作成承認印	配布許可印
ニコンカンパニー CS推進部 GM	

F55

FAA39001
FAA39011
FAA39211
FAA39221

N55

FAA39101
FAA39301

us

FAA39201

REPAIR MANUAL

Nikon | NIKON CORPORATION
Tokyo, Japan

Recycled paper

Printed in Japan January 2002

SPECIFICATION

1. Viewfinder

Type	: Hollow Pentagonal Type Single Lens Reflex Finder
Finder Screen	: B-type Clear Mat Screen V
Finder Replacement	: Unavailable
Screen Replacement	: Unavailable
Finder Visuality Ratio	: Approx. 87% both vertically and horizontally
Magnification	: 0.675 times at $-1.52m^{-1}$ (dpt) 0.604 times at $+0.77m^{-1}$ (dpt) (50mm lens is used, ∞)
Diopter	: -1.52 to $+0.77m^{-1}$ (dpt) Can be adjusted by the diopter adjustment lever, by 4-step The optional eyepiece correction lenses can be used together.
Eye Point	: 15.9mm (at $-1.52m^{-1}$ (dpt)) 23.1mm (at $+0.77m^{-1}$ (dpt)) 17.05mm (at $-1m^{-1}$ (dpt))
Eyepiece Frame	: Rectangular Shape (F-401 type, new-eye eyepiece rubber is equipped.)
Eyepiece Lens	: 3 elements in 3 groups (Material; polycarbonate, acrylic)

2. Shutter

①Electronically controlled vertical-travel focal-plane shutter

②Max. Shutter Speed 1/2000, At Synchronous Speed 1/90

③Curtain Speed	Approx. 8msec (24mm Image plane)
④Traveling Direction	Vertical-travel (Up)
⑤The Number of Blade	Front curtain 4 elements Rear curtain 4 elements
⑥Material of Blade	Aluminum Blade and Plastic Blade are used together
⑦Control Speed Range	30sec. to 1/2000sec., Time (M mode only)

3. Metering

①System	TTL full-aperture exposure metering system by the IC integrated type five-segments sensor and TTL fill flash by CCD
②Control System	With D-type Nikkor Lens: 3D five-segment Matrix Metering Without D-type Nikkor Lens: Five-segment Matrix Metering When the exposure mode is M: Center-Weighted Metering
③Metering Range	EV1 to 20 (ISO 100, when using F1.4 lens)
④AE Lock	No lock

4 . Auto Flash

①System	TTL-BL Fill-Flash by the IC integrated type sensor
②Range	Built-in speed light:GN2.8 to 12 (ISO 100 m)
	External speed light: External fill-flash only
③ISO Interlocking Range	ISO 25 to 800 (Built-in/ External in common)
④Built-in Speed light Auto Flash System	
	Exposure Mode P, S, A, AUTO, Image program: TTL-BL
⑤Full Output Warning	Ready-light in the finder blinks (For 3 to 4 sec.)

5 . External Speed light

①Communication	Serial communication is not available.
②Usable function with the external speed light	
	Shutter speed is changed to the synchronous shutter speed automatically
	Ready-light display only
	(But only when using the SB that can be recognized by the ready contact of camera.)
③Usable Mode	Exposure Mode M, A: External auto-flash, Manual fill-flash
	Exposure Mode Program Flash Mode: External auto-flash, Manual fill-flash
	(When the exposure mode dial is at P, S, AUTO or Image Program, the mode is changed automatically.)
④Red Eye Reduction Function	
	Pre-firing system by the red-eye reduction lamp (By the built-in lamp)

6 . Built-in speed light

①Type	Serial control type, Auto pop-up type
	Auto pop-up, when it is low luminance while pressing the shutter release button lightly at AUTO and Image Program Mode and when satisfying the condition that the speed light pops up for the backlight.
	The speed light pops up by operating the flash sync mode button at PSAM modes, and the speed light fires compulsorily when the speed light pops up.
②Guide No.	12 (ISO 100 · m)
③Illuminating Angle	Cover the 28mm lens
④Charging Time	Approx. 3 sec.
⑤Red Eye Reduction Function	
	Pre-firing System by the red-eye reduction lamp

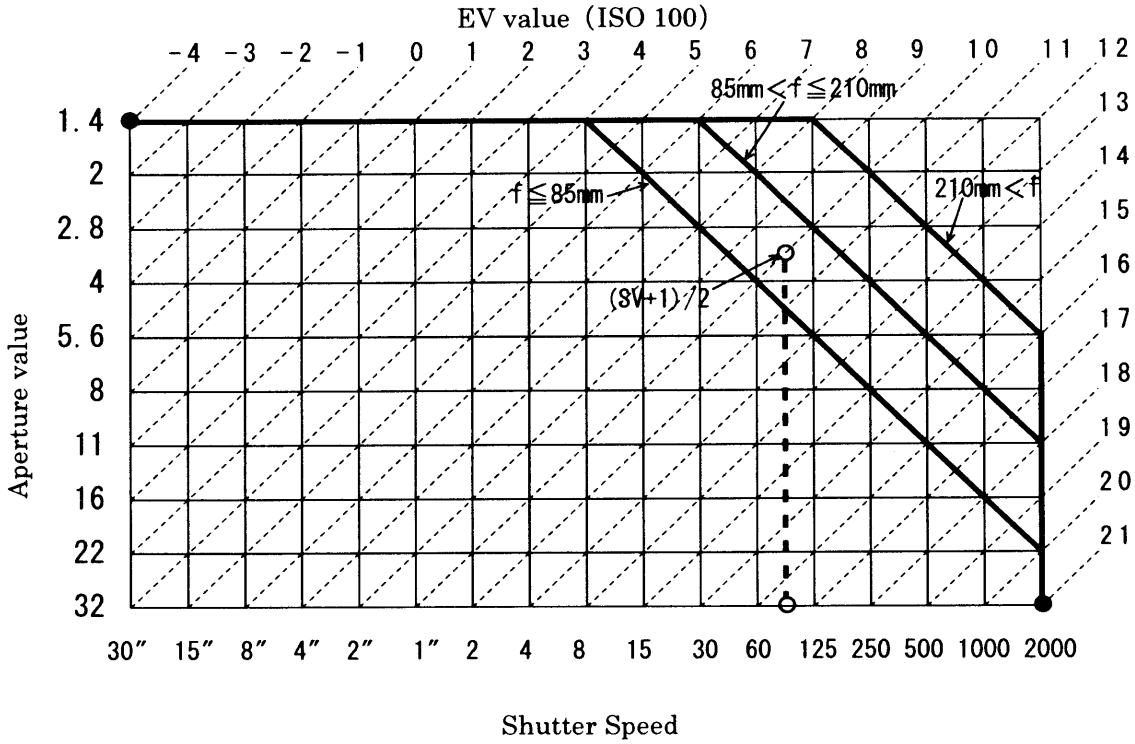
7. AF

①Detection System	TTL Phase Difference Detection System using AP-7 module
②Detection Range	EV-1 to 19 (ISO100, at normal temperature)
③Usable Lens for Detection	Maximum aperture value F5.6 or less
④Usable Lens for Driving	AF Nikkor lenses except AF Nikkor for F3AF, AF-I and AF-S lens
⑤Driving Mode	Auto-Servo AF Mode (AF-A) (Switch; EASY PSAM, AUTO, P.F> Image program except Sports Continuos Mode DIFFICULT)
⑥Tracking Drive	Single AF servo at Auto AF servo and Continuous Servo AF mode are available
⑦Focus Lock	Focus is locked when the focus does not track at Single AF servo and the subject is in-focus. After the focus is locked, if it recognizes that the object is a moving body, it cancels the lock.
⑧AF-Assist Illuminator	Auto firing only Cancel the AF-Assist Illuminator at Landscape mode and Sports Continuous mode Function that cancels the AF-Assistant Illuminator: Unavailable It can perform the metering from approx. 0.5m to 3m Focusing time is the same as that of EV3 or brighter (Exclusive white and black chart, 20C) Assist illuminator of the body fires also when using the external speedlight with the assist illuminator.

8. Program Diagram

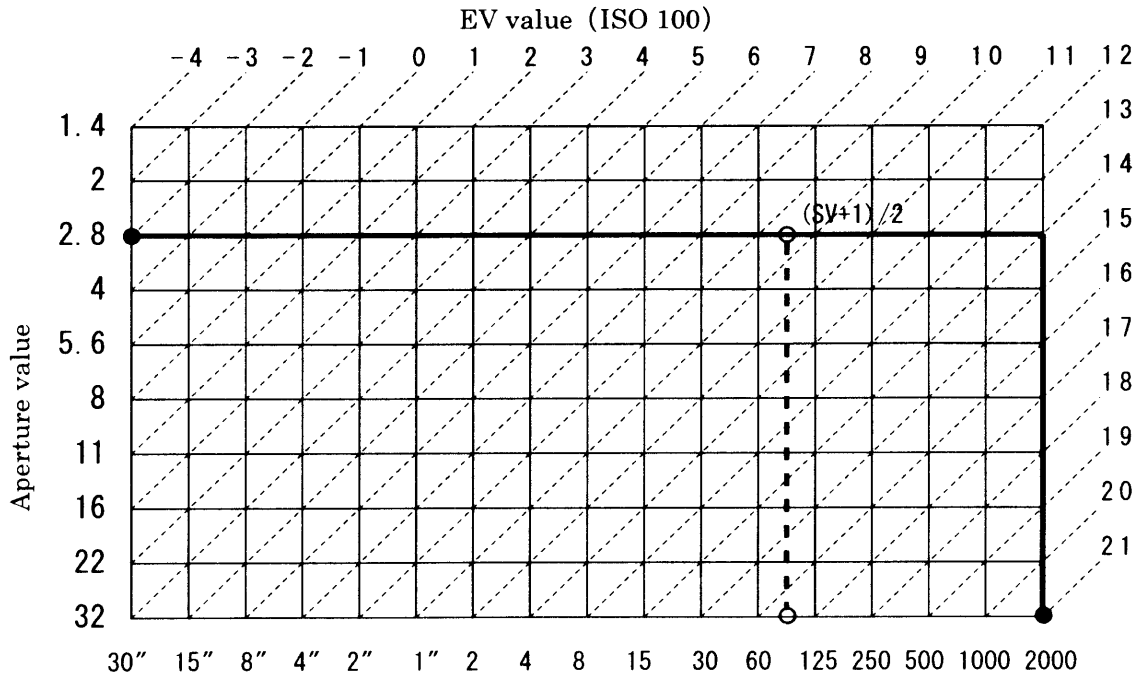
●——● When not using the speed light　　○- - - -○ When using the built-in speed light

〔1〕 Auto-Multi Program Mode (P) and AUTO Mode (AUTO)

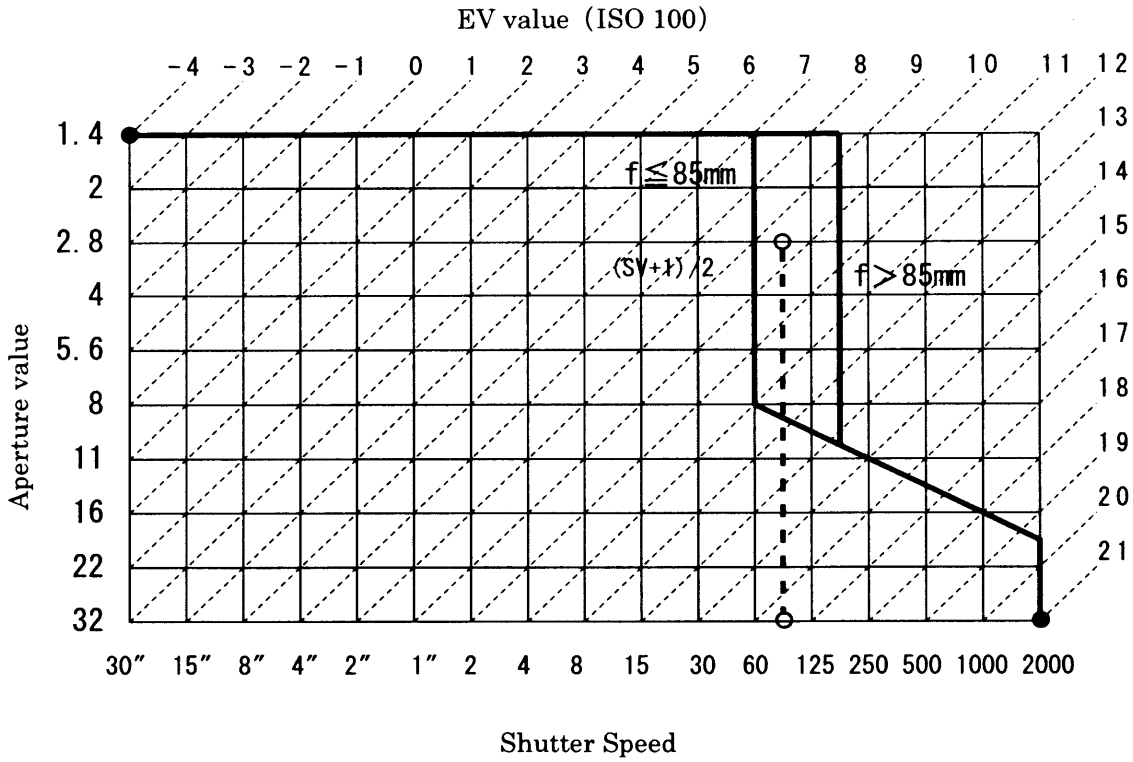


In the control diagram, the limit of the control aperture value at the aperture side is mentioned 1.4, but on the control, the aperture value is available up to 1.0 and the limit is not made. (Since no lens of which aperture value is more than 1.4 can be controlled, the aperture value more than 1.4 is not mentioned in the diagram.)

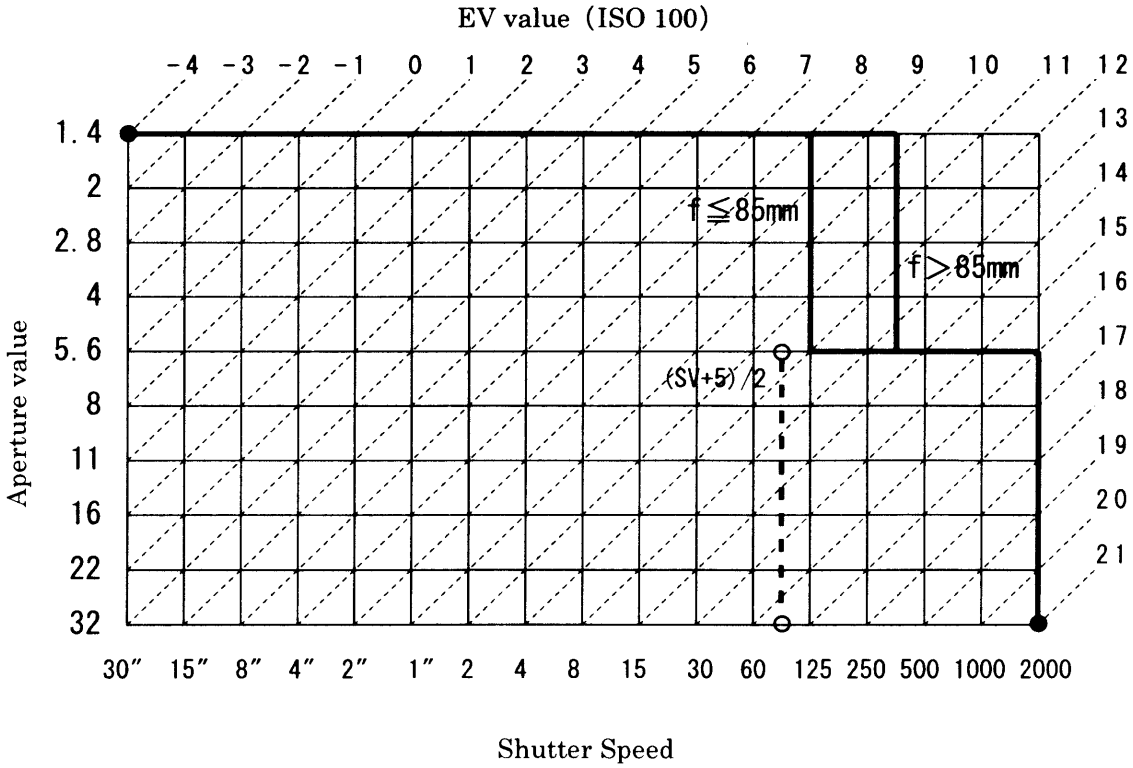
〔2〕 Portrait Mode ( )



〔3〕 Landscape Mode ( )



〔4〕 Close-Up Mode ( )



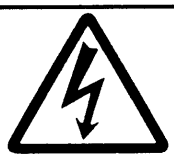
DISASSEMBLING

1. SEPARATION OF THE FRONT BODY FROM THE REAR BODY

2. FRONT BODY

3. REAR BODY

DISASSEMBLING/ASSEMBLING/ADJUSTMENT

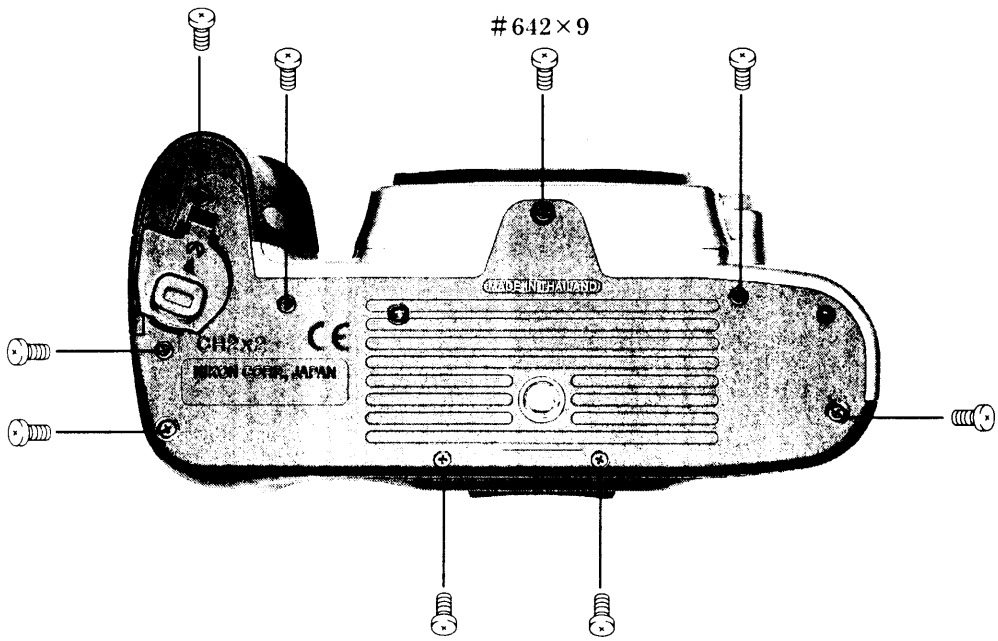
⚠ WARNING	
	●Due to its internal high voltage area, make sure to check the safety when removing the cover. ●Be sure to discharge the static electricity from the main condenser according to the instruction in the repair manual after removing the Grip cover.

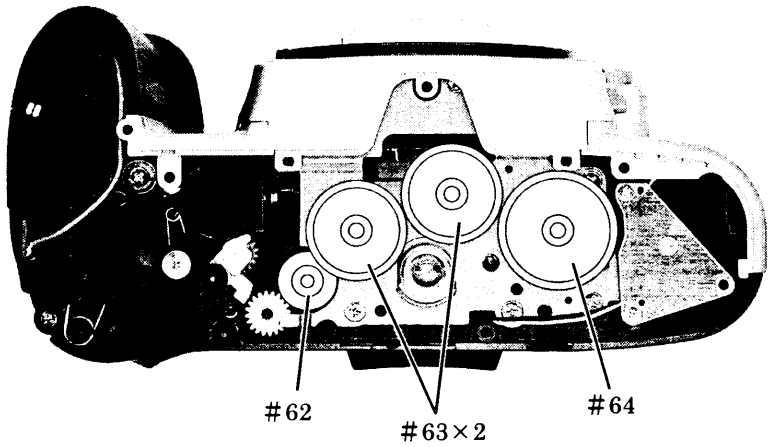
Note : ①This repair manual is made by using a product manufactured for trial, therefore, some part might be different from those of the mass production product.
Arrangement of wires might be changed depending on the period of manufacturing.
②Be sure to take off the battery before disassembly.
③At disassembly, make sure to memorize how to arrange the wires, how to fix the screws, and the types of used screws.
④Be sure to get yourself grounded because of the static electricity which exerts any serious adverse effect to ICs.
⑤When you disassemble the camera body further than described in the disassembling section, refer to the exploded drawings and assembling section, since some parts are disassembled as a unit part.

DISASSEMBLING

1. SEPARATION OF THE FRONT BODY FROM THE REAR BODY

BOTTOM COVER

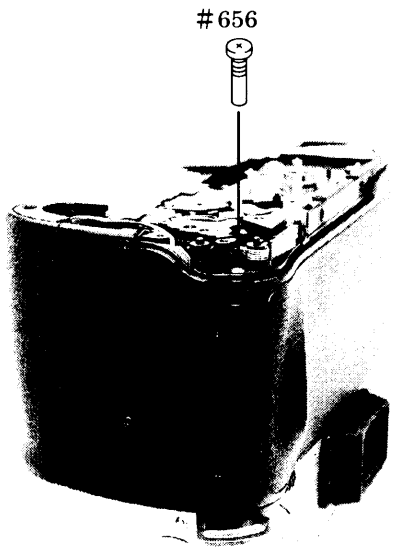




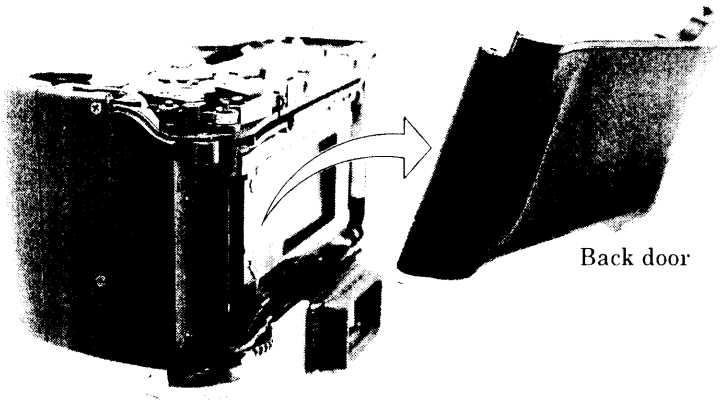
・Remove the gears indicated in Figure on the left.

BACK DOOR

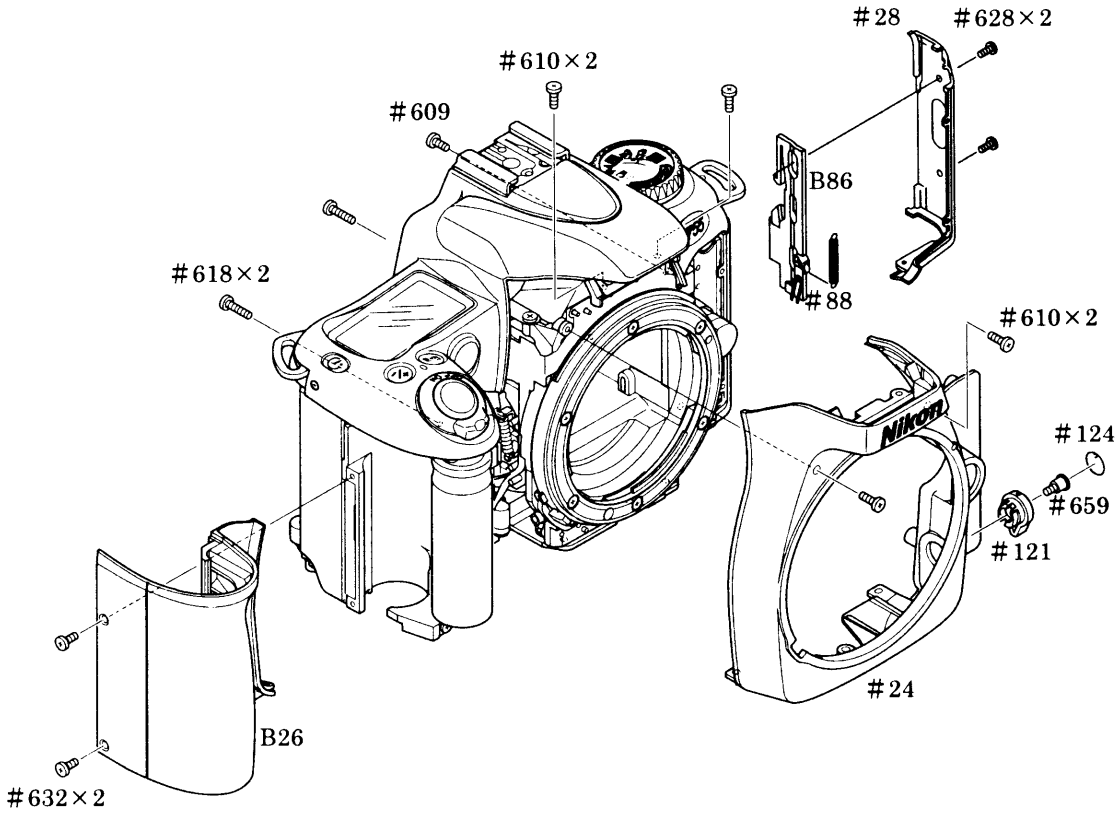
Notes : Never use the solvent when cleaning the pressure plate, but use the A-level dust cleaning cloth or Savina Minimax and wipe it softly because the pressure plate of this camera is coated with the special paint.



・Remove the screw #656, and then remove the camera back as shown in Picture below.

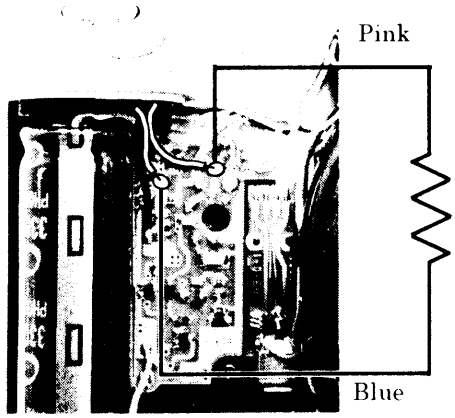


FRONT COVER, GRIP COVER



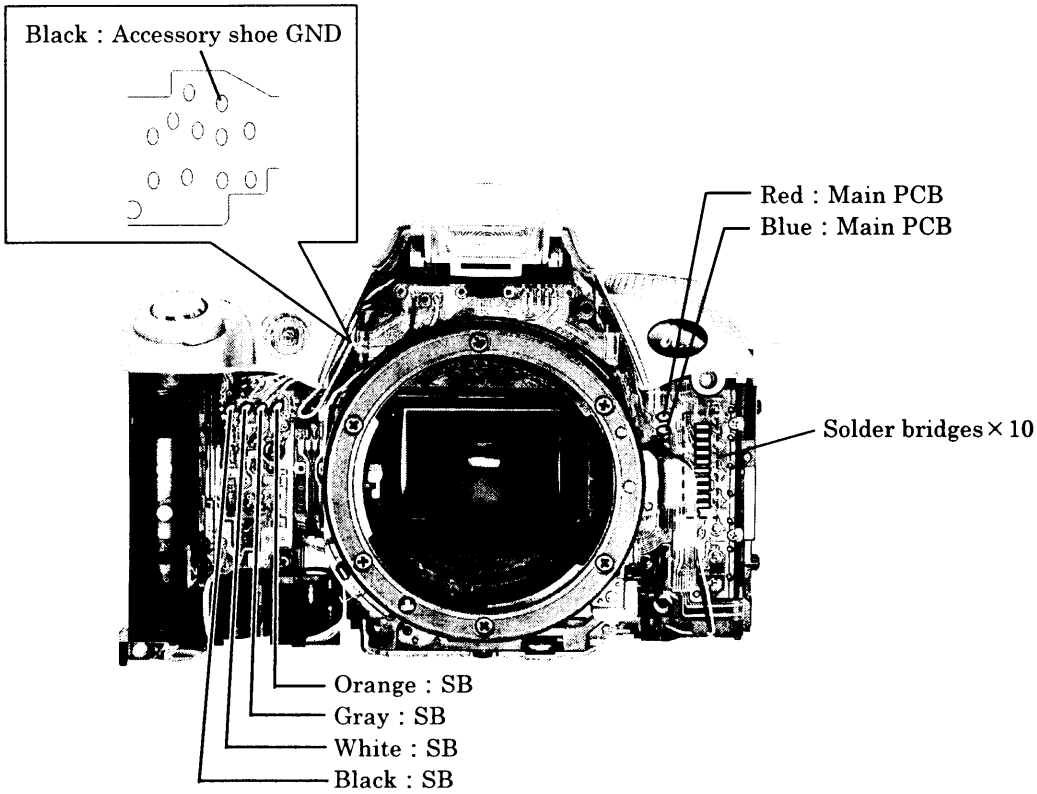
Discharging from the main capacitor

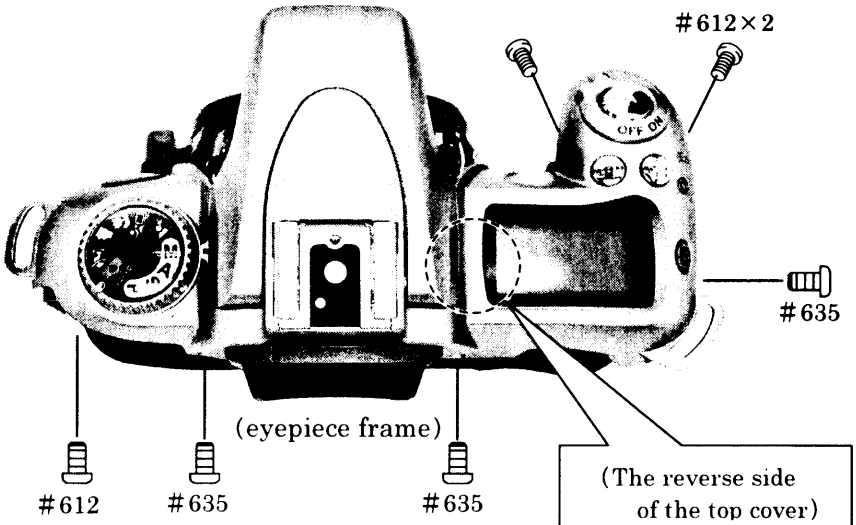
・After discharging electricity, unsolder the pink and blue wires, and then remove the main condenser.

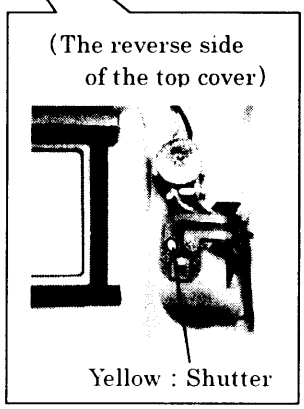


For the discharge a resistance of approx 2kΩ/5W should be used.

TOP COVER



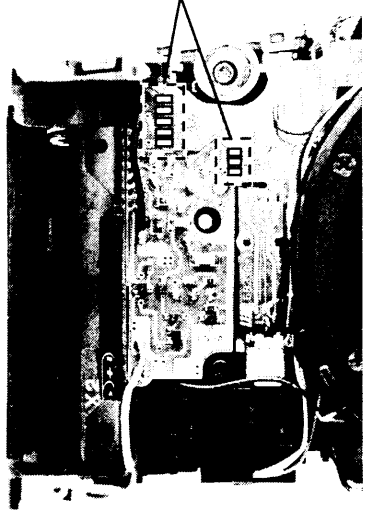


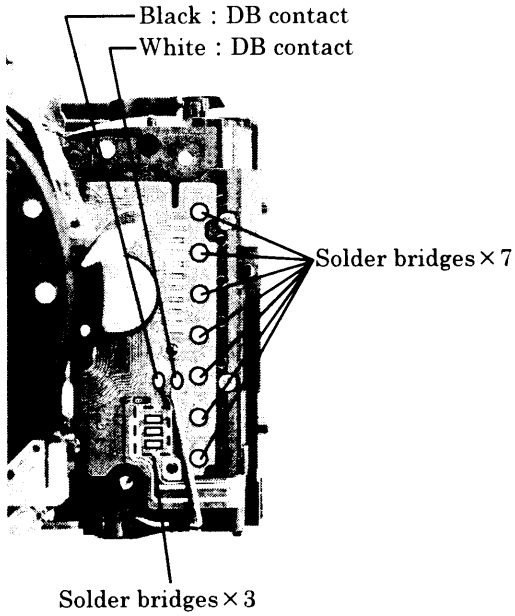


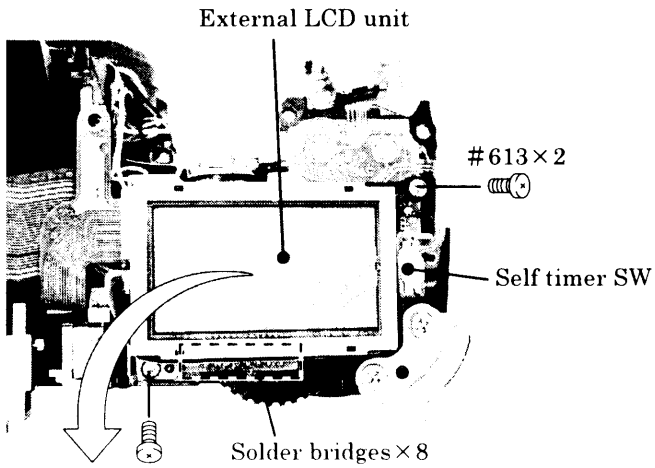
· With removing the top cover, the eyepiece frame can be removed.

SEPARATION OF THE FRONT AND REAR BODY

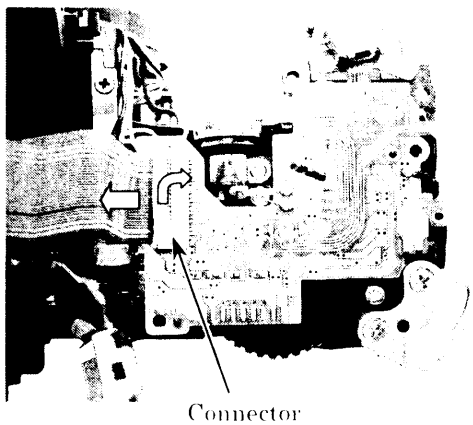
Removal each wires and solder bridges



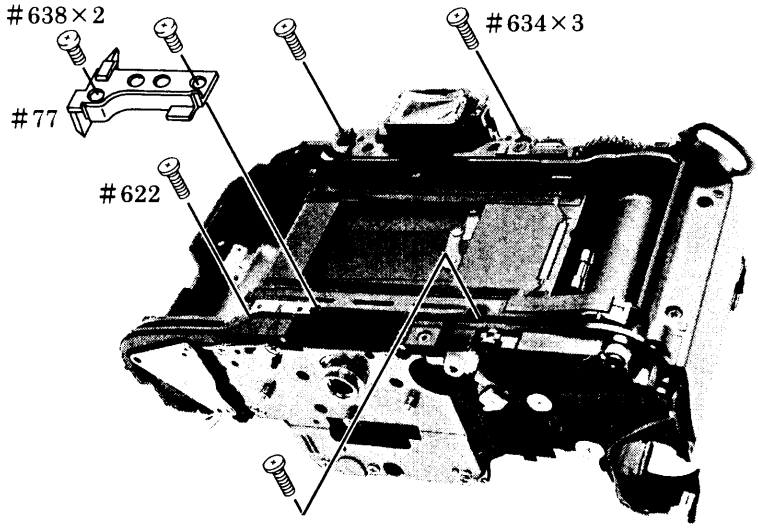


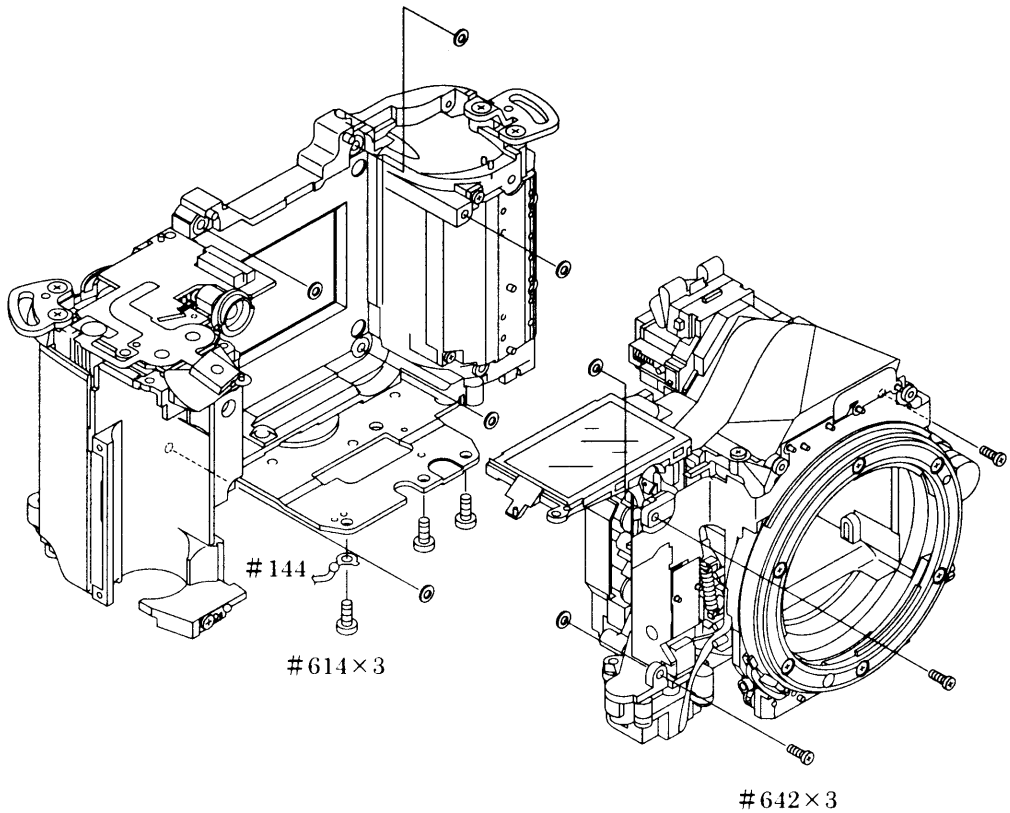


Note : Remove the FPC of the self-timer SW first, and then lift up the external LCD unit in an arrow direction.



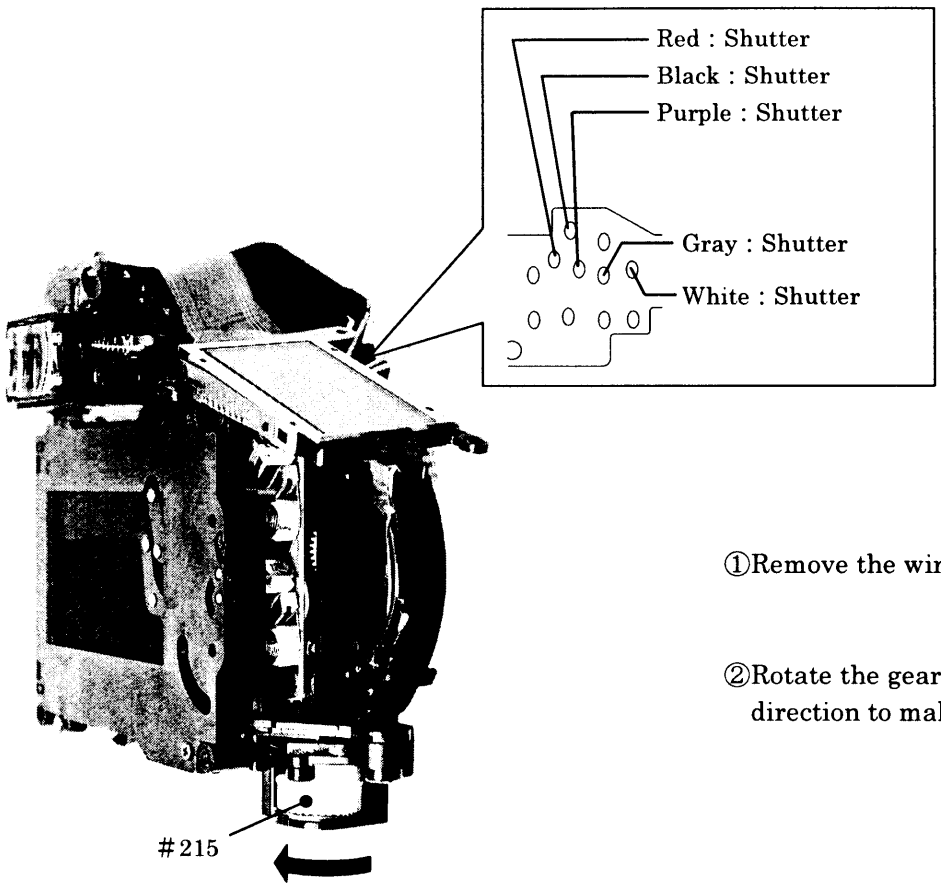
・Remove the FPC of the main PCB from the connector.


