

作成承認印

配布許可印



Nikon F5

REPAIR MANUAL

Nikon | NIKON CORPORATION
Tokyo, Japan

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DISASSEMBLE

1.DISASSEMBLING REAR BODY AND FRONT BODY UNIT

RUBBER ARMORED EXTERNAL BODY	D 1
BODY GRIP	D 1
BOTTOM COVER	D 2
BATTERY CHAMBER BARRIER PLATE	D 3
TOP COVER ON FILM ADVANCE SIDE	D 4
TOP COVER ON FILM REWIND SIDE	D 4
FRONT BODY	D 5

2.DISAASEMBLING REAR BODY

CONNECTOR, REMOVING SOLDERING WIRES	D 6
MAIN BASE PLATE	D 7
DC-DC BASE PLATE	D 7
BACK DISPLAY BASE PLATE	D 8
FILM REWIND BASE PLATE	D 9
FILM REWIND SHAFT BASE PLATE	D 1 0
DX CONTACT FPC	D 1 1
CHARGE LARGE LEVER, FILM ADVANCE STOP RELEASE LEVER	D 1 1
R1 RELAY LEVER	D 1 2
SHUTTER	D 1 2
CHARGE BASE PLATE GROUP	D 1 3
FILM ADVANCE BASE PLATE, EL ROLLER	D 1 4
R1 SWITCH	D 1 4
R1 LEVER GROUP	D 1 5
DATA CONTACT UNIT, F DETECT SWITCH	D 1 5
R2 LEVER, CLUTCH LEVER	D 1 6
R1 BUTTON COVER BASE PLATE, AF-S SWITCH	D 1 6
SMALL PARTS OF REAR BODY	D 1 7

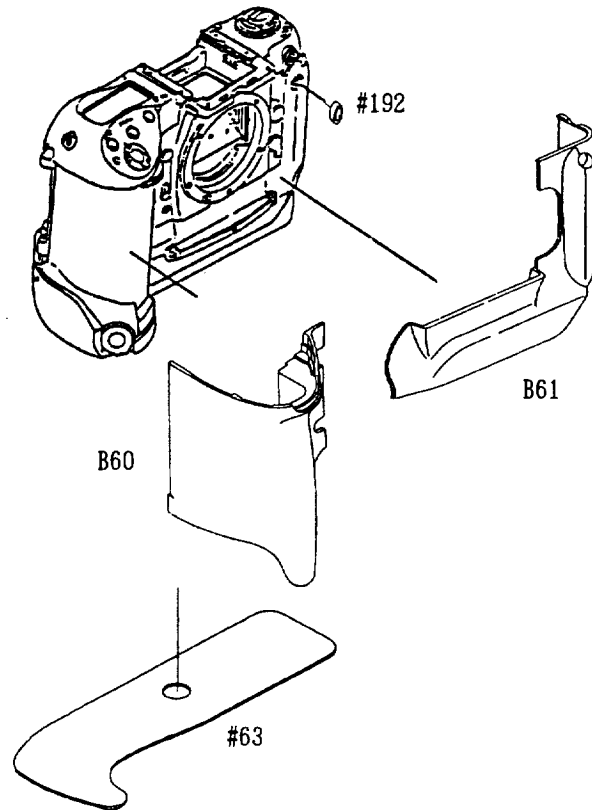
3.DISASEEMBLING FRONT BODY

REMOVING FD RAIL	D 1 8
REMOVING LIGHT BAFFLE PLATE AT THE REAR OF THE MAIN MIRROR	D 1 8
REMOVING CONNECTORS ON AAF BASE PLATE	D 1 8
REMOVING CORDS ON AF BASE PLATE	D 1 9
REMOVING AF BASE PLATE	D 2 0
LENS RELEASE BASE PLATE	D 2 0
REMOVING AP4 UNIT	D 2 0
REMOVING FRONT SIDE DISPLAY MOLD	D 2 1
FD CONTACT MOLD	D 2 1
SCREEN CONTACTS UNIT & SC CONTACTS	D 2 2
MANUAL MUP GUIDE PLATE	D 2 2
REMOVING LENS RELESE SWITCH	D 2 3
REMOVING f-fo PULLY	D 2 3
LENS RELEASE BUTTON COLLAR SPRING	D 2 4
REMOVING MIRROR BOX UNIT	D 2 4
REMOVING DRIVING BASE PLATE	D 2 5
REMOVING AF MODE SWITCHING LEVER	D 2 5
REMOVING BAYONET UNIT	D 2 6
AF LENS CONTACT	D 2 6
REMOVING I BASE PLATE	D 2 7

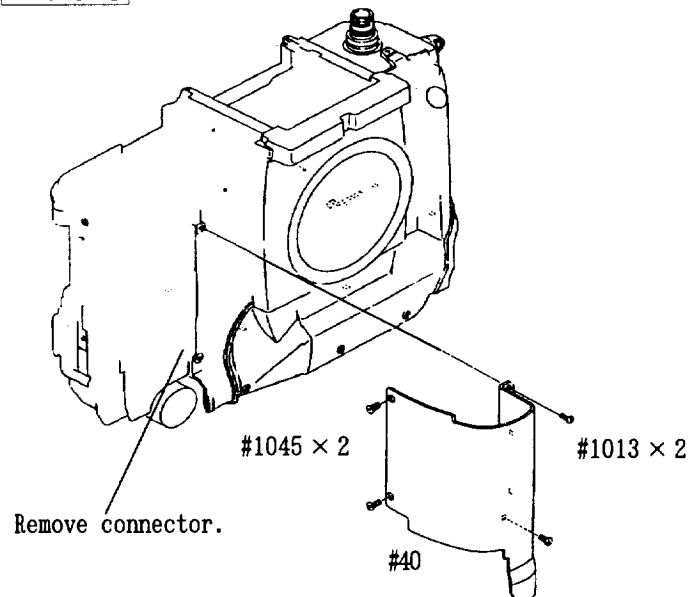
DISASSEMBLE

1. Disassembling rear body and front body units.

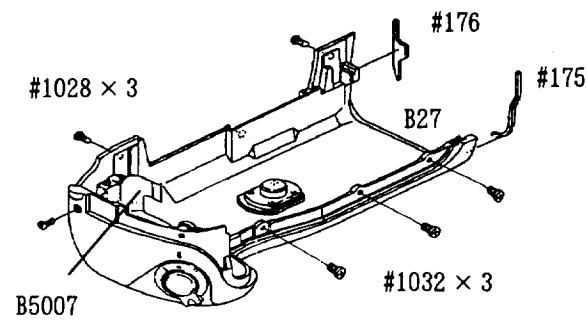
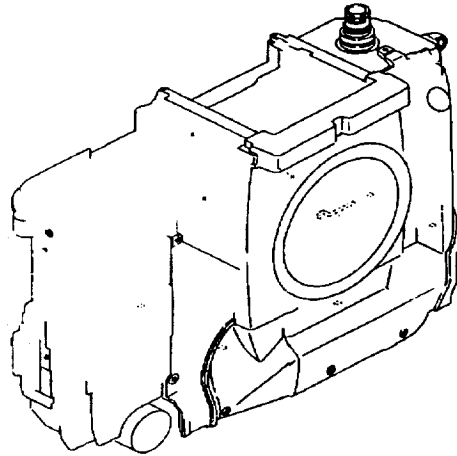
Rubber armored external body



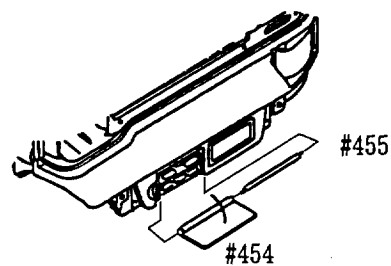
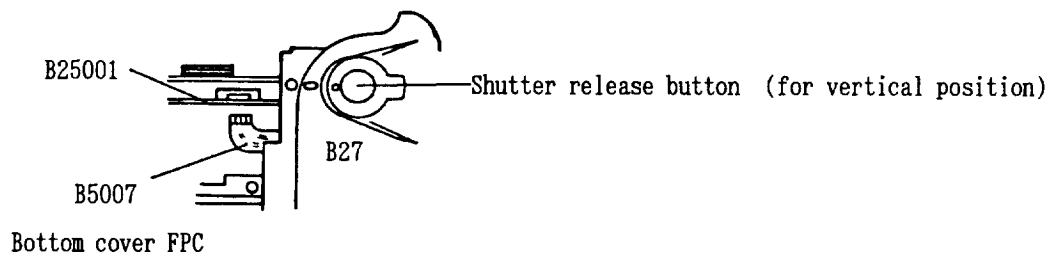
Body grip



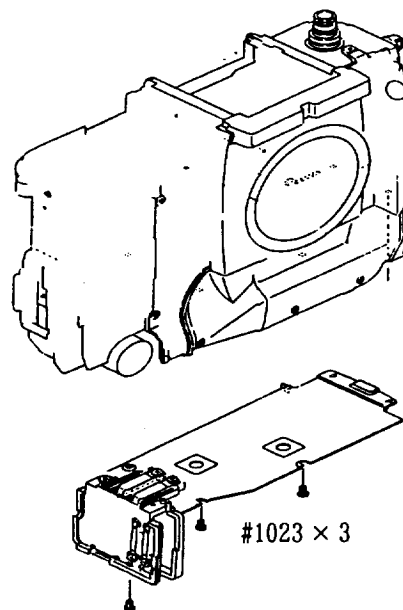
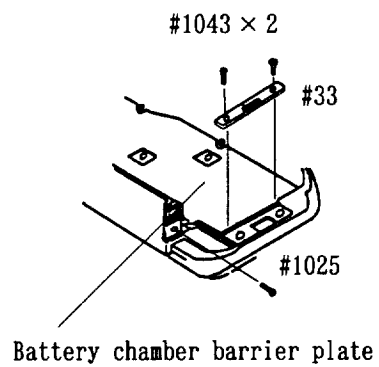
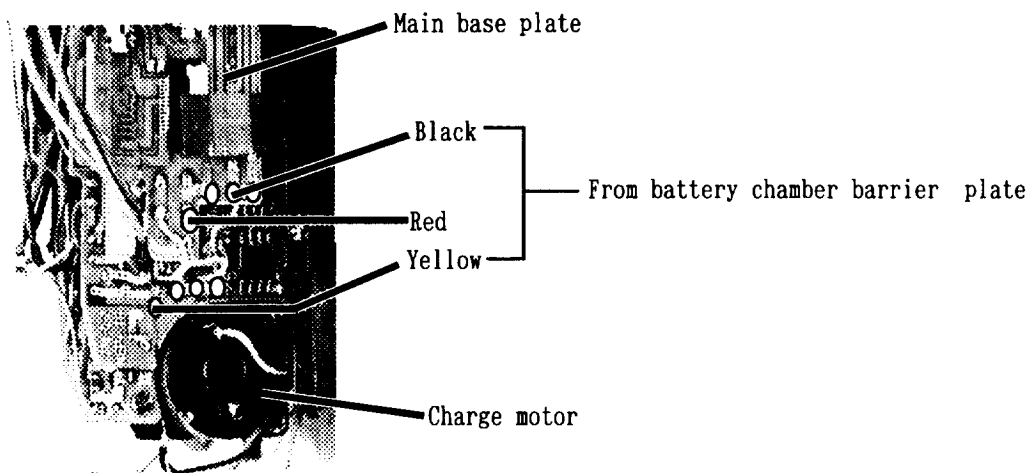
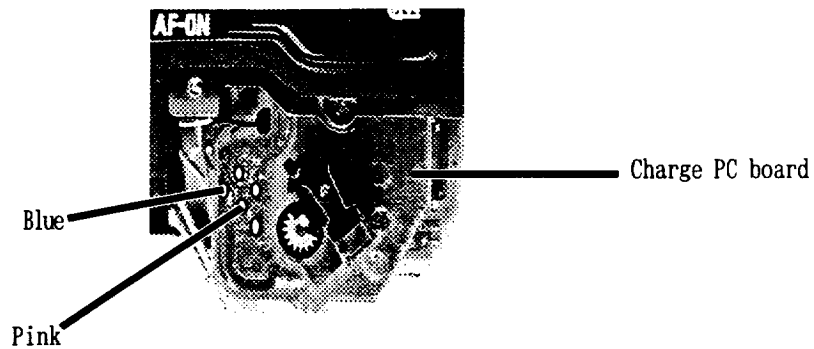
Bottom cover



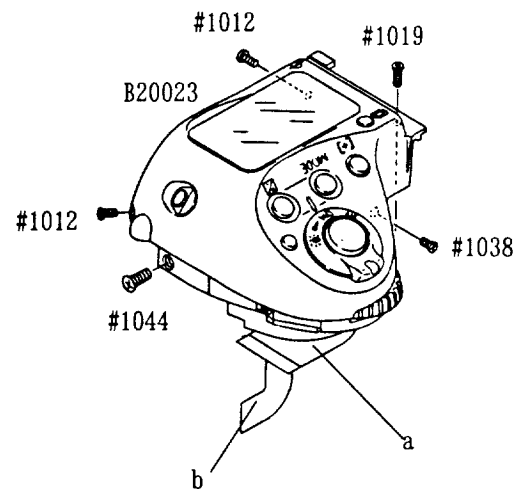
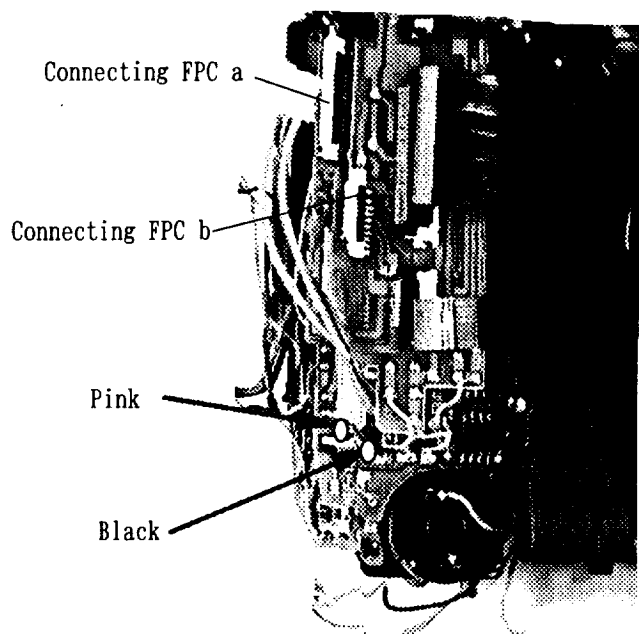
• Remove bottom cover FPC (B5007) from connector.



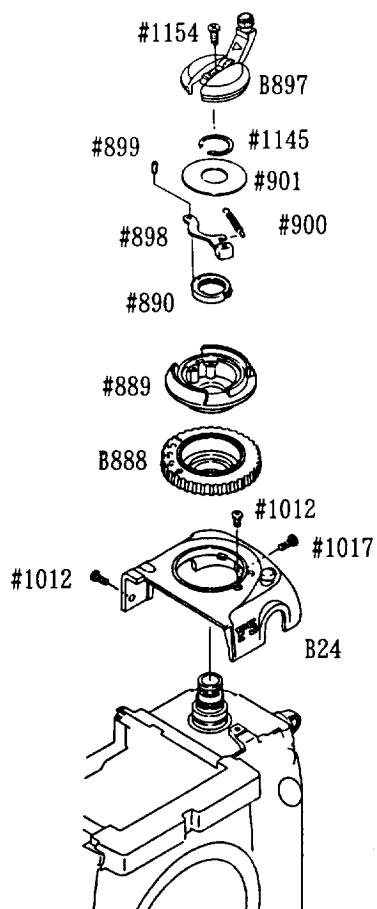
Battery chamber barrier plate



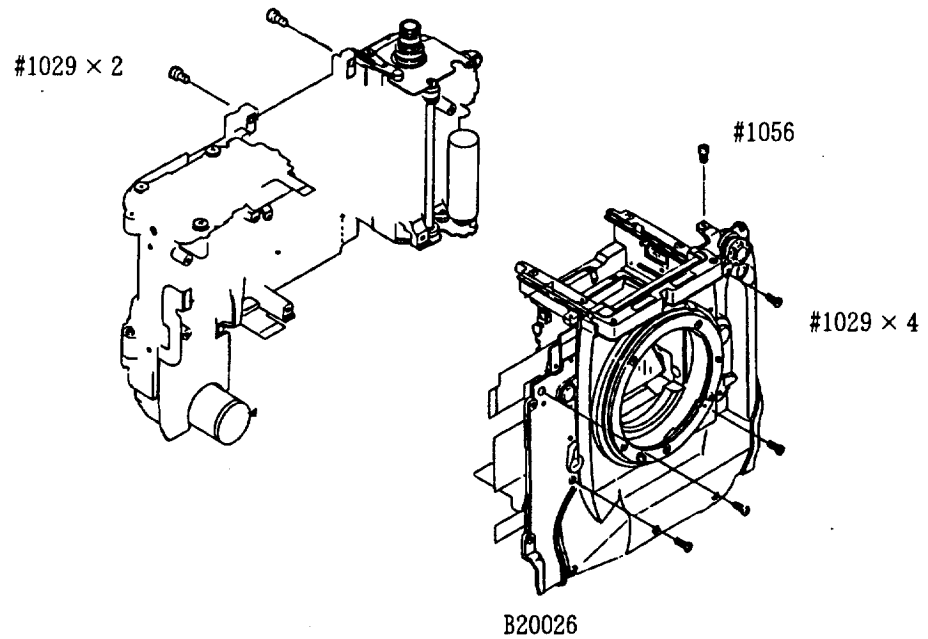
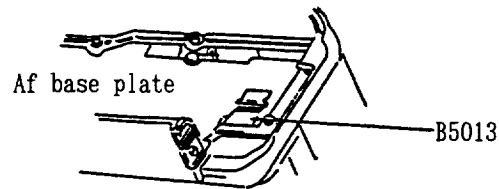
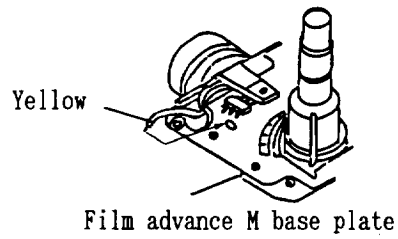
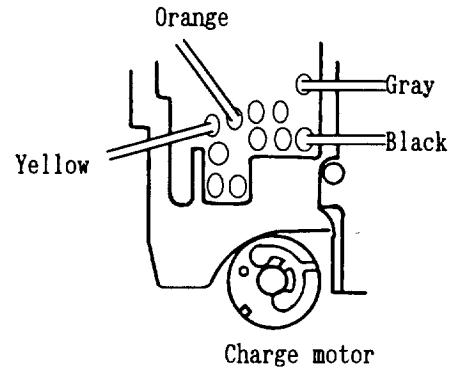
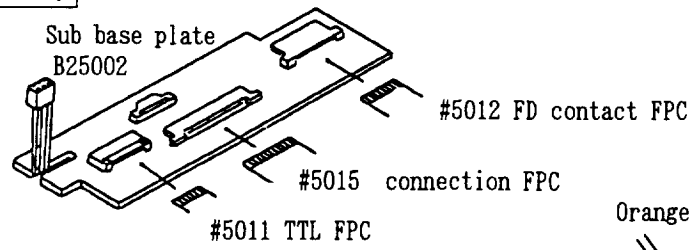
Top cover on film advance side



Top cover on film rewind side

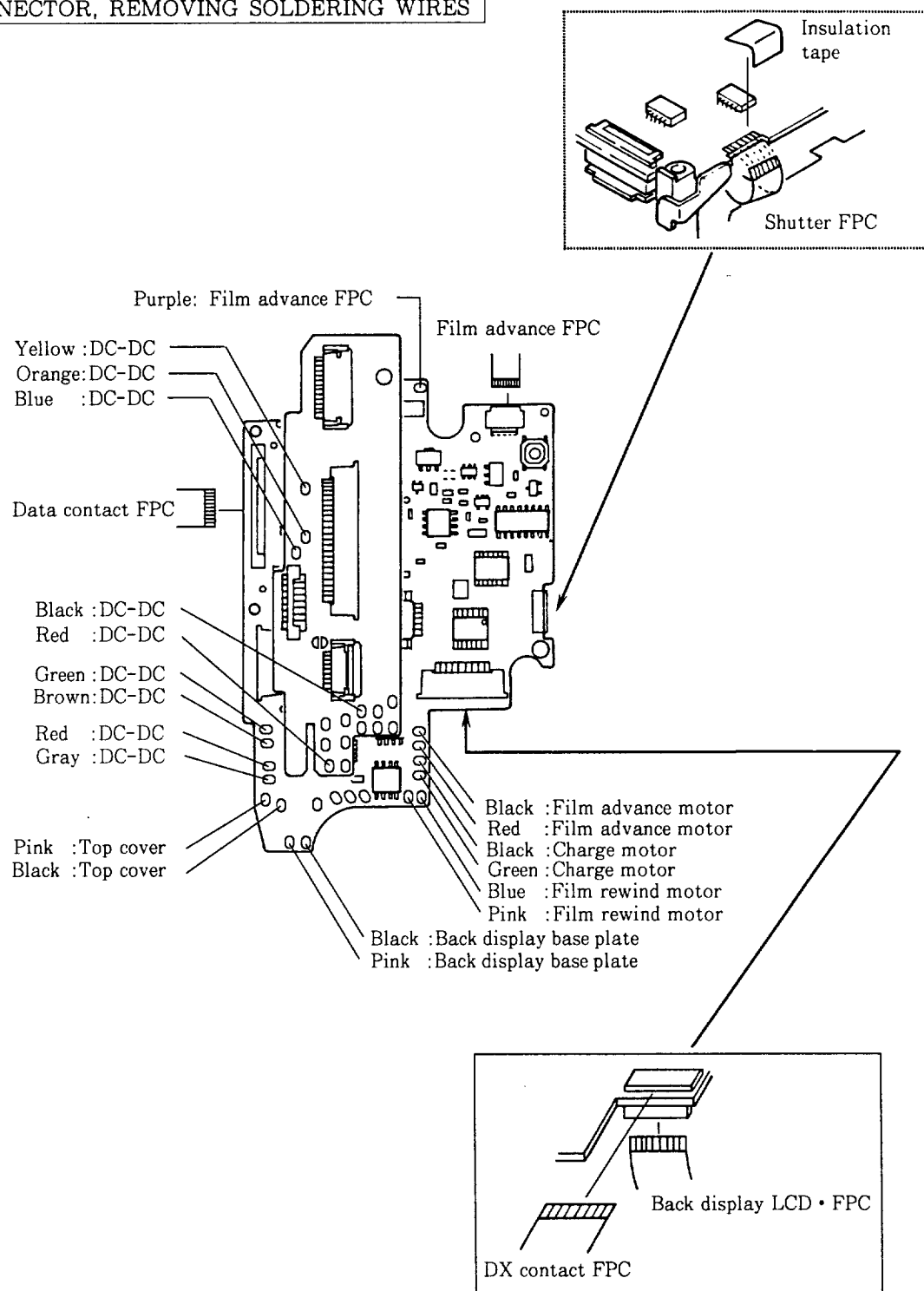


Front body

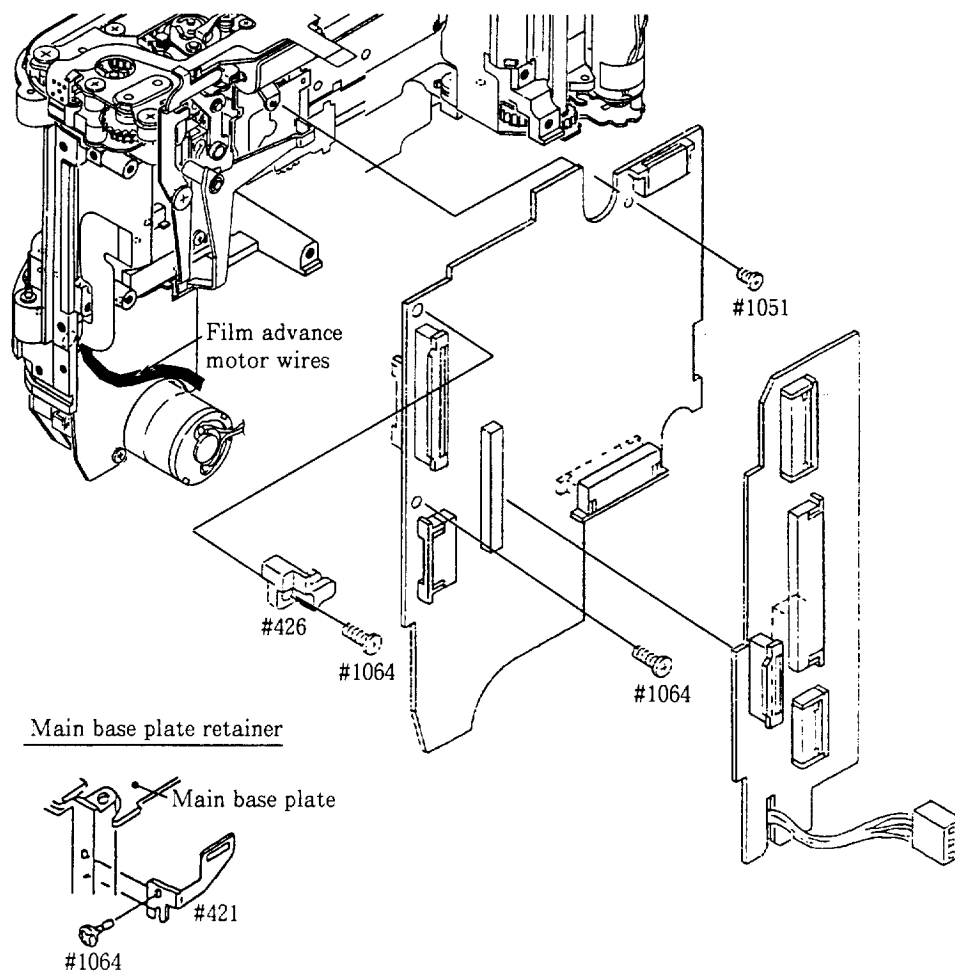


2. _DISASSEMBLING REAR BODY

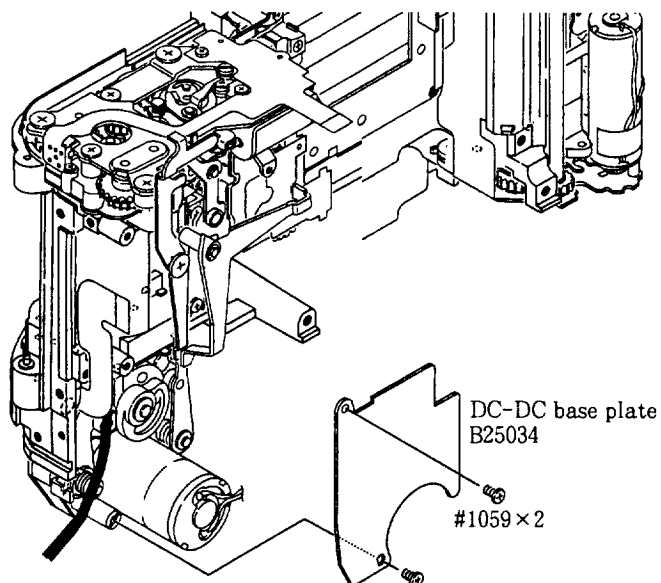
CONNECTOR, REMOVING SOLDERING WIRES



MAIN BASE PLATE

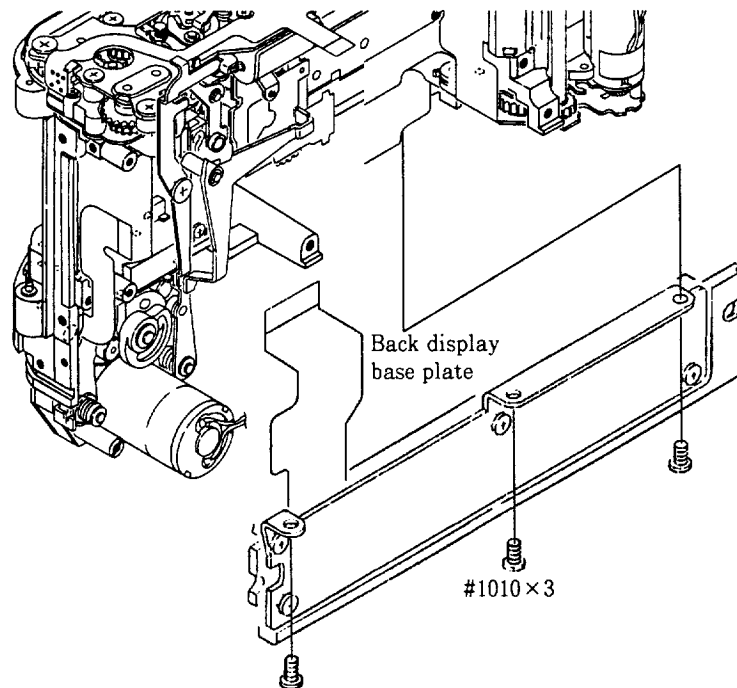
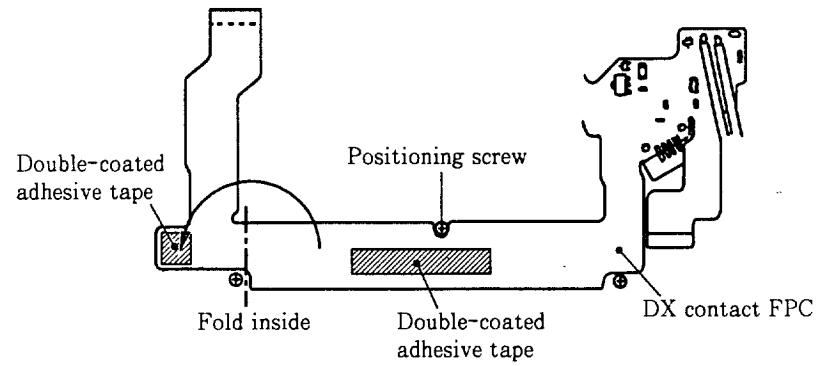


DC-DC BASE PLATE

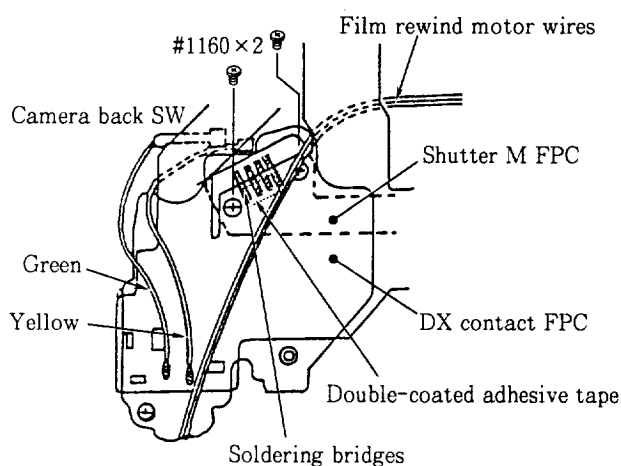
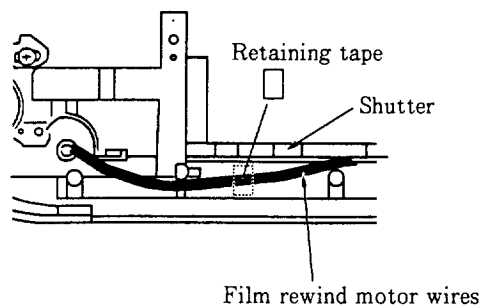


BACK DISPLAY BASE PLATE

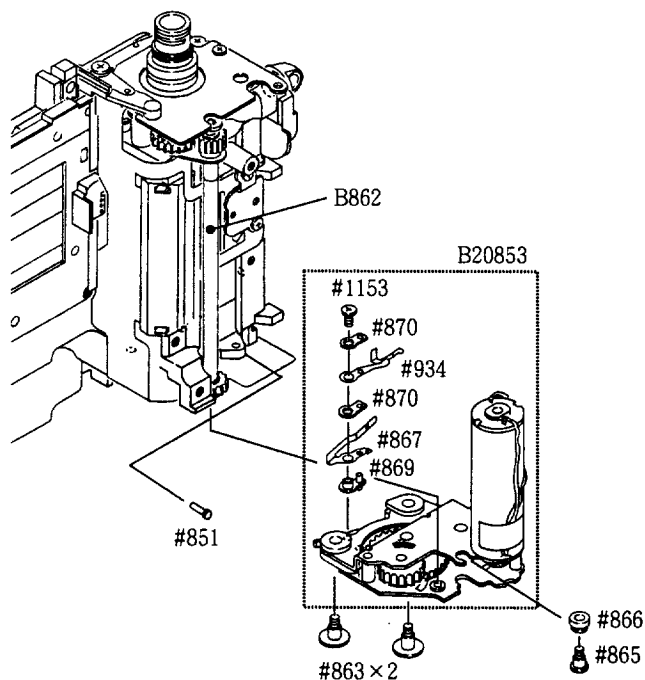
- Lift up the DX contact FPC in the direction of the arrow.



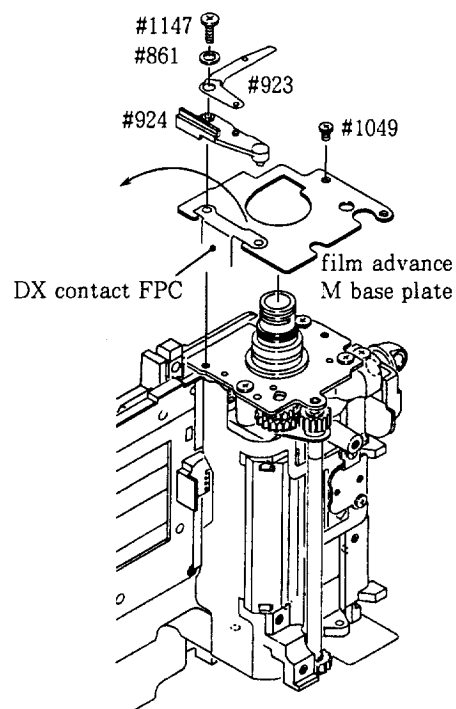
FILM REWIND BASE PLATE



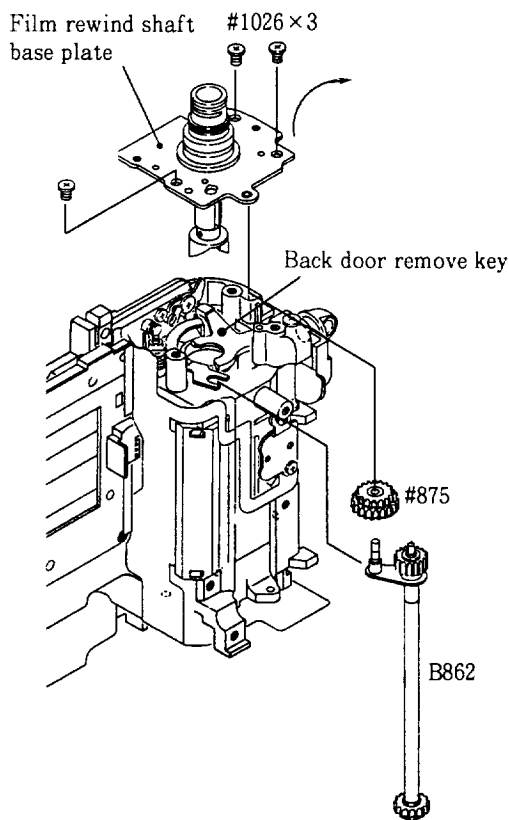
1. Remove cords-retaining tape.
2. Remove FPC retaining screws #1160×2.
3. Remove four soldered bridges.
4. Remove camera back switch cords (yellow, green).
5. Peel off shutter MFPC from the film rewind base plate.
6. When you remove the film rewind base plate by unfastening screws #865, #863×2, the film rewind vertical shaft and camera back switch pin #851 also come off at the same time.



FILM REWIND SHAFT BASE PLATE



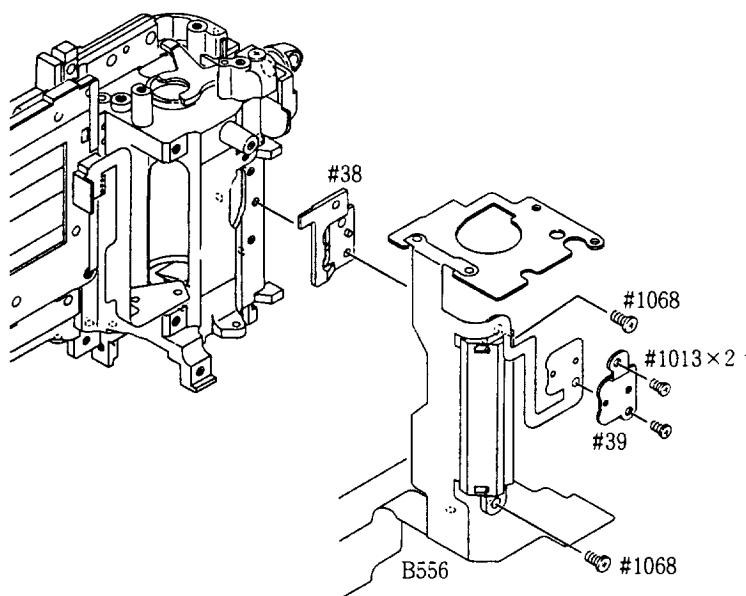
- Slide the film advance M base plate sideways in the direction of the arrow, while watching out for the soldered bridge on the DX contact FPC and the film advance M base plate.



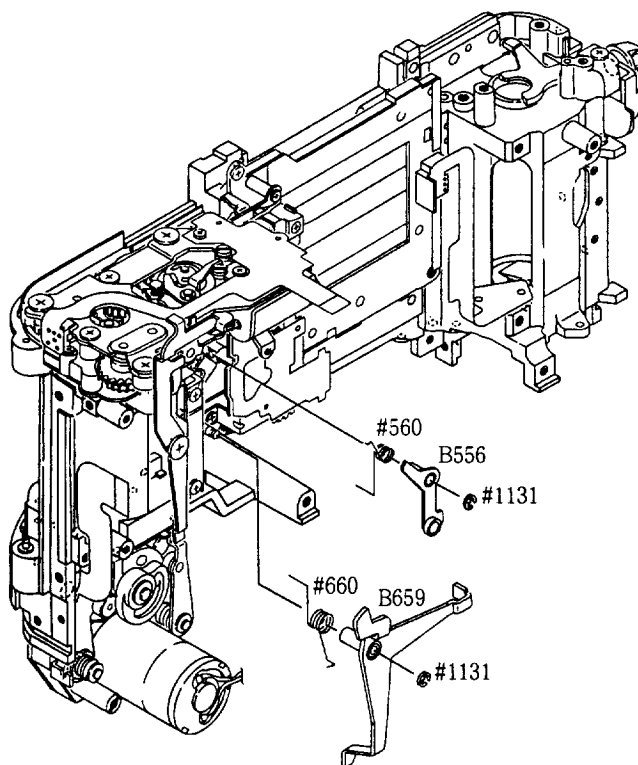
- Remove the film rewind shaft base plate by tilting it in the direction of the arrow while lifting the plate up and also sliding the camera back hooking key upward.

Note: As the film rewind vertical shaft does not come off when the film rewind shaft base plate is removed, do not try to remove it forcefully.

