FBA01001-R.3453.A

作成承認印	配布許可印
ニコン 映像事業 CS推進部 GM	

Nikon PRONEA S FBA01001

PARTS LIST

修 理 部 品 表

Nikon | NIKON CORPORATION
Tokyo, Japan

Copyright © 1998 by Nikon Corporation.
All Rights Reserved.
無断転載を禁ず !!

Printed in Japan September 1998

A B

FBA01001-R.3453.A

1 2 3

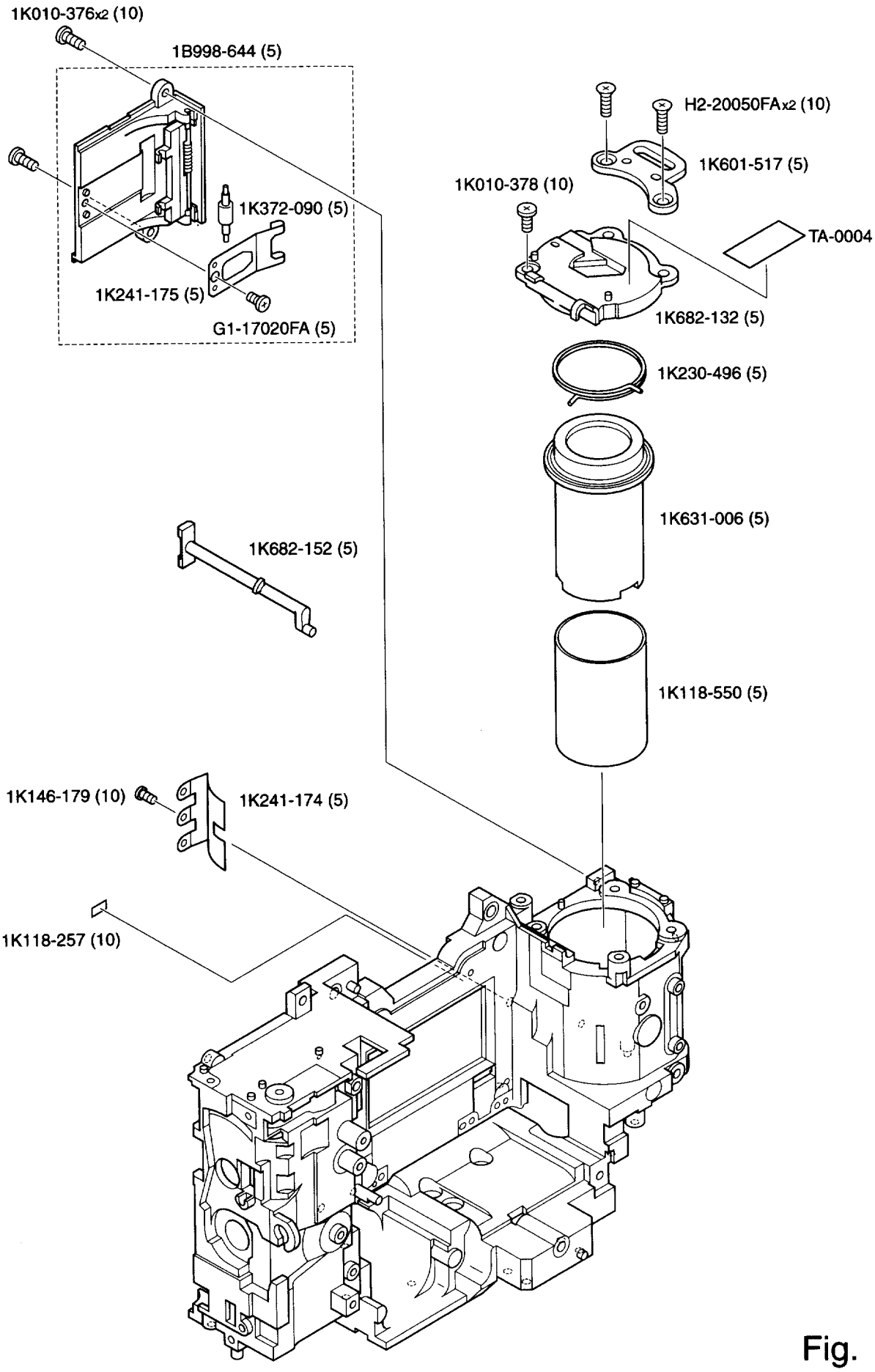


Fig. 1

A B

FBA01001-R.3453.A

1 2 3

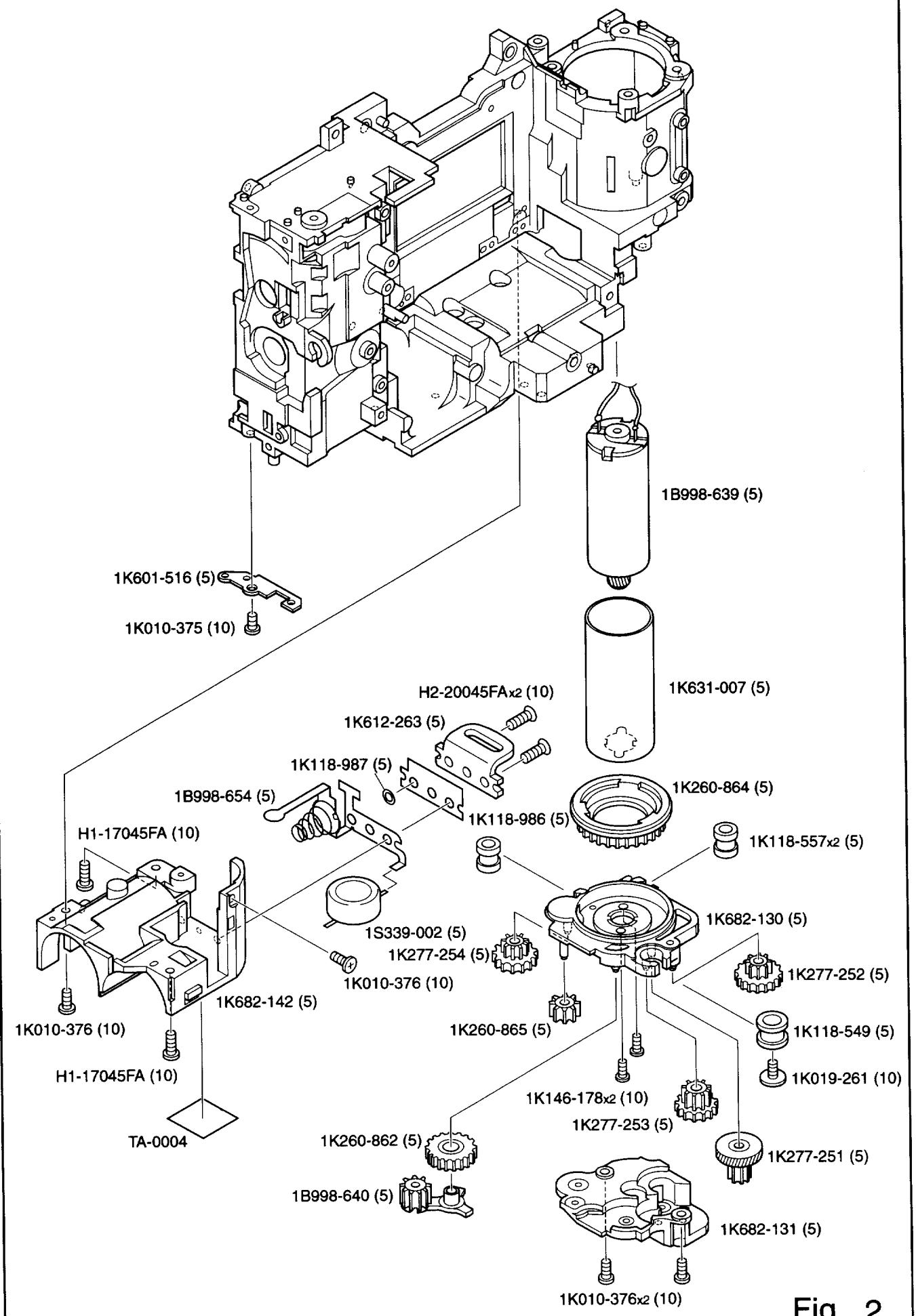
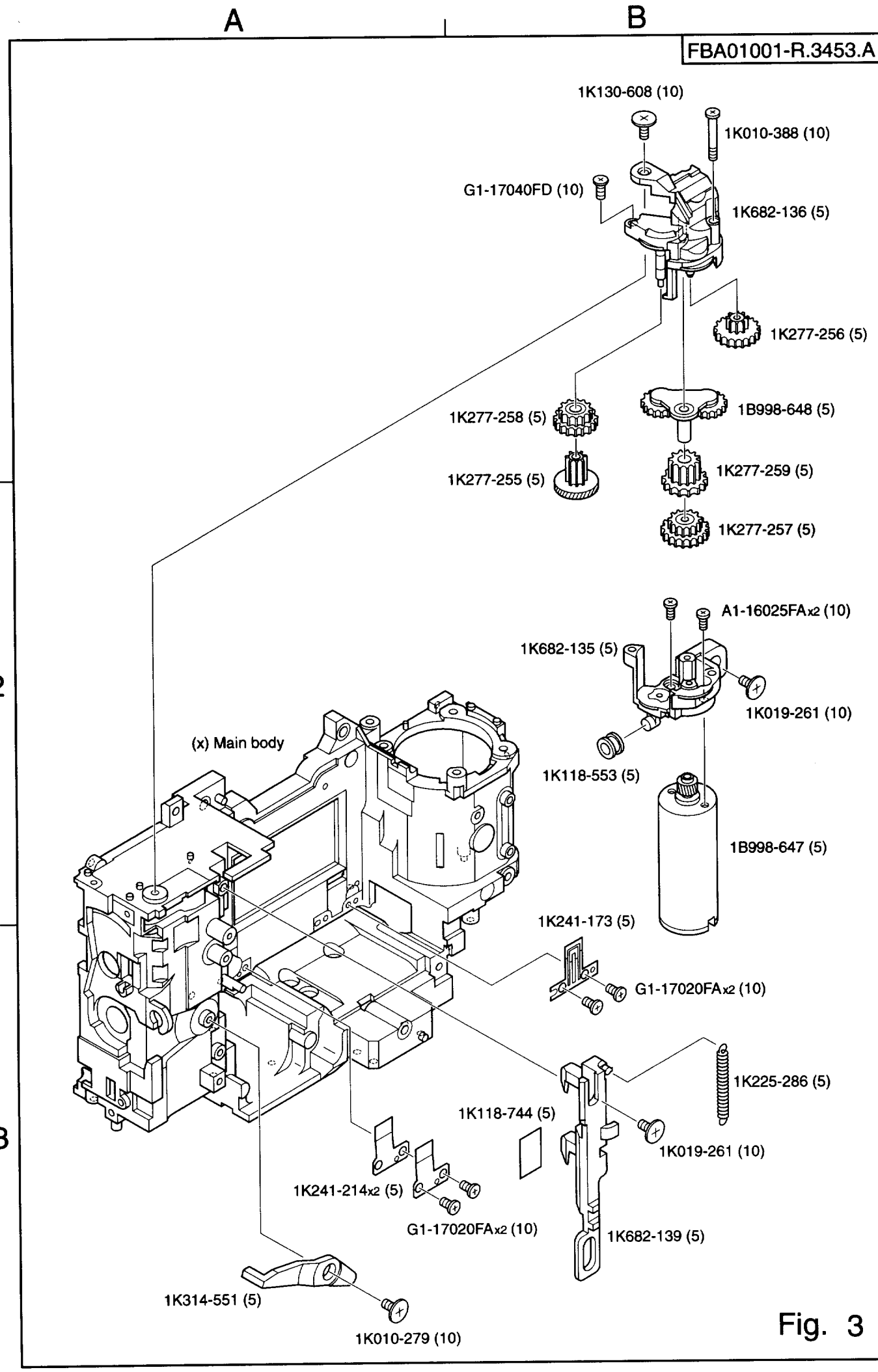
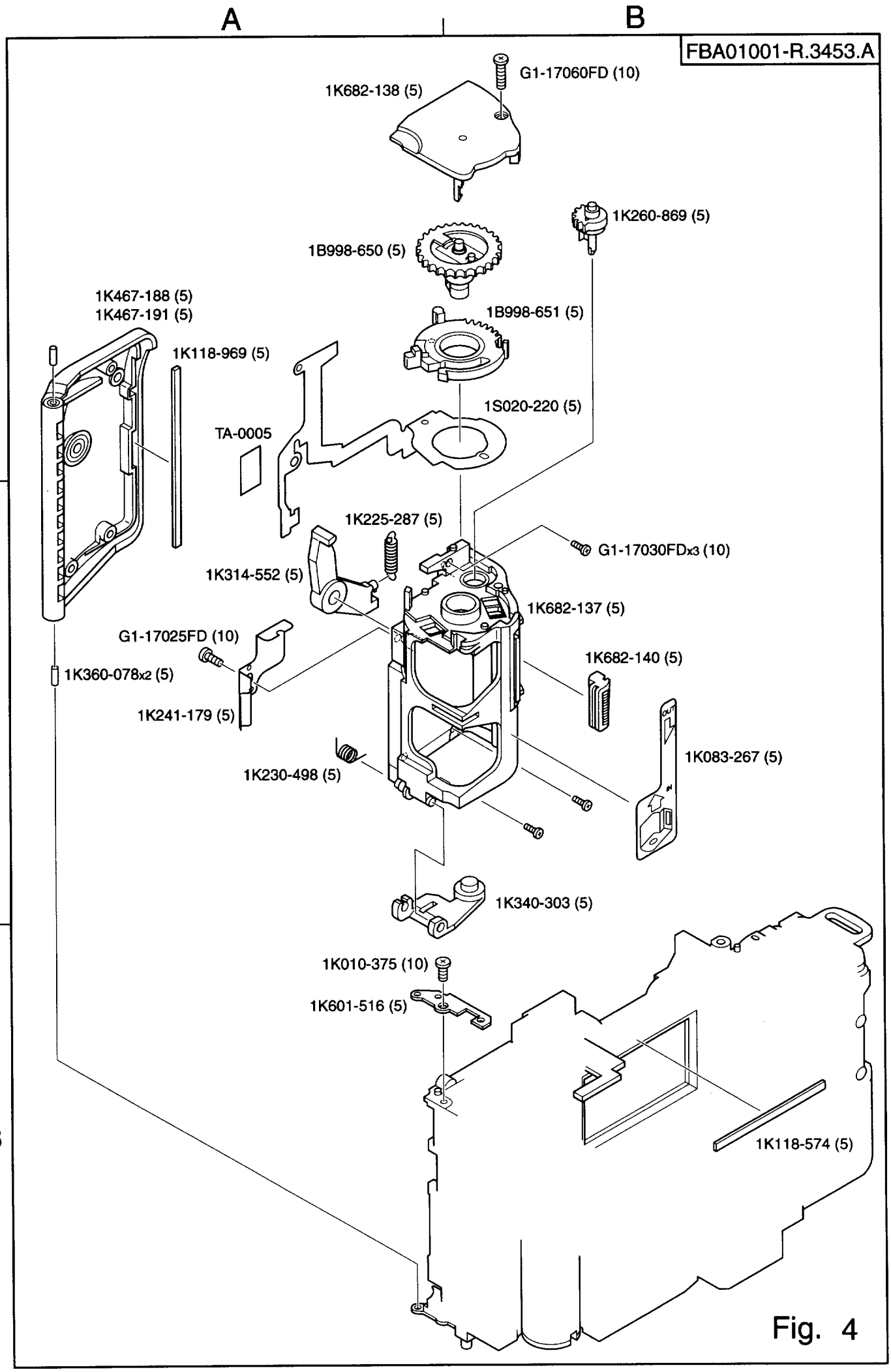


Fig. 2


A
B
FBA01001-R.3453.A
1
2
3
1K130-608 (10)
1K010-388 (10)
G1-17040FD (10)
1K682-136 (5)
1K277-256 (5)
1K277-258 (5)
1B998-648 (5)
1K277-255 (5)
1K277-259 (5)
1K277-257 (5)
A1-16025FAx2 (10)
1K682-135 (5)
1K019-261 (10)
(x) Main body
1K118-553 (5)
1B998-647 (5)
1K241-173 (5)
G1-17020FAx2 (10)
1K225-286 (5)
1K118-744 (5)
1K019-261 (10)
1K241-214x2 (5)
G1-17020FAx2 (10)
1K682-139 (5)
1K314-551 (5)
1K010-279 (10)
Fig. 3


A
B
1
2
3
FBA01001-R.3453.A
G1-17060FD (10)
1K682-138 (5)
1K260-869 (5)
1B998-650 (5)
1K467-188 (5)
1K467-191 (5)
1B998-651 (5)
1K118-969 (5)
1S020-220 (5)
TA-0005
1K225-287 (5)
G1-17030FDx3 (10)
1K314-552 (5)
1K682-137 (5)
G1-17025FD (10)
1K682-140 (5)
1K360-078x2 (5)
1K241-179 (5)
1K083-267 (5)
1K230-498 (5)
1K340-303 (5)
1K010-375 (10)
1K601-516 (5)
1K118-574 (5)
Fig. 4

FBA01001-R.3453.A

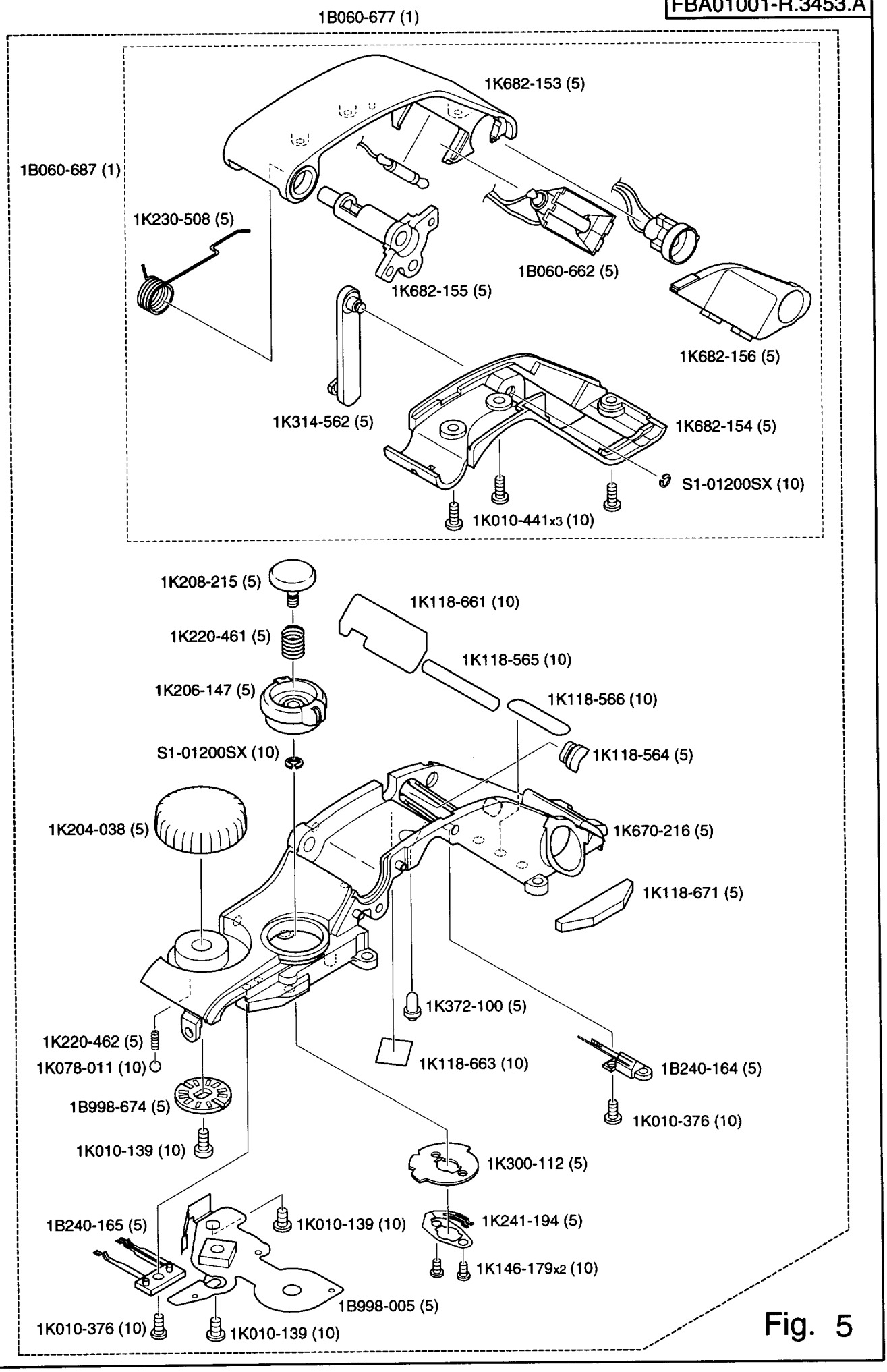
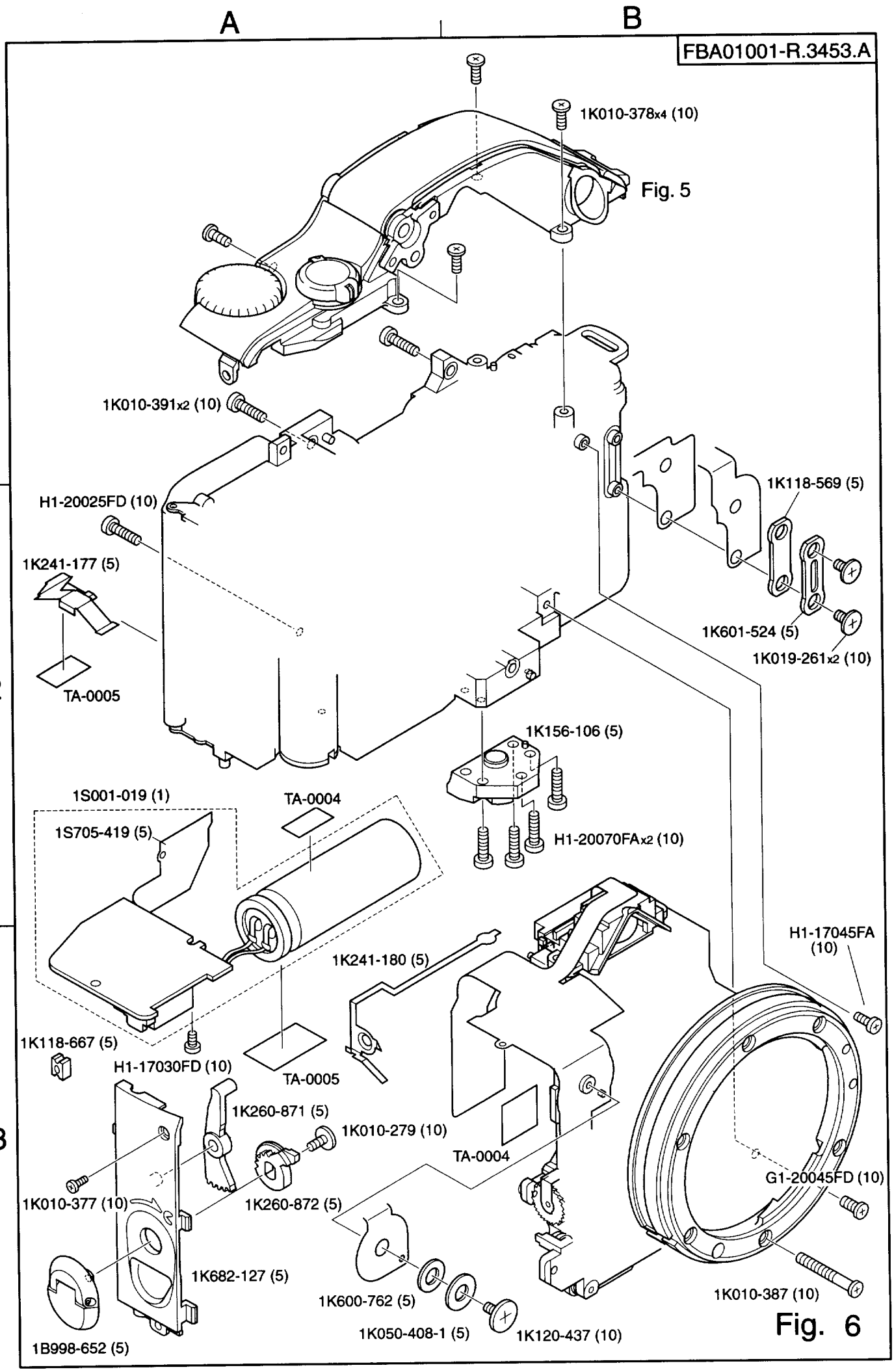
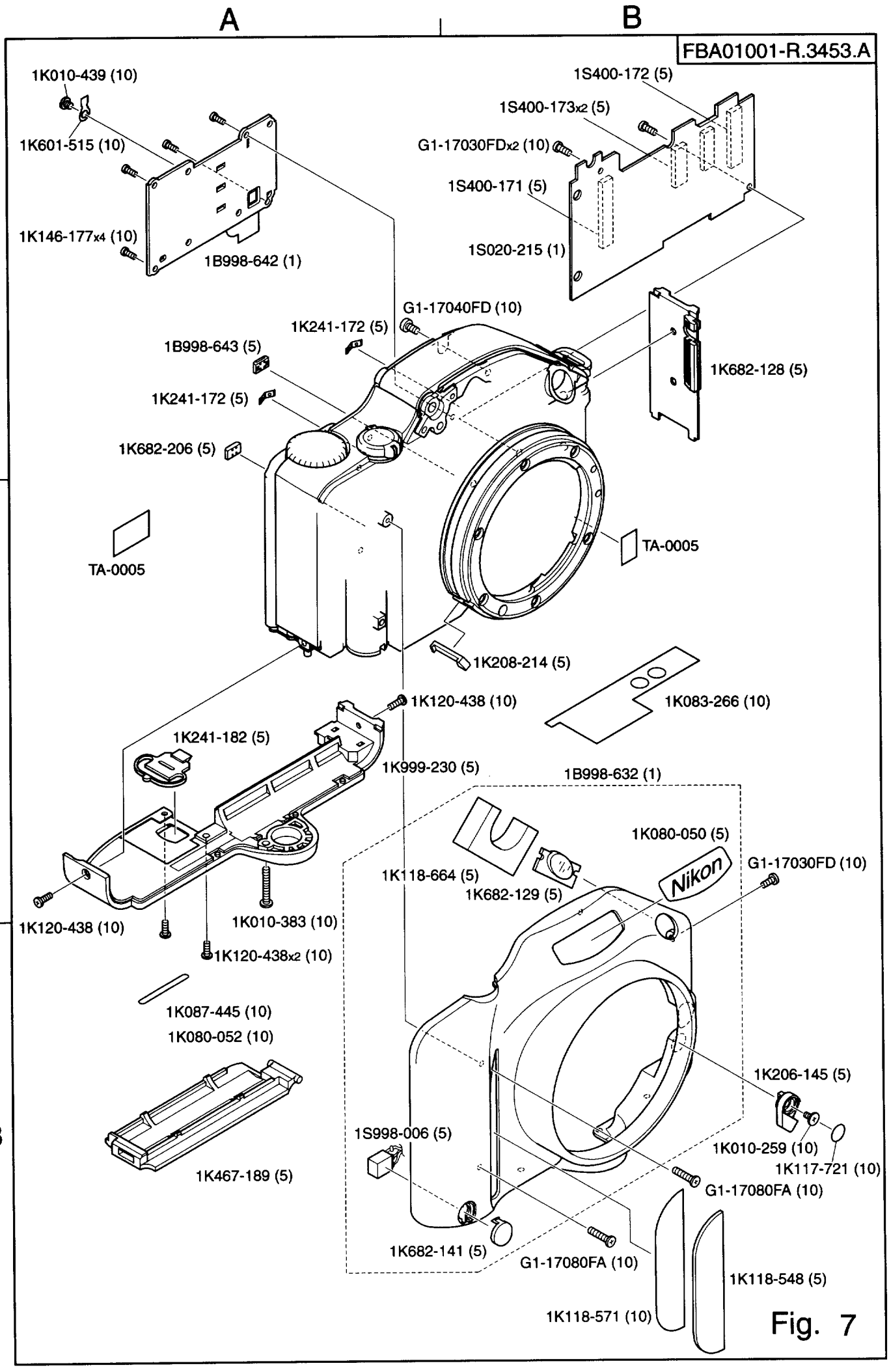


Fig. 5


A
B
FBA01001-R.3453.A
1
2
3
1K010-378x4 (10)
Fig. 5
1K010-391x2 (10)
H1-20025FD (10)
1K241-177 (5)
TA-0005
1K118-569 (5)
1K601-524 (5)
1K019-261x2 (10)
1K156-106 (5)
H1-20070FAx2 (10)
1S001-019 (1)
TA-0004
1S705-419 (5)
1K241-180 (5)
H1-17045FA (10)
1K118-667 (5)
H1-17030FD (10)
TA-0005
1K260-871 (5)
1K010-279 (10)
TA-0004
1K010-377 (10)
1K260-872 (5)
G1-20045FD (10)
1K682-127 (5)
1K600-762 (5)
1K010-387 (10)
1K050-408-1 (5)
1K120-437 (10)
1B998-652 (5)
Fig. 6


A
B
FBA01001-R.3453.A
1
2
3
1K010-439 (10)
1K601-515 (10)
1K146-177x4 (10)
1B998-642 (1)
1S400-172 (5)
1S400-173x2 (5)
G1-17030FDx2 (10)
1S400-171 (5)
1S020-215 (1)
G1-17040FD (10)
1K241-172 (5)
1B998-643 (5)
1K241-172 (5)
1K682-206 (5)
1K682-128 (5)
TA-0005
TA-0005
1K208-214 (5)
1K120-438 (10)
1K083-266 (10)
1K241-182 (5)
1K999-230 (5)
1B998-632 (1)
1K080-050 (5)
1K118-664 (5)
1K682-129 (5)
Nikon
G1-17030FD (10)
1K120-438 (10)
1K010-383 (10)
1K120-438x2 (10)
1K087-445 (10)
1K080-052 (10)
1K206-145 (5)
1S998-006 (5)
1K010-259 (10)
1K117-721 (10)
G1-17080FA (10)
1K467-189 (5)
1K682-141 (5)
G1-17080FA (10)
1K118-548 (5)
1K118-571 (10)
Fig. 7

FBA01001-R.3453.A

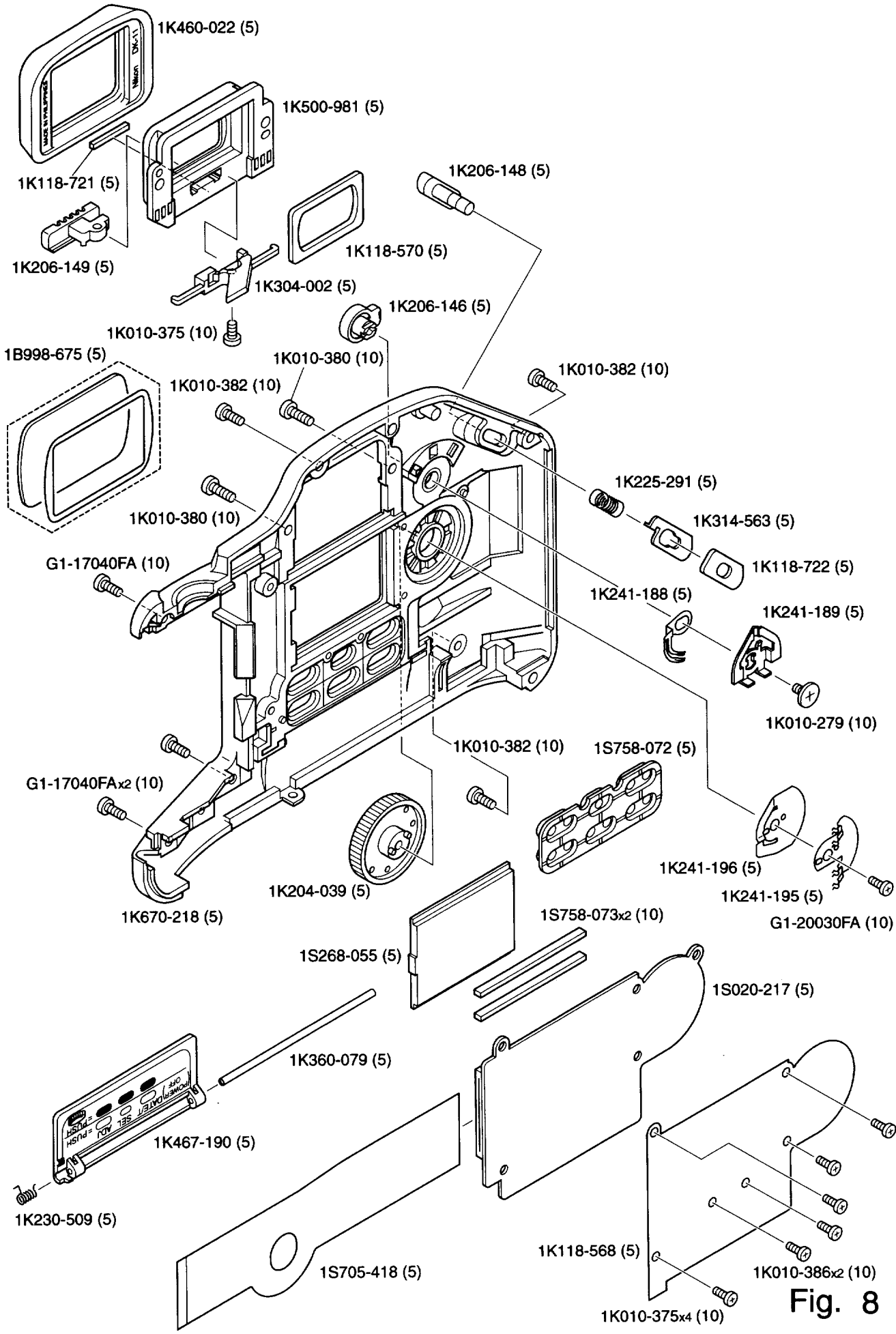


Fig. 8

FBA01001-R.3453.A

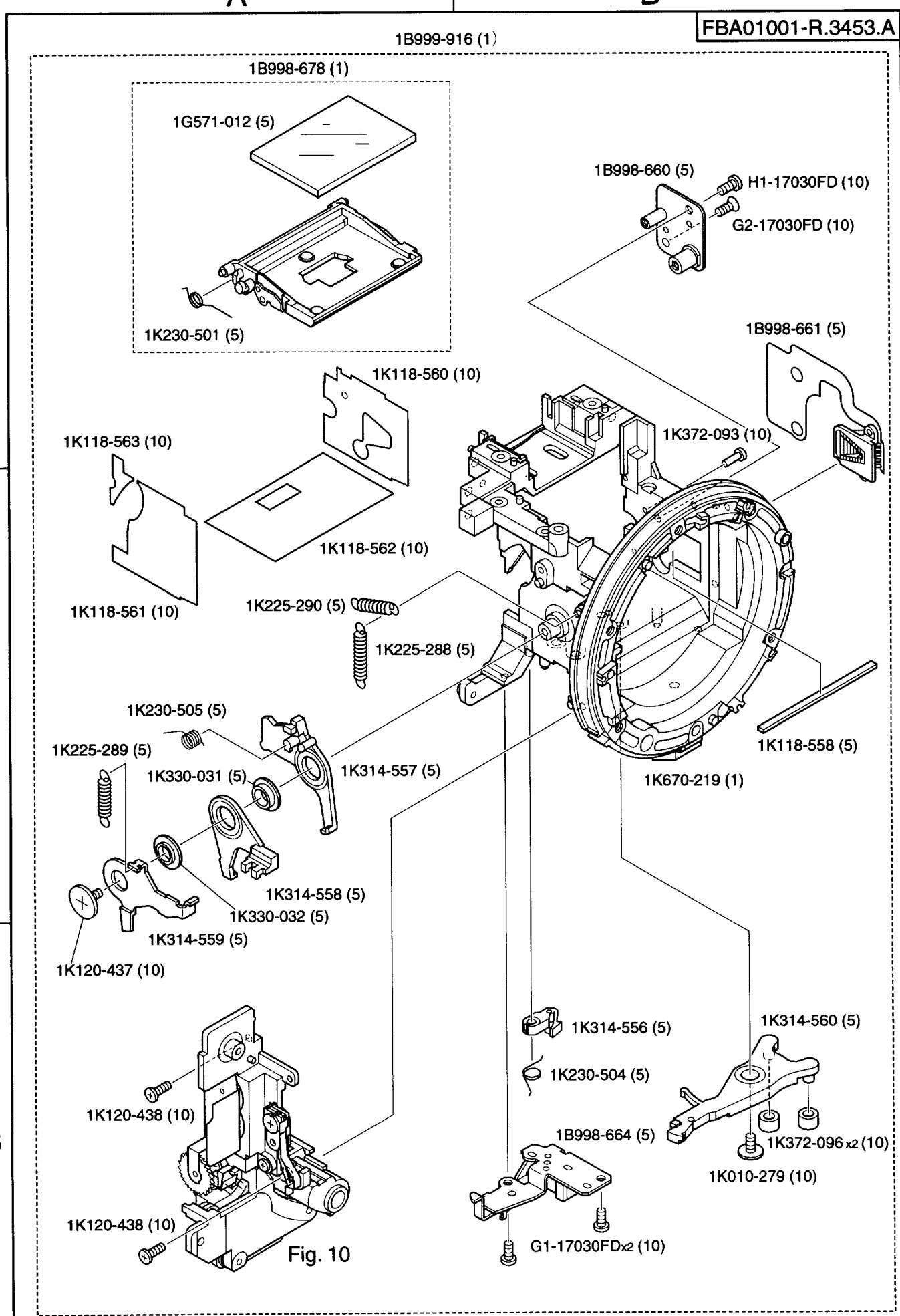


Fig. 10

Fig. 9

FBA01001-R.3453.A

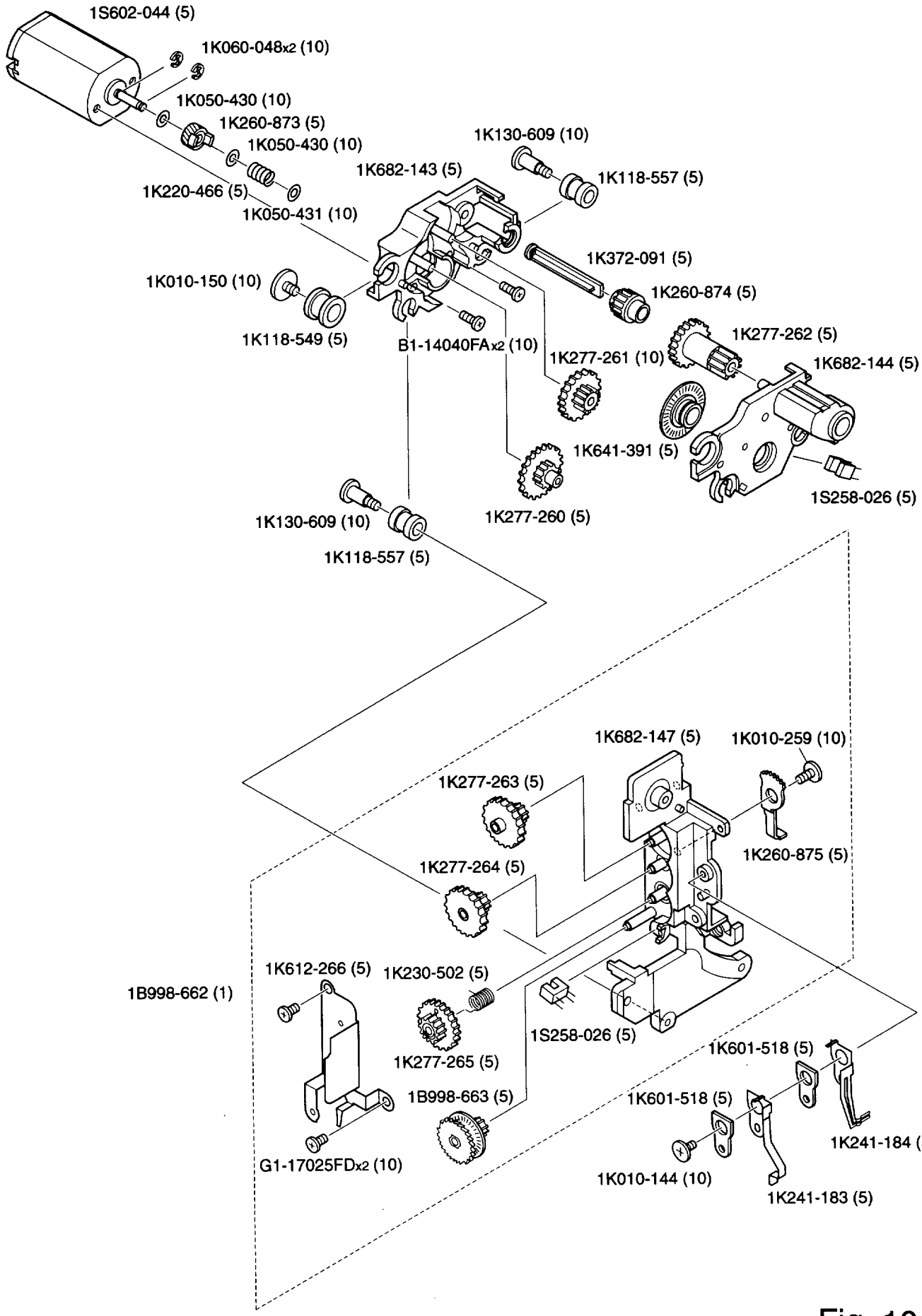


Fig. 10

FBA01001-R.3453.A

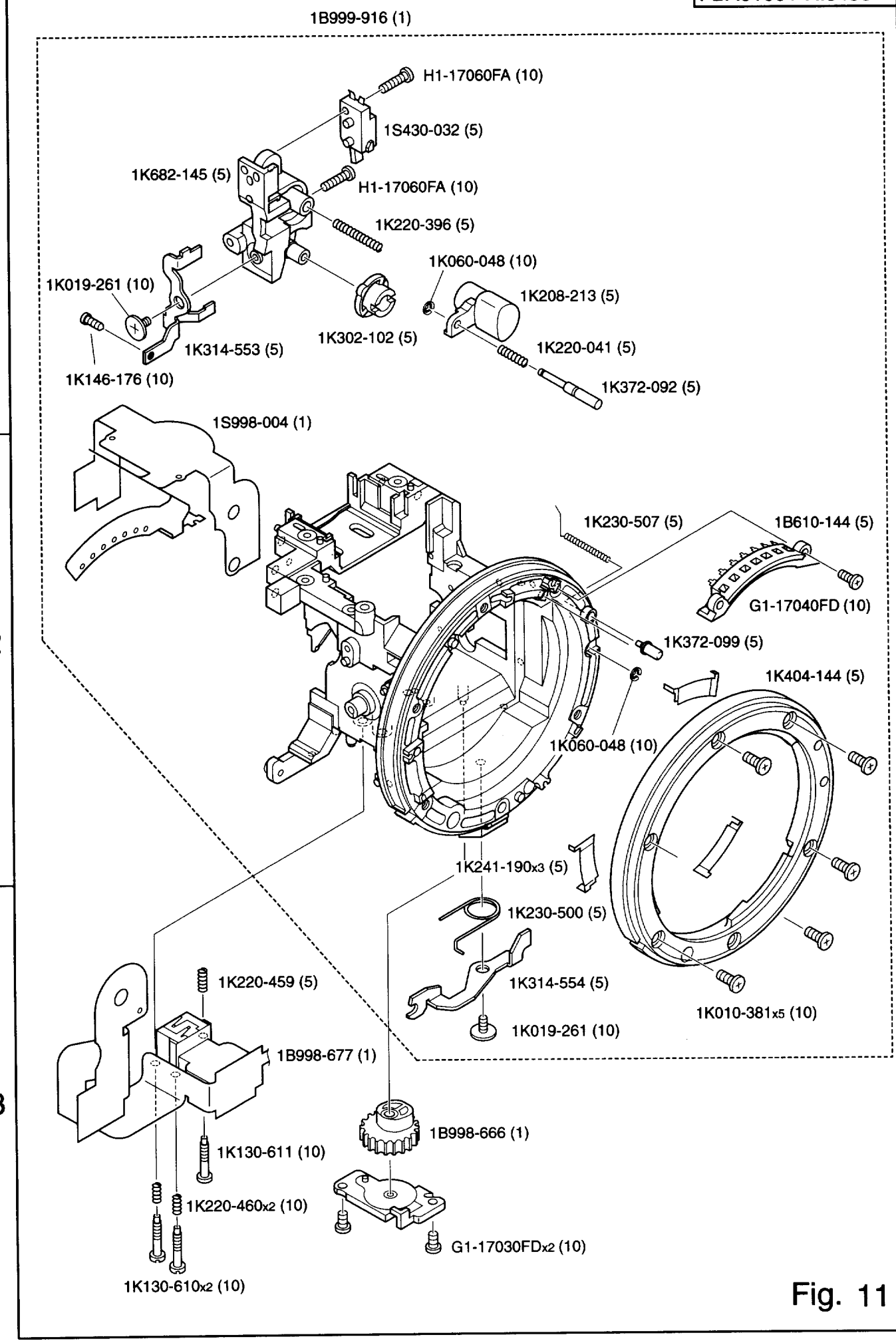
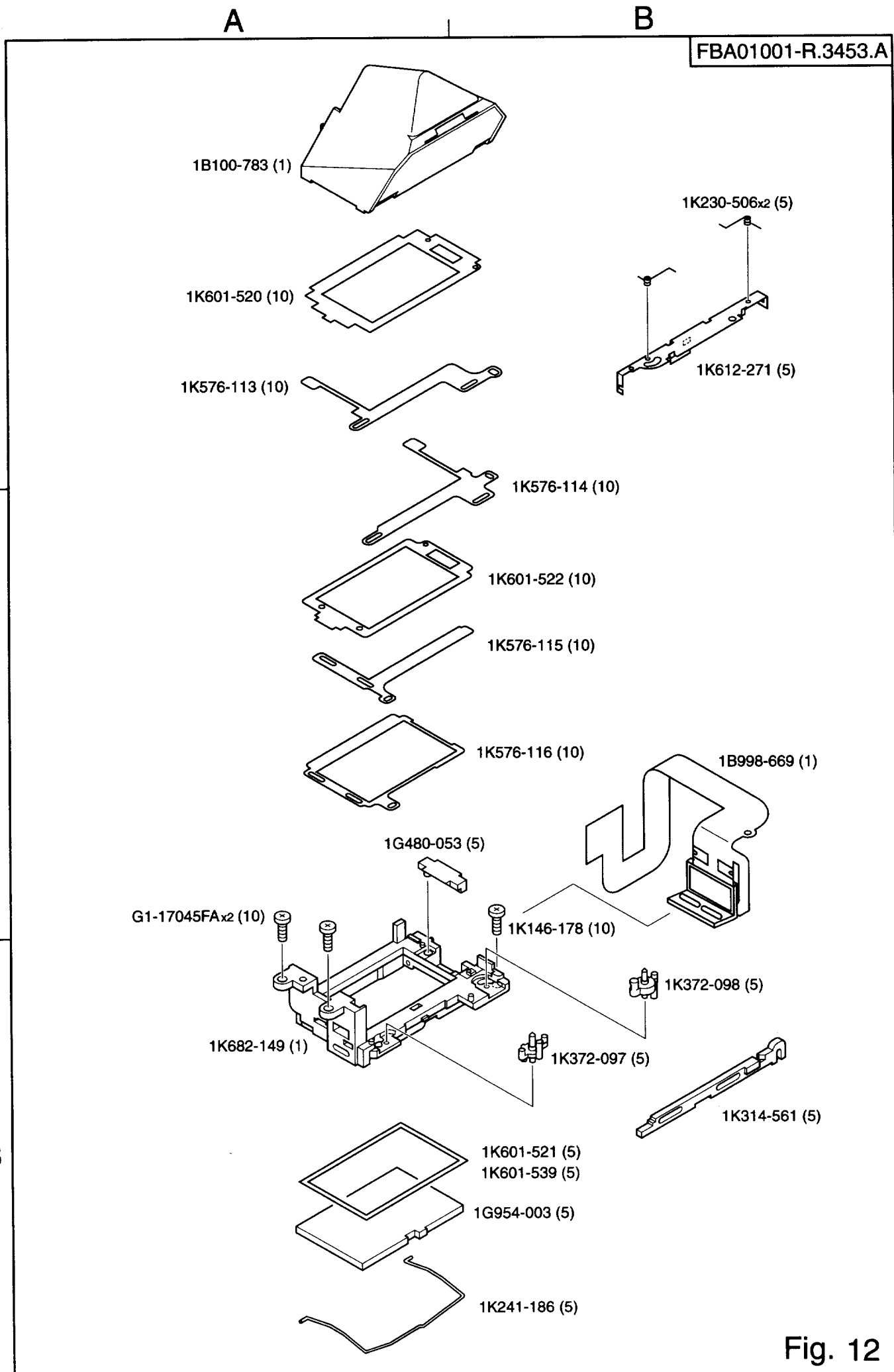


Fig. 11


A
B
FBA01001-R.3453.A
1
2
3
1B100-783 (1)
1K230-506x2 (5)
1K601-520 (10)
1K612-271 (5)
1K576-113 (10)
1K576-114 (10)
1K601-522 (10)
1K576-115 (10)
1K576-116 (10)
1B998-669 (1)
1G480-053 (5)
G1-17045FAx2 (10)
1K146-178 (10)
1K372-098 (5)
1K682-149 (1)
1K372-097 (5)
1K314-561 (5)
1K601-521 (5)
1K601-539 (5)
1G954-003 (5)
1K241-186 (5)
Fig. 12

A B

FBA01001-R.3453.A

1 2 3

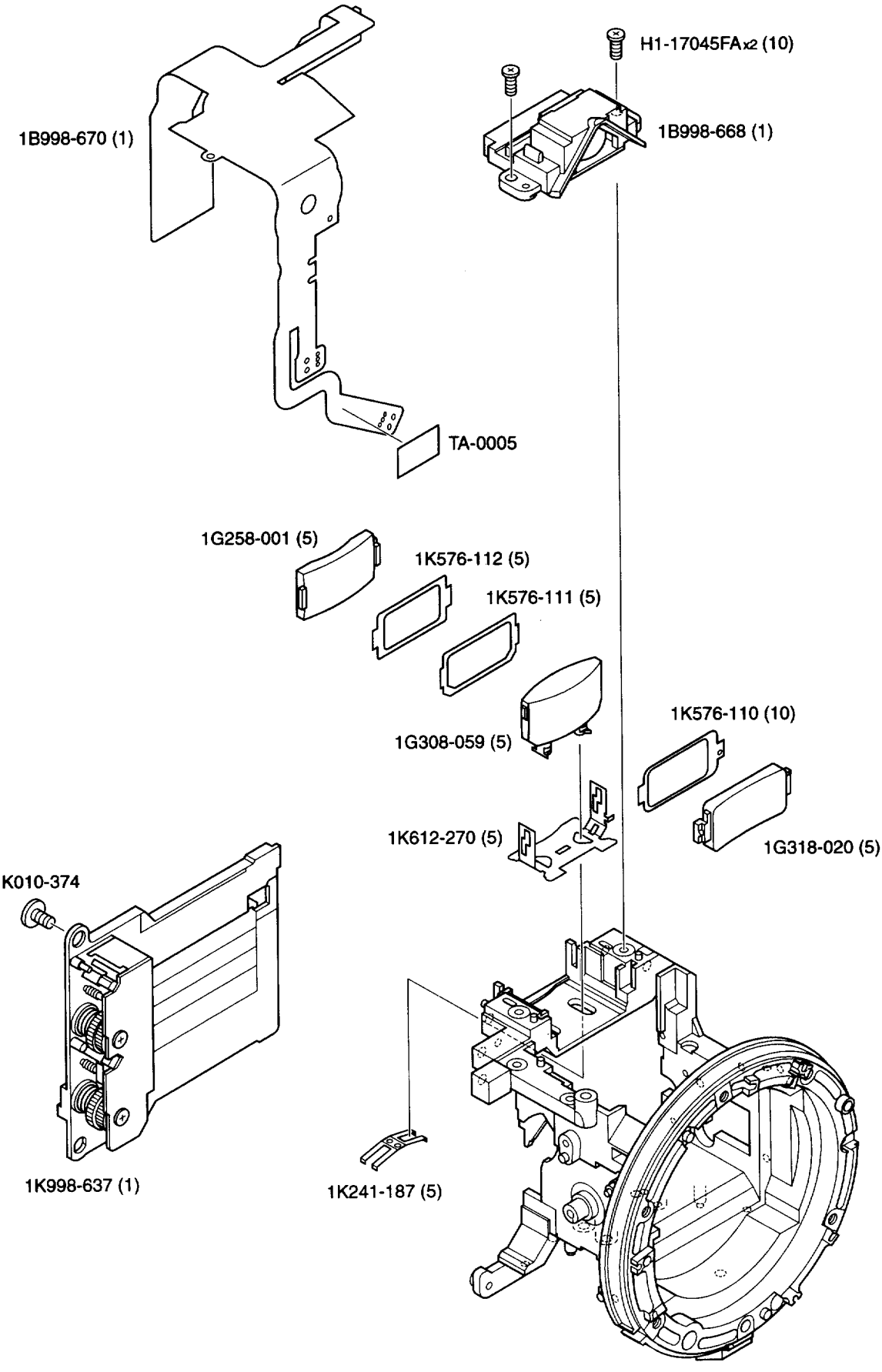


Fig. 13

部品表 Parts List

FBA01001-R. 3453. 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
1G258-001 (1G258-001)	G8	接眼レンズ EYEPIECE LENS	1		13	○		5
1G308-059 (1G308-059)	G7	接眼レンズB EYEPIECE LENS B	1		13	○		5
1G318-020 (1G318-020)	G6	接眼レンズA EYEPIECE LENS A	1		13	○		5
1G480-053 (1G480-053)	G9	表示用プリズム DISPLAY PRISM	1		12	○		5
1G571-012 (1G571-012)	G1	主ミラー MAIN MIRROR	1		9	○		5
1G954-003 (1G954-003)	G3	スクリーン FOCUS SCREEN	1		12	○		5
*1K010-139 (1K010-139)	482	SCREW SCREW	3		5	○		10
*1K010-144 (1K010-144)	490	SCREW SCREW	1		10	○		10
1K010-150 (1K010-150)	504	SCREW SCREW	1		10	○		10
*1K010-259 (1K010-259)	484	SCREW SCREW	2		10	○		10
*1K010-279 (1K010-279)	486	SCREW SCREW	6		3	○		10
1K010-374 (1K010-374)	481	SCREW SCREW	1		13	○		10
1K010-375 (1K010-375)	522	SCREW SCREW	7		2	○		10
1K010-376 (1K010-376)	523	SCREW SCREW	6		1	○		10
1K010-377 (1K010-377)	524	SCREW SCREW	8		8	○		10
1K010-378 (1K010-378)	525	SCREW SCREW	5		6	○		10

部品表 Parts List

FBA01001-R. 3453. 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
1K010-380 (1K010-380)	527	SCREW SCREW	2		8	○		10
1K010-381 (1K010-381)	528	SCREW SCREW	5		11	○		10
1K010-382 (1K010-382)	529	SCREW SCREW	3		8	○		10
1K010-383 (1K010-383)	590	SCREW SCREW	1		7	○		10
1K010-386 (1K010-386)	505	SCREW SCREW	2		8	○		10
1K010-387 (1K010-387)	591	SCREW SCREW	1		6	○		10
1K010-388 (1K010-388)	530	SCREW SCREW	1		3	○		10
1K010-391 (1K010-391)	531	SCREW SCREW	2		6	○		10
1K010-439 (1K010-439)	533	SCREW SCREW	1		7	○		10
1K010-441 (1K010-441)	534	SCREW SCREW	3		5	○		10
*1K019-261 (1K019-261)	485	SCREW SCREW	5		6	○		10
*1K050-408-1 (1K050-408-1)	417	圧接押さえ板 PRESS CONTACT RETAINER PLATE	1		6	○		5
*1K050-430 (1K050-430)	184	ワッシャー WASHER	2		10	○		10
*1K050-431 (1K050-431)	185	ワッシャー WASHER	1		10	○		10
*1K060-048 (1K060-048)	489	Eリング E RING	4		11	○		10
*1K078-011 (1K078-011)	395	ベアリング BEARING	1		5	○		10

部品表 Parts List

FBA01001-R. 3453. 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
1K080-050 (1K080-050)	140	銘板 NAME PLATE	1	1B998-632	7	○△		5
1K083-266 (1K083-266)	431	電池シール BATTERY SEAL	1		7	○		10
1K083-267 (1K083-267)	432	テープ TAPE	1		4	○		5
1K087-445 (1K087-445)	433	原産国テープ　タイランド TAPE THAILAND	1		7	○		10
*1K117-721 (1K117-721)	208	ＡＭ切替レバー蓋 AM CHANGE OVER LEVER COVER	1		7	○		10
*1K118-257 (1K118-257)	76	テープ TAPE	1		1	○		10
1K118-548 (1K118-548)	26	グリップゴム GRIP RUBBER	1		7	○		5
1K118-549 (1K118-549)	43	ゴム RUBBER	2		10	○		5
1K118-550 (1K118-550)	62	ゴム RUBBER	1		1	○		5
1K118-553 (1K118-553)	94	ゴムリング RUBBER RING	1		3	○		5
1K118-557 (1K118-557)	196	ゴム RUBBER	4		10	○		5
1K118-558 (1K118-558)	233	モルト SPONGE	1		9	○		5
1K118-560 (1K118-560)	326	植毛紙 FLOCKED SHEET	1		9	○		10
1K118-561 (1K118-561)	327	植毛紙 FLOCKED SHEET	1		9	○		10
1K118-562 (1K118-562)	328	植毛紙 FLOCKED SHEET	1		9	○		10
1K118-563 (1K118-563)	329	植毛紙 FLOCKED SHEET	1		9	○		10

部品表 Parts List

FBA01001-R. 3453. 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
1K118-564 (1K118-564)	354	ゴム RUBBER	1	1B060-677	5	○△		5
1K118-565 (1K118-565)	367	目隠し板 SHIELD PLATE	1		5	○		10
1K118-566 (1K118-566)	396	テープ TAPE	1		5	○		10
1K118-568 (1K118-568)	415	遮光ルミラー LIGHT LEAK TRACING FILM	1		8	○		5
1K118-569 (1K118-569)	420	ゴム板 RUBBER PLATE	1		6	○		5
1K118-570 (1K118-570)	422	モルト SPONGE	1		8	○		5
1K118-571 (1K118-571)	424	テープ TAPE	1		7	○		10
1K118-574 (1K118-574)	441	モルト SPONGE	1		4	○		5
1K118-661 (1K118-661)	372	テープ TAPE	1	1B060-677	5	○△		10
1K118-664 (1K118-664)	142	モルト SPONGE	1	1B998-632	7	○△		5
1K118-667 (1K118-667)	132	ゴム RUBBER	1		6	○		5
1K118-671 (1K118-671)	373	モルト SPONGE	1	1B060-677	5	○△		5
1K118-721 (1K118-721)	427	モルト SPONGE	1		8	○		5
1K118-722 (1K118-722)	416	モルト SPONGE	1		8	○		5
1K118-744 (1K118-744)	442	テープ TAPE	1		3	○		5
1K118-969 (1K118-969)	234	モルト SPONGE	1		4	○		5

部品表 Parts List

FBA01001-R. 3453. 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
1K118-986 (1K118-986)	438	テープ TAPE	1		2	○		5
1K118-987 (1K118-987)	439	テープ TAPE	1		2	○		5
1K120-437 (1K120-437)	509	SCREW SCREW	2		6	○		10
1K120-438 (1K120-438)	510	SCREW SCREW	4		7	○		10
1K130-608 (1K130-608)	532	SCREW SCREW	1		3	○		10
1K130-609 (1K130-609)	503	SCREW SCREW	2		10	○		10
1K130-610 (1K130-610)	507	SCREW SCREW	2		11	○		10
1K130-611 (1K130-611)	508	SCREW SCREW	1		11	○		10
1K146-176 (1K146-176)	491	SCREW SCREW	1		11	○		10
1K146-177 (1K146-177)	501	SCREW SCREW	4		7	○		10
1K146-178 (1K146-178)	513	SCREW SCREW	1		12	○		10
1K146-179 (1K146-179)	514	SCREW SCREW	3		1	○		10
1K156-106 (1K156-106)	148	三脚座 TRIPOD SOCKET PEDESTAL	1		6	○		5
1K204-038 (1K204-038)	390	コマンドダイヤル COMMAND DIAL	1		5	○		5
1K204-039 (1K204-039)	401	モードダイヤル MODE DIAL	1		8	○		5
1K206-145 (1K206-145)	206	A-M切替レバー A-M CHANGE LEVER	1		7	○		5

部品表 Parts List

FBA01001-R. 3453. 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
1K206-146 (1K206-146)	316	ＣＨＰ切替操作レバー CHP CHANGE LEVER	1		8	○		5
1K206-147 (1K206-147)	381	ＯＮ－ＯＦＦダイヤル ON-OFF DIAL	1	1B060-677	5	○△		5
1K206-148 (1K206-148)	411	ＳＢポップアップ釦 SB POP-UP BUTTON	1		8	○		5
1K206-149 (1K206-149)	424	視度補正操作レバー EYE-PIECE DIOPTER	1		8	○		5
1K208-213 (1K208-213)	202	着脱釦 RELEASE BUTTON	1		11	○		5
1K208-214 (1K208-214)	217	Ｆｍｉｎレバー F min LEVER	1		7	○		5
1K208-215 (1K208-215)	388	レリーズ釦 RELEASE BUTTON	1	1B060-677	5	○△		5
*1K220-041 (1K220-041)	205	バネ SPRING	1		11	○		5
*1K220-396 (1K220-396)	203	バネ SPRING	1		11	○		5
1K220-459 (1K220-459)	171	バネ SPRING	1		11	○		5
1K220-460 (1K220-460)	172	バネ SPRING	2		11	○		5
1K220-461 (1K220-461)	389	バネ SPRING	1	1B060-677	5	○△		5
1K220-462 (1K220-462)	391	バネ SPRING	1		5	○		5
*1K220-466 (1K220-466)	186	バネ SPRING	1		10	○		5
1K225-286 (1K225-286)	120	バネ SPRING	1		3	○		5
1K225-287 (1K225-287)	137	バネ SPRING	1		4	○		5

部品表 Parts List

FBA01001-R. 3453. 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
1K225-288 (1K225-288)	271	バネ SPRING	1		9	○		5
1K225-289 (1K225-289)	272	バネ SPRING	1		9	○		5
1K225-290 (1K225-290)	273	バネ SPRING	1		9	○		5
1K225-291 (1K225-291)	412	バネ SPRING	1		8	○		5
1K230-496 (1K230-496)	65	バネ SPRING	1		1	○		5
1K230-498 (1K230-498)	135	バネ SPRING	1		4	○		5
1K230-500 (1K230-500)	216	バネ SPRING	1		11	○		5
1K230-501 (1K230-501)	226	バネ SPRING	1		9	○		5
1K230-502 (1K230-502)	244	バネ SPRING	1		10	○		5
1K230-504 (1K230-504)	256	バネ SPRING	1		9	○		5
1K230-505 (1K230-505)	281	バネ SPRING	1		9	○		5
1K230-506 (1K230-506)	308	バネ SPRING	2		12	○		5
1K230-507 (1K230-507)	341	バネ SPRING	1		11	○		5
1K230-508 (1K230-508)	363	バネ SPRING	1	1B060-662	5	○△		5
1K230-509 (1K230-509)	408	バネ SPRING	1		8	○		5
1K241-172 (1K241-172)	72	板バネ PLATE SPRING	1		7	○		5

部品表 Parts List

FBA01001-R. 3453. 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
1K241-173 (1K241-173)	75	板バネ PLATE SPRING	1		3	○		5
1K241-174 (1K241-174)	78	板バネ PLATE SPRING	1		1	○		5
1K241-175 (1K241-175)	83	板バネ PLATE SPRING	1	1B998-644	1	○△		5
1K241-177 (1K241-177)	128	板バネ PLATE SPRING	1		6	○		5
1K241-179 (1K241-179)	136	板バネ PLATE SPRING	1		4	○		5
1K241-180 (1K241-180)	153	電池接点A BATTERY CONTACT A	1		6	○		5
1K241-182 (1K241-182)	156	電池蓋ロック爪 BATTERY LOCK PLATE	1		7	○		5
1K241-183 (1K241-183)	218	Ｆｍｉｎ接片A Fmin SW PLATE A	1		10	○		5
1K241-184 (1K241-184)	219	Ｆｍｉｎ接片B Fmin SW PLATE B	1		10	○		5
1K241-186 (1K241-186)	288	バネ SPRING	1		12	○		5
1K241-187 (1K241-187)	297	バネ SPRING	1		13	○		5
1K241-188 (1K241-188)	315	ＣＨＰ切替ＳＷ CHP CHANGE OVER SW	1		8	○		5
1K241-189 (1K241-189)	317	板バネ PLATE SPRING	1		8	○		5
1K241-190 (1K241-190)	337	バヨネットバネ BAYONET MOUNT SPRING	3		11	○		5
1K241-194 (1K241-194)	386	電源ＳＷブラシ POWER SUPPLY SW BRASH	1	1B060-677	5	○△		5
1K241-195 (1K241-195)	403	ブラシ BRUSH	1		8	○		5

