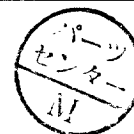


作成承認印

配布許可印



PRONEA 600i

FBA00051

FBA00061

PRONEA 6i

FBA00151

PARTS LIST

修理部品表

Nikon | NIKON CORPORATION
Tokyo, Japan

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無断転載を禁ず !!

A

B

FBA0005I-R.3413.A

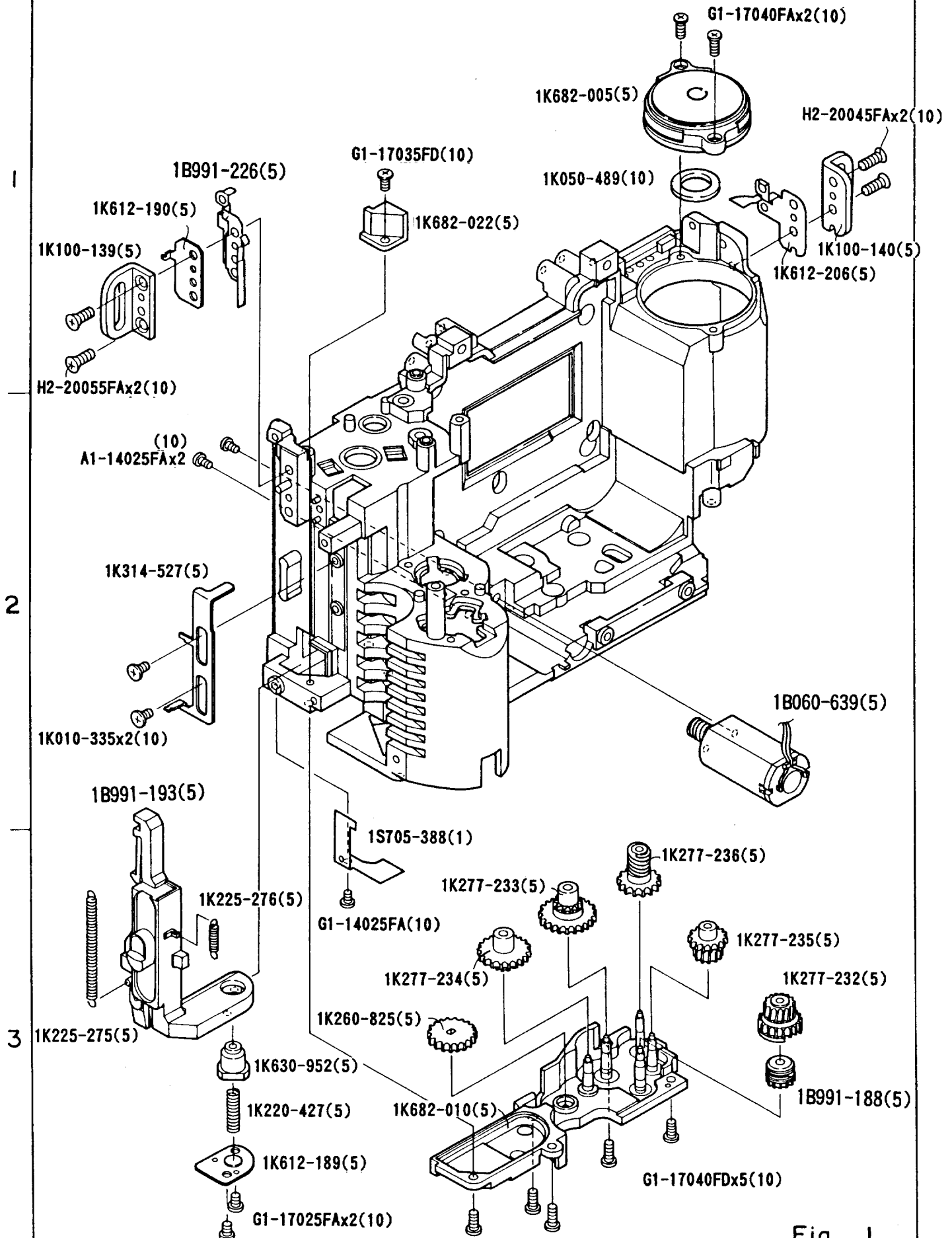


Fig. 1

A

B

FBA0005I-R.3413.A

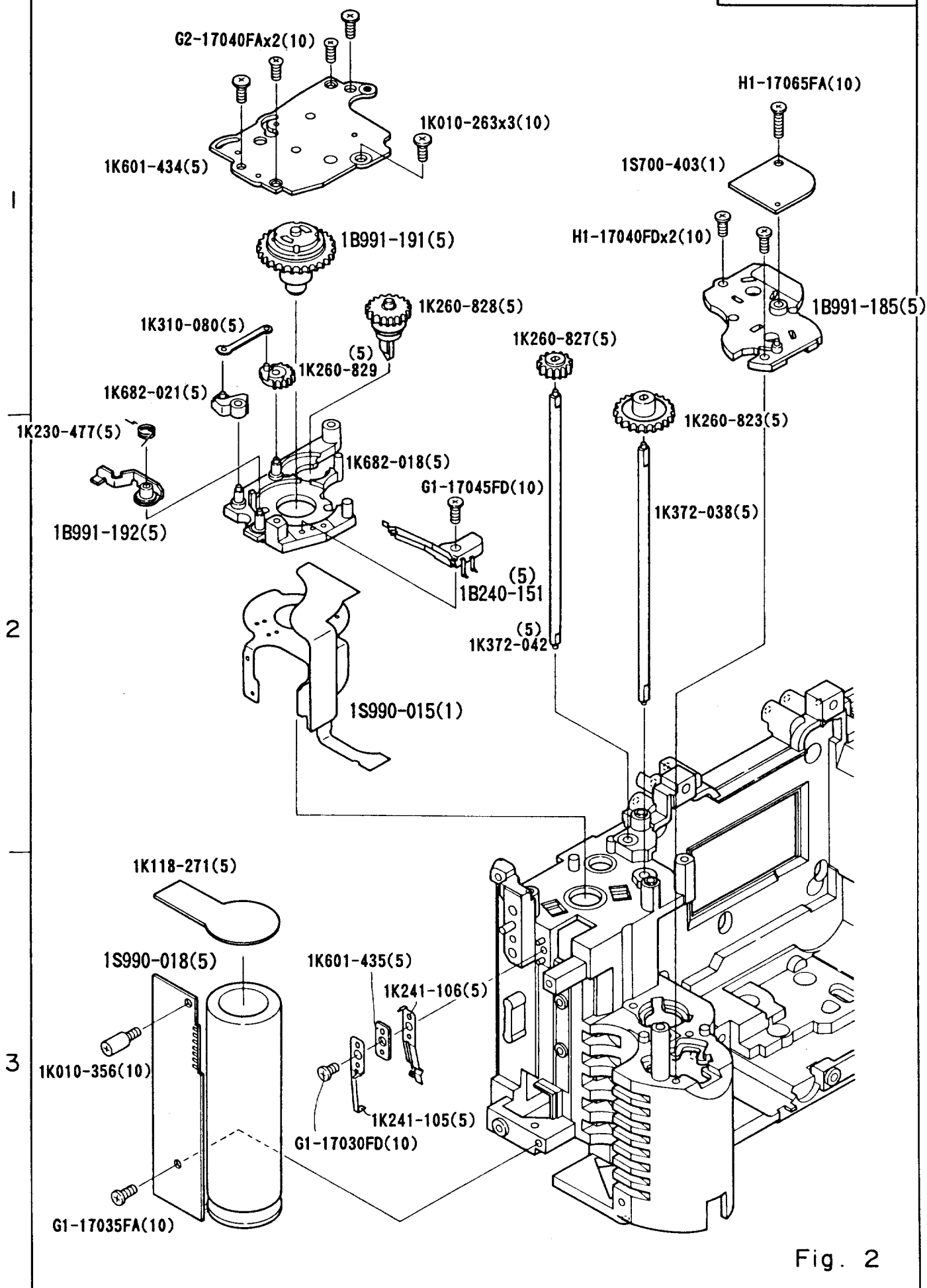
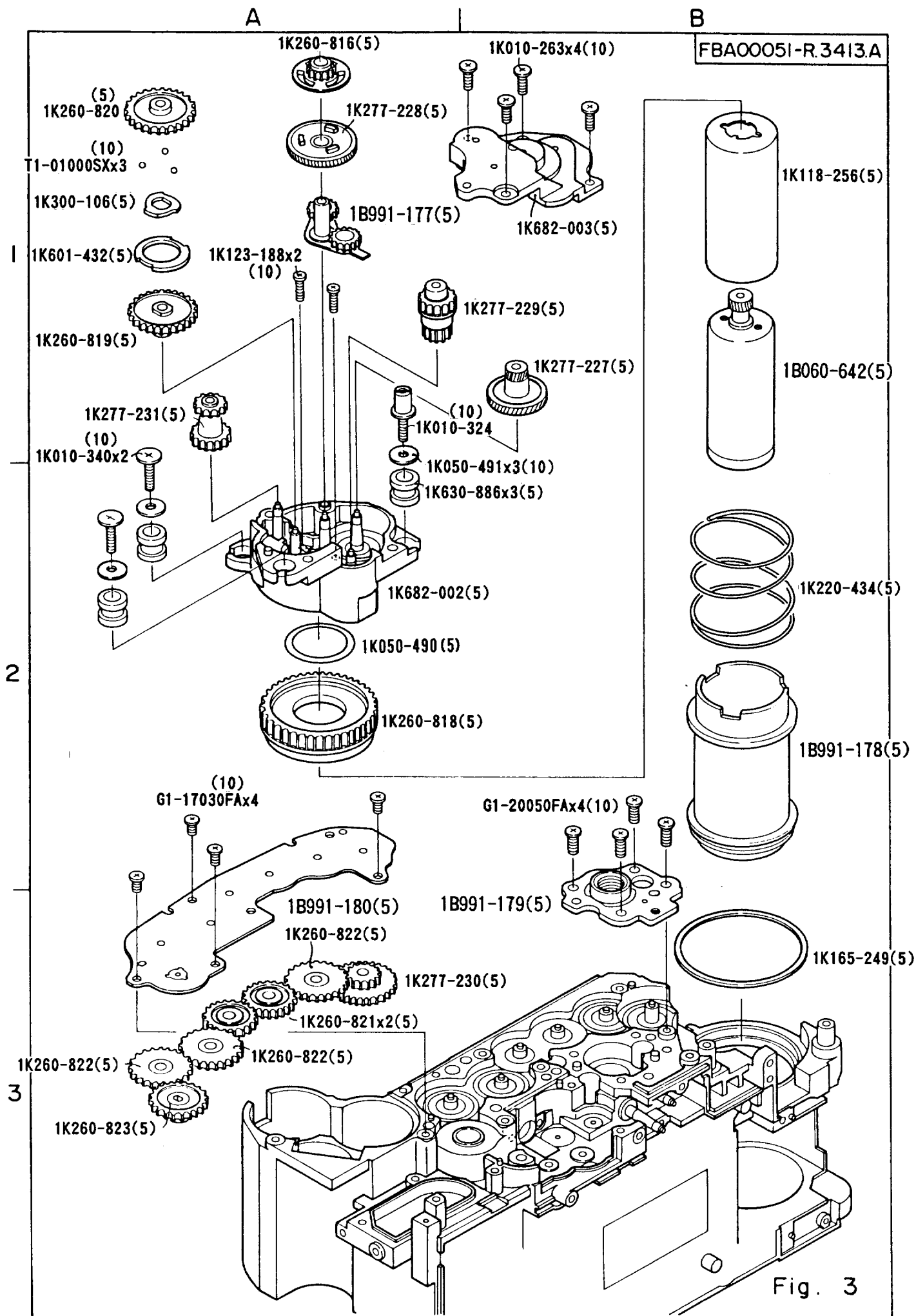


Fig. 2



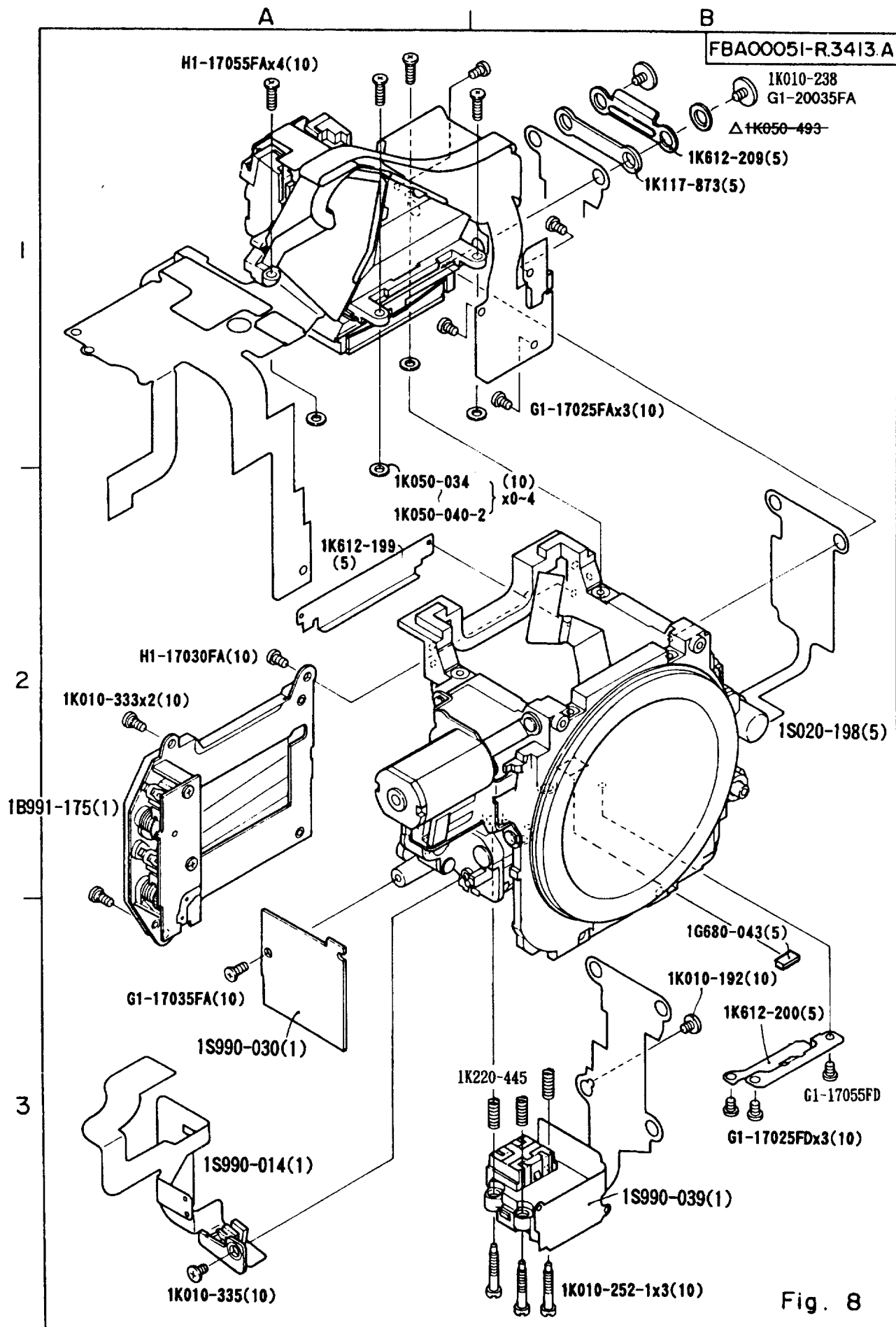


Fig. 8

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M

A

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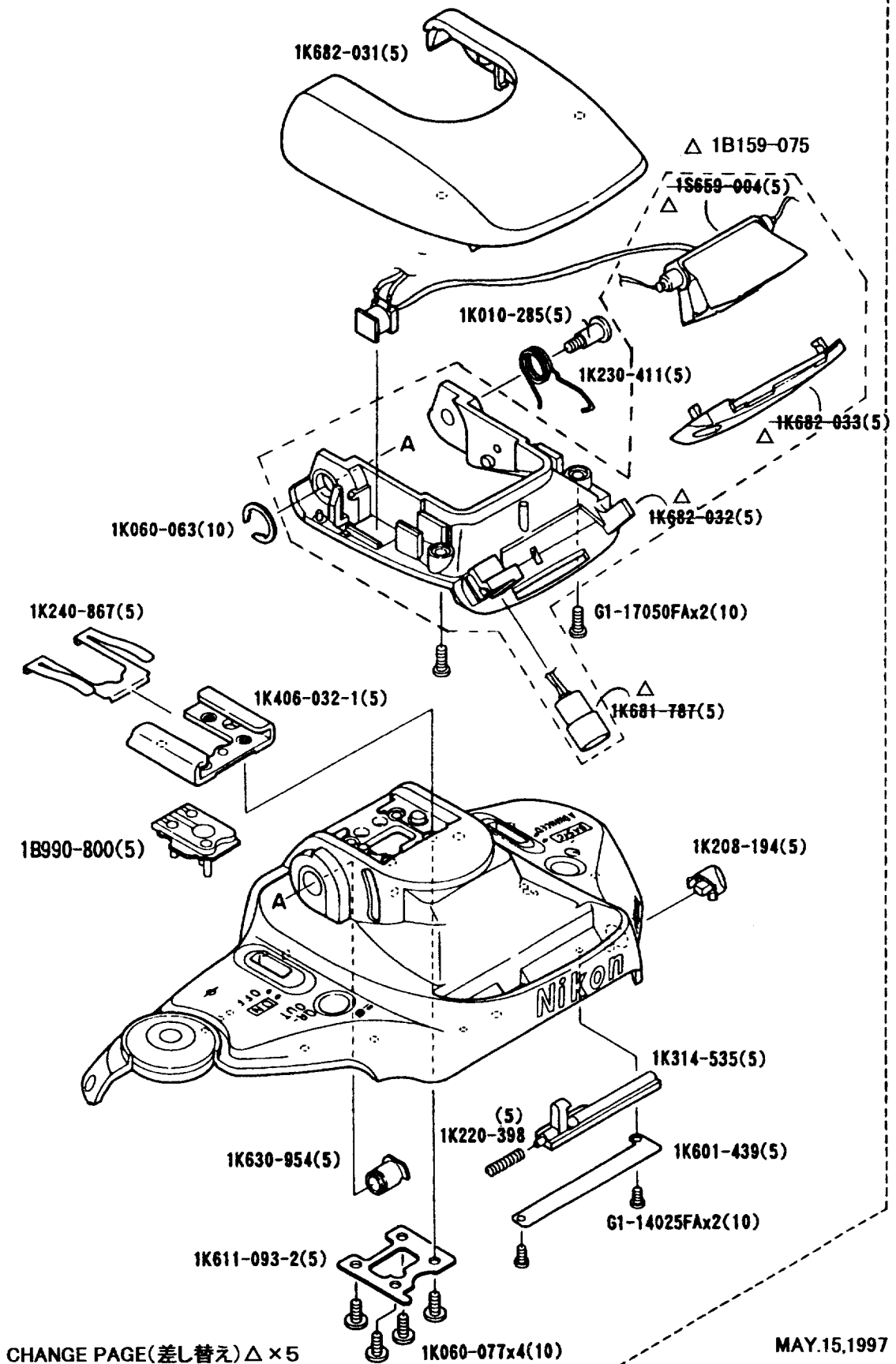
1S990-028(1)

FBA00051-R.3413.A

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2

3



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Fig. 9

A

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1S990-028(1)

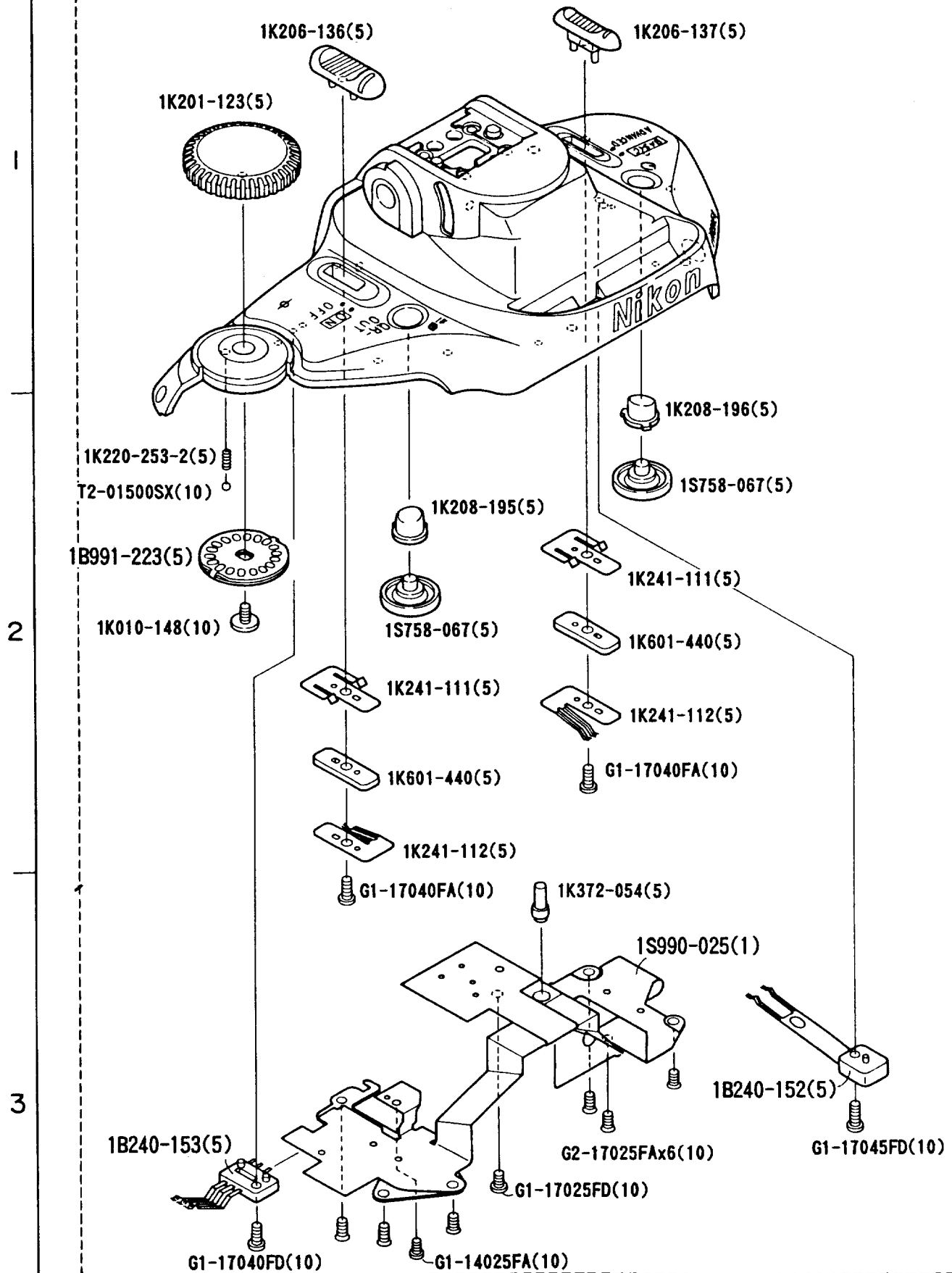
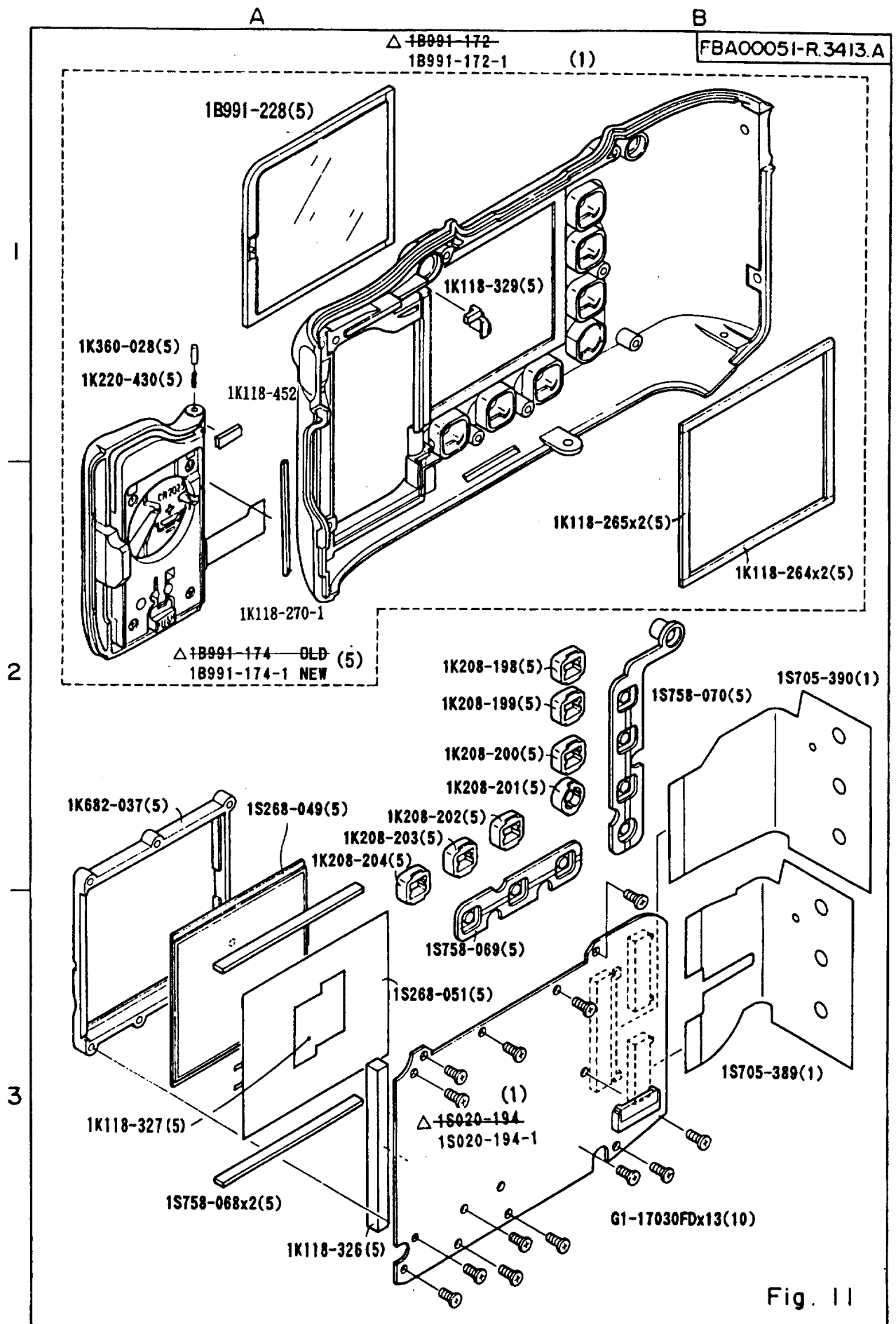


Fig. 10



A

B

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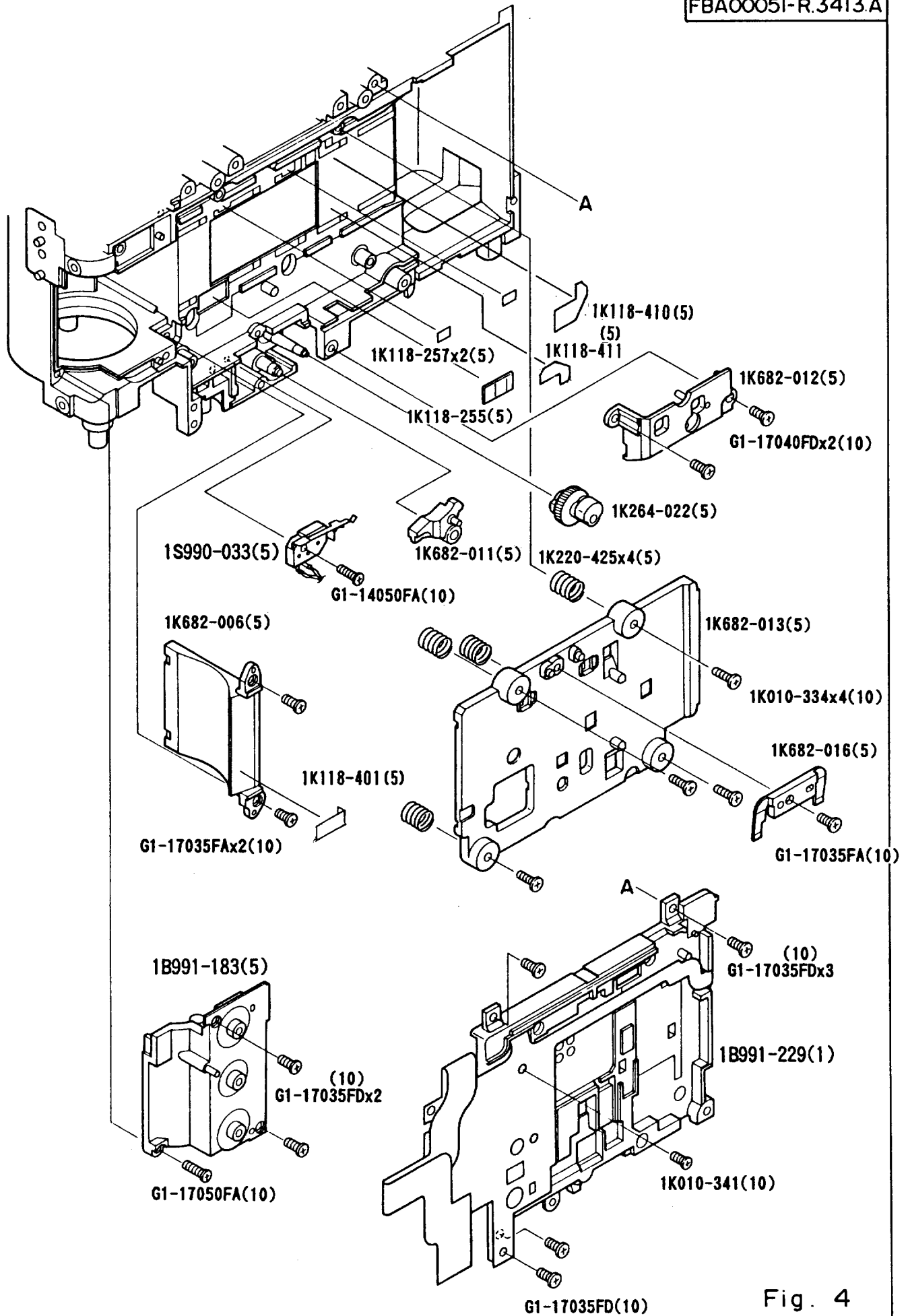


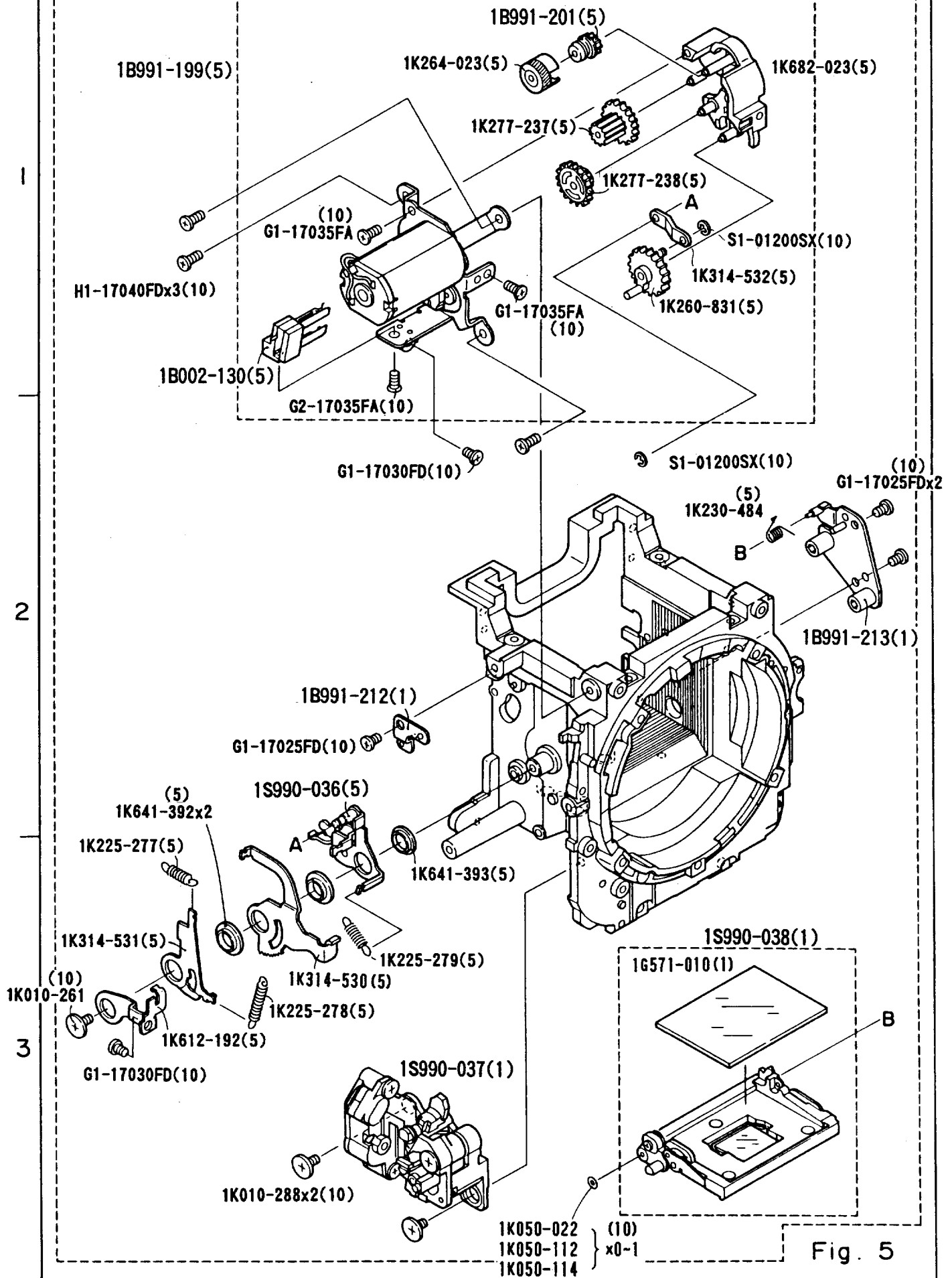
Fig. 4

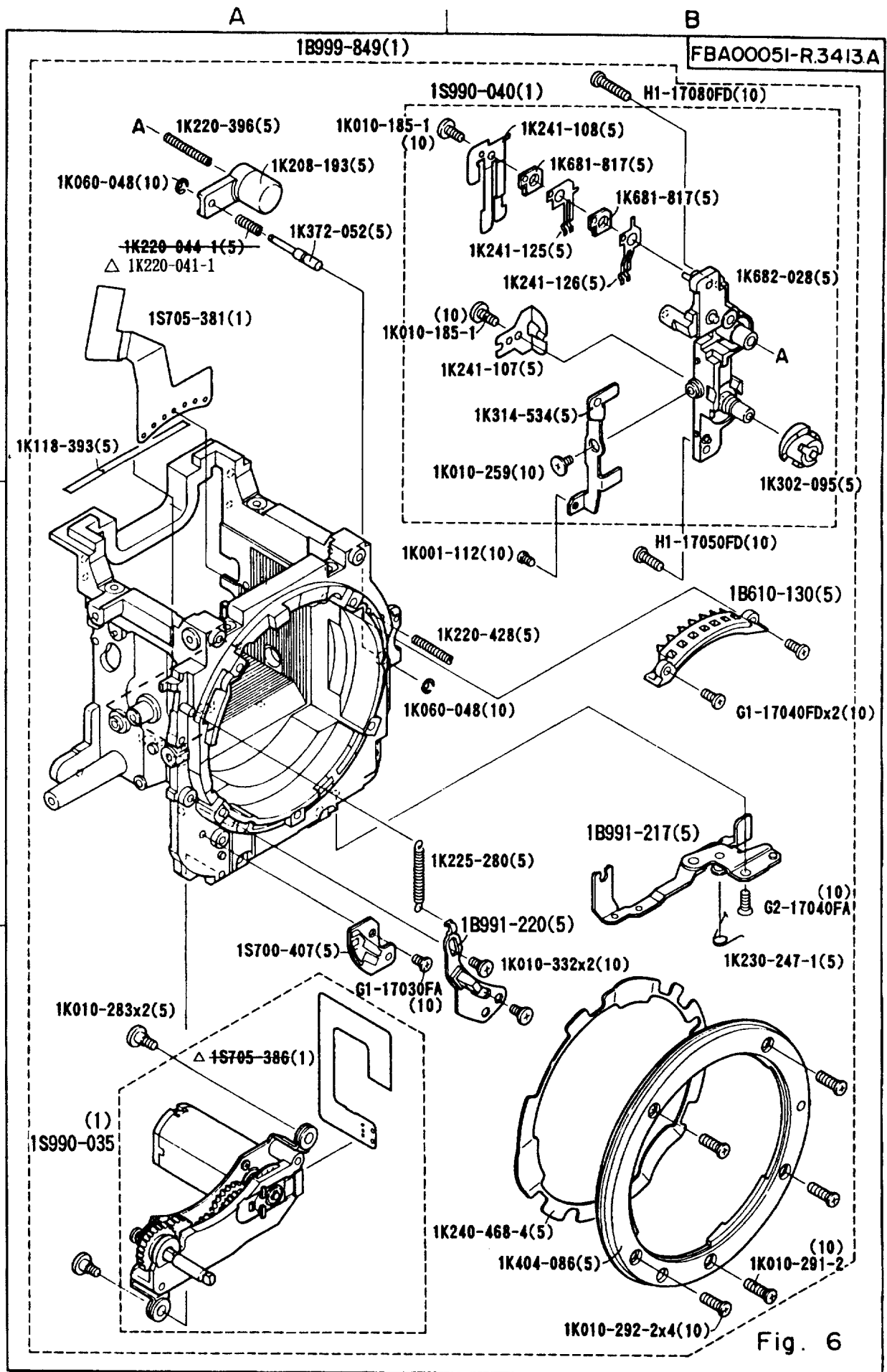
A

B

1B999-849(1)

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A

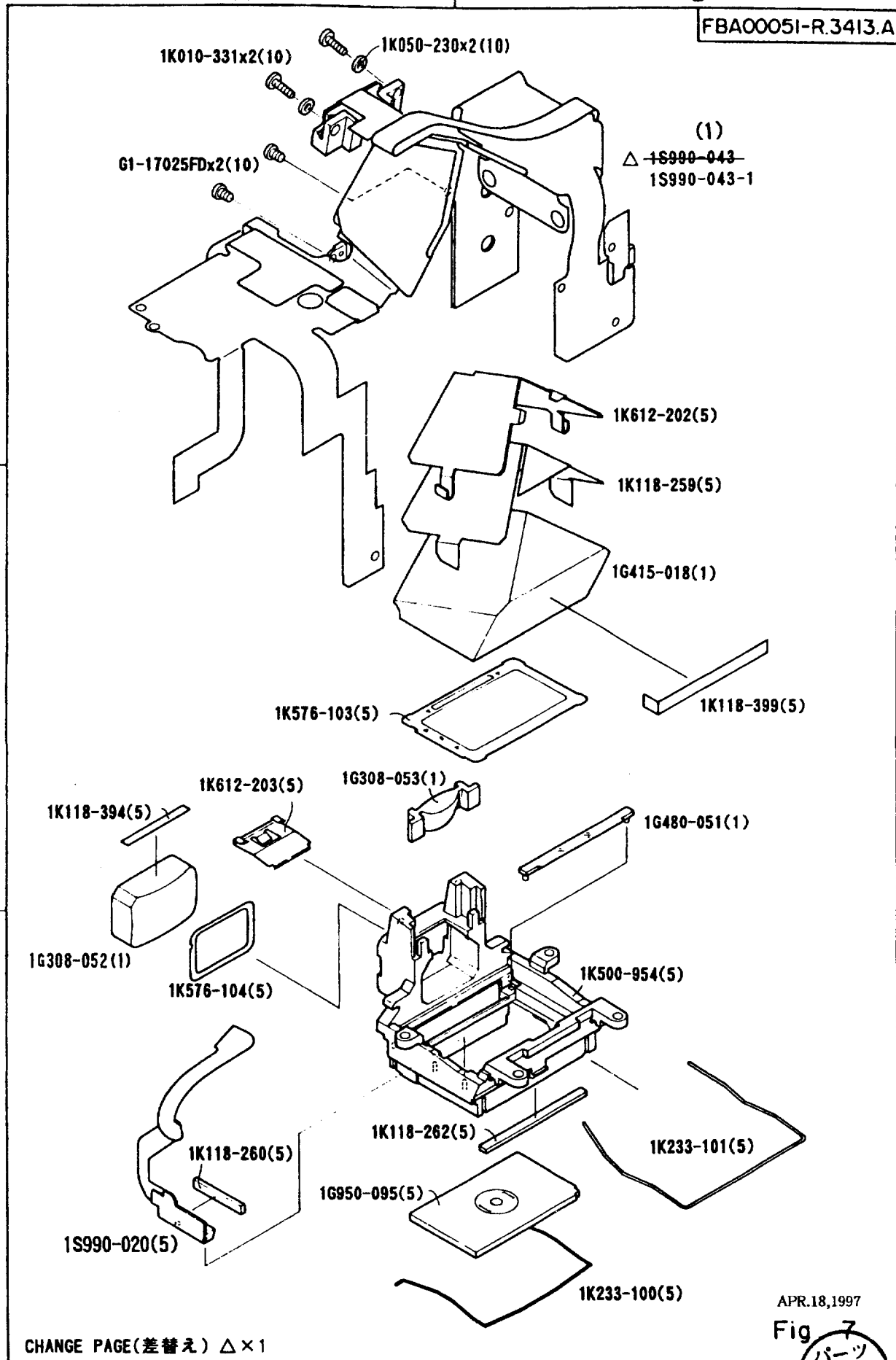
B

FBA0005I-R.3413.A

1

2

3



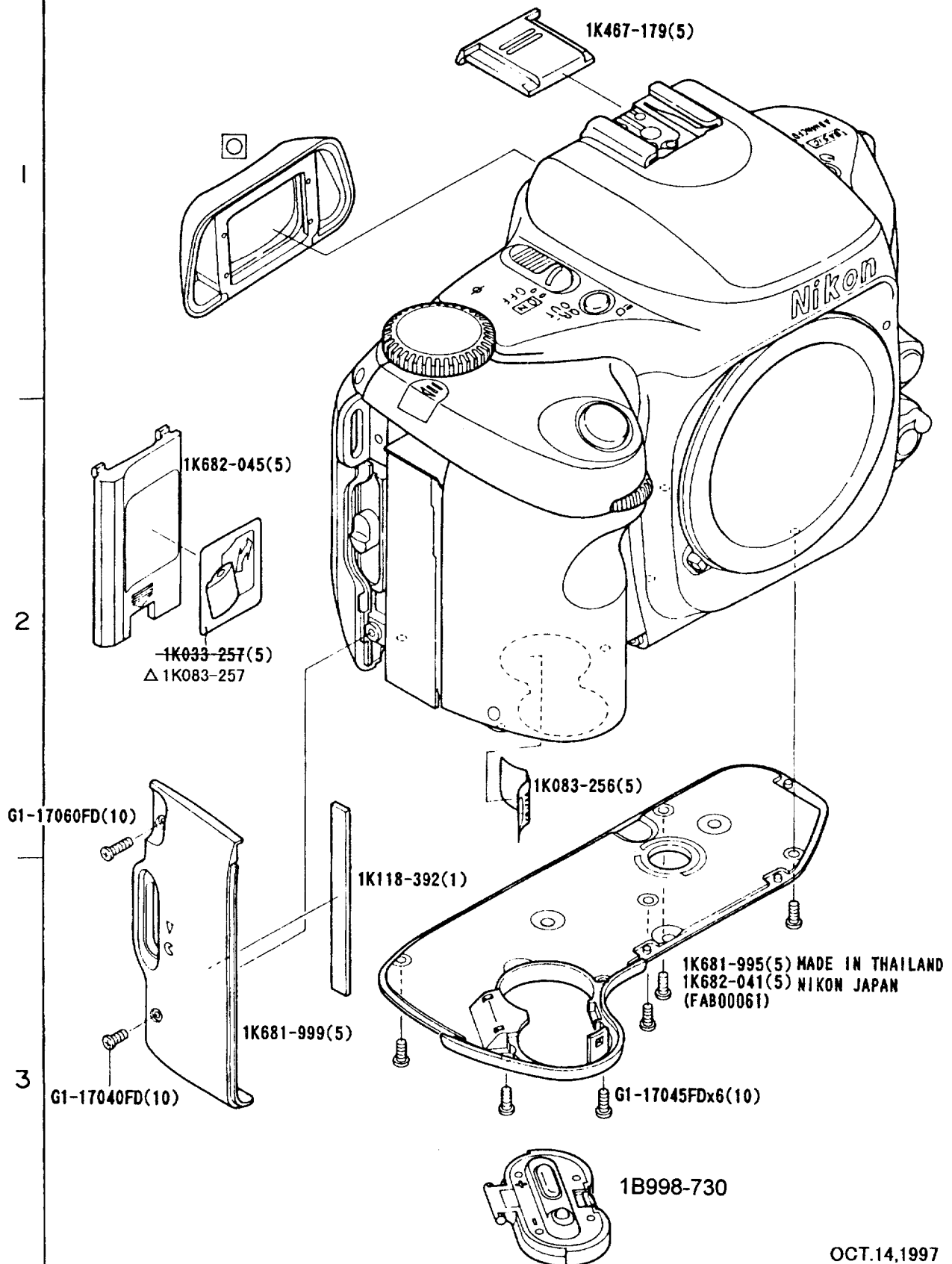
APR.18,1997

Fig 7

A

B

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OCT.14,1997

Fig. 13

- F 1 3 · PRONEA 600i -

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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
1G308-052	G5	接眼レンズ EYEPiece LENS	1		7	○		1
1G308-053	G6	測光レンズ METERING LENS	1		7	○		1
1G415-018	G4	ペンタプリズム PENTAPRISM	1		7	○		1
1G480-051	G9	表示プリズム DISPLAY PRISM	1		7	○		1
1G571-010	G1	メインミラー MAIN MIRROR	1	1B991-213	5	○△		1
1G680-043	G11	フィルター (TTL) FILTER (TTL)	1		8	○		5
1G950-095	G3	スクリーン FOCUS SCREEN	1		7	○		5
1K001-111	541	SCREW SCREW	1		12	○		10
1K001-112	545	SCREW SCREW	1		6	○		10
* 1K010-148	512	SCREW SCREW	1	1S990-028	10	○△		10
* 1K010-150	513	SCREW SCREW	2		8	○		10
* 1K010-185-1 (1K010-185)	514	SCREW SCREW	2	1S990-040	6	○△		10
* 1K010-192	534	SCREW SCREW	1		8	○		10
* 1K010-252-1 (1K010-252)	515	SCREW SCREW	3	1S990-040	8	○△		10
* 1K010-259	516	SCREW SCREW	2	1S990-040	6 12	○△		10
* 1K010-261	517	SCREW SCREW	1	1B991-199	5	○△		10

