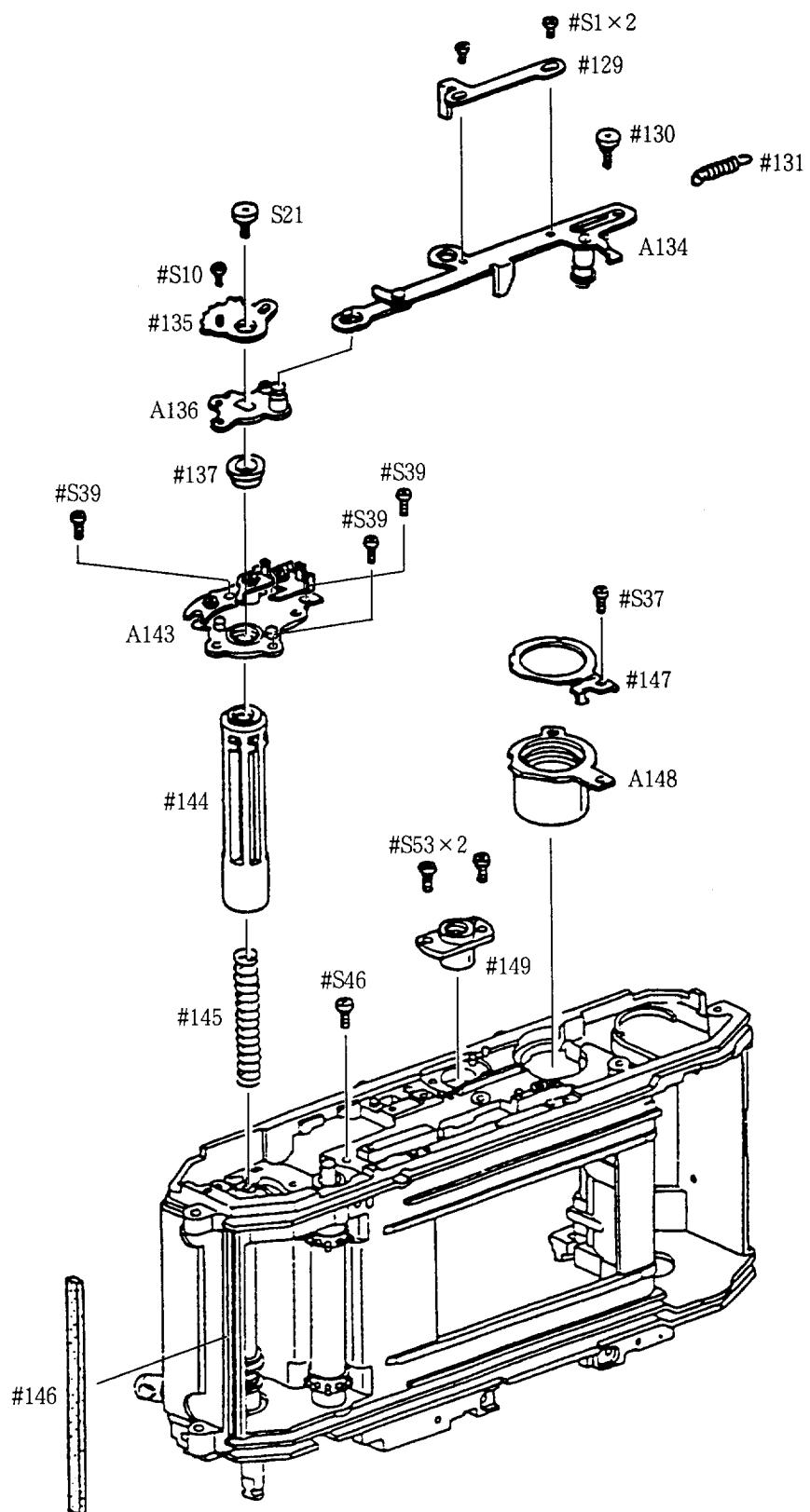
SHUTTER UNIT/SET LEVER B UNIT



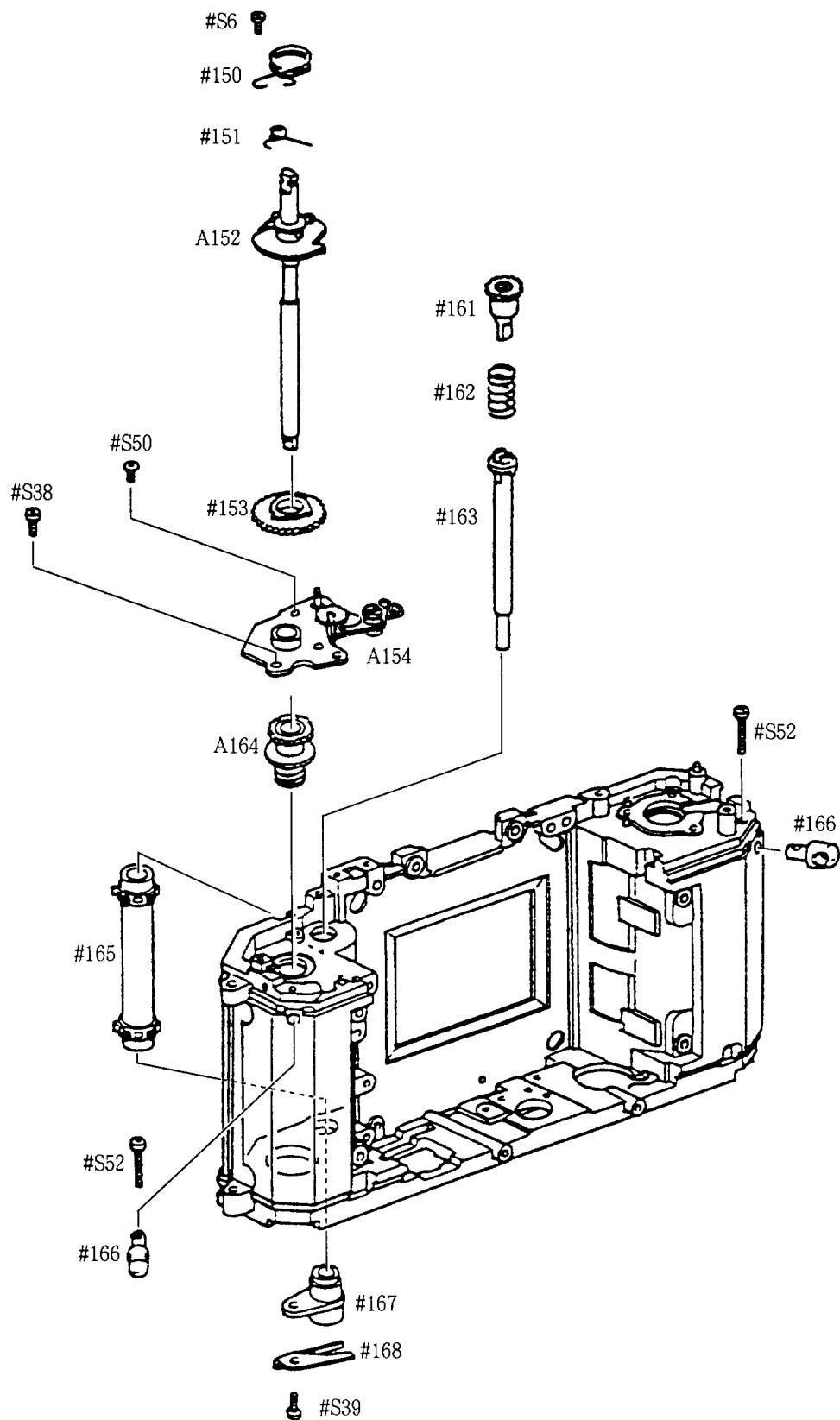
FILM COUNTER UNIT/ISO RESISTER UNIT



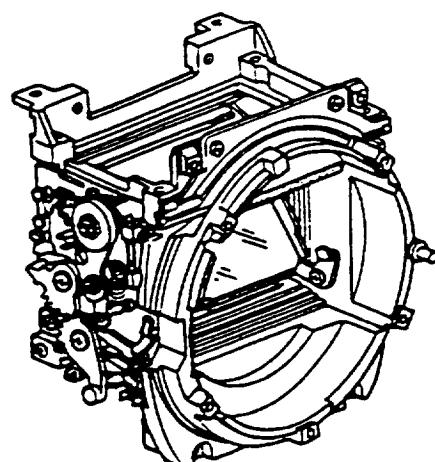
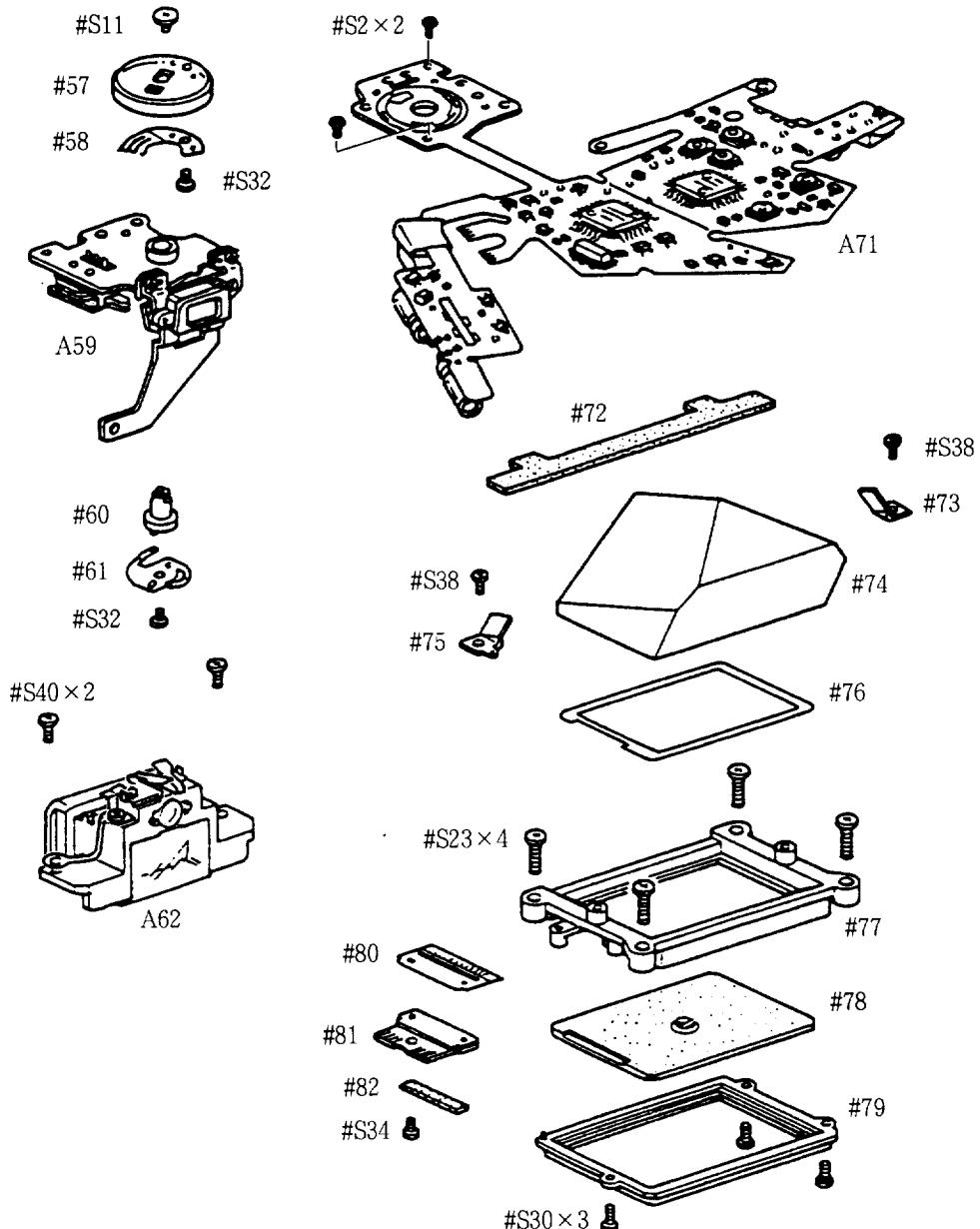
FILM ADVANCE SHAFT HOLDER UNIT/CHARGE LEVER UNIT