#638×2
#634×3
#77
#622


#144
#614×3
#642×3

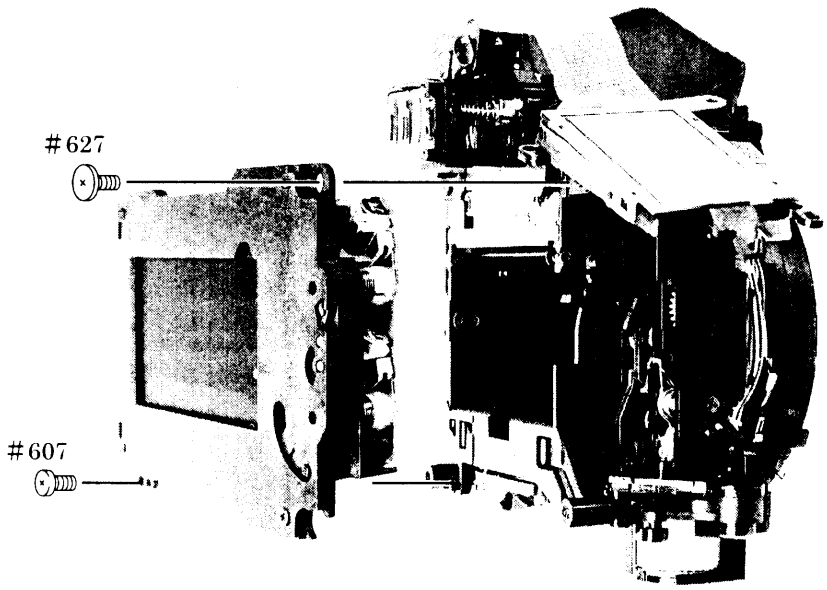
2. FRONT BODY

SHUTTER



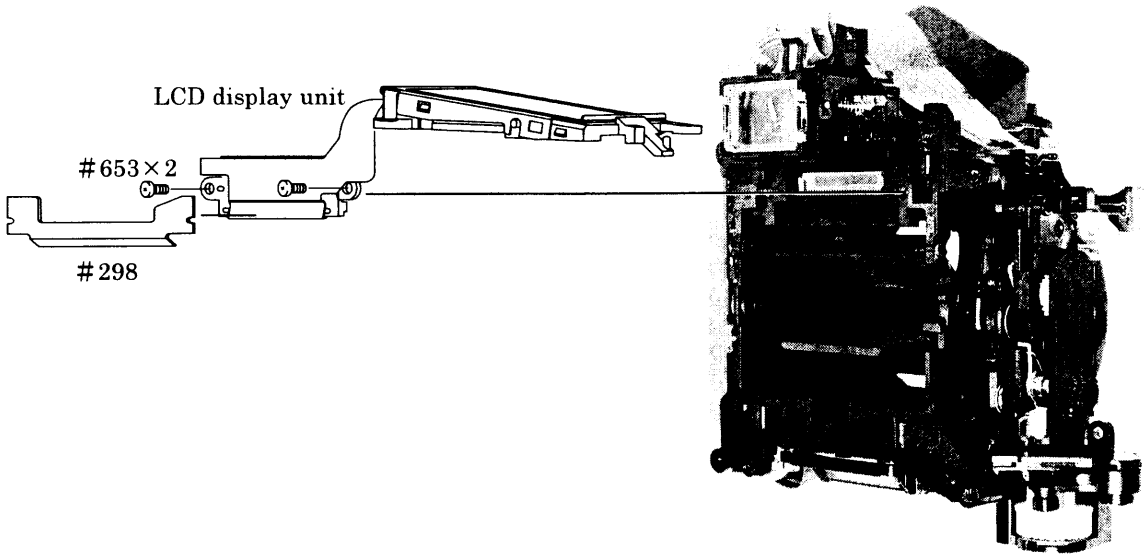
①Remove the wires of the shutter.

②Rotate the gear #215 in an arrow direction to make the mirror up

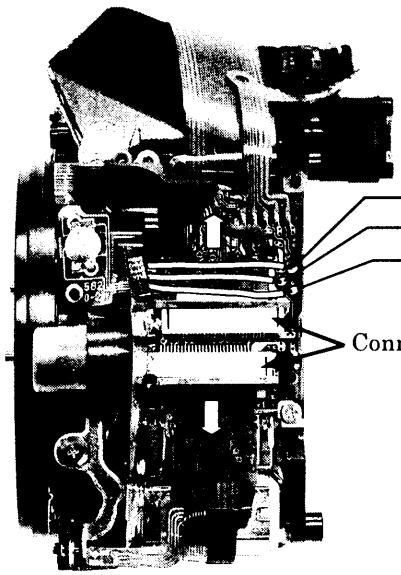


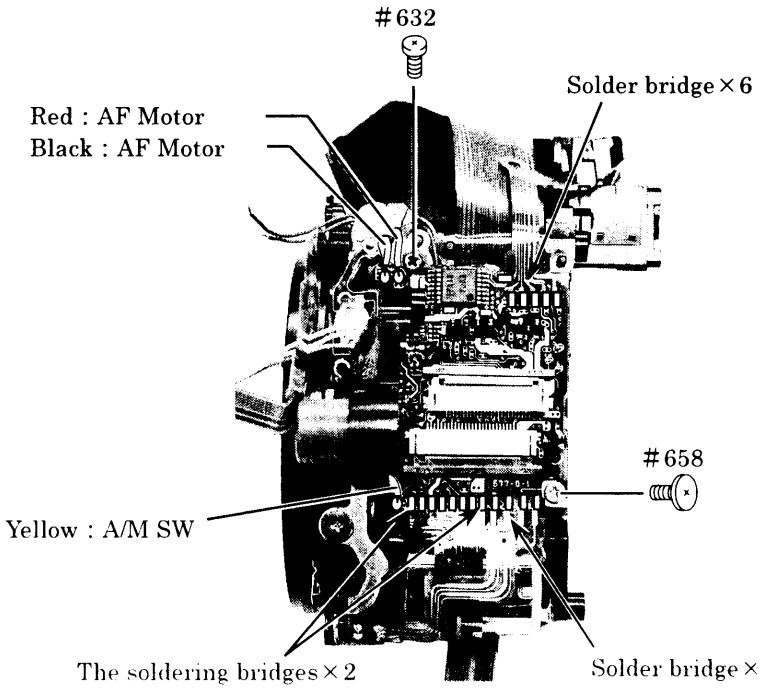
・After removing the shutter, rotate the gear #215 to make the mirror down.

LCD DISPLAY UNIT

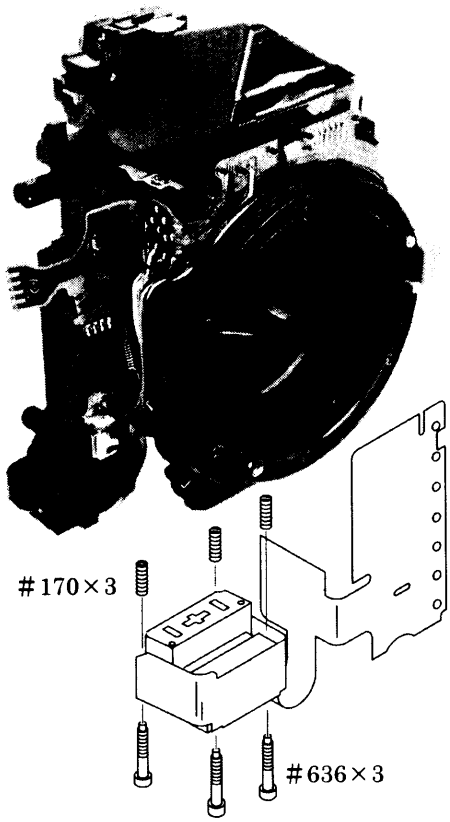


MAIN PCB

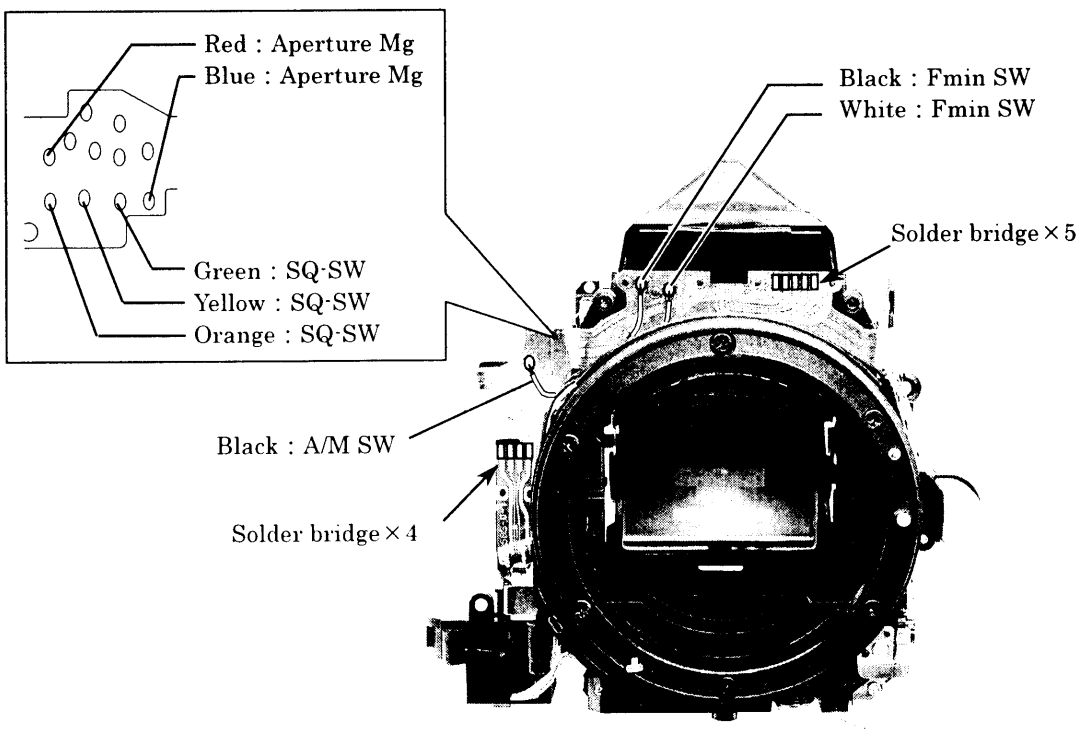




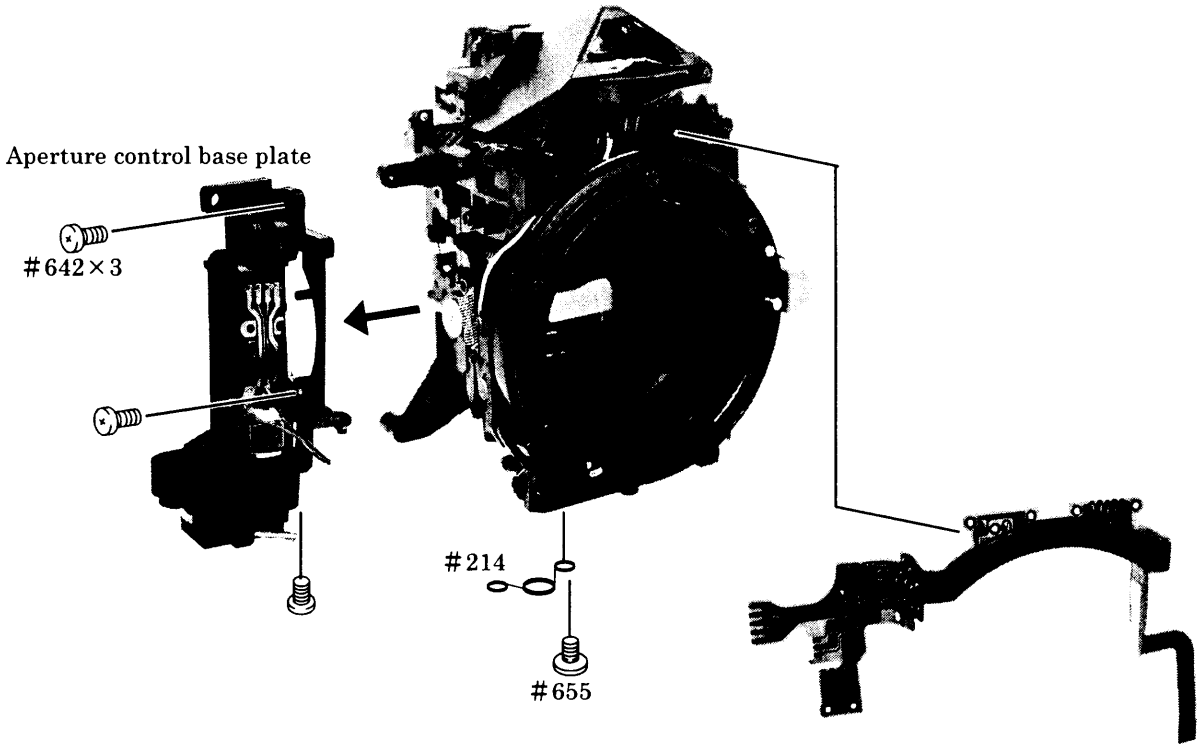
AF SENSOR UNIT



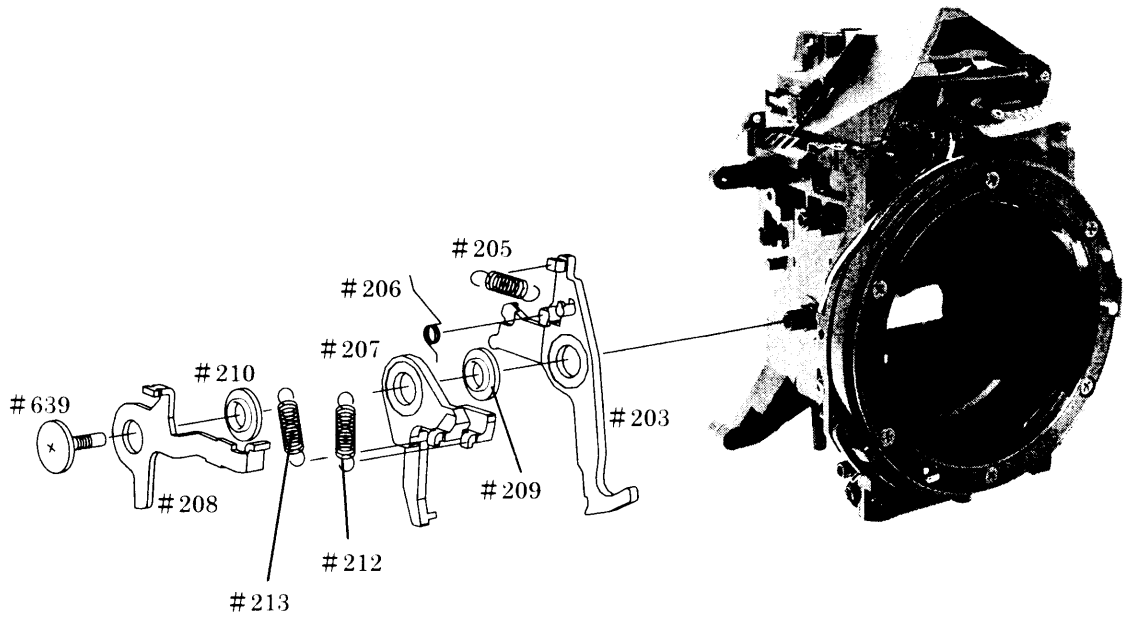
REMOVE THE WIRES AND SOLDERING BRIDGES



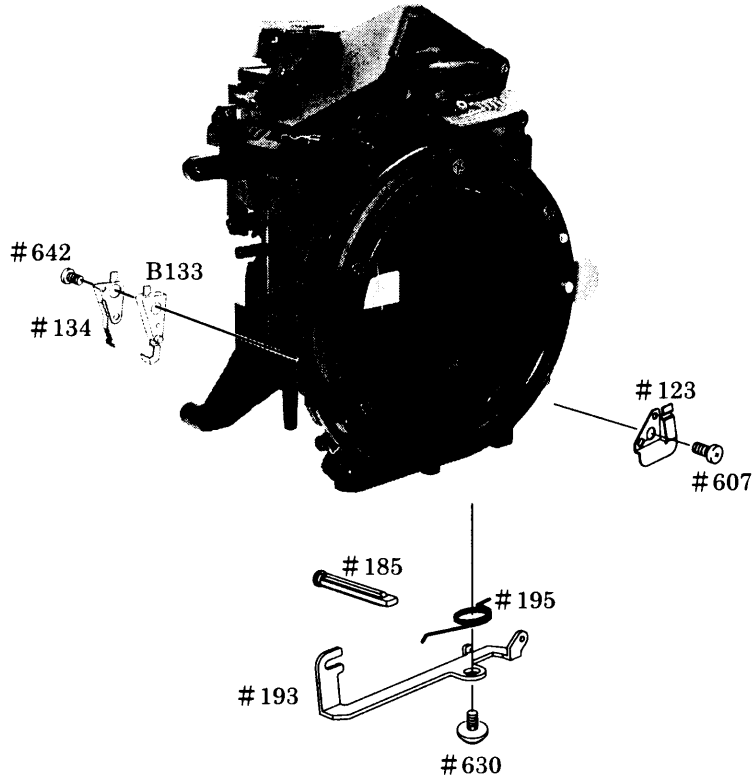
APERTURE CONTROL BASE PLATE



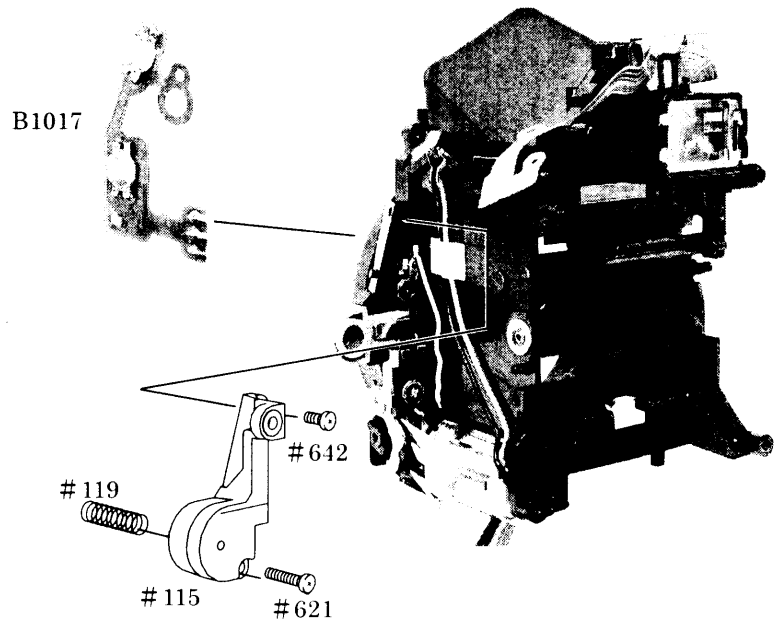
APERTURE CONTROL LEVER



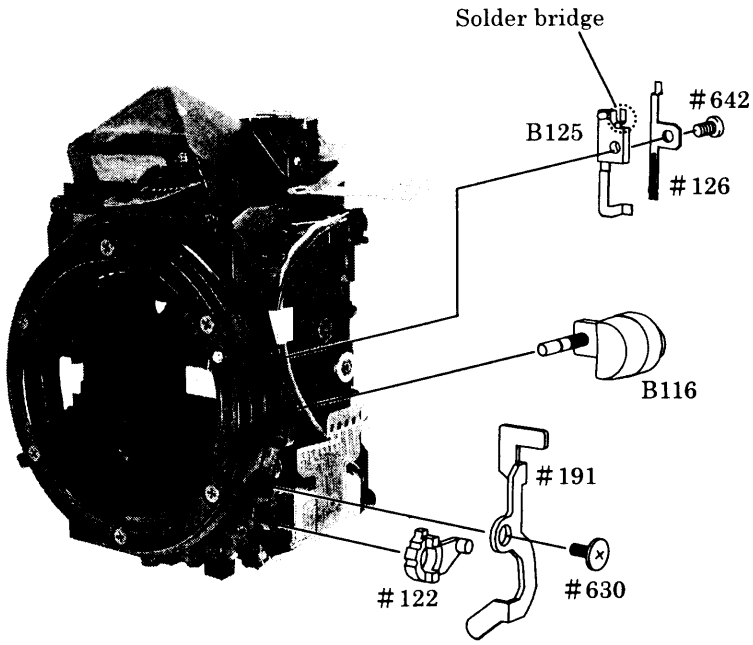
HORIZONTAL AF LEVER UNIT, F min SW



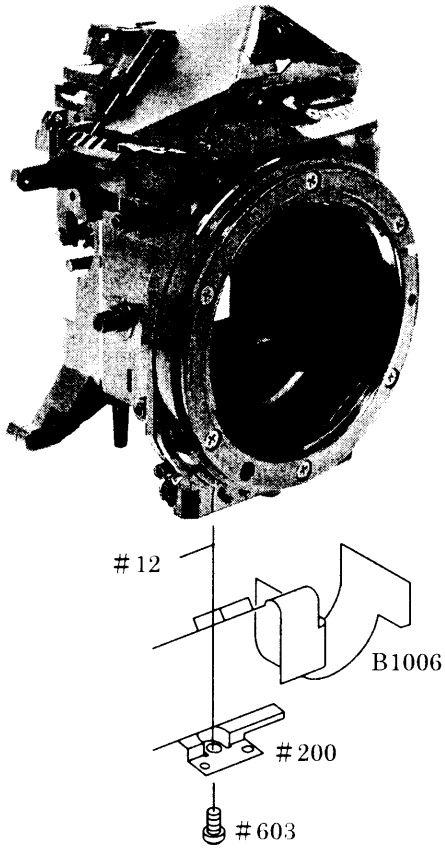
SB/BKTSWFPC, LENS RELEASE GROUP



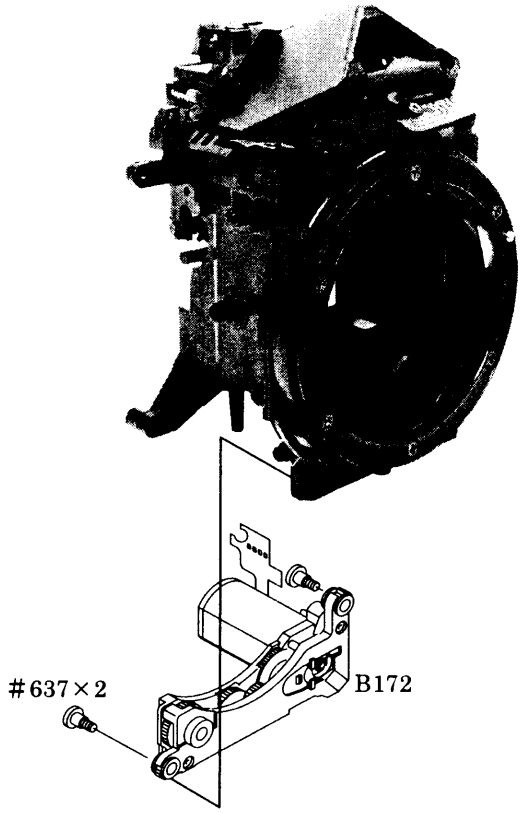
LEVER＃191、A/M SW



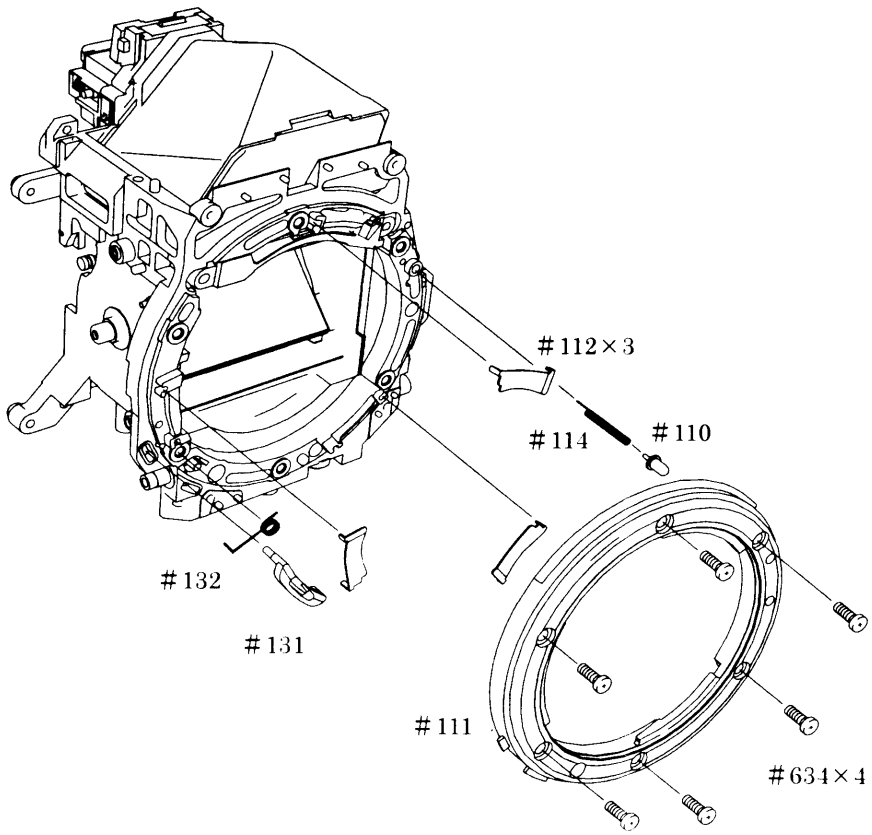
TTL FPC UNIT



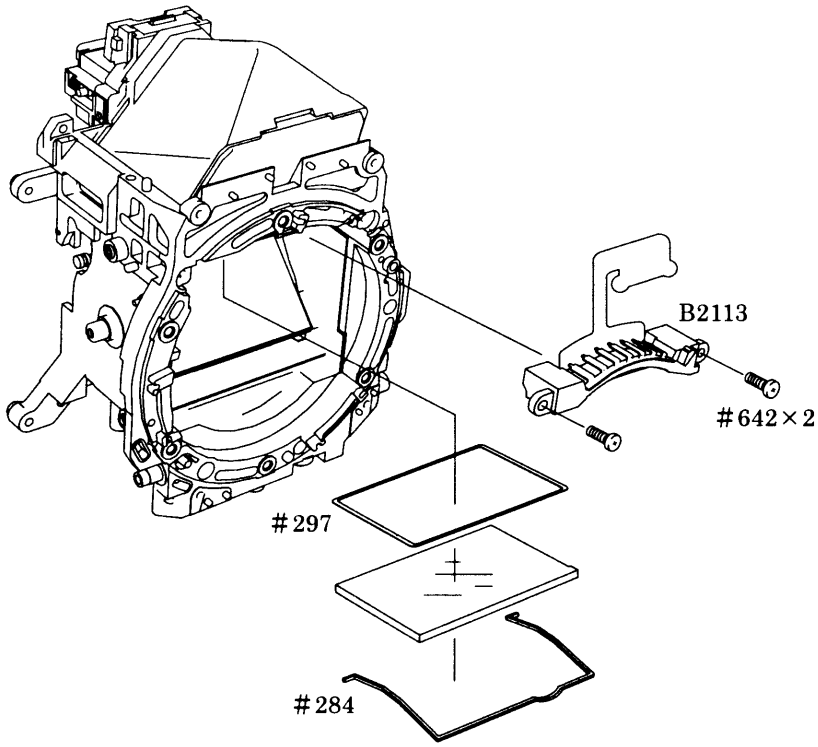
AF DRIVING UNIT



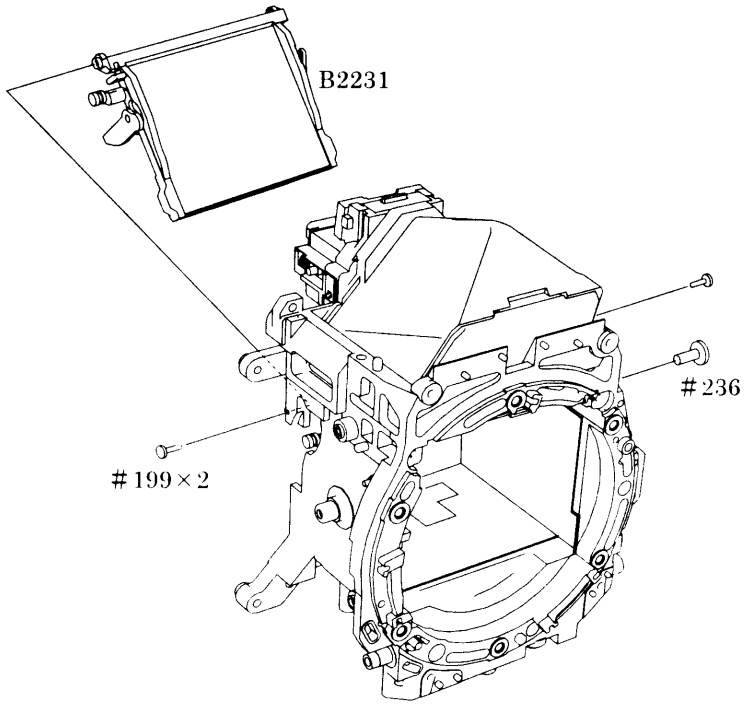
BAYONET MOUNT



LENS CONTACT

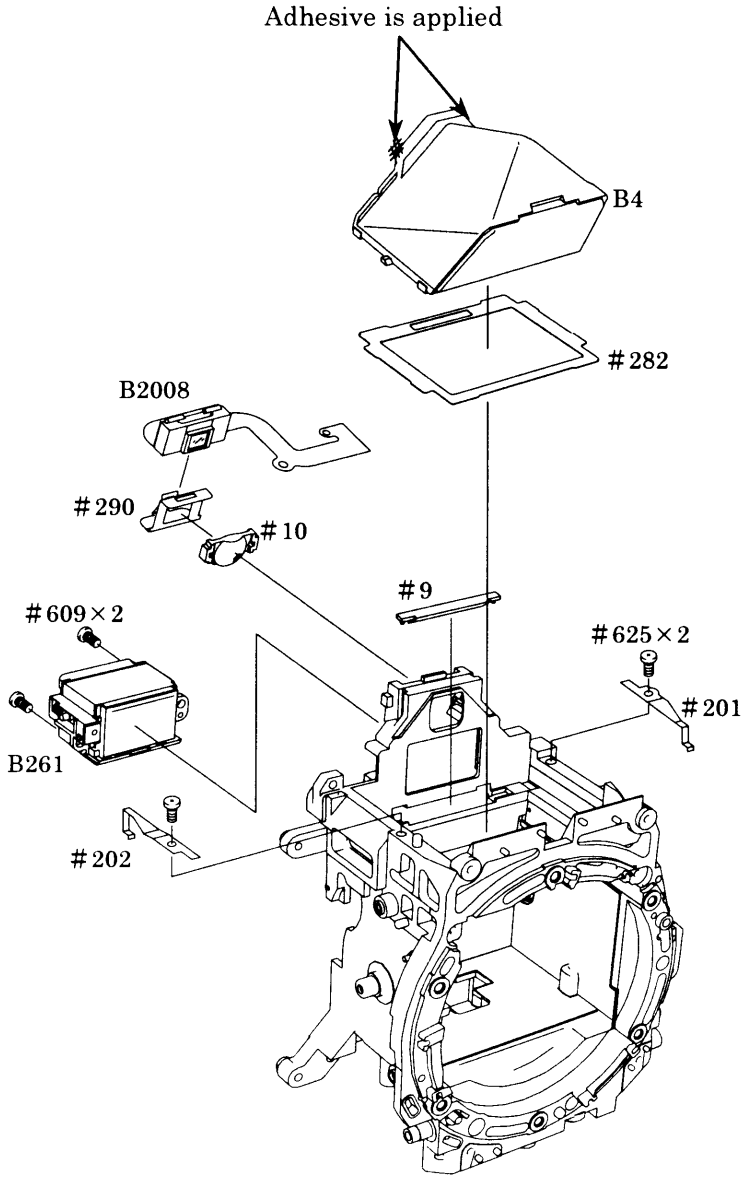


MIRROR HOLDER



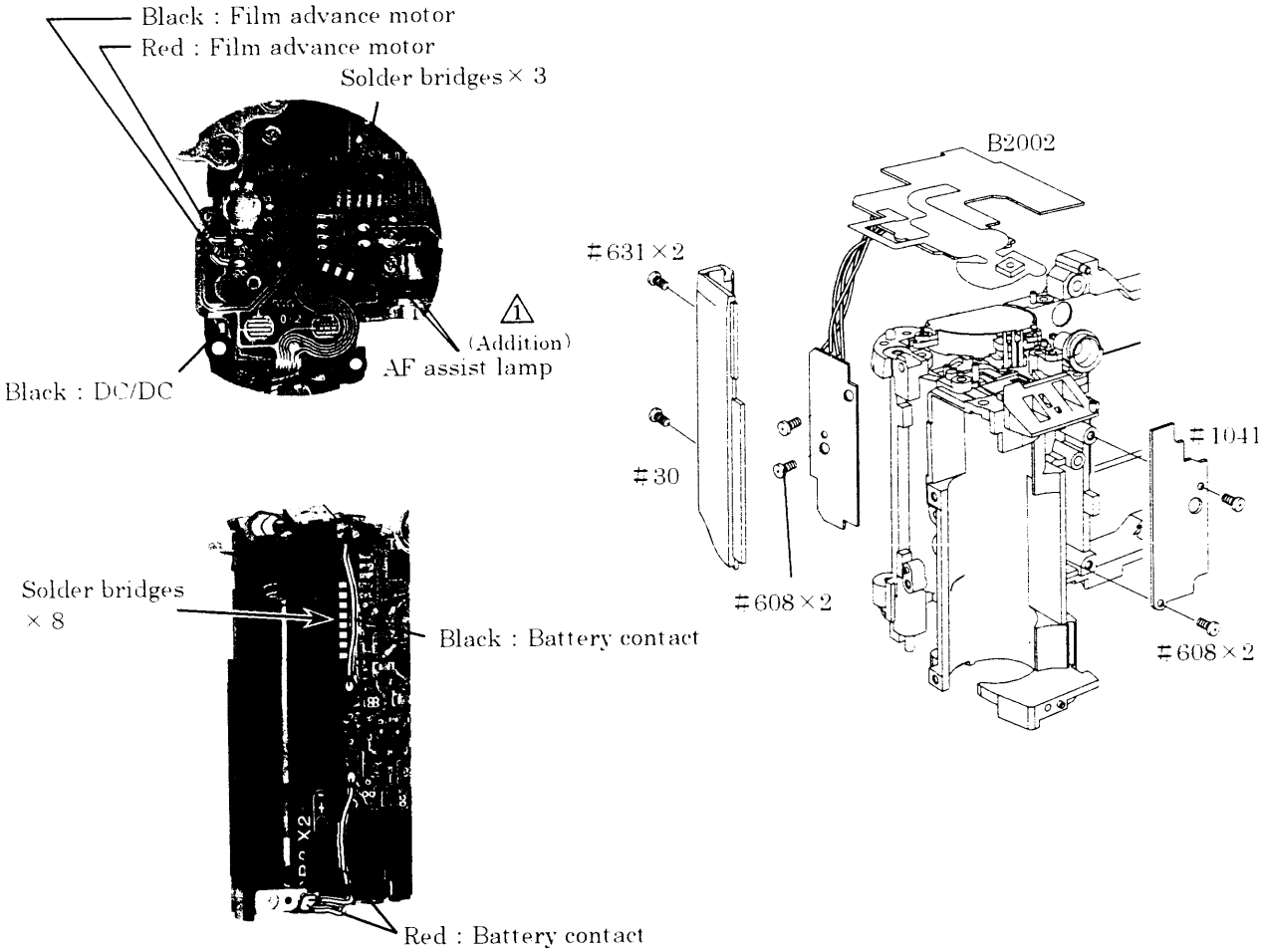
PENTAPRISM GROUP

Note : Since the prism of this camera is plastic hollow type, when cleaning inside the prism, blow inside the prism by using the brower.

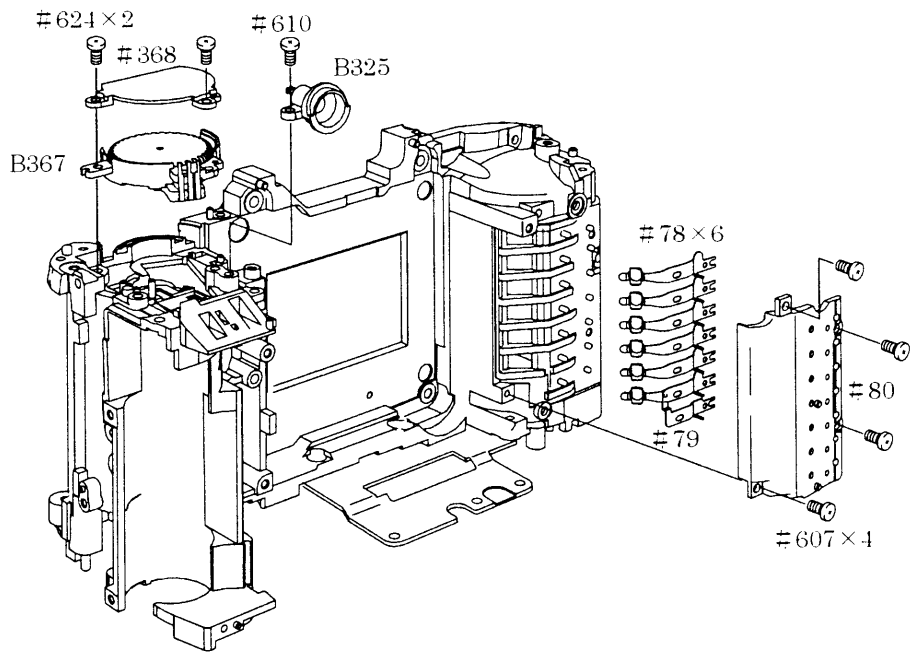


3. REAR BODY

SB UNIT. DC/DC UNIT. SUB PCB



COMMAND DIAL. DX CONTACT

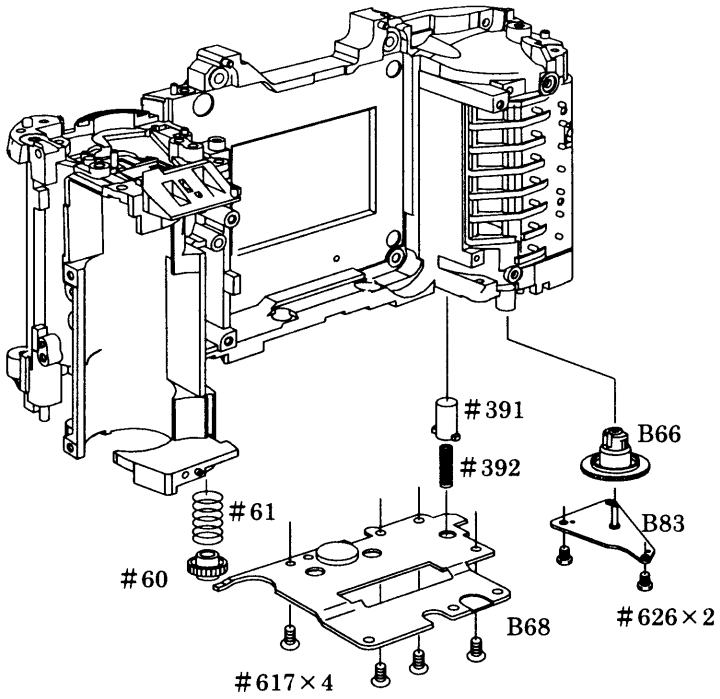


サービス計画課 M

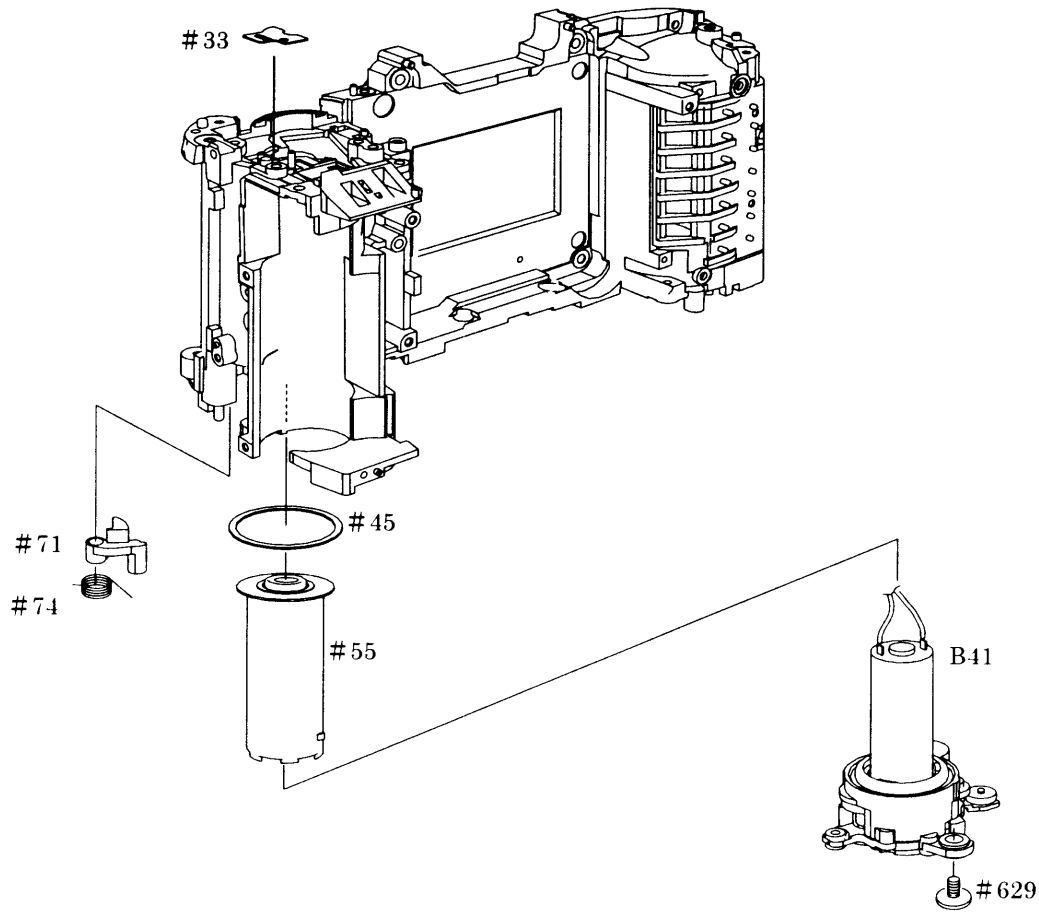
△1 × 1 Change page

Apr. 5. 2002.