部品表 Parts List

FBA00051-R. 3413. 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
* 1K010-263	519	SCREW SCREW	7		2 3	○		10
* 1K010-283	521	SB回転軸B SCREW	2		6	○		5
* 1K010-285	377	SB回転軸B SCREW	1	1S990-028	9	○△		5
* 1K010-288	523	SCREW SCREW	2		5	○		10
* 1K010-291-2 (1K010-291)	524	SCREW SCREW	1		6	○		10
* 1K010-292-2 (1K010-292)	525	SCREW SCREW	4		6	○		10
1K010-324	79	SCREW SCREW	1		3	○		10
1K010-325	539	SCREW SCREW	2		12	○		10
1K010-326	540	SCREW SCREW	2		12	○		10
1K010-327	542	SCREW SCREW	9		12	○		10
1K010-328	543	SCREW SCREW	2		12	○		10
1K010-329	544	SCREW SCREW	1		12	○		10
1K010-331	547	SCREW SCREW	2		7	○		10
1K010-332	548	SCREW SCREW	2		6	○		10
1K010-333	550	SCREW SCREW	2		8	○		10
1K010-334	551	SCREW SCREW	4		4	○		10

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
1K010-335	552	SCREW SCREW	3		1 8	○		10
1K010-336	553	SCREW SCREW	3		12	○		10
1K010-337	554	SCREW SCREW	1		12	○		10
1K010-339	556	SCREW SCREW	2		12	○		10
1K010-340	557	SCREW SCREW	2		3	○		10
1K010-341	558	SCREW SCREW	1		4	○		10
1K010-356	560	SCREW	1		2	○	RP-9701	10
1K010-352		SCREW						
1K010-357	561	SCREW SCREW	1		2	○	RP-9701	10
* 1K050-022	536B	ワッシャー T=0.2 WASHER T=0.2	0-1		5	○		10
* 1K050-034	530A	ワッシャー T=0.1 WASHER T=0.1	0-4		8	○		10
* 1K050-038	530B	ワッシャー T=0.3 WASHER T=0.3	0-4		8	○		10
* 1K050-040-2 (1K050-040)	530C	ワッシャー T=0.5 WASHER T=0.5	0-4		8	○		10
* 1K050-112	536C	ワッシャー T=0.3 WASHER T=0.3	0-1		5	○		10
* 1K050-144	536A	ワッシャー T=0.1 WASHER T=0.1	0-1		5	○		10
1K050-489	90	ワッシャー WASHER	1		1	○		10
1K050-490	80	ワッシャー WASHER	1		3	○		5
1K050-491	80	ワッシャー WASHER	3		3	○		10
1K050-493	513B	ワッシャー WASHER	1		8	○	97F-1011 RP-9707 RP-9718	10

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MAY, 15, 1997



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
* 1K060-048	529	Eリング E RING	4		6	○		10
1K060-063	533	Eリング E RING	1	1S990-028	9	○△		10
1K060-077	532	Eリング E RING	4	1S990-028	9	○△		10
1K083-256	94	逆入れ防止シール SEAL	1		13	○		5
1K083-257	163	フィルム装填表示シール SEAL	1		13	○		5
1K100-139	178	吊り環 (A) EYELET (A)	1		1	○		5
1K100-140	179	吊り環 (B) EYELET (B)	1		1	○		5
* 1K117-721	319	A/M飾り環 A/M COVER PLATE	1		12	○		5
* 1K117-873	477	圧接ゴム PRESS CONTACT RUBBER	1		8	○		5
1K118-255	39	MAGパッド MAG PAD	1		4	○		5
1K118-256	55	モーターカバー MOTOR COVER	1		3	○		5
1K118-257	130	反射シール REFLECTION SEAL	2		4	○		5
1K118-259	335	ペンタ保護シート PENTAPRISM PROTECT SHEET	1		7	○		5
1K118-260	346	表示遮光モルト DISPLAY LIGHT SHIELD SPONGE	1		7	○		5
1K118-262	349	ミラー受けモルト MIRROR HOLDER SPONGE	1		7	○		5
1K118-264	444	ゴミ防止モルトA DUST PREVENT SPONGE A	2	1B991-172	11	○△		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
1K118-265	445	ゴミ防止モルトB DUST PREVENT SPONGE B	2	1B991-172	11	○△		5
1K118-270	463	カート蓋ヒンジ遮光モルト LIGHT SHIELD SPONGE	1	1B991-172	11	○△		5
1K118-271	492	防滴シート DROP PROOF SHEET	1		2	○		5
1K118-326	449	モルト SPONGE	1		11	○		5
1K118-327	450	遮光テープ LIGHT SHIELD TAPE	1		11	○		5
1K118-329	464	遮光ゴム LIGHT SHIELD RUBBER	1		11	○		5
1K118-392	674	モルト SPONGE	1		13	○		1
1K118-393	286	植毛紙 FLOCKED PAPER	1		6	○		5
1K118-394	347	遮光シート LIGHT SHIELD SHEET	1		7	○		5
1K118-399	675	防滴モルト DROP PROOF SPONGE	1		7	○		5
1K118-400	676	防滴モルト DROP PROOF SPONGE	1		12	○		5
1K118-401	82	植毛紙 FLOCKED PAPER	1		4	○		5
1K118-410	680	植毛紙 FLOCKED PAPER	1		6	○		5
1K118-411	681	植毛紙 FLOCKED PAPER	1		6	○		5
* 1K123-188	527	SCREW SCREW	2		3	○		10
1K165-249	77	給送受け防音ゴム SOUNDPROOF RUBBER	1		3	○		5

部品表 Parts List

FBA00051-R. 3413. 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
1K165-250	478	圧接ゴムA PRESS CONTACT RUBBER A	1		12	○		5
1K165-251	481	圧接ゴムB PRESS CONTACT RUBBER B	2		12	○		5
1K201-123	403	後コマンドダイヤル REAR COMMAND DAIL	1	1S990-028	10	○△		5
1K206-135	316	A/M切替えレバー A/M CHANGE LEVER	1		12	○		5
1K206-136	393	電源SW POWER SUPPLY SW	1	1S990-028	10	○△		5
1K206-137	396	シンプル/アドバンスSW S/A SW	1	1S990-028	10	○△		5
1K208-193	306	レンズ着脱鉤 LENS RELEASE BUTTON	1		6	○		5
1K208-194	387	S Bアップ鉤 SB UP BUTTON	1	1S990-028	9	○△		5
1K208-195	407	QR鉤モールド QR BUTTON MOLD	1	1S990-028	10	○△		5
1K208-196	408	セルフ鉤モールド SELF BUTTON MOLD	1	1S990-028	10	○△		5
1K208-198	465	P S鉤 PS BUTTON	1		11	○		5
1K208-199	466	モード鉤 MODE BUTTON	1		11	○		5
1K208-200	467	FUNC鉤 FUNC BUTTON	1		11	○		5
1K208-201	468	セット鉤 SET BUTTON	1		11	○		5
1K208-202	469	測光エリア鉤 METERING AREA BUTTON	1		11	○		5
1K208-203	470	露出補正鉤 EXPOSURE COMPENSATION BUTTON	1		11	○		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
1K208-204	471	プリントサイズ釦 PRINT SIZE BUTTON	1		11	○		5
1K208-205	472	A E-L釦 AE-L BUTTON	1		12	○		5
* 1K220-044-1	310	レンズ着脱ピンバネ LENS RELEASE PIN SPRING	1		6	○		5
* 1K220-253-2 (1K220-253)	402	後コマンドダイヤルクリックバネ REAR COMMAND DIAL CLICK SPRING	1	1S990-028	10	○△		5
* 1K220-377	297	A F調整バネ AF ADJUSTMENT SPRING	3		8	○		5
* 1K220-396	309	レンズ着脱バネ LENS RELEASE SPRING	1		6	○		5
* 1K220-398	388	S B係止レバーバネ SB REMOVE LEVER SPRING	1	1S990-028	9	○△		5
1K220-425	132	圧板調整バネ PRESSUER PLATE AJUSTING SPRING	4		4	○		5
1K220-427	168	Tフォークバネ R FORK SPRING	1		1	○		5
1K220-428	325	バヨネット接地バネ BAYONET SPRING	1		6	○		5
1K220-430	461	カート蓋ヒンジバネ CART LID HINGE SPRING	1	1B991-172	11	○△		5
1K220-434	65	スプールフリクションバネ SPOOL FRYCTION SPRING	1		3	○		5
1K225-275	170	開閉レバー戻しバネ OPENER LEVER RETURN SPRING	1		1	○		5
1K225-276	174	引出レバー戻しバネ PULL LEVER RETURN SPRING	1		1	○		5
1K225-277	209	絞り駆動バネ APERTURE DRIVING SPRING	1	1B991-199	5	○△		5
1K225-278	210	絞り戻りバネ APERTURE RETURN SPRING	1	1B991-199	5	○△		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
1K225-279	211	ミラーUPバネ MIRROR UP SPRING	1	1B991-199	5	○△		5
1K225-280	360	Fmin戻しバネ Fmin RETURN SPRING	1		6	○		5
* 1K230-247-1 (1K230-247)	329	横レバーバネ WIDTH LEVER SPRING	1		6	○		5
* 1K230-411	376	SB UPバネ SB UP SPRING	1	1S990-028	9	○△		5
1K230-477	158	セーフティーロックバネ SAFTY LOCK SPRING	1		2	○		5
1K230-484	281	ミラーダウンバネ MIRROR DOWN SPRING	1		5	○		5
1K233-100	333	スクリーンバネ FOCUS SCREEN SPRING	1		7	○		5
1K233-101	336	ミラー押えバネ MIRROR RETAINER SPRING	1		7	○		5
* 1K240-468-4 (1K240-468-2)	302	バヨネットバネ BAYONET MOUNT SPRING	1		6	○		5
* 1K240-867	381	シューバネ SHOE SPRING	1		9	○		5
1K241-105	175	カート検知SW A CART DETECTION SW A	1		2	○		5
1K241-106	176	カート検知SW B CART DETECTION SW B	1		2	○		5
1K241-107	318	A/M切替え板バネ A/M CHANGE PLATE SPRING	1	1S990-040	6	○△		5
1K241-108	322	A/M切替えSW B A/M CHANGE SW B	1	1S990-040	6	○△		5
1K241-111	392	SWクリックバネ SW CLICK SPRING	2	1S990-028	10	○△		5
1K241-112	398	SWブラシ SW BRUSH	2	1S990-028	10	○△		5

部品表 Parts List

FBA00051-R. 3413. 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
1K241-125	321	A/M切替えSW A A/M CHANGE SW A	1	IS990-040	6	○△		5
1K241-126	323	着脱ピンSW RELEASE PIN SW	1	IS990-040	6	○△		5
1K260-816	45	C 3ギア C3 GEAR	1		3	○		5
1K260-818	52	Fギア F GEAR	1		3	○		5
1K260-819	56	G 1ギア G1 GEAR	1		3	○		5
1K260-820	58	G 2ギア G2 GEAR	1		3	○		5
1K260-821	66	J. Kギア J.K GEAR	2		3	○		5
1K260-822	70	L. M. Iギア L.M.I GEAR	3		3	○		5
1K260-823	71	N 1. N 2ギア N1.N2 GEAR	2		2 3	○		5
1K260-825	109	LD 1ギア LD1 GEAR	1		1	○		5
1K260-827	149	LDギア LD GEAR	1		2	○		5
1K260-828	151	LL ドライバー LL DRIVER	1		2	○		5
1K260-829	153	セーフティーロックギア SAFTY LOCK GEAR	1		2	○		5
1K260-831	230	S QギアE SQ GEAR E	1	1B991-199	5	○△		5
1K264-022	114	MCカムギア MC CAM GEAR	1		4	○		5
1K264-023	226	S QギアA SQ GEAR A	1	1B991-199	5	○△		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
1K277-227	43	Bギア B GEAR	1		3	○		5
1K277-228	44	C 1. C 2ギア C1. C2 GEAR	1		3	○		5
1K277-229	51	Eギア E GEAR	1		3	○		5
1K277-230	64	Hギア H GEAR	1		3	○		5
1K277-231	73	Qギア Q GEAR	1		3	○		5
1K277-232	104	LMA 1ギア LMA1 GEAR	1		1	○		5
1K277-233	107	L Bギア LB GEAR	1		1	○		5
1K277-234	108	L Cギア LC GEAR	1		1	○		5
1K277-235	111	MA 2ギア MA2 GEAR	1		1	○		5
1K277-236	112	MBギア MB GEAR	1		1	○		5
1K277-237	228	S Qギア C SQ GEAR C	1	1B991-199	5	○△		5
1K277-238	229	S Qギア D SQ GEAR D	1	1B991-199	5	○△		5
1K300-106	59	コロクラッチカム C GUIDE CLUTCH CAM C	1		3	○		5
1K302-095	317	A/M切替えカム A/M CHANGE CAM	1	1S990-040	6	○△		5
1K310-080	154	リンクレバー RINK LEVER	1		2	○		5
1K314-527	173	引出しレバー PULL LEVER	1		1	○		5

部品表 Parts List

FBA00051-R. 3413. 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
1K314-530	203	3. 1 レバー 3.1 LEVER	1	1B991-199	5	○△		5
1K314-531	204	中間レバー INNER LEVER	1	1B991-199	5	○△		5
1K314-532	232	伝達レバー TRANSMISSION LEVER	1	1B991-199	5	○△		5
1K314-534	314	縦レバー LENGTH LEVER	1	1S990-040	6	○△		5
1K314-535	389	S B 係止レバー SB REMOVE LEVER	1	1S990-028	9	○△		5
* 1K360-028	459	カート蓋ヒンジピン CART LID HINGE PIN	2	1B991-172	11	○△		5
1K372-038	72	給送連結棒 ADVANCE CONNECTION FRAM	1		2	○		5
1K372-042	110	L L 連結棒 LL CONNECTION FRAM	1		2	○		5
1K372-052	308	レンズ着脱ピン LENS RELEASE PIN	1		6	○		5
1K372-054	378	S B アップ釦 SB UP BUTTON	1	1S990-028	10	○△		5
* 1K404-086	301	バヨネット BAYONET MOUNT	1		6	○		5
* 1K406-032-1 (1K406-032)	379	シュー座 SHOE BASE	1		9	○		5
1K467-179	386	シューキャップ SHOE CAP	1		13	○		5
1K467-181	491	ケーブルリリースキャップ CABLE TRLEASE CAP	1		12	○		5
1K500-954	331	プリズムボックス PRISM BOX	1		7	○		5
1K500-955	348	接眼モールド EYEPiece MOLD	1		12	○		5

部品表 Parts List

FBA00051-R. 3413. 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
1K576-103	332	視野枠 FINDER FIELD FRAM	1		7	○		5
1K576-104	339	接眼視野枠 EYEPiece FINDER FIELD FRAM	1		7	○		5
1K601-432	57	クラッチ爪 CLUTCH CLOW	1		3	○		5
1K601-434	141	LL上地板 LL UPPER PLATE	1		2	○		5
1K601-435	177	カート検知SW中板 CART DETECTION SW INNER PLATE	1		2	○		5
1K601-439	390	S B 係止レバー押え SB REMOVE LEVER RETAINER	1	1S990-028	9	○△		5
1K601-440	397	SW裏打ちモールド SW PAD MOLD	2	1S990-028	10	○△		5
1K601-442	479	圧接押え板A PRESS CONTACT RETAINER PLATE A	1		12	○		5
1K601-443	480	圧接押え板B PRESS CONTACT RETAINER PLATE B	1		12	○		5
* 1K611-093-2 (1K611-093-1)	384	シュー裏打ち板 SHOE PAD PLATE	1	1S990-028	9	○△		5
1K612-189	169	Tフォーク基板モールド T FORK BASE PLATE MOLD	1		1	○		5
1K612-190	171	バネ掛け基板 SPRING HANG BASE PLATE	1		1	○		5
1K612-192	212	押え板 RETAINER PLATE	1	1B991-199	5	○△		5
1K612-199	285	遮光板 LIGHT SHIELD PLATE	1		8	○		5
1K612-200	289	TTL SPD押え板 TTL SPD RETAINER PLATE	1		8	○		5
1K612-202	334	ペンタ押え板 PENTA PRISM RETAINER PLATE	1		7	○		5

部品表 Parts List

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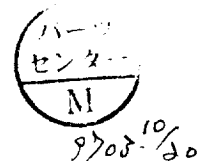
部品番号 Part No.	補助番号 Ckt No.	名 称 Name	1台分 個 数 Pcs. Per Unit	部組品番号 Assembly No.	参照 図番 Fig. No.	販売区分 Term of Delivery	備 考 Remarks	要求単位 Q'ty per order
1K612-203	338	接眼レンズ遮光板 LENS LIGHT SHIELD PLATE	1		7	○		5
1K612-206	423	ラグ板 LAG PLATE	1		1	○		5
1K612-209	475	圧接板 PRESS CONTACT PLATE	1		8	○		5
* 1K630-886	76	支持防音ゴム SOUNDPROOF RUBBER	3		3	○		5
1K630-952	167	Tフォーク T FORK	1		1	○		5
1K630-954	374	S B回転軸A SB TURN SHAFT A	1	1S990-028	9	○△		5
1K641-392	207	スペーサーA SPACER A	2	1B991-199	5	○△		5
1K641-393	208	スペーサーB SPACER B	1	1B991-199	5	○△		5
1K681-787	385	ランプホルダー LAMP HOLDER	1	1S990-028	9	○△		5
1K681-817	324	A/M切替えSW中板 A/M CHANGE SE INNER PLATE	2	1S990-040	6	○△		5
1K681-995	24	底カバー BOTTOM COVER	1		13	○	MADE IN THAILAND	5
1K681-999	29	カート蓋レバーカバー CART LID LEVER COVER	1		13	○		5
1K682-001	30	下グリップ LOWER GLIP	1		12	○	RP-9703	5
1K682-001-1								
1K682-002	41	給送ブロック ADVANCE BLOCK	1		3	○		5
1K682-003	61	給送ブロック蓋 ADVANCE BLOCK LID	1		3	○		5
1K682-005	78	スプール支持蓋 SPOOL HOLD LID	1		1	○		5

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FEB. 07. 1997



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
1K682-006	81	ボディーローラ基板 BODY ROLLER BASE PLATE	1		4	○		5
1K682-010	103	MAG LL蓋 MAG LL LID	1		1	○		5
1K682-011	115	MAGリフトレバー MAG LIFT LEVER	1		4	○		5
1K682-012	120	MAG基板 MAG BASE PLATE	1		4	○		5
1K682-013	121	圧板 PRESSURE PLATE	1		4	○		5
1K682-016	133	フォトレфлекター押え PHOTO REFLECTION RETAINER	1		4	○		5
1K682-018	142	LL下地板 LL LOWER PLATE	1		2	○		5
1K682-021	155	セーフティーロックカム SAFTY LOCK CAM	1		2	○		5
1K682-022	164	開閉レバー押え OPENER LEVER RETAINER	1		1	○		5
1K682-023	221	SQモールド基板 SQ MOLD BASE PLATE	1	1B991-199	5	○△		5
1K682-028	313	縦レバー基板 LENGTH REVER BASE PLATE	1	1S990-040	6	○△		5
1K682-031	371	SB上ケース SB UPPER CASE	1	1S990-028	9	○△		5
△ 1K682-032	372	SB下ケース SB LOWER CASE	1	1S990-028 1B159-075	9	△	RP-9718	5
△ 1K682-033	373	プロテクター PROTECTOR	1	1S990-028 1B159-075	9	△	RP-9718	5
1K682-037	442	外LCD保持枠 EXTERNAL LCD HOLDER FRAM	1		11	○		5
1K682-045	456	バックアップ電池カバー BACK UP BATTERY COVER	1		13	○		5

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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
1K682-055	69	スプール上カラー SPOOL UPPER COLLER	1		3	○	RP-9703	5
1S268-049	1023	L C D LCD	1		11	○		5
1S268-051	1025	E L EL	1		11	○		5
1S659-004	1022	発光部 FLASH	1	1S990-028 1B159-075	9	△	RP-9718	5
1S700-403	1018	中継基板 RELAY PCB	1		2	○		1
1S700-407	359	Fmin プリント板 Fmin PRINT PLATE	1		6	○		5
1S705-381	1005	レンズ接点FPC LENS CONTACT FPC	1		6	○		1
△ 1S705-386	1011	AF P I F P C AF PI FPC	1	1S990-035	6	△	RP-9720	1
1S705-388	1014	カート蓋FPC CART LID FPC	1		1	○		1
1S705-389	1015	接続FPC A RELAY FPC A	1		11	○		1
1S705-390	1016	接続FPC B RELAY FPC B	1		11	○		1
1S705-392	1019	上グリップFPC UPPER GLIP FPC	1	1B991-173	12	○△		1
1S758-067	399	釦ゴム BUTTON RUBBER	2	1S990-028	10	○△		5
1S758-068	443	外LCDゼブラゴム OUTER LCD FLASTICK RUBBER	2		11	○		5
1S758-069	447	背面押し釦ゴム (横) REAR PUSH BUTTON RUBBER (W)	1		11	○		5
1S758-070	448	背面押し釦ゴム (縦) REAR PUSH BUTTON RUBBER (L)	1		11	○	RP-9707	5
1S758-070-1								

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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
A1-14025FA	571	SCREW SCREW	2		1	○		10
A2-17020FA	620	SCREW SCREW	1		12	○		10
B1-14020FA	577	SCREW SCREW	1		12	○		10
G1-14025FA	582	SCREW SCREW	4		1 9	○		10
G1-14050FA	584	SCREW SCREW	3		4	○		10
G1-17025FA	593	SCREW SCREW	6		1 8 10	○		10
G1-17025FD	594	SCREW SCREW	9		5 6 8	○		10
G1-17030FA	595	SCREW SCREW	7		3 6	○		10
G1-17030FD	596	SCREW SCREW	20		2 5 11	○		10
G1-17035FA	597	SCREW SCREW	9		2 4 5	○		10
G1-17035FD	598	SCREW SCREW	9		1 4	○		10
G1-17040FA	599	SCREW SCREW	5		1 10	○		10
G1-17040FD	600	SCREW SCREW	13		1 4 6	○		10
G1-17045FD	602	SCREW SCREW	8		2 13	○		10
G1-17050FA	603	SCREW SCREW	3		4 8	○		10
G1-17060FD	606	SCREW SCREW	1		13	○		10

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
G1-20035FA	513C	SCREW SCREW	1		8	○	97F-1011 RP-9707	10
G1-20050FA	617	SCREW SCREW	4		3	○		10
G2-17025FA	621	SCREW SCREW	6		5 10	○		10
G2-17035FA	625	SCREW SCREW	1		5	○		10
G2-17040FA	622	SCREW SCREW	5		2 6	○		10
H1-17025FA	631	SCREW SCREW	1		8	○	RP-9701	10
H1-17030FA	632	SCREW SCREW	1		8	○		10
H1-17040FD	633	SCREW SCREW	5		2 5	○		10
H1-17050FD	634	SCREW SCREW	1		6	○		10
H1-17055FA	635	SCREW SCREW	4		8	○		10
H1-17065FA	638	SCREW SCREW	2		2 12	○		10
H1-17080FD	636	SCREW SCREW	1		6	○		10
H2-20045FA	637	SCREW SCREW	2		1	○		10
H2-20055FA	623	SCREW SCREW	2		1	○		10
S1-01200SX	641	Eリング E RING	2		5	○		10
T1-01000SX	644	鋼球 STEEL BALL	3		3	○		10
T2-01500SX	645	鋼球 STEEL BALL	2		10	○		10

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部組品表 Assembly 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	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
1B002-130	B234	SQ SW部組 SQ SW UNIT	1	1B991-199	5		5
1B060-639	101	MAG LL モーター部組 MAG LL MOTOR UNIT	1		1		5
1B060-642	42	給送モーター部組 ADVANCE MOTOR UNIT	1		3		5
1B159-075		ストロボ下ケース部組 SB LOWER CASE UNIT	1		2	RP-9718	5
1B240-151	B159	LL検知SW A部組 LL DETECTION SW A UNIT	1		2		5
1B240-152	B375	SBアップ部組 SB UP UNIT	1	1S990-028	10		5
1B240-153	B406	後コマンドダイヤルブラシ部組 REAR COMMAND DIAL BRUSH UNIT	1	1S990-028	10		5
1B240-155	B488	リリースSW部組 RELEASE SW UNIT	1	1B991-173	12		5
* 1B610-130	B303	レンズ接点部組 LENS CONTACT UNIT	1		6		5
* 1B990-800	B380	シューモールド部組 SHOE MOLD UNIT	1	1S990-028	9		5
1B991-171	B25	前カバー部組 (600i) FRONT COVER UNIT (600i)	1		11		1
1B991-172	B26	後カバー部組	1		11	RP-9703 RP-9712 97F-1002 97F-1003	1
1B991-172-1		REAR COVER UNIT					
1B991-173	B27	上グリップ部組 UPPER GLIP UNIT	1		12		5
1B991-174	B28	カート蓋部組	1	1B991-172	11	RP-9703 RP-9808 97F-1002 97F-1003	5
1B991-174-1		CART LID UNIT					
1B991-175	B31	シャッター部組 SHUTTER UNIT	1		8		1
1B991-177	B48	遊星基板部組 PLANETARY BASE PLATE UNIT	1		3		5
1B991-178	B53	スプール部組 SPOOL UNIT	1		3		5



部組品表 Assembly 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	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
1B991-179	B62	三脚基板部組 TRIPOD BASE PLATE UNIT	1		3		5
1B991-180	B67	スラスト巻戻し基板部組 THRUST REWIND BASE PLATE UNIT	1		3		5
1B991-183	B86	スプールローラ基板部組 SPOOL ROLLER BASE PLATE UNIT	1		4		5
1B991-185	B95	電池接点基板部組 BATTERY CONTACT BASE UNIT	1		2		5
1B991-188	B105	LA2ギア部組 LA2 GEAR UNIT	1		1		5
1B991-191	B146	上フォーク部組 UPPER FORK UNIT	1		2		5
1B991-192	B156	セーフティロックレバー部組 SAFTY LOCK LEVER UNIT	1		2		5
1B991-193	B165	開閉レバー部組 OPENER LEVER UNIT	1		1		5
1B991-199	B221	SQ基板部組 SQ BASE PLATE UNIT	1		5		5
1B991-201	B227	フリクションギア基板部組 FLYCTION GEAR BASE PLATE UNIT	1	1B991-199	5		5
1B991-212	B276	ミラー基板部組 MIRROR BASE PLATE UNIT	1		5		1
1B991-213	B279	主ミラー基板部組 MAIN MIRROR BASE PLATE UNIT	1		5		1
1B991-217	B326	横レバー部組 SIDE LEVER UNIT	1		6		5
1B991-220	B357	Fmin連動板部組 Fmin COUPLING PLATE UNIT	1		6		5
1B991-223	B405	後コマンドダイヤル板部組 REAR COMMAND DIAL PLATE UNIT	1	1S990-028	10		5
1B991-224	B411	前コマンドダイヤル部組 FRONT COMMAND DIAL UNIT	1	1B991-173	12		5

Assembly list

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Part No.	Ckt. No.	Name	Pcs.per Unit	Assembly	Fig. No.	Remarks
1B991-226	B422	Lag plate unit	1		1	
1B991-227	B431	Battery cover unit	1		13	
1B998-730	B431	Battery cover unit	1		13	Tech-98069
1B991-228	B441	Outer LCD window unit	1	1B991-172	11	RP-9707
1B991-229	B446	Inner cover unit	1		4	
1B999-849		Front body unit	1		5 6	
1S020-194 1S020-194-1	B1001	Main PCB unit	1		11	RP-9703 RP-9712
1S020-198	B1007	TTL SPD unit	1		8	
1S990-014	B1006	SQ FPC unit	1		8	
1S990-015	B1010	Bar code FPC unit	1		2	
1S990-018	B1021	SB PCB unit	1		2	
1S990-020	B1028	Internal finder LED unit	1		7	
1S990-025	B2004	Top cover FPC unit	1	1S990-028	10	
1S990-028	B2023	Top cover unit	1		9 10	
1S990-030	B2030	DC/DC unit	1		8	
1S990-033	B2116	Mag SW 2 unit	1		4	
1S990-035	B2182	AF driving base plate unit	1		6	

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作成承認印

配布許可印

**PRONEA 600i****FBA00051****FBA00061****PRONEA 6i****FBA00151****REPAIR MANUAL****Nikon** | **NIKON CORPORATION**
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DISASSEMBLING

1. Appearance

Bottom cover	D 1
Rear cover unit	D 2
Cart lid, Main PCB	D 3
MAG base plate, Inner cover unit, Pressure plate	D 3
Cart lid lever cover	D 4
Top cover unit	D 4
Upper grip unit, Lower grip, Front cover	D 5
SB PCB unit	D 5
Separating rear body and front body	D 6

2. Front body

DC/DC converter	D 7
Shutter unit	D 7
Prism BOX unit, Penta FPC unit	D 8
Bayonet mount, Lens contact unit, F min switch unit, Side lever unit, Length lever base plate unit, Lens release button group	D 9
AF sensor unit, AF driving base plate unit, TTL SPD unit	D10
Aperture base plate unit, SQ base plate unit, Driving lever group, Main mirror unit	D11

3. Rear body

Battery contact base group, Opener lever unit, LL lower plate unit, Bar code FPC, MAG LL group	D12
Rewind base plate, Tripod base plate, Spool unit, Advance block group	D13
Spool roller base plate, Body roller base plate, MAG pad, Reflection seal	D14

DISASSEMBLING / ASSEMBLING / ADJUSTMENT

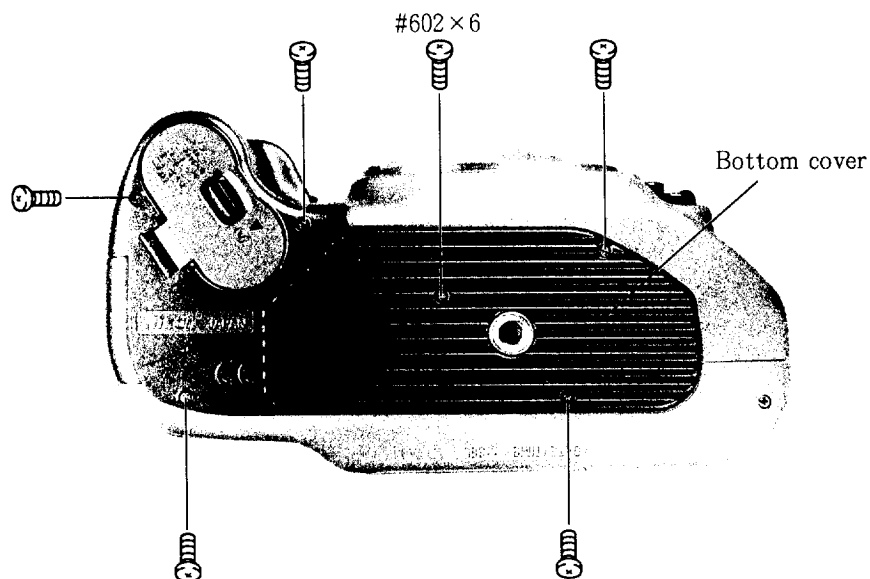
⚠ WARNING	
	• There are high voltage parts inside. Be careful of this electric shock, when you remove the cover. • You must discharge the main condenser according to the instruction of this repair manual after you remove the cover.

- Note :**
- ① Be sure to remove battery before assembling.
 - ② When disassembling, pay attention to the wire arrangement and mounting positions and types of screw to be removed.
 - ③ Be sure you are grounded when holding electric parts because static electricity exerts serious adverse effects on IC's.

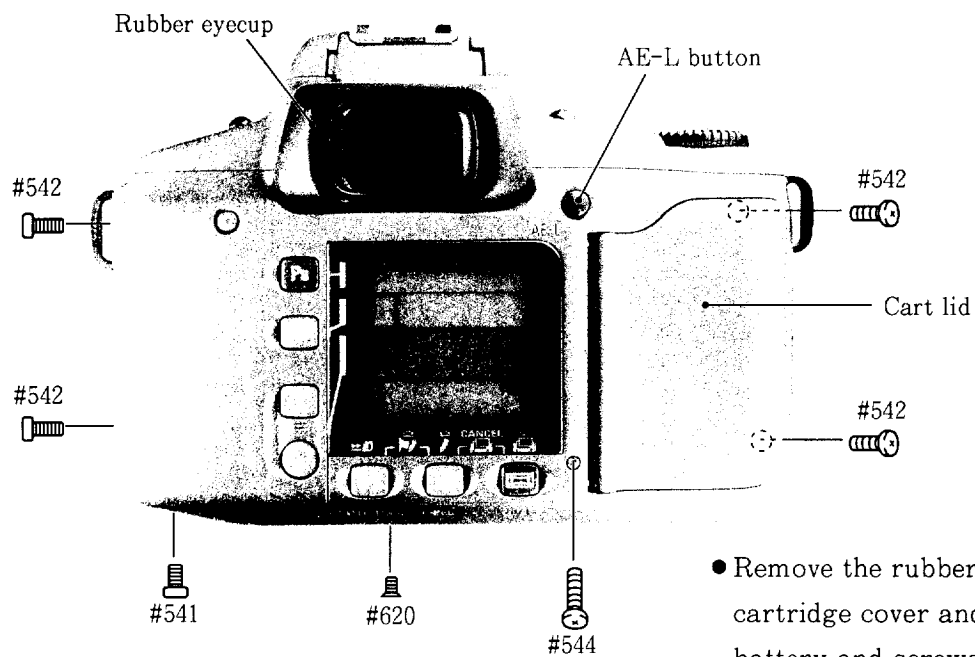
DISASSEMBLING

1. APPEARANCE

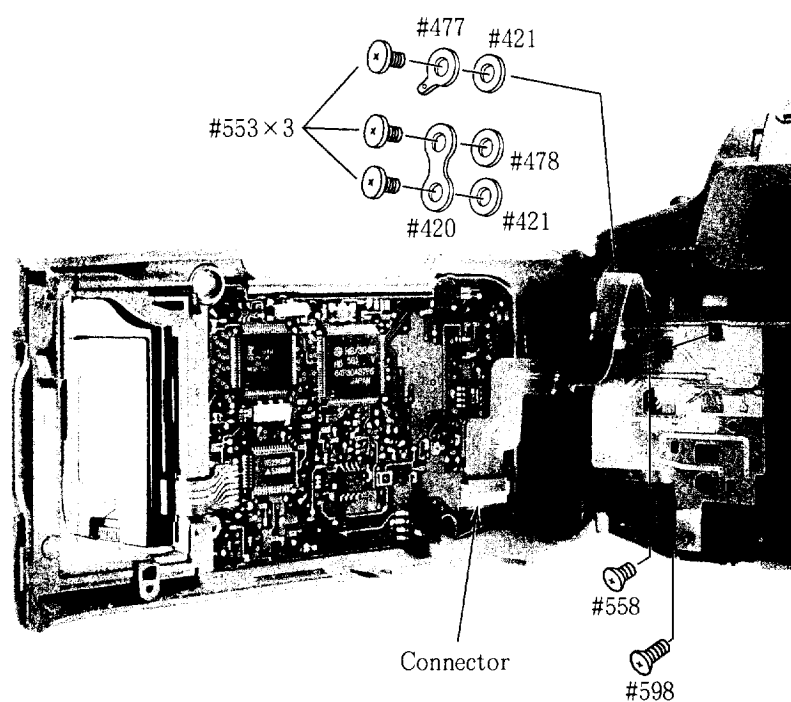
BOTTOM COVER



REAR COVER UNIT



- Remove the rubber eyecup, open the cartridge cover and remove the back-up battery and screws #542 (2 pcs.).
- Open the rear cover, and the AE-L button will be removed.

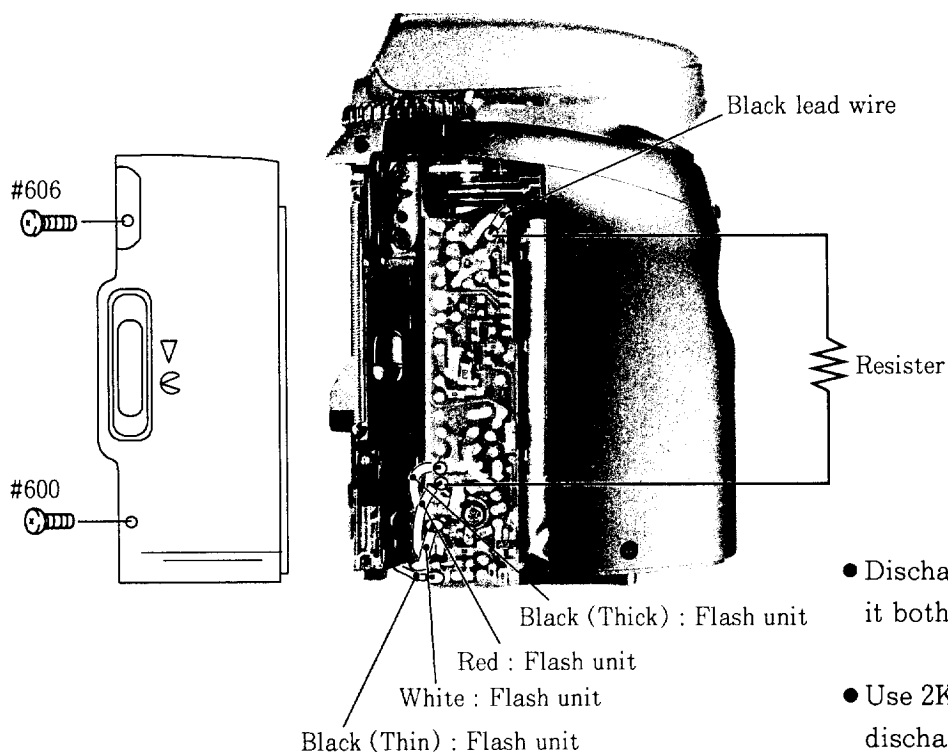


CART LID LEVER COVER

⚠ WARNING

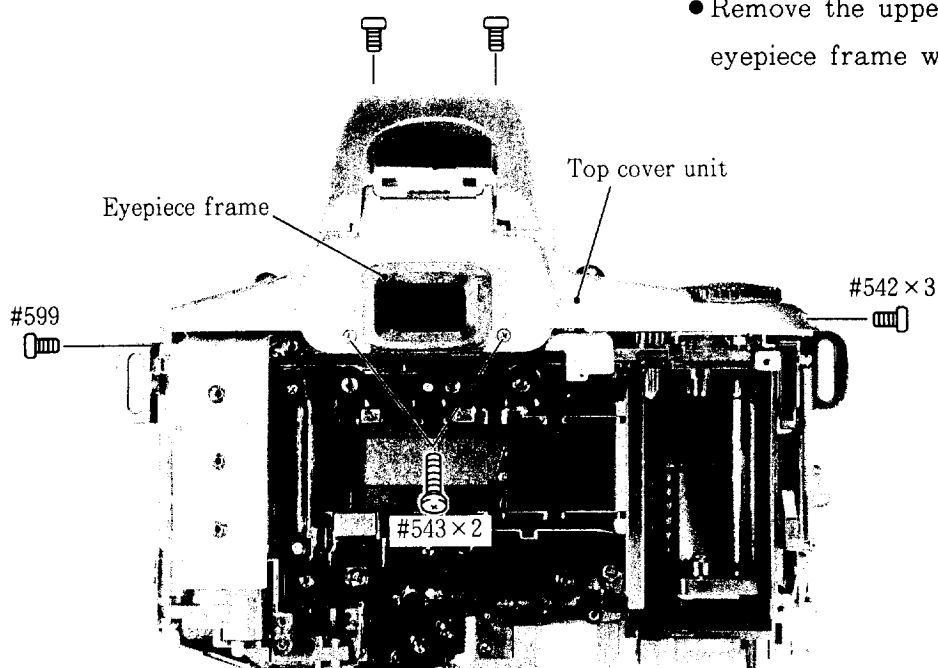


- There are high voltage parts inside. Be careful of this electric shock, when you remove the cover.
- You must discharge the main condenser according to the instruction of this repair manual after you remove the cover.



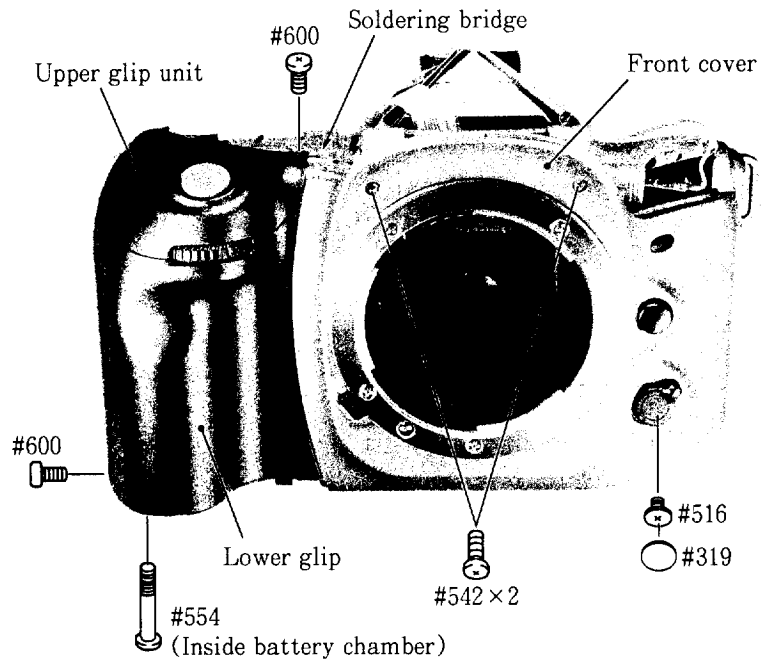
- Discharge the main condenser it both sides.
- Use 2K Ω /5W resistor to discharged.

TOP COVER UNIT

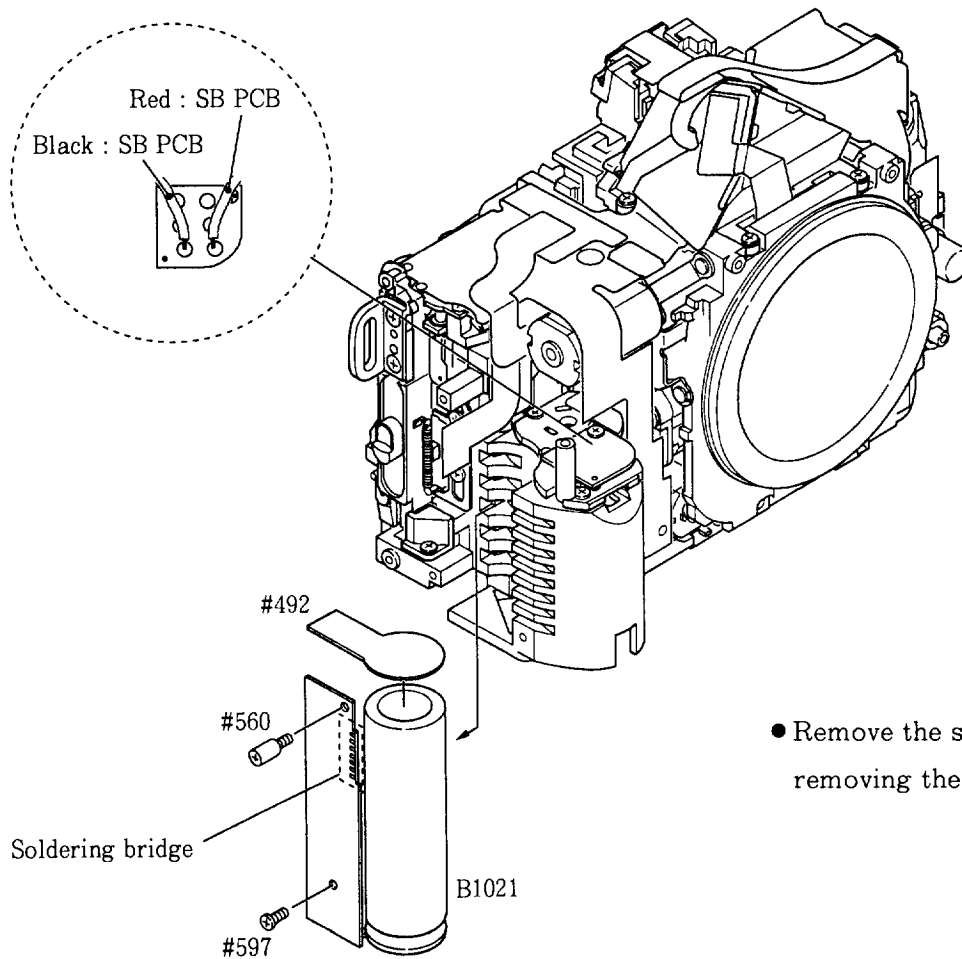


- Remove the upper cover, and the eyepiece frame will be removed.