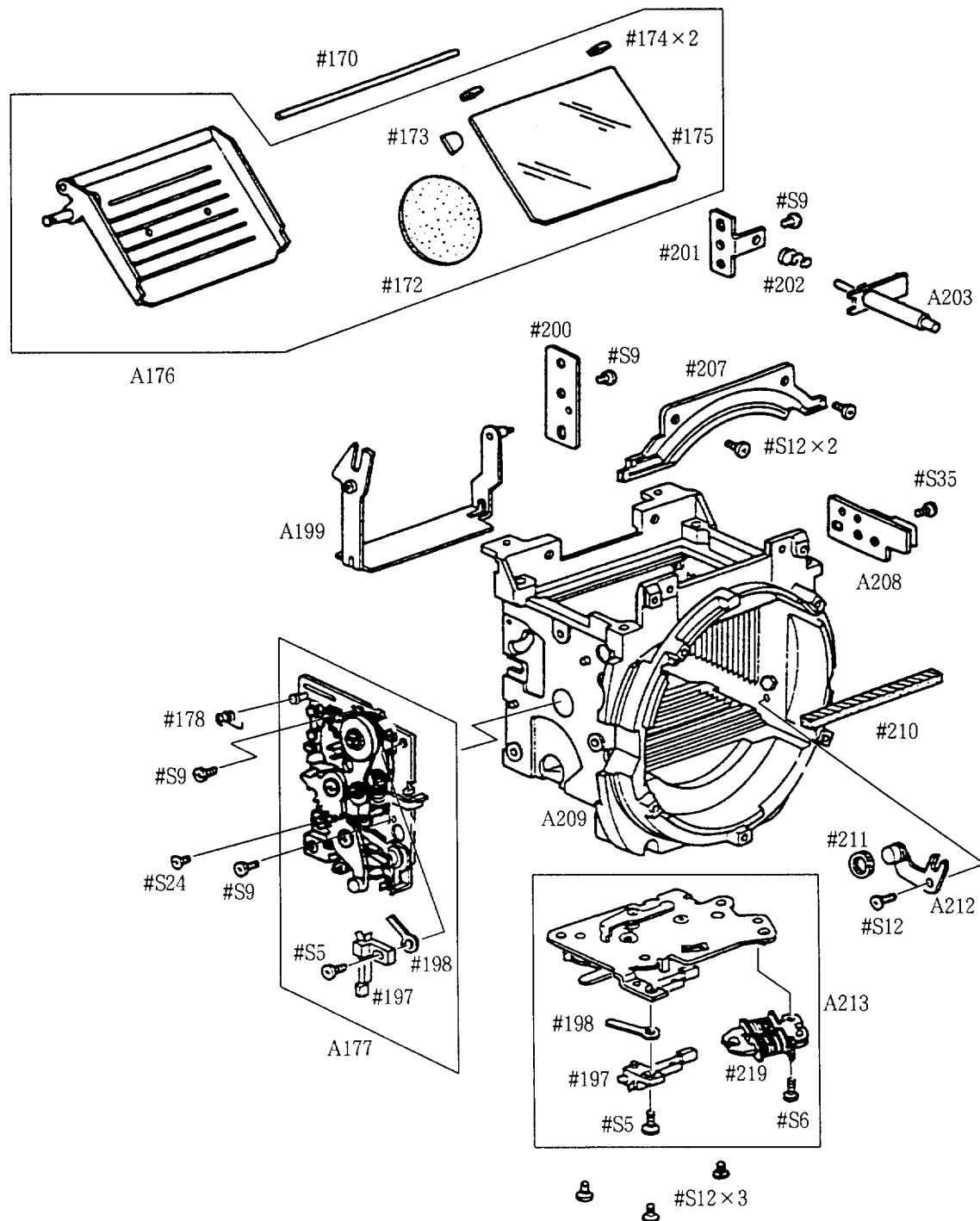
FILM ADVANCE PLATE UNIT/SPROCKET



MAIN FPC/PENTA PRISM

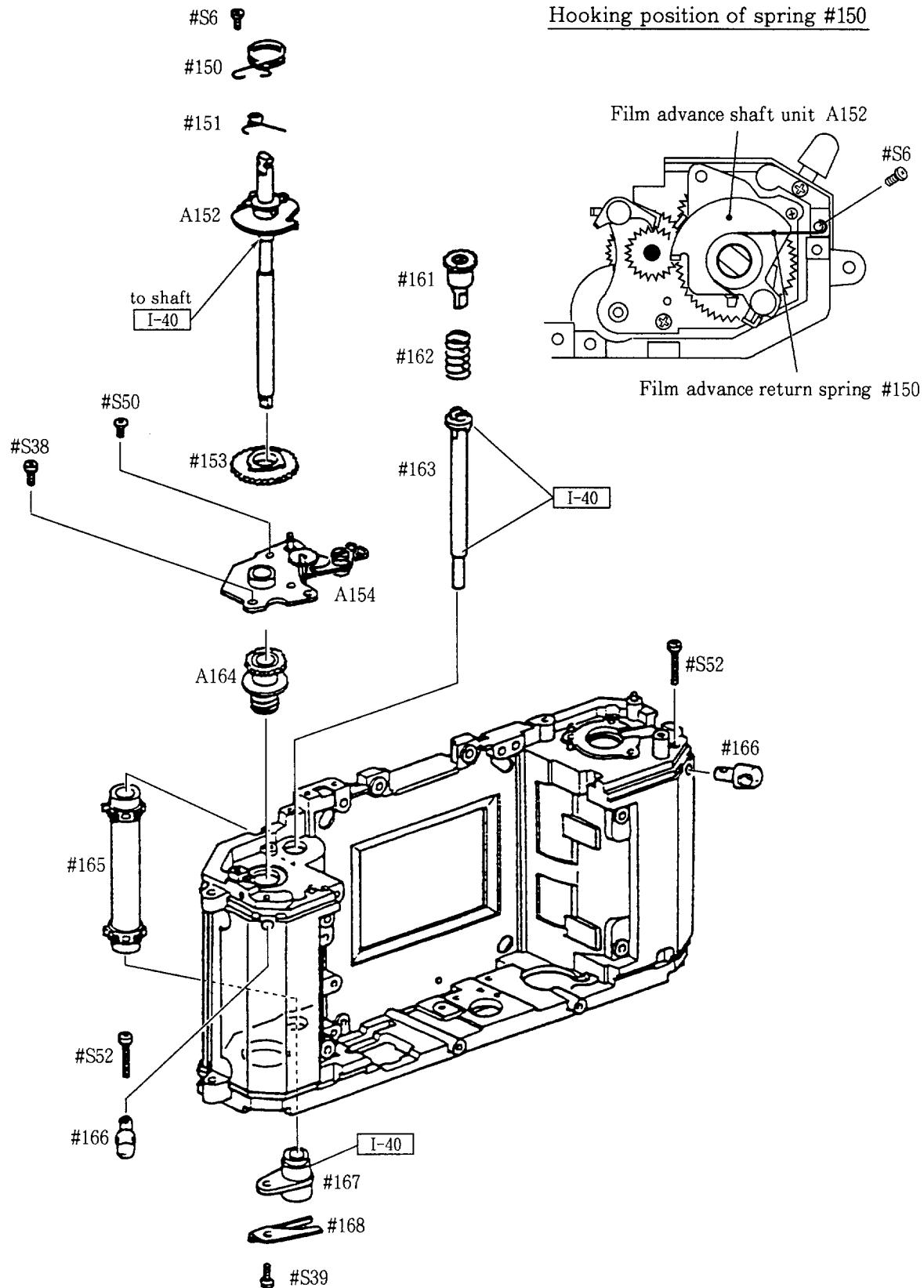


MAIN MIRROR/OPERATING BASE PLATE UNIT

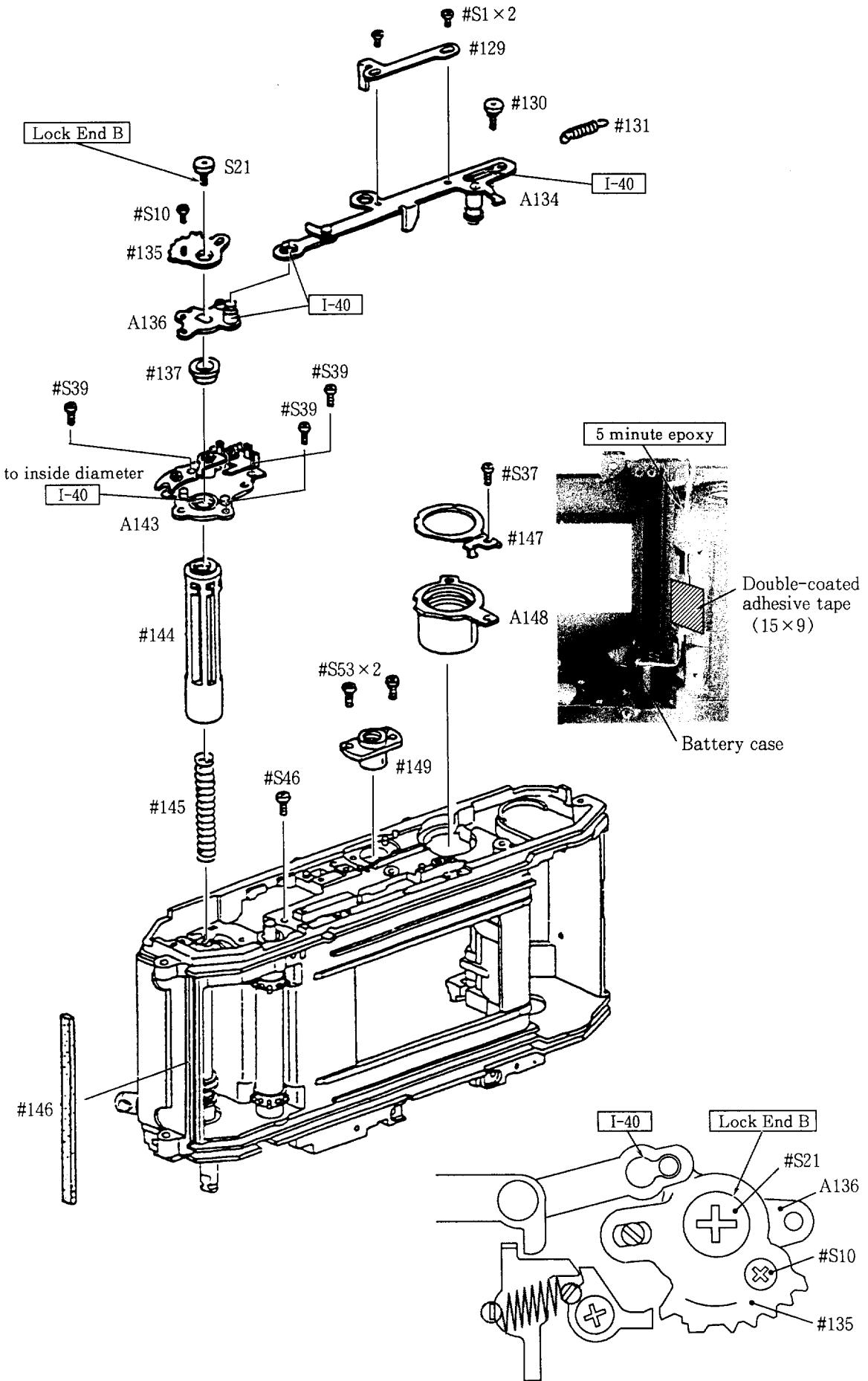


2. ASSEMBLING/ADJUSTMENT

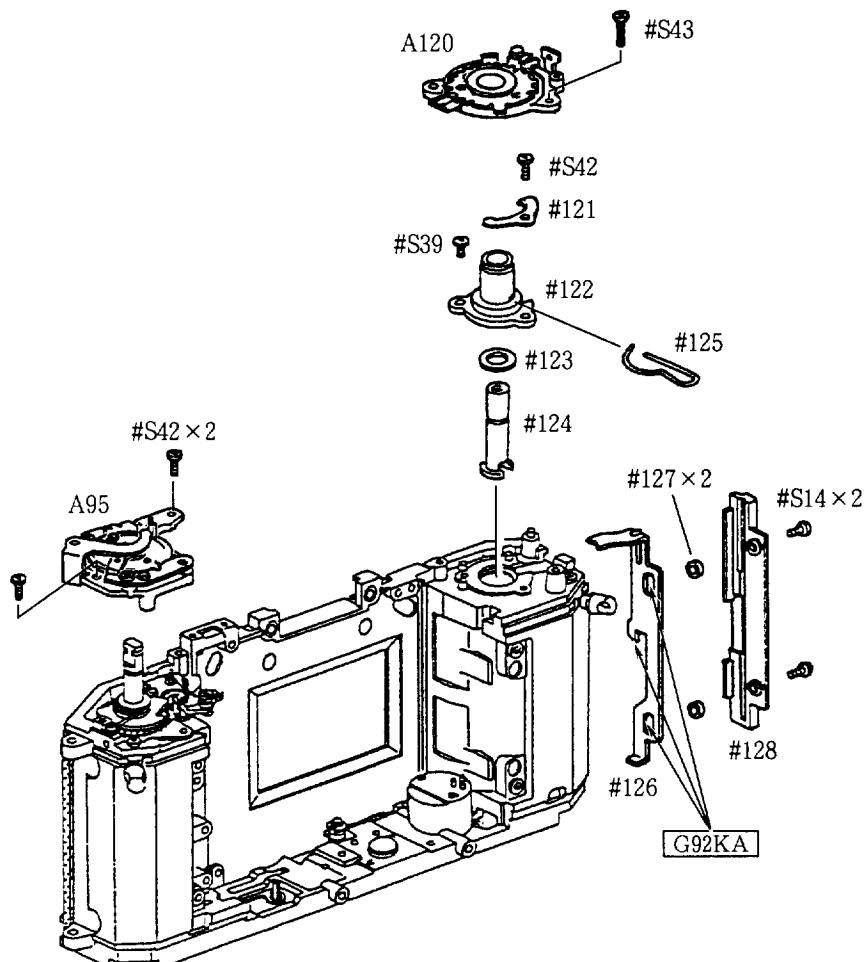
FILM ADVANCE PLATE UNIT/SPROCKET



FILM ADVANCE SHAFT HOLDER UNIT/CHARGE LEVER UNIT



FILM COUTTER UNIT/ISO RESISTER UNIT



• Mounting procedures

Film advance shaft unit A152

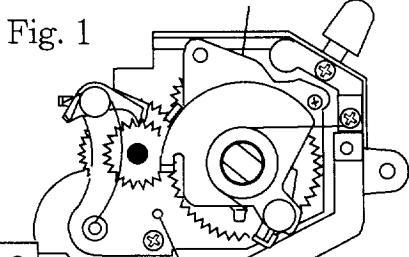


Fig. 1

Frame counter unit A95

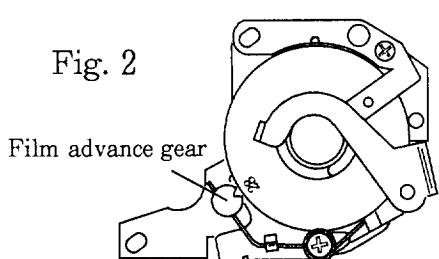


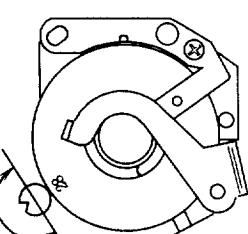
Fig. 2

- ① Temporarily set the film advance lever.
- ② Move the lever to advance film fully once.
- ③ Set film advance shaft unit A152 to the location as shown in Fig. 1.
- ④ Align frame counter scale "28" with a notch on the film advance gear. (See Fig. 2.)
- ⑤ At this stage, attach the unit with screws #S42 x 2 while aligning film advance gear with the guide hole.
- ⑥ Advance film several times and check operation of frame counter and film advance gear position. (See Fig. 3.)