部品表 Parts List

FBA01001-R. 3453. 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
1K241-196 (1K241-196)	404	板バネ PLATE SPRING	1		8	○		5
1K241-214 (1K241-214)	88	板バネ PLATE SPRING	2		3	○		5
1K260-862 (1K260-862)	53	ギア GEAR	1		2	○		5
1K260-864 (1K260-864)	60	ギア GEAR	1		2	○		5
1K260-865 (1K260-865)	66	ギア GEAR	1		2	○		5
1K260-869 (1K260-869)	117	ＬＬドライバーギア LL DRIVER GEAR	1		4	○		5
1K260-871 (1K260-871)	122	開閉レバーＡ OPEN-CLOSE LEVER A	1		6	○		5
1K260-872 (1K260-872)	123	開閉レバーＢ OPEN-CLOSE LEVER B	1		6	○		5
1K260-873 (1K260-873)	189	ギア GEAR	1		10	○		5
1K260-874 (1K260-874)	193	ギア GEAR	1		10	○		5
1K260-875 (1K260-875)	238	ギア GEAR	1		10	○		5
1K277-251 (1K277-251)	48	ギア GEAR	1		2	○		5
1K277-252 (1K277-252)	49	ギア GEAR	1		2	○		5
1K277-253 (1K277-253)	52	ギア GEAR	1		2	○		5
1K277-254 (1K277-254)	59	ギア GEAR	1		2	○		5
1K277-255 (1K277-255)	97	ギア GEAR	1		3	○		5

部品表 Parts List

FBA01001-R. 3453. 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
1K277-256 (1K277-256)	98	ギア GEAR	1		3	○		5
1K277-257 (1K277-257)	99	ギア GEAR	1		3	○		5
1K277-258 (1K277-258)	100	ギア GEAR	1		3	○		5
1K277-259 (1K277-259)	101	ギア GEAR	1		3	○		5
1K277-260 (1K277-260)	190	ギア GEAR	1		10	○		5
1K277-261 (1K277-261)	191	ギア GEAR	1		10	○		5
1K277-262 (1K277-262)	192	ギア GEAR	1		10	○		5
1K277-263 (1K277-263)	239	ギア GEAR	1	1B998-662	10	○△		5
1K277-264 (1K277-264)	240	ギア GEAR	1	1B998-662	10	○△		5
1K277-265 (1K277-265)	241	ギア GEAR	1	1B998-662	10	○△		5
1K300-112 (1K300-112)	382	ＯＮ－ＯＦＦクリック板 ON-OFF CLICK PLATE	1	1B060-677	5	○△		5
1K302-102 (1K302-102)	207	ＡＭ切替座 AM CHANGE OVER PLATE	1		11	○		5
1K304-002 (1K304-002)	425	カム CAM	2		8	○		5
1K314-551 (1K314-551)	121	係止レバー REMOVE LEVER	1		3	○		5
1K314-552 (1K314-552)	131	ロックレバー LOCK LEVER	1		4	○		5
1K314-553 (1K314-553)	214	縦レバー LENGTH REVER	1		11	○		5

部品表 Parts List

FBA01001-R. 3453. 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
1K314-554 (1K314-554)	215	横レバー LEVER	1		11	○		5
1K314-556 (1K314-556)	253	リセットレバー RESET LEVER	1		9	○		5
1K314-557 (1K314-557)	266	ミラーアップレバー MIRROR UP LEVER	1		9	○		5
1K314-558 (1K314-558)	267	レバー LEVER	1		9	○		5
1K314-559 (1K314-559)	268	絞りレバー APERTURE LEVER	1		9	○		5
1K314-560 (1K314-560)	274	チャージレバー CHARGE LEVER	1		9	○		5
1K314-561 (1K314-561)	306	スライドレバー SLIDE LEVER	1		12	○		5
1K314-562 (1K314-562)	358	ＳＢポップアップストップ板 SB POP-UP STOP PLATE	1	1B060-662	5	○△		5
1K314-563 (1K314-563)	413	裏打ち板 HOLD PLATE	1		8	○		5
1K330-031 (1K330-031)	269	ワッシャー WASHER	1		9	○		5
1K330-032 (1K330-032)	270	ワッシャー WASHER	1		9	○		5
1K340-303 (1K340-303)	127	下ホーク BOTTOM HORK	1		4	○		5
1K360-078 (1K360-078)	129	軸 SHAFT	2		4	○		5
1K360-079 (1K360-079)	407	軸 SHAFT	1		8	○		5
1K372-090 (1K372-090)	81	ローラー ROLLER	1	1B998-644	1	○△		5
1K372-091 (1K372-091)	194	軸 SHAFT	1		10	○		5

部品表 Parts List

FBA01001-R. 3453. 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
1K372-092 (1K372-092)	204	着脱ピン RELEASE PIN	1		11	○		5
1K372-093 (1K372-093)	223	ピン PIN	1		9	○		10
1K372-096 (1K372-096)	275	カム CAM	2		9	○		10
1K372-097 (1K372-097)	303	レバー LEVER	1		12	○		5
1K372-098 (1K372-098)	312	レバー LEVER	1		12	○		5
1K372-099 (1K372-099)	340	軸 SHAFT	1		11	○		5
1K372-100 (1K372-100)	366	SW軸 SW SHAFT	1	1B060-677	5	○△		5
1K404-144 (1K404-144)	336	マウント MOUNT	1		11	○		5
1K460-022 (1K460-022)	423	目当てゴム RUBBER EYE CUP	1		8	○		5
1K467-188 (1K467-188)	29	カート蓋 CART COVER	1		4	○		5
1K467-189 (1K467-189)	152	電池蓋 BATTERY LID	1		7	○		5
1K467-190 (1K467-190)	406	背面SW蓋 SWITCH COVER MOLD	1		8	○		5
1K500-981 (1K500-981)	421	接眼ブロック EYEPIECE BLOCK	1		8	○		5
1K576-110 (1K576-110)	291	視野枠 FINDER FIELD FRAME	1		13	○		10
1K576-111 (1K576-111)	298	視野枠 FINDER FIELD FRAME	1		13	○		5
1K576-112 (1K576-112)	299	視野枠 FINDER FIELD FRAME	1		13	○		5

部品表 Parts List

FBA01001-R. 3453. 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
1K576-113 (1K576-113)	304	マスク MASK	1		12	○		10
1K576-114 (1K576-114)	305	マスク MASK	1		12	○		10
1K576-115 (1K576-115)	310	マスク MASK	1		12	○		10
1K576-116 (1K576-116)	311	マスク MASK	1		12	○		10
*1K600-762 (1K600-762)	418	圧接ゴム PRESS CONTACT RUBBER	1		6	○		5
1K601-515 (1K601-515)	67	ラグ板 LAG PLATE	1		7	○		10
1K601-516 (1K601-516)	130	押さえ板 RETAINER PLATE	2		2	○		5
1K601-517 (1K601-517)	146	吊り環 EYELET RING	1		1	○		5
1K601-518 (1K601-518)	213	板 PLATE	1		10	○		5
1K601-520 (1K601-520)	287	視野枠 FINDER FIELD FRAME	1		12	○		10
1K601-521 (1K601-521)	294	ワッシャー WASHER	1		12	○		5
1K601-522 (1K601-522)	301	マスク台板 MASK HOLDER PLATE	1		12	○		5
1K601-524 (1K601-524)	419	押さえ板 RETAINER PLATE	1		6	○		5
1K601-539 (1K601-539)	294B	ワッシャー WASHER	1		12	○		5
1K612-263 (1K612-263)	147	吊り環B EYELET-B	1		2	○		5
1K612-266 (1K612-266)	237	蓋基板 COVER PLATE	1	1B998-662	10	○△		5

部品表 Parts List

FBA01001-R. 3453. 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
1K612-270 (1K612-270)	296	基板 CIRCUIT BOARD	1		13	○		5
1K612-271 (1K612-271)	302	押さえ板 RETAINER PLATE	1		12	○		5
1K631-006 (1K631-006)	61	スプール SPOOL	1		1	○		5
1K631-007 (1K631-007)	63	シールド環 SHIELD RING	1		2	○		5
*1K641-391 (1K641-391)	188	ギア GEAR	1		10	○		5
1K670-216 (1K670-216)	23	上カバー TOP COVER	1	1B060-677	5	○△		5
1K670-218 (1K670-218)	25	背面カバー BACK COVER	1		8	○		5
1K670-219 (1K670-219)	31	前ボディ FRONT BODY	1		9	○		1
1K682-127 (1K682-127)	27	側面カバー SIDE COVER	1		6	○		5
1K682-128 (1K682-128)	28	側面カバー SIDE COVER	1		7	○		5
1K682-129 (1K682-129)	30	窓 WINDOW	1	1B998-632	7	○△		5
1K682-130 (1K682-130)	41	給送基板 WINDING GEAR PLATE	1		2	○		5
1K682-131 (1K682-131)	42	蓋基板 COVER PLATE	1		2	○		5
1K682-132 (1K682-132)	64	スプール上カバー UPPER SPOOL COVER	1		1	○		5
1K682-135 (1K682-135)	91	巻き戻しモーター基板 REWIND MOTOR BASE PLATE	1		3	○		5
1K682-136 (1K682-136)	92	巻き戻し軸蓋 COVER	1		3	○		5

部品表 Parts List

FBA01001-R. 3453. 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
1K682-137 (1K682-137)	111	カート室 CART MOLDING BLOCK	1		4	○		5
1K682-138 (1K682-138)	112	係止爪 STOPPER LEVER	1		4	○		5
1K682-139 (1K682-139)	119	係止レバー REMOVE LEVER	1		3	○		5
1K682-140 (1K682-140)	138	レバー LEVER	1		4	○		5
1K682-141 (1K682-141)	143	リモコン窓 REMOCON WINDOW	1	1B998-632	7	○△		5
1K682-142 (1K682-142)	151	電池室 BATTERY CHAMBER	1		2	○		5
1K682-143 (1K682-143)	182	ＡＦ基板１ AF BASE PLATE 1	1		10	○		5
1K682-144 (1K682-144)	183	ＡＦ基板２ AF BASE PLATE 2	1		10	○		5
1K682-145 (1K682-145)	201	右はね SWING LEVER BLOCK	1		11	○		5
1K682-147 (1K682-147)	236	絞り制御基板 APERTURE CONTROL BASE PLATE	1	1B998-662	10	○△		5
1K682-149 (1K682-149)	286	ペンタミラーボックス PENTA MIRROR BOX	1		12	○		1
1K682-152 (1K682-152)	318	ＣＨＰ切替軸 CHP CHANGE OVER SHAFT	1		1	○		5
1K682-153 (1K682-153)	351	ＳＢ上カバー SB UPPER COVER	1	1B060-662	5	○△		5
1K682-154 (1K682-154)	352	ＳＢ下カバー SB BOTTOM COVER	1	1B060-662	5	○△		5
1K682-155 (1K682-155)	353	ＳＢ回転軸 SB ROLLING SHAFT	1	1B060-662	5	○△		5
1K682-156 (1K682-156)	368	ＳＢプロテクター SB PROTECTOR	1	1B060-662	5	○△		5

部品表 Parts List

FBA01001-R. 3453. 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
1K682-206 (1K682-206)	89	テンションパッド TENSION PAD	1		7	○		5
1K999-230 (1K999-230)	24	底カバー BOTTOM COVER	1		7	○		5
1S258-026 (1S258-026)	1031	フォトインタラプター PHOTO INTERRUPTER	2		10	○		5
1S268-055 (1S268-055)	1023	外部ＬＣＤ OUT SIDE LCD	1	1S020-217	8	○△		5
1S339-002 (1S339-002)	1141	コンデンサ CONDENCER	1		2	○		5
1S400-171 (1S400-171)	1036	コネクター CONNECTOR	1		7	○		5
1S400-172 (1S400-172)	1037	コネクター CONNECTOR	1		7	○		5
1S400-173 (1S400-173)	1038	コネクター CONNECTOR	2		7	○		5
1S430-032 (1S430-032)	211	ＳＷ SW	1		11	○		5
1S602-044 (1S602-044)	181	ＡＦモーター AF MOTOR	1		10	○		5
1S705-418 (1S705-418)	1012	ＬＣＤ接続ＦＰＣ CONNECTION FPC	1		8	○		5
1S705-419 (1S705-419)	1013	ＤＣ／ＤＣ　ＦＰＣ DC/DC FPC	1	1S001-019	6	○△		5
1S758-072 (1S758-072)	405	ブロックゴム RUBBER BLOCK	1		8	○		5
1S758-073 (1S758-073)	409	ゼブラゴム ELASTIC RUBBER	2		8	○		10
*A1-17025FA (A1-17025FA)	595	ＳＣＲＥＷ SCREW	2		3	○		10
*B1-14040FA (B1-14040FA)	551	ＳＣＲＥＷ SCREW	2		10	○		10

部品表 Parts List

FBA01001-R. 3453. 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
*G1-17020FA (G1-17020FA)	564	SCREW SCREW	5		1	○		10
*G1-17025FD (G1-17025FD)	565	SCREW SCREW	2		4	○		10
*G1-17030FD (G1-17030FD)	567	SCREW SCREW	10		4	○		10
*G1-17040FA (G1-17040FA)	571	SCREW SCREW	3		8	○		10
*G1-17040FD (G1-17040FD)	570	SCREW SCREW	3		3	○		10
*G1-17045FA (G1-17045FA)	543	SCREW SCREW	3		12	○		10
*G1-17060FD (G1-17060FD)	572	SCREW SCREW	1		4	○		10
*G1-17080FA (G1-17080FA)	573	SCREW SCREW	2		7	○		10
*G1-20030FA (G1-20030FA)	574	SCREW SCREW	1		8	○		10
*G1-20045FD (G1-20045FD)	526	SCREW SCREW	1		6	○		10
*G2-17030FD (G2-17030FD)	547	SCREW SCREW	1		9	○		10
*H1-17030FD (H1-17030FD)	545	SCREW SCREW	2		6	○		10
*H1-17045FA (H1-17045FA)	584	SCREW SCREW	5		2	○		10
*H1-17045FA (H1-17045FA)	584	SCREW SCREW	1		6	○		10
*H1-17060FA (H1-17060FA)	585	SCREW SCREW	2		11	○		10
*H1-20025FD (H1-20025FD)	546	SCREW SCREW	1		6	○		10

部品表 Parts List

FBA01001-R. 3453. 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
*H1-20070FA (H1-20070FA)	587	SCREW SCREW	4		6	○		10
*H2-20045FA (H2-20045FA)	592	SCREW SCREW	2		2	○		10
*H2-20050FA (H2-20050FA)	593	SCREW SCREW	2		1	○		10
*S1-01200SX (S1-01200SX)	492	Eリング E RING	2	1B060-677	5	○△		10

部組品表 Assembly List

FBA01001-R. 3453. 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
1B060-662 (1B060-662)	1022	フラッシュ部組 FLASH UNIT	1		5		5
1B060-677 (1B060-677)	B23	上カバー部組 TOP COVER UNIT	1		5		1
1B060-687 (1B060-687)	B102 2	内部ＳＢ部組 INNER SB UNIT	1		5		1
1B100-783 (1B100-783)	B4	ペンタダハミラー部組 PENTA MIRRIR UNIT	1		12		1
1B240-164 (1B240-164)	B364	ＳＢポップアップＳＷ部組 SB POP-UP SW UNIT	1		5		5
1B240-165 (1B240-165)	B393	コマンドダイヤル COMMAND DIAL	1		5		5
1B610-144 (1B610-144)	B338	レンズ接点モールド LENS CONTACT UNIT	1		11		5
1B998-005 (1B998-005)	B101 1	上カバーＦＰＣ TOP COVER FPC	1		5		5
1B998-632 (1B998-632)	B22	前カバー部組 FRONT COVER UNIT	1		7		1
1B998-637 (1B998-637)	B32	シャッター部組 SHUTTER UNIT	1		13		1
1B998-639 (1B998-639)	B46	給送モーター部組 FILM ADVANCE MOTOR UNIT	1		2		5
1B998-640 (1B998-640)	B55	遊星ギア部組 PLANETARY GEAR UNIT	1		2		5
1B998-642 (1B998-642)	B71	圧板部組 PRESSURE PLATE UNIT	1		7		1
1B998-643 (1B998-643)	B77	Ｍａｇパッド MAGNET PAD	1		7		5
1B998-644 (1B998-644)	B84	スプールローラー部組 SPOOL ROLLER UNIT	1		1		5
1B998-647 (1B998-647)	B96	巻き戻しモーター部組 REWIND MOTOR UNIT	1		3		5

部組品表 Assembly List

FBA01001-R. 3453. 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
1B998-648 (1B998-648)	B104	遊星ギア部組 PLANETARY GEAR UNIT	1		3		5
1B998-650 (1B998-650)	B104	上フォークギア部組 UPPER FORK GEAR UNIT	1		4		5
1B998-651 (1B998-651)	B118	係止爪ギア部組 STOPPER GEAR UNIT	1		4		5
1B998-652 (1B998-652)	B125	カート室開閉レバー部組 CART O-C LEVER UNIT	1		6		5
1B998-654 (1B998-654)	B154	電池接点B BATTERY CONTACT B	1		2		5
1B998-660 (1B998-660)	B227	ミラー受け板部組 MIRROR HOLDER UNIT	1		9		5
1B998-661 (1B998-661)	B228	ＴＴＬブロック部組 TTL BLOCK UNIT	1		9		5
1B998-662 (1B998-662)	B236	絞り制御基板部組 APERTURE CONTROL BASE UNIT	1		10		1
1B998-663 (1B998-663)	B242	スリット羽根ギア部組 BLADE MOUNTING GEAR UNIT	1		10		5
1B998-664 (1B998-664)	B245	Ｍｇ基板部組 MAGNET BASE UNIT	1		9		5
1B998-666 (1B998-666)	B277	カムギア部組 CAM GEAR UNIT	1		11		5
1B998-668 (1B998-668)	B289	測光ブロック部組 BRIGHTNESS BLOCK UNIT	1		13		5
1B998-669 (1B998-669)	B292	表示モールド部組 DISPLAY MOLD UNIT	1		12		1
1B998-670 (1B998-670)	B295	ＡＥブロック部組 AE BLOCK UNIT	1		13		1
1B998-674 (1B998-674)	B394	ＯＮ－ＯＦＦダイヤル部組 ON-OFF DIAL UNIT	1		5		5
1B998-675 (1B998-675)	B410	ＬＣＤ窓部組 LCD WINDOW UNIT	1		8		5

部組品表 Assembly List

FBA01001-R. 3453. 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
1B998-677 (1B998-677)	B216 6	ＡＰ６－２ AP6-2	1		11		1
1B998-678 (1B998-678)	B222 1	ミラーチリトリ部組 MIRROR HOLDER UNIT	1		9		1
1B999-916 (1B999-916)		前板部組 FRONT PLATE UNIT	1		9 11		1
1S001-019 (1S001-019)	B202 1	パワーモジュール POWER MODULE UNIT	1		6		1
1S020-215 (1S020-215)	B200 1	メインＰＣＢ MAIN PCB	1		7		1
1S020-217 (1S020-217)	B100 3	外部ＬＣＤ　ＰＣＢ OUTSIDE LCD PCB	1		8		5
1S020-220 (1S020-220)	B100 9	バーコードＦＰＣ FPC	1		4		5
1S998-004 (1S998-004)	B100 5	レンズ接点ＦＰＣ LENS CONTACT FPC	1		11		1
1S998-006 (1S998-006)	B103 4	リモコンＩＣ IC	1		7		5

FBA01001-R.3453.A

作成承認印	配布許可印
ニコン 映像事業 CS推進部 GM	

Nikon PRONEA S FBA01001

REPAIR MANUAL

Nikon | NIKON CORPORATION
Tokyo, Japan

Copyright © 1998 by Nikon Corporation.
All Rights Reserved.
無断転載を禁ず !!

Printed in Japan September 1998

SPECIFICATIONS

SPECIFICATIONS

(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 :	1 track read-and-write head.
(2)Reading method	The method to judge whether any loaded film is exposed or unexposed by replaying any signal magnetically recorded.
(3)Recording method :	Batch recording at rewinding.

3. Setting of magnetic record

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

(1)Photographing date

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

(2)User frame title

- Setting of title: No need to select a title, or title No. can be selected from 1 to 30.
- Setting of language: Language code can be selected from 1 to 13 except 7.

4 . Clock function

(1) Style : Built-in clock inside the body

(2) Clocking range: From January 1, 1998 to December 31, 2029

(3) Accuracy : ± 90 sec. of tolerance per month

(4) Power supply : Supplied from the main power source.
Although no presence of back-up battery, a large volume capacitor available.
For unplugging, maintain the set-up condition for approximately 5 min. when turning the power source switch off.

5 .Heatproof/wetproof function

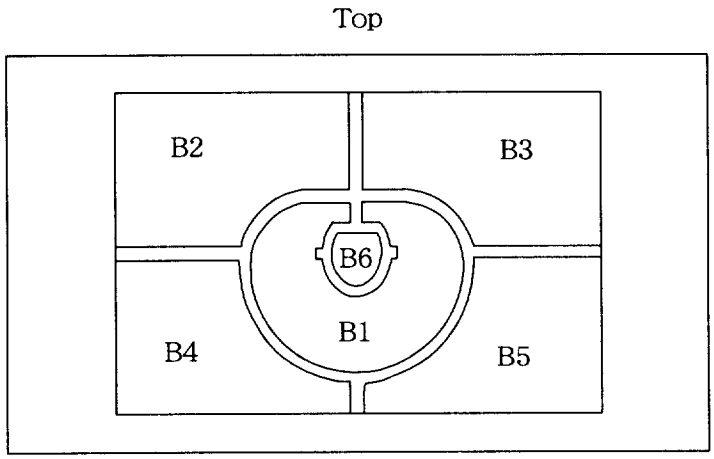
(1)Each part demonstrates the specified performance in temperature O –+40 'C and relative humidity 80% or less or in temperature -10–0 'C and relative humidity 50% or less.

(2)Each part demonstrates such perforlmance 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%.

6. Photometry pattern forms

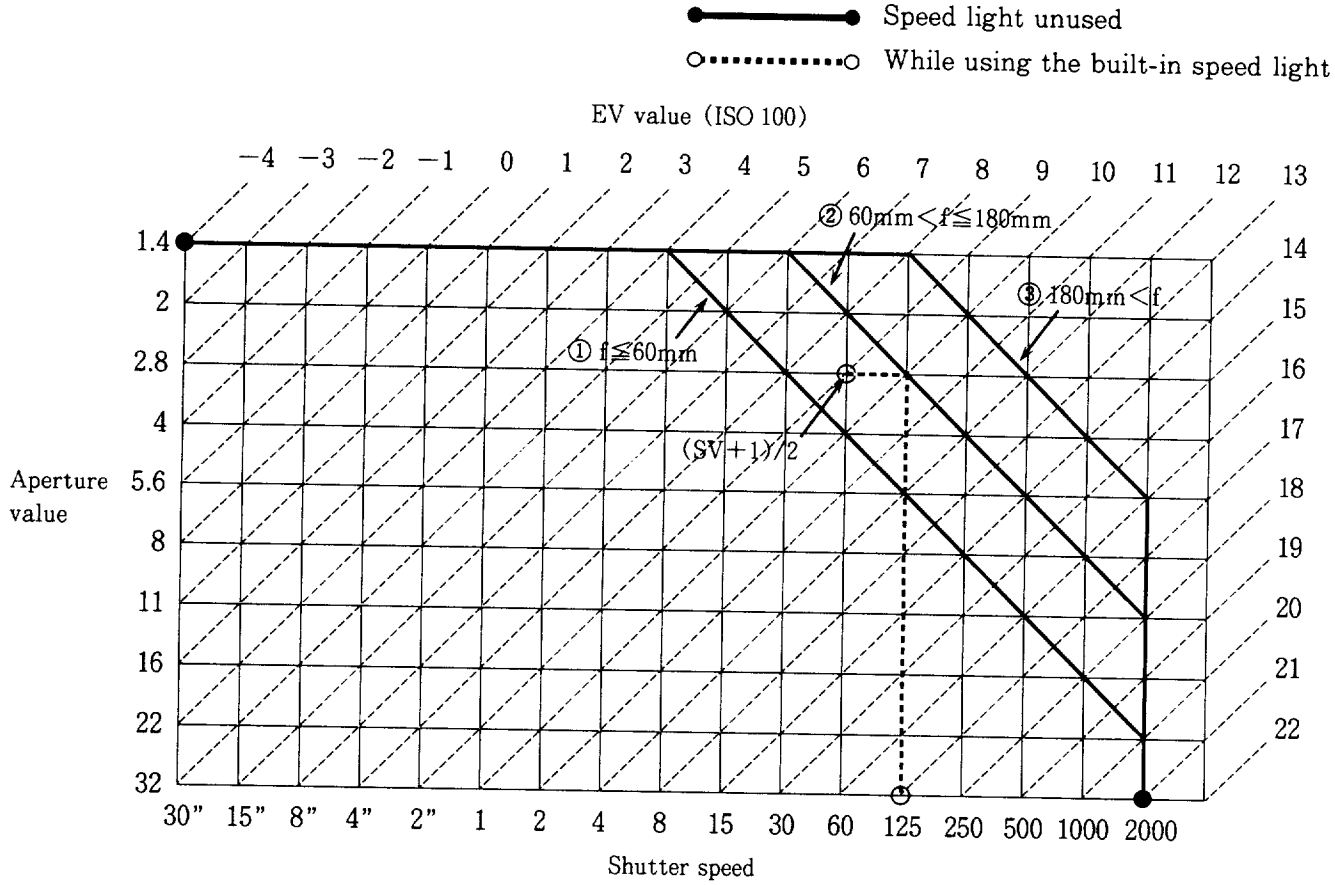
The each name of photo detecting device and of photometry output on the field of view through the viewfinder is as follows.

In addition, the name of photometry output is mentioned in a parenthesis.

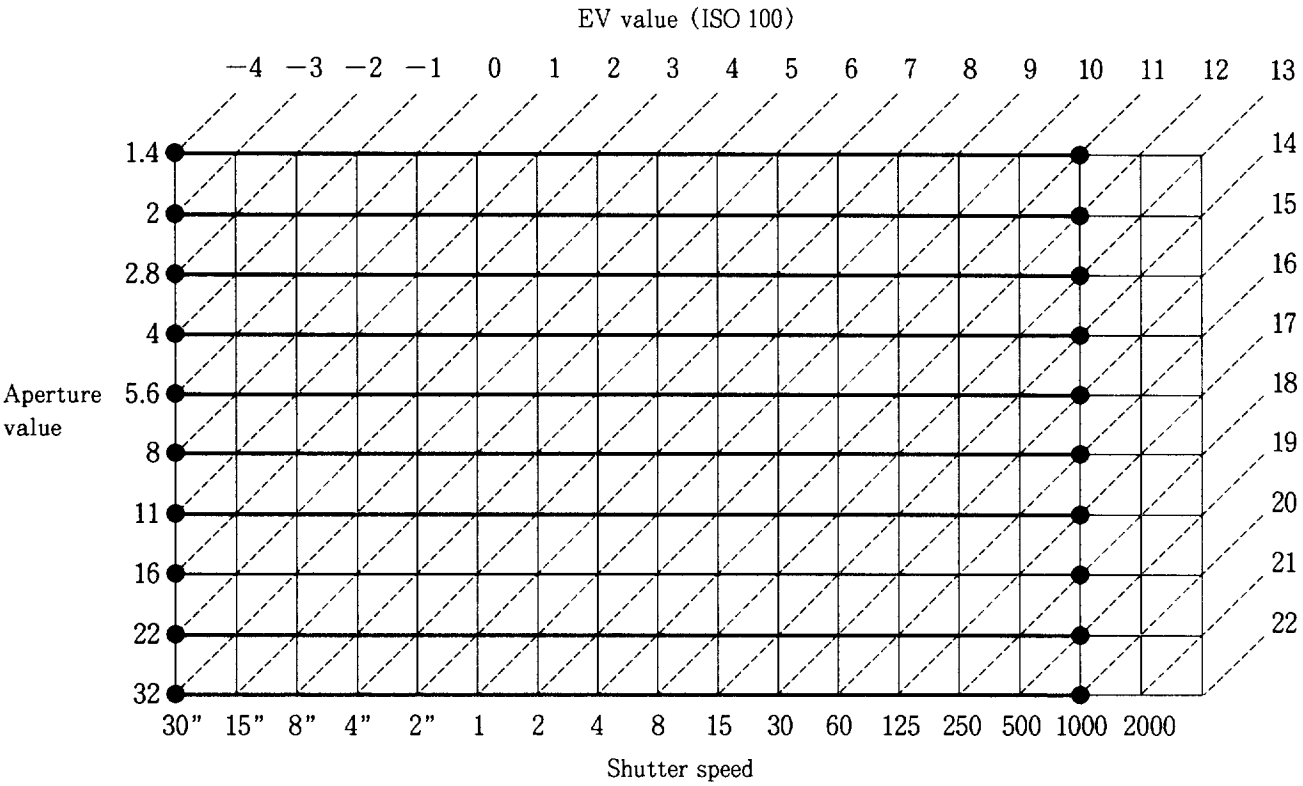


7. Program chart

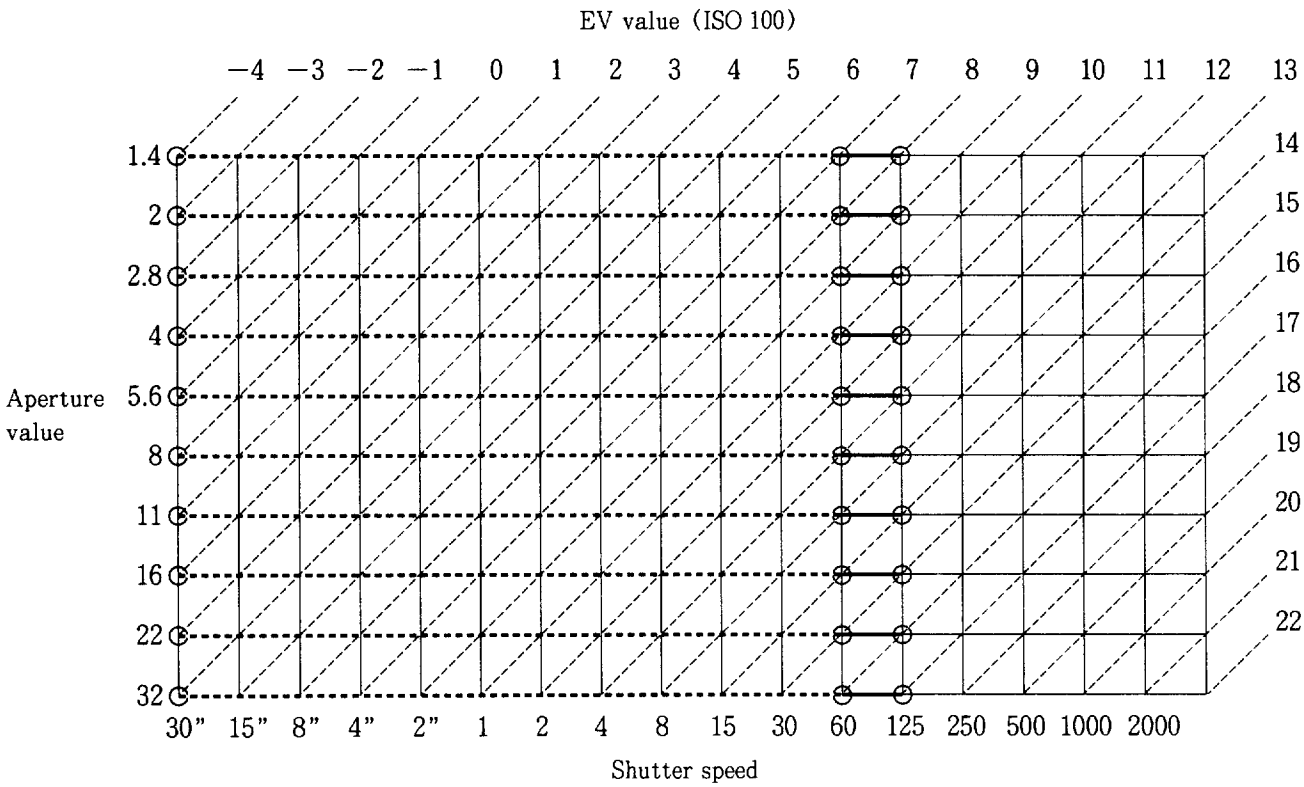
【Program Auto Mode (P)】



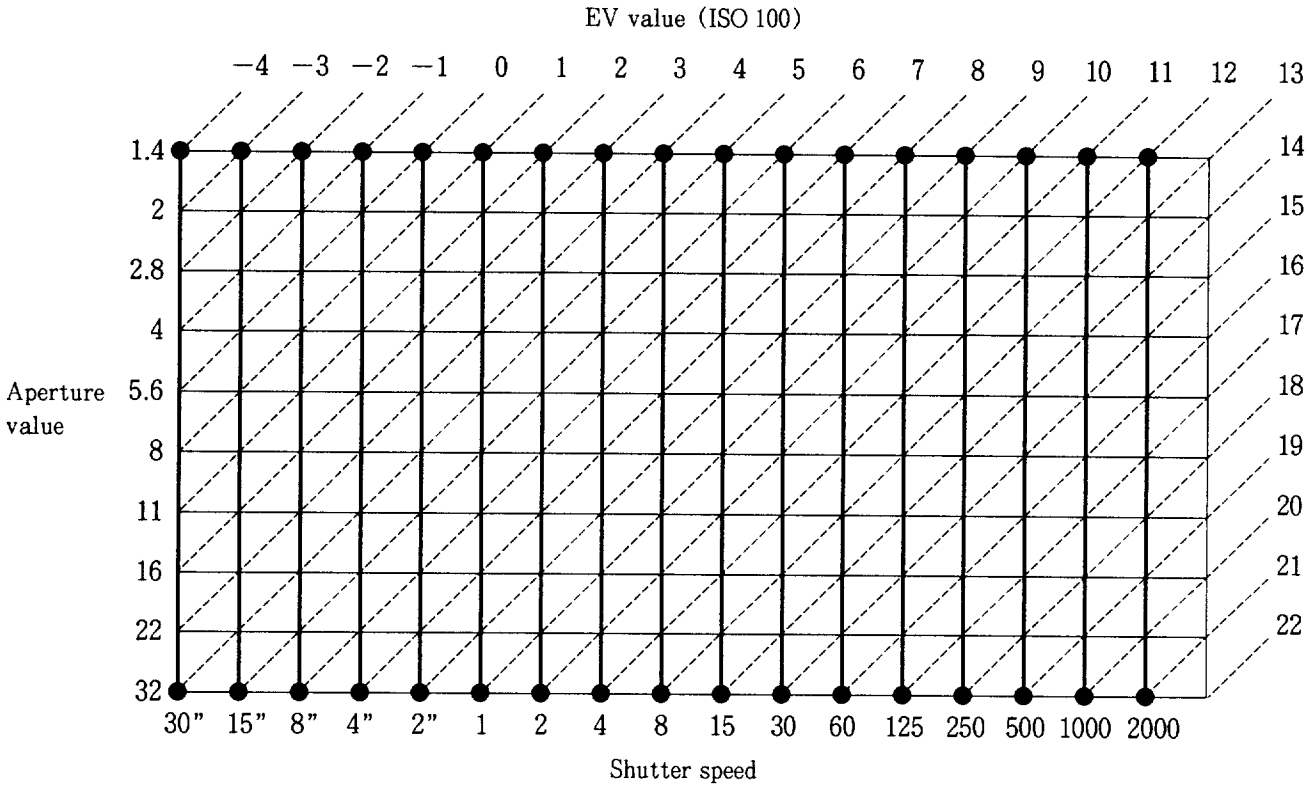
【Aperture priority mode under no employment of the speed light】



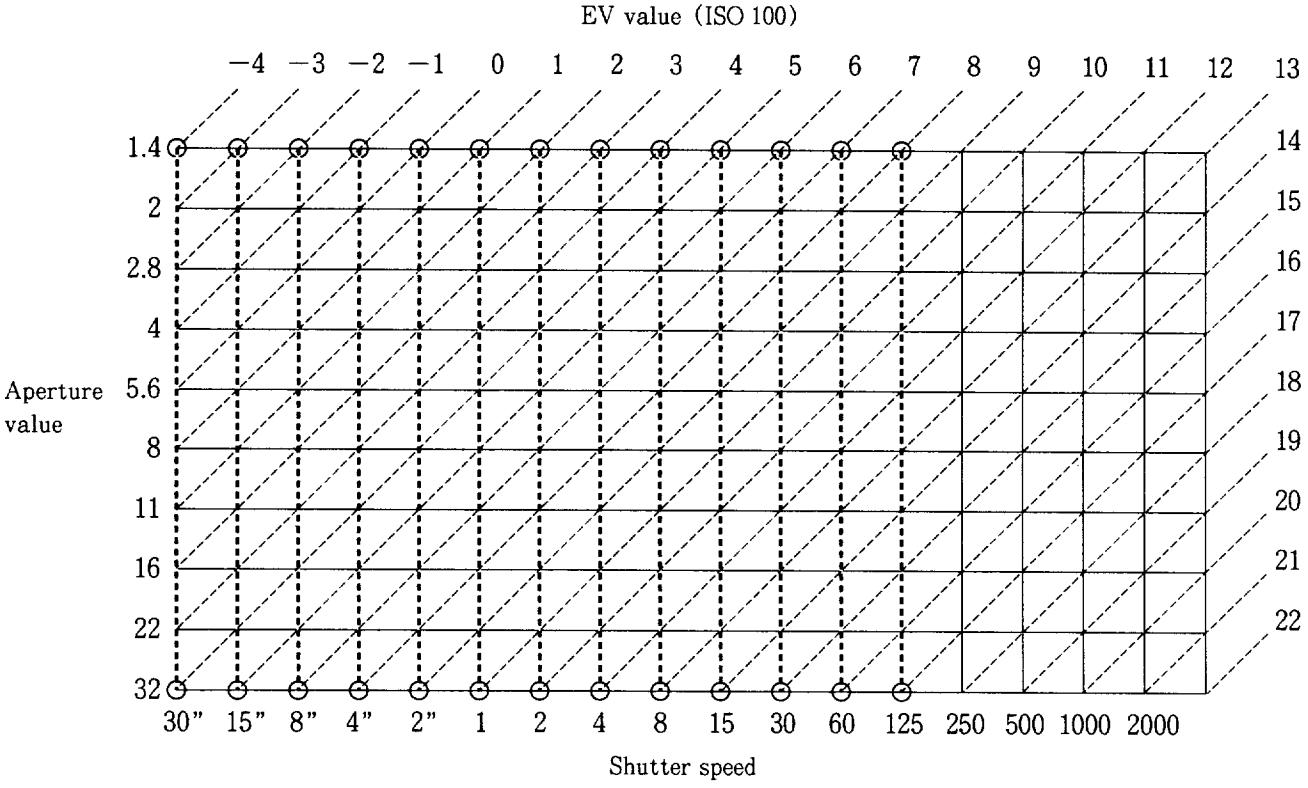
【Aperture priority mode under the speed light in use】



【Shutter-priority mode under no employment of the speed light】

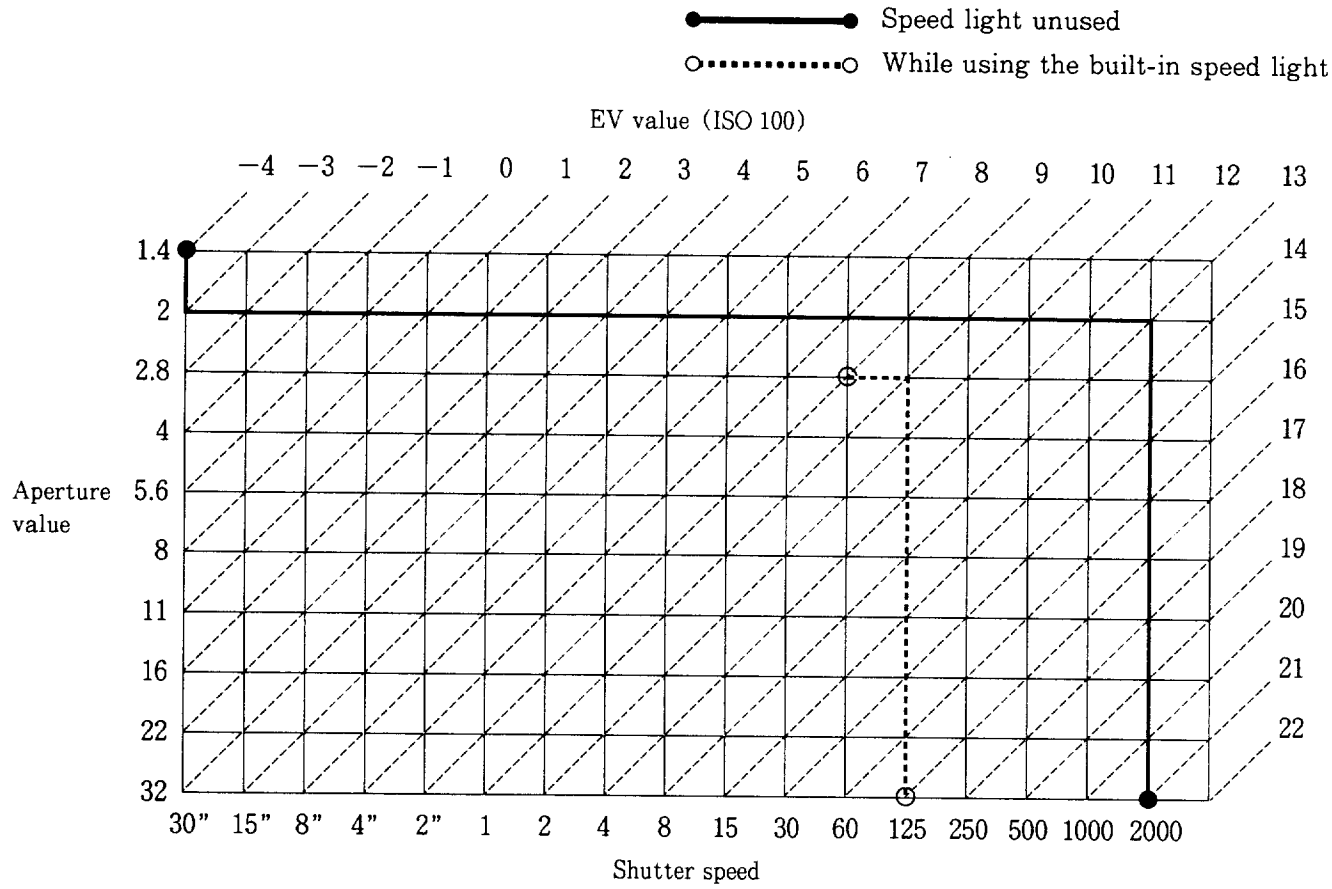


【Shutter-priority mode under the speed light in use】

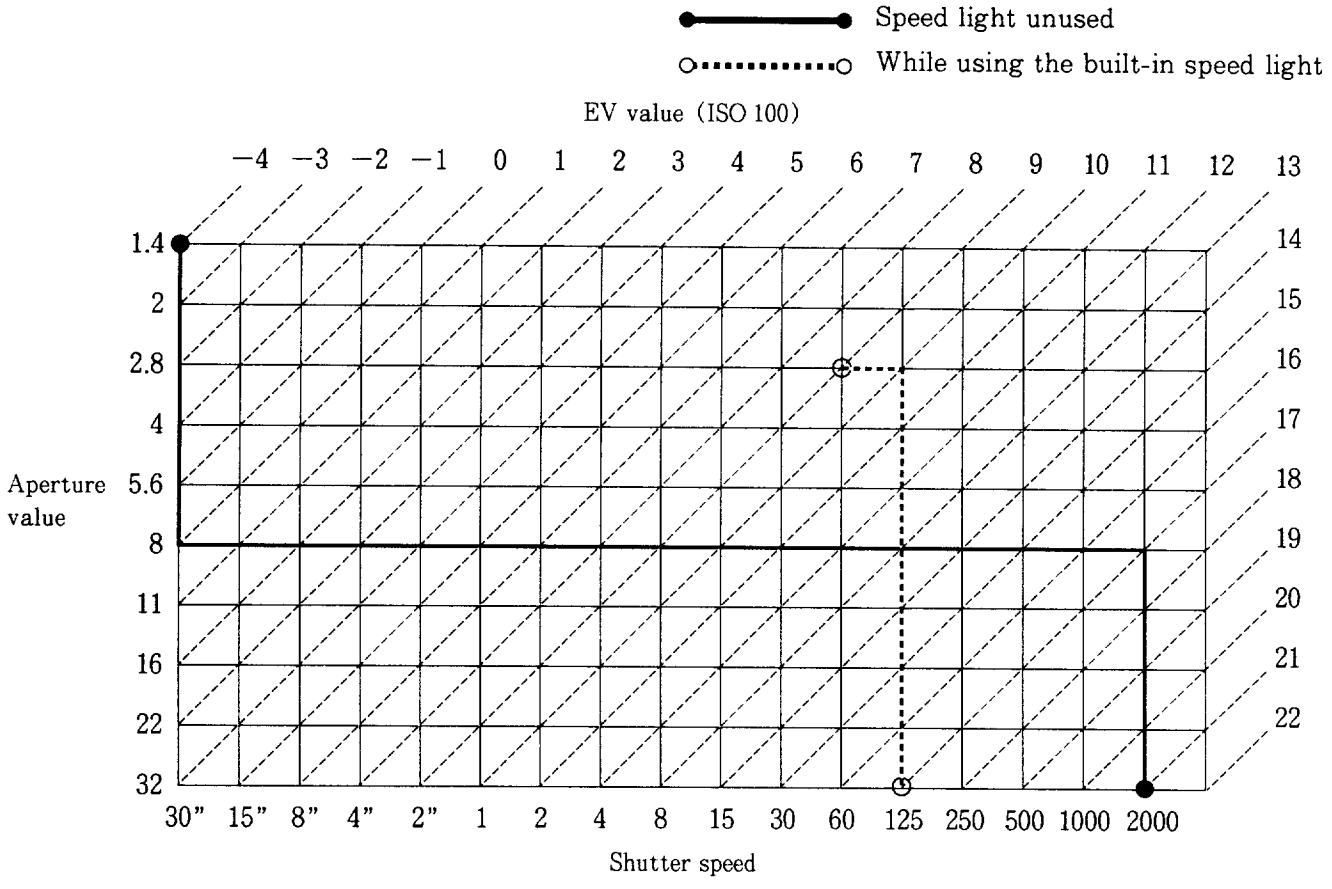


※Although one step is arranged in the diagram above, half a step is also available to set up.

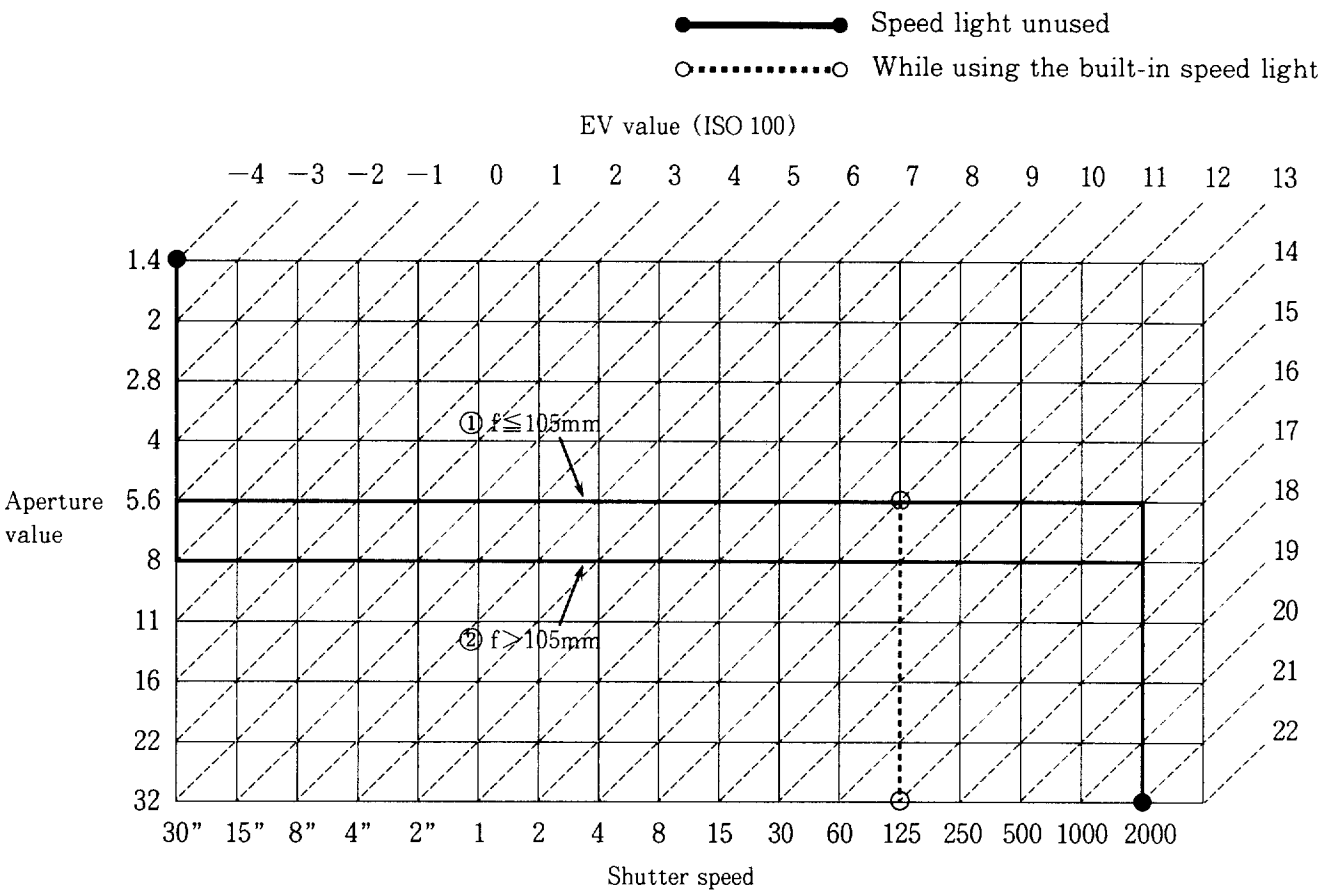
【Portrait Program mode】



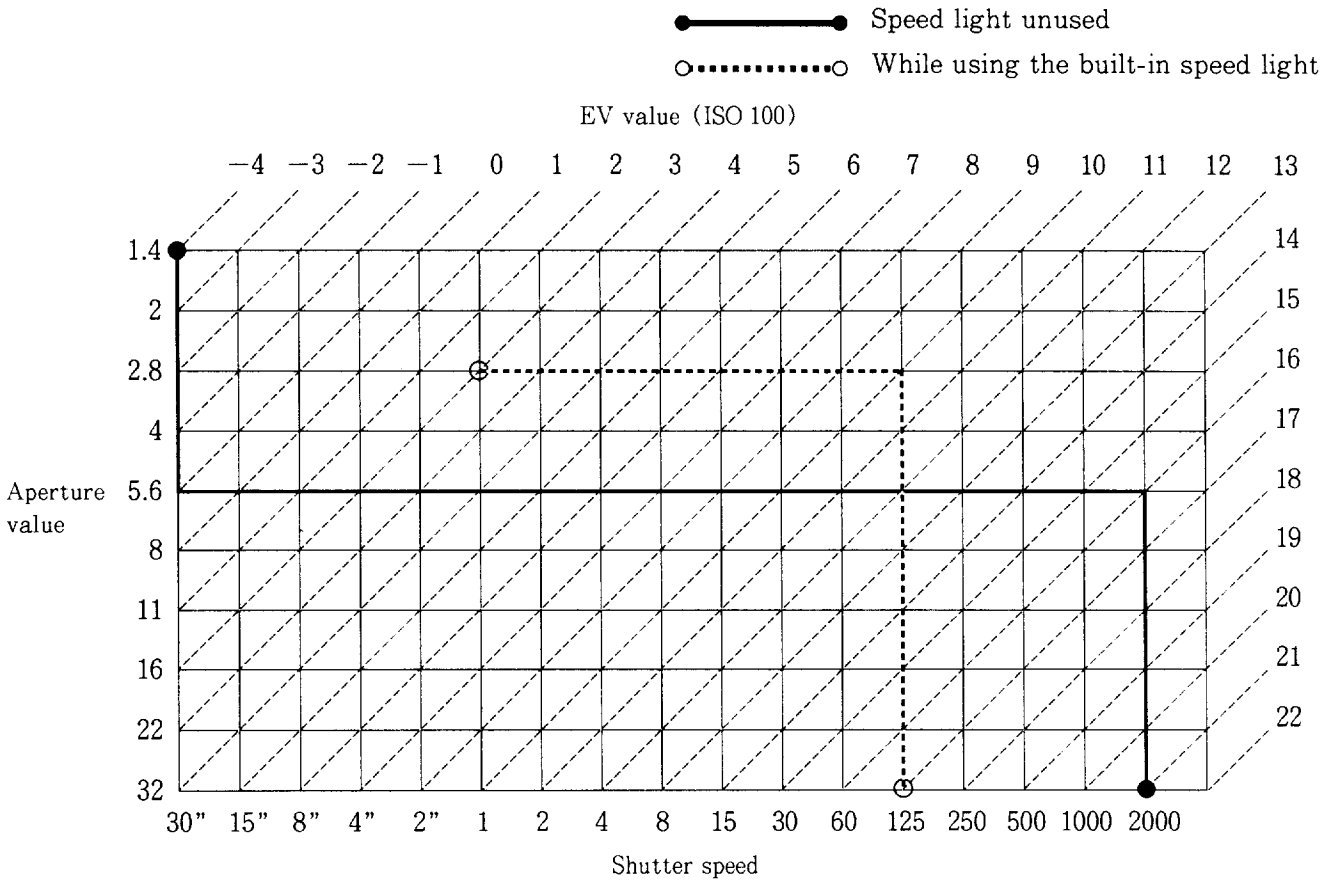
【Landscape Program mode】



【Close-Up Program mode】



【Night Scene Program mode】



Disassembly

Disassembly / Assembly / Adjustment

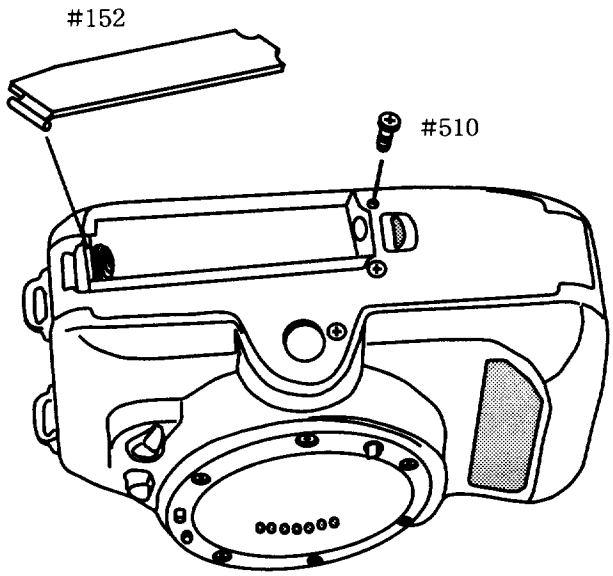
⚠ WARNING	
	● There are high voltage parts inside. Be careful of this electric shock, when you remove the cover. ● You must discharge the main condenser according to the instruction of this repair manual after you remove the front cover.

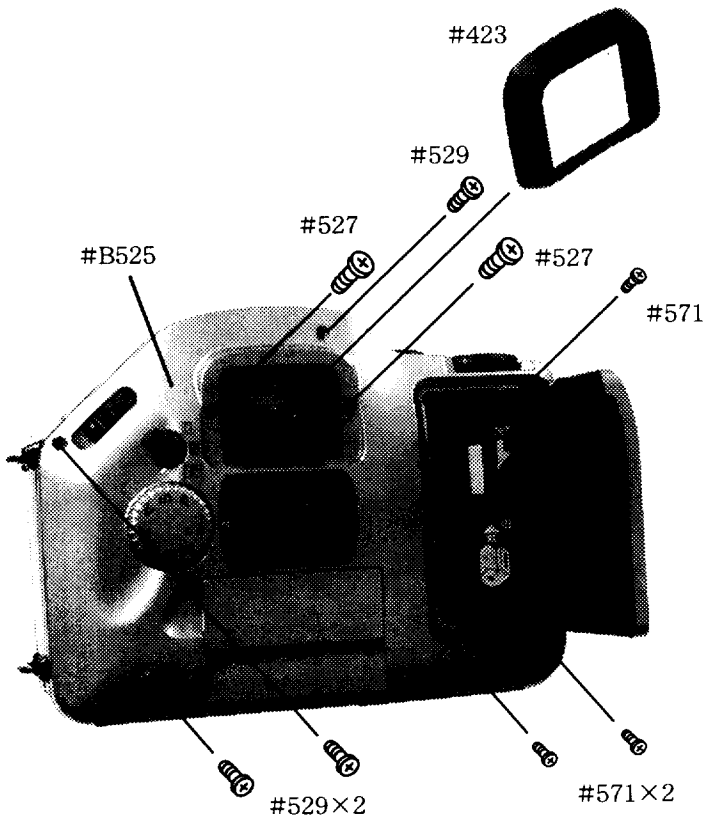
Note : ① Be sure to remove battery before assembling.
② When disassembling, pay attention to the wire arrangement and mounting positions and types of screw to be removed.
③ Be sure you are grounded when holding electric parts because static electricity exerts serious adverse effects on IC's.

Disassembly

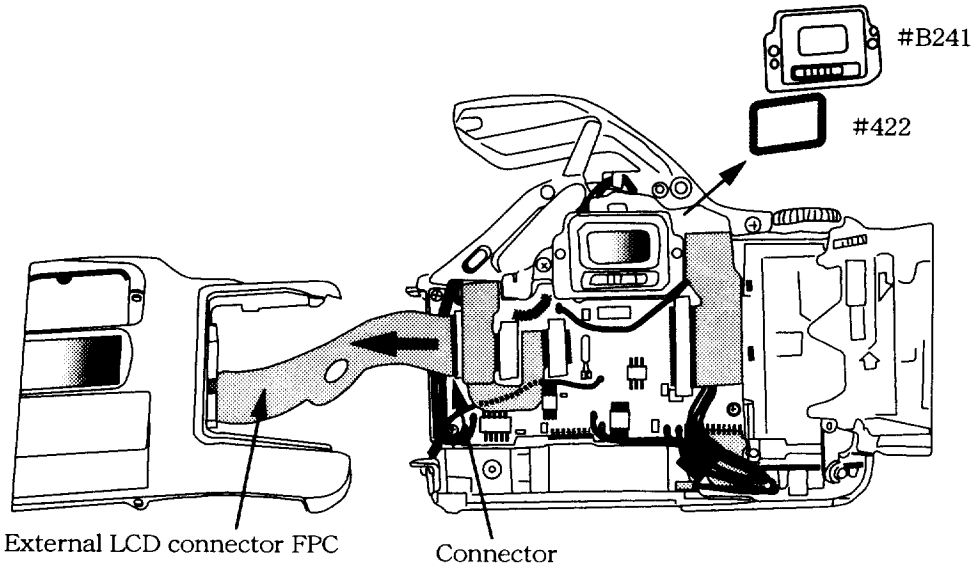
1. Exterior

Rear cover, eyepiece frame,battery cover



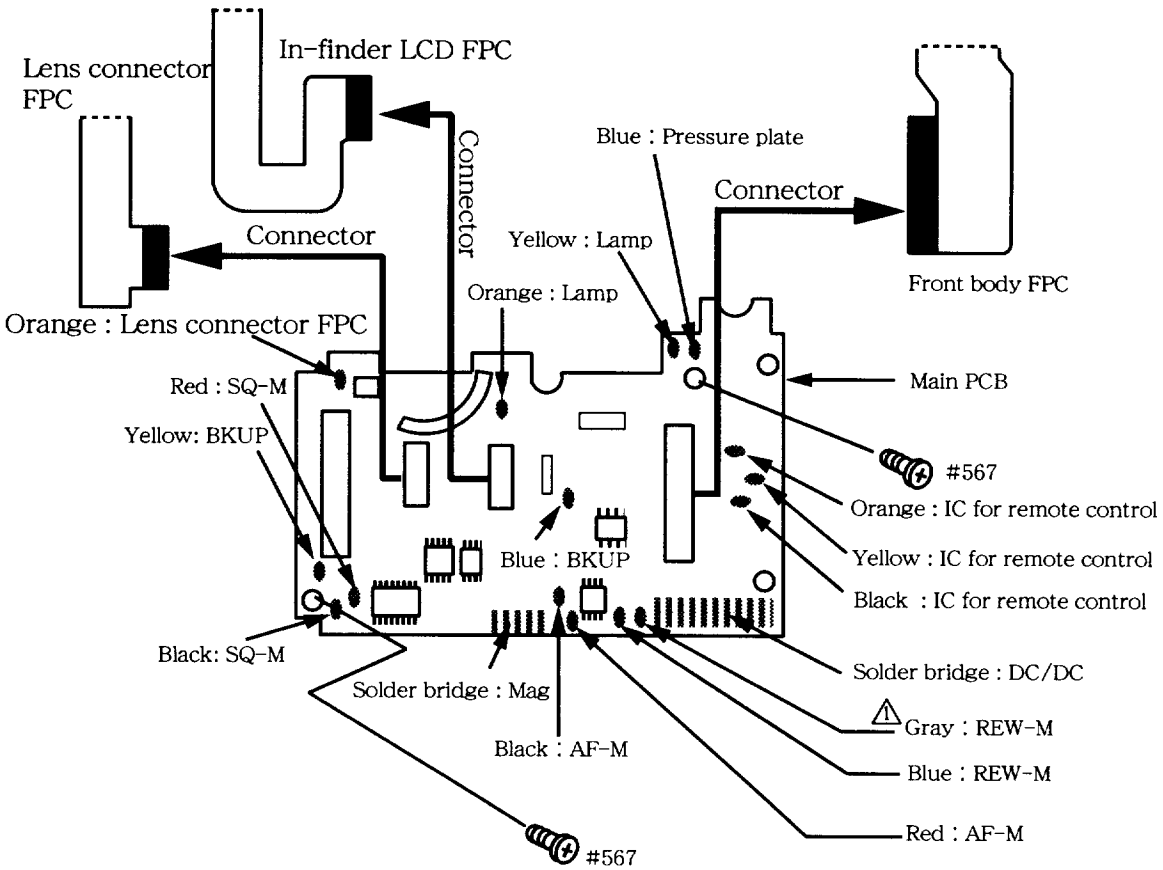


Note : Slowly separate the rear cover #B525 from the camera body.



● Remove the external LCD connector FPC from the connector.

Main PCB



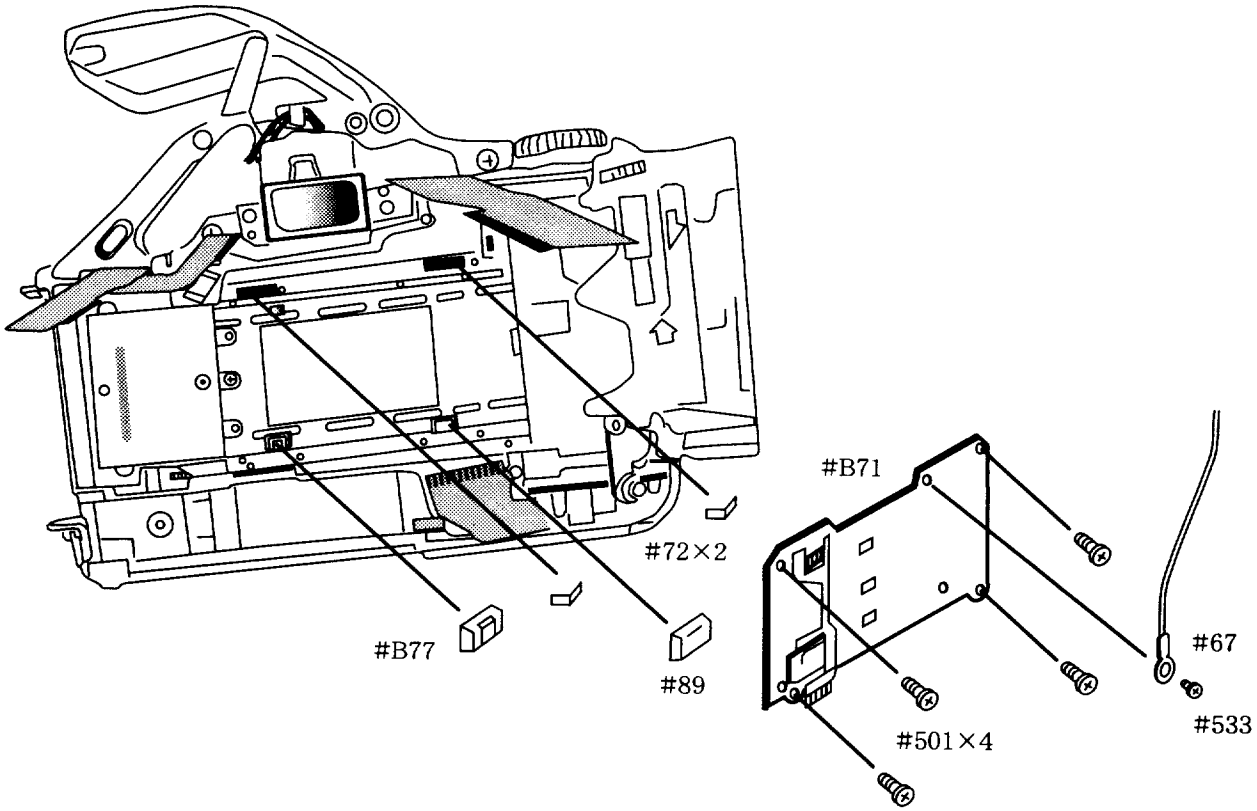
● Remove each front body FPC, lens connector FPC and in-finder LCD FPC from the connector.