UPPER GLIP UNIT, LOWER GLIP, FRONT COVER

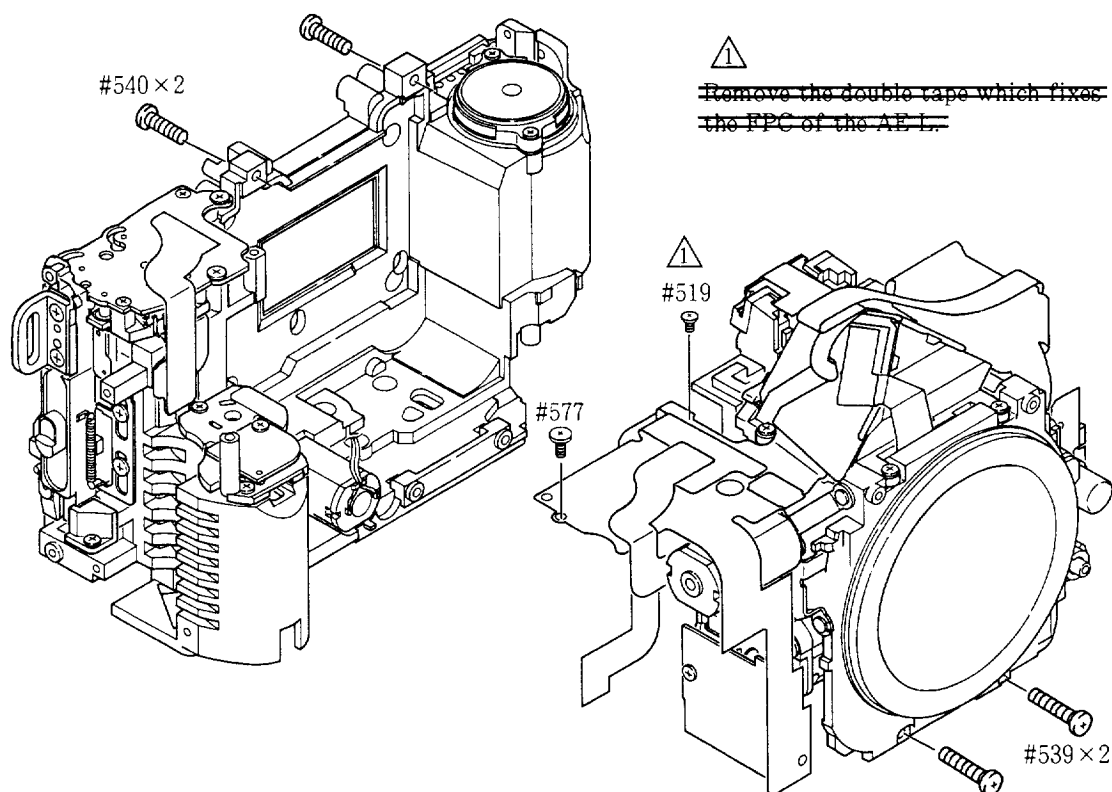
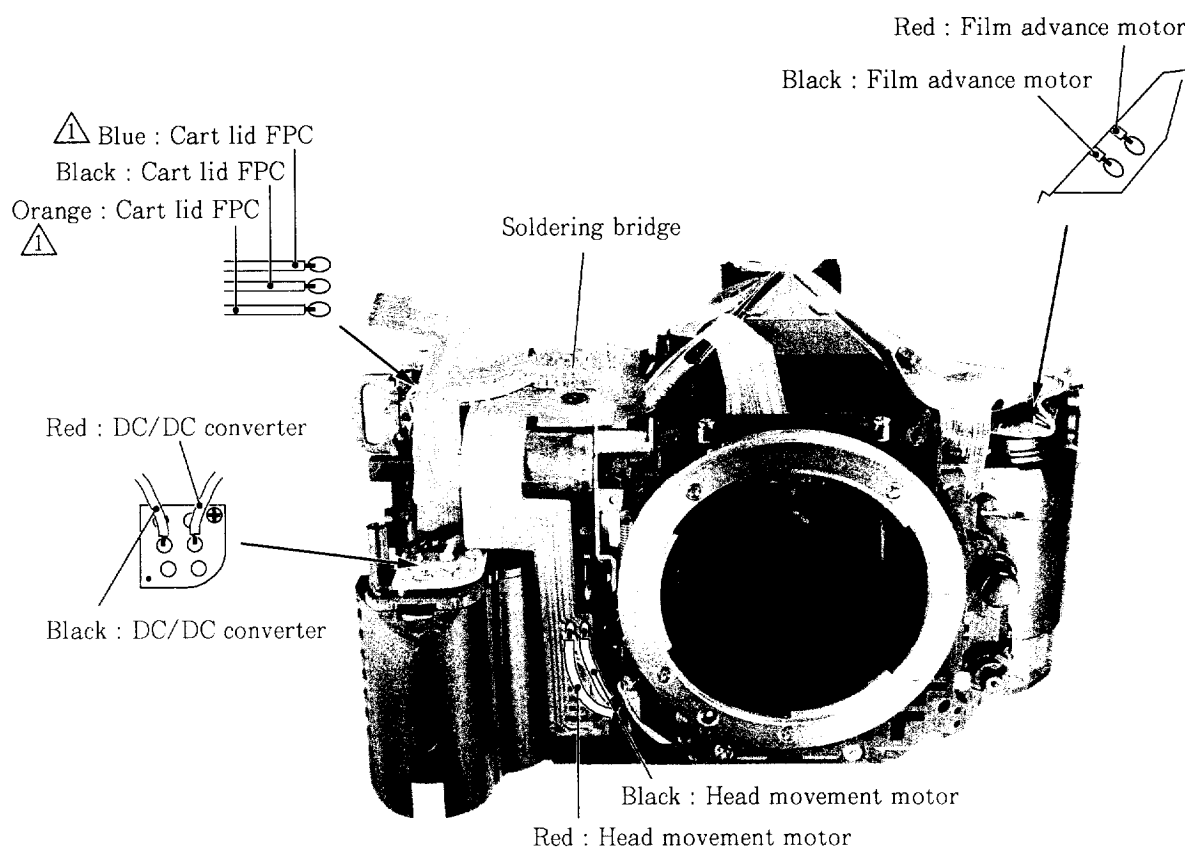


SB PCB UNIT



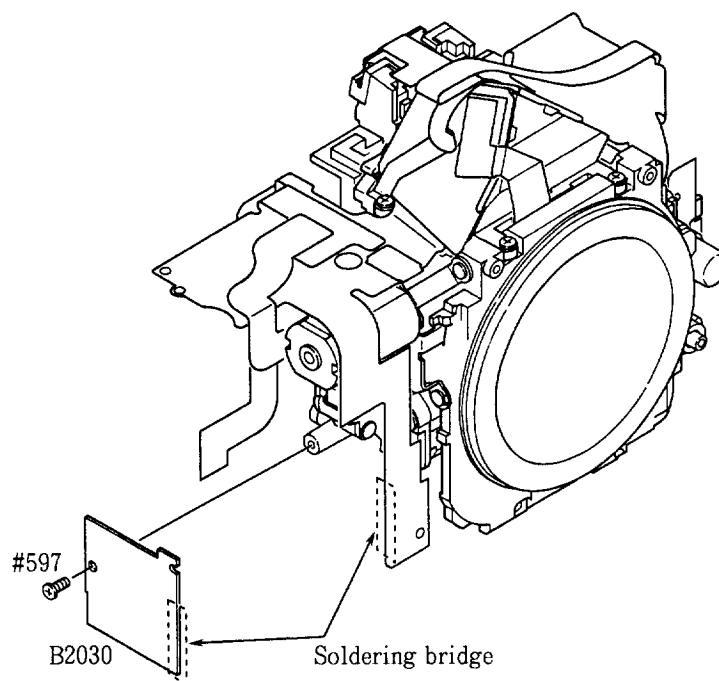
- Remove the soldering bridge before removing the flash PCB.

SEPARATING REAR BODY AND FRONT BODY

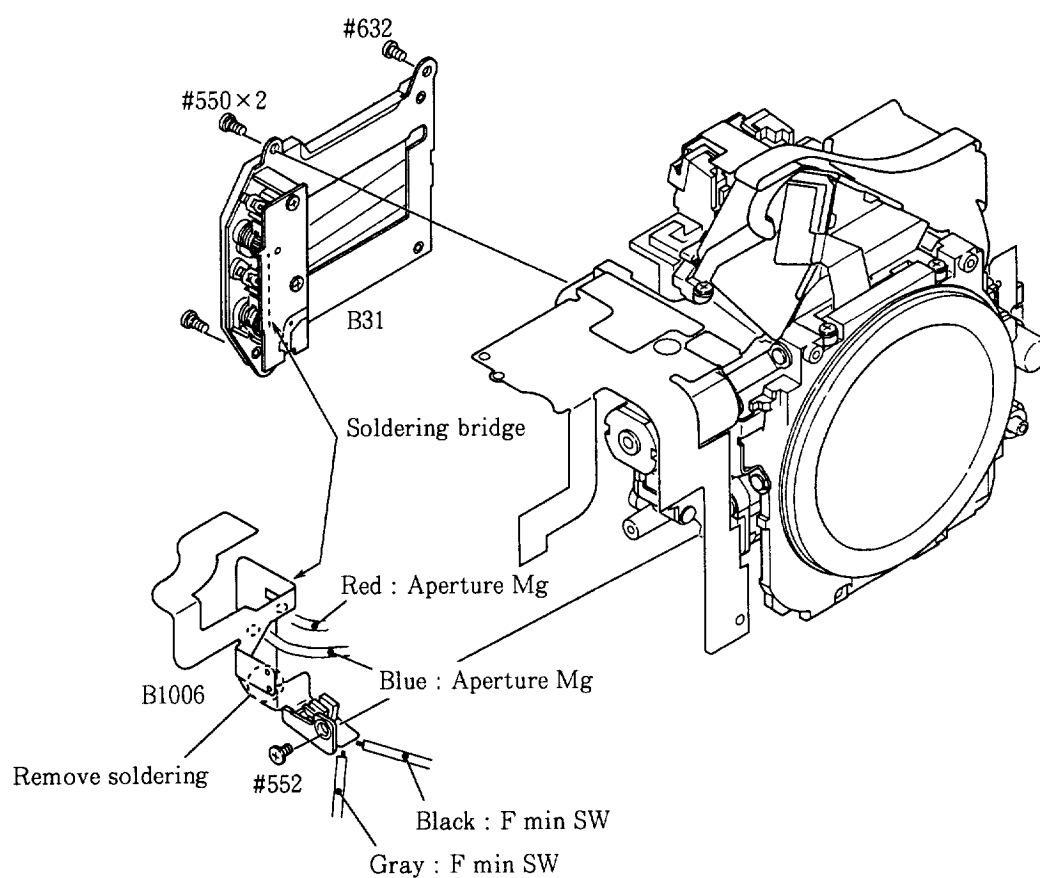


2. FRONT BODY

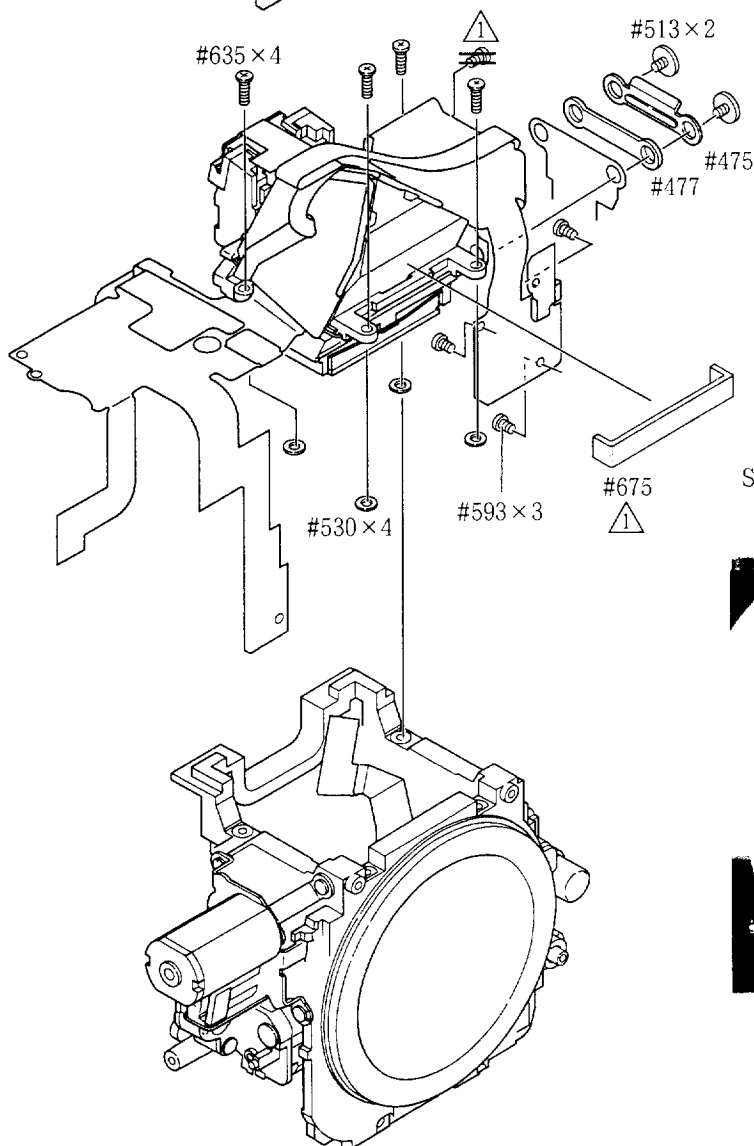
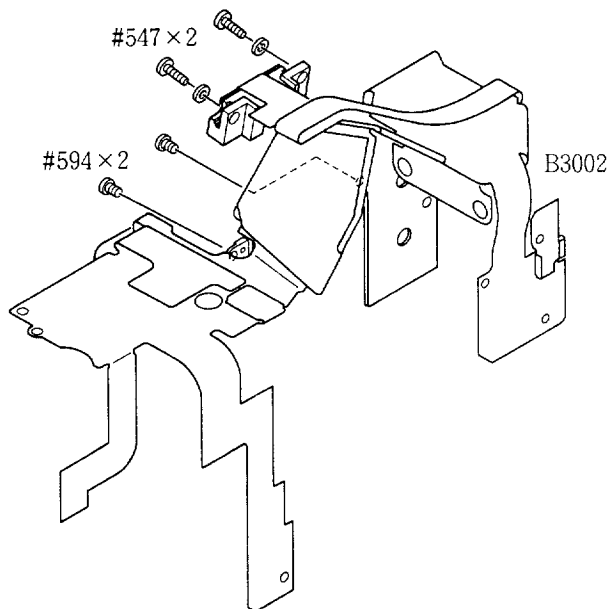
DC/DC CONVERTER



SHUTTER UNIT



PRISM BOX UNIT, PENTA FPC UNIT



Black : GND

Green : Lens release SW

Red : A/M change SW

Soldering bridge

Black : AF motor

Red : AF motor

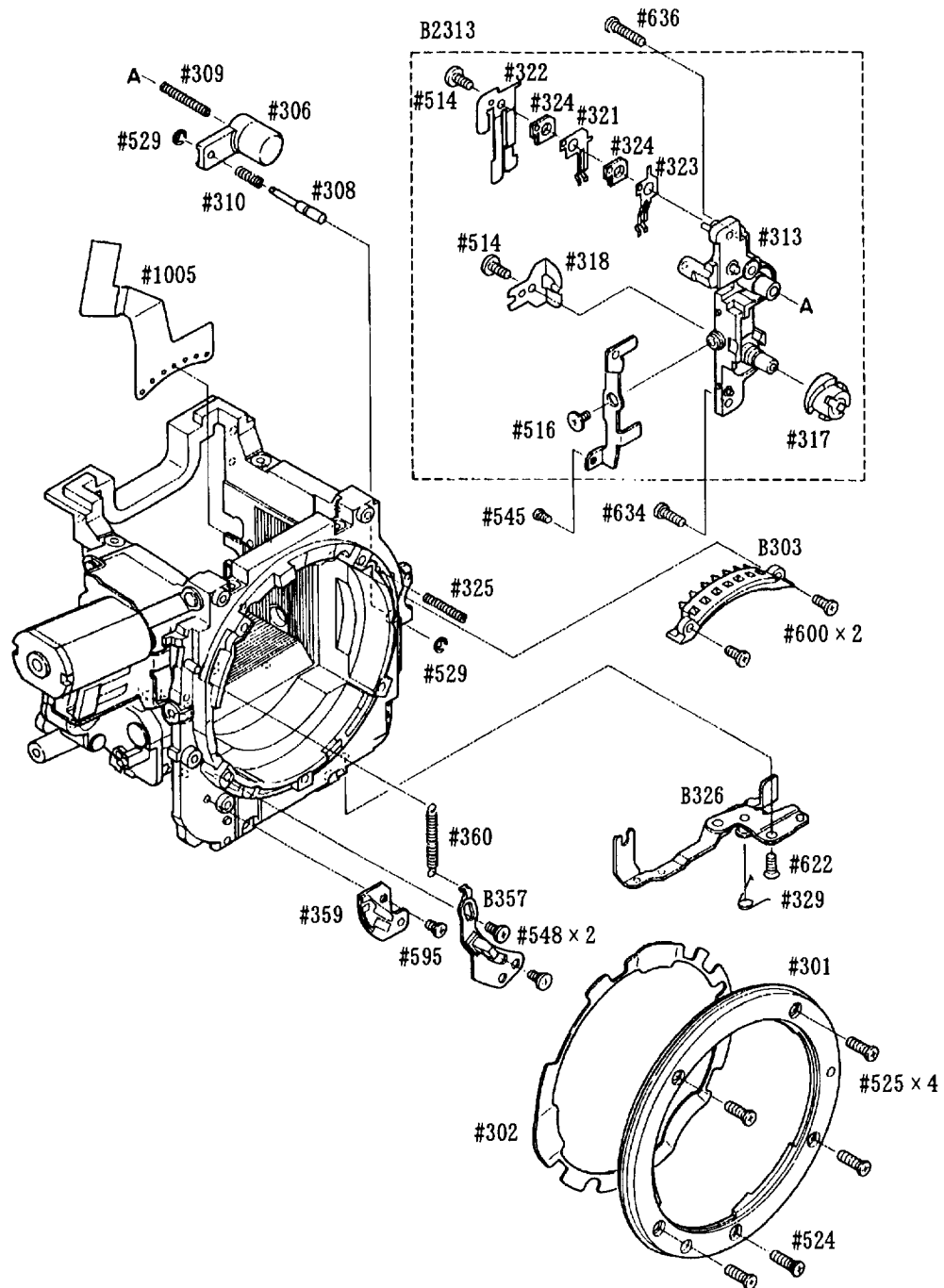
Soldering bridge

Red : Sequence motor

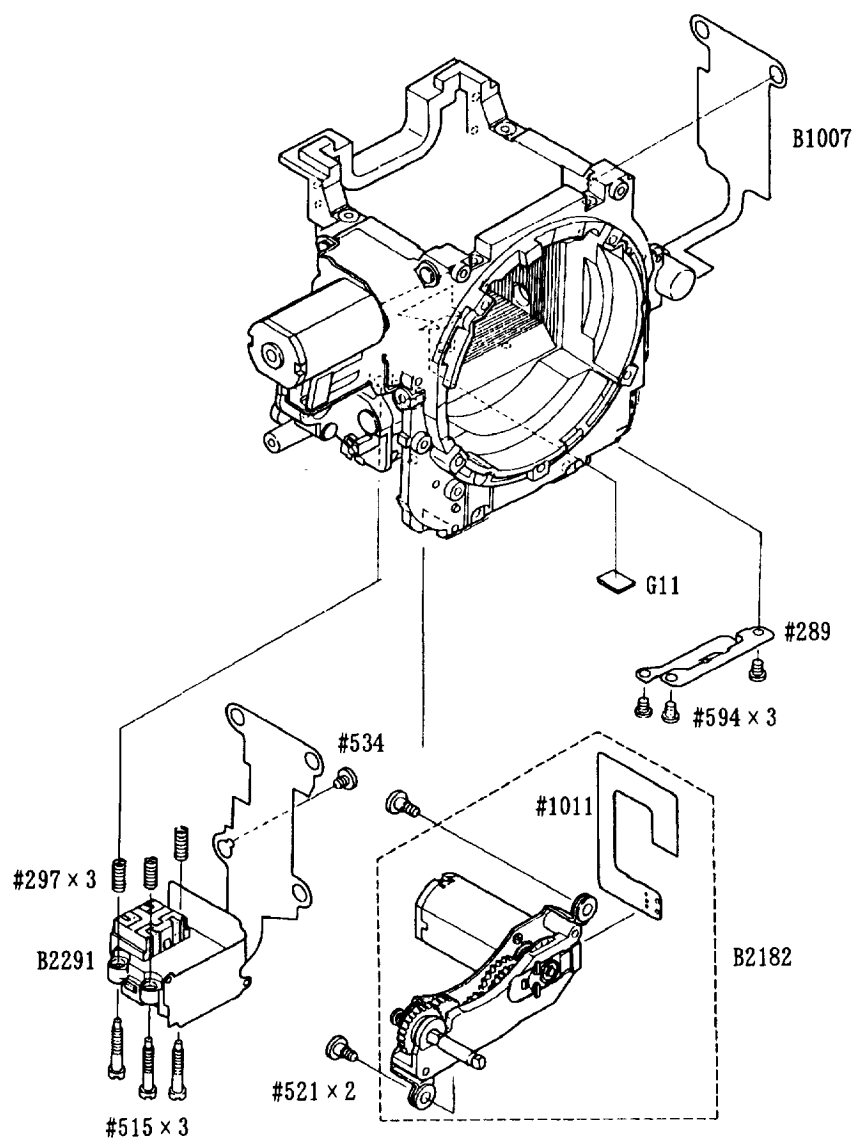
Black : Sequence motor

TA-0005
(10×25)

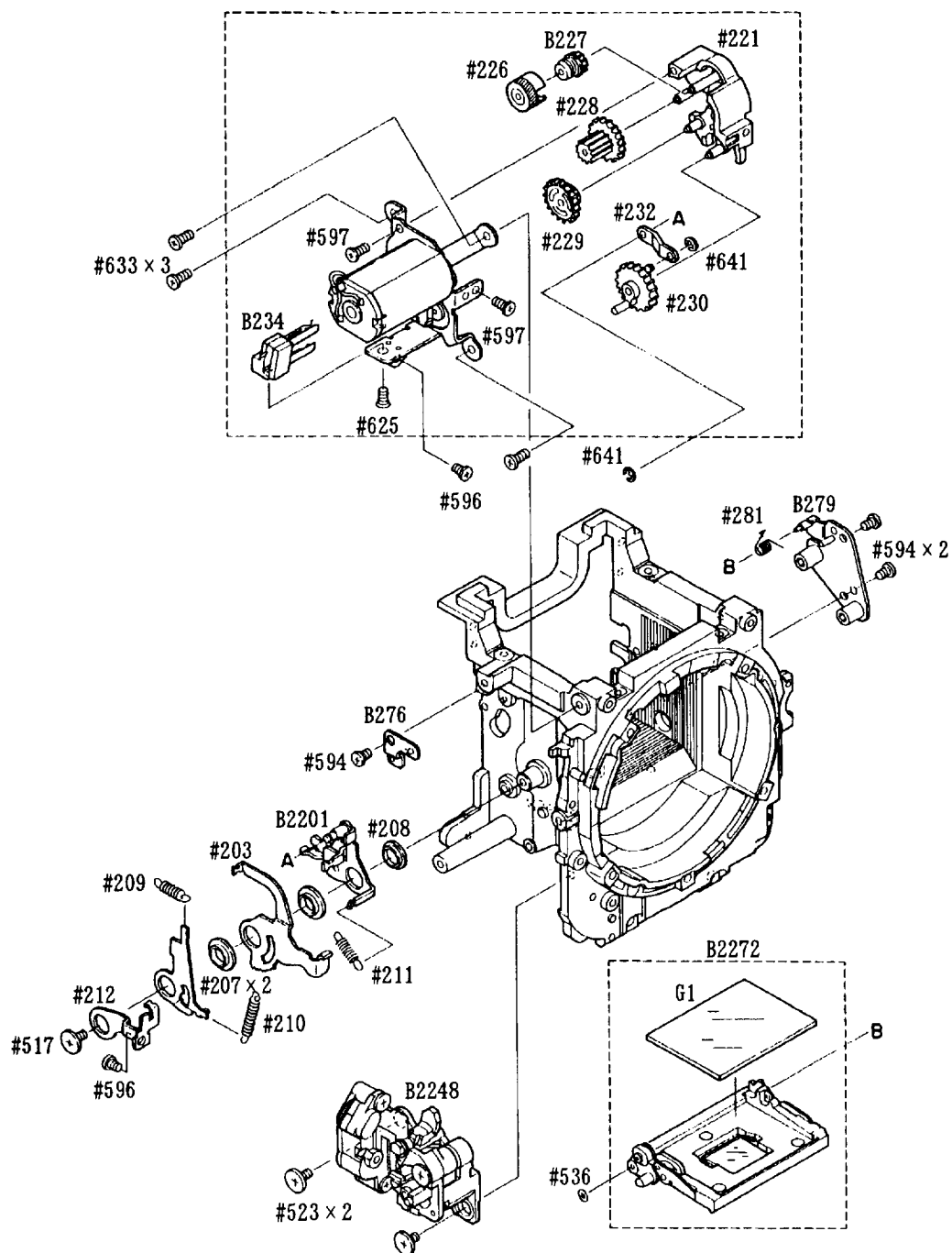
BAYONET MOUNT, LENS CONTACT UNIT, F min SWITCH UNIT, SIDE LEVER UNIT,
LENGTH LEVER BASE PLATE UNIT, LENS RELEASE BUTTON GROUP



AF AENSOR UNIT, AF DRIVING BASE PLATE UNIT, TTL SPD UNIT

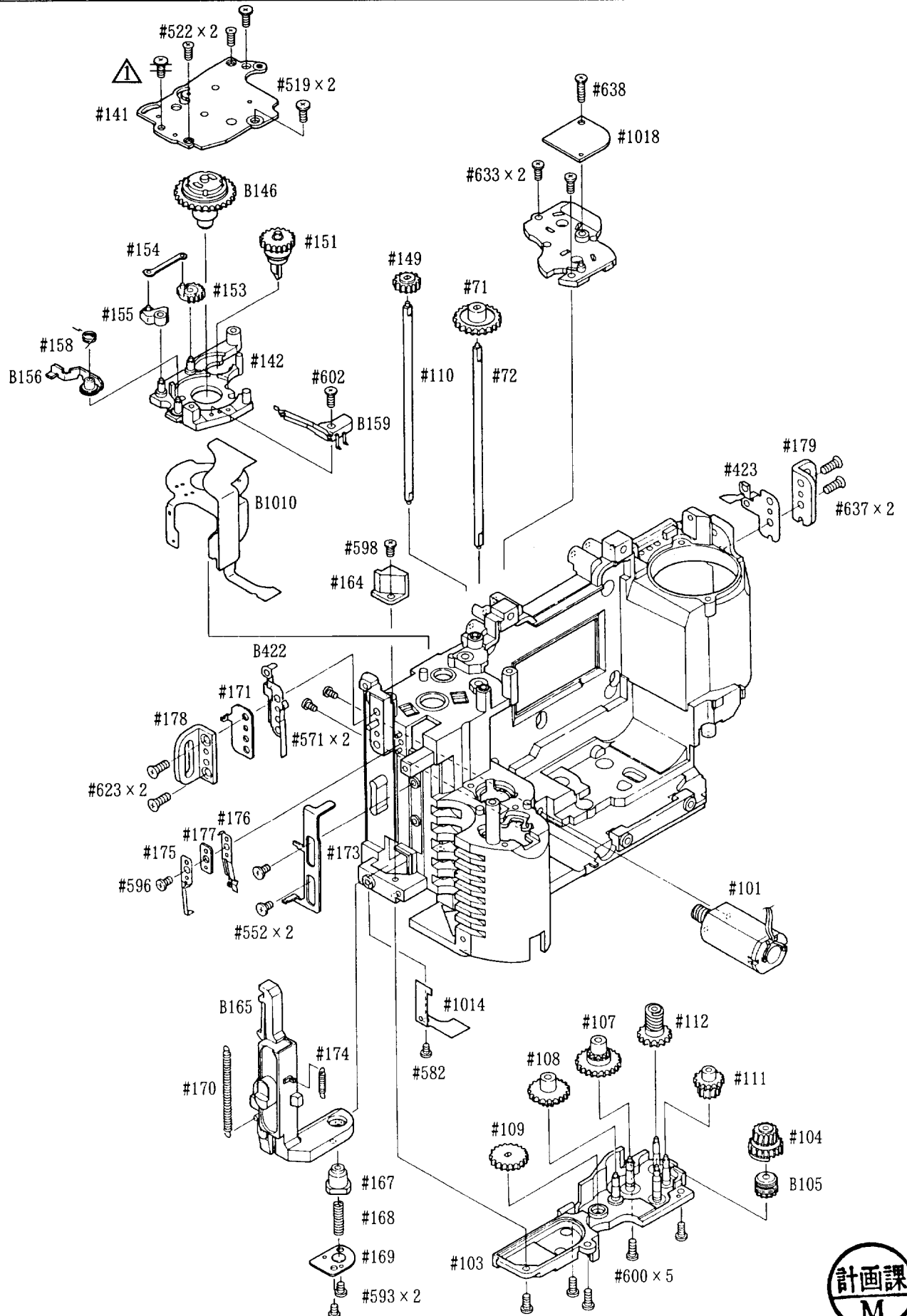


APERTURE BASE PLATE UNIT, SQ BASE PLATE UNIT, DRIVING LEVER GROUP,
MAIN MIRROR UNIT

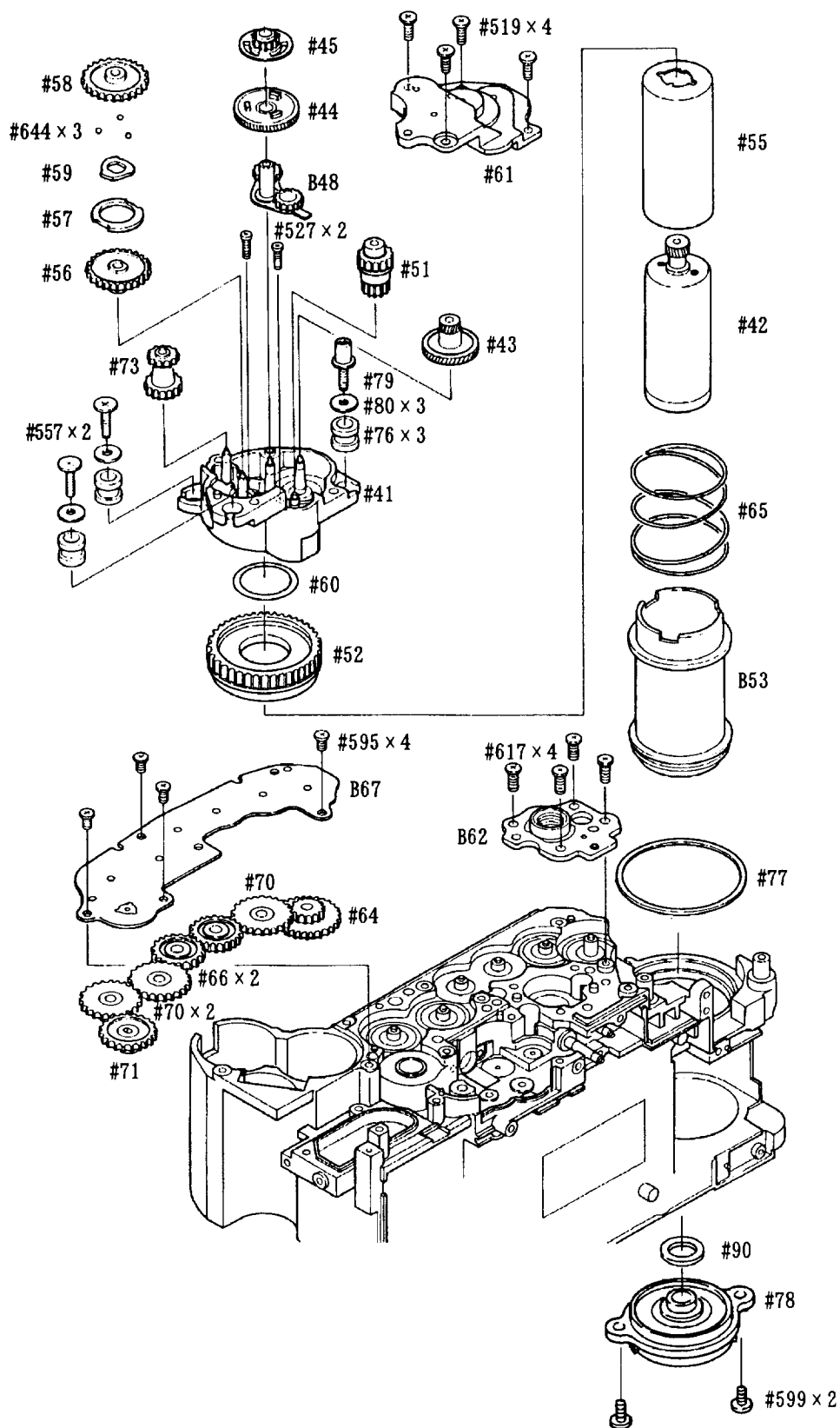


3. REAR BODY

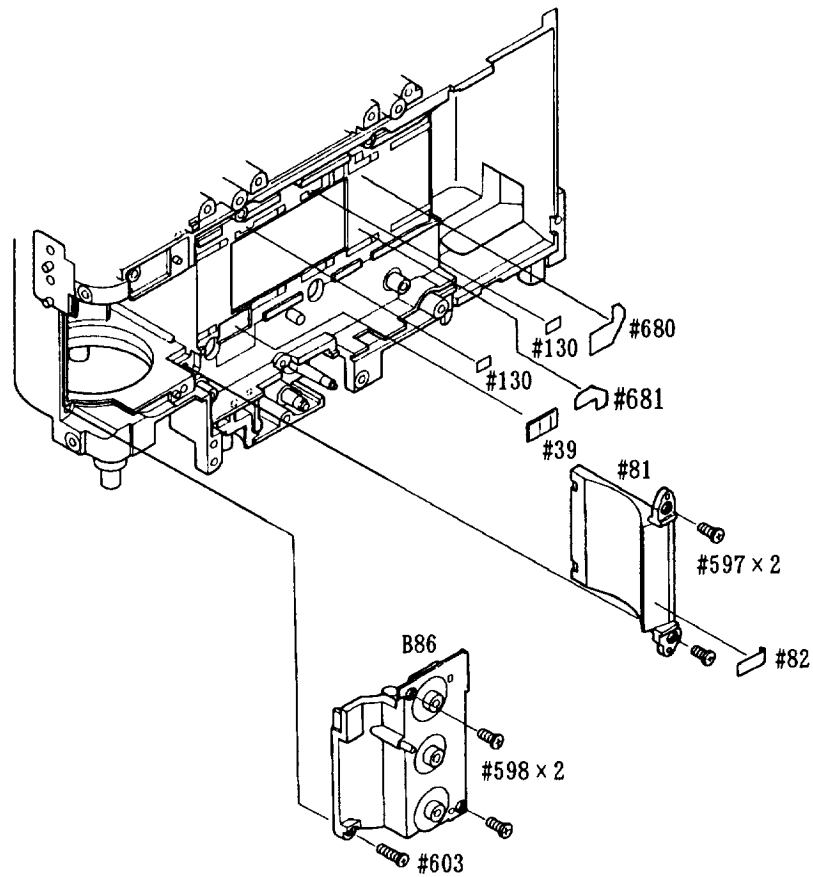
BATTERY CONTACT BASE GROUP, OPENER LEVER UNIT, LL LOWER PLATE UNIT,
BAR CODE FPC, MAG LL GROUP



REWIND BASE PLATE, TRIPOD BASE PLATE, SPOOL UNIT, ADVANCE BLOCK GROUP



SPOOL ROLLER BASE PLATE, BODY ROLLER BASE PLATE, MAG PAD, REFLECTION SEAL



ASSEMBLING / ADJUSTMENT

1. Rear body

Reflection seal, MAG pad	A 1
Advance block group	A 1
Spool unit	A 2
Tripod base plate, Rewind base plate	A 2
Body roller base plate, Spool roller base plate	A 3
MAG LL motor, MAG LL gear group	A 3
Bar code FPC, LL lower plate unit	A 4
Opener lever unit	A 5
Battery contact base, Relay PCB	A 5

2. Front body

Main mirror unit	A 6
Driving lever group	A 6
SQ base plate unit	A 7
Aperture base plate unit	A 7
TTL SPD unit, AF driving base plate unit, AF sensor unit	A 8
Lens release button group, Length lever base plate unit, Side lever unit	A 8
F min switch unit, Lens contact unit, Bayonet mount	A 9
Height adjustment of AF coupling shaft	A 9
Adjustment of aperture lever position	A 9
Prism BOX unit, Penta FPC unit	A10
Angle adjustment of main mirror and sub mirror to 45°	A12
Adjustment of infinity (∞)	A12
Shutter unit	A13
DC/DC converter	A13
Inspection of finder display	A14

3. Appearance

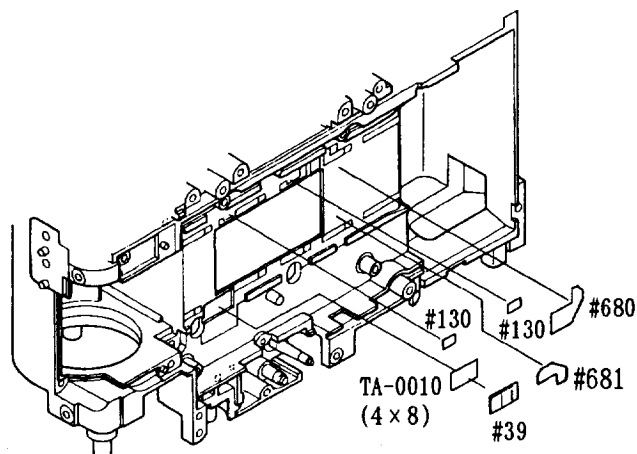
Attaching the front body to rear body	A15
Adjustment of AE SPD position	A16
SB PCB unit	A16
Front cover, Lower grip, Upper grip unit	A17
Top cover unit	A18
Adjustment of body back (Inner rail height)	A20
Main PCB, Cart lid	A21
Connect Main PCB	A22
△ Operation check	A23
Inspection and Adjustment the parts related to AE	A23
Pressure plate	A25
Adjustment of M.B.F'	A25
Inner cover unit, MAG base plate	A26
Cart lid lever cover	A27
Rear cover unit	A27
Inspection and adjustment of AF	A28
Inspection of magnetic head	A29
Bottom cover	A29
Operation check	A29
When replacing a part listed bellow, some adjustment may be required --	A30



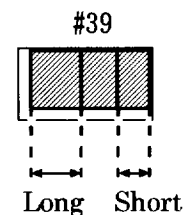
ASSEMBLING/ADJUSTMENT

1. REAR BODY

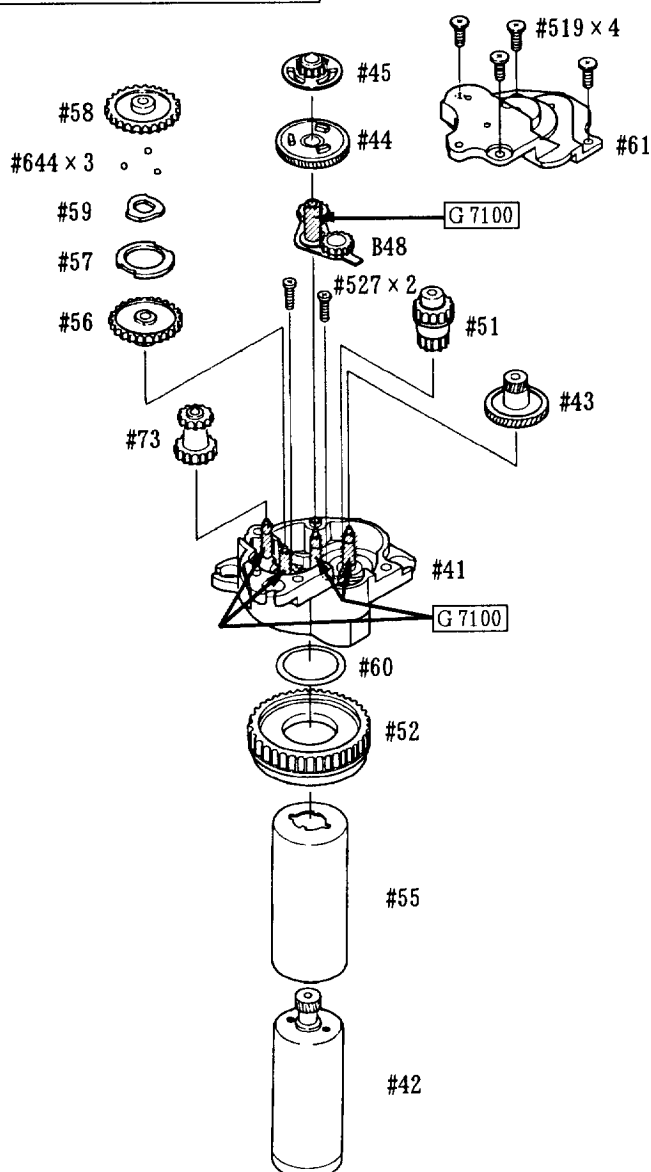
REFLECTION SEAL, MAG PAD



- Draw the MAG pad #39 to the upper right and then glue it.

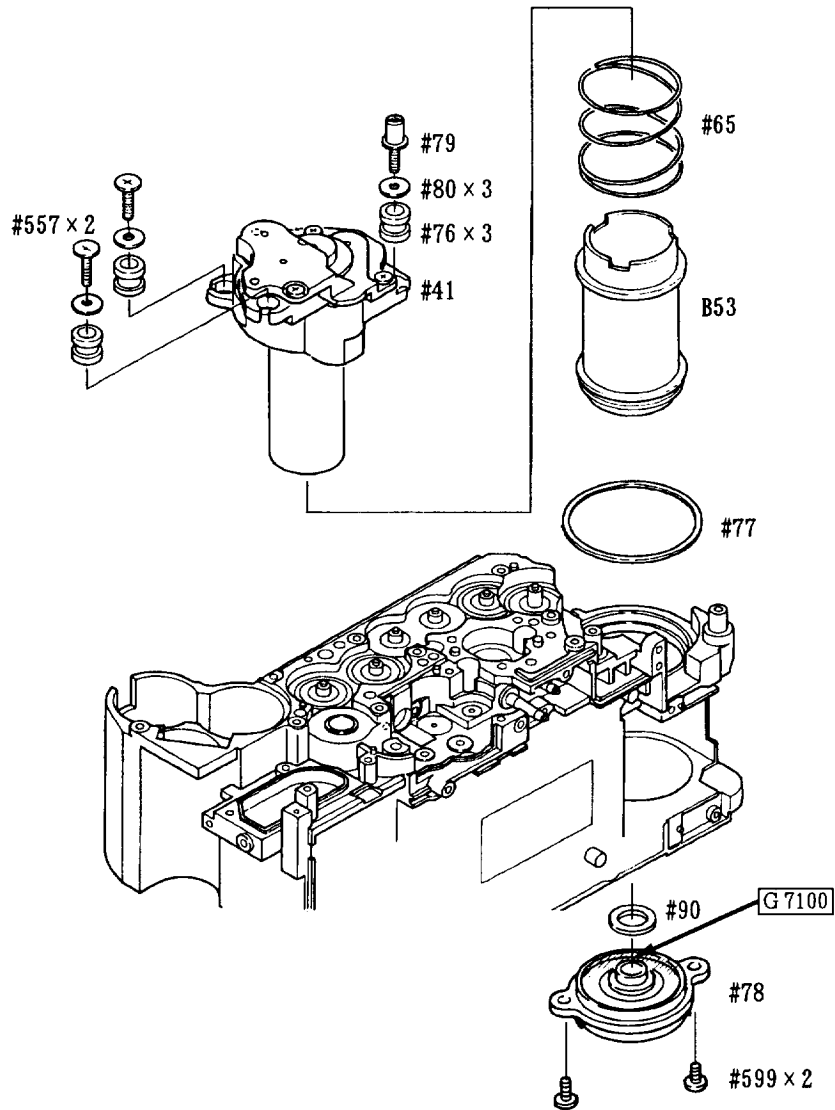


ADVANCE BLOCK GROUP

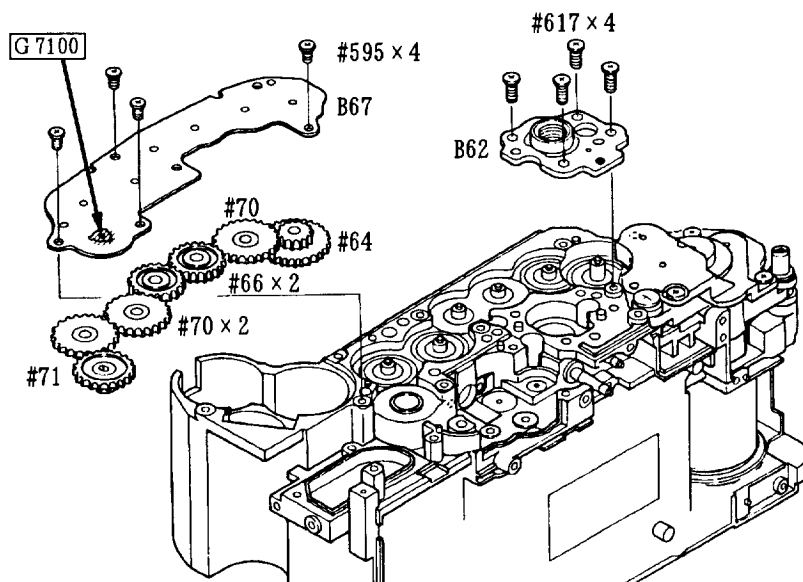


- Apply G7100 to gears (#43~45, #51, #56, #58, #73) and gear shafts.

SPOOL UNIT

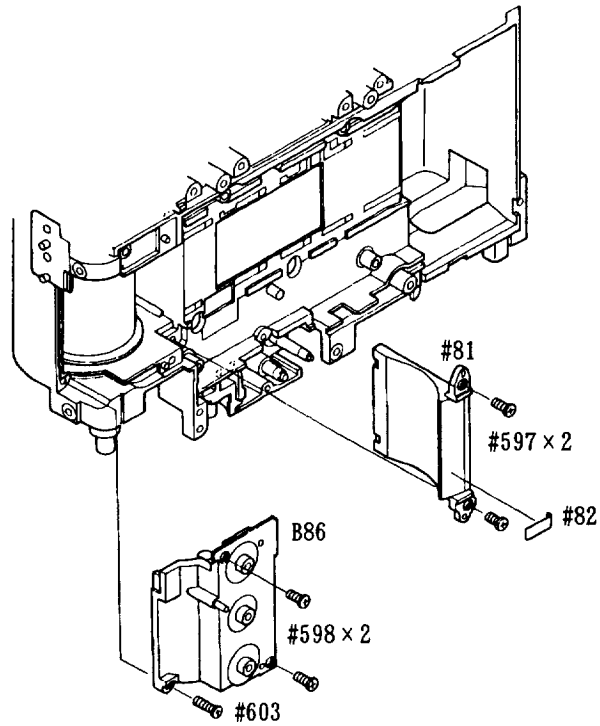


TRIPOD BASE PLATE, REWIND BASE PLATE

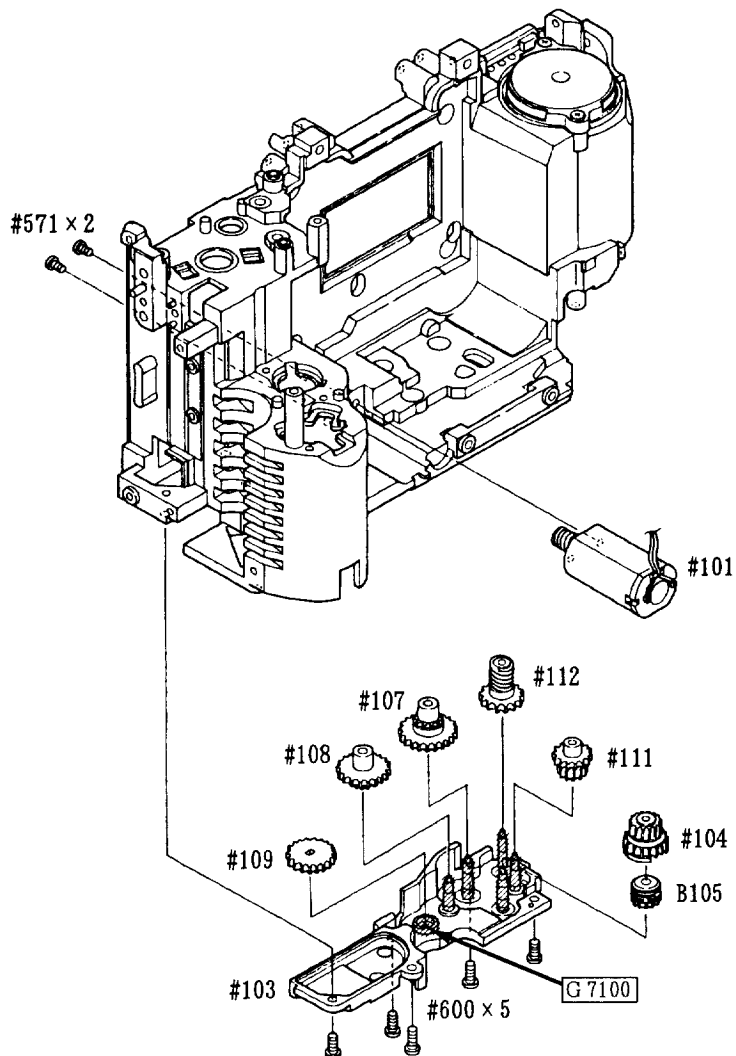


• Apply G7100 to gear shafts.