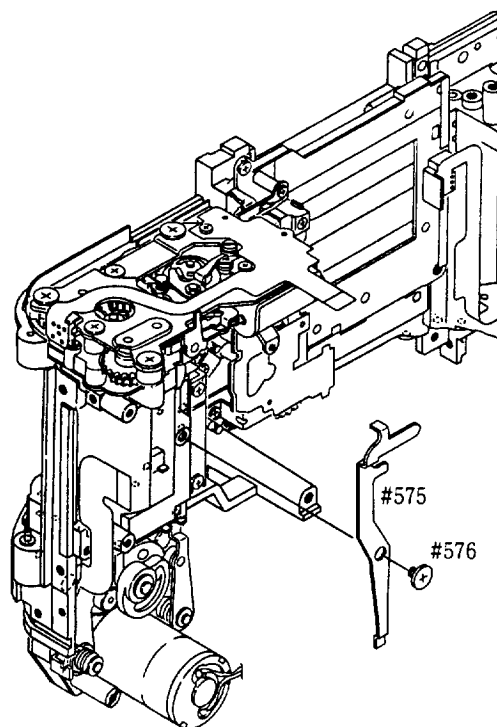
DX CONTACT FPC



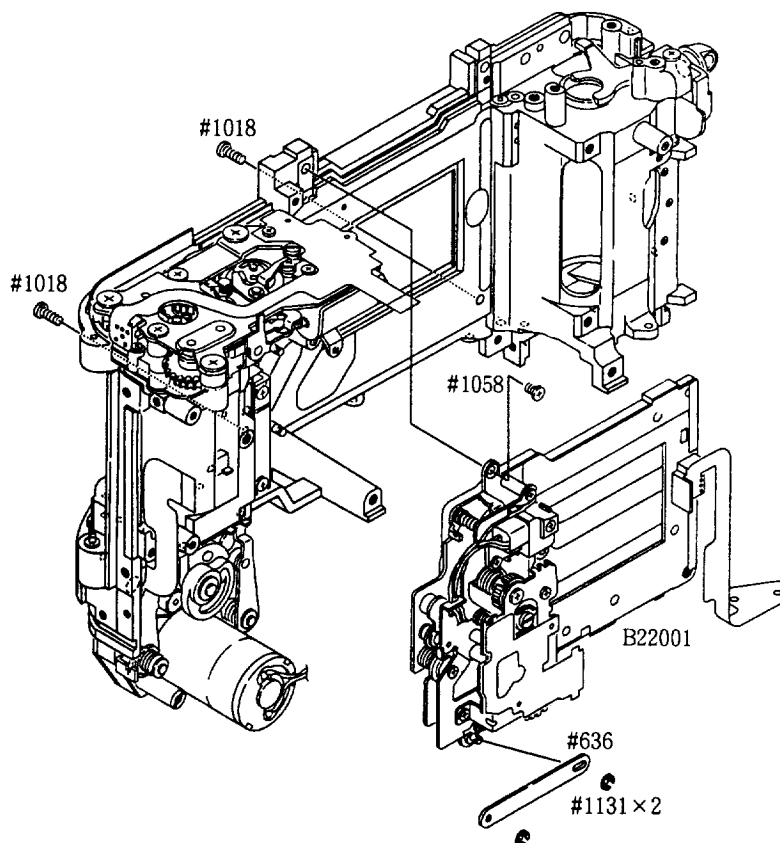
CHARGE LARGE LEVER, FILM ADVANCE RELEASE LEVER



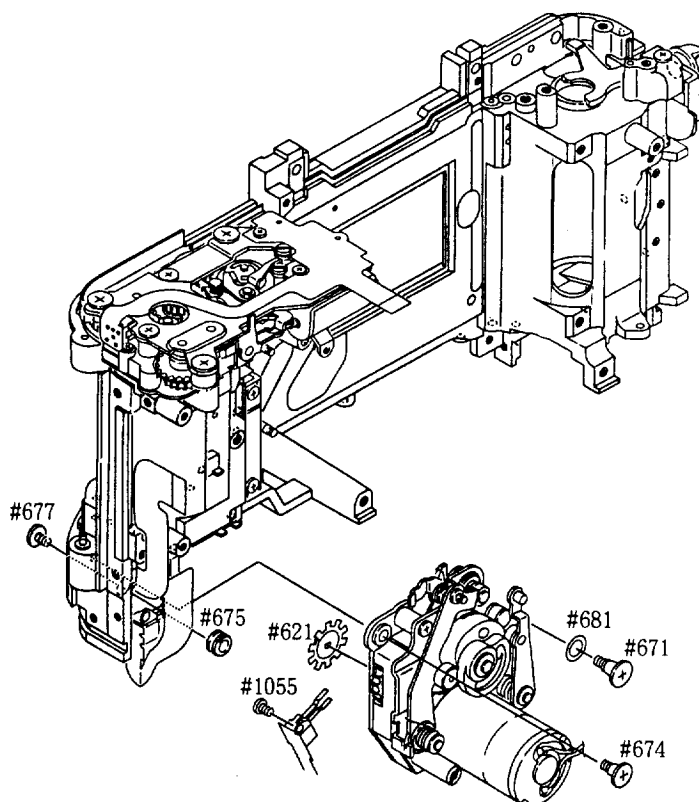
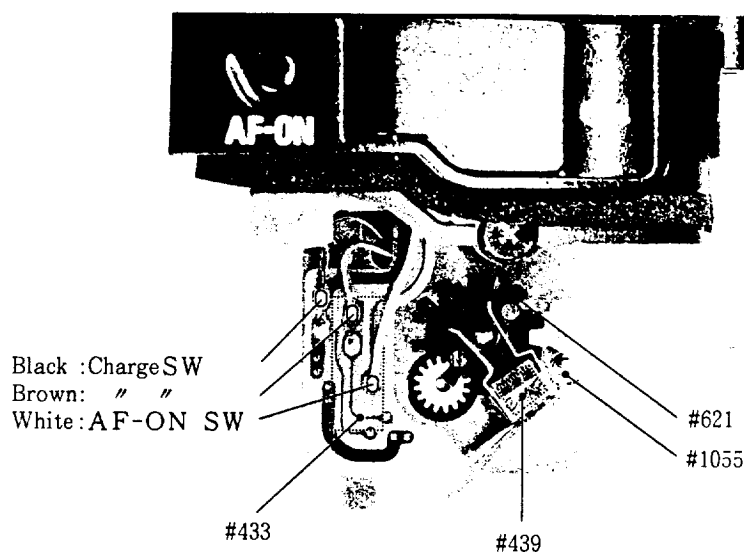
R1 RELAY LEVER



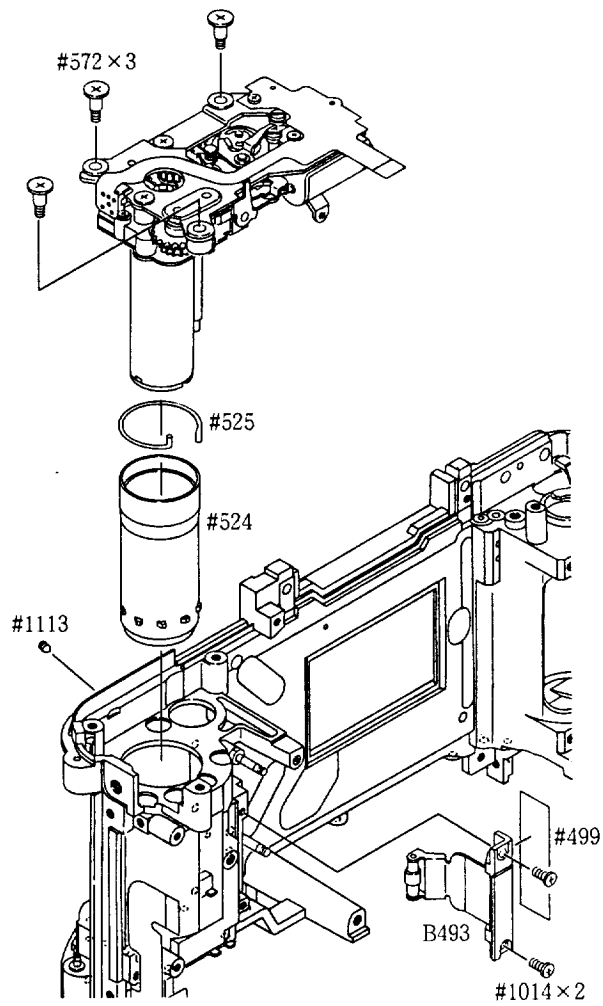
SHUTTER



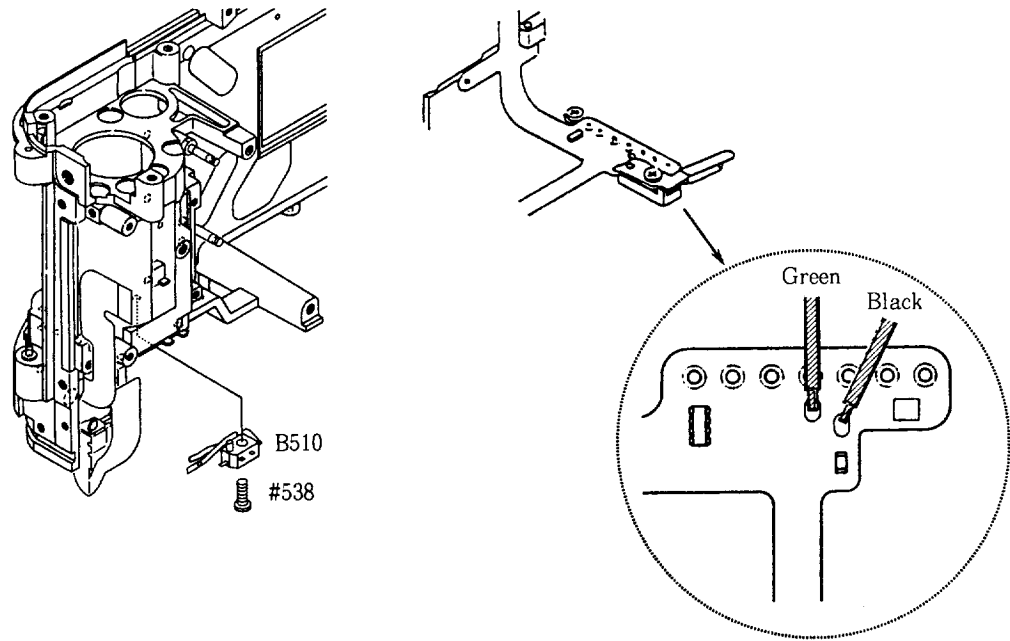
CHARGE BASE PLATE GROUP



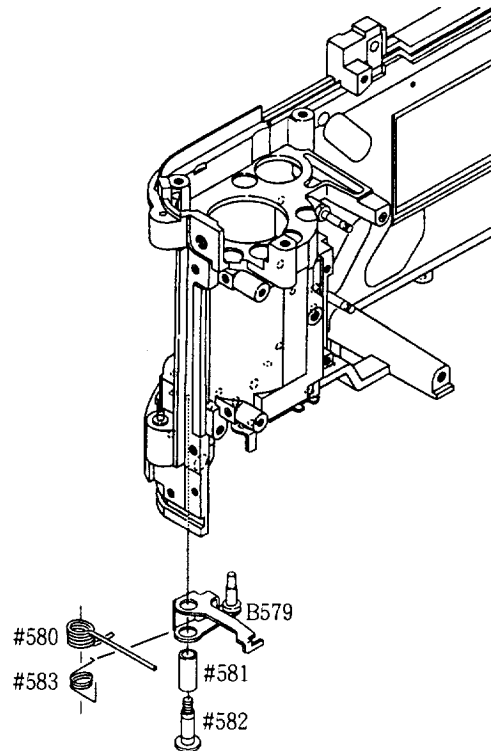
FILM ADVANCE BASE PLATE, EL ROLLER



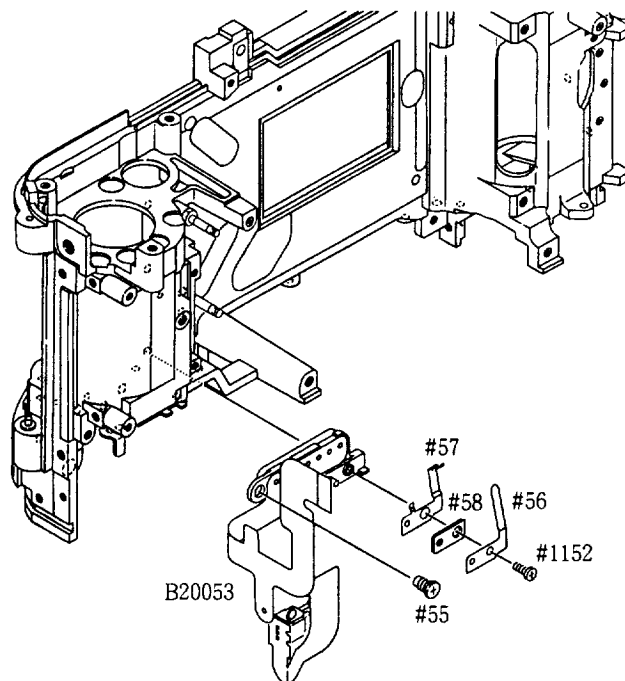
R1 SWITCH



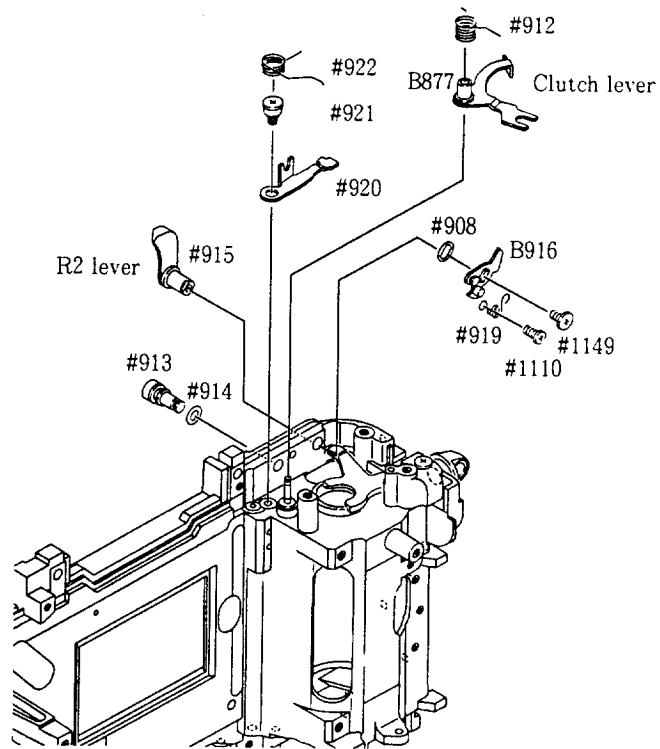
R1 LEVER GROUP



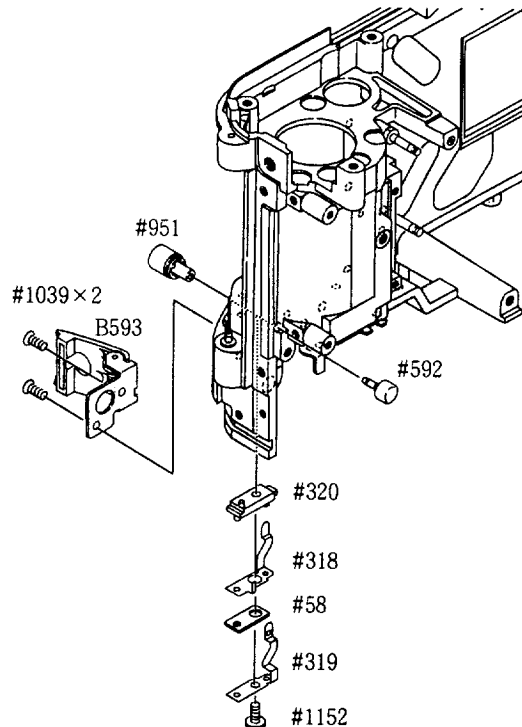
DATA CONTACT UNIT, F DETECT SWITCH



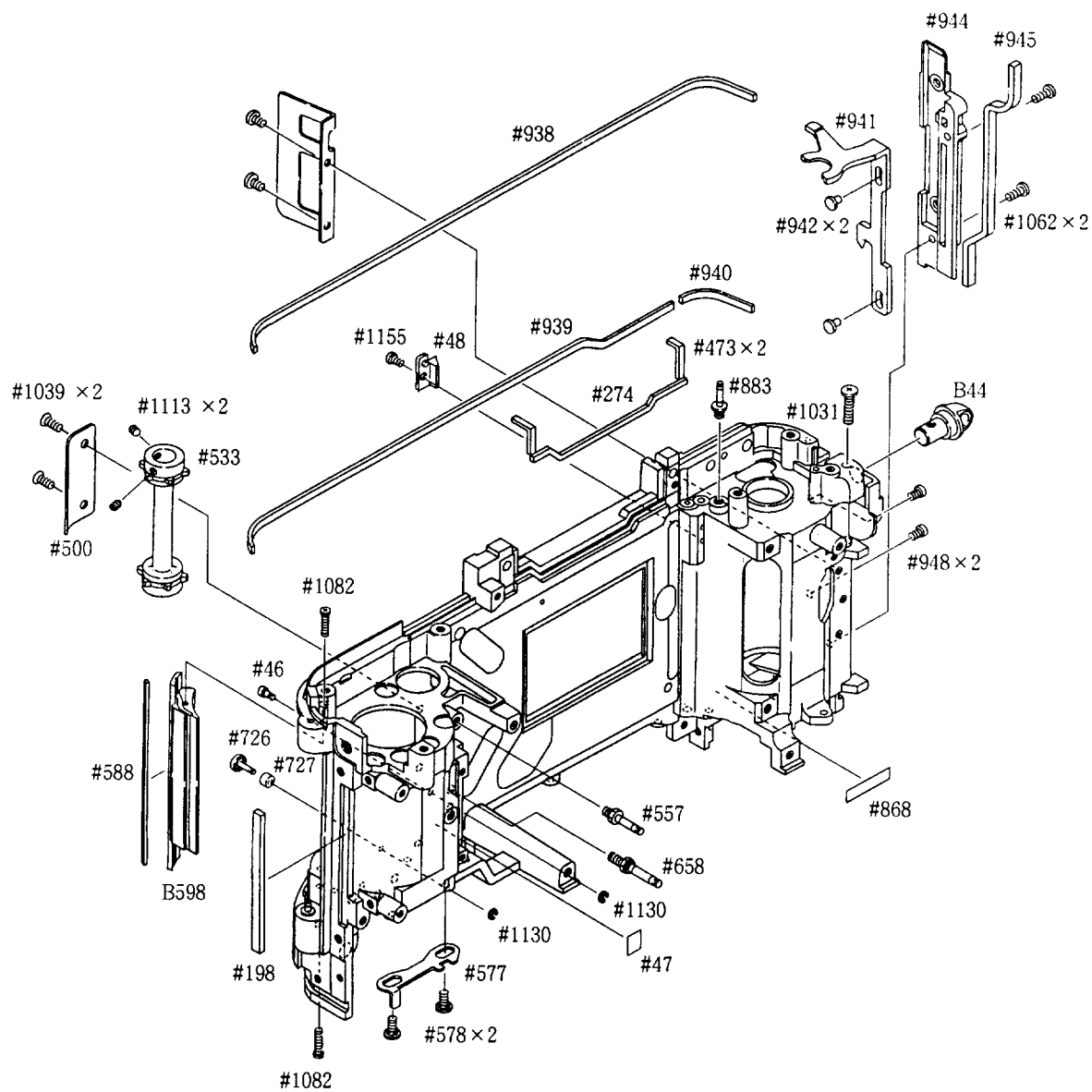
R2 LEVER, CLUTCH LEVER



R1 BUTTON COVER BASE PLATE, AF-S SWITCH

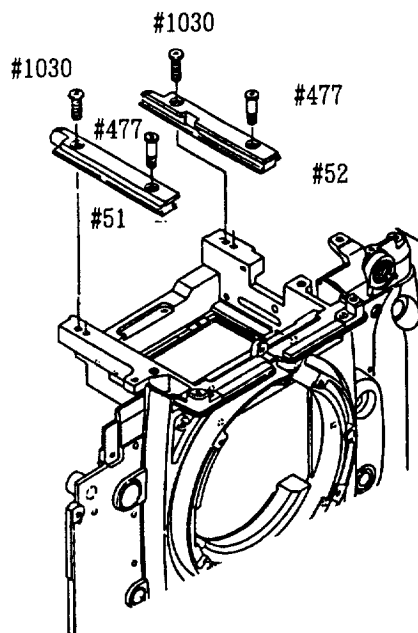


SMALL PARTS OF REAR BODY

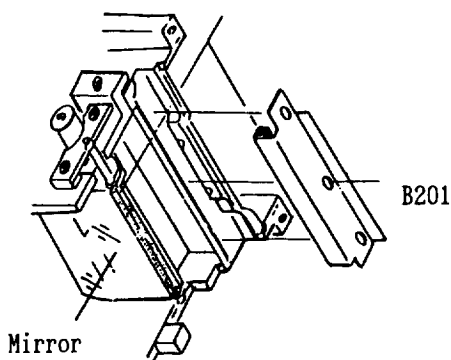


3. Disassembling front body

Removing FD rail

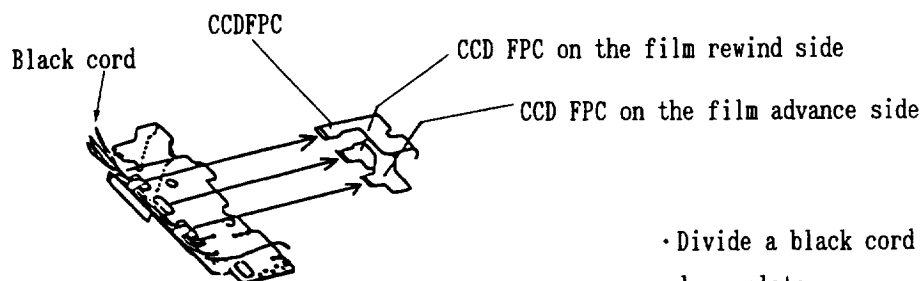


Removing light baffle plate at the rear of the main mirror.

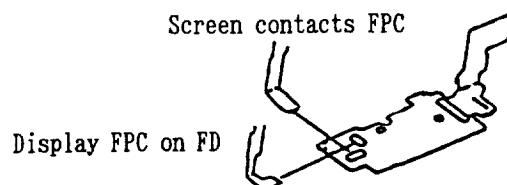


Removing connectors on AF base plate

Connectors (3 locations)



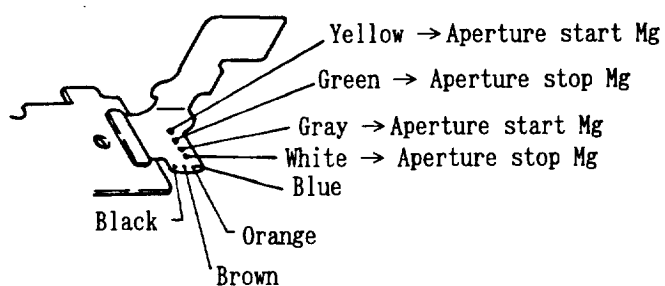
• Divide a black cord from the AF base plate.



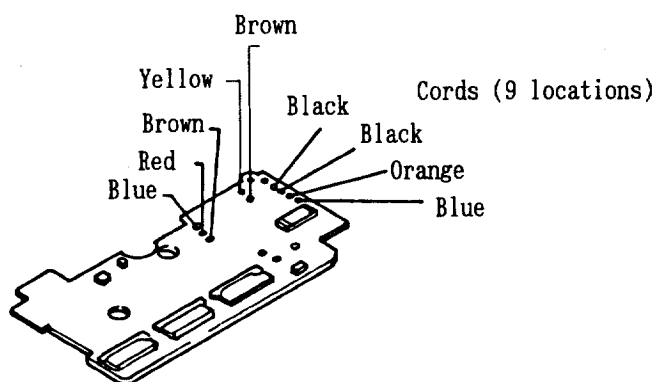
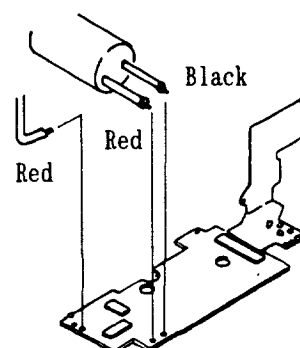
Connectors (2 locations)

Removing cords on AF base plate

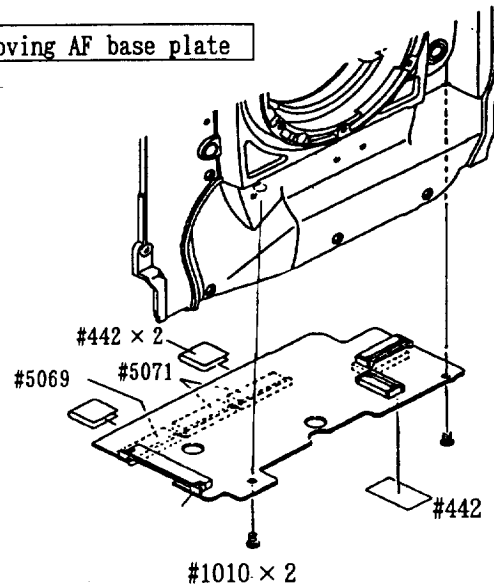
Cords (8 locations)



Cords (3 locations)

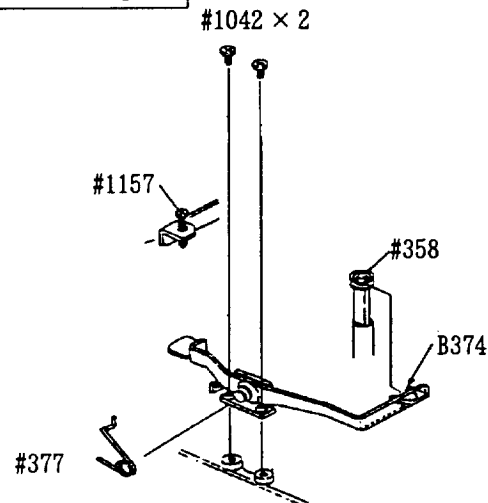


Removing AF base plate



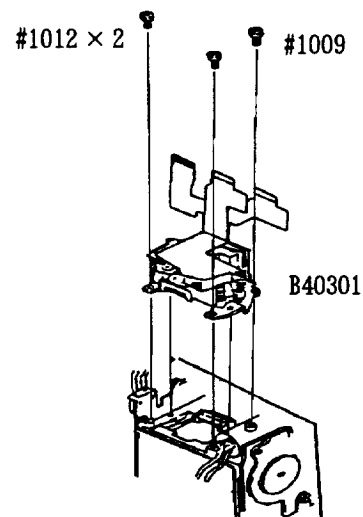
Screw : #1010 x 2

Lens release base plate



- Removing spring #377.
- Removing spring #1042 x 2

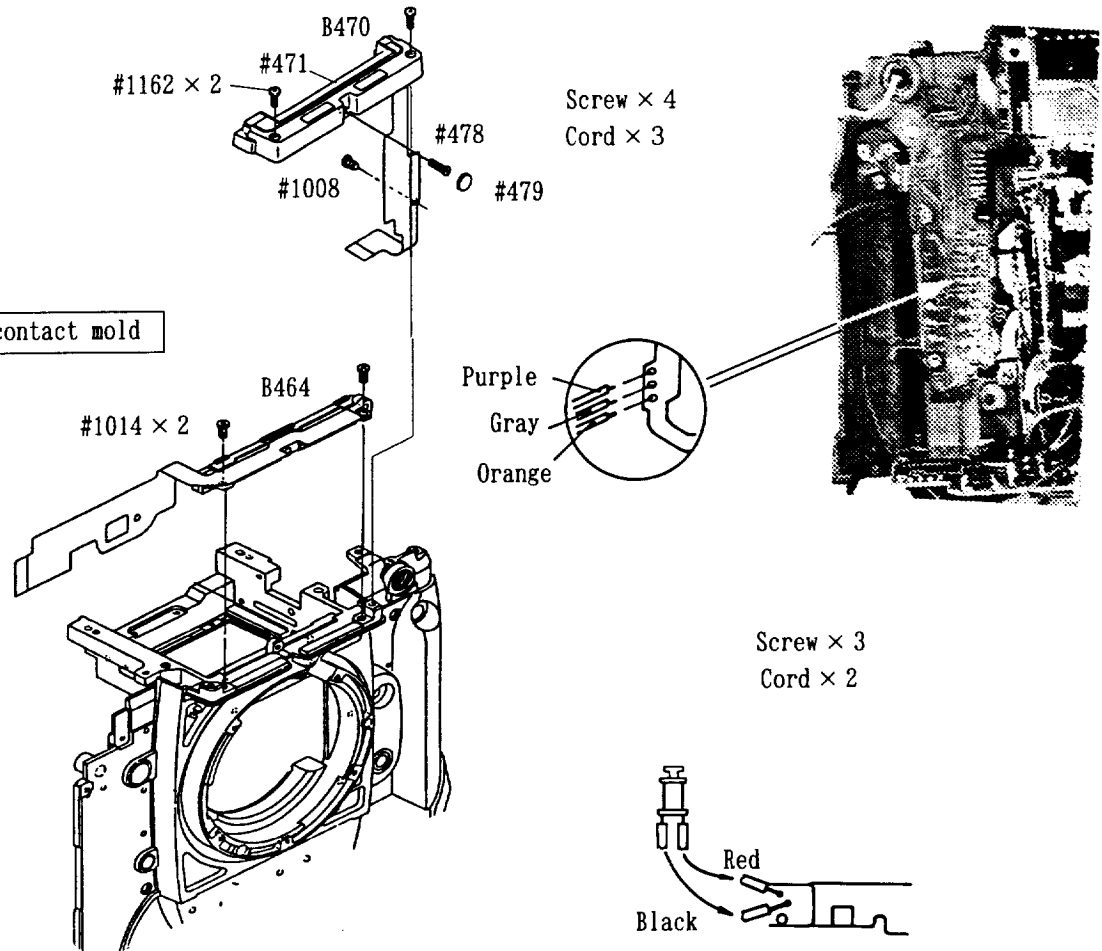
Removing AP4 unit



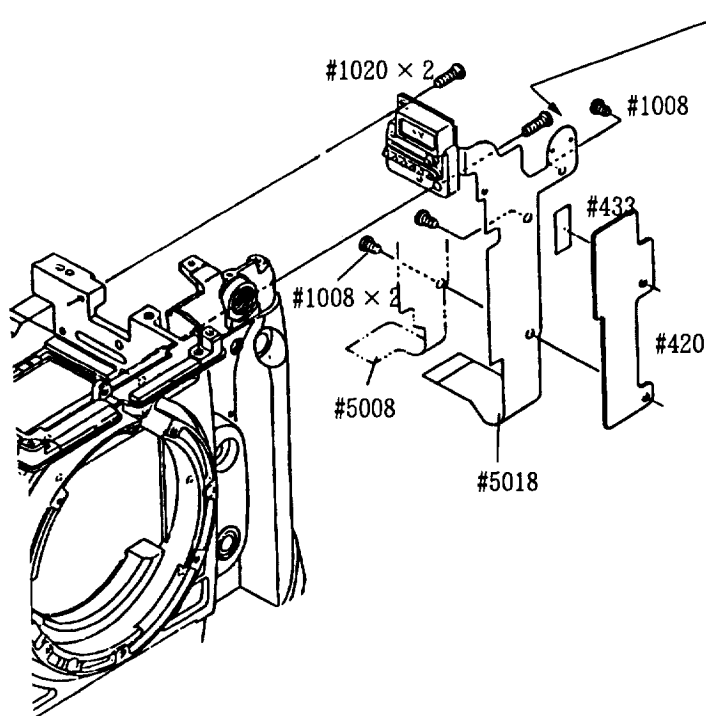
- Remove screws #1010x2, #1009x1.
- AP4 can be detached as a unit.

Removing front side display mold

FD contact mold

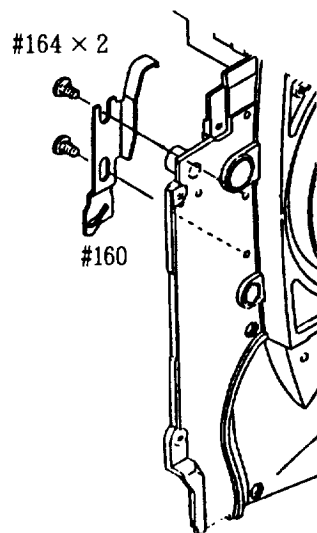


Screen contacts unit & SC contacts



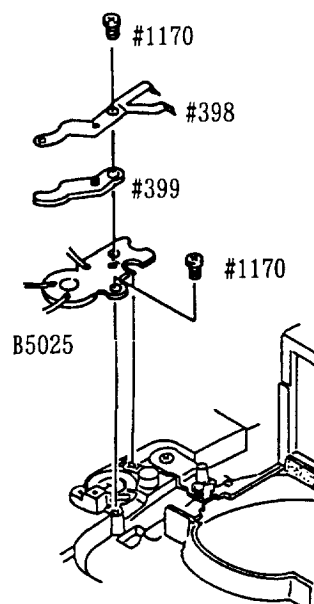
Screws (4 locations)
Soldered bridge (1 location)
Soldered portions (2 locations)

Manual MUP guide plate



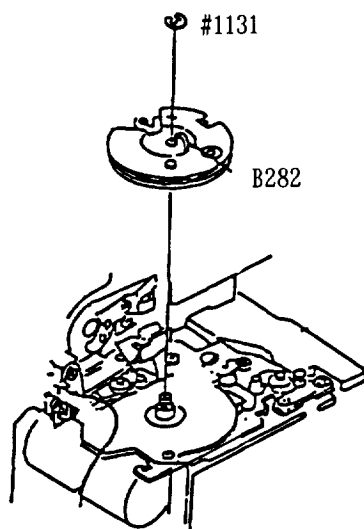
Screw x 2

Removing lens release switch

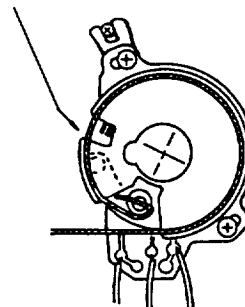


Removing f-fo pulley

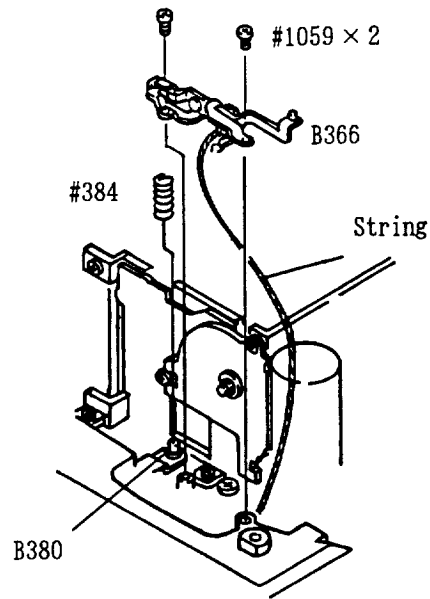
① Remove C clip #1131



② Remove a pulley string from the groove.



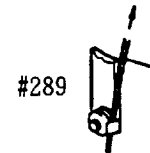
Lens release button collar spring



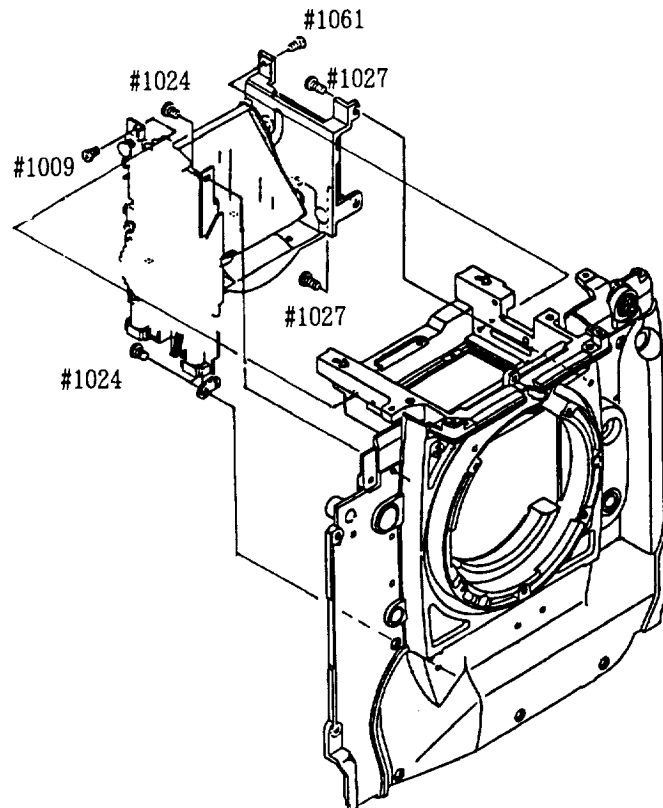
Screws x 2

Spring x 1

Divide string from part #289.

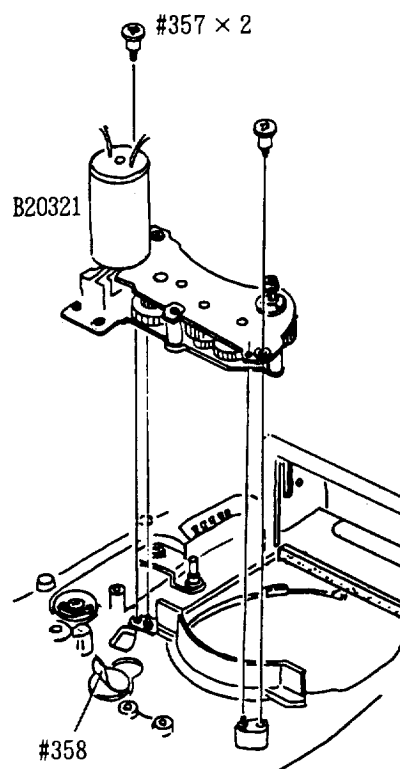


Removing mirror box unit



Screw x 6

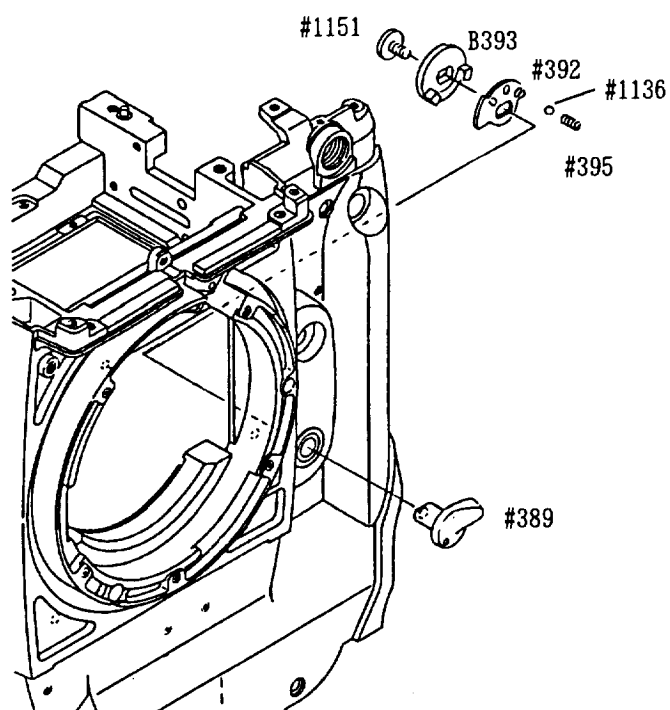
Removing AF driving base plate



Screws $\times 2$

As there is double coated adhesive tape #358 under the base plate, lift the plate up bit by bit.

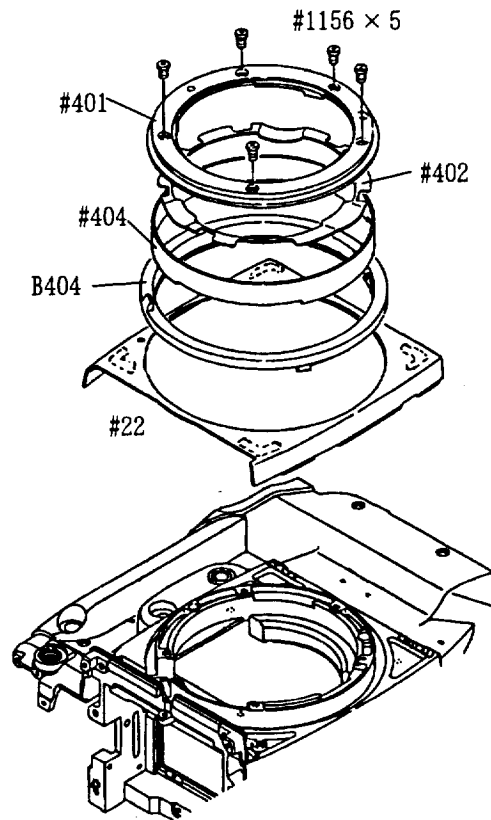
Removing AF mode switching lever



Screw $\times 1$

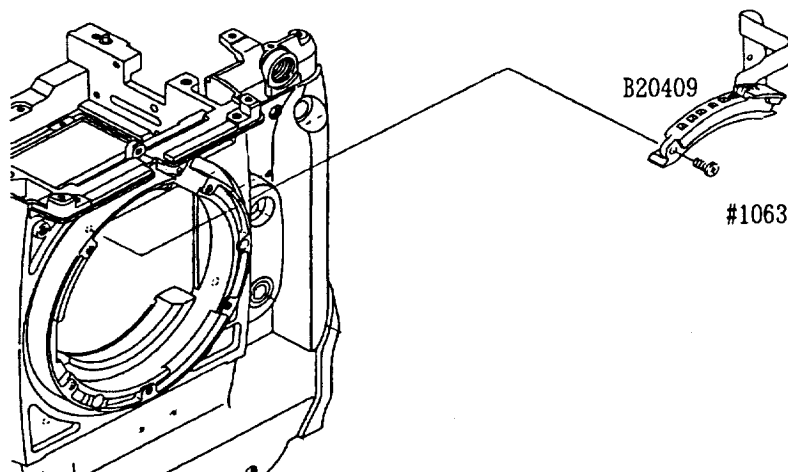
Take care that ball bearing and spring come off.

Removing bayonet unit



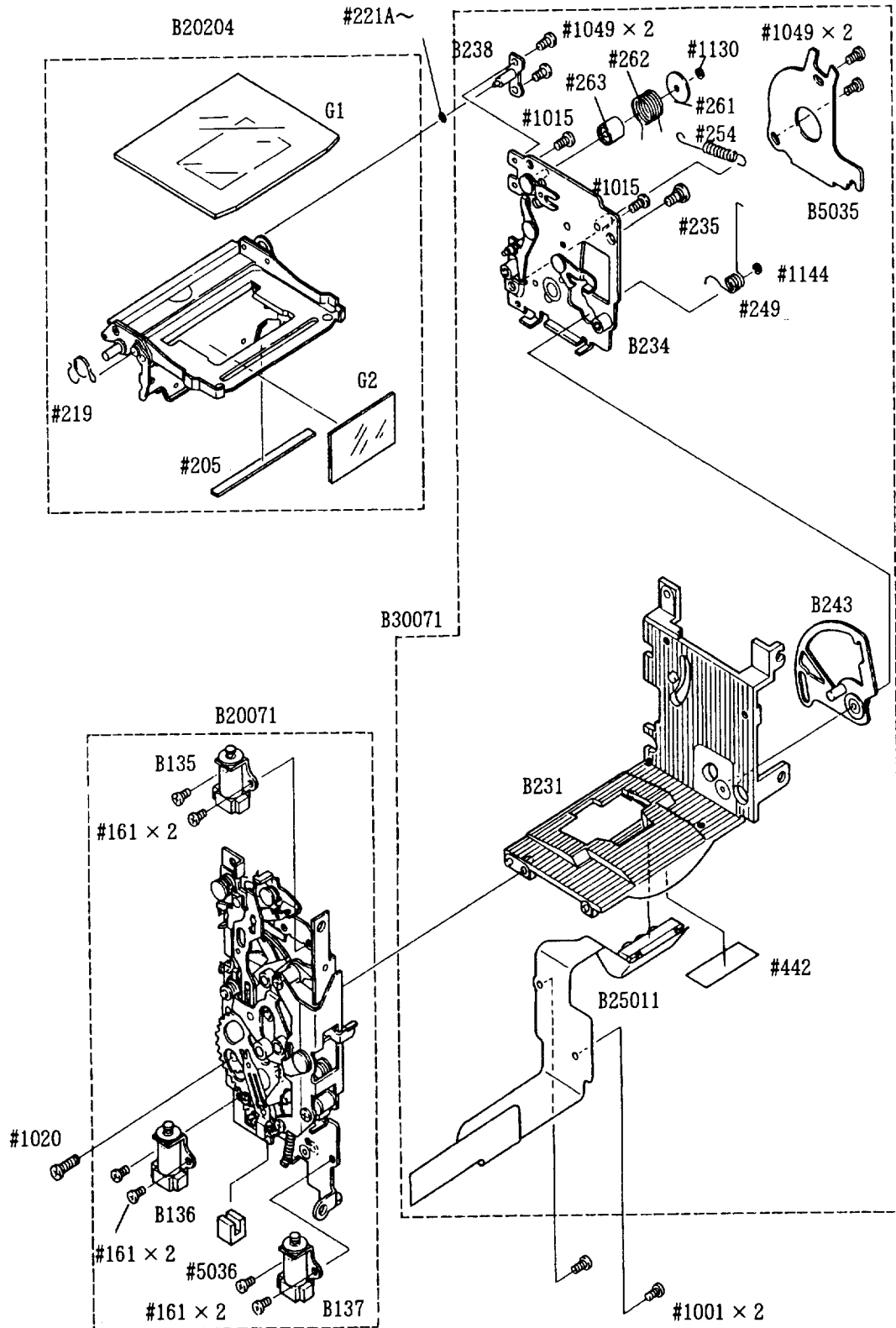
Screw x 5

AF lens contact



Screw x 1

Removing I base plate



ASSEMBLING/ADJUSTMENT

1. REAR BODY

SMALL PARTS OF REAR BODY	A 1
AF BUTTON COVER BASE, AF-S SWITCH	A 2
R2 LEVER, CLUTCH LEVER	A 2
AF BUTTON COVER BASE PLATE, AF-S SWITCH	A 3
R1 SWITCH	A 4
FILM ADVANCE BASE PLATE	
SPROCKET SHAFT · F GEAR	A 4
CLUTCH LEVER, FILM ADVANCE MOTOR	A 5
UNLOCK THE ADVANCE LEVER · F GEAR	A 5
PI GEAR, F GEAR	A 6
WINDING FPC · PHOTOINTERRUPTER	A 6
PI GEAR, F GEAR	A 7
FILM ADVANCE BASE PLATE, EL ROLLER	A 8
CHARGE BASE PLATE	
CHARGE SW, SET LEVER, CHARGE GEAR	A 9
CHARGE BASE PLATE 2, CHARGE LEVER	A 10
OPERATION CHECK, FLATING RUBBER	A 10
CHARGE BASE PLATE	A 11
SHUTTER	A 12
R1 RELAY LEVER	A 12
CHARGE LARGE LEVER, FILM ADVANCE RELEASE LEVER	A 13
DX CONTACT FPC	A 13
FILM REWIND SHAFT BASE PLATE	A 14
BACK DISPLAY BASE PLATE	A 16
DC-DC BASE PLATE	A 17
MAIN BASE PLATE	A 17
CONNECTOR, SOLDERING WIRES	A 18

2. FRONT BODY

APPLICATION OF THE OIL BARRIER FOR THE FRONT PLATE	A 19
SPONGE ATTACHMENT	A 19
AF LENS CONTACT	A 19
MOUNTING THE LEVERS THE LEFT FRONT PLATE	A 20
MOUNTING THE LEVER FOR THE RIGHT FRONT PLATE	A 21
BAYONET	A 22
MOUNTING THE AF DRIVE UNIT	A 23
MOUNTING THE MIRROR BOX UNIT (I BASE PLATE/L BASE PLATE ASSEMBLY)	A 23
I BASE PLATE	A 24
L BASE PLATE	A 25
MOUNTING THE LENS RELEASE BUTTON SPRING	A 26
F-FO SECTION	A 26
F-FO BASE PLATE, F-FO PULLY	A 27
ADJUSTMENT OF F-FO PULLY STOP POSITION	A 28
ADJUSTMENT OF THE F-FO BASE PLATE POSITION	A 28

MOUNTING THE LENS RELEASE SWITCH BASE PLATE	A 2 9
MOUNTING THE MANUAL MUP GUIDE PLATE	A 2 9
SCREEN CONTACT & SC CONTACT	A 3 0
FD CONTACT MOLD	A 3 0
MOUNTING THE FRONT DISPLAY MOLD	A 3 1
MOUNTING THE AP4 UNIT	A 3 2
MOUNTING THE LENS RELEASE BASE PLATE	A 3 2
MOUNTING THE AF BASE PLATE	A 3 3
AF BASE PLATE	A 3 3
MOUNTING THE AF BASE PLATE CONNECTOR	A 3 4
MOUNTING THE MAIN MIRROR REAR LIGHT BAFFLE PLATE	A 3 4
MOUNTING THE FD RAIL	A 3 5
ADJUSTMENT (BY 45°) OF THE MAIN/SUB MIRROR	A 3 6
ADJUSTMENT OF THE APERTURE LEVER HEIGHT	A 3 7
ADJUSTMENT OF THE AF COUPLING SHAFT HEIGHT	A 3 7