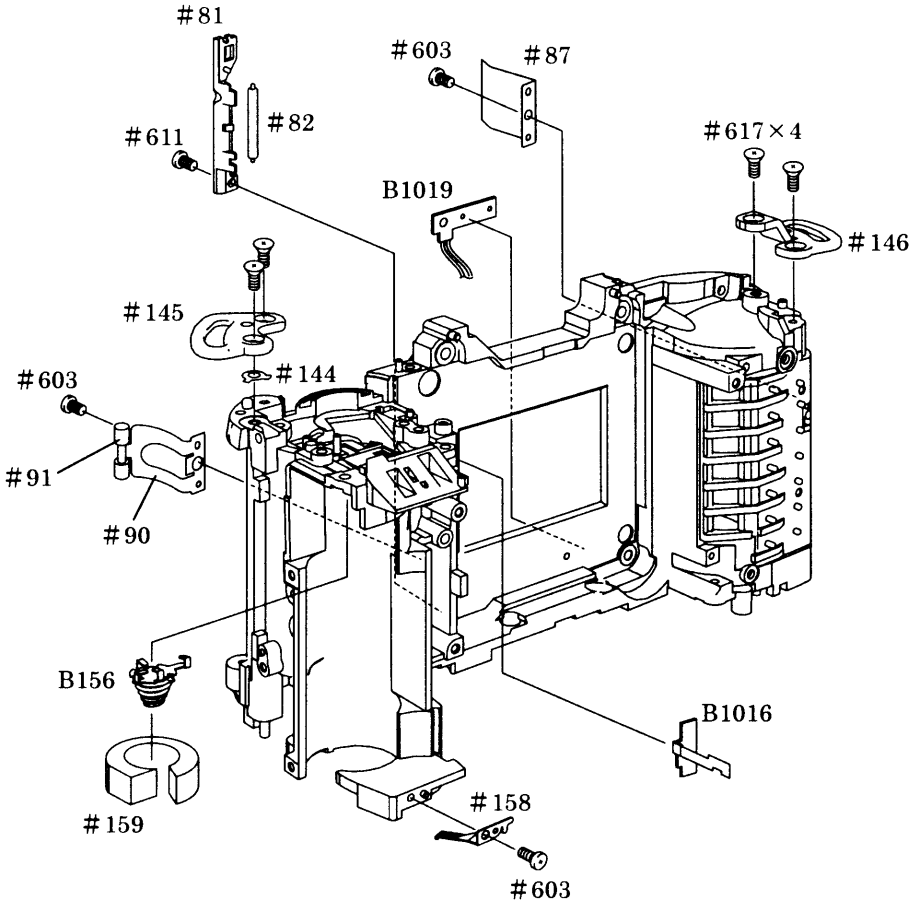
BOTTOM BASE PLATE



FILM ADVANCE UNIT



SMALL PARTS REAR BODY



ASSEMBLING/ADJUSTMENT

1. FRONT BODY

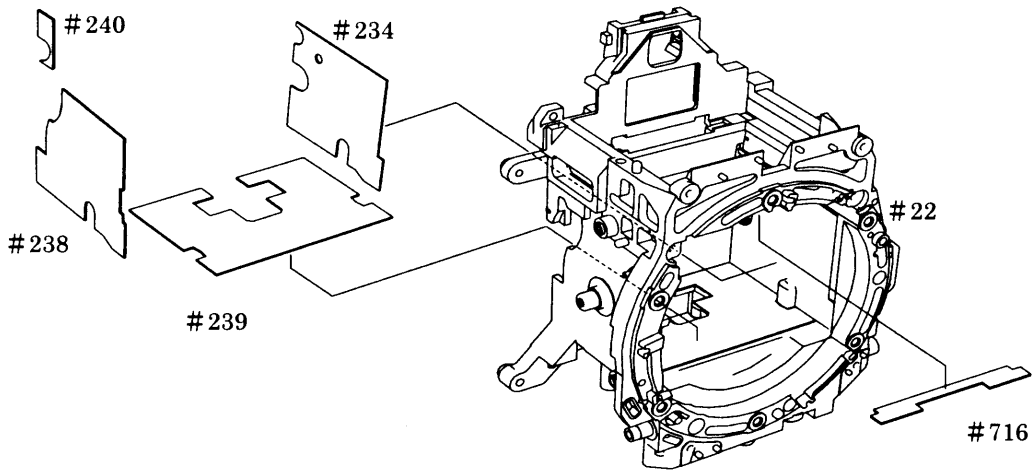
2. REAR BODY

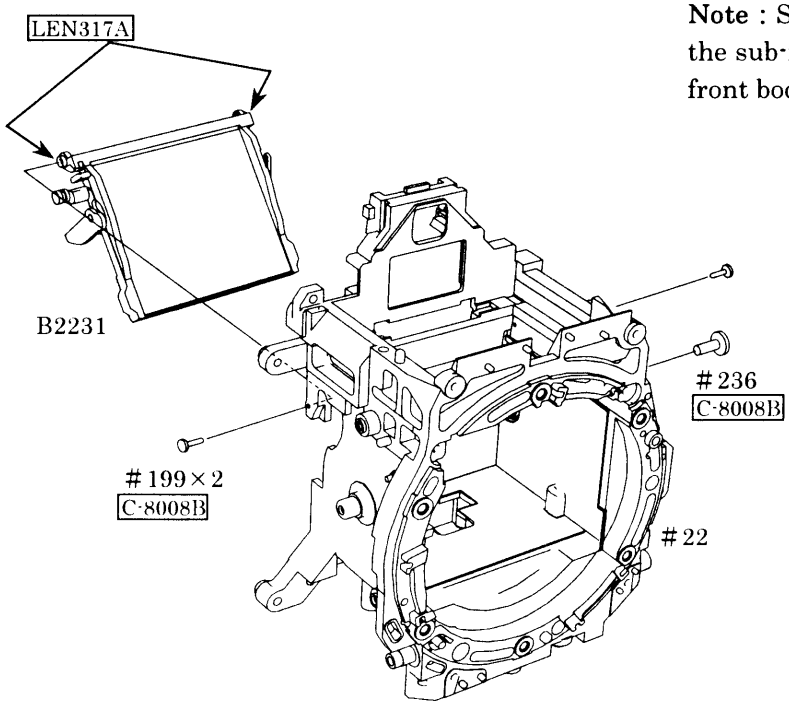
3. MOUNTING BOTH THE FRONT AND REAR BODY

ASSEMBLING/ADJUSTMENT

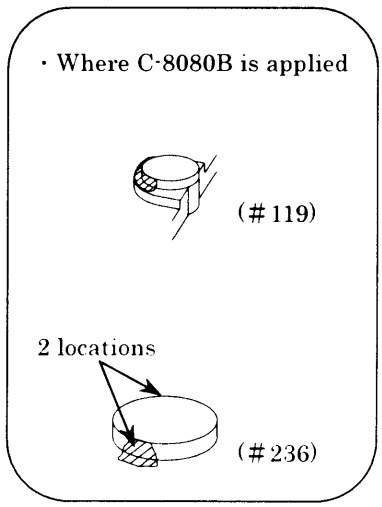
1. FRONT BODY

MIRROR HOLDER

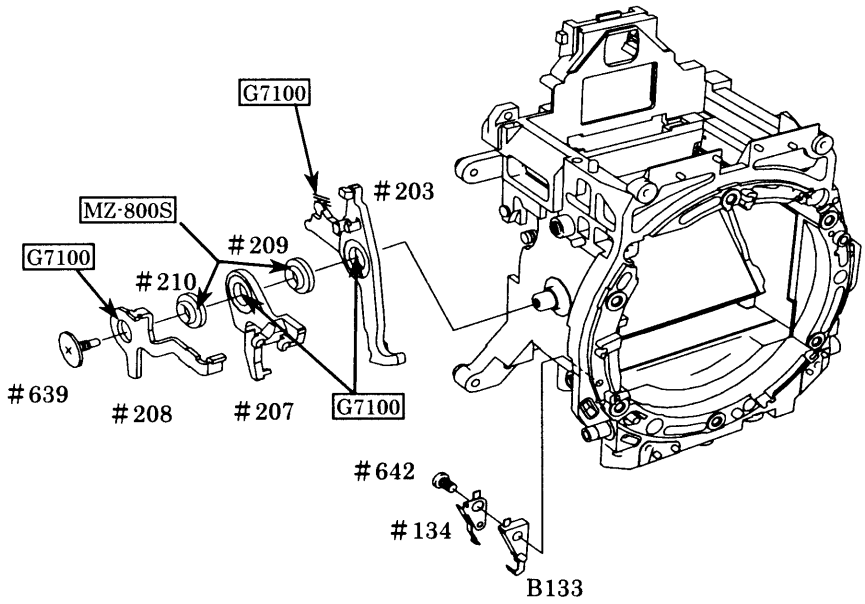


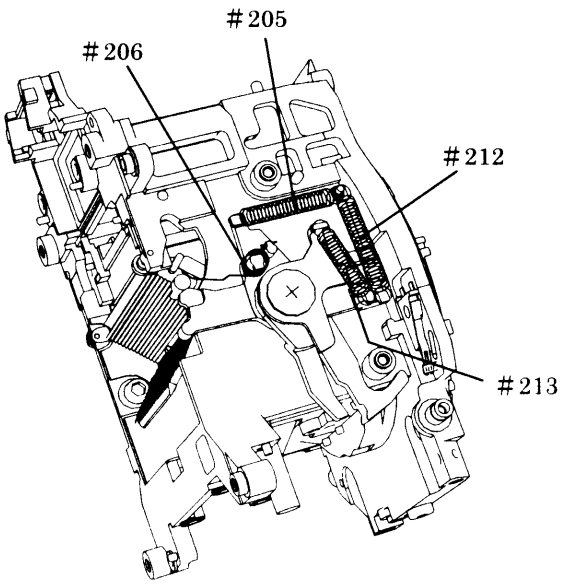


Note : Stand the mirror up and assemble the sub-mirror deflection pin #236 into the front body #22.



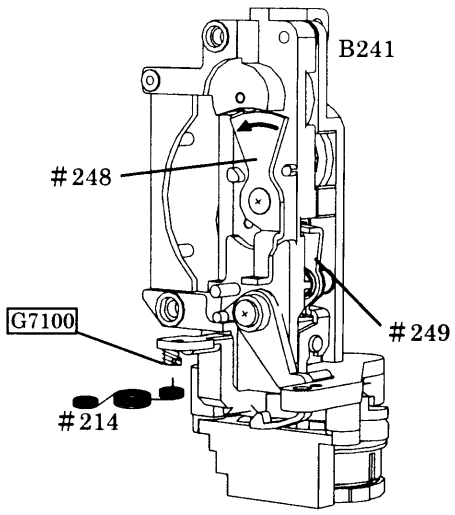
APERTURE CONTROL LEVER, F min SW





· **Order of setting springs**
Set the springs in order of #260 - #205 - #212 - #213.

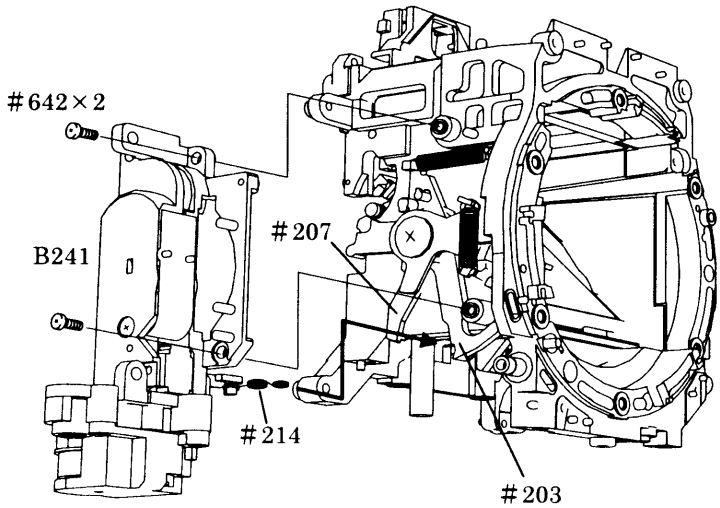
APERTURE CONTROL BASE PLATE



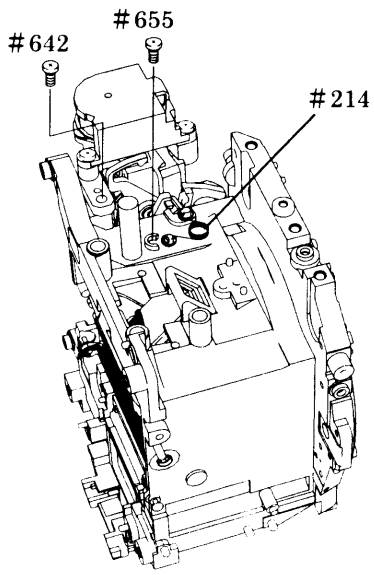
①Set the spring #214.

②Move the lever #248 in an arrow direction to touch the limit.

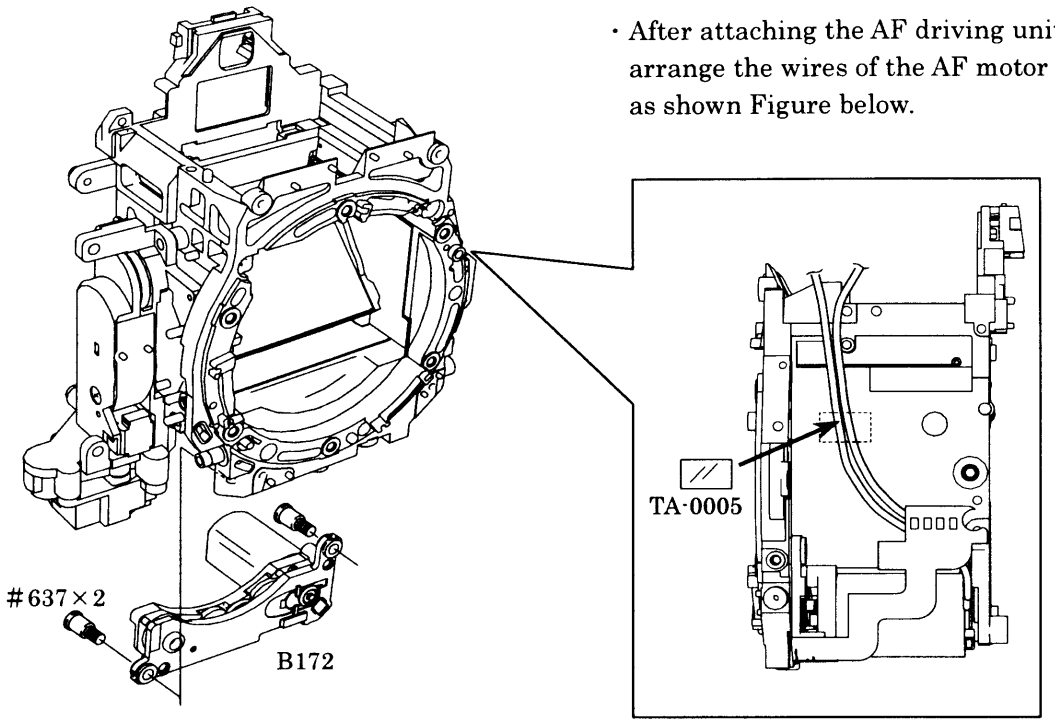
③Push the #249 to lock the lever #248.



④Attach B241 so that the spring #214 comes between the mirror up laver #203 and #207.

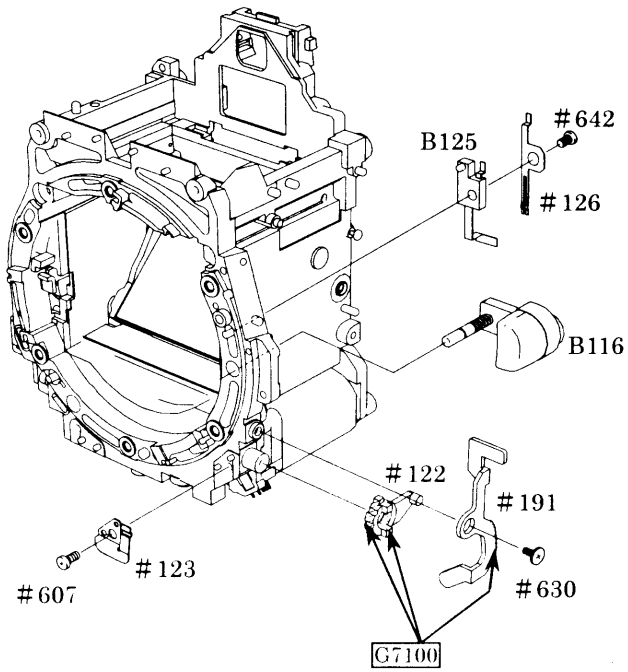


AF DRIVING UNIT



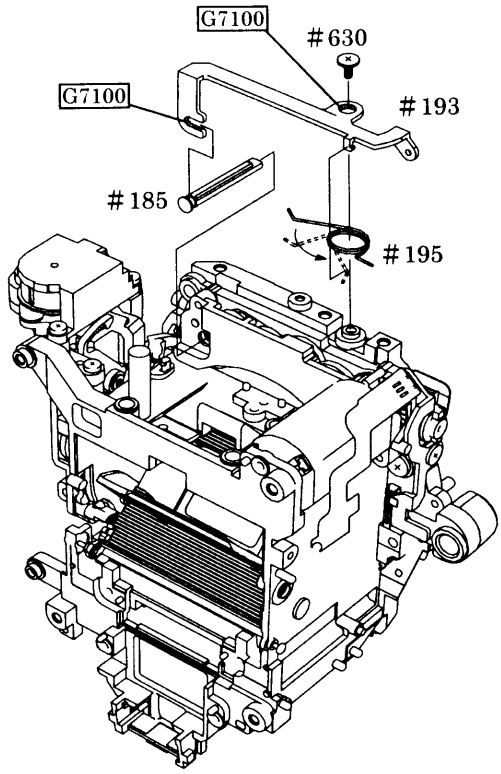
・After attaching the AF driving unit, arrange the wires of the AF motor as shown Figure below.

LEVER #191, A/M SW

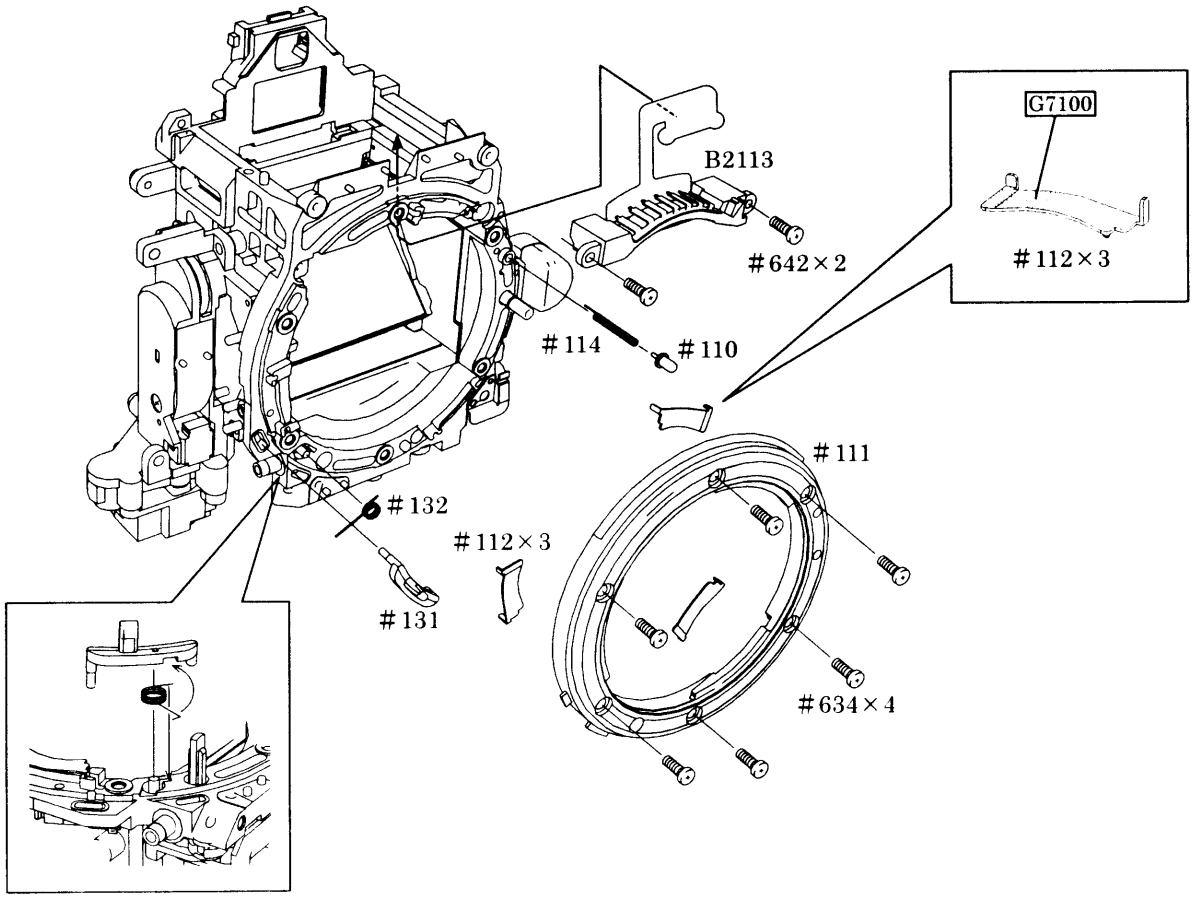


・Order of attaching
B116－#122－#191－#630
B125－#126－#642－#123
－#607

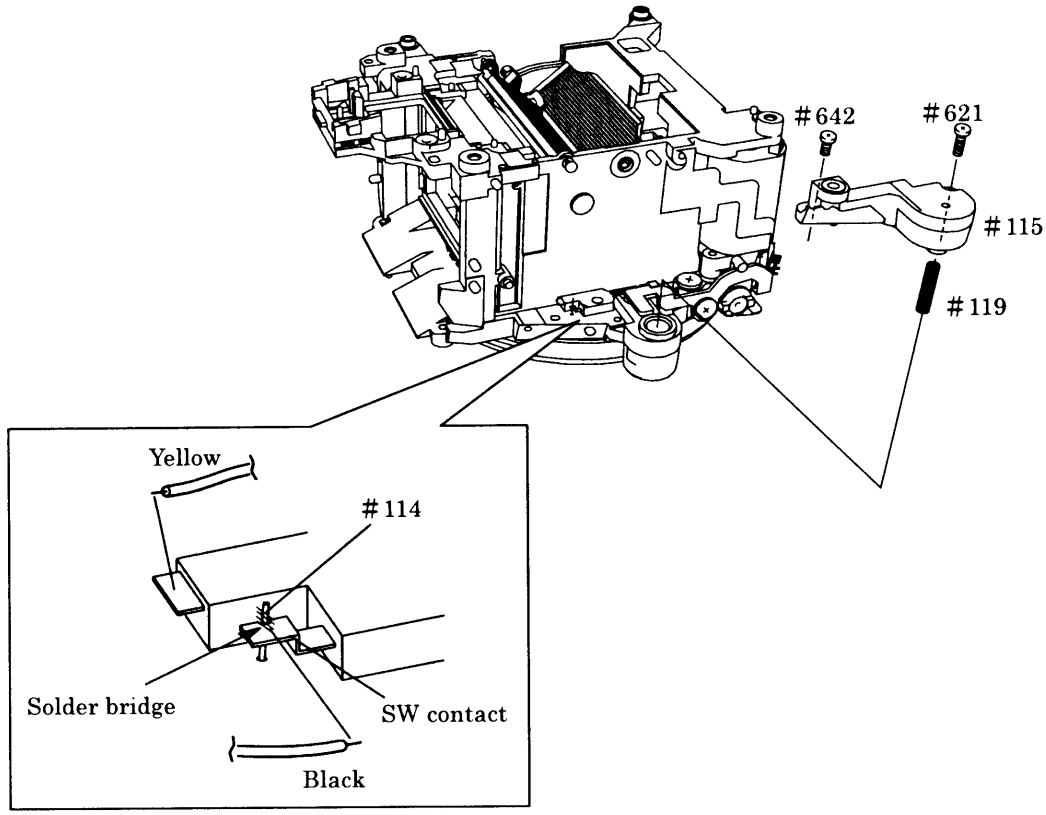
HORIZONTAL AF LEVER UNIT



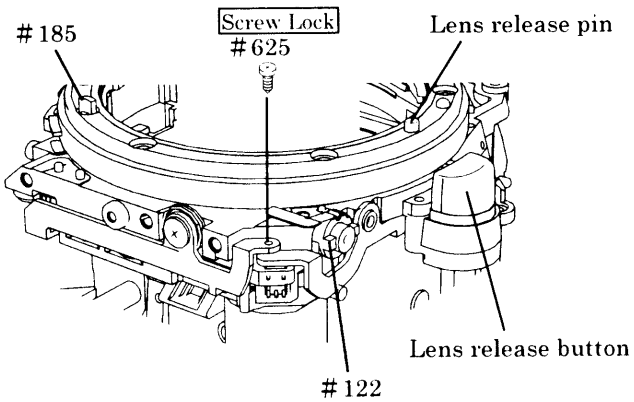
BAYONET MOUNT

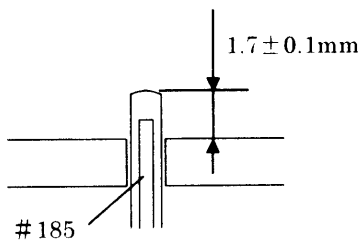


LENS RELEASE BUTTON GROUP



HIGHT ADJUSTMENT OF AF COUPLING SHAFT





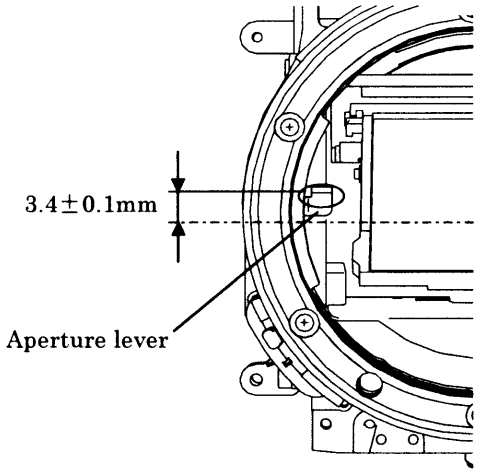
①Set the A/M change-over cam #122 to "AF". After pressing the lens quick-disconnect button two or three times, measure the height of the AF coupling shaft #185.

②Adjust the height of the AF coupling shaft using screw #625.

③The AF coupling shaft should not protrude over the lens mount surface, when the height of lens release pin is adjusted to 0.4mm.

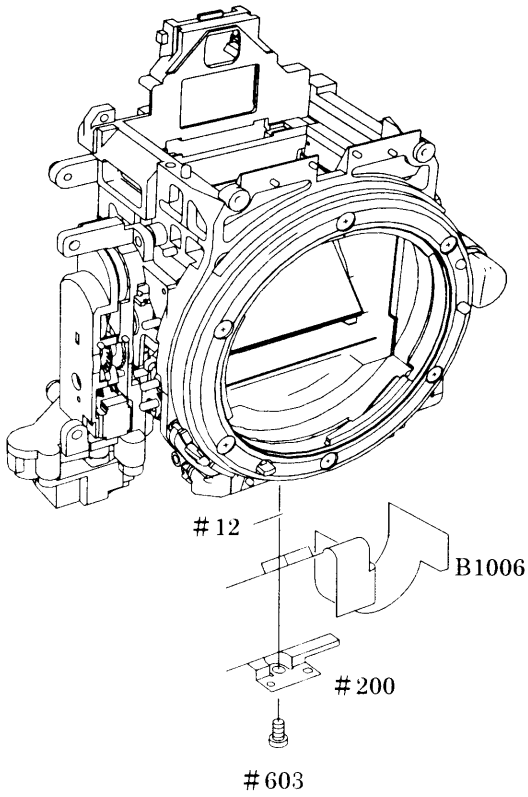
④After adjusting, secure screw #625 using Screw Lock.

ADJUSTMENT OF APERTURE LEVER POSITION

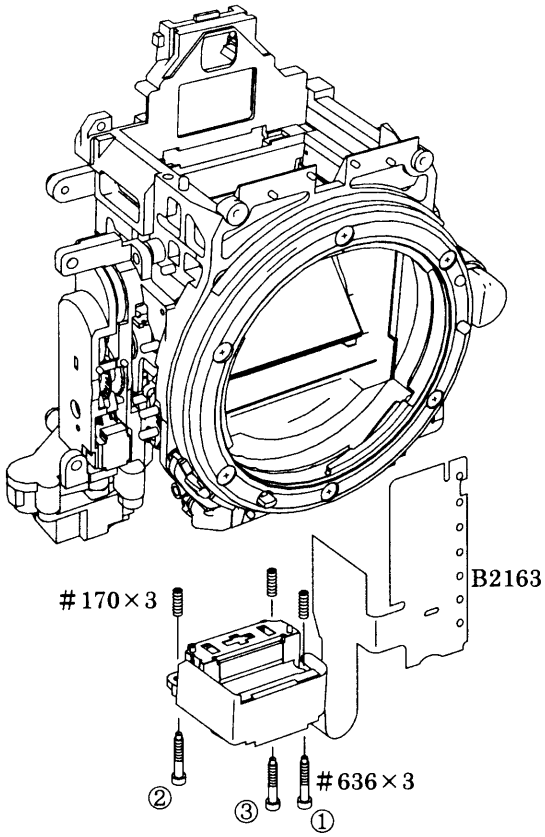


●Measure the height of the aperture lever using tool J18004.
Standard value : 3.4±0.1mm
If the height of the aperture lever is out of the standard value, bend the circled position to adjust. While adjusting, take care not to bend the inside lever and stopper portion.

TTL FPC UNIT

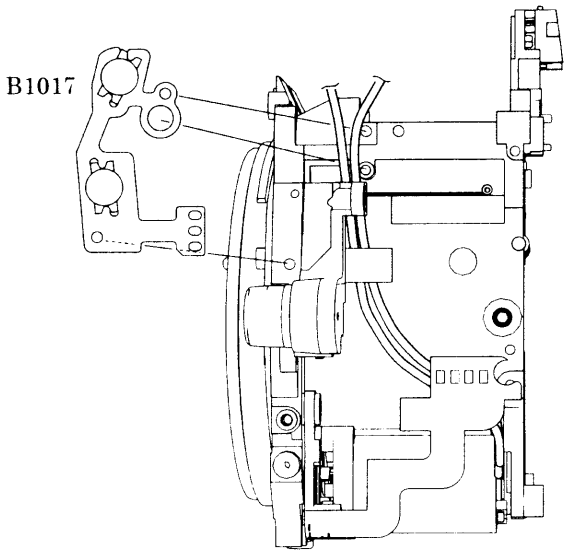


AF SENSOR UNIT

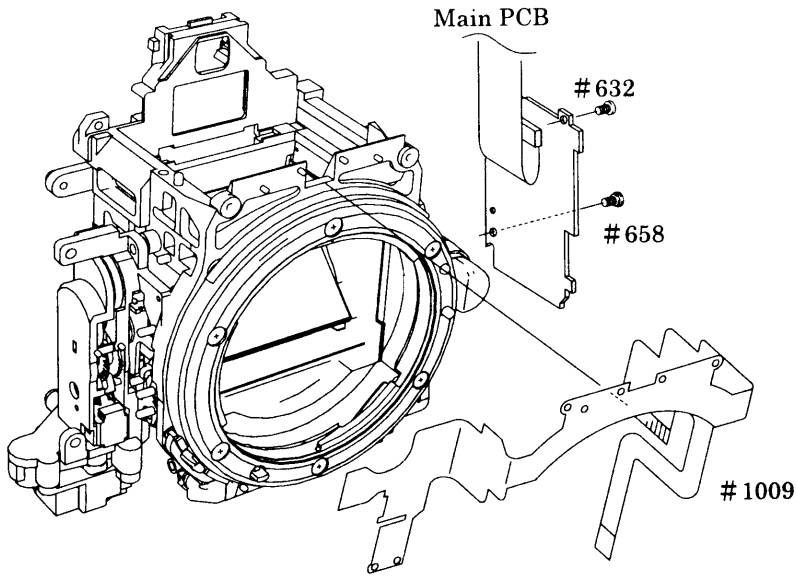


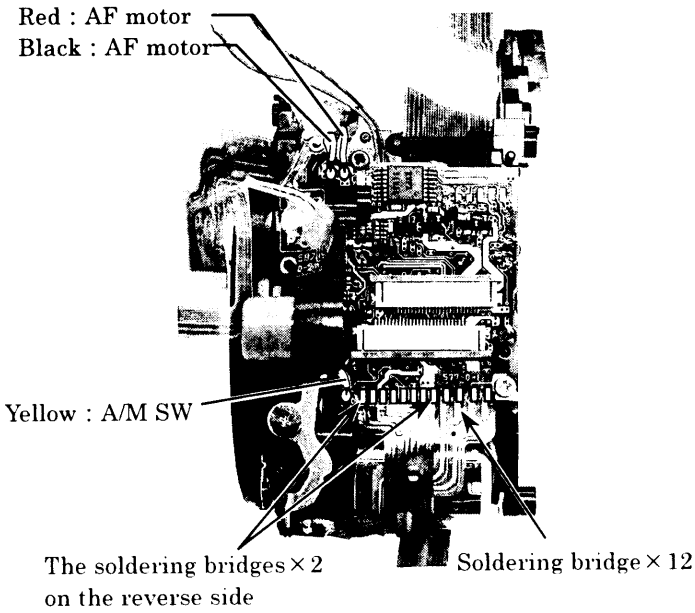
・Tighten the screw #636×3 in order of ① to ③ by the hex key to the end, and then rotate them about 2 revolutions back.

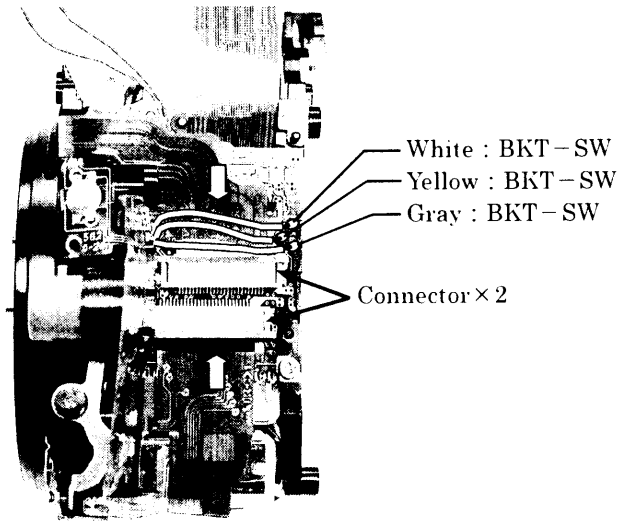
SB/BKTSWFPC

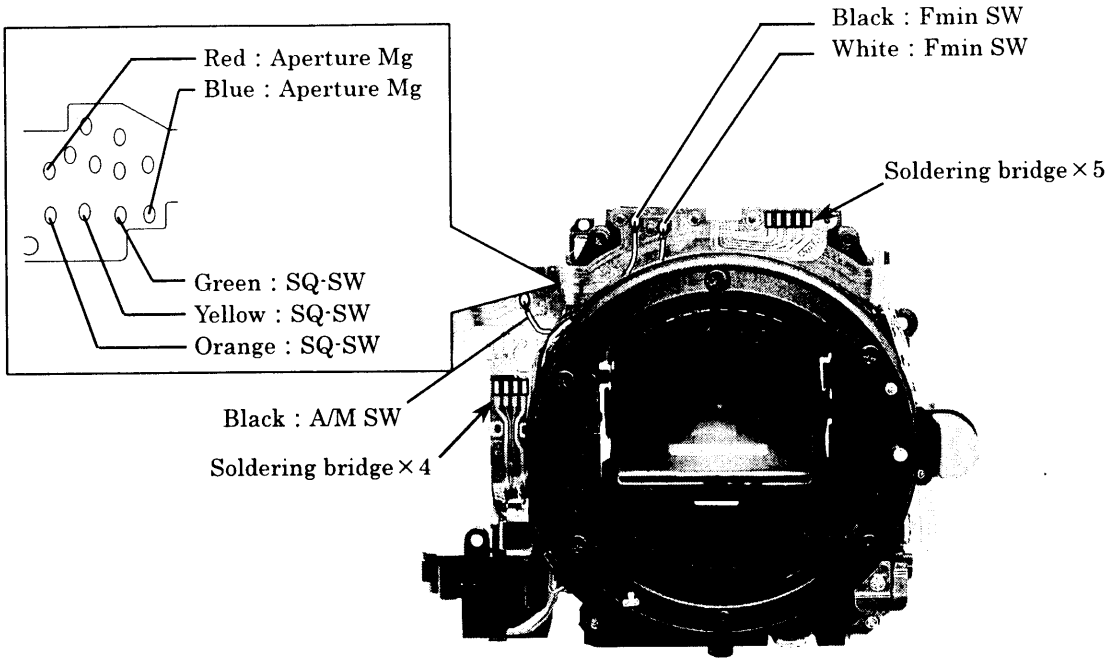


MAIN PCB

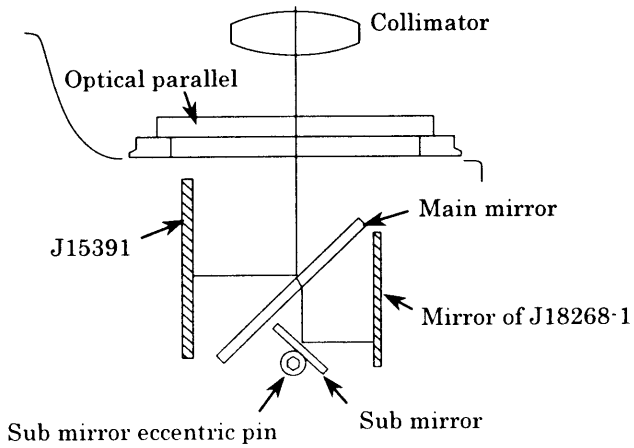

Main PCB
#632
#658
#1009


Red : AF motor
Black : AF motor
Yellow : A/M SW
The soldering bridges × 2
on the reverse side
Soldering bridge × 12


White : BKT－SW
Yellow : BKT－SW
Gray : BKT－SW
Connector × 2



ANGLE ADJUSTMENT OF MAIN MIRROR AND SUB MIRROR TO 45°



＊Use tools

1. Angle inspection of main mirror
   ①Collimator (J19002)
   ②Mirror angle inspection mirror (J15391)
   ③Optical parallel (J18037)

2. Angle adjustment of sub mirror
   ①Collimator (J19002)
   ②Sub mirror angle adjustment tool (J18268-1)
   ③Hexagonal Wrench

●Angle inspection of the main mirror to 45°

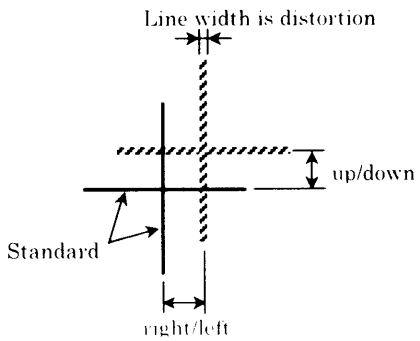
Note : This camera does not have an eccentric pin for the main mirror.