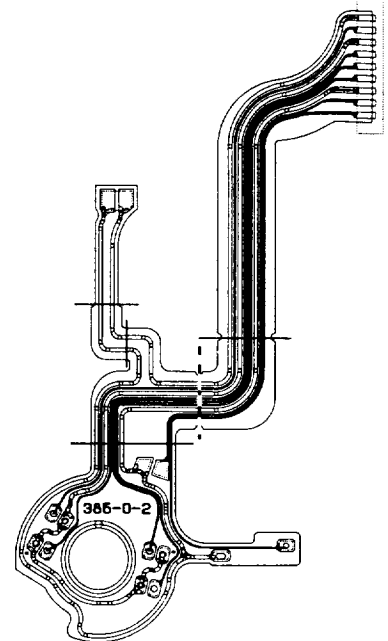
BODY ROLLER BASE PLATE, SPOOL ROLLER BASE PLATE



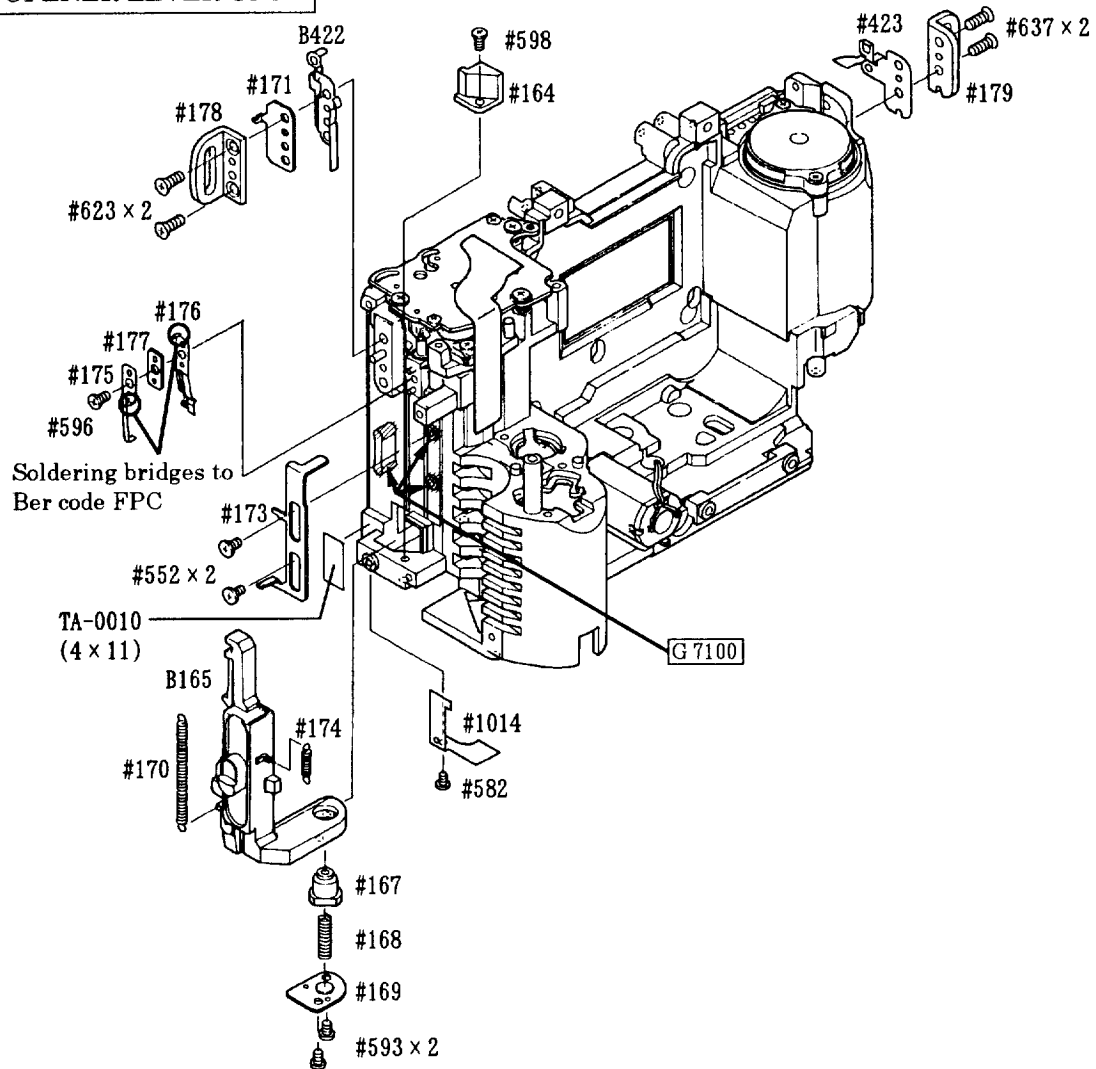
MAG LL MOTOR, MAG LL GEAR GROUP



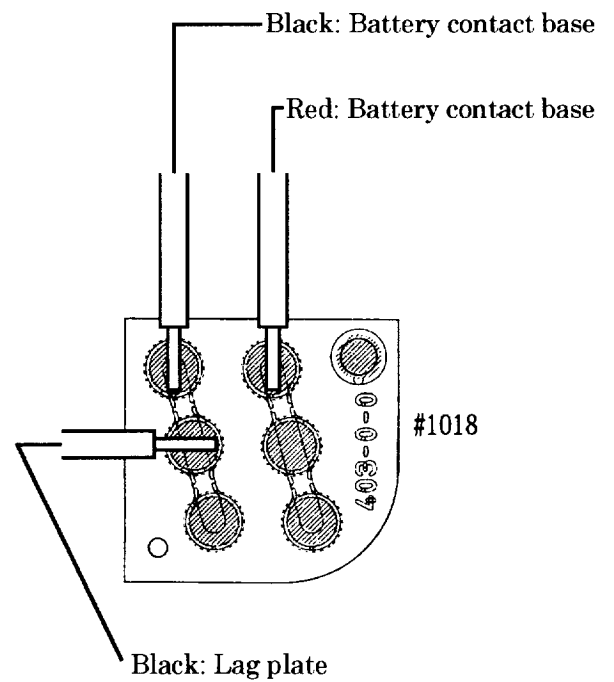
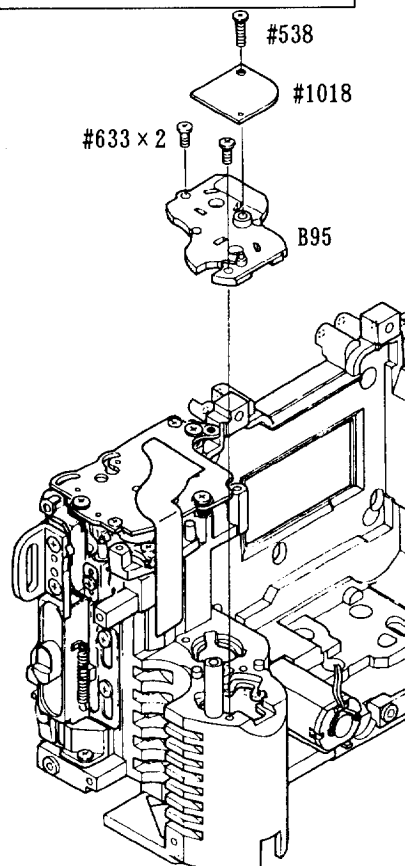
- Apply G7100 to gear shafts.



OPENER LEVER UNIT

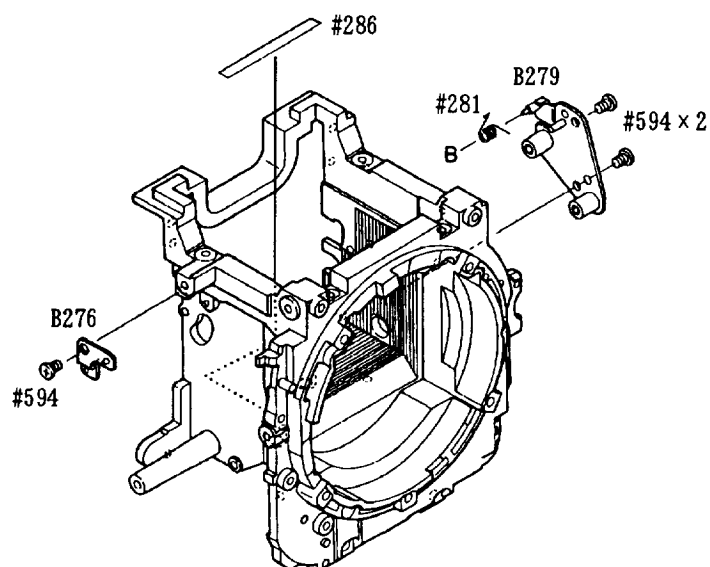


BATTERY CONTACT BASE, RELAY PCB

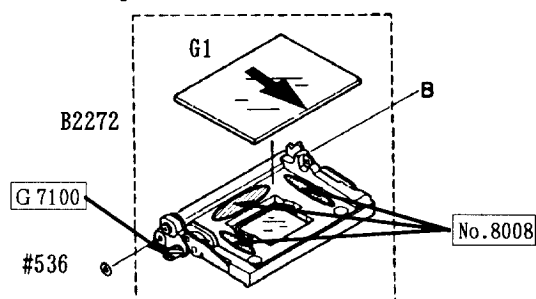


2. FRONT BODY

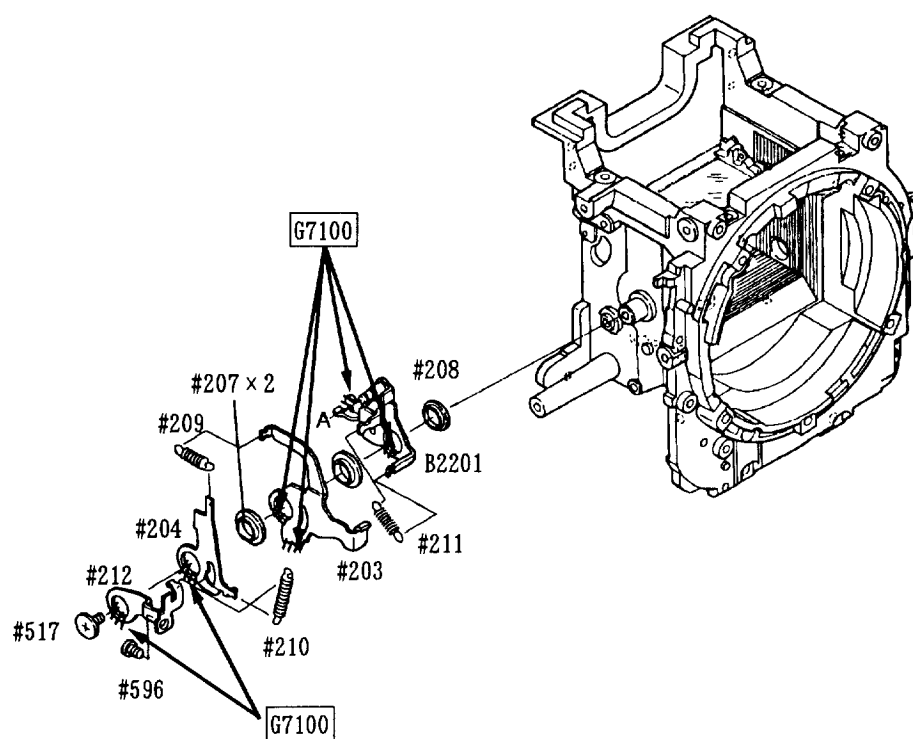
MAIN MIRROR UNIT



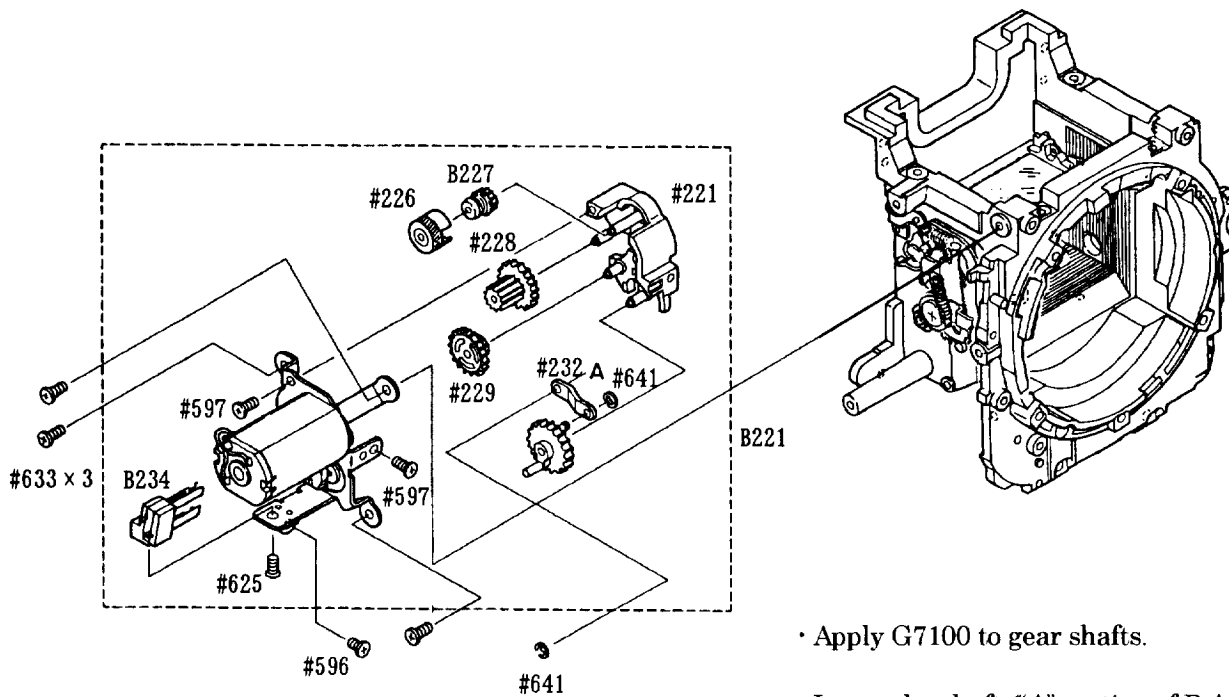
• Draw the main mirror G1 in the arrow direction and then glue it.



DRIVING LEVER GROUP

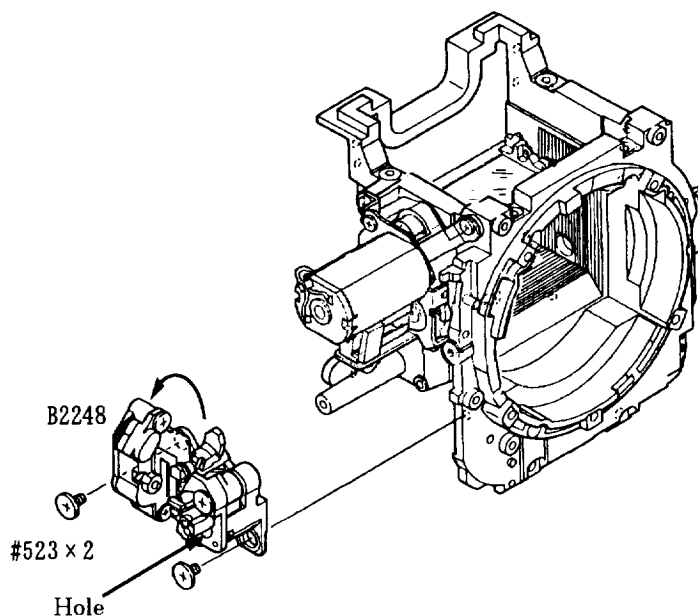


SQ BASE PLATE UNIT



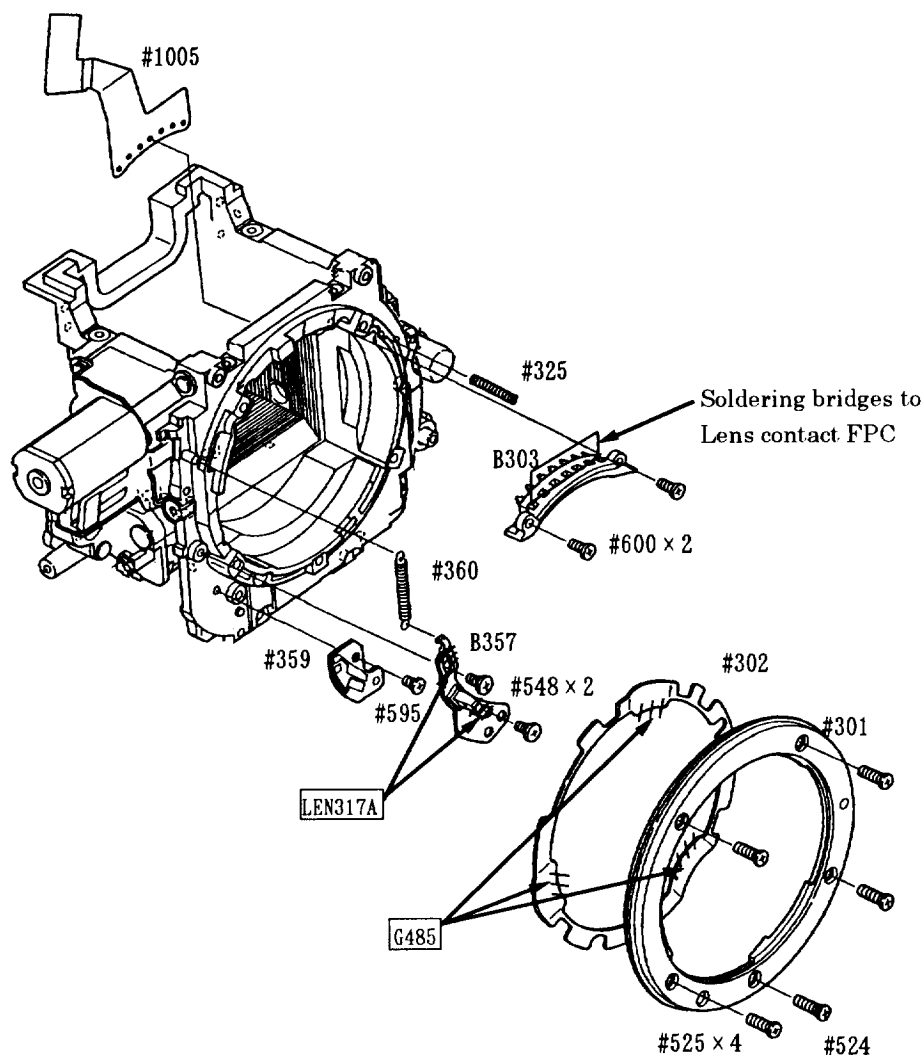
- Apply G7100 to gear shafts.
- Insert the shaft ("A" section of P.A6) of the actuating lever B2201 into the hole ("A" section) of the transmission lever #232 and then incorporate them.

APERTURE BASE PLATE UNIT

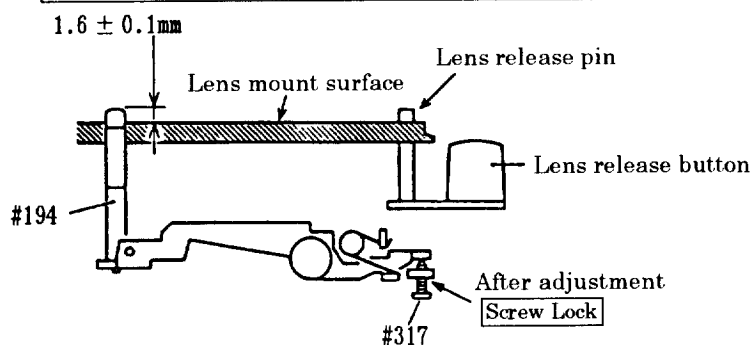


- (1) Release the aperture Mg latch lever and turn the gear of the aperture base plate in the arrow direction.
- (2) Turn the spring which is seen through the hole once or twice. Then, apply the latch lever and set the aperture base plate.

F min SWITCH UNIT, LENS CONTACT UNIT, BAYONET MOUNT



HEIGHT ADJUSTMENT OF AF COUPLING SHAFT



- (1) Set the focus mode selector to "AF".
Measure the height of the AF coupling shaft #194 after pressing the lens release button several times.
- (2) Adjust the height of the AF coupling shaft using screw #317.
- (3) The AF coupling shaft should not protrude over the lens mount surface, when the height of lens release pin is adjusted to 0.4mm.
- (4) After adjusting, secure screw #317 with Screw Lock.

ADJUSTMENT OF APERTURE LEVER POSITION

- Measure the height of aperture lever using tool J18004. If the height of the aperture lever is out of standard, the lever may be deformed. Check the lever and then adjust it. After adjustment, move the mirror up vertical lever several times to check the height of the aperture lever.

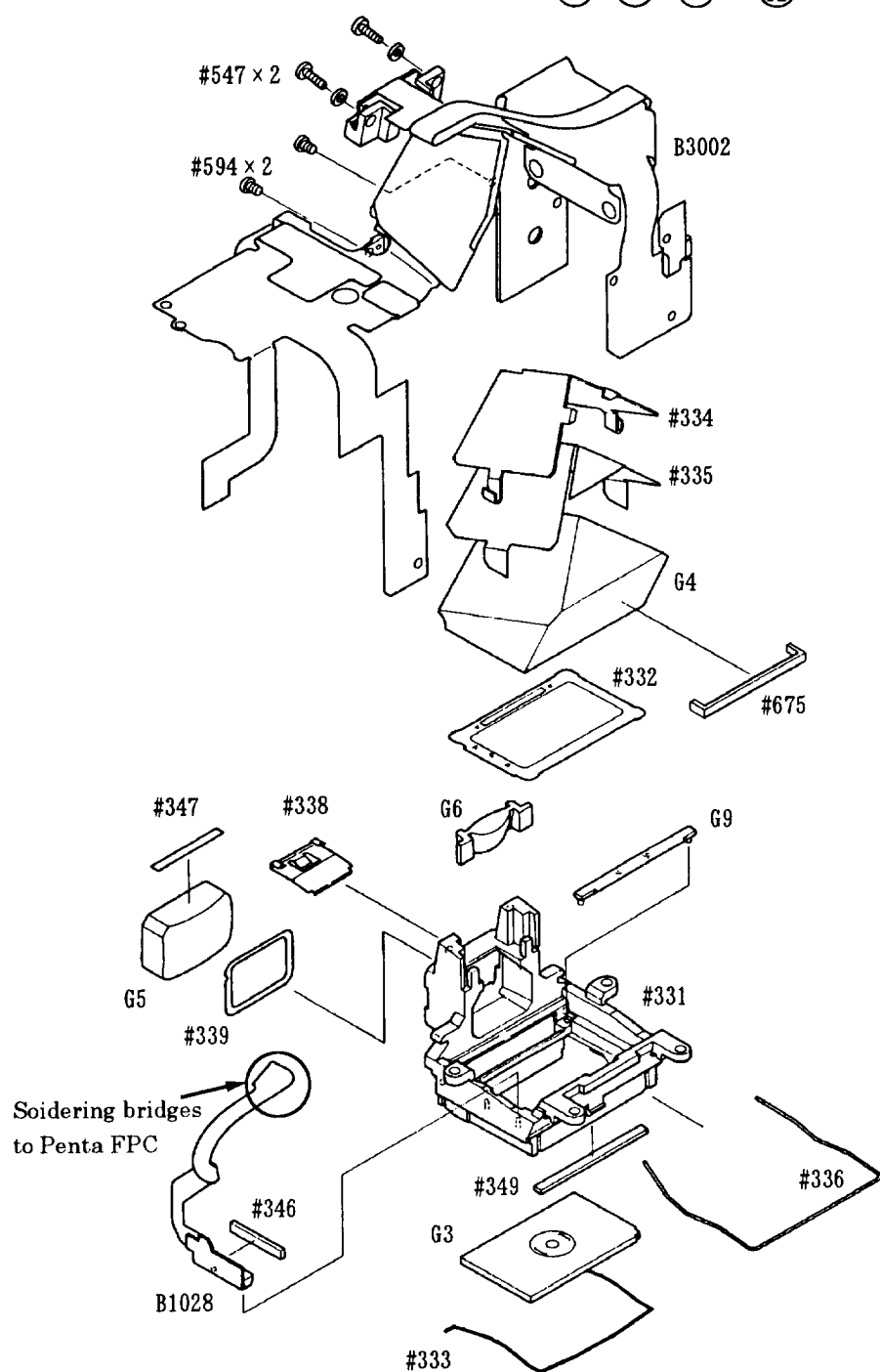
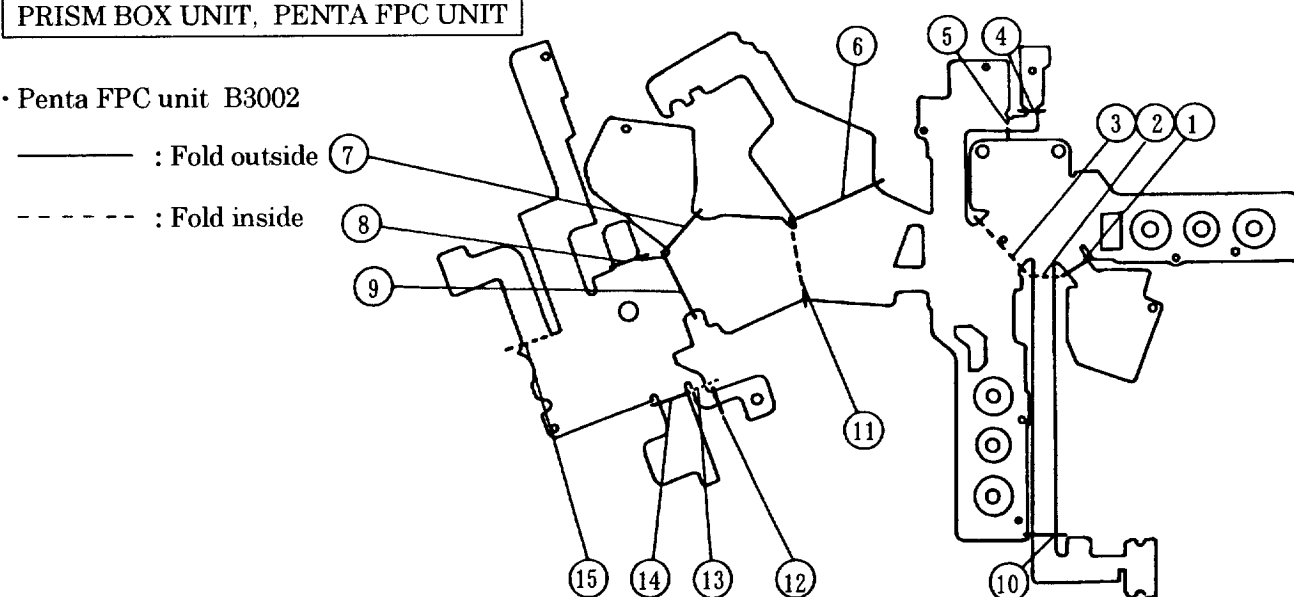
Standard value : $3.4^{+0.2}_{-0.1}$ mm

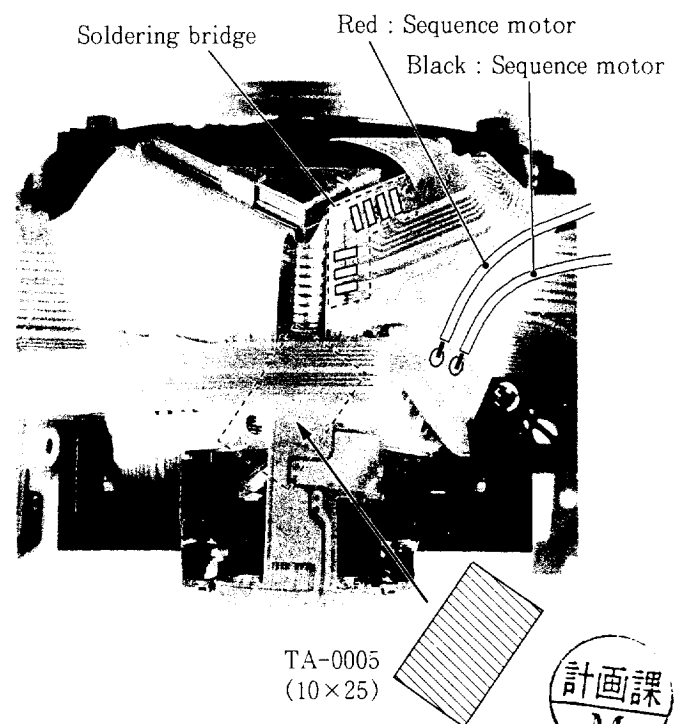
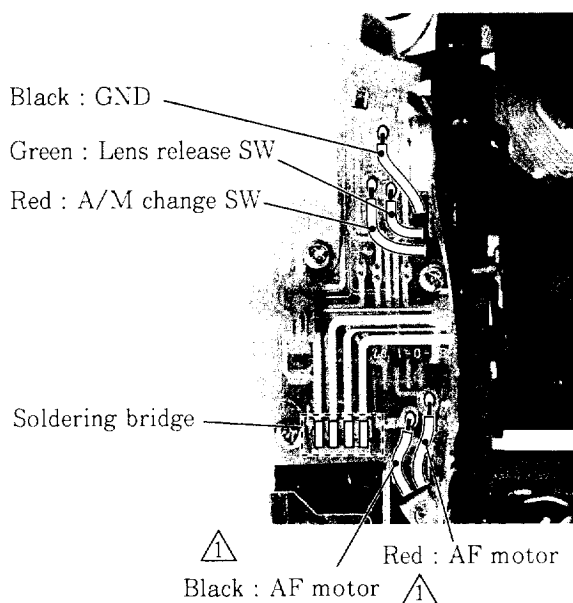
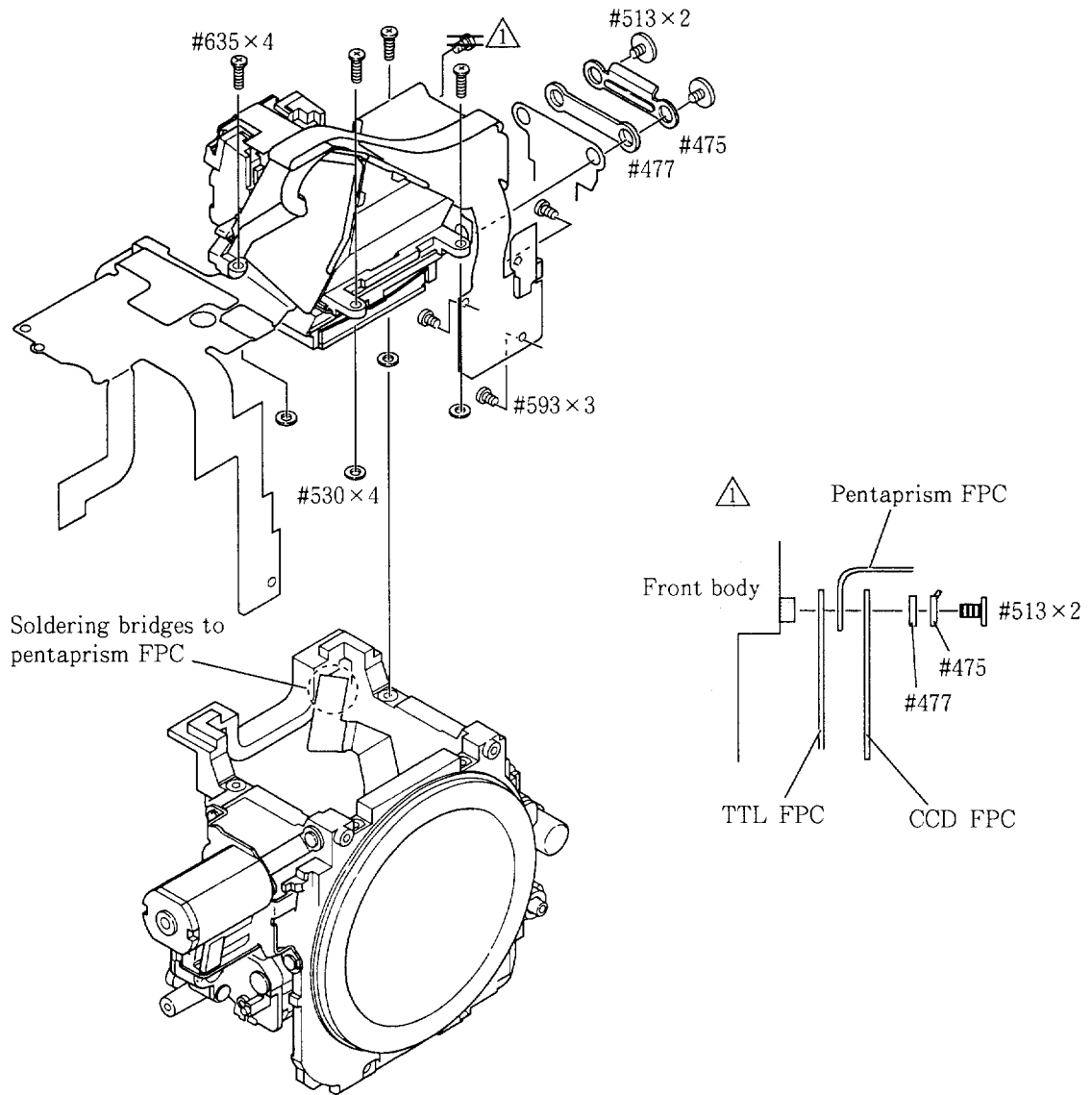
PRISM BOX UNIT, PENTA FPC UNIT

• Penta FPC unit B3002

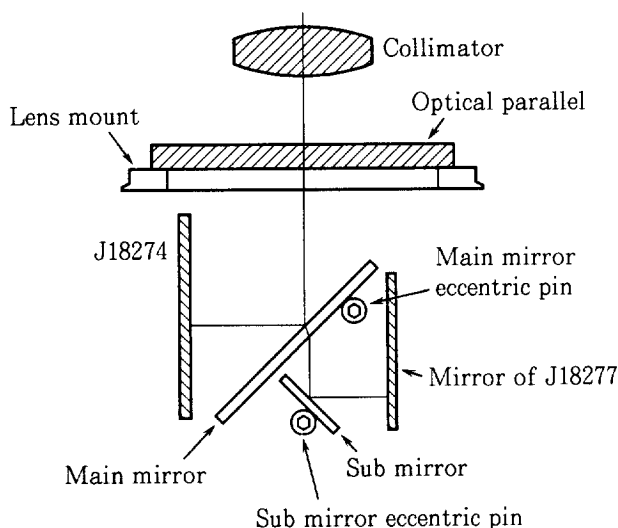
———— : Fold outside

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ANGLE ADJUSTMENT OF MAIN MIRROR AND SUB MIRROR TO 45°



[Use tools]

1. Angle adjustment of main mirror

- ① Collimator (J19002)
- ② Mirror angle inspection mirror (J18274)
- ③ Optical parallel (J18037)
- ④ Hexagonal wrench

2. Angle adjustment of sub mirror

- ① Collimator (J19002)
- ② Sub mirror angle adjustment tool (J18277)
- ③ Hexagonal wrench

● Angle adjustment of main mirror to 45°

Note: Check to confirm the accuracy of the main mirror before and after adjustment by moving it up and down several times.

(1) Checking the discrepancy (right/left)

If the horizontal misalignment is out of standard, the bayonet mount spring #302 may be caught or the front body may be deformed.

(2) Checking the discrepancy (up/down)

If the amount of the discrepancy is out of the standard, rotate the main mirror eccentric pin to adjust.

● Angle adjustment of sub mirror to 45°

Note: Check to confirm the accuracy of the main mirror before and after adjustment by moving it up and down several times.

(1) Checking the discrepancy (up/down)

If the amount of the discrepancy is out of the standard, rotate the sub mirror eccentric pin to adjust.

Standard:

	Main mirror	Sub mirror
Discrepancy (right/left)	Within $\pm 20'$	
Discrepancy (up/down)	Within $\pm 5'$	Within $\pm 10'$
Distortion	Within $\pm 8'$	Within $\pm 8'$

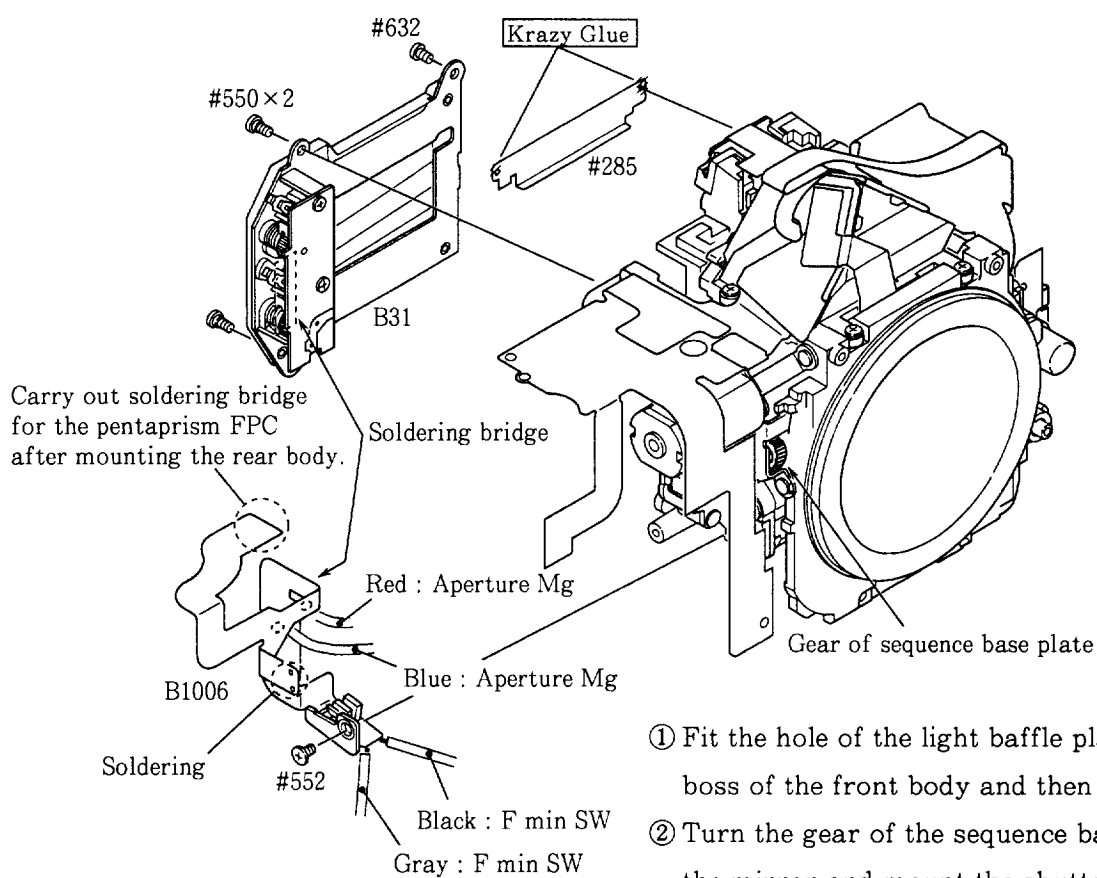
ADJUSTMENT OF INFINITY (∞)

● Adjust so that subject at infinity (∞) comes in focus within the alignment of $0 \pm 0.05\text{mm}$ when using a reference lens J18010.

(1) If the alignment of " ∞ " is $\pm 0.07\text{mm}$, adjust by turning the main mirror eccentric pin.

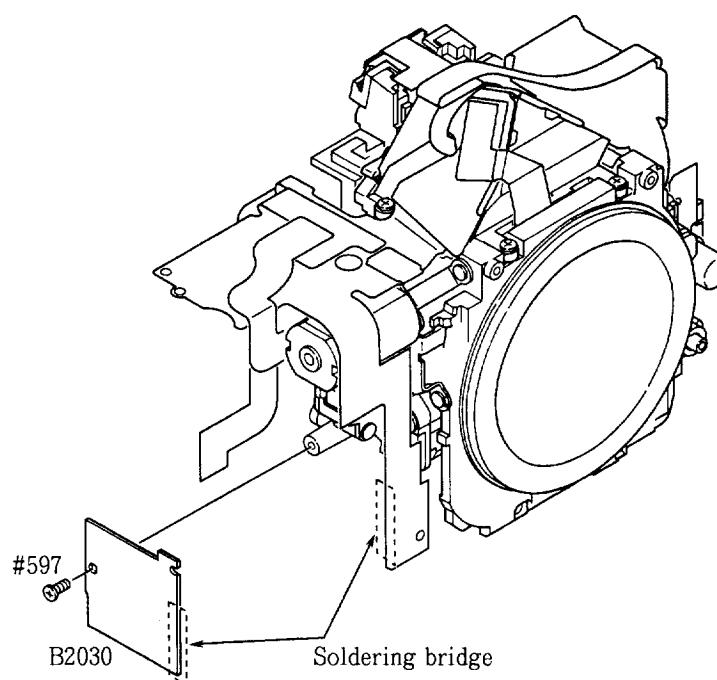
(2) If the alignment of " ∞ " is $\pm 0.08\text{mm}$ or more, adjust by using the prism box washers #530 $\times$ 4.

SHUTTER UNIT



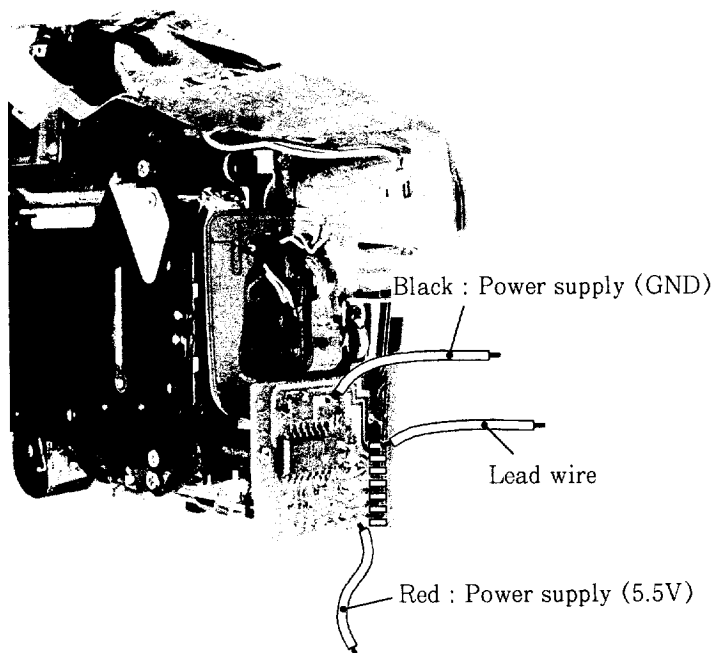
- ① Fit the hole of the light baffle plate #285 to the boss of the front body and then glue the plate.
- ② Turn the gear of the sequence base plate, set up the mirror and mount the shutter B31.
- ③ After mounting the shutter, turn the gear of the sequence base plate and make sure that the shutter curtain charges.

DC/DC CONVERTER



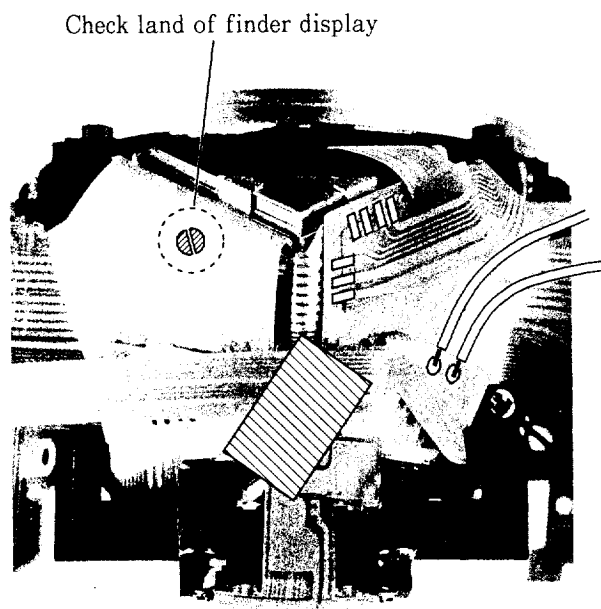
INSPECTION OF FINDER DISPLAY

- Check if the LCD is shading and if the LED is ON in the finder.



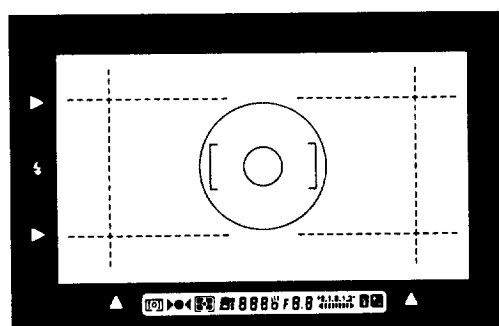
[How to check]

- ① Solder a lead wire to the CTL terminal of the DC-DC converter.
- ② Connect the red and black lead wires of the DC-DC converter to the stabilization power supply.
- ③ Connect the soldered lead wire as mentioned in ① to the power (5.5V) line.



- ④ Short-circuit the check land pattern of the pentaprism FPC and check the displays in the finder.
The displays light or flash repeatedly while short-circuiting the pattern.