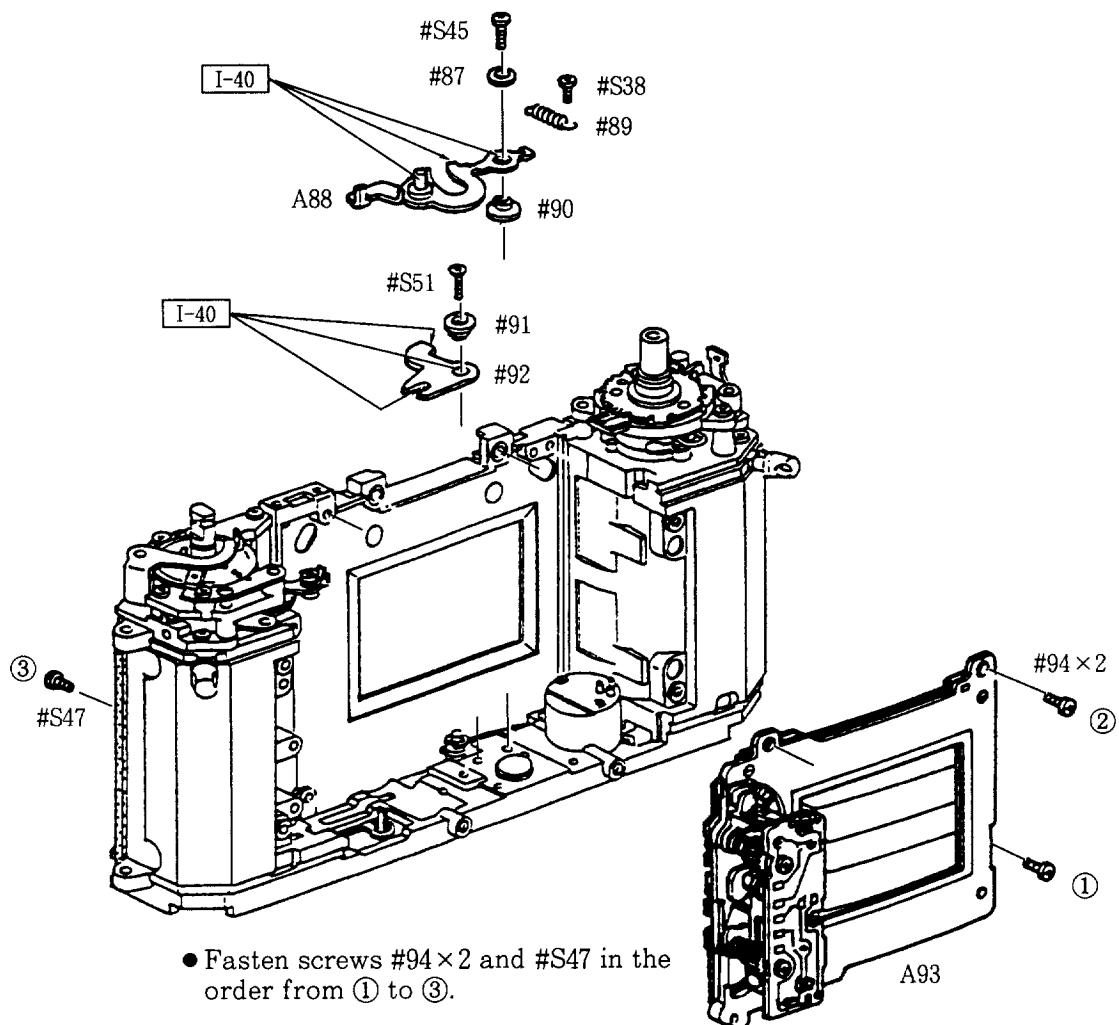
Frame counter unit A95

Fig. 3

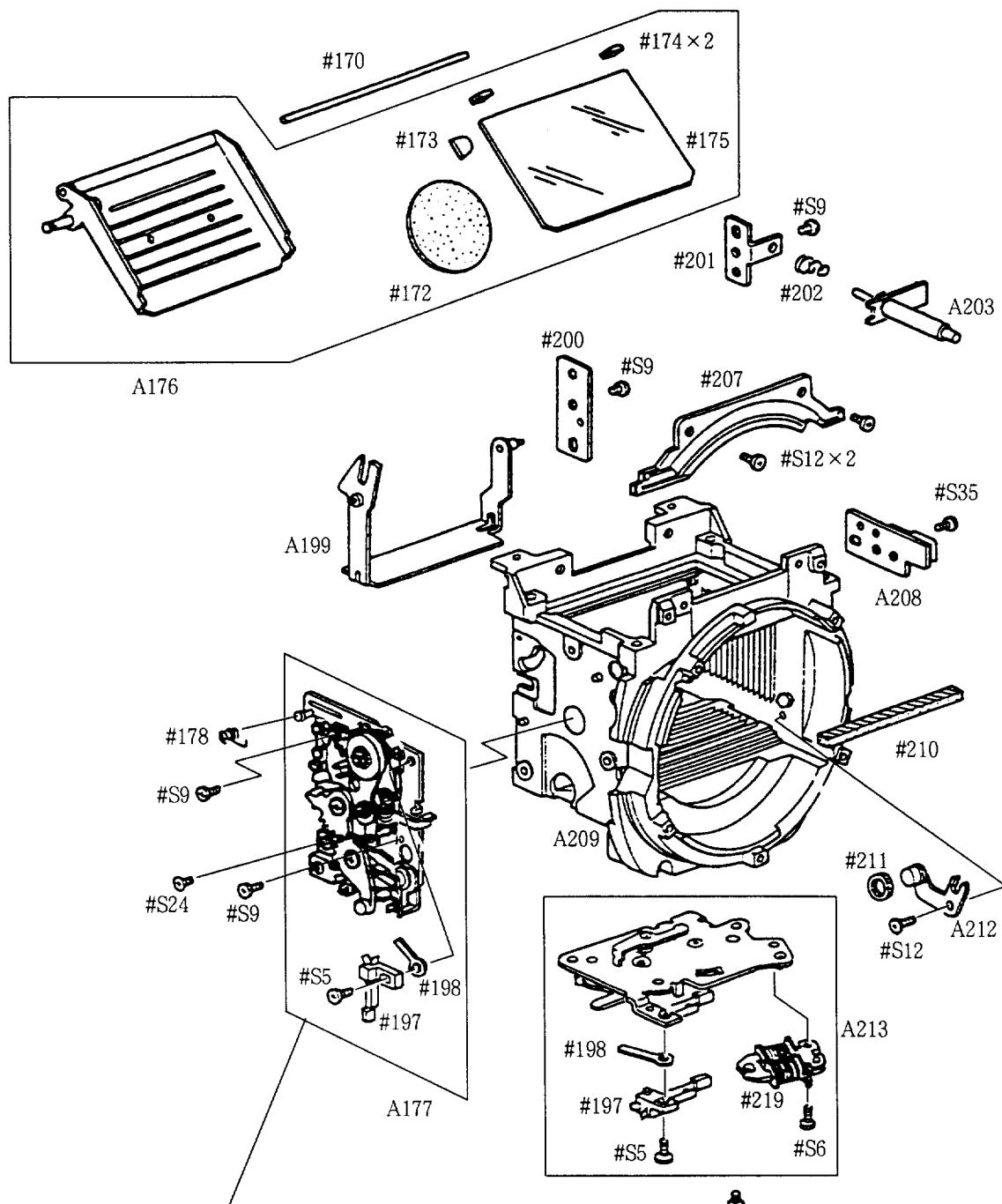
Range of notch position when advancing film.



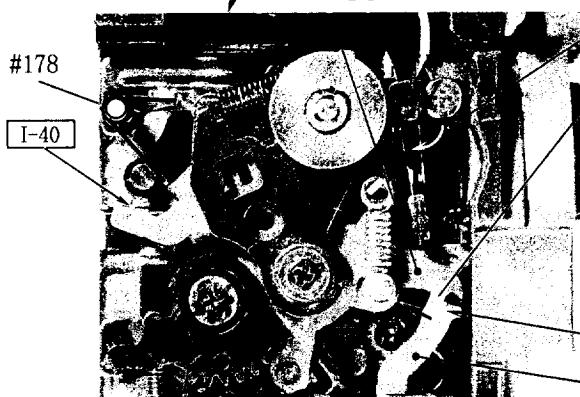
SHUTTER UNIT/SET LEVER B UNIT



MAIN MIRROR/OPERATING BASE PLATE UNIT



Driving plate A

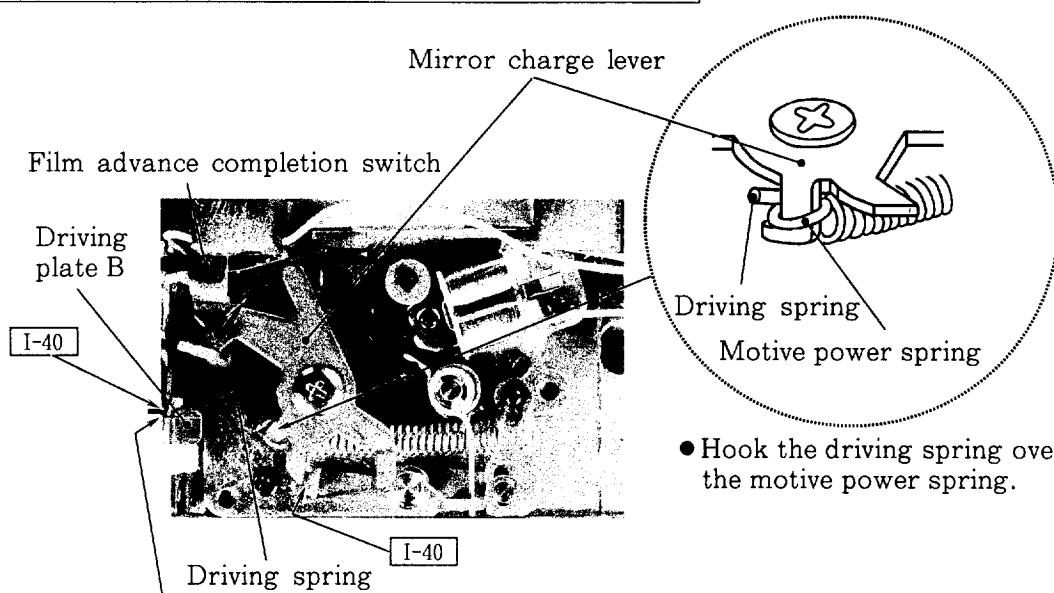


Attach this part while moving

Move the M latch plate in the direction of the arrow and check operation.

If operation malfunctions, bend the M latch plate by approx. 0.2mm to eliminate friction between the plate and driving plate A.

INSPECTION OF MIRROR CHARGE BASE PLATE UNIT



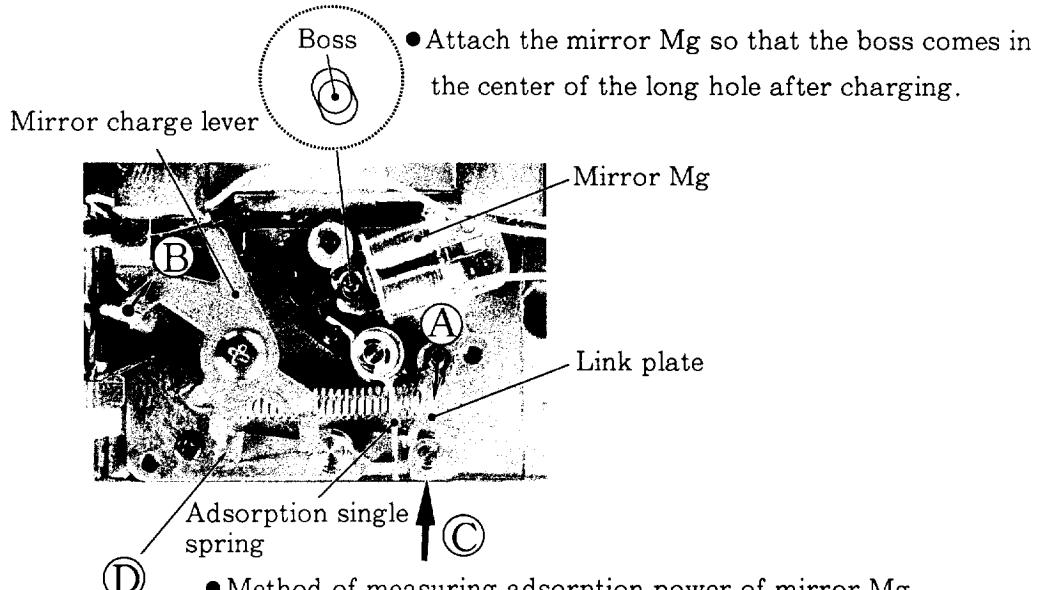
- Hook the driving spring over the motive power spring.

- First adsorb the mirror Mg and set the mirror charge lever in the direction of the arrow, then pass the driving spring through the hole of driving plate B.

NOTE : Do not turn the mirror charge lever more than necessary.

The tip of the armature may become deformed when the lever is returned while the mirror charge lever moves over the armature of the film advance completion switch.