● Remove 15 lead wires from each soldered area.

● Remove soldered 2 bridges from each area.

計画課 M

Pressure plate unit

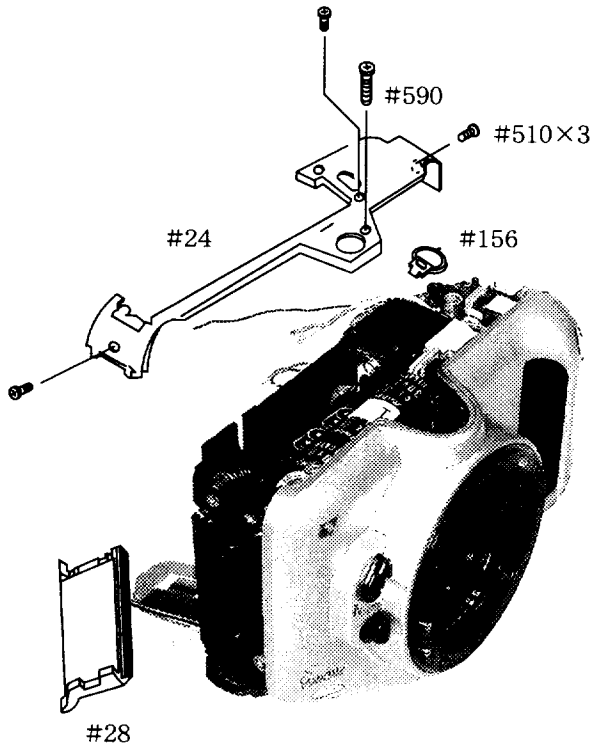


Bottom cover, side cover

⚠

⚠ 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 front cover.



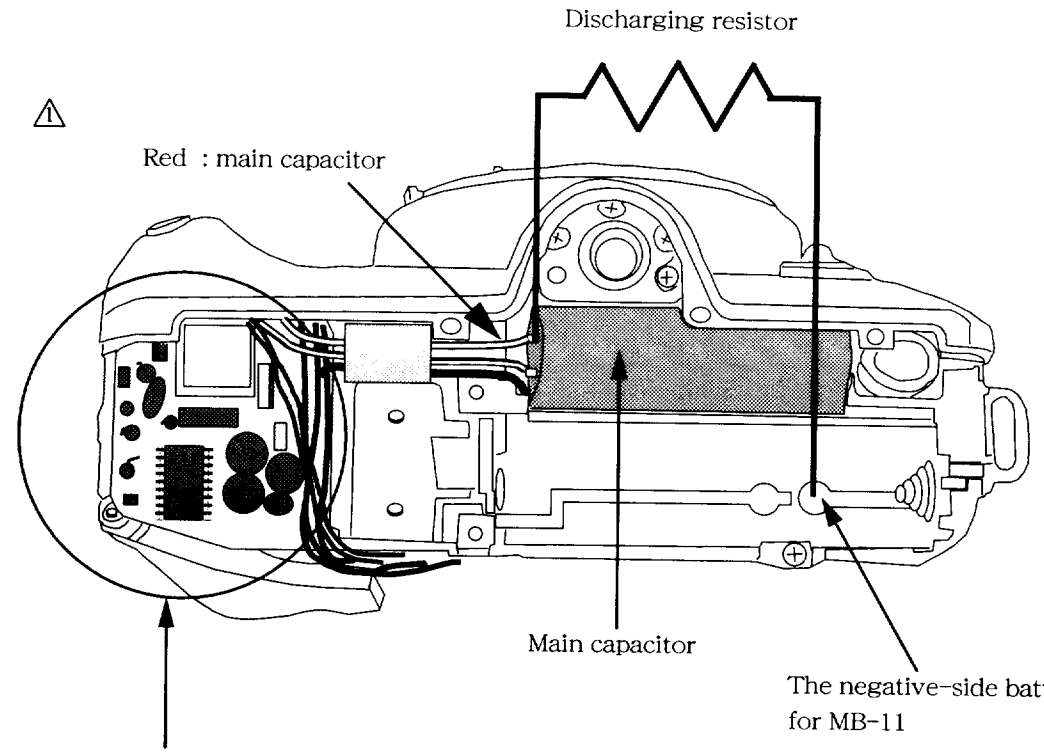
計画課 M

⚠ ×1 Change page

Sep.29.1998

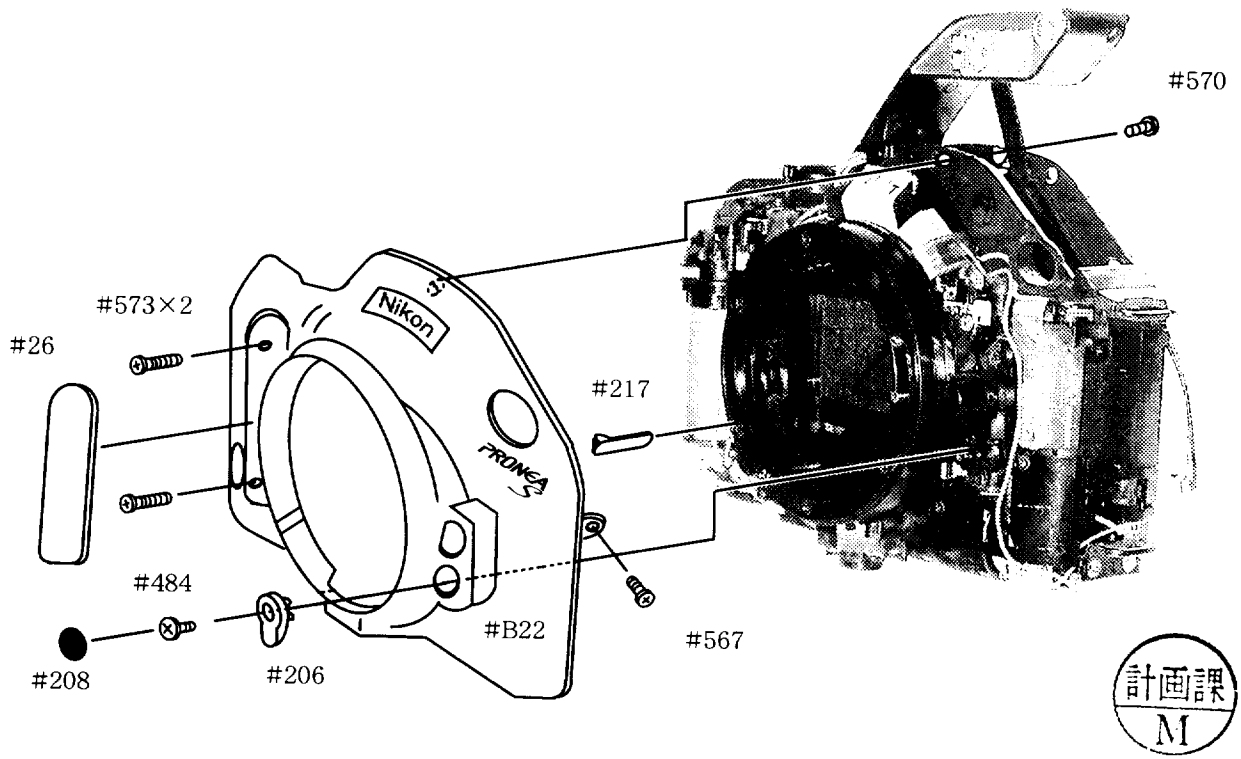
Discharging electricity from the main capacitor

● For discharging resistor, use 2KΩ/5W of resistor.



Danger : Do not touch here until the electric discharge is completely finished from the main capacitor.

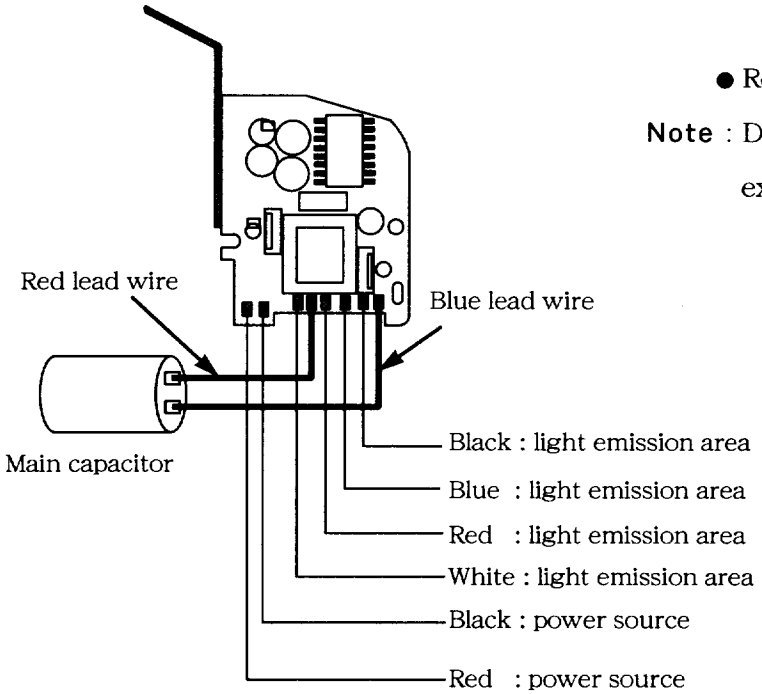
Front cover unit



計画課 M

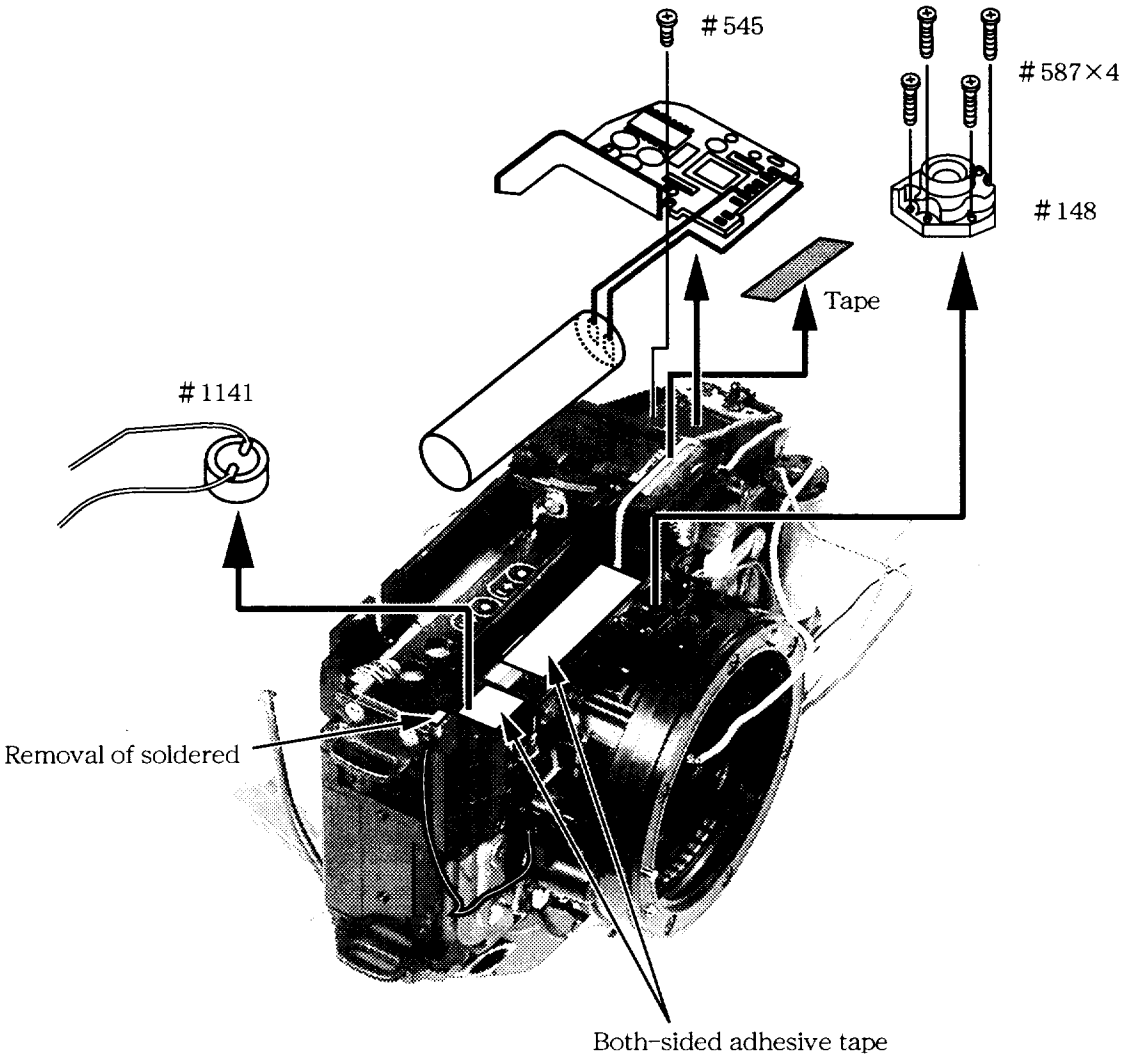
⚠1 ×1 Change page

Printed circuit board for DC / DC, tripod socket, super capacitor

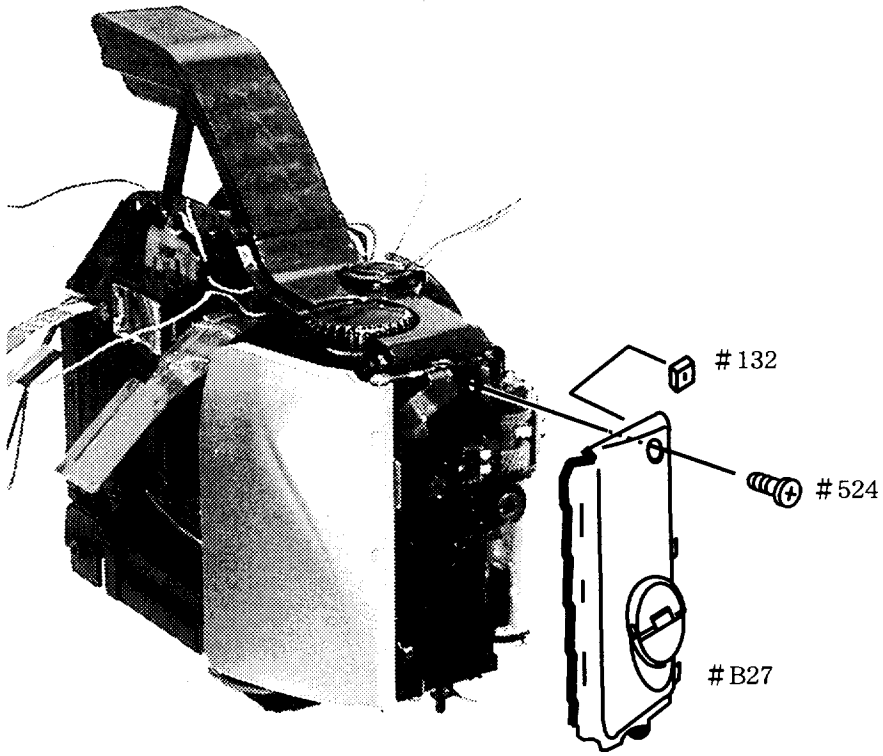


● Remove soldered 6 areas.

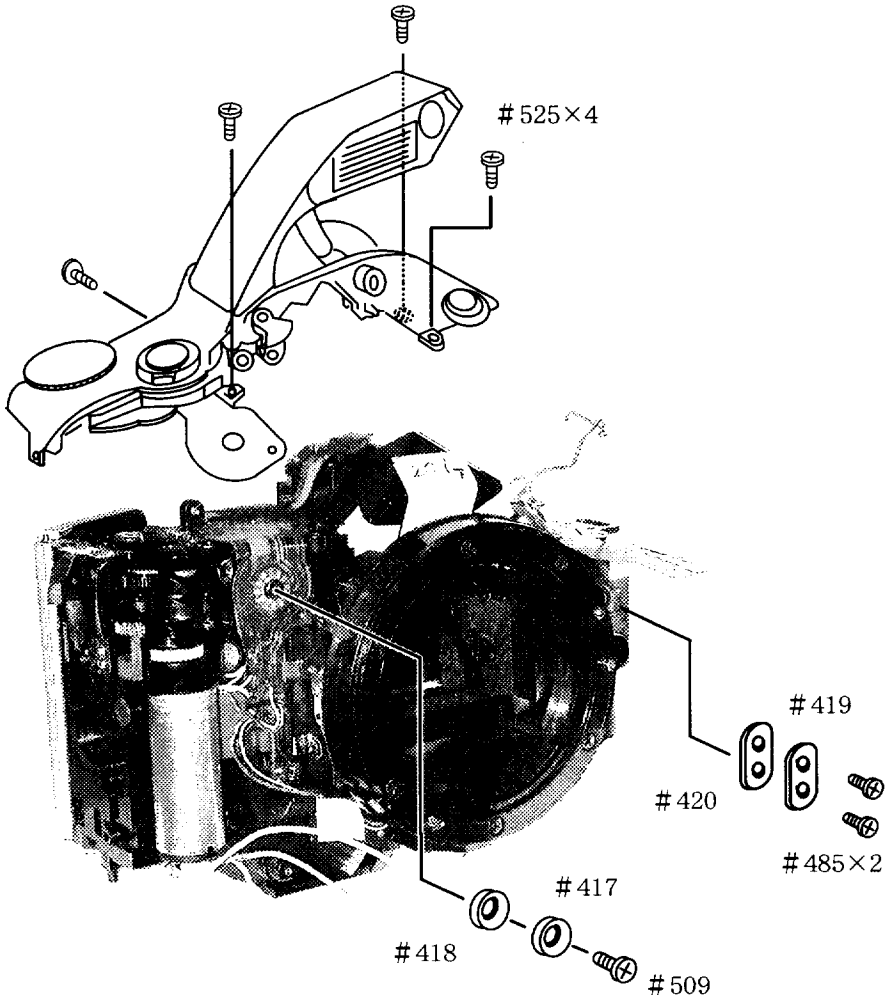
Note : Do not remove the soldered 2 lead wires expanding from the main capacitor then.



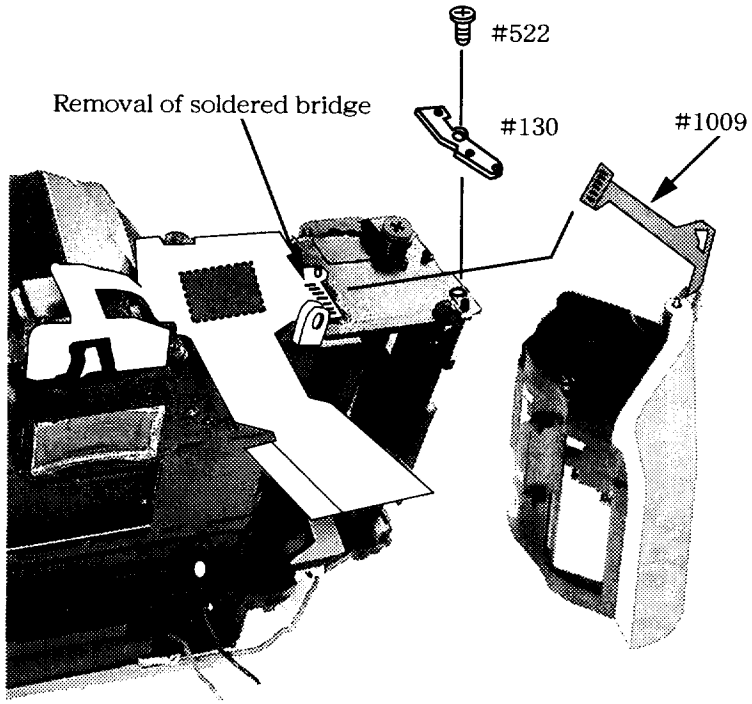
Grip-side cover



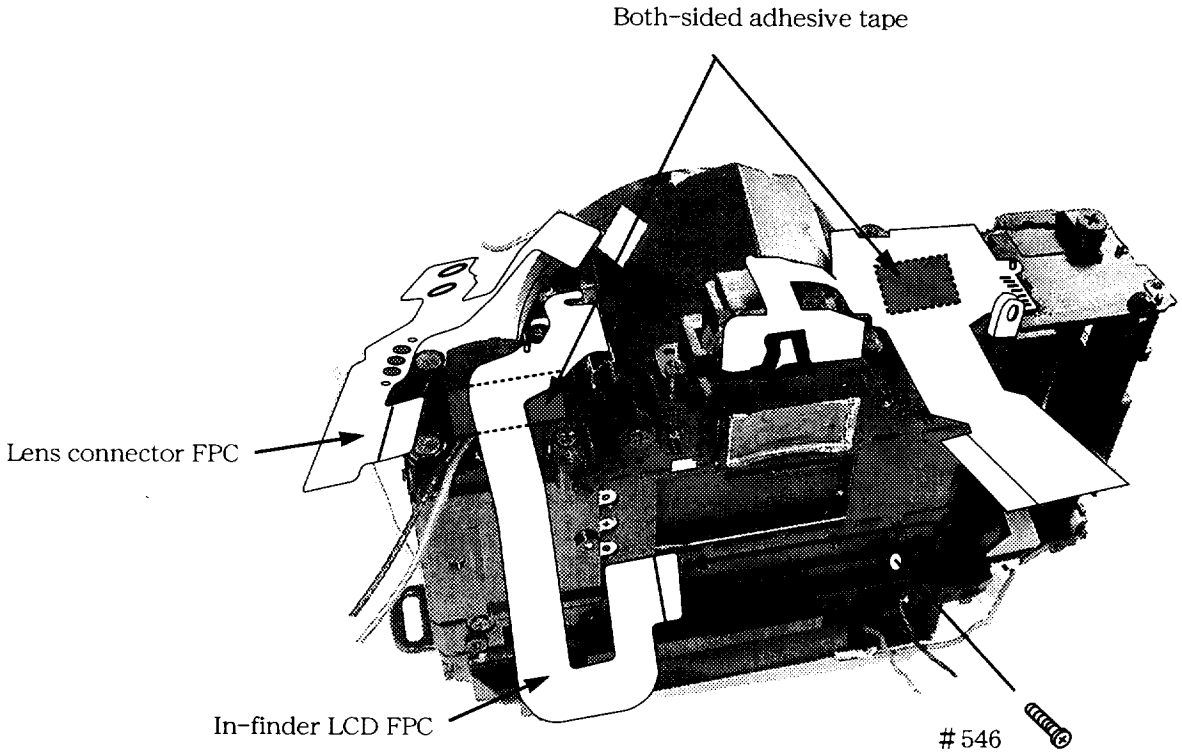
Top cover unit

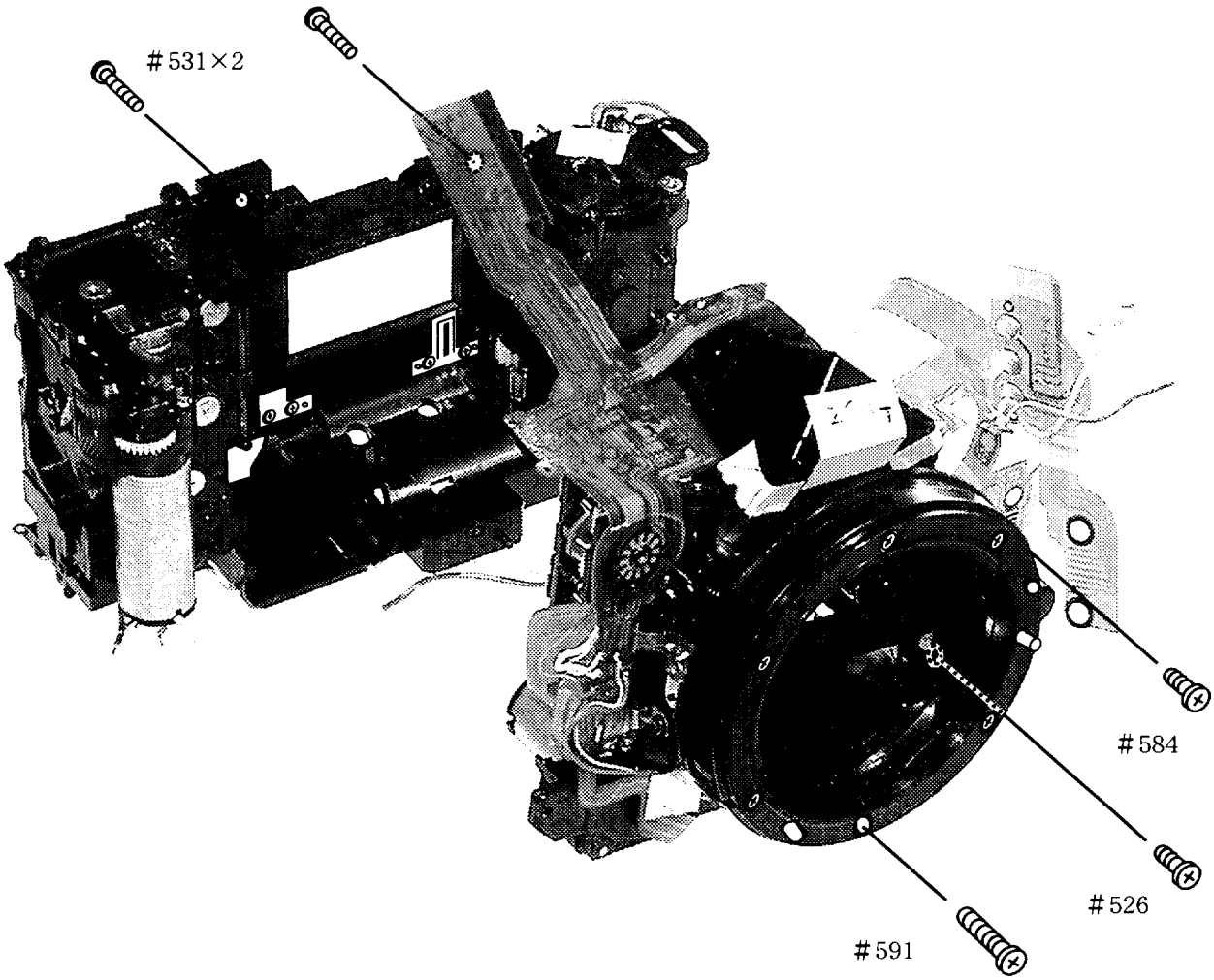


Cartridge cover



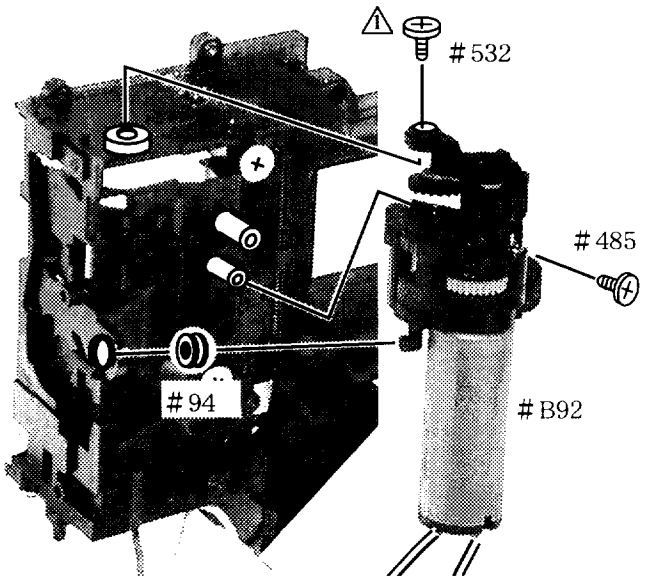
2. Separation between the front and the rear bodies

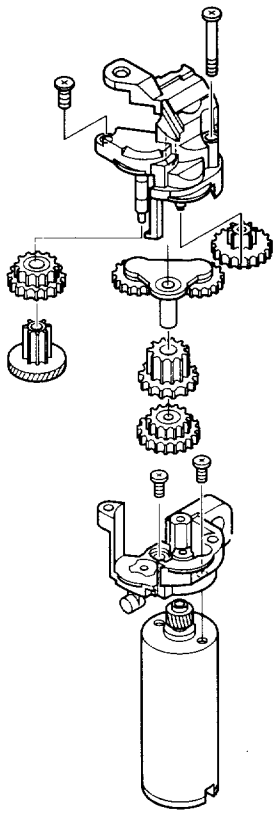




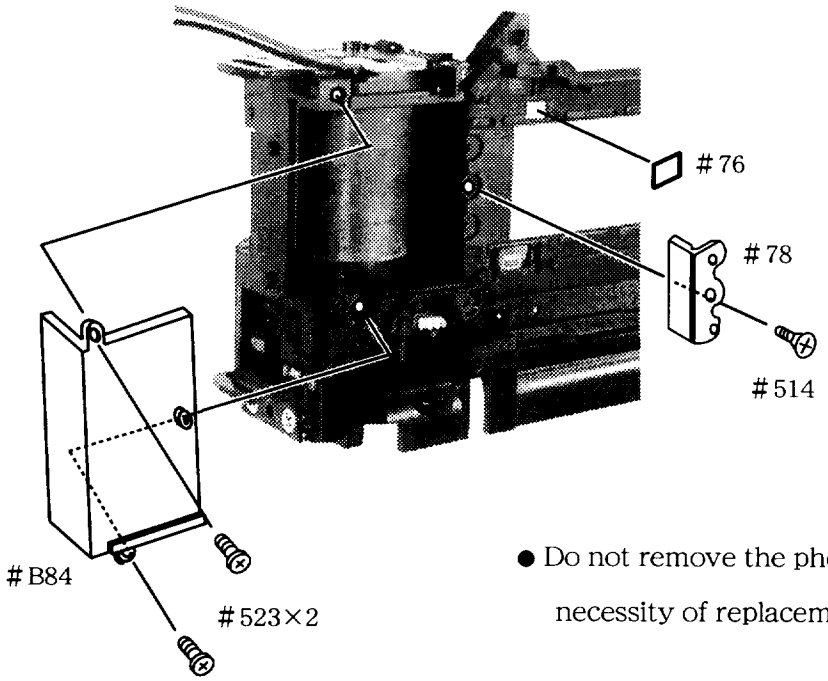
3. Rear body

Rewind operation unit



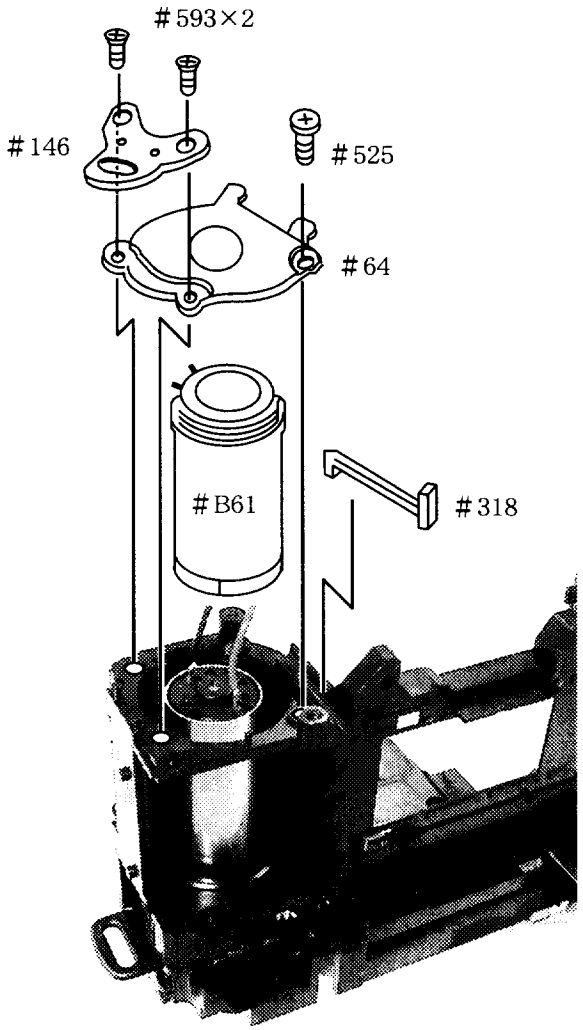


Spool back cover, film guide block, photo reflector seal

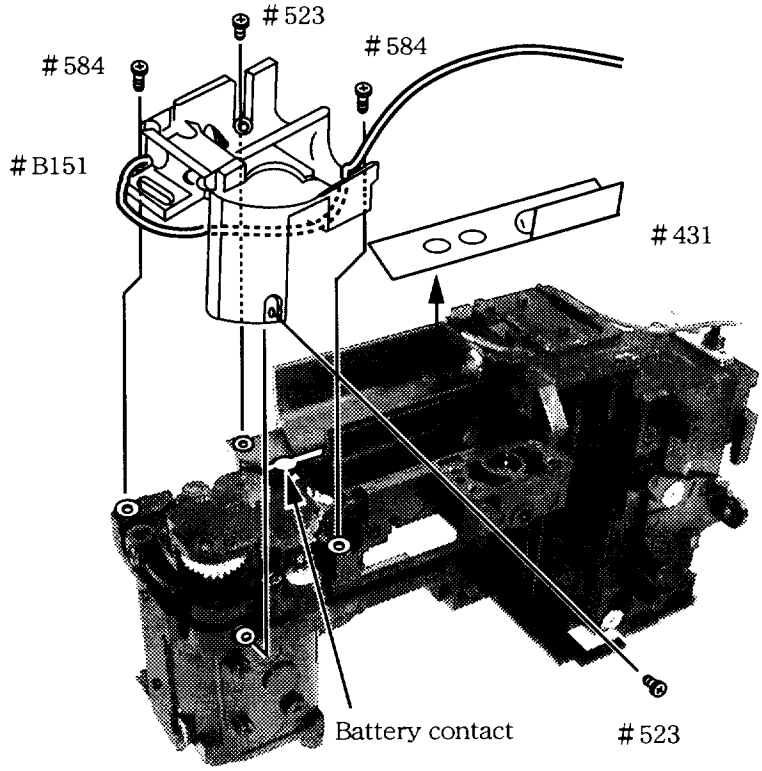


● Do not remove the photo reflector seal #76 other than necessity of replacement.

Spool

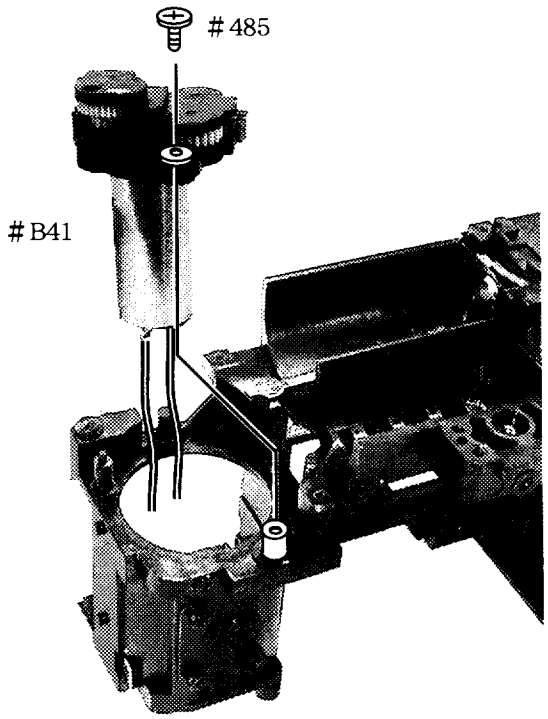


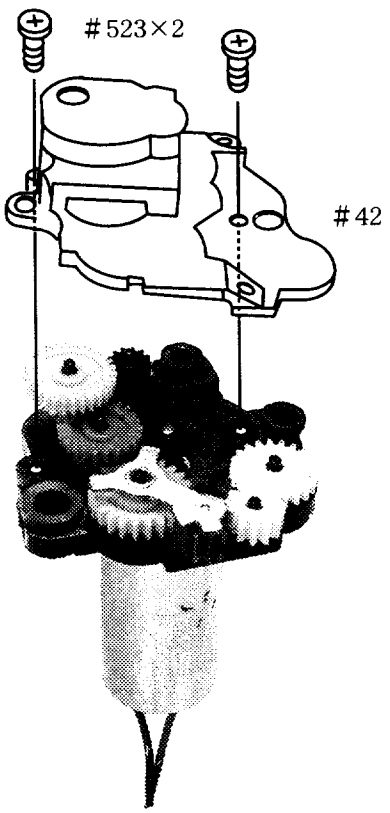
Battery chamber



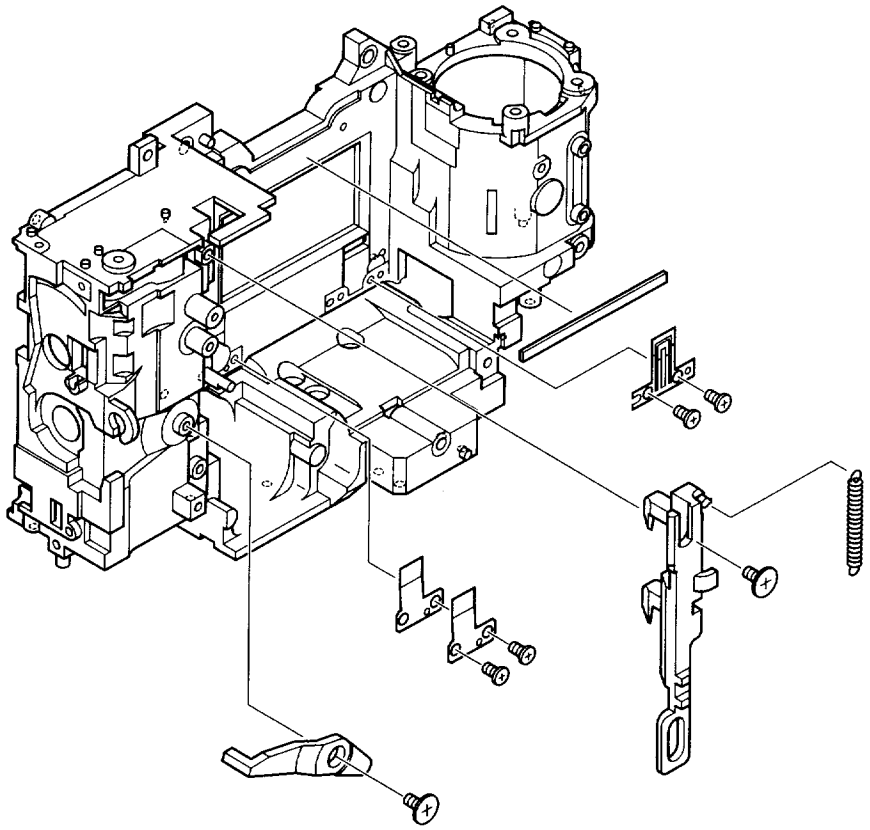
Note : Pay attention not to bend the battery contact and then remove the battery chamber.

Film advance unit

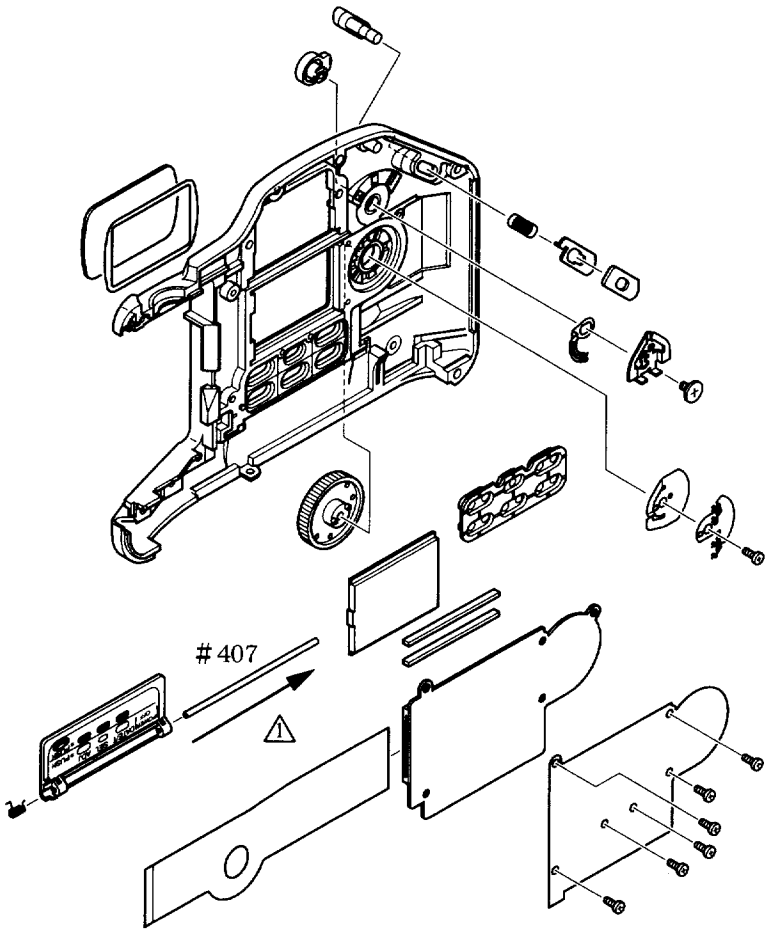




Other parts



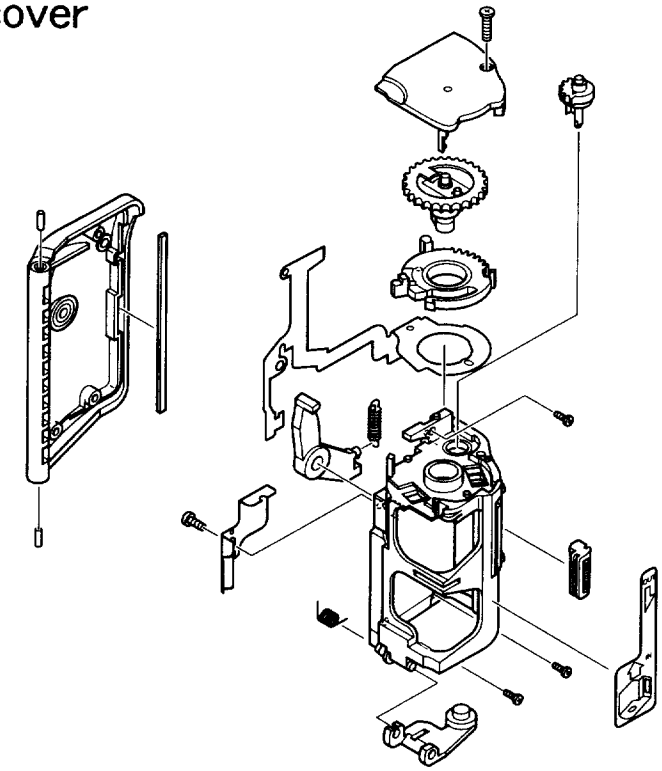
4. Rear cover



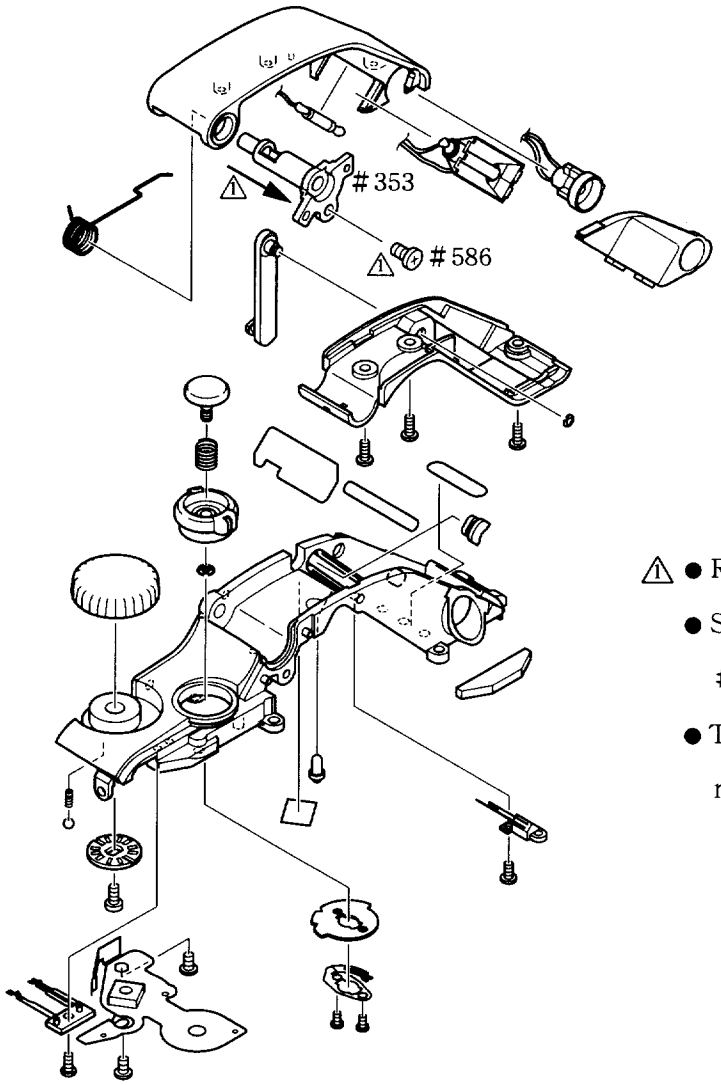
⚠ ● Slide the axis #407 in the arrow direction.

計画課 M

5. Cartridge cover



6. Top cover



⚠ ● Remove the screw #586.

● Slightly pull out the speed light rotation axis #353 in the arrow direction.

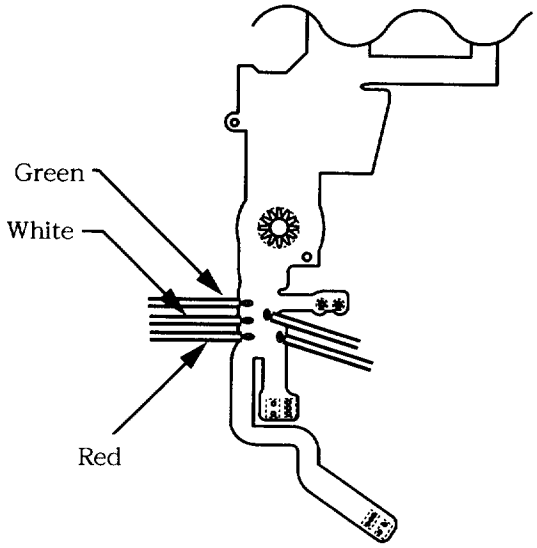
● Then, the speed light light emitter can be removed.

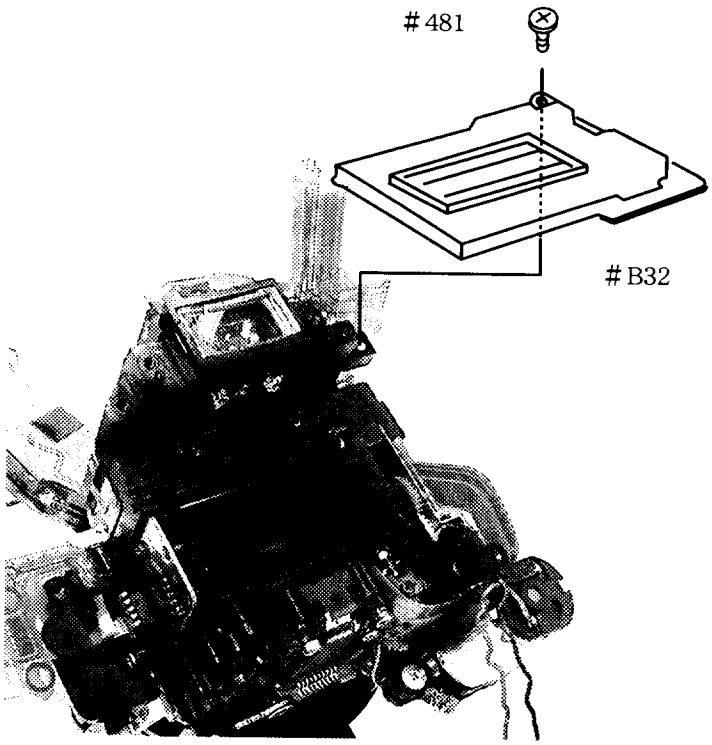
計画課 M

7. Front body

Shutter unit

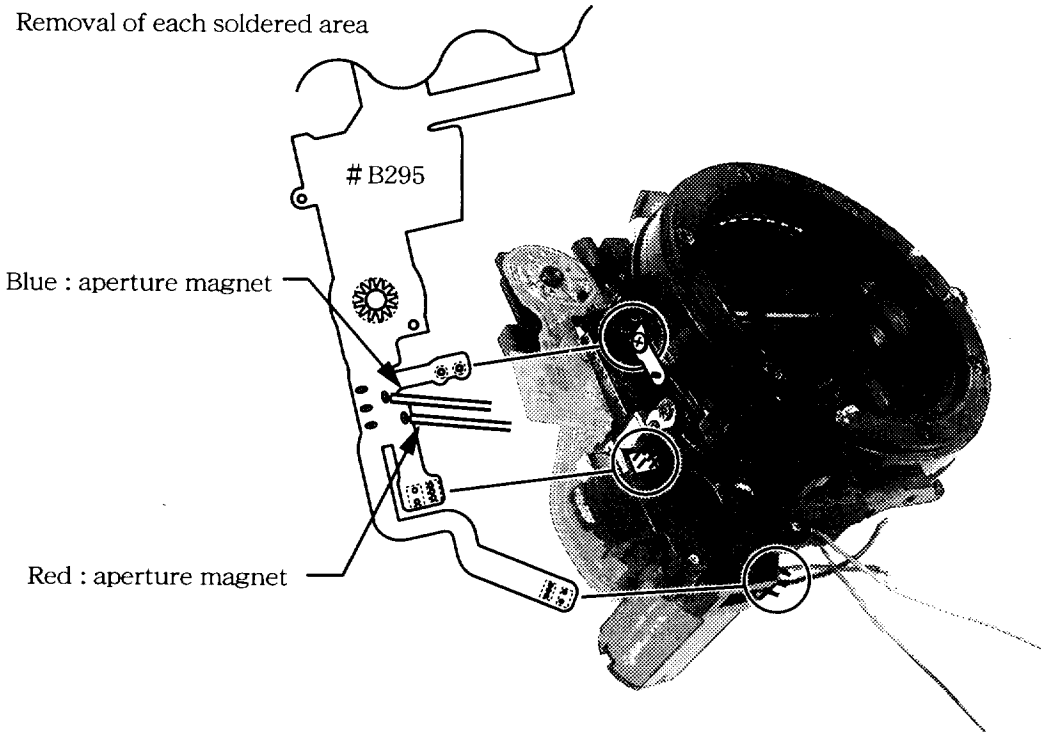
Removal of soldered lead wires for shutter operation

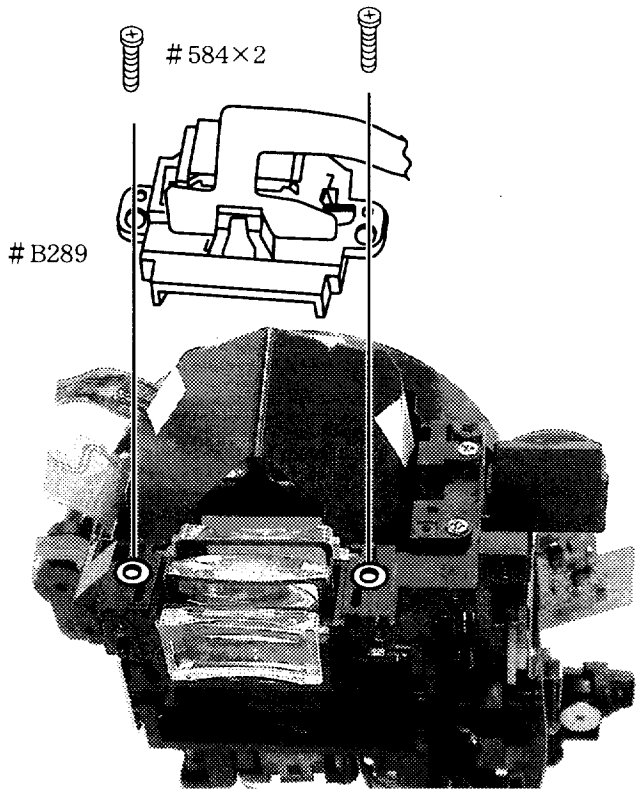




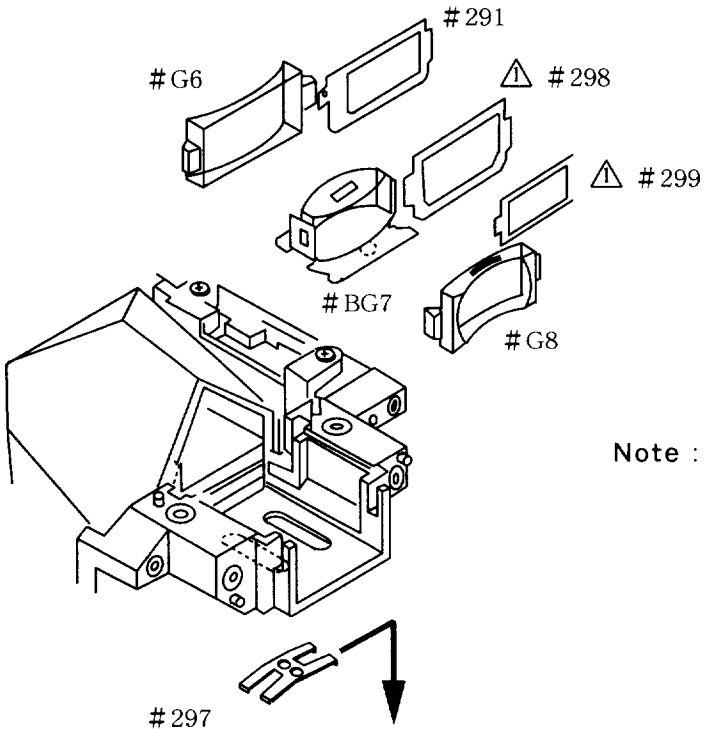
Photometry block

Removal of each soldered area



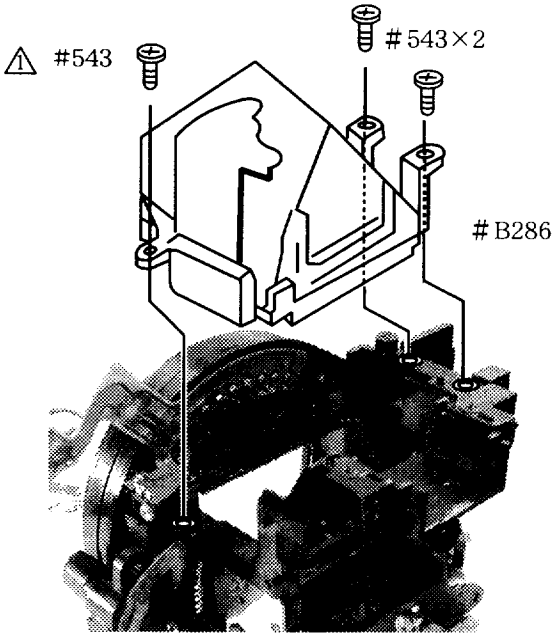


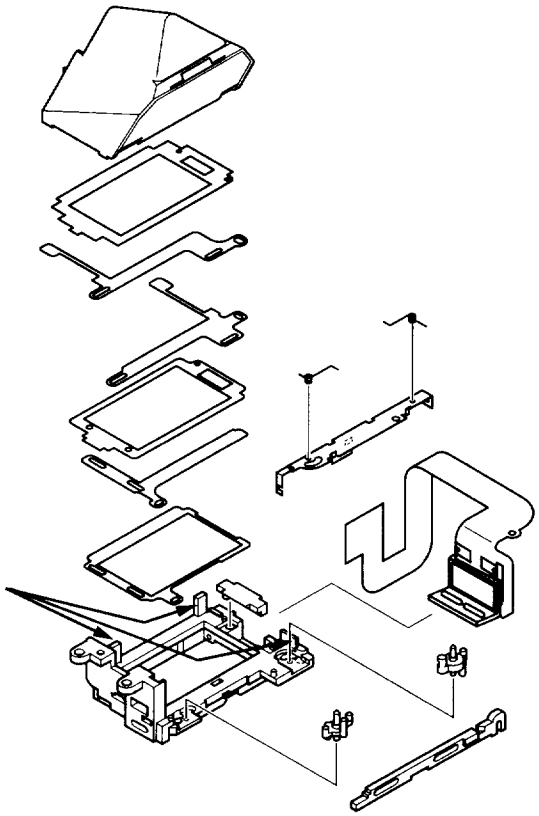
Eyepiece lens



Note : Slide the spring retainer #297 in the arrow direction and then remove it.

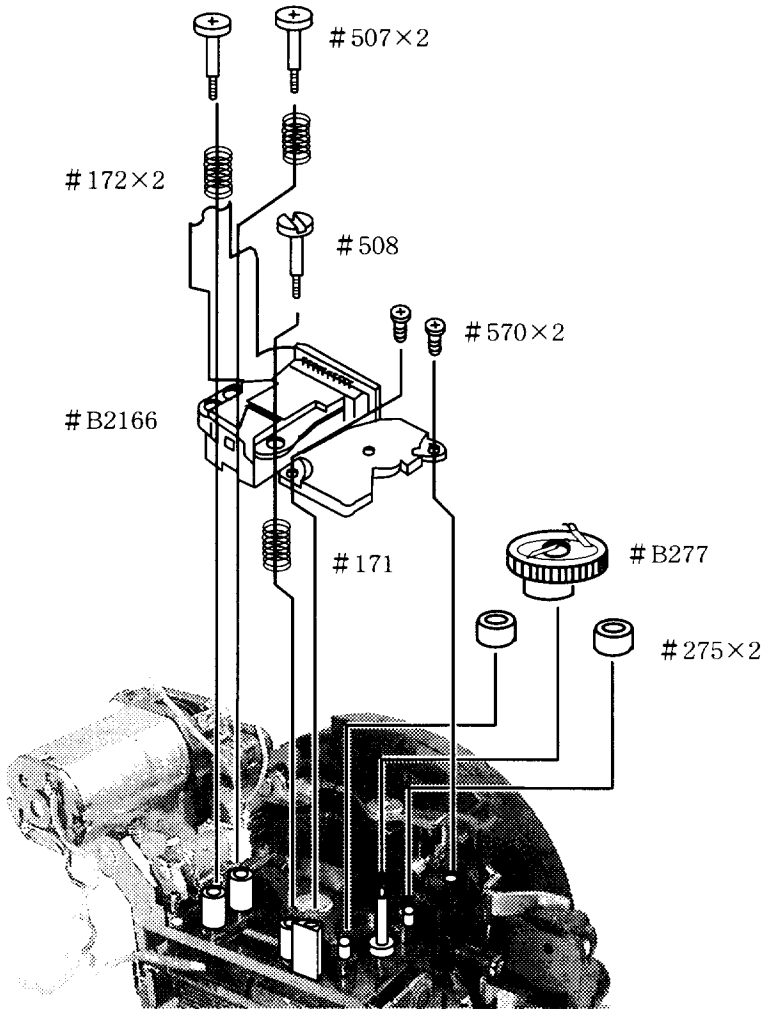
Pentagonal prism box





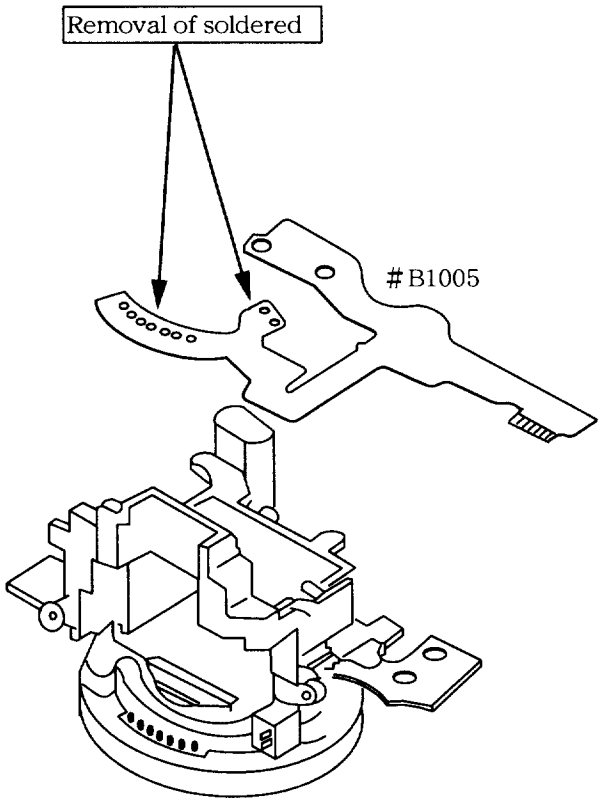
Remove the gule

AF unit, cam gear



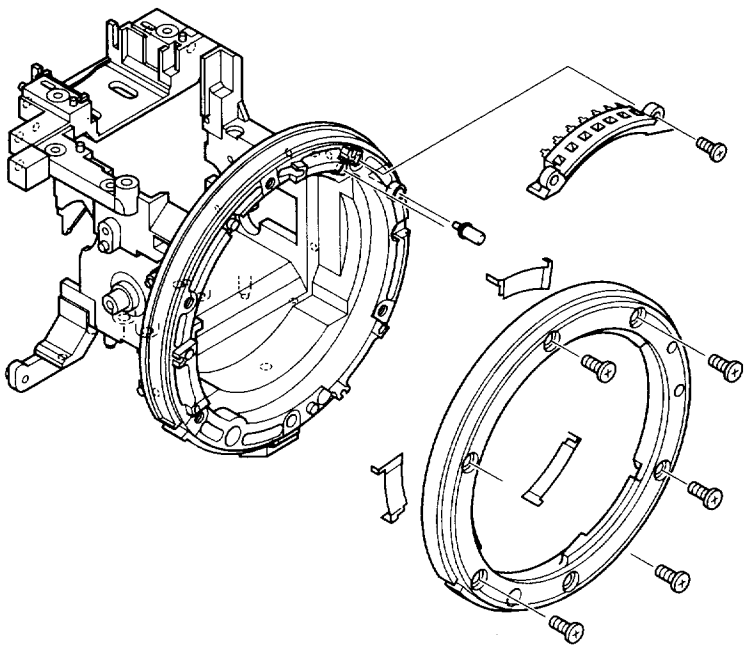
計画課

Lens contact FPC

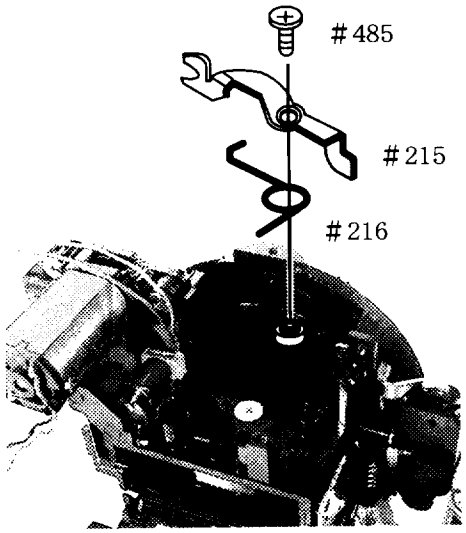


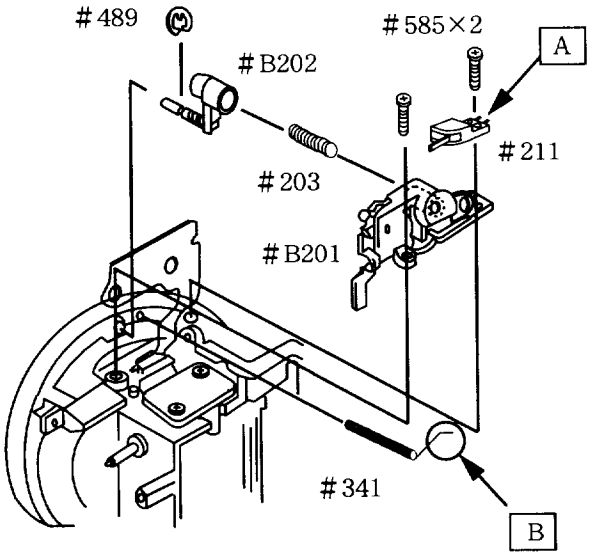
Note : Do not disassemble both the lens contact mold and the lens contact FPC other than necessity of replacement.