・If the difference on the top, bottom, right and left is out of standard, the mirror unit B2231 might be defective or the mirror shaft might be bended.

●Angle adjustment of the sub mirror to 45°

Note : Check accuracy by moving the main mirror up and down for a few times before and after the adjustment.

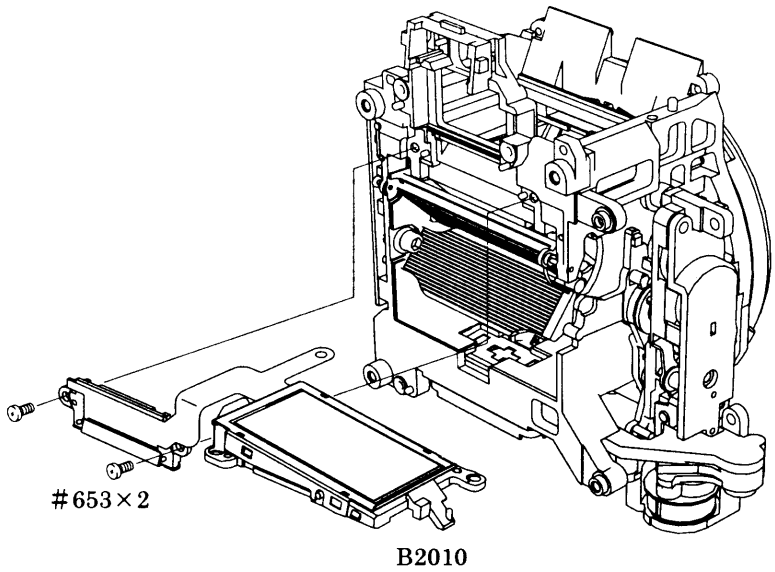
・Check the difference on the top and bottom. If it is out of standard, adjust the angle by rotating the eccentric pin for sub mirror.



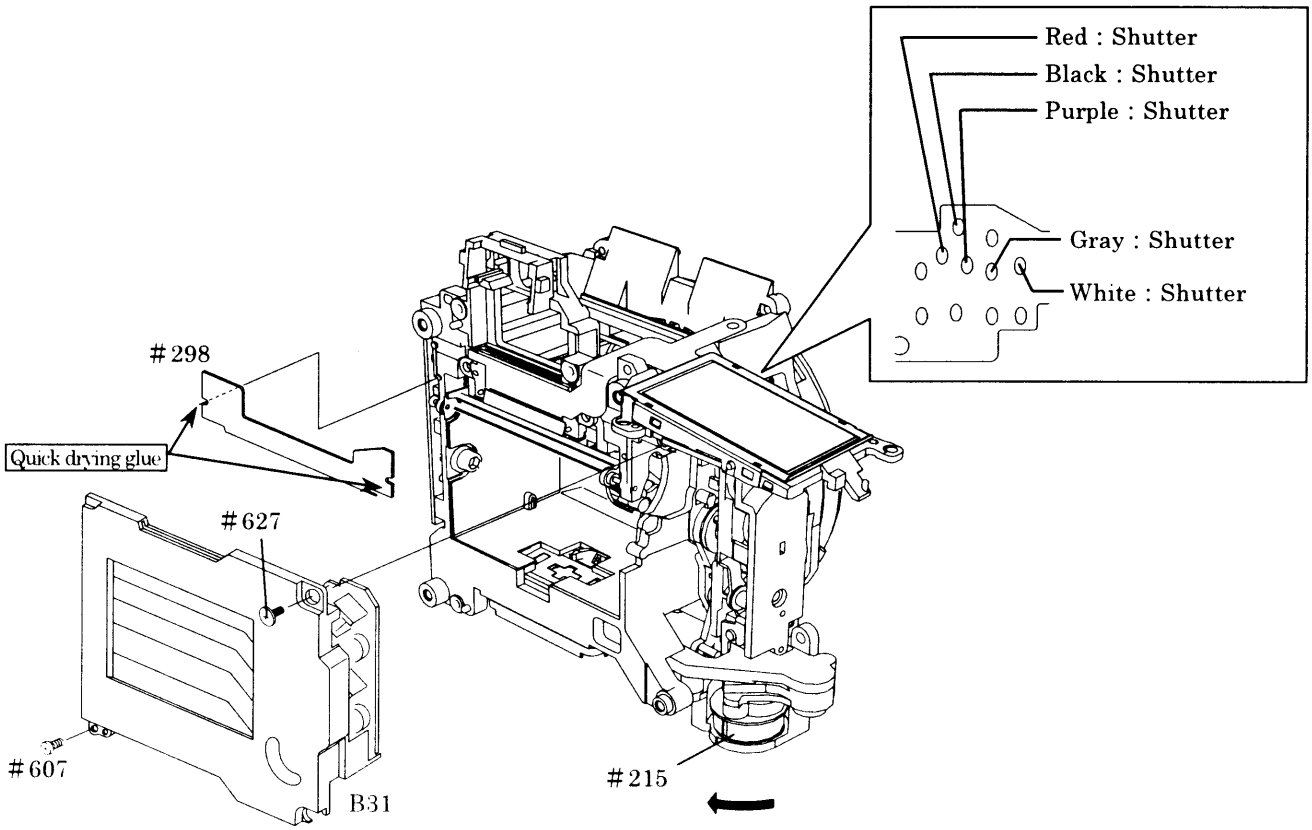
Standard :

	Main mirror	Sub mirror
Discrepancy (right/left)	Within±20′	
Discrepancy (up/down)	Within±15′	Within± 5′
Distortion	Within± 8′	Within± 8′

LCD DISPLAY UNIT

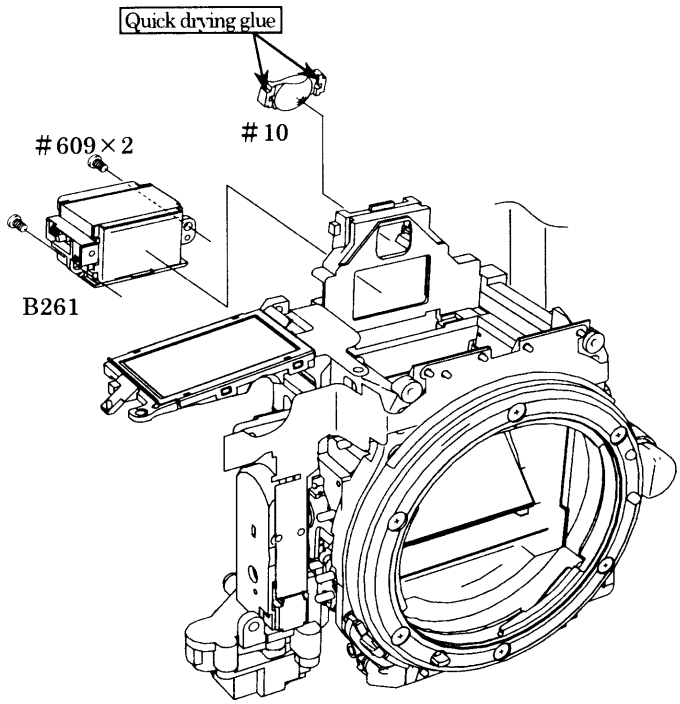


SHUTTER

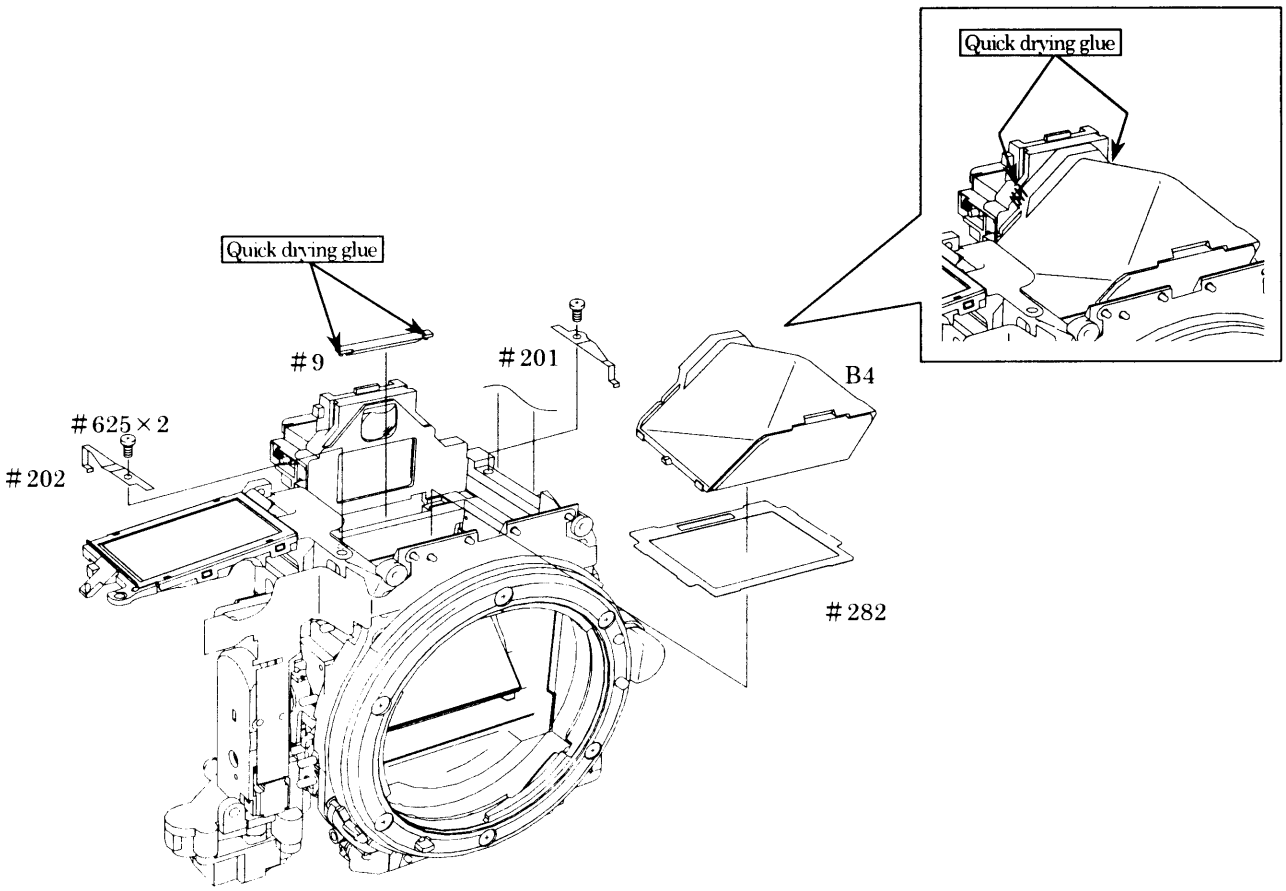


①Attach the light baffle plate #298.
②Rotate the gear #215 in an arrow direction to make the mirror up.
③Attach the shutter.
④Rotate the gear #215 to make the mirror down.
Note : After adhesive becomes completely dry, attach the shutter.

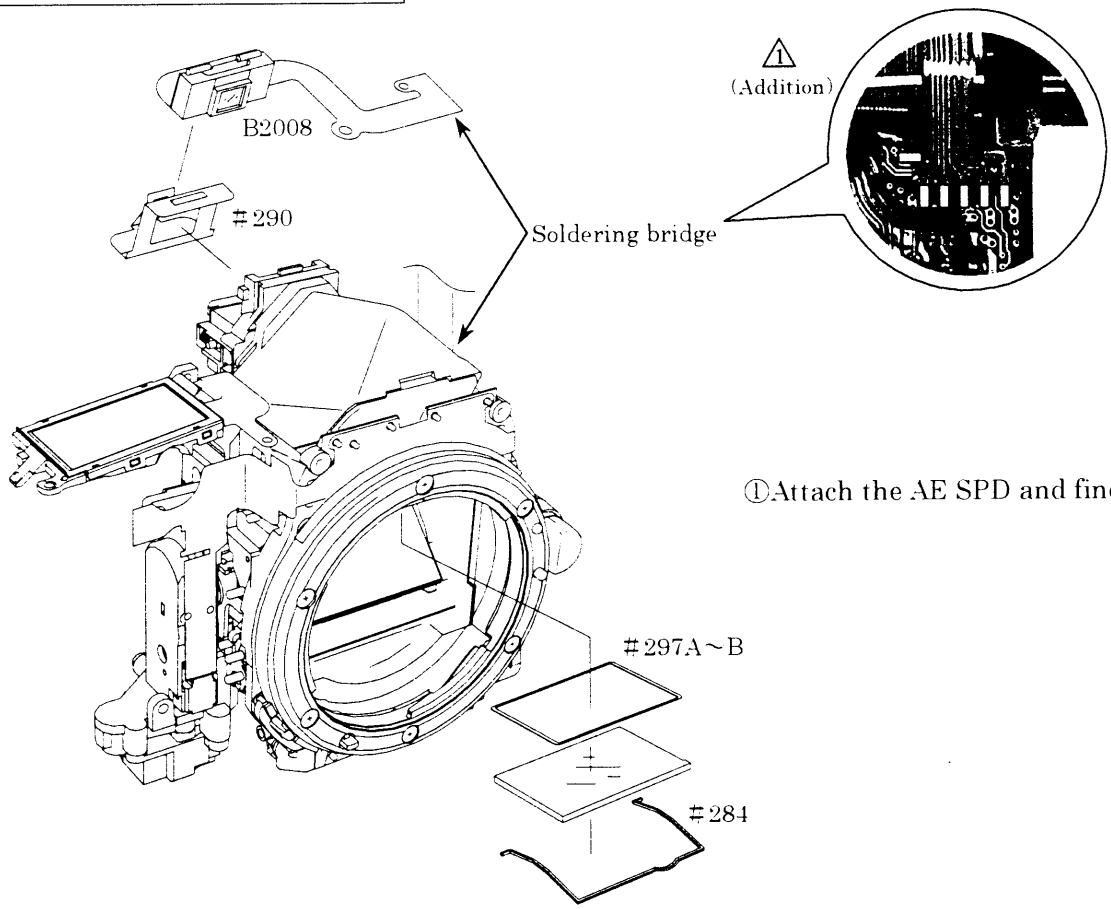
EYEPIECE LENS UNIT



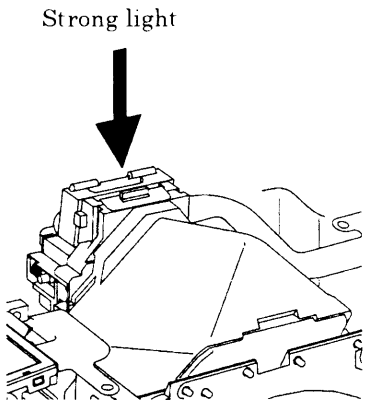
PENTAPRISM GROUP



AE SPD POSITION ADJUSTMENT



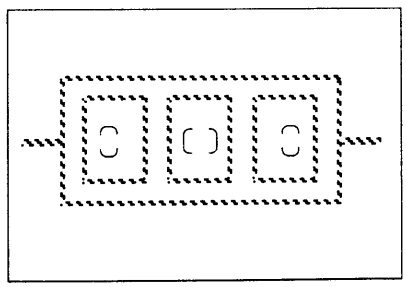
①Attach the AE SPD and finder screen.

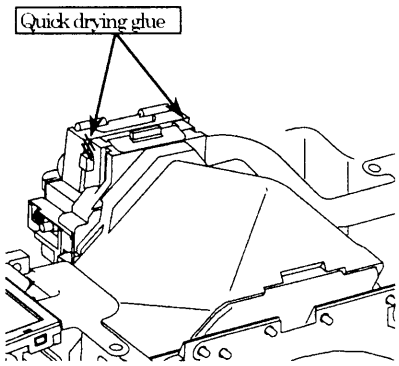


②Shade the eyepiece lens and the shutter side of the mirror box by using a piece of black tape. etc.

③Give strong light from the upper side of the AE SPD as shown Figure on the left to reflect the patter of AE SPD on the main mirror.

④Set the focus frame of the screen and the pattern of AE SPD as shown in Figure below.



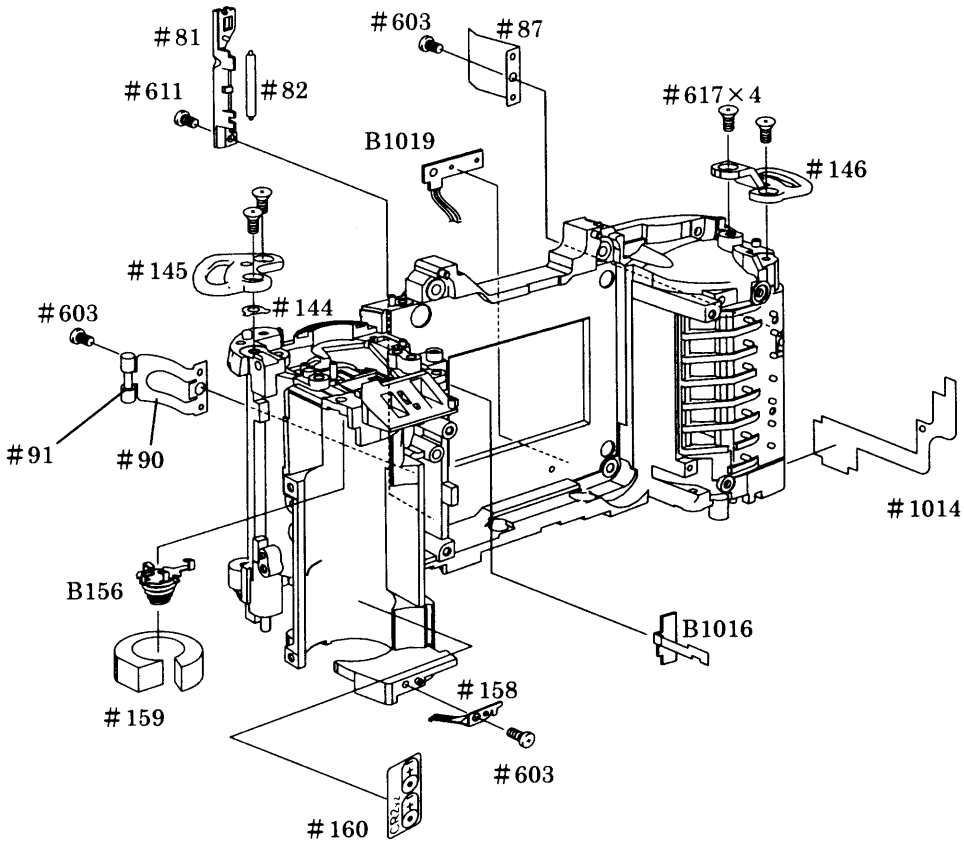


⑤Fix the AE SPD holder to the mirror box with quick dry glue.

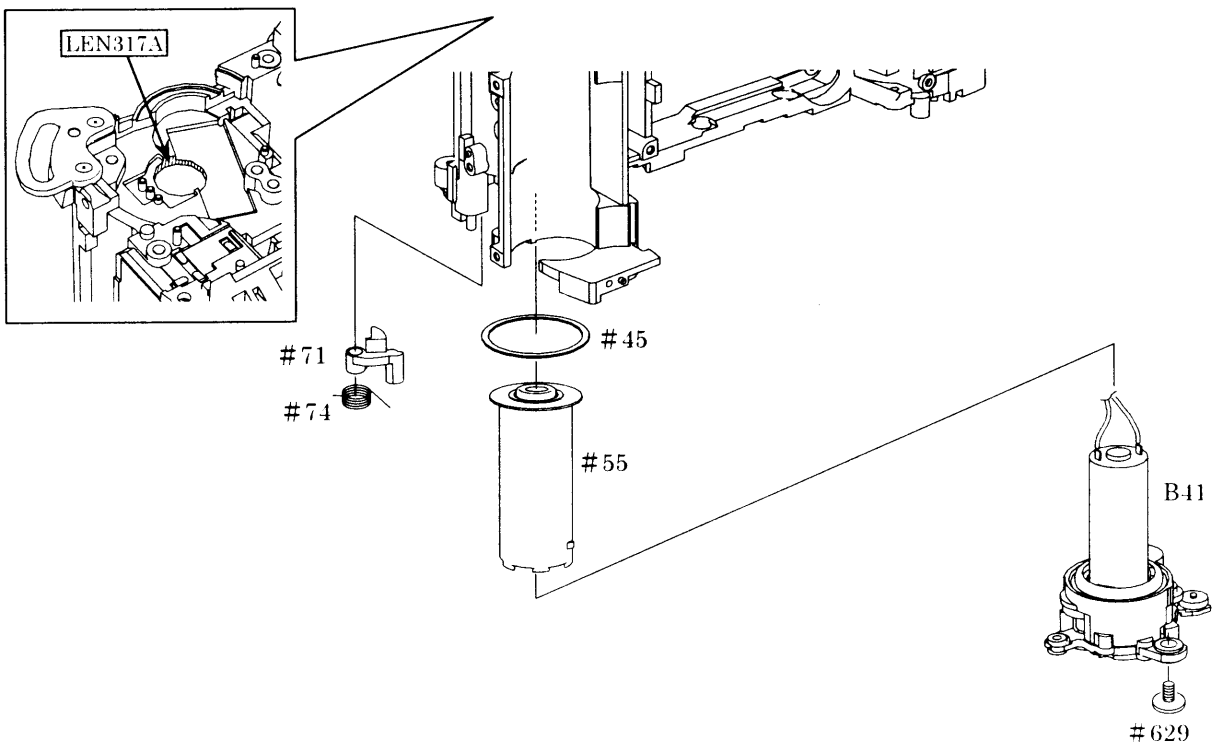
サービス計画課 M

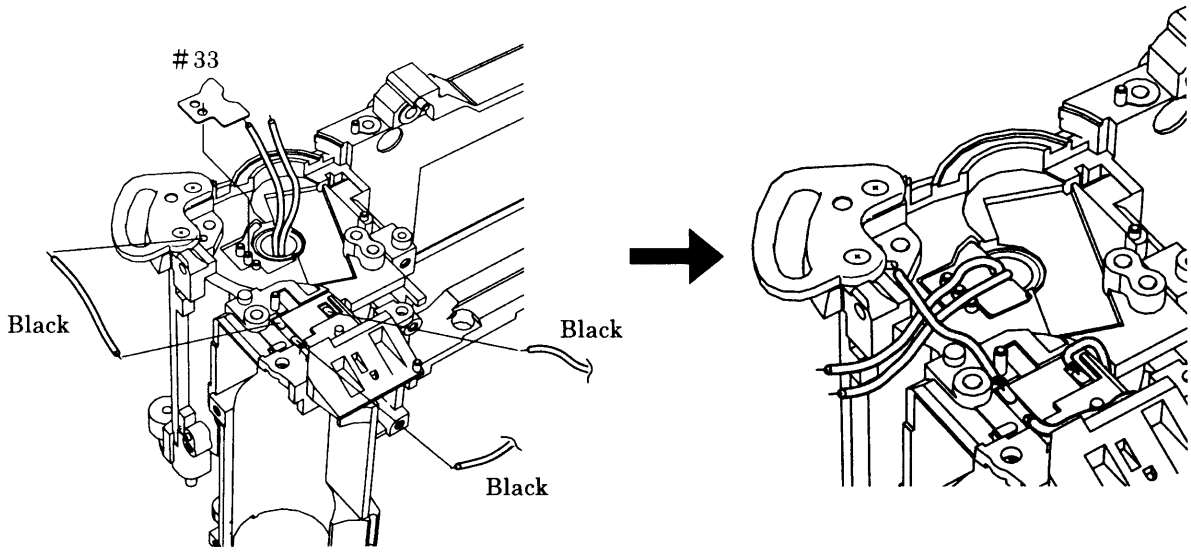
2. REAR BODY

SMALL PARTS REAR BODY

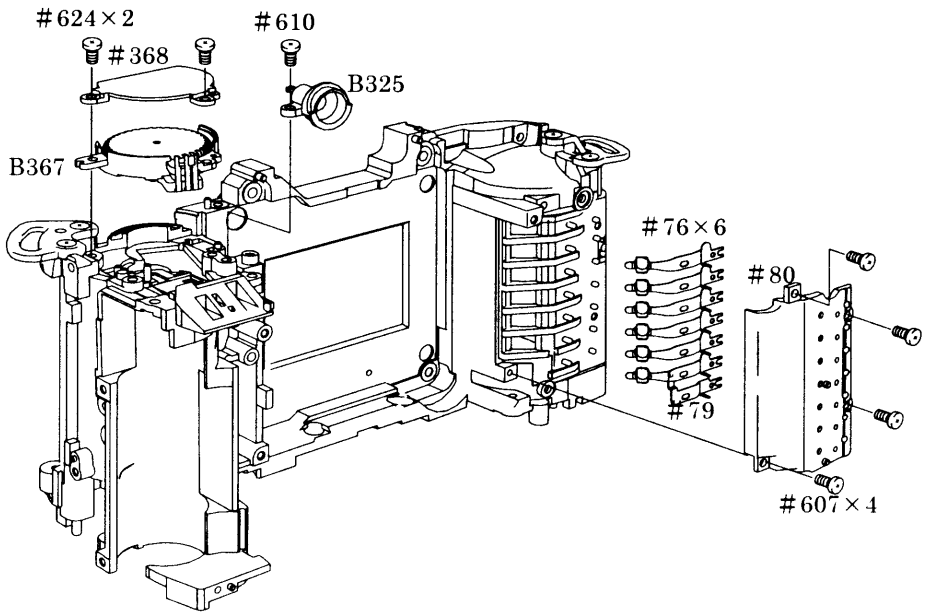


FILM ADVANCE UNIT

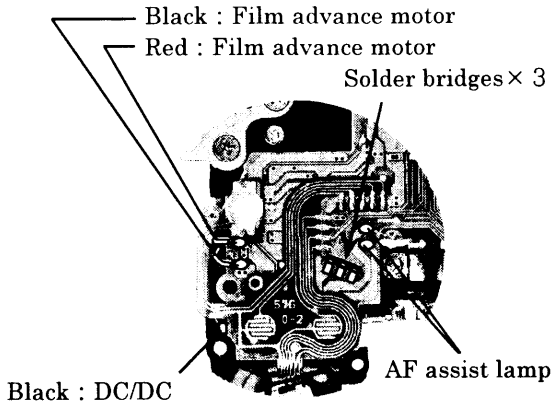




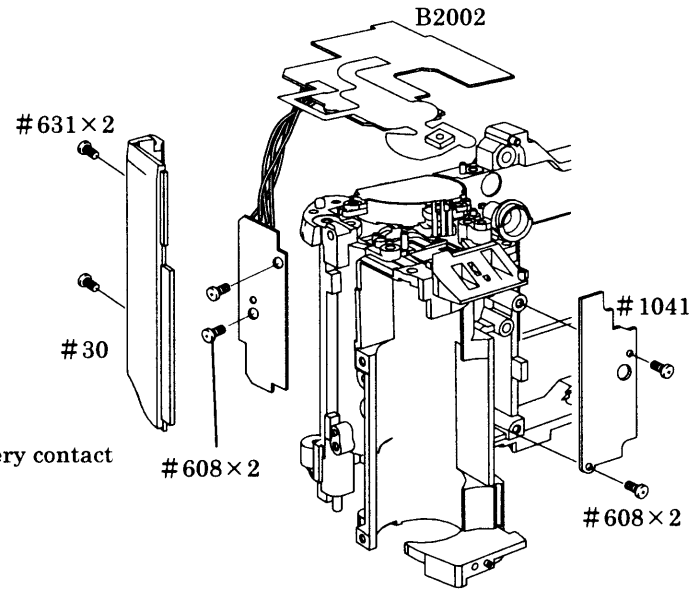
COMMAND DIAL, DX CONTACT

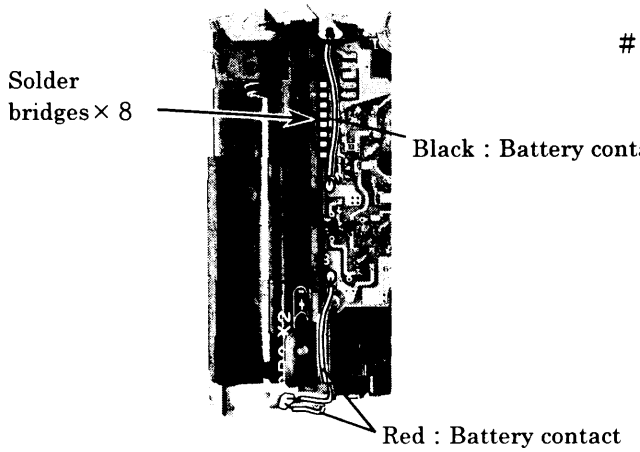


SB UNIT, DC/DC UNIT, SUB PCB

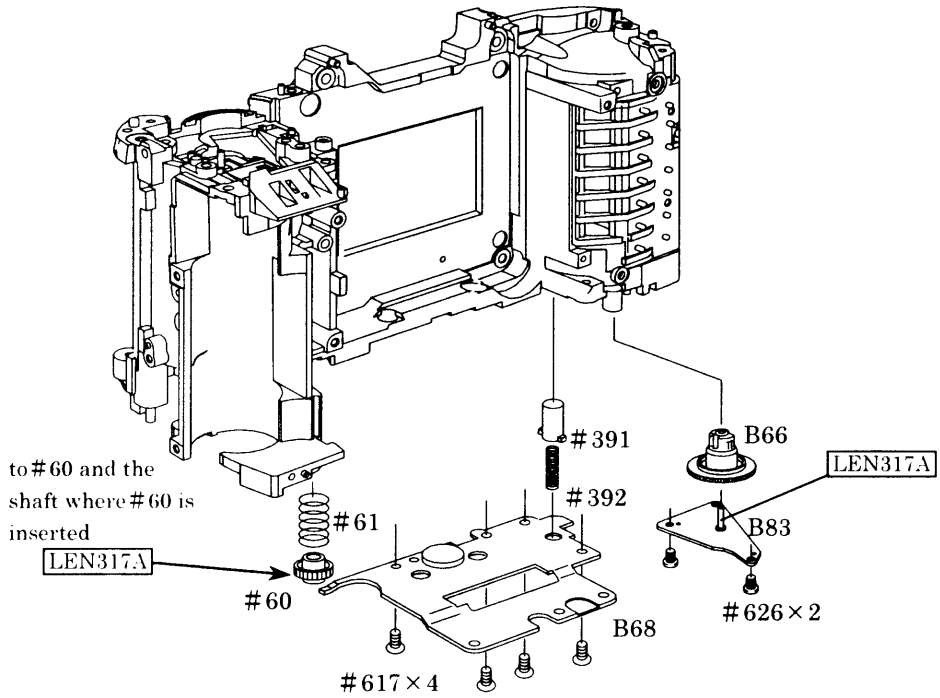


Note : AF assist lamp does not have polarity.





BOTTOM BASE PLATE

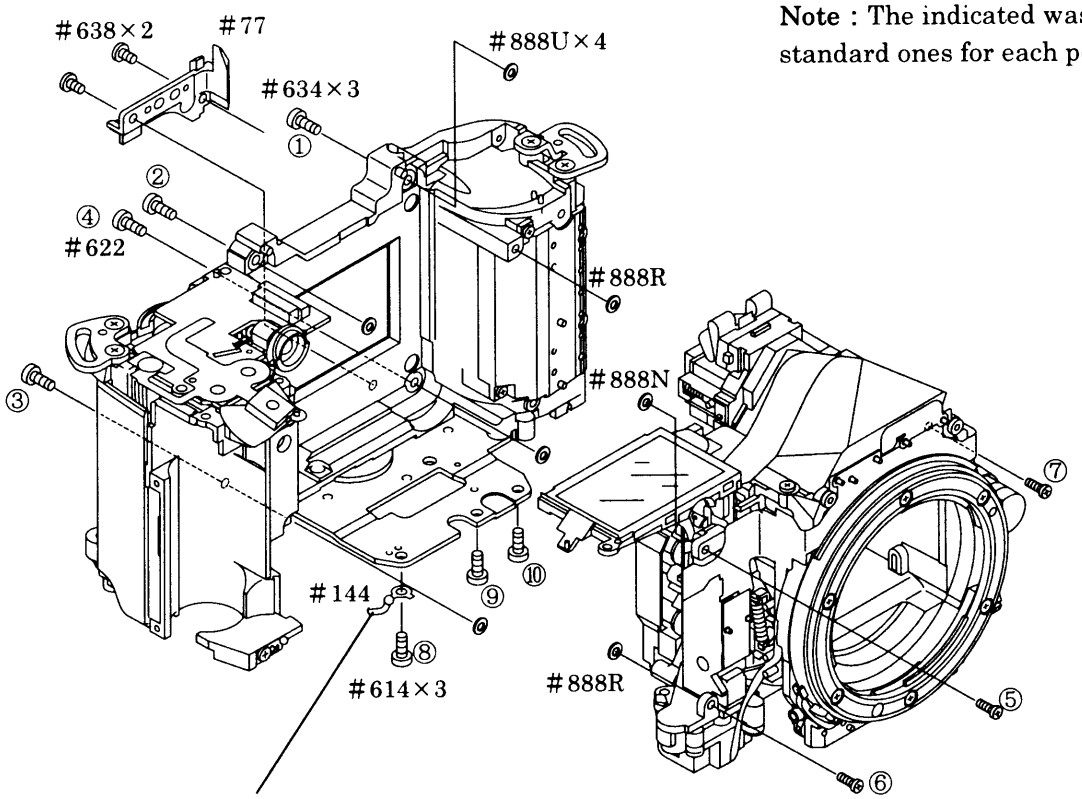


3. MOUNTING BOTH THE FRONT AND THE REAR BODY

MOUNT THE FRONT BODY TO THE REAR BODY

・Tighten the screws in order of ①-⑩.

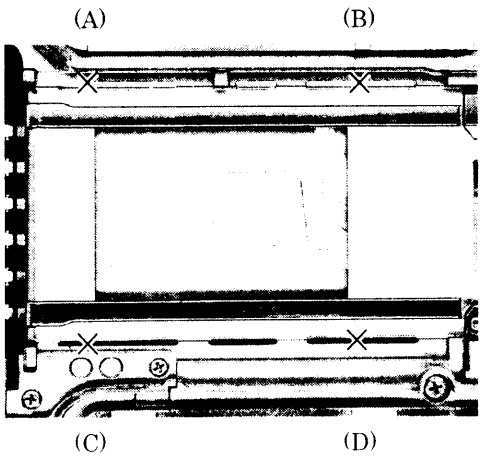
Note : The indicated washers #888 are the standard ones for each position.



Solder the black wire of the battery contact.

INSPECTION & ADJUSTMENT OF BODY BACK

Note : Take note (A) to (D) in order to the difference from the standard 46.67mm at AF adjustment after inspection and adjustment.



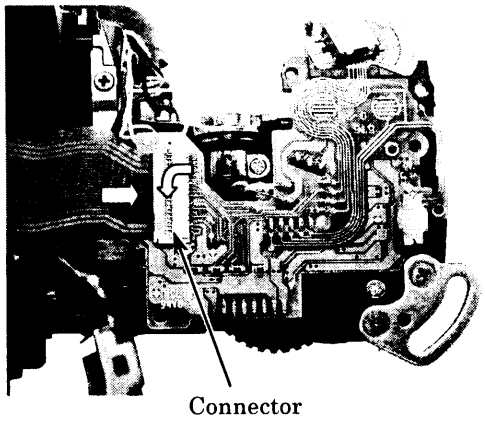
●Measure between the bayonet surface and the outer rail.

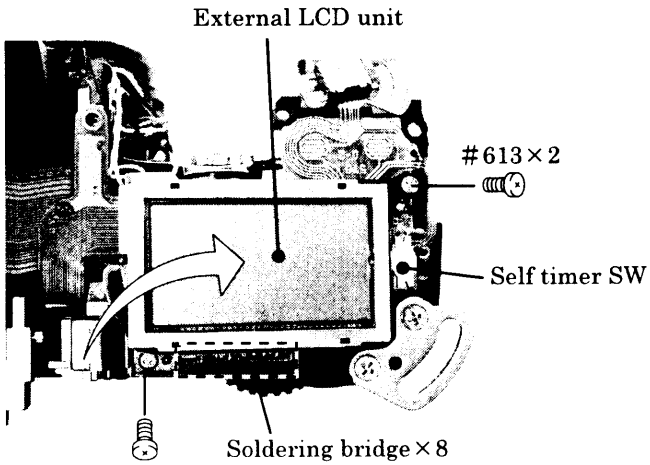
× marking: Where to be measured

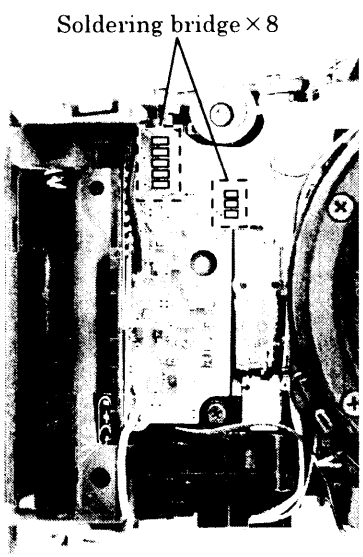
Standard : 46.64±0.06mm／Tolerance for flatness: within 0.06mm

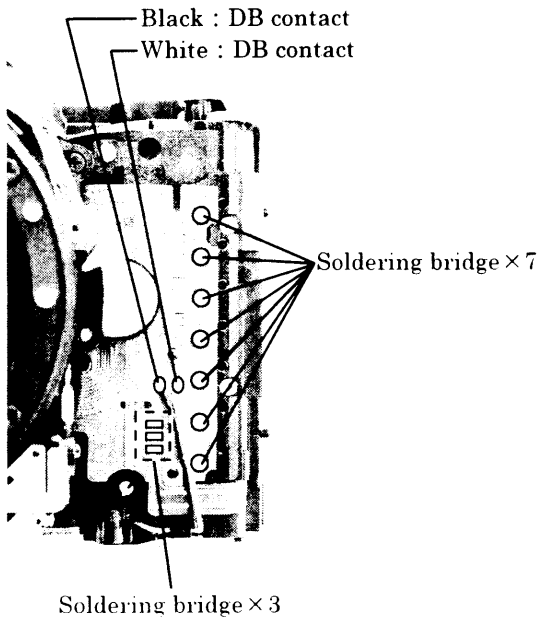
●If the measured value is out of standard, perform the adjustment by moving the front body and rear body by unfastening the screws on them.
Or adjust it by the washers between the front body and rear body.