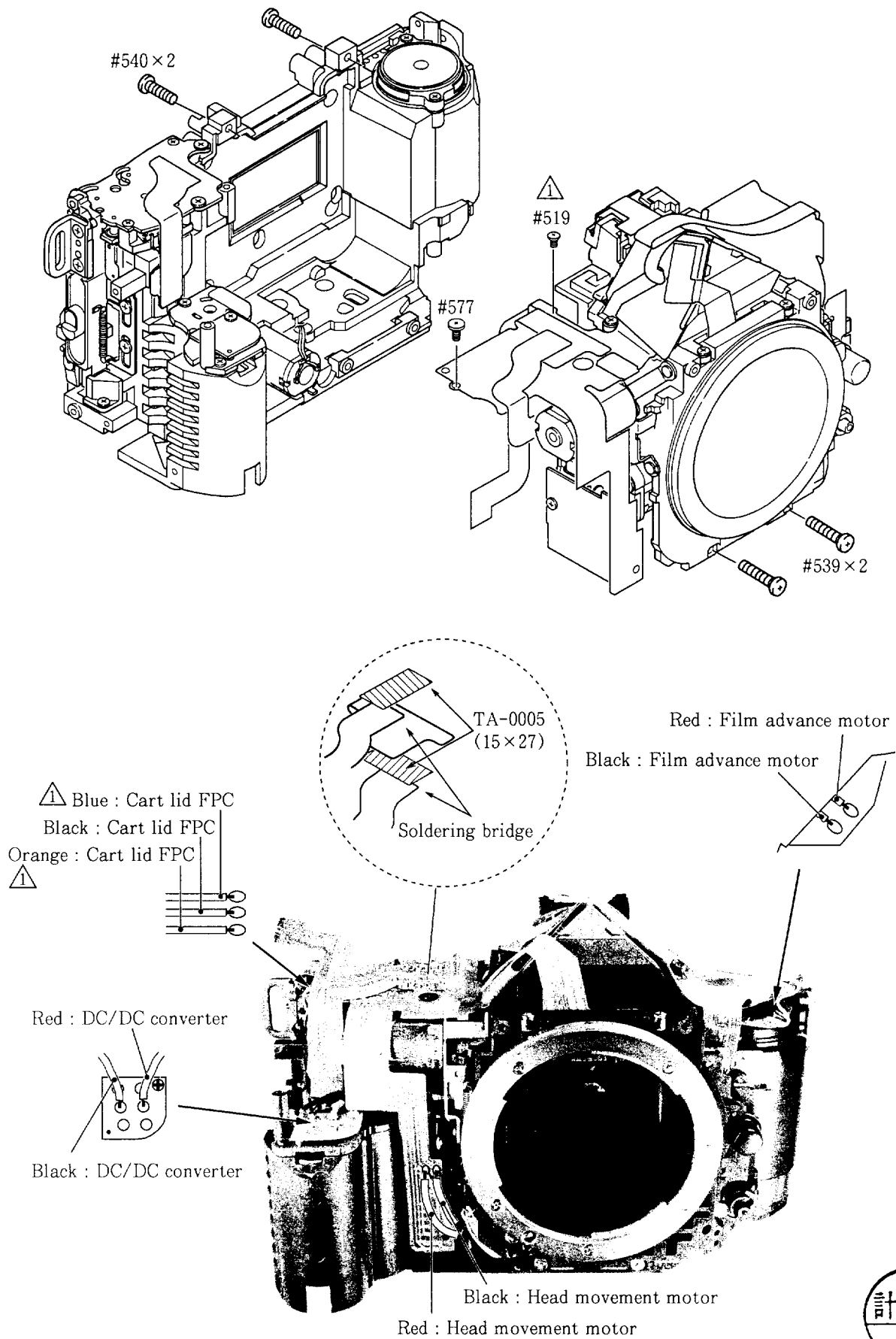
(Displays in the finder)



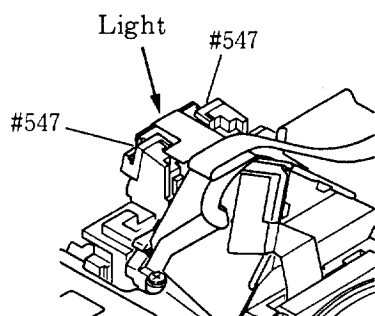
- ⑤ After checking, remove the soldered lead wire as mentioned in ①.

3. APPEARANCE

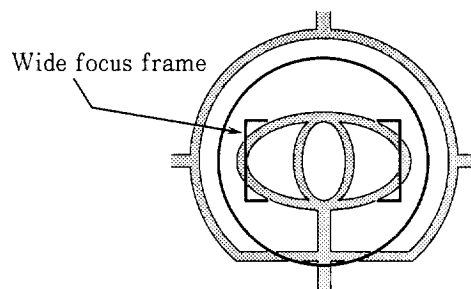
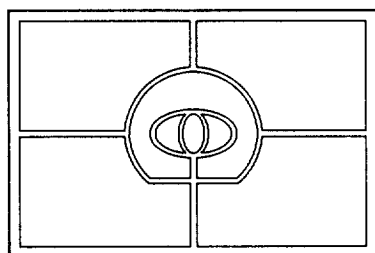
ATTACHING THE FRONT BODY TO REAR BODY



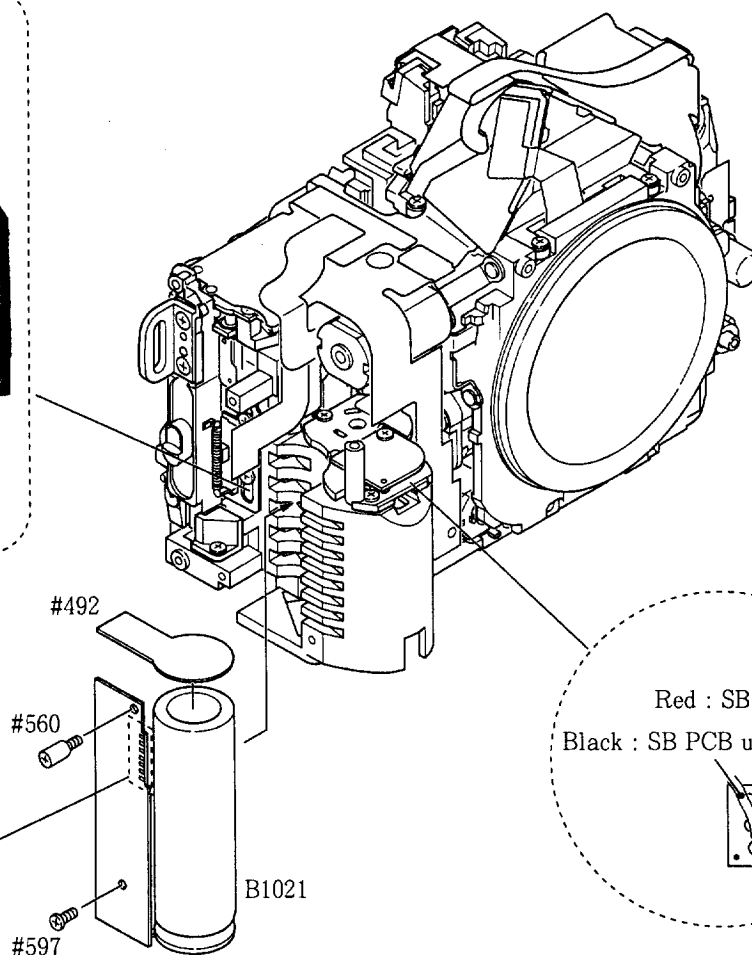
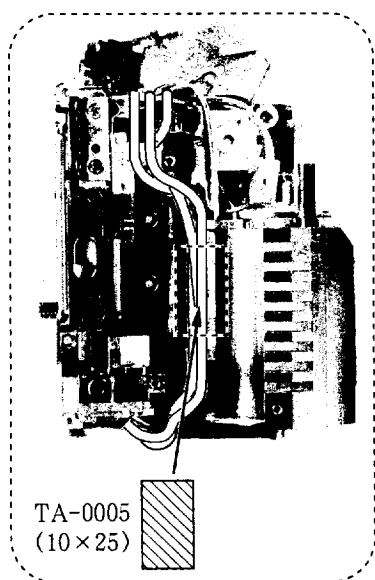
ADJUSTMENT OF AE SPD POSITION



- ① Unfasten screws #547×2.
- ② Irradiate a strong light on the AE SPD so that the AE SPD patterns are reflected on the main mirror.
(Refer to the figure below on the left.)
- ③ As shown the figure below, align the center of the AE SPD with both the wide focus frame.
The AE SPD should be parallel to the main mirror.



SB PCB UNIT



Soldering bridges to
pentaprism FPC

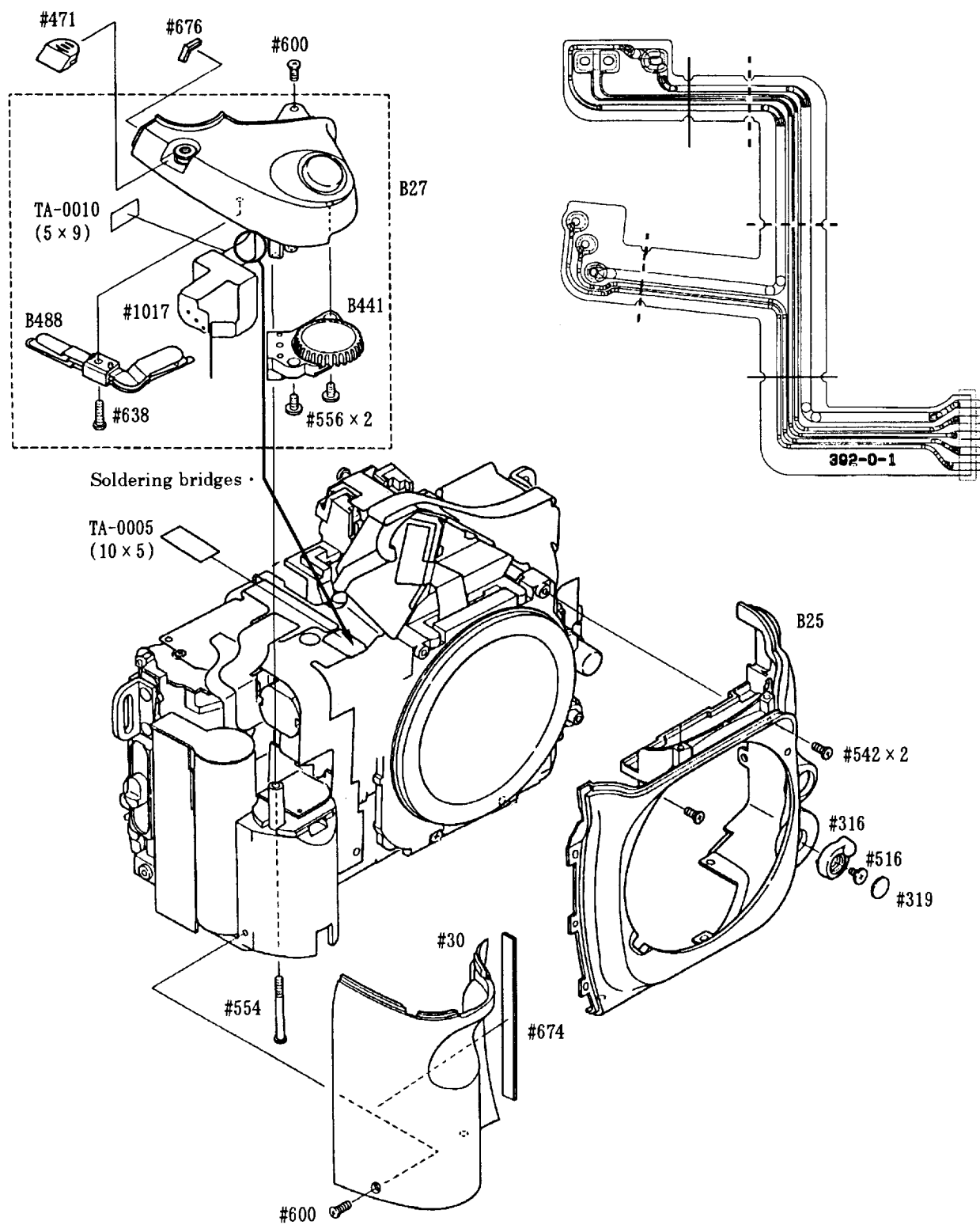
Red : SB PCB unit
Black : SB PCB unit

FRONT COVER, LOWER GRIP, UPPER GRIP UNIT

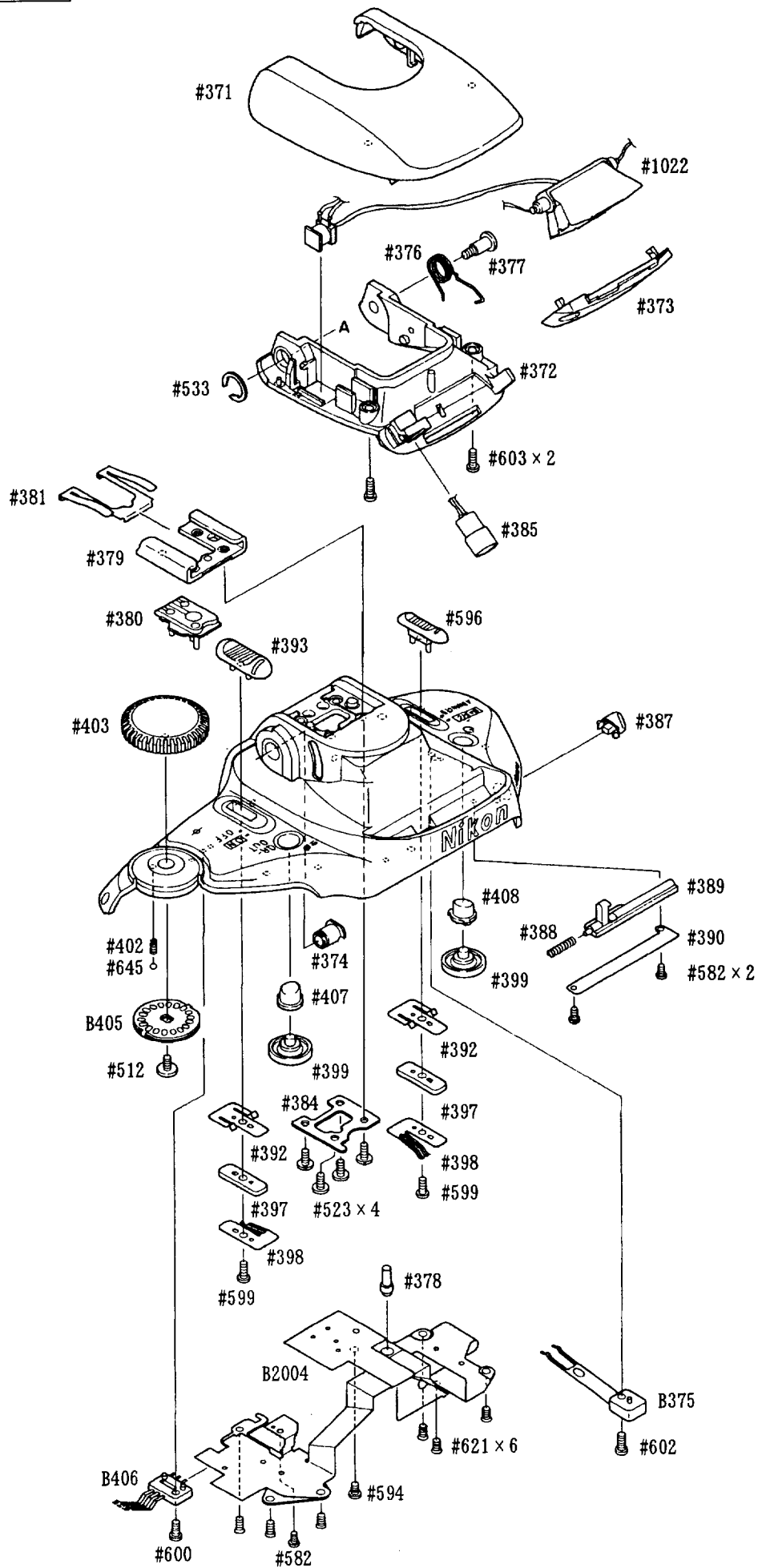
• Grip FPC #1017

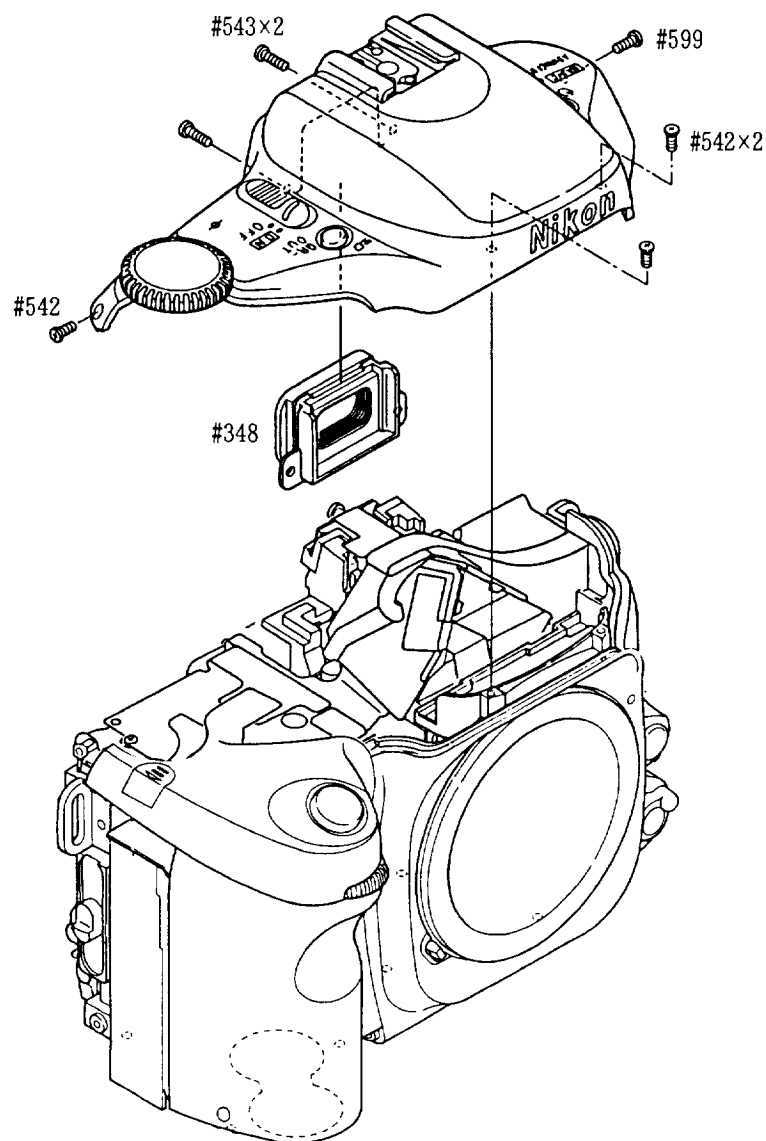
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TOP COVER UNIT

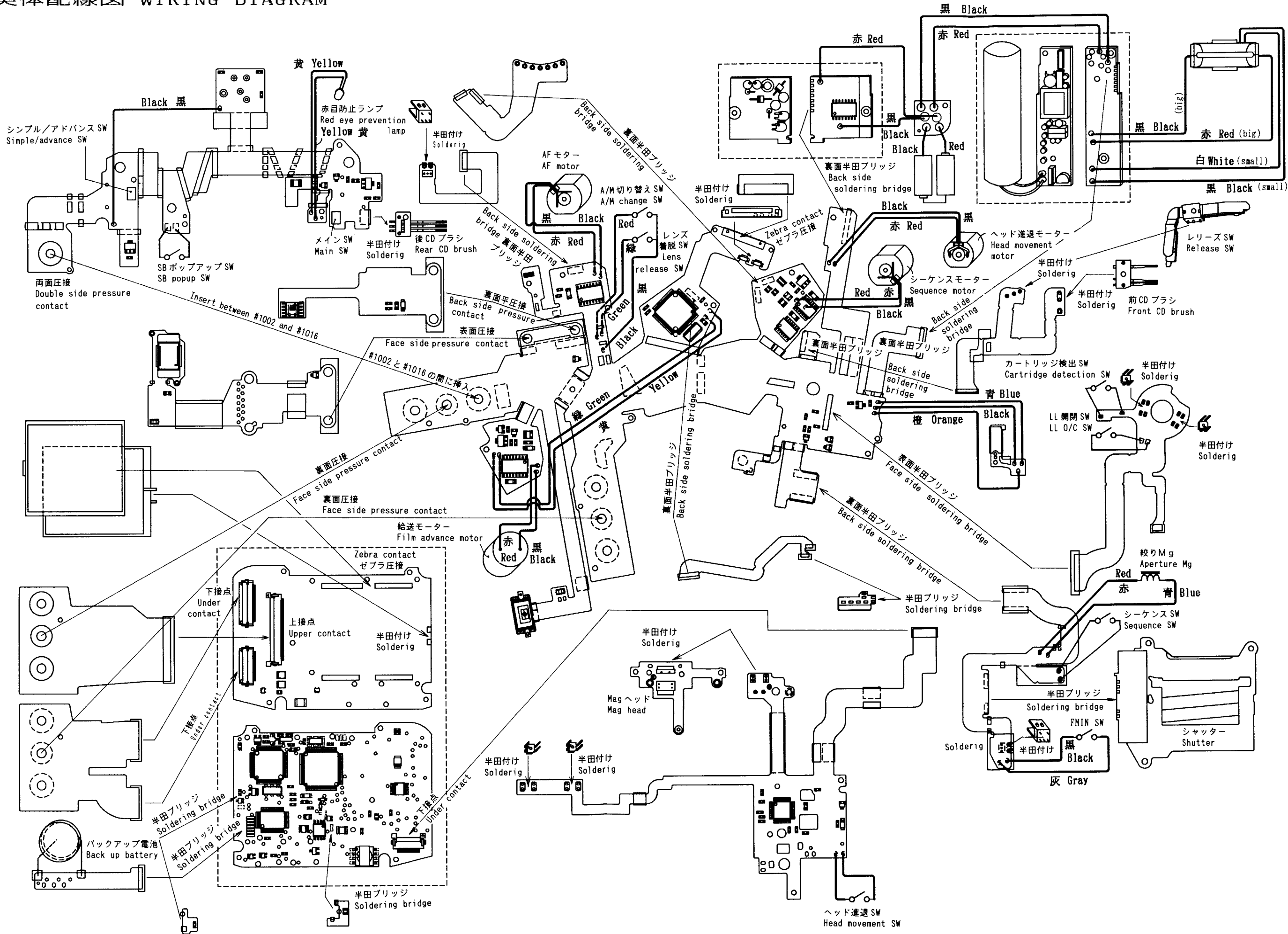




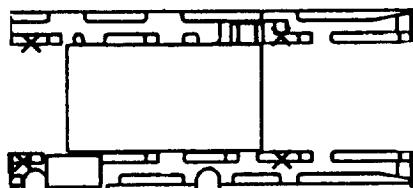
~~OPERATION CHECK~~

~~Connect the stabilization power supply (5.5V) and make sure that the upper cover is released.~~

実体配線図 WIRING DIAGRAM



ADJUSTMENT OF BODY BACK (INNER RAIL HEIGHT)



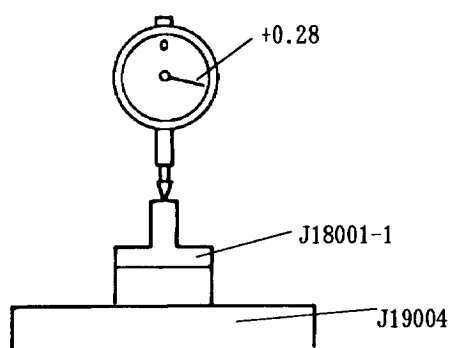
- Measure the distance between the lens mount surface and the inner rail.

Mark x : Measured positions

Standard value : $46.39 \pm 0.02\text{mm}$

Degree of parallel : within 0.02mm

- If it is out of the standard value, adjust the distance by inserting the washers under the lens mount. If the height is $\pm 0.11\text{mm}$ or more, the front body may be deformed. Check the body and then replace it.



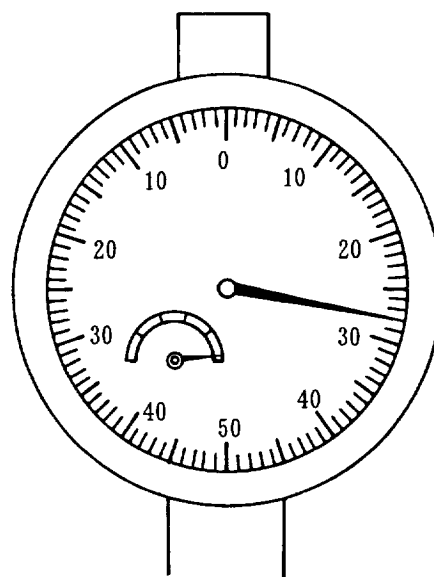
[How to set the body back dial gauge]

- (1) Put the gauge (J18001-1) on the body back stand (J19004).
- (2) Position the dial indicator so that the pointer may be at "+0.28". (1 scale is 0.01mm.)

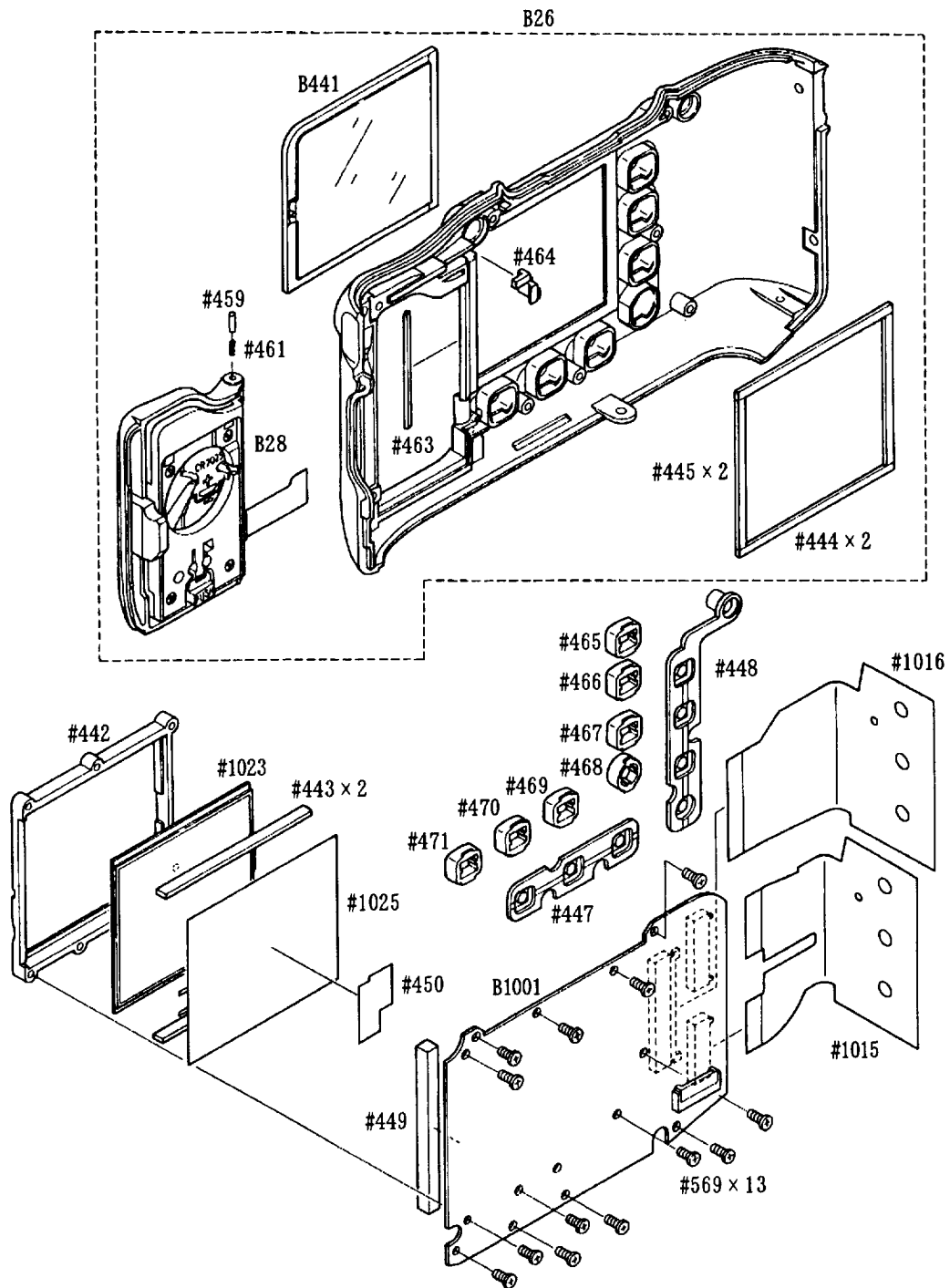
Note : Adjust the height so that the pointer of the dial indicator may return to about "-0.1mm" when the gauge (J18001-1) is removed.

<Reference>

"Gauge size 46.67mm" - "Inner rail height standard 46.39mm"
= +0.28mm

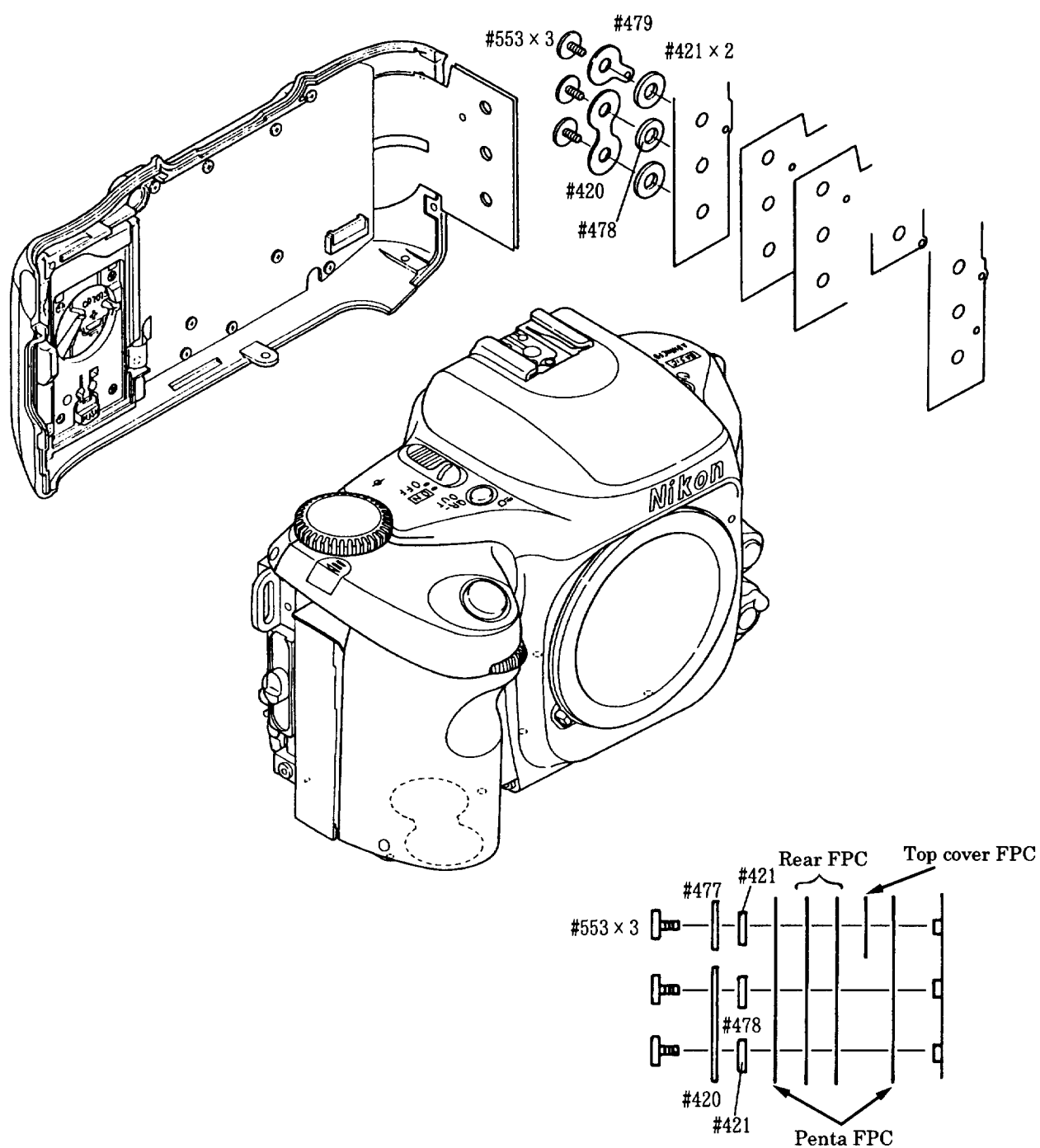


MAIN PCB, CART LID



CONNECT MAIN PCB

Note : Carry out connection except FPC after inspection and adjustment the parts related to AE.



OPERATION CHECK



- Connect the stabilization power supply (5.5V) and make sure that the upper cover is released.

INSPECTION AND ADJUSTMENT THE PARTS RELATED TO AE

[Items of inspection and adjustment]

- (1) AE accuracy
- (2) Aperture control
- (3) M 1/4000
- (4) TTL accuracy
- (5) Battery check voltage

[Use tools]

1. For all items

- (1) Personal computer
- (2) Nikon I/F board (J15275) or (J15283)
- (3) Communication box (J15278)
- (4) Camera communication tool (J15332)
- (5) Inspection and adjustment FD (J18276A~D)
- (6) Power supply (5.5V)
- (7) Shutter tester (EF8000)

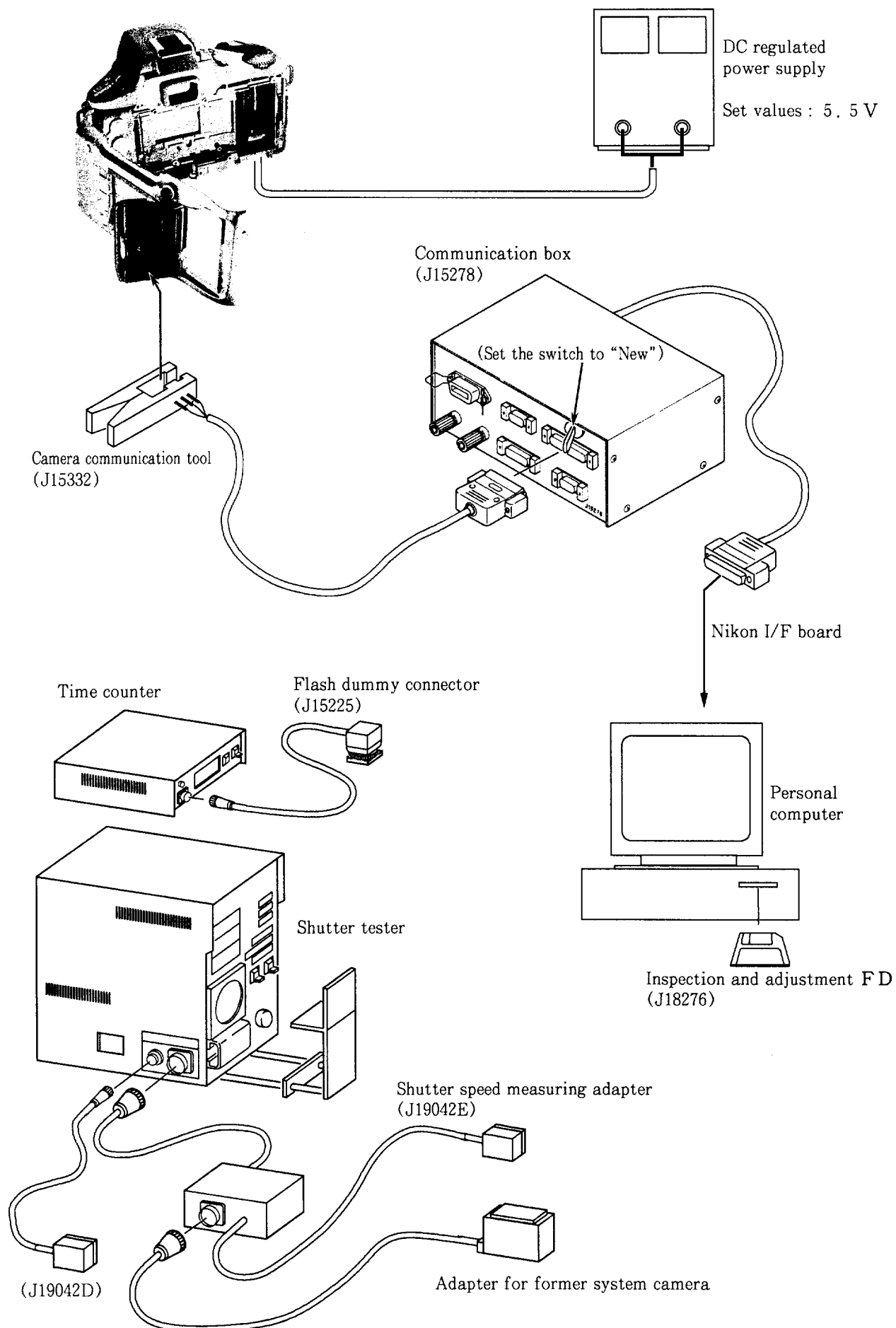
2. For AE, Aperture control and M 1/4000 adjustment

- (1) AF 50/1.8 s lens
- (2) Shutter speed measuring adapter (J19042E) and exposure value measuring adapter (J19042D)

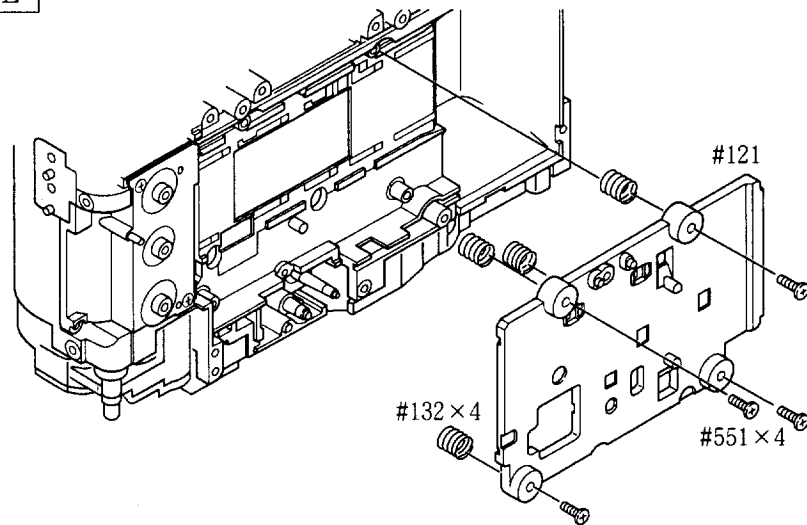
3. For TTL adjustment

- (1) AF 50/1.8 s lens
-  (2) Kodak color negative film (ISO 200) or standard reflector paper (18%)
- (3) Flash dummy connector (J15225)
- (4) Time counter (J15188)

[HOW TO CONNECTION]



PRESSURE PLATE



ADJUSTMENT OF M.B.F

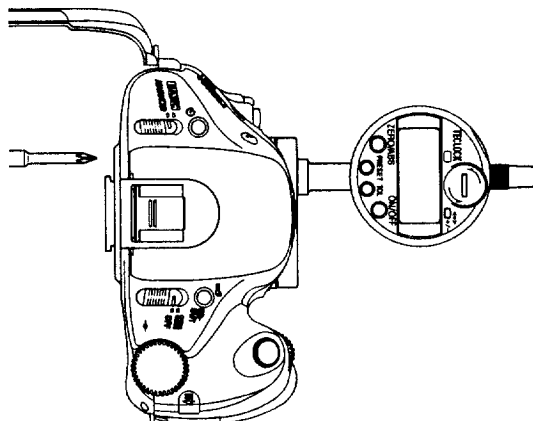
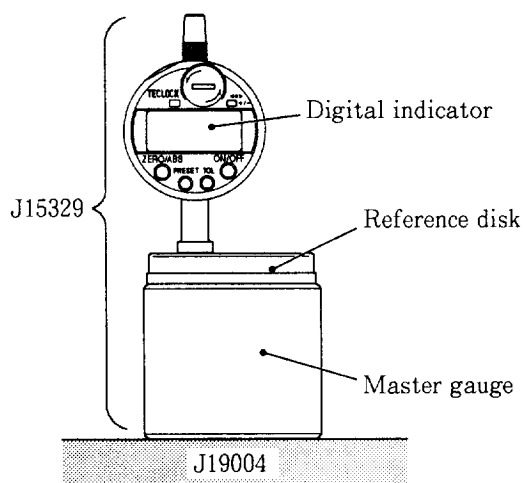
- Adjust the distance from the bayonet surface to the pressure plate to be within the standard.

Standard : 4 6 . 6 4 ± 0 . 0 3 mm

[Use tools]

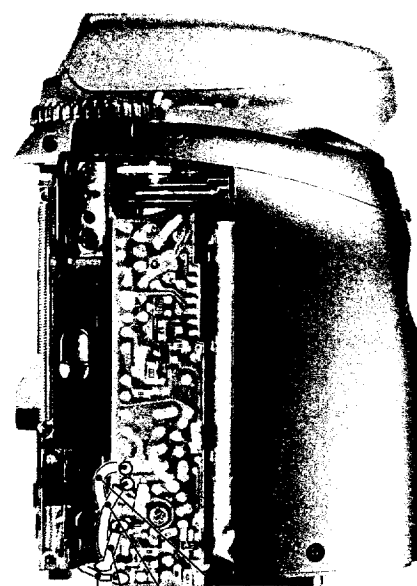
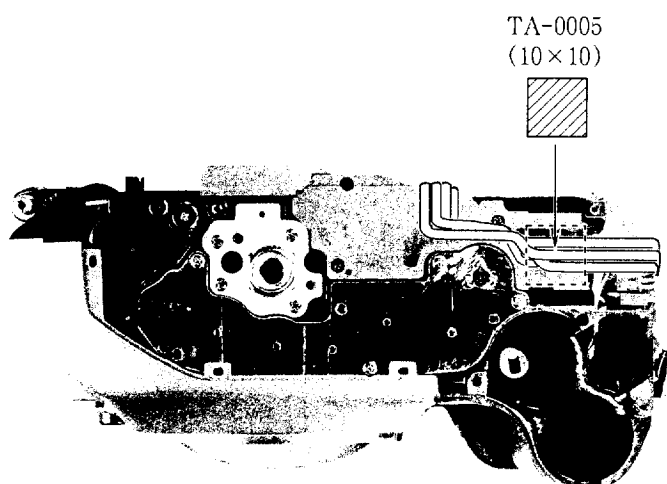
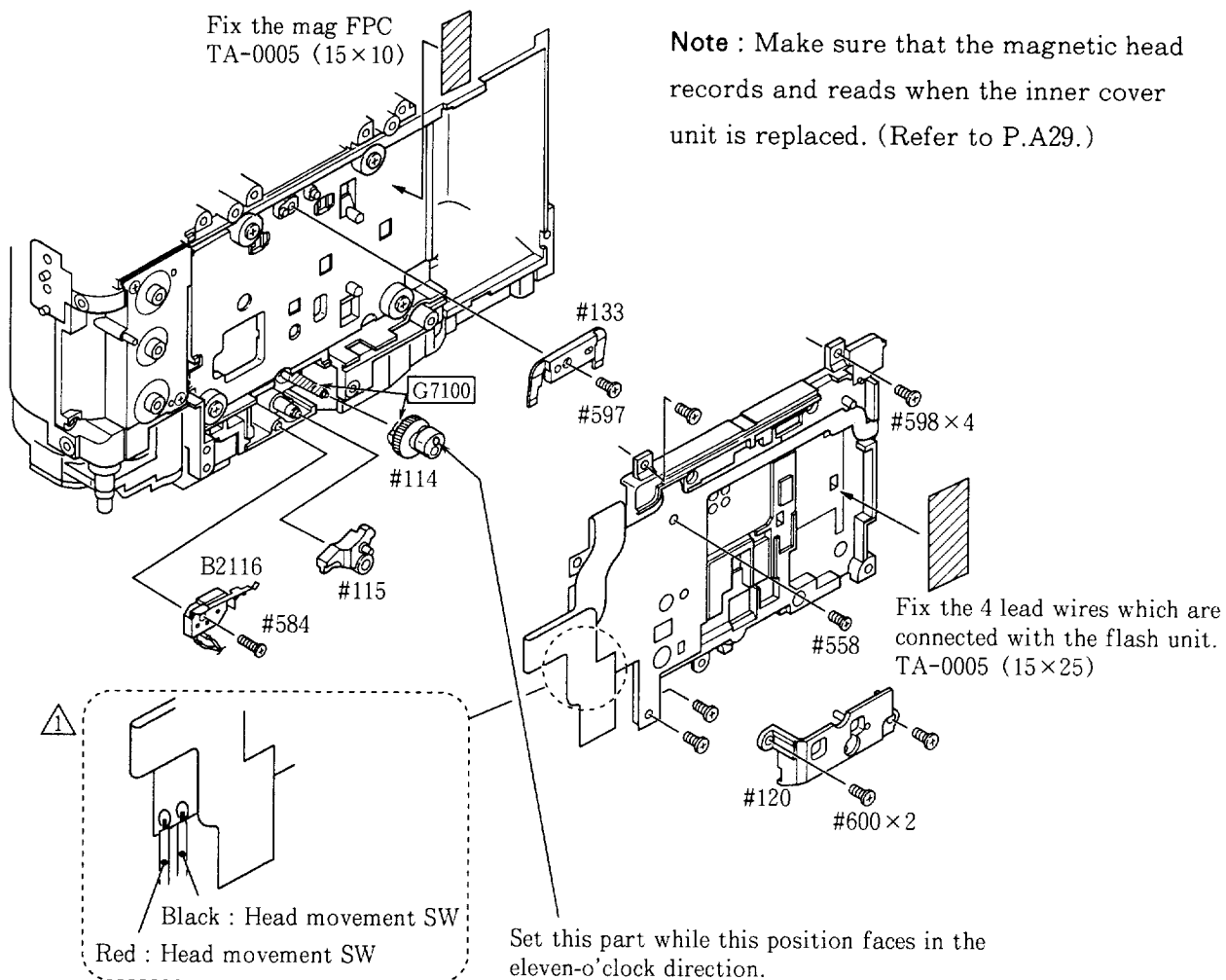
- ① Body back stand (J19004)
- ② M.B.F measurement tool (J15329)

[How to adjustment]

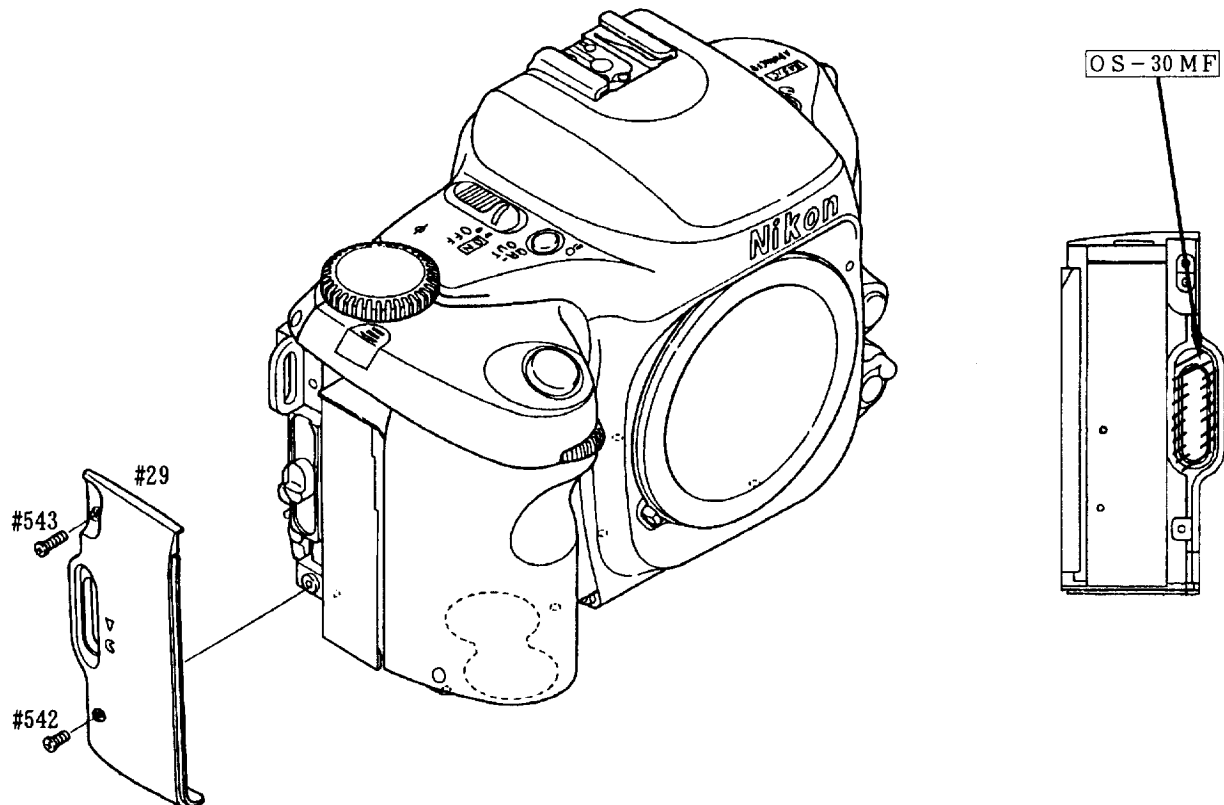


- ① As illustrated left, set a master gauge, reference disk and digital indicator on the body back stand (J19004).
- ② Turn on the power of the digital indicator and reset the display to zero by pressing the ZERO button.
- ③ Remove the digital indicator and reference disk. Mount the reference disk on the camera which is to be adjusted.
- ④ While the camera is at "B (bulb)" status, insert the digital indicator into the reference disk and read the values of 4 places.
- ⑤ Adjust by using the 4 screws #551 so that the values may be within the standard.