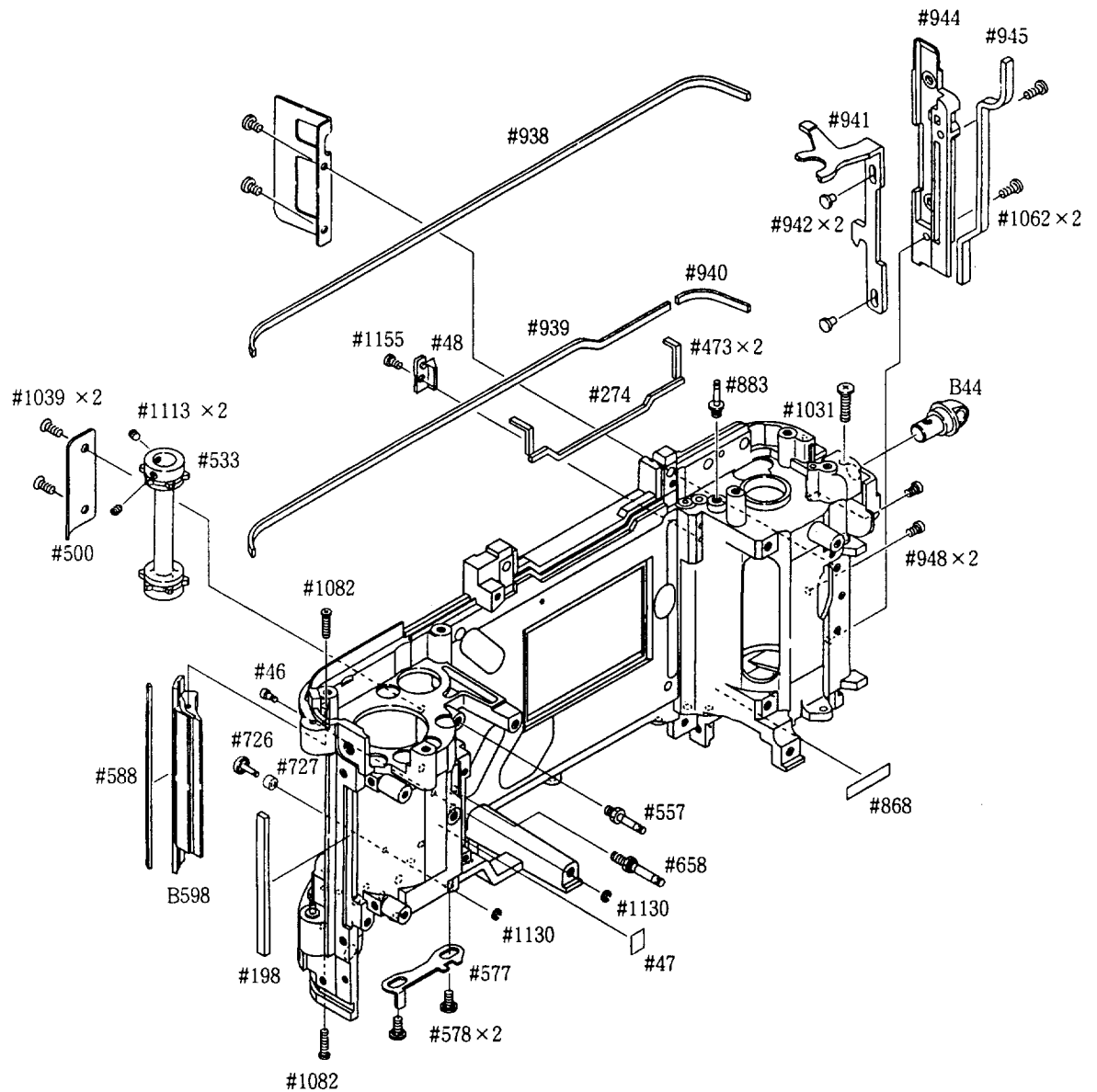
3. MOUNTING FRONT PLATE ON REAR BODY

FRONT BODY	A 3 8
FINDER RAIL SPONGE	A 3 9
TOP COVER (REWIND SIDE) UNIT	A 3 9
REWIND LOCK LEVER	A 3 9
REWIND KNOB	A 4 0
RELEASE BUTTON, ON - OFF RING, EYELET	A 4 1
LCD GROUP	A 4 1
RELEASE SWITCH BASE PLATE UNIT	A 4 2
COMMAND DIAL UNIT	A 4 2
SOLDERRING WIRES	A 4 3
FILM ADVANCE UPPER COVER	A 4 4
BATTERY CHAMBER PARTITION PLATE	A 4 4
② AF PRECISION INSPECTION AND ADJUSTMENT	A45-1
BOTTOM COVER	A 4 6
GRIP	A 4 7
ADJUST FO FILM SPROCKET COGWHEEL POSITIONING	A 4 8
AE PRECISION INSPECTION AND ADJUSTMENT	A 4 9
RUBBERS	A 5 1
① ANY CERTAIN ADJUSTMENT ITEM TO BE REQUIRED WHEN REPLACING THE PARTS LISTED ..	A 5 2

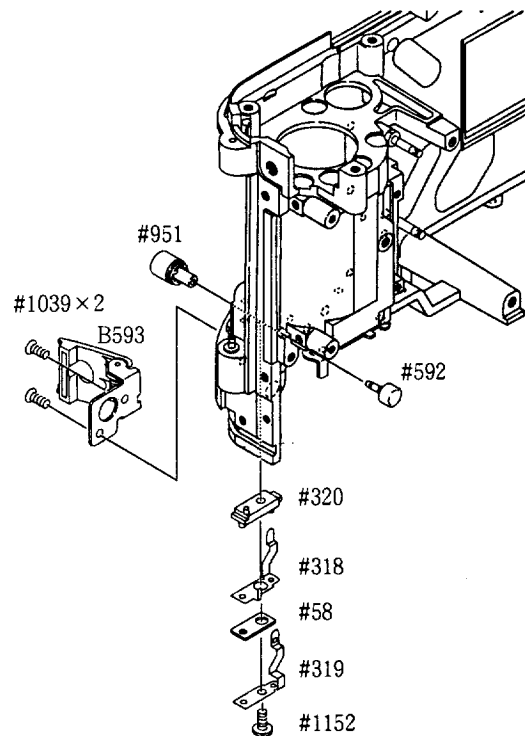
ASSEMBLING / ADJUSTMENT

1. REAR BODY

SMALL PARTS OF REAR BODY

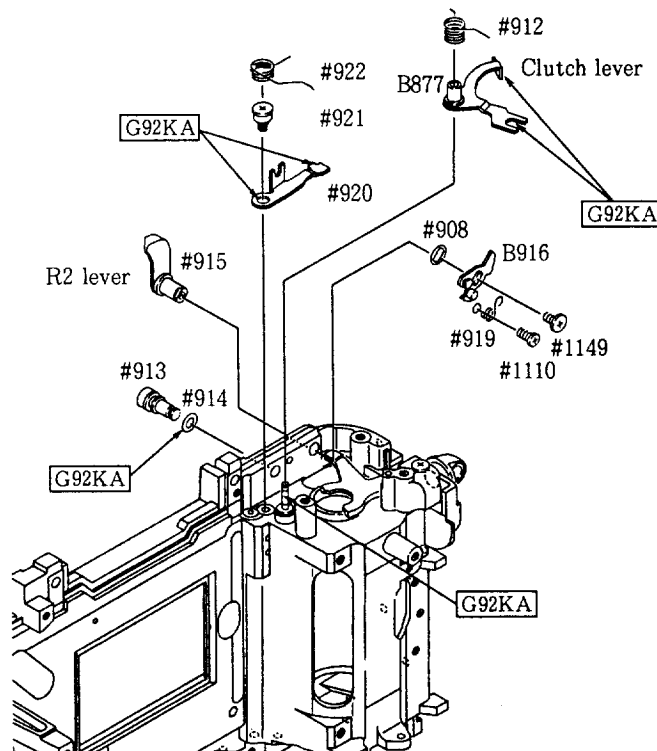


R 1 BUTTON COVER BASE PLATE, AF-S SWITCH

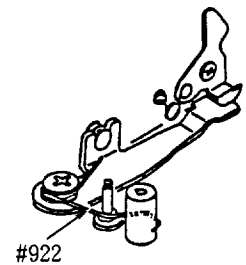


- Make sure that the AF-S switch is turned ON or OFF by pushing the AF-S button.

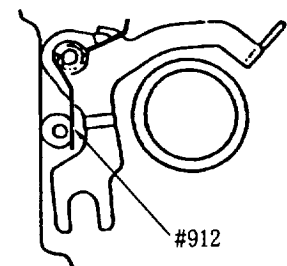
R2 LEVER, CLUTCH LEVER



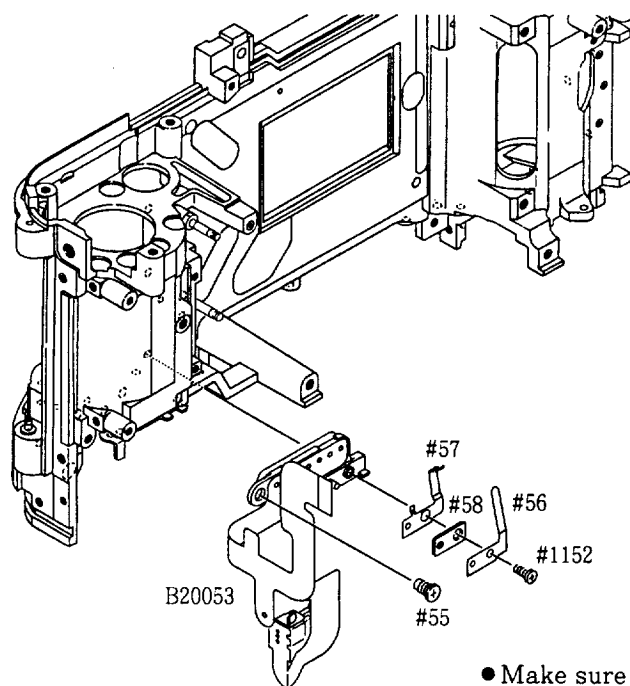
Hooking position of spring #922



Hooking position of spring #912

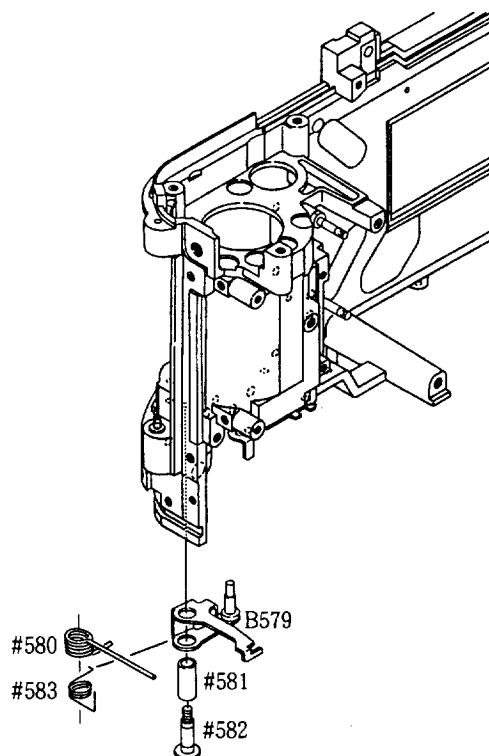


DATA CONTACT UNIT, FILM DETECT SW

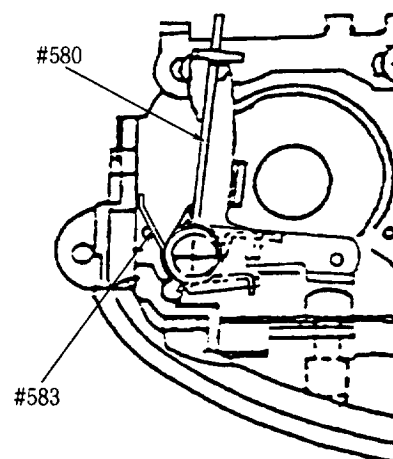


- Make sure that the F detection switch is turned ON or OFF by pushing the F detection pin.

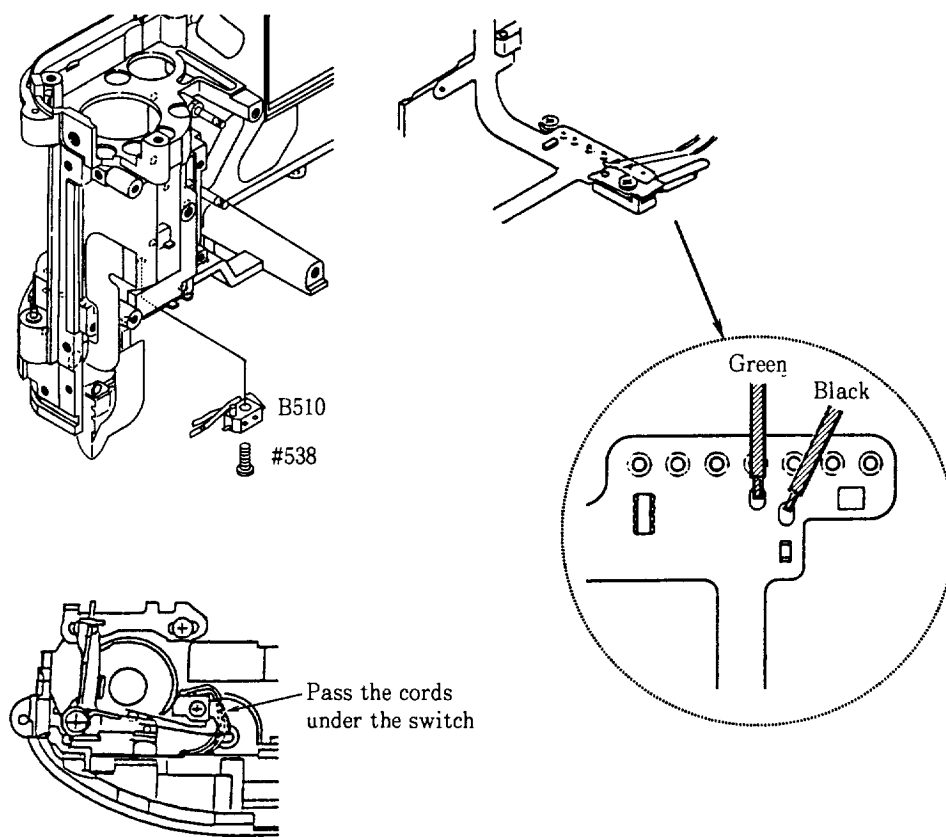
R 1 LEVER



Hooking position of spring #580, #583

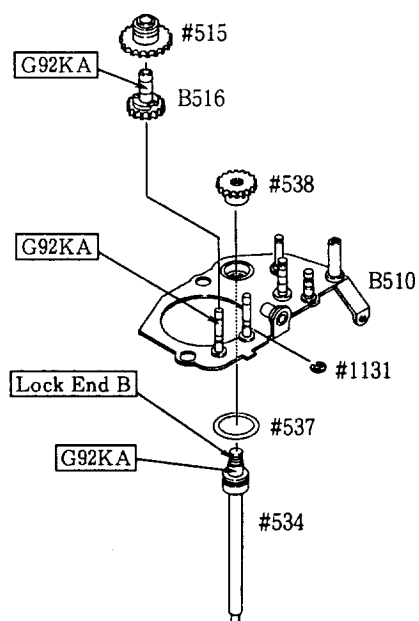


R1 SWITCH

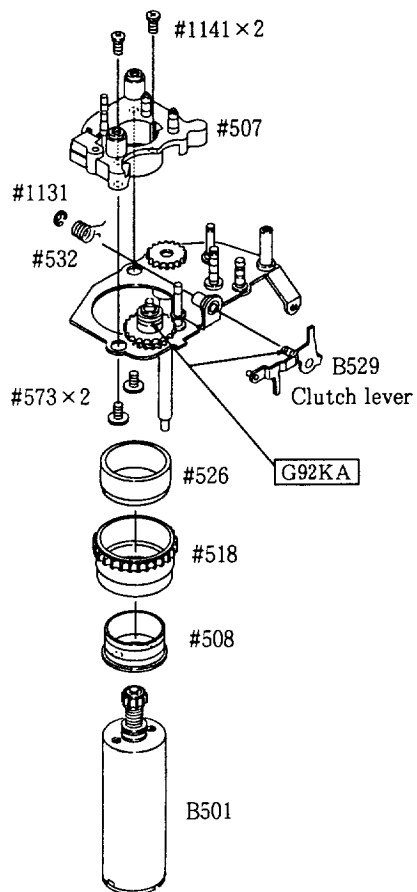


FILM ADVANCE BASE PLATE

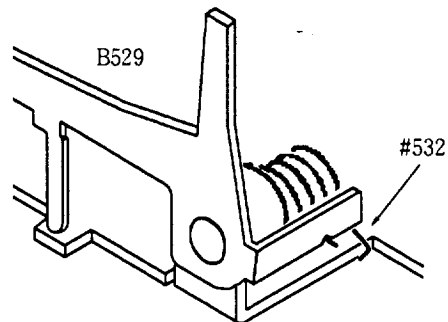
● Sprocket shaft • F gear



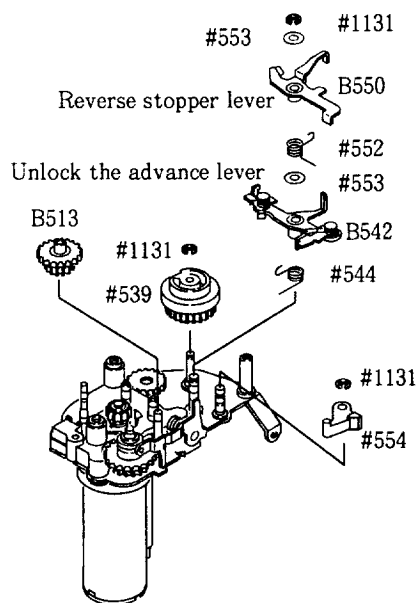
● CLUTCH LEVER, FILM ADVANCE MOTOR



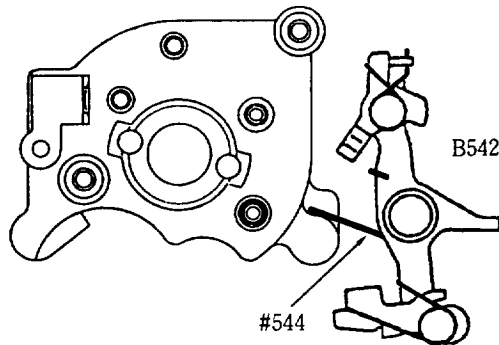
Hooking position of spring #532



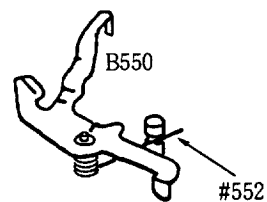
● UNLOCK THE ADVANCE LEVER • F GEAR



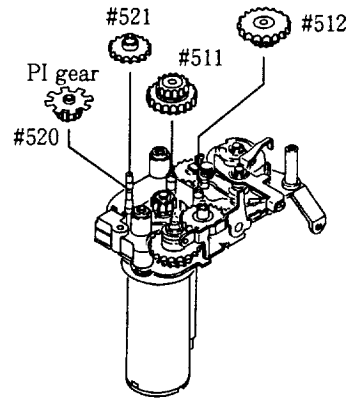
Hooking position of spring #544



Hooking position of spring #552

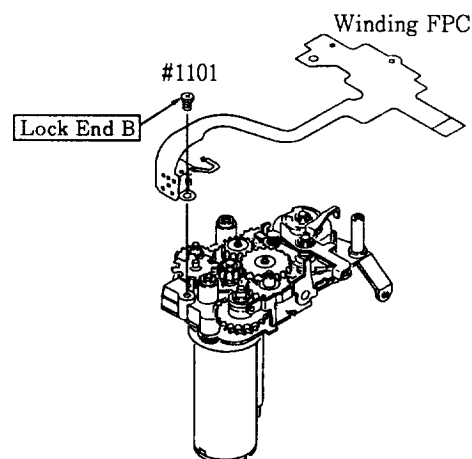
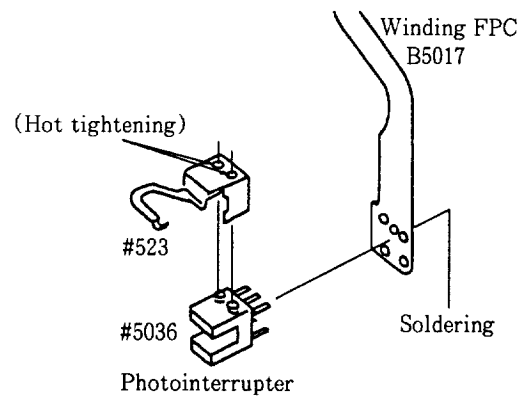
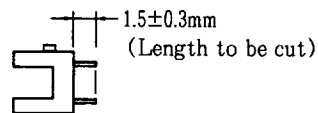


● PI GEAR, F GEAR

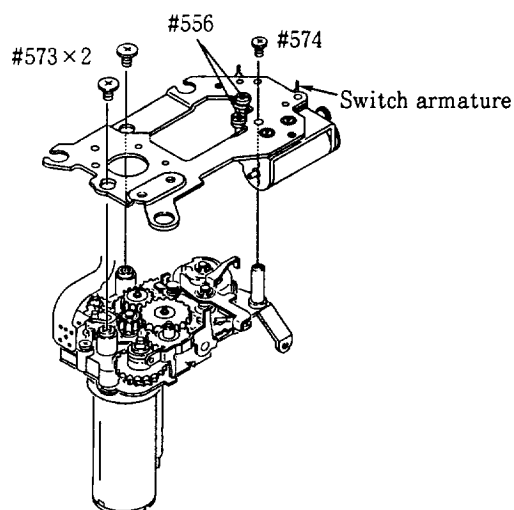


- Apply slight grease G92KA to each gear and gear shaft.

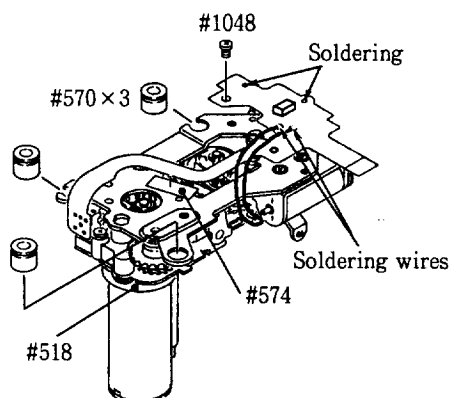
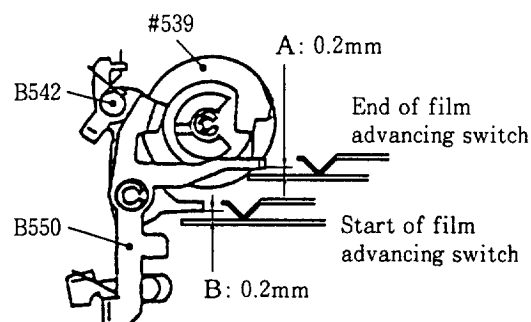
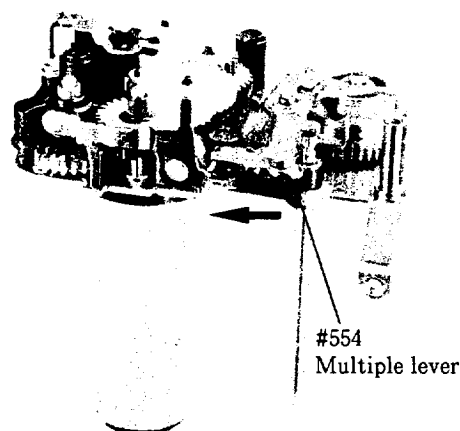
● WINDING FPC • PHOT INTERRUPTER



● FILM ADVANCE UPPER BASE UNIT



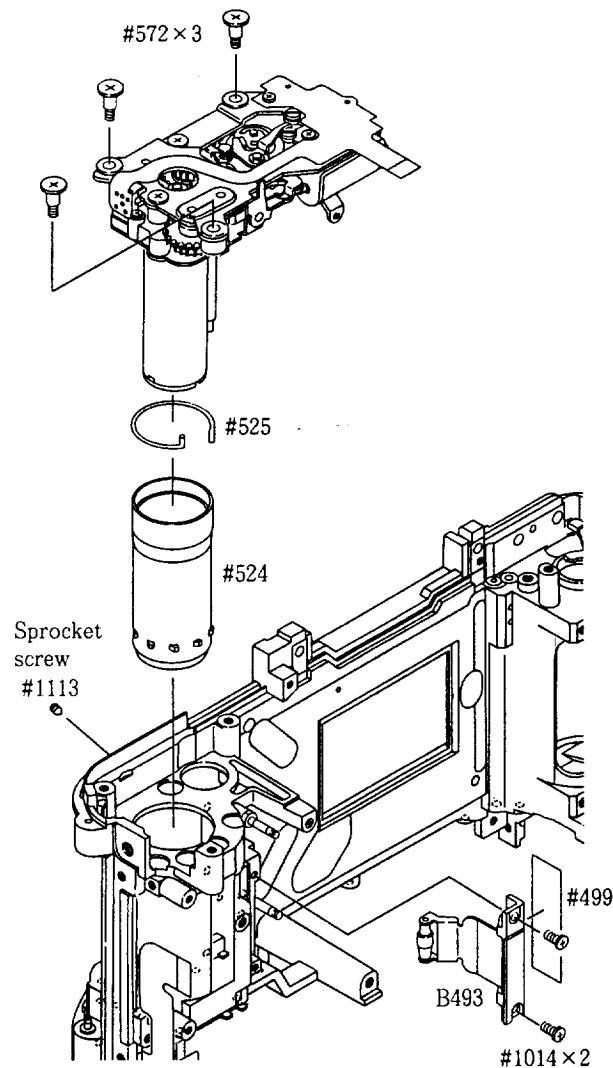
1. Unlock the film advance lever B542 and the reverse stopper lever B550 from the film advance gear #539.
 2. Turn the multiple lever #554 in the arrow mark direction.
 3. Mount the film advance base plate B509 with #573 (2 screws) and #574 (screw) as checking the connection of the solenoid shaft and multiple lever #554 and the switch armature positions.
 4. Make sure that the clearance between the switch armatures A and B is approx. 0.2mm when the film advance gear #539 is such a position as illustrated and that the switches are turned OFF when B542 and B550 are put in the concave of the #539 cam.
- ※ Use #556 for adjusting the clearance.
5. Attach the film advance FPC as aligning it with the switch armature.



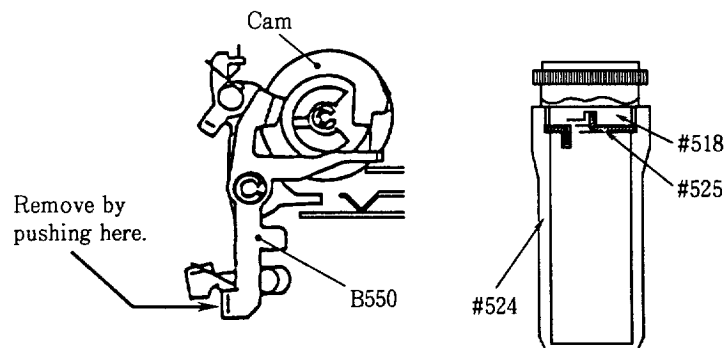
*Operation check

1. Check the operation of the spool gear #518 by turning it normally and reversely.
2. Make sure that there is no abnormal sound at the electric current 120mA or less when adding the constant-voltage power supply 12V to the motor wire.
3. Set the 3 floating rubbers #570.

● FILM ADVANCE BASE PLATE, EL ROLLER

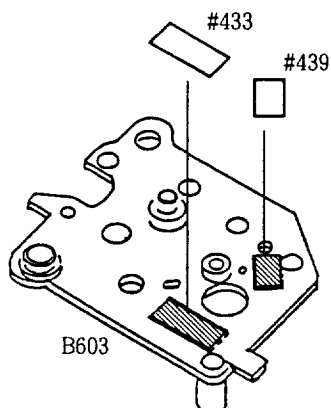


1. Straighten the motor wire by loosening two or three times.
2. Align the curve of #525 with the concave of #518 and then set them to the film advance base plate.
3. Apply G92KA to the step of the sprocket shaft.
4. Pass the motor wire through the bearing, and set the sprocket shaft to the sprocket and the spool to the bearing.
5. Make sure that each component is set securely and then tighten #572 (3 screws).
6. Tighten the sprocket screw #1113 on the sprocket shaft temporarily as removing the claw from the cam by pushing B550.

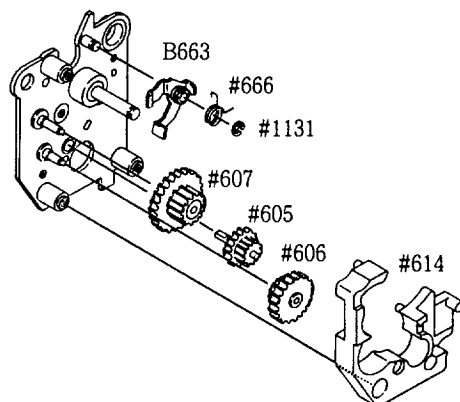


CHARGE BASE PLATE

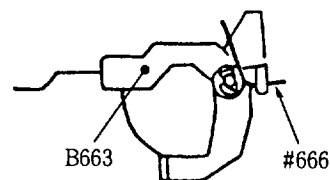
- CHARGE SW, SET LEVER, CHARGE GEAR



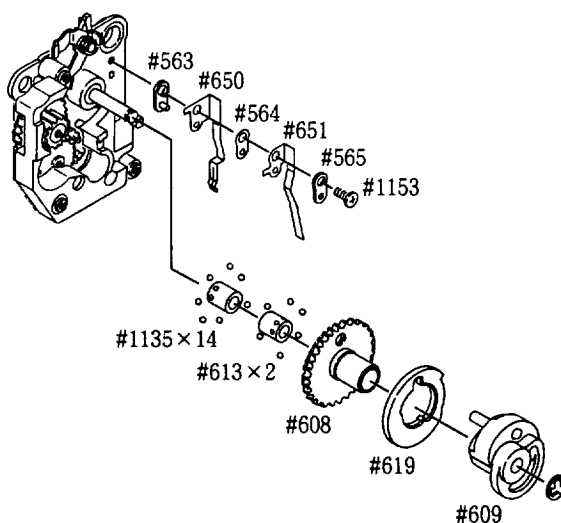
- Apply slight grease G92KA to each gear and gear shaft.



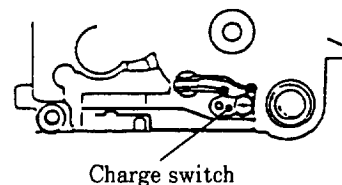
Hooking position of spring #666



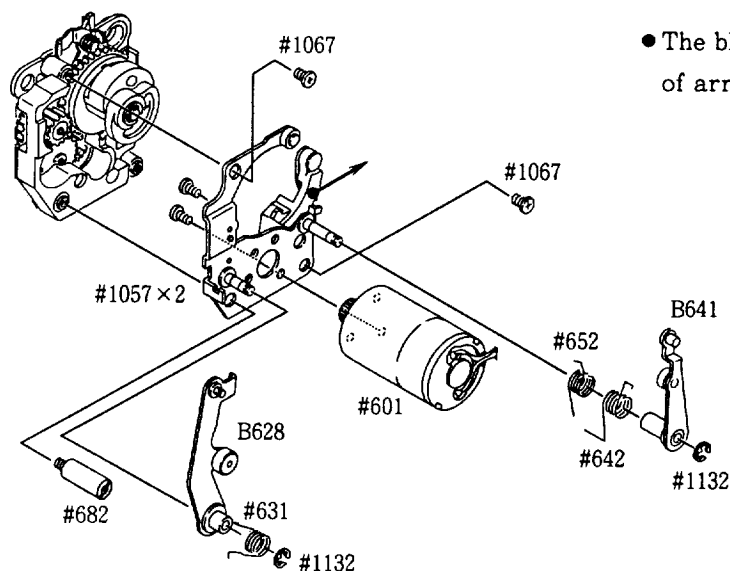
- Apply G92KA to the cam surfaces and gear teeth.



Mounting position of charge switch and arrange wires.



● CHARGE BASE PLATE 2, CHARGE LEVER

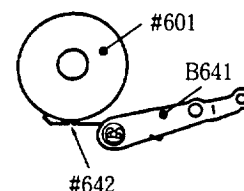
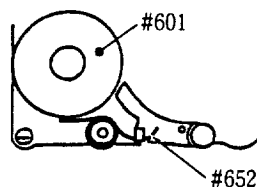
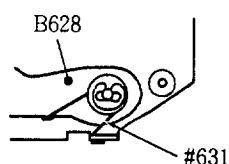


● The black dot lever in the direction of arrow when assembling.

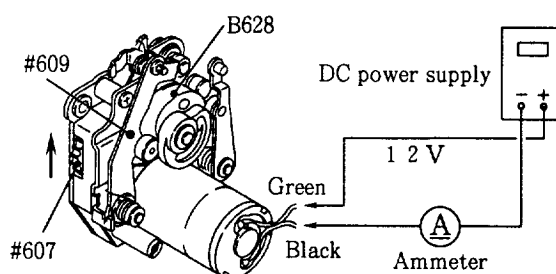
Hooking position of spring #631

Hooking position of spring #652

Hooking position of spring #642



● OPERATION CHECK, FLOATING RUBBER



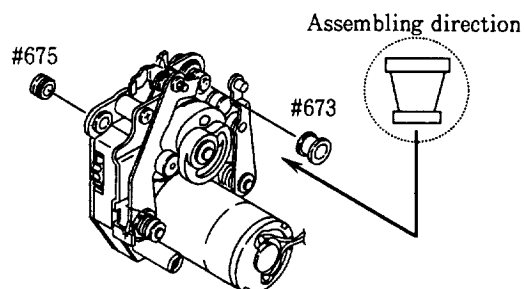
1. Check the operation of the charge gear #607 by turning it in the arrow mark direction.
2. Make sure that there is no abnormal sound at the electric current 12mA or less when adding the constant-voltage power supply 12V to the motor wire.

CAUTION : Carry out wiring as illustrated. Be careful not to reverse the polarity.

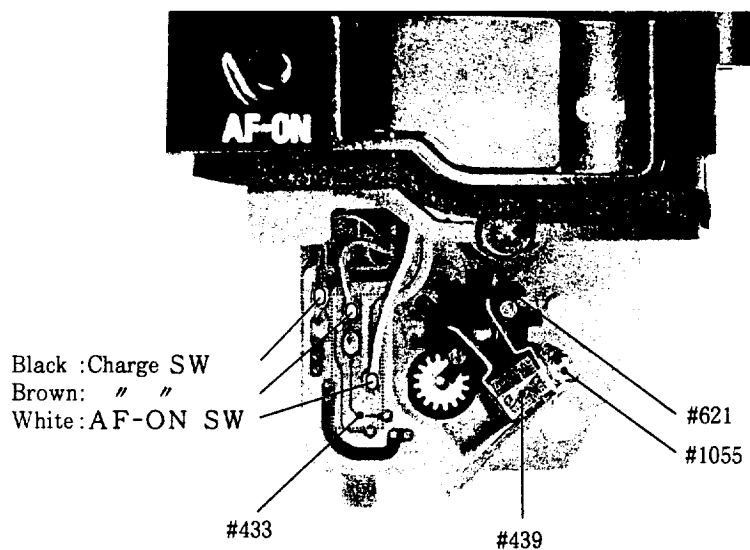
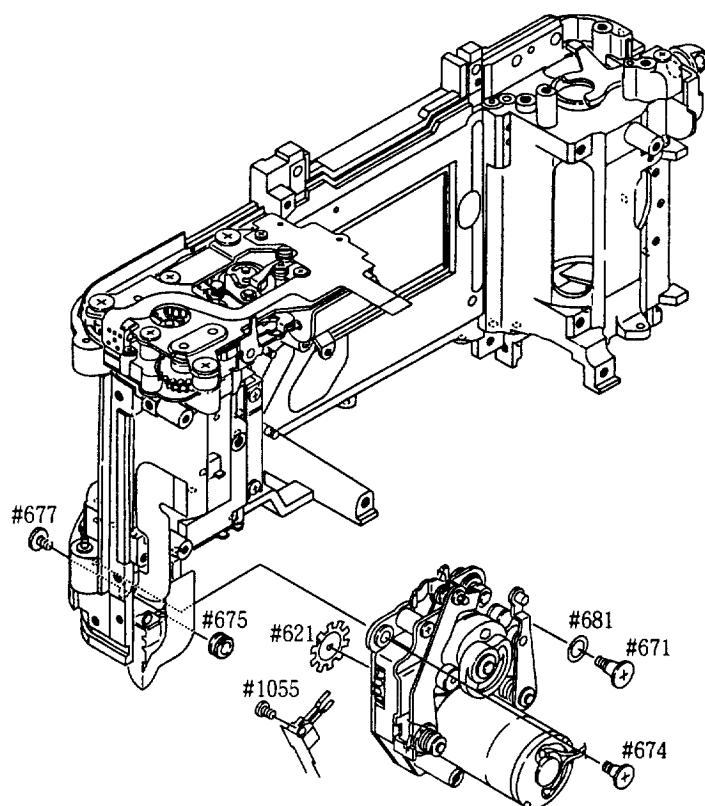
3. Check the operation of the charge switch.

✕ Connect a multimeter to the brown and black wires of the charge switch. Make sure that the switch is turned OFF when the S charge lever B628 is put in the concave of the charge gear cam #609 by turning the charge gear 3 #607.

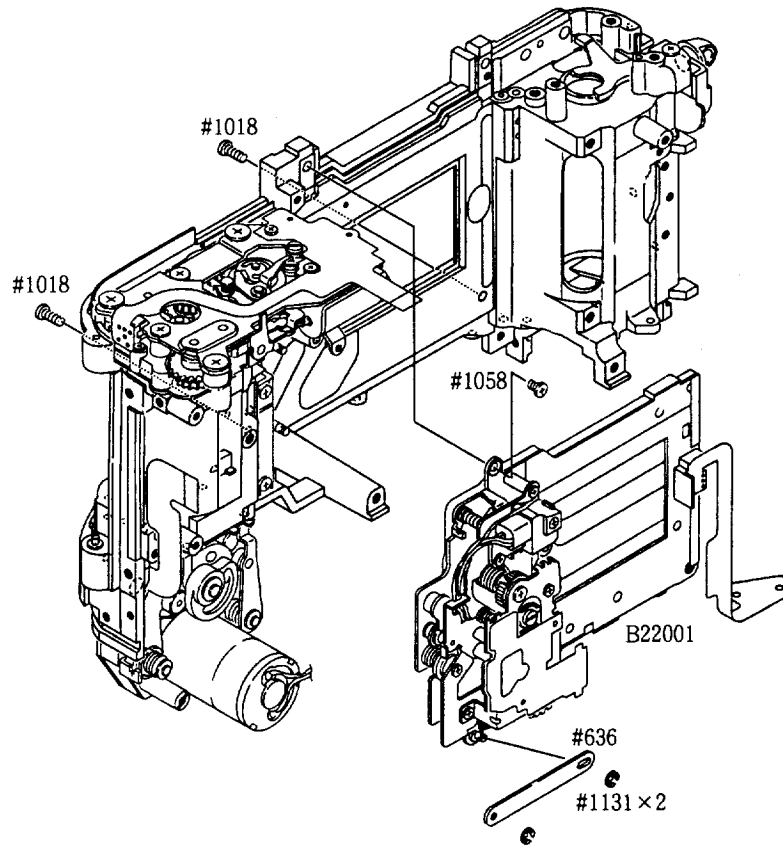
4. Set the floating rubbers #673 and #675.



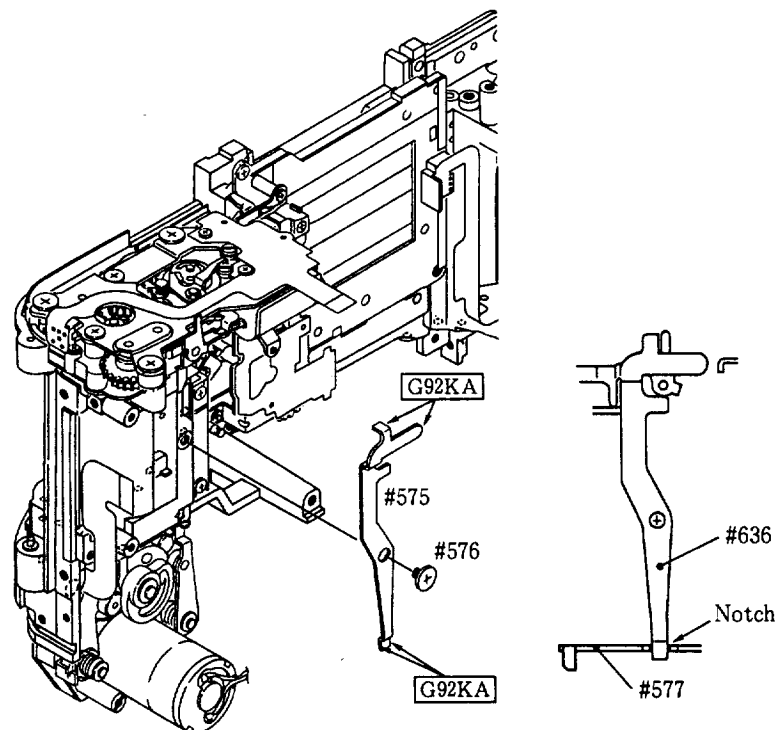
●CHARGE BASE PLATE GROUP



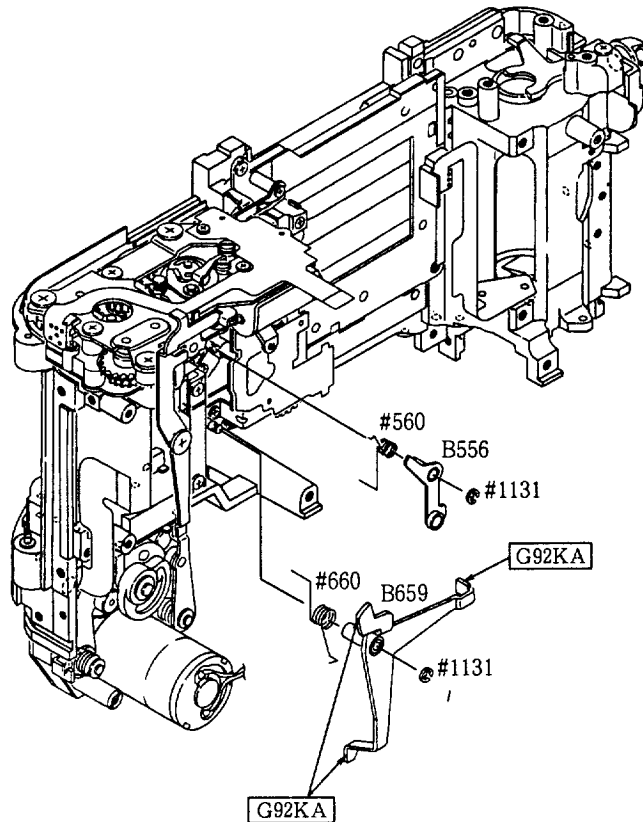
SHUTTER



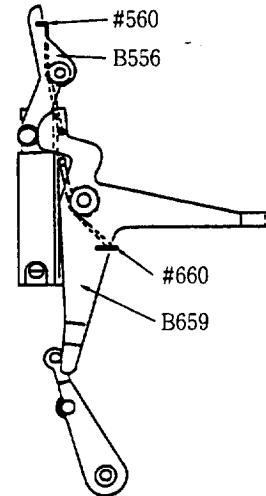
R1 RELAY LEVER



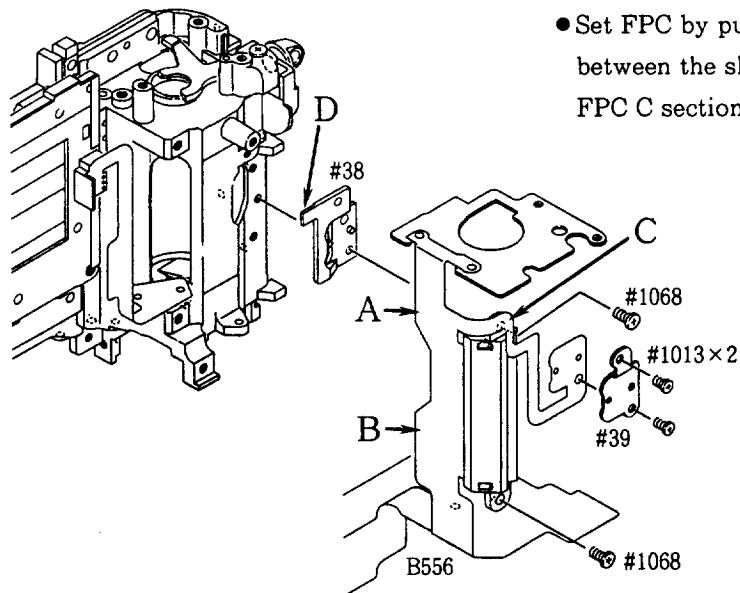
CHARGE LARGE LEVER, FILM ADVANCE RELEASE LEVER



Mounting position

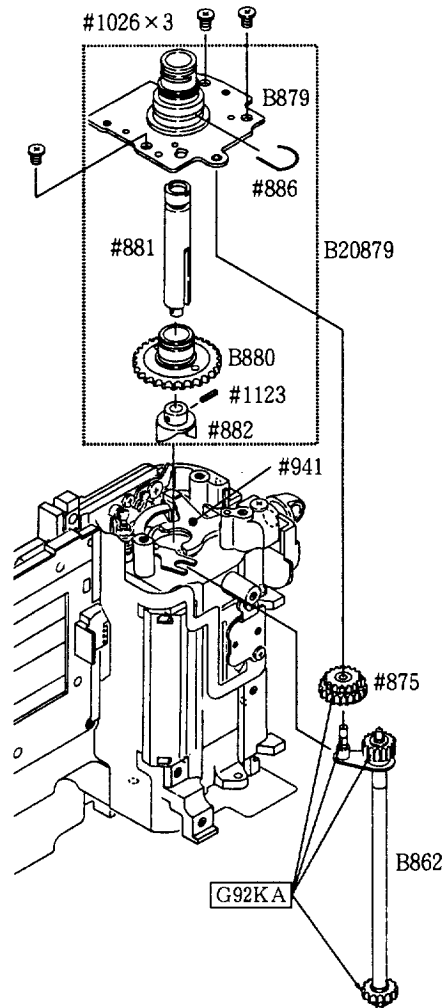


DX CONTACT FPC

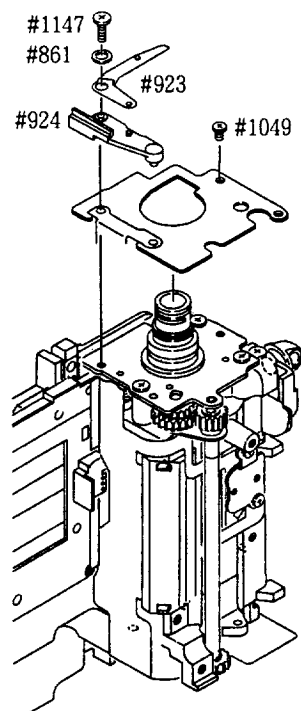


- Set FPC by putting the FPC A and B sections between the shutter and die casting and the FPC C section under the D section.