Bayonet mount / Lens contact mold



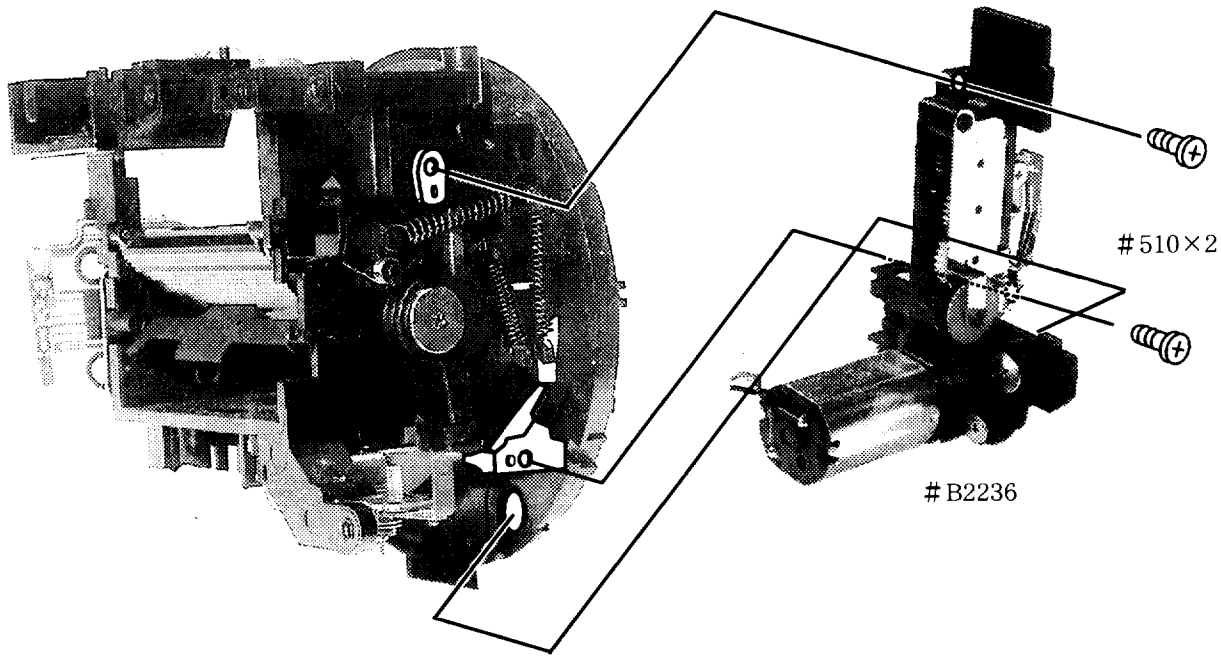
Horizontal lever / swing lever block, lens release button unit





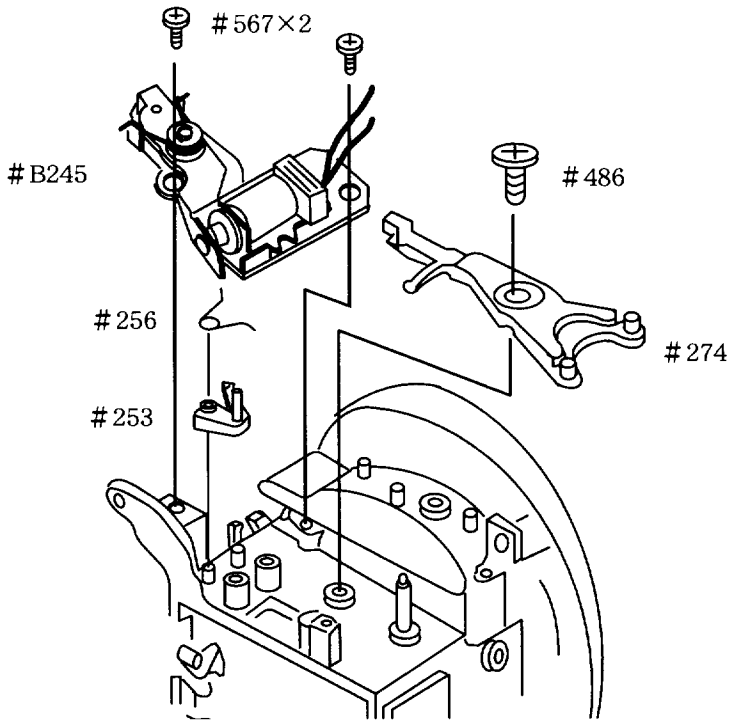
Note : Just in case the lens contact FPC is not removed, remove soldered each A and B area as pointed out in the figure.

Aperture control base plate

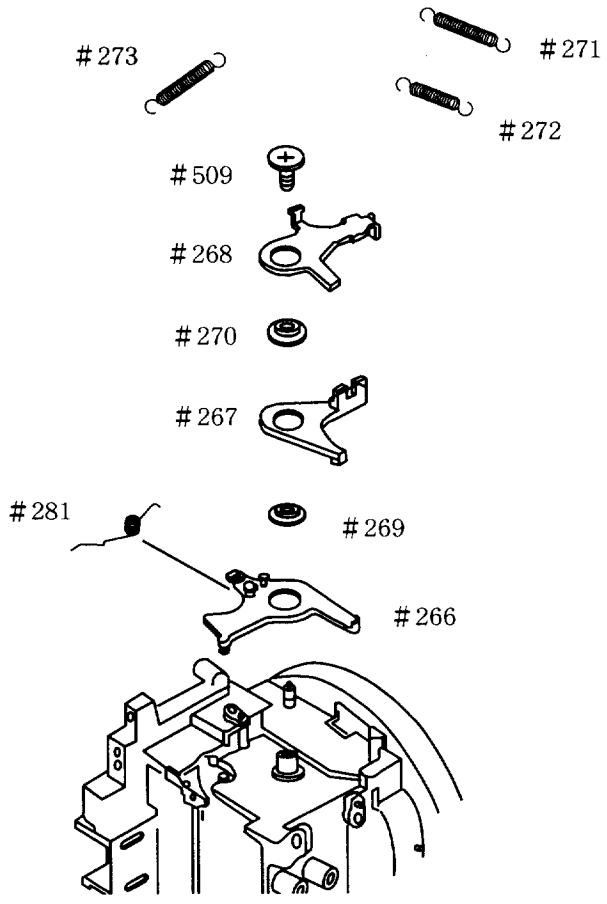


AF coupling

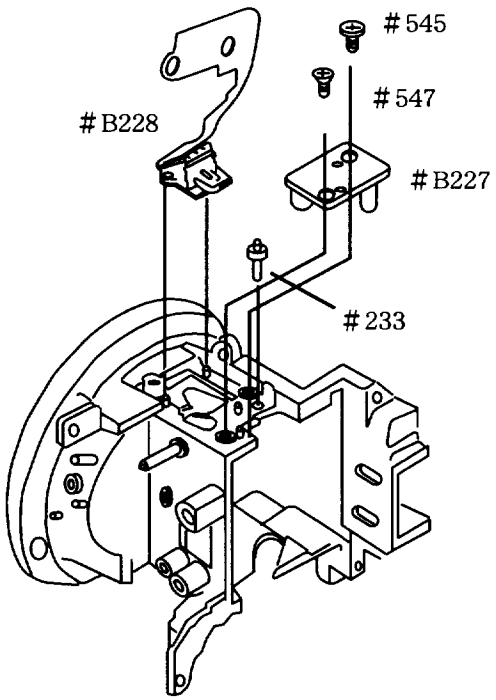
Aperture magnet / charge lever



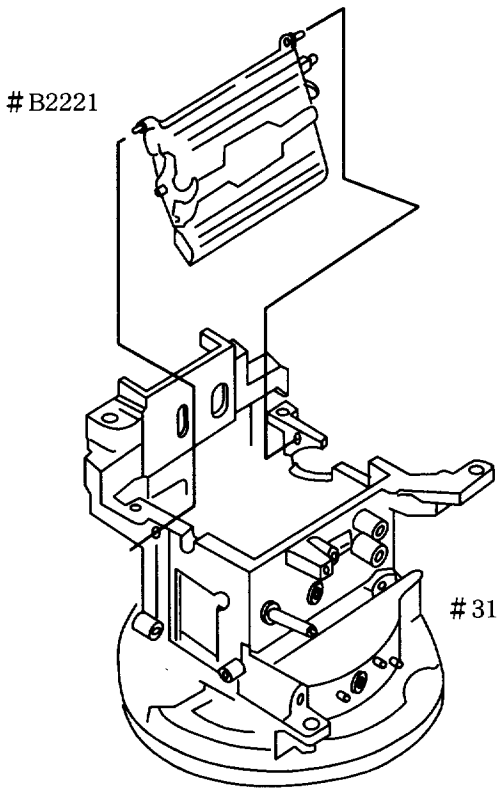
Mirror-up lever



Mirror box base plate / TTL FPC

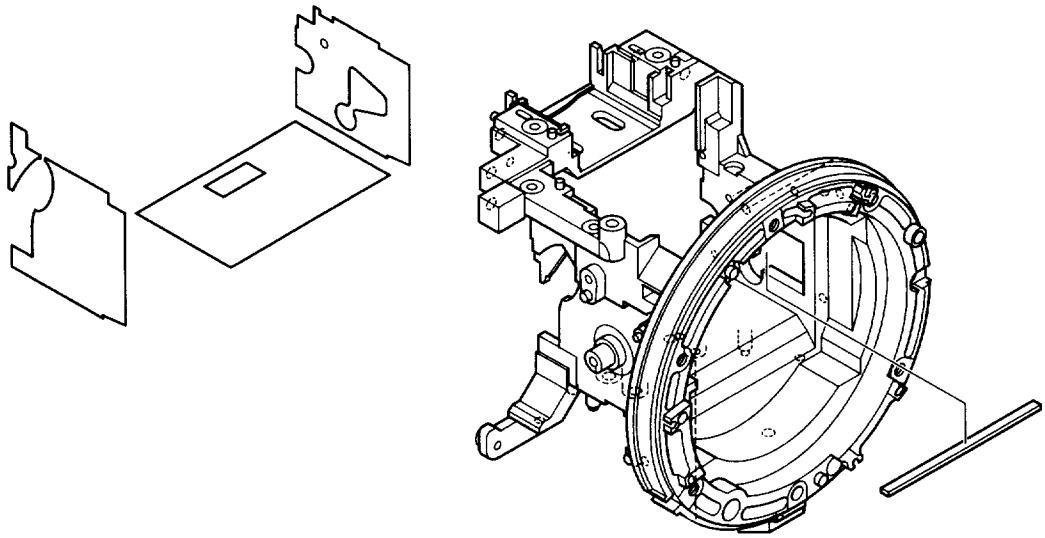


Main mirror holder



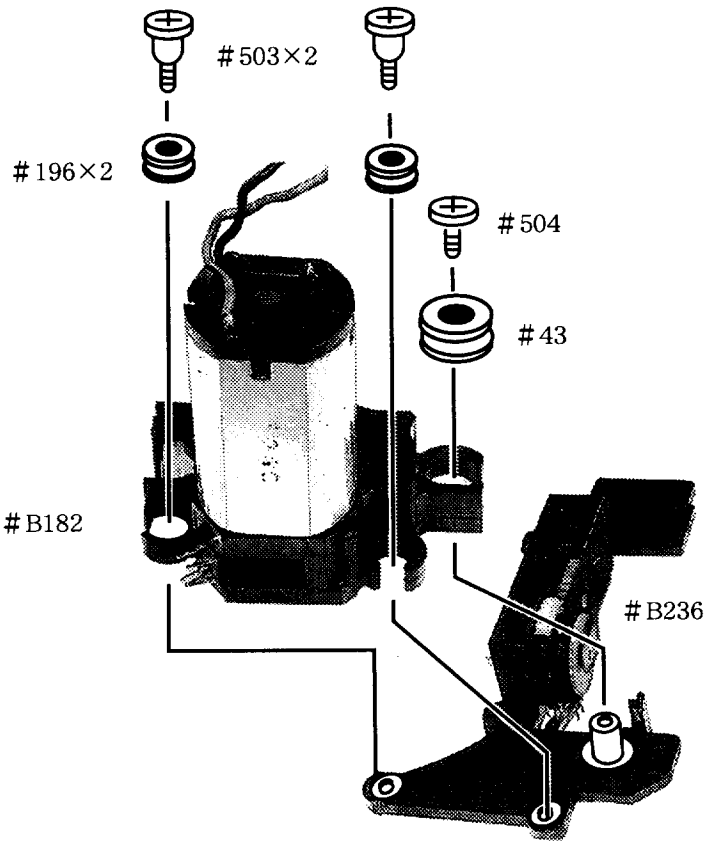
Note : Manually open the both sides of mirror box #31 to outside.
Then, remove the main mirror holder #B2221 from it.

Other parts

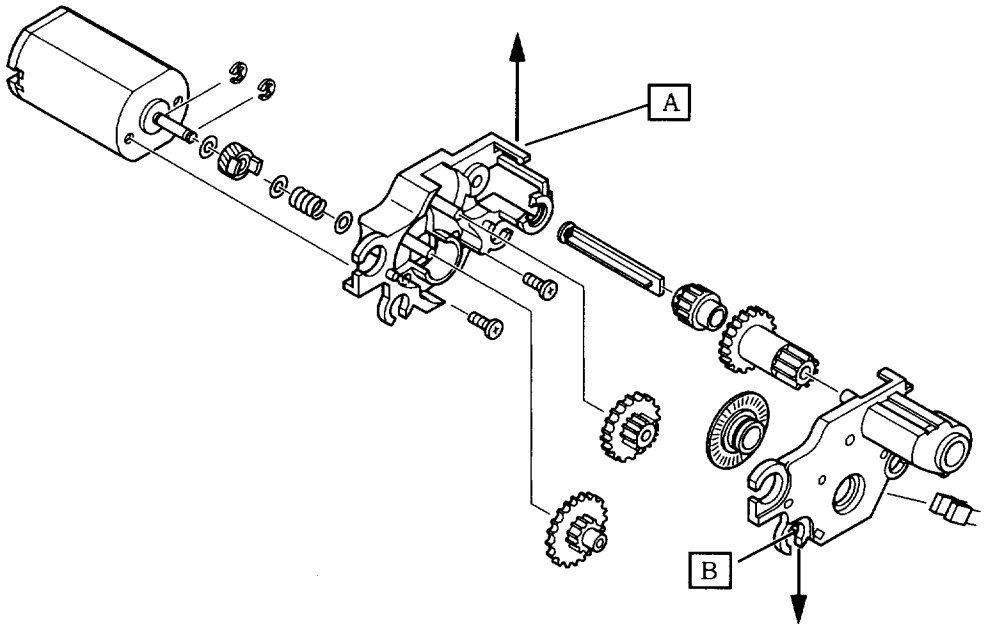


8. Aperture control base plate

Separation of the aperture control base plate from the AF base plate unit

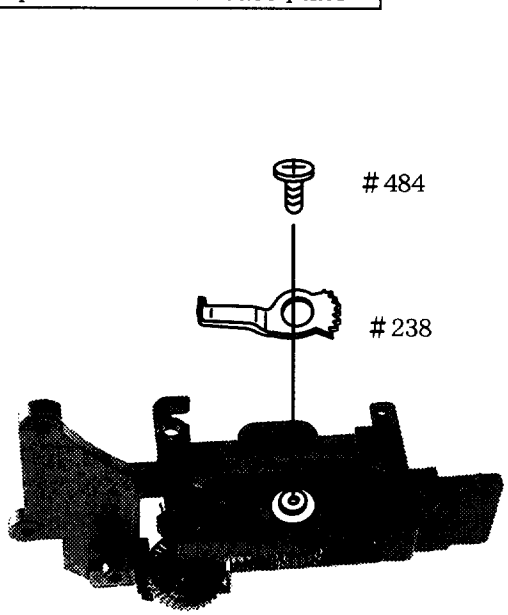


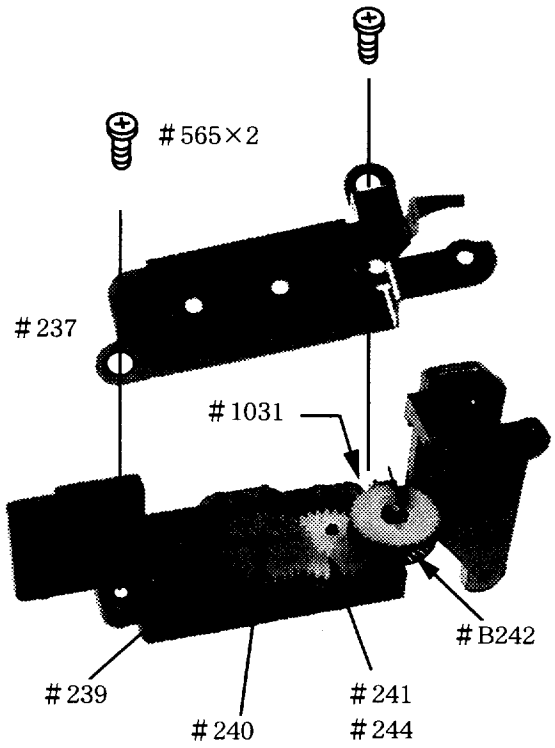
AF base plate unit



● Set both hooks A and B free in the arrow direction and then remove the top cover unit.

Aperture control base plate





● Remove the photo interrupter #1031 which is adhered by a quick-drying glue.

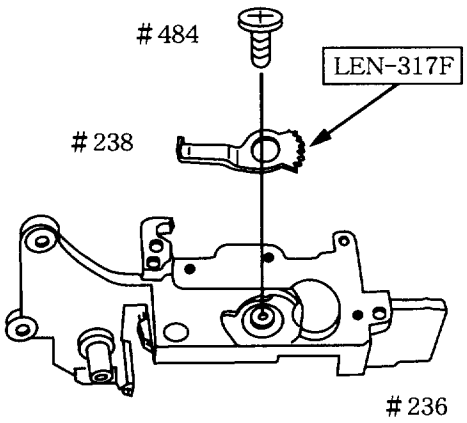
● Each the slit blade gear #B242, the gear #240, #239, #241 and the spring #244 can be removed.

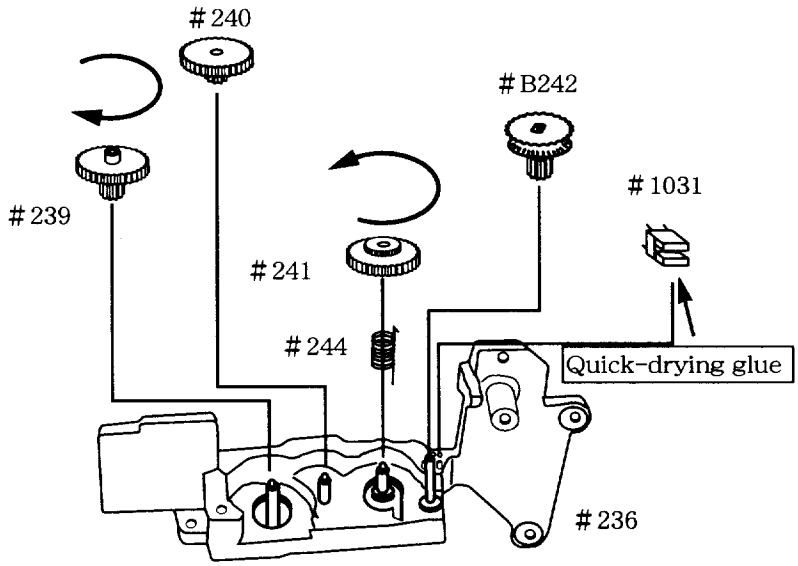
Assembly/Adjustment

Assembly / Adjustment

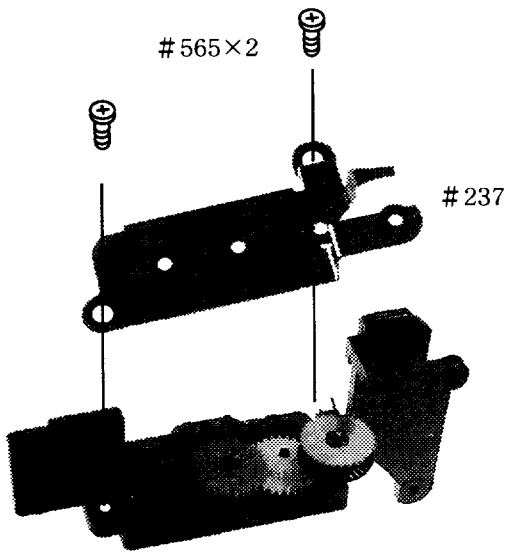
1. Aperture control base and the AF base plate unit

Aperture control base plate



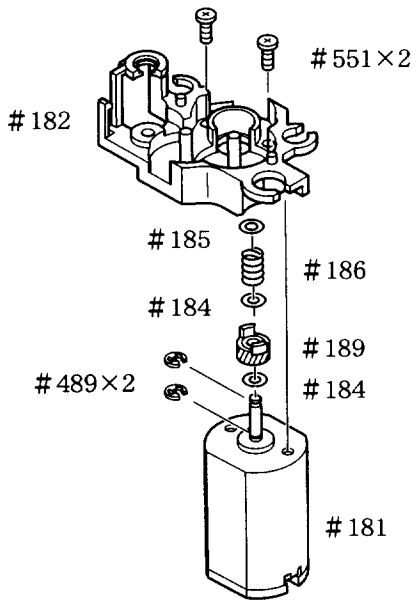


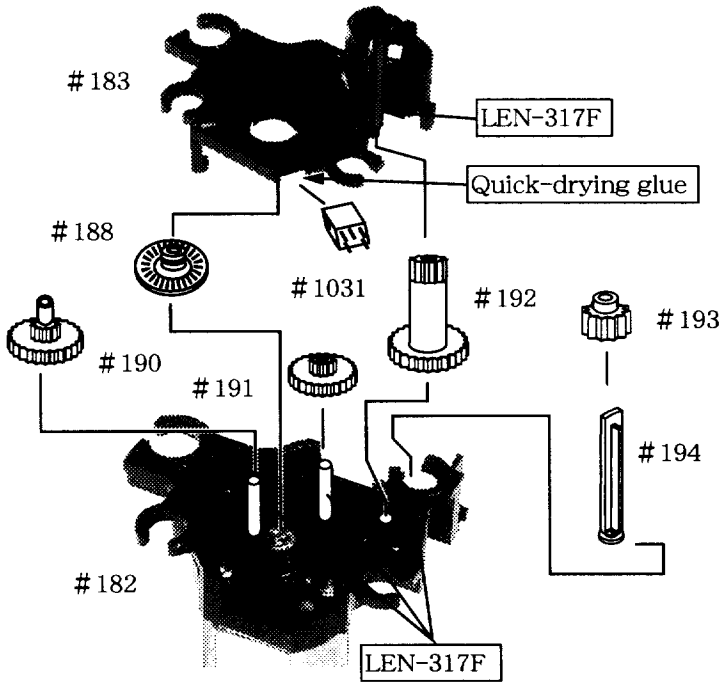
- Mount and fix the segment gear #238 on the aperture control base plate #236 by tightening up the screw #484.
- Insert the upper hook of spring #244 to a hole beneath the gear #241.
  Then, mount it on the aperture control base plate #236 and put them together.
- Mount both the photo interrupter #1031 and the slit (blade) gear #B242 on the aperture control base plate #236 and then put them together.
- Rotate the gear #239 in the arrow direction until it touches the limit. Then, keep its condition.
- Rotate the gear #241 in 180 degree in the arrow direction.
  Then, fix the gear #240 in the aperture control base plate #236.
- Fix the top cover #237 by 2 pieces of the screw #565.
- Slightly apply a quick-drying glue to the photo interrupter #1031 and adhere it on the aperture control base plate.



Note : After assembling, observe and check whether or not the segment gear #238 is able to return to its original position by the regaining force of spring #244 after pressing its both edges.

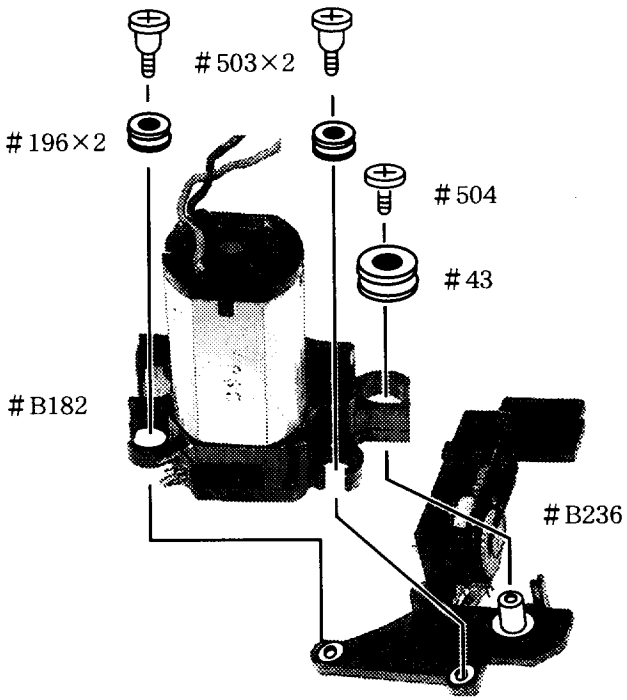
AF base plate unit





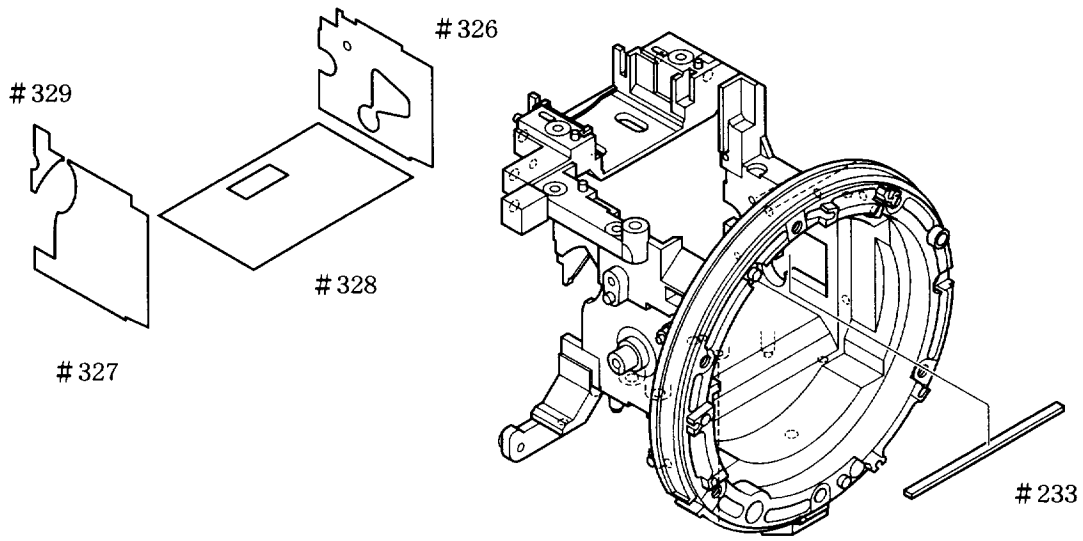
- Mount in order of the gear #190, #191 and #188. Then, fix them on the bottom AF base plate #182.
- Mount in order of the gear #193, #194 and #192. Then, fix them on the bottom AF base plate #182.
- Mount the upper AF base plate #183 on the bottom AF base plate #182 and put them together.
- Mount the photo interrupter #1031 on the AF base plate unit and put them together.
- Adhere the photo interrupter #1031 by slightly applying a quick-drying glue.

Aperture control base plate and AF base plate unit

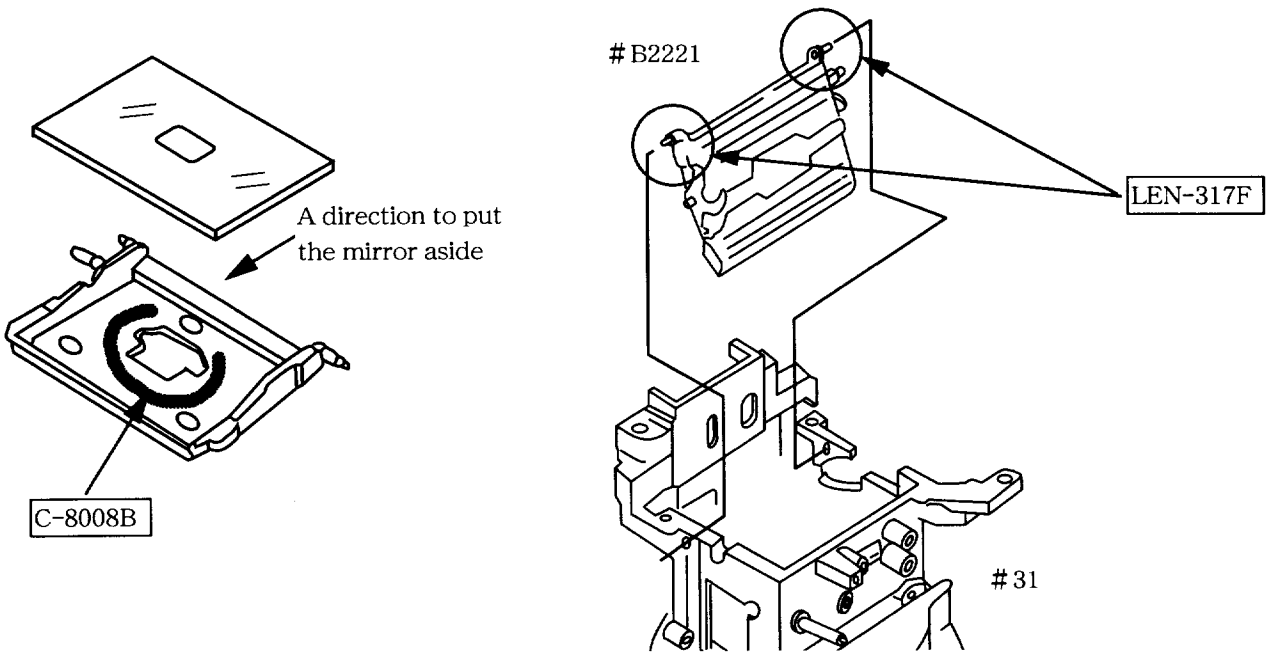


2. Front body

Other parts



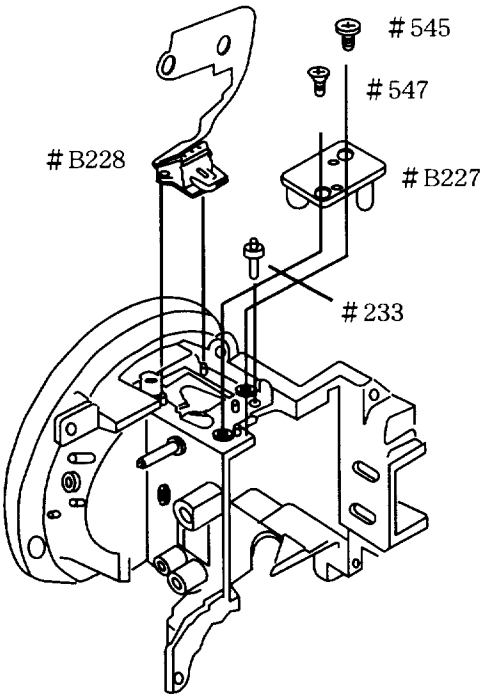
Main mirror holder



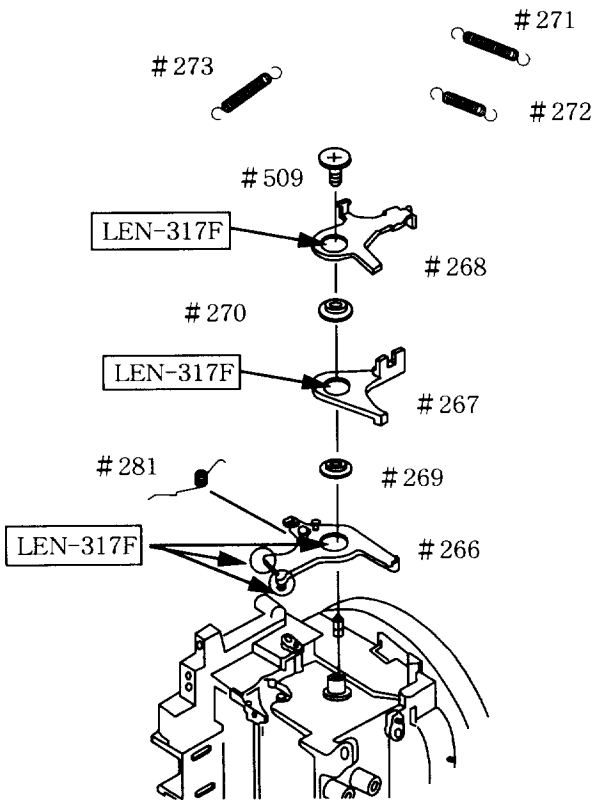
- Manually open the both sides of mirror box #31 to outside.

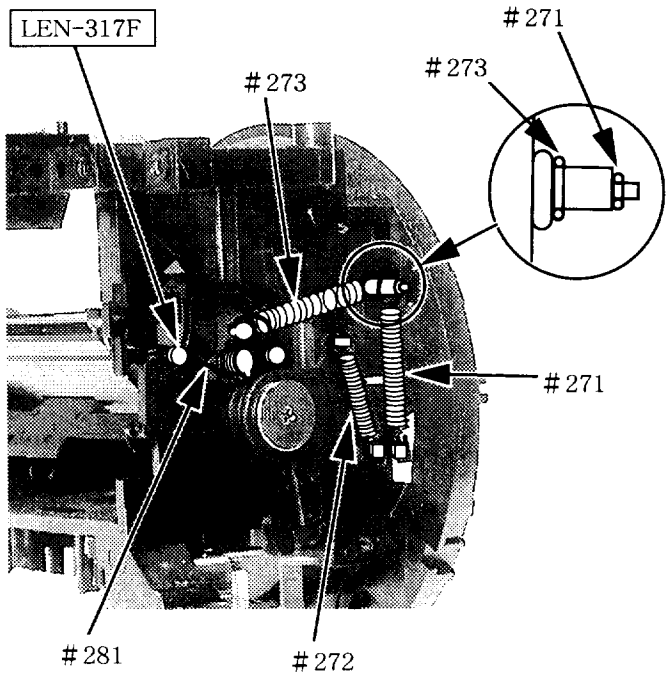
  Then, mount the main mirror holder #B2221 in it and fix them together.

Mirror box base plate / TTL FPC



Mirror-up lever





How to recognize one of each spring

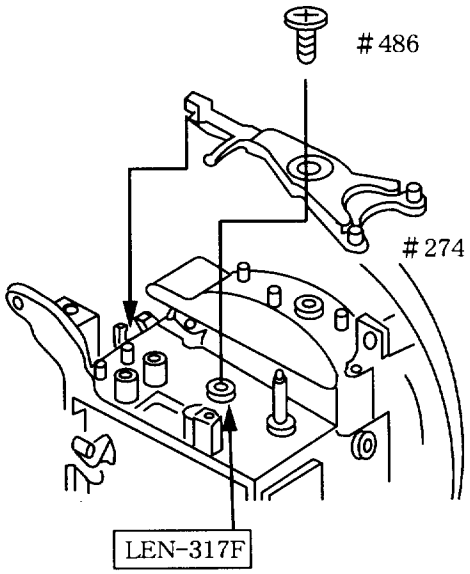
#271 - long, black colour

⚠ #272 - short, white colour

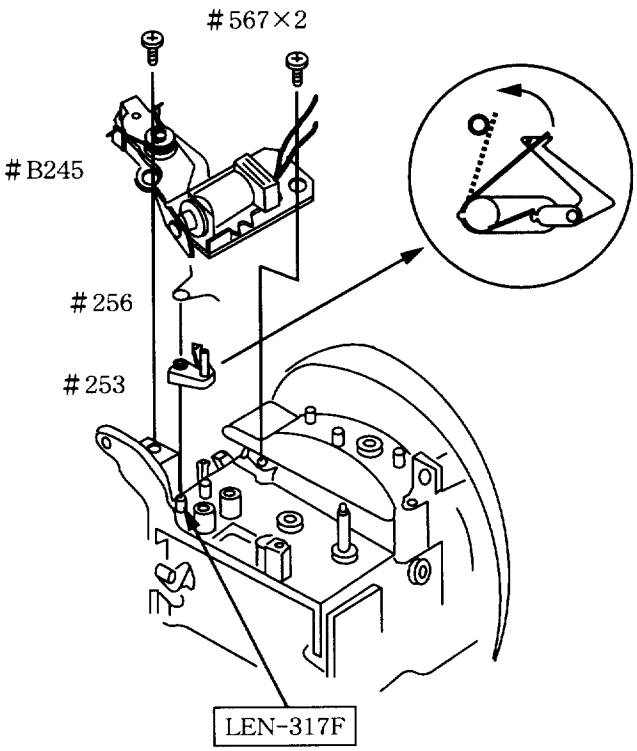
#273 - white colour

計画課 M

Aperture magnet unit / charge lever



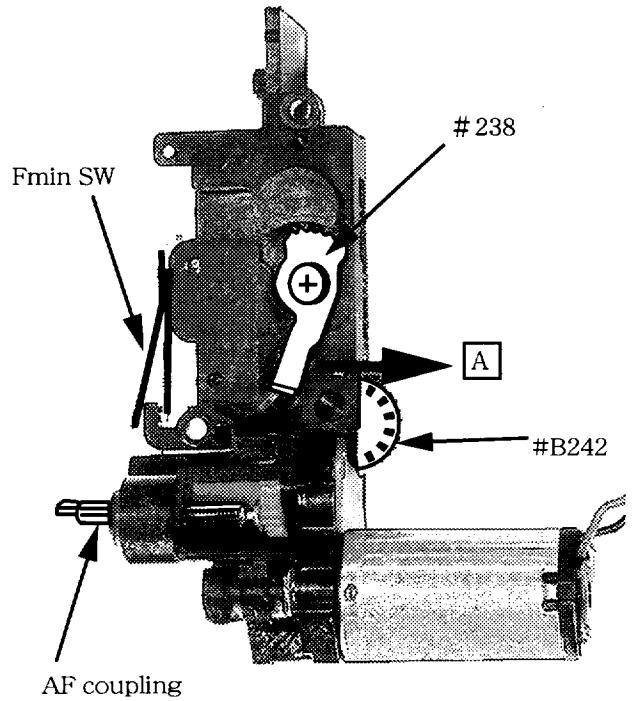
● Insert the tip point of charge lever #274 to a position between the mirror-up lever and the aperture return lever.

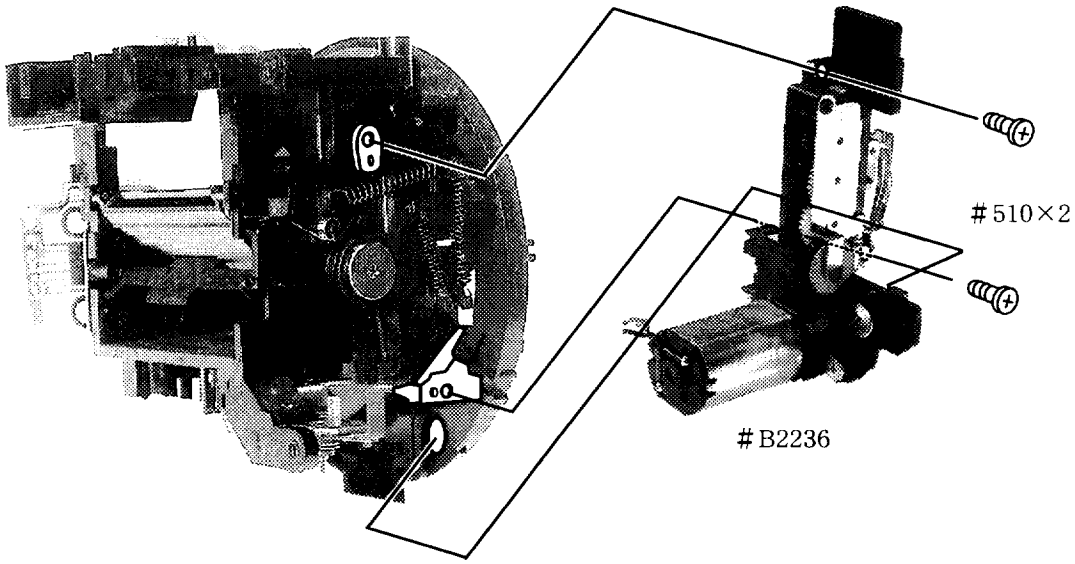


● As shown in the figure above, hook the reset spring #256 on the reset lever #253. After fixing the reset lever in the mirror box, remove the reset spring and then hook it over a projection on the mirror box.

Note : After mounting and fixing the charge lever, the reset lever and the aperture magnet, release the aperture magnet #B245 in order to check whether or not the magnet is able to hold when operating the charge lever #274.

Aperture control base plate

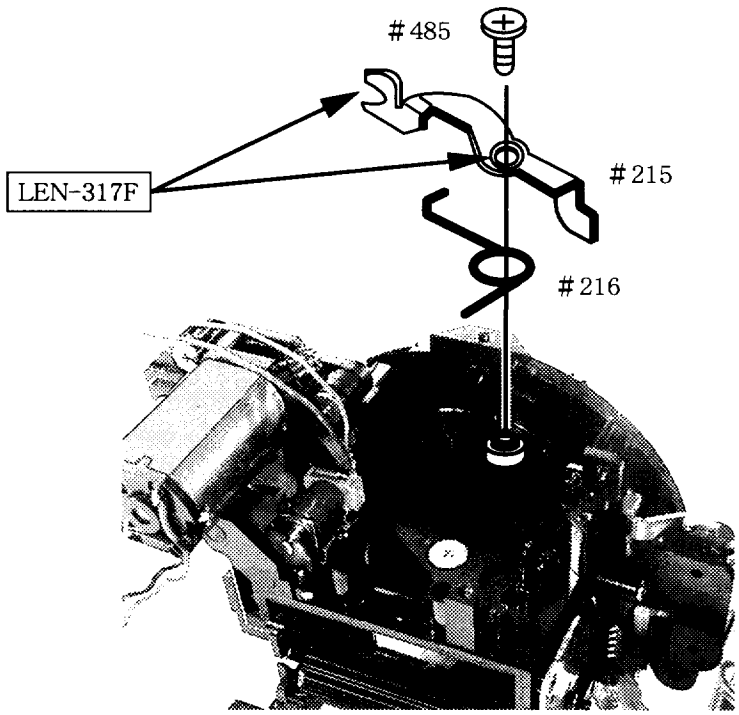


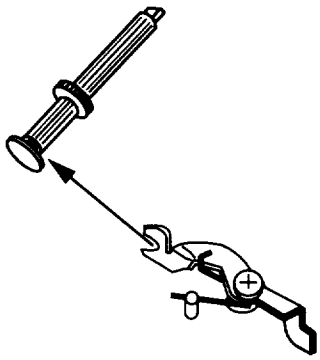


- Rotate the segment gear #238 in the arrow A direction until it touches the limit.
  Then, stop the slit blade gear #B242 by finger(s).
- Keep the condition above and pay attention not to bend the Fmin SW.
  Then, mount the aperture control base plate on the front body unit and fix it by 2 pieces of the screw #510.

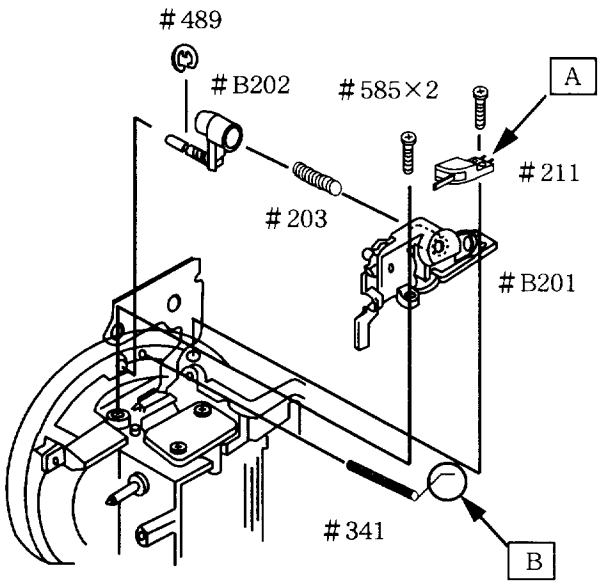
Note : After fixing it, operate the aperture lever on the front body unit and check the interlocking operation mode between the segment gear and the slit blade gear.

Horizontal lever / swing lever block, lens release button unit





Hook position of spring

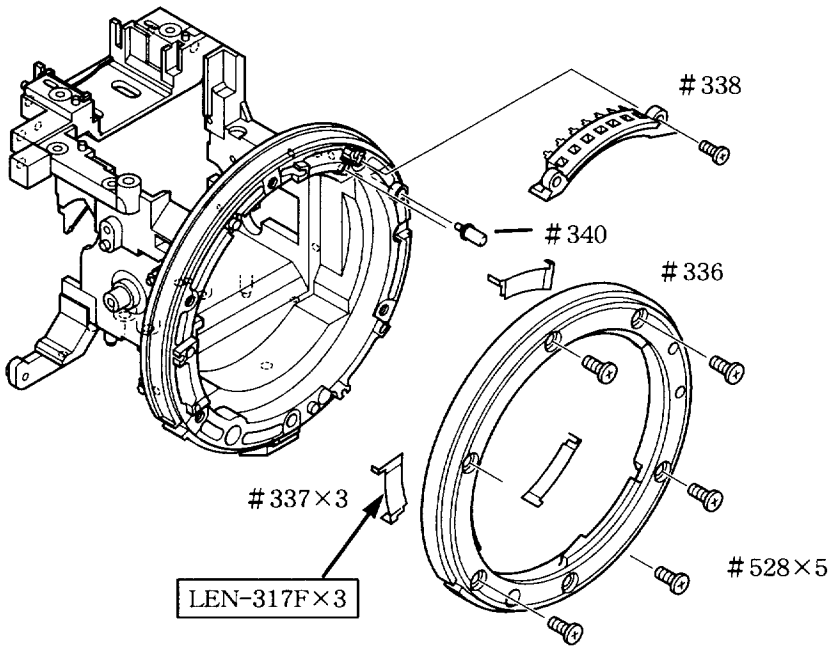


- Mount and fix the lens GND pin spring #341 on the front body unit.
- Mount and fix the lens release button unit #B202 on the front body unit.
- Mount and fix the SW base unit #211 on the swing lever block #B201.
- Mount and fix the spring #203 on the swing lever block #B201.
- Mount and fix the swing lever block #B201, which is the combination unit of the SW base unit #211 and the spring #203, on the front body unit.

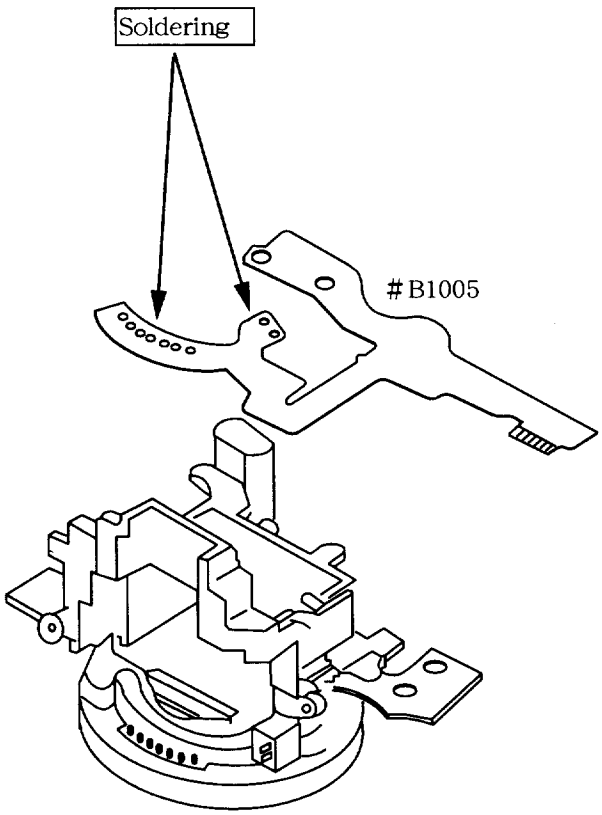
- Fix the swing lever block #B201 by tightening up 2 pieces of the screw #585.
- Mount and fix the E ring #489 on the shaft of lens release button unit.
- In case the lens contact FPC is not removed, solder both A and B areas.

Note : After fixing, press the lens release button and check the operation mode.

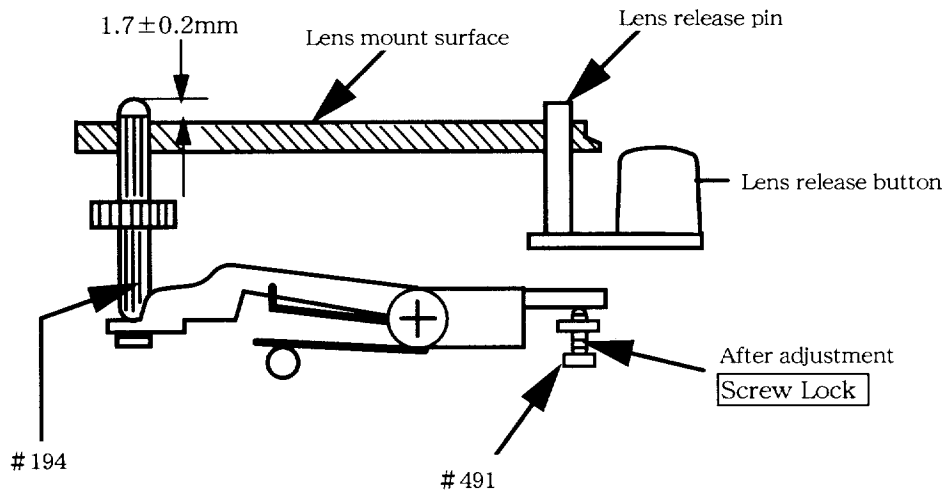
Bayonet mount / Lens contact mold



lens contact FPC



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 #491.

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 #491 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. Chock 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: 3.3 ~ 3.5 5mm

How to adjust

① Change the fixing position of bayonet mount.

② Bend the aperture lever #268 for adjustment.

Note : Available range to bend the aperture lever is as follows.

Height / Vertical : 3.1 to 3.7 mm

Horizontal : Within the width of the lever

AF unit, cam gear

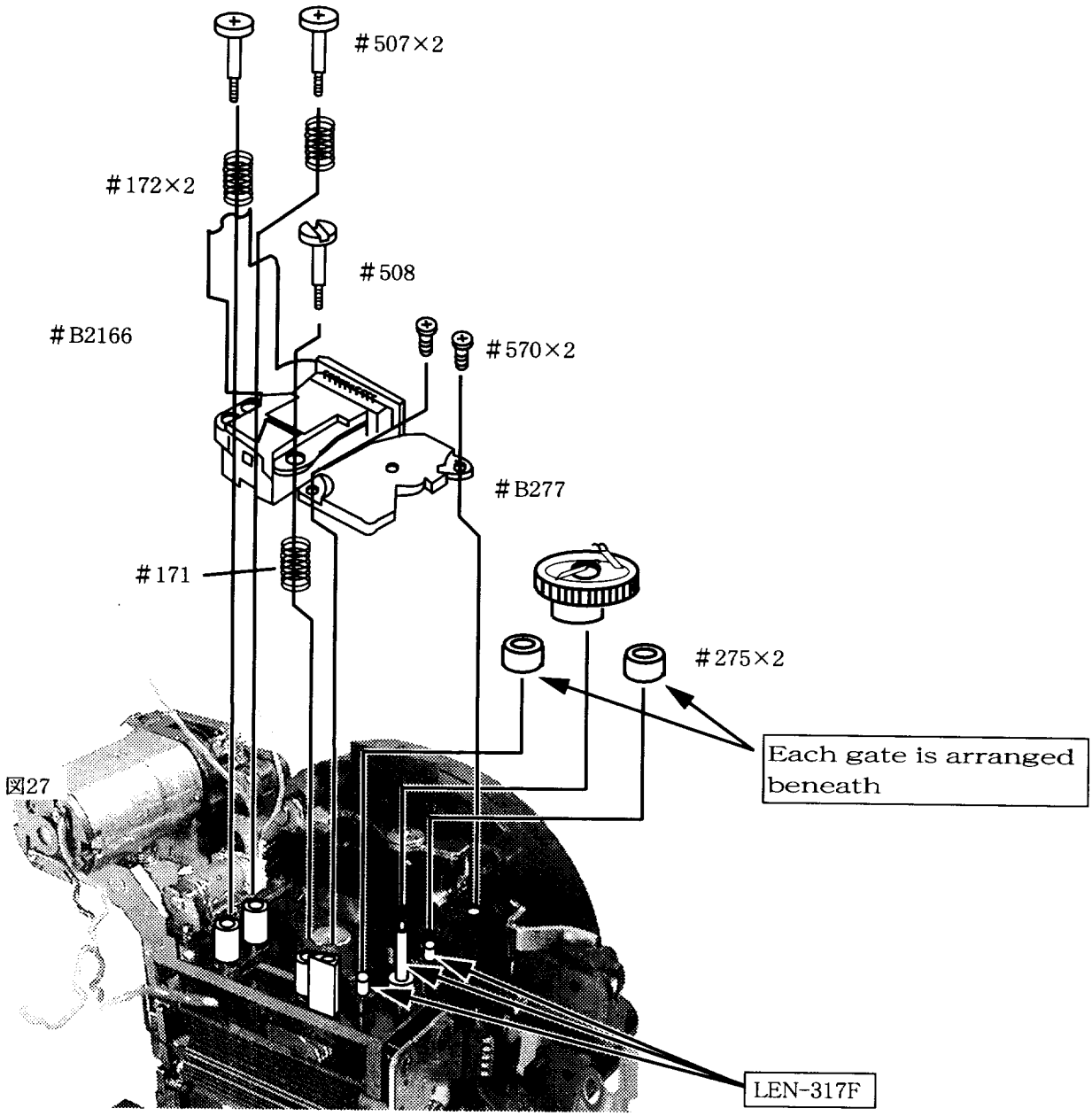
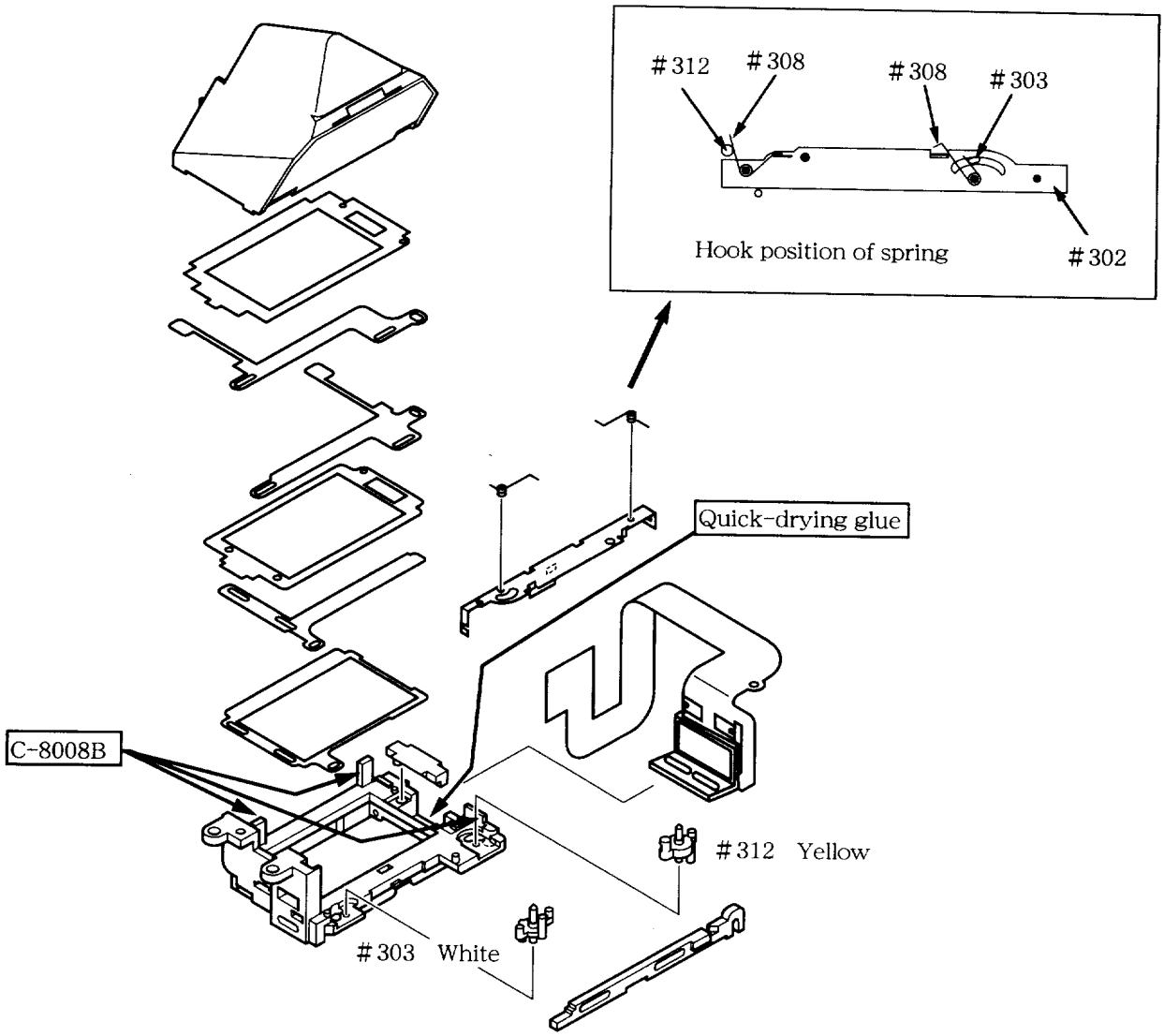


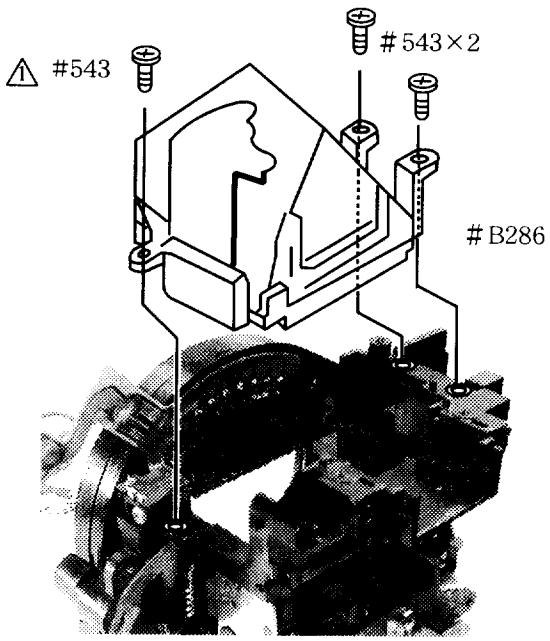
図27

- In order to avoid inclination of the AF unit #B2166, fix the AF unit on the front body unit by 2 pieces of the screw #507 and 1 piece of the screw #508.
- After tightening up the screw #508, turn it back in 2 rounds.

Note : Be sure of each fixing position for 2 pieces of the spring #172 and one of #171.

Pentagonal prism box



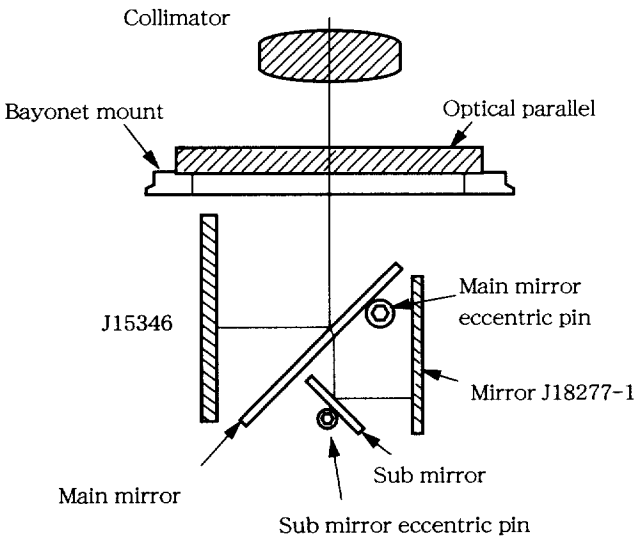


計画課 M

⚠ ×1 Change page

Sep.29.1998

Angle adjustment of main mirror and sub-mirror to 45°



[Tools in use]

1.For adjustment of the main mirror

①Collimator (J19002)

②Reflection mirror (J15346)

③Optical parallel (J18037)

④Hexagonal wrench in 2 mm

2.For adjustment of the sub mirror

①Collimator (J19002)

②Sub mirror angle adjustment tool (J18277-1)

③Hexagonal wrench in 1.5 mm

● How to adjust to form 45° between the main mirror and the optical parallel

Note : Before and after adjustment, shift the main mirror up and down manually and adjust its accuracy

(1)Check any horizontal gap.

Just in case the horizontal gap is out of the standard, it may be caused by sandwiched bayonet spring #337, deformed front body itself or so.

(2)Check any vertical gap.

In out-of-standard case, adjust by rotating the main mirror eccentric pin.

● How to adjust to form 45° between the sub mirror and the sub mirror angle adjustment tool.

Note : Before and after adjustment, shift the main mirror up and down manually and adjust its accuracy.

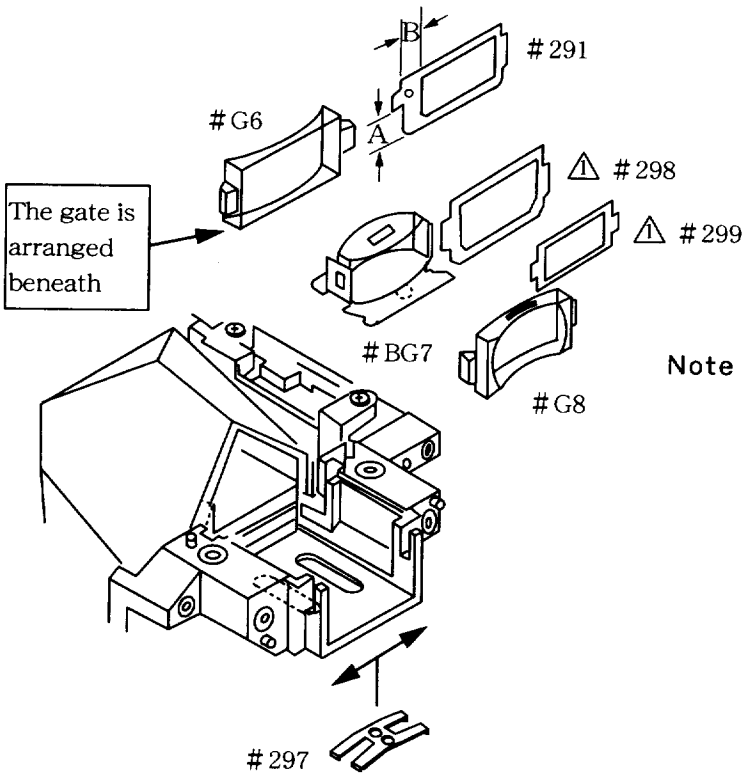
(1)Check any vertical gap.

In out-of-standard case, adjust by rotating the sub mirror eccentric pin.

Standard

	Main mirror	Sub mirror
For horizontal gap	Within ± 20 ′	
For vertical gap	Within 10± 5 ′	Within ± 10 ′
For distortion	Within ± 8 ′	

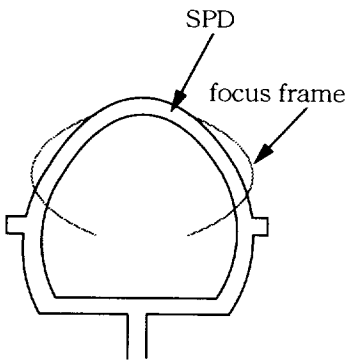
Eyepiece lens



Note : Due to both wider A and B areas, be aware of the settlement direction of the finder field frame #291 for eyepiece lens.

Photometry block

①AE SPD position adjustment

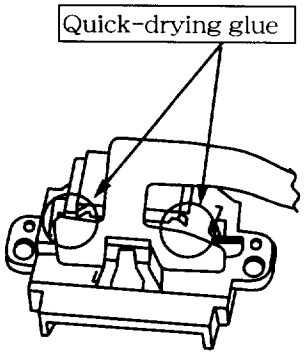


① Apply very bright light to AE SPD in order to reflect the AE SPD pattern onto the main mirror.