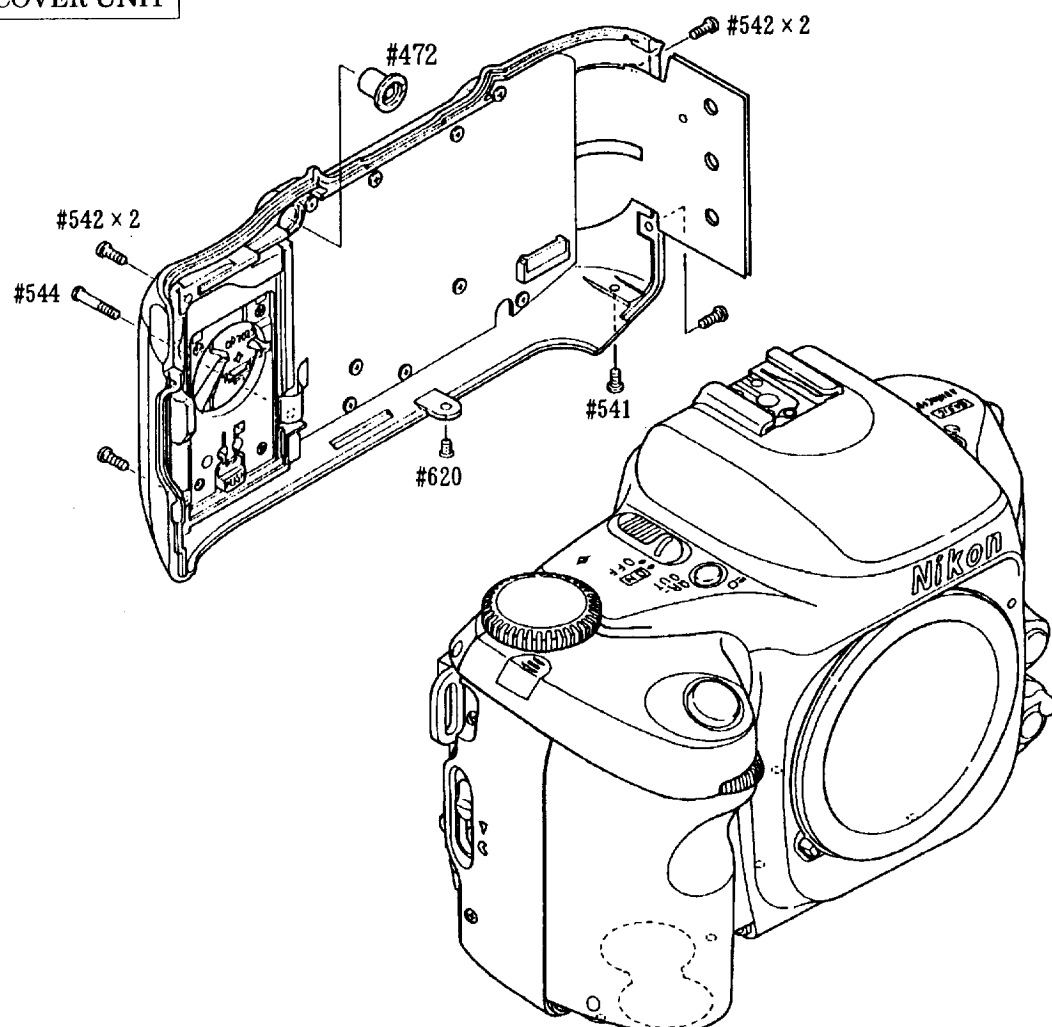
INNER COVER UNIT, MAG BASE PLATE



CART LID LEVER COVER



REAR COVER UNIT



 WARNING	
	● Beware of electric shock from the high voltage unit. ● Be sure to discharge the main condenser after removing the cover when disassembling the camera for repair.

INSPECTION AND ADJUSTMENT OF AF

[Items of inspection and adjustment]

- (1) AF accuracy
- (2) YAW, PITCH
- (3) CCD out put
- (4) LARK

[Use tools]

- 1. For all items

The same tool as AE adjustment (Refer to P.A22.)

- 2. For AF inspection

- (1) Z adjustment lens (J18183)
- (2) AF adjustment stand (J15259)
- (3) Z lens holder (J15280) or tripod socket position conversion adapter (J15271)
- (4) AF chart (J18232)
- (5) Lighting box (J15264)

- 3. For YAW/PITCH adjustment

- (1) The above tools for AF adjustment
- (2) YAW/PITCH tool (J18230)

- 4. For CCD out put adjustment

AF 50/1.8 s lens

- 5. For LARK adjustment

The above tools for AF adjustment

INSPECTION OF MAGNETIC HEAD

- Make sure that the magnetic recording and reading are done normally.

[How to check]

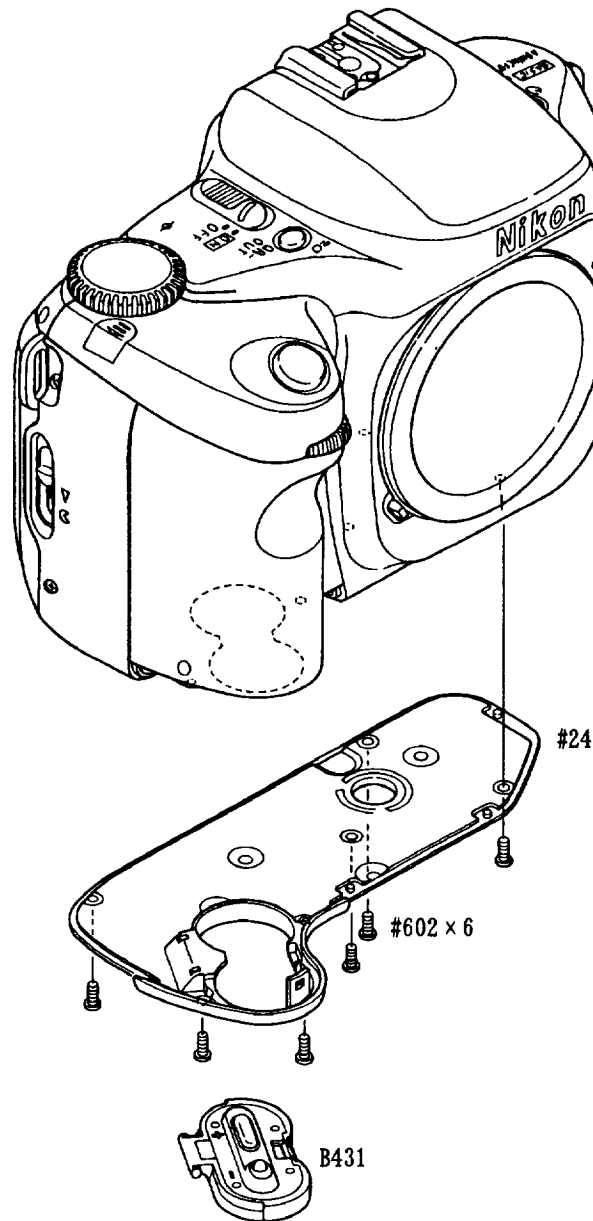
(1) Magnetic recording

1. Take photographs normally by using a film whose magnetic data has been erased.
2. Check the used film with the magnetic record reproduction device (a product made by another company on the market).

(2) Magnetic reading

1. By using a film whose magnetic data has been erased, take photographs by several frames and rewind the film.
2. Set the rewound film again and make sure that the film is advanced by the frames took in above 1.

BOTTOM COVER

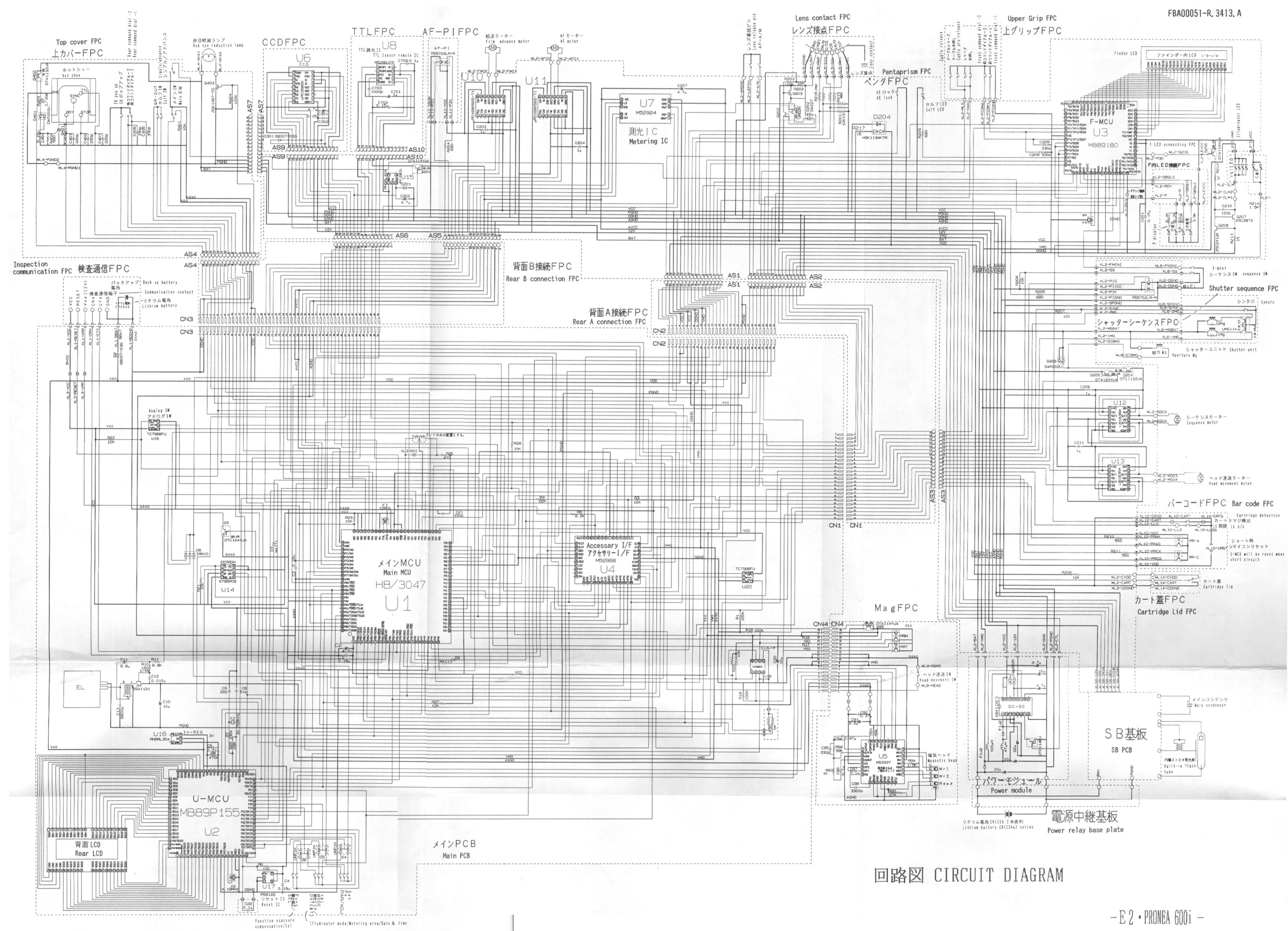


OPERATION CHECK

- Check the operation by using a tool lens and test film.
- After checking the operation, load a back-up battery and set the date and time.

When replacing a part listed below,
some adjustment may be required

Items of adjustment Parts replaced	AE accuracy	Aperture control	M1/4000	TTL accuracy	BC voltage	AF accuracy
Shutter unit	○		○			
Main PCB unit	○	○	○	○	○	○
TTL SPD unit				○		
SB PCB unit						
DC/DC unit						
Aperture base plate unit		○				
AF sensor unit						○
Pentaprism FPC unit	○					
Front body unit		○				○



回路図 CIRCUIT DIAGRAM

SPECIFICATIONS

1. Cartridge information reading / setting	M 1
2. Magnetic recording / reading method	M 1
3. Contents of magnetic record	M 1
4. Setting of magnetic record	M 2
5. Clock function	M 2
6. Heatproof / wetproof function	M 2
7. Automatic exposure control	M 2
8. Photographing mode	M 3
8. Program mode	M 4
10. Program shift	M 7
11. Warning display	M 8

S P E C I F I C A T I O N S

(The following specifications and mechanical explanations are not included in other instruction manuals or brochures.)

1. Cartridge information reading/setting

- (1)Method: Cartridge bar code photoelectric detection method
 (2)Details of read data: Cartridge exposure status
 ("Unexposed", "partially exposed" and "Fully exposed or processed" can be detected.)
 Used film frames, film speed, film type
 (3)Information setting: The bar code is stopped in the specified position when rewinding is completed.
 (Stop is possible at "Unexposed", "partially exposed" or "Fully exposed".)

2. Magnetic recording/reading method

- (1)Head type: Permalloy 2 heads (One of the two heads can read.)
 (2)Head fixed type: Edge-follow type with escape mechanism
 The heads escape except at recording or reading.
 (3)Recording method: Batch recording at rewinding

3. Contents of magnetic record

Frame data

Track	Data Item	Meaning
C 1 track	Exposure Data and Time	Date/time. Print mode or front print is used or not.
	Print Aspect Ratio(PAR)	Print type of H / P / C
	Print Quantity	Print quantity can be specified in the range of 0,1~7.
	User Select Frame Title	100 kinds of ready-made title.
	Title language	Select language, common language to roll.
	Magnification	The photographing magnification is divided into 4 stages and recorded.
	Flash Fire	Flash is used or not.
	Scene Brightness Value	The detected brightness value is divided into 4 stages and recorded.
	Cartridge Hand of Load	Cartridge is loaded and fixed in the right.
	Series Scene	It is recorded that AE or SB is being bracketed.
C 2 track	Lens Focal Length	
	ISO Setting	
	Lens Max f-number	
	f-number Setting	
	Shutter Speed	
	Exposure Bias Setting	
	Metering Mode	

4. Setting of magnetic record

Magnetic record data are automatically created according to the camera set value or control value at release. The user can set the following magnetic record data.

(1)Photographing date

- Print order: "Year/month/day", "month/day/year" or "day/month/year" can be selected.
- Front print: "Year/month/day/hour/minute", "year/month/day" or no display can be selected. (It is different according to management in lab.)

(2)Print quantity

- Before photographing: 1~7 can be set.
- After photographing: 1 or 0 can be set.

(3)User frame title

- Setting of title: No title or Title No.00~99 can be set.
- Setting of language: Language code 1 ~99 can be set.

5. Clock function

(1)Clocking range: From January 1, 1996 to December 31, 2027

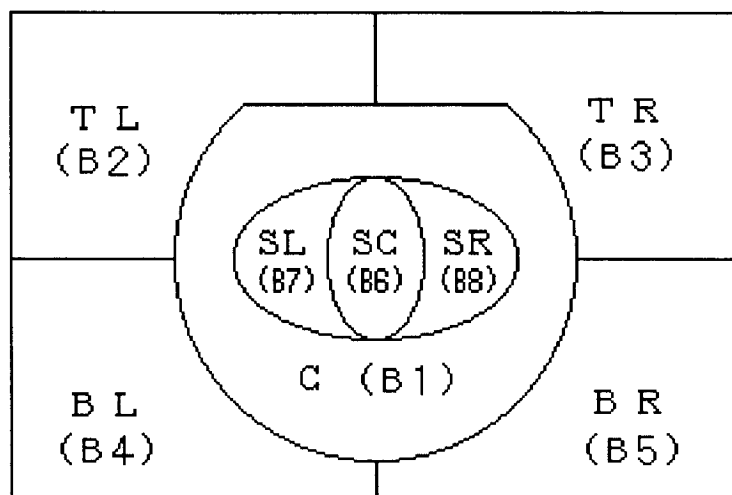
(2)Power supply: Power is supplied by the main battery and, if the main battery is removed, by the back-up battery.

6. Heatproof/wetproof function

(1)Each part demonstrates the specified performance in temperature 0 ~+40 °C and relative humidity 80% or less or in temperature -10~0 °C and relative humidity 50% or less.

(2)Each part demonstrates such performance as harmless for practical use in temperature -20~-10 °C and relative humidity 50% or less or in temperature +40°C and relative humidity 90%.

7. Automatic exposure control



【Spot metering】

Required metering output: B6 (SC)

Area=Approx. 2.9mm² (on the screen)

【Center-weighted metering】

Required metering output: B1 (C), B6 (SC), B7 (SL), B8 (SR)

Area=Approx. 50mm² (on the screen)

【Matrix metering】

Required metering output : B1(C),B2(TL),B3(TR),B4(BL),B5(BR),B6(SC),
B7(SL),B8(SR)

8. Photographing mode

Functions of modes

	BASIC mode	ADVANCED mode
Exposure mode	☆ P,Ps only	※ ○
Print type	○	○
Metering system mode	Matrix metering	※ ○
Exposure compensation	×	※ ○
Function area setting	×	※ ○
Focus area	Wide	※ ○
Focus mode	A F - S	※ ○
Film advance mode	S	※ ○
Multiple exposure	×	☆ ○
Flash sync mode	★ Normal sync	※ ○
AE bracketing	×	☆ ○
SB bracketing	×	☆ ○
Flash compensation	×	※ ○
QR-IN, QR-OUT function	×	※ ○
Film speed setting/check	Auto/Can not check	※ Auto/manual, Can check
Print quantity setting/cancel	○	○
Title setting	○	○
Title language setting	○	○
Date, time setting/changing	○	○
Program shift	☆ ○	☆ ○
AE lock	○	○
Self timer	○	○
Halfway rewinding	○	○
Two-button reset	○	○

• "○" shows that setting or selection is possible and "×" shows that setting or selection is impossible.

• "※" shows that the set value is saved when the original mode is reset though the photographing mode is changed.

• "☆" shows that the set value is reset when the photographing mode is changed.

• "★" shows that the set value is prior if setting is done on the outside flash.

• The section without "※" or "☆" shows that the set value at the moment is effective regardless of the photographing mode change.

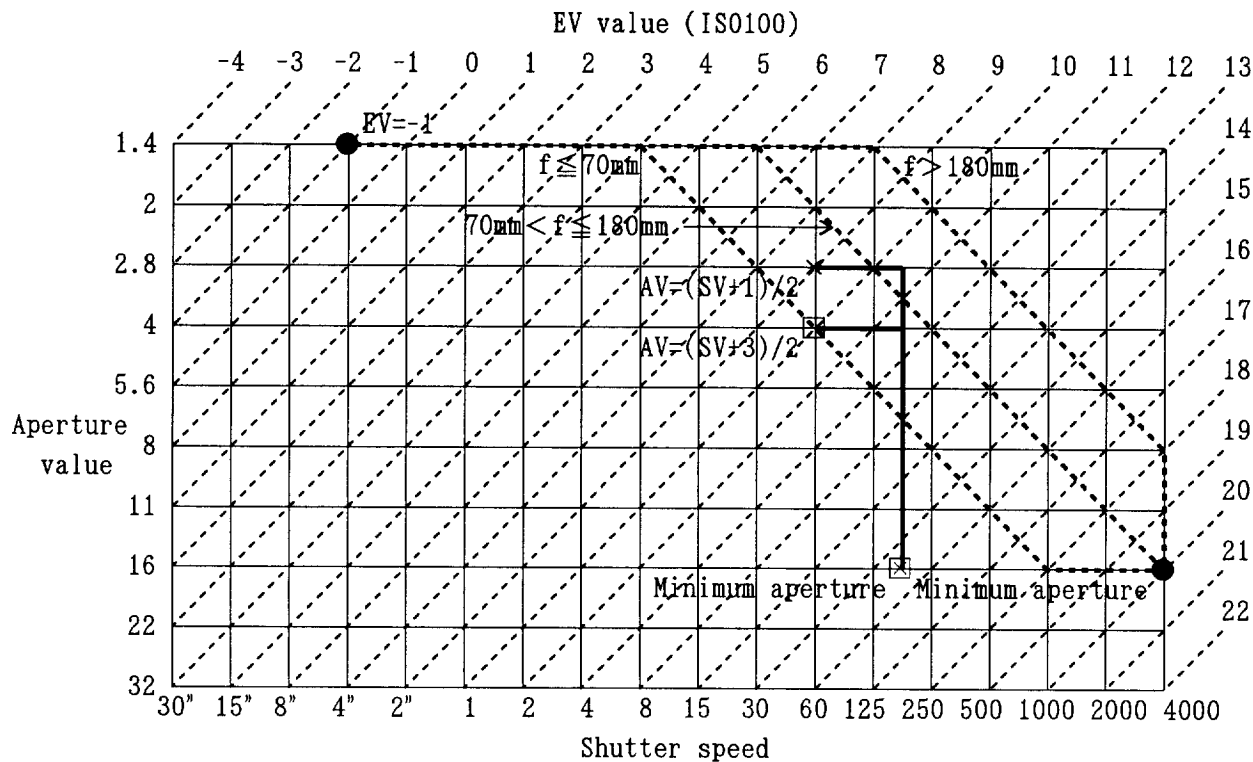
9. Program mode

• The graph of the program modes is shown below.

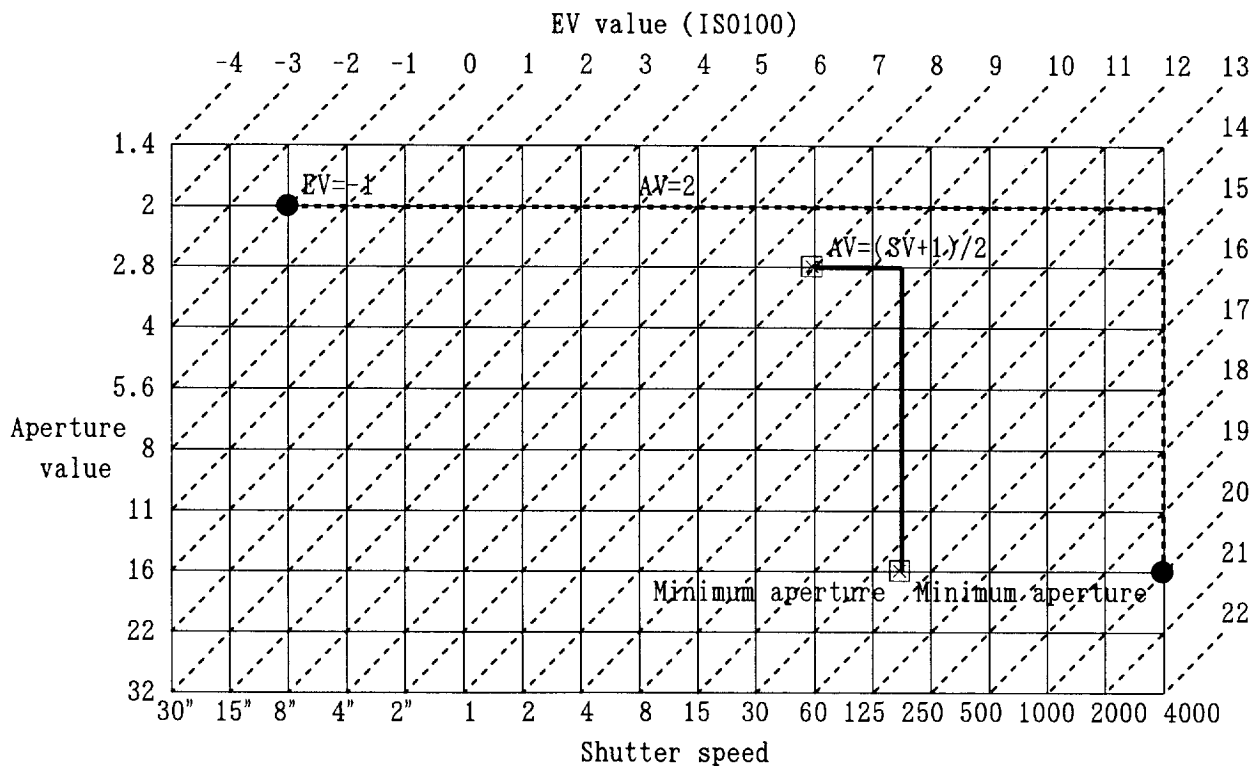
(This graph shows the values when 50/1.4 lens is used and ISO is 100.)

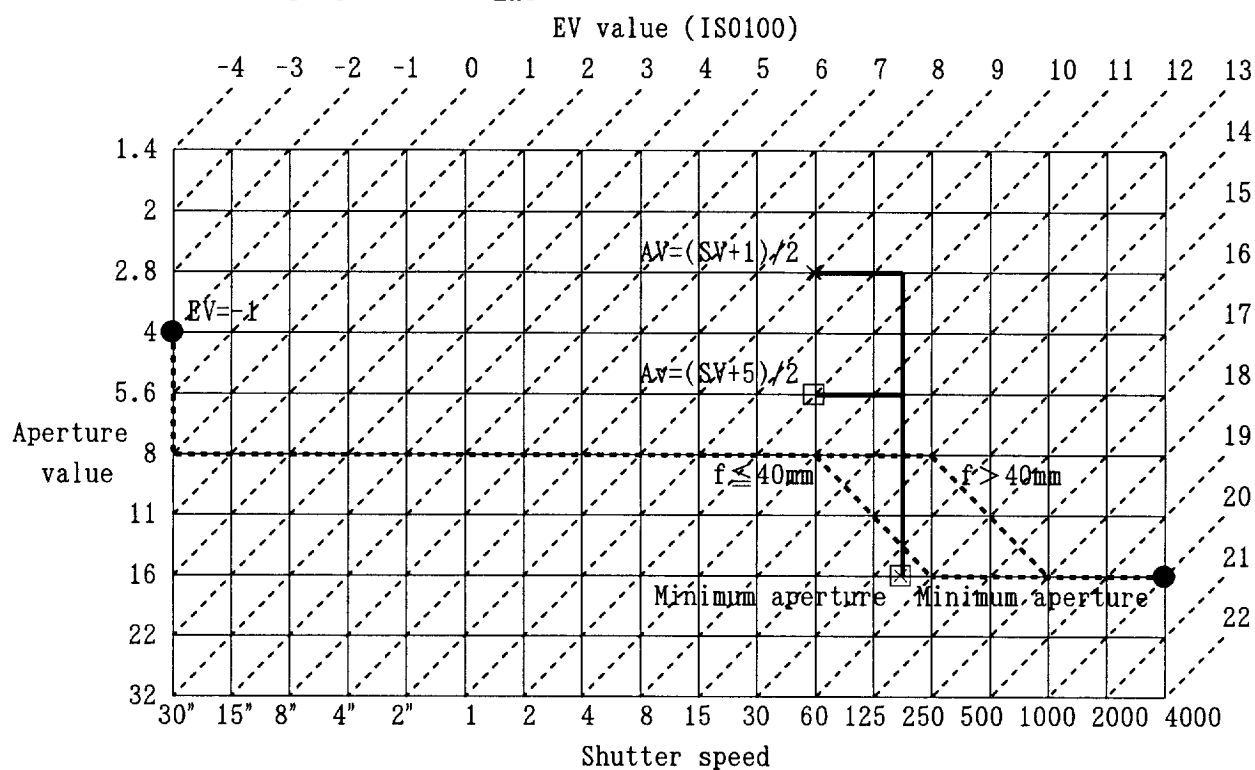
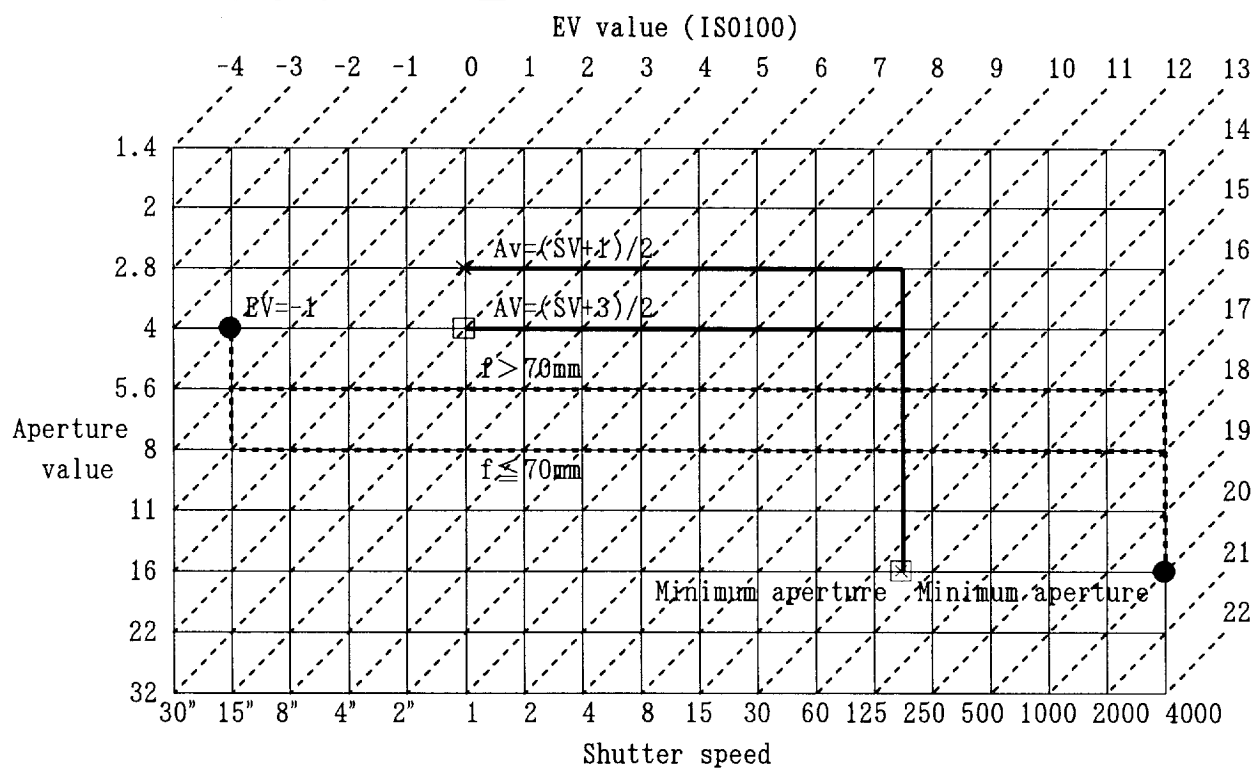
- : Without flash
- ×-----× : A built-in flash is used.
- : An outside flash is used.

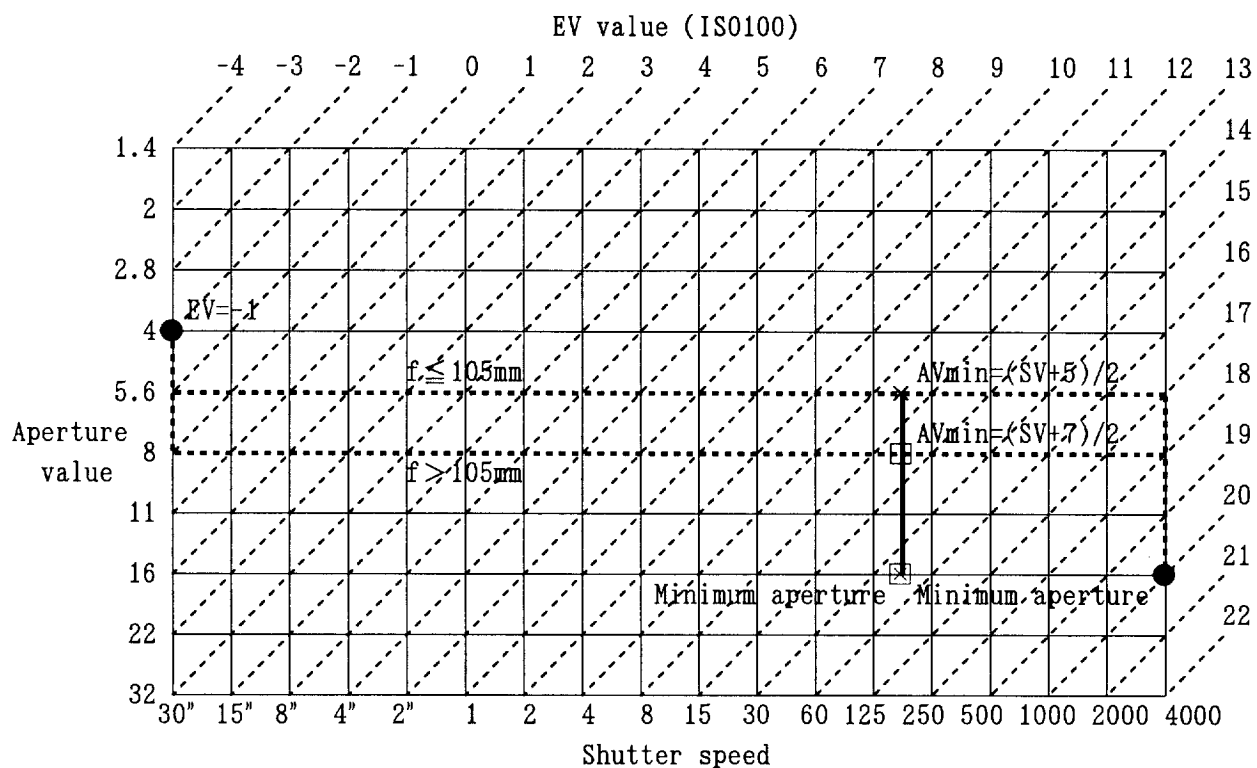
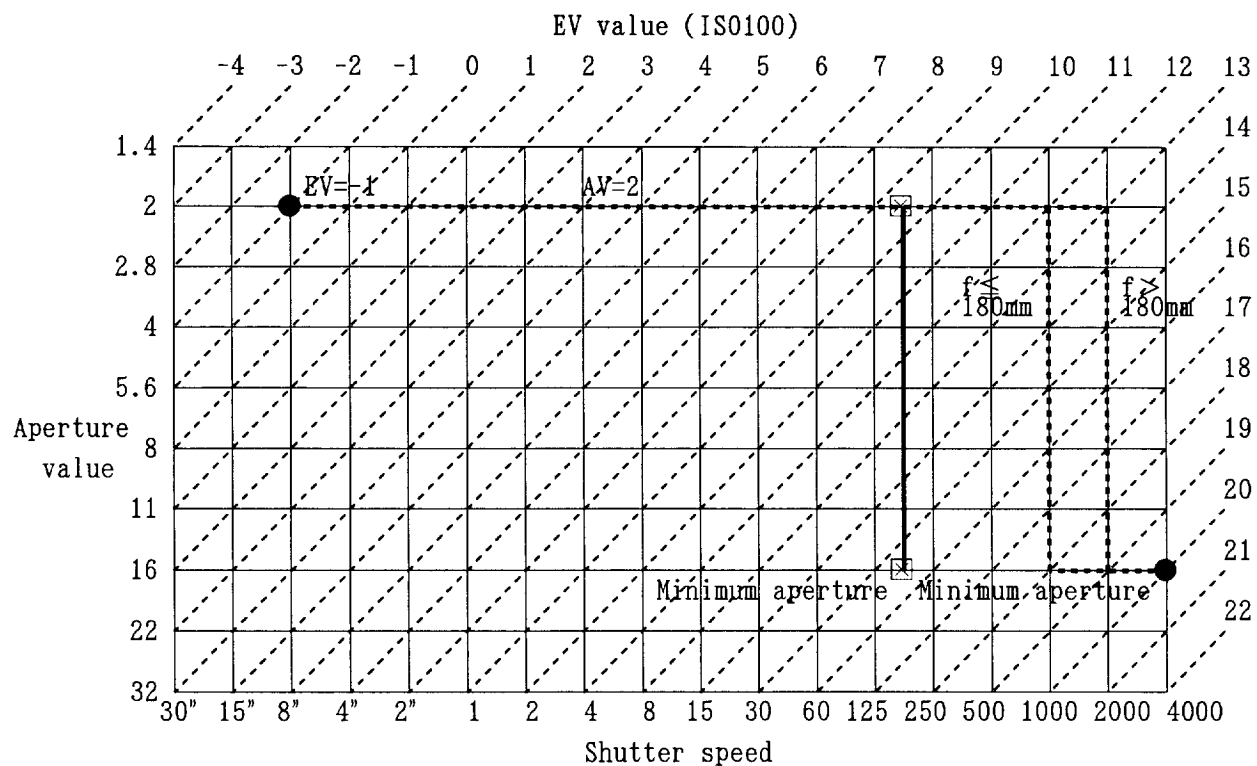
【Program mode : P】



【Portrait program mode : 】



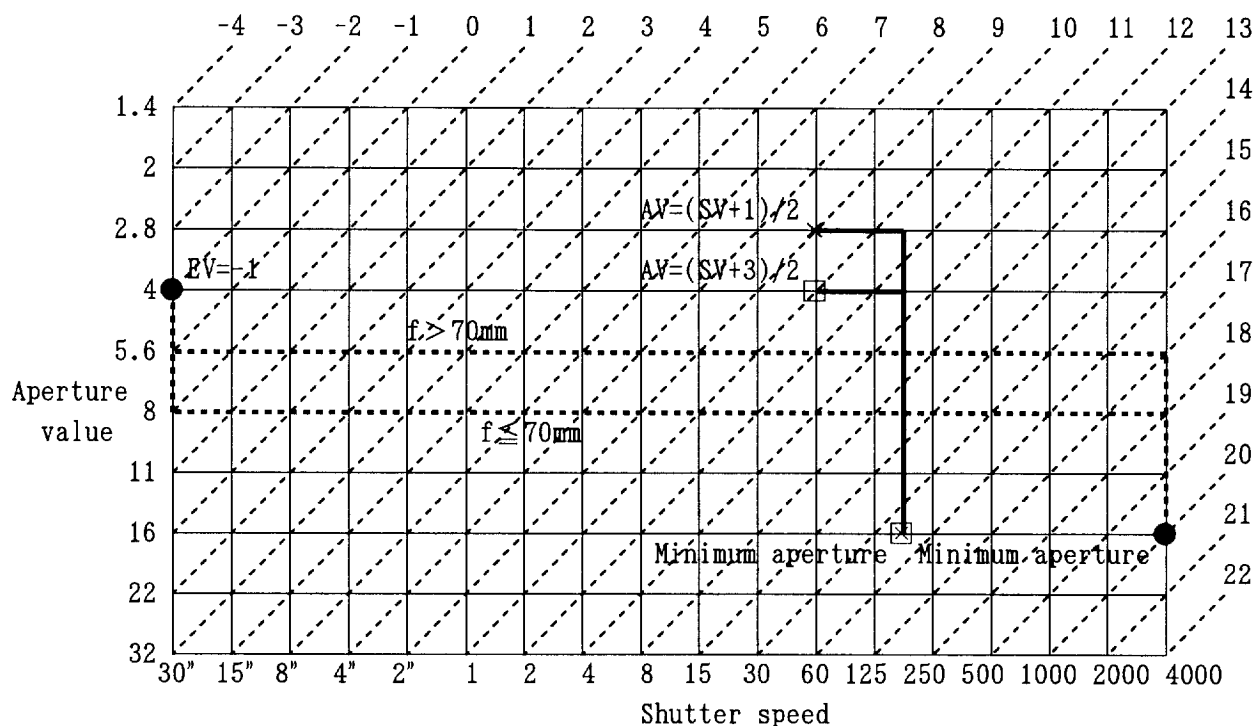
【Hyperfocal program mode : 】【Landscape program mode : 】

【Close-up program mode : 】【Sport program mode : 】

【Silhouette program mode: 】

☆Exposure compensation: -2EV

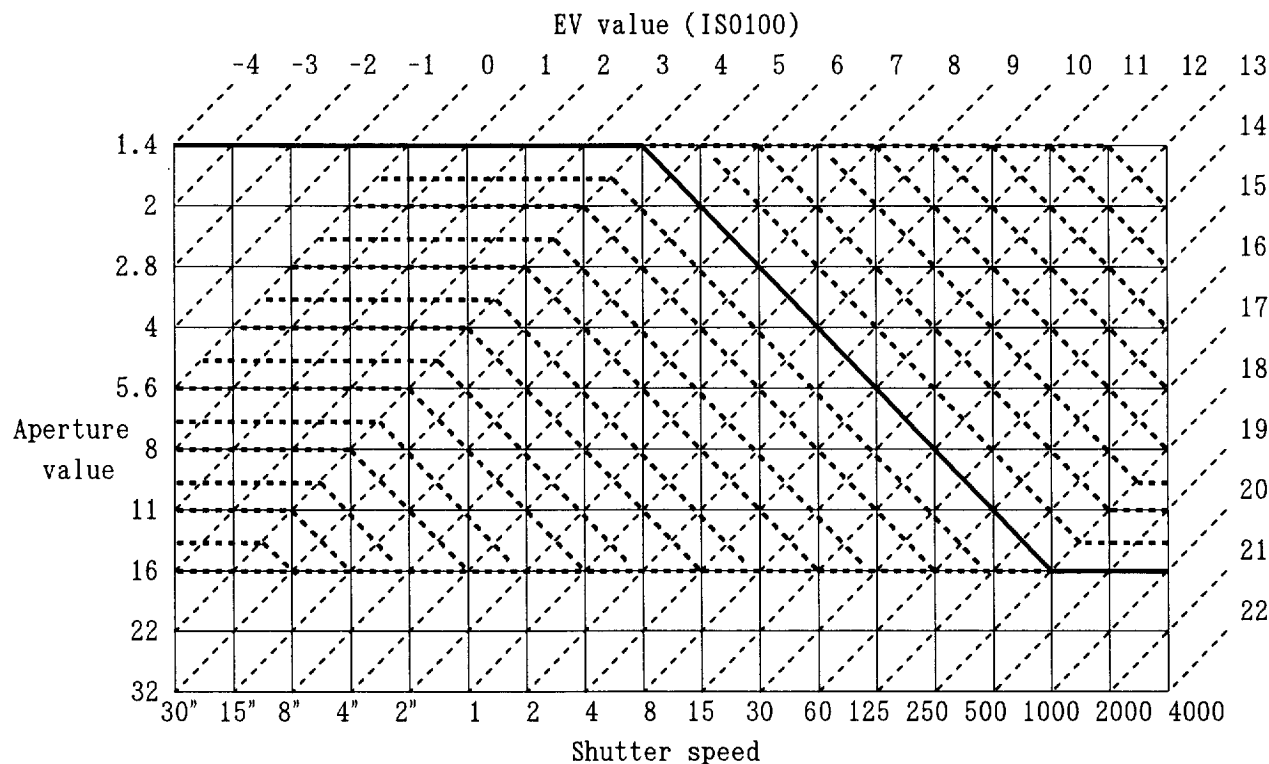
EV value (ISO100)



1 0. Program shift

- "Program shift" means that the combination of the shutter speed and aperture value is changed by 0.5EV step.
- The "*" mark is lit on the exposure mode sections in the finder and the outside display unit.
- The limit of shift is $\pm 5EV$. If the shutter speed or aperture value reaches the control limit before the limit of shift, the shutter speed and aperture value are not changed any more.
- The program shift is reset in one of the following cases.

When the power switch is OFF	When BASIC/ADVANCED mode is switched
When the exposure mode is changed	When QR-IN is set
When the flash using status is changed	When two-button reset



1 1. Warning display

・  shows that the display blinks.