Measurement and adjustment of the adsorption power of mirror Mg



- Attach the mirror Mg so that the boss comes in the center of the long hole after charging.

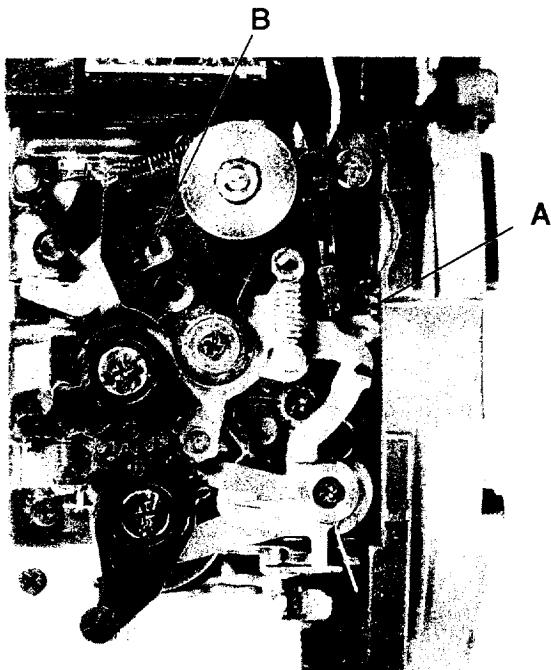
- Method of measuring adsorption power of mirror Mg.

1. Move the link plate in the direction of arrow A and adsorb the mirror Mg.
2. Turn the mirror charge lever in the direction of arrow B until it hooks. (See D above.)
3. Push the link plate with the tip of the torque meter in the direction of arrow C, and read the value on the meter when adsorption of the Mg is released.

- Bend the adsorption single spring to adjust so that the value comes within the standard range.

Standard value: 130 ~ 150g

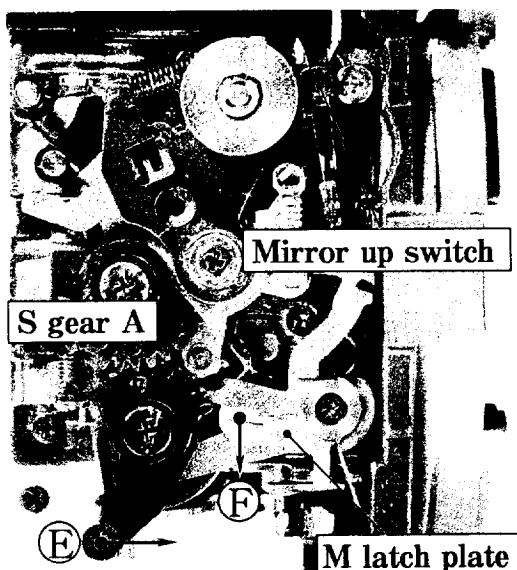
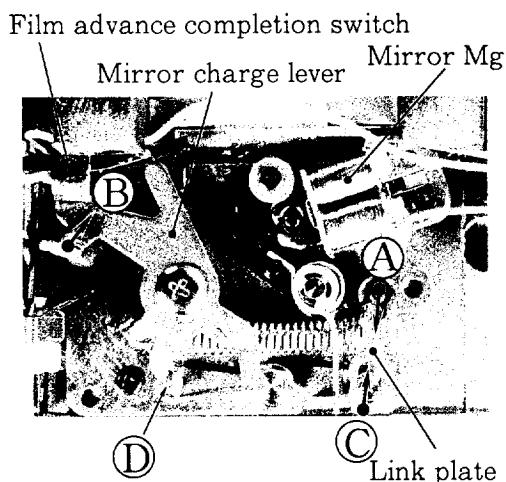
ADJUSTMENT OF APERTURE LEVER POSITION



- ① Attach bayonet spring #55 and bayonet #56.
- ② Measure the height of aperture lever using tool J18004.
- ③ If standard value (after film is advanced) cannot be attained, bend portion "B" on the driving plate to adjust.
- ④ If standard value (before film is advanced) cannot be attained, bend portion "A" on the aperture lever stopper to adjust.

Standard: Before film is advanced $3.1^{-0.5}$
After film is advanced $3.1^{+0.3}$

CHECK THE OPERATION OF THE FRONT BODY

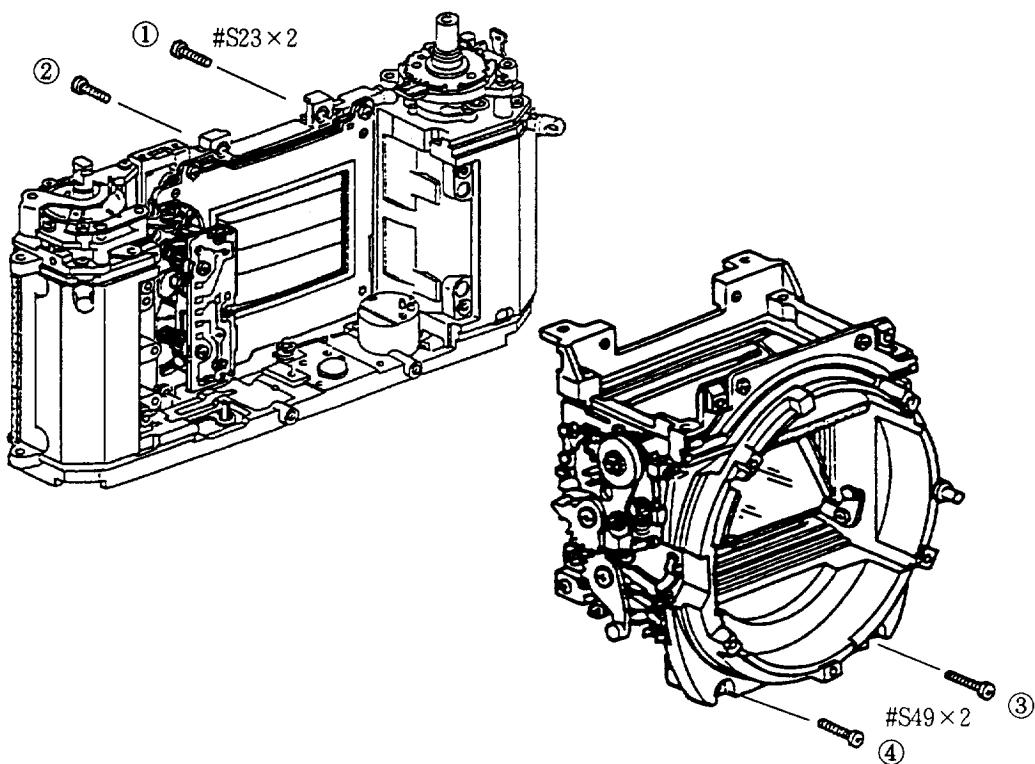


- ① Move the link plate in the direction of arrow ④ to adsorb the mirror Mg.
- ② Turn the mirror charge lever in the direction of arrow ② until it hooks. (See ③)
- ※ Film advance completion switch should turn ON before the mirror charge lever hooks on.
- ③ Move S gear A in the direction of arrow ⑤ until it hooks. (Film advance completion state)
- ④ Move the M latch plate down in the direction of arrow ⑥ and the mirror moves up.
- ※ Mirror up switch should turn ON in the middle of mirror driving operation.
- ⑤ Push the link plate in the direction of arrow ⑦ and the mirror moves down.
- ※ Although position of both film advance completion switch and mirror up switch cannot be adjusted precisely, check that one armature can push and move the other one when one of the switches is turned ON.

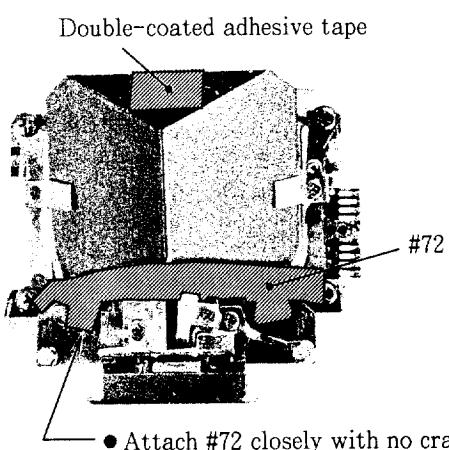
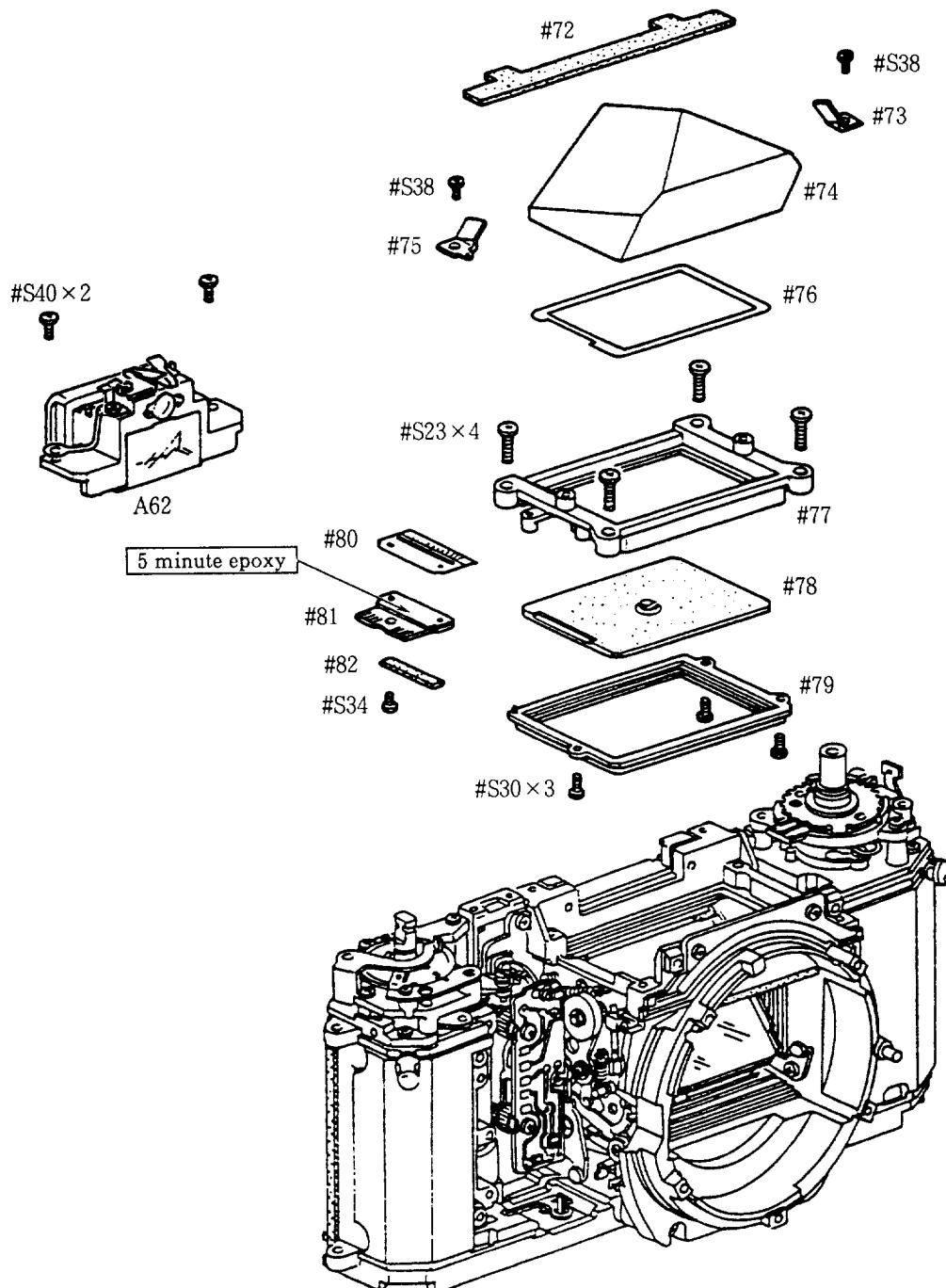
MOUNTING FRONT PLATE ON REAR BODY