FILM REWIND SHAFT BASE PLATE



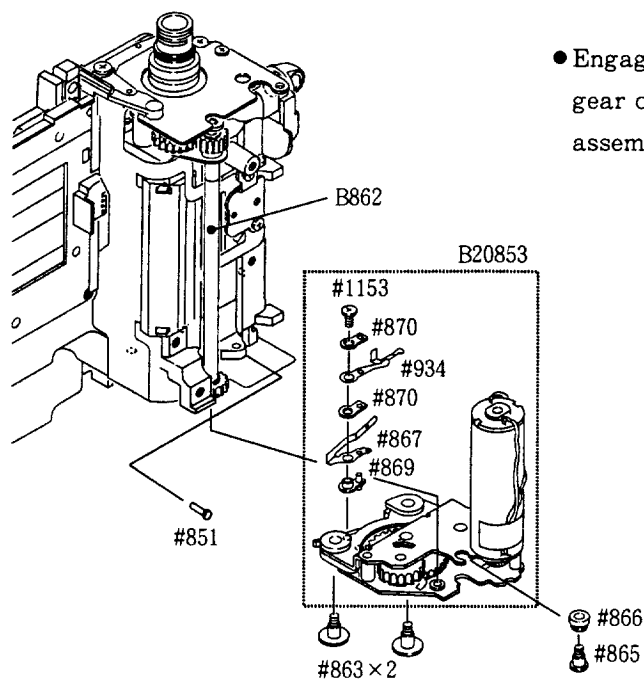
- Insert the shaft end of the film rewind shaft base plate while the back door hinge #941 is lifted and align the film rewind vertical shaft assembly B862 with the end of the clutch lever shaft #883. Set the unit in this way.



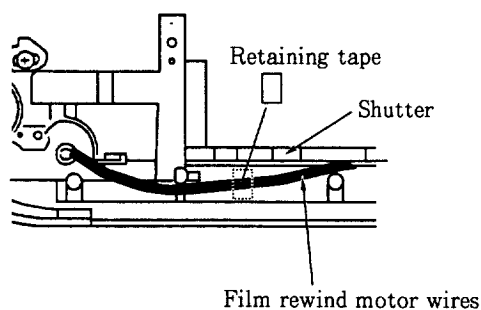
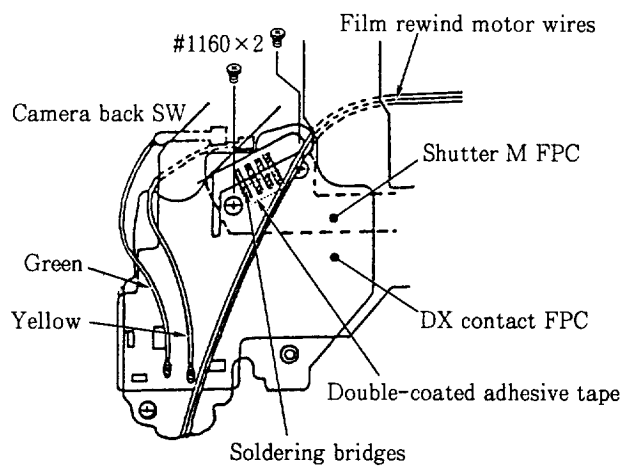
Back door key spring

#943

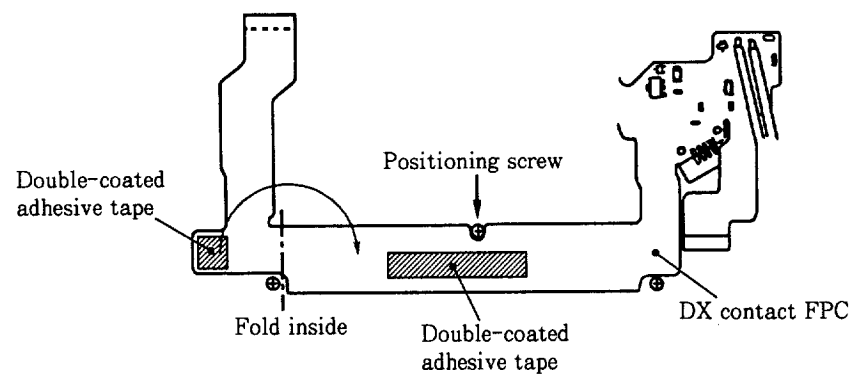
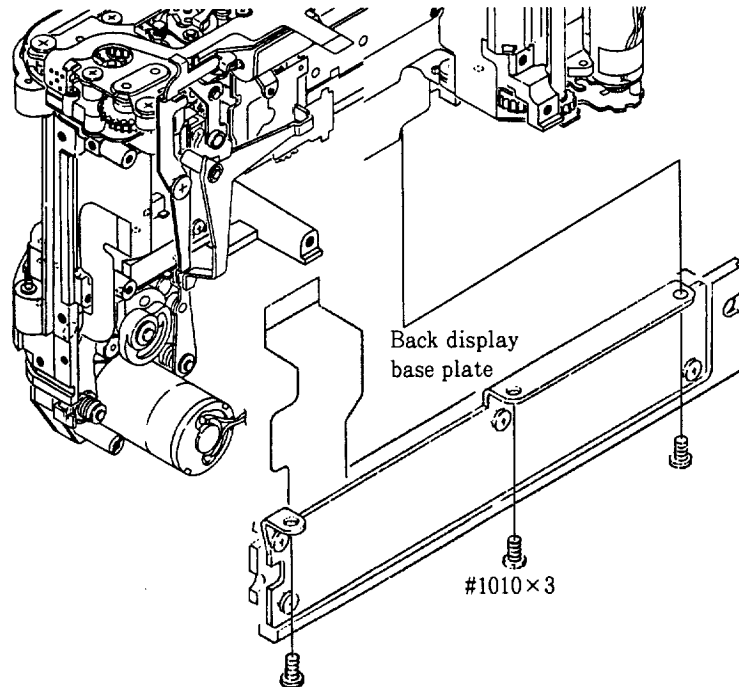
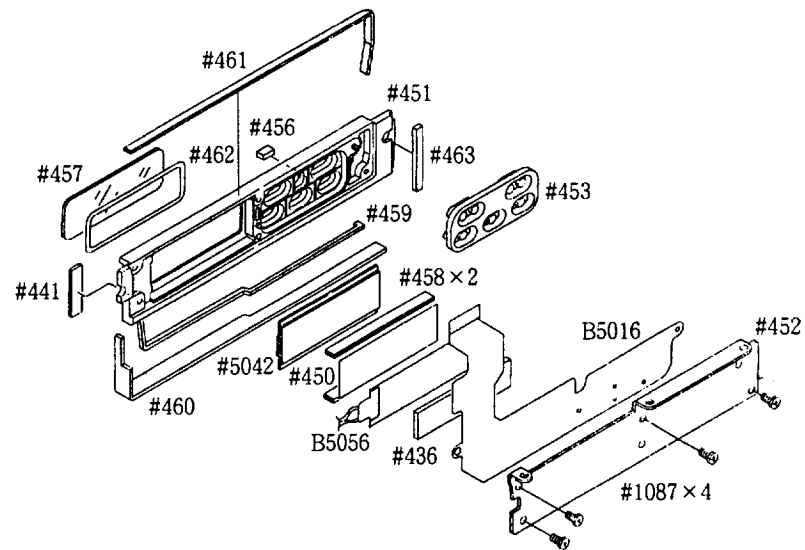
FILM REWIND BASE PLATE



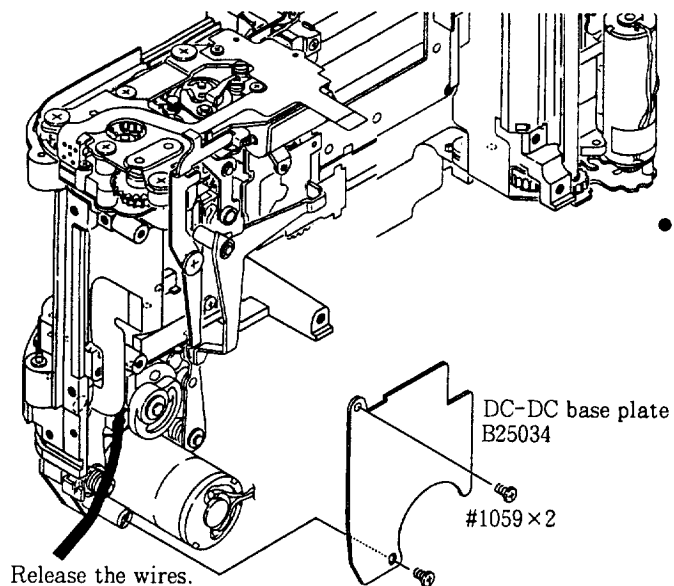
- Engage the film rewind base plate with the gear of the film rewind vertical shaft assembly. Set the unit in this way.



BACK DISPLAY BASE PLATE

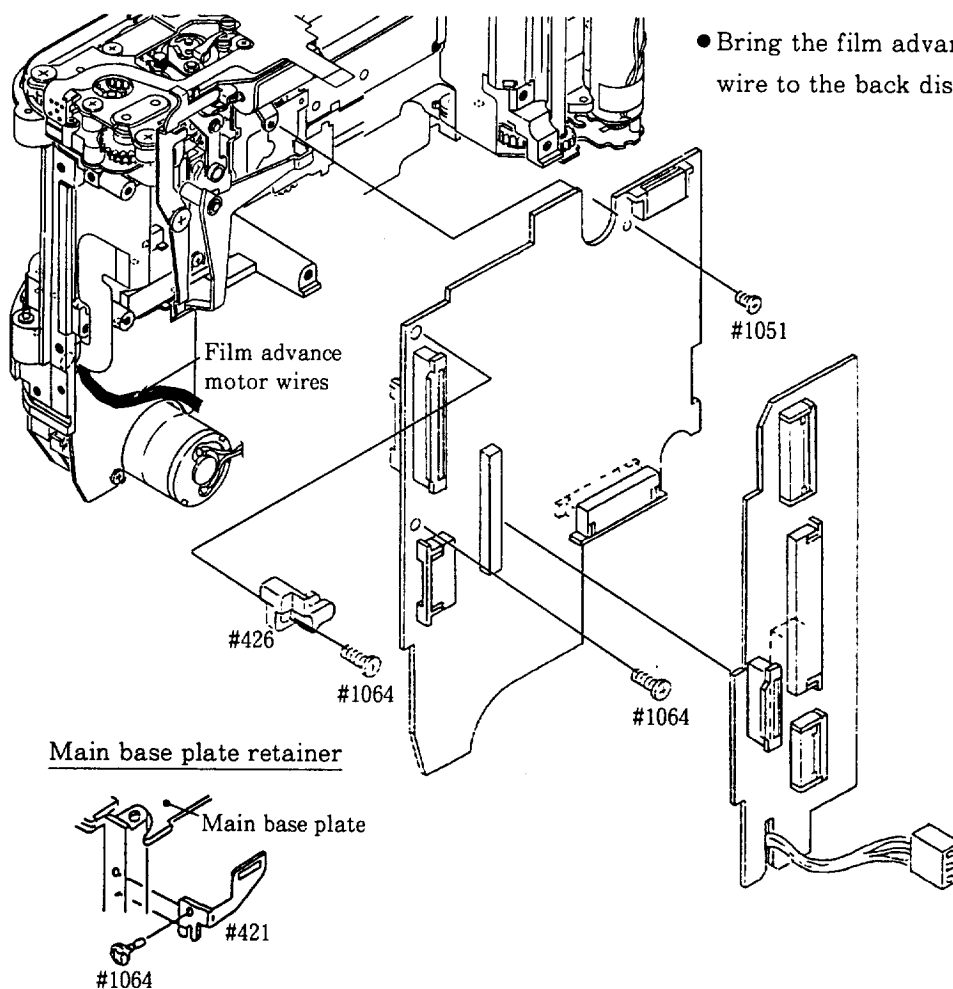


DC-DC BASE PLATE



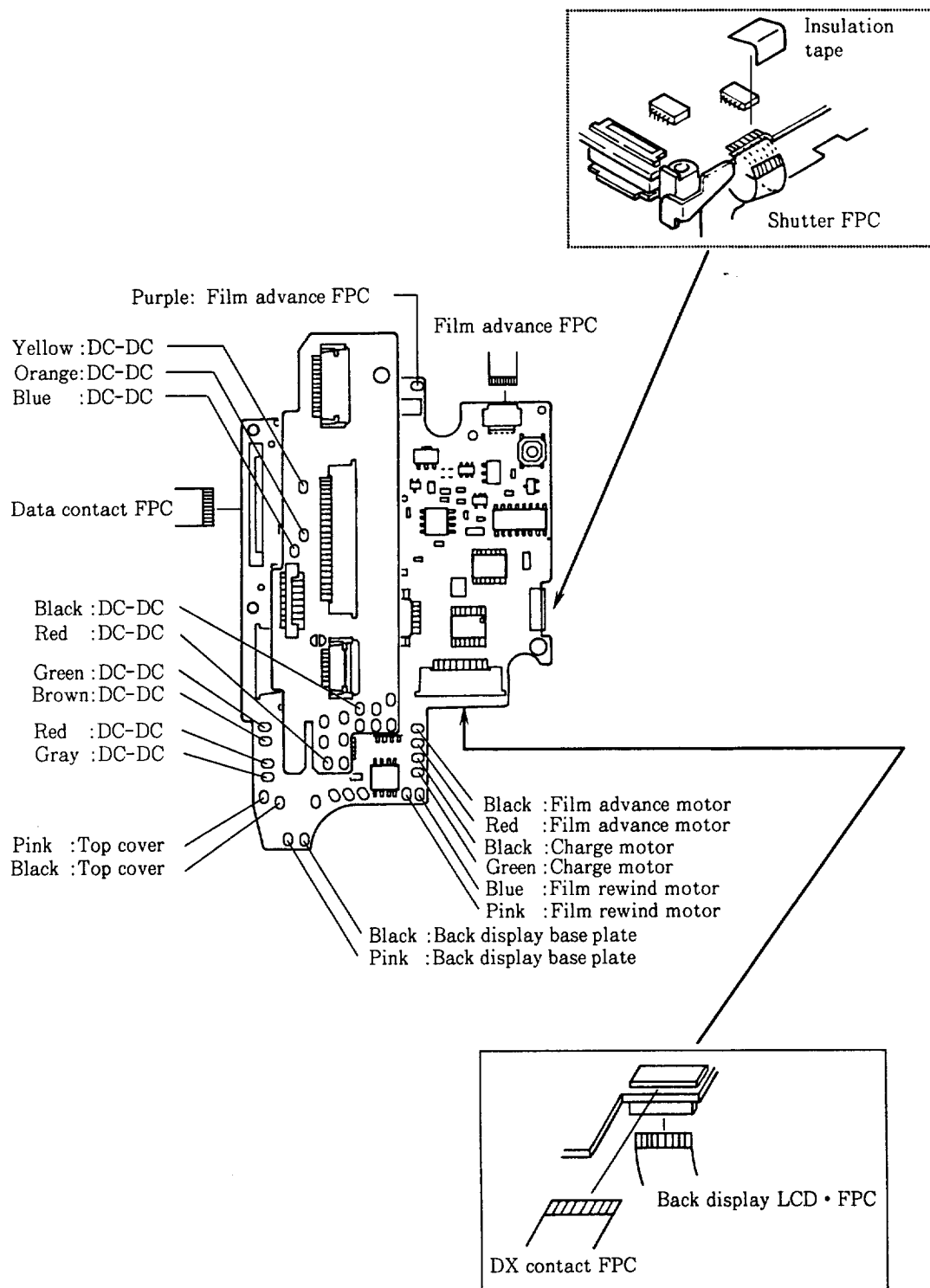
- Release the film advance motor wires outside before setting the DC-DC base plate.

MAIN BASE PLATE



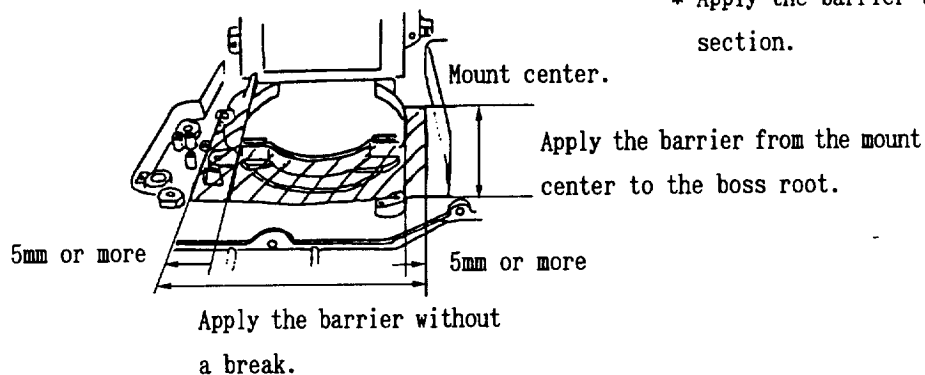
- Bring the film advance motor wire to the back display unit.

CONNECTOR, SOLDERING WIRES



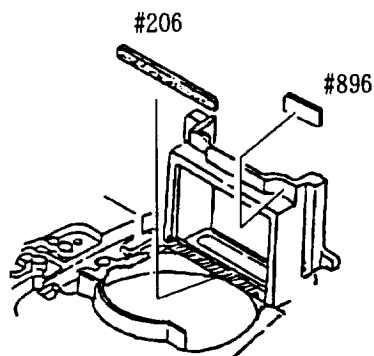
2. Front body

Application of the oil barrier for the front plate.



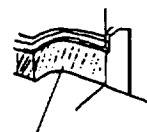
- * Apply the barrier to the hatching section.

Sponge attachment



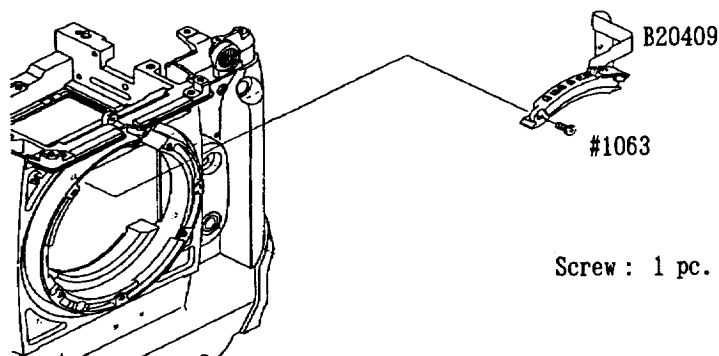
- * Main mirror cushion sponge (#206)
Attach to the hatching section.

- * Intervention rubber (#896)



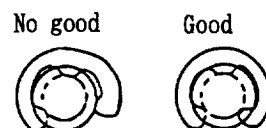
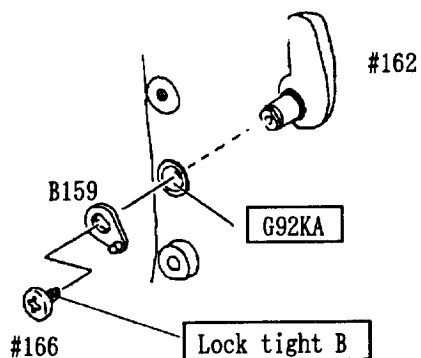
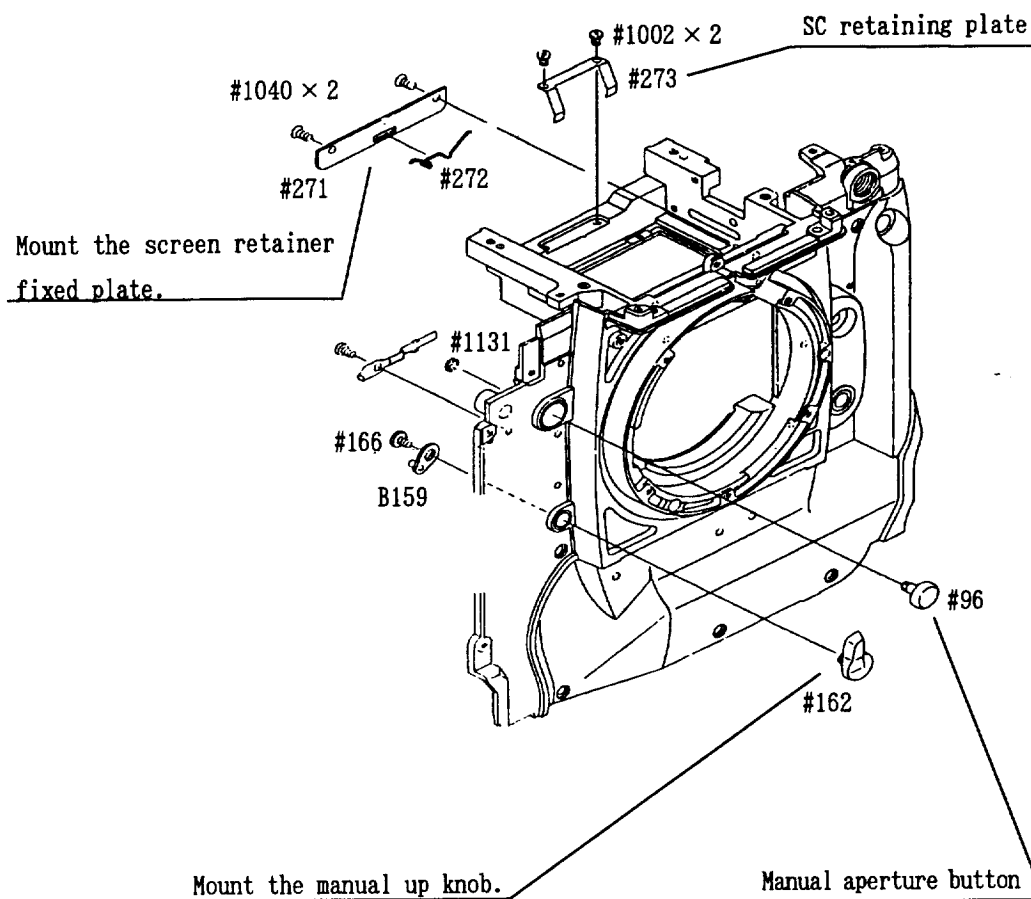
#896 attaching position
Attach to the hatching section.

AF lens contact



Screw : 1 pc. (#1063)

Mounting the levers for the left front plate

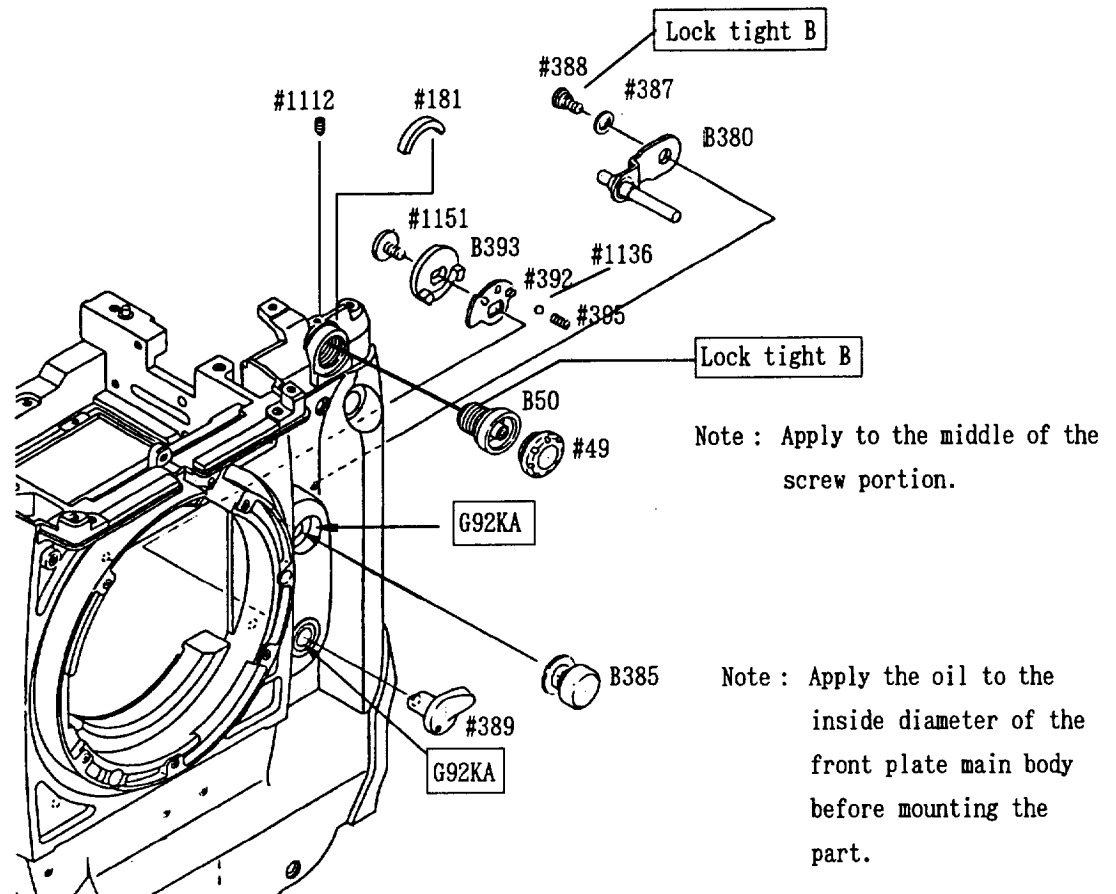


Be careful for mounting the C clip.



B159 mounting direction : As viewed from the B159 side.

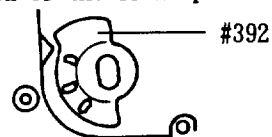
Mounting the levers for the right front plate



Mounting the AF mode change-over section (#389)

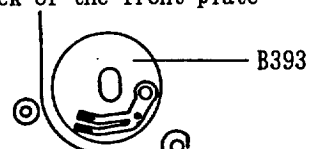
1. Insert the AF mode spring (#395) and ball (#1136) to the specified position.
2. Insert the AF mode lever (#389) to the front plate at the C position.
3. Set the AF mode rotary plate (#392) to the position as illustrated.

Back of the front plate

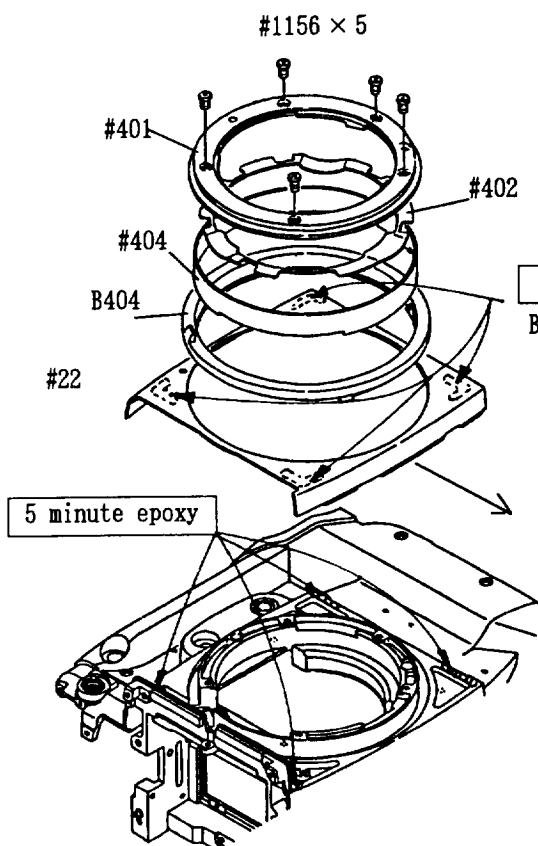


4. Set the AF mode cam (B393) as illustrated below and then fix it with a screw (#1151).

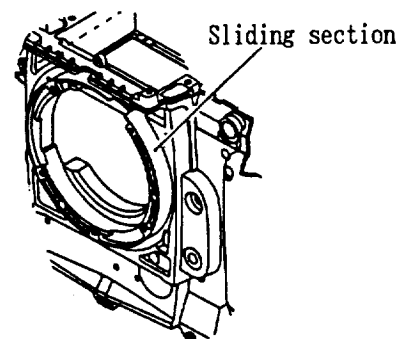
Back of the front plate



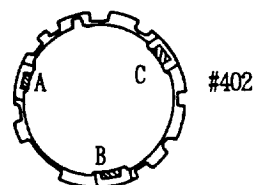
Bayonet



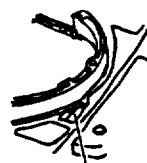
- Draw the apron (#22) upward as illustrated and fix it at 4 places with adhesive.
- Apply graphite (4B) to the front plate sliding section.



- Apply a little oil to the hatching section (as illustrated below) of the bayonet spring (#402).



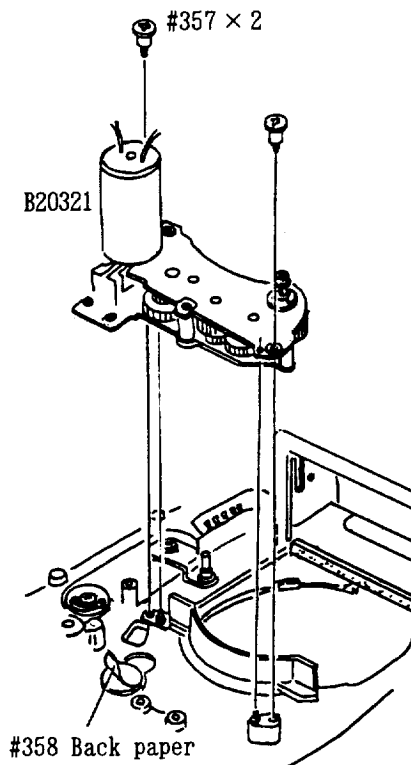
Pass the bayonet spring through the aperture coupling ring (B404) as illustrated below.



F-F0 Cord passing hole

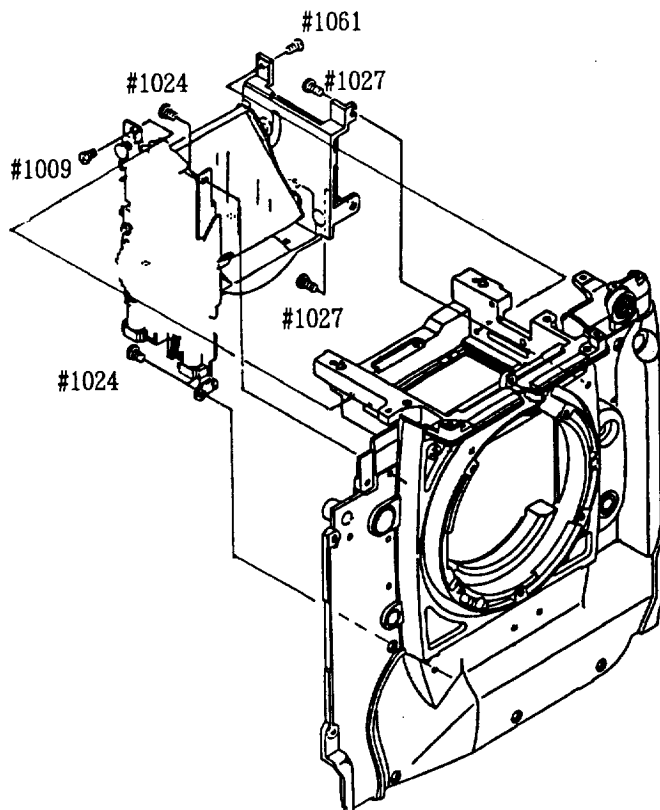
Note : After mounting the bayonet, check the operation of the aperture coupling ring (B404). (Make sure that the rotation is smooth.)

Mounting the AF drive unit



Adhere #358 (double-sided tape) and mount B20321 (AF drive base plate) with two screws.

Mounting the mirror box unit (I base plate/L base plate assembly)



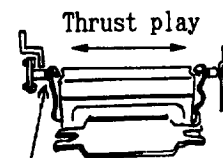
Screw : 6 pcs.

Note 1 : Draw the mirror box unit upward and remove the play.

Mirror unit

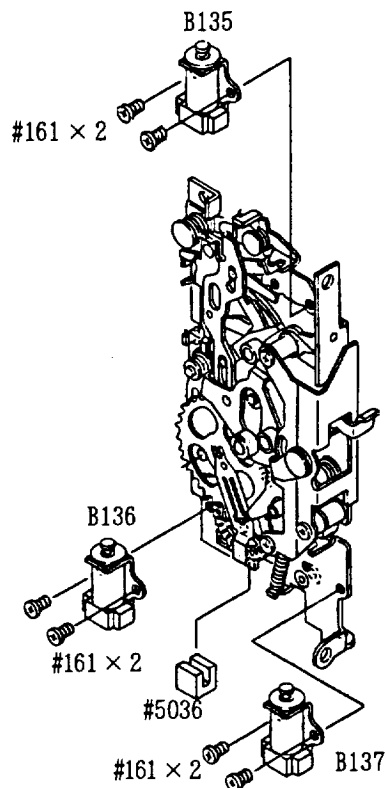
Note 2 : Check the mirror thrust play as illustrated below.

Standard : 0.05~0.15mm

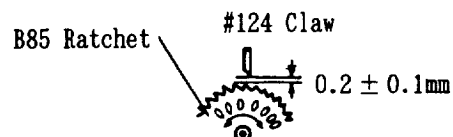


Adjust by using the washer.

I base plate

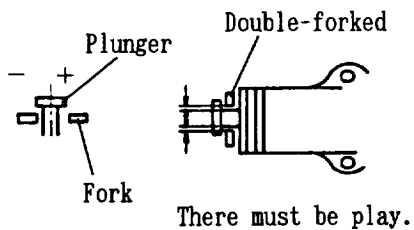


Note 1 : The clearance between B85 and #124 must be $0.2 \pm 0.1\text{mm}$ for the ratchet B85 must not contact with #124 (claw) when rotating it.

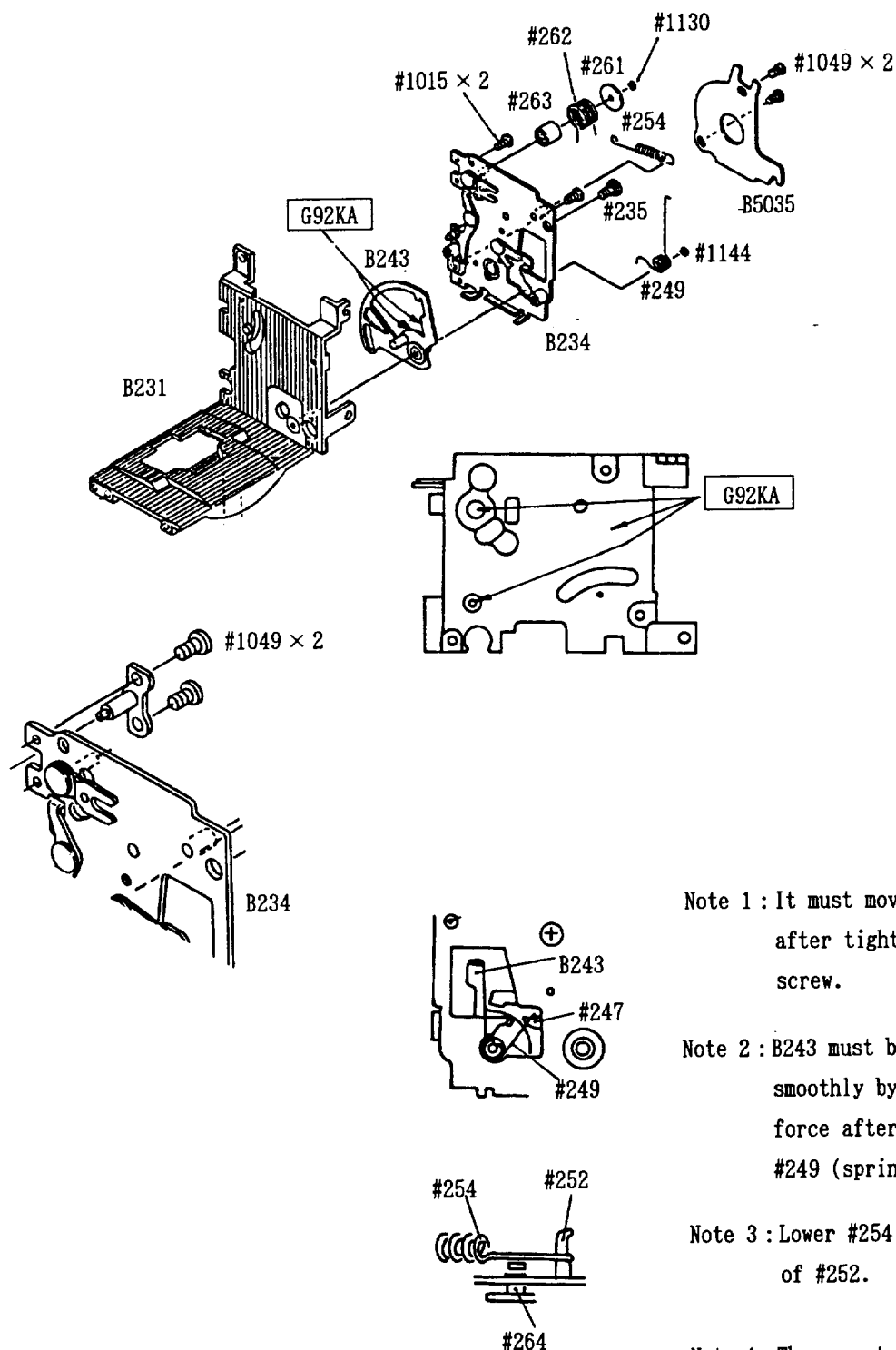


· Check by inserting the gauge into the clearance between B85 and #124.

Note 3 : When mounting the release/aperture stop/aperture start solenoids, there must be play as illustrated below.



L base plate



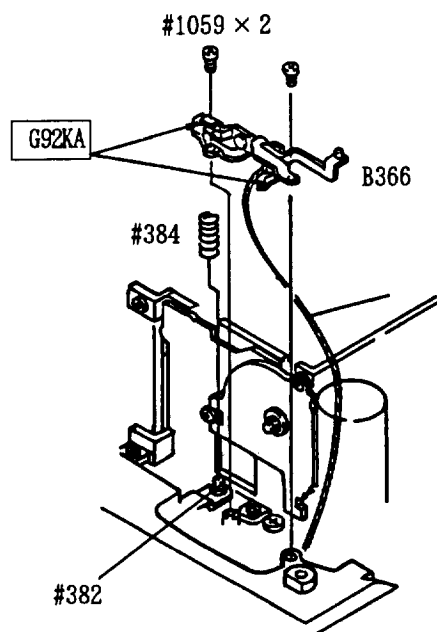
Note 1: It must move smoothly after tightening the screw.

Note 2: B243 must be moved smoothly by the spring force after applying #249 (spring).

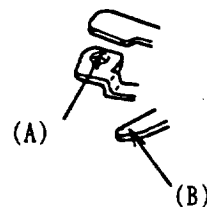
Note 3: Lower #254 to the step of #252.

Note 4: There must be no contact between #254 and #264.

Mounting the lens release button spring



1. Apply the oil to the (A) inside diameter and the (B) R section entirely.

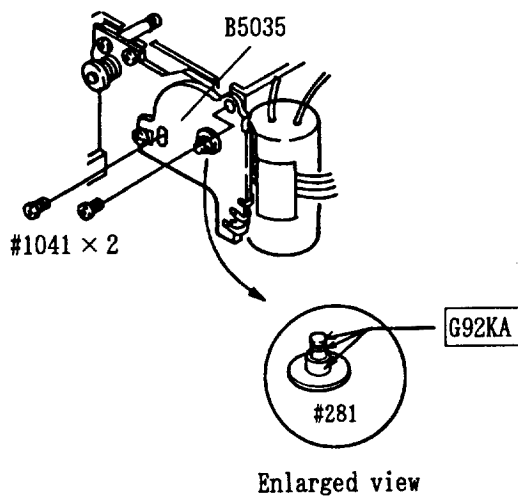


2. Pass the cord as illustrated below.



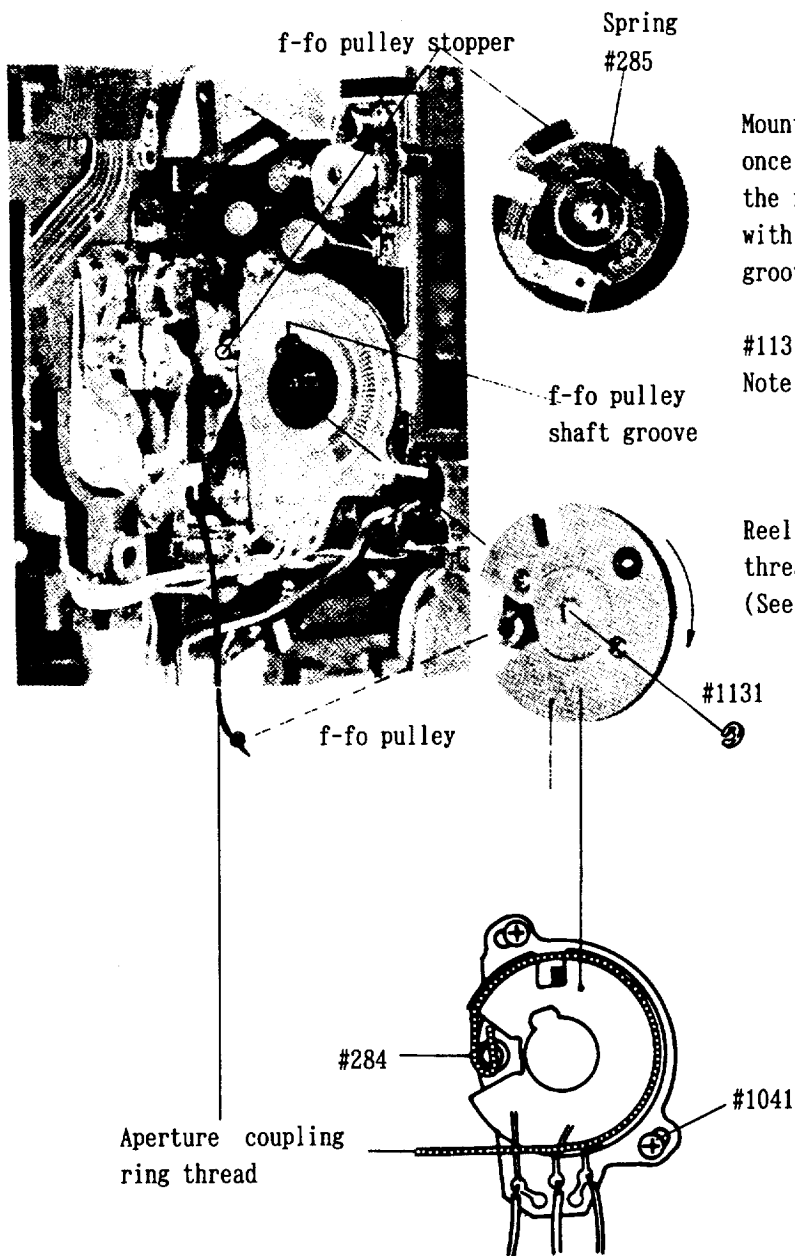
3. Insert #384 (lens release button spring) and then fix it with #1059 (screws) .

f-fo section



Fix B5035 (f-fo pattern) with #1041 (2 screws) .

f-fo base plate, f-fo pulley



Mount by rotating the pulley once clockwise while aligning the f-fo pulley spring (#285) with the f-fo pulley shaft groove.