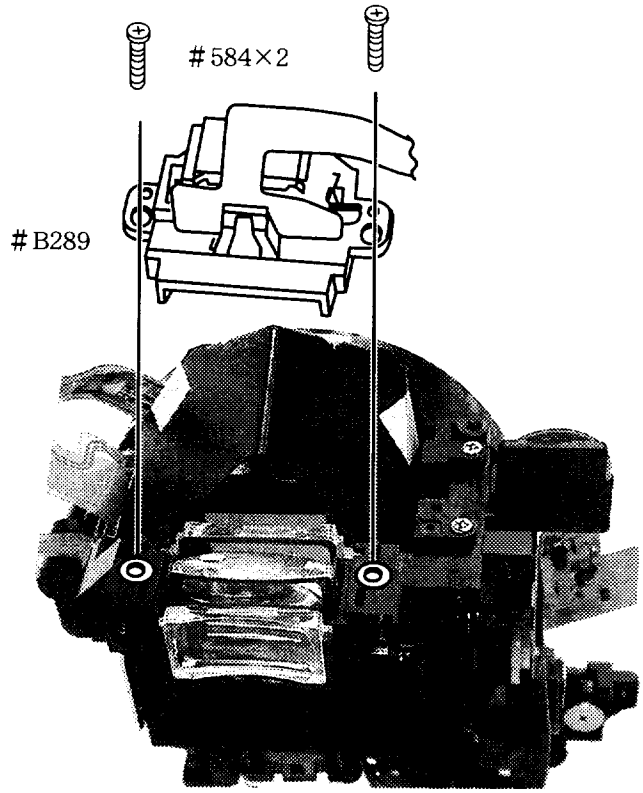
② As shown in the left figure, fit the AE SPD center on the focus frame.

Besides, maintain the whole square image of AE SPD parallel with the main mirror position.

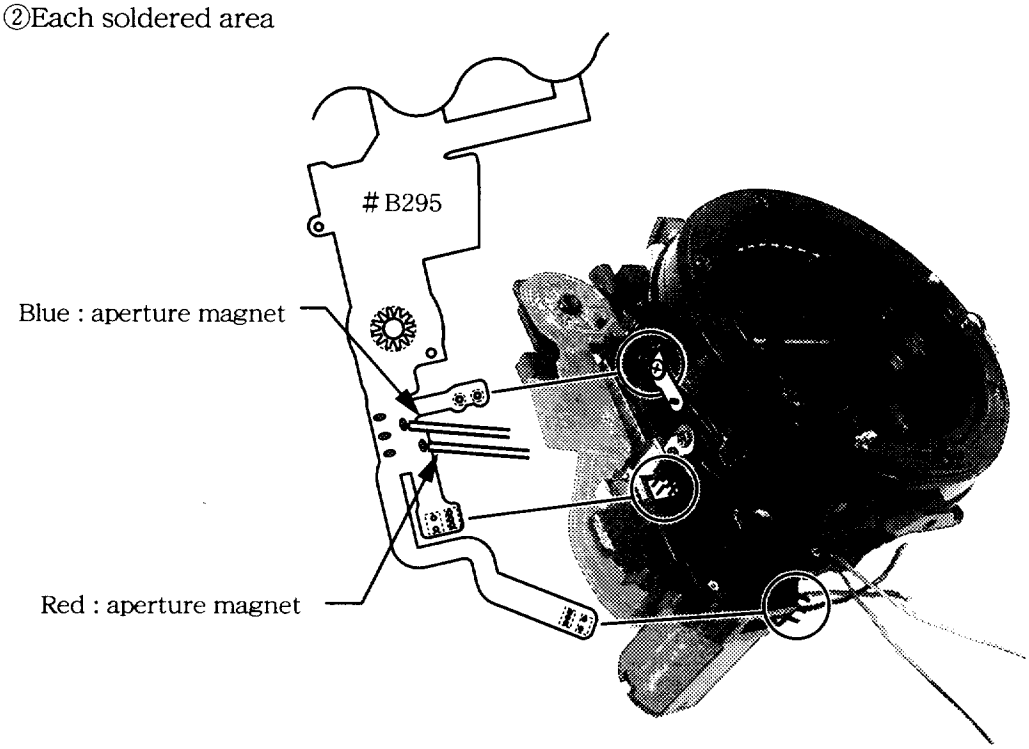
③ After adjustment, fix the AE SPD area by the adhesive.



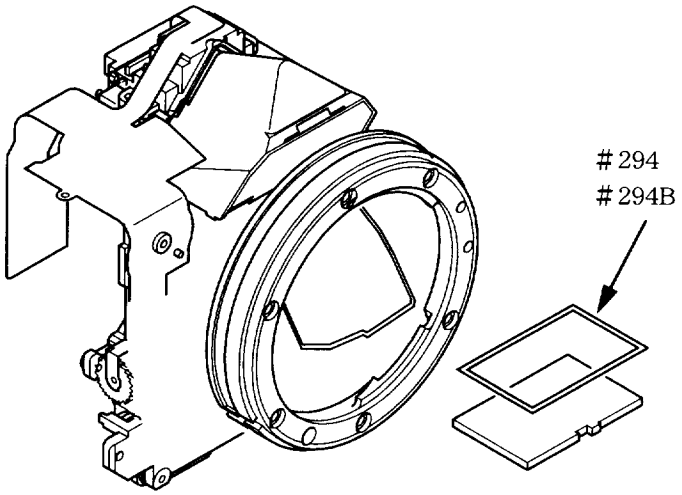
計画課 M



②Each soldered area



Adjustment to on-focus mode under infinite mode



⚠ ● As shown in the figure below, rotate the cam gear #B277 in the arrow direction and then sustain the mirror-down condition.

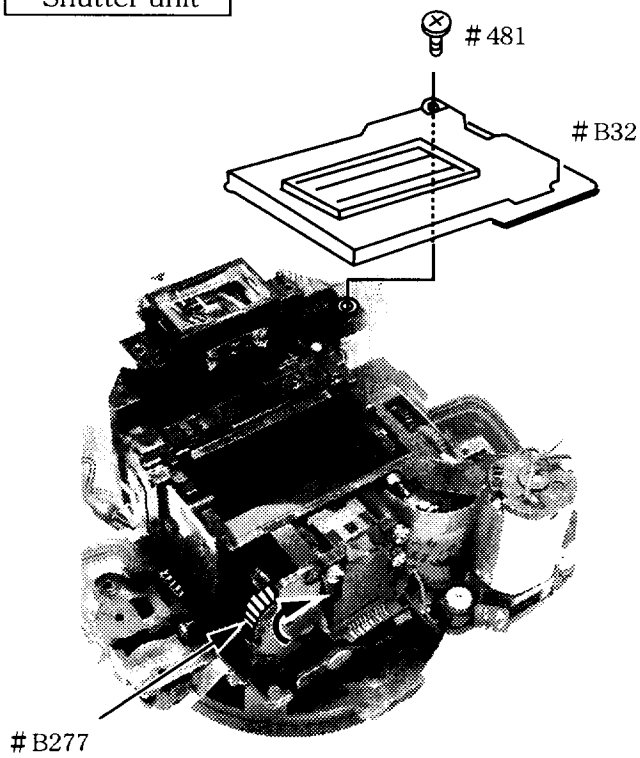
Note : Then, be sure that the mirror-up lever does not touch the mirror-up axis in the main mirror holder.

⚠ ● Using the standard lens J18010, adjust the on-focus mode under the infinite mode within ± 0.05 mm of tolerance.

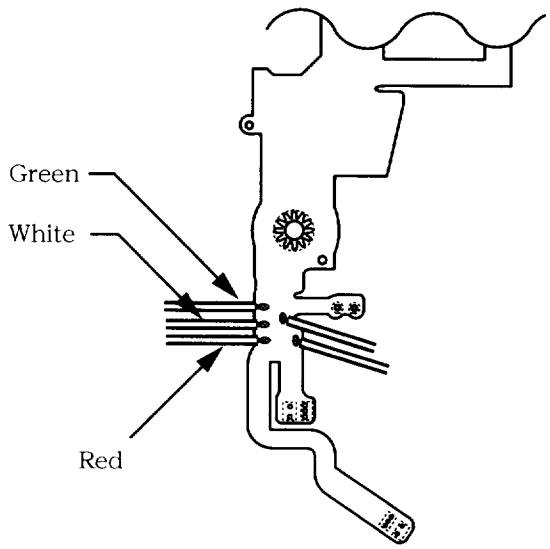
How to adjust

Using the on-focus adjustment spacers #294 and #294B, arrange any combinations fit to adjust the infinite on-focus mode.

Shutter unit

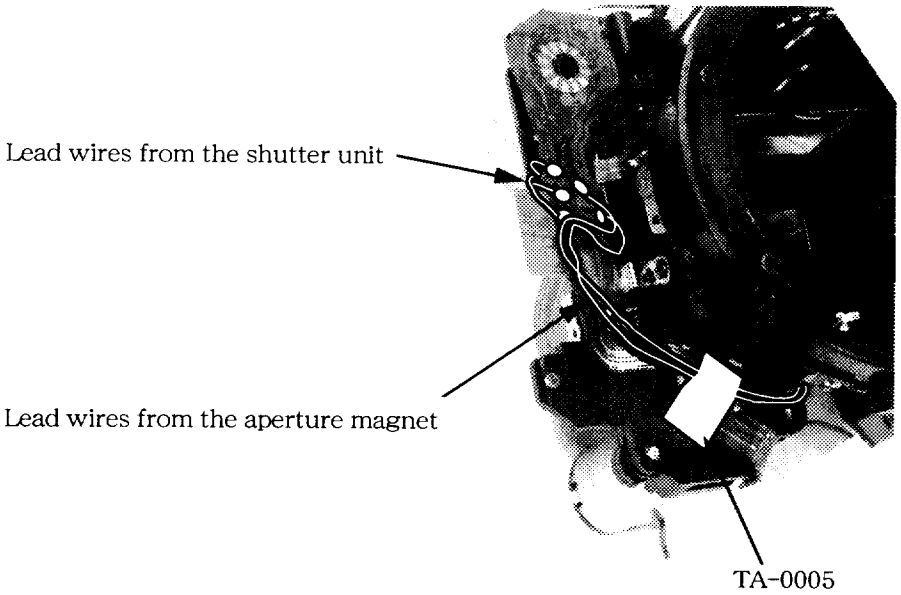


Soldered lead wires for shutter function

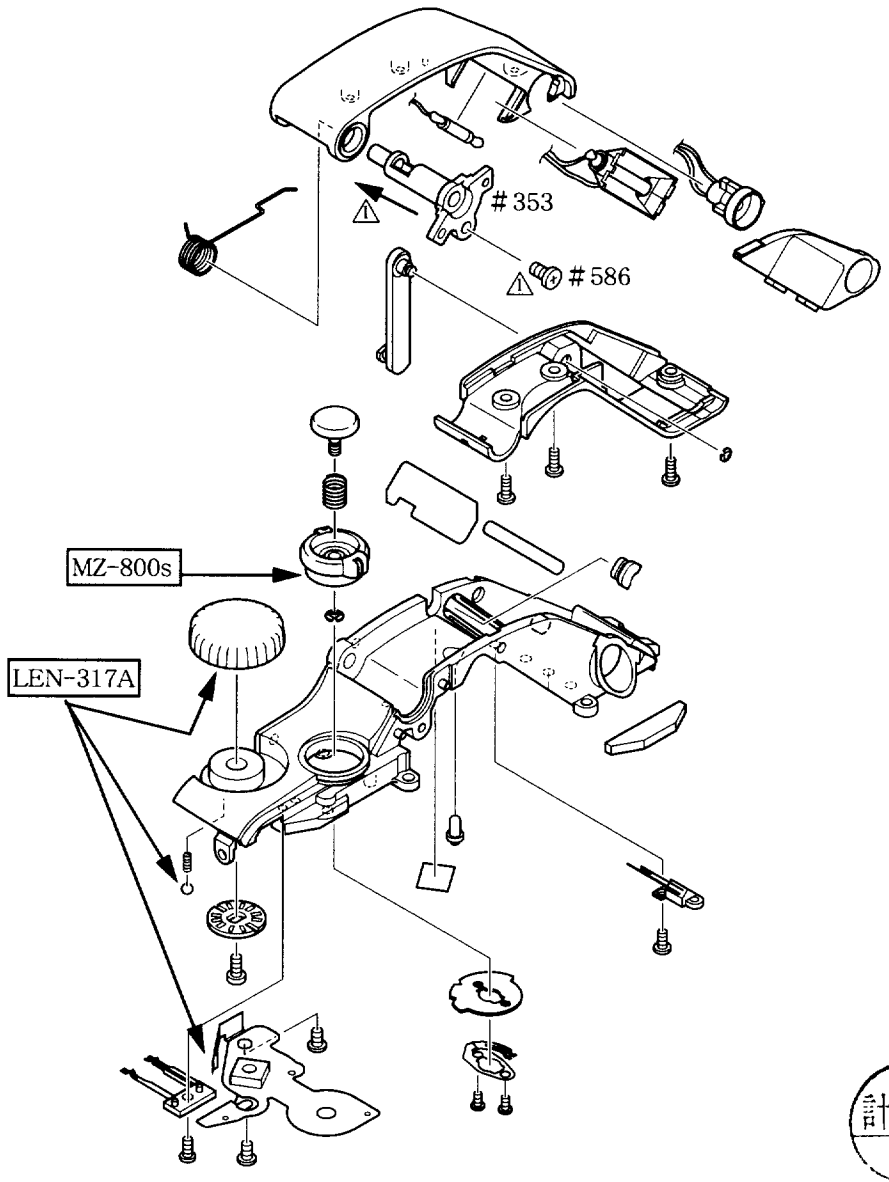


● Rotate the cam gear #B277 in the arrow direction in order to keep the mirror-up condition, and then fix the shutter unit.

Arrangement of the lead wires

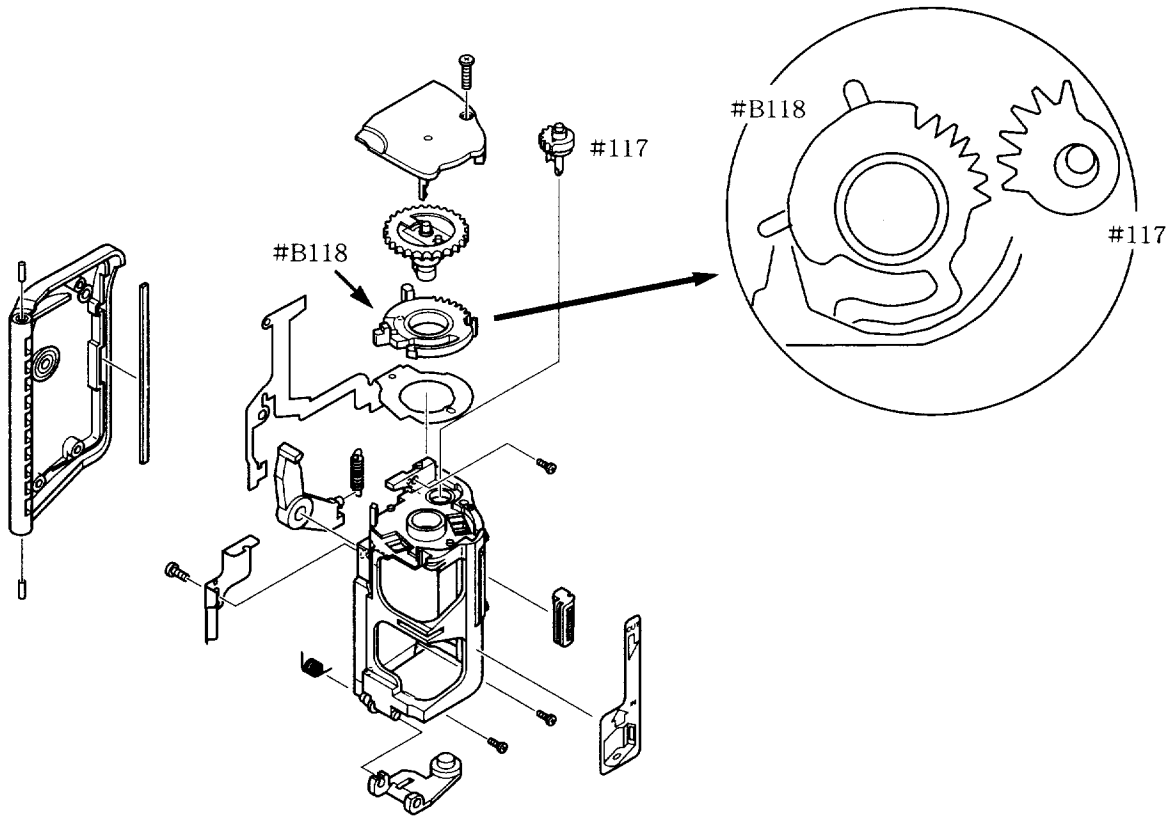


3. Top cover

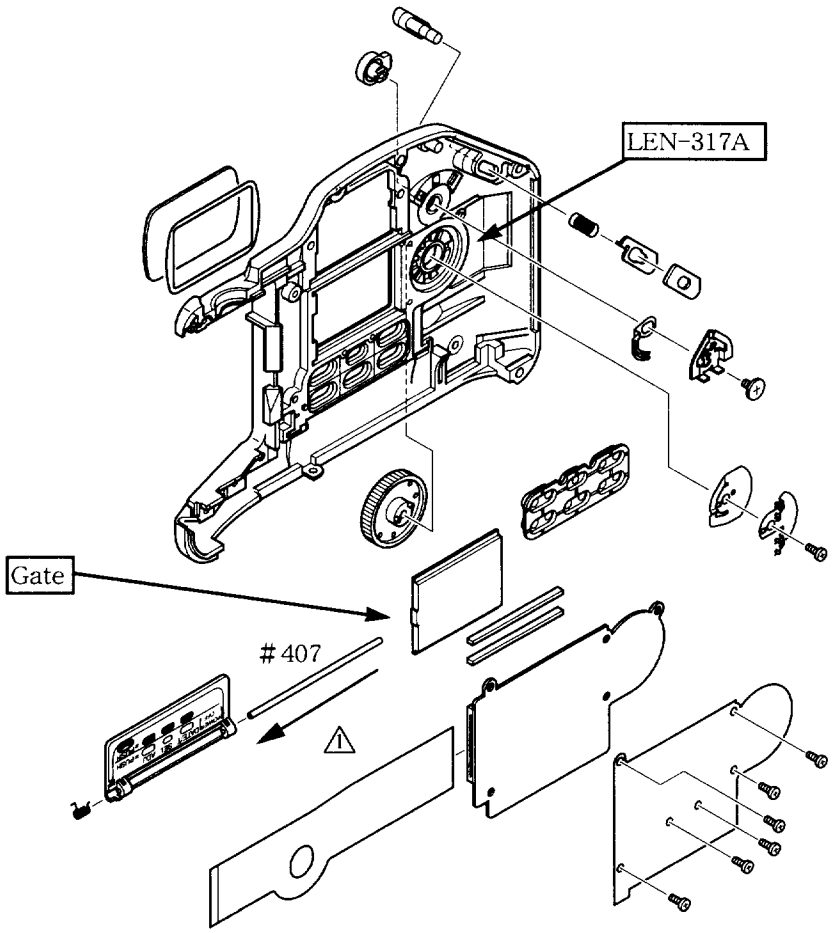


計画課 M

4. Cartridge cover



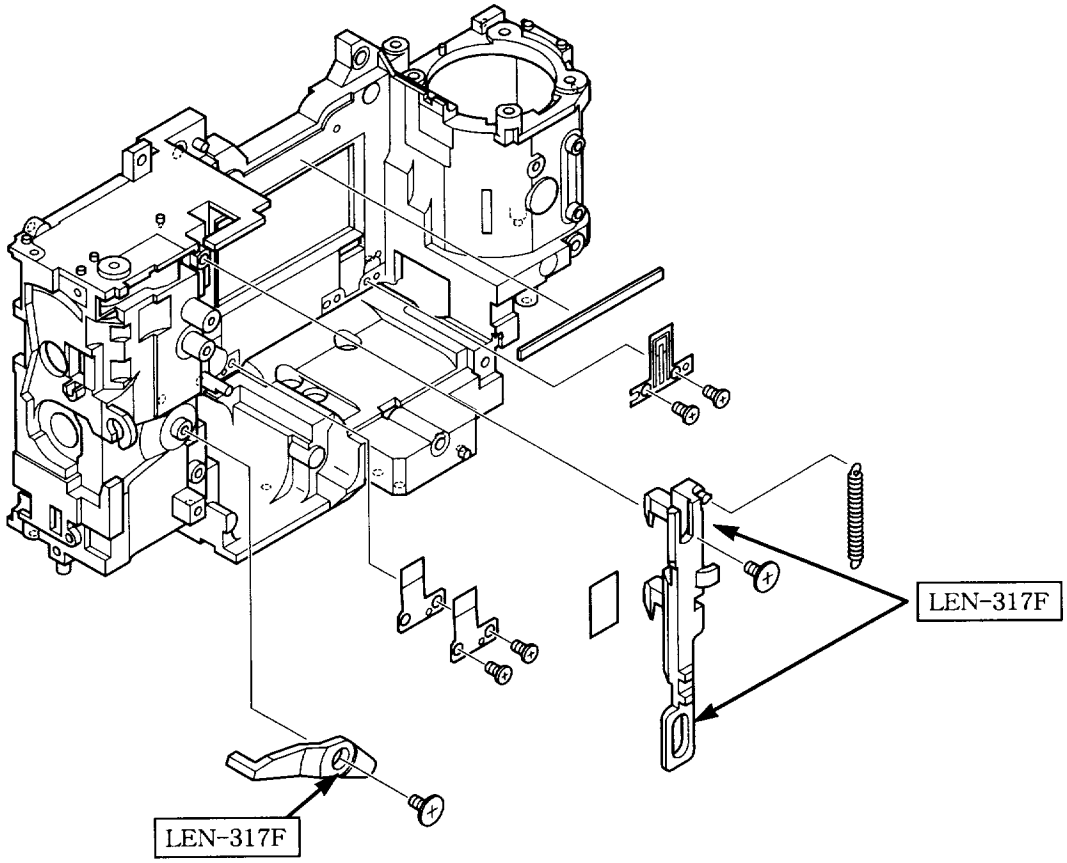
5. Rear cover



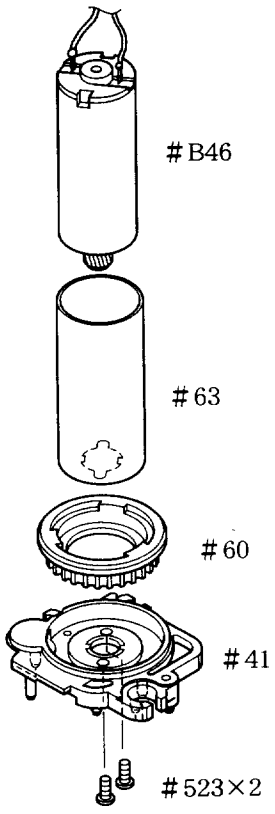
計画課
M

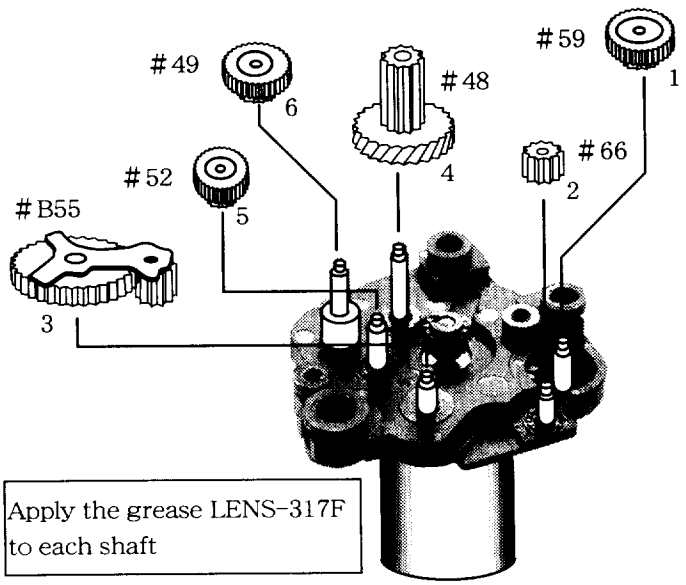
6. Rear body

Other parts



Film advance unit

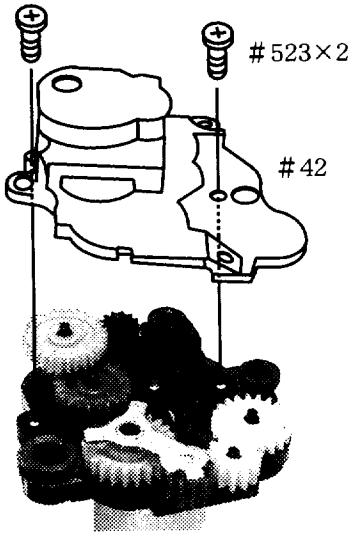


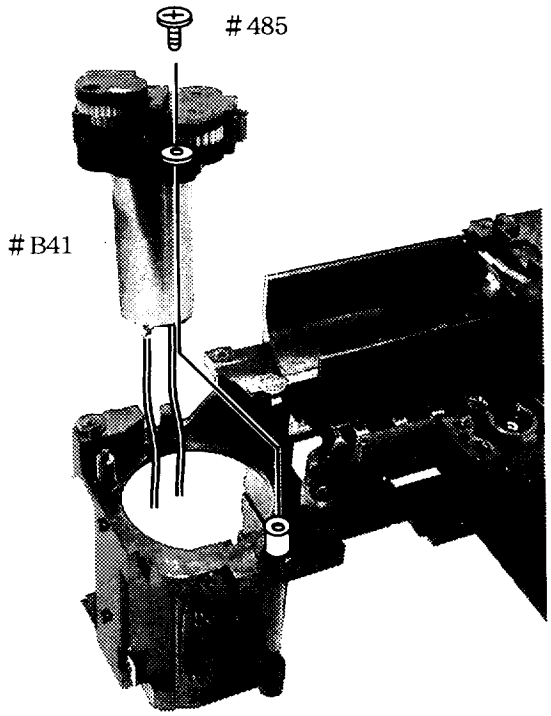


Follow the order from the No. 1 to 6 to assemble the gear on the bottom base plate.

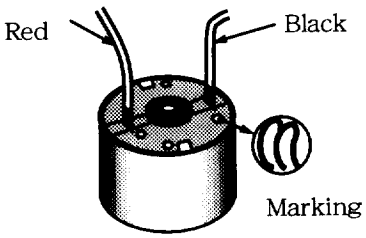
How to recognize each gear by colour

#48 - black, #49 - orange, #52 - blue, #59 - white, #66 - white

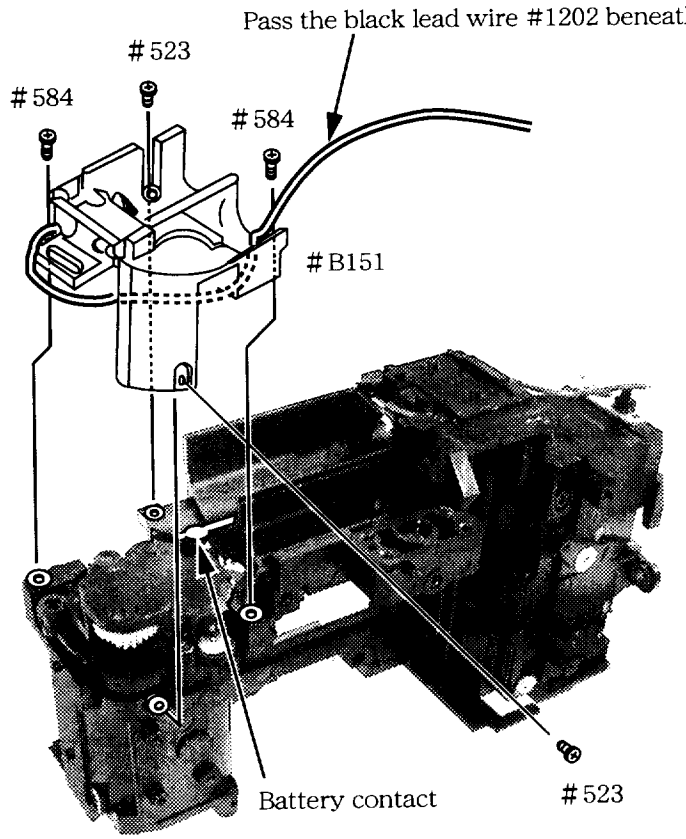




Arrangement of each lead wire on the winding motor

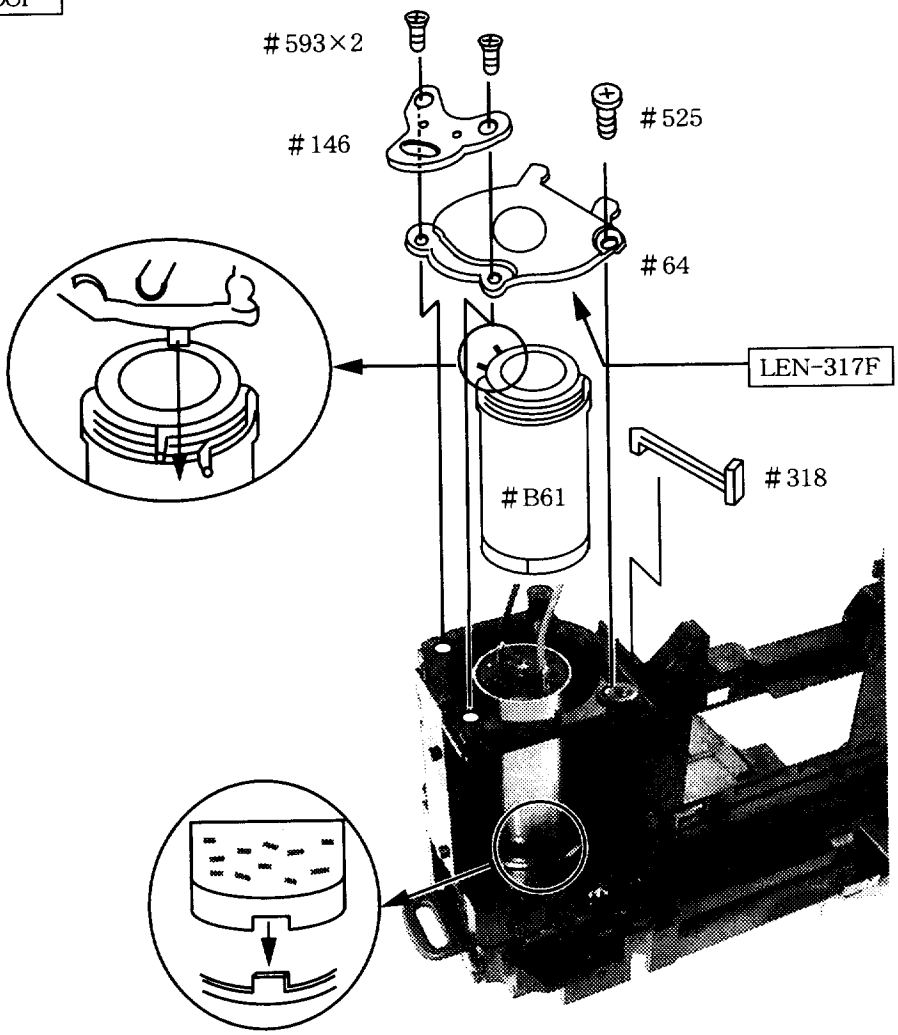


Battery chamber

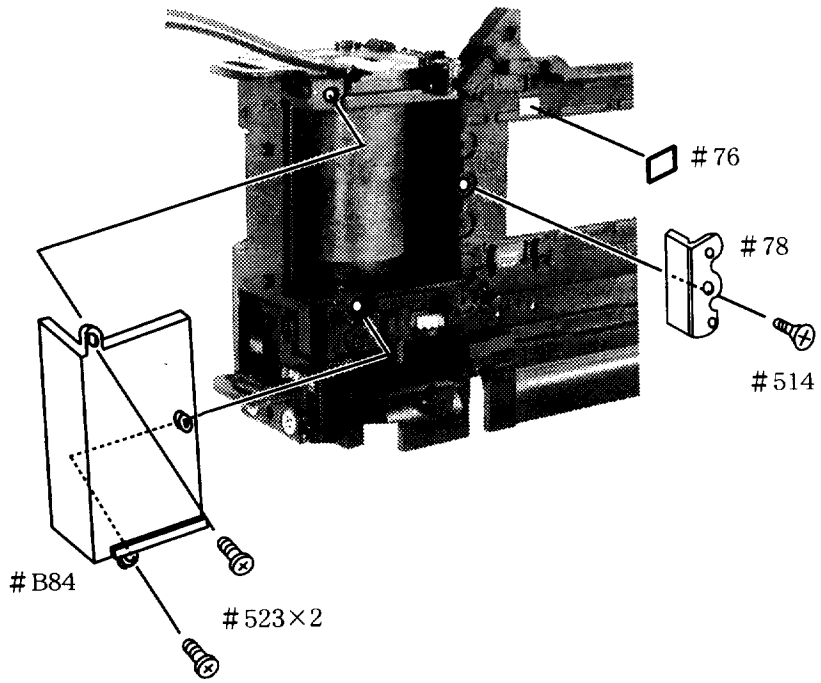


Note : Avoid to band the battery contact and then assemble the battery chamber.

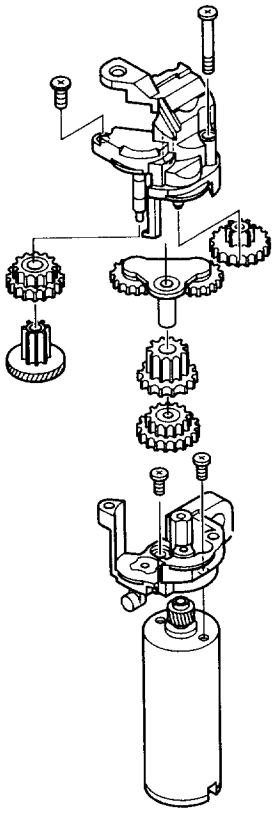
Spool



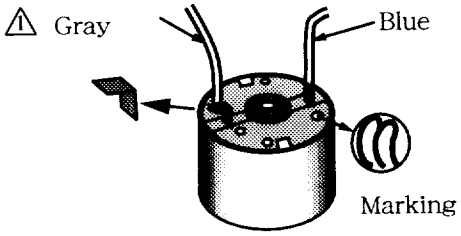
Spool back cover, film guide block, photo reflector seal

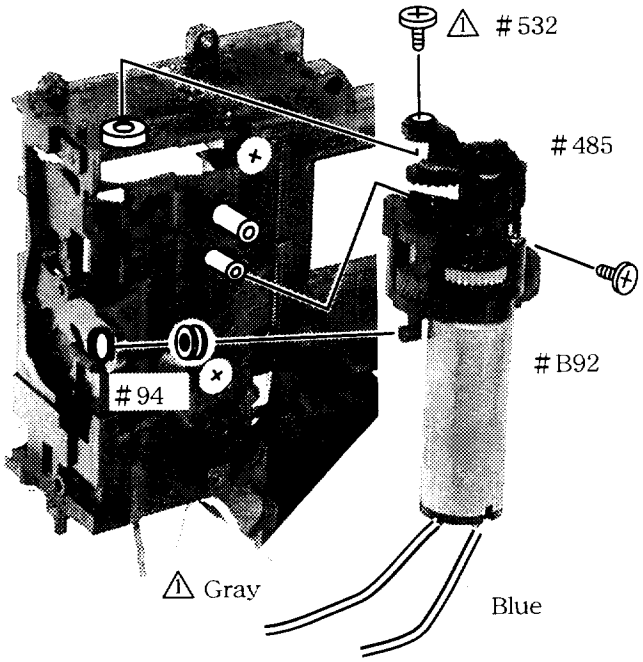


Rewind unit

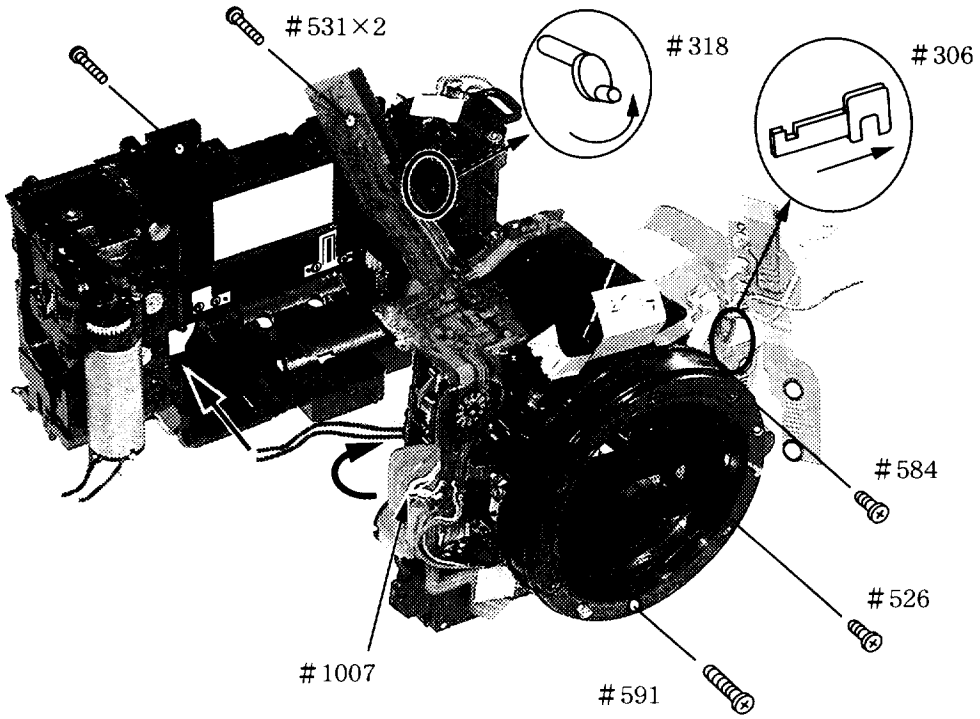


Arrangement of each lead wire on the rewinding motor

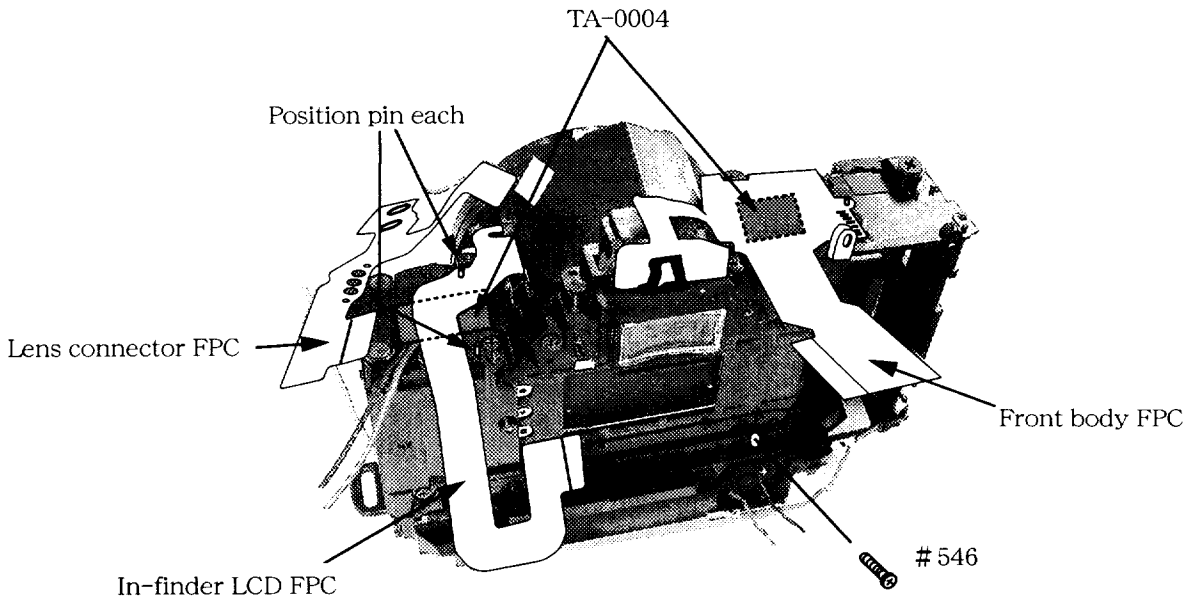




7. Fixing the front body unit to the rear body unit



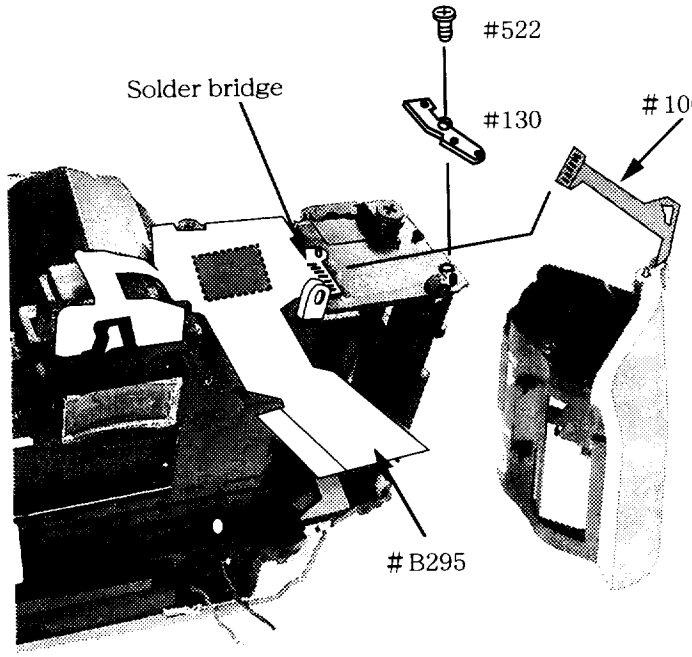
- Bend the CCD FPC #1007 to inside in order to form its habit.
- Using the C slide lever #306, set the finder to 【P】.
- Rotate the CHP switch shaft #318 into the arrow direction.
  Then, fix it on the C slide lever which is arranged in the 【P】.



- Individually fix the in-finder LCD FPC and the lens connector FPC on each positioning pin and then adhere them on the body by the both-sided adhesive tape.
- Attach the front body FPC on the body by the both-sided adhesive tape.

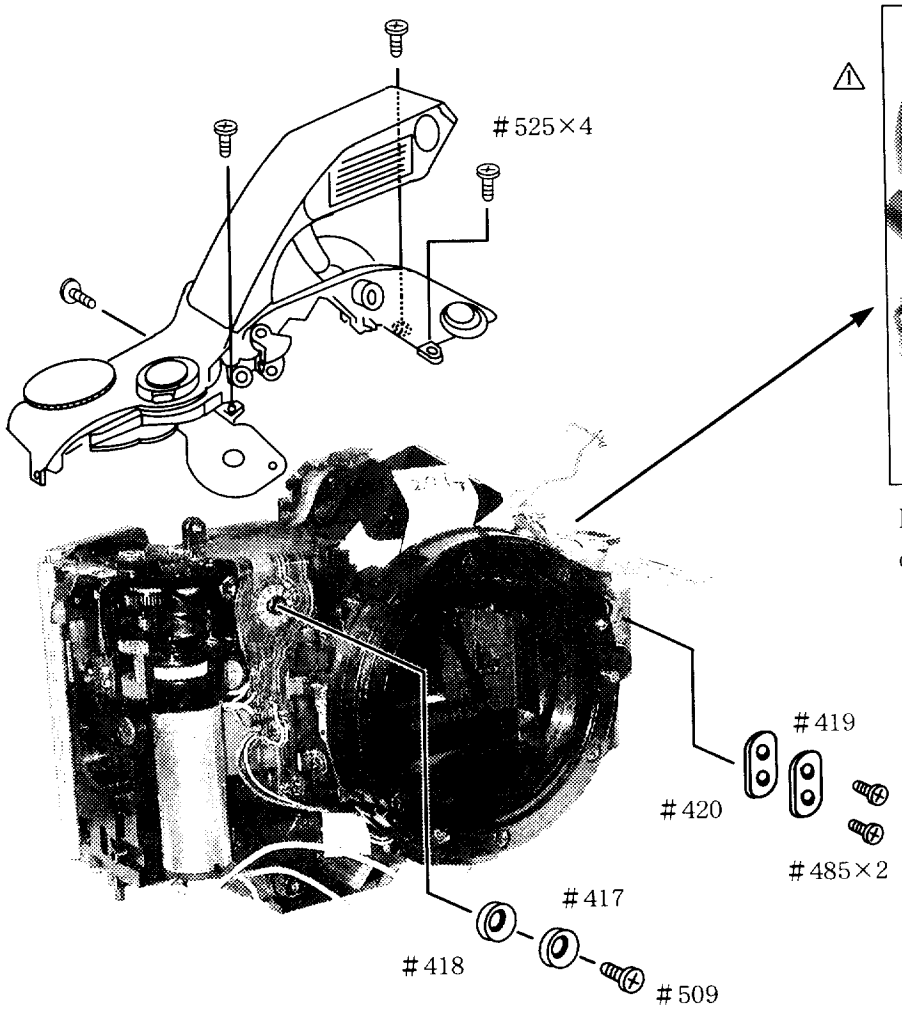
8. Exterior

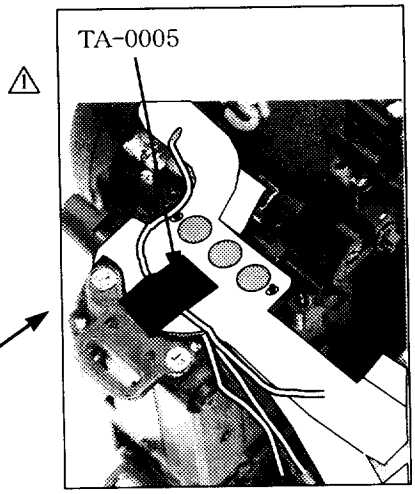
Cartridge cover



- The bar code FPC #1009 is placed beneath the cartridge holder #130.
- Insert the bar code FPC #1009 beneath the front body FPC #B295 to perform a solder bridge.

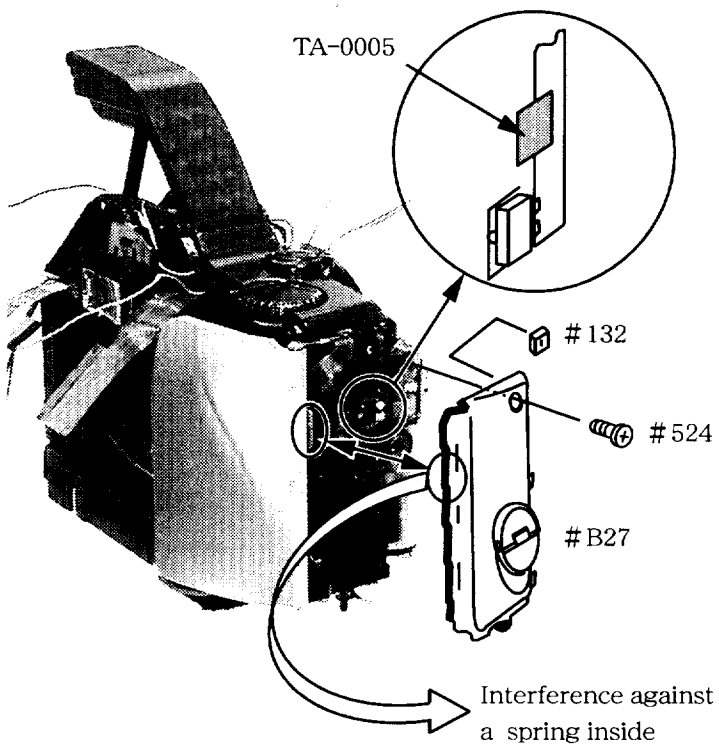
Top cover



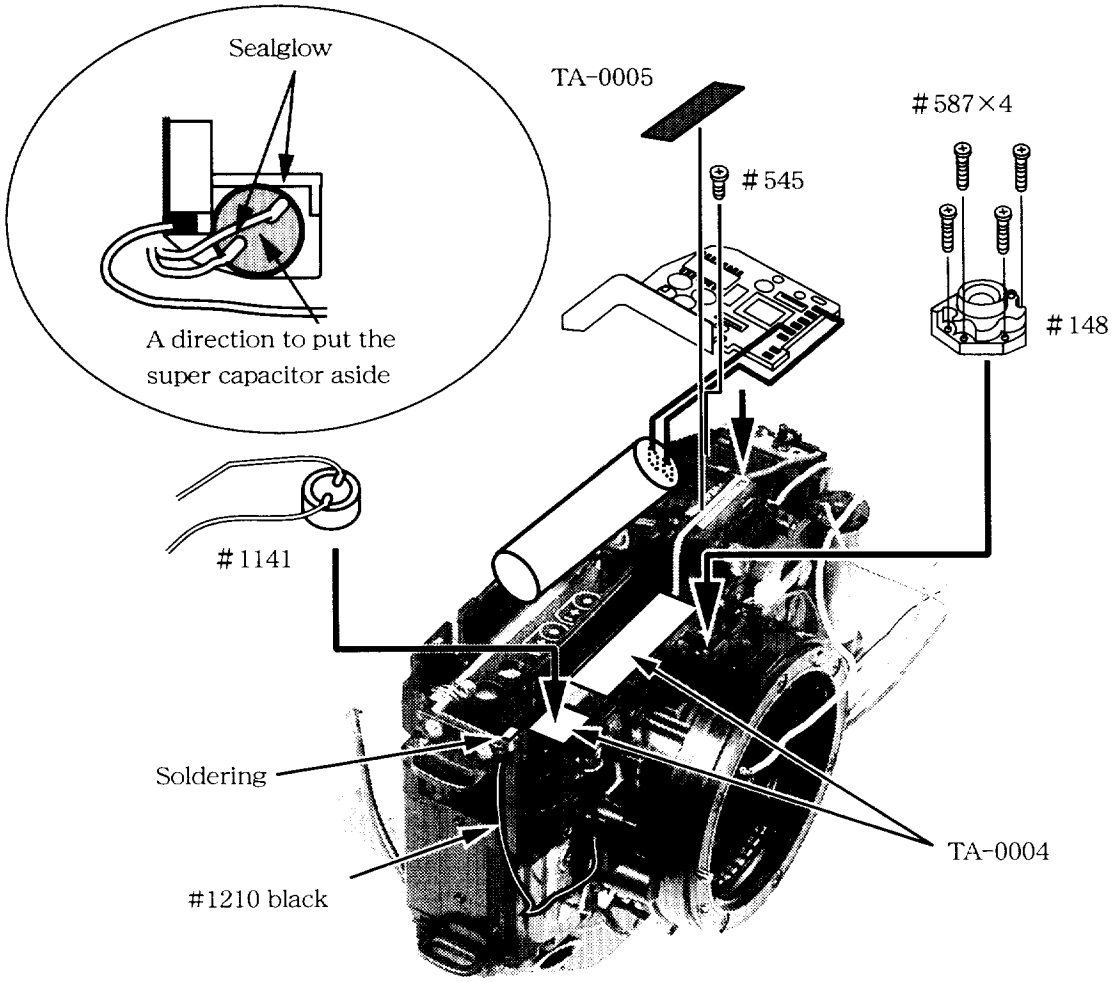


How to properly settle the orange-colour lead wire

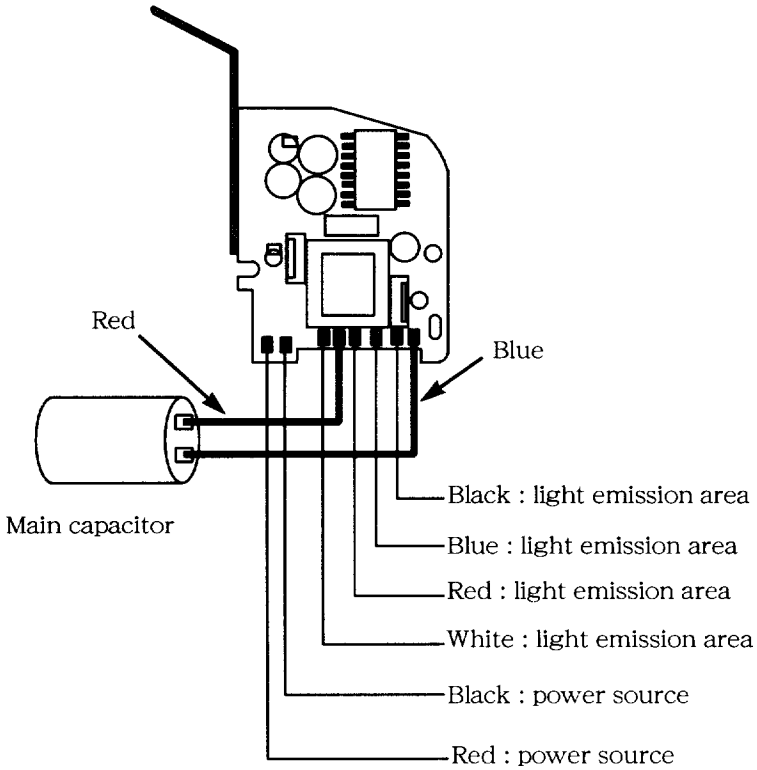
Grip side cover



DC / DC circuit board, tripod socket, super capacitor



Soldering



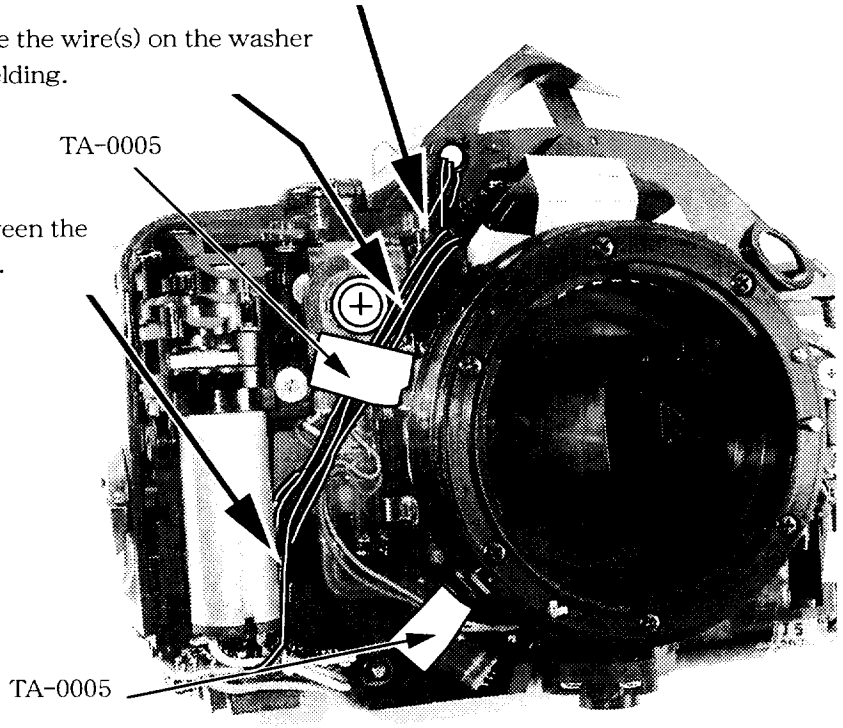
Arrangement of lead wires

Place any extra lead wire(s) between the top cover and the body itself.

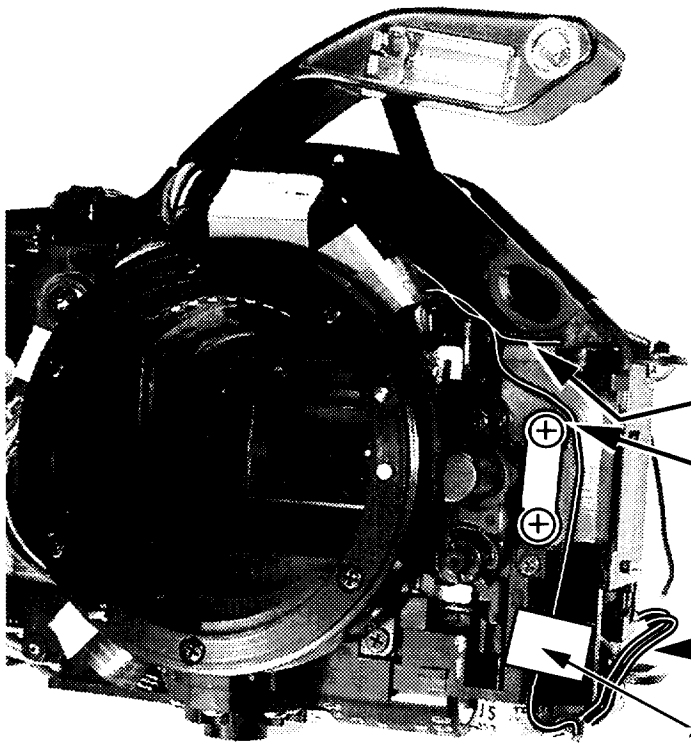
Avoid to arrange the wire(s) on the washer for pressure welding.

TA-0005

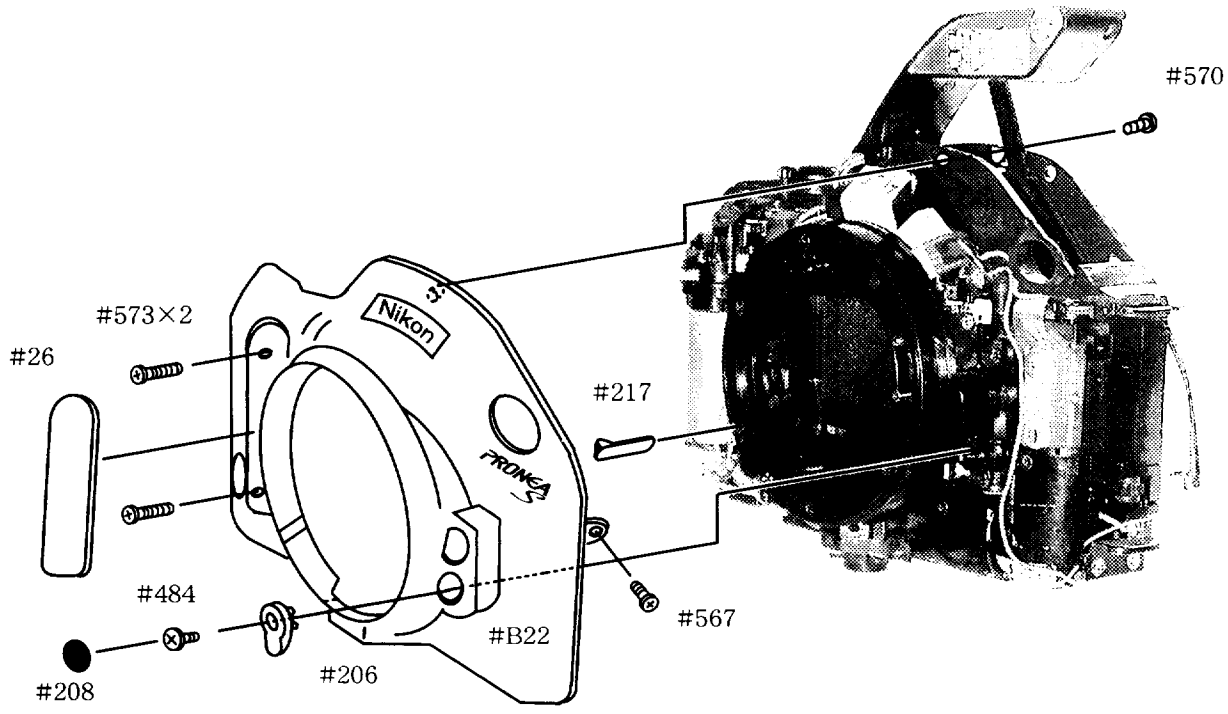
Arrange the wire(s) between the motor and the base plate.



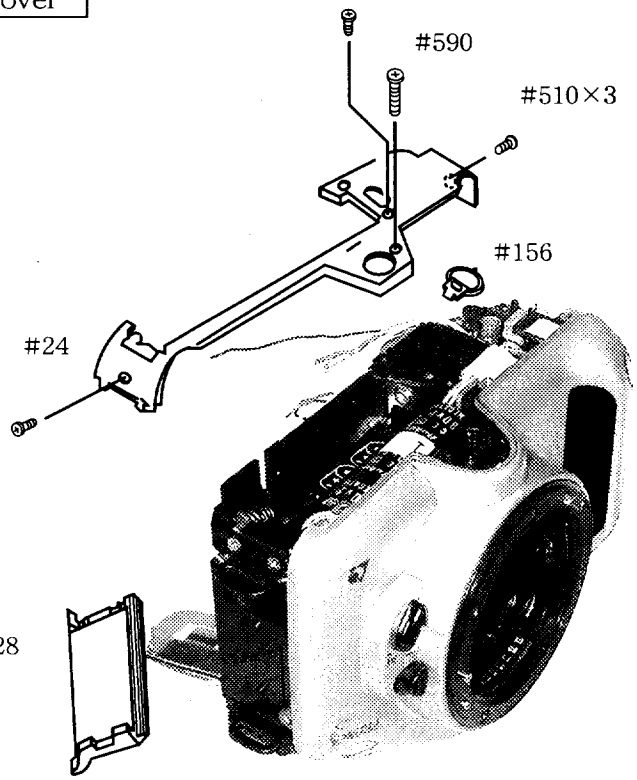
TA-0005



Front cover unit



Bottom cover, side cover



ADJUSTMENT OF BODY BACK (INNER RAIL HEIGHT)

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

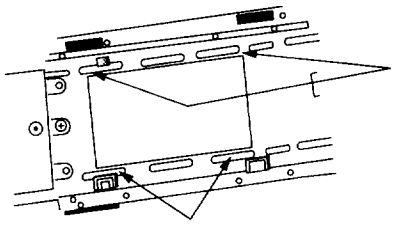
Standard : Above the internal rail $46.44^{-0.03}_{-0.14}$

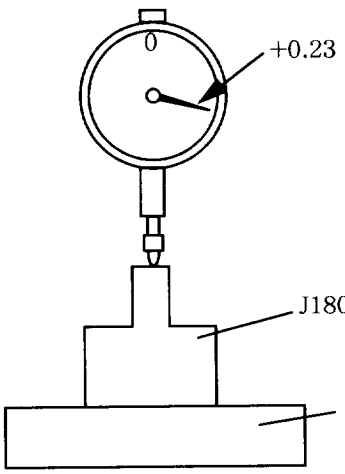
Beneath the internal rail $46.44^{-0.03}_{-0.19}$

- How to adjust for any out-of-criteria cases.

For any shorter cases than the specified sizes : Insert the washer between the front and the rear bodies and then adjust it.

For any longer cases than the specified sizes : Tighten up the joint screws fixing the front and the rear bodies.





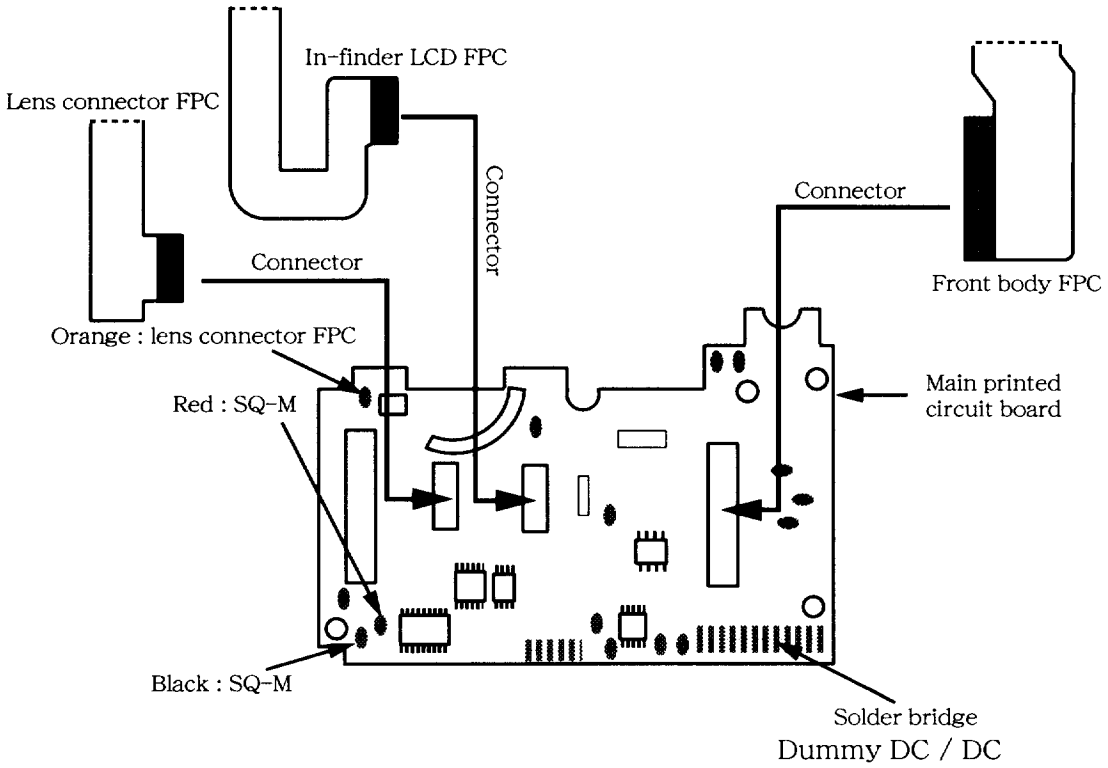
[How to set the body back dial gauge]

① Put the gauge (J18001-1) on the body back stand (Jl9004).