●組込み方法

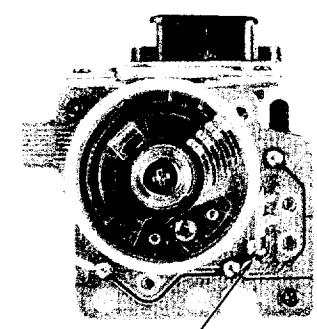
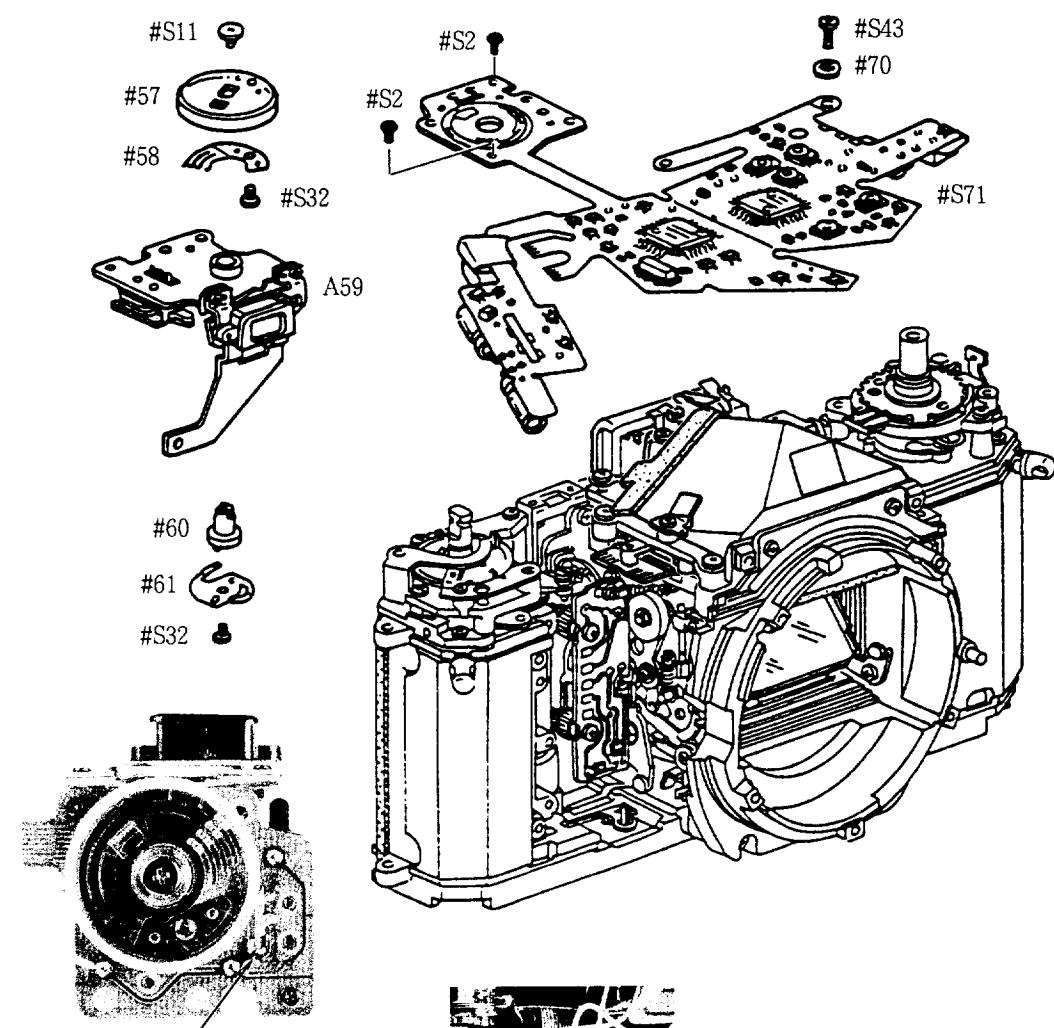
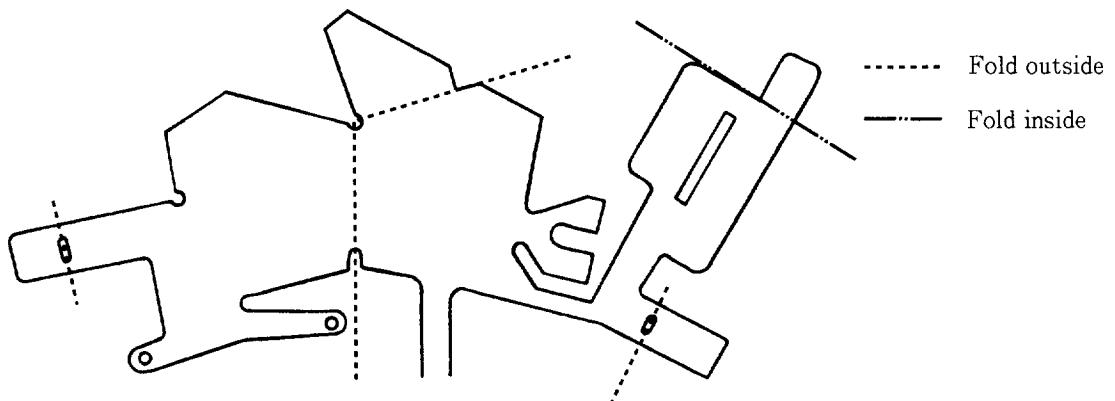
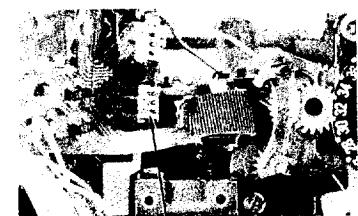
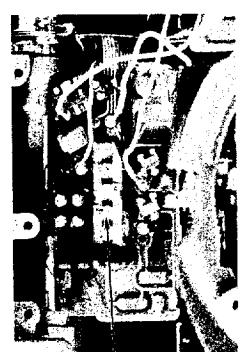
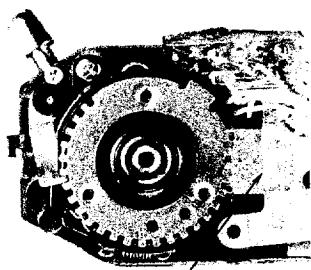
1. Temporarily set the film advance lever. Then move the lever to advance film fully.
2. Set all settings on the front body side to the released state.
※ See "Checking front body operation" on page A7.
3. Check that film advance completion switch armature and mirror switch armature are separated.
4. Attach the front body on the main body with screws #S23×2 and #S49×2.
※ When attaching the front body, move the front body downward and fasten the screws in order from ① to ④.
5. Check operation.



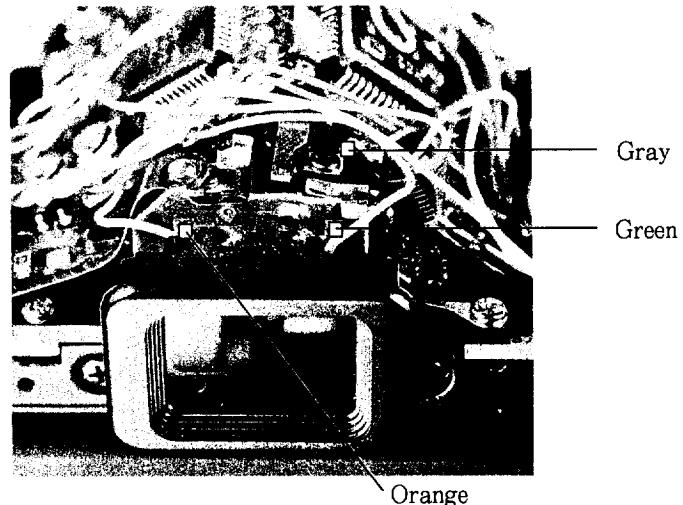
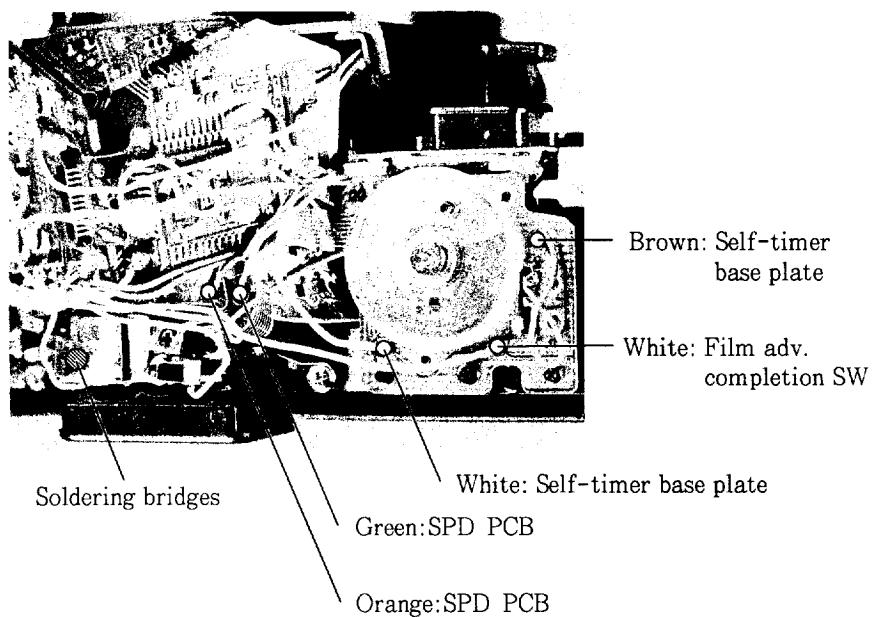
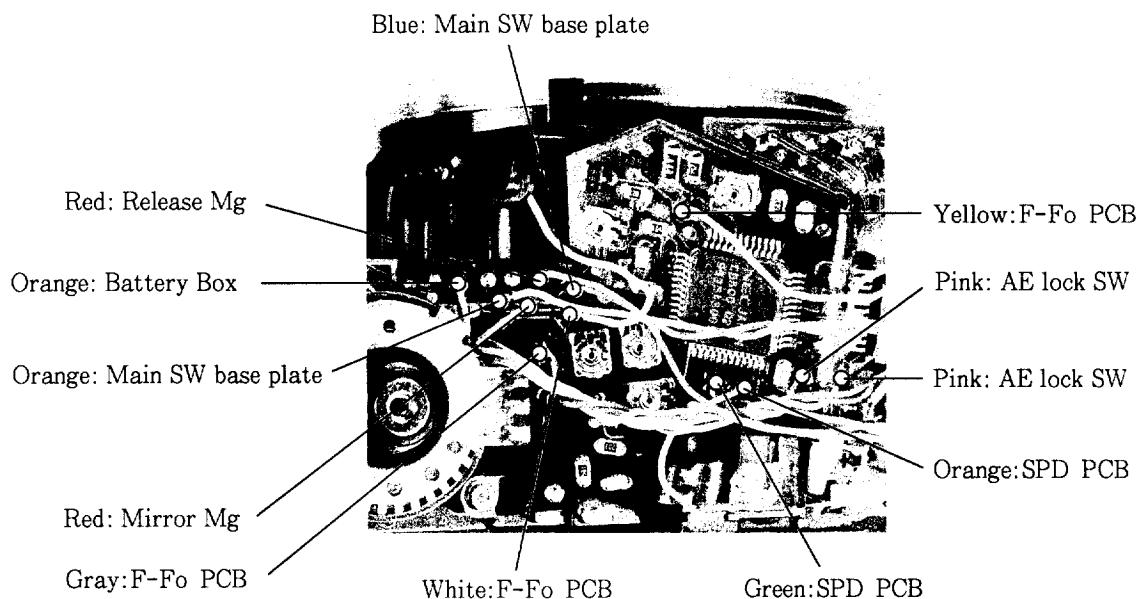
PENTA PRISM/EYEPIECE UNIT



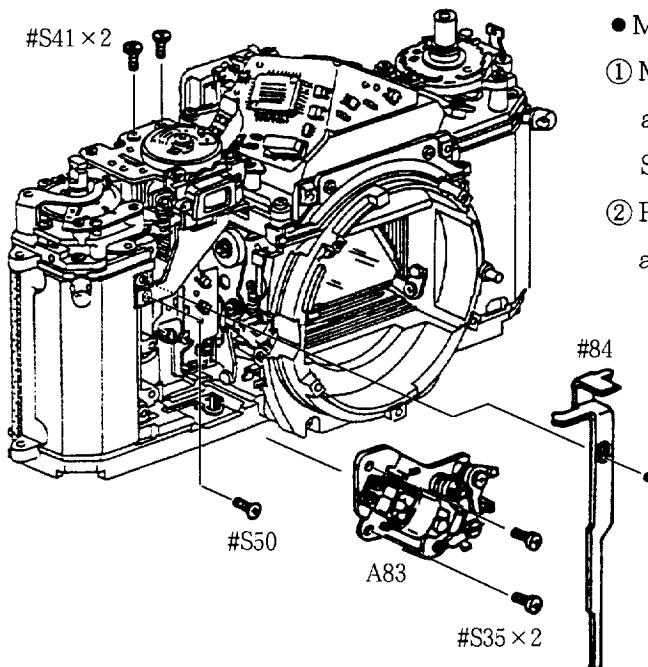
MAIN FPC

Soldering bridges
(3 portions)Soldering bridges
(8 portions)Soldering bridges
(5 portions)Soldering bridges
(3 portions)

SOLDERING WIRES



RELEASE Mg/RELEASE PLATE



● Mounting method of shutter release plate #84.

① Mount both shutter dial base plate unit A59 and shutter release plate #84 together.

Screws #S41 x 2, #S50, #85

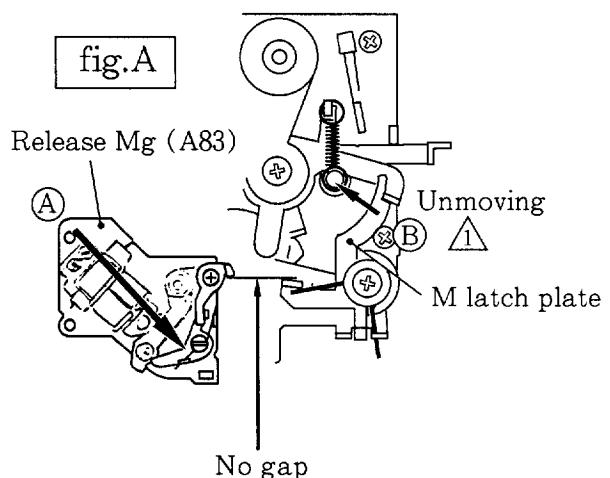
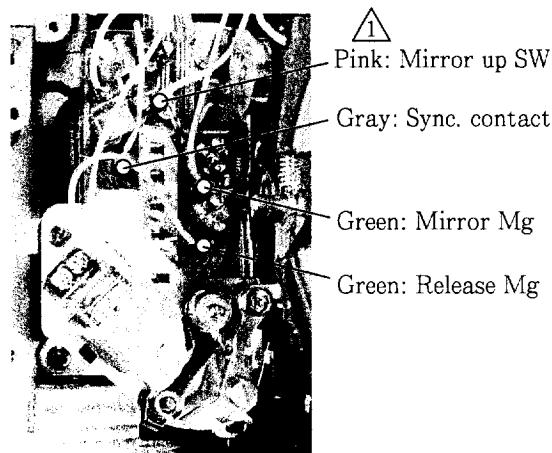
② Push the shutter release Mg (A83) to an arrow A and attach it with screws #S35 x 2.