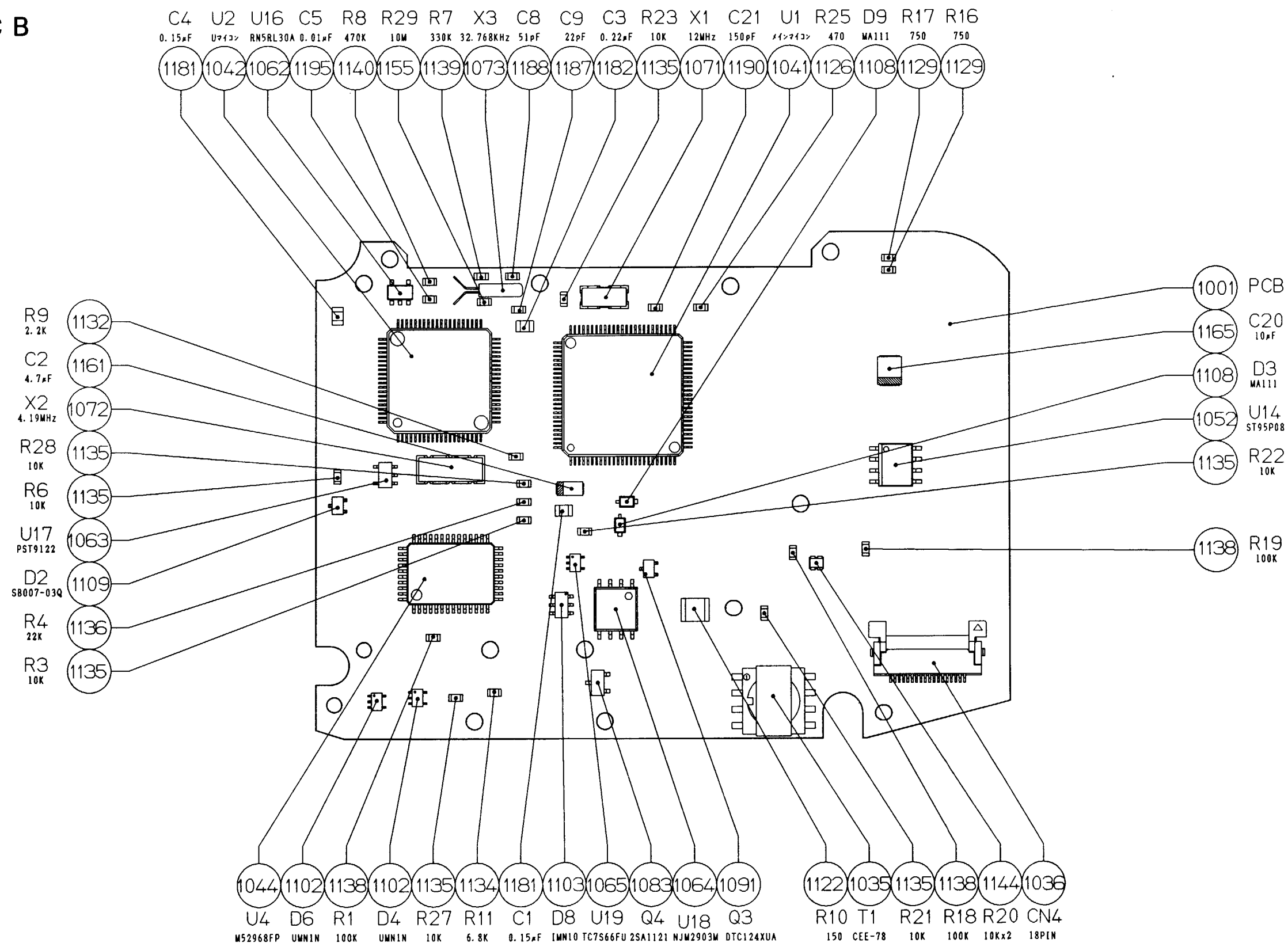
Outside display	Display in finder	Release	Display conditions
		Impossible	The battery is consumed.
 (Aperture display)	 (Aperture display)	Impossible	The lens is not set at the minimum aperture.
 or  or  or  +  (Displays of the exposure mode and aperture.)	 or  or  or  +  (Displays of the exposure mode and aperture.)	Impossible	When one of other lenses except the CPU built-in lens is loaded in other modes except M mode. The lens is not loaded correctly. (The release pin is not returned.)
 +  (Displays of the exposure mode and aperture.)	 +  (Displays of the exposure mode and aperture.)	Impossible	The lens is not loaded correctly. (The release pin is not returned.)
 or  +  (Displays of the exposure mode and aperture.)	 or  +  (Displays of the exposure mode and aperture.)	Impossible	The outside flash is set at other modes except TTL mode during the program mode procedure.
 +  ("Err" appears in the shutter display.)	 ("Err" appears in the shutter display.)	Impossible	When an exposure-finished or processed cartridge is loaded. When the thrust or bar code detection fails.
		Impossible	Rewinding is completed.
 (Shutter display)	 (Shutter display)	Impossible	When "bulb" is set in S mode.
 +  +  (Displays of shutter, counter and bracketing)	 +  (Shutter display and )	Impossible	When "bulb" and "AE bracketing" are set at the same time.
 +  (Shutter & film speed area)	 但しMP1はErr (shutter display)	Impossible	The film speed detection is disabled.
		Impossible	Sequence error
	 	Impossible only for AF-S	Auto. focus detection is disabled.
		Impossible only for AF-S	Front focus
		Impossible only for AF-S	Rear focus
		Possible	Preparation is necessary for battery replacement.
		Possible	Film advance is set at S mode when the built-in flash is used in the film advance C mode.
		Possible	Focus area is spot when flash is used in the wide focus area.
F-- (Aperture display)	F-- (Aperture display)	Possible	When one of other lenses except the CPU built-in lens is loaded in M mode.

Outside display	Display in finder	Release	Display conditions
HI (Shutter display)	HI (Shutter display)	Possible	In program or vari-program mode, the shutter speed is out of the control range on the high luminance side or out of the metering range.
Lo (Shutter display)	Lo (Shutter display)	Possible	In program or vari-program mode, the shutter speed is out of the control range on the low luminance side or out of the metering range.
HI (Shutter display)	HI+Indicator (Shutter display)	Possible	In A mode, the shutter speed is out of the control range on the high luminance side.
Lo (Shutter display)	Lo+Indicator (Shutter display)	Possible	In A mode, the shutter speed is out of the control range on the low luminance side.
HI (Aperture display)	HI+Indicator (Aperture display)	Possible	In S mode, the aperture is out of the control range on the high luminance side.
Lo (Aperture display)	Lo+Indicator (Aperture display)	Possible	In S mode, the aperture is out of the control range on the low luminance side.
	Indicator	Possible	The aperture or the shutter speed is out of the metering range in S, A or M mode.
0.0 + BKT AE (Displays of counter and bracketing)	Indicator + AE	Possible	AE bracketing is set in other modes except M mode.
Shutter display + 0.0 + BKT AE (Displays of shutter, counter and bracketing)	Indicator + AE + Shutter display	Possible	AE bracketing is set in M mode.
0.0 + BKT 4 (Displays of counter and bracketing)	Indicator + 4	Possible	SB bracketing is set.
	Indicator (when flash is used)	Possible	This display warns against the background exposure when flash is used.
Shutter speed (when flash is used)	1 / 180 (Shutter display)	Possible	Sync. speed and/or faster are set when flash is used in S or M mode. The value is changed to sync. speed forcibly.
Red-eye		Possible	Camera's red-eye reduction is set and flash without red-eye reduction function. It is controlled by normal synchronization.
	Flash (Red color) (3 seconds after release)		This display warns against full flash.
Err + PRINT	Err (After rewinding is completed)		There is an error in magnetic record.
Err + PRINT + Flash			Magnetic record is not done.

ELECTRIC CIRCUIT

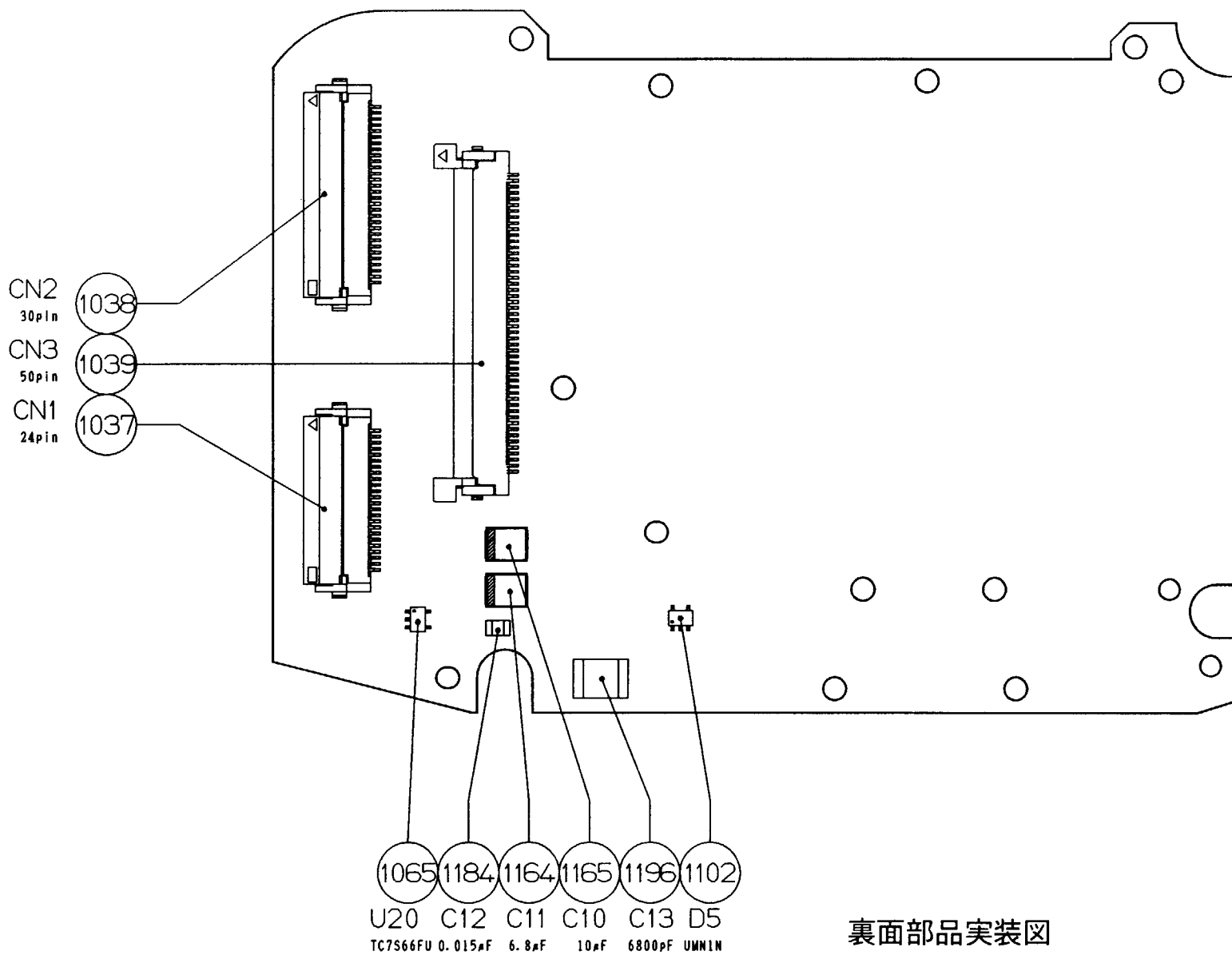
Wiring Diagram	E 1
Circuit Diagram	E 2
Main PCB	E 3
Pentaprism FPC	E 7
CCD FPC	E10
Top cover FPC	E13
TTL FPC	E16
Mag FPC	E18
Electric block diagram	E21
Functions and features of main electric parts and assemblies	E22
Time chart	E27
EEPROM DATA	E29

メインPCB MAIN PCB



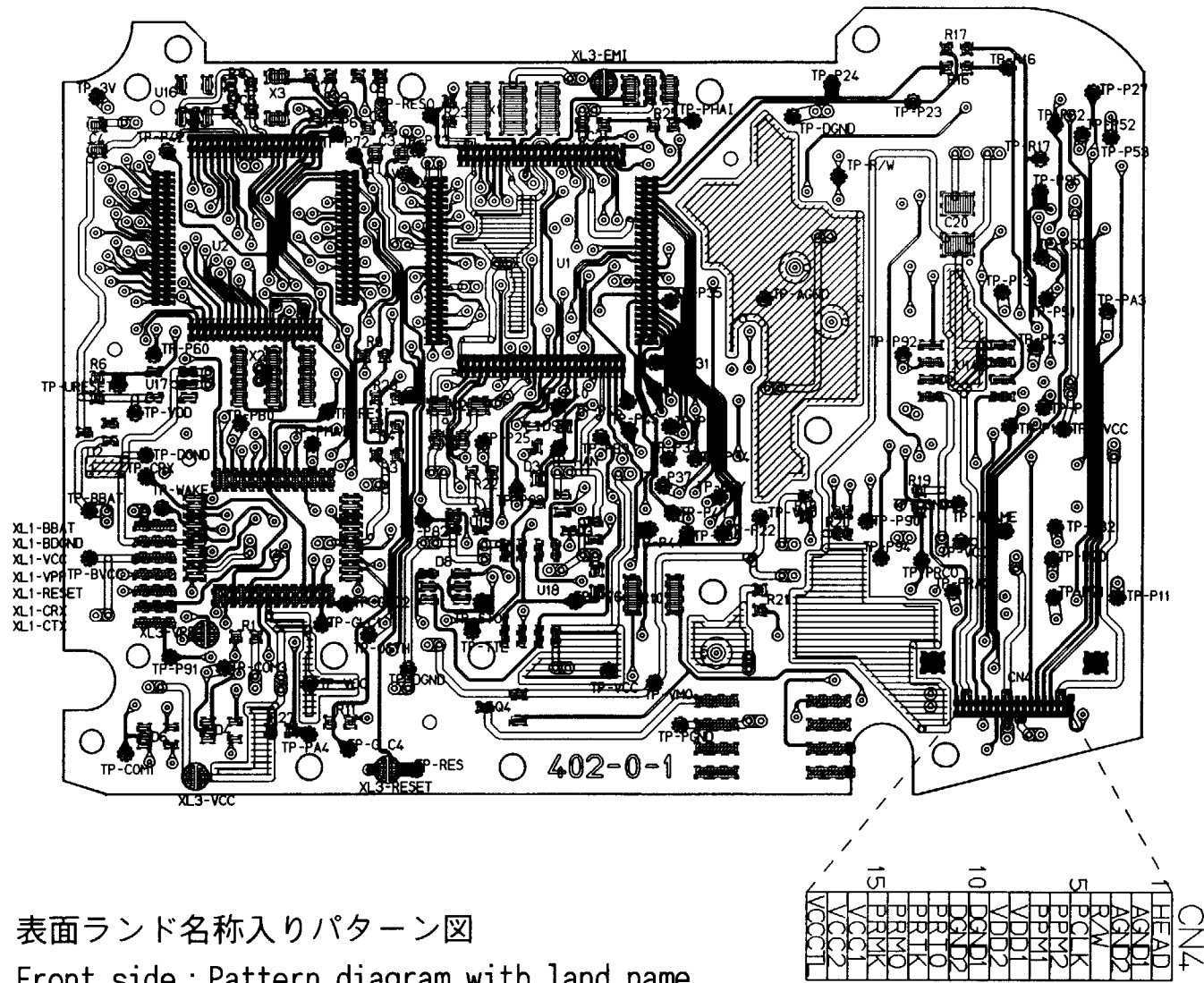
表面部品実装図

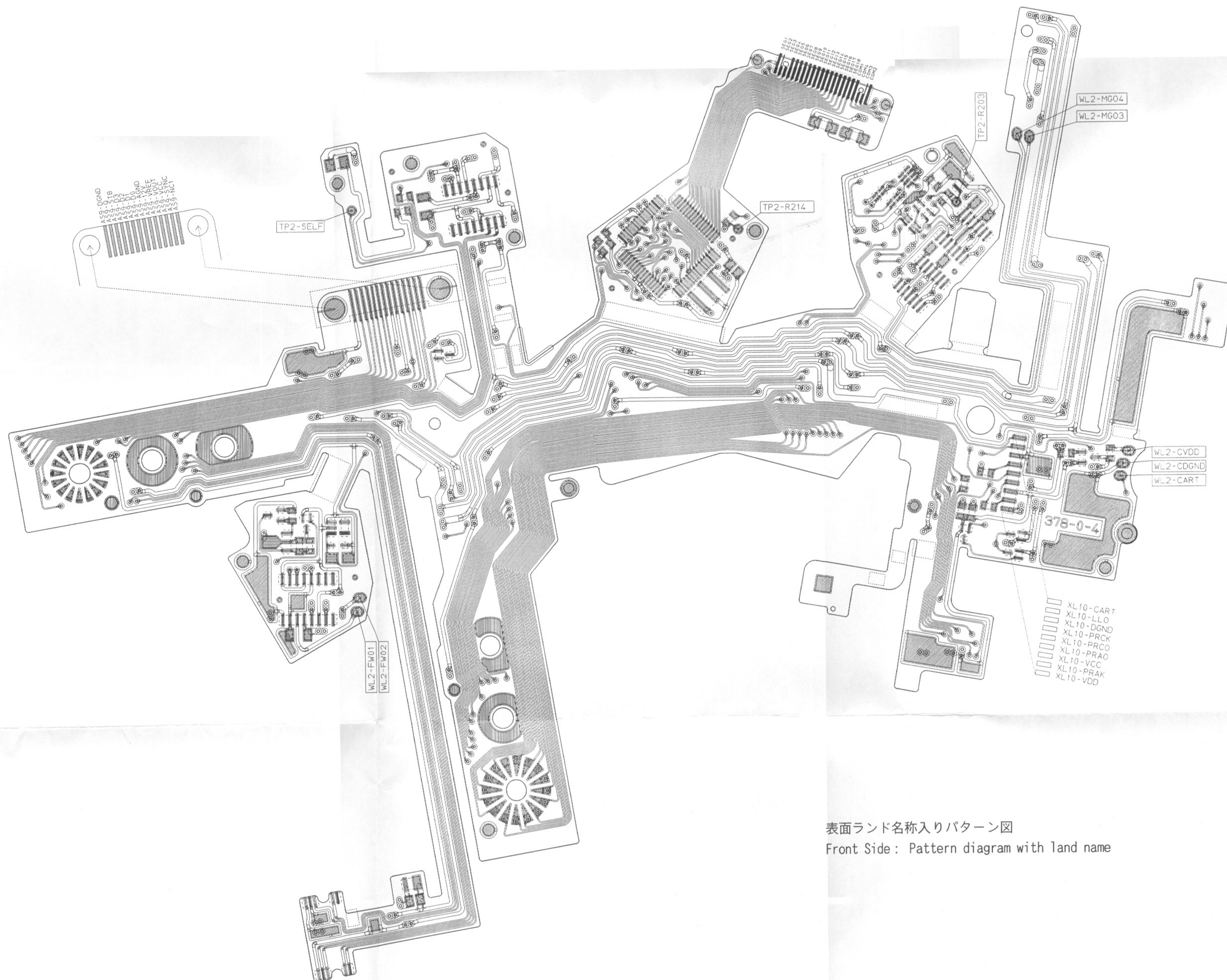
Front side : Parts location's diagram



裏面部品実装図

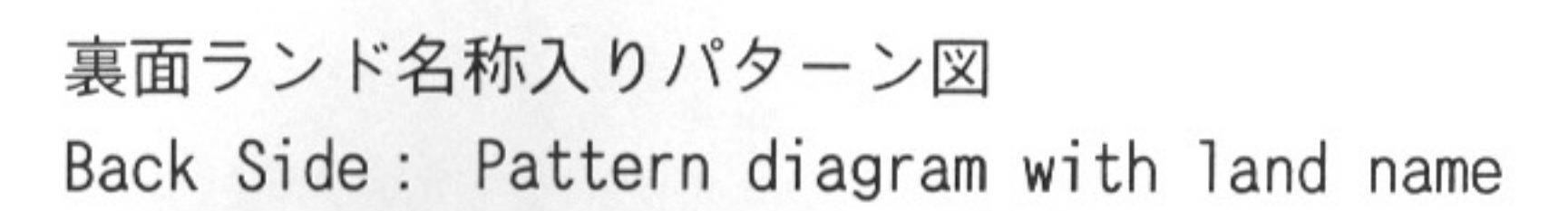
Back side : Parts location's diagram



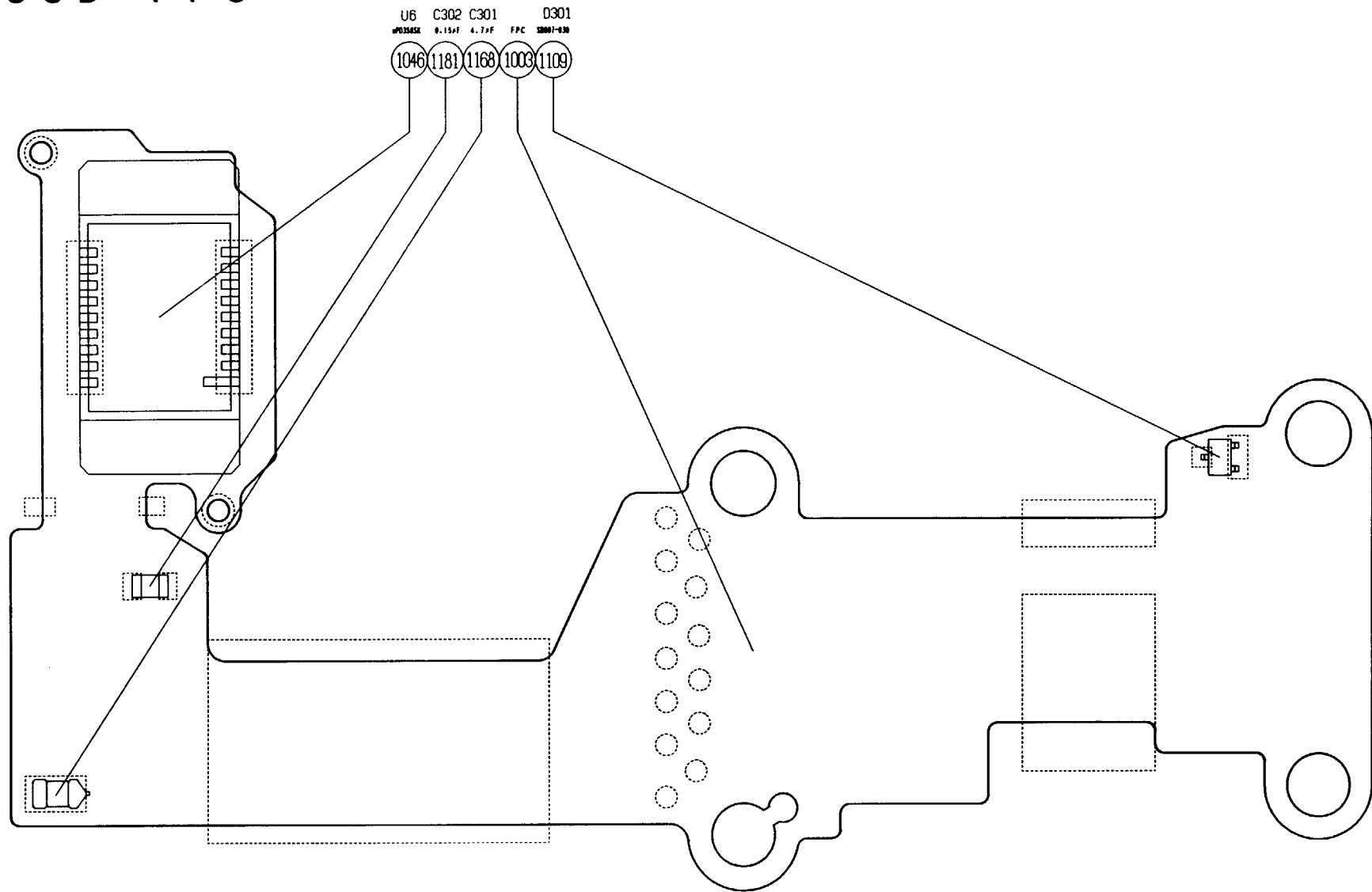


表面ランド名称入りパターン図

Front Side: Pattern diagram with land name

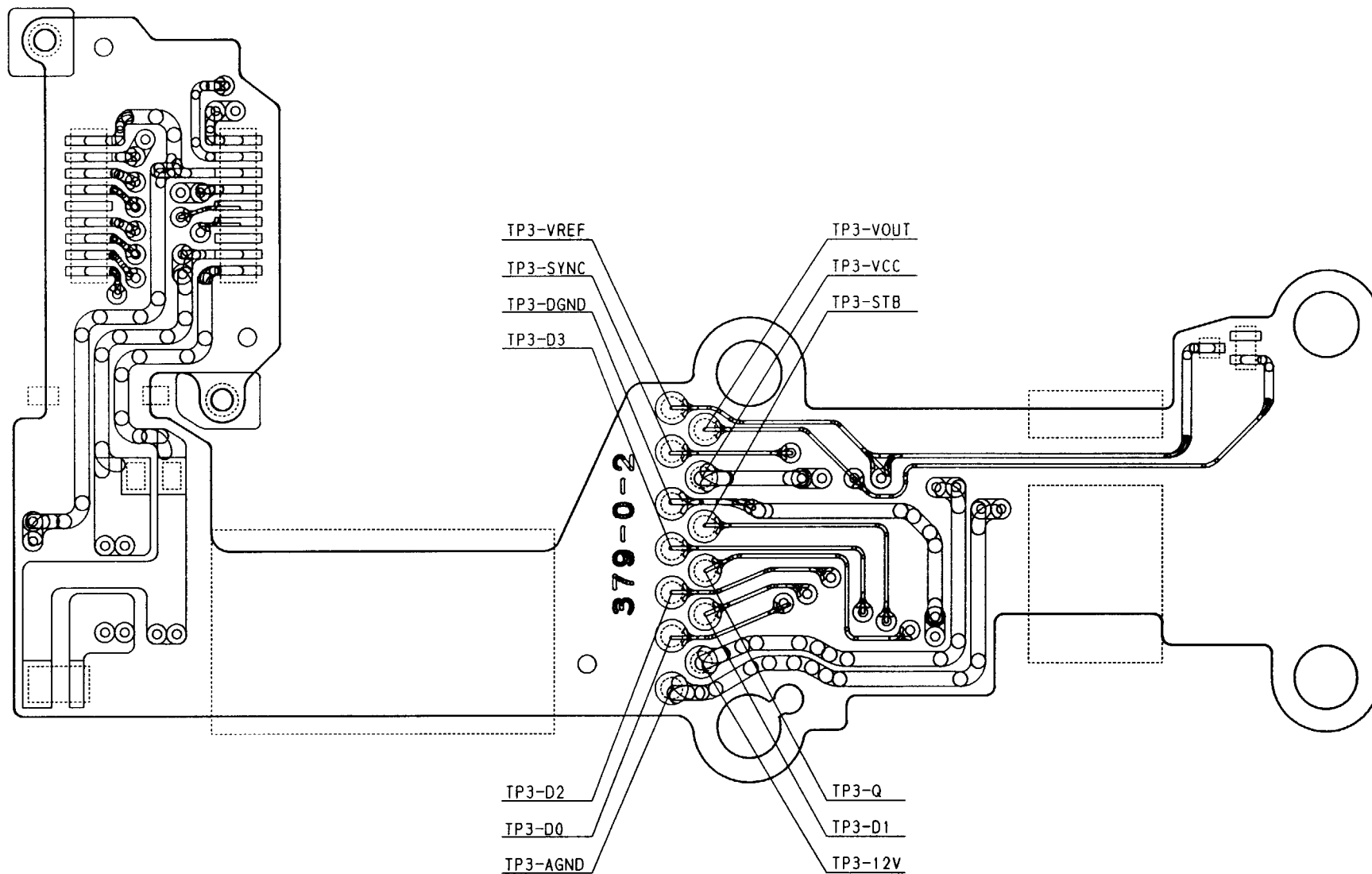


CCD FPC

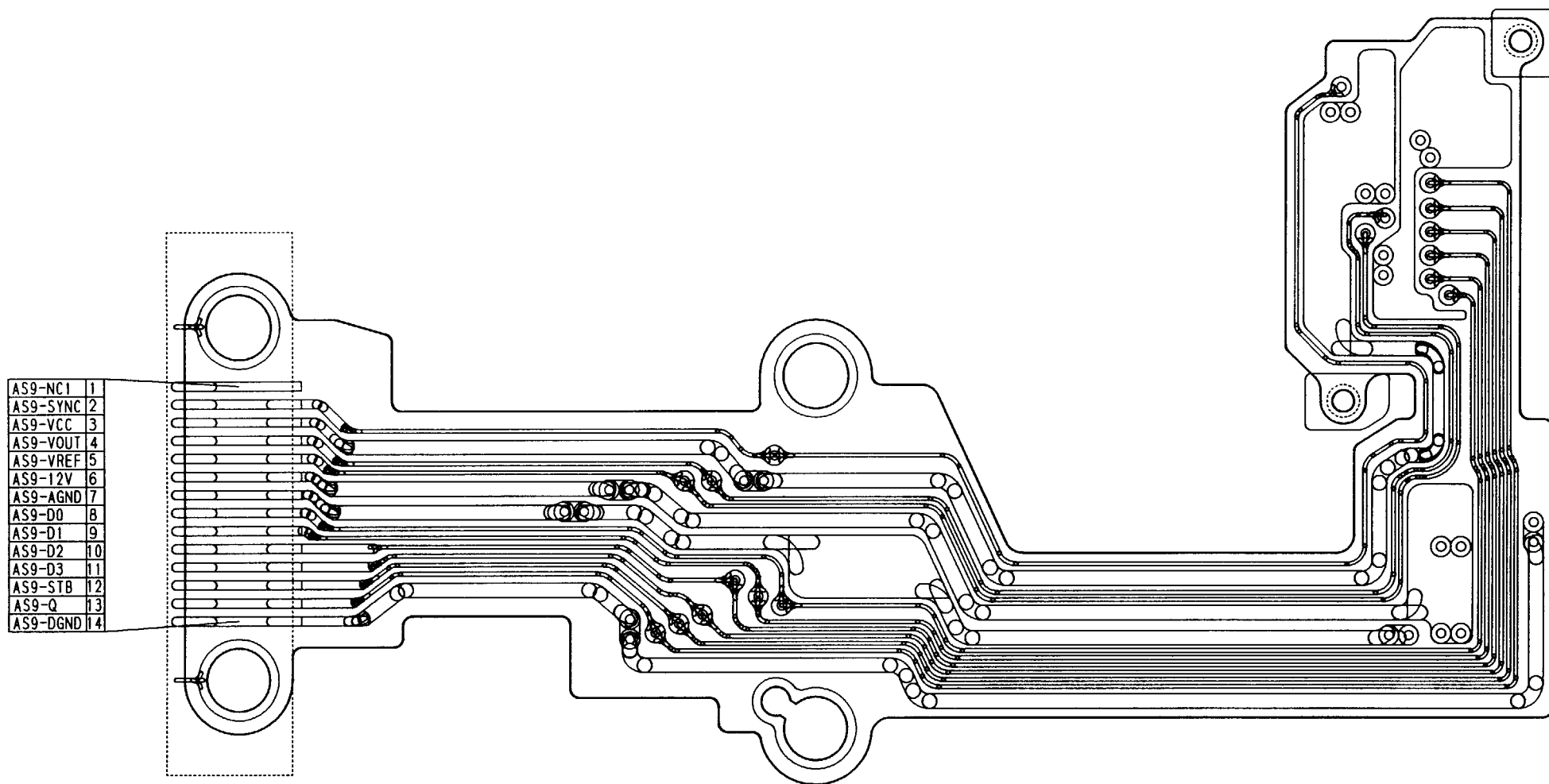


部品実装図

Parts location's diagram



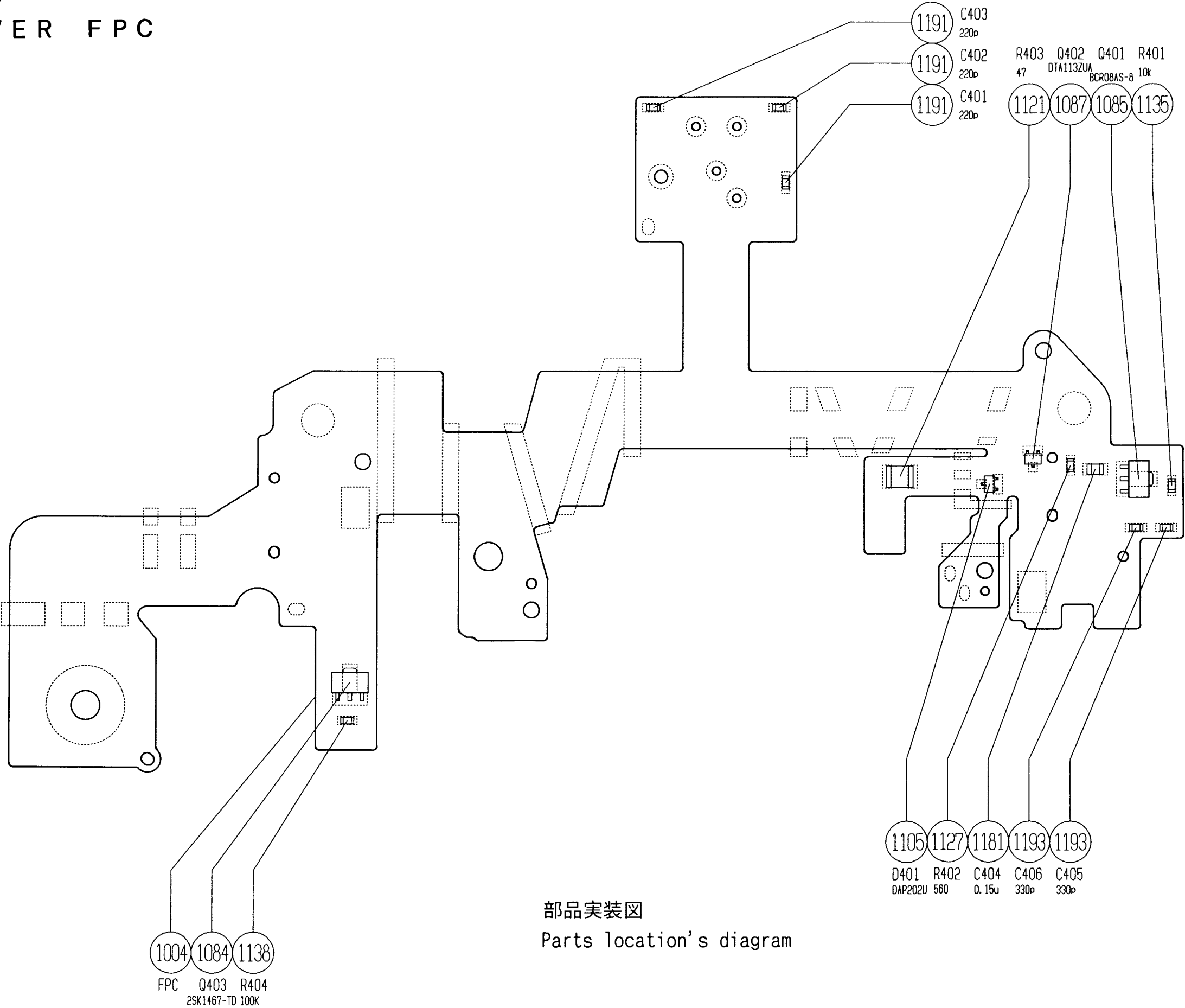
表面ランド名称入りパターン図
Front side: Pattern diagram with land name