#1131

Note: Do not damage the plastic mold shaft of the f-fo pulley.

Reel aperture coupling ring thread in the #284 groove.
(See figure a)

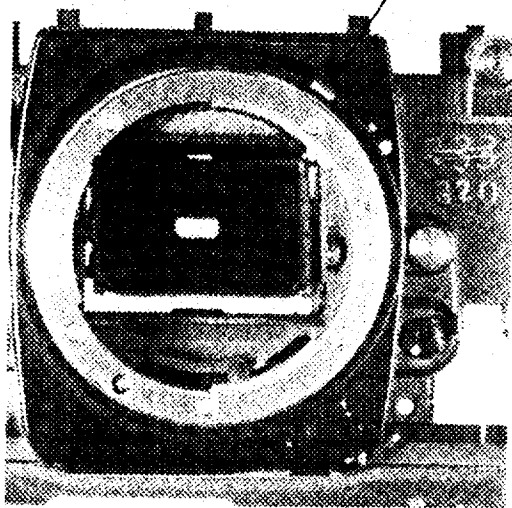
Note:

- ① Thread knot should not be pushed out from the surface of the f-fo base plate.
- ② Aperture coupling ring thread should be hooked in the roller on the AF mode selector base plate.
- ③ Aperture coupling ring thread should not be bent.

Fig. a

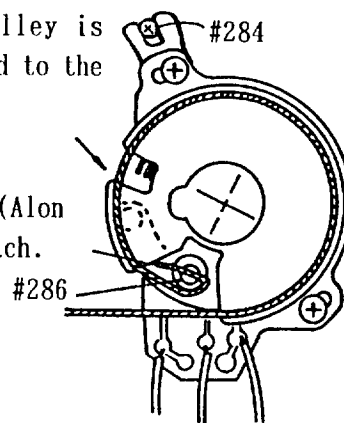
Adjustment of f-fo pulley stop position

Aperture coupling ring is
attached to the stopper.



The f-fo pulley is
being attached to the
stopper.

Use adhesive (Alon
Alfa) to attach.



Adjust by rotating #286 so that the aperture coupling ring and the f-fo pulley
come into contact with the stopper simultaneously.

Adjustment of the f-fo base plate position

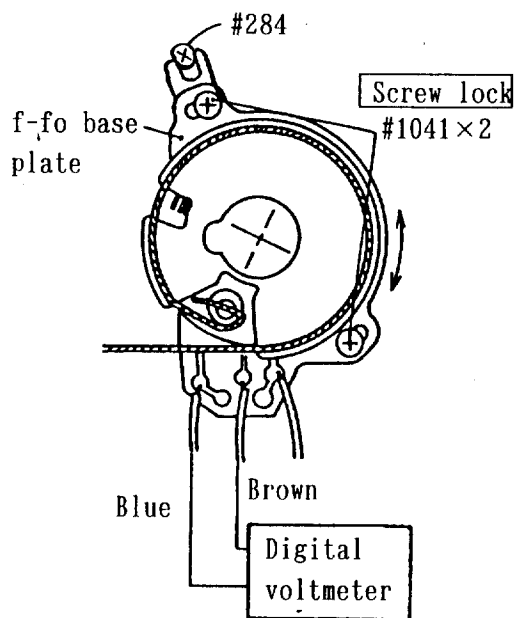


Fig. a

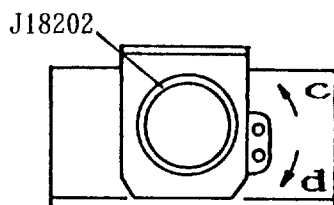
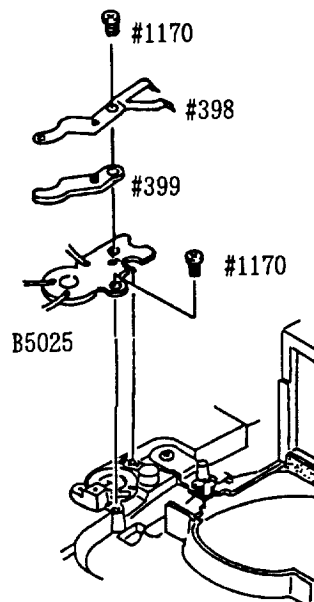


Fig. b

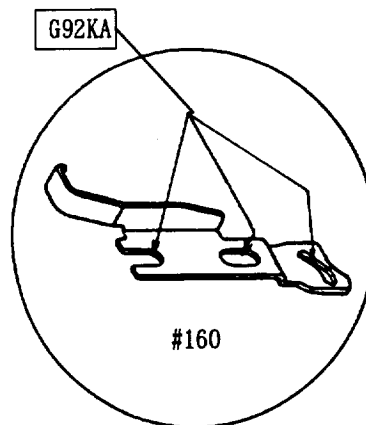
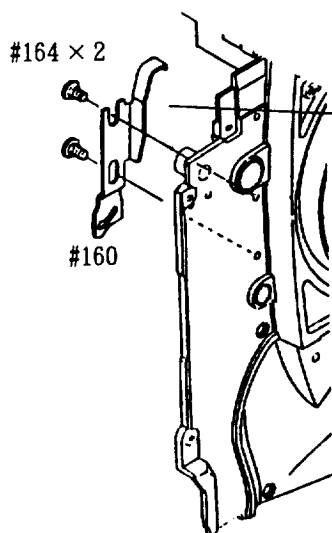
- ① Mount the f-fo tool lens
(J18202) on the body.
- ② Set the digital voltmeter (at the resistance
measuring range) as shown in Fig. a.
- ③ Adjust by rotating the f-fo base plate so that
each
resistance value can be measured when the f-fo
tool lens (J18202) is moved aside as shown in
Fig. b.
Resistance value is $\triangle 284$ to 110Ω or under when
the tool lens is moved in the direction indicated
by arrow c.
Resistance value is 2Ω or under when moved
in the direction indicated by arrow d.
- ④ Fasten screws (#1041 x 2) and spread screw
lock (#350) on them.

Mounting the lens release switch base plate

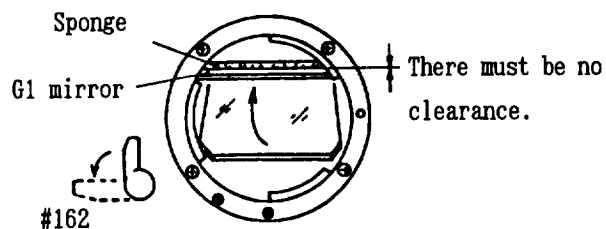


Fix B5052 (lens release switch base plate) with #1170 (screw) and then fix #399 (lens release collar) and #398 (lens release switch) with #1170 (screw) .

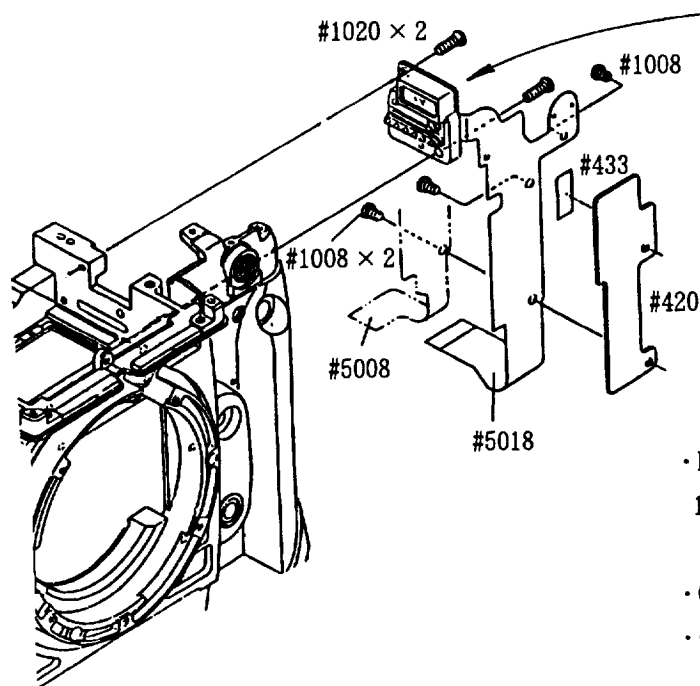
Mounting the manual MUP guide plate



Note : After mounting, make sure that the mirror moves up by operating the #162 lever.



Screen contact & SC contact

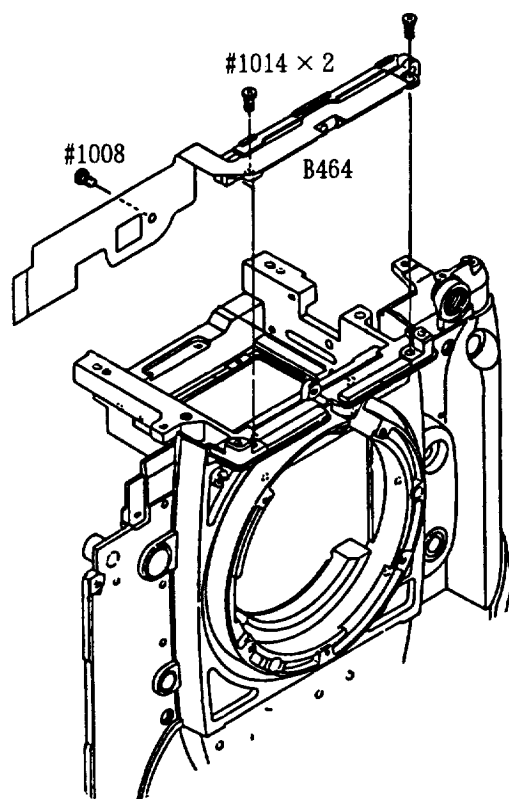


• Adhere #433 (double-sided tape) to #420.

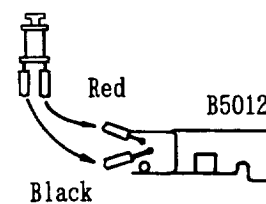
• Fix 5018 (screen contact FPC) with 1008 (2 screws) and #1020 (2 screws)

• Carry out soldering bridge. (7 places)
• Carry out soldering bridge for the self LED hard section. (2 places)

FD contact mold

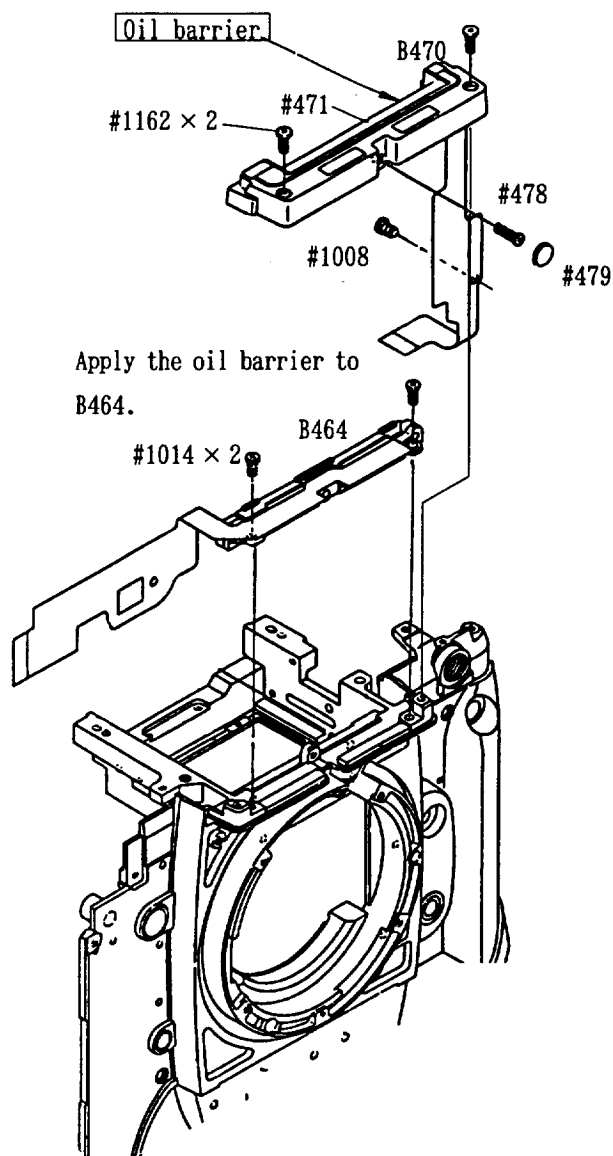


Mount B464 (FD contact mold) with #1008 (screw) and #1014 (screw) .

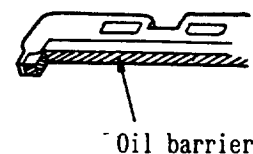


Carry out soldering as illustrated above.

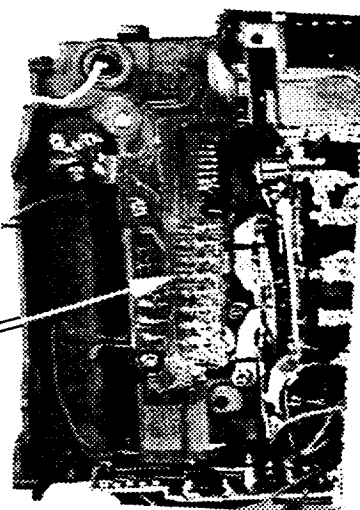
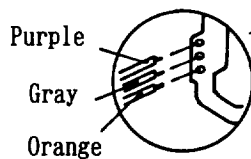
Mounting the front display mold



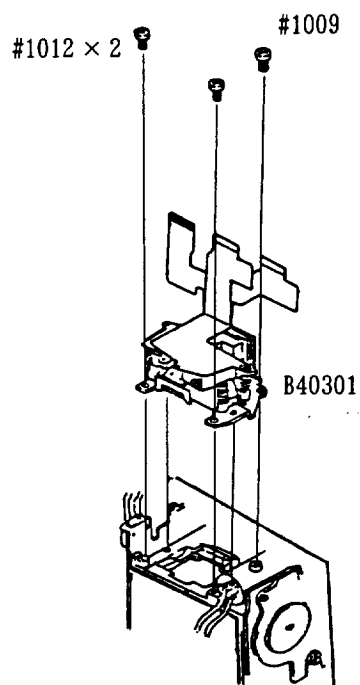
- Fix the front display mold with #1162 (2 screws) and #1008 (screw) .
- Apply the oil barrier to the hatching section as illustrated below.



- Solder the 3 wires.

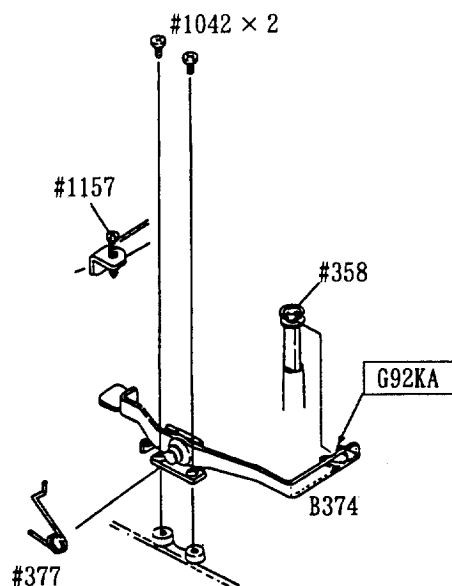


Mounting the AP4 unit

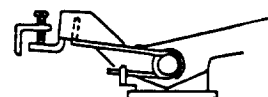


Mount the AP4 unit with #1010 (2 screws) and #1009 (screw) .

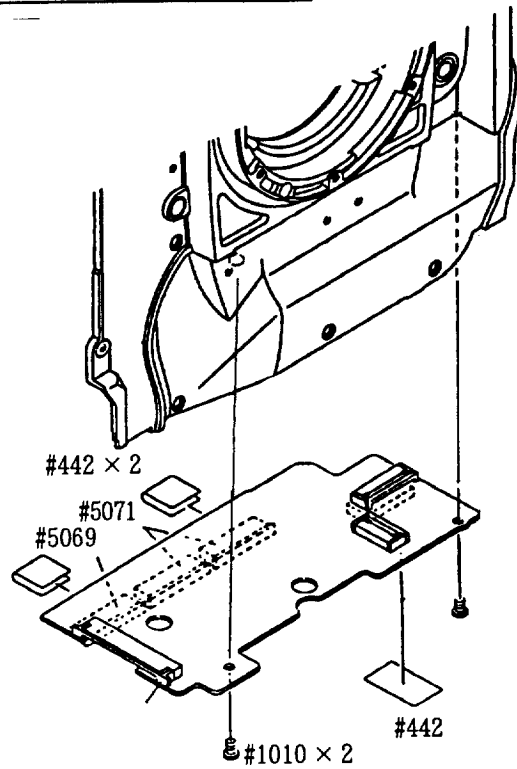
Mounting the lens release base plate



- Insert #358 into the U groove of B374 (lens release base plate) and set the base plate so that #1157 may be on the lever.
- Set the spring as illustrated below.



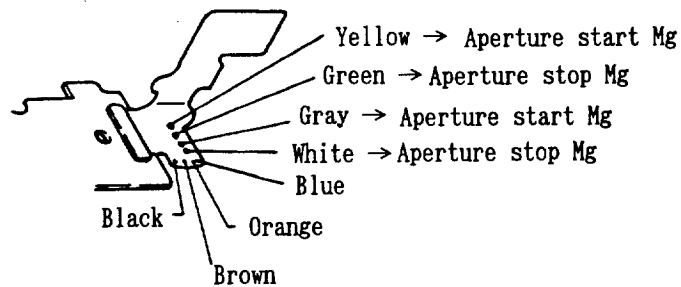
Mounting the AF base plate



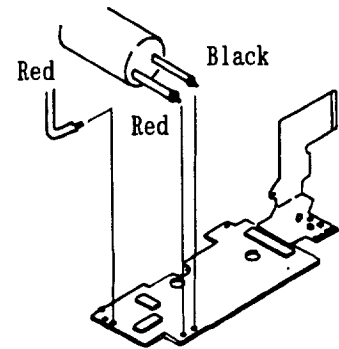
Screw : 2 pcs.

AF base plate

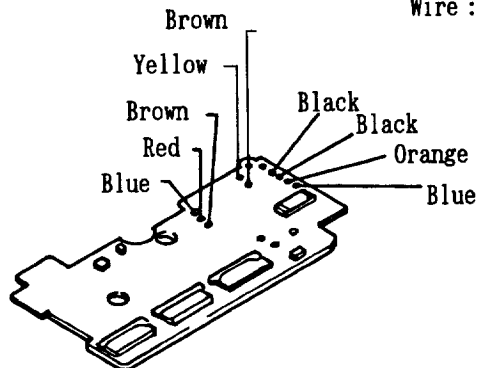
Wire : 8 places



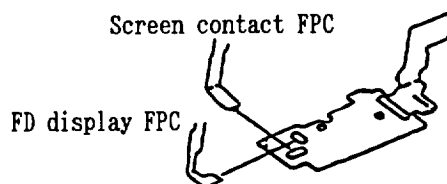
Wire : 3 places



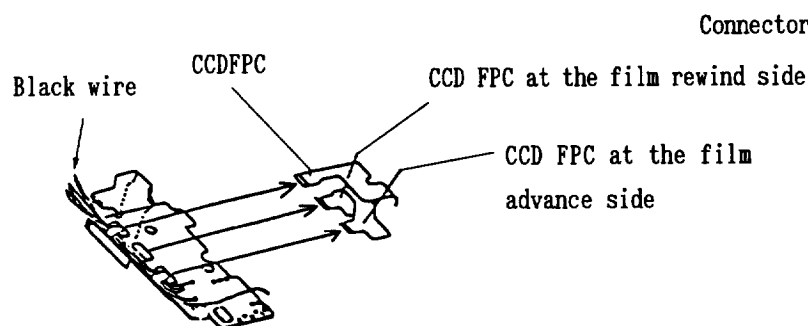
Wire : 9 places



Mounting the AF base plate connector



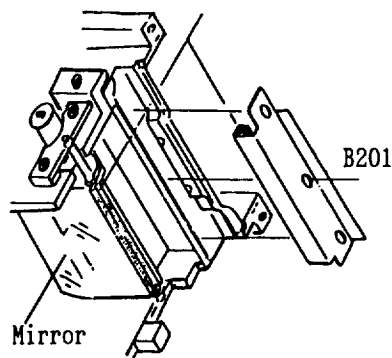
Connector : 2 places



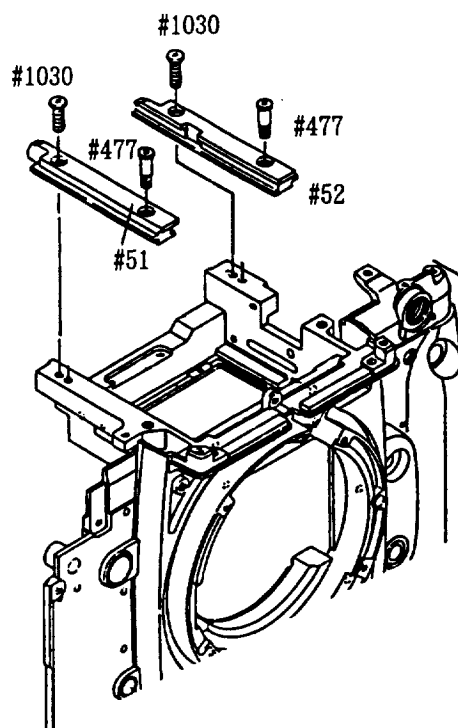
Connector : 3 places

• Separate one black wire from the AF base plate.

Mounting the main mirror rear light baffle plate



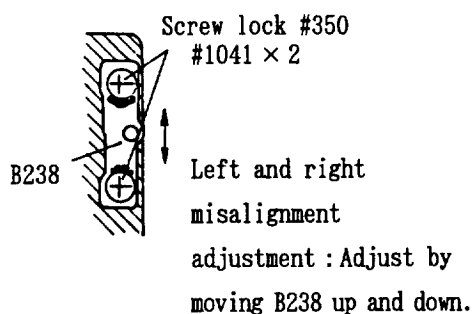
Mounting the FD rail



- Mount #51 with #1030 (screw) and #477 (screw) .
- Mount #52 with #1030 (screw) and #477 (screw) .

Adjustment (by 45°) of the main/sub mirrors

Adjustment (by 45°) of the main mirror



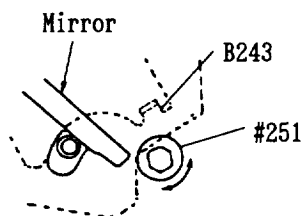
Tools)

- J18037 Optical flat
- J18038
- Vertical collimator
- Hexagonal wrench

Standard)

Left and right misalignment : $0 \pm 18'$

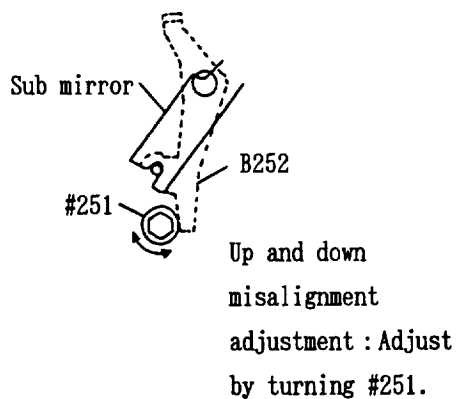
Up and down misalignment : 0 ± 5



Up and down misalignment adjustment :

Adjust by turning #251.

Adjustment (by 45°) of the sub mirror



Tools)

- J18268 Sub mirror 47.75° adjusting tool
- Vertical collimator

Standard)

Up and down misalignment : $5 \pm 5'$

Adjustment of the aperture lever height

Aperture lever

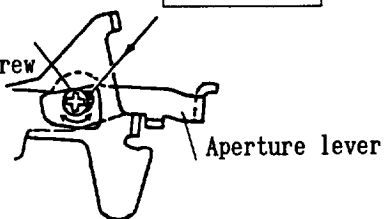
adjusting

eccentric screw

Screw lock

Standard)

$$3.4 \begin{matrix} +0.1 \\ -0.05 \end{matrix}$$

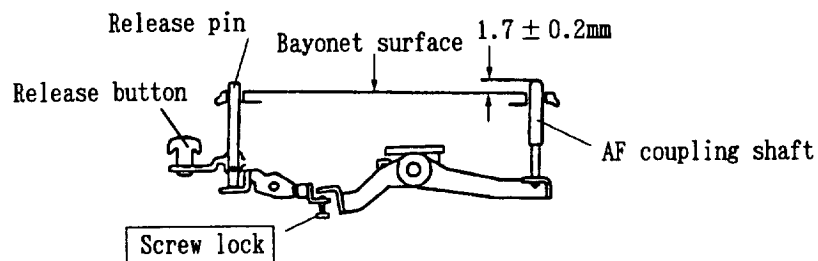


Aperture lever

Adjustment of the AF coupling shaft height

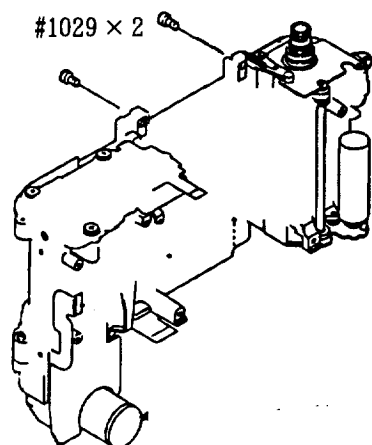
Adjust the height with #1038 (screw) so that the AF coupling shaft may be protruded from the bayonet surface when the release button is free under AF-C or AF-S.

Standard : $1.7 \pm 0.2\text{mm}$

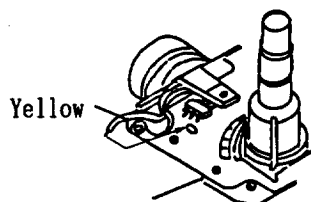
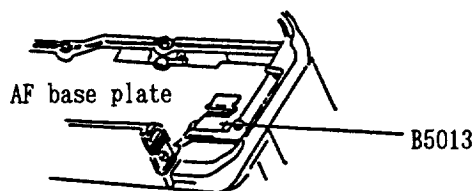
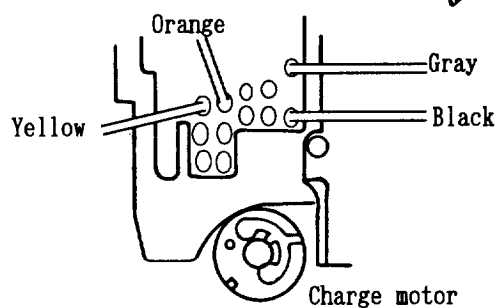
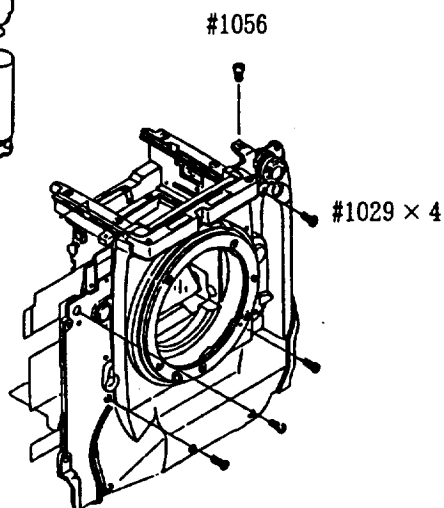


3. MOUNTING FRONT PLATE ON REAR BODY

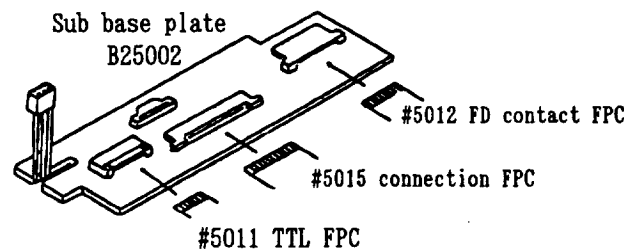
Front body



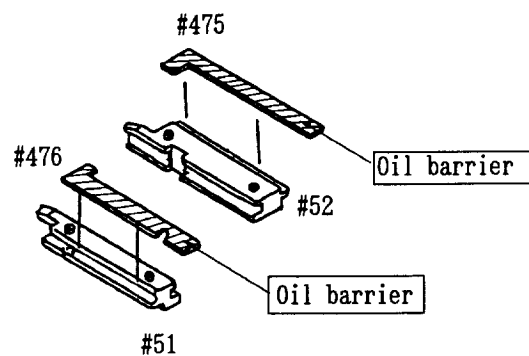
• Draw the body to the film rewind side and then tighten the screws.



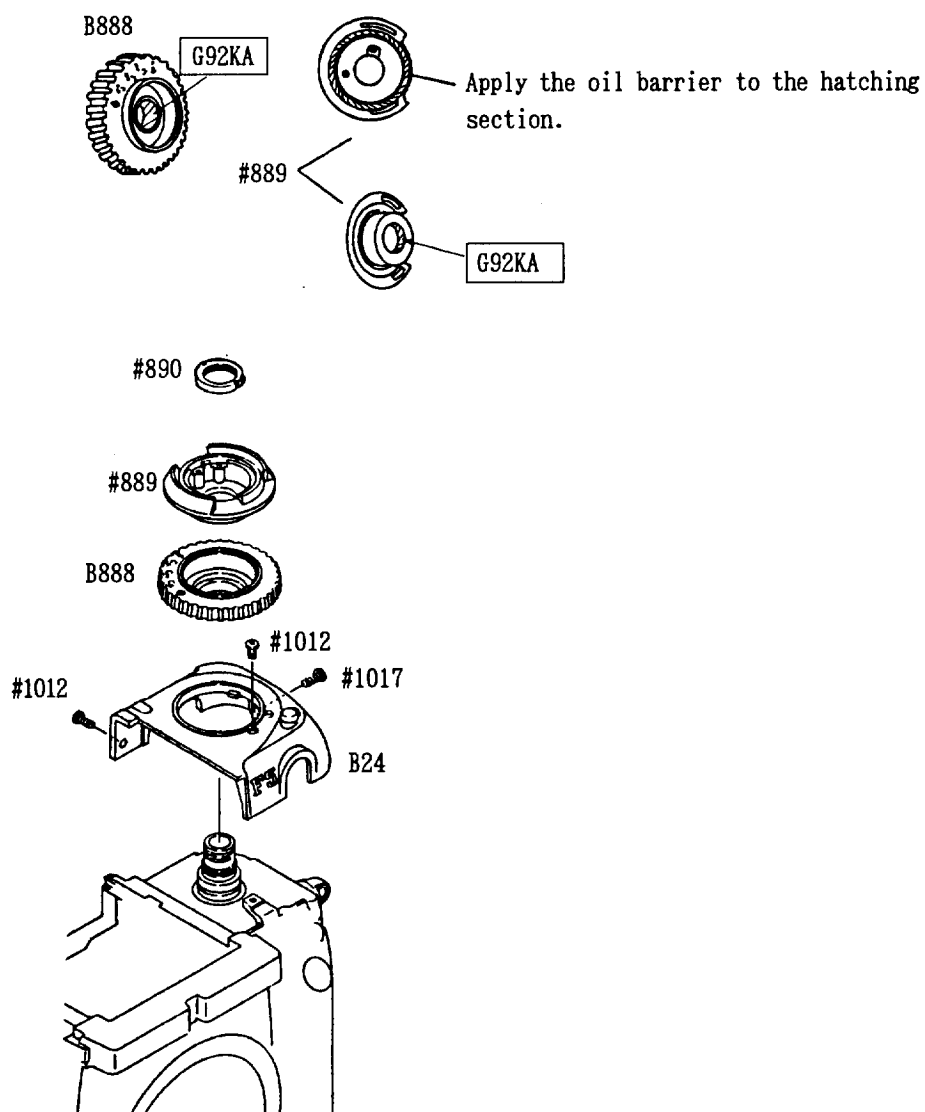
Film advance M base plate



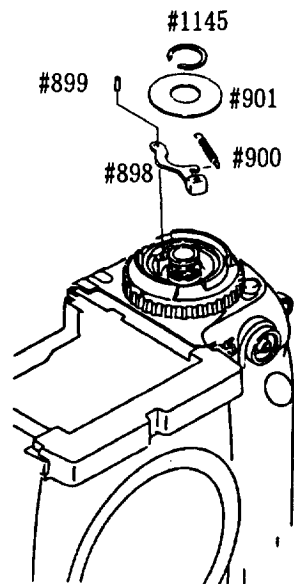
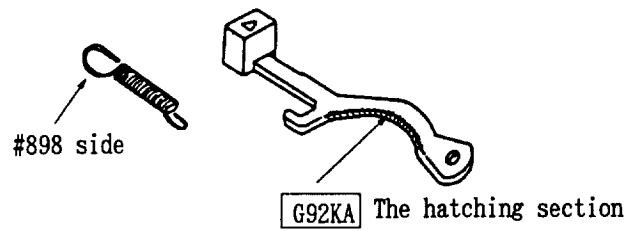
Finder rail sponge



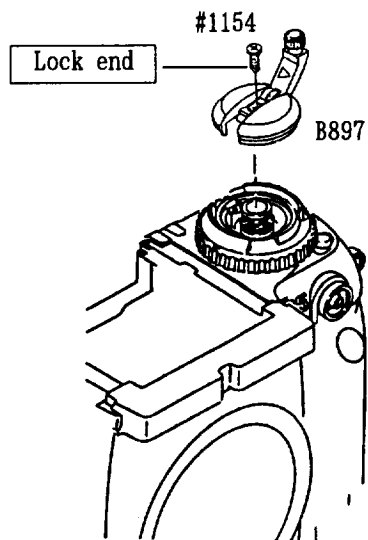
Top cover (Rewind side) unit



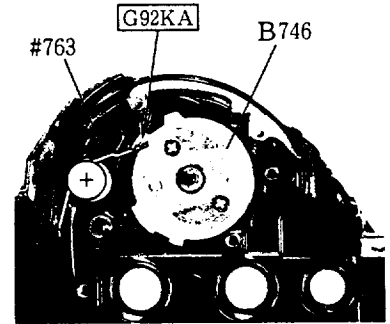
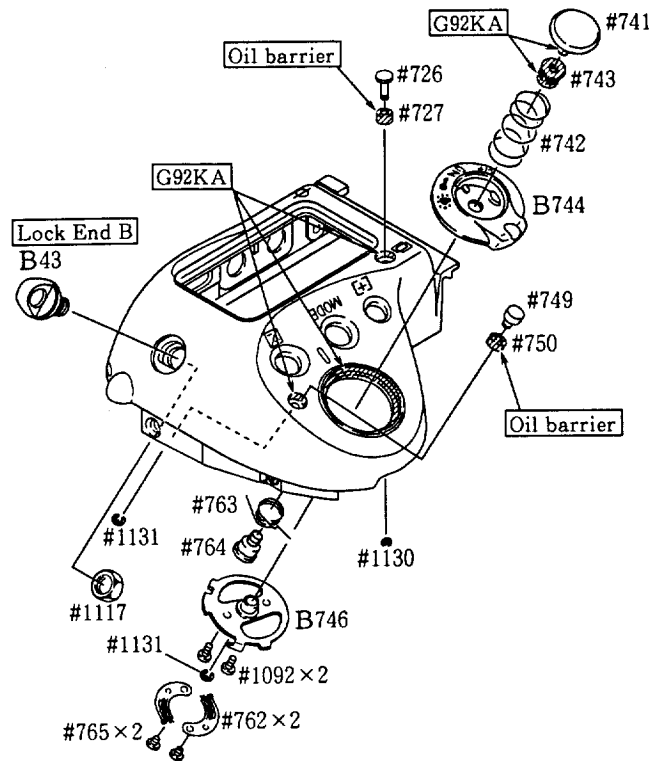
Rewind lock lever



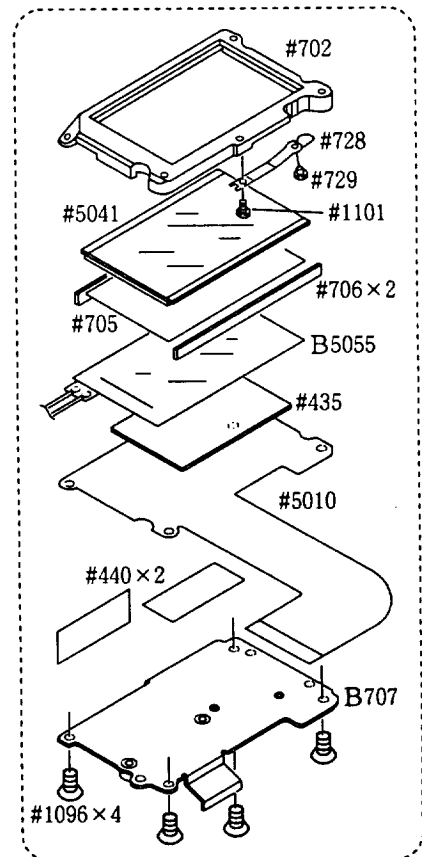
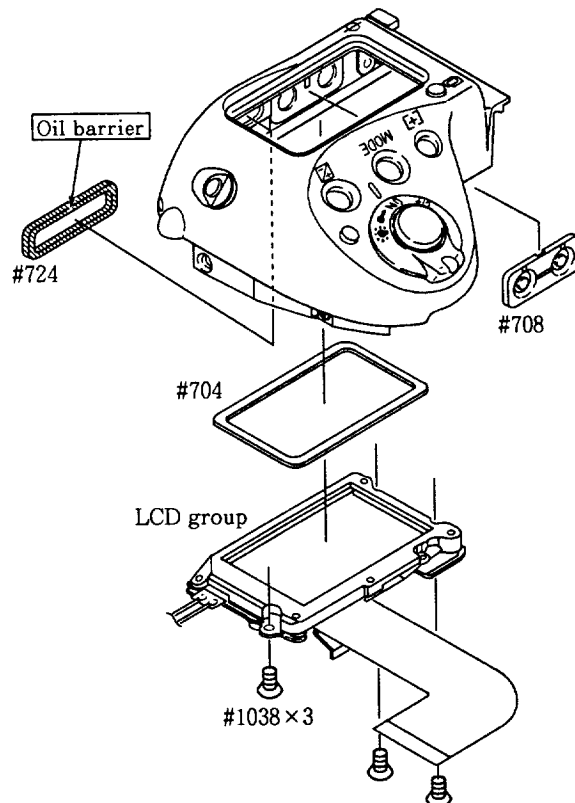
Rewind knob



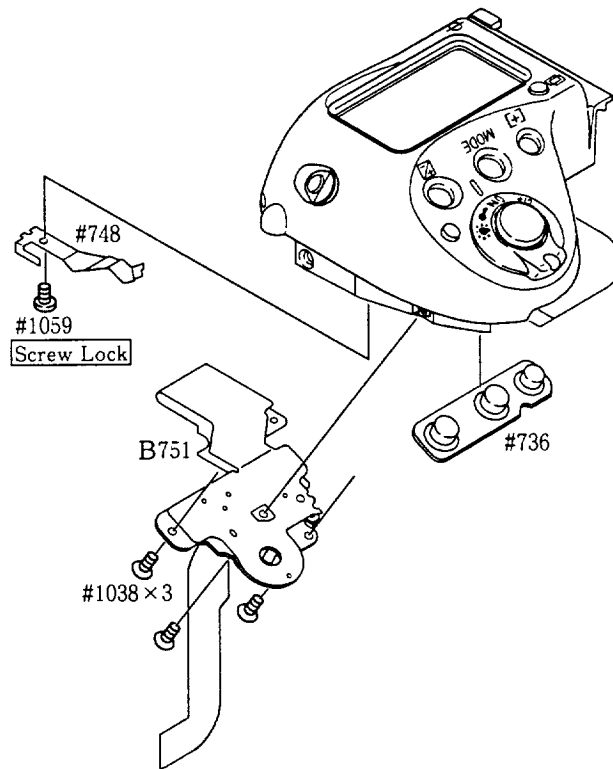
RELEASE BUTTON, ON-OFF RING, EYELET



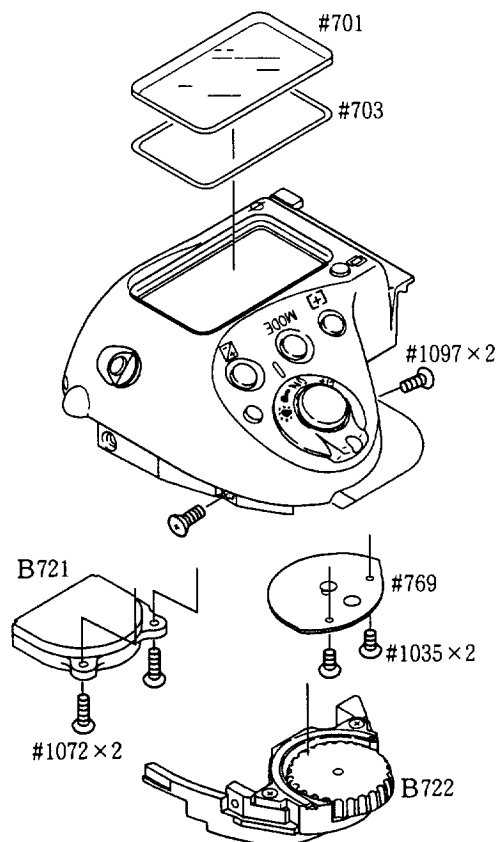
LCD GROUP



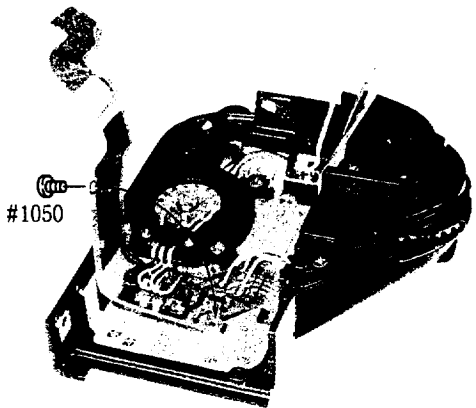
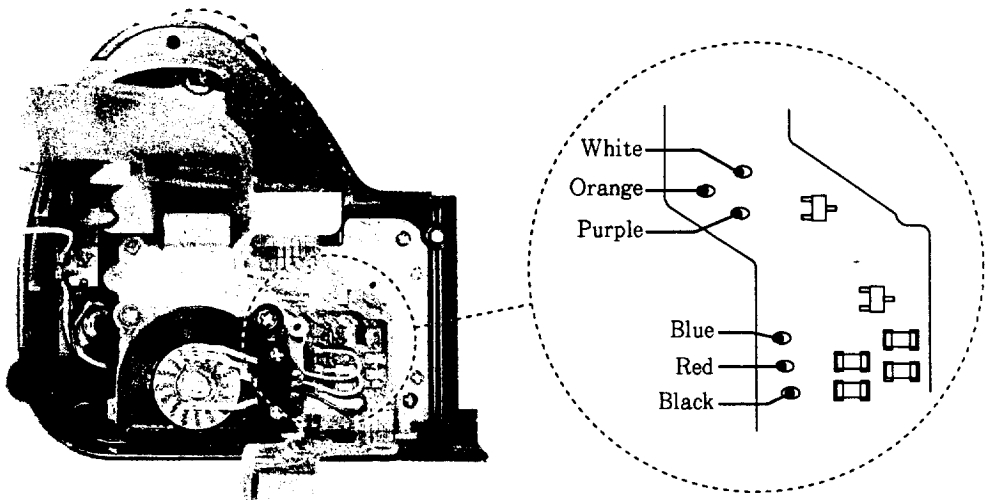
RELEASE SWITCH BASE PLATE UNIT



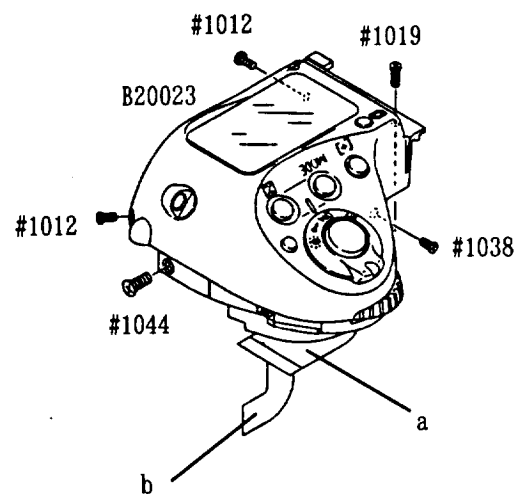
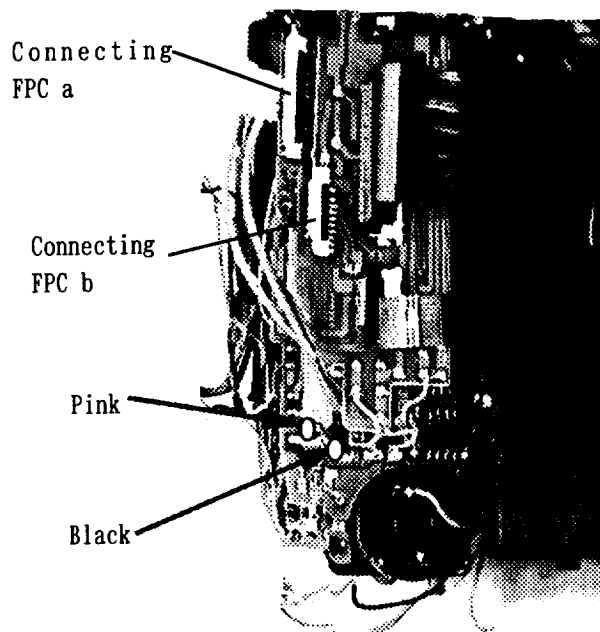
COMAND DIAL UNIT



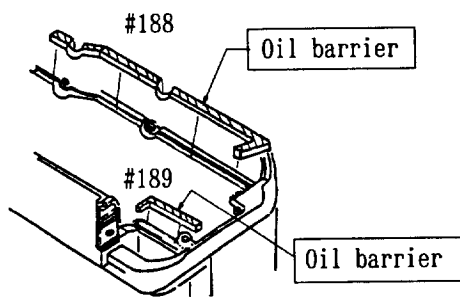
SOLDERING WIRES



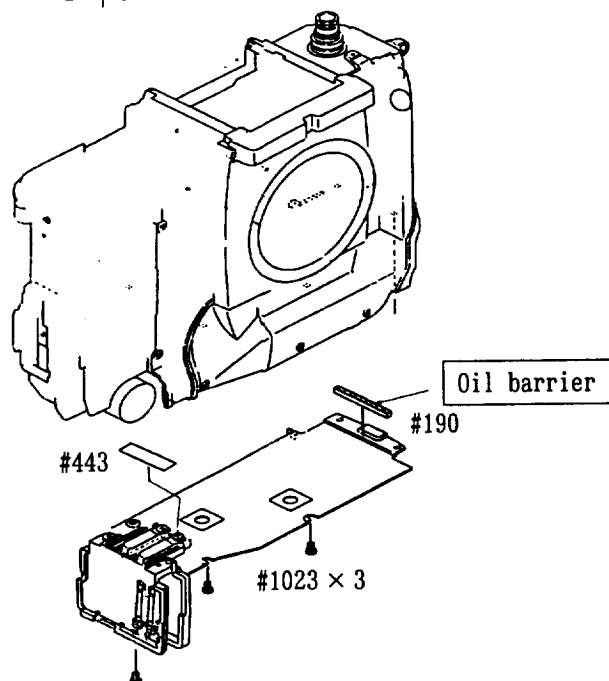
Film advance upper cover



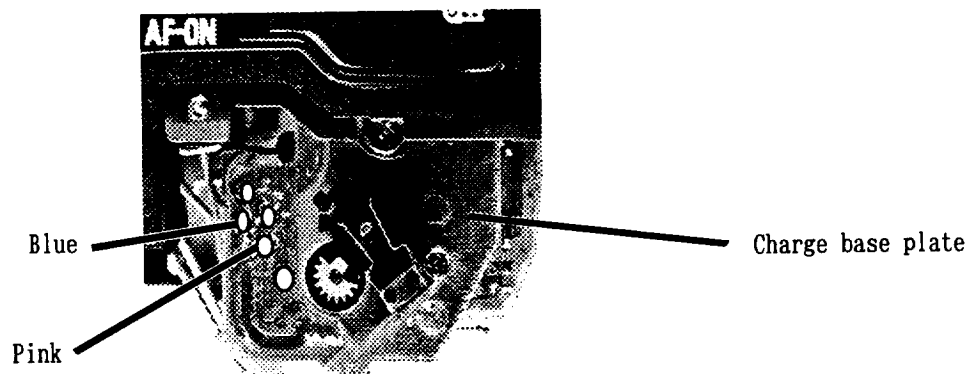
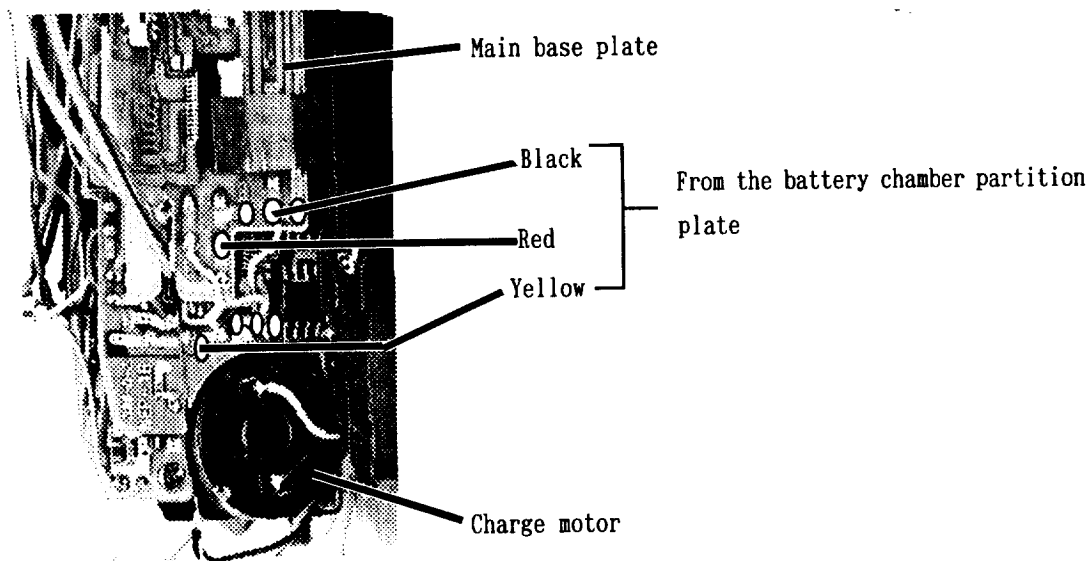
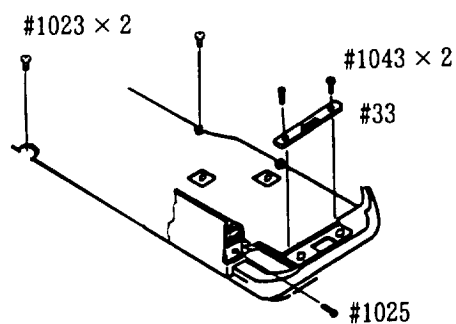
Battery chamber partition plate



· Release the wires to the main base plate side, and draw this unit to the back side and then mount it.