(Refer to the below fig.A)

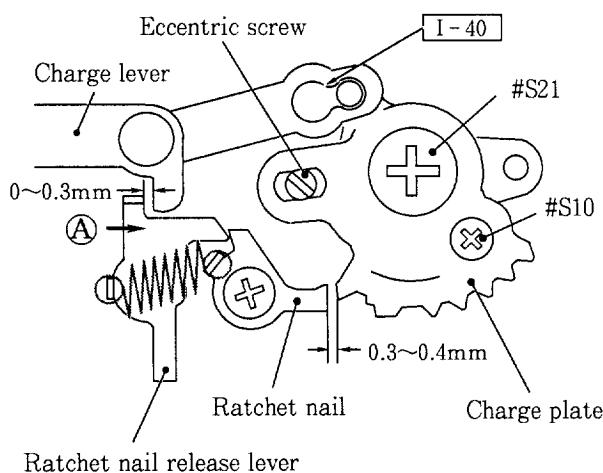
CONFIRMATION :

Make sure that it is released position then no gap between shutter release Mg (A83) and M latch plate and the M latch plate should not move be movable.

(Refer to the below fig.A)



ADJUSTMENT OF CHARGE CAM AND RATCHET NAIL



① Set the lever to the film advance completion state.

② Check opening between the shutter charge lever and ratchet nail release lever.

Standard value: 0 ~ 0.3mm

Adjustment

● Bend the ratchet nail release lever in the direction of arrow A.

③ In this state, check opening between the ratchet nail and shutter charge cam.

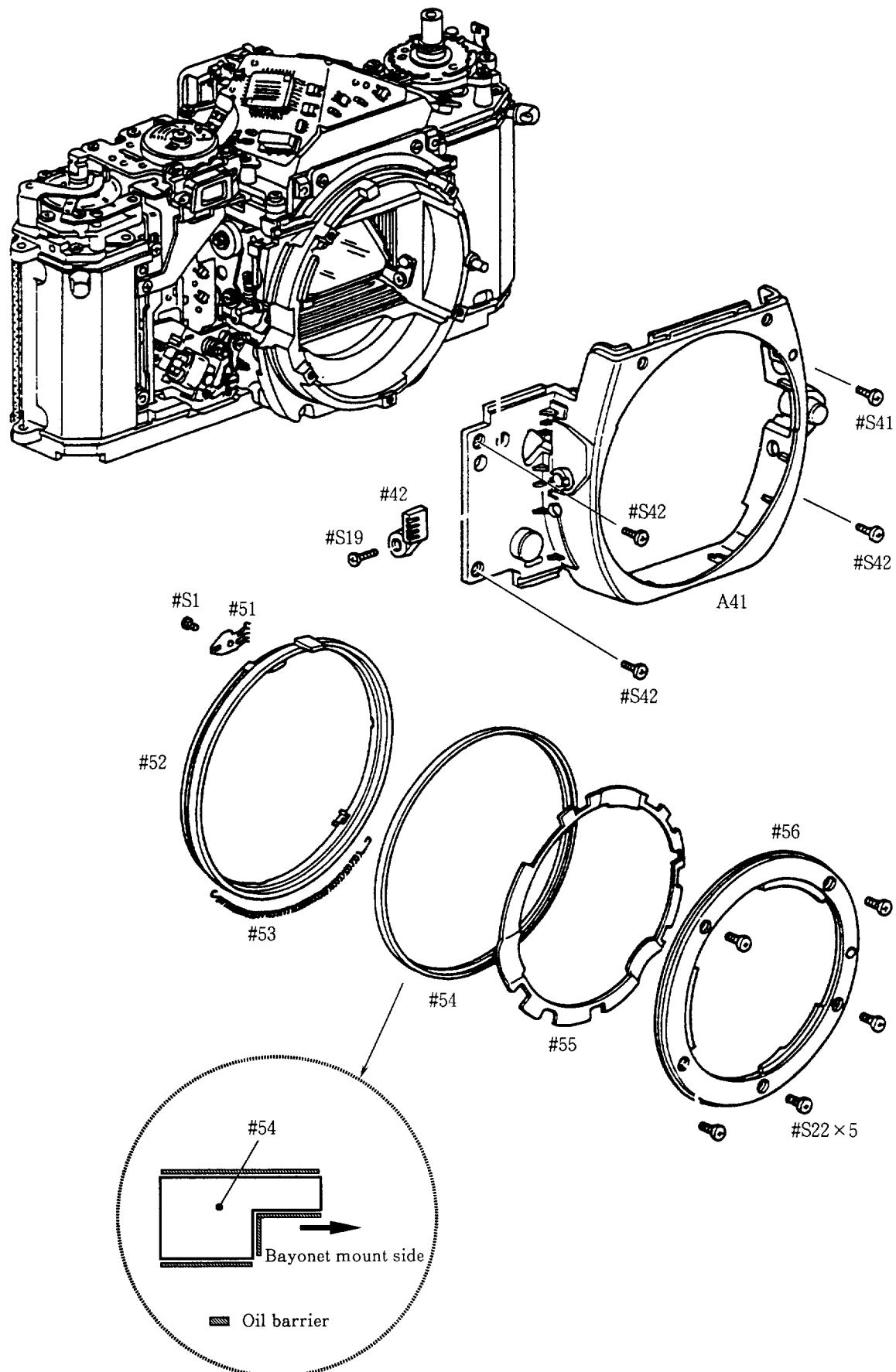
Standard value: 0.3 ~ 0.4mm

Adjustment

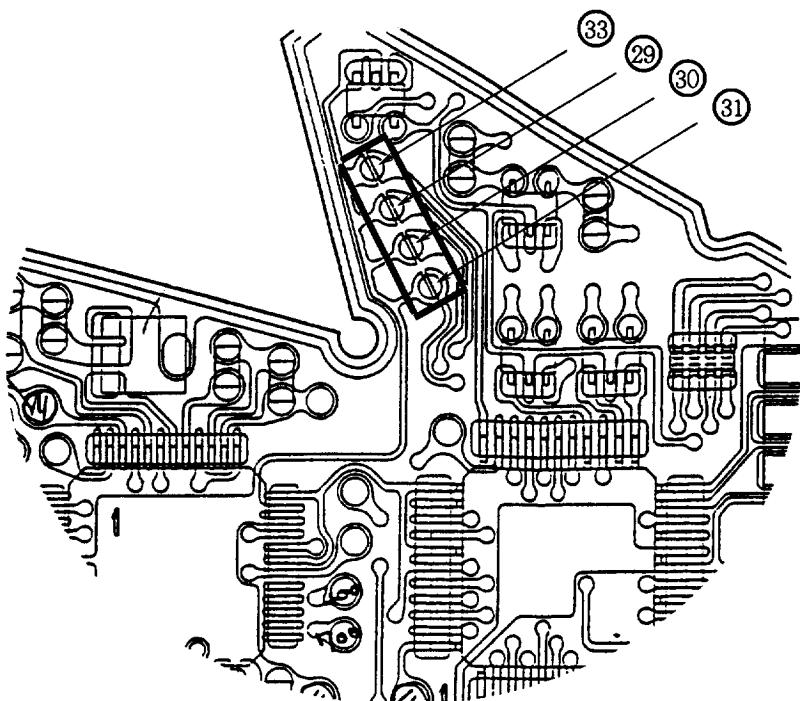
● Unfasten screws #S21 and #S10 and rotate eccentric screw.



FRONT COVER • BAYONET MOUNT



ADJUSTMENT OF MANUAL SHUTTER SPEED 1/2000 sec.



Standard value : 0. 488 ms ~ 0. 6 ms

- If the value is out of the standard range, solder shutter speed adjusting lands on the figure above by referring to the table below.

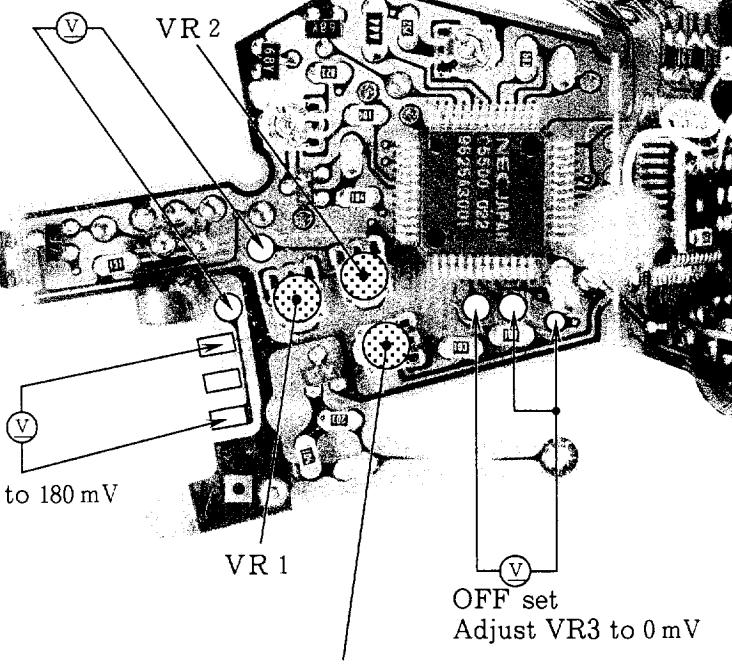
○ mark : Soldered

Blank : Unsoldered

Compensation EV value	(33)	(29)	(30)	(31)
+ 0. 7		○	○	○
+ 0. 6		○	○	
+ 0. 5		○		○
+ 0. 4		○		
+ 0. 3			○	○
+ 0. 2			○	
+ 0. 1				○
± 0				
- 0. 1	○			○
- 0. 2	○		○	
- 0. 3	○		○	○
- 0. 4	○	○		
- 0. 5	○	○		○
- 0. 6	○	○	○	
- 0. 7	○	○	○	○
- 0. 8	○			

CONFIRMATION AND ADJUSTMENT BEFORE AE ADJUSTMENT

Adjust VR2 to 180 mV

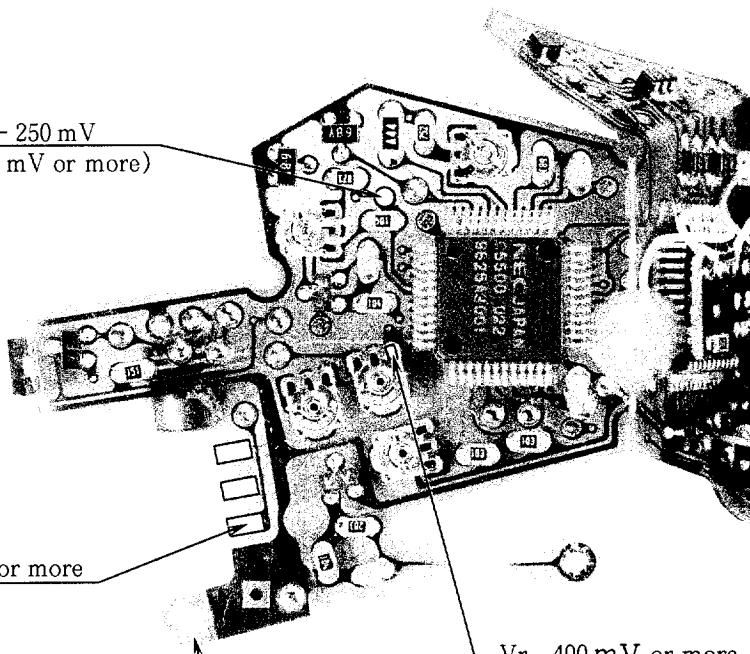


Adjust VR1 to 180 mV

VR 1

OFF set
Adjust VR3 to 0 mVVR 3 (OFF set resistance)
Does not need to adjust.
(Adjusted at the center)

CHECK OF OUTPUT SIGNAL

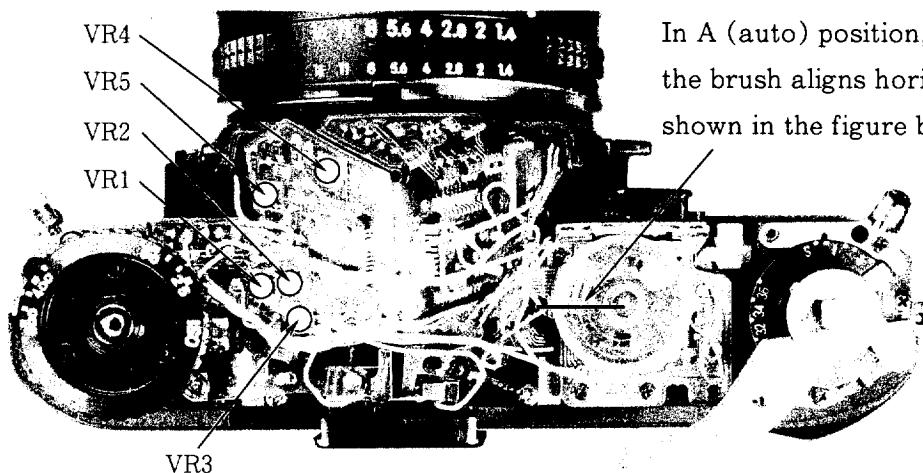
△ $V_s + 250 \text{ mV}$
(950 mV or more)△ V_s 700 mV or more

△ x 3 Change page

- A 1 5 • F E 1 0 -

Nov. 29. 1996

AE PRECISION ADJUSTMENT



In A (auto) position, the tip of the brush aligns horizontally as shown in the figure below.

※Display can also be adjusted along with the adjustment of shutter speed.

- ① Attach reference lens (50mm f/1.4) on the main body and set aperture to f/5.6.
- ② Set film speed to ISO 100 and shutter dial to A (auto) position.
- ③ Set the camera on the shutter tester and cover it with a black cloth.