Connector, Soldering bridges

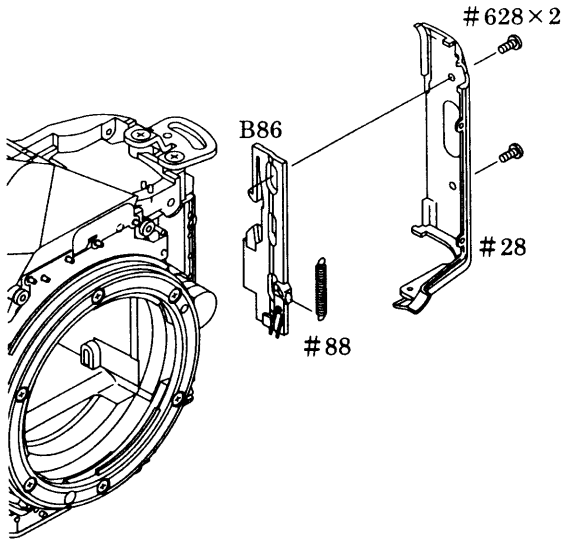




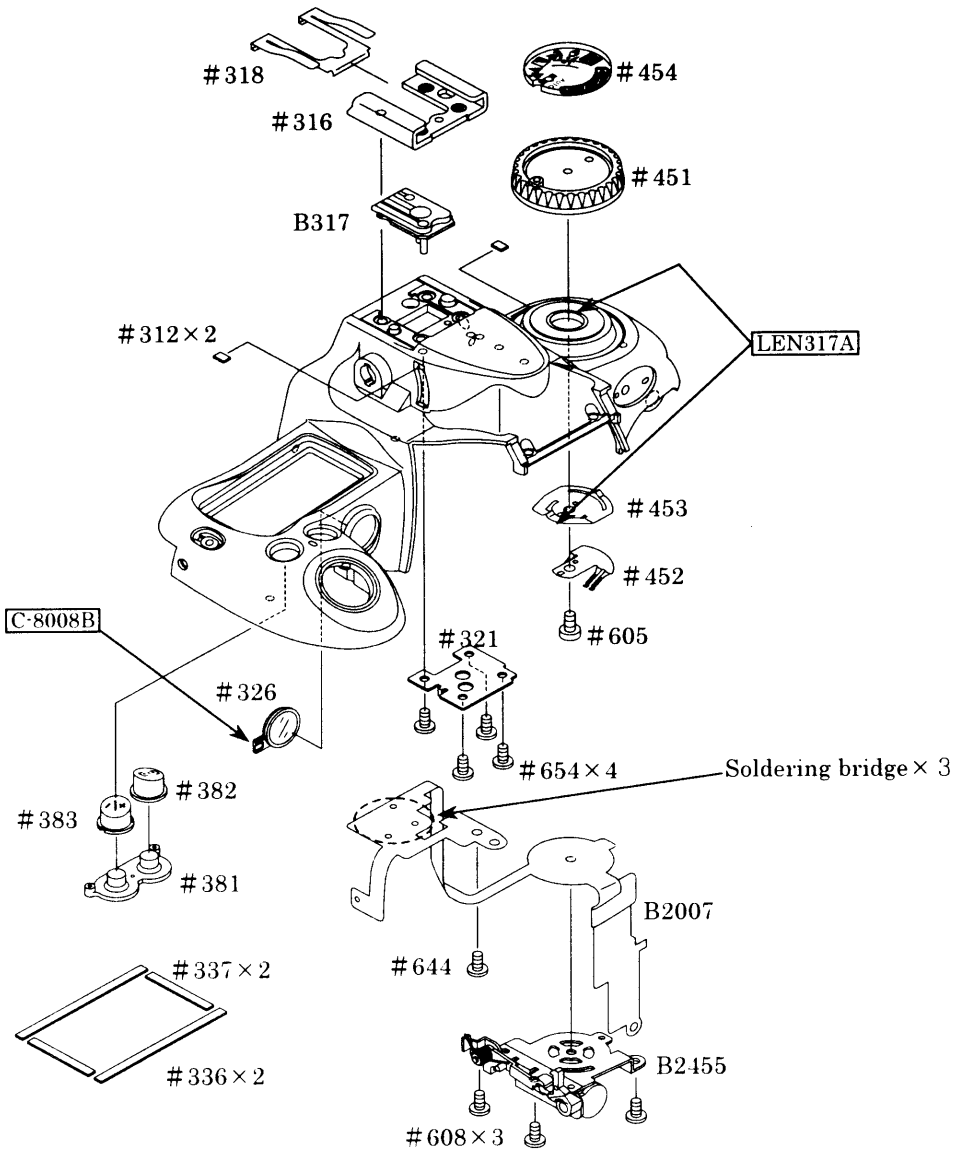


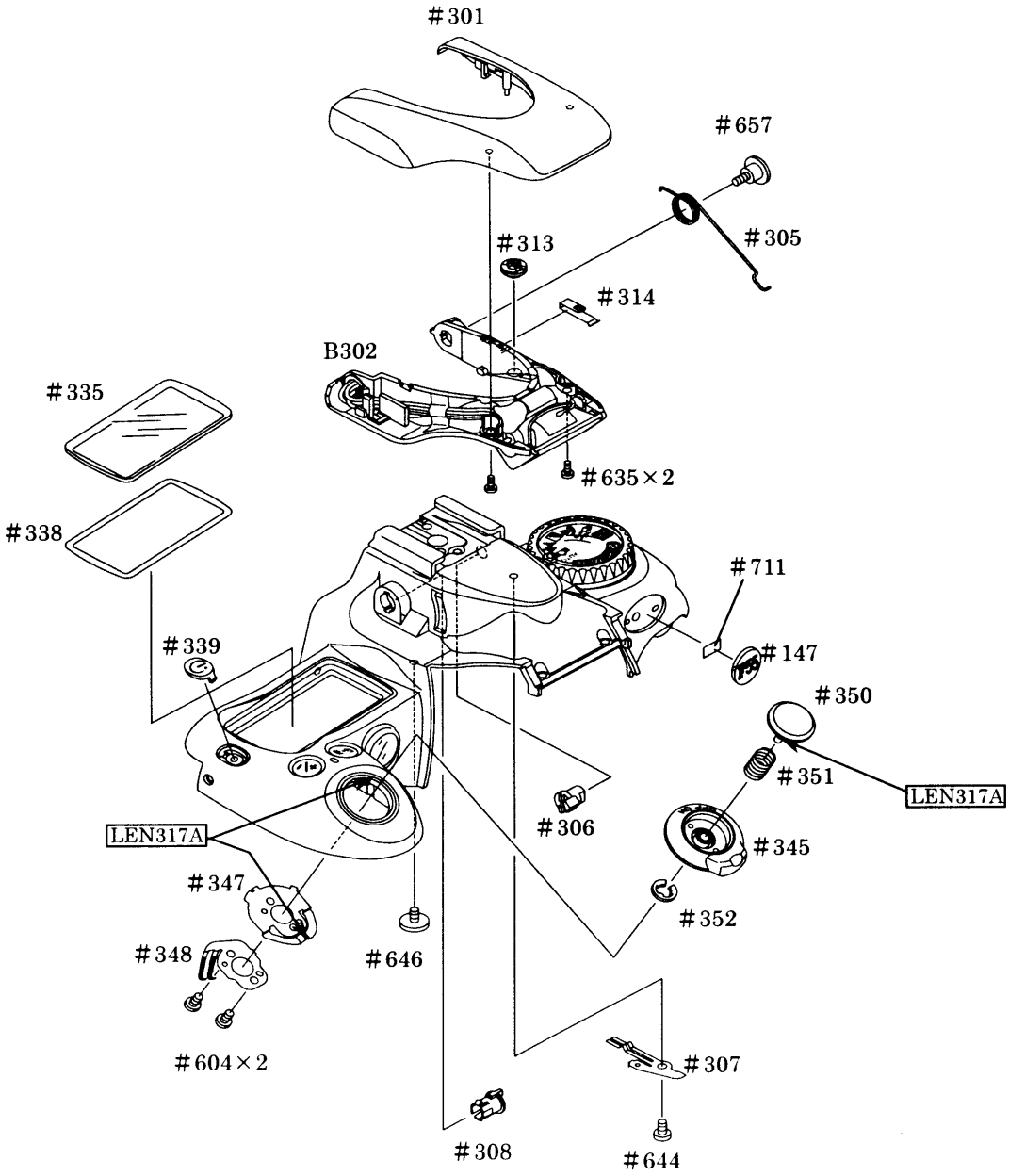


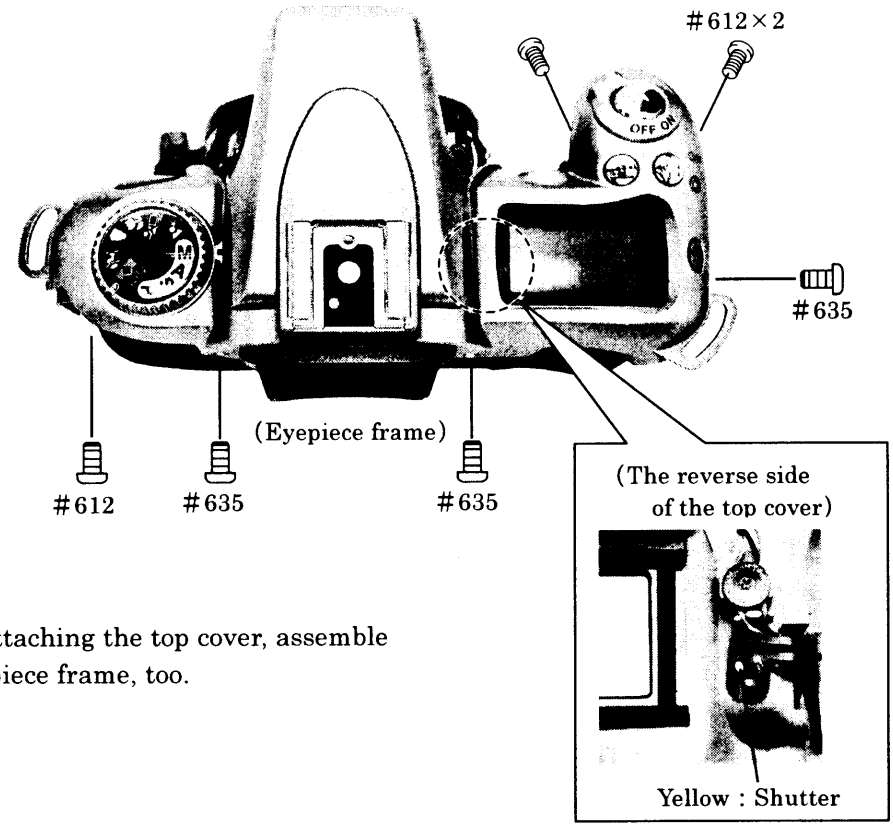
BACK DOOR OPEN/CLOSE AREA



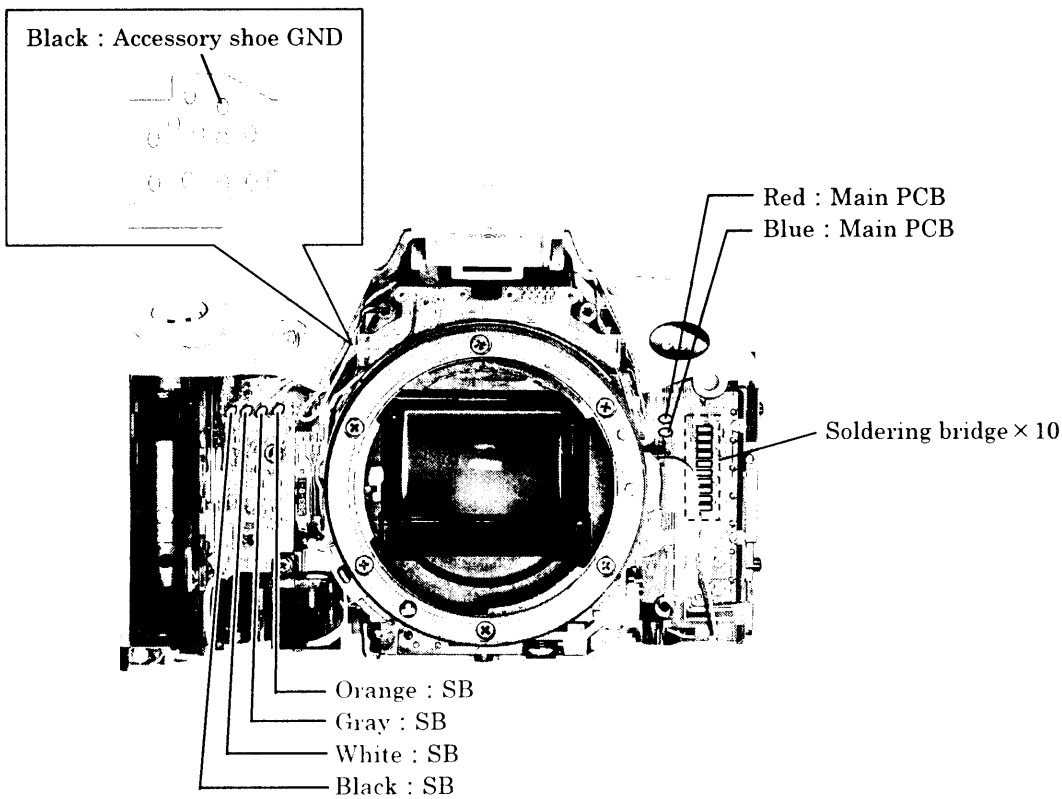
TOP COVER



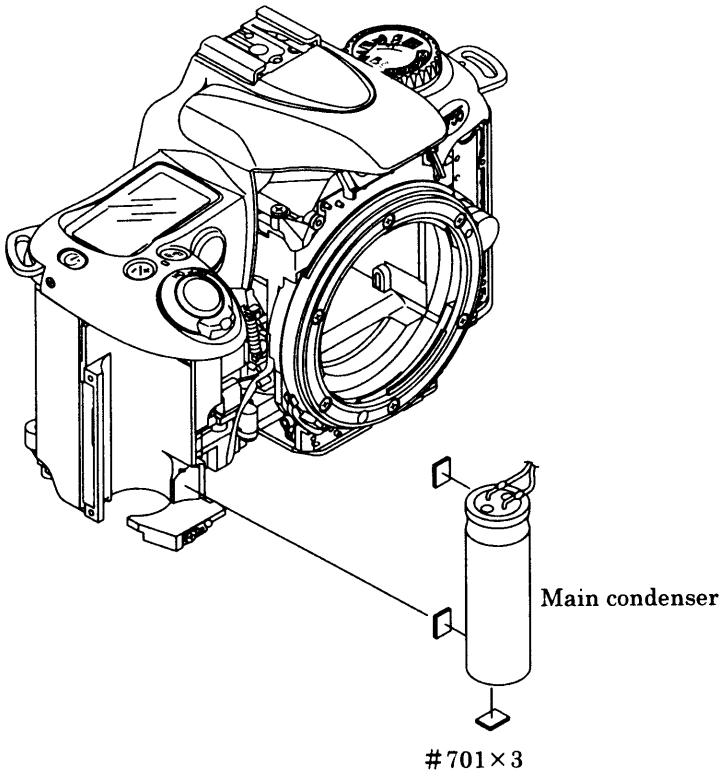

#301
#657
#305
#313
#314
B302
#335
#635×2
#338
#711
#339
#147
#350
#351
LEN317A
#306
LEN317A
#345
#347
#352
#348
#646
#604×2
#307
#308
#644

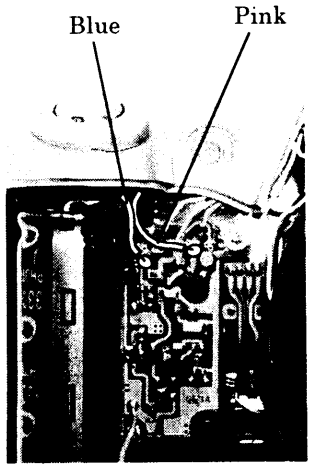


※When attaching the top cover, assemble the eyepiece frame, too.

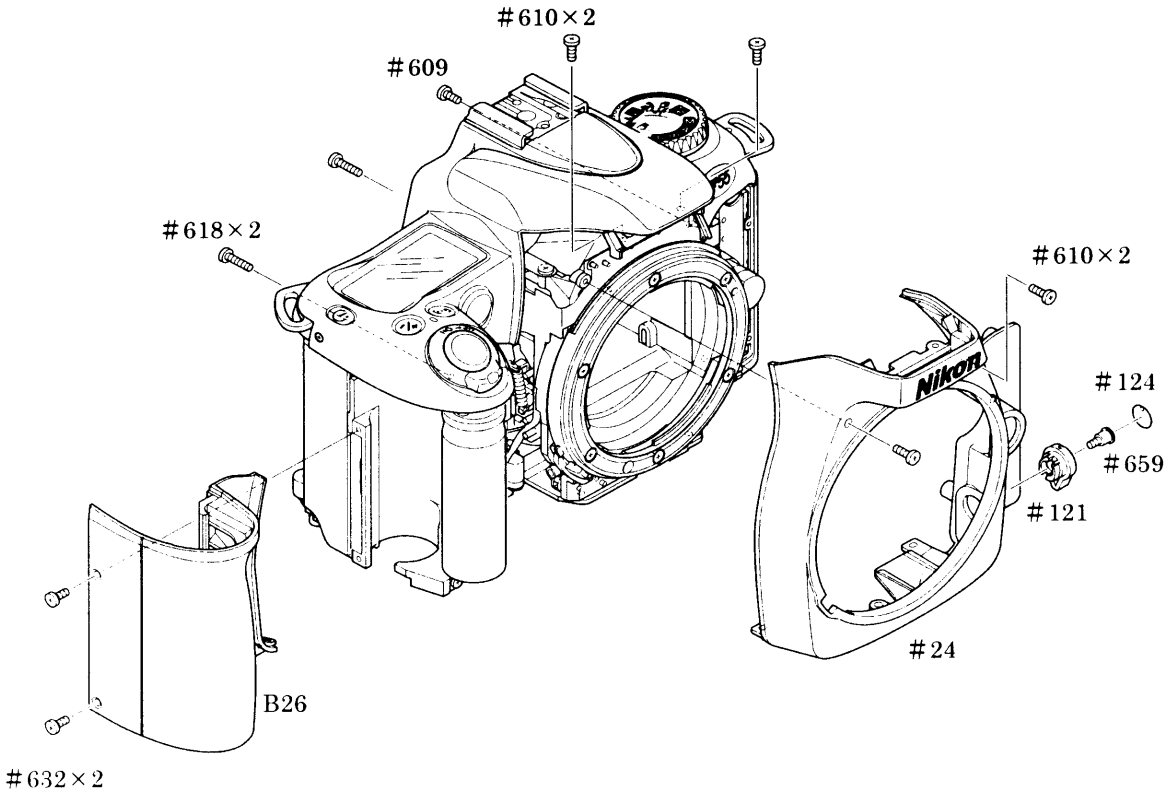


MAIN CONDENSER



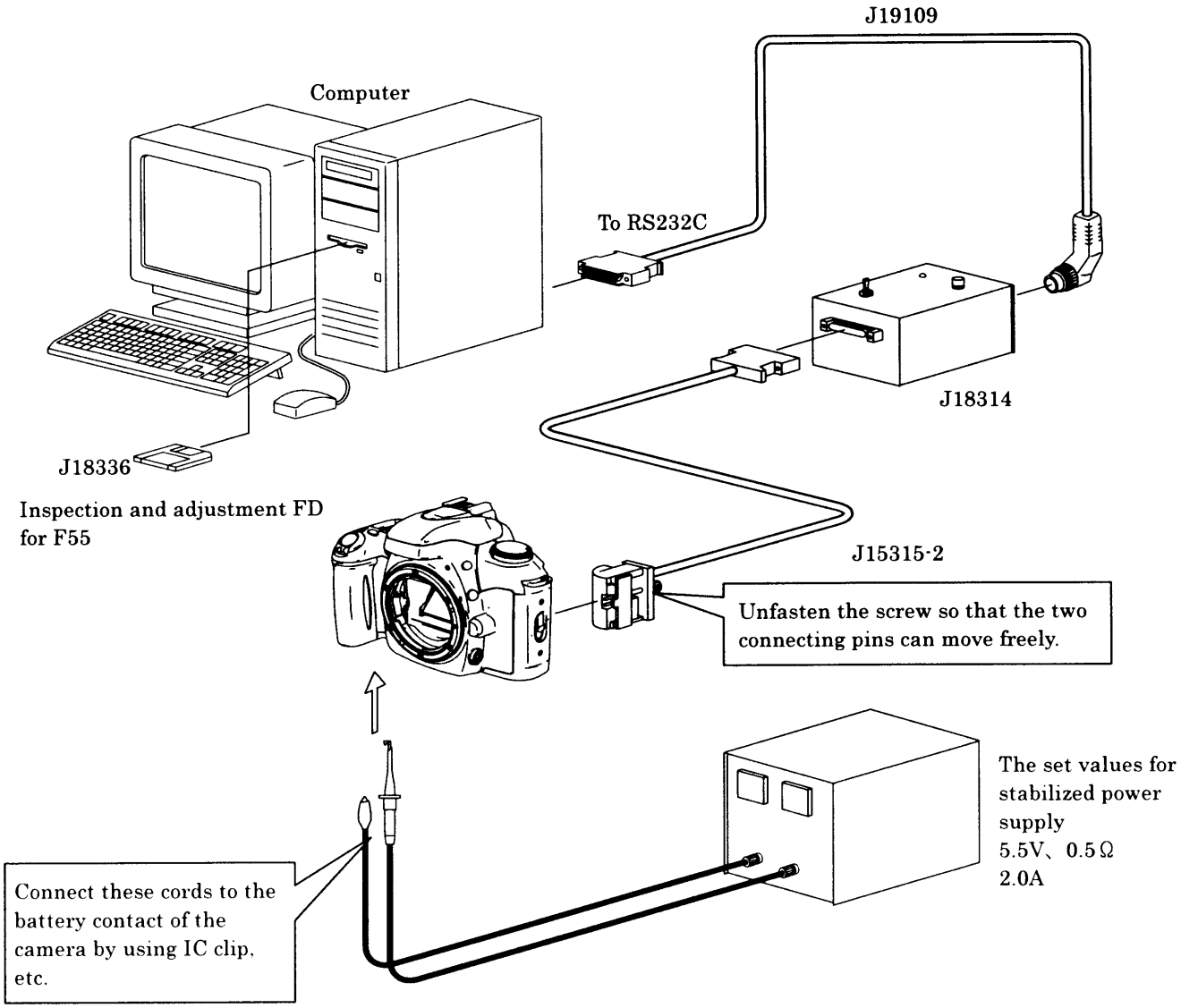


FRONT COVER, GRIP COVER



ADJUSTMENT THROUGH PC

9pin-25pin adapter is necessary for a computer
with 9pin RS-232C terminal.
RJ is not available.



AF/AE ADJUSTMENT

Note : ①Be sure to perform the AF adjustment first, then perform the AE adjustment.

②When using this adjustment software for the first time, prepare 5 units of F55 cameras to measure and obtain the average value of them at the AF accuracy inspection. Then input the average value of these measured 5 units in "WRITING OF AF ADJ. LENS OFFSET VALE" " in the main menu.

※If there is lens data for adjustment of F65, it is possible to make a file for F55 from the file for F65 at "WRITING OF AF ADJ. LENS OFFFSET VALUE" in the menu of adjustment software.

・AF ADJUSTMENT

〔Inspection and adjustment items〕

①Inspection and adjustment for the AF accuracy (whole item shall be adjusted)

②YAW, PITCH

③LARK adjustment (include CCD output)

④MBF adjustment

〔Tool in use〕

1. For adjustment of whole item:

   The tool(s) used for the AE-oriented adjustment shall be utilized.

2. For check of the AF accuracy

   ①Z adjustment lens (J18266) for F5, F100, F80

   ②AF adjustment stand (J15259)

   ③Z lens holder (J15280) or position conversion adapter (J15271) for tripod socket

   ④AF chart (J18273) for F5, F100, F80

   ⑤Lighting box (J15264) for high frequency

3. For adjustment of YAW, and PITCH

   ①The whole tool used for the check of AF accuracy just as mentioned above

   ②Adjustment tool for YAW, and PITCH (J18230)

4. For adjustment of LARK (include CCD output adjustment)

   ①The whole tool used for the check of AF accuracy just as mentioned above

   ②AF 50/1.4D lens

・AE adjustment

1．AE adjustment
2．Aperture adjustment
3．M 1/2000 adjustment
4．TTL adjustment
5．Battery check adjustment

Note : Be sure to utilize either "F90" or "N90" oriented camera's shutter curtain.

Confirmation of the Battery check display mode

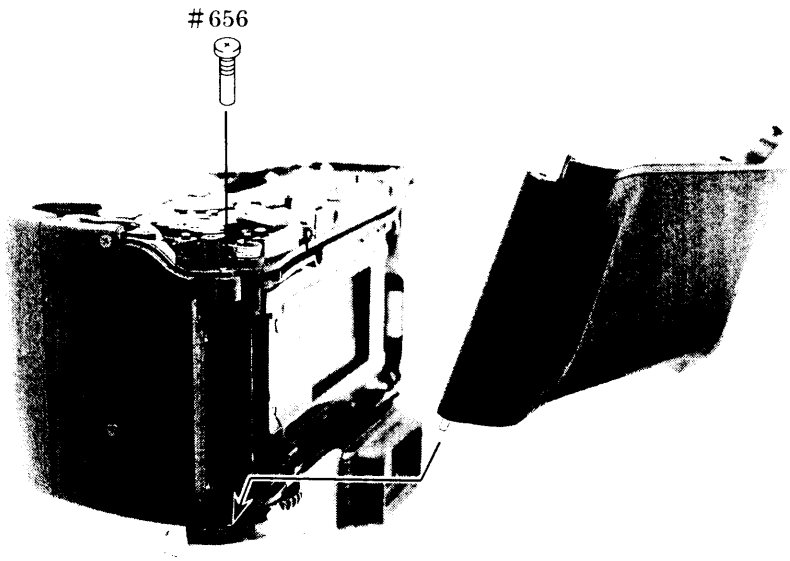
After adjusting the battery check, input below-mentioned each voltage data to the camera and then check the external LCD mode.

Note : Conduct the inspection by switching each voltage in order of No.1 to 5.

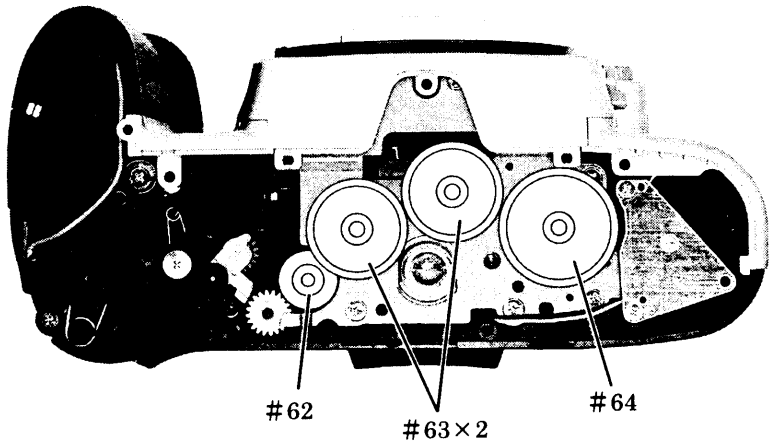
External LCD mode	Set up voltage from the stabilized power supply	
	① 5.00V	⑤ 5.30V±0.2V
	② 4.80V±0.2V	④ 5.00V±0.2V
 blinks	③ 4.50V±0.2V	

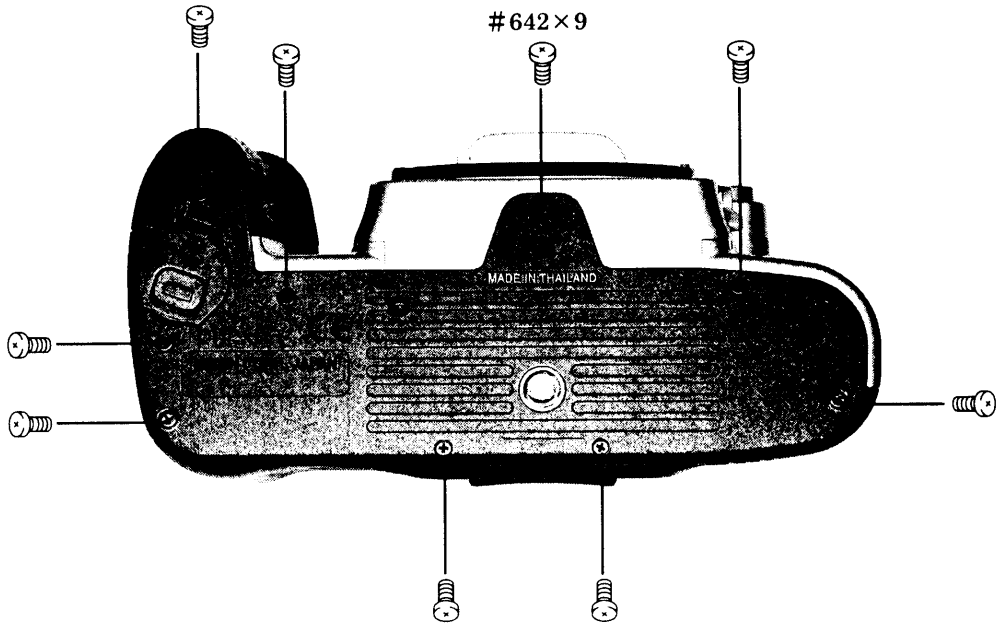
BACK DOOR

Note : Never use the solvent when cleaning the pressure plate, but use the A-level dust cleaning cloth or Savina Minimax and wipe it softly because the pressure plate of this camera is coated with the special paint.

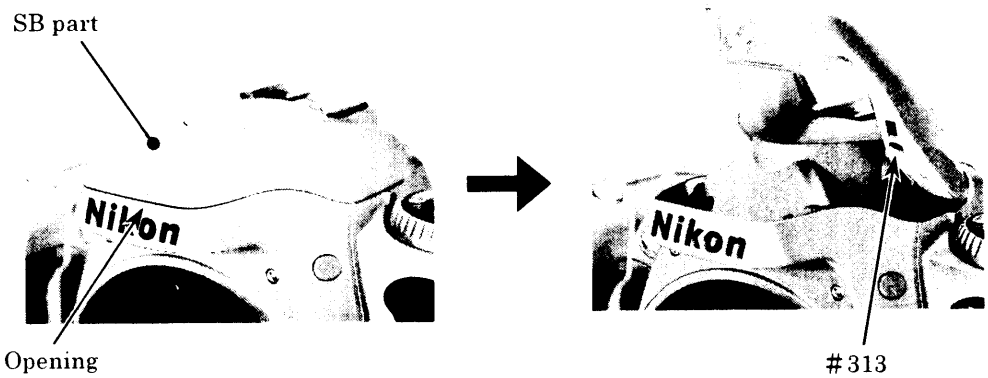


BOTTOM COVER



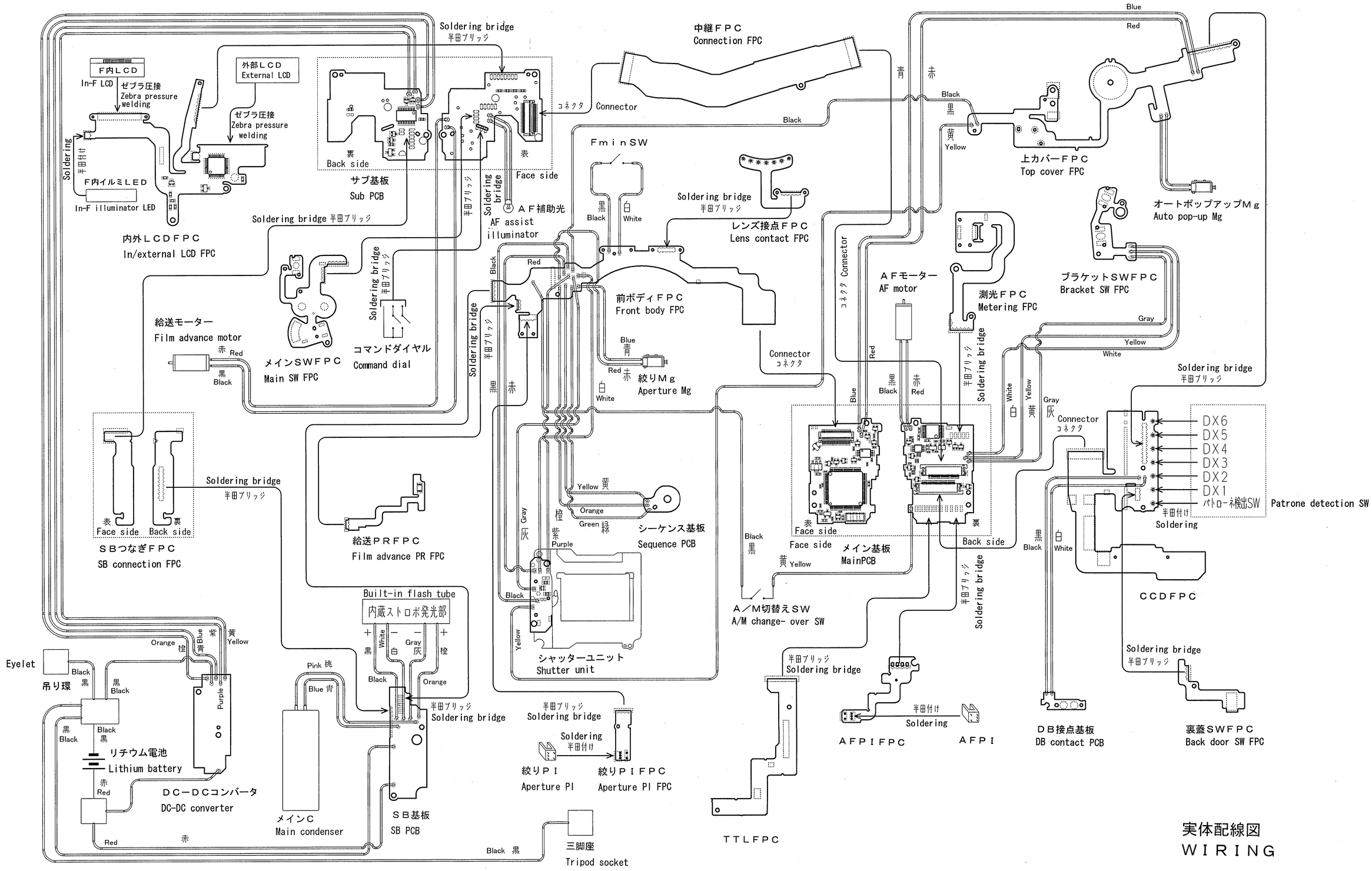


ADJUSTMENT OF OPENING IN SB PART



· When pressing the SB part from the top, if play or opening is big, adjust the opening by making the SB part pop up and rotate the #313 by the hex key.

ELECTRIC CIRCUIT


F内LCD
In-F LCD
ゼブラ圧接
Zebra pressure welding
外部LCD
External LCD
ゼブラ圧接
Zebra pressure welding
Soldering
半田付け
F内イルミLED
In-F illuminator LED
内外LCDFPC
In/external LCD FPC
Soldering bridge
半田ブリッジ
裏
Back side
表
Face side
サブ基板
Sub PCB
コネクタ
Connector
中継FPC
Connection FPC
FminSW
黒 Black
白 White
Soldering bridge
半田ブリッジ
AF補助光
AF assist illuminator
レンズ接点FPC
Lens contact FPC
Soldering bridge
半田ブリッジ
Black
Red
前ボディFPC
Front body FPC
Blue 青
Red 赤
白 White
絞りMg
Aperture Mg
Connector
コネクタ
コネクタ Connector
AFモーター
AF motor
Red
黒 Black
赤 Red
Blue
青
赤
Black
黒
黄 Yellow
上カバーFPC
Top cover FPC
Blue
Red
オートポップアップMg
Auto pop-up Mg
ブラケットSWFPC
Bracket SW FPC
Gray
Yellow
White
測光FPC
Metering FPC
Soldering bridge
半田ブリッジ
Soldering bridge
半田ブリッジ
給送モーター
Film advance motor
赤 Red
黒 Black
メインSWFPC
Main SW FPC
コマンドダイヤル
Command dial
Soldering bridge
半田ブリッジ
Soldering bridge
半田ブリッジ
Yellow 黄
Orange 橙
Green 緑
絞りMg
Aperture Mg
Gray 灰
Purple 紫
Black
Yellow
シーケンス基板
Sequence PCB
Face side
Back side
メイン基板
MainPCB
Soldering bridge
半田ブリッジ
Connector
コネクタ
Gray 灰
白 White
黄 Yellow
DX6
DX5
DX4
DX3
DX2
DX1
パトローネ検出SW
Patrone detection SW
半田付け
Soldering
CCDFPC
Soldering bridge
半田ブリッジ
DB接点基板
DB contact PCB
裏蓋SWFPC
Back door SW FPC
Soldering bridge
半田ブリッジ
Face side
Back side
SBつなぎFPC
SB connection FPC
給送PRFPC
Film advance PR FPC
Built-in flash tube
内蔵ストロボ発光部
+ 黒 Black
− 白 White
− Gray 灰
+ 橙 Orange
Black
Orange
Eyelet
吊り環
Black 黒
Orange 橙
Blue 青
紫
黄 Yellow
Purple
Pink 桃
Blue 青
Soldering bridge
半田ブリッジ
リチウム電池
Lithium battery
赤 Red
DC−DCコンバータ
DC-DC converter
メインC
Main condenser
SB基板
SB PCB
Red 赤
Black 黒
三脚座
Tripod socket
Soldering bridge
半田ブリッジ
Soldering
半田付け
絞りPI
Aperture PI
絞りPIFPC
Aperture PI FPC
Soldering bridge
半田ブリッジ
TTLFPC
Soldering bridge
半田ブリッジ
Soldering
半田付け
AFPIFPC
AFPI
A／M切替えSW
A/M change- over SW
Black 黒
黄 Yellow
Face side
Back side
メイン基板
MainPCB
Soldering bridge
半田ブリッジ
実体配線図
WIRING