Battery chamber partition plate



AF precision inspection and adjustment
--

For communicating with PC, employ both the camera communication tool J15328 and the 10-pin connector communication tool J15328-1.

Check and adjust the precision of all the fourteen AF sensors.

- | |
|--|
| <ol style="list-style-type: none">1. AF precision adjustment2. YAW/PITCH inspection and adjustment3. LARK adjustment |
|--|

The following description is the outline about adjustment of each unit.

1. AF precision adjustment

Adjust all the units related to AF in turn.

2. YAW/PITCH inspection and adjustment

Position the AF sensor by using the YAW/PITCH tool (J15230).

3. LARK adjustment

Adjust the AF precision for each AF sensor.

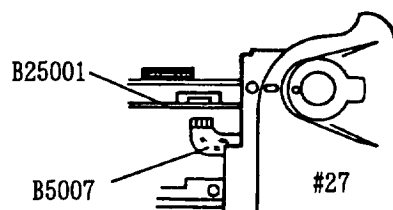
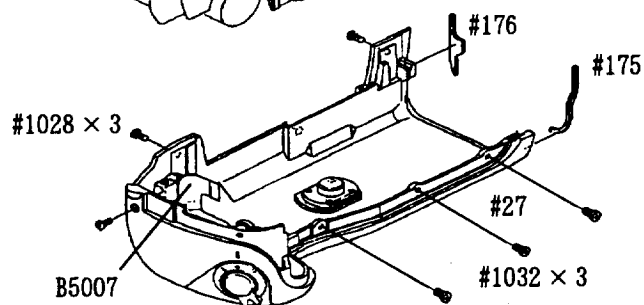
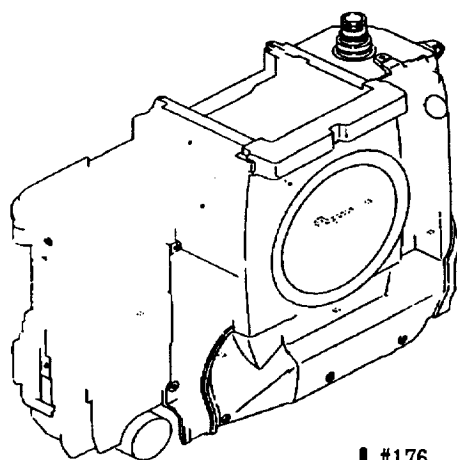
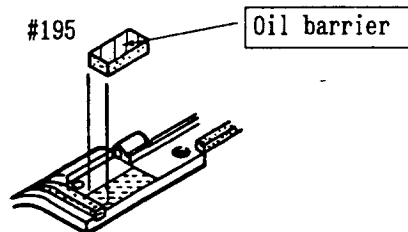
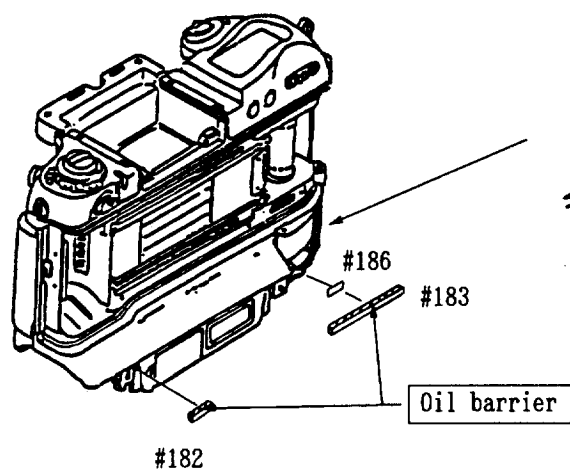
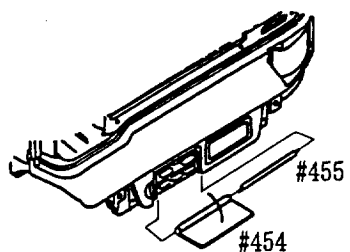
The following new tools are necessary.

AF distance measuring chart (J18237)

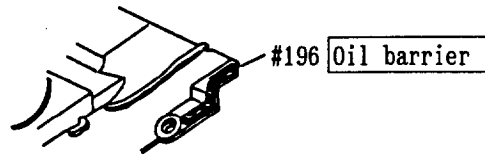
AF adjusting lens (J18266)



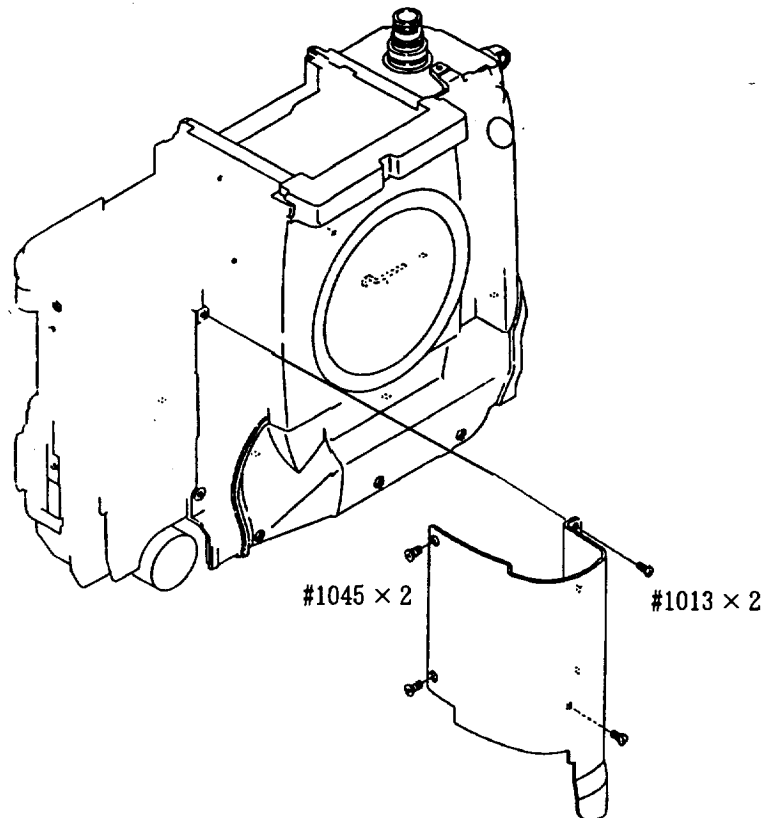
Bottom cover



Grip

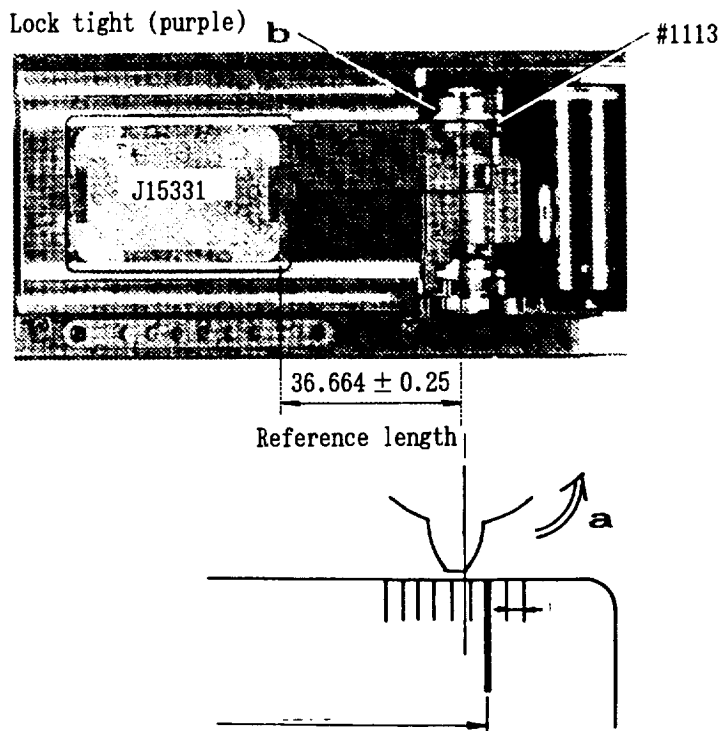


• Connect the connector to the power supply base plate.



Adjustment of film sprocket cogwheel positioning

- 1) Set the body to the film advance completion state.
- 2) Unfasten the film sprocket screw #1113 $\times 1$.
- 3) Set the film sprocket cogwheel positioning tool J15331 on the aperture surface.
- 4) Fasten the film sprocket screw #1113 temporarily after aligning the right end of the film sprocket cogwheel to the position 36.664. Adjust it further so that the right end of the film sprocket cogwheel will be within the range of 36.664 ± 0.25 when moving the film sprocket in the direction indicated by arrow "a".



- 5) Mount the film sprocket screw #1113 with lock tight (purple) in the left film sprocket screw hole (indicated by arrow "b").
- 6) Check to see the film sprocket cogwheel position by repeating film advance operation several times.

Refer to the display of the personal computer for the details of AE/AF precision inspection and adjustment.

AE precision inspection and adjustment
--

△ In the aim of communicating with PC, use the camera communication tool J15328.

Select a combination of the body and finder in the following menu for AE precision inspection and adjustment.

- | |
|--|
| <ol style="list-style-type: none"> 1. Inspection and adjustment of Multi Photomic Finder DP-30 and F5 body 2. Inspection and adjustment of Photomic Action Finder DA-30 and F5 body 3. Inspection and adjustment of only Multi Photomic Finder DP-30 (Use a tool body.) 4. Inspection and adjustment of only Photomic Action Finder DA-30 (Use a tool body.) 5. Inspection and adjustment of only the body 6. Inspection and adjustment of each unit |
|--|

The following description is the outline about inspection and adjustment of each unit.

1. Positioning precision inspection and adjustment of Multi Photomic Finder DP-30
Position the AE CCD by using the AE CCD positioning tool (J15328-2) mounted on the finder.
2. Aperture metering precision inspection and adjustment of Multi Photomic Finder DP-30
Adjust the AE CCD aperture metering output.
3. Aperture metering precision inspection and adjustment of Photomic Action Finder DA-30
Adjust the aperture metering output of the AE SPD mounted on the finder.
4. Spot aperture metering(body side)precision inspection and adjustment
Adjust the aperture metering output of the AF sensor's CCD.
5. Aperture precision inspection and adjustment
Adjust the drive timing of the aperture magnet.
6. M8000 precision inspection and adjustment
Adjust the precision of the 1/8000 shutter. (The 1/4000 shutter can be adjusted by a tester.)



7. Adjust the precision of the shutter monitor sensor.

8. TTL precision inspection and adjustment

1) ・Inspection and adjustment of monitor flash

Adjust the gamma ray value and level value when the monitor flashes.

2) ・Main flash inspection

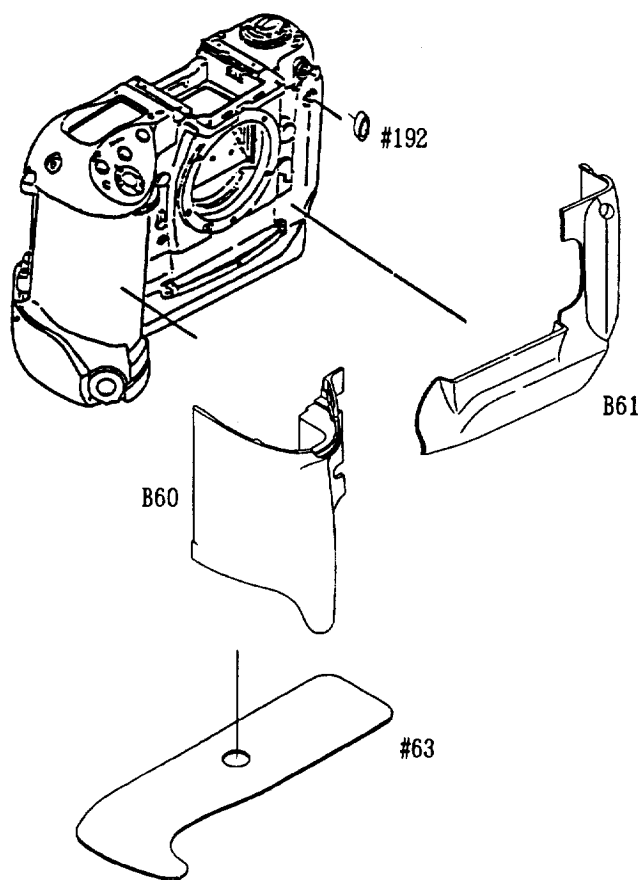
Adjust the gamma ray value and level value when the main flash occurs.

9. Battery check voltage adjustment

Adjust the battery check voltage



Rubbers



Any certain adjustment item(s) to be required
when replacing the parts listed below.

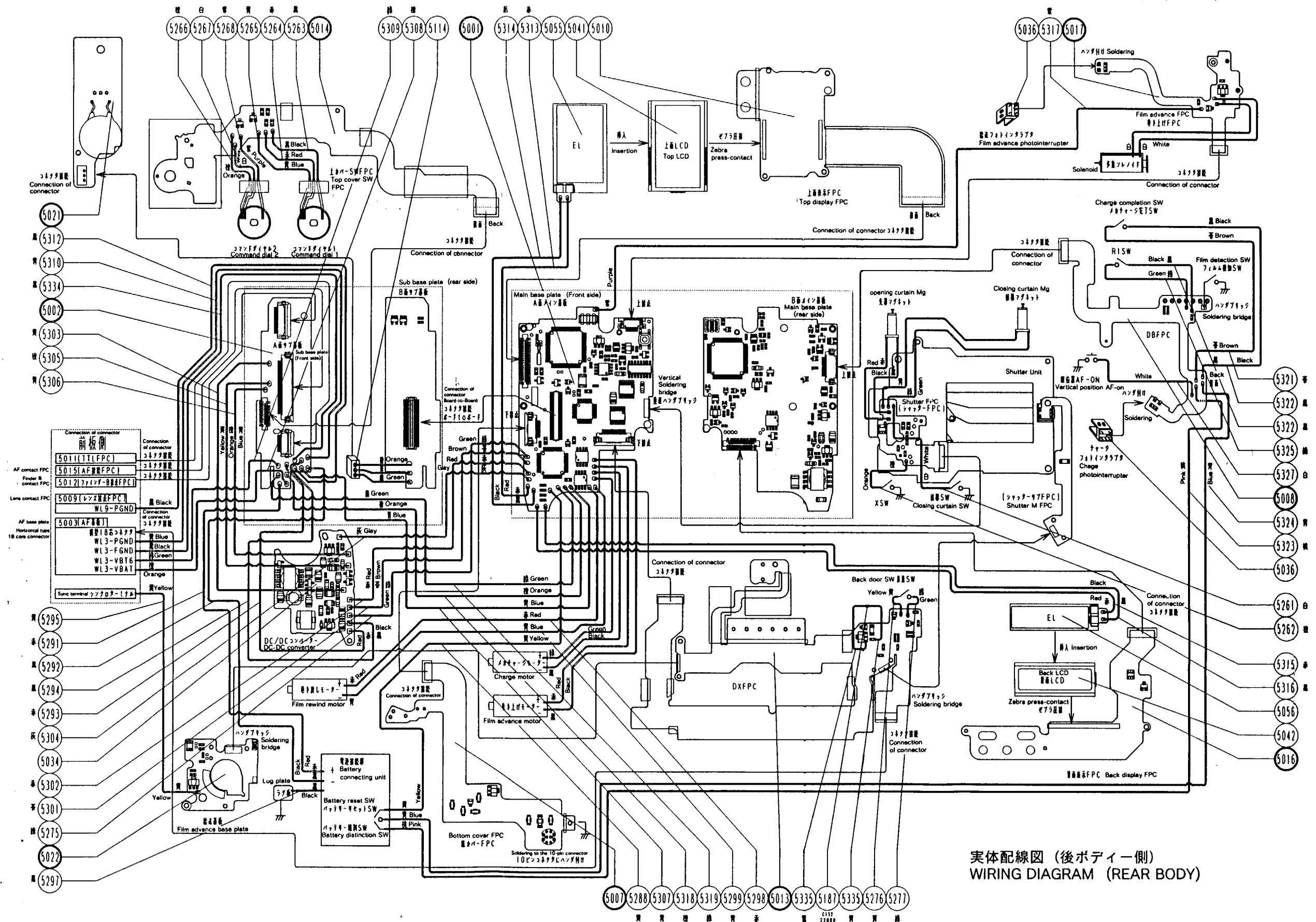
Items of adjustment Parts replaced	Start from the temperature detection voltage	AE accuracy	Aperture control	M1/8000 and monitor	TTL accuracy	BC voltage	AF accuracy
Shutter unit				○	○		
Main PCB unit	○	○	○	○	○	○	○
AF base plate unit		○					○
TTL SPD unit					○		
Sub base plate unit							
DC-DC base plate unit						○	
Front body unit	○	○	○		○		○



ELECTRIC CIRCUIT

WIRING DIAGRAM (FRONT PLATE)	E 1
WIRING DIAGRAM (REAR BODY)	E 2
CIRCUIT DIAGRAM	E 3
MAIN BASE PLATE	E 4
SUB BASE PLATE	E 8
AF BASE PLATE	E 1 2
FILM ADVANCE FPC UNIT	E 1 6
SHUTTER FPC	E 1 8
BOTTOM COVER FPC	E 2 1
POWER SOURCE FPC	E 2 2

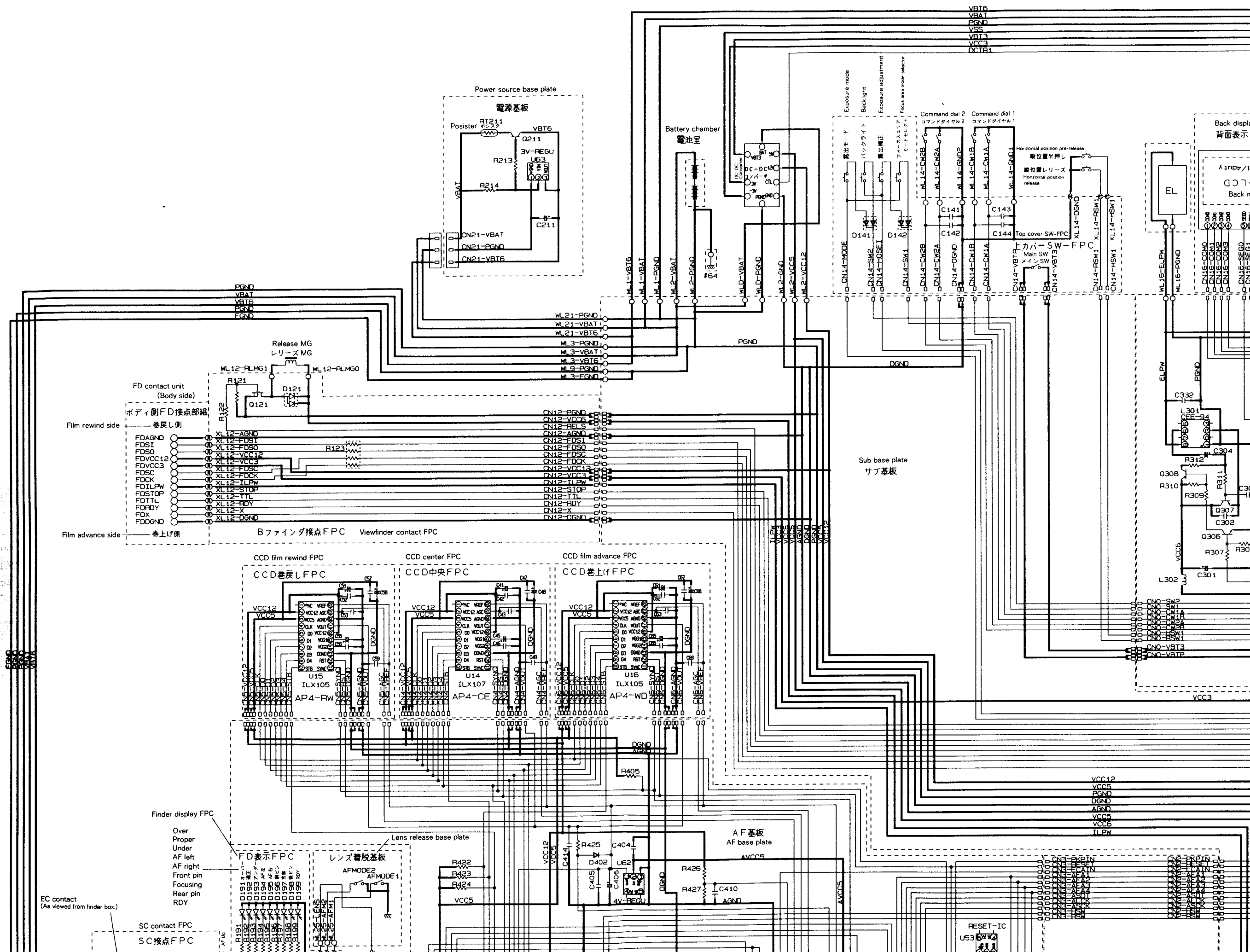




PLEASE NOTE CIRCUIT DIAGRAM E3 – F5 HAS BEEN BROKEN INTO 6 PARTS FOR SCANNING READABILITY.

THE FOLLOWING MAP DESCRIBES THE DIVISIONS

TOP LEFT – PAGE 89	TOP RIGHT – PAGE 90
MID LEFT – PAGE 91	MID RIGHT – PAGE 92
LOW LEFT – PAGE 93	LOW RIGHT – PAGE 94



Power source base plate

電源基板

Battery chamber

電池室

Sub base plate
サブ基板

AF基板
AF base plate

FD contact unit
(Body side)

ボディ側FD接触部組

Bファインダ接触FPC Viewfinder contact FPC

CCD film rewind FPC

CCD巻戻しFPC

CCD center FPC

CCD中央FPC

CCD film advance FPC

CCD巻上げFPC

Finder display FPC

Over
Proper
Under
AF left
AF right
Front pin
Focusing
Rear pin
RDY

SC contact FPC

SC接触FPC

Lens release base plate

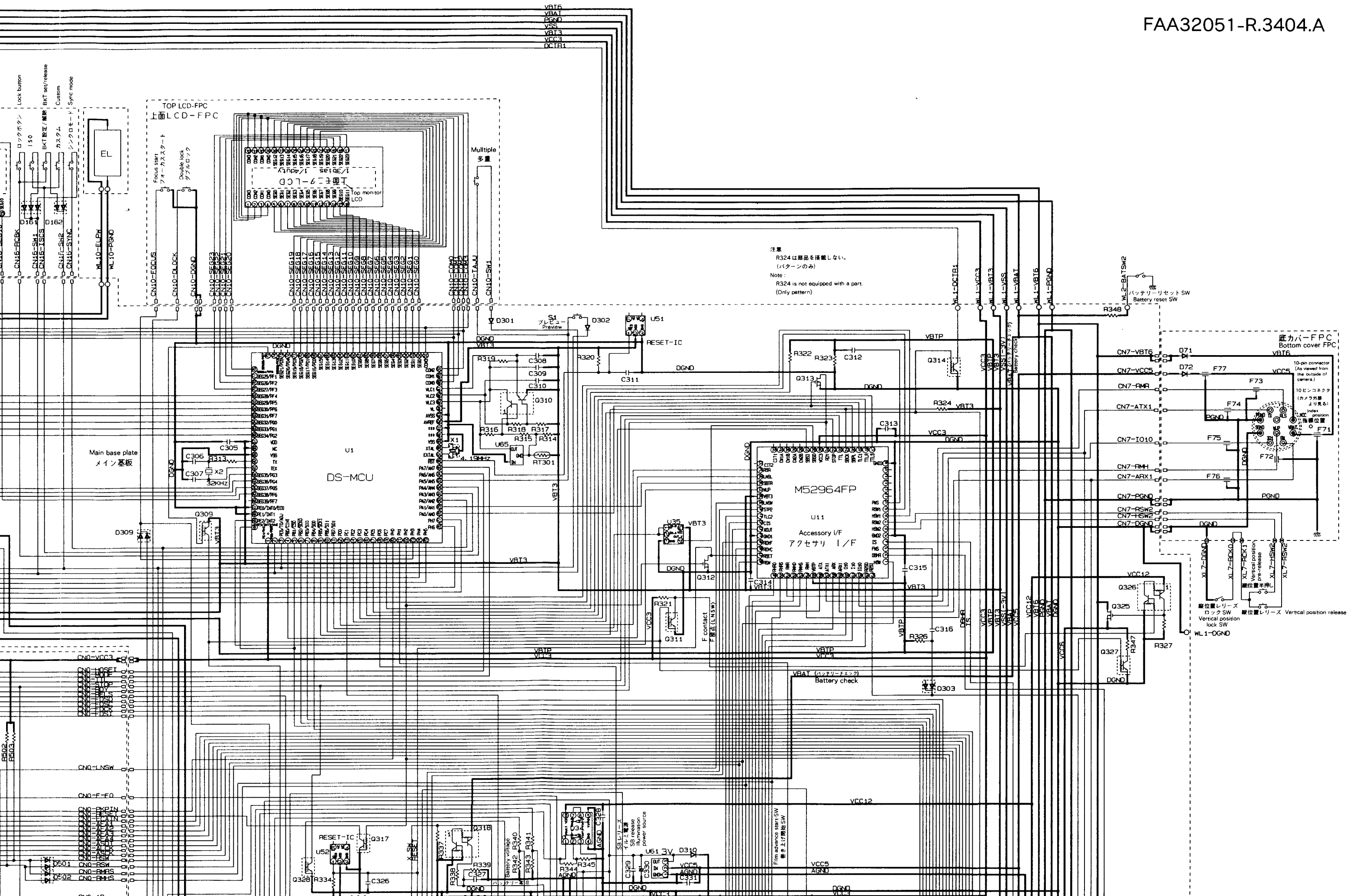
レンズ着脱基板

AFMODE2
AFMODE1

EC contact
(As viewed from finder box.)

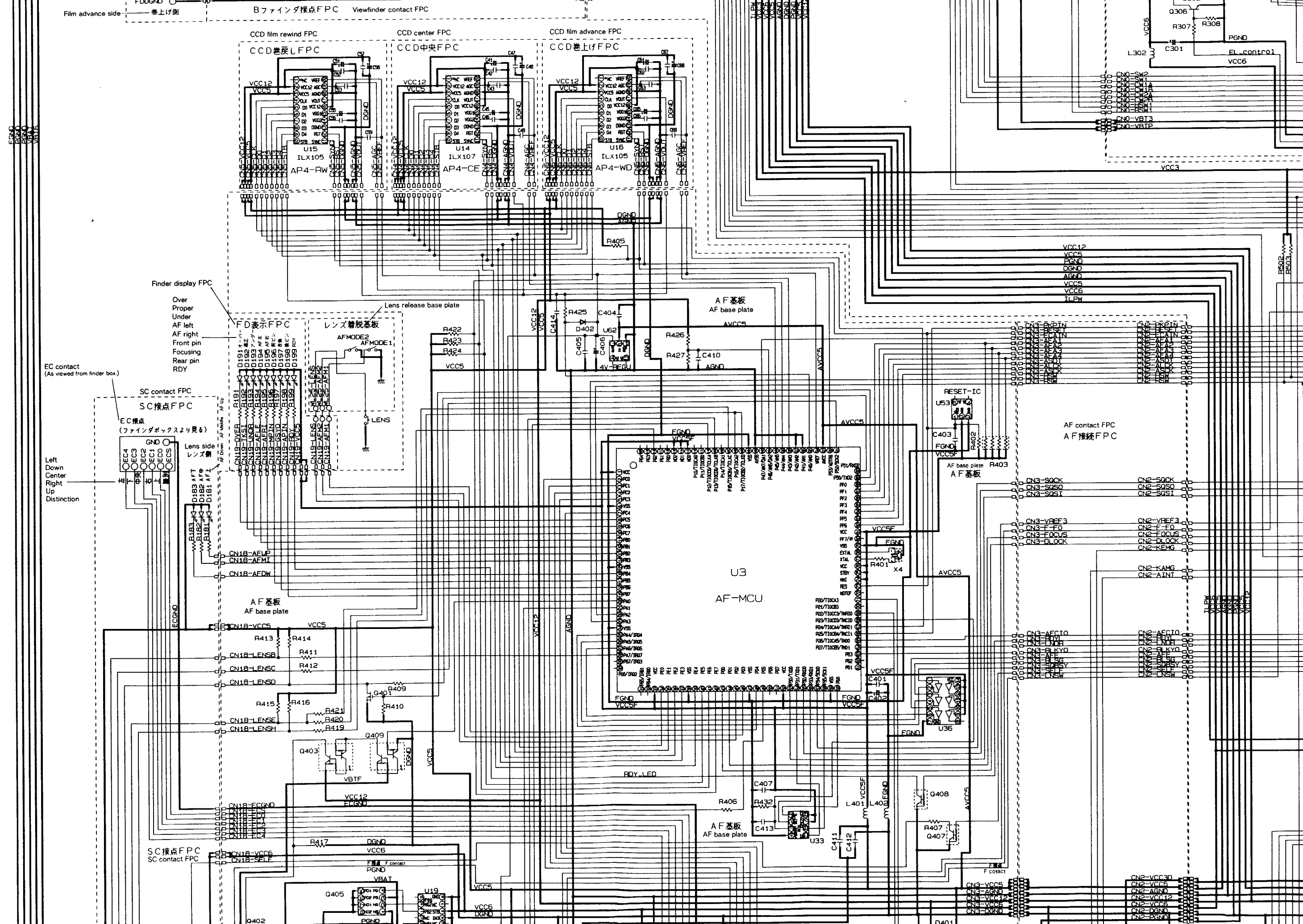
RESET-IC

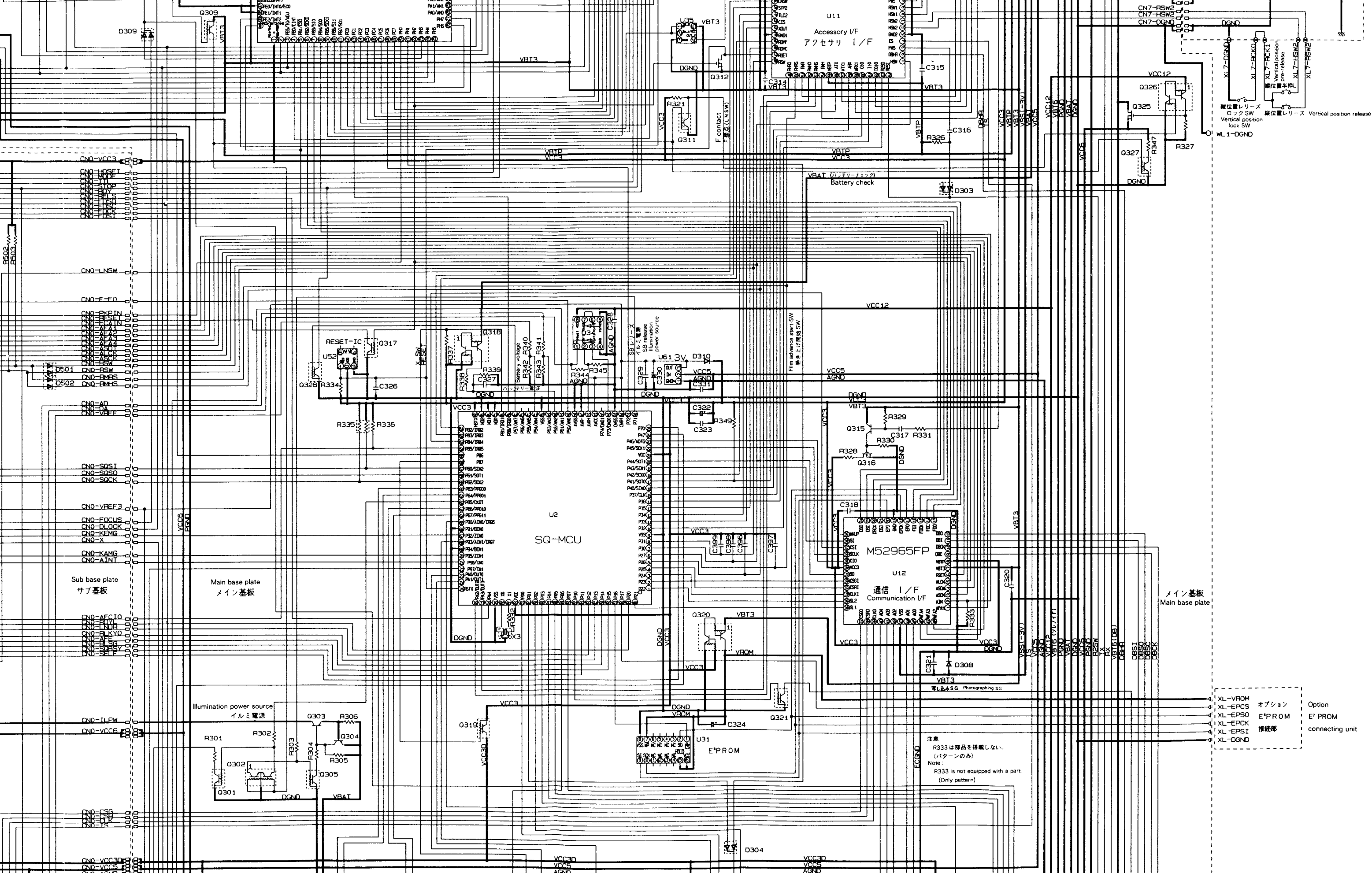
U53



注意
R324は部品を搭載しない。
(パターンのみ)
Note:
R324 is not equipped with a part.
(Only pattern)

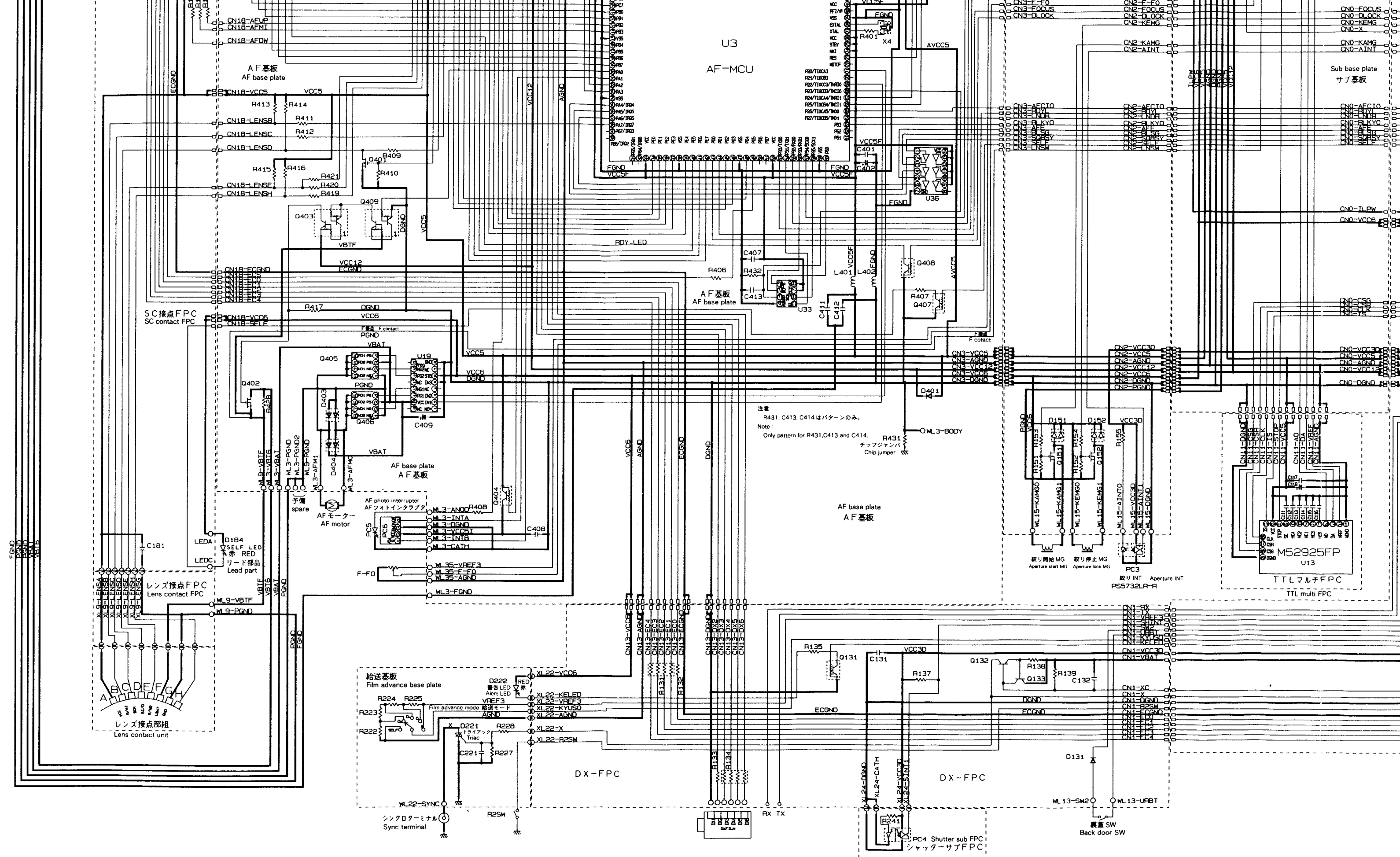
底カバーFPC
Bottom cover FPC
10-pin connector
(As viewed from
the outside of
camera)
10ピンコネクタ
(カメラ外側
より見る)
Index
position
指位置
F71
縦位置リリース
ロック SW
Vertical position
lock SW
WL1-DGND
縦位置リリース
指位置
F72
F73
F74
F75
F76
F77
VCC5
VCC12
VCC3
VCC4
VCC6
VCC7
VCC8
VCC9
VCC10
VCC11
VCC13
VCC14
VCC15
VCC16
VCC17
VCC18
VCC19
VCC20
VCC21
VCC22
VCC23
VCC24
VCC25
VCC26
VCC27
VCC28
VCC29
VCC30
VCC31
VCC32
VCC33
VCC34
VCC35
VCC36
VCC37
VCC38
VCC39
VCC40
VCC41
VCC42
VCC43
VCC44
VCC45
VCC46
VCC47
VCC48
VCC49
VCC50
VCC51
VCC52
VCC53
VCC54
VCC55
VCC56
VCC57
VCC58
VCC59
VCC60
VCC61
VCC62
VCC63
VCC64
VCC65
VCC66
VCC67
VCC68
VCC69
VCC70
VCC71
VCC72
VCC73
VCC74
VCC75
VCC76
VCC77
VCC78
VCC79
VCC80
VCC81
VCC82
VCC83
VCC84
VCC85
VCC86
VCC87
VCC88
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VCC93
VCC94
VCC95
VCC96
VCC97
VCC98
VCC99
VCC100