(AUTO gamma shift adjustment)

- ④ Set shutter speed to LV12, and temporarily adjust VR5 so that exposure becomes 0 ± 0.3 EV.
- ⑤ Set shutter speed to LV9, and temporarily adjust VR4 so that exposure becomes 0 ± 0.3 EV.
- ⑥ Set shutter speed to LV15, and temporarily adjust VR4 so that exposure becomes 0 ± 0.3 EV.
- ⑦ Perform procedures ⑤ to ⑥ above repeatedly, and adjust VR4 so that the difference between the LV9 and LV15 becomes less than 0.3EV.
- ⑧ Set shutter speed to LV12, and adjust VR5 so that exposure becomes 0 ± 0.1 EV.

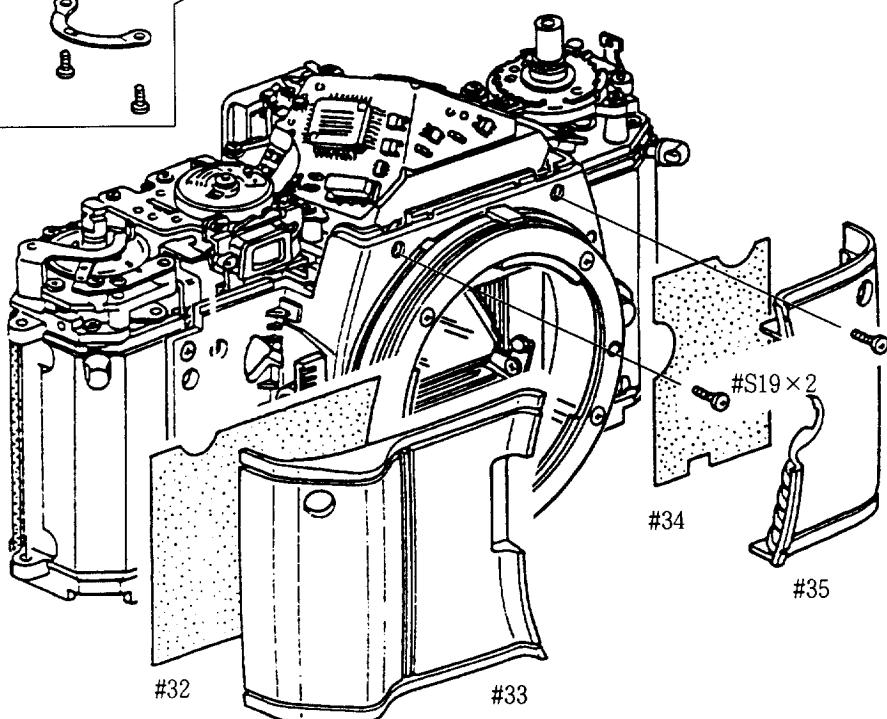
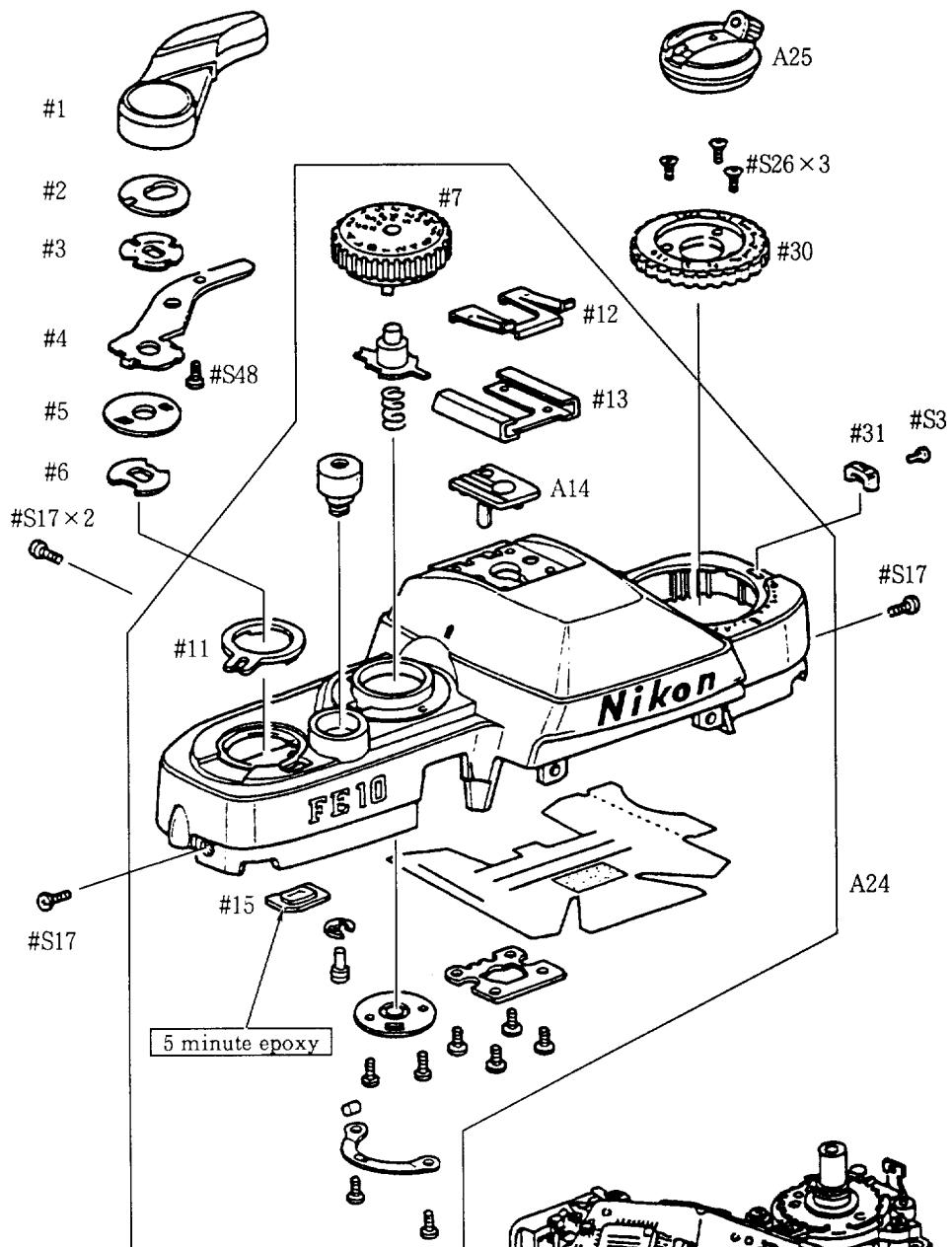
(Aperture gamma shift adjustment)

- ⑨ Set to shutter speed to LV12 and aperture to f/11, and temporarily adjust VR2 so that exposure becomes 0 ± 0.3 EV.
- ⑩ Set to aperture to f/2, and temporarily adjust VR2 so that exposure becomes 0 ± 0.3 EV.
- ⑪ Perform procedures ⑨ to ⑩ above repeatedly, and adjust VR2 so that the difference between f/11 and f/2 becomes less than 0.3EV.
- ⑫ Adjust VR5 so that exposure becomes 0 ± 0.1 EV at f/5.6.

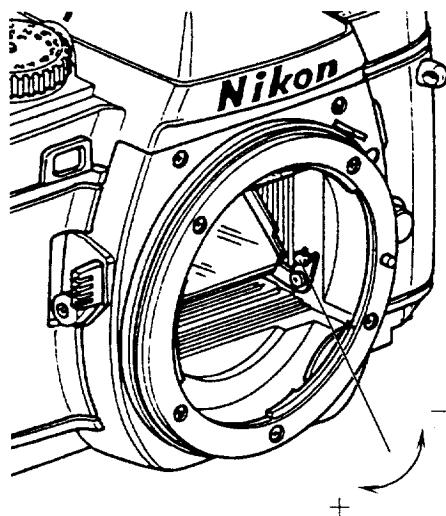
(ISO gamma shift adjustment)

- ⑬ Set shutter speed to LV12, aperture to f/5.6 and film speed to ISO 25, and temporarily adjust VR1 so that exposure becomes 0 ± 0.3 EV.
- ⑭ Set film speed to ISO 1600, and temporarily adjust VR1 so that exposure becomes 0 ± 0.3 EV.
- ⑮ Perform procedures ⑬ to ⑭ repeatedly, and adjust VR1 so that the difference between ISO 25 and ISO 1600 becomes less than 0.3EV.
- ⑯ Adjust VR5 so that exposure becomes 0 ± 0.1 EV at ISO 100.

TOP COVER/FRONT COVER

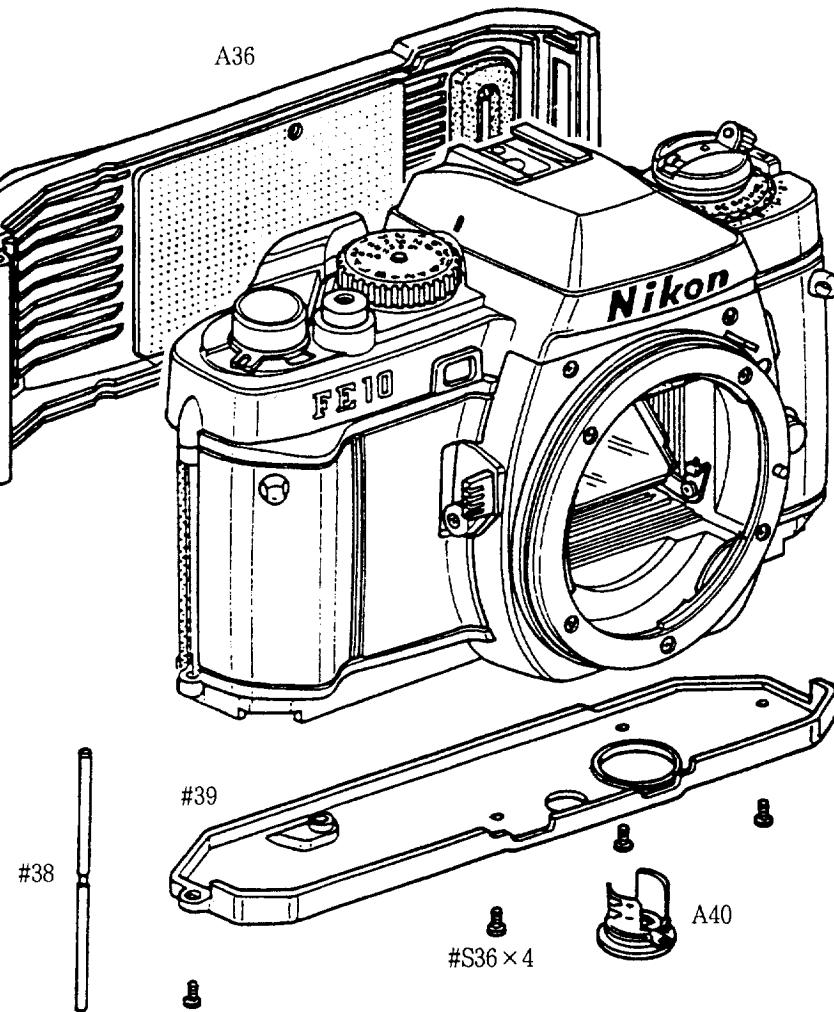


ADJUSTMENT AT INFINITY SETTING

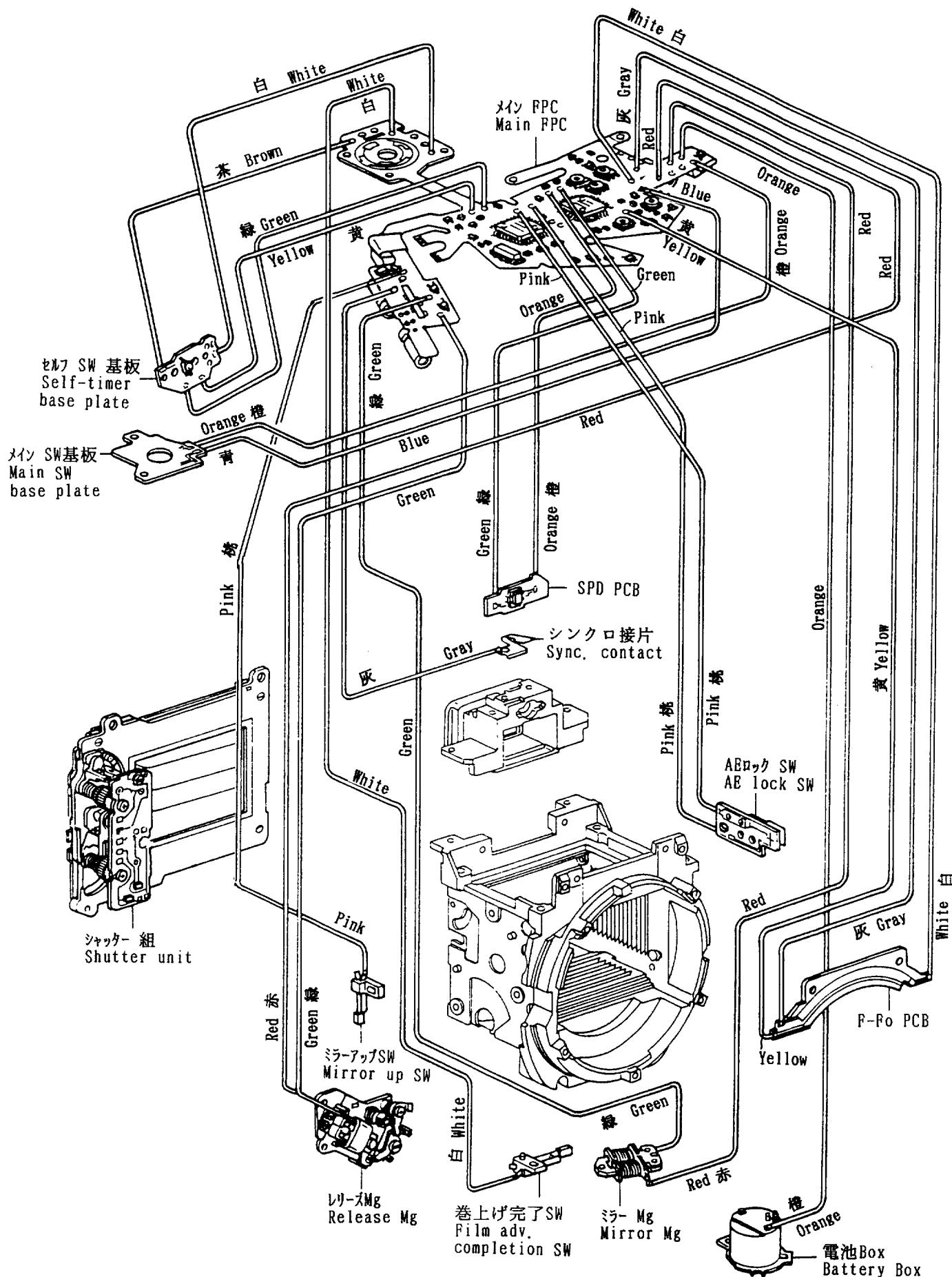


- ① Mount a 50mm f/1.4 standard lens on the camera and align the camera with collimator (J19001).
- ② Look into the camera's viewfinder and check if the splits are correctly fit.
- ③ If not fit, rotate the hexagon nut to adjust as shown in the figure.
- ④ After adjustment, apply black paint on the hexagon nut.