回路図
CIRCUIT DIAGRAM

Top cover FPC
上カバーFPC

Bracket SW FPC
ブラケットSW FPC

AF assist illuminator
AF補助光

In/external LCD FPC
内外LCDFPC

Connection FPC

メイン基板 Main PCB

中継FPC

サブ基板 Sub PCB

Data Back FPC
データバックFPC

DB contact PCB
DB接点基板

Date module

Patrone detection SW

Back door SW FPC
裏蓋SW FPC

CCDFPC

Metering FPC
測光FPC

AFMotor

AF-PIFPC

TTLFPC

A/M切換SW

A/M change-over SW

To mount pin

Shutter Mg

Sequence SW PCB

Aperture PI FPC

Lens contact FPC

Film advance PR

Film advance photo reflector

前ボディFPC
Front body FPC

Flash version terminal writing
フラッシュ書き込み端子

Command dial PCB
コマンドダイアル基板

Pre-release SW
Release SW

Power source SW

Self timer

AF area

Exposure compensation/Aperture

メインSW FPC
Main SW FPC

Film advance motor

DC-DC module
DC/DCモジュール

DC-DC converter

SBつなぎFPC
SB connection FPC

Built-in flash module
内蔵SBモジュール

内蔵SB制御回路

Built-in flash control circuit

Built-in flash tube

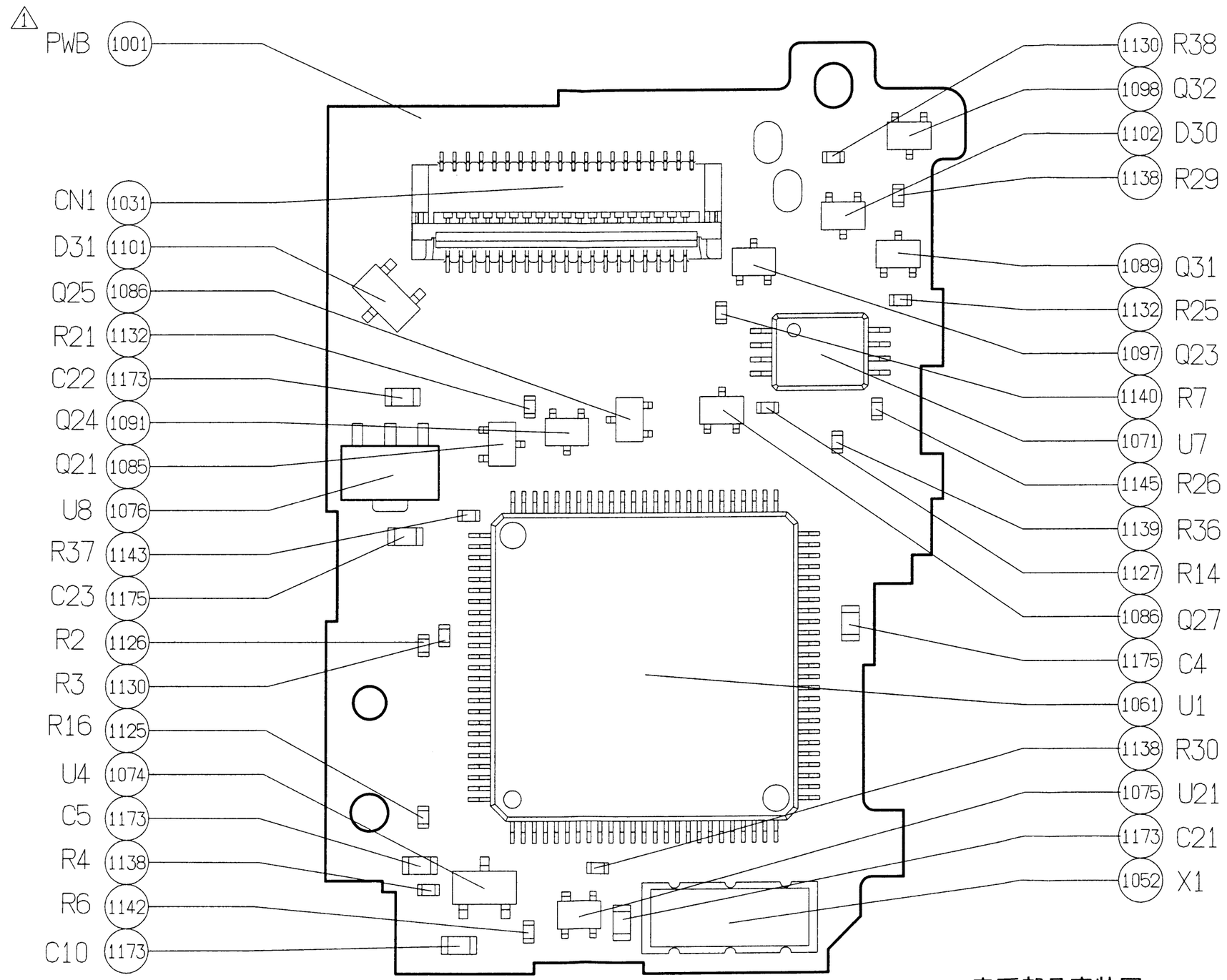
Lug plate

Lithium battery

Contact

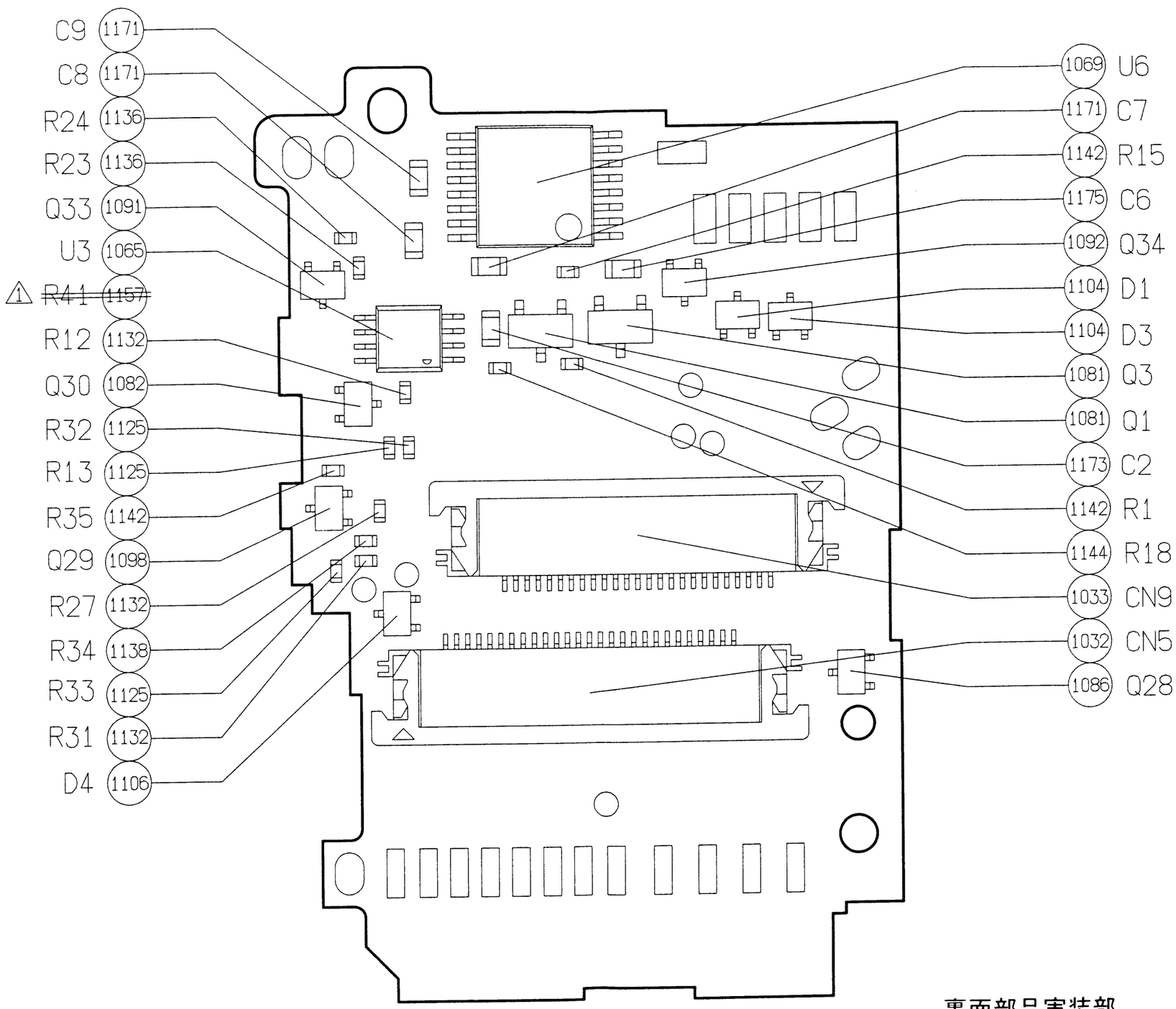
Tripod socket

メイン　ＰＣＢ
MAIN PCB



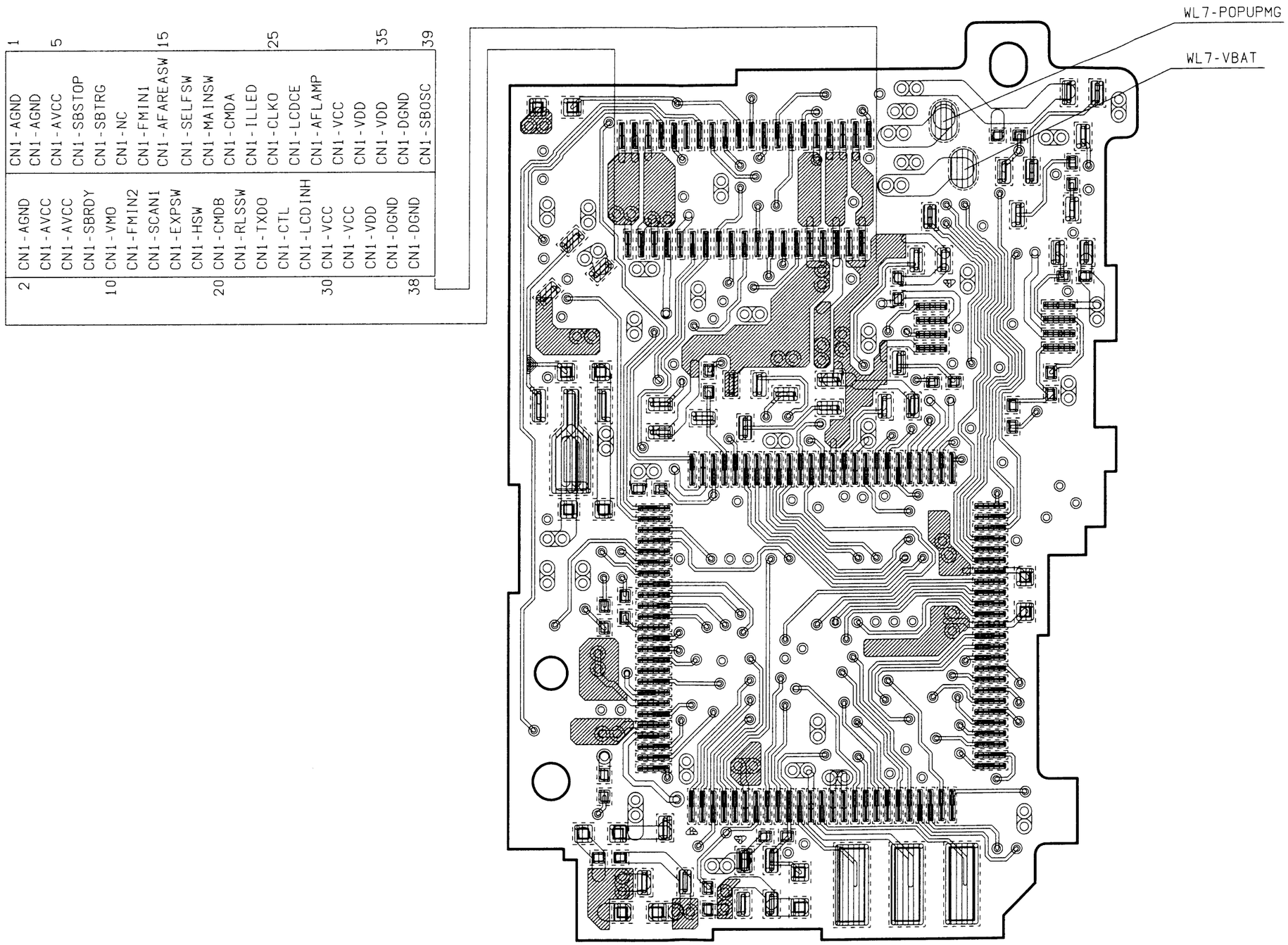
表面部品実装図
Front side parts location's diagram

メイン　ＰＣＢ
MAIN PCB



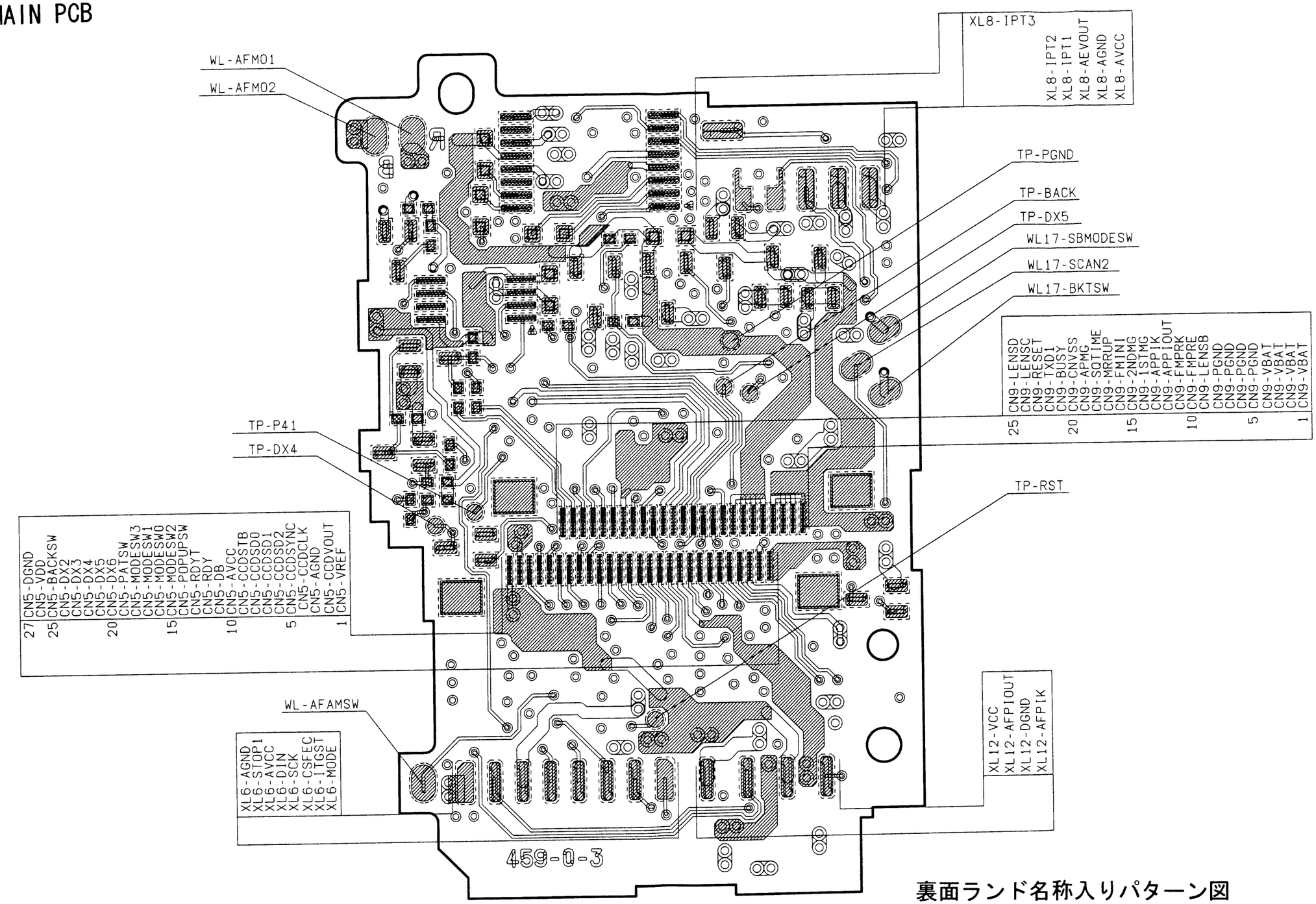
裏面部品実装部
Back side parts location's diagram

メイン　PCB
MAIN PCB



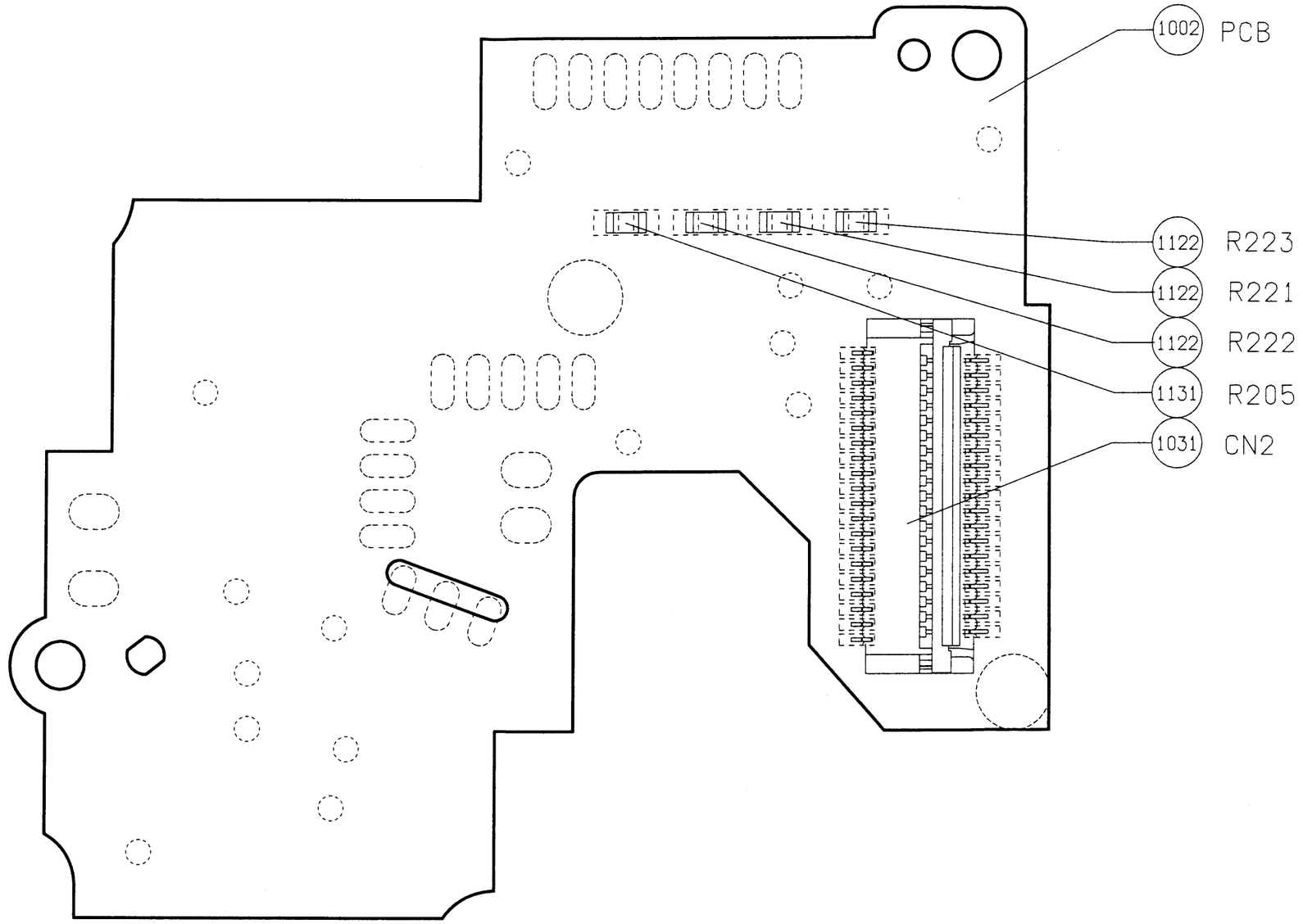
表面ランド名称入りパターン図
Front side pattern diagram with land name

メイン　PCB
MAIN PCB



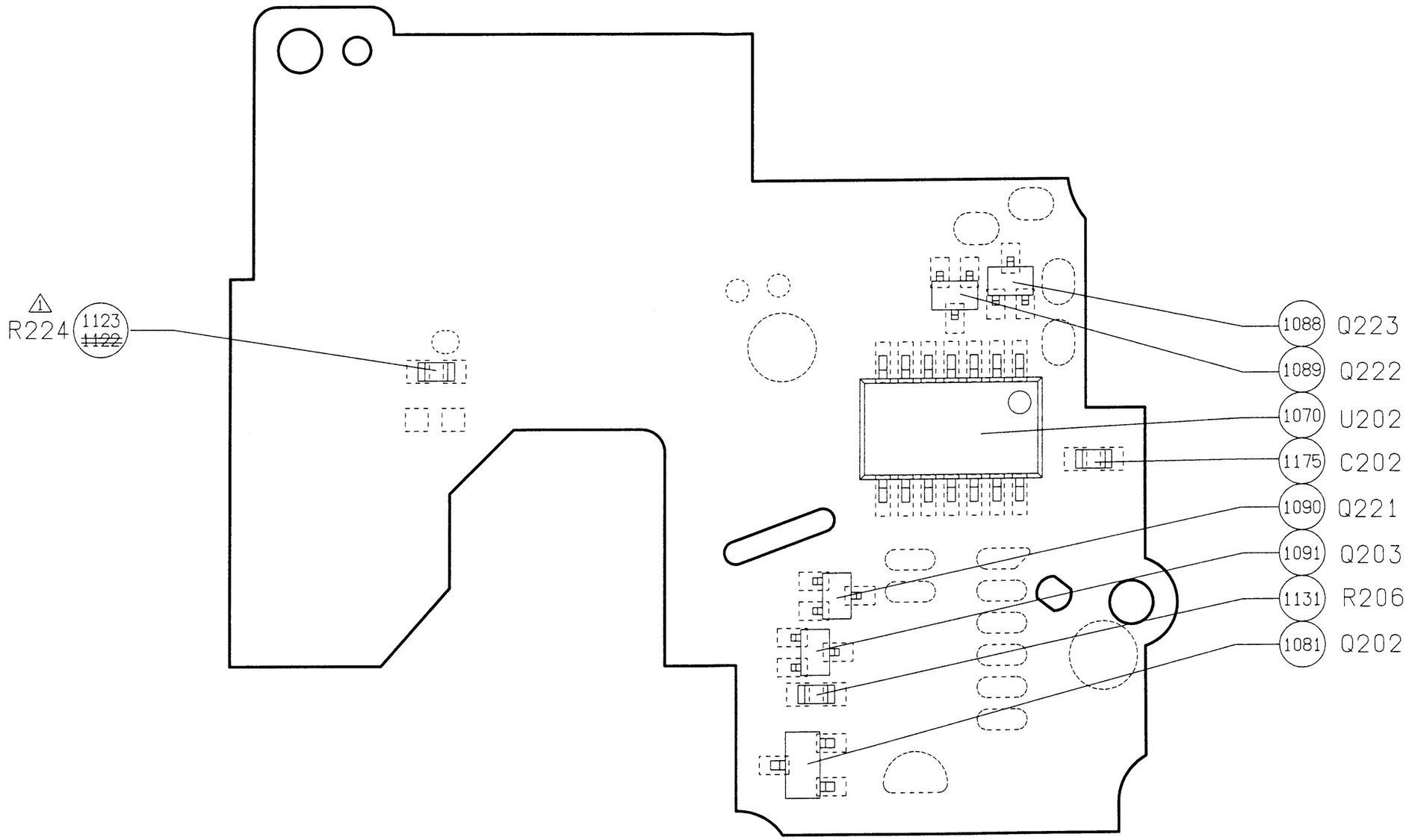
裏面ランド名称入りパターン図
Back side pattern diagram with land name

サブ　ＰＣＢ
SUB PCB



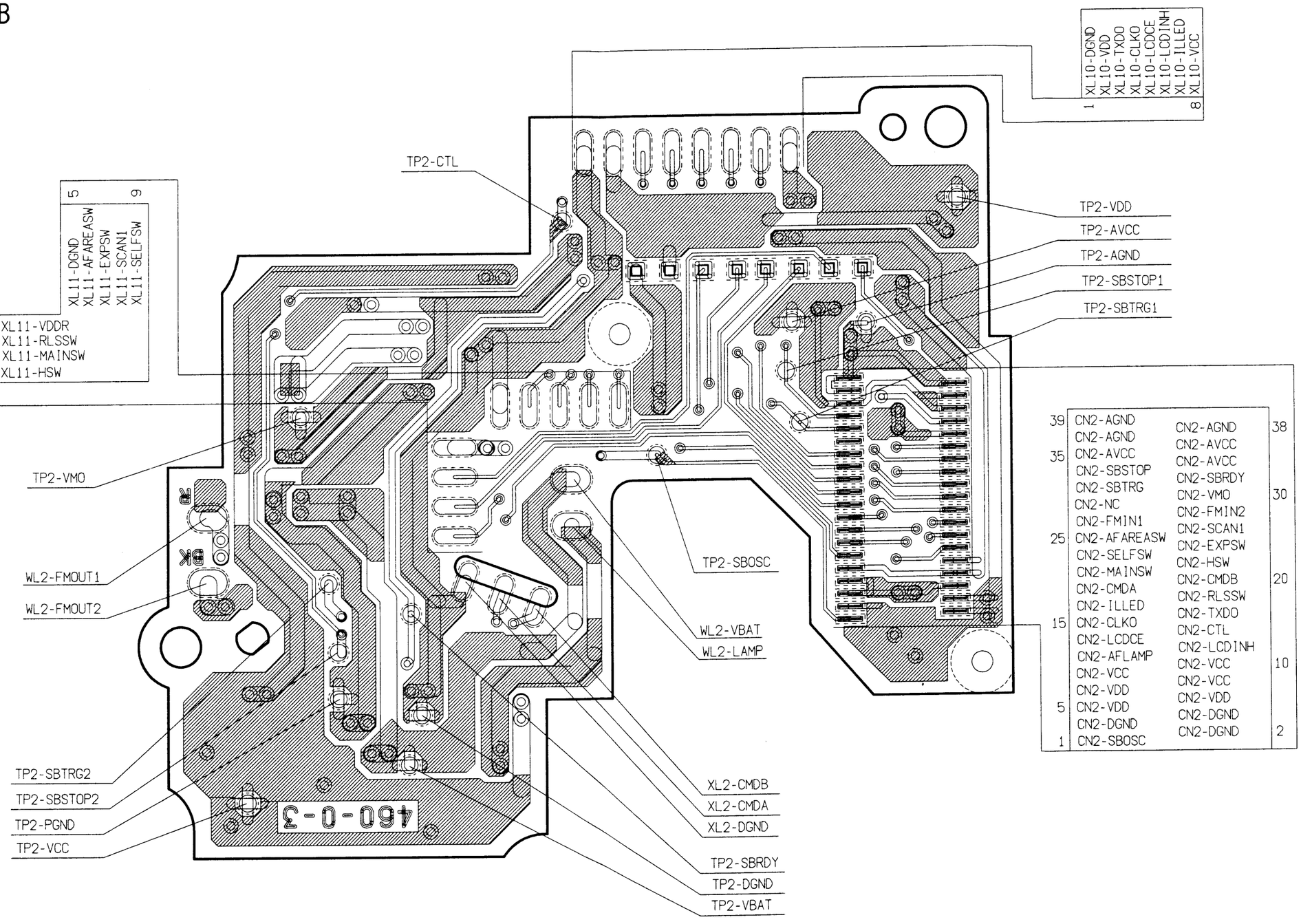
表面部品実装図
Front side parts location's diagram

サブ　ＰＣＢ
SUB PCB



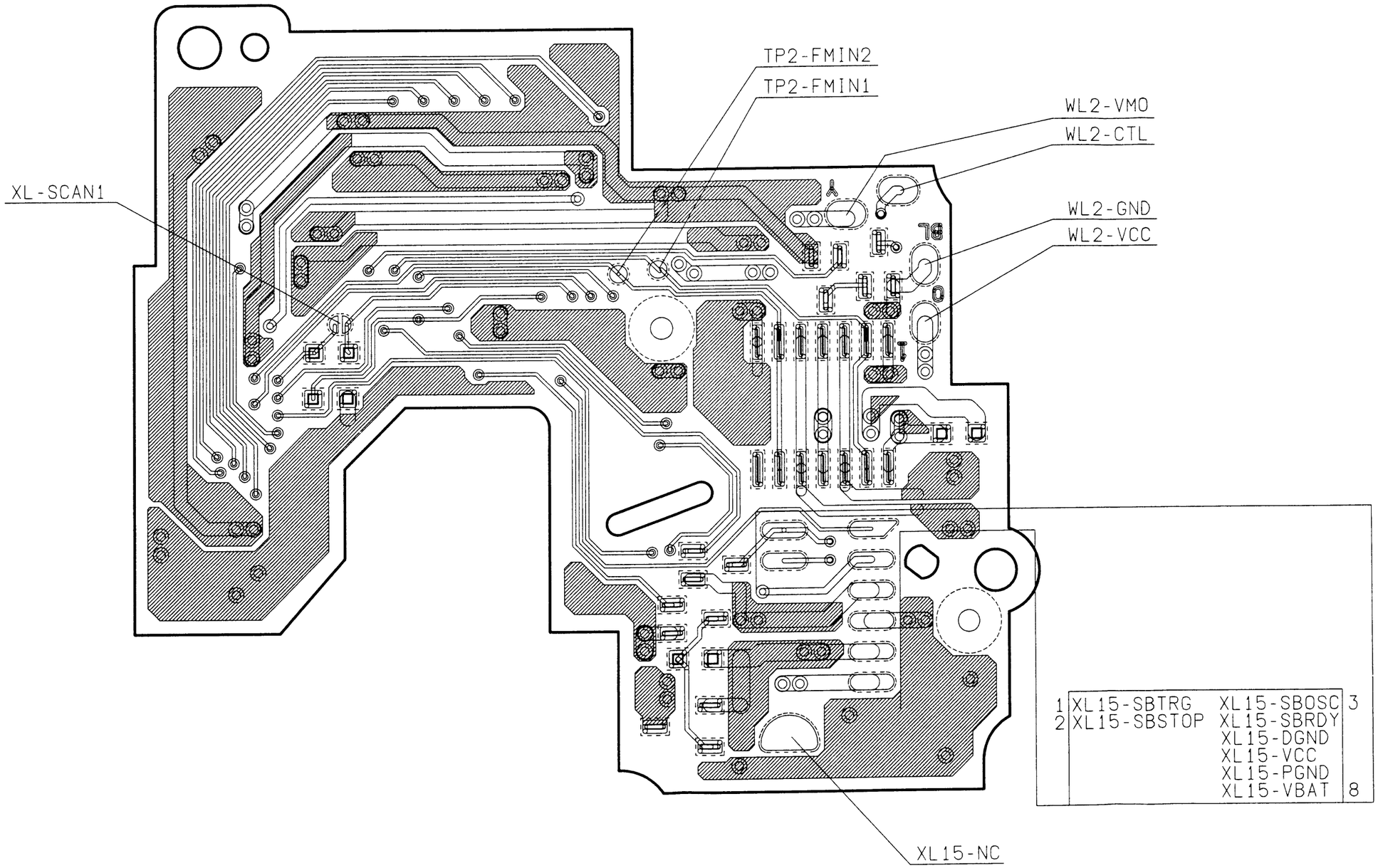
裏面部品実装部
Back side parts location's diagram

サブ　ＰＣＢ
SUB PCB



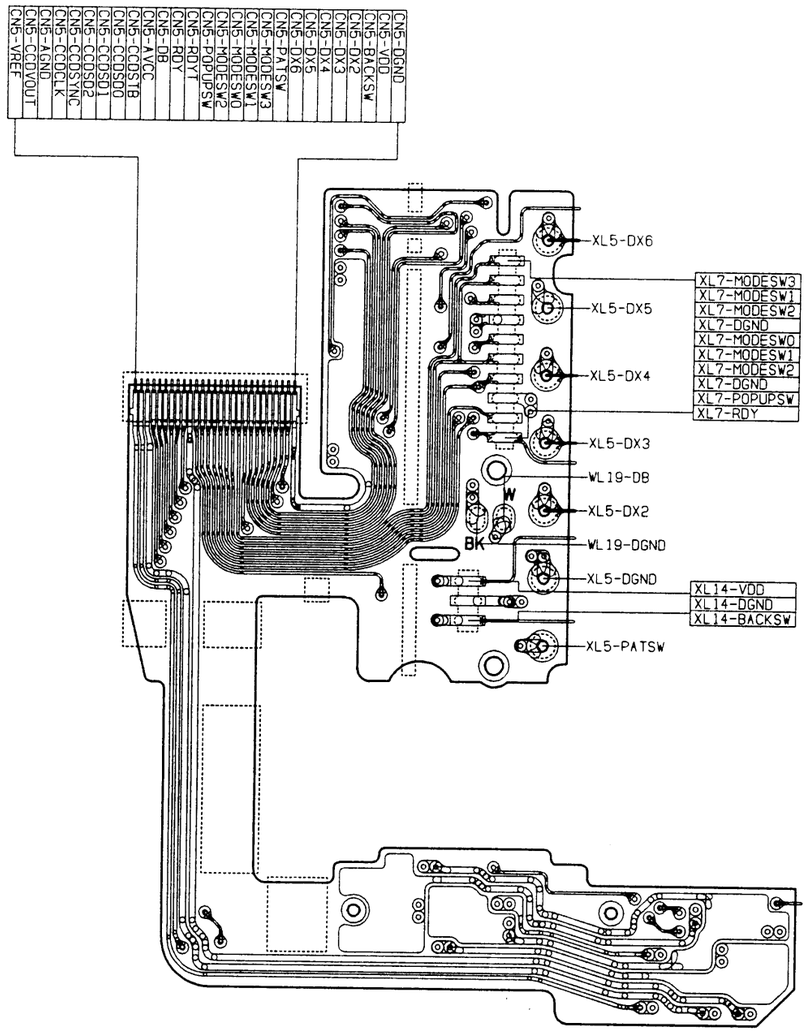
表面ランド名称入りパターン図
Front side pattern diagram with land name

サブ　ＰＣＢ
SUB PCB

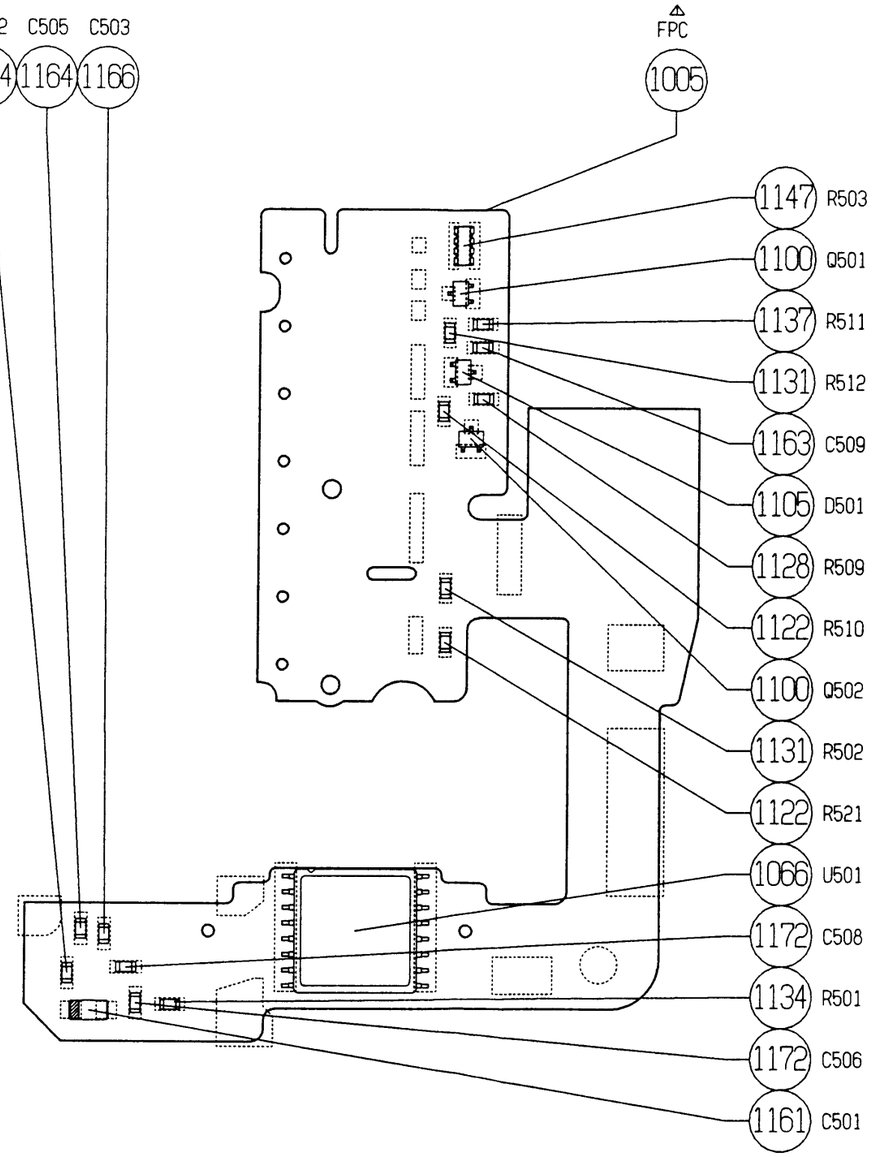


裏面ランド名称入りパターン図
Back side pattern diagram with land name

CCD FPC

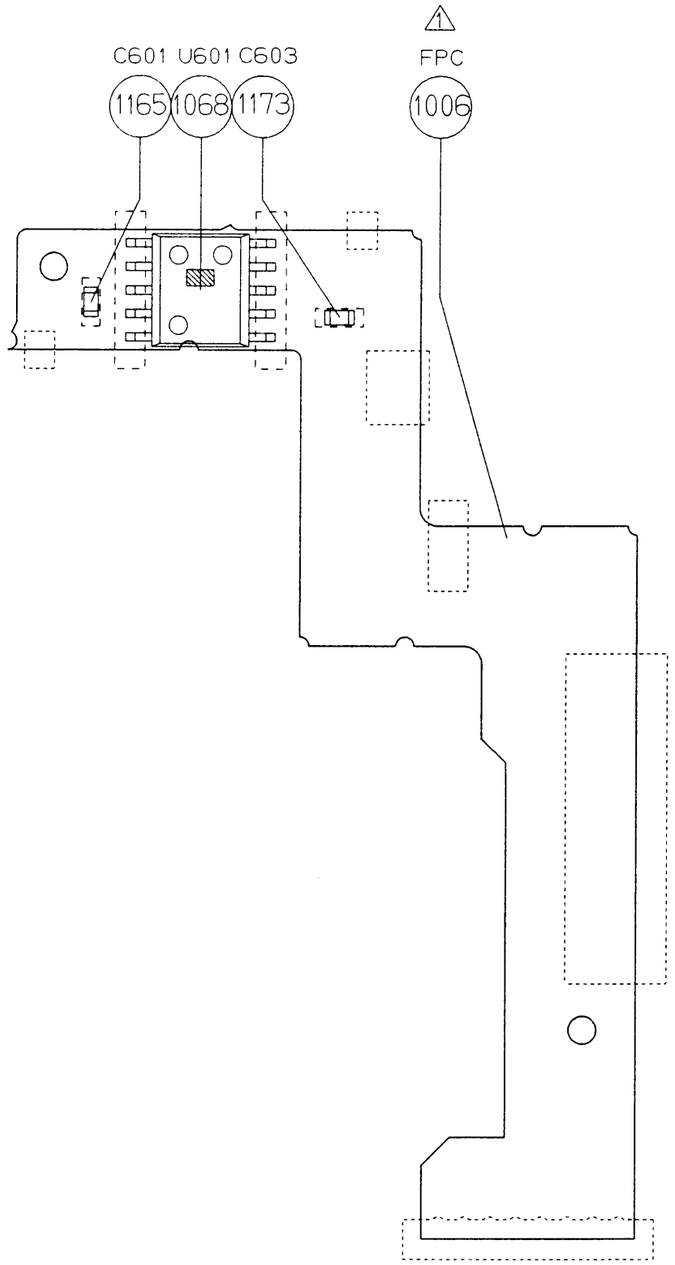


表面ランド名称図
Front side land name

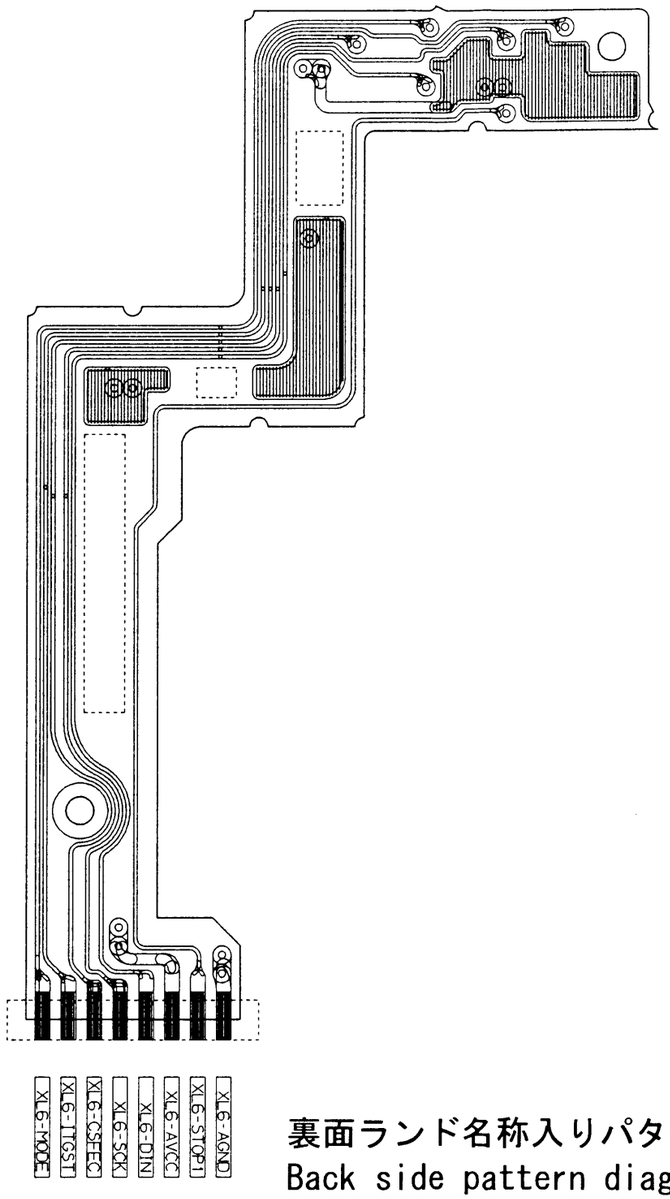


表面部品実装図
Front side parts location's diagram

TTL FPC

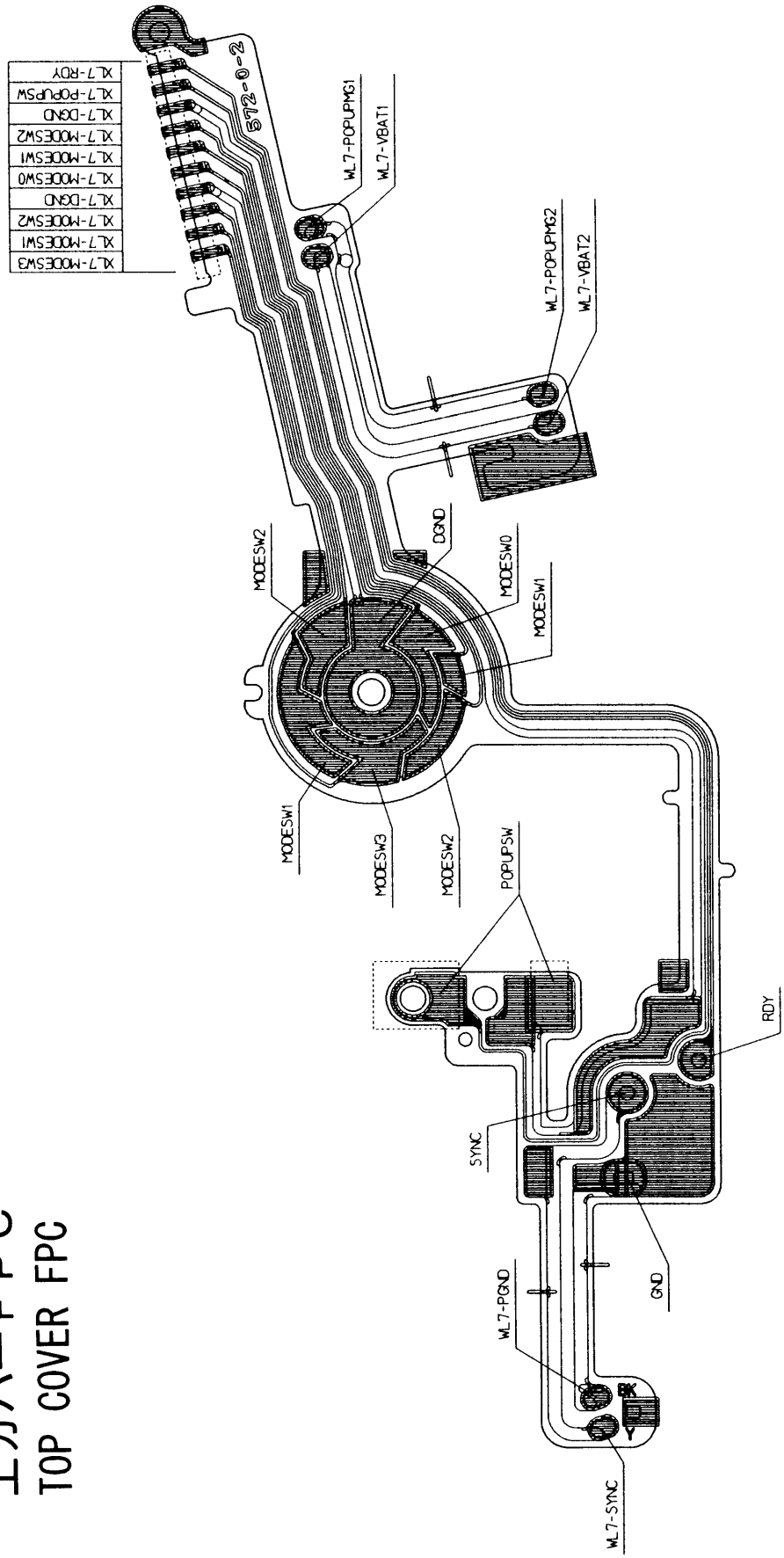


表面部品実装図
Front side parts location's diagram



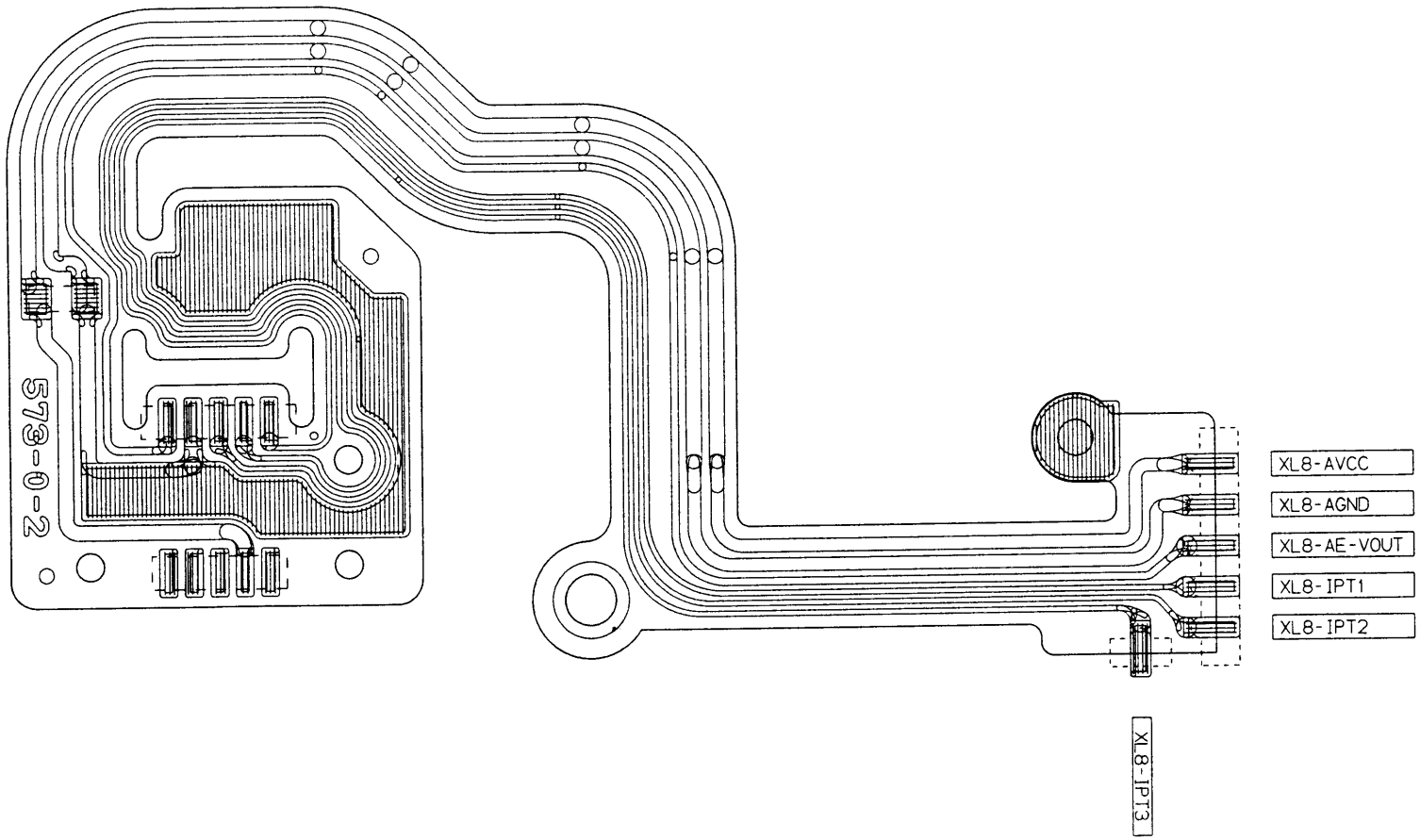
裏面ランド名称入りパターン図
Back side pattern diagram with land name