② Position the dial indicator so that the pointer may be at "+ 0.23". (1 scale is 0.0lmm.)

How to tentatively fix the main PCB

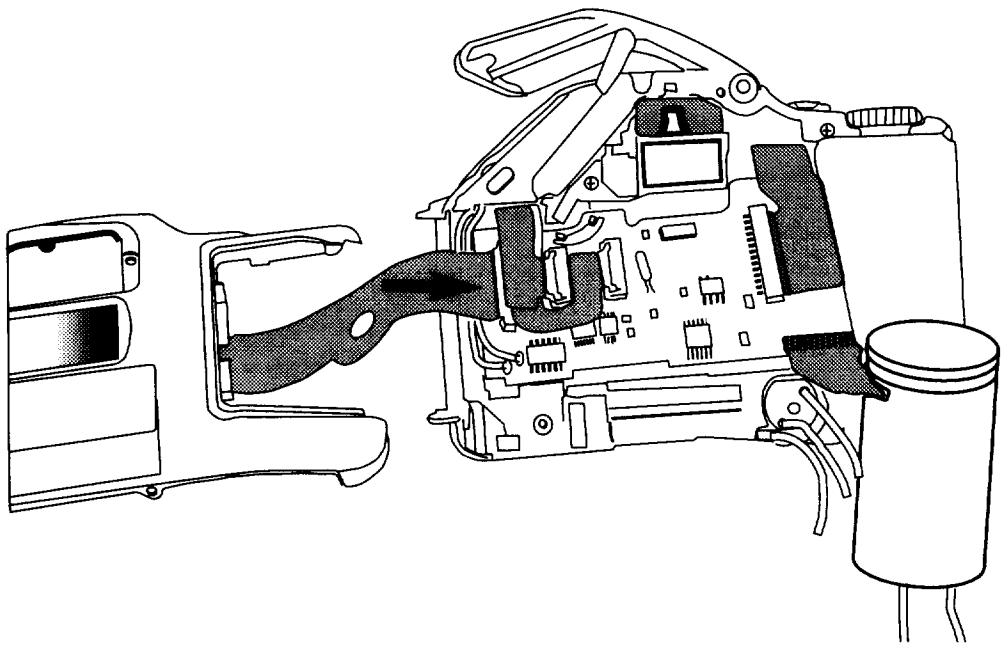
Solder each lead wire and the dummy DC / DC on the main PCB.



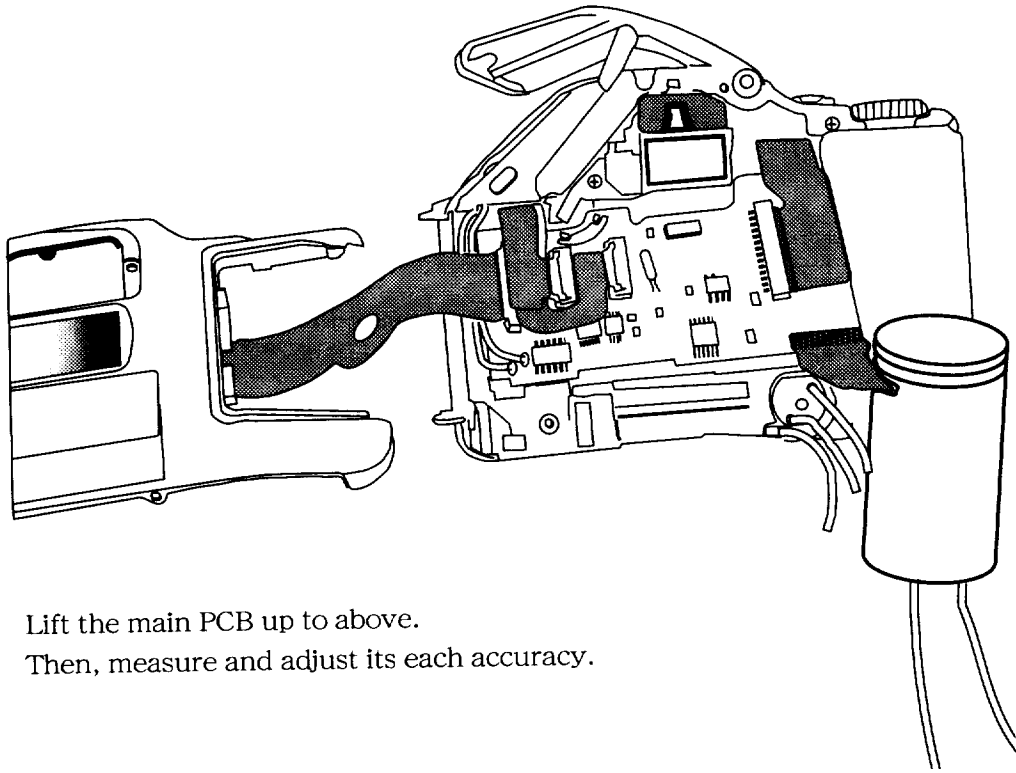
For how to manufacture the dummy DC/DC, refer to the page T1 in the repair manual.

Note : In order to protect against any electric shock during adjustment process, be sure to manufacture and use the tool above mentioned.

How to tentatively fix the rear cover



Adjustment for each function through PC operation



Lift the main PCB up to above.
Then, measure and adjust its each accuracy.

To DC regulated power supply

Adjust it in accordance with the instructions from the adjustment software.

① AE adjustment

② Aperture adjustment

③ M1 / 2000 adjustment

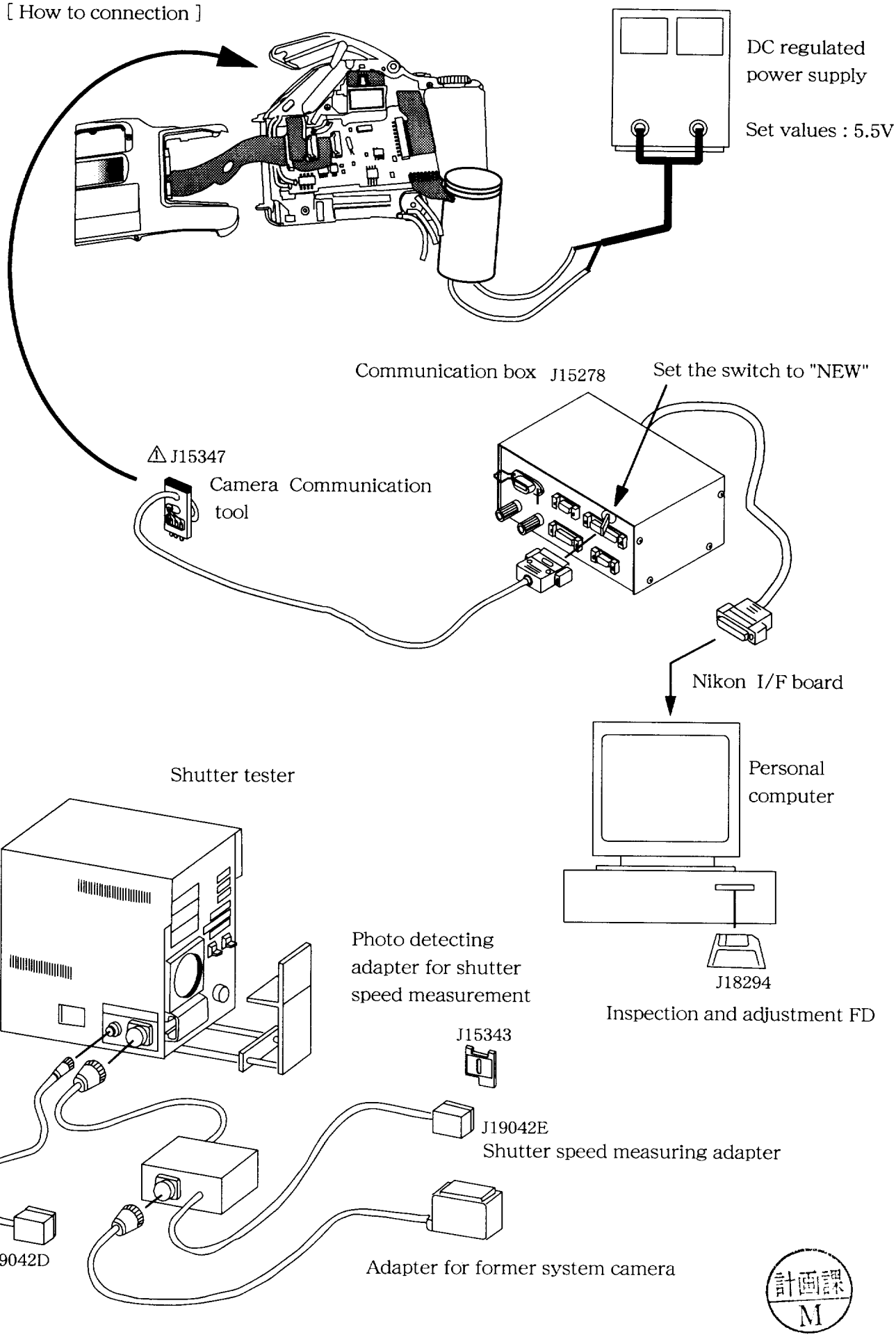
④ TTL adjustment

⑤ Battery check adjustment

Precautions for TTL measurement and adjustment

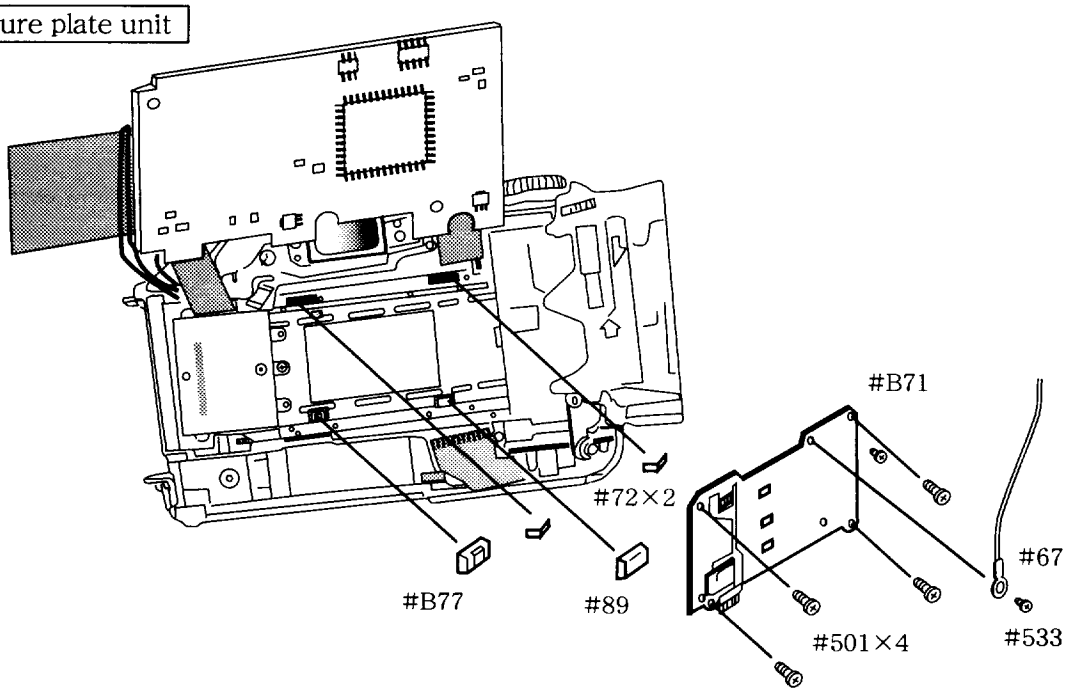
① For inspection and adjustment of the TTL accuracy, do not employ the time counter.
② Due to no presence of the hot shoe on camera, use the adjustment software.
③ After measurement, each measured numerical value is indicated on PC display.
④ Be sure to employ the shutter curtain for F90 and N90 series as the standard reflection paper.

[How to connection]



計画課 M

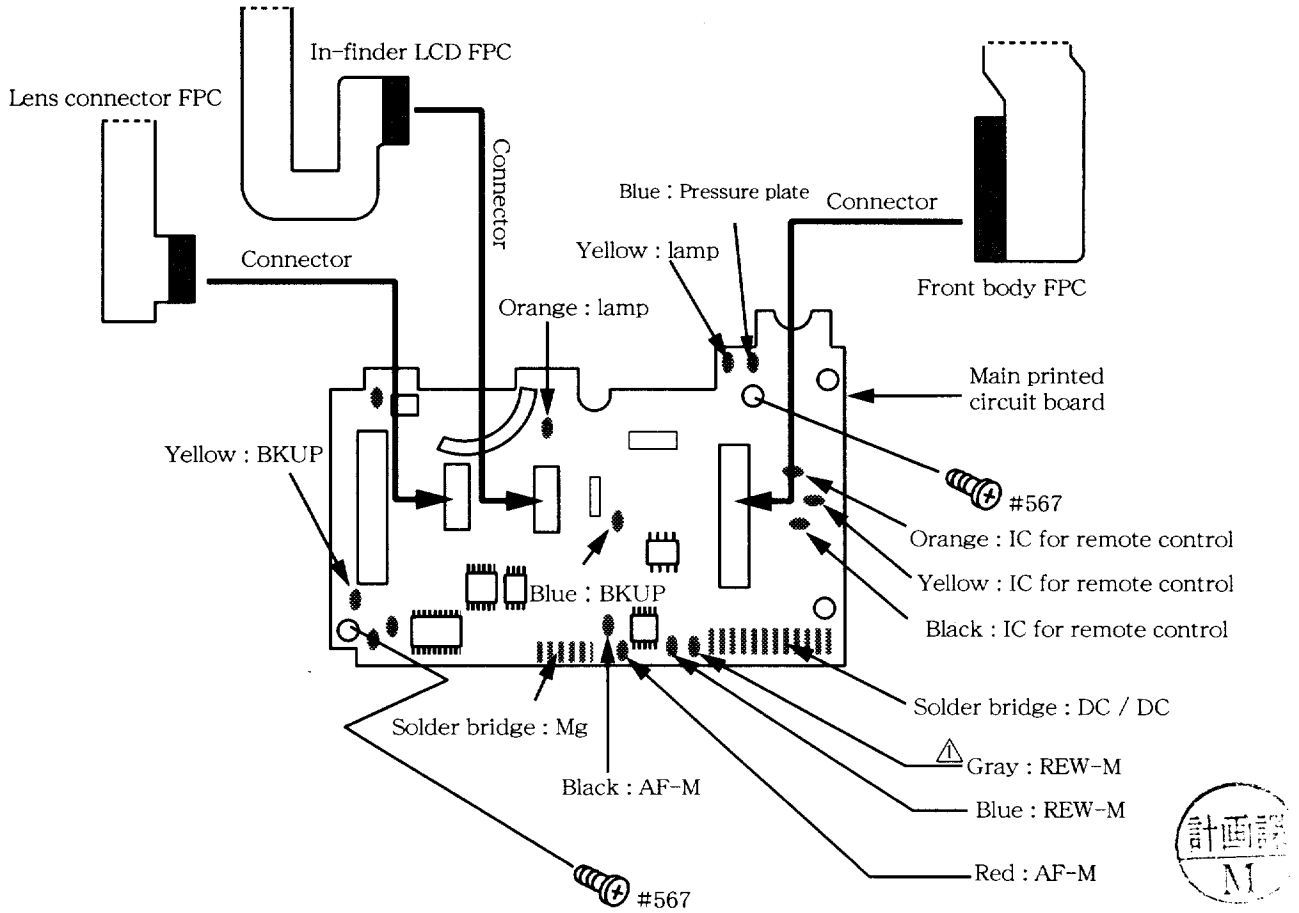
Pressure plate unit



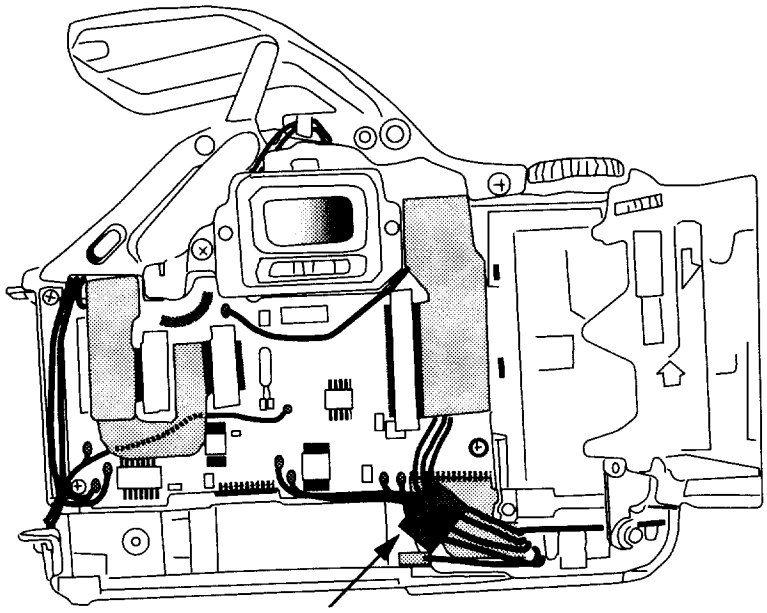
- Remove the soldered area of dummy DC / DC and then fix the pressure plate unit.
- Lift both the main PCB and the back cover up to above in order to fix the pressure plate unit #B71 then.

Note : After tightening up 4 pieces of the screw #501, rotate it back in 1 round.

How to regularly fix the main PCB



Arrangement of lead wire(s) on the main printed circuit board



ADJUSTMENT OF M.B.F

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

  Standard : 46.64 ± 0.03mm

[Use tools]

①Body back stand (J19004)

②M.B.F measurement tool (J15329)

[HOW to adjustment]

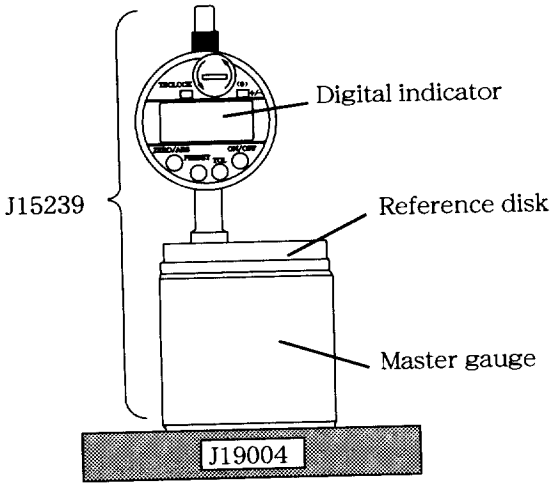
① As illustrated left, set a master gauge, reference disk and digital indicator on the body back stand (J19004).

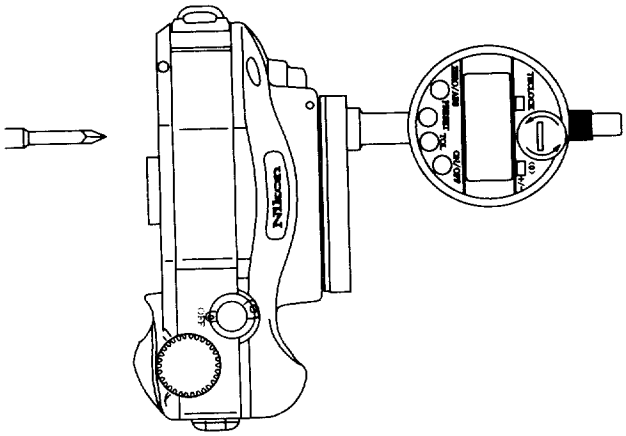
② Turn on the power of the digital indicator and reset the display to zero by pressing the ZERO button.

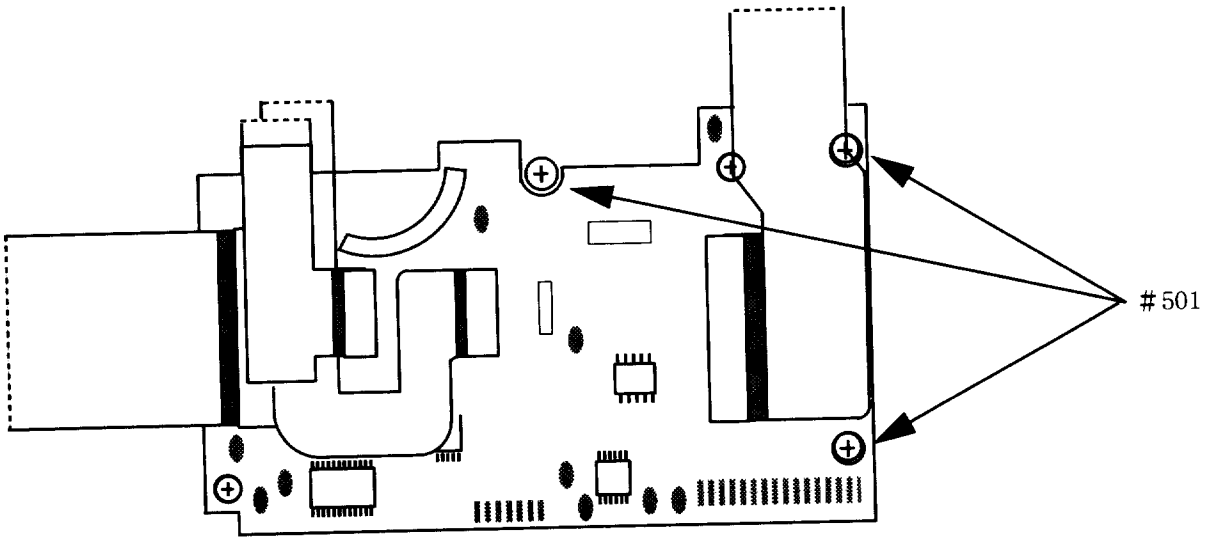
③ Remove the digital indicator and reference disk. Mount the reference disk on the camera which is to be adjusted.

④ While the camera is at "B (bulb)" status, insert the digital indicator into the reference disk and read the values of 4 places.

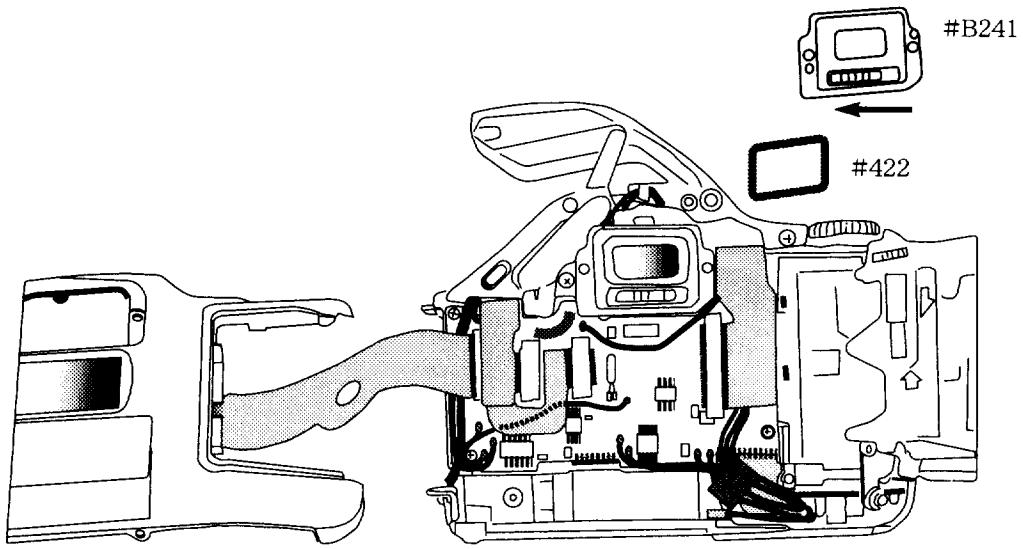
⑤Adjust by using the 3 screws #501 so that the values may be within the standard.


Digital indicator
J15239
Reference disk
Master gauge
J19004




#501

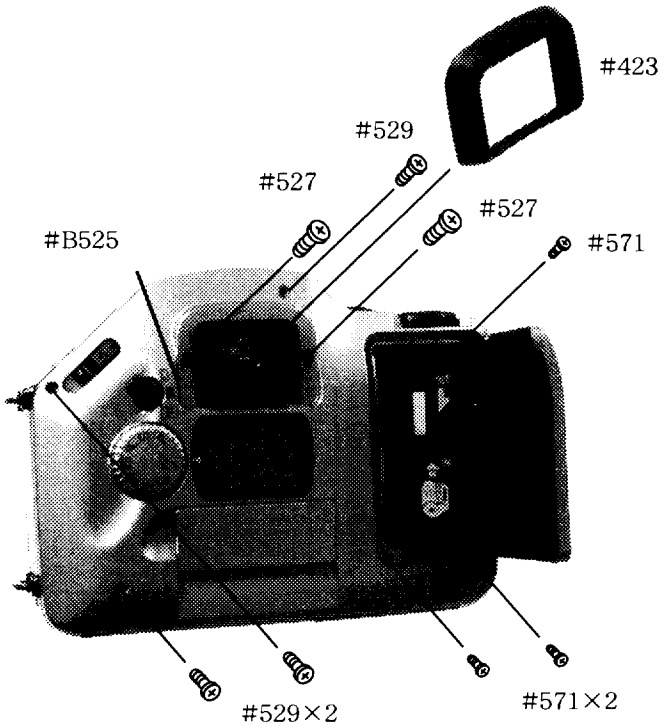
Rear cover, eyepiece frame



- Set the diopter lever on the eyepiece frame #B241 by sliding it in the arrow direction.
- Set the finder to【P】.
- et the back cover to 【P】as well.
- Set the speed light on the top cover into the pop-up mode.

  Then, fix the rear cover on to the camera body.

Note : Operate the diopter lever on the eyepiece frame #B241 and check whether the diopter through the eyepiece lens changes or not.



INSPECTION AND ADJUSTMENT OF AF

〔Items of inspection and adjustment〕

① Adjusting AF accuracy (All AF item)

② YAW, PITCH

③ CCD out put

④ LARX

〔Uso tools〕

1. For all items

   The same tool as AE adjustment.

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) Use horizontal chart only.

   ⑤ Lighting box (J15264)

3. For YAW/PITCH adjustment

   ① The above tools for AF adjustment

   ② YAW tool (J18184) + PK-13

   ③ YAW、PITCH tool (J18230)

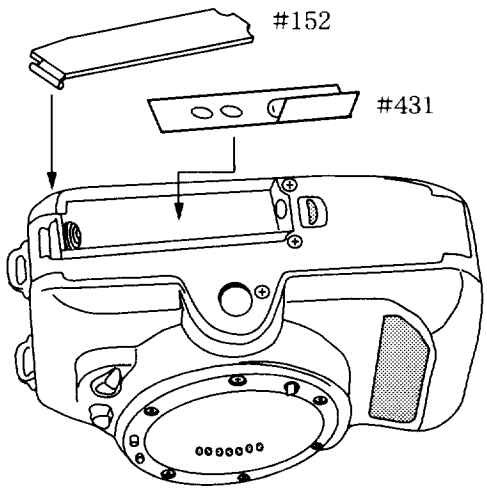
4. For CCD out put adjustment

   AF50/1.4S lens

5. For LARK adjustment

   The above tools for AF adjustment

Battery chamber cover, seal



How to save the loaded film for the film rewind malfunction cases

1 . How to set up the super rewind function

1. For the address 518 in EEPROM data, adding up 32 to the original numerical value and then rewrite the numerical data.

   e.x. : the original numerical data − 80

   the numerical value after rewriting − 112, drawn from the formula of '80 + 32'

2. Turn the camera's main switch on and then check whether the 'Err' is displayed on the external LCD or not.

   - In the displayed 'Err' case, go to the process 4 below.
   - If no indication of 'Err' , go to the process 3 below.

3. Stop the main mirror by finger(s) and then release the shutter under the exposure 'S' mode.

   Then, check whether the 'Err' is displayed on the external LCD or not.

4. Set the exposure mode to 'AUTO' .

5. While pressing the exposure compensation button, press the shutter release button.

   Then, the rewind function starts to work.

6. The rewind motor keeps rotating itself while pressing the shutter release button.

7. Check whether or not the loaded film is completely rewinded in carefully hearing the regular operation noise due to no operation on the film counter.

8. Open the cartridge cover and then take the film out.

9. For the address 518 in EEPROM data, rewrite the numerical data to the original value.

*After the loaded film is completely rewinded, the light shield cover of cartridge is automatically closed when opening the cartridge cover. Accordingly, there is no light leakage.

In the impossible case to operate the super rewind function

Note : Be sure to perform the applicable procedures below in a darkroom.

1. Remove the battery from the camera.
2. Rotate the cartridge cover open / close key and then set the cartridge cover free from its locked condition.
3. Open the cartridge cover by finger(s).

   Then, because the cartridge cover is opened by force, the loaded film does not avoid to be bit scratched.

4. Using (a) finger(s), pull out only the exposed film which is winded on the spool.
5. Using the self-made film-wind tool(s), wind the above- mentioned pulled film on the film cartridge.
6. Take the film from the camera.
7. In case the film cartridge light shield cover is open, close the light shield cover by with the film-wind tool(s).

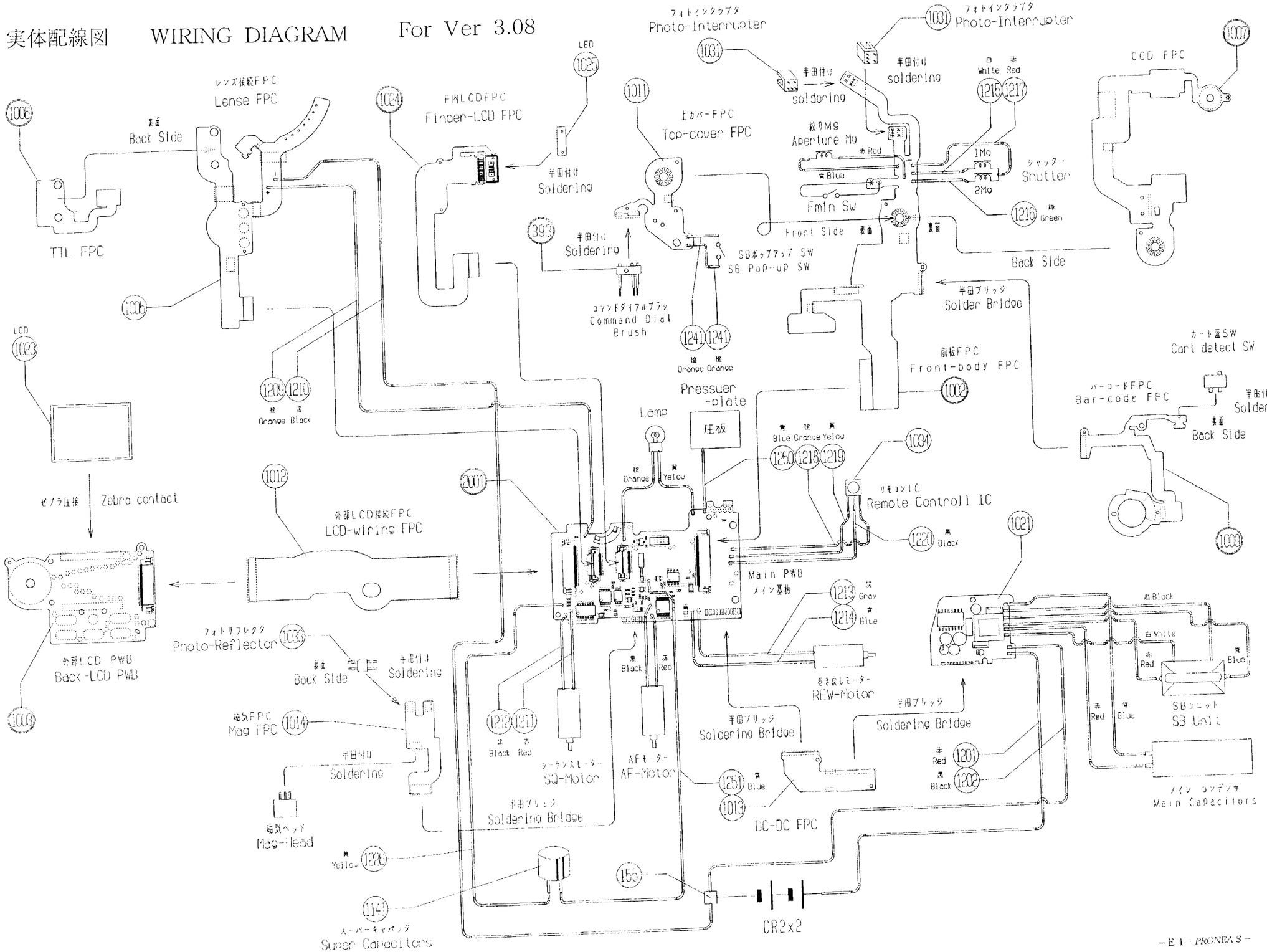
計画課 M

Electric circuit

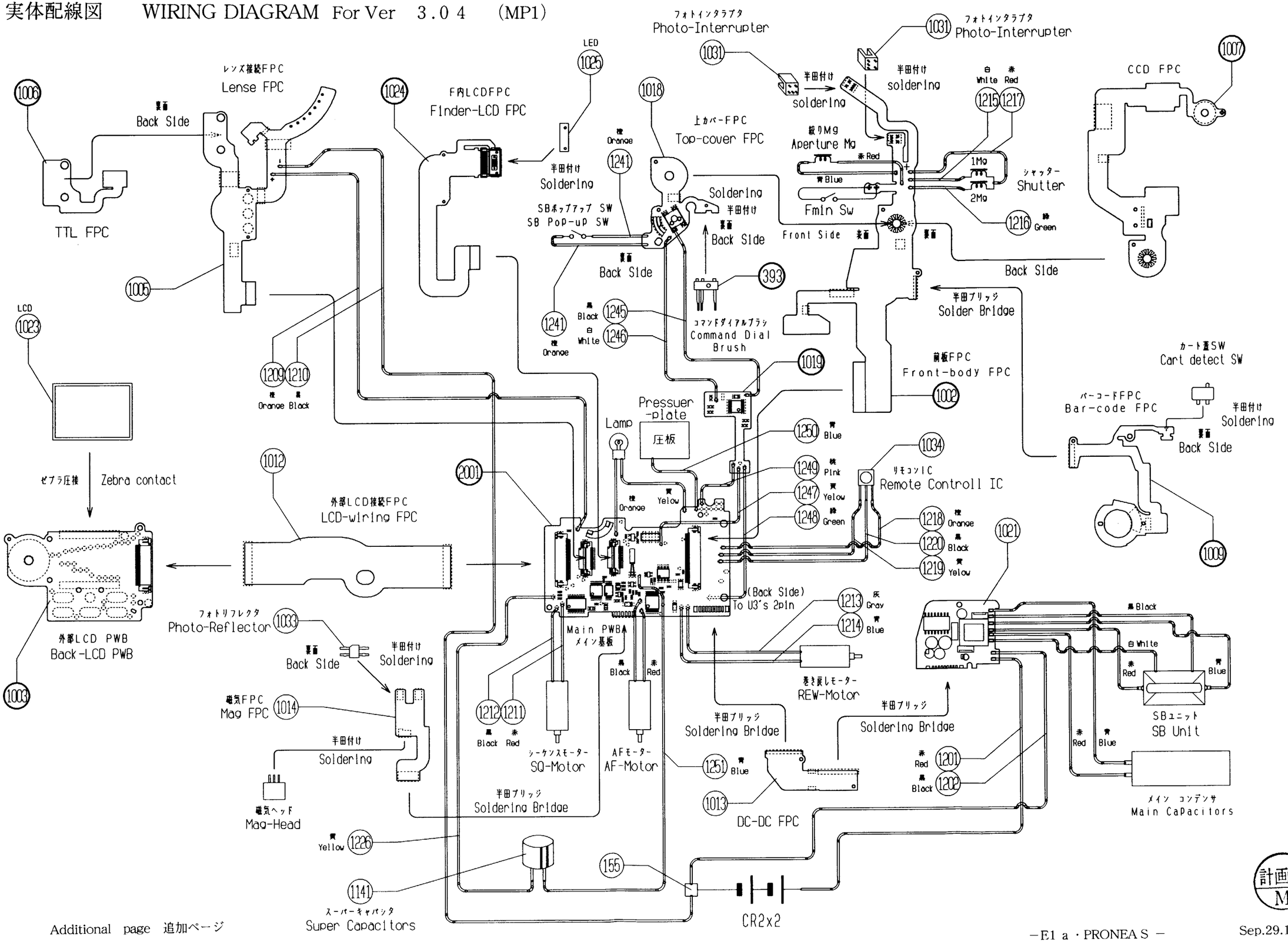
⚠ ×6 Change page

Sep.29.1998

実体配線図　WIRING DIAGRAM　For Ver 3.08

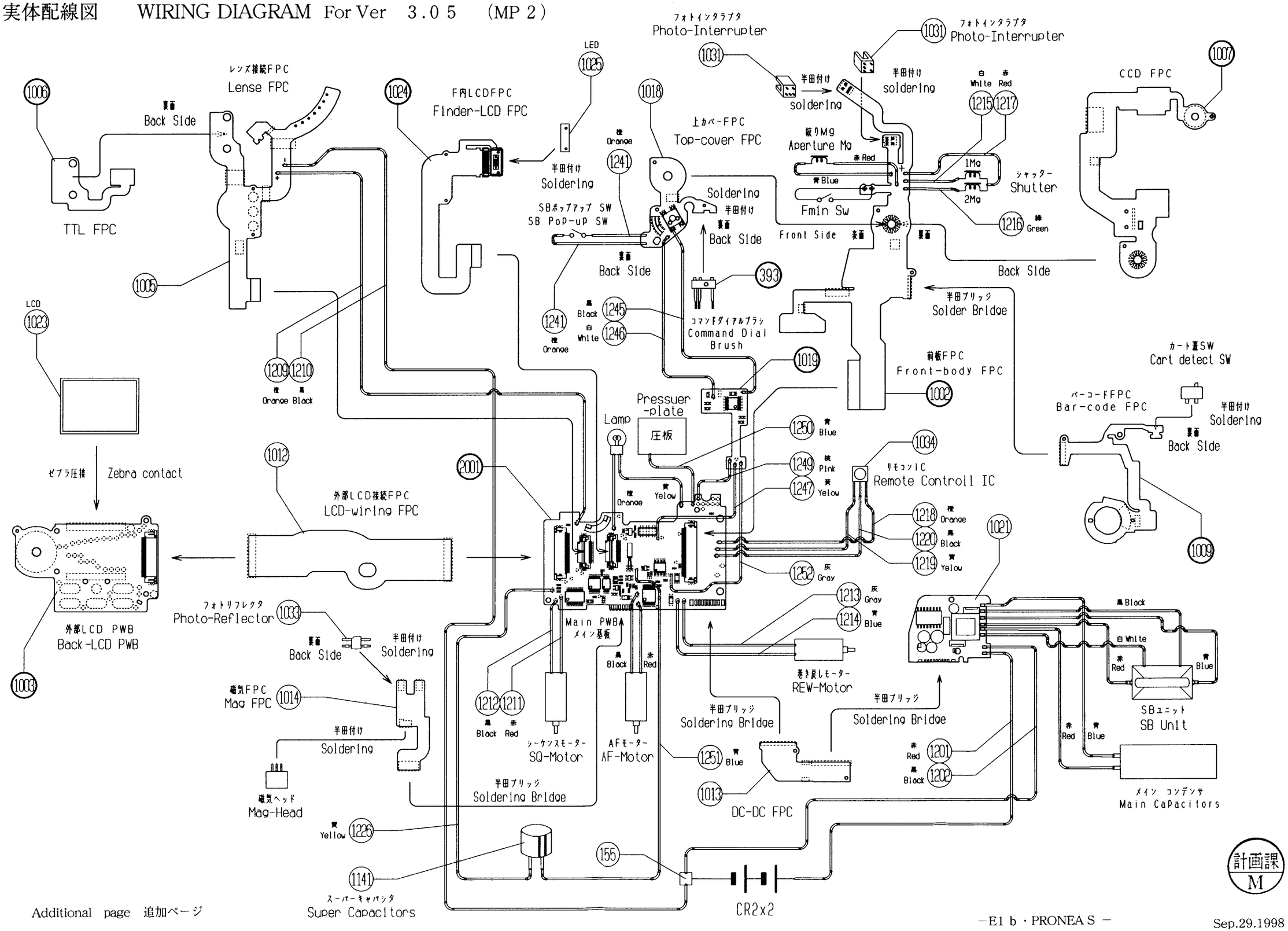


実体配線図　WIRING DIAGRAM For Ver 3.04 (MP1)



計画課 M

実体配線図　WIRING DIAGRAM For Ver 3.05 (MP 2)

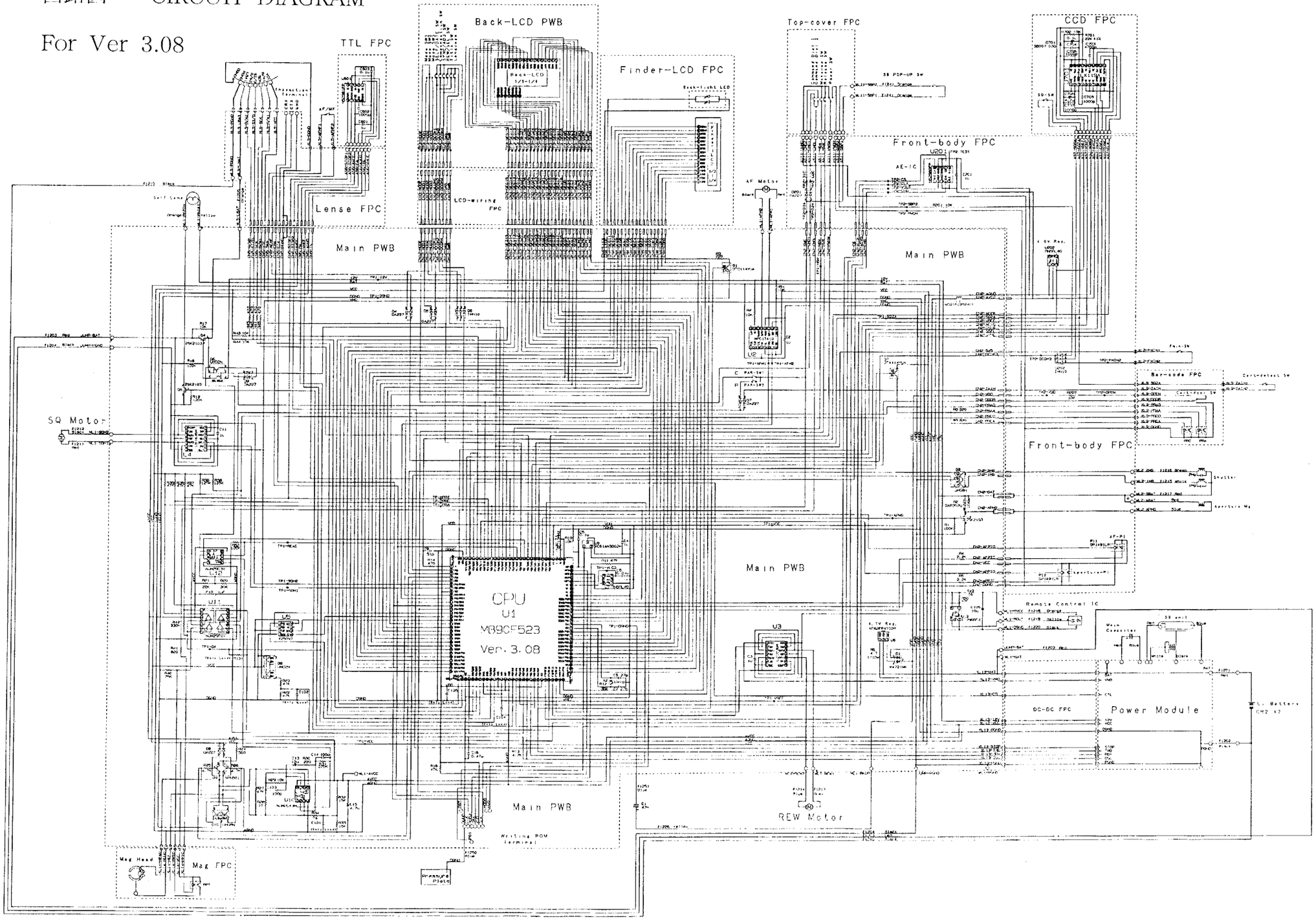


Additional page 追加ページ

Sep.29.1998

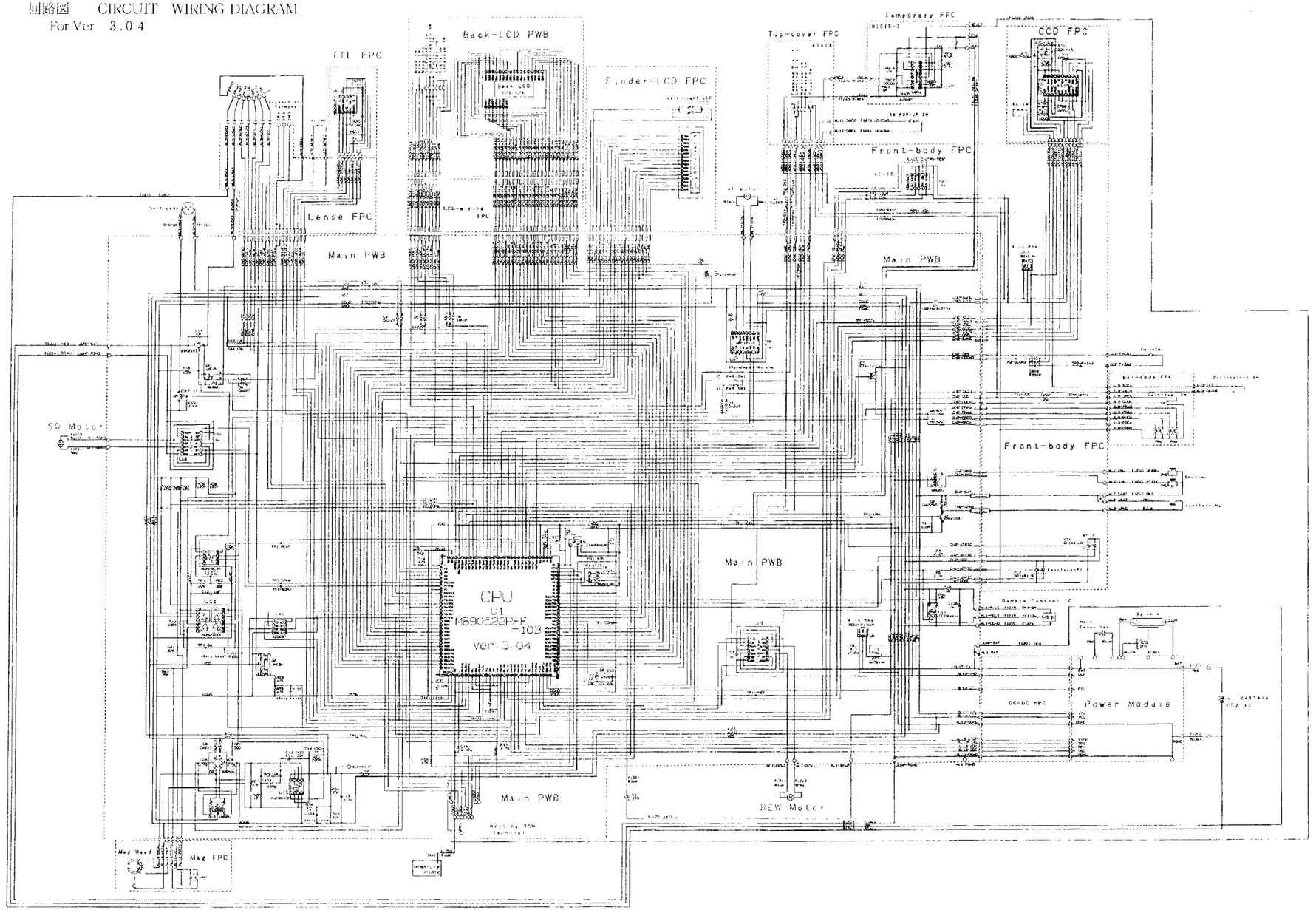
回路図　CIRCUIT DIAGRAM

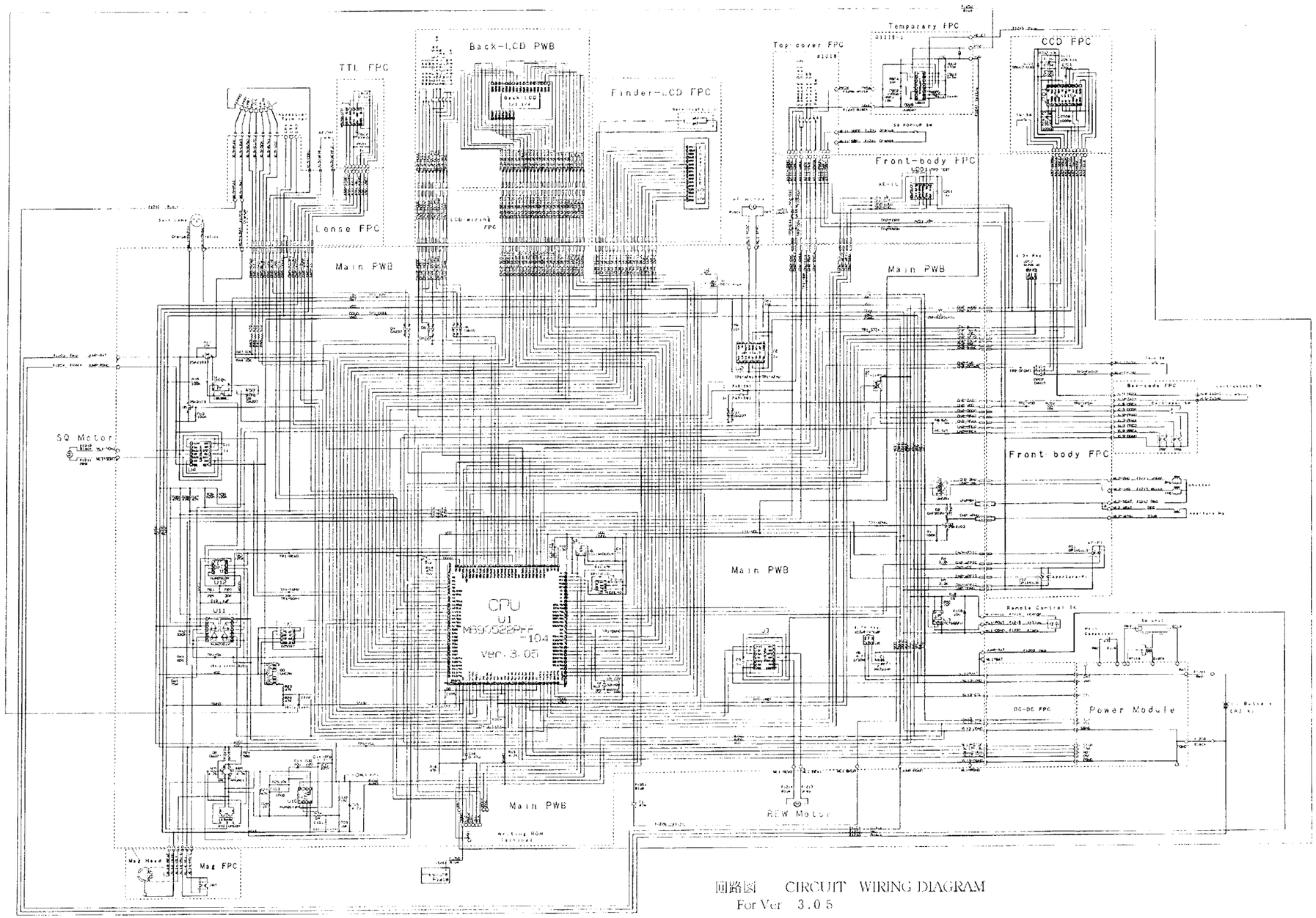
For Ver 3.08



回路図　CIRCUIT WIRING DIAGRAM

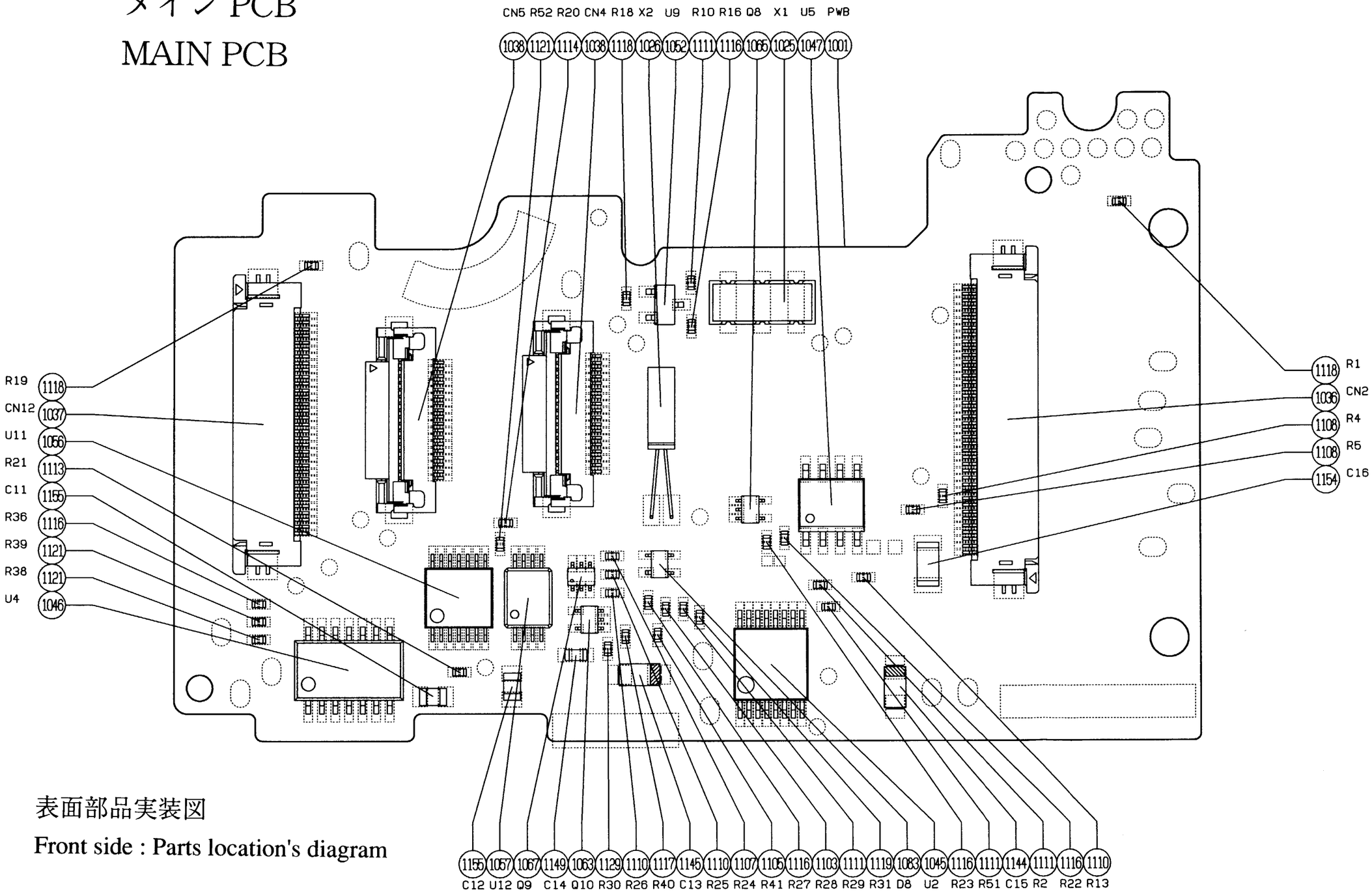
For Ver 3.04





回路図　CIRCUIT WIRING DIAGRAM
For Ver 3.05

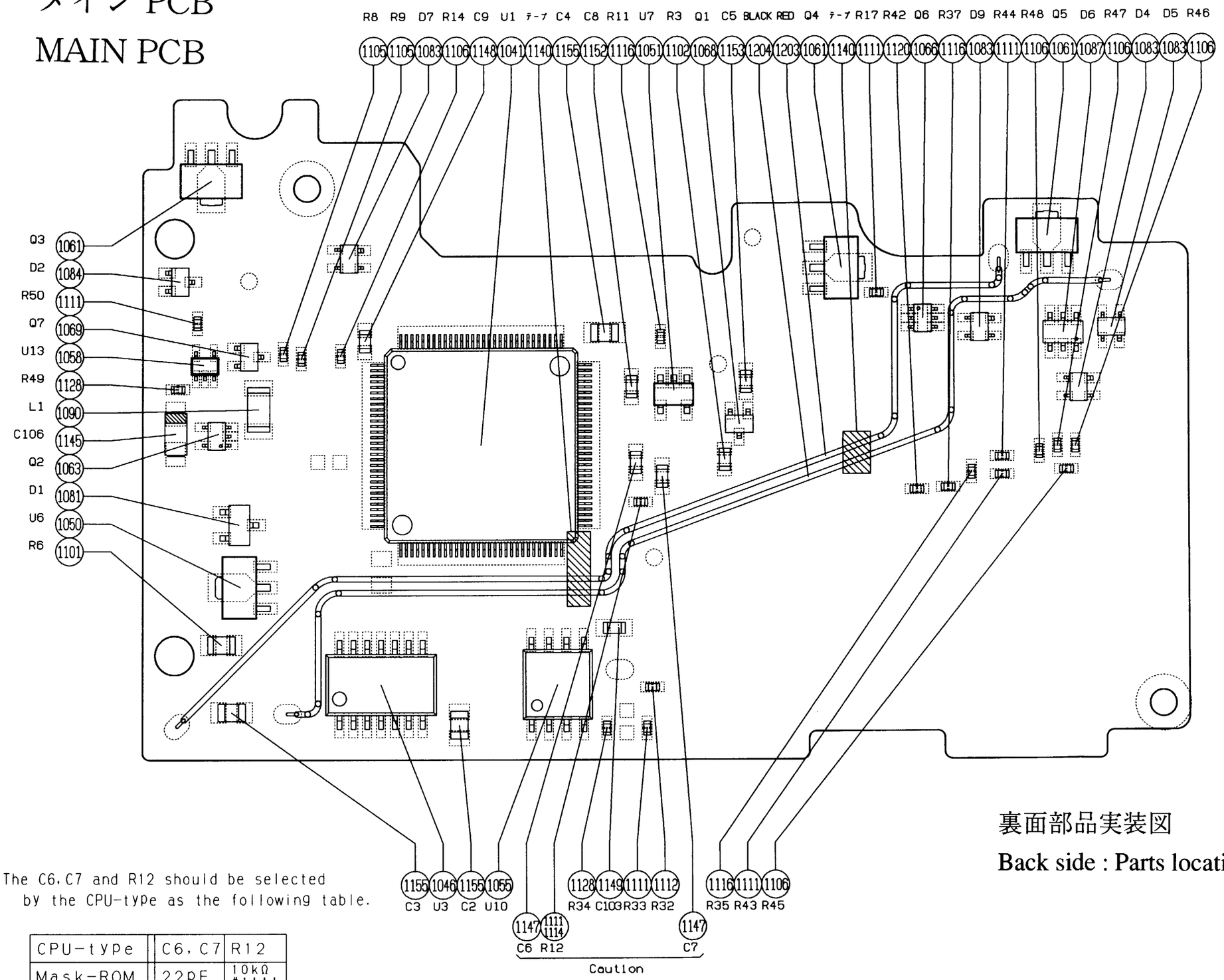
メイン PCB
MAIN PCB



表面部品実装図

Front side : Parts location's diagram

メイン PCB
MAIN PCB



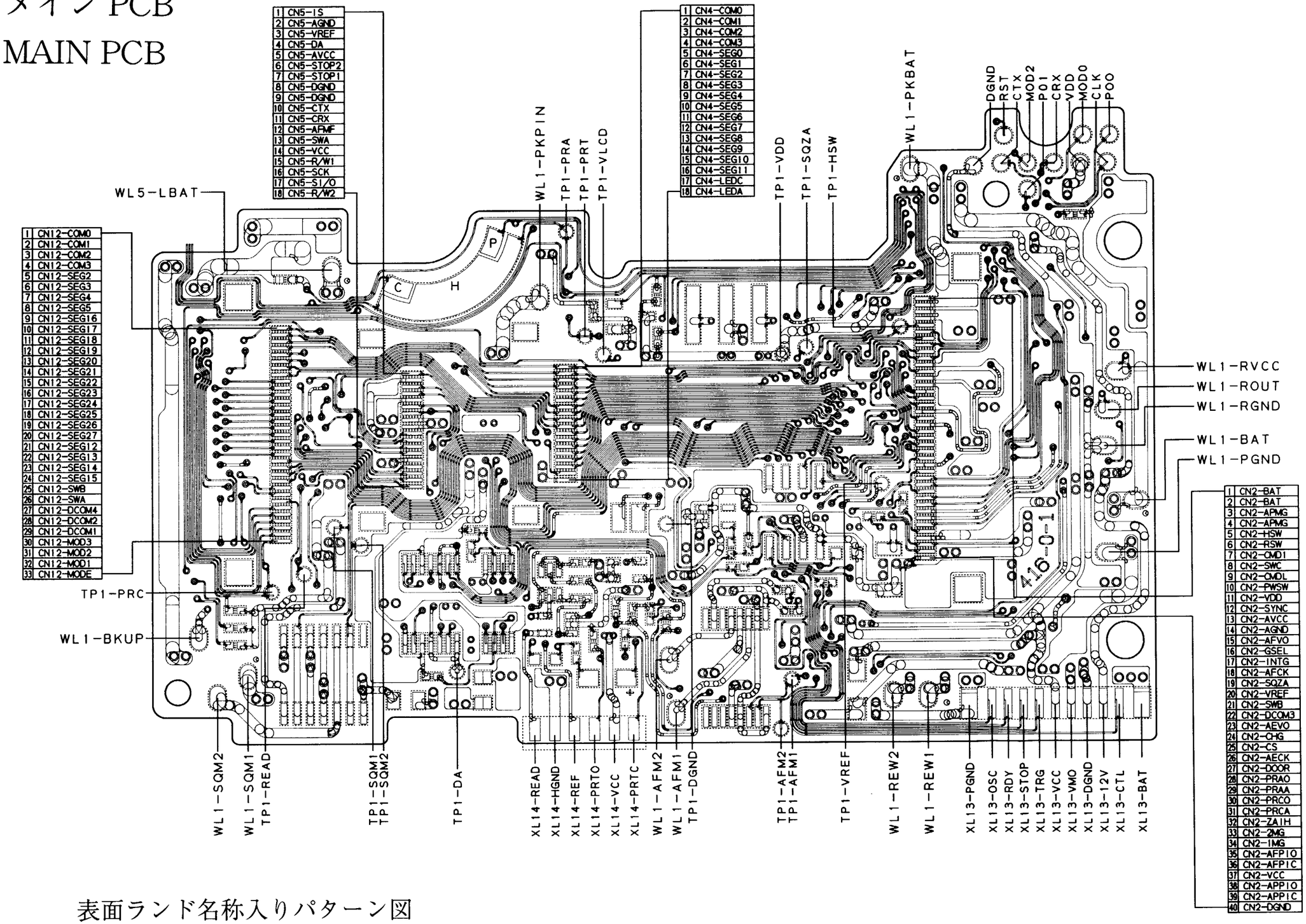
The C6, C7 and R12 should be selected by the CPU-type as the following table.