BOTTOM COVER/CAMERA BACK UNIT

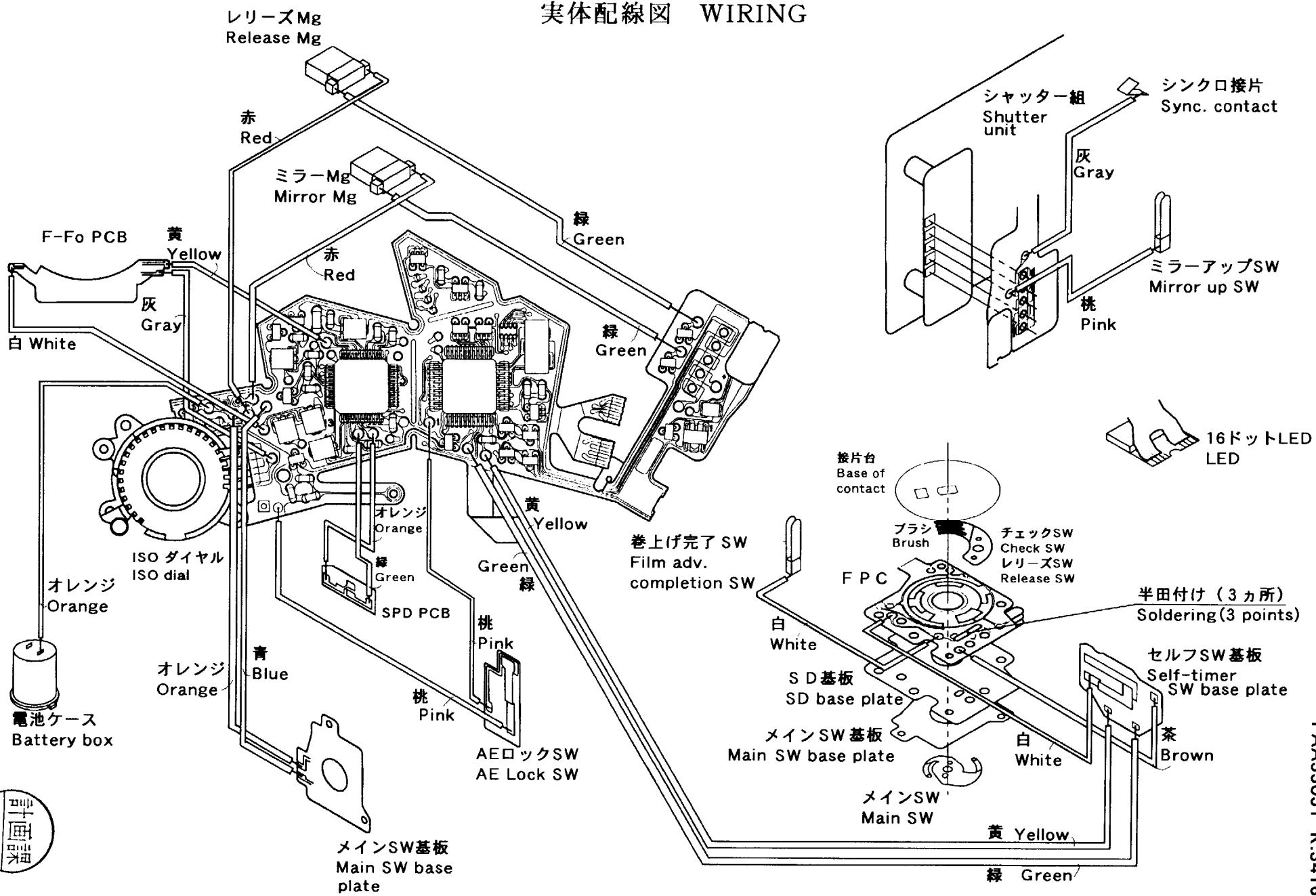


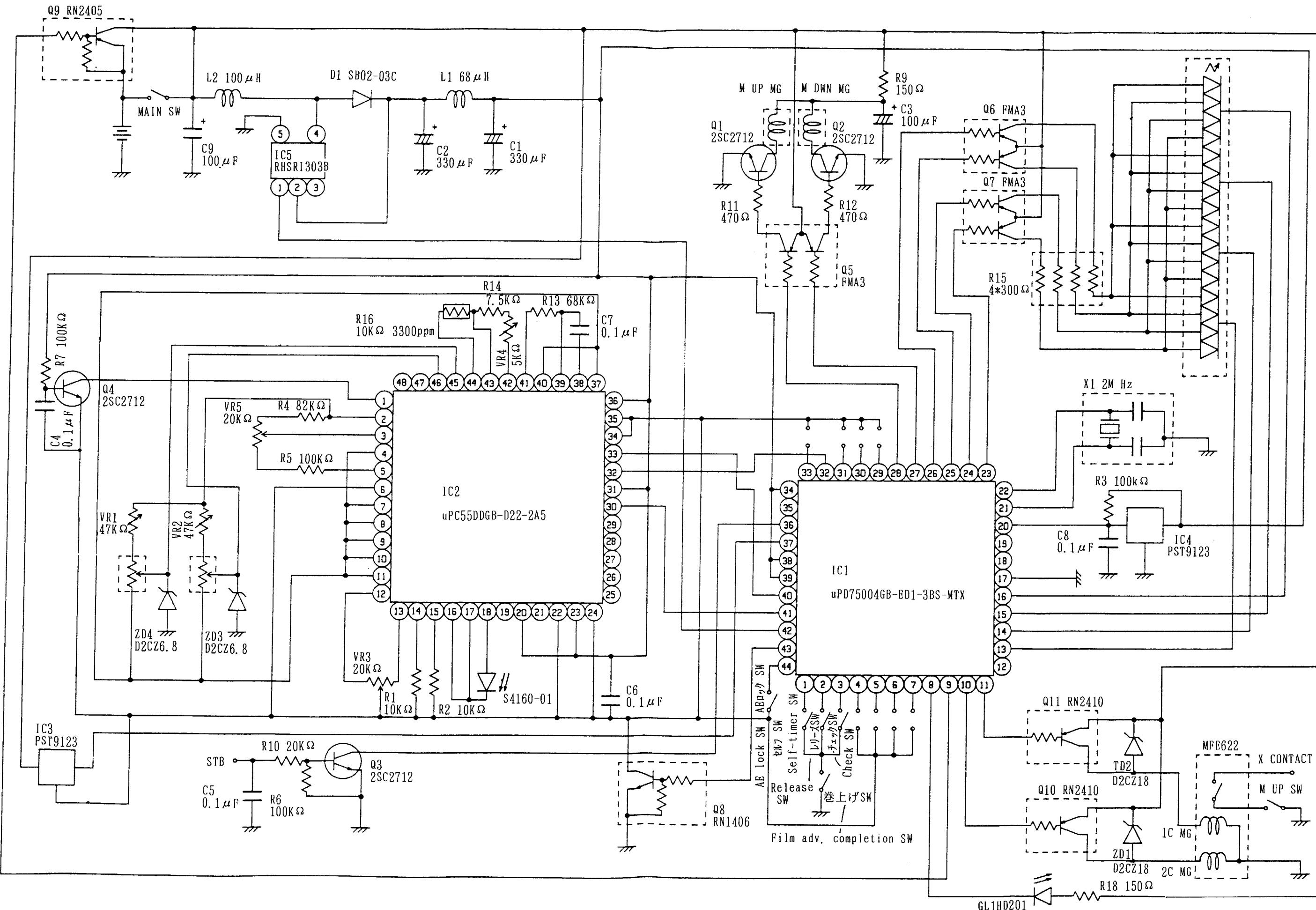
実体配線図 WIRING DIAGRAM



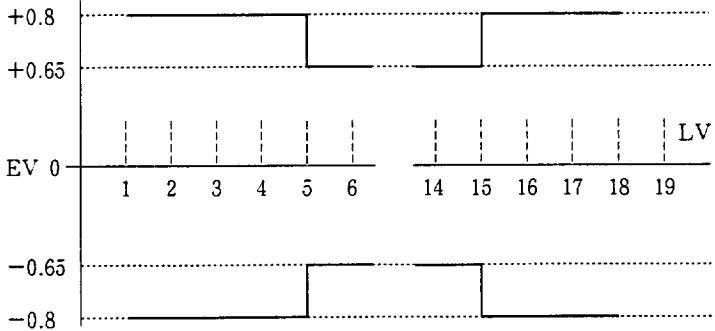


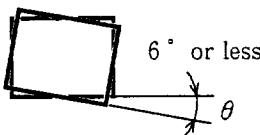
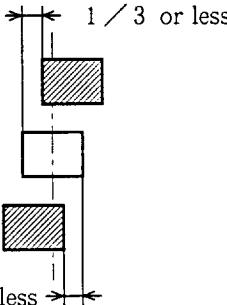
実体配線図 WIRING





Inspection standard

Inspection item	Standard					Remarks																																																															
Exposure value						Shutter tester Tool lens (50/1.4)																																																															
Flange focal distance	Standard : 46.67 \pm 0.02 mm Parallel : 0.04 mm Balance of height between internal and external film rails : 0.23 \pm 0.02 mm					J 1 8 0 0 1 - 1 Dial gauge																																																															
Shutter accuracy	<table border="1"> <thead> <tr> <th>Shutter speed</th> <th>Upper limit</th> <th>Standard</th> <th>Lower limit</th> <th>Exposure variation</th> </tr> </thead> <tbody> <tr><td>1/1</td><td>1366</td><td>1000</td><td>732</td><td rowspan="7">$\pm 0.45\text{EV}$</td></tr> <tr><td>1/2</td><td>683</td><td>500</td><td>366</td></tr> <tr><td>1/4</td><td>342</td><td>250</td><td>183</td></tr> <tr><td>1/8</td><td>171</td><td>125</td><td>91.5</td></tr> <tr><td>1/15</td><td>85.4</td><td>62.5</td><td>45.8</td></tr> <tr><td>1/30</td><td>42.7</td><td>31.2</td><td>22.9</td></tr> <tr><td>1/60</td><td>21.4</td><td>15.6</td><td>11.4</td></tr> <tr><td>1/125</td><td>10.67</td><td>7.81</td><td>5.72</td><td rowspan="3">$\pm 0.6\text{EV}$</td></tr> <tr><td>1/250</td><td>5.92</td><td>3.91</td><td>2.58</td></tr> <tr><td>1/500</td><td>2.96</td><td>1.95</td><td>1.29</td></tr> <tr><td>1/1000</td><td>1.64</td><td>0.977</td><td>0.58</td><td rowspan="3">$\pm 0.75\text{EV}$</td></tr> <tr><td>1/2000</td><td>0.82</td><td>0.488</td><td>0.29</td></tr> <tr> <td colspan="5"> Variation : Less than 0.5 EV Difference : More than 0.3 EV X Time-lag : 0.3 ~ 1.0 ms </td><td></td><td></td></tr> </tbody> </table>					Shutter speed	Upper limit	Standard	Lower limit	Exposure variation	1/1	1366	1000	732	$\pm 0.45\text{EV}$	1/2	683	500	366	1/4	342	250	183	1/8	171	125	91.5	1/15	85.4	62.5	45.8	1/30	42.7	31.2	22.9	1/60	21.4	15.6	11.4	1/125	10.67	7.81	5.72	$\pm 0.6\text{EV}$	1/250	5.92	3.91	2.58	1/500	2.96	1.95	1.29	1/1000	1.64	0.977	0.58	$\pm 0.75\text{EV}$	1/2000	0.82	0.488	0.29	Variation : Less than 0.5 EV Difference : More than 0.3 EV X Time-lag : 0.3 ~ 1.0 ms							Shutter tester Tool lens (50/1.4)
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Inspection item	Standard	Remarks
Battery check voltage	LED turns ON : 2. 4 V or more LED turns OFF : 2. 1 V or less	DC regurated power supply Digital multimeter
Current consumption	Shutter dial " L " : $1 \mu\text{A}$ or less Except for " L " : $2.3 \mu\text{A}$ or less When one LED turns ON : 2.3 mA or less When both LED turns ON : 2.6 mA or less Shutter releasing : 5.0 mA or less	
LED position	<p>Inclination (θ) :</p>  <p>6° or less</p> <p>θ</p> <p>Position :</p>  <p>$1/3$ or less</p> <p>$1/3$ or less</p> <p>LED dot must be inside the range of letter's width.</p>  <p>LED dot</p>  <p>500</p>	Visual inspection