上カバーＦＰＣ
TOP COVER FPC



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

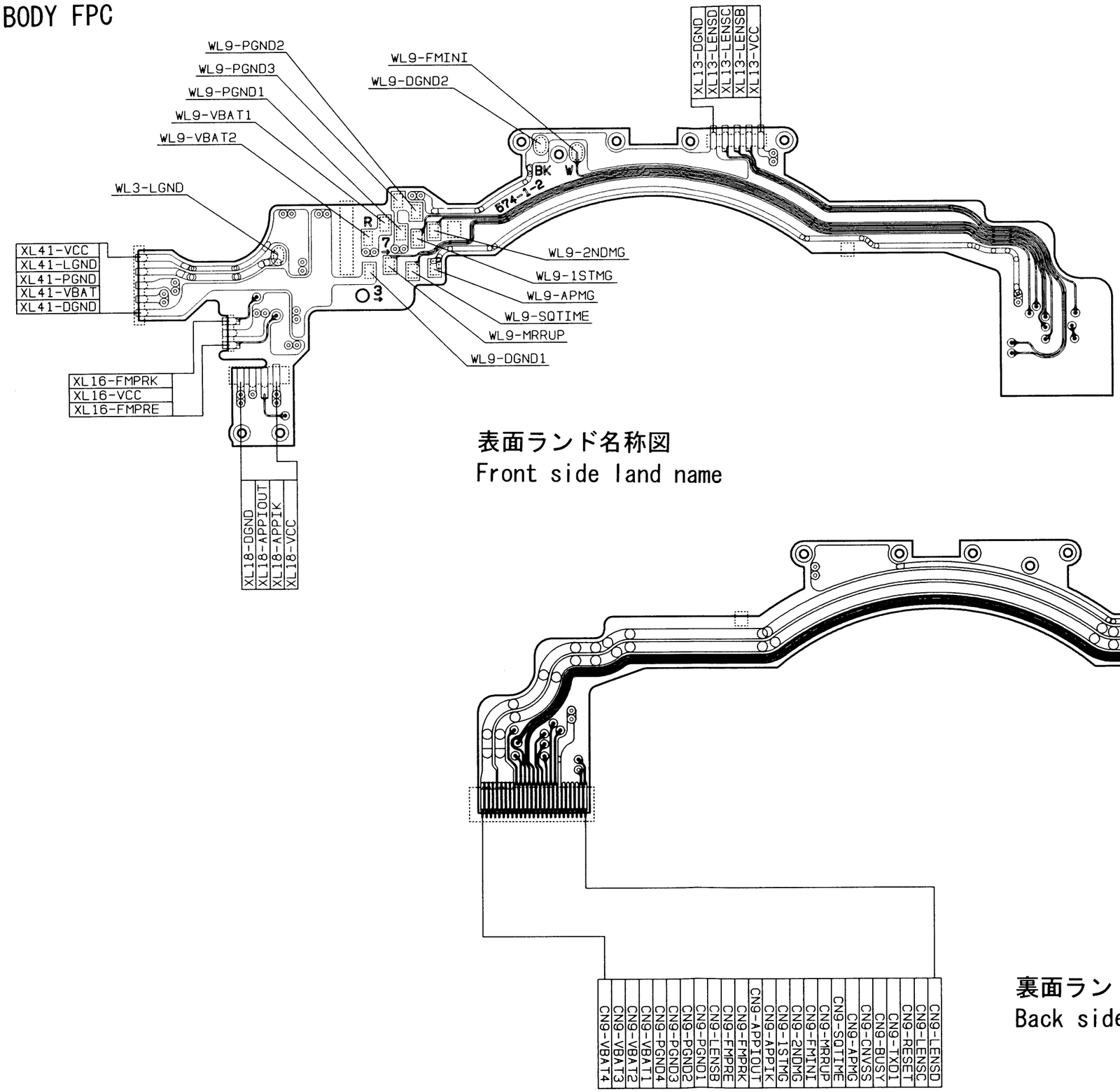
測光ＦＰＣ
METERING FPC



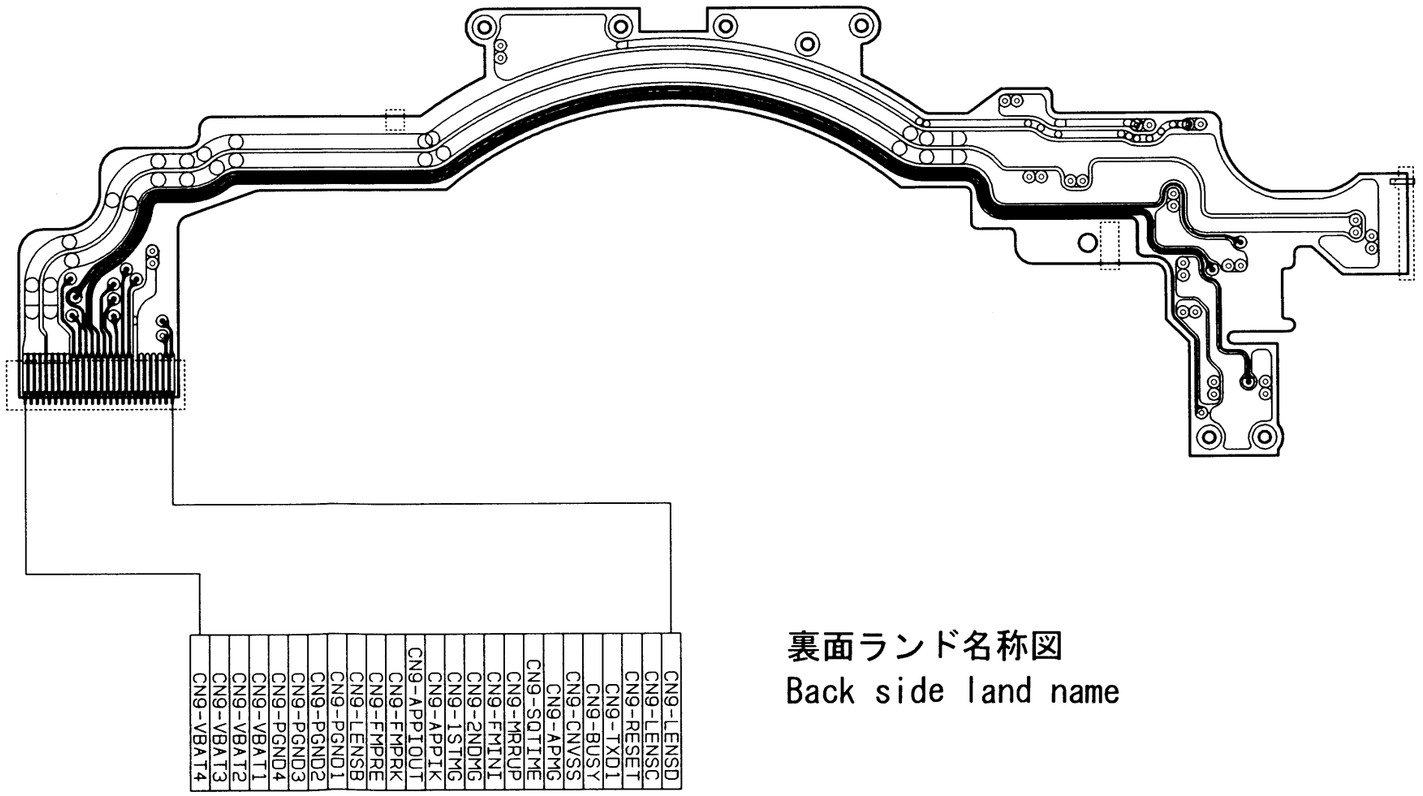
表面ランド名称入りパターン図
Front side pattern diagram with land name

FAA39001-R.3568.A

前ボディＦＰＣ
FRONT BODY FPC

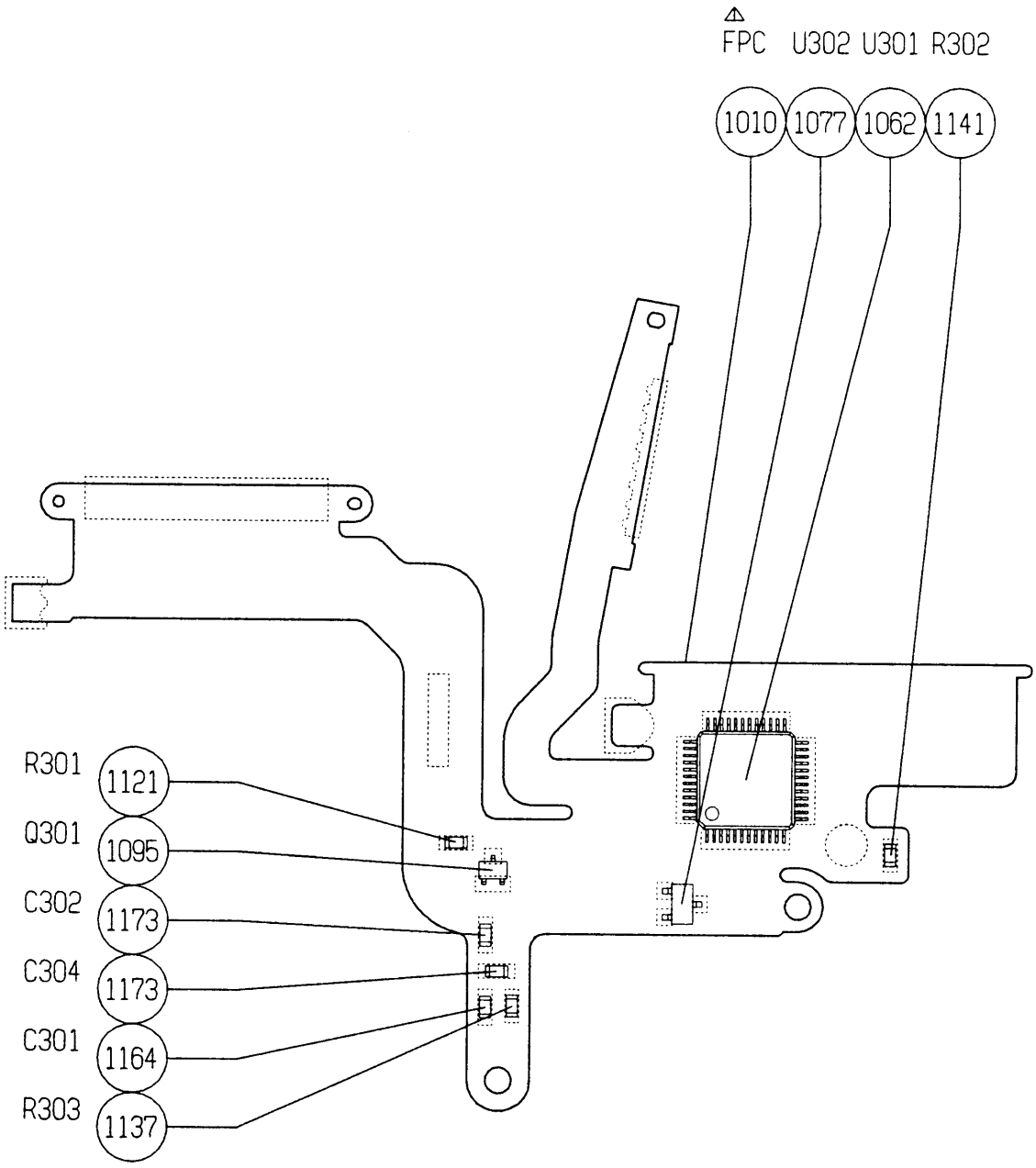


表面ランド名称図
Front side land name



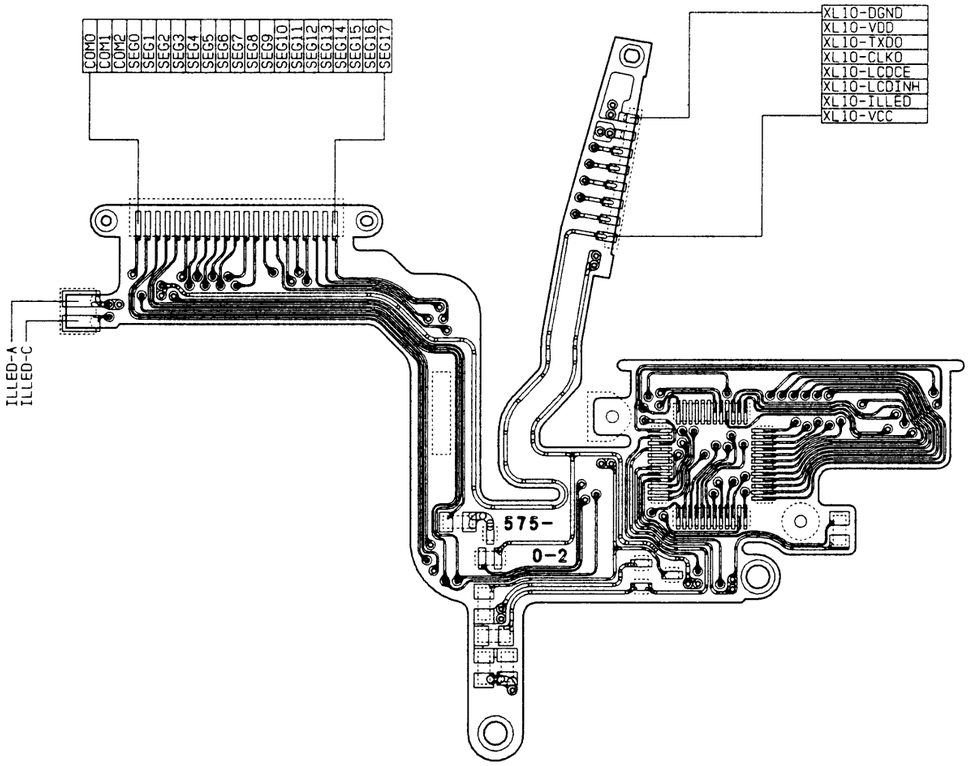
裏面ランド名称図
Back side land name

内外ＬＣＤ　ＦＰＣ
IN/EXTERNAL LCD FPC

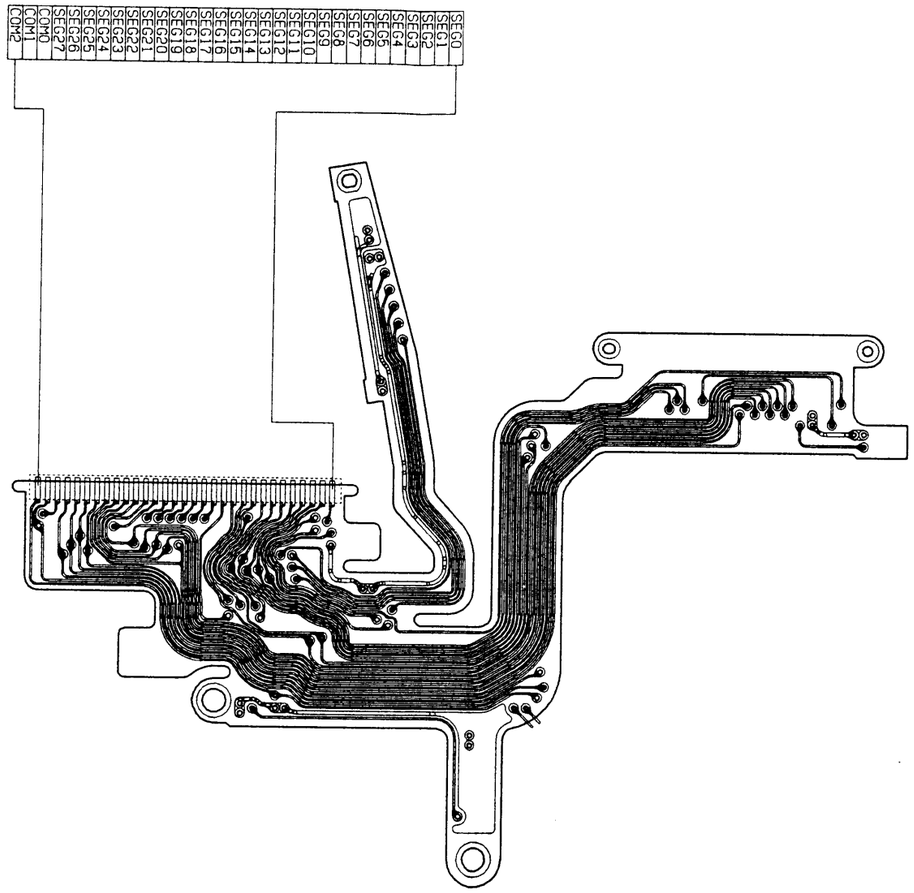


表面部品実装図
Front side parts location's diagram

内外ＬＣＤ　ＦＰＣ
IN/EXTERNAL LCD FPC

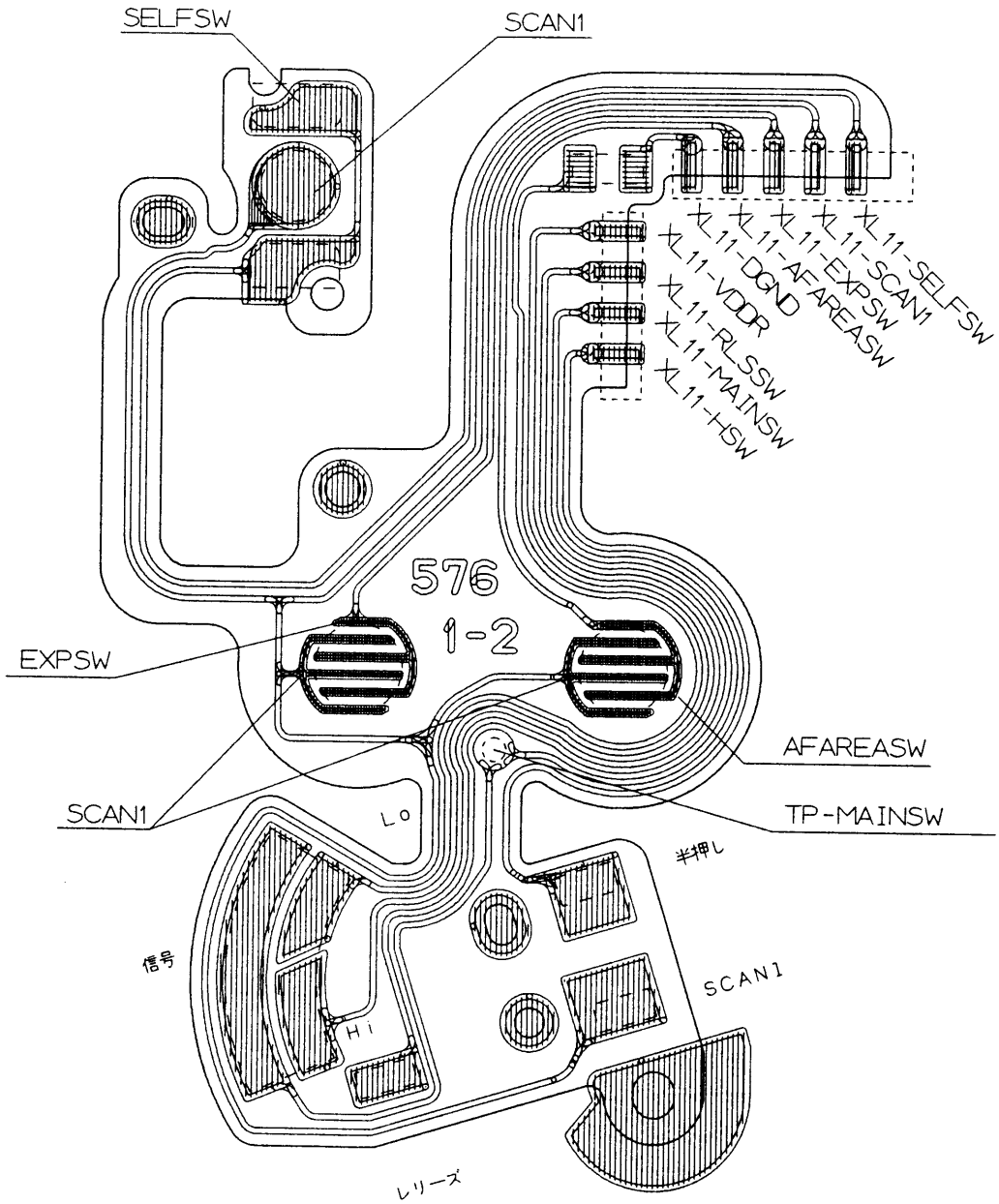


表面ランド名称図
Front side land name

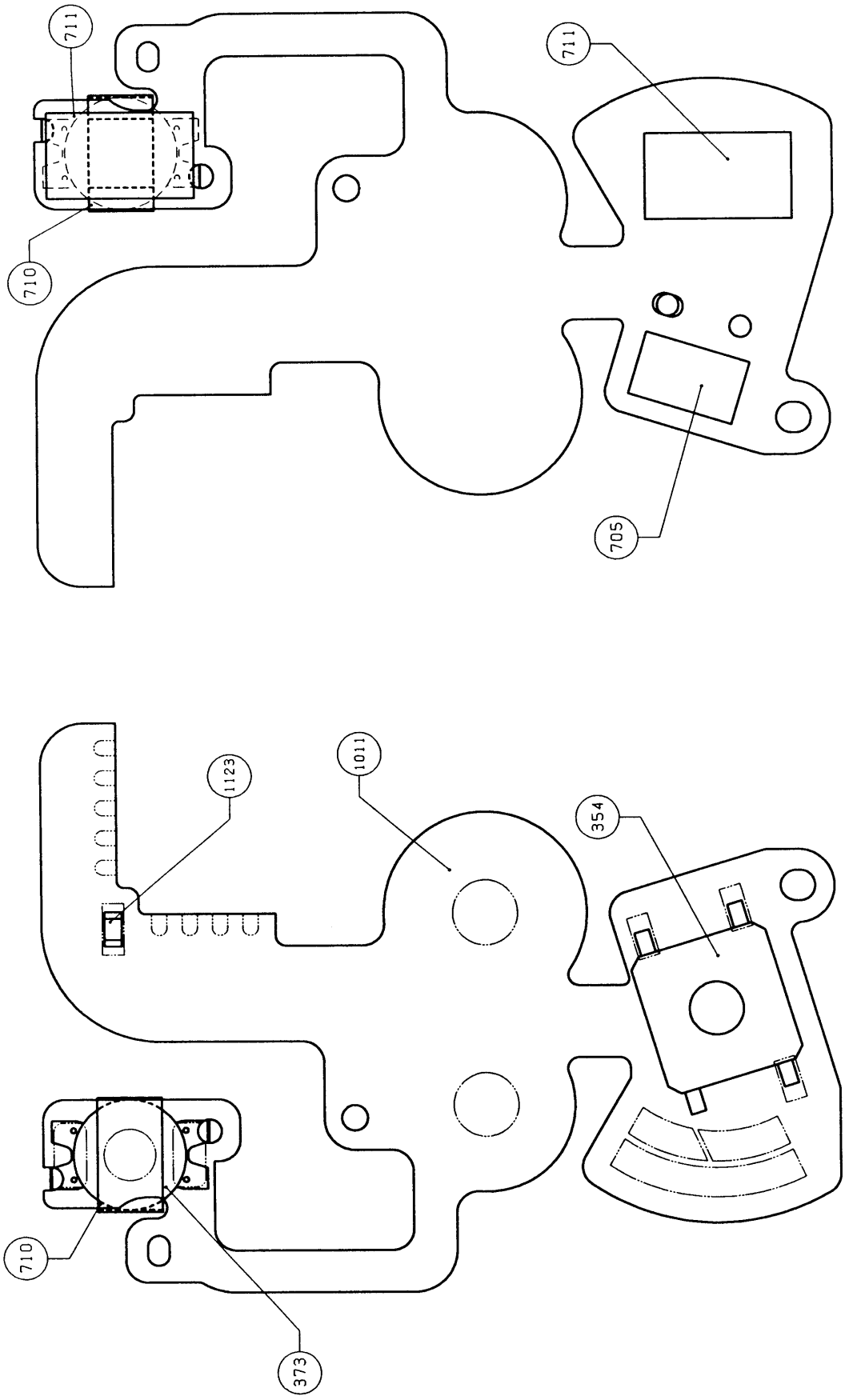


裏面ランド名称入りパターン図
Back side pattern diagram with land name

メインSW　FPC
MAIN SWITCH FPC

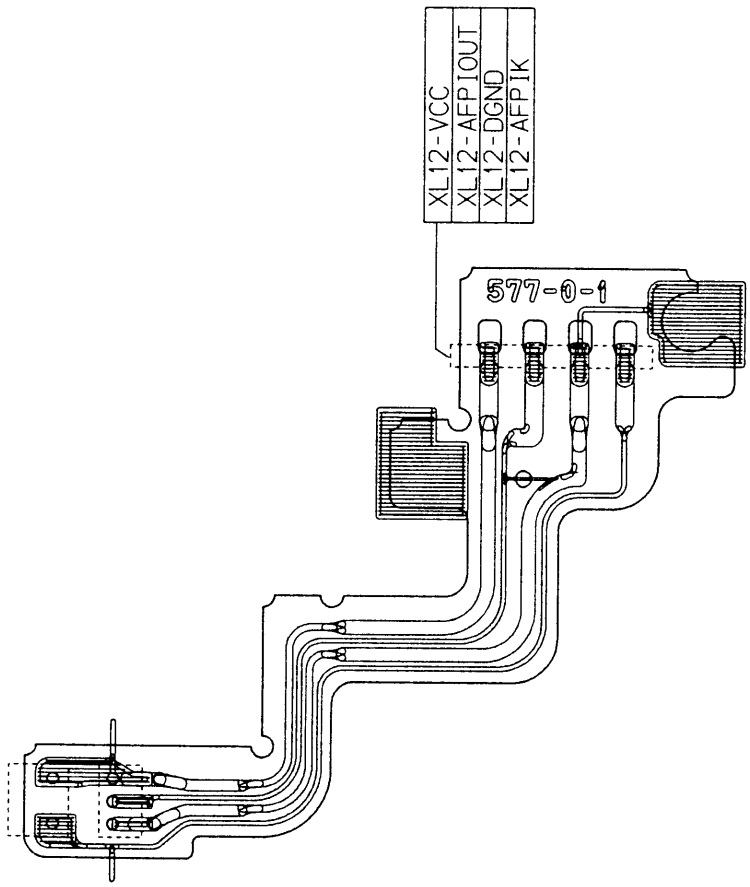


表面ランド名称入りパターン図
Front side pattern diagram with land name



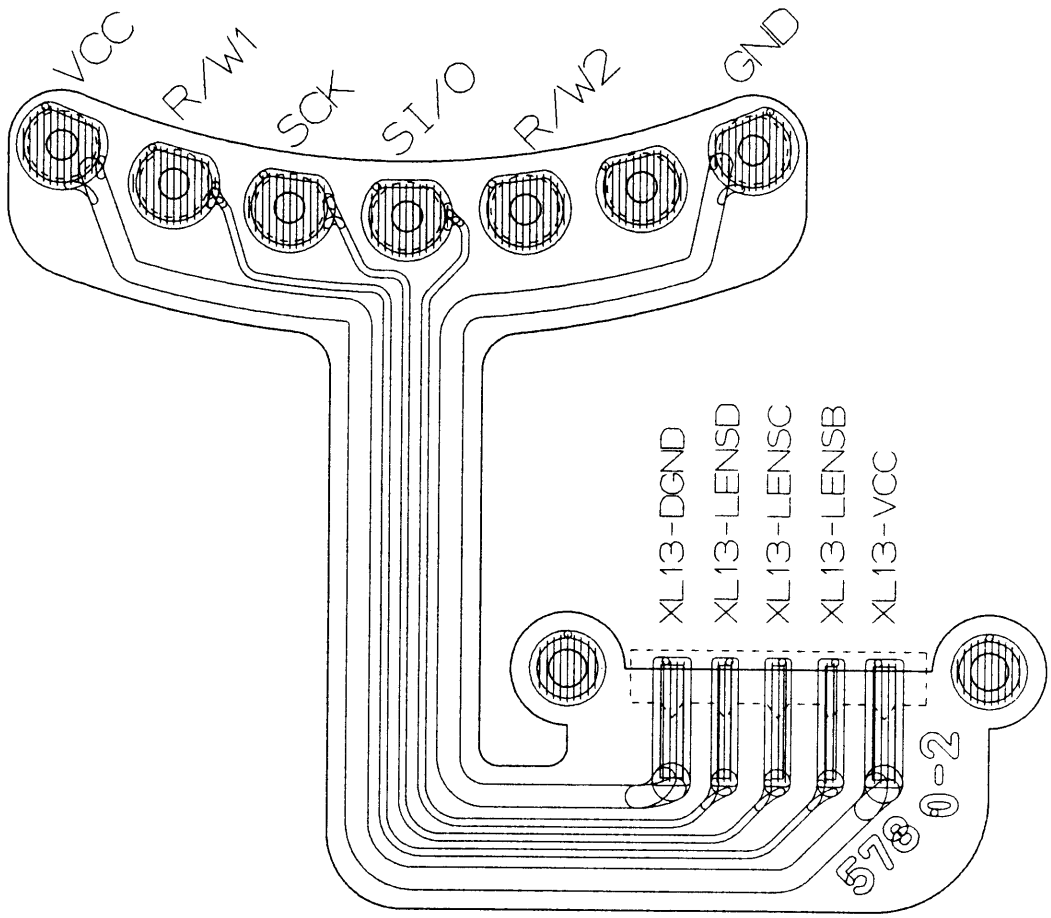
メインSW FPC
MAIN SW FPC

AFPI FPC



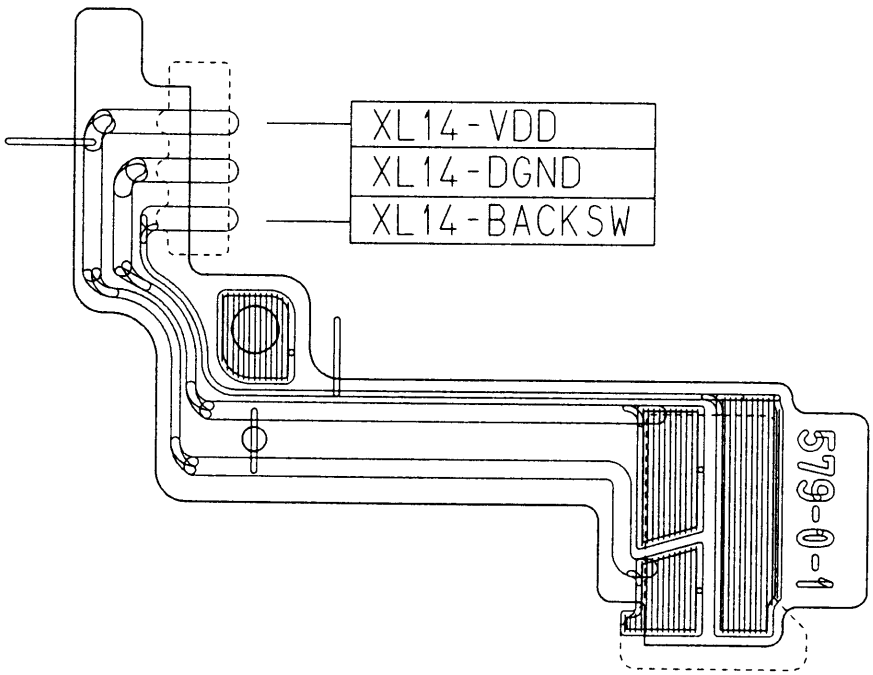
表面ランド名称入りパターン図
Front side pattern diagram with land name

レンズ接点ＦＰＣ
LENS CONTACT FPC



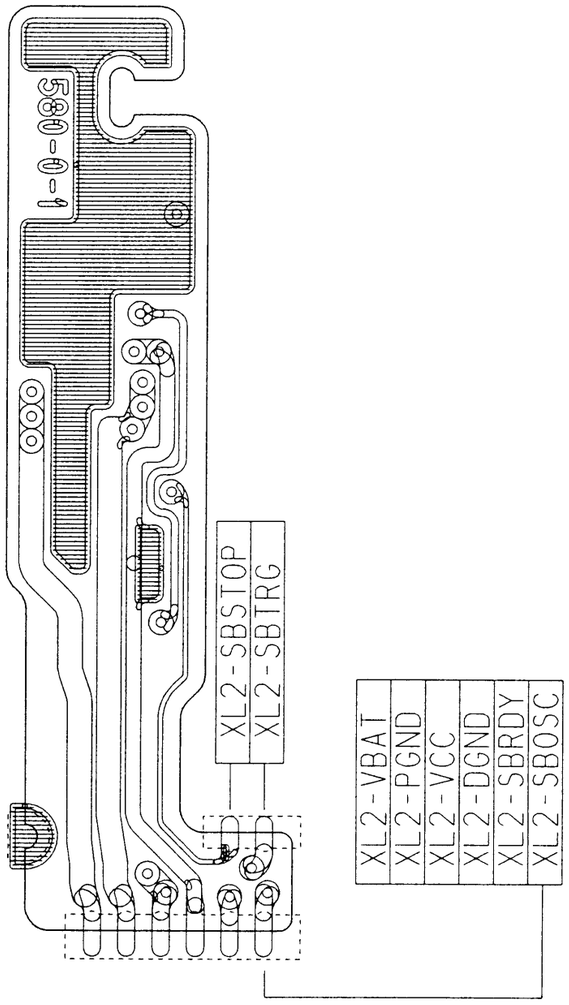
表面ランド名称入りパターン図
Front side pattern diagram with land name