CPU-type	C6, C7	R12
Mask-ROM	22pF	10kΩ #1111
Flash-ROM	27pF	30kΩ #1114

裏面部品実装図

Back side : Parts location's diagram

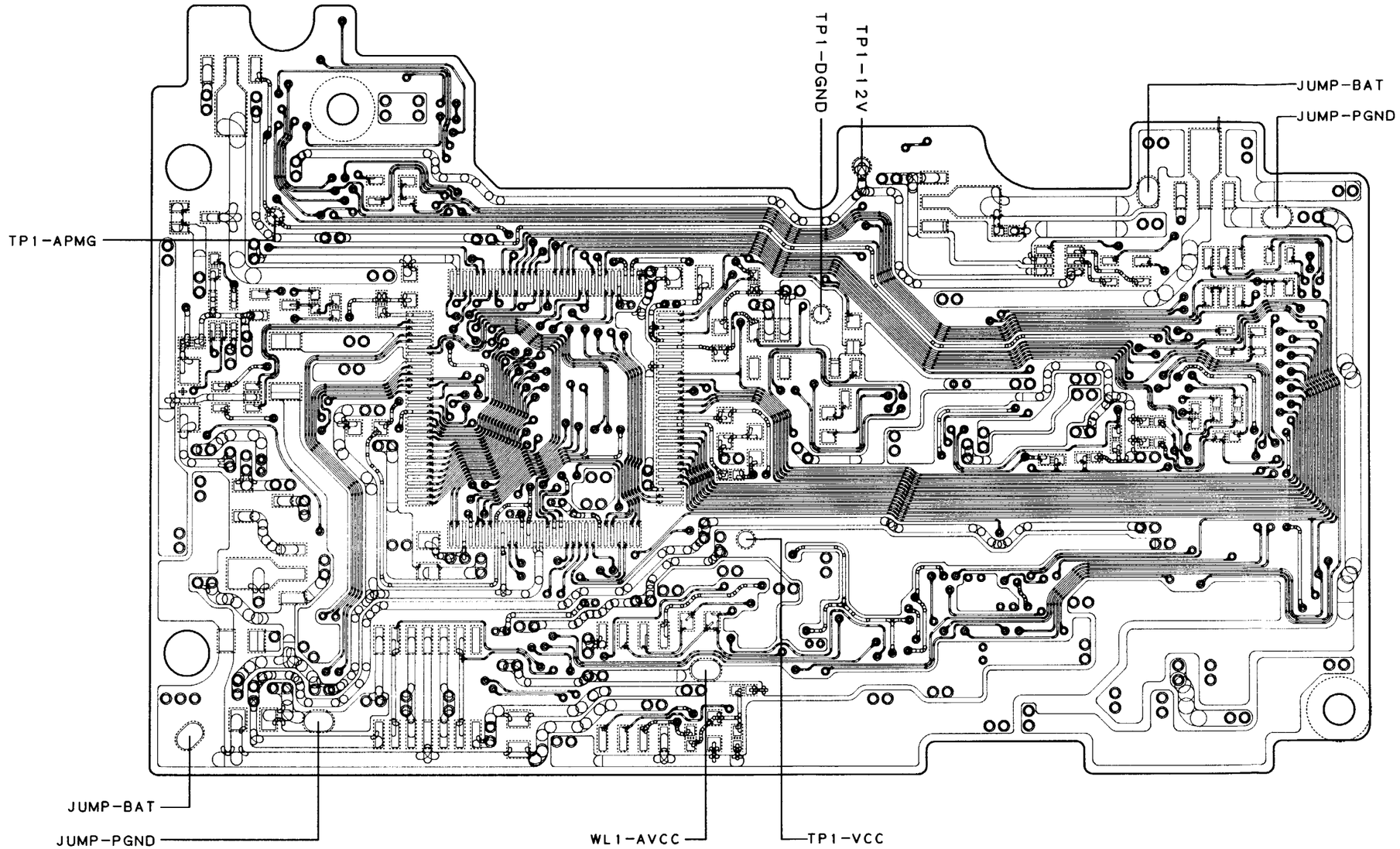
メイン PCB
MAIN PCB



表面ランド名称入りパターン図

Front side pattern diagram with land name

メイン PCB
MAIN PCB

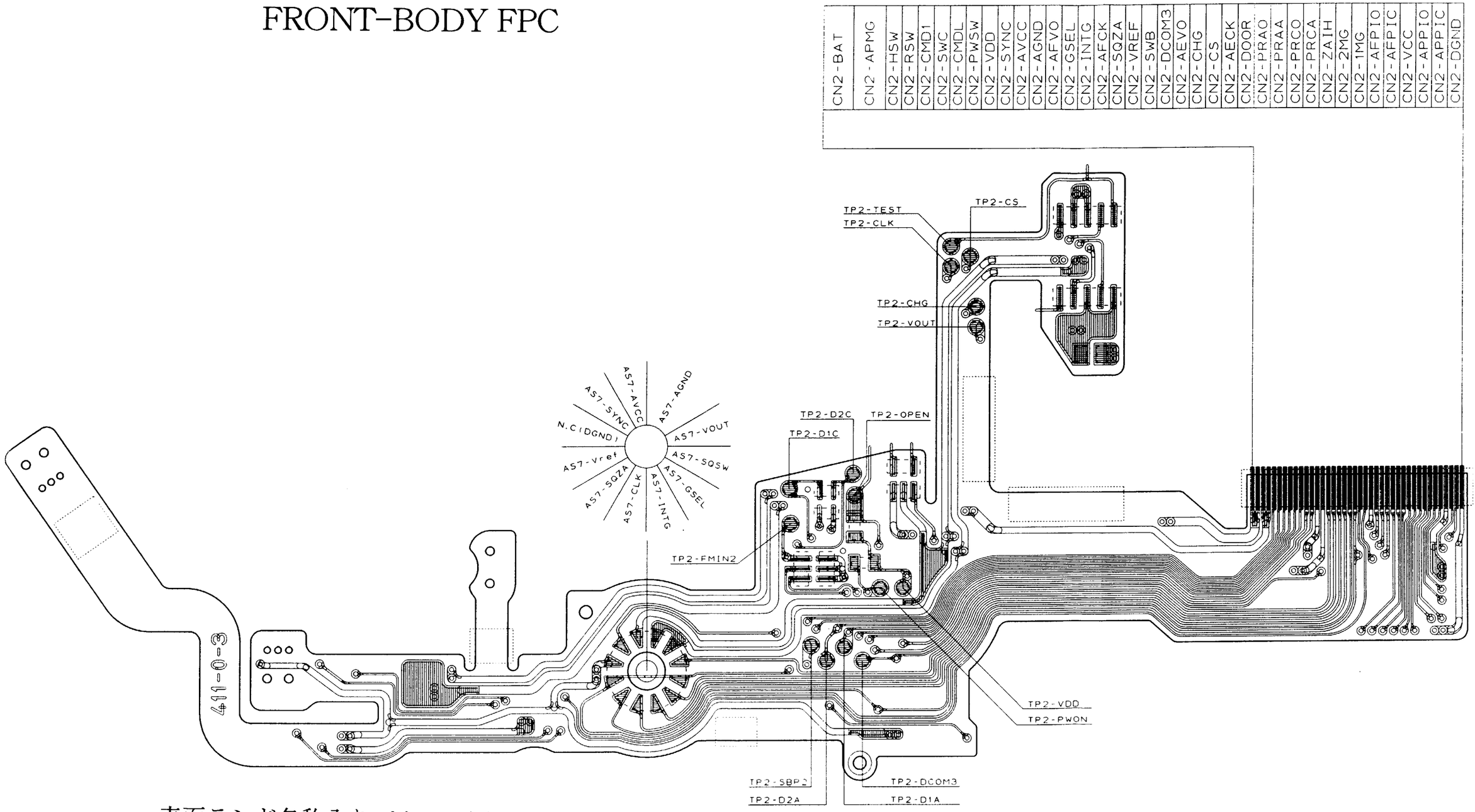


裏面ランド名称入りパターン図

Back side pattern diagram with land name

#1002　前板FPC

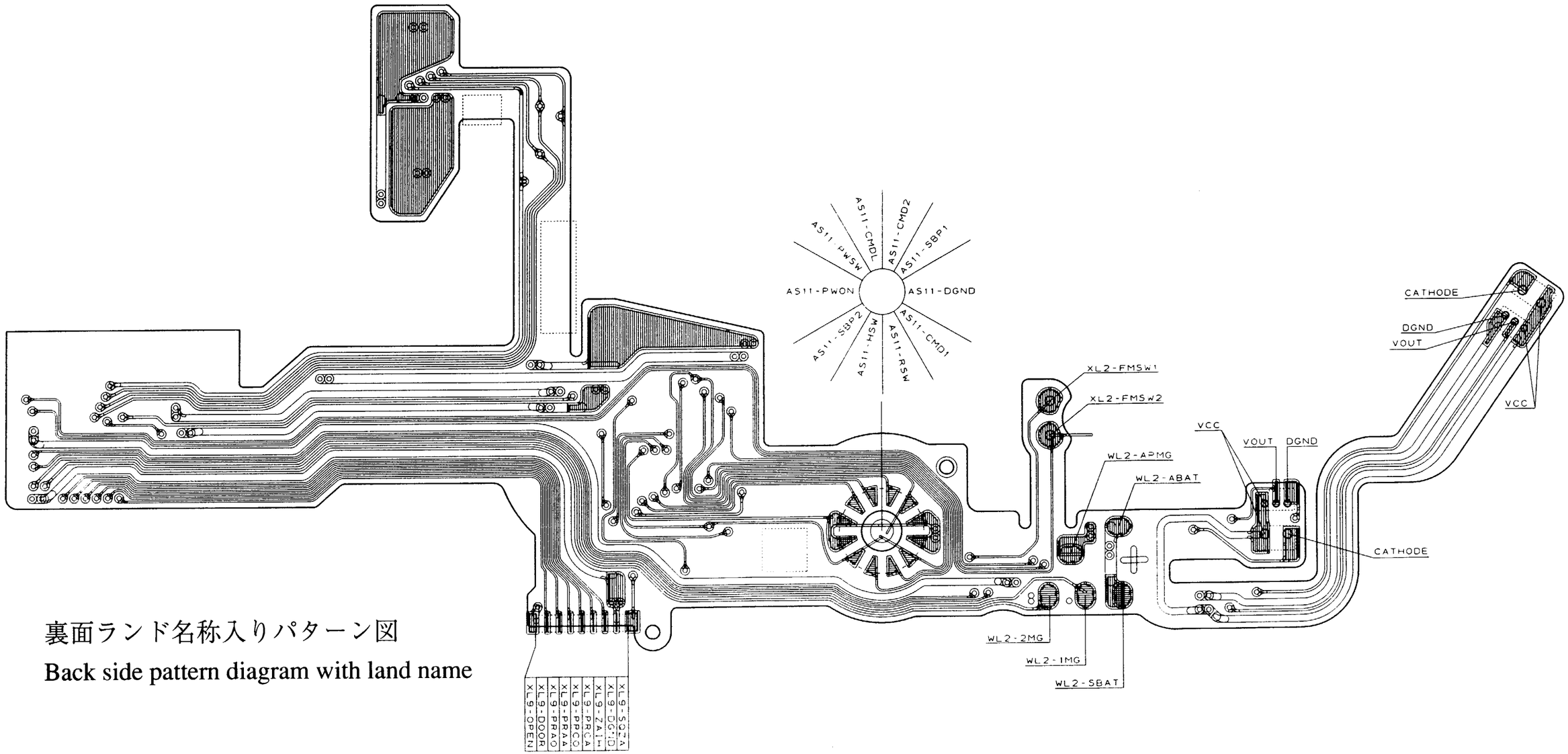
FRONT-BODY FPC



表面ランド名称入りパターン図

Front side pattern diagram with land name

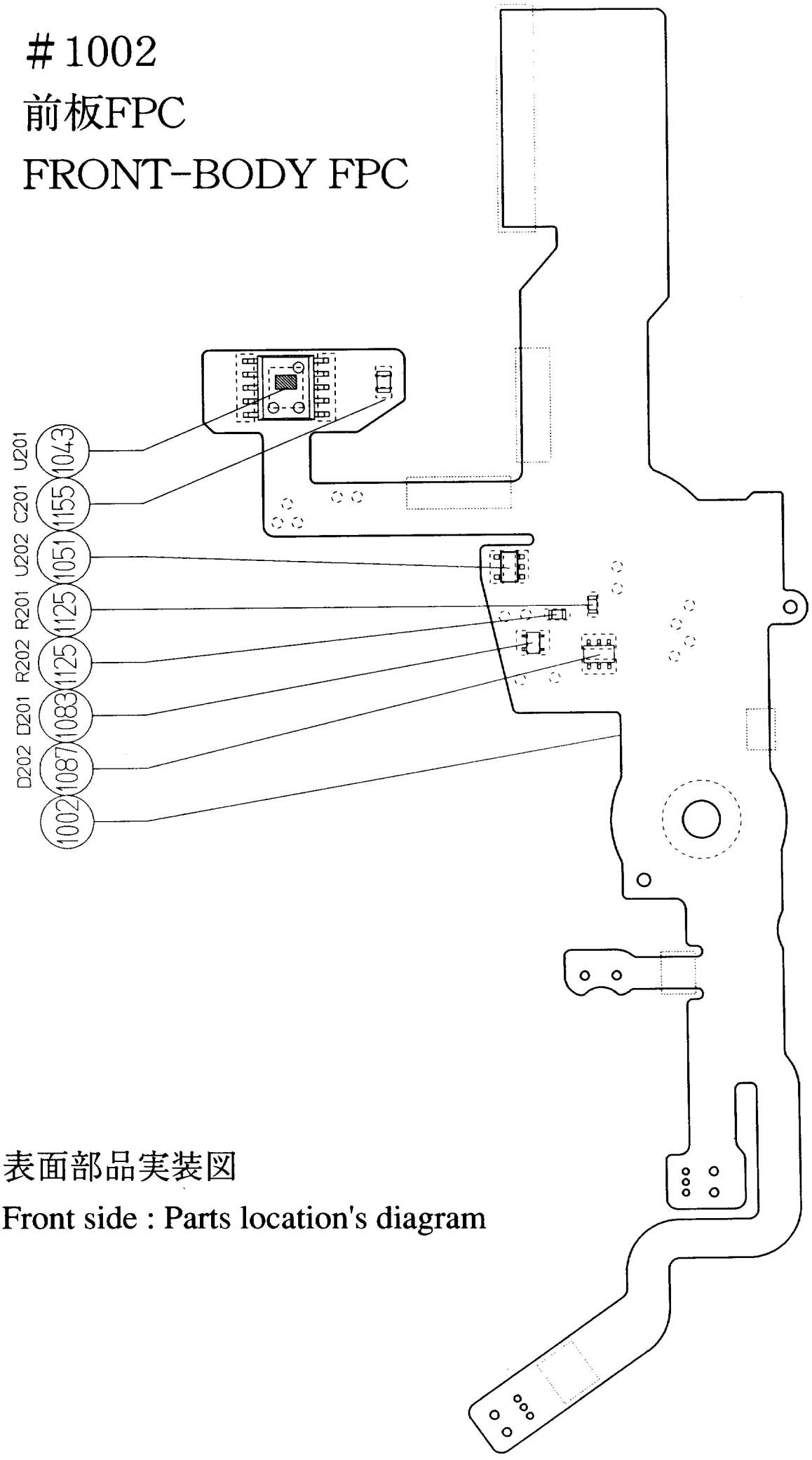
＃1002　前板FPC
FRONT-BODY FPC



裏面ランド名称入りパターン図

Back side pattern diagram with land name

＃1002
前板FPC
FRONT-BODY FPC

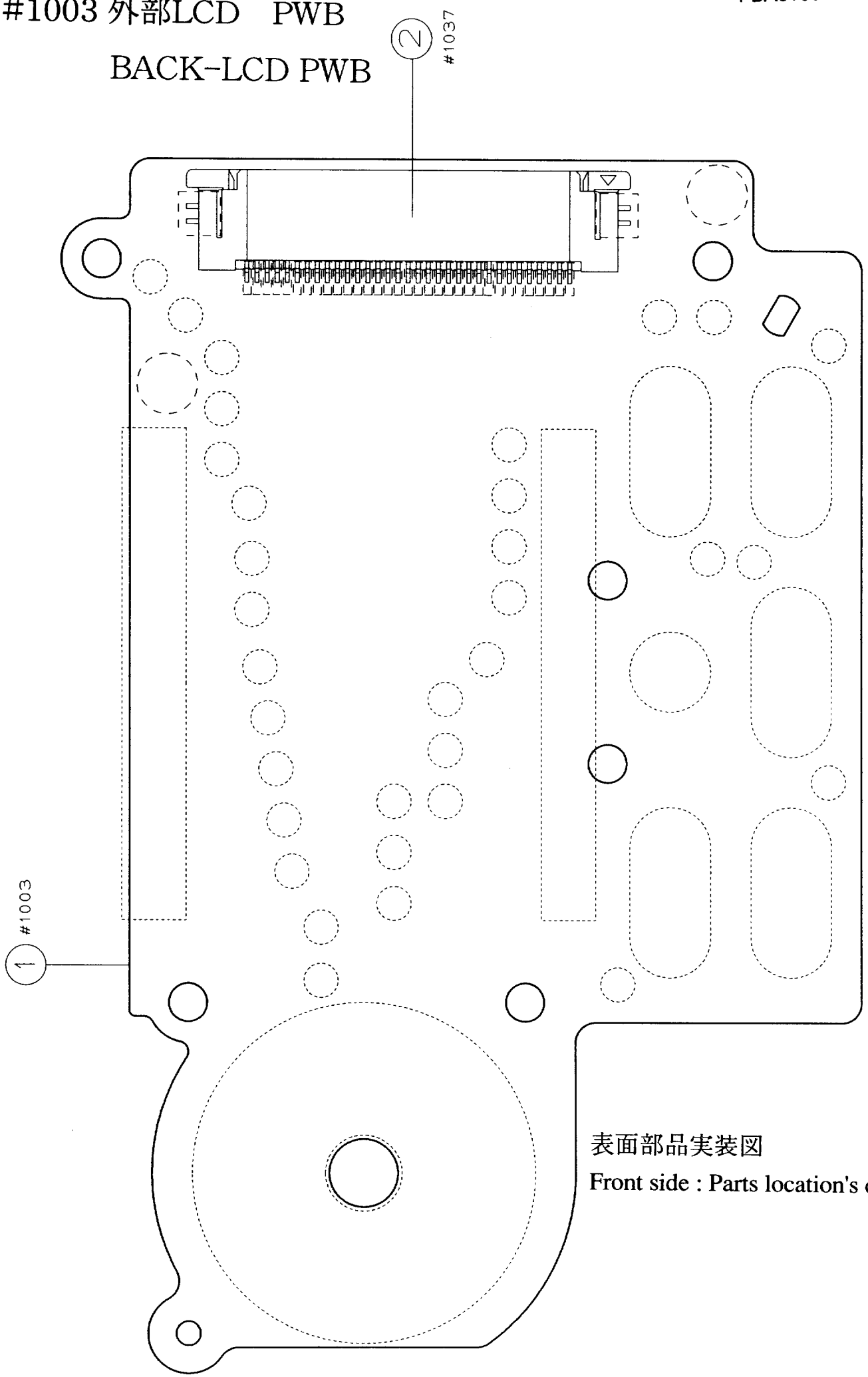


表面部品実装図

Front side : Parts location's diagram

#1003 外部LCD　PWB

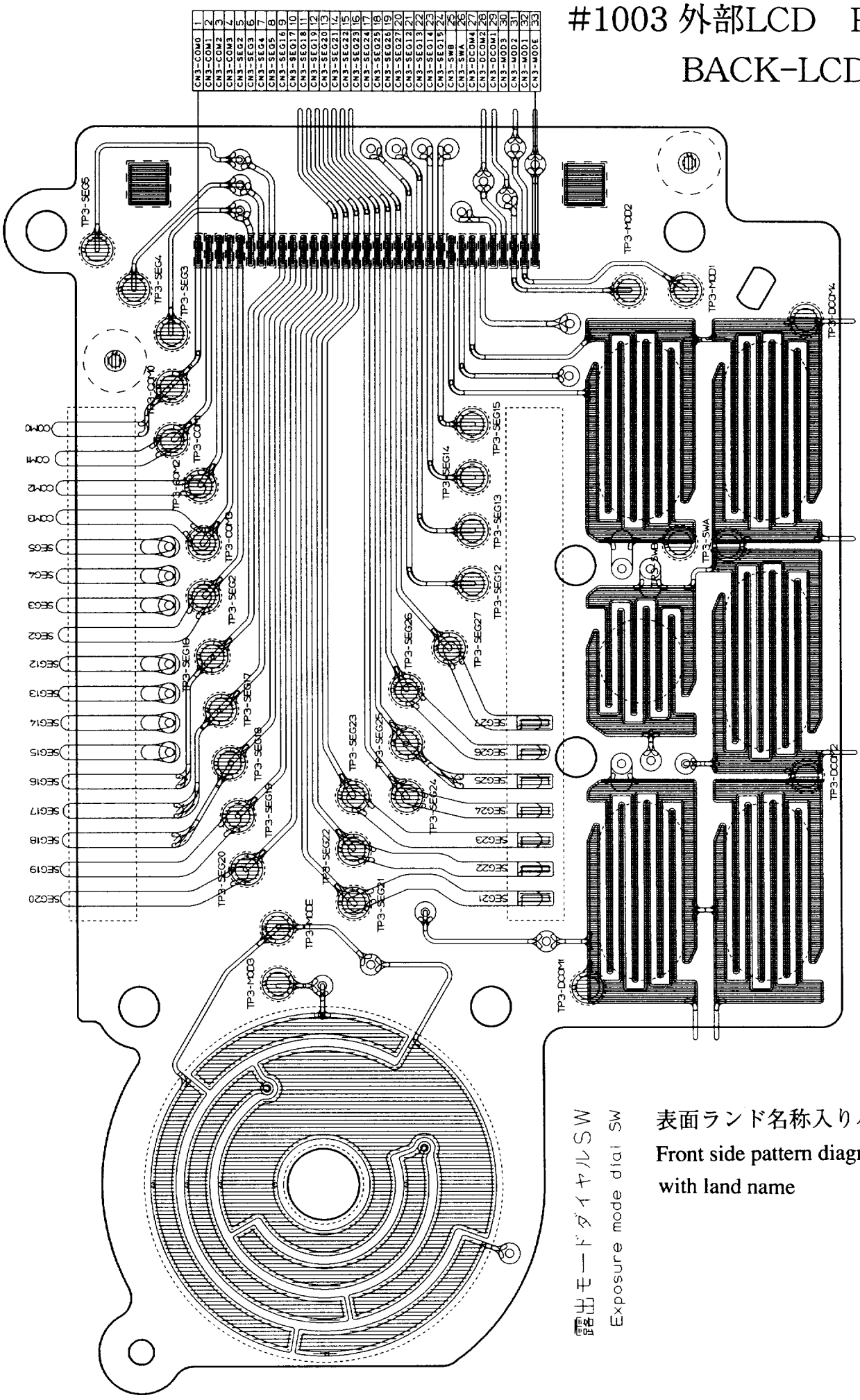
BACK-LCD PWB



表面部品実装図

Front side : Parts location's diagram

#1003 外部LCD　PWB
BACK-LCD PWB

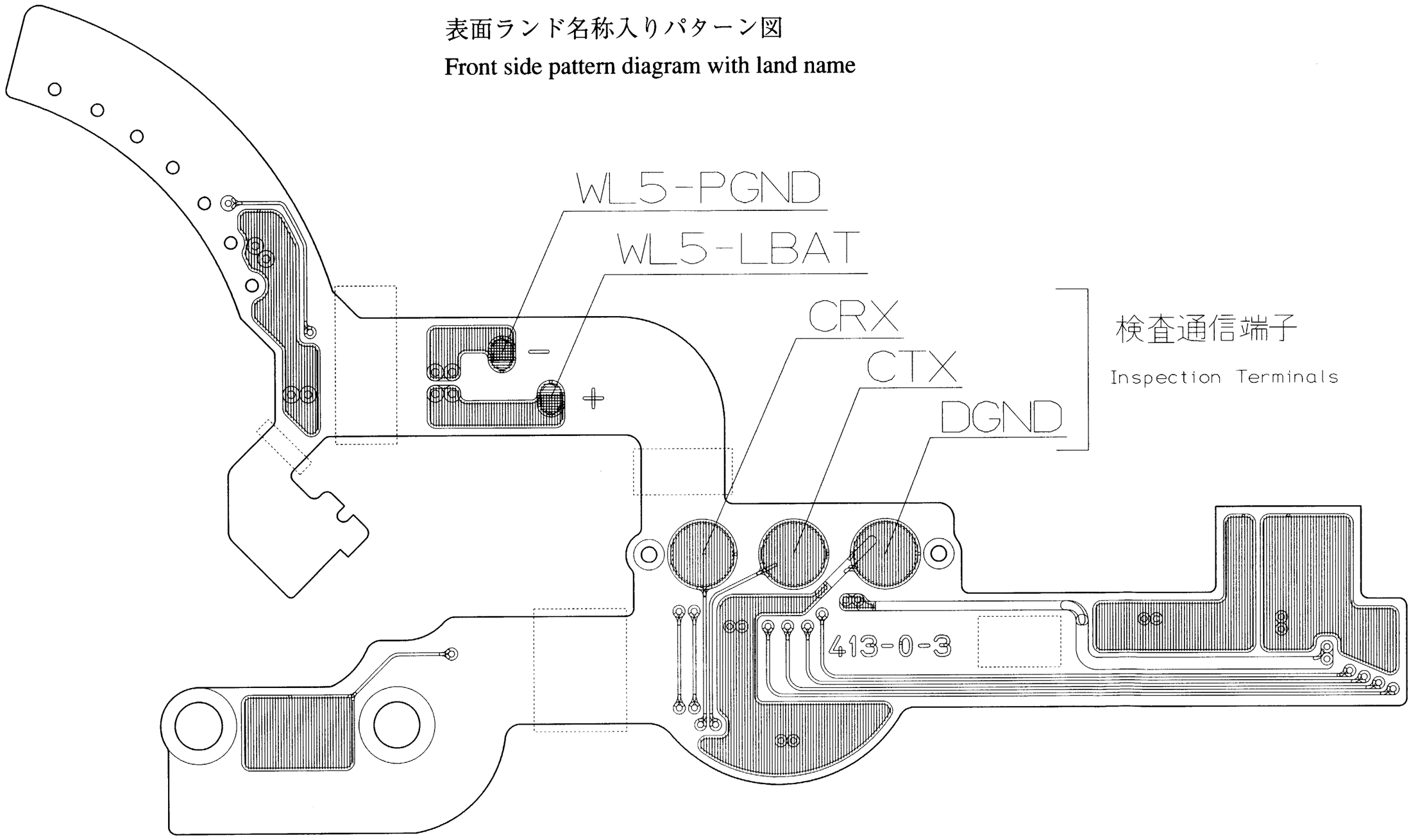


露出モードダイヤルSW
Exposure mode dial SW

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

#1005 レンズ接続 FPC
LENS FPC

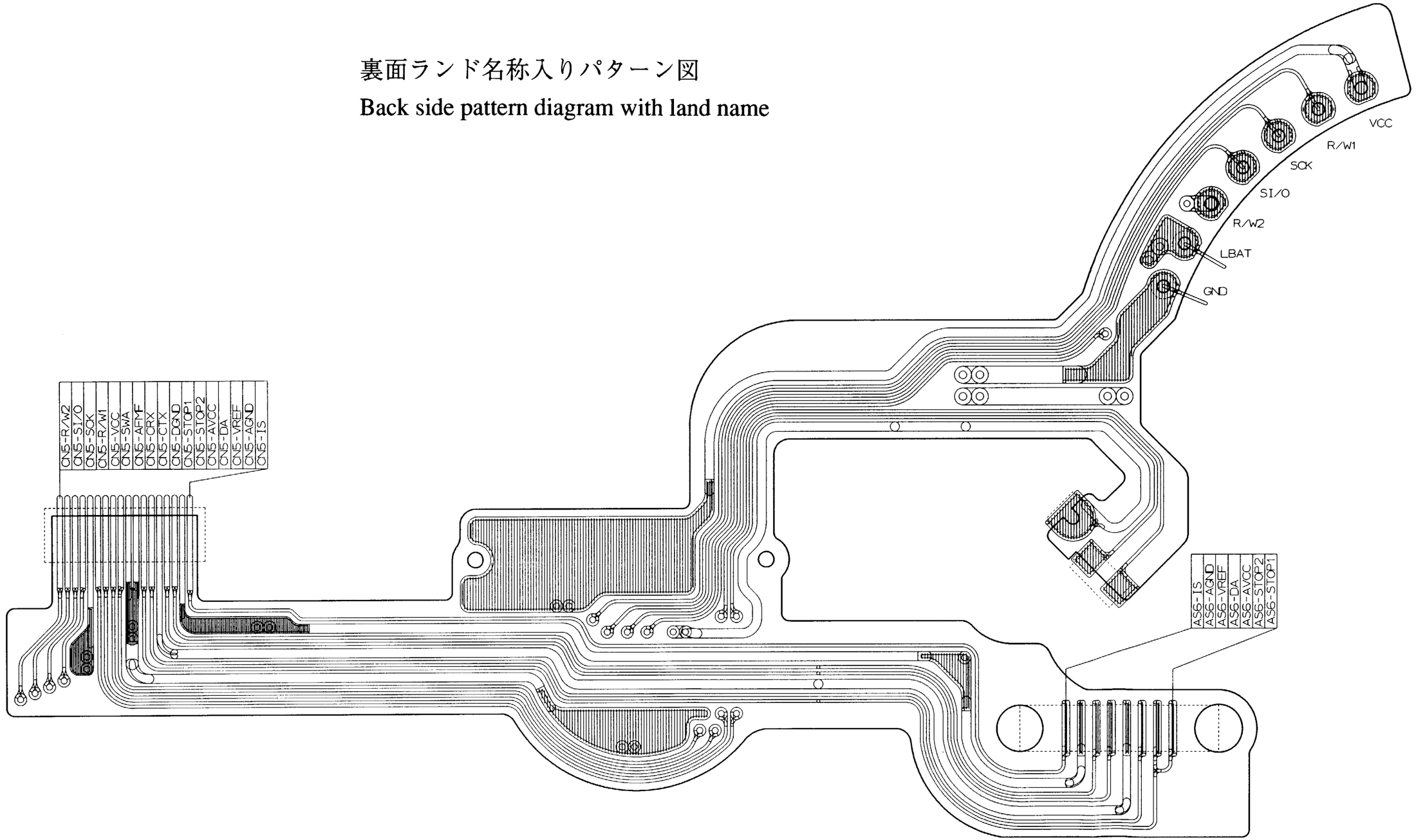
表面ランド名称入りパターン図
Front side pattern diagram with land name



#1005 レンズ接続 FPC
LENS FPC

裏面ランド名称入りパターン図

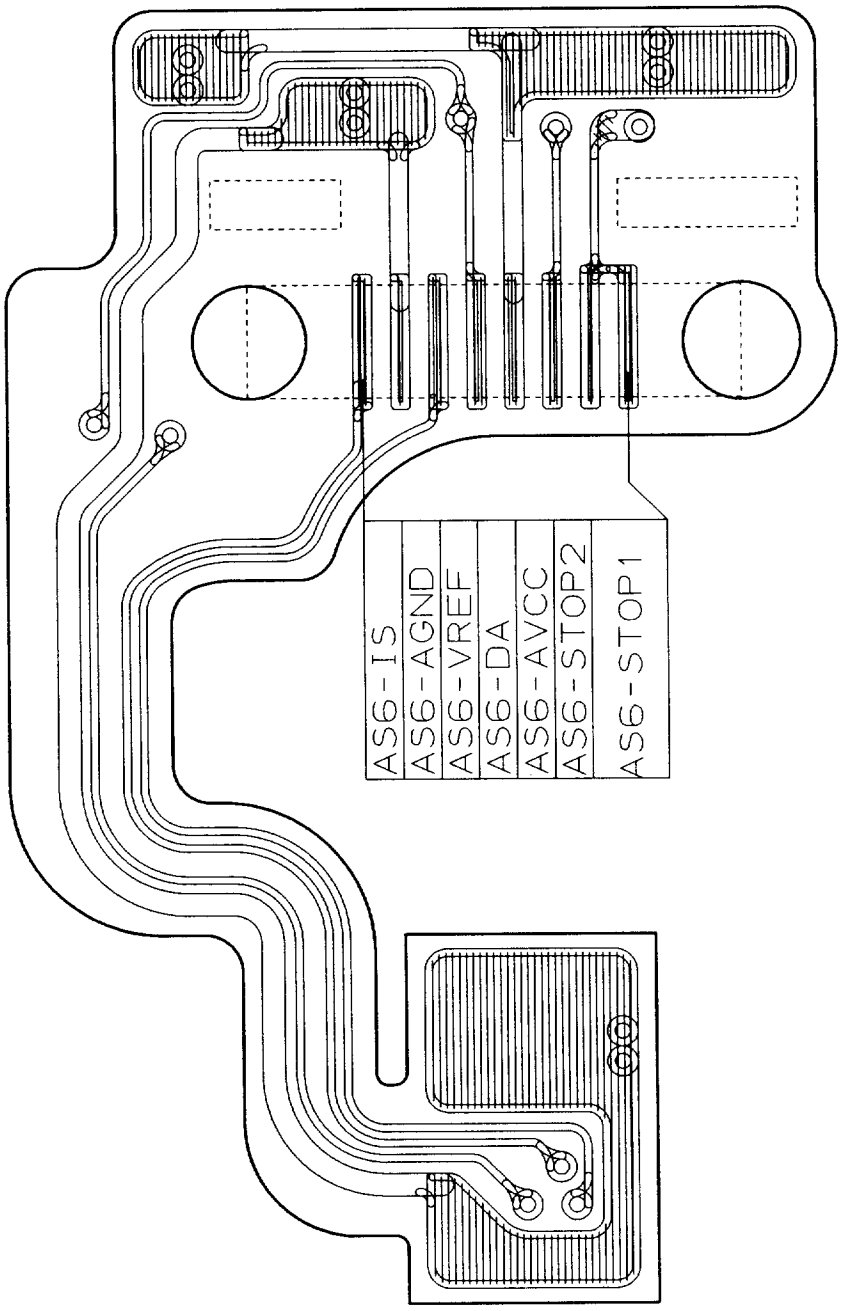
Back side pattern diagram with land name



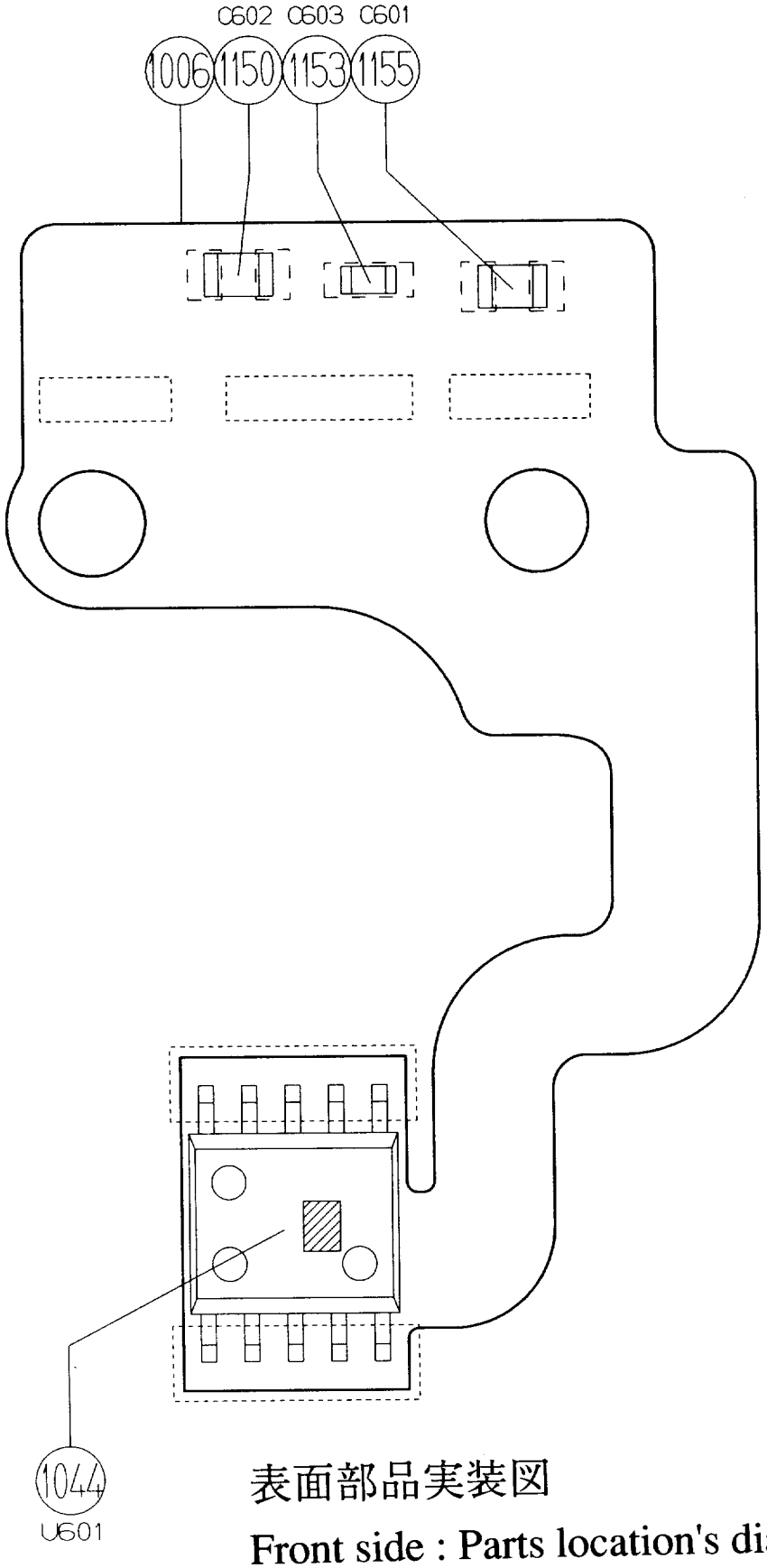
#1006 TTL FPC

裏面ランド名称入りパターン図

Back side pattern diagram with land name



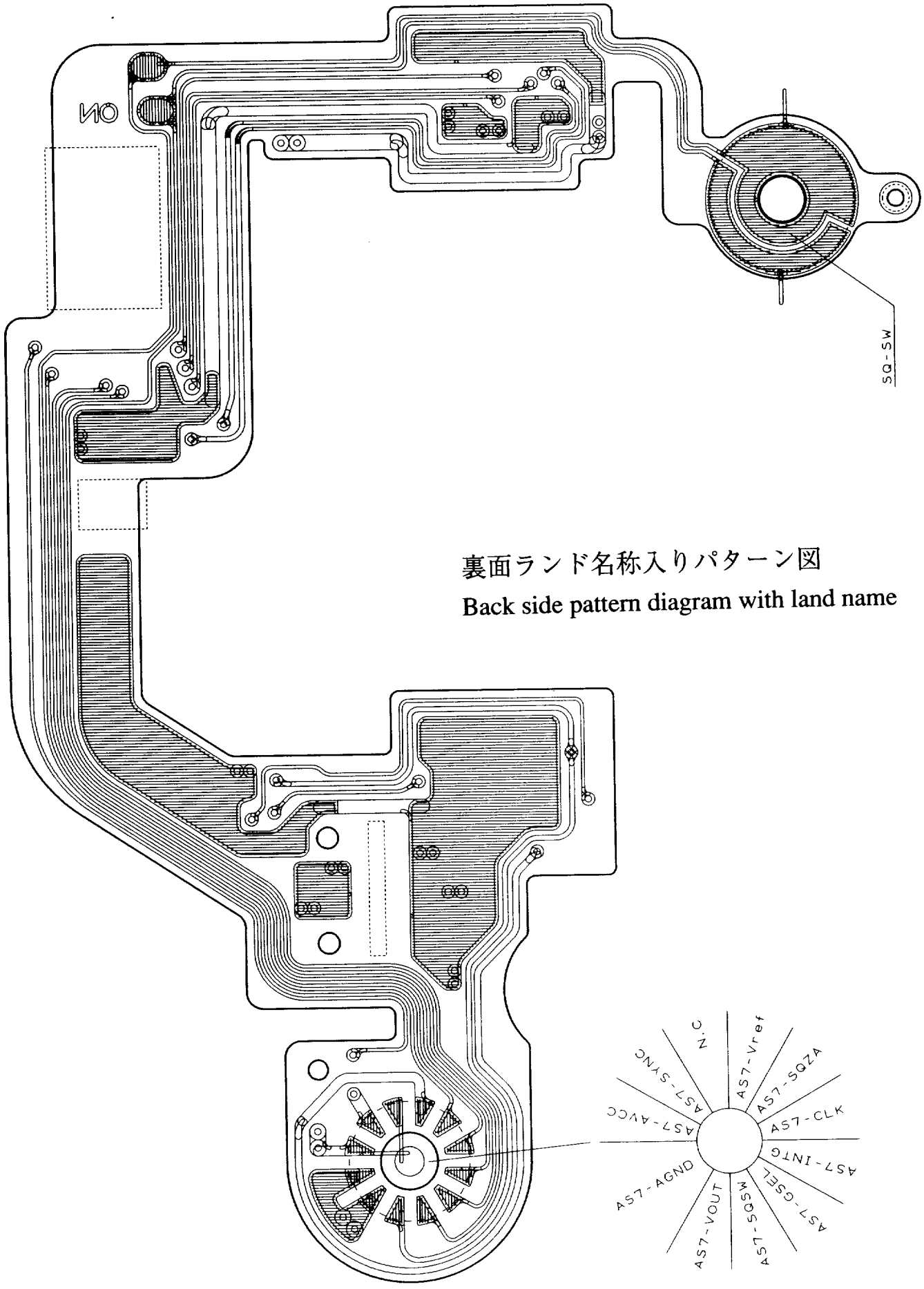
#1006 TTL FPC



表面部品実装図

Front side : Parts location's diagram

#1007 CCD FPC



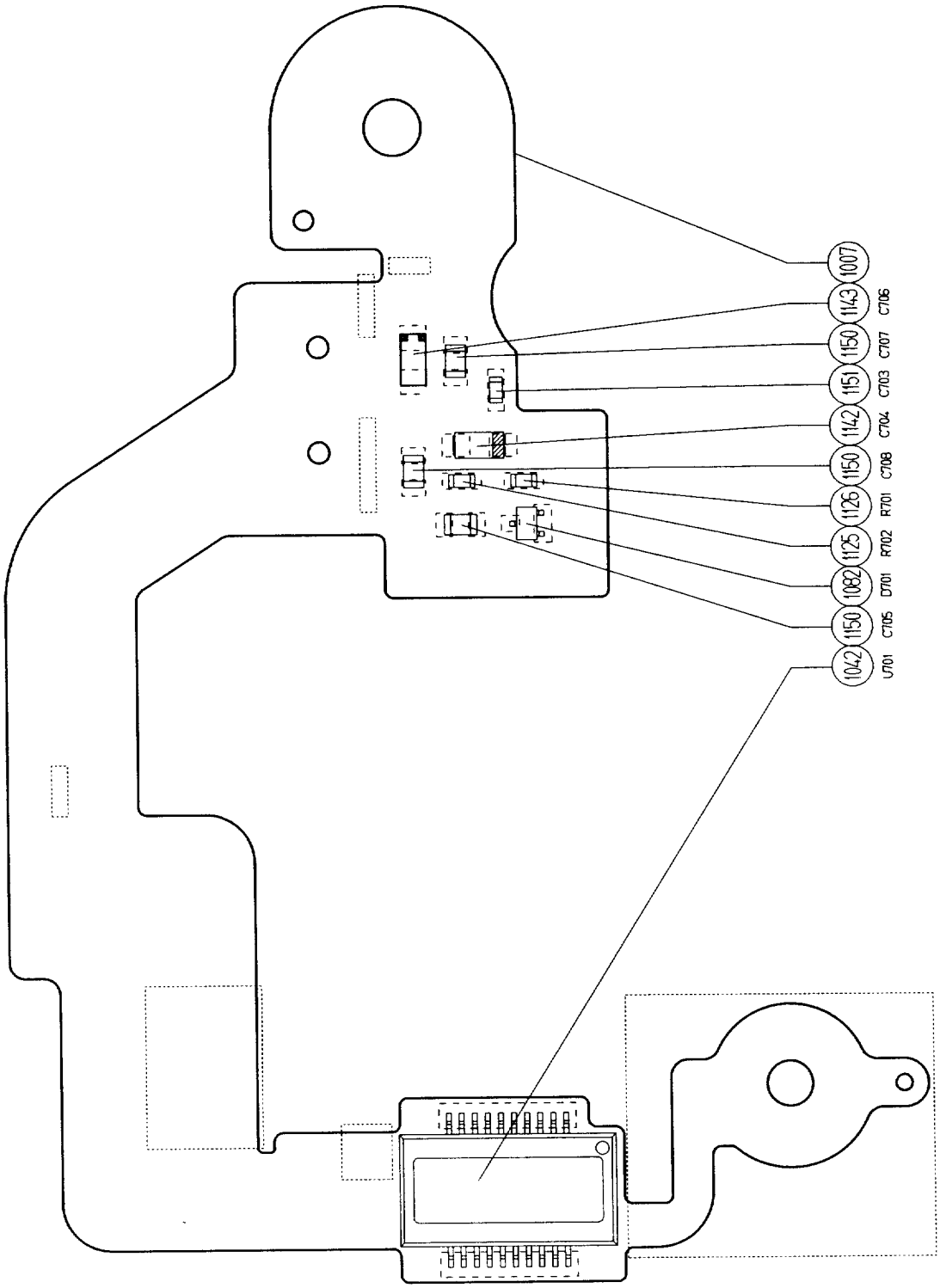
裏面ランド名称入りパターン図

Back side pattern diagram with land name

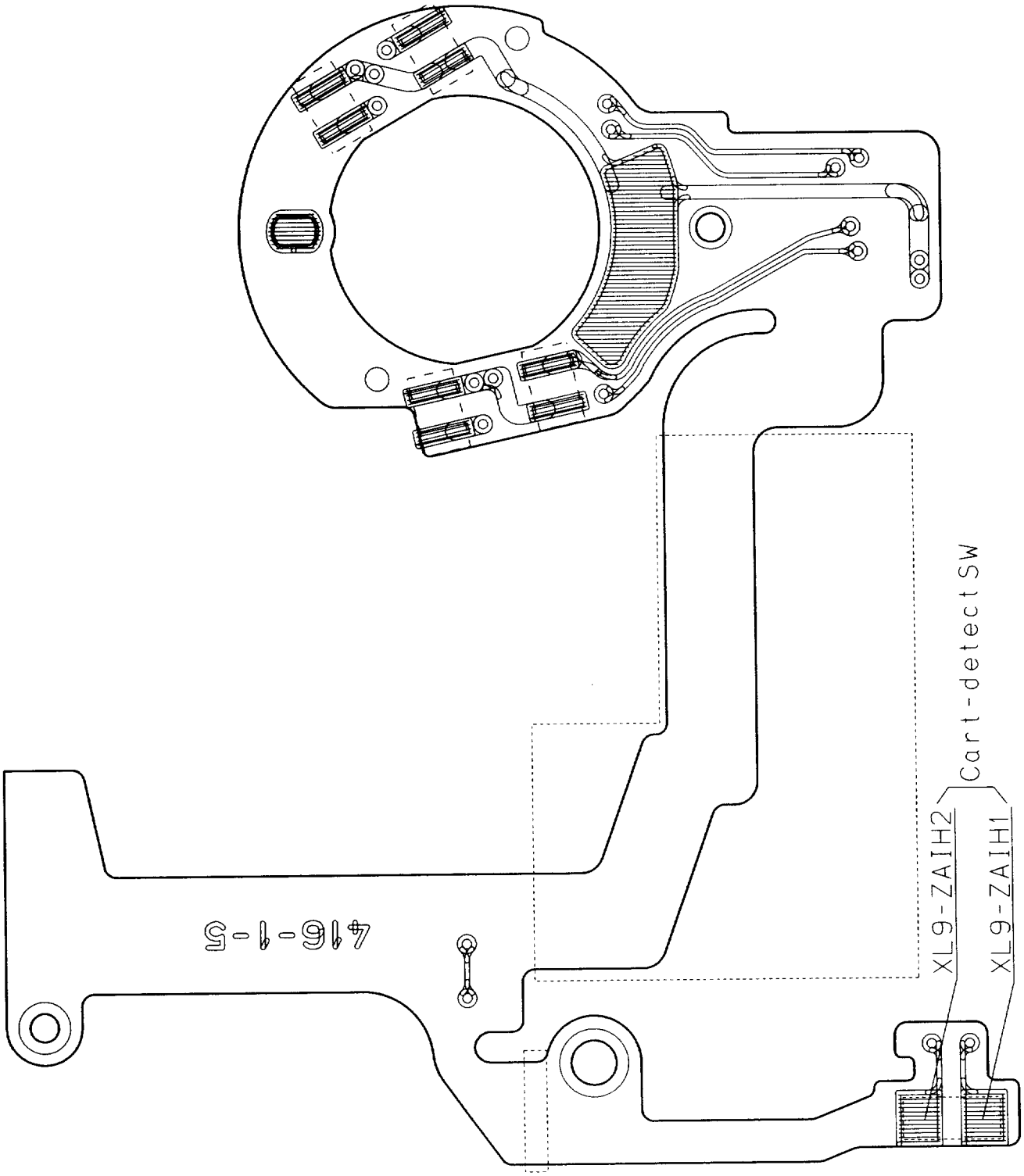
#1007 CCD FPC

表面部品実装図

Front side : Parts location's diagram



#1009 バーコード FPC
BAR-CODE FPC

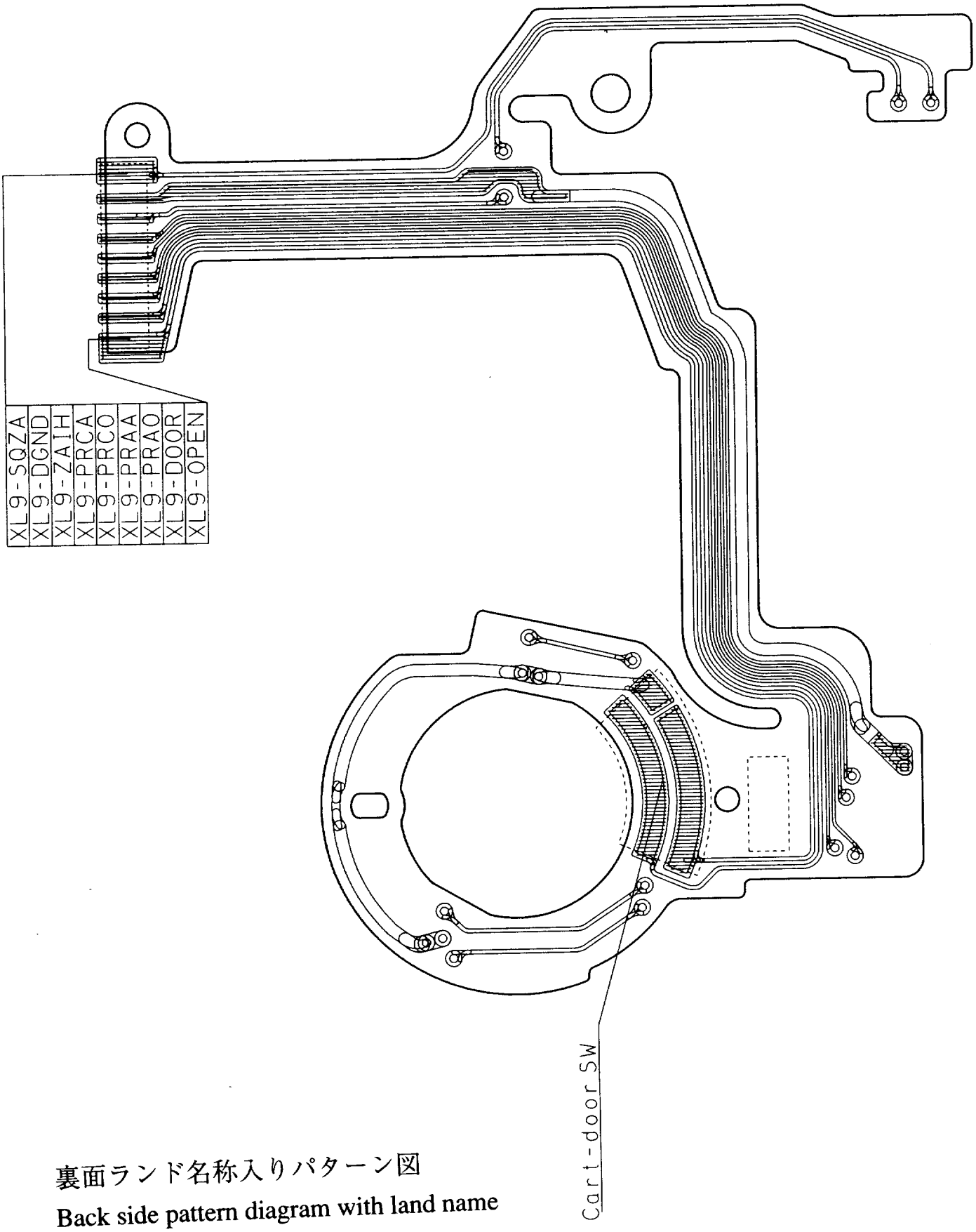


表面ランド名称入りパターン図

Front side pattern diagram with land name

#1009 バーコード FPC

BAR-CODE FPC

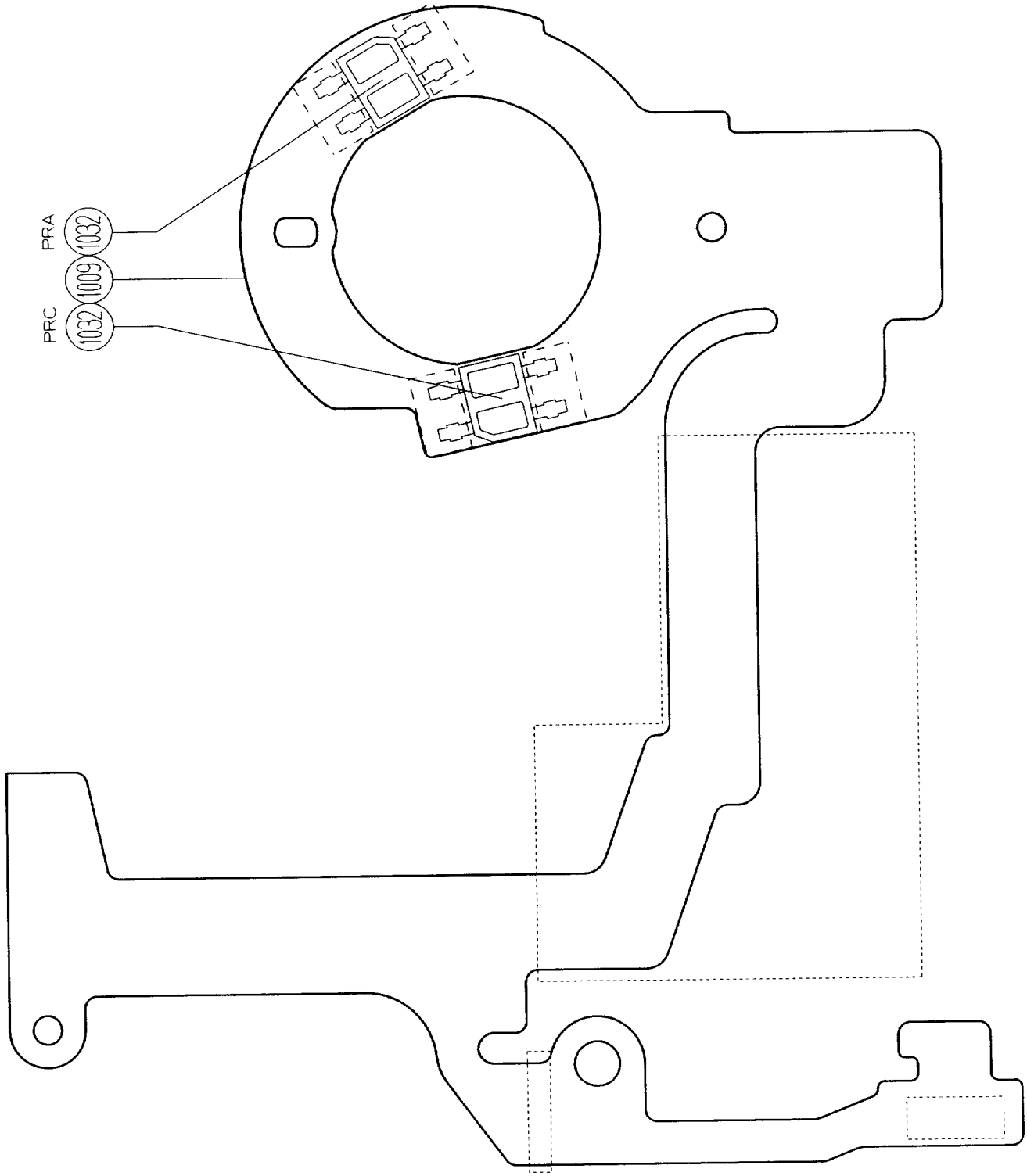


裏面ランド名称入りパターン図

Back side pattern diagram with land name

#1009 バーコード FPC

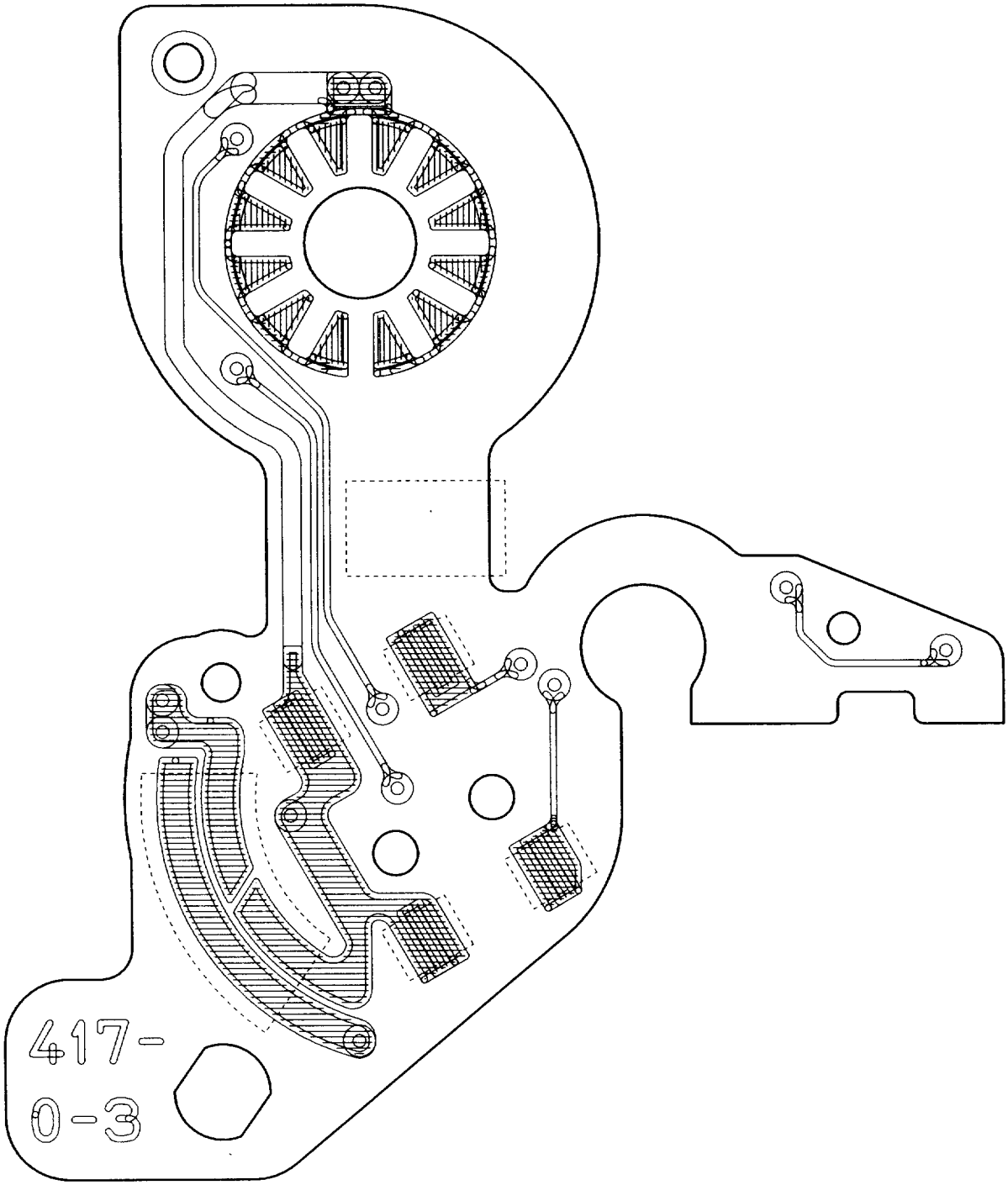
BAR-CODE FPC



裏面部品実装図

Back side : Parts location's diagram

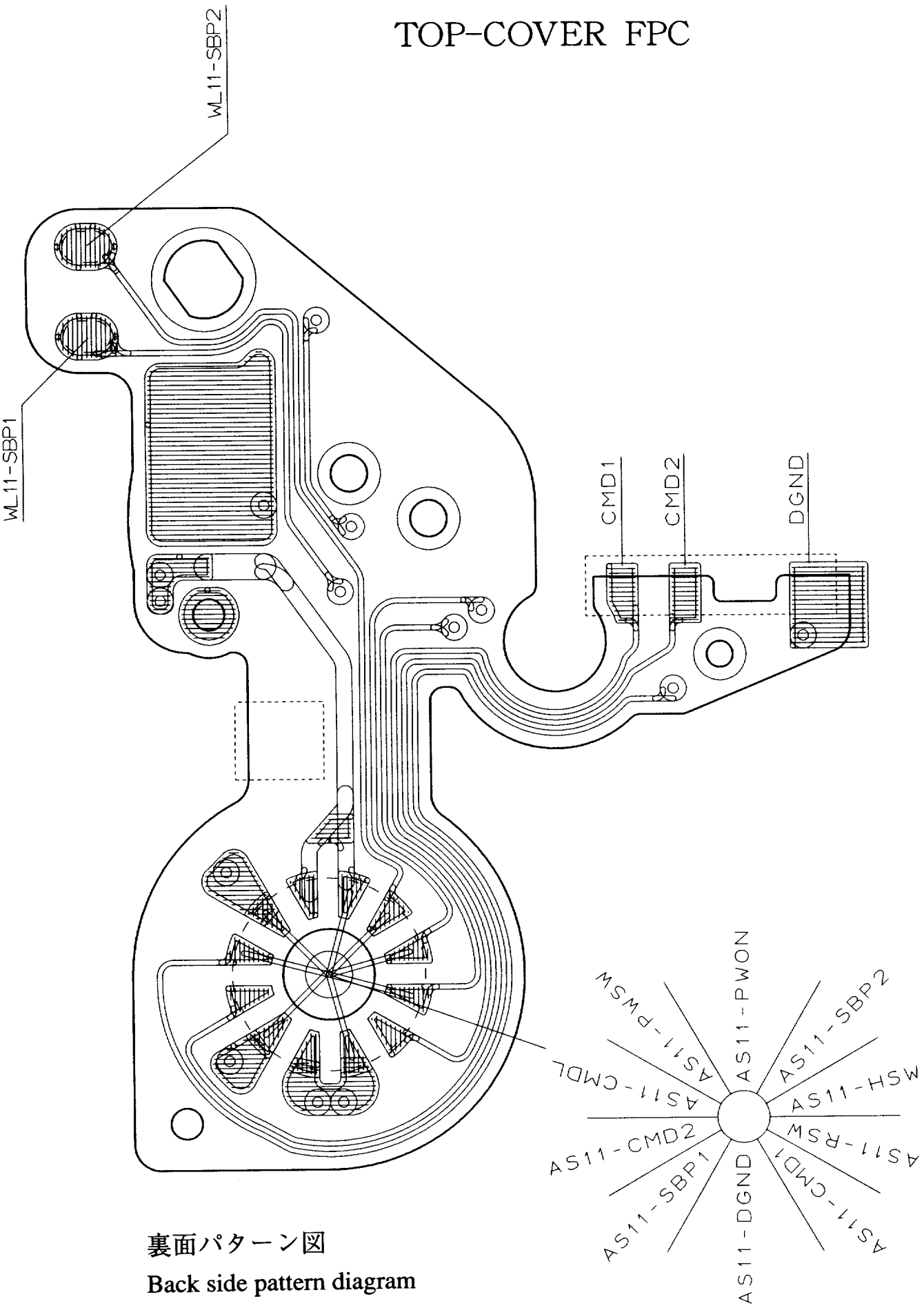
#1011 上カバー FPC
TOP-COVER FPC



表面パターン図

Front side pattern diagram

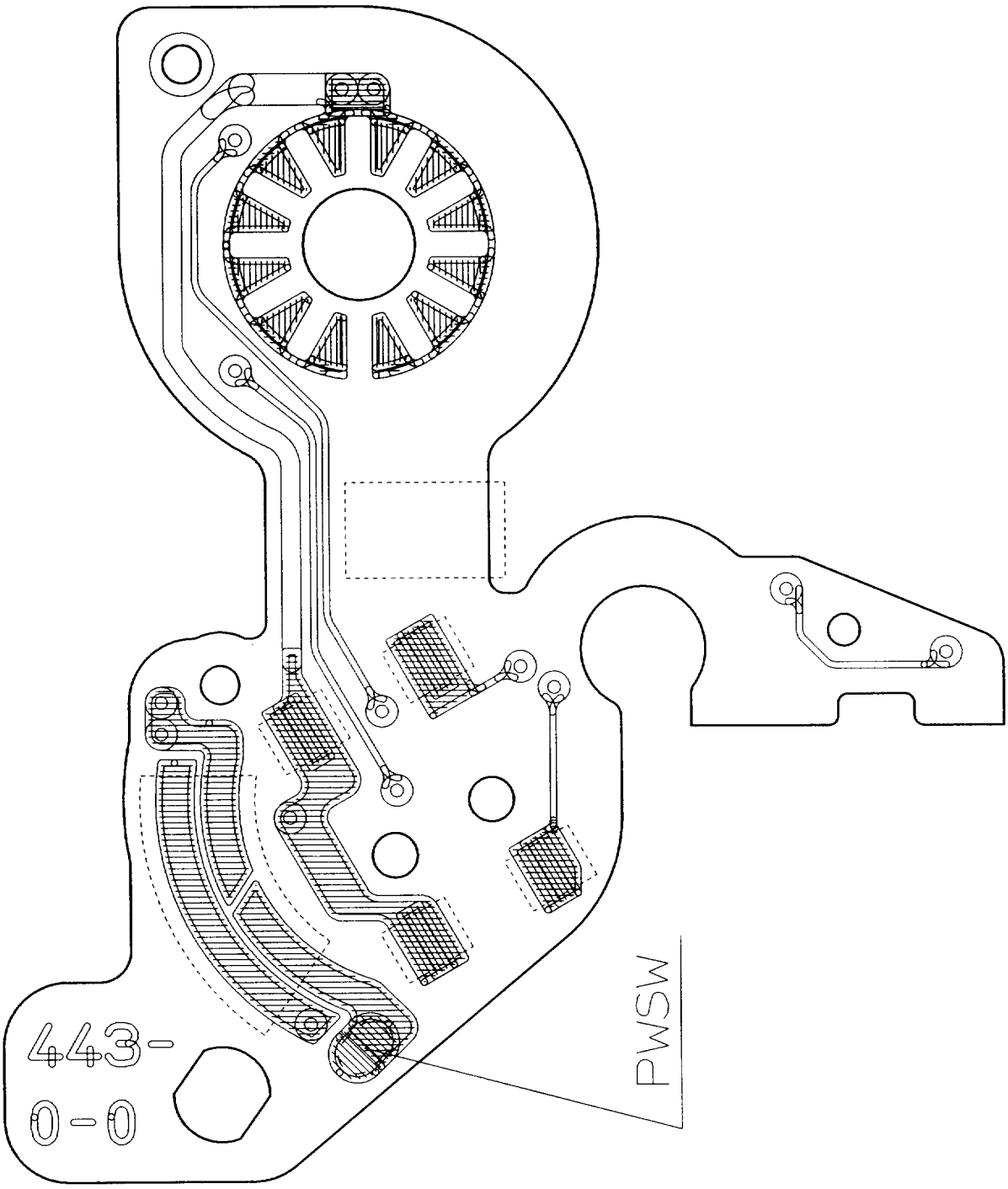
#1011 上カバー FPC
TOP-COVER FPC



裏面パターン図

Back side pattern diagram

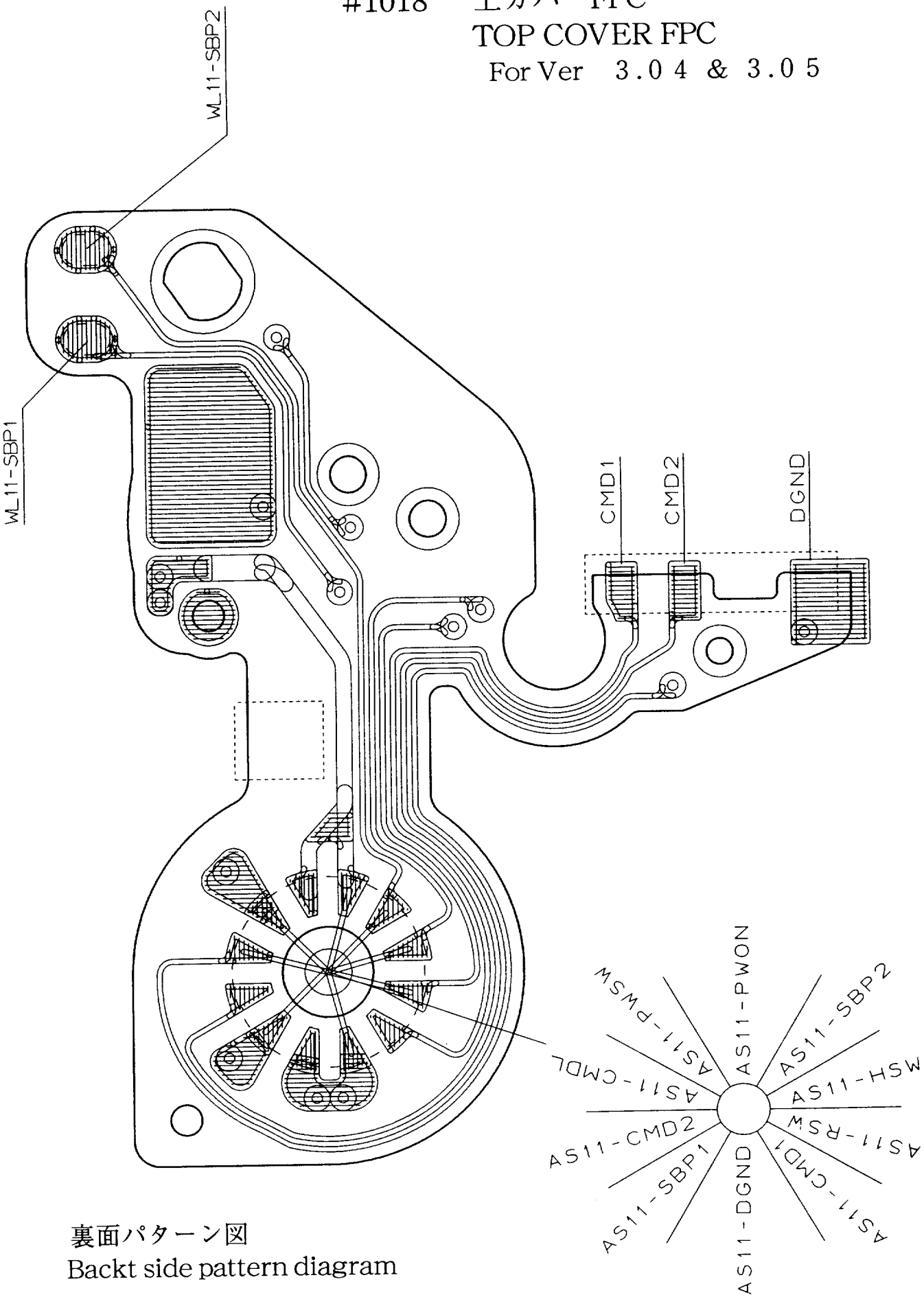
#1018　上カバーFPC
TOP COVER FPC
For Ver　3.04 & 3.05