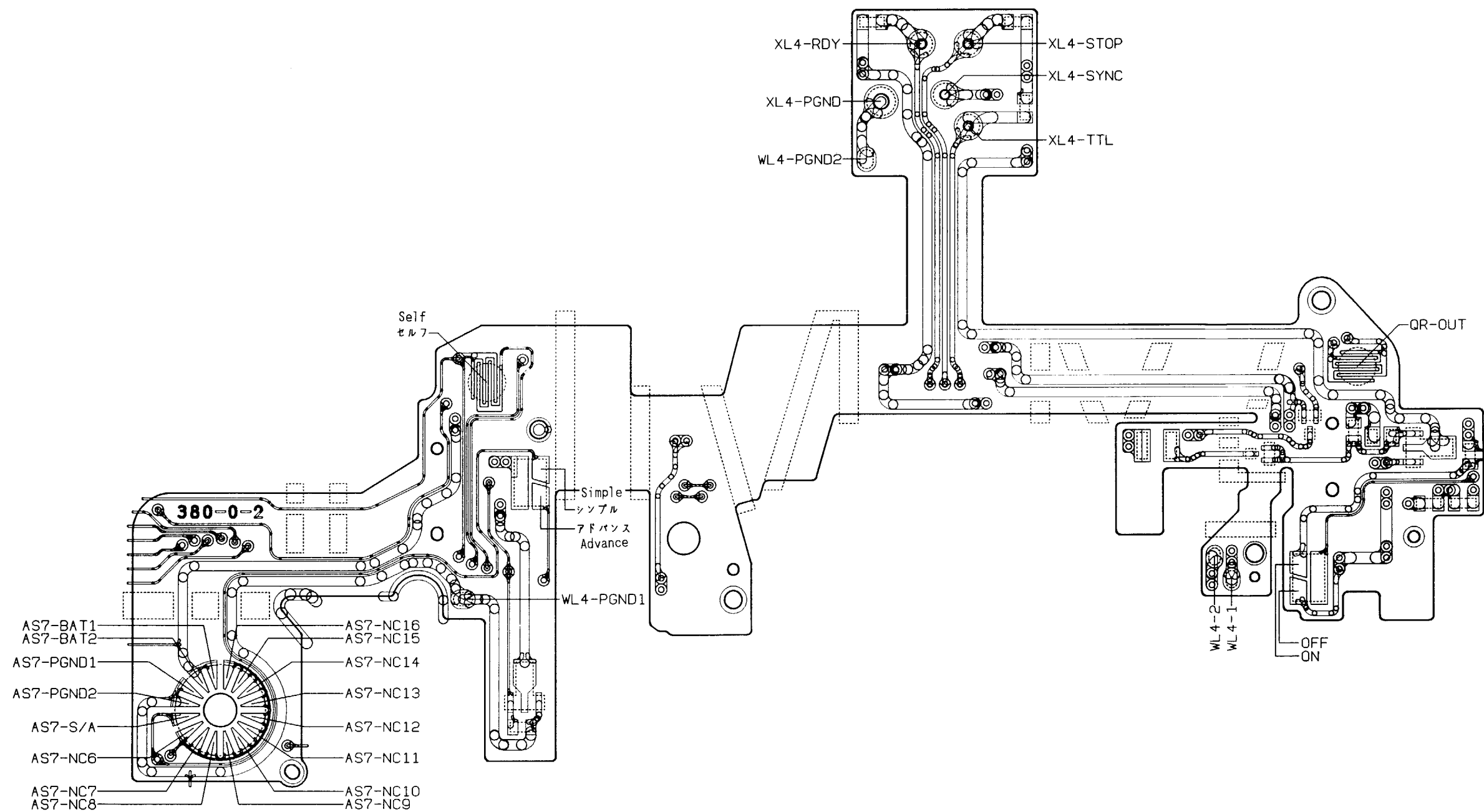
裏面ランド名称入りパターン図

Back side : Pattern diagram with land name

上カバーFPC
TOP COVER FPC

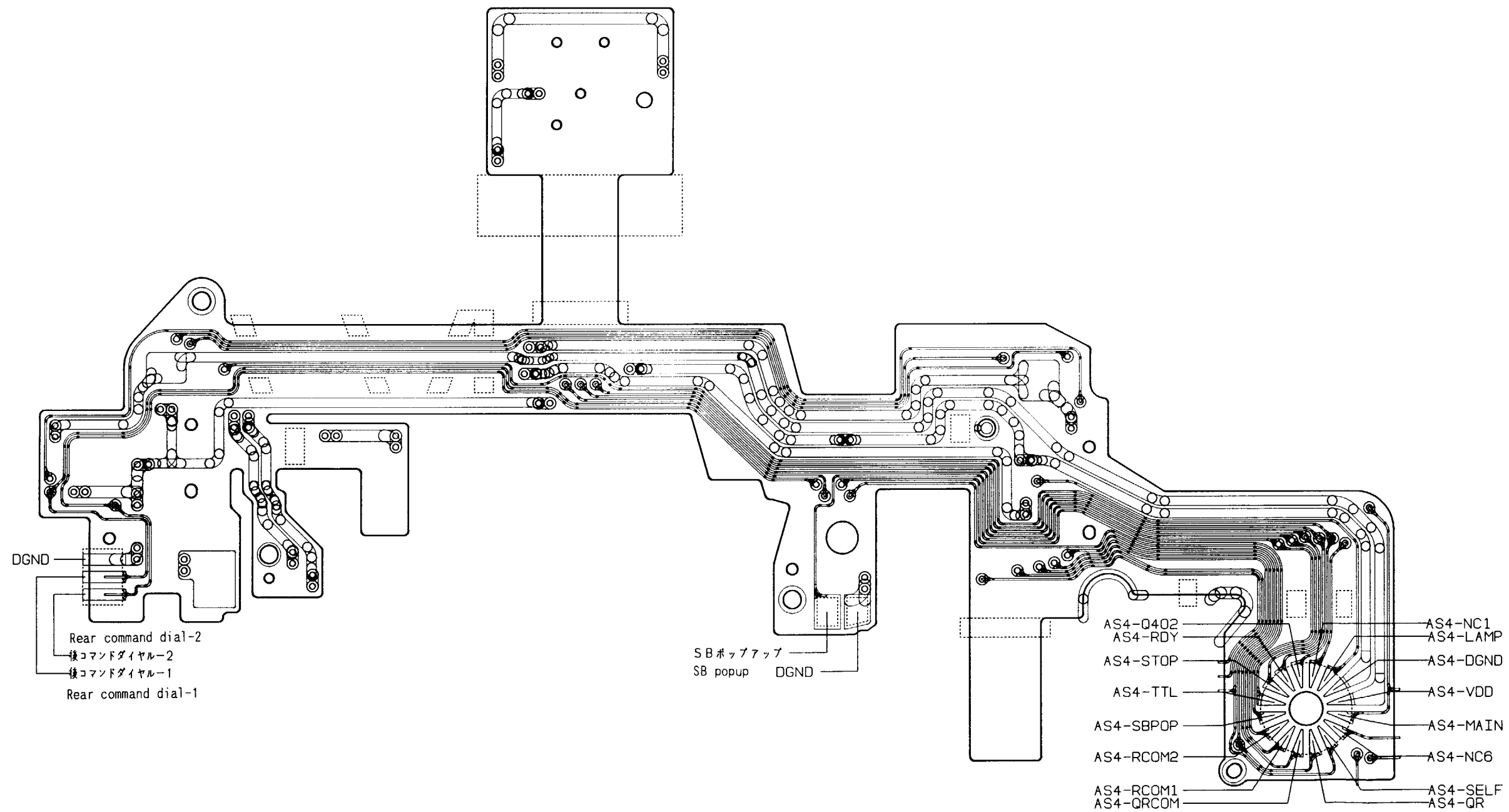


部品実装図
Parts location's diagram



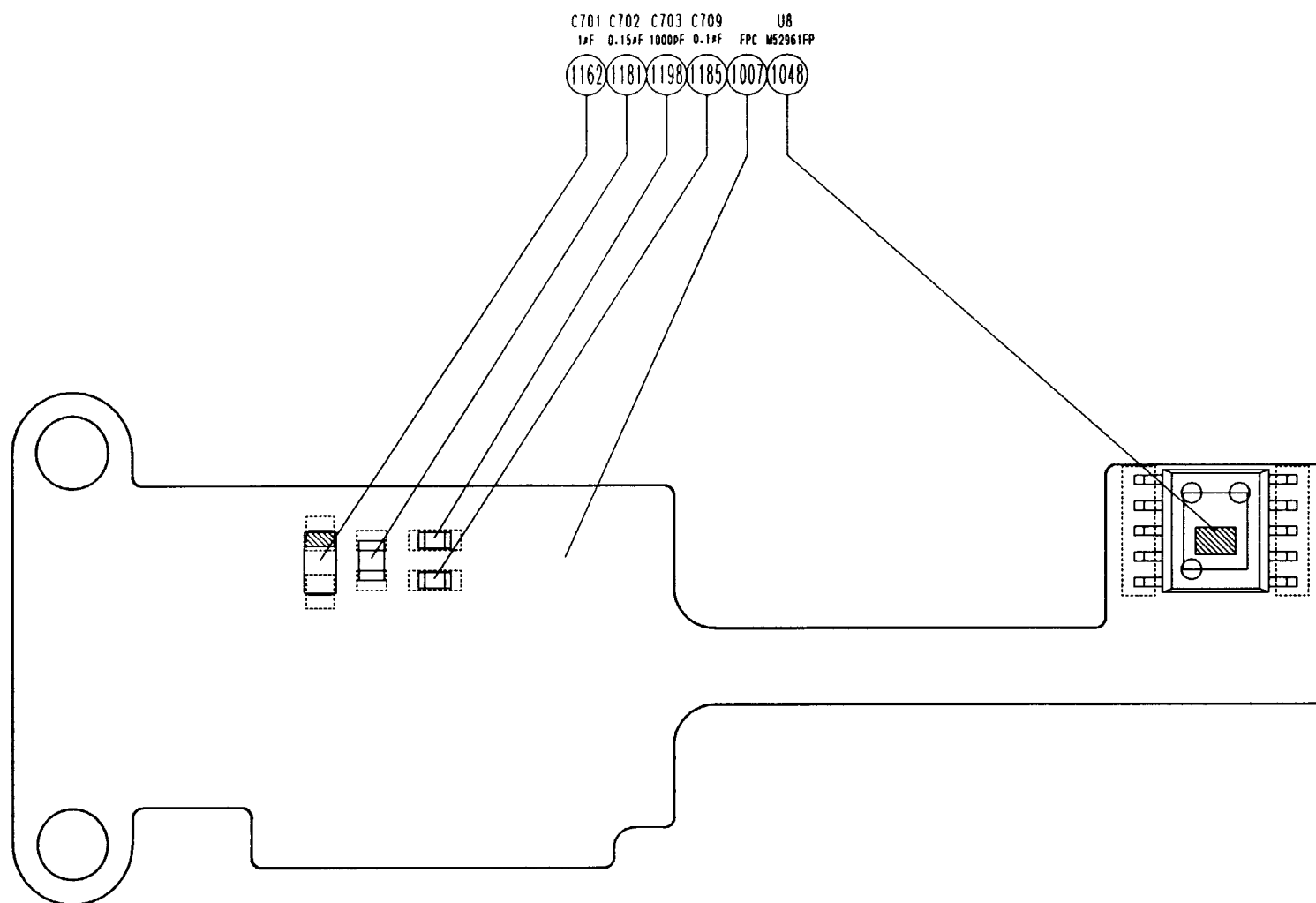
表面ランド名称入りパターン図

Front side : Pattern diagram with land name

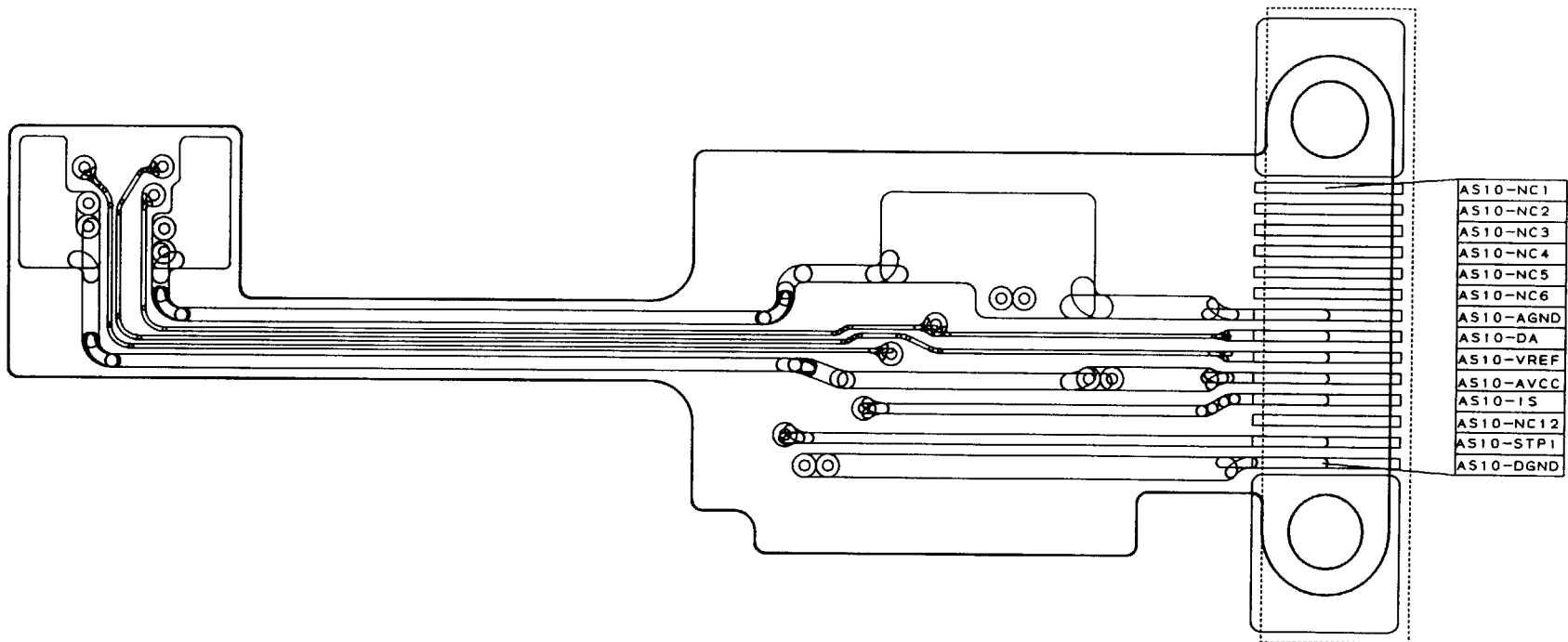


裏面ランド名称入りパターン図
 Back side : Pattern diagram with land name

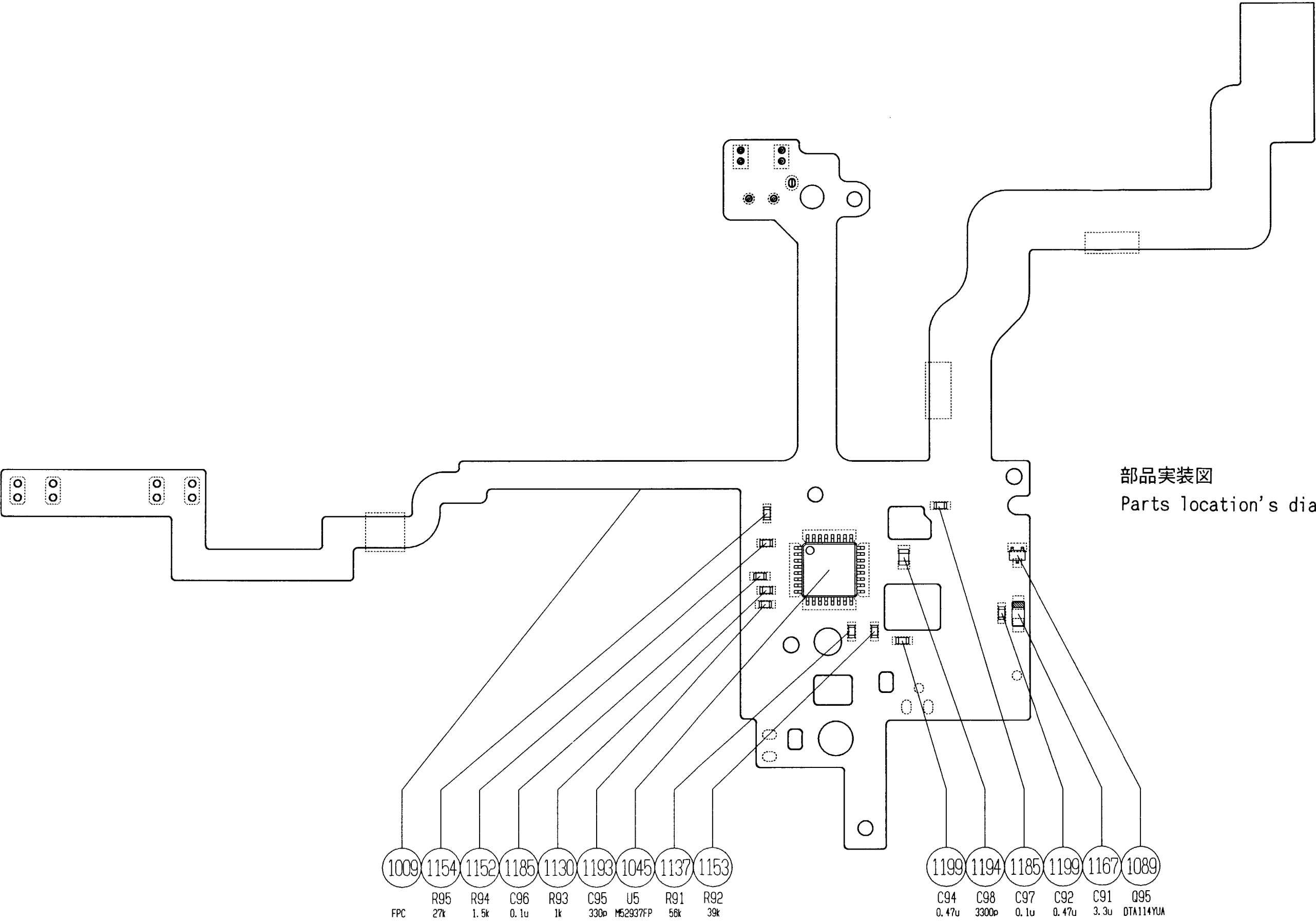
T T L F P C



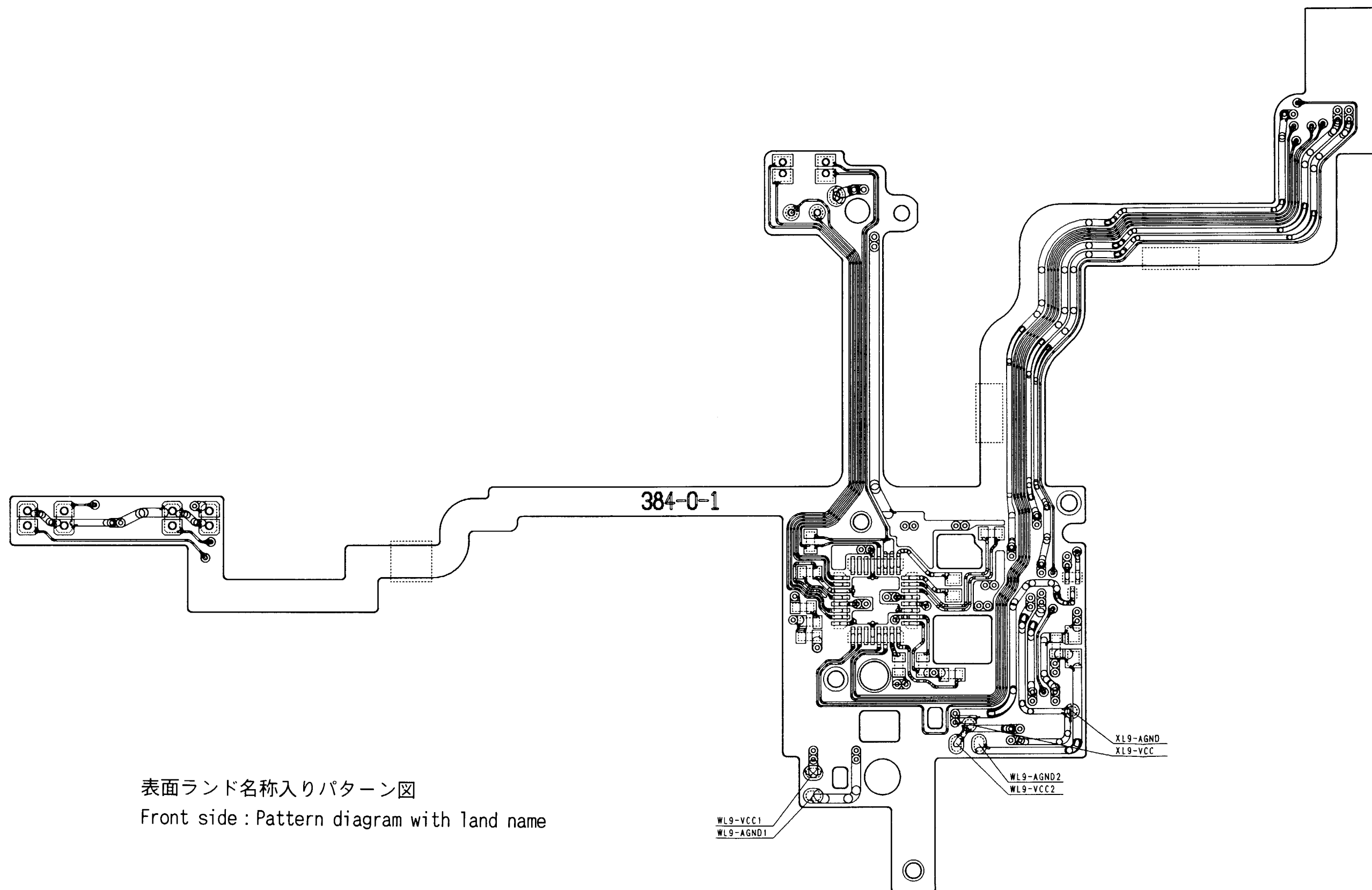
部品実装図
Parts location's diagram



ランド名称入りパターン図
Pattern diagram with land name



部品実装図
Parts location's diagram



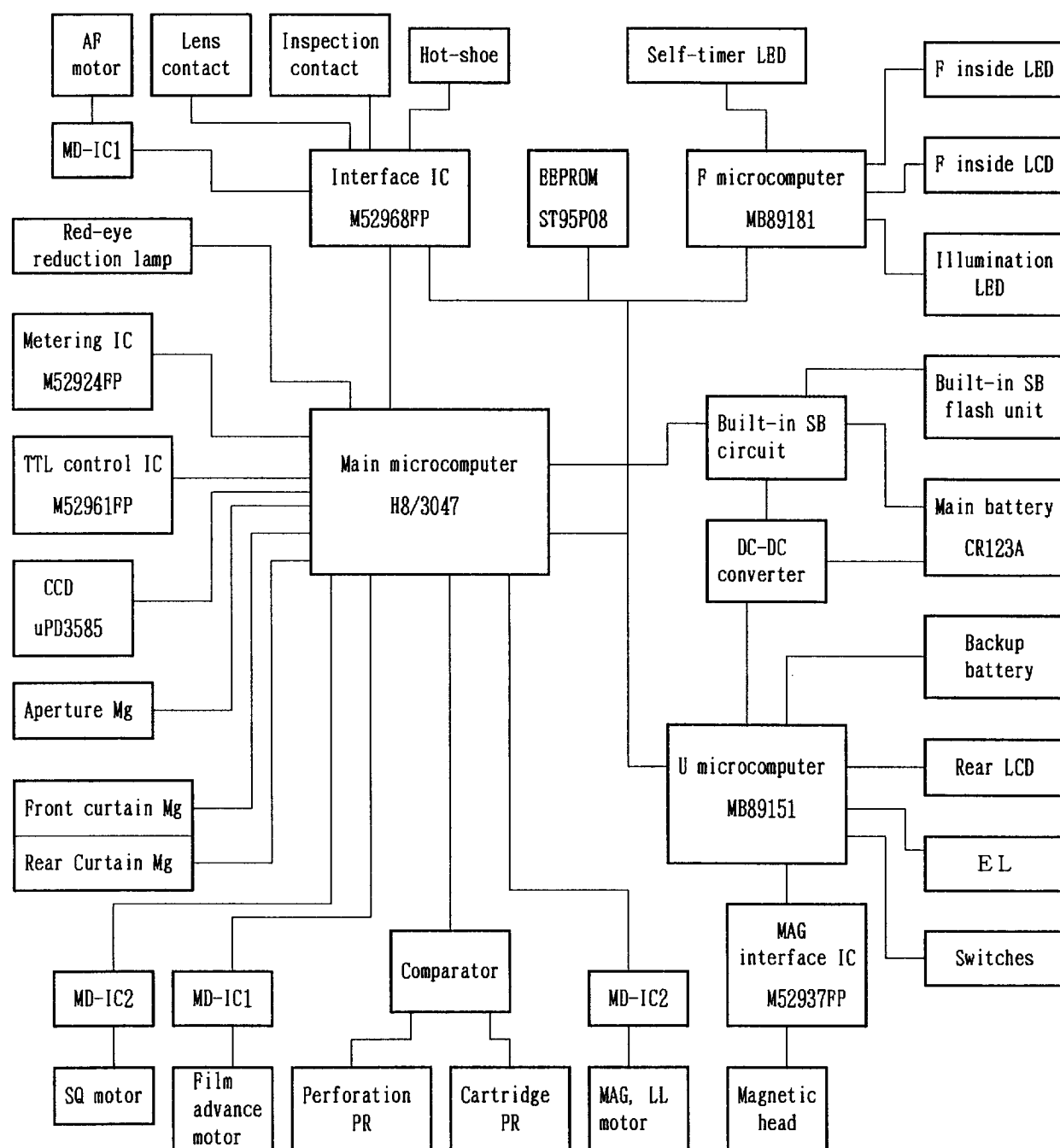
表面ランド名称入りパターン図
Front side : Pattern diagram with land name

CN1-VCC1L
CN1-VCC2
CN1-VCC1
CN1-PRM1
CN1-PRM0
CN1-PR1K
CN1-PR10
CN1-DGND2
CN1-DGND1
CN1-Y001
CN1-Y002
CN1-PRM1
CN1-PRM2
CN1-PC1K
CN1-R/W
CN1-AGND2
CN1-AGND1
CN1-HEAD

WL9-HEAD
WL9-DGND

裏面ランド名称入りパターン図
Back side : Pattern diagram with land name

ELECTRIC BLOCK DIAGRAM



FUNCTIONS AND FEATURES OF MAIN ELECTRIC PARTS AND ASSEMBLIES

(1) Main microcomputer

This is a general purpose 16-bit microcomputer made by Hitachi. It executes main calculation and control for ROM96KB, RAM4KB clock 12MHz, automatic focusing, release, advance, information setting, etc.

(2) U microcomputer

This is a general purpose 8-bit microcomputer made by Fujitsu. It controls ROM4KB, RAM128B, built-in LCD driver, 2 systems of clock 4.19MHz and 32.768kHz, rear LCD lighting, input of operation members, and the power supply including DC-DC converter.

(3) F microcomputer

This is a general purpose 8-bit microcomputer made by Fujitsu. It controls ROM4KB, RAM128B, built-in LCD driver, clock 4MHz, display in the finder and input of command dial.

(4) Interface IC

This is a custom IC made by Mitsubishi and is equipped with a SB interface circuit, communication interface circuit, built-in SB charge control and general output expansion function.

(5) MAG interface IC

This is a custom IC made by Mitsubishi and is equipped with a magnetic head record current generation function and magnetic head reproduction signal amplification/judgment function.

(6) Meterring IC

This is a custom IC made by Mitsubishi and is equipped with an 8-divided cell unit and amplification circuit. It converts the luminance on the finder screen to voltage.

(7) TTL control IC

This is a custom IC made by Mitsubishi and is equipped with a single cell unit, amplification circuit, integral circuit and light adjusting comparison circuit. It integrates the luminance made by the speed light flash on the film and sends the stop signal when the luminance reaches the specified level.

(8) CCD

This is a custom IC made by NEC and is equipped with a photo sensor, electric charge accumulation unit, electric charge transfer unit, amplification circuit and control logic. It converts the luminance distribution of lateral and longitudinal directions on the screen into voltage and output it.

(9) EEPROM

This is a general purpose IC with capacity of 1024B. It executes a nonvolatile memory of the camera adjustment parameter, set information and magnetic record information.

(10) MD-IC1

This is a general purpose IC made by NEC and controls AF motor, normal or reverse rotation of advance motor, short circuit and release.

(11) MD-IC2

This is a general purpose IC made by Sanyo and controls a sequence motor, normal or reverse rotation of MAG motor, short circuit and release.

(12) DC-DC converter

This is a PCB unit in which peripheral parts are assembled centering around a custom module and a custom IC MM1263. It inputs the battery voltage and outputs the stabilization power supply of 5.2V and 12V.

(13) Built-in SB circuit

This is a custom module made by Stanley and controls boosting or flashing of built-in SB.

(14) Built-in SB flash unit

This is a custom module made by Stanley, which is composed of xenon tube, reflection cover, protector and trigger coil.

(15) Red eye reduction lamp

This is a general purpose lamp of 5V2W specification, which is made by Stanley. It is set beside the built-in SB flash unit and reduces the red eye.

(16) Rear LCD

This is a custom LCD panel made by Epson. It is set on the rear of camera and displays the whole of set information.

(17) EL

This is a custom EL plate and illuminates the rear LCD from the back.

(18) F inside LCD

This is a custom LCD panel made by Citizen. It is set on the bottom of the finder and displays the set information and focus detection partly.

(19) F inside LED

This is a custom module. It is set on the left side of the finder and displays PAR-H, SB ready and SB recommendation.

(20) Illumination LED

This is a custom module. It is composed of a face light source which illuminates the F inside LCD from the back and a LED which displays PAR-C.

(21) Self-timer LED

This is a general purpose LED. It displays "Self-timer is operating."

(22) Perforation PR

This is composed of two general purpose photo reflectors made by Matsushita. It is positioned on the pressure plate and detects whether the perforation opening is used or not.

(23) Cartridge PR

This is composed of two general purpose photo reflectors made by Matsushita. It is positioned on the upper side of the cartridge chamber and detects the white-and-black of the bar code disk for the cartridge.

(24) Comparator

This changes the signal outputted by Perforation PR or Cartridge PR to a waveform.

(25) Magnetic head

This is a custom module. The 2-track record coil and 1-track reproduction coil are formed into a common core. At rewind, the power of record coil is ON and the 2 tracks excute the magnetic record at the same time. At MRC, an electric current generated by the reproduction coil is detected.

(26) Aperture magnet

This is a combination magnet made by Copal. When the power is ON, the hold of the armature is released and the aperture is latched.

(27) Front curtain/rear curtain magnet

This is a suction magnet which is built in a shutter unit made by Copal. When the power is OFF, the latches of the front curtain and rear curtain are released and the shutter curtain travels.

(28) Main PCB

This is a 4-layer rigid PCB on which the main microcomputer, U microcomputer, interface IC, EEPROM, etc. are mounted.

(29) Pentaprism FPC

The F microcomputer, MD-IC1, MD-IC2 and others are mounted on this FPC. It is connected to the main PCB through the rear A connection FPC and rear B connection FPC.

(30) CCD FPC

The CCD is mounted on this FPC. It is connected to the pentaprism FPC through press-contact.

(31) Top cover FPC

The top cover switches, the parts related to hot shoe and others are mounted on this FPC. It is connected to the pentaprism FPC through press-contact.

(32) Lens contact FPC

This is used to connect to the lens contact pin. It is connected to the pentaprism FPC through soldering bridge.

(33) Shutter sequence FPC

This is used to connect to the shutter unit, aperture Mg, aperture PI, sequence switch and Fmin switch. It is connected to the pentaprism FPC through soldering bridge.

(34) TTL FPC

The light adjusting IC is mounted on this FPC. It is connected to the pentaprism FPC through press-contact.

(35) MagFPC

The magnetic head, MAG interface IC and perforation PR are mounted on this FPC.
It is connected to the main PCB through connector.

(36) Bar code FPC

The cartridge PR is mounted on this FPC. It is connected to the pentaprism FPC through soldering bridge.

(37) AF-PIFPC

The AF-PI is mounted on this FPC. It is connected to the pentaprism FPC through soldring bridge.

(38) Inspection communication FPC

This is equipped with the inspection communication contact and back-up battery contact.
It is connected to the main PCB through soldering bridge.

(39) Cartridge cover FPC

This is equipped with the cartridge cover switch. It is connected to the pentaprism FPC through lead wire.

(40) Rear A connection FPC

This connects the main PCB to the pentaprism FPC. It is connected with the two through connector and press-contact.

(41) Rear B connection FPC

This connects the main PCB to the pentaprism FPC. It is connected with the two through connector and press-contact.

(42) F inside LED connection FPC

The F inside LED is mounted on this FPC. It is connected to the pentaprism FPC through soldering bridge.

(43) Power relay PCB

This connects the battery contact, DC-DC converter and the power supply of the built-in SB circuit with each other through lead wires.

(44) Upper grip FPC

This is used to connect the release switch armature and the front command dial armature. It is connected to the pentaprism FPC through soldering bridge.

(45) Outside switches

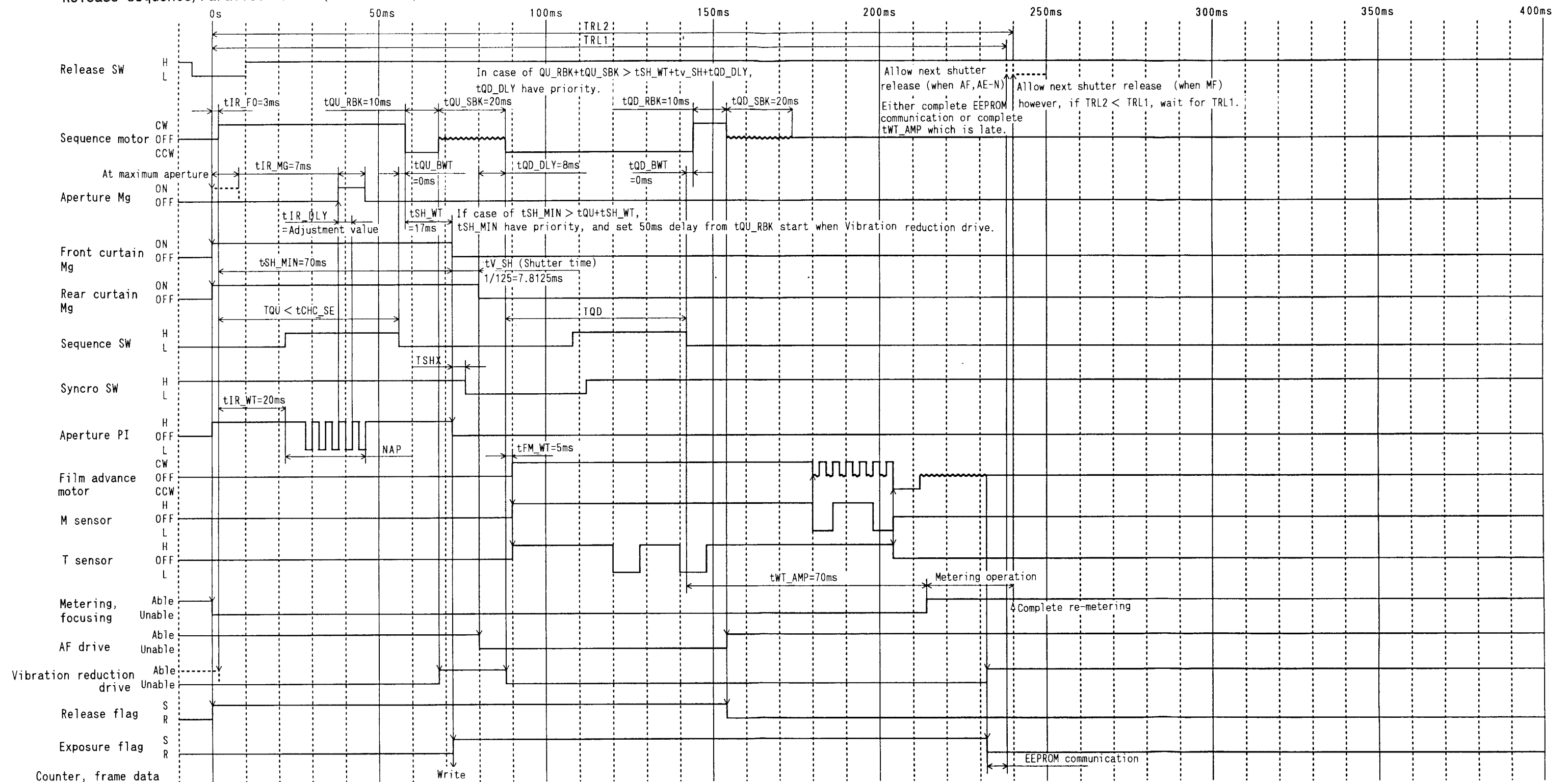
Name	Function	Position
Power SW	Turns ON/OFF the main power supply.	Top cover
Operation mode SW	Switches BASIC/ADVANCED.	Top cover
QR SW	Sets the QR-OUT mode.	Top cover
Self-timer SW	Sets the self mode	Top cover
Rear command dial SW	Outputs the rotation and direction of the rear command dial.	Top cover
Front command dial SW	Outputs the rotation and direction of the front command dial.	Upper grip
Pre-release SW	Starts the pre-release timer. (Also used for cable release.)	Upper grip
Release SW	Starts release. (Also used for cable release.)	Upper grip
Ps SW	Sets the vari-program mode.	Rear cover
MODE SW	Sets the exposure mode.	Rear cover
FUNC SW	Sets the function mode.	Rear cover
SET SW	Sets the function change mode.	Rear cover
Metering SW	Sets the metering system mode.	Rear cover
Exposure compensation SW	Sets the exposure compensation mode.	Rear cover
Print type SW	Sets the print type mode.	Rear cover
Illuminator SW	Lights the illuminator.	Rear cover
AE-L SW	Executes AE lock.	Rear cover

(46) Inside switches

Name	Function	Position
Cartridge lid SW	Detects whether the cartridge cover is opened or closed.	Rear body
Cartridge detection SW	Detects whether the cartridge exists or not.	Rear body
Head movement SW	Detects the magnetic head position.	Rear body
LL o/c SW	Detects whether the LL door is opened or closed.	Rear body
Sequence SW	Detects the status of the sequence system.	Front body
Syncro SW	Detects the front curtain travel completion.	Front body (shutter)
Fmin SW	Detects the minimum lens aperture status.	Front body
AF-A/M SW	Detects the AF/M mode.	Front body
Lens release pin SW	Detects the lens mounting completion.	Front body
SB pop-up SW	Detects the built-in SB pop-up status.	Upper cover

TIME CHART

Release sequence/Parallel drive (RLSPARA-SQ)



(Note) Operating time for each motor is measured individually, as a matter of fact, it is longer than the above time.

Timing diagram for the shutter release sequence. The diagram shows the relationship between various signals over a 400ms period. Key signals include Release SW, Sequence motor (CW, OFF, CCW), Aperture Mg, Front curtain Mg, Rear curtain Mg, Sequence SW, Syncro SW, Aperture PI, Film advance motor, M sensor, T sensor, Metering/focusing status, AF drive, Vibration reduction drive, Release flag, Exposure flag, and Counter/frame data. The diagram includes numerous time intervals such as $t_{IR_F0}=3ms$, $t_{QU_RBK}=10ms$, $t_{QU_SBK}=20ms$, $t_{IR_MG}=7ms$, t_{IR_DLY} , $t_{SH_MIN}=70ms$, t_{V_SH} (Shutter time) $1/125=7.8125ms$, $t_{TWT_AMP}=70ms$, and $t_{FM_WT}=0ms$. It also shows the sequence of events like "In case of $QU_RBK+t_{QU_SBK} > t_{SH_WT}+t_{v_SH}+t_{QD_DLY}$, t_{QD_DLY} have priority." and "Allow next shutter release (when MF) however, if $TRL2 < TRL1$, wait for $TRL1$."

- E 2 8 • PRONEA 600i -

PRONEA600i (6i) EEPROM DATA

96-11-01

ADRS	CONTENTS	M-CPU					NOTE
		MP 1	MP 2				
		4.33	5.03				
0	AF ADJUSTMENT DATA	—	—				
3 4 0	AE LEVEL ADJUSTMENT DATA CH1	—	—				
3 4 1	AE LEVEL ADJUSTMENT DATA CH2	—	—				
3 4 2	AE LEVEL ADJUSTMENT DATA CH3	—	—				
3 4 3	AE LEVEL ADJUSTMENT DATA CH4	—	—				
3 4 4	AE LEVEL ADJUSTMENT DATA CH5	—	—				
3 4 5	AE LEVEL ADJUSTMENT DATA CH6	—	—				
3 4 6	AE LEVEL ADJUSTMENT DATA CH7	—	—				
3 4 7	AE LEVEL ADJUSTMENT DATA CH8	—	—				
3 4 8	AE ADJUSTMENT DATA	—	—				
3 4 9	AE ADJUSTMENT DATA	—	—				
3 5 0	CAMERA CONTROL DATA	3 5	3 5				
3 5 1	TTL LEVEL ADJUSTMENT DATA	—	—				
3 5 2	TTL GAMMA ADJUSTMENT DATA	—	—				
3 5 3	CAMERA CONTROL DATA	1 2 0	1 2 0				
3 5 4	CAMERA CONTROL DATA	6 0	6 0				
3 5 5	CAMERA CONTROL DATA	1 3 8	1 3 8				
3 5 6	CAMERA CONTROL DATA	1 1 4	1 1 4				
3 5 7	CAMERA CONTROL DATA	1 0	1 0				
3 5 8	CAMERA CONTROL DATA	2 4 5	2 4 5				
3 5 9	CAMERA CONTROL DATA	6	6				
3 6 0	CAMERA CONTROL DATA	7 6	7 6				
3 6 1	CAMERA CONTROL DATA	4	4				
3 6 2	CAMERA CONTROL DATA	8 0	9 0				
3 6 3	CAMERA CONTROL DATA	3 2	3 2				
3 6 4	CAMERA CONTROL DATA	6 4	6 4				
3 6 5	CAMERA CONTROL DATA	1 2 8	1 2 8				

ADRS	CONTENTS	M-CPU					NOTE
		MP 1	MP 2				
		4.33	5.03				
3 6 6	CAMERA CONTROL DATA	0	0				
3 6 7	CAMERA CONTROL DATA	1 9 2	1 9 2				
3 6 8	CAMERA CONTROL DATA	3 2	3 2				
3 6 9	CAMERA CONTROL DATA	1	1				
3 7 0	CAMERA CONTROL DATA	3 2	3 2				
3 7 1	CAMERA CONTROL DATA	1 9 3	1 9 3				
3 7 2	CAMERA CONTROL DATA	1 2 8	1 2 8				
3 7 3	CAMERA CONTROL DATA	3	3				
3 7 4	CAMERA CONTROL DATA	2 5 0	2 5 0				
3 7 5	CAMERA CONTROL DATA	1 4 0	1 4 0				
3 7 6	CAMERA CONTROL DATA	2 0 5	2 0 5				
3 7 7	CAMERA CONTROL DATA	1 2 6	1 2 6				
3 7 8	CAMERA CONTROL DATA	1 5 4	1 5 4				
3 7 9	CAMERA CONTROL DATA	1 2 7	1 2 7				
3 8 0	CAMERA CONTROL DATA	1 2 8	1 2 8				
3 8 1	CAMERA CONTROL DATA	2	2				
3 8 2	CAMERA CONTROL DATA	1 2 8	1 2 8				
3 8 3	CAMERA CONTROL DATA	1 2 7	1 2 7				
3 8 4	CAMERA CONTROL DATA	3	4 0				
3 8 5	CAMERA CONTROL DATA	0	1 2 0				
3 8 6	CAMERA CONTROL DATA	3 0	6				
3 8 7	CAMERA CONTROL DATA	7	0				
3 8 8	CAMERA CONTROL DATA	8 0	0				
3 8 9	CAMERA CONTROL DATA	2 1 6	0				
3 9 0	CAMERA CONTROL DATA	1 3 1	1 3 1				
3 9 1	CAMERA CONTROL DATA	1 2 6	1 2 6				
3 9 2	CAMERA CONTROL DATA	1 2 5	1 2 5				
3 9 3	CAMERA CONTROL DATA	2 2 6	2 2 6				
3 9 4	CAMERA CONTROL DATA	0	0				

ADRS	CONTENTS	M-CPU					NOTE
		MP 1	MP 2				
		4.33	5.03				
3 9 5	CAMERA CONTROL DATA	1 8 4	1 8 5				
3 9 6	CAMERA CONTROL DATA	1 9 7	1 9 7				
3 9 7	CAMERA CONTROL DATA	1	1				
3 9 8	CAMERA CONTROL DATA	0	0				
3 9 9	BC ADJUSTMENT DATA	—	—				
4 0 3	CAMERA CONTROL DATA	1 4 8	1 4 8				
4 0 4	CAMERA CONTROL DATA	1 9 2	1 9 2				
4 0 5	CAMERA CONTROL DATA	1 7 6	1 7 6				
4 0 6	CAMERA CONTROL DATA	1 2 5	1 2 5				
4 0 7	M 1/4000 ADJUSTMENT DATA	—	—				
4 0 8	CAMERA CONTROL DATA	6	6				
4 0 9	CAMERA CONTROL DATA	4 0	4 0				
4 1 0	CAMERA CONTROL DATA	1 4	1 4				
4 1 1	CAMERA CONTROL DATA	1 0 0	1 0 0				
4 1 2	CAMERA CONTROL DATA	2 0	2 0				
4 1 3	CAMERA CONTROL DATA	4 0	4 0				
4 1 4	CAMERA CONTROL DATA	2 0	2 0				
4 1 5	CAMERA CONTROL DATA	1 6	1 6				
4 1 6	CAMERA CONTROL DATA	1 0 0	1 0 0				
4 1 7	CAMERA CONTROL DATA	2 0	2 0				
4 1 8	CAMERA CONTROL DATA	4 0	4 0				
4 1 9	CAMERA CONTROL DATA	7 0	7 0				
4 2 0	CAMERA CONTROL DATA	1 0	1 0				
4 2 1	CAMERA CONTROL DATA	1 5 0	1 5 0				
4 2 2	CAMERA CONTROL DATA	1 4 0	1 4 0				
4 2 3	CAMERA CONTROL DATA	0	0				
4 2 4	CAMERA CONTROL DATA	0	0				
4 2 5	CAMERA CONTROL DATA	1 9 2	1 9 2				

ADRS	CONTENTS	M-CPU					NOTE
		MP 1	MP 2				
		4.33	5.03				
4 2 6	CAMERA CONTROL DATA	4 8	4 8				
4 2 7	CAMERA CONTROL DATA	2 3	2 3				
4 2 8	CAMERA CONTROL DATA	3 7	3 7				
4 2 9	CAMERA CONTROL DATA	5 5	5 5				
4 3 0	CAMERA CONTROL DATA	2 0 0	2 0 0				
4 3 1	CAMERA CONTROL DATA	9 5	9 5				
4 3 2	CAMERA CONTROL DATA	4 8	4 8				
4 3 3	CAMERA CONTROL DATA	2 0 0	2 0 0				
4 3 4	CAMERA CONTROL DATA	$\Delta \frac{192}{120}$	$\Delta \frac{192}{120}$				
4 3 5	CAMERA CONTROL DATA	1 5	1 5				
4 3 6	CAMERA CONTROL DATA	5 9	5 9				
4 3 7	CAMERA CONTROL DATA	4 6	4 6				
4 3 8	CAMERA CONTROL DATA	4 6	4 6				
4 3 9	CAMERA CONTROL DATA	1 4 7	1 4 7				
4 4 0	CAMERA CONTROL DATA	1 8 3	1 8 3				
4 4 1	CAMERA CONTROL DATA	1 9	1 9				
4 4 2	CAMERA CONTROL DATA	1 0 0	1 0 0				
4 4 3	CAMERA CONTROL DATA	1 8 4	1 8 4				
4 4 4	CAMERA CONTROL DATA	7 3	7 3				
4 4 5	CAMERA CONTROL DATA	4 6	4 6				
4 4 6	CAMERA CONTROL DATA	9 2	9 2				
4 4 7	CAMERA CONTROL DATA	2 2 9	2 2 9				
4 4 8	CAMERA CONTROL DATA	2 1 0	2 0 7				
4 4 9	CAMERA CONTROL DATA	2 0	2 0				
4 5 0	CAMERA CONTROL DATA	0	0				
4 5 1	CAMERA CONTROL DATA	1 5 4	1 5 4				
4 5 2	CAMERA CONTROL DATA	1 4 2	1 4 2				
4 5 3	CAMERA CONTROL DATA	9 5	9 5				
4 5 4	CAMERA CONTROL DATA	5 0	5 0				

Change page $\Delta \times 2$

May 7, 1988



ADRS	CONTENTS	M-CPU					NOTE
		MP 1	MP 2				
		4.33	5.03				
4 5 5	CAMERA CONTROL DATA	1 0 0	1 0 0				
4 5 6	CAMERA CONTROL DATA	6	6				
4 5 7	CAMERA CONTROL DATA	5	5				
4 5 8	CAMERA CONTROL DATA	8 8	8 8				
4 5 9	CAMERA CONTROL DATA	1	1				
4 6 0	CAMERA CONTROL DATA	9 1	9 1				
4 6 1	CAMERA CONTROL DATA	0	0				
4 6 2	CAMERA CONTROL DATA	3 2	3 2				
4 6 3	CHECK SUM DATA	—	—				
4 6 4	CAMERA CONTROL DATA	—	—				
4 7 6	ERROR CODE	—	—				
4 7 7	CAMERA CONTROL DATA	—	—				
5 4 0	NOT USED	—	—				
5 5 0	CAMERA CONTROL DATA	—	—				
1 0 2 3							

• The values stated in the list are the fixed value or the initial value.

Some data change according as the camera condition changes.

• The minus mark, —, means the values that will change according to the transition of camera condition.

INSPECTION STANDARD AND TOOLS

[1]	Inspection standard	-----	R 1
[2]	Tools	-----	T 1
[3]	Hand made tools making procedures	-----	T 2

CONDITION FOR INSPECTION

Normal temperature : Temperature 20 ± 5 °C Humidity 65 ± 20 %

Power source : 5 . 5 V 5 A or more at 0 . 5 Ω load

Light source : 2 , 8 5 6 °K

K coefficient : 1 . 1 6

[1] INSPECTION STANDARD

1. The EV value in the description is the EV value of ISO100.
2. The symbol of EV conversion for errors is as follows. "+" is used for overexposure and "-" for underexposure.
3. B1~B8 for metering are cells for 8-divided SPD as shown below.

On the finder,

B1 ... Center doughnut B2 ... Left upper B3 ... Right upper B4 ... Left lower

B5 ... Right lower B6 ... Spot center B7 ... Spot left B8 ... Spot right

Classification	Evaluation items		Standard
Dimension	Main mirror	45° position Up and down	Within 5´
		Left and right	Within 20´
		Distortion	Within 8´
	Sub mirror	45° position Up and down	Within 30´
		Inclination, distortion	Within 8´
	Lens release pin	Protrusion height	+0.1 1.4-0.15mm
	Lens contact	Contact width	1.4mm or more
		Depth from bayonet surface	6.1mm~6.8mm
	Aperture lever	3.4 height (when using a tool)	+0.15 3.4-0.1mm
		Horizontal position	+0.35 18.7-0.3 mm
Depth from bayonet surface		5.3mm~6.7mm (Including up-and-down operation .)	
AF coupling	Protrusion height	1.7mm ± 0.2mm	
	Height when lens release pin is 0.4mm	0.07mm or less	
FminSW	Height from bayonet surface	+0.1mm~-0.3mm (Convex direction is “+”.)	
MBF	Pressure plate position (4 corners of image)	46.64mm ± 0.03mm	
	Pressure plate flatness (4 corners of image)	0.03mm or less	
	Clearance between pressure plate and inner rail	0.2mm ~0.3mm	
	Difference between inner rail and aperture surface	0.44mm ± 0.19mm	
AF performance	Alignment	Yaw	0 ± 6mrad
		Pitch	0 ± 15mrad
		L1~L9 Distance measurement value	0 ± 180 μ m
		Lxx Distance measurement value	0 ± 100 μ m
Limit of distance measurement luminance	Low luminance (AF50/1.4)	EV-1 (Luminance of standard reflection paper)	
	High luminance (AF50/1.4)	EV19 (Luminance of white part in chart)	
AF-M focusing range		Lighting range ± 80~± 120 μ m	
Metering	Metering accuracy	Error of recognition BV B1~B5	Within ± 0.5EV (EV-1~EV20)
		value toward AF50/1.4 standard. B6~B8	Within ± 0.5EV (EV3~EV20)

Classification	Evaluation items		Standard
Metering	AESP position	Up and down (using screen as reference)	Within $\pm 0.5\text{mm}$
		Left and right (using screen as reference)	Within $\pm 0.5\text{mm}$
		θ (using screen as reference)	Within $\pm 5^\circ$
AE performance	Image exposure	Accuracy	Shutter speed is 1/1000 sec or more.
		Tolerance	Shutter speed is less than 1/1000 sec
	AMP is excluded.	Accuracy	Shutter speed is 1/1000 sec or more.
		Tolerance	Shutter speed is less than 1/1000 sec
	A mode	Accuracy	Shutter speed is 1/4000 sec or more.
		Tolerance	Shutter speed is less than 1/4000 sec
Shutter	Speed accuracy	1/4000	Within $\pm 0.6\text{EV}$
		1/2000	Within $\pm 0.5\text{EV}$
	Tolerance	1/2000 < Speed $\leq$ 1/125	Within $\pm 0.6\text{EV}$
		1/125 < Speed $\leq$ 30s	Within $\pm 0.3\text{EV}$
	Curtain speed	1/4000	Within $\pm 0.6\text{EV}$
		1/2000 < Speed $\leq$ 1/125	Within $\pm 0.5\text{EV}$
Aperture control	Sincronization (1/180)	1/125 < Speed $\leq$ 30s	Within $\pm 0.5\text{EV}$
		Time lag	Within $\pm 0.5\text{EV}$
	Allowance after turning ON	Insulation resistance	Within 0.35EV
		Contact efficiency	Within 0.25EV
	Contact time :	5 μs or more for 200 μs	Within 0.2EV
	Operation	Lens aperture force : 45g	3.6ms (reference : 15mm slit)
		Power supply voltage : 6V + 0.4 Ω	0.07~0.47ms
	Aperture height accuracy	Pulse stop accuracy	0.9ms or more
		Tolerance	1M Ω or more at 50V
SB	Guide number	At full flash	Contact time :
	Recycle time	New battery	5 μs or more for 200 μs
	Color temperature	At full flash	
Finder	Inside LCD display window position	Up and down	Aperture pulse : 70 pulses or more
		Inclination	Aimed value ± 2 pulses
	Visual field rate	AF 50/1.8	Within 0.4EV
	Diopter	Finder image · Distance measurement · PAR frame	Within 14.2 ^{+2.3} -0.3
		Inside LCD display	Within 3.2 sec
Film advance	Eye point	Inside LED display	5500 $\pm$ 500° K
		Distance to eyepiece lens	20mm $\pm$ 2mm
	Frame speed	Average of 40 frames as using a new battery made by Duracell. AE-M, AF-M	93 $\pm$ 3%
			-1 $\pm$ 0.5dpt
			-1.1 $\pm$ 0.5dpt
			-1.5 $\pm$ 0.5dpt
			3.5 frame/sec or more

Classification	Evalaution items		Standard
Operation time	Pre-release timer time	After pre-release switch OFF	8 ± 0.5 sec.
		After release	2 ± 0.5 sec.
Electric current	Consumption · Standby current	Main switch OFF	100 μ A or less
		Main switch ON (Power OFF)	100 μ A or less
		Main switch ON (Power ON)	250mA or less
	Film advance	Current consumption (Average) 1EX	600mA or less
		20EX	700mA or less
		40EX	900mA or less
	Film rewind	Current consumption (Averge)	600mA or less
	BC level	Primary level	Lower direction : 5 ± 0.07 V or less Restoring direction : 5.3 ± 0.07 V or less
		Secondary level	Lower direction : 4.7 ± 0.07 V or less Restoring direction : 5 ± 0.07 V or less
	Numbe of film rolls	Inside SB is not used. (Norml temp.)	150 films or more (25) ,100 films or more (40)
		50% of inside SB is used. (Normal temp.)	25 films or more (25) ,16 films or more (40)
		Inside SB is not used. (-10° C)	70 films or more (25) ,50 films or more (40)
		50% of inside SB is used. (-10° C)	20 films or more (25) ,14 films or more (40)
		Bulb operating time (normal temp.)	4 hours or more
Image dimansion	Image dimansion	Width	$+1.22$ $30.2 - 0$ mm
		Length	$+0.76$ $16.7 - 0$ mm
		R of corners	R 0.4mm or less

[2] TOOLS

1. Special tools

Tool No.	Name	Remark
J 1 8 2 7 4	Mirror angle inspection mirror	For PRONEA
J 1 8 2 7 7	Sub mirror angle adjustment tool	For PRONEA
J 1 5 3 2 9	M.B.F. measurement tool	For PRONEA
J 1 5 3 3 2	Camera communication tool	For PRONEA
J 1 9 0 4 2 D	Exposure value measuring adapter	For EF511N, EF8000
J 1 9 0 4 2 E	Shutter speed measuring adapter (For advanced photo system)	For EF8000
J 1 8 2 7 6 A	Inspection and adjustment program	NEC 5 inch
J 1 8 2 7 6 B	Inspection and adjustment program	NEC 3.5 inch
J 1 8 2 7 6 C	Inspection and adjustment program	IBM 5 inch
J 1 8 2 7 6 D	Inspection and adjustment program	IBM 3.5 inch

2. Hand made tools

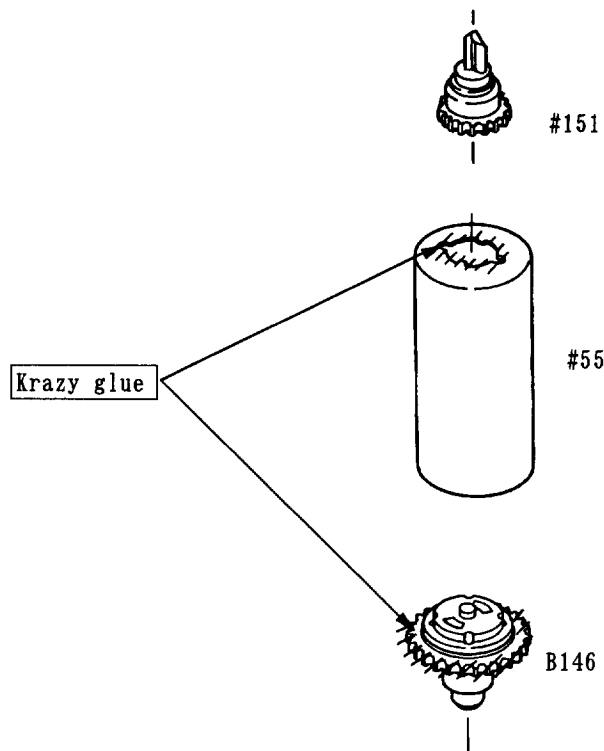
	Name	Usage
Hand made tool	Lightlock door opener for advanced photo system film cartridge	To repeat use of film cartridge once used.

[3] HAND MADE TOOLS MAKING PROCEDURES

1. LIGHTLOCK DOOR OPENER

With a film cartridge once used for test purposes, it is impossible to repeat auto-loading unless the film Visual Exposure Indication (VEI) is reset to UNEXPOSED position each time before loading. To reset the VEI, you need a special tool, Lightlock Door Opener. Follow the steps below to make the opener.

- ① Prepare one piece each of LL driver (#151) , Upper fork unit (B146) and Motor cover (#55) .
- ② Attach each above mentioned element with crazy glue as shown below.
- ③ Add also 5 minite epoxy to ensure its durability.



HOW TO USE :

- ① Insert the LL driver (#151) into the lightlock door drive and rotate it to open the lightlock door.
- ② Insert, the Upper fork unit (B146) into the cartridge spool and rotate it counterclockwise until the UNEXPOSED mark is selected.
(Do not rotate clockwise as it will push film inside to outside.)
- ③ Shut the lightlock door.