裏蓋ＳＷ　ＦＰＣ
BACK DOOR SW FPC

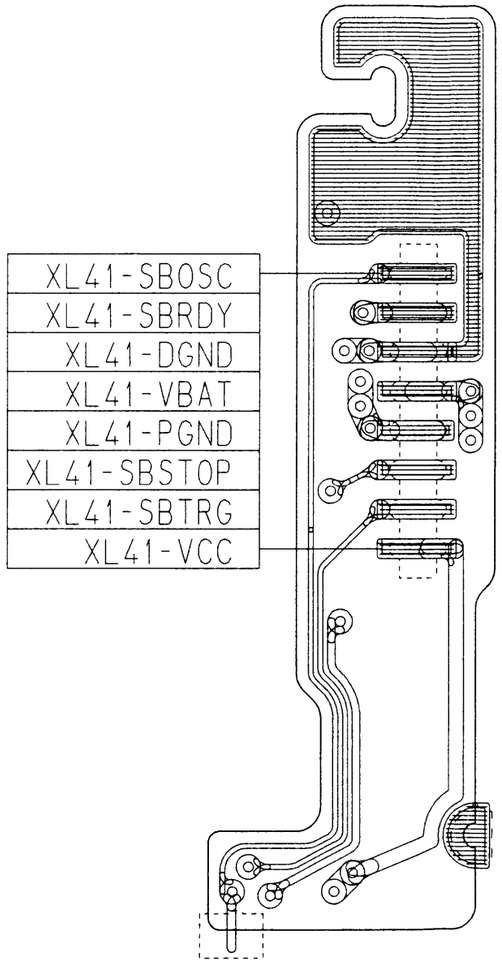


表面ランド名称入りパターン図
Front side pattern diagram with land name

ＳＢつなぎＦＰＣ
SB CONNECTION FPC

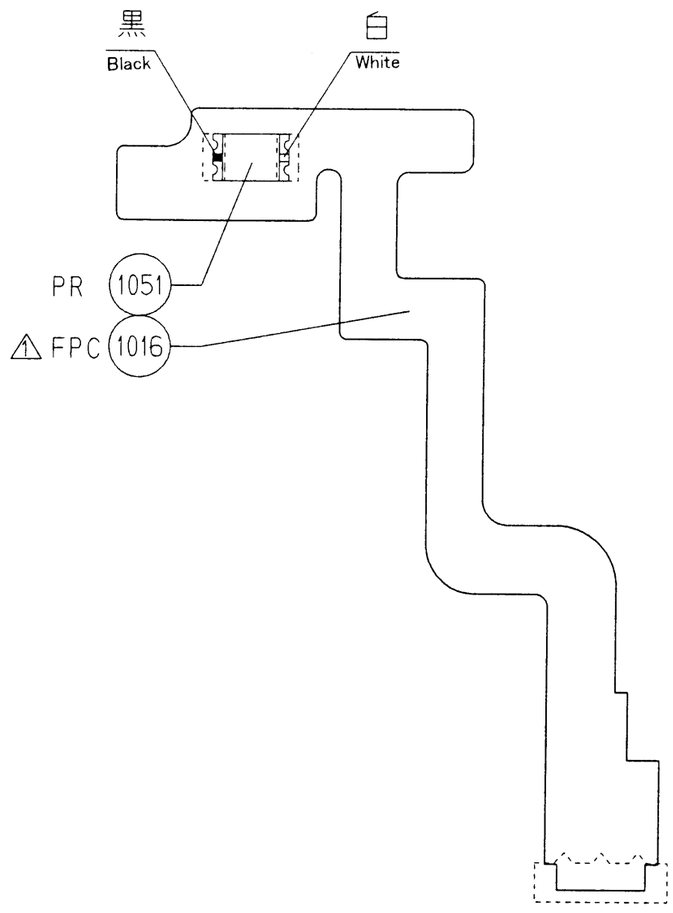


表面ランド名称入りパターン図
Front side pattern diagram with land name

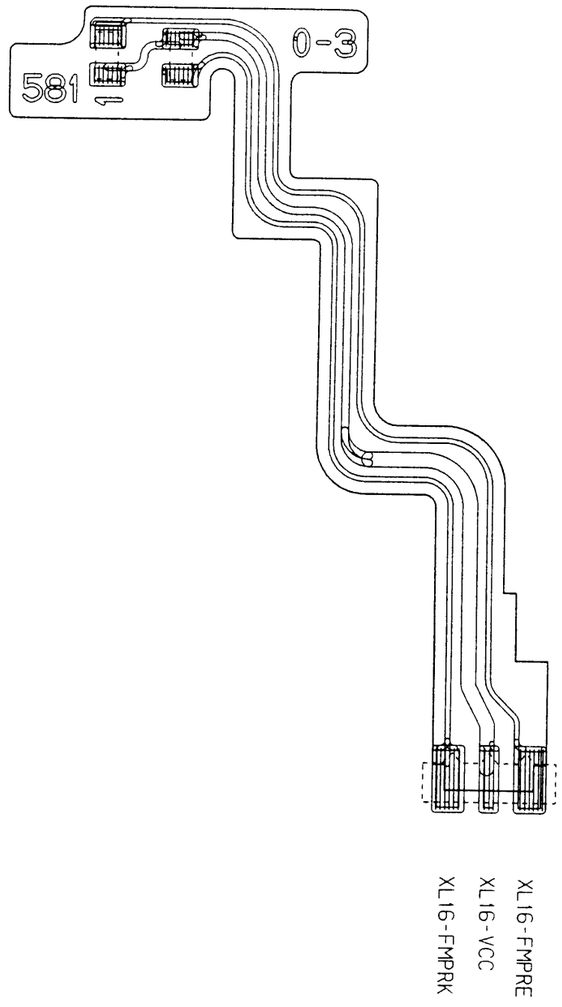


裏面ランド名称入りパターン図
Back side pattern diagram with land name

給送ＰＲ　ＦＰＣ
FILM ADVANCE FPC

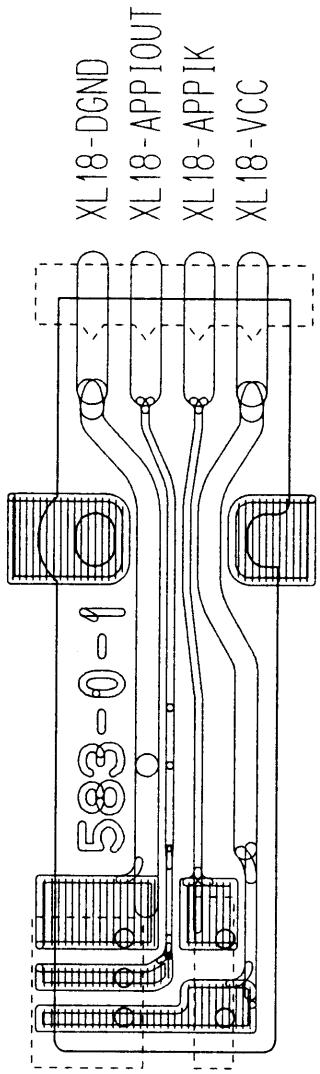


表面部品実装図
Front side parts location's diagram



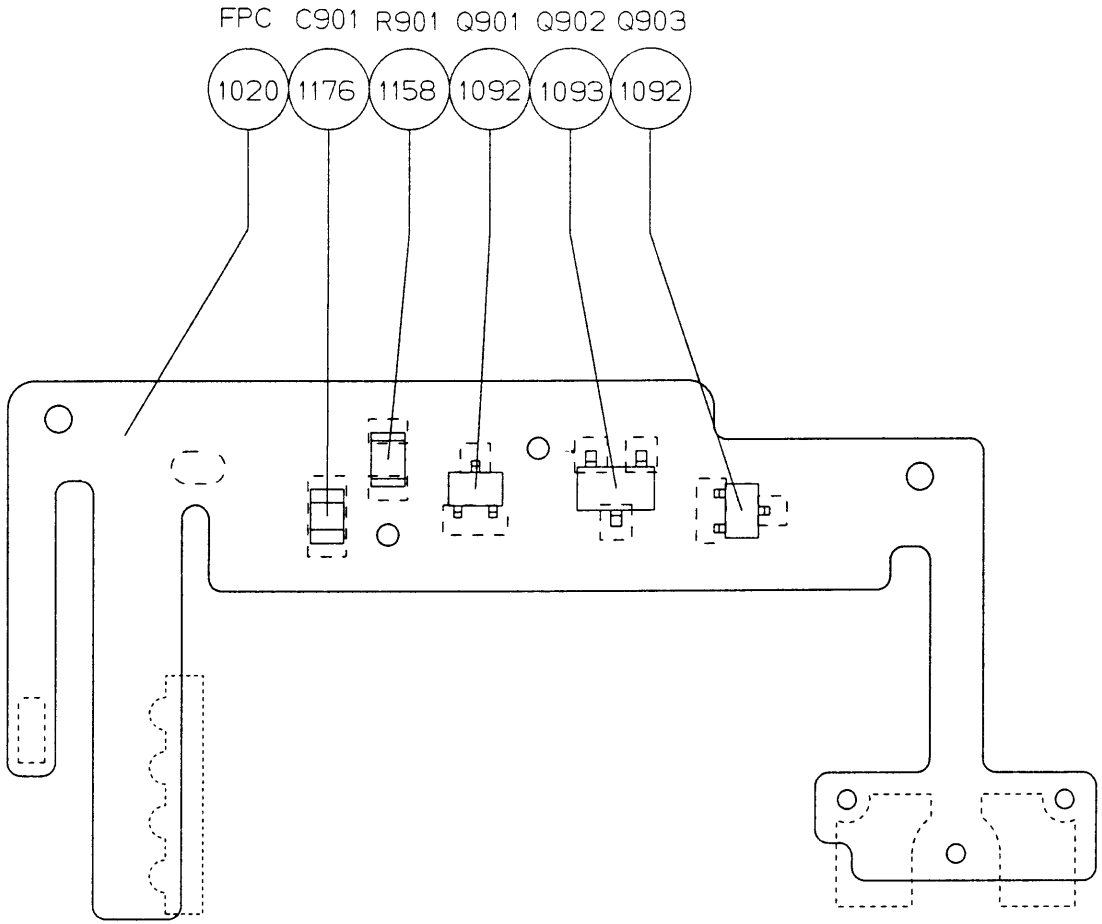
表面ランド名称入りパターン図
Front side pattern diagram with land name

絞りＰＩ　ＦＰＣ
APERTURE PI FPC



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

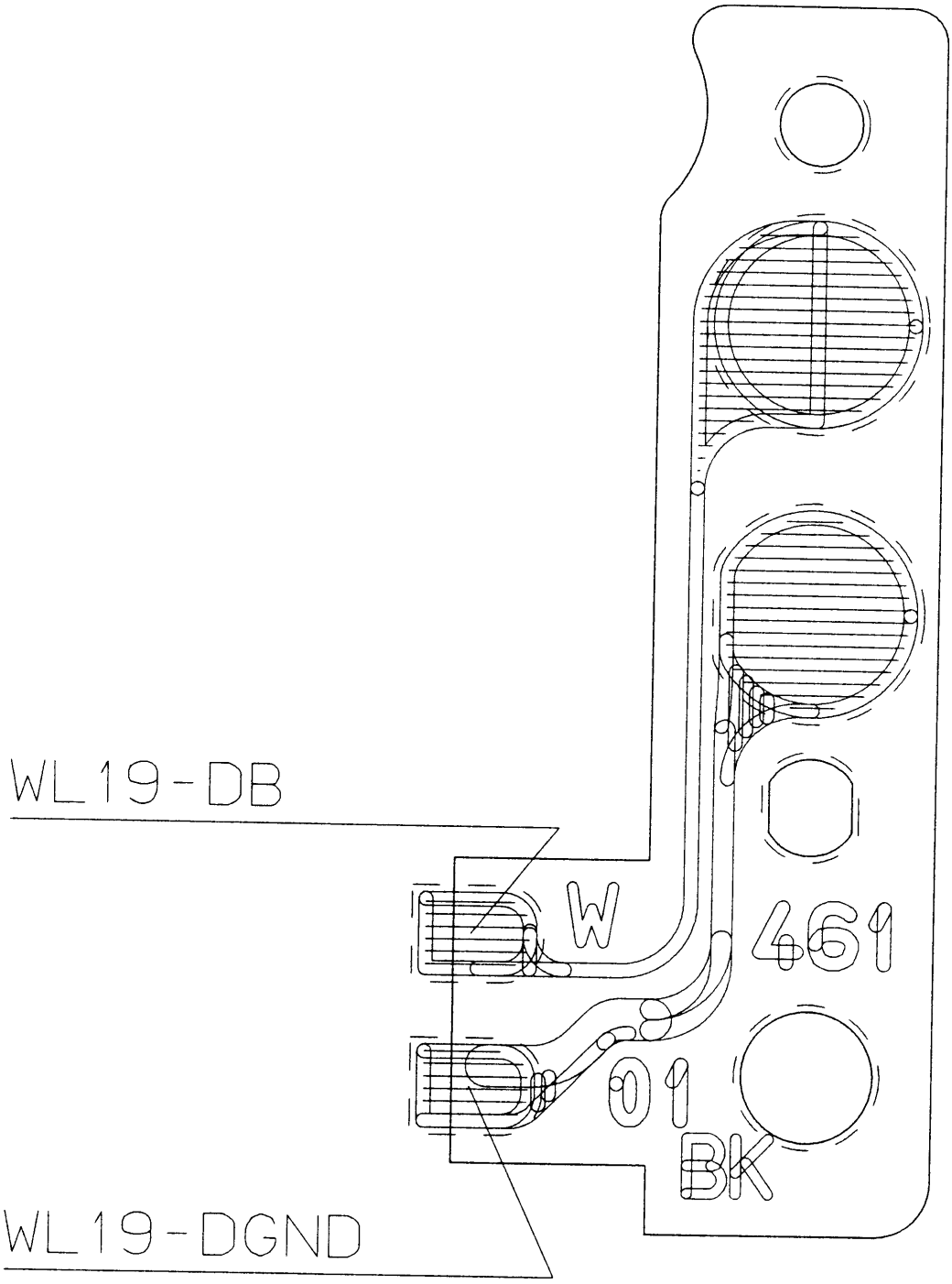
データバックＦＰＣ
DATA BACK FPC



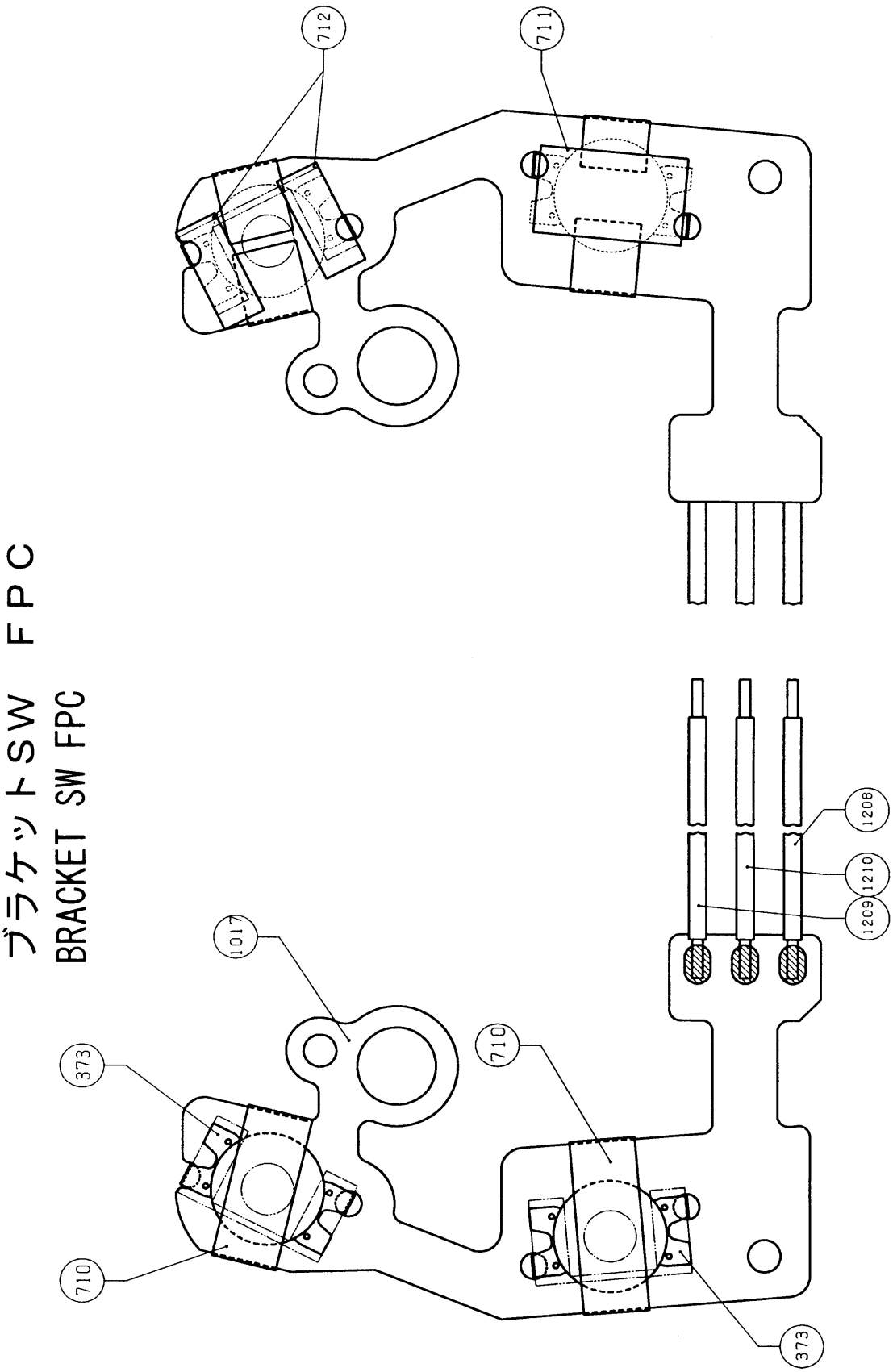
表面部品実装図
Front side parts location's diagram

FAA39001-R.3568.A

ＤＢ接点ＦＰＣ
DB CONTACT FPC



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



ブラケットSW FPC
BRACKET SW FPC

F55／N55／Us　EEPROM DATA

2001-12-14

ADDRESS	CONTENTS	CPU					REMARK
		MP1					
		03.05 or later					
0	CAMERA CONTROL DATA	0					
|	|	|					
35	CAMERA CONTROL DATA	0					
36	CAMERA CONTROL DATA	61					
37	CAMERA CONTROL DATA	153					
38	CAMERA CONTROL DATA	59					
39	CAMERA CONTROL DATA	153					
40	CAMERA CONTROL DATA	193					
41	CAMERA CONTROL DATA	153					
42	CAMERA CONTROL DATA	63					
43	CAMERA CONTROL DATA	51					
44	CAMERA CONTROL DATA	65					
45	CAMERA CONTROL DATA	0					
46	AF ADJUSTMENT DATA	41					
47	AF ADJUSTMENT DATA	2					
48	MBF ADJUSTMENT DATA	0					
49	MBF ADJUSTMENT DATA	0					
50	AF ADJUSTMENT DATA	0					
51	AF ADJUSTMENT DATA	0					
|	|	|					
76	AF ADJUSTMENT DATA	0					
77	AF ADJUSTMENT DATA	0					
78	CAMERA CONTROL DATA	54					
79	CAMERA CONTROL DATA	71					
80	CAMERA CONTROL DATA	59					
81	CAMERA CONTROL DATA	153					
82	CAMERA CONTROL DATA	60					
83	CAMERA CONTROL DATA	153					
84	CAMERA CONTROL DATA	59					
85	CAMERA CONTROL DATA	153					
86	CAMERA CONTROL DATA	63					

ADDRESS	CONTENTS	CPU					REMARK
		MP1					
		03.05 or later					
87	CAMERA CONTROL DATA	102					
88	CAMERA CONTROL DATA	0					
89	CAMERA CONTROL DATA	2					
90	CAMERA CONTROL DATA	53					
91	CAMERA CONTROL DATA	137					
92	CAMERA CONTROL DATA	54					
93	CAMERA CONTROL DATA	71					
94	CAMERA CONTROL DATA	54					
95	CAMERA CONTROL DATA	6					
96	CAMERA CONTROL DATA	53					
97	CAMERA CONTROL DATA	137					
98	CAMERA CONTROL DATA	53					
99	CAMERA CONTROL DATA	137					
100	CAMERA CONTROL DATA	63					
101	CAMERA CONTROL DATA	102					
102	CAMERA CONTROL DATA	193					
103	CAMERA CONTROL DATA	102					
104	CAMERA CONTROL DATA	196					
105	CAMERA CONTROL DATA	153					
106	CAMERA CONTROL DATA	55					
107	CAMERA CONTROL DATA	6					
108	CAMERA CONTROL DATA	30					
109	CAMERA CONTROL DATA	0					
110	CAMERA CONTROL DATA	66					
111	CAMERA CONTROL DATA	128					
112	CAMERA CONTROL DATA	80					
113	CAMERA CONTROL DATA	0					
114	CAMERA CONTROL DATA	200					
115	CAMERA CONTROL DATA	0					
116	CAMERA CONTROL DATA	80					
117	CAMERA CONTROL DATA	0					
118	CAMERA CONTROL DATA	63					
119	CAMERA CONTROL DATA	102					

ADDRESS	CONTENTS	CPU					REMARK
		MP1					
		03.05 or later					
120	CAMERA CONTROL DATA	0					
｜	｜	｜					
123	CAMERA CONTROL DATA	0					
124	CAMERA CONTROL DATA	0					
｜	｜	｜					
179	CAMERA CONTROL DATA	0					
180	M 1/2000 ADJUATMENT DATA	0					
181	M 1/2000 ADJUATMENT DATA	0					
182	CAMERA CONTROL DATA	160					
183	CAMERA CONTROL DATA	15					
184	CAMERA CONTROL DATA	0					
｜	｜	｜					
243	CAMERA CONTROL DATA	0					
244	BATTERY CHECK ADJUSTMENT	170					
245	BATTERY CHECK ADJUSTMENT	160					
246	BATTERY CHECK ADJUSTMENT	160					
247	BATTERY CHECK ADJUSTMENT	154					
248	CAMERA CONTROL DATA	130					
249	CAMERA CONTROL DATA	5					
250	CAMERA CONTROL DATA	10					
251	CAMERA CONTROL DATA	10					
252	CAMERA CONTROL DATA	171					
253	CAMERA CONTROL DATA	0					
254	CAMERA CONTROL DATA	176					
255	CAMERA CONTROL DATA	202					
256	CAMERA CONTROL DATA	20					
257	CAMERA CONTROL DATA	102					
258	CAMERA CONTROL DATA	0					
｜	｜	｜					
275	CAMERA CONTROL DATA	0					
276	CAMERA CONTROL DATA	125					
277	CAMERA CONTROL DATA	10					
278	CAMERA CONTROL DATA	22					

ADDRESS	CONTENTS	CPU					REMARK
		MP1					
		03.05 or later					
279	CAMERA CONTROL DATA	70					
280	CAMERA CONTROL DATA	224					
281	CAMERA CONTROL DATA	246					
282	CAMERA CONTROL DATA	255					
283	CAMERA CONTROL DATA	0					
284	CAMERA CONTROL DATA	80					
285	CAMERA CONTROL DATA	10					
286	CAMERA CONTROL DATA	200					
287	CAMERA CONTROL DATA	0					
288	CAMERA CONTROL DATA	30					
289	CAMERA CONTROL DATA	10					
290	CAMERA CONTROL DATA	80					
291	CAMERA CONTROL DATA	5					
292	CAMERA CONTROL DATA	0					
|	|	|					
315	CAMERA CONTROL DATA	0					
316	AE ADJUSTMENT DATA	128					
|	|	|					
320	AE ADJUSTMENT DATA	128					
321	AE ADJUSTMENT DATA	104					
322	AE ADJUSTMENT DATA	60					
323	AE ADJUSTMENT DATA	0					
|	|	|					
327	AE ADJUSTMENT DATA	0					
328	CAMERA CONTROL DATA	32					
329	CAMERA CONTROL DATA	0					
330	CAMERA CONTROL DATA	216					
331	CAMERA CONTROL DATA	254					
332	CAMERA CONTROL DATA	46					
333	CAMERA CONTROL DATA	28					
334	CAMERA CONTROL DATA	252					
335	CAMERA CONTROL DATA	32					
336	CAMERA CONTROL DATA	16					

ADDRESS	CONTENTS	CPU					REMARK
		MP1					
		03.05 or later					
337	CAMERA CONTROL DATA	16					
338	CAMERA CONTROL DATA	100					
339	CAMERA CONTROL DATA	44					
340	CAMERA CONTROL DATA	60					
341	CAMERA CONTROL DATA	224					
342	CAMERA CONTROL DATA	0					
|	|	|					
368	CAMERA CONTROL DATA	0					
369	CAMERA CONTROL DATA	32					
370	CAMERA CONTROL DATA	8					
371	CAMERA CONTROL DATA	16					
372	CAMERA CONTROL DATA	－3					
373	CAMERA CONTROL DATA	2					
374	CAMERA CONTROL DATA	6					
375	CAMERA CONTROL DATA	6					
376	CAMERA CONTROL DATA	179					
377	CAMERA CONTROL DATA	179					
378	CAMERA CONTROL DATA	184					
379	CAMERA CONTROL DATA	184					
380	AF ADJUSTMENT DATA	0					
381	CAMERA CONTROL DATA	135					
382	AF ADJUSTMENT DATA	0					
383	CAMERA CONTROL DATA	16					
384	CAMERA CONTROL DATA	5					
385	CAMERA CONTROL DATA	0					
386	CAMERA CONTROL DATA	38					
387	CAMERA CONTROL DATA	1					
388	CAMERA CONTROL DATA	0					
389	CAMERA CONTROL DATA	0					
390	CAMERA CONTROL DATA	10					
391	CAMERA CONTROL DATA	0					
392	CAMERA CONTROL DATA	0					
393	CAMERA CONTROL DATA	80					

ADDRESS	CONTENTS	CPU					REMARK
		MP1					
		03.05 or later					
394	AF ADJUSTMENT DATA	0					
｜	｜	｜					
403	AF ADJUSTMENT DATA	0					
404	AF ADJUSTMENT DATA	0					
｜	｜	｜					
409	AF ADJUSTMENT DATA	0					
410	AF ADJUSTMENT DATA	0					
｜	｜	｜					
415	AF ADJUSTMENT DATA	0					
416	AF ADJUSTMENT DATA	0					
｜	｜	｜					
421	AF ADJUSTMENT DATA	0					
422	AF ADJUSTMENT DATA	0					
｜	｜	｜					
431	AF ADJUSTMENT DATA	0					
432	AF ADJUSTMENT DATA	0					
｜	｜	｜					
437	AF ADJUSTMENT DATA	0					
438	AF ADJUSTMENT DATA	0					
｜	｜	｜					
443	AF ADJUSTMENT DATA	0					
444	AF ADJUSTMENT DATA	0					
｜	｜	｜					
449	AF ADJUSTMENT DATA	0					
450	CAMERA CONTROL DATA	0					
｜	｜	｜					
454	AF ADJUSTMENT DATA	0					
455	AF ADJUSTMENT DATA	0					
｜	｜	｜					
530	AF ADJUSTMENT DATA	0					
｜	｜						
572	AF ADJUSTMENT DATA	0					
｜	｜	｜					

ADDRESS	CONTENTS	CPU					REMARK
		MP1					
		03.05 or later					
614	AF ADJUSTMENT DATA	0					
｜	｜	｜					
655	AF ADJUSTMENT DATA	0					
656	CAMERA CONTROL DATA	25					
657	CAMERA CONTROL DATA	0					
658	AF ADJUSTMENT DATA	237					
｜	｜	｜					
661	AF ADJUSTMENT DATA	237					
662	CAMERA CONTROL DATA	169					
663	CAMERA CONTROL DATA	32					
664	AF ADJUSTMENT DATA	0					
｜	｜	｜					
667	AF ADJUSTMENT DATA	0					
668	AF ADJUSTMENT DATA	0					
｜	｜	｜					
671	AF ADJUSTMENT DATA	0					
672	AF ADJUSTMENT DATA	15					
673	AF ADJUSTMENT DATA	12					
674	AF ADJUSTMENT DATA	12					
675	AF ADJUSTMENT DATA	12					
676	AF ADJUSTMENT DATA	105					
677	AF ADJUSTMENT DATA	73					
678	AF ADJUSTMENT DATA	73					
679	AF ADJUSTMENT DATA	73					
680	CAMERA CONTROL DATA	100					
681	CAMERA CONTROL DATA	37					
682	CAMERA CONTROL DATA	2					
683	CAMERA CONTROL DATA	20					
684	CAMERA CONTROL DATA	179					
685	CAMERA CONTROL DATA	51					
686	CAMERA CONTROL DATA	71					
687	CAMERA CONTROL DATA	112					
688	CAMERA CONTROL DATA	64					

ADDRESS	CONTENTS	CPU					REMARK
		MP1					
		03.05 or later					
689	CAMERA CONTROL DATA	12					
690	CAMERA CONTROL DATA	1					
691	CAMERA CONTROL DATA	88					
692	CAMERA CONTROL DATA	51					
693	CAMERA CONTROL DATA	6					
694	CAMERA CONTROL DATA	112					
695	CAMERA CONTROL DATA	4					
696	CAMERA CONTROL DATA	64					
697	CAMERA CONTROL DATA	16					
698	CAMERA CONTROL DATA	128					
699	CAMERA CONTROL DATA	16					
700	CAMERA CONTROL DATA	32					
701	CAMERA CONTROL DATA	38					
702	CAMERA CONTROL DATA	38					
703	CAMERA CONTROL DATA	10					
704	CAMERA CONTROL DATA	8					
705	CAMERA CONTROL DATA	8					
706	CAMERA CONTROL DATA	0					
707	CAMERA CONTROL DATA	5					
708	CAMERA CONTROL DATA	75					
709	CAMERA CONTROL DATA	64					
710	CAMERA CONTROL DATA	20					
711	CAMERA CONTROL DATA	0					
712	CAMERA CONTROL DATA	0					
713	CAMERA CONTROL DATA	104					
714	CAMERA CONTROL DATA	3					
715	AE ADJUSTMENT DATA	0					
|	|	|					
718	AE ADJUSTMENT DATA	0					
719	AE ADJUSTMENT DATA	240					
|	|	|					
722	AE ADJUSTMENT DATA	240					
723	AE ADJUSTMENT DATA	208					

ADDRESS	CONTENTS	CPU					REMARK
		MP1					
		03.05 or later					
726	CAMERA CONTROL DATA	208					
727	CAMERA CONTROL DATA	192					
730	CAMERA CONTROL DATA	192					
731	CAMERA CONTROL DATA	40					
732	CAMERA CONTROL DATA	0					
753	CAMERA CONTROL DATA	0					
754	CAMERA CONTROL DATA	149					
755	CAMERA CONTROL DATA	128					
756	CAMERA CONTROL DATA	10					
757	CAMERA CONTROL DATA	50					
758	CAMERA CONTROL DATA	150					
759	CAMERA CONTROL DATA	80					
760	CAMERA CONTROL DATA	22					
761	CAMERA CONTROL DATA	29					
762	CAMERA CONTROL DATA	29					
763	CAMERA CONTROL DATA	39					
764	CAMERA CONTROL DATA	110					
765	CAMERA CONTROL DATA	48					
766	CAMERA CONTROL DATA	0					
767	CAMERA CONTROL DATA	100					
768	CAMERA CONTROL DATA	100					
769	CAMERA CONTROL DATA	85					
770	CAMERA CONTROL DATA	60					
771	CAMERA CONTROL DATA	40					
772	CAMERA CONTROL DATA	30					
773	CAMERA CONTROL DATA	39					
774	CAMERA CONTROL DATA	4					
775	CAMERA CONTROL DATA	14					
776	CAMERA CONTROL DATA	6					
777	CAMERA CONTROL DATA	0					

ADDRESS	CONTENTS	CPU					REMARK
		MP1					
		03.05 or later					
778	CAMERA CONTROL DATA	0					
779	CAMERA CONTROL DATA	0					
780	CAMERA CONTROL DATA	0					
781	APERTURE ADJUSTMENT DATA	53					
782	CAMERA CONTROL DATA	29					
783	CAMERA CONTROL DATA	98					
784	CAMERA CONTROL DATA	170					
785	CAMERA CONTROL DATA	50					
786	CAMERA CONTROL DATA	120					
787	CAMERA CONTROL DATA	22					
788	CAMERA CONTROL DATA	39					
789	CAMERA CONTROL DATA	39					
790	CAMERA CONTROL DATA	39					
791	CAMERA CONTROL DATA	10					
792	CAMERA CONTROL DATA	0					
793	CAMERA CONTROL DATA	176					
794	CAMERA CONTROL DATA	22					
795	CAMERA CONTROL DATA	27					
796	CAMERA CONTROL DATA	39					
797	CAMERA CONTROL DATA	39					
798	CAMERA CONTROL DATA	16					
799	CAMERA CONTROL DATA	8					
800	CAMERA CONTROL DATA	20					
801	CAMERA CONTROL DATA	20					
802	CAMERA CONTROL DATA	8					
803	CAMERA CONTROL DATA	28					
804	CAMERA CONTROL DATA	28					
805	CAMERA CONTROL DATA	0					
806	CAMERA CONTROL DATA	28					
807	CAMERA CONTROL DATA	28					
808	CAMERA CONTROL DATA	0					
809	CAMERA CONTROL DATA	28					
810	CAMERA CONTROL DATA	28					

ADDRESS	CONTENTS	CPU					REMARK
		MP1					
		03.05 or later					
811	CAMERA CONTROL DATA	0					
812	CAMERA CONTROL DATA	－45					
813	CAMERA CONTROL DATA	－45					
814	CAMERA CONTROL DATA	100					
815	CAMERA CONTROL DATA	－45					
816	CAMERA CONTROL DATA	－45					
817	CAMERA CONTROL DATA	100					
818	CAMERA CONTROL DATA	－45					
819	CAMERA CONTROL DATA	－45					
820	CAMERA CONTROL DATA	100					
821	CAMERA CONTROL DATA	10					
822	CAMERA CONTROL DATA	0					
823	CAMERA CONTROL DATA	150					
824	CAMERA CONTROL DATA	10					
825	CAMERA CONTROL DATA	60					
826	CAMERA CONTROL DATA	52					
827	CAMERA CONTROL DATA	60					
828	CAMERA CONTROL DATA	10					
829	CAMERA CONTROL DATA	128					
830	CAMERA CONTROL DATA	10					
831	CAMERA CONTROL DATA	52					
832	CAMERA CONTROL DATA	30					
833	CAMERA CONTROL DATA	0					
834	CAMERA CONTROL DATA	5					
835	CAMERA CONTROL DATA	128					
836	CAMERA CONTROL DATA	75					
837	CAMERA CONTROL DATA	7					
838	CAMERA CONTROL DATA	4					
839	CAMERA CONTROL DATA	29					
840	CAMERA CONTROL DATA	60					
841	CAMERA CONTROL DATA	10					
842	CAMERA CONTROL DATA	10					
843	CAMERA CONTROL DATA	0					

ADDRESS	CONTENTS	CPU					REMARK
		MP1					
		03.05 or later					
844	CAMERA CONTROL DATA	176					
845	CAMERA CONTROL DATA	24					
846	CAMERA CONTROL DATA	31					
847	CAMERA CONTROL DATA	39					
848	CAMERA CONTROL DATA	39					
849	CAMERA CONTROL DATA	16					
850	CAMERA CONTROL DATA	10					
851	CAMERA CONTROL DATA	29					
852	CAMERA CONTROL DATA	20					
853	CAMERA CONTROL DATA	8					
854	CAMERA CONTROL DATA	28					
855	CAMERA CONTROL DATA	28					
856	CAMERA CONTROL DATA	0					
857	CAMERA CONTROL DATA	211					
858	CAMERA CONTROL DATA	211					
859	CAMERA CONTROL DATA	100					
860	CAMERA CONTROL DATA	10					
861	CAMERA CONTROL DATA	0					
862	CAMERA CONTROL DATA	0					
863	CAMERA CONTROL DATA	100					
864	CAMERA CONTROL DATA	150					
865	CAMERA CONTROL DATA	25					
866	CAMERA CONTROL DATA	15					
867	CAMERA CONTROL DATA	170					
868	CAMERA CONTROL DATA	110					
869	CAMERA CONTROL DATA	20					
870	CAMERA CONTROL DATA	39					
871	CAMERA CONTROL DATA	29					
872	CAMERA CONTROL DATA	39					
873	CAMERA CONTROL DATA	2					
874	CAMERA CONTROL DATA	10					
875	CAMERA CONTROL DATA	250					
876	CAMERA CONTROL DATA	160					

ADDRESS	CONTENTS	CPU					REMARK
		MP1					
		03.05 or later					
877	CAMERA CONTROL DATA	110					
878	CAMERA CONTROL DATA	24					
879	CAMERA CONTROL DATA	43					
880	CAMERA CONTROL DATA	29					
881	CAMERA CONTROL DATA	49					
882	TTL ADJUSTMENT DATA	133					
883	TTL ADJUSTMENT DATA	96					
884	CAMERA CONTROL DATA	70					
885	CAMERA CONTROL DATA	10					
886	CAMERA CONTROL DATA	2					
887	CAMERA CONTROL DATA	179					
888	CAMERA CONTROL DATA	98					
889	CAMERA CONTROL DATA	10					
890	CAMERA CONTROL DATA	59					
891	CAMERA CONTROL DATA	0					
892	CAMERA CONTROL DATA	0					
893	CAMERA CONTROL DATA	0					
894	CAMERA CONTROL DATA	100					
895	CAMERA CONTROL DATA	0					
896	CAMERA CONTROL DATA	58					
897	CAMERA CONTROL DATA	108					
898	CAMERA CONTROL DATA	0					
|	|	|					
926	CAMERA CONTROL DATA	0					
927	CHECK SUM DATA	－					
|	|	|					
960	CAMERA CONTROL DATA	－					
|	|	|					
1023	CAMERA CONTROL DATA	－					

INSPECTION CRITERIA and TOOLS

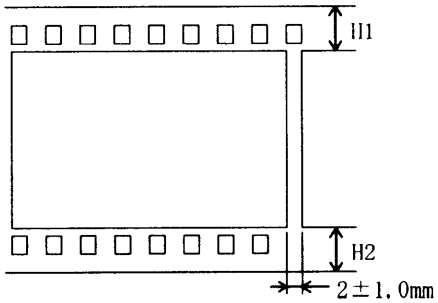
CONDITION FOR INSPECTION

Normal temperature : ２０±５℃ Humidity : ６５±２０％
Power source : ５.５±０.０３Ｖ ５Ａ or more at ０.５Ω load
Light source : ２８５６° K
K coefficient : １.１６
Camera : Finished Product

INSPECTION CRITERIA

●When using the power supply, set the output to 5.5V with a resistance of 0.5Ω.

INSPECTION ITEM	CRITERIA	REMARKS
Shutter System (1)Tolerance (2)Curtain Speed (3)Dispersion (4)Curtain Bound	 1/2000～1/1500 : 0±0.45EV 1/1500～30s : 0±0.3EV 6.9ms or less 1/2000～1/180 : Within 0.45EV 1/180～30s : Within 0.3EV There should be on curtain bound.	Exposure Mode : M,S Shutter tester (EF-8000) 21mm
AE Image Surface Exposure (1)Tolerance	 1/2000～1/125 : ±0.65EV less than 1/125 : ±0.5EV	Exposure Mode : P,A,S Shutter tester (EF-8000) AF50/1.4D
AE Diaphragm Control Accuracy (1)Tolerance (2)Dispersion	LV12 (ISO 100)、1/125 From the maximum aperture to 4th stop aperture : ±0.5EV From F8 to the minimum aperture : ±0.65EV Within 0.5EV	Exposure Mode : S Shutter tester (EF-8000) AF50/1.4D
AF Adjustment Accuracy (1)Yaw (2)Pitch (3)Lark	 Center : 0±4mrad Side : 0±10mrad Center : 0±5mrad Side : 0±10mrad 0±50μm	Personal Computer and other special tools
Diaphragm Lever Height	3.4±0.1mm	J18004
Main Mirror 45° (Collimator Measured Value)	Upper/Lower : ±15′ Right/Left : ±30′ Distortion : Within 8′	When it is stood up, there should be no gap. J19002・J15391・J18037
Sub-Mirror 47.75°	Upper/Lower : -5′ +20′ ～-45′ Distortion : Within 8′	J19002・J18268-1 Hex key Wrench
M. B. F	Outer Rail : 46.67±0.06mm Outer Rail Parallelism : Within 0.08mm Height Difference between Inner and Outer Rails : 0.21mm～0.26mm Aperture Surface Stage Difference of Inner Rail : 0.26mm or more	J18001 Dial Gauge
∞(Infinity)Agreement	±100μm	J18010

INSPECTION ITEM	CRITERIA	REMARKS
Battery Check (1)First Level (2)Second Level	 Reducing Direction : 5.0V±0.2V Returning Direction : 5.3V±0.2V Reducing Direction : 4.8V±0.2V Returning Direction : 5.0V±0.2V	Power Supply
Image Plane Size (50/1.4 F5.6) Image Plane Position Frame Interval	Lenght : 24 $^{+0.4}_{0}$mm／Width : 36 $^{+0.4}_{0}$mm [H 1－H 2] =±0.4mm or less  2 ±1.0mm	Calipers ISO 100 Film
Consumption Current Items④ and later, the values are products of consumption current and operating time	①Main Switch is OFF : 30μA or less ②Main Switch is ON and Half-Push Timer is OFF : 200μA or less ③Main Switch is ON and Half-Push Timer is ON : 110μA or less ④AF50/1.8 Lens is driven : 500mA sec or less (Operating Time : 1.2 sec or less) ⑤AF70-300/4.5-5.6G Lens is driven : 800μA sec or less (Operating Time : 2.2 sec or less) ⑥Empty Release : 170μA sec or less (Operating Time : 280ms or less) ⑦Empty Feeding (prewind) : 4000mA sec or less (Operating Time : 15 sec or less) ⑧Film Winding : 200m A sec or less (Operating Time : 420ms or less) ⑨Film Rewinding : 750m A sec or less (Operating Time : 3.5 sec or less)	
Half-Push Timer Time	After Half-Push Switch OFF : Power should be turned OFF 5±1 sec later. After Releasing : Power should be turned OFF 2±1 sec later.	
Half-Push Timer Time (When using the built-in and external speed light)	After Half-Push Switch OFF : Power should be turned OFF 5±1 sec later. After Releasing : Power should be turned OFF 5±1 sec later.	
Shutter Time Battery life	4 hours or more	
Brightness for AF Assist Light turned ON	Brightness for Light turned ON (50/1.8) : It should be turned ON and equivalent to EV5 or less	
Finder	Visuality Ration : Vertical and Horizontal 89±3% Parallax : Upper/Lower, Right/Left : Within 0.5mm Eye Point : Distance from eyepiece (－1.52m^{-1}(dpt)の時) 15.87mm－10% (＋0.76m^{-1}(dpt)の時) 23.05mm－10%	

工 具　TOOLS

工具番号 TOOLS No.	名 称 NAME	備 考 Others
J15315-2	カメラ通信工具 CAMERA COMMUNICATION TOOL	For F70, F50 F60, F80
J18314	RS232C 用電源工具 POWER SUPPLY FOR RS232C	
J19109	MC-31	For F5, F100 F80
J18266	AF 調整用Ｚレンズ（１m用） AF TESTING LENS（For 1 m）	For F5, F100
J15391	４５° 出し工具（反射ミラー） TOOL MIRROR	
J18268-1	サブミラー４５° 出し工具 SUB MIRROR ANGLE ADJUSTMENT TOOL	For F5, F100
J18273	AF チャート AF ADJUSTMENT CHART	For F5, F100 F80
J18230	YAE, PITCH 工具 YAE, PITCH ADJUSTMENT TOOL	For F5, F100 F90, F90X
J18336	点検・調整ソフト　ＩＢＭ３.５インチ INSPECTION & ADNUSTMENT F.D.FOR IBM PC 3.5′	

注意：J18268-1 サブミラー４５° 出し工具は、前ボディにシャッターを取付けた後、使用できません。

Note：Do not use J18268-1 after mounting the shutter to the front body.