表面パターン図
Front side pattern diagram

計画課
M

#1018 上カバーFPC
TOP COVER FPC
For Ver 3.04 & 3.05

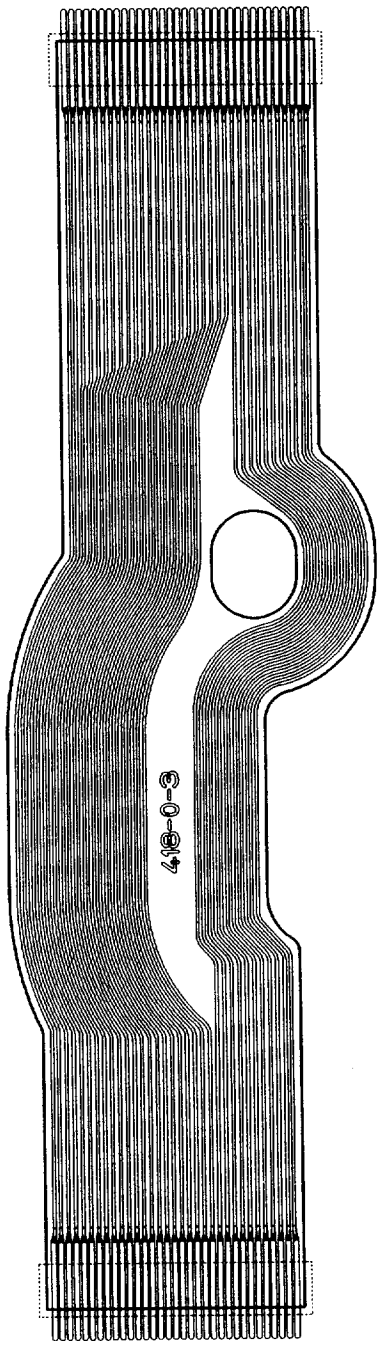


裏面パターン図
Backt side pattern diagram

計画課 M

Sep.29.1998

#1012 外部LCD接続 FPC
LCD-WIRING FPC



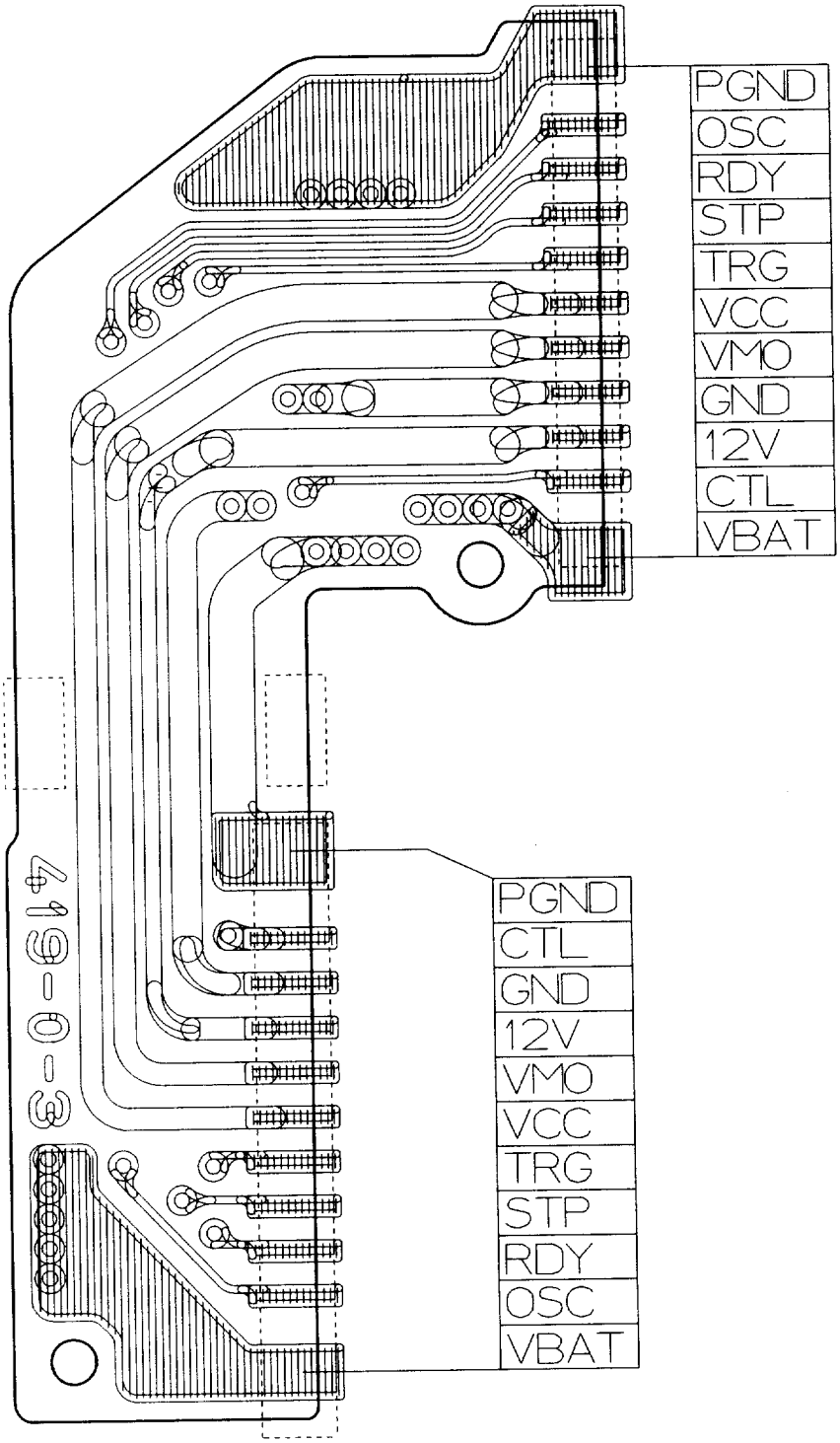
表面パターン図

Front side pattern diagram

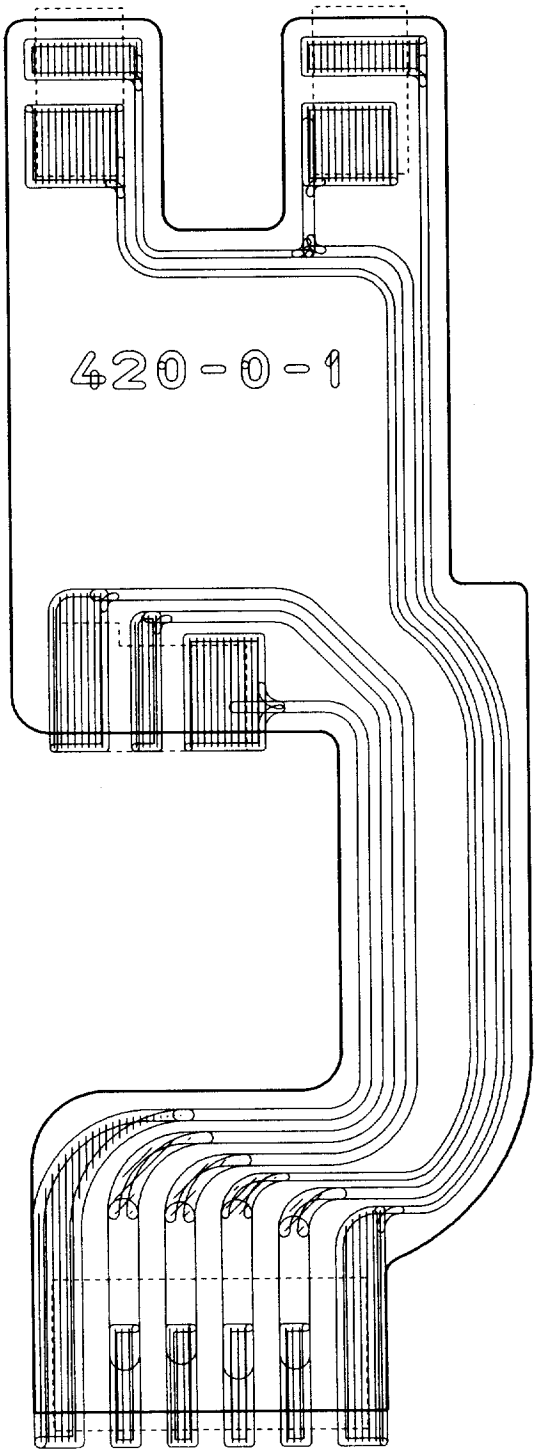
#1013 DC-DC FPC

裏面ランド名称入りパターン図

Back side pattern diagram with land name



#1014 Mag FPC

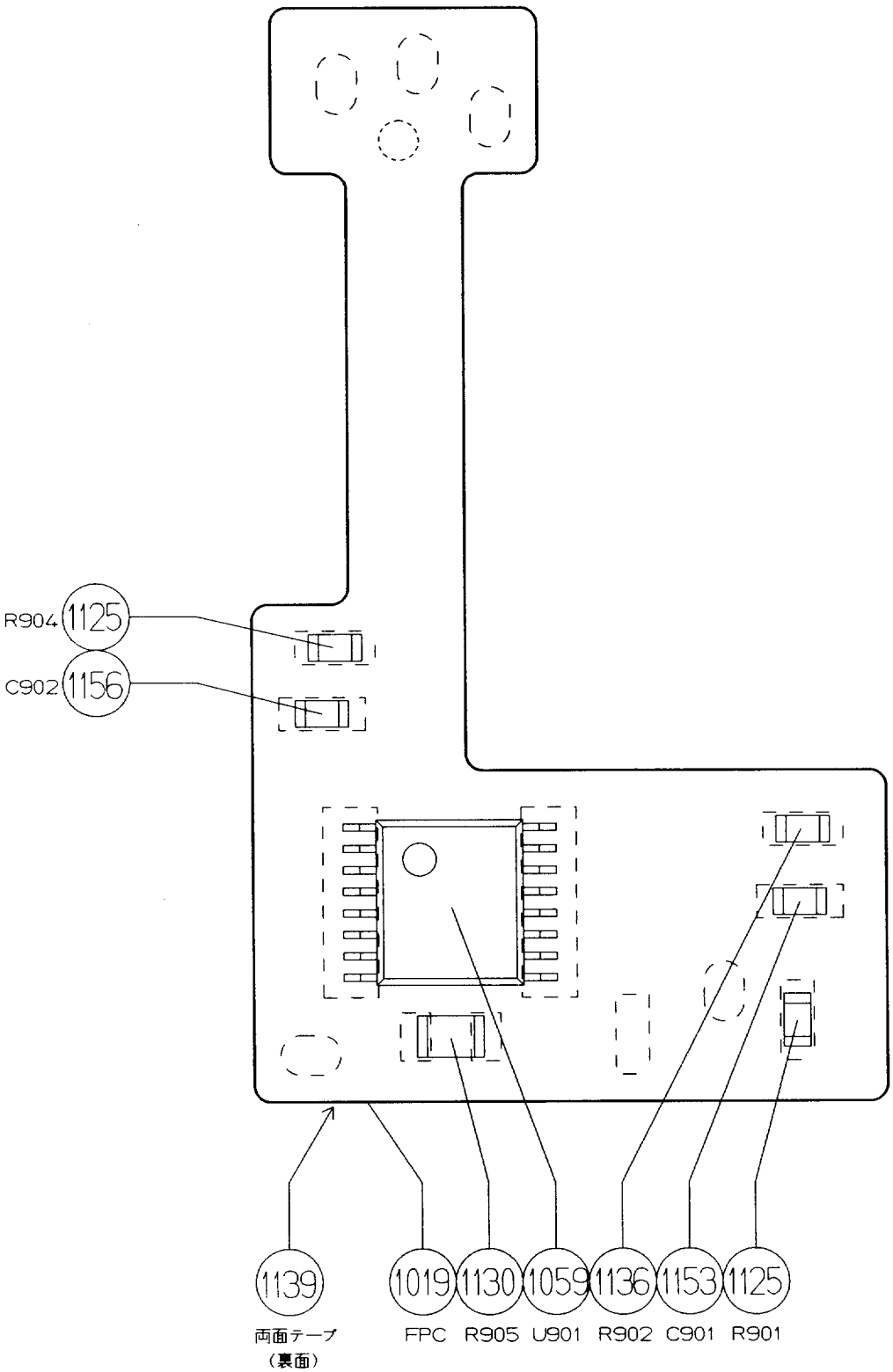


裏面パターン図

Back side pattern diagram

.#1019　暫定 FPC
TEMPORARY FPC
For Ver　3.0 4　&　3.0 5

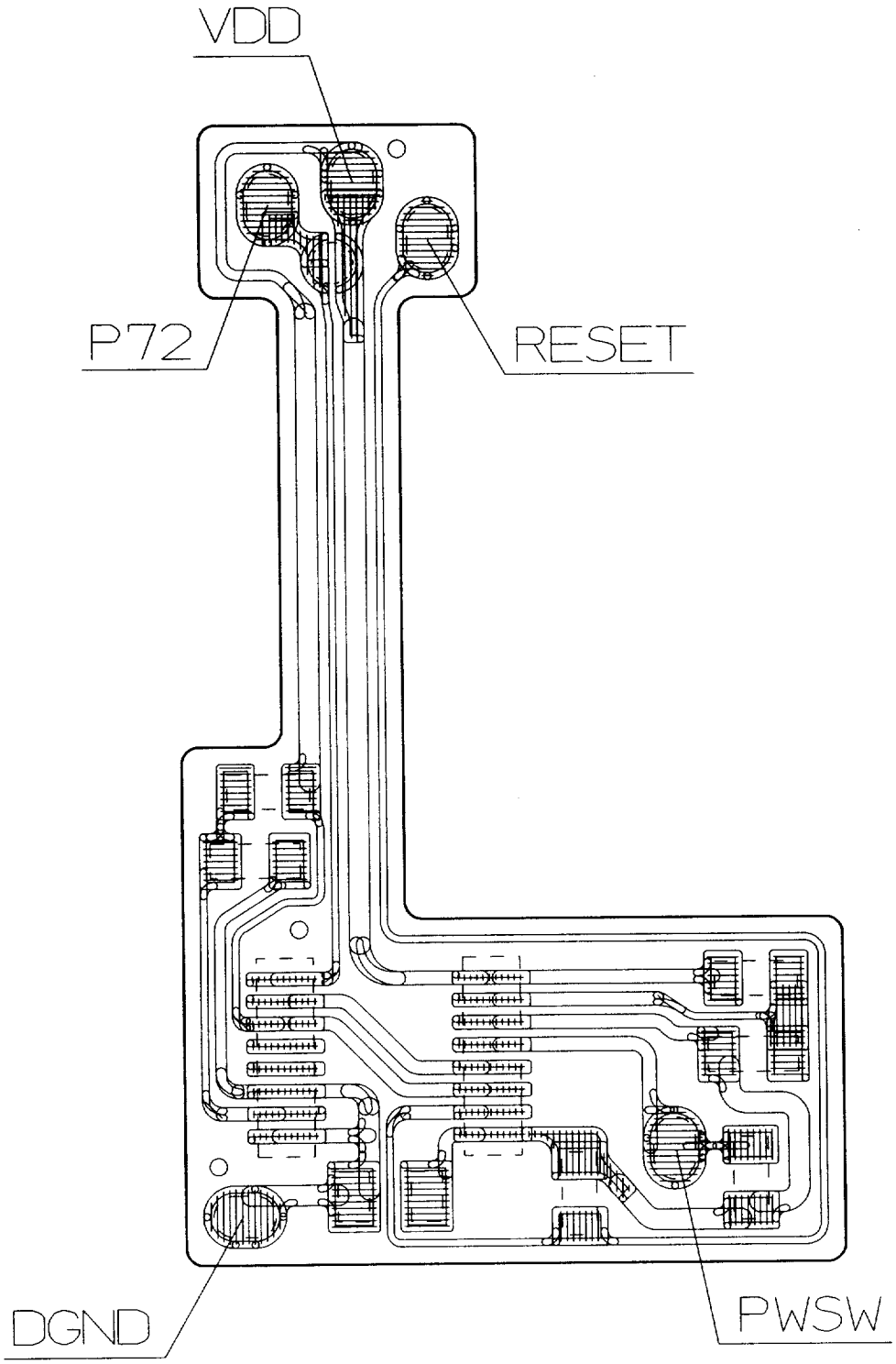
表部品実装図
Front side : Parts location's diagram



計画課
M

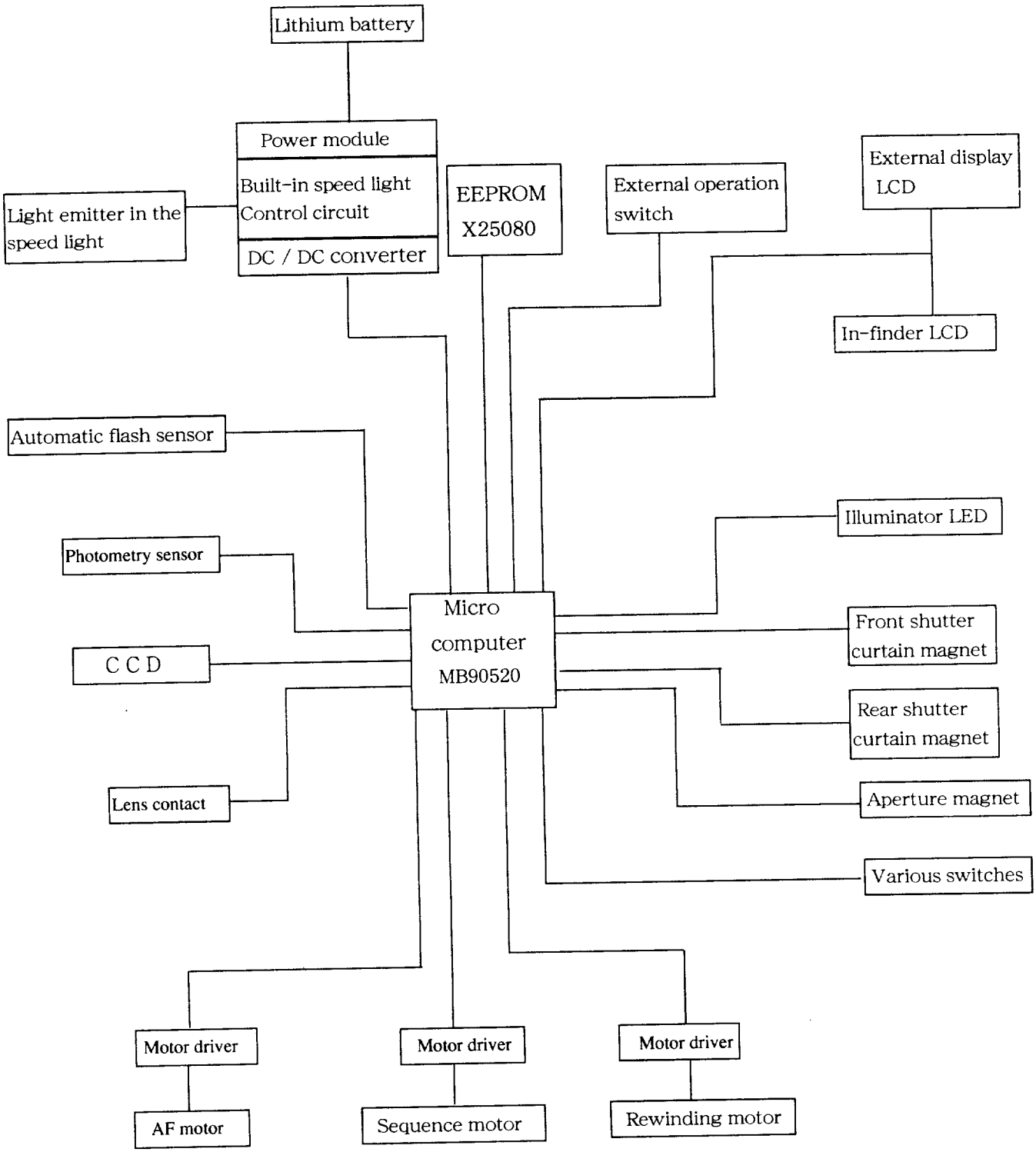
#1019 暫定 FPC
TEMPORARY FPC
For Ver 3.04 & 3.05

裏面パターン図
Backt side pattern diagram



計画課 M

The figure of electrical block



Functions and features of used main electrical parts and the assembled units in the camera

(1) Micro computer

Fujitsu Ltd.-made, general purpose micro computer, ROM 64K byte, built-in 16 bit CPU

(2) Photometry sensor

Mitsubishi Electric Corp.-made, Custom IC

This stems from the 6-segmental photo detecting device and the amplifier and works for converting the light strength on the finder screen to the voltage.

(3) Auto flash sensor

Mitsubishi Electric Corp.-made, Custom IC

This is composed of the photo detecting device and the amplifier, and outputs the flash mode-stop signal at flashing on the speed light.

(4) Motor driver

Motorola-made, general purpose IC

This contains an output terminal for a circuit is arranged for the AF motor.

Sanyo Electric Co., Ltd.-made, general purpose IC

This contains an output terminal for a circuit and is arranged individually for the sequence motor and the rewinding motor.

(5) EEPROM

General purpose IC, 1024 X 8 bit

This is a non-volatile memory which memorizes the particular camera mode parameter, magnetically recorded data and adjustment parameter.

(6) Power module

Custom module which stems from the DC-DC converter and both the charging and flash mode control circuit for the built-in speed light.

Besides, the power module is located between the battery contact and the light emitter in the speed light as a connector for them.

(7) CCD

Sony Co., Ltd.-made, custom CCD

The photo diode array is horizontally arranged toward its optical shaft.

It contains the drive circuit, the control circuit, the amplifying circuit, the accumulated charge monitor circuit and the interface circuit in order to detect the image for AF function.

(8) External display LCD

Citizen Watch Co., Ltd.-made, TN-type custom LCD.

Positive type.

In the conditions of 1/4 of duty and 1/3 of bias, its dynamic drive mode with 96-segment max. is made by the micro-computer.

(9) In-finder LCD

Citizen Watch Co., Ltd.-made, TN-type custom LCD

Negative type.

In the conditions of 1/4 of duty and 1/3 of bias, its dynamic drive mod

(10) Illuminator LED

Custom LED

This is a surface emission LED module stemming from 2 pieces of yellow-green Ca PLED.

It is employed as the back-light for the in-finder LCD.

(11) A magnet for the aperture operation

Combination magnet

Absorption is cancelled by conduction, and then its aperture operation is stopped under control.

(12) Each magnet for the front and rear shutter curtains

This is an absorption magnet inside the shutter curtain.

Electrically charged mode is maintained by conduction, and each front and rear shutter curtain is controlled to travel by off the conduction.

(13) AF motor

Copal Co., Ltd.-made, core-motor.

The AF lens drive is made by this.

(14) Sequence motor

Core-motor.

Each operation of film winding, mirror drive, shutter charge and aperture charge is made by this.

(15) Rewinding motor

Core-motor.

Film thrust and rewinding operations are made by this.

(16) Main PCB

The double-sided resite circuit where a micro-computer, EEPROM and a motor driver are mounted is employed.

(17) Front body FPC

This links with AE FPC, CCD FPC and the bar code FPC.

Each signal from the F-min switch, the shutter and the aperture magnet is input and output.

It is connected with the main PCB by the FPC connector.

(18) External LCD PCB

This connects with the external LCD.

Each signal transmitted from the exposure mode switch, the exposure compensation button switch, the title button switch, the language button switch, the self-timer button switch, the rewind button switch and the synch. mode button switch is input and output.

It is connected with the external LCD connector FPC by the FPC connector.

(19) In-finder LCD FPC

This links with the in-finder LCD and the illuminator LED.

It is connected with the main PCB by the FPC connector.

(20) Lens contact FPC

This inputs and outputs each signal from the lens contact and the communication terminal for inspection.

It is connected with the main PCB by the FPC connector.

(21) TTL FPC

The auto flash sensor is mounted.

It is connected with the lens contact FPC by pressure welding.

(22) CCDFPC

CCD is mounted.

The sequence switch is arranged and its signal is input and output.

It is connected with the front body FPC by pressure welding.

(23) AE FPC

The photometry IC is mounted. It is connected with the front body FPC by solder bridge.

(24) Bar code PPC

Each signal from the bar code photo reflector, the film cartridge chamber switch and the cartridge cover open switch is input and output.

It is connected with the front body FPC by solder bridge.

(25) Top cover FPC

Each signal from the pop-up switch, the power supply switch, the shutter release switch, the pre-release button switch, the command dial is input and output.

It is connected with the front body FPC by solder bridge.

(26) External LCD connector FPC

Each signal from the external LCD PCB is input and output.

It is connected with the main PCB by the FPC connector.

(27) DC-DC FPC

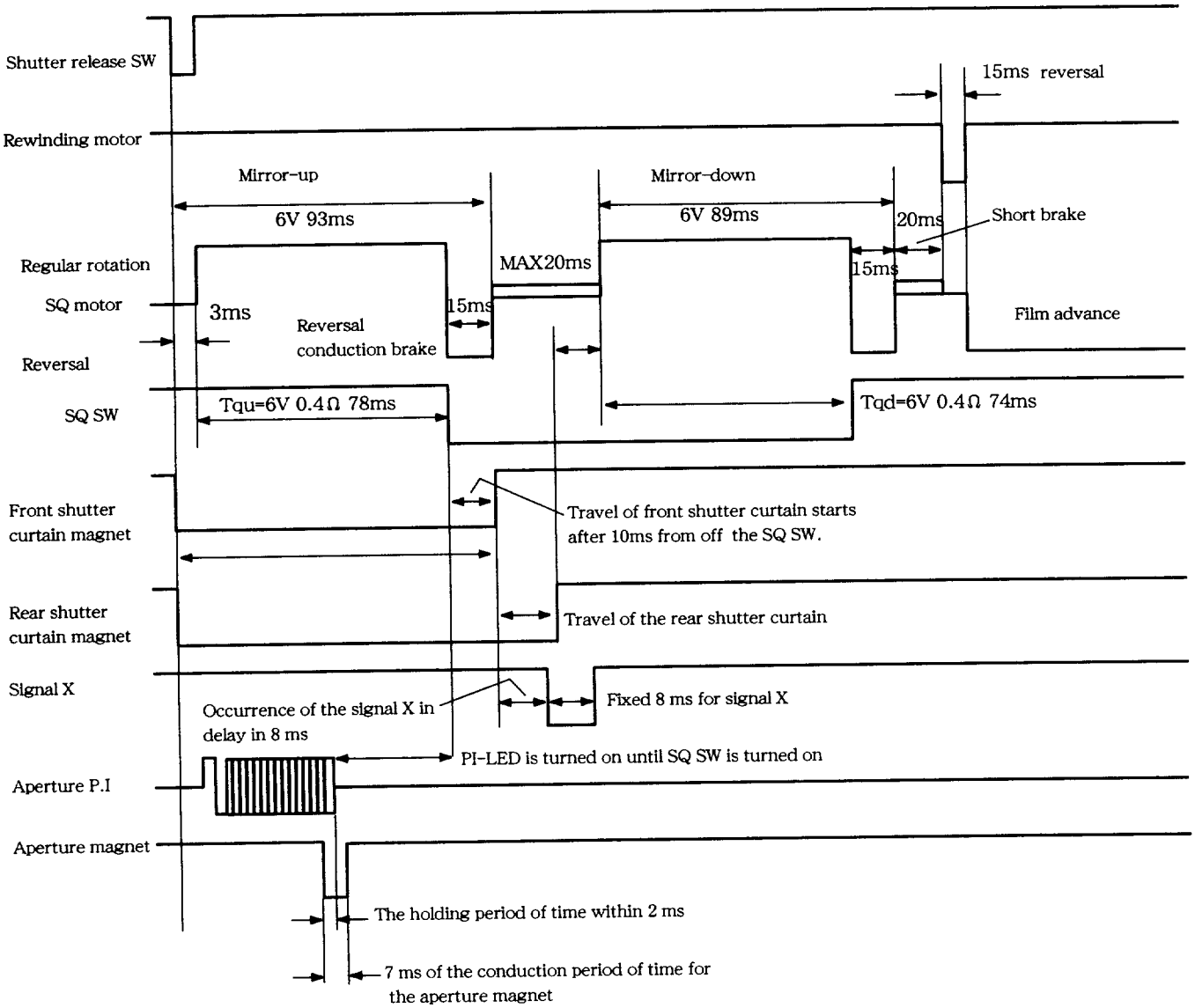
Each signal from the power module circuit board and its electrical power is input and output.

It is connected with the main PCB by solder bridge.

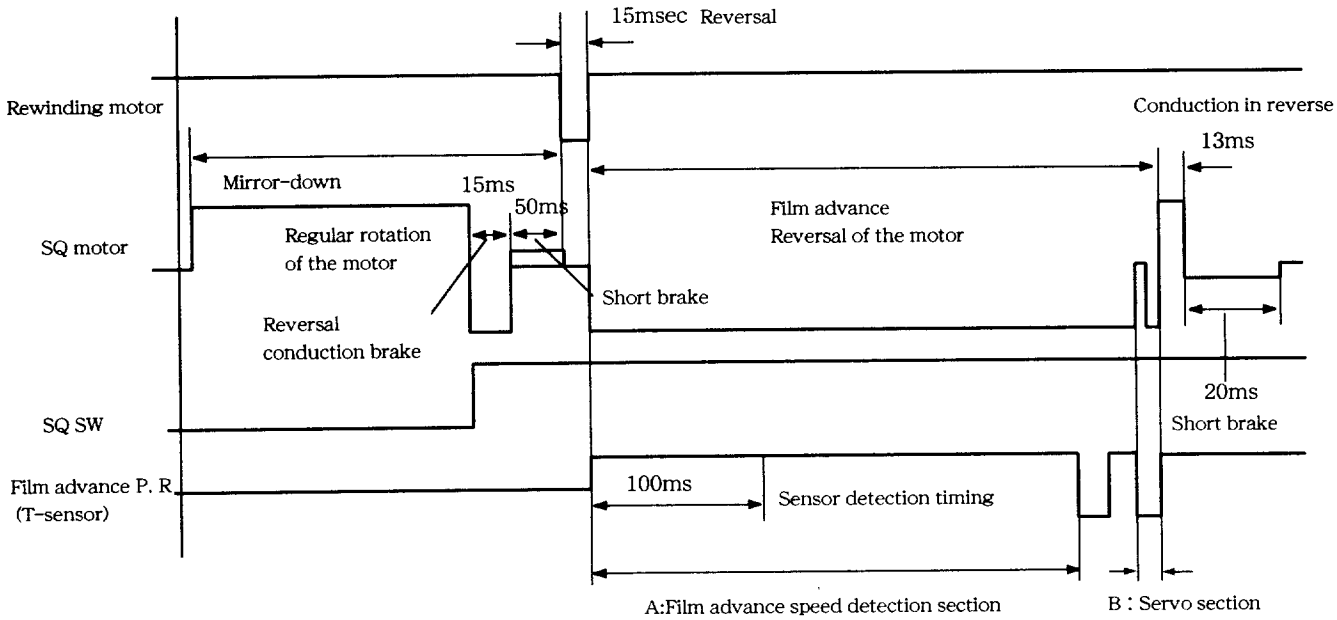
(28) Various kinds of switch

Name of switch	Function	Where to be mounted / settled
Sequence switch	Interlock with the mirror	Inside the mirror box assembly unit
A-M mode selection switch	Switch between auto / manual mode under the AF mode	Single switch
Lens release button switch	Interlock with the lens release button	Single switch
Cartridge chamber switch	Check of the loaded condition of cartridge	Single switch
Open/close lever switch	Check of the open / close condition of the cartridge cover	Incorporated with the bar code PPC
Aperture photo interrupter	Detection of the pulse for stop-down	Inside the mirror box assembly unit
AF photo interrupter	Detection of the AF servo	On the front body FPC
Bar code photo reflector	Detection of film type	On the bar code FPC
Film advance photo reflector	Counting of advanced film frame	On the main PCB

Sequence time chart



Film advance time chart



(1)After the completion of short brake through the mirror-down process, reversely rotate the rewinding motor in 15 ms and set the planetary gear free from the thrust drive side.

(2)Stop servo

In response to the film advance speed which variable with the power supply voltage, monitor the film advance speed in order to constantly maintain the stop speed.

Using the control table in compliance with the speed, settle the final speed of brake almost constant.

A : Film advance speed detection section

This is a period of time from the start of film advance operation until detection of the first edge.

B : Servo section

In accordance with the numerical value drawn from the ↑A : film advance speed detection section ↓, the duty drive is made in gradually changing the duty ratio between the third edge and the fourth or final edge.

PRONEA S EEPROM DATA

1998-09-10

ADDRESS	CONTENTS	CPU					NOTE
		MP 1	MP 2	MP 3			
		03.04	03.05	03.08			
0	AF ADJUSTMENT DATA	–	–	–			
|	|	|	|	|			
5	AF ADJUSTMENT DATA	–	–	–			
6	CAMERA CONTROL DATA	0	0	0			
7	CAMERA CONTROL DATA	0	0	0			
8	CAMERA CONTROL DATA	66	66	66			
9	CAMERA CONTROL DATA	0	0	0			
10	CAMERA CONTROL DATA	67	67	67			
11	CAMERA CONTROL DATA	0	0	0			
12	CAMERA CONTROL DATA	53	53	53			
13	CAMERA CONTROL DATA	137	137	137			
14	CAMERA CONTROL DATA	53	53	53			
15	CAMERA CONTROL DATA	137	137	137			
16	CAMERA CONTROL DATA	54	54	54			
17	CAMERA CONTROL DATA	6	6	6			
18	CAMERA CONTROL DATA	54	54	54			
19	CAMERA CONTROL DATA	6	6	6			
20	CAMERA CONTROL DATA	63	63	63			
21	CAMERA CONTROL DATA	102	102	102			
22	CAMERA CONTROL DATA	193	193	193			
23	CAMERA CONTROL DATA	154	154	154			
24	CAMERA CONTROL DATA	193	193	193			
25	CAMERA CONTROL DATA	0	0	0			
26	CAMERA CONTROL DATA	196	196	196			
27	CAMERA CONTROL DATA	154	154	154			
28	CAMERA CONTROL DATA	60	60	60			
29	CAMERA CONTROL DATA	153	153	153			
30	CAMERA CONTROL DATA	61	61	61			
31	CAMERA CONTROL DATA	51	51	51			
32	CAMERA CONTROL DATA	59	59	59			
33	CAMERA CONTROL DATA	155	155	155			
34	CAMERA CONTROL DATA	63	63	63			

ADDRESS	CONTENTS	CPU					NOTE
		MP 1	MP 2	MP 3			
		03.04	03.05	03.08			
35	CAMERA CONTROL DATA	102	102	102			
36	CAMERA CONTROL DATA	25	25	25			
37	CAMERA CONTROL DATA	0	0	0			
38	CAMERA CONTROL DATA	64	64	64			
39	CAMERA CONTROL DATA	0	0	0			
40	CAMERA CONTROL DATA	65	65	65			
41	CAMERA CONTROL DATA	0	0	0			
42	NOT USED	–	–	–			
|	|	|	|	|			
55	NOT USED	–	–	–			
56	CAMERA CONTROL DATA	78	78	78			
57	CAMERA CONTROL DATA	0	0	0			
58	CAMERA CONTROL DATA	17	17	17			
59	CAMERA CONTROL DATA	0	0	0			
60	CAMERA CONTROL DATA	135	135	135			
61	CAMERA CONTROL DATA	1	1	1			
62	CAMERA CONTROL DATA	78	78	78			
63	CAMERA CONTROL DATA	0	0	0			
64	CAMERA CONTROL DATA	239	239	239			
65	CAMERA CONTROL DATA	7	7	7			
66	CAMERA CONTROL DATA	25	25	25			
67	CAMERA CONTROL DATA	1	1	1			
68	CAMERA CONTROL DATA	234	234	234			
69	CAMERA CONTROL DATA	0	0	0			
70	CAMERA CONTROL DATA	27	27	27			
71	CAMERA CONTROL DATA	6	6	6			
72	CAMERA CONTROL DATA	78	78	78			
73	CAMERA CONTROL DATA	0	0	0			
74	CAMERA CONTROL DATA	213	213	213			
75	CAMERA CONTROL DATA	1	1	1			
76	CAMERA CONTROL DATA	156	156	156			
77	CAMERA CONTROL DATA	0	0	0			

ADDRESS	CONTENTS	CPU					NOTE
		MP 1	MP 2	MP 3			
		03.04	03.05	03.08			
78	CAMERA CONTROL DATA	112	112	112			
79	CAMERA CONTROL DATA	23	23	23			
80	CAMERA CONTROL DATA	132	132	132			
81	CAMERA CONTROL DATA	3	3	3			
82	CAMERA CONTROL DATA	160	160	160			
83	CAMERA CONTROL DATA	15	15	15			
84	CAMERA CONTROL DATA	1	1	1			
85	CAMERA CONTROL DATA	0	0	0			
86	CAMERA CONTROL DATA	111	111	111			
87	CAMERA CONTROL DATA	23	23	23			
88	CAMERA CONTROL DATA	224	224	224			
89	CAMERA CONTROL DATA	46	46	46			
90	CAMERA CONTROL DATA	200	200	200			
91	CAMERA CONTROL DATA	0	0	0			
92	CAMERA CONTROL DATA	200	200	200			
93	CAMERA CONTROL DATA	0	0	0			
94	CAMERA CONTROL DATA	132	132	132			
95	CAMERA CONTROL DATA	3	3	3			
96	CAMERA CONTROL DATA	208	208	208			
97	CAMERA CONTROL DATA	7	7	7			
98	CAMERA CONTROL DATA	208	208	208			
99	CAMERA CONTROL DATA	7	7	7			
100	M 1/2000 ADJUSTMENT DATA	–	–	–			
101	M 1/2000 ADJUSTMENT DATA	–	–	–			
102	CAMERA CONTROL DATA	96	96	96			
103	CAMERA CONTROL DATA	10	10	10			
104	CAMERA CONTROL DATA	188	188	188			
105	CAMERA CONTROL DATA	0	0	0			
106	CAMERA CONTROL DATA	78	78	78			
107	CAMERA CONTROL DATA	0	0	0			
108	CAMERA CONTROL DATA	10	10	10			
109	CAMERA CONTROL DATA	14	14	14			

ADDRESS	CONTENTS	CPU					NOTE
		MP1	MP2	MP3			
		03.04	03.05	03.08			
110	CAMERA CONTROL DATA	25	25	25			
111	CAMERA CONTROL DATA	1	1	1			
112	CAMERA CONTROL DATA	234	234	234			
113	CAMERA CONTROL DATA	0	0	0			
114	NOT USED	—	—	—			
|	|	|	|	|			
121	NOT USED	—	—	—			
122	CAMERA CONTROL DATA	34	34	34			
123	CAMERA CONTROL DATA	16	16	16			
124	CAMERA CONTROL DATA	85	85	85			
125	NOT USED	—	—	—			
126	NOT USED	—	—	—			
127	CAMERA CONTROL DATA	247	247	247			
128	CAMERA CONTROL DATA	26	26	26			
129	CAMERA CONTROL DATA	3	3	3			
130	CAMERA CONTROL DATA	96	96	96			
131	CAMERA CONTROL DATA	125	125	125			
132	CAMERA CONTROL DATA	25	25	25			
133	AF ADJUSTMENT DATA	—	—	—			
134	CAMERA CONTROL DATA	59	59	59			
135	CAMERA CONTROL DATA	12	12	12			
136	CAMERA CONTROL DATA	90	90	90			
137	CAMERA CONTROL DATA	26	26	26			
138	CAMERA CONTROL DATA	25	25	25			
139	CAMERA CONTROL DATA	5	5	5			
140	CAMERA CONTROL DATA	50	50	50			
141	CAMERA CONTROL DATA	25	25	25			
142	CAMERA CONTROL DATA	32	32	32			
143	CAMERA CONTROL DATA	25	25	25			
144	CAMERA CONTROL DATA	8	8	8			
145	AF ADJUSTMENT DATA	—	—	—			
146	AF ADJUSTMENT DATA	—	—	—			

ADDRESS	CONTENTS	CPU					NOTE
		MP1	MP2	MP3			
		03.04	03.05	03.08			
147	AF ADJUSTMENT DATA	–	–	–			
|	|	|	|	|			
340	AF ADJUSTMENT DATA	–	–	–			
341	CAMERA CONTROL DATA	107	107	107			
342	CAMERA CONTROL DATA	248	248	248			
343	CAMERA CONTROL DATA	0	0	0			
344	AF ADJUSTMENT DATA	0	0	0			
345	CAMERA CONTROL DATA	0	0	0			
346	CAMERA CONTROL DATA	57	57	57			
347	CAMERA CONTROL DATA	0	0	0			
348	CAMERA CONTROL DATA	0	0	0			
349	CAMERA CONTROL DATA	100	100	100			
350	CAMERA CONTROL DATA	128	128	128			
351	CAMERA CONTROL DATA	32	32	32			
352	CAMERA CONTROL DATA	23	23	23			
353	CAMERA CONTROL DATA	12	12	12			
354	CAMERA CONTROL DATA	0	0	0			
355	CAMERA CONTROL DATA	0	0	0			
356	CAMERA CONTROL DATA	80	80	80			
357	CAMERA CONTROL DATA	210	210	210			
358	CAMERA CONTROL DATA	128	128	128			
359	CAMERA CONTROL DATA	0	0	0			
360	CAMERA CONTROL DATA	250	250	250			
361	CAMERA CONTROL DATA	38	38	38			
362	CAMERA CONTROL DATA	4	4	4			
363	CAMERA CONTROL DATA	94	94	94			
364	CAMERA CONTROL DATA	31	31	31			
365	CAMERA CONTROL DATA	5	5	5			
366	CAMERA CONTROL DATA	156	156	156			
367	CAMERA CONTROL DATA	62	62	62			
368	NOT USED	–	–	–			
|	|	|	|	|			
381	NOT USED	–	–	–			

ADDRESS	CONTENTS	CPU					NOTE
		MP 1	MP 2	MP 3			
		03.04	03.05	03.08			
382	AE ADJUSTMENT DATA	–	–	–			
383	AE LEVEL ADJUSTMENT DATA CH1	–	–	–			
384	AE LEVEL ADJUSTMENT DATA CH2	–	–	–			
385	AE LEVEL ADJUSTMENT DATA CH3	–	–	–			
386	AE LEVEL ADJUSTMENT DATA CH4	–	–	–			
387	AE LEVEL ADJUSTMENT DATA CH5	–	–	–			
388	AE LEVEL ADJUSTMENT DATA CH6	–	–	–			
389	CAMERA CONTROL DATA	0	0	0			
390	CAMERA CONTROL DATA	0	0	0			
391	CAMERA CONTROL DATA	0	0	0			
392	CAMERA CONTROL DATA	50	50	50			
393	NOT USED	–	–	–			
|	|	|	|	|			
404	NOT USED	–	–	–			
405	CAMERA CONTROL DATA	39	39	39			
406	CAMERA CONTROL DATA	234	234	234			
407	CAMERA CONTROL DATA	195	195	195			
408	CAMERA CONTROL DATA	20	20	20			
409	CAMERA CONTROL DATA	18	18	18			
410	BC ADJUSTMENT DATA	–	–	–			
|	|	|	|	|			
413	BC ADJUSTMENT DATA	–	–	–			
414	CAMERA CONTROL DATA	255	255	255			
415	CAMERA CONTROL DATA	255	255	255			
416	CAMERA CONTROL DATA	198	198	198			
417	CAMERA CONTROL DATA	179	179	179			
418	CAMERA CONTROL DATA	78	78	78			
419	CAMERA CONTROL DATA	31	31	31			
420	CAMERA CONTROL DATA	159	159	159			
421	CAMERA CONTROL DATA	65	65	65			
422	CAMERA CONTROL DATA	160	160	160			
423	CAMERA CONTROL DATA	185	185	185			

ADDRESS	CONTENTS	CPU					NOTE
		MP 1	MP 2	MP 3			
		03.04	03.05	03.08			
424	CAMERA CONTROL DATA	9	9	9			
425	CAMERA CONTROL DATA	9	9	9			
426	CAMERA CONTROL DATA	9	9	9			
427	CAMERA CONTROL DATA	12	12	12			
428	CAMERA CONTROL DATA	13	13	13			
429	CAMERA CONTROL DATA	15	15	15			
430	CAMERA CONTROL DATA	160	160	160			
431	CAMERA CONTROL DATA	20	20	20			
432	CAMERA CONTROL DATA	20	20	20			
433	CAMERA CONTROL DATA	5	5	5			
434	CAMERA CONTROL DATA	0	0	0			
435	CAMERA CONTROL DATA	20	20	20			
436	CAMERA CONTROL DATA	70	70	70			
437	CAMERA CONTROL DATA	15	15	15			
438	CAMERA CONTROL DATA	49	49	49			
439	CAMERA CONTROL DATA	140	140	140			
440	APERTURE CONTROL DATA	—	—	—			
441	CAMERA CONTROL DATA	50	50	50			
442	CAMERA CONTROL DATA	12	12	12			
443	TTL LEVEL ADJUSTMENT DATA	0	0	0			
444	TTL GAMMA ADJUSTMENT DATA	0	0	0			
445	CAMERA CONTROL DATA	78	78	78			
446	CAMERA CONTROL DATA	2	2	2			
447	CAMERA CONTROL DATA	49	49	49			
448	CAMERA CONTROL DATA	130	130	130			
449	CAMERA CONTROL DATA	85	85	85			
450	CAMERA CONTROL DATA	74	74	74			
451	CAMERA CONTROL DATA	179	179	179			
452	CAMERA CONTROL DATA	138	138	138			
453	CAMERA CONTROL DATA	93	93	93			
454	CAMERA CONTROL DATA	90	90	90			
455	CAMERA CONTROL DATA	122	122	122			

ADDRESS	CONTENTS	CPU					NOTE
		MP1	MP2	MP3			
		03.04	03.05	03.08			
456	CAMERA CONTROL DATA	146	146	146			
457	CAMERA CONTROL DATA	27	27	27			
458	CAMERA CONTROL DATA	39	39	39			
459	CAMERA CONTROL DATA	54	54	54			
460	CAMERA CONTROL DATA	63	63	63			
461	CAMERA CONTROL DATA	63	63	63			
462	CAMERA CONTROL DATA	63	63	63			
463	CAMERA CONTROL DATA	5	5	5			
464	CAMERA CONTROL DATA	65	65	65			
465	CAMERA CONTROL DATA	34	34	34			
466	CAMERA CONTROL DATA	42	42	42			
467	CAMERA CONTROL DATA	31	31	31			
468	CAMERA CONTROL DATA	47	47	47			
469	CAMERA CONTROL DATA	62	62	62			
470	CAMERA CONTROL DATA	63	63	63			
471	CAMERA CONTROL DATA	63	63	63			
472	CAMERA CONTROL DATA	63	63	63			
473	CAMERA CONTROL DATA	110	110	110			
474	CAMERA CONTROL DATA	128	128	128			
475	CAMERA CONTROL DATA	44	44	44			
476	CAMERA CONTROL DATA	44	44	44			
477	CAMERA CONTROL DATA	44	44	44			
478	CAMERA CONTROL DATA	11	11	11			
479	CAMERA CONTROL DATA	12	12	12			
480	CAMERA CONTROL DATA	15	15	15			
481	CAMERA CONTROL DATA	110	110	110			
482	CAMERA CONTROL DATA	128	128	128			
483	CAMERA CONTROL DATA	44	44	44			
484	CAMERA CONTROL DATA	44	44	44			
485	CAMERA CONTROL DATA	44	44	44			
486	CAMERA CONTROL DATA	11	11	11			
487	CAMERA CONTROL DATA	12	12	12			

ADDRESS	CONTENTS	CPU					NOTE
		MP1	MP2	MP3			
		03.04	03.05	03.08			
488	CAMERA CONTROL DATA	15	15	15			
489	CAMERA CONTROL DATA	122	122	122			
490	CAMERA CONTROL DATA	50	50	50			
491	CAMERA CONTROL DATA	250	250	250			
492	CAMERA CONTROL DATA	250	250	250			
493	CAMERA CONTROL DATA	120	120	120			
494	CAMERA CONTROL DATA	36	36	36			
495	CAMERA CONTROL DATA	36	36	36			
496	CAMERA CONTROL DATA	16	16	16			
497	CAMERA CONTROL DATA	13	13	13			
498	CAMERA CONTROL DATA	11	11	11			
499	CAMERA CONTROL DATA	11	11	11			
500	CAMERA CONTROL DATA	1	1	1			
501	CAMERA CONTROL DATA	39	39	39			
502	CAMERA CONTROL DATA	150	150	150			
503	CAMERA CONTROL DATA	150	150	150			
504	CAMERA CONTROL DATA	29	29	29			
505	CAMERA CONTROL DATA	29	29	29			
506	CAMERA CONTROL DATA	37	37	37			
507	CAMERA CONTROL DATA	37	37	37			
508	CAMERA CONTROL DATA	255	255	255			
509	CAMERA CONTROL DATA	77	77	77			
510	CAMERA CONTROL DATA	130	130	130			
511	CAMERA CONTROL DATA	77	77	77			
512	CAMERA CONTROL DATA	150	150	150			
513	CAMERA CONTROL DATA	12	12	12			
514	CAMERA CONTROL DATA	171	171	171			
515	CAMERA CONTROL DATA	80	80	80			
516	CAMERA CONTROL DATA	94	94	94			
517	CAMERA CONTROL DATA	32	32	32			
518	CAMERA CONTROL DATA	80	80	80			
519	CAMERA CONTROL DATA	0	0	0			

ADDRESS	CONTENTS	CPU					NOTE
		MP 1	MP 2	MP 3			
		03.04	03.05	03.08			
5 2 0	CHECK SUM DATA	–	–	–			
5 2 1	NOT USED	–	–	–			
|	|	|	|	|			
5 2 9	NOT USED	–	–	–			
5 3 0	CAMERA CONTROL DATA	–	–	–			
|	|	|	|	|			
5 5 9	CAMERA CONTROL DATA	–	–	–			
5 6 0	NOT USED	–	–	–			
|	|	|	|	|			
5 6 9	NOT USED	–	–	–			
5 7 0	CAMERA CONTROL DATA	–	–	–			
|	|	|	|	|			
1 0 2 3	CAMERA CONTROL DATA	–	–	–			

- The values stated in the list are the fixed value or the initial value, however some data change according to the camera condition.

- -(minus mark)means the values that will change according to the transition of camera condition and adjustment data.

INSPECTION STANDARD AND TOOLS

CONDITION FOR INSPECTION

Normal temperature : Temperature 20±5℃ Humidity 65±20%

Power source : 5.5V 5A or more at 0.4Ω load

Light source : 2,856 ° K

K coefficient : 1.16

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 "-" underexposure .
3. B1 - B6 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

Classification	Evaluation items		standard
Dimension	Main mirror	45° position Up and down	Within10± 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	$1.4^{+0.05}_{-0.2}$ mm
	Lens contact	Contact width	1.4 mm or more
		Depth from bayonet surface	6.1 mm~ 6.8 mm
	Aperture lever	3.4 height (when using a tool)	$3.4^{+0.15}_{-0.1}$
		Horizontal position	$18.7^{+0.35}_{-0.3}$
		Depth from bayonet surface	5.3 mm~ 6.7 mm (Including up-and-down operation.)
	AF coupling	Protrusion height	1.7 mm± 0.2 mm
		Height when lens release pin is 0.4mm	0.07 mm or less
	Fmin SW	Height from bayonet surface	0 ± 0.2 mm
	MBF	Pressure plate position (4 corners of image)	46.64 mm± 0.02 mm
		Pressure plate flatness (4 corners of image)	0.03 mm or less
		Clearance between pressure plate and inner rail	0.18 mm~ 0.33 mm
		Difference between inner rail and aperture surface	0.44 mm± 0.19 mm
AF performance	Alignment	Yaw	0 ± 6 mrad
		Pitch	0 ± 25 mrad
	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		Ligthting range± 100 μm
Metering	Metering accuracy	Error of recognition BV B1~B5	Within ± 0.5 EV (EV1~EV20)
		value toward AF50/1.4 B6 standard	Within ± 0.5 EV (EV3~EV20)

Classification	Evaluation items			Standard
Metering	AESPD position		Up and down (using screen as reference)	Within ± 0.5 mm
			Left and right (using screen as reference)	Within ± 0.5 mm
			θ (using screen as reference)	Within ± 5°
A E performance	Image exposure AMP is excluded	Accuracy	Shutter speed is 1/1000 sec or more	Within ± 0.65 EV
			Shutter speed is less than 1/1000 sec	Within ± 0.5 EV
		Tolerance	Shutter speed is 1/1000 sec or more	Within 0.6 EV
			Shutter speed is less than 1/1000 sec	Within 0.3 EV
	A mode AMP is excluded	Accuracy	Shutter speed is 1/1000 sec or more	Within ± 0.65 EV
			Shutter speed is less than 1/1000 sec	Within ± 0.5 EV
		Tolerance	Shutter speed is 1/1000 sec or more	Within 0.6 EV
			Shutter speed is less than 1/1000 sec	Within 0.3 EV
	S mode AMP is excluded	Accuracy	Full Aperture	Within ± 0.5 EV
		Tolerance	Full Aperture	Within 0.5 EV
Shutter	Speed Accuracy		1/2000	± 0.45 EV
			1/2000 < Speed ≦ 1/250	± 0.3 EV
			1/250 < Speed ≦ 30 sec	± 0.2 EV
	Tolerance		1/2000	Within 0.45 EV
			1/2000 < 秒 Speed ≦ 1/250	Within 0.3 EV
			1/250 < Speed ≦ 30 sec	Within 0.2 EV
	Curtain speed		15mm slit	4.3 ± 0.3 ms
	Synchronization		Time lag	0.2 ms ~ 1.3 ms
			Allowance after turning ON	1.3 ms or more
Aperture control	Operation		Lens aperture force : 45g Power supply voltage : 6 V + 0 Ω	Aperture pulse : 70 pulses or more
	Aperture height accuracy		Pulse stop accuracy	Aimed value ± 2 pulses or more
			Tolerance	Within 0.4 EV
S B	Guide number		At full flash (ISO100)	Within 10.5
	Recycle time		New battery	Within 3 ~ 3.5 sec
	Color temperature		At full flash	5500 ± 400° K
Finder	Inside LCD display window position		Left and right	0.5 ~ 0.9mm frrom the end face of visual field frame
			Inclination	Within 1°
	Visual field rate		AF50/1.4	95% ± 3%
	Diopter		Finder image ' Distance measurement · PAR frame	-1.5±0.5dpt ~ +0.5±0.5dpt
			Inside LCD display	-1±0.5dpt
	Eye point		Distance to eyepiece lens	18 ± 2 mm
Operation time	Pre-release timer time		After pre-release switch OFF	5 ± 0.5 sec
			After release	2 ± 0.5 sec

Classification	Evaluation items			Standard
Electric current	Consumption Standby current	Main switch OFF		1 0 0 μA or less
		Main switch ON (Power OFF)		1 0 0 μA or less
		Main switch ON (Power ON)		2 0 0 mA or less
	Film advance	Current consumption (Average)	1EX	450mA or less
			20EX	450mA or less
			40EX	450mA or less
	Film rewind	Current consumption		250mA or less
	B.C level	Primary level	Lower direction	4.95±0.07V or less
			Restoring direction	5.15±0.07V or less
		Secondary level	Lower direction	4.80±0.07V or less
			Restoring direction	5.00±0.07V or les
	Number of film rolls	Inside SB is not used. (Normal temp.)		40EX 30 rolls , 25EX 41
		50% of inside SB is used. (Normal temp.)		40EX 13 rolls , 25EX 19
		Inside SB is not used. (-10℃)		40EX 17 rolls , 25EX 20
		50% of inside SB is used. (-10℃)		40EX 7 rolls , 25EX 11
		Bulb operating time (Normal temp.)		2 hours or more
Image dimension	Image dimension	Width		30.2 $^{+1.22}_{0}$ mm
		Lenght		16.7 $^{+0.76}_{0}$ mm
		R of corners		R 0.4 mm or less

2. TOOLS

① Special tools

Tool No.	Name	Remark
J 1 5 3 4 6	Mirror angle inspection mirror	For PRONEA S
J 1 8 2 7 7 − 1	Sub mirror angle adjustment tool	For PRONEA S&PRONEA
⚠ J 1 5 3 4 7	Camera communication tool	For PRONEA S
J 1 5 3 2 9	M.B.F. measurement 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 5 3 4 3	Photo detecting adapter for shutter speed measurement (Available to measure the manual shutter speed with the pressure plate.)	For EF8000 For PRONEA S
J 1 8 2 9 4 A	Inspection and adjustment program	NEC 5 icch
J 1 8 2 9 4 B	Inspection and adjustment program	NEC 3.5 icch
J 1 8 2 9 4 C	Inspection and adjustment program	IBM 5 icch
J 1 8 2 9 4 D	Inspection and adjustment program	IBM 3. 5 icch

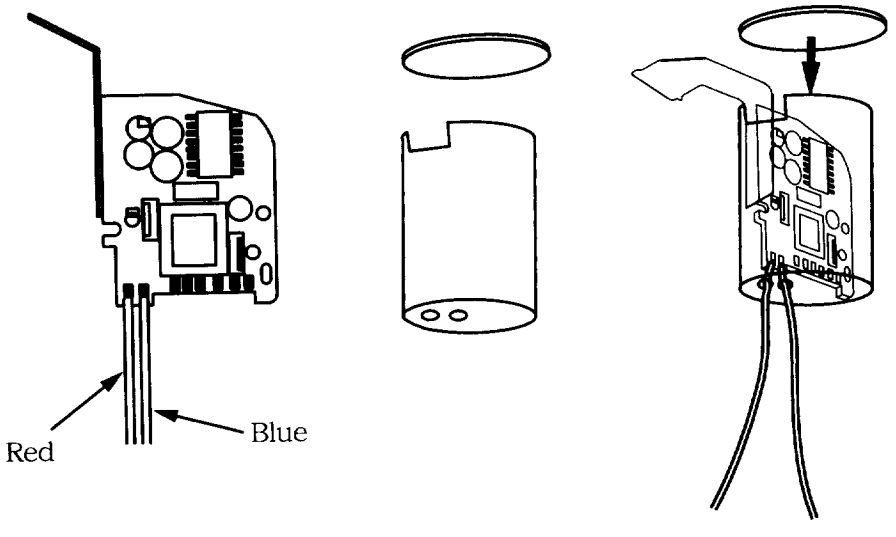
② Self-made tool

How to manufacture the dummy DC / DC unit

(1) As instructed below, solder both the red and the blue lead wires on the DC/DC assembly unit.

(2) Process the film case as shown below.

(3) Insert the DC/DC unit made in (1) above to the film case.



計画課 M