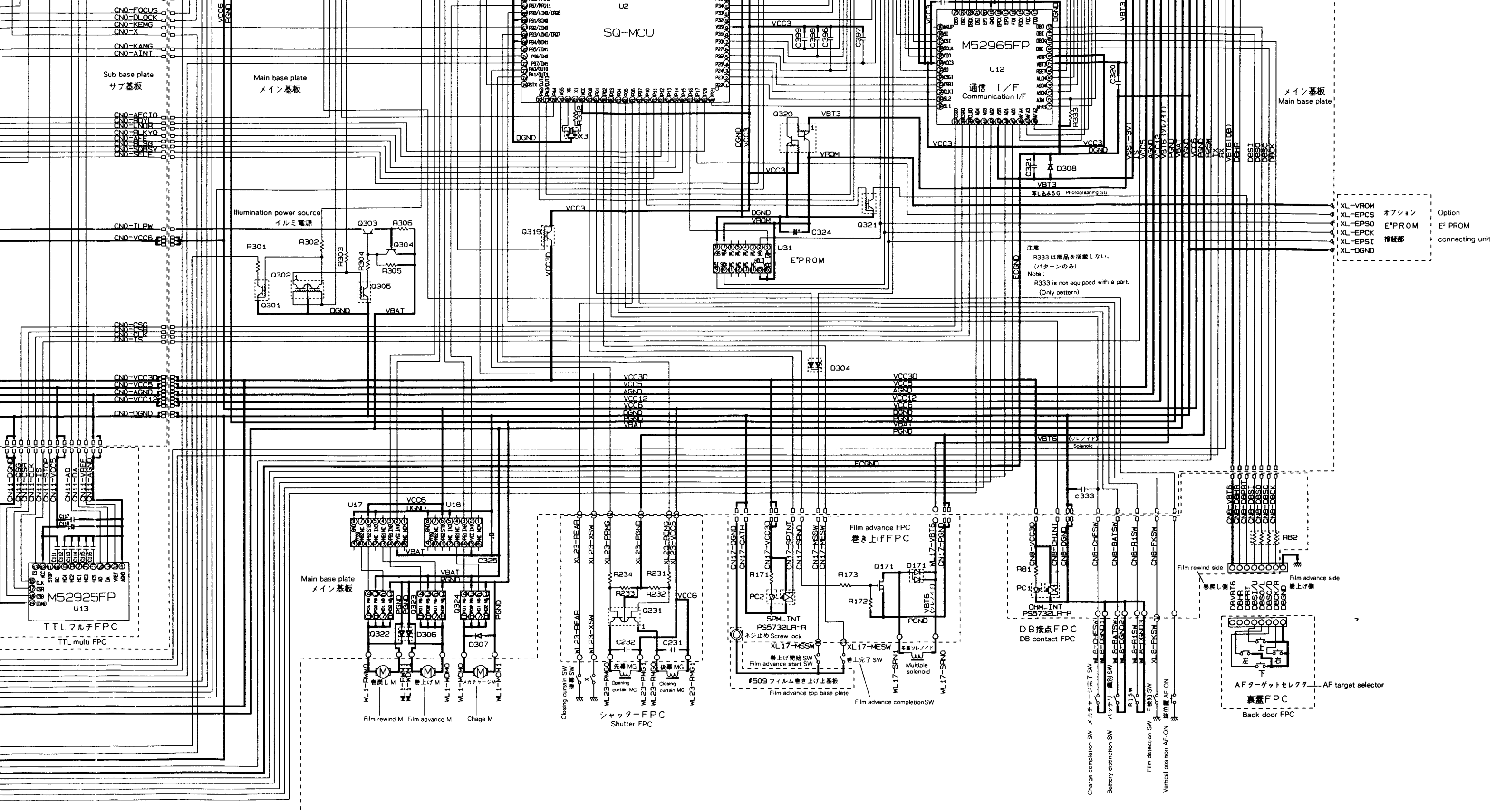




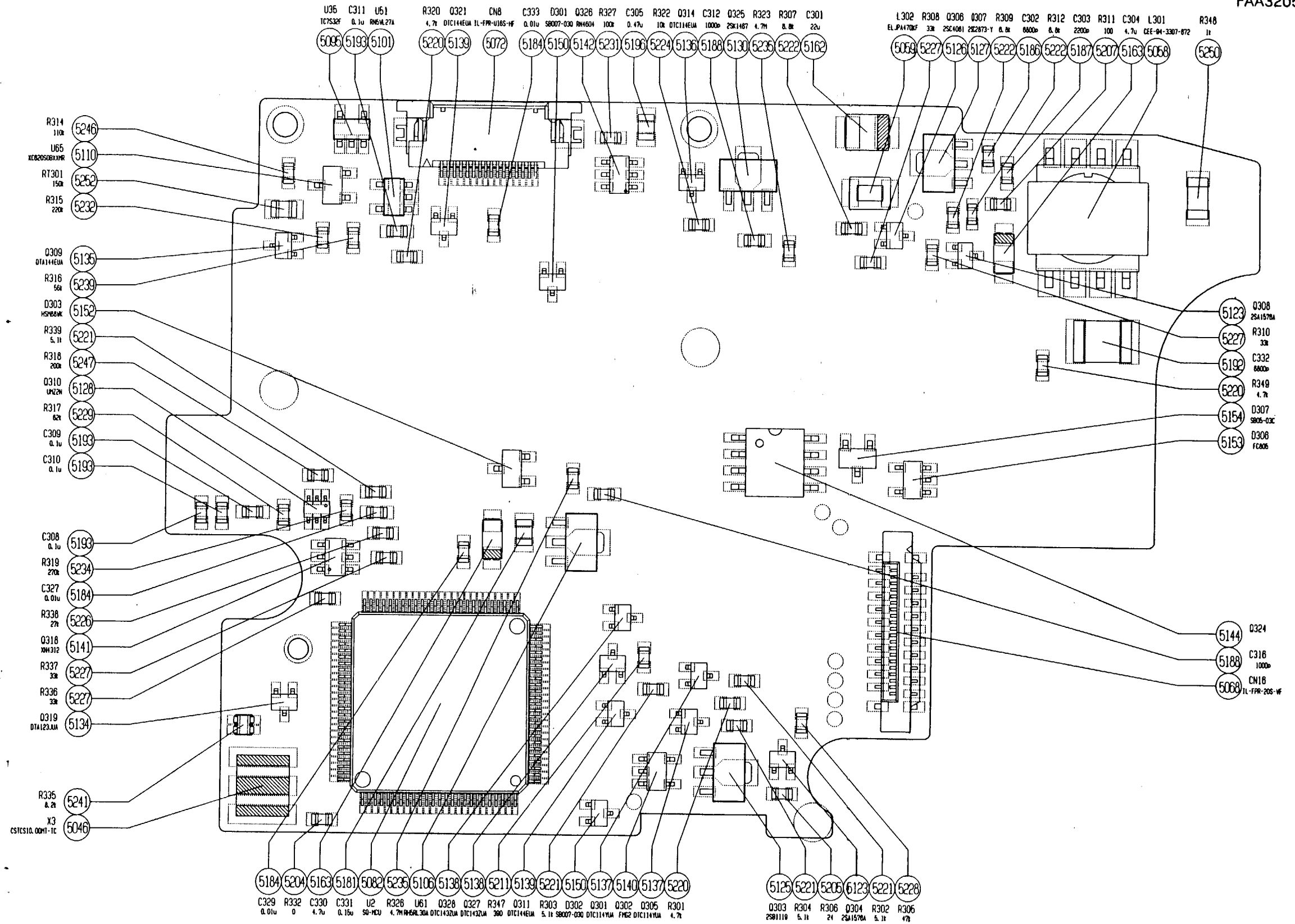
注意
R333は部品を搭載しない。
(パターンのみ)
Note:
R333 is not equipped with a part.
(Only pattern)

- XL-VROM オプション
- XL-EPCS E²PROM
- XL-EP50 E²PROM
- XL-EPCK 接続部
- XL-EP51 接続部
- XL-DGND

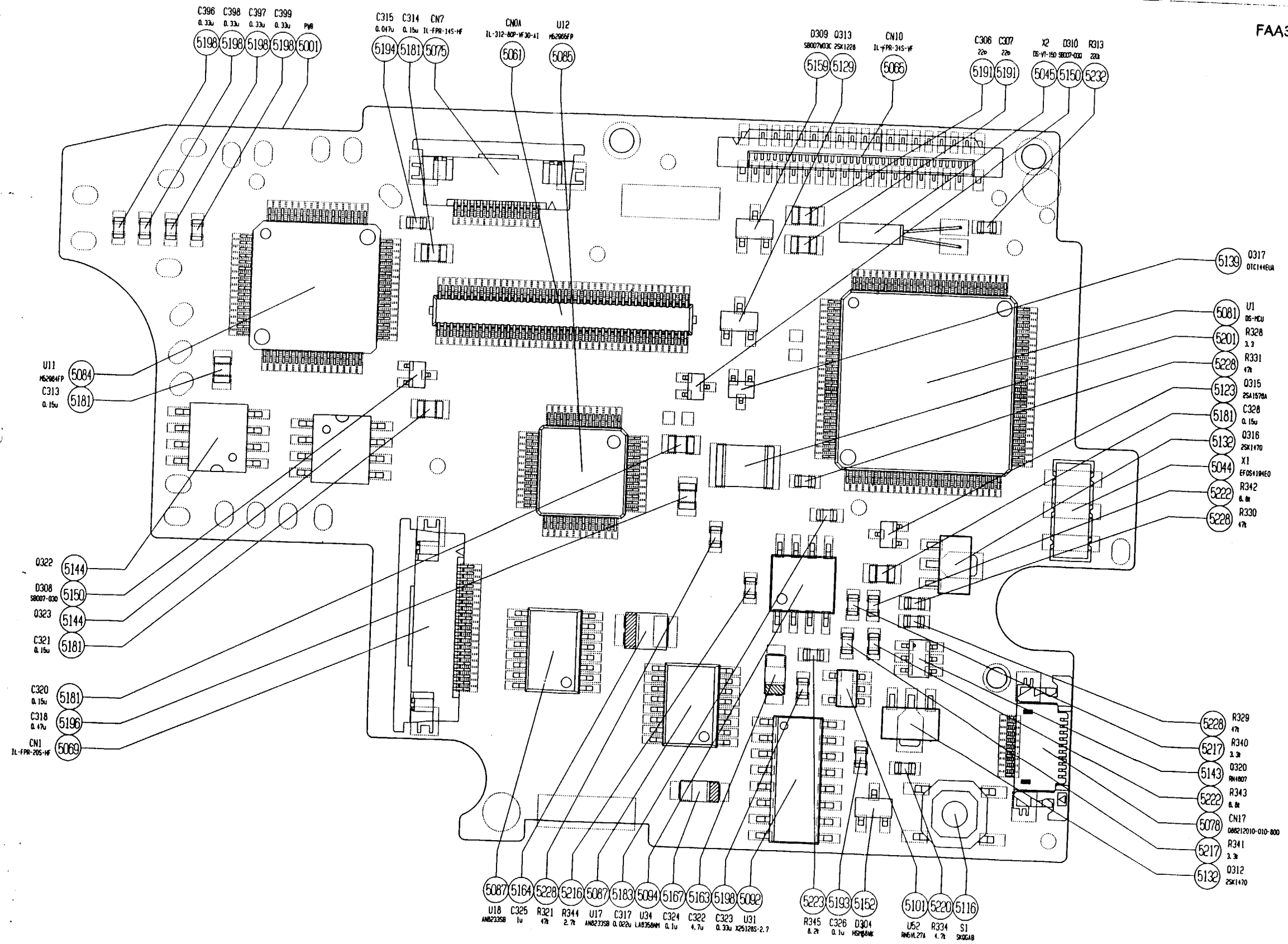




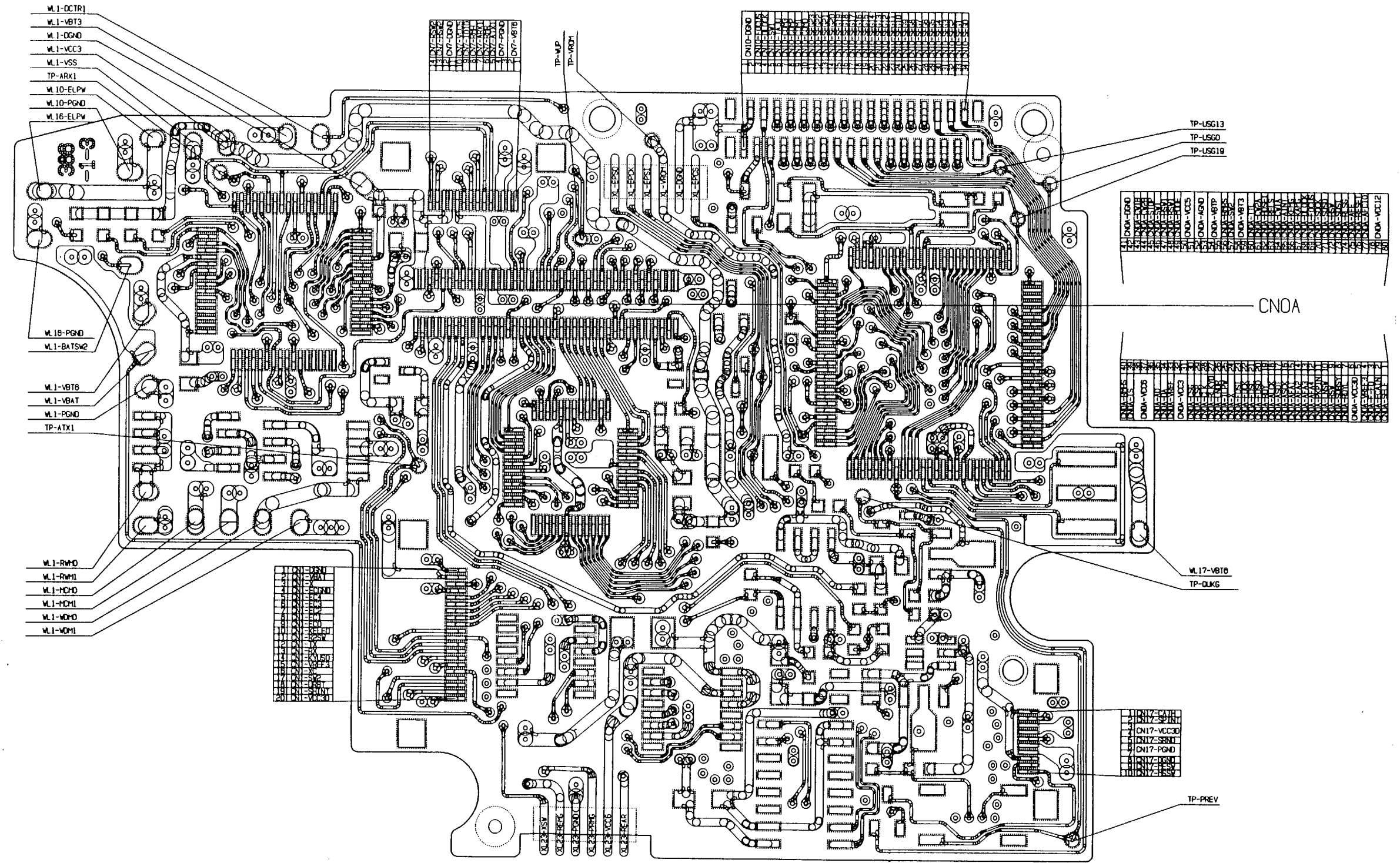
回路図
CIRCUIT DIAGRAM



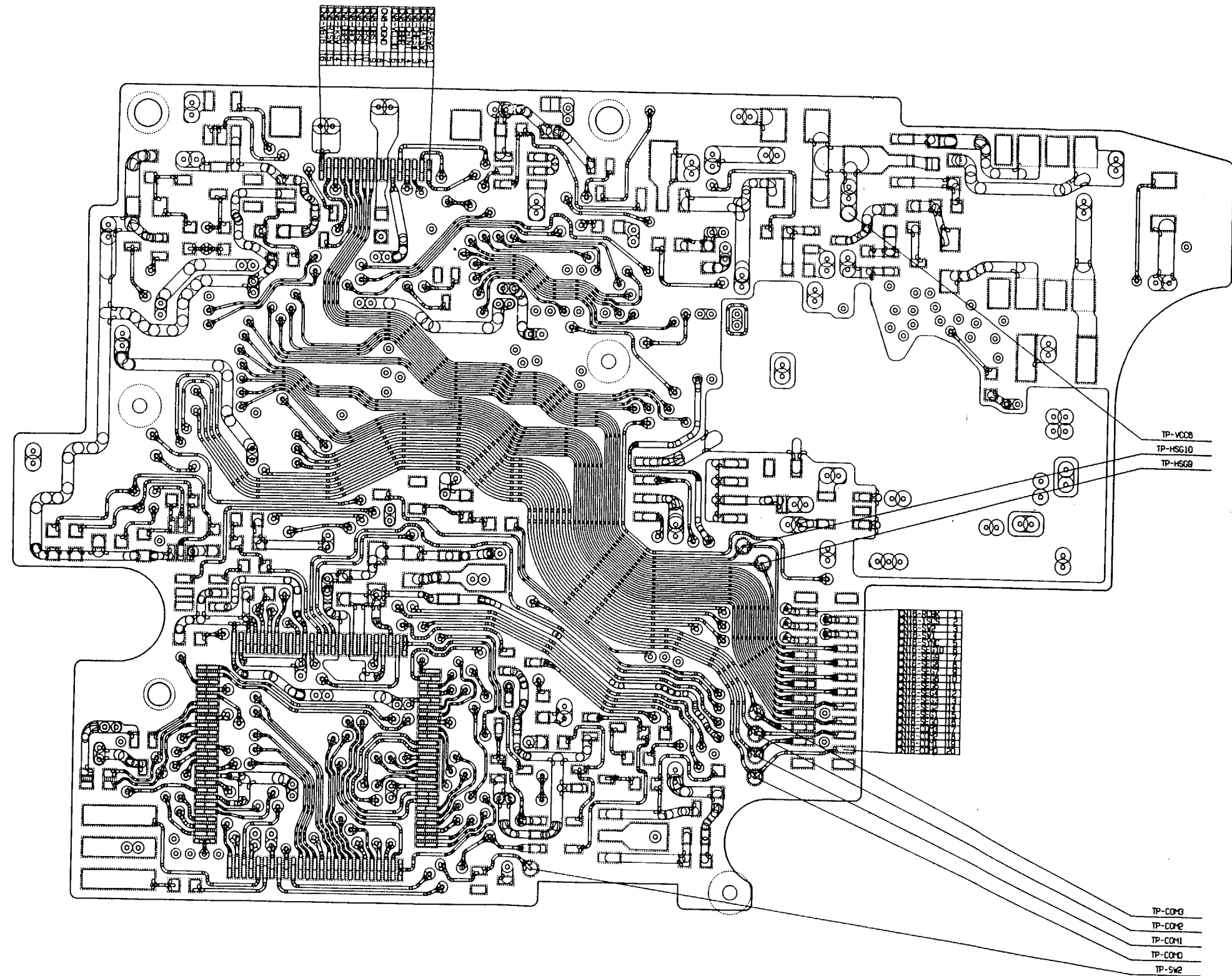
メイン基板
MAIN BASE PLATE



メイン基板
MAIN BASE PLATE

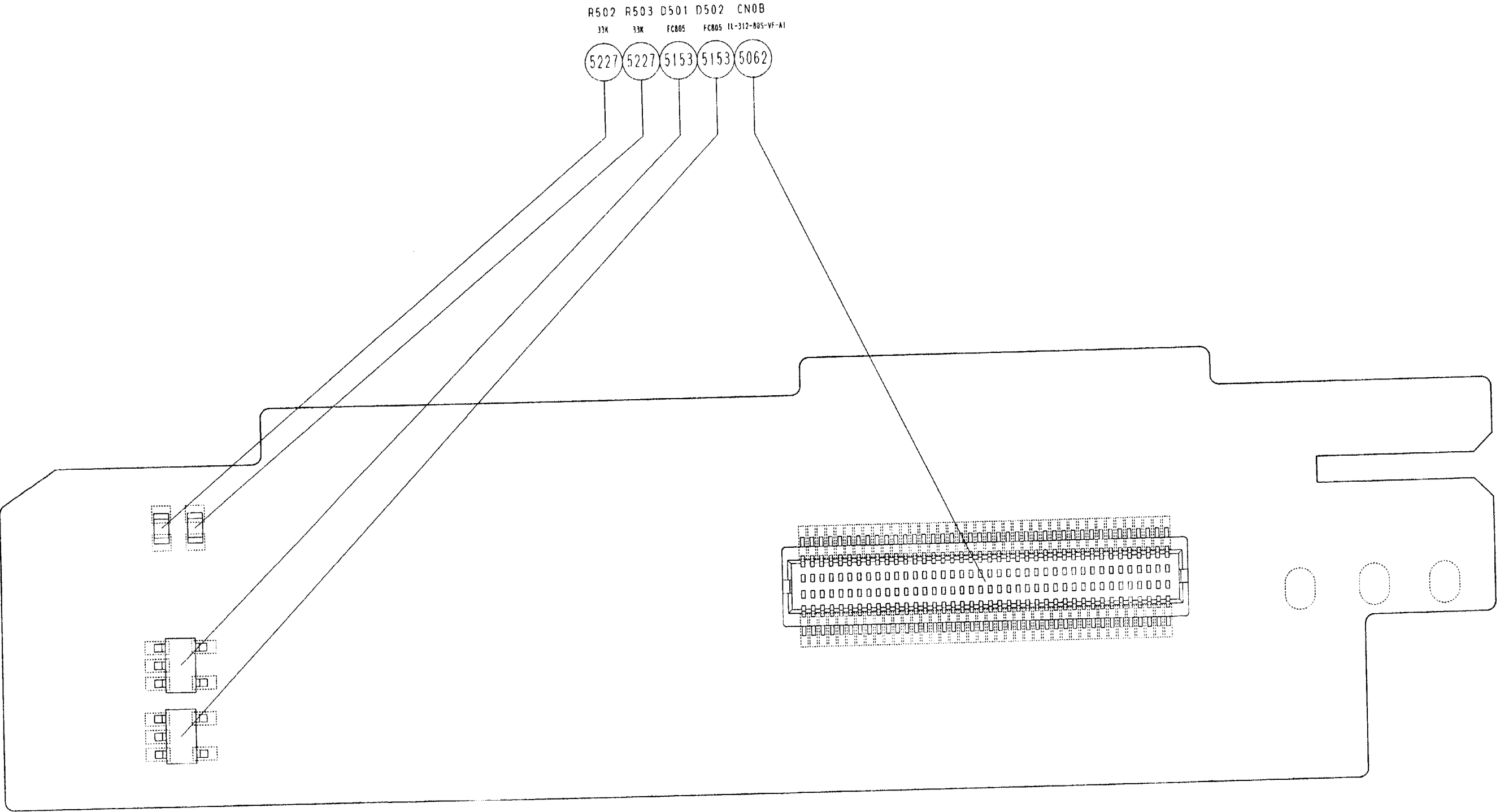


メイン基板
MAIN BASE PLATE

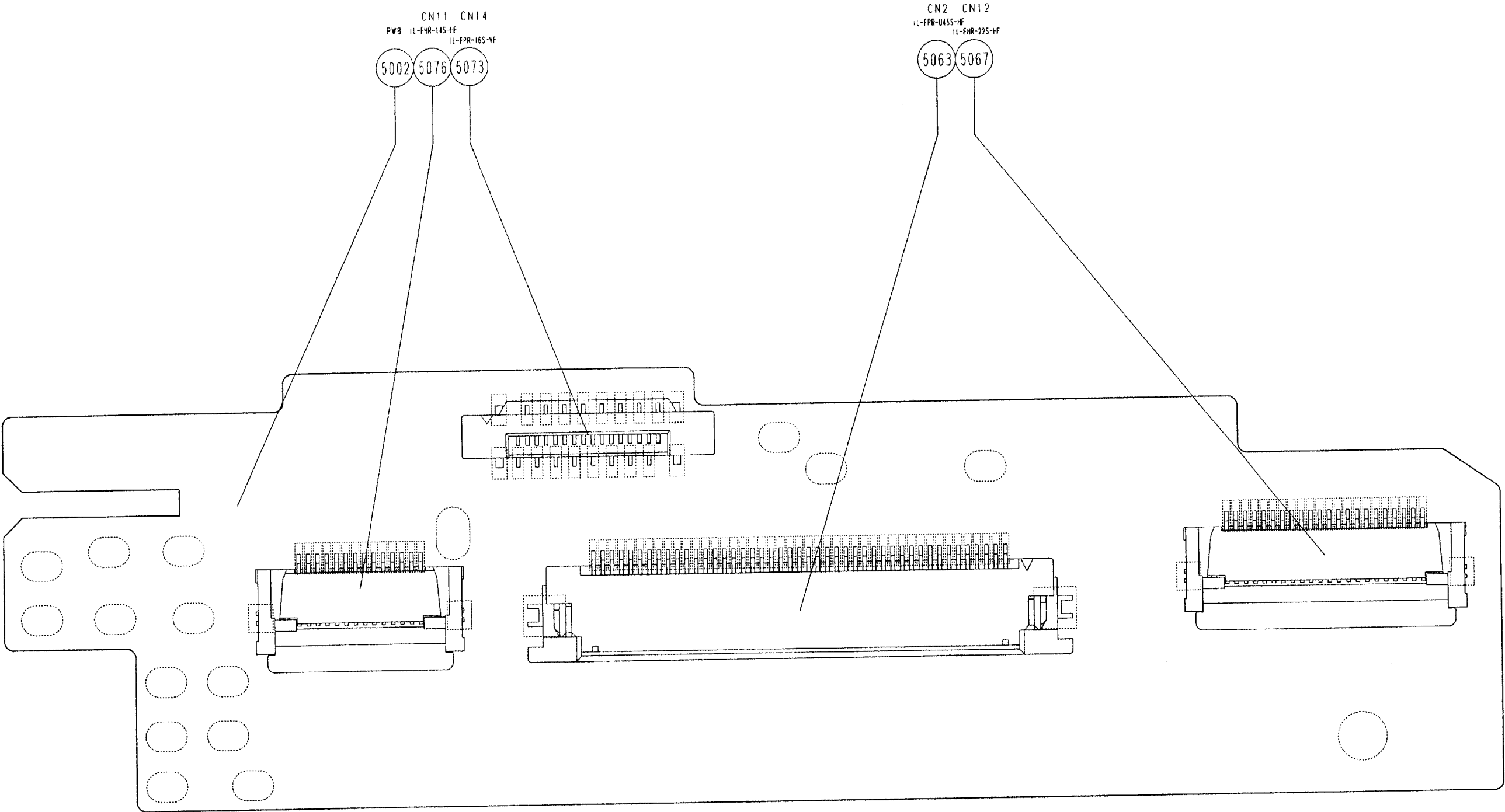


メイン基板
MAIN BASE PLATE





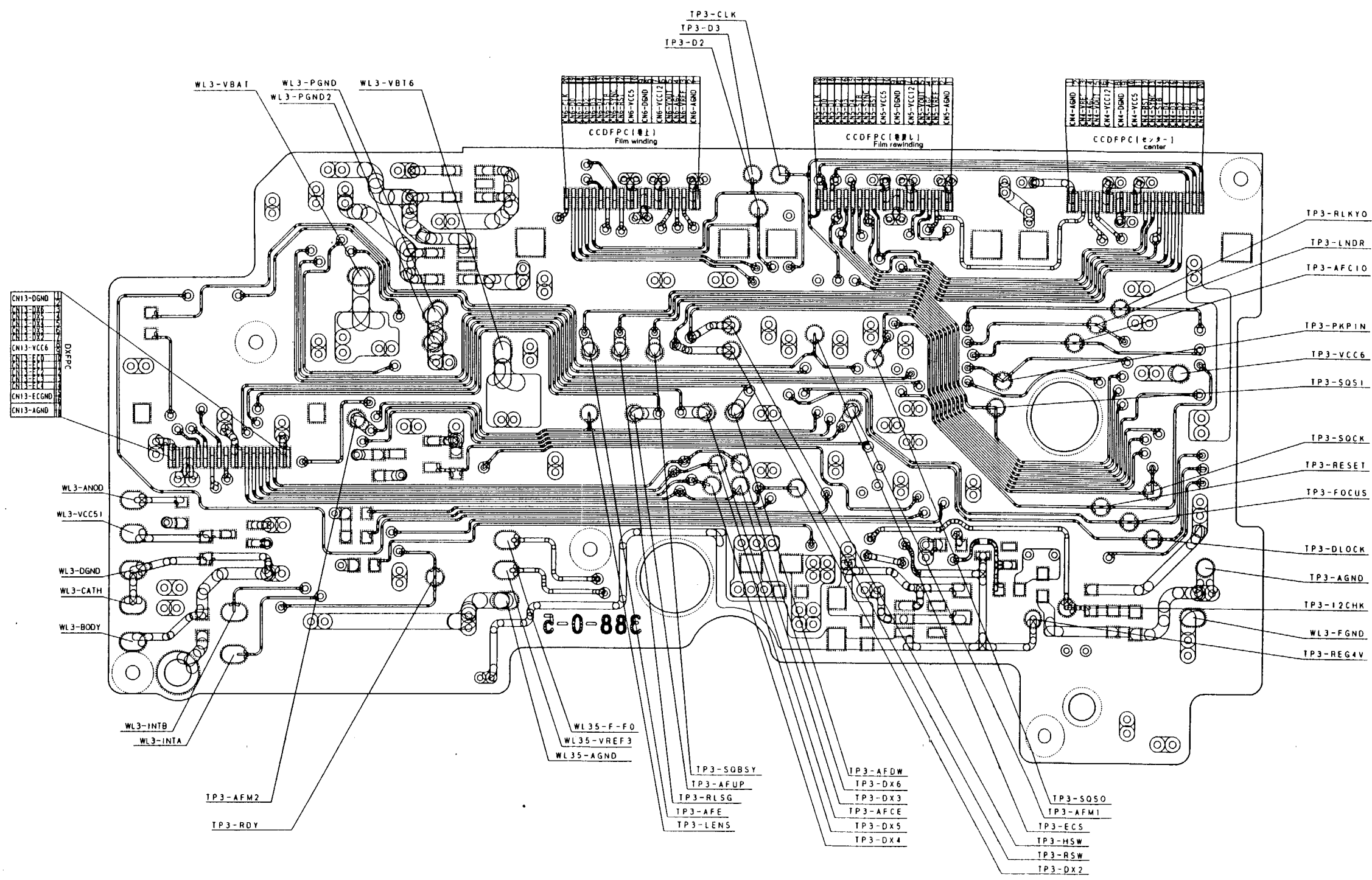
サブ基板
SUB BASE PLATE



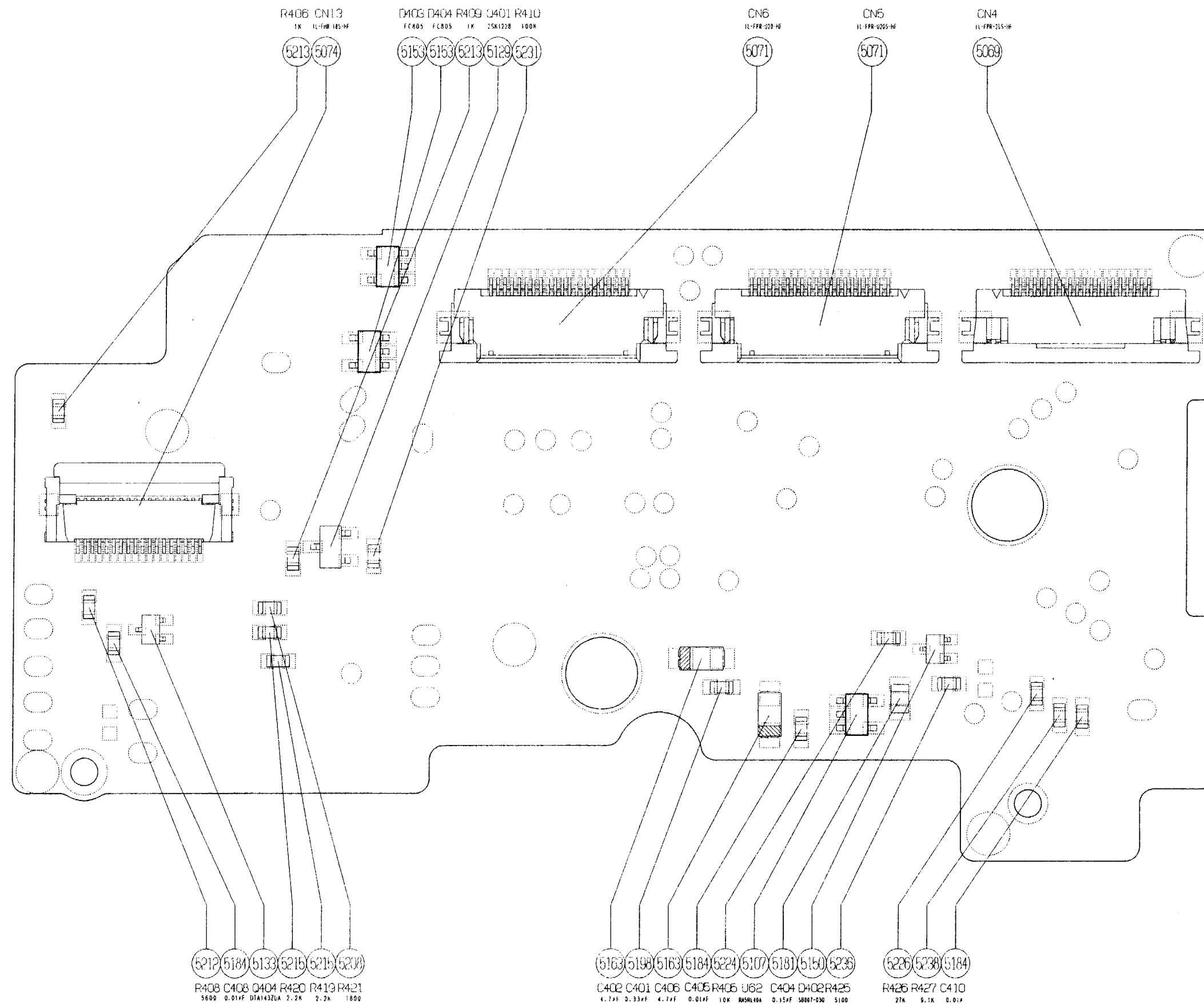
サブ基板
SUB BASE PLATE



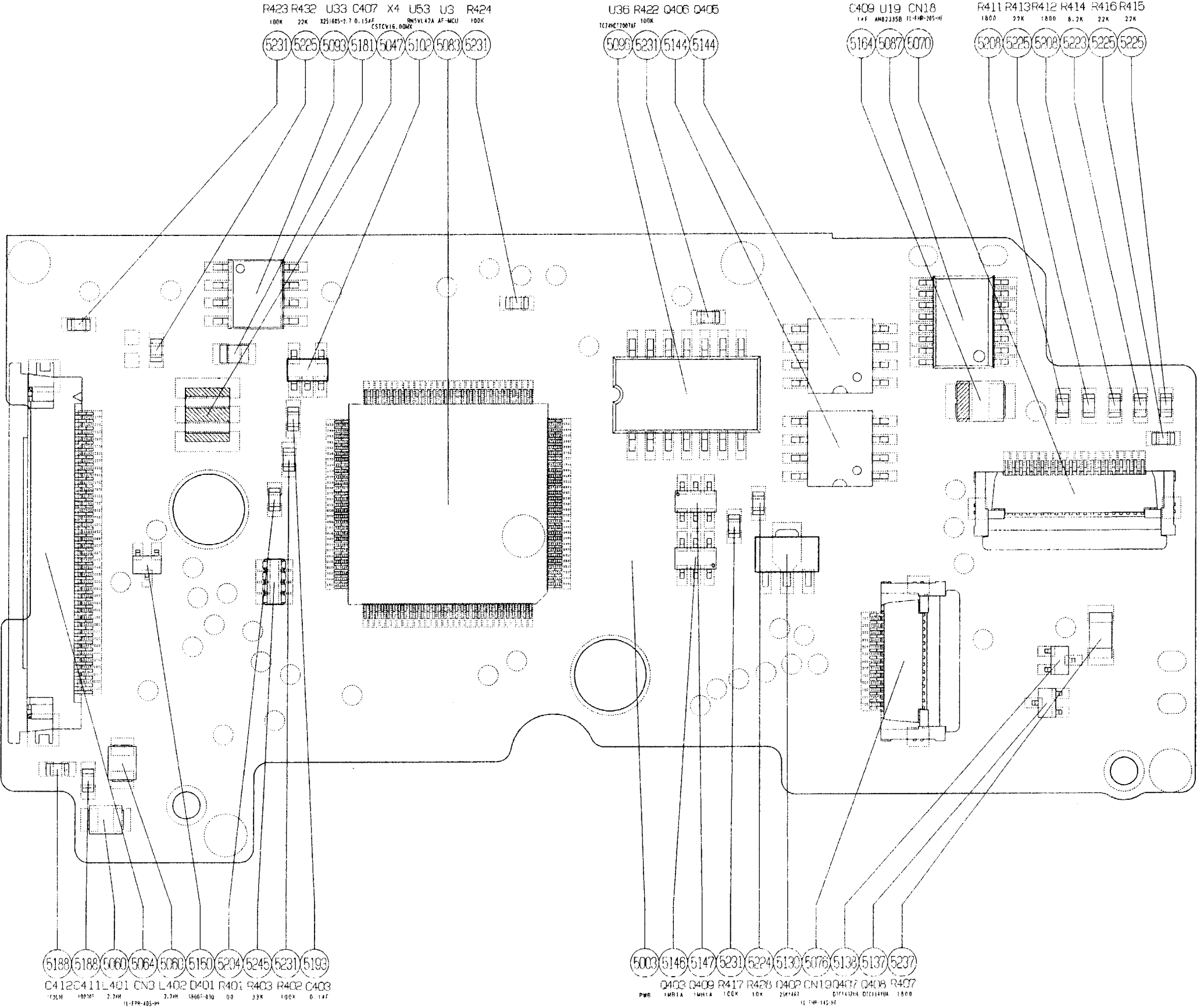
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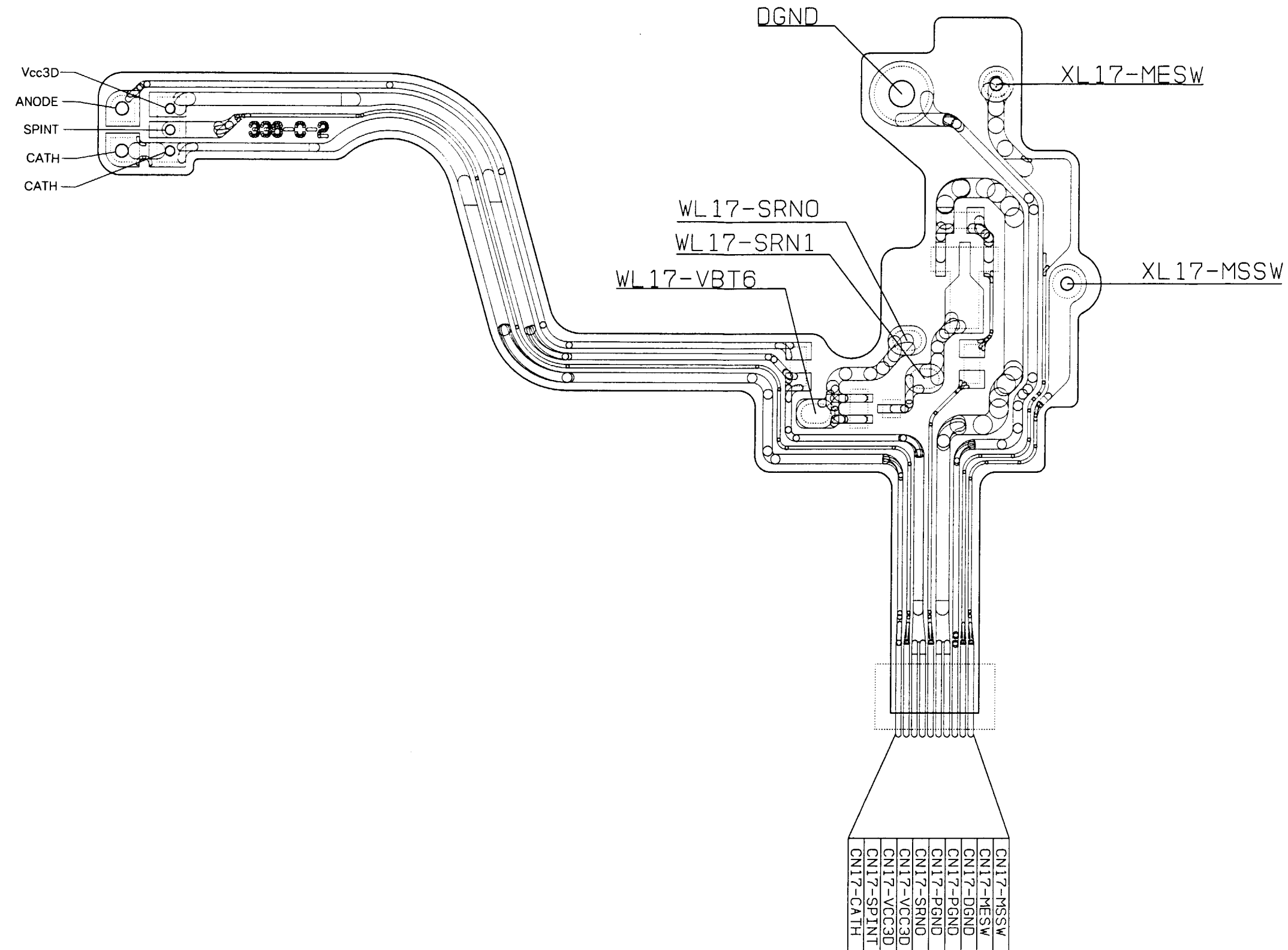
AF 基板
AF BASE PLATE



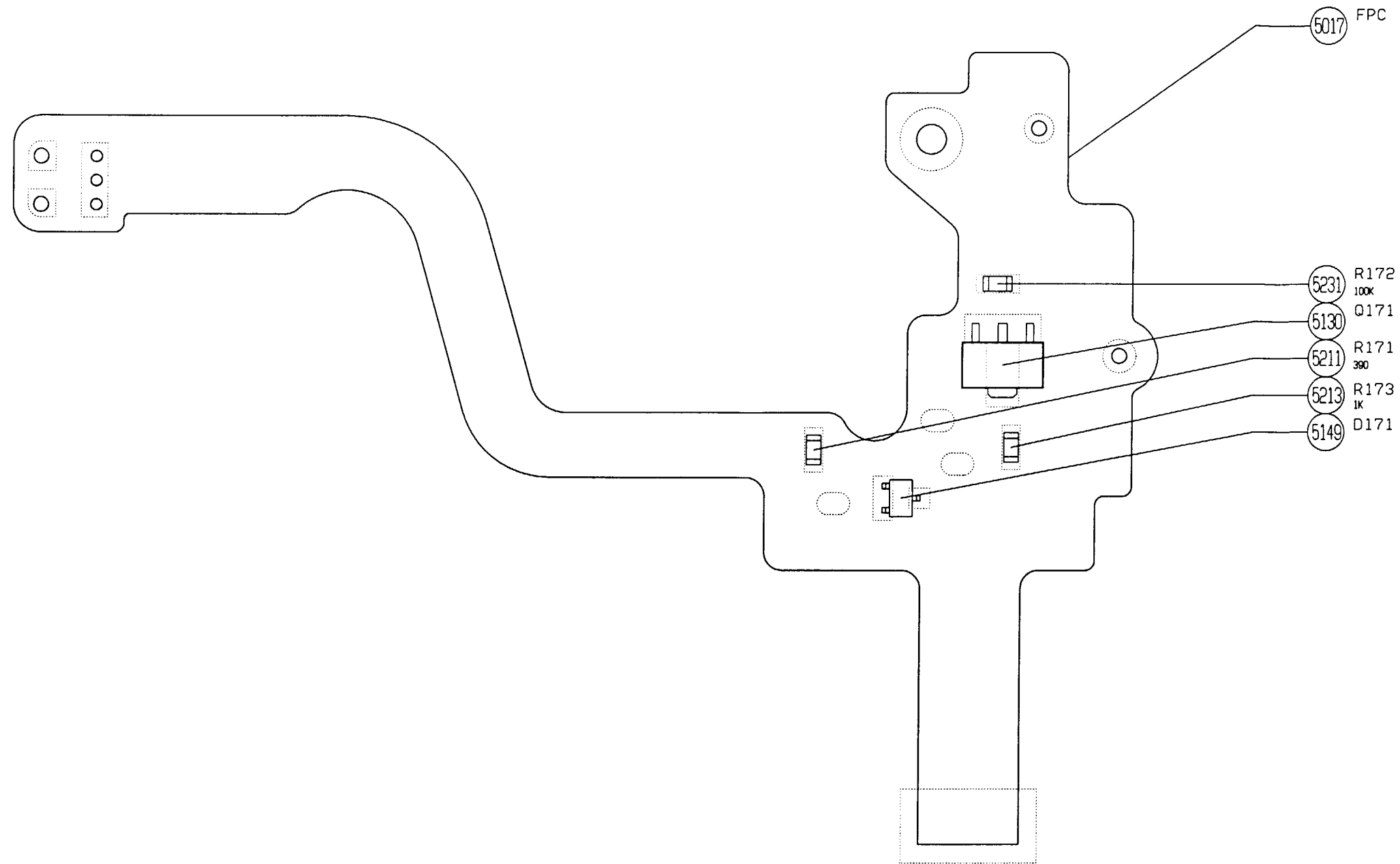
AF 基板
AF BASE PLATE



AF 基板
AF BASE PLATE

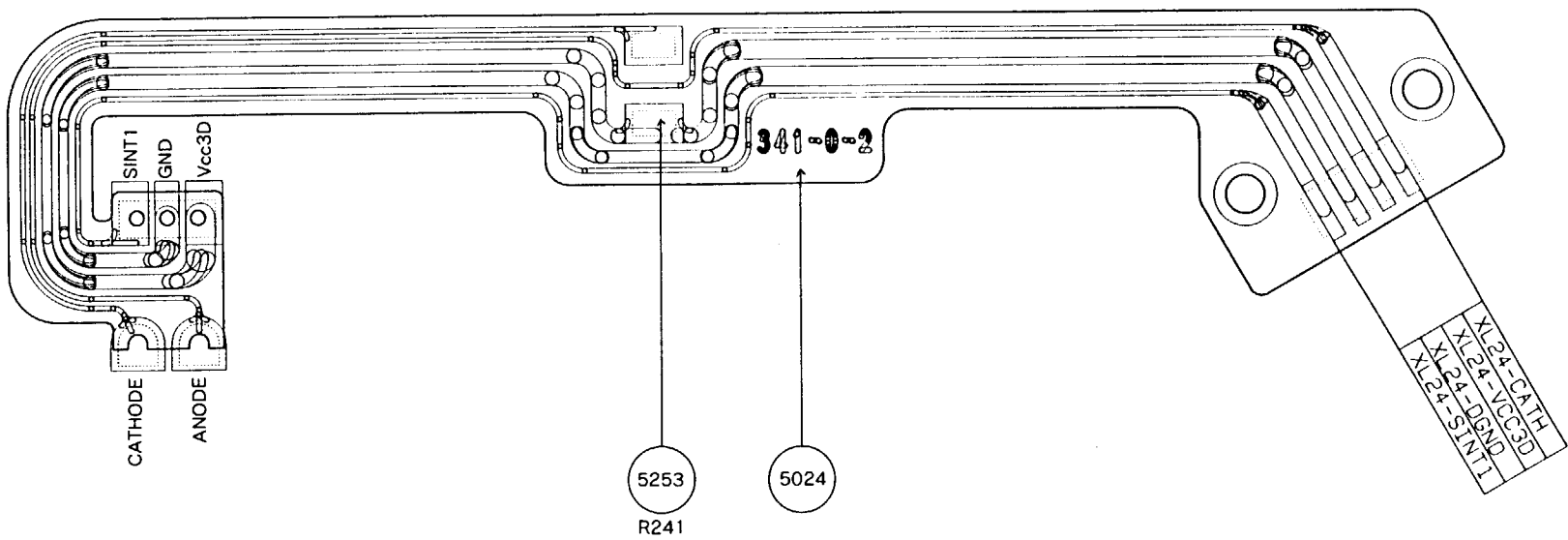


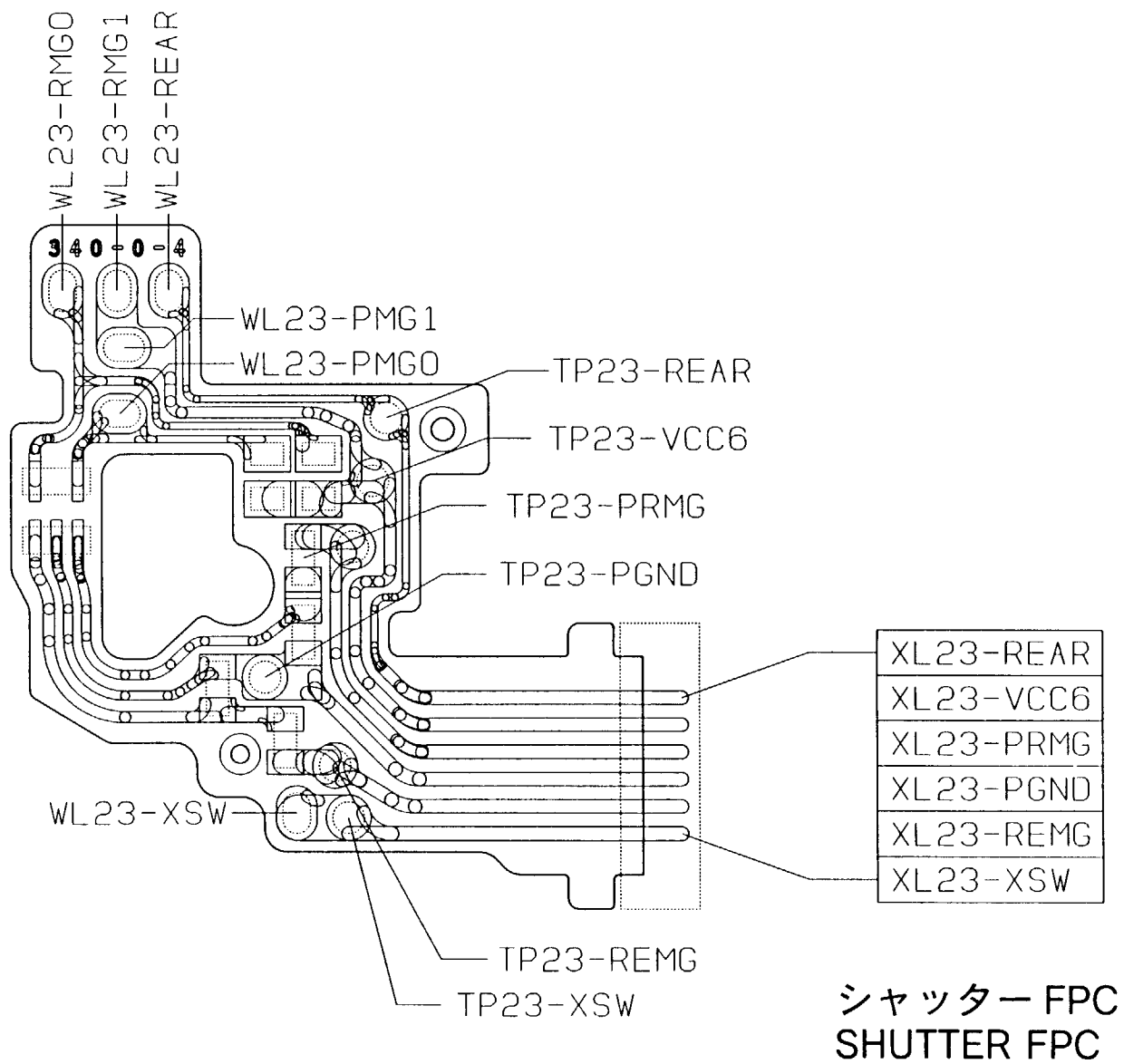
巻上げ FPC
FILM ADVANCE FPC UNIT

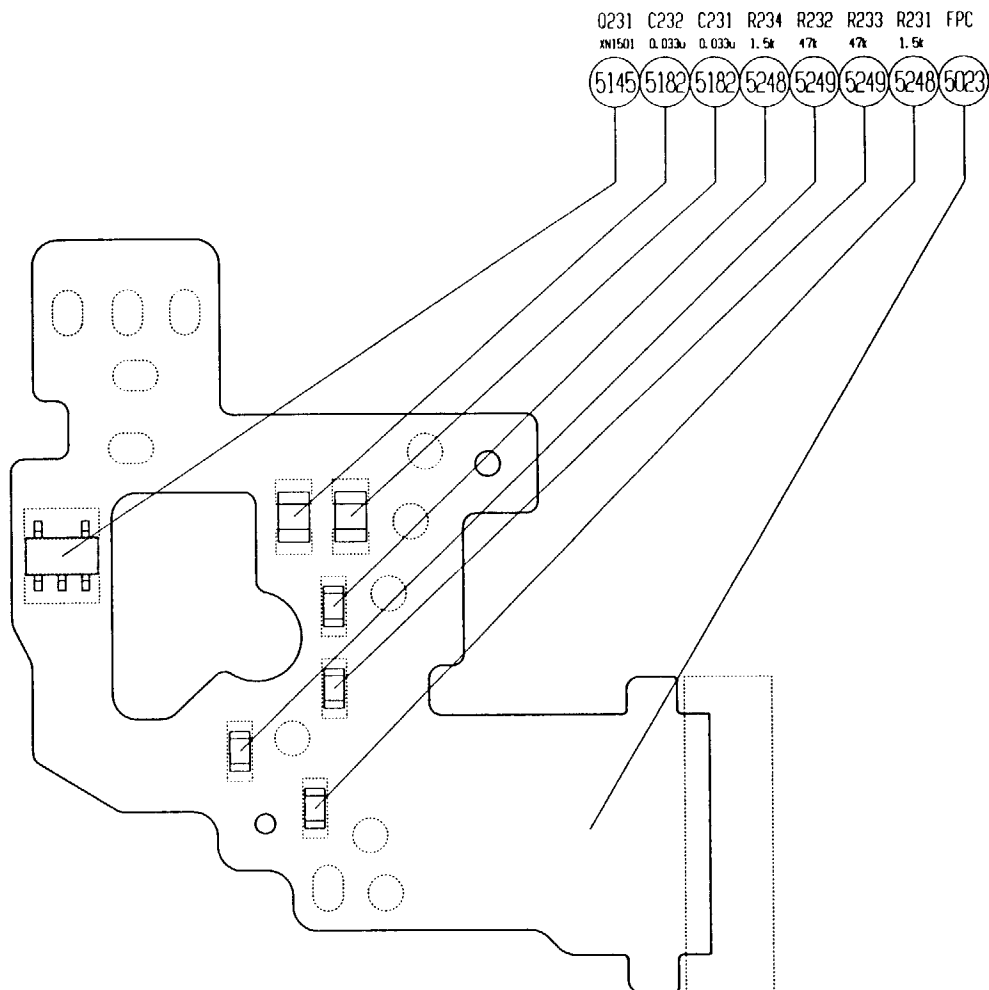


卷上げ FPC
FILM ADVANCE FPC UNIT

シャッター M FPC
SHUTTER M FPC



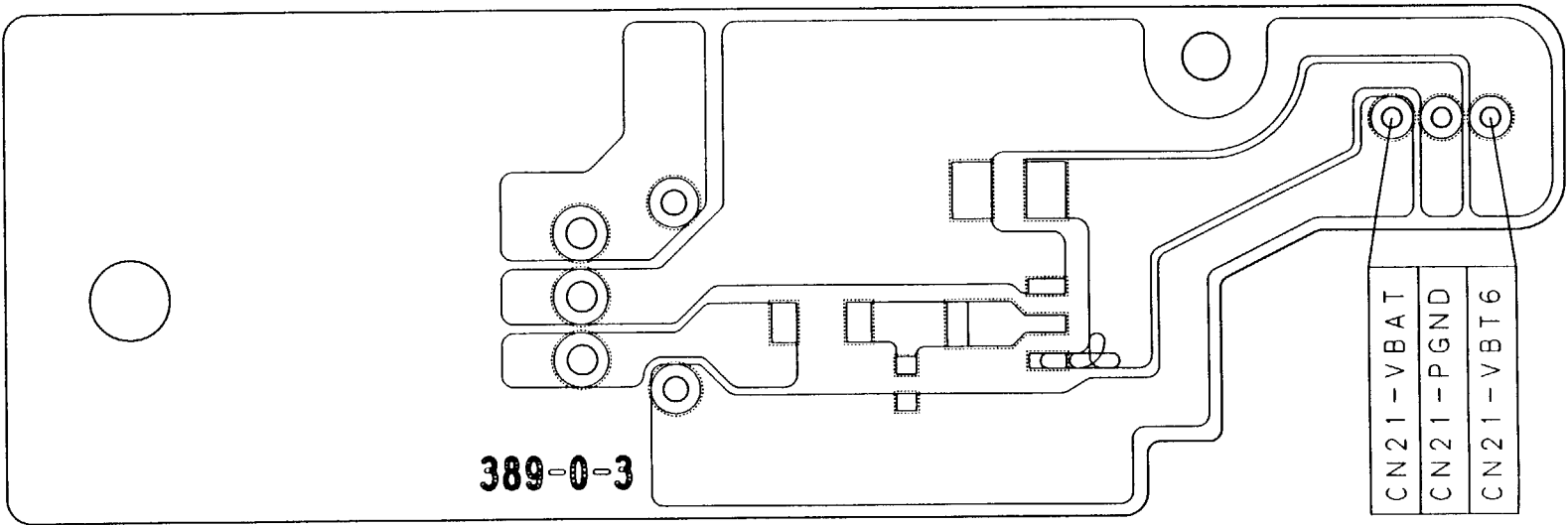




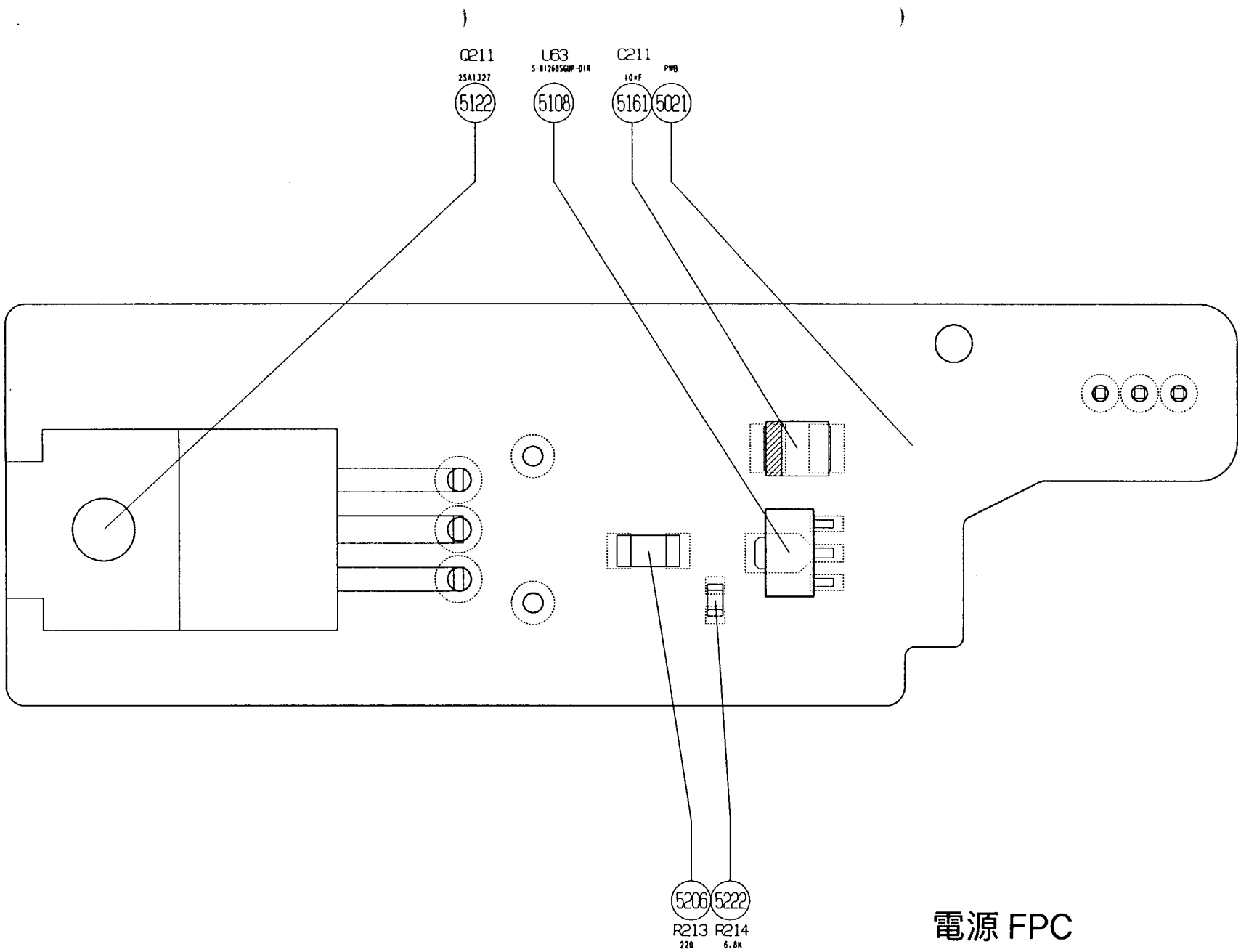
シャッター FPC
SHUTTER FPC



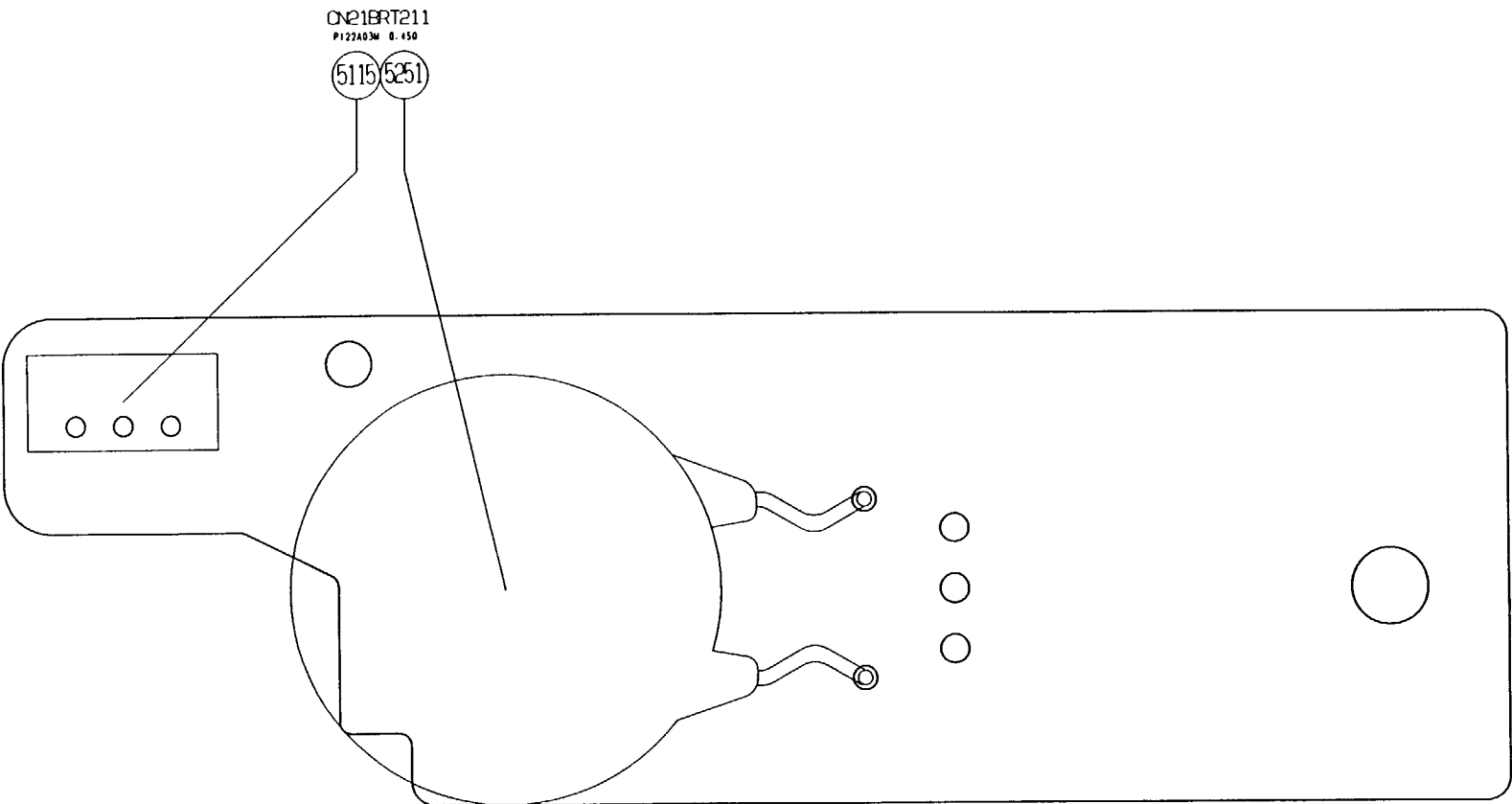
電源 FPC
POWER SOURCE FPC



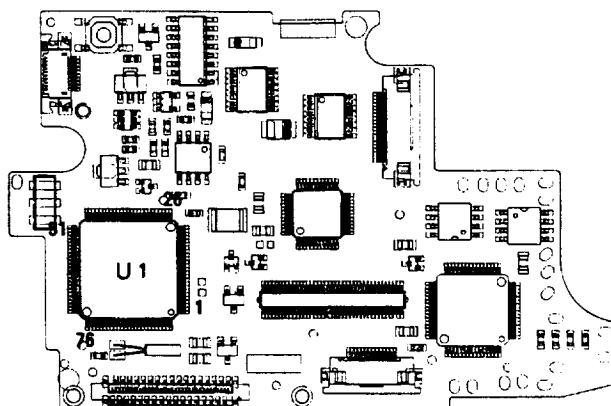
電源 FPC
POWER SOURCE FPC



電源 FPC
POWER SOURCE FPC



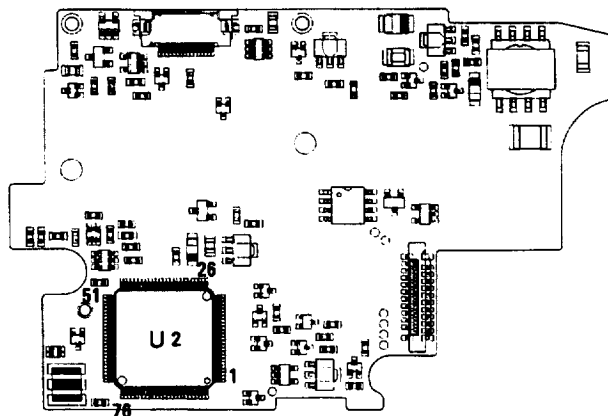
U1
DS-MCU



Pin No.	Name	Connected point	Function
1	PE4/RMC	VCC3	VCC3 monitor
2	PE5/PWM	Scan1	Scan-driving L output side
3	PE6/TO/ADJ	Scan2	Scan-driving L output side
4	PB0	M52964 LNSL	Wake F contact discriminate
5	PB1/CS0	M52965 DSC out	SQ-MCU communication output
6	PB2/SCK0	M52965 DSCK	SIO 0 SQ-MCU communication
7	PB3/SI0	M52965 DSI	
8	PB4/SO0	M52965 DSO	SB communication
9	PB5/SCK1	M52964 SBCK	
10	PB6/SI1	M52964 SBSI	
11	PB7/SO1	M52964 SBSO	
12	PC0	M52964 RSR	LNSL latch reset
13	PC1	SQ-MCU TTL START	SB communication
14	PC2	DC-DC	DC-DC control H: ON
15	PC3	M52964 TLC1	H: TTL Sync.ON
16	PC4	M52964 TTLR	L: TTL50 μ A source ON
17	PC5	M52964 TTLS	L: TTLSB install
18	PC6	SQ-MCU SB_RELEASE	SB release sequence =L
19	PC7	MAIN_SW	Main SW
20	PH0	AF MCU PIKAPINN	Require AF illuminater
21	PH1	WSTART_SW	Film winding start SW
22	PH2		System reset output H: reset
23	PH3	AF start button SW	Focus start
24	PH4	CW1A	Command dial1
25	PH5	CW1B	Command dial1
26	PH6	CW2A	Command dial2
27	PH7	CW2B	Command dial2
28	PA0/AN0	M52964 SBPL	H: TTL clamp ON
29	PA1/AN1	M52964 SBTR	H: RDY receiving direction
30	PA2/AN2	Sync.mode ,Camera back SW	Upper:SCAN1 Lower:SCAN2
31	PA3/AN3	ISO ,Custom	
32	PA4/AN4	Lock button ,BKT set control	
33	PA5/AN5	Preview	
34	PA6/AN6	Exp. compenstion, Back light	
35	PA7/AN7	F area mode ,Exposure mode	
36	RST	Reset	
37	EXTAL	4.19MHz	
38	XTAL		
39	Vss	GND	
40		N.C.	
41		GND	
42	AVref	VBAT3	A/D power supply
43	AVss	GND	
44	VL	VL	LCD power supply

Pin No.	Name	Connected point	Function
45	VLC3	(VL)	LCD power supply
46	VLC2	1/3 Vdd	
47	VLC1	2/3 Vdd	
48	COM0	COM0	common
49	COM1	COM1	
50	COM2	COM2	
51	COM3	COM3	
52	SEG0	SEG0 Top side	<div>↓</div>
53	SEG1		
54	SEG2		
55	SEG3		
56	SEG4		
57	SEG5		
58	SEG6		
59	SEG7		
60	SEG8		
61	SEG9		
62	SEG10		
63	SEG11		
64	SEG12		
65	SEG13		
66	SEG14		
67	SEG15	SEG15	Top side LCD segment
68	SEG16/PD0	SEG16	
69	SEG17/PD1	SEG17	
70	SEG18/PD2	SEG18	
71	SEG19/PD3	SEG19	
72	SEG20/PD4	N.C.	
73	SEG21/PD5	N.C.	
74	SEG22/PD6	N.C.	
75	SEG23/PD7	Q309	VCC6 control
76	SEG24/PF0	SEG20	Top side LCD segment
77	SEG25/PF1	SEG21	
78	SEG26/PF2	SEG22	
79	SEG27/PF3	SEG23	
80	SEG28/PF4	SEG0 Rear side	Rear side LCD segment
81	SEG29/PF5	SEG1 LCD	
82	SEG30/PF6	SEG2 ↓	
83	SEG31/PF7	SEG3	
84	SEG32/PG0	SEG4	
85	SEG33/PG1	SEG5	
86	SEG34/PG2	SEG6	
87	Vdd	Vdd	Power source
88	NC	Vdd	
89	Vss	Vss	
90	TX	32KHz	32KHz
91	TEX		
92	SEG35/PG3	SEG7	Rear side LCD segment
93	SEG36/PG4	SEG8	
94	SEG37/PG5	SEG9	
95	SEG38/PG6	SEG10	
96	SEG39/PG7	N.C.	Not in use
97	PER0/INT0/EC0	GND	
98	PE1/INT1	GND	
99	PE2/INT2	M52964 WUP	Wake up input
100	PE3/INT3/NMI	M52965 DSC	SQ-MCU communication input

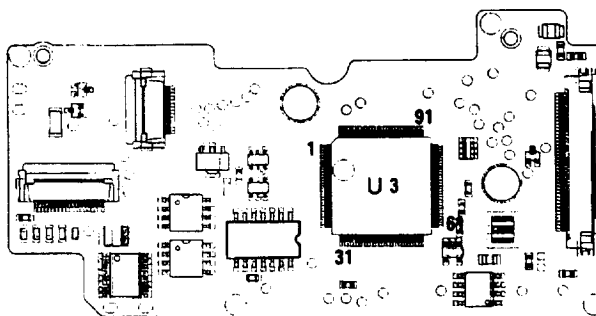
U2
SQ-MCU



Pin No.	Name	Connected point	Function
1	P22	M52965	SL2
2	P23	M52965	CSGI (M52925)
3	P24	M52965	CLKI (M52925)
4	P25	M52965	CSRI (M52925)
5	P26	M52964	RMHS
6	P27	M52964	RMRS
7	P30	M52964	HSW (Pre-release SW sig.)
8	P31	M52964	RSW (Release SW sig.)
9	VSS		DGND
10	P32	M52964	R2S0 (R2SW)
11	P33	M52964	Xout
12	P34	M52964	CIS
13	P35	M52964	RDYC
14	P36	M52964	I10
15	P37/CLK	M52964	O10
16	P40/SIN0	M52964	ARX
17	P41/SOT0	M52964	ATX
18	P42/SCK0	M52964	TLC2
19	P43/SIN1	M52965	SI (Clock SIO in)
20	P44/SOT1	M52965	SO (Clock SIO out)
21	VCC		VCC3
22	P45/SCK1	M52965	SCLK (Clock SIO CLK)
23	P46/ADTG	M52965	CI0 (Clock SIO CIO)
24	P47	LED drv Tr	Warning LED
25	P70	LED drv Tr	Self-timer LED
26	P71	IL MOS	Illuminator power supply
27	P72		SB Release
28	DVR+		+ 3 V
29	DVSS		AGND
30	P73/DA00	M52925 Buffer	M52925 D/A
31	P74/DA01		
32	AVCC		+ 3 V
33	AVR+		+ 3 V
34	AVR-		AGND
35	AVSS		AGND
36	P50/AN0		F-F0
37	P51/AN1		Film advance mode
38	P52/AN2		Voltage for battery
39	P53/AN3	M52925 Buffer	TTL control monitor (M52925)
40	VSS		DGND
41	P54/AN4	M52925 Buffer	Temperature detection
42	P55/AN5		
43	P56/AN6		
44	P57/AN7		AGND

Pin No.	Name	Connected point	Function
45	P80 / IRQ0	DS-MCU	TTL control start
46	P81 / IRQ1	XSW	X contact
47	MD0		VCC 3
48	MD1		VCC 3
49	MD2		DGND
50	HSTX		VCC 3
51	P82 / IRQ2	M52964	RDYF
52	P83 / IRQ3	M52964	STP2
53	P84 / IRQ4	M52965	CSI (Clock SIO CSI)
54	P85 / IRQ5	AF-MCU	AF-CIO
55	P86	EL control	EL control
56	P87		interrupter ON/OFF
57	P60 / SIN2	AF-MCU	SQ SI (Clock SIO)
58	P61 / SOT2	AF-MCU	SQ SO (Clock SIO)
59	P62 / SCK2	AF-MCU	SQ CK (Clock SIO)
60	P63 / PPG00	SPM0, RW M0	Spool motor 0, Film rewind M0
61	P64 / PPG01	SPM1, RW M1	Spool motor 1, Film rewind M1
62	P65 / CKOT	triac	Xout for triac
63	P66 / PPG10	SHM0	Shutter monitor 0
64	P67 / PPG11	SHM1	Shutter monitor 1
65	P90 / AIN0 / IRQ6	SH INT	SHM interrupter
66	P91 / BIN0		DGND
67	P92 / ZIN0		Aperture lock MG
68	P93 / AIN1 / IRQ7	SPM INT	SPM interrupter
69	P94 / BIN1		DGND
70	P95 / ZIN1		Aperture control start MG
71	P96 / IN0	AP INT	Aperture interrupter
72	P97 / IN1	SHT MONI	Shutter monitor
73	PA0 / OUT0		Opening-curtainMG
74	PA1 / OUT1		Closing-curtain MG
75	RSTX	DS-MCU	RESET
76	PA2 / OUT2	M52964	RMHO
77	PA3 / OUT3	M52964	RMRO
78	PA4		Release MG
79	VSS		DGND
80	X0		Xtal
81	X1		Xtal
82	VCC		VCC 3
83	P00		Solenoid
84	P01		Film winding start SW
85	P02		Film adv. completion SW
86	P03		Mech charge completion
87	P04		Battery identify
88	P05		R 1 SW
89	P06		Closing-curtain SW
90	P07		Film detection SW
91	P10		Imprint sig
92	P11	AF-MCU	SQ BUSY
93	P12	AF-MCU	Lens drv sg
94	P13	AF-MCU	Release accept
95	P14	AF-MCU	AF E
96	P15	AF-MCU	RLS SG
97	P16	EEPROM1	CS1 EEPROM
98	P17	EEPROM2	CS2 EEPROM
99	P20	LED	RDY LED
100	P21	M52965	SL1

U 3
AF-MCU



Pin No.	Name	Connected point	Function
1	VCC		VCC 5
2	PC0/A0	DX2	DX2
3	PC1/A1	DX3	DX3
4	PC2/A2	DX4	DX4
5	PC3/A3	DX5	DX5
6	VSS		DGND
7	PC4/A4	DX6	DX6
8	PC5/A5	FD LED	+ (Over)
9	PC6/A6	FD LED	○ (Proper)
10	PC7/A7	FD LED	- (Under)
11	PB0/A8	FD LED	▼ Left
12	PB1/A9	FD LED	▼ Right
13	PB2/A10	FD LED	Up
14	PB3/A11	FD LED	Center
15	VSS		DGND
16	PB4/A12	FD LED	Down
17	PB5/A13	FD LED	Front focus
18	PB6/A14	FD LED	● In-focus
19	PB7/A15	FD LED	Rease focus
20	PA0/A16	F contact	FPWR C (F contact power control)
21	PA1/A17	INT control	INT C (Interrupter control)
22	PA2/A18	M52964 (out)	RSW (Release SW sig)
23	PA3/A19	M52964 (out)	HSW (Pre-release SW sig)
24	VSS		DGND
25	PA4/A20/IRQ4		SQ BUSY SQ-MCU
26	PA5/A21/IRQ5	SQ-MCU	RLS SG (Release sig)
27	PA6/A22/IRQ6	SQ-MCU	AF E (AF accept)
28	PA7/A23/IRQ7	B contact	RW1 INT B contact
29	P67/IRQ3/CS7		N.C
30	P66/IRQ2/CS6		N.C
31	P65/IRQ1		N.C
32	P64/IRQ0		N.C
33	VCC		VCC 5
34	PE0/D0	CCD	CCD D0
35	PE1/D1	CCD	CCD D1
36	PE2/D2	CCD	CCD D2
37	PE3/D3	CCD	CCD D3
38	VSS		DGND
39	PE4/D4	CCD	CCD D4
40	PE5/D5	CCD	CCD STB-R
41	PE6/D6	CCD	CCD STB-C
42	PE7/D7	CCD	CCD STB-L
43	PD0/D8		Double lock SW
44	PD1/D9		Focus start SW
45	PD2/D10		Lens release SW
46	PD3/D11		AF-MODE SW2
47	VSS		DGND
48	PD4/D12		AF-MODE SW1
49	PD5/D13	EC contact	EC Detection
50	PD6/D14		Trigger for spot metering (Horizontal)
51	PD7/D15		Trigger for spot metering (Vertical)
52	VCC		VCC 5
53	P30/TXD0	SQ-MCU	SQ SI

Pin No.	Name	Connected point	Function
54	P31/TXD1	EEPROM	EEPROM SI
55	P32/RXD0	SQ-MCU	SQ-SO
56	P33/RXD1	EEPROM	EEPROM SO
57	P34/SCK0	SQ-MCU	SQ CLK SO
58	P35/SCK1	EEPROM	EEPROM CLK
59	VSS		DGND
60	P60/DREQ0/CS4	EEPROM	EEPROM CS
61	P61/TEND1/CS5		BHR Trigger output
62	P62/DREQ1		THR Trigger output
63	P63/TEND1	SQ-MCU	release accept
64	P27/P07/TIOCB5/TMO1	SQ-MCU	Lens DRV sg
65	P26/P06/TIOCA5/TMO0	SQ-MCU	AF CIO
66	P25/P05/TIOCB4/TMCI1	DS-MCU	AF Illuminator
67	P24/P04/TIOCA4/TMRI1	CCD	CCD CLK
68	P23/P03/TIOCD3/TMCI0	EEPROM	EEPROM WP
69	P22/P02/TIOCC3/TMRI0	MDIC INT1	PWM LO → HI break
70	P21/P01/TIOCB3		N.C
71	P20/P00/TIOCA3	MDIC INT2	PWM LO → HI break
72	WDT0VF WDT OUT		
73	RES	DS-MCU	RESET
74	NMI		VCC 5
75	STBY		VCC 5
76	VCC		VCC 5
77	XTAL		X' TAL
78	EXTAL		X' TAL
79	VSS		DGND
80	PF7/clock 20MHz	N.C	
81	VCC	VCC 5	
82	PF6/AS	ASCK	M52965
83	PF5/RD	ALCK	M52965
84	PF4/HWR	ASDA	M52965
85	PF3/LWR	AFA4	M52965
86	PF2/WAIT/BREQ0	AFA3	M52965
87	PF1/BACK	AFA2	M52965
88	PF0/BREQ	AFA1	M52965
89	P50/TXD2	L SO (D contact)	D contact Nch Mos
90	P51/RXD2	L SI (D contact)	D contact
91	P52/SCK2	L CK (C contact)	
92	P53/ADTRG	SYNC	CCD
93	AVCC	VCC 5	
94	VREF	+4V	
95	P40/AN0	CCD-L/R (shard)	CCD
96	P41/AN1	AGND	
97	P42/AN2	AGND	
98	P43/AN3	AGC-L	CCD
99	P44/AN4	AGC-C	CCD
100	P45/AN5	AGC-R	CCD
101	P46/AN6/DA0	Vcc12V monitor(A/D)	Vcc 12V monitor
102	P47/AN7/DA1	AIN for EC	M52965
103	AVSS	AGND	
104	VSS	DGND	
105	P17/PO15/TIOCB2/TCLKD	B contact	
106	P16/PO14/TIOCA2	N.C	
107	P15/PO13/TIOCB1/TCLKC	H contact	
108	P14/PO12/TIOCA1	N.C	
109	P13/PO11/TIOCD0/TCLKB	Interrupter	
110	P12/PO10/TIOCC0/TCLKA	Interrupter	
111	P11/PO9/TIOCB0/DACK1	CHF & CHR Trigger	
112	P10/PO8/TIOCA0/DACK0	CVF & CVR Trigger	
113	MD0	VCC 5	
114	MD1	VCC 5	
115	MD2	DGND	
116	PG0/CAS/OE	LHF & LHR Trigger	
117	PG1/CS3	LVF & LVR Trigger	
118	PG2/CS2	R/W2 OUT	E contact
119	PG3/CS1	RHF & RHR Trigger	
120	PG4/CS0	RVF & RVR Trigger	

Inspection standard

Inspection item	Standard	Remarks
Exposure accuracy	$1/8000 \sim 1/4000 : \pm 0.75 \text{ EV}$ $(1/4000) \sim 1/2000 : \pm 0.5 \text{ EV}$ $(1/2000) \sim 30'' : \pm 0.4 \text{ EV}$ Difference : 0.3 EV	Shutter tester (EF-8000)
AE-A accuracy (Centre Weight)	EV15 F8 ($1/500$) : $\pm 0.5 \text{ TV}$ EV12 F5.6 ($1/125$) : $\pm 0.5 \text{ TV}$ EV 6 F2.8 ($1/8$) : $\pm 0.5 \text{ TV}$ Difference : 0.3 TV	
AE-S accuracy (Centre Weight)	EV15 $1/500$ (F8) : $\pm 0.5 \text{ AV}$ EV12 $1/125$ (f5.6) : $\pm 0.5 \text{ AV}$ EV 6 $1/8$ (f2.8) : $\pm 0.5 \text{ AV}$ Difference : 0.5 AV	
Shutter accuracy	$1/8000 \sim (1/4000) : \pm 0.65 \text{ TV}$ $1/4000 \sim (1/2000) : \pm 0.35 \text{ TV}$ $1/2000 \sim 30'' : \pm 0.2 \text{ TV}$ $1/250 : +0.2 \text{ TV}$ -0.1 TV X $1/250 : 4.14 \text{ ms}^{+0.2}_{-0.1} \text{ TV}$ X $1/300 : 3.48 \text{ ms}^{+0.2}_{-0.1} \text{ TV}$ Difference : $1/8000 \sim (1/4000) : 0.45 \text{ TV}$ $1/4000 \sim (1/2000) : 0.3 \text{ TV}$ $1/2000 \sim 30'' : 0.2 \text{ TV}$	
Shutter curtain speed ($1/8000$)	$2.43 \pm 0.08 \text{ ms}$ (21mm Slit)	
Aperture control accuracy	LV12 (ISO100), $1/125$ F5.6 : $\pm 0.3 \text{ AV}$ Other aperture : $\pm 0.5 \text{ AV}$ Difference F5.6 : $\pm 0.3 \text{ AV}$ Other aperture : $\pm 0.5 \text{ AV}$	
AF adjustment accuracy	Yaw : $0 \pm 4 \text{ mrad}$ Pitch : $0 \pm 4 \text{ mrad}$ Group de-focus : $0 \pm 60 \mu\text{m}$ Block de-focus : $0 \pm 90 \mu\text{m}$	Personal computer and other dedicated tools
Height of aperture lever	$3.4^{+0.1}_{-0.05} \text{ mm}$	J 1 8 0 0 4
Main mirror 45°	Vertical : $\pm 5'$ Horizontal : $\pm 18'$ Distortion : $\pm 6'$	J 1 8 0 3 7 • J 1 8 0 3 8 Collimator • Hexagonal key
Sub mirror 47.75°	Vertical : $-5 \pm 5'$ Distortion : $8'$	J 1 8 2 6 8 Collimator • Hexagonal key

Inspection item	Standard	Remarks
M. B. F	Standard : $46.67 \pm 0.02 \text{ mm}$ Parallel : 0.02 mm	J 1 8 0 0 1 Dial gauge
Frame (1) Size (2) Frame position (3) Frame-to-frame space	Width : $24 \pm 0.8 \text{ mm}$ / Depth : $36 \pm 0.8 \text{ mm}$ Vertical difference : 0.4 mm Horizontal difference C s : $0.4 \pm 0.5 \text{ mm}$ Other : $0.4 \pm 0.2 \text{ mm}$ C s : $2 \pm 1.0 \text{ mm}$ Other : $2 \pm 0.5 \text{ mm}$	Vernier calipers ISO 100 Film
Battery check voltage (1) First level (2) Second level	Alkaline Dropping : $9.4 \pm 0.3 \text{ V}$ Recovering : $10.0 \pm 0.3 \text{ V}$ Ni-MN Dropping : $11.2 \pm 0.3 \text{ V}$ Recovering : $11.7 \pm 0.3 \text{ V}$ Alkaline Dropping : $9.0 \pm 0.3 \text{ V}$ Recovering : $10.0 \pm 0.3 \text{ V}$ Ni-MN Dropping : $11.0 \pm 0.3 \text{ V}$ Recovering : $11.7 \pm 0.3 \text{ V}$	Use a DC regulated power supply with no resistor.
Current consumption Main SW OFF Main SW ON " "	$60 \mu \text{ A}$ (Pre-release timer OFF) $60 \mu \text{ A}$ (Pre-release timer ON) 250 mA (Illuminator • EL-ON) 300 mA	

TOOLS

1. TOOLS FOR F5

TOOL No.	NAME
J 1 5 3 2 8	カメラ通信工具 CAMERA COMMUNICATION TOOL
J 1 5 3 2 8 - 1	10ピンコネクター通信工具 10 PIN CONECTOR COMMUNICATION TOOL
J 1 5 3 2 8 - 2	AE用CCD位置出し工具 AE CCD POSITION ADJUSTMENT TOOL
J 1 5 3 3 1	スプロケット歯位置出し工具 SPROCKET TEETH PLACING DAUGE
J 1 8 2 6 6	AF調整用Zレンズ AF TESTING LENS
J 1 8 2 6 8	ミラー45度出し工具 MIRROR ANGLE ADJUSTMENT TOOL
J 1 8 2 7 3	マルチカム1300AFチャート AF ADJUSTMENT CHART
J 1 8 2 7 5 A	点検・調整ソフト NEC 5.0インチ INSPECTING & ADJUSTMENT F.D. FOR NEC PC 5.0'
J 1 8 2 7 5 B	点検・調整ソフト NEC 3.5インチ INSPECTING & ADJUSTMENT F.D. FOR NEC PC 3.5'
J 1 8 2 7 5 C	点検・調整ソフト IBM 5.0インチ INSPECTING & ADJUSTMENT F.D. FOR IBM PC 5.0'
J 1 8 2 7 5 D	点検・調整ソフト IBM 3.5インチ INSPECTING & ADJUSTMENT F.D. FOR IBM PC 3